

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

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| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                 |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                     |
| <b>SEQUENCE:</b>  | 1                              |
| <b>CONVEYING PARTY DATA</b>   |                                |
| <b>Name</b>   | <b>Execution Date</b>          |
| RENESAS MOBILE CORPORATION  | 09/26/2014                     |
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| <b>City:</b>  | GRAND CAYMAN                   |
| <b>State/Country:</b>   | CAYMAN ISLANDS                 |
| <b>Postal Code:</b>   | 1107                           |
| <b>PROPERTY NUMBERS Total: 1</b>  |                                |
| <b>Property Type</b>  | <b>Number</b>                  |
| Application Number:   | 14039274                       |
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| <b>ATTORNEY DOCKET NUMBER:</b>  | 446072US8                      |
| <b>NAME OF SUBMITTER:</b>   | HYUN CHO                       |
| <b>SIGNATURE:</b>   | /Hyun Cho/                     |
| <b>DATE SIGNED:</b>   | 09/04/2015                     |
| <b>Total Attachments: 54</b>  |                                |
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**PATENT ASSIGNMENT**

THIS PATENT ASSIGNMENT ("Patent Assignment") is made and entered into as of September 26, 2014 (the "Effective Date"), by and between RENESAS MOBILE CORPORATION (ルネサス モバイル株式会社), a Japanese corporation having an address at 2-6-2, Ote-machi, Chiyoda-ku, Tokyo, Japan ("Assignor") and BROADCOM INTERNATIONAL LIMITED, a limited company incorporated in the Cayman Islands and having an address at P.O. Box 709 GT 4th Floor, Zephyr House, 122 Mary Street, Cayman Islands ("Assignee").

**WHEREAS**, Assignor has previously assigned to Assignee the Prior Patents, including, without limitation, the patents and patent applications listed in Attachment A-1 in assignment agreements entered into between Assignor and Assignee dated October 25, 2013 (entitled the "Amended and Restated Intellectual Property Assignment" and "Amended and Restated Patent Assignment") (collectively referred to as the "Prior Assignment Agreements"); and

**WHEREAS**, Assignor and Assignee have entered into a Supplemental Intellectual Property Assignment, dated as of the date hereof, pursuant to which Assignor and Assignee have agreed to supplement the Prior Patents to further include the Additional Patents, including, without limitation, those patents and patent applications listed in Attachment A-2.

**NOW, THEREFORE**, in consideration of the sum of One U.S. Dollar (US\$1.00) or equivalent and other good and valuable consideration as set forth in that certain Purchase Agreement entered into between the Assignor and Assignee, dated September 30, 2013, the receipt for and sufficiency of which is hereby acknowledged, and in consideration of the premises and the mutual representations, warranties, covenants and agreements set forth in this Patent Assignment, in the Prior Patent Assignment Agreements and in the Supplemental Intellectual Property Assignment, the parties agree as follows:

1. Definitions.

"Additional Patents" means the patents and patent applications listed in Attachment A-2 hereto, and any continuations, divisionals, continuations-in-part, provisionals and other applications that claim priority from any of such patents and patent applications and any patents issuing on any of the foregoing, and any reissues, reexaminations, substitutions, renewals and extensions of any of the foregoing.

"Prior Patents" means the patents and patent applications listed in Attachment A-1 hereto, and any continuations, divisionals, continuations-in-part, provisionals and other applications that claim priority from any of such patents and patent applications and any patents issuing on any of the foregoing, and any reissues, reexaminations, substitutions, renewals and extensions of any of the foregoing.

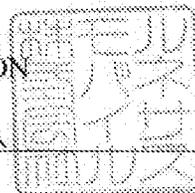
2. Assignment.

Assignor (i) confirms its assignment, transfer and conveyance to Assignee all of its rights, title and interest in and to the Prior Patents, and all rights, claims and privileges pertaining to the Prior Patents, including, without limitation, rights to the underlying inventions, the right to prosecute and maintain the Prior Patents, and the right to sue and recover damages for past, present and future infringement of any of the Prior Patents and (ii) hereby assigns, transfers and conveys to Assignee all of its rights, title and interest in and to the Additional Patents, and all rights, claims and privileges pertaining to the Additional Patents, including, without limitation, rights to the underlying inventions, the right to prosecute and maintain the Additional Patents, and the right to sue and recover damages for past, present and future infringement of any of the Additional Patents.

IN WITNESS WHEREOF, Assignor and Assignee have caused this Patent Assignment to be signed and executed by the undersigned officers thereunto duly authorized as of the Effective Date.

RENESAS MOBILE CORPORATION

By:   
Name: HIDEAKI CHAKI  
Title: President & CEO



BROADCOM INTERNATIONAL LIMITED

By:   
Name: DeAnn Ann  
Title: Secretary

| Case ref. # | Country | Status    | Filing date | Earliest priority | Application number | Publication number | Publication date | Grant date  | Proposed title  |
|-------------|---------|-----------|-------------|-------------------|--------------------|--------------------|------------------|-------------|---|
| RM105001    | Family  | Filed     | 21 Feb 2011 | 21 Feb 2011       | US13/031440        | US20120213197      | 23 Aug 2012      |             | Transfer of several calls in SRVCC (PS to CS)   |
| RM105002    | Family  | Filed     | 10 Jan 2011 | 10 Jan 2011       | US12/701233.4      |                    |                  |             | Test method for type 3 receiver in multicarrier configuration   |
| RM105002    | DE01    | To Filing | 6 Jan 2012  | 10 Jan 2011       | CN2012B0004971.2   | EP2514228          | 24 Oct 2012      |             | Test method for type 3 receiver in multicarrier configuration   |
| RM105002    | EP01    | POA       | 6 Jan 2012  | 10 Jan 2011       | EP12701233.4       | EP2514228          | 24 Oct 2012      |             | Test method for type 3 receiver in multicarrier configuration   |
| RM105002    | FR01    | To Filing | 6 Jan 2012  | 10 Jan 2011       | EP12701233.4       | EP2514228          | 24 Oct 2012      |             | Test method for type 3 receiver in multicarrier configuration   |
| RM105002    | GB01    | Granted   | 4 Oct 2011  | 10 Jan 2011       | GB1117048.7        | GB2486929          | 4 Jul 2012       | 12 Dec 2012 | Test method for type 3 receiver in multicarrier configuration   |
| RM105002    | IN01    | Filed     | 6 Jan 2012  | 10 Jan 2011       | IN1163MUMNP/2013   |                    |                  |             | Test method for type 3 receiver in multicarrier configuration   |
| RM105002    | JP01    | Filed     | 6 Jan 2012  | 10 Jan 2011       | JP51301402252      |                    |                  |             | Test method for type 3 receiver in multicarrier configuration   |
| RM105002    | KR01    | Filed     | 6 Jan 2012  | 10 Jan 2011       | KR10-2013-7017960  |                    |                  |             | Test method for type 3 receiver in multicarrier configuration   |
| RM105002    | NL01    | To Filing | 6 Jan 2012  | 10 Jan 2011       | EP12701233.4       |                    |                  |             | Test method for type 3 receiver in multicarrier configuration   |
| RM105002    | US01    | Granted   | 10 Jan 2011 | 10 Jan 2011       | US12/987277        | EP2514228          | 24 Oct 2012      |             | Test method for type 3 receiver in multicarrier configuration   |
| RM105003    | WO01    | POA       | 6 Jan 2012  | 10 Jan 2011       | PCT/EP2012/050199  | US201202095373     | 12 Jul 2012      | 11 Dec 2012 | Test method for type 3 receiver in multicarrier configuration   |
| RM105003    | Family  | Filed     | 3 Feb 2011  | 3 Feb 2011        | US13/020560        |                    |                  |             | Test method for type 3 receiver in multicarrier configuration   |
| RM105004    | Family  | Filed     | 3 Feb 2011  | 7 Jan 2011        | US13/020560        | US20120202492      | 9 Aug 2012       |             | Registration area updating reject in shared RAN   |
| RM105004    | Family  | Filed     | 7 Jan 2011  | 7 Jan 2011        | CN201280304818.X   |                    |                  |             | Limiting system information decoding for ANR  |
| RM105004    | DE01    | Granted   | 6 Jan 2012  | 7 Jan 2011        | EP12700798.7       | EP2491748          | 26 Dec 2012      |             | Limiting system information decoding for ANR  |
| RM105004    | EP01    | Granted   | 6 Jan 2012  | 7 Jan 2011        | EP12700798.7       | EP2560441          | 28 Dec 2012      |             | Limiting system information decoding for ANR  |
| RM105004    | EP02    | Filed     | 6 Jan 2012  | 7 Jan 2011        | EP12700798.7       |                    |                  |             | Limiting system information decoding for ANR  |
| RM105004    | FR01    | Granted   | 6 Jan 2012  | 7 Jan 2011        | EP12700798.7       | EP2491748          | 26 Dec 2012      |             | Limiting system information decoding for ANR  |
| RM105004    | GB01    | Granted   | 4 Oct 2011  | 7 Jan 2011        | GB1117036.2        | GB2484787          | 26 Dec 2012      |             | Limiting system information decoding for ANR  |
| RM105004    | IN01    | Filed     | 4 Oct 2011  | 7 Jan 2011        | GB1211752.9        | GB2490058          | 31 Oct 2012      |             | Limiting system information decoding for ANR  |
| RM105004    | IT01    | Granted   | 6 Jan 2012  | 7 Jan 2011        | IN1170MUMNP/2013   |                    |                  |             | Limiting system information decoding for ANR  |
| RM105004    | JP01    | Filed     | 6 Jan 2012  | 7 Jan 2011        | EP12700798.7       | EP2491748          | 26 Dec 2012      |             | Limiting system information decoding for ANR  |
| RM105004    | KR01    | Filed     | 29 Aug 2013 | 7 Jan 2011        | JP51301402244      |                    |                  |             | Limiting system information decoding for ANR  |
| RM105004    | NL01    | Granted   | 6 Jan 2012  | 7 Jan 2011        | KR10-2013-7017666  |                    |                  |             | Limiting system information decoding for ANR  |
| RM105004    | US01    | Granted   | 6 Jan 2012  | 7 Jan 2011        | EP12700798.7       | EP2491748          | 26 Dec 2012      |             | Limiting system information decoding for ANR  |
| RM105004    | US02    | Closed    | 16 May 2012 | 7 Jan 2011        | US12/986430        | US20120178916      | 12 Jul 2012      |             | Limiting system information decoding for ANR  |
| RM105004    | WO01    | Filed     | 6 Jan 2012  | 7 Jan 2011        | PCT/EP2012/050187  | WO201202095175     | 12 Jul 2012      |             | Limiting system information decoding for ANR  |
| RM105005    | Family  | Filed     | 11 Feb 2011 | 11 Feb 2011       | US13/963399        |                    |                  |             | Signaling Method to Enable Controlled TX Deferring in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Networks |
| RM105005    | US01    | Filed     | 11 Feb 2011 | 11 Feb 2011       | US13/963399        |                    |                  |             | Signaling Method to Enable Controlled TX Deferring in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Networks |
| RM105005    | WO01    | Filed     | 11 Feb 2011 | 11 Feb 2011       | PCT/CN2011/070929  | WO2012105843       | 16 Aug 2012      |             | Signaling Method to Enable Controlled TX Deferring in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Networks |
| RM105006    | Family  | Filed     | 7 Jan 2011  | 7 Jan 2011        | US12/986465        |                    |                  |             | Non-linear Scaling Wait Timer for Delay Tolerant Application Terminal Device in a Network   |
| RM105006    | US01    | Filed     | 7 Jan 2011  | 7 Jan 2011        | US12/986465        | US20120178436      | 12 Jul 2012      |             | Non-linear Scaling Wait Timer for Delay Tolerant Application Terminal Device in a Network   |
| RM105007    | Family  | Filed     | 7 Jan 2011  | 7 Jan 2011        | US12/986393        |                    |                  |             | Methods of ANR logging and reporting  |
| RM105007    | US01    | Granted   | 7 Jan 2011  | 7 Jan 2011        | US12/986393        | US20120178451      | 12 Jul 2012      |             | Methods of ANR logging and reporting  |
| RM105008    | Family  | POA       | 5 Jan 2012  | 7 Jan 2011        | PCT/IB2012/050053  | WO2012093386       | 12 Jul 2012      | 1 Oct 2013  | Method of Layer 2 Ack Nack status reporting   |
| RM105008    | US01    | Filed     | 8 Feb 2011  | 8 Feb 2011        | US13/022939        |                    |                  |             | Method of Layer 2 Ack Nack status reporting   |
| RM105008    | Family  | Filed     | 1 Feb 2011  | 1 Feb 2011        | US13/022939        | US20120201151      | 9 Aug 2012       |             | New way to acquire TA on Scell without RACH   |
| RM105009    | US01    | Filed     | 1 Feb 2011  | 1 Feb 2011        | US13/022939        |                    |                  |             | New way to acquire TA on Scell without RACH   |
| RM105009    | WO01    | Filed     | 1 Feb 2011  | 1 Feb 2011        | PCT/CN2011/070874  | WO20121035683      | 9 Aug 2012       |             | New way to acquire TA on Scell without RACH   |
| RM105010    | Family  | Filed     | 21 Mar 2011 | 21 Mar 2011       | US13/052416        |                    |                  |             | Methods to configure future LTE/LTE-A system onto TV WS   |
| RM105010    | US01    | Filed     | 21 Mar 2011 | 21 Mar 2011       | US13/052416        | US20120249453      | 27 Sep 2012      |             | Methods to configure future LTE/LTE-A system onto TV WS   |
| RM105010    | WO01    | POA       | 21 Mar 2012 | 21 Mar 2011       | PCT/IB2012/051347  | WO20121217427      | 27 Sep 2012      |             | Methods to configure future LTE/LTE-A system onto TV WS   |
| RM105011    | Family  | Filed     | 13 Feb 2011 | 11 Feb 2011       | US13/025506        |                    |                  |             | Shared Band Deployment Support Function to enable Fast and Flexible Connection Establishment  |
| RM105011    | US01    | Filed     | 13 Feb 2011 | 11 Feb 2011       | US13/025506        | US20120207033      | 16 Aug 2012      |             | Shared Band Deployment Support Function to enable Fast and Flexible Connection Establishment  |
| RM105012    | Family  | Filed     | 24 Feb 2011 | 24 Feb 2011       | US12/932459        |                    |                  |             | Traffic characteristics aware physical layer link adaptation  |
| RM105012    | US01    | Filed     | 24 Feb 2011 | 24 Feb 2011       | US12/932459        | US20120216906      | 30 Aug 2012      |             | Traffic characteristics aware physical layer link adaptation  |
| RM105013    | Family  | Filed     | 22 Feb 2011 | 22 Feb 2011       | PCT/IB2012/050808  | WO2012114287       | 30 Aug 2012      |             | Traffic characteristics aware physical layer link adaptation  |
| RM105013    | US01    | Filed     | 22 Feb 2011 | 22 Feb 2011       | US13/031732        |                    |                  |             | Method for filtering PDCCH false accepts based on DCI filler bits   |
| RM105014    | Family  | Filed     | 25 Feb 2011 | 25 Feb 2011       | US13/031732        | US20120213090      | 23 Aug 2012      |             | Method for filtering PDCCH false accepts based on DCI filler bits   |

| Case ref.# | Country | Status    | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title   |
|------------|---------|-----------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|--|
| RM105014   | US01    | Filed     | 25 Feb 2011 | 7 Mar 2011        | US13035186         | US20120218095      | 30 Aug 2012      |               |             | Blind statistical S-CPECH detection  |
| RM105015   | Family  | Filed     | 7 Mar 2011  | 7 Mar 2011        |                    |                    |                  |               |             | Traffic shaping for power consumption reduction  |
| RM105016   | US01    | Filed     | 7 Mar 2011  | 7 Mar 2011        | US130041949        | US20120233461      | 13 Sep 2012      |               |             | Coordinated Multimode (cellular-WSN) UE Accessing WSN Network Mechanism  |
| RM105017   | Family  | Filed     | 28 Feb 2011 | 28 Feb 2011       |                    |                    |                  |               |             | Coordinated Multimode (cellular-WSN) UE Accessing WSN Network Mechanism  |
| RM105018   | CN01    | Filed     | 28 Feb 2011 | 28 Feb 2011       | PCT/CN2011071396   |                    |                  |               |             | Coordinated Multimode (cellular-WSN) UE Accessing WSN Network Mechanism  |
| RM105019   | US01    | Filed     | 28 Feb 2011 | 28 Feb 2011       | US130975559        |                    |                  |               |             | Coordinated Multimode (cellular-WSN) UE Accessing WSN Network Mechanism  |
| RM105020   | WO01    | Filed     | 28 Feb 2011 | 28 Feb 2011       | PCT/CN2011071396   | WO2012116483       | 7 Sep 2012       |               |             | Implicit solution to dynamically change the Special Subframe Pattern configuration                               |
| RM105021   | Family  | Filed     | 9 Mar 2011  | 9 Mar 2011        |                    |                    |                  |               |             | Implicit solution to dynamically change the Special Subframe Pattern configuration                               |
| RM105022   | US01    | Filed     | 9 Mar 2011  | 9 Mar 2011        | US14003625         |                    |                  |               |             | Implicit solution to dynamically change the Special Subframe Pattern configuration                               |
| RM105023   | WO01    | POA       | 9 Mar 2011  | 9 Mar 2011        | PCT/CN2011071632   | WO2012119309       | 13 Sep 2012      |               |             | Switch point indication signaling for flexible TDD configuration   |
| RM115001   | Family  | Filed     | 21 Feb 2011 | 21 Feb 2011       |                    |                    |                  |               |             | Switch point indication signaling for flexible TDD configuration   |
| RM115002   | CN01    | To-filing | 21 Feb 2011 | 21 Feb 2011       |                    |                    |                  |               |             | Switch point indication signaling for flexible TDD configuration   |
| RM115003   | EP01    | To-filing | 21 Feb 2011 | 21 Feb 2011       |                    |                    |                  |               |             | Switch point indication signaling for flexible TDD configuration   |
| RM115004   | US01    | Filed     | 21 Feb 2011 | 21 Feb 2011       | US130972302        |                    |                  |               |             | Switch point indication signaling for flexible TDD configuration   |
| RM115005   | WO01    | Filed     | 21 Feb 2011 | 21 Feb 2011       | PCT/CN2011071120   | WO2012113131       | 30 Aug 2012      |               |             | New carrier type with configurable downlink control region in carrier aggregation                                |
| RM115006   | Family  | Filed     | 17 Feb 2011 | 17 Feb 2011       |                    |                    |                  |               |             | New carrier type with configurable downlink control region in carrier aggregation                                |
| RM115007   | US01    | Filed     | 17 Feb 2011 | 17 Feb 2011       | US130985966        |                    |                  |               |             | New carrier type with configurable downlink control region in carrier aggregation                                |
| RM115008   | WO01    | POA       | 17 Feb 2011 | 17 Feb 2011       | PCT/CN2011071045   | WO2012109790       | 23 Aug 2012      |               |             | PUCCH resource allocation for flexible TDD configuration   |
| RM115009   | Family  | Filed     | 10 Feb 2011 | 10 Feb 2011       |                    |                    |                  |               |             | PUCCH resource allocation for flexible TDD configuration   |
| RM115010   | US01    | Filed     | 10 Feb 2011 | 10 Feb 2011       | US130964172        |                    |                  |               |             | PUCCH resource allocation for flexible TDD configuration   |
| RM115011   | WO01    | POA       | 10 Feb 2011 | 10 Feb 2011       | PCT/CN2011070915   | WO2012109840       | 16 Aug 2012      |               |             | Signaling method for validating TV Band Device in LTE system operating on TVWS                                   |
| RM115012   | Family  | Filed     | 11 Mar 2011 | 11 Mar 2011       |                    |                    |                  |               |             | Signaling method for validating TV Band Device in LTE system operating on TVWS                                   |
| RM115013   | US01    | Filed     | 11 Mar 2011 | 11 Mar 2011       | US130045741        | US20120233635      | 13 Sep 2012      |               |             | Sensing and measurement procedure for operating LTE system in unlicensed band                                    |
| RM115014   | Family  | Filed     | 1 Mar 2011  | 1 Mar 2011        |                    |                    |                  |               |             | Sensing and measurement procedure for operating LTE system in unlicensed band                                    |
| RM115015   | US01    | Filed     | 30 Aug 2013 | 1 Mar 2011        | US140092407        |                    |                  |               |             | Sensing and measurement procedure for operating LTE system in unlicensed band                                    |
| RM115016   | WO01    | Filed     | 1 Mar 2011  | 1 Mar 2011        | PCT/CN2011071429   | WO2012116489       | 7 Sep 2012       |               |             | Solving the Hidden Node Problem Due to the Transmission Power Imbalance  |
| RM115017   | Family  | Filed     | 22 Mar 2011 | 22 Mar 2011       |                    |                    |                  |               |             | Solving the Hidden Node Problem Due to the Transmission Power Imbalance  |
| RM115018   | US01    | Filed     | 22 Mar 2011 | 22 Mar 2011       | US130053871        | US20120244318      | 27 Sep 2012      |               |             | D2D local network pre-deployment and fast route discovery using idle resource of non-full-loaded cellular system |
| RM115019   | Family  | Filed     | 2 Jun 2011  | 2 Jun 2011        |                    |                    |                  |               |             | D2D local network pre-deployment and fast route discovery using idle resource of non-full-loaded cellular system |
| RM115020   | WO01    | POA       | 2 Jun 2011  | 2 Jun 2011        | PCT/CN2011075175   | WO2012162890       | 6 Dec 2012       |               |             | A new way for LTE-Advanced networks to utilize ISM bands   |
| RM115021   | Family  | Filed     | 30 May 2011 | 30 May 2011       |                    |                    |                  |               |             | A new way for LTE-Advanced networks to utilize ISM bands   |
| RM115022   | WO01    | Filed     | 30 May 2011 | 30 May 2011       | PCT/CN2011074873   | WO2012162874       | 6 Dec 2012       |               |             | On Sensing Configuration of the Future LTE-A System Carrier Aggregation Deployment on Unlicensed Spectrum        |
| RM115023   | Family  | Filed     | 12 Apr 2011 | 12 Apr 2011       |                    |                    |                  |               |             | On Sensing Configuration of the Future LTE-A System Carrier Aggregation Deployment on Unlicensed Spectrum        |
| RM115024   | GB01    | Granted   | 12 Apr 2011 | 12 Apr 2011       | GB1105183.4        | GB2489356          | 17 Oct 2012      | GB2489356     | 20 Mar 2013 | On Sensing Configuration of the Future LTE-A System Carrier Aggregation Deployment on Unlicensed Spectrum        |
| RM115025   | US01    | Filed     | 12 Apr 2011 | 12 Apr 2011       | US130084941        | US20120264468      | 18 Oct 2012      |               |             | On Sensing Configuration of the Future LTE-A System Carrier Aggregation Deployment on Unlicensed Spectrum        |
| RM115026   | US02    | Granted   | 6 Oct 2011  | 12 Apr 2011       | US130267571        | US20120263123      | 19 Oct 2012      | US8280389     | 2 Oct 2012  | On Sensing Configuration of the Future LTE-A System Carrier Aggregation Deployment on Unlicensed Spectrum        |
| RM115027   | WO01    | Filed     | 12 Apr 2011 | 12 Apr 2011       | PCT/JP2012051802   | WO2012140599       | 18 Oct 2012      |               |             | Improved LTE DRX with UE based mobility  |
| RM115028   | Family  | Filed     | 25 Mar 2011 | 25 Mar 2011       |                    |                    |                  |               |             | Improved LTE DRX with UE based mobility  |
| RM115029   | GB01    | Filed     | 25 Mar 2011 | 25 Mar 2011       | GB1105011.9        | GB2489413          | 3 Oct 2012       |               |             | Improved LTE DRX with UE based mobility  |
| RM115030   | US01    | POA       | 25 Mar 2011 | 25 Mar 2011       | US130071742        | US20120244317      | 27 Sep 2012      |               |             | Improved LTE DRX with UE based mobility  |

| Case ref.# | Country | Status    | Filing date | Earliest priority | Application number  | Publication number | Publication date | Patent number | Grant date  | Proposed title  |
|------------|---------|-----------|-------------|-------------------|---------------------|--------------------|------------------|---------------|-------------|---|
| RM115012   | US02    | Filed     | 23 Mar 2012 | 25 Mar 2011       | US13/428185         | US20120205959      | 4 Oct 2012       |               |             | Improved LTE DRX with UE based mobility   |
| RM115012   | WO01    | Filed     | 26 Mar 2012 | 25 Mar 2011       | US13/428185         | WO201212131568     | 4 Oct 2012       |               |             | Improved LTE DRX with UE based mobility   |
| RM115013   | Family  | Filed     | 23 Mar 2011 | 23 Mar 2011       | PC11B2012/051483    |                    |                  |               |             | Offline Mode Procedure for Machine Type Communications  |
| RM115013   | CN01    | To Filing | 23 Mar 2011 | 23 Mar 2011       |                     |                    |                  |               |             | Offline Mode Procedure for Machine Type Communications  |
| RM115013   | EP01    | To Filing | 23 Mar 2011 | 23 Mar 2011       |                     |                    |                  |               |             | Offline Mode Procedure for Machine Type Communications  |
| RM115013   | GB01    | Granted   | 23 Mar 2011 | 23 Mar 2011       | GB1104871.7         | GB2475415          | 22 Jun 2011      | GB2475415     | 16 Nov 2011 | Offline Mode Procedure for Machine Type Communications  |
| RM115013   | US01    | POA       | 23 Mar 2011 | 23 Mar 2011       | US13/069765         | US20120249422      | 27 Sep 2012      |               |             | Offline Mode Procedure for Machine Type Communications  |
| RM115013   | US02    | Granted   | 12 Jul 2011 | 23 Mar 2011       | US13/1810737        |                    |                  |               |             | Offline Mode Procedure for Machine Type Communications  |
| RM115013   | WO01    | Filed     | 22 Mar 2012 | 23 Mar 2011       | PCT11B2012/051372   | WO20121217440      | 27 Sep 2012      |               |             | Offline Mode Procedure for Machine Type Communications  |
| RM115016   | Family  | Filed     | 8 Apr 2011  | 8 Apr 2011        | GB1106036.5         |                    |                  |               |             | Equalizer with limited subcarrier distortion and soft constraint for stopband   |
| RM115016   | GB01    | Granted   | 8 Apr 2011  | 8 Apr 2011        | GB1106036.5         | GB2465427          | 16 May 2012      | GB2465427     | 7 Nov 2012  | Equalizer with limited subcarrier distortion and soft constraint for stopband   |
| RM115006   | Family  | Filed     | 8 Apr 2011  | 8 Apr 2011        | US13/082489         | US20120257867      | 11 Oct 2012      |               |             | Equalizer with limited subcarrier distortion and soft constraint for stopband   |
| RM115018   | Family  | Filed     | 10 May 2011 | 10 May 2011       |                     |                    |                  |               |             | Methods and apparatus for interference mitigation in 8T pico-nets   |
| RM115018   | WO01    | POA       | 10 May 2011 | 10 May 2011       |                     | WO201212151741     | 15 Nov 2012      |               |             | Methods and apparatus for interference mitigation in 8T pico-nets   |
| RM115019   | Family  | Filed     | 31 Mar 2011 | 31 Mar 2011       | PCT11CN2011/073868  |                    |                  |               |             | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115019   | GB01    | Granted   | 31 Mar 2011 | 31 Mar 2011       | GB1105492.1         | GB2477649          | 10 Aug 2011      | GB2477649     | 11 Jan 2012 | On Multiplexing of Logical Channels in Future LTE-A Network   |
| RM115019   | US01    | Filed     | 31 Mar 2011 | 31 Mar 2011       | US13/078602         | US201202050631     | 4 Oct 2012       |               |             | On Multiplexing of Logical Channels in Future LTE-A Network   |
| RM115020   | Family  | Filed     | 11 Feb 2011 | 11 Feb 2011       | US13/025509         |                    |                  |               |             | Precoder selection for 8 Tx precoder cycling  |
| RM115020   | US01    | Filed     | 11 Feb 2011 | 11 Feb 2011       | US13/025509         | US20120207243      | 16 Aug 2012      |               |             | Precoder selection for 8 Tx precoder cycling  |
| RM115020   | WO01    | Filed     | 10 Feb 2012 | 11 Feb 2011       | PCT11B2012/050614   | WO2012107904       | 16 Aug 2012      |               |             | Precoder selection for 8 Tx precoder cycling  |
| RM115021   | Family  | Filed     | 22 Feb 2011 | 22 Feb 2011       | US13/856713         |                    |                  |               |             | LTE System Setup for Device-to-Device Connection on ISM band  |
| RM115021   | US01    | POA       | 22 Feb 2011 | 22 Feb 2011       | PCT11CN2011/0071152 | WO20121213135      | 30 Aug 2012      |               |             | LTE System Setup for Device-to-Device Connection on ISM band  |
| RM115022   | Family  | Filed     | 9 Feb 2011  | 9 Feb 2011        |                     |                    |                  |               |             | GAP purpose   |
| RM115022   | EP01    | Filed     | 8 Feb 2012  | 9 Feb 2011        | EP12711000.5        |                    |                  |               |             | Using Priority Measurement Rules to influence Each Measurement Occasions  |
| RM115022   | GB01    | Granted   | 30 Sep 2011 | 9 Feb 2011        | GB1116916.6         | GB2484011          | 28 Mar 2012      | GB2484011     | 10 Oct 2012 | Using Priority Measurement Rules to influence Each Measurement Occasions  |
| RM115022   | JP01    | Filed     | 8 Feb 2012  | 9 Feb 2011        | PCT11B2012/050564   |                    |                  |               |             | Using Priority Measurement Rules to influence Each Measurement Occasions  |
| RM115022   | US01    | Filed     | 9 Feb 2011  | 9 Feb 2011        | US13/023675         | US20120202480      | 9 Aug 2012       |               |             | Using Priority Measurement Rules to influence Each Measurement Occasions  |
| RM115022   | WO01    | POA       | 8 Feb 2012  | 9 Feb 2011        | PCT11B2012/050564   | WO2012107885       | 16 Aug 2012      |               |             | Using Priority Measurement Rules to influence Each Measurement Occasions  |
| RM115023   | Family  | Filed     | 31 Mar 2011 | 31 Mar 2011       |                     |                    |                  |               |             | Signaling improvement for LTE-A system to enable measurements and report for D2D operation                                |
| RM115023   | CN01    | To Filing | 31 Mar 2011 | 31 Mar 2011       |                     |                    |                  |               |             | Signaling improvement for LTE-A system to enable measurements and report for D2D operation                                |
| RM115023   | US01    | To Filing | 31 Mar 2011 | 31 Mar 2011       |                     |                    |                  |               |             | Signaling improvement for LTE-A system to enable measurements and report for D2D operation                                |
| RM115023   | WO01    | POA       | 31 Mar 2011 | 31 Mar 2011       |                     |                    |                  |               |             | Signaling improvement for LTE-A system to enable measurements and report for D2D operation                                |
| RM115024   | Family  | Filed     | 11 Feb 2011 | 11 Feb 2011       | PCT11CN2011/072339  | WO201212129806     | 24 Oct 2012      |               |             | Methods of RLC unrecoverable error indication and recovery  |
| RM115024   | US01    | Filed     | 11 Feb 2011 | 11 Feb 2011       | US13/025298         | US20120207011      | 16 Aug 2012      |               |             | Methods of RLC unrecoverable error indication and recovery  |
| RM115024   | WO01    | Filed     | 13 Feb 2012 | 11 Feb 2011       | PCT11B2012/050640   | WO2012107911       | 16 Aug 2012      |               |             | Methods of RLC unrecoverable error indication and recovery  |
| RM115025   | Family  | Filed     | 9 Feb 2011  | 9 Feb 2011        |                     |                    |                  |               |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | CN01    | To Filing | 9 Feb 2011  | 9 Feb 2011        |                     |                    |                  |               |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | DE01    | To Filing | 1 Jun 2011  | 9 Feb 2011        | EP11172430.8        | EP2429229          | 14 Mar 2012      | EP2429229     | 11 Sep 2013 | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | EP01    | POA       | 1 Jul 2011  | 9 Feb 2011        | EP11172430.8        | EP2429229          | 14 Mar 2012      | EP2429229     |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | FR01    | Filed     | 1 Jul 2011  | 9 Feb 2011        | EP13166124.9        | EP2635070          | 9 Sep 2013       |               |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | FR01    | To Filing | 1 Jul 2011  | 9 Feb 2011        | EP11172430.8        | EP2429229          | 14 Mar 2012      |               |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | GB01    | Granted   | 1 Jul 2011  | 9 Feb 2011        | GB1111266.1         | GB2480163          | 9 Nov 2011       | GB2480163     | 5 Sep 2012  | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | GB02    | Granted   | 1 Jul 2011  | 9 Feb 2011        | GB1206218.6         | GB2486666          | 5 Sep 2012       | GB2486666     | 3 Apr 2013  | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | GB03    | To Filing | 1 Jul 2011  | 9 Feb 2011        | EP11172430.8        | EP2429229          | 14 Mar 2012      | EP2429229     |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | IN01    | To Filing | 9 Feb 2012  | 9 Feb 2011        |                     |                    |                  |               |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | IT01    | To Filing | 1 Jul 2011  | 9 Feb 2011        | EP11172430.8        | EP2429229          | 14 Mar 2012      | EP2429229     |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | JP01    | Filed     | 9 Feb 2012  | 9 Feb 2011        |                     |                    |                  |               |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | KR01    | Filed     | 9 Feb 2012  | 9 Feb 2011        | KR10-2013-7020780   |                    |                  |               |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | NL01    | To Filing | 1 Jul 2011  | 9 Feb 2011        | EP11172430.8        | EP2429229          | 14 Mar 2012      | EP2429229     |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |
| RM115025   | US01    | Granted   | 9 Feb 2011  | 9 Feb 2011        | US13/023628         | US20120202481      | 9 Aug 2012       | US84353521    | 30 Apr 2013 | Limiting the reporting of Inter-RAT Cells for UMTS ANR  |

| Case ref.# | Country | Status   | Filing date | Earliest priority | Application number  | Publication number | Publication date | Patent number | Grant date  | Proposed title   |
|------------|---------|----------|-------------|-------------------|---------------------|--------------------|------------------|---------------|-------------|--|
| RM115025   | US02    | Granted  | 11 Jan 2012 | 9 Feb 2011        | US13/048338         | US20120205636      | 16 Aug 2012      | US8473273     | 2 Jul 2013  | Limiting the reporting of Inter-RAT Cells for UMTS ANR   |
| RM115025   | WO01    | POA      | 9 Feb 2012  | 9 Feb 2011        | PC11/02/2012/050896 | WC0212107898       | 16 Aug 2012      |               |             | Limiting the reporting of Inter-RAT Cells for UMTS ANR<br>Signaling and procedure design to maintain the cluster downloading while new UE enters in<br>Signaling and procedure design to maintain the cluster downloading while new UE enters in |
| RM115026   | Family  | Filed    | 9 Jun 2011  | 9 Jun 2011        |                     |                    |                  |               |             |  |
| RM115026   | WO01    | POA      | 9 Jun 2011  | 9 Jun 2011        | PC11/02/2011/075503 | WC02012167432      | 13 Dec 2012      |               |             | Beacon cluster based sensor network information collection via UE gateway  |
| RM115027   | Family  | Filed    | 13 Apr 2011 | 13 Apr 2011       |                     |                    |                  |               |             |  |
| RM115027   | WO01    | ToFiling | 13 Apr 2011 | 13 Apr 2011       |                     |                    |                  |               |             |  |
| RM115027   | US01    | Granted  | 17 Nov 2011 | 13 Apr 2011       | US13/098954         | US201202053063     | 18 Oct 2012      | US8279810     | 2 Oct 2012  | Beacon cluster based sensor network information collection via UE gateway  |
| RM115027   | US02    | Filed    | 26 Jul 2012 | 13 Apr 2011       | US13/059208         | US201203006632     | 29 Nov 2012      |               |             | Beacon cluster based sensor network information collection via UE gateway  |
| RM115027   | WO01    | POA      | 13 Apr 2011 | 13 Apr 2011       | PC11/02/2011/072743 | WC02012138288      | 18 Oct 2012      |               |             | Beacon cluster based sensor network information collection via UE gateway  |
| RM115028   | Family  | Filed    | 21 Feb 2011 | 21 Feb 2011       |                     |                    |                  |               |             |  |
| RM115028   | WO01    | ToFiling | 21 Feb 2011 | 21 Feb 2011       |                     |                    |                  |               |             |  |
| RM115028   | EP01    | Filed    | 21 Feb 2012 | 21 Feb 2011       | EP12706937.5        |                    |                  |               |             | Congestion Avoidance for Control Channels Prior Connection Establishment   |
| RM115028   | WO01    | Granted  | 21 Oct 2011 | 21 Feb 2011       | GB1118184.9         | GB2484827          | 28 Apr 2012      | GB2484827     | 28 Nov 2012 | Congestion Avoidance for Control Channels Prior Connection Establishment   |
| RM115028   | WO01    | Filed    | 21 Feb 2012 | 21 Feb 2011       | IN1585/MUNMP/2013   |                    |                  |               |             | Congestion Avoidance for Control Channels Prior Connection Establishment   |
| RM115028   | JP01    | Filed    | 21 Feb 2012 | 21 Feb 2011       | JP5130724190        |                    |                  |               |             | Congestion Avoidance for Control Channels Prior Connection Establishment   |
| RM115028   | WO01    | Filed    | 21 Feb 2012 | 21 Feb 2011       | KR10-2013-7024406   | US20120213071      | 23 Aug 2012      | US8396072     | 13 Mar 2013 | Congestion Avoidance for Control Channels Prior Connection Establishment   |
| RM115028   | US01    | Granted  | 21 Feb 2011 | 21 Feb 2011       | US13/031355         | US20130100602      | 25 Apr 2013      |               |             | Congestion Avoidance for Control Channels Prior Connection Establishment   |
| RM115028   | US02    | Closed   | 13 Mar 2012 | 21 Feb 2011       | US13/0418967        |                    |                  |               |             | Congestion Avoidance for Control Channels Prior Connection Establishment   |
| RM115028   | US03    | Filed    | 1 Mar 2013  | 21 Feb 2011       | US13/0781869        |                    |                  |               |             | Congestion Avoidance for Control Channels Prior Connection Establishment   |
| RM115028   | WO01    | Filed    | 21 Feb 2012 | 21 Feb 2011       | PC11/02/2012/050777 | WC02012114265      | 30 Aug 2012      |               |             | Congestion Avoidance for Control Channels Prior Connection Establishment   |
| RM115029   | Family  | Filed    | 7 Apr 2011  | 7 Apr 2011        |                     |                    |                  |               |             | On Session Setup for Cellular Controlled Device-to-Device Communication  |
| RM115029   | US01    | Filed    | 7 Apr 2011  | 7 Apr 2011        | US13/0051888        | US201202058703     | 11 Oct 2012      |               |             | On Session Setup for Cellular Controlled Device-to-Device Communication  |
| RM115030   | Family  | Filed    | 1 Apr 2011  | 1 Apr 2011        |                     |                    |                  |               |             | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode   |
| RM115030   | WO01    | ToFiling | 30 Mar 2012 | 1 Apr 2011        | PC11/02/2012/051559 |                    |                  |               |             | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode   |
| RM115030   | EP01    | ToFiling | 30 Mar 2012 | 1 Apr 2011        | PC11/02/2012/051559 |                    |                  |               |             | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode   |
| RM115030   | WO01    | Filed    | 21 Mar 2013 | 1 Apr 2011        | GB1305203.0         | GB2498628          | 22 May 2013      |               |             | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode   |
| RM115030   | US01    | Closed   | 1 Apr 2011  | 1 Apr 2011        | US11/470689         |                    |                  |               |             | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode   |
| RM115030   | US02    | ToFiling | 30 Mar 2012 | 1 Apr 2011        | PC11/02/2012/051559 |                    |                  |               |             | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode   |
| RM115030   | WO01    | Filed    | 30 Mar 2012 | 1 Apr 2011        | PC11/02/2012/051559 | WC02012131637      | 4 Oct 2012       |               |             | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode   |
| RM115031   | WO01    | Filed    | 14 Apr 2011 | 14 Apr 2011       | GB1106358.3         | GB2490110          | 24 Oct 2012      |               |             | Auxiliary Channel Configuration to Support Shared Band Operation   |
| RM115031   | WO01    | Filed    | 14 Apr 2011 | 14 Apr 2011       | GB1120064.9         | GB2490186          | 24 Oct 2012      |               |             | Auxiliary Channel Configuration to Support Shared Band Operation   |
| RM115031   | WO01    | Filed    | 14 Apr 2011 | 14 Apr 2011       | GB1312715.4         |                    |                  |               |             | Auxiliary Channel Configuration to Support Shared Band Operation   |
| RM115031   | WO01    | Filed    | 14 Apr 2011 | 14 Apr 2011       | US13/0096681        |                    |                  |               |             | Auxiliary Channel Configuration to Support Shared Band Operation   |
| RM115031   | WO01    | Filed    | 14 Feb 2011 | 14 Feb 2011       |                     |                    |                  |               |             | Auxiliary Channel Configuration to Support Shared Band Operation   |
| RM115032   | WO01    | Filed    | 14 Feb 2012 | 14 Feb 2011       | CN201280008740.9    | US201202054440     | 19 Oct 2012      |               |             | Method of prioritising RACH message content  |
| RM115032   | WO01    | Filed    | 14 Feb 2012 | 14 Feb 2011       | EP12714367.5        |                    |                  |               |             | Method of prioritising RACH message content  |
| RM115032   | EP01    | Filed    | 2 Aug 2013  | 14 Feb 2011       | IN1492/MUNMP/2013   |                    |                  |               |             | Method of prioritising RACH message content  |
| RM115032   | WO01    | Filed    | 14 Feb 2012 | 14 Feb 2011       | JP51307181188       |                    |                  |               |             | Method of prioritising RACH message content  |

| Case ref.# | Country | Status    | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title  |
|------------|---------|-----------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|---|
| RM115032   | KR01    | Filed     | 14 Feb 2012 | 14 Feb 2011       | KR10201037024162   |                    |                  |               |             | Method of prioritising RACH message content   |
| RM115032   | WO01    | Filed     | 14 Feb 2012 | 14 Feb 2011       | US13/028512        | US20120207102      | 16 Aug 2012      |               |             | Method of prioritising RACH message content   |
| RM115033   | WO01    | Filed     | 14 Feb 2012 | 14 Feb 2011       | PCT/IB2012/050666  | WO20121109850      | 23 Aug 2012      |               |             | Power Headroom triggering in Secondary Cell activation  |
| RM115033   | EP01    | Filed     | 13 Feb 2011 | 13 Feb 2011       | EP12708393.9       |                    |                  |               |             | Power Headroom triggering in Secondary Cell activation  |
| RM115033   | US01    | Closed    | 13 Feb 2011 | 13 Feb 2011       | US61442282         |                    |                  |               |             | Power Headroom triggering in Secondary Cell activation  |
| RM115033   | US02    | Filed     | 13 Feb 2011 | 13 Feb 2011       | US13/0984895       |                    |                  |               |             | Power Headroom triggering in Secondary Cell activation  |
| RM115033   | WO01    | Filed     | 12 Aug 2013 | 13 Feb 2011       | PCT/IB2012/050642  | WO20121107912      | 16 Aug 2012      |               |             | Enhancements for Connectivity   |
| RM115034   | Family  | Filed     | 8 Apr 2011  | 8 Apr 2011        | GB1106035.7        | GB2489751          | 10 Oct 2012      | GB2489751     | 13 Mar 2013 | Enhancements for Connectivity   |
| RM115034   | GB01    | POA       | 8 Apr 2011  | 8 Apr 2011        | GB1214182.6        | GB2490623          | 7 Nov 2012       |               |             | Enhancements for Connectivity   |
| RM115034   | GB02    | Filed     | 8 Apr 2011  | 8 Apr 2011        | US13/063109        | US20120259985      | 11 Oct 2012      |               |             | Enhancements for Connectivity   |
| RM115034   | WO01    | Filed     | 8 Apr 2011  | 8 Apr 2011        | PCT/IB2012/051705  | WO20121237473      | 11 Oct 2012      |               |             | Enhancements for Connectivity   |
| RM115035   | Family  | Filed     | 26 Apr 2011 | 26 Apr 2011       | GB1107066.1        | GB2480347          | 31 Oct 2012      | GB2480347     | 1 May 2013  | Method for avoiding in-device interference from Cellular to IMS                                 |
| RM115035   | US01    | Filed     | 26 Apr 2011 | 26 Apr 2011       | US13/0949223       | US20120276859      | 1 Nov 2012       |               |             | Method for avoiding in-device interference from Cellular to IMS                                 |
| RM115036   | Family  | Filed     | 19 May 2011 | 19 May 2011       | GB1108443.1        | GB2491114          |                  |               |             | Methods for Network Controlled Device-to-Device Communication in Future                         |
| RM115036   | GB01    | Filed     | 19 May 2011 | 19 May 2011       | US13/111032        | US20120294163      | 28 Nov 2012      |               |             | Methods for Network Controlled Device-to-Device Communication in Future                         |
| RM115036   | US01    | Filed     | 19 May 2011 | 19 May 2011       | US13/111032        |                    | 22 Nov 2012      |               |             | Methods for Network Controlled Device-to-Device Communication in Future                         |
| RM115037   | Family  | Filed     | 19 May 2011 | 11 Apr 2011       |                    |                    |                  |               |             | Adaptive Control of Cell Search Procedure for Idle Mode   |
| RM115037   | WO01    | To Filing | 11 Apr 2011 | 11 Apr 2011       |                    |                    |                  |               |             | Adaptive Control of Cell Search Procedure for Idle Mode   |
| RM115037   | EP01    | To Filing | 11 Apr 2011 | 11 Apr 2011       |                    |                    |                  |               |             | Adaptive Control of Cell Search Procedure for Idle Mode   |
| RM115037   | US01    | Granted   | 11 Apr 2011 | 11 Apr 2011       | US13/083905        | US20120258755      | 11 Oct 2012      | US8543111     | 24 Sep 2013 | Adaptive Control of Cell Search Procedure for Idle Mode   |
| RM115037   | WO01    | Filed     | 10 Apr 2012 | 11 Apr 2011       | PCT/IB2012/051733  | WO2012140560       | 18 Oct 2012      |               |             | Adaptive Control of Cell Search Procedure for Idle Mode   |
| RM115039   | Family  | Filed     | 2 May 2011  | 2 May 2011        | US13/098810        | US20120281551      | 8 Nov 2012       |               |             | UE specific cyclic prefix length  |
| RM115039   | US01    | Filed     | 2 May 2011  | 2 May 2011        | US13/098810        |                    |                  |               |             | UE specific cyclic prefix length  |
| RM115040   | Family  | Filed     | 12 Apr 2011 | 12 Apr 2011       |                    |                    |                  |               |             | Spectrum Sensing for LTE Unlicensed Offloading  |
| RM115040   | US01    | To Filing | 12 Apr 2011 | 12 Apr 2011       |                    |                    |                  |               |             | Spectrum Sensing for LTE Unlicensed Offloading  |
| RM115040   | WO01    | POA       | 12 Apr 2011 | 12 Apr 2011       | PCT/CN2011/072652  | WO2012139278       | 18 Oct 2012      |               |             | Spectrum Sensing for LTE Unlicensed Offloading  |
| RM115043   | Family  | Filed     | 15 Apr 2011 | 15 Apr 2011       |                    |                    |                  |               |             | Spectrum Sensing for LTE Unlicensed Offloading  |
| RM115043   | WO01    | Filed     | 15 Apr 2011 | 15 Apr 2011       |                    |                    |                  |               |             | Spectrum Sensing for LTE Unlicensed Offloading  |
| RM115043   | EP01    | To Filing | 15 Apr 2011 | 15 Apr 2011       |                    |                    |                  |               |             | Spectrum Sensing for LTE Unlicensed Offloading  |
| RM115043   | US01    | Filed     | 15 Apr 2011 | 15 Apr 2011       | PCT/IB2011/072853  | WO2012139301       | 18 Oct 2012      |               |             | Spectrum Sensing for LTE Unlicensed Offloading  |
| RM115045   | Family  | Filed     | 19 May 2011 | 19 May 2011       |                    |                    |                  |               |             | LTE carrier aggregation configuration on TV White Space bands                                   |
| RM115045   | EP01    | To Filing | 19 May 2011 | 19 May 2011       |                    |                    |                  |               |             | LTE carrier aggregation configuration on TV White Space bands                                   |
| RM115045   | GB01    | Granted   | 19 May 2011 | 19 May 2011       | GB1108424.1        | GB2480948          | 21 Nov 2012      | GB2480948     | 28 Aug 2013 | LTE carrier aggregation configuration on TV White Space bands                                   |
| RM115045   | US01    | Filed     | 19 May 2011 | 19 May 2011       | US13/111166        | US20120284143      | 22 Nov 2012      |               |             | LTE carrier aggregation configuration on TV White Space bands                                   |
| RM115045   | US02    | Filed     | 10 Jan 2012 | 19 May 2011       | US13/147375        | US20120284144      | 22 Nov 2012      |               |             | LTE carrier aggregation configuration on TV White Space bands                                   |
| RM115047   | Family  | Filed     | 17 May 2012 | 19 May 2011       | PCT/IB2012/052493  | WO2012156943       | 22 Nov 2012      |               |             | CS services while MM congestion control is activated  |
| RM115047   | US01    | Granted   | 24 May 2011 | 24 May 2011       | GB1108705.1        | GB2481138          | 28 Nov 2012      | GB2481138     | 22 May 2013 | CS services while MM congestion control is activated  |
| RM115047   | US01    | Filed     | 24 May 2011 | 24 May 2011       | US13/114524        | US20120302272      | 29 Nov 2012      |               |             | CS services while MM congestion control is activated  |
| RM115049   | Family  | Filed     | 3 May 2011  | 3 May 2011        | PCT/IB2012/052816  | WO2012160539       | 29 Nov 2012      |               |             | CS services while MM congestion control is activated  |
| RM115049   | EP01    | To Filing | 3 May 2011  | 3 May 2011        |                    |                    |                  |               |             | CS services while MM congestion control is activated  |
| RM115049   | US01    | Filed     | 3 May 2011  | 3 May 2011        |                    |                    |                  |               |             | CS services while MM congestion control is activated  |
| RM115049   | US02    | Filed     | 3 May 2011  | 3 May 2011        |                    |                    |                  |               |             | CS services while MM congestion control is activated  |
| RM115049   | WO01    | Filed     | 3 May 2011  | 3 May 2011        |                    |                    |                  |               |             | CS services while MM congestion control is activated  |
| RM115049   | EP01    | To Filing | 3 May 2011  | 3 May 2011        |                    |                    |                  |               |             | QoS Control and Resource Allocation Method for Cellular Controlled D2D                          |
| RM115049   | GB01    | Granted   | 3 May 2011  | 3 May 2011        | GB1107320.2        | GB2479076          | 28 Sep 2011      | GB2479076     | 27 Jun 2012 | QoS Control and Resource Allocation Method for Cellular Controlled D2D                          |
| RM115049   | US01    | Filed     | 3 May 2011  | 3 May 2011        | US13/059786        | US20120282970      | 8 Nov 2012       |               |             | QoS Control and Resource Allocation Method for Cellular Controlled D2D                          |
| RM115049   | US02    | Granted   | 2 Nov 2011  | 3 May 2011        | US13/287549        | US8229484          | 8 Nov 2012       |               |             | QoS Control and Resource Allocation Method for Cellular Controlled D2D                          |
| RM115049   | WO01    | Filed     | 3 May 2011  | 3 May 2011        | PCT/IB2012/052230  | WO2012150572       | 8 Nov 2012       |               |             | Optimized uplink power control adjustment state in varying environments                         |
| RM115050   | Family  | Filed     | 5 Jul 2011  | 5 Jul 2011        |                    |                    |                  |               |             | Optimized uplink power control adjustment state in varying environments                         |
| RM115050   | US01    | POA       | 5 Jul 2011  | 5 Jul 2011        | US13/176288        | US20130013270      | 10 Jan 2013      |               |             | Optimized uplink power control adjustment state in varying environments                         |
| RM115051   | Family  | Filed     | 4 Apr 2011  | 4 Apr 2011        |                    |                    |                  |               |             | Apparatus for RF power emulation  |
| RM115051   | WO01    | Filed     | 4 Apr 2011  | 4 Apr 2011        |                    |                    |                  |               |             | Apparatus for RF power emulation  |
| RM115052   | Family  | Closed    | 4 Apr 2011  | 4 Apr 2011        | PCT/IB2011/072453  | WO2012135998       | 11 Oct 2012      |               |             | RACH solution on Scell in cross carrier scheduling case   |
| RM115052   | GB01    | POA       | 2 Jun 2011  | 2 Jun 2011        | GB1109289.7        | GB2488826          | 4 Jul 2012       |               |             | RACH solution on Scell in cross carrier scheduling case   |
| RM115052   | US01    | Filed     | 2 Jun 2011  | 2 Jun 2011        | US13/151557        | US20120307744      | 6 Dec 2012       |               |             | Frequency Hopping LTE-A System on License-Exempt Shared Bands                                   |
| RM115052   | US02    | Granted   | 17 Oct 2011 | 2 Jun 2011        | US13/274800        | US20120307869      | 6 Dec 2012       |               |             | Frequency Hopping LTE-A System on License-Exempt Shared Bands                                   |
| RM115052   | WO01    | Filed     | 1 Jun 2012  | 2 Jun 2011        | PCT/IB2012/052764  | WO2012164531       | 6 Dec 2012       |               |             | Frequency Hopping LTE-A System on License-Exempt Shared Bands                                   |
| RM115054   | Family  | Filed     | 15 Jun 2011 | 15 Jun 2011       |                    |                    |                  |               |             | Radio Link Monitoring and Failure Handling in Network Controlled Device-to-Device Communication |

| Case ref. # | Country | Status   | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title   |
|-------------|---------|----------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|--|
| RM115054    | GB01    | Filed    | 15 Jun 2011 | 15 Jun 2011       | GB1110114.4        | GB2491870          | 19 Dec 2012      |               |             | Radio Link Monitoring and Failure Handling in Network Controlled Device-to-Device Communication                  |
| RM115054    | US01    | Filed    | 15 Jun 2011 | 15 Jun 2011       | US13/160912        | US20120322479      | 20 Dec 2012      |               |             | Radio Link Monitoring and Failure Handling in Network Controlled Device-to-Device Communication                  |
| RM115054    | WO01    | Filed    | 15 Jun 2011 | 15 Jun 2011       | PCT/IB2012/053025  | WO2012172513       | 20 Dec 2012      |               |             | Radio Link Monitoring and Failure Handling in Network Controlled Device-to-Device Communication                  |
| RM115057    | Family  | Filed    | 13 May 2011 | 13 May 2011       |                    |                    |                  |               |             | Methods for interference reduction in LA TDD network with flexible TDD configuration                             |
| RM115057    | WO01    | POA      | 13 May 2011 | 13 May 2011       | PCT/CN2011074058   | WO2012155323       | 22 Nov 2012      |               |             | Methods for interference reduction in LA TDD network with flexible TDD configuration                             |
| RM115058    | Family  | Filed    | 1 Apr 2011  | 1 Apr 2011        |                    |                    |                  |               |             | Flexible measurement cycle for deactivated Scells  |
| RM115058    | GB01    | Closed   | 1 Apr 2011  | 1 Apr 2011        | GB1105591.0        | GB2489779          | 10 Oct 2012      |               |             | Flexible measurement cycle for deactivated Scells  |
| RM115058    | GB02    | Filed    | 20 Jan 2012 | 1 Apr 2011        | GB1200978.7        | US20120252432      | 4 Oct 2012       |               |             | Flexible measurement cycle for deactivated Scells  |
| RM115058    | Family  | Filed    | 9 Sep 2011  | 9 Sep 2011        |                    |                    |                  |               |             | Autonomous gaps for paging reception in dual SIM modem   |
| RM115058    | US01    | Granted  | 9 Sep 2011  | 9 Sep 2011        | GB1115614.8        | GB2485433          | 16 May 2012      | GB2485433     | 10 Oct 2012 | Autonomous gaps for paging reception in dual SIM modem   |
| RM115058    | GB01    | Filed    | 9 Sep 2011  | 9 Sep 2011        | US13/228015        | US20130056544      | 14 Mar 2013      |               |             | Autonomous gaps for paging reception in dual SIM modem   |
| RM115059    | WO01    | Filed    | 6 Sep 2011  | 9 Sep 2011        | PCT/IB2012/054615  | WO20130350665      | 14 Mar 2013      |               |             | Autonomous gaps for paging reception in dual SIM modem   |
| RM115060    | Family  | Filed    | 15 Jul 2011 | 15 Jul 2011       |                    |                    |                  |               |             | Variable sampling-rate transmitter   |
| RM115060    | GB01    | Granted  | 15 Jul 2011 | 15 Jul 2011       | GB1112169.6        | GB2485430          | 16 May 2012      | GB2485430     | 21 Aug 2013 | Variable sampling-rate transmitter   |
| RM115060    | US01    | Filed    | 15 Jul 2011 | 15 Jul 2011       | US13/183528        | US20130016761      | 17 Jan 2013      |               |             | Variable sampling-rate transmitter   |
| RM115061    | Family  | Filed    | 14 Apr 2011 | 14 Apr 2011       |                    |                    |                  |               |             | Efficient HARQ Scheme for CC specific TDD Configuration  |
| RM115061    | US01    | ToFiling | 14 Apr 2011 | 14 Apr 2011       |                    |                    |                  |               |             | Efficient HARQ Scheme for CC specific TDD Configuration  |
| RM115061    | WO01    | Filed    | 14 Apr 2011 | 14 Apr 2011       | PCT/CN2011072774   | WO2012139291       | 18 Oct 2012      |               |             | Efficient HARQ Scheme for CC specific TDD Configuration  |
| RM115064    | Family  | Filed    | 24 May 2011 | 24 May 2011       |                    |                    |                  |               |             | Quality-of-Service derived backoff calculation for LTE based non-scheduled channel access on unlicensed spectrum |
| RM115064    | GB01    | Filed    | 24 May 2011 | 24 May 2011       | GB1108787.9        | GB2491139          | 28 Nov 2012      |               |             | Quality-of-Service derived backoff calculation for LTE based non-scheduled channel access on unlicensed spectrum |
| RM115064    | US01    | Granted  | 24 May 2011 | 24 May 2011       | US13/14418         | US8155102          | 10 Apr 2012      |               |             | Quality-of-Service derived backoff calculation for LTE based non-scheduled channel access on unlicensed spectrum |
| RM115064    | US02    | Filed    | 19 Oct 2011 | 24 May 2011       | US13/278619        | US20120300712      | 29 Nov 2012      |               |             | Quality-of-Service derived backoff calculation for LTE based non-scheduled channel access on unlicensed spectrum |
| RM115064    | WO01    | Filed    | 22 May 2012 | 24 May 2011       | PCT/IB2012/052556  | WO2012160510       | 29 Nov 2012      |               |             | Quality-of-Service derived backoff calculation for LTE based non-scheduled channel access on unlicensed spectrum |
| RM115067    | Family  | Filed    | 15 Jul 2011 | 15 Jul 2011       |                    |                    |                  |               |             | White Space Mapping Geographical Tracking Area for LTE-A system in TWWS bands                                    |
| RM115067    | GB01    | Filed    | 15 Jul 2011 | 15 Jul 2011       | GB1112251.2        | GB2492867          | 23 Jan 2013      |               |             | White Space Mapping Geographical Tracking Area for LTE-A system in TWWS bands                                    |
| RM115067    | US01    | Filed    | 15 Jul 2011 | 15 Jul 2011       | US13/184002        | US20130016221      | 17 Jan 2013      |               |             | White Space Mapping Geographical Tracking Area for LTE-A system in TWWS bands                                    |
| RM115067    | WO01    | Filed    | 16 Jul 2012 | 15 Jul 2011       | PCT/IB2012/053630  | WO2013011450       | 24 Jan 2013      |               |             | White Space Mapping Geographical Tracking Area for LTE-A system in TWWS bands                                    |
| RM115068    | Family  | Filed    | 17 Jul 2011 | 11 Jul 2011       |                    |                    |                  |               |             | Optimized Scheduling for Hybrid Cellular System  |
| RM115068    | GB01    | Granted  | 17 Jul 2011 | 11 Jul 2011       | GB1111854.4        | GB2493131          | 30 Jan 2013      | GB2493131     | 3 Jul 2013  | Optimized Scheduling for Hybrid Cellular System  |
| RM115068    | US01    | Filed    | 11 Jul 2011 | 11 Jul 2011       | US13/180033        | US20130016666      | 17 Jan 2013      |               |             | Optimized Scheduling for Hybrid Cellular System  |
| RM115068    | WO01    | Filed    | 9 Jul 2012  | 11 Jul 2011       | PCT/IB2012/054982  | WO2013008167       | 17 Jan 2013      |               |             | Optimized Scheduling for Hybrid Cellular System  |
| RM115069    | Family  | Filed    | 16 Sep 2011 | 16 Sep 2011       |                    |                    |                  |               |             | ADC clock selection based on temperature   |
| RM115069    | GB01    | POA      | 16 Sep 2011 | 16 Sep 2011       | GB1116090.0        | GB2494695          | 20 Mar 2013      |               |             | ADC clock selection based on temperature   |
| RM115069    | GB02    | POA      | 16 Sep 2011 | 16 Sep 2011       | GB1207522.2        | GB2489337          | 26 Sep 2012      |               |             | ADC clock selection based on temperature   |
| RM115069    | US01    | Granted  | 16 Sep 2011 | 16 Sep 2011       | US13/343953        | US20130070815      | 21 Mar 2013      | US8655748     | 8 Oct 2013  | ADC clock selection based on temperature   |
| RM115069    | US02    | POA      | 16 Sep 2011 | 16 Sep 2011       | US13/625116        | US20130070818      | 21 Mar 2013      |               |             | ADC clock selection based on temperature   |
| RM115070    | Family  | Filed    | 30 Jun 2011 | 30 Jun 2011       |                    |                    |                  |               |             | Double polling mechanism for WSN via UE gateway  |
| RM115070    | WO01    | Filed    | 30 Jun 2011 | 30 Jun 2011       | PCT/CN2011076548   | WO20130007148      | 3 Jan 2013       |               |             | Double polling mechanism for WSN via UE gateway  |
| RM115071    | Family  | Filed    | 1 Apr 2011  | 1 Apr 2011        |                    |                    |                  |               |             | Inrequent small data transmission method for detached MTC devices  |
| RM115071    | GB01    | Granted  | 1 Apr 2011  | 1 Apr 2011        | GB1105594.4        | GB2489690          | 10 Oct 2012      | GB2489690     | 20 Mar 2013 | Inrequent small data transmission method for detached MTC devices  |
| RM115071    | US01    | Filed    | 1 Apr 2011  | 1 Apr 2011        | US13/078074        | US20120254990      | 4 Oct 2012       |               |             | Inrequent small data transmission method for detached MTC devices  |
| RM115071    | WO01    | POA      | 2 Apr 2012  | 1 Apr 2011        | PCT/IB2012/051894  | WO2012131654       | 2 Apr 2012       |               |             | Inrequent small data transmission method for detached MTC devices  |
| RM115072    | Family  | Filed    | 11 Apr 2011 | 11 Apr 2011       |                    |                    |                  |               |             | DRX design for CA of carriers with different TDD configuration   |
| RM115072    | WO01    | POA      | 11 Apr 2011 | 11 Apr 2011       | PCT/CN2011072565   | WO2012139272       | 18 Oct 2012      |               |             | DRX design for CA of carriers with different TDD configuration   |
| RM115073    | Family  | Filed    | 26 Sep 2011 | 26 Sep 2011       |                    |                    |                  |               |             | Efficient HARQ Timing Design for Flexible TDD Configuration  |
| RM115073    | WO01    | POA      | 26 Sep 2011 | 26 Sep 2011       | PCT/CN2011080159   | WO2013044432       | 4 Apr 2013       |               |             | Efficient HARQ Timing Design for Flexible TDD Configuration  |
| RM115074    | Family  | Filed    | 22 Jun 2011 | 22 Jun 2011       |                    |                    |                  |               |             | Adaptive control methods for more efficient HARQ memory usage  |
| RM115074    | GB01    | Granted  | 22 Jun 2011 | 22 Jun 2011       | GB1110580.6        | GB2492126          | 27 Dec 2012      | GB2492126     | 7 Aug 2013  | Adaptive control methods for more efficient HARQ memory usage  |
| RM115074    | US01    | POA      | 22 Jun 2011 | 22 Jun 2011       | US13/166265        | US20130331241      | 27 Dec 2012      |               |             | Adaptive control methods for more efficient HARQ memory usage  |

| Case ref.# | Country | Status    | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title  |
|------------|---------|-----------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|---|
| RM115075   | Family  | Filed     | 23 Aug 2011 | 23 Aug 2011       |                    |                    |                  |               |             | Random Access Preamble Structure for UEs in Relay Cell  |
| GB2498693  | GB01    | POA       | 23 Aug 2011 | 23 Aug 2011       | GB1114599.2        | 24 Apr 2013        |                  |               |             | Random Access Preamble Structure for UEs in Relay Cell  |
| RM115075   | US01    | Filed     | 29 Aug 2011 | 23 Aug 2011       | US13/199398        | 28 Feb 2013        |                  |               |             | Random Access Preamble Structure for UEs in Relay Cell  |
| RM115076   | Family  | Filed     | 11 Apr 2011 | 11 Apr 2011       |                    |                    |                  |               |             | Uplink Feedback Optimization for CC Specific TDD Configuration                                      |
| RM115076   | CN01    | To Filing | 11 Apr 2011 | 11 Apr 2011       |                    |                    |                  |               |             | Uplink Feedback Optimization for CC Specific TDD Configuration                                      |
| RM115076   | US01    | To Filing | 11 Apr 2011 | 11 Apr 2011       |                    |                    |                  |               |             | Uplink Feedback Optimization for CC Specific TDD Configuration                                      |
| RM115076   | WO01    | Filed     | 11 Apr 2011 | 11 Apr 2011       | PCT/CN2011/072600  | 18 Oct 2012        |                  |               |             | Uplink Feedback Optimization for CC Specific TDD Configuration                                      |
| RM115076   | Family  | Filed     | 27 Apr 2011 | 27 Apr 2011       |                    |                    |                  |               |             | UE feedback for mitigating the impact of inter-cell propagation delays in downlink CoMP             |
| GB2479656  | GB01    | Closed    | 27 Apr 2011 | 27 Apr 2011       | GB1107074.5        | 19 Oct 2011        |                  |               |             | UE feedback for mitigating the impact of inter-cell propagation delays in downlink CoMP             |
| RM115078   | US01    | Filed     | 27 Apr 2011 | 27 Apr 2011       | US13/098241        | 1 Nov 2012         |                  |               |             | UE feedback for mitigating the impact of inter-cell propagation delays in downlink CoMP             |
| RM115078   | WO01    | Filed     | 27 Apr 2011 | 27 Apr 2011       | PCT/IB2012/052125  | 1 Nov 2012         |                  |               |             | UE feedback for mitigating the impact of inter-cell propagation delays in downlink CoMP             |
| RM115079   | Family  | Filed     | 16 Jun 2011 | 16 Jun 2011       |                    |                    |                  |               |             | New measurement events for the support of non adjacent multicarrier UE with low complexity receiver |
| GB2491887  | GB01    | Filed     | 16 Jun 2011 | 16 Jun 2011       | GB1110209.2        | 19 Dec 2012        |                  |               |             | New measurement events for the support of non adjacent multicarrier UE with low complexity receiver |
| RM115079   | US01    | Filed     | 16 Jun 2011 | 16 Jun 2011       | US13/161640        | 20 Dec 2012        |                  |               |             | New measurement events for the support of non adjacent multicarrier UE with low complexity receiver |
| RM115079   | US02    | Granted   | 21 Oct 2011 | 16 Jun 2011       | US13/278442        | 20 Dec 2012        | US83320276       |               | 27 Nov 2012 | New measurement events for the support of non adjacent multicarrier UE with low complexity receiver |
| RM115082   | Family  | Filed     | 28 Apr 2011 | 28 Apr 2011       |                    |                    |                  |               |             | PHICH Transmissions with CC-specific TDD UL/DL configurations                                       |
| RM115082   | WO01    | POA       | 28 Apr 2011 | 28 Apr 2011       | PCT/CN2011/073440  | 1 Nov 2012         |                  |               |             | PHICH Transmissions with CC-specific TDD UL/DL configurations                                       |
| RM115084   | Family  | Filed     | 30 May 2011 | 30 May 2011       |                    |                    |                  |               |             | WIFI-assisted LTE transmission on unlicensed band   |
| RM115084   | WO01    | Filed     | 30 May 2011 | 30 May 2011       | PCT/CN2011/074878  | 6 Dec 2012         |                  |               |             | WIFI-assisted LTE transmission on unlicensed band   |
| RM115085   | Family  | Filed     | 3 Jun 2011  | 3 Jun 2011        |                    |                    |                  |               |             | WIFI-assisted LTE transmission on unlicensed band   |
| RM115085   | GB01    | POA       | 3 Jun 2011  | 3 Jun 2011        | GB1109310.1        | 5 Dec 2012         |                  |               |             | WIFI-assisted LTE transmission on unlicensed band   |
| RM115085   | US01    | Filed     | 3 Jun 2011  | 3 Jun 2011        | US13/152826        | 5 Dec 2012         |                  |               |             | WIFI-assisted LTE transmission on unlicensed band   |
| RM115085   | WO01    | Filed     | 1 Jun 2012  | 3 Jun 2011        | PCT/IB2012/052771  | 6 Dec 2012         |                  |               |             | WIFI-assisted LTE transmission on unlicensed band   |
| RM115087   | Family  | Filed     | 20 May 2011 | 20 May 2011       |                    |                    |                  |               |             | Quality algorithm for sleep clock calibration   |
| RM115087   | GB01    | Closed    | 20 May 2011 | 20 May 2011       | GB1108512.3        | 21 Nov 2012        |                  |               |             | Quality algorithm for sleep clock calibration   |
| RM115087   | GB02    | Filed     | 29 Nov 2011 | 20 May 2011       | GB1120543.2        | 21 Nov 2012        | GB2491001        |               | 8 May 2013  | Quality algorithm for sleep clock calibration   |
| RM115087   | GB03    | Granted   | 29 Nov 2011 | 20 May 2011       | GB1206896.9        | 21 Nov 2012        | GB2491001        |               |             | Quality algorithm for sleep clock calibration   |
| RM115087   | US02    | Closed    | 20 May 2011 | 20 May 2011       | US13/172039        | 22 Nov 2012        |                  |               |             | Quality algorithm for sleep clock calibration   |
| RM115087   | WO01    | POA       | 17 May 2012 | 20 May 2011       | US13/180046        | 22 Nov 2012        |                  |               |             | Quality algorithm for sleep clock calibration   |
| RM115088   | Family  | Filed     | 6 Jun 2011  | 6 Jun 2011        |                    |                    |                  |               |             | Quality algorithm for sleep clock calibration   |
| RM115088   | GB01    | Filed     | 6 Jun 2011  | 6 Jun 2011        | GB1109449.7        | 19 Dec 2012        |                  |               |             | Quality algorithm for sleep clock calibration   |
| RM115088   | US01    | Filed     | 6 Jun 2011  | 6 Jun 2011        | US13/153788        | 6 Dec 2012         |                  |               |             | Quality algorithm for sleep clock calibration   |
| RM115088   | US02    | Granted   | 13 Mar 2012 | 6 Jun 2011        | US13/418824        | 6 Dec 2012         |                  |               |             | Quality algorithm for sleep clock calibration   |
| RM115088   | WO01    | Filed     | 4 Jun 2012  | 6 Jun 2011        | PCT/IB2012/052788  | 13 Dec 2012        |                  |               |             | Quality algorithm for sleep clock calibration   |
| RM115089   | Family  | Filed     | 21 Apr 2011 | 21 Apr 2011       |                    |                    |                  |               |             | Robust dynamical TDD configuration change to limit error case in LTE Local Area                     |
| RM115089   | CN01    | To Filing | 21 Apr 2011 | 21 Apr 2011       |                    |                    |                  |               |             | Robust dynamical TDD configuration change to limit error case in LTE Local Area                     |
| RM115089   | EP01    | To Filing | 21 Apr 2011 | 21 Apr 2011       |                    |                    |                  |               |             | Robust dynamical TDD configuration change to limit error case in LTE Local Area                     |
| RM115089   | US01    | To Filing | 21 Apr 2011 | 21 Apr 2011       |                    |                    |                  |               |             | Robust dynamical TDD configuration change to limit error case in LTE Local Area                     |
| RM115089   | WO01    | Filed     | 21 Apr 2011 | 21 Apr 2011       | PCT/CN2011/073117  | 26 Oct 2012        |                  |               |             | Robust dynamical TDD configuration change to limit error case in LTE Local Area                     |
| RM115089   | Family  | Filed     | 30 May 2011 | 30 May 2011       |                    |                    |                  |               |             | Robust dynamical TDD configuration change to limit error case in LTE Local Area                     |
| RM115089   | WO01    | Filed     | 30 May 2011 | 30 May 2011       | PCT/CN2011/074887  | 26 Oct 2012        |                  |               |             | Robust dynamical TDD configuration change to limit error case in LTE Local Area                     |
| RM115091   | Family  | Filed     | 28 Apr 2011 | 28 Apr 2011       |                    |                    |                  |               |             | Robustness improvement to EUTRAN system information acquisition                                     |
| RM115091   | GB01    | Granted   | 28 Apr 2011 | 28 Apr 2011       | GB1107206.3        | 6 Dec 2012         |                  |               |             | Robustness improvement to EUTRAN system information acquisition                                     |
| RM115091   | US01    | Filed     | 28 Apr 2011 | 28 Apr 2011       | US13/056199        | 31 Oct 2012        | GB2490362        |               | 20 Mar 2013 | Robustness improvement to EUTRAN system information acquisition                                     |
| RM115091   | WO01    | Filed     | 27 Apr 2012 | 28 Apr 2011       | PCT/IB2012/052108  | 1 Nov 2012         |                  |               |             | Robustness improvement to EUTRAN system information acquisition                                     |
| RM115092   | Family  | Filed     | 28 Jun 2011 | 28 Jun 2011       |                    |                    |                  |               |             | Robustness improvement to EUTRAN system information acquisition                                     |
| RM115092   | GB01    | Granted   | 10 Aug 2011 | 28 Jun 2011       | GB1110987.5        | 4 Jan 2012         | GB2481702        |               | 12 Dec 2012 | Dual-SIM power reduction by closing down SIM system without service                                 |
| RM115092   | US01    | Filed     | 28 Jun 2011 | 28 Jun 2011       | US13/170666        | 3 Jan 2013         |                  |               |             | Dual-SIM power reduction by closing down SIM system without service                                 |
| RM115092   | US02    | Filed     | 11 Jan 2012 | 28 Jun 2011       | US13/248042        | 3 Jan 2013         |                  |               |             | Dual-SIM power reduction by closing down SIM system without service                                 |
| RM115092   | WO01    | POA       | 26 Jun 2012 | 28 Jun 2011       | PCT/IB2012/052224  | 3 Jan 2013         |                  |               |             | Dual-SIM power reduction by closing down SIM system without service                                 |

| Case ref # | Country | Status   | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed life  |
|------------|---------|----------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|--|
| RM115094   | Family  | Filed    | 1 Apr 2011  | 1 Apr 2011        |                    |                    |                  |               |             | Method of pending security abortion indication   |
| RM115094   | CN01    | ToFiling |             | 1 Apr 2011        |                    |                    |                  |               |             | Method of pending security abortion indication   |
| RM115094   | EP01    | Filed    | 7 Oct 2011  | 1 Apr 2011        | EP1164417.1        | EP2506614          | 3 Oct 2012       |               |             | Method of pending security abortion indication   |
| RM115094   | EP02    | Filed    | 7 Oct 2011  | 1 Apr 2011        | EP12171491.9       | EP2523420          | 14 Nov 2012      |               |             | Method of pending security abortion indication   |
| RM115094   | GB01    | Granted  | 1 Apr 2011  | 1 Apr 2011        | GB1105647.0        | GB2480127          | 9 Nov 2011       | GB2480127     | 16 May 2012 | Method of pending security abortion indication   |
| RM115094   | IN01    | Filed    | 2 Apr 2012  | 1 Apr 2011        | IN1629/MUMNP/2013  |                    |                  |               |             | Method of pending security abortion indication   |
| RM115094   | JP01    | Filed    | 2 Apr 2012  | 1 Apr 2011        |                    |                    |                  |               |             | Method of pending security abortion indication   |
| RM115094   | KR01    | ToFiling |             | 1 Apr 2011        |                    |                    |                  |               |             | Method of pending security abortion indication   |
| RM115094   | US01    | Granted  | 1 Apr 2011  | 1 Apr 2011        | US13/078223        | US20120252404      | 4 Oct 2012       | US8417220     | 9 Apr 2013  | Method of pending security abortion indication   |
| RM115094   | US02    | Granted  | 19 Jan 2012 | 1 Apr 2011        | US13/353934        | US20120252405      | 4 Oct 2012       | US8412159     | 2 Apr 2013  | Method of pending security abortion indication   |
| RM115094   | US03    | ToFiling |             | 1 Apr 2011        |                    |                    |                  |               |             | Method of pending security abortion indication   |
| RM115094   | WO01    | Filed    | 2 Apr 2012  | 1 Apr 2011        | PCT/IB2012/051612  | WO2012131661       | 4 Oct 2012       |               |             | Method of pending security abortion indication   |
| RM115095   | Family  | Filed    | 1 Apr 2011  | 1 Apr 2011        |                    |                    |                  |               |             | Triggering of inter-RAT reporting for UMTS ANR when ISR is enabled                         |
| RM115095   | Family  | Filed    | 1 Apr 2011  | 1 Apr 2011        |                    |                    |                  |               |             | Triggering of inter-RAT reporting for UMTS ANR when ISR is enabled                         |
| RM115095   | GB01    | Granted  | 2 May 2012  | 1 Apr 2011        | GB1105648.8        | GB2477232          | 27 Jul 2011      | GB2477232     | 2 May 2012  | Triggering of inter-RAT reporting for UMTS ANR when ISR is enabled                         |
| RM115095   | GB02    | Filed    | 1 Apr 2011  | 1 Apr 2011        | GB1105675.5        |                    |                  |               |             | Triggering of inter-RAT reporting for UMTS ANR when ISR is enabled                         |
| RM115095   | US01    | Closed   | 1 Apr 2011  | 1 Apr 2011        | US13/078266        | US20120252433      | 4 Oct 2012       |               |             | Triggering of inter-RAT reporting for UMTS ANR when ISR is enabled                         |
| RM115095   | US02    | Filed    | 2 Jan 2012  | 1 Apr 2011        | US13/279889        | US20120252448      | 10 Apr 2013      |               |             | Triggering of inter-RAT reporting for UMTS ANR when ISR is enabled                         |
| RM115097   | Family  | Filed    | 1 Apr 2011  | 1 Apr 2011        |                    |                    |                  |               |             | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | Family  | Filed    | 1 Apr 2011  | 1 Apr 2011        |                    |                    |                  |               |             | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | EP01    | ToFiling | 2 Apr 2012  | 1 Apr 2011        | PCT/IB2012/051596  |                    |                  |               |             | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | EP02    | ToFiling | 2 Apr 2012  | 1 Apr 2011        | PCT/IB2012/051596  |                    |                  |               |             | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | GB01    | Granted  | 1 Apr 2011  | 1 Apr 2011        | GB1105590.2        | GB2485854          | 30 May 2012      | GB2485854     | 11 Dec 2012 | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | GB02    | Granted  | 1 Apr 2011  | 1 Apr 2011        | GB1204230.5        | GB2487319          | 18 Jul 2012      | GB2487319     | 27 Feb 2013 | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | IN01    | ToFiling | 2 Apr 2012  | 1 Apr 2011        | PCT/IB2012/051596  |                    |                  |               |             | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | JP01    | ToFiling | 2 Apr 2012  | 1 Apr 2011        | PCT/IB2012/051596  |                    |                  |               |             | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | KR01    | ToFiling | 2 Apr 2012  | 1 Apr 2011        | PCT/IB2012/051596  |                    |                  |               |             | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | US01    | Closed   | 1 Apr 2011  | 1 Apr 2011        | US13/078124        |                    |                  |               |             | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | US02    | Filed    | 12 Mar 2012 | 1 Apr 2011        | US13/417515        | US20120252452      | 4 Oct 2012       |               |             | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | US03    | Filed    | 15 Jun 2012 | 1 Apr 2011        | US13/524592        | US20120252455      | 10 Apr 2013      |               |             | Method of fast reselection from UTRAN to EUTRAN  |
| RM115097   | WO01    | Filed    | 2 Apr 2012  | 1 Apr 2011        | PCT/IB2012/051596  | WO2012131655       | 4 Oct 2012       |               |             | Method of fast reselection from UTRAN to EUTRAN  |
| RM115098   | Family  | Filed    | 3 Nov 2011  | 3 Nov 2011        |                    |                    |                  |               |             | Calibration / equalization of radio receiver analog baseband filter                        |
| RM115098   | Family  | Filed    | 3 Nov 2011  | 3 Nov 2011        |                    |                    |                  |               |             | Calibration / equalization of radio receiver analog baseband filter                        |
| RM115098   | GB01    | POA      | 3 Nov 2011  | 3 Nov 2011        | GB11149030.6       | GB2495154          | 8 May 2013       |               |             | Calibration / equalization of radio receiver analog baseband filter                        |
| RM115098   | US01    | Filed    | 4 Nov 2011  | 3 Nov 2011        | US13/289482        | US20130114662      | 9 May 2013       |               |             | Calibration / equalization of radio receiver analog baseband filter                        |
| RM115098   | US02    | Filed    | 2 Nov 2011  | 3 Nov 2011        | PC1/IB2012/056119  | WO2013065021       | 10 May 2013      |               |             | PUCCH Performance Enhancement with CC-specific TDD U/D/L configurations                    |
| RM115100   | Family  | Filed    | 29 Apr 2011 | 29 Apr 2011       |                    |                    |                  |               |             | PUCCH Performance Enhancement with CC-specific TDD U/D/L configurations                    |
| RM115100   | US01    | Granted  | 2 Apr 2013  | 29 Apr 2011       | US13/655232        | US20130223296      | 29 Sep 2013      | US8667725     | 17 Sep 2013 | PUCCH Performance Enhancement with CC-specific TDD U/D/L configurations                    |
| RM115100   | US02    | Filed    | 4 Sep 2013  | 29 Apr 2011       | US14/017584        |                    |                  |               |             | PUCCH Performance Enhancement with CC-specific TDD U/D/L configurations                    |
| RM115100   | WO01    | POA      | 29 Apr 2011 | 29 Apr 2011       | PCT/IN2011/073529  | WO2012145922       | 1 Nov 2012       |               |             | PUCCH Performance Enhancement with CC-specific TDD U/D/L configurations                    |
| RM115101   | Family  | Filed    | 20 May 2011 | 20 May 2011       |                    |                    |                  |               |             | Hopping Pattern Defined Sensing and Decision Period with Effective Resource Sharing Method |
| RM115101   | GB01    | POA      | 20 May 2011 | 20 May 2011       | GB1108527.1        | GB2481119          | 26 Nov 2012      |               |             | Hopping Pattern Defined Sensing and Decision Period with Effective Resource Sharing Method |
| RM115101   | US01    | Filed    | 20 May 2011 | 20 May 2011       | US13/112480        | US20120294165      | 22 Nov 2012      |               |             | Hopping Pattern Defined Sensing and Decision Period with Effective Resource Sharing Method |
| RM115101   | US02    | Filed    | 19 Jan 2012 | 20 May 2011       | US13/353755        | US20120294344      | 22 Nov 2012      |               |             | Hopping Pattern Defined Sensing and Decision Period with Effective Resource Sharing Method |
| RM115101   | WO01    | POA      | 17 May 2012 | 20 May 2011       | PCT/IB2012/052468  | WO2012169488       | 29 Nov 2012      |               |             | Mitigating other UE UE UL interference in LTE TDD networks                                 |
| RM115102   | Family  | Filed    | 22 Jun 2011 | 22 Jun 2011       |                    |                    |                  |               |             | Mitigating other UE UE UL interference in LTE TDD networks                                 |
| RM115102   | GB01    | Granted  | 22 Jun 2011 | 22 Jun 2011       | GB1110566.5        | GB2482123          | 26 Dec 2012      | GB2482123     | 12 Jun 2013 | Mitigating other UE UE UL interference in LTE TDD networks                                 |
| RM115102   | US01    | Filed    | 22 Jun 2011 | 22 Jun 2011       | US13/156429        | US20120327820      | 27 Dec 2012      |               |             | Mitigating other UE UE UL interference in LTE TDD networks                                 |
| RM115102   | US02    | Filed    | 22 Jun 2011 | 22 Jun 2011       | US13/672305        | US20130064145      | 14 Mar 2013      |               |             | Mitigating other UE UE UL interference in LTE TDD networks                                 |
| RM115102   | WO01    | Filed    | 20 Jun 2012 | 22 Jun 2011       | PCT/IB2012/053121  | WO2012176135       | 27 Dec 2012      |               |             | Mitigating other UE UE UL interference in LTE TDD networks                                 |
| RM115103   | Family  | Filed    | 12 Aug 2011 | 12 Aug 2011       |                    |                    |                  |               |             | frame aggregation  |
| RM115103   | Family  | Filed    | 12 Aug 2011 | 12 Aug 2011       |                    |                    |                  |               |             | frame aggregation  |
| RM115103   | US01    | Filed    | 12 Aug 2011 | 12 Aug 2011       | GB1113934.2        | GB2493713          | 20 Feb 2013      |               |             | frame aggregation  |
| RM115103   | US02    | Filed    | 12 Aug 2011 | 12 Aug 2011       | US13/208913        | US20130035238      | 14 Feb 2013      |               |             | frame aggregation  |
| RM115105   | Family  | Filed    | 25 May 2011 | 25 May 2011       |                    |                    |                  |               |             | Resource allocation for D2D deployment in LTE system                                       |
| RM115105   | WO01    | Filed    | 25 May 2011 | 25 May 2011       | PCT/IN2011/074669  | WO2012159270       | 23 Nov 2012      |               |             | Resource allocation for D2D deployment in LTE system                                       |
| RM115106   | Family  | Filed    | 31 May 2011 | 31 May 2011       |                    |                    |                  |               |             | High time offset indicator for CoMP  |
| RM115106   | Family  | Filed    | 31 May 2011 | 31 May 2011       |                    |                    |                  |               |             | High time offset indicator for CoMP  |
| RM115106   | GB01    | Granted  | 31 May 2011 | 31 May 2011       | GB1109109.7        | GB2491367          | 5 Dec 2012       | GB2491367     | 8 May 2013  | High time offset indicator for CoMP  |
| RM115106   | GB02    | Granted  | 31 May 2011 | 31 May 2011       | GB1122200.7        | GB2491426          | 5 Dec 2012       | GB2491426     | 8 May 2013  | High time offset indicator for CoMP  |



| Case ref. # | Country | Status    | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title  |
|-------------|---------|-----------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|---|
| RM115126    | GB01    | Granted   | 28 Jun 2011 | 28 Jun 2011       | GB1110966.3        | GB2492536          | 9 Jan 2013       | GB2492536     | 29 May 2013 | Dual-SIM power reduction by combining operations  |
| RM115128    | GB01    | Filed     | 9 Jun 2011  | 9 Jun 2011        | US13/170939        | US20130005394      | 3 Jan 2013       |               |             | Methods for COI report in LA TDD network with flexible TDD configuration                |
| RM115129    | WO01    | POA       | 9 Jun 2011  | 9 Jun 2011        | PCT/CN2011/075502  | WO2012167431       | 13 Dec 2012      |               |             | Flexible LTE system utilization on unlicensed band                                      |
| RM115129    | WO01    | POA       | 14 Jul 2011 | 14 Jul 2011       |                    | WO2013006988       | 17 Jan 2013      |               |             | Flexible LTE system utilization on unlicensed band                                      |
| RM115132    | GB01    | Filed     | 23 Aug 2011 | 23 Aug 2011       | GB1114588.3        | GB2494411          | 6 Mar 2013       |               |             | Accuracy improvement to UE mobility state detection in EUTRAN system                    |
| RM115132    | GB01    | Closed    | 23 Aug 2011 | 23 Aug 2011       | US13/215677        | US20130053092      | 28 Feb 2013      |               |             | Accuracy improvement to UE mobility state detection in EUTRAN system                    |
| RM115132    | WO01    | Filed     | 23 Aug 2011 | 23 Aug 2011       | PCT/IB2012/054218  | WO2013027172       | 28 Feb 2013      |               |             | Accuracy improvement to UE mobility state detection in EUTRAN system                    |
| RM115133    | GB01    | Filed     | 19 May 2011 | 19 May 2011       | GB1108444.9        | GB2481487          | 28 Dec 2012      |               |             | Configurable Low Noise Amplifier  |
| RM115133    | GB01    | Granted   | 19 May 2011 | 19 May 2011       | GB119782.9         | GB2490979          | 21 Nov 2012      |               |             | Configurable Low Noise Amplifier  |
| RM115133    | WO01    | Filed     | 19 May 2011 | 19 May 2011       | TW101117327        | TW201301749        | 1 Jan 2013       |               |             | Configurable Low Noise Amplifier  |
| RM115133    | WO01    | Filed     | 16 May 2012 | 16 May 2012       | US13/111423        | US20120293282      | 22 Nov 2012      |               |             | Configurable Low Noise Amplifier  |
| RM115133    | US02    | Granted   | 1 Dec 2011  | 19 May 2011       | US13/08772         | US20120293250      | 22 Nov 2012      |               |             | Configurable Low Noise Amplifier  |
| RM115133    | WO01    | Filed     | 18 May 2012 | 19 May 2011       | PCT/IB2012/052488  | WO2012156945       | 22 Nov 2012      |               |             | Configurable Low Noise Amplifier  |
| RM115134    | Family  | Filed     | 19 Aug 2011 | 19 Aug 2011       |                    |                    |                  |               |             | Indication of UE Mobility State to the Network to Enhance Mobility and Call Performance |
| RM115134    | GB01    | Filed     | 31 Aug 2011 | 19 Aug 2011       | GB1115028.1        | GB2493788          | 20 Feb 2013      |               |             | Indication of UE Mobility State to the Network to Enhance Mobility and Call Performance |
| RM115134    | US01    | Closed    | 19 Aug 2011 | 19 Aug 2011       | US6152537.1        |                    |                  |               |             | Indication of UE Mobility State to the Network to Enhance Mobility and Call Performance |
| RM115134    | US02    | Granted   | 8 Jan 2013  | 19 Aug 2011       | US13/222074        | US20130045785      | 21 Feb 2013      | US8380286     | 19 Feb 2013 | Indication of UE Mobility State to the Network to Enhance Mobility and Call Performance |
| RM115134    | US03    | Filed     | 8 Jan 2013  | 19 Aug 2011       | US13/736486        | US20130130698      | 23 May 2013      |               |             | Indication of UE Mobility State to the Network to Enhance Mobility and Call Performance |
| RM115135    | Family  | Filed     | 15 Aug 2011 | 15 Aug 2011       |                    |                    |                  |               |             | LTE security and bearer context hibernation for low periodicity packet transmission     |
| RM115135    | GB01    | POA       | 15 Aug 2011 | 15 Aug 2011       | GB1114614.2        | GB2493722          | 20 Feb 2013      |               |             | LTE security and bearer context hibernation for low periodicity packet transmission     |
| RM115135    | US01    | Filed     | 15 Aug 2011 | 15 Aug 2011       | US13/20967.9       | US20130046821      | 21 Feb 2013      |               |             | LTE security and bearer context hibernation for low periodicity packet transmission     |
| RM115135    | WO01    | Filed     | 14 Aug 2012 | 15 Aug 2011       | PCT/IB2012/054143  | WO2013024435       | 21 Feb 2013      |               |             | LTE security and bearer context hibernation for low periodicity packet transmission     |
| RM115138    | Family  | Filed     | 2 May 2011  | 2 May 2011        |                    |                    |                  |               |             | CSLRS density enhancement   |
| RM115138    | EP01    | To/Filing | 2 May 2011  | 2 May 2011        |                    |                    |                  |               |             | CSLRS density enhancement   |
| RM115138    | GB01    | Closed    | 3 May 2011  | 2 May 2011        | GB1107365.2        | GB2490750          | 14 Nov 2012      |               |             | CSLRS density enhancement   |
| RM115138    | US01    | Granted   | 1 Sep 2011  | 2 May 2011        | US115130.5         | US20120262935      | 8 Nov 2012       | US4285917     | 16 Oct 2012 | CSLRS density enhancement   |
| RM115138    | US02    | To/Filing | 2 May 2011  | 2 May 2011        | US13/098873        |                    |                  |               |             | CSLRS density enhancement   |
| RM115138    | WO01    | Filed     | 2 May 2012  | 2 May 2011        | PCT/IB2012/052173  | WO2012150545       | 8 Nov 2012       |               |             | CSLRS density enhancement   |
| RM115139    | Family  | Filed     | 30 Sep 2011 | 30 Sep 2011       |                    |                    |                  |               |             | Inheriting of UE mobility state between EUTRAN and other RATs                           |
| RM115139    | GB01    | Filed     | 30 Sep 2011 | 30 Sep 2011       | GB1116918.2        | GB2495283          | 10 Apr 2013      |               |             | Inheriting of UE mobility state between EUTRAN and other RATs                           |
| RM115140    | US01    | Filed     | 30 Sep 2011 | 30 Sep 2011       | US13/249553        | US20130084842      | 4 Apr 2013       |               |             | Inheriting of UE mobility state between EUTRAN and other RATs                           |
| RM115140    | Family  | Filed     | 29 Jun 2011 | 29 Jun 2011       |                    |                    |                  |               |             | Discrimination between UE mobility classes  |
| RM115140    | GB01    | Granted   | 29 Jun 2011 | 29 Jun 2011       | GB1111086.9        | GB2488537          | 3 Oct 2012       |               |             | Discrimination between UE mobility classes  |
| RM115140    | GB02    | Granted   | 29 Jun 2011 | 29 Jun 2011       | GB1205668.5        | GB2492676          | 9 Jan 2013       |               |             | Discrimination between UE mobility classes  |
| RM115140    | US01    | Filed     | 29 Jun 2011 | 29 Jun 2011       | US13/172189        | US20130005381      | 3 Jan 2013       |               |             | Discrimination between UE mobility classes  |
| RM115141    | Family  | Filed     | 17 Nov 2011 | 17 Nov 2011       |                    |                    |                  |               |             | Discrimination between UE mobility classes  |
| RM115141    | GB01    | POA       | 17 Nov 2011 | 17 Nov 2011       | GB1119884.5        | GB2498646          | 22 May 2013      |               |             | Discrimination between UE mobility classes  |
| RM115141    | US01    | Filed     | 18 Nov 2011 | 17 Nov 2011       | US13/236843        | US20130128823      | 23 May 2013      |               |             | Discrimination between UE mobility classes  |
| RM115141    | US02    | Filed     | 16 Nov 2012 | 17 Nov 2011       | US13/0678890       | US20130128830      | 23 May 2013      |               |             | Discrimination between UE mobility classes  |
| RM115142    | Family  | Filed     | 22 Jun 2011 | 22 Jun 2011       |                    |                    |                  |               |             | MIMO Antenna system arrangement to optimize envelope correlation coefficient            |
| RM115142    | GB01    | Filed     | 22 Jun 2011 | 22 Jun 2011       | GB1116562.4        | GB2492122          | 26 Dec 2012      |               |             | MIMO Antenna system arrangement to optimize envelope correlation coefficient            |
| RM115142    | US01    | Filed     | 22 Jun 2011 | 22 Jun 2011       | US13/165864        | US20120329407      | 27 Dec 2012      |               |             | MIMO Antenna system arrangement to optimize envelope correlation coefficient            |
| RM115143    | Family  | Filed     | 23 Jun 2011 | 23 Jun 2011       |                    |                    |                  |               |             | Virtual SIM: A secure and energy-saved communication mechanism                          |

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|-------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|---|
| RM115143    | WO01    | Filed   | 23 Jun 2011 | 23 Jun 2011       | PCT/CN2011/076179  | WO2012/174722      | 27 Dec 2012      |               |            | Virtual SIM: A secure and energy-saved communication mechanism  |
| RM115144    | Family  | Filed   | 21 Jun 2011 | 21 Jun 2011       |                    |                    |                  |               |            | Cell-based dynamic configuration method for offline small-data transmission of detached MTC devices                                       |
| RM115144    | WO01    | POA     | 21 Jun 2011 | 21 Jun 2011       | PCT/CN2011/076020  | WO2012/174709      | 27 Dec 2012      |               |            | Cell-based dynamic configuration method for offline small-data transmission of detached MTC devices                                       |
| RM115146    | Family  | Filed   | 27 Jun 2011 | 27 Jun 2011       |                    |                    |                  |               |            | Reverse Scheduling Mechanisms   |
| RM115146    | GB01    | Filed   | 27 Jun 2011 | 27 Jun 2011       | GB1110880.0        | GB2492334          | 2 Jan 2013       |               |            | Reverse Scheduling Mechanisms   |
| RM115146    | US01    | Filed   | 27 Jun 2011 | 27 Jun 2011       | US13/169338        | US2012/0327867     | 27 Dec 2012      |               |            | Reverse Scheduling Mechanisms   |
| RM115147    | Family  | Filed   | 26 Aug 2011 | 26 Aug 2011       |                    |                    |                  |               |            | Channelization Design for LTE on ISM using a piece-wise Hopping for Control Channels and Listen-Before-Talk type Access for Data Channels |
| RM115147    | GB01    | POA     | 26 Aug 2011 | 26 Aug 2011       | GB1114816.0        | GB2493986          | 27 Feb 2013      |               |            | Channelization Design for LTE on ISM using a piece-wise Hopping for Control Channels and Listen-Before-Talk type Access for Data Channels |
| RM115147    | US01    | Filed   | 26 Aug 2011 | 26 Aug 2011       | US13/218634        | US2013/0051383     | 28 Feb 2013      |               |            | Channelization Design for LTE on ISM using a piece-wise Hopping for Control Channels and Listen-Before-Talk type Access for Data Channels |
| RM115147    | WO01    | Filed   | 24 Aug 2012 | 26 Aug 2011       | PCT/IB2012/054289  | WO2013/030732      | 7 Mar 2013       |               |            | Channelization Design for LTE on ISM using a piece-wise Hopping for Control Channels and Listen-Before-Talk type Access for Data Channels |
| RM115151    | Family  | Filed   | 27 Jul 2011 | 27 Jul 2011       |                    |                    |                  |               |            | Reduced measurement and reporting in UE   |
| RM115151    | GB01    | Filed   | 27 Jul 2011 | 27 Jul 2011       | GB1112918.6        | GB2483183          | 30 Jan 2013      |               |            | Reduced measurement and reporting in UE   |
| RM115151    | US01    | Filed   | 27 Jul 2011 | 27 Jul 2011       | US13/191881        | US2013/0029707     | 31 Jan 2013      |               |            | Reduced measurement and reporting in UE   |
| RM115152    | Family  | Filed   | 16 May 2011 | 16 May 2011       |                    |                    |                  |               |            | BEP measurements for VAMOS  |
| RM115152    | GB01    | POA     | 16 May 2011 | 16 May 2011       | GB1108156.3        | GB2489757          | 10 Oct 2012      |               |            | BEP measurements for VAMOS  |
| RM115152    | US01    | Closed  | 16 May 2011 | 16 May 2011       | US13/108352        | US2012/0294288     | 22 Nov 2012      |               |            | BEP measurements for VAMOS  |
| RM115152    | US02    | Granted | 13 Oct 2011 | 16 May 2011       | US13/272780        | US2012/0294290     | 22 Nov 2012      | US8345642     | 1 Jan 2013 | BEP measurements for VAMOS  |
| RM115152    | WO01    | Filed   | 16 May 2012 | 16 May 2011       | PCT/IB2012/062471  | WO2012/156594      | 22 Nov 2012      |               |            | BEP measurements for VAMOS  |
| RM115153    | Family  | Filed   | 17 Aug 2011 | 17 Aug 2011       |                    |                    |                  |               |            | Optimizing UE operation in FACH/RACH or HS-FACH RACH mode   |
| RM115153    | IN01    | Filed   | 17 Aug 2011 | 17 Aug 2011       | IN2328/MU/2011     | IN02328MU/2011     | 22 Feb 2013      |               |            | Optimizing UE operation in FACH/RACH or HS-FACH RACH mode   |
| RM115153    | WO01    | Filed   | 9 Aug 2012  | 17 Aug 2011       | PCT/IB2012/001552  | WO2013/024327      | 21 Feb 2013      |               |            | Optimizing UE operation in FACH/RACH or HS-FACH RACH mode   |
| RM115154    | Family  | Filed   | 15 Jun 2011 | 15 Jun 2011       |                    |                    |                  |               |            | Usage of registration area information and update status at switch-on and recovery from lack of coverage                                  |
| RM115154    | GB01    | Filed   | 15 Jun 2011 | 15 Jun 2011       | GB1110111.0        | GB2481689          | 19 Dec 2012      |               |            | Usage of registration area information and update status at switch-on and recovery from lack of coverage                                  |
| RM115154    | US01    | Filed   | 15 Jun 2011 | 15 Jun 2011       | US13/166582        | US2012/0322474     | 20 Dec 2012      |               |            | Usage of registration area information and update status at switch-on and recovery from lack of coverage                                  |
| RM115155    | Family  | Filed   | 26 Jul 2011 | 26 Jul 2011       |                    |                    |                  |               |            | A new way to get TA for LTE system deployed in White Space  |
| RM115155    | WO01    | POA     | 26 Jul 2011 | 26 Jul 2011       | PCT/CN2011/077626  | WO2013/013390      | 31 Jan 2013      |               |            | A new way to get TA for LTE system deployed in White Space  |
| RM115157    | Family  | Filed   | 4 Jul 2011  | 4 Jul 2011        |                    |                    |                  |               |            | RACH optimization for LTE-Advance Local Area Deployment   |
| RM115157    | WO01    | Filed   | 4 Jul 2011  | 4 Jul 2011        | PCT/CN2011/076830  | WO2013/004002      | 10 Jan 2013      |               |            | RACH optimization for LTE-Advance Local Area Deployment   |
| RM115158    | Family  | Filed   | 30 Aug 2011 | 30 Aug 2011       |                    |                    |                  |               |            | Multi-User Resource Allocation Scheme for LTE System Utilizing Listen-Before-Talk Type Channel Access                                     |
| RM115158    | GB01    | Filed   | 30 Aug 2011 | 30 Aug 2011       | GB1114886.9        | GB2484132          | 6 Mar 2013       |               |            | Multi-User Resource Allocation Scheme for LTE System Utilizing Listen-Before-Talk Type Channel Access                                     |
| RM115158    | US01    | Filed   | 30 Aug 2011 | 30 Aug 2011       | US13/221288        | US2013/0051356     | 28 Feb 2013      |               |            | Multi-User Resource Allocation Scheme for LTE System Utilizing Listen-Before-Talk Type Channel Access                                     |
| RM115158    | Family  | Filed   | 5 Jul 2011  | 5 Jul 2011        |                    |                    |                  |               |            | Feedback framework for MIMO operation in Heterogeneous Networks   |
| RM115158    | GB01    | Filed   | 5 Jul 2011  | 5 Jul 2011        | GB1111467.5        | GB2492564          | 9 Jan 2013       |               |            | Feedback framework for MIMO operation in Heterogeneous Networks   |
| RM115158    | US01    | Filed   | 5 Jul 2011  | 5 Jul 2011        | US13/176169        | US2013/0010680     | 10 Jan 2013      |               |            | Feedback framework for MIMO operation in Heterogeneous Networks   |
| RM115160    | Family  | Filed   | 7 Jul 2011  | 7 Jul 2011        |                    |                    |                  |               |            | Extended Proximity Indication for CSG cells   |
| RM115160    | GB01    | Filed   | 7 Jul 2011  | 7 Jul 2011        | GB111627.4         | GB2492584          | 8 Jan 2013       |               |            | Extended Proximity Indication for CSG cells   |
| RM115160    | US01    | Filed   | 7 Jul 2011  | 7 Jul 2011        | US13/177920        | US2013/0019797     | 10 Jan 2013      |               |            | Extended Proximity Indication for CSG cells   |
| RM115160    | WO01    | Filed   | 7 Jul 2012  | 7 Jul 2011        | PCT/IB2012/053425  | WO2013/005175      | 10 Jan 2013      |               |            | Extended Proximity Indication for CSG cells   |
| RM115161    | Family  | Filed   | 18 Jul 2011 | 18 Jul 2011       |                    |                    |                  |               |            | Enabling efficient ad hoc network operation on Television White Spaces  |
| RM115161    | GB01    | Granted | 18 Jul 2011 | 18 Jul 2011       | GB1112343.7        | GB2492584          | 23 Jan 2013      |               |            | Enabling efficient ad hoc network operation on Television White Spaces  |
| RM115161    | US01    | Filed   | 18 Jul 2011 | 18 Jul 2011       | US13/184702        | US2013/0029202     | 10 Jan 2013      |               |            | Enabling efficient ad hoc network operation on Television White Spaces  |
| RM115164    | Family  | Filed   | 5 Jul 2011  | 5 Jul 2011        |                    |                    |                  |               |            | Power Control Enhancement in LA TDD network   |
| RM115164    | WO01    | POA     | 5 Jul 2011  | 5 Jul 2011        | PCT/CN2011/076965  | WO2013/004007      | 10 Jan 2013      |               |            | Power Control Enhancement in LA TDD network   |
| RM115166    | Family  | Filed   | 8 Jul 2011  | 8 Jul 2011        |                    |                    |                  |               |            | Interference mitigation via channel reservation in LA TDD network   |
| RM115166    | WO01    | POA     | 8 Jul 2011  | 8 Jul 2011        | PCT/CN2011/077003  | WO2013/007010      | 17 Jan 2013      |               |            | Interference mitigation via channel reservation in LA TDD network   |
| RM115167    | Family  | Filed   | 8 Jul 2011  | 8 Jul 2011        |                    |                    |                  |               |            | Uplink Power Control Adjustment State for PUSCH in Discontinuous Data Transfer  |
| RM115167    | GB01    | Filed   | 8 Jul 2011  | 8 Jul 2011        | GB1111744.7        | GB2492500          | 9 Jan 2013       |               |            | Uplink Power Control Adjustment State for PUSCH in Discontinuous Data Transfer  |
| RM115167    | US01    | Filed   | 8 Jul 2011  | 8 Jul 2011        | US13/178808        | US2013/0010706     | 10 Jan 2013      |               |            | Uplink Power Control Adjustment State for PUSCH in Discontinuous Data Transfer  |

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|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|--|
| RM115167   | WO01    | Filed   | 5 Jul 2012  | 8 Jul 2011        | PC/T/IB2012/053443 | WO2013008193       | 17 Jan 2013      |               |             | Uplink Power Control Adjustment State for PUSCH in Discontinuous Data Transfer                           |
| RM115168   | Family  | Filed   | 15 Jul 2011 | 15 Jul 2011       |                    |                    |                  |               |             | Virtual X2 via 802.19.1 Co-existence Manager   |
| RM115169   | US01    | POA     | 15 Jul 2011 | 15 Jul 2011       | GB1112153.0        | GB2482840          | 16 Jan 2013      |               |             | Virtual X2 via 802.19.1 Co-existence Manager   |
| RM115168   | US01    | Filed   | 15 Jul 2011 | 15 Jul 2011       | US13/183940        | US20130017837      | 17 Jan 2013      |               |             | Virtual X2 via 802.19.1 Co-existence Manager   |
| RM115168   | WO01    | Filed   | 13 Jul 2012 | 15 Jul 2011       | PC/T/IB2012/053600 | WO2013011439       | 24 Jan 2013      |               |             | Virtual X2 via 802.19.1 Co-existence Manager   |
| RM115169   | Family  | Filed   | 20 Jul 2011 | 20 Jul 2011       |                    |                    |                  |               |             | Downlink Synchronization Group in discontinuous transmission in unlicensed band                          |
| RM115169   | WO01    | POA     | 20 Jul 2011 | 20 Jul 2011       | PC/T/IB2011/077363 | WO2013010323       | 24 Jan 2013      |               |             | Downlink Synchronization Group in discontinuous transmission in unlicensed band                          |
| RM115171   | Family  | Filed   | 11 Jul 2011 | 11 Jul 2011       |                    |                    |                  |               |             | C-RNTI multiplexing by time division   |
| RM115171   | US01    | Closed  | 11 Jul 2011 | 11 Jul 2011       | GB1111683.8        | GB2493128          | 30 Jan 2013      |               |             | C-RNTI multiplexing by time division   |
| RM115171   | US01    | Closed  | 11 Jul 2011 | 11 Jul 2011       | US13/179619        | US20130016703      | 17 Jan 2013      |               |             | C-RNTI multiplexing by time division   |
| RM115172   | Family  | Filed   | 25 Jul 2011 | 25 Jul 2011       |                    |                    |                  |               |             | Mechanisms to enable fast switching between CA and MIMO in LTE-Advanced                                  |
| RM115172   | WO01    | Filed   | 25 Jul 2011 | 25 Jul 2011       | PC/T/IB2011/077548 | WO2013013376       | 31 Jan 2013      |               |             | Mechanisms to enable fast switching between CA and MIMO in LTE-Advanced                                  |
| RM115173   | Family  | Filed   | 24 Aug 2011 | 24 Aug 2011       |                    |                    |                  |               |             | Effective solution to measure TA on extension carrier  |
| RM115173   | WO01    | Filed   | 24 Aug 2011 | 24 Aug 2011       | PCT/IB2011/001416  | WO2013025183       | 28 Feb 2013      |               |             | Effective solution to measure TA on extension carrier  |
| RM115174   | Family  | Filed   | 12 Jul 2011 | 12 Jul 2011       |                    |                    |                  |               |             | Search Space Redefinition for CC-specific TDD UL/DL Configurations                                       |
| RM115174   | WO01    | Filed   | 12 Jul 2011 | 12 Jul 2011       | PCT/IB2011/077063  | WO2013007016       | 17 Jan 2013      |               |             | Search Space Redefinition for CC-specific TDD UL/DL Configurations                                       |
| RM115175   | Family  | Filed   | 14 Oct 2011 | 14 Oct 2011       |                    |                    |                  |               |             | Shared Memory Access Controller  |
| RM115175   | US01    | Granted | 14 Oct 2011 | 14 Oct 2011       | GB1117740.9        | GB2480753          | 14 Nov 2012      | GB2480753     | 27 Mar 2013 | Shared Memory Access Controller  |
| RM115175   | US01    | Granted | 14 Oct 2011 | 14 Oct 2011       | US13/273422        | US20130097390      | 18 Apr 2013      | US8548234     | 1 Oct 2013  | Shared Memory Access Controller  |
| RM115176   | Family  | Filed   | 12 Aug 2011 | 12 Aug 2011       | US13/656935        | US20130097394      | 18 Apr 2013      | US8521988     | 27 Aug 2013 | Shared Memory Access Controller  |
| RM115176   | US01    | Granted | 12 Aug 2011 | 12 Aug 2011       |                    |                    |                  |               |             | Methods of uplink resource selection   |
| RM115176   | US01    | Granted | 12 Aug 2011 | 12 Aug 2011       | GB1113877.3        | GB2489873          | 21 Nov 2012      | GB2489873     | 3 Jul 2013  | Methods of uplink resource selection   |
| RM115176   | US01    | Granted | 12 Aug 2011 | 12 Aug 2011       | US13/208700        | US20130039237      | 14 Feb 2013      |               |             | Methods of uplink resource selection   |
| RM115176   | US01    | Granted | 28 Dec 2011 | 12 Aug 2011       | US13/339458        | US20130039354      | 14 Feb 2013      | US8437302     | 7 May 2013  | Methods of uplink resource selection   |
| RM115176   | US01    | Granted | 1 Mar 2013  | 12 Aug 2011       | US13/762780        | US20130178222      | 11 Jul 2013      |               |             | Methods of uplink resource selection   |
| RM115176   | WO01    | Filed   | 10 Aug 2012 | 12 Aug 2011       | PCT/IB2012/054085  | WO2013024413       | 21 Feb 2013      |               |             | Methods of uplink resource selection   |
| RM115177   | Family  | Filed   | 8 Aug 2011  | 8 Aug 2011        |                    |                    |                  |               |             | Retransmission-Less Acknowledged Mode RLC  |
| RM115177   | US01    | Granted | 25 Nov 2011 | 8 Aug 2011        | GB1113564.5        | GB2484772          | 25 Apr 2012      | GB2484772     | 18 Sep 2013 | Retransmission-Less Acknowledged Mode RLC  |
| RM115177   | US01    | Filed   | 8 Aug 2011  | 8 Aug 2011        | US13/205216        | US20130039192      | 14 Feb 2013      |               |             | Retransmission-Less Acknowledged Mode RLC  |
| RM115177   | US01    | POA     | 15 May 2012 | 8 Aug 2011        | US13/471840        | US20130039269      | 14 Feb 2013      |               |             | Retransmission-Less Acknowledged Mode RLC  |
| RM115178   | Family  | Filed   | 25 Jul 2011 | 25 Jul 2011       |                    |                    |                  |               |             | Method of autonomous fallback from CELL_FACH to CELL_PCH state   |
| RM115178   | US01    | Filed   | 25 Jul 2011 | 25 Jul 2011       | GB1112737.0        | GB2493332          | 6 Feb 2013       | GB2493332     | 7 Oct 2013  | Method of autonomous fallback from CELL_FACH to CELL_PCH state   |
| RM115178   | US01    | POA     | 26 Jul 2011 | 25 Jul 2011       | US13/190794        | US20130029651      | 31 Jan 2013      |               |             | Method of autonomous fallback from CELL_FACH to CELL_PCH state   |
| RM115181   | Family  | Filed   | 28 Jul 2011 | 28 Jul 2011       |                    |                    |                  |               |             | Signaling and procedure design for TD-LTE cluster contending with WLAN on ISM bands                      |
| RM115181   | WO01    | POA     | 28 Jul 2011 | 28 Jul 2011       | PCT/IB2011/077721  | WO2013013489       | 31 Jan 2013      |               |             | Signaling and procedure design for TD-LTE cluster contending with WLAN on ISM bands                      |
| RM115182   | Family  | Filed   | 12 Sep 2011 | 12 Sep 2011       |                    |                    |                  |               |             | On Common Resource Allocation and Joining into The Discovery Function for Device-to-Device Communication |
| RM115182   | US01    | POA     | 12 Sep 2011 | 12 Sep 2011       | GB1115706.2        | GB2494460          | 13 Mar 2013      |               |             | On Common Resource Allocation and Joining into The Discovery Function for Device-to-Device Communication |
| RM115182   | US01    | Filed   | 12 Sep 2011 | 12 Sep 2011       | US13/199945        | US20130064138      | 14 Mar 2013      |               |             | On Common Resource Allocation and Joining into The Discovery Function for Device-to-Device Communication |
| RM115182   | WO01    | Filed   | 12 Sep 2011 | 12 Sep 2011       | PCT/IB2012/054692  | WO20130038325      | 21 Mar 2013      |               |             | On Common Resource Allocation and Joining into The Discovery Function for Device-to-Device Communication |
| RM115183   | Family  | Filed   | 5 Aug 2011  | 5 Aug 2011        |                    |                    |                  |               |             | Joint DPCC/HF-DPCH and PCICH out-of-synchronization detection and reporting                              |
| RM115183   | US01    | POA     | 12 Dec 2011 | 5 Aug 2011        | GB1113552.2        | GB2493394          | 6 Feb 2013       |               |             | Joint DPCC/HF-DPCH and PCICH out-of-synchronization detection and reporting                              |
| RM115183   | US01    | Filed   | 5 Aug 2011  | 5 Aug 2011        | US13/204073        | US20130034092      | 7 Feb 2013       |               |             | Joint DPCC/HF-DPCH and PCICH out-of-synchronization detection and reporting                              |
| RM115184   | Family  | Filed   | 15 Jul 2011 | 15 Jul 2011       |                    |                    |                  |               |             | Enhanced Connectivity Setup for Advanced Dynamic Wireless Mesh Networks                                  |
| RM115184   | US01    | Granted | 15 Jul 2011 | 15 Jul 2011       | GB1112190.2        | GB2483497          | 13 Feb 2013      | GB2483497     | 31 Jul 2013 | Enhanced Connectivity Setup for Advanced Dynamic Wireless Mesh Networks                                  |
| RM115184   | US01    | Filed   | 16 Jul 2011 | 15 Jul 2011       | US13/193542        | US20130016648      | 17 Jan 2013      |               |             | Enhanced Connectivity Setup for Advanced Dynamic Wireless Mesh Networks                                  |
| RM115185   | Family  | Filed   | 2 Sep 2011  | 2 Sep 2011        |                    |                    |                  |               |             | Spatial hashing for enhanced PDCCCH search spaces  |
| RM115185   | US01    | POA     | 2 Sep 2011  | 2 Sep 2011        | GB1115187.4        | GB2494394          | 13 Mar 2013      |               |             | Spatial hashing for enhanced PDCCCH search spaces  |

| Case ref.# | Country | Status  | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title   |
|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|--|
| RM115185   | US01    | Filed   | 2 Sep 2011  | 2 Sep 2011        | US13/242825        | US20130058285      | 7 Mar 2013       |               |             | Spatial hashing for enhanced PDCCH search spaces   |
| RM115186   | WO01    | Filed   | 31 Aug 2012 | 2 Sep 2011        | PCT/IB2012/054487  | WO20130030793      | 7 Mar 2013       |               |             | Spatial hashing for enhanced PDCCH search spaces   |
| RM115187   | Family  | Filed   | 30 Aug 2011 | 30 Aug 2011       |                    |                    |                  |               |             | On efficient resource allocation for device-to-device discovery in LTE TDD system  |
| RM115188   | GB01    | Filed   | 30 Aug 2011 | 30 Aug 2011       | GB1114682.1        | GB2494134          | 6 Mar 2013       |               |             | On efficient resource allocation for device-to-device discovery in LTE TDD system  |
| RM115189   | US01    | Filed   | 30 Aug 2011 | 30 Aug 2011       | US13/221943        | US20130051277      | 28 Feb 2013      |               |             | On efficient resource allocation for device-to-device discovery in LTE TDD system  |
| RM115190   | WO01    | Filed   | 29 Aug 2012 | 30 Aug 2011       | PCT/IB2012/054433  | WO20130030773      | 7 Mar 2013       |               |             | On efficient resource allocation for device-to-device discovery in LTE TDD system  |
| RM115191   | Family  | Filed   | 28 Jul 2011 | 28 Jul 2011       |                    |                    |                  |               |             | A method of quickly frequency switch between cellular band and shared band   |
| RM115192   | WO01    | Filed   | 28 Jul 2011 | 28 Jul 2011       | PCT/CN2011/077730  | WO2013013412       | 31 Jan 2013      |               |             | A method of quickly frequency switch between cellular band and shared band   |
| RM115193   | Family  | Filed   | 9 Sep 2011  | 9 Sep 2011        |                    |                    |                  |               |             | White Space-assisted Inter-Cell Interference Coordination in LTE networks deployed in White Space                        |
| RM115194   | WO01    | Filed   | 9 Sep 2011  | 9 Sep 2011        | PCT/CN2011/079484  | WO2013053907       | 14 Mar 2013      |               |             | White Space-assisted Inter-Cell Interference Coordination in LTE networks deployed in White Space                        |
| RM115195   | Family  | Filed   | 30 Jul 2011 | 28 Jul 2011       |                    |                    |                  |               |             | Optimization for Wireless Communication Method   |
| RM115196   | GB01    | Filed   | 30 Jul 2011 | 28 Jul 2011       | GB1113008.5        | GB2488847          | 12 Sep 2012      |               |             | Optimization for Wireless Communication Method   |
| RM115197   | US01    | Filed   | 28 Jul 2011 | 28 Jul 2011       | US13/193085        | US20130028177      | 31 Jan 2013      |               |             | Optimization for Wireless Communication Method   |
| RM115198   | WO01    | Filed   | 26 Jul 2011 | 28 Jul 2011       | PCT/IB2012/053822  | WO2013014641       | 31 Jan 2013      |               |             | Optimization for Wireless Communication Method   |
| RM115199   | Family  | Filed   | 7 Oct 2011  | 7 Oct 2011        |                    |                    |                  |               |             | Interfacing DiGRFv4 to LVDS  |
| RM115200   | GB01    | Filed   | 7 Oct 2011  | 7 Oct 2011        | GB1117364.8        | GB2495329          | 10 Apr 2013      |               |             | Interfacing DiGRFv4 to LVDS  |
| RM115201   | US01    | Filed   | 7 Oct 2011  | 7 Oct 2011        | US13/266285        | US20130090148      | 11 Apr 2013      |               |             | Interfacing DiGRFv4 to LVDS  |
| RM115202   | Family  | Filed   | 24 Aug 2011 | 24 Aug 2011       |                    |                    |                  |               |             | Provision of Multicast Reliability for Time-Varying Packet Erasure Channels Through Rate Adaptation and Network Coding   |
| RM115203   | GB01    | Granted | 24 Aug 2011 | 24 Aug 2011       | GB1114635.4        | GB2482991          | 22 Feb 2012      | GB2482991     | 12 Sep 2012 | Provision of Multicast Reliability for Time-Varying Packet Erasure Channels Through Rate Adaptation and Network Coding   |
| RM115204   | US01    | Closed  | 24 Aug 2011 | 24 Aug 2011       | US13/216379        | US20130051386      | 28 Feb 2013      |               |             | Provision of Multicast Reliability for Time-Varying Packet Erasure Channels Through Rate Adaptation and Network Coding   |
| RM115205   | US02    | POA     | 13 Mar 2012 | 24 Aug 2011       | US13/418746        | US20130051388      | 28 Feb 2013      |               |             | Provision of Multicast Reliability for Time-Varying Packet Erasure Channels Through Rate Adaptation and Network Coding   |
| RM115206   | Family  | Filed   | 8 Aug 2011  | 8 Aug 2011        |                    |                    |                  |               |             | Way of Improving Resource Efficiency for E-PDCCH   |
| RM115207   | WO01    | Filed   | 8 Aug 2011  | 8 Aug 2011        | PCT/CN2011/078120  | WO2013020268       | 14 Feb 2013      |               |             | Way of Improving Resource Efficiency for E-PDCCH   |
| RM115208   | Family  | Filed   | 14 Nov 2011 | 14 Nov 2011       |                    |                    |                  |               |             | Methods and apparatus for UE-assisted packet transmission termination in converged cellular and wireless sensor networks |
| RM115209   | WO01    | Filed   | 14 Nov 2011 | 14 Nov 2011       |                    |                    |                  |               |             | Methods and apparatus for UE-assisted packet transmission termination in converged cellular and wireless sensor networks |
| RM115210   | Family  | Filed   | 14 Nov 2011 | 14 Nov 2011       |                    |                    |                  |               |             | Extended Paging to Carry Small Downlink Data   |
| RM115211   | WO01    | Filed   | 14 Nov 2011 | 14 Nov 2011       | PCT/CN2011/082163  | WO2013071478       | 23 May 2013      |               |             | Extended Paging to Carry Small Downlink Data   |
| RM115212   | Family  | Filed   | 1 Aug 2011  | 1 Aug 2011        |                    |                    |                  |               |             | RACH resource selection mechanisms in CC specific TDD configuration  |
| RM115213   | WO01    | Filed   | 1 Aug 2011  | 1 Aug 2011        | PCT/CN2011/077849  | WO2013016882       | 7 Feb 2013       |               |             | RACH resource selection mechanisms in CC specific TDD configuration  |
| RM115214   | Family  | Filed   | 24 Aug 2011 | 24 Aug 2011       |                    |                    |                  |               |             | Resource allocation signaling method for D2D discovery   |
| RM115215   | WO01    | Filed   | 24 Aug 2011 | 24 Aug 2011       | PCT/CN2011/001417  | WO2013026184       | 28 Feb 2013      |               |             | Resource allocation signaling method for D2D discovery   |
| RM115216   | Family  | Filed   | 15 Aug 2011 | 15 Aug 2011       |                    |                    |                  |               |             | Resource allocation signaling method for D2D discovery   |
| RM115217   | GB01    | Granted | 15 Aug 2011 | 15 Aug 2011       | GB1114074.8        | GB2482805          | 9 Jan 2013       | GB2482805     | 5 Jun 2013  | A radio receiver for the reception of carriers with power imbalance  |
| RM115218   | US01    | Filed   | 15 Aug 2011 | 15 Aug 2011       | US13/209793        | US20130045794      | 21 Feb 2013      |               |             | A radio receiver for the reception of carriers with power imbalance  |
| RM115219   | WO01    | Filed   | 15 Aug 2011 | 15 Aug 2011       | PCT/IB2012/054165  | WO2013024450       | 21 Feb 2013      |               |             | A radio receiver for the reception of carriers with power imbalance  |
| RM115220   | Family  | Filed   | 2 Nov 2011  | 2 Nov 2011        |                    |                    |                  |               |             | Resource allocation signaling method for D2D discovery   |
| RM115221   | US01    | Filed   | 2 Nov 2011  | 2 Nov 2011        | GB1118928.9        | GB2486153          | 8 May 2013       |               |             | Resource allocation signaling method for D2D discovery   |
| RM115222   | WO01    | Filed   | 3 Nov 2011  | 2 Nov 2011        | US13/266323        | US20130109301      | 2 May 2013       |               |             | Resource allocation signaling method for D2D discovery   |
| RM115223   | Family  | Filed   | 3 Nov 2011  | 14 Nov 2011       |                    |                    |                  |               |             | The enhanced 802.11 receiver via retransmission diversity  |
| RM115224   | WO01    | Filed   | 14 Nov 2011 | 14 Nov 2011       | GB1118929.2        | GB2486454          | 15 May 2013      |               |             | The enhanced 802.11 receiver via retransmission diversity  |
| RM115225   | US01    | Filed   | 14 Nov 2011 | 14 Nov 2011       | US13/287408        | US20130121323      | 16 May 2013      |               |             | The enhanced 802.11 receiver via retransmission diversity  |
| RM115226   | Family  | Filed   | 26 Aug 2011 | 26 Aug 2011       |                    |                    |                  |               |             | Method to speed up cell search in TD-SCDMA   |
| RM115227   | WO01    | Filed   | 26 Aug 2011 | 26 Aug 2011       | PCT/IB2011/01954   | WO2013030609       | 7 Mar 2013       |               |             | Method to speed up cell search in TD-SCDMA   |
| RM115228   | Family  | Filed   | 10 Nov 2011 | 10 Nov 2011       |                    |                    |                  |               |             | An Improved Method of Cell Search and Synchronization for Wireless Systems having Non-circular Statistics                |
| RM115229   | GB01    | Granted | 10 Nov 2011 | 10 Nov 2011       | GB1119437.0        | GB2480978          | 21 Nov 2012      | GB2480978     | 12 Jun 2013 | An Improved Method of Cell Search and Synchronization for Wireless Systems having Non-circular Statistics                |
| RM115230   | US01    | Granted | 22 Nov 2011 | 10 Nov 2011       | US13/301924        | US3385961          | 26 Feb 2013      |               |             | An Improved Method of Cell Search and Synchronization for Wireless Systems having Non-circular Statistics                |
| RM115231   | US02    | Filed   | 22 Nov 2011 | 10 Nov 2011       | US13/777386        | US20130165106      | 27 Jun 2013      |               |             | An Improved Method of Cell Search and Synchronization for Wireless Systems having Non-circular Statistics                |

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|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|--|
| RM115202   | WO01    | POA     | 15 Oct 2012 | 10 Nov 2011       | PCT/IB2012/002047  | WO2013068798       | 16 May 2013      |               |             | An improved Method of Cell Search and Synchronization for Wireless Systems having Non-circular Statistics  |
| RM115203   | Family  | Filed   | 15 Aug 2011 | 15 Aug 2011       |                    |                    |                  |               |             | UE assisted TA group configuration   |
| RM115204   | WO01    | Filed   | 15 Aug 2011 | 15 Aug 2011       | PCT/CN2011/078427  | WO2013023354       | 21 Feb 2013      |               |             | UE assisted TA group configuration   |
| RM115205   | Family  | Filed   | 8 Dec 2011  | 8 Dec 2011        |                    |                    |                  |               |             | The enhanced fragmentation mode for 802.11 WLAN systems  |
| RM115206   | GB01    | POA     | 8 Dec 2011  | 8 Dec 2011        | GB1121137.2        | GB2497519          | 19 Jun 2013      |               |             | The enhanced fragmentation mode for 802.11 WLAN systems  |
| RM115207   | US01    | Filed   | 9 Dec 2011  | 8 Dec 2011        | US13/011923        | US20130148640      | 13 Jun 2013      |               |             | The enhanced fragmentation mode for 802.11 WLAN systems  |
| RM115208   | Family  | Filed   | 28 Oct 2011 | 28 Oct 2011       |                    |                    |                  |               |             | LTE operation over TVWS in the presence of WLAN-based system   |
| RM115209   | GB01    | Filed   | 28 Oct 2011 | 28 Oct 2011       | GB1118708.5        | GB2495991          | 1 May 2013       |               |             | LTE operation over TVWS in the presence of WLAN-based system   |
| RM115210   | US01    | Filed   | 1 Nov 2011  | 28 Oct 2011       | US13/286354        | US20130107116      | 2 May 2013       |               |             | LTE operation over TVWS in the presence of WLAN-based system   |
| RM115211   | Family  | Filed   | 14 Dec 2011 | 14 Dec 2011       |                    |                    |                  |               |             | Coexistence of LTE with WLAN in the shared band  |
| RM115212   | GB01    | POA     | 14 Dec 2011 | 14 Dec 2011       | GB1121434.3        | GB2497556          | 19 Jun 2013      |               |             | Coexistence of LTE with WLAN in the shared band  |
| RM115213   | US01    | Filed   | 15 Dec 2011 | 14 Dec 2011       | US13/27225         | US20130156019      | 20 Jun 2013      |               |             | Coexistence of LTE with WLAN in the shared band  |
| RM115214   | WO01    | Filed   | 13 Dec 2012 | 14 Dec 2011       | PCT/IB2012/057272  | WO2013088387       | 20 Jun 2013      |               |             | Coexistence of LTE with WLAN in the shared band  |
| RM115215   | Family  | Filed   | 25 Nov 2011 | 25 Nov 2011       |                    |                    |                  |               |             | Channel and Radio Resource Grid Partition for Device-to-Device Communication in White Space Spectrum Bands |
| RM115216   | WO01    | Filed   | 25 Nov 2011 | 25 Nov 2011       | PCT/CN2011/062992  | WO2013075540       | 30 May 2013      |               |             | Channel and Radio Resource Grid Partition for Device-to-Device Communication in White Space Spectrum Bands |
| RM115217   | Family  | Filed   | 25 Nov 2011 | 25 Nov 2011       |                    |                    |                  |               |             | Higher rank MIMO for distributed antenna arrays  |
| RM115218   | GB01    | Granted | 27 Sep 2011 | 27 Sep 2011       | GB1116623.8        | GB2491423          | 5 Dec 2012       | GB2491423     | 5 Jun 2013  | Higher rank MIMO for distributed antenna arrays  |
| RM115219   | GB02    | Filed   | 27 Sep 2011 | 27 Sep 2011       | GB1211156.3        | GB2495168          | 3 Apr 2013       |               |             | Higher rank MIMO for distributed antenna arrays  |
| RM115220   | US01    | Filed   | 27 Sep 2011 | 27 Sep 2011       | US13/246326        | US20130077707      | 28 Mar 2013      |               |             | Higher rank MIMO for distributed antenna arrays  |
| RM115221   | Family  | Filed   | 29 Nov 2011 | 29 Nov 2011       |                    |                    |                  |               |             | Method for selecting the access technology to use after an unsuccessful CSFB service request               |
| RM115222   | GB01    | Filed   | 29 Nov 2011 | 29 Nov 2011       | GB1120544.0        | GB2497090          | 5 Jun 2013       |               |             | Method for selecting the access technology to use after an unsuccessful CSFB service request               |
| RM115223   | US01    | Filed   | 2 Dec 2011  | 29 Nov 2011       | US13/009952        | US20130136115      | 30 May 2013      |               |             | Method for selecting the access technology to use after an unsuccessful CSFB service request               |
| RM115224   | WO01    | Filed   | 22 Nov 2012 | 29 Nov 2011       | PCT/IB2012/056620  | WO2013090098       | 6 Jun 2013       |               |             | Method for selecting the access technology to use after an unsuccessful CSFB service request               |
| RM115225   | Family  | Filed   | 12 Oct 2011 | 19 May 2011       |                    |                    |                  |               |             | Cost and Performance Optimized Adaptive Radio Platform   |
| RM115226   | GB01    | Filed   | 12 Oct 2011 | 19 May 2011       | GB1117606.2        | GB2490976          | 21 Nov 2012      |               |             | Cost and Performance Optimized Adaptive Radio Platform   |
| RM115227   | GB02    | Granted | 12 Oct 2011 | 19 May 2011       | GB1236423.4        | GB2490995          | 21 Nov 2012      | GB2490995     | 15 May 2013 | Cost and Performance Optimized Adaptive Radio Platform   |
| RM115228   | WO01    | Filed   | 12 Oct 2011 | 19 May 2011       | TW20110717329      | TW201249116        | 1 Dec 2012       |               |             | Cost and Performance Optimized Adaptive Radio Platform   |
| RM115229   | US01    | Granted | 15 Oct 2011 | 19 May 2011       | US13/271630        | US20123293285      | 22 Nov 2012      | US8514021     | 20 Aug 2013 | Cost and Performance Optimized Adaptive Radio Platform   |
| RM115230   | WO01    | Filed   | 18 May 2012 | 19 May 2011       | PCT/IB2012/052459  | WO20121256946      | 22 Nov 2012      |               |             | Cost and Performance Optimized Adaptive Radio Platform   |
| RM115231   | Family  | Filed   | 12 Sep 2011 | 12 Sep 2011       |                    |                    |                  |               |             | Signaling method for joint controlled and non-controlled buffer status reporting                           |
| RM115232   | GB01    | Filed   | 12 Sep 2011 | 12 Sep 2011       | GB1115698.9        | GB2494633          | 20 Mar 2013      |               |             | Signaling method for joint controlled and non-controlled buffer status reporting                           |
| RM115233   | US01    | Filed   | 12 Sep 2011 | 12 Sep 2011       | US13/199939        | US20130064103      | 14 Mar 2013      |               |             | Signaling method for joint controlled and non-controlled buffer status reporting                           |
| RM115234   | Family  | Filed   | 2 Sep 2011  | 2 Sep 2011        |                    |                    |                  |               |             | Signal Reusing LNA   |
| RM115235   | GB01    | Granted | 2 Sep 2011  | 2 Sep 2011        | GB1115183.4        | GB2486515          | 20 Jun 2012      | GB2486515     | 14 Nov 2012 | Signal Reusing LNA   |
| RM115236   | US01    | Granted | 2 Sep 2011  | 2 Sep 2011        | US13/224430        | US20130057350      | 7 Mar 2013       | US8427239     | 23 Apr 2013 | Signal Reusing LNA   |
| RM115237   | US02    | Granted | 20 Jun 2012 | 2 Sep 2011        | US13/28222         | US20130057346      | 7 Mar 2013       | US9436664     | 7 May 2013  | Signal Reusing LNA   |
| RM115238   | Family  | Filed   | 18 Oct 2011 | 18 Oct 2011       |                    |                    |                  |               |             | An efficient data dissemination method for mobile sink in the wireless sensor networks                     |
| RM115239   | WO01    | Filed   | 18 Oct 2011 | 18 Oct 2011       | PCT/CN2011/080916  | WO2013065418       | 25 Apr 2013      |               |             | An efficient data dissemination method for mobile sink in the wireless sensor networks                     |
| RM115240   | Family  | Filed   | 25 Nov 2011 | 25 Nov 2011       |                    |                    |                  |               |             | Network and HW resource sharing in roaming and carrier aggregation between Core Band and Sub Bands         |
| RM115241   | GB01    | Filed   | 25 Nov 2011 | 25 Nov 2011       | GB1120393.2        | GB2497091          | 5 Jun 2013       |               |             | Network and HW resource sharing in roaming and carrier aggregation between Core Band and Sub Bands         |
| RM115242   | US01    | Filed   | 2 Dec 2011  | 25 Nov 2011       | US13/010096        | US20130137475      | 30 May 2013      |               |             | Network and HW resource sharing in roaming and carrier aggregation between Core Band and Sub Bands         |
| RM115243   | Family  | Filed   | 16 Aug 2011 | 18 Aug 2011       |                    |                    |                  |               |             | Method to distribute a common timing reference and activity times in MTC system                            |
| RM115244   | GB01    | POA     | 26 Mar 2012 | 16 Aug 2011       | GB1114080.3        | GB2463752          | 21 Mar 2012      |               |             | Method to distribute a common timing reference and activity times in MTC system                            |
| RM115245   | US01    | Filed   | 16 Aug 2011 | 16 Aug 2011       | US13/210516        | US20130044659      | 21 Feb 2013      |               |             | Method to distribute a common timing reference and activity times in MTC system                            |
| RM115246   | US02    | Granted | 22 Mar 2012 | 16 Aug 2011       | US13/427553        | US20130044651      | 21 Feb 2013      | US8437265     | 7 May 2013  | Method to distribute a common timing reference and activity times in MTC system                            |

| Case ref.# | Country | Status  | Filing date | Earliest priority date | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title  |
|------------|---------|---------|-------------|------------------------|--------------------|--------------------|------------------|---------------|-------------|---|
| RM115218   | Family  | Filed   | 11 Nov 2011 | 11 Nov 2011            |                    |                    |                  |               |             | Methods for Discovery Function in Device-to-Device Communication                          |
| RM115218   | GB01    | POA     | 11 Nov 2011 | 11 Nov 2011            | GB1119512.0        | GB2497916          | 3 Jul 2013       |               |             | Methods for Discovery Function in Device-to-Device Communication                          |
| RM115218   | US01    | Filed   | 14 Nov 2011 | 11 Nov 2011            | US13/295282        | US20130122893      | 16 May 2013      |               |             | Methods for Discovery Function in Device-to-Device Communication                          |
| RM115219   | Family  | Filed   | 17 Nov 2011 | 17 Nov 2011            |                    |                    |                  |               |             | SIP/module parameters download from a server to meet a communication device type approval |
| RM115219   | GB01    | Filed   | 17 Nov 2011 | 17 Nov 2011            | GB1119865.0        | GB2496661          | 22 May 2013      |               |             | SIP/module parameters download from a server to meet a communication device type approval |
| RM115219   | US01    | Filed   | 21 Nov 2011 | 17 Nov 2011            | US13/301195        | US20130130634      | 23 May 2013      |               |             | SIP/module parameters download from a server to meet a communication device type approval |
| RM115220   | Family  | Filed   | 19 Dec 2011 | 19 Dec 2011            |                    |                    |                  |               |             | EUTRAN Support for D2D Discovery Signal Verification                                      |
| RM115220   | GB01    | POA     | 19 Dec 2011 | 19 Dec 2011            | GB1121795.7        | GB2497745          | 26 Jun 2013      |               |             | EUTRAN Support for D2D Discovery Signal Verification                                      |
| RM115220   | US01    | Filed   | 20 Dec 2011 | 19 Dec 2011            | US13/030991        | US20130160101      | 20 Jun 2013      |               |             | EUTRAN Support for D2D Discovery Signal Verification                                      |
| RM115220   | WO01    | Filed   | 12 Dec 2012 | 19 Dec 2011            | PCT/IB2012/057243  | WO2013093724       | 27 Jun 2013      |               |             | EUTRAN Support for D2D Discovery Signal Verification                                      |
| RM115222   | Family  | Filed   | 22 Aug 2011 | 22 Aug 2011            |                    |                    |                  |               |             | Mechanism to update the CSG Cell Access Check upon PLMN Change at handover                |
| RM115222   | GB01    | Granted | 22 Aug 2011 | 22 Aug 2011            | GB1114430.0        | GB2489291          | 26 Sep 2012      | 652489291     | 13 Feb 2013 | Mechanism to update the CSG Cell Access Check upon PLMN Change at handover                |
| RM115222   | US01    | Filed   | 22 Aug 2011 | 22 Aug 2011            | US13/214628        | US20130093033      | 28 Feb 2013      |               |             | Mechanism to update the CSG Cell Access Check upon PLMN Change at handover                |
| RM115222   | US02    | Granted | 20 Jul 2012 | 22 Aug 2011            | US13/554784        | US20130063037      | 28 Feb 2013      | US8385919     | 26 Feb 2013 | Mechanism to update the CSG Cell Access Check upon PLMN Change at handover                |
| RM115222   | US03    | Granted | 23 Jan 2013 | 22 Aug 2011            | US13/748130        | US20130130692      | 23 May 2013      | US8487790     | 18 Jun 2013 | Mechanism to update the CSG Cell Access Check upon PLMN Change at handover                |
| RM115222   | WO01    | Filed   | 22 Aug 2011 | 22 Aug 2011            | PCT/IB2012/054242  | WO2013027183       | 28 Feb 2013      |               |             | Mechanism to update the CSG Cell Access Check upon PLMN Change at handover                |
| RM115223   | Family  | Filed   | 10 Aug 2011 | 10 Aug 2011            |                    |                    |                  |               |             | Efficient Way of Triggering Rank-2 Transmissions for CSI Reporting                        |
| RM115223   | WO01    | POA     | 10 Aug 2011 | 10 Aug 2011            | PCT/CN2011/078206  | WO2013020279       | 14 Feb 2013      |               |             | Efficient Way of Triggering Rank-2 Transmissions for CSI Reporting                        |
| RM115223   | Family  | Filed   | 3 Aug 2011  | 3 Aug 2011             |                    |                    |                  |               |             | Enhanced Interference Coordination for Paging   |
| RM115223   | GB01    | POA     | 14 Dec 2011 | 3 Aug 2011             | GB1113382.4        | GB2488848          | 12 Sep 2012      |               |             | Enhanced Interference Coordination for Paging   |
| RM115223   | US01    | Filed   | 3 Aug 2012  | 3 Aug 2011             | US13/197642        | US20130094051      | 7 Feb 2013       |               |             | Enhanced Interference Coordination for Paging   |
| RM115223   | WO01    | Filed   | 1 Aug 2012  | 3 Aug 2011             | PCT/IB2012/039924  | WO2013018037       | 7 Feb 2013       |               |             | Enhanced Interference Coordination for Paging   |
| RM115227   | Family  | Filed   | 28 Oct 2011 | 28 Oct 2011            |                    |                    |                  |               |             | Multiple SIM ? mapping of SIMs to baseband capability                                     |
| RM115227   | GB01    | Filed   | 28 Oct 2011 | 28 Oct 2011            | GB1116681.4        | GB2495985          | 1 May 2013       |               |             | Multiple SIM ? mapping of SIMs to baseband capability                                     |
| RM115227   | US01    | Granted | 31 Oct 2011 | 28 Oct 2011            | US13/285925        | US20130109496      | 2 May 2013       | US8527006     | 3 Sep 2013  | Multiple SIM ? mapping of SIMs to baseband capability                                     |
| RM115227   | US02    | Filed   | 28 Aug 2012 | 28 Oct 2011            | PCT/IB2012/055886  | WO2013061275       | 2 May 2013       |               |             | Multiple SIM ? mapping of SIMs to baseband capability                                     |
| RM115230   | Family  | Filed   | 25 Oct 2012 | 28 Oct 2011            |                    |                    |                  |               |             | Cellular Assisted Intelligent Transport System  |
| RM115230   | GB01    | Filed   | 27 Sep 2011 | 27 Sep 2011            | GB1116640.2        | GB2486636          | 29 May 2013      |               |             | Cellular Assisted Intelligent Transport System  |
| RM115230   | US01    | Filed   | 27 Sep 2011 | 27 Sep 2011            | US13/246462        | US20130079040      | 28 Mar 2013      |               |             | Cellular Assisted Intelligent Transport System  |
| RM115230   | WO01    | Filed   | 27 Sep 2011 | 27 Sep 2011            | PCT/IB2012/065167  | WO2013046154       | 4 Apr 2013       |               |             | Cellular Assisted Intelligent Transport System  |
| RM115231   | Family  | Filed   | 20 Sep 2011 | 20 Sep 2011            |                    |                    |                  |               |             | Enhanced MAC padding for small packet transmission  |
| RM115231   | WO01    | Filed   | 20 Sep 2011 | 20 Sep 2011            | PCT/CN2011/079864  | WO2013040752       | 28 Mar 2013      |               |             | Enhanced MAC padding for small packet transmission  |
| RM115232   | Family  | Filed   | 9 Sep 2011  | 9 Sep 2011             |                    |                    |                  |               |             | Mechanisms to enable pre-scheduling in flexible TDD system                                |
| RM115232   | WO01    | POA     | 9 Sep 2011  | 9 Sep 2011             | PCT/CN2011/079547  | WO20130593918      | 14 Mar 2013      |               |             | Mechanisms to enable pre-scheduling in flexible TDD system                                |
| RM115234   | Family  | Filed   | 8 Nov 2011  | 8 Nov 2011             |                    |                    |                  |               |             | Transmission format for D2D communication   |
| RM115234   | WO01    | Filed   | 8 Nov 2011  | 8 Nov 2011             | PCT/CN2011/081933  | WO2013067686       | 16 May 2013      |               |             | Transmission format for D2D communication   |
| RM115235   | Family  | Filed   | 31 Aug 2011 | 31 Aug 2011            |                    |                    |                  |               |             | Signaling reduction and triggering of offline MTC terminals                               |
| RM115235   | GB01    | Granted | 30 Mar 2012 | 31 Aug 2011            | GB1114986.1        | GB2486753          | 27 Jun 2012      | GB2486753     | 4 Sep 2013  | Signaling reduction and triggering of offline MTC terminals                               |
| RM115235   | US01    | Granted | 28 Aug 2012 | 31 Aug 2011            | US13/222329        | US8244244          | 14 Aug 2012      | US8244244     | 14 Aug 2012 | Signaling reduction and triggering of offline MTC terminals                               |
| RM115235   | WO01    | Filed   | 13 Oct 2011 | 31 Aug 2011            | PCT/IB2012/054441  | WO2013030774       | 7 Mar 2013       |               |             | Signaling reduction and triggering of offline MTC terminals                               |
| RM115236   | Family  | Filed   | 13 Oct 2011 | 13 Oct 2011            |                    |                    |                  |               |             | Signaling optimization for deploying LTE system in White Space                            |
| RM115236   | WO01    | POA     | 13 Oct 2011 | 13 Oct 2011            | PCT/CN2011/080762  | WO2013058125       | 18 Apr 2013      |               |             | Signaling optimization for deploying LTE system in White Space                            |
| RM115237   | Family  | Filed   | 9 Nov 2011  | 9 Nov 2011             |                    |                    |                  |               |             | An effective method to enable simultaneous transmission of PRACH and PUCCH                |
| RM115237   | WO01    | POA     | 9 Nov 2011  | 9 Nov 2011             | PCT/CN2011/081988  | WO2013067685       | 16 May 2013      |               |             | An effective method to enable simultaneous transmission of PRACH and PUCCH                |
| RM115238   | Family  | Filed   | 9 Nov 2011  | 9 Nov 2011             |                    |                    |                  |               |             | Effective solution of handling PUCCH and PRACH collision                                  |
| RM115238   | WO01    | POA     | 9 Nov 2011  | 9 Nov 2011             | PCT/CN2011/081990  | WO2013067693       | 16 May 2013      |               |             | Effective solution of handling PUCCH and PRACH collision                                  |
| RM115239   | Family  | Filed   | 15 Aug 2011 | 15 Aug 2011            |                    |                    |                  |               |             | Method of E-DCH power control for uplink inter-cell interference control                  |
| RM115239   | GB01    | Filed   | 15 Aug 2011 | 15 Aug 2011            | GB1114024.1        | US20130045771      | 21 Feb 2013      |               |             | Method of E-DCH power control for uplink inter-cell interference control                  |
| RM115239   | US01    | Filed   | 15 Aug 2011 | 15 Aug 2011            | US13/210180        |                    |                  |               |             | Method of E-DCH power control for uplink inter-cell interference control                  |
| RM115240   | Family  | Filed   | 3 Nov 2011  | 3 Nov 2011             |                    |                    |                  |               |             | An Efficient way of using Physical Control channel for small data transmission            |

| Case ref.# | Country | Status  | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title  |
|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|---|
| RM115240   | WO01    | Filed   | 3 Nov 2011  | 3 Nov 2011        | PCT/CN2011081720   | WO2013063780       | 10 May 2013      |               |             | An Efficient way of using Physical Control channel for small data transmission                |
| RM115241   | Family  | Filed   | 15 Aug 2011 | 15 Aug 2011       |                    |                    |                  |               |             | Methods of event triggered measurement reporting based uplink inter-cell interference control |
| RM115243   | GB01    | POA     | 21 Dec 2011 | 15 Aug 2011       | GB1114030.8        | GB2493725          | 20 Feb 2013      | GB2493725     | 2 Oct 2013  | Methods of event triggered measurement reporting based uplink inter-cell interference control |
| RM115241   | US01    | Filed   | 15 Aug 2011 | 15 Aug 2011       | US13/289945        | US20130045699      | 21 Feb 2013      |               |             | Methods of event triggered measurement reporting based uplink inter-cell interference control |
| RM115241   | WO01    | Filed   | 15 Aug 2011 | 15 Aug 2011       | PCT/IB2012/054152  | WO2013024442       | 21 Feb 2013      |               |             | Methods of event triggered measurement reporting based uplink inter-cell interference control |
| RM115242   | Family  | Filed   | 16 Sep 2011 | 16 Sep 2011       |                    |                    |                  |               |             | Efficient Enablement for Wireless Communication on License-Exempt Bands                       |
| RM115242   | GB01    | POA     | 21 Feb 2012 | 16 Sep 2011       | GB1116077.7        | GB2494692          | 20 Mar 2013      |               |             | Efficient Enablement for Wireless Communication on License-Exempt Bands                       |
| RM115242   | US01    | Filed   | 16 Sep 2011 | 16 Sep 2011       | US13/234240        | US20130072106      | 21 Mar 2013      |               |             | Efficient Enablement for Wireless Communication on License-Exempt Bands                       |
| RM115243   | Family  | Filed   | 17 Nov 2011 | 17 Nov 2011       |                    |                    |                  |               |             | Reference signal design for downlink tracking in occupied shared band                         |
| RM115243   | WO01    | POA     | 17 Nov 2011 | 17 Nov 2011       | PCT/CN2011082361   | WO2013071508       | 23 May 2013      |               |             | Reference signal design for downlink tracking in occupied shared band                         |
| RM115244   | Family  | Filed   | 15 Aug 2011 | 15 Aug 2011       |                    |                    |                  |               |             | Method of E-DCH resource suspension/release for uplink interference avoidance                 |
| RM115244   | GB01    | Filed   | 15 Aug 2011 | 15 Aug 2011       | GB1114029.0        | GB2493724          | 20 Feb 2013      |               |             | Method of E-DCH resource suspension/release for uplink interference avoidance                 |
| RM115244   | US01    | Filed   | 15 Aug 2011 | 15 Aug 2011       | US13/210201        | US20130045741      | 21 Feb 2013      |               |             | Method of E-DCH resource suspension/release for uplink interference avoidance                 |
| RM115244   | WO01    | Filed   | 15 Aug 2011 | 15 Aug 2011       | PCT/IB2012/054153  | WO2013024443       | 21 Feb 2013      |               |             | Method of E-DCH resource suspension/release for uplink interference avoidance                 |
| RM115245   | Family  | Filed   | 3 Nov 2011  | 3 Nov 2011        |                    |                    |                  |               |             | LTE Protocol Architecture for Intelligent Transport System                                    |
| RM115245   | GB01    | Filed   | 3 Nov 2011  | 3 Nov 2011        | GB1119004.8        | GB2495165          | 8 May 2013       |               |             | LTE Protocol Architecture for Intelligent Transport System                                    |
| RM115245   | US01    | Filed   | 4 Nov 2011  | 3 Nov 2011        | US13/289544        | US20130115954      | 9 May 2013       |               |             | LTE Protocol Architecture for Intelligent Transport System                                    |
| RM115245   | WO01    | Filed   | 2 Nov 2012  | 3 Nov 2011        | PCT/IB2012/056121  | WO2013055022       | 10 May 2013      |               |             | LTE Protocol Architecture for Intelligent Transport System                                    |
| RM115249   | Family  | Filed   | 15 Dec 2011 | 15 Dec 2011       |                    |                    |                  |               |             | Optimizing UE operation in FACH/RACH or HS-FACH RACH mode                                     |
| RM115249   | NO1     | Filed   | 15 Dec 2011 | 15 Dec 2011       | IN3538/MU/2011     | IN3538/MU/2011     | 28 Jun 2013      |               |             | Optimizing UE operation in FACH/RACH or HS-FACH RACH mode                                     |
| RM115250   | Family  | Filed   | 15 Nov 2011 | 15 Nov 2011       |                    |                    |                  |               |             | Carrier set based spectrum sharing adaptation method  |
| RM115250   | WO01    | Filed   | 15 Nov 2011 | 15 Nov 2011       | PCT/CN2011082227   | WO2013071488       | 23 May 2013      |               |             | Carrier set based spectrum sharing adaptation method  |
| RM115251   | Family  | Filed   | 23 Dec 2011 | 23 Dec 2011       |                    |                    |                  |               |             | A Novel Transparent D2D communication scheme in CA scenario                                   |
| RM115251   | WO01    | Filed   | 23 Dec 2011 | 23 Dec 2011       | PCT/CN2011084510   | WO2013091229       | 27 Jun 2013      |               |             | A Novel Transparent D2D communication scheme in CA scenario                                   |
| RM115252   | Family  | Filed   | 2 Oct 2011  | 2 Oct 2011        |                    |                    |                  |               |             | Discovery signal design for D2D operation and OTAC between eNBs                               |
| RM115252   | WO01    | Filed   | 2 Oct 2011  | 2 Oct 2011        | PCT/CN2011080511   | WO2013049959       | 11 Apr 2013      |               |             | Discovery signal design for D2D operation and OTAC between eNBs                               |
| RM115253   | Family  | Filed   | 20 Oct 2011 | 20 Oct 2011       |                    |                    |                  |               |             | Method for inter-cell cross link interference avoidance in flexible TDD systems               |
| RM115253   | WO01    | Filed   | 20 Oct 2011 | 20 Oct 2011       | PCT/CN2011081818   | WO2013056445       | 25 Apr 2013      |               |             | Method for inter-cell cross link interference avoidance in flexible TDD systems               |
| RM115254   | Family  | Filed   | 15 Aug 2011 | 15 Aug 2011       |                    |                    |                  |               |             | Coordination of DRX and eICIC   |
| RM115254   | US01    | Filed   | 15 Aug 2011 | 15 Aug 2011       | US13/209624        | US20130045779      | 21 Feb 2013      |               |             | Coordination of DRX and eICIC   |
| RM115254   | WO01    | Filed   | 15 Aug 2011 | 15 Aug 2011       | PCT/IB2012/054158  | WO2013024445       | 21 Feb 2013      |               |             | Coordination of DRX and eICIC   |
| RM115255   | Family  | Filed   | 26 Oct 2011 | 26 Oct 2011       |                    |                    |                  |               |             | Flexible Radio Link Measurement on unlicensed band  |
| RM115255   | WO01    | Filed   | 26 Oct 2011 | 26 Oct 2011       | PCT/CN2011081319   | WO2013059999       | 2 May 2013       |               |             | Flexible Radio Link Measurement on unlicensed band  |
| RM115256   | Family  | Filed   | 28 Oct 2011 | 28 Oct 2011       |                    |                    |                  |               |             | Effectively Pathloss offset calculation scheme for FDD-LTE system                             |
| RM115256   | WO01    | POA     | 28 Oct 2011 | 28 Oct 2011       | PCT/CN2011081483   | WO20130600016      | 2 May 2013       |               |             | Effectively Pathloss offset calculation scheme for FDD-LTE system                             |
| RM115257   | Family  | Filed   | 15 Nov 2011 | 15 Nov 2011       |                    |                    |                  |               |             | Method for fast return to original PLMN/RAT after CSFB call                                   |
| RM115257   | GB01    | Filed   | 15 Nov 2011 | 15 Nov 2011       | GB111970B.4        | GB2495611          | 22 May 2013      |               |             | Method for fast return to original PLMN/RAT after CSFB call                                   |
| RM115257   | US01    | Granted | 17 Nov 2011 | 15 Nov 2011       | US13/298826        |                    |                  | US8412190     | 2 Apr 2013  | Method for fast return to original PLMN/RAT after CSFB call                                   |
| RM115258   | Family  | Filed   | 12 Oct 2011 | 19 May 2011       |                    |                    |                  |               |             | Amplifier   |
| RM115258   | GB01    | POA     | 12 Oct 2011 | 19 May 2011       | GB1117607.0        | GB2495977          | 21 Nov 2012      |               |             | Amplifier   |
| RM115258   | US01    | Granted | 12 Oct 2011 | 19 May 2011       | US13/271566        | US8264282          | 11 Sep 2012      | US8264282     | 11 Sep 2012 | Amplifier   |
| RM115258   | WO01    | Filed   | 18 May 2012 | 19 May 2011       | PCT/IB2012/052500  | WO2012156947       | 22 Nov 2012      |               |             | Amplifier   |
| RM115259   | Family  | Filed   | 1 Nov 2011  | 1 Nov 2011        |                    |                    |                  |               |             | Adaptive A-MPR in inter-band carrier aggregation  |
| RM115259   | GB01    | POA     | 1 Nov 2011  | 1 Nov 2011        | GB1118647.1        | GB2495138          | 8 May 2013       |               |             | Adaptive A-MPR in inter-band carrier aggregation  |
| RM115259   | US01    | Filed   | 3 Nov 2011  | 1 Nov 2011        | US13/289270        | US20130115997      | 9 May 2013       |               |             | Adaptive A-MPR in inter-band carrier aggregation  |
| RM115260   | Family  | Filed   | 30 Oct 2011 | 1 Nov 2011        | PCT/IB2012/056025  | WO2013064950       | 10 May 2013      |               |             | Resilient forwarding mechanism in smart grid  |
| RM115260   | WO01    | Filed   | 25 Oct 2011 | 25 Oct 2011       |                    |                    |                  |               |             | Resilient forwarding mechanism in smart grid  |
| RM115260   | WO01    | Filed   | 25 Oct 2011 | 25 Oct 2011       | PCT/CN2011081293   | WO2013059992       | 2 May 2013       |               |             | Resilient forwarding mechanism in smart grid  |
| RM115261   | Family  | Filed   | 28 Dec 2011 | 28 Dec 2011       |                    |                    |                  |               |             | Effective D2D resource hopping between licensed band and unlicensed band                      |

| Case ref.# | Country | Status  | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title  |
|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|---|
| RM115261   | WO01    | Filed   | 23 Dec 2011 | 29 Dec 2011       | PCT/CA2011/084916  | WO2013097144       | 4 Jul 2013       |               |             | Effective D2D resource hopping between licensed band and unlicensed band                                    |
| RM115262   | Family  | Filed   | 12 Dec 2011 | 12 Dec 2011       |                    |                    |                  |               |             | Tx/Rx pattern determination for OTAC in LTE-A System  |
| RM115263   | WO01    | POA     | 12 Dec 2011 | 12 Dec 2011       | PCT/CA2011/083826  | WO2013086672       | 20 Jun 2013      |               |             | Tx/Rx pattern determination for OTAC in LTE-A System  |
| RM115263   | Family  | Filed   | 12 Oct 2011 | 13 May 2011       |                    |                    |                  |               |             | Amplifier   |
| RM115263   | GB01    | Granted | 12 Oct 2011 | 19 May 2011       | GB1117606.8        | GB2487998          | 15 Aug 2012      | GB2487998     | 20 Mar 2013 | Amplifier   |
| RM115263   | US01    | Granted | 12 Oct 2011 | 19 May 2011       | GB1117606.8        | GB2487998          | 15 Aug 2012      | GB2487998     | 20 Mar 2013 | Amplifier   |
| RM115263   | US02    | Granted | 12 Oct 2011 | 19 May 2011       | GB1117606.8        | GB2487998          | 15 Aug 2012      | GB2487998     | 20 Mar 2013 | Amplifier   |
| RM115264   | Family  | Filed   | 24 Jul 2012 | 19 May 2011       | US13271705         | US20120293259      | 23 Jan 2013      |               |             | Resource sharing for D2D in unlicensed band   |
| RM115264   | WO01    | Filed   | 1 Dec 2011  | 1 Dec 2011        | US13271705         | US20120293259      | 23 Jan 2013      |               |             | Novel Fixed-device assisted OTAC  |
| RM115265   | Family  | Filed   | 1 Dec 2011  | 1 Dec 2011        | US13271705         | US20120293259      | 23 Jan 2013      |               |             | Novel Fixed-device assisted OTAC  |
| RM115265   | WO01    | Filed   | 23 Nov 2011 | 23 Nov 2011       | PCT/CA2011/083310  | WO2013076663       | 6 Jun 2013       |               |             | Synthesizer locking time improvement  |
| RM115266   | Family  | Filed   | 23 Nov 2011 | 23 Nov 2011       | PCT/CA2011/082701  | WO2013075294       | 30 May 2013      |               |             | Synthesizer locking time improvement  |
| RM115266   | GB01    | Closed  | 20 Oct 2011 | 20 Oct 2011       |                    |                    |                  |               |             | Synthesizer locking time improvement  |
| RM115266   | GB02    | Filed   | 20 Oct 2011 | 20 Oct 2011       | GB1118126.6        | GB2488241          | 10 Jul 2013      |               |             | Synthesizer locking time improvement  |
| RM115266   | US01    | Filed   | 20 Oct 2011 | 20 Oct 2011       | GB1118126.6        | GB2488241          | 10 Jul 2013      |               |             | Synthesizer locking time improvement  |
| RM115266   | WO01    | Filed   | 20 Oct 2011 | 20 Oct 2011       | US13277305         | US20130098829      | 25 Apr 2013      |               |             | Synthesizer locking time improvement  |
| RM115268   | Family  | Filed   | 18 Oct 2012 | 20 Oct 2011       | PCT/IB2012/056697  | WO2013007691       | 25 Apr 2013      |               |             | Cooperative way for DL-UL TDD configuration determination   |
| RM115268   | WO01    | Filed   | 24 Oct 2011 | 24 Oct 2011       | PCT/CA2011/081174  | WO2013055978       | 2 May 2013       |               |             | Cooperative way for DL-UL TDD configuration determination   |
| RM115269   | Family  | Filed   | 16 Dec 2011 | 16 Dec 2011       | GB1121711.4        | GB2497589          | 19 Jun 2013      |               |             | On Resource Allocation of D2D Specific Signals in Future LTE Networks                                       |
| RM115269   | GB01    | Filed   | 16 Dec 2011 | 16 Dec 2011       | GB1121711.4        | GB2497589          | 19 Jun 2013      |               |             | On Resource Allocation of D2D Specific Signals in Future LTE Networks                                       |
| RM115270   | Family  | Filed   | 19 Dec 2011 | 16 Dec 2011       | US13288521         | US20130155962      | 20 Jun 2013      |               |             | On Resource Allocation of D2D Specific Signals in Future LTE Networks                                       |
| RM115270   | GB01    | Granted | 27 Sep 2011 | 27 Sep 2011       | GB116626.7         | GB2488518          | 20 Jun 2012      | GB2488518     | 2 Jan 2013  | New network registration method for devices supporting eCall and PSAP                                       |
| RM115270   | US01    | Filed   | 27 Sep 2011 | 27 Sep 2011       | US13245959         | US20130078941      | 28 Mar 2013      |               |             | New network registration method for devices supporting eCall and PSAP                                       |
| RM115270   | WO01    | Filed   | 25 Sep 2012 | 27 Sep 2011       | PCT/IB2012/055104  | WO2013046124       | 4 Apr 2013       |               |             | New network registration method for devices supporting eCall and PSAP                                       |
| RM115271   | Family  | Filed   | 27 Dec 2011 | 27 Dec 2011       |                    |                    |                  |               |             | Efficient multipath delay estimation and associated path search procedure for mobile communication terminal |
| RM115271   | WO01    | POA     | 27 Dec 2011 | 27 Dec 2011       | PCT/IB2011/093318  | WO2013093581       | 4 Jul 2013       |               |             | Efficient multipath delay estimation and associated path search procedure for mobile communication terminal |
| RM115272   | Family  | Filed   | 27 Dec 2011 | 4 Nov 2011        |                    |                    |                  |               |             | Efficient multipath delay estimation and associated path search procedure for mobile communication terminal |
| RM115272   | WO01    | POA     | 4 Nov 2011  | 4 Nov 2011        | PCT/IB2011/081822  | WO2013063902       | 10 May 2013      |               |             | Efficient multipath delay estimation and associated path search procedure for mobile communication terminal |
| RM115274   | Family  | Filed   | 27 Sep 2011 | 27 Sep 2011       | GB116642.8         | GB2484783          | 25 Apr 2012      | GB2484783     | 10 Oct 2012 | Triggering CSI Report via Downlink Grant  |
| RM115274   | US01    | Granted | 27 Sep 2011 | 27 Sep 2011       | US13246286         | US20130078989      | 28 Mar 2013      |               |             | Triggering CSI Report via Downlink Grant  |
| RM115274   | US02    | Closed  | 7 May 2012  | 27 Sep 2011       | US1347261.1        | US20130079012      | 28 Mar 2013      |               |             | Methods of smart inter-frequency band mobility  |
| RM115274   | US03    | Filed   | 25 Apr 2012 | 27 Sep 2011       | US13670043         | US20130079012      | 28 Mar 2013      |               |             | Methods of smart inter-frequency band mobility  |
| RM115274   | WO02    | Filed   | 25 Sep 2012 | 27 Sep 2011       | PCT/IB2012/055103  | WO2013046123       | 4 Apr 2013       |               |             | Methods of smart inter-frequency band mobility  |
| RM115275   | Family  | Filed   | 27 Sep 2011 | 27 Sep 2011       |                    |                    |                  |               |             | Method for Access Barring and Access Delay Scaling during RAN Overload                                      |
| RM115275   | GB01    | Filed   | 27 Sep 2011 | 27 Sep 2011       | GB116624.6         | GB2488271          | 10 Apr 2013      |               |             | Method for Access Barring and Access Delay Scaling during RAN Overload                                      |
| RM115276   | US01    | Filed   | 27 Sep 2011 | 27 Sep 2011       | US13246358         | US20130078999      | 28 Mar 2013      |               |             | Method for Access Barring and Access Delay Scaling during RAN Overload                                      |
| RM115276   | GB01    | Granted | 9 Mar 2012  | 9 Mar 2012        | GB1204234.7        | GB2481223          | 28 Nov 2012      | GB2481223     | 7 Aug 2013  | Receiver analog baseband filter with transferred impedance stage  |
| RM115276   | US01    | Filed   | 26 Feb 2013 | 9 Mar 2012        | US13777601         | US20130235958      | 12 Sep 2013      |               |             | Receiver analog baseband filter with transferred impedance stage  |
| RM115277   | Family  | Filed   | 5 Jan 2012  | 5 Jan 2012        |                    |                    |                  |               |             | The centralized control of the coexistence of multiple LTE networks/operators                               |
| RM115277   | GB01    | Filed   | 5 Jan 2012  | 5 Jan 2012        | GB1206126.9        | GB2488924          | 7 Aug 2013       |               |             | The centralized control of the coexistence of multiple LTE networks/operators                               |
| RM115277   | US01    | Filed   | 9 Jan 2012  | 9 Jan 2012        | US13346015         | US20130178225      | 11 Jul 2013      |               |             | The centralized control of the coexistence of multiple LTE networks/operators                               |
| RM115278   | Family  | Filed   | 9 Jan 2012  | 9 Jan 2012        | GB1200276.2        | GB2488221          | 10 Jul 2013      |               |             | On Resource Allocation of Downlink D2D Specific Control Channels  |
| RM115278   | US01    | Filed   | 10 Jan 2012 | 9 Jan 2012        | US13346889         | US20130176950      | 11 Jul 2013      |               |             | On Resource Allocation of Downlink D2D Specific Control Channels  |
| RM115282   | Family  | Filed   | 27 Dec 2011 | 27 Dec 2011       |                    |                    |                  |               |             | An efficient and robust method to compute a WCDMA delay profile   |
| RM115282   | WO01    | Filed   | 27 Dec 2011 | 27 Dec 2011       | PCT/IB2011/0003317 | WO2013058580       | 4 Jul 2013       |               |             | An efficient and robust method to compute a WCDMA delay profile   |
| RM115283   | Family  | Filed   | 25 Nov 2011 | 25 Nov 2011       |                    |                    |                  |               |             | Uses profiling for automating feature control on battery limited devices                                    |

| Case ref.# | Country | Status  | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title   |
|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|--|
| RM115283   | GB01    | Filed   | 25 Nov 2011 | 25 Nov 2011       | GB120387.3         | GB2497392          | 5 Jun 2013       |               |             | Use profiling for automating feature control on battery limited devices                    |
| RM115284   | US01    | Filed   | 28 Nov 2011 | 25 Nov 2011       | US13065936         | US20130138983      | 30 May 2013      |               |             | Method for automating feature control on battery limited devices                           |
| RM115284   | Family  | Filed   | 3 Oct 2011  | 3 Oct 2011        |                    |                    |                  |               |             | Method of prioritizing RATs for measurement  |
| RM115284   | GB01    | Filed   | 3 Oct 2011  | 3 Oct 2011        | GB1116979.4        | GB2462183          | 26 Dec 2012      |               |             | Method of prioritizing RATs for measurement  |
| RM115284   | US01    | Closed  | 3 Oct 2011  | 3 Oct 2011        | US13251363         | US20130084850      | 4 Apr 2013       |               |             | Method of prioritizing RATs for measurement  |
| RM115284   | US02    | POA     | 15 Jun 2012 | 3 Oct 2011        | US13524251         | US20130084886      | 4 Apr 2013       |               |             | Method of prioritizing RATs for measurement  |
| RM115284   | US03    | Filed   | 30 Aug 2013 | 3 Oct 2011        | US14014959         |                    |                  |               |             | Method of prioritizing RATs for measurement  |
| RM115284   | WO01    | Filed   | 3 Oct 2012  | 3 Oct 2011        | PCT/IB2012/055310  | WO2013050949       | 11 Apr 2013      |               |             | Method of prioritizing RATs for measurement  |
| RM115285   | Family  | Filed   | 3 Oct 2011  | 3 Oct 2011        |                    |                    |                  |               |             | Method of signaling hidden common E-DCH resources  |
| RM115285   | GB01    | Filed   | 3 Oct 2011  | 3 Oct 2011        | GB1116974.5        | GB2496097          | 8 May 2013       |               |             | Method of signaling hidden common E-DCH resources  |
| RM115285   | US01    | Granted | 3 Oct 2011  | 3 Oct 2011        | US13251685         | US20130084877      | 4 Apr 2013       | US8447316     | 21 May 2013 | Method of signaling hidden common E-DCH resources  |
| RM115286   | Family  | Filed   | 3 Oct 2011  | 3 Oct 2011        |                    |                    |                  |               |             | Method of switching common E-DCH TTI   |
| RM115286   | GB01    | Filed   | 3 Oct 2011  | 3 Oct 2011        | GB1116973.2        | GB2495473          | 17 Apr 2013      |               |             | Method of switching common E-DCH TTI   |
| RM115286   | US01    | Filed   | 3 Oct 2011  | 3 Oct 2011        | US13251376         | US20130083738      | 4 Apr 2013       |               |             | Method of switching common E-DCH TTI   |
| RM115287   | WO01    | Filed   | 26 Sep 2012 | 26 Sep 2012       | PCT/IB2012/062221  |                    |                  |               |             | Resampler rate adaptation using blocker detection  |
| RM115290   | Family  | Filed   | 5 Apr 2012  | 5 Apr 2012        |                    |                    |                  |               |             | LTE device dynamically access the ISM band with WLAN channel traffic statistics assisting  |
| RM115290   | WO01    | Filed   | 5 Apr 2012  | 5 Apr 2012        | PCT/IN2012/073551  |                    |                  |               |             | LTE device dynamically access the ISM band with WLAN channel traffic statistics assisting  |
| RM115292   | Family  | Filed   | 21 Dec 2011 | 21 Dec 2011       |                    |                    |                  |               |             | Flexible spectrum usage for proximity communication  |
| RM115292   | GB01    | Filed   | 21 Dec 2011 | 21 Dec 2011       | GB1122056.3        | GB2497794          | 26 Jun 2013      |               |             | Flexible spectrum usage for proximity communication  |
| RM115292   | US01    | Filed   | 22 Dec 2011 | 21 Dec 2011       | US13334409         | US20130163555      | 27 Jun 2013      |               |             | Flexible spectrum usage for proximity communication  |
| RM115292   | WO01    | Filed   | 21 Dec 2012 | 21 Dec 2011       | PCT/IB2012/057479  | WO2013093799       | 27 Jun 2013      |               |             | Flexible spectrum usage for proximity communication  |
| RM115293   | Family  | Filed   | 17 Oct 2011 | 17 Oct 2011       |                    |                    |                  |               |             | Network sharing in GERAN   |
| RM115293   | GB01    | POA     | 17 Oct 2011 | 17 Oct 2011       | GB1218061.4        | GB2496946          | 29 May 2013      |               |             | Network sharing in GERAN   |
| RM115293   | GB02    | POA     | 8 Oct 2012  | 17 Oct 2011       | GB1301880.5        | GB2497872          | 26 Jun 2013      |               |             | Network sharing in GERAN   |
| RM115293   | GB03    | Filed   | 8 Oct 2012  | 17 Oct 2011       | GB1306166.8        | GB2497894          | 26 Jun 2013      |               |             | Network sharing in GERAN   |
| RM115293   | US01    | Filed   | 17 Oct 2011 | 17 Oct 2011       | IN2903MUM2011      |                    |                  |               |             | Network sharing in GERAN   |
| RM115293   | US01    | Filed   | 29 Apr 2013 | 17 Oct 2011       | IN2903MUM2011      |                    |                  |               |             | Network sharing in GERAN   |
| RM115293   | WO01    | Filed   | 22 Dec 2011 | 17 Oct 2011       | PCT/IB2011/003120  | US20130235785      | 12 Sep 2013      |               |             | Network sharing in GERAN   |
| RM115294   | Family  | Filed   | 31 Oct 2011 | 31 Oct 2011       |                    |                    |                  |               |             | In-device interference autonomous denial indication design                                 |
| RM115294   | WO01    | POA     | 31 Oct 2011 | 31 Oct 2011       | PCT/IN2011/081959  | WO2013053742       | 10 May 2013      |               |             | In-device interference autonomous denial indication design                                 |
| RM115296   | Family  | Filed   | 30 Sep 2011 | 30 Sep 2011       |                    |                    |                  |               |             | Methods of too frequent RAB establishment avoidance  |
| RM115296   | GB01    | Filed   | 30 Sep 2011 | 30 Sep 2011       | GB1118919.0        | GB2495142          | 3 Apr 2013       |               |             | Methods of too frequent RAB establishment avoidance  |
| RM115296   | US01    | Filed   | 30 Sep 2011 | 30 Sep 2011       | US13249415         | US20130083646      | 4 Apr 2013       |               |             | Methods of too frequent RAB establishment avoidance  |
| RM115297   | Family  | Filed   | 9 Mar 2012  | 9 Mar 2012        |                    |                    |                  |               |             | Baseband transferred impedance notch filter with variable number of phases                 |
| RM115297   | GB01    | Filed   | 9 Mar 2012  | 9 Mar 2012        | GB1204179.4        | GB2500057          | 11 Sep 2013      |               |             | Baseband transferred impedance notch filter with variable number of phases                 |
| RM115297   | US01    | Closed  | 20 Dec 2011 | 9 Mar 2012        |                    |                    |                  |               |             | Baseband transferred impedance notch filter with variable number of phases                 |
| RM115299   | Family  | Filed   | 20 Dec 2011 | 20 Dec 2011       |                    |                    |                  |               |             | Multiple SIM ? Single modem resource sharing   |
| RM115299   | GB01    | Granted | 20 Dec 2011 | 20 Dec 2011       | GB1121894.8        | GB2467275          | 18 Jul 2012      | GB2467275     | 2 Jan 2013  | Multiple SIM ? Single modem resource sharing   |
| RM115299   | US01    | Filed   | 29 Feb 2012 | 20 Dec 2011       | US13408186         | US20130156031      | 20 Jun 2013      |               |             | Multiple SIM ? Single modem resource sharing   |
| RM115299   | WO01    | Filed   | 18 Dec 2012 | 20 Dec 2011       | PCT/IB2012/057433  | WO2013093777       | 27 Jun 2013      |               |             | Multiple SIM ? Single modem resource sharing   |
| RM115300   | Family  | Filed   | 7 Dec 2011  | 7 Dec 2011        |                    |                    |                  |               |             | Signalling to avoid inter-cell cross link interference in TD-D                             |
| RM115300   | WO01    | Filed   | 7 Dec 2011  | 7 Dec 2011        | PCT/IN2011/083660  | WO2013056494       | 29 Apr 2013      |               |             | Signalling to avoid inter-cell cross link interference in TD-D                             |
| RM115301   | Family  | Filed   | 2 Feb 2012  | 2 Feb 2012        |                    |                    |                  |               |             | Means to handle over-the-air (OTA) modem baseband firmware updates                         |
| RM115301   | GB01    | POA     | 2 Feb 2012  | 2 Feb 2012        | GB1201831.3        | GB2469003          | 7 Aug 2013       |               |             | Means to handle over-the-air (OTA) modem baseband firmware updates                         |
| RM115301   | WO01    | Filed   | 16 Dec 2011 | 2 Feb 2012        | PCT/IB2012/050895  | WO2013114317       | 8 Aug 2013       |               |             | Means to handle over-the-air (OTA) modem baseband firmware updates                         |
| RM115302   | Family  | Filed   | 16 Dec 2011 | 16 Dec 2011       |                    |                    |                  |               |             | Resource utilization method for future LTE networks  |
| RM115302   | GB01    | POA     | 16 Dec 2011 | 16 Dec 2011       | GB1121865.2        | GB2467734          | 26 Jun 2013      |               |             | Resource utilization method for future LTE networks  |
| RM115302   | US01    | Filed   | 20 Dec 2011 | 16 Dec 2011       | US13331225         | US20130157669      | 20 Jun 2013      |               |             | Resource utilization method for future LTE networks  |
| RM115302   | WO01    | Filed   | 13 Dec 2012 | 16 Dec 2011       | PCT/IB2012/057263  | WO2013068983       | 20 Jun 2013      |               |             | Resource utilization method for future LTE networks  |
| RM115303   | Family  | Filed   | 4 Nov 2011  | 4 Nov 2011        |                    |                    |                  |               |             | A mechanism to reduce signalling for MTC devices   |
| RM115303   | GB01    | Filed   | 4 Nov 2011  | 4 Nov 2011        | GB1119097.2        | GB2466179          | 8 May 2013       |               |             | A mechanism to reduce signalling for MTC devices   |
| RM115303   | US01    | Filed   | 8 Nov 2011  | 4 Nov 2011        | US13291339         | US20130116993      | 9 May 2013       |               |             | A mechanism to reduce signalling for MTC devices   |
| RM115303   | WO01    | Filed   | 2 Nov 2012  | 4 Nov 2011        | PCT/IB2012/056127  | WO2013065627       | 10 May 2013      |               |             | A mechanism to reduce signalling for MTC devices   |
| RM115304   | Family  | Filed   | 25 Jan 2012 | 26 Jan 2012       |                    |                    |                  |               |             | The coexistence of LTE and WLAN on WLAN band through Network Management level coordination |
| RM115304   | GB01    | Filed   | 26 Jan 2012 | 26 Jan 2012       | GB1201280.3        | GB2468749          | 31 Jul 2013      |               |             | The coexistence of LTE and WLAN on WLAN band through Network Management level coordination |



| Case ref.# | Country | Status  | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title   |
|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|--|
| RM115327   | WO01    | POA     | 15 Dec 2011 | 15 Dec 2011       | PCT/CN2011/0002110 | WO2013086659       | 20 Jun 2013      | WO2013086659  | 10 Jul 2013 | Central controlled sharing mechanism for coexistence on unlicensed bands                     |
| RM115328   | -family | Filed   | 9 Dec 2011  | 9 Dec 2011        |                    |                    |                  |               |             | Discontinuous Operation in LTE on Shared Band  |
| RM115328   | WO01    | Filed   | 9 Dec 2011  | 9 Dec 2011        | PCT/CN2011/083746  | WO2013082801       | 9 Jun 2013       | WO2013082801  | 30 Apr 2013 | Discontinuous Operation in LTE on Shared Band  |
| RM115331   | -family | Filed   | 24 Nov 2011 | 24 Nov 2011       |                    |                    |                  |               |             | Fast PUCCH relocation for LTE in unlicensed band   |
| RM115331   | WO01    | Filed   | 24 Nov 2011 | 24 Nov 2011       | PCT/CN2011/082860  | WO2013075314       | 30 May 2013      | WO2013075314  | 10 Jul 2013 | Fast PUCCH relocation for LTE in unlicensed band   |
| RM115333   | -family | Filed   | 4 Nov 2011  | 4 Nov 2011        | GB2496221          | GB2496221          | 8 May 2013       | GB2496221     | 30 Apr 2013 | UE-assisted in-device interference handling  |
| RM115333   | GB01    | Filed   | 4 Nov 2011  | 4 Nov 2011        | US61555733         |                    |                  |               |             | UE-assisted in-device interference handling  |
| RM115333   | JS01    | Closed  | 4 Nov 2011  | 4 Nov 2011        |                    |                    |                  |               |             | METHOD AND APPARATUS FOR OBTAINING CHANNEL QUALITY INDICATOR (CQI) IN A COMMUNICATION SYSTEM |
| RM115334   | -family | Filed   | 29 Feb 2012 | 29 Feb 2012       |                    |                    |                  |               |             | METHOD AND APPARATUS FOR OBTAINING CHANNEL QUALITY INDICATOR (CQI) IN A COMMUNICATION SYSTEM |
| RM115334   | GB01    | Granted | 29 Feb 2012 | 29 Feb 2012       | GB2491222          | GB2491222          | 28 Nov 2012      | GB2491222     | 10 Jul 2013 | METHOD AND APPARATUS FOR OBTAINING CHANNEL QUALITY INDICATOR (CQI) IN A COMMUNICATION SYSTEM |
| RM115334   | JS01    | Granted | 14 Nov 2012 | 14 Nov 2012       | US134676624        |                    |                  | US9432866     | 30 Apr 2013 | METHOD AND APPARATUS FOR OBTAINING CHANNEL QUALITY INDICATOR (CQI) IN A COMMUNICATION SYSTEM |
| RM115335   | -family | Filed   | 18 Jan 2012 | 18 Jan 2012       |                    |                    |                  |               |             | Providing Provision Information via Direct Communication Interface                           |
| RM115335   | GB01    | Filed   | 18 Jan 2012 | 18 Jan 2012       | GB2495531          | GB2495531          | 24 Jul 2013      | GB2495531     | 10 Jul 2013 | Providing Provision Information via Direct Communication Interface                           |
| RM115335   | JS01    | Filed   | 18 Jan 2012 | 18 Jan 2012       | US20130183932      | US20130183932      | 18 Jul 2013      | US20130183932 | 10 Jul 2013 | Providing Provision Information via Direct Communication Interface                           |
| RM115335   | WO01    | Filed   | 18 Jan 2012 | 18 Jan 2012       | PCT/IB2013/050489  | WO2013108232       | 25 Jul 2013      | WO2013108232  | 30 Apr 2013 | Providing Provision Information via Direct Communication Interface                           |
| RM115338   | -family | Filed   | 25 Jan 2012 | 25 Jan 2012       |                    |                    |                  |               |             | An access method for dynamic contention window adaptation in CSMA type channels              |
| RM115338   | GB01    | Filed   | 25 Jan 2012 | 25 Jan 2012       | GB2489930          | GB2489930          | 7 Aug 2013       | GB2489930     | 10 Jul 2013 | An access method for dynamic contention window adaptation in CSMA type channels              |
| RM115338   | JS01    | Filed   | 25 Jan 2012 | 25 Jan 2012       | US13358174         | US20130188473      | 25 Jul 2013      | US20130188473 | 10 Jul 2013 | An access method for dynamic contention window adaptation in CSMA type channels              |
| RM115339   | -family | Filed   | 8 Mar 2012  | 8 Mar 2012        |                    |                    |                  |               |             | PDCCH Reliability Improvement to Handle DL CC Broken in Unlicensed Band                      |
| RM115339   | JS01    | Closed  | 8 Mar 2012  | 8 Mar 2012        |                    |                    |                  |               |             | PDCCH Reliability Improvement to Handle DL CC Broken in Unlicensed Band                      |
| RM115339   | WO01    | Filed   | 8 Mar 2012  | 8 Mar 2012        | PCT/CN2012/072097  | WO2013131268       | 12 Sep 2013      | WO2013131268  | 12 Sep 2013 | PDCCH Reliability Improvement to Handle DL CC Broken in Unlicensed Band                      |
| RM115340   | -family | Filed   | 7 Nov 2011  | 7 Nov 2011        |                    |                    |                  |               |             | Enhanced SR transmission to improve resource efficiency for MTC operation                    |
| RM115340   | WO01    | Filed   | 7 Nov 2011  | 7 Nov 2011        | PCT/CN2011/081894  | WO2013067677       | 16 May 2013      | WO2013067677  | 16 May 2013 | Enhanced SR transmission to improve resource efficiency for MTC operation                    |
| RM115341   | -family | Filed   | 13 Jan 2012 | 13 Jan 2012       |                    |                    |                  |               |             | TXOP adaptation for fairness provision   |
| RM115341   | GB01    | Filed   | 13 Jan 2012 | 13 Jan 2012       | GB2498706          | GB2498706          | 31 Jul 2013      | GB2498706     | 16 May 2013 | TXOP adaptation for fairness provision   |
| RM115341   | JS01    | Filed   | 17 Jan 2012 | 17 Jan 2012       | US13051537         | US20130182610      | 18 Jul 2013      | US20130182610 | 16 May 2013 | TXOP adaptation for fairness provision   |
| RM115343   | -family | Filed   | 8 Dec 2011  | 8 Dec 2011        |                    |                    |                  |               |             | Improved resource allocation for LTE   |
| RM115343   | WO01    | Filed   | 8 Dec 2011  | 8 Dec 2011        | PCT/CN2011/083700  | WO2013082784       | 13 Jun 2013      | WO2013082784  | 13 Jun 2013 | Improved resource allocation for LTE   |
| RM115344   | -family | Filed   | 7 Nov 2011  | 7 Nov 2011        |                    |                    |                  |               |             | New UL Transmissions and UL Grant Designs for LTE in Unlicensed Band                         |
| RM115344   | WO01    | Filed   | 7 Nov 2011  | 7 Nov 2011        | PCT/CN2011/081882  | WO2013067675       | 16 May 2013      | WO2013067675  | 16 May 2013 | New UL Transmissions and UL Grant Designs for LTE in Unlicensed Band                         |
| RM115345   | -family | Filed   | 4 Nov 2011  | 4 Nov 2011        |                    |                    |                  |               |             | CoMP scheme selection codebook   |
| RM115345   | GB01    | Filed   | 4 Nov 2011  | 4 Nov 2011        | GB11306223         | GB2495178          | 8 May 2013       | GB2495178     | 8 Oct 2013  | CoMP scheme selection codebook   |
| RM115345   | JS01    | Filed   | 8 Nov 2011  | 8 Nov 2011        | US13291417         | US20130114427      | 9 May 2013       | US20130114427 | 8 Oct 2013  | CoMP scheme selection codebook   |
| RM115346   | -family | Filed   | 21 Mar 2012 | 21 Mar 2012       |                    |                    |                  |               |             | Cell carrier activation and deactivation method for Vehicular Communications                 |
| RM115346   | GB01    | POA     | 21 Mar 2012 | 21 Mar 2012       | GB1204943.3        | GB2499113          | 19 Sep 2012      | GB2499113     | 19 Sep 2012 | Cell carrier activation and deactivation method for Vehicular Communications                 |
| RM115346   | JS01    | Filed   | 27 Mar 2012 | 27 Mar 2012       | US13481370         |                    |                  |               |             | Cell carrier activation and deactivation method for Vehicular Communications                 |
| RM115347   | -family | Filed   | 14 Dec 2011 | 14 Dec 2011       |                    |                    |                  |               |             | Algorithms to reduce power consumption in communication devices                              |
| RM115347   | GB01    | Filed   | 14 Dec 2011 | 14 Dec 2011       | GB1121433.5        | GB2497555          | 19 Jun 2013      | GB2497555     | 19 Jun 2013 | Algorithms to reduce power consumption in communication devices                              |
| RM115347   | JS01    | Filed   | 15 Dec 2011 | 15 Dec 2011       | US13027268         | US20130159478      | 20 Jun 2013      | US20130159478 | 20 Jun 2013 | Algorithms to reduce power consumption in communication devices                              |
| RM115347   | WO01    | Filed   | 14 Dec 2011 | 14 Dec 2011       | PCT/IB2012/057330  | WO2013088402       | 20 Jun 2013      | WO2013088402  | 20 Jun 2013 | Algorithms to reduce power consumption in communication devices                              |
| RM115348   | -family | Filed   | 19 Dec 2011 | 19 Dec 2011       |                    |                    |                  |               |             | Signal and procedure to improve device discovery and D2D operation                           |
| RM115348   | GB01    | POA     | 19 Dec 2011 | 19 Dec 2011       | GB1121759.3        | GB2497740          | 26 Jun 2013      | GB2497740     | 26 Jun 2013 | Signal and procedure to improve device discovery and D2D operation                           |
| RM115348   | JS01    | Filed   | 22 Dec 2011 | 22 Dec 2011       | US13034485         | US20130157696      | 20 Jun 2013      | US20130157696 | 20 Jun 2013 | Signal and procedure to improve device discovery and D2D operation                           |
| RM115349   | -family | Filed   | 30 Dec 2011 | 30 Dec 2011       |                    |                    |                  |               |             | Apparatus and method of sensor-based high-mobility beamforming                               |
| RM115349   | WO01    | POA     | 30 Dec 2011 | 30 Dec 2011       | PCT/CN2011/085046  | WO2013097187       | 4 Jul 2013       | WO2013097187  | 4 Jul 2013  | Apparatus and method of sensor-based high-mobility beamforming                               |
| RM115351   | -family | Filed   | 29 Nov 2011 | 29 Nov 2011       |                    |                    |                  |               |             | Deactivating existing/active bearer context(s) for emergency bearer establishment            |
| RM115351   | GB01    | Granted | 29 Nov 2011 | 29 Nov 2011       | GB1120537.4        | GB2498545          | 3 Oct 2012       | GB2498545     | 23 May 2013 | Deactivating existing/active bearer context(s) for emergency bearer establishment            |

| Case ref. # | Country | Status  | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title  |
|-------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|---|
| RM115351    | US01    | Granted | 30 Nov 2011 | 29 Nov 2011       | US13/9307386       | US20130136114      | 30 May 2013      | US9477752     | 2 Jul 2013  | Deactivating existing/active bearer context(s) for emergency bearer establishment                       |
| RM115351    | US02    | Filed   | 20 Jun 2013 | 29 Nov 2011       | US13/922862        |                    |                  |               |             | Deactivating existing/active bearer context(s) for emergency bearer establishment                       |
| RM115351    | WO01    | Filed   | 27 Nov 2012 | 29 Nov 2011       | PCT/IB2012/056760  | WO2013080125       | 6 Jun 2013       |               |             | Deactivating existing/active bearer context(s) for emergency bearer establishment                       |
| RM115353    | Family  | Filed   | 22 Dec 2011 | 22 Dec 2011       |                    |                    |                  |               |             | LTE OTDOA measurement accuracy improvement  |
| RM115353    | GB01    | Granted | 22 Dec 2011 | 22 Dec 2011       | GB1122203.1        | GB2481218          | 28 Nov 2012      | GB2481218     | 26 Jun 2013 | LTE OTDOA measurement accuracy improvement  |
| RM115353    | US01    | Filed   | 3 Jan 2012  | 22 Dec 2011       | US13/942329        | US20130162470      | 27 Jun 2013      |               |             | LTE OTDOA measurement accuracy improvement  |
| RM115353    | WO01    | Filed   | 19 Dec 2012 | 22 Dec 2011       | PCT/IB2012/002740  | WO2013089593       | 27 Jun 2013      |               |             | LTE OTDOA measurement accuracy improvement  |
| RM115356    | Family  | Filed   | 7 Mar 2012  | 7 Mar 2012        |                    |                    |                  |               |             | Fast DL CC broken determination and recovery for LTE to unlicensed band                                 |
| RM115356    | WO01    | Filed   | 7 Mar 2012  | 7 Mar 2012        | PCT/CN2012/072062  | WO2013131258       | 12 Sep 2013      |               |             | Fast DL CC broken determination and recovery for LTE to unlicensed band                                 |
| RM115357    | Family  | Filed   | 24 Nov 2011 | 24 Nov 2011       |                    |                    |                  |               |             | Integration concept of radio modem, transceiver and antenna radiators into automotive environment       |
| RM115357    | GB01    | Closed  | 24 Nov 2011 | 24 Nov 2011       | GB12010328.8       |                    |                  |               |             | Integration concept of radio modem, transceiver and antenna radiators into automotive environment       |
| RM115357    | GB02    | Filed   | 24 Jan 2012 | 24 Nov 2011       | GB1201153.2        | GB2486925          | 29 May 2013      |               |             | Integration concept of radio modem, transceiver and antenna radiators into automotive environment       |
| RM115357    | US01    | Filed   | 26 Jan 2012 | 24 Nov 2011       | US13/939092        | US20130136186      | 30 May 2013      |               |             | Integration concept of radio modem, transceiver and antenna radiators into automotive environment       |
| RM115357    | WO01    | Filed   | 22 Nov 2012 | 24 Nov 2011       | PCT/IB2012/056624  | WO20130176679      | 30 May 2013      |               |             | Integration concept of radio modem, transceiver and antenna radiators into automotive environment       |
| RM115358    | Family  | Filed   | 20 Dec 2011 | 20 Dec 2011       |                    |                    |                  |               |             | A Novel Gateway UE Selection Method for the Missing Sensor Nodes in Sensor Networks                     |
| RM115358    | WO01    | POA     | 20 Dec 2011 | 20 Dec 2011       | PCT/CN2011/002143  | WO2013081135       | 27 Jun 2013      |               |             | A Novel Gateway UE Selection Method for the Missing Sensor Nodes in Sensor Networks                     |
| RM115359    | Family  | Filed   | 7 Nov 2011  | 7 Nov 2011        |                    |                    |                  |               |             | Controlling UE assumption of interference   |
| RM115359    | GB01    | Granted | 7 Nov 2011  | 7 Nov 2011        | GB1119208.5        | GB2483224          | 30 Jan 2013      | GB2483224     | 3 Jul 2013  | Controlling UE assumption of interference   |
| RM115359    | US01    | Filed   | 9 Nov 2011  | 7 Nov 2011        | US13/252205        | US20130114490      | 9 May 2013       |               |             | Controlling UE assumption of interference   |
| RM115359    | WO01    | Filed   | 6 Nov 2012  | 7 Nov 2011        | PCT/IB2012/056194  | WO2013068924       | 16 May 2013      |               |             | Controlling UE assumption of interference   |
| RM115360    | Family  | Filed   | 16 Dec 2011 | 16 Dec 2011       |                    |                    |                  |               |             | On Changing Radio Capability Temporarily or Periodically in Future LTE Systems                          |
| RM115360    | GB01    | Filed   | 16 Dec 2011 | 16 Dec 2011       | GB1121661.1        | GB2487579          | 18 Jun 2013      |               |             | On Changing Radio Capability Temporarily or Periodically in Future LTE Systems                          |
| RM115360    | GB02    | POA     | 27 Mar 2012 | 16 Dec 2011       | GB1205320.3        | GB2487604          | 19 Jun 2013      |               |             | On Changing Radio Capability Temporarily or Periodically in Future LTE Systems                          |
| RM115360    | US01    | Closed  | 16 Dec 2011 | 16 Dec 2011       |                    |                    |                  |               |             | On Changing Radio Capability Temporarily or Periodically in Future LTE Systems                          |
| RM115360    | WO01    | POA     | 14 Dec 2012 | 16 Dec 2011       | PCT/IB2012/057322  | WO2013088398       | 20 Jun 2013      |               |             | On Changing Radio Capability Temporarily or Periodically in Future LTE Systems                          |
| RM115361    | Family  | Filed   | 7 Nov 2011  | 7 Nov 2011        |                    |                    |                  |               |             | Efficient signaling of CRS shifts and PDCCH region mismatch in CoMP                                     |
| RM115361    | GB01    | POA     | 7 Nov 2011  | 7 Nov 2011        | GB1119190.6        | GB2486198          | 8 May 2013       |               |             | Efficient signaling of CRS shifts and PDCCH region mismatch in CoMP                                     |
| RM115361    | US01    | Filed   | 9 Nov 2011  | 7 Nov 2011        | US13/292357        | US20130114481      | 9 May 2013       |               |             | Efficient signaling of CRS shifts and PDCCH region mismatch in CoMP                                     |
| RM115362    | Family  | Filed   | 7 Nov 2011  | 7 Nov 2011        |                    |                    |                  |               |             | Method of common E-DCH resource error detection and recovery using fallback to another resource         |
| RM115362    | GB01    | Filed   | 7 Nov 2011  | 7 Nov 2011        | GB1119153.3        | GB2486188          | 8 May 2013       |               |             | Method of common E-DCH resource error detection and recovery using fallback to another resource         |
| RM115362    | GB02    | Filed   | 16 Aug 2013 | 7 Nov 2011        | GB1314651.9        | GB2486188          | 8 May 2013       |               |             | Method of common E-DCH resource error detection and recovery using fallback to another resource         |
| RM115362    | US01    | Filed   | 8 Nov 2011  | 7 Nov 2011        | US13/291634        | US20130114401      | 9 May 2013       |               |             | Method of common E-DCH resource error detection and recovery using fallback to another resource         |
| RM115362    | WO01    | Filed   | 6 Nov 2012  | 7 Nov 2011        | PCT/IB2012/056192  | WO2013068922       | 16 May 2013      |               |             | Method of common E-DCH resource error detection and recovery using fallback to another resource         |
| RM115363    | Family  | Filed   | 7 Nov 2011  | 7 Nov 2011        |                    |                    |                  |               |             | Method of overriding common E-DCH resource selection  |
| RM115363    | GB01    | Granted | 7 Nov 2011  | 7 Nov 2011        | GB1119133.5        | GB2487267          | 18 Jul 2013      | GB2487267     | 27 Feb 2013 | Method of overriding common E-DCH resource selection  |
| RM115363    | US01    | Granted | 8 Nov 2011  | 7 Nov 2011        | US13/291799        | US20130114518      | 9 May 2013       | US8432854     | 30 Apr 2013 | Method of overriding common E-DCH resource selection  |
| RM115363    | WO01    | Filed   | 7 Nov 2012  | 7 Nov 2011        | PCT/IB2012/056226  | WO2013068940       | 16 May 2013      |               |             | Method of overriding common E-DCH resource selection  |
| RM115364    | Family  | Filed   | 13 Feb 2012 | 13 Feb 2012       |                    |                    |                  |               |             | On Full Duplex Capability Indication in Future Cellular Networks  |
| RM115364    | GB01    | Filed   | 13 Feb 2012 | 13 Feb 2012       | GB1202451.9        | GB2499259          | 14 Aug 2013      |               |             | On Full Duplex Capability Indication in Future Cellular Networks  |
| RM115365    | Family  | Filed   | 6 Nov 2011  | 6 Nov 2011        |                    |                    |                  |               |             | Flexible utilization of blind detection between cell specific search space and UE specific search space |



| Case ref.# | Country | Status  | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title   |
|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|--|
| RM115381   | US01    | Filed   | 23 Jan 2012 | 23 Dec 2011       | US13356041         | US20130166794      | 27 Jun 2013      |               |             | Hardware assisted interrupt handling (Kauno)   |
| RM115382   | Family  | Filed   | 20 Jan 2012 | 20 Jan 2012       |                    | GB2498575          | 24 Jul 2013      |               |             | On D2D Discovery Resource Allocation   |
| RM115383   | GB01    | Filed   | 20 Jan 2012 | 20 Jan 2012       | GB1201007.0        | US20130188546      | 25 Jul 2013      |               |             | On D2D Discovery Resource Allocation   |
| RM115384   | US01    | Filed   | 1 Feb 2012  | 20 Jan 2012       | US13363844         | WO2013109219       | 26 Jun 2013      |               |             | On D2D Discovery Resource Allocation   |
| RM115385   | WO01    | Filed   | 20 Jan 2012 | 20 Jan 2012       | PCT/IB2013050471   |                    |                  |               |             | Method for controlling reporting of CQI hypothesis in CoMP   |
| RM115386   | Family  | Filed   | 7 Nov 2011  | 7 Nov 2011        | GB1119212.7        | GB2496205          | 8 May 2013       |               |             | Method for controlling reporting of CQI hypothesis in CoMP   |
| RM115387   | GB01    | Filed   | 7 Nov 2011  | 7 Nov 2011        | US13291680         | US20130114428      | 9 May 2013       |               |             | Enhancement for Random Access Procedure  |
| RM115388   | US01    | Filed   | 19 Jan 2012 | 19 Jan 2012       | GB1200908.0        | GB2498548          | 24 Jul 2013      |               |             | Enhancement for Random Access Procedure  |
| RM115389   | Family  | Filed   | 19 Jan 2012 | 19 Jan 2012       |                    | GB2498927          | 7 Aug 2013       |               |             | Methods for Random Access Procedure  |
| RM115390   | GB01    | Filed   | 19 Jan 2012 | 19 Jan 2012       | GB1200911.4        | GB2486212          | 8 May 2013       |               |             | P2P Traffic offloading to D2D  |
| RM115391   | Family  | Filed   | 20 Dec 2011 | 20 Dec 2011       | GB1211802.9        | US20130159407      | 20 Jun 2013      |               |             | P2P Traffic offloading to D2D  |
| RM115392   | GB01    | Filed   | 23 Dec 2011 | 20 Dec 2011       | US13336888         | US20130159407      | 21 Aug 2013      |               |             | Network assisted D2D Discovery   |
| RM115393   | US01    | Filed   | 15 Feb 2012 | 15 Feb 2012       | GB1202574.8        | GB2499411          |                  |               |             | Network assisted D2D Discovery   |
| RM115394   | Family  | Filed   | 15 Feb 2012 | 15 Feb 2012       |                    |                    |                  |               |             | Scheduling and automatic user group classification for semi-full-duplex LTE system                       |
| RM115395   | GB01    | Filed   | 21 Dec 2011 | 21 Dec 2011       |                    | WO2013091187       | 27 Jun 2013      |               |             | Scheduling and automatic user group classification for semi-full-duplex LTE system                       |
| RM115396   | WO01    | POA     | 21 Dec 2011 | 21 Dec 2011       | PCT/CN2011/084342  |                    |                  |               |             | Back-off optimization for performance improvements and contention reduction under a large number of STAs |
| RM115397   | Family  | Filed   | 14 Mar 2012 | 14 Mar 2012       |                    |                    |                  |               |             | Back-off optimization for performance improvements and contention reduction under a large number of STAs |
| RM115398   | GB01    | Filed   | 14 Mar 2012 | 14 Mar 2012       | GB1234510.0        |                    | 19 Sep 2013      |               |             | Back-off optimization for performance improvements and contention reduction under a large number of STAs |
| RM115399   | WO01    | Filed   | 12 Mar 2013 | 14 Mar 2012       | PCT/IB2013003365   | WO20131336155      | 11 Jul 2013      |               |             | Shared E-PDCCH format indication for various bandwidth-capable devices                                   |
| RM115400   | Family  | Filed   | 6 Jan 2012  | 6 Jan 2012        | PCT/CN2012/070106  | WO2013102308       | 11 Sep 2013      |               |             | Receiver analog baseband filter with transferred impedance stage   |
| RM115401   | US01    | Filed   | 6 Jan 2012  | 6 Jan 2012        | US13336184         | GB2500067          |                  |               |             | Receiver analog baseband filter with transferred impedance stage   |
| RM115402   | WO01    | Filed   | 9 Mar 2012  | 9 Mar 2012        | GB1204238.8        |                    |                  |               |             | SDMA-Based Duty Cycles and efficient signaling for Low-Cost Machine Type Communications                  |
| RM115403   | GB01    | Closed  | 9 Mar 2012  | 9 Mar 2012        |                    |                    |                  |               |             | SDMA-Based Duty Cycles and efficient signaling for Low-Cost Machine Type Communications                  |
| RM115404   | Family  | Filed   | 21 Jan 2012 | 21 Jan 2012       |                    | WO2013107059       | 25 Jul 2013      |               |             | SDMA-Based Duty Cycles and efficient signaling for Low-Cost Machine Type Communications                  |
| RM115405   | WO01    | POA     | 21 Jan 2012 | 21 Jan 2012       | PCT/CN2012/070706  |                    |                  |               |             | LTE OTDOA UE assisted position accuracy improvements   |
| RM115406   | Family  | Filed   | 22 Dec 2011 | 22 Dec 2011       | GB1122105.3        | GB2497802          | 26 Jun 2013      |               |             | LTE OTDOA UE assisted position accuracy improvements   |
| RM115407   | GB01    | POA     | 23 Dec 2011 | 22 Dec 2011       | US13336184         | US20130163451      | 27 Jun 2013      |               |             | LTE OTDOA UE assisted position accuracy improvements   |
| RM115408   | US01    | Filed   | 23 Dec 2011 | 22 Dec 2011       | PCT/IB2012/057637  | WO2013093987       | 27 Jun 2013      |               |             | Periodic CQI during Discontinuous Reception  |
| RM115409   | WO01    | Filed   | 22 Jun 2012 | 22 Jun 2012       | GB1211163.9        | GB2494499          | 13 Mar 2013      |               | 14 Aug 2013 | Periodic CQI during Discontinuous Reception  |
| RM115410   | Family  | Granted | 22 Jun 2012 | 22 Jun 2012       |                    |                    |                  |               |             | E-PDCCH design for low bandwidth MTC   |
| RM115411   | US01    | Filed   | 11 Jan 2012 | 11 Jan 2012       | PCT/CN2012/070236  | WO2013104119       | 18 Jul 2013      |               |             | Distributed Neighbor Discovery between LTE Unclassified Clusters for Interference Avoidance              |
| RM115412   | WO01    | Filed   | 13 Jan 2012 | 11 Jan 2012       |                    |                    |                  |               |             | Distributed Neighbor Discovery between LTE Unclassified Clusters for Interference Avoidance              |
| RM115413   | Family  | Filed   | 16 Apr 2012 | 16 Apr 2012       |                    |                    |                  |               |             | Indication of Selected PLMN in a Network Sharing environment   |
| RM115414   | WO01    | Filed   | 16 Apr 2012 | 16 Apr 2012       | PCT/CN2012/074168  |                    |                  |               |             | Indication of Selected PLMN in a Network Sharing environment   |
| RM115415   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       |                    | WO2013113143       | 8 Aug 2013       |               |             | Application-oriented DRX enhancement   |
| RM115416   | WO01    | Filed   | 30 Jan 2012 | 30 Jan 2012       | PCT/CN2012/070772  |                    |                  |               |             | Application-oriented DRX enhancement   |
| RM115417   | Family  | Filed   | 16 Nov 2011 | 16 Nov 2011       | GB1119777.9        | GB2496627          | 22 May 2013      |               |             | Application-oriented DRX enhancement   |
| RM115418   | GB01    | Filed   | 16 Nov 2011 | 16 Nov 2011       | US13300072         | US20130121241      | 16 May 2013      |               |             | Application-oriented DRX enhancement   |
| RM115419   | US01    | Filed   | 18 Nov 2011 | 16 Nov 2011       | US13300072         |                    |                  |               |             | Application-oriented DRX enhancement   |
| RM115420   | WO01    | Filed   | 23 Jan 2012 | 23 Jan 2012       | GB1201051.8        | GB2498563          | 24 Jul 2013      |               |             | Application-oriented DRX enhancement   |
| RM115421   | Family  | Filed   | 2 Feb 2012  | 23 Jan 2012       | US13364468         | US20130182495      | 26 Jul 2013      |               |             | Application-oriented DRX enhancement   |
| RM115422   | WO01    | Filed   | 23 Jan 2013 | 23 Jan 2012       | PCT/IB2013050568   | WO2013111060       | 1 Aug 2013       |               |             | Application-oriented DRX enhancement   |
| RM115423   | Family  | Filed   | 13 Jan 2012 | 11 Jan 2012       |                    | WO2013104118       | 18 Jul 2013      |               |             | RACH enhancement to support low cost MTC UEs with narrow bandwidth                                       |
| RM115424   | WO01    | Filed   | 11 Jan 2012 | 11 Jan 2012       | PCT/CN2012/070232  |                    |                  |               |             | RACH enhancement to support low cost MTC UEs with narrow bandwidth                                       |
| RM115425   | Family  | Filed   | 8 Feb 2012  | 8 Feb 2012        |                    | WO2013116998       | 15 Aug 2013      |               |             | New way to determine WiFi coverage and UL PL in WS   |
| RM115426   | WO01    | Filed   | 8 Feb 2012  | 8 Feb 2012        | PCT/CN2012/070963  |                    |                  |               |             | New way to determine WiFi coverage and UL PL in WS   |
| RM115427   | Family  | Filed   | 16 Jan 2012 | 16 Jan 2012       |                    | WO2013116998       |                  |               |             | Method for D2D Discovery Signal Utilization  |
| RM115428   | US01    | Filed   | 16 Jan 2012 | 16 Jan 2012       | GB1200635.9        |                    |                  |               |             | Method for D2D Discovery Signal Utilization  |
| RM115429   | GB01    | POA     | 16 Jan 2012 | 16 Jan 2012       | US13352538         | GB2499395          | 17 Jul 2013      |               |             | Method for D2D Discovery Signal Utilization  |
| RM115430   | Family  | Filed   | 18 Jan 2012 | 16 Jan 2012       |                    | US20130183563      | 18 Jul 2013      |               |             | Method for D2D Discovery Signal Utilization  |



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|------------|---------|-----------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|---|
| RM115434   | US01    | Filed     | 10 Apr 2012 | 11 Apr 2012       | US130660086        |                    |                  |               |             | On Handling Uplink Retransmission and Discovery Signal Collision.   |
| RM115435   | Family  | Filed     | 27 Jan 2012 | 27 Jan 2012       | GB1201374.4        | GB2498755          | 31 Jul 2013      |               |             | Co-operative Cell Search of LTE D2D Ad Hoc Mode   |
| RM115435   | GB01    | Filed     | 27 Jan 2012 | 27 Jan 2012       | GB1201374.4        | WO2013111104       | 1 Aug 2013       |               |             | Co-operative Cell Search of LTE D2D Ad Hoc Mode   |
| RM115435   | WO01    | Filed     | 25 Jan 2013 | 27 Jan 2012       | PCT/IB2013/060664  |                    |                  |               |             | Novel signaling Design for time-domain bundling scheduling  |
| RM115435   | WO01    | Filed     | 10 Feb 2012 | 10 Feb 2012       | PCT/CN2012/071031  | WO2013117011       | 15 Aug 2013      |               |             | Low-cost LTE system with distributed Carrier Aggregation on the unlicensed band                               |
| RM115440   | Family  | Filed     | 30 Jan 2012 | 30 Jan 2012       |                    |                    |                  |               |             | Low-cost LTE system with distributed Carrier Aggregation on the unlicensed band                               |
| RM115440   | GB01    | Filed     | 30 Jan 2012 | 30 Jan 2012       | GB1201548.3        | US20130185073      | 1 Aug 2013       |               |             | Low-cost LTE system with distributed Carrier Aggregation on the unlicensed band                               |
| RM115440   | US01    | Filed     | 3 Feb 2012  | 30 Jan 2012       | US13066432         |                    |                  |               |             | Low-cost LTE system with distributed Carrier Aggregation on the unlicensed band                               |
| RM115442   | Family  | Filed     | 29 Jun 2012 | 29 Jun 2012       |                    |                    |                  |               |             | Solving control bits of butterfly networks for parallel access turbo decoders                                 |
| RM115442   | GB01    | POA       | 29 Jun 2012 | 29 Jun 2012       | GB1211610.8        | GB2492249          | 26 Dec 2012      |               |             | Solving control bits of butterfly networks for parallel access turbo decoders                                 |
| RM115442   | US01    | Granted   | 14 Nov 2012 | 29 Jun 2012       | US130676375        | US8446813          |                  |               | 21 May 2013 | Solving control bits of butterfly networks for parallel access turbo decoders                                 |
| RM115442   | WO01    | Filed     | 27 Jun 2012 | 29 Jun 2012       | PCT/IB2013/055273  |                    |                  |               |             | Solving control bits of butterfly networks for parallel access turbo decoders                                 |
| RM115444   | Family  | Filed     | 27 Feb 2012 | 27 Feb 2012       |                    |                    |                  |               |             | TAS inaccuracy cancellation method  |
| RM115444   | WO01    | Filed     | 27 Feb 2012 | 27 Feb 2012       | PCT/IB2012/000665  | WO2013128228       | 6 Sep 2013       |               |             | TAS inaccuracy cancellation method  |
| RM115445   | Family  | Filed     | 23 Mar 2012 | 23 Mar 2012       |                    |                    |                  |               |             | Network controlled semi-autonomous D2D resource allocation signaling optimization on cellular and shared band |
| RM115445   | WO01    | Filed     | 23 Mar 2012 | 23 Mar 2012       | PCT/CN2012/072971  |                    |                  |               |             | Network controlled semi-autonomous D2D resource allocation signaling optimization on cellular and shared band |
| RM115450   | Family  | Filed     | 4 Jun 2013  | 4 Jun 2013        | GB1309953.6        |                    |                  |               |             | Antenna tuner algorithm for external interference scenarios   |
| RM115450   | GB01    | Filed     | 4 Jun 2013  | 4 Jun 2013        | GB1309953.6        |                    |                  |               |             | Antenna tuner algorithm for external interference scenarios   |
| RM115452   | Family  | To filing | 30 Jan 2012 | 30 Jan 2012       |                    |                    |                  |               |             | Antenna tuner algorithm for external interference scenarios   |
| RM115452   | US01    | Closed    | 30 Jan 2012 | 30 Jan 2012       | US61592288         |                    |                  |               |             | Antenna tuner algorithm for external interference scenarios   |
| RM115454   | Family  | Filed     | 16 Feb 2012 | 16 Feb 2012       |                    |                    |                  |               |             | PHR triggering and reporting for multiple timing advance  |
| RM115454   | GB01    | Granted   | 16 Feb 2012 | 16 Feb 2012       | GB1202677.9        | GB2490986          | 21 Nov 2012      |               | 19 Jun 2013 | PHR triggering and reporting for multiple timing advance  |
| RM115454   | US01    | Granted   | 16 Feb 2012 | 16 Feb 2012       | US130648819        | US20130216000      | 22 Aug 2013      |               | 20 Aug 2013 | PHR triggering and reporting for multiple timing advance  |
| RM115454   | WO01    | Filed     | 14 Feb 2012 | 16 Feb 2012       | PCT/IB2013/000185  | WO2013121268       | 22 Aug 2013      |               |             | PHR triggering and reporting for multiple timing advance  |
| RM115456   | Family  | Filed     | 21 Mar 2012 | 21 Mar 2012       |                    |                    |                  |               |             | MPR Calculation for HSUPA signal with 4PAM  |
| RM115456   | GB01    | Filed     | 21 Mar 2012 | 21 Mar 2012       | GB1204972.2        | GB2491927          | 19 Dec 2012      |               | 10 Jul 2013 | MPR Calculation for HSUPA signal with 4PAM  |
| RM115456   | GB02    | POA       | 21 Mar 2012 | 21 Mar 2012       | GB1216646.8        |                    |                  |               |             | MPR Calculation for HSUPA signal with 4PAM  |
| RM115456   | US01    | Filed     | 14 Nov 2012 | 21 Mar 2012       | US130676739        |                    |                  |               |             | MPR Calculation for HSUPA signal with 4PAM  |
| RM115456   | WO01    | Filed     | 21 Mar 2012 | 21 Mar 2012       | PCT/IB2013/052254  |                    |                  |               |             | MPR Calculation for HSUPA signal with 4PAM  |
| RM115458   | Family  | Filed     | 6 Feb 2012  | 6 Feb 2012        |                    |                    |                  |               |             | Data compression and combination method   |
| RM115458   | GB01    | POA       | 6 Feb 2012  | 6 Feb 2012        | GB1201398.8        | GB2499772          | 10 Oct 2012      |               |             | Data compression and combination method   |
| RM115460   | Family  | Filed     | 18 Apr 2012 | 16 Apr 2012       |                    |                    |                  |               |             | Data compression and combination method   |
| RM115460   | WO01    | Filed     | 18 Apr 2012 | 16 Apr 2012       | PCT/CN2012/074280  |                    |                  |               |             | Data compression and combination method   |
| RM115461   | Family  | Filed     | 9 May 2012  | 18 Apr 2012       |                    |                    |                  |               |             | Data compression and combination method   |
| RM115461   | GB01    | Filed     | 9 May 2012  | 18 Apr 2012       | GB1206095.2        |                    |                  |               |             | Data compression and combination method   |
| RM115461   | WO01    | Filed     | 9 May 2012  | 9 May 2012        | PCT/IB2013/053686  |                    |                  |               |             | Data compression and combination method   |
| RM115462   | Family  | Filed     | 27 Jan 2012 | 27 Jan 2012       |                    |                    |                  |               |             | Data compression and combination method   |
| RM115462   | GB01    | Granted   | 27 Jan 2012 | 27 Jan 2012       | GB1201430.4        | GB2488201          | 22 Aug 2012      |               | 10 Apr 2013 | Data compression and combination method   |
| RM115462   | US01    | POA       | 14 Feb 2012 | 27 Jan 2012       | US13072574         | US20130196648      | 1 Aug 2013       |               |             | Data compression and combination method   |
| RM115463   | Family  | Filed     | 26 Jan 2012 | 26 Jan 2012       |                    |                    |                  |               |             | Method to increase UE coverage in inter-band CA   |
| RM115463   | GB01    | POA       | 26 Jan 2012 | 26 Jan 2012       | GB1201337.1        | GB2498758          | 31 Jul 2013      |               |             | Method to increase UE coverage in inter-band CA   |
| RM115463   | US01    | Filed     | 20 Feb 2012 | 26 Jan 2012       | US13070533         | US20130194987      | 1 Aug 2013       |               |             | Method to increase UE coverage in inter-band CA   |
| RM115463   | WO01    | Filed     | 10 Feb 2012 | 26 Jan 2012       | PCT/IB2013/050669  | WO2013111112       | 25 Jul 2013      |               |             | Method to increase UE coverage in inter-band CA   |
| RM115465   | Family  | Filed     | 26 Mar 2012 | 26 Mar 2012       |                    |                    |                  |               |             | Power control method for devices supporting inter-band carrier aggregation                                    |
| RM115465   | WO01    | Filed     | 26 Mar 2012 | 26 Mar 2012       | PCT/CN2012/073023  |                    |                  |               |             | Power control method for devices supporting inter-band carrier aggregation                                    |
| RM115466   | Family  | Filed     | 19 Dec 2011 | 19 Dec 2011       |                    |                    |                  |               |             | Power control method for devices supporting inter-band carrier aggregation                                    |
| RM115466   | GB01    | Filed     | 19 Dec 2011 | 19 Dec 2011       | GB1121764.3        | GB2497741          | 26 Jun 2013      |               |             | Power control method for devices supporting inter-band carrier aggregation                                    |
| RM115466   | US01    | Filed     | 20 Dec 2011 | 19 Dec 2011       | US13030966         | US20130159522      | 20 Jun 2013      |               |             | Power control method for devices supporting inter-band carrier aggregation                                    |
| RM115466   | WO01    | Filed     | 12 Dec 2012 | 19 Dec 2011       | PCT/IB2012/057241  | WO2013083723       | 27 Jun 2013      |               |             | Power control method for devices supporting inter-band carrier aggregation                                    |
| RM115467   | Family  | Filed     | 30 Jan 2012 | 30 Jan 2012       |                    |                    |                  |               |             | WiFi Soft activation/deactivation in LTE+WIFI CA system   |
| RM115467   | GB01    | POA       | 30 Jan 2012 | 30 Jan 2012       | GB1201616.8        | GB2496814          | 31 Jul 2013      |               |             | WiFi Soft activation/deactivation in LTE+WIFI CA system   |

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|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|--|
| RM115467   | US01    | Filed   | 7 Mar 2012  | 30 Jan 2012       | US13/413688        | US20130194939      | 1 Aug 2013       |               |             | Time-interleaved duplexing method for inter-band carrier aggregation                         |
| RM115469   | Family  | Filed   | 17 Feb 2012 | 17 Feb 2012       | PCT/CN2012/071252  | WO2013120287       | 22 Aug 2013      |               |             | Principle for inter-cell D2D operation   |
| RM115472   | Family  | Filed   | 8 Mar 2012  | 8 Mar 2012        | PCT/CN2012/072079  | WO2013131262       | 12 Sep 2013      |               |             | Design of system information for low-cost MTC devices  |
| RM115473   | Family  | Filed   | 5 Mar 2012  | 5 Mar 2012        | PCT/CN2012/071937  | WO2013131234       | 12 Sep 2013      |               |             | A novel way to enable traffic relay in D2D scenario  |
| RM115474   | Family  | Filed   | 20 Jan 2012 | 20 Jan 2012       | PCT/CN2012/070651  | WO2013107096       | 25 Jul 2013      |               |             | A novel way to enable traffic relay in D2D scenario  |
| RM115475   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       | PCT/CN2012/070769  | WO20131413142      | 8 Aug 2013       |               |             | Handling of RA failure for C-RNTI based Msg2   |
| RM115476   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB1201526.9        | GB2498797          | 31 Jul 2013      |               |             | Method of configuring RRC state / channel monitoring behavior for 2nd DRX cycle in CELL_FACH |
| RM115477   | Family  | Filed   | 13 Mar 2012 | 13 Mar 2012       | PCT/CN2012/072282  | WO2013134690       | 19 Sep 2013      |               |             | User group selection and full duplex pattern control for TDD full duplex system              |
| RM115478   | Family  | Filed   | 13 Mar 2012 | 13 Mar 2012       | PCT/CN2012/072282  | WO2013134690       | 19 Sep 2013      |               |             | User group selection and full duplex pattern control for TDD full duplex system              |
| RM115479   | Family  | Filed   | 15 May 2012 | 15 May 2012       | GB1209546.0        | GB2491238          | 28 Nov 2012      | US8502596     | 3 Jul 2013  | Method and apparatus for radio transceiver circuit linearization                             |
| RM115479   | Family  | Granted | 15 May 2012 | 15 May 2012       | US13/675021        | GB2491238          | 28 Nov 2012      | US8502596     | 3 Jul 2013  | Method and apparatus for radio transceiver circuit linearization                             |
| RM115479   | Family  | Granted | 15 May 2012 | 15 May 2012       | PCT/IB2013/053986  | WO2013128229       | 6 Sep 2013       |               |             | Method and apparatus for radio transceiver circuit linearization                             |
| RM115483   | Family  | Filed   | 1 Mar 2012  | 1 Mar 2012        | PCT/IB2012/000757  | WO2013128229       | 6 Sep 2013       |               |             | Adaptive Gain Mapping In The Presence Of Intermitant Blockers                                |
| RM115483   | Family  | Filed   | 1 Mar 2012  | 1 Mar 2012        | PCT/IB2012/000757  | WO2013128229       | 6 Sep 2013       |               |             | Adaptive Gain Mapping In The Presence Of Intermitant Blockers                                |
| RM115484   | Family  | Filed   | 14 Mar 2012 | 14 Mar 2012       | GB1204815.9        | US20130244599      | 19 Sep 2013      |               |             | A transmitter for two contiguous uplink carriers with power imbalance                        |
| RM115484   | Family  | Filed   | 14 Mar 2012 | 14 Mar 2012       | US13/6851906       | US20130244599      | 19 Sep 2013      |               |             | A transmitter for two contiguous uplink carriers with power imbalance                        |
| RM115484   | Family  | Filed   | 15 Oct 2012 | 15 Oct 2012       | PC7/IB2013/051060  | WO2013136291       | 19 Sep 2013      |               |             | A transmitter for two contiguous uplink carriers with power imbalance                        |
| RM115485   | Family  | Filed   | 14 Mar 2012 | 14 Mar 2012       | GB1202376.8        | GB2499247          | 14 Aug 2013      |               |             | Secure Device to Device Discovery  |
| RM115485   | Family  | Filed   | 10 Feb 2012 | 10 Feb 2012       | PCT/IB2013/051060  | GB2499247          | 14 Aug 2013      |               |             | Secure Device to Device Discovery  |
| RM115485   | Family  | Filed   | 8 Feb 2013  | 8 Feb 2013        | PC7/IB2013/051060  | WO2013118096       | 15 Aug 2013      |               |             | Secure Device to Device Discovery  |
| RM115486   | Family  | Filed   | 20 Feb 2012 | 20 Feb 2012       | GB1202865.5        | GB2499498          | 21 Aug 2013      |               |             | Signaling Support for Multi-Operator D2D Discovery   |
| RM115486   | Family  | Filed   | 20 Feb 2012 | 20 Feb 2012       | GB1202865.5        | GB2499498          | 21 Aug 2013      |               |             | Signaling Support for Multi-Operator D2D Discovery   |
| RM115486   | Family  | Filed   | 18 Feb 2013 | 20 Feb 2012       | PCT/IB2013/051301  | WO2013124776       | 29 Aug 2013      |               |             | Novel Design for Indication of Evolved PHICH Configuration for Low Cost MTC Devices          |
| RM115487   | Family  | Filed   | 22 Mar 2012 | 22 Mar 2012       | PCT/CN2012/072810  |                    |                  |               |             | Novel Design for Indication of Evolved PHICH Configuration for Low Cost MTC Devices          |
| RM115487   | Family  | Filed   | 22 Mar 2012 | 22 Mar 2012       | PCT/CN2012/072810  |                    |                  |               |             | Novel Design for Indication of Evolved PHICH Configuration for Low Cost MTC Devices          |
| RM115491   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB1218411.4        | US20130210437      | 15 Aug 2013      |               |             | Method of triggering Cell Update procedure to report measurement results                     |
| RM115491   | Family  | Filed   | 29 Oct 2012 | 30 Jan 2012       | US13/752562        | US20130210437      | 15 Aug 2013      |               |             | Method of triggering Cell Update procedure to report measurement results                     |
| RM115491   | Family  | Filed   | 29 Jan 2013 | 30 Jan 2012       | US13/692377        |                    |                  |               |             | Method of triggering Cell Update procedure to report measurement results                     |
| RM115491   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       | US13/692377        |                    |                  |               |             | Method of triggering Cell Update procedure to report measurement results                     |
| RM115493   | Family  | Filed   | 20 Feb 2012 | 20 Feb 2012       | PCT/CN2012/071361  | WO2013123638       | 29 Aug 2013      |               |             | Interference Coordination through D2D Communication in Multi-operators Coexistence Scenario  |
| RM115493   | Family  | Filed   | 20 Feb 2012 | 20 Feb 2012       | PCT/CN2012/071361  | WO2013123638       | 29 Aug 2013      |               |             | Interference Coordination through D2D Communication in Multi-operators Coexistence Scenario  |
| RM115494   | Family  | Filed   | 20 Feb 2012 | 20 Feb 2012       | PCT/CN2012/071361  | WO2013123638       | 29 Aug 2013      |               |             | Interference Coordination through D2D Communication in Multi-operators Coexistence Scenario  |
| RM115494   | Family  | Filed   | 26 Jan 2012 | 26 Jan 2012       | GB1201334.8        | GB2498795          | 31 Jul 2013      | US8462724     | 11 Jun 2013 | Power control method for devices supporting inter-band carrier aggregation                   |
| RM115494   | Family  | Filed   | 26 Jan 2012 | 26 Jan 2012       | US13/686637        | GB2498795          | 31 Jul 2013      | US8462724     | 11 Jun 2013 | Power control method for devices supporting inter-band carrier aggregation                   |
| RM115494   | Family  | Granted | 8 Feb 2012  | 30 Jan 2012       | US13/686637        | GB2498795          | 31 Jul 2013      | US8462724     | 11 Jun 2013 | Power control method for devices supporting inter-band carrier aggregation                   |
| RM115495   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB1201544.2        | GB2498805          | 31 Jul 2013      |               |             | Method of CSG cell reselection in CELL_FACH state  |
| RM115495   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       | PCT/IB2013/052487  | WO2013141288       | 8 Aug 2013       |               |             | Method of CSG cell reselection in CELL_FACH state  |
| RM115502   | Family  | Filed   | 28 Sep 2012 | 28 Sep 2012       | PCT/IB2013/052487  | WO2013141288       | 8 Aug 2013       |               |             | Method of CSG cell reselection in CELL_FACH state  |
| RM115502   | Family  | Filed   | 28 Sep 2012 | 28 Sep 2012       | PCT/IB2013/052487  | WO2013141288       | 8 Aug 2013       |               |             | Method of CSG cell reselection in CELL_FACH state  |
| RM115503   | Family  | Filed   | 28 Sep 2012 | 28 Sep 2012       | PCT/IB2013/052487  | WO2013141288       | 8 Aug 2013       |               |             | Method of CSG cell reselection in CELL_FACH state  |
| RM115503   | Family  | Filed   | 28 Sep 2012 | 28 Sep 2012       | PCT/IB2013/052487  | WO2013141288       | 8 Aug 2013       |               |             | Method of CSG cell reselection in CELL_FACH state  |
| RM115503   | Family  | Granted | 29 Mar 2012 | 29 Mar 2012       | GB1200610.7        | GB2490390          | 31 Oct 2012      | US8401821     | 19 Mar 2013 | Centralized three-party RTS/CTS exchange for D2D communication                               |
| RM115503   | Family  | Granted | 29 Mar 2012 | 29 Mar 2012       | US13/633549        | GB2490390          | 31 Oct 2012      | US8401821     | 19 Mar 2013 | Centralized three-party RTS/CTS exchange for D2D communication                               |
| RM115503   | Family  | Granted | 2 Oct 2012  | 29 Mar 2012       | US13/633549        | GB2490390          | 31 Oct 2012      | US8401821     | 19 Mar 2013 | Centralized three-party RTS/CTS exchange for D2D communication                               |
| RM115503   | Family  | Granted | 28 Mar 2013 | 29 Mar 2012       | PCT/IB2013/052487  | WO2013141288       | 8 Aug 2013       |               |             | Method of CSG cell reselection in CELL_FACH state  |
| RM115504   | Family  | Filed   | 20 Dec 2012 | 20 Dec 2012       | GB1223098.3        |                    |                  |               |             | Antenna tuner problems and solutions   |
| RM115504   | Family  | Filed   | 20 Dec 2012 | 20 Dec 2012       | GB1223098.3        |                    |                  |               |             | Antenna tuner problems and solutions   |
| RM115505   | Family  | Closed  | 30 Jan 2012 | 30 Jan 2012       | GB1223098.3        |                    |                  |               |             | Antenna tuner problems and solutions   |
| RM115505   | Family  | Closed  | 30 Jan 2012 | 30 Jan 2012       | GB1223098.3        |                    |                  |               |             | Antenna tuner problems and solutions   |
| RM115505   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB1223098.3        |                    |                  |               |             | Antenna tuner problems and solutions   |

| Case ref.# | Country | Status  | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date  | Proposed title  |
|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|---|
| RM115505   | GB01    | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB1201570.7        | GB2498834          | 7 Aug 2013       |               |             | Uplink Interference Avoidance in HeiNet Scenarios   |
| RM115506   | US01    | Filed   | 3 Feb 2012  | 30 Jan 2012       | US13/365996        | US20130194986      | 1 Aug 2013       |               |             | Uplink Interference Avoidance in HeiNet Scenarios   |
| RM115507   | WO01    | Filed   | 28 Jan 2013 | 30 Jan 2012       | PCT/IB2013/050723  | WO2013114264       | 8 Aug 2013       |               |             | Uplink Interference Avoidance in HeiNet Scenarios   |
| RM115508   | Family  | Filed   | 8 Mar 2012  | 8 Mar 2012        |                    |                    |                  |               |             | Group SPS Design for low cost MTC devices   |
| RM115509   | WO01    | Filed   | 8 Mar 2012  | 8 Mar 2012        | PCT/CN2012/072081  | WO2013131264       | 12 Sep 2013      |               |             | Group SPS Design for low cost MTC devices   |
| RM115510   | Family  | Filed   | 13 Mar 2012 | 13 Mar 2012       |                    |                    |                  |               |             | Procedures for Secondary Cell discovery on extension carriers in LTE HeiNet                             |
| RM115511   | GB01    | Filed   | 13 Mar 2012 | 13 Mar 2012       | GB1204380.8        |                    |                  |               |             | Procedures for Secondary Cell discovery on extension carriers in LTE HeiNet                             |
| RM115512   | US01    | Closed  | 13 Mar 2012 | 13 Mar 2012       |                    |                    |                  |               |             | Procedures for Secondary Cell discovery on extension carriers in LTE HeiNet                             |
| RM115513   | Family  | Filed   | 15 May 2012 | 15 May 2012       | GB1208545.2        |                    |                  |               |             | Method and apparatus for radio receiver circuit linearization   |
| RM115514   | GB01    | Filed   | 15 May 2012 | 15 May 2012       | PCT/IB2013/053987  |                    |                  |               |             | Method and apparatus for radio receiver circuit linearization   |
| RM115515   | WO01    | Filed   | 15 May 2012 | 15 May 2012       |                    |                    |                  |               |             | Method and apparatus for radio receiver circuit linearization   |
| RM115516   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB1201537.8        | GB2498800          | 31 Jul 2013      |               |             | Methods to improve IDC in inter-band CA   |
| RM115517   | GB01    | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB1302580.2        | GB2498878          | 31 Jul 2013      |               |             | Methods to improve IDC in inter-band CA   |
| RM115518   | US01    | Filed   | 6 Feb 2012  | 30 Jan 2012       | US13/366638        | US20130194938      | 1 Aug 2013       |               |             | Methods to improve IDC in inter-band CA   |
| RM115519   | Family  | Filed   | 27 Feb 2012 | 27 Feb 2012       | GB1203362.7        |                    |                  |               |             | Method for reporting 256QAM CQI without overhead increase   |
| RM115520   | GB01    | Filed   | 27 Feb 2012 | 27 Feb 2012       | US13779336         | GB2498871          | 28 Aug 2013      |               |             | Method for reporting 256QAM CQI without overhead increase   |
| RM115521   | US01    | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB1201618.4        | GB2498815          | 29 Aug 2013      |               |             | A DCI format approach for E-PHICH in LTE Rel-11   |
| RM115522   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       | US13/373286        | US20130195047      | 31 Jul 2013      |               |             | A DCI format approach for E-PHICH in LTE Rel-11   |
| RM115523   | US01    | Filed   | 29 Jan 2013 | 30 Jan 2012       |                    |                    |                  |               |             | A DCI format approach for E-PHICH in LTE Rel-11   |
| RM115524   | Family  | Filed   | 11 Apr 2012 | 11 Apr 2012       | GB1206389.7        |                    |                  |               |             | A decoder for scrambled convolution codes   |
| RM115525   | GB01    | POA     | 11 Apr 2012 | 11 Apr 2012       | US13/645078        |                    |                  |               |             | A decoder for scrambled convolution codes   |
| RM115526   | US01    | Granted | 4 Oct 2012  | 11 Apr 2012       |                    |                    |                  |               |             | A decoder for scrambled convolution codes   |
| RM115527   | WO01    | Filed   | 9 Apr 2013  | 11 Apr 2012       | PCT/IB2013/052822  |                    |                  | US8337150     | 12 Mar 2013 | A decoder for scrambled convolution codes   |
| RM115528   | Family  | Filed   | 1 Mar 2012  | 1 Mar 2012        |                    |                    |                  |               |             | Reducing the reception time of the channels where the transmitted information is repeated several times |
| RM115529   | GB01    | POA     | 1 Mar 2012  | 1 Mar 2012        |                    |                    |                  |               |             | Reducing the reception time of the channels where the transmitted information is repeated several times |
| RM115530   | Family  | Filed   | 1 Mar 2012  | 1 Mar 2012        | GB1203652.1        | GB2464483          | 13 Mar 2013      |               |             | Reducing the reception time of the channels where the transmitted information is repeated several times |
| RM115531   | GB01    | POA     | 1 Mar 2012  | 1 Mar 2012        |                    |                    |                  |               |             | Closed Loop Transmit Diversity Activation and Deactivation  |
| RM115532   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB1201589.9        | GB2490985          | 21 Nov 2012      |               | 19 Jun 2013 | Closed Loop Transmit Diversity Activation and Deactivation  |
| RM115533   | US01    | Granted | 30 Jan 2012 | 30 Jan 2012       | US13/371531        | US20130194988      | 1 Aug 2013       |               |             | Closed Loop Transmit Diversity Activation and Deactivation  |
| RM115534   | WO01    | Filed   | 13 Feb 2012 | 30 Jan 2012       | PCT/IB2013/050796  | WO2013114301       | 8 Aug 2013       |               |             | Enables sensing function coupled with X-CC scheduling   |
| RM115535   | Family  | Filed   | 8 Mar 2012  | 8 Mar 2012        |                    |                    |                  |               |             | Enables sensing function coupled with X-CC scheduling   |
| RM115536   | WO01    | POA     | 8 Mar 2012  | 8 Mar 2012        | PCT/CN2012/072088  | WO2013131267       | 12 Sep 2013      |               |             | Enables sensing function coupled with X-CC scheduling   |
| RM115537   | Family  | Filed   | 31 Jan 2012 | 31 Jan 2012       | GB1201661.4        |                    |                  |               |             | Method and Apparatus of Informing UE Access Barring   |
| RM115538   | GB01    | POA     | 31 Jan 2012 | 31 Jan 2012       | US13/365544        | GB2499189          | 14 Aug 2013      |               | 2 Jul 2013  | Method and Apparatus of Informing UE Access Barring   |
| RM115539   | US01    | Granted | 3 Feb 2012  | 31 Jan 2012       | US13/365544        |                    |                  |               |             | Method and Apparatus of Informing UE Access Barring   |
| RM115540   | WO02    | Filed   | 3 May 2012  | 31 Jan 2012       | US13/365544        |                    |                  |               |             | Method and Apparatus of Informing UE Access Barring   |
| RM115541   | WO01    | Filed   | 29 Jan 2013 | 31 Jan 2012       | PCT/IB2013/050759  | WO2013114278       | 8 Aug 2013       |               |             | Method and Apparatus of Informing UE Access Barring   |
| RM115542   | Family  | Filed   | 27 Mar 2012 | 27 Mar 2012       |                    |                    |                  |               |             | LBT LTE Downlink Control Channel Design   |
| RM115543   | US01    | Filed   | 27 Mar 2012 | 27 Mar 2012       | GB1205390.6        |                    |                  |               |             | LBT LTE Downlink Control Channel Design   |
| RM115544   | Family  | Filed   | 27 Mar 2012 | 27 Mar 2012       | US13/364984        |                    |                  |               |             | LBT LTE Downlink Control Channel Design   |
| RM115545   | WO01    | Filed   | 27 Feb 2012 | 27 Feb 2012       |                    |                    |                  |               |             | CSFB for emergency purposes   |
| RM115546   | Family  | Filed   | 27 Feb 2012 | 27 Feb 2012       | GB1203367.6        | GB2498873          | 28 Aug 2013      |               |             | CSFB for emergency purposes   |
| RM115547   | GB01    | Filed   | 15 May 2012 | 15 May 2012       |                    |                    |                  |               |             | Method and apparatus for radio receiver circuit linearization   |
| RM115548   | US01    | Granted | 15 May 2012 | 15 May 2012       | GB1208544.5        | GB2491022          | 21 Nov 2012      |               | 1 May 2013  | Method and apparatus for radio receiver circuit linearization   |
| RM115549   | WO01    | Granted | 13 Nov 2012 | 15 May 2012       | US13/675073        | US9428545          | 23 Apr 2013      |               | 23 Apr 2013 | Method and apparatus for radio receiver circuit linearization   |
| RM115550   | Family  | Filed   | 15 May 2012 | 15 May 2012       | PCT/IB2013/053989  |                    |                  |               |             | Method and apparatus for radio receiver circuit linearization   |
| RM115551   | WO01    | Filed   | 15 May 2012 | 15 May 2012       |                    |                    |                  |               |             | Method and apparatus for radio receiver circuit linearization   |
| RM115552   | Family  | Filed   | 21 Jan 2012 | 21 Jan 2012       |                    |                    |                  |               |             | Approach of multiplexing HARQ-ACK and periodic CSI report simultaneously in PUCCH format 3              |
| RM115553   | Family  | Filed   | 21 Jan 2012 | 21 Jan 2012       | PCT/CN2012/070705  | WO2013107058       | 25 Jul 2013      |               |             | Approach of multiplexing HARQ-ACK and periodic CSI report simultaneously in PUCCH format 3              |
| RM115554   | WO01    | POA     | 21 Jan 2012 | 21 Jan 2012       |                    |                    |                  |               |             | Approach of multiplexing HARQ-ACK and periodic CSI report simultaneously in PUCCH format 3              |
| RM125006   | Family  | Filed   | 22 May 2012 | 22 May 2012       |                    |                    |                  |               |             | EUTRAN reactivation based on data transfer requirements in voice centric terminal                       |
| RM125007   | GB01    | POA     | 22 May 2012 | 22 May 2012       |                    |                    |                  |               |             | EUTRAN reactivation based on data transfer requirements in voice centric terminal                       |
| RM125008   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB1209029.6        |                    |                  |               |             | CSG fingerprint for test purposes   |
| RM125009   | WO01    | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB1201568.1        | GB2468813          | 31 Jul 2013      |               |             | CSG fingerprint for test purposes   |
| RM125010   | GB01    | POA     | 30 Jan 2012 | 30 Jan 2012       | GB1219899.0        | GB2498825          | 31 Jul 2013      |               |             | CSG fingerprint for test purposes   |
| RM125011   | WO01    | Filed   | 6 Aug 2012  | 30 Jan 2012       |                    |                    |                  |               |             | CSG fingerprint for test purposes   |
| RM125012   | US01    | Closed  | 30 Jan 2012 | 30 Jan 2012       |                    |                    |                  |               |             | CSG fingerprint for test purposes   |

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|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|---|
| RM125007   | WO01    | Filed   | 28 Jan 2013 | 30 Jan 2012       | PCT/IB2013/050724  | WO2013114265       | 8 Aug 2013       |               |             | CSG fingerprint for test purposes   |
| RM125009   | Family  | Filed   | 4 Jun 2013  | 4 Jun 2013        |                    |                    |                  |               |             | Method to ensure sampling continuity across some interruption of reception, like some measurement gap |
| RM125008   | WO01    | Filed   | 4 Jun 2013  | 4 Jun 2013        | PCT/IB2013/001716  |                    |                  |               |             | Method to ensure sampling continuity across some interruption of reception, like some measurement gap |
| RM125010   | Family  | Filed   | 16 Mar 2012 | 16 Mar 2012       | PCT/CN2012/0072442 | WO2013134854       | 19 Sep 2013      |               |             | UE-assisted DRX method for IDC with WiFi in PCF mode  |
| RM125012   | Family  | Filed   | 16 Mar 2012 | 16 Mar 2012       | PCT/CN2012/0072442 | WO2013134854       | 19 Sep 2013      |               |             | Enhanced membership indication for CSG RAN sharing  |
| RM125013   | Family  | Filed   | 6 Mar 2012  | 6 Mar 2012        | GB1203921.0        | WO2013132431       | 12 Sep 2013      |               |             | Enhanced membership indication for CSG RAN sharing  |
| RM125014   | Family  | Filed   | 5 Mar 2012  | 6 Mar 2012        | PCT/IB2013/051742  | WO2013127088       | 6 Sep 2013       |               |             | PDCCH detection for low cost MTC UEs  |
| RM125013   | Family  | Filed   | 2 Mar 2012  | 2 Mar 2012        | PCT/CN2012/0671863 | WO2013127088       | 6 Sep 2013       |               |             | PDCCH detection for low cost MTC UEs  |
| RM125018   | Family  | Filed   | 23 Mar 2012 | 23 Mar 2012       | GB1205166.0        |                    |                  |               |             | Interference reduction in wireless communication systems  |
| RM125018   | 3B01    | POA     | 23 Mar 2012 | 23 Mar 2012       | GB1205166.0        |                    |                  |               |             | Interference reduction in wireless communication systems  |
| RM125018   | JS01    | Granted | 21 Nov 2012 | 23 Mar 2012       | US13/682955        |                    |                  | US8526388     | 2 Sep 2013  | Interference reduction in wireless communication systems  |
| RM125018   | JS02    | Filed   | 21 Nov 2012 | 23 Mar 2012       | US13/683072        |                    |                  |               |             | Interference reduction in wireless communication systems  |
| RM125019   | Family  | Filed   | 20 Feb 2012 | 20 Feb 2012       | PCT/CN2012/0671854 | WO2013123637       | 29 Aug 2013      |               |             | Enhanced measurement for new carrier type   |
| RM125020   | Family  | Filed   | 20 Jan 2012 | 20 Jan 2012       |                    |                    |                  |               |             | Enhanced measurement for new carrier type   |
| RM125020   | GB01    | Filed   | 20 Jan 2012 | 20 Jan 2012       | GB1203962.7        | GB2488559          | 24 Jul 2013      |               |             | On Utilizing Full Duplex on Partial Frequency Domain on The Operating Bandwidth                       |
| RM125020   | JS01    | Filed   | 1 Feb 2012  | 20 Jan 2012       | US13/363696        | US20130186530      | 25 Jul 2013      |               |             | On Utilizing Full Duplex on Partial Frequency Domain on The Operating Bandwidth                       |
| RM125022   | Family  | Filed   | 6 Mar 2012  | 6 Mar 2012        |                    |                    |                  |               |             | Physical Discovery channel sequence design for inter-band LTE CA HeiNet                               |
| RM125022   | WO01    | Filed   | 6 Mar 2012  | 6 Mar 2012        | PCT/CN2012/071884  | WO2013131245       | 13 Sep 2013      |               |             | Physical Discovery channel sequence design for inter-band LTE CA HeiNet                               |
| RM125023   | Family  | Filed   | 2 Feb 2012  | 2 Feb 2012        | GB1201791.9        | GB2498988          | 7 Aug 2013       |               |             | Power control for scalable low-power LTE CA system on un-licensed band                                |
| RM125023   | GB01    | POA     | 2 Feb 2012  | 2 Feb 2012        | GB1201791.9        | GB2498988          | 7 Aug 2013       |               |             | Power control for scalable low-power LTE CA system on un-licensed band                                |
| RM125024   | Family  | Filed   | 1 Feb 2013  | 2 Feb 2012        | US13/757498        | US20130203468      | 8 Aug 2013       |               |             | Power control for scalable low-power LTE CA system on un-licensed band                                |
| RM125024   | Family  | Filed   | 23 Feb 2012 | 23 Feb 2012       | PCT/CN2012/0671519 | WO2013123660       | 29 Aug 2013      |               |             | Aperiodical discovery channel design for small RREs   |
| RM125025   | Family  | Filed   | 23 Feb 2012 | 23 Feb 2012       | PCT/CN2012/0671519 | WO2013123660       | 29 Aug 2013      |               |             | Aperiodical discovery channel design for small RREs   |
| RM125025   | WO01    | POA     | 5 Apr 2012  | 5 Apr 2012        | PCT/CN2012/073554  |                    |                  |               |             | Resource Configuration of DCI format based Evolved PHICH  |
| RM125026   | Family  | Filed   | 24 Jan 2012 | 24 Jan 2012       |                    |                    |                  |               |             | Indication of capacity frequency layers to facilitate modified UE measurement procedures              |
| RM125026   | GB01    | POA     | 24 Jan 2012 | 24 Jan 2012       | GB1201125.0        | GB2498721          | 31 Jul 2013      |               |             | Indication of capacity frequency layers to facilitate modified UE measurement procedures              |
| RM125026   | US01    | Filed   | 25 Jan 2012 | 24 Jan 2012       | US13/658644        | US20130189971      | 25 Jul 2013      |               |             | Indication of capacity frequency layers to facilitate modified UE measurement procedures              |
| RM125026   | WO01    | Filed   | 22 Jan 2013 | 24 Jan 2012       | PCT/IB2013/050551  | WO2013111056       | 1 Aug 2013       |               |             | Indication of capacity frequency layers to facilitate modified UE measurement procedures              |
| RM125028   | Family  | Filed   | 30 Jan 2012 | 30 Jan 2012       |                    |                    |                  |               |             | Suspension of UL transmission for M-TA  |
| RM125028   | WO01    | POA     | 30 Jan 2012 | 30 Jan 2012       | PCT/CN2012/070777  | WO2013113146       | 8 Aug 2013       |               |             | Suspension of UL transmission for M-TA  |
| RM125028   | Family  | Filed   | 17 Feb 2012 | 17 Feb 2012       |                    |                    |                  |               |             | Indication of the selected PLMN ID using PFI  |
| RM125028   | WO01    | Filed   | 17 Feb 2012 | 17 Feb 2012       | IN42/MUM/2012      |                    |                  |               |             | Indication of the selected PLMN ID using PFI  |
| RM125031   | GB01    | POA     | 19 Mar 2012 | 19 Mar 2012       | GB1204774.2        | US201300242827     | 19 Sep 2013      |               |             | HSPA uplink MIMO rank signaling at E-DPCCH  |
| RM125031   | US01    | Filed   | 19 Mar 2012 | 19 Mar 2012       | US13/451023        |                    |                  |               |             | HSPA uplink MIMO rank signaling at E-DPCCH  |
| RM125034   | Family  | Filed   | 16 Mar 2012 | 16 Mar 2012       |                    |                    |                  |               |             | Method for reporting CQI in case of extended range of MCS classes                                     |
| RM125034   | GB01    | POA     | 16 Mar 2012 | 16 Mar 2012       | GB1204672.8        |                    |                  |               |             | Method for reporting CQI in case of extended range of MCS classes                                     |
| RM125034   | Family  | Filed   | 12 Mar 2012 | 12 Mar 2012       |                    |                    |                  |               |             | Indication flags and signaling for automatic notification on road                                     |
| RM125038   | Family  | Filed   | 12 Mar 2012 | 12 Mar 2012       | PCT/CN2012/072206  | WO2013134912       | 19 Sep 2013      |               |             | Indication flags and signaling for automatic notification on road                                     |
| RM125038   | WO01    | Filed   | 7 Mar 2012  | 7 Mar 2012        | GB1204039.0        | GB2490989          | 21 Nov 2012      | GB2490989     | 10 Apr 2013 | PLMN selection when EUTRAN is disabled  |
| RM125038   | US01    | Granted | 3 Oct 2012  | 7 Mar 2012        | US13/638926        | US20130237223      | 12 Sep 2013      | US85264017    | 6 Aug 2013  | PLMN selection when EUTRAN is disabled  |
| RM125039   | US02    | Filed   | 15 Jan 2013 | 7 Mar 2012        | PCT/IB2013/051750  | WO2013132437       | 12 Sep 2013      |               |             | PLMN selection when EUTRAN is disabled  |
| RM125040   | Family  | Filed   | 5 Mar 2013  | 7 Mar 2012        |                    |                    |                  |               |             | PLMN selection when EUTRAN is disabled  |
| RM125040   | GB01    | POA     | 27 Feb 2012 | 27 Feb 2012       | GB1203366.4        | GB2495674          | 28 Aug 2013      |               |             | CoMP feedback indication  |
| RM125040   | US01    | Filed   | 26 Feb 2013 | 27 Feb 2012       | US13/777493        | US20130229283      | 29 Aug 2013      |               |             | CoMP feedback indication  |
| RM125041   | Family  | Filed   | 27 Feb 2012 | 27 Feb 2012       |                    |                    |                  |               |             | Joint coding of rank and CoMP feedback information  |
| RM125041   | GB01    | Filed   | 27 Feb 2012 | 27 Feb 2012       | GB1203361.9        |                    |                  |               |             | Joint coding of rank and CoMP feedback information  |

| Case ref.# | Country | Status | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date | Proposed title  |
|------------|---------|--------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|---|
| RM125042   | Family  | Filed  | 19 Mar 2012 | 19 Mar 2012       |                    |                    |                  |               |            | Method to indicate UE filtering capabilities  |
| RM125042   | GB01    | POA    | 19 Mar 2012 | 19 Mar 2012       | GB1204796.1        |                    |                  |               |            | Method to indicate UE filtering capabilities  |
| RM125042   | US01    | Filed  | 28 Feb 2012 | 19 Mar 2012       | US13780296         |                    |                  |               |            | Method to indicate UE filtering capabilities  |
| RM125043   | Family  | Filed  | 30 Jan 2012 | 30 Jan 2012       |                    |                    |                  |               |            | Enhanced interference suppression for E-PDCCH and PDSCH   |
| RM125043   | US01    | Filed  | 20 Jan 2012 | 30 Jan 2012       | US13754325         | US20130195051      | 1 Aug 2013       |               |            | Enhanced interference suppression for E-PDCCH and PDSCH   |
| RM125043   | WO01    | POA    | 30 Jan 2012 | 30 Jan 2012       | PT1CN2012/070778   | WO2013113147       | 8 Aug 2013       |               |            | Enhanced interference suppression for E-PDCCH and PDSCH   |
| RM125044   | Family  | Filed  | 2 Mar 2012  | 2 Mar 2012        |                    |                    |                  |               |            | Two dimensional COI feedback for dynamic points selection   |
| RM125044   | GB01    | POA    | 2 Mar 2012  | 2 Mar 2012        | GB1203721.4        | GB2489849          | 4 Sep 2013       |               |            | Two dimensional COI feedback for dynamic points selection   |
| RM125044   | WO01    | Filed  | 1 Mar 2013  | 2 Mar 2012        | PT1IB2013/0051663  | WO2013128425       | 6 Sep 2013       |               |            | The general hybrid multicarrier technique for local area multiple access networks   |
| RM125049   | Family  | Filed  | 29 Mar 2012 | 29 Mar 2012       |                    |                    |                  |               |            | The general hybrid multicarrier technique for local area multiple access networks   |
| RM125049   | GB01    | POA    | 29 Mar 2012 | 29 Mar 2012       | GB1205608.1        |                    |                  |               |            | The general hybrid multicarrier technique for local area multiple access networks   |
| RM125049   | WO01    | Filed  | 28 Mar 2013 | 29 Mar 2012       | PT1IB2013/052487   |                    |                  |               |            | The general hybrid multicarrier technique for local area multiple access networks   |
| RM125052   | Family  | Filed  | 9 Mar 2012  | 9 Mar 2012        |                    |                    |                  |               |            | Self-configurable, node-based grouping for large networks   |
| RM125052   | GB01    | Filed  | 9 Mar 2012  | 9 Mar 2012        | GB12042009.9       |                    |                  |               |            | Self-configurable, node-based grouping for large networks   |
| RM125055   | Family  | Filed  | 11 Apr 2012 | 11 Apr 2012       |                    |                    |                  |               |            | A novel LTE + WiFi offloading method  |
| RM125055   | WO01    | Filed  | 11 Apr 2012 | 11 Apr 2012       | PT1CN2012/073800   |                    |                  |               |            | A novel LTE + WiFi offloading method  |
| RM125055   | Family  | Filed  | 12 Mar 2012 | 12 Mar 2012       |                    |                    |                  |               |            | Supporting prolonged station sleeping in the power save mode  |
| RM125055   | GB01    | Filed  | 20 Jul 2012 | 12 Mar 2012       | GB1212912.8        |                    |                  |               |            | Supporting prolonged station sleeping in the power save mode  |
| RM125055   | US01    | Closed | 12 Mar 2012 | 12 Mar 2012       | US61609806         |                    |                  |               |            | Supporting prolonged station sleeping in the power save mode  |
| RM125056   | Family  | Filed  | 11 Mar 2013 | 12 Mar 2012       |                    |                    |                  |               |            | Local Collision Detection and Resolution for Resource Allocation of Discovery Transmissions   |
| RM125056   | WO01    | Filed  | 11 Mar 2013 | 12 Mar 2012       | PT1IB2013/0051921  | WO2013136255       | 15 Sep 2013      |               |            | Local Collision Detection and Resolution for Resource Allocation of Discovery Transmissions   |
| RM125058   | Family  | Filed  | 13 Apr 2012 | 13 Apr 2012       |                    |                    |                  |               |            | Local Collision Detection and Resolution for Resource Allocation of Discovery Transmissions   |
| RM125058   | GB01    | POA    | 13 Apr 2012 | 13 Apr 2012       | GB1206543.9        |                    |                  |               |            | Local Collision Detection and Resolution for Resource Allocation of Discovery Transmissions   |
| RM125058   | WO01    | Filed  | 13 Apr 2013 | 13 Apr 2012       | PT1IB2013/062988   |                    |                  |               |            | Local Collision Detection and Resolution for Resource Allocation of Discovery Transmissions   |
| RM125060   | Family  | Filed  | 18 Apr 2012 | 18 Apr 2012       |                    |                    |                  |               |            | Physical discovery channel design for small RRHs  |
| RM125060   | WO01    | Filed  | 18 Apr 2012 | 18 Apr 2012       | PT1CN2012/074254   |                    |                  |               |            | Physical discovery channel design for small RRHs  |
| RM125061   | Family  | Filed  | 31 May 2012 | 31 May 2012       |                    |                    |                  |               |            | Method and Apparatus for Discovery Signal Formation   |
| RM125061   | GB01    | Filed  | 31 May 2012 | 31 May 2012       | GB1209703.6        |                    |                  |               |            | Method and Apparatus for Discovery Signal Formation   |
| RM125061   | WO01    | Filed  | 31 May 2013 | 31 May 2012       | PT1IB2013/0054502  |                    |                  |               |            | Method and Apparatus for Discovery Signal Formation   |
| RM125064   | Family  | Closed | 2 Apr 2012  | 2 Apr 2012        |                    |                    |                  |               |            | Antenna Beam Steering With Switchable Ground Plane  |
| RM125064   | GB01    | Closed | 2 Apr 2012  | 2 Apr 2012        | GB1205988.7        |                    |                  |               |            | Antenna Beam Steering With Switchable Ground Plane  |
| RM125064   | US01    | Closed | 2 Apr 2012  | 2 Apr 2012        |                    |                    |                  |               |            | Antenna Beam Steering With Switchable Ground Plane  |
| RM125067   | Family  | Filed  | 13 Apr 2012 | 13 Apr 2012       |                    |                    |                  |               |            | The new signaling design to benefit from the single channel full duplex transceivers in random access communications such as 802.11 systems |
| RM125067   | GB01    | Filed  | 13 Apr 2012 | 13 Apr 2012       | GB1205574.4        |                    |                  |               |            | The new signaling design to benefit from the single channel full duplex transceivers in random access communications such as 802.11 systems |
| RM125067   | US01    | Filed  | 12 Apr 2013 | 13 Apr 2012       | US13862053         |                    |                  |               |            | The new signaling design to benefit from the single channel full duplex transceivers in random access communications such as 802.11 systems |
| RM125072   | Family  | Filed  | 18 Mar 2012 | 18 Mar 2012       |                    |                    |                  |               |            | Method of autonomous ciphering error detection selector   |
| RM125072   | GB01    | Filed  | 18 Mar 2012 | 18 Mar 2012       | GB1204814.6        |                    |                  |               |            | Method of autonomous ciphering error detection selector   |
| RM125073   | Family  | Filed  | 27 Apr 2012 | 27 Apr 2012       |                    |                    |                  |               |            | Compression of the TIM for networks supporting a large number of stations   |
| RM125073   | GB01    | Filed  | 27 Apr 2012 | 27 Apr 2012       | GB1207413.4        |                    |                  |               |            | Compression of the TIM for networks supporting a large number of stations   |
| RM125073   | WO01    | Filed  | 26 Apr 2013 | 27 Apr 2012       | PT1IB2013/0053307  |                    |                  |               |            | Compression of the TIM for networks supporting a large number of stations   |
| RM125074   | Family  | Filed  | 1 Jun 2012  | 1 Jun 2012        |                    |                    |                  |               |            | Full Duplex Transmission Scheme for DCF operation in 802.11 utilizing RTS/CTS evaluation for the Full Duplex Link                           |
| RM125074   | GB01    | Filed  | 1 Jun 2012  | 1 Jun 2012        | GB1205845.5        |                    |                  |               |            | Full Duplex Transmission Scheme for DCF operation in 802.11 utilizing RTS/CTS evaluation for the Full Duplex Link                           |
| RM125074   | WO01    | Filed  | 1 Jun 2012  | 1 Jun 2012        | PT1IB2013/0054507  |                    |                  |               |            | Full Duplex Transmission Scheme for DCF operation in 802.11 utilizing RTS/CTS evaluation for the Full Duplex Link                           |
| RM125075   | Family  | Filed  | 31 May 2013 | 1 Jun 2012        |                    |                    |                  |               |            | Antenna Arrangement   |
| RM125075   | GB01    | Filed  | 24 Apr 2012 | 24 Apr 2012       | GB1207164.3        |                    |                  |               |            | Antenna Arrangement   |
| RM125075   | US01    | Filed  | 17 Apr 2013 | 24 Apr 2012       | US13864449         |                    |                  |               |            | Antenna Arrangement   |
| RM125076   | Family  | Filed  | 16 Mar 2012 | 16 Mar 2012       |                    |                    |                  |               |            | Always-on Mobile UE Power Consumption Improvement   |
| RM125076   | GB01    | Filed  | 16 Mar 2012 | 16 Mar 2012       | GB1204681.9        |                    |                  |               |            | Always-on Mobile UE Power Consumption Improvement   |
| RM125077   | Family  | Filed  | 23 Mar 2012 | 23 Mar 2012       |                    |                    |                  |               |            | Method to indicate UE front-end capability  |
| RM125077   | GB01    | POA    | 23 Mar 2012 | 23 Mar 2012       | GB1205183.7        |                    |                  |               |            | Method to indicate UE front-end capability  |

| Case ref.# | Country | Status | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date | Proposed title   |
|------------|---------|--------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|--|
| RM125077   | US01    | Filed  | 21 Mar 2012 | 23 Mar 2012       | US13/848413        |                    |                  |               |            | Method to indicate UE front-end capability   |
| RM125078   | Family  | Filed  | 26 Sep 2012 | 26 Sep 2012       |                    |                    |                  |               |            | Reconfigurable Rx digital data path architecture with flexible IQ sampling rates   |
| RM125078   | WO01    | Filed  | 26 Sep 2012 | 26 Sep 2012       | PCT/IB2012/002222  |                    |                  |               |            | Reconfigurable Rx digital data path architecture with flexible IQ sampling rates   |
| RM125078   | Family  | Filed  | 27 Feb 2012 | 27 Feb 2012       |                    |                    |                  |               |            | Preamble Counter calculation scheme for RA on Scell  |
| RM125078   | WO01    | Filed  | 27 Feb 2012 | 27 Feb 2012       | PCT/CN2012/071884  | WO2013127058       | 6 Sep 2013       |               |            | Preamble Counter calculation scheme for RA on Scell  |
| RM125080   | Family  | Filed  | 12 Apr 2012 | 12 Apr 2012       |                    |                    |                  |               |            | An improvement of time domain based EICIC solution in HetNets  |
| RM125080   | WO01    | POA    | 12 Apr 2012 | 12 Apr 2012       | PCT/CN2012/073883  |                    |                  |               |            | An improvement of time domain based EICIC solution in HetNets  |
| RM125081   | Family  | Filed  | 19 Mar 2012 | 19 Mar 2012       |                    |                    |                  |               |            | PUCCH enabled simple CoMP operation  |
| RM125081   | WO01    | POA    | 19 Mar 2012 | 19 Mar 2012       | GB1204796.5        |                    |                  |               |            | PUCCH enabled simple CoMP operation  |
| RM125081   | WO01    | Filed  | 21 Mar 2012 | 19 Mar 2012       | US13/426680        | US20130242784      | 19 Sep 2013      |               |            | PUCCH enabled simple CoMP operation  |
| RM125082   | Family  | Filed  | 13 Apr 2012 | 13 Apr 2012       |                    |                    |                  |               |            | Reverse transmission mechanism in smart grid   |
| RM125082   | WO01    | Filed  | 13 Apr 2012 | 13 Apr 2012       | PCT/CN2012/074010  |                    |                  |               |            | Reverse transmission mechanism in smart grid   |
| RM126001   | Family  | Filed  | 25 May 2012 | 25 May 2012       |                    |                    |                  |               |            | Memory efficient and generic HW implementation to perform "physical channel segmentation, second interleaving, subframe segmentation and physical channel mapping" of various transport channels as per 3GPP-1.28Mcps, TDD mode. |
| RM126001   | WO01    | Filed  | 25 May 2012 | 25 May 2012       | IN1579/MUM/2012    |                    |                  |               |            | Memory efficient and generic HW implementation to perform "physical channel segmentation, second interleaving, subframe segmentation and physical channel mapping" of various transport channels as per 3GPP-1.28Mcps, TDD mode. |
| RM126001   | NO1     | Filed  | 25 May 2012 | 25 May 2012       |                    |                    |                  |               |            | Enhanced Resource Allocation of UL Control Signaling   |
| RM126001   | Family  | Filed  | 16 Mar 2012 | 16 Mar 2012       |                    |                    |                  |               |            | Enhanced Resource Allocation of UL Control Signaling   |
| RM126001   | WO01    | Filed  | 16 Mar 2012 | 16 Mar 2012       | PCT/CN2012/072436  | WO2013134951       | 19 Sep 2013      |               |            | Adaptation of transmission denial modes for in-device interference   |
| RM126006   | Family  | Filed  | 16 Mar 2012 | 16 Mar 2012       |                    |                    |                  |               |            | Adaptation of transmission denial modes for in-device interference   |
| RM126006   | WO01    | Filed  | 16 Mar 2012 | 16 Mar 2012       | PCT/CN2012/072478  | WO2013134961       | 19 Sep 2013      |               |            | The enhancement of interference coordination scheme in HetNets with flexible TDD configuration   |
| RM126007   | Family  | Filed  | 11 Jun 2012 | 11 Jun 2012       |                    |                    |                  |               |            | The enhancement of interference coordination scheme in HetNets with flexible TDD configuration   |
| RM126007   | WO01    | POA    | 11 Jun 2012 | 11 Jun 2012       | PCT/CN2012/076722  |                    |                  |               |            | The enhancement of interference coordination scheme in HetNets with flexible TDD configuration   |
| RM126010   | Family  | Filed  | 6 Jun 2012  | 6 Jun 2012        |                    |                    |                  |               |            | Reference Symbol Configuration for Control Channel with Frequency Reuse  |
| RM126010   | WO01    | Filed  | 6 Jun 2012  | 6 Jun 2012        | GB1210002.0        |                    |                  |               |            | Reference Symbol Configuration for Control Channel with Frequency Reuse  |
| RM126010   | WO01    | Filed  | 6 Jun 2012  | 6 Jun 2012        | US13/816500        |                    |                  |               |            | Reference Symbol Configuration for Control Channel with Frequency Reuse  |
| RM126012   | Family  | Filed  | 6 Jul 2012  | 6 Jul 2012        |                    |                    |                  |               |            | Apparatus and methods for multiple virtual SIMs communication mechanism  |
| RM126012   | WO01    | Filed  | 6 Jul 2012  | 6 Jul 2012        | PCT/CN2012/078297  |                    |                  |               |            | Apparatus and methods for multiple virtual SIMs communication mechanism  |
| RM126015   | Family  | Filed  | 19 Mar 2012 | 19 Mar 2012       |                    |                    |                  |               |            | Signaling for PDSCH Feedback Mode on New Carrier Type  |
| RM126015   | WO01    | POA    | 19 Mar 2012 | 19 Mar 2012       | PCT/CN2012/072570  |                    |                  |               |            | Signaling for PDSCH Feedback Mode on New Carrier Type  |
| RM126017   | Family  | Filed  | 24 May 2012 | 24 May 2012       |                    |                    |                  |               |            | On the enablement of HARQ in contention based transmission   |
| RM126017   | WO01    | Filed  | 24 May 2012 | 24 May 2012       | GB1208156.7        |                    |                  |               |            | On the enablement of HARQ in contention based transmission   |
| RM126020   | Family  | Filed  | 22 May 2012 | 24 May 2012       |                    |                    |                  |               |            | Controlling antenna beam width   |
| RM126020   | WO01    | Filed  | 22 May 2012 | 24 May 2012       | PCT/IB2012/054236  |                    |                  |               |            | Controlling antenna beam width   |
| RM126020   | WO01    | POA    | 5 Apr 2012  | 5 Apr 2012        |                    |                    |                  |               |            | Controlling antenna beam width   |
| RM126020   | WO01    | Filed  | 5 Apr 2012  | 5 Apr 2012        | GB1206165.1        |                    |                  |               |            | Controlling antenna beam width   |
| RM126021   | Family  | Filed  | 29 Mar 2012 | 5 Apr 2012        |                    |                    |                  |               |            | New way to prevent Ping-Pong effect during S1-handover in IDC.   |
| RM126021   | WO01    | Filed  | 19 Mar 2012 | 19 Mar 2012       | US13/653220        |                    |                  |               |            | New way to prevent Ping-Pong effect during S1-handover in IDC.   |
| RM126021   | WO01    | Filed  | 19 Mar 2012 | 19 Mar 2012       | PCT/CN2012/072523  |                    |                  |               |            | A flexible algorithm for arbitration of transmit power between multiple radios   |
| RM126022   | Family  | Filed  | 11 Jun 2012 | 11 Jun 2012       |                    |                    |                  |               |            | A flexible algorithm for arbitration of transmit power between multiple radios   |
| RM126022   | WO01    | Filed  | 11 Jun 2012 | 11 Jun 2012       | GB1210257.0        |                    |                  |               |            | A flexible algorithm for arbitration of transmit power between multiple radios   |
| RM126022   | WO01    | Filed  | 11 Jun 2012 | 11 Jun 2012       |                    |                    |                  |               |            | A flexible algorithm for arbitration of transmit power between multiple radios   |
| RM126024   | Family  | Filed  | 23 May 2012 | 23 May 2012       |                    |                    |                  |               |            | New subframe structure design for multiple MC UEs in local area  |
| RM126024   | WO01    | Filed  | 23 May 2012 | 23 May 2012       | US13/814659        |                    |                  |               |            | New subframe structure design for multiple MC UEs in local area  |
| RM126025   | Family  | Filed  | 16 Mar 2012 | 16 Mar 2012       |                    |                    |                  |               |            | System and method of handling out of order RLC acknowledgement status reports received from the receiver   |
| RM126025   | WO01    | Filed  | 16 Mar 2012 | 16 Mar 2012       | PCT/CN2012/075963  |                    |                  |               |            | System and method of handling out of order RLC acknowledgement status reports received from the receiver   |
| RM126025   | WO01    | Filed  | 16 Mar 2012 | 16 Mar 2012       | IN706/MUM/2012     |                    |                  |               |            | Improved Resource Allocation for CC-specific TDD Configurations with Cross-carrier Scheduling  |
| RM126029   | Family  | Filed  | 20 Apr 2012 | 20 Apr 2012       |                    |                    |                  |               |            | Improved Resource Allocation for CC-specific TDD Configurations with Cross-carrier Scheduling  |

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|------------|---------|-----------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|--|
| RM126029   | WO01    | POA       | 20 Apr 2012 | 20 Apr 2012       | PCT/IN2012/074450  |                    |                  |               |            | Improved Resource Allocation for CC-specific TDD Configurations with Cross-carrier Scheduling                    |
| RM126036   | Family  | Filed     | 28 Sep 2012 | 28 Sep 2012       |                    |                    |                  |               |            | Real-time traffic off-loading mechanism from the WLANs   |
| RM126036   | GB01    | POA       | 28 Sep 2012 | 28 Sep 2012       | GB1217424.9        |                    |                  |               |            | Real-time traffic off-loading mechanism from the WLANs   |
| RM126036   | WO01    | Filed     | 17 Sep 2013 | 28 Sep 2012       | PCT/IN2013/058602  |                    |                  |               |            | Real-time traffic off-loading mechanism from the WLANs   |
| RM126037   | Family  | Filed     | 19 Mar 2012 | 19 Mar 2012       |                    |                    |                  |               |            | Signaling of antenna collocation and reference for channel statistics estimation to the UE                       |
| RM126037   | GB01    | POA       | 19 Mar 2012 | 19 Mar 2012       | GB1204734.6        |                    |                  |               |            | Signaling of antenna collocation and reference for channel statistics estimation to the UE                       |
| RM126037   | US01    | Filed     | 13 Sep 2012 | 19 Mar 2012       | US131614052        | US 2013-024676-A1  | 19 Sep 2013      |               |            | Signaling of antenna collocation and reference for channel statistics estimation to the UE                       |
| RM126037   | WO01    | Filed     | 18 Mar 2013 | 19 Mar 2012       | PCT/IN2013/052139  |                    |                  |               |            | Signaling of antenna collocation and reference for channel statistics estimation to the UE                       |
| RM126039   | Family  | Filed     | 15 May 2012 | 16 May 2012       |                    |                    |                  |               |            | HS-DSCH CQI value estimation for Advanced Receivers using a simple low-power receiver during transmission gaps   |
| RM126039   | GB01    | POA       | 15 May 2012 | 16 May 2012       | GB1208622.9        |                    |                  |               |            | HS-DSCH CQI value estimation for Advanced Receivers using a simple low-power receiver during transmission gaps   |
| RM126039   | US01    | Filed     | 15 May 2013 | 16 May 2012       | US131855404        |                    |                  |               |            | HS-DSCH CQI value estimation for Advanced Receivers using a simple low-power receiver during transmission gaps   |
| RM126040   | Family  | Filed     | 21 Mar 2012 | 21 Mar 2012       |                    |                    |                  |               |            | Method of avoiding ambiguity between scheduling information and data packets during collision resolution         |
| RM126040   | IN01    | Filed     | 21 Mar 2012 | 21 Mar 2012       | IN760MUM/2012      |                    |                  |               |            | Method of avoiding ambiguity between scheduling information and data packets during collision resolution         |
| RM126041   | Family  | Filed     | 25 May 2012 | 25 May 2012       |                    |                    |                  |               |            | Delta-based SNR estimation algorithm in iterative receiver   |
| RM126041   | GB01    | POA       | 25 May 2012 | 25 May 2012       | GB1209248.2        |                    |                  |               |            | Delta-based SNR estimation algorithm in iterative receiver   |
| RM126043   | Family  | Filed     | 18 Mar 2012 | 18 Mar 2012       |                    |                    |                  |               |            | Method of autonomous for ciphering error detection selector  |
| RM126043   | GB01    | POA       | 18 Mar 2012 | 18 Mar 2012       | GB1204912.0        |                    |                  |               |            | Method of autonomous for ciphering error detection selector  |
| RM126043   | US01    | Filed     | 29 May 2012 | 18 Mar 2012       | US131482210        |                    |                  |               |            | Method of autonomous for ciphering error detection selector  |
| RM126047   | Family  | To Filing | 10 Oct 2012 | 10 Oct 2012       |                    |                    |                  |               |            | Method of autonomous for ciphering error detection selector  |
| RM126047   | US01    | Filed     | 10 Oct 2012 | 10 Oct 2012       |                    |                    |                  |               |            | Method of autonomous for ciphering error detection selector  |
| RM126047   | WO01    | Filed     | 10 Oct 2012 | 10 Oct 2012       | PCT/IN2012/062711  |                    |                  |               |            | Method of autonomous for ciphering error detection selector  |
| RM126048   | Family  | Filed     | 10 May 2012 | 10 May 2012       |                    |                    |                  |               |            | A WSN-assisted UE location optimization method   |
| RM126048   | GB01    | POA       | 10 May 2012 | 10 May 2012       | GB1236219.4        |                    |                  |               |            | A WSN-assisted UE location optimization method   |
| RM126048   | US01    | Filed     | 2 May 2013  | 10 May 2012       | US131875872        |                    |                  |               |            | A WSN-assisted UE location optimization method   |
| RM126049   | Family  | Filed     | 29 Jun 2012 | 29 Jun 2012       |                    |                    |                  |               |            | METHOD AND APPARATUS FOR OBTAINING SIGNAL TO NOISE RATIO   |
| RM126049   | GB01    | POA       | 29 Jun 2012 | 29 Jun 2012       | GB1214608.3        |                    |                  |               |            | METHOD AND APPARATUS FOR OBTAINING SIGNAL TO NOISE RATIO   |
| RM126049   | US01    | Filed     | 28 Jun 2013 | 29 Jun 2012       | US131930228        |                    |                  |               |            | METHOD AND APPARATUS FOR OBTAINING SIGNAL TO NOISE RATIO   |
| RM126050   | Family  | Filed     | 26 Mar 2012 | 26 Mar 2012       |                    |                    |                  |               |            | (SNR) ESTIMATE IN A COMMUNICATION SYSTEM   |
| RM126050   | GB01    | POA       | 26 Mar 2012 | 26 Mar 2012       | GB1205277.5        |                    |                  |               |            | (SNR) ESTIMATE IN A COMMUNICATION SYSTEM   |
| RM126051   | Family  | Filed     | 14 Aug 2012 | 14 Aug 2012       |                    |                    |                  |               |            | (SNR) ESTIMATE IN A COMMUNICATION SYSTEM   |
| RM126051   | US01    | Filed     | 14 Aug 2012 | 14 Aug 2012       | US131685043        |                    |                  |               |            | (SNR) ESTIMATE IN A COMMUNICATION SYSTEM   |
| RM126051   | WO01    | Filed     | 27 Jun 2013 | 14 Aug 2012       | PCT/IN2013/001951  |                    |                  |               |            | (SNR) ESTIMATE IN A COMMUNICATION SYSTEM   |
| RM126054   | Family  | Filed     | 20 Sep 2012 | 20 Sep 2012       |                    |                    |                  |               |            | IPV6 based peer discovery over-the-air for LTE   |
| RM126054   | GB01    | Filed     | 20 Sep 2012 | 20 Sep 2012       | GB1216824.1        |                    |                  |               |            | IPV6 based peer discovery over-the-air for LTE   |
| RM126054   | US01    | Filed     | 19 Sep 2013 | 20 Sep 2012       | US141031370        |                    |                  |               |            | IPV6 based peer discovery over-the-air for LTE   |
| RM126056   | Family  | Filed     | 27 Sep 2012 | 27 Sep 2012       |                    |                    |                  |               |            | Method and apparatus of Layer 2 status report re-ordering  |
| RM126056   | GB01    | Filed     | 27 Sep 2012 | 27 Sep 2012       | GB1217314.2        |                    |                  |               |            | Method and apparatus of Layer 2 status report re-ordering  |
| RM126056   | WO01    | Filed     | 17 Sep 2013 | 27 Sep 2012       | PCT/IN2013/058603  |                    |                  |               |            | Method and apparatus of Layer 2 status report re-ordering  |
| RM126057   | Family  | Filed     | 29 Jun 2012 | 29 Jun 2012       |                    |                    |                  |               |            | Antenna domain interference cancellation for full duplex implementation  |
| RM126057   | GB01    | Filed     | 29 Jun 2012 | 29 Jun 2012       | GB1211597.8        |                    |                  |               |            | Antenna domain interference cancellation for full duplex implementation  |
| RM126057   | US01    | Filed     | 29 Jun 2012 | 29 Jun 2012       | US1314865.5        |                    |                  |               |            | Antenna domain interference cancellation for full duplex implementation  |
| RM126057   | GB02    | Filed     | 29 Jun 2012 | 29 Jun 2012       | GB1301486.5        |                    |                  |               |            | Antenna domain interference cancellation for full duplex implementation  |
| RM126058   | Family  | Filed     | 21 Oct 2012 | 18 Oct 2012       |                    |                    |                  |               |            | The inter cell interference cancellation/coordination of spreading IFDMA based system for local area environment |
| RM126058   | US01    | Filed     | 18 Oct 2012 | 18 Oct 2012       | US131923677        |                    |                  |               |            | The inter cell interference cancellation/coordination of spreading IFDMA based system for local area environment |
| RM126058   | GB01    | POA       | 18 Oct 2012 | 18 Oct 2012       | GB1218745.6        |                    |                  |               |            | The inter cell interference cancellation/coordination of spreading IFDMA based system for local area environment |
| RM126058   | US01    | To Filing | 9 May 2012  | 9 May 2012        |                    |                    |                  |               |            | The inter cell interference cancellation/coordination of spreading IFDMA based system for local area environment |
| RM126081   | Family  | Filed     | 9 May 2012  | 9 May 2012        |                    |                    |                  |               |            | Design for D2D specific system information   |
| RM126081   | GB01    | Filed     | 9 May 2012  | 9 May 2012        | GB1208117.0        |                    |                  |               |            | Design for D2D specific system information   |
| RM126081   | US01    | Filed     | 9 May 2012  | 9 May 2012        | US131680474        |                    |                  |               |            | Design for D2D specific system information   |
| RM126081   | US01    | Filed     | 9 May 2012  | 9 May 2012        |                    |                    |                  |               |            | Design for D2D specific system information   |

| Case ref # | Country | Status     | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date | Proposed title   |
|------------|---------|------------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|--|
| RM126063   | Family  | Filed      | 17 May 2012 | 17 May 2012       |                    |                    |                  |               |            | Inter-cell group establish and coordination with cross-link interference in HeiNet                   |
| RM126063   | WO01    | POA        | 17 May 2012 | 17 May 2012       | PCT/CN2012075671   |                    |                  |               |            | Inter-cell group establish and coordination with cross-link interference in HeiNet                   |
| RM126065   | Family  | Filed      | 19 Oct 2012 | 18 Oct 2012       |                    |                    |                  |               |            | Band-dependent noise shaping in envelope tracking transmitter  |
| RM126065   | GB01    | Filed      | 19 Oct 2012 | 18 Oct 2012       | GB1218907.4        |                    |                  |               |            | Band-dependent noise shaping in envelope tracking transmitter  |
| RM126065   | WO01    | ToFiling   | 19 Oct 2012 | 18 Oct 2012       |                    |                    |                  |               |            | Band-dependent noise shaping in envelope tracking transmitter  |
| RM126066   | Family  | Filed      | 24 May 2012 | 24 May 2012       |                    |                    |                  |               |            | Low power interrupt synchronization  |
| RM126066   | GB01    | Filed      | 24 May 2012 | 24 May 2012       | GB1209121.1        | GB2493416          | 6 Feb 2013       |               |            | Low power interrupt synchronization  |
| RM126066   | US01    | Filed      | 21 Jan 2013 | 24 May 2012       | US13/746103        |                    |                  |               |            | Low power interrupt synchronization  |
| RM126066   | WO01    | POA        | 22 May 2013 | 24 May 2012       | PCT/US2013/054233  |                    |                  |               |            | Low power interrupt synchronization  |
| RM126067   | Family  | Filed      | 28 May 2012 | 28 May 2012       |                    |                    |                  |               |            | TPC command delay estimator for open loop transmit diversity (OLTD) feature                          |
| RM126067   | GB01    | POA        | 28 May 2012 | 28 May 2012       | GB1209416.5        | GB2491272          | 28 Nov 2012      |               |            | TPC command delay estimator for open loop transmit diversity (OLTD) feature                          |
| RM126069   | Family  | Filed      | 7 Jun 2012  | 7 Jun 2012        |                    |                    |                  |               |            | Choosing security context by integrity verification procedure  |
| RM126069   | GB01    | Filed      | 7 Jun 2012  | 7 Jun 2012        | GB1210046.7        | GS2491047          | 21 Nov 2012      |               |            | Choosing security context by integrity verification procedure  |
| RM126073   | Family  | Filed      | 19 Sep 2012 | 19 Sep 2012       |                    |                    |                  |               |            | Signaling to setup a D2D bearer utilizing over-the-air UE discovery                                  |
| RM126073   | GB01    | Filed      | 19 Sep 2012 | 19 Sep 2012       | GB1216736.7        |                    |                  |               |            | Signaling to setup a D2D bearer utilizing over-the-air UE discovery                                  |
| RM126073   | WO01    | Filed      | 5 Sep 2013  | 19 Sep 2012       | PCT/US2013/059303  |                    |                  |               |            | Signaling to setup a D2D bearer utilizing over-the-air UE discovery                                  |
| RM126074   | Family  | Filed      | 31 May 2012 | 31 May 2012       |                    |                    |                  |               |            | Modern receiver path delay measurement method  |
| RM126074   | GB01    | Filed      | 31 May 2012 | 31 May 2012       | GB1208743.2        |                    |                  |               |            | Modern receiver path delay measurement method  |
| RM126075   | Family  | Filed      | 13 Jun 2012 | 13 Jun 2012       |                    |                    |                  |               |            | Enhancement on inter-frequency small cell detection  |
| RM126075   | WO01    | POA        | 13 Jun 2012 | 13 Jun 2012       | PCT/CN2012/076926  |                    |                  |               |            | Enhancement on inter-frequency small cell detection  |
| RM126076   | Family  | Filed      | 7 Jun 2012  | 7 Jun 2012        |                    |                    |                  |               |            | Carrier loading status report in HeiNets with extension carrier                                      |
| RM126076   | WO01    | Filed      | 7 Jun 2012  | 7 Jun 2012        | PCT/CN2012/076608  |                    |                  |               |            | Carrier loading status report in HeiNets with extension carrier                                      |
| RM126078   | Family  | Filed      | 11 May 2012 | 11 May 2012       |                    |                    |                  |               |            | Method and apparatus of capability reporting per RAT   |
| RM126078   | GB01    | Filed      | 11 May 2012 | 11 May 2012       | GB1208321.8        |                    |                  |               |            | Method and apparatus of capability reporting per RAT   |
| RM126078   | WO01    | Filed      | 11 May 2012 | 11 May 2012       | GB1208321.8        |                    |                  |               |            | Method and apparatus of capability reporting per RAT   |
| RM126079   | Family  | Filed      | 17 May 2012 | 17 May 2012       |                    |                    |                  |               |            | Method and apparatus of service based uplink resource selection                                      |
| RM126079   | GB01    | Filed      | 17 May 2012 | 17 May 2012       | PC7/US2013/053807  |                    |                  |               |            | Method and apparatus of service based uplink resource selection                                      |
| RM126079   | GB01    | Filed      | 17 May 2012 | 17 May 2012       | GB1208709.4        |                    |                  |               |            | Method and apparatus of notification of neighbor cell's system information modification              |
| RM126080   | Family  | Filed      | 20 Jun 2012 | 20 Jun 2012       |                    |                    |                  |               |            | Method and apparatus of notification of neighbor cell's system information modification              |
| RM126080   | GB01    | Filed      | 20 Jun 2012 | 20 Jun 2012       | GB1210984.3        |                    |                  |               |            | Method and apparatus of notification of neighbor cell's system information modification              |
| RM126080   | WO01    | Filed      | 20 Jun 2012 | 20 Jun 2012       | PCT/US2013/055081  |                    |                  |               |            | Method and apparatus of notification of neighbor cell's system information modification              |
| RM126081   | Family  | Filed      | 10 May 2012 | 10 May 2012       |                    |                    |                  |               |            | Enhancement of In-Device Interference TDM solution for Bluetooth                                     |
| RM126081   | WO01    | Filed      | 10 May 2012 | 10 May 2012       | PCT/US2013/055081  |                    |                  |               |            | Enhancement of In-Device Interference TDM solution for Bluetooth                                     |
| RM126082   | Family  | Filed      | 24 May 2012 | 24 May 2012       |                    |                    |                  |               |            | Method and apparatus of scenario specific call re-establishment                                      |
| RM126082   | GB01    | Filed      | 24 May 2012 | 24 May 2012       | PCT/CN2012/075310  |                    |                  |               |            | Method and apparatus of scenario specific call re-establishment                                      |
| RM126082   | WO01    | Filed      | 24 May 2012 | 24 May 2012       | GB1209158.3        |                    |                  |               |            | Method and apparatus of scenario specific call re-establishment                                      |
| RM126084   | Family  | Filed      | 30 Oct 2012 | 30 Oct 2012       |                    |                    |                  |               |            | Method and apparatus of Packet Handling During Handover  |
| RM126084   | GB01    | Filed      | 30 Oct 2012 | 30 Oct 2012       | PCT/US2013/054234  | GB2491046          | 21 Nov 2012      |               |            | Method and apparatus of Packet Handling During Handover  |
| RM126084   | WO01    | InDrafting | 30 Oct 2012 | 30 Oct 2012       | GB1218485.9        |                    |                  |               |            | Method and apparatus of Packet Handling During Handover  |
| RM126085   | Family  | Filed      | 15 Aug 2012 | 15 Aug 2012       |                    |                    |                  |               |            | A radio receiver for the concurrent reception of multi-band carriers                                 |
| RM126085   | GB01    | Filed      | 15 Aug 2012 | 15 Aug 2012       | GB1214562.9        |                    |                  |               |            | A radio receiver for the concurrent reception of multi-band carriers                                 |
| RM126085   | WO01    | Filed      | 15 Aug 2012 | 15 Aug 2012       | PCT/US2013/001363  |                    |                  |               |            | A radio receiver for the concurrent reception of multi-band carriers                                 |
| RM126086   | Family  | Filed      | 5 Oct 2012  | 5 Oct 2012        |                    |                    |                  |               |            | Efficient Linear Symbol-Level Equalization and Interference Suppression for Transforms               |
| RM126086   | GB01    | POA        | 5 Oct 2012  | 5 Oct 2012        | GB1217850.5        |                    |                  |               |            | Efficient Linear Symbol-Level Equalization and Interference Suppression for Transforms               |
| RM126086   | US01    | ToFiling   | 5 Oct 2012  | 5 Oct 2012        |                    |                    |                  |               |            | Efficient Linear Symbol-Level Equalization and Interference Suppression for Transforms               |
| RM126088   | Family  | Filed      | 30 Oct 2012 | 30 Oct 2012       |                    |                    |                  |               |            | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks |
| RM126088   | GB01    | POA        | 30 Oct 2012 | 30 Oct 2012       | GB1219486.6        |                    |                  |               |            | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks |
| RM126088   | WO01    | InDrafting | 30 Oct 2012 | 30 Oct 2012       |                    |                    |                  |               |            | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks |
| RM126090   | Family  | Filed      | 14 May 2012 | 14 May 2012       |                    |                    |                  |               |            | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks |
| RM126090   | GB01    | Filed      | 14 May 2012 | 14 May 2012       | GB1208400.0        |                    |                  |               |            | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks |

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|------------|---------|-------------|-------------|-------------------|--------------------|--------------------|------------------|---------------|-------------|--|
| RM126090   | WO01    | Filed       | 13 May 2012 | 14 May 2012       | PCT/IB2013/000916  |                    |                  |               |             | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks |
| RM126092   | Family  | Filed       | 2 Oct 2012  | 2 Oct 2012        |                    |                    |                  |               |             | Method and Apparatus to Trigger Direct Communication   |
| RM126092   | GB01    | Filed       | 2 Oct 2012  | 2 Oct 2012        | GB1217628.3        |                    |                  |               |             | Method and Apparatus to Trigger Direct Communication   |
| RM126092   | US01    | To Filing   | 2 Oct 2012  | 2 Oct 2012        |                    |                    |                  |               |             | Method and Apparatus to Trigger Direct Communication   |
| RM126093   | Family  | Filed       | 2 Oct 2012  | 2 Oct 2012        |                    |                    |                  |               |             | Method and Apparatus for Gateway to Trigger Evaluation of Direct Communication                       |
| RM126093   | GB01    | Filed       | 2 Oct 2012  | 2 Oct 2012        | GB1217630.1        |                    |                  |               |             | Method and Apparatus for Gateway to Trigger Evaluation of Direct Communication                       |
| RM126093   | US01    | To Filing   | 2 Oct 2012  | 2 Oct 2012        |                    |                    |                  |               |             | Method and Apparatus for Gateway to Trigger Evaluation of Direct Communication                       |
| RM126096   | Family  | Filed       | 27 Jun 2012 | 27 Jun 2012       | GB1211418.5        |                    |                  |               |             | An ARQ protocol for variable rate transport channel  |
| RM126096   | GB01    | POA         | 27 Jun 2012 | 27 Jun 2012       | GB1211418.5        |                    |                  |               |             | An ARQ protocol for variable rate transport channel  |
| RM126096   | WO01    | Filed       | 27 Jun 2012 | 27 Jun 2012       | PCT/IB2013/055288  |                    |                  |               |             | An ARQ protocol for variable rate transport channel  |
| RM126097   | Family  | Filed       | 10 May 2012 | 10 May 2012       | PCT/IN2012/076318  |                    |                  |               |             | Enhancement of extension carrier information report in HeiNet  |
| RM126097   | WO01    | Filed       | 10 May 2012 | 10 May 2012       | PCT/IN2012/076318  |                    |                  |               |             | Enhancement of extension carrier information report in HeiNet  |
| RM126098   | Family  | Filed       | 17 Jul 2012 | 17 Jul 2012       | PCT/IN2012/078739  |                    |                  |               |             | Enhancement of resource status report in HeiNets with extension carrier                              |
| RM126098   | WO01    | Filed       | 17 Jul 2012 | 17 Jul 2012       | PCT/IN2012/078739  |                    |                  |               |             | Enhancement of resource status report in HeiNets with extension carrier                              |
| RM126099   | Family  | Filed       | 12 Jul 2012 | 12 Jul 2012       | PCT/IN2012/078739  |                    |                  |               |             | Fast TBF establishment on PDCCH by MS in Packet Idle Mode  |
| RM126099   | GB01    | Filed       | 12 Jul 2012 | 12 Jul 2012       | GB1212422.8        |                    |                  |               |             | Fast TBF establishment on PDCCH by MS in Packet Idle Mode  |
| RM126099   | WO01    | Filed       | 12 Jul 2012 | 12 Jul 2012       | PCT/IB2013/056682  |                    |                  |               |             | Fast TBF establishment on PDCCH by MS in Packet Idle Mode  |
| RM126100   | Family  | Filed       | 10 May 2012 | 10 May 2012       | PCT/IN2012/075288  |                    |                  |               |             | Adaptation of HARQ-ACK and Periodic CSI Multiplexing in PUCCH  |
| RM126100   | WO01    | Filed       | 10 May 2012 | 10 May 2012       | PCT/IN2012/075288  |                    |                  |               |             | Adaptation of HARQ-ACK and Periodic CSI Multiplexing in PUCCH  |
| RM126101   | Family  | Filed       | 7 May 2012  | 7 May 2012        | PCT/IN2012/075149  |                    |                  |               |             | Design of multi-cell periodic CSI reporting on PUCCH format 3  |
| RM126101   | WO01    | Filed       | 7 May 2012  | 7 May 2012        | PCT/IN2012/075149  |                    |                  |               |             | Design of multi-cell periodic CSI reporting on PUCCH format 3  |
| RM126102   | Family  | Filed       | 29 Jun 2012 | 29 Jun 2012       | IN2046/DEL/2012    |                    |                  |               |             | A downlink frame processing architecture for a receiver  |
| RM126102   | WO01    | Filed       | 29 Jun 2012 | 29 Jun 2012       | IN2046/DEL/2012    |                    |                  |               |             | A downlink frame processing architecture for a receiver  |
| RM126102   | WO01    | Filed       | 29 Jun 2012 | 29 Jun 2012       | PCT/IB2013/001379  |                    |                  |               |             | A downlink frame processing architecture for a receiver  |
| RM126104   | Family  | Filed       | 26 Jun 2012 | 26 Jun 2012       | PCT/IN2012/077547  |                    |                  |               |             | Apparatus and method of cooperative surveillance system  |
| RM126104   | WO01    | Filed       | 26 Jun 2012 | 26 Jun 2012       | PCT/IN2012/077547  |                    |                  |               |             | Apparatus and method of cooperative surveillance system  |
| RM126108   | Family  | Filed       | 22 Aug 2012 | 22 Aug 2012       |                    |                    |                  |               |             | Using interfaces to improve intermediate processing in benefit of performance                        |
| RM126108   | GB01    | POA         | 22 Aug 2012 | 22 Aug 2012       | GB1214951.4        | GB2463639          | 13 Feb 2013      |               |             | Using interfaces to improve intermediate processing in benefit of performance                        |
| RM126110   | Family  | Filed       | 9 May 2012  | 9 May 2012        |                    |                    |                  |               |             | Solution to handle the UL collision between preamble and repeated ACK/NACK                           |
| RM126110   | WO01    | POA         | 9 May 2012  | 9 May 2012        | PCT/IN2012/076244  |                    |                  |               |             | Solution to handle the UL collision between preamble and repeated ACK/NACK                           |
| RM126113   | Family  | Filed       | 11 May 2012 | 11 May 2012       |                    |                    |                  |               |             | Resource Configuration of PUSCH for Multiple Periodic CSI feedback                                   |
| RM126113   | GB01    | Granted     | 11 May 2012 | 11 May 2012       | GB1208303.6        | GB2490430          | 31 Oct 2012      | GB2490430     | 28 Aug 2013 | Resource Configuration of PUSCH for Multiple Periodic CSI feedback                                   |
| RM126113   | WO01    | Filed       | 11 May 2012 | 11 May 2012       | PCT/IB2013/053750  |                    |                  |               |             | Resource Configuration of PUSCH for Multiple Periodic CSI feedback                                   |
| RM126114   | Family  | Filed       | 9 Aug 2012  | 9 Aug 2012        |                    |                    |                  |               |             | Uplink carrier band and component carrier frequency prioritization for interference mitigation       |
| RM126114   | GB01    | Filed       | 9 Aug 2012  | 9 Aug 2012        | GB1214257.6        |                    |                  |               |             | Uplink carrier band and component carrier frequency prioritization for interference mitigation       |
| RM126114   | WO01    | Filed       | 9 Aug 2012  | 9 Aug 2012        | PCT/IB2013/056636  |                    |                  |               |             | Uplink carrier band and component carrier frequency prioritization for interference mitigation       |
| RM126116   | Family  | Filed       | 14 May 2012 | 14 May 2012       |                    |                    |                  |               |             | Calculation of backoff timer for DTCH transmissions upon E-DCH to PRACH fallback indication          |
| RM126116   | GB01    | Filed       | 14 May 2012 | 14 May 2012       | GB1208563.5        |                    |                  |               |             | Calculation of backoff timer for DTCH transmissions upon E-DCH to PRACH fallback indication          |
| RM126116   | WO01    | Filed       | 14 May 2012 | 14 May 2012       | PCT/IN2012/081347  |                    |                  |               |             | Calculation of backoff timer for DTCH transmissions upon E-DCH to PRACH fallback indication          |
| RM126117   | Family  | Filed       | 14 May 2012 | 14 May 2012       | GB1301638.5        |                    |                  |               |             | Enhanced positioning reference signal based RRR discovery scheme                                     |
| RM126117   | WO01    | POA         | 13 Sep 2012 | 13 Sep 2012       | PCT/IN2012/081347  |                    |                  |               |             | Enhanced positioning reference signal based RRR discovery scheme                                     |
| RM126121   | Family  | Filed       | 5 Oct 2012  | 5 Oct 2012        |                    |                    |                  |               |             | Joint Detection and Decoding for Uplink State Flag (USF) Detection in EGPRS2                         |
| RM126121   | GB01    | POA         | 5 Oct 2012  | 5 Oct 2012        | GB1217895.1        |                    |                  |               |             | Joint Detection and Decoding for Uplink State Flag (USF) Detection in EGPRS2                         |
| RM126121   | US01    | In Drafting | 5 Oct 2012  | 5 Oct 2012        |                    |                    |                  |               |             | Joint Detection and Decoding for Uplink State Flag (USF) Detection in EGPRS2                         |
| RM126122   | Family  | Filed       | 11 May 2012 | 11 May 2012       |                    |                    |                  |               |             | Method and apparatus for frequency specific periodical intra-frequency measurement                   |

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|------------|---------|-----------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|--|
| RM126122   | GB01    | POA       | 11 May 2012 | 11 May 2012       | GB1208469.5        | GB2495569          | 17 Apr 2013      |               |            | Method and apparatus for frequency specific periodical intra-frequency measurement |
| RM126122   | US01    | Filed     | 25 Mar 2013 | 11 May 2012       | US13/084988        |                    |                  |               |            | Method and apparatus for frequency specific periodical intra-frequency measurement |
| RM126122   | WO01    | Filed     | 10 May 2013 | 11 May 2012       | PCT/IB2013/053808  |                    |                  |               |            | Method and apparatus for frequency specific periodical intra-frequency measurement |
| RM126123   | Family  | Filed     | 11 May 2012 | 11 May 2012       | GB1208281.4        |                    |                  |               |            | Network Signalled Support of Fast Dormancy Transition to IDLE                      |
| RM126123   | GB01    | Filed     | 11 May 2012 | 11 May 2012       | GB1208281.4        |                    |                  |               |            | L2 Signaling Procedure for Additional Special Subframe Configuration               |
| RM126124   | Family  | Filed     | 14 May 2012 | 14 May 2012       | PCT/CN2012/075438  |                    |                  |               |            | Adaptive D-SR period based on DRX configuration                                    |
| RM126124   | US01    | Filed     | 28 Sep 2012 | 28 Sep 2012       | PCT/CN2012/075438  |                    |                  |               |            | Adaptive D-SR period based on DRX configuration                                    |
| RM126127   | WO01    | Filed     | 28 Sep 2012 | 28 Sep 2012       | PCT/CN2012/082269  |                    |                  |               |            | On PSS SSS and DM RS Collision Avoidance   |
| RM126128   | Family  | Filed     | 11 May 2012 | 11 May 2012       | PCT/CN2012/075389  |                    |                  |               |            | On PSS SSS and DM RS Collision Avoidance   |
| RM126128   | US01    | Filed     | 11 May 2012 | 11 May 2012       | PCT/CN2012/075389  |                    |                  |               |            | Common control signaling handling for MTC UE                                       |
| RM126129   | Family  | Filed     | 27 Jun 2012 | 27 Jun 2012       | PCT/CN2012/077605  |                    |                  |               |            | Joint cell and device to device discovery  |
| RM126130   | Family  | Filed     | 10 Oct 2012 | 10 Oct 2012       | GB1218201.0        |                    |                  |               |            | Joint cell and device to device discovery  |
| RM126130   | GB01    | To Filing | 10 Oct 2012 | 10 Oct 2012       | GB1218201.0        |                    |                  |               |            | Joint cell and device to device discovery  |
| RM126131   | Family  | Filed     | 2 Aug 2012  | 2 Aug 2012        |                    |                    |                  |               |            | Method on LTE sharing CRNTI for low periodicity packet transmission                |
| RM126131   | GB01    | Filed     | 2 Aug 2012  | 2 Aug 2012        | GB1213788.1        |                    |                  |               |            | Method on LTE sharing CRNTI for low periodicity packet transmission                |
| RM126131   | WO01    | Filed     | 24 Jul 2013 | 2 Aug 2012        | PCT/IB2013/056068  |                    |                  |               |            | Method on LTE sharing CRNTI for low periodicity packet transmission                |
| RM126132   | Family  | Filed     | 20 Jun 2012 | 20 Jun 2012       | GB1210825.2        |                    |                  |               |            | Reduction of Measurement Report Size in challenging signal conditions              |
| RM126132   | GB01    | Filed     | 20 Jun 2012 | 20 Jun 2012       | GB1210825.2        |                    |                  |               |            | Reduction of Measurement Report Size in challenging signal conditions              |
| RM126132   | WO01    | Filed     | 18 Jun 2013 | 20 Jun 2012       | PCT/IB2013/054877  |                    |                  |               |            | Reduction of Measurement Report Size in challenging signal conditions              |
| RM126133   | Family  | Filed     | 17 Aug 2012 | 17 Aug 2012       | GB1214748.4        |                    |                  |               |            | Data Bridge Between On-Chip Power Domains  |
| RM126133   | GB01    | POA       | 17 Aug 2012 | 17 Aug 2012       | GB1214748.4        |                    |                  |               |            | Data Bridge Between On-Chip Power Domains  |
| RM126133   | US01    | Filed     | 12 Feb 2013 | 17 Aug 2012       | US13/763960        |                    |                  |               |            | Data Bridge Between On-Chip Power Domains  |
| RM126133   | WO01    | Filed     | 15 Aug 2013 | 17 Aug 2012       | PCT/IB2013/056660  |                    |                  |               |            | Data Bridge Between On-Chip Power Domains  |
| RM126135   | Family  | Filed     | 13 Jul 2012 | 13 Jul 2012       | GB1212491.3        |                    |                  |               |            | EUTRAN measurements and reselection during RRC state transition                    |
| RM126135   | GB01    | Granted   | 13 Jul 2012 | 13 Jul 2012       | GB1212491.3        |                    |                  |               |            | EUTRAN measurements and reselection during RRC state transition                    |
| RM126137   | Family  | Filed     | 11 May 2012 | 11 May 2012       | PCT/CN2012/075392  |                    |                  |               |            | Necessary signaling and procedures for IDC   |
| RM126137   | WO01    | Filed     | 11 May 2012 | 11 May 2012       | PCT/CN2012/075392  |                    |                  |               |            | Necessary signaling and procedures for IDC   |
| RM126138   | Family  | Filed     | 14 May 2012 | 14 May 2012       | US13/470869        |                    |                  |               |            | Redirection using indexes to tagged frequencies                                    |
| RM126138   | US01    | Filed     | 14 May 2012 | 14 May 2012       | US13/470869        |                    |                  |               |            | Redirection using indexes to tagged frequencies                                    |
| RM126139   | Family  | Filed     | 16 May 2012 | 16 May 2012       | GB1208642.7        |                    |                  |               |            | Outer loop precoder phase combiner adaptation                                      |
| RM126139   | GB01    | POA       | 16 May 2012 | 16 May 2012       | GB1208642.7        |                    |                  |               |            | Outer loop precoder phase combiner adaptation                                      |
| RM126139   | US01    | Filed     | 30 Apr 2013 | 16 May 2012       | US13/673912        |                    |                  |               |            | Outer loop precoder phase combiner adaptation                                      |
| RM126141   | Family  | Filed     | 11 May 2012 | 11 May 2012       | PCT/CN2012/075599  |                    |                  |               |            | An efficient IDC indication prohibition mechanism                                  |
| RM126141   | WO01    | Filed     | 11 May 2012 | 11 May 2012       | PCT/CN2012/075599  |                    |                  |               |            | An efficient IDC indication prohibition mechanism                                  |
| RM126142   | Family  | Filed     | 26 Sep 2012 | 26 Sep 2012       | GB1217186.4        |                    |                  |               |            | On Handling Uplink Retransmission and Discovery Signal Collision                   |
| RM126142   | GB01    | Filed     | 26 Sep 2012 | 26 Sep 2012       | GB1217186.4        |                    |                  |               |            | On Handling Uplink Retransmission and Discovery Signal Collision                   |
| RM126142   | US01    | To Filing | 26 Sep 2012 | 26 Sep 2012       |                    |                    |                  |               |            | On Handling Uplink Retransmission and Discovery Signal Collision                   |
| RM126143   | Family  | Filed     | 1 Jun 2012  | 1 Jun 2012        | GB1208623.2        |                    |                  |               |            | Back-off adaptation for access efficiency in the feedback channel                  |
| RM126143   | WO01    | Filed     | 1 Jun 2012  | 1 Jun 2012        | GB1208623.2        |                    |                  |               |            | Back-off adaptation for access efficiency in the feedback channel                  |
| RM126143   | GB01    | Filed     | 1 Jun 2012  | 1 Jun 2012        | PCT/IB2013/054603  |                    |                  |               |            | Back-off adaptation for access efficiency in the feedback channel                  |
| RM126143   | WO01    | Filed     | 31 May 2013 | 1 Jun 2012        | PCT/IB2013/054603  |                    |                  |               |            | Back-off adaptation for access efficiency in the feedback channel                  |
| RM126145   | Family  | Filed     | 19 Oct 2012 | 19 Oct 2012       | PCT/CN2012/083233  |                    |                  |               |            | A novel random access procedure for local area wireless network                    |
| RM126145   | WO01    | POA       | 19 Oct 2012 | 19 Oct 2012       | PCT/CN2012/083233  |                    |                  |               |            | A novel random access procedure for local area wireless network                    |
| RM126146   | Family  | Filed     | 29 Jun 2012 | 29 Jun 2012       | GB1211613.3        |                    |                  |               |            | Optimized DRX and SR configuration for diverse data applications                   |
| RM126146   | GB01    | Filed     | 29 Jun 2012 | 29 Jun 2012       | GB1211613.3        |                    |                  |               |            | Optimized DRX and SR configuration for diverse data applications                   |
| RM126146   | WO01    | Filed     | 29 Jun 2012 | 29 Jun 2012       | PCT/IB2013/055336  |                    |                  |               |            | Optimized DRX and SR configuration for diverse data applications                   |
| RM126148   | Family  | Closed    | 28 Jun 2013 | 28 Jun 2012       |                    |                    |                  |               |            | EUTRA capability re-enabling via GERAN / UTRAN                                     |
| RM126149   | Family  | Filed     | 12 Sep 2012 | 12 Sep 2012       | GB1216294.7        |                    |                  |               |            | Dynamic additional maximum power reduction   |
| RM126149   | GB01    | POA       | 12 Sep 2012 | 12 Sep 2012       | GB1216294.7        |                    |                  |               |            | Dynamic additional maximum power reduction   |
| RM126149   | WO01    | Filed     | 12 Sep 2012 | 12 Sep 2012       | PCT/IB2013/058425  |                    |                  |               |            | Dynamic additional maximum power reduction   |
| RM126150   | Family  | Filed     | 21 May 2012 | 21 May 2012       | GB1216162.6        |                    |                  |               |            | Design of interleaving for distributed ePDCCH                                      |
| RM126150   | GB01    | POA       | 21 May 2012 | 21 May 2012       | GB1216162.6        |                    |                  |               |            | Design of interleaving for distributed ePDCCH                                      |
| RM126150   | US01    | Filed     | 11 Feb 2013 | 21 May 2012       | US13/784279        |                    |                  |               |            | Design of interleaving for distributed ePDCCH                                      |
| RM126150   | WO01    | Filed     | 21 May 2012 | 21 May 2012       | PCT/CN2012/075656  |                    |                  |               |            | Design of interleaving for distributed ePDCCH                                      |
| RM126151   | Family  | Filed     | 14 May 2012 | 14 May 2012       |                    |                    |                  |               |            | Data Transmission Method   |
| RM126151   | US01    | Filed     | 14 May 2012 | 14 May 2012       | US11646533         |                    |                  |               |            | Data Transmission Method   |

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|------------|---------|------------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|---|
| RM126151   | WO01    | Filed      | 13 May 2013 | 14 May 2012       | PCT/IB2013/053873  |                    |                  |               |            | Data Transmission Method  |
| RM126152   | Family  | Filed      | 23 Aug 2012 | 23 Aug 2012       |                    |                    |                  |               |            | Low-Power LTE New Carrier Type  |
| RM126153   | Family  | Filed      | 23 Aug 2012 | 23 Aug 2012       | PCT/CN2012/080505  |                    |                  |               |            | Low-Power LTE New Carrier Type  |
| RM126154   | Family  | Filed      | 14 May 2012 | 14 May 2012       | US610646811        |                    |                  |               |            | Signaling Method for Wireless Communication System  |
| RM126155   | WO01    | Filed      | 14 May 2012 | 14 May 2012       | PCT/IB2013/053872  |                    |                  |               |            | Signaling Method for Wireless Communication System  |
| RM126156   | Family  | Filed      | 13 May 2013 | 31 Aug 2012       | GB1215529.7        |                    |                  |               |            | Transmitter envelope delay calibration  |
| RM126157   | Family  | Filed      | 31 Aug 2012 | 31 Aug 2012       | PCT/IB2013/058119  |                    |                  |               |            | Transmitter envelope delay calibration  |
| RM126158   | Family  | Filed      | 29 Aug 2013 | 18 May 2011       |                    |                    |                  |               |            | Digitally Controlled Delay  |
| RM126159   | Family  | Filed      | 18 May 2011 | 18 May 2011       | F120115481         |                    | 22 Nov 2012      |               |            | Digitally Controlled Delay  |
| RM126160   | Family  | Filed      | 18 May 2011 | 18 May 2011       | PCT/IB2012/052939  | WO2012156952       |                  |               |            | System for enhanced interference suppression  |
| RM126161   | Family  | Filed      | 31 May 2012 | 31 May 2012       | GB1208741.6        |                    |                  |               |            | System for enhanced interference suppression  |
| RM126162   | Family  | Filed      | 31 May 2012 | 31 May 2012       | PCT/IB2013/054472  |                    |                  |               |            | System for enhanced interference suppression  |
| RM126163   | Family  | Filed      | 30 May 2013 | 31 May 2012       | GB1208744.0        |                    |                  |               |            | Implicit RS sequence allocation   |
| RM126164   | Family  | Filed      | 31 May 2012 | 31 May 2012       | GB1208744.0        |                    |                  |               |            | Implicit RS sequence allocation   |
| RM126165   | Family  | Filed      | 30 May 2013 | 31 May 2012       | PCT/IB2013/054471  |                    |                  |               |            | Enhancement of measurement mechanism in HetNets with overlapping pico cells                           |
| RM126166   | Family  | Filed      | 26 Jul 2012 | 26 Jul 2012       |                    |                    |                  |               |            | Enhancement of measurement mechanism in HetNets with overlapping pico cells                           |
| RM126167   | Family  | Filed      | 26 Jul 2012 | 26 Jul 2012       | PCT/CN2012/079216  |                    |                  |               |            | A fast setup method for V2V communication services by dynamic resources allocation in the LTE network |
| RM126168   | Family  | Filed      | 20 Jul 2012 | 20 Jul 2012       |                    |                    |                  |               |            | A fast setup method for V2V communication services by dynamic resources allocation in the LTE network |
| RM126169   | WO01    | POA        | 20 Jul 2012 | 20 Jul 2012       | PCT/CN2012/078922  |                    |                  |               |            | Enhanced vehicle GW access method in cellular network for vehicle communications                      |
| RM126170   | Family  | Filed      | 23 Jul 2012 | 23 Jul 2012       |                    |                    |                  |               |            | Enhanced vehicle GW access method in cellular network for vehicle communications                      |
| RM126171   | Family  | Filed      | 23 Jul 2012 | 23 Jul 2012       | PCT/CN2012/079055  |                    |                  |               |            | COI reporting and eNB scheduling in support of widely linear receivers                                |
| RM126172   | Family  | Filed      | 31 May 2012 | 31 May 2012       | GB1208748.1        |                    |                  |               |            | COI reporting and eNB scheduling in support of widely linear receivers                                |
| RM126173   | Family  | Filed      | 31 May 2012 | 31 May 2012       | PCT/IB2013/054435  |                    |                  |               |            | Small cell discovery and measurement using PDCH and CSI-RS  |
| RM126174   | Family  | Filed      | 29 May 2012 | 31 May 2012       |                    |                    |                  |               |            | Small cell discovery and measurement using PDCH and CSI-RS  |
| RM126175   | Family  | Filed      | 13 Jul 2012 | 13 Jul 2012       | PCT/CN2012/078619  |                    |                  |               |            | Multipurpose Synchronization Reference Sequence Design for Local Area Communication                   |
| RM126176   | Family  | Filed      | 13 Jul 2012 | 13 Jul 2012       |                    |                    |                  |               |            | Multipurpose Synchronization Reference Sequence Design for Local Area Communication                   |
| RM126177   | Family  | Filed      | 19 Dec 2012 | 19 Dec 2012       |                    |                    |                  |               |            | Multipurpose Synchronization Reference Sequence Design for Local Area Communication                   |
| RM126178   | Family  | Filed      | 19 Dec 2012 | 19 Dec 2012       | GB1222970.4        |                    |                  |               |            | SCH-linked RS configurations for New Carrier Type   |
| RM126179   | Family  | Filed      | 12 Oct 2012 | 12 Oct 2012       | PCT/CN2012/082840  |                    |                  |               |            | SCH-linked RS configurations for New Carrier Type   |
| RM126180   | Family  | Filed      | 12 Oct 2012 | 12 Oct 2012       |                    |                    |                  |               |            | MIB indication in standalone new carrier type   |
| RM126181   | Family  | Filed      | 16 Oct 2012 | 16 Oct 2012       |                    |                    |                  |               |            | MIB indication in standalone new carrier type   |
| RM126182   | Family  | Filed      | 16 Oct 2012 | 16 Oct 2012       | PCT/CN2012/083009  |                    |                  |               |            | Special Subframe configuration for Low-Cost Machine Type Communications                               |
| RM126183   | Family  | Filed      | 5 Oct 2012  | 5 Oct 2012        |                    |                    |                  |               |            | Special Subframe configuration for Low-Cost Machine Type Communications                               |
| RM126184   | Family  | Filed      | 5 Oct 2012  | 5 Oct 2012        | PCT/IB2012/055363  |                    |                  |               |            | Necessary signaling and procedures for UE interference cancellation in HetNet                         |
| RM126185   | Family  | Filed      | 28 Jun 2012 | 28 Jun 2012       |                    |                    |                  |               |            | Necessary signaling and procedures for UE interference cancellation in HetNet                         |
| RM126186   | Family  | Filed      | 28 Jun 2012 | 28 Jun 2012       | PCT/CN2012/077722  |                    |                  |               |            | Necessary signaling and procedures for UE interference cancellation in HetNet                         |
| RM126187   | Family  | Filed      | 11 Oct 2012 | 11 Oct 2012       |                    |                    |                  |               |            | Enhanced power saving method for future HetNet deployment scenario                                    |
| RM126188   | Family  | Filed      | 11 Oct 2012 | 11 Oct 2012       | PCT/CN2012/082906  |                    |                  |               |            | Enhanced power saving method for future HetNet deployment scenario                                    |
| RM126189   | Family  | Filed      | 10 Oct 2012 | 10 Oct 2012       |                    |                    |                  |               |            | ePDCCH configuration procedure in standalone new carrier type   |
| RM126190   | Family  | Filed      | 10 Oct 2012 | 10 Oct 2012       | PCT/CN2012/082689  |                    |                  |               |            | ePDCCH configuration procedure in standalone new carrier type   |
| RM126191   | Family  | Filed      | 13 Sep 2012 | 13 Sep 2012       |                    |                    |                  |               |            | Sectorization for hidden terminal mitigation  |
| RM126192   | Family  | Filed      | 13 Sep 2012 | 13 Sep 2012       | GB1216365.5        |                    |                  |               |            | Sectorization for hidden terminal mitigation  |
| RM126193   | Family  | Filed      | 9 Sep 2013  | 13 Sep 2012       | US140021373        |                    |                  |               |            | Sectorization for hidden terminal mitigation  |
| RM126194   | Family  | Filed      | 14 Jan 2013 | 14 Jan 2013       |                    |                    |                  |               |            | On Small Cell and UE Discovery  |
| RM126195   | Family  | Filed      | 14 Jan 2013 | 14 Jan 2013       | GB1300632.5        |                    |                  |               |            | On Small Cell and UE Discovery  |
| RM126196   | Family  | Filed      | 10 Oct 2012 | 10 Oct 2012       |                    |                    |                  |               |            | Method and apparatus for cell access  |
| RM126197   | Family  | Filed      | 10 Oct 2012 | 10 Oct 2012       | GB1218232.8        |                    |                  |               |            | Method and apparatus for cell access  |
| RM126198   | Family  | InDrafting | 10 Oct 2012 | 10 Oct 2012       |                    |                    |                  |               |            | Power efficient broadcast signal and mode indication for sleeping eNB                                 |
| RM126199   | Family  | Filed      | 4 Sep 2012  | 4 Sep 2012        |                    |                    |                  |               |            | Power efficient broadcast signal and mode indication for sleeping eNB                                 |

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| RM126192   | WO01    | Filed     | 4 Sep 2012  | 4 Sep 2012        | PCT/CN2012/080381  |                    |                  |               |            | Power efficient broadcast signal and mode indication for sleeping eNB                                   |
| RM126194   | Family  | Filed     | 29 Sep 2012 | 29 Sep 2012       | PCT/CN2012/082425  |                    |                  |               |            | Enhancement of contention based UL transmission in LA network   |
| RM126195   | Family  | Filed     | 30 Aug 2012 | 30 Aug 2012       | PCT/CN2012/080303  |                    |                  |               |            | Enhancement of contention based UL transmission in LA network   |
| RM126195   | WO01    | Filed     | 30 Aug 2012 | 30 Aug 2012       | PCT/CN2012/080303  |                    |                  |               |            | Glitch indicator for carrier aggregation  |
| RM126196   | Family  | Filed     | 3 Aug 2012  | 3 Aug 2012        |                    |                    |                  |               |            | Efficient method to management the UL transmission and UL physical channel resource in local area cells |
| RM126198   | WO01    | Filed     | 3 Aug 2012  | 3 Aug 2012        | PCT/CN2012/076640  |                    |                  |               |            | Efficient method to management the UL transmission and UL physical channel resource in local area cells |
| RM126197   | Family  | Filed     | 16 Jul 2012 | 16 Jul 2012       |                    |                    |                  |               |            | Connectivity Enhancement for Wireless Communication System  |
| RM126197   | WO01    | Filed     | 16 Jul 2012 | 16 Jul 2012       | US13/650945        |                    |                  |               |            | Connectivity Enhancement for Wireless Communication System  |
| RM126198   | Family  | Filed     | 12 Oct 2012 | 12 Oct 2012       | PCT/JP2013/055629  |                    |                  |               |            | On ProSe EUTRAN capability in intra-EUTRAN mobility   |
| RM126198   | WO01    | Filed     | 12 Oct 2012 | 12 Oct 2012       | GB1216373.7        |                    |                  |               |            | On ProSe EUTRAN capability in intra-EUTRAN mobility   |
| RM126198   | WO01    | To Filing | 12 Oct 2012 | 12 Oct 2012       |                    |                    |                  |               |            | Privacy-Aware Communication Scheme in Advanced Metering Infrastructure (AMI) Systems                    |
| RM126199   | Family  | Filed     | 29 Sep 2012 | 29 Sep 2012       |                    |                    |                  |               |            | Privacy-Aware Communication Scheme in Advanced Metering Infrastructure (AMI) Systems                    |
| RM126199   | WO01    | Filed     | 29 Sep 2012 | 29 Sep 2012       | PCT/CN2012/082465  |                    |                  |               |            | Cell Reselection Enhancement for UE Initiated Calls in HetNet Scenario                                  |
| RM126200   | Family  | Filed     | 30 Jul 2012 | 30 Jul 2012       | GB1213517.4        | GB2494754          | 20 Mar 2013      | GB2494754     | 4 Sep 2013 | Cell Reselection Enhancement for UE Initiated Calls in HetNet Scenario                                  |
| RM126200   | WO01    | Granted   | 30 Jul 2012 | 30 Jul 2012       | GB1213517.4        |                    |                  |               |            | Cell Reselection Enhancement for UE Initiated Calls in HetNet Scenario                                  |
| RM126203   | Family  | Filed     | 26 Jul 2012 | 26 Jul 2012       | PCT/JP2013/055630  |                    |                  |               |            | Initial access for small nodes with same call ID  |
| RM126203   | WO01    | Filed     | 7 Nov 2012  | 7 Nov 2012        |                    |                    |                  |               |            | Initial access for small nodes with same call ID  |
| RM126204   | Family  | Filed     | 29 Jun 2012 | 29 Jun 2012       | PCT/CN2012/084197  |                    |                  |               |            | Method and apparatus of smart measurement reporting in weak field                                       |
| RM126204   | WO01    | Filed     | 29 Jun 2012 | 29 Jun 2012       | GB1214455.9        |                    |                  |               |            | Method and apparatus of smart measurement reporting in weak field                                       |
| RM126204   | WO01    | Filed     | 29 Jun 2012 | 29 Jun 2012       | GB1214455.9        | GB2491277          | 28 Nov 2012      | GB2491277     | 2 Oct 2013 | Method and apparatus of smart measurement reporting in weak field                                       |
| RM126206   | Family  | Filed     | 26 Jun 2012 | 26 Jun 2012       | PCT/JP2013/055629  |                    |                  |               |            | Controlling modern RX data paths according to TX antenna selection                                      |
| RM126206   | WO01    | Filed     | 19 Oct 2012 | 19 Oct 2012       |                    |                    |                  |               |            | Controlling modern RX data paths according to TX antenna selection                                      |
| RM126206   | WO01    | Filed     | 19 Oct 2012 | 19 Oct 2012       | GB1218865.2        |                    |                  |               |            | Controlling modern RX data paths according to TX antenna selection                                      |
| RM126206   | WO01    | Filed     | 23 Oct 2012 | 23 Oct 2012       | GB1218039.3        |                    |                  |               |            | Controlling modern RX data paths according to TX antenna selection                                      |
| RM126208   | Family  | Filed     | 11 Dec 2012 | 11 Dec 2012       |                    |                    |                  |               |            | Transmitter modulated power averaging using RF measurement receiver and digital TX IQ samples           |
| RM126208   | WO01    | Filed     | 11 Dec 2012 | 11 Dec 2012       | GB1222282.3        |                    |                  |               |            | Transmitter modulated power averaging using RF measurement receiver and digital TX IQ samples           |
| RM126209   | WO01    | Filed     | 11 Dec 2012 | 11 Dec 2012       | GB1222282.3        |                    |                  |               |            | Transmitter modulated power averaging using RF measurement receiver and digital TX IQ samples           |
| RM126209   | US01    | Filed     | 28 Aug 2013 | 28 Aug 2013       | US14/012462        |                    |                  |               |            | Transmitter modulated power averaging using RF measurement receiver and digital TX IQ samples           |
| RM126212   | Family  | Filed     | 10 Sep 2012 | 10 Sep 2012       |                    |                    |                  |               |            | Carrier Aggregation   |
| RM126212   | WO01    | Filed     | 10 Sep 2012 | 10 Sep 2012       | PCT/CN2012/081182  |                    |                  |               |            | Carrier Aggregation   |
| RM126213   | Family  | Filed     | 12 Jul 2012 | 12 Jul 2012       |                    |                    |                  |               |            | Method and apparatus of delaying RLC unrecoverable error when CS call established                       |
| RM126213   | WO01    | Filed     | 12 Jul 2012 | 12 Jul 2012       | GB1212389.9        |                    |                  |               |            | Method and apparatus of delaying RLC unrecoverable error when CS call established                       |
| RM126213   | WO01    | Filed     | 12 Jul 2012 | 12 Jul 2012       | GB1212389.9        | GB2491050          | 21 Nov 2012      |               |            | Method and apparatus of delaying RLC unrecoverable error when CS call established                       |
| RM126215   | Family  | Filed     | 11 Jul 2013 | 12 Jul 2012       | PCT/JP2013/055703  |                    |                  |               |            | Enhancement on LP-ABS set in eLIC of HetNets  |
| RM126215   | WO01    | Filed     | 16 Nov 2012 | 16 Nov 2012       |                    |                    |                  |               |            | Enhancement on LP-ABS set in eLIC of HetNets  |
| RM126215   | WO01    | Filed     | 16 Nov 2012 | 16 Nov 2012       | PCT/CN2012/084731  |                    |                  |               |            | Enhancement on LP-ABS set in eLIC of HetNets  |
| RM126216   | Family  | Filed     | 16 Jul 2012 | 16 Jul 2012       |                    |                    |                  |               |            | Energy Efficient OBSS Reporting   |
| RM126216   | US01    | Filed     | 16 Jul 2012 | 16 Jul 2012       | US13/649849        |                    |                  |               |            | Energy Efficient OBSS Reporting   |
| RM126218   | Family  | Filed     | 29 Aug 2012 | 29 Aug 2012       |                    |                    |                  |               |            | Probe based paging optimization in R12 dense deployed LA scenario                                       |
| RM126218   | WO01    | Filed     | 29 Aug 2012 | 29 Aug 2012       | PCT/CN2012/080706  |                    |                  |               |            | Probe based paging optimization in R12 dense deployed LA scenario                                       |
| RM126218   | WO01    | Filed     | 29 Aug 2012 | 29 Aug 2012       | GB1212647.0        |                    |                  |               |            | Probe based paging optimization in R12 dense deployed LA scenario                                       |
| RM126219   | Family  | Filed     | 16 Jul 2012 | 16 Jul 2012       | PCT/JP2013/055636  |                    |                  |               |            | PS-Poll Sleep Duration Indication   |
| RM126219   | WO01    | Filed     | 16 Jul 2012 | 16 Jul 2012       |                    |                    |                  |               |            | PS-Poll Sleep Duration Indication   |
| RM126220   | Family  | Filed     | 16 Jul 2012 | 16 Jul 2012       | GB1212666.6        | GB2496235          | 8 May 2013       |               |            | PS-Poll Sleep Duration Indication   |
| RM126220   | WO01    | Filed     | 16 Jul 2012 | 16 Jul 2012       | GB1212666.6        |                    |                  |               |            | PS-Poll Sleep Duration Indication   |
| RM126221   | Family  | Filed     | 3 Aug 2012  | 3 Aug 2012        |                    |                    |                  |               |            | Data Exchange Enhancement   |
| RM126221   | WO01    | Filed     | 3 Aug 2012  | 3 Aug 2012        | GB1213875.6        | GB2493290          | 30 Jan 2013      |               |            | Data Exchange Enhancement   |
| RM126222   | Family  | Filed     | 3 Aug 2012  | 3 Aug 2012        |                    |                    |                  |               |            | Method and apparatus of smart E-RGCH monitoring set maintenance   |
| RM126222   | WO01    | Filed     | 3 Aug 2012  | 3 Aug 2012        | GB1216293.9        |                    |                  |               |            | Method and apparatus of smart E-RGCH monitoring set maintenance   |
| RM126222   | US02    | Filed     | 18 Sep 2013 | 3 Aug 2012        | US14/030695        |                    |                  |               |            | Method and apparatus of smart measured result reporting   |
| RM126222   | WO01    | Filed     | 3 Aug 2012  | 3 Aug 2012        | US14/030695        | GB2496018          | 1 May 2013       |               |            | Method and apparatus of smart measured result reporting   |
| RM126222   | WO01    | Filed     | 3 Aug 2012  | 3 Aug 2012        | PCT/CN2012/079546  |                    |                  |               |            | Method and apparatus of smart measured result reporting   |

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| RM126224   | Family  | Filed     | 2 Aug 2012  | 2 Aug 2012        |                     |                    |                  |               |            | Inter-RAT Fast Dormancy and RAT preference indication.                                |
| RM126224   | GB01    | Filed     | 2 Aug 2012  | 2 Aug 2012        | GB1215787.3         |                    |                  |               |            | Inter-RAT Fast Dormancy and RAT preference indication.                                |
| RM126224   | WO01    | Filed     | 1 Aug 2012  | 2 Aug 2012        | PCT/IB2013/055312   |                    |                  |               |            | Inter-RAT Fast Dormancy and RAT preference indication.                                |
| RM126225   | Family  | Filed     | 10 Aug 2012 | 10 Aug 2012       |                     |                    |                  |               |            | L2 controlled fast dormancy   |
| RM126225   | GB01    | Filed     | 10 Aug 2012 | 10 Aug 2012       | GB1214343.4         |                    |                  |               |            | L2 controlled fast dormancy   |
| RM126225   | WO01    | Filed     | 9 Aug 2012  | 10 Aug 2012       | PCT/IB2013/055637   |                    |                  |               |            | L2 controlled fast dormancy   |
| RM126226   | Family  | Filed     | 6 Aug 2012  | 6 Aug 2012        |                     |                    |                  |               |            | Whitelist for limiting detected set cells for measurement                             |
| RM126226   | GB01    | Filed     | 6 Aug 2012  | 6 Aug 2012        | GB1213959.7         |                    |                  |               |            | Whitelist for limiting detected set cells for measurement                             |
| RM126228   | Family  | Filed     | 26 Oct 2012 | 26 Oct 2012       |                     |                    |                  |               |            | Handling of CSI reporting upon CoI-mask   |
| RM126228   | WO01    | Filed     | 26 Oct 2012 | 26 Oct 2012       | PCT/CN2012/083628   |                    |                  |               |            | Handling of CSI reporting upon CoI-mask   |
| RM126229   | Family  | Filed     | 6 Aug 2012  | 6 Aug 2012        |                     |                    |                  |               |            | Methods of faster cell reselection upon RRC Connection Reject                         |
| RM126229   | GB01    | Filed     | 6 Aug 2012  | 6 Aug 2012        | GB1215973.9         |                    |                  |               |            | Methods of faster cell reselection upon RRC Connection Reject                         |
| RM126229   | WO01    | Filed     | 6 Aug 2012  | 6 Aug 2012        | US1396032.1         |                    |                  |               |            | Methods of faster cell reselection upon RRC Connection Reject                         |
| RM126230   | Family  | Filed     | 6 Aug 2012  | 6 Aug 2012        |                     |                    |                  |               |            | Improved method for determining UE power limited status in HSUPA                      |
| RM126230   | GB01    | Filed     | 6 Aug 2012  | 6 Aug 2012        | GB1213964.8         |                    |                  |               |            | Improved method for determining UE power limited status in HSUPA                      |
| RM126230   | WO01    | Filed     | 5 Aug 2012  | 6 Aug 2012        | PCT/IB2013/055641.4 |                    |                  |               |            | Improved method for determining UE power limited status in HSUPA                      |
| RM126231   | Family  | Filed     | 31 Oct 2012 | 31 Oct 2012       |                     |                    |                  |               |            | Enhancement of eICIC solution in HetNets with overlapping pico cells                  |
| RM126231   | GB01    | Filed     | 31 Oct 2012 | 31 Oct 2012       | GB1219563.0         |                    | 22 May 2013      |               |            | Enhancement of eICIC solution in HetNets with overlapping pico cells                  |
| RM126233   | Family  | Filed     | 27 Sep 2012 | 27 Sep 2012       |                     |                    |                  |               |            | DRX operation for dual-connection   |
| RM126233   | WO01    | Filed     | 27 Sep 2012 | 27 Sep 2012       | PCT/CN2012/082178   |                    |                  |               |            | DRX operation for dual-connection   |
| RM126234   | Family  | Filed     | 22 Nov 2012 | 22 Nov 2012       |                     |                    |                  |               |            | Control of the enhanced RSSI scan   |
| RM126234   | WO01    | Filed     | 22 Nov 2012 | 22 Nov 2012       | PCT/CN2012/085036   |                    |                  |               |            | Control of the enhanced RSSI scan   |
| RM126235   | Family  | Filed     | 20 Jul 2012 | 20 Jul 2012       |                     |                    |                  |               |            | Control of the enhanced RSSI scan   |
| RM126235   | US01    | Granted   | 20 Jul 2012 | 20 Jul 2012       | US13554132          | US5391862          | 5 Mar 2013       |               |            | Control of the enhanced RSSI scan   |
| RM126240   | Family  | Filed     | 11 Oct 2012 | 11 Oct 2012       |                     |                    |                  |               |            | LTE assisted WLAN AP discovery  |
| RM126240   | WO01    | Filed     | 11 Oct 2012 | 11 Oct 2012       | PCT/CN2012/082802   |                    |                  |               |            | LTE assisted WLAN AP discovery  |
| RM126241   | Family  | Filed     | 2 Nov 2012  | 2 Nov 2012        |                     |                    |                  |               |            | Improved method to maximize uplink resource utilization for E-DCH                     |
| RM126241   | GB01    | Filed     | 2 Nov 2012  | 2 Nov 2012        | GB1219718.2         |                    |                  |               |            | Improved method to maximize uplink resource utilization for E-DCH                     |
| RM126242   | Family  | Filed     | 22 Nov 2012 | 22 Nov 2012       |                     |                    |                  |               |            | Assistant info for new carrier type mobility  |
| RM126242   | WO01    | Filed     | 22 Nov 2012 | 22 Nov 2012       | PCT/CN2012/085075   |                    |                  |               |            | Assistant info for new carrier type mobility  |
| RM126244   | Family  | Closed    |             |                   |                     |                    |                  |               |            | Novel sleeping procedure for LTE new carrier type and future local area network       |
| RM126245   | Family  | Filed     | 31 Oct 2012 | 31 Oct 2012       |                     |                    |                  |               |            | Novel sleeping procedure for LTE new carrier type and future local area network       |
| RM126245   | WO01    | Filed     | 31 Oct 2012 | 31 Oct 2012       | PCT/CN2012/085823   |                    |                  |               |            | Novel sleeping procedure for LTE new carrier type and future local area network       |
| RM126246   | Family  | Filed     | 6 Sep 2012  | 6 Sep 2012        |                     |                    |                  |               |            | Novel energy saving method in HetNet  |
| RM126246   | WO01    | Filed     | 6 Sep 2012  | 6 Sep 2012        | PCT/CN2012/081081   |                    |                  |               |            | Novel energy saving method in HetNet  |
| RM126248   | Family  | Filed     | 6 Aug 2012  | 6 Aug 2012        |                     |                    |                  |               |            | An efficient IDC autonomous denial prohibition mechanism                              |
| RM126248   | WO01    | Filed     | 6 Aug 2012  | 6 Aug 2012        | PCT/CN2012/079735   |                    |                  |               |            | An efficient IDC autonomous denial prohibition mechanism                              |
| RM126249   | Family  | Filed     | 22 Oct 2012 | 22 Oct 2012       |                     |                    |                  |               |            | Novel sleeping procedure for LTE new carrier type and future local area network       |
| RM126249   | WO01    | Filed     | 22 Oct 2012 | 22 Oct 2012       | PCT/CN2012/083324   |                    |                  |               |            | Novel sleeping procedure for LTE new carrier type and future local area network       |
| RM126250   | Family  | Filed     | 4 Aug 2012  | 4 Aug 2012        |                     |                    |                  |               |            | Antenna port for demodulation of ePDCCH   |
| RM126250   | WO01    | Filed     | 4 Aug 2012  | 4 Aug 2012        | PCT/CN2012/079699   |                    |                  |               |            | Antenna port for demodulation of ePDCCH   |
| RM126251   | Family  | Filed     | 6 Aug 2012  | 6 Aug 2012        |                     |                    |                  |               |            | CS domain congestion control in combined registration when PS domain is not congested |
| RM126251   | US01    | Filed     | 6 Aug 2012  | 6 Aug 2012        | US13568027          |                    |                  |               |            | CS domain congestion control in combined registration when PS domain is not congested |
| RM126251   | US02    | Filed     | 6 Aug 2012  | 6 Aug 2012        | US13960143          |                    |                  |               |            | CS domain congestion control in combined registration when PS domain is not congested |
| RM126252   | Family  | Filed     | 10 Dec 2012 | 10 Dec 2012       |                     |                    |                  |               |            | Enhanced system and method for blind IQ imbalance correction and estimation           |
| RM126252   | WO01    | Filed     | 10 Dec 2012 | 10 Dec 2012       | PCT/IB2012/092870   |                    |                  |               |            | Enhanced system and method for blind IQ imbalance correction and estimation           |
| RM126255   | Family  | Filed     | 3 Oct 2012  | 3 Oct 2012        |                     |                    |                  |               |            | Application of hysteresis to triggering and resetting of mobility timers.             |
| RM126255   | GB01    | Filed     | 3 Oct 2012  | 3 Oct 2012        | GB1217707.7         | GB2485006          | 27 Mar 2013      |               |            | Application of hysteresis to triggering and resetting of mobility timers.             |
| RM126256   | Family  | Filed     | 17 Oct 2012 | 17 Oct 2012       |                     |                    |                  |               |            | low power assumption static MTC in connected mode                                     |
| RM126256   | WO01    | Filed     | 17 Oct 2012 | 17 Oct 2012       | PCT/CN2012/085067   |                    |                  |               |            | low power assumption static MTC in connected mode                                     |
| RM126257   | Family  | Filed     | 16 Oct 2012 | 16 Oct 2012       |                     |                    |                  |               |            | Envelope tracking transmitter with variable differential delay                        |
| RM126257   | GB01    | Filed     | 16 Oct 2012 | 16 Oct 2012       | GB1218574.0         |                    |                  |               |            | Envelope tracking transmitter with variable differential delay                        |
| RM126257   | US01    | To/Filing | 16 Oct 2012 | 16 Oct 2012       |                     |                    |                  |               |            | Envelope tracking transmitter with variable differential delay                        |
| RM126258   | Family  | Filed     | 21 Aug 2012 | 21 Aug 2012       |                     |                    |                  |               |            | PLMN-ID to structure of envelope (EVENT DOWNLOAD ? CSG Cell Selector)                 |

| Case ref. # | Country | Status    | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date | Proposed title  |
|-------------|---------|-----------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|---|
| RM126258    | GB01    | Filed     | 21 Aug 2012 | 21 Aug 2012       | GB1214904.3        |                    |                  |               |            | PLMN ID to structure of envelope (EVENT DOWNLOAD ? CSG Cell Selection)  |
| RM126258    | JS01    | Filed     | 21 Aug 2013 | 21 Aug 2012       | US13/972110        |                    |                  |               |            | PLMN ID to structure of envelope (EVENT DOWNLOAD ? CSG Cell Selection)  |
| RM126258    | WO01    | Filed     | 15 Aug 2013 | 21 Aug 2012       | PCT/JP2013/056667  |                    |                  |               |            | PLMN ID to structure of envelope (EVENT DOWNLOAD ? CSG Cell Selection)  |
| RM126260    | Family  | Filed     | 10 Oct 2012 | 10 Oct 2012       | PCT/CN2012/082724  |                    |                  |               |            | Handover procedure with dual connection in local area network   |
| RM126261    | Family  | Filed     | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | A Novel Channel Reservation and Synchronous Transmission Method in WLAN Systems   |
| RM126261    | WO01    | Filed     | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070711  |                    |                  |               |            | A Novel Channel Reservation and Synchronous Transmission Method in WLAN Systems   |
| RM126263    | Family  | Filed     | 28 Nov 2012 | 26 Nov 2012       |                    |                    |                  |               |            | On Enhancing Network Coverage in Future LTE Based Public Safety Systems   |
| RM126263    | GB01    | Filed     | 28 Nov 2012 | 28 Nov 2012       | GB1221420.1        |                    |                  |               |            | On Enhancing Network Coverage in Future LTE Based Public Safety Systems   |
| RM126263    | WO01    | To Filing | 30 Oct 2012 | 28 Nov 2012       |                    |                    |                  |               |            | On Enhancing Network Coverage in Future LTE Based Public Safety Systems   |
| RM126265    | Family  | Filed     | 30 Oct 2012 | 30 Oct 2012       | GB1219522.8        |                    |                  |               |            | Combining analog inputs with digital control  |
| RM126267    | Family  | Filed     | 2 Nov 2012  | 2 Nov 2012        | GB1219719.0        |                    |                  |               |            | Common Search Space configuration for Standalone New Carrier Type   |
| RM126267    | GB01    | Filed     | 2 Nov 2012  | 2 Nov 2012        |                    |                    |                  |               |            | Common Search Space configuration for Standalone New Carrier Type   |
| RM126268    | Family  | Filed     | 2 Nov 2012  | 2 Nov 2012        | GB1219751.9        |                    |                  |               |            | Broadcast signalling configuration for Standalone New Carrier Type  |
| RM126268    | US01    | To Filing | 2 Nov 2012  | 2 Nov 2012        |                    |                    |                  |               |            | Broadcast signalling configuration for Standalone New Carrier Type  |
| RM126268    | Family  | Filed     | 8 Oct 2012  | 8 Oct 2012        | PCT/CN2012/082546  |                    |                  |               |            | Establishment Management for Dual Connection Control in LA  |
| RM126268    | WO01    | Filed     | 8 Oct 2012  | 8 Oct 2012        |                    |                    |                  |               |            | Establishment Management for Dual Connection Control in LA  |
| RM126270    | Family  | Filed     | 26 Sep 2012 | 26 Sep 2012       |                    |                    |                  |               |            | Front-end architecture for LBT/B downlink carrier aggregation operation with low IL and harmonic traps                          |
| RM126270    | WO01    | POA       | 26 Sep 2012 | 26 Sep 2012       | PCT/JP2012/002217  |                    |                  |               |            | Front-end architecture for LBT/B downlink carrier aggregation operation with low IL and harmonic traps                          |
| RM126273    | Family  | Filed     | 1 Oct 2012  | 1 Oct 2012        | GB1217537.8        |                    |                  |               |            | Signalling the amount of actual A-MPR   |
| RM126273    | GB01    | POA       | 1 Oct 2012  | 1 Oct 2012        |                    |                    |                  |               |            | Signalling the amount of actual A-MPR   |
| RM126274    | WO01    | To Filing | 28 Sep 2012 | 28 Sep 2012       |                    |                    |                  |               |            | Necessary signalling and procedures to solve IMD in IDC   |
| RM126274    | Family  | Filed     | 28 Sep 2012 | 28 Sep 2012       | PCT/CN2012/082370  |                    |                  |               |            | Necessary signalling and procedures to solve IMD in IDC   |
| RM126275    | WO01    | Filed     | 7 Jan 2013  | 7 Jan 2013        |                    |                    |                  |               |            | On Changing for LTE based Proximity Services Communications   |
| RM126275    | Family  | Filed     | 7 Jan 2013  | 7 Jan 2013        | GB1300217.5        |                    |                  |               |            | On Changing for LTE based Proximity Services Communications   |
| RM126276    | Family  | Filed     | 7 Jan 2013  | 7 Jan 2013        |                    |                    |                  |               |            | Control signalling enhancements for improved coverage of low-cost MTC devices in LTE  |
| RM126276    | GB01    | Filed     | 7 Jan 2013  | 7 Jan 2013        | GB1300940.2        |                    |                  |               |            | Control signalling enhancements for improved coverage of low-cost MTC devices in LTE  |
| RM126276    | GB02    | Closed    | 7 Jan 2013  | 7 Jan 2013        | GB1300186.2        |                    |                  |               |            | Control signalling enhancements for improved coverage of low-cost MTC devices in LTE  |
| RM126277    | Family  | Filed     | 10 Oct 2012 | 10 Oct 2012       |                    |                    |                  |               |            | HotNet idle mode reselection X-factor   |
| RM126277    | GB01    | POA       | 10 Oct 2012 | 10 Oct 2012       | GB1218203.6        |                    |                  |               |            | HotNet idle mode reselection X-factor   |
| RM126278    | Family  | Filed     | 30 Oct 2012 | 30 Oct 2012       |                    |                    |                  |               |            | Blocking of spurious inter-frequency & intersystem measurement reports when Intra Frequency quality is above quality threshold  |
| RM126278    | GB01    | Filed     | 30 Oct 2012 | 30 Oct 2012       | GB1218516.0        |                    |                  |               |            | Blocking of spurious inter-frequency & intersystem measurement reports when Intra Frequency quality is above quality threshold  |
| RM126279    | Family  | Filed     | 9 Nov 2012  | 9 Nov 2012        |                    |                    |                  |               |            | UE 3D beamforming using multiple CSI-RS resources   |
| RM126279    | GB01    | POA       | 9 Nov 2012  | 9 Nov 2012        | GB1220212.3        |                    |                  |               |            | UE 3D beamforming using multiple CSI-RS resources   |
| RM126280    | WO01    | To Filing | 16 Nov 2012 | 16 Nov 2012       |                    |                    |                  |               |            | Change of UE capabilities that determine if LTE is supported  |
| RM126280    | Family  | Filed     | 16 Nov 2012 | 16 Nov 2012       | GB1220893.4        |                    |                  |               |            | Change of UE capabilities that determine if LTE is supported  |
| RM126281    | Family  | Filed     | 12 Nov 2012 | 12 Nov 2012       |                    |                    |                  |               |            | RF FE for antenna sharing   |
| RM126281    | GB01    | POA       | 12 Nov 2012 | 12 Nov 2012       | GB1220323.8        |                    |                  |               |            | RF FE for antenna sharing   |
| RM126282    | Family  | Filed     | 5 Oct 2012  | 5 Oct 2012        |                    |                    |                  |               |            | Handling of IMS parameters related to RSRVCC in the case of failed H- EPS attachment with delayed EPS bearer context activation |
| RM126283    | Family  | Filed     | 2 Oct 2012  | 2 Oct 2012        |                    |                    |                  |               |            | EPS attachment with delayed EPS bearer context activation   |
| RM126284    | GB01    | Filed     | 30 Oct 2012 | 30 Oct 2012       | GB1217618.6        |                    |                  |               |            | Car roof antenna concept  |
| RM126284    | GB01    | Filed     | 30 Oct 2012 | 30 Oct 2012       | GB1219524.4        |                    |                  |               |            | Car roof antenna concept  |

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|------------|---------|----------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|---|
| RM126285   | Family  | Filed    | 23 Oct 2012 | 23 Oct 2012       |                    |                    |                  |               |            | Channel reservation for overcoming OBSS problems  |
| RM126285   | GB01    | POA      | 23 Oct 2012 | 23 Oct 2012       | GB1219040.1        |                    |                  |               |            | Channel reservation for overcoming OBSS problems  |
| RM126285   | WO01    | ToFiling | 23 Oct 2012 | 23 Oct 2012       |                    |                    |                  |               |            | Channel reservation for overcoming OBSS problems  |
| RM126286   | Family  | Filed    | 2 Nov 2012  | 2 Nov 2012        |                    |                    |                  |               |            | Enhanced E-DCH for Robust SI Transmission in HetNet Scenario  |
| RM126286   | GB01    | POA      | 2 Nov 2012  | 2 Nov 2012        | GB1219717.4        |                    | 29 May 2013      | GB2486859     |            | Enhanced E-DCH for Robust SI Transmission in HetNet Scenario  |
| RM126287   | Family  | Filed    | 5 Nov 2012  | 5 Nov 2012        |                    |                    |                  |               |            | Enhanced radio link monitoring for LTE  |
| RM126287   | GB01    | Filed    | 5 Nov 2012  | 5 Nov 2012        | GB1219885.9        |                    |                  |               |            | Enhanced radio link monitoring for LTE  |
| RM126288   | Family  | Filed    | 3 Dec 2012  | 3 Dec 2012        |                    |                    |                  |               |            | Signaling support for interference cancelling receivers   |
| RM126288   | GB01    | Filed    | 3 Dec 2012  | 3 Dec 2012        | GB1221718.8        |                    |                  |               |            | Signaling support for interference cancelling receivers   |
| RM126290   | Family  | Filed    | 30 Oct 2012 | 30 Oct 2012       |                    |                    |                  |               |            | Timer Configuration for Enhanced Connectivity   |
| RM126290   | GB01    | Filed    | 30 Oct 2012 | 30 Oct 2012       | GB1219503.8        |                    |                  |               |            | Timer Configuration for Enhanced Connectivity   |
| RM126291   | Family  | Filed    | 9 May 2013  | 9 May 2013        | PCT/CN2013/075419  |                    |                  |               |            | Connection release for dual connection in LA network  |
| RM126291   | WO01    | ToFiling | 9 May 2013  | 9 May 2013        |                    |                    |                  |               |            | Connection release for dual connection in LA network  |
| RM126292   | Family  | Filed    | 27 Sep 2012 | 27 Sep 2012       |                    |                    |                  |               |            | Handling of autonomous denials in a communication system  |
| RM126292   | WO01    | ToFiling | 27 Sep 2012 | 27 Sep 2012       | GB1217315.9        |                    |                  |               |            | Handling of autonomous denials in a communication system  |
| RM126293   | Family  | Filed    | 4 Oct 2012  | 4 Oct 2012        |                    |                    |                  |               |            | Traffic volume measurement enhancement for common E-DCH   |
| RM126293   | GB01    | POA      | 4 Oct 2012  | 4 Oct 2012        | GB1217795.2        |                    | 17 Apr 2013      | GB2485608     |            | Traffic volume measurement enhancement for common E-DCH   |
| RM126294   | Family  | Filed    | 9 Oct 2012  | 9 Oct 2012        |                    |                    |                  |               |            | Traffic volume measurement enhancement for common E-DCH   |
| RM126294   | GB01    | Filed    | 9 Oct 2012  | 9 Oct 2012        | GB1218081.5        |                    |                  |               |            | Traffic volume measurement enhancement for common E-DCH   |
| RM126295   | Family  | Filed    | 28 Sep 2012 | 28 Sep 2012       |                    |                    |                  |               |            | UMI RLC ciphering error detection and recovery indicator  |
| RM126295   | WO01    | Filed    | 28 Sep 2012 | 28 Sep 2012       | PCT/CN2012/082485  |                    |                  |               |            | UMI RLC ciphering error detection and recovery indicator  |
| RM126296   | Family  | Filed    | 13 Dec 2012 | 13 Dec 2012       |                    |                    |                  |               |            | A Novel Measurement Pattern to handle glitch for intra-band Deactivated SCell                                 |
| RM126296   | GB01    | Filed    | 13 Dec 2012 | 13 Dec 2012       | GB1222510.8        |                    |                  |               |            | A Novel Measurement Pattern to handle glitch for intra-band Deactivated SCell                                 |
| RM126297   | Family  | Filed    | 23 Oct 2012 | 23 Oct 2012       |                    |                    |                  |               |            | Signalling to convey scrambling code information in support of interference cancelling receivers              |
| RM126297   | GB01    | Filed    | 23 Oct 2012 | 23 Oct 2012       | GB1219044.3        |                    |                  |               |            | Signalling to convey scrambling code information in support of interference cancelling receivers              |
| RM126297   | US01    | ToFiling | 23 Oct 2012 | 23 Oct 2012       |                    |                    |                  |               |            | Signalling to convey scrambling code information in support of interference cancelling receivers              |
| RM126298   | Family  | Filed    | 5 Dec 2012  | 5 Dec 2012        |                    |                    |                  |               |            | Short CF-End and Short CF-End+CF-Ack Frame Definition   |
| RM126298   | WO01    | Filed    | 5 Dec 2012  | 5 Dec 2012        | PCT/CN2012/085910  |                    |                  |               |            | Short CF-End and Short CF-End+CF-Ack Frame Definition   |
| RM126299   | Family  | Filed    | 12 Dec 2012 | 12 Dec 2012       |                    |                    |                  |               |            | Short CF-End and Short CF-End+CF-Ack Frame Definition   |
| RM126299   | GB01    | POA      | 12 Dec 2012 | 12 Dec 2012       | GB1222384.7        |                    |                  |               |            | Short CF-End and Short CF-End+CF-Ack Frame Definition   |
| RM126300   | Family  | Filed    | 21 Nov 2012 | 21 Nov 2012       |                    |                    |                  |               |            | DMRS reduction for local area network   |
| RM126300   | GB01    | POA      | 21 Nov 2012 | 21 Nov 2012       | GB1220956.5        |                    |                  |               |            | DMRS reduction for local area network   |
| RM126301   | Family  | Filed    | 7 Feb 2013  | 7 Feb 2013        |                    |                    |                  |               |            | DMRS reduction for local area network   |
| RM126301   | WO01    | Filed    | 7 Feb 2013  | 7 Feb 2013        | PCT/CN2013/071519  |                    |                  |               |            | DMRS reduction for local area network   |
| RM126302   | Family  | Filed    | 28 Dec 2012 | 28 Dec 2012       |                    |                    |                  |               |            | Updating connected cars operational radio parameters  |
| RM126302   | WO01    | Filed    | 28 Dec 2012 | 28 Dec 2012       | PCT/CN2012/087825  |                    |                  |               |            | Updating connected cars operational radio parameters  |
| RM126304   | Family  | Filed    | 19 Dec 2012 | 19 Dec 2012       |                    |                    |                  |               |            | Feedback signal selection in iterative receivers  |
| RM126304   | GB01    | Filed    | 19 Dec 2012 | 19 Dec 2012       | GB1222909.2        |                    |                  |               |            | Feedback signal selection in iterative receivers  |
| RM126307   | Family  | Filed    | 2 Apr 2013  | 2 Apr 2013        |                    |                    |                  |               |            | Feedback signal selection in iterative receivers  |
| RM126307   | GB01    | Filed    | 2 Apr 2013  | 2 Apr 2013        | GB1305895.3        |                    |                  |               |            | Feedback signal selection in iterative receivers  |
| RM126308   | Family  | Filed    | 22 Jan 2013 | 22 Jan 2013       |                    |                    |                  |               |            | Simplified handover procedure for CIU-planes split LA cells   |
| RM126308   | WO01    | Filed    | 22 Jan 2013 | 22 Jan 2013       | PCT/CN2013/070638  |                    |                  |               |            | Simplified handover procedure for CIU-planes split LA cells   |
| RM126309   | Family  | Filed    | 17 Jan 2013 | 17 Jan 2013       |                    |                    |                  |               |            | New mobility mechanism in WLAN/3GPP interworking  |
| RM126309   | GB01    | Filed    | 17 Jan 2013 | 17 Jan 2013       | GB1300878.4        |                    |                  |               |            | New mobility mechanism in WLAN/3GPP interworking  |
| RM126311   | Family  | Filed    | 4 Dec 2012  | 4 Dec 2012        |                    |                    |                  |               |            | Parameterizations of low density parity check matrices by using interleavers                                  |
| RM126311   | GB01    | POA      | 4 Dec 2012  | 4 Dec 2012        | GB1221824.4        |                    | 7 Aug 2013       | GB2489080     |            | Parameterizations of low density parity check matrices by using interleavers                                  |
| RM126313   | Family  | Filed    | 2 Nov 2012  | 2 Nov 2012        |                    |                    |                  |               |            | Method and Apparatus for Configuring Measurement Gaps   |
| RM126313   | GB01    | Filed    | 2 Nov 2012  | 2 Nov 2012        | GB1219786.9        |                    |                  |               |            | Method and Apparatus for Configuring Measurement Gaps   |
| RM126317   | Family  | Filed    | 29 Oct 2012 | 29 Oct 2012       |                    |                    |                  |               |            | RLF and HOF handling for dual connection  |
| RM126317   | GB01    | Filed    | 29 Oct 2012 | 29 Oct 2012       | GB1215399.1        |                    |                  |               |            | RLF and HOF handling for dual connection  |
| RM126318   | Family  | Filed    | 21 Dec 2012 | 21 Dec 2012       |                    |                    |                  |               |            | A base band analog cancellation scheme to suppress self-interference for full duplex wireless receiver design |
| RM126318   | GB01    | Filed    | 21 Dec 2012 | 21 Dec 2012       | GB1300878.4        |                    |                  |               |            | A base band analog cancellation scheme to suppress self-interference for full duplex wireless receiver design |

| Case ref.# | Country | Status  | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date | Proposed title  |
|------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|---|
| RM126518   | GB01    | POA     | 21 Dec 2012 | 21 Dec 2012       | GB1223288.0        |                    |                  |               |            | Enhanced best cell detection for high performance GSM capable terminals                         |
| RM126519   | Family  | Filed   | 21 Dec 2012 | 21 Dec 2012       |                    |                    |                  |               |            | New Carrier Type cell DTX mechanisms in LTE   |
| RM126519   | GB01    | Filed   | 21 Dec 2012 | 21 Dec 2012       | GB1223272.4        |                    |                  |               |            | New Carrier Type cell DTX mechanisms in LTE   |
| RM126520   | Family  | Filed   | 2 Nov 2012  | 2 Nov 2012        |                    |                    |                  |               |            | Necessary signaling and procedure to solve HD3 in IDC   |
| RM126520   | WO01    | Filed   | 2 Nov 2012  | 2 Nov 2012        | PCT/CN2012/083989  |                    |                  |               |            | Necessary signaling and procedure to solve HD3 in IDC   |
| RM126521   | Family  | Filed   | 29 May 2013 | 29 May 2013       |                    |                    |                  |               |            | A Parallel Initial Search and Synchronization Method for GSM Capable Terminals                  |
| RM126521   | GB01    | Filed   | 29 May 2013 | 29 May 2013       | GB1308566.9        |                    |                  |               |            | A Parallel Initial Search and Synchronization Method for GSM Capable Terminals                  |
| RM126523   | Family  | Filed   | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | Enhancement of ICX solution in HetNets with flexible TDD  |
| RM126523   | WO01    | Filed   | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070662  |                    |                  |               |            | Enhancement of ICX solution in HetNets with flexible TDD  |
| RM126524   | Family  | Filed   | 14 Dec 2012 | 14 Dec 2012       |                    |                    |                  |               |            | LO leakage calibration for Rx mixer   |
| RM126524   | GB01    | Filed   | 14 Dec 2012 | 14 Dec 2012       | GB1222843.7        |                    |                  |               |            | LO leakage calibration for Rx mixer   |
| RM126525   | Family  | Filed   | 7 Feb 2013  | 7 Feb 2013        |                    |                    |                  |               |            | Enhanced power saving mode management for dual connection                                       |
| RM126525   | WO01    | Filed   | 7 Feb 2013  | 7 Feb 2013        | PCT/CN2013/071546  |                    |                  |               |            | Enhanced power saving mode management for dual connection                                       |
| RM126526   | Family  | Filed   | 15 Jan 2013 | 15 Jan 2013       |                    |                    |                  |               |            | Calibration for envelope tracking shaping table   |
| RM126526   | GB01    | Filed   | 15 Jan 2013 | 15 Jan 2013       | GB1300722.4        |                    |                  |               |            | Calibration for envelope tracking shaping table   |
| RM126527   | Family  | Filed   | 10 Dec 2012 | 10 Dec 2012       |                    |                    |                  |               |            | Controlling UE Antenna switching  |
| RM126527   | GB01    | Filed   | 10 Dec 2012 | 10 Dec 2012       | GB1222189.1        |                    |                  |               |            | Controlling UE Antenna switching  |
| RM126529   | Family  | Filed   | 14 Dec 2012 | 14 Dec 2012       |                    |                    |                  |               |            | LO leakage estimation / calibration for Rx mixer  |
| RM126529   | GB01    | Filed   | 14 Dec 2012 | 14 Dec 2012       | GB1222844.5        |                    |                  |               |            | LO leakage estimation / calibration for Rx mixer  |
| RM126531   | Family  | Filed   | 3 Apr 2013  | 3 Apr 2013        |                    |                    |                  |               |            | Crystal Temperature Compensation Method and Algorithm   |
| RM126531   | GB01    | Filed   | 3 Apr 2013  | 3 Apr 2013        | GB1306013.2        |                    |                  |               |            | Crystal Temperature Compensation Method and Algorithm   |
| RM126532   | Family  | Filed   | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | Measurement events configuration for dual connection in local area                              |
| RM126532   | WO01    | Filed   | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070702  |                    |                  |               |            | Measurement events configuration for dual connection in local area                              |
| RM126533   | Family  | Filed   | 15 Jan 2013 | 15 Jan 2013       |                    |                    |                  |               |            | Adaptive LNA to support single-ended and differential input matching configurations             |
| RM126533   | GB01    | Filed   | 15 Jan 2013 | 15 Jan 2013       | GB1300700.0        |                    |                  |               |            | Adaptive LNA to support single-ended and differential input matching configurations             |
| RM126535   | Family  | Filed   | 14 Jan 2013 | 14 Jan 2013       |                    |                    |                  |               |            | CSI Report triggering with reduced DL control overhead for NCT                                  |
| RM126535   | WO01    | Filed   | 14 Jan 2013 | 14 Jan 2013       | PCT/CN2013/070424  |                    |                  |               |            | CSI Report triggering with reduced DL control overhead for NCT                                  |
| RM126536   | Family  | Filed   | 7 Dec 2012  | 7 Dec 2012        |                    |                    |                  |               |            | A novel network energy saving scheme in HetNet  |
| RM126536   | WO01    | Filed   | 7 Dec 2012  | 7 Dec 2012        | PCT/CN2012/086156  |                    |                  |               |            | A novel network energy saving scheme in HetNet  |
| RM126537   | Family  | Filed   | 5 Nov 2012  | 5 Nov 2012        |                    |                    |                  |               |            | T3212 start with T3412 value if barred or backed off  |
| RM126537   | GB01    | Filed   | 5 Nov 2012  | 5 Nov 2012        | GB1219862.8        |                    |                  |               |            | T3212 start with T3412 value if barred or backed off  |
| RM126537   | GB01    | POA     | 5 Nov 2012  | 5 Nov 2012        | GB1314314.4        |                    |                  |               |            | T3212 start with T3412 value if barred or backed off  |
| RM126537   | GB02    | Filed   | 5 Nov 2012  | 5 Nov 2012        |                    |                    |                  |               |            | T3212 start with T3412 value if barred or backed off  |
| RM126538   | Family  | Filed   | 31 Jan 2013 | 31 Jan 2013       |                    |                    |                  |               |            | 3G HSDPA payload lossless compression at L2   |
| RM126538   | Family  | Filed   | 31 Jan 2013 | 31 Jan 2013       | GB1301705.8        |                    |                  |               |            | 3G HSDPA payload lossless compression at L2   |
| RM126539   | Family  | Filed   | 29 Jan 2013 | 29 Jan 2013       |                    |                    |                  |               |            | Successive PBCH IC method for LTE Release 11  |
| RM126539   | GB01    | Filed   | 29 Jan 2013 | 29 Jan 2013       | GB1301552.4        |                    |                  |               |            | Successive PBCH IC method for LTE Release 11  |
| RM126540   | Family  | Filed   | 2 Nov 2012  | 2 Nov 2012        |                    |                    |                  |               |            | Intelligent handling of RRC connection release delay  |
| RM126540   | GB01    | Filed   | 2 Nov 2012  | 2 Nov 2012        | GB1219785.1        |                    |                  |               |            | Intelligent handling of RRC connection release delay  |
| RM126540   | US01    | Granted | 5 Nov 2012  | 2 Nov 2012        | US1366894.0        |                    |                  |               |            | Intelligent handling of RRC connection release delay  |
| RM126541   | Family  | Filed   | 9 Jan 2013  | 9 Jan 2013        |                    |                    |                  |               |            | On cluster establishment and maintenance in flexible TDD of LA network                          |
| RM126541   | WO01    | Filed   | 9 Jan 2013  | 9 Jan 2013        | PCT/CN2013/070271  |                    |                  |               |            | On cluster establishment and maintenance in flexible TDD of LA network                          |
| RM126541   | WO01    | Filed   | 9 Jan 2013  | 9 Jan 2013        |                    |                    |                  |               |            | UE assisted WLAN radio resource management in WLAN and 3GPP interworking                        |
| RM126545   | Family  | Filed   | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | UE assisted WLAN radio resource management in WLAN and 3GPP interworking                        |
| RM126545   | WO01    | Filed   | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070706  |                    |                  |               |            | UE assisted WLAN radio resource management in WLAN and 3GPP interworking                        |
| RM126546   | Family  | Filed   | 28 May 2013 | 28 May 2013       |                    |                    |                  |               |            | A Novel Base Station Overhearing Scheme for Local Area Cells                                    |
| RM126546   | GB01    | Filed   | 28 May 2013 | 28 May 2013       | GB1309501.3        |                    |                  |               |            | A Novel Base Station Overhearing Scheme for Local Area Cells                                    |
| RM126547   | Family  | Filed   | 2 Apr 2013  | 2 Apr 2013        |                    |                    |                  |               |            | Implicit resource allocation for public safety group communication with restriction indication  |
| RM126547   | WO01    | Filed   | 2 Apr 2013  | 2 Apr 2013        | PCT/CN2013/073665  |                    |                  |               |            | Implicit resource allocation for public safety group communication with restriction indication  |
| RM126549   | Family  | Filed   | 3 Nov 2012  | 3 Nov 2012        |                    |                    |                  |               |            | Method for resource allocation signaling for EPDCC  |
| RM126549   | WO01    | Filed   | 3 Nov 2012  | 3 Nov 2012        | PCT/CN2012/084042  |                    |                  |               |            | Method for resource allocation signaling for EPDCC  |
| RM126551   | Family  | Filed   | 12 Dec 2012 | 12 Dec 2012       |                    |                    |                  |               |            | Design and Signalling for Enhanced SRS  |
| RM126551   | WO01    | Filed   | 12 Dec 2012 | 12 Dec 2012       | PCT/CN2012/084543  |                    |                  |               |            | Design and Signalling for Enhanced SRS  |
| RM126552   | Family  | Filed   | 2 Apr 2013  | 2 Apr 2013        |                    |                    |                  |               |            | TDD/FDD FE apparatus  |
| RM126552   | GB01    | Filed   | 2 Apr 2013  | 2 Apr 2013        | GB1305865.4        |                    |                  |               |            | TDD/FDD FE apparatus  |
| RM126553   | Family  | Filed   | 21 Dec 2012 | 21 Dec 2012       |                    |                    |                  |               |            | CCI Feedback Calculation for Reduced Demodulation Reference Signal overhead on New Carrier Type |

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| RM126353   | WO01    | Filed     | 21 Dec 2012 | 21 Dec 2012       | PCT/CN2012/087155  |                    |                  |               |            | CCI Feedback Calculation for Reduced Data Modulation Reference Signal  |
| RM126354   | Family  | Filed     | 4 Dec 2012  | 4 Dec 2012        |                    |                    |                  |               |            | overhead on New Carrier Type   |
| RM126355   | GB01    | Filed     | 4 Dec 2012  | 4 Dec 2012        | GB1221812.9        |                    |                  |               |            | Flexible Data Frame Delivery   |
| RM126356   | WO01    | Filed     | 1 Apr 2013  | 1 Apr 2013        | PCT/CN2013/000378  |                    |                  |               |            | Apparatus and method of charging D2D traffic   |
| RM126357   | Family  | Filed     | 1 Apr 2013  | 1 Apr 2013        |                    |                    |                  |               |            | Apparatus and method of charging D2D traffic   |
| RM126358   | WO01    | Filed     | 8 Jan 2013  | 8 Jan 2013        | GB1300273.5        |                    |                  |               |            | UE-to-UE reception with measurement receiver   |
| RM126359   | GB01    | POA       | 8 Jan 2013  | 8 Jan 2013        |                    |                    |                  |               |            | UE-to-UE reception with measurement receiver   |
| RM126360   | US01    | To Filing | 8 Jan 2013  | 8 Jan 2013        |                    |                    |                  |               |            | Improved scheme on protected resource coordination in small cell enhanced LA network   |
| RM126361   | Family  | Filed     | 15 Apr 2013 | 15 Apr 2013       | PCT/CN2013/074212  |                    |                  |               |            | Improved scheme on protected resource coordination in small cell enhanced LA network   |
| RM126362   | WO01    | Filed     | 15 Apr 2013 | 15 Apr 2013       | PCT/CN2013/074212  |                    |                  |               |            | Improved scheme on protected resource coordination in small cell enhanced LA network   |
| RM126363   | Family  | Filed     | 11 Jan 2013 | 11 Jan 2013       |                    |                    |                  |               |            | Procedures to allow UE-specific b-power modification for UEs supporting different set of NS-values than the eNB is signaling |
| RM126364   | GB01    | Filed     | 11 Jan 2013 | 11 Jan 2013       | GB1300471.8        |                    |                  |               |            | Procedures to allow UE-specific b-power modification for UEs supporting different set of NS-values than the eNB is signaling |
| RM126365   | Family  | Filed     | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | Adapted CA signaling to support flexible TDD UL/DL reconfiguration   |
| RM126366   | WO01    | Filed     | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070664  |                    |                  |               |            | Adapted CA signaling to support flexible TDD UL/DL reconfiguration   |
| RM126367   | Family  | Filed     | 14 Nov 2012 | 14 Nov 2012       |                    |                    |                  |               |            | System and method of delivering ETWS secondary notification to users with active packet calls                                |
| RM126368   | GB01    | Filed     | 14 Nov 2012 | 14 Nov 2012       | GB1220510.0        |                    |                  |               |            | System and method of delivering ETWS secondary notification to users with active packet calls                                |
| RM126369   | Family  | Filed     | 2 Apr 2013  | 2 Apr 2013        |                    |                    |                  |               |            | Signaling for a virtual joint scheduling in distributed systems  |
| RM126370   | WO01    | Filed     | 2 Apr 2013  | 2 Apr 2013        | GB1305935.7        |                    |                  |               |            | Signaling for a virtual joint scheduling in distributed systems  |
| RM126371   | Family  | Filed     | 27 Mar 2013 | 27 Mar 2013       |                    |                    |                  |               |            | Shadow connection manager for enabling intelligent selection between cellular and non-cellular radios                        |
| RM126372   | GB01    | Filed     | 27 Mar 2013 | 27 Mar 2013       | GB1305625.6        |                    |                  |               |            | Shadow connection manager for enabling intelligent selection between cellular and non-cellular radios                        |
| RM126373   | Family  | Filed     | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | Enhanced repetition transmission for DL control signal to improve the MTC coverage   |
| RM126374   | WO01    | Filed     | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070659  |                    |                  |               |            | Enhanced repetition transmission for DL control signal to improve the MTC coverage   |
| RM126375   | Family  | Filed     | 30 May 2013 | 30 May 2013       |                    |                    |                  |               |            | Method and apparatus for configuring timing advance groups   |
| RM126376   | GB01    | Filed     | 30 May 2013 | 30 May 2013       | GB1309707.5        |                    |                  |               |            | Method and apparatus for configuring timing advance groups   |
| RM126377   | Family  | Filed     | 14 Jan 2013 | 14 Jan 2013       |                    |                    |                  |               |            | DCI Size Reduction for Local Area  |
| RM126378   | WO01    | Filed     | 14 Jan 2013 | 14 Jan 2013       | PCT/CN2013/070422  |                    |                  |               |            | DCI Size Reduction for Local Area  |
| RM126379   | Family  | Filed     | 8 Feb 2013  | 8 Feb 2013        |                    |                    |                  |               |            | Enhanced paging operation for power saving mode  |
| RM126380   | WO01    | Filed     | 8 Feb 2013  | 8 Feb 2013        | PCT/CN2013/071570  |                    |                  |               |            | Enhanced paging operation for power saving mode  |
| RM126381   | Family  | Filed     | 9 Jan 2013  | 9 Jan 2013        |                    |                    |                  |               |            | Assistance information for CRS interference cancellation with low interference subframe in HetNets                           |
| RM126382   | WO01    | Filed     | 9 Jan 2013  | 9 Jan 2013        | PCT/CN2013/070273  |                    |                  |               |            | Assistance information for CRS interference cancellation with low interference subframe in HetNets                           |
| RM126383   | Family  | Filed     | 5 Jul 2013  | 5 Jul 2013        |                    |                    |                  |               |            | Antenna environment profile  |
| RM126384   | GB01    | Filed     | 5 Jul 2013  | 5 Jul 2013        | GB1312125.4        |                    |                  |               |            | Antenna environment profile  |
| RM126385   | Family  | Filed     | 31 Jan 2013 | 31 Jan 2013       |                    |                    |                  |               |            | Data compression C-Plane aspect  |
| RM126386   | WO01    | Filed     | 31 Jan 2013 | 31 Jan 2013       | GB1301707.4        |                    |                  |               |            | Data compression C-Plane aspect  |
| RM126387   | Family  | Filed     | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | PRACH coverage improvement for MTC UE  |
| RM126388   | WO01    | Filed     | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070706  |                    |                  |               |            | PRACH coverage improvement for MTC UE  |
| RM126389   | Family  | Filed     | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | A novel method to change TDD configuration of a cluster in eIMTA   |
| RM126390   | WO01    | Filed     | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070660  |                    |                  |               |            | A novel method to change TDD configuration of a cluster in eIMTA   |
| RM126391   | Family  | Filed     | 4 Jan 2013  | 4 Jan 2013        |                    |                    |                  |               |            | Packet Transmission Period Aggregation for Relay Operation in 802.11ah   |
| RM126392   | GB01    | POA       | 4 Jan 2013  | 4 Jan 2013        | GB1300143.3        |                    |                  |               |            | Packet Transmission Period Aggregation for Relay Operation in 802.11ah   |
| RM126393   | Family  | Filed     | 21 Dec 2012 | 21 Dec 2012       |                    |                    |                  |               |            | STA-Relay Access During Scheduled Transmission Opportunity   |
| RM126394   | GB01    | Filed     | 21 Dec 2012 | 21 Dec 2012       | GB13233265.9       |                    |                  |               |            | STA-Relay Access During Scheduled Transmission Opportunity   |
| RM126395   | Family  | Filed     | 17 Jan 2013 | 17 Jan 2013       |                    |                    |                  |               |            | Configurable Reference Signal Type for RRMLRM measurement  |
| RM126396   | WO01    | Filed     | 17 Jan 2013 | 17 Jan 2013       | PCT/CN2013/070603  |                    |                  |               |            | Configurable Reference Signal Type for RRMLRM measurement  |
| RM126397   | Family  | Filed     | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | ePDCCH configuration for Standalone New Carrier Type   |
| RM126398   | WO01    | Filed     | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070689  |                    |                  |               |            | ePDCCH configuration for Standalone New Carrier Type   |
| RM126399   | Family  | Filed     | 9 Aug 2013  | 9 Aug 2013        |                    |                    |                  |               |            | On concurrent ProSe and infrastructure based communication   |
| RM126400   | GB01    | Filed     | 9 Aug 2013  | 9 Aug 2013        | GB1314325.0        |                    |                  |               |            | On concurrent ProSe and infrastructure based communication   |
| RM126401   | Family  | Filed     | 11 Apr 2013 | 11 Apr 2013       |                    |                    |                  |               |            | Method and apparatus of analog predistortion for single-ended modulator  |
| RM126402   | WO01    | Filed     | 11 Apr 2013 | 11 Apr 2013       | PCT/CN2013/070686  |                    |                  |               |            | Method and apparatus of analog predistortion for single-ended modulator  |
| RM126403   | Family  | Filed     | 1 Apr 2013  | 1 Apr 2013        |                    |                    |                  |               |            | Enhanced SCH for coverage improvement for low-cost LTE devices   |

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| RM126402   | WO/01   | Filed  | 1 Apr 2013  | 1 Apr 2013        | PCT/CN2013/001880  |                    |                  |               |            | Enhanced SCH for coverage improvement for low-cost LTE devices  |
| RM126403   | Family  | Filed  | 17 Jan 2013 | 17 Jan 2013       |                    |                    |                  |               |            | Extended time-domain granularity for PUSCH frequency hopping with TTI bundling  |
| RM126403   | WO/01   | Filed  | 17 Jan 2013 | 17 Jan 2013       | PCT/CN2013/070602  |                    |                  |               |            | Method and apparatus for mapping data to logical channels   |
| RM126406   | Family  | Filed  | 25 Jan 2013 | 25 Jan 2013       | GB1301366.9        |                    |                  |               |            | Method and apparatus for mapping data to logical channels   |
| RM126407   | Family  | Filed  | 25 Jan 2013 | 25 Jan 2013       | GB1301366.9        |                    |                  |               |            | Method for assisting on network selection   |
| RM126407   | Family  | Filed  | 17 Jan 2013 | 17 Jan 2013       |                    |                    |                  |               |            | Method for assisting on network selection   |
| RM126410   | POA     | Filed  | 17 Jan 2013 | 17 Jan 2013       | GB1300880.0        |                    |                  |               |            | Optimization for HetNet operation   |
| RM126410   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       | GB1300925.3        |                    |                  |               |            | Optimization for HetNet operation   |
| RM126410   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       | GB1300925.3        |                    |                  |               |            | Enhanced Physical Discovery Channel for LTE and WiFi interworking   |
| RM126411   | Family  | Filed  | 21 Feb 2013 | 21 Feb 2013       | PCT/CN2013/071744  |                    |                  |               |            | Enhanced Physical Discovery Channel for LTE and WiFi interworking   |
| RM126412   | Family  | Filed  | 21 Feb 2013 | 21 Feb 2013       | PCT/CN2013/071744  |                    |                  |               |            | CQI enhancement in flexible TDD systems   |
| RM126412   | Family  | Filed  | 16 Jan 2013 | 16 Jan 2013       | PCT/CN2013/070556  |                    |                  |               |            | CQI enhancement in flexible TDD systems   |
| RM126413   | Family  | Filed  | 3 Jun 2013  | 3 Jun 2013        | PCT/CN2013/076654  |                    |                  |               |            | MUE preamble transmission for carrier-based ICIC  |
| RM126413   | Family  | Filed  | 3 Jun 2013  | 3 Jun 2013        | PCT/CN2013/076654  |                    |                  |               |            | MUE preamble transmission for carrier-based ICIC  |
| RM126415   | Family  | Filed  | 3 Jun 2013  | 3 Jun 2013        | PCT/CN2013/076654  |                    |                  |               |            | Enhanced MIB for non-standalone NCT cell discovery  |
| RM126415   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | PCT/CN2013/073702  |                    |                  |               |            | Enhanced MIB for non-standalone NCT cell discovery  |
| RM126416   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070668  |                    |                  |               |            | Data Transmissions for Low Cost MTC with Coverage Enhancement   |
| RM126416   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070668  |                    |                  |               |            | Data Transmissions for Low Cost MTC with Coverage Enhancement   |
| RM126417   | Family  | Filed  | 2 Apr 2013  | 2 Apr 2013        | PCT/CN2013/073630  |                    |                  |               |            | Cell identification signal design form dormant state cell   |
| RM126417   | Family  | Filed  | 2 Apr 2013  | 2 Apr 2013        | PCT/CN2013/073630  |                    |                  |               |            | Cell identification signal design form dormant state cell   |
| RM126419   | Family  | Filed  | 27 Mar 2013 | 27 Mar 2013       | PCT/CN2013/073630  |                    |                  |               |            | Transmitter linearity improvement   |
| RM126419   | Family  | Filed  | 27 Mar 2013 | 27 Mar 2013       | PCT/CN2013/073630  |                    |                  |               |            | Transmitter linearity improvement   |
| RM126421   | Family  | Filed  | 2 Apr 2013  | 2 Apr 2013        | GB1305635.3        |                    |                  |               |            | Multi-Dimensional Algebra Solver  |
| RM126421   | Family  | Filed  | 2 Apr 2013  | 2 Apr 2013        | GB1305635.3        |                    |                  |               |            | Multi-Dimensional Algebra Solver  |
| RM126421   | Family  | Filed  | 2 Apr 2013  | 2 Apr 2013        | GB1305635.3        |                    |                  |               |            | BTS Controlling UE Antenna switching  |
| RM126423   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | GB1305693.8        |                    |                  |               |            | BTS Controlling UE Antenna switching  |
| RM126423   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | GB1305693.8        |                    |                  |               |            | Necessary WLAN/LTE interworking procedures and signaling  |
| RM126423   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | GB1305693.8        |                    |                  |               |            | Necessary WLAN/LTE interworking procedures and signaling  |
| RM126424   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | PCT/CN2013/073755  |                    |                  |               |            | Necessary WLAN/LTE interworking procedures and signaling  |
| RM126424   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | PCT/CN2013/073755  |                    |                  |               |            | Necessary WLAN/LTE interworking procedures and signaling  |
| RM126425   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | Enhanced Broadcast Channel for Low Cost MTC with Coverage Enhancement   |
| RM126425   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070707  |                    |                  |               |            | Enhanced Broadcast Channel for Low Cost MTC with Coverage Enhancement   |
| RM126427   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070707  |                    |                  |               |            | UE HW related OTDOA delay measurement period  |
| RM126427   | Family  | Filed  | 21 Feb 2013 | 21 Feb 2013       | GB1303072.1        |                    |                  |               |            | UE HW related OTDOA delay measurement period  |
| RM126429   | Family  | Filed  | 21 Feb 2013 | 21 Feb 2013       | GB1303072.1        |                    |                  |               |            | Cross Link BSR Report in Dual Connection  |
| RM126429   | Family  | Filed  | 10 Jan 2013 | 10 Jan 2013       |                    |                    |                  |               |            | Cross Link BSR Report in Dual Connection  |
| RM126429   | WO/01   | Closed | 10 Jan 2013 | 10 Jan 2013       | PCT/CN2013/070314  |                    |                  |               |            | Cross Link BSR Report in Dual Connection  |
| RM126429   | WO/02   | Filed  | 10 Jan 2013 | 10 Jan 2013       | PCT/CN2013/070314  |                    |                  |               |            | Cross Link BSR Report in Dual Connection  |
| RM126430   | Family  | Filed  | 21 Jan 2013 | 21 Jan 2013       |                    |                    |                  |               |            | Measurements of configured carriers for multicarrier HSDPA where measurement occasions are determined by compressed mode parameters |
| RM126430   | Family  | Filed  | 21 Jan 2013 | 21 Jan 2013       |                    |                    |                  |               |            | Measurements of configured carriers for multicarrier HSDPA where measurement occasions are determined by compressed mode parameters |
| RM126430   | GB/01   | Filed  | 21 Jan 2013 | 21 Jan 2013       | GB1301014.5        |                    |                  |               |            | Measurements of configured carriers for multicarrier HSDPA where measurement occasions are determined by compressed mode parameters |
| RM126432   | Family  | Filed  | 24 Jan 2013 | 24 Jan 2013       | GB1301293.5        |                    |                  |               |            | On the Transmission Opportunity (TXOP) with HARQ protocol   |
| RM126432   | Family  | Filed  | 24 Jan 2013 | 24 Jan 2013       | GB1301293.5        |                    |                  |               |            | On the Transmission Opportunity (TXOP) with HARQ protocol   |
| RM126433   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | Access control handling upon SRNS relocation  |
| RM126433   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       | GB1300922.0        |                    |                  |               |            | Access control handling upon SRNS relocation  |
| RM126434   | Family  | Filed  | 9 Apr 2013  | 9 Apr 2013        | PCT/CN2013/073975  |                    |                  |               |            | Accurate interference level measurement based on power offset indication  |
| RM126434   | Family  | Filed  | 9 Apr 2013  | 9 Apr 2013        | PCT/CN2013/073975  |                    |                  |               |            | Accurate interference level measurement based on power offset indication  |
| RM126435   | Family  | Filed  | 25 Feb 2013 | 25 Feb 2013       | PCT/CN2013/071853  |                    |                  |               |            | Dormant cell detection and report configurations  |
| RM126435   | Family  | Filed  | 25 Feb 2013 | 25 Feb 2013       | PCT/CN2013/071853  |                    |                  |               |            | Dormant cell detection and report configurations  |
| RM126438   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | PCT/CN2013/073755  |                    |                  |               |            | Autonomous Carrier Allocation Change Occasion of CA based ICIC  |
| RM126438   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | PCT/CN2013/073755  |                    |                  |               |            | Autonomous Carrier Allocation Change Occasion of CA based ICIC  |
| RM126439   | Family  | Filed  | 15 Apr 2013 | 15 Apr 2013       | GB13068819.2       |                    |                  |               |            | Compatible and Agile Carrier Aggregation Front End #1   |
| RM126439   | Family  | Filed  | 15 Apr 2013 | 15 Apr 2013       | GB13068819.2       |                    |                  |               |            | Compatible and Agile Carrier Aggregation Front End #1   |
| RM126441   | Family  | Filed  | 23 Apr 2013 | 23 Apr 2013       | PCT/CN2013/074577  |                    |                  |               |            | A novel method to protect WLAN performance from IDC interference  |
| RM126441   | Family  | Filed  | 23 Apr 2013 | 23 Apr 2013       | PCT/CN2013/074577  |                    |                  |               |            | A novel method to protect WLAN performance from IDC interference  |
| RM126443   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | A novel method to change TDD configuration in eIMTA   |
| RM126443   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070705  |                    |                  |               |            | A novel method to change TDD configuration in eIMTA   |
| RM126443   | WO/01   | Filed  | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070705  |                    |                  |               |            | Flexible Usage of Special Subframe for LTE TDD with Adaptive UL-DL Switching  |
| RM126443   | WO/01   | Filed  | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070705  |                    |                  |               |            | Flexible Usage of Special Subframe for LTE TDD with Adaptive UL-DL Switching  |
| RM126445   | Family  | Filed  | 17 Jan 2013 | 17 Jan 2013       |                    |                    |                  |               |            | Switching   |

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|-------------|---------|---------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|--|
| RM126445    | WO01    | Filed   | 17 Jan 2013 | 17 Jan 2013       | PCT/CN2013/073605  |                    |                  |               |            | Flexible Usage of Special Subframe for LTE TDD with Adaptive UL-DL Switching   |
| RM126446    | Family  | Filed   | 2 Jul 2013  | 2 Jul 2013        |                    |                    |                  |               |            | Noise shaping in a direct digital transmitter (in a digital-to-analog converter)                                       |
| RM126446    | Family  | Filed   | 2 Jul 2013  | 2 Jul 2013        | GB131623.7         |                    |                  |               |            | Noise shaping in a direct digital transmitter (in a digital-to-analog converter)                                       |
| RM126447    | Family  | Filed   | 25 Jan 2013 | 25 Jan 2013       | GB1301362.8        |                    |                  |               |            | Timer handling for dual-TVM threshold measurement event  |
| RM126448    | Family  | Filed   | 15 Apr 2013 | 2 Apr 2013        | GB1306621.8        |                    |                  |               |            | Compatible and Agile Carrier Aggregation Front End #5  |
| RM126449    | Family  | Filed   | 15 Apr 2013 | 2 Apr 2013        | GB1306621.8        |                    |                  |               |            | Compatible and Agile Carrier Aggregation Front End #5  |
| RM126449    | Family  | Filed   | 31 May 2012 | 12 Apr 2012       | GB1306729.3        |                    |                  |               |            | Modern receiver path delay measurement method #2   |
| RM126449    | Family  | Filed   | 31 May 2012 | 12 Apr 2012       | US131875492        |                    |                  |               |            | Modern receiver path delay measurement method #2   |
| RM126450    | US01    | Filed   | 2 May 2013  | 8 Jan 2013        |                    |                    |                  |               |            | Triggering downlink traffic with timing indication   |
| RM126451    | Family  | Filed   | 8 Jan 2013  | 8 Jan 2013        | US61750132         |                    |                  |               |            | Triggering downlink traffic with timing indication   |
| RM126451    | Family  | Filed   | 18 Jan 2013 | 18 Jan 2013       | US61750132         |                    |                  |               |            | Triggering downlink traffic with timing indication   |
| RM126453    | Family  | Filed   | 18 Jan 2013 | 18 Jan 2013       | GB1300951.9        |                    |                  |               |            | Measurement Event Specific CELL_INFO_LIST  |
| RM126453    | WO01    | Filed   | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | Measurement Event Specific CELL_INFO_LIST  |
| RM126454    | Family  | Filed   | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013/070704  |                    |                  |               |            | Configurable Reference Configuration to support flexible TDD   |
| RM126454    | WO01    | Filed   | 8 Apr 2013  | 8 Apr 2013        |                    |                    |                  |               |            | Configurable Reference Configuration to support flexible TDD   |
| RM126455    | Family  | Filed   | 8 Apr 2013  | 8 Apr 2013        | PCT/CN2013/073887  |                    |                  |               |            | Trigger+Response Procedure for Low Cost MTC device   |
| RM126455    | Family  | Filed   | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | Trigger+Response Procedure for Low Cost MTC device   |
| RM126455    | GB01    | Filed   | 18 Jan 2013 | 18 Jan 2013       | GB1300965.9        |                    |                  |               |            | Method for indicating offloading preference  |
| RM126457    | Family  | Filed   | 9 Apr 2013  | 9 Apr 2013        |                    |                    |                  |               |            | Method for indicating offloading preference  |
| RM126457    | WO01    | Filed   | 9 Apr 2013  | 9 Apr 2013        |                    |                    |                  |               |            | Novel design to adapt inter-band TDD CA HARQ scheme to support flexible TDD HARQ                                       |
| RM135002    | Family  | Filed   | 8 May 2013  | 9 Apr 2013        | PCT/CN2013/073960  |                    |                  |               |            | Novel design to adapt inter-band TDD CA HARQ scheme to support flexible TDD HARQ                                       |
| RM135002    | Family  | Filed   | 8 May 2013  | 8 May 2013        |                    |                    |                  |               |            | System and method of handling de-registration procedures based on access restrictions                                  |
| RM135002    | IN01    | Filed   | 8 May 2013  | 8 May 2013        | IN1672JUMUM/2013   |                    |                  |               |            | System and method of handling de-registration procedures based on access restrictions                                  |
| RM135006    | Family  | Filed   | 1 Apr 2013  | 1 Apr 2013        |                    |                    |                  |               |            | Additional assistance information for CRS interference cancellation in LA networks with flexible TDD                   |
| RM135006    | WO01    | Filed   | 1 Apr 2013  | 1 Apr 2013        |                    |                    |                  |               |            | Additional assistance information for CRS interference cancellation in LA networks with flexible TDD                   |
| RM135007    | Family  | Filed   | 3 Jun 2013  | 3 Jun 2013        |                    |                    |                  |               |            | Single-ended Modulator utilizing Pseudo Differential Folded Cascode concept  |
| RM135007    | GB01    | Filed   | 3 Jun 2013  | 3 Jun 2013        | GB1309886.8        |                    |                  |               |            | Single-ended Modulator utilizing Pseudo Differential Folded Cascode concept  |
| RM135008    | Family  | Filed   | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | Multi-granular CSI feedback  |
| RM135008    | GB01    | Filed   | 18 Jan 2013 | 18 Jan 2013       | GB1300964.2        |                    |                  |               |            | Multi-granular CSI feedback  |
| RM135009    | Family  | Filed   | 19 Sep 2013 | 19 Sep 2013       |                    |                    |                  |               |            | Real-time recursive channel estimation for improved channel tracking capability with low-cost computational complexity |
| RM135009    | US01    | Filed   | 19 Sep 2013 | 19 Sep 2013       | US14092010         |                    |                  |               |            | Real-time recursive channel estimation for improved channel tracking capability with low-cost computational complexity |
| RM135011    | Family  | Filed   | 2 Apr 2013  | 2 Apr 2013        |                    |                    |                  |               |            | Assuring mutual authentication in LTE after GSM AKA  |
| RM135011    | GB01    | Filed   | 2 Apr 2013  | 2 Apr 2013        | GB1305992.0        |                    |                  |               |            | Assuring mutual authentication in LTE after GSM AKA  |
| RM135012    | Family  | Filed   | 3 Apr 2013  | 3 Apr 2013        |                    |                    |                  |               |            | Enhancement of RRM measurement mechanism in LA with flexible TDD   |
| RM135012    | WO01    | Filed   | 3 Apr 2013  | 3 Apr 2013        | PCT/CN2013/073751  |                    |                  |               |            | Enhancement of RRM measurement mechanism in LA with flexible TDD   |
| RM135015    | Family  | Filed   | 3 Apr 2013  | 3 Apr 2013        |                    |                    |                  |               |            | Signaling and mechanism to support time switched UL for dual connectivity  |
| RM135015    | WO01    | Filed   | 3 Apr 2013  | 3 Apr 2013        | PCT/CN2013/073686  |                    |                  |               |            | Signaling and mechanism to support time switched UL for dual connectivity  |
| RM135017    | Family  | Filed   | 29 Mar 2013 | 29 Mar 2013       |                    |                    |                  |               |            | Connection Re-establishment after Losing Connection to Network   |
| RM135017    | WO01    | Filed   | 29 Mar 2013 | 29 Mar 2013       | PCT/CN2013/073440  |                    |                  |               |            | Connection Re-establishment after Losing Connection to Network   |
| RM135018    | Family  | Filed   | 2 Jul 2010  | 2 Jul 2010        |                    |                    |                  |               |            | Boucle d'annulation de composantes continues   |
| RM135018    | FR01    | Granted | 2 Jul 2010  | 2 Jul 2010        | FR2962274          |                    |                  | 6 Jan 2012    | FR2962274  | Boucle d'annulation de composantes continues   |
| RM135018    | US01    | Granted | 1 Jul 2011  | 2 Jul 2010        | US20120002757      |                    |                  | 1 May 2012    | US8442155  | Boucle d'annulation de composantes continues   |

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| RM135018   | US02    | Filed  | 26 Mar 2013 | 2 Jul 2010        | US13/056665        | US20130223570      | 29 Aug 2013      |               |            | Boucle d'annulation de composantes continues                                      |
| RM135023   | Family  | Filed  | 12 Apr 2013 | 12 Apr 2013       |                    |                    |                  |               |            | Procedure for the removal of the DC component inherent in a radio frequency chain |
| RM135023   | Family  | Filed  | 12 Apr 2013 | 12 Apr 2013       | GB1305732.7        |                    |                  |               |            | Electrical balance duplexer topologies  |
| RM135024   | Family  | Filed  | 2 Jul 2013  | 2 Jul 2013        |                    |                    |                  |               |            | Compact and Accurate Resistor Tuning Network                                      |
| RM135024   | Family  | Filed  | 2 Jul 2013  | 2 Jul 2013        | GB1311869.0        |                    |                  |               |            | Compact and Accurate Resistor Tuning Network                                      |
| RM135027   | Family  | Filed  | 16 May 2013 | 16 May 2013       |                    |                    |                  |               |            | BSS Scaling   |
| RM135027   | Family  | Filed  | 16 May 2013 | 16 May 2013       | GB1308846.3        |                    |                  |               |            | eNB Spectrum indication in CA   |
| RM135032   | Family  | Filed  | 7 Mar 2013  | 7 Mar 2013        |                    |                    |                  |               |            | eNB Spectrum indication in CA   |
| RM135032   | Family  | Filed  | 7 Mar 2013  | 7 Mar 2013        | GB1304141.3        |                    |                  |               |            | UE reconfiguration period request   |
| RM135035   | Family  | Filed  | 7 Jun 2013  | 7 Jun 2013        | GB1310205.8        |                    |                  |               |            | Restricted Access Window (RAW) for Mixed BSS Types                                |
| RM135035   | Family  | Filed  | 7 Jun 2013  | 7 Jun 2013        | GB1303904.5        |                    |                  |               |            | on AP controlled access in 802.11   |
| RM135037   | Family  | Filed  | 5 Mar 2013  | 5 Mar 2013        |                    |                    |                  |               |            | Novel codeword structure for double codebooks                                     |
| RM135039   | Family  | Filed  | 15 Mar 2013 | 15 Mar 2013       |                    |                    |                  |               |            | Novel codeword structure for double codebooks                                     |
| RM135039   | Family  | Filed  | 15 Mar 2013 | 15 Mar 2013       | GB1304855.8        |                    |                  |               |            | Method and apparatus for uplink message size reduction                            |
| RM135044   | Family  | Filed  | 7 Mar 2013  | 7 Mar 2013        |                    |                    |                  |               |            | Method and apparatus for uplink message size reduction                            |
| RM135044   | Family  | Filed  | 7 Mar 2013  | 7 Mar 2013        | GB1304108.2        |                    |                  |               |            | Method and Apparatus for Securely Changing Root Key of Chip                       |
| RM135046   | Family  | Filed  | 25 Mar 2013 | 25 Mar 2013       |                    |                    |                  |               |            | Method and Apparatus for Securely Changing Root Key of Chip                       |
| RM135046   | Family  | Filed  | 25 Mar 2013 | 25 Mar 2013       | GB1305375.6        |                    |                  |               |            | Method and Apparatus for Securely Changing Root Key of Chip                       |
| RM135048   | Family  | Filed  | 3 Jun 2013  | 3 Jun 2013        |                    |                    |                  |               |            | Method and apparatus for DF-DC mobility   |
| RM135048   | Family  | Filed  | 3 Jun 2013  | 3 Jun 2013        | GB1309842.1        |                    |                  |               |            | Method and apparatus for DF-DC mobility   |
| RM135049   | Family  | Filed  | 10 May 2013 | 10 May 2013       |                    |                    |                  |               |            | Necessary signaling and criteria to de-cluster eMTA clusters                      |
| RM135049   | Family  | Filed  | 10 May 2013 | 10 May 2013       | GB1309451.9        |                    |                  |               |            | UE adapting to network behavior during CSFB call establishment                    |
| RM135051   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        |                    |                    |                  |               |            | Automated COUNT-H sync on SRNS relocation   |
| RM135051   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | US81822042         |                    |                  |               |            | Method and apparatus for Access Control Information reset and update in Cell-DCH  |
| RM135052   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | PCT/CN2013073756   |                    |                  |               |            | Method and apparatus for Access Control Information reset and update in Cell-DCH  |
| RM135052   | Family  | Filed  | 6 Mar 2013  | 6 Mar 2013        |                    |                    |                  |               |            | Method and apparatus for Access Control Information reset and update in Cell-DCH  |
| RM135052   | Family  | Filed  | 6 Mar 2013  | 6 Mar 2013        | GB1304034.0        |                    |                  |               |            | Method and apparatus for LPN cells cluster mobility                               |
| RM135055   | Family  | Filed  | 28 Mar 2013 | 28 Mar 2013       |                    |                    |                  |               |            | Method and apparatus for LPN cells cluster mobility                               |
| RM135055   | Family  | Filed  | 28 Mar 2013 | 28 Mar 2013       | GB1305815.1        |                    |                  |               |            | Method and apparatus for F(e)NB mobility  |
| RM135057   | Family  | Filed  | 28 Mar 2013 | 28 Mar 2013       |                    |                    |                  |               |            | Method and apparatus for F(e)NB mobility  |
| RM135067   | Family  | Filed  | 28 Mar 2013 | 28 Mar 2013       |                    |                    |                  |               |            | Detection of mobility for reset of RACH transmission failure parameters           |
| RM135067   | Family  | Filed  | 28 Mar 2013 | 28 Mar 2013       | GB1365740.1        |                    |                  |               |            | Multiple RACH message transmission and combining                                  |
| RM135067   | Family  | Filed  | 28 Mar 2013 | 28 Mar 2013       |                    |                    |                  |               |            | Multiple RACH message transmission and combining                                  |
| RM135067   | Family  | Filed  | 5 Apr 2013  | 5 Apr 2013        | GB1366205.2        |                    |                  |               |            | Novel WLAN information reporting procedure in LTE-WLAN interworking               |
| RM135069   | Family  | Filed  | 5 Apr 2013  | 5 Apr 2013        |                    |                    |                  |               |            | Novel WLAN information reporting procedure in LTE-WLAN interworking               |
| RM135069   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       | PCT/CN2013070651   |                    |                  |               |            | POI signaling for advanced receivers  |
| RM135069   | Family  | Filed  | 18 Jan 2013 | 18 Jan 2013       |                    |                    |                  |               |            | POI signaling for advanced receivers  |
| RM135070   | Family  | Filed  | 5 Apr 2013  | 5 Apr 2013        |                    |                    |                  |               |            | HeNet connected mode triggering condition X-factor                                |
| RM135070   | Family  | Filed  | 5 Apr 2013  | 5 Apr 2013        | GB1306183.3        |                    |                  |               |            | HeNet connected mode triggering condition X-factor                                |
| RM135072   | Family  | Filed  | 10 May 2013 | 10 May 2013       |                    |                    |                  |               |            | Enhanced buffer status reporting in dual connectivity                             |
| RM135072   | Family  | Filed  | 10 May 2013 | 10 May 2013       | GB1308468.6        |                    |                  |               |            | Enhanced buffer status reporting in dual connectivity                             |
| RM135073   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        |                    |                    |                  |               |            | Method and apparatus of CQI reporting reduction                                   |
| RM135073   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | PCT/CN2013073694   |                    |                  |               |            | Method and apparatus of CQI reporting reduction                                   |
| RM135077   | Family  | Filed  | 10 May 2013 | 10 May 2013       |                    |                    |                  |               |            | Network triggered UE switch back to LTE from WLAN                                 |
| RM135077   | Family  | Filed  | 10 May 2013 | 10 May 2013       | GB1308448.8        |                    |                  |               |            | Network triggered UE switch back to LTE from WLAN                                 |
| RM135082   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        |                    |                    |                  |               |            | Methods to enable efficient sleep-active eNB mode switch                          |
| RM135082   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        | PCT/CN2013073750   |                    |                  |               |            | Methods to enable efficient sleep-active eNB mode switch                          |
| RM135086   | Family  | Filed  | 6 May 2013  | 6 May 2013        |                    |                    |                  |               |            | Dynamic configuration of receiver SNR to support different modulation types       |
| RM135086   | Family  | Filed  | 6 May 2013  | 6 May 2013        | PCT/CN2013075194   |                    |                  |               |            | Dynamic configuration of receiver SNR to support different modulation types       |
| RM135089   | Family  | Filed  | 11 Jun 2013 | 11 Jun 2013       |                    |                    |                  |               |            | Dynamic configuration of receiver SNR to support different modulation types       |
| RM135089   | Family  | Filed  | 11 Jun 2013 | 11 Jun 2013       | GB1310397.3        |                    |                  |               |            | Dynamic configuration of receiver SNR to support different modulation types       |
| RM135090   | Family  | Filed  | 27 Mar 2013 | 27 Mar 2013       |                    |                    |                  |               |            | Frame format design for negative acknowledgement with harq support in 802.11      |

| Case ref.# | Country | Status | Filing date | Earliest priority | Application number | Publication number | Publication date | Patent number | Grant date | Proposed title  |
|------------|---------|--------|-------------|-------------------|--------------------|--------------------|------------------|---------------|------------|---|
| RM135090   | US01    | Filed  | 27 Mar 2013 | 27 Mar 2013       | US13/051353        |                    |                  |               |            | Frame format design for negative acknowledgement with harg support in 802.11          |
| RM135091   | Family  | Filed  | 17 May 2013 | 17 May 2013       |                    |                    |                  |               |            | A method to receive HS-SCCH channel without reproducing UE masking sequence           |
| RM135091   | Family  | Filed  | 17 May 2013 | 17 May 2013       | GB1308620.6        |                    |                  |               |            | A method to receive HS-SCCH channel without reproducing UE masking sequence           |
| RM135092   | Family  | Filed  | 14 Jun 2013 | 14 Jun 2013       | GB1310650.5        |                    |                  |               |            | TDM scheduling enhancements to HSUPA  |
| RM135094   | Family  | Filed  | 12 Apr 2013 | 12 Apr 2013       | PCT/IN2013/074128  |                    |                  |               |            | ANDSF aided network control in 3GPP WLAN interworking                                 |
| RM135096   | Family  | Filed  | 2 Apr 2013  | 2 Apr 2013        | US61/607684        |                    |                  |               |            | ANDSF aided network control in 3GPP WLAN interworking                                 |
| RM135096   | Family  | Filed  | 2 Apr 2013  | 2 Apr 2013        | PCT/IB2013/058391  |                    |                  |               |            | A mechanism to discover devices and application users                                 |
| RM135097   | Family  | Filed  | 9 Sep 2013  | 3 Apr 2013        | PCT/IN2013/073710  |                    |                  |               |            | A mechanism to discover devices and application users                                 |
| RM135108   | Family  | Filed  | 3 Apr 2013  | 3 Apr 2013        |                    |                    |                  |               |            | Solution to handle DL SPS retransmission  |
| RM135108   | Family  | Filed  | 21 May 2013 | 21 May 2013       | GB1309144.2        |                    |                  |               |            | Solution to handle DL SPS retransmission  |
| RM135112   | Family  | Filed  | 21 May 2013 | 21 May 2013       | GB1309144.2        |                    |                  |               |            | Method and apparatus for requesting resources   |
| RM135112   | Family  | Filed  | 10 May 2013 | 10 May 2013       | PCT/IN2013/075455  |                    |                  |               |            | Method and apparatus for requesting resources   |
| RM135114   | Family  | Filed  | 10 May 2013 | 10 May 2013       | PCT/IN2013/075455  |                    |                  |               |            | UE triggered UE switch back to LTE from WLAN  |
| RM135114   | Family  | Filed  | 10 May 2013 | 10 May 2013       | PCT/IN2013/075458  |                    |                  |               |            | UE triggered UE switch back to LTE from WLAN  |
| RM135115   | Family  | Filed  | 29 May 2013 | 29 May 2013       | GB1309590.6        |                    |                  |               |            | Configurable Protocol Stack for Dual Connectivity                                     |
| RM135118   | Family  | Filed  | 29 May 2013 | 29 May 2013       | GB1309590.6        |                    |                  |               |            | Configurable Protocol Stack for Dual Connectivity                                     |
| RM135118   | Family  | Filed  | 10 May 2013 | 10 May 2013       | GB1308401.7        |                    |                  |               |            | Method and apparatus for indicating network capability                                |
| RM135118   | Family  | Filed  | 10 May 2013 | 10 May 2013       | GB1308401.7        |                    |                  |               |            | Method and apparatus for indicating network capability                                |
| RM135119   | Family  | Filed  | 31 May 2013 | 31 May 2013       |                    |                    |                  |               |            | MTC traffic volume and periodicity threshold indications                              |
| RM135119   | Family  | Filed  | 31 May 2013 | 31 May 2013       | PCT/IN2013/076555  |                    |                  |               |            | MTC traffic volume and periodicity threshold indications                              |
| RM135120   | Family  | Filed  | 31 May 2013 | 31 May 2013       | PCT/IN2013/076555  |                    |                  |               |            | Channel configuration for UL simultaneous transmission in dual connectivity           |
| RM135121   | Family  | Filed  | 15 Jul 2013 | 15 Jul 2013       | PCT/IN2013/079392  |                    |                  |               |            | Channel configuration for UL simultaneous transmission in dual connectivity           |
| RM135121   | Family  | Filed  | 15 Jul 2013 | 15 Jul 2013       | PCT/IN2013/079392  |                    |                  |               |            | A novel PHY method to change TDD configuration in eIMTA                               |
| RM135121   | Family  | Filed  | 5 Jul 2013  | 5 Jul 2013        |                    |                    |                  |               |            | A novel PHY method to change TDD configuration in eIMTA                               |
| RM135121   | Family  | Filed  | 5 Jul 2013  | 5 Jul 2013        | PCT/IN2013/078890  |                    |                  |               |            | Signalling for Reduced Uplink DM RS   |
| RM135124   | Family  | Filed  | 10 May 2013 | 10 May 2013       | GB1306459.5        |                    |                  |               |            | Signalling for Reduced Uplink DM RS   |
| RM135124   | Family  | Filed  | 10 May 2013 | 10 May 2013       | GB1306459.5        |                    |                  |               |            | Method and apparatus for an establishment prohibition indication                      |
| RM135127   | Family  | Filed  | 20 May 2013 | 20 May 2013       | PCT/IN2013/076500  |                    |                  |               |            | Method and apparatus for an establishment prohibition indication                      |
| RM135128   | Family  | Filed  | 20 May 2013 | 20 May 2013       | PCT/IN2013/076500  |                    |                  |               |            | Method and apparatus for an establishment prohibition indication                      |
| RM135129   | Family  | Filed  | 17 May 2013 | 17 May 2013       | PCT/IN2013/075837  |                    |                  |               |            | Method of handle the activation for SCeI  |
| RM135129   | Family  | Filed  | 21 May 2013 | 21 May 2013       | GB1308103.8        |                    |                  |               |            | Method of handle the activation for SCeI  |
| RM135130   | Family  | Filed  | 21 May 2013 | 21 May 2013       | GB1308103.8        |                    |                  |               |            | Enabling CoMP for flexible TDD systems  |
| RM135130   | Family  | Filed  | 14 Aug 2013 | 14 Aug 2013       | GB1314588.3        |                    |                  |               |            | Enabling CoMP for flexible TDD systems  |
| RM135132   | Family  | Filed  | 11 Jul 2013 | 11 Jul 2013       |                    |                    |                  |               |            | LTE-A eNB category indication   |
| RM135135   | Family  | Filed  | 11 Jul 2013 | 11 Jul 2013       | PCT/IN2013/079226  |                    |                  |               |            | LTE-A eNB category indication   |
| RM135135   | Family  | Filed  | 3 Jun 2013  | 3 Jun 2013        | US13/008593        |                    |                  |               |            | Interference management in a radio system   |
| RM135135   | Family  | Filed  | 3 Jun 2013  | 3 Jun 2013        | US13/008593        |                    |                  |               |            | Interference management in a radio system   |
| RM135137   | Family  | Filed  | 12 Jul 2013 | 12 Jul 2013       |                    |                    |                  |               |            | Enhanced aperiodic CQI report for flexible TDD systems                                |
| RM135137   | Family  | Filed  | 12 Jul 2013 | 12 Jul 2013       | GB1312553.9        |                    |                  |               |            | Enhanced aperiodic CQI report for flexible TDD systems                                |
| RM135144   | Family  | Filed  | 3 Apr 2012  | 3 Apr 2012        |                    |                    |                  |               |            | Double codebook improvement   |
| RM135144   | Family  | Filed  | 3 Apr 2012  | 3 Apr 2012        | GB2496633          |                    |                  |               |            | Double codebook improvement   |
| RM135146   | Family  | Filed  | 3 Apr 2012  | 3 Apr 2012        | GB1205973.9        |                    |                  |               |            | Bi-directional channel tracking scheme in contention based full-duplex communications |
| RM135146   | Family  | Filed  | 23 Feb 2012 | 23 Feb 2012       |                    |                    |                  |               |            | Bi-directional channel tracking scheme in contention based full-duplex communications |
| RM135149   | Family  | Filed  | 23 Feb 2012 | 23 Feb 2012       | GB1203165.4        |                    |                  |               |            | Bi-directional channel tracking scheme in contention based full-duplex communications |
| RM135149   | Family  | Filed  | 2 Jul 2013  | 2 Jul 2013        |                    |                    |                  |               |            | RM115342 Semi-Persistent Scheduling with Opportunity for Discontinuous Reception      |
| RM135149   | Family  | Filed  | 2 Jul 2013  | 2 Jul 2013        | GB1311831.0        |                    |                  |               |            | RM115342 Semi-Persistent Scheduling with Opportunity for Discontinuous Reception      |
| RM135157   | Family  | Filed  | 8 Aug 2013  | 8 Aug 2013        |                    |                    |                  |               |            | RM115449 On Feedback Design in Discovery Process                                      |
| RM135157   | Family  | Filed  | 8 Aug 2013  | 8 Aug 2013        | PCT/IN2013/081087  |                    |                  |               |            | RM115449 On Feedback Design in Discovery Process                                      |

| Case ref.# | Country | Status     | Proposed title   | Submission date | Invention date | Estimated filing date |
|------------|---------|------------|--|-----------------|----------------|-----------------------|
| RM126193   | Family  | InDrafting | Transmitter Harmonic Cancellation for Carrier Aggregation/Multiband operation                                  | 13 Jun 2012     | 10 May 2012    |                       |
| RM126193   | WO01    | InDrafting | Transmitter Harmonic Cancellation for Carrier Aggregation/Multiband operation                                  | 13 Jun 2012     | 10 May 2012    |                       |
| RM126314   | Family  | InDrafting | Wake-up lead-time self-calibration technique for power saving  | 4 Oct 2012      | 2 Oct 2012     |                       |
| RM126314   | US01    | InDrafting | Wake-up lead-time self-calibration technique for power saving  | 4 Oct 2012      | 2 Oct 2012     |                       |
| RM126358   | Family  | ToEval     | New Attach after cause #19 ESM failure   | 2 Nov 2012      | 26 Oct 2012    |                       |
| RM135019   | Family  | ToEval     | CSI measurement configuration with reduced control signalling on NCT   | 23 Jan 2013     | 23 Jan 2013    |                       |
| RM135068   | Family  | ToEval     | Race condition on uplink data/signaling and CSFB mobile terminated call  | 22 Feb 2013     | 21 Feb 2013    |                       |
| RM135075   | Family  | InDrafting | Transmitter Intermodulation Cancellation for Carrier Aggregation/Multiband operation                           | 4 Mar 2013      | 11 Jun 2012    |                       |
| RM135075   | WO01    | InDrafting | Transmitter Intermodulation Cancellation for Carrier Aggregation/Multiband operation                           | 4 Mar 2013      | 11 Jun 2012    |                       |
| RM135081   | Family  | InDrafting | ESM STATUS to network if the network request to deactivate the default bearer of the last PDN connection       | 6 Mar 2013      | 28 Feb 2013    |                       |
| RM135085   | Family  | ToEval     | Handling repetition length ambiguity for extreme coverage MTC  | 12 Mar 2013     | 12 Mar 2013    |                       |
| RM135102   | Family  | InDrafting | TTI Bundling Collision Handling  | 3 Apr 2013      | 2 Apr 2013     |                       |
| RM135102   | US01    | InDrafting | TTI Bundling Collision Handling  | 3 Apr 2013      | 2 Apr 2013     |                       |
| RM135106   | Family  | ToEval     | Mechanism to reduce interference between UEs in flexible TDD systems   | 8 Apr 2013      | 8 Apr 2013     |                       |
| RM135107   | Family  | InEval     | Integrated Multi-Lane Clock Tolerance Compensation and De-Skew mechanism for Wireline interfaces               | 16 Apr 2013     | 3 Dec 2012     |                       |
| RM135110   | Family  | InEval     | Energy saving procedure for non-overlapping scenario   | 16 Apr 2013     | 14 Mar 2013    |                       |
| RM135113   | Family  | ToEval     | Preference indicator to split the UL and DL for macro and small cell scenario with UL/DL power imbalance issue | 23 Apr 2013     | 8 Apr 2013     |                       |
| RM135116   | Family  | ToEval     | Restoration of HPLMN connectivity  | 24 Apr 2013     | 24 Apr 2013    |                       |
| RM135136   | Family  | InEval     | Accuracy optimization for integrated temperature sensor that uses external NTC                                 | 31 May 2013     | 8 Feb 2012     |                       |
| RM135139   | Family  | InDrafting | RSSI hopping algorithm in initial synchronization  | 7 Jun 2013      | 7 Jun 2013     |                       |
| RM135140   | Family  | ToEval     | Enhanced physical layer signaling to support CA in flexible TDD system   | 8 Jun 2013      | 28 May 2013    |                       |
| RM135142   | Family  | ToEval     | Enhanced security design for dual connectivity in small cells  | 8 Jun 2013      | 6 Jun 2013     |                       |
| RM135147   | Family  | InDrafting | Power control enhancement to compensate interference level changes in TDM scheduled HSUPA                      | 12 Jun 2013     | 10 Jun 2013    | 27 Sep 2013           |
| RM135147   | US01    | InDrafting | Power control enhancement to compensate interference level changes in TDM scheduled HSUPA                      | 12 Jun 2013     | 10 Jun 2013    | 27 Sep 2013           |
| RM135150   | Family  | InEval     | Enhanced Harmonic Rejection Mixer  | 14 Jun 2013     | 25 Oct 2012    |                       |
| RM135151   | Family  | InDrafting | Enhanced SI Transmission   | 20 Jun 2013     | 2 Jun 2013     | 27 Sep 2013           |
| RM135151   | US01    | InDrafting | Enhanced SI Transmission   | 20 Jun 2013     | 2 Jun 2013     | 27 Sep 2013           |
| RM135153   | Family  | InEval     | SGPP conformable balancing method of electrical balance duplexer   | 20 Jun 2013     | 28 Mar 2013    |                       |
| RM135154   | Family  | InEval     | RF current consumption saving using RF test results in production  | 17 Jun 2013     | 16 Apr 2013    |                       |
| RM135155   | Family  | InEval     | RF current consumption saving at low power level using RF tuning in production                                 | 19 Jun 2013     | 19 Jun 2013    |                       |
| RM135163   | Family  | ToEval     | RF sensitivity and data throughput improvement by re-arranging/increasing number of receiver's signal paths    | 5 Jul 2013      | 4 Jul 2013     |                       |
| RM135164   | Family  | InDrafting | Detection of Frequency Correction Burst Transmissions in GSM Networks  | 9 Jul 2013      | 9 Jul 2013     |                       |
| RM135164   | US01    | InDrafting | Detection of Frequency Correction Burst Transmissions in GSM Networks  | 9 Jul 2013      | 9 Jul 2013     |                       |
| RM135167   | Family  | InDrafting | On ProSe operation in RRC Idle   | 31 Jul 2013     | 25 Jul 2013    |                       |
| RM135167   | US01    | InDrafting | On ProSe operation in RRC Idle   | 31 Jul 2013     | 25 Jul 2013    |                       |
| RM135168   | Family  | ToEval     | Calibration for CMOS power amplifier   | 6 Sep 2013      | 6 Sep 2013     |                       |
| RM135170   | Family  | InDrafting | Automatic PLMN selection after manual CSG selection  | 20 Sep 2013     | 18 Sep 2013    |                       |
| RM135171   | Family  | ToEval     | Duplexer tuning period   | 20 Sep 2013     | 20 Sep 2013    |                       |
| RM135172   | Family  | ToEval     | Adaptive optimization of duplexer losses   | 20 Sep 2013     | 28 Mar 2013    |                       |
| RM135173   | Family  | InEval     | RF circuit pin interface arrangement for module concept I  | 23 Sep 2013     | 23 Sep 2013    |                       |
| RM135174   | Family  | ToEval     | RF filter arrangement for dual radio activity filter combination   | 24 Sep 2013     | 24 Sep 2013    |                       |
| RM135175   | Family  | ToEval     | Cartesian Demodulator with Lower Flicker Noise Contribution (Multipath Filtering)                              | 25 Sep 2013     | 13 Mar 2013    |                       |
| RM135176   | Family  | InEval     | RMTA_RX tuning with multi tone input signals   | 25 Sep 2013     | 25 Sep 2013    |                       |

## Attachment A-2 for Patent Assignment

| RMC #    | BRCM #      | Country | Patent Application Serial No. | Filing date |
|----------|-------------|---------|-------------------------------|-------------|
| RM115001 | BF33389EP   | EPO     | EP11859606.3                  | 21 Feb 2011 |
| RM115001 | BF33389CN   | China   | CN201180070119.0              | 2/21/2011   |
| RM115013 | BF33401EP   | EPO     | EP12718748.2                  | 23 Mar 2012 |
| RM115013 | BF33401CN   | China   | CN201280022827.1              | 3/22/2012   |
| RM115018 | BU33406     | US      | 14/074,978                    | 08 Nov 2013 |
| RM115022 | BF33410WOKR | Korea   | KR10-2013-7023540             | 2/8/2012    |
| RM115022 | BF33410WOIN | India   | IN1544/MUMNP/2013             | 2/8/2012    |
| RM115022 | BF33410WOJP | Japan   | JP2013-553057                 | 2/8/2012    |
| RM115023 | BU33411     | US      | 14/007,268                    | 09/24/13    |
| RM115023 | BF33411CN   | China   | CN201180069785.2              | 3/31/2011   |
| RM115025 | BF33413IN   | India   | IN1406/MUMNP/2013             | 2/9/2012    |
| RM115025 | BF33413JP   | Japan   | JP2013-55306                  | 2/9/2012    |
| RM115026 | BU33414     | US      | 14/124,305                    | 06 Dec 2013 |
| RM115027 | BF33415CN   | China   | CN201180070086.X              | 4/13/2011   |
| RM115028 | BF33416CN   | China   | CN201280017149.X              | 2/21/2012   |
| RM115030 | BU33418     | US      | 14/008,443                    | 27 Sep 2013 |
| RM115030 | BF33418WOEP | EPO     | EP12716638.7                  | 30 Mar 2012 |
| RM115030 | BF33418WOCN | China   | CN201280023997.1              | 3/30/2012   |
| RM115037 | BF33425EP   | EPO     | EP12721603.4                  | 10 Apr 2012 |
| RM115037 | BF33425CN   | China   | CN201280017165.9              | 4/10/2012   |
| RM115040 | BU33428     | US      | 14/111,243                    | 11 Oct 2013 |
| RM115043 | BU33431     | US      | 14/111,577                    | 14 Oct 2013 |
| RM115043 | BF33431CN   | China   | CN201180070118.6              | 4/15/2011   |
| RM115049 | BF33437EP   | EPO     | EP12723922.6                  | 3 May 2012  |
| RM115049 | BF33437CN   | China   | CN201280033091.8              | 5/3/2012    |
| RM115061 | BU33449     | US      | 14/111,400                    | 11 Oct 2013 |
| RM115072 | BU33460     | US      | 14/111,344                    | 11 Oct 2013 |
| RM115076 | BU33464     | US      | 14/008,298                    | 27 Sep 2013 |
| RM115076 | BF33464CN   | China   | CN201180069981.X              | 4/11/2011   |
| RM115082 | BU33470     | US      | 14/063,667                    | 25 Oct 2013 |
| RM115089 | BU33477     | US      | 14/058664                     | 10/21/2013  |
| RM115089 | BF33477EP   | EPO     | EP11863726.3                  | 21 Apr 2011 |
| RM115089 | BF33477CN   | China   | CN201180070291.6              | 4/21/2011   |
| RM115094 | BU33482C2   | US      | 14/039,600                    | 27 Sep 2013 |
| RM115094 | BF33482KR   |         | KR10-2013-7028559             | 4/2/2012    |
| RM115094 | BF33482CN   | China   | CN201280015030.9              | 4/2/2012    |
| RM115094 | BF33482JP   | Japan   | JP2014-501806                 | 4/2/2012    |
| RM115097 | BF33485WOKR | Korea   | KR10-2013-7028560             | 4/2/2012    |
| RM115097 | BF33485WOEP | EPO     | EP12719069.2                  | 2 Apr 2012  |
| RM115097 | BF33485WOCN | China   | CN201280025339.6              | 4/2/2012    |
| RM115097 | BF33485WOIN | India   | IN1891/MUMNP/2013             | 4/2/2012    |
| RM115097 | BF33485WOJP | Japan   | JP2014-501805                 | 4/2/2012    |
| RM115113 | BU33501     | US      | 14/007,996                    | 27 Sep 2013 |
| RM115113 | BF33501CN   | China   | CN201180069783.3              | 4/2/2012    |
| RM115123 | BU33511     | US      | 14/069,450                    | 01 Nov 2013 |
| RM115138 | BU33526C1   | US      | 14/069,910                    | 01 Nov 2013 |
| RM115138 | BF33526EP   | EPO     | EP12730268.5                  | 2 May 2011  |
| RM115230 | BU33618D1   | US      | 14/084,085                    | 19 Nov 2013 |
| RM115450 | BU33838     | US      | 14/291,797                    | 05/30/14    |
| RM125006 | BU33922     | US      | 13/900064                     | 22-May-13   |

## Attachment A-2 for Patent Assignment

|          |           |       |                   |             |
|----------|-----------|-------|-------------------|-------------|
| RM126058 | BU34057   | US    | 14/055,023        | 16 Oct 2013 |
| RM126084 | BF34083WO | PCT   | PCT/IB2013/059622 | 10/24/2013  |
| RM126086 | BU34085   | US    | 14/046,071        | 04 Oct 2013 |
| RM126088 | BF34087WO | PCT   | PCT/IB2013/059666 | 10/25/2013  |
| RM126092 | BU34091   | US    | 14/041,374        | 30 Sep 2013 |
| RM126093 | BU34092   | US    | 14/041,143        | 30 Sep 2013 |
| RM126121 | BU34120   | US    | 14/045,994        | 04 Oct 2013 |
| RM126130 | BF34129WO | PCT   | PCT/IB2013/059229 | 10/9/2013   |
| RM126142 | BU34141   | US    | 14/038063         | 9/26/2013   |
| RM126149 | BF34148WO | PCT   | PCT/IB2013/058425 | 9/10/2013   |
| RM126156 | BF34155WO | PCT   | PCT/IB2013/058119 | 8/29/2013   |
| RM126188 | BU34187   | US    | 14/153,328        | 13 Jan 2014 |
| RM126190 | BU34189   | US    | 14/049619         | 10/9/2013   |
| RM126198 | BU34197   | US    | 14/051,481        | 11 Oct 2013 |
| RM126206 | BU34205   | US    | 14/056,341        | 17 Oct 2013 |
| RM126231 | BU34230   | US    | 14/066,047        | 29 Oct 2013 |
| RM126241 | BU34240   | US    | 14/066,154        | 29 Oct 2013 |
| RM126255 | BU34254   | US    | 14/045,018        | 2-Oct-13    |
| RM126255 | BF34254EP | EPO   | EP 13187184.0     | 10/2/2013   |
| RM126255 | BF34254CN | China | CN201310643335.0  | 10/8/2013   |
| RM126257 | BU34256   | US    | 14/048,545        | 08 Oct 2013 |
| RM126265 | BU34264   | US    | 14/067,049        | 30 Oct 2013 |
| RM126267 | BU34266   | US    | 14/062426         | 10/24/2013  |
| RM126268 | BU34267   | US    | 14/063074         | 10/25/2013  |
| RM126273 | BF34272WO | PCT   | PCT/IB2013/059040 | 10/1/2013   |
| RM126277 | BF34276WO | PCT   | PCT/IB2013/059242 | 10/9/2013   |
| RM126278 | BF34277WO | PCT   | PCT/IB2013/059623 | 10/24/2013  |
| RM126279 | BF34278WO | PCT   | PCT/IB2013/002478 | 11/8/2013   |
| RM126283 | BF34282WO | PCT   | PCT/IB2013/059038 | 10/1/2013   |
| RM126284 | BU34283   | US    | 14/064,532        | 28 Oct 2013 |
| RM126285 | BU34284   | US    | 14/059,507        | 22-Oct-13   |
| RM126285 | BF34284WO | PCT   | PCT/IB2013/059539 | 10/22/2013  |
| RM126286 | BU34285   | US    | 14/069,444        | 1-Nov-13    |
| RM126286 | BF34285CN | China | CN201310535248.3  | 11/1/2013   |
| RM126287 | BF34286WO | PCT   | PCT/IB2013/059889 | 11/4/2013   |
| RM126290 | BF34289WO | PCT   | PCT/IB2013/059624 | 10/25/2013  |
| RM126292 | BF34291WO | PCT   | PCT/IB2013/058898 | 9/26/2013   |
| RM126294 | BU34293   | US    | 14/049,465        | 09 Oct 2013 |
| RM126297 | BU34296   | US    | 14/060,178        | 22 Oct 2013 |
| RM126311 | BU34310   | US    | 14/094,844        | 12/3/2013   |
| RM126311 | BF34310EP | EPO   | EP 13195608.8     | 12/4/2013   |
| RM126313 | BF34312WO | PCT   | PCT/IB2013/059842 | 11/1/2013   |
| RM126317 | BF34316WO | PCT   | PCT/IB2013/059707 | 10/28/2013  |
| RM126319 | BU34318   | US    | 14/133,801        | 12/19/2013  |
| RM126319 | BF34318EP | EPO   | EP 13198774.5     | 12/20/2013  |
| RM126337 | BU34336   | US    | 14/036134         | 9/25/2013   |
| RM126337 | BF34336WO | PCT   | PCT/IB2013/059667 | 10/25/2013  |
| RM126356 | BU34355   | US    | 14/149,174        | 01/07/14    |
| RM126432 | BU34431   | US    | 14/162,852        | 24 Jan 2014 |
| RM126433 | BU34432   | US    | 14/160,039        | 1/21/2014   |
| RM126433 | BF34432EP | EPO   | EP 14151378.8     | 1/16/2014   |
| RM126455 | BU34454   | US    | 14/160,021        | 1/21/2014   |
| RM126455 | BF34454EP | EPO   | EP 14151690.6     | 1/17/2014   |
| RM135139 | BU34595   | US    | 14/039,274        | 27-Sep-13   |
| RM135147 | BU34603   | US    | 14/038,910        | 27-Sep-13   |

Attachment A-2 for Patent Assignment

|          |         |    |            |           |
|----------|---------|----|------------|-----------|
| RM135151 | BU34607 | US | 14/039,572 | 27-Sep-13 |
| RM135164 | BU34620 | US | 14/041,546 | 30-Sep-13 |
| RM135167 | BU34623 | US | 14/038,142 | 26-Sep-13 |
| RM135170 | BU34843 | US | 14/039,464 | 27-Sep-13 |

# NOTARIAL CERTIFICATE

This is to certify that Daisuke Tajiri,

an agent of Tetsuya Tsurumaru, President & COO of

Renesas Electronics Corporation and Hideaki Chaki,

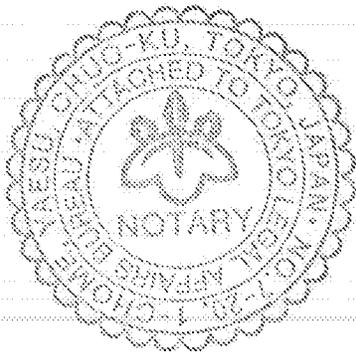
President & CEO of Renesas Mobile Corporation

has stated in my presence that the said Tetsuya Tsurumaru

and Hideaki Chaki

acknowledged themselves to have signed on the attached

document.



SEP. 29, 2014



NAKAI Kohji  
NOTARY  
TOKYO LEGAL AFFAIRS SECTION

PATENT

REEL: 036544 FRAME: 0603

認 証

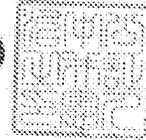
囑託人 ルネサスエレクトロニクス株式会社 代表取締役社長兼 COO 鶴丸  
哲哉 及び 同 ルネサスマバイル株式会社 代表取締役社長 茶木英明の代  
理人田尻大輔は、本職に対し、鶴丸哲哉及び茶木英明が添付書面の署名に  
つき、自らしたものであることを承認した旨陳述した。

よって、これを認証する。

平成26年 9 月 29 日、本公証人役場において  
東京都中央区八重洲1丁目7番20号  
東京法務局所属

公 証 人  
Notary

  
NAKAI Kenji



総公証 № 153971 号

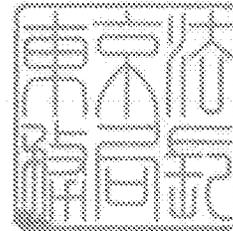
証 明

上記署名は、東京法務局所属公証人の署名に相違ないものであり、かつ、その押印は、  
真実のものであることを証明する。

平成26年 9 月 29 日

東京法務局長

石 田 一 宏



CERTIFICATE

This is to certify that the signature affixed above has been provided by Notary,  
duly authorized by the Tokyo Legal Affairs Bureau and that the Official Seal  
appearing on the same is genuine.

Date SEP. 29, 2014

Kazuhiro ISHIDA

Director of the Tokyo Legal Affairs Bureau

For legalization by the foreign consul in  
Japan, this is to certify that the Seal  
affixed hereto is genuine.

Date SEP. 29, 2014

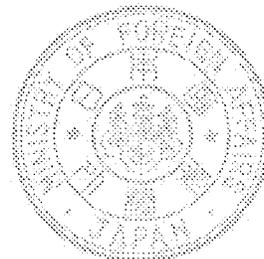


Tokyo, Ayako OGAWA

Official

Ministry of Foreign Affairs

(Consular Service Division)



PATENT

REEL: 036544 FRAME: 0604

**ACKNOWLEDGMENT**

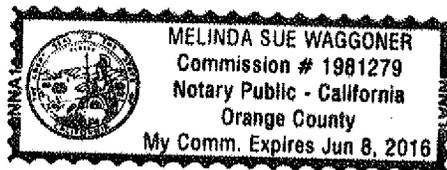
State of California  
County of Orange )

On November 14, 2014 before me, Melinda Sue Waggoner, Notary Public  
(insert name and title of the officer)

personally appeared DeAnn Work,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.



Signature *Melinda Sue Waggoner* (Seal)