

Nicolas Vargas

Title: METHOD AND APPARATUS FOR TRANSMITTING/RECEIVING DOWNLINK SIGNAL CONSIDERING ANTENNA PORT RELATIONSHIP IN WIRELESS COMMUNICATION SYSTEM

Abstract: The present invention relates to a wireless communication system, and more specifically, to a method and an apparatus for transmitting or receiving a downlink signal considering an antenna port relationship. The method for enabling a terminal to receive a physical downlink sharing channel (PDSCH) signal in the wireless communication system according to one embodiment of the present invention can determine a PDSCH start symbol index according to the predetermined priority and receive the PDSCH signal therethrough. The PDSCH start symbol index can be determined when a PDSCH start symbol value included in a PDSCH resource element mapping and Quasi co-location Indicator (PQI) parameter set is determined by an upper layer. The PDSCH start symbol index can be determined according to the PDSCH start symbol value for a cell receiving the PDSCH when the PDSCH start symbol value included in the PQI parameter set is not determined by the upper layer.

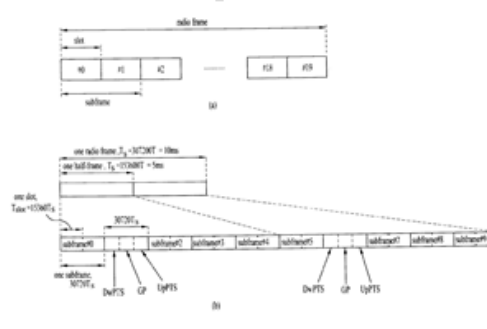
Classifications:

International (IPC 8-9): H04B1/16 H04B7/02 H04B7/024 H04B7/04 H04B7/0413 H04B7/0417 H04B7/0426 H04B7/06 H04B7/26 H04J11/00 H04J99/00 H04L12/18 H04L27/26 H04L5/00 H04W16/28 H04W24/00 H04W28/18 H04W4/00 H04W4/02 H04W4/06 H04W72/00 H04W72/04 H04W72/12 H04W76/00 H04W76/02 (Advanced/Invention); H04B7/0417 H04L12/18 H04L27/26 H04W28/18 H04W72/00 H04W72/12 (Advanced/Non-invention)

CPC: H04L5/0007 H04L12/1881 H04L5/005 H04L12/18 H04B7/0413 H04L12/189 H04W72/005 H04B1/16 H04B7/26 H04B7/2656 H04W4/025 H04B7/0626 H04W72/042 H04L5/00 H04B7/0473 H04W24/00 H04W72/00 H04W76/00 H04J11/00 H04L5/001 H04W72/12 H04L5/0023 H04L5/0037 H04W28/18 H04B7/024 H04L5/0035 H04L5/0094 H04L5/0048 H04W4/06 H04W72/0446 H04L5/0044 H04L5/0053 H04L5/0091 H04L27/2656 H04W72/046 H04B7/0426 H04B7/0417 H04L5/0057 H04W76/021 H04W76/11

US: 1/1 370/312 370/329 375/340

PatBase - US2015208392_AA

**Family:**

Publication number	Publication date	Application number	Application date
CN104641582 A	20150520	CN201380048012	20130916
CN104641582 B	20180316	CN201380048012	20130916
CN104685802 A	20150603	CN201380051502	20131004
CN104685802 B	20180323	CN201380051502	20131004
CN104685807 A	20150603	CN201380049020	20130917
CN104685807 B	20180209	CN201380049020	20130917
CN104704750 A	20150610	CN201380051573	20131004
CN104704750 B	20180105	CN201380051573	20131004
CN104704754 A	20150610	CN201380051458	20131004
CN104704755 A	20150610	CN201380051499	20131004
CN104704755 B	20171212	CN201380051499	20131004
CN104704786 A	20150610	CN201380051510	20131004
CN104704786 B	20180126	CN201380051510	20131004
CN107872257 A	20180403	CN201711136287	20131004
EP2897314 A1	20150722	EP20130836444	20130916
EP2897314 A4	20160525	EP20130836444	20130916
EP2899906 A1	20150729	EP20130838297	20130917
EP2899906 A4	20160608	EP20130838297	20130917
EP2905909 A1	20150812	EP20130844260	20131004
EP2905909 A4	20160427	EP20130844260	20131004
EP2905910 A1	20150812	EP20130844378	20131004
EP2905910 A4	20160615	EP20130844378	20131004
EP2905914 A1	20150812	EP20130843134	20131004
EP2905914 A4	20160622	EP20130843134	20131004
EP2905915 A1	20150812	EP20130844015	20131004
EP2905915 A4	20160622	EP20130844015	20131004
EP2905935 A1	20150812	EP20130844237	20131004
EP2905935 A4	20160420	EP20130844237	20131004
IN00328KN2015 A	20150710	IN2015KN00328	20150206
IN00417KN2015 A	20150717	IN2015KN00417	20150218
IN00792CN2015 A	20160701	IN2015CN00792	20150209
IN00793CN2015 A	20160701	IN2015CN00793	20150209
IN00794CN2015 A	20160701	IN2015CN00794	20150209
IN00814CN2015 A	20160701	IN2015CN00814	20150210
IN00831CN2015 A	20160701	IN2015CN00831	20150211
JP2015534763 T2	20151203	JP20150532959T	20130917
JP2015534784 T2	20151203	JP20150535563T	20131004
JP2015534785 T2	20151203	JP20150535564T	20131004
JP2015534786 T2	20151203	JP20150535565T	20131004
JP2016500208 T2	20160107	JP20150531861T	20130916
JP2016503592 T2	20160204	JP20150535566T	20131004
JP2016503593 T2	20160204	JP20150535567T	20131004
JP6228216 B2	20171108	JP20150535564T	20131004
JP6294327 B2	20180314	JP20150532959T	20130917
KR20150058171 A	20150528	KR20157004665	20130916
KR20150060677 A	20150603	KR20157004687	20130917
KR20150065666 A	20150615	KR20157004689	20131004
KR20150065667 A	20150615	KR20157004690	20131004
KR20150067131 A	20150617	KR20157004667	20131004
KR20150067132 A	20150617	KR20157004688	20131004

KR20150084759 A	20150722	KR20157004666	20131004
US2015208392 AA	20150723	US20130420257	20130916
US2015215905 AA	20150730	US20130419624	20131004
US2015215906 AA	20150730	US20130420592	20131004
US2015223208 AA	20150806	US20130419729	20131004
US2015229451 AA	20150813	US20130420243	20131004
US2015236828 AA	20150820	US20130420253	20130923
US2015236828 AA	20150820	US20130420253	20130917
US2015289235 AA	20151008	US20130420251	20131004
US2016128037 AA	20160505	US20160992097	20160111
US2016278055 AA	20160922	US20160099886	20160415
US2017006589 AA	20170105	US20160265492	20160914
US2017064678 AA	20170302	US20160347553	20161109
US2017079018 AA	20170316	US20160271020	20160920
US2017208569 AA	20170720	US20170423147	20170202
US2017208572 AA	20170720	US20170478668	20170404
US2017257853 AA	20170907	US20170459998	20170315
US2017257855 AA	20170907	US20170599251	20170518
US2017273061 AA	20170921	US20170615420	20170606
US2017303252 AA	20171019	US20170642680	20170706
US9264195 BB	20160216	US20130420253	20130917
US9345017 BB	20160517	US20130420592	20131004
US9380571 BB	20160628	US20130419624	20131004
US9491750 BB	20161108	US20130420243	20131004
US9491751 BB	20161108	US20130420251	20131004
US9521665 BB	20161213	US20130420257	20130916
US9622238 BB	20170411	US20160099886	20160415
US9648607 BB	20170509	US20160992097	20160111
US9661625 BB	20170523	US20130419729	20131004
US9706543 BB	20170711	US20160271020	20160920
US9713140 BB	20170718	US20160265492	20160914
US9730211 BB	20170808	US20160347553	20161109
US9907067 BB	20180227	US20170423147	20170202
US9967874 BB	20180508	US20170642680	20170706
WO14042475 A1	20140320	WO2013KR08339	20130916
WO14046458 A1	20140327	WO2013KR08402	20130917
WO14054900 A1	20140410	WO2013KR08871	20131004
WO14054901 A1	20140410	WO2013KR08872	20131004
WO14054902 A1	20140410	WO2013KR08873	20131004
WO14054903 A1	20140410	WO2013KR08874	20131004
WO14054904 A1	20140410	WO2013KR08875	20131004

Priority:

US20120701710P	20120916	US20120703738P	20120920	US20120709975P	20121004
US20120709975P	20121004	US20120706675P	20121004	US20120709975P	20121004
US20120709975P	20121004	US20120713616P	20121014	US20120713616P	20121014
US20120714729P	20121016	US20120724304P	20121109	US20120725451P	20121112
US20120725972P	20121113	US20120729301P	20121121	US20130420257	20130916
WO2013KR08339	20130916	US20130420253	20130917	WO2013KR08402	20130917
WO2013KR08402	20130923	CN201380051499	20131004	US20130419624	20131004
US20130420592	20131004	US20130419729	20131004	US20130420243	20131004
US20130420251	20131004	WO2013KR08874	20131004	WO2013KR08872	20131004
WO2013KR08873	20131004	WO2013KR08871	20131004	WO2013KR08875	20131004
US20150419729	20150205	US20150420253	20150206	US20150420251	20150206
US20150420257	20150206	US20150420243	20150206	US20150420592	20150209
US20160992097	20160111	US20160099886	20160415	US20160265492	20160914
US20160271020	20160920	US20160347553	20161109	US20170423147	20170202
US20170459998	20170315	US20170478668	20170404	US20170599251	20170518
US20170615420	20170606	US20170642680	20170706		

Probable Assignee: LG ELECTRONICS INC

Assignee(s): (std): LG ELECTRONICS INC

Inventor(s): (std): KIM BYOUNG HOON ; KIM BYOUNGHOON ; KIM EUN SUN ; KIM EUNSUN ; KIM KI JUN ; KIM KIJUN ; PARK JONG HYUN ; PARK JONGHYUN ; SEO HAN BYUL ; SEO HANBYUL ; SEO IN KWON ; SEO INKWON ; SOHN ILL SOO ; YANG SUCK CHEL ; YANG SUCKCHEL

Agent(s): KATERLE AXEL; FRENKEL MATTHIAS ALEXANDER; AOKI ATSUSHI; TSURUTA JUNICHI; DENTONS US LLP; KIM YONG IN 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 IR 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 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: METHOD AND APPARATUS FOR OBTAINING UPLINK TIMING ALIGNMENT ON A SECONDARY CELL

Abstract: A method for uplink timing alignment in a wireless transmit/receive unit. The method includes receiving control signaling from an evolved Node B, receiving a message for Random Access Channel on a secondary cell, and completing the RACH upon receipt of the message, wherein the message includes a medium access control (MAC) control element with at least an 11-bit time advance command.

Classifications:

International (IPC 8-9): H04L29/02 H04W56/00

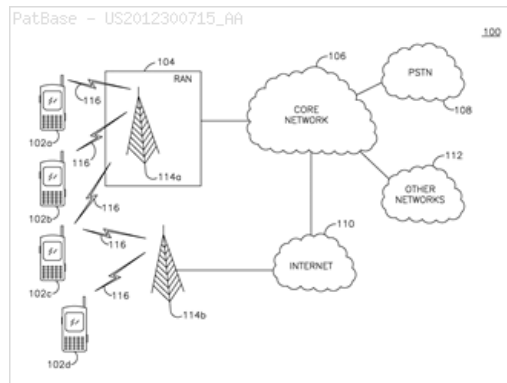
H04W74/08 (Advanced/Invention);

H04W56/00 (Advanced/Non-invention)

CPC: H04W56/0005 H04W74/0833 H04W56/0045 H04W74/0891

European: H04W56/00B

US: 370/329



Family:

Publication number	Publication date	Application number	Application date
TW201320669 A	20130516	TW20120116605	20120510
TW201731266 A	20170901	TW20160136505	20120510
TWI574532 B	20170311	TW20120116605	20120510
US2012300715 AA	20121129	US20120468709	20120510
US2015271854 AA	20150924	US20150732200	20150605
US2018077736 AA	20180315	US20170815317	20171116
US9854608 BB	20171226	US20150732200	20150605
WO12154955 A1	20121115	WO2012US37324	20120510
WO12154955 A9	20130620	WO2012US37324	20120510

Priority:

US20110484591P 20110510

US20120468709 20120510

US20150732200 20150605

US20170815317 20171116

Probable Assignee: INTERDIGITAL PATENT HOLDINGS INC

Assignee(s): (std): INTERDIGITAL PATENT HOLDINGS ; INTERDIGITAL PATENT HOLDINGS INC ; MARINIER PAUL ; PELLETIER GHYSLAIN ; SHIN SUNG HYUK ; STERN BERKOWITZ JANET A

Inventor(s): (std): MARINIER PAUL ; PELLETIER GHYSLAIN ; SHIN SUNG HYUK ; STERN BERKOWITZ JANET A

Agent(s): VOLPE AND KOENIG PC; MCMICHAEL WESLEY T

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ 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 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 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

Title: METHOD AND APPARATUS FOR TRANSMITTING AND RECEIVING PDCCH USING DCI HAVING ADJUSTED SIZE

Abstract: The present invention relates to a method for adjusting a size of an information bit used in a control channel and an apparatus for performing the same. In addition, the present invention relates to a method for searching for a control channel including an information bit having an adjusted size. A method for receiving a physical downlink control channel (PDCCH) in a wireless access system for supporting multi-carriers as one embodiment of the present invention comprises the steps of: performing **blind decoding** in a search space allocated in a terminal to search for a PDCCH; and receiving the PDCCH including downlink control information (DCI) having a size adjusted in the search space. At this time, the size of the DCI can be adjusted by considering a bandwidth allocated in the terminal, a transmission mode of a component carrier (CC) allocated in the terminal, and the number of antennas of the terminal.

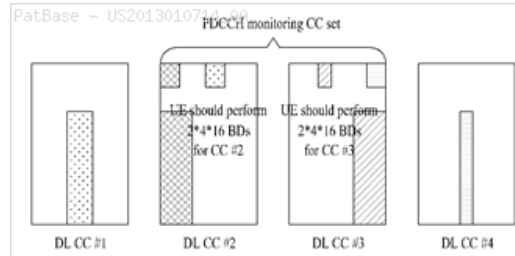
Classifications:

International (IPC 8-9): H04B7/26 H04J11/00 H04L1/00 H04L5/00 H04W4/00 H04W72/04 (Advanced/Invention); H04B7/26 H04J11/00 (Advanced/Non-invention)

CPC: H04L1/0038 H04L5/001 H04L5/0053 H04L1/0028 H04L5/0023 H04L5/0064 H04L5/0073 H04L5/0092

European: H04L1/00A15B

US: 370/216 370/252 370/328 370/329 370/338 455/509 455/522



Family:

Publication number	Publication date	Application number	Application date
CN102714567 A	20121003	CN201180005816	20110111
CN102714567 B	20150422	CN201180005816	20110111
EP2525513 A2	20121121	EP20110731964	20110111
EP2525513 A4	20160608	EP20110731964	20110111
EP2525513 B1	20170531	EP20110731964	20110111
KR101769371 B1	20170830	KR20110002282	20110110
KR20110082485 A	20110719	KR20110002282	20110110
US2013010714 AA	20130110	US20110521205	20110111
US9031016 BB	20150512	US20110521205	20110111
WO11084026 A2	20110714	WO2011KR00165	20110111
WO11084026 A3	20111201	WO2011KR00165	20110111

Priority:

US20100293719P 20100111 US20100294110P 20100112 US20100307806P 20100224
 KR20110002282 20110110 US20110521205 20110111 WO2011KR00165 20110111

Probable Assignee: LG ELECTRONICS INC

Assignee(s): (std): CHUNG JAE HOON ; KIM SO YEON ; LG ELECTRONICS INC ; MOON SEONG HO ; MOON SUNG HO

Inventor(s): (std): CHUNG JAE HOON ; HO MOON SUNG ; HOON CHUNG JAE ; KIM SO YEON ; MOON SUNG HO ; YEON KIM SO

Inventor(s): SO YEON KIM ; SUNG HO MOON ; JAE HOON CHUNG

Agent(s): GUNZELMANN RAINER; MCKENNA LONG AND ALDRIDGE LLP; KIM YONG IN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ 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 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 PE PG PH PL PT RO RS RU 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

Abstract: Aspects describe communicating grant information in a multicarrier wireless communication system. The grant information can be transmitted to mobile devices that have single carrier capability and/or mobile devices that have multicarrier capability. Grant information can be sent in a legacy control region and/or a non-legacy control region.

International (IPC 8-9): H04B1/713 H04B7/04 H04B7/06 H04B7/26
H04J1/00 H04J11/00 H04J99/00 H04L H04L27/28 H04L5/00
H04W24/00 H04W4/00 H04W48/18 H04W72/00 H04W72/04
H04W72/12 H04W72/14 H04W8/22 (Advanced/Invention);
H04B7/26 H04J11/00 H04W72/04 H04W72/14 (Advanced/Non-
invention);
H04L27/26 H04L5/00 H04W72/00 (Core/Invention);
H04L5/00 (Core/Non-invention);
H04L (Subclass/Invention)

CPC: H04L5/0007 H04L5/0026 H04L5/0037 H04L5/0064 H04L5/0094
H04W72/0453 H04W72/14 H04W72/0413 H04L1/004 H04L1/1812
H04W72/1294 H04L1/0003 H04W52/54 H04L5/003 H04L5/0091
H04W72/042 H04W72/1284 H04B7/0617 H04B7/0413 H04L5/0053 H04L5/0092

T04W72/04F4

Patent - US2010034303_A1

FIG. 1 is a block diagram of a grant evaluation system. The system includes a Wireless Communications Apparatus (Base Station) 100 and a Mobile Device 104. The Base Station 100 contains an Evaluator 108, Grant Formatter 110, and Communicator 114, all connected to a shared Memory 124 and Processor 126. The Mobile Device 104 contains a Receiver 116, Analyzer 118, and Decoder 120, all connected to a shared Memory 122 and Processor 128. A Control Carrier 122 is shown as a dashed oval with bidirectional arrows connecting the Base Station and the Mobile Device.

Publication number	Publication date	Application number	Application date
AU2009282050 AA	20100218	AU20090282050	20090812
AU2009282050 BB	20140306	AU20090282050	20090812
AU2009282175 AA	20100218	AU20090282175	20090810
BRPI0917523 A2	20151117	BR2009PI17523	20090810
BRPI0917671 A2	20161101	BR2009PI17671	20090812
CA2731604 AA	20100218	CA20092731604	20090812
CA2731604 C	20150915	CA20092731604	20090812
CA2731621 AA	20100218	CA20092731621	20090810
CA2731621 C	20160621	CA20092731621	20090810
CA2829721 AA	20100218	CA20092829721	20090812
CA2829721 C	20161213	CA20092829721	20090812
CN102119504 A	20110706	CN200980131204	20090812
CN102119504 B	20140312	CN200980131204	20090812
CN102119505 A	20110706	CN200980131349	20090810
CN102119505 B	20150624	CN200980131349	20090810
CN103888233 A	20140625	CN201410066609	20090812
CN103888233 B	20170517	CN201410066609	20090812
EP2324593 A2	20110525	EP20090791434	20090812
EP2324593 B1	20180307	EP20090791434	20090812
EP2345198 A1	20110720	EP20090791343	20090810
EP2345198 B1	20180328	EP20090791343	20090810
EP2362572 A2	20110831	EP20110167776	20090812
EP2362572 A3	20121003	EP20110167776	20090812
ES2667472 T3	20180511	ES20090791434T	20090812
HK1158407 A1	20141205	HK20110112617	20111122
HK1158407 A3	20120713	HK20110112617	20111122
IL210748 A0	20110331	IL20090210748	20090812
IL210748 A1	20150331	IL20090210748	20090812
IN00779CN2011 A	20111202	IN2011CN00779	20110203
IN01251CN2011 A	20111202	IN2011CN01251	20110223
JP2011530964 T2	20111222	JP20110523072T	20090810
JP2012500529 T2	20120105	JP20110523142T	20090812
JP2013123236 A2	20130620	JP20130002502	20130110
JP2013176068 A2	20130905	JP20130057834	20130321
JP2013179669 A2	20130909	JP20130098239	20130508
JP5231646 B2	20130710	JP20110523142T	20090812
JP5269996 B2	20130821	JP20110523072T	20090810
JP5575945 B2	20140820	JP20130057834	20130321
JP5657741 B2	20150121	JP20130098239	20130508
JP5714614 B2	20150507	JP20130002502	20130110
KR101415042 B1	20140716	KR20117005772	20090812
KR101562264 B1	20151021	KR20137022801	20090810
KR101639757 B1	20160715	KR20147011098	20090812
KR20110043758 A	20110427	KR20117005855	20090810
KR20110054006 A	20110524	KR20117005772	20090812
KR20130010493 A	20130128	KR20127032683	20090812
KR20130105933 A	20130926	KR20137022801	20090810
KR20140069265 A	20140609	KR20147011098	20090812
MX2011001636 A1	20110405	MX20110001636	20090812
MY157144 A	20160513	MY20110000282	20090812
RU2011109022 A	20120920	RU20110109022	20090810
RU2011109156 A	20120920	RU20110109156	20090812
RU2485703 C2	20130620	RU20110109022	20090810
RU2503133 C2	20131227	RU20110109156	20090812
TW201012277 A	20100316	TW20090127177	20090812

TW201025976 A	20100701	TW20090127005	20090811
TWI424730 B	20140121	TW20090127005	20090811
TWI436671 B	20140501	TW20090127177	20090812
UA98064 C2	20120410	UA20110002882	20090812
US2010034303 AA	20100211	US20090537186	20090806
US2010040004 AA	20100218	US20090536733	20090806
US2014185571 AA	20140703	US20140201773	20140307
US2016330762 AA	20161110	US20160162522	20160523
US8670376 BB	20140311	US20090536733	20090806
US9225481 BB	20151229	US20090537186	20090806
VN15662 A1	20160825	VN20110000687	20090812
WO10019522 A1	20100218	WO2009US53316	20090810
WO10019679 A2	20100218	WO2009US53568	20090812
WO10019679 A3	20110324	WO2009US53568	20090812

Priority:

US20080087961P 20080811	US20080088319P 20080812	US20080112029P 20081106
US20080113443P 20081111	US20090143146P 20090107	US20090537186 20090806
US20090536733 20090806	JP20110523072 20090810	JP20110523072T 20090810
WO2009US53316 20090810	CA20092731604 20090812	CA20092829721 20090812
EP20090791434 20090812	CN200980131204 20090812	JP20110523142 20090812
JP20110523142T 20090812	WO2009US53568 20090812	CA20132731604 20131021
US20140201773 20140307	US20160162522 20160523	

Probable Assignee: QUALCOMM INC

Assignee(s): (std): DAMNJANOVIC JELENA M ; FARAJIDANA AMIR ; GAAL PETER ; KHANDEKAR AAMOD ; QUALCOMM INC ; KHANDEKAR AAMOD D ; MONTOJO JUAN ; SARKAR SANDIP

Assignee(s): KVEHLKOMM INKORPOREJTED

Inventor(s): (std): AD AAMOD D KHANDEKAR ; AMIR FARAJIDANA A ; JELENA M DAMNJANOVIC ; JM JELENA M DAMNJANOVIC ; JUAN MONTOJO J ; KHANDEKAR AAMOD ; PETER GAAL P ; SANDIP SARKAR S ; AAMOD D KHANDEKAR ; SARKAR SANDIP ; SANDIP SARKAR ; PETER GAAL ; MONTOKHO KHUAN ; MONTOJO JUAN ; KKHANDEKAR AAMOD D ; KHANDEKAR AAMOD DINKAR ; KHANDEKAR AAMOD D ; JUAN MONTOJO ; GAAL PITER ; GAAL PETER ; FARAJIDANA AMIR ; FARADZHIDANA AMIR ; DAMNJANOVICH ELENA M ; DAMNJANOVIC JELENA M ; DAMNJANOVIC JELENA ; AMIR FARAJIDANA ; AMIR FARAHJIDANA ; AAMOD KHANDEKAR

Inventor(s): FARAHJIDANA AMIR ; JELENA M DAMNJANOVIC JM ; AAMOD D KHANDEKAR AD

Agent(s): MADDERNS PATENT AND TRADE MARK ATTORNEYS; SMART AND BIGGAR; GATES MARIE CHRISTINA ESTHER; TOMKINS AND CO; SCHMIDBAUER ANDREAS KONRAD; CATESBY OLIVIA JOANNE; FORTEA JUAN JOSE; SANFORD TCOLB AND CO; QUALCOMM INC; PAUL; PAUL KUO; PATEL MILAN I

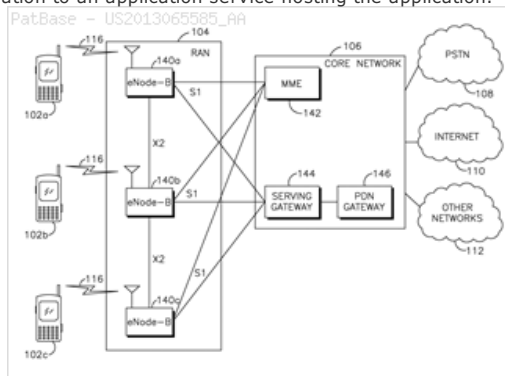
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY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

Title: METHODS AND APPARATUS FOR ACCESSING LOCALIZED APPLICATIONS

Abstract: Methods of wireless communication and wireless transmit/receive units (WTRUs) are described. A WTRU includes a processor. The processor determines a location of the WTRU and whether an application is available to the WTRU based on the determined location of the WTRU. On a condition that the application is determined to be available to the WTRU based on the determined location of the WTRU, the processor initiates a registration to an application service hosting the application.

Classifications:

International (IPC 8-9): G06Q30/02 H04L29/08 H04M1/00
H04M1/725 H04M11/00 H04W12/02 H04W12/08 H04W36/32
H04W4/00 H04W4/02 H04W48/04 H04W48/16 H04W60/00
H04W64/00 H04W72/12 H04W76/02 H04W8/00
H04W92/18 (Advanced/Invention)
CPC: H04W12/02 H04W12/08 G06Q30/0261 H04L67/26
H04W72/1289 H04W8/005 H04W4/023 H04W48/16 G06Q30/0267
H04W4/02 H04W4/80 H04W76/14
US: 1/1 455/435.1 455/456.6 705/14.58



Family:

Publication number	Publication date	Application number	Application date
AU2012304619 AA	20130314	AU20120304619	20120906
AU2012304619 BB	20161006	AU20120304619	20120906
CN103814589 A	20140521	CN201280043994	20120906
EP2754308 A2	20140716	EP20120780902	20120906
JP2015507854 T2	20150312	JP20140529836T	20120906
JP2016208548 A2	20161208	JP20160167154	20160829
JP5998220 B2	20160928	JP20140529836T	20120906
KR20140078657 A	20140625	KR20147009416	20120906
TW201330658 A	20130716	TW20120132749	20120907
TWI587718 B	20170611	TW20120132749	20120907
US2013065585 AA	20130314	US20120605155	20120906
US2015339724 AA	20151126	US20150816766	20150803
US2017188383 AA	20170629	US20170459703	20170315
US9125012 BB	20150901	US20120605155	20120906
WO13036580 A2	20130314	WO2012US53877	20120906
WO13036580 A3	20130502	WO2012US53877	20120906

Priority:

US20110533047P	20110909	US20120611905P	20120316	JP20140529836T	20120906
US20120605155	20120906	WO2012US53877	20120906	US20150816766	20150803
JP20160167154	20160829	US20170459703	20170315		

Probable Assignee: INTERDIGITAL PATENT HOLDINGS INC

Assignee(s): (std): INTERDIGITAL PATENT HOLDINGS ; INTERDIGITAL PATENT HOLDINGS INC ; PANI DIANA ; PELLETIER GHYSLAIN

Inventor(s): (std): DIANA PANI ; GHYSLAIN PELLETIER ; PELLETIER GHYSLAIN ; PANI DIANA

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; HANSSON ANDERS MAX; TANI AND ABE PC; VOLPE AND KOENIG PC; MCMICHAEL WESLEY T

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 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

Title: METHOD AND DEVICE FOR RECEIVING CONTROL INFORMATION IN WIRELESS COMMUNICATION SYSTEM

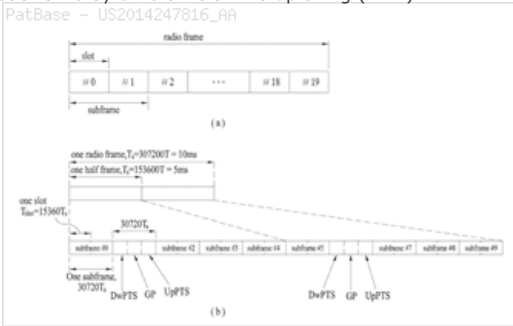
Abstract: The present invention relates to a wireless communication system. Particularly, the present invention pertains to a method for receiving a PDCCH signal in a wireless communication system and a device therefor, and the method comprises: receiving a subframe that includes a PDCCH search space, monitoring a plurality of PDCCH candidates in the PDCCH search space, and performing an operation according to a PDCCH signal if the PDCCH signal indicated to the UE is detected, wherein if the subframe is a first subframe, the PDCCH search space is configured in a first time domain of the subframe, if the subframe is a second subframe, the PDCCH search space is configured in a second time domain of the subframe, and the first time domain and the second time domain are multiplexed at the subframe by time division multiplexing (TDM).

Classifications:

International (IPC 8-9): H04B7/26 H04J11/00 H04L5/00
H04W72/04 (Advanced/Invention)

CPC: H04W72/0446 H04L5/0053 H04B7/2656 H04L5/001

US: 1/1 370/336



Family:

Publication number	Publication date	Application number	Application date
US2014247816 AA	20140904	US20120348661	20121015
US9374819 BB	20160621	US20120348661	20121015
WO13055193 A2	20130418	WO2012KR08406	20121015
WO13055193 A3	20130704	WO2012KR08406	20121015

Priority:

US20110547016P 20111013 US20110549196P 20111019 WO2012KR08406 20121015
US20120348661 20121015

Probable Assignee: LG ELECTRONICS INC

Assignee(s): (std): LG ELECTRONICS INC

Inventor(s): (std): KIM HAKSEONG ; SEO HANBYUL

Agent(s): BIRCH STEWART KOLASCH AND BIRCH LLP; KIM YONG IN 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 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

Title: METHODS, SYSTEMS AND APPARATUS FOR DEFINING AND USING PHICH RESOURCES FOR CARRIER AGGREGATION

Abstract: Systems, methods, and instrumentalities are disclosed to provide feedback to a user equipment (UE). A UE may transmit uplink data via a supplementary cell. A network device, such as a HeNB, eNB, etc., may receive the uplink data from the UE via the supplementary cell. The network device may send feedback associated with the uplink data to the UE via a physical downlink shared channel (PDSCH) when downlink data is available for transmission to the UE. The feedback may be physical hybrid ARQ indicator channel (PHICH) ACK/NACK information. The feedback sent via the PDSCH may be multiplexed with the downlink data. The network device may send the feedback associated with the uplink data to the UE via a physical downlink control channel (PDCCH) when downlink data is not available for transmission to the UE.

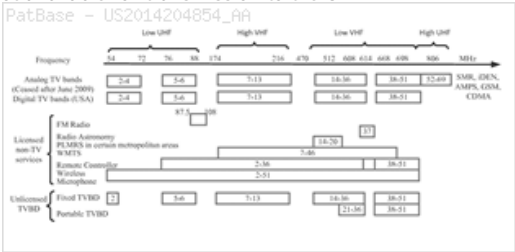
Classifications:

International (IPC 8-9): H04L1/12 H04L1/18 H04L5/00 H04W4/00 H04W72/04 (Advanced/Invention)

CPC: H04W72/042 H04L5/0092 H04L5/0055 H04L1/18

European: H04L1/18 H04L5/00C6A

US: 370/329



Family:

Publication number	Publication date	Application number	Application date
EP2721759 A1	20140423	EP20120729310	20120614
EP2721759 B1	20180425	EP20120729310	20120614
TW201304450 A	20130116	TW20120121317	20120614
TWI548231 B	20160901	TW20120121317	20120614
US2014204854 AA	20140724	US20120125903	20120614
US2018041998 AA	20180208	US20170783309	20171013
US9826515 BB	20171121	US20120125903	20120614
WO12174213 A1	20121220	WO2012US42412	20120614

Priority:

US20110496911P 20110614 US20120125903 20120614 WO2012US42412 20120614
US20140125903 20140219 US20170783309 20171013

Probable Assignee: INTERDIGITAL PATENT HOLDINGS INC

Assignee(s): (std): BELURI MIHAELA C ; FREDI MARTINO ; GAUVREAU JEAN LOUIS ; INTERDIGITAL PATENT HOLDINGS ; INTERDIGITAL PATENT HOLDINGS INC

Inventor(s): (std): BELURI MIHAELA C ; FREDI MARTINO ; FREDI MARTINO F ; GAUVREAU JEAN LOUIS

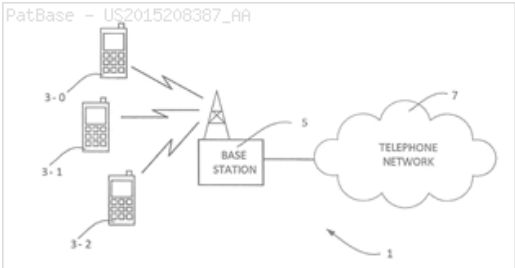
Agent(s): BADEL XAVIER CLAUDE YVES; AWAPATENT AB; CONDO ROCCIA KOPTIW LLP; ROCCIA VINCENT J ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ 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 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

Title: RESOURCE ALLOCATION SIGNALLING

Abstract: A mobile telecommunications system is described in which a base station uses enhanced allocation techniques to reduce fragmentation of resource allocations within a sub-frame due to the presence of control data within resources used for carrying user data. Different solutions are described including provision of supplemental information to supplement existing resource allocation data, use of overloading such that DCI formats may have different interpretations and the provision of new DCI formats.

Classifications:
International (IPC 8-9): H04W72/04 (Advanced/Invention)
CPC: H04W72/042
US: 370/329



Family:

Publication number	Publication date	Application number	Application date
CN104521306 A	20150415	CN201380041170	20130702
EP2880938 A2	20150610	EP20130737888	20130702
GB201213794 A0	20120912	GB20120013794	20120802
GB2504544 A1	20140205	GB20120013794	20120802
IN00527DN2015 A	20150626	IN2015DN00527	20150121
JP2015529022 A2	20151001	JP20150506008	20130702
JP2015529022 T2	20151001	JP20150506008T	20130702
JP6052395 B2	20161227	JP20150506008T	20130702
US2015208387 AA	20150723	US20130417861	20130702
US9661624 BB	20170523	US20130417861	20130702
WO14021058 A2	20140206	WO2013JP68573	20130702
WO14021058 A3	20140501	WO2013JP68573	20130702

Priority:

GB20120013794 20120802 WO2013JP68573 20130702

Probable Assignee: NEC CORP

Assignee(s): (std): NEC CORP

Inventor(s): (std): ARNOTT ROBERT ; AWAD YASSIN ADEN ; LIANG CAROLINE QUANYI ; LIANG CAROLINE ; SEO KAY ; XU GUI

Inventor(s): YASSIN ADEN AWAD ; ROBERT ARNOTT ; CAROLINE QUANYI LIANG ; KAY SEO

Agent(s): MACDOUGALL ALAN JOHN SHAW; IKEDA NORIYASU 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

Title: DISCOVERY SIGNAL GENERATION AND RECEPTION

Abstract: Physical layer processing and procedures for device-to-device (D2D) discovery signal generation and transmission and scheduling of D2D discovery signals are described. Detection and measurement of a D2D discovery signal, D2D signal identity management, and monitoring by a wireless transmit/receive unit (WTRU) of PDCCH for D2D discovery scheduling is described, as is a WTRU that may be configured with a D2D-specific transmission/reception opportunity pattern. The discovery signal may carry a payload for explicit information about user and/or service identity, and may be mapped to physical resources in such a way as to decouple transmission/reception of the discovery signal from downlink operations. A WTRU may measure a D2D discovery signal quality and report to the network.

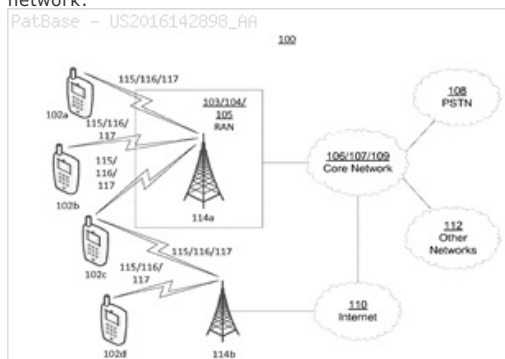
Classifications:

International (IPC 8-9): H04L29/02 H04L5/00 H04W48/08
H04W48/16 H04W72/04 H04W72/12 H04W74/04 H04W76/02
H04W8/00 H04W92/18 (Advanced/Invention);
H04W (Subclass/Invention)

CPC: H04L5/0012 H04L5/0044 H04L5/0048 H04W48/16

H04W72/1226 H04W72/0446 H04W72/0413 H04W8/005 H04W76/14

US: 370/329

**Family:**

Publication number	Publication date	Application number	Application date
CN104938021 A	20150923	CN201480005013	20140116
EP2946630 A1	20151125	EP20140703987	20140116
HK1211407 A1	20160520	HK20150112128	20151209
JP2016509799 T2	20160331	JP20150553818T	20140116
JP2017118591 A2	20170629	JP20170035371	20170227
JP6101822 B2	20170322	JP20150553818T	20140116
KR101821027 B1	20180122	KR20157022050	20140116
KR20150110616 A	20151002	KR20157022050	20140116
RU2015134358 A	20170222	RU20150134358	20140116
RU2629430 C2	20170829	RU20150134358	20140116
TW201446066 A	20141201	TW20140101627	20140116
US2016142898 AA	20160519	US20140765201	20140116
WO14113537 A1	20140724	WO2014US11794	20140116

Priority:

US20130753389P 20130116	US20130753173P 20130116	US20130807476P 20130402
US20130821038P 20130508	US20130882574P 20130925	US20130897738P 20131030
JP20150553818T 20140116	WO2014US11794 20140116	US20140765201 20140116
JP20170035371 20170227		

Probable Assignee: INTERDIGITAL PATENT HOLDINGS INC

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

Inventor(s): (std): BENOIT PELTIER ; DIANA PANI ; MARINIER PAUL ; GWENAELO POITAU ; GHYSLAIN PELLETIER ; MARINE POL ; PANI DIANA ; POITAU GWENAELO ; PELLETIER GHYSLAIN ; PELLETIER BENOIT ; PAUL MARNIER ; PUATO GWENAELO ; PELLETE GISLEN ; PELLETE BENUA ; RUDOLF MARIAN

Agent(s): JOHANSSON MAGNUS ; TANI AND ABE PC ; 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 IR 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 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: TERMINAL, COMMUNICATION METHOD, AND INTEGRATED CIRCUIT

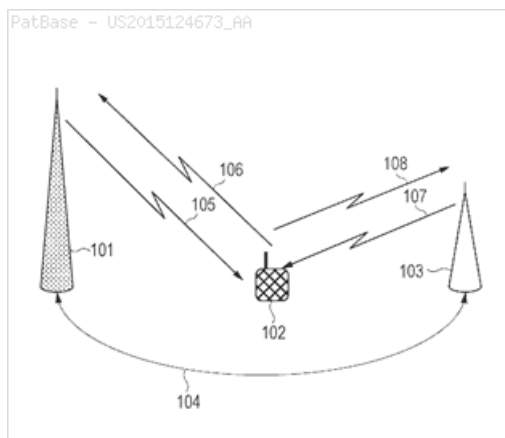
Abstract: Provided are a terminal, a communication method, and an integrated circuit, enabling a base station and a terminal to efficiently communicate with each other in a communication system in which the base station and the terminal communicate with each other. A terminal performs communication with at least one base station, and includes means for performing first power correction on the transmit power of a sounding reference signal (SRS) on the basis of a first transmission power control (TPC) command, and means for performing second power correction on the transmit power of the SRS on the basis of a second TPC command.

Classifications:

International (IPC 8-9): H04J11/00 H04J99/00 H04W28/16
H04W52/14 H04W52/22 H04W52/24 H04W52/32 H04W52/36
H04W52/58 H04W72/04 (Advanced/Invention)

CPC: H04W52/225 H04W52/362 H04W52/58 H04W52/146
H04W52/248 H04W52/325 H04W52/367

US: 370/311



Family:

Publication number	Publication date	Application number	Application date
BR112014027713 A2	20170627	BR20141127713	20130510
CN104272820 A	20150107	CN201380023978	20130510
CN104272820 B	20180417	CN201380023978	20130510
EP2849504 A1	20150318	EP20130787329	20130510
EP2849504 A4	20151111	EP20130787329	20130510
ID201603357 A	20160513	ID2014P0007298	20130510
JP2013236287 A2	20131121	JP20120108057	20120510
JP6073073 B2	20170201	JP20120108057	20120510
US2015124673 AA	20150507	US20130397660	20130510
US9661589 BB	20170523	US20130397660	20130510
WO13168791 A1	20131114	WO2013JP63153	20130510

Priority:

JP20120108057 20120510 WO2013JP63153 20130510

Probable Assignee: SHARP KK

Assignee(s): (std): SHARP KK

Assignee(s): SHARP CORP ; SHARP KABUSHIKI KAISHA

Inventor(s): (std): OUCHI WATARU ; SHOICHI SUZUKI ; SUZUKI SHOICHI ; WATARU OUCHI

Agent(s): MUELLER HOFFMANN AND PARTNER; IR YT WIDJOJO; KEATING AND BENNETT LLP; YONETSU KIYOSHI 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 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

Title: TRANSMISSION METHOD AND RECEPTION METHOD OF DOWNLINK SIGNAL AND CHANNEL, TERMINAL THEREOF, AND BASE STATION THEREOF.

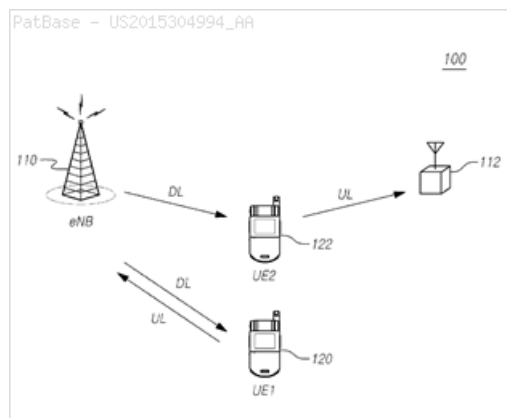
Abstract: The present invention relates to a method for transmitting and receiving downlink signal and channel, a terminal therefor and a base station therefor, the method comprising a method for a terminal to transceiver an aperiodic sounding reference signal comprising the steps of: receiving, via a higher layer signaling, two or more parameters for determining a time-frequency resource with which aperiodic sounding signal is transmitted; receiving, via PDCCH and/or EPDCCH, an index designating a parameter set comprising a part of the parameters; receiving, via PDCCH and/or EPDCCH, a signal triggering the aperiodic sounding reference signal; and transmitting the aperiodic sounding reference signal by frequency-hopping to a part of the frequency region within the overall frequency range of interest, frequency hopping being by means of the time-frequency resource corresponding to the parameter received via the higher layer signaling and the parameter included in the parameter set received via the PDCCH and/or the EPDCCH.

Classifications:

International (IPC 8-9): H04J11/00 H04L27/26 H04L5/00 H04L5/14 H04W72/04 H04W72/14 (Advanced/Invention)

CPC: H04B7/0413 H04L1/0023 H04W72/044 H04W72/042 H04L5/14 H04L27/2601 H04L5/0048 H04W72/14 H04L27/26 H04L5/0035 H04L5/0094 H04L5/1469 H04L5/0012 H04B7/02 H04W72/1289

US: 370/280 370/329



Family:

Publication number	Publication date	Application number	Application date
KR20140043692 A	20140410	KR20130117818	20131002
KR20140047532 A	20140422	KR20130117824	20131002
KR20140076478 A	20140620	KR20130117830	20131002
US2015304994 AA	20151022	US20130433004	20131002
US9801171 BB	20171024	US20130433004	20131002
WO14054887 A1	20140410	WO2013KR08835	20131002

Priority:

KR20120109710 20121002 KR20120113306 20121012 KR20120143438 20121211
WO2013KR08835 20131002

Probable Assignee: COOPERATION FOUNDATION HANYANG IND UNIV

Assignee(s): (std): IUCF HYU ; UNIV COOP FOUND HANYANG UNIV IND

Assignee(s): COOPERATION FOUNDATION HANYANG IND UNIV ; IUCF HYU INDUSTRY UNIV COOPERATION FOUNDATION HANYANG UNIVERSITY ; IUCF HYU INDUSTRY UNIVERSITY COOPERATION FOUNDATION HANYANG UNIVERSITY

Inventor(s): (std): KIM SUN WOO

Agent(s): KIM EUNGU ET AL

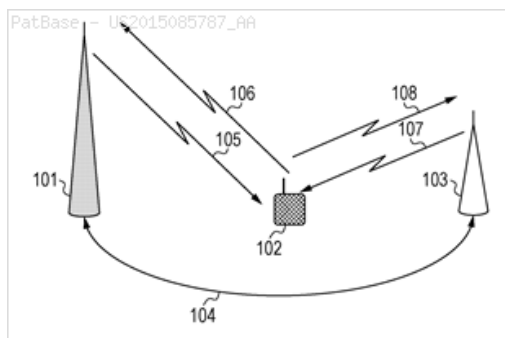
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ 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: TERMINAL, BASE STATION, COMMUNICATION METHOD, AND INTEGRATED CIRCUIT

Abstract: A terminal which performs communication with at least one base station, includes means for detecting a field indicating whether or not a transmission request of a sounding reference signal (SRS) is made from a downlink control information (DCI) format, means for generating a base sequence of the SRS on the basis of a first parameter in a case where the field indicates a transmission request of the SRS in a first DCI format, and means for generating a base sequence of the SRS on the basis of a second parameter in a case where the field indicates a transmission request of the SRS in a second DCI format.

Classifications:

International (IPC 8-9): H04B1/713 H04B17/318 H04J11/00
H04L5/00 H04W16/28 H04W28/16 H04W52/14 H04W52/24
H04W52/32 H04W52/54 H04W72/04 H04W72/14 (Advanced/Invention)
CPC: H04L5/0037 H04L5/0094 H04W52/248 H04W52/325
H04L5/0048 H04W72/042 H04W52/54 H04W52/146 H04B17/318
US: 370/329



Family:

Publication number	Publication date	Application number	Application date
CN104322124 A	20150128	CN201380024560	20130510
EP2849517 A1	20150318	EP20130788065	20130510
EP2849517 A4	20151111	EP20130788065	20130510
IN08217CN2014 A	20160701	IN2014CN08217	20141111
JP2013236289 A2	20131121	JP20120108059	20120510
US2015085787 AA	20150326	US20130399628	20130510
WO13168793 A1	20131114	WO2013JP63155	20130510

Priority:

JP20120108059 20120510 WO2013JP63155 20130510

Probable Assignee: SHARP KK

Assignee(s): (std): SHARP KK

Assignee(s): SHARP CORP ; SHARP KABUSHIK KAISHA

Inventor(s): (std): OUCHI WATARU

Agent(s): MUELLER HOFFMANN AND PARTNER; YONETSU KIYOSHI ET AL

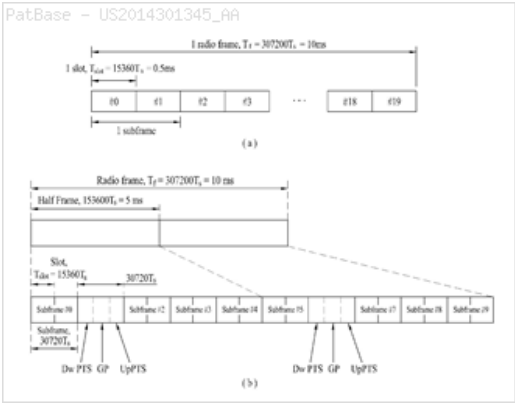
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY 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

Title: METHOD FOR RECEIVING UPLINK SIGNAL, BASE STATION, METHOD FOR TRANSMITTING UPLINK SIGNAL AND USER EQUIPMENT

Abstract: A predetermined number of cyclic shift values are defined for a demodulation of uplink data. An available portion of the cyclic shift values from among the cyclic shift values is transmitted to user equipment. Control information for uplink data is transmitted to the user equipment via a physical control channel. The control information includes information indicating one cyclic shift value for generating a reference signal from among the portion of the cyclic shift values. The user equipment transmits the uplink data based on the control information and a reference signal for a demodulation of the uplink data.

Classifications:

International (IPC 8-9): H04B7/26 H04J11/00 H04J13/00 H04L1/16 H04L1/18 H04L27/26 H04L5/00 H04W72/04 (Advanced/Invention); H04J13/00 H04L1/18 H04W88/02 (Advanced/Non-invention)
CPC: H04W72/0413 H04J11/0023 H04B7/2612 H04J2211/005 H04J11/005 H04L5/0012 H04L5/0073 H04J2211/001 H04J13/0062 H04L1/1671 H04L5/0053 H04L27/2613 H04L5/0055 H04W88/02 H04L1/1812 H04L5/001 H04L5/0048
US: 1/1 370/329



Family:

Publication number	Publication date	Application number	Application date
KR101589563 B1	20160128	KR20147013730	20121119
KR20140099241 A	20140811	KR20147013730	20121119
KR20160015390 A	20160212	KR20167001704	20121119
US2014301345 AA	20141009	US20120359044	20121119
US2016302187 AA	20161013	US20160183399	20160615
US9408200 BB	20160802	US20120359044	20121119
US9820265 BB	20171114	US20160183399	20160615
WO13073917 A1	20130523	WO2012KR09787	20121119

Priority:

US20110561232P 20111117 US20120359044 20121119 WO2012KR09787 20121119
US20140359044 20140516 US20160183399 20160615

Probable Assignee: LG ELECTRONICS INC

Assignee(s): (std): LG ELECTRONICS INC

Inventor(s): (std): KIM BYOUNG HOON ; KIM HAK SEONG ; KIM HAKSEONG ; KIM BYOUNGHOON

Agent(s): JONATHAN; MICHAEL; LEE HONG DEGERMAN KANG AND WALMEY; LEE HONG DEGERMAN KANG WAIMEY; KIM YONG IN 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 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

Title: METHOD AND APPARATUS FOR ENHANCING COVERAGE OF MACHINE TYPE COMMUNICATION (MTC) DEVICES

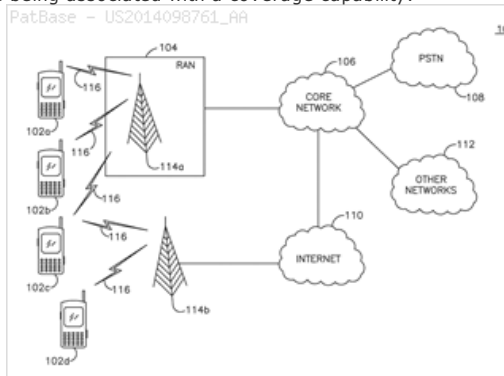
Abstract: A method and apparatus are described for a low cost machine-type-communication (LC-MTC) wireless transmit/receive unit (WTRU) to enhance coverage. An example method for physical broadcast channel (PBCH) enhancement includes receiving system information on an enhanced PBCH (ePBCH). The ePBCH is located in a set of radio frames which is a subset of available radio frames, where the subset includes fewer than all the available radio frames. The ePBCH is received in at least one radio frame of the set of radio frames. An example method for physical random access channel (PRACH) enhancement includes receiving configuration of legacy PRACH resources and enhanced PRACH (ePRACH) resources. The WTRU selects one of legacy PRACH resources or ePRACH resources based on a coverage capability. Another example method for PRACH enhancement includes receiving configuration of ePRACH resources. The ePRACH resources include multiple ePRACH resource types, each ePRACH resource type being associated with a coverage capability.

Classifications:

International (IPC 8-9): H04B1/38 H04L29/02 H04W4/00 H04W48/12 H04W72/00 H04W72/02 H04W72/04 H04W74/08 (Advanced/Invention); H04W (Subclass/Invention)

CPC: H04W72/005 H04W48/12 H04W74/006 H04W74/0833 H04W4/02 H04W4/027 H04W4/06 H04B17/318 H04L1/189 H04L1/1819 H04W4/70

US: 370/329

**Family:**

Publication number	Publication date	Application number	Application date
BR112015007590 A2	20170704	BR20151107590	20131004
CN104704884 A	20150610	CN201380052337	20131004
EP2904850 A1	20150812	EP20130779484	20131004
EP3185615 A1	20170628	EP20170150944	20131004
HK1213415 A1	20160630	HK20160101157	20160202
JP2015537422 T2	20151224	JP20150535824T	20131004
JP2017022720 A2	20170126	JP20160159286	20160815
KR20150064196 A	20150610	KR20157011749	20131004
RU2015116905 A	20161127	RU20150116905	20131004
TW201429174 A	20140716	TW20130135974	20131004
US2014098761 AA	20140410	US20130046173	20131004
WO14055878 A1	20140410	WO2013US63481	20131004

Priority:

US20120710315P 20121005	US20130753263P 20130116	US20130807945P 20130403
US20130863223P 20130807	EP20130779484 20131004	JP20150535824T 20131004
US20130046173 20131004	WO2013US63481 20131004	JP20160159286 20160815

Probable Assignee: INTERDIGITAL PATENT HOLDINGS INC

Assignee(s): (std): INTERDIGITAL PATENT HOLDINGS ; INTERDIGITAL PATENT HOLDINGS INC

Inventor(s): (std): MARIAN RUDOLF ; MOON IL LEE ; NAYEB NAZAR SHAHROKH ; NOBUYUKI TAMAKI ; TAMAKI NOBUYUKI ; STERN BERKOWITZ JANET A ; SADEGHI POURIYA ; RUDOLF MARIAN ; NAZAR SHAHROKH NAYEB ; LEE MOON IL ; HAIM JOHN W ; SHAHROKH NAYEB NAZAR ; POURIYA SADEGHI ; JOHN W HAIM ; JANET A STERN BERKOWITZ ; NAZAR SHAHROKH

Agent(s): JOHANSSON MAGNUS; AWAPATENT AB; TANI AND ABE PC; HUQ ABHIK A

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 IR 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 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: AUTOMATIC TRANSMISSION POWER ADJUSTMENT FOR DOPPLER RADAR

Abstract: The invention relates to a Doppler radar heart sensor comprising a radar signal emitter (102); a radar signal receiver (103); a signal pattern matcher (106); and a transmission power adjuster (108). The signal pattern matcher (106) is connected to the radar signal receiver (103) and arranged to analyze a received radar signal (105), to compare the received radar signal with signal patterns, and to issue a corresponding indication signal upon detection of a sufficiently high similarity between the received radar signal and at least one of the signal patterns. A transmission power adjuster (109) is connected to the radar signal emitter (102) and the signal pattern matcher (106), the transmission power adjuster being arranged to gradually modify a transmission power delivered to the radar signal emitter (102) until the signal pattern matcher issues the indication signal. The invention also relates to a corresponding method and a computer program product.

Classifications:

International (IPC 8-9): A61B5/02 A61B5/024 A61B5/04 A61B5/05 A61B5/11 A61B8/00 G01S13/53 G01S13/58 G01S13/62 G01S13/88 G01S7/40 G06F17/00 G06F19/00 (Advanced/Invention); A61B5/024 G01S13/53 G01S13/62 G01S13/88 (Advanced/Non-invention); A61B5/024 A61B5/11 G01S13/00 G06F17/00 G06F19/00 (Core/Invention)

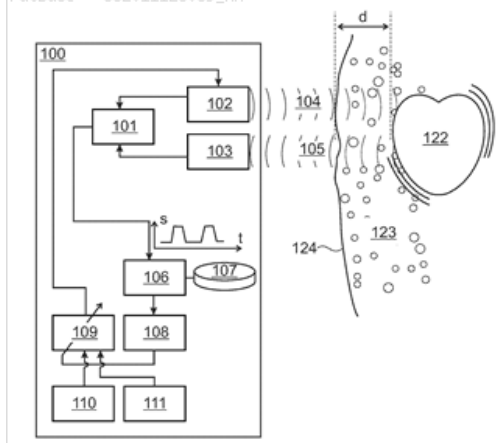
International (IPC 1-7): A61B5/024 A61B5/11 G01S13/58 G01S13/62 G01S13/88 G06F17/00 G06F19/00

CPC: A61B5/02444 A61B5/0507 A61B5/1102 A61B5/1107 A61B5/7207 A61B2560/0209 A61B2560/0228 G01S7/4008 G01S7/4052 G01S13/583 G01S13/88 G01S2007/4095

European: A61B5/024H A61B5/05M A61B5/11D A61B5/11J G01S13/58F G01S13/88 G01S7/40A1 G01S7/40R K61B5/72B2 K61B560/02B2

US: 600/442 600/455 600/508 600/508P

PatBase - US2011125039_AA

**Family:**

Publication number	Publication date	Application number	Application date
BRPI0910520 A2	20171219	BR2009PI10520	20090703
CN102088903 A	20110608	CN200980126732	20090703
CN102088903 B	20121205	CN200980126732	20090703
DE602009007792 D1	20120816	DE200960007792T	20090703
EP2303121 A1	20110406	EP20090786518	20090703
EP2303121 B1	20120620	EP20090786518	20090703
IN00799CN2011 A	20111223	IN2011CN00799	20110204
JP2011527588 T2	20111104	JP20110517292T	20090703
JP5432254 B2	20140305	JP20110517292T	20090703
KR101602900 B1	20160321	KR20117003113	20090703
KR20110034013 A	20110404	KR20117003113	20090703
US2011125039 AA	20110526	US20090002731	20090703
US8398558 BB	20130319	US20090002731	20090703
WO10004496 A1	20100114	WO2009IB52915	20090703

Priority:

EP20080160166 20080711 EP20090786518 20090703 WO2009IB52915 20090703

Probable Assignee: PHILIPS ELECTRONICS KONINKLL NV

Assignee(s): (std): MUEHLSTEFF JENS ; KONINKL PHILIPS ELECTRONICS NV ; PHILIPS INTELLECTUAL PROPERTY ; PINTER ROBERT ; THIJS JEROEN A J ; ROYAL DUTCH PHILIPS ELECTRONICS LTD ; PHILIPS KONINKLL NV

Assignee(s): PHILIPS INTELLECTUAL PROPERTY AND STANDARDS GMBH ; THIJS JEROEN A ; KONINKLIJKE PHILIPS ELECTRONICS N V ; PHILIPS ELECTRONICS KONINKLL NV ; PHILIPS ELECTRONICS N V KONINKLL ; PHILIPS GMBH

Inventor(s): (std): JENS MUEHLSTEFF ; MUEHLSTEFF JENS ; PINTER ROBERT ; ROBERT PINTER ; THIJS JEROEN A J

Inventor(s): THIJS JEROEN AJ ; THIJS JEROEN A ; MUHLSTEFF JENS ; JEROEN A J THIJS

Agent(s): MEISSNER BOLTE AND PARTNER GBR; VAN VELZEN MAAIKE MATHILDE; W BRINTON; VAN VELZEN MAAIKE M

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ 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 PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PDSCH TRANSMISSION SCHEMES WITH COMPACT DOWNLINK CONTROL INFORMATION (DCI) FORMAT IN NEW CARRIER TYPE (NCT) IN LTE

Abstract: Certain aspects of the present disclosure relate to physical downlink shared channel (PDSCH) transmission schemes with compact downlink control information (DCI) format in new carrier type (NCT) in long term evolution (LTE).

Classifications:

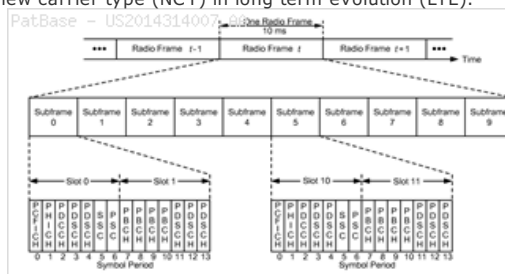
International (IPC 8-9): H04B7/00 H04B7/04 H04B7/06 H04L5/00

H04W16/28 H04W72/04 (Advanced/Invention);

H04L5/00 (Advanced/Non-invention)

CPC: H04W72/042 H04L5/0023 H04B7/00 H04B7/0452 H04B7/0617
H04B7/0619 H04B7/0689 H04L5/0007 H04L5/0053

US: 1/1 370/329



Family:

Publication number	Publication date	Application number	Application date
CN105144621 A	20151209	CN201480023036	20140422
EP2989739 A1	20160302	EP20140725893	20140422
IN05639CN2015 A	20160701	IN2015CN05639	20150916
JP2016521069 T2	20160714	JP20160510724T	20140422
JP6185149 B2	20170823	JP20160510724T	20140422
KR101775810 B1	20170906	KR20157033242	20140422
KR20160004319 A	20160112	KR20157033242	20140422
US2014314007 AA	20141023	US20140257872	20140421
US9420576 BB	20160816	US20140257872	20140421
WO14176204 A1	20141030	WO2014US34894	20140422

Priority:

US20130815084P 20130423 US20140257872 20140421 WO2014US34894 20140422

Probable Assignee: QUALCOMM INC

Assignee(s): (std): QUALCOMM INC

Inventor(s): (std): XU HAO ; LUO TAO ; GAAL PETER ; DAMNJANOVIC ALEKSANDAR ; CHEN WANSI

Agent(s): DUNLOP HUGH CHRISTOPHER; PATTERSON AND SHERIDAN LLP; READ RANDOL W 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 IR 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 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