

1) Family number: 53429021 (US2014321406A)

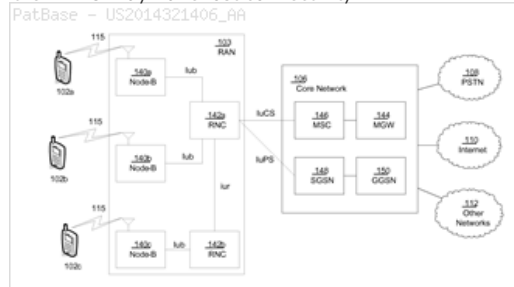
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Title: MULTIPOINT TRANSMISSION IN WIRELESS COMMUNICATION

Abstract: Embodiments contemplate wireless transmit/receive unit (WTRU) transmissions of different types of uplink channels and/or signals in a system deployment where multiple destination points may exist. Some embodiments contemplate that a WTRU may select the destination point of a transmission on a dynamic basis. In one or more systems where destination point selection from among multiple potential destination points may be possible for a WTRU transmission, some embodiments contemplate the determination of the handling of hybrid automatic repeat request (HARQ) retransmissions and for different power headroom reporting mechanisms. Embodiments also contemplate the reduction and/or inhibition of WTRU transmissions to destination points to which the WTRU may have lost connectivity.

Classifications:

International (IPC 8-9): H04B H04B1/38 H04B7/02 H04B7/024 H04B7/08 H04B7/26 H04J11/00 H04J99/00 H04L1/18 H04L29/02 H04W H04W16/28 H04W28/04 H04W28/16 H04W52/08 H04W52/14 H04W52/38 H04W72/04 H04W72/12 (Advanced/Invention)
CPC: H04W52/365 H04W72/0413 H04B7/2603 H04B7/024 H04B7/0802 H04W52/146
US: 370/329



Family:

Publication number	Publication date	Application number	Application date
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CN103891166 A	20140625	CN201280048314	20120930
CN108809364 A	20181113	CN201810338270	20120930
EP2761780 A1	20140806	EP20120772682	20120930
HK1195682 A1	20141114	HK20140108795	20140829
JP2014532355 T2	20141204	JP20140533459T	20120930
JP2016027763 A2	20160218	JP20150207430	20151021
JP2018026884 A2	20180215	JP20170222943	20171120
JP6068479 B2	20170125	JP20140533459T	20120930
JP6248082 B2	20171213	JP20150207430	20151021
KR20140071479 A	20140611	KR20147011799	20120930
RU2014117663 A	20151210	RU20140117663	20120930
RU2654052 C2	20180516	RU20140117663	20120930
TW201347423 A	20131116	TW20120136254	20121001
TW201731232 A	20170901	TW20170100893	20121001
TWI591971 B	20170711	TW20120136254	20121001
US2014321406 AA	20141030	US20120348866	20120930
WO13049769 A1	20130404	WO2012US58186	20120930

Priority:

US20110542145P	20110930	US20120591789P	20120127	US20120604399P	20120228
US20120616256P	20120327	US20120644827P	20120509	US20120678437P	20120801
CN201280048314	20120930	JP20140533459T	20120930	JP20150207430	20120930
WO2012US58186	20120930	US20120348866	20120930	JP20150207430	20151021
JP20170222943	20171120				

Probable Assignee: INTERDIGITAL PATENT HOLDINGS INC

Assignee(s): (std): INTERDIGITAL PEJENT KOLDINGZ INK ; INTERDIGITAL PATENT HOLDINGS ; INTERDIGITAL PATENT HOLDINGS INC

Inventor(s): (std): PATRICK J TOOHER ; PAUL MARINIER ; MARINE POL ; PELLETE GISLEN ; TUKHER DZH PATRIK ; TSAJ LUTSZIN ; GHYSLAIN PELLETIER ; J PATRICK TOOHER ; LUJING CAI ; PAUL MARNIER ; DIANA PANI ; PANI DIANA ; CAI LUJING ; TOOHER J PATRICK ; PELLETIER GHYSLAIN ; MARINIER PAUL

Inventor(s): TOOHER J

Agent(s): HJALMARSSON MAGNUS AXEL; CHINA PATENT AGENT HK LTD; TANI AND ABE PC; OOO YURIDICHESKAYA GORODISSKIY I PARTNER FA; ROCCIA VINCENT J ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

2) Family number: 54127318 (US2013155891A)

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Title: BEAMFORMING SIGNALING IN A WIRELESS NETWORK

Abstract: A first base station receives a message from a second base station. The second base station comprises a downlink carrier comprising downlink resource blocks. The message comprises downlink beamforming information element indicating a beamforming codeword employed for a downlink resource block. The first base station obtains channel state input

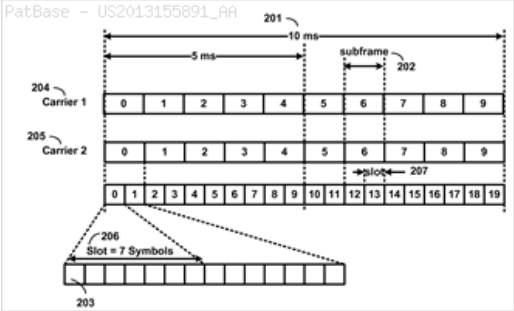
information for a wireless device based on, at least in part, processing the downlink beamforming information. The first base station transmits the channel state input information to the wireless device.

Classifications:

International (IPC 8-9): H04B7/02 H04B7/04 H04B7/0417 H04B7/0426 H04B7/0456 H04B7/06 H04B7/216 H04J11/00 H04L12/801 H04L25/03 H04L27/26 H04L29/06 H04L5/00 H04L5/14 H04Q11/04 H04W24/02 H04W28/02 H04W36/00 H04W36/08 H04W36/24 H04W36/30 H04W4/00 H04W72/04 H04W72/08 (Advanced/Invention); H04B7/04 H04B7/0417 H04W36/00 H04W36/08 H04W74/00 H04W88/08 (Advanced/Non-invention)

CPC: H04B7/063 H04B7/0634 H04B7/0639 H04L25/03955 H04L27/2646 H04B7/0626 H04B7/0417 H04B7/043 H04B7/0456 H04B7/046 H04B7/0473 H04B7/0478 H04B7/0617 H04J11/0056 H04L5/0023 H04L5/0053 H04L5/0073 H04W24/02 H04W28/0236 H04W36/0005 H04W36/0055 H04W36/0072 H04W36/0094 H04W36/08 H04W36/24 H04W36/30 H04W72/0406 H04W72/042 H04W72/0426 H04W72/044 H04W72/0453 H04W72/046 H04W72/082 H04W74/002 H04W88/08

US: 1/1 370/252 370/328 370/329 370/331 370/332 370/334 370/335 370/338 370/341 370/342 370/348 375/267 455/436 455/436 455/438



Family:

Publication number	Publication date	Application number	Application date
US2013155891 AA	20130620	US20120716135	20121215
US2013155975 AA	20130620	US20120716134	20121215
US2013156008 AA	20130620	US20120720906	20121219
US2013156009 AA	20130620	US20120720920	20121219
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US2015009946 AA	20150108	US20140499229	20140928
US2015063268 AA	20150305	US20140530703	20141101
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US2016080045 AA	20160317	US20150705446	20150506
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US2019158165 AA	20190523	US20190259309	20190128
US2019165844 AA	20190530	US20190264003	20190131
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US8913593 BB	20141216	US20120720920	20121219
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US9826442 BB	20171121	US20160206942	20160711
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US10236956 BB	20190319	US20180881045	20180126
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US10601476 BB	20200324	US20170730424	20171011

Priority:

US20110577203P	20111219	US20110577206P	20111219	US20110577208P	20111219
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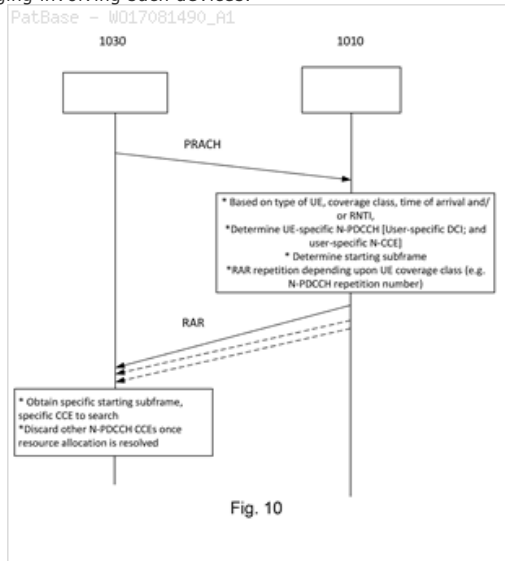
Title: METHOD OF INITIALISING PHYSICAL DOWNLINK CONTROL CHANNEL (PDCCH) FOR EMTC AND IOT DEVICES

Abstract: Messages are transmitted between devices and eNodeBs when initialising random access and user-specific resource allocation. In extending LTE to ultra-low complexity "internet of things" devices, a UE-specific N-PDCCH design is discussed that addresses the requirements of control channel messaging involving such devices.

Classifications:

International (IPC 8-9): H04W72/12 H04W74/08 (Advanced/Invention);
H04W4/00 H04W72/04 (Advanced/Non-invention)

CPC: H04W74/0833 H04W72/048 H04W74/08 H04W72/12
H04W72/042 H04W4/70

**Family:**

Publication number	Publication date	Application number	Application date
GB201519999 A0	20151230	GB20150019999	20151112
GB2544317 A1	20170517	GB20150019999	20151112
GB2544317 B2	20180704	GB20150019999	20151112
WO17081490 A1	20170518	WO2016GB53562	20161114

Priority:

GB20150019999 20151112

Probable Assignee: VODAFONE GROUP PLC

Assignee(s): (std): VODAFONE GROUP PLC ; VODAFONE IP LICENSING LTD

Inventor(s): (std): SIVA SUBRAMANI ; SUBRAMANI SIVA

Agent(s): BOULT WADE TENNANT

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: INFORMATION EXCHANGE BETWEEN BASE STATIONS

Abstract: A first base station receives at least one application protocol message from a second base station. The second base station comprises a downlink carrier comprising a plurality of downlink resource blocks. The at least one application protocol message may comprise a second physical downlink control channel configuration. The first base station may transmit a packet comprising acknowledgement for the receipt of the at least one application protocol.

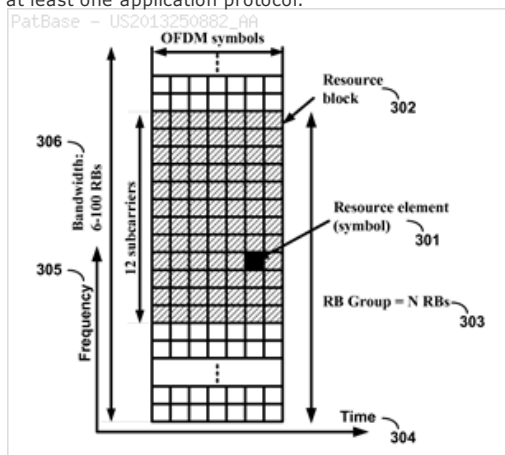
Classifications:

International (IPC 8-9): H04L5/00 H04W4/00 H04W72/04
H04W74/04 (Advanced/Invention);

H04L5/00 H04W72/00 H04W92/20 (Advanced/Non-invention)

CPC: H04L5/0023 H04L5/0032 H04L5/0092 H04W72/0426
H04W92/20 H04W72/042 H04L5/001 H04L5/0044 H04L5/0048
H04L5/0053 H04W72/0466

US: 1/1 370/329

**Family:**

Publication number	Publication date	Application number	Application date
US2013250882 AA	20130926	US20130850228	20130325
US2013294369 AA	20131107	US20130887408	20130506
US2016374058 AA	20161222	US20160184532	20160616
US2018077692 AA	20180315	US20170818252	20171120
US2018376482 AA	20181227	US20180954003	20180416
US2020092859 AA	20200319	US20190550879	20190826
US9497756 BB	20161115	US20130850228	20130325
US9826519 BB	20171121	US20160184532	20160616
US9949265 BB	20180417	US20130887408	20130506
US10397913 BB	20190827	US20170818252	20171120

Priority:

US20120615347P 20120325 US20120642472P 20120504 US20130850228 20130325
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US20180954003 20180416 US20190550879 20190826

Probable Assignee: OFINNO TECHNOLOGIES LLC

Assignee(s): (std): COMCAST CABLE COMM LLC ; DINAN ESMAEL HEJAZI

Assignee(s): OFINNO TECHNOLOGIES LLC ; COMCAST CABLE COMMUNICATIONS LLC

Inventor(s): (std): DINAN ESMAEL HEJAZI

Agent(s): BANNER AND WITCOFF LTD

6) Family number: 53057452 (US2015282155A)

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Title: BASE STATION AND ASSOCIATED METHOD FOR ASSIGNING UPLINK RESOURCES TO TERMINAL DEVICES WITH A SIMILAR TRAFFIC PROFILE

Abstract: A method of allocating radio resources for uplink transmissions in a wireless telecommunications system, including: a first terminal device communicating a request for an allocation of radio resources to a base station; the base station determining whether there is an association between the first terminal device and a second terminal device based on their having similar predicted traffic profiles for uplink data; and the base station establishing a radio resource allocation for the second terminal device based on the resources requested by the first terminal device, and consequently transmitting radio resource allocation messages to allocate radio resources to the first and the second terminal devices for respective uplink transmissions based on the request for an allocation of radio resources received from the first terminal device.

Classifications:

International (IPC 8-9): H04W4/00 H04W48/12 H04W72/04

H04W72/12 H04W74/00 (Advanced/Invention);

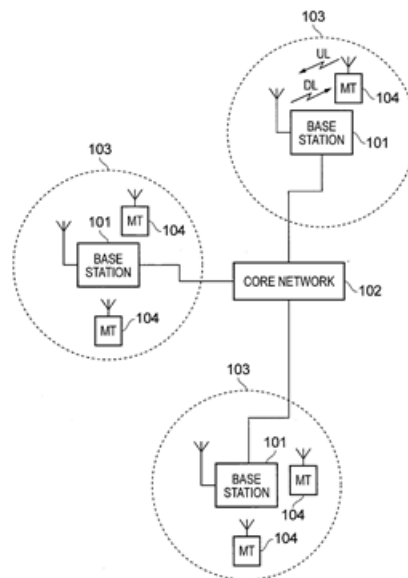
H04W4/00 H04W74/00 (Advanced/Non-invention)

CPC: H04W4/70 H04W72/121 H04W74/006 H04W48/12 H04W72/042

H04W72/0453 H04W72/048

US: 1/1 370/329

PatBase - US2015282155_AA



Family:

Publication number	Publication date	Application number	Application date
DE602013021329 D1	20170622	DE201360021329T	20131021
EP2936901 A1	20151028	EP20130783368	20131021
EP2936901 B1	20170517	EP20130783368	20131021
GB201222899 A0	20130130	GB20120022899	20121219
GB2509070 A1	20140625	GB20120022899	20121219
GB2509070 B2	20180411	GB20120022899	20121219
KR20150096663 A	20150825	KR20157015959	20131021
US2015282155 AA	20151001	US20130437381	20131021
US9635673 BB	20170425	US20130437381	20131021
WO14096765 A1	20140626	WO2013GB52737	20131021

Priority:

GB20120022899 20121219 EP20130783368 20131021 WO2013GB52737 20131021

Probable Assignee: SONY CORP

Assignee(s): (std): SONY CORP ; SONY EUROPE LTD

Assignee(s): CONVIDA WIRELESS LLC ; INTERDIGITAL VC HOLDINGS INC

Inventor(s): (std): WEBB MATTHEW ; WAKABAYASHI HIDEJI ; HIDEJI WAKABAYASHI ; MATTHEW WEBB ; HDEJ WAKABAYASH

Agent(s): D YOUNG AND CO LLP; OBLON MCCLELLAND MAIER AND NEUSTADT LLP; LEWIS DARREN

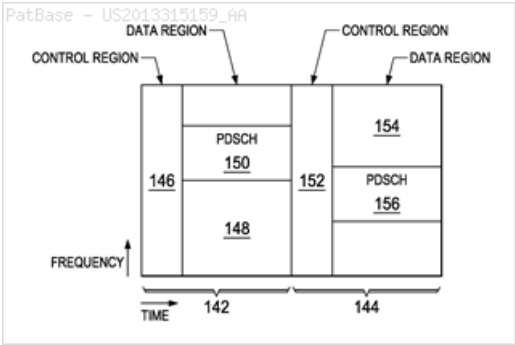
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7) Family number: 55199992 (US2013315159A) © PatBase

Title: SYSTEM AND METHOD FOR DELAY SCHEDULING

Abstract: In one embodiment, a method for delay scheduling includes determining whether a communications controller has information for a machine type communication (MTC) device and determining a first subframe to transmit a downlink control information (DCI) message on when the communications controller has information for the MTC device. The method also includes transmitting, by the communications controller to the MTC device, the first subframe including the DCI message and the information in accordance with the first subframe.

Classifications:
International (IPC 8-9): H04B7/26 H04W72/04 H04W72/12 H04W84/12 H04W88/02 (Advanced/Invention); H04W88/02 (Advanced/Non-invention)
CPC: H04W72/12 H04W72/1273 H04W72/1289 H04W72/0446 H04W72/042 H04W88/02
US: 1/1 370/329



Family:

Publication number	Publication date	Application number	Application date
CN104335509 A	20150204	CN201380026249	20130522
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CN107911869 A	20180413	CN201711199167	20130522
DE602013036967 D1	20180530	DE201360036967T	20130522
DE602013065437 D1	20200220	DE201360065437T	20130522
EP2853045 A1	20150401	EP20130794470	20130522
EP2853045 A4	20150429	EP20130794470	20130522
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EP3386259 A1	20181010	EP20180170021	20130522
EP3386259 B1	20200129	EP20180170021	20130522
ES2673559 T3	20180622	ES20130794470T	20130522
TR202002895 T4	20200323	TR20200002895T	20130522
US2013315159 AA	20131128	US20130899251	20130521
US2015341953 AA	20151126	US20150819058	20150805
US2017019888 AA	20170119	US20160278318	20160928
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Priority:

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Probable Assignee: FUTUREWEI TECHNOLOGIES INC FUTUREWEI

Assignee(s): (std): HUAWEI TECH CO LTD ; FUTUREWEI TECH INC ; FUTUREWEI TECHNOLOGIES INC

Assignee(s): FUTUREWEI TECHNOLOGIES INC FUTUREWEI ; HUAWEI TECHNOLOGIES CO ; HUAWEI TECHNOLOGIES CO LTD ; HUAWEI TECHNOLOGIES CO LTD SHENZHEN

Inventor(s): (std): DESAI VIPUL ; CLASSON BRIAN ; XIA JINHUAN

Inventor(s): BRIAN CLASSON ; JINHUAN XIA ; VIPUL DESAI ; XIA JINHUAN SHENZHEN ; DESAI VIPUL PALATINE ; CLASSON BRIAN PALATINE

Agent(s): KOERBER MARTIN HANS; KREUZ GEORG MARIA; LEHMANN MARIA ISABEL; TOLGA CAYLAK; SLATER AND MATSIL LLP; SLATER MATSIL LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW