

# SISVEL LTE PATENT BROCHURE

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Family	Patent Owner	Exemplary Patent	Family Members	Claim(s)	Illustrative section(s) of the standard	ETSI Declaration	Filing Date	
LTE001	Airbus DS	FR2829642		1	3GPP TS 36.211 V9.1.0: Sections 6.1, 6.1.1, 6.2, 6.2.1, 6.2.2, 6.10, 6.10.1, 6.10.1.1, 6.10.1.2, 6.10.2, 6.10.2.1, 6.10.2.2, 6.10.3, 6.10.3.1, 6.10.3.2, 6.10.4, 6.10.4.1, 6.10.4.2, 7.2; Figures 6.2.2-1, 6.10.1.2-1, 6.10.1.2-2, 6.10.2.2-1, 6.10.2.2-3, 6.10.3.2-1, 6.10.3.2-2, 6.10.3.2-3, 6.10.4.2-1, 6.10.4.2-2	ISLD-201309-002	12 Sep 2001	
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LTE002	Airbus DS	EP1364547		1	3GPP TS 36.133 v9.3.0: Section 7.6, 7.6.1, 8.1.2.2.1.1, 3GPP TS 36.211 v9.1.0: Section 5.2.1, 6.2.1, Figure 5.2.1-1 3GPP TS 36.213 v9.1.0: Section 5.1, 3GPP TS 36.214 v9.1.0: Section 5.2.2, 3GPP TS 36.300 v9.2.0: Section 10.1, 10.1.2, Figure 10.1.2.1.1-1 3GPP TS 36.321 v9.1.0: Section 5.10 3GPP TS 36.331 v9.1.0: Section 5.5.1, 6.2.2, 6.3.5, 10.2.2	ISLD-201309-002	01 Mar 2002	
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LTE003	Airbus DS	US7224683		1, 11	3GPP TS 36.300 V8.12.0: Section 4 3GPP TS 36.211 V8.9.0: Sections 4, 4.1, 4.2, 5, 5.1, 5.2, 5.2.1, 5.2.2, 5.2.3; Figures 4.1-1, 4.2-1, 5.2.1-1. 3GPP TS 36.331 V8.19.0: Sections 1, 3, 3.2, 5, 5.3, 5.3.1, 5.3.1.1, 5.3.10, 5.3.10.0, 5.3.10.1, 5.3.10.5, 6, 6.3, 6.3.2 3GPP TS 36.321 V8.12.0: Sections 5, 5.10, 5.10.2. 3GPP TS 36.213 V8.8.0: Sections 8, 8.3; Tables 8-1, 8.3-1	ISLD-201309-002	01 Aug 2000	
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LTE022	KPN	EP0831613		1	3GPP TR 21.905 V11.3.0: Section 3: 0-9 ETSI TS 136 212 V8.8.0: Sections 1, 5, 5.1.1, 5.1.2, 5.3.2, 5.3.2.1 ; Figure 5.3.2-1	ISLD-201203-018	21 Nov 1996
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LTE026	KPN	US8549151		1	3GPP TS 26.234 V10.5.0 Sections 5.6.1; and 5.6.2 3GPP TS 26.237 V10.8.0 Sections 4.3; Figure 3; Figure 4; 8.1; 8.2.3.1; Figure 7; 8.2.3.2; 8.2.4.1 Figure 8; 8.2.4.2; 8.2.4.3; 13; 13.1; Figure 30; 13.2; 21; 21.1.1; Figure 46; and 21.1.4 3GPP TS 26.114 V10.8.0 Sections 4.1; Figure 4.1; 6.1 and 6.2.1	ISLD-201401-007 ISLD-201911-046	22 Dec 2008	
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LTE027	KPN	EP2567564		1	3GPP TS 32.551 V11.3.1: Sections 3.1, 4.1.1 3GPP TS 36.300 V11.9.0: Sections 20.2.2.15, 22.4.4.2 3GPP TS 36.413 V11.6.0: Sections B.1.14	ISLD-201505-009	04 May 2011	
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<b>LTE028</b>	<b>KPN</b>	US8626175		1	3GPP TS 36.331 V10.15.0 Section 5.6.1; 5.6.6.2; 6.2.2; 5.6.5. 3GPP TS 32.521 V10.2.0: Section 5.1.5 and 5.4.3 3GPP TS 32.522 V10.6.0: Section 4.5.3.1 and 4.5.5 3GPP TS 37.320 V10.4.0: Annex A, Section 3.1, 4.1 5.1.1, 5.1.1.1, 5.1.1.2, 5.1.1.3.2 and 5.1.1.3.3; Figure 5.1.1.1-1	ISLD-201505-005	16 Dec 2010	
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	MX243041						19 Nov 2001	

LTE030	3G Licensing	JP4933528		1	3GPP TS 23.060 V8.9.0: Sections 1, 3.1, 4, 5.1, 5.2.1, 5.3.2, 5.3.2.1, 5.3.2.2, 5.4.1.1, 5.4.1.2, 9.2.1A and 9.6; Figure 1 3GPP TS 23.401 V8.10.0: Sections 3.2, 4.2.1, 4.2.2, 4.3.2.1, 4.3.2.2, 4.4.3.1, 4.4.3.2, 4.4.7.1, 4.4.7.2, 4.4.7.3, 4.7.1, 4.7.2.1 and 4.7.2.2; Figures 4.2.1-1, 4.2.1-2, 4.2.2-1 and 4.7.2.2-1 3GPP TS 23.402 V8.6.0: Sections 1, 4.2.1, 4.2.2, 4.2.3, 4.3.1.1, 4.3.1.2, 4.3.3.1, 4.3.3.2, 4.3.3.3, 4.3.5, 4.3.5.1, 4.3.5.2, 4.8.1, 4.8.2.1, 4.10.3 and 8.5.1; Figures 4.2.1-1, 4.2.1-2, 4.2.2-1, 4.2.2-2, 4.2.3-1, 4.2.3-2, 4.10.3-1, 4.8.1.1-1 and 8.5.1-1 3GPP TS 23.203 V8.11.0: Sections 1, 3.1, 6.1.0, 6.1.1.1, 6.1.1.2, 6.1.1.3, 6.1.1.4, 6.2.1.0, A.1.0, A.1.1.2, A.1.1.3, A.4.0, A.4.1.1, A.4.1.2, A.5.0, A.5.1.0, A.5.1.1, D.1.1, D.2, H.1 and H.2; Figures A.1, A.4, D.1.1 and D.2.1	ISLD-201211-004 ISLD-201211-006 ISLD-201211-007 ISLD-201211-008 ISLD-201607-001 ISLD-201607-002	22 Mar 2006	
		EP1869840		1	3GPP TS 23.060 V8.9.0: Sections 1, 3.1, 4, 5.1, 5.2.1, 5.3.2, 5.3.2.1, 5.3.2.2, 5.4.1.1, 5.4.1.2, 9.2.1A and 9.6; Figure 1 3GPP TS 23.401 V8.10.0: Sections 3.2, 4.2.1, 4.2.2, 4.3.2.1, 4.3.2.2, 4.4.3.1, 4.4.3.2, 4.4.7.1, 4.4.7.2, 4.4.7.3, 4.7.1, 4.7.2.1 and 4.7.2.2; Figures 4.2.1-1, 4.2.1-2, 4.2.2-1 and 4.7.2.2-1 3GPP TS 23.402 V8.6.0: Sections 1, 4.2.1, 4.2.2, 4.2.3, 4.3.1.1, 4.3.1.2, 4.3.3.1, 4.3.3.2, 4.3.3.3, 4.3.5, 4.3.5.1, 4.3.5.2, 4.8.1, 4.8.2.1, 4.10.3 and 8.5.1; Figures 4.2.1-1, 4.2.1-2, 4.2.2-1, 4.2.2-2, 4.2.3-1, 4.2.3-2, 4.10.3-1, 4.8.1.1-1 and 8.5.1-1 3GPP TS 23.203 V8.11.0: Sections 1, 3.1, 6.1.0, 6.1.1.1, 6.1.1.2, 6.1.1.3, 6.1.1.4, 6.2.1.0, A.1.0, A.1.1.2, A.1.1.3, A.4.0, A.4.1.1, A.4.1.2, A.5.0, A.5.1.0, A.5.1.1, D.1.1, D.2, H.1 and H.2; Figures A.1, A.4, D.1.1 and D.2.1	ISLD-201211-004 ISLD-201211-006 ISLD-201211-007 ISLD-201211-008 ISLD-201607-001 ISLD-201607-002	22 Mar 2006	
		CNZL200680017858.2		1	3GPP TS 23.060 V8.9.0: Sections 1, 3.1, 4, 5.1, 5.2.1, 5.3.2, 5.3.2.1, 5.3.2.2, 5.4.1.1, 5.4.1.2, 9.2.1A and 9.6; Figure 1 3GPP TS 23.401 V8.10.0: Sections 3.2, 4.2.1, 4.2.2, 4.3.2.1, 4.3.2.2, 4.4.3.1, 4.4.3.2, 4.4.7.1, 4.4.7.2, 4.4.7.3, 4.7.1, 4.7.2.1 and 4.7.2.2; Figures 4.2.1-1, 4.2.1-2, 4.2.2-1 and 4.7.2.2-1 3GPP TS 23.402 V8.6.0: Sections 1, 4.2.1, 4.2.2, 4.2.3, 4.3.1.1, 4.3.1.2, 4.3.3.1, 4.3.3.2, 4.3.3.3, 4.3.5, 4.3.5.1, 4.3.5.2, 4.8.1, 4.8.2.1, 4.10.3 and 8.5.1; Figures 4.2.1-1, 4.2.1-2, 4.2.2-1, 4.2.2-2, 4.2.3-1, 4.2.3-2, 4.10.3-1, 4.8.1.1-1 and 8.5.1-1 3GPP TS 23.203 V8.11.0: Sections 1, 3.1, 6.1.0, 6.1.1.1, 6.1.1.2, 6.1.1.3, 6.1.1.4, 6.2.1.0, A.1.0, A.1.1.2, A.1.1.3, A.4.0, A.4.1.1, A.4.1.2, A.5.0, A.5.1.0, A.5.1.1, D.1.1, D.2, H.1 and H.2; Figures A.1, A.4, D.1.1 and D.2.1	ISLD-201211-004 ISLD-201211-006 ISLD-201211-007 ISLD-201211-008 ISLD-201607-001 ISLD-201607-002	22 Mar 2006	
			CNZL201210078576.0					22 Mar 2006
			EP1869840(DE)					22 Mar 2006
			EP1869840(ES)					22 Mar 2006
			EP1869840(FR)					22 Mar 2006
			EP1869840(GB)					22 Mar 2006
			EP1869840(IE)					22 Mar 2006
			EP1869840(IT)					22 Mar 2006
			EP1869840(NL)					22 Mar 2006
			EP1869840(PL)					22 Mar 2006
			EP1869840(TR)					22 Mar 2006
	US8570936					22 Mar 2006		
	US9813940					22 Mar 2006		
LTE031	3G Licensing	US8565159		1	3GPP TS 23.060 V8.15.0: Sections 1, and 4 3GPP TS 23.327 V8.4.0: Sections 1, 4.1, 5.2.1, 5.3.1, 5.3.2, 6.1, 6.3.1, and 6.3.2.2 and Figures 5.2.1-1, 6.1, 6.3.1-1, and 6.3.2.2-1; 3GPP TS 23.234 V8.0.0: Sections 1, 4, 5.7.1, 6.1.2, and 6.2.6, and Figure 6.2a	ISLD-201211-009 ISLD-201211-010 ISLD-201211-011 ISLD-201607-001 ISLD-201607-002	15 Jan 2007	
		US8194608		1	3GPP TS 23.060 V8.15.0: Sections 1, and 4 3GPP TS 23.327 V8.4.0: Sections 1, 4.1, 5.2.1, 5.3.1, 5.3.2, 6.1, 6.3.1, and 6.3.2.2 and Figures 5.2.1-1, 6.1, 6.3.1-1, and 6.3.2.2-1; 3GPP TS 23.234 V8.0.0: Sections 1, 4, 5.7.1, 6.1.2, and 6.2.6, and Figure 6.2a	ISLD-201211-009 ISLD-201211-010 ISLD-201211-011 ISLD-201607-001 ISLD-201607-002	15 Jan 2007	

LTE031	3G Licensing	CNZL200780009678.4		1	3GPP TS 23.060 V8.15.0: Sections 1, and 4 3GPP TS 23.327 V8.4.0: Sections 1, 4.1, 5.2.1, 5.3.1, 5.3.2, 6.1, 6.3.1, and 6.3.2.2 and Figures 5.2.1-1, 6.1, 6.3.1-1, and 6.3.2.2-1; 3GPP TS 23.234 V8.0.0: Sections 1, 4, 5.7.1, 6.1.2, and 6.2.6, and Figure 6.2a	ISLD-201211-009 ISLD-201211-010 ISLD-201211-011 ISLD-201607-001 ISLD-201607-002	15 Jan 2007	
			EP1974576(DE)				15 Jan 2007	
			EP1974576(ES)				15 Jan 2007	
			EP1974576(FR)				15 Jan 2007	
			EP1974576(GB)				15 Jan 2007	
			EP1974576(IT)				15 Jan 2007	
			EP2958292(DE)				15 Jan 2007	
			EP2958292(ES)				15 Jan 2007	
			EP2958292(FR)				15 Jan 2007	
			EP2958292(GB)				15 Jan 2007	
			EP2958292(IT)				15 Jan 2007	
			EP2958292(NL)				15 Jan 2007	
				HK1219367				15 Jan 2007
LTE032	3G Licensing	US8971246		1	3GPP TS 23.401 V8.15.0: Sections 1, 3.1, 4.1, 4.2.1, 4.2.3, 4.4.3.1, 4.4.3.2, 4.4.3.3, 4.7.1, 4.7.2.1, 4.7.2.2, 5.3.2.1, and 5.10.2 and Figures 4.2.1-1, 4.2.1-2 and 4.7.2.2-1	ISLD-201211-012 ISLD-201607-001 ISLD-201607-002	23 Mar 2006	
		US8072923		1	3GPP TS 23.401 V8.15.0: Sections 1, 3.1, 4.1, 4.2.1, 4.2.3, 4.4.3.1, 4.4.3.2, 4.4.3.3, 4.7.1, 4.7.2.1, 4.7.2.2, 5.3.2.1, and 5.10.2 and Figures 4.2.1-1, 4.2.1-2 and 4.7.2.2-1	ISLD-201211-012 ISLD-201607-001 ISLD-201607-002	23 Mar 2006	
		JP5491650		1	3GPP TS 23.401 V8.15.0: Sections 1, 3.1, 4.1, 4.2.1, 4.2.3, 4.4.3.1, 4.4.3.2, 4.4.3.3, 4.7.1, 4.7.2.1, 4.7.2.2, 5.3.2.1, and 5.10.2 and Figures 4.2.1-1, 4.2.1-2 and 4.7.2.2-1	ISLD-201211-012 ISLD-201607-001 ISLD-201607-002	23 Mar 2006	
		JP5384934		1	3GPP TS 23.401 V8.15.0: Sections 1, 3.1, 4.1, 4.2.1, 4.2.3, 4.4.3.1, 4.4.3.2, 4.4.3.3, 4.7.1, 4.7.2.1, 4.7.2.2, 5.3.2.1, and 5.10.2 and Figures 4.2.1-1, 4.2.1-2 and 4.7.2.2-1	ISLD-201211-012 ISLD-201607-001 ISLD-201607-002	23 Mar 2006	
		CNZL200680016492.7		1	3GPP TS 23.401 V8.15.0: Sections 1, 3.1, 4.1, 4.2.1, 4.2.3, 4.4.3.1, 4.4.3.2, 4.4.3.3, 4.7.1, 4.7.2.1, 4.7.2.2, 5.3.2.1, and 5.10.2 and Figures 4.2.1-1, 4.2.1-2 and 4.7.2.2-1	ISLD-201211-012 ISLD-201607-001 ISLD-201607-002	23 Mar 2006	
			CNZL201110148681.2					23 Mar 2006
			EP1861981(DE)					23 Mar 2006
			EP1861981(FR)					23 Mar 2006
			EP1861981(GB)					23 Mar 2006
			EP1861981(IT)					23 Mar 2006
		EP1861981(NL)				23 Mar 2006		
LTE033	3G Licensing	US9001732		1	3GPP TS 23.060 V8.9.0: subclauses 4, 9.2.1A, 9.2.2.1; and Figs 63 and 64 3GPP TS 23.401 V8.15.0: subclauses 1.3.1, 4.1, 4.2.1, 4.4.3.1, 4.4.3.2, 4.4.3.3, 4.7.1, 4.7.2.1, 4.7.2.2, 5.3.2.1; and Fig 4.2.1-2, and Fig 4.7.2.2-1 3GPP TS 24.008 V8.10.0: subclauses 10.5.6.4; Fig 10.5.137; and Table 10.5.155	ISLD-201211-013 ISLD-201211-014 ISLD-201211-015 ISLD-201607-001 ISLD-201607-002	23 Mar 2006	
		US8064384		1	3GPP TS 23.060 V8.9.0: subclauses 4, 9.2.1A, 9.2.2.1; and Figs 63 and 64 3GPP TS 23.401 V8.15.0: subclauses 1.3.1, 4.1, 4.2.1, 4.4.3.1, 4.4.3.2, 4.4.3.3, 4.7.1, 4.7.2.1, 4.7.2.2, 5.3.2.1; and Fig 4.2.1-2, and Fig 4.7.2.2-1 3GPP TS 24.008 V8.10.0: subclauses 10.5.6.4; Fig 10.5.137; and Table 10.5.155	ISLD-201211-013 ISLD-201211-014 ISLD-201211-015 ISLD-201607-001 ISLD-201607-002	23 Mar 2006	
		JP4970422		1	3GPP TS 23.060 V8.9.0: subclauses 4, 9.2.1A, 9.2.2.1; and Figs 63 and 64 3GPP TS 23.401 V8.15.0: subclauses 1.3.1, 4.1, 4.2.1, 4.4.3.1, 4.4.3.2, 4.4.3.3, 4.7.1, 4.7.2.1, 4.7.2.2, 5.3.2.1; and Fig 4.2.1-2, and Fig 4.7.2.2-1 3GPP TS 24.008 V8.10.0: subclauses 10.5.6.4; Fig 10.5.137; and Table 10.5.155	ISLD-201211-013 ISLD-201211-014 ISLD-201211-015 ISLD-201607-001 ISLD-201607-002	23 Mar 2006	

LTE033	3G Licensing	CNZL200680017166.8		1	3GPP TS 23.060 V8.9.0: subclauses 4, 9.2.1A, 9.2.2.1; and Figs 63 and 64 3GPP TS 23.401 V8.15.0: subclauses 1.3.1, 4.1, 4.2.1, 4.4.3.1, 4.4.3.2, 4.4.3.3, 4.7.1, 4.7.2.1, 4.7.2.2, 5.3.2.1; and Fig 4.2.1-2, and Fig 4.7.2.2-1 3GPP TS 24.008 V8.10.0: subclauses 10.5.6.4; Fig 10.5.137; and Table 10.5.155	ISLD-201211-013 ISLD-201211-014 ISLD-201211-015 ISLD-201607-001 ISLD-201607-002	23 Mar 2006	
			EP1861982(BE)				23 Mar 2006	
			EP1861982(CH)				23 Mar 2006	
			EP1861982(DE)				23 Mar 2006	
			EP1861982(ES)				23 Mar 2006	
			EP1861982(FR)				23 Mar 2006	
			EP1861982(GB)				23 Mar 2006	
			EP1861982(IT)				23 Mar 2006	
			EP1861982(NL)				23 Mar 2006	
			EP1861982(PL)				23 Mar 2006	
EP1861982(SE)				23 Mar 2006				
EP1861982(TR)				23 Mar 2006				
LTE034	3G Licensing	US8179888		1	3GPP TS 29.060 V8.3.0: section 3.1 3GPP TS 23.401 V8.10.0: sections 5.1.2, 5.1.2.1, 5.1.2.2, 5.1.2.3, 5.1.2.4, 5.1.2.5, 5.3.1, 5.3.1.1, 5.3.1.2, 5.3.1.2.1, 5.3.1.2.2, figures 5.1.2.1-1, 5.1.2.2-1, 5.1.2.3-1, 5.1.2.4-1, and 5.1.2.5-1 3GPP TS 29.061 V8.6.0: sections 11.2.1.3, 11.2.1.3.2, 11.2.1.4, 11.2.1.3.1, 11.3, figures 11c, 11d, 11e, 11bb and 11ba 3GPP TS 23.060 V8.10.0: sections 9.2.2, 9.2.2.1, 9.2.2.1A, 14.5, figures 63 and 64	ISLD-201308-022 ISLD-201308-023 ISLD-201308-024 ISLD-201607-001 ISLD-201607-002	11 Jul 2005	
			EP1772030		1	3GPP TS 29.060 V8.3.0: section 3.1 3GPP TS 23.401 V8.10.0: sections 5.1.2, 5.1.2.1, 5.1.2.2, 5.1.2.3, 5.1.2.4, 5.1.2.5, 5.3.1, 5.3.1.1, 5.3.1.2, 5.3.1.2.1, 5.3.1.2.2, figures 5.1.2.1-1, 5.1.2.2-1, 5.1.2.3-1, 5.1.2.4-1, and 5.1.2.5-1 3GPP TS 29.061 V8.6.0: sections 11.2.1.3, 11.2.1.3.2, 11.2.1.4, 11.2.1.3.1, 11.3, figures 11c, 11d, 11e, 11bb and 11ba 3GPP TS 23.060 V8.10.0: sections 9.2.2, 9.2.2.1, 9.2.2.1A, 14.5, figures 63 and 64	ISLD-201308-022 ISLD-201308-023 ISLD-201308-024 ISLD-201607-001 ISLD-201607-002	11 Jul 2005
			CNZL200580025881.1		1	3GPP TS 29.060 V8.3.0: section 3.1 3GPP TS 23.401 V8.10.0: sections 5.1.2, 5.1.2.1, 5.1.2.2, 5.1.2.3, 5.1.2.4, 5.1.2.5, 5.3.1, 5.3.1.1, 5.3.1.2, 5.3.1.2.1, 5.3.1.2.2, figures 5.1.2.1-1, 5.1.2.2-1, 5.1.2.3-1, 5.1.2.4-1, and 5.1.2.5-1 3GPP TS 29.061 V8.6.0: sections 11.2.1.3, 11.2.1.3.2, 11.2.1.4, 11.2.1.3.1, 11.3, figures 11c, 11d, 11e, 11bb and 11ba 3GPP TS 23.060 V8.10.0: sections 9.2.2, 9.2.2.1, 9.2.2.1A, 14.5, figures 63 and 64	ISLD-201308-022 ISLD-201308-023 ISLD-201308-024 ISLD-201607-001 ISLD-201607-002	11 Jul 2005
							11 Jul 2005	
							11 Jul 2005	
							11 Jul 2005	
							11 Jul 2005	
							11 Jul 2005	
							11 Jul 2005	
					11 Jul 2005			
LTE035	3G Licensing	US7860073		1	3GPP TS 29.060 V8.3.0: section 3.1 3GPP TS 23.401 V8.10.0: sections 5.1.2, 5.1.2.1, 5.1.2.2, 5.1.2.3, 5.1.2.4, 5.1.2.5, 5.3.1, 5.3.1.1, 5.3.1.2, 5.3.1.2.1, 5.3.1.2.2, figures 5.1.2.1-1, 5.1.2.2-1, 5.1.2.3-1, 5.1.2.4-1, and 5.1.2.5-1 3GPP TS 29.061 V8.6.0: sections 11.2.1.3, 11.2.1.3.2, 11.2.1.4, 11.2.1.3.1, 11.3, figures 11c, 11d, 11e, 11bb and 11ba 3GPP TS 23.060 V8.10.0: sections 9.2.2, 9.2.2.1, 9.2.2.1A, 14.5, figures 63 and 64	ISLD-201308-025 ISLD-201308-026 ISLD-201308-027 ISLD-201308-028 ISLD-201607-001 ISLD-201607-002	10 Jun 2005	
			EP1771978		1	3GPP TS 29.060 V8.3.0: section 3.1 3GPP TS 23.401 V8.10.0: sections 5.1.2, 5.1.2.1, 5.1.2.2, 5.1.2.3, 5.1.2.4, 5.1.2.5, 5.3.1, 5.3.1.1, 5.3.1.2, 5.3.1.2.1, 5.3.1.2.2, figures 5.1.2.1-1, 5.1.2.2-1, 5.1.2.3-1, 5.1.2.4-1, and 5.1.2.5-1 3GPP TS 29.061 V8.6.0: sections 11.2.1.3, 11.2.1.3.2, 11.2.1.4, 11.2.1.3.1, 11.3, figures 11c, 11d, 11e, 11bb and 11b 3GPP TS 23.060 V8.10.0: sections 9.2.2, 9.2.2.1, 9.2.2.1A, 14.5, figures 63 and 64	ISLD-201308-025 ISLD-201308-026 ISLD-201308-027 ISLD-201308-028 ISLD-201607-001 ISLD-201607-002	10 Jun 2005



LTE035	3G Licensing	CNZL200580024907.0		1	3GPP TS 29.060 V8.3.0: section 3.1 3GPP TS 23.401 V8.10.0: sections 5.1.2, 5.1.2.1, 5.1.2.2, 5.1.2.3, 5.1.2.4, 5.1.2.5, 5.3.1, 5.3.1.1, 5.3.1.2, 5.3.1.2.1, 5.3.1.2.2, figures 5.1.2.1-1, 5.1.2.2-1, 5.1.2.3-1, 5.1.2.4-1, and 5.1.2.5-1 3GPP TS 29.061 V8.6.0: sections 11.2.1.3, 11.2.1.3.2, 11.2.1.4, 11.2.1.3.1, 11.3, figures 11c, 11d, 11e, 11bb and 11ba 3GPP TS 23.060 V8.10.0: sections 9.2.2, 9.2.2.1, 9.2.2.1A, 14.5, figures 63 and 64	ISLD-201308-025 ISLD-201308-026 ISLD-201308-027 ISLD-201308-028 ISLD-201607-001 ISLD-201607-002	10 Jun 2005	
			EP1771978(CH)			10 Jun 2005		
			EP1771978(DE)			10 Jun 2005		
			EP1771978(ES)			10 Jun 2005		
			EP1771978(FR)			10 Jun 2005		
			EP1771978(GB)			10 Jun 2005		
			EP1771978(IT)			10 Jun 2005		
		IN272738				10 Jun 2005		
LTE036	3G Licensing	EP1741264		1	3GPP TS 29.060 V8.11.0 Sections 3.1, 4.1, Figure 1 3GPP TS 23.401 V8.8.0 Sections 5.1, 5.1.1.1, 5.1.1.4, Figure 5.1.1.4-1, 5.1.1.5, Figure 5.1.1.5-1, 5.1.1.6, Figure 5.1.1.6-1, 5.1.1.7, Figure 5.1.1.7-1, 5.1.1.8, Figure 5.1.1.8-1, 5.1.2.1, Figure 5.1.2.1-1, 5.1.2.2, Figure 5.1.2.2-1, 5.1.2.3, Figure 5.1.2.3-1, 5.1.2.4, Figure 5.1.2.4-1, 5.1.2.5, Figure 5.1.2.5-1 3GPP TS 23.402 V8.8.0 Sections 1, 4.2.2, Figure 4.2.2-2, 4.3.3.2, 4.3.3.3, 4.3.4, 5.1.2, 5.1.4.1, Figure 5.1.4-1, 5.1.4.2, Figure 5.1.4.2-1, 5.1.4.3, Figure 5.1.4.3-1, 5.1.4.4, Figure 5.1.4.4-1, 5.1.3.1, Figure 5.1.3.1-1, 6.1.2, Figure 6.1.2-1, Annex A, A.1, Figure A.1-1, Figure A.1-2, Figure A.1-3, A2, Figure A.2-1 3GPP TS 23.228 V8.9.0 Sections 4.6.0, 4.6.1, 5.4.2a, Figure 5.5b, E0, E5 3GPP TS 23.060 V8.7.0 Sections 4, 5.3.2.4, 5.3.2.5, 5.5, Table 1, 5.6.2.1, 5.6.2.2, Figure 6a, Figure 6b, Figure 6c, Figure 6d, 5.6.3, 5.6.3.1, Figure 7, 5.6.3.2, Figure 8, 9.2.1, 9.2.2.1, Figure 63, Figure 64	ISLD-201010-005 ISLD-201010-006 ISLD-201010-007 ISLD-201010-008 ISLD-201010-009 ISLD-201308-012 ISLD-201308-013 ISLD-201308-014 ISLD-201308-015 ISLD-201308-016 ISLD-201607-001 ISLD-201607-002	19 Apr 2005	
			CNZL200580020466.7		1	3GPP TS 29.060 V8.11.0: Sections 3.1, 4.1, Figure 1 3GPP TS 23.401 V8.8.0: Sections 5.1, 5.1.1.1, 5.1.1.4, Figure 5.1.1.4-1, 5.1.1.5, Figure 5.1.1.5-1, 5.1.1.6, Figure 5.1.1.6-1, 5.1.1.7, Figure 5.1.1.7-1, 5.1.1.8, Figure 5.1.1.8-1, 5.1.2.1, Figure 5.1.2.1-1, 5.1.2.2, Figure 5.1.2.2-1, 5.1.2.3, Figure 5.1.2.3-1, 5.1.2.4, Figure 5.1.2.4-1, 5.1.2.5, Figure 5.1.2.5-1 3GPP TS 23.402 V8.8.0: Sections 1, 4.2.2, Figure 4.2.2-2, 4.3.3.2, 4.3.3.3, 4.3.4, 5.1.2, 5.1.4.1, Figure 5.1.4-1, 5.1.4.2, Figure 5.1.4.2-1, 5.1.4.3, Figure 5.1.4.3-1, 5.1.4.4, Figure 5.1.4.4-1, 5.1.3.1, Figure 5.1.3.1-1, 6.1.2, Figure 6.1.2-1, Annex A, A.1, Figure A.1-1, Figure A.1-2, Figure A.1-3, A2, Figure A.2-1 3GPP TS 23.228 V8.9.0: Sections 4.6.0, 4.6.1, 5.4.2a, Figure 5.5b, E0, E5 3GPP TS 23.060 V8.7.0: Sections 4, 5.3.2.4, 5.3.2.5, 5.5, Table 1, 5.6.2.1, 5.6.2.2, Figure 6a, Figure 6b, Figure 6c, Figure 6d, 5.6.3, 5.6.3.1, Figure 7, 5.6.3.2, Figure 8, 9.2.1, 9.2.2.1, Figure 63, Figure 64	ISLD-201010-005 ISLD-201010-006 ISLD-201010-007 ISLD-201010-008 ISLD-201010-009 ISLD-201308-012 ISLD-201308-013 ISLD-201308-014 ISLD-201308-015 ISLD-201308-016 ISLD-201607-001 ISLD-201607-002	19 Apr 2005
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LTE037	3G Licensing	US7995523		1, 12	3GPP TS 23.401 V8.17.0: Sections 1, 4.2.1, 4.2.3, 4.7.1, 4.7.2.1, 4.7.2.2 and 5.4.5; Figures 4.2.1-1 and 5.4.5-1 3GPP TS 24.303 V8.9.0: Sections 1, 4.1, 5.1.1, 5.1.2.3 and 5.1.2.4 IETF RFC 6275: included by reference in TS 24.303 V8.9.0: Abstract, Sections 10.4.1, 10.4.2 and 11.7.1	ISLD-201511-018 ISLD-201607-001	24 Sep 2003	
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LTE037	3G Licensing						24 Sep 2003	
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LTE039	3G Licensing	JP5248586		1	3GPP TS 23.401 V8.10.0: Section 4.2.2, and Figure 4.2.2-3 3GPP TS 23.060 V8.9.0: Sections 9.2.2 and 9.2.2.1, and Figures 63 and 64 3GPP TS 24.008 V8.10.0: Section 10.5.6.4, and Figure 10.5.137, and Table 10.5.155 3GPP TS 29.061 V8.7.0: Section 11.2.1.4, and Figures 11c, 11d, and 11e 3GPP TS 23.228 V8.12.0: Section 3.1, and Annex I.1, I.2, I.3, I.3.1, and I.3.1.2, and Figures I.1 and I.3 IETF RFC 3344: 2002-08: included by reference in TS 29.061: Sections 1.5, 1.7 and 3	ISLD-201109-013 ISLD-201109-014 ISLD-201109-015 ISLD-201109-016 ISLD-201109-017 ISLD-201308-007 ISLD-201308-008 ISLD-201308-009 ISLD-201308-010 ISLD-201607-001 ISLD-201607-002	10 Mar 2004	
		IN227148		1	3GPP TS 23.401 V8.10.0: Section 4.2.2, and Figure 4.2.2-3 3GPP TS 23.060 V8.9.0: Sections 9.2.2 and 9.2.2.1, and Figures 63 and 64 3GPP TS 24.008 V8.10.0: Section 10.5.6.4, and Figure 10.5.137, and Table 10.5.155 3GPP TS 29.061 V8.7.0: Section 11.2.1.4, and Figures 11c, 11d, and 11e 3GPP TS 23.228 V8.12.0: Section 3.1, and Annex I.1, I.2, I.3, I.3.1, and I.3.1.2, and Figures I.1 and I.3 IETF RFC 3344: 2002-08: included by reference in TS 29.061: Sections 1.5, 1.7 and 3		10 Mar 2004	
		EP1602215		1	3GPP TS 23.401 V8.10.0: Section 4.2.2, and Figure 4.2.2-3 3GPP TS 23.060 V8.9.0: Sections 9.2.2 and 9.2.2.1, and Figures 63 and 64 3GPP TS 24.008 V8.10.0: Section 10.5.6.4, and Figure 10.5.137, and Table 10.5.155 3GPP TS 29.061 V8.7.0: Section 11.2.1.4, and Figures 11c, 11d, and 11e 3GPP TS 23.228 V8.12.0: Section 3.1, and Annex I.1, I.2, I.3, I.3.1, and I.3.1.2, and Figures I.1 and I.3 IETF RFC 3344: 2002-08: included by reference in TS 29.061: Sections 1.5, 1.7 and 3	ISLD-201109-013 ISLD-201109-014 ISLD-201109-015 ISLD-201109-016 ISLD-201109-017 ISLD-201308-007 ISLD-201308-008 ISLD-201308-009 ISLD-201308-010 ISLD-201607-001 ISLD-201607-002	10 Mar 2004	
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			EP1602215(FR)					10 Mar 2004
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LTE039	3G Licensing		KR101007005				10 Mar 2004	
			US7640017				10 Mar 2004	
			US8023946				10 Mar 2004	
LTE041	3G Licensing	EP1838044		20	3GPP TS 23.327 V8.4.0: Sections 1, 3.2, 4.2, 5, 5.2.1, 5.3.1, 5.3.2, 5.4, 5.5, 6.1, 6.3.1 and 6.3.2.2; Figures 5.2.1-1, 6.1, 6.3.1-1 and 6.3.2.2-1 3GPP TS 23.234 V8.0.0: Sections 1, 2, 3.2, 5.7.1, 5.13.1, 5.13.2, 6.1.1, 6.2.1, 6.2.5, 6.2.6 and H.4; Figure 6.1 3GPP TS 23.107 V8.2.0: Section 6.3	ISLD-201308-032 ISLD-201308-033 ISLD-201308-034 ISLD-201607-001 ISLD-201607-002	24 Mar 2006	
		CN2L200780010663.X		20	3GPP TS 23.327 V8.4.0: Sections 1, 3.2, 4.2, 5, 5.2.1, 5.3.1, 5.3.2, 5.4, 5.5, 6.1, 6.3.1 and 6.3.2.2; Figures 5.2.1-1, 6.1, 6.3.1-1 and 6.3.2.2-1 3GPP TS 23.234 V8.0.0: Sections 1, 2, 3.2, 5.7.1, 5.13.1, 5.13.2, 6.1.1, 6.2.1, 6.2.5, 6.2.6 and H.4; Figure 6.1 3GPP TS 23.107 V8.2.0: Section 6.3	ISLD-201308-032 ISLD-201308-033 ISLD-201308-034 ISLD-201607-001 ISLD-201607-002	24 Mar 2006	
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			JP5809648					24 Mar 2006
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LTE042	3G Licensing	US8184646		18	3GPP TS 23.401 V8.18.0, Section 3.1, 4.3.3, 4.3.3.1, 4.3.5, 4.3.5.1, 4.3.5.2, 4.7, 4.7.1, 5.1.2, 5.1.2.1, 5.3.2 and 5.3.2.1, Figure 5.1.2.1-1 3GPP TS 24.301 V8.10.0, Section 4.2, 8.3.8, 8.3.8.1, 9.9.4.3 and 9.9.4.3, Figure 9.9.4.3.1, Table 8.3.8.1 3GPP TS 23.002 V8.6.0, Section 3.1, 4.1.4, 4.1.4.1, 4.1.4.2, 4.1.4.2.1 and 4.1.4.2.2 3GPP TS 23.203 V8.14.0, Section 3.1, 6.1.7 and 6.1.7.2	ISLD-201211-019 ISLD-201211-020 ISLD-201211-021 ISLD-201607-001 ISLD-201607-002	19 Mar 2007	
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			IN282457				19 Mar 2007	
			JP5740672				19 Mar 2007	
			US9166824				19 Mar 2007	
LTE044	3G Licensing	US6856818		18	3GPP TS 21.111 V7.1.0: Sections 1, 4, 5.1, 5.2, 6.1 and 11.2 3GPP TS 31.102 V7.13.0: Sections 4.4.2, 4.7, 5.1.1.1 and 5.3.29; Figure 4.2 3GPP TS 31.101 V7.0.1: Section 8.1 ETSI TS 102.221 V7.4.0: Sections 8.2.2.2, 8.4.1, 8.4.3, 11.1.1.1, 11.1.3.1, 11.1.5.1, 11.1.5.2, Annex K and K.2; Figure 8.2, 8.4 and K.1 ; Tables 8.1 and 11.11	ISLD-201011-001 ISLD-201011-002 ISLD-201011-003 ISLD-201011-004	19 Jan 1998	
		JP4357596		18	3GPP TS 21.111 V7.1.0: Sections 1, 4, 5.1, 5.2, 6.1 and 11.2 3GPP TS 31.102 V7.13.0: Sections 4.4.2, 4.7, 5.1.1.1 and 5.3.29 ; Figure 4.2 3GPP TS 31.101 V7.0.1: Section 8.1 3GPP TS 102.221 V7.4.0: Sections 8.2.2.2, 8.4.1, 8.4.3, 11.1.1.1, 11.1.3.1, 11.1.5.1, 11.1.5.2, Annex K and K.2; Figure 8.2, 8.4 and K.1 ; Table 8.1 and 11.11	ISLD-201011-001 ISLD-201011-002 ISLD-201011-003 ISLD-201011-004	19 Jan 1998	
		IN208486		18	3GPP TS 21.111 V7.1.0: Sections 1, 4, 5.1, 5.2, 6.1 and 11.2 3GPP TS 31.102 V7.13.0: Sections 4.4.2, 4.7, 5.1.1.1 and 5.3.29; Figure 4.2 3GPP TS 31.101 V7.0.1: Section 8.1 ETSI TS 102.221 V7.4.0: Sections 8.2.2.2, 8.4.1, 8.4.3, 11.1.1.1, 11.1.3.1, 11.1.5.1, 11.1.5.2, Annex K and K.2; Figure 8.2, 8.4 and K.1 ; Tables 8.1 and 11.11	ISLD-201011-001 ISLD-201011-002 ISLD-201011-003 ISLD-201011-004	19 Jan 1998	
		EP0960542		18	3GPP TS 21.111 V7.1.0: Sections 1, 4, 5.1, 5.2, 6.1, 11.2 3GPP TS 31.102 V7.13.0: Sections 4.4.2, 4.7, 5.1.1.1 and 5.3.29; Figure 4.2 3GPP TS 31.101 V7.0.1: Section 8.1	ISLD-201011-001 ISLD-201011-002 ISLD-201011-003 ISLD-201011-004	19 Jan 1998	

LTE044	3G Licensing	CNZL98802464.0		18	3GPP TS 21.111 V7.1.0: Sections 1, 4, 5.1, 5.2, 6.1 and 11.2 3GPP TS 31.102 V7.13.0: Sections 4.4.2, 4.7, 5.1.1.1 and 5.3.29; Figure 4.2 3GPP TS 31.101 V7.0.1: Section 8.1 ETSI TS 102.221 V7.4.0: Sections 8.2.2.2, 8.4.1, 8.4.3, 11.1.1.1, 11.1.3.1, 11.1.5.1, 11.1.5.2, Annex K and K.2; Figure 8.2, 8.4 and K.1 ; Tables 8.1 and 11.11	ISLD-201011-001 ISLD-201011-002 ISLD-201011-003 ISLD-201011-004	19 Jan 1998	
		CA2280150		18	3GPP TS 21.111 V7.1.0: Sections 1, 4, 5.1, 5.2, 6.1 and 11.2 3GPP TS 31.102 V7.13.0: Sections 4.4.2, 4.7, 5.1.1.1 and 5.3.29; Figure 4.2 3GPP TS 31.101 V7.0.1: Section 8.1 ETSI TS 102.221 V7.4.0: Sections 8.2.2.2, 8.4.1, 8.4.3, 11.1.1.1, 11.1.3.1, 11.1.5.1, 11.1.5.2, Annex K and K.2; Figure 8.2, 8.4 and K.1 ; Tables 8.1 and 11.11	ISLD-201011-001 ISLD-201011-002 ISLD-201011-003 ISLD-201011-004	19 Jan 1998	
		AU729163		18	3GPP TS 21.111 V7.1.0: Sections 1, 4, 5.1, 5.2, 6.1 and 11.2 3GPP TS 31.102 V7.13.0: Sections 4.4.2, 4.7, 5.1.1.1 and 5.3.29; Figure 4.2 3GPP TS 31.101 V7.0.1: Section 8.1 ETSI TS 102.221 V7.4.0: Sections 8.2.2.2, 8.4.1, 8.4.3, 11.1.1.1, 11.1.3.1, 11.1.5.1, 11.1.5.2, Annex K and K.2; Figure 8.2, 8.4 and K.1 ; Tables 8.1 and 11.11	ISLD-201011-001 ISLD-201011-002 ISLD-201011-003 ISLD-201011-004	19 Jan 1998	
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LTE045	3G Licensing	US7102663		1	3GPP TS 23.060 V8.9.0 Sections 5.1, Figure 1, 5.3.8 and Figure 72b. 3GPP TS 23.228 V8.12.0 Sections 4.0, 4.16.1, 4.16.2, 5.4.4. Annex E, E.0, E.2.1a.1, E.2.1a.2, E.2.4.0, E.2.4.1, Figure E 3GPP TS 23.401 V8.17.0 Sections 4.7.1, 4.7.2.2, and Figure 4.7.2.2-1	ISLD-201308-029 ISLD-201308-030 ISLD-201308-031 ISLD-201607-001 ISLD-201607-002	16 Oct 2001	
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LTE049	Sisvel International	EP0852885		12	3GPP TS23.401 V8.18.0: Sections 4.7, 4.7.1, 4.7.2, 4.7.2.1, 5.4, 5.4.1, 5.7, 5.7.1; Tables 5.4.1-1, 5.7.1-1	ISLD-201106-009 ISLD-201305-003	25 Sep 1996	
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LTE050	Sisvel International	US7957736		9	3GPP TS 23.003 v 8.17.0 : Sections 2.8.1 3GPP TS 23.401 v 8.18.0: Sections 5.3.2.1 3GPP TS 24.301 v 8.10.0: Sections 5.4.1.2, 8.2.4.1; Table 8.2.4.1	ISLD-201305-003	05 Oct 1999	
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LTE051	Sisvel International	US7580714		1	3GPP TS 23.401 V8.18.0: Sections 5.3.2, 5.3.2.1, 5.3.5.1; Figures 5.3.2.1-1, 5.3.5.1-1	ISLD-200812-008 ISLD-201804-019	13 Oct 2000	
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LTE051	Sisvel International		US7979070				13 Oct 2000		
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LTE052	Sisvel International	US7283499		1	3GPP TS 36.201 V8.3.0: Sections 4.1.2, 4.2.1 3GPP TS 36.212 V8.8.0: Sections 4.2, 5, 5.3.2; Figure 5.3.2-1 3GPP TS 36.213 V8.8.0: Sections 7.2, 7.2.1, 7.2.2, 7.2.3, 7.2.4; Table: 7.2.3-1	ISLD-200811-005 ISLD-201305-003	15 Oct 2004		
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		LTE054	Sisvel International	US7599384		17	3GPP TS 24.301 V8.10.0: Sections 4.2, 6.1.1, 6.4.1.1, 6.4.3.1, 6.4.3.2, 6.4.3.3, 6.4.3.4, 6.5.3.1, 8.3.18.1, 9.3.2, 9.9.4.3; Figure 6.4.3.2.1; Tables 8.3.18.1	ISLD-201305-003	31 Aug 1998
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EP1051870				18	3GPP TS 24.301 V8.10.0: Sections 6.4.3.1, 6.4.3.2, 6.4.3.4, 8.3.17.1, 8.3.18.1, 8.3.18.2, 9.3.2, 9.9.4.3, 9.9.4.4; Figure 6.4.3.2.1; Tables 8.3.17.1, 8.3.18.1	ISLD-201305-003	31 Aug 1998		
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LTE057	Sisvel International			US7894443		16	3GPP TS 36.322 v10.0.0: Sections 4.1, 4.2.1, 6.2, 6.2.1.1, 6.2.1.3, 6.2.1.4, 6.2.1.5, 6.2.2.1, 6.2.2.2, 6.2.2.5, 6.2.2.6; Figures 4.2.1-1, 6.2.1.3-3, 6.2.1.3-4, 6.2.1.3-5, 6.2.1.3-6, 6.2.1.4-2, 6.2.1.4-3, 6.2.1.5-1, 6.2.1.5-2, 6.2.1.5-3; Table 6.2.2.6-1	ISLD-200806-005 ISLD-201305-003 ISLD-201906-013	22 Aug 2006
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LTE058	KPN	EP0716796		1, 3	3GPP TS 23.261 V10.2.0: Sections 4, 4.1, 5.2, 5.2.1, 5.2.2, 5.2.3, 5.3, 5.3.1, 5.3.2, 5.3.3 3GPP TS 23.401 V10.4.0: Sections 1, 5, 5.1, 5.1.1, 5.1.1.1, 5.2, 5.2.1, 5.2.2, 5.2.3, 5.3, 5.3.1, 5.3.1.1, 5.3.2, 5.3.2.1, 5.10, 5.10.1, 5.10.2 3GPP TS 23.402 V10.4.0: Sections 7.3 3GPP TS 23.234 V11.1.0: Sections 6, 6.1 3GPP TS 23.003 V10.3.0: Sections 2, 2.1 IETF RFC 4306: Sections 1.2 Claim 3: same as Claim 3: 3GPP TS 23.261 V10.2.0: Sections 4, 4.1, 5.2, 5.2.1, 5.2.2, 5.2.3, 5.3, 5.3.1, 5.3.2, 5.3.3 3GPP TS 23.401 V10.4.0: Sections 1, 5, 5.1, 5.1.1, 5.1.1.1, 5.2, 5.2.1, 5.2.2, 5.2.3, 5.3, 5.3.1, 5.3.1.1, 5.3.2, 5.3.2.1, 5.10, 5.10.1, 5.10.2 3GPP TS 23.402 V10.4.0: Sections 7.3 3GPP TS 23.234 V11.1.0: Sections 6, 6.1 3GPP TS 23.003 V10.3.0: Sections 2, 2.1 IETF RFC 4306: Sections 1.2	ISLD-201203-015	31 Aug 1994	
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LTE059	3G Licensing	EP1869841		1	3GPP TS 23.060 V8.7.0: sections 9.2.1A; 9.2.1.1; 9.2.2.1; 9.2.2.1.1; 15.3.0; 15.3.1; Figures 63; 64 3GPP TS 23.207 V8.0.0: sections 4.2; 4.7; 5.1; 5.2; 5.2.1; 5.2.2; 6.1; 6.1.1; 6.1.2; 6.4; Figures; Annex A: A.2; A.2.5; Annex C; Figure A.7 3GPP TS 23.228 V8.12.0: sections 4.0; 4.2.4; 4.2.4a; 4.6.0; 4.6.1; 4.6.3; 5.4.0; 5.4.2a; Figures 4.0; 5.5b; Annex E: E.0; E.5 3GPP TS 23.401 V8.8.0: sections 1; 4.2.1; 4.2.2; 4.4.4; Figures 4.2.1-1; 4.2.1-2; 4.2.2-1; 4.2.2-2, 4.2.2-3 3GPP TS 24.008 V9.3.0: sections 9.5.4; 9.5.4.1; 10.5.6.12; tables 9.5.4; 10.5.162 3GPP TS 24.229 V8.11.0: Annex B: B.1; B.2.1; B.2.2.1; B.2.2.5.1; B.2.2.5.1A; B.2.2.5.1B 3GPP TS 29.060 V9.3.0: section 7.7.36	ISLD-201011-005 ISLD-201011-006 ISLD-201011-007 ISLD-201011-008 ISLD-201011-009 ISLD-201011-010 ISLD-201308-017 ISLD-201308-018 ISLD-201308-019 ISLD-201308-020 ISLD-201308-021 ISLD-201607-001 ISLD-201607-002	22 Mar 2006	
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LTE063	3G Licensing	US7933564		1	3GPP TS 36.211 V10.7.0: Sections 6.3, 6.3.2, 6.3.3, 6.3.3.3, 6.3.4, 6.3.4.3; Figure 6.3-1; Table 6.3.3.3-1	ISLD-201607-001	02 Dec 2004
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LTE064	KPN	US9667669		1, 15, 16	3GPP TS 24.371 V12.6.0: Sections 1, 2, 4, 4.1, 5D.1, 5D.2, 7.1 3GPP TS 23.228 V12.0.0: Sections 4.6.1; Annex U.1.2, U.1.3.1U.1.3.3, U.2.2	ISLD-201603-006 ISLD-201911-024	19 Jan 2010
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LTE065	3G Licensing	EP2597926		9	3GPP TS 23.401 V8.15.0: Sections 4.3.2.2,4.7.5, 5.3.2.1, Fig. 5.3.2.1-1, 5.4.1, and Fig.5.4.1-1 3GPP TS 23.203 V8.14.0: Sections 3.1, 4.1,and 5.2.2 3GPP TS 29.212 V8.15.0: Section 4.5.1	ISLD-201511-021 ISLD-201511-022 ISLD-201511-023 ISLD-201607-001 ISLD-201607-002	09 Oct 2008
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LTE071	KPN	EP0785692		1	3GPP TS 23.261 V10.2.0: Sections 5.3.1, 5.4.1 and 5.4.2; Figure 5.4.2-1 3GPP TS 24.312 V10.7.0: Section 4.1.1 3GPP TS 36.304 V10.8.0: Section 7.1 3GPP TS 23.401 v10.13.0: Section 5.13	ISLD-201507-025	29 Oct 1996
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LTE076	MELCO	JP4097129				08 Aug 2002	
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LTE077	MELCO	US9635656	3	3GPP TS 36.213 V9.0.1: Sections 7.2, 7.2.2 3GPP TS 36.201 V9.0.0: Section 5.5 3GPP TS 36.321 V9.1.0: Section 5.4.4	ISLD-202006-006	27 Dec 2006	
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LTE079	MELCO	JP4841630		2	3GPP TS 36.213 V9.0.1: Sections 7.2, 10.1	ISLD-202006-006	30 Jul 2014	
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LTE080	MELCO	JP4637848			3GPP TS 36.321 V10.4.0 Section 5.4.3.2, 5.4.5, 6.1.2, 6.1.3.1	ISLD-202006-006	08 Sep 2004	
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LTE081	MELCO		JP4902592				09 May 2008	
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LTE082	MELCO	US9113445		1	3GPP TS 36.300 V10.6.0: Sections 6, 6.1, 6.1.2, 11.3; Figure 6-2 3GPP TS 36.306 V10.4.0: Sections 4, 4.1, 4.2.5; Table 4.1-3 3GPP TS 36.321 V10.4.0: Sections 5.4.3.1, 5.4.3.2, 5.4.5, 6.1.2, 6.1.3.1; Figure 6.1.2-3; Tables 6.1.3.1-1, 6.1.3.1-2 3GPP TS 36.322 V10.0.0: Sections 4.2.1, 4.2.1.1.1, 4.2.1.2.1, 4.2.1.3.1, 4.5; Figures 4.2.1-1, 4.2.1.1.1-1, 4.2.1.2.1-1, 4.2.1.3.1-1 3GPP TS 36.331 V10.6.0: Sections 5.6.3.1, 5.6.3.3, 6.3.6; Figure 5.6.3.1-1	ISLD-202006-006	30 Apr 2004	
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LTE084	MELCO	US9713068		3	3GPP TS 24.301 V11.0.0: Sections 3.1, 3.2, 5.1.1, 5.1.3.2.2.4, 5.3.5, 5.5.3.1, 5.5.3.2.1, 5.5.3.2.2 3GPP TS 23.401 V11.0.0: Sections 4, 4.1, 4.2, 4.2.1, 4.2.2, 4.3.5.2, 4.3.5.3, 5.3.3, 5.3.3.0, 5.3.3.2, 5.3.3.2.4; Figures 4.2.1-1, 4.2.1-2, 4.2.2-1, 4.2.2-2, 4.2.2-3, 5.3.3.2-1 3GPP TS 36.300 V11.0.0: Sections 4, 4.1, ; Figure 4-1	ISLD-202006-006	26 Oct 2009	
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LTE085	MELCO	US10165482		3	3GPP TS 36.300 V10.3.0: Sections 1, 3.2, 4, 4.1, 4.2.1, 4.2.2; Figures 4.2.1-1, 4.2.1-2, 4.2.2-1, 4.2.2-2, 4.2.2-3 3GPP TS 24.301 V10.2.0 : Sections 1, 5.5.3.1, 5.5.3.2.1, 5.5.3.2.2, 5.5.3.2.4, 8.1, 8.2.26.1, 8.2.26.2, 8.2.26.15; Tanle 8.2.26.1	ISLD-202006-006	14 Feb 2017	
		JP5683474			3GPP TS 36.300 V9.3.0	ISLD-202006-006	15 Sep 2010	
			CNZL201080044486.9					15 Sep 2010
			CNZL201510306774.1					05 Jun 2015
			IN349152					15 Sep 2010
			JP5905533					11 Jul 2014
			JP6219429					16 Mar 2016
			US8626163					15 Sep 2010
			US9615310					25 Nov 2013

LTE086	MELCO	JP4413966		3GPP TS 36.321 V9.2.0	ISLD-202006-006	20 Apr 2005	
			CNZL200580049478.2				20 Apr 2005
			EP1873925				20 Apr 2005
			EP1873925(DE)				20 Apr 2005
			EP1873925(FR)				20 Apr 2005
			EP1873925(GB)				20 Apr 2005
			EP2662997				09 Aug 2013
			JP5546379				16 Jul 2010
			JP5788053				11 Apr 2014
			US8717912				20 Apr 2005
LTE087	MELCO		CNZL200780030693.7			09 Aug 2007	
			EP2068578(DE)			09 Aug 2007	
			EP2068578(FR)			09 Aug 2007	
			EP2068578(GB)			09 Aug 2007	
			JP4776693			09 Aug 2007	
			US165082			09 Aug 2007	
			US8942198			06 Apr 2012	
			US9277561			11 Dec 2014	
LTE088	MELCO	JP5139543		3GPP TS 36.401 V9.2.1	ISLD-202006-006	28 Jan 2010	
			JP5496311				14 Nov 2012
			JP5744266				04 Mar 2014
			US10887731				26 Apr 2016
			US9072104				28 Jan 2010
			US9357545				08 May 2015
LTE089	MELCO	JP4812323		3GPP TS 36.211 V8.6.0 3GPP TS 36.213 V8.6.0 3GPP TS 36.212 V8.7.0	ISLD-201207-004	08 Apr 2005	
			EP1585232(DE)				08 Apr 2004
			EP1585232(FR)				08 Apr 2004
			EP1585232(GB)				08 Apr 2004
		JP5318038				30 Jun 2010	
		US7756210				29 Mar 2005	
		US8265187				07 Apr 2010	
		LTE090	MELCO	JP4963927		3GPP TS 36.300 3GPP TS 36.423 3GPP TS 22.011	ISLD-201207-004
CNZL200610163544.5							12 Oct 2006
EP1775981(DE)						13 Oct 2005	
EP1775981(FR)						13 Oct 2005	
EP1775981(GB)						13 Oct 2005	
EP2247135(DE)						17 Aug 2010	
EP2247135(FR)						17 Aug 2010	
EP2247135(GB)						17 Aug 2010	
EP2247136(DE)						17 Aug 2010	
EP2247136(FR)						17 Aug 2010	
EP2247136(GB)						17 Aug 2010	
JP5535813						29 Jul 2010	
JP5647276						25 Jan 2013	
US8073445						21 Sep 2006	
US8095136						07 Sep 2010	
US8396478						10 Nov 2011	

LTE091	MELCO	US8068444	1	3GPP TS 21.905 v8.8.0: Section 3 3GPP TS 21.211 v8.6.0: Sections 3.1, 4, 4.2, 5.2.1, 5.2.2, 5.2.3, 6.2.1, 6.2.2, 6.2.3, 8.1; Figures 4.2-1, 5.2.1-1, 6.2.2-1; Tables 4.2-1, 5.2.3-1, 6.2.3-1 3GPP TS 36.213 v8.6.0: Section 4.2.3 3GPP TS 36.321 v8.5.0: Sections 5.1.4, 5.2, 6.2.3 3GPP TS 36.300 v8.8.0: Sections 3.2, 5, 5.2.7.3; Figures 5-1, 5-2; Table 5-1	ISLD-201207-004	28 Sep 2006	
		JP4852615	1	3GPP TS 36.211 V8.6.0: Sections 3.1, 4, 4.2, 5.2, 6.2, 8.1 3GPP TS 36.213 V8.6.0: Section 4.2.3 3GPP TS 36.321 V8.5.0: Section 6.2.3 3GPP TS 36.300 V8.8.0: Section 5.2.7	ISLD-201207-004	28 Sep 2006	
		EP2134006	1	3GPP TS 36.211 V8.6.0: Sections 3.1, 4.2, 5.2.3, 5.6, 6.2.3, 6.12, 8.1; Figures 4.2-1, 8.1-1; Tables 4.2-1, 4.2-2, 5.2.3-1, 5.6-1, 6.2.3-1, 6.12-1 3GPP TS 36.213 V8.6.0: Section 4.2.3 3GPP TS 36.321 V8.5.0: Section 6.2.3 3GPP TS 36.300 V8.8.0: Section 5.2.7.3	ISLD-201207-004	23 Jun 2009	
		EP2134006(DE) EP2134006(FR) EP2134006(GB) KR101254268					23 Jun 2009 23 Jun 2009 23 Jun 2009 28 Sep 2006
LTE092	MELCO	CNZL200710101661.3				19 Mar 2007	
		EP2268091(DE)				17 Sep 2010	
		EP2268091(FR)				17 Sep 2010	
		EP2268091(GB)				17 Sep 2010	
		EP2271161(DE)				17 Sep 2010	
		EP2271161(FR)				17 Sep 2010	
		EP2271161(GB)				17 Sep 2010	
		EP2276299(DE)				16 Sep 2010	
		EP2276299(FR)				16 Sep 2010	
		EP2276299(GB) US8073459					16 Sep 2010 19 Mar 2007
LTE093	MELCO	JP5506861	1, 8	3GPP TS 36.201 V8.3.0: Sections 4.1.1, 4.2.1 3GPP TS 36.213 V8.8.0: Sections 7.2	ISLD-201207-004	06 Jun 2012	
		EP2256976	1, 2	3GPP TS 36.201 V8.3.0: Sections 1, 3, 4, 4.1, 4.1.1, 4.2, 4.2.1 3GPP TS 36.213 V8.8.0: Sections 3, 3.2, 7, 7.2, 7.2.2	ISLD-201207-004	09 Sep 2010	
		EP2086146	1, 2	3GPP TS 36.201 V8.3.0: Sections 4.1.1, 4.2.1 3GPP TS 36.212 V8.7.0: Sections 5.2.2.6.2, 5.2.2.6.4 3GPP TS 36.213 V8.8.0: Sections 7.2, 7.2.1	ISLD-201207-004	13 Feb 2009	
		EP1845678	1, 3	3GPP TS 36.201 V8.3.0: Sections 4.1.1, 4.2.1 3GPP TS 36.212 V8.6.0: Sections 5.2.2.6.2, 5.2.2.6.4 3GPP TS 36.213 V8.6.0: Sections 7.2, 7.2.1	ISLD-201207-004	14 Apr 2006	
		CNZL201410767521.X	1, 2, 7, 8	3GPP TS 36.201 V8.3.0: Sections 4.1, 4.1.1, 4.2, 4.2.1 3GPP TS 36.213 V8.8.0: Sections 7.2, 7.2.2	ISLD-201207-004	11 Dec 2014	
		CNZL200710096137.1					13 Apr 2007
		CNZL201110332960.4					13 Oct 2011
		EP1845678(DE)					14 Apr 2006
		EP1845678(ES)					14 Apr 2006
		EP1845678(FI)					14 Apr 2006
		EP1845678(FR)					14 Apr 2006
		EP1845678(GB)					14 Apr 2006
		EP1845678(IT)					14 Apr 2006
		EP1845678(NL)					14 Apr 2006
EP1845678(PL)					14 Apr 2006		
EP1845678(RO)					14 Apr 2006		
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EP1845678(TR)					14 Apr 2006		



LTE097	MELCO		EP2136596			20 Aug 2009
			EP2136596(DE)			20 Aug 2009
			EP2136596(FR)			20 Aug 2009
			EP2136596(GB)			20 Aug 2009
			JP5844711			26 Oct 2012
			JP5852184			02 Jul 2014
			US8027392			30 Nov 2005
LTE098	MELCO		EP1715708(DE)			18 Apr 2005
			EP1715708(FR)			18 Apr 2005
			EP1715708(GB)			18 Apr 2005
			US7796704			29 Mar 2006
			US8081709			13 Jul 2010
LTE099	MELCO	JP5089519		3GPP TS 36.213 V8.8.0		25 Jul 2008
			EP2023504			05 Aug 2008
			EP2023504(DE)			05 Aug 2008
			EP2023504(FR)			05 Aug 2008
			EP2023504(GB)			05 Aug 2008
			KR101061639			25 Jun 2010
			KR101061685			05 Aug 2008
US8086272			06 Aug 2007			
LTE100	MELCO	JP5079098		3GPP TS 36.213 V8.8.0 Section 8.2		07 May 2009
			CNZL200980115949.3			07 May 2009
			EP2313989(DE)			07 May 2009
			EP2313989(FR)			07 May 2009
			EP3240203			07 Jun 2017
US8842554			07 May 2008			
LTE101	MELCO	JP5079097		3GPP TS 36.213 V8.8.0		07 May 2009
			CNZL200980116297.5			07 May 2009
			EP2294717			07 May 2009
			EP2294717(DE)			07 May 2009
			EP2294717(FR)			07 May 2009
EP2294717(GB)			07 May 2009			
LTE102	MELCO	JP5199387		3GPP TS 36.213 V8.8.0 Section 8.2		07 May 2009
			CNZL200980116094.6			07 May 2009
			EP2294718(DE)			07 May 2009
			EP2294718(FR)			07 May 2009
			EP2294718(GB)			07 May 2009
JP5631425			07 Feb 2013			
LTE103	MELCO	JP5749159		3GPP TS 36.300 V10.3.0 3GPP TS 36.413 V10.1.0 3GPP TS 36.321 V10.1.0 3GPP TS 36.213 V10.1.0	ISLD-201207-004	09 Jun 2009
			BRPI0915206-7			09 Jun 2009
			CNZL200980121915.5			09 Jun 2009
			CNZL201410254852.3			10 Jun 2014
			EP2289258(DE)			09 Jun 2009
			EP2289258(FR)			09 Jun 2009
			EP2289258(GB)			09 Jun 2009
			EP2533600(DE)			05 Sep 2012
			EP2533600(FR)			05 Sep 2012
			EP2533600(GB)			05 Sep 2012
			JP5830131			14 May 2014
			KR101561271			09 Jun 2009
			KR101623919			09 Jun 2014
			US8744342			09 Jun 2009

LTE104	MELCO					24 Jul 2009			
			CNZN201510061928.5			05 Feb 2015			
			EP2333994(DE)			24 Jul 2009			
			EP2333994(FR)			24 Jul 2009			
			JP5420552			24 Jul 2009			
			KR101643434			24 Jul 2009			
			US8526512			24 Jul 2009			
LTE105	MELCO		CNZN201080010770.4			10 Mar 2010			
			EP2410805(DE)			10 Mar 2010			
			EP2410805(FR)			10 Mar 2010			
			EP2410805(GB)			10 Mar 2010			
			JP5048867			10 Mar 2010			
			JP5462327			19 Jul 2012			
			JP5622950			16 Jan 2014			
LTE106	MELCO	JP5806123			3GPP TS 36.331 V12.5.0	ISLD-202006-006	09 Feb 2011		
		EP3190837		4	3GPP TS 36.101 V12.6.0: Sections 6.2.5, 6.2.5C 3GPP TS 36.213 V12.5.0: Sections 5.1.4, 6.1 3GPP TS 36.300 V12.5.0: Sections 4.9, 4.9.1 10.1, 10.1.2.8, 10.1.2.8.1 3GPP TS 36.331 V12.5.0: Sections 6.2.2, 6.3.2	ISLD-202006-006	23 Feb 2017		
			AU2011215256					09 Feb 2011	
			AU2016202375					14 Apr 2016	
			CNZN201710464231.1					19 Jun 2017	
			EP2536221(DE)					09 Feb 2011	
			EP2536221(FR)					09 Feb 2011	
			EP2536221(GB)					09 Feb 2011	
			IDP000047999					09 Feb 2011	
			JP6076427					03 Sep 2015	
			JP6707474					10 Jan 2017	
			KR101771415					09 Feb 2011	
			RU2586884					09 Feb 2011	
			RU2704118					05 May 2016	
			US9565713					09 Feb 2011	
		LTE107	MELCO	JP6351699		4	3GPP TS36.300 V11.4.0: Sections 3.2, 4, 16.1.5 3GPP TS 36.423 V10.1.0: Sections 8.3.1.2, 9.1.2.1, 9.2.55	ISLD-202006-006	27 Dec 2016
				JP5773993			3GPP TS 36.300 V10.2.0	ISLD-202006-006	25 Apr 2011
	AU2011246790							25 Apr 2011	
	CNZN201180021251.2							25 Apr 2011	
	CNZN201610021267.8							13 Jan 2016	
	IDP000048550							25 Apr 2011	
	JP6072859							29 Jun 2015	
	JP6513265							04 Jun 2018	
	KR101790569							25 Apr 2011	
	KR101902174							18 Oct 2017	
	KR102022390							12 Sep 2018	
	RU2570360							25 Apr 2011	
	RU2612030							05 Nov 2015	
	RU2651808							10 Feb 2017	
	RU2677689							28 Mar 2018	
	US10193672					12 Nov 2014			
	US10742377					11 Dec 2018			
	US8917644					25 Apr 2011			
LTE108	MELCO	JP5079139			3GPP TS 36.300 V11.6.0	ISLD-202006-006	23 Mar 2010		
			CNZN201080018936.7				23 Mar 2010		
			CNZN201611063809.4				28 Nov 2016		
			CNZN201611067134.0				28 Nov 2016		



LTE108	MELCO		CNZL201611067214.6				28 Nov 2016	
			IN342191				23 Mar 2010	
			JP5511916				28 Aug 2012	
			JP5721878				25 Mar 2014	
			JP6080885				24 Mar 2015	
			JP6400131				16 Jan 2017	
			US10110356				08 Jun 2017	
			US8953523				23 Mar 2010	
			US9438390				06 Nov 2014	
			US9705648				18 Mar 2016	
LTE109	MELCO	US10412712		3	3GPP TS 36.101 V11.6.0: Sections 5.5, 5.5A; Tables 5.5-1, 5.5A-2	ISLD-202006-006	21 Dec 2018	
		US10200976		2	3GPP TS 36.101 V11.3.0: Sections 2, 3.3, 5.5; Table 5.5-1 3GPP TS 36.300 V11.2.0: Sections 4, 7.5 3GPP TS 36.311 V11.2.0: Sections 3.2, 4.2.1, 5.1.2, 5.2.1.1, 5.2.2.1, 6.2.1, 6.3.1, 6.3.4; Figure 5.2.2.1-1	ISLD-202006-006	19 Apr 2018	
			JP5980124					20 Dec 2011
			JP6312753					26 Jul 2016
			JP6526276					14 Mar 2018
			JP6767539					07 May 2019
			US10609685					22 Jul 2019
			US9380563					20 Dec 2011
			US9980251					24 May 2016
LTE110	MELCO	US10728889		1	3GPP TS 36.300 V15.6.0: Sections 3.1, 3.2, 5.5.0, 7.5, 10.1.2.7, 10.1.5.0, 10.1.5.2; Figure 10.1.5.2-1 3GPP TS 36.321 V15.6.0: Sections 5.1.4, 6.1.3.5; Figure 6.1.3.5-1 3GPP TS 36.213 V15.6.0: Section 4.2.3 3GPP TS 36.104 V15.7.0: Sections 6.5.3, 6.5.3.1 3GPP TS 36.211 V15.6.0: Section 8.1; Figure 8.1-1	ISLD-202006-006	18 Apr 2018	
			CNZL201810939948.1					26 Mar 2012
			JP5922101					26 Mar 2012
			JP6257684					13 Apr 2016
			JP6431166					05 Dec 2017
			JP6602935					01 Nov 2018
			US9392599					26 Mar 2012
			US9730213					13 Jun 2016
		LTE111	KPN	EP2486750		1	3GPP TS 36.331 V10.20.0: Sections 5.6.5.1, 5.6.5.2, 5.6.5.3, 5.6.6.1, 5.6.6.2, 6.2.2, 6.3.1 3GPP TS 25.331 V10.20.0: Sections 10.3.7.13, 10.3.7.23, 10.3.7.33 3GPP TS 36.306 V10.15.0: Sections 4.3.7.1, 4.3.7.9, 4.3.7.11, 4.3.13.1 3GPP TS 37.320 V10.4.0: Sections 3.1, 4.1, 5.1.1, 5.1.1.1, 5.1.1.2, 5.1.1.3.2, 5.1.1.3.3 3GPP TS 32.422 V10.13.0: Sections 4.1.1.6a, 4.1.5, 6 3GPP TS 36.304 V10.8.0: Section 8 3GPP TS 36.300 V10.12.0: Section 22.3.2a	ISLD-201606-002 ISLD-201606-003
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	EP2486750(ES)							05 Oct 2010
	EP2486750(FI)							05 Oct 2010
	EP2486750(FR)							05 Oct 2010
	EP2486750(GB)							05 Oct 2010
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	EP2486750(PL)							05 Oct 2010
	EP2486750(SE)							05 Oct 2010
	JP5600176							05 Oct 2010
	US8660560							05 Oct 2010

LTE112	KPN	EP2566263		1, 2, 9	3GPP TS 23.003 V13.10.0 (included by reference in TS 23.682 V13.9.0 and in TS 36.331 V13.6.1): Section 15.3 3GPP TS 23.246 V13.3.0 (included by reference in TS 23.682 V13.9.0 and in TS 36.331 V13.6.1): Sections 3.1, 4.4.3, 4.4.3.3, 4.4.3.4; Figure 4 3GPP TS 23.682 V13.9.0: Sections 1, 4.2, 4.5.5, 5.5.1; Figure 5.5.1-1 3GPP TS 36.331 V13.6.1: Sections 5.8.1.1, 5.8.2.1, 6.2.2, 6.3.7; Figure 5.8.2.1-1	ISLD-201708-016	05 Oct 2010
			EP2486767(EP)				05 Oct 2010
			EP2566263(DE)				05 Oct 2010
			EP2566263(FI)				05 Oct 2010
			EP2566263(FR)				05 Oct 2010
			EP2566263(GB)				05 Oct 2010
			EP2566263(IT)				05 Oct 2010
			EP2566263(NL)				05 Oct 2010
			EP2566263(PL)				05 Oct 2010
			EP2566263(SE)				05 Oct 2010
			JP5562425				05 Oct 2010
			JP5847067				12 Dec 2012
			US9913072				28 Dec 2012
LTE113	KPN	US9699820		16	3GPP TS 23.303 v12.8.0: Sections 5.6.2; Annex A: informative A.2	ISLD-201605-011	10 Aug 2016
			CNZL201380046671.5				29 Aug 2013
			EP2893734(EP)				29 Aug 2013
			EP3079391(EP)				29 Aug 2013
			JP6072918				29 Aug 2013
			KR101692171				29 Aug 2013
			KR101760229				29 Aug 2013
			US9438572				29 Aug 2013
LTE114	KPN	CNZL200980152983.8		19	3GPP TS 23.401 V13.6.0: Sections 4.11, 5.3.2.1, 5.3.4B, 5.3.4B.1, 5.3.4B.2; Figure 5.3.2.1-1, 5.3.4B.2-1 3GPP TS 23.682 V13.5.0: Section 5.13.4; Figure 5.13.4-1	ISLD-201605-009	28 Oct 2009
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			EP2342538(DE)				28 Oct 2009
			EP2342538(ES)				28 Oct 2009
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			EP2342538(FR)				28 Oct 2009
			EP2342538(GB)				28 Oct 2009
			EP2342538(NL)				28 Oct 2009
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			EP2342538(SE)				28 Oct 2009
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			EP2615421(FI)				28 Oct 2009
			EP2615421(FR)				28 Oct 2009
			EP2615421(GB)				28 Oct 2009
			EP2615421(IT)				28 Oct 2009
			EP2615421(NL)				28 Oct 2009
			EP2615421(SE)				28 Oct 2009
			IN341508				19 Apr 2011
	US10419910				08 Jun 2016		
LTE115	KPN	US9820134		1, 10, 11, 12	3GPP TS 23.303 v13.6.0: Sections 3.1, 3.2, 4.6.4.2a, 5.3.1.2, 5.3.2A, 5.3.3A.2, 5.3.3A.4; Figures 5.3.2A-1, 5.3.3A.2A-1, 5.3.3A.4A-1	ISLD-201708-015 ISLD-201809-330	23 Jan 2014
			JP6145177				23 Jan 2014
LTE116	MELCO	JP4800388			3GPP TS 36.304 V10.5.0	ISLD-202006-006	09 Aug 2006
			CNZL200680050128.2				09 Aug 2006
			CNZL201510225622.9				06 May 2015

LTE116	MELCO		JP5236774				22 Apr 2011	
			JP5602255				11 Jan 2013	
			KR101258130					09 Aug 2006
			KR101329607					04 Mar 2011
			KR101389809					24 Jun 2010
			US8660046				09 Aug 2006	
LTE117	KPN	EP2656648		1, 9	3GPP TS 33.163 V15.3.0: Sections 3.1, 4.5, 4.6.2.2, 5.1.0, 5.1.3; Figures 4.6.2.2-1; Table: 5.1.3-1	ISLD-201903-013	06 Dec 2011	
			EP2656648(DE)				06 Dec 2011	
			EP2656648(FI)				06 Dec 2011	
			EP2656648(FR)				06 Dec 2011	
			EP2656648(GB)				06 Dec 2011	
			EP2656648(IT)				06 Dec 2011	
			EP2656648(NL)				06 Dec 2011	
			EP2656648(SE)				06 Dec 2011	
			US10103887				20 Jun 2013	
LTE118	Sisvel International	US10064176		1, 6, 9	3GPP TS 36.331 V12.5.0: Sections 5.1.1, 5.10.1, 5.10.1a, 5.10.2.1, 5.10.2.2, 5.10.7.1, 5.10.7.4, 6.3.1, 6.3.2, 6.5.1, 6.5.2, Figures 5.10.2-1, 5.10.7.1-1, 5.10.7.1-2; 5.10.7.1-3 3GPP TS 36.221 V12.5.0: Sections 4, 4.2; Table 4.2-2 3GPP TS 23.303 V12.4.0: Sections 1, 4.4.1.1, 4.4.2, 4.5.1.1.2.3.1, 4.5.6	ISLD-202006-010	09 Jun 2014	
			CNZL201410255736.3					10 Jun 2014
			EP3010197(DE)					09 Jun 2014
			EP3010197(ES)					09 Jun 2014
			EP3010197(FR)					09 Jun 2014
			EP3010197(GB)					09 Jun 2014
			EP3010197(IT)					09 Jun 2014
			EP3010197(NL)					09 Jun 2014
			EP3010197(PL)					09 Jun 2014
					KR102226026			
LTE119	Sisvel International	US9973324		1, 11	3GPP TS 36.213 V12.4.0: Sections 7.1, 8.0; Table 8-2 3GPP TS 36.306 V12.3.0: Sections 4.3.4.28, 3GPP TS 36.212 V12.3.0: Sections 5.3.3, 5.3.3.1.1, 5.3.3.1.8	ISLD-201805-023	08 May 2014	
		US10498520		1, 11	3GPP TS 36.213 V12.4.0: Sections 7.1, 8.0; Table 8-2 3GPP TS 36.306 V12.3.0: Sections 4.3.4.28, 3GPP TS 36.212 V12.3.0: Sections 5.3.3, 5.3.3.1.1, 5.3.3.1.8	ISLD-201805-023	02 Apr 2018	
			CNZL201410090475.4					12 Mar 2014
			DE602014040534.7					08 May 2014
			EP3041304(FR)					08 May 2014
			EP3041304(GB)					08 May 2014
			EP3041304(IT)					08 May 2014
			EP3041304(NL)					08 May 2014
			EP3041304(PL)					08 May 2014
					ES2722411			
			ES2896423				08 May 2014	
			KR102251839				08 May 2014	
LTE120	Sisvel International	US10412748		1	3GPPTS36.212V13.0.0:Sections:5.3.3.5.3.3.1,5.3.3.1.1,5.3.3.1.2,5.3.3.1.3 3GPPTS36.331V13.1.0:Sections6.2.6.2,6.3.2,6.3.4,6.4,8.0 3GPPTS23.003V8.17.0:Section7.1	ISLD-202006-010	28 Dec 2015	
		CNZL201410852934.8		1,5,9,13	3GPPTS36.212V13.0.0:Sections1,5.3.3,5.3.3.1,5.3.3.1.1,5.3.3.1.2,5.3.3.1.3,5.3.3.1.3A,5.3.3.1.4A,5.3.3.1.5,5.3.3.1.5A,5.3.3.1.5B,5.3.3.1.5C,5.3.3.1.5D,5.3.3.1.8 3GPPTS36.331V13.1.0:Sections1,4.1,5.3.5.1,6.2.2,6.3.2,6.3.4,6.4;Figures5.3.5.1-1,5.3.5.1-2 3GPPTS36.213V13.1.0:Sections7.1,8.0	ISLD-202006-010	26 Dec 2014	
			DE602015073413.0					28 Dec 2015
			EP3240345(FR)					28 Dec 2015
			EP3240345(GB)				28 Dec 2015	
			EP3240345(IT)				28 Dec 2015	

LTE120	SisvelInternational		EP3240345(NL)				28 Dec 2015	
			ES2899896				28 Dec 2015	
LTE121	Sisvel International	US10362566		1	3GPP TS 36.321 V14.3.0: Sections 3.1, 3.2, 5.4, 5.4.4 3GPP TS 36.331 V14.3.0: Sections 3.1, 6.3, 6.3.2 3GPP TS 36.213 V14.7.0: Sections 10, 10.1, 10.1.5	ISLD-202006-010	28 Dec 2015	
		CNZL201510040667.9		1, 8	3GPP TS 36.321 V14.3.0: Sections 5.4.4 3GPP TS 36.331 V14.3.0: Sections 3.1, 6.3.2 3GPP TS 36.213 V14.7.0: Sections 10, 10.1, 10.1.1, 10.1.5	ISLD-202006-010	27 Jan 2015	
			US10798690					04 Jun 2019
LTE122	Sisvel International	CNZL201510698366.5		1, 17	3GPP TS 36.211 V14.3.0: Sections 4.1, 4.2, 5.2.3, 6.2.3, 10.1.2.1, 10.1.2.3, 10.2.2.1, 10.2.5.1, 10.2.7, 10.2.7.1, 10.2.7.1.1, 10.2.7.1.2, 10.2.7.2, , 10.2.7.2.1, 10.2.7.2.2, ; Tables 5.2.3-1, 6.2.3-1, 10.1.2.1-1, 10.2.5.1-1, 10.2.7.1.1-1 3GPP TS 36.213 V14.3.0: Sections 16.4, 16.4.1, 16.4.1.3, 16.5.1, 16.5.1.1,16.6; Table 16.4.1.3-1, 16.4.1.3-2, 16.5.1.1-2, 16.5.1.1-3, 16.6-1 3GPP TS 36.331 V14.3.0: Sections 3.1, 5.2.1.1, 5.2.1.2a, 6.7.2, 6.7.3.2; Figure1 5.2.2.1-1 3GPP TS 36.212 V14.3.0: Sections 6.1, 6.4.3, 6.4.3.1, 6.4.3.2; Tables 6.1-3	ISLD-202006-010	23 Oct 2015	
			CNZL2017111475202.1 US10826665					23 Oct 2015 11 Jul 2016
LTE123	Sisvel International	US10484143		1	3GPP TS 36.213 V15.3.0: Sections 7.1, 7.3, 7.3.1, 10.1, 10.1.2.1, 10.1.2.2.2, 10.1.2.2.3; Table 10.1-1 3GPP TS 36.211 V15.1.0: Sections 4.1; Figure 4.1-1; Table 4.1-1 3GPP TS 36.212 V15.2.1: Sections 5.3.3.1.3, 5.3.3.1.17, 5.3.3.1.18, 5.3.3.1.19, 5.3.3.1.20, 5.3.3.1.21, 5.3.3.1.22, 5.3.3.1.23; Table 5.3.3.1.17-1 3GPP TS 36.331 V15.3.0: Section 6.3.2	ISLD-202006-010	31 Aug 2018	
			CNZL201610121604.0	1, 17	3GPP TS 36.213 V15.3.0: Sections 7.1, 7.3, 7.3.1, 10.1, 10.1.1, 10.1.2.1, 10.1.2.2.2, 10.1.2.2.3; Table 10.1-1 3GPP TS 36.211 V15.1.0: Sections 4.1; Figure 4.1-1; Table 4.1-1 3GPP TS 36.212 V15.2.1: Sections 5.3.3.1.3, 5.3.3.1.17, 5.3.3.1.18, 5.3.3.1.19, 5.3.3.1.20, 5.3.3.1.21, 5.3.3.1.22, 5.3.3.1.23; Table 5.3.3.1.17-1 3GPP TS 36.331 V15.3.0: Section 6.3.2	ISLD-202006-010	03 Mar 2016	
LTE124	Sisvel International	US9749969		1, 9	3GPP TS 36.331 V13.1.0: Sections 3.1, 3.2, 4.2.2, 5.2.1.1, 5.2.2.1, 5.3.3.1, 6.2.2, 6.3.1, 6.3.2; Figures 5.2.2.1-1, 5.3.3.1-1 3GPP TS 36.213 V12.5.0: Sections 5.1.2, 5.1.2.1, 5.1.4, 5.1.4.1, 5.1.4.2 3GPP TS 36.101 V12.5.0: Sections 6.2.5	ISLD-202006-010	12 Feb 2015	
LTE125	3G Licensing		EP2438782(DE)					03 Jun 2010
			EP2438782(ES)					03 Jun 2010
			EP2438782(FR)					03 Jun 2010
			EP2438782(GB)					03 Jun 2010
			EP2438782(IT)					03 Jun 2010
			EP2438782(NL)					03 Jun 2010
			EP2438782(PL)					03 Jun 2010
			US10736026					03 Jun 2010
LTE126	3G Licensing	US8600383		1	3GPP TS 36.304 v8.10.0: Sections 1, 5.2.1, 5.2.4.4	ISLD-201202-005 ISLD-201301-011 ISLD-201402-021	14 Sep 2012	
			CA2516278				18 Aug 2005	
			EP1628497(DE)				18 Aug 2005	
			EP1628497(ES)				18 Aug 2005	
			EP1628497(FI)				18 Aug 2005	
			EP1628497(FR)				18 Aug 2005	
			EP1628497(GB)				18 Aug 2005	
			EP1628497(IT)				18 Aug 2005	
			US7463887				18 Aug 2004	
			US8290491				26 Sep 2011	
			US8351940				07 Nov 2008	

<b>LTE128</b>	<b>3G Licensing</b>	US8189611	1	3GPP TS 24.301 V11.7.0: Sections 6.5.1.1, 6.5.1.4A	ISLD-201402-021	02 Dec 2008			
				CNZN200610064046.5		03 Nov 2006			
				CNZN201010576392.8		03 Nov 2006			
				EP1783961(NL)		04 Nov 2005			
				EP1924037(GB)		20 Feb 2008			
				EP1924037(IT)		20 Feb 2008			
				EP2184946		03 Mar 2010			
				EP2184946(GB)		03 Mar 2010			
				EP2184946(IT)		03 Mar 2010			
				EP2184946(NL)		03 Mar 2010			
				EP2184946(SE)		03 Mar 2010			
				HK1102880		17 Oct 2007			
				HK1143266		06 Oct 2010			
				JP4909707		01 Nov 2006			
				JP5368498		16 Feb 2011			
				KR101116459		25 Mar 2011			
				KR101116524		03 Nov 2006			
				SG131920		31 Oct 2006			
				TWI338527		03 Nov 2006			
				US7474671		04 Nov 2005			
	US8379666		16 Apr 2012						
<b>LTE129</b>	<b>3G Licensing</b>	US8472955	1	3GPP TS 23.122 V8.12.0: Sections 1.2, 4.2, 4.4.3.1.1; Annex A 3GPP TS 22.011 V8.11.0: Sections 1.2, 3.2.2.1 3GPP TS 31.102 V8.11.0: Sections 1, 4.2.84, 4.2.53, 5.1.1.2 3GPP TS 36.331 V8.21.0: Sections 6.1, 6.3.4 3GPP TS 24.301 V8.10.0: Sections 8.2.1.1, 9.9.3.32, 9.9.3.33; Table 8.2.1.1; Figures 9.9.3.32.1, 9.9.3.33.1 3GPP TS 22.101 V8.15.0: Sections A.3	ISLD-200911-009 ISLD-201208-005 ISLD-201301-011	03 Jul 2012			
				CA2478008		20 Aug 2004			
				CA2680720		10 Sep 2009			
				EP1513358(DE)		03 Sep 2003			
				EP1513358(FR)		03 Sep 2003			
				EP1513358(GB)		03 Sep 2003			
				HK1075996		23 Aug 2005			
				US7274933		02 Sep 2004			
				US7460868		03 Aug 2007			
				US7596375		22 Sep 2008			
				US8275374		26 Aug 2009			
				US8948756		13 Jun 2013			
			<b>LTE130</b>	<b>Sisvel SPA</b>	EP2315383	1	3GPP TS 36.322 V8.5.0: Sections 4.2.1.3.1, 5.1.3.1.1, 5.1.3.2.1, 5.1.3.2.3, 5.2.1, 5.2.3, 6.1.2, 6.2.1.6, 6.2.2.14, 6.2.2.16, 7.1, 7.3; Figures 6.2.1.6-1	ISLD-201407-015 ISLD-201412-003	03 Jan 2007
							CNZN200780001723.1		03 Jan 2007
	CNZN201110399482.9					05 Dec 2011			
	EP2315383(AT)					03 Jan 2007			
	EP2315383(BE)					03 Jan 2007			
	EP2315383(BG)					03 Jan 2007			
	EP2315383(CH)					03 Jan 2007			
	EP2315383(CY)					03 Jan 2007			
	EP2315383(CZ)					03 Jan 2007			
	EP2315383(DE)					03 Jan 2007			
	EP2315383(DK)					03 Jan 2007			
	EP2315383(EE)					03 Jan 2007			
	EP2315383(ES)					03 Jan 2007			
	EP2315383(FI)					03 Jan 2007			
	EP2315383(FR)					03 Jan 2007			



LTE131	Sisvel SPA		EP2248383(MT)				10 Sep 2009
			EP2248383(NL)				10 Sep 2009
			EP2248383(NO)				10 Sep 2009
			EP2248383(PL)				10 Sep 2009
			EP2248383(PT)				10 Sep 2009
			EP2248383(RO)				10 Sep 2009
			EP2248383(SE)				10 Sep 2009
			EP2248383(SI)				10 Sep 2009
			EP2248383(SK)				10 Sep 2009
			EP2248383(TR)				10 Sep 2009
			ES2627444				10 Sep 2009
			JP5238067				10 Sep 2009
			JP5426001				19 Nov 2012
			JP6002118				27 Nov 2013
			KR100956828				24 Jul 2009
			US8009606				19 Oct 2009
	US8411633				17 Mar 2011		
	US8971279				08 Mar 2013		
	US9369254				20 Jan 2015		
LTE132	MELCO	JP6612940		4	3GPP TS 36.300 V12.5.0: Sections 4, 4.9.1 and 10.1.2.8.1 3GPP TS 35.423 V12.5.0: Sections 1 and 9.1.3.2 3GPP TS 36.331 V12.5.0: Sections 6.2.2 and 6.3.2	ISLD-202006-006	26 Jul 2018
				EP3493446(DE)			
			EP3493446(FR)				25 Jan 2019
			EP3493446(GB)				25 Jan 2019
			JP5746059				09 Feb 2011
			JP5976161				28 Apr 2015
			JP6378258				15 Jul 2016
			US10051642				20 Apr 2016
			US9350496				09 Feb 2011
		LTE133	MELCO	JP5784029			3GPP TS 36.300 V13.2.0
	JP5955439						
	JP6246267						14 Jun 2016
	JP6415670						13 Nov 2017
	JP6633712						02 Oct 2018
	US9320016						27 Sep 2011
LTE134	MELCO	JP5084951			3GPP TS 36.331 V12.0.0	ISLD-202006-006	21 Apr 2010
				CNZL201080018941.8			
			CNZL201710561496.3				11 Jul 2017
			CNZL201710562025.4				11 Jul 2017
			IN350882				21 Apr 2010
			JP5518151				04 Sep 2012
			JP5744276				01 Apr 2014
			JP6169123				28 Apr 2015
			JP6815286				27 Jun 2017
			US10356635				21 Apr 2016
	US9350501				21 Apr 2010		
LTE135	Sisvel International	US9980306		1, 13	3GPP TS 36.331 V12.5.0: Sections 1, 4, 4.1, 4.2, 5.10.1, 5.10.7.1, 5.10.7.2, 5.10.7.3, 5.10.7.4, 5.10.7.5, 5.10.9.1, 6.3.8, 6.5.2; Figures 4.1-1, 4.2-1, 5.10.7.1-1, 5.10.7.1-2, 5.10.7.1-3	ISLD-202006-010	29 Aug 2014
				CNZL201310608978.1			
			EP3051853(DE)				29 Aug 2014
			EP3051853(FR)				29 Aug 2014
			EP3051853(GB)				29 Aug 2014
			KR102180368				29 Aug 2014

LTE136	3G Licensing	US9635142		9	3GPP TS 36.331 V8.21.0: Sections 5.3.10.3, 6.3.2 3GPP TS 36.323 V8.6.0: Sections 5.5.1	24 May 2012
			AU2003252560			14 Aug 2003
			CNZL200910252337.0			02 Dec 2009
			CNZL200910252338.5			02 Dec 2009
			CNZL200910252340.2			02 Dec 2009
			EP1532778(BE)			14 Aug 2003
			EP1532778(DE)			14 Aug 2003
			EP1532778(ES)			14 Aug 2003
			EP1532778(FI)			14 Aug 2003
			EP1532778(FR)			14 Aug 2003
			EP1532778(GB)			14 Aug 2003
			EP1532778(IT)			14 Aug 2003
			EP1532778(NL)			14 Aug 2003
			EP1532778(SE)			14 Aug 2003
			EP2256999(DE)			14 Aug 2003
			EP2256999(FR)			14 Aug 2003
			EP2256999(GB)			14 Aug 2003
			EP2256999(IT)			14 Aug 2003
			EP2256999(PT)			14 Aug 2003
			EP2375654(DE)			14 Aug 2003
			EP2375654(FR)			14 Aug 2003
			EP2375654(GB)			14 Aug 2003
			EP2375654(NL)			14 Aug 2003
			HK1077441			21 Oct 2005
			IDP0024236			14 May 2004
			IN201107			14 Aug 2003
			JP4008447			14 Aug 2003
			KR100981823			08 Apr 2008
KR101020318			05 Mar 2010			
KZ19891			14 Aug 2003			
MX265811			14 Aug 2003			
RU2310283			08 Sep 2004			
UA77036			14 Aug 2003			
US7366105			14 Aug 2003			
US8139555			04 Apr 2008			
US8848684			14 Aug 2003			
US9635140			14 Aug 2003			
US9635141			14 Aug 2003			
ZA200403512			14 Aug 2003			
LTE137	3G Licensing	US8451818		1	3GPP TS 36.322 V8.8.0: Sections 4.2.1, 4.2.1.1.1, 4.2.1.1.2, 4.2.1.2, 4.2.1.2.1, 4.2.1.2.2, 4.2.1.3, 4.2.1.3.1, 4.2.1.3.2; Figure 4.2.1.1.1-1, 4.2.1.2.1-1, 4.2.1.3.1-1	23 Jul 2010
			US6788652			12 Nov 1999
			US6804202			18 Jan 2000
			US7583699			08 Sep 2003
			US7756159			12 Jan 2009
US7920595			31 Aug 2007			
LTE138	3G Licensing	US7782833		1	3GPP TS 36.321 V8.12.0: Sections 1, 3.2, 4.2.1, 4.3.1, 4.3.2, 4.4, 4.5, 4.5.1, 4.5.2, 4.5.3, 4.5.3.1, 4.5.3.2, 6.1.1, 6.1.2, 6.2.1; Figures 4.2.1.1, 4.5.3.1-1, 4.5.3.2-1, 6.1.2-1, 6.1.2-2, 6.1.2-3; Tables 4.4-1, 4.5.1-1, 4.5.2-1, 4.5.3.1-1, 4.5.3.2-1 3GPP TS 36.322 v8.8.0: Sections 3.2, 4.2.1, 4.3.2; Figure 4.2.1-1	31 Jan 2007
LTE139	3G Licensing	US8130819		1	3GPP TS 36.321 V8.12.0: Sections 5.3.2.1, 5.3.2.2 3GPP TS 36.212 V.8.8.0: Section 5.2.3.1 3GPP TS 36.213 V8.8.0: Section 10.1	09 Jun 2011
			CA2654104			02 Dec 2008



LTE139	3G Licensing		CNZL200780022582.1				16 Dec 2008
			EP2033354(DE)				13 Jan 2009
			EP2033354(DK)				13 Jan 2009
			EP2033354(FR)				13 Jan 2009
			EP2033354(SE)				13 Jan 2009
			EP2262154(DE)				01 Oct 2010
			EP2262154(FR)				01 Oct 2010
			EP2262154(GB)				01 Oct 2010
			IN269232				05 Dec 2008
			JP5443982				15 Dec 2008
			JP5685564				13 Sep 2012
			KR101253162				16 Jun 2006
			KR101265596				16 Jun 2006
			KR101285379				08 Aug 2008
			TWI443996				20 Jun 2007
US7916775				15 Jun 2007			
US7983330				17 Dec 2010			
US8320434				18 Jan 2012			
LTE140	Fraunhofer	KR101204134		19	3GPP TS 26.247 V14.4.0: Sections 7.1, 7.3.4 and Figure 7-1	ISLD-201908-011	03 Dec 2008
			BRPI0822167-7				03 Dec 2008
			CA2722204				03 Dec 2008
			CA2924651				03 Dec 2008
			IN306325				21 Oct 2010
			JP5238069				03 Dec 2008
TWI463875				16 Apr 2009			
LTE141	Fraunhofer	EP2242187		1	3GPP TS 36.101 V10.0.0 : Sections 7.1, 7.5.1 3GPP TS 36.200 V10.0.0 : Sections 4 ; Figure 4-1 3GPP TS 36.201 V10.0.0 : Sections 4.1.2 3GPP TS 36.211 V11.0.0 : Sections 6.3.3.2 3GPP TS 36.214 V10.0.0 : Sections 4, 5.1.1, 5.1.3, 7.1, 7.5.1 3GPP TS 36.306 V11.0.0 : Sections 4.1, 4.3.5.2 ; Table 4.1-1	ISLD-201809-209 ISLD-201908-011	14 Apr 2009
			EP2242187(DE)				14 Apr 2009
			EP2242187(ES)				14 Apr 2009
			EP2242187(FR)				14 Apr 2009
			EP2242187(GB)				14 Apr 2009
			EP2242187(IT)				14 Apr 2009
US9800297				28 Dec 2011			
LTE142	Fraunhofer	CNZL201280063481.X		43	3GPP TS 26.247 V14.4.0: Sections 7.1, 10.1, 10.2.4, 10.2.6, Annex L, Figure 7-1, Figure L-1, Table 27 3GPP TS 36.300 V13.1.0: Section 4.1	ISLD-201908-011	22 Oct 2012
			EP2769578				22 Oct 2012
			JP5908984				22 Oct 2012
			JP6254631				24 Mar 2016
			JP6533275				30 Nov 2017
			JP6560413				23 Jul 2018
			JP6700458				25 May 2019
			KR101618483				22 Oct 2012
			KR101824487				22 Oct 2012
			KR101874629				22 Oct 2012
			KR101923486				22 Oct 2012
			US10945269				22 Oct 2012
			US9775163				18 Apr 2014
LTE143	Fraunhofer	US10237747		1	3GPP TS 36.300 V14.11.0: Sections 5.7, 10.2.3.4, 22A.1.1, 22A.1.5 and 22A.1.6	ISLD-201912-064	25 Mar 2016
			CNZL201480052800.6				26 Sep 2014
			JP6574761				26 Sep 2014

LTE143	Fraunhofer		KR101822312				26 Sep 2014	
LTE144	Fraunhofer	TWI683561		18	3GPP TS 36.331 V14.12.0 : Sections 1, 4.4 and 6.3.2 3GPP TS 36.212 V14.10.0 : Section 5.3.3.1 3GPP TS 36.213 V14.12.0 : Section 9.2	ISLD-201912-064	10 Aug 2017	
			JP6808813					11 Aug 2017
			KR102276138					11 Aug 2017
			RU2735635					11 Aug 2017
			US10841943					08 Feb 2019
		US11122611					03 Nov 2020	
LTE145	Fraunhofer	TWI662823		1, 3, 10, 19-23	3GPP TS 36.331 V14.9.0: Sections 1, 3.1, 4.1, 4.2.1, 5.2.1.2, 5.2.1.2a, 6.2.2, 6.7.3.1, 6.7.3.2 3GPP TS 36.211 V14.2.0: Section 4.1 3GPP TS 36.101 V14.3.0: Table 5.6-1	ISLD-201908-011 ISLD-201912-064	26 Sep 2017	
			JP6810255					25 Sep 2017
			RU2713403				25 Sep 2017	
LTE146	Wilus	US10743344		1,2	3GPP TS 36.212 v14.10.0: Sections 5.3, 5.3.3, 5.3.3.1.1A, 5.3.3.1.1B, 5.3.3.1.8A, 5.3.3.1.8B 3GPP TS 36.213 v14.11.0: Sections 1, 3.2, 15.2, 15.2.1.1, 15.2.2; Table 15.2.1-1 3GPP TS 36.300 v14.10.0: Sections 3.3	ISLD-201908-005	29 Sep 2018	
			KR102283178					28 Sep 2018
			US11234270				08 Jul 2020	
LTE147	Wilus	US10728919		1,2	3GPP TS 36.212 v14.10.0: Sections 5.3, 5.3.3, 5.3.3.1.1A, 5.3.3.1.1B, 5.3.3.1.8A, 5.3.3.1.8B 3GPP TS 36.213 v14.11.0: Sections 1, 3.2, 15.2.1, 15.2.1.1, 15.2.1.2 3GPP TS 36.300 v14.10.0: Section 3.3	ISLD-201908-005	23 Jan 2019	
			KR102278751					21 Feb 2019
			KR102325682					05 Jul 2021
			US11297636				18 Jun 2020	
LTE150	Wilus	US10757717		1, 2	3GPP TS 36.212 V14.10.0: Sections 3.3, 5.3.5.3.3, 5.3.3.1.4 3GPP TS 36.213 V14.11.0: Sections 1, 3.2, 13A, 15.1, 15.2, 15.2.1, 15.2.1.1, 15.2.1.2; Tables 13A-2	ISLD-201908-005	21 Sep 2018	
			CNZL201780018454.3					19 Sep 2018
			KR102285189					21 Sep 2018
			US11330609				14 Jul 2020	
LTE151	Wilus	US10805950		1,2	3GPP TS 36.212 v14.10.0: Sections 5.3, 5.3.3, 5.3.3.1.1A 3GPP TS 36.213 v14.13.0: Sections 1, 3.2, 15.1, 15.1.1, 15.2, 15.2.1, 15.2.1.1; Table 15.2.1-1 3GPP TS 36.300 v11.2.0: Sections 3.3, 5.7	ISLD-201908-005	21 Sep 2018	
			CNZL201780030922.9					19 Nov 2018
			KR102287383				21 Sep 2018	
LTE153	Wilus	US11064364		1	3GPP TS 36.212 V14.15.0: Sections 3.3, 5.2.2, 5.2.2.6, 5.3.3, 5.3.3.1, 5.3.3.1.1A; Table 5.3.3.1.1A-1 3GPP TS 36.211 V14.15.0: Sections 4.3, 5.2.1, 5.2.3; Table 5.2.3-1	ISLD-201908-005	11 Jul 2018	
LTE154	Wilus	US11096060		1	3GPP TS 37.213 V16.5.0: Sections 4.2.1, 4.2.1.0, 4.2.1.0.1, 4.2.1.1, 4.2.2, 4.2.2.1; Tables: 4.2.1-1 3GPP TS 36.212 V16.5.0: Sections: 5.3.3.1, 5.3.3.1.1A, 5.3.3.1.1B; Tables: 5.3.3.1.1A-1, 5.3.3.1.1A-2, 5.3.3.1.1A-3	ISLD-201908-005	20 Sep 2019	
			KR102278753					20 Sep 2019
LTE155	Wilus	US11044752		12	3GPP TS 37.213 V15.3.0: Sections 4.2.1, 4.2.1.1, 4.2.1.2 3GPP TS 36.300 V15.12.0: Sections 5.7, 5.7.0, 11.1.2	ISLD-201908-005	11 Feb 2020	
			KR102389027					20 Feb 2020
LTE156	Sisvel International	CNZL201410255478.9		9, 18	3GPP TS 36.212 V13.2.0: Sections 1, 3.3, 5.3, 5.3.3.1, 5.3.3.1.1, 5.3.3.1.2, 5.3.3.1.3, 5.3.3.1.3A, 5.3.3.1.4, 5.3.3.1.4A 3GPP TS 36.213 V13.2.0: Sections 1, 3.2, 3A, 4.1, 7.1, 13A, 15.1.1		10 Jun 2014	
LTE157	Sisvel International	CNZL201410318536.8		6, 16	3GPP TS 36.212 V14.3.0: Sections 1, 3.3, 4.2, 5.3.3.1.1A 3GPP TS 36.201 V14.1.0: Sections 1, 3.3, 4.2.2		04 Jul 2014	
			CNZL201910420611.4					04 Jul 2014
LTE158	MELCO						15 Jun 2010	
			CNZL201510236237.4				11 May 2015	
			CNZL201510237085.X				11 May 2015	
			JP5174964				15 Jun 2010	

LTE158	MELCO		JP5595472			26 Dec 2012
			JP6457578			05 Apr 2017
			JP6877401			20 Dec 2018
			US8908560			15 Jun 2010
			US9386577			03 Nov 2014
LTE159	MELCO		CNZL201280008398.2			07 Feb 2012
			CNZL201710073607.6			10 Feb 2017
			CNZL201710073630.5			10 Feb 2017
			CNZL201710073972.7			10 Feb 2017
			JP5889213			07 Feb 2012
			JP6116720			16 Feb 2016
			JP6366763			17 Mar 2017
			US10575191			03 Jun 2016
			US10893421			06 Aug 2019
			US9066329			07 Feb 2012
			US9386467			05 May 2015
			LTE160	MELCO		CNZL201180009026.7
JP6466860						29 Jan 2016
JP6667480						03 Aug 2017
US9871643						09 Feb 2011
LTE161	Fraunhofer		EP3497869(DE)			09 Aug 2017
			EP3497869(ES)			09 Aug 2017
			EP3497869(FR)			09 Aug 2017
			EP3497869(GB)			09 Aug 2017
			EP3497869(IT)			09 Aug 2017
			RU2722437			09 Aug 2017
			TWI681653			10 Aug 2017
LTE162	Fraunhofer		EP3653003			09 Nov 2018
			JP6900574			09 Nov 2018
			KR102231466			09 Nov 2018
			KR102339503			09 Nov 2018
			RU2745274			09 Nov 2018
			TWI703883			09 Nov 2018
LTE163	Sisvel International	CNZL201410697509.6	1, 4, 6, 10, 12	3GPP TS 36.211 V12.5.0: Sections 3.1, 5.3.1, 7.2, 9, 9.1, 9.1.1, 9.2, 9.2.4, 9.3, 9.3.1, 9.4, 9.4.1, 9.8 3GPP TS 36.212 V12.4.0: Sections 5, 5.2.2.6, 5.4, 5.4.3, 5.4.3.1, 5.4.3.1.1		26 Nov 2014
						26 Nov 2014