

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4394096

|                                                                                                                                                                                                 |                                |                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------|
| <b>SUBMISSION TYPE:</b>                                                                                                                                                                         | NEW ASSIGNMENT                 |                       |
| <b>NATURE OF CONVEYANCE:</b>                                                                                                                                                                    | ASSIGNMENT                     |                       |
| <b>SEQUENCE:</b>                                                                                                                                                                                | 2                              |                       |
| <b>CONVEYING PARTY DATA</b>                                                                                                                                                                     |                                |                       |
|                                                                                                                                                                                                 | <b>Name</b>                    | <b>Execution Date</b> |
|                                                                                                                                                                                                 | BROADCOM INTERNATIONAL LIMITED | 10/01/2013            |
| <b>RECEIVING PARTY DATA</b>                                                                                                                                                                     |                                |                       |
| <b>Name:</b>                                                                                                                                                                                    | BROADCOM CORPORATION           |                       |
| <b>Street Address:</b>                                                                                                                                                                          | 5300 CALIFORNIA AVENUE         |                       |
| <b>City:</b>                                                                                                                                                                                    | IRVINE                         |                       |
| <b>State/Country:</b>                                                                                                                                                                           | CALIFORNIA                     |                       |
| <b>Postal Code:</b>                                                                                                                                                                             | 92617                          |                       |
| <b>PROPERTY NUMBERS Total: 1</b>                                                                                                                                                                |                                |                       |
|                                                                                                                                                                                                 | <b>Property Type</b>           | <b>Number</b>         |
|                                                                                                                                                                                                 | Application Number:            | 14758660              |
| <b>CORRESPONDENCE DATA</b>                                                                                                                                                                      |                                |                       |
| <b>Fax Number:</b>                                                                                                                                                                              | (703)413-2220                  |                       |
| <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i> |                                |                       |
| <b>Phone:</b>                                                                                                                                                                                   | (703) 413-3000                 |                       |
| <b>Email:</b>                                                                                                                                                                                   | jroberts@oblon.com             |                       |
| <b>Correspondent Name:</b>                                                                                                                                                                      | OBLON, ET AL.                  |                       |
| <b>Address Line 1:</b>                                                                                                                                                                          | 1940 DUKE STREET               |                       |
| <b>Address Line 4:</b>                                                                                                                                                                          | ALEXANDRIA, VIRGINIA 22314     |                       |
| <b>ATTORNEY DOCKET NUMBER:</b>                                                                                                                                                                  | 455813US                       |                       |
| <b>NAME OF SUBMITTER:</b>                                                                                                                                                                       | JENICA ROBERTS                 |                       |
| <b>SIGNATURE:</b>                                                                                                                                                                               | /Jenica Roberts/               |                       |
| <b>DATE SIGNED:</b>                                                                                                                                                                             | 05/02/2017                     |                       |
| <b>Total Attachments: 55</b>                                                                                                                                                                    |                                |                       |
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## INTELLECTUAL PROPERTY TRANSFER AGREEMENT

### (BROADCOM INTERNATIONAL LIMITED/BROADCOM CORPORATION)

THIS INTELLECTUAL PROPERTY TRANSFER AGREEMENT ("Agreement") is made and entered into effective as of October 01, 2013 ("Effective Date"), by and between:

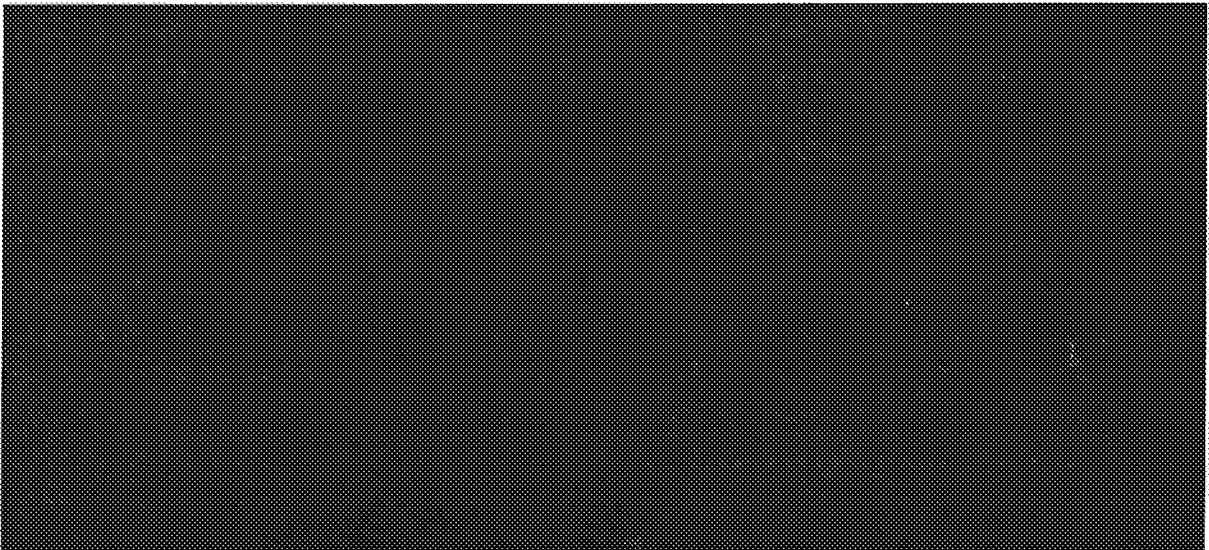
Broadcom International Limited, a company organized and existing under the laws of the Cayman Islands ("BIL"),

and

Broadcom Corporation, a company organized and existing under the laws of the State of California ("Broadcom").

(BIL and Broadcom are collectively referred to as the "Parties" and individually referred to as a "Party").

### RECITALS



- E. WHEREAS, the Parties have determined that it is in their respective best interests for BIL to sell, transfer, convey, and assign to Broadcom all right, title, and interest in and to the IP, effective as of the Effective Date, subject to BIL retaining the exclusive and perpetual rights set forth below to exploit the IP in BIL's Territory (as defined herein);
- F. WHEREAS, BIL desires to sell, transfer, convey, and assign to Broadcom, and Broadcom desires to purchase, acquire, and accept from BIL, all right, title, and interest in and to the IP, effective as of the Effective Date, subject to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the foregoing, and of the mutual covenants and conditions set forth herein, and for good and valuable consideration, the sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

## Section 1 - Definitions

For purposes of this Agreement, the following terms shall have the meanings set forth below:

1.1 "Affiliate" of a Party shall mean and include any entity or association controlled by, controlling or under common control with such Party. For purposes of this definition, the term "control" shall mean the ownership of more than fifty percent (50%) of the voting shares in any entity or association.

1.2 "IP" shall mean and refer to Intellectual Property and Intellectual Property Rights, acquired pursuant to the Purchase Agreement, including at least those patents, patent applications and invention disclosures listed in **Attachment A** hereto.

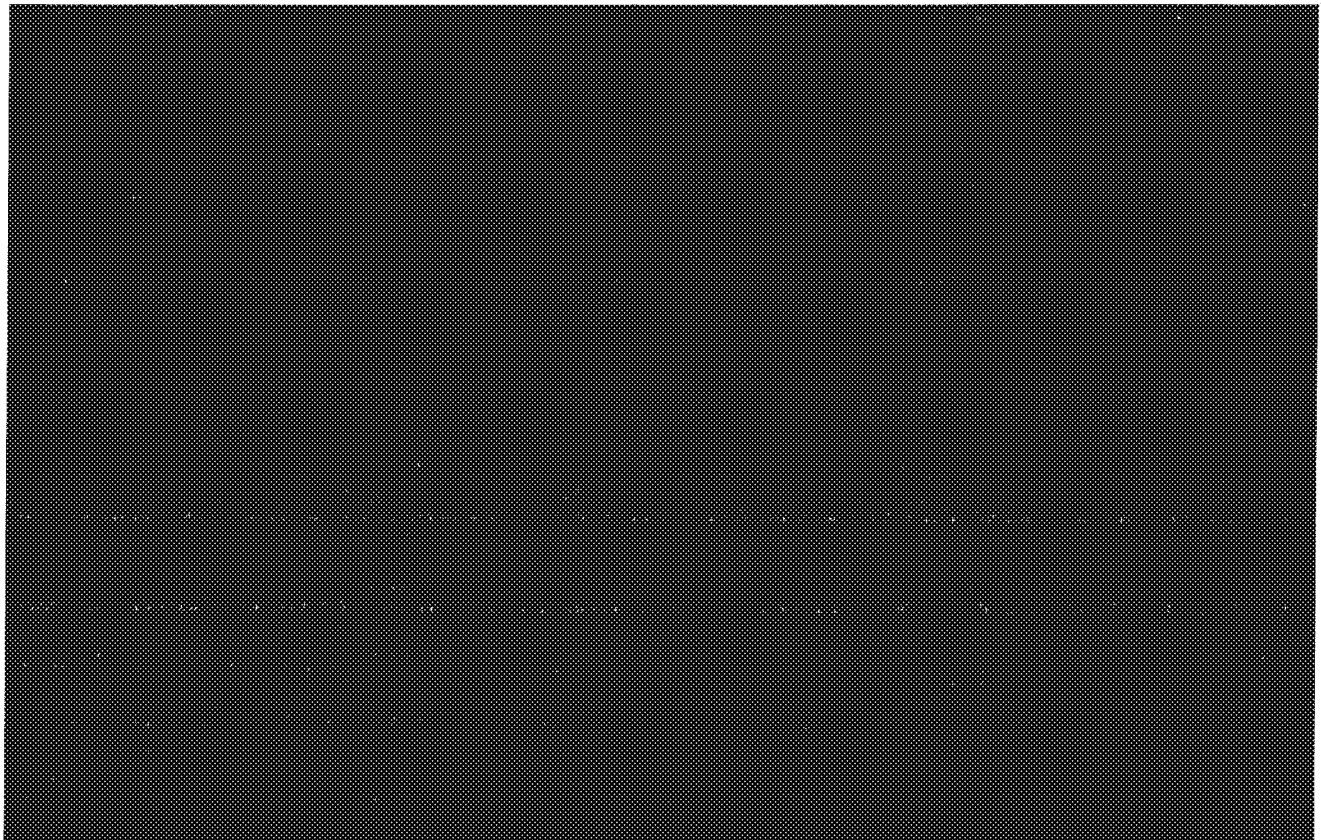
1.3 "Intellectual Property" shall mean and refer to any or all of the following (i) works of authorship including computer programs, source code, and executable code, whether embodied in Software or otherwise, architecture, documentation, designs, files, records, and data, (ii) inventions (whether or not patentable), discoveries, improvements, and Technology, (iii) proprietary and confidential information, Trade Secrets and know how, (iv) databases, data compilations and collections and technical data, (v) logos, trade names, trade dress, trademarks and service marks, (vi) domain names, web addresses and sites, (vii) tools, methods and processes, (viii) devices, prototypes, schematics, breadboards, netlists, test methodologies, verilog files, emulation and simulation reports, test vectors and hardware development tools and (ix) any and all instantiations of the foregoing in any form and embodied in any media.

1.4 "Intellectual Property Rights" shall mean and refer to worldwide common law and statutory rights associated with (i) Patents, (ii) copyrights, copyright registrations and copyright applications and "moral" rights, (iii) mask works and mask sets, and all applications and registrations of any of the foregoing, (iv) confidential and proprietary information, trade and industrial secrets and nonpublic discoveries, concepts, ideas, research and development, technology, know-how, formulae, inventions, compositions, processes, techniques, technical data and information, procedures, semiconductor device structures (including gate structures, transistor structures, memory cells or circuitry, vias and interconnects, isolation structures and protection devices), circuit block libraries, designs (including circuit designs and layouts), drawings, specifications, databases and other information, including customer lists, supplier lists, pricing and cost information, and business and marketing plans and proposals ("Trade Secrets"), (v) other proprietary rights relating to intangible intellectual property, (vi) trademarks, trade names and service marks, (vii) divisions, continuations, renewals, reissues and extensions of the foregoing (as applicable) and (viii) analogous rights to those set forth above, including the right to enforce and recover remedies for any of the foregoing.

1.5 "Patents" shall mean and refer to (i) all classes or types of patents, including utility patents, utility models, design patents, invention certificates, continuations, divisionals, continuations-in-part, foreign counterparts, reexaminations, reissues, substitutes, extensions and renewals, in all countries of the world; and (ii) all applications, and rights to inventions for which applications may be filed, for these classes or types of patents in all countries of the world.

1.6 "Software" shall mean and refer to computer software, firmware, programs and databases in any form, including Source Code, executable code, tools, developers kits, utilities, graphical user interfaces, menus, images, icons, and forms, and all versions, updates, corrections, enhancements and modifications thereof, and all related documentation, developer notes, comments and annotations related thereto.

1.7 "Source Code" shall mean and refer to human readable software and firmware, in the preferred form for making modifications to such software and RTL source code.



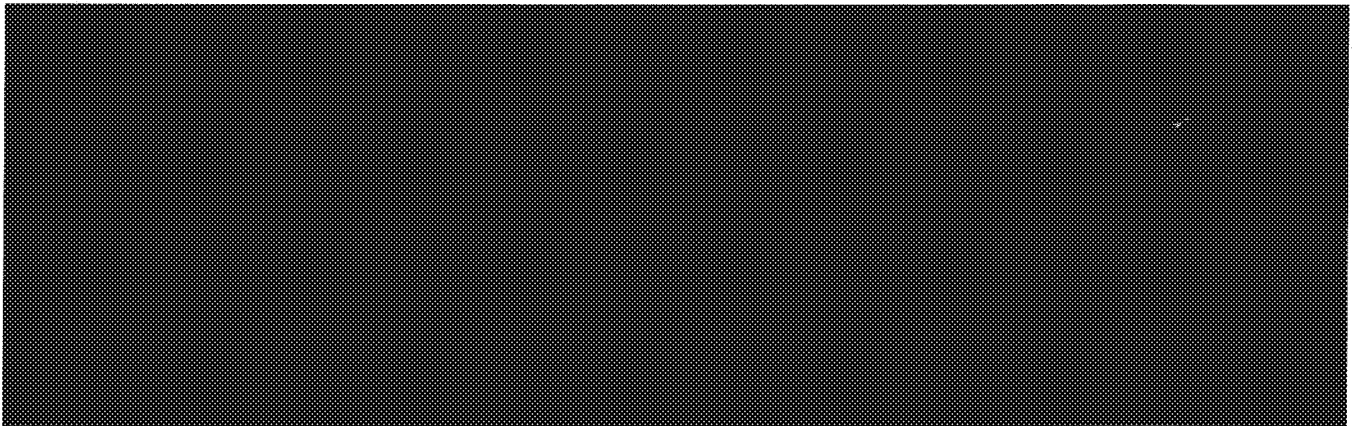
## Section 2 - Sale, Transfer, Conveyance, and Assignment of IP

2.1 Subject to the terms and conditions of this Agreement, BIL hereby sells, transfers, conveys, assigns and agrees to deliver to Broadcom, and Broadcom hereby acquires and accepts, all right, title, and interest in and to the IP, subject to BIL's reservation of an exclusive, perpetual, irrevocable, sub-licensable right to, without limitation, (a) use the IP for any purpose whatsoever in BIL's Territory, (b) make (or have made) modifications, improvements, enhancements, or further developments to the IP in BIL's Territory, and (c) otherwise commercially exploit the IP in BIL's Territory (collectively, "BIL's Reserved Rights").

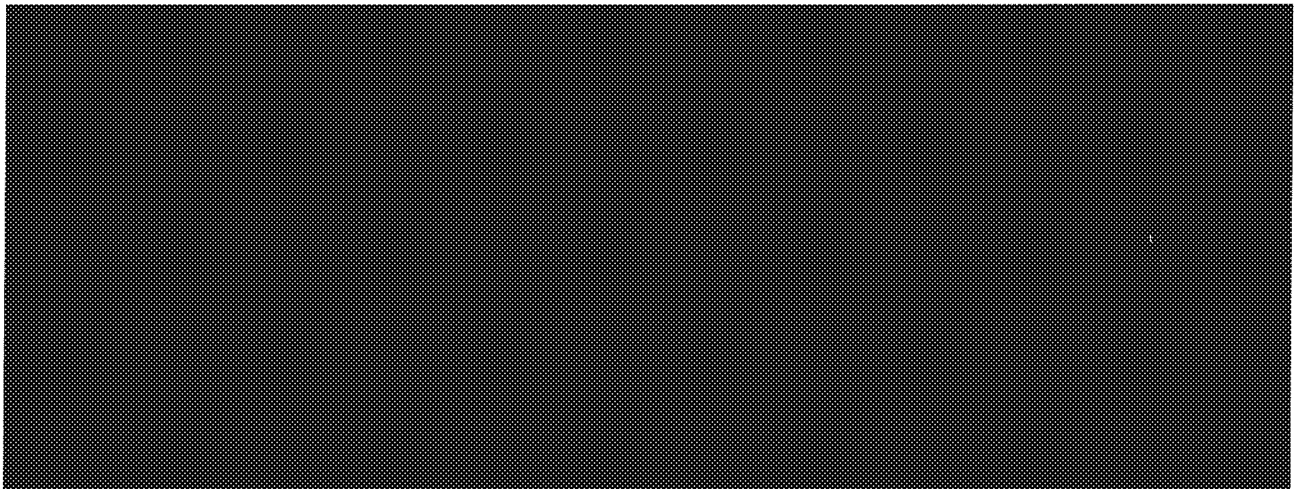
2.2 If, and to the extent that, as a matter of law in any jurisdiction, ownership, title, or any rights or interest in or to any of the IP cannot be assigned as provided in Section 2.1 hereof (a) BIL irrevocably agrees to assign and transfer, and hereby assigns and transfers, to Broadcom all rights (including, without limitation, all economic and commercialization rights) that can be assigned pursuant to Section 2.1 to the fullest extent permissible, and (b) subject to BIL's Reserved Rights, BIL irrevocably agrees to grant, and hereby grants, Broadcom an unlimited, exclusive, irrevocable, worldwide, perpetual, royalty-free license to use, exploit, and commercialize in any manner now known or in the future discovered and for whatever purpose, any rights to the IP that cannot be assigned as contemplated by Section 2.1.

2.3 In furtherance of the transactions contemplated by Section 2.1, the Parties agree to execute and deliver all instruments of sale, transfer, conveyance and assignment as, and to the extent, necessary or convenient to evidence the sale, transfer, conveyance and assignment by BIL to Broadcom

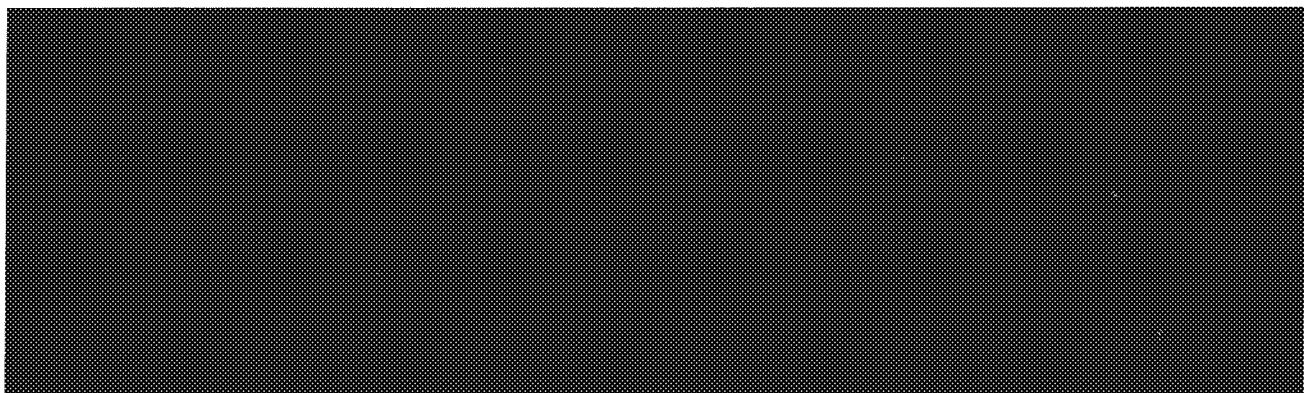
of all of BIL's right, title and interest in and to the IP. The Parties contemplate that they may enter into one or more additional instruments of transfer with respect to some of the IP to be transferred from BIL to Broadcom to the extent necessary or convenient to comply with local legal or filing requirements.



2.6 The Parties acknowledge and agree that some of the transfers contemplated by this Agreement may not be effected on the Effective Date due to the inability of the Parties to obtain necessary consents or approvals or the inability of the Parties to take certain other actions necessary to effect such transfers. To the extent any transfers contemplated by this Agreement have not been fully effected on the Effective Date, BIL and Broadcom will cooperate and use commercially reasonable efforts to obtain any necessary consents or approvals or take any other actions necessary to effect such transfers as promptly as practicable following the Effective Date.



### Section 3 - Consideration and Payment Terms



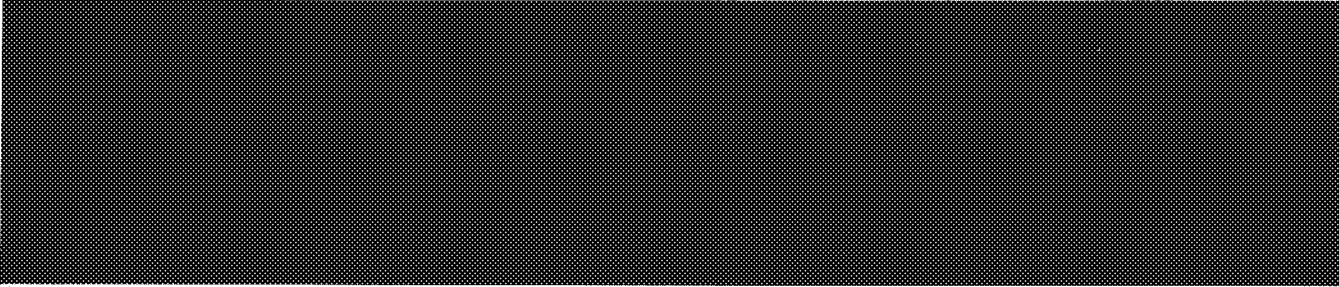
#### Section 4 - General Provisions

4.1 Further Assurances. The Parties will each perform such acts, execute and deliver such instruments and documents, and do all such other things as may be reasonably necessary to accomplish the transactions contemplated in this Agreement.



4.6 Counterparts. The Parties may execute this Agreement in counterparts, each of which constitutes an original as against the Party that signed it, and all of which together constitute one agreement. The signatures of both Parties need not appear on the same counterpart. The delivery of signed counterparts by facsimile or email transmission that includes a copy of the sending Party's signature is as effective as signing and delivering the counterpart in person.

4.7 Successors and Assigns; Assignment. This Agreement shall be binding on and inure to the benefit of the Parties, their successors in interest and assigns. Neither Party may assign any of its rights nor delegate any of its obligations under this Agreement without the written consent of the other Party, which consent may be withheld in its sole and absolute discretion, and any assignment or attempted assignment in violation of the foregoing will be null and void. Nothing in this Section 4.7 shall limit in any way the rights granted to Broadcom in Section 2 of this Agreement to freely control, use, enforce, further transfer (granting the acquirer the same rights), assign, license, sub-license, alter, amend, update, develop, create derivative works, or otherwise dispose of the IP.



4.9 Entire Agreement. This Agreement constitutes the final agreement between the Parties with respect to the subject matter contained herein, and is the complete and exclusive statement of the

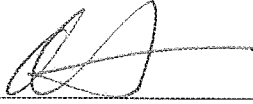


Parties' agreement on the matters contained herein. All prior and contemporaneous negotiations and agreements between the Parties with respect to the matters contained herein are superseded by this Agreement.

*[Signature page follows]*

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized and empowered officers and representatives effective as of the Effective Date.

**BROADCOM INTERNATIONAL LIMITED**

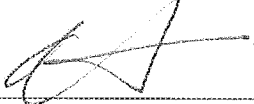
By: \_\_\_\_\_

Name: Eric K. Brandt

Title: Director

Date: October 9, 2013

**BROADCOM CORPORATION**

By: \_\_\_\_\_

Name: Eric K. Brandt

Title: EVP & CFO

Date: October 9, 2013

Attachment A

| Case ref.# | Country | Status     | Proposed title                                                                                                 | Submission date | Invention date | Estimated filing date |
|------------|---------|------------|----------------------------------------------------------------------------------------------------------------|-----------------|----------------|-----------------------|
| RM135176   | Family  | InEval     | RM-TA RX tuning with multi tone input signals                                                                  | 25 Sep 2013     | 25 Sep 2013    |                       |
| RM135175   | Family  | ToEval     | Carlesian Demodulator with Lower Flicker Noise Contribution (Multipath Filtering)                              | 25 Sep 2013     | 13 Mar 2013    |                       |
| RM135174   | Family  | ToEval     | RF filter arrangement for dual radio activity filter combination                                               | 24 Sep 2013     | 24 Sep 2013    |                       |
| RM135173   | Family  | InEval     | RF circuit pin interface arrangement for module concept I                                                      | 23 Sep 2013     | 23 Sep 2013    |                       |
| RM135172   | Family  | ToEval     | Adaptive optimization of duplexer losses                                                                       | 20 Sep 2013     | 28 Mar 2013    |                       |
| RM135171   | Family  | ToEval     | Duplexer tuning period                                                                                         | 20 Sep 2013     |                |                       |
| RM135170   | Family  | InDrafting | Automatic PLMN selection after manual CSG selection                                                            | 20 Sep 2013     | 18 Sep 2013    |                       |
| RM135168   | Family  | ToEval     | Calibration for CMOS power amplifier                                                                           | 6 Sep 2013      | 6 Sep 2013     |                       |
| RM135167   | Family  | InDrafting | On ProSe operation in RRC_Idle                                                                                 | 31 Jul 2013     | 25 Jul 2013    |                       |
| RM135166   | US01    | InDrafting | On ProSe operation in RRC_Idle                                                                                 | 31 Jul 2013     | 25 Jul 2013    |                       |
| RM135164   | Family  | InDrafting | Detection of Frequency Correction Burst Transmissions in GSM Networks                                          | 9 Jul 2013      | 9 Jul 2013     |                       |
| RM135163   | Family  | ToEval     | Detection of Frequency Correction Burst Transmissions in GSM Networks                                          | 9 Jul 2013      | 9 Jul 2013     |                       |
| RM135155   | Family  | InEval     | RF sensitivity and data throughput improvement by re-arranging/increasing number of receiver's signal paths    | 5 Jul 2013      | 4 Jul 2013     |                       |
| RM135154   | Family  | InEval     | RF current consumption saving at low power level using RF tuning in production                                 | 19 Jun 2013     | 19 Jun 2013    |                       |
| RM135153   | Family  | InEval     | RF current consumption saving using RF test results in production                                              | 17 Jun 2013     | 16 Apr 2013    |                       |
| RM135151   | Family  | InDrafting | 3GPP conformable balancing method of electrical balance duplexer                                               | 20 Jun 2013     | 28 Mar 2013    |                       |
| RM135151   | US01    | InDrafting | Enhanced SI Transmission                                                                                       | 20 Jun 2013     | 2 Jun 2013     | 27 Sep 2013           |
| RM135150   | Family  | InEval     | Enhanced SI Transmission                                                                                       | 20 Jun 2013     | 2 Jun 2013     | 27 Sep 2013           |
| RM135147   | Family  | InDrafting | Enhanced Harmonic Rejection Mixer                                                                              | 14 Jun 2013     | 25 Oct 2012    |                       |
| RM135140   | Family  | ToEval     | Power control enhancement to compensate interference level changes in TDM scheduled HSUPA                      | 12 Jun 2013     | 10 Jun 2013    | 27 Sep 2013           |
| RM135142   | Family  | ToEval     | Power control enhancement to compensate interference level changes in TDM scheduled HSUPA                      | 12 Jun 2013     | 10 Jun 2013    | 27 Sep 2013           |
| RM135139   | Family  | ToEval     | Enhanced security design for dual connectivity in small cells                                                  | 8 Jun 2013      | 6 Jun 2013     |                       |
| RM135136   | Family  | InDrafting | Enhanced physical layer signaling to support CA in flexible TDD system                                         | 8 Jun 2013      | 28 May 2013    |                       |
| RM135136   | Family  | InEval     | RSSI hopping algorithm in initial synchronization                                                              | 7 Jun 2013      | 7 Jun 2013     |                       |
| RM135116   | Family  | ToEval     | Accuracy optimization for integrated temperature sensor that uses external NTC                                 | 31 May 2013     | 8 Feb 2012     |                       |
| RM135113   | Family  | ToEval     | Restoration of HPLMN connectivity                                                                              | 24 Apr 2013     | 24 Apr 2013    |                       |
| RM135110   | Family  | InEval     | 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     |                       |
| RM135107   | Family  | InEval     | Energy saving procedure for non-overlapping scenario                                                           | 16 Apr 2013     | 14 Mar 2013    |                       |
| RM135106   | Family  | ToEval     | Integrated Multi-Lane Clock Tolerance Compensation and De-Skew mechanism for Wireline interfaces               | 16 Apr 2013     | 3 Dec 2012     |                       |
| RM135102   | Family  | InDrafting | Mechanism to reduce interference between UEs in flexible TDD systems                                           | 8 Apr 2013      | 8 Apr 2013     |                       |
| RM135102   | US01    | InDrafting | TTI Bundling Collision Handling                                                                                | 3 Apr 2013      | 2 Apr 2013     |                       |
| RM135085   | Family  | ToEval     | TTI Bundling Collision Handling                                                                                | 3 Apr 2013      | 2 Apr 2013     |                       |
| RM135081   | Family  | ToEval     | Handling repetition length ambiguity for extreme coverage MTC                                                  | 12 Mar 2013     | 12 Mar 2013    |                       |
| RM135075   | Family  | ToEval     | ESM STATUS to network if the network request to deactivate the default bearer of the last PDN connection       | 6 Mar 2013      | 28 Feb 2013    |                       |
| RM135075   | WO01    | InDrafting | Transmitter Intermodulation Cancellation for Carrier Aggregation/Multiband operation                           | 4 Mar 2013      | 11 Jun 2012    |                       |
| RM135068   | Family  | ToEval     | Transmitter Intermodulation Cancellation for Carrier Aggregation/Multiband operation                           | 4 Mar 2013      | 11 Jun 2012    |                       |
| RM135019   | Family  | ToEval     | Race condition on uplink data/signaling and CSFB mobile terminated call                                        | 22 Feb 2013     | 21 Feb 2013    |                       |
| RM126358   | Family  | ToEval     | CSI measurement configuration with reduced control signalling on NCT                                           | 23 Jan 2013     | 23 Jan 2013    |                       |
| RM126314   | Family  | ToEval     | New Attach after cause #19 ESM failure                                                                         | 2 Nov 2012      | 26 Oct 2012    |                       |
| RM126314   | US01    | InDrafting | Wake-up lead-time self-calibration technique for power saving                                                  | 4 Oct 2012      | 2 Oct 2012     |                       |
| RM126193   | Family  | InDrafting | Wake-up lead-time self-calibration technique for power saving                                                  | 4 Oct 2012      | 2 Oct 2012     |                       |
| RM126193   | WO01    | 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    |                       |

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| RM115012 | Family | Filed     | 26 Mar 2011 | 25 Mar 2011 | GB2493413     | 9 Oct 2012  | Improved LTE DRX with UE based mobility                                                                                   |
| RM115011 | GB01   | Filed     | 25 Mar 2011 | 25 Mar 2011 | US20120243417 | 27 Sep 2012 | Improved LTE DRX with UE based mobility                                                                                   |
| RM115010 | US01   | POA       | 25 Mar 2011 | 25 Mar 2011 | US20120243417 | 4 Oct 2012  | Improved LTE DRX with UE based mobility                                                                                   |
| RM115009 | US02   | Filed     | 23 Mar 2012 | 25 Mar 2011 | US20120243417 | 4 Oct 2012  | Improved LTE DRX with UE based mobility                                                                                   |
| RM115008 | WO01   | Filed     | 26 Mar 2012 | 25 Mar 2011 | WO2012131568  |             | Improved LTE DRX with UE based mobility                                                                                   |
| RM115007 | Family | Filed     | 23 Mar 2011 | 23 Mar 2011 |               |             | Offline Mode Procedure for Machine Type Communications                                                                    |
| RM115006 | GB01   | To/Filing | 23 Mar 2011 | 23 Mar 2011 |               |             | Offline Mode Procedure for Machine Type Communications                                                                    |
| RM115005 | EP01   | To/Filing | 23 Mar 2011 | 23 Mar 2011 |               |             | Offline Mode Procedure for Machine Type Communications                                                                    |
| RM115004 | US01   | POA       | 23 Mar 2011 | 23 Mar 2011 | GB2478415     | 22 Jun 2011 | Offline Mode Procedure for Machine Type Communications                                                                    |
| RM115003 | US02   | Granted   | 12 Jul 2011 | 23 Mar 2011 | US20120243422 | 27 Sep 2012 | Offline Mode Procedure for Machine Type Communications                                                                    |
| RM115002 | WO01   | Filed     | 22 Mar 2012 | 23 Mar 2011 | WO2012127440  | 27 Sep 2012 | Offline Mode Procedure for Machine Type Communications                                                                    |
| RM115001 | Family | Filed     | 8 Apr 2011  | 8 Apr 2011  | GB2485427     | 18 May 2012 | Equalizer with limited subcarrier distortion and soft constraint for stopband                                             |
| RM115018 | GB01   | Granted   | 8 Apr 2011  | 8 Apr 2011  | US20120243427 | 11 Oct 2012 | Equalizer with limited subcarrier distortion and soft constraint for stopband                                             |
| RM115016 | US01   | Filed     | 10 May 2011 | 8 Apr 2011  | US20120243427 | 15 Nov 2012 | Methods and apparatus for interference mitigation in BT pico-nets                                                         |
| RM115015 | Family | Filed     | 10 May 2011 | 10 May 2011 | WO2012161741  |             | Methods and apparatus for interference mitigation in BT pico-nets                                                         |
| RM115014 | WO01   | POA       | 10 May 2011 | 10 May 2011 |               |             | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115019 | Family | Filed     | 31 Mar 2011 | 31 Mar 2011 |               |             | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115018 | GB01   | Granted   | 31 Mar 2011 | 31 Mar 2011 | GB2477649     | 10 Aug 2011 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115017 | US01   | Filed     | 31 Mar 2011 | 31 Mar 2011 | US20120243427 | 4 Oct 2012  | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115016 | Family | Filed     | 11 Feb 2011 | 31 Mar 2011 | US20120243427 | 16 Aug 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115015 | WO01   | Filed     | 11 Feb 2011 | 11 Feb 2011 | WO2012107904  | 16 Aug 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115014 | Family | Filed     | 22 Feb 2011 | 11 Feb 2011 | US20120243427 | 16 Aug 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115013 | US01   | Filed     | 22 Feb 2011 | 22 Feb 2011 | WO2012107904  | 30 Aug 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115012 | WO01   | POA       | 22 Feb 2011 | 22 Feb 2011 | WO2012107904  |             | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115022 | Family | Filed     | 9 Feb 2011  | 9 Feb 2011  |               |             | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115021 | EP01   | Filed     | 9 Feb 2011  | 9 Feb 2011  | GB2484011     | 28 Mar 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115020 | GB01   | Granted   | 30 Sep 2011 | 9 Feb 2011  | US20120243427 | 3 Aug 2012  | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115019 | JP01   | Filed     | 8 Feb 2012  | 9 Feb 2011  | US20120243427 | 16 Aug 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115018 | US01   | POA       | 9 Feb 2012  | 9 Feb 2011  | WO2012107904  |             | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115017 | Family | Filed     | 31 Mar 2011 | 9 Feb 2011  |               |             | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115016 | GB01   | To/Filing | 31 Mar 2011 | 9 Feb 2011  |               |             | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115015 | US01   | To/Filing | 31 Mar 2011 | 9 Feb 2011  |               |             | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115014 | WO01   | POA       | 31 Mar 2011 | 9 Feb 2011  |               |             | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115013 | Family | Filed     | 11 Feb 2011 | 9 Feb 2011  | WO2012127440  | 34 Oct 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115012 | US01   | Filed     | 11 Feb 2011 | 9 Feb 2011  | US20120243427 | 16 Aug 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115011 | WO01   | Filed     | 11 Feb 2011 | 9 Feb 2011  | WO2012107904  | 15 Aug 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115010 | Family | Filed     | 13 Feb 2012 | 9 Feb 2011  |               |             | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115009 | GB01   | Filed     | 9 Feb 2011  | 9 Feb 2011  | EP2429229     | 14 Mar 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115008 | EP01   | To/Filing | 9 Feb 2011  | 9 Feb 2011  | EP2429229     | 14 Mar 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115007 | US01   | POA       | 1 Jun 2011  | 9 Feb 2011  | EP2429229     | 14 Mar 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115006 | EP01   | Filed     | 1 Jul 2011  | 9 Feb 2011  | EP2429229     | 14 Mar 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115005 | FR01   | To/Filing | 1 Jul 2011  | 9 Feb 2011  | EP2429229     | 14 Mar 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115004 | GB01   | Granted   | 1 Jul 2011  | 9 Feb 2011  | EP2429229     | 14 Mar 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115003 | GB02   | Granted   | 1 Jul 2011  | 9 Feb 2011  | EP2429229     | 14 Mar 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115002 | GB03   | To/Filing | 1 Jul 2011  | 9 Feb 2011  | EP2429229     | 14 Mar 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115001 | IN01   | To/Filing | 9 Feb 2012  | 9 Feb 2011  | EP2429229     | 14 Mar 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |
| RM115000 | IT01   | To/Filing | 1 Jul 2011  | 9 Feb 2011  | EP2429229     | 14 Mar 2012 | On Multiplexing of Logical Channels in Mixed Licensed and Unlicensed Spectrum Carrier Aggregation in Future LTE-A Network |

|          |        |           |             |             |             |                   |               |             |               |                                                                                           |
|----------|--------|-----------|-------------|-------------|-------------|-------------------|---------------|-------------|---------------|-------------------------------------------------------------------------------------------|
| RM115025 | JP01   | Filed     | 9 Feb 2012  | 9 Feb 2011  | 9 Feb 2011  | KR10-2010-7020780 | EP2429229     | 14 Mar 2012 | EP2429229     | Limiting the reporting of Inter-RAT Cells for UMTS ANR                                    |
| RM115025 | KR01   | Filed     | 9 Feb 2012  | 9 Feb 2011  | 9 Feb 2011  | EP11172430.6      | US20120202481 | 9 Aug 2012  | US20120202481 | Limiting the reporting of Inter-RAT Cells for UMTS ANR                                    |
| RM115025 | IL01   | To/Filing | 4 Jul 2011  | 9 Feb 2011  | 9 Feb 2011  | US130223826       | US20120202481 | 9 Aug 2012  | US20120202481 | Limiting the reporting of Inter-RAT Cells for UMTS ANR                                    |
| RM115025 | US01   | Granted   | 9 Feb 2011  | 9 Feb 2011  | 9 Feb 2011  | US130223826       | US20120202481 | 16 Aug 2012 | US20120202481 | Limiting the reporting of Inter-RAT Cells for UMTS ANR                                    |
| RM115025 | US02   | Granted   | 11 Jan 2012 | 9 Feb 2011  | 9 Feb 2011  | US130223826       | US20120202481 | 16 Aug 2012 | US20120202481 | Limiting the reporting of Inter-RAT Cells for UMTS ANR                                    |
| RM115025 | WO01   | POA       | 9 Feb 2012  | 9 Feb 2011  | 9 Feb 2011  | PCT/IB2010/050595 | WO2012107596  |             |               | Signaling and procedure design to maintain the cluster downloading while new UE enters in |
| RM115028 | Family | Filed     | 9 Jun 2011  | 9 Jun 2011  | 9 Jun 2011  |                   | WO2012167432  | 13 Dec 2012 |               | Signaling and procedure design to maintain the cluster downloading while new UE enters in |
| RM115026 | WO01   | POA       | 9 Jun 2011  | 9 Jun 2011  | 9 Jun 2011  | PCT/CN2011075503  |               |             |               | Beacon cluster based sensor network information collection via UE gateway                 |
| RM115027 | Family | Filed     | 13 Apr 2011 | 13 Apr 2011 | 13 Apr 2011 |                   |               |             |               | Beacon cluster based sensor network information collection via UE gateway                 |
| RM115027 | CN01   | To/Filing | 13 Apr 2011 | 13 Apr 2011 | 13 Apr 2011 |                   |               |             |               | Beacon cluster based sensor network information collection via UE gateway                 |
| RM115027 | US01   | Granted   | 17 Nov 2011 | 13 Apr 2011 | 13 Apr 2011 | US130298854       | US20120263053 | 16 Oct 2012 | US20120263053 | Beacon cluster based sensor network information collection via UE gateway                 |
| RM115027 | US02   | Filed     | 26 Jul 2012 | 13 Apr 2011 | 13 Apr 2011 | US130298854       | US20120263053 | 29 Nov 2012 |               | Beacon cluster based sensor network information collection via UE gateway                 |
| RM115027 | WO01   | POA       | 13 Apr 2011 | 13 Apr 2011 | 13 Apr 2011 | PCT/CN2011072743  | WO2012199288  | 18 Oct 2012 |               | Beacon cluster based sensor network information collection via UE gateway                 |
| RM115028 | Family | Filed     | 21 Feb 2011 | 21 Feb 2011 | 21 Feb 2011 |                   |               |             |               | Congestion Avoidance for Control Channels Prior Connection Establishment                  |
| RM115028 | CN01   | To/Filing | 21 Feb 2011 | 21 Feb 2011 | 21 Feb 2011 |                   |               |             |               | Congestion Avoidance for Control Channels Prior Connection Establishment                  |
| RM115028 | EP01   | Filed     | 21 Feb 2012 | 21 Feb 2011 | 21 Feb 2011 | EP12706937.5      |               |             |               | Congestion Avoidance for Control Channels Prior Connection Establishment                  |
| RM115028 | GB01   | Granted   | 21 Oct 2011 | 21 Feb 2011 | 21 Feb 2011 | GB11181843.9      | GB2484827     | 25 Apr 2012 | GB2484827     | Congestion Avoidance for Control Channels Prior Connection Establishment                  |
| RM115028 | IN01   | Filed     | 21 Feb 2012 | 21 Feb 2011 | 21 Feb 2011 | IN1555AMUIMP/2013 |               |             |               | Congestion Avoidance for Control Channels Prior Connection Establishment                  |
| RM115028 | JP01   | Filed     | 21 Feb 2012 | 21 Feb 2011 | 21 Feb 2011 | JP51301723.90     |               |             |               | Congestion Avoidance for Control Channels Prior Connection Establishment                  |
| RM115028 | KR01   | Filed     | 21 Feb 2012 | 21 Feb 2011 | 21 Feb 2011 | KR10-2012-702408  |               |             |               | Congestion Avoidance for Control Channels Prior Connection Establishment                  |
| RM115028 | US01   | Granted   | 21 Feb 2011 | 21 Feb 2011 | 21 Feb 2011 | US13031365        | US20120213071 | 23 Aug 2012 | US20120213071 | Congestion Avoidance for Control Channels Prior Connection Establishment                  |
| RM115028 | US02   | Closed    | 13 Mar 2012 | 21 Feb 2011 | 21 Feb 2011 | US130418667       | US20120100802 | 25 Apr 2013 |               | Congestion Avoidance for Control Channels Prior Connection Establishment                  |
| RM115028 | US03   | Filed     | 1 Mar 2013  | 21 Feb 2011 | 21 Feb 2011 | US130761869       |               |             |               | Congestion Avoidance for Control Channels Prior Connection Establishment                  |
| RM115028 | WO01   | Filed     | 21 Feb 2012 | 21 Feb 2011 | 21 Feb 2011 | PCT/IB2012050777  | WO2012114255  | 30 Aug 2012 |               | Congestion Avoidance for Control Channels Prior Connection Establishment                  |
| RM115028 | Family | Filed     | 7 Apr 2011  | 7 Apr 2011  | 7 Apr 2011  |                   |               |             |               | On Session Setup for Cellular Controlled Device-to-Device Communication                   |
| RM115028 | US01   | Filed     | 7 Apr 2011  | 7 Apr 2011  | 7 Apr 2011  | US13021865        | US20120358703 | 11 Oct 2012 |               | On Session Setup for Cellular Controlled Device-to-Device Communication                   |
| RM115030 | Family | Filed     | 1 Apr 2011  | 1 Apr 2011  | 1 Apr 2011  |                   |               |             |               | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode          |
| RM115030 | CN01   | To/Filing | 30 Mar 2012 | 1 Apr 2011  | 1 Apr 2011  | PCT/IB2012051569  |               |             |               | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode          |
| RM115030 | EP01   | To/Filing | 30 Mar 2012 | 1 Apr 2011  | 1 Apr 2011  | PCT/IB2012051569  |               |             |               | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode          |
| RM115030 | GB01   | Filed     | 21 Mar 2013 | 1 Apr 2011  | 1 Apr 2011  | GB13030330.0      | GB2486828     | 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  | 1 Apr 2011  | US130478669       |               |             |               | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode          |
| RM115032 | US02   | To/Filing | 30 Mar 2012 | 1 Apr 2011  | 1 Apr 2011  | PCT/IB2012051569  |               |             |               | 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  | 1 Apr 2011  | PCT/IB2012051569  | WO2012191637  | 4 Oct 2012  |               | Methods of E-DCH TTI change for Enhanced Uplink in CELL_FACH state and idle mode          |
| RM115031 | Family | Filed     | 14 Apr 2011 | 14 Apr 2011 | 14 Apr 2011 |                   |               |             |               | Auxiliary Channel Configuration to Support Shared Band Operation                          |
| RM115031 | GB01   | Filed     | 14 Apr 2011 | 14 Apr 2011 | 14 Apr 2011 | GB11063568.3      | GB2490110     | 24 Oct 2012 |               | Auxiliary Channel Configuration to Support Shared Band Operation                          |
| RM115031 | GB02   | Filed     | 14 Apr 2011 | 14 Apr 2011 | 14 Apr 2011 | GB11063568.3      | GB2490110     | 24 Oct 2012 |               | Auxiliary Channel Configuration to Support Shared Band Operation                          |
| RM115031 | GB03   | Filed     | 14 Apr 2011 | 14 Apr 2011 | 14 Apr 2011 | GB11063568.3      | GB2490110     | 24 Oct 2012 |               | Auxiliary Channel Configuration to Support Shared Band Operation                          |
| RM115031 | US01   | Filed     | 14 Apr 2011 | 14 Apr 2011 | 14 Apr 2011 | US13021715.4      | US20120264440 | 16 Oct 2012 |               | Auxiliary Channel Configuration to Support Shared Band Operation                          |



|          |        |           |             |             |                    |                    |                                                                         |
|----------|--------|-----------|-------------|-------------|--------------------|--------------------|-------------------------------------------------------------------------|
| RM115032 | Family | Filed     | 14 Feb 2011 | 14 Feb 2011 | US20120038740.9    | US20120038740.9    | Method of prioritising RACH message content                             |
| RM115033 | EP01   | Filed     | 14 Feb 2011 | 14 Feb 2011 | EP12714387.5       | EP12714387.5       | Method of prioritising RACH message content                             |
| RM115034 | IN01   | Filed     | 14 Feb 2011 | 14 Feb 2011 | IN149200/UMNP/2013 | IN149200/UMNP/2013 | Method of prioritising RACH message content                             |
| RM115035 | JP01   | Filed     | 14 Feb 2011 | 14 Feb 2011 | JP2011-087781A     | JP2011-087781A     | Method of prioritising RACH message content                             |
| RM115036 | KR01   | Filed     | 14 Feb 2011 | 14 Feb 2011 | KR10-2011-0034102  | KR10-2011-0034102  | Method of prioritising RACH message content                             |
| RM115037 | US01   | Filed     | 14 Feb 2011 | 14 Feb 2011 | US13/026512        | US13/026512        | Method of prioritising RACH message content                             |
| RM115038 | WO01   | Filed     | 14 Feb 2011 | 14 Feb 2011 | WO2012/050666      | WO2012/050666      | Method of prioritising RACH message content                             |
| RM115039 | EP01   | Filed     | 13 Feb 2011 | 13 Feb 2011 | EP137108383.9      | EP137108383.9      | Power Headroom triggering in Secondary Cell activation                  |
| RM115040 | US01   | Closed    | 13 Feb 2011 | 13 Feb 2011 | US13/0364896       | US13/0364896       | Power Headroom triggering in Secondary Cell activation                  |
| RM115041 | US02   | Filed     | 13 Feb 2011 | 13 Feb 2011 | US13/0364896       | US13/0364896       | Power Headroom triggering in Secondary Cell activation                  |
| RM115042 | WO01   | Filed     | 13 Feb 2011 | 13 Feb 2011 | WO2012/050642      | WO2012/050642      | Power Headroom triggering in Secondary Cell activation                  |
| RM115043 | Family | Filed     | 8 Apr 2011  | 8 Apr 2011  | GB1106036.7        | GB1106036.7        | Enhancements for Connectivity                                           |
| RM115044 | GB01   | Granted   | 8 Apr 2011  | 8 Apr 2011  | GB1106036.7        | GB1106036.7        | Enhancements for Connectivity                                           |
| RM115045 | GB02   | POA       | 8 Apr 2011  | 8 Apr 2011  | GB1106036.7        | GB1106036.7        | Enhancements for Connectivity                                           |
| RM115046 | US01   | Filed     | 8 Apr 2011  | 8 Apr 2011  | US13/033109        | US13/033109        | Enhancements for Connectivity                                           |
| RM115047 | WO01   | Filed     | 8 Apr 2011  | 8 Apr 2011  | WO2012/137173      | WO2012/137173      | Enhancements for Connectivity                                           |
| RM115048 | Family | Filed     | 26 Apr 2011 | 26 Apr 2011 | GB1107068.1        | GB1107068.1        | Method for avoiding in-device interference from Cellular to IMS         |
| RM115049 | GB01   | Granted   | 26 Apr 2011 | 26 Apr 2011 | GB1107068.1        | GB1107068.1        | Method for avoiding in-device interference from Cellular to IMS         |
| RM115050 | US01   | Filed     | 26 Apr 2011 | 26 Apr 2011 | US13/036423        | US13/036423        | Method for avoiding in-device interference from Cellular to IMS         |
| RM115051 | Family | Filed     | 19 May 2011 | 19 May 2011 | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115052 | GB01   | Filed     | 19 May 2011 | 19 May 2011 | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115053 | US01   | Filed     | 19 May 2011 | 19 May 2011 | US13/111032        | US13/111032        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115054 | EP01   | Filed     | 11 Apr 2011 | 11 Apr 2011 | EP12714387.5       | EP12714387.5       | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115055 | US01   | To/Filing | 11 Apr 2011 | 11 Apr 2011 | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115056 | WO01   | Filed     | 11 Apr 2011 | 11 Apr 2011 | WO2012/050666      | WO2012/050666      | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115057 | US01   | Filed     | 11 Apr 2011 | 11 Apr 2011 | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115058 | US01   | Filed     | 2 May 2011  | 2 May 2011  | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115059 | US01   | Filed     | 2 May 2011  | 2 May 2011  | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115060 | Family | Filed     | 12 Apr 2011 | 12 Apr 2011 | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115061 | US01   | To/Filing | 12 Apr 2011 | 12 Apr 2011 | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115062 | WO01   | POA       | 12 Apr 2011 | 12 Apr 2011 | WO2012/050666      | WO2012/050666      | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115063 | Family | Filed     | 15 Apr 2011 | 15 Apr 2011 | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115064 | US01   | To/Filing | 15 Apr 2011 | 15 Apr 2011 | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115065 | US01   | To/Filing | 15 Apr 2011 | 15 Apr 2011 | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115066 | Family | Filed     | 19 May 2011 | 19 May 2011 | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115067 | EP01   | To/Filing | 19 May 2011 | 19 May 2011 | EP12714387.5       | EP12714387.5       | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115068 | GB01   | Granted   | 19 May 2011 | 19 May 2011 | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115069 | US01   | Filed     | 19 May 2011 | 19 May 2011 | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115070 | US02   | Filed     | 10 Jan 2012 | 10 Jan 2012 | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115071 | WO01   | Filed     | 17 May 2011 | 17 May 2011 | WO2012/050666      | WO2012/050666      | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115072 | Family | Filed     | 24 May 2011 | 24 May 2011 | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115073 | US01   | Granted   | 24 May 2011 | 24 May 2011 | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115074 | WO01   | Filed     | 24 May 2011 | 24 May 2011 | WO2012/050666      | WO2012/050666      | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115075 | Family | Filed     | 3 May 2011  | 3 May 2011  | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115076 | EP01   | To/Filing | 3 May 2011  | 3 May 2011  | EP12714387.5       | EP12714387.5       | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115077 | GB01   | Granted   | 3 May 2011  | 3 May 2011  | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115078 | US01   | Filed     | 3 May 2011  | 3 May 2011  | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115079 | US02   | Granted   | 3 May 2011  | 3 May 2011  | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115080 | WO01   | Filed     | 3 May 2011  | 3 May 2011  | WO2012/050666      | WO2012/050666      | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115081 | Family | Filed     | 5 Jul 2011  | 5 Jul 2011  | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115082 | US01   | POA       | 5 Jul 2011  | 5 Jul 2011  | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115083 | Family | Filed     | 4 Apr 2011  | 4 Apr 2011  | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115084 | US01   | Closed    | 4 Apr 2011  | 4 Apr 2011  | US13/033109        | US13/033109        | Methods for Network Controlled Device-to-Device Communication in Future |
| RM115085 | Family | Filed     | 2 Jun 2011  | 2 Jun 2011  | GB1108443.1        | GB1108443.1        | Methods for Network Controlled Device-to-Device Communication in Future |

|          |        |             |             |                    |                 |             |                                                                                                                  |
|----------|--------|-------------|-------------|--------------------|-----------------|-------------|------------------------------------------------------------------------------------------------------------------|
| RM115062 | GB01   | 2 Jun 2011  | 2 Jun 2011  | GB109289 Z         | GB2456926       | 4 Jul 2012  | Frequency Hopping LTE-A System on License-Exempt Shared Bands                                                    |
| RM115062 | US01   | 2 Jun 2011  | 2 Jun 2011  | US13/151557        | US20120307744   | 6 Dec 2012  | Frequency Hopping LTE-A System on License-Exempt Shared Bands                                                    |
| RM115062 | US02   | 17 Oct 2011 | 2 Jun 2011  | US13/274900        | US20120307859   | 6 Dec 2012  | Frequency Hopping LTE-A System on License-Exempt Shared Bands                                                    |
| RM115062 | WO01   | 1 Jun 2012  | 2 Jun 2011  | PCT/US2011/0562764 | WO2012/164631   | 6 Dec 2012  | Radio Link Monitoring and Failure Handling in Network Controlled Device-to-Device Communication                  |
| RM115064 | Family | 16 Jun 2011 | 16 Jun 2011 |                    |                 |             | Radio Link Monitoring and Failure Handling in Network Controlled Device-to-Device Communication                  |
| RM115064 | GB01   | 15 Jun 2011 | 15 Jun 2011 | GB1110114.4        | GB2491470       | 19 Dec 2012 | Radio Link Monitoring and Failure Handling in Network Controlled Device-to-Device Communication                  |
| RM115064 | US01   | 15 Jun 2011 | 15 Jun 2011 | US13/160912        | US20120302475   | 20 Dec 2012 | Radio Link Monitoring and Failure Handling in Network Controlled Device-to-Device Communication                  |
| RM115064 | WO01   | 15 Jun 2011 | 15 Jun 2011 | PCT/US2011/0565026 | WO2012/172613   | 20 Dec 2012 | Methods for interference reduction in LA TDD network with flexible TDD configuration                             |
| RM115067 | Family | 40675       | 13 May 2011 |                    |                 |             | Methods for interference reduction in LA TDD network with flexible TDD configuration                             |
| RM115067 | WO01   | 13 May 2011 | 13 May 2011 | PCT/CN2011074056   | WO2012/155323   | 22 Nov 2012 | Flexible measurement cycle for deactivated cells                                                                 |
| RM115068 | Family | 1 Apr 2011  | 1 Apr 2011  |                    |                 |             | Flexible measurement cycle for deactivated cells                                                                 |
| RM115068 | GB01   | 1 Apr 2011  | 1 Apr 2011  | GB105591.0         | GB2489770       | 10 Oct 2012 | Flexible measurement cycle for deactivated cells                                                                 |
| RM115068 | GB02   | 20 Jan 2012 | 1 Apr 2011  | GB1200976.7        | US20120255432   | 4 Oct 2012  | Flexible measurement cycle for deactivated cells                                                                 |
| RM115068 | US01   | 1 Apr 2011  | 1 Apr 2011  | US13/078064        | GB2485433       | 16 May 2012 | Autonomous gaps for paging reception in dual SIM modem                                                           |
| RM115069 | Family | 9 Sep 2011  | 9 Sep 2011  | US13/229015        | US2013005644    | 14 Mar 2013 | Autonomous gaps for paging reception in dual SIM modem                                                           |
| RM115069 | GB01   | 9 Sep 2011  | 9 Sep 2011  | PCT/US2011/0564615 | WO2013/005066   | 14 Mar 2013 | Autonomous gaps for paging reception in dual SIM modem                                                           |
| RM115069 | US01   | 9 Sep 2011  | 9 Sep 2011  |                    |                 |             | Variable sampling-rate transmitter                                                                               |
| RM115069 | WO01   | 15 Jul 2011 | 15 Jul 2011 | GB1112169.9        | GB2485430       | 18 May 2012 | Variable sampling-rate transmitter                                                                               |
| RM115069 | GB01   | 15 Jul 2011 | 15 Jul 2011 | US13/183528        | US20130018761   | 17 Jan 2013 | Variable sampling-rate transmitter                                                                               |
| RM115069 | US01   | 15 Jul 2011 | 15 Jul 2011 |                    |                 |             | Efficient HARQ Scheme for CC specific TDD Configuration                                                          |
| RM115069 | US01   | 14 Apr 2011 | 14 Apr 2011 | US13/183528        | WO2013/135291   | 18 Oct 2012 | Efficient HARQ Scheme for CC specific TDD Configuration                                                          |
| RM115069 | WO01   | 14 Apr 2011 | 14 Apr 2011 | PCT/CN2011072774   |                 |             | Efficient HARQ Scheme for CC specific TDD Configuration                                                          |
| RM115064 | Family | 24 May 2011 | 24 May 2011 |                    |                 |             | Quality-of-Service derived backoff calculation for LTE based non-scheduled channel access on unlicensed spectrum |
| RM115064 | GB01   | 24 May 2011 | 24 May 2011 | GB1108707.0        | GB2481139       | 28 Nov 2012 | Quality-of-Service derived backoff calculation for LTE based non-scheduled channel access on unlicensed spectrum |
| RM115064 | US01   | 24 May 2011 | 24 May 2011 | US13/114418        | US20120300712   | 29 Nov 2012 | Quality-of-Service derived backoff calculation for LTE based non-scheduled channel access on unlicensed spectrum |
| RM115064 | US02   | 19 Oct 2011 | 24 May 2011 | US13/276618        | WO2012/180610   | 29 Nov 2012 | Quality-of-Service derived backoff calculation for LTE based non-scheduled channel access on unlicensed spectrum |
| RM115064 | WO01   | 22 May 2012 | 24 May 2011 | PCT/US2011/056559  |                 |             | White Space Mapping Geographical Tracking Area for LTE-A system in TVWS bands                                    |
| RM115067 | Family | 15 Jul 2011 | 15 Jul 2011 |                    |                 |             | White Space Mapping Geographical Tracking Area for LTE-A system in TVWS bands                                    |
| RM115067 | GB01   | 15 Jul 2011 | 15 Jul 2011 | GB1112251.2        | GB2492967       | 33 Jan 2013 | White Space Mapping Geographical Tracking Area for LTE-A system in TVWS bands                                    |
| RM115067 | US01   | 15 Jul 2011 | 15 Jul 2011 | US13/184002        | US20130016221   | 17 Jan 2013 | White Space Mapping Geographical Tracking Area for LTE-A system in TVWS bands                                    |
| RM115067 | WO01   | 16 Jul 2012 | 15 Jul 2011 | PCT/US2011/0565630 | WO2013/011460   | 24 Jan 2013 | White Space Mapping Geographical Tracking Area for LTE-A system in TVWS bands                                    |
| RM115068 | Family | 11 Jul 2011 | 11 Jul 2011 |                    |                 |             | Optimized Scheduling for Hybrid Cellular System                                                                  |
| RM115068 | GB01   | 11 Jul 2011 | 11 Jul 2011 | GB1111854.4        | GB2483131       | 30 Jan 2013 | Optimized Scheduling for Hybrid Cellular System                                                                  |
| RM115068 | US01   | 11 Jul 2011 | 11 Jul 2011 | US12/180093        | US20130015666   | 17 Jan 2013 | Optimized Scheduling for Hybrid Cellular System                                                                  |
| RM115068 | WO01   | 9 Jul 2012  | 11 Jul 2011 | PCT/US2011/0565462 | WO2013/0018167  | 17 Jan 2013 | ADC clock selection based on temperature                                                                         |
| RM115069 | Family | 15 Sep 2011 | 15 Sep 2011 |                    |                 |             | ADC clock selection based on temperature                                                                         |
| RM115069 | GB01   | 16 Sep 2011 | 16 Sep 2011 | GB1116039.0        | GB2494695       | 20 Mar 2013 | ADC clock selection based on temperature                                                                         |
| RM115069 | GB02   | 16 Sep 2011 | 16 Sep 2011 | GB1207526.2        | US20130070815   | 26 Sep 2012 | ADC clock selection based on temperature                                                                         |
| RM115069 | US01   | 16 Sep 2011 | 16 Sep 2011 | US13/234393        | US20130070815   | 21 Mar 2013 | ADC clock selection based on temperature                                                                         |
| RM115069 | US02   | 16 Sep 2011 | 16 Sep 2011 | US13/2625116       | US20130070816   | 21 Mar 2013 | ADC clock selection based on temperature                                                                         |
| RM115070 | Family | 30 Jun 2011 | 30 Jun 2011 |                    |                 |             | Double polling mechanism for WSN via UE gateway                                                                  |
| RM115070 | WO01   | 30 Jun 2011 | 30 Jun 2011 | PCT/CN2011076648   | WO2013/000148   | 9 Jan 2013  | Double polling mechanism for WSN via UE gateway                                                                  |
| RM115071 | Family | 1 Apr 2011  | 1 Apr 2011  |                    |                 |             | Infrequent small data transmission method for detached MTC devices                                               |
| RM115071 | GB01   | 1 Apr 2011  | 1 Apr 2011  | GB1105594.4        | GB2459690       | 10 Oct 2012 | Infrequent small data transmission method for detached MTC devices                                               |
| RM115071 | US01   | 1 Apr 2011  | 1 Apr 2011  | US13/075974        | US2012/02554920 | 4 Oct 2012  | Infrequent small data transmission method for detached MTC devices                                               |
| RM115071 | WO01   | 2 Apr 2012  | 1 Apr 2011  | PCT/US2011/056594  | WO2012/131654   | 2 Apr 2012  | Infrequent small data transmission method for detached MTC devices                                               |



|          |        |          |             |             |                    |               |             |               |             |                                                                                            |
|----------|--------|----------|-------------|-------------|--------------------|---------------|-------------|---------------|-------------|--------------------------------------------------------------------------------------------|
| RM115091 | GB01   | Granted  | 28 Apr 2011 | 28 Apr 2011 | GB1107226.3        | GB2490362     | 31 Oct 2012 | GB2490362     | 20 Mar 2013 | Robustness improvement to EUTRAN system information acquisition                            |
| RM115091 | US01   | Filed    | 27 Apr 2011 | 28 Apr 2011 | US13086196         | US20120276833 | 1 Nov 2012  | US20120276833 |             | Robustness improvement to EUTRAN system information acquisition                            |
| RM115092 | WO01   | Filed    | 27 Apr 2011 | 28 Apr 2011 | PCT/IB2012/0652109 | WO2012147045  | 1 Nov 2012  | WO2012147045  |             | Robustness improvement to EUTRAN system information acquisition                            |
| RM115092 | GB01   | Granted  | 28 Jun 2011 | 28 Jun 2011 | GB1110687.3        | GB2481752     | 4 Jan 2012  | GB2481752     | 12 Dec 2012 | Dual-SIM power reduction by closing down SIM system without service                        |
| RM115092 | US02   | Filed    | 28 Jun 2011 | 28 Jun 2011 | US13170863         | US20130055230 | 3 Jan 2013  | US20130055230 |             | Dual-SIM power reduction by closing down SIM system without service                        |
| RM115092 | WO01   | Granted  | 11 Jan 2012 | 28 Jun 2011 | US13248042         | US20130055291 | 3 Jan 2013  | US20130055291 | 5 Oct 2013  | Dual-SIM power reduction by closing down SIM system without service                        |
| RM115094 | WO01   | POA      | 28 Jun 2012 | 28 Jun 2011 | PCT/IB2012/065224  | WO2013001452  | 3 Jan 2013  | WO2013001452  |             | Dual-SIM power reduction by closing down SIM system without service                        |
| RM115094 | GB01   | Filed    | 1 Apr 2011  | 1 Apr 2011  |                    |               |             |               |             | Method of pending security abortion indication                                             |
| RM115094 | EP01   | ToFiling | 7 Oct 2011  | 1 Apr 2011  | EP11164417.1       | EP2506614     | 3 Oct 2012  | EP2506614     |             | Method of pending security abortion indication                                             |
| RM115094 | EP02   | Filed    | 7 Oct 2011  | 1 Apr 2011  | EP12171493.5       | EP2523420     | 14 Nov 2012 | EP2523420     |             | Method of pending security abortion indication                                             |
| RM115094 | GB01   | Granted  | 7 Oct 2011  | 1 Apr 2011  | GB11056470         | GB2480127     | 9 Nov 2011  | GB2480127     | 16 May 2012 | Method of pending security abortion indication                                             |
| RM115094 | WO01   | Filed    | 2 Apr 2012  | 1 Apr 2011  | US13294000         |               |             |               |             | Method of pending security abortion indication                                             |
| RM115094 | JP01   | Filed    | 2 Apr 2012  | 1 Apr 2011  | JP11163940         |               |             |               |             | Method of pending security abortion indication                                             |
| RM115094 | KR01   | ToFiling | 2 Apr 2012  | 1 Apr 2011  | KR11163940         |               |             |               |             | Method of pending security abortion indication                                             |
| RM115094 | US01   | Granted  | 1 Apr 2011  | 1 Apr 2011  | US13075223         | US20120252404 | 4 Oct 2012  | US20120252404 | 9 Apr 2013  | Method of pending security abortion indication                                             |
| RM115094 | US02   | Granted  | 19 Jan 2012 | 1 Apr 2011  | US13065394         | US20120252406 | 4 Oct 2012  | US20120252406 | 2 Apr 2013  | Method of pending security abortion indication                                             |
| RM115094 | US03   | ToFiling | 1 Apr 2011  | 1 Apr 2011  |                    |               |             |               |             | Method of pending security abortion indication                                             |
| RM115094 | WO01   | Filed    | 2 Apr 2012  | 1 Apr 2011  | PCT/IB2012/0651812 | WO2012131661  | 4 Oct 2012  | WO2012131661  |             | Method of pending security abortion indication                                             |
| RM115095 | Family | Filed    | 4 Apr 2012  | 1 Apr 2011  |                    |               |             |               |             | Triggering of Inter-RAT reporting for UMTS ANR when ISR is enabled                         |
| RM115095 | GB01   | Granted  | 2 May 2012  | 1 Apr 2011  | GB11056483         | 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  | GB11056483         |               |             |               |             | Triggering of Inter-RAT reporting for UMTS ANR when ISR is enabled                         |
| RM115095 | US01   | Closed   | 1 Apr 2011  | 1 Apr 2011  | US13075226         | US20120252493 | 4 Oct 2012  | US20120252493 |             | Triggering of Inter-RAT reporting for UMTS ANR when ISR is enabled                         |
| RM115095 | US02   | Filed    | 2 Apr 2012  | 1 Apr 2011  | US13075226         | US20120252445 | 10 Apr 2013 | US20120252445 |             | Triggering of Inter-RAT reporting for UMTS ANR when ISR is enabled                         |
| RM115097 | Family | Filed    | 1 Apr 2011  | 1 Apr 2011  | US13075226         |               |             |               |             | Method of fast reselection from UTRAN to EUTRAN                                            |
| RM115097 | EP01   | ToFiling | 2 Apr 2012  | 1 Apr 2011  | PCT/IB2012/0651596 |               |             |               |             | Method of fast reselection from UTRAN to EUTRAN                                            |
| RM115097 | GB01   | Granted  | 1 Apr 2011  | 1 Apr 2011  | GB11056302         | GB2450854     | 30 May 2012 | GB2450854     | 11 Dec 2012 | Method of fast reselection from UTRAN to EUTRAN                                            |
| RM115097 | GB02   | Granted  | 1 Apr 2011  | 1 Apr 2011  | GB11056302         | GB2478319     | 18 Jul 2012 | GB2478319     | 27 Feb 2013 | Method of fast reselection from UTRAN to EUTRAN                                            |
| RM115097 | JP01   | ToFiling | 2 Apr 2012  | 1 Apr 2011  | JP11163940         |               |             |               |             | Method of fast reselection from UTRAN to EUTRAN                                            |
| RM115097 | KR01   | ToFiling | 2 Apr 2012  | 1 Apr 2011  | KR11163940         |               |             |               |             | Method of fast reselection from UTRAN to EUTRAN                                            |
| RM115097 | US01   | Closed   | 1 Apr 2011  | 1 Apr 2011  | US13075124         | US20120252452 | 4 Oct 2012  | US20120252452 |             | Method of fast reselection from UTRAN to EUTRAN                                            |
| RM115097 | US02   | Filed    | 12 Mar 2012 | 1 Apr 2011  | US130417915        | US20120252455 | 10 Apr 2013 | US20120252455 |             | Method of fast reselection from UTRAN to EUTRAN                                            |
| RM115097 | US03   | Filed    | 15 Jun 2012 | 1 Apr 2011  | US130417915        | US20120252458 | 20 Dec 2012 | US20120252458 |             | Method of fast reselection from UTRAN to EUTRAN                                            |
| RM115098 | WO01   | Filed    | 2 Apr 2012  | 1 Apr 2011  | PCT/IB2012/0651596 | WO2012131655  | 4 Oct 2012  | WO2012131655  |             | Method of fast reselection from UTRAN to EUTRAN                                            |
| RM115098 | GB01   | Filed    | 3 Nov 2011  | 3 Nov 2011  | GB1116030.8        | GB2496184     | 8 May 2013  | GB2496184     |             | Calibration / equalization of radio receiver analog baseband filter                        |
| RM115098 | US01   | Filed    | 4 Nov 2011  | 3 Nov 2011  | US130289462        | US20130114662 | 8 May 2013  | US20130114662 |             | Calibration / equalization of radio receiver analog baseband filter                        |
| RM115098 | WO01   | POA      | 2 Nov 2012  | 3 Nov 2011  | PCT/IB2012/0651119 | WO20130055021 | 10 May 2013 | WO20130055021 |             | PUCCH Performance Enhancement with CC-specific TDD UL/DL configurations                    |
| RM115100 | Family | Filed    | 29 Apr 2011 | 29 Apr 2011 |                    |               |             |               |             | PUCCH Performance Enhancement with CC-specific TDD UL/DL configurations                    |
| RM115100 | US01   | Granted  | 2 Apr 2013  | 29 Apr 2011 | US13085292         | US20130223296 | 29 Sep 2013 | US20130223296 | 17 Sep 2013 | PUCCH Performance Enhancement with CC-specific TDD UL/DL configurations                    |
| RM115100 | US02   | Filed    | 4 Sep 2013  | 29 Apr 2011 | US14017584         |               |             |               |             | PUCCH Performance Enhancement with CC-specific TDD UL/DL configurations                    |
| RM115100 | WO01   | POA      | 29 Apr 2011 | 29 Apr 2011 | PCT/IB2011/073629  | WO2012145922  | 1 Nov 2012  | WO2012145922  |             | PUCCH Performance Enhancement with CC-specific TDD UL/DL 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 | GB1108257.1        | GB2491119     | 26 Nov 2012 | GB2491119     |             | Hopping Pattern Defined Sensing and Decision Period with Effective Resource Sharing Method |
| RM115101 | US01   | Filed    | 20 May 2011 | 20 May 2011 | US13112490         | US20120294165 | 22 Nov 2012 | US20120294165 |             | Hopping Pattern Defined Sensing and Decision Period with Effective Resource Sharing Method |
| RM115101 | US02   | Filed    | 19 Jan 2012 | 20 May 2011 | US13055365         | US20120294344 | 22 Nov 2012 | US20120294344 |             | Hopping Pattern Defined Sensing and Decision Period with Effective Resource Sharing Method |
| RM115101 | WO01   | POA      | 17 May 2012 | 20 May 2011 | PCT/IB2012/0652498 | WO2013150488  | 29 Nov 2012 | WO2013150488  |             | Hopping Pattern Defined Sensing and Decision Period with Effective Resource Sharing Method |
| RM115102 | Family | Filed    | 22 Jun 2011 | 22 Jun 2011 |                    |               |             |               |             | Mitigating other UE UL interference in LTE TDD networks                                    |
| RM115102 | GB01   | Granted  | 22 Jun 2011 | 22 Jun 2011 | GB110656.5         | GB2492123     | 26 Dec 2012 | GB2492123     | 12 Jun 2013 | Mitigating other UE UL interference in LTE TDD networks                                    |
| RM115102 | US01   | Filed    | 22 Jun 2011 | 22 Jun 2011 | US13156426         | US20130232620 | 27 Dec 2012 | US20130232620 |             | Mitigating other UE UL interference in LTE TDD networks                                    |
| RM115102 | US02   | Filed    | 22 Jun 2011 | 22 Jun 2011 | US13075205         | US20130054145 | 14 Mar 2013 | US20130054145 |             | Mitigating other UE UL interference in LTE TDD networks                                    |

|          |             |           |             |             |                    |                |             |                                                                                                                 |
|----------|-------------|-----------|-------------|-------------|--------------------|----------------|-------------|-----------------------------------------------------------------------------------------------------------------|
| RM115102 | WO201115102 | Filed     | 20 Jun 2012 | 22 Jun 2011 | PCT/JP2010/035121  | WO201212176138 | 27 Dec 2012 | Mitigating other UE UL interference in LTE TDD networks.                                                        |
| RM115103 | Family      | Filed     | 12 Aug 2011 | 12 Aug 2011 |                    |                |             | frame aggregation                                                                                               |
| RM115104 | GB01        | Filed     | 12 Aug 2011 | 12 Aug 2011 | GB1112638.2        | GB2493713      | 20 Feb 2013 | frame aggregation                                                                                               |
| RM115105 | US01        | Filed     | 12 Aug 2011 | 12 Aug 2011 | US13/0203913       | US201300392298 | 14 Feb 2013 | frame aggregation                                                                                               |
| RM115106 | WO201115106 | Filed     | 25 May 2011 | 25 May 2011 |                    |                | 29 Nov 2012 | Resource allocation for D2D deployment in LTE system                                                            |
| RM115107 | Family      | Filed     | 25 May 2011 | 25 May 2011 | PCT/CN2011/0374869 | WO201212156270 |             | High time offset indicator for CoMP                                                                             |
| RM115108 | GB01        | Granted   | 31 May 2011 | 31 May 2011 | GB1108106.7        | GB2491367      | 5 Dec 2012  | High time offset indicator for CoMP                                                                             |
| RM115109 | GB02        | Granted   | 31 May 2011 | 31 May 2011 | GB1122003.7        | GB2491428      | 5 Dec 2012  | High time offset indicator for CoMP                                                                             |
| RM115110 | US01        | Filed     | 31 May 2011 | 31 May 2011 | US13/146067        | US20120307704  | 6 Dec 2012  | High time offset indicator for CoMP                                                                             |
| RM115111 | Family      | Filed     | 16 May 2011 | 16 May 2011 |                    |                | 22 Nov 2012 | SRS Configuration and Triggering for Segment Carrier                                                            |
| RM115112 | WO201115112 | POA       | 16 May 2011 | 16 May 2011 | PCT/CN2011/0074084 | WO201212155326 |             | Flexible enable and disable of Cross-CC Scheduling                                                              |
| RM115113 | Family      | POA       | 2 Jun 2011  | 2 Jun 2011  |                    |                | 6 Dec 2012  | Methods of multipoint HSDPA in CELL_FACH state                                                                  |
| RM115114 | WO201115114 | Filed     | 2 Jun 2011  | 2 Jun 2011  | PCT/CN2011/0076174 | WO201212162869 |             | Methods of multipoint HSDPA in CELL_FACH state                                                                  |
| RM115115 | GB01        | Granted   | 28 Apr 2011 | 28 Apr 2011 |                    |                | 7 Nov 2012  | Method of combining common channel configurations CELL_FACH state                                               |
| RM115116 | US01        | Filed     | 28 Apr 2011 | 28 Apr 2011 | GB1107595.8        | GB2490494      | 1 Nov 2012  | Method of combining common channel configurations CELL_FACH state                                               |
| RM115117 | Family      | Filed     | 28 Apr 2011 | 28 Apr 2011 | US13/058104        | US20120276916  |             | Method of combining common channel configurations CELL_FACH state                                               |
| RM115118 | GB01        | Granted   | 28 Apr 2011 | 28 Apr 2011 | GB1112634.4        | GB2490370      | 30 Oct 2012 | Method of combining common channel configurations CELL_FACH state                                               |
| RM115119 | GB02        | Closed    | 28 Apr 2011 | 28 Apr 2011 | GB1107595.6        |                |             | Method of combining common channel configurations CELL_FACH state                                               |
| RM115120 | US01        | Filed     | 28 Apr 2011 | 28 Apr 2011 | GB121205.7         | GB2497151      | 5 Jun 2013  | Method of combining common channel configurations CELL_FACH state                                               |
| RM115121 | WO201115121 | Filed     | 27 Apr 2012 | 27 Apr 2012 | US13/056063        | US20120275369  | 1 Nov 2012  | Method of combining common channel configurations CELL_FACH state                                               |
| RM115122 | Family      | Filed     | 2 Apr 2011  | 2 Apr 2011  | PCT/JP2010/032128  | WO201212147060 |             | Effective trigger event and signaling for TA calculation scheme                                                 |
| RM115123 | ON01        | To/Filing | 2 Apr 2011  | 2 Apr 2011  |                    |                | 6 Dec 2012  | Effective trigger event and signaling for TA calculation scheme                                                 |
| RM115124 | WO201115124 | To/Filing | 2 Apr 2011  | 2 Apr 2011  |                    |                |             | AGC control for eICIC                                                                                           |
| RM115125 | WO201115125 | Filed     | 2 Apr 2011  | 2 Apr 2011  |                    |                | 17 Jul 2013 | AGC control for eICIC                                                                                           |
| RM115126 | Family      | Filed     | 12 Jul 2011 | 12 Jul 2011 | PCT/CN2011/0072419 | WO201212155992 |             | AGC control for eICIC                                                                                           |
| RM115127 | GB01        | Granted   | 12 Jul 2011 | 12 Jul 2011 | GB1111933.6        | GB2492794      | 16 Jan 2013 | CSI Measurement and Reporting for Segment Carrier                                                               |
| RM115128 | US01        | Granted   | 12 Jul 2011 | 12 Jul 2011 | US13/173767        | US20130017793  | 17 Jan 2013 | CSI Measurement and Reporting for Segment Carrier                                                               |
| RM115129 | WO201115129 | Filed     | 11 Jul 2012 | 12 Jul 2011 | PCT/JP2010/035543  | WO201212155992 | 24 Jan 2013 | System Information Cache                                                                                        |
| RM115130 | Family      | Filed     | 19 Jul 2011 | 19 Jul 2011 |                    |                | 13 Dec 2012 | System Information Cache                                                                                        |
| RM115131 | WO201115131 | POA       | 19 Jul 2011 | 19 Jul 2011 | PCT/CN2011/0077331 | WO201212155992 | 13 Dec 2012 | System Information Cache                                                                                        |
| RM115132 | Family      | Filed     | 8 Jun 2011  | 8 Jun 2011  |                    |                | 13 Dec 2012 | System Information Cache                                                                                        |
| RM115133 | WO201115133 | POA       | 8 Jun 2011  | 8 Jun 2011  | GB1109999.2        | GB2491617      |             | Sharing cellular radio processor system resources for running of the SW                                         |
| RM115134 | US01        | Filed     | 8 Jun 2011  | 8 Jun 2011  | US13/155510        | US20120315910  |             | Sharing cellular radio processor system resources for running of the SW                                         |
| RM115135 | GB01        | POA       | 8 Jun 2011  | 8 Jun 2011  | US13/275965        | US20120315910  |             | Sharing cellular radio processor system resources for running of the SW                                         |
| RM115136 | US02        | Granted   | 18 Oct 2011 | 18 Oct 2011 |                    |                | 13 Dec 2012 | Sharing cellular radio processor system resources for running of the SW                                         |
| RM115137 | Family      | Filed     | 30 Jun 2011 | 30 Jun 2011 |                    |                | 7 Dec 2011  | Flexible time-frequency Reference Signal pattern and CSI configuration on new carrier types                     |
| RM115138 | GB01        | Granted   | 30 Jun 2011 | 30 Jun 2011 | GB1111160.6        | GB2491930      | 13 Dec 2012 | Flexible time-frequency Reference Signal pattern and CSI configuration on new carrier types                     |
| RM115139 | US01        | Closed    | 30 Jun 2011 | 30 Jun 2011 | US13/173767        | US20130005395  | 8 Nov 2012  | Compressed Group RACH Access and Management                                                                     |
| RM115140 | US02        | Filed     | 13 Feb 2012 | 30 Jun 2011 | US13/071677        | US20130005396  |             | Compressed Group RACH Access and Management                                                                     |
| RM115141 | WO201115141 | Filed     | 28 Jun 2012 | 30 Jun 2011 | PCT/JP2010/035279  | WO201212155992 | 2 Jan 2013  | Multi-System Coexistence on Shared Bands using Multicast Grouping Based on the Channel Occupancy in Shared Band |
| RM115142 | Family      | Filed     | 7 Jun 2011  | 7 Jun 2011  |                    |                | 27 Dec 2012 | Multi-System Coexistence on Shared Bands using Multicast Grouping Based on the Channel Occupancy in Shared Band |
| RM115143 | WO201115143 | POA       | 7 Jun 2011  | 7 Jun 2011  | PCT/CN2011/0075381 | WO201212167417 |             | Multi-System Coexistence on Shared Bands using Multicast Grouping Based on the Channel Occupancy in Shared Band |
| RM115144 | Family      | Filed     | 2 May 2011  | 2 May 2011  | US13/066036        | US20120281579  |             | Multi-System Coexistence on Shared Bands using Multicast Grouping Based on the Channel Occupancy in Shared Band |
| RM115145 | WO201115145 | Filed     | 23 Jun 2011 | 23 Jun 2011 |                    |                | 27 Dec 2012 | Multi-System Coexistence on Shared Bands using Multicast Grouping Based on the Channel Occupancy in Shared Band |
| RM115146 | GB01        | POA       | 23 Jun 2011 | 23 Jun 2011 | GB1110666.3        | GB2492306      |             | Multi-System Coexistence on Shared Bands using Multicast Grouping Based on the Channel Occupancy in Shared Band |
| RM115147 | US01        | Filed     | 23 Jun 2011 | 23 Jun 2011 | US13/166619        | US201203027834 |             | Multi-System Coexistence on Shared Bands using Multicast Grouping Based on the Channel Occupancy in Shared Band |
| RM115148 | US02        | Filed     | 1 Dec 2011  | 23 Jun 2011 | US13/036379        | US201203027835 |             | Multi-System Coexistence on Shared Bands using Multicast Grouping Based on the Channel Occupancy in Shared Band |
| RM115149 | WO201115149 | Filed     | 28 Jun 2012 | 23 Jun 2011 | PCT/JP2010/035203  | WO201212176179 |             | Multi-System Coexistence on Shared Bands using Multicast Grouping Based on the Channel Occupancy in Shared Band |

|          |        |       |             |             |                   |               |             |                                                                                                                          |
|----------|--------|-------|-------------|-------------|-------------------|---------------|-------------|--------------------------------------------------------------------------------------------------------------------------|
| RM115123 | Family | Filed | 3 May 2011  | 3 May 2011  | PCT/CN2011/073600 | WO2012149673  | 8 Nov 2012  | Methods to reduce interference from DL control and CRS in LA TDD network with flexible TDD configuration                 |
| RM115124 | Family | Filed | 3 May 2011  | 3 May 2011  | PCT/CN2011/073600 | WO2012149673  | 8 Nov 2012  | Methods to reduce interference from DL control and CRS in LA TDD network with flexible TDD configuration                 |
| RM115125 | Family | Filed | 8 Jun 2011  | 8 Jun 2011  | PCT/CN2011/075442 | WO2012167424  | 13 Dec 2012 | Feedback Design of Hierarchical Coordinated Multipoint Transmission                                                      |
| RM115126 | Family | Filed | 6 Jul 2011  | 6 Jul 2011  | GB1115563.9       | GB2492677     | 9 Jan 2013  | A method to avoid radio interference in multiple RF multiple SIM device                                                  |
| RM115127 | Family | Filed | 6 Jul 2011  | 6 Jul 2011  | US13/176941       | US20130012135 | 10 Jan 2013 | A method to avoid radio interference in multiple RF multiple SIM device                                                  |
| RM115128 | Family | Filed | 28 Jun 2011 | 28 Jun 2011 | GB1115686.3       | GB2492536     | 9 Jan 2013  | Dual-SIM power reduction by combining operations                                                                         |
| RM115129 | Family | Filed | 28 Jun 2011 | 28 Jun 2011 | US13/170839       | US20130005354 | 3 Jan 2013  | Dual-SIM power reduction by combining operations                                                                         |
| RM115130 | Family | Filed | 9 Jun 2011  | 9 Jun 2011  | PCT/CN2011/073502 | WO2012167431  | 13 Dec 2012 | Methods for CQI report in LA TDD network with flexible TDD configuration                                                 |
| RM115131 | Family | Filed | 14 Jul 2011 | 14 Jul 2011 | PCT/CN2011/001167 | WO2013006886  | 17 Jan 2013 | Flexible LTE system utilization on unlicensed band                                                                       |
| RM115132 | Family | Filed | 23 Aug 2011 | 23 Aug 2011 | GB1114589.8       | GB2494111     | 5 Mar 2013  | Accuracy improvement to UE mobility state detection in EUTRAN system                                                     |
| RM115133 | Family | Filed | 23 Aug 2011 | 23 Aug 2011 | US13/215877       | US20130005392 | 28 Feb 2013 | Accuracy improvement to UE mobility state detection in EUTRAN system                                                     |
| RM115134 | Family | Filed | 23 Aug 2011 | 23 Aug 2011 | PCT/JP2012/054218 | WO2013027172  | 28 Feb 2013 | Accuracy improvement to UE mobility state detection in EUTRAN system                                                     |
| RM115135 | Family | Filed | 19 May 2011 | 19 May 2011 | GB1109444.9       | GB2481487     | 28 Dec 2011 | Configurable Low Noise Amplifier                                                                                         |
| RM115136 | Family | Filed | 19 May 2011 | 19 May 2011 | GB1115702.9       | GB2490679     | 21 Nov 2012 | Configurable Low Noise Amplifier                                                                                         |
| RM115137 | Family | Filed | 19 May 2011 | 19 May 2011 | TW10117527        | TW2013017149  | 1 Jan 2013  | Configurable Low Noise Amplifier                                                                                         |
| RM115138 | Family | Filed | 19 May 2011 | 19 May 2011 | US13/114233       | US20120282262 | 22 Nov 2012 | Configurable Low Noise Amplifier                                                                                         |
| RM115139 | Family | Filed | 19 May 2011 | 19 May 2011 | US13/048772       | US20130023250 | 22 Nov 2012 | Configurable Low Noise Amplifier                                                                                         |
| RM115140 | Family | Filed | 19 May 2011 | 19 May 2011 | PCT/JP2012/052488 | WO2012155945  | 22 Nov 2012 | Configurable Low Noise Amplifier                                                                                         |
| RM115141 | Family | Filed | 19 Aug 2011 | 19 Aug 2011 |                   |               |             | Indication of UE Mobility State to the Network to Enhance Mobility and Call Performance                                  |
| RM115142 | Family | Filed | 19 Aug 2011 | 19 Aug 2011 | GB1115028.1       | GB2493768     | 20 Feb 2013 | Indication of UE Mobility State to the Network to Enhance Mobility and Call Performance                                  |
| RM115143 | Family | Filed | 19 Aug 2011 | 19 Aug 2011 | US61526371        |               |             | Indication of UE Mobility State to the Network to Enhance Mobility and Call Performance                                  |
| RM115144 | Family | Filed | 19 Aug 2011 | 19 Aug 2011 | US13/220774       | US20130046765 | 21 Feb 2013 | Indication of UE Mobility State to the Network to Enhance Mobility and Call Performance                                  |
| RM115145 | Family | Filed | 19 Aug 2011 | 19 Aug 2011 | US13/735486       | US20130130598 | 23 May 2013 | Indication of UE Mobility State to the Network to Enhance Mobility and Call Performance                                  |
| RM115146 | Family | Filed | 15 Aug 2011 | 15 Aug 2011 |                   |               |             | LTE security and bearer context information for low periodicity packet transmission                                      |
| RM115147 | Family | Filed | 15 Aug 2011 | 15 Aug 2011 | GB1114014.2       | GB2493722     | 20 Feb 2013 | LTE security and bearer context information for low periodicity packet transmission                                      |
| RM115148 | Family | Filed | 15 Aug 2011 | 15 Aug 2011 | US13/209519       | US20130046821 | 21 Feb 2013 | LTE security and bearer context information for low periodicity packet transmission                                      |
| RM115149 | Family | Filed | 15 Aug 2011 | 15 Aug 2011 | PCT/JP2012/054143 | WO2013024435  | 21 Feb 2013 | LTE security and bearer context information for low periodicity packet transmission                                      |
| RM115150 | Family | Filed | 14 Aug 2012 | 14 Aug 2012 | GB11107963.2      | GB2490750     | 14 Nov 2012 | CSI-RS density enhancement                                                                                               |
| RM115151 | Family | Filed | 2 May 2011  | 2 May 2011  | GB1115130.3       | US20120282335 | 8 Nov 2012  | CSI-RS density enhancement                                                                                               |
| RM115152 | Family | Filed | 2 May 2011  | 2 May 2011  | US13/098873       | US20120282335 | 8 Nov 2012  | CSI-RS density enhancement                                                                                               |
| RM115153 | Family | Filed | 2 May 2011  | 2 May 2011  | US13/098873       | US20120282335 | 8 Nov 2012  | CSI-RS density enhancement                                                                                               |
| RM115154 | Family | Filed | 30 Sep 2011 | 30 Sep 2011 | PCT/JP2012/052173 | WO2012155545  | 5 Nov 2012  | CSI-RS density enhancement                                                                                               |
| RM115155 | Family | Filed | 30 Sep 2011 | 30 Sep 2011 | GB1116918.2       | GB2496283     | 10 Apr 2013 | Inheriting of UE mobility state between EUTRAN and other RATs                                                            |
| RM115156 | Family | Filed | 30 Sep 2011 | 30 Sep 2011 | US13/249553       | US20130084642 | 4 Apr 2013  | Inheriting of UE mobility state between EUTRAN and other RATs                                                            |
| RM115157 | Family | Filed | 29 Jun 2011 | 29 Jun 2011 |                   |               |             | Discrimination between UE mobility classes                                                                               |
| RM115158 | Family | Filed | 29 Jun 2011 | 29 Jun 2011 | GB1111081.9       | GB2489537     | 3 Oct 2012  | Discrimination between UE mobility classes                                                                               |
| RM115159 | Family | Filed | 29 Jun 2011 | 29 Jun 2011 | GB12/05663.9      | GB2492616     | 9 Jan 2013  | Discrimination between UE mobility classes                                                                               |
| RM115160 | Family | Filed | 29 Jun 2011 | 29 Jun 2011 | US13/172189       | US20130005381 | 3 Jan 2013  | On Efficient Data and Feedback Resource Mapping for Shifted Sequence based Dynamic Data Transmission Resource Allocation |
| RM115161 | Family | Filed | 17 Nov 2011 | 17 Nov 2011 |                   |               |             | On Efficient Data and Feedback Resource Mapping for Shifted Sequence based Dynamic Data Transmission Resource Allocation |
| RM115162 | Family | Filed | 17 Nov 2011 | 17 Nov 2011 | GB1119664.9       | GB2496646     | 22 May 2013 | On Efficient Data and Feedback Resource Mapping for Shifted Sequence based Dynamic Data Transmission Resource Allocation |

|          |        |         |             |             |                   |                |             |                                                                                                                                           |
|----------|--------|---------|-------------|-------------|-------------------|----------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| RM115141 | US01   | Filed   | 15 Nov 2011 | 17 Nov 2011 | US13/299943       | US20130128923  | 23 May 2013 | On Efficient Data and Feedback Resource Mapping for Shifted Sequence based Dynamic Data Transmission Resource Allocation                  |
| RM115141 | US02   | Filed   | 15 Nov 2012 | 17 Nov 2011 | US13/077880       | US20130128930  | 23 May 2013 | On Efficient Data and Feedback Resource Mapping for Shifted Sequence based Dynamic Data Transmission Resource Allocation                  |
| 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 | GB1110582.4       | GB2492122      | 26 Dec 2012 | MIMO Antenna system arrangement to optimize envelope correlation coefficient                                                              |
| RM115142 | US01   | Filed   | 22 Jun 2011 | 22 Jun 2011 | US13/163384       | US20120329507  | 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                                                                            |
| RM115143 | WO01   | Filed   | 23 Jun 2011 | 23 Jun 2011 | PCT/CN2011/076179 | WO2012174722   | 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/CN2011/078023 | WO2012174708   | 27 Dec 2012 | Cell-based dynamic configuration method for offline small-data transmission of detached MTC devices                                       |
| RM115148 | Family | Filed   | 27 Jun 2011 | 27 Jun 2011 |                   |                |             | Reverse Scheduling Mechanisms                                                                                                             |
| RM115148 | GB01   | Filed   | 27 Jun 2011 | 27 Jun 2011 | GB1110681.0       | GB2493334      | 2 Jan 2013  | Reverse Scheduling Mechanisms                                                                                                             |
| RM115148 | US01   | Filed   | 27 Jun 2011 | 27 Jun 2011 | US13/168338       | US20120327987  | 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       | GB2493866      | 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       | US201301051383 | 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/IB2012/064289 | WO2013030732   | 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 |                   |                |             | Channelization Design for LTE on ISM using a piece-wise Hopping for Control Channels and Listen-Before-Talk type Access for Data Channels |
| RM115151 | GB01   | Filed   | 27 Jul 2011 | 27 Jul 2011 | GB1112931.6       | GB2493183      | 30 Jan 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 | US01   | Filed   | 27 Jul 2011 | 27 Jul 2011 | US13/191381       | US20130029707  | 31 Jan 2013 | Channelization Design for LTE on ISM using a piece-wise Hopping for Control Channels and Listen-Before-Talk type Access for Data Channels |
| RM115152 | Family | Filed   | 18 May 2011 | 18 May 2011 |                   |                |             | Channelization Design for LTE on ISM using a piece-wise Hopping for Control Channels and Listen-Before-Talk type Access for Data Channels |
| RM115152 | GB01   | POA     | 16 May 2011 | 16 May 2011 | GB1108159.3       | GB2493757      | 10 Oct 2012 | Channelization Design for LTE on ISM using a piece-wise Hopping for Control Channels and Listen-Before-Talk type Access for Data Channels |
| RM115152 | US01   | Closed  | 16 May 2011 | 16 May 2011 | US13/103352       | US20130284289  | 22 Nov 2012 | Channelization Design for LTE on ISM using a piece-wise Hopping for Control Channels and Listen-Before-Talk type Access for Data Channels |
| RM115152 | US02   | Granted | 13 Oct 2011 | 16 May 2011 | US13/272590       | US20130284289  | 22 Nov 2012 | Channelization Design for LTE on ISM using a piece-wise Hopping for Control Channels and Listen-Before-Talk type Access for Data Channels |
| RM115152 | WO01   | Filed   | 16 May 2012 | 16 May 2011 | PCT/IB2012/065271 | WO2012156834   | 22 Nov 2012 | Channelization Design for LTE on ISM using a piece-wise Hopping for Control Channels and Listen-Before-Talk type Access for Data Channels |
| RM115153 | Family | Filed   | 17 Aug 2011 | 17 Aug 2011 |                   |                |             | Reduced measurement and reporting in UE                                                                                                   |
| RM115153 | GB01   | Filed   | 17 Aug 2011 | 17 Aug 2011 | IN2828MU/M/2011   | IN2013024327   | 22 Feb 2013 | Reduced measurement and reporting in UE                                                                                                   |
| RM115153 | WO01   | Filed   | 17 Aug 2011 | 17 Aug 2011 | PCT/IB2012/001532 | WO2013024327   | 21 Feb 2013 | Reduced measurement and reporting in UE                                                                                                   |
| RM115154 | Family | Filed   | 15 Jun 2011 | 15 Jun 2011 |                   |                |             | Reduced measurement and reporting in UE                                                                                                   |
| RM115154 | GB01   | Filed   | 15 Jun 2011 | 15 Jun 2011 | GB1110111.0       | GB2491989      | 18 Dec 2012 | Reduced measurement and reporting in UE                                                                                                   |
| RM115154 | US01   | Filed   | 15 Jun 2011 | 15 Jun 2011 | US13/163592       | US20120322474  | 20 Dec 2012 | Reduced measurement and reporting in UE                                                                                                   |
| RM115155 | Family | Filed   | 26 Jul 2011 | 26 Jul 2011 |                   |                |             | Usage of registration area information and update status at switch-on and recovery from lack of coverage                                  |
| RM115155 | WO01   | POA     | 26 Jul 2011 | 26 Jul 2011 | PCT/CN2011/077526 | WO2013013330   | 31 Jan 2013 | Usage of registration area information and update status at switch-on and recovery from lack of coverage                                  |
| RM115157 | Family | Filed   | 4 Jul 2011  | 4 Jul 2011  |                   |                |             | A new way to get TA for LTE system deployed in White Space                                                                                |
| RM115157 | WO01   | Filed   | 4 Jul 2011  | 4 Jul 2011  | PCT/CN2011/077526 | WO2013013330   | 16 Jan 2013 | A new way to get TA for LTE system deployed in White Space                                                                                |
| RM115158 | Family | Filed   | 30 Aug 2011 | 30 Aug 2011 |                   |                |             | RACH optimization for LTE-Advanced Local Area Deployment                                                                                  |
| RM115158 | GB01   | Filed   | 30 Aug 2011 | 30 Aug 2011 | GB1114693.9       | GB2494132      | 6 Mar 2013  | RACH optimization for LTE-Advanced Local Area Deployment                                                                                  |
| RM115158 | US01   | Filed   | 30 Aug 2011 | 30 Aug 2011 | US13/221286       | US201301051588 | 28 Feb 2013 | RACH optimization for LTE-Advanced Local Area Deployment                                                                                  |
| RM115159 | Family | Filed   | 5 Jul 2011  | 5 Jul 2011  |                   |                |             | Multi-User Resource Allocation Scheme for LTE System Utilizing Listen-Before-Talk Type Channel Access                                     |
| RM115159 | GB01   | Filed   | 5 Jul 2011  | 5 Jul 2011  | GB1114677.5       | GB2493584      | 9 Jan 2013  | Multi-User Resource Allocation Scheme for LTE System Utilizing Listen-Before-Talk Type Channel Access                                     |
| RM115159 | US01   | Filed   | 5 Jul 2011  | 5 Jul 2011  | US13/175169       | US20130103850  | 10 Jan 2013 | Multi-User Resource Allocation Scheme for LTE System Utilizing Listen-Before-Talk Type Channel Access                                     |
| RM115160 | Family | Filed   | 7 Jul 2011  | 7 Jul 2011  |                   |                |             | Feedback framework for MIMO operation in Heterogeneous Networks                                                                           |
| RM115160 | GB01   | Filed   | 7 Jul 2011  | 7 Jul 2011  | GB1114627.4       | GB2492584      | 9 Jan 2013  | Feedback framework for MIMO operation in Heterogeneous Networks                                                                           |
| RM115160 | US01   | Filed   | 7 Jul 2011  | 7 Jul 2011  | US13/177920       | US20130103797  | 10 Jan 2013 | Feedback framework for MIMO operation in Heterogeneous Networks                                                                           |
| RM115161 | Family | Filed   | 5 Jul 2012  | 7 Jul 2011  | PCT/IB2012/063425 | WO2013005175   | 10 Jan 2013 | Extended Proximity Indication for CSG cells                                                                                               |
| RM115161 | GB01   | Granted | 18 Jul 2011 | 18 Jul 2011 | GB1113940.7       | GB2492584      | 23 Jan 2013 | Extended Proximity Indication for CSG cells                                                                                               |

Enabling efficient ad hoc network operation on Television White Spaces

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|          |        |         |             |             |                   |               |             |                                                                                                          |
|----------|--------|---------|-------------|-------------|-------------------|---------------|-------------|----------------------------------------------------------------------------------------------------------|
| RM115161 | US01   | Filed   | 18 Jul 2011 | 18 Jul 2011 | US13/184702       | US20130023202 | 24 Jan 2013 | Enabling efficient ad hoc network operation on Television White Spaces                                   |
| RM115164 | WO01   | Filed   | 5 Jul 2011  | 6 Jul 2011  | PCT/CN2010/076865 | WO2013004007  | 10 Jan 2013 | Power Control Enhancement in LA TDD network                                                              |
| RM115166 | Family | Filed   | 8 Jul 2011  | 8 Jul 2011  |                   |               |             | Power Control Enhancement in LA TDD network                                                              |
| RM115166 | WO01   | Filed   | 8 Jul 2011  | 8 Jul 2011  | PCT/CN2010/077803 | WO2013007010  | 17 Jan 2013 | Interference mitigation via channel reservation in LA TDD network                                        |
| RM115167 | Family | Filed   | 9 Jul 2011  | 8 Jul 2011  |                   |               |             | Interference mitigation via channel reservation in LA TDD network                                        |
| RM115167 | G001   | Filed   | 8 Jul 2011  | 8 Jul 2011  | GB11/17447        | GB2492650     | 9 Jan 2013  | Uplink Power Control Adjustment State for PUSCH in Discontinuous Data Transfer                           |
| RM115167 | US01   | Filed   | 9 Jul 2011  | 8 Jul 2011  | US13/178999       | US20130016706 | 10 Jan 2013 | Uplink Power Control Adjustment State for PUSCH in Discontinuous Data Transfer                           |
| RM115167 | WO01   | Filed   | 5 Jul 2012  | 8 Jul 2011  | PCT/EP2012/053443 | WO20130038153 | 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                                                             |
| RM115168 | G001   | Filed   | 40739       | 15 Jul 2011 | GB11/121520       | GB2492840     | 18 Jan 2013 | Virtual X2 via 802.19.1 Co-existence Manager                                                             |
| RM115168 | US01   | Filed   | 15 Jul 2011 | 15 Jul 2011 | US13/153940       | US20130017837 | 17 Jan 2013 | Virtual X2 via 802.19.1 Co-existence Manager                                                             |
| RM115168 | WO01   | Filed   | 15 Jul 2012 | 15 Jul 2011 | PCT/EP2012/053800 | WO2013011439  | 24 Jan 2013 | Virtual X2 via 802.19.1 Co-existence Manager                                                             |
| RM115169 | Family | Filed   | 20 Jul 2011 | 30 Jul 2011 |                   |               |             | Downlink Synchronization Group in discontinuous transmission in unlicensed band                          |
| RM115169 | WO01   | Filed   | 25 Jul 2011 | 26 Jul 2011 | PCT/CN2011/077383 | 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 | G001   | Filed   | 11 Jul 2011 | 11 Jul 2011 | GB11/183368       | GB2493128     | 30 Jan 2013 | C-RNTI multiplexing by time division                                                                     |
| RM115171 | US01   | Closed  | 11 Jul 2011 | 11 Jul 2011 | US13/178915       | 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 | PCT/CN2011/077548 | WO2013013075  | 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/CN2011/077548 | WO2013026783  | 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/CN2011/077053 | WO2013007015  | 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 | G001   | Granted | 40830       | 14 Oct 2011 | GB11/177409       | GB2490753     | 14 Nov 2012 | Shared Memory Access Controller                                                                          |
| RM115175 | US01   | Granted | 14 Oct 2012 | 14 Oct 2011 | US13/273422       | US20130097390 | 1 Oct 2013  | Shared Memory Access Controller                                                                          |
| RM115176 | Family | Filed   | 12 Aug 2011 | 12 Aug 2011 | US13/265085       | US20130087394 | 18 Apr 2013 | Shared Memory Access Controller                                                                          |
| RM115176 | G001   | Granted | 12 Aug 2011 | 12 Aug 2011 | GB11/188733       | GB2490873     | 21 Nov 2012 | Shared Memory Access Controller                                                                          |
| RM115176 | US01   | Filed   | 12 Aug 2011 | 12 Aug 2011 | US13/208780       | US20130039237 | 14 Feb 2013 | Methods of uplink resource selection                                                                     |
| RM115176 | US02   | Filed   | 29 Dec 2011 | 12 Aug 2011 | US13/239486       | US20130039354 | 14 Feb 2013 | Methods of uplink resource selection                                                                     |
| RM115176 | WO01   | Filed   | 10 Aug 2012 | 12 Aug 2011 | US13/275270       | US20130178222 | 11 Jul 2013 | Methods of uplink resource selection                                                                     |
| RM115177 | Family | Filed   | 8 Aug 2011  | 8 Aug 2011  | PCT/EP2011/075495 | WO2013024413  | 21 Feb 2013 | Methods of uplink resource selection                                                                     |
| RM115177 | G001   | Granted | 25 Nov 2011 | 8 Aug 2011  | GB11/190825       | GB2494772     | 25 Apr 2012 | Retransmission-less Acknowledged Mode RLC                                                                |
| RM115177 | US01   | Filed   | 8 Aug 2011  | 8 Aug 2011  | US13/235216       | US20130039192 | 14 Feb 2013 | Retransmission-less Acknowledged Mode RLC                                                                |
| RM115177 | US02   | POA     | 15 May 2012 | 8 Aug 2011  | US13/471840       | US20130038269 | 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 | G001   | Filed   | 25 Jul 2011 | 25 Jul 2011 | GB11/127370       | GB2493332     | 6 Feb 2013  | Method of autonomous fallback from CELL_FACH to CELL_PCH state                                           |
| RM115178 | US01   | POA     | 25 Jul 2011 | 25 Jul 2011 | US13/180784       | US20130029651 | 31 Jan 2013 | Method of autonomous fallback from CELL_FACH to CELL_PCH state                                           |
| RM115181 | Family | Filed   | 28 Jul 2011 | 28 Jul 2011 |                   |               |             | Signalling and procedure design for TD-LTE cluster contending with WLAN on ISM bands                     |
| RM115181 | WO01   | POA     | 28 Jul 2011 | 28 Jul 2011 | PCT/CN2011/077721 | WO2013013409  | 31 Jan 2013 | Signalling 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 | G001   | POA     | 12 Sep 2011 | 12 Sep 2011 | GB11/157082       | 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 | US13/190945       | US20130084138 | 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/EP2011/054892 | WO2013038325  | 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 DPOHs-DPOH and PDSCH out-of-synchronization detection and reporting                                |



|          |        |         |             |             |                   |                |             |                                                                                                                          |
|----------|--------|---------|-------------|-------------|-------------------|----------------|-------------|--------------------------------------------------------------------------------------------------------------------------|
| RM115163 | GB01   | POA     | 12 Dec 2011 | 5 Aug 2011  | GB1113652.2       | GB2463394      | 6 Feb 2013  | Joint PDCCH-OFDM and PCICH out-of-synchronization detection and reporting                                                |
| RM115163 | US01   | Filed   | 5 Aug 2011  | 5 Aug 2011  | US13/204873       | US20130034082  | 7 Feb 2013  | Joint PDCCH-OFDM and PCICH out-of-synchronization detection and reporting                                                |
| RM115164 | Family | Filed   | 40739       | 15 Jul 2011 |                   |                |             | Enhanced Connectivity Setup for Advanced Dynamic Wireless Mesh Networks                                                  |
| RM115164 | GB01   | Granted | 15 Jul 2011 | 15 Jul 2011 | GB11112190.2      | GB2493497      | 13 Feb 2013 | Enhanced Connectivity Setup for Advanced Dynamic Wireless Mesh Networks                                                  |
| RM115164 | US01   | Filed   | 15 Jul 2011 | 15 Jul 2011 | US13/183943       | US20130016649  | 17 Jan 2013 | Enhanced Connectivity Setup for Advanced Dynamic Wireless Mesh Networks                                                  |
| RM115165 | Family | Filed   | 2 Sep 2011  | 2 Sep 2011  |                   |                |             | Spatial hashing for enhanced PDCCH search spaces                                                                         |
| RM115165 | GB01   | POA     | 2 Sep 2011  | 2 Sep 2011  | GB1115197.4       | GB2494294      | 13 Mar 2013 | Spatial hashing for enhanced PDCCH search spaces                                                                         |
| RM115165 | US01   | Filed   | 2 Sep 2011  | 2 Sep 2011  | US13/224825       | US20130056295  | 7 Mar 2013  | Spatial hashing for enhanced PDCCH search spaces                                                                         |
| RM115165 | WO01   | Filed   | 31 Aug 2012 | 2 Sep 2011  | PCT/IB2012/054487 | WO20130070793  | 7 Mar 2013  | Spatial hashing for enhanced PDCCH search spaces                                                                         |
| RM115166 | Family | Filed   | 30 Aug 2011 | 30 Aug 2011 |                   |                |             | On efficient resource allocation for device-to-device discovery in LTE TDD system                                        |
| RM115166 | GB01   | Filed   | 30 Aug 2011 | 30 Aug 2011 | GB1114882.1       | GB2494134      | 8 Mar 2013  | On efficient resource allocation for device-to-device discovery in LTE TDD system                                        |
| RM115166 | US01   | Filed   | 30 Aug 2011 | 30 Aug 2011 | US13/221343       | US201300561277 | 28 Feb 2013 | On efficient resource allocation for device-to-device discovery in LTE TDD system                                        |
| RM115166 | WO01   | Filed   | 28 Aug 2012 | 30 Aug 2011 | PCT/IB2012/054433 | WO2013007073   | 7 Mar 2013  | On efficient resource allocation for device-to-device discovery in LTE TDD system                                        |
| RM115167 | Family | Filed   | 28 Jul 2011 | 25 Jul 2011 |                   |                |             | A method of quickly frequency switch between cellular band and shared band                                               |
| RM115167 | WO01   | Filed   | 28 Jul 2011 | 28 Jul 2011 | PCT/CN2011/077730 | WO2013013412   | 21 Jan 2013 | A method of quickly frequency switch between cellular band and shared band                                               |
| RM115168 | Family | Filed   | 9 Sep 2011  | 9 Sep 2011  |                   |                |             | White Space-assisted Inter-Cell Interference Coordination in LTE networks deployed in White Space                        |
| RM115168 | WO01   | Filed   | 9 Sep 2011  | 9 Sep 2011  | PCT/CN2011/079464 | WO20130333507  | 14 Mar 2013 | White Space-assisted Inter-Cell Interference Coordination in LTE networks deployed in White Space                        |
| RM115169 | Family | Filed   | 28 Jul 2011 | 28 Jul 2011 |                   |                |             | Optimization for Wireless Communication Method                                                                           |
| RM115169 | GB01   | POA     | 30 Mar 2012 | 28 Jul 2011 | GB111300635       | GB2468847      | 12 Sep 2012 | Optimization for Wireless Communication Method                                                                           |
| RM115169 | US01   | Filed   | 28 Jul 2011 | 28 Jul 2011 | US13/183065       | US20130026177  | 31 Jan 2013 | Optimization for Wireless Communication Method                                                                           |
| RM115169 | WO01   | Filed   | 28 Jul 2012 | 28 Jul 2011 | PCT/IB2011/053922 | WO2013014641   | 31 Jan 2013 | Optimization for Wireless Communication Method                                                                           |
| RM115169 | Family | Filed   | 7 Oct 2011  | 7 Oct 2011  |                   |                |             | Interfacing DiGRA4 to LVDS                                                                                               |
| RM115169 | GB01   | POA     | 7 Oct 2011  | 7 Oct 2011  | GB1117364.8       | GB2495329      | 10 Apr 2013 | Interfacing DiGRA4 to LVDS                                                                                               |
| RM115169 | US01   | Filed   | 7 Oct 2011  | 7 Oct 2011  | US13/268298       | US20130090148  | 11 Apr 2013 | Interfacing DiGRA4 to LVDS                                                                                               |
| RM115169 | Family | Filed   | 24 Aug 2011 | 24 Aug 2011 |                   |                |             | Provision of Multicast Reliability for Time-Varying Packet Erasure Channels Through Rate Adaptation and Network Coding   |
| RM115169 | GB01   | Granted | 24 Aug 2011 | 24 Aug 2011 | GB1114635.4       | GB2463951      | 22 Feb 2012 | Provision of Multicast Reliability for Time-Varying Packet Erasure Channels Through Rate Adaptation and Network Coding   |
| RM115169 | 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   |
| RM115169 | US02   | POA     | 13 Mar 2012 | 24 Aug 2011 | US13/416746       | US201300561385 | 28 Feb 2013 | Provision of Multicast Reliability for Time-Varying Packet Erasure Channels Through Rate Adaptation and Network Coding   |
| RM115169 | WO01   | Filed   | 8 Aug 2011  | 8 Aug 2011  | PCT/CN2011/078120 | WO2013020265   | 14 Feb 2013 | Provision of Multicast Reliability for Time-Varying Packet Erasure Channels Through Rate Adaptation and Network Coding   |
| RM115169 | Family | Filed   | 14 Nov 2011 | 14 Nov 2011 |                   |                |             | Way of Improving Resource Efficiency for E-PDCCH                                                                         |
| RM115169 | WO01   | Filed   | 14 Nov 2011 | 14 Nov 2011 | PCT/CN2011/082163 | WO2013017475   | 23 May 2013 | Way of Improving Resource Efficiency for E-PDCCH                                                                         |
| RM115169 | Family | Filed   | 1 Aug 2011  | 1 Aug 2011  |                   |                |             | Methods and apparatus for UE-assisted packet transmission termination in converged cellular and wireless sensor networks |
| RM115169 | WO01   | Filed   | 1 Aug 2011  | 1 Aug 2011  | PCT/CN2011/077949 | WO2013016862   | 7 Feb 2013  | Methods and apparatus for UE-assisted packet transmission termination in converged cellular and wireless sensor networks |
| RM115169 | Family | Filed   | 24 Aug 2011 | 24 Aug 2011 |                   |                |             | Extended Paging to Carry Small Downlink Data                                                                             |
| RM115169 | WO01   | Filed   | 24 Aug 2011 | 24 Aug 2011 | PCT/CN2011/080147 | WO2013025184   | 28 Feb 2013 | Extended Paging to Carry Small Downlink Data                                                                             |
| RM115169 | GB01   | Granted | 16 Aug 2011 | 15 Aug 2011 | GB1114074.6       | GB2462605      | 9 Jan 2013  | RACH resource selection mechanisms in CC specific TDD configuration                                                      |
| RM115169 | US01   | Filed   | 15 Aug 2011 | 15 Aug 2011 | US13/209753       | US20130045704  | 21 Feb 2013 | RACH resource selection mechanisms in CC specific TDD configuration                                                      |
| RM115169 | WO01   | Filed   | 15 Aug 2011 | 15 Aug 2011 | PCT/IB2012/054185 | WO2013024450   | 21 Feb 2013 | RACH resource selection mechanisms in CC specific TDD configuration                                                      |
| RM115169 | Family | Filed   | 2 Nov 2011  | 2 Nov 2011  |                   |                |             | A radio receiver for the reception of carriers with power imbalance                                                      |
| RM115169 | GB01   | POA     | 2 Nov 2011  | 2 Nov 2011  | GB1118829.8       | GB2495153      | 8 May 2013  | A radio receiver for the reception of carriers with power imbalance                                                      |
| RM115169 | US01   | Filed   | 3 Nov 2011  | 2 Nov 2011  | US13/285338       | US20130106801  | 2 May 2013  | A radio receiver for the reception of carriers with power imbalance                                                      |
| RM115200 | Family | Filed   | 14 Nov 2011 | 14 Nov 2011 |                   |                |             | Resource allocation signaling method for D2D discovery                                                                   |
|          |        |         |             |             |                   |                |             | Resource allocation signaling method for D2D discovery                                                                   |
|          |        |         |             |             |                   |                |             | The enhanced B02 : 1 receiver via retransmission diversity                                                               |

|          |        |         |             |             |                   |               |             |                                                                                                            |
|----------|--------|---------|-------------|-------------|-------------------|---------------|-------------|------------------------------------------------------------------------------------------------------------|
| RM115200 | GB01   | POA     | 14 Nov 2011 | 14 Nov 2011 | GB1119623.2       | GB2495454     | 15 May 2013 | The enhanced 802.11 receiver via retransmission diversity                                                  |
| RM115200 | US01   | Filed   | 16 Nov 2011 | 14 Nov 2011 | US12/267 409      | US20130121323 | 16 May 2013 | The enhanced 802.11 receiver via retransmission diversity                                                  |
| RM115201 | Family | Filed   | 26 Aug 2011 | 25 Aug 2011 |                   |               |             | Method to speed up cell search in TD-SCDMA                                                                 |
| RM115201 | WO01   | Filed   | 26 Aug 2011 | 25 Aug 2011 | PCT/IB2011/01854  | WO2012030609  | 7 Mar 2013  | Method to speed up cell search in TD-SCDMA                                                                 |
| RM115202 | Family | Filed   | 10 Nov 2011 | 10 Nov 2011 |                   |               |             | An improved Method of Cell Search and Synchronization for Wireless Systems having Non-circular Statistics  |
| RM115202 | GB01   | Granted | 10 Nov 2011 | 10 Nov 2011 | GB1119637.0       | GB2490278     | 21 Nov 2012 | An improved Method of Cell Search and Synchronization for Wireless Systems having Non-circular Statistics  |
| RM115202 | US01   | Granted | 22 Nov 2011 | 10 Nov 2011 | US13/030 324      | US9385961     | 26 Feb 2013 | An improved Method of Cell Search and Synchronization for Wireless Systems having Non-circular Statistics  |
| RM115202 | US02   | Filed   | 22 Nov 2011 | 10 Nov 2011 | US12/777 366      | US20130165106 | 27 Jun 2013 | An improved Method of Cell Search and Synchronization for Wireless Systems having Non-circular Statistics  |
| RM115202 | WO01   | POA     | 15 Oct 2012 | 10 Nov 2011 | PCT/IB2011/002047 | WO2013068758  | 18 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                                                                         |
| RM115203 | WO01   | Filed   | 15 Aug 2011 | 15 Aug 2011 | PCT/CN2011/078427 | WO2013023354  | 21 Feb 2013 | UE assisted TA group configuration                                                                         |
| RM115204 | GB01   | POA     | 8 Dec 2011  | 8 Dec 2011  | GB1121337.2       | GB2497819     | 19 Jun 2013 | The enhanced fragmentation mode for 802.11 WLAN systems                                                    |
| RM115204 | US01   | Filed   | 9 Dec 2011  | 8 Dec 2011  | US13/059523       | US20130148940 | 13 Jun 2013 | The enhanced fragmentation mode for 802.11 WLAN systems                                                    |
| RM115205 | Family | Filed   | 28 Oct 2011 | 28 Oct 2011 |                   |               |             | LTE operation over TVWS in the presence of WLAN-based system                                               |
| RM115205 | GB01   | Filed   | 28 Oct 2011 | 28 Oct 2011 | GB1116708.5       | GB2495291     | 1 May 2013  | LTE operation over TVWS in the presence of WLAN-based system                                               |
| RM115205 | US01   | Filed   | 1 Nov 2011  | 28 Oct 2011 | US13/056354       | US20130107116 | 2 May 2013  | LTE operation over TVWS in the presence of WLAN-based system                                               |
| RM115206 | Family | Filed   | 14 Dec 2011 | 14 Dec 2011 |                   |               |             | Coexistence of LTE with WLAN in the shared band                                                            |
| RM115206 | GB01   | POA     | 14 Dec 2011 | 14 Dec 2011 | GB1121434.3       | GB2497556     | 18 Jun 2013 | Coexistence of LTE with WLAN in the shared band                                                            |
| RM115206 | US01   | Filed   | 15 Dec 2011 | 14 Dec 2011 | US13/027226       | US20130156019 | 20 Jun 2013 | Coexistence of LTE with WLAN in the shared band                                                            |
| RM115206 | WO01   | Filed   | 13 Dec 2012 | 14 Dec 2011 | PCT/IB2012/067272 | WO2013068367  | 20 Jun 2013 | Coexistence of LTE with WLAN in the shared band                                                            |
| RM115208 | Family | Filed   | 25 Nov 2011 | 25 Nov 2011 |                   |               |             | Channel and Radio Resource Grid Partition for Device-to-Device Communication in White Space Spectrum Bands |
| RM115208 | WO01   | Filed   | 25 Nov 2011 | 25 Nov 2011 | PCT/CN2011/082392 | WO2013075340  | 30 May 2013 | Channel and Radio Resource Grid Partition for Device-to-Device Communication in White Space Spectrum Bands |
| RM115209 | Family | Filed   | 27 Sep 2011 | 27 Sep 2011 |                   |               |             | Higher rank MIMO for distributed antenna arrays                                                            |
| RM115209 | GB01   | Granted | 27 Sep 2011 | 27 Sep 2011 | GB1115623.8       | GB2491423     | 5 Dec 2012  | Higher rank MIMO for distributed antenna arrays                                                            |
| RM115209 | GB02   | Filed   | 27 Sep 2011 | 27 Sep 2011 | GB12/1758.3       | GB2496168     | 3 Apr 2013  | Higher rank MIMO for distributed antenna arrays                                                            |
| RM115209 | US01   | Filed   | 27 Sep 2011 | 27 Sep 2011 | US13/046326       | US20130077707 | 28 Mar 2013 | Higher rank MIMO for distributed antenna arrays                                                            |
| RM115210 | Family | Filed   | 29 Nov 2011 | 29 Nov 2011 |                   |               |             | Method for selecting the access technology to use after an unsuccessful CSFB service request               |
| RM115210 | GB01   | Filed   | 29 Nov 2011 | 29 Nov 2011 | GB12/0544.0       | GB2497090     | 5 Jun 2013  | Method for selecting the access technology to use after an unsuccessful CSFB service request               |
| RM115210 | US01   | Filed   | 2 Dec 2011  | 29 Nov 2011 | US13/095562       | US20130138116 | 30 May 2013 | Method for selecting the access technology to use after an unsuccessful CSFB service request               |
| RM115210 | WO01   | Filed   | 22 Nov 2012 | 29 Nov 2011 | PCT/IB2012/056620 | WO2013060396  | 5 Jun 2013  | Method for selecting the access technology to use after an unsuccessful CSFB service request               |
| RM115211 | Family | Filed   | 12 Oct 2011 | 18 May 2011 | GB1117605.2       | GB2490976     | 21 Nov 2012 | Cost and Performance Optimized Adaptive Radio Platform                                                     |
| RM115211 | GB01   | Filed   | 12 Oct 2011 | 18 May 2011 | GB12/8425.4       | GB2480696     | 21 Nov 2012 | Cost and Performance Optimized Adaptive Radio Platform                                                     |
| RM115211 | GB02   | Granted | 12 Oct 2011 | 18 May 2011 | TW103117329       | TW2012049116  | 1 Dec 2012  | Cost and Performance Optimized Adaptive Radio Platform                                                     |
| RM115211 | TV01   | Filed   | 16 May 2012 | 16 May 2011 | US13/0271530      | US20120293266 | 22 Nov 2012 | Cost and Performance Optimized Adaptive Radio Platform                                                     |
| RM115211 | US01   | Granted | 13 Oct 2011 | 16 May 2011 | US13/0271530      | US20120293266 | 22 Nov 2012 | Cost and Performance Optimized Adaptive Radio Platform                                                     |
| RM115211 | WO01   | Filed   | 18 May 2012 | 16 May 2011 | PCT/IB2012/062488 | WO2012159946  | 22 Nov 2012 | Cost and Performance Optimized Adaptive Radio Platform                                                     |
| RM115212 | Family | Filed   | 12 Sep 2011 | 12 Sep 2011 |                   |               |             | Signaling method for joint controlled and non-controlled buffer status reporting                           |
| RM115212 | GB01   | Filed   | 12 Sep 2011 | 12 Sep 2011 | GB1115969.9       | GB2494633     | 20 Mar 2013 | Signaling method for joint controlled and non-controlled buffer status reporting                           |
| RM115212 | US01   | Filed   | 12 Sep 2011 | 12 Sep 2011 | US13/169909       | US20130064103 | 14 Mar 2013 | Signaling method for joint controlled and non-controlled buffer status reporting                           |
| RM115213 | Family | Filed   | 2 Sep 2011  | 2 Sep 2011  |                   |               |             | Signal Reusing LNA                                                                                         |
| RM115213 | GB01   | Granted | 2 Sep 2011  | 2 Sep 2011  | GB1115193.4       | GB2486615     | 20 Jun 2012 | Signal Reusing LNA                                                                                         |
| RM115213 | US01   | Granted | 2 Sep 2011  | 2 Sep 2011  | US13/028430       | US20130067350 | 7 Mar 2013  | Signal Reusing LNA                                                                                         |
| RM115213 | US02   | Granted | 20 Jun 2012 | 2 Sep 2011  | US13/028430       | US30130057346 | 7 Mar 2013  | Signal Reusing LNA                                                                                         |
| RM115214 | Family | Filed   | 18 Oct 2011 | 18 Oct 2011 |                   |               |             | An efficient data dissemination method for mobile sink in the wireless sensor networks                     |
| RM115214 | WO01   | Filed   | 18 Oct 2011 | 18 Oct 2011 | PCT/CN2011/083915 | WO2013055418  | 26 Apr 2013 | An efficient data dissemination method for mobile sink in the wireless sensor networks                     |

|          |        |         |             |             |                   |               |             |                                                                                                    |
|----------|--------|---------|-------------|-------------|-------------------|---------------|-------------|----------------------------------------------------------------------------------------------------|
| RM115215 | Family | Filed   | 25 Nov 2011 | 25 Nov 2011 | GB1120393.2       | GB2457081     | 5 Jun 2013  | Network and HW resource sharing in roaming and carrier aggregation between Core Band and Sub Bands |
| RM115215 | GB01   | Filed   | 25 Nov 2011 | 25 Nov 2011 | GB1120393.2       | US20130137475 | 30 May 2013 | Network and HW resource sharing in roaming and carrier aggregation between Core Band and Sub Bands |
| RM115215 | US01   | Filed   | 2 Dec 2011  | 25 Nov 2011 | US13/321006       |               |             | Network and HW resource sharing in roaming and carrier aggregation between Core Band and Sub Bands |
| RM115216 | Family | Filed   | 16 Aug 2011 | 16 Aug 2011 |                   |               |             | Method to distribute a common timing reference and activity times in MTC system                    |
| RM115216 | GB01   | POA     | 26 Mar 2012 | 16 Aug 2011 | GB1114059.3       | GB2463752     | 21 Mar 2012 | Method to distribute a common timing reference and activity times in MTC system                    |
| RM115216 | US01   | Filed   | 18 Aug 2011 | 16 Aug 2011 | US13/210516       | US20130044659 | 21 Feb 2013 | Method to distribute a common timing reference and activity times in MTC system                    |
| RM115216 | US02   | Granted | 22 Mar 2012 | 16 Aug 2011 | US13/217563       | US20130044661 | 21 Feb 2013 | Method to distribute a common timing reference and activity times in MTC system                    |
| RM115216 | Family | Filed   | 11 Nov 2011 | 11 Nov 2011 |                   | GB2497918     | 3 Jul 2013  | Methods for Discovery Function in Device-to-Device Communication                                   |
| RM115216 | GB01   | POA     | 11 Nov 2011 | 11 Nov 2011 | GB1116612.0       | US20130122893 | 16 May 2013 | Methods for Discovery Function in Device-to-Device Communication                                   |
| RM115216 | US01   | Filed   | 14 Nov 2011 | 11 Nov 2011 | US13/295292       |               |             | SPIModule parameters downloaded from a server to meet a communication device type approval         |
| RM115219 | Family | Filed   | 17 Nov 2011 | 17 Nov 2011 |                   |               |             | SPIModule parameters downloaded from a server to meet a communication device type approval         |
| RM115219 | GB01   | Filed   | 17 Nov 2011 | 17 Nov 2011 | GB1116685.0       | GB2496651     | 22 May 2013 | SPIModule parameters downloaded from a server to meet a communication device type approval         |
| RM115219 | US01   | Filed   | 21 Nov 2011 | 17 Nov 2011 | US13/300195       | US20130130634 | 23 May 2013 | SPIModule parameters downloaded from a server to meet a communication device type approval         |
| RM115220 | Family | Filed   | 18 Dec 2011 | 18 Dec 2011 |                   | GB2487745     | 26 Jun 2013 | EUTRAN Support for D2D Discovery Signal Verification                                               |
| RM115220 | GB01   | POA     | 19 Dec 2011 | 18 Dec 2011 | GB1121735.7       | US20130116701 | 20 Jun 2013 | EUTRAN Support for D2D Discovery Signal Verification                                               |
| RM115220 | US01   | Filed   | 20 Dec 2011 | 19 Dec 2011 | US13/330991       | WO2013083724  | 27 Jun 2013 | EUTRAN Support for D2D Discovery Signal Verification                                               |
| RM115220 | WO01   | Filed   | 12 Dec 2012 | 19 Dec 2011 | PCT/IB2012/057243 |               |             | Mechanism to update the CSG Cell Access Check upon PLMN Change at handover                         |
| 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 | 40777       | 22 Aug 2011 | GB114430.0        | GB2469291     | 26 Sep 2012 | Mechanism to update the CSG Cell Access Check upon PLMN Change at handover                         |
| RM115222 | US01   | Filed   | 22 Aug 2011 | 22 Aug 2011 | US13/210528       | US20130053033 | 28 Feb 2013 | Mechanism to update the CSG Cell Access Check upon PLMN Change at handover                         |
| RM115222 | US02   | Granted | 28 Jul 2012 | 22 Aug 2011 | US13/256484       | US20130053037 | 28 Feb 2013 | Mechanism to update the CSG Cell Access Check upon PLMN Change at handover                         |
| RM115222 | US03   | Granted | 23 Jan 2013 | 22 Aug 2011 | US13/748190       | US20130130652 | 23 May 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 |                   | WO2013020279  | 14 Feb 2013 | Efficient Way of Triggering Rank-2 Transmissions for CSI Reporting                                 |
| RM115223 | WO01   | POA     | 10 Aug 2011 | 10 Aug 2011 | PCT/CN2011/078206 |               |             | Efficient Way of Triggering Rank-2 Transmissions for CSI Reporting                                 |
| RM115226 | Family | Filed   | 3 Aug 2011  | 3 Aug 2011  |                   | GB2486840     | 12 Sep 2012 | Enhanced Interference Coordination for Paging                                                      |
| RM115226 | GB01   | POA     | 40991       | 3 Aug 2011  | GB1113392.4       | US20130034051 | 7 Feb 2013  | Enhanced Interference Coordination for Paging                                                      |
| RM115226 | US01   | Filed   | 3 Aug 2011  | 3 Aug 2011  | PCT/IB2012/053924 | WO2013018037  | 7 Feb 2013  | Enhanced Interference Coordination for Paging                                                      |
| RM115226 | WO01   | Filed   | 28 Oct 2011 | 28 Oct 2011 |                   | GB2495985     | 1 May 2013  | Multiple SIM ? mapping of SIMs to baseband capability                                              |
| RM115227 | GB01   | Filed   | 28 Oct 2011 | 28 Oct 2011 | GB1116881.4       | US20130110438 | 2 May 2013  | Multiple SIM ? mapping of SIMs to baseband capability                                              |
| RM115227 | US01   | Filed   | 28 Oct 2011 | 28 Oct 2011 | US13/268925       | WO2013061275  | 2 May 2013  | Multiple SIM ? mapping of SIMs to baseband capability                                              |
| RM115227 | US02   | Filed   | 28 Oct 2012 | 28 Oct 2011 | PCT/IB2012/055586 | GB2498338     | 29 May 2012 | Cellular Assisted Intelligent Transport System                                                     |
| RM115230 | Family | Filed   | 27 Sep 2011 | 27 Sep 2011 |                   | US20130075040 | 28 Mar 2013 | Cellular Assisted Intelligent Transport System                                                     |
| RM115230 | GB01   | Filed   | 27 Sep 2011 | 27 Sep 2011 | GB1115840.2       | WO2013046154  | 4 Apr 2013  | Cellular Assisted Intelligent Transport System                                                     |
| RM115230 | US01   | Filed   | 27 Sep 2011 | 27 Sep 2011 | PCT/IB2012/055167 | WO2013040752  | 28 Mar 2013 | Enhanced MAC padding for small packet transmission                                                 |
| RM115230 | WO01   | Filed   | 20 Sep 2011 | 20 Sep 2011 |                   | WO2013003915  | 14 Mar 2013 | Mechanisms to enable pre-scheduling in flexible TDD system                                         |
| RM115231 | Family | Filed   | 9 Sep 2011  | 9 Sep 2011  |                   | WO2013067636  | 16 May 2013 | Transmission format for D2D communication                                                          |
| RM115232 | Family | Filed   | 8 Nov 2011  | 8 Nov 2011  |                   | WO2013067636  |             | Transmission format for D2D communication                                                          |
| RM115234 | Family | Filed   | 8 Nov 2011  | 8 Nov 2011  |                   | WO2013067636  |             | Signaling reduction and triggering of offline MTC terminals                                        |
| RM115235 | Family | Filed   | 31 Aug 2011 | 31 Aug 2011 | PCT/CN2011/061833 | GB2466763     | 27 Jun 2012 | Signaling reduction and triggering of offline MTC terminals                                        |
| RM115235 | GB01   | Granted | 30 Mar 2012 | 31 Aug 2011 | GB1114986.1       | US20130044244 | 14 Aug 2012 | Signaling reduction and triggering of offline MTC terminals                                        |
| RM115235 | US01   | Granted | 31 Aug 2011 | 31 Aug 2011 | US13/222220       |               |             | Signaling reduction and triggering of offline MTC terminals                                        |

|          |            |       |             |             |                   |                 |             |                                                                                               |
|----------|------------|-------|-------------|-------------|-------------------|-----------------|-------------|-----------------------------------------------------------------------------------------------|
| RM115285 | WO20115285 | Filed | 29 Aug 2012 | 31 Aug 2011 | PCT/IB2011/083441 | WO2011300774    | 7 Mar 2013  | Signaling reduction and triggering of offline MTC terminals                                   |
| RM115286 | Family     | Filed | 13 Oct 2011 | 13 Oct 2011 | PCT/CN2011/083752 | WO20113003125   | 18 Apr 2013 | Signaling optimization for deploying LTE system in White Space.                               |
| RM115287 | WO20115287 | Filed | 13 Oct 2011 | 9 Nov 2011  |                   |                 |             | An effective method to enable simultaneous transmission of PRACH and PUCCH                    |
| RM115288 | Family     | Filed | 8 Nov 2011  | 9 Nov 2011  | PCT/CN2011/081998 | WO20113007695   | 16 May 2013 | An effective method to enable simultaneous transmission of PRACH and PUCCH                    |
| RM115289 | WO20115289 | Filed | 9 Nov 2011  | 9 Nov 2011  | PCT/CN2011/081998 | WO20113007695   | 16 May 2013 | Effective solution of handling PUCCH and PRACH collision                                      |
| RM115290 | Family     | Filed | 9 Nov 2011  | 9 Nov 2011  | PCT/CN2011/081998 | WO20113007695   | 16 May 2013 | Effective solution of handling PUCCH and PRACH collision                                      |
| RM115291 | WO20115291 | Filed | 15 Aug 2011 | 15 Aug 2011 | GB1114030.1       | US201130045771  | 21 Feb 2013 | Method of E-DCH power control for uplink inter-cell interference control                      |
| RM115292 | US01       | Filed | 15 Aug 2011 | 15 Aug 2011 | US13/210180       |                 |             | Method of E-DCH power control for uplink inter-cell interference control                      |
| RM115293 | Family     | Filed | 3 Nov 2011  | 3 Nov 2011  |                   |                 |             | An Efficient way of using Physical Control channel for small data transmission                |
| RM115294 | WO20115294 | Filed | 3 Nov 2011  | 3 Nov 2011  | PCT/CN2011/081720 | WO201130063750  | 10 May 2013 | An Efficient way of using Physical Control channel for small data transmission                |
| RM115295 | Family     | Filed | 15 Aug 2011 | 15 Aug 2011 |                   |                 |             | Methods of event triggered measurement reporting based uplink inter-cell interference control |
| RM115296 | WO20115296 | Filed | 21 Dec 2011 | 15 Aug 2011 | GB1114030.8       | GB2493725       | 20 Feb 2013 | Methods of event triggered measurement reporting based uplink inter-cell interference control |
| RM115297 | US01       | Filed | 15 Aug 2011 | 15 Aug 2011 | US13/206845       | US201130045593  | 21 Feb 2013 | Methods of event triggered measurement reporting based uplink inter-cell interference control |
| RM115298 | WO20115298 | Filed | 15 Aug 2011 | 15 Aug 2011 | PCT/IB2011/083412 | WO20113024442   | 21 Feb 2013 | Methods of event triggered measurement reporting based uplink inter-cell interference control |
| RM115299 | Family     | Filed | 16 Sep 2011 | 16 Sep 2011 |                   |                 |             | Efficient Enablement for Wireless Communication on License-Exempt Bands                       |
| RM115300 | GB01       | Filed | 21 Feb 2012 | 16 Sep 2011 | GB1116037.7       | GB2494692       | 20 Mar 2013 | Efficient Enablement for Wireless Communication on License-Exempt Bands                       |
| RM115301 | US01       | Filed | 16 Sep 2011 | 16 Sep 2011 | US13/204240       | US201130072108  | 21 Mar 2013 | Efficient Enablement for Wireless Communication on License-Exempt Bands                       |
| RM115302 | Family     | Filed | 17 Nov 2011 | 17 Nov 2011 |                   |                 |             | Reference signal design for downlink tracking in occupied shared band                         |
| RM115303 | WO20115303 | Filed | 17 Nov 2011 | 17 Nov 2011 | PCT/CN2011/082361 | WO20113011506   | 23 May 2013 | Reference signal design for downlink tracking in occupied shared band                         |
| RM115304 | Family     | Filed | 16 Aug 2011 | 16 Aug 2011 |                   |                 |             | Method of E-DCH resource suspension/release for uplink interference avoidance                 |
| RM115305 | GB01       | Filed | 15 Aug 2011 | 15 Aug 2011 | GB1114030.9       | GB2493724       | 20 Feb 2013 | Method of E-DCH resource suspension/release for uplink interference avoidance                 |
| RM115306 | US01       | Filed | 15 Aug 2011 | 15 Aug 2011 | US13/210201       | US201130045741  | 21 Feb 2013 | Method of E-DCH resource suspension/release for uplink interference avoidance                 |
| RM115307 | WO20115307 | Filed | 15 Aug 2011 | 15 Aug 2011 | PCT/IB2011/083413 | WO20113024443   | 21 Feb 2013 | Method of E-DCH resource suspension/release for uplink interference avoidance                 |
| RM115308 | Family     | Filed | 3 Nov 2011  | 3 Nov 2011  | GB1115004.8       | GB2493165       | 8 May 2013  | LTE Protocol Architecture for Intelligent Transport System                                    |
| RM115309 | GB01       | Filed | 4 Nov 2011  | 3 Nov 2011  | US12/289584       | US201130115954  | 9 May 2013  | LTE Protocol Architecture for Intelligent Transport System                                    |
| RM115310 | WO20115310 | Filed | 2 Nov 2012  | 3 Nov 2011  | PCT/IB2011/083412 | WO201130065022  | 10 May 2013 | LTE Protocol Architecture for Intelligent Transport System                                    |
| RM115311 | Family     | Filed | 15 Dec 2011 | 15 Dec 2011 |                   |                 |             | Optimizing UE operation in FACH-RACH or HS-FACH-RACH mode                                     |
| RM115312 | IN01       | Filed | 15 Dec 2011 | 15 Dec 2011 | IN3538/MU/2011    | IN03559/MU/2011 | 28 Jun 2013 | Optimizing UE operation in FACH-RACH or HS-FACH-RACH mode                                     |
| RM115313 | Family     | Filed | 15 Nov 2011 | 15 Nov 2011 |                   |                 |             | Carrier set based spectrum sharing adaptation method                                          |
| RM115314 | WO20115314 | Filed | 15 Nov 2011 | 15 Nov 2011 | PCT/CN2011/083227 | WO20113017488   | 22 May 2013 | Carrier set based spectrum sharing adaptation method                                          |
| RM115315 | Family     | Filed | 23 Dec 2011 | 23 Dec 2011 |                   |                 |             | A Novel Transparent D2D communication scheme in CA scenario                                   |
| RM115316 | WO20115316 | Filed | 23 Dec 2011 | 23 Dec 2011 | PCT/CN2011/084519 | WO20113091229   | 27 Jun 2013 | A Novel Transparent D2D communication scheme in CA scenario                                   |
| RM115317 | Family     | Filed | 2 Oct 2011  | 2 Oct 2011  |                   |                 |             | Discovery signal design for D2D operation and OTAC between eNBs                               |
| RM115318 | WO20115318 | Filed | 2 Oct 2011  | 2 Oct 2011  | PCT/CN2011/080511 | WO20113049559   | 11 Apr 2013 | Discovery signal design for D2D operation and OTAC between eNBs                               |
| RM115319 | Family     | Filed | 20 Oct 2011 | 20 Oct 2011 |                   |                 |             | Method for inter-cell cross link interference avoidance in flexible TDD systems               |
| RM115320 | WO20115320 | Filed | 30 Oct 2011 | 20 Oct 2011 | PCT/CN2011/081518 | WO20113056445   | 25 Apr 2013 | Method for inter-cell cross link interference avoidance in flexible TDD systems               |
| RM115321 | Family     | Filed | 15 Aug 2011 | 15 Aug 2011 |                   |                 |             | Coordination of DRX and eICIC                                                                 |
| RM115322 | US01       | Filed | 15 Aug 2011 | 15 Aug 2011 | US13/208624       | US201130045770  | 21 Feb 2013 | Coordination of DRX and eICIC                                                                 |
| RM115323 | WO20115323 | Filed | 15 Aug 2011 | 15 Aug 2011 | PCT/IB2011/083413 | WO20113024445   | 21 Feb 2013 | Coordination of DRX and eICIC                                                                 |
| RM115324 | Family     | Filed | 28 Oct 2011 | 28 Oct 2011 |                   |                 |             | Flexible Radio Link Measurement on unlicensed band                                            |
| RM115325 | WO20115325 | Filed | 28 Oct 2011 | 28 Oct 2011 | PCT/CN2011/081319 | WO20113059599   | 2 May 2013  | Flexible Radio Link Measurement on unlicensed band                                            |
| RM115326 | Family     | Filed | 28 Oct 2011 | 28 Oct 2011 |                   |                 |             | Effectively Pathloss offset calculation scheme for FDD-LTE system                             |
| RM115327 | WO20115327 | Filed | 28 Oct 2011 | 28 Oct 2011 | PCT/CN2011/081483 | WO20113060516   | 2 May 2013  | Effectively Pathloss offset calculation scheme for FDD-LTE system                             |

|          |        |         |             |             |                   |           |             |           |                                                                                                             |
|----------|--------|---------|-------------|-------------|-------------------|-----------|-------------|-----------|-------------------------------------------------------------------------------------------------------------|
| RM115257 | Family | Filed   | 15 Nov 2011 | 15 Nov 2011 | GB2486611         | US8412190 | 22 May 2013 | US8412190 | Method for fast return to original PLMN/RAT after CSFB call                                                 |
| RM115257 | GE01   | Filed   | 16 Nov 2011 | 16 Nov 2011 | GB1118706/4       |           |             |           | Method for fast return to original PLMN/RAT after CSFB call                                                 |
| RM115258 | Family | Filed   | 17 Nov 2011 | 15 Nov 2011 | US10239826        |           |             |           | Method for fast return to original PLMN/RAT after CSFB call                                                 |
| RM115258 | GB01   | Filed   | 12 Oct 2011 | 15 May 2011 | GB1117687/3       |           |             |           | Amplifier                                                                                                   |
| RM115258 | US01   | Filed   | 12 Oct 2011 | 19 May 2011 | US131271566       |           |             |           | Amplifier                                                                                                   |
| RM115258 | WO01   | Filed   | 12 Oct 2011 | 19 May 2011 | WO2012166947      |           |             |           | Amplifier                                                                                                   |
| RM115259 | Family | Filed   | 18 May 2011 | 1 Nov 2011  | PCT/IB2012/052300 |           |             |           | Adaptive A-MPR in inter-band carrier aggregation                                                            |
| RM115259 | GB01   | Filed   | 1 Nov 2011  | 1 Nov 2011  | GB1116847/1       |           |             |           | Adaptive A-MPR in inter-band carrier aggregation                                                            |
| RM115259 | US01   | Filed   | 30 Nov 2011 | 1 Nov 2011  | US201301159927    |           |             |           | Adaptive A-MPR in inter-band carrier aggregation                                                            |
| RM115259 | WO01   | Filed   | 30 Oct 2012 | 1 Nov 2011  | PCT/IB2012/056535 |           |             |           | Adaptive A-MPR in inter-band carrier aggregation                                                            |
| RM115260 | Family | Filed   | 25 Oct 2011 | 25 Oct 2011 | US2013064690      |           |             |           | Resilient forwarding mechanism in smart grid                                                                |
| RM115260 | WO01   | Filed   | 25 Oct 2011 | 25 Oct 2011 | PCT/CN2011/081263 |           |             |           | Resilient forwarding mechanism in smart grid                                                                |
| RM115261 | Family | Filed   | 29 Dec 2011 | 29 Dec 2011 |                   |           |             |           | Effective D2D resource hopping between licensed band and unlicensed band                                    |
| RM115261 | WO01   | Filed   | 29 Dec 2011 | 29 Dec 2011 | PCT/CN2011/084316 |           |             |           | Effective D2D resource hopping between licensed band and unlicensed band                                    |
| RM115262 | Family | Filed   | 12 Dec 2011 | 12 Dec 2011 | WO2013007144      |           |             |           | Effective D2D resource hopping between licensed band and unlicensed band                                    |
| RM115262 | WO01   | Filed   | 12 Dec 2011 | 12 Dec 2011 | PCT/CN2011/083826 |           |             |           | TX/RX pattern determination for OTAC in LTE-A System                                                        |
| RM115263 | Family | Filed   | 12 Dec 2011 | 19 May 2011 | WO2013086672      |           |             |           | TX/RX pattern determination for OTAC in LTE-A System                                                        |
| RM115263 | GB01   | Filed   | 12 Oct 2011 | 19 May 2011 | GB1117603/8       |           |             |           | Amplifier                                                                                                   |
| RM115263 | GB02   | Filed   | 12 Oct 2011 | 19 May 2011 | GB1207237/7       |           |             |           | Amplifier                                                                                                   |
| RM115263 | US01   | Filed   | 12 Oct 2011 | 19 May 2011 | US131271705       |           |             |           | Amplifier                                                                                                   |
| RM115263 | US02   | Filed   | 24 Jul 2012 | 19 May 2011 | US20120239259     |           |             |           | Amplifier                                                                                                   |
| RM115264 | Family | Filed   | 1 Dec 2011  | 1 Dec 2011  | WO2013078563      |           |             |           | Resource sharing for D2D in unlicensed band                                                                 |
| RM115264 | WO01   | Filed   | 1 Dec 2011  | 1 Dec 2011  | PCT/CN2011/083310 |           |             |           | Resource sharing for D2D in unlicensed band                                                                 |
| RM115265 | Family | Filed   | 23 Nov 2011 | 23 Nov 2011 | WO2013075294      |           |             |           | Novel Fixed-device assisted OTAC                                                                            |
| RM115265 | WO01   | Filed   | 23 Nov 2011 | 23 Nov 2011 | PCT/CN2011/083281 |           |             |           | Novel Fixed-device assisted OTAC                                                                            |
| RM115266 | Family | Filed   | 30 Oct 2011 | 20 Oct 2011 | WO2013075294      |           |             |           | Synthesizer locking time improvement                                                                        |
| RM115266 | GB01   | Closed  | 20 Oct 2011 | 20 Oct 2011 | GB1118128/6       |           |             |           | Synthesizer locking time improvement                                                                        |
| RM115266 | GB02   | Filed   | 12 Oct 2012 | 20 Oct 2011 | GB1218281/0       |           |             |           | Synthesizer locking time improvement                                                                        |
| RM115266 | US01   | Filed   | 20 Oct 2011 | 20 Oct 2011 | US131271735/0     |           |             |           | Synthesizer locking time improvement                                                                        |
| RM115266 | WO01   | Filed   | 18 Oct 2012 | 20 Oct 2011 | PCT/IB2012/085897 |           |             |           | Synthesizer locking time improvement                                                                        |
| RM115266 | Family | Filed   | 24 Oct 2011 | 24 Oct 2011 | WO2013051931      |           |             |           | Synthesizer locking time improvement                                                                        |
| RM115268 | Family | Filed   | 24 Oct 2011 | 24 Oct 2011 | WO2013059578      |           |             |           | Cooperative way for DL-UL TDD configuration determination                                                   |
| RM115268 | WO01   | Filed   | 24 Oct 2011 | 24 Oct 2011 | PCT/CN2011/081174 |           |             |           | Cooperative way for DL-UL TDD configuration determination                                                   |
| RM115269 | Family | Filed   | 16 Dec 2011 | 16 Dec 2011 | GB2487589         |           |             |           | On Resource Allocation of D2D Specific Signals in Future LTE Networks                                       |
| RM115269 | GB01   | Filed   | 16 Dec 2011 | 16 Dec 2011 | GB1121711/4       |           |             |           | On Resource Allocation of D2D Specific Signals in Future LTE Networks                                       |
| RM115269 | US01   | Filed   | 16 Dec 2011 | 16 Dec 2011 | US131295821       |           |             |           | On Resource Allocation of D2D Specific Signals in Future LTE Networks                                       |
| RM115270 | Family | Filed   | 27 Sep 2011 | 27 Sep 2011 | US20130155952     |           |             |           | New network registration method for devices supporting eCall and PSAP                                       |
| RM115270 | GB01   | Granted | 27 Sep 2011 | 27 Sep 2011 | GB2486518         |           |             |           | New network registration method for devices supporting eCall and PSAP                                       |
| RM115270 | US01   | Filed   | 27 Sep 2011 | 27 Sep 2011 | US20130075941     |           |             |           | New network registration method for devices supporting eCall and PSAP                                       |
| RM115270 | WO01   | Filed   | 26 Sep 2012 | 27 Sep 2011 | WO2013048124      |           |             |           | 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   | Filed   | 27 Dec 2011 | 27 Dec 2011 | PCT/IB2012/085104 |           |             |           | Efficient multipath delay estimation and associated path search procedure for mobile communication terminal |
| RM115272 | Family | Filed   | 27 Dec 2011 | 27 Dec 2011 | WO2013065581      |           |             |           | Triggering CSI Report via Downlink Grant                                                                    |
| RM115272 | WO01   | Filed   | 27 Dec 2011 | 27 Dec 2011 | PCT/CN2011/083318 |           |             |           | Triggering CSI Report via Downlink Grant                                                                    |
| RM115272 | WO01   | Filed   | 4 Nov 2011  | 4 Nov 2011  | PCT/CN2011/083822 |           |             |           | Methods of smart inter-frequency band mobility                                                              |
| RM115274 | Family | Filed   | 27 Sep 2011 | 27 Sep 2011 | WO2013063802      |           |             |           | Methods of smart inter-frequency band mobility                                                              |
| RM115274 | GB01   | Filed   | 27 Sep 2011 | 27 Sep 2011 | GB1116642/3       |           |             |           | Methods of smart inter-frequency band mobility                                                              |
| RM115274 | US01   | Closed  | 27 Sep 2011 | 27 Sep 2011 | US20130078289     |           |             |           | Methods of smart inter-frequency band mobility                                                              |
| RM115274 | US02   | Granted | 7 May 2012  | 27 Sep 2011 | US131246286       |           |             |           | Methods of smart inter-frequency band mobility                                                              |
| RM115274 | US03   | Filed   | 25 Apr 2013 | 27 Sep 2011 | US20130079012     |           |             |           | Methods of smart inter-frequency band mobility                                                              |
| RM115274 | WO02   | Filed   | 25 Sep 2012 | 27 Sep 2011 | WO2013065403      |           |             |           | 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 | GB2485271         |           |             |           | Method for Access Barring and Access Delay Scaling during RAN Overload                                      |

|          |        |         |             |             |                   |               |             |                                                                               |
|----------|--------|---------|-------------|-------------|-------------------|---------------|-------------|-------------------------------------------------------------------------------|
| RM115275 | US01   | Filed   | 27 Sep 2011 | 27 Sep 2011 | US130246358       | US20130078996 | 28 Mar 2013 | Method for Access Barring and Access Delay Scaling during RAN Overload        |
| RM115276 | Family | Filed   | 9 Mar 2012  | 9 Mar 2012  | US130246358       | US20130078996 | 28 Mar 2013 | Receiver analog baseband filter with transferred impedance stage              |
| RM115276 | GB01   | Granted | 9 Mar 2012  | 9 Mar 2012  | GB2481223         | GB2481223     | 7 Aug 2013  | Receiver analog baseband filter with transferred impedance stage              |
| RM115276 | US01   | Filed   | 26 Feb 2013 | 9 Mar 2012  | US130246358       | US20130078996 | 12 Sep 2013 | Receiver analog baseband filter with transferred impedance stage              |
| RM115277 | Family | Filed   | 5 Jan 2012  | 5 Jan 2012  | US130246358       | US20130078996 |             | The centralized control of the coexistence of multiple LTE networks/operators |
| RM115277 | GB01   | Filed   | 5 Jan 2012  | 5 Jan 2012  | GB1206126.9       | GB2489824     | 7 Aug 2013  | The centralized control of the coexistence of multiple LTE networks/operators |
| RM115277 | US01   | Filed   | 9 Jan 2012  | 9 Jan 2012  | US130246358       | US20130078996 | 11 Jul 2013 | The centralized control of the coexistence of multiple LTE networks/operators |
| RM115278 | Family | Filed   | 9 Jan 2012  | 9 Jan 2012  | US130246358       | US20130078996 | 10 Jul 2013 | On Resource Allocation of Downlink D2D Specific Control Channels              |
| RM115278 | GB01   | Filed   | 9 Jan 2012  | 9 Jan 2012  | GB1206126.2       | GB2489821     | 10 Jul 2013 | On Resource Allocation of Downlink D2D Specific Control Channels              |
| RM115278 | US01   | Filed   | 10 Jan 2012 | 9 Jan 2012  | US130246358       | US20130078996 | 11 Jul 2013 | On Resource Allocation of Downlink D2D Specific Control Channels              |
| RM115282 | Family | Filed   | 27 Dec 2011 | 27 Dec 2011 | PCT/IB2011/003317 | WO2013083590  | 4 Jul 2013  | An efficient and robust method to compute a WCDMA delay profile               |
| RM115282 | WO01   | Filed   | 27 Dec 2011 | 27 Dec 2011 | PCT/IB2011/003317 | WO2013083590  | 4 Jul 2013  | An efficient and robust method to compute a WCDMA delay profile               |
| RM115283 | Family | Filed   | 25 Nov 2011 | 25 Nov 2011 | GB1206126.3       | GB2489822     | 5 Jun 2013  | Use profiling for automating feature control on battery limited devices       |
| RM115283 | GB01   | Filed   | 25 Nov 2011 | 25 Nov 2011 | GB1206126.3       | GB2489822     | 5 Jun 2013  | Use profiling for automating feature control on battery limited devices       |
| RM115283 | US01   | Filed   | 25 Nov 2011 | 25 Nov 2011 | US130246358       | US20130078996 | 30 May 2013 | Use profiling for automating feature control on battery limited devices       |
| RM115284 | Family | Filed   | 3 Oct 2011  | 3 Oct 2011  | GB1206126.4       | GB2489823     | 26 Dec 2012 | Method of prioritizing RATs for measurement                                   |
| RM115284 | GB01   | Filed   | 3 Oct 2011  | 3 Oct 2011  | GB1206126.4       | GB2489823     | 26 Dec 2012 | Method of prioritizing RATs for measurement                                   |
| RM115284 | US01   | Filed   | 3 Oct 2011  | 3 Oct 2011  | US130246358       | US20130078996 | 4 Apr 2013  | Method of prioritizing RATs for measurement                                   |
| RM115284 | US02   | Filed   | 15 Jan 2012 | 3 Oct 2011  | US130246358       | US20130078996 | 4 Apr 2013  | Method of prioritizing RATs for measurement                                   |
| RM115284 | US03   | Filed   | 30 Aug 2013 | 3 Oct 2011  | US130246358       | US20130078996 | 4 Apr 2013  | Method of prioritizing RATs for measurement                                   |
| RM115284 | WO01   | Filed   | 3 Oct 2011  | 3 Oct 2011  | PCT/IB2011/003317 | WO2013083590  | 11 Apr 2013 | Method of prioritizing RATs for measurement                                   |
| RM115285 | Family | Filed   | 3 Oct 2011  | 3 Oct 2011  | GB1206126.5       | GB2489824     | 8 May 2013  | Method of signaling hidden common E-DOCH resources                            |
| RM115285 | GB01   | Filed   | 3 Oct 2011  | 3 Oct 2011  | GB1206126.5       | GB2489824     | 8 May 2013  | Method of signaling hidden common E-DOCH resources                            |
| RM115285 | US01   | Filed   | 3 Oct 2011  | 3 Oct 2011  | US130246358       | US20130078996 | 4 Apr 2013  | Method of signaling hidden common E-DOCH resources                            |
| RM115286 | Family | Filed   | 3 Oct 2011  | 3 Oct 2011  | GB1206126.6       | GB2489825     | 17 Apr 2013 | Method of switching common E-DOCH TT1                                         |
| RM115286 | GB01   | Filed   | 3 Oct 2011  | 3 Oct 2011  | GB1206126.6       | GB2489825     | 17 Apr 2013 | Method of switching common E-DOCH TT1                                         |
| RM115286 | US01   | Filed   | 3 Oct 2011  | 3 Oct 2011  | US130246358       | US20130078996 | 4 Apr 2013  | Method of switching common E-DOCH TT1                                         |
| RM115287 | Family | Filed   | 26 Sep 2012 | 26 Sep 2012 | PCT/IB2011/003317 | WO2013083590  |             | Resampler rate adaptation using blocker detection                             |
| RM115287 | WO01   | Filed   | 26 Sep 2012 | 26 Sep 2012 | PCT/IB2011/003317 | WO2013083590  |             | Resampler rate adaptation using blocker detection                             |
| RM115287 | Family | Filed   | 5 Apr 2012  | 5 Apr 2012  | GB1206126.7       | GB2489826     |             | LTE device dynamically access the ISM band with WLAN channel traffic          |
| RM115287 | GB01   | Filed   | 5 Apr 2012  | 5 Apr 2012  | GB1206126.7       | GB2489826     |             | LTE device dynamically access the ISM band with WLAN channel traffic          |
| RM115287 | US01   | Filed   | 5 Apr 2012  | 5 Apr 2012  | US130246358       | US20130078996 |             | LTE device dynamically access the ISM band with WLAN channel traffic          |
| RM115287 | US01   | Filed   | 21 Dec 2011 | 21 Dec 2011 | US130246358       | US20130078996 |             | Statistics assisting                                                          |
| RM115287 | GB01   | Filed   | 21 Dec 2011 | 21 Dec 2011 | GB1206126.8       | GB2489827     | 26 Jun 2013 | Statistics assisting                                                          |
| RM115287 | US01   | Filed   | 21 Dec 2011 | 21 Dec 2011 | US130246358       | US20130078996 | 26 Jun 2013 | Statistics assisting                                                          |
| RM115287 | US01   | Filed   | 21 Dec 2011 | 21 Dec 2011 | US130246358       | US20130078996 | 27 Jun 2013 | Statistics assisting                                                          |
| RM115287 | Family | Filed   | 17 Oct 2011 | 17 Oct 2011 | PCT/IB2011/003317 | WO2013083590  |             | Flexible spectrum usage for proximity communication                           |
| RM115287 | GB01   | Filed   | 17 Oct 2011 | 17 Oct 2011 | PCT/IB2011/003317 | WO2013083590  |             | Flexible spectrum usage for proximity communication                           |
| RM115287 | US01   | Filed   | 17 Oct 2011 | 17 Oct 2011 | US130246358       | US20130078996 |             | Flexible spectrum usage for proximity communication                           |
| RM115287 | US01   | Filed   | 17 Oct 2011 | 17 Oct 2011 | US130246358       | US20130078996 |             | Flexible spectrum usage for proximity communication                           |
| RM115287 | Family | Filed   | 8 Oct 2012  | 8 Oct 2012  | GB1206126.9       | GB2489828     | 29 May 2013 | Network sharing in GERAN                                                      |
| RM115287 | GB01   | Filed   | 8 Oct 2012  | 8 Oct 2012  | GB1206126.9       | GB2489828     | 29 May 2013 | Network sharing in GERAN                                                      |
| RM115287 | US01   | Filed   | 8 Oct 2012  | 8 Oct 2012  | US130246358       | US20130078996 | 26 Jun 2013 | Network sharing in GERAN                                                      |
| RM115287 | US01   | Filed   | 8 Oct 2012  | 8 Oct 2012  | US130246358       | US20130078996 | 26 Jun 2013 | Network sharing in GERAN                                                      |
| RM115287 | Family | Filed   | 17 Oct 2011 | 17 Oct 2011 | IN029033MU2011    | WO2013083590  | 19 Apr 2013 | Network sharing in GERAN                                                      |
| RM115287 | GB01   | Filed   | 17 Oct 2011 | 17 Oct 2011 | IN029033MU2011    | WO2013083590  | 19 Apr 2013 | Network sharing in GERAN                                                      |
| RM115287 | US01   | Filed   | 17 Oct 2011 | 17 Oct 2011 | US130246358       | US20130078996 | 12 Sep 2012 | Network sharing in GERAN                                                      |
| RM115287 | US01   | Filed   | 17 Oct 2011 | 17 Oct 2011 | US130246358       | US20130078996 | 12 Sep 2012 | Network sharing in GERAN                                                      |
| RM115287 | Family | Filed   | 31 Oct 2011 | 31 Oct 2011 | PCT/IB2011/003317 | WO2013083590  | 35 Apr 2013 | Network sharing in GERAN                                                      |
| RM115287 | GB01   | Filed   | 31 Oct 2011 | 31 Oct 2011 | PCT/IB2011/003317 | WO2013083590  | 35 Apr 2013 | Network sharing in GERAN                                                      |
| RM115287 | US01   | Filed   | 31 Oct 2011 | 31 Oct 2011 | US130246358       | US20130078996 | 10 May 2013 | In-device interference autonomous denial indication design                    |
| RM115287 | US01   | Filed   | 31 Oct 2011 | 31 Oct 2011 | US130246358       | US20130078996 | 10 May 2013 | In-device interference autonomous denial indication design                    |
| RM115287 | Family | Filed   | 30 Sep 2011 | 30 Sep 2011 | GB1206126.10      | GB2489829     | 3 Apr 2013  | Methods of too frequent RAB establishment avoidance                           |
| RM115287 | GB01   | Filed   | 30 Sep 2011 | 30 Sep 2011 | GB1206126.10      | GB2489829     | 3 Apr 2013  | Methods of too frequent RAB establishment avoidance                           |
| RM115287 | US01   | Filed   | 30 Sep 2011 | 30 Sep 2011 | US130246358       | US20130078996 | 4 Apr 2013  | Methods of too frequent RAB establishment avoidance                           |
| RM115287 | US01   | Filed   | 30 Sep 2011 | 30 Sep 2011 | US130246358       | US20130078996 | 4 Apr 2013  | Methods of too frequent RAB establishment avoidance                           |
| RM115287 | Family | Filed   | 9 Mar 2012  | 9 Mar 2012  | GB1206126.11      | GB2489830     |             | Baseband transferred impedance notch filter with variable number of phases    |
| RM115287 | GB01   | Filed   | 9 Mar 2012  | 9 Mar 2012  | GB1206126.11      | GB2489830     | 11 Sep 2013 | Baseband transferred impedance notch filter with variable number of phases    |
| RM115287 | US01   | Filed   | 9 Mar 2012  | 9 Mar 2012  | US130246358       | US20130078996 |             | Baseband transferred impedance notch filter with variable number of phases    |
| RM115287 | US01   | Filed   | 9 Mar 2012  | 9 Mar 2012  | US130246358       | US20130078996 |             | Baseband transferred impedance notch filter with variable number of phases    |
| RM115287 | Family | Filed   | 20 Dec 2011 | 20 Dec 2011 | GB1206126.12      | GB2489831     | 15 Jul 2012 | Multiple SIM ? Single modem resource sharing                                  |
| RM115287 | GB01   | Filed   | 20 Dec 2011 | 20 Dec 2011 | GB1206126.12      | GB2489831     | 15 Jul 2012 | Multiple SIM ? Single modem resource sharing                                  |
| RM115287 | US01   | Filed   | 20 Dec 2011 | 20 Dec 2011 | US130246358       | US20130078996 | 20 Jun 2013 | Multiple SIM ? Single modem resource sharing                                  |
| RM115287 | US01   | Filed   | 20 Dec 2011 | 20 Dec 2011 | US130246358       | US20130078996 | 20 Jun 2013 | Multiple SIM ? Single modem resource sharing                                  |
| RM115287 | Family | Filed   | 15 Dec 2012 | 15 Dec 2012 | PCT/IB2011/003317 | WO2013083590  | 27 Jun 2013 | Multiple SIM ? Single modem resource sharing                                  |

|          |        |             |             |                    |               |             |                                                                                            |
|----------|--------|-------------|-------------|--------------------|---------------|-------------|--------------------------------------------------------------------------------------------|
| RM115300 | Family | 7 Dec 2011  | 7 Dec 2011  | PCT/IN2011/063860  | WO2013056494  | 25 Apr 2013 | Signaling to avoid inter-cell cross link interference in TDD                               |
| RM115301 | WO01   | 7 Dec 2011  | 7 Dec 2011  | 40941              |               |             | Signaling to avoid inter-cell cross link interference in TDD                               |
| RM115302 | Family | 2 Feb 2012  | 2 Feb 2012  | GB1201833.3        | GB2496003     | 7 Aug 2013  | Means to handle over-the-air (OTA) modem baseband firmware updates                         |
| RM115303 | GB01   | 31 Jan 2013 | 31 Jan 2013 |                    | WO2013114317  | 8 Aug 2013  | Means to handle over-the-air (OTA) modem baseband firmware updates                         |
| RM115304 | Family | 16 Dec 2011 | 16 Dec 2011 | PCT/IN2011/060835  |               |             | Resource utilization method for future LTE networks                                        |
| RM115305 | GB01   | 16 Dec 2011 | 16 Dec 2011 | GB121866.2         | GB2497734     | 26 Jun 2013 | Resource utilization method for future LTE networks                                        |
| RM115306 | Family | 16 Dec 2011 | 16 Dec 2011 | US13/031325        | US20130167569 | 20 Jun 2013 | Resource utilization method for future LTE networks                                        |
| RM115307 | US01   | 16 Dec 2011 | 16 Dec 2011 | PCT/IN2011/060763  | WO2013068033  |             | A mechanism to reduce signalling for MTC devices                                           |
| RM115308 | Family | 4 Nov 2011  | 4 Nov 2011  | GB1119057.2        | GB2496179     | 9 May 2013  | A mechanism to reduce signalling for MTC devices                                           |
| RM115309 | GB01   | 4 Nov 2011  | 4 Nov 2011  | US13/031329        | US20130155923 | 9 May 2013  | A mechanism to reduce signalling for MTC devices                                           |
| RM115310 | Family | 4 Nov 2011  | 4 Nov 2011  | PCT/IN2011/0606127 | WO2013065027  | 10 May 2013 | The coexistence of LTE and WLAN on WLAN band through Network Management level coordination |
| RM115311 | US01   | 28 Jan 2012 | 28 Jan 2012 |                    |               |             | The coexistence of LTE and WLAN on WLAN band through Network Management level coordination |
| RM115312 | Family | 26 Jan 2012 | 26 Jan 2012 | GB1201268.3        | GB2498749     | 31 Jul 2013 | The coexistence of LTE and WLAN on WLAN band through Network Management level coordination |
| RM115313 | US01   | 26 Jan 2012 | 26 Jan 2012 |                    |               |             | A distributed sensing and coexisting mechanism for LTE D2D pairs on shared ISM band        |
| RM115314 | Family | 18 Jan 2012 | 18 Jan 2012 |                    |               |             | A distributed sensing and coexisting mechanism for LTE D2D pairs on shared ISM band        |
| RM115315 | WO01   | 18 Jan 2012 | 18 Jan 2012 | PCT/IN2011/060521  | WO2013107804  | 28 Jul 2013 | Dedicated pilot spreading code allocation for HSDPA MIMO system                            |
| RM115316 | Family | 14 Oct 2011 | 14 Oct 2011 | US619474.1         |               |             | Dedicated pilot spreading code allocation for HSDPA MIMO system                            |
| RM115317 | US01   | 17 Nov 2011 | 17 Nov 2011 | US1119857.6        | GB2496502     | 15 May 2013 | A radio receiver for the reception of non-contiguous carriers                              |
| RM115318 | Family | 17 Nov 2011 | 17 Nov 2011 | GB1119857.6        | US20130153924 | 23 May 2013 | A radio receiver for the reception of non-contiguous carriers                              |
| RM115319 | GB01   | 17 Nov 2011 | 17 Nov 2011 | US12/028980        | US20130130637 | 23 May 2013 | A radio receiver for the reception of non-contiguous carriers                              |
| RM115320 | US01   | 17 Nov 2011 | 17 Nov 2011 | US13/077865        | WO2013072865  | 23 May 2013 | A radio receiver for the reception of non-contiguous carriers                              |
| RM115321 | Family | 16 Apr 2012 | 16 Apr 2012 |                    |               |             | Recognizing hotspot-node duplication and replacement in WSN by Cellular Uses               |
| RM115322 | WO01   | 16 Apr 2012 | 16 Apr 2012 | PCT/IN2011/060498  |               |             | Recognizing hotspot-node duplication and replacement in WSN by Cellular Uses               |
| RM115323 | Family | 17 Nov 2011 | 17 Nov 2011 | GB1119857.1        | GB2496648     | 22 May 2013 | On D2D discovery signal design                                                             |
| RM115324 | GB01   | 30 Nov 2011 | 30 Nov 2011 | US13/07805         | US20130130727 | 22 May 2013 | On D2D discovery signal design                                                             |
| RM115325 | US01   | 16 Nov 2012 | 16 Nov 2012 | PCT/IN2011/060481  | WO2013072860  | 27 May 2013 | On D2D discovery signal design                                                             |
| RM115326 | Family | 10 Nov 2011 | 10 Nov 2011 | GB1119439.9        | GB2493574     | 13 Feb 2013 | CSG ID assisted load and admission control                                                 |
| RM115327 | GB01   | 11 Nov 2011 | 11 Nov 2011 | US13/023612        | US20130129001 | 15 May 2013 | CSG ID assisted load and admission control                                                 |
| RM115328 | US01   | 12 Nov 2012 | 12 Nov 2012 | PCT/IN2011/060368  | WO2013069000  | 16 May 2013 | CSG ID assisted load and admission control                                                 |
| RM115329 | Family | 4 Nov 2011  | 4 Nov 2011  |                    |               |             | LTE synchronization mechanisms on un-licensed band                                         |
| RM115330 | WO01   | 4 Nov 2011  | 4 Nov 2011  | PCT/IN2011/060183  | WO2013065308  | 15 May 2013 | LTE synchronization mechanisms on un-licensed band                                         |
| RM115331 | Family | 19 Dec 2011 | 19 Dec 2011 |                    |               |             | Device to device discovery Scheme using Cellular Oriented Mechanisms And signaling         |
| RM115332 | GB01   | 19 Dec 2011 | 19 Dec 2011 | GB121533.7         | GB2497762     | 26 Jun 2013 | Device to device discovery Scheme using Cellular Oriented Mechanisms And signaling         |
| RM115333 | US01   | 22 Dec 2011 | 22 Dec 2011 | US13/034523        | US20130157870 | 20 Jun 2013 | Device to device discovery Scheme using Cellular Oriented Mechanisms And signaling         |
| RM115334 | Family | 21 Dec 2011 | 21 Dec 2011 | GB122002.5         | GB2497780     | 26 Jun 2013 | Sec Sensing Configuration                                                                  |
| RM115335 | GB01   | 22 Dec 2011 | 22 Dec 2011 | US13/035988        | US20130163447 | 27 Jun 2013 | Sec Sensing Configuration                                                                  |
| RM115336 | US01   | 9 Jan 2012  | 9 Jan 2012  | GB1200228.1        | GB2498212     | 10 Jul 2013 | TDD system TX to RX local leakage isolation arrangements                                   |
| RM115337 | Family | 9 Jan 2012  | 9 Jan 2012  | US13/023612        | GB2498216     | 2 Jun 2013  | TDD system TX to RX local leakage isolation arrangements                                   |
| RM115338 | GB01   | 9 Jan 2012  | 9 Jan 2012  | US13/023612        | US20130176913 | 11 Jul 2013 | TDD system TX to RX local leakage isolation arrangements                                   |
| RM115339 | US01   | 10 Jan 2012 | 10 Jan 2012 | US13/023612        | US20130206635 | 16 Aug 2013 | TDD system TX to RX local leakage isolation arrangements                                   |
| RM115340 | Family | 27 Mar 2013 | 27 Mar 2013 | PCT/IN2011/060157  | WO2013135020  | 18 Jul 2013 | TDD system TX to RX local leakage isolation arrangements                                   |
| RM115341 | GB01   | 17 Nov 2011 | 17 Nov 2011 | GB1119858.4        | GB2492495     | 2 Jan 2013  | A radio receiver for the reception of non-contiguous carriers                              |
| RM115342 | US01   | 17 Nov 2011 | 17 Nov 2011 | US13/023612        |               |             | A radio receiver for the reception of non-contiguous carriers                              |
| RM115343 | Family | 5 Sep 2012  | 5 Sep 2012  |                    |               |             | A radio receiver for the reception of non-contiguous carriers                              |

|          |        |         |             |             |                    |               |             |           |             |                                                                                              |
|----------|--------|---------|-------------|-------------|--------------------|---------------|-------------|-----------|-------------|----------------------------------------------------------------------------------------------|
| RM115316 | US01   | Granted | 15 Nov 2011 | 17 Nov 2011 | US13/020004        | US20130130638 | 23 May 2013 | US8442473 | 14 May 2013 | A radio receiver for the reception of non-contiguous carriers                                |
| RM115316 | US02   | Granted | 15 Nov 2012 | 17 Nov 2011 | US13/067776        | US20130130635 | 23 May 2013 | US9483647 | 9 Jul 2013  | A radio receiver for the reception of non-contiguous carriers                                |
| RM115317 | Family | Filed   | 20 Feb 2012 | 20 Feb 2012 | PCT/IB2012/055440  | WO2013072964  | 23 May 2013 |           |             | Transmission Power Management in Shared Band Operation                                       |
| RM115317 | GB01   | Filed   | 20 Feb 2012 | 20 Feb 2012 | GB1212186.7        | GB2499445     | 21 Aug 2013 |           |             | Transmission Power Management in Shared Band Operation                                       |
| RM115318 | Family | Filed   | 14 Nov 2011 | 14 Nov 2011 | GB1119818.3        | GB2496451     | 15 May 2013 |           |             | Separating CSI measurement trigger from the CSI reporting trigger                            |
| RM115318 | US01   | Filed   | 14 Nov 2011 | 14 Nov 2011 | US13/029508        | US20130121174 | 15 May 2013 |           |             | Separating CSI measurement trigger from the CSI reporting trigger                            |
| RM115319 | WO01   | Filed   | 12 Nov 2012 | 14 Nov 2011 | PCT/IB2012/056353  | WO2013072837  | 23 May 2013 |           |             | Separating CSI measurement trigger from the CSI reporting trigger                            |
| RM115320 | Family | Filed   | 40918       | 11 Jan 2012 |                    |               |             |           |             | Bandwidth optimization of shared memory interface between Modem and APE                      |
| RM115320 | GB01   | Filed   | 11 Jan 2012 | 11 Jan 2012 | GB1200400.8        | GB2498359     | 17 Jul 2013 |           |             | Bandwidth optimization of shared memory interface between Modem and APE                      |
| RM115320 | US01   | Filed   | 17 Jan 2012 | 11 Jan 2012 | US13/025186        | US20130179527 | 11 Jul 2013 |           |             | Bandwidth optimization of shared memory interface between Modem and APE                      |
| RM115327 | Family | Filed   | 15 Dec 2011 | 15 Dec 2011 |                    |               |             |           |             | Central controlled sharing mechanism for coexistence on unlicensed bands                     |
| RM115327 | WO01   | POA     | 15 Dec 2011 | 15 Dec 2011 | PCT/CN2011/002110  | WO2013083959  | 20 Jun 2013 |           |             | Central controlled sharing mechanism for coexistence on unlicensed bands                     |
| RM115328 | Family | Filed   | 8 Dec 2011  | 9 Dec 2011  |                    |               |             |           |             | Discontinuous Operation in LTE on Shared Band                                                |
| RM115328 | WO01   | Filed   | 9 Dec 2011  | 9 Dec 2011  | PCT/CN2011/083746  | WO2013082501  | 9 Jun 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/CN2011/082862  | WO2013073514  | 30 May 2013 |           |             | Fast PUCCH relocation for LTE in unlicensed band                                             |
| RM115333 | Family | Filed   | 4 Nov 2011  | 4 Nov 2011  |                    |               |             |           |             | UE-assisted in-device interference handling                                                  |
| RM115333 | GB01   | Filed   | 4 Nov 2011  | 4 Nov 2011  | GB1208053.9        | GB2496221     | 8 May 2013  |           |             | UE-assisted in-device interference handling                                                  |
| RM115333 | US01   | Closed  | 4 Nov 2011  | 4 Nov 2011  | US8165573.3        |               |             |           |             | UE-assisted in-device interference handling                                                  |
| 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 | GB1203670.5        | GB2491222     | 28 Nov 2012 | GB2491222 | 10 Jul 2013 | METHOD AND APPARATUS FOR OBTAINING CHANNEL QUALITY INDICATOR (CQI) IN A COMMUNICATION SYSTEM |
| RM115334 | US01   | Granted | 14 Nov 2012 | 29 Feb 2012 | US13/0676524       |               |             | US8432886 | 30 Apr 2013 | METHOD AND APPARATUS FOR OBTAINING CHANNEL QUALITY INDICATOR (CQI) IN A COMMUNICATION SYSTEM |
| RM115335 | GB01   | Filed   | 18 Jan 2012 | 29 Feb 2012 | GB1207773.0        | GB2496531     | 24 Jul 2013 |           |             | Providing Provision Information via Direct Communication Interface                           |
| RM115335 | US01   | Filed   | 18 Jan 2012 | 18 Jan 2012 | US13/057740        | US20130163832 | 18 Jul 2013 |           |             | Providing Provision Information via Direct Communication Interface                           |
| RM115335 | WO01   | Filed   | 24 Jan 2012 | 18 Jan 2012 | PCT/IB2012/050489  | WO2013108232  | 26 Jul 2013 |           |             | Providing Provision Information via Direct Communication Interface                           |
| RM115336 | Family | Filed   | 26 Jan 2012 | 26 Jan 2012 |                    |               |             |           |             | An access method for dynamic contention window adaptation in CSMA type channels              |
| RM115336 | GB01   | Filed   | 26 Jan 2012 | 26 Jan 2012 | GB1201216.7        | GB2498930     | 7 Aug 2013  |           |             | An access method for dynamic contention window adaptation in CSMA type channels              |
| RM115338 | US01   | Filed   | 26 Jan 2012 | 26 Jan 2012 | US13/058174        | US20130183479 | 25 Jul 2013 |           |             | An access method for dynamic contention window adaptation in CSMA type channels              |
| RM115339 | Family | Filed   | 5 Mar 2012  | 8 Mar 2012  |                    |               |             |           |             | PDCCH Reliability Improvement to Handle DL CC Broken in Unlicensed Band                      |
| RM115339 | US01   | Closed  | 5 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  |                    |               |             |           |             | 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/CN2011/0831884 | WO2013067677  | 16 May 2013 |           |             | Enhanced SR transmission to improve resource efficiency for MTC operation                    |
| RM115341 | GB01   | POA     | 13 Jan 2012 | 13 Jan 2012 | GB1200562.5        | GB2498706     | 31 Jul 2013 |           |             | TXOP adaptation for fairness provision                                                       |
| RM115341 | US01   | Filed   | 13 Jan 2012 | 13 Jan 2012 | US13/051527        | US20130182610 | 18 Jul 2013 |           |             | TXOP adaptation for fairness provision                                                       |
| RM115343 | Family | Filed   | 5 Dec 2011  | 8 Dec 2011  |                    |               |             |           |             | Improved resource allocation for LTE                                                         |
| RM115343 | WO01   | Filed   | 8 Dec 2011  | 8 Dec 2011  | PCT/CN2011/083709  | 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 to Unlicensed Band                         |
| RM115344 | WO01   | POA     | 7 Nov 2011  | 7 Nov 2011  | PCT/CN2011/0841882 | WO2013087875  | 16 May 2013 |           |             | New UL Transmissions and UL Grant Designs for LTE to Unlicensed Band                         |
| RM115345 | GB01   | Filed   | 4 Nov 2011  | 4 Nov 2011  | GB119092.3         | GB2496178     | 8 May 2013  | GB2496178 | 9 Oct 2013  | CoMP scheme selection codebook                                                               |
| RM115345 | US01   | Filed   | 4 Nov 2011  | 4 Nov 2011  | US13/029147        | US2013014427  | 9 May 2013  |           |             | CoMP scheme selection codebook                                                               |



|          |        |         |             |             |               |             |                                                                                                   |
|----------|--------|---------|-------------|-------------|---------------|-------------|---------------------------------------------------------------------------------------------------|
| RM115346 | Family | Filed   | 21 Mar 2012 | 21 Mar 2012 | GB2469113     | 19 Sep 2012 | Cell carrier activation and deactivation method for Vehicular Communications                      |
| RM115346 | GB01   | POA     | 21 Mar 2012 | 21 Mar 2012 | GB2469113     | 19 Sep 2012 | Cell carrier activation and deactivation method for Vehicular Communications                      |
| RM115346 | US01   | Filed   | 27 Mar 2012 | 21 Mar 2012 | US13/4431375  |             | Cell carrier activation and deactivation method for Vehicular Communications                      |
| RM115347 | Family | Filed   | 14 Dec 2011 | 14 Dec 2011 | GB2467555     | 19 Jun 2013 | Algorithms to reduce power consumption in communication devices                                   |
| RM115347 | GB01   | Filed   | 14 Dec 2011 | 14 Dec 2011 | GB2467555     | 19 Jun 2013 | Algorithms to reduce power consumption in communication devices                                   |
| RM115347 | US01   | Filed   | 14 Dec 2011 | 14 Dec 2011 | US13/327289   | 20 Jun 2013 | Algorithms to reduce power consumption in communication devices                                   |
| RM115347 | WO01   | Filed   | 14 Dec 2011 | 14 Dec 2011 | WO2013089402  | 20 Jun 2013 | Algorithms to reduce power consumption in communication devices                                   |
| RM115348 | Family | Filed   | 19 Dec 2011 | 19 Dec 2011 | GB2467740     | 26 Jun 2013 | Signal and procedure to improve device discovery and D2D operation                                |
| RM115348 | GB01   | POA     | 19 Dec 2011 | 19 Dec 2011 | GB2467740     | 26 Jun 2013 | Signal and procedure to improve device discovery and D2D operation                                |
| RM115348 | US01   | Filed   | 19 Dec 2011 | 19 Dec 2011 | US13/334486   | 26 Jun 2013 | Signal and procedure to improve device discovery and D2D operation                                |
| RM115349 | Family | Filed   | 30 Dec 2011 | 30 Dec 2011 | US20130157656 |             | Apparatus and method of sensor-based high-mobility beamforming                                    |
| RM115349 | WO01   | POA     | 30 Dec 2011 | 30 Dec 2011 | US20130157656 |             | Apparatus and method of sensor-based high-mobility beamforming                                    |
| RM115351 | Family | Filed   | 29 Nov 2011 | 29 Nov 2011 | WO2013097187  | 4 Jul 2013  | Deactivating existing/active bearer context(s) for emergency bearer establishment                 |
| RM115351 | GB01   | Granted | 29 Nov 2011 | 29 Nov 2011 | GB2469545     | 3 Oct 2012  | Deactivating existing/active bearer context(s) for emergency bearer establishment                 |
| RM115351 | US01   | Granted | 29 Nov 2011 | 29 Nov 2011 | US20130136114 | 30 May 2013 | Deactivating existing/active bearer context(s) for emergency bearer establishment                 |
| RM115351 | US02   | Filed   | 29 Nov 2011 | 29 Nov 2011 | US13/6222602  |             | Deactivating existing/active bearer context(s) for emergency bearer establishment                 |
| RM115351 | WO01   | Filed   | 27 Nov 2012 | 27 Nov 2012 | WO2013083125  | 6 Jun 2013  | Deactivating existing/active bearer context(s) for emergency bearer establishment                 |
| RM115353 | Family | Filed   | 22 Dec 2011 | 22 Dec 2011 | GB2491218     | 28 Nov 2012 | LTE OTDOA measurement accuracy improvement                                                        |
| RM115353 | GB01   | Granted | 22 Dec 2011 | 22 Dec 2011 | GB2491218     | 28 Nov 2012 | LTE OTDOA measurement accuracy improvement                                                        |
| RM115353 | US01   | Filed   | 22 Dec 2011 | 22 Dec 2011 | US13/343329   | 27 Jun 2013 | LTE OTDOA measurement accuracy improvement                                                        |
| RM115353 | WO01   | Filed   | 22 Dec 2011 | 22 Dec 2011 | WO2013093993  | 27 Jun 2013 | LTE OTDOA measurement accuracy improvement                                                        |
| RM115356 | Family | Filed   | 7 Mar 2012  | 7 Mar 2012  | WO2013131258  |             | Fast DL CC broken determination and recovery for LTE to unlicensed band                           |
| RM115356 | WO01   | Filed   | 7 Mar 2012  | 7 Mar 2012  | 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 | GB2498925     | 29 May 2013 | Integration concept of radio modem, transceiver and antenna radiators into automotive environment |
| RM115357 | GB02   | Filed   | 24 Jan 2012 | 24 Nov 2011 | US20130136196 | 30 May 2013 | Integration concept of radio modem, transceiver and antenna radiators into automotive environment |
| RM115357 | US01   | Filed   | 26 Jan 2012 | 24 Nov 2011 | US20130136196 | 30 May 2013 | Integration concept of radio modem, transceiver and antenna radiators into automotive environment |
| RM115357 | WO01   | Filed   | 22 Nov 2012 | 24 Nov 2011 | WO2013078679  | 30 May 2013 | Integration concept of radio modem, transceiver and antenna radiators into automotive environment |
| RM115358 | Family | Filed   | 20 Dec 2011 | 20 Dec 2011 | WO2013091135  | 27 Jun 2013 | A Novel Gateway UE Selection Method for the Missing Sensor Nodes in Sensor Networks               |
| RM115358 | WO01   | POA     | 20 Dec 2011 | 20 Dec 2011 | WO2013091135  | 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  | GB2493224     | 30 Jan 2013 | Controlling UE assumption of interference                                                         |
| RM115359 | GB01   | Granted | 7 Nov 2011  | 7 Nov 2011  | GB2493224     | 30 Jan 2013 | Controlling UE assumption of interference                                                         |
| RM115359 | US01   | Filed   | 9 Nov 2011  | 7 Nov 2011  | US20130114430 | 5 May 2013  | Controlling UE assumption of interference                                                         |
| RM115359 | WO01   | Filed   | 6 Nov 2012  | 7 Nov 2011  | WO2013068924  | 15 May 2013 | Controlling UE assumption of interference                                                         |
| RM115360 | Family | Filed   | 16 Dec 2011 | 16 Dec 2011 | GB2497579     |             | On Changing Radio Capability Temporarily or Periodically in Future LTE Systems                    |
| RM115360 | GB01   | Filed   | 16 Dec 2011 | 16 Dec 2011 | GB2497579     | 19 Jun 2013 | On Changing Radio Capability Temporarily or Periodically in Future LTE Systems                    |
| RM115360 | GB02   | POA     | 27 Mar 2012 | 16 Dec 2011 | GB2497604     | 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 | WO2013083588  | 20 Jun 2013 | On Changing Radio Capability Temporarily or Periodically in Future LTE Systems                    |
| RM115361 | Family | Filed   | 7 Nov 2011  | 7 Nov 2011  | GB2498198     | 8 May 2013  | Efficient signaling of CRS shifts and PDCCH region mismatch in CoMP                               |
| RM115361 | GB01   | POA     | 7 Nov 2011  | 7 Nov 2011  | GB2498198     | 8 May 2013  | Efficient signaling of CRS shifts and PDCCH region mismatch in CoMP                               |

|          |        |         |             |             |                   |               |             |                                                                                                         |
|----------|--------|---------|-------------|-------------|-------------------|---------------|-------------|---------------------------------------------------------------------------------------------------------|
| RM115361 | US01   | Filed   | 9 Nov 2011  | 7 Nov 2011  | US135952367       | US20130114431 | 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                                      |
| RM115362 | GB01   | Filed   | 7 Nov 2011  | 7 Nov 2011  | GB11161633.3      | GB2496183     | 8 May 2013  | fallback to another resource                                                                            |
| RM115362 | GB02   | Filed   | 18 Aug 2013 | 7 Nov 2011  | GB1314851.9       | GB2496188     | 8 May 2013  | Method of common E-DCH resource error detection and recovery using                                      |
| RM115362 | US01   | Filed   | 8 Nov 2011  | 7 Nov 2011  | US132091634       | US20130114451 | 9 May 2013  | Method of common E-DCH resource error detection and recovery using                                      |
| RM115362 | WO01   | Filed   | 8 Nov 2011  | 7 Nov 2011  | PCT/IB2012/056192 | WO2013086822  | 16 May 2013 | Method of common E-DCH resource error detection and recovery using                                      |
| 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  | GB11161633.5      | GB2487267     | 18 Jul 2012 | Method of overriding common E-DCH resource selection                                                    |
| RM115363 | US01   | Granted | 8 Nov 2011  | 7 Nov 2011  | US132091759       | US20130114418 | 9 May 2013  | Method of overriding common E-DCH resource selection                                                    |
| RM115363 | WO01   | Filed   | 7 Nov 2012  | 7 Nov 2011  | PCT/IB2012/056226 | WO2013086940  | 15 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 | GB1203451.9       | GB2498258     | 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 |
| RM115365 | WO01   | Filed   | 6 Nov 2011  | 6 Nov 2011  | PCT/IB2011/081542 | WO2013063812  | 10 May 2013 | Flexible utilization of blind detection between cell specific search space and UE specific search space |
| RM115366 | Family | Filed   | 7 Nov 2011  | 7 Nov 2011  |                   |               |             | Methods of mobility procedures for HSDPA multiframe data transmissions                                  |
| RM115366 | GB01   | POA     | 7 Nov 2011  | 7 Nov 2011  | GB1116211.9       | GB2496204     | 8 May 2013  | Methods of mobility procedures for HSDPA multiframe data transmissions                                  |
| RM115366 | US01   | Filed   | 8 Nov 2011  | 7 Nov 2011  | US132091599       | US20130114419 | 9 May 2013  | Methods of mobility procedures for HSDPA multiframe data transmissions                                  |
| RM115366 | WO01   | Filed   | 4 Dec 2011  | 7 Nov 2011  | PCT/IB2012/056183 | WO2013086923  | 18 May 2013 | Methods of mobility procedures for HSDPA multiframe data transmissions                                  |
| RM115367 | Family | Filed   | 27 Jan 2012 | 27 Jan 2012 |                   |               |             | Resolving UE-RS port ambiguities for E-PDCCH                                                            |
| RM115367 | GB01   | Filed   | 27 Jan 2012 | 27 Jan 2012 | GB1203378.3       | GB2498767     | 31 Jul 2013 | Resolving UE-RS port ambiguities for E-PDCCH                                                            |
| RM115367 | US01   | Filed   | 27 Jan 2012 | 27 Jan 2012 | US131631220       | US20130195275 | 1 Aug 2013  | Resolving UE-RS port ambiguities for E-PDCCH                                                            |
| RM115367 | WO01   | Filed   | 24 Jan 2013 | 27 Jan 2012 | PCT/IB2013/050628 | WO2013111092  | 1 Aug 2013  | Resolving UE-RS port ambiguities for E-PDCCH                                                            |
| RM115368 | Family | Filed   | 7 Nov 2011  | 7 Nov 2011  |                   |               |             | HS-SCCH order based HSDPA MIMO CQI report configuration                                                 |
| RM115368 | GB01   | POA     | 7 Nov 2011  | 7 Nov 2011  | GB1116204.4       | GB2496203     | 8 May 2013  | HS-SCCH order based HSDPA MIMO CQI report configuration                                                 |
| RM115368 | US01   | Granted | 8 Nov 2011  | 7 Nov 2011  | US132091653       | US20130115945 | 9 May 2013  | HS-SCCH order based HSDPA MIMO CQI report configuration                                                 |
| RM115368 | US02   | Granted | 4 Mar 2013  | 7 Nov 2011  | US1320916206      | US20130175945 | 11 Jul 2013 | HS-SCCH order based HSDPA MIMO CQI report configuration                                                 |
| RM115368 | Family | Filed   | 4 Nov 2011  | 4 Nov 2011  |                   |               |             | Method and apparatus for unnecessary retransmission avoidance                                           |
| RM115369 | GB01   | POA     | 4 Nov 2011  | 4 Nov 2011  | GB1116056.8       | GB2496171     | 8 May 2013  | Method and apparatus for unnecessary retransmission avoidance                                           |
| RM115369 | US01   | Filed   | 4 Nov 2011  | 4 Nov 2011  | US13209239        | US20130114748 | 9 May 2013  | Method and apparatus for unnecessary retransmission avoidance                                           |
| RM115370 | Family | Filed   | 10 Feb 2012 | 10 Feb 2012 |                   |               |             | High throughput and area efficient bit processing architecture for HS-FDSCH                             |
| RM115370 | IN01   | Filed   | 10 Feb 2012 | 10 Feb 2012 | IN384/2011/081542 | IN00384MU2012 | 16 Aug 2013 | High throughput and area efficient bit processing architecture for HS-FDSCH                             |
| RM115371 | Family | Filed   | 14 Aug 2012 | 14 Aug 2012 |                   |               |             | Transport channel processing in the downlink                                                            |
| RM115371 | GB01   | Filed   | 14 Aug 2012 | 14 Aug 2012 | GB1214513.2       |               |             | Transport channel processing in the downlink                                                            |
| RM115371 | US01   | Filed   | 14 Aug 2012 | 14 Aug 2012 | US13066326        |               |             | Transport channel processing in the downlink                                                            |
| RM115372 | Family | Filed   | 4 Nov 2011  | 4 Nov 2011  |                   |               |             | Direct RF to Digital Converter and receiver                                                             |
| RM115372 | WO01   | Filed   | 4 Nov 2011  | 4 Nov 2011  | PCT/IB2011/081832 | WO2013086937  | 10 Jun 2013 | Direct RF to Digital Converter and receiver                                                             |
| RM115373 | GB01   | POA     | 14 Nov 2011 | 14 Nov 2011 | GB1116688.8       | GB2496458     | 15 May 2013 | Direct RF to Digital Converter and receiver                                                             |
| RM115373 | US01   | Filed   | 14 Nov 2011 | 14 Nov 2011 | US132093810       | US20130121312 | 16 May 2013 | Direct RF to Digital Converter and receiver                                                             |
| RM115374 | Family | Filed   | 18 Jan 2012 | 18 Jan 2012 |                   |               |             | HARQ Determination for Half Duplex Mode TDD UE with inter-band CA                                       |
| RM115374 | GB01   | POA     | 18 Jan 2012 | 18 Jan 2012 | GB1200661.5       | GB2498639     | 24 Jul 2013 | HARQ Determination for Half Duplex Mode TDD UE with inter-band CA                                       |
| RM115374 | US01   | Filed   | 25 Jan 2012 | 18 Jan 2012 | US132093758       | US20130164024 | 18 Jul 2013 | HARQ Determination for Half Duplex Mode TDD UE with inter-band CA                                       |
| RM115375 | Family | Filed   | 21 Mar 2012 | 21 Mar 2012 |                   |               |             | Enhancements to LTE CSI feedback reporting modes                                                        |
| RM115375 | GB01   | POA     | 21 Mar 2012 | 21 Mar 2012 | GB1204908.6       |               |             | Enhancements to LTE CSI feedback reporting modes                                                        |
| RM115375 | US01   | Filed   | 27 Mar 2012 | 21 Mar 2012 | US1315431323      |               |             | Enhancements to LTE CSI feedback reporting modes                                                        |
| RM115375 | WO01   | Filed   | 21 Mar 2013 | 21 Mar 2012 | PCT/IB2013/052262 |               |             | Asymmetric D2D communication                                                                            |
| RM115376 | Family | Filed   | 20 Jan 2012 | 20 Jan 2012 |                   |               |             | Asymmetric D2D communication                                                                            |
| RM115376 | GB01   | Filed   | 20 Jan 2012 | 20 Jan 2012 |                   |               |             | Asymmetric D2D communication                                                                            |
| RM115376 | GB01   | Filed   | 20 Jan 2012 | 20 Jan 2012 | GB1200971.9       | GB2498561     | 24 Jul 2013 | Asymmetric D2D communication                                                                            |

|          |        |         |             |               |             |                                                                                                          |
|----------|--------|---------|-------------|---------------|-------------|----------------------------------------------------------------------------------------------------------|
| RM115376 | US01   | Filed   | 1 Feb 2012  | US20130188536 | 25 Jul 2013 | On Utilizing Full Duplex on Partial Frequency Domain on The Operating Bandwidth                          |
| RM115376 | WO01   | Filed   | 20 Jan 2012 | WO2013108231  | 25 Jul 2013 | On Utilizing Full Duplex on Partial Frequency Domain on The Operating Bandwidth                          |
| RM115377 | Family | Filed   | 20 Jan 2012 |               |             | Multi component carrier aggregation CA reception arrangement                                             |
| RM115377 | GB01   | Filed   | 16 Mar 2012 | GB2491430     | 5 Dec 2012  | Multi component carrier aggregation CA reception arrangement                                             |
| RM115377 | US01   | Granted | 8 Nov 2012  | WO2013136205  | 19 Sep 2013 | Multi component carrier aggregation CA reception arrangement                                             |
| RM115377 | WO01   | POA     | 16 Mar 2012 | WO2013136205  |             | Multi component carrier aggregation CA reception arrangement                                             |
| RM115378 | Family | Filed   | 6 Feb 2012  |               |             | Control design to support different bandwidth MTC                                                        |
| RM115378 | WO01   | Filed   | 6 Feb 2012  | WO2013115973  | 15 Aug 2013 | Control design to support different bandwidth MTC                                                        |
| RM115379 | Family | Filed   | 7 Nov 2011  |               |             | Dynamic methods for supporting a large number of terminals                                               |
| RM115379 | GB01   | POA     | 7 Nov 2011  | GB2496384     | 15 May 2013 | Dynamic methods for supporting a large number of terminals                                               |
| RM115379 | GB02   | Filed   | 7 Nov 2011  | US20130115692 | 9 May 2013  | Dynamic methods for supporting a large number of terminals                                               |
| RM115379 | US01   | Filed   | 10 Nov 2011 | WO2013069925  | 15 May 2013 | Dynamic methods for supporting a large number of terminals                                               |
| RM115379 | WO01   | POA     | 8 Nov 2012  | GB2498773     | 31 Jul 2013 | On Scheduled Listen-Before-Talk System in Shared Bands                                                   |
| RM115380 | GB01   | Filed   | 27 Jan 2012 | WO2013111103  | 1 Aug 2013  | On Scheduled Listen-Before-Talk System in Shared Bands                                                   |
| RM115381 | Family | Filed   | 27 Jan 2012 |               |             | Hardware assisted interrupt handling (Kauno)                                                             |
| RM115381 | GB01   | Filed   | 23 Dec 2011 | GB2487968     | 3 Jul 2013  | Hardware assisted interrupt handling (Kauno)                                                             |
| RM115382 | Family | Filed   | 23 Dec 2011 | US20130165794 | 27 Jun 2013 | Hardware assisted interrupt handling (Kauno)                                                             |
| RM115382 | US01   | Filed   | 20 Jan 2012 | GB2498575     | 24 Jul 2013 | On D2D Discovery Resource Allocation                                                                     |
| RM115382 | GB01   | Filed   | 20 Jan 2012 | US20130165946 | 24 Jul 2013 | On D2D Discovery Resource Allocation                                                                     |
| RM115382 | US01   | Filed   | 1 Feb 2012  | WO2013108219  | 25 Jul 2013 | On D2D Discovery Resource Allocation                                                                     |
| RM115382 | WO01   | Filed   | 20 Jan 2012 | GB2495205     | 9 May 2013  | Method for controlling reporting of CQI hypothesis in CoMP                                               |
| RM115383 | GB01   | Filed   | 7 Nov 2011  | US20130114428 | 9 May 2013  | Method for controlling reporting of CQI hypothesis in CoMP                                               |
| RM115383 | US01   | Filed   | 8 Nov 2011  | GB2495549     | 24 Jul 2013 | Enhancement for Random Access Procedure                                                                  |
| RM115384 | Family | Filed   | 19 Jan 2012 | GB2495927     | 7 Aug 2013  | Enhancement for Random Access Procedure                                                                  |
| RM115384 | GB01   | Filed   | 19 Jan 2012 |               |             | Methods for Random Access Procedure                                                                      |
| RM115385 | Family | Filed   | 19 Jan 2012 |               |             | P2P Traffic offloading to D2D                                                                            |
| RM115385 | GB01   | Filed   | 20 Dec 2011 | GB2495212     | 8 May 2013  | P2P Traffic offloading to D2D                                                                            |
| RM115386 | GB01   | Filed   | 20 Dec 2011 | US20130159407 | 20 Jun 2013 | P2P Traffic offloading to D2D                                                                            |
| RM115386 | US01   | Filed   | 23 Dec 2011 | GB2495411     | 21 Aug 2013 | Network assisted D2D Discovery                                                                           |
| RM115387 | Family | Filed   | 15 Feb 2012 |               |             | Network assisted D2D Discovery                                                                           |
| RM115387 | GB01   | Filed   | 15 Feb 2012 |               |             | Scheduling and automatic user group classification for semi-full-duplex LTE system                       |
| RM115388 | Family | Filed   | 21 Dec 2011 |               |             | Scheduling and automatic user group classification for semi-full-duplex LTE system                       |
| RM115388 | WO01   | POA     | 21 Dec 2011 | WO2013081187  | 27 Jun 2013 | Back-off optimization for performance improvements and contention reduction under a large number of STAs |
| RM115389 | Family | Filed   | 14 Mar 2012 |               |             | Back-off optimization for performance improvements and contention reduction under a large number of STAs |
| RM115389 | GB01   | Filed   | 14 Mar 2012 |               |             | Back-off optimization for performance improvements and contention reduction under a large number of STAs |
| RM115389 | WO01   | Filed   | 14 Mar 2012 | WO2013136165  | 19 Sep 2013 | Back-off optimization for performance improvements and contention reduction under a large number of STAs |
| RM115390 | Family | Filed   | 6 Jan 2012  |               |             | Shared E-PDCCH format indication for various bandwidth-capable devices                                   |
| RM115390 | WO01   | Filed   | 6 Jan 2012  | WO2013102308  | 11 Jul 2013 | Shared E-PDCCH format indication for various bandwidth-capable devices                                   |
| RM115391 | Family | Filed   | 9 Mar 2012  |               |             | Receiver analog baseband filter with transferred impedance stage                                         |
| RM115391 | GB01   | Filed   | 9 Mar 2012  | GB2500087     | 11 Sep 2013 | Receiver analog baseband filter with transferred impedance stage                                         |
| RM115391 | US01   | Closed  | 9 Mar 2012  |               |             | Receiver analog baseband filter with transferred impedance stage                                         |
| RM115392 | Family | Filed   | 21 Jan 2012 |               |             | SDMA-Based Duty Cycles and efficient signaling for Low-Cost Machine Type Communications                  |
| RM115392 | WO01   | POA     | 21 Jan 2012 | WO2013107058  | 25 Jul 2013 | SDMA-Based Duty Cycles and efficient signaling for Low-Cost Machine Type Communications                  |
| RM115394 | Family | Filed   | 22 Dec 2011 |               |             | LTE OTDOA UE assisted position accuracy improvements                                                     |
| RM115394 | GB01   | Filed   | 22 Dec 2011 | GB2497802     | 26 Jun 2013 | LTE OTDOA UE assisted position accuracy improvements                                                     |
| RM115394 | US01   | Filed   | 23 Dec 2011 | US20130183451 | 27 Jun 2013 | LTE OTDOA UE assisted position accuracy improvements                                                     |
| RM115394 | WO01   | Filed   | 22 Dec 2011 | WO2013059387  | 27 Jun 2013 | LTE OTDOA UE assisted position accuracy improvements                                                     |
| RM115396 | Family | Filed   | 22 Jun 2012 |               |             | Periodic CQI during Discontinuous Reception                                                              |
| RM115396 | GB01   | Granted | 22 Jun 2012 | GB2494469     | 13 Mar 2013 | Periodic CQI during Discontinuous Reception                                                              |
| RM115397 | Family | Filed   | 11 Jan 2012 |               |             | E-PDCCH design for low bandwidth MTC                                                                     |

|          |        |       |             |             |                    |                |             |                                                                                                      |
|----------|--------|-------|-------------|-------------|--------------------|----------------|-------------|------------------------------------------------------------------------------------------------------|
| RM115597 | WO/01  | Filed | 11 Jan 2012 | 11 Jan 2012 | PCT/CN2012/0070236 | WO2013/104119  | 18 Jul 2013 | E-POCH design for low bandwidth MTC                                                                  |
| RM115398 | Family | Filed | 16 Apr 2012 | 16 Apr 2012 |                    |                |             | Distributed Neighbor Discovery between LTE Unlicensed Offloading Clusters for Interference Avoidance |
| RM115395 | WO/01  | Filed | 18 Apr 2012 | 18 Apr 2012 | PCT/CN2012/0074185 |                | 8 Aug 2013  | Distributed Neighbor Discovery between LTE Unlicensed Offloading Clusters for Interference Avoidance |
| RM115400 | WO/01  | Filed | 30 Jan 2012 | 30 Jan 2012 | PCT/CN2012/0070772 | WO2013/131443  |             | UE-assisted enhancement of DRX method for in-Device Coexistence                                      |
| RM115401 | WO/01  | Filed | 16 Nov 2011 | 16 Nov 2011 | GB11197773A        | GB2496827      | 22 May 2013 | UE-assisted enhancement of DRX method for in-Device Coexistence                                      |
| RM115401 | US/01  | Filed | 16 Nov 2011 | 16 Nov 2011 | US13/300179        | US2013/0121241 | 16 May 2013 | Indication of Selected PLMN in a Network Sharing environment                                         |
| RM115403 | WO/01  | Filed | 23 Jan 2012 | 23 Jan 2012 | GB12105159         | GB2496583      | 24 Jul 2012 | Indication of Selected PLMN in a Network Sharing environment                                         |
| RM115403 | US/01  | Filed | 23 Jan 2012 | 23 Jan 2012 | US13/364486        | US2013/0186495 | 25 Jul 2013 | Application-oriented DRX enhancement                                                                 |
| RM115403 | WO/01  | Filed | 23 Jan 2013 | 23 Jan 2013 | PCT/IB2013/005569  | WO2013/11060   | 1 Aug 2013  | Application-oriented DRX enhancement                                                                 |
| RM115405 | WO/01  | Filed | 11 Jan 2012 | 11 Jan 2012 | PCT/CN2012/0070232 | WO2013/104118  | 19 Jul 2013 | Application-oriented DRX enhancement                                                                 |
| RM115405 | WO/01  | Filed | 5 Feb 2012  | 5 Feb 2012  | GB12007063         | WO2013/16998   | 15 Aug 2013 | RACH enhancement to support low cost MTC UEs with narrow bandwidth                                   |
| RM115407 | WO/01  | Filed | 16 Jan 2012 | 16 Jan 2012 | PCT/CN2012/0070663 | WO2013/16998   | 15 Aug 2013 | New way to determine WiFi coverage and UL PL in WS                                                   |
| RM115407 | US/01  | Filed | 16 Jan 2012 | 16 Jan 2012 | GB1200633A         | GB2496395      | 17 Jul 2013 | New way to determine WiFi coverage and UL PL in WS                                                   |
| RM115408 | WO/01  | Filed | 16 Jan 2012 | 16 Jan 2012 | US13/362584        | US2013/0163963 | 18 Jul 2013 | Method for D2D Discovery Signal Utilization                                                          |
| RM115408 | WO/01  | Filed | 24 Feb 2012 | 24 Feb 2012 | PCT/CN2012/0071536 | WO2013/123674  | 29 Aug 2013 | Method for D2D Discovery Signal Utilization                                                          |
| RM115409 | WO/01  | Filed | 2 Feb 2012  | 2 Feb 2012  | PCT/CN2012/0070839 | WO2013/131361  | 8 Aug 2013  | Relayed UL transmission to eNB for a device in D2D mode                                              |
| RM115410 | WO/01  | Filed | 29 Feb 2012 | 29 Feb 2012 | PCT/CN2012/0071794 | WO2013/127076  | 6 Sep 2013  | Relayed UL transmission to eNB for a device in D2D mode                                              |
| RM115411 | US/01  | Filed | 5 Mar 2012  | 5 Mar 2012  | GB12038365         | GB2496997      | 11 Sep 2013 | Signaling to enable resource allocation coordination between a device pair                           |
| RM115411 | WO/01  | Filed | 4 Mar 2013  | 4 Mar 2013  | PCT/IB2013/0051711 | WO2013/132415  | 12 Sep 2013 | Signaling to enable resource allocation coordination between a device pair                           |
| RM115412 | WO/01  | Filed | 16 Mar 2012 | 16 Mar 2012 | GB1204692A         |                |             | DRX enhancement for MTC and DDA Services                                                             |
| RM115412 | US/01  | Filed | 16 Mar 2012 | 16 Mar 2012 | US13/3244722       | US2013/0244722 | 19 Sep 2013 | DRX enhancement for MTC and DDA Services                                                             |
| RM115413 | WO/01  | Filed | 6 Mar 2012  | 6 Mar 2012  | PCT/CN2012/0072001 | WO2013/131350  | 12 Sep 2013 | Apparatus for transmission for diverse data applications                                             |
| RM115414 | WO/01  | Filed | 3 Apr 2012  | 3 Apr 2012  | GB1205963.2        |                |             | Apparatus for transmission for diverse data applications                                             |
| RM115415 | WO/01  | Filed | 14 Feb 2012 | 14 Feb 2012 | PCT/CN2012/0071132 | WO2013/120253  | 22 Aug 2013 | Apparatus for transmission for diverse data applications                                             |
| RM115415 | WO/01  | Filed | 23 Feb 2012 | 23 Feb 2012 | GB1303148.1        | GB2498786      | 4 Sep 2013  | Reception arrangement between alternate frequency ranges to increase DL CA BW / Band coverage        |
| RM115416 | US/01  | Filed | 21 Feb 2013 | 21 Feb 2013 | US13/772970        | US2013/0223594 | 29 Aug 2013 | Reception arrangement between alternate frequency ranges to increase DL CA BW / Band coverage        |
| RM115417 | US/01  | Filed | 22 Dec 2011 | 22 Dec 2011 | GB132207.2         | GB2497813      | 26 Jun 2013 | Reception arrangement between alternate frequency ranges to increase DL CA BW / Band coverage        |
| RM115417 | US/01  | Filed | 3 Jan 2012  | 3 Jan 2012  | US13/342371        | US2013/0166246 | 27 Jun 2013 | Reception arrangement between alternate frequency ranges to increase DL CA BW / Band coverage        |
| RM115418 | WO/01  | Filed | 23 Jan 2012 | 23 Jan 2012 | GB1201064.1        | GB2490191      | 24 Oct 2012 | Reception arrangement between alternate frequency ranges to increase DL CA BW / Band coverage        |
| RM115418 | US/01  | Filed | 23 Jan 2012 | 23 Jan 2012 | US13/360385        | US2013/0186761 | 25 Jul 2013 | Reception arrangement between alternate frequency ranges to increase DL CA BW / Band coverage        |
| RM115418 | WO/01  | Filed | 21 Jan 2013 | 21 Jan 2013 | PCT/IB2013/005532  | WO2013/11047   | 1 Aug 2013  | Reception arrangement between alternate frequency ranges to increase DL CA BW / Band coverage        |
| RM115420 | WO/01  | Filed | 7 Mar 2012  | 7 Mar 2012  | PCT/CN2012/0072057 | WO2013/131257  | 12 Sep 2013 | Adaptive filtering method for noise covariance matrix estimation for LTE-TE-A detection              |
| RM115422 | WO/01  | Filed | 1 Feb 2012  | 1 Feb 2012  |                    |                |             | Adaptive filtering method for noise covariance matrix estimation for LTE-TE-A detection              |
| RM115422 | WO/01  | Filed | 1 Feb 2012  | 1 Feb 2012  | PCT/CN2012/0070623 | WO2013/131358  | 8 Aug 2013  | Adaptive filtering method for noise covariance matrix estimation for LTE-TE-A detection              |

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|          |        |         |             |                   |               |             |                                                                                                  |
|----------|--------|---------|-------------|-------------------|---------------|-------------|--------------------------------------------------------------------------------------------------|
| RM115456 | Family | Filed   | 6 Feb 2012  | 6 Feb 2012        | GB2468772     | 10 Oct 2012 | Method and apparatus for security re-synchronisation                                             |
| RM115458 | GB01   | POA     | 6 Feb 2012  | 6 Feb 2012        |               |             | Method and apparatus for security re-synchronisation                                             |
| RM115460 | Family | Filed   | 18 Apr 2012 | 18 Apr 2012       |               |             | An Energy-Efficient Data Collection Scheme in Wireless Sensor Networks with UE as Mobile Gateway |
| RM115460 | WO01   | Filed   | 18 Apr 2012 | PCT/CN2012/074280 |               |             | An Energy-Efficient Data Collection Scheme in Wireless Sensor Networks with UE as Mobile Gateway |
| RM115461 | Family | Filed   | 9 May 2012  | 9 May 2012        |               |             | Full-duplex enablement under scheduled access in 802.11                                          |
| RM115461 | GB01   | Filed   | 9 May 2012  | GB1208398.8       |               |             | Full-duplex enablement under scheduled access in 802.11                                          |
| RM115461 | WO01   | Filed   | 9 May 2012  | PCT/IB2012/053866 |               |             | Full-duplex enablement under scheduled access in 802.11                                          |
| RM115462 | Family | Filed   | 27 Jan 2012 | 27 Jan 2012       |               |             | Method to increase UE coverage in inter-band CA                                                  |
| RM115462 | GB01   | Granted | 27 Jan 2012 | GB1201430.4       | GB2468301     | 22 Aug 2012 | Method to increase UE coverage in inter-band CA                                                  |
| RM115462 | US01   | POA     | 27 Jan 2012 | US13/072574       | US20130196648 | 1 Aug 2013  | Method to increase UE coverage in inter-band CA                                                  |
| RM115463 | Family | Filed   | 26 Jan 2012 | 26 Jan 2012       |               |             | Power control method for devices supporting inter-band carrier aggregation                       |
| RM115463 | GB01   | POA     | 26 Jan 2012 | GB1201337.1       | GB2468758     | 31 Jul 2013 | Power control method for devices supporting inter-band carrier aggregation                       |
| RM115463 | US01   | Filed   | 26 Jan 2012 | US13/070538       | US20130194987 | 1 Aug 2013  | Power control method for devices supporting inter-band carrier aggregation                       |
| RM115465 | WO01   | Filed   | 26 Jan 2012 | PCT/IB2012/050669 | WO2013111112  | 28 Jul 2013 | Power control method for devices supporting inter-band carrier aggregation                       |
| RM115465 | WO01   | Filed   | 26 Mar 2012 | 26 Mar 2012       |               |             | WiFi SCell activation deactivation in LTE-WiFi CA system                                         |
| RM115465 | Family | Filed   | 19 Dec 2011 | 19 Dec 2011       |               |             | WiFi SCell activation deactivation in LTE-WiFi CA system                                         |
| RM115468 | GB01   | Filed   | 19 Dec 2011 | GB121784.3        | GB2467741     | 28 Jun 2013 | EUTRAN Support for D2D Discovery Signal Verification                                             |
| RM115468 | US01   | Filed   | 19 Dec 2011 | US13/030966       | US20130198622 | 20 Jun 2013 | EUTRAN Support for D2D Discovery Signal Verification                                             |
| RM115469 | WO01   | Filed   | 19 Dec 2011 | PCT/IB2012/057241 | WO2013083728  | 27 Jun 2013 | EUTRAN Support for D2D Discovery Signal Verification                                             |
| RM115467 | GB01   | POA     | 30 Jan 2012 | 30 Jan 2012       |               |             | EUTRAN Support for D2D Discovery Signal Verification                                             |
| RM115467 | US01   | Filed   | 30 Jan 2012 | GB1201516.8       | GB2468614     | 31 Jul 2013 | Time-interleaved duplexing method for inter-band carrier aggregation                             |
| RM115469 | Family | Filed   | 7 Mar 2012  | 7 Mar 2012        | US20130194939 | 1 Aug 2013  | Time-interleaved duplexing method for inter-band carrier aggregation                             |
| RM115469 | WO01   | Filed   | 17 Feb 2012 | 17 Feb 2012       | WO2013120267  | 22 Aug 2013 | Principle for inter-cell D2D operation                                                           |
| RM115472 | Family | Filed   | 8 Mar 2012  | 8 Mar 2012        |               |             | Principle for inter-cell D2D operation                                                           |
| RM115472 | WO01   | Filed   | 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        |               |             | Design of system information for low-cost MTC devices                                            |
| RM115473 | WO01   | Filed   | 5 Mar 2012  | PCT/CN2012/071937 | WO2013131264  | 12 Sep 2013 | A novel way to enable traffic relay in D2D scenario                                              |
| RM115474 | WO01   | Filed   | 20 Jan 2012 | 20 Jan 2012       |               |             | A novel way to enable traffic relay in D2D scenario                                              |
| RM115474 | WO01   | Filed   | 20 Jan 2012 | PCT/CN2012/070651 | WO2013107036  | 28 Jul 2013 | Handling of RA failure for C-RNTI based Msg2                                                     |
| RM115475 | Family | Filed   | 30 Jan 2012 | 30 Jan 2012       |               |             | Handling of RA failure for C-RNTI based Msg2                                                     |
| RM115475 | WO01   | Filed   | 30 Jan 2012 | PCT/CN2012/070769 | WO2013131442  | 8 Aug 2013  | Multiple ACK-NACK Multiplexing with Periodic CSI in PUCCH Format 3                               |
| RM115476 | Family | Filed   | 30 Jan 2012 | 30 Jan 2012       |               |             | Multiple ACK-NACK Multiplexing with Periodic CSI in PUCCH Format 3                               |
| RM115476 | GB01   | Filed   | 30 Jan 2012 | GB1201526.9       | GB2468797     | 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       |               |             | Method of configuring RRC state / channel monitoring behavior for 2nd DRX cycle in CELL_FACH     |
| RM115477 | WO01   | Filed   | 13 Mar 2012 | PCT/CN2012/072282 | WO2013134930  |             | User group selection and full duplex pattern control for TDD full duplex system                  |
| RM115479 | Family | Filed   | 13 Mar 2012 | 13 Mar 2012       |               |             | User group selection and full duplex pattern control for TDD full duplex system                  |
| RM115479 | GB01   | Filed   | 15 May 2012 | 15 May 2012       |               |             | Method and apparatus for radio transceiver circuit linearization                                 |
| RM115479 | US01   | Granted | 15 May 2012 | GB1208546.0       | GB2461238     | 19 Sep 2013 | Method and apparatus for radio transceiver circuit linearization                                 |
| RM115479 | WO01   | Filed   | 15 May 2012 | US13/057921       | US2013025566  | 28 Nov 2012 | Method and apparatus for radio transceiver circuit linearization                                 |
| RM115483 | Family | Filed   | 1 Mar 2012  | 1 Mar 2012        |               |             | Method and apparatus for radio transceiver circuit linearization                                 |
| RM115483 | WO01   | Filed   | 1 Mar 2012  | PCT/IB2012/050767 | WO2013128229  | 6 Sep 2013  | Adaptive Gain Mapping In The Presence Of Interim Blockers                                        |
| RM115484 | Family | Filed   | 14 Mar 2012 | 14 Mar 2012       |               |             | Adaptive Gain Mapping In The Presence Of Interim Blockers                                        |
| RM115484 | GB01   | POA     | 14 Mar 2012 | GB1204516.9       |               |             | A transmitter for two contiguous uplink carriers with power imbalance                            |
| RM115484 | US01   | Filed   | 14 Mar 2012 | US13/051905       | US20130244569 | 19 Sep 2013 | A transmitter for two contiguous uplink carriers with power imbalance                            |
| RM115484 | WO01   | POA     | 14 Mar 2012 | PCT/IB2012/050207 | WO2013105291  | 19 Sep 2013 | A transmitter for two contiguous uplink carriers with power imbalance                            |
| RM115485 | Family | Filed   | 10 Feb 2012 | 10 Feb 2012       |               |             | A transmitter for two contiguous uplink carriers with power imbalance                            |
| RM115485 | GB01   | Filed   | 10 Feb 2012 | GB1202376.8       | GB2469247     | 14 Aug 2013 | Secure Device to Device Discovery                                                                |
| RM115485 | US01   | Filed   | 10 Feb 2012 | US13/051060       | WO2013118036  | 15 Aug 2013 | Secure Device to Device Discovery                                                                |
| RM115486 | Family | Filed   | 8 Feb 2012  | 8 Feb 2012        |               |             | Secure Device to Device Discovery                                                                |
| RM115486 | GB01   | Filed   | 20 Feb 2012 | GB1202983.5       | GB2469458     | 21 Aug 2013 | Signaling Support for Multi Operator D2D Discovery                                               |
| RM115486 | WO01   | Filed   | 20 Feb 2012 | PCT/IB2012/051301 | WO2013124776  | 29 Aug 2013 | Signaling Support for Multi Operator D2D Discovery                                               |
| RM115487 | Family | Filed   | 22 Mar 2012 | 22 Mar 2012       |               |             | Novel Design for Indication of Evolved PHICH Configuration for Low Cost MTC Devices              |
| RM115487 | WO01   | Filed   | 22 Mar 2012 | PCT/CN2012/072810 |               |             | Novel Design for Indication of Evolved PHICH Configuration for Low Cost MTC Devices              |

|          |        |         |             |               |             |                                                                                                         |
|----------|--------|---------|-------------|---------------|-------------|---------------------------------------------------------------------------------------------------------|
| RM115481 | Family | Filed   | 30 Jan 2012 | US20130210437 | 15 Aug 2013 | Method of triggering Cell Update procedure to report measurement results                                |
| RM115491 | US01   | POA     | 30 Jan 2012 |               |             | Method of triggering Cell Update procedure to report measurement results                                |
| RM115491 | US01   | Filed   | 30 Jan 2012 |               |             | Method of triggering Cell Update procedure to report measurement results                                |
| RM115491 | US02   | Closed  | 29 Jan 2013 |               |             | Method of triggering Cell Update procedure to report measurement results                                |
| RM115492 | Family | Filed   | 20 Feb 2012 |               |             | Interference Coordination through D2D Communication in Multi-operators Coexistence Scenario             |
| RM115493 | WO01   | POA     | 20 Feb 2012 |               |             | Interference Coordination through D2D Communication in Multi-operators Coexistence Scenario             |
| RM115494 | Family | Filed   | 20 Feb 2012 |               |             | Power control method for devices supporting inter-band carrier aggregation                              |
| RM115494 | GB01   | POA     | 20 Feb 2012 |               |             | Power control method for devices supporting inter-band carrier aggregation                              |
| RM115494 | US01   | Granted | 26 Jan 2012 |               |             | Power control method for devices supporting inter-band carrier aggregation                              |
| RM115495 | Family | Filed   | 8 Feb 2012  |               |             | Method of CSG cell reselection in CELL_FACH state                                                       |
| RM115495 | GB01   | Filed   | 30 Jan 2012 |               |             | Method of CSG cell reselection in CELL_FACH state                                                       |
| RM115495 | WO01   | Filed   | 30 Jan 2012 |               |             | Method of CSG cell reselection in CELL_FACH state                                                       |
| RM115502 | Family | Filed   | 28 Sep 2012 |               |             | Centralized three-party RTS/CTS exchange for D2D communication contending for resource on ISM band      |
| RM115502 | WO01   | POA     | 28 Sep 2012 |               |             | Centralized three-party RTS/CTS exchange for D2D communication contending for resource on ISM band      |
| RM115503 | Family | Filed   | 28 Sep 2012 |               |             | Device for On-Chip Latency Measurement                                                                  |
| RM115503 | GB01   | POA     | 28 Sep 2012 |               |             | Device for On-Chip Latency Measurement                                                                  |
| RM115503 | US01   | Granted | 28 Sep 2012 |               |             | Device for On-Chip Latency Measurement                                                                  |
| RM115503 | WO01   | Filed   | 28 Sep 2012 |               |             | Device for On-Chip Latency Measurement                                                                  |
| RM115504 | Family | Filed   | 20 Dec 2012 |               |             | Antenna tuner problems and solutions                                                                    |
| RM115504 | GB01   | Closed  | 20 Dec 2012 |               |             | Antenna tuner problems and solutions                                                                    |
| RM115505 | Family | Filed   | 30 Jan 2012 |               |             | Uplink Interference Avoidance in HetNet Scenarios                                                       |
| RM115505 | GB01   | Filed   | 30 Jan 2012 |               |             | Uplink Interference Avoidance in HetNet Scenarios                                                       |
| RM115505 | US01   | Filed   | 30 Jan 2012 |               |             | Uplink Interference Avoidance in HetNet Scenarios                                                       |
| RM115505 | WO01   | Filed   | 30 Jan 2012 |               |             | Uplink Interference Avoidance in HetNet Scenarios                                                       |
| RM115505 | Family | Filed   | 8 Mar 2012  |               |             | Group SPS Design for low cost MTC devices                                                               |
| RM115505 | WO01   | Filed   | 8 Mar 2012  |               |             | Group SPS Design for low cost MTC devices                                                               |
| RM115507 | Family | Filed   | 13 Mar 2012 |               |             | Procedures for Secondary Cell discovery on extension carriers in LTE HetNet                             |
| RM115507 | GB01   | Filed   | 13 Mar 2012 |               |             | Procedures for Secondary Cell discovery on extension carriers in LTE HetNet                             |
| RM115507 | US01   | Closed  | 13 Mar 2012 |               |             | Procedures for Secondary Cell discovery on extension carriers in LTE HetNet                             |
| RM115510 | Family | Filed   | 15 May 2012 |               |             | Method and apparatus for radio receiver circuit linearization                                           |
| RM115510 | GB01   | Filed   | 15 May 2012 |               |             | Method and apparatus for radio receiver circuit linearization                                           |
| RM115510 | WO01   | Filed   | 15 May 2012 |               |             | Method and apparatus for radio receiver circuit linearization                                           |
| RM115511 | Family | Filed   | 30 Jan 2012 |               |             | Methods to improve IDCC in inter-band CA                                                                |
| RM115511 | GB01   | Filed   | 30 Jan 2012 |               |             | Methods to improve IDCC in inter-band CA                                                                |
| RM115511 | US01   | Filed   | 30 Jan 2012 |               |             | Methods to improve IDCC in inter-band CA                                                                |
| RM115511 | WO01   | Filed   | 30 Jan 2012 |               |             | Methods to improve IDCC in inter-band CA                                                                |
| RM115513 | Family | Filed   | 27 Feb 2012 |               |             | Method for reporting 256QAM CQI without overhead increase                                               |
| RM115513 | GB01   | Filed   | 27 Feb 2012 |               |             | Method for reporting 256QAM CQI without overhead increase                                               |
| RM115513 | US01   | Filed   | 27 Feb 2012 |               |             | Method for reporting 256QAM CQI without overhead increase                                               |
| RM115514 | Family | Filed   | 30 Jan 2012 |               |             | A DCI format approach for E-PHICH in LTE Rel-11                                                         |
| RM115514 | GB01   | Filed   | 30 Jan 2012 |               |             | A DCI format approach for E-PHICH in LTE Rel-11                                                         |
| RM115514 | US01   | Filed   | 30 Jan 2012 |               |             | A DCI format approach for E-PHICH in LTE Rel-11                                                         |
| RM115514 | WO01   | Filed   | 30 Jan 2012 |               |             | A DCI format approach for E-PHICH in LTE Rel-11                                                         |
| RM115515 | Family | Filed   | 11 Apr 2012 |               |             | A decoder for scrambled convolution codes                                                               |
| RM115515 | GB01   | POA     | 11 Apr 2012 |               |             | A decoder for scrambled convolution codes                                                               |
| RM115515 | US01   | Granted | 11 Apr 2012 |               |             | A decoder for scrambled convolution codes                                                               |
| RM115515 | WO01   | Filed   | 11 Apr 2012 |               |             | A decoder for scrambled convolution codes                                                               |
| RM115517 | Family | Filed   | 1 Mar 2012  |               |             | Reducing the reception time of the channels where the transmitted information is repeated several times |
| RM115517 | GB01   | POA     | 1 Mar 2012  |               |             | Reducing the reception time of the channels where the transmitted information is repeated several times |
| RM115518 | Family | Filed   | 30 Jan 2012 |               |             | Closed Loop Transmit Diversity Activation and Deactivation                                              |
| RM115518 | GB01   | Granted | 30 Jan 2012 |               |             | Closed Loop Transmit Diversity Activation and Deactivation                                              |
| RM115518 | US01   | Filed   | 30 Jan 2012 |               |             | Closed Loop Transmit Diversity Activation and Deactivation                                              |
| RM115518 | WO01   | Filed   | 30 Jan 2012 |               |             | Closed Loop Transmit Diversity Activation and Deactivation                                              |
| RM115519 | Family | Filed   | 8 Mar 2012  |               |             | Enable sensing function coupled with X-CC scheduling                                                    |
| RM115519 | WO01   | POA     | 8 Mar 2012  |               |             | Enable sensing function coupled with X-CC scheduling                                                    |

|          |        |         |             |                   |               |             |           |                                                                                                       |
|----------|--------|---------|-------------|-------------------|---------------|-------------|-----------|-------------------------------------------------------------------------------------------------------|
| RM115521 | Family | Filed   | 31 Jan 2012 | 31 Jan 2012       | GB2498189     | 14 Aug 2013 | US9478296 | Method and Apparatus of Informing UE Access Barring                                                   |
| RM115521 | GB01   | POA     | 31 Jan 2012 | GB1201661.4       |               |             |           | Method and Apparatus of Informing UE Access Barring                                                   |
| RM115521 | US01   | Granted | 31 Jan 2012 | US13/585644       |               |             |           | Method and Apparatus of Informing UE Access Barring                                                   |
| RM115521 | US02   | Filed   | 31 Jan 2012 | US13/585644       |               |             |           | Method and Apparatus of Informing UE Access Barring                                                   |
| RM115521 | WO01   | Filed   | 31 Jan 2012 | US13/585644       |               |             |           | Method and Apparatus of Informing UE Access Barring                                                   |
| RM115522 | Family | Filed   | 27 Mar 2012 | 27 Mar 2012       | WO2013114278  | 8 Aug 2013  |           | LBT LTE Downlink Control Channel Design                                                               |
| RM115522 | GB01   | Filed   | 27 Mar 2012 | GB1206390.6       |               |             |           | LBT LTE Downlink Control Channel Design                                                               |
| RM115522 | US01   | Filed   | 27 Mar 2012 | US13/586984       |               |             |           | LBT LTE Downlink Control Channel Design                                                               |
| RM115522 | US02   | Filed   | 27 Mar 2012 | US13/586984       |               |             |           | LBT LTE Downlink Control Channel Design                                                               |
| RM115522 | WO01   | Filed   | 27 Mar 2012 | US13/586984       |               |             |           | LBT LTE Downlink Control Channel Design                                                               |
| RM115522 | Family | Filed   | 27 Feb 2012 | 27 Feb 2012       | GB2498673     | 28 Aug 2013 |           | CSFB for emergency purposes                                                                           |
| RM115522 | GB01   | Filed   | 27 Feb 2012 | GB1203367.6       |               |             |           | CSFB for emergency purposes                                                                           |
| RM115522 | US01   | Filed   | 15 May 2012 | 15 May 2012       | GB2491022     | 21 Nov 2012 | US9428645 | Method and apparatus for radio receiver circuit linearization                                         |
| RM115522 | US02   | Filed   | 15 May 2012 | US13/563973       |               |             |           | Method and apparatus for radio receiver circuit linearization                                         |
| RM115522 | WO01   | Filed   | 15 May 2012 | US13/563973       |               |             |           | Method and apparatus for radio receiver circuit linearization                                         |
| RM115522 | Family | Filed   | 15 May 2012 | US13/563973       |               |             |           | Method and apparatus for radio receiver circuit linearization                                         |
| RM115522 | Family | Filed   | 21 Jan 2012 | 21 Jan 2012       |               |             |           | Approach of multiplexing HARQ-ACK and periodic CSI report simultaneously in FUECH format 3            |
| RM115528 | WO01   | POA     | 21 Jan 2012 | PCT/CN2012/070705 | WO2013107058  | 25 Jul 2013 |           | Approach of multiplexing HARQ-ACK and periodic CSI report simultaneously in FUECH format 3            |
| RM125006 | Family | Filed   | 22 May 2012 | 22 May 2012       |               |             |           | EUTRAN reactivation based on data transfer requirements in voice centric terminal                     |
| RM125006 | GB01   | POA     | 22 May 2012 | GB1208029.6       |               |             |           | EUTRAN reactivation based on data transfer requirements in voice centric terminal                     |
| RM125007 | Family | Filed   | 30 Jan 2012 | 30 Jan 2012       | GB2498813     | 31 Jul 2013 |           | CSG fingerprint for test purposes                                                                     |
| RM125007 | GB01   | POA     | 30 Jan 2012 | GB1201568.1       | GB2498813     | 31 Jul 2013 |           | CSG fingerprint for test purposes                                                                     |
| RM125007 | US01   | Filed   | 30 Jan 2012 | US13/563980       | GB2498825     |             |           | CSG fingerprint for test purposes                                                                     |
| RM125007 | US02   | Filed   | 30 Jan 2012 | US13/563980       |               |             |           | CSG fingerprint for test purposes                                                                     |
| RM125007 | WO01   | Filed   | 30 Jan 2012 | US13/563980       |               |             |           | CSG fingerprint for test purposes                                                                     |
| RM125009 | Family | Filed   | 4 Jun 2013  | 4 Jun 2013        | WO2013114255  | 8 Aug 2013  |           | Method to ensure sampling continuity across some interruption of reception, like some measurement gap |
| RM125010 | WO01   | Filed   | 4 Jun 2013  | PCT/CN2013/001716 |               |             |           | Method to ensure sampling continuity across some interruption of reception, like some measurement gap |
| RM125010 | Family | Filed   | 16 Mar 2012 | 16 Mar 2012       | WO2013104654  | 19 Sep 2013 |           | UE-assisted DRX method for IDC with WIF in PCF mode                                                   |
| RM125010 | US01   | POA     | 16 Mar 2012 | PCT/CN2012/072442 |               |             |           | UE-assisted DRX method for IDC with WIF in PCF mode                                                   |
| RM125012 | Family | Filed   | 6 Mar 2012  | 6 Mar 2012        |               |             |           | Enhanced membership indication for CSG RAN sharing                                                    |
| RM125012 | GB01   | Filed   | 6 Mar 2012  | GB1203921.0       | WO2013132431  | 12 Sep 2013 |           | Enhanced membership indication for CSG RAN sharing                                                    |
| RM125012 | US01   | Filed   | 6 Mar 2012  | PCT/CN2012/061742 |               |             |           | Enhanced membership indication for CSG RAN sharing                                                    |
| RM125012 | US02   | Filed   | 6 Mar 2012  | PCT/CN2012/061742 |               |             |           | Enhanced membership indication for CSG RAN sharing                                                    |
| RM125012 | WO01   | Filed   | 6 Mar 2012  | PCT/CN2012/061742 |               |             |           | Enhanced membership indication for CSG RAN sharing                                                    |
| RM125018 | Family | Filed   | 23 Mar 2012 | 23 Mar 2012       | WO2013127058  | 6 Sep 2013  |           | FUECH detection for low cost MTC UEs                                                                  |
| RM125018 | GB01   | POA     | 23 Mar 2012 | GB1205168.0       |               |             |           | FUECH detection for low cost MTC UEs                                                                  |
| RM125018 | US01   | Granted | 21 Nov 2012 | US13/632935       |               |             |           | Interference reduction in wireless communication systems                                              |
| RM125018 | US02   | Filed   | 21 Nov 2012 | US13/632935       |               |             |           | Interference reduction in wireless communication systems                                              |
| RM125018 | WO01   | Filed   | 20 Feb 2012 | US13/633072       |               |             |           | Interference reduction in wireless communication systems                                              |
| RM125019 | WO01   | Filed   | 20 Feb 2012 | PCT/CN2012/071354 | WO2013123637  | 29 Aug 2013 | US9525398 | Enhanced measurement for new carrier type                                                             |
| RM125020 | Family | Filed   | 20 Jan 2012 | 20 Jan 2012       |               |             |           | On Utilizing Full Duplex on Partial Frequency Domain on The Operating Bandwidth                       |
| RM125020 | GB01   | Filed   | 20 Jan 2012 | GB13019862.7      | GB2498659     | 24 Jul 2013 |           | On Utilizing Full Duplex on Partial Frequency Domain on The Operating Bandwidth                       |
| RM125020 | US01   | Filed   | 1 Feb 2012  | US13/593586       | US20130186630 | 28 Jul 2013 |           | On Utilizing Full Duplex on Partial Frequency Domain on The Operating Bandwidth                       |
| RM125022 | Family | Filed   | 40874       |                   |               |             |           | Physical Discovery channel sequence design for inter-band LTE CA HetNet                               |
| RM125022 | WO01   | Filed   | 6 Mar 2012  | 6 Mar 2012        | WO2013181245  | 13 Sep 2013 |           | Physical Discovery channel sequence design for inter-band LTE CA HetNet                               |
| RM125023 | Family | Filed   | 2 Feb 2012  | 2 Feb 2012        | GB2498968     | 7 Aug 2013  |           | Power control for scalable low-power LTE CA system on un-licensed band                                |
| RM125023 | GB01   | POA     | 2 Feb 2012  | GB1201791.9       | US20130203468 | 8 Aug 2013  |           | Power control for scalable low-power LTE CA system on un-licensed band                                |
| RM125023 | US01   | Filed   | 1 Feb 2013  | US13/637496       |               |             |           | Power control for scalable low-power LTE CA system on un-licensed band                                |
| RM125024 | Family | Filed   | 23 Feb 2012 | 23 Feb 2012       | WO2013123660  | 29 Aug 2013 |           | Periodical discovery channel design for small RPHs                                                    |
| RM125024 | WO01   | Filed   | 23 Feb 2012 | PCT/CN2012/071519 |               |             |           | Periodical discovery channel design for small RPHs                                                    |
| RM125025 | Family | Filed   | 5 Apr 2012  | 5 Apr 2012        |               |             |           | Resource Configuration of DCI format based Evolved PHICH                                              |
| RM125025 | WO01   | POA     | 5 Apr 2012  | PCT/CN2012/073554 |               |             |           | Resource Configuration of DCI format based Evolved PHICH                                              |
| RM125025 | Family | Filed   | 24 Jan 2012 | 24 Jan 2012       |               |             |           | Indication of capacity frequency layers to facilitate modified UE measurement procedures              |



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| RM125064 | US01   | Closed | 2 Apr 2012  |                   |             | Antenna Beam Steering With Switchable Ground Plane                                                                                                                                                                             |
| RM125067 | Family | Filed  | 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 | GB1206074.4       |             | 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  | 13 Apr 2012 | US1306063         |             | 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 |                   |             | Method of autonomous for ciphering error detection selector                                                                                                                                                                    |
| RM125072 | GB01   | Filed  | 18 Mar 2012 | GB1206014.6       |             | Method of autonomous for ciphering error detection selector                                                                                                                                                                    |
| RM125072 | Family | Filed  | 27 Apr 2012 |                   |             | Compression of the TIM for networks supporting a large number of stations                                                                                                                                                      |
| RM125073 | GB01   | Filed  | 27 Apr 2012 | GB1207413.4       |             | Compression of the TIM for networks supporting a large number of stations                                                                                                                                                      |
| RM125073 | WO01   | Filed  | 27 Apr 2012 | PCT/IB2013/055307 |             | Compression of the TIM for networks supporting a large number of stations                                                                                                                                                      |
| RM125074 | Family | Filed  | 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  | GB1206045.5       |             | 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  | PCT/IB2013/054557 |             | 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 |                   |             | Antenna Arrangement                                                                                                                                                                                                            |
| RM125075 | GB01   | Filed  | 24 Apr 2012 | GB1207164.3       |             | Antenna Arrangement                                                                                                                                                                                                            |
| RM125075 | US01   | Filed  | 24 Apr 2012 | US1306044.9       |             | Antenna Arrangement                                                                                                                                                                                                            |
| RM125075 | Family | Filed  | 17 Apr 2013 |                   |             | Always-on Mobile UE Power Consumption Improvement                                                                                                                                                                              |
| RM125075 | GB01   | Filed  | 16 Mar 2012 | GB1206081.9       |             | Always-on Mobile UE Power Consumption Improvement                                                                                                                                                                              |
| RM125075 | Family | Filed  | 16 Mar 2012 |                   |             | Method to indicate UE front-end capability                                                                                                                                                                                     |
| RM125077 | GB01   | POA    | 23 Mar 2012 | GB1206153.7       |             | Method to indicate UE front-end capability                                                                                                                                                                                     |
| RM125077 | US01   | Filed  | 23 Mar 2012 | US1306044.3       |             | Method to indicate UE front-end capability                                                                                                                                                                                     |
| RM125078 | Family | Filed  | 26 Sep 2012 |                   |             | Reconfigurable Rx digital data path architecture with flexible I/Q sampling rates                                                                                                                                              |
| RM125078 | WO01   | Filed  | 26 Sep 2012 | PCT/IB2012/032222 |             | Reconfigurable Rx digital data path architecture with flexible I/Q sampling rates                                                                                                                                              |
| RM125079 | Family | Filed  | 26 Sep 2012 |                   |             | Preamble Counter calculation scheme for RA on SCell                                                                                                                                                                            |
| RM125079 | WO01   | Filed  | 27 Feb 2012 | WO0018127058      | 5 Sep 2013  | Preamble Counter calculation scheme for RA on SCell                                                                                                                                                                            |
| RM125080 | Family | Filed  | 27 Feb 2012 | PCT/IN2012/071654 |             | An improvement of time domain based EIC solution in HetNets                                                                                                                                                                    |
| RM125080 | WO01   | POA    | 12 Apr 2012 |                   |             | An improvement of time domain based EIC solution in HetNets                                                                                                                                                                    |
| RM125081 | Family | Filed  | 12 Apr 2012 | PCT/IN2012/073993 |             | PUCCH enabled simple CoMP operation                                                                                                                                                                                            |
| RM125081 | GB01   | Filed  | 15 Mar 2012 | GB1204796.5       |             | PUCCH enabled simple CoMP operation                                                                                                                                                                                            |
| RM125081 | US01   | Filed  | 19 Mar 2012 | US20130242764     | 19 Sep 2013 | PUCCH enabled simple CoMP operation                                                                                                                                                                                            |
| RM125082 | Family | Filed  | 21 Mar 2012 |                   |             | Reverse transmission mechanism in smart grid                                                                                                                                                                                   |
| RM125082 | WO01   | Filed  | 13 Apr 2012 | US130428980       |             | Reverse transmission mechanism in smart grid                                                                                                                                                                                   |
| RM125082 | WO01   | Filed  | 13 Apr 2012 | PCT/IN2012/074019 |             | Reverse transmission mechanism in smart grid                                                                                                                                                                                   |
| RM125001 | Family | Filed  | 26 May 2012 |                   |             | Memory efficient and generic HY 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. |
| RM125001 | IN01   | Filed  | 26 May 2012 |                   |             | Memory efficient and generic HY 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. |
| RM125004 | Family | Filed  | 26 May 2012 | IN1579/MUM/2012   |             | Enhanced Resource Allocation of UL Control Signaling                                                                                                                                                                           |
| RM125004 | WO01   | Filed  | 16 Mar 2012 |                   |             | Enhanced Resource Allocation of UL Control Signaling                                                                                                                                                                           |
| RM125006 | Family | Filed  | 16 Mar 2012 | PCT/IN2012/072436 | 18 Sep 2013 | Adaptation of transmission denial modes for in-device interference                                                                                                                                                             |
| RM125006 | WO01   | Filed  | 16 Mar 2012 | WO2013134951      |             | Adaptation of transmission denial modes for in-device interference                                                                                                                                                             |
| RM125007 | Family | Filed  | 16 Mar 2012 | PCT/IN2012/072476 | 19 Sep 2013 | The enhancement of interference coordination scheme in HetNets with flexible TDD configuration                                                                                                                                 |
| RM125007 | WO01   | Filed  | 11 Jun 2012 |                   |             | The enhancement of interference coordination scheme in HetNets with flexible TDD configuration                                                                                                                                 |
| RM125007 | WO01   | POA    | 11 Jun 2012 | PCT/IN2012/072672 |             | The enhancement of interference coordination scheme in HetNets with flexible TDD configuration                                                                                                                                 |
| RM125010 | Family | Filed  | 6 Jun 2012  |                   |             | Reference Symbol Configuration for Control Channel with Frequency Reuse                                                                                                                                                        |
| RM125010 | GB01   | Filed  | 6 Jun 2012  | GB1210002.0       |             | Reference Symbol Configuration for Control Channel with Frequency Reuse                                                                                                                                                        |

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| RM126010 | US01   | Filed | 6 Jun 2013  | 6 Jun 2012  | US13/0910300      | Reference Symbol Configuration for Control Channel with Frequency Reuse                                        |
| RM126012 | Family | Filed | 6 Jun 2012  | 8 Jul 2012  |                   | Apparatus and methods for multiple virtual SIMs communication mechanism                                        |
| RM126016 | WO01   | Filed | 6 Jun 2012  | 6 Jul 2012  | PCT/CN2012/076297 | Apparatus and methods for multiple virtual SIMs communication mechanism                                        |
| RM126018 | Family | Filed | 19 Mar 2012 | 19 Mar 2012 |                   | Signaling for PDSCH Feedback Mode on New Carrier Type                                                          |
| RM126019 | WO01   | Filed | 19 Mar 2012 | 19 Mar 2012 | PCT/CN2012/073570 | 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 | GB01   | Filed | 24 May 2012 | 24 May 2012 | GB12/091938.7     | On the enablement of HARQ in contention based transmission                                                     |
| RM126017 | WO01   | Filed | 22 May 2012 | 24 May 2012 | PCT/US2012/034235 | On the enablement of HARQ in contention based transmission                                                     |
| RM126020 | Family | Filed | 5 Apr 2012  | 5 Apr 2012  |                   | Controlling antenna beam width                                                                                 |
| RM126020 | GB01   | Filed | 5 Apr 2012  | 5 Apr 2012  | GB12/06165.1      | Controlling antenna beam width                                                                                 |
| RM126020 | US01   | Filed | 29 Mar 2012 | 5 Apr 2012  | US13/083320       | Controlling antenna beam width                                                                                 |
| RM126021 | Family | Filed | 19 Mar 2012 | 19 Mar 2012 |                   | New way to prevent Ping-Pong effect during S1-handover in IDC.                                                 |
| RM126021 | WO01   | Filed | 19 Mar 2012 | 19 Mar 2012 | PCT/CN2012/072523 | New way to prevent Ping-Pong effect during S1-handover in IDC.                                                 |
| RM126022 | Family | Filed | 11 Jun 2012 | 11 Jun 2012 |                   | A flexible algorithm for arbitration of transmit power between multiple radios                                 |
| RM126022 | GB01   | Filed | 11 Jun 2012 | 11 Jun 2012 | GB12/10357.0      | A flexible algorithm for arbitration of transmit power between multiple radios                                 |
| RM126022 | US01   | Filed | 11 Jun 2012 | 11 Jun 2012 | US13/0914659      | A flexible algorithm for arbitration of transmit power between multiple radios                                 |
| RM126024 | WO01   | 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 | PCT/CN2012/075963 | 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 | IN01   | Filed | 16 Mar 2012 | 16 Mar 2012 | IN706/MUM/2012    | System and method of handling out of order RLC acknowledgement status reports received from the receiver       |
| RM126029 | Family | Filed | 20 Apr 2012 | 20 Apr 2012 |                   | Improved Resource Allocation for CC-specific TDD Configurations with Cross-carrier Scheduling                  |
| RM126029 | WO01   | POA   | 20 Apr 2012 | 20 Apr 2012 | PCT/CN2012/074450 | 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   | Filed | 28 Sep 2012 | 28 Sep 2012 | GB12/17423.9      | Real-time traffic off-loading mechanism from the WLANs                                                         |
| RM126036 | WO01   | Filed | 17 Sep 2013 | 28 Sep 2012 | PCT/US2013/059502 | 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   | Filed | 19 Mar 2012 | 19 Mar 2012 | GB12/04734.6      | Signaling of antenna collocation and reference for channel statistics estimation to the UE                     |
| RM126037 | US01   | Filed | 13 Sep 2012 | 19 Mar 2012 | US13/0614952      | Signaling of antenna collocation and reference for channel statistics estimation to the UE                     |
| RM126037 | WO01   | Filed | 18 Mar 2013 | 19 Mar 2012 | PCT/US2013/052139 | Signaling of antenna collocation and reference for channel statistics estimation to the UE                     |
| RM126039 | Family | Filed | 16 May 2012 | 16 May 2012 |                   | Signaling of antenna collocation and reference for channel statistics estimation to the UE                     |
| RM126039 | GB01   | Filed | 16 May 2012 | 16 May 2012 | GB12/08632.9      | Signaling of antenna collocation and reference for channel statistics estimation to the UE                     |
| RM126039 | US01   | Filed | 16 May 2013 | 16 May 2012 | US13/083404       | Signaling of antenna collocation and reference for channel statistics estimation to the UE                     |
| RM126040 | Family | Filed | 21 Mar 2012 | 21 Mar 2012 |                   | HS-DSCH CQI value estimation for Advanced Receivers using a simple low-power receiver during transmission gaps |
| RM126040 | IN01   | Filed | 21 Mar 2012 | 21 Mar 2012 | IN760/MUM/2012    | HS-DSCH CQI value estimation for Advanced Receivers using a simple low-power receiver during transmission gaps |
| RM126041 | Family | Filed | 26 May 2012 | 26 May 2012 |                   | HS-DSCH CQI value estimation for Advanced Receivers using a simple low-power receiver during transmission gaps |
| RM126041 | GB01   | Filed | 26 May 2012 | 26 May 2012 | GB12/09246.2      | HS-DSCH CQI value estimation for Advanced Receivers using a simple low-power receiver during transmission gaps |
| RM126043 | Family | Filed | 18 Mar 2012 | 18 Mar 2012 |                   | Method of avoiding ambiguity between scheduling information and data packets during collision resolution       |
| RM126043 | GB01   | Filed | 18 Mar 2012 | 18 Mar 2012 | GB12/04812.0      | Method of avoiding ambiguity between scheduling information and data packets during collision resolution       |
| RM126043 | US01   | Filed | 20 May 2012 | 18 Mar 2012 | US13/04822.0      | Method of avoiding ambiguity between scheduling information and data packets during collision resolution       |
| RM126047 | Family | Filed | 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/CN2012/082711 | 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   | Filed | 10 May 2012 | 10 May 2012 |                   | A WSN-assisted UE location optimization method                                                                 |
| RM126048 | US01   | Filed | 10 May 2012 | 10 May 2012 |                   | A WSN-assisted UE location optimization method                                                                 |
| RM126048 | WO01   | Filed | 10 May 2012 | 10 May 2012 |                   | A WSN-assisted UE location optimization method                                                                 |
| RM126048 | Family | Filed | 10 May 2012 | 10 May 2012 |                   | METHOD AND APPARATUS FOR OBTAINING SIGNAL TO NOISE RATIO (SNR) ESTIMATE IN A COMMUNICATION SYSTEM              |

|          |        |       |             |             |                   |                                                                                                                 |
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| RM126048 | G801   | POA   | 10 May 2012 | 10 May 2012 | GB1206239.4       | METHOD AND APPARATUS FOR OBTAINING SIGNAL TO NOISE RATIO (SNR) ESTIMATE IN A COMMUNICATION SYSTEM               |
| RM126048 | Family | Filed | 2 May 2013  | 10 May 2012 | US13/875872       | (SNR) ESTIMATE IN A COMMUNICATION SYSTEM                                                                        |
| RM126049 | G801   | POA   | 29 Jun 2012 | 29 Jun 2012 | GB1211688.3       | (SNR) ESTIMATE IN A COMMUNICATION SYSTEM                                                                        |
| RM126049 | Family | Filed | 29 Jun 2012 | 29 Jun 2012 | US13/936228       | IPV6 based peer discovery over-the-air for LTE                                                                  |
| RM126050 | G801   | POA   | 29 Jun 2012 | 29 Jun 2012 | GB1206277.5       | IPV6 based peer discovery over-the-air for LTE                                                                  |
| RM126051 | Family | Filed | 26 Mar 2012 | 26 Mar 2012 | US13/565043       | Method and apparatus of Layer 2 status report re-ordering                                                       |
| RM126051 | Family | Filed | 14 Aug 2012 | 14 Aug 2012 | US13/565043       | Antenna domain interference cancellation for full duplex implementation                                         |
| RM126051 | Family | Filed | 14 Aug 2012 | 14 Aug 2012 | PCT/IB2013/001361 | Antenna domain interference cancellation for full duplex implementation                                         |
| RM126054 | Family | Filed | 20 Sep 2012 | 20 Sep 2012 |                   | The inter cell interference cancellation/coordination of spreading FDMA based system for local area environment |
| RM126054 | Family | Filed | 20 Sep 2012 | 20 Sep 2012 | GB1216824.1       | The inter cell interference cancellation/coordination of spreading FDMA based system for local area environment |
| RM126054 | Family | Filed | 19 Sep 2013 | 19 Sep 2013 | US14/0036370      | The inter cell interference cancellation/coordination of spreading FDMA based system for local area environment |
| RM126056 | G801   | POA   | 27 Sep 2012 | 27 Sep 2012 | GB1217314.2       | Design for D2D specific system information                                                                      |
| RM126056 | Family | Filed | 27 Sep 2012 | 27 Sep 2012 | PCT/IB2013/001363 | Design for D2D specific system information                                                                      |
| RM126057 | Family | Filed | 29 Jun 2012 | 29 Jun 2012 | GB1211597.8       | Controlling TX antenna selection                                                                                |
| RM126057 | Family | Filed | 29 Jun 2012 | 29 Jun 2012 | GB1211597.8       | Controlling TX antenna selection                                                                                |
| RM126057 | Family | Filed | 29 Jun 2012 | 29 Jun 2012 | US13/923677       | Controlling TX antenna selection                                                                                |
| RM126058 | G801   | POA   | 18 Oct 2012 | 18 Oct 2012 | GB1216745.6       | PLT bandwidth switching depending on modulation-and-coding scheme                                               |
| RM126058 | Family | Filed | 18 Oct 2012 | 18 Oct 2012 | US13/923677       | PLT bandwidth switching depending on modulation-and-coding scheme                                               |
| RM126061 | Family | Filed | 9 May 2012  | 9 May 2012  | GB1208177.0       | Dual receiver for HSDPA communication                                                                           |
| RM126061 | Family | Filed | 9 May 2012  | 9 May 2012  | US13/746103       | Dual receiver for HSDPA communication                                                                           |
| RM126061 | Family | Filed | 9 May 2013  | 9 May 2013  | US13/698474       | Dual receiver for HSDPA communication                                                                           |
| RM126063 | Family | Filed | 17 May 2012 | 17 May 2012 |                   | Inter-cell group establish and coordination with cross-link interference in HetNet                              |
| RM126063 | Family | Filed | 17 May 2012 | 17 May 2012 | PCT/CN2012/076671 | Inter-cell group establish and coordination with cross-link interference in HetNet                              |
| RM126065 | G801   | POA   | 19 Oct 2012 | 19 Oct 2012 | GB1218007.4       | Band-dependent noise shaping in envelope tracking transmitter                                                   |
| RM126065 | Family | Filed | 19 Oct 2012 | 19 Oct 2012 | US13/923677       | Band-dependent noise shaping in envelope tracking transmitter                                                   |
| RM126065 | Family | Filed | 24 May 2012 | 24 May 2012 | GB1218007.4       | Band-dependent noise shaping in envelope tracking transmitter                                                   |
| RM126066 | G801   | POA   | 24 May 2012 | 24 May 2012 | GB1209121.1       | Low power interrupt synchronization                                                                             |
| RM126066 | Family | Filed | 24 May 2012 | 24 May 2012 | US13/746103       | Low power interrupt synchronization                                                                             |
| RM126066 | Family | Filed | 22 May 2013 | 22 May 2013 | PCT/IB2013/054233 | 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 | Family | Filed | 28 May 2012 | 28 May 2012 | GB1209498.5       | TPC command delay estimator for open loop transmit diversity (OLTD) feature                                     |
| RM126068 | G801   | POA   | 7 Jun 2012  | 7 Jun 2012  | GB1210066.7       | Choosing security context by integrity verification procedure                                                   |
| RM126068 | Family | Filed | 7 Jun 2012  | 7 Jun 2012  | US13/923677       | Choosing security context by integrity verification procedure                                                   |
| RM126073 | G801   | POA   | 19 Sep 2012 | 19 Sep 2012 | GB1218736.7       | Signaling to setup a D2D bearer utilizing over-the-air UE discovery                                             |
| RM126073 | Family | Filed | 19 Sep 2012 | 19 Sep 2012 | PCT/IB2013/056303 | Signaling to setup a D2D bearer utilizing over-the-air UE discovery                                             |
| RM126074 | G801   | POA   | 31 May 2012 | 31 May 2012 | GB1209743.2       | Modem receiver path delay measurement method                                                                    |
| RM126074 | Family | Filed | 31 May 2012 | 31 May 2012 | US13/746103       | Modem receiver path delay measurement method                                                                    |
| RM126075 | Family | Filed | 13 Jun 2012 | 13 Jun 2012 | PCT/CN2012/076626 | Enhancement on inter-frequency small cell detection                                                             |
| RM126075 | Family | Filed | 13 Jun 2012 | 13 Jun 2012 | US13/923677       | Enhancement on inter-frequency small cell detection                                                             |
| RM126076 | Family | Filed | 7 Jun 2012  | 7 Jun 2012  | PCT/CN2013/076608 | Carrier loading status report in HetNets with extension carrier                                                 |
| RM126076 | Family | Filed | 7 Jun 2012  | 7 Jun 2012  | US13/923677       | Carrier loading status report in HetNets with extension carrier                                                 |
| RM126078 | G801   | POA   | 11 May 2012 | 11 May 2012 | GB1208321.8       | Method and apparatus of capability reporting per RAT                                                            |
| RM126078 | Family | Filed | 11 May 2012 | 11 May 2012 | US13/923677       | Method and apparatus of capability reporting per RAT                                                            |
| RM126079 | Family | Filed | 17 May 2012 | 17 May 2012 | PCT/IB2013/056307 | Method and apparatus of service based uplink resource selection                                                 |
| RM126079 | Family | Filed | 17 May 2012 | 17 May 2012 | GB1208708.4       | Method and apparatus of service based uplink resource selection                                                 |

|          |        |       |             |             |                   |                                                                                                                                                         |
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| RM126080 | Family | Filed | 20 Jun 2012 | 20 Jun 2012 | GB1210866.9       | Method and apparatus of notification of neighbor cell's system information modification                                                                 |
| RM126080 | GB01   | Filed | 20 Jun 2012 | 20 Jun 2012 | GB1210866.9       | Method and apparatus of notification of neighbor cell's system information modification                                                                 |
| RM126080 | WO01   | Filed | 20 Jun 2012 | 20 Jun 2012 | PCT/IB2012/005501 | Method and apparatus of notification of neighbor cell's system information modification                                                                 |
| RM126081 | Family | Filed | 10 May 2012 | 10 May 2012 | PCT/IB2012/005501 | Enhancement of In-Device Interference TCM solution for Bluetooth                                                                                        |
| RM126081 | WO01   | Filed | 10 May 2012 | 10 May 2012 | PCT/IB2012/005501 | Enhancement of In-Device Interference TCM solution for Bluetooth                                                                                        |
| RM126082 | Family | Filed | 24 May 2012 | 24 May 2012 | PCT/IB2012/005501 | Method and apparatus of scenario specific call re-establishment                                                                                         |
| RM126082 | GB01   | Filed | 24 May 2012 | 24 May 2012 | PCT/IB2012/005501 | Method and apparatus of scenario specific call re-establishment                                                                                         |
| RM126082 | WO01   | Filed | 24 May 2012 | 24 May 2012 | PCT/IB2012/005501 | Method and apparatus of scenario specific call re-establishment                                                                                         |
| RM126083 | Family | Filed | 30 Oct 2012 | 30 Oct 2012 | GB1219485.8       | Method and apparatus for Packet Handling During Handover                                                                                                |
| RM126083 | GB01   | Filed | 30 Oct 2012 | 30 Oct 2012 | GB1219485.8       | Method and apparatus for Packet Handling During Handover                                                                                                |
| RM126084 | Family | Filed | 15 Aug 2012 | 15 Aug 2012 | GB1214552.9       | A radio receiver for the concurrent reception of multi-band carriers                                                                                    |
| RM126084 | WO01   | Filed | 15 Aug 2012 | 15 Aug 2012 | GB1214552.9       | A radio receiver for the concurrent reception of multi-band carriers                                                                                    |
| RM126085 | Family | Filed | 15 Aug 2012 | 15 Aug 2012 | GB1214552.9       | A radio receiver for the concurrent reception of multi-band carriers                                                                                    |
| RM126085 | GB01   | Filed | 15 Aug 2012 | 15 Aug 2012 | GB1214552.9       | A radio receiver for the concurrent reception of multi-band carriers                                                                                    |
| RM126085 | WO01   | Filed | 15 Aug 2012 | 15 Aug 2012 | PCT/IB2012/005501 | Efficient Linear Symbol-level Equalization and Interference Suppression for CDMA Systems Utilizing the Conjugate Gradient Algorithm and Fast Transforms |
| RM126086 | Family | Filed | 5 Oct 2012  | 5 Oct 2012  | GB1217650.5       | Efficient Linear Symbol-level Equalization and Interference Suppression for CDMA Systems Utilizing the Conjugate Gradient Algorithm and Fast Transforms |
| RM126086 | GB01   | Filed | 5 Oct 2012  | 5 Oct 2012  | GB1217650.5       | Efficient Linear Symbol-level Equalization and Interference Suppression for CDMA Systems Utilizing the Conjugate Gradient Algorithm and Fast Transforms |
| RM126086 | WO01   | Filed | 5 Oct 2012  | 5 Oct 2012  | GB1217650.5       | Efficient Linear Symbol-level Equalization and Interference Suppression for CDMA Systems Utilizing the Conjugate Gradient Algorithm and Fast Transforms |
| RM126087 | Family | Filed | 30 Oct 2012 | 30 Oct 2012 | GB1216456.6       | POCP tunneling                                                                                                                                          |
| RM126087 | GB01   | Filed | 30 Oct 2012 | 30 Oct 2012 | GB1216456.6       | POCP tunneling                                                                                                                                          |
| RM126087 | WO01   | Filed | 30 Oct 2012 | 30 Oct 2012 | GB1216456.6       | POCP tunneling                                                                                                                                          |
| RM126088 | Family | Filed | 14 May 2012 | 14 May 2012 | GB1216456.6       | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks                                                    |
| RM126088 | GB01   | Filed | 14 May 2012 | 14 May 2012 | GB1216456.6       | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks                                                    |
| RM126088 | WO01   | Filed | 14 May 2012 | 14 May 2012 | GB1216456.6       | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks                                                    |
| RM126089 | Family | Filed | 14 May 2012 | 14 May 2012 | GB1216456.6       | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks                                                    |
| RM126089 | GB01   | Filed | 14 May 2012 | 14 May 2012 | GB1216456.6       | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks                                                    |
| RM126089 | WO01   | Filed | 14 May 2012 | 14 May 2012 | GB1216456.6       | Power control and balancing method for eNB's in inter-band carrier aggregation with multiple uplinks                                                    |
| RM126090 | Family | Filed | 13 May 2012 | 13 May 2012 | PCT/IB2012/005501 | Method and apparatus to Trigger Direct Communication                                                                                                    |
| RM126090 | WO01   | Filed | 13 May 2012 | 13 May 2012 | PCT/IB2012/005501 | Method and apparatus to Trigger Direct Communication                                                                                                    |
| RM126091 | Family | Filed | 2 Oct 2012  | 2 Oct 2012  | GB1217629.3       | Method and apparatus to Trigger Direct Communication                                                                                                    |
| RM126091 | GB01   | Filed | 2 Oct 2012  | 2 Oct 2012  | GB1217629.3       | Method and apparatus to Trigger Direct Communication                                                                                                    |
| RM126091 | WO01   | Filed | 2 Oct 2012  | 2 Oct 2012  | GB1217629.3       | Method and apparatus to Trigger Direct Communication                                                                                                    |
| RM126092 | Family | Filed | 2 Oct 2012  | 2 Oct 2012  | GB1217629.3       | Method and apparatus to Trigger Direct Communication                                                                                                    |
| RM126092 | GB01   | Filed | 2 Oct 2012  | 2 Oct 2012  | GB1217629.3       | Method and apparatus to Trigger Direct Communication                                                                                                    |
| RM126092 | WO01   | Filed | 2 Oct 2012  | 2 Oct 2012  | GB1217629.3       | Method and apparatus to Trigger Direct Communication                                                                                                    |
| RM126093 | Family | Filed | 2 Oct 2012  | 2 Oct 2012  | GB1217630.1       | 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 | WO01   | Filed | 2 Oct 2012  | 2 Oct 2012  | GB1217630.1       | Method and apparatus for Gateway to Trigger Evaluation of Direct Communication                                                                          |
| RM126094 | Family | Filed | 27 Jun 2012 | 27 Jun 2012 | GB1211418.5       | An ARQ protocol for variable rate transport channel                                                                                                     |
| RM126094 | GB01   | Filed | 27 Jun 2012 | 27 Jun 2012 | GB1211418.5       | An ARQ protocol for variable rate transport channel                                                                                                     |
| RM126094 | WO01   | Filed | 27 Jun 2012 | 27 Jun 2012 | GB1211418.5       | An ARQ protocol for variable rate transport channel                                                                                                     |
| RM126095 | Family | Filed | 10 May 2012 | 10 May 2012 | PCT/IB2012/005501 | Enhancement of extension carrier information report in HetNet                                                                                           |
| RM126095 | GB01   | Filed | 10 May 2012 | 10 May 2012 | PCT/IB2012/005501 | Enhancement of extension carrier information report in HetNet                                                                                           |
| RM126095 | WO01   | Filed | 10 May 2012 | 10 May 2012 | PCT/IB2012/005501 | Enhancement of extension carrier information report in HetNet                                                                                           |
| RM126096 | Family | Filed | 17 Jul 2012 | 17 Jul 2012 | PCT/IB2012/005501 | Enhancement of resource status report in HetNets with extension carrier                                                                                 |
| RM126096 | GB01   | Filed | 17 Jul 2012 | 17 Jul 2012 | PCT/IB2012/005501 | Enhancement of resource status report in HetNets with extension carrier                                                                                 |
| RM126096 | WO01   | Filed | 17 Jul 2012 | 17 Jul 2012 | PCT/IB2012/005501 | Enhancement of resource status report in HetNets with extension carrier                                                                                 |
| RM126097 | Family | Filed | 12 Jul 2012 | 12 Jul 2012 | GB1219428.8       | Fast TBF establishment on PCCH by MS in Packet Idle Mode                                                                                                |
| RM126097 | GB01   | Filed | 12 Jul 2012 | 12 Jul 2012 | GB1219428.8       | Fast TBF establishment on PCCH by MS in Packet Idle Mode                                                                                                |
| RM126097 | WO01   | Filed | 12 Jul 2012 | 12 Jul 2012 | GB1219428.8       | Fast TBF establishment on PCCH by MS in Packet Idle Mode                                                                                                |
| RM126098 | Family | Filed | 10 May 2012 | 10 May 2012 | PCT/IB2012/005501 | Adaptation of HARQ-ACK and Periodic CSI Multiplexing in PUCCH                                                                                           |
| RM126098 | GB01   | Filed | 10 May 2012 | 10 May 2012 | PCT/IB2012/005501 | Adaptation of HARQ-ACK and Periodic CSI Multiplexing in PUCCH                                                                                           |
| RM126098 | WO01   | Filed | 10 May 2012 | 10 May 2012 | PCT/IB2012/005501 | Adaptation of HARQ-ACK and Periodic CSI Multiplexing in PUCCH                                                                                           |
| RM126099 | Family | Filed | 7 May 2012  | 7 May 2012  | PCT/IB2012/005501 | Design of multi-cell periodic CSI reporting on PUCCH format 3                                                                                           |
| RM126099 | GB01   | Filed | 7 May 2012  | 7 May 2012  | PCT/IB2012/005501 | Design of multi-cell periodic CSI reporting on PUCCH format 3                                                                                           |
| RM126099 | WO01   | Filed | 7 May 2012  | 7 May 2012  | PCT/IB2012/005501 | Design of multi-cell periodic CSI reporting on PUCCH format 3                                                                                           |
| RM126100 | Family | Filed | 29 Jun 2012 | 29 Jun 2012 | PCT/IB2012/005501 | A downlink frame processing architecture for a receiver                                                                                                 |
| RM126100 | GB01   | Filed | 29 Jun 2012 | 29 Jun 2012 | PCT/IB2012/005501 | A downlink frame processing architecture for a receiver                                                                                                 |
| RM126100 | WO01   | Filed | 29 Jun 2012 | 29 Jun 2012 | PCT/IB2012/005501 | A downlink frame processing architecture for a receiver                                                                                                 |
| RM126101 | Family | Filed | 29 Jun 2012 | 29 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |
| RM126101 | GB01   | Filed | 29 Jun 2012 | 29 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |
| RM126101 | WO01   | Filed | 29 Jun 2012 | 29 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |
| RM126102 | Family | Filed | 26 Jun 2012 | 26 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |
| RM126102 | GB01   | Filed | 26 Jun 2012 | 26 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |
| RM126102 | WO01   | Filed | 26 Jun 2012 | 26 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |
| RM126103 | Family | Filed | 26 Jun 2012 | 26 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |
| RM126103 | GB01   | Filed | 26 Jun 2012 | 26 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |
| RM126103 | WO01   | Filed | 26 Jun 2012 | 26 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |
| RM126104 | Family | Filed | 26 Jun 2012 | 26 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |
| RM126104 | GB01   | Filed | 26 Jun 2012 | 26 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |
| RM126104 | WO01   | Filed | 26 Jun 2012 | 26 Jun 2012 | PCT/IB2012/005501 | Apparatus and method of cooperative surveillance system                                                                                                 |

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| RM126108 | Family | Filed      | 22 Aug 2012 | 22 Aug 2012 | GB1213861.4        | GB2493539 | 13 Feb 2013 | Using interfaces to improve intermediate processing in benefit of performance                  |
| RM126108 | GB01   | POA        | 22 Aug 2012 | 22 Aug 2012 | GB1213861.4        | GB2493539 | 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/CN2012/075244  |           |             | 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 | Resource Configuration of PUSCH for Multiple Periodic CSI feedback                             |
| RM126113 | WO01   | Filed      | 9 May 2013  | 9 May 2013  | PCT/IB2012/065750  |           |             | Uplink carrier band and component carrier frequency prioritization for interference mitigation |
| 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  | GB1214657.6        |           |             | Uplink carrier band and component carrier frequency prioritization for interference mitigation |
| RM126114 | WO01   | Filed      | 9 Aug 2013  | 9 Aug 2013  | PCT/IB2012/065636  |           |             | 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                        |
| RM126116 | GB01   | Filed      | 14 May 2012 | 14 May 2012 | GB1208563.5        |           |             | Calculation of backoff timer for DTCH transmissions upon E-DCH to PRACH                        |
| RM126116 | GB02   | Filed      | 14 May 2012 | 14 May 2012 | GB1301638.5        |           |             | Calculation of backoff timer for DTCH transmissions upon E-DCH to PRACH                        |
| RM126117 | Family | Filed      | 13 Sep 2012 | 13 Sep 2012 |                    |           |             | Enhanced positioning reference signal based RRH discovery scheme                               |
| RM126117 | WO01   | POA        | 13 Sep 2012 | 13 Sep 2012 | PCT/CN2012/081347  |           |             | Enhanced positioning reference signal based RRH discovery scheme                               |
| RM126121 | Family | Filed      | 5 Oct 2012  | 5 Oct 2012  |                    |           |             | Joint Detection and Decoding for Uplink State Flag (USF) Detection in E-PRBS                   |
| RM126121 | GB01   | POA        | 5 Oct 2012  | 5 Oct 2012  | GB1217886.1        |           |             | Joint Detection and Decoding for Uplink State Flag (USF) Detection in E-PRBS                   |
| RM126121 | US01   | InDrafting | 5 Oct 2012  | 5 Oct 2012  |                    |           |             | Joint Detection and Decoding for Uplink State Flag (USF) Detection in E-PRBS                   |
| RM126122 | Family | Filed      | 11 May 2012 | 11 May 2012 |                    |           |             | Method and apparatus for frequency specific periodical intra-frequency measurement             |
| RM126122 | GB01   | POA        | 11 May 2012 | 11 May 2012 | GB1308469.5        | GB2495659 | 17 Apr 2013 | Method and apparatus for frequency specific periodical intra-frequency measurement             |
| RM126122 | US01   | Filed      | 25 Mar 2013 | 11 May 2012 | US13/645988        |           |             | Method and apparatus for frequency specific periodical intra-frequency measurement             |
| RM126122 | WO01   | Filed      | 10 May 2013 | 11 May 2012 | PCT/IB2012/0653806 |           |             | Method and apparatus for frequency specific periodical intra-frequency measurement             |
| RM126123 | Family | Filed      | 11 May 2012 | 11 May 2012 |                    |           |             | Network Signalled Support of Fast Dormancy Transition to IDLE                                  |
| RM126123 | GB01   | Filed      | 11 May 2012 | 11 May 2012 | GB1218281.4        |           |             | Network Signalled Support of Fast Dormancy Transition to IDLE                                  |
| RM126124 | Family | Filed      | 14 May 2012 | 14 May 2012 |                    |           |             | L2 Signaling Procedure for Additional Special Subframe Configuration                           |
| RM126124 | WO01   | Filed      | 14 May 2012 | 14 May 2012 | PCT/CN2012/075436  |           |             | L2 Signaling Procedure for Additional Special Subframe Configuration                           |
| RM126127 | Family | Filed      | 28 Sep 2012 | 28 Sep 2012 |                    |           |             | Adaptive D-SR period based on DRX configuration                                                |
| RM126127 | WO01   | Filed      | 28 Sep 2012 | 28 Sep 2012 | PCT/CN2012/082269  |           |             | Adaptive D-SR period based on DRX configuration                                                |
| RM126128 | Family | Filed      | 11 May 2012 | 11 May 2012 |                    |           |             | On FSS SSS and DM RS Collision Avoidance                                                       |
| RM126128 | WO01   | Filed      | 11 May 2012 | 11 May 2012 | PCT/CN2012/076399  |           |             | On FSS SSS and DM RS Collision Avoidance                                                       |
| RM126129 | Family | Filed      | 27 Jun 2012 | 27 Jun 2012 |                    |           |             | Common control signaling handling for MTC UE                                                   |
| RM126129 | WO01   | POA        | 27 Jun 2012 | 27 Jun 2012 | PCT/CN2012/077606  |           |             | Common control signaling handling for MTC UE                                                   |
| RM126130 | Family | Filed      | 10 Oct 2012 | 10 Oct 2012 |                    |           |             | Joint cell and device to device discovery                                                      |
| RM126130 | GB01   | Filed      | 10 Oct 2012 | 10 Oct 2012 | GB1219201.9        |           |             | Joint cell and device to device discovery                                                      |
| RM126130 | WO01   | ToFiling   | 10 Oct 2012 | 10 Oct 2012 |                    |           |             | 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      | 2 Aug 2012  | 2 Aug 2012  | PCT/IB2012/065066  |           |             | Method on LTE sharing CRNTI for low periodicity packet transmission                            |
| RM126132 | Family | Filed      | 24 Jul 2013 | 24 Jul 2013 |                    |           |             | Reduction of Measurement Report Size in challenging signal conditions                          |
| RM126132 | GB01   | Filed      | 20 Jun 2013 | 20 Jun 2013 | GB1210925.2        |           |             | Reduction of Measurement Report Size in challenging signal conditions                          |
| RM126132 | WO01   | Filed      | 20 Jun 2013 | 20 Jun 2013 | PCT/IB2012/0654877 |           |             | Reduction of Measurement Report Size in challenging signal conditions                          |
| RM126133 | Family | Filed      | 17 Aug 2012 | 17 Aug 2012 |                    |           |             | 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                                                      |

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| RM126165 | WO/01  | Filed       | 23 Jul 2012 | 28 Jul 2012 | PCT/CN2012/079266 | Enhanced random access method in cellular network for vehicles                                      |
| RM126166 | Family | Filed       | 31 May 2012 | 31 May 2012 |                   | Cell reporting and eNB scheduling in support of widely linear receivers                             |
| RM126167 | GB01   | Filed       | 31 May 2012 | 31 May 2012 | GB1209748.1       | Cell reporting and eNB scheduling in support of widely linear receivers                             |
| RM126168 | WO/01  | Filed       | 29 May 2013 | 31 May 2012 | PCT/US2013/064435 | Cell reporting and eNB scheduling in support of widely linear receivers                             |
| RM126169 | Family | Filed       | 13 Jul 2012 | 13 Jul 2012 |                   | Small cell discovery and measurement using PDSCH and CSI-RS                                         |
| RM126170 | WO/01  | POA         | 13 Jul 2012 | 13 Jul 2012 | PCT/CN2012/079519 | Small cell discovery and measurement using PDSCH and CSI-RS                                         |
| RM126171 | Family | Filed       | 19 Dec 2012 | 19 Dec 2012 |                   | Multipurpose Synchronization Reference Sequence Design for Local Area Communication                 |
| RM126172 | GB01   | Filed       | 19 Dec 2012 | 19 Dec 2012 | GB1222970.4       | Multipurpose Synchronization Reference Sequence Design for Local Area Communication                 |
| RM126173 | Family | Filed       | 12 Oct 2012 | 12 Oct 2012 |                   | SCH-linked RS configurations for New Carrier Type                                                   |
| RM126174 | WO/01  | POA         | 12 Oct 2012 | 12 Oct 2012 | PCT/CN2012/062640 | SCH-linked RS configurations for New Carrier Type                                                   |
| RM126175 | Family | Filed       | 18 Oct 2012 | 18 Oct 2012 |                   | MIB indication in standalone new carrier type                                                       |
| RM126176 | WO/01  | Filed       | 18 Oct 2012 | 18 Oct 2012 | PCT/CN2012/063009 | MIB indication in standalone new carrier type                                                       |
| RM126177 | Family | Filed       | 5 Oct 2012  | 5 Oct 2012  |                   | Special Subframe configuration for Low-Cost Machine Type Communications                             |
| RM126178 | WO/01  | POA         | 5 Oct 2012  | 5 Oct 2012  | PCT/US2012/055363 | Special Subframe configuration for Low-Cost Machine Type Communications                             |
| RM126179 | Family | Filed       | 26 Jun 2012 | 26 Jun 2012 |                   | Necessary signaling and procedures for UE interference cancellation in HetNet                       |
| RM126180 | WO/01  | Filed       | 26 Jun 2012 | 26 Jun 2012 | PCT/CN2012/077722 | Necessary signaling and procedures for UE interference cancellation in HetNet                       |
| RM126181 | Family | Filed       | 11 Oct 2012 | 11 Oct 2012 |                   | Enhanced power saving method for future HetNet deployment scenario                                  |
| RM126182 | WO/01  | Filed       | 11 Oct 2012 | 11 Oct 2012 | PCT/CN2012/062806 | Enhanced power saving method for future HetNet deployment scenario                                  |
| RM126183 | WO/01  | POA         | 10 Oct 2012 | 10 Oct 2012 |                   | ePDSCH configuration procedure in standalone new carrier type                                       |
| RM126184 | Family | Filed       | 15 Oct 2012 | 15 Oct 2012 | PCT/CN2012/062686 | ePDSCH configuration procedure in standalone new carrier type                                       |
| RM126185 | GB01   | Filed       | 13 Sep 2012 | 13 Sep 2012 |                   | Securization for hidden terminal mitigation                                                         |
| RM126186 | US01   | Filed       | 13 Sep 2012 | 13 Sep 2012 | GB1216365.5       | Securization for hidden terminal mitigation                                                         |
| RM126187 | Family | Filed       | 9 Sep 2013  | 13 Sep 2012 | US14/031373       | Securization for hidden terminal mitigation                                                         |
| RM126188 | Family | Filed       | 14 Jan 2013 | 14 Jan 2013 |                   | On Small Cell and UE Discovery                                                                      |
| RM126189 | GB01   | POA         | 14 Jan 2013 | 14 Jan 2013 | GB1306332.5       | On Small Cell and UE Discovery                                                                      |
| RM126190 | GB01   | Filed       | 10 Oct 2012 | 10 Oct 2012 |                   | Method and apparatus for cell access                                                                |
| RM126191 | US01   | In Drafting | 10 Oct 2012 | 10 Oct 2012 | GB1216202.8       | Method and apparatus for cell access                                                                |
| RM126192 | Family | Filed       | 4 Sep 2012  | 13 Oct 2012 |                   | Method and apparatus for cell access                                                                |
| RM126193 | WO/01  | Filed       | 4 Sep 2012  | 4 Sep 2012  | PCT/CN2012/060991 | Power efficient broadcast signal and mode indication for sleeping eNB                               |
| RM126194 | Family | Filed       | 29 Sep 2012 | 29 Sep 2012 |                   | Power efficient broadcast signal and mode indication for sleeping eNB                               |
| RM126195 | WO/01  | Filed       | 29 Sep 2012 | 29 Sep 2012 | PCT/CN2012/062425 | Enhancement of contention based UL transmission in LA network                                       |
| RM126196 | Family | Filed       | 30 Aug 2012 | 30 Aug 2012 |                   | Enhancement of contention based UL transmission in LA network                                       |
| RM126197 | WO/01  | Filed       | 30 Aug 2012 | 30 Aug 2012 | PCT/CN2012/060803 | Glitch indicator for carrier aggregation                                                            |
| RM126198 | Family | Filed       | 3 Aug 2012  | 3 Aug 2012  |                   | Glitch indicator for carrier aggregation                                                            |
| RM126199 | Family | Filed       | 3 Aug 2012  | 3 Aug 2012  |                   | Efficient method to manage the UL transmission and UL physical channel resource in local area cells |
| RM126200 | WO/01  | Filed       | 3 Aug 2012  | 3 Aug 2012  | PCT/CN2012/079549 | Efficient method to manage the UL transmission and UL physical channel resource in local area cells |
| RM126201 | US01   | Filed       | 16 Jul 2012 | 16 Jul 2012 |                   | Connectivity Enhancement for Wireless Communication System                                          |
| RM126202 | US01   | Filed       | 16 Jul 2012 | 16 Jul 2012 | US12/650045       | Connectivity Enhancement for Wireless Communication System                                          |
| RM126203 | Family | Filed       | 16 Jul 2012 | 16 Jul 2012 | PCT/US2013/055829 | Connectivity Enhancement for Wireless Communication System                                          |
| RM126204 | Family | Filed       | 12 Oct 2012 | 12 Oct 2012 |                   | On ProSe EUTRAN capability in intra-EUTRAN mobility                                                 |
| RM126205 | GB01   | Filed       | 12 Oct 2012 | 12 Oct 2012 | GB1218373.7       | On ProSe EUTRAN capability in intra-EUTRAN mobility                                                 |
| RM126206 | Family | Filed       | 12 Oct 2012 | 12 Oct 2012 |                   | Privacy-Aware Communication Scheme in Advanced Metering Infrastructure (AMI) Systems                |
| RM126207 | Family | Filed       | 29 Sep 2012 | 29 Sep 2012 |                   | Privacy-Aware Communication Scheme in Advanced Metering Infrastructure (AMI) Systems                |
| RM126208 | WO/01  | Filed       | 29 Sep 2012 | 29 Sep 2012 | PCT/CN2012/062455 | Cell Reselection Enhancement for UE Initiated Calls in HetNet Scenario                              |
| RM126209 | Family | Filed       | 30 Jul 2012 | 30 Jul 2012 |                   | Cell Reselection Enhancement for UE Initiated Calls in HetNet Scenario                              |
| RM126210 | WO/01  | Granted     | 30 Jul 2012 | 30 Jul 2012 | GB1213617.4       | Cell Reselection Enhancement for UE Initiated Calls in HetNet Scenario                              |
| RM126211 | WO/01  | Filed       | 26 Jul 2013 | 30 Jul 2012 | PCT/US2013/056130 | Initial access for small nodes with same cell ID                                                    |
| RM126212 | Family | Filed       | 7 Nov 2012  | 7 Nov 2012  |                   | Initial access for small nodes with same cell ID                                                    |
| RM126213 | WO/01  | Filed       | 7 Nov 2012  | 7 Nov 2012  | PCT/CN2012/064197 | Method and apparatus of smart measurement reporting in weak field                                   |
| RM126214 | Family | Filed       | 29 Jun 2012 | 29 Jun 2012 |                   | Method and apparatus of smart measurement reporting in weak field                                   |
| RM126215 | GB01   | POA         | 29 Jun 2012 | 29 Jun 2012 | GB1311456.9       | Method and apparatus of smart measurement reporting in weak field                                   |
| RM126216 | WO/01  | Filed       | 26 Jun 2013 | 29 Jun 2012 | PCT/US2013/055250 | Method and apparatus of smart measurement reporting in weak field                                   |

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|----------|--------|---------|-------------|-------------|---------------------|-----------------------------------------------------------------------------------------------|
| RM126206 | Family | Filed   | 19 Oct 2012 | 19 Oct 2012 | GB1218956.2         | Controlling modem RX data paths according to TX antenna selection                             |
| RM126206 | GB01   | Filed   | 19 Oct 2012 | 19 Oct 2012 | GB1218956.2         | Controlling modem RX data paths according to TX antenna selection                             |
| RM126206 | GB02   | Filed   | 23 Oct 2012 | 19 Oct 2012 | GB1218956.3         | Controlling modem RX data paths according to TX antenna selection                             |
| RM126209 | Family | Filed   | 11 Dec 2012 | 11 Dec 2012 |                     | Transmitter modulated power averaging using RF measurement receiver and digital TX IQ samples |
| RM126209 | GB01   | POA     | 11 Dec 2012 | 11 Dec 2012 | GB1222492.3         | Transmitter modulated power averaging using RF measurement receiver and digital TX IQ samples |
| RM126209 | US01   | Filed   | 28 Aug 2013 | 11 Dec 2012 | 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/CN2012/080317.5 | Configuration and Uplink Control Information Transmissions for Inter-eNB Carrier Aggregation  |
| RM126213 | Family | Filed   | 12 Jul 2012 | 12 Jul 2012 |                     | Method and apparatus of delaying RLC unrecoverable error when CS call established             |
| RM126213 | GB01   | POA     | 12 Jul 2012 | 12 Jul 2012 | GB2481050           | Method and apparatus of delaying RLC unrecoverable error when CS call established             |
| RM126213 | WO01   | Filed   | 12 Jul 2012 | 12 Jul 2012 | PCT/IB2012/055703   | Method and apparatus of delaying RLC unrecoverable error when CS call established             |
| RM126215 | Family | Filed   | 16 Nov 2012 | 16 Nov 2012 |                     | Enhancement on L-P-ABS set in eCIC of HeNBs                                                   |
| RM126215 | WO01   | POA     | 16 Nov 2012 | 16 Nov 2012 | PCT/CN2012/054731   | Enhancement on L-P-ABS set in eCIC of HeNBs                                                   |
| RM126216 | Family | Filed   | 15 Jul 2012 | 16 Jul 2012 |                     | Energy Efficient OBSS Reporting                                                               |
| RM126216 | US01   | Filed   | 16 Jul 2012 | 16 Jul 2012 | US13/654549         | Energy Efficient OBSS Reporting                                                               |
| RM126218 | Family | Filed   | 29 Aug 2012 | 29 Aug 2012 | PCT/CN2012/050706   | Probe based paging optimization in R12 dense deployed LA scenario                             |
| RM126218 | WO01   | Filed   | 29 Aug 2012 | 29 Aug 2012 | PCT/IB2012/050706   | Probe based paging optimization in R12 dense deployed LA scenario                             |
| RM126219 | Family | Filed   | 16 Jul 2012 | 16 Jul 2012 | GB1212647.0         | PS-Poll Sleep Duration Indication                                                             |
| RM126219 | GB01   | Filed   | 16 Jul 2012 | 16 Jul 2012 | PCT/IB2012/055836   | PS-Poll Sleep Duration Indication                                                             |
| RM126219 | WO01   | Filed   | 16 Jul 2012 | 16 Jul 2012 | PCT/IB2012/055836   | PS-Poll Sleep Duration Indication                                                             |
| RM126220 | Family | Filed   | 16 Jul 2012 | 16 Jul 2012 | GB1212647.0         | PS-Poll Sleep Duration Indication                                                             |
| RM126220 | GB01   | POA     | 16 Jul 2012 | 16 Jul 2012 | GB1212647.0         | PS-Poll Sleep Duration Indication                                                             |
| RM126221 | Family | Filed   | 3 Aug 2012  | 3 Aug 2012  | GB1212647.0         | Data Exchange Enhancement                                                                     |
| RM126221 | GB01   | POA     | 3 Aug 2012  | 3 Aug 2012  | GB1212647.0         | Data Exchange Enhancement                                                                     |
| RM126222 | Family | Filed   | 3 Aug 2012  | 3 Aug 2012  | GB1212647.0         | Method and apparatus of smart E-RGCH monitoring set maintenance                               |
| RM126222 | GB01   | POA     | 3 Aug 2012  | 3 Aug 2012  | GB1212647.0         | Method and apparatus of smart E-RGCH monitoring set maintenance                               |
| RM126222 | US01   | Filed   | 3 Aug 2012  | 3 Aug 2012  | US13/654549         | Method and apparatus of smart measured result reporting                                       |
| RM126222 | US02   | Filed   | 18 Sep 2013 | 3 Aug 2012  | US14/036605         | Method and apparatus of smart measured result reporting                                       |
| RM126224 | Family | Filed   | 2 Aug 2012  | 2 Aug 2012  | PCT/CN2012/075946   | Method and apparatus of smart measured result reporting                                       |
| RM126224 | GB01   | Filed   | 2 Aug 2012  | 2 Aug 2012  | GB1212647.0         | Method and apparatus of smart measured result reporting                                       |
| RM126224 | WO01   | Filed   | 2 Aug 2012  | 2 Aug 2012  | PCT/IB2012/075946   | Method and apparatus of smart measured result reporting                                       |
| RM126225 | Family | Filed   | 1 Aug 2012  | 1 Aug 2012  |                     | Inter-RAT Fast Dormancy and RAT preference indication                                         |
| RM126225 | GB01   | Filed   | 1 Aug 2012  | 1 Aug 2012  | GB1212647.0         | Inter-RAT Fast Dormancy and RAT preference indication                                         |
| RM126225 | WO01   | Filed   | 1 Aug 2012  | 1 Aug 2012  | PCT/IB2012/075946   | Inter-RAT Fast Dormancy and RAT preference indication                                         |
| RM126226 | Family | Filed   | 6 Aug 2012  | 6 Aug 2012  | GB1212647.0         | Inter-RAT Fast Dormancy and RAT preference indication                                         |
| RM126226 | GB01   | Filed   | 6 Aug 2012  | 6 Aug 2012  | GB1212647.0         | Inter-RAT Fast Dormancy and RAT preference indication                                         |
| RM126226 | WO01   | Filed   | 6 Aug 2012  | 6 Aug 2012  | PCT/IB2012/075946   | Inter-RAT Fast Dormancy and RAT preference indication                                         |
| RM126228 | Family | Filed   | 26 Oct 2012 | 26 Oct 2012 | PCT/CN2012/083628   | Method and apparatus of smart measured result reporting                                       |
| RM126228 | WO01   | POA     | 26 Oct 2012 | 26 Oct 2012 | PCT/IB2012/083628   | Method and apparatus of smart measured result reporting                                       |
| RM126229 | Family | Filed   | 6 Aug 2012  | 6 Aug 2012  | GB1212647.0         | Method and apparatus of smart measured result reporting                                       |
| RM126229 | GB01   | Filed   | 6 Aug 2012  | 6 Aug 2012  | GB1212647.0         | Method and apparatus of smart measured result reporting                                       |
| RM126229 | US01   | Filed   | 6 Aug 2012  | 6 Aug 2012  | US13/654549         | Method and apparatus of smart measured result reporting                                       |
| RM126230 | Family | Filed   | 6 Aug 2012  | 6 Aug 2012  | GB1212647.0         | Method and apparatus of smart measured result reporting                                       |
| RM126230 | GB01   | Filed   | 6 Aug 2012  | 6 Aug 2012  | GB1212647.0         | Method and apparatus of smart measured result reporting                                       |
| RM126230 | WO01   | Filed   | 6 Aug 2012  | 6 Aug 2012  | PCT/IB2012/075946   | Method and apparatus of smart measured result reporting                                       |
| RM126231 | Family | Filed   | 31 Oct 2012 | 31 Oct 2012 |                     | Improved method for determining UE power limited status in HSUPA                              |
| RM126231 | GB01   | POA     | 31 Oct 2012 | 31 Oct 2012 | GB1212647.0         | Improved method for determining UE power limited status in HSUPA                              |
| RM126231 | WO01   | Filed   | 31 Oct 2012 | 31 Oct 2012 | PCT/IB2012/075946   | Improved method for determining UE power limited status in HSUPA                              |
| RM126233 | Family | Filed   | 27 Sep 2012 | 27 Sep 2012 | PCT/CN2012/082178   | Enhancement of eCIC solution in HeNBs with overlapping pico cells                             |
| RM126233 | WO01   | Filed   | 27 Sep 2012 | 27 Sep 2012 | PCT/IB2012/082178   | Enhancement of eCIC solution in HeNBs with overlapping pico cells                             |
| RM126234 | Family | Filed   | 22 Nov 2012 | 22 Nov 2012 | PCT/CN2012/086056   | DRX operation for dual-connection                                                             |
| RM126234 | WO01   | POA     | 22 Nov 2012 | 22 Nov 2012 | PCT/IB2012/086056   | DRX operation for dual-connection                                                             |
| RM126235 | Family | Filed   | 20 Jul 2012 | 20 Jul 2012 | US13/654549         | Control of the enhanced RSSI scan                                                             |
| RM126235 | US01   | Granted | 20 Jul 2012 | 20 Jul 2012 | US13/654549         | Control of the enhanced RSSI scan                                                             |
| RM126240 | Family | Filed   | 11 Oct 2012 | 11 Oct 2012 | PCT/CN2012/086280   | LTE assisted WLAN AP discovery                                                                |
| RM126240 | WO01   | Filed   | 11 Oct 2012 | 11 Oct 2012 | PCT/IB2012/086280   | LTE assisted WLAN AP discovery                                                                |

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Control of the enhanced RSSI scan  
LTE assisted WLAN AP discovery  
LTE assisted WLAN AP discovery

|          |        |           |             |             |             |                   |                                                                                       |
|----------|--------|-----------|-------------|-------------|-------------|-------------------|---------------------------------------------------------------------------------------|
| RM126241 | Family | Filed     | 2 Nov 2012  | 2 Nov 2012  | 2 Nov 2012  | GB1219718.2       | Improved method to maximize uplink resource utilization for E-UTRA                    |
| RM126241 | GB01   | POA       | 2 Nov 2012  | 2 Nov 2012  | 2 Nov 2012  | GB1219718.2       | Improved method to maximize uplink resource utilization for E-UTRA                    |
| RM126242 | Family | Filed     | 22 Nov 2012 | 22 Nov 2012 | 22 Nov 2012 | PCT/CN2012/088075 | Assistant info for new carrier type mobility                                          |
| RM126242 | WO01   | POA       | 22 Nov 2012 | 22 Nov 2012 | 22 Nov 2012 | PCT/CN2012/088075 | Assistant info for new carrier type mobility                                          |
| RM126244 | Family | Closed    |             |             |             |                   | A Novel Safety Message Transmission Solution in Vehicular Networks                    |
| RM126245 | Family | Filed     | 31 Oct 2012 | 31 Oct 2012 | 31 Oct 2012 |                   | Multiplexed Transmission of Data from Multiple DL HARQ Processes for LTE              |
| RM126245 | WO01   | POA       | 31 Oct 2012 | 31 Oct 2012 | 31 Oct 2012 | PCT/CN2012/083329 | TDD Flexible Switching Operation                                                      |
| RM126246 | Family | Filed     | 6 Sep 2012  | 6 Sep 2012  | 6 Sep 2012  | PCT/CN2012/081091 | TDD Flexible Switching Operation                                                      |
| RM126246 | WO01   | Filed     | 6 Sep 2012  | 6 Sep 2012  | 6 Sep 2012  | PCT/CN2012/081091 | Novel energy saving method in HetNet                                                  |
| RM126248 | Family | Filed     | 6 Aug 2012  | 6 Aug 2012  | 6 Aug 2012  | PCT/CN2012/079735 | Novel energy saving method in HetNet                                                  |
| RM126248 | WO01   | POA       | 6 Aug 2012  | 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 | 22 Oct 2012 |                   | An efficient IDC autonomous denial prohibition mechanism                              |
| RM126249 | WO01   | POA       | 22 Oct 2012 | 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  | 4 Aug 2012  | PCT/CN2012/079899 | Novel sleeping procedure for LTE new carrier type and future local area network       |
| RM126250 | WO01   | Filed     | 4 Aug 2012  | 4 Aug 2012  | 4 Aug 2012  | PCT/CN2012/079899 | Antenna port for demodulation of ePDCCH                                               |
| RM126251 | Family | Filed     | 8 Aug 2012  | 8 Aug 2012  | 8 Aug 2012  |                   | Antenna port for demodulation of ePDCCH                                               |
| RM126251 | US01   | Filed     | 6 Aug 2012  | 6 Aug 2012  | 6 Aug 2012  | US8168002         | CS domain congestion control in combined registration when PS domain is not congested |
| RM126251 | US02   | Filed     | 6 Aug 2012  | 6 Aug 2012  | 6 Aug 2012  | US8168002         | CS domain congestion control in combined registration when PS domain is not congested |
| RM126252 | Family | Filed     | 10 Dec 2012 | 10 Dec 2012 | 10 Dec 2012 |                   | CS domain congestion control in combined registration when PS domain is not congested |
| RM126252 | WO01   | Filed     | 10 Dec 2012 | 10 Dec 2012 | 10 Dec 2012 | PCT/US2012/002870 | Enhanced system and method for blind IQ imbalance correction and estimation           |
| RM126255 | Family | Filed     | 3 Oct 2012  | 3 Oct 2012  | 3 Oct 2012  | GB1217707.7       | Enhanced system and method for blind IQ imbalance correction and estimation           |
| RM126255 | GB01   | POA       | 3 Oct 2012  | 3 Oct 2012  | 3 Oct 2012  | GB1217707.7       | Application of hysteresis to triggering and resetting of mobility timers              |
| RM126256 | Family | Filed     | 17 Oct 2012 | 17 Oct 2012 | 17 Oct 2012 | PCT/CN2012/083067 | Application of hysteresis to triggering and resetting of mobility timers              |
| RM126256 | WO01   | Filed     | 17 Oct 2012 | 17 Oct 2012 | 17 Oct 2012 | PCT/CN2012/083067 | low power assumption static MTC in connected mode                                     |
| RM126257 | Family | Filed     | 16 Oct 2012 | 16 Oct 2012 | 16 Oct 2012 | GB1218574.9       | low power assumption static MTC in connected mode                                     |
| RM126257 | GB01   | Filed     | 16 Oct 2012 | 16 Oct 2012 | 16 Oct 2012 | GB1218574.9       | Envelope tracking transmitter with variable differential delay                        |
| RM126257 | US01   | To Filing | 16 Oct 2012 | 16 Oct 2012 | 16 Oct 2012 |                   | Envelope tracking transmitter with variable differential delay                        |
| RM126258 | Family | Filed     | 21 Aug 2012 | 21 Aug 2012 | 21 Aug 2012 |                   | Envelope tracking transmitter with variable differential delay                        |
| RM126258 | GB01   | Filed     | 21 Aug 2012 | 21 Aug 2012 | 21 Aug 2012 | GB1214904.3       | PLMN ID to structure of envelope (EVENT DOWNLOAD ? CSG Cell Selection)                |
| RM126258 | US01   | Filed     | 21 Aug 2012 | 21 Aug 2012 | 21 Aug 2012 | US1319721.0       | PLMN ID to structure of envelope (EVENT DOWNLOAD ? CSG Cell Selection)                |
| RM126258 | WO01   | Filed     | 15 Aug 2012 | 15 Aug 2012 | 15 Aug 2012 | PCT/US2012/005667 | PLMN ID to structure of envelope (EVENT DOWNLOAD ? CSG Cell Selection)                |
| RM126258 | Family | Filed     | 10 Oct 2012 | 10 Oct 2012 | 10 Oct 2012 |                   | Handover procedure with dual connection in local area network                         |
| RM126258 | WO01   | Filed     | 10 Oct 2012 | 10 Oct 2012 | 10 Oct 2012 | PCT/CN2012/088724 | Handover procedure with dual connection in local area network                         |
| RM126261 | Family | Filed     | 18 Jan 2013 | 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 | 18 Jan 2013 | PCT/CN2012/071711 | A Novel Channel Reservation and Synchronous Transmission Method in WLAN Systems       |
| RM126263 | Family | Filed     | 28 Nov 2012 | 28 Nov 2012 | 28 Nov 2012 |                   | On Enhancing Network Coverage in Future LTE Based Public Safety Systems               |
| RM126263 | GB01   | Filed     | 28 Nov 2012 | 28 Nov 2012 | 28 Nov 2012 | GB1221420.1       | On Enhancing Network Coverage in Future LTE Based Public Safety Systems               |
| RM126265 | Family | To Filing | 30 Oct 2012 | 30 Oct 2012 | 30 Oct 2012 |                   | On Enhancing Network Coverage in Future LTE Based Public Safety Systems               |
| RM126265 | WO01   | Filed     | 30 Oct 2012 | 30 Oct 2012 | 30 Oct 2012 | GB1219522.6       | Combining analog inputs with digital control                                          |
| RM126265 | GB01   | Filed     | 30 Oct 2012 | 30 Oct 2012 | 30 Oct 2012 | GB1219522.6       | Combining analog inputs with digital control                                          |
| RM126267 | Family | Filed     | 2 Nov 2012  | 2 Nov 2012  | 2 Nov 2012  |                   | Common Search Space configuration for Standalone New Carrier Type                     |
| RM126267 | GB01   | Filed     | 2 Nov 2012  | 2 Nov 2012  | 2 Nov 2012  | GB1219719.9       | Common Search Space configuration for Standalone New Carrier Type                     |
| RM126267 | US01   | To Filing | 2 Nov 2012  | 2 Nov 2012  | 2 Nov 2012  |                   | Common Search Space configuration for Standalone New Carrier Type                     |
| RM126268 | Family | Filed     | 2 Nov 2012  | 2 Nov 2012  | 2 Nov 2012  |                   | Broadcast signalling configuration for Standalone New Carrier Type                    |
| RM126268 | GB01   | Filed     | 2 Nov 2012  | 2 Nov 2012  | 2 Nov 2012  | GB1219731.9       | Broadcast signalling configuration for Standalone New Carrier Type                    |

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|          |        |          |             |                   |  |
|----------|--------|----------|-------------|-------------------|--|
| RM126296 | Family | Filed    | 13 Dec 2012 | 13 Dec 2012       |  |
| RM126296 | GB01   | 41256    | 13 Dec 2012 | GB1222510.8       |  |
| RM126297 | Family | Filed    | 23 Oct 2012 | 23 Oct 2012       |  |
| RM126297 | GB01   | 41219    | 23 Oct 2012 | GB1219044.3       |  |
| RM126297 | US01   | ToFiling | 23 Oct 2012 |                   |  |
| RM126298 | Family | Filed    | 5 Dec 2012  | 5 Dec 2012        |  |
| RM126298 | WO01   | Filed    | 5 Dec 2012  | PCT/CN2012/085910 |  |
| RM126299 | Family | Filed    | 5 Dec 2012  | 5 Dec 2012        |  |
| RM126299 | GB01   | 41256    | 5 Dec 2012  | GB1222510.8       |  |
| RM126300 | Family | Filed    | 12 Dec 2012 | 12 Dec 2012       |  |
| RM126300 | GB01   | 41256    | 12 Dec 2012 | GB1222510.8       |  |
| RM126301 | Family | Filed    | 21 Nov 2012 | 21 Nov 2012       |  |
| RM126301 | WO01   | Filed    | 21 Nov 2012 | PCT/CN2013/071519 |  |
| RM126302 | Family | Filed    | 7 Feb 2013  | 7 Feb 2013        |  |
| RM126302 | GB01   | 41256    | 7 Feb 2013  | GB1222510.8       |  |
| RM126302 | WO01   | Filed    | 28 Dec 2012 | 28 Dec 2012       |  |
| RM126302 | WO01   | Filed    | 28 Dec 2012 | PCT/CN2013/087825 |  |
| RM126304 | Family | Filed    | 19 Dec 2012 | 19 Dec 2012       |  |
| RM126304 | GB01   | 41256    | 19 Dec 2012 | GB1222510.8       |  |
| RM126307 | Family | Filed    | 2 Apr 2013  | 2 Apr 2013        |  |
| RM126307 | GB01   | 41256    | 2 Apr 2013  | GB1305896.3       |  |
| RM126308 | Family | Filed    | 22 Jan 2013 | 22 Jan 2013       |  |
| RM126308 | WO01   | Filed    | 22 Jan 2013 | PCT/CN2013/070838 |  |
| RM126309 | Family | Filed    | 17 Jan 2013 | 17 Jan 2013       |  |
| RM126309 | GB01   | 41256    | 17 Jan 2013 | GB1300878.4       |  |
| RM126311 | Family | Filed    | 4 Dec 2012  | 4 Dec 2012        |  |
| RM126311 | GB01   | 41256    | 4 Dec 2012  | GB1221824.4       |  |
| RM126313 | Family | Filed    | 2 Nov 2012  | 2 Nov 2012        |  |
| RM126313 | GB01   | 41256    | 2 Nov 2012  | GB1219786.9       |  |
| RM126317 | Family | Filed    | 29 Oct 2012 | 29 Oct 2012       |  |
| RM126317 | GB01   | 41256    | 29 Oct 2012 | GB1219389.4       |  |
| RM126318 | Family | Filed    | 21 Dec 2012 | 21 Dec 2012       |  |
| RM126318 | GB01   | 41256    | 21 Dec 2012 | GB1223288.9       |  |
| RM126319 | Family | Filed    | 21 Dec 2012 | 21 Dec 2012       |  |
| RM126319 | GB01   | 41256    | 21 Dec 2012 | GB1223272.4       |  |
| RM126320 | Family | Filed    | 2 Nov 2012  | 2 Nov 2012        |  |
| RM126320 | WO01   | Filed    | 2 Nov 2012  | PCT/CN2012/083989 |  |
| RM126321 | Family | Filed    | 29 May 2013 | 29 May 2013       |  |
| RM126321 | GB01   | 41256    | 29 May 2013 | GB1309863.9       |  |
| RM126323 | Family | Filed    | 18 Jan 2013 | 18 Jan 2013       |  |
| RM126323 | WO01   | Filed    | 18 Jan 2013 | PCT/CN2013/070662 |  |
| RM126324 | Family | Filed    | 14 Dec 2012 | 14 Dec 2012       |  |
| RM126324 | GB01   | 41256    | 14 Dec 2012 | GB1222543.7       |  |
| RM126325 | Family | Filed    | 7 Feb 2013  | 7 Feb 2013        |  |
| RM126325 | WO01   | Filed    | 7 Feb 2013  | PCT/CN2013/071546 |  |
| RM126326 | Family | Filed    | 15 Jan 2013 | 15 Jan 2013       |  |
| RM126326 | GB01   | 41256    | 15 Jan 2013 | GB1300722.4       |  |
| RM126327 | Family | Filed    | 10 Dec 2012 | 10 Dec 2012       |  |
| RM126327 | GB01   | 41256    | 10 Dec 2012 | GB1222189.1       |  |
| RM126329 | Family | Filed    | 14 Dec 2012 | 14 Dec 2012       |  |
| RM126329 | GB01   | 41256    | 14 Dec 2012 | GB1222844.6       |  |
| RM126331 | Family | Filed    | 3 Apr 2013  | 3 Apr 2013        |  |
| RM126331 | GB01   | 41256    | 3 Apr 2013  | GB1309013.2       |  |

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Signalling to convey scrambling code information in support of interference cancelling receivers  
 Signalling to convey scrambling code information in support of interference cancelling receivers  
 Short CF-End and Short CF-End+CF-Ack Frame Definition  
 Short CF-End and Short CF-End+CF-Ack Frame Definition  
 Short CF-End and Short CF-End+CF-Ack Frame Definition  
 DMRS reduction for local area network  
 DMRS reduction for local area network  
 Updating connected cars operational radio parameters  
 Feedback signal selection in iterative receivers  
 Feedback signal selection in iterative receivers  
 Simplified handover procedure for CU-plane split LA cells  
 Simplified handover procedure for CU-plane split LA cells  
 New mobility mechanism in WLAN/3GPP interworking  
 New mobility mechanism in WLAN/3GPP interworking

Parameterizations of low density parity check matrices by using interleavers

Parameterizations of low density parity check matrices by using interleavers  
 Method and Apparatus for Configuring Measurement Gaps  
 Method and Apparatus for Configuring Measurement Gaps  
 RLF and HOF handling for dual connection  
 RLF and HOF handling for dual connection

A base band analog cancellation scheme to suppress self-interference for full duplex wireless receiver design

A base band analog cancellation scheme to suppress self-interference for full duplex wireless receiver design

Dynamic modification of L3 filter coefficient in order to optimize response to radio environment

Dynamic modification of L3 filter coefficient in order to optimize response to radio environment

Link Local Domain for 3GPP Proximity Services

Link Local Domain for 3GPP Proximity Services

Mode Change Indication

Mode Change Indication

Enhanced best cell detection for high performance GSM capable terminals

Enhanced best cell detection for high performance GSM capable terminals

New Carrier Type cell DTX mechanisms in LTE

New Carrier Type cell DTX mechanisms in LTE

Necessary signaling and procedure to solve HD3 in IDC

Necessary signaling and procedure to solve HD3 in IDC

A Parallel Initial Search and Synchronization Method for GSM Capable Terminals

A Parallel Initial Search and Synchronization Method for GSM Capable Terminals

Enhancement of IDC solution in Heflies with flexible TDD

Enhancement of IDC solution in Heflies with flexible TDD

LO leakage calibration for Rx mixer

LO leakage calibration for Rx mixer

Enhanced power saving mode management for dual connection

Enhanced power saving mode management for dual connection

Calibration for envelope tracking shaping table

Calibration for envelope tracking shaping table

Controlling UE Antenna switching

Controlling UE Antenna switching

LO leakage estimation / calibration for Rx mixer

LO leakage estimation / calibration for Rx mixer

Crystal Temperature Compensation Method and Algorithm

Crystal Temperature Compensation Method and Algorithm

|          |        |           |             |             |             |
|----------|--------|-----------|-------------|-------------|-------------|
| RM126332 | Family | Filed     | 19 Jan 2012 | 18 Jan 2013 | 13 Oct 2012 |
| RM126332 | WO/01  | Filed     | 19 Jan 2012 | 18 Jan 2013 | 13 Oct 2012 |
| RM126333 | Family | Filed     | 19 Jan 2013 | 18 Jan 2013 |             |
| RM126333 | G601   | POA       | 19 Jan 2013 | 18 Jan 2013 | 13 Oct 2012 |
| RM126335 | Family | Filed     | 14 Jan 2013 | 14 Jan 2013 | 13 Oct 2012 |
| RM126335 | WO/01  | Filed     | 14 Jan 2013 | 14 Jan 2013 | 13 Oct 2012 |
| RM126336 | Family | Filed     | 7 Dec 2012  | 7 Dec 2012  |             |
| RM126336 | WO/01  | POA       | 7 Dec 2012  | 7 Dec 2012  |             |
| RM126337 | Family | Filed     | 5 Nov 2012  | 5 Nov 2012  |             |
| RM126337 | G601   | POA       | 5 Nov 2012  | 5 Nov 2012  |             |
| RM126337 | G602   | Filed     | 5 Nov 2012  | 5 Nov 2012  |             |
| RM126338 | Family | Filed     | 3 Aug 2013  | 31 Jan 2013 |             |
| RM126338 | G601   | Filed     | 31 Jan 2013 | 31 Jan 2013 |             |
| RM126339 | Family | Filed     | 29 Jan 2013 | 29 Jan 2013 |             |
| RM126339 | G601   | Filed     | 29 Jan 2013 | 29 Jan 2013 |             |
| RM126340 | Family | Filed     | 2 Nov 2012  | 2 Nov 2012  |             |
| RM126340 | G601   | POA       | 2 Nov 2012  | 2 Nov 2012  |             |
| RM126340 | US/1   | Granted   | 2 Nov 2012  | 2 Nov 2012  |             |
| RM126341 | Family | Filed     | 9 Jan 2013  | 9 Jan 2013  |             |
| RM126341 | WO/01  | Filed     | 9 Jan 2013  | 9 Jan 2013  |             |
| RM126345 | Family | Filed     | 19 Jan 2013 | 18 Jan 2013 |             |
| RM126345 | WO/01  | Filed     | 18 Jan 2013 | 18 Jan 2013 |             |
| RM126346 | Family | Filed     | 28 May 2013 | 28 May 2013 |             |
| RM126346 | G601   | Filed     | 28 May 2013 | 28 May 2013 |             |
| RM126347 | Family | Filed     | 2 Apr 2013  | 2 Apr 2013  |             |
| RM126347 | WO/01  | Filed     | 2 Apr 2013  | 2 Apr 2013  |             |
| RM126349 | Family | Filed     | 3 Nov 2012  | 3 Nov 2012  |             |
| RM126349 | WO/01  | Filed     | 3 Nov 2012  | 3 Nov 2012  |             |
| RM126351 | Family | Filed     | 12 Dec 2012 | 12 Dec 2012 |             |
| RM126351 | WO/01  | Filed     | 12 Dec 2012 | 12 Dec 2012 |             |
| RM126352 | Family | Filed     | 2 Apr 2013  | 2 Apr 2013  |             |
| RM126352 | G601   | Filed     | 2 Apr 2013  | 2 Apr 2013  |             |
| RM126353 | Family | Filed     | 21 Dec 2012 | 21 Dec 2012 |             |
| RM126353 | WO/01  | Filed     | 21 Dec 2012 | 21 Dec 2012 |             |
| RM126354 | Family | Filed     | 4 Dec 2012  | 4 Dec 2012  |             |
| RM126354 | G601   | Filed     | 4 Dec 2012  | 4 Dec 2012  |             |
| RM126355 | Family | Filed     | 4 Dec 2012  | 4 Dec 2012  |             |
| RM126355 | WO/01  | Filed     | 4 Dec 2012  | 4 Dec 2012  |             |
| RM126356 | Family | Filed     | 8 Jan 2013  | 8 Jan 2013  |             |
| RM126356 | G601   | POA       | 8 Jan 2013  | 8 Jan 2013  |             |
| RM126356 | US/1   | T3-Filing | 8 Jan 2013  | 8 Jan 2013  |             |
| RM126360 | Family | Filed     | 15 Apr 2013 | 15 Apr 2013 |             |
| RM126360 | WO/01  | Filed     | 15 Apr 2013 | 15 Apr 2013 |             |
| RM126364 | Family | Filed     | 11 Jan 2013 | 11 Jan 2013 |             |
| RM126364 | G601   | Filed     | 11 Jan 2013 | 11 Jan 2013 |             |
| RM126365 | Family | Filed     | 18 Jan 2013 | 18 Jan 2013 |             |
| RM126365 | WO/01  | Filed     | 18 Jan 2013 | 18 Jan 2013 |             |
| RM126367 | Family | Filed     | 14 Nov 2012 | 14 Nov 2012 |             |
| RM126367 | G601   | Filed     | 14 Nov 2012 | 14 Nov 2012 |             |

Measurement events configuration for dual connection in local area  
 Measurement events configuration for dual connection in local area  
 Adaptive LNA to support single-ended and differential input matching configurations  
 Adaptive LNA to support single-ended and differential input matching configurations  
 CSI Report triggering with reduced DL control overhead for NCT  
 CSI Report triggering with reduced DL control overhead for NCT  
 A novel network energy saving scheme in HetNet  
 A novel network energy saving scheme in HetNet  
 T3212 start with T3412 value if barred or backed off  
 T3212 start with T3412 value if barred or backed off  
 3G HSDPA payload lossless compression at L2  
 3G HSDPA payload lossless compression at L2  
 Successive PBCH IC method for LTE Release 11  
 Successive PBCH IC method for LTE Release 11  
 Intelligent handling of RRC connection release delay  
 Intelligent handling of RRC connection release delay  
 On cluster establishment and maintenance in flexible TDD of LA network  
 On cluster establishment and maintenance in flexible TDD of LA network  
 UE assisted WLAN radio resource management in WLAN and 3GPP  
 UE assisted WLAN radio resource management in WLAN and 3GPP  
 UE assisted WLAN radio resource management in WLAN and 3GPP  
 UE assisted WLAN radio resource management in WLAN and 3GPP  
 A Novel Base Station Overheating Scheme for Local Area Cells  
 A Novel Base Station Overheating Scheme for Local Area Cells  
 Implicit resource allocation for public safety group communication with restriction indication  
 Implicit resource allocation for public safety group communication with restriction indication  
 Method for resource allocation signaling for EPDCCH  
 Method for resource allocation signaling for EPDCCH  
 Design and Signaling for Enhanced SRS  
 Design and Signaling for Enhanced SRS  
 TDD/FDD FE apparatus  
 TDD/FDD FE apparatus  
 CCI Feedback Calculation for Reduced Demodulation Reference Signal overhead on New Carrier Type  
 CCI Feedback Calculation for Reduced Demodulation Reference Signal overhead on New Carrier Type  
 Flexible Data Frame Delivery  
 Flexible Data Frame Delivery  
 Apparatus and method of changing DCD traffic  
 Apparatus and method of changing DCD traffic  
 UE-to-UE reception with measurement receiver  
 UE-to-UE reception with measurement receiver  
 Improved scheme on protected resource coordination in small cell enhanced LA network  
 Improved scheme on protected resource coordination in small cell enhanced LA network  
 Procedures to allow UE-specific tx-power modification for UEs supporting different set of MS-values than the eNB is signaling  
 Procedures to allow UE-specific tx-power modification for UEs supporting different set of MS-values than the eNB is signaling  
 Adapted CA signaling to support flexible TDD UL/DL reconfiguration  
 Adapted CA signaling to support flexible TDD UL/DL reconfiguration  
 System and method of delivering ETWS secondary notification to users with active packet calls  
 System and method of delivering ETWS secondary notification to users with active packet calls

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|          |        |       |             |             |                   |                                                                                                       |
|----------|--------|-------|-------------|-------------|-------------------|-------------------------------------------------------------------------------------------------------|
| RM126370 | Family | Filed | 2 Apr 2013  | 2 Apr 2013  | GB13055936.7      | Signaling for a virtual joint scheduling in distributed systems                                       |
| RM126370 | GB01   | Filed | 2 Apr 2013  | 2 Apr 2013  |                   | Shadow connection manager for enabling intelligent selection between cellular and non-cellular radios |
| RM126371 | Family | Filed | 27 Mar 2013 | 27 Mar 2013 |                   | Shadow connection manager for enabling intelligent selection between cellular and non-cellular radios |
| RM126371 | GB01   | Filed | 41360       | 27 Mar 2013 | GB13055925.6      | Enhanced repetition transmission for DL control signal to improve the MTC coverage                    |
| RM126372 | Family | Filed | 18 Jan 2013 | 18 Jan 2013 |                   | Enhanced repetition transmission for DL control signal to improve the MTC coverage                    |
| RM126373 | WO01   | Filed | 18 Jan 2013 | 18 Jan 2013 | PCT/CN2013/070659 | Method and apparatus for configuring timing advance groups                                            |
| RM126376 | 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 | GB1305707.5       | DCI Size Reduction for Local Area                                                                     |
| RM126376 | 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 | Enhanced paging operation for power saving mode                                                       |
| RM126385 | Family | Filed | 41313       | 8 Feb 2013  |                   | Enhanced paging operation for power saving mode                                                       |
| RM126385 | WO01   | Filed | 8 Feb 2013  | 8 Feb 2013  | PCT/CN2013/071570 | Assistance information for CRS interference cancellation with low interference subframe in Heptons    |
| RM126387 | Family | Filed | 41283       | 9 Jan 2013  |                   | Assistance information for CRS interference cancellation with low interference subframe in Heptons    |
| RM126387 | WO01   | Filed | 9 Jan 2013  | 9 Jan 2013  | PCT/CN2013/070273 | Antenna environment profile                                                                           |
| RM126388 | Family | Filed | 5 Jul 2013  | 5 Jul 2013  |                   | Antenna environment profile                                                                           |
| RM126388 | GB01   | Filed | 5 Jul 2013  | 5 Jul 2013  | GB1312126.4       | Data compression C-Plane aspect                                                                       |
| RM126389 | Family | Filed | 31 Jan 2013 | 31 Jan 2013 | GB1306707.4       | PRACH coverage improvement for MTC UE                                                                 |
| RM126390 | Family | Filed | 18 Jan 2013 | 18 Jan 2013 | PCT/CN2013/070708 | A novel method to change TDD configuration of a cluster in eIMTA                                      |
| RM126392 | WO01   | Filed | 18 Jan 2013 | 18 Jan 2013 | PCT/CN2013/070708 | A novel method to change TDD configuration of a cluster in eIMTA                                      |
| RM126392 | WO01   | Filed | 18 Jan 2013 | 18 Jan 2013 | PCT/CN2013/070680 | Packet Transmission Period Aggregation for Relay Operation in 802.11ah                                |
| RM126393 | Family | Filed | 4 Jan 2013  | 4 Jan 2013  |                   | STA-Relay Access During Scheduled Transmission Opportunity                                            |
| RM126393 | GB01   | Filed | 4 Jan 2013  | 4 Jan 2013  | GB1306043.3       | STA-Relay Access During Scheduled Transmission Opportunity                                            |
| RM126394 | Family | Filed | 21 Dec 2012 | 21 Dec 2012 | GB1223360.9       | Configurable Reference Signal Type for RRM/RLM measurement                                            |
| RM126394 | GB01   | Filed | 21 Dec 2012 | 21 Dec 2012 | GB1223360.9       | Configurable Reference Signal Type for RRM/RLM measurement                                            |
| RM126395 | Family | Filed | 17 Jan 2013 | 17 Jan 2013 | PCT/CN2013/070603 | ePDCCH configuration for Standalone New Carrier Type                                                  |
| RM126395 | WO01   | Filed | 17 Jan 2013 | 17 Jan 2013 | PCT/CN2013/070603 | ePDCCH configuration for Standalone New Carrier Type                                                  |
| RM126397 | Family | Filed | 18 Jan 2013 | 18 Jan 2013 | PCT/CN2013/070689 | On concurrent ProSe and infrastructure based communication                                            |
| RM126397 | WO01   | Filed | 18 Jan 2013 | 18 Jan 2013 | PCT/CN2013/070689 | On concurrent ProSe and infrastructure based communication                                            |
| RM126398 | Family | Filed | 9 Aug 2013  | 9 Aug 2013  | GB1314326.0       | Method and apparatus of analog predistortion for single-ended modulator                               |
| RM126398 | GB01   | Filed | 9 Aug 2013  | 9 Aug 2013  | GB1314326.0       | Method and apparatus of analog predistortion for single-ended modulator                               |
| RM126399 | Family | Filed | 11 Apr 2013 | 11 Apr 2013 | GB1306596.5       | Enhanced SCH for coverage improvement for low-cost LTE devices                                        |
| RM126399 | GB01   | Filed | 11 Apr 2013 | 11 Apr 2013 | GB1306596.5       | Enhanced SCH for coverage improvement for low-cost LTE devices                                        |
| RM126402 | WO01   | Filed | 1 Apr 2013  | 1 Apr 2013  | PCT/CN2013/003380 | Extended time-domain granularity for PUSCH frequency hopping with TTI bundling                        |
| RM126403 | Family | Filed | 17 Jan 2013 | 17 Jan 2013 |                   | Extended time-domain granularity for PUSCH frequency hopping with TTI bundling                        |
| RM126403 | WO01   | Filed | 17 Jan 2013 | 17 Jan 2013 | PCT/CN2013/070602 | Method and apparatus for mapping data to logical channels                                             |
| RM126405 | Family | Filed | 25 Jan 2013 | 25 Jan 2013 | GB1301368.9       | Method and apparatus for mapping data to logical channels                                             |
| RM126405 | GB01   | Filed | 25 Jan 2013 | 25 Jan 2013 | GB1301368.9       | Method for assisting on network selection                                                             |
| RM126407 | Family | Filed | 17 Jan 2013 | 17 Jan 2013 |                   | Method for assisting on network selection                                                             |
| RM126407 | GB01   | Filed | 41291       | 17 Jan 2013 | GB1300868.0       | Optimization for HetNet operation                                                                     |
| RM126410 | Family | Filed | 18 Jan 2013 | 18 Jan 2013 |                   | Optimization for HetNet operation                                                                     |
| RM126411 | Family | Filed | 18 Jan 2013 | 18 Jan 2013 | GB1300826.3       | Enhanced Physical Discovery Channel for LTE and WiFi Interworking                                     |
| RM126411 | GB01   | Filed | 18 Jan 2013 | 18 Jan 2013 | GB1300826.3       | 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 | WO01   | Filed | 21 Feb 2013 | 21 Feb 2013 | PCT/CN2013/071744 | CQI enhancement in flexible TDD systems                                                               |
| RM126413 | Family | Filed | 16 Jan 2013 | 16 Jan 2013 | PCT/CN2013/070556 | MUE preamble transmission for carrier-based ICIC                                                      |
| RM126413 | WO01   | Filed | 16 Jan 2013 | 16 Jan 2013 | PCT/CN2013/070556 | MUE preamble transmission for carrier-based ICIC                                                      |
| RM126415 | Family | Filed | 3 Jun 2013  | 3 Jun 2013  | PCT/CN2013/070654 | Enhanced MIB for non-standalone NCT cell discovery                                                    |
| RM126415 | WO01   | Filed | 3 Jun 2013  | 3 Jun 2013  | PCT/CN2013/070654 | Enhanced MIB for non-standalone NCT cell discovery                                                    |
| RM126415 | WO01   | Filed | 3 Apr 2013  | 3 Apr 2013  | PCT/CN2013/071702 | Data Transmissions for Low Cost MTC with Coverage Enhancement                                         |
| RM126415 | WO01   | Filed | 3 Apr 2013  | 3 Apr 2013  | PCT/CN2013/071702 | Data Transmissions for Low Cost MTC with Coverage Enhancement                                         |
| RM126415 | WO01   | Filed | 18 Jan 2013 | 18 Jan 2013 | PCT/CN2013/070668 | Cell identification signal design form dormant state cell                                             |
| RM126417 | Family | Filed | 18 Jan 2013 | 18 Jan 2013 | PCT/CN2013/070668 | Cell identification signal design form dormant state cell                                             |
| RM126417 | Family | Filed | 2 Apr 2013  | 2 Apr 2013  |                   | Cell identification signal design form dormant state cell                                             |

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| RM126417 | WO01   | Filed  | 2 Apr 2013  | PCT/CN2013/073630 |
| RM126419 | Family | Filed  | 27 Mar 2013 |                   |
| RM126421 | GB01   | Filed  | 27 Mar 2013 | GB1306565.3       |
| RM126423 | Family | Filed  | 2 Apr 2013  |                   |
| RM126425 | GB01   | Filed  | 2 Apr 2013  | GB1306565.8       |
| RM126427 | Family | Filed  | 3 Apr 2013  |                   |
| RM126429 | GB01   | Filed  | 3 Apr 2013  | GB1306569.0       |
| RM126431 | Family | Filed  | 3 Apr 2013  |                   |
| RM126433 | WO01   | Filed  | 3 Apr 2013  | PCT/CN2013/073756 |
| RM126435 | Family | Filed  | 18 Jan 2013 |                   |
| RM126437 | WO01   | Filed  | 18 Jan 2013 | PCT/CN2013/070707 |
| RM126439 | Family | Filed  | 21 Feb 2013 | GB1306572.1       |
| RM126441 | Family | Filed  | 10 Jan 2013 |                   |
| RM126443 | WO01   | Closed | 10 Jan 2013 | PCT/CN2013/070314 |
| RM126445 | Family | Filed  | 10 Jan 2013 | PCT/CN2013/070650 |
| RM126447 | Family | Filed  | 21 Jan 2013 |                   |
| RM126449 | GB01   | Filed  | 21 Jan 2013 | GB1306581.5       |
| RM126451 | Family | Filed  | 24 Jan 2013 | GB1306583.5       |
| RM126453 | Family | Filed  | 18 Jan 2013 | GB1306582.0       |
| RM126455 | WO01   | Filed  | 8 Apr 2013  | PCT/CN2013/073975 |
| RM126457 | Family | Filed  | 9 Apr 2013  |                   |
| RM126459 | WO01   | Filed  | 25 Feb 2013 | PCT/CN2013/071653 |
| RM126461 | Family | Filed  | 3 Apr 2013  |                   |
| RM126463 | WO01   | Filed  | 3 Apr 2013  | PCT/CN2013/073753 |
| RM126465 | Family | Filed  | 15 Apr 2013 |                   |
| RM126467 | GB01   | Filed  | 15 Apr 2013 | GB1306589.2       |
| RM126469 | Family | Filed  | 23 Apr 2013 |                   |
| RM126471 | WO01   | Filed  | 23 Apr 2013 | PCT/CN2013/074577 |
| RM126473 | Family | Filed  | 18 Jan 2013 |                   |
| RM126475 | WO01   | Filed  | 18 Jan 2013 | PCT/CN2013/070706 |
| RM126477 | Family | Filed  | 17 Jan 2013 |                   |
| RM126479 | WO01   | Filed  | 17 Jan 2013 | PCT/CN2013/072605 |
| RM126481 | Family | Filed  | 2 Jul 2013  |                   |
| RM126483 | GB01   | Filed  | 2 Jul 2013  | GB1311823.7       |
| RM126485 | Family | Filed  | 25 Jan 2013 |                   |
| RM126487 | GB01   | Filed  | 25 Jan 2013 | GB1301962.8       |
| RM126489 | Family | Filed  | 15 Apr 2013 |                   |
| RM126491 | GB01   | Filed  | 2 Apr 2013  | GB1306821.6       |
| RM126493 | Family | Filed  | 12 Apr 2012 |                   |
| RM126495 | WO01   | Filed  | 12 Apr 2012 | GB1306572.3       |
| RM126497 | Family | Filed  | 2 May 2013  | US13/575492       |
| RM126499 | US01   | Filed  | 8 Jan 2013  |                   |
| RM126501 | Family | Filed  | 8 Jan 2013  | US61750130        |
| RM126503 | WO01   | Filed  | 18 Jan 2013 |                   |
| RM126505 | Family | Filed  | 18 Jan 2013 | GB1300851.9       |
| RM126507 | WO01   | Filed  | 18 Jan 2013 | PCT/CN2013/070704 |
| RM126509 | Family | Filed  | 8 Apr 2013  |                   |
| RM126511 | WO01   | Filed  | 8 Apr 2013  | PCT/CN2013/073987 |

Cell identification signal design for multi-carrier HSPA where  
 Transmitter linearly improvement  
 Transmitter linearly improvement  
 Multi-Dimensional Algebra Solver  
 Multi-Dimensional Algebra Solver  
 BTS Controlling UE Antenna switching  
 BTS Controlling UE Antenna switching  
 Necessary WLAN/LTE interworking procedures and signaling  
 Necessary WLAN/LTE interworking procedures and signaling  
 Enhanced Broadcast Channel for Low Cost MTC with Coverage Enhancement  
 Enhanced Broadcast Channel for Low Cost MTC with Coverage Enhancement  
 UE HW related OTDOA delay measurement period  
 UE HW related OTDOA delay measurement period  
 Cross Link BSR Report in Dual Connection  
 Cross Link BSR Report in Dual Connection  
 Cross Link BSR Report in Dual Connection

Measurements of configured carriers for multi-carrier HSPA where  
 measurement occasions are determined by compressed mode parameters

Measurements of configured carriers for multi-carrier HSPA where  
 measurement occasions are determined by compressed mode parameters  
 On the Transmission Opportunity (TXOP) with HARQ protocol  
 On the Transmission Opportunity (TXOP) with HARQ protocol

Access control handling upon SRNS relocation  
 Access control handling upon SRNS relocation  
 Accurate interference level measurement based on power offset indication  
 Accurate interference level measurement based on power offset indication  
 Dormant cell detection and report configurations  
 Dormant cell detection and report configurations

Autonomous Carrier Allocation Change Occasion of CA based ICIC  
 Autonomous Carrier Allocation Change Occasion of CA based ICIC  
 Compatible and Agile Carrier Aggregation Front End #1  
 Compatible and Agile Carrier Aggregation Front End #1  
 A novel method to protect WLAN performance from IDC interference  
 A novel method to protect WLAN performance from IDC interference

A novel method to change TDD configuration in eIMTA  
 A novel method to change TDD configuration in eIMTA  
 Flexible Usage of Special Subframe for LTE TDD with Adaptive UL-DL  
 Flexible Usage of Special Subframe for LTE TDD with Adaptive UL-DL  
 Switching  
 Switching

Noise shaping in a direct digital transmitter (in a digital-to-analog converter)  
 Noise shaping in a direct digital transmitter (in a digital-to-analog converter)  
 Timer handling for dual-TVM threshold measurement event  
 Timer handling for dual-TVM threshold measurement event

Compatible and Agile Carrier Aggregation Front End #5  
 Compatible and Agile Carrier Aggregation Front End #5  
 Modem receiver path delay measurement method #2  
 Modem receiver path delay measurement method #2  
 Modem receiver path delay measurement method #2  
 Modem receiver path delay measurement method #2

Triggering downlink traffic with timing indication  
 Triggering downlink traffic with timing indication  
 Measurement Event Specific CELL\_INFO\_LIST  
 Measurement Event Specific CELL\_INFO\_LIST  
 Configurable Reference Configuration to support flexible TDD  
 Configurable Reference Configuration to support flexible TDD

Trigger-Response Procedure for Low Cost MTC device  
 Trigger-Response Procedure for Low Cost MTC device  
 Trigger-Response Procedure for Low Cost MTC device  
 Trigger-Response Procedure for Low Cost MTC device

|           |        |         |             |             |                    |            |           |                                                                                                                        |
|-----------|--------|---------|-------------|-------------|--------------------|------------|-----------|------------------------------------------------------------------------------------------------------------------------|
| RM1350455 | Family | Filed   | 18 Jan 2013 | 18 Jan 2013 |                    |            |           | Method for indicating offloading preference                                                                            |
| RM1350455 | GB01   | Filed   | 18 Jan 2013 | 18 Jan 2013 | GB1300966.9        |            |           | Novel design to adapt inter-band TDD CA HARQ scheme to support flexible TDD HARQ                                       |
| RM1350457 | Family | Filed   | 9 Apr 2013  | 9 Apr 2013  |                    |            |           | Novel design to adapt inter-band TDD CA HARQ scheme to support flexible TDD HARQ                                       |
| RM1350457 | WO01   | Filed   | 9 Apr 2013  | 9 Apr 2013  | PCT/CN2013/073960  |            |           | System and method of handling de-registration procedures based on access restrictions                                  |
| RM1350002 | Family | Filed   | 41402       | 41402       |                    |            |           | System and method of handling de-registration procedures based on access restrictions                                  |
| RM1350002 | IN01   | Filed   | 41402       | 41402       |                    |            |           | Additional assistance information for CRS interference cancellation in LA networks with flexible TDD                   |
| RM1350006 | Family | Filed   | 1 Apr 2013  | 1 Apr 2013  | 1 Apr 2013         |            |           | Additional assistance information for CRS interference cancellation in LA networks with flexible TDD                   |
| RM1350006 | WO01   | Filed   | 1 Apr 2013  | 1 Apr 2013  | PCT/CN2013/003879  |            |           | Single-ended Modulator utilizing Pseudo Differential Folded Cascode concept                                            |
| RM1350007 | Family | Filed   | 3 Jun 2013  | 3 Jun 2013  |                    |            |           | Single-ended Modulator utilizing Pseudo Differential Folded Cascode concept                                            |
| RM1350007 | GB01   | Filed   | 41428       | 41428       |                    |            |           | Multi-granular CSI feedback                                                                                            |
| RM1350008 | Family | Filed   | 18 Jan 2013 | 18 Jan 2013 | GB1300966.2        |            |           | Multi-granular CSI feedback                                                                                            |
| RM1350008 | GB01   | Filed   | 18 Jan 2013 | 18 Jan 2013 | GB1300966.2        |            |           | Real-time recursive channel estimation for improved channel tracking capability with low-cost computational complexity |
| RM1350009 | Family | Filed   | 18 Sep 2013 | 18 Sep 2013 |                    |            |           | Real-time recursive channel estimation for improved channel tracking capability with low-cost computational complexity |
| RM1350009 | US01   | Filed   | 18 Sep 2013 | 18 Sep 2013 | US1403260.0        |            |           | Assessing mutual authentication in LTE after GSM AKA                                                                   |
| RM1350011 | Family | Filed   | 2 Apr 2013  | 2 Apr 2013  |                    |            |           | Assessing mutual authentication in LTE after GSM AKA                                                                   |
| RM1350011 | GB01   | Filed   | 2 Apr 2013  | 2 Apr 2013  | GB1305982.0        |            |           | Enhancement of RRM measurement mechanism in LA with flexible TDD                                                       |
| RM1350012 | Family | Filed   | 3 Apr 2013  | 3 Apr 2013  |                    |            |           | Enhancement of RRM measurement mechanism in LA with flexible TDD                                                       |
| RM1350012 | WO01   | Filed   | 3 Apr 2013  | 3 Apr 2013  | PCT/CN2013/0073751 |            |           | Signaling and mechanism to support time switched UL for dual connectivity                                              |
| RM1350015 | Family | Filed   | 3 Apr 2013  | 3 Apr 2013  |                    |            |           | Signaling and mechanism to support time switched UL for dual connectivity                                              |
| RM1350015 | WO01   | Filed   | 3 Apr 2013  | 3 Apr 2013  | PCT/CN2013/073966  |            |           | Connection Re-establishment after Losing Connection to Network                                                         |
| RM1350017 | Family | Filed   | 29 Mar 2013 | 29 Mar 2013 |                    |            |           | Connection Re-establishment after Losing Connection to Network                                                         |
| RM1350017 | WO01   | Filed   | 29 Mar 2013 | 29 Mar 2013 | PCT/CN2013/073440  |            |           | Boucle d'annulation de composantes continues                                                                           |
| RM1350018 | Family | Filed   | 2 Jul 2010  | 2 Jul 2010  |                    |            |           | Procedure for the removal of the DC component inherent in a radio frequency chain                                      |
| RM1350018 | FR01   | Granted | 2 Jul 2010  | 2 Jul 2010  | FR2965274          | 6 Jan 2012 | FR2965274 | Boucle d'annulation de composantes continues                                                                           |
| RM1350018 | US01   | Granted | 2 Jul 2010  | 2 Jul 2010  | US20120002757      | 1 May 2012 | US8442155 | Procedure for the removal of the DC component inherent in a radio frequency chain                                      |
| RM1350018 | US02   | Filed   | 26 Mar 2013 | 26 Mar 2013 |                    |            |           | Procedure for the removal of the DC component inherent in a radio frequency chain                                      |
| RM1350023 | Family | Filed   | 12 Apr 2013 | 12 Apr 2013 | US130223570        |            |           | Electrical balance duplexer topologies                                                                                 |
| RM1350023 | GB01   | Filed   | 12 Apr 2013 | 12 Apr 2013 | GB1306732.7        |            |           | Electrical balance duplexer topologies                                                                                 |
| RM1350024 | Family | Filed   | 2 Jul 2013  | 2 Jul 2013  |                    |            |           | Compact and Accurate Resistor Tuning Network                                                                           |
| RM1350024 | GB01   | Filed   | 2 Jul 2013  | 2 Jul 2013  | GB1311969.0        |            |           | Compact and Accurate Resistor Tuning Network                                                                           |
| RM1350027 | Family | Filed   | 16 May 2013 | 16 May 2013 |                    |            |           | BSS Scaling                                                                                                            |
| RM1350027 | GB01   | Filed   | 16 May 2013 | 16 May 2013 | GB1308446.3        |            |           | BSS Scaling                                                                                                            |
| RM1350032 | Family | Filed   | 7 Mar 2013  | 7 Mar 2013  |                    |            |           | eNB Spectrum Indication in CA                                                                                          |
| RM1350032 | GB01   | Filed   | 7 Mar 2013  | 7 Mar 2013  | GB1304441.3        |            |           | eNB Spectrum Indication in CA                                                                                          |
| RM1350035 | Family | Filed   | 7 Jun 2013  | 7 Jun 2013  |                    |            |           | UE reconfiguration period request                                                                                      |
| RM1350035 | GB01   | Filed   | 7 Jun 2013  | 7 Jun 2013  | GB1310206.6        |            |           | UE reconfiguration period request                                                                                      |
| RM1350037 | Family | Filed   | 5 Mar 2013  | 5 Mar 2013  |                    |            |           | Restricted Access Window (RAW) for Mixed BSS Types                                                                     |
| RM1350037 | GB01   | Filed   | 5 Mar 2013  | 5 Mar 2013  | GB1303804.5        |            |           | Restricted Access Window (RAW) for Mixed BSS Types                                                                     |
| RM1350039 | Family | Filed   | 15 Mar 2013 | 15 Mar 2013 |                    |            |           | on AP controlled access in B02.11                                                                                      |
| RM1350039 | GB01   | Filed   | 15 Mar 2013 | 15 Mar 2013 | GB1304636.8        |            |           | on AP controlled access in B02.11                                                                                      |
| RM1350044 | Family | Filed   | 7 Mar 2013  | 7 Mar 2013  |                    |            |           | Novel codeword structure for double codebooks                                                                          |
| RM1350044 | GB01   | Filed   | 7 Mar 2013  | 7 Mar 2013  | GB1304108.2        |            |           | Novel codeword structure for double codebooks                                                                          |
| RM1350045 | Family | Filed   | 25 Mar 2013 | 25 Mar 2013 |                    |            |           | Method and apparatus for uplink message size reduction                                                                 |



|          |        |       |             |                   |
|----------|--------|-------|-------------|-------------------|
| RM135048 | GB21   | Filed | 25 Mar 2013 | GB1305375.6       |
| RM135048 | Family | Filed | 3 Jun 2013  |                   |
| RM135048 | GB01   | Filed | 3 Jun 2013  | GB1309842.1       |
| RM135049 | Family | Filed | 10 May 2013 |                   |
| RM135049 | GB01   | Filed | 10 May 2013 | GB1309051.9       |
| RM135049 | US01   | Filed | 10 May 2013 | US13022042        |
| RM135051 | Family | Filed | 3 Apr 2013  | PCT/CN2013/073755 |
| RM135051 | WO01   | Filed | 3 Apr 2013  |                   |
| RM135052 | Family | Filed | 8 Mar 2013  | GB1304034.0       |
| RM135052 | GB01   | Filed | 8 Mar 2013  |                   |
| RM135055 | Family | Filed | 28 Mar 2013 |                   |
| RM135055 | GB01   | Filed | 28 Mar 2013 | GB1305815.1       |
| RM135057 | Family | Filed | 28 Mar 2013 |                   |
| RM135057 | GB01   | Filed | 28 Mar 2013 | GB1305898.6       |
| RM135061 | Family | Filed | 10 May 2013 |                   |
| RM135061 | US01   | Filed | 10 May 2013 | US13051580        |
| RM135062 | Family | Filed | 18 Apr 2013 |                   |
| RM135062 | GB01   | Filed | 18 Apr 2013 | GB1307067.7       |
| RM135064 | Family | Filed | 28 Mar 2013 |                   |
| RM135064 | GB01   | Filed | 28 Mar 2013 | GB1305740.1       |
| RM135067 | Family | Filed | 5 Apr 2013  |                   |
| RM135067 | GB01   | Filed | 5 Apr 2013  | GB1306206.2       |
| RM135069 | Family | Filed | 18 Jun 2013 |                   |
| RM135069 | WO01   | Filed | 18 Jun 2013 | PCT/CN2013/070851 |
| RM135070 | Family | Filed | 5 Apr 2013  |                   |
| RM135070 | GB01   | Filed | 5 Apr 2013  | GB1306183.3       |
| RM135072 | Family | Filed | 10 May 2013 |                   |
| RM135072 | GB01   | Filed | 10 May 2013 | GB1308488.6       |
| RM135073 | Family | Filed | 3 Apr 2013  |                   |
| RM135073 | WO01   | Filed | 3 Apr 2013  | PCT/CN2013/075694 |
| RM135077 | Family | Filed | 10 May 2013 |                   |
| RM135077 | GB01   | Filed | 10 May 2013 | GB1308548.8       |
| RM135082 | Family | Filed | 3 Apr 2013  |                   |
| RM135082 | WO01   | Filed | 3 Apr 2013  | PCT/CN2013/073750 |
| RM135086 | Family | Filed | 6 May 2013  |                   |
| RM135086 | WO01   | Filed | 6 May 2013  | PCT/CN2013/075194 |
| RM135089 | Family | Filed | 11 Jun 2013 |                   |
| RM135089 | GB01   | Filed | 11 Jun 2013 | GB1310397.3       |
| RM135090 | Family | Filed | 27 Mar 2013 |                   |
| RM135090 | US01   | Filed | 27 Mar 2013 | US13081353        |
| RM135091 | Family | Filed | 17 May 2013 |                   |
| RM135091 | GB01   | Filed | 17 May 2013 | GB1308820.6       |
| RM135092 | Family | Filed | 14 Jun 2013 |                   |
| RM135092 | GB01   | Filed | 14 Jun 2013 | GB1310660.5       |
| RM135094 | Family | Filed | 12 Apr 2013 |                   |
| RM135094 | WO01   | Filed | 12 Apr 2013 | PCT/CN2013/074128 |
| RM135096 | Family | Filed | 2 Apr 2013  |                   |
| RM135096 | US01   | Filed | 2 Apr 2013  | US1307594         |
| RM135098 | Family | Filed | 2 Apr 2013  |                   |
| RM135098 | WO01   | Filed | 2 Apr 2013  | PCT/IB2013/058391 |
| RM135097 | Family | Filed | 3 Apr 2013  |                   |
| RM135097 | WO01   | Filed | 3 Apr 2013  | PCT/CN2013/073710 |
| RM135108 | Family | Filed | 21 May 2013 |                   |
| RM135108 | GB01   | Filed | 21 May 2013 | GB1309144.2       |
| RM135112 | Family | Filed | 10 May 2013 |                   |
| RM135112 | WO01   | Filed | 10 May 2013 | PCT/CN2013/075456 |

Method and apparatus for uplink message size reduction  
Method and apparatus for Securely Changing Root Key of Chip  
Method and apparatus for Securely Changing Root Key of Chip  
Method and apparatus for OF-DC mobility  
Method and apparatus for OF-DC mobility  
Method and apparatus for OF-DC mobility  
Necessary signaling and criteria to de-cluster eMTC clusters  
UE adapting to network behavior during CSFB call establishment  
UE adapting to network behavior during CSFB call establishment  
Automated COUNT-1 sync on SRNS relocation  
Automated COUNT-1 sync on SRNS relocation  
Method and apparatus for Access Control Information reset and update in Cell-DCH  
DCH  
Method and apparatus for Access Control Information reset and update in Cell-DCH  
DCH  
Method and apparatus for LPN cells cluster mobility  
Method and apparatus for LPN cells cluster mobility  
Method and apparatus for H(e)NB mobility  
Method and apparatus for H(e)NB mobility  
Detection of mobility for reset of RACH transmission failure parameters  
Detection of mobility for reset of RACH transmission failure parameters  
Multiple RACH message transmission and combining  
Multiple RACH message transmission and combining  
Novel WLAN information reporting procedure in LTE-WLAN interworking  
Novel WLAN information reporting procedure in LTE-WLAN interworking  
PQI signaling for advanced receivers  
PQI signaling for advanced receivers  
HeNet connected mode triggering condition X-factor  
HeNet connected mode triggering condition X-factor  
Enhanced buffer status reporting in dual connectivity  
Enhanced buffer status reporting in dual connectivity  
Method and apparatus of CQI reporting reduction  
Method and apparatus of CQI reporting reduction  
Network triggered UE switch back to LTE from WLAN  
Network triggered UE switch back to LTE from WLAN  
Methods to enable efficient sleep-active eNB mode switch  
Methods to enable efficient sleep-active eNB mode switch  
Dynamic configuration of receiver SNR to support different modulation types  
Dynamic configuration of receiver SNR to support different modulation types  
Frame format design for negative acknowledgement with harq support in 802.11  
Frame format design for negative acknowledgement with harq support in 802.11  
A method to receive HS-SCCH channel without reproducing UE masking sequence  
A method to receive HS-SCCH channel without reproducing UE masking sequence  
TDM scheduling enhancements to HSUPA  
TDM scheduling enhancements to HSUPA  
ANDSF aided network control in 3GPP WLAN interworking  
ANDSF aided network control in 3GPP WLAN interworking  
A mechanism to discover devices and application users  
A mechanism to discover devices and application users  
A mechanism to discover devices and application users  
Solution to handle DL SPS retransmission  
Solution to handle DL SPS retransmission  
Method and apparatus for requesting resources  
Method and apparatus for requesting resources  
UE triggered UE switch back to LTE from WLAN  
UE triggered UE switch back to LTE from WLAN  
UE triggered UE switch back to LTE from WLAN

|          |        |       |             |             |                   |
|----------|--------|-------|-------------|-------------|-------------------|
| RM135114 | Family | Filed | 10 May 2013 | 10 May 2013 | PCT/CN2013/075458 |
| RM135114 | WO/01  | Filed | 10 May 2013 | 10 May 2013 | PCT/CN2013/075458 |
| RM135115 | Family | Filed | 29 May 2013 | 29 May 2013 | GB1309590.6       |
| RM135115 | GB/01  | Filed | 29 May 2013 | 29 May 2013 | GB1309590.6       |
| RM135118 | Family | Filed | 10 May 2013 | 10 May 2013 | GB1308421.7       |
| RM135119 | GB/01  | Filed | 10 May 2013 | 10 May 2013 | GB1308421.7       |
| RM135119 | Family | Filed | 31 May 2013 | 31 May 2013 |                   |
| RM135119 | WO/01  | Filed | 31 May 2013 | 31 May 2013 | PCT/CN2013/075655 |
| RM135120 | Family | Filed | 15 Jul 2013 | 15 Jul 2013 |                   |
| RM135120 | WO/01  | Filed | 15 Jul 2013 | 15 Jul 2013 | PCT/CN2013/075992 |
| RM135121 | Family | Filed | 5 Jul 2013  | 5 Jul 2013  |                   |
| RM135121 | WO/01  | Filed | 5 Jul 2013  | 5 Jul 2013  | PCT/CN2013/075990 |
| RM135124 | Family | Filed | 10 May 2013 | 10 May 2013 | GB1308469.5       |
| RM135124 | GB/01  | Filed | 10 May 2013 | 10 May 2013 | GB1308469.5       |
| RM135127 | Family | Filed | 20 May 2013 | 20 May 2013 | PCT/CN2013/075990 |
| RM135127 | WO/01  | Filed | 20 May 2013 | 20 May 2013 | PCT/CN2013/075990 |
| RM135128 | Family | Filed | 17 May 2013 | 17 May 2013 | PCT/CN2013/075937 |
| RM135128 | WO/01  | Filed | 17 May 2013 | 17 May 2013 | PCT/CN2013/075937 |
| RM135129 | Family | Filed | 21 May 2013 | 21 May 2013 | GB1309183.8       |
| RM135129 | GB/01  | Filed | 21 May 2013 | 21 May 2013 | GB1309183.8       |
| RM135130 | Family | Filed | 14 Aug 2013 | 14 Aug 2013 | GB1314268.3       |
| RM135130 | GB/01  | Filed | 14 Aug 2013 | 14 Aug 2013 | GB1314268.3       |
| RM135132 | Family | Filed | 11 Jul 2013 | 11 Jul 2013 |                   |
| RM135132 | WO/01  | Filed | 11 Jul 2013 | 11 Jul 2013 | PCT/CN2013/079226 |
| RM135135 | Family | Filed | 3 Jun 2013  | 3 Jun 2013  |                   |
| RM135135 | US/01  | Filed | 3 Jun 2013  | 3 Jun 2013  | US13/606098       |
| RM135137 | Family | Filed | 12 Jul 2013 | 12 Jul 2013 |                   |
| RM135137 | GB/01  | Filed | 12 Jul 2013 | 12 Jul 2013 | GB1312559.9       |
| RM135144 | Family | Filed | 3 Apr 2012  | 3 Apr 2012  |                   |
| RM135144 | GB/01  | Filed | 3 Apr 2012  | 3 Apr 2012  | GB1205973.9       |
| RM135146 | Family | Filed | 23 Feb 2012 | 23 Feb 2012 |                   |
| RM135146 | GB/01  | Filed | 23 Feb 2012 | 23 Feb 2012 | GB1203165.4       |
| RM135149 | Family | Filed | 2 Jul 2013  | 2 Jul 2013  |                   |
| RM135149 | GB/01  | Filed | 2 Jul 2013  | 2 Jul 2013  | GB1311831.9       |
| RM135157 | Family | Filed | 8 Aug 2013  | 8 Aug 2013  |                   |
| RM135157 | WO/01  | Filed | 8 Aug 2013  | 8 Aug 2013  | PCT/CN2013/061057 |

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Configurable Protocol Stack for Dual Connectivity  
 Configurable Protocol Stack for Dual Connectivity  
 Method and apparatus for indicating network capability  
 Method and apparatus for indicating network capability  
 MTC traffic volume and periodicity threshold indicators  
 MTC traffic volume and periodicity threshold indicators

Channel configuration for UL simultaneous transmission in dual connectivity

Channel configuration for UL simultaneous transmission in dual connectivity

A novel PHY method to change TDD configuration in eMTC

A novel PHY method to change TDD configuration in eMTC

Signalling for Reduced Uplink DM RS

Signalling for Reduced Uplink DM RS

Method and apparatus for an establishment prohibition indication

Method and apparatus for an establishment prohibition indication

Method of handle the activation for SCell

Method of handle the activation for SCell

Enabling CoMP for flexible TDD systems

Enabling CoMP for flexible TDD systems

Enabling CoMP for flexible TDD systems

LTE-A eNB category indication

LTE-A eNB category indication

Interference management in a radio system

Interference management in a radio system

Enhanced aperiodic CQI report for flexible TDD systems

Enhanced aperiodic CQI report for flexible TDD systems

Double codebook improvement

Double codebook improvement

Bi-directional channel tracking scheme in contention based full-duplex communications

Bi-directional channel tracking scheme in contention based full-duplex communications

communications

communications

RM115342 Semi-Persistent Scheduling with Opportunity for Discontinuous Reception

RM115342 Semi-Persistent Scheduling with Opportunity for Discontinuous Reception

Reception

Reception

RM115448 On Feedback Design in Discovery Process

RM115448 On Feedback Design in Discovery Process

Method and apparatus of reconfiguration status indicator

Method and apparatus of reconfiguration status indicator

Efficient traffic steering for IDLE/CONNECTED UE

Efficient traffic steering for IDLE/CONNECTED UE