

<b>PATENT ASSIGNMENT COVER SHEET</b>
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EPAS ID: PAT5761998

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>SEQUENCE:</b>	3

**CONVEYING PARTY DATA**

Name	Execution Date
MARTIN WARWICK BEALE	03/14/2019
HIDEJI WAKABAYASHI	03/15/2019
SHINICHIRO TSUDA	02/28/2019

**RECEIVING PARTY DATA**

<b>Name:</b>	SONY EUROPE LIMITED
<b>Street Address:</b>	THE HEIGHTS
<b>Internal Address:</b>	BROOKLANDS, WEYBRIDGE
<b>City:</b>	SURREY
<b>State/Country:</b>	UNITED KINGDOM
<b>Postal Code:</b>	KT13 0XW

**PROPERTY NUMBERS Total: 1**

Property Type	Number
<b>Application Number:</b>	16476111

**CORRESPONDENCE DATA****Fax Number:**

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<b>ATTORNEY DOCKET NUMBER:</b>	12977US01
<b>NAME OF SUBMITTER:</b>	TIERNEY FARRELL
<b>SIGNATURE:</b>	/TIERNEY FARRELL/
<b>DATE SIGNED:</b>	10/09/2019

**Total Attachments: 115**

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**FULL INVENTOR ASSIGNMENT**

WHEREAS, I, as a named inventor listed on the attached APPENDIX (hereinafter referred to as "APPENDIX"), have invented certain new and useful improvements in the invention(s) listed on the same, for which an application for Letters Patent was executed on the priority date included thereon;

AND WHEREAS, SONY EUROPE LIMITED, a corporation organized and existing under the laws of the United Kingdom, with offices at The Heights, Brooklands, Weybridge, Surrey, KT13 0XW, United Kingdom (hereinafter referenced as "ASSIGNEE SEU"), in accordance with my employment agreement and/or with a preexisting agreement or mutual understanding between myself and ASSIGNEE SEU, is desirous of acquiring my entire right, title and interest in, to and under said invention(s), said application(s) disclosing the invention(s) and in, to and under any Letters Patent or similar legal protection which may be granted therefor in any and all countries worldwide (including in the territory of the United States of America);

NOW THEREFORE, after good and valuable consideration or in consideration of the recognized value of any past and/or potential collaborative projects in the future, the receipt and sufficiency of which are hereby acknowledged, I, as an inventor as indicated above, by these presents do hereby assign, sell and transfer unto said ASSIGNEE SEU, the entire right, title and interest in and to the said invention(s), said application(s), including any divisions, continuations, substitutions and renewals thereof, and in and to any and all Letters Patent which may be granted for said invention(s), in any country (including the territory of the United States of America), and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents or other industrial property protection throughout the world (including in the territory of the United States of America) in respect of the inventions which are the subjects of the applications for Letters Patent described herein, and this conveyance of interest includes the right for the ASSIGNEE SEU, or its successors, assigns, and/or legal representatives, to bring, make, oppose, defend, appeal proceedings, claims or actions and obtain relief (and to retain any damages recovered) in respect of any infringement, or any other cause of action arising from ownership, of

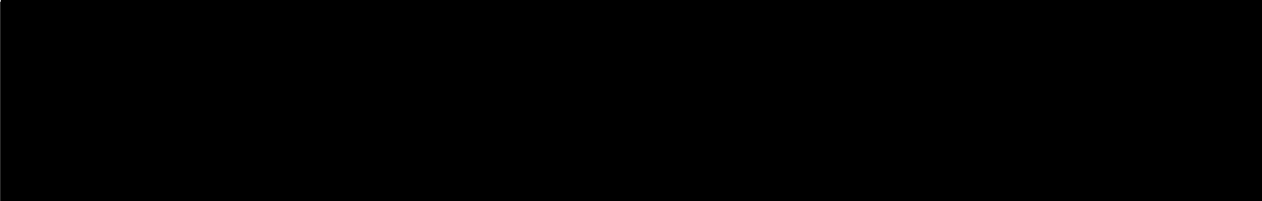
Assignment Inventor to SEU [REDACTED]

any of the Patents or any patents granted on any of the applications for patents or filed as aforesaid, whether occurring before, on or after the date of this agreement.

I, as an inventor, further declare that I either have the obligation to assign or have already assigned the full and exclusive rights in and to any inventions made during my employment to said ASSIGNEE SEU based on my employment contract with said ASSIGNEE SEU, and/or that said ASSIGNEE SEU has obtained full and exclusive rights in and to any such inventions based on applicable national law or in accordance with a preexisting agreement or mutual understanding between myself and ASSIGNEE SEU, and that by this Assignment such transfer of right, title and interest in such inventions to said ASSIGNEE SEU is herewith confirmed or restated.



Assignment Inventor to SEU 



The undersigned inventor and ASSIGNEE SEU hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale;

And the undersigned inventor and ASSIGNEE SEU hereby authorize and request the attorney(s) of record in this application to insert on the APPENDIX any further identification, including the filing date and application number of the country in which an application for Letters Patent has been or will be subsequently filed, which may be necessary or desirable in order to comply with the rules of the patent office of that country for recordation of this document.

This Assignment Agreement shall be governed by and construed under the laws of the State of New York, United States of America, without regard to conflict of laws principles, all rights and remedies being governed by said laws.

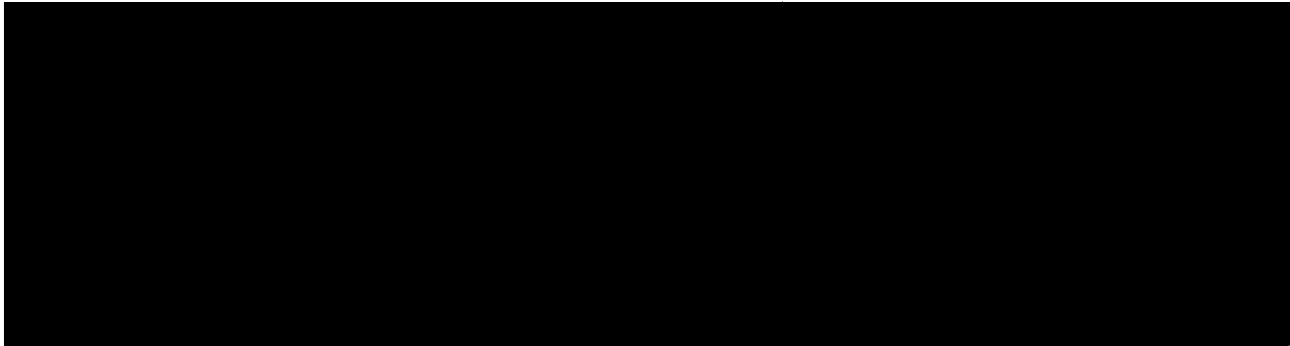
Assignment Inventor to SEU 

This assignment executed on the dates indicated below.

Martin Warwick Beale 14/03/2019  
Name of inventor Execution date of this assignment [DD/MONTH/YYYY]  
MWB  
Signature of inventor

SONY EUROPE LIMITED

Date: 19/03/2019  
[DD/MONTH/YYYY]  
By: Matthias Kabelitz  
Name: Matthias Kabelitz  
Title: Intellectual Property Vendor Manager  
As duly authorized officer





## APPENDIX

Title	Inventors	Sony IPE ref.	Application Number	Filing Date	Priority Date
LTE-U Channel Occupancy measurement	Martin, Brian Alexander;Beale, Martin Warwick;Wakabayashi, Hideji	I-14-061-US-PCT	15/323586	24 Jul 2015	25 Jul 2014
LTE-U Channel Occupancy measurement	Martin, Brian Alexander;Beale, Martin Warwick;Wakabayashi, Hideji	I-14-061-EP-ETD	18205757.0	12 Nov 2018	25 Jul 2014
LTE-U Channel Occupancy measurement	Martin, Brian Alexander;Beale, Martin Warwick;Wakabayashi, Hideji	I-14-061-EP-FFWF	14178654.1	25 Jul 2014	25 Jul 2014
LTE-U Channel Occupancy measurement	Martin, Brian Alexander;Beale, Martin Warwick;Wakabayashi, Hideji	I-14-061-WO-PCT	PCT/EP2015/066962	24 Jul 2015	25 Jul 2014
LTE-U Channel Occupancy measurement	Martin, Brian Alexander;Beale, Martin Warwick;Wakabayashi, Hideji	I-14-061-EP-EPT	15738950.3	24 Jul 2015	25 Jul 2014
Use of pi/4 BPSK for carrying Preamble for ATSC3 - Signal Space Diversity 5G	Atungsiri, Samuel Asangbeng;Beale, Martin Warwick	I-14-116-WO-PCT	PCT/GB2015/053440	12 Nov 2015	12 Nov 2014
Use of pi/4 BPSK for carrying Preamble for ATSC3 - Signal Space Diversity 5G	Atungsiri, Samuel Asangbeng;Beale, Martin Warwick	I-14-116-EP-EPT	15797154.0	12 Nov 2015	12 Nov 2014
Use of pi/4 BPSK for carrying Preamble for ATSC3 - Signal Space Diversity 5G	Atungsiri, Samuel Asangbeng;Beale, Martin Warwick	I-14-116-US-PCT	15/523771	12 Nov 2015	12 Nov 2014
UE Measurement event for LAA	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Bergren, Anders	I-14-113-EP-FFWF	14193068.5	13 Nov 2014	13 Nov 2014

UE Measurement event for LAA	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Berggren, Anders	I-14-113-WO-PCT	PCT/EP2015/076170	10 Nov 2015	13 Nov 2014
UE Measurement event for LAA	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Berggren, Anders	I-14-113-TW-NP	104136047	02 Nov 2015	13 Nov 2014
UE Measurement event for LAA	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Berggren, Anders	I-14-113-EP-EPT	15797894.1	10 Nov 2015	13 Nov 2014
UE Measurement event for LAA	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Berggren, Anders	I-14-113-US-PCT	15/523573	10 Nov 2015	13 Nov 2014
UE Measurement event for LAA	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Berggren, Anders	I-14-113-US-CNT	16/144955	27 Sep 2018	13 Nov 2014
UE Measurement event for LAA	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Berggren, Anders	I-14-113-EP-EPD	17187439.9	23 Aug 2017	13 Nov 2014
Group Paging for LAA measurements	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Berggren, Anders	I-14-114-WO-PCT	PCT/EP2015/076171	10 Nov 2015	13 Nov 2014
Group Paging for LAA measurements	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Berggren, Anders	I-14-114-EP-EPT	15791634.7	10 Nov 2015	13 Nov 2014
Group Paging for LAA measurements	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Berggren, Anders	I-14-114-US-PCT	15/523739	10 Nov 2015	13 Nov 2014
Group Paging for LAA measurements	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Berggren, Anders	I-14-114-US-PCD	16/120021	31 Aug 2018	13 Nov 2014
Group Paging for LAA measurements	Martin, Brian Alexander;Beale, Martin Warwick;Takano, Hiroaki;Berggren, Anders	I-14-114-EP-FFWF	14193067.7	13 Nov 2014	13 Nov 2014
Power Consumption Optimization through adjustment of Coverage Enhancement Capability	Morioka, Yuichi;Beale, Martin Warwick	I-14-125-EP-FFWF	15153313.0	30 Jan 2015	30 Jan 2015

Power Consumption Optimization through adjustment of Coverage Enhancement Capability	Morioka, Yuichi;Beale, Martin Warwick	I-14-125-US-PCT	15/544383	06 Jan 2016	30 Jan 2015
Power Consumption Optimization through adjustment of Coverage Enhancement Capability	Morioka, Yuichi;Beale, Martin Warwick	I-14-125-EP-EPT	16700153.6	06 Jan 2016	30 Jan 2015
Power Consumption Optimization through adjustment of Coverage Enhancement Capability	Morioka, Yuichi;Beale, Martin Warwick	I-14-125-WO-PCT	PCT/EP2016/050111	06 Jan 2016	30 Jan 2015
Scheduling of SIBs for low complexity UE	Martin, Brian Alexander;Beale, Martin Warwick	I-14-133-US-CNT	15/615543	06 Jun 2017	30 Jan 2015
Scheduling of SIBs for low complexity UE	Martin, Brian Alexander;Beale, Martin Warwick	I-14-133-US-CNT[1]	15/964944	27 Apr 2018	30 Jan 2015
Scheduling of SIBs for low complexity UE	Martin, Brian Alexander;Beale, Martin Warwick	I-14-133-EP-ETD	18201590.9	19 Okt 2018	30 Jan 2015
Scheduling of SIBs for low complexity UE	Martin, Brian Alexander;Beale, Martin Warwick	I-14-133-WO-PCT	PCT/EP2016/050433	12 Jan 2016	30 Jan 2015
Scheduling of SIBs for low complexity UE	Martin, Brian Alexander;Beale, Martin Warwick	I-14-133-EP-FFWF	15153349.4	30 Jan 2015	30 Jan 2015
Scheduling of SIBs for low complexity UE	Martin, Brian Alexander;Beale, Martin Warwick	I-14-133-EP-EPT	16700694.9	12 Jan 2016	30 Jan 2015
Thresholds for selection of amount of coverage enhancement	Martin, Brian Alexander;Beale, Martin Warwick;Priyanto, Basuki	I-15-014-TW-NP	104144240	29 Dez 2015	12 Feb 2015
Thresholds for selection of amount of coverage enhancement	Martin, Brian Alexander;Beale, Martin Warwick;Priyanto, Basuki	I-15-014-EP-FFWF	15154857.5	12 Feb 2015	12 Feb 2015
Thresholds for selection of amount of coverage enhancement	Martin, Brian Alexander;Beale, Martin Warwick;Priyanto, Basuki	I-15-014-WO-PCT	PCT/EP2015/080811	21 Dez 2015	12 Feb 2015
Thresholds for selection of amount of coverage enhancement	Martin, Brian Alexander;Beale, Martin Warwick;Priyanto, Basuki	I-15-014-EP-EPT	15817319.5	21 Dez 2015	12 Feb 2015

Thresholds for selection of amount of coverage enhancement	Martin, Brian Alexander;Beale, Martin Warwick;Priyanto, Basuki	I-15-014-US-PCT	15/548429	21 Dez 2015	12 Feb 2015
RLC retransmission carrier awareness	Martin, Brian Alexander;Beale, Martin Warwick	I-15-025-EP-FWF	15159522.0	17 Mrz 2015	17 Mrz 2015
RLC retransmission carrier awareness	Martin, Brian Alexander;Beale, Martin Warwick	I-15-025-US-PCT	15/552954	23 Feb 2016	17 Mrz 2015
RLC retransmission carrier awareness	Martin, Brian Alexander;Beale, Martin Warwick	I-15-025-EP-EPT	16706339.5	23 Feb 2016	17 Mrz 2015
RLC retransmission carrier awareness	Martin, Brian Alexander;Beale, Martin Warwick	I-15-025-WO-PCT	PCT/EP2016/053737	23 Feb 2016	17 Mrz 2015
Antenna port consistency of distributed ePDCCH transmissions	Beale, Martin Warwick;Martin, Brian Alexander	I-15-029-US-PCT	15/553470	08 Mrz 2016	10 Apr 2015
Antenna port consistency of distributed ePDCCH transmissions	Beale, Martin Warwick;Martin, Brian Alexander	I-15-029-EP-FWF	15163288.2	10 Apr 2015	10 Apr 2015
Antenna port consistency of distributed ePDCCH transmissions	Beale, Martin Warwick;Martin, Brian Alexander	I-15-029-WO-PCT	PCT/EP2016/054922	08 Mrz 2016	10 Apr 2015
ePDCCH rate matching in enhanced coverage mode in LTE-A	Beale, Martin Warwick	I-15-036-WO-PCT	PCT/EP2016/055082	10 Mrz 2016	10 Apr 2015
ePDCCH rate matching in enhanced coverage mode in LTE-A	Beale, Martin Warwick	I-15-036-US-PCT	15/554200	10 Mrz 2016	10 Apr 2015
ePDCCH rate matching in enhanced coverage mode in LTE-A	Beale, Martin Warwick	I-15-036-EP-EPT	16712248.0	10 Mrz 2016	10 Apr 2015
ePDCCH rate matching in enhanced coverage mode in LTE-A	Beale, Martin Warwick	I-15-036-EP-FWF	15163291.6	10 Apr 2015	10 Apr 2015
Switched antenna transmit diversity.	Beale, Martin Warwick;Kosta, Chrysovalantis	I-15-044-US-PCT	15/554747	14 Mrz 2016	10 Apr 2015

Switched antenna transmit diversity.	Beale, Martin Warwick;Kosta, Chrysovalantis	I-15-044-EP-EPT	16713308.1	14 Mar 2016	10 Apr 2015
Switched antenna transmit diversity.	Beale, Martin Warwick;Kosta, Chrysovalantis	I-15-044-US-CNT	16/195337	19 Nov 2018	10 Apr 2015
Switched antenna transmit diversity.	Beale, Martin Warwick;Kosta, Chrysovalantis	I-15-044-EP-FFWF	15163295.7	10 Apr 2015	10 Apr 2015
Switched antenna transmit diversity.	Beale, Martin Warwick;Kosta, Chrysovalantis	I-15-044-WO-PCT	PCT/EP2016/055452	14 Mar 2016	10 Apr 2015
Virtual RAT	Martin, Brian Alexander;Beale, Martin Warwick	I-15-073-EP-EPT	16750702.9	01 Aug 2016	11 Aug 2015
Virtual RAT	Martin, Brian Alexander;Beale, Martin Warwick	I-15-073-WO-PCT	PCT/EP2016/068276	01 Aug 2016	11 Aug 2015
Virtual RAT	Martin, Brian Alexander;Beale, Martin Warwick	I-15-073-EP-FFWF	15180651.0	11 Aug 2015	11 Aug 2015
Virtual RAT	Martin, Brian Alexander;Beale, Martin Warwick	I-15-073-US-PCT	15/743431	01 Aug 2016	11 Aug 2015
Reduced Measurement for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-097-WO-PCT	PCT/EP2016/067391	21 Jul 2016	14 Aug 2015
Reduced Measurement for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-097-EP-EPT	16744349.8	21 Jul 2016	14 Aug 2015
Reduced Measurement for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-097-US-PCT	15/746044	21 Jul 2016	14 Aug 2015
Reduced Measurement for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-097-EP-FFWF	15181121.3	14 Aug 2015	14 Aug 2015
MPDCCCH Scrambling in Coverage Enhanced LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-098-EP-EPT	16751504.8	21 Jul 2016	14 Aug 2015
MPDCCCH Scrambling in Coverage Enhanced LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-098-US-PCT	15/743113	21 Jul 2016	14 Aug 2015
MPDCCCH Scrambling in Coverage Enhanced LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-098-WO-PCT	PCT/EP2016/067390	21 Jul 2016	14 Aug 2015
MPDCCCH Scrambling in Coverage Enhanced LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-098-EP-FFWF	15181174.2	14 Aug 2015	14 Aug 2015

PDSCH & UL HARQ ACK/NACK Collision in Coverage Enhanced Operation for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-111-EP-FFWF	15186972.4	25 Sep 2015	25 Sep 2015
PDSCH & UL HARQ ACK/NACK Collision in Coverage Enhanced Operation for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-111-WO-PCT	PCT/EP2016/072743	23 Sep 2016	25 Sep 2015
PDSCH & UL HARQ ACK/NACK Collision in Coverage Enhanced Operation for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-111-US-PCT	15/751645	23 Sep 2016	25 Sep 2015
PDSCH & UL HARQ ACK/NACK Collision in Coverage Enhanced Operation for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-111-EP-EPT	16770754.6	23 Sep 2016	25 Sep 2015
MPDCCH with reduced CRC	Beale, Martin Warwick;Wong, Shin Horng	I-15-114-US-PCT	15/751635	08 Sep 2016	25 Sep 2015
MPDCCH with reduced CRC	Beale, Martin Warwick;Wong, Shin Horng	I-15-114-EP-EPT	16763777.6	08 Sep 2016	25 Sep 2015
MPDCCH with reduced CRC	Beale, Martin Warwick;Wong, Shin Horng	I-15-114-WO-PCT	PCT/EP2016/071208	08 Sep 2016	25 Sep 2015
MPDCCH with reduced CRC	Beale, Martin Warwick;Wong, Shin Horng	I-15-114-EP-FFWF	15186986.4	25 Sep 2015	25 Sep 2015
MPDCCH with reduced CRC	Beale, Martin Warwick;Wong, Shin Horng	I-15-114-EP-FFWF11	15187000.3	25 Sep 2015	25 Sep 2015
HARQ search space for MTC	Beale, Martin Warwick;Wong, Shin Horng	I-15-116-WO-PCT	PCT/EP2016/069825	22 Aug 2016	25 Sep 2015
HARQ search space for MTC	Beale, Martin Warwick;Wong, Shin Horng	I-15-116-EP-FFWF	15186989.8	25 Sep 2015	25 Sep 2015
HARQ search space for MTC	Beale, Martin Warwick;Wong, Shin Horng	I-15-116-EP-EPT	16754501.1	22 Aug 2016	25 Sep 2015
HARQ search space for MTC	Beale, Martin Warwick;Wong, Shin Horng	I-15-116-US-PCT	15/751502	22 Aug 2016	25 Sep 2015

Determination of physical transmission format as a function of UE speed	Beale, Martin Warwick;Wong, Shin Horng;Wei, Yuxin	I-15-117-US-PCT	15/751510	22 Aug 2016	25 Sep 2015
Determination of physical transmission format as a function of UE speed	Beale, Martin Warwick;Wong, Shin Horng;Wei, Yuxin	I-15-117-EP-EPT	16756682.7	22 Aug 2016	25 Sep 2015
Determination of physical transmission format as a function of UE speed	Beale, Martin Warwick;Wong, Shin Horng;Wei, Yuxin	I-15-117-WO-PCT	PCT/EP2016/069826	22 Aug 2016	25 Sep 2015
Determination of physical transmission format as a function of UE speed	Beale, Martin Warwick;Wong, Shin Horng;Wei, Yuxin	I-15-117-EP-FFWF	15186993.0	25 Sep 2015	25 Sep 2015
Adapting the Total Number of HARQ Processes for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-141-US-CIP	15/342881	03 Nov 2016	04 Nov 2015
Adapting the Total Number of HARQ Processes for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-141-WO-PCT	PCT/EP2016/074605	13 Okt 2016	04 Nov 2015
Adapting the Total Number of HARQ Processes for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-141-EP-FFWF	15193082.3	04 Nov 2015	04 Nov 2015
Adapting the Total Number of HARQ Processes for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-141-EP-EPT	16781444.1	13 Okt 2016	04 Nov 2015
Adapting the Total Number of HARQ Processes for LC-MTC	Wong, Shin Horng;Beale, Martin Warwick	I-15-141-US-CNT	16/194395	19 Nov 2018	04 Nov 2015
Implicit DRX command using RLC	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Tsuda, Shinichiro	I-15-130-US-PCT	15/7771526	14 Okt 2016	05 Nov 2015
Implicit DRX command using RLC	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Tsuda, Shinichiro	I-15-130-WO-PCT	PCT/EP2016/074766	14 Okt 2016	05 Nov 2015

Implicit DRX command using RLC	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Tsuda, Shinichiro	I-15-130-EP-EPT	16784454.7	14 Okt 2016	05 Nov 2015
Implicit DRX command using RLC	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Tsuda, Shinichiro	I-15-130-EP-FFWF	15193159.9	05 Nov 2015	05 Nov 2015
P-RNTI partitioning for paging of MTC devices	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Tsuda, Shinichiro	I-15-140-WO-PCT	PCT/EP2016/074897	17 Okt 2016	06 Nov 2015
P-RNTI partitioning for paging of MTC devices	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Tsuda, Shinichiro	I-15-140-EP-FFWF	15193556.6	06 Nov 2015	06 Nov 2015
P-RNTI partitioning for paging of MTC devices	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Tsuda, Shinichiro	I-15-140-EP-EPT	16784475.2	17 Okt 2016	06 Nov 2015
P-RNTI partitioning for paging of MTC devices	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Tsuda, Shinichiro	I-15-140-US-PCT	15/771509	17 Okt 2016	06 Nov 2015
High Priority Narrowband for NB-IoT operations	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Tsuda, Shinichiro	I-15-142-US-PCT	15/770843	13 Okt 2016	06 Nov 2015
High Priority Narrowband for NB-IoT operations	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Tsuda, Shinichiro	I-15-142-EP-EPT	16784433.1	13 Okt 2016	06 Nov 2015
High Priority Narrowband for NB-IoT operations	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Tsuda, Shinichiro	I-15-142-EP-FFWF	15193566.5	06 Nov 2015	06 Nov 2015
High Priority Narrowband for NB-IoT operations	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Tsuda, Shinichiro	I-15-142-WO-PCT	PCT/EP2016/074582	13 Okt 2016	06 Nov 2015
RV cycling for Frequency Hopped System	Beale, Martin Warwick;Wong, Shin Horng	I-15-147-WO-PCT	PCT/EP2016/076794	07 Nov 2016	19 Nov 2015
RV cycling for Frequency Hopped System	Beale, Martin Warwick;Wong, Shin Horng	I-15-147-US-PSP	62/257591	19 Nov 2015	19 Nov 2015
RV cycling for Frequency Hopped System	Beale, Martin Warwick;Wong, Shin Horng	I-15-147-EP-EPT	16791040.5	07 Nov 2016	19 Nov 2015



RV cycling for Frequency Hopped System	Beale, Martin Warwick; Wong, Shin Horng	I-15-147-US-PCT	15/775051	07 Nov 2016	19 Nov 2015
NB-IoT Uplink Subcarrier Spacing Type Indicator	Wong, Shin Horng; Beale, Martin Warwick	I-15-161-EP-EPT	16822207.3	28 Dez 2016	11 Jan 2016
NB-IoT Uplink Subcarrier Spacing Type Indicator	Wong, Shin Horng; Beale, Martin Warwick	I-15-161-US-CNT11	15/835499	08 Dez 2017	11 Jan 2016
NB-IoT Uplink Subcarrier Spacing Type Indicator	Wong, Shin Horng; Beale, Martin Warwick	I-15-161-US-CNT	15/615511	06 Jun 2017	11 Jan 2016
NB-IoT Uplink Subcarrier Spacing Type Indicator	Wong, Shin Horng; Beale, Martin Warwick	I-15-161-WO-PCT	PCT/EP2016/082762	28 Dez 2016	11 Jan 2016
NB-IoT Uplink Subcarrier Spacing Type Indicator	Wong, Shin Horng; Beale, Martin Warwick	I-15-161-EP-FFWF	16150823.9	11 Jan 2016	11 Jan 2016
NB-IoT Uplink Subcarrier Spacing Type Indicator	Wong, Shin Horng; Beale, Martin Warwick	I-15-161-US-CNT121	16/207215	03 Dez 2018	11 Jan 2016
Multiple NB-IoT Band Congestion Control and Cycling of barring bitmap for NB-IoT	Wong, Shin Horng; Beale, Martin Warwick; Martin, Brian Alexander	I-15-160-WO-PCT	PCT/EP2016/082758	28 Dez 2016	12 Jan 2016
Multiple NB-IoT Band Congestion Control and Cycling of barring bitmap for NB-IoT	Wong, Shin Horng; Beale, Martin Warwick; Martin, Brian Alexander	I-15-160-EP-EPT	16822206.5	28 Dez 2016	12 Jan 2016
Multiple NB-IoT Band Congestion Control and Cycling of barring bitmap for NB-IoT	Wong, Shin Horng; Beale, Martin Warwick; Martin, Brian Alexander	I-15-160-US-PCT	16/067462	28 Dez 2016	12 Jan 2016
Multiple NB-IoT Band Congestion Control and Cycling of barring bitmap for NB-IoT	Wong, Shin Horng; Beale, Martin Warwick; Martin, Brian Alexander	I-15-160-EP-FFWF	16150966.6	12 Jan 2016	12 Jan 2016
NB-IoT Standalone/Inband Cell (Re)selection and Indication of idle mode measured results for NB-IoT	Beale, Martin Warwick; Wong, Shin Horng; Martin, Brian Alexander	I-15-163-WO-PCT	PCT/EP2016/082757	28 Dez 2016	12 Jan 2016

NB-IoT Standalone/Inband Cell (Re)selection and Indication of idle mode measured results for NB-IoT	Beale, Martin Warwick;Wong, Shin Horng;Martin, Brian Alexander	I-15-163-EP-EPT	16826071.9	28 Dez 2016	12 Jan 2016
NB-IoT Standalone/Inband Cell (Re)selection and Indication of idle mode measured results for NB-IoT	Beale, Martin Warwick;Wong, Shin Horng;Martin, Brian Alexander	I-15-163-US-PCT	16/066123	28 Dez 2016	12 Jan 2016
NB-IoT Standalone/Inband Cell (Re)selection and Indication of idle mode measured results for NB-IoT	Beale, Martin Warwick;Wong, Shin Horng;Martin, Brian Alexander	I-15-163-EP-FFWF	16150979.9	12 Jan 2016	12 Jan 2016
Inter-RAT device group capabilities	Martin, Brian Alexander;Wei, Yuxin;Beale, Martin	I-15-123-EP-EPT	17700412.4	13 Jan 2017	04 Feb 2016
Inter-RAT device group capabilities	Martin, Brian Alexander;Wei, Yuxin;Beale, Martin	I-15-123-US-PCT	16/075264	13 Jan 2017	04 Feb 2016
Inter-RAT device group capabilities	Shinichiro;Wakabayashi, Hideji				
Inter-RAT device group capabilities	Martin, Brian Alexander;Wei, Yuxin;Beale, Martin	I-15-123-EP-FFWF	16154318.6	04 Feb 2016	04 Feb 2016
Inter-RAT device group capabilities	Martin, Brian Alexander;Wei, Yuxin;Beale, Martin	I-15-123-WO-PCT	PCT/EP2017/050649	13 Jan 2017	04 Feb 2016
Inter-RAT device group capabilities	Shinichiro;Wakabayashi, Hideji				
Inter-RAT device group capabilities	Martin, Brian Alexander;Wei, Yuxin;Beale, Martin	I-15-012-EP-FFWF	16154577.7	05 Feb 2016	05 Feb 2016
Inter-RAT device group capabilities	Wong, Shin Horng;Beale, Martin Warwick				

dycNB-PBCH Antenna Port Determination in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick	I-16-012-US-PCT	16/075538	03 Feb 2017	05 Feb 2016
dycNB-PBCH Antenna Port Determination in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick	I-16-012-EP-EPT	17702414.8	03 Feb 2017	05 Feb 2016
dycNB-PBCH Antenna Port Determination in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick	I-16-012-WO-PCT	PCT/EP2017/052462	03 Feb 2017	05 Feb 2016
Repetition for Long TTI in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick	I-16-013-EP-FFWF	16154582.7	05 Feb 2016	05 Feb 2016
Repetition for Long TTI in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick	I-16-013-US-CNT	15/615087	06 Jun 2017	05 Feb 2016
Repetition for Long TTI in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick	I-16-013-US-CNT <sup>(1)</sup>	15/834552	07 Dez 2017	05 Feb 2016
Repetition for Long TTI in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick	I-16-013-EP-EPT	17702411.4	03 Feb 2017	05 Feb 2016
Repetition for Long TTI in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick	I-16-013-WO-PCT	PCT/EP2017/052454	03 Feb 2017	05 Feb 2016
Reduced complexity decoding of NB-PDCCH	Beale, Martin Warwick;Wong, Shin Hornng	I-16-023-WO-PCT	PCT/EP2017/052561	06 Feb 2017	25 Feb 2016
Reduced complexity decoding of NB-PDCCH	Beale, Martin Warwick;Wong, Shin Hornng	I-16-023-EP-EPT	17702655.6	06 Feb 2017	25 Feb 2016
Reduced complexity decoding of NB-PDCCH	Beale, Martin Warwick;Wong, Shin Hornng	I-16-023-US-PCT	16/078016	06 Feb 2017	25 Feb 2016
Reduced complexity decoding of NB-PDCCH	Beale, Martin Warwick;Wong, Shin Hornng	I-16-023-EP-FFWF	16157489.2	25 Feb 2016	25 Feb 2016
Collision Handling in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick;Pryanto, Basuki	I-16-030-US-PCT	16/079238	07 Mrz 2017	11 Mrz 2016
Collision Handling in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick;Pryanto, Basuki	I-16-030-EP-FFWF <sup>(1)</sup>	16164756.5	11 Apr 2016	11 Mrz 2016
Collision Handling in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick;Pryanto, Basuki	I-16-030-EP-FFWF	16160019.2	11 Mrz 2016	11 Mrz 2016
Collision Handling in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick;Pryanto, Basuki	I-16-030-EP-EPT	17708298.9	07 Mrz 2017	11 Mrz 2016
Collision Handling in NB-IoT	Wong, Shin Hornng;Beale, Martin Warwick;Pryanto, Basuki	I-16-030-WO-PCT	PCT/EP2017/055341	07 Mrz 2017	11 Mrz 2016

NB-PDCCCH Repetitions in CSS for Paging in NB-IoT	Wong, Shin Horng;Beale, Martin Warwick	I-16-033-US-PCT	16/078645	09 Feb 2017	11 Mrz 2016
NB-PDCCCH Repetitions in CSS for Paging in NB-IoT	Wong, Shin Horng;Beale, Martin Warwick	I-16-033-EP-EPT	17703188.7	09 Feb 2017	11 Mrz 2016
NB-PDCCCH Repetitions in CSS for Paging in NB-IoT	Wong, Shin Horng;Beale, Martin Warwick	I-16-033-WO-PCT	PCT/EP2017/052874	09 Feb 2017	11 Mrz 2016
NB-PDCCCH Repetitions in CSS for Paging in NB-IoT	Wong, Shin Horng;Beale, Martin Warwick	I-16-033-EP-FFWF	16160026.7	11 Mrz 2016	11 Mrz 2016
Frequency offset indication	Beale, Martin Warwick;Wong, Shin Horng;Priyanto, Basuki	I-16-031-EP-FFWF	16160533.2	15 Mrz 2016	15 Mrz 2016
Frequency offset indication	Beale, Martin Warwick;Wong, Shin Horng;Priyanto, Basuki	I-16-031-EP-FFWF[1]	16163943.0	05 Apr 2016	15 Mrz 2016
Frequency offset indication	Beale, Martin Warwick;Wong, Shin Horng;Priyanto, Basuki	I-16-031-EP-FFWF[2]	16171552.9	26 Mai 2016	15 Mrz 2016
Frequency offset indication	Beale, Martin Warwick;Wong, Shin Horng;Priyanto, Basuki	I-16-031-WO-PCT	PCT/EP2017/055581	09 Mrz 2017	15 Mrz 2016
Frequency offset indication	Beale, Martin Warwick;Wong, Shin Horng;Priyanto, Basuki	I-16-031-EP-EPT	17709447.1	09 Mrz 2017	15 Mrz 2016
Frequency offset indication	Beale, Martin Warwick;Wong, Shin Horng;Priyanto, Basuki	I-16-031-US-CNT	15/654611	19 Jul 2017	15 Mrz 2016
Indication identifying eNB in case of RRC Connection Resume after cell reselection	Martin, Brian Alexander;Berggren, Anders;Beale, Martin Warwick	I-16-028-WO-PCT	PCT/EP2017/053752	20 Feb 2017	23 Mrz 2016
Indication identifying eNB in case of RRC Connection Resume after cell reselection	Martin, Brian Alexander;Berggren, Anders;Beale, Martin Warwick	I-16-028-EP-EPT	17705151.3	20 Feb 2017	23 Mrz 2016
Indication identifying eNB in case of RRC Connection Resume after cell reselection	Martin, Brian Alexander;Berggren, Anders;Beale, Martin Warwick	I-16-028-US-PCT	16/079115	20 Feb 2017	23 Mrz 2016
Indication identifying eNB in case of RRC Connection Resume after cell reselection	Martin, Brian Alexander;Berggren, Anders;Beale, Martin Warwick	I-16-028-EP-FFWF	16162035.6	23 Mrz 2016	23 Mrz 2016

Distinguishing Paging Occasions in NB-IoT	Wong, Shin Horng;Beale, Martin Warwick	I-16-041-US-PCT	16/091273	31 Mrz 2017	05 Apr 2016
Distinguishing Paging Occasions in NB-IoT	Wong, Shin Horng;Beale, Martin Warwick	I-16-041-WO-PCT	PCT/EP2017/057758	31 Mrz 2017	05 Apr 2016
Distinguishing Paging Occasions in NB-IoT	Wong, Shin Horng;Beale, Martin Warwick	I-16-041-TW-NP	106107628	08 Mrz 2017	05 Apr 2016
Distinguishing Paging Occasions in NB-IoT	Wong, Shin Horng;Beale, Martin Warwick	I-16-041-EP-FFWF	16163933.1	05 Apr 2016	05 Apr 2016
Distinguishing Paging Occasions in NB-IoT	Wong, Shin Horng;Beale, Martin Warwick	I-16-041-EP-EPT	17713703.1	31 Mrz 2017	05 Apr 2016
Variable Msg3 size transmission	Beale, Martin Warwick;Wong, Shin Horng	I-16-043-EP-FFWF	16163808.5	05 Apr 2016	05 Apr 2016
Variable Msg3 size transmission	Beale, Martin Warwick;Wong, Shin Horng	I-16-043-WO-PCT	PCT/EP2017/057990	04 Apr 2017	05 Apr 2016
Variable Msg3 size transmission	Beale, Martin Warwick;Wong, Shin Horng	I-16-043-EP-EPT	17715162.8	04 Apr 2017	05 Apr 2016
Variable Msg3 size transmission	Beale, Martin Warwick;Wong, Shin Horng	I-16-043-US-PCT	16/091182	04 Apr 2017	05 Apr 2016
Flexible frame structure for NR	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel	I-16-067-US-PCT	16/098134	27 Apr 2017	13 Mai 2016
Flexible frame structure for NR	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel	I-16-067-EP-FFWF	16169734.7	13 Mai 2016	13 Mai 2016
Flexible frame structure for NR	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel	I-16-067-WO-PCT	PCT/EP2017/060113	27 Apr 2017	13 Mai 2016
Flexible frame structure for NR	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel	I-16-067-EP-EPT	17721102.6	27 Apr 2017	13 Mai 2016
Energy Efficient Transmit & Receive Points for High Speed Train	Wong, Shin Horng;Beale, Martin Warwick	I-16-079-EP-FFWF	16182891.8	04 Aug 2016	04 Aug 2016
Energy Efficient Transmit & Receive Points for High Speed Train	Wong, Shin Horng;Beale, Martin Warwick	I-16-079-WO-PCT	PCT/EP2017/069755	03 Aug 2017	04 Aug 2016

Energy Efficient Transmit & Receive Points for High Speed Train	Wong, Shin Horng;Beale, Martin Warwick	I-16-079-EP-EPT	17748759.2	03 Aug 2017	04 Aug 2016
Energy Efficient Transmit & Receive Points for High Speed Train	Wong, Shin Horng;Beale, Martin Warwick	I-16-079-US-PCT	16/321036	03 Aug 2017	04 Aug 2016
UE Speed Dependent Uplink Reference Signal Transmission for Mobility in NR	Wong, Shin Horng;Martin, Brian Alexander;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-088-EP-EPT	17734373.8	05 Jul 2017	10 Aug 2016
UE Speed Dependent Uplink Reference Signal Transmission for Mobility in NR	Wong, Shin Horng;Martin, Brian Alexander;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-088-WO-PCT	PCT/EP2017/066834	05 Jul 2017	10 Aug 2016
UE Speed Dependent Uplink Reference Signal Transmission for Mobility in NR	Wong, Shin Horng;Martin, Brian Alexander;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-088-EP-FFWF	16183540.0	10 Aug 2016	10 Aug 2016
UE Speed Dependent Uplink Reference Signal Transmission for Mobility in NR	Wong, Shin Horng;Martin, Brian Alexander;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-088-US-PCT	16/322970	05 Jul 2017	10 Aug 2016
Power Saving OTDOA in MTC	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander	I-16-107-EP-FFWF	16183546.7	10 Aug 2016	10 Aug 2016
Power Saving OTDOA in MTC	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander	I-16-107-WO-PCT	PCT/EP2017/067746	13 Jul 2017	10 Aug 2016
Power Saving OTDOA in MTC	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander	I-16-107-US-PCT	16/324126	13 Jul 2017	10 Aug 2016
Power Saving OTDOA in MTC	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander	I-16-107-EP-EPT	17736976.6	13 Jul 2017	10 Aug 2016

Inactive RRC State Uplink Feedback for New Radio	Wong, Shin Horng;Martin, Brian Alexander;Beale, Martin Warwick;Wei, Yuxin;Berggren, Anders;Nord, Lars	I-16-082-EP-FFWF	16183726.5	11 Aug 2016	11 Aug 2016
Inactive RRC State Uplink Feedback for New Radio	Wong, Shin Horng;Martin, Brian Alexander;Beale, Martin Warwick;Wei, Yuxin;Berggren, Anders;Nord, Lars	I-16-082-EP-EPT	17749670.0	27 Jul 2017	11 Aug 2016
Inactive RRC State Uplink Feedback for New Radio	Wong, Shin Horng;Martin, Brian Alexander;Beale, Martin Warwick;Wei, Yuxin;Berggren, Anders;Nord, Lars	I-16-082-WO-PCT	PCT/EP2017/069003	27 Jul 2017	11 Aug 2016
Inactive RRC State Uplink Feedback for New Radio	Wong, Shin Horng;Martin, Brian Alexander;Beale, Martin Warwick;Wei, Yuxin;Berggren, Anders;Nord, Lars	I-16-082-US-PCT	16/324574	27 Jul 2017	11 Aug 2016
Uplink based handover location based trigger	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-093-EP-FFWF	16183702.6	11 Aug 2016	11 Aug 2016
Uplink based handover location based trigger	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-093-WO-PCT	PCT/EP2017/067875	14 Jul 2017	11 Aug 2016
Uplink based handover location based trigger	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-093-EP-EPT	17742712.7	14 Jul 2017	11 Aug 2016
Uplink based handover location based trigger	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-093-US-PCT	16/323534	14 Jul 2017	11 Aug 2016

UE specific Supplementary PRS for MTC	Wong, Shin Horng;Beale, Martin Alexander	I-16-103-WO-PCT	PCT/EP2017/067987	17 Jul 2017	12 Aug 2016
UE specific Supplementary PRS for MTC	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander	I-16-103-EP-FFWF	16184042.6	12 Aug 2016	12 Aug 2016
UE specific Supplementary PRS for MTC	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander	I-16-103-US-PCT	16/324917	17 Jul 2017	12 Aug 2016
UE specific Supplementary PRS for MTC	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander	I-16-103-EP-EPT	17743298.6	17 Jul 2017	12 Aug 2016
Positioning using beam sweeping	Beale, Martin Warwick;Wong, Shin Horng	I-16-113-EP-EPT	17748677.6	19 Jul 2017	12 Aug 2016
Positioning using beam sweeping	Beale, Martin Warwick;Wong, Shin Horng	I-16-113-WO-PCT	PCT/EP2017/068260	19 Jul 2017	12 Aug 2016
Positioning using beam sweeping	Beale, Martin Warwick;Wong, Shin Horng	I-16-113-EP-FFWF	16184120.0	12 Aug 2016	12 Aug 2016
Positioning using beam sweeping	Beale, Martin Warwick;Wong, Shin Horng	I-16-113-US-PCT	16/324646	19 Jul 2017	12 Aug 2016
Beam Sweeping Rhythm in NR	Wong, Shin Horng;Beale, Martin Warwick	I-16-118-EP-FFWF	16184118.4	12 Aug 2016	12 Aug 2016
Beam Sweeping Rhythm in NR	Wong, Shin Horng;Beale, Martin Warwick	I-16-118-WO-PCT	PCT/EP2017/068256	19 Jul 2017	12 Aug 2016
Beam Sweeping Rhythm in NR	Wong, Shin Horng;Beale, Martin Warwick	I-16-118-EP-EPT	17742421.5	19 Jul 2017	12 Aug 2016
Beam Sweeping Rhythm in NR	Wong, Shin Horng;Beale, Martin Warwick	I-16-118-US-PCT	16/323779	19 Jul 2017	12 Aug 2016
Positioning using dithered base station transmissions	Beale, Martin Warwick;Wong, Shin Horng	I-16-125-WO-PCT	PCT/EP2017/070231	09 Aug 2017	12 Aug 2016
Positioning using dithered base station transmissions	Beale, Martin Warwick;Wong, Shin Horng	I-16-125-EP-EPT	17754311.3	09 Aug 2017	12 Aug 2016
Positioning using dithered base station transmissions	Beale, Martin Warwick;Wong, Shin Horng	I-16-125-US-PCT	16/323265	09 Aug 2017	12 Aug 2016



Positioning using dithered base station transmissions	Beale, Martin Warwick; Wong, Shin Horng	I-16-125-EP-FFWF	16183980.8	12 Aug 2016	12 Aug 2016
NUC Indicator for NR	Wong, Shin Horng; Beale, Martin Warwick; Atungsiri, Samuel Asangbeng	I-16-129-EP-EPT	17752150.7	18 Aug 2017	19 Aug 2016
NUC Indicator for NR	Wong, Shin Horng; Beale, Martin Warwick; Atungsiri, Samuel Asangbeng	I-16-129-WO-PCT	PCT/EP2017/070978	18 Aug 2017	19 Aug 2016
NUC Indicator for NR	Wong, Shin Horng; Beale, Martin Warwick; Atungsiri, Samuel Asangbeng	I-16-129-EP-FFWF	16185036.7	19 Aug 2016	19 Aug 2016
NUC Indicator for NR	Wong, Shin Horng; Beale, Martin Warwick; Atungsiri, Samuel Asangbeng	I-16-129-US-PCT	16/323526	18 Aug 2017	19 Aug 2016
Multi Control Channel in eMBB transmission	Wong, Shin Horng; Beale, Martin Warwick; Atungsiri, Samuel Asangbeng	I-16-147-US-PCT	16/331139	29 Aug 2017	15 Sep 2016
Multi Control Channel in eMBB transmission	Wong, Shin Horng; Beale, Martin Warwick; Atungsiri, Samuel Asangbeng	I-16-147-EP-EPT	17755548.9	29 Aug 2017	15 Sep 2016
Multi Control Channel in eMBB transmission	Wong, Shin Horng; Beale, Martin Warwick; Atungsiri, Samuel Asangbeng	I-16-147-TW-NP	106125758	31 Jul 2017	15 Sep 2016
Multi Control Channel in eMBB transmission	Wong, Shin Horng; Beale, Martin Warwick; Atungsiri, Samuel Asangbeng	I-16-147-WO-PCT	PCT/EP2017/071636	29 Aug 2017	15 Sep 2016
Multi Control Channel in eMBB transmission	Wong, Shin Horng; Beale, Martin Warwick; Atungsiri, Samuel Asangbeng	I-16-147-EP-FFWF	16189083.5	15 Sep 2016	15 Sep 2016
Resource Indication for Wide Bandwidth feMTC	Wong, Shin Horng; Beale, Martin Warwick	I-16-159-WO-PCT	PCT/EP2017/073172	14 Sep 2017	29 Sep 2016
Resource Indication for Wide Bandwidth feMTC	Wong, Shin Horng; Beale, Martin Warwick	I-16-159-EP-EPT	PCT/EP2017/073172	14 Sep 2017	29 Sep 2016
Resource Indication for Wide Bandwidth feMTC	Wong, Shin Horng; Beale, Martin Warwick	I-16-159-US-PCT	PCT/EP2017/073172	14 Sep 2017	29 Sep 2016

Resource Indication for Wide Bandwidth femTC	Wong, Shin Horng;Beale, Martin Warwick	I-16-159-EP-FFWF	16191540.0	29 Sep 2016	29 Sep 2016
Bundle Status Indicator for HD-FDD HARQ	Wong, Shin Horng;Beale, Martin Warwick	I-16-148-WO-PCT	PCT/EP2017/073461	18 Sep 2017	30 Sep 2016
Feedback Bundling	Wong, Shin Horng;Beale, Martin Warwick	I-16-148-EP-EPT	PCT/EP2017/073461	18 Sep 2017	30 Sep 2016
Bundle Status Indicator for HD-FDD HARQ	Wong, Shin Horng;Beale, Martin Warwick	I-16-148-EP-PCT	PCT/EP2017/073461	18 Sep 2017	30 Sep 2016
Bundle Status Indicator for HD-FDD HARQ	Wong, Shin Horng;Beale, Martin Warwick	I-16-148-EP-FFWF	16191974.1	30 Sep 2016	30 Sep 2016
Feedback Bundling	Wong, Shin Horng;Beale, Martin Warwick	I-16-163-EP-FFWF	16191978.2	30 Sep 2016	30 Sep 2016
HARQ repair of punctured eMBB transmissions	Beale, Martin Warwick;Wong, Shin Horng;Atungsiri, Samuel Asangbeng	I-16-163-WO-PCT	PCT/EP2017/072025	01 Sep 2017	30 Sep 2016
HARQ repair of punctured eMBB transmissions	Beale, Martin Warwick;Wong, Shin Horng;Atungsiri, Samuel Asangbeng	I-16-163-EP-EPT	PCT/EP2017/072025	01 Sep 2017	30 Sep 2016
HARQ repair of punctured eMBB transmissions	Beale, Martin Warwick;Wong, Shin Horng;Atungsiri, Samuel Asangbeng	I-16-163-US-PCT	PCT/EP2017/072025	01 Sep 2017	30 Sep 2016
SSD transmission of eMBB	Atungsiri, Samuel Asangbeng;Beale, Martin Warwick;Wong, Shin Horng	I-16-164-WO-PCT	PCT/EP2017/073508	18 Sep 2017	30 Sep 2016
SSD transmission of eMBB	Atungsiri, Samuel Asangbeng;Beale, Martin Warwick;Wong, Shin Horng	I-16-164-EP-EPT	PCT/EP2017/073508	18 Sep 2017	30 Sep 2016
SSD transmission of eMBB	Atungsiri, Samuel Asangbeng;Beale, Martin Warwick;Wong, Shin Horng	I-16-164-US-PCT	PCT/EP2017/073508	18 Sep 2017	30 Sep 2016

SSD transmission of eMBB	Atungsiri, Samuel Asangbeng;Beale, Martin Warwick;Wong, Shin Horng	I-16-164-EP-FFWF	16191997.2	30 Sep 2016	30 Sep 2016
SC-MCCH Change Notification in femTC & eNB-IoT	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Sharma, Vivek	I-16-166-EP-FFWF	16191990.7	30 Sep 2016	30 Sep 2016
SC-MCCH Change Notification in femTC & eNB-IoT	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Sharma, Vivek	I-16-166-WO-PCT	PCT/EP2017/073483	18 Sep 2017	30 Sep 2016
SC-MCCH Change Notification in femTC & eNB-IoT	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Sharma, Vivek	I-16-166-TW-NP	106126771	08 Aug 2017	30 Sep 2016
SC-MCCH Change Notification in femTC & eNB-IoT	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Sharma, Vivek	I-16-166-US-PCT	PCT/EP2017/073483	18 Sep 2017	30 Sep 2016
SC-MCCH Change Notification in femTC & eNB-IoT	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Sharma, Vivek	I-16-166-EP-EPT	PCT/EP2017/073483	18 Sep 2017	30 Sep 2016
HARQ Process Exchange in HARQ-ACK Bundling Retransmissions	Wong, Shin Horng;Beale, Martin Warwick	I-16-180-WO-PCT	PCT/EP2017/075076	03 Okt 2017	03 Nov 2016
HARQ Process Exchange in HARQ-ACK Bundling Retransmissions	Wong, Shin Horng;Beale, Martin Warwick	I-16-180-EP-FFWF	16197188.2	03 Nov 2016	03 Nov 2016
Cell quality evaluation using multiple beam measurements	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Wei, Yuxin;Atungsiri, Samuel Asangbeng;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-182-EP-FFWF	16197339.1	04 Nov 2016	04 Nov 2016
Cell quality evaluation using multiple beam measurements	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Wei, Yuxin;Atungsiri, Samuel Asangbeng;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-182-WO-PCT	PCT/EP2017/076260	13 Okt 2017	04 Nov 2016

Fallback Beam Operation in NR	Wong, Shin Horng; Beale, Martin Warwick; Martin, Brian Alexander; Sharma, Vivek	I-16-184-WO-PCT	PCT/EP2017/077977	01 Nov 2017	11 Nov 2016
Fallback Beam Operation in NR	Wong, Shin Horng; Beale, Martin Warwick; Martin, Brian Alexander; Sharma, Vivek	I-16-184-EP-FFWF	16198547.8	11 Nov 2016	11 Nov 2016
Transmission that enables the detection of URLLC afflicted eMBB transmissions	Atungsiri, Samuel Asangbeng; Wong, Shin Horng; Beale, Martin Warwick	I-16-187-WO-PCT	PCT/EP2017/075546	06 Okt 2017	11 Nov 2016
Transmission that enables the detection of URLLC afflicted eMBB transmissions	Atungsiri, Samuel Asangbeng; Wong, Shin Horng; Beale, Martin Warwick	I-16-187-EP-FFWF	16198538.7	11 Nov 2016	11 Nov 2016
High speed tolerant PBCH for NR	Atungsiri, Samuel Asangbeng; Beale, Martin Warwick; Wong, Shin Horng	I-16-202-EP-FFWF	16206517.1	22 Dez 2016	22 Dez 2016
High speed tolerant PBCH for NR	Atungsiri, Samuel Asangbeng; Beale, Martin Warwick; Wong, Shin Horng	I-16-202-WO-PCT	PCT/EP2017/083955	20 Dez 2017	22 Dez 2016
Signal Space Diversity Interleaving	Beale, Martin Warwick; Atungsiri, Samuel Asangbeng; Wong, Shin Horng	I-16-149-EP-FFWF	16206874.6	23 Dez 2016	23 Dez 2016
Signal Space Diversity Interleaving	Beale, Martin Warwick; Atungsiri, Samuel Asangbeng; Wong, Shin Horng	I-16-149-WO-PCT	PCT/EP2017/081523	05 Dez 2017	23 Dez 2016
RRC Inactive State Paging for downlink transmission	Martin, Brian Alexander; Wong, Shin Horng; Beale, Martin Warwick; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro; Wakabayashi, Hideji; Berggren, Anders	I-16-207-EP-FFWF	16206769.8	23 Dez 2016	23 Dez 2016
RRC Inactive State Paging for downlink transmission	Martin, Brian Alexander; Wong, Shin Horng; Beale, Martin Warwick; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro; Wakabayashi, Hideji; Berggren, Anders	I-16-207-WO-PCT	PCT/EP2017/080828	29 Nov 2017	23 Dez 2016

Mobility handling in Inter-RAT NR-LTE coexistence	Sharma, Vivek; Beale, Martin Warwick; Martin, Brian Alexander; Wong, Shin Horng; Wakabayashi, Hideji; Tsuda, Shinichiro	I-16-214-EP- FFWF	17150280.0	04 Jan 2017	04 Jan 2017
Mobility handling in Inter-RAT NR-LTE coexistence	Sharma, Vivek; Beale, Martin Warwick; Martin, Brian Alexander; Wong, Shin Horng; Wakabayashi, Hideji; Tsuda, Shinichiro	I-16-214-WO- PCT	PCT/EP2018/050031	02 Jan 2018	04 Jan 2017
PRACH Beam Ramping in NR	Wong, Shin Horng; Beale, Martin Warwick	I-16-196-EP- FFWF	17150485.5	05 Jan 2017	05 Jan 2017
PRACH Beam Ramping in NR	Wong, Shin Horng; Beale, Martin Warwick	I-16-196-WO- PCT	PCT/EP2017/081502	05 Dez 2017	05 Jan 2017
Triggering of mobility reference signals measurements using cell specific reference signals	Martin, Brian Alexander; Wong, Shin Horng; Beale, Martin Warwick; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro; Wakabayashi, Hideji	I-16-208-WO- PCT	PCT/EP2017/083279	18 Dez 2017	05 Jan 2017
Triggering of mobility reference signals measurements using cell specific reference signals	Martin, Brian Alexander; Wong, Shin Horng; Beale, Martin Warwick; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro; Wakabayashi, Hideji	I-16-208-EP- FFWF	17150481.4	05 Jan 2017	05 Jan 2017
Inter-RAT Scheduling for NR-LTE Interworking	Wong, Shin Horng; Beale, Martin Warwick; Martin, Brian Alexander; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-16-210-WO- PCT	PCT/EP2017/081501	05 Dez 2017	05 Jan 2017
Inter-RAT Scheduling for NR-LTE Interworking	Wong, Shin Horng; Beale, Martin Warwick; Martin, Brian Alexander; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-16-210-EP- FFWF	17150482.2	05 Jan 2017	05 Jan 2017
Alternative Downlink Control Channel Resources in NR	Wong, Shin Horng; Beale, Martin Warwick; Atungsir, Samuel Asangbeng	I-16-197-WO- PCT	PCT/EP2017/081542	05 Dez 2017	06 Jan 2017

Alternative Downlink Control Channel Resources in NR	Wong, Shin Horng;Beale, Martin Asangbeng	I-16-197-EP- FFWF	17150570.4	06 Jan 2017	06 Jan 2017
Flexible FDD operation using TDD band	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-201-EP- FFWF	17150567.0	06 Jan 2017	06 Jan 2017
Flexible FDD operation using TDD band	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-201-WO- PCT	PCT/EP2017/083899	20 Dez 2017	06 Jan 2017
URLLC HARQ feedback operation	Beale, Martin Warwick;Atungsiri, Samuel Asangbeng;Wong, Shin Horng	I-16-205-EP- FFWF	17150730.4	09 Jan 2017	09 Jan 2017
URLLC HARQ feedback operation	Beale, Martin Warwick;Atungsiri, Samuel Asangbeng;Wong, Shin Horng	I-16-205-WO- PCT	PCT/EP2017/083875	20 Dez 2017	09 Jan 2017
RRC Inactive State Paging for uplink tracking signal reconfiguration	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji;Berggren, Anders	I-16-217-WO- PCT	PCT/EP2017/082858	14 Dez 2017	12 Jan 2017
RRC Inactive State Paging for uplink tracking signal reconfiguration	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji;Berggren, Anders	I-16-217-EP- FFWF	17151167.8	12 Jan 2017	12 Jan 2017
New UE ID and blind detection method	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji;Atungsiri, Samuel Asangbeng	I-17-009-WO- PCT	PCT/EP2018/052489	01 Feb 2018	03 Feb 2017

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New UE ID and blind detection method	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji;Atungsiri, Samuel Asangbeng	I-17-009-EP-FFWF	17154636.9	03 Feb 2017	03 Feb 2017
URLLC back indication of PDSCH	Beale, Martin Warwick;Atungsiri, Samuel Asangbeng;Wong, Shin Horng	I-17-012-WO-PCT	PCT/EP2018/052110	29 Jan 2018	06 Feb 2017
URLLC back indication of PDSCH	Beale, Martin Warwick;Atungsiri, Samuel Asangbeng;Wong, Shin Horng	I-17-012-EP-FFWF	17154893.6	06 Feb 2017	06 Feb 2017
Dynamic rescheduling of HARQ feedback resources	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-015-WO-PCT	PCT/EP2018/053231	08 Feb 2018	10 Feb 2017
Dynamic rescheduling of HARQ feedback resources	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-015-EP-FFWF	17155750.7	10 Feb 2017	10 Feb 2017
URLLC Self Pre-emption	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng;Martin, Brian Alexander;Sharma, Vivek	I-17-026-WO-PCT	PCT/EP2018/057078	20 Mar 2018	22 Mar 2017
URLLC Self Pre-emption	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng;Martin, Brian Alexander;Sharma, Vivek	I-17-026-EP-FFWF	17162407.5	22 Mar 2017	22 Mar 2017
Shared Uplink Grant Free Resource	Wong, Shin Horng;Beale, Martin Warwick;Sharma, Vivek;Martin, Brian Alexander	I-17-027-WO-PCT	PCT/EP2018/057080	20 Mar 2018	22 Mar 2017
Shared Uplink Grant Free Resource	Wong, Shin Horng;Beale, Martin Warwick;Sharma, Vivek;Martin, Brian Alexander	I-17-027-EP-FFWF	17162411.7	22 Mar 2017	22 Mar 2017
Shared Uplink Grant Free Resource	Wong, Shin Horng;Beale, Martin Warwick;Sharma, Vivek;Martin, Brian Alexander	I-17-027-TW-NP	107103238	30 Jan 2018	22 Mar 2017

Transmission of early termination of repetition indicator	Wong, Shin Horng;Beale, Martin Warwick	I-17-028-WO-PCT	PCT/EP2018/057368	22 Mar 2018	23 Mar 2017
Transmission of early termination of repetition indicator	Wong, Shin Horng;Beale, Martin Warwick	I-17-028-EP-FFWF	17162668.2	23 Mar 2017	23 Mar 2017
SLSS anchor narrowband for relay	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Uchiyama, Hiromasa;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-029-EP-FFWF	17162886.0	24 Mar 2017	24 Mar 2017
SLSS anchor narrowband for relay	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Uchiyama, Hiromasa;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-029-WO-PCT	PCT/EP2018/057366	22 Mar 2018	24 Mar 2017
Sub-PRB Transmission schemes for eMTC	Beale, Martin Warwick;Wong, Shin Horng;Atungsiri, Samuel Asangbeng;Priyanto, Basuki	I-17-032-WO-PCT	PCT/EP2018/057147	21 Mar 2018	24 Mar 2017
Sub-PRB Transmission schemes for eMTC	Beale, Martin Warwick;Wong, Shin Horng;Atungsiri, Samuel Asangbeng;Priyanto, Basuki	I-17-032-EP-FFWF	17162920.7	24 Mar 2017	24 Mar 2017
Shared Uplink Grant Free Resource higher layer impacts - cipher keys during handover	Sharma, Vivek;Beale, Martin Warwick;Wong, Shin Horng;Martin, Brian Alexander	I-17-033-EP-FFWF	17163832.3	30 Mar 2017	30 Mar 2017
Shared Uplink Grant Free Resource higher layer impacts - cipher keys during handover	Sharma, Vivek;Beale, Martin Warwick;Wong, Shin Horng;Martin, Brian Alexander	I-17-033-WO-PCT	PCT/EP2018/057768	27 Mar 2018	30 Mar 2017
Shared Uplink Grant Free Resource higher layer impacts - Secondary eNB to Master eNB	Sharma, Vivek;Beale, Martin Warwick;Wong, Shin Horng;Martin, Brian Alexander	I-17-040-WO-PCT	PCT/EP2018/057784	27 Mar 2018	30 Mar 2017
Shared Uplink Grant Fee Resource higher layer impacts - Secondary eNB to Master eNB	Sharma, Vivek;Beale, Martin Warwick;Wong, Shin Horng;Martin, Brian Alexander	I-17-040-EP-FFWF	17163988.3	30 Mar 2017	30 Mar 2017



Per CE level Access barring	Sharma, Vivek;Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick	I-17-035-EP-FFWF	17164062.6	31 Mar 2017	31 Mar 2017
Per CE level Access barring	Sharma, Vivek;Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick	I-17-035-WO-PCT	PCT/EP2018/058105	29 Mar 2018	31 Mar 2017
Open Loop Power control for remote device	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Uchiyama, Hiromasa;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-036-WO-PCT	PCT/EP2018/055089	01 Mar 2018	31 Mar 2017
Open Loop Power control for remote device	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Uchiyama, Hiromasa;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-036-EP-FFWF	17164263.0	31 Mar 2017	31 Mar 2017
NB-IOT dual threshold for idle mode measurements	Martin, Brian Alexander;Wong, Shin Horng;Sharma, Vivek;Beale, Martin Warwick	I-17-053-WO-PCT	PCT/EP2018/055921	09 Mar 2018	27 Apr 2017
NB-IOT dual threshold for idle mode measurements	Martin, Brian Alexander;Wong, Shin Horng;Sharma, Vivek;Beale, Martin Warwick	I-17-053-EP-FFWF	17168564.7	27 Apr 2017	27 Apr 2017
Pre-emption Indicator Resource Granularity for URLLC/eMBB Multiplexing	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-055-EP-FFWF	17169347.6	03 Mai 2017	03 Mai 2017
Pre-emption Indicator Resource Granularity for URLLC/eMBB Multiplexing	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-055-WO-PCT	PCT/EP2018/061197	02 Mai 2018	03 Mai 2017
DRX based Wake Up Signal for MTC	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Priyanto, Basuki;Mazloum, Nafiseh	I-17-052-WO-PCT	PCT/EP2018/061301	03 Mai 2018	04 Mai 2017
DRX based Wake Up Signal for MTC	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Priyanto, Basuki;Mazloum, Nafiseh	I-17-052-EP-FFWF	17169577.8	04 Mai 2017	04 Mai 2017

Enhanced Synchronisation Channels for MTC	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Priyanto, Basuki;Mazloum, Nafiseh	I-17-054-EP-FFWF	17169821.0	05 Mai 2017	05 Mai 2017
Enhanced Synchronisation Channels for MTC	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Priyanto, Basuki;Mazloum, Nafiseh	I-17-054-WO-PCT	PCT/EP2018/061213	02 Mai 2018	05 Mai 2017
Demodulation reference symbols for NR-PBCH	Atungsiri, Samuel Asangbeng;Beale, Martin Warwick;Wong, Shin Horng	I-17-057-WO-PCT	PCT/EP2018/061578	04 Mai 2018	05 Mai 2017
Demodulation reference symbols for NR-PBCH	Atungsiri, Samuel Asangbeng;Beale, Martin Warwick;Wong, Shin Horng	I-17-057-EP-FFWF	17169834.3	05 Mai 2017	05 Mai 2017
DRX cycles for WUS and WUS reliability monitoring	Beale, Martin Warwick;Wong, Shin Horng;Martin, Brian Alexander;Priyanto, Basuki;Mazloum, Nafiseh	I-17-059-WO-PCT	PCT/EP2018/061179	02 Mai 2018	05 Mai 2017
DRX cycles for WUS and WUS reliability monitoring	Beale, Martin Warwick;Wong, Shin Horng;Martin, Brian Alexander;Priyanto, Basuki;Mazloum, Nafiseh	I-17-059-EP-FFWF	17169835.0	05 Mai 2017	05 Mai 2017
Conveying the Synchronisation Block Index via NR-PBCH Demodulation reference symbols	Atungsiri, Samuel Asangbeng;Wong, Shin Horng;Beale, Martin Warwick	I-17-073-EP-FFWF	17176479.8	16 Jun 2017	16 Jun 2017
Conveying the Synchronisation Block Index via NR-PBCH Demodulation reference symbols	Atungsiri, Samuel Asangbeng;Wong, Shin Horng;Beale, Martin Warwick	I-17-073-WO-PCT	PCT/EP2018/063683	24 Mai 2018	16 Jun 2017
Configuration of NR-PDCP for MCG SRB1	Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shiro;Wong, Shin Horng;Beale, Martin Warwick	I-17-106-EP-FFWF	17184361.8	01 Aug 2017	01 Aug 2017

Configuration of NR-PDCP for MCG SRB1	Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro;Wong, Shin Horng;Beale, Martin Warwick	I-17-106-WO-PCT	PCT/EP2018/070897	01 Aug 2018	01 Aug 2017
Supplementary Uplink transmission for NR	Wong, Shin Horng;Sharma, Vivek;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-108-TW-NP	107127278	06 Aug 2018	10 Aug 2017
Supplementary Uplink transmission for NR	Wong, Shin Horng;Sharma, Vivek;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-108-WO-PCT	PCT/EP2018/070888	01 Aug 2018	10 Aug 2017
Supplementary Uplink transmission for NR	Wong, Shin Horng;Sharma, Vivek;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-108-EP-FFWF	17185819.4	10 Aug 2017	10 Aug 2017
Dynamic Frequency Hopping Pattern for MTC	Wong, Shin Horng;Beale, Martin Warwick;Bitran, Yigal;Semel, Lavi;Elzas, Hovav	I-17-112-EP-FFWF	17185809.5	10 Aug 2017	10 Aug 2017
Dynamic Frequency Hopping Pattern for MTC	Wong, Shin Horng;Beale, Martin Warwick;Bitran, Yigal;Semel, Lavi;Elzas, Hovav	I-17-112-WO-PCT	PCT/EP2018/071382	07 Aug 2018	10 Aug 2017
Wake Up Signal Sequence for IoT	Atungsiri, Samuel Asangbeng;Wong, Shin Horng;Beale, Martin Warwick;Sharma, Vivek	I-17-116-WO-PCT	PCT/EP2018/071659	09 Aug 2018	11 Aug 2017
Wake Up Signal Sequence for IoT	Atungsiri, Samuel Asangbeng;Wong, Shin Horng;Beale, Martin Warwick;Sharma, Vivek	I-17-116-EP-FFWF	17186065.3	11 Aug 2017	11 Aug 2017
Use of slot format indication (SFI) for NR WUS	Beale, Martin Warwick;Wong, Shin Horng;Sharma, Vivek;Atungsiri, Samuel Asangbeng	I-17-117-EP-FFWF	17186062.0	11 Aug 2017	11 Aug 2017
Use of slot format indication (SFI) for NR WUS	Beale, Martin Warwick;Wong, Shin Horng;Sharma, Vivek;Atungsiri, Samuel Asangbeng	I-17-117-WO-PCT	PCT/EP2018/070903	01 Aug 2018	11 Aug 2017

Power Saving Signal transmissions in eDRX	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-130-WO-PCT	PCT/EP2018/075788	24 Sep 2018	28 Sep 2017
Power Saving Signal transmissions in eDRX	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-130-EP-FFWF	17193861.6	28 Sep 2017	28 Sep 2017
Configurable Indicator in Synchronisation Signal	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-160-WO-PCT	PCT/EP2018/081246	14 Nov 2018	14 Nov 2017
Configurable Indicator in Synchronisation Signal	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-160-EP-FFWF	17201748.5	14 Nov 2017	14 Nov 2017
WUS Formats Selection	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-166-EP-FFWF	17201751.9	14 Nov 2017	14 Nov 2017
WUS Formats Selection	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-166-WO-PCT	PCT/EP2018/081254	14 Nov 2018	14 Nov 2017
UE specific WUS validity timer	Sharma, Vivek;Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-164-WO-PCT	PCT/EP2018/080667	08 Nov 2018	15 Nov 2017
UE specific WUS validity timer	Sharma, Vivek;Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-164-EP-FFWF	17201966.3	15 Nov 2017	15 Nov 2017
Managing of multiple WUS Configurations per UE	Sharma, Vivek;Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-167-WO-PCT	PCT/EP2018/081383	15 Nov 2018	15 Nov 2017
Managing of multiple WUS Configurations per UE	Sharma, Vivek;Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng	I-17-167-EP-FFWF	17201973.9	15 Nov 2017	15 Nov 2017
COI table incorporating 64QAM and repetition	Beale, Martin Warwick;Wong, Shin Horng	I-17-168-EP-FFWF	17202196.6	16 Nov 2017	16 Nov 2017

COI table incorporating 64QAM and repetition	Beale, Martin Warwick;Wong, Shin Horng	I-17-168-WO-PCT	PCT/EP2018/081464	15 Nov 2018	16 Nov 2017
Modulation symbol repetition & Precoding for eMTC	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng;Shimezawa, Kazuyuki	I-17-172-EP-FFWF	17202456.4	17 Nov 2017	17 Nov 2017
Modulation symbol repetition & Precoding for eMTC	Wong, Shin Horng;Beale, Martin Warwick;Atungsiri, Samuel Asangbeng;Shimezawa, Kazuyuki	I-17-172-WO-PCT	PCT/EP2018/081402	15 Nov 2018	17 Nov 2017
Frequency Hopping for Wake Up Signal	Beale, Martin Warwick;Wong, Shin Horng;Atungsiri, Samuel Asangbeng	I-17-173-WO-PCT	PCT/EP2018/080807	09 Nov 2018	17 Nov 2017
Frequency Hopping for Wake Up Signal	Beale, Martin Warwick;Wong, Shin Horng;Atungsiri, Samuel Asangbeng	I-17-173-EP-FFWF	17202451.5	17 Nov 2017	17 Nov 2017
Explicit UL HARQ-ACK Indicator for URLLC	Wong, Shin Horng;Beale, Martin Warwick;Shimezawa, Kazuyuki;Sharma, Vivek	I-18-010-EP-FFWF	18152655.9	19 Jan 2018	19 Jan 2018
Explicit UL HARQ-ACK Indicator for URLLC	Wong, Shin Horng;Beale, Martin Warwick;Shimezawa, Kazuyuki;Sharma, Vivek	I-18-010-WO-PCT	PCT/EP2019/050962	15 Jan 2019	19 Jan 2018
Early Uplink Data Transmission CSS for MTC	Wong, Shin Horng;Beale, Martin Warwick	I-18-004-WO-PCT	PCT/EP2019/052514	01 Feb 2019	02 Feb 2018
Early Uplink Data Transmission CSS for MTC	Wong, Shin Horng;Beale, Martin Warwick	I-18-004-EP-FFWF	18154993.2	02 Feb 2018	02 Feb 2018
Uplink Grant for Early Data Transmission	Wong, Shin Horng;Beale, Martin Warwick	I-18-005-EP-FFWF	18154998.1	02 Feb 2018	02 Feb 2018
Uplink Grant for Early Data Transmission	Wong, Shin Horng;Beale, Martin Warwick	I-18-005-WO-PCT	PCT/EP2019/052517	01 Feb 2019	02 Feb 2018
WUS Candidate Indicator	Wong, Shin Horng;Beale, Martin Warwick	I-17-200-WO-PCT	PCT/EP2019/053180	08 Feb 2019	15 Feb 2018
WUS Candidate Indicator	Wong, Shin Horng;Beale, Martin Warwick	I-17-200-EP-FFWF	18157017.7	15 Feb 2018	15 Feb 2018

Use of NB-IoT WUS for eMTC	Beale, Martin Warwick;Wong, Shin Horng	I-17-201-EP-FWPF	18157018.5	15 Feb 2018	15 Feb 2018
Use of NB-IoT WUS for eMTC	Beale, Martin Warwick;Wong, Shin Horng	I-17-201-WO-PCT	PCT/EP2019/053590	13 Feb 2019	15 Feb 2018
WUS Candidate Indicator	Wong, Shin Horng;Beale, Martin Warwick	I-18-022-EP-FWPF	18157021.9	15 Feb 2018	15 Feb 2018
WUS Candidate Indicator	Wong, Shin Horng;Beale, Martin Warwick	I-18-022-WO-PCT	PCT/EP2019/053583	13 Feb 2019	15 Feb 2018
Transmission	Wong, Shin Horng;Beale, Martin Warwick	I-18-003-WO-PCT	PCT/EP2019/053188	08 Feb 2019	16 Feb 2018
Early PUSCH Repetition Termination Search	Wong, Shin Horng;Beale, Martin Warwick	I-18-003-EP-FWPF	18157260.3	16 Feb 2018	16 Feb 2018
Space	Wong, Shin Horng;Beale, Martin Warwick	I-18-025-WO-PCT	PCT/EP2019/053688	14 Feb 2019	16 Feb 2018
Early PUSCH Repetition Termination Search	Wong, Shin Horng;Beale, Martin Warwick;Priyanto, Basuki	I-18-025-EP-FWPF	18157251.2	16 Feb 2018	16 Feb 2018
Narrowband Offset Indicator	Wong, Shin Horng;Beale, Martin Warwick;Priyanto, Basuki	I-18-027-EP-FWPF	18157261.1	16 Feb 2018	16 Feb 2018
Reception of eMTC transmission in soft buffer parts	Beale, Martin Warwick;Wong, Shin Horng;Priyanto, Basuki	I-18-027-WO-PCT	PCT/EP2019/053334	11 Feb 2019	16 Feb 2018

**FULL INVENTOR ASSIGNMENT**

WHEREAS, I, as a named inventor listed on the attached APPENDIX (hereinafter referred to as "APPENDIX"), have invented certain new and useful improvements in the invention(s) listed on the same, for which an application for Letters Patent was executed on the priority date included thereon;

AND WHEREAS, SONY EUROPE LIMITED, a corporation organized and existing under the laws of the United Kingdom, with offices at The Heights, Brooklands, Weybridge, Surrey, KT13 0XW, United Kingdom (hereinafter referenced as "ASSIGNEE SEU"), in accordance with my employment agreement and/or with a preexisting agreement or mutual understanding between myself and ASSIGNEE SEU, is desirous of acquiring my entire right, title and interest in, to and under said invention(s), said application(s) disclosing the invention(s) and in, to and under any Letters Patent or similar legal protection which may be granted therefor in any and all countries worldwide (including in the territory of the United States of America);

NOW THEREFORE, after good and valuable consideration or in consideration of the recognized value of any past and/or potential collaborative projects in the future, the receipt and sufficiency of which are hereby acknowledged, I, as an inventor as indicated above, by these presents do hereby assign, sell and transfer unto said ASSIGNEE SEU, the entire right, title and interest in and to the said invention(s), said application(s), including any divisions, continuations, substitutions and renewals thereof, and in and to any and all Letters Patent which may be granted for said invention(s), in any country (including the territory of the United States of America), and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents or other industrial property protection throughout the world (including in the territory of the United States of America) in respect of the inventions which are the subjects of the applications for Letters Patent described herein, and this conveyance of interest includes the right for the ASSIGNEE SEU, or its successors, assigns, and/or legal representatives, to bring, make, oppose, defend, appeal proceedings, claims or actions and obtain relief (and to retain any damages recovered) in respect of any infringement, or any other cause of action arising from ownership, of

Assignment Inventor to SEU [REDACTED]

any of the Patents or any patents granted on any of the applications for patents or filed as aforesaid, whether occurring before, on or after the date of this agreement.

I, as an inventor, further declare that I either have the obligation to assign or have already assigned the full and exclusive rights in and to any inventions made during my employment to said ASSIGNEE SEU based on my employment contract with said ASSIGNEE SEU, and/or that said ASSIGNEE SEU has obtained full and exclusive rights in and to any such inventions based on applicable national law or in accordance with a preexisting agreement or mutual understanding between myself and ASSIGNEE SEU, and that by this Assignment such transfer of right, title and interest in such inventions to said ASSIGNEE SEU is herewith confirmed or restated.

[REDACTED]

[REDACTED]

[REDACTED]



Assignment Inventor to SEU [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The undersigned inventor and ASSIGNEE SEU hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale;

And the undersigned inventor and ASSIGNEE SEU hereby authorize and request the attorney(s) of record in this application to insert on the APPENDIX any further identification, including the filing date and application number of the country in which an application for Letters Patent has been or will be subsequently filed, which may be necessary or desirable in order to comply with the rules of the patent office of that country for recordation of this document.

This Assignment Agreement shall be governed by and construed under the laws of the State of New York, United States of America, without regard to conflict of laws principles, all rights and remedies being governed by said laws.

Assignment Inventor to SEU 

This assignment executed on the dates indicated below.

Hideji Wakabayashi

Name of inventor

15/March/2019

Execution date of this assignment [DD/MONTH/YYYY]

Hideji Wakabayashi

Signature of inventor

SONY EUROPE LIMITED

Date: 19/March/2019

[DD/MONTH/YYYY]

By: Mattias Kabelitz

Name: Mattias Kabelitz  
Title: Intellectual Property Senior Manager  
As duly authorized officer

## APPENDIX

Title	Inventors	Sony IPE ref	Application Number	Filing Date	Priority Date
Processing Load Reduction in LTE Networks with a Virtual Carrier	Webb, Matthew William;Wakabayashi, Hideji	I-12-137-GB- NP	1216937.1	21 Sep 2012	21 Sep 2012
Processing Load Reduction in LTE Networks with a Virtual Carrier	Webb, Matthew William;Wakabayashi, Hideji	I-12-137- WO-PCT	PCT/GB2013/052400	13 Sep 2013	21 Sep 2012
Processing Load Reduction in LTE Networks with a Virtual Carrier	Webb, Matthew William;Wakabayashi, Hideji	I-12-137-EP- EPT	13765395.2	13 Sep 2013	21 Sep 2012
Processing Load Reduction in LTE Networks with a Virtual Carrier	Webb, Matthew William;Wakabayashi, Hideji	I-12-137-US- PCT	14/415076	13 Sep 2013	21 Sep 2012
Processing Load Reduction in LTE Networks with a Virtual Carrier	Webb, Matthew William;Wakabayashi, Hideji	I-12-137-US- CNT	15/345799	08 Nov 2016	21 Sep 2012
Processing Load Reduction in LTE Networks with a Virtual Carrier	Webb, Matthew William;Wakabayashi, Hideji	I-12-138-US- PCT	14/415881	13 Sep 2013	21 Sep 2012
Processing Load Reduction in LTE Networks with a Virtual Carrier	Webb, Matthew William;Wakabayashi, Hideji	I-12-138-EP- EPT	13765394.5	13 Sep 2013	21 Sep 2012
Processing Load Reduction in LTE Networks with a Virtual Carrier	Webb, Matthew William;Wakabayashi, Hideji	I-12-138- WO-PCT	PCT/GB2013/052399	13 Sep 2013	21 Sep 2012
Processing Load Reduction in LTE Networks with a Virtual Carrier	Webb, Matthew William;Wakabayashi, Hideji	I-12-138-GB- NP	1216938.9	21 Sep 2012	21 Sep 2012
DC sub-carrier allocation method for Virtual carrier case-Infra side	Wakabayashi, Hideji	I-12-090- WO-PCT	PCT/GB2013/052273	29 Aug 2013	28 Sep 2012

DC sub-carrier allocation method for Virtual carrier case-Infra side	Wakabayashi, Hideji	I-12-090-GB-NP	121/7410.8	28 Sep 2012	28 Sep 2012
DC sub-carrier allocation method for Virtual carrier case-Infra side	Wakabayashi, Hideji	I-12-090-EP-EPT	137/59296.0	29 Aug 2013	28 Sep 2012
DC sub-carrier allocation method for Virtual carrier case-Infra side	Wakabayashi, Hideji	I-12-090-US-PCT	14/414830	29 Aug 2013	28 Sep 2012
DC sub-carrier allocation method for Virtual carrier case-Infra side	Wakabayashi, Hideji	I-12-090-US-CNT	15/431070	13 Feb 2017	28 Sep 2012
DC sub-carrier allocation method for Virtual carrier case-UE Side	Wakabayashi, Hideji	I-12-091-US-CNT	15/971794	04 Mai 2018	28 Sep 2012
DC sub-carrier allocation method for Virtual carrier case-UE Side	Wakabayashi, Hideji	I-12-091-US-PCT	14/412016	29 Aug 2013	28 Sep 2012
DC sub-carrier allocation method for Virtual carrier case-UE Side	Wakabayashi, Hideji	I-12-091-WO-PCT	PCT/GB2013/052271	29 Aug 2013	28 Sep 2012
DC sub-carrier allocation method for Virtual carrier case-UE Side	Wakabayashi, Hideji	I-12-091-EP-EPT	137/59294.5	29 Aug 2013	28 Sep 2012
DC sub-carrier allocation method for Virtual carrier case-UE Side	Wakabayashi, Hideji	I-12-091-GB-NP	121/7380.3	28 Sep 2012	28 Sep 2012
Interruptible TTI-bundled HARQ processes for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-12-197-EP-EPT	137/80397.9	21 Oct 2013	02 Nov 2012
Interruptible TTI-bundled HARQ processes for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-12-197-GB-NP	121/9709.1	02 Nov 2012	02 Nov 2012
Interruptible TTI-bundled HARQ processes for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-12-197-WO-PCT	PCT/GB2013/052739	21 Oct 2013	02 Nov 2012

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Interruptible TTI-bundled HARQ processes for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-197-US- PCT	14/451600	21 Oct 2013	02 Nov 2012
Interruptible TTI-bundled HARQ processes for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-198-GB- NP	1219710.9	02 Nov 2012	02 Nov 2012
Interruptible TTI-bundled HARQ processes for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-198- WO-PCT	PCT/GB2013/052740	21 Oct 2013	02 Nov 2012
Interruptible TTI-bundled HARQ processes for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-198-EP- EPT	13780398.7	21 Oct 2013	02 Nov 2012
Interruptible TTI-bundled HARQ processes for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-198-US- PCT	14/429171	21 Oct 2013	02 Nov 2012
Group Based Linked Controls Channels for Virtual Carrier LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-142-GB- NP	1221717.0	03 Dec 2012	03 Dec 2012
Group Based Linked Controls Channels for Virtual Carrier LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-142- WO-PCT	PCT/GB2013/053191	02 Dec 2013	03 Dec 2012
Group Based Linked Controls Channels for Virtual Carrier LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-142-EP- EPT	13799670.8	02 Dec 2013	03 Dec 2012
Group Based Linked Controls Channels for Virtual Carrier LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-142-US- PCT	14/429210	02 Dec 2013	03 Dec 2012
Group Based Linked Controls Channels for Virtual Carrier LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-143-EP- EPT	13799669.0	02 Dec 2013	03 Dec 2012
Group Based Linked Controls Channels for Virtual Carrier LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-143-US- PCT	14/431108	02 Dec 2013	03 Dec 2012
Group Based Linked Controls Channels for Virtual Carrier LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-143-GB- NP	1221729.5	03 Dec 2012	03 Dec 2012

Group Based Linked Controls Channels for Virtual Carrier LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-143-US- CNT	16/234609	28 Dec 2018	03 Dec 2012
Group Based Linked Controls Channels for Virtual Carrier LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-143- WO-PCT	PCT/GB2013/053190	02 Dec 2013	03 Dec 2012
Delegated Random Access for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-181- WO-PCT	PCT/GB2013/052738	21 Oct 2013	19 Dec 2012
Delegated Random Access for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-181-GB- NP	1222902.7	19 Dec 2012	19 Dec 2012
Delegated Random Access for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-181-US- CNT	15/804822	06 Nov 2017	19 Dec 2012
Delegated Random Access for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-181-EP- EPD	17153002.5	25 Jan 2017	19 Dec 2012
Delegated Random Access for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-181-US- PCT	14/434335	21 Oct 2013	19 Dec 2012
Delegated Random Access for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-181-EP- EPT	137833369.5	21 Oct 2013	19 Dec 2012
Delegated Random Access for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-182-GB- NP	1222899.5	19 Dec 2012	19 Dec 2012
Delegated Random Access for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-182- WO-PCT	PCT/GB2013/052737	21 Oct 2013	19 Dec 2012
Delegated Random Access for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-182-EP- EPT	137833368.7	21 Oct 2013	19 Dec 2012
Delegated Random Access for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-182-US- PCT	14/437381	21 Oct 2013	19 Dec 2012

Virtual Carrier Existence and Configuration Indication via PCI and RS partitioning	Webb, Matthew William; Truelove, Stephen; Wakabayashi, Hideji	I-12-154- WO-PCT	PCT/GB2013/053125	26 Nov 2013	21 Dez 2012
Virtual Carrier Existence and Configuration Indication via PCI and RS partitioning	Webb, Matthew William; Truelove, Stephen; Wakabayashi, Hideji	I-12-154-GB- NP	1223313.6	21 Dez 2012	21 Dez 2012
Virtual Carrier Existence and Configuration Indication via PCI and RS partitioning	Webb, Matthew William; Truelove, Stephen; Wakabayashi, Hideji	I-12-154-EP- EPT	13799636.9	26 Nov 2013	21 Dez 2012
Virtual Carrier Existence and Configuration Indication via PCI and RS partitioning	Webb, Matthew William; Truelove, Stephen; Wakabayashi, Hideji	I-12-154-US- PCT	14/439479	26 Nov 2013	21 Dez 2012
Virtual Carrier Existence and Configuration Indication via PCI and RS partitioning	Webb, Matthew William; Truelove, Stephen; Wakabayashi, Hideji	I-12-155-US- PCT	14/441068	26 Nov 2013	21 Dez 2012
Virtual Carrier Existence and Configuration Indication via PCI and RS partitioning	Webb, Matthew William; Truelove, Stephen; Wakabayashi, Hideji	I-12-155-EP- EPT	13796159.5	26 Nov 2013	21 Dez 2012
Virtual Carrier Existence and Configuration Indication via PCI and RS partitioning	Webb, Matthew William; Truelove, Stephen; Wakabayashi, Hideji	I-12-155- WO-PCT	PCT/GB2013/053128	26 Nov 2013	21 Dez 2012
Virtual Carrier Existence and Configuration Indication via PCI and RS partitioning	Webb, Matthew William; Truelove, Stephen; Wakabayashi, Hideji	I-12-155-GB- NP	1223314.4	21 Dez 2012	21 Dez 2012
Channel quality measurement and report for virtual carrier operation	Wakabayashi, Hideji; Webb, Matthew William; Morioka, Yuchi; Truelove, Stephen	I-12-177-US- CNT	15/702419	12 Sep 2017	16 Jan 2013
Channel quality measurement and report for virtual carrier operation	Wakabayashi, Hideji; Webb, Matthew William; Morioka, Yuchi; Truelove, Stephen	I-12-177-GB- NP	1300807.3	16 Jan 2013	16 Jan 2013

Channel quality measurement and report for virtual carrier operation	Wakabayashi, Hideji; Webb, Matthew William; Morioka, Yuichi; Truelove, Stephen	I-12-177-EP-EPT	14700126.7	13 Jan 2014	16 Jan 2013
Channel quality measurement and report for virtual carrier operation	Wakabayashi, Hideji; Webb, Matthew William; Morioka, Yuichi; Truelove, Stephen	I-12-177-US-PCT	14/650931	13 Jan 2014	16 Jan 2013
Channel quality measurement and report for virtual carrier operation	Wakabayashi, Hideji; Webb, Matthew William; Morioka, Yuichi; Truelove, Stephen	I-12-177-WO-PCT	PCT/GB2014/050079	13 Jan 2014	16 Jan 2013
Channel quality measurement and report for virtual carrier operation	Wakabayashi, Hideji; Webb, Matthew William; Morioka, Yuichi; Truelove, Stephen	I-12-178-GB-NP	1300809.9	16 Jan 2013	16 Jan 2013
Channel quality measurement and report for virtual carrier operation	Wakabayashi, Hideji; Webb, Matthew William; Morioka, Yuichi; Truelove, Stephen	I-12-178-EP-EPT	14700125.9	13 Jan 2014	15 Jan 2013
Channel quality measurement and report for virtual carrier operation	Wakabayashi, Hideji; Webb, Matthew William; Morioka, Yuichi; Truelove, Stephen	I-12-178-US-PCT	14/649660	13 Jan 2014	16 Jan 2013
Channel quality measurement and report for virtual carrier operation	Wakabayashi, Hideji; Webb, Matthew William; Morioka, Yuichi; Truelove, Stephen	I-12-178-WO-PCT	PCT/GB2014/050078	13 Jan 2014	16 Jan 2013
Virtual Carrier Interference Management	Wakabayashi, Hideji; Morioka, Yuichi	I-12-222-WO-PCT	PCT/GB2014/050077	13 Jan 2014	16 Jan 2013
Virtual Carrier Interference Management	Wakabayashi, Hideji; Morioka, Yuichi	I-12-222-EP-EPT	14700124.2	13 Jan 2014	16 Jan 2013
Virtual Carrier Interference Management	Wakabayashi, Hideji; Morioka, Yuichi	I-12-222-US-PCT	14/650991	13 Jan 2014	16 Jan 2013
Virtual Carrier Interference Management	Wakabayashi, Hideji; Morioka, Yuichi	I-12-222-GB-NP	1300770.3	16 Jan 2013	16 Jan 2013
Adaptive sub-band size for channel quality report	Wakabayashi, Hideji	I-12-145-EP-EPT	14700785.0	17 Jan 2014	21 Jan 2013
Adaptive sub-band size for channel quality report	Wakabayashi, Hideji	I-12-145-WO-PCT	PCT/GB2014/050137	17 Jan 2014	21 Jan 2013
Adaptive sub-band size for channel quality report	Wakabayashi, Hideji	I-12-145-TW-NP	102145365	12 Dec 2013	21 Jan 2013
Adaptive sub-band size for channel quality report	Wakabayashi, Hideji	I-12-145-GB-NP	1301039.2	21 Jan 2013	21 Jan 2013



Adaptive sub-band size for channel quality report	Wakabayashi, Hideji	I-12-145-US-CNT	15/891643	08 Feb 2018	21 Jan 2013
Adaptive sub-band size for channel quality report	Wakabayashi, Hideji	I-12-145-US-PCT	14/550941	17 Jan 2014	21 Jan 2013
Virtual Carrier Aggregation	Morioka, Yuichi;Webb, Matthew William;Wakabayashi, Hideji;Koulakiotis, Dimitris;Truelove, Stephen	I-12-148-US-PCT	14/655421	17 Jan 2014	24 Jan 2013
Virtual Carrier Aggregation	Morioka, Yuichi;Webb, Matthew William;Wakabayashi, Hideji;Koulakiotis, Dimitris;Truelove, Stephen	I-12-148-GB-NP	1301289.3	24 Jan 2013	24 Jan 2013
Virtual Carrier Aggregation	Morioka, Yuichi;Webb, Matthew William;Wakabayashi, Hideji;Koulakiotis, Dimitris;Truelove, Stephen	I-12-148-TW-NP	102145863	12 Dec 2013	24 Jan 2013
Virtual Carrier Aggregation	Morioka, Yuichi;Webb, Matthew William;Wakabayashi, Hideji;Koulakiotis, Dimitris;Truelove, Stephen	I-12-148-WO-PCT	PCT/GE2014/050143	17 Jan 2014	24 Jan 2013
Virtual Carrier Aggregation	Morioka, Yuichi;Webb, Matthew William;Wakabayashi, Hideji;Koulakiotis, Dimitris;Truelove, Stephen	I-12-148-EP-EPT	14700789.2	17 Jan 2014	24 Jan 2013
Virtual Carrier Aggregation	Morioka, Yuichi;Webb, Matthew William;Wakabayashi, Hideji;Koulakiotis, Dimitris;Truelove, Stephen	I-12-149-US-PCT	14/650935	17 Jan 2014	24 Jan 2013

Virtual Carrier Aggregation	Morioka, Yuichi; Webb, Matthew; Wakabayashi, Hideji; Koulaikiotis, Dimitris; Truelove, Stephen	I-12-149-US-CNT[1]	16/277832	15 Feb 2019	24 Jan 2013
Virtual Carrier Aggregation	Morioka, Yuichi; Webb, Matthew; Wakabayashi, Hideji; Koulaikiotis, Dimitris; Truelove, Stephen	I-12-149-US-CNT	15/827932	30 Nov 2017	24 Jan 2013
Virtual Carrier Aggregation	Morioka, Yuichi; Webb, Matthew; Wakabayashi, Hideji; Koulaikiotis, Dimitris; Truelove, Stephen	I-12-149-GB-NP	1301288.5	24 Jan 2013	24 Jan 2013
Virtual Carrier Aggregation	Morioka, Yuichi; Webb, Matthew; Wakabayashi, Hideji; Koulaikiotis, Dimitris; Truelove, Stephen	I-12-149-TW-NP	102145864	12 Dec 2013	24 Jan 2013
Virtual Carrier Aggregation	Morioka, Yuichi; Webb, Matthew; Wakabayashi, Hideji; Koulaikiotis, Dimitris; Truelove, Stephen	I-12-149-WO-PCT	PCT/GB2014/050142	17 Jan 2014	24 Jan 2013
Virtual Carrier Aggregation	Morioka, Yuichi; Webb, Matthew; Wakabayashi, Hideji; Koulaikiotis, Dimitris; Truelove, Stephen	I-12-149-EP-EPT	14700788.4	17 Jan 2014	24 Jan 2013
Common System Information for Virtual Carriers	Webb, Matthew; Koulaikiotis, Dimitris; Wakabayashi, Hideji; Morioka, Yuichi; Truelove, Stephen	I-12-158-GB-NP	1301295.0	24 Jan 2013	24 Jan 2013

Common System Information for Virtual Carriers	Webb, Matthew William;Koulakiotis, Dimitris;Wakabayashi, Hideji;Moroka, Yuichi;Truelove, Stephen	I-12-158-US- CNT[1]	16/277352	15 Feb 2019	24 Jan 2013
Common System Information for Virtual Carriers	Webb, Matthew William;Koulakiotis, Dimitris;Wakabayashi, Hideji;Moroka, Yuichi;Truelove, Stephen	I-12-158-BP- E1D	19158376.4	20 Feb 2019	24 Jan 2013
Common System Information for Virtual Carriers	Webb, Matthew William;Koulakiotis, Dimitris;Wakabayashi, Hideji;Moroka, Yuichi;Truelove, Stephen	I-12-158-US- CNT	15/415559	25 Jan 2017	24 Jan 2013
Common System Information for Virtual Carriers	Webb, Matthew William;Koulakiotis, Dimitris;Wakabayashi, Hideji;Moroka, Yuichi;Truelove, Stephen	I-12-158-US- PCT	14/651882	17 Jan 2014	24 Jan 2013
Common System Information for Virtual Carriers	Webb, Matthew William;Koulakiotis, Dimitris;Wakabayashi, Hideji;Moroka, Yuichi;Truelove, Stephen	I-12-158- WO-PCT	PCT/GB2014/050138	17 Jan 2014	24 Jan 2013
Common System Information for Virtual Carriers	Webb, Matthew William;Koulakiotis, Dimitris;Wakabayashi, Hideji;Moroka, Yuichi;Truelove, Stephen	I-12-158-EP- EPT	14700786.8	17 Jan 2014	24 Jan 2013
Common System Information for Virtual Carriers	Webb, Matthew William;Koulakiotis, Dimitris;Wakabayashi, Hideji;Moroka, Yuichi;Truelove, Stephen	I-12-159-EP- EPT	14700784.3	17 Jan 2014	24 Jan 2013

Common System Information for Virtual Carriers	Webb, Matthew William;Koulakiotis, Dimitris;Wakabayashi, Hideji;Moroka, Yudhi;Truelove, Stephen	I-12-159-GB-NP	1301296.8		24 Jan 2013	24 Jan 2013
Common System Information for Virtual Carriers	Webb, Matthew William;Koulakiotis, Dimitris;Wakabayashi, Hideji;Moroka, Yudhi;Truelove, Stephen	I-12-159-US-CNT	15/966968		30 Apr 2018	24 Jan 2013
Common System Information for Virtual Carriers	Webb, Matthew William;Koulakiotis, Dimitris;Wakabayashi, Hideji;Moroka, Yudhi;Truelove, Stephen	I-12-159-US-PCT	14/650927		17 Jan 2014	24 Jan 2013
Common System Information for Virtual Carriers	Webb, Matthew William;Koulakiotis, Dimitris;Wakabayashi, Hideji;Moroka, Yudhi;Truelove, Stephen	I-12-159-WO-PCT	PCT/GB2014/050135		17 Jan 2014	24 Jan 2013
Robust synchronisation and cell identity acquisition for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-236-US-PCT	14/766910		19 Mar 2014	21 Mar 2013
Robust synchronisation and cell identity acquisition for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-236-WO-PCT	PCT/GB2014/050863		19 Mar 2014	21 Mar 2013
Robust synchronisation and cell identity acquisition for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-236-EP-EPT	14/712728.6		19 Mar 2014	21 Mar 2013
Robust synchronisation and cell identity acquisition for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-236-GB-NP	1305234.5		21 Mar 2013	21 Mar 2013
Robust synchronisation and cell identity acquisition for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-237-GB-NP	1305233.7		21 Mar 2013	21 Mar 2013
Robust synchronisation and cell identity acquisition for LTE	Webb, Matthew William;Wakabayashi, Hideji	I-12-237-WO-PCT	PCT/GB2014/050864		19 Mar 2014	21 Mar 2013

Robust synchronisation and cell identity acquisition for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-12-237-EP- EPT	14712729.4	19 Mar 2014	21 Mar 2013
Robust synchronisation and cell identity acquisition for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-12-237-US- PCT	147167849	19 Mar 2014	21 Mar 2013
eNodeB Power Boosting Availability Indication Broadcast for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-022-EP- EPD	17185911.9	11 Aug 2017	15 Apr 2013
eNodeB Power Boosting Availability Indication Broadcast for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-022-US- PCT	147777705	11 Apr 2014	15 Apr 2013
eNodeB Power Boosting Availability Indication Broadcast for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-022-EP- EPT	14716841.3	11 Apr 2014	15 Apr 2013
eNodeB Power Boosting Availability Indication Broadcast for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-022- WO-PCT	PCT/EP2014/057391	11 Apr 2014	15 Apr 2013
eNodeB Power Boosting Availability Indication Broadcast for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-022-GB- NP	1306764.0	15 Apr 2013	15 Apr 2013
eNodeB Power Boosting Availability Indication Broadcast for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-023- WO-PCT	PCT/EP2014/057392	11 Apr 2014	15 Apr 2013
eNodeB Power Boosting Availability Indication Broadcast for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-023-GB- NP	1306767.3	15 Apr 2013	15 Apr 2013
eNodeB Power Boosting Availability Indication Broadcast for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-023-US- PCT	14779251	11 Apr 2014	15 Apr 2013
eNodeB Power Boosting Availability Indication Broadcast for LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-023-EP- EPT	14718368.5	11 Apr 2014	15 Apr 2013
MTC Paging capacity expansion	Tuelove, Stephen; Wakabayashi, Hideji; Kaitava, Jussi Tappari	I-13-031-GB- NP	1307102.2	19 Apr 2013	19 Apr 2013

MTC Paging capacity expansion	Truelove, Stephen; Wakabayashi, Hideji; Kahtava, Jussi Tapani	I-13-031- WO-PCT	PCT/GB2014/050783	14 Mar 2014	19 Apr 2013
MTC Paging capacity expansion	Truelove, Stephen; Wakabayashi, Hideji; Kahtava, Jussi Tapani	I-13-031-EP- EPT	14711583.6	14 Mar 2014	19 Apr 2013
MTC Paging capacity expansion	Truelove, Stephen; Wakabayashi, Hideji; Kahtava, Jussi Tapani	I-13-031-US- PCT	14/781172	14 Mar 2014	19 Apr 2013
MTC Paging capacity expansion	Truelove, Stephen; Wakabayashi, Hideji; Kahtava, Jussi Tapani	I-13-032- WO-PCT	PCT/GB2014/050784	14 Mar 2014	19 Apr 2013
MTC Paging capacity expansion	Truelove, Stephen; Wakabayashi, Hideji; Kahtava, Jussi Tapani	I-13-032-EP- EPT	14711584.4	14 Mar 2014	19 Apr 2013
MTC Paging capacity expansion	Truelove, Stephen; Wakabayashi, Hideji; Kahtava, Jussi Tapani	I-13-032-US- PCT	14/781161	14 Mar 2014	19 Apr 2013
MTC Paging capacity expansion	Truelove, Stephen; Wakabayashi, Hideji; Kahtava, Jussi Tapani	I-13-032-GB- NP	1307101.4	19 Apr 2013	19 Apr 2013
Additional Control Signaling for T-Shape Allocation	Webb, Matthew William; Wakabayashi, Hideji; Morioaka, Yuichi	I-13-054-EP- FWF	13171561.7	11 Jun 2013	11 Jun 2013
Additional Control Signaling for T-Shape Allocation	Webb, Matthew William; Wakabayashi, Hideji; Morioaka, Yuichi	I-13-054- WO-PCT	PCT/GB2013/053189	02 Dec 2013	11 Jun 2013
Additional Control Signaling for T-Shape Allocation	Webb, Matthew William; Wakabayashi, Hideji; Morioaka, Yuichi	I-13-054-EP- EPT	13799668.2	02 Dec 2013	11 Jun 2013

Additional Control Signaling for T-Shape Allocation	Webb, Matthew William; Wakabayashi, Hideji; Morooka, Yuichi	I-13-054-US-PCT	14/442179		02 Dez 2013	11 Jun 2013
Additional Control Signaling for T-Shape Allocation	Webb, Matthew William; Wakabayashi, Hideji; Morooka, Yuichi	I-13-057-EP-EPT	13/99667.4		02 Dez 2013	11 Jun 2013
Additional Control Signaling for T-Shape Allocation	Webb, Matthew William; Wakabayashi, Hideji; Morooka, Yuichi	I-13-057-US-PCT	14/442149		02 Dez 2013	11 Jun 2013
Additional Control Signaling for T-Shape Allocation	Webb, Matthew William; Wakabayashi, Hideji; Morooka, Yuichi	I-13-057-EP-FFWF	13/15558.3		11 Jun 2013	11 Jun 2013
Additional Control Signaling for T-Shape Allocation	Webb, Matthew William; Wakabayashi, Hideji; Morooka, Yuichi	I-13-057-WO-PCT	PCT/GB2013/053188		02 Dez 2013	11 Jun 2013
UE power saving for delay tolerant traffic and non delay tolerant traffic	Wakabayashi, Hideji; Webb, Matthew William	I-13-062-WO-PCT	PCT/GB2014/052000		02 Jul 2014	06 Aug 2013
UE power saving for delay tolerant traffic and non delay tolerant traffic	Wakabayashi, Hideji; Webb, Matthew William	I-13-062-EP-EPT	14/799216.1		02 Jul 2014	06 Aug 2013
UE power saving for delay tolerant traffic and non delay tolerant traffic	Wakabayashi, Hideji; Webb, Matthew William	I-13-062-US-PCT	14/904484		02 Jul 2014	06 Aug 2013
UE power saving for delay tolerant traffic and non delay tolerant traffic	Wakabayashi, Hideji; Webb, Matthew William	I-13-062-EP-FFWF	13/179483.6		06 Aug 2013	06 Aug 2013
UE power saving for delay tolerant traffic and non delay tolerant traffic	Wakabayashi, Hideji; Webb, Matthew William	I-13-092-EP-FFWF	13/179485.1		06 Aug 2013	06 Aug 2013
UE power saving for delay tolerant traffic and non delay tolerant traffic	Wakabayashi, Hideji; Webb, Matthew William	I-13-092-WO-PCT	PCT/GB2014/052001		02 Jul 2014	06 Aug 2013
UE power saving for delay tolerant traffic and non delay tolerant traffic	Wakabayashi, Hideji; Webb, Matthew William	I-13-092-EP-EPT	14/799217.9		02 Jul 2014	06 Aug 2013

UE power saving for delay tolerant traffic and non delay tolerant traffic	Wakabayashi, Hideji; Webb, Matthew William	I-13-092-US-PCT	14/904921	02 Jul 2014	06 Aug 2013
Re-interpreted DL resource allocation messages in low-complexity UEs	Webb, Matthew William; Wakabayashi, Hideji; Morioka, Yuichi	I-13-088-US-CNT[1]	16/025567	02 Jul 2018	08 Aug 2013
Re-interpreted DL resource allocation messages in low-complexity UEs	Webb, Matthew William; Morioka, Yuichi	I-13-088-EP-FPWF	13179790.4	08 Aug 2013	08 Aug 2013
Re-interpreted DL resource allocation messages in low-complexity UEs	Webb, Matthew William; Wakabayashi, Hideji; Morioka, Yuichi	I-13-088-US-CNT	15/714555	25 Sep 2017	08 Aug 2013
Re-interpreted DL resource allocation messages in low-complexity UEs	Webb, Matthew William; Wakabayashi, Hideji; Morioka, Yuichi	I-13-088-EP-EPD	17195304.5	05 Oct 2017	08 Aug 2013
Re-interpreted DL resource allocation messages in low-complexity UEs	Webb, Matthew William; Wakabayashi, Hideji; Morioka, Yuichi	I-13-088-US-PCT	14/904897	14 Jul 2014	08 Aug 2013
Re-interpreted DL resource allocation messages in low-complexity UEs	Webb, Matthew William; Wakabayashi, Hideji; Morioka, Yuichi	I-13-088-EP-EPT	14739149.4	14 Jul 2014	08 Aug 2013
Re-interpreted DL resource allocation messages in low-complexity UEs	Webb, Matthew William; Wakabayashi, Hideji; Morioka, Yuichi	I-13-088-WO-PCT	PCT/EP2014/065020	14 Jul 2014	08 Aug 2013
Prioritised Scheduling Request on PUCCH in LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-079-WO-PCT	PCT/EP2014/069108	08 Sep 2014	26 Sep 2013
Prioritised Scheduling Request on PUCCH in LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-079-EP-EPT	14759238.0	08 Sep 2014	26 Sep 2013
Prioritised Scheduling Request on PUCCH in LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-079-US-PCT	15/021469	08 Sep 2014	26 Sep 2013
Prioritised Scheduling Request on PUCCH in LTE	Webb, Matthew William; Wakabayashi, Hideji	I-13-079-EP-FPWF	13186246.8	26 Sep 2013	26 Sep 2013



Praktised Scheduling Request on PUCCH in LTE	Webb, Matthew William;Wakabayashi, Hideji	I-13-079-US-CNT	16/199393	26 Nov 2018	26 Sep 2013
Configurable power saving state	Martin, Brian Alexander;Wakabayashi, Hideji;Kahtava, Jussi Tapani;Morioka, Yuichi	I-13-111-EP-EPT	14/761663.5	10 Sep 2014	27 Sep 2013
Configurable power saving state	Martin, Brian Alexander;Wakabayashi, Hideji;Kahtava, Jussi Tapani;Morioka, Yuichi	I-13-111-WO-PCT	PCT/EP2014/069308	10 Sep 2014	27 Sep 2013
Configurable power saving state	Martin, Brian Alexander;Wakabayashi, Hideji;Kahtava, Jussi Tapani;Morioka, Yuichi	I-13-111-EP-FW/F	13/86547.9	27 Sep 2013	27 Sep 2013
Configurable power saving state	Martin, Brian Alexander;Wakabayashi, Hideji;Kahtava, Jussi Tapani;Morioka, Yuichi	I-13-111-US-PCT	14/915999	10 Sep 2014	27 Sep 2013
Configurable power saving state	Martin, Brian Alexander;Wakabayashi, Hideji;Kahtava, Jussi Tapani;Morioka, Yuichi	I-13-111-EP-EPD	17/197840.6	23 Oct 2017	27 Sep 2013
Configurable power saving state	Martin, Brian Alexander;Wakabayashi, Hideji;Kahtava, Jussi Tapani;Morioka, Yuichi	I-13-111-US-CNT	16/157901	11 Oct 2018	27 Sep 2013
Telecommunications apparatus and method	Webb, Matthew William;Martin, Brian Alexander	I-13-144-EP-ETD			25 Oct 2013
Telecommunications apparatus and method	Webb, Matthew William;Wakabayashi, Hideji;Martin, Brian Alexander	I-13-144-US-PCT	14/777709	11 Apr 2014	25 Oct 2013

Telecommunications apparatus and methods	Webb, Matthew William;Wakabayashi, Hideji;Martin, Brian Alexander	I-13-144-EP- FRWF	13190387.4	25 Oct 2013	25 Oct 2013
Telecommunications apparatus and method	Webb, Matthew William;Wakabayashi, Hideji;Martin, Brian Alexander	I-13-144-EP- EPT	14719668.7	11 Apr 2014	25 Oct 2013
Telecommunications apparatus and method	Webb, Matthew William;Wakabayashi, Hideji;Martin, Brian Alexander	I-13-144- WO-PCT	PCT/EP2014/057393	11 Apr 2014	25 Oct 2013
Telecommunications apparatus and methods	Webb, Matthew William;Wakabayashi, Hideji;Martin, Brian Alexander	I-13-145-US- CNT	15/658486	25 Jul 2017	25 Oct 2013
Telecommunications apparatus and methods	Webb, Matthew William;Wakabayashi, Hideji;Martin, Brian Alexander	I-13-145-US- PCT	14/779763	11 Apr 2014	25 Oct 2013
Telecommunications apparatus and methods	Webb, Matthew William;Wakabayashi, Hideji;Martin, Brian Alexander	I-13-145-EP- EPT	14717133.4	11 Apr 2014	25 Oct 2013
Telecommunications apparatus and methods	Webb, Matthew William;Wakabayashi, Hideji;Martin, Brian Alexander	I-13-145- WO-PCT	PCT/EP2014/057394	11 Apr 2014	25 Oct 2013
Telecommunications apparatus and methods	Webb, Matthew William;Wakabayashi, Hideji;Martin, Brian Alexander	I-13-145-EP- FRWF	13190389.0	25 Oct 2013	25 Oct 2013
New PDCCCH Structure	Kouliakiotis, Dimitris;Wakabayashi, Hideji;Webb, Matthew William	I-13-096-EP- FRWF	13191208.1	31 Oct 2013	31 Oct 2013

New PDCCCH Structure	Koulakiotis, Dimitris;Wakabayashi, Hideji;Webb, Matthew William	I-13-096- WO-PCT	PCT/EP2014/072574	21 Oct 2014	31 Oct 2013
New PDCCCH Structure	Koulakiotis, Dimitris;Wakabayashi, Hideji;Webb, Matthew William	I-13-096-EP- EPT	14787165.1	21 Oct 2014	31 Oct 2013
New PDCCCH Structure	Koulakiotis, Dimitris;Wakabayashi, Hideji;Webb, Matthew William	I-13-096-US- PCT	15/031133	21 Oct 2014	31 Oct 2013
COI optimization for semi-static VC configuration	Wakabayashi, Hideji;Webb, Matthew William	I-13-128-EP- FPWF	13191214.9	31 Oct 2013	31 Oct 2013
COI optimization for semi-static VC configuration	Wakabayashi, Hideji;Webb, Matthew William	I-13-128-US- PCT	15/024728	20 Oct 2014	31 Oct 2013
COI optimization for semi-static VC configuration	Wakabayashi, Hideji;Webb, Matthew William	I-13-128- WO-PCT	PCT/EP2014/072408	20 Oct 2014	31 Oct 2013
COI optimization for semi-static VC configuration	Wakabayashi, Hideji;Webb, Matthew William	I-13-128-EP- EPT	14787151.1	20 Oct 2014	31 Oct 2013
Method to inform eNB of in-coverage D2D communication	Martin, Brian Alexander;Koulakiotis, Dimitris;Kahava, Jussi Tapani;Wakabayashi, Hideji	I-13-139- WO-PCT	PCT/EP2014/073151	28 Oct 2014	31 Oct 2013
Method to inform eNB of in-coverage D2D communication	Martin, Brian Alexander;Koulakiotis, Dimitris;Kahava, Jussi Tapani;Wakabayashi, Hideji	I-13-139-EP- FPWF	13191226.3	31 Oct 2013	31 Oct 2013
Method to inform eNB of in-coverage D2D communication	Martin, Brian Alexander;Koulakiotis, Dimitris;Kahava, Jussi Tapani;Wakabayashi, Hideji	I-13-139-US- PCT	15/031661	28 Oct 2014	31 Oct 2013

Method to inform controlling entity of interference from another D2D group	Martin, Brian Alexander; Koulakiotis, Dimitris; Kahtava, Jussi Tapani; Wakabayashi, Hideji	I-13-140-EP- FWF	13191225.5	31 Oct 2013	31 Oct 2013
Method to inform controlling entity of interference from another D2D group	Martin, Brian Alexander; Koulakiotis, Dimitris; Kahtava, Jussi Tapani; Wakabayashi, Hideji	I-13-140- WO-PCT	PCT/EP2014/073150	28 Oct 2014	31 Oct 2013
Method to inform controlling entity of interference from another D2D group	Martin, Brian Alexander; Koulakiotis, Dimitris; Kahtava, Jussi Tapani; Wakabayashi, Hideji	I-13-140-EP- EPT	14795997.7	28 Oct 2014	31 Oct 2013
Method to inform controlling entity of interference from another D2D group	Martin, Brian Alexander; Koulakiotis, Dimitris; Kahtava, Jussi Tapani; Wakabayashi, Hideji	I-13-140-US- PCT	15/031149	28 Oct 2014	31 Oct 2013
Random access preamble reservation for MTC devices	Martin, Brian Alexander; Webb, Matthew William; Wakabayashi, Hideji	I-13-150- WO-PCT	PCT/EP2014/071221	03 Oct 2014	14 Nov 2013
Random access preamble reservation for MTC devices	Martin, Brian Alexander; Webb, Matthew William; Wakabayashi, Hideji	I-13-150-EP- EPT	14780503.0	03 Oct 2014	14 Nov 2013
Random access preamble reservation for MTC devices	Martin, Brian Alexander; Webb, Matthew William; Wakabayashi, Hideji	I-13-150-EP- FWF	13192988.7	14 Nov 2013	14 Nov 2013
Random access preamble reservation for MTC devices	Martin, Brian Alexander; Webb, Matthew William; Wakabayashi, Hideji	I-13-150-US- CNT	15/674549	11 Aug 2017	14 Nov 2013
Random access preamble reservation for MTC devices	Martin, Brian Alexander; Webb, Matthew William; Wakabayashi, Hideji	I-13-150-EP- EPD	17174452.7	05 Jun 2017	14 Nov 2013

Random access preamble reservation for MTC devices	Martin, Brian Alexander; Webb, Matthew William; Wakabayashi, Hideji	I-13-150-US-PCT	15/029177	03 Oct 2014	14 Nov 2013
UE based MTC cell selection	Wakabayashi, Hideji	I-13-081-EP-FPWF	13199482.4	23 Dec 2013	23 Dec 2013
UE based MTC cell selection	Wakabayashi, Hideji	I-13-081-WO-PCT	PCT/EP2014/073152	28 Oct 2014	23 Dec 2013
UE based MTC cell selection	Wakabayashi, Hideji	I-13-081-EP-EPT	14790588.9	28 Oct 2014	23 Dec 2013
UE based MTC cell selection	Wakabayashi, Hideji	I-13-081-US-PCT	15/025386	28 Oct 2014	23 Dec 2013
PDCCCH validity control for System Information (and some other common messages) in coverage extension operation	Webb, Matthew William; Wakabayashi, Hideji	I-14-007-EP-FPWF	14153283.8	30 Jan 2014	30 Jan 2014
PDCCCH validity control for System Information (and some other common messages) in coverage extension operation	Webb, Matthew William; Wakabayashi, Hideji	I-14-007-WO-PCT	PCT/EP2014/077395	11 Dec 2014	30 Jan 2014
PDCCCH validity control for System Information (and some other common messages) in coverage extension operation	Webb, Matthew William; Wakabayashi, Hideji	I-14-007-TW-NP	103142199	04 Dec 2014	30 Jan 2014
PDCCCH validity control for System Information (and some other common messages) in coverage extension operation	Webb, Matthew William; Wakabayashi, Hideji	I-14-007-US-PCT	15/112614	11 Dec 2014	30 Jan 2014
PDCCCH validity control for System Information (and some other common messages) in coverage extension operation	Webb, Matthew William; Wakabayashi, Hideji	I-14-007-EP-EPT	14811870.6	11 Dec 2014	30 Jan 2014

RNTI aspects for repetition based coverage extension	Webb, Matthew William;Wakabayashi, Hideji	I-14-018- WO-PCT	PCT/EP2014/074456	13 Nov 2014	30 Jan 2014
RNTI aspects for repetition based coverage extension	Webb, Matthew William;Wakabayashi, Hideji	I-14-018-EP- EPT	14800002.9	13 Nov 2014	30 Jan 2014
RNTI aspects for repetition based coverage extension	Webb, Matthew William;Wakabayashi, Hideji	I-14-018-US- PCT	15/112522	13 Nov 2014	30 Jan 2014
RNTI aspects for repetition based coverage extension	Webb, Matthew William;Wakabayashi, Hideji	I-14-018-EP- EPD	18375066.2	30 Mai 2018	30 Jan 2014
RNTI aspects for repetition based coverage extension	Webb, Matthew William;Wakabayashi, Hideji	I-14-018-EP- FPWF	14153280.4	30 Jan 2014	30 Jan 2014
RNTI aspects for repetition based coverage extension	Webb, Matthew William;Wakabayashi, Hideji	I-14-018-US- CNT	16/124570	07 Sep 2018	30 Jan 2014
D2D contention resolution during scheduling phase	Martin, Brian Alexander;Wakabayashi, Hideji	I-13-151- WO-PCT	PCT/EP2014/079338	24 Dez 2014	31 Jan 2014
D2D contention resolution during scheduling phase	Martin, Brian Alexander;Wakabayashi, Hideji	I-13-151-EP- FPWF	14153530.2	31 Jan 2014	31 Jan 2014
D2D contention resolution during scheduling phase	Martin, Brian Alexander;Wakabayashi, Hideji	I-13-151-US- CNT	16/157629	11 Okt 2018	31 Jan 2014
D2D contention resolution during scheduling phase	Martin, Brian Alexander;Wakabayashi, Hideji	I-13-151-US- PCT	15/110149	24 Dez 2014	31 Jan 2014
D2D contention resolution during scheduling phase	Martin, Brian Alexander;Wakabayashi, Hideji	I-13-151-EP- EPT	14816346.2	24 Dez 2014	31 Jan 2014
D2D Communication Interruption for high priority traffic	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-010-US- PCT	15/120394	26 Jan 2015	28 Feb 2014

D2D Communication Interruption for high priority traffic	Wakabayashi, Hideji; Martin, Brian Alexander	I-14-010-EP-FPWF	14157187.7	28 Feb 2014	28 Feb 2014
D2D Communication Interruption for high priority traffic	Wakabayashi, Hideji; Martin, Brian Alexander	I-14-010-WO-PCT	PCT/EP2015/051456	26 Jan 2015	28 Feb 2014
D2D Communication Interruption for high priority traffic	Wakabayashi, Hideji; Martin, Brian Alexander	I-14-010-EP-EPT	15702208.8	26 Jan 2015	28 Feb 2014
Access control for D2D resources (D2D access control_comment AB and LN)	Martin, Brian Alexander; Nord, Lars; Berggren, Anders; Wakabayashi, Hideji; Webb, Matthew William	I-14-034-US-CNT	16/199263	26 Nov 2018	21 Mar 2014
Access control for D2D Resources (D2D access control_comment AB and LN)	Martin, Brian Alexander; Nord, Lars; Berggren, Anders; Wakabayashi, Hideji; Webb, Matthew William	I-14-034-EP-FPWF	14161201.0	21 Mar 2014	21 Mar 2014
Access control for D2D resources (D2D access control_comment AB and LN)	Martin, Brian Alexander; Nord, Lars; Berggren, Anders; Wakabayashi, Hideji; Webb, Matthew William	I-14-034-US-PCT	15/126058	19 Mar 2015	21 Mar 2014
Access control for D2D resources (D2D access control_comment AB and LN)	Martin, Brian Alexander; Nord, Lars; Berggren, Anders; Wakabayashi, Hideji; Webb, Matthew William	I-14-034-EP-EPT	15710799.6	19 Mar 2015	21 Mar 2014

Access control for D2D resources (D2D access control_comment AB and LN)	Martin, Brian Alexander Nord, Lars Berggren, Anders Wakabayashi, Hideji Webb, Matthew William	I-14-034- WO-PCT	PCT/EP2015/055855	19 Mar 2015	21 Mar 2014
Access control for D2D resources (D2D access control_comment AB and LN)	Martin, Brian Alexander Nord, Lars Berggren, Anders Wakabayashi, Hideji Webb, Matthew William	I-14-034-EP- ETD	18184298.0	13 Jul 2018	21 Mar 2014
Semi-persistent RRC state transition for MTC UE	Qi, Yinan;ul Quddus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahtava, Jussi Tapani	I-14-045- WO-PCT	PCT/EP2015/060379	11 Mai 2015	14 Mai 2014
Semi-persistent RRC state transition for MTC UE	Qi, Yinan;ul Quddus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahtava, Jussi Tapani	I-14-045-EP- EPT	15720745.7	11 Mai 2015	14 Mai 2014
Semi-persistent RRC state transition for MTC UE	Qi, Yinan;ul Quddus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahtava, Jussi Tapani	I-14-045-US- PCT	15/309048	11 Mai 2015	14 Mai 2014
Semi-persistent RRC state transition for MTC UE	Qi, Yinan;ul Quddus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahtava, Jussi Tapani	I-14-045-EP- FRWF	14188361.5	14 Mai 2014	14 Mai 2014
Determining Unknown Channel Access delay in Multi-RAT Relay assisted UL Transmission and HARQ timeline adjustment	Ijaz, Ayesha;ul Quddus, Atta;Ali Imran, Muhammad;Zhang, Lei;Wakabayashi, Hideji;Kahtava, Jussi Tapani	I-14-036-EP- EPT	15716079.7	17 Apr 2015	27 Mai 2014



Determining Unknown Channel Access delay in Multi-RAT Relay assisted UL transmission and HARQ timeline adjustment	Ijaz, Ayesha;ul Quddus, Atta;Ali Imran, Muhammad;Zhang, Lei;Wakabayashi, Hideji;Kahitava, Jussi Tapani	I-14-036-EP-FWF	14170122.7	27 Mai 2014	27 Mai 2014
Determining Unknown Channel Access delay in Multi-RAT Relay assisted UL transmission and HARQ timeline adjustment	Ijaz, Ayesha;ul Quddus, Atta;Ali Imran, Muhammad;Zhang, Lei;Wakabayashi, Hideji;Kahitava, Jussi Tapani	I-14-036-US-PCT	15/311666	17 Apr 2015	27 Mai 2014
Determining Unknown Channel Access delay in Multi-RAT Relay assisted UL transmission and HARQ timeline adjustment	Ijaz, Ayesha;ul Quddus, Atta;Ali Imran, Muhammad;Zhang, Lei;Wakabayashi, Hideji;Kahitava, Jussi Tapani	I-14-036-WO-PCT	PCT/EP2015/058423	17 Apr 2015	27 Mai 2014
Data Aggregation in Multi-RAT Relay assisted UL transmission	Ijaz, Ayesha;Ali Imran, Muhammad;ul Quddus, Atta;Qi, Yinan;Wakabayashi, Hideji;Kahitava, Jussi Tapani	I-14-063-EP-FWF	14176603.0	10 Jul 2014	10 Jul 2014
Data Aggregation in Multi-RAT Relay assisted UL transmission	Ijaz, Ayesha;Ali Imran, Muhammad;ul Quddus, Atta;Qi, Yinan;Wakabayashi, Hideji;Kahitava, Jussi Tapani	I-14-063-US-PCT	15/321661	02 Jul 2015	10 Jul 2014
Data Aggregation in Multi-RAT Relay assisted UL transmission	Ijaz, Ayesha;Ali Imran, Muhammad;ul Quddus, Atta;Qi, Yinan;Wakabayashi, Hideji;Kahitava, Jussi Tapani	I-14-063-EP	15738010.6	02 Jul 2015	10 Jul 2014

Data Aggregation in Multi-RAT Relay assisted UL transmission	Ijaz, Ayeshaz;Ali Imran, Muhammad;ul Quddus, Atta;Qi, Yinan;Wakabayashi, Hideji;Kahtava, Jussi Tapani	I-14-063-WO-PCT	PCT/EP2015/065117	02 Jul 2015	10 Jul 2014
Relay Discovery for Inter-RAT Relay Assisted Machine Type Communications	Qi, Yinan;ul Quddus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahtava, Jussi Tapani	I-14-060-EP-FW/F	14177091.7	15 Jul 2014	15 Jul 2014
Relay Discovery for Inter-RAT Relay Assisted Machine Type Communications	Qi, Yinan;ul Quddus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahtava, Jussi Tapani	I-14-060-US-PCT	15/320122	11 Jun 2015	15 Jul 2014
Relay Discovery for Inter-RAT Relay Assisted Machine Type Communications	Qi, Yinan;ul Quddus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahtava, Jussi Tapani	I-14-060-EP-EPT	15729797.9	11 Jun 2015	15 Jul 2014
Relay Discovery for Inter-RAT Relay Assisted Machine Type Communications	Qi, Yinan;ul Quddus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahtava, Jussi Tapani	I-14-060-WO-PCT	PCT/EP2015/063090	11 Jun 2015	15 Jul 2014
LTE-U Channel Occupancy measurement	Martin, Brian Alexander;Beale, Martin Warwick;Wakabayashi, Hideji	I-14-061-EP-EPT	15738950.3	24 Jul 2015	25 Jul 2014
LTE-U Channel Occupancy measurement	Martin, Brian Alexander;Beale, Martin Warwick;Wakabayashi, Hideji	I-14-061-WO-PCT	PCT/EP2015/066962	24 Jul 2015	25 Jul 2014
LTE-U Channel Occupancy measurement	Martin, Brian Alexander;Beale, Martin Warwick;Wakabayashi, Hideji	I-14-061-EP-FW/F	14178854.1	25 Jul 2014	25 Jul 2014

LTE-U Channel Occupancy measurement	Martin, Brian Alexander;Beale, Martin Warwick;Wakabayashi, Hideji	I-14-061-US- PCT	15/323586	24 Jul 2015	25 Jul 2014
LTE-U Channel Occupancy measurement	Martin, Brian Alexander;Beale, Martin Warwick;Wakabayashi, Hideji	I-14-061-EP- ETD	18205757.0	12 Nov 2018	25 Jul 2014
D2D one to one communication resource allocation	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-064-EP- FPWF	14184600.6	12 Sep 2014	12 Sep 2014
D2D one to one communication resource allocation	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-064- WO-PCT	PCT/EP2015/070773	10 Sep 2015	12 Sep 2014
D2D one to one communication resource allocation	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-064-TW- NP	104124259	27 Jul 2015	12 Sep 2014
D2D one to one communication resource allocation	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-064-EP- EPT	15760479.4	10 Sep 2015	12 Sep 2014
D2D one to one communication resource allocation	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-064-US- PCT	15/502013	10 Sep 2015	12 Sep 2014
D2D one to one communication resource allocation	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-064-US- CNT	16/207212	03 Dec 2018	12 Sep 2014
D2D one to one communication resource allocation	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-064-EP- ETD	18201639.4	19 Oct 2018	12 Sep 2014
D2D one-to-one-feedback	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-065- WO-PCT	PCT/EP2015/068157	06 Aug 2015	29 Sep 2014
D2D one-to-one-feedback	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-065-EP- FPWF	14186921.4	29 Sep 2014	29 Sep 2014

D2D one-to-one-feedback	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-065-EP-EPT	15747810.8	06 Aug 2015	29 Sep 2014
D2D one-to-one-feedback	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-065-US-PCT	15/507274	06 Aug 2015	29 Sep 2014
Relay node assisted downlink transmission and switching scheme to PSD boosting transmission	Zhang, Lei;Jiaz, Ayesha;ul Quedus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahava, Jussi Tapani	I-14-071-US-PCT	15/511540	06 Aug 2015	29 Sep 2014
Relay node assisted downlink transmission and switching scheme to PSD boosting transmission	Zhang, Lei;Jiaz, Ayesha;ul Quedus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahava, Jussi Tapani	I-14-071-EP-EPT	15750340.0	06 Aug 2015	29 Sep 2014
Relay node assisted downlink transmission and switching scheme to PSD boosting transmission	Zhang, Lei;Jiaz, Ayesha;ul Quedus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahava, Jussi Tapani	I-14-071-WO-PCT	PCT/EP2015/068154	06 Aug 2015	29 Sep 2014
Relay node assisted downlink transmission and switching scheme to PSD boosting transmission	Zhang, Lei;Jiaz, Ayesha;ul Quedus, Atta;Ali Imran, Muhammad;Wakabayashi, Hideji;Kahava, Jussi Tapani	I-14-071-EP-FWF	14186922.2	29 Sep 2014	29 Sep 2014
D2D HARQ feedback signalling relay	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-109-EP-FWF	14193764.9	18 Nov 2014	18 Nov 2014
D2D HARQ feedback signalling relay	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-109-EP-EPT	15788068.3	03 Nov 2015	18 Nov 2014
D2D HARQ feedback signalling relay	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-109-WO-PCT	PCT/EP2015/075557	03 Nov 2015	18 Nov 2014
D2D HARQ feedback signalling relay	Wakabayashi, Hideji;Martin, Brian Alexander	I-14-109-US-PCT	15/518418	03 Nov 2015	18 Nov 2014

Small cell radio access network assisted by dynamic relay nodes	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-119-EP-EPD	17189664.0	06 Sep 2017	23 Dec 2014
Small cell radio access network assisted by dynamic relay nodes	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-119-US-PCT	15/533442	21 Dez 2015	23 Dec 2014
Small cell radio access network assisted by dynamic relay nodes	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-119-EP-FFWF	14200168.4	23 Dez 2014	23 Dec 2014
Small cell radio access network assisted by dynamic relay nodes	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-119-WO-PCT	PCT/EP2015/080753	21 Dez 2015	23 Dec 2014
Small cell radio access network assisted by dynamic relay nodes	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-119-EP-EPT	15813854.5	21 Dez 2015	23 Dec 2014
Inter-node link quality measurements and reporting in small cell networks using network coding	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-130-EP-FFWF	15151967.5	21 Jan 2015	21 Jan 2015
Inter-node link quality measurements and reporting in small cell networks using network coding	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-130-WO-PCT	PCT/EP2016/050125	06 Jan 2016	21 Jan 2015
Inter-node link quality measurements and reporting in small cell networks using network coding	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-130-EP-EPT	16700155.1	06 Jan 2016	21 Jan 2015
Inter-node link quality measurements and reporting in small cell networks using network coding	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-130-US-PCT	15/543407	06 Jan 2016	21 Jan 2015
Scheduling assignment for multicarrier D2D communication	Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-14-132-WO-PCT	PCT/EP2016/050185	07 Jan 2016	29 Jan 2015
Scheduling assignment for multicarrier D2D communication	Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-14-132-EP-FFWF	15153004.5	29 Jan 2015	29 Jan 2015

Scheduling assignment for multicarrier D2D communication	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-14-132-EP-EP1	16700168.4	07 Jan 2016	29 Jan 2015
Scheduling assignment for multicarrier D2D communication	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-14-132-US-PCT	15/544106	07 Jan 2016	29 Jan 2015
Scheduling assignment for multicarrier D2D communication	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-14-132-US-CNT	16/231698	24 Dez 2018	29 Jan 2015
D2D carrier switching	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-006-US-PCT	15/544038	07 Jan 2016	29 Jan 2015
D2D carrier switching	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-006-EP-EPT	16700169.2	07 Jan 2016	29 Jan 2015
D2D carrier switching	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-006-WO-PCT	PCT/EP2016/050187	07 Jan 2016	29 Jan 2015
D2D carrier switching	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-006-EP-FWPF	15153003.7	29 Jan 2015	29 Jan 2015
D2D handover beacon triggering	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-001-US-CNT	16/194720	19 Nov 2018	11 Feb 2015
D2D handover beacon triggering	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-001-US-PCT	15/548433	03 Feb 2016	11 Feb 2015
D2D handover beacon triggering	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-001-EP-FWPF	15154659.5	11 Feb 2015	11 Feb 2015
D2D handover beacon triggering	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-001-WO-PCT	PCT/EP2016/052283	03 Feb 2016	11 Feb 2015
D2D handover beacon triggering	Martin, Brian Alexander, Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-001-EP-EPT	16703499.0	03 Feb 2016	11 Feb 2015

D2D dynamic relay selection	Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-004-US- PCT	15/548634	26 Jan 2016	11 Feb 2015
D2D dynamic relay selection	Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-004-EP- EPT	16701642.7	26 Jan 2016	11 Feb 2015
D2D dynamic relay selection	Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-004- WO-PCT	PCT/EP2016/051602	26 Jan 2016	11 Feb 2015
D2D dynamic relay selection	Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-004-EP- FPWF	15154751.0	11 Feb 2015	11 Feb 2015
Inter-relay node link establishment and signaling thereof based on measurement reports from the relay nodes	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-134-EP- FPWF	15156163.6	23 Feb 2015	23 Feb 2015
Inter-relay node link establishment and signaling thereof based on measurement reports from the relay nodes	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-134-EP- EPT	16706574.7	22 Feb 2016	23 Feb 2015
Inter-relay node link establishment and signaling thereof based on measurement reports from the relay nodes	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-134- WO-PCT	PCT/EP2016/053639	22 Feb 2016	23 Feb 2015
Inter-relay node link establishment and signaling thereof based on measurement reports from the relay nodes	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-14-134-US- PCT	15/546518	22 Feb 2016	23 Feb 2015
Relay node mode management in dense wireless networks	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-010-US- PCT	15/552595	25 Feb 2016	27 Mar 2015
Relay node mode management in dense wireless networks	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-010-EP- EPT	16706593.7	25 Feb 2016	27 Mar 2015

Relay node mode management in dense wireless networks	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-010-EP- FFWF	15161539.0	27 Mar 2015	27 Mar 2015
Relay node mode management in dense wireless networks	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-010- WO-PCT	PCT/EP2016/053942	25 Feb 2016	27 Mar 2015
Relay node mode management in dense wireless networks	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-016- WO-PCT	PCT/EP2016/054934	08 Mar 2016	31 Mar 2015
Relay node mode management in dense wireless networks	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-016-EP- EPT	16709357.4	08 Mar 2016	31 Mar 2015
Relay node mode management in dense wireless networks	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-016-US- PCT	15/557515	08 Mar 2016	31 Mar 2015
Relay node mode management in dense wireless networks	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-016-EP- FFWF	15161933.5	31 Mar 2015	31 Mar 2015
Relay node mode management in dense wireless networks	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-019-US- PCT	15/552716	08 Mar 2016	31 Mar 2015
dyChannel sounding method for wideband D2D links	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-019-EP- EPT	16709354.1	08 Mar 2016	31 Mar 2015
dyChannel sounding method for wideband D2D links	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-019- WO-PCT	PCT/EP2016/054928	08 Mar 2016	31 Mar 2015
Channel sounding method for wideband D2D links	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-019-EP- FFWF	15162010.1	31 Mar 2015	31 Mar 2015
D2D relay dual connection	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro	I-15-038- WO-PCT	PCT/EP2016/058897	21 Apr 2016	11 Mai 2015
D2D relay dual connection	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro	I-15-038-EP- EPT	16718322.7	21 Apr 2016	11 Mai 2015
D2D relay dual connection	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro	I-15-038-US- PCT	15/570794	21 Apr 2016	11 Mai 2015



D2D relay dual connection	Wakabayashi, Hideji;Martin, Brian	I-15-038-EP-FWFF	15167227.6	11 Mai 2015	11 Mai 2015
Coverage extension by D2D UE-NW relay for UE in idle mode	Tsuda, Shinichiro;Martin, Brian	I-15-056-WO-PCT	PCT/EP2016/058854	21 Apr 2016	22 Mai 2015
Coverage extension by D2D UE-NW relay for UE in idle mode	Tsuda, Shinichiro;Martin, Brian	I-15-056-EP-EPT	16717639.5	21 Apr 2016	22 Mai 2015
Coverage extension by D2D UE-NW relay for UE in idle mode	Tsuda, Shinichiro;Martin, Brian	I-15-056-US-PCT	15/564333	21 Apr 2016	22 Mai 2015
Coverage extension by D2D UE-NW relay for UE in idle mode	Tsuda, Shinichiro;Martin, Brian	I-15-056-EP-FWFF	15169053.4	22 Mai 2015	22 Mai 2015
LTE based RSU for V2I and UE mobility measurement procedures	Kahava, Jussi	I-15-058-US-PCT	15/579445	20 Jun 2016	29 Jun 2015
LTE based RSU for V2I and UE mobility measurement procedures	Kahava, Jussi	I-15-058-EP-FWFF	15174391.1	29 Jun 2015	29 Jun 2015
LTE based RSU for V2I and UE mobility measurement procedures	Kahava, Jussi	I-15-058-WO-PCT	PCT/EP2016/064134	20 Jun 2016	29 Jun 2015
LTE based RSU for V2I and UE mobility measurement procedures	Kahava, Jussi	I-15-058-EP-EPT	16734222.9	20 Jun 2016	29 Jun 2015
LTE based RSU for V2I and UE scheduling assignments	Kahava, Jussi	I-15-059-WO-PCT	PCT/EP2016/064152	20 Jun 2016	29 Jun 2015
LTE based RSU for V2I and UE scheduling assignments	Kahava, Jussi	I-15-059-EP-EPT	16734223.7	20 Jun 2016	29 Jun 2015
LTE based RSU for V2I and UE scheduling assignments	Kahava, Jussi	I-15-059-EP-FWFF	15174399.4	29 Jun 2015	29 Jun 2015

LTE based RSU for V2I and UE scheduling assignments	Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-059-US- PCT	15/735794	20 Jun 2016	29 Jun 2015
Global synchronization for V2X	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro;Kahtava, Jussi Tapani;Uchiyama, Hiromasa	I-15-074-US- PCT	15/740880	14 Jul 2016	29 Jul 2015
Global synchronization for V2X	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro;Kahtava, Jussi Tapani;Uchiyama, Hiromasa	I-15-074-EP- FPWF	15178910.4	29 Jul 2015	29 Jul 2015
Global synchronization for V2X	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro;Kahtava, Jussi Tapani;Uchiyama, Hiromasa	I-15-074- WO-PCT	PCT/EP2016/066755	14 Jul 2016	29 Jul 2015
Global synchronization for V2X	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro;Kahtava, Jussi Tapani;Uchiyama, Hiromasa	I-15-074-EP- EPT	16739115.0	14 Jul 2016	29 Jul 2015
Synchronization process with global synchronization for V2X	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro;Kahtava, Jussi Tapani	I-15-095- WO-PCT	PCT/EP2016/066695	13 Jul 2016	19 Aug 2015
Synchronization process with global synchronization for V2X	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro;Kahtava, Jussi Tapani	I-15-095-EP- EPT	16738782.8	13 Jul 2016	19 Aug 2015

Synchronization process with global synchronization for V2X	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro;Kahtava, Jussi Tapiari	I-15-095-US-PCT	15/743526	13 Jul 2016	19 Aug 2015
Synchronization process with global synchronization for V2X	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro;Kahtava, Jussi Tapiari	I-15-095-EP-FFWF	15181639.4	19 Aug 2015	19 Aug 2015
LTE based V2V group management on dense traffic	Kahtava, Jussi Tapiari;Wakabayashi, Hideji	I-15-090-WO-PCT	PCT/EP2016/065309	30 Jun 2016	24 Aug 2015
LTE based V2V group management on dense traffic	Kahtava, Jussi Tapiari;Wakabayashi, Hideji	I-15-090-EP-EPT	16734343.3	30 Jun 2016	24 Aug 2015
LTE based V2V group management on dense traffic	Kahtava, Jussi Tapiari;Wakabayashi, Hideji	I-15-090-US-PCT	15/747333	30 Jun 2016	24 Aug 2015
LTE based V2V group management on dense traffic	Kahtava, Jussi Tapiari;Wakabayashi, Hideji	I-15-090-EP-FFWF	15182215.2	24 Aug 2015	24 Aug 2015
LTE V2V: location based D2D resource allocation	Kahtava, Jussi Tapiari;Wakabayashi, Hideji	I-15-079-EP-EPT	16758164.4	30 Aug 2016	04 Sep 2015
LTE V2V: location based D2D resource allocation	Kahtava, Jussi Tapiari;Wakabayashi, Hideji	I-15-079-WO-PCT	PCT/EP2016/070384	30 Aug 2016	04 Sep 2015
LTE V2V: location based D2D resource allocation	Kahtava, Jussi Tapiari;Wakabayashi, Hideji	I-15-079-EP-FFWF	15183896.8	04 Sep 2015	04 Sep 2015
LTE V2V: location based D2D resource allocation	Kahtava, Jussi Tapiari;Wakabayashi, Hideji	I-15-079-US-PCT	15/750966	30 Aug 2016	04 Sep 2015
LTE V2V: method of discovering obstacles to D2D connectivity and resolving them	Kahtava, Jussi Tapiari;Wakabayashi, Hideji	I-15-102-US-PCT	15/751978	22 Sep 2016	24 Sep 2015
LTE V2V: method of discovering obstacles to D2D connectivity and resolving them	Kahtava, Jussi Tapiari;Wakabayashi, Hideji	I-15-102-EP-EPT	167755563.6	22 Sep 2016	24 Sep 2015

LTE V2V: method of discovering obstacles to D2D connectivity and resolving them	Kantava, Jussi Tapani;Wakabayashi, Hideji	I-15-102-EP- FFWF	15186736.3	24 Sep 2015	24 Sep 2015
LTE V2V: method of discovering obstacles to D2D connectivity and resolving them	Kantava, Jussi Tapani;Wakabayashi, Hideji	I-15-102- WO-PCT	PCT/EP2016/072507	22 Sep 2016	24 Sep 2015
Coverage extension and low load technique for massive connection of MTC	Tsuda, Shinichiro;Koulakiotis, Dimitris;Wakabayashi, Hideji	I-15-088-EP- FFWF	15186949.2	25 Sep 2015	25 Sep 2015
Coverage extension and low load technique for massive connection of MTC	Tsuda, Shinichiro;Koulakiotis, Dimitris;Wakabayashi, Hideji	I-15-088- WO-PCT	PCT/EP2016/071182	08 Sep 2016	25 Sep 2015
Coverage extension and low load technique for massive connection of MTC	Tsuda, Shinichiro;Koulakiotis, Dimitris;Wakabayashi, Hideji	I-15-088-EP- EPT	16766514.0	08 Sep 2016	25 Sep 2015
Coverage extension and low load technique for massive connection of MTC	Tsuda, Shinichiro;Koulakiotis, Dimitris;Wakabayashi, Hideji	I-15-088-US- PCT	15/752053	08 Sep 2016	25 Sep 2015
Relay UE Selection for D2D Link	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-103-EP- FFWF	15188002.8	01 Okt 2015	01 Okt 2015
Relay UE Selection for D2D Link	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-103- WO-PCT	PCT/EP2016/072452	21 Sep 2016	01 Okt 2015
Relay UE Selection for D2D Link	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-103-EP- EPT	16775128.8	21 Sep 2016	01 Okt 2015
Relay UE Selection for D2D Link	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-103-US- PCT	15/753075	21 Sep 2016	01 Okt 2015
UE-to-UE relay establishment signalling	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-105-EP- FFWF	15188113.3	02 Okt 2015	02 Okt 2015
UE-to-UE relay establishment signalling	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-105-EP- EPT	16775680.8	29 Sep 2016	02 Okt 2015

UE-to-UE relay establishment signaling	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-105-WO-PCT	PCT/EP2016/073313	29 Sep 2016	02 Oct 2015
UE-to-UE relay establishment signaling	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-105-US-PCT	15/752914	29 Sep 2016	02 Oct 2015
Multiple cell area common SIB	Martin, Brian Alexander;Wakabayashi, Hideji	I-15-139-EP-EPT	16777929.7	19 Sep 2016	06 Nov 2015
Multiple cell area common SIB	Martin, Brian Alexander;Wakabayashi, Hideji	I-15-139-EP-FWF	15193497.3	06 Nov 2015	06 Nov 2015
Multiple cell area common SIB	Martin, Brian Alexander;Wakabayashi, Hideji	I-15-139-WO-PCT	PCT/EP2016/072200	19 Sep 2016	06 Nov 2015
Multiple cell area common SIB	Martin, Brian Alexander;Wakabayashi, Hideji	I-15-139-US-CNT	15/615522	06 Jun 2017	06 Nov 2015
Virtual cell RRC connection control	Wakabayashi, Hideji;Wei, Yuxin;Tsuda, Shinichiro	I-15-121-US-PCT	15/772409	21 Sep 2016	09 Nov 2015
Virtual cell RRC connection control	Wakabayashi, Hideji;Wei, Yuxin;Tsuda, Shinichiro	I-15-121-EP-EPT	16775545.3	21 Sep 2016	09 Nov 2015
Virtual cell RRC connection control	Wakabayashi, Hideji;Wei, Yuxin;Tsuda, Shinichiro	I-15-121-WO-PCT	PCT/EP2016/072436	21 Sep 2016	09 Nov 2015
Virtual cell RRC connection control	Wakabayashi, Hideji;Wei, Yuxin;Tsuda, Shinichiro	I-15-121-EP-FWF	15193709.1	09 Nov 2015	09 Nov 2015
LTE V2X: Discovery of VRUS in V2X environment	Kahava, Jussi Tapani;Wakabayashi, Hideji	I-15-126-EP-FWF	15194392.5	12 Nov 2015	12 Nov 2015
LTE V2X: Discovery of VRUS in V2X environment	Kahava, Jussi Tapani;Wakabayashi, Hideji	I-15-126-WO-PCT	PCT/EP2016/072504	22 Sep 2016	12 Nov 2015
LTE V2X: Discovery of VRUS in V2X environment	Kahava, Jussi Tapani;Wakabayashi, Hideji	I-15-126-US-PCT	15/768604	22 Sep 2016	12 Nov 2015
LTE V2X: Discovery of VRUS in V2X environment	Kahava, Jussi Tapani;Wakabayashi, Hideji	I-15-126-EP-EPT	16775561.0	22 Sep 2016	12 Nov 2015
High priority synchronization source for V2X	Martin, Brian Alexander;Uchiyama, Hiromasa;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-108-EP-EPT	16778377.8	07 Oct 2016	13 Nov 2015

High priority synchronization source for VZX	Martin, Brian Alexander;Uchiyama, Hiromasa;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-108- WO-PCT	PCT/EP2016/074019	07 Okt 2016	13 Nov 2015
High priority synchronization source for VZX	Martin, Brian Alexander;Uchiyama, Hiromasa;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-108-EP- FFWF	15194490.7	13 Nov 2015	13 Nov 2015
High priority synchronization source for VZX	Martin, Brian Alexander;Uchiyama, Hiromasa;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-108-US- PCT	15/775162	07 Okt 2016	13 Nov 2015
Semi-autonomous resource selection / dynamic configuration of resource patterns+ pools for v2x	Martin, Brian Alexander;Wei, Yuxin;Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-133- WO-PCT	PCT/EP2016/075245	20 Okt 2016	13 Nov 2015
Semi-autonomous resource selection / dynamic configuration of resource patterns+ pools for v2x	Martin, Brian Alexander;Wei, Yuxin;Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-133-US- PCT	15/773214	20 Okt 2016	13 Nov 2015
Semi-autonomous resource selection / dynamic configuration of resource patterns+ pools for v2x	Martin, Brian Alexander;Wei, Yuxin;Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-133-EP- FFWF	15194635.7	13 Nov 2015	13 Nov 2015
Semi-autonomous resource selection / dynamic configuration of resource patterns+ pools for v2x	Martin, Brian Alexander;Wei, Yuxin;Kahtava, Jussi Tapani;Wakabayashi, Hideji	I-15-133-EP- EPT	16784502.3	20 Okt 2016	13 Nov 2015
Virtual Cell Paging	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-137-EP- FFWF	15200878.5	17 Dez 2015	17 Dez 2015
Virtual Cell Paging	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-137-US- PCT	16/060193	12 Dez 2016	17 Dez 2015
Virtual Cell Paging	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-137-EP- EPT	16819477.7	12 Dez 2016	17 Dez 2015

Virtual Cell Paging	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-137- WO-PCT	PCT/EP2016/080695	12 Dez 2016	17 Dez 2015
Virtual Cell operation and RRC state Management	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-15-132-EP- FFWF	15201658.0	21 Dez 2015	21 Dez 2015
Virtual Cell operation and RRC state Management	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-15-132- WO-PCT	PCT/EP2016/080696	12 Dez 2016	21 Dez 2015
Virtual Cell operation and RRC state Management	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-15-132-EP- EPT	16809072.8	12 Dez 2016	21 Dez 2015
Virtual Cell operation and RRC state Management	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-15-132-US- PCT	15/781492	12 Dez 2016	21 Dez 2015
Inter-RAT device group capabilities	Martin, Brian Alexander;Wei, Yuxin;Beale, Martin Warwick;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-123-US- PCT	16/075264	13 Jan 2017	04 Feb 2016
Inter-RAT device group capabilities	Martin, Brian Alexander;Wei, Yuxin;Beale, Martin Warwick;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-123-EP- FFWF	16154318.6	04 Feb 2016	04 Feb 2016
Inter-RAT device group capabilities	Martin, Brian Alexander;Wei, Yuxin;Beale, Martin Warwick;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-123- WO-PCT	PCT/EP2017/050649	13 Jan 2017	04 Feb 2016
Inter-RAT device group capabilities	Martin, Brian Alexander;Wei, Yuxin;Beale, Martin Warwick;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-123-EP- EPT	17700412.4	13 Jan 2017	04 Feb 2016
Virtual cell group handover	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Martin, Brian Alexander	I-15-149-US- PCT	16/082286	02 Mrz 2017	16 Mrz 2016

Virtual cell group handover	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Martin, Brian Alexander	I-15-149-EP-EPT	17707351.7	02 Marz 2017	16 Marz 2016
Virtual cell group handover	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Martin, Brian Alexander	I-15-149-EP-FFWF	16160759.3	16 Marz 2016	16 Marz 2016
Virtual cell group handover	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Martin, Brian Alexander	I-15-149-WO-PCT	PCT/EP2017/054915	02 Marz 2017	16 Marz 2016
Paging via relay with cellular fallback indication	Martin, Brian Alexander; Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Kosta, Chrysovalantis	I-16-037-EP-FFWF	16163490.2	01 Apr 2016	01 Apr 2016
Paging via relay with cellular fallback indication	Martin, Brian Alexander; Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Kosta, Chrysovalantis	I-16-037-WO-PCT	PCT/EP2017/055871	13 Marz 2017	01 Apr 2016
Paging via relay with cellular fallback indication	Martin, Brian Alexander; Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Kosta, Chrysovalantis	I-16-037-EP-EPT	17709999.1	13 Marz 2017	01 Apr 2016
Paging via relay with cellular fallback indication	Martin, Brian Alexander; Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Kosta, Chrysovalantis	I-16-037-US-PCT	16/090217	13 Marz 2017	01 Apr 2016



Layered System Information AND Connection Oriented and Connection-less Communication for Virtual Cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-015-WO-PCT	PCT/EP2017/057625	30 Mrz 2017	06 Apr 2016
Layered System Information AND Connection Oriented and Connection-less Communication for Virtual Cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-015-EP-EPT	17713691.8	30 Mrz 2017	06 Apr 2016
Layered System Information AND Connection Oriented and Connection-less Communication for Virtual Cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-015-EP-FWF	16164131.1	06 Apr 2016	06 Apr 2016
Layered System Information AND Connection Oriented and Connection-less Communication for Virtual Cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-015-US-PCT	16/091538	30 Mrz 2017	06 Apr 2016
Virtual Cell operation and RRC state management for reduction of measurement overhead	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-16-018-WO-PCT	PCT/EP2017/058250	06 Apr 2017	06 Apr 2016
Virtual Cell operation and RRC state management for reduction of measurement overhead	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-16-018-EP-FWF	16164099.0	06 Apr 2016	06 Apr 2016
Virtual Cell operation and RRC state management for reduction of measurement overhead	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-16-018-EP-EPT	17714831.9	06 Apr 2017	06 Apr 2016
Virtual Cell operation and RRC state management for reduction of measurement overhead	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-16-018-EP-ETD	18186724.3	31 Jul 2018	06 Apr 2016

Virtual Cell operation and RRC state management for reduction of measurement overhead	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-16-018-US-PCT	16/091318	06 Apr 2017	06 Apr 2016
Contention based uplink transmission for V2X services	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-026-EP-FFWF	16164323.4	07 Apr 2016	07 Apr 2016
Contention based uplink transmission for V2X services	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-026-WO-PCT	PCT/EP2017/056597	20 Mar 2017	07 Apr 2016
Contention based uplink transmission for V2X services	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-026-EP-EPT	17711668.8	20 Mar 2017	07 Apr 2016
Contention based uplink transmission for V2X services	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-026-US-PCT	16/091236	20 Mar 2017	07 Apr 2016
UE centric operation with virtual cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-044-US-PCT	16/097840	30 Mar 2017	10 Mai 2016
UE centric operation with virtual cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-044-EP-EPT	17714239.5	30 Mar 2017	10 Mai 2016
UE centric operation with virtual cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-044-WO-PCT	PCT/EP2017/057626	30 Mar 2017	10 Mai 2016
UE centric operation with virtual cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-044-EP-FFWF	16168961.7	10 Mai 2016	10 Mai 2016
Uplink based inter-control unit (CU) handover	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-069-US-PCT	16/303145	12 Apr 2017	20 Mai 2016
Uplink based inter-control unit (CU) handover	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-069-EP-EPT	17716262.5	12 Apr 2017	20 Mai 2016
Uplink based inter-control unit (CU) handover	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-069-WO-PCT	PCT/EP2017/058784	12 Apr 2017	20 Mai 2016

Uplink based inter-control unit (CU) handover	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-069-EP- FFWF	16170731.0	20 Mai 2016	20 Mai 2016
Random access with relay	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-058-US- PCT	16/312580	09 Mai 2017	22 Jun 2016
Random access with relay	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-058-EP- EPT	17721188.5	09 Mai 2017	22-Jun 2016
Random access with relay	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-058- WO-PCT	PCT/EP2017/061029	09 Mai 2017	22 Jun 2016
Random access with relay	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-058-EP- FFWF	16175809.9	22 Jun 2016	22 Jun 2016
Buffer Status Reporting (BSR) with relay - not reverse	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-051-US- PCT	16/313055	09 Mai 2017	24 Jun 2016
Buffer Status Reporting (BSR) with relay - not reverse	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-051-EP- EPT	17721733.8	09 Mai 2017	24 Jun 2016

Buffer Status Reporting (BSR) with relay - not reverse	Wei, Yuxin; Martin, Brian Alexander; Wakabayashi, Hideji; Tsuda, Shinichiro; Kosta, Chrysovalantis	I-16-051- WO-PCT	PCT/EP2017/061048	09 May 2017	24 Jun 2016
Buffer Status Reporting (BSR) with relay - not reverse	Wei, Yuxin; Martin, Brian Alexander; Wakabayashi, Hideji; Tsuda, Shinichiro; Kosta, Chrysovalantis	I-16-051-EP- FFWF	161776296.8	24 Jun 2016	24 Jun 2016
Mobility management depending on UE mobility	Tsuda, Shinichiro; Wakabayashi, Hideji; Martin, Brian Alexander; Wei, Yuxin	I-16-065- WO-PCT	PCT/EP2017/066016	28 Jun 2017	30 Jun 2016
Mobility management depending on UE mobility	Tsuda, Shinichiro; Wakabayashi, Hideji; Martin, Brian Alexander; Wei, Yuxin	I-16-065-EP- FFWF	16177211.6	30 Jun 2016	30 Jun 2016
Mobility management depending on UE mobility	Tsuda, Shinichiro; Wakabayashi, Hideji; Martin, Brian Alexander; Wei, Yuxin	I-16-065-EP- EPT	17732938.0	28 Jun 2017	30 Jun 2016
Mobility management depending on UE mobility	Tsuda, Shinichiro; Wakabayashi, Hideji; Martin, Brian Alexander; Wei, Yuxin	I-16-065-US- PCT	16/314449	28 Jun 2017	30 Jun 2016
System information provision with beamforming	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Martin, Brian Alexander	I-16-066- WO-PCT	PCT/EP2017/062854	29 May 2017	30 Jun 2016
System information provision with beamforming	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Martin, Brian Alexander	I-16-066-EP- FFWF	16177187.8	30 Jun 2016	30 Jun 2016
System information provision with beamforming	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Martin, Brian Alexander	I-16-066-EP- EPT	17725623.7	29 May 2017	30 Jun 2016

System information provision with beamforming	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Martin, Brian Alexander	I-16-066-US-PCT	16/313217	29 Mar 2017	30 Jun 2016
On demand system information	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-089-US-PCT	16/317835	21 Jul 2017	22 Jul 2016
On demand system information	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-089-EP-FWFF	16180858.9	22 Jul 2016	22 Jul 2016
On demand system information	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-089-EP-EPT	17749628.8	21 Jul 2017	22 Jul 2016
On demand system information	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-089-WO-PCT	PCT/EP2017/068490	21 Jul 2017	22 Jul 2016
UE Speed Dependent Uplink Reference Signal Transmission for Mobility in NR	Wong, Shin Horng;Martin, Brian Alexander;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-088-US-PCT	16/322970	05 Jul 2017	10 Aug 2016
UE Speed Dependent Uplink Reference Signal Transmission for Mobility in NR	Wong, Shin Horng;Martin, Brian Alexander;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-088-EP-FWFF	16183540.0	10 Aug 2016	10 Aug 2016
UE Speed Dependent Uplink Reference Signal Transmission for Mobility in NR	Wong, Shin Horng;Martin, Brian Alexander;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-088-WO-PCT	PCT/EP2017/066834	05 Jul 2017	10 Aug 2016

UE Speed Dependent Uplink Reference Signal Transmission for Mobility in NR	Wong, Shin Homng; Martin, Brian Alexander; Beale, Martin Warwick; Wei, Yuxin; Wakabayashi, Hideji; Kosta, Chrysovalantis	I-16-088-EP-EPT	17734373.8	05 Jul 2017	10 Aug 2016
RRC diversity	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Martin, Brian Alexander	I-16-084-WO-PCT	PCT/EP2017/070521	11 Aug 2017	11 Aug 2016
RRC diversity	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Martin, Brian Alexander	I-16-084-EP-FFWF	16183716.6	11 Aug 2016	11 Aug 2016
RRC diversity	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Martin, Brian Alexander	I-16-084-US-PCT	16/324577	11 Aug 2017	11 Aug 2016
RRC diversity	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro; Martin, Brian Alexander	I-16-084-EP-EPT	17749503.3	11 Aug 2017	11 Aug 2016
RRC in tight interworking of LTE and NR architecture	Tsuda, Shinichiro; Wei, Yuxin; Martin, Brian Alexander; Wakabayashi, Hideji	I-16-090-US-PCT	16/324173	11 Aug 2017	11 Aug 2016
RRC in tight interworking of LTE and NR architecture	Tsuda, Shinichiro; Wei, Yuxin; Martin, Brian Alexander; Wakabayashi, Hideji	I-16-090-EP-EPT	17749502.5	11 Aug 2017	11 Aug 2016
RRC in tight interworking of LTE and NR architecture	Tsuda, Shinichiro; Wei, Yuxin; Martin, Brian Alexander; Wakabayashi, Hideji	I-16-090-WO-PCT	PCT/EP2017/070518	11 Aug 2017	11 Aug 2016
RRC in tight interworking of LTE and NR architecture	Tsuda, Shinichiro; Wei, Yuxin; Martin, Brian Alexander; Wakabayashi, Hideji	I-16-090-EP-FFWF	16183756.2	11 Aug 2016	11 Aug 2016

Uplink based handover location based trigger	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-093-EP- FFWF	16183702.6	11 Aug 2016	11 Aug 2016
Uplink based handover location based trigger	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-093- WO-PCT	PCT/EP2017/067875	14 Jul 2017	11 Aug 2016
Uplink based handover location based trigger	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-093-EP- EPT	17742712.7	14 Jul 2017	11 Aug 2016
Uplink based handover location based trigger	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Wakabayashi, Hideji;Kosta, Chrysovalantis	I-16-093-US- PCT	16/323534	14 Jul 2017	11 Aug 2016
Dual RRC- RLF recovery	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-106-EP- FFWF	16184065.7	12 Aug 2016	12 Aug 2016
Dual RRC- RLF recovery	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-106- WO-PCT	PCT/EP2017/068401	20 Jul 2017	12 Aug 2016

Dual RRC - RLF recovery	Martin, Brian Alexander, Wei, Yuxin, Wakabayashi, Hideji, Tsuda, Shinichiro	I-16-106-US- PCT	16/323262	20 Jul 2017	12 Aug 2016
Dual RRC - RLF recovery	Martin, Brian Alexander, Wei, Yuxin, Wakabayashi, Hideji, Tsuda, Shinichiro	I-16-106-EP- EPT	17742251.6	20 Jul 2017	12 Aug 2016
Handling of MCG resources for a SCG split bearer due to security procedure	Sharma, Vivek, Martin, Brian Alexander, Wei, Yuxin, Wakabayashi, Hideji, Tsuda, Shinichiro	I-16-150-US- PCT	PCT/EP2017/071772	30 Aug 2017	28 Sep 2016
Handling of MCG resources for a SCG split bearer due to security procedure	Sharma, Vivek, Martin, Brian Alexander, Wei, Yuxin, Wakabayashi, Hideji, Tsuda, Shinichiro	I-16-150-EP- EPT	PCT/EP2017/071772	30 Aug 2017	28 Sep 2016
Handling of MCG resources for a SCG split bearer due to security procedure	Sharma, Vivek, Martin, Brian Alexander, Wei, Yuxin, Wakabayashi, Hideji, Tsuda, Shinichiro	I-16-150- WO-PCT	PCT/EP2017/071772	30 Aug 2017	28 Sep 2016
Handling of MCG resources for a SCG split bearer due to security procedure	Sharma, Vivek, Martin, Brian Alexander, Wei, Yuxin, Wakabayashi, Hideji, Tsuda, Shinichiro	I-16-150-EP- FFWF	16191055.9	28 Sep 2016	28 Sep 2016
UE additional information reporting during connection establishment	Sharma, Vivek, Martin, Brian Alexander, Wei, Yuxin, Wakabayashi, Hideji, Tsuda, Shinichiro	I-16-161-US- PCT	PCT/EP2017/073196	14 Sep 2017	29 Sep 2016
UE additional information reporting during connection establishment	Sharma, Vivek, Martin, Brian Alexander, Wei, Yuxin, Wakabayashi, Hideji, Tsuda, Shinichiro	I-16-161-EP- FFWF	16191543.4	29 Sep 2016	29 Sep 2016
UE additional information reporting during connection establishment	Sharma, Vivek, Martin, Brian Alexander, Wei, Yuxin, Wakabayashi, Hideji, Tsuda, Shinichiro	I-16-161- WO-PCT	PCT/EP2017/073196	14 Sep 2017	29 Sep 2016



UE additional information reporting during connection establishment	Sharma, Vivek;Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-161-EP-EPT	PCT/EP2017/073196	14 Sep 2017	29 Sep 2016
System information area enhancement for NR	Wei, Yuxin;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-155-WO-PCT	PCT/EP2017/075371	05 Oct 2017	06 Oct 2016
System information area enhancement for NR	Wei, Yuxin;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-155-US-PCT	PCT/EP2017/075371	05 Oct 2017	06 Oct 2016
System information area enhancement for NR	Wei, Yuxin;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-155-EP-EPT	PCT/EP2017/075371	05 Oct 2017	06 Oct 2016
System information area enhancement for NR	Wei, Yuxin;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-155-EP-FFWF	16192705.8	06 Oct 2016	06 Oct 2016
NR MDT enhancements to collect measurements related to interference at higher frequency	Sharma, Vivek;Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-169-WO-PCT	PCT/EP2017/075431	05 Oct 2017	07 Oct 2016
NR MDT enhancements to collect measurements related to interference at higher frequency	Sharma, Vivek;Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-169-EP-FFWF	16192788.4	07 Oct 2016	07 Oct 2016
System information area enhancement for NR	Wei, Yuxin;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-178-WO-PCT	PCT/EP2017/077531	26 Oct 2017	28 Oct 2016
System information area enhancement for NR	Wei, Yuxin;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-178-EP-FFWF	16196249.3	28 Oct 2016	28 Oct 2016

Assignment Inventor to SEU to Sony Corp.

On-demand SI and network overload	Sharma, Vivek;Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-181-EP- FFWF	16197185.8	03 Nov 2016	03 Nov 2016
On-demand SI and network overload	Sharma, Vivek;Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-181- WO-PCT	PCT/EP2017/075068	03 Okt 2017	03 Nov 2016
Cell quality evaluation using multiple beam measurements	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Homng;Wei, Yuxin;Atungsiri, Samuel Asangbeng;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-182-EP- FFWF	16197339.1	04 Nov 2016	04 Nov 2016
Cell quality evaluation using multiple beam measurements	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Homng;Wei, Yuxin;Atungsiri, Samuel	I-16-182- WO-PCT	PCT/EP2017/076260	13 Okt 2017	04 Nov 2016
Index based NR SI Table Update Procedure	Wei, Yuxin;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-200-EP- FFWF	16206526.2	22 Dez 2016	22 Dez 2016
Index based NR SI Table Update Procedure	Wei, Yuxin;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-200- WO-PCT	PCT/EP2017/084279	21 Dez 2017	22 Dez 2016

RLF Report enhancement	Sharma, Vivek;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Wei, Yuxin	I-16-206-EP- FFWF	16206101.4	22 Dez 2016	22 Dez 2016
RLF Report enhancement	Sharma, Vivek;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Wei, Yuxin	I-16-206- WO-PCT	PCT/EP2017/084280	21 Dez 2017	22 Dez 2016
RRC Inactive State Paging for downlink transmission	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji;Berggren, Anders	I-16-207- WO-PCT	PCT/EP2017/080828	29 Nov 2017	23 Dez 2016
RRC Inactive State Paging for downlink transmission	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji;Berggren, Anders	I-16-207-EP- FFWF	16206769.8	23 Dez 2016	23 Dez 2016
Mobility handling in Inter-RAT NR-LTE coexistence	Sharma, Vivek;Beale, Martin Warwick;Martin, Brian Alexander;Wong, Shin Horng;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-214- WO-PCT	PCT/EP2018/050031	02 Jan 2018	04 Jan 2017
Mobility handling in Inter-RAT NR-LTE coexistence	Sharma, Vivek;Beale, Martin Warwick;Martin, Brian Alexander;Wong, Shin Horng;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-214-EP- FFWF	17150280.0	04 Jan 2017	04 Jan 2017

Triggering of mobility reference signals measurements using cell specific reference signals	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji	I-16-208-EP- FFWF	17150481.4	05 Jan 2017	05 Jan 2017
Triggering of mobility reference signals measurements using cell specific reference signals	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji	I-16-208- WO-PCT	PCT/EP2017/083279	18 Dez 2017	05 Jan 2017
Inter-RAT Scheduling for NR-LTE Interworking	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-210-EP- FFWF	17150482.2	05 Jan 2017	05 Jan 2017
Inter-RAT Scheduling for NR-LTE Interworking	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-210- WO-PCT	PCT/EP2017/081501	05 Dez 2017	05 Jan 2017
NR RACH enhancement	Wei, Yuxin;Martin, Brian Alexander;Berggren, Anders;Sharma, Vivek;Wakabayashi, Hideji	I-16-211- WO-PCT	PCT/EP2018/050096	03 Jan 2018	05 Jan 2017
NR RACH enhancement	Wei, Yuxin;Martin, Brian Alexander;Berggren, Anders;Sharma, Vivek;Wakabayashi, Hideji	I-16-211-EP- FFWF	17150480.6	05 Jan 2017	05 Jan 2017

Flexible FDD operation using TDD band	Wong, Shin Horng; Beale, Martin Warwick; Martin, Brian Alexander; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-16-201-WO-PCT	PCT/EP2017/083899	20 Dez 2017	06 Jan 2017
Flexible FDD operation using TDD band	Wong, Shin Horng; Beale, Martin Warwick; Martin, Brian Alexander; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-16-201-EP-FFWF	17150567.0	06 Jan 2017	06 Jan 2017
2-step RACH fallback to 4-step RACH preamble	Hideji; Tsuda, Shinichiro; Martin, Brian Alexander; Wei, Yuxin; Berggren, Anders; Sharma, Vivek; Wakabayashi, Hideji	I-16-212-EP-FFWF	17150585.2	06 Jan 2017	06 Jan 2017
2-step RACH fallback to 4-step RACH preamble	Martin, Brian Alexander; Wei, Yuxin; Berggren, Anders; Sharma, Vivek; Wakabayashi, Hideji	I-16-212-WO-PCT	PCT/EP2018/050239	05 Jan 2018	06 Jan 2017
RRC Inactive State Paging for uplink tracking signal reconfiguration	Martin, Brian Alexander; Wong, Shin Horng; Beale, Martin Warwick; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro; Wakabayashi, Hideji; Berggren, Anders	I-16-217-WO-PCT	PCT/EP2017/082858	14 Dez 2017	12 Jan 2017
RRC Inactive State Paging for uplink tracking signal reconfiguration	Martin, Brian Alexander; Wong, Shin Horng; Beale, Martin Warwick; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro; Wakabayashi, Hideji; Berggren, Anders	I-16-217-EP-FFWF	17151167.8	12 Jan 2017	12 Jan 2017

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**PATENT**

New UE ID and blind detection method	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji;Atungsir, Samuel Asanobeng	I-17-009- WO-PCT	PCT/EP2018/052489	01 Feb 2018	03 Feb 2017
New UE ID and blind detection method	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji;Atungsir, Samuel Asanobeng	I-17-009-EP- FFWF	17154636.9	03 Feb 2017	03 Feb 2017
SLS anchor narrowband for relay	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Uchiyama, Hiromasa;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-029-EP- FFWF	17162886.0	24 Mrz 2017	24 Mrz 2017
SLS anchor narrowband for relay	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Uchiyama, Hiromasa;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-029- WO-PCT	PCT/EP2018/057366	22 Mrz 2018	24 Mrz 2017
Open Loop Power control for remote device	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Uchiyama, Hiromasa;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-036-EP- FFWF	17164263.0	31 Mrz 2017	31 Mrz 2017

Open Loop Power control for remote device	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Uchiyama, Hiromasa;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-036- WO-PCT	PCT/EP2018/055089	01 Mar 2018	31 Mar 2017
Maintaining MCG/SCG MAC entity during bearer type switching in EN-DC	Sharma, Vivek;Martin, Brian Alexander;Tsuda, Shinichiro;Wakabayashi, Hideji	I-17-051-EP- FFWF	17168565.4	27 Apr 2017	27 Apr 2017
Maintaining MCG/SCG MAC entity during bearer type switching in EN-DC	Sharma, Vivek;Martin, Brian Alexander;Tsuda, Shinichiro;Wakabayashi, Hideji	I-17-051- WO-PCT	PCT/EP2018/055800	08 Mar 2018	27 Apr 2017
SGC to/from EPC handover in LTE cell	Sharma, Vivek;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-056-EP- FFWF	17169832.7	05 May 2017	05 May 2017
SGC to/from EPC handover in LTE cell	Sharma, Vivek;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-056- WO-PCT	PCT/EP2018/060754	26 Apr 2018	05 May 2017
ANR enhancement for LTE cell connected to SGC/EPC	Sharma, Vivek;Martin, Brian Alexander;Tsuda, Shinichiro;Wakabayashi, Hideji	I-17-058- WO-PCT	PCT/EP2018/060721	26 Apr 2018	05 May 2017
ANR enhancement for LTE cell connected to SGC/EPC	Sharma, Vivek;Martin, Brian Alexander;Tsuda, Shinichiro;Wakabayashi, Hideji	I-17-058-EP- FFWF	17169819.4	05 May 2017	05 May 2017
Non text based PWS	Sharma, Vivek;Martin, Brian Alexander;Tsuda, Shinichiro;Wakabayashi, Hideji;Wong, Shin Horng	I-17-076- WO-PCT	PCT/EP2018/065798	14 Jun 2018	23 Jun 2017
Non text based PWS	Sharma, Vivek;Martin, Brian Alexander;Tsuda, Shinichiro;Wakabayashi, Hideji;Wong, Shin Horng	I-17-076-EP- FFWF	17177683.4	23 Jun 2017	23 Jun 2017

Configuration of NR-PDCP for MCG SRB1	Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro;Wong, Shin Horng;Beale, Martin Warwick	I-17-106-WO-PCT	PCT/EP2018/070897	01 Aug 2018	01 Aug 2017
Configuration of NR-PDCP for MCG SRB1	Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro;Wong, Shin Horng;Beale, Martin Warwick	I-17-106-EP-FW/F	17184361.8	01 Aug 2017	01 Aug 2017
User plane data integrity check at HO	Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-105-EP-FW/F	17184591.0	02 Aug 2017	02 Aug 2017
User plane data integrity check at HO	Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-105-WO-PCT	PCT/EP2018/070886	01 Aug 2018	02 Aug 2017
Interference mitigation for cellular communication for Aerial Vehicles	Tsuda, Shinichiro;Wakabayashi, Hideji	I-17-095-WO-PCT	PCT/EP2018/070357	26 Jul 2018	07 Sep 2017
Interference mitigation for cellular communication for Aerial Vehicles	Tsuda, Shinichiro;Wakabayashi, Hideji	I-17-095-EP-FW/F	17189880.2	07 Sep 2017	07 Sep 2017
LTE-NR co-existence with simultaneous UL transmissions based on UE triggered solution	Wei, Yuxin;Sharma, Vivek;Berggren, Anders;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-132-EP-FW/F	17193901.0	28 Sep 2017	28 Sep 2017
LTE-NR co-existence with simultaneous UL transmissions based on UE triggered solution	Wei, Yuxin;Sharma, Vivek;Berggren, Anders;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-132-WO-PCT	PCT/EP2018/076085	26 Sep 2018	28 Sep 2017
NR Cell TDD pattern exchange and MDT enhancements	Sharma, Vivek;Wei, Yuxin;Berggren, Anders;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-133-EP-FW/F	17193856.6	28 Sep 2017	28 Sep 2017



NR Cell TDD pattern exchange and MDT enhancements	Sharma, Vivek;Wei, Yuxin;Berggren, Anders;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-133- WO-PCT	PCT/EP2018/076264	27 Sep 2018	28 Sep 2017
Temporary UE capability band combination update	Sharma, Vivek;Wei, Yuxin;Berggren, Anders;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-134- WO-PCT	PCT/EP2018/077026	04 Oct 2018	05 Oct 2017
Temporary UE capability band combination update	Sharma, Vivek;Wei, Yuxin;Berggren, Anders;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-134-EP- FFWF	17195072.8	05 Oct 2017	05 Oct 2017
On-demand system information for positioning assistance information	Wakabayashi, Hideji;Berggren, Anders;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro	I-17-137-EP- FFWF	17199204.3	30 Oct 2017	30 Oct 2017
On-demand system information for positioning assistance information	Wakabayashi, Hideji;Berggren, Anders;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro	I-17-137- WO-PCT	PCT/EP2018/079162	24 Oct 2018	30 Oct 2017
A provision of assistance information for accurate positioning under cellular system	Tsuda, Shinichiro;Wakabayashi, Hideji;Sharma, Vivek;Wei, Yuxin;Berggren, Anders	I-17-154- WO-PCT	PCT/EP2018/080676	08 Nov 2018	15 Nov 2017
A provision of assistance information for accurate positioning under cellular system	Tsuda, Shinichiro;Wakabayashi, Hideji;Sharma, Vivek;Wei, Yuxin;Berggren, Anders	I-17-154-EP- FFWF	17201949.9	15 Nov 2017	15 Nov 2017
Validity area and duration based positioning assistance information	Wei, Yuxin;Wakabayashi, Hideji;Berggren, Anders;Sharma, Vivek;Tsuda, Shinichiro	I-17-155- WO-PCT	PCT/EP2018/080794	09 Nov 2018	15 Nov 2017
Validity area and duration based positioning assistance information	Wei, Yuxin;Wakabayashi, Hideji;Berggren, Anders;Sharma, Vivek;Tsuda, Shinichiro	I-17-155-EP- FFWF	17201963.0	15 Nov 2017	15 Nov 2017
Service based SI broadcast	Wei, Yuxin;Sharma, Vivek;Wakabayashi, Hideji	I-17-156- WO-PCT	PCT/EP2018/081460	15 Nov 2018	15 Nov 2017

Service based SI broadcast	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Hideji	I-17-156-EP-FWFF	17201917.6	15 Nov 2017	15 Nov 2017
Encryption of Positioning SI	Sharma, Vivek; Wakabayashi, Hideji; Wei, Yuxin; Tsuda, Shinichiro	I-17-158-WO-PCT	PCT/EP2018/081365	15 Nov 2018	16 Nov 2017
Encryption of Positioning SI	Sharma, Vivek; Wakabayashi, Hideji; Wei, Yuxin; Tsuda, Shinichiro	I-17-158-EP-FWFF	17202193.3	16 Nov 2017	16 Nov 2017
Failure handling of encrypted Positioning assistance information	Sharma, Vivek; Wakabayashi, Hideji; Wei, Yuxin; Tsuda, Shinichiro	I-17-159-WO-PCT	PCT/EP2018/081463	15 Nov 2018	16 Nov 2017
Failure handling of encrypted Positioning assistance information	Sharma, Vivek; Wakabayashi, Hideji; Wei, Yuxin; Tsuda, Shinichiro	I-17-159-EP-FWFF	17202195.8	16 Nov 2017	16 Nov 2017
Support of idle mode operation for cellular communication for Aerial Vehicles	Tsuda, Shinichiro; Wakabayashi, Hideji; Wei, Yuxin; Sharma, Vivek	I-17-161-WO-PCT	PCT/EP2018/082163	22 Nov 2018	24 Nov 2017
Support of idle mode operation for cellular communication for Aerial Vehicles	Tsuda, Shinichiro; Wakabayashi, Hideji; Wei, Yuxin; Sharma, Vivek	I-17-161-EP-FWFF	17203662.6	24 Nov 2017	24 Nov 2017
Notification of system information change for unexpected change of positioning assistance information	Wakabayashi, Hideji; Berggren, Anders; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro	I-17-165-EP-FWFF	17204751.6	30 Nov 2017	30 Nov 2017
Notification of system information change for unexpected change of positioning assistance information	Wakabayashi, Hideji; Berggren, Anders; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro	I-17-165-WO-PCT	PCT/EP2018/082894	28 Nov 2018	30 Nov 2017

Network push SI - Assistance information provision for handover UAVs	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-17-169-EP-FPWF	17205827.3	07 Dez 2017	07 Dez 2017
Network push SI - Assistance information provision for handover UAVs	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-17-169-WO-PCT	PCT/EP2018/083740	06 Dez 2018	07 Dez 2017
Hybrid positioning and multi-level sensor activation	Wakabayashi, Hideji; Berggren, Anders; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro	I-17-185-EP-FPWF	17208148.1	18 Dez 2017	18 Dez 2017
Hybrid positioning and multi-level sensor activation	Wakabayashi, Hideji; Berggren, Anders; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro	I-17-185-WO-PCT	PCT/EP2018/085047	14 Dez 2018	18 Dez 2017
Hybrid positioning and the trigger of preemptive communication for data cache	Wakabayashi, Hideji; Berggren, Anders; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro	I-17-186-EP-FPWF	17208146.5	18 Dez 2017	18 Dez 2017
Hybrid positioning and the trigger of preemptive communication for data cache	Wakabayashi, Hideji; Berggren, Anders; Wei, Yuxin; Sharma, Vivek; Tsuda, Shinichiro	I-17-186-WO-PCT	PCT/EP2018/085048	14 Dez 2018	18 Dez 2017
UAV landing and change of mobility parameters	Sharma, Vivek; Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro	I-17-205-EP-FPWF	18150799.7	09 Jan 2018	09 Jan 2018
UAV landing and change of mobility parameters	Sharma, Vivek; Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro	I-17-205-WO-PCT	PCT/EP2019/050466	09 Jan 2019	09 Jan 2018
RRC connection release for UAVs	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-17-203-WO-PCT	PCT/EP2019/050426	09 Jan 2019	11 Jan 2018
RRC connection release for UAVs	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-17-203-EP-FPWF	18151273.2	11 Jan 2018	11 Jan 2018
Enhancements for UAVs in inactive state with flight path plan.	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-17-208-EP-FPWF	18151297.1	11 Jan 2018	11 Jan 2018

Enhancements for UAVs in inactive state with flight path plan.	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-17-208- WO-PCT	PCT/EP2019/050120	03 Jan 2019	11 Jan 2018
Relay node system information handling for remote node in IAB	Sharma, Vivek; Wakabayashi, Hideji; Wei, Yuxin	I-18-001-EP- FPWF	18151305.2	11 Jan 2018	11 Jan 2018
Relay node system information handling for remote node in IAB	Sharma, Vivek; Wakabayashi, Hideji; Wei, Yuxin	I-18-001- WO-PCT	PCT/EP2019/050111	03 Jan 2019	11 Jan 2018
Different mobility handling for bearers related to single AR/VR/MR service	Sharma, Vivek; Wakabayashi, Hideji; Bergren, Anders; Wei, Yuxin	I-18-002-EP- FPWF	18152654.2	19 Jan 2018	19 Jan 2018
Different mobility handling for bearers related to single AR/VR/MR service	Sharma, Vivek; Wakabayashi, Hideji; Bergren, Anders; Wei, Yuxin	I-18-002- WO-PCT	PCT/EP2019/050969	15 Jan 2019	19 Jan 2018
Network push SI for RRC_INACTIVE UEs	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-18-011-EP- FPWF	18156916.1	15 Feb 2018	15 Feb 2018
Network push SI for RRC_INACTIVE UEs	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Hideji; Tsuda, Shinichiro	I-18-011- WO-PCT	PCT/EP2019/052408	31 Jan 2019	15 Feb 2018
GUTI related information in MGS5 while moving from SGC to EPC	Sharma, Vivek; Alnäs, Svante; Nord, Lars; Wakabayashi, Hideji; Bergren, Anders; Wei, Yuxin	I-18-024- WO-PCT	PCT/EP2019/053333	11 Feb 2019	15 Feb 2018
GUTI related information in MGS5 while moving from SGC to EPC	Sharma, Vivek; Alnäs, Svante; Nord, Lars; Wakabayashi, Hideji; Bergren, Anders; Wei, Yuxin	I-18-024-EP- FPWF	18157035.9	15 Feb 2018	15 Feb 2018
Candidate route management in IAB	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Hideji	I-18-041-EP- FPWF	18164770.2	28 Mrz 2018	28 Mrz 2018
Active route selection in IAB	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Hideji	I-18-042-EP- FPWF	18164792.6	28 Mrz 2018	28 Mrz 2018

Assignment Inventor to SEU to Sony Corp.

ACB for IAB node	Sharma, Vivek, Wakabayashi, Hidelfi, Wei, Yuxin	I-18-043-EP- FFWF	18164804.9	28 Mrz 2018	28 Mrz 2018
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**FULL INVENTOR ASSIGNMENT**

WHEREAS, I, as a named inventor listed on the attached APPENDIX (hereinafter referred to as "APPENDIX"), have invented certain new and useful improvements in the invention(s) listed on the same, for which an application for Letters Patent was executed on the priority date included thereon;

AND WHEREAS, SONY EUROPE LIMITED, a corporation organized and existing under the laws of the United Kingdom, with offices at The Heights, Brooklands, Weybridge, Surrey, KT13 0XW, United Kingdom (hereinafter referenced as "ASSIGNEE SEU"), in accordance with my employment agreement and/or with a preexisting agreement or mutual understanding between myself and ASSIGNEE SEU, is desirous of acquiring my entire right, title and interest in, to and under said invention(s), said application(s) disclosing the invention(s) and in, to and under any Letters Patent or similar legal protection which may be granted therefor in any and all countries worldwide (including in the territory of the United States of America);

NOW THEREFORE, after good and valuable consideration or in consideration of the recognized value of any past and/or potential collaborative projects in the future, the receipt and sufficiency of which are hereby acknowledged, I, as an inventor as indicated above, by these presents do hereby assign, sell and transfer unto said ASSIGNEE SEU, the entire right, title and interest in and to the said invention(s), said application(s), including any divisions, continuations, substitutions and renewals thereof, and in and to any and all Letters Patent which may be granted for said invention(s), in any country (including the territory of the United States of America), and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents or other industrial property protection throughout the world (including in the territory of the United States of America) in respect of the inventions which are the subjects of the applications for Letters Patent described herein, and this conveyance of interest includes the right for the ASSIGNEE SEU, or its successors, assigns, and/or legal representatives, to bring, make, oppose, defend, appeal proceedings, claims or actions and obtain relief (and to retain any damages recovered) in respect of any infringement, or any other cause of action arising from ownership, of

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any of the Patents or any patents granted on any of the applications for patents or filed as aforesaid, whether occurring before, on or after the date of this agreement.


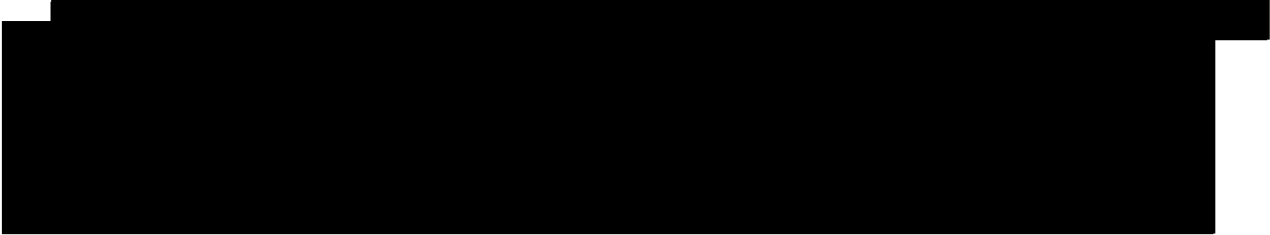
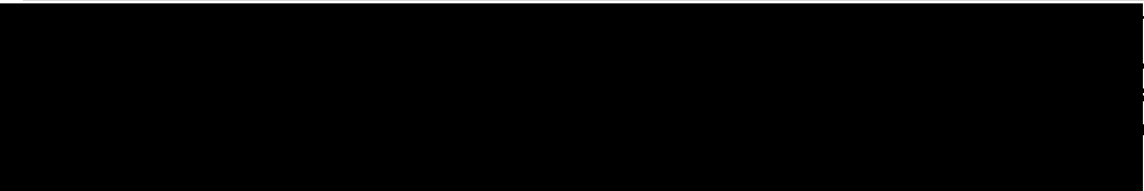
I, as an inventor, further declare that I either have the obligation to assign or have already assigned the full and exclusive rights in and to any inventions made during my employment to said ASSIGNEE SEU based on my employment contract with said ASSIGNEE SEU, and/or that said ASSIGNEE SEU has obtained full and exclusive rights in and to any such inventions based on applicable national law or in accordance with a preexisting agreement or mutual understanding between myself and ASSIGNEE SEU, and that by this Assignment such transfer of right, title and interest in such inventions to said ASSIGNEE SEU is herewith confirmed or restated.

[REDACTED]

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Assignment Inventor to SEU 

The undersigned inventor and ASSIGNEE SEU hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale;

And the undersigned inventor and ASSIGNEE SEU hereby authorize and request the attorney(s) of record in this application to insert on the APPENDIX any further identification, including the filing date and application number of the country in which an application for Letters Patent has been or will be subsequently filed, which may be necessary or desirable in order to comply with the rules of the patent office of that country for recordation of this document.

This Assignment Agreement shall be governed by and construed under the laws of the State of New York, United States of America, without regard to conflict of laws principles, all rights and remedies being governed by said laws.



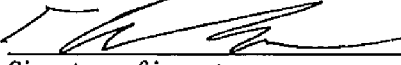
Assignment Inventor to SEU 

This assignment executed on the dates indicated below.

Shinichiro Tsuda

Name of inventor

Execution date of this assignment [DD/MONTH/YYYY]




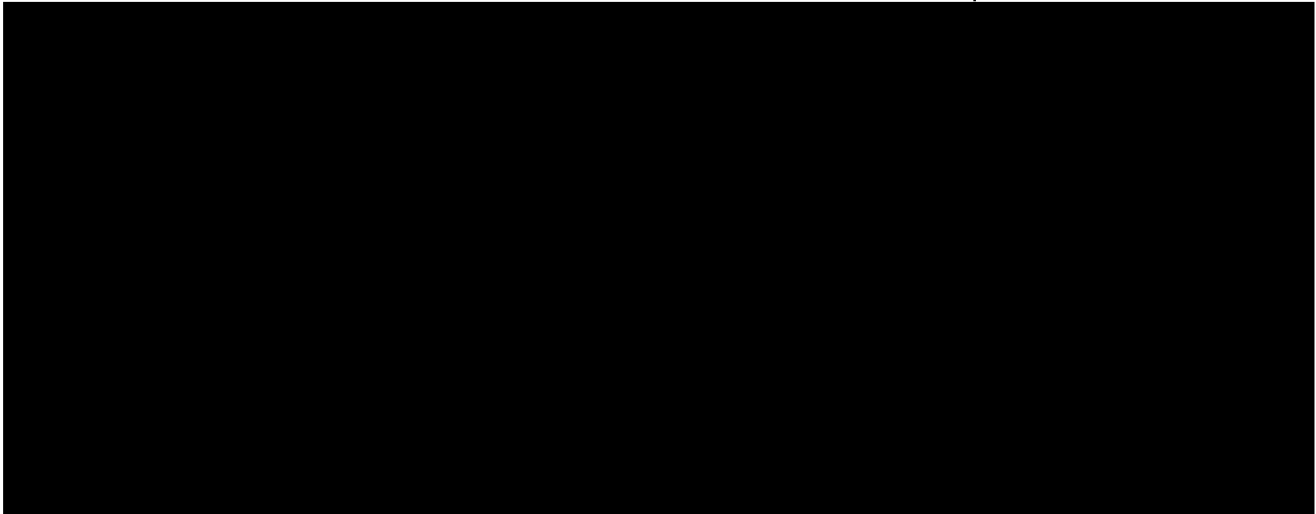
20th Feb. 2019

Signature of inventor

SONY EUROPE LIMITED

Date: 12/03/2019  
[DD/MONTH/YYYY]

By:   
Name: Matthias KABELITZ  
Title: Intellectual Property Senior Manager  
As duly authorized officer



APPENDIX

Title	Inventors	Sony IPE ref.	Application Number	Filing Date	Priority Date
Scheduling assignment for multicarrier D2D communication	Martin, Brian Alexander; Wakabayashi, Hideji; Tsuda, Shinichiro	I-14-132- WO-PCT	PCT/EP2016/050185	07 Jan 2016	29 Jan 2015
Scheduling assignment for multicarrier D2D communication	Martin, Brian Alexander; Wakabayashi, Hideji; Tsuda, Shinichiro	I-14-132-US- CNT	16/231698	24 Dez 2018	29 Jan 2015
Scheduling assignment for multicarrier D2D communication	Martin, Brian Alexander; Wakabayashi, Hideji; Tsuda, Shinichiro	I-14-132-US- PCT	15/544106	07 Jan 2016	29 Jan 2015
D2D carrier switching	Martin, Brian Alexander; Wakabayashi, Hideji; Tsuda, Shinichiro	I-15-006-US- PCT	15/544038	07 Jan 2016	29 Jan 2015
D2D carrier switching	Martin, Brian Alexander; Wakabayashi, Hideji; Tsuda, Shinichiro	I-15-006- WO-PCT	PCT/EP2016/050187	07 Jan 2016	29 Jan 2015
D2D handover beacon triggering	Martin, Brian Alexander; Wakabayashi, Hideji; Tsuda, Shinichiro	I-15-001-US- PCT	15/548433	03 Feb 2016	11 Feb 2015
D2D handover beacon triggering	Martin, Brian Alexander; Wakabayashi, Hideji; Tsuda, Shinichiro	I-15-001- WO-PCT	PCT/EP2016/052283	03 Feb 2016	11 Feb 2015
D2D handover beacon triggering	Martin, Brian Alexander; Wakabayashi, Hideji; Tsuda, Shinichiro	I-15-001-US- CNT	16/194720	19 Nov 2018	11 Feb 2015
D2D dynamic relay selection	Martin, Brian Alexander; Wakabayashi, Hideji; Tsuda, Shinichiro	I-15-004- WO-PCT	PCT/EP2016/051602	26 Jan 2016	11 Feb 2015

D2D dynamic relay selection	Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-004-US-PCT	15/548634		26 Jan 2016	11 Feb 2015
D2D relay dual connection	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro	I-15-038-US-PCT	15/570794		21 Apr 2016	11 Mai 2015
D2D relay dual connection	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro	I-15-038-WO-PCT	PCT/EP2016/058897		21 Apr 2016	11 Mai 2015
D2D handover beacon release timer	Martin, Brian Alexander;Tsuda, Shinichiro	I-15-054-WO-PCT	PCT/EP2016/060524		11 Mai 2016	15 Mai 2015
D2D handover beacon release timer	Martin, Brian Alexander;Tsuda, Shinichiro	I-15-054-US-PCT	15/564829		11 Mai 2016	15 Mai 2015
Coverage extension by D2D UE-NW relay for UE in idle mode	Tsuda, Shinichiro;Martin, Brian Alexander;Wakabayashi, Hideji	I-15-056-WO-PCT	PCT/EP2016/058854		21 Apr 2016	22 Mai 2015
Coverage extension by D2D UE-NW relay for UE in idle mode	Tsuda, Shinichiro;Martin, Brian Alexander;Wakabayashi, Hideji	I-15-056-US-PCT	15/564333		21 Apr 2016	22 Mai 2015
Global synchronization for V2X	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro;Kahtava, Jussi Tapani;Uchiyama, Hiromasa	I-15-074-US-PCT	15/740880		14 Jul 2016	29 Jul 2015
Global synchronization for V2X	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro;Kahtava, Jussi Tapani;Uchiyama, Hiromasa	I-15-074-WO-PCT	PCT/EP2016/066755		14 Jul 2016	29 Jul 2015
Synchronization process with global synchronization for V2X	Wakabayashi, Hideji;Martin, Brian Alexander;Tsuda, Shinichiro;Kahtava, Jussi Tapani	I-15-095-WO-PCT	PCT/EP2016/066695		13 Jul 2016	19 Aug 2015

Synchronization process with global synchronization for VZX	Wakabayashi, Hideji; Martin, Brian Alexander; Tsuda, Shinichiro; Khatava, Jussi Tapani	I-15-095-US-PCT	15/743526	13 Jul 2016	19 Aug 2015
Coverage extension and low load technique for massive connection of MTC	Tsuda, Shinichiro; Koulakiotis, Dimitris; Wakabayashi, Hideji	I-15-088-US-PCT	15/752053	08 Sep 2016	25 Sep 2015
Coverage extension and low load technique for massive connection of MTC	Tsuda, Shinichiro; Koulakiotis, Dimitris; Wakabayashi, Hideji	I-15-088-WO-PCT	PCT/EP2016/071182	08 Sep 2016	25 Sep 2015
Relay UE Selection for D2D Link	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro	I-15-103-US-PCT	15/753075	21 Sep 2016	01 Okt 2015
Relay UE Selection for D2D Link	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro	I-15-103-WO-PCT	PCT/EP2016/072452	21 Sep 2016	01 Okt 2015
UE-to-UE relay establishment signalling	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro	I-15-105-WO-PCT	PCT/EP2016/073313	29 Sep 2016	02 Okt 2015
UE-to-UE relay establishment signalling	Wei, Yuxin; Wakabayashi, Hideji; Tsuda, Shinichiro	I-15-105-US-PCT	15/752914	29 Sep 2016	02 Okt 2015
Implicit DRX command using RLC	Martin, Brian Alexander; Beale, Martin Warwick; Wong, Shin Horng; Tsuda, Shinichiro	I-15-130-US-PCT	15/771526	14 Okt 2016	05 Nov 2015
Implicit DRX command using RLC	Martin, Brian Alexander; Beale, Martin Warwick; Wong, Shin Horng; Tsuda, Shinichiro	I-15-130-WO-PCT	PCT/EP2016/074766	14 Okt 2016	05 Nov 2015
P-RNTI partitioning for paging of MTC devices	Martin, Brian Alexander; Beale, Martin Warwick; Wong, Shin Horng; Tsuda, Shinichiro	I-15-140-US-PCT	15/771509	17 Okt 2016	06 Nov 2015

P-RNTT partitioning for paging of MTC devices	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Tsuda, Shinichiro	I-15-140- WO-PCT	PCT/EP2016/074897	17 Okt 2016	06 Nov 2015
High Priority Narrowband for NB-IoT operations	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Tsuda, Shinichiro	I-15-142- WO-PCT	PCT/EP2016/074582	13 Okt 2016	06 Nov 2015
High Priority Narrowband for NB-IoT operations	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Tsuda, Shinichiro	I-15-142-US- PCT	15/770843	13 Okt 2016	06 Nov 2015
Virtual cell RRC connection control	Wakabayashi, Hideji;Wei, Yuxin;Tsuda, Shinichiro	I-15-121- WO-PCT	PCT/EP2016/072436	21 Sep 2016	09 Nov 2015
Virtual cell RRC connection control	Wakabayashi, Hideji;Wei, Yuxin;Tsuda, Shinichiro	I-15-121-US- PCT	15/772409	21 Sep 2016	09 Nov 2015
High priority synchronization source for V2X	Martin, Brian Alexander;Uchiyama, Hiromasa;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-108-US- PCT	15/775162	07 Okt 2016	13 Nov 2015
High priority synchronization source for V2X	Martin, Brian Alexander;Uchiyama, Hiromasa;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-108- WO-PCT	PCT/EP2016/074019	07 Okt 2016	13 Nov 2015
Virtual Cell Paging	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-137-US- PCT	16/060193	12 Dez 2016	17 Dez 2015
Virtual Cell Paging	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-15-137- WO-PCT	PCT/EP2016/080695	12 Dez 2016	17 Dez 2015
Virtual Cell operation and RRC state Management	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-15-132-US- PCT	15/781492	12 Dez 2016	21 Dez 2015

Virtual Cell operation and RRC state Management	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-15-132- WO-PCT	PCT/EP2016/080696	12 Dez 2016	21 Dez 2015
Inter-RAT device group capabilities	Martin, Brian Alexander;Wei, Yuxin;Beale, Martin Warwick;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-123-US- PCT	16/075264	13 Jan 2017	04 Feb 2016
Inter-RAT device group capabilities	Martin, Brian Alexander;Wei, Yuxin;Beale, Martin Warwick;Tsuda, Shinichiro;Wakabayashi, Hideji	I-15-123- WO-PCT	PCT/EP2017/050649	13 Jan 2017	04 Feb 2016
Virtual cell group handover	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Martin, Brian Alexander	I-15-149- WO-PCT	PCT/EP2017/054915	02 Mrz 2017	16 Mrz 2016
Virtual cell group handover	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Martin, Brian Alexander	I-15-149-US- PCT	16/082286	02 Mrz 2017	16 Mrz 2016
Paging via relay with cellular fallback indication	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-037-US- PCT	16/090217	13 Mrz 2017	01 Apr 2016
Paging via relay with cellular fallback indication	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-037- WO-PCT	PCT/EP2017/055871	13 Mrz 2017	01 Apr 2016
Layered System Information AND Connection Oriented and Connection-less Communication for Virtual Cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-015-US- PCT	16/091538	30 Mrz 2017	06 Apr 2016
Layered System Information AND Connection Oriented and Connection-less Communication for Virtual Cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-015- WO-PCT	PCT/EP2017/057625	30 Mrz 2017	06 Apr 2016

Virtual Cell operation and RRC state management for reduction of measurement overhead	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-16-018-WO-PCT	PCT/EP2017/058250	06 Apr 2017	06 Apr 2016
Virtual Cell operation and RRC state management for reduction of measurement overhead	Tsuda, Shinichiro;Wei, Yuxin;Wakabayashi, Hideji	I-16-018-US-PCT	16/091318	06 Apr 2017	06 Apr 2016
Contention based uplink transmission for V2X services	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-026-US-PCT	16/091236	20 Mar 2017	07 Apr 2016
Contention based uplink transmission for V2X services	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-026-WO-PCT	PCT/EP2017/056597	20 Mar 2017	07 Apr 2016
UE centric operation with virtual cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-044-WO-PCT	PCT/EP2017/057626	30 Mar 2017	10 Mai 2016
UE centric operation with virtual cell	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-044-US-PCT	16/097840	30 Mar 2017	10 Mai 2016
Uplink based inter-control unit (CU) handover	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-069-WO-PCT	PCT/EP2017/058784	12 Apr 2017	20 Mai 2016
Uplink based inter-control unit (CU) handover	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-069-US-PCT	16/303146	12 Apr 2017	20 Mai 2016
Random access with relay	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-058-US-PCT	16/312580	09 Mai 2017	22 Jun 2016

Random access with relay	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-058- WO-PCT	PCT/EP2017/061029	09 Mai 2017	22 Jun 2016
Buffer Status Reporting (BSR) with relay - not reverse	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-051-US- PCT	16/313055	09 Mai 2017	24 Jun 2016
Buffer Status Reporting (BSR) with relay - not reverse	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-051- WO-PCT	PCT/EP2017/061048	09 Mai 2017	24 Jun 2016
Mobility management depending on UE mobility	Tsuda, Shinichiro;Wakabayashi, Hideji;Martin, Brian Alexander;Wei, Yuxin	I-16-065-US- PCT	16/314449	28 Jun 2017	30 Jun 2016
Mobility management depending on UE mobility	Tsuda, Shinichiro;Wakabayashi, Hideji;Martin, Brian Alexander;Wei, Yuxin	I-16-065- WO-PCT	PCT/EP2017/066016	28 Jun 2017	30 Jun 2016
System information provision with beamforming	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Martin, Brian Alexander	I-16-066-US- PCT	16/313217	29 Mai 2017	30 Jun 2016
System information provision with beamforming	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Martin, Brian Alexander	I-16-066- WO-PCT	PCT/EP2017/062854	29 Mai 2017	30 Jun 2016
On demand system information	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-089-US- PCT	16/317835	21 Jul 2017	22 Jul 2016
On demand system information	Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-089- WO-PCT	PCT/EP2017/068490	21 Jul 2017	22 Jul 2016
RRC diversity	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Martin, Brian Alexander	I-16-084- WO-PCT	PCT/EP2017/070521	11 Aug 2017	11 Aug 2016



RRC diversity	Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro;Martin, Brian Alexander	I-16-084-US-PCT	16/324577	11 Aug 2017	11 Aug 2016
RRC in tight interworking of LTE and NR architecture	Tsuda, Shinichiro;Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji	I-16-090-WO-PCT	PCT/EP2017/070518	11 Aug 2017	11 Aug 2016
RRC in tight interworking of LTE and NR architecture	Tsuda, Shinichiro;Wei, Yuxin;Martin, Brian Alexander;Wakabayashi, Hideji	I-16-090-US-PCT	16/324173	11 Aug 2017	11 Aug 2016
Dual RRC - RLF recovery	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-106-WO-PCT	PCT/EP2017/068401	20 Jul 2017	12 Aug 2016
Dual RRC - RLF recovery	Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-106-US-PCT	16/323262	20 Jul 2017	12 Aug 2016
Handling of MCG resources for a SCG split bearer due to security procedure	Sharma, Vivek;Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-150-WO-PCT	PCT/EP2017/071772	30 Aug 2017	28 Sep 2016
UE additional information reporting during connection establishment	Sharma, Vivek;Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-161-WO-PCT	PCT/EP2017/073196	14 Sep 2017	29 Sep 2016
System information area enhancement for NR	Wei, Yuxin;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-155-WO-PCT	PCT/EP2017/075371	05 Oct 2017	06 Oct 2016
NR MDT enhancements to collect measurements related to interference at higher frequency	Sharma, Vivek;Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-169-WO-PCT	PCT/EP2017/075431	05 Oct 2017	07 Oct 2016
System information enhancement for NR	Wei, Yuxin;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda,	I-16-178-WO-PCT	PCT/EP2017/077531	26 Oct 2017	28 Oct 2016

	Shinichiro						
On-demand SI and network overload	Sharma, Vivek;Martin, Brian Alexander;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-181- WO-PCT	PCT/EP2017/075068		03 Okt 2017	03 Nov 2016	
Cell quality evaluation using multiple beam measurements	Martin, Brian Alexander;Beale, Martin Warwick;Wong, Shin Horng;Wei, Yuxin;Atungsir, Samuel Asangbeng;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro;Kosta, Chrysovalantis	I-16-182- WO-PCT	PCT/EP2017/076260		13 Okt 2017	04 Nov 2016	
Index based NR SI Table Update Procedure	Wei, Yuxin;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-200- WO-PCT	PCT/EP2017/084279		21 Dez 2017	22 Dez 2016	
RLF Report enhancement	Sharma, Vivek;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro;Wei, Yuxin	I-16-206- WO-PCT	PCT/EP2017/084280		21 Dez 2017	22 Dez 2016	
RRC Inactive State Paging for downlink transmission	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji;Berggren, Anders	I-16-207- WO-PCT	PCT/EP2017/080828		29 Nov 2017	23 Dez 2016	
Mobility handling in Inter-RAT NR-LTE coexistence	Sharma, Vivek;Beale, Martin Warwick;Martin, Brian Alexander;Wong, Shin Horng;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-214- WO-PCT	PCT/EP2018/050031		02 Jan 2018	04 Jan 2017	
Triggering of mobility reference signals using cell specific reference signals	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji	I-16-208- WO-PCT	PCT/EP2017/083279		18 Dez 2017	05 Jan 2017	

Inter-RAT Scheduling for NR-LTE Interworking	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-210- WO-PCT	PCT/EP2017/081501	05 Dez 2017	05 Jan 2017
Flexible FDD operation using TDD band	Wong, Shin Horng;Beale, Martin Warwick;Martin, Brian Alexander;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-16-201- WO-PCT	PCT/EP2017/083899	20 Dez 2017	06 Jan 2017
RRC Inactive State Paging for uplink tracking signal reconfiguration	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji;Berggren, Anders	I-16-217- WO-PCT	PCT/EP2017/082858	14 Dez 2017	12 Jan 2017
New UE ID and blind detection method	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro;Wakabayashi, Hideji;Atungslir, Samuel Asangbeng	I-17-009- WO-PCT	PCT/EP2018/052489	01 Feb 2018	03 Feb 2017
SLSS anchor narrowband for relay	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Uchiyama, Hiromasa;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-029- WO-PCT	PCT/EP2018/057366	22 Mrz 2018	24 Mrz 2017
Open Loop Power control for remote device	Martin, Brian Alexander;Wong, Shin Horng;Beale, Martin Warwick;Uchiyama, Hiromasa;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-036- WO-PCT	PCT/EP2018/055089	01 Mrz 2018	31 Mrz 2017
Maintaining MCG/SCG MAC entity during bearer type switching in EN-DC	Sharma, Vivek;Martin, Brian Alexander;Tsuda, Shinichiro;Wakabayashi, Hideji	I-17-051- WO-PCT	PCT/EP2018/055800	08 Mrz 2018	27 Apr 2017
5GC to/from EPC handover in LTE cell	Sharma, Vivek;Martin, Brian Alexander;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-056- WO-PCT	PCT/EP2018/060754	26 Apr 2018	05 Mai 2017

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**PATENT**

ANR enhancement for LTE cell connected to 5GC/EPC	Sharma, Vivek;Martin, Brian Alexander;Tsuda, Shinichiro;Wakabayashi, Hideji	I-17-058- WO-PCT	PCT/EP2018/060721	26 Apr 2018	05 Mai 2017
Non text based PWS	Sharma, Vivek;Martin, Brian Alexander;Tsuda, Shinichiro;Wakabayashi, Hideji;Wong, Shin Horng	I-17-076- WO-PCT	PCT/EP2018/065798	14 Jun 2018	23 Jun 2017
Configuration of NR-PDCP for MCG SRB1	Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro;Wong, Shin Horng;Beale, Martin Warwick	I-17-106- WO-PCT	PCT/EP2018/070897	01 Aug 2018	01 Aug 2017
User plane data integrity check at HO	Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-105- WO-PCT	PCT/EP2018/070886	01 Aug 2018	02 Aug 2017
Interference mitigation for cellular communication for Aerial Vehicles	Tsuda, Shinichiro;Wakabayashi, Hideji	I-17-095- WO-PCT	PCT/EP2018/070357	26 Jul 2018	07 Sep 2017
LTE-NR co-existence with simultaneous UL transmissions based on UE triggered solution	Wei, Yuxin;Sharma, Vivek;Berggren, Anders;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-132- WO-PCT	PCT/EP2018/076085	26 Sep 2018	28 Sep 2017
NR Cell TDD pattern exchange and MDT enhancements	Sharma, Vivek;Wei, Yuxin;Berggren, Anders;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-133- WO-PCT	PCT/EP2018/076264	27 Sep 2018	28 Sep 2017
Temporary UE capability band combination update	Sharma, Vivek;Wei, Yuxin;Berggren, Anders;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-134- WO-PCT	PCT/EP2018/077026	04 Okt 2018	05 Okt 2017
On-demand system information for positioning assistance information	Wakabayashi, Hideji;Berggren, Anders;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro	I-17-137- WO-PCT	PCT/EP2018/079162	24 Okt 2018	30 Okt 2017
A provision of assistance information for accurate positioning under cellular system	Tsuda, Shinichiro;Wakabayashi, Hideji;Sharma, Vivek;Wei, Yuxin;Berggren, Anders	I-17-154- WO-PCT	PCT/EP2018/080676	08 Nov 2018	15 Nov 2017

Validity area and duration based positioning assistance information	Wei, Yuxin;Wakabayashi, Hideji;Berggren, Anders;Sharma, Vivek;Tsuda, Shinichiro	I-17-155- WO-PCT	PCT/EP2018/080794	09 Nov 2018	15 Nov 2017
Encryption of Positioning SI	Sharma, Vivek;Wakabayashi, Hideji;Wei, Yuxin;Tsuda, Shinichiro	I-17-158- WO-PCT	PCT/EP2018/081365	15 Nov 2018	16 Nov 2017
Failure handling of encrypted Positioning assistance Information	Sharma, Vivek;Wakabayashi, Hideji;Wei, Yuxin;Tsuda, Shinichiro	I-17-159- WO-PCT	PCT/EP2018/081463	15 Nov 2018	16 Nov 2017
Support of idle mode operation for cellular communication for Aerial Vehicles	Tsuda, Shinichiro;Wakabayashi, Hideji;Wei, Yuxin;Sharma, Vivek	I-17-161- WO-PCT	PCT/EP2018/082163	22 Nov 2018	24 Nov 2017
Notification of system information change for unexpected change of positioning assistance information	Wakabayashi, Hideji;Berggren, Anders;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro	I-17-165- WO-PCT	PCT/EP2018/082894	28 Nov 2018	30 Nov 2017
Network push SI - Assistance information provision for handover UAVs	Wei, Yuxin;Sharma, Vivek;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-169- WO-PCT	PCT/EP2018/083740	06 Dez 2018	07 Dez 2017
Hybrid positioning and multi-level sensor activation	Wakabayashi, Hideji;Berggren, Anders;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro	I-17-185- WO-PCT	PCT/EP2018/085047	14 Dez 2018	18 Dez 2017
Hybrid positioning and the trigger of preemptive communication for data cache	Wakabayashi, Hideji;Berggren, Anders;Wei, Yuxin;Sharma, Vivek;Tsuda, Shinichiro	I-17-186- WO-PCT	PCT/EP2018/085048	14 Dez 2018	18 Dez 2017
UAV landing and change of mobility parameters	Sharma, Vivek;Wei, Yuxin;Wakabayashi, Hideji;Tsuda, Shinichiro	I-17-205- WO-PCT	PCT/EP2019/050466	09 Jan 2019	09 Jan 2018

Assignment Inventor to SEU to Sony Corp.

RRC connection release for UAVs	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Shinichiro	I-17-203- WO-PCT	PCT/EP2019/050426	09 Jan 2019	11 Jan 2018
Enhancements for UAVs in inactive state with flight path plan.	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Shinichiro; Hideji; Tsuda,	I-17-208- WO-PCT	PCT/EP2019/050120	03 Jan 2019	11 Jan 2018
Network push SI for RRC_INACTIVE UEs	Wei, Yuxin; Sharma, Vivek; Wakabayashi, Shinichiro; Hideji; Tsuda,	I-18-011- WO-PCT	PCT/EP2019/052408	31 Jan 2019	15 Feb 2018