



REÇU - 1 AVR. 2021

ETSI Rules of Procedure, 3 September 2020

### IPR INFORMATION STATEMENT AND LICENSING DECLARATION

**IPR HOLDER / ORGANISATION ("Declarant")**

Legal Name: ZTE Corporation

**CONTACT DETAILS FOR LICENSING INFORMATION:**

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**IPR INFORMATION STATEMENT**

In accordance with Clause 4.1 of the ETSI IPR Policy the Declarant and/or its AFFILIATES hereby informs ETSI that it is the Declarant's and/or its AFFILIATES' present belief that the IPR(s) disclosed in the attached *IPR Information Statement Annex* may be or may become ESSENTIAL in relation to at least the ETSI Work Item(s), STANDARD(S) and/or TECHNICAL SPECIFICATION(S) identified in the attached *IPR Information Statement Annex*.

The Declarant and/or its AFFILIATES (**check one box only**):

- are the proprietor of the IPR(s) disclosed in the attached *IPR Information Statement Annex*.
- are not the proprietor of the IPR(s) disclosed in the attached *IPR Information Statement Annex*.

**IPR LICENSING DECLARATION**

In accordance with Clause 6.1 of the ETSI IPR Policy the Declarant and/or its AFFILIATES hereby irrevocably declares the following (**check one box only, and subordinate box, where applicable**):

To the extent that the IPR(s) disclosed in the attached *IPR Information Statement Annex* are or become, and remain ESSENTIAL in respect of the ETSI Work Item, STANDARD and/or TECHNICAL SPECIFICATION identified in the attached *IPR Information Statement Annex*, the Declarant and/or its AFFILIATES are (1) prepared to grant irrevocable licences under this/these IPR(s) on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy; and (2) will comply with Clause 6.1 bis of the ETSI IPR Policy.

This irrevocable undertaking is made subject to the condition that those who seek licences agree to reciprocate (**check box if applicable**):

The Declarant and/or its AFFILIATES are not prepared to make the above IPR Licensing Declaration (reasons may be explained in writing in the attached *IPR Licensing Declaration Annex*).

The construction, validity and performance of this IPR information statement and licensing declaration shall be governed by the laws of France. Terms in ALL CAPS on this form have the meaning provided in Clause 15 of the ETSI IPR Policy.

**SIGNATURE**

By signing this IPR Information Statement and Licensing Declaration form, you represent that you have the authority to bind the Declarant and/or its AFFILIATES to the representations and commitments provided in this form.

Name of authorized person: Dr. Mang Zhu  
Title of authorized person: Chief IP Strategy Officer  
Place, Date: Shenzhen, 28/03/2021

Please return this form duly signed to: ETSI Director-General  
ETSI - 650, route des Lucioles - F-06921 Sophia Antipolis Cedex - France / Fax. +33 (0) 4 93 65 47 16

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### IPR Information Statement Annex

STANDARD, TECHNICAL SPECIFICATION or ETSI Work Item					Proprietor	Application No.	Publication No.	Patent/Application Title	Country of registration	FURTHER INFORMATION		
Disclosure Number	Project or Standard name	Work Item or Standard No.	Illustrative Specific part of the standard (e.g. Section)	Version (V.X.X.X)						Other members of this PATENT FAMILY, if any *		
					Application No.	Publication No.	Country of registration					
1	5G, LTE Advanced Pro/5G	TS 126 446		15.0.0	ZTE CORP	CN201010145531	CN102222505 B	Hierarchical audio coding and decoding methods and systems and transient signal hierarchical coding and decoding methods	CHINA	BR20121121359	BR112012021359 B1	BRAZIL
		TS 126 453		15.0.0						EP20110768369	EP2528057 B1	European Patent Office
		TS 126 451		15.0.0						HK20130106102	HK1179402 A1	HONG KONG
		TS 126 445		15.2.0						RU20120136397	RU2522020 C1	RUSSIAN FEDERATION
		TS 26.446		15.0.0						US201113580855	US8874450 B2	UNITED STATES
		TS 26.451		15.0.0						WO2011CN70206	WO2011127757 A1	Patent Cooperation Treaty
		TS 26.453		15.0.0								
		TS 26.445		15.2.0								
2	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN20091080374	CN101841904 B	Null interface synchronization method and system of home node base station	CHINA	EP20090841771	EP2410797 B1	European Patent Office
		TS 136 211		15.2.0						KR20117024817	KR101302287 B1	KOREA (REPUBLIC OF)
		TS 136 300		15.2.0						WO2009CN76233	WO2010105488 A1	Patent Cooperation Treaty
		TS 36.211		15.2.0								
		TS 36.213		15.2.0								
3	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN20121017182	CN103220811 B	Information processing method and method for enabling MTC UE to randomly access LTE system	CHINA	US201214647192	US9774983 B2	UNITED STATES
		TS 136 211		15.2.0						WO2012CN87358	WO2013107251 A1	Patent Cooperation Treaty
		TS 136 321		15.2.0								
		TS 36.211		15.2.0								
		TS 36.213		15.2.0								
		TS 36.321		15.2.0								
4	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201410190615	CN105101097 B	Method and equipment for updating multicast control channel information of multimedia broadcast	CHINA	EP20140891328	EP3128772 B1	European Patent Office
		TS 136 211		15.2.0						US201415308368	US10313185 B2	UNITED STATES
		TS 136 300		15.2.0						WO2014CN82207	WO2015168985 A1	Patent Cooperation Treaty
		TS 36.211		15.2.0								
		TS 36.213		15.2.0								
		TS 36.300		15.2.0								
5	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201410401503	CN105472569 B	Subframe resource allocating method, subframe resource processing method, subframe resource allocating device and subframe resource processing device	CHINA	EP20150832112	EP3182782 B1	European Patent Office
		TS 136 211		15.2.0						US201515503615	US10433278 B2	UNITED STATES
		TS 136 300		15.2.0						WO2015CN70801	WO2016023338 A1	Patent Cooperation Treaty
		TS 36.211		15.2.0								
		TS 36.213		15.2.0								
		TS 36.300		15.2.0								



6	5G, LTE Advanced Pro/5G	TS 136 331	15.2.0	ZTE CORP	CN201510811773	CN106793148 A	Random accessing method and device	CHINA	US201616097370	US10813135 B2	UNITED STATES  Patent Cooperation Treaty
		TS 136 211							WO2016CN78470	WO2017084236 A1	
		TS 136 321									
		TS 36.211									
		TS 36.213									
		TS 36.321									
		TS 36.331									
7	5G, LTE Advanced Pro/5G	TS 136 331	15.2.0	ZTE Corporation	CN20051060115	CN1838574 B	TDD-CDMA system and its random access method	CHINA			
		TS 136 211									
		TS 136 212									
		TS 36.211									
		TS 36.212									
		TS 36.213									
		TS 36.331									
8	5G, LTE Advanced Pro/5G	TS 136 331	15.2.0	ZTE CORP	CN200710198973	CN101453297 B	Encoding method and apparatus for low density generation matrix code, and decoding method and apparatus	CHINA	EP20080714836	EP2228909 A4	European Patent Office
		TS 136 211							JP20100536306	JP5216099 B2	JAPAN
		TS 136 212							KR20107014998	KR101248991 B1	KOREA (REPUBLIC OF)
		TS 36.211							US20080746181	US8370700 B2	UNITED STATES
		TS 36.212							US20080746756	US8527830 B2	UNITED STATES
		TS 36.213							WO2008CN00378	WO2009079891 A1	Patent Cooperation Treaty
		TS 36.331							WO2008CN70728	WO2009074024 A1	Patent Cooperation Treaty
9	5G, LTE Advanced Pro/5G	TS 136 331	15.2.0	ZTE Corporation	CN200710301397	CN101459430 B	Encoding method low density generation matrix code	CHINA	US20080810832	US8281209 B2	UNITED STATES  Patent Cooperation Treaty
		TS 136 211							WO2008CN71283	WO2009079934 A1	
		TS 136 212									
		TS 36.211									
		TS 36.212									
		TS 36.213									
		TS 36.331									
10	5G, LTE Advanced Pro/5G	TS 136 331	15.2.0	ZTE Corporation	CN200710195762	CN101459432 B	Interleaving encoding method for RS code	CHINA	EP20080734224	EP2226944 A4	European Patent Office
		TS 136 211							US20080677260	US8279741 B2	UNITED STATES
		TS 136 212							WO2008CN70868	WO2009076801 A1	Patent Cooperation Treaty
		TS 36.211									
		TS 36.212									
		TS 36.213									
		TS 36.331									



11	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN200710195761	CN101459429 B	Decoding method for low density generation matrix code	CHINA	US20080747936	US8301961 B2	UNITED STATES  Patent Cooperation Treaty
		TS 136 211		WO2008CN70858						WO2009076800 A1		
		TS 136 212										
		TS 36.211										
		TS 36.212										
		TS 36.213										
12	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN200710163344	CN101414833 B	Method and apparatus for encoding low-density generated matrix code	CHINA	EP20080757578	EP2200182 B1	European Patent Office
		TS 136 211		HU2008E757578						HUE033653 T2	HUNGARY	
		TS 136 212		RU20100101145						RU2439792 C2	RUSSIAN FEDERATION	
		TS 36.211										
		TS 36.212										
		TS 36.213										
13	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201010139324	CN102196582 B	Method and sending terminal for dispatching downlink resource of multi-input multi-output beam-forming system	CHINA	EP20100847703	EP2549818 A4	European Patent Office
		TS 136 211		JP20120557371						JP5564122 B2	JAPAN	
		TS 136 212		US201013634531						US8743755 B2	UNITED STATES	
		TS 36.211										
		TS 36.212										
		TS 36.213										
14	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201210295683	CN103634078 B	Processing method and device for performing space-time decoding on MIMO signal	CHINA	EP20130807052	EP2852085 B1	European Patent Office
		TS 136 211		ES20130807052T						ES2685776 T3	SPAIN	
		TS 136 212		JP20150520813						JP5961758 B2	JAPAN	
		TS 36.211										
		TS 36.212										
		TS 36.213										
15	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN20131001421	CN103916945 B	Configuration method and device of downlink power parameters	CHINA	EP20130870353	EP2943021 A4	European Patent Office
		TS 136 211		JP20150551102						JP6041999 B2	JAPAN	
		TS 136 212		US201314759275						US2015358913 A1	UNITED STATES	
		TS 36.211										
		TS 36.212										
		TS 36.213										
16	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE Corporation	CN20081000690	CN101459490 B	Data transmission method and device	CHINA	US20080812091	US8458571 B2	UNITED STATES  Patent Cooperation Treaty
		TS 136 211		WO2008CN70860						WO2009089695 A1		
		TS 136 212										
		TS 36.211										
		TS 36.212										
		TS 36.213										

17	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN200810177630	CN101741795 B	Multi-frequency point multi-site accessing method and device	CHINA	US200913393139	US8780854 B2	UNITED STATES  Patent Cooperation Treaty
		TS 136 211		WO2009CN74215						WO2010054569 A1		
		TS 136 212										
		TS 36.211										
		TS 36.212										
		TS 36.213										
TS 36.331												
18	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN20091080376	CN101841386 B	Method and system for feeding back channel quality indications	CHINA	EP20090841769	EP2410696 B1	European Patent Office
		TS 136 211		US200913257790						US8787189 B2	UNITED STATES	
		TS 136 212		WO2009CN76152						WO2010105486 A1	Patent Cooperation Treaty	
		TS 36.211										
		TS 36.212										
		TS 36.213										
TS 36.331												
19	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN200910221256	CN101699781 B	Encoding method and device of correct/error response message and rank indication singling	CHINA	EP20100827820	EP2479917 A4	European Patent Office
		TS 136 211		WO2010CN74591						WO2011054206 A1	Patent Cooperation Treaty	
		TS 136 212										
		TS 36.211										
		TS 36.212										
		TS 36.213										
TS 36.331												
20	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN20101002248	CN101777965 A	Channel state information feedback method and user terminal	CHINA	EP20100842865	EP2498531 B9	European Patent Office
		TS 136 211		ES20100842865T						ES2623873 T3	SPAIN	
		TS 136 212		US201013512964						US8913574 B2	UNITED STATES	
		TS 36.211		WO2010CN74743						WO2011085581 A1	Patent Cooperation Treaty	
		TS 36.212										
		TS 36.213										
TS 36.331												
21	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201010155453	CN102209377 B	Method and device for generating auxiliary synchronization signal	CHINA	EP20110761936	EP2555563 B1	European Patent Office
		TS 136 211		US201113638127						US8798218 B2	UNITED STATES	
		TS 136 212		WO2011CN71104						WO2011120362 A1	Patent Cooperation Treaty	
		TS 36.211										
		TS 36.212										
		TS 36.213										
TS 36.331												
22	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	UNKNOWNCOMP ANY (CN201010206654 )	CN201010206654	CN102281636 B		CHINA	EP20110791954	EP2557835 A4	European Patent Office
		TS 136 211		US201113642672						US9137795 B2	UNITED STATES	
		TS 136 212		WO2011CN75603						WO2011153964 A1	Patent Cooperation Treaty	
		TS 36.211										
		TS 36.212										
		TS 36.213										
TS 36.331												

23	5G, LTE Advanced Pro/5G	TS 136 331	15.2.0	ZTE CORP	CN201010210853	CN101867457 B	Processing method of channel state information and user equipment	CHINA	EP20110797612	EP2584822 B1	European Patent Office
		TS 136 211							US201113813263	US8958369 B2	UNITED STATES
		TS 136 212							WO2011CN76072	WO2011160581 A1	Patent Cooperation Treaty
		TS 36.211									
		TS 36.212									
		TS 36.213									
24	5G, LTE Advanced Pro/5G	TS 136 331	15.2.0	ZTE CORP	CN20111056045	CN102685890 B	Pilot frequency transmitting method and system	CHINA	US201114003584	US9277453 B2	UNITED STATES
		TS 136 211							WO2011CN77883	WO2012119368 A1	Patent Cooperation Treaty
		TS 136 212									
		TS 36.211									
		TS 36.212									
		TS 36.213									
25	5G, LTE Advanced Pro/5G	TS 136 331	15.2.0	ZTE CORP	CN201110360142	CN103107857 B	Sending method and sending device for improving physical downlink control channel	CHINA	EP20120848815	EP2775768 B1	European Patent Office
		TS 136 211							US201214358206	US9942888 B2	UNITED STATES
		TS 136 212							WO2012CN77600	WO2013071757 A1	Patent Cooperation Treaty
		TS 36.211									
		TS 36.212									
		TS 36.213									
26	5G, LTE Advanced Pro/5G	TS 136 331	15.2.0	ZTE CORP	CN201110455695	CN102448122 B	Method and base station for confirming size of transmission block in sub- frame	CHINA	EP20120861688	EP2800415 B1	European Patent Office
		TS 136 211							ES20120881688T	ES2656991 T3	SPAIN
		TS 136 212							HK20150100366	HK1200002 A1	HONG KONG
		TS 36.211							JP20140549302	JP6452088 B2	JAPAN
		TS 36.212							JP20170056655	JP2017153102 A	JAPAN
		TS 36.213							US201214369771	US9496994 B2	UNITED STATES
27	5G, LTE Advanced Pro/5G	TS 136 331	15.2.0	ZTE CORP	CN201110459725	CN103188041 B	Detection method and device of control channel	CHINA	WO2012CN72576	WO2013097364 A1	Patent Cooperation Treaty
		TS 136 211							CN201710100056	CN106877978 B	CHINA
		TS 136 212									
		TS 36.211									
		TS 36.212									
		TS 36.213									
28	5G, LTE Advanced Pro/5G	TS 136 331	15.2.0	ZTE CORP	CN201310110191	CN104079392 B	Method, device and system for transmitting system frame number information	CHINA	EP20130880432	EP2981015 B1	European Patent Office
		TS 136 211							US201314780376	US2016057562 A1	UNITED STATES
		TS 136 212							WO2013CN86010	WO2014153954 A1	Patent Cooperation Treaty
		TS 36.211									
		TS 36.212									
		TS 36.213									

29	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201210269125	CN103580834 B	ePDCCH transmitting and receiving method, device, base station and user device	CHINA	US201314417422	US9609640 B2	UNITED STATES			
		TS 136 211		WO2013CN80485						WO2013178184 A3			Patent Cooperation Treaty		
		TS 136 212													
		TS 36.211													
		TS 36.212													
		TS 36.213													
TS 36.331															
30	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201210131932	CN103379594 B	Control signal sending method, control signal processing device and terminal	CHINA	EP20120875626	EP2814284 B1	European Patent Office			
		TS 136 211		US201214382433						US9444602 B2			UNITED STATES		
		TS 136 212		WO2012CN77239										WO2013159442 A1	Patent Cooperation Treaty
		TS 36.211													
		TS 36.212													
		TS 36.213													
TS 36.331															
31	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201210370527	CN103716132 B	Downlink control information processing device and method	CHINA	EP20130842765	EP2890034 B1	European Patent Office			
		TS 136 211		US201314431492						US2015245380 A1			UNITED STATES		
		TS 136 212		WO2013CN83287										WO2014048249 A1	Patent Cooperation Treaty
		TS 36.211													
		TS 36.212													
		TS 36.213													
TS 36.331															
32	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201210181443	CN103220101 B	Informing method of frequency spectrum comb signaling, sending method and device for detecting reference signal	CHINA	US201214768765	US10171210 B2	UNITED STATES			
		TS 136 211		WO2012CN87698						WO2013107265 A1			Patent Cooperation Treaty		
		TS 136 212													
		TS 36.211													
		TS 36.212													
		TS 36.213													
TS 36.331															
33	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201210261426	CN103580822 B	Data transmission method and system	CHINA						
		TS 136 211													
		TS 136 212													
		TS 36.211													
		TS 36.212													
		TS 36.213													
TS 36.331															
34	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201210433823	CN103795514 B	ePDCCH (enhanced Physical Downlink Control Channel) sending and receiving methods, base station, and user equipment	CHINA	EP20130850742	EP2916476 A4	European Patent Office			
		TS 136 211		US201314439930						US9907061 B2			UNITED STATES		
		TS 136 212		WO2013CN82693										WO2014067340 A1	Patent Cooperation Treaty
		TS 36.211													
		TS 36.212													
		TS 36.213													
TS 36.331															



35	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201210433359	CN103796314 B	UE (User Equipment), PRB (Physical Resource Block) configuration method of USS (UE specific Search Space), system side	CHINA	CN20181173745	CN109152059 A	CHINA
		TS 136 211		15.2.0						DE20132012751U	DE202013012751 U1	GERMANY
		TS 136 212		15.2.0						EP20130850724	EP2906010 A4	European Patent Office
		TS 36.211		15.2.0						US201314439773	US9584295 B2	UNITED STATES
		TS 36.212		15.2.0						WO2013CN82449	WO2014067332 A1	Patent Cooperation Treaty
		TS 36.213		15.2.0								
36	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201210146387	CN103391610 B	Signaling configuring, transmitting, receiving method and device	CHINA	US201314400411	US9860858 B2	UNITED STATES
		TS 136 211		15.2.0						WO2013CN75207	WO2013166947 A1	Patent Cooperation Treaty
		TS 136 212		15.2.0								
		TS 36.211		15.2.0								
		TS 36.212		15.2.0								
		TS 36.213		15.2.0								
37	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201610317146	CN107370698 A	Downlink signal processing method and device and base station	CHINA	EP20170795626	EP3457649 A4	European Patent Office
		TS 136 211		15.2.0						JP20180559919	JP6682660 B2	JAPAN
		TS 136 212		15.2.0						WO2017CN84211	WO2017194008 A1	Patent Cooperation Treaty
		TS 36.211		15.2.0								
		TS 36.212		15.2.0								
		TS 36.213		15.2.0								
38	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201210235569	CN103546253 B	Data transmission method and data transmission system	CHINA			
		TS 136 211		15.2.0								
		TS 136 212		15.2.0								
		TS 36.211		15.2.0								
		TS 36.212		15.2.0								
		TS 36.213		15.2.0								
39	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201910216190	CN111726191 A	Signal processing method and device and computer readable storage medium	CHINA			
		TS 136 211		15.2.0								
		TS 136 212		15.2.0								
		TS 36.211		15.2.0								
		TS 36.212		15.2.0								
		TS 36.213		15.2.0								
40	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN20181173745	CN109152059 A	User equipment and configuration method for resources in search space thereof, and system side	CHINA	CN201210433359	CN103796314 B	CHINA
		TS 136 211		15.2.0						DE20132012751U	DE202013012751 U1	GERMANY
		TS 136 212		15.2.0						EP20130850724	EP2906010 A4	European Patent Office
		TS 36.211		15.2.0						US201314439773	US9584295 B2	UNITED STATES
		TS 36.212		15.2.0						WO2013CN82449	WO2014067332 A1	Patent Cooperation Treaty
		TS 36.213		15.2.0								





41	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201811374189	CN111200477 A	Data frame transmission method and device and storage medium	CHINA	WO2019CN11941 6	WO2020103818 A1	Patent Cooperation Treaty
		TS 136 211		15.2.0								
		TS 136 212		15.2.0								
		TS 36.211		15.2.0								
		TS 36.212		15.2.0								
		TS 36.213		15.2.0								
		TS 36.331		15.2.0								
42	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201811297227	CN111130687 A	Wireless data communication method and device, storage medium and electronic device	CHINA	WO2019CN11166 9	WO2020088261 A1	Patent Cooperation Treaty
		TS 136 211		15.2.0								
		TS 136 212		15.2.0								
		TS 36.211		15.2.0								
		TS 36.212		15.2.0								
		TS 36.213		15.2.0								
		TS 36.331		15.2.0								
43	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE Corporation	CN20021039929	CN100461659 C	Power control method of broad band CDMA mobile communication system	CHINA	AU20030271025	AU2003271025 A1	AUSTRALIA
		TS 136 211		15.2.0						EP20030750254	EP1583256 B1	European Patent Office
		TS 136 212		15.2.0						RU20050124292	RU2324288 C2	RUSSIAN FEDERATION
		TS 36.211		15.2.0						WO2003CN00796	WO2004059872 A1	Patent Cooperation Treaty
		TS 36.212		15.2.0								
		TS 36.213		15.2.0								
		TS 36.331		15.2.0								
44	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201010515500	CN102457862 B	Method for testing terminal cell reselection ability and apparatus thereof	CHINA	EP20110833779	EP2621217 B1	European Patent Office
		TS 136 300		15.2.0						US201113879796	US9191876 B2	UNITED STATES
		TS 136 304		15.2.0						WO2011CN77385	WO2012051873 A1	Patent Cooperation Treaty
		TS 36.213		15.2.0								
		TS 36.300		15.2.0								
		TS 36.331		15.2.0								
		TS 36.304		15.2.0								
45	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN200910174167	CN102036398 B	Relay node (RN) and method thereof for transmitting data	CHINA	EP20100819847	EP2448347 A4	European Patent Office
		TS 136 211		15.2.0						US201013384309	US8897202 B2	UNITED STATES
		TS 136 321		15.2.0						WO2010CN76069	WO2011038618 A1	Patent Cooperation Treaty
		TS 36.211		15.2.0								
		TS 36.213		15.2.0								
		TS 36.321		15.2.0								
		TS 36.331		15.2.0								
46	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201110129255	CN102202415 B	Transmission method and system thereof of physical random access channel	CHINA	EP20120785079	EP2712259 B1	European Patent Office
		TS 136 300		15.2.0						US201214118351	US2014105152 A1	UNITED STATES
		TS 136 321		15.2.0						WO2012CN72333	WO2012155626 A1	Patent Cooperation Treaty
		TS 36.213		15.2.0								
		TS 36.300		15.2.0								
		TS 36.321		15.2.0								
		TS 36.331		15.2.0								

47	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201110226899	CN102355724 B	Method and base station for notifying power information	CHINA	US201114233942	US9271274 B2	UNITED STATES  Patent Cooperation Treaty
		TS 136 423		WO2011CN83921						WO2012155501 A1		
		TS 136 321										
		TS 36.213										
		TS 36.321										
		TS 36.331										
TS 36.423												
48	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN201010141517	CN102202339 A	Method and device for realizing network topology management of the Internet of things	CHINA	EP20100848211	EP2541834 B1	European Patent Office
		TS 136 413		US201013636709						US8837327 B2	UNITED STATES	
		TS 136 423		WO2010CN73539						WO2011116549 A1	Patent Cooperation Treaty	
		TS 136 300										
		TS 36.300										
		TS 36.331										
TS 36.413												
TS 36.423												
49	5G, LTE Advanced Pro/5G	TS 136 331		15.2.0	ZTE CORP	CN20101004557	CN102123457 B	Switchover method and terminal	CHINA	BR20121112990	BR112012012990 A2	BRAZIL
		TS 136 413		EP20110731689						EP2503620 B1	European Patent Office	
		TS 136 423		JP20120547445						JP5828843 B2	JAPAN	
		TS 136 300		US201113504944						US2012218973 A1	UNITED STATES	
		TS 36.300		WO2011CN70102						WO20111082688 A1	Patent Cooperation Treaty	
		TS 36.331										
TS 36.413												
TS 36.423												
50	5G, LTE Advanced Pro/5G	TS 137 340		15.2.0	ZTE CORP	CN201310101008	CN104080121 B	Method and system of transmitting data	CHINA	EP20130880127	EP2981128 B1	European Patent Office
		TS 138 322		US201314779914						US9736751 B2	UNITED STATES	
		TS 138 331		WO2013CN84528						WO2014153937 A1	Patent Cooperation Treaty	
		TS 138 425										
		TS 37.340										
		TS 38.322										
TS 38.331												
TS 38.425												
51	5G, LTE Advanced Pro/5G	TS 124 238		15.0.0	ZTE CORP	CN201010534677	CN102420807 B	Method and system for supporting multiple time zones by IMS (IP Multimedia Subsystem), and charging method and system	CHINA	CA20112814973	CA2814973 C	CANADA
		TS 123 231		EP20110833819						EP2621201 B1	European Patent Office	
		TS 24.229		US201113880047						US9215077 B2	UNITED STATES	
		TS 23.231		WO2011CN80749						WO2012051913 A1	Patent Cooperation Treaty	
		TS 24.238										
52	5G, LTE Advanced Pro/5G	TS 133 102		15.1.0	ZTE CORP	CN201610599048	CN107666666 A	Key generation method and apparatus	CHINA	US201716320704	US2019166493 A1	UNITED STATES
		TS 33.501		WO2017CN88111						WO2018019046 A1	Patent Cooperation Treaty	
		TS 33.401										
TS 33.102												
53	5G, LTE Advanced Pro/5G	TS 133 102		15.1.0	ZTE CORP	CN201610821578	CN107820244 A	Network access authentication method and device	CHINA	EP20170848015	EP3512230 A4	European Patent Office
		TS 33.501		WO2017CN94402						WO2018045842 A1	Patent Cooperation Treaty	
		TS 33.401										
		TS 33.102										



54	5G, LTE Advanced Pro/5G	TS 133 102 TS 33.501 TS 33.401 TS 33.102		15.1.0	ZTE CORP	CN201610821823	CN107820245 A	Network access authentication processing method and device	CHINA	EP20170848014	EP3512229 A4	European Patent Office
				15.3.0						EP20200199611	EP3793233 A1	European Patent Office
				15.1.0						WO2017CN94400	WO2018045841 A1	Patent Cooperation Treaty
55	5G, LTE Advanced Pro/5G	TS 136 331 TS 136 423 TS 136 300 TS 36.300 TS 36.331 TS 36.423		15.2.0	ZTE CORP	CN201210136644	CN103384375 B	Base station standard edition mode processing method, device and terminal and base station	CHINA	EP20120876024	EP2846604 B1	European Patent Office
				15.2.0						JP20150509279	JP6064034 B2	JAPAN
				15.2.0						US201214398543	US9462491 B2	UNITED STATES
				15.2.0						WO2012CN77322	WO2013163841 A1	Patent Cooperation Treaty
				15.2.0								
56	5G, LTE Advanced Pro/5G	TS 136 331 TS 136 300 TS 136 321 TS 36.300 TS 36.321 TS 36.331		15.2.0	ZTE CORP	CN201010165271	CN102215599 B	Method for determining downlink time reference	CHINA	BR20121115818	BR112012015818 A2	BRAZIL
				15.2.0						EP20110765023	EP2509383 A4	European Patent Office
				15.2.0						JP20120546351	JP2013516128 A	JAPAN
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				15.2.0						US201113520026	US8804564 B2	UNITED STATES
				15.2.0						WO2011CN71523	WO2011124105 A1	Patent Cooperation Treaty
57	5G, LTE Advanced Pro/5G	TS 136 331 TS 136 423 TS 33.401 TS 36.331 TS 36.423		15.2.0	ZTE CORP	CN201010202417	CN101867924 B	Method for updating and generating air interface key and wireless access system	CHINA	CA20112803653	CA2803653 A1	CANADA
				15.2.0						CA20112849638	CA2849638 C	CANADA
				15.3.0						EP20110791847	EP2579633 B1	European Patent Office
				15.2.0						JP20130513529	JP5828892 B2	JAPAN
				15.2.0						US201113702190	US8934868 B2	UNITED STATES
				15.2.0						WO2011CN71719	WO2011153855 A1	Patent Cooperation Treaty
58	5G, LTE Advanced Pro/5G	TS 136 331 TS 136 300 TS 36.300 TS 36.331		15.2.0	ZTE CORP	CN201710313707	CN109245845 A	Signaling transmission method and device	CHINA	US201716611071	US2020170075 A1	UNITED STATES
				15.2.0						WO2017CN11075 4	WO2018201687 A1	Patent Cooperation Treaty

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