

5.2.9 LTE Band 41

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	39675	40620	41565	39675	40620	41565
			2498.5	2593	2687.5	2498.5	2593	2687.5
41	5	1@0	22.21	22.05	22.10	22.15	21.93	22.20
		1@12	22.35	22.16	22.24	22.25	22.06	22.27
		1@24	22.24	22.01	22.15	22.15	21.91	22.23
		12@0	22.21	22.05	22.24	22.19	22.07	22.28
		12@7	22.28	22.10	22.25	22.35	22.15	22.38
		12@13	22.25	22.10	22.22	22.28	22.10	22.34
		25@0	22.23	22.07	22.14	22.24	22.13	22.17
Band	Bandwidth (MHz)	RB	39700	40620	41540	39700	40620	41540
			2501	2593	2685	2501	2593	2685
41	10	1@0	22.12	22.09	22.14	22.27	21.83	22.02
		1@25	22.57	22.41	22.52	22.43	22.14	22.35
		1@49	22.20	22.03	22.25	22.25	21.80	22.05
		25@0	22.24	22.07	22.18	22.26	22.12	22.22
		25@12	22.25	22.08	22.23	22.35	22.17	22.30
		25@25	22.28	22.16	22.25	22.30	22.24	22.32
		50@0	22.24	22.08	22.21	22.33	22.14	22.22
Band	Bandwidth (MHz)	RB	39725	40620	41515	39725	40620	41515
			2503.5	2593	2682.5	2503.5	2593	2682.5
41	15	1@0	22.11	22.04	22.08	22.27	22.05	21.78
		1@37	22.17	22.07	22.17	22.33	22.15	21.94
		1@74	22.04	21.90	22.10	22.17	21.98	21.89
		36@0	22.24	22.10	22.18	22.28	22.04	22.09
		36@20	22.26	22.18	22.23	22.28	22.10	22.16
		36@39	22.31	22.14	22.24	22.33	22.14	22.17
		75@0	22.28	22.19	22.19	22.30	22.08	22.19
Band	Bandwidth (MHz)	RB	39750	40620	41490	39750	40620	41490
			2506	2593	2680	2506	2593	2680
41	20	1@0	22.03	21.80	21.80	21.95	21.60	22.00
		1@49	22.61	22.33	22.40	22.41	22.13	22.57
		1@99	22.00	21.76	21.98	21.93	21.57	22.10
		50@0	22.13	21.96	21.92	22.17	22.09	22.07
		50@24	22.24	22.05	22.09	22.27	22.09	22.23
		50@50	22.26	22.11	22.15	22.24	22.24	22.27
		100@0	22.20	22.07	22.13	22.23	22.10	22.18

5.2.10 LTE Band 66

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	131979	132322	132665	131979	132322	132665
			1710.7	1745	1779.3	1710.7	1745	1779.3
66	1.4	1@0	22.62	22.78	22.89	21.40	21.49	21.80
		1@3	22.81	22.96	23.00	21.59	21.70	22.02
		1@5	22.63	22.81	22.84	21.41	21.53	21.77
		3@0	22.67	22.92	22.83	21.64	21.95	21.76
		3@1	22.72	22.91	22.95	21.85	21.94	22.08
		3@3	22.66	22.82	22.95	21.64	21.95	21.73
		6@0	21.68	21.91	21.93	20.59	20.81	20.93
Band	Bandwidth (MHz)	RB	131987	132322	132657	131987	132322	132657
			1711.5	1745	1778.5	1711.5	1745	1778.5
66	3	1@0	22.71	22.85	22.90	21.47	22.28	21.92
		1@8	22.74	22.86	22.90	21.50	22.31	21.88
		1@14	22.63	22.82	22.91	21.44	22.32	21.88
		8@0	21.72	21.87	21.95	20.75	21.01	20.86
		8@4	21.73	21.94	21.94	20.78	20.99	21.09
		8@7	21.65	21.82	21.93	20.71	21.00	20.86
		15@0	21.63	21.88	21.86	20.71	20.90	20.84
Band	Bandwidth (MHz)	RB	131997	132322	132647	131997	132322	132647
			1712.5	1745	1777.5	1712.5	1745	1777.5
66	5	1@0	22.59	22.77	22.83	21.47	21.48	21.90
		1@12	22.68	22.93	22.98	21.60	21.64	22.09
		1@24	22.54	22.77	22.83	21.44	21.47	21.94
		12@0	21.62	21.82	21.93	20.54	20.80	20.93
		12@7	21.68	21.91	21.94	20.73	20.96	21.08
		12@13	21.68	21.83	21.90	20.63	20.83	20.86
		25@0	21.65	21.79	21.85	20.61	20.89	20.87
Band	Bandwidth (MHz)	RB	132022	132322	132622	132022	132322	132622
			1715	1745	1775	1715	1745	1775
66	10	1@0	22.73	22.91	22.94	21.48	22.30	21.91
		1@25	22.78	23.03	23.07	21.60	22.45	22.02
		1@49	22.75	22.87	22.91	21.52	22.31	21.87
		25@0	21.70	21.91	21.99	20.74	20.93	21.04
		25@12	21.70	21.88	21.95	20.78	20.94	20.97
		25@25	21.73	21.88	21.89	20.84	20.99	20.90
		50@0	21.71	21.90	21.98	20.75	20.93	20.92
Band	Bandwidth (MHz)	RB	132047	132322	132597	132047	132322	132597
			1717.5	1745	1772.5	1717.5	1745	1772.5
66	15	1@0	22.59	22.79	22.86	21.71	22.24	21.77
		1@37	22.69	22.89	22.96	21.85	22.35	21.92
		1@74	22.61	22.81	22.79	21.82	22.18	21.78
		36@0	21.73	21.94	22.02	20.63	20.86	20.95
		36@20	21.79	21.96	22.04	20.74	20.93	20.99
		36@39	21.85	22.01	22.00	20.75	20.92	20.94
		75@0	21.81	21.92	22.03	20.75	20.91	21.00
Band	Bandwidth (MHz)	RB	132072	132322	132572	132072	132322	132572
			1720	1745	1770	1720	1745	1770
66	20	1@0	22.44	22.53	22.60	21.12	21.94	21.72
		1@49	22.84	22.94	23.12	21.66	22.38	22.24
		1@99	22.00	22.61	22.69	21.55	22.06	21.86
		50@0	21.66	21.88	21.93	20.66	20.92	20.91
		50@24	21.58	21.82	21.87	20.75	20.86	20.92
		50@50	21.63	21.82	21.86	20.78	20.87	20.85
		100@0	21.72	21.86	21.90	20.72	20.88	20.93

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5.2.11 LTE Band 71

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth	RB	133147	133297	133447	133147	133297	133447
	(MHz)		665.5	680.5	695.5	665.5	680.5	695.5
71	5	1@0	22.96	22.79	22.61	21.61	21.90	21.49
		1@12	22.92	22.84	22.77	21.62	22.04	21.58
		1@24	22.89	22.69	22.65	21.56	21.89	21.51
		12@0	21.80	21.84	21.67	20.71	20.81	20.62
		12@7	21.89	21.90	21.79	21.00	21.00	20.77
		12@13	21.84	21.74	21.67	20.83	20.77	20.65
		25@0	21.80	21.79	21.61	20.84	20.78	20.72
Band	Bandwidth	RB	133172	133297	133422	133172	133297	133422
	(MHz)		668	680.5	693	668	680.5	693
71	10	1@0	22.90	22.77	22.69	21.71	22.30	21.71
		1@25	22.91	22.89	22.78	21.74	22.47	21.87
		1@49	22.90	22.79	22.70	21.66	22.31	21.72
		25@0	21.90	21.82	21.82	21.02	20.87	20.83
		25@12	21.90	21.80	21.65	21.01	20.88	20.78
		25@25	21.88	21.75	21.73	21.00	20.85	20.72
		50@0	21.93	21.85	21.79	20.99	20.85	20.77
Band	Bandwidth	RB	133197	133297	133397	133197	133297	133397
	(MHz)		670.5	680.5	690.5	670.5	680.5	690.5
71	15	1@0	22.91	22.75	22.62	22.31	21.72	21.79
		1@37	22.94	22.82	22.75	22.39	21.83	21.90
		1@74	22.73	22.76	22.62	22.31	21.75	21.82
		36@0	22.01	21.86	21.78	20.98	20.82	20.76
		36@20	21.96	21.90	21.86	20.92	20.96	20.76
		36@39	22.01	21.86	21.82	21.01	20.86	20.74
		75@0	21.99	21.84	21.78	21.05	20.79	20.79
Band	Bandwidth	RB	133222	133322	133372	133222	133322	133372
	(MHz)		673	683	688	673	683	688
71	20	1@0	22.59	22.53	22.53	22.01	21.70	21.59
		1@49	22.93	22.97	22.92	22.37	22.07	22.07
		1@99	22.60	22.57	22.50	22.05	21.68	21.52
		50@0	21.84	21.84	21.92	21.01	20.81	20.90
		50@24	21.88	21.76	21.78	20.88	20.82	20.81
		50@50	21.90	21.84	21.74	20.97	20.83	20.74
		100@0	21.87	21.79	21.83	20.92	20.80	20.82

5.3 ERP OR EIRP

Test Requirement: FCC 47 CFR Part 2.1046(a)
LTE Band 2 & LTE Band 25: FCC 47 CFR Part 24.232(c)
LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.50(d)(4)
LTE Band 5 & LTE Band 26: FCC 47 CFR Part 22.913(a)
LTE Band 41: FCC 47 CFR Part 27.50(h)(2)
LTE Band 12 & 17 & Band 71: FCC 47 CFR Part 27.50(c)(10)
LTE Band 26: FCC 47 CFR Part 90.635

Test Method: KDB 971168 D01v03r01 Section 5.6 & ANSI C63.26-2015

Limit:

FCC 47 CFR Part 22.913(a):

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

FCC 47 CFR Part 24.232(c):

Mobile and portable stations are limited to 2 watts EIRP.

FCC 47 CFR Part 27.50(d)(4):

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

FCC 47 CFR Part 27.50(c)(10):

Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

FCC 47 CFR Part 27.50(h)(2):

Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

FCC 47 CFR Part 90.635:

(a) The effective radiated power and antenna height for base stations may not exceed 1 kilowatt (30 dBw) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from the Table. These are maximum values, and applicants will be required to justify power levels and antenna heights requested.

(b) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

Table—Equivalent Power and Antenna Heights for Base Stations in the 851–869 MHz and 935–940 MHz Bands Which Have a Requirement for a 32 km (20 mi) Service Area Radius

Antenna height (ATT) meters (feet)	Effective radiated power (watts) ^{1 2 4}
Above 1,372 (4,500)	65
Above 1,220 (4,000) to 1,372 (4,500)	70
Above 1,067 (3,500) to 1,220 (4,000)	75
Above 915 (3,000) to 1,067 (3,500)	100
Above 763 (2,500) to 915 (3,000)	140
Above 610 (2,000) to 763 (2,500)	200
Above 458 (1,500) to 610 (2,000)	350
Above 305 (1,000) to 458 (1,500)	600
Up to 305 (1,000)	≥1,000

- Power is given in terms of effective radiated power (ERP).
- Applicants in the Los Angeles, CA, area who demonstrate a need to serve both the downtown and fringe areas will be permitted to utilize an ERP of 1 kw at the following mountaintop sites: Santiago Park, Sierra Peak, Mount Lukens, and Mount Wilson.
- Stations with antennas below 305 m (1,000 ft) (AAT) will be restricted to a maximum power of 1 kw

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(ERP).

Licensees in San Diego, CA, will be permitted to utilize an ERP of 500 watts at the following mountaintop sites: Palomar, Otay, Woodson and Miguel.

Test Procedure:

According to KDB 412172 D01 Power Approach,

- **ERP or EIRP = $P_T + G_T - L_C$**
- **ERP = EIRP - 2.15**

where

- **P_T** = transmitter output power, expressed in dBW, dBm, or PSD;
- **G_T** = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
- **L_C** = **signal attenuation in the connecting cable between the transmitter and antenna, in dB.**

Test Setup: Refer to section 4.2.1 for details.

Instruments Used: Refer to section 3 for details

Test Mode: Link mode

Test Results: Pass

Test Data: See table below

Note: The maximum ERP/EIRP is calculated from max output power and antenna gain, the antenna gain provided by the customer, and the customer takes all the responsibilities for the accuracy of antenna gain.

5.3.1 LTE Band 2

Channel	Maximum EIRP (dBm)			Maximum EIRP (W)			Result
	QPSK	16QAM	Limit (dBm)	QPSK	16QAM	Limit (W)	
Channel Bandwidth: 1.4MHz							
Lowest	23.96	22.99	33.01	0.2489	0.1991	2	Pass
Middle	23.77	22.92	33.01	0.2382	0.1959	2	Pass
Highest	23.59	22.71	33.01	0.2286	0.1866	2	Pass
Channel Bandwidth: 3MHz							
Lowest	23.91	23.43	33.01	0.2460	0.2203	2	Pass
Middle	23.75	22.71	33.01	0.2371	0.1866	2	Pass
Highest	23.55	22.42	33.01	0.2265	0.1746	2	Pass
Channel Bandwidth: 5MHz							
Lowest	23.97	22.71	33.01	0.2495	0.1866	2	Pass
Middle	23.77	22.95	33.01	0.2382	0.1972	2	Pass
Highest	23.54	22.43	33.01	0.2259	0.1750	2	Pass
Channel Bandwidth: 10MHz							
Lowest	23.97	23.54	33.01	0.2495	0.2259	2	Pass
Middle	23.87	22.81	33.01	0.2438	0.1910	2	Pass
Highest	23.74	22.49	33.01	0.2366	0.1774	2	Pass
Channel Bandwidth: 15MHz							
Lowest	23.84	23.08	33.01	0.2421	0.2032	2	Pass
Middle	23.78	23.27	33.01	0.2388	0.2123	2	Pass
Highest	23.62	22.63	33.01	0.2301	0.1832	2	Pass
Channel Bandwidth: 20MHz							
Lowest	23.98	23.40	33.01	0.2500	0.2188	2	Pass
Middle	23.96	23.13	33.01	0.2489	0.2056	2	Pass
Highest	23.77	22.91	33.01	0.2382	0.1954	2	Pass

5.3.2 LTE Band 4

Channel	Maximum EIRP (dBm)			Maximum EIRP (W)			Result
	QPSK	16QAM	Limit (dBm)	QPSK	16QAM	Limit (W)	
Channel Bandwidth: 1.4MHz							
Lowest	23.75	22.74	30.00	0.2371	0.1879	1	Pass
Middle	23.71	22.74	30.00	0.2350	0.1879	1	Pass
Highest	23.84	22.90	30.00	0.2421	0.1950	1	Pass
Channel Bandwidth: 3MHz							
Lowest	23.65	22.40	30.00	0.2317	0.1738	1	Pass
Middle	23.68	23.11	30.00	0.2333	0.2046	1	Pass
Highest	23.76	22.73	30.00	0.2377	0.1875	1	Pass
Channel Bandwidth: 5MHz							
Lowest	23.64	22.31	30.00	0.2312	0.1702	1	Pass
Middle	23.73	22.86	30.00	0.2360	0.1932	1	Pass
Highest	23.75	22.59	30.00	0.2371	0.1816	1	Pass
Channel Bandwidth: 10MHz							
Lowest	23.81	23.22	30.00	0.2404	0.2099	1	Pass
Middle	23.84	22.79	30.00	0.2421	0.1901	1	Pass
Highest	23.95	22.70	30.00	0.2483	0.1862	1	Pass
Channel Bandwidth: 15MHz							
Lowest	23.62	22.75	30.00	0.2301	0.1884	1	Pass
Middle	23.69	23.17	30.00	0.2339	0.2075	1	Pass
Highest	23.76	22.73	30.00	0.2377	0.1875	1	Pass
Channel Bandwidth: 20MHz							
Lowest	23.73	22.80	30.00	0.2360	0.1905	1	Pass
Middle	23.76	23.21	30.00	0.2377	0.2094	1	Pass
Highest	23.97	23.01	30.00	0.2495	0.2000	1	Pass

5.3.3 LTE Band 5

Channel	Maximum EIRP (dBm)			Maximum EIRP (W)			Result
	QPSK	16QAM	Limit (dBm)	QPSK	16QAM	Limit (W)	
Channel Bandwidth: 1.4MHz							
Lowest	20.36	19.48	38.45	0.1086	0.0887	7	Pass
Middle	20.35	19.41	38.45	0.1084	0.0873	7	Pass
Highest	20.36	19.44	38.45	0.1086	0.0879	7	Pass
Channel Bandwidth: 3MHz							
Lowest	20.27	19.11	38.45	0.1064	0.0815	7	Pass
Middle	20.19	19.75	38.45	0.1045	0.0944	7	Pass
Highest	20.22	19.27	38.45	0.1052	0.0845	7	Pass
Channel Bandwidth: 5MHz							
Lowest	20.29	19.21	38.45	0.1069	0.0834	7	Pass
Middle	20.27	19.02	38.45	0.1064	0.0798	7	Pass
Highest	20.25	19.37	38.45	0.1059	0.0865	7	Pass
Channel Bandwidth: 10MHz							
Lowest	20.42	19.42	38.45	0.1102	0.0875	7	Pass
Middle	20.32	19.17	38.45	0.1076	0.0826	7	Pass
Highest	20.35	19.88	38.45	0.1084	0.0973	7	Pass

5.3.4 LTE Band 12

Channel	Maximum EIRP (dBm)			Maximum EIRP (W)			Result
	QPSK	16QAM	Limit (dBm)	QPSK	16QAM	Limit (W)	
Channel Bandwidth: 1.4MHz							
Lowest	19.62	18.70	34.77	0.0916	0.0741	3	Pass
Middle	19.54	18.63	34.77	0.0899	0.0729	3	Pass
Highest	19.54	18.71	34.77	0.0899	0.0743	3	Pass
Channel Bandwidth: 3MHz							
Lowest	19.50	18.97	34.77	0.0891	0.0789	3	Pass
Middle	19.47	18.48	34.77	0.0885	0.0705	3	Pass
Highest	19.46	18.25	34.77	0.0883	0.0668	3	Pass
Channel Bandwidth: 5MHz							
Lowest	19.54	18.26	34.77	0.0899	0.0670	3	Pass
Middle	19.54	18.61	34.77	0.0899	0.0726	3	Pass
Highest	19.40	18.29	34.77	0.0871	0.0675	3	Pass
Channel Bandwidth: 10MHz							
Lowest	19.61	18.57	34.77	0.0914	0.0719	3	Pass
Middle	19.65	18.42	34.77	0.0923	0.0695	3	Pass
Highest	19.59	19.05	34.77	0.0910	0.0804	3	Pass

5.3.5 LTE Band 17

Channel	Maximum EIRP (dBm)			Maximum EIRP (W)			Result
	QPSK	16QAM	Limit (dBm)	QPSK	16QAM	Limit (W)	
Channel Bandwidth: 5MHz							
Lowest	19.11	18.06	34.77	0.0815	0.0640	3	Pass
Middle	19.18	17.88	34.77	0.0828	0.0614	3	Pass
Highest	19.18	18.28	34.77	0.0828	0.0673	3	Pass
Channel Bandwidth: 10MHz							
Lowest	19.36	18.13	34.77	0.0863	0.0650	3	Pass
Middle	19.27	18.84	34.77	0.0845	0.0766	3	Pass
Highest	19.35	18.17	34.77	0.0861	0.0656	3	Pass

5.3.6 LTE Band 25

Channel	Maximum EIRP (dBm)			Maximum EIRP (W)			Result
	QPSK	16QAM	Limit (dBm)	QPSK	16QAM	Limit (W)	
Channel Bandwidth: 1.4MHz							
Lowest	21.87	20.94	30.00	0.1538	0.1242	2	Pass
Middle	21.67	20.69	30.00	0.1469	0.1172	2	Pass
Highest	21.49	20.13	30.00	0.1409	0.1030	2	Pass
Channel Bandwidth: 3MHz							
Lowest	21.74	20.56	30.00	0.1493	0.1138	2	Pass
Middle	21.58	21.07	30.00	0.1439	0.1279	2	Pass
Highest	21.38	20.27	30.00	0.1374	0.1064	2	Pass
Channel Bandwidth: 5MHz							
Lowest	21.71	20.64	30.00	0.1483	0.1159	2	Pass
Middle	21.58	20.34	30.00	0.1439	0.1081	2	Pass
Highest	21.42	20.52	30.00	0.1387	0.1127	2	Pass
Channel Bandwidth: 10MHz							
Lowest	21.80	20.70	30.00	0.1514	0.1175	2	Pass
Middle	21.70	21.14	30.00	0.1479	0.1300	2	Pass
Highest	21.57	20.27	30.00	0.1435	0.1064	2	Pass
Channel Bandwidth: 15MHz							
Lowest	21.69	20.90	30.00	0.1476	0.1230	2	Pass
Middle	21.52	21.10	30.00	0.1419	0.1288	2	Pass
Highest	21.42	20.42	30.00	0.1387	0.1102	2	Pass
Channel Bandwidth: 20MHz							
Lowest	21.82	20.94	30.00	0.1521	0.1242	2	Pass
Middle	21.70	21.13	30.00	0.1479	0.1297	2	Pass
Highest	21.53	20.75	30.00	0.1422	0.1189	2	Pass

5.3.7 LTE Band 26

Channel	Maximum EIRP (dBm)			Maximum EIRP (W)			Result
	QPSK	16QAM	Limit (dBm)	QPSK	16QAM	Limit (W)	
Channel Bandwidth: 1.4MHz							
Lowest	22.24	21.36	30.00	0.1675	0.1368	7	Pass
Middle	22.24	21.43	30.00	0.1675	0.1390	7	Pass
Highest	22.25	21.37	30.00	0.1679	0.1371	7	Pass
Channel Bandwidth: 3MHz							
Lowest	22.18	21.14	30.00	0.1652	0.1300	7	Pass
Middle	22.13	20.96	30.00	0.1633	0.1247	7	Pass
Highest	22.17	21.64	30.00	0.1648	0.1459	7	Pass
Channel Bandwidth: 5MHz							
Lowest	22.13	21.31	30.00	0.1633	0.1352	7	Pass
Middle	22.10	21.04	30.00	0.1622	0.1271	7	Pass
Highest	22.27	20.96	30.00	0.1687	0.1247	7	Pass
Channel Bandwidth: 10MHz							
Lowest	22.23	21.78	30.00	0.1671	0.1507	7	Pass
Middle	22.16	21.27	30.00	0.1644	0.1340	7	Pass
Highest	22.25	21.08	30.00	0.1679	0.1282	7	Pass
Channel Bandwidth: 15MHz							
Lowest	22.17	21.70	30.00	0.1648	0.1479	7	Pass
Middle	22.12	21.14	30.00	0.1629	0.1300	7	Pass
Highest	22.30	21.31	30.00	0.1698	0.1352	7	Pass

5.3.8 LTE Band 26 (Part 90S)

Channel	Maximum EIRP (dBm)			Maximum EIRP (W)			Result
	QPSK	16QAM	Limit (dBm)	QPSK	16QAM	Limit (W)	
Channel Bandwidth: 1.4MHz							
Lowest	22.01	21.12	33.01	0.1589	0.1294	100	Pass
Middle	22.06	21.01	33.01	0.1607	0.1262	100	Pass
Highest	22.06	21.22	33.01	0.1607	0.1324	100	Pass
Channel Bandwidth: 3MHz							
Lowest	21.88	20.73	33.01	0.1542	0.1183	100	Pass
Middle	21.83	21.33	33.01	0.1524	0.1358	100	Pass
Highest	21.86	20.92	33.01	0.1535	0.1236	100	Pass
Channel Bandwidth: 5MHz							
Lowest	21.89	20.84	33.01	0.1545	0.1213	100	Pass
Middle	21.88	20.61	33.01	0.1542	0.1151	100	Pass
Highest	21.96	21.10	33.01	0.1570	0.1288	100	Pass
Channel Bandwidth: 10MHz							
Middle	21.96	21.47	33.01	0.1570	0.1403	100	Pass
Channel Bandwidth: 15MHz							
Lowest	22.09	21.06	33.01	0.1618	0.1276	100	Pass

5.3.9 LTE Band 41

Channel	Maximum EIRP (dBm)			Maximum EIRP (W)			Result
	QPSK	16QAM	Limit (dBm)	QPSK	16QAM	Limit (W)	
Channel Bandwidth: 5MHz							
Lowest	23.59	23.59	33.01	0.2286	0.2286	2	Pass
Middle	23.40	23.39	33.01	0.2188	0.2183	2	Pass
Highest	23.49	23.62	33.01	0.2234	0.2301	2	Pass
Channel Bandwidth: 10MHz							
Lowest	23.81	23.67	33.01	0.2404	0.2328	2	Pass
Middle	23.65	23.48	33.01	0.2317	0.2228	2	Pass
Highest	23.76	23.59	33.01	0.2377	0.2286	2	Pass
Channel Bandwidth: 15MHz							
Lowest	23.55	23.57	33.01	0.2265	0.2275	2	Pass
Middle	23.43	23.39	33.01	0.2203	0.2183	2	Pass
Highest	23.48	23.43	33.01	0.2228	0.2203	2	Pass
Channel Bandwidth: 20MHz							
Lowest	23.85	23.65	33.01	0.2427	0.2317	2	Pass
Middle	23.57	23.48	33.01	0.2275	0.2228	2	Pass
Highest	23.64	23.81	33.01	0.2312	0.2404	2	Pass

5.3.10 LTE Band 66

Channel	Maximum EIRP (dBm)			Maximum EIRP (W)			Result
	QPSK	16QAM	Limit (dBm)	QPSK	16QAM	Limit (W)	
Channel Bandwidth: 1.4MHz							
Lowest	23.71	22.75	30.00	0.2350	0.1884	1	Pass
Middle	23.86	22.85	30.00	0.2432	0.1928	1	Pass
Highest	23.90	22.98	30.00	0.2455	0.1986	1	Pass
Channel Bandwidth: 3MHz							
Lowest	23.64	22.40	30.00	0.2312	0.1738	1	Pass
Middle	23.76	23.22	30.00	0.2377	0.2099	1	Pass
Highest	23.81	22.82	30.00	0.2404	0.1914	1	Pass
Channel Bandwidth: 5MHz							
Lowest	23.58	22.50	30.00	0.2280	0.1778	1	Pass
Middle	23.83	22.54	30.00	0.2415	0.1795	1	Pass
Highest	23.88	22.99	30.00	0.2443	0.1991	1	Pass
Channel Bandwidth: 10MHz							
Lowest	23.68	22.50	30.00	0.2333	0.1778	1	Pass
Middle	23.93	23.35	30.00	0.2472	0.2163	1	Pass
Highest	23.97	22.92	30.00	0.2495	0.1959	1	Pass
Channel Bandwidth: 15MHz							
Lowest	23.59	22.75	30.00	0.2286	0.1884	1	Pass
Middle	23.79	23.25	30.00	0.2393	0.2113	1	Pass
Highest	23.86	22.82	30.00	0.2432	0.1914	1	Pass
Channel Bandwidth: 20MHz							
Lowest	23.74	22.56	30.00	0.2366	0.1803	1	Pass
Middle	23.84	23.28	30.00	0.2421	0.2128	1	Pass
Highest	24.02	23.14	30.00	0.2523	0.2061	1	Pass

5.3.11 LTE Band 71

Channel	Maximum EIRP (dBm)			Maximum EIRP (W)			Result
	QPSK	16QAM	Limit (dBm)	QPSK	16QAM	Limit (W)	
Channel Bandwidth: 5MHz							
Lowest	21.42	20.08	33.01	0.1387	0.1019	3	Pass
Middle	21.30	20.50	33.01	0.1349	0.1122	3	Pass
Highest	21.23	20.04	33.01	0.1327	0.1009	3	Pass
Channel Bandwidth: 10MHz							
Lowest	21.37	20.20	33.01	0.1371	0.1047	3	Pass
Middle	21.35	20.93	33.01	0.1365	0.1239	3	Pass
Highest	21.24	20.33	33.01	0.1330	0.1079	3	Pass
Channel Bandwidth: 15MHz							
Lowest	21.40	20.85	33.01	0.1380	0.1216	3	Pass
Middle	21.28	20.29	33.01	0.1343	0.1069	3	Pass
Highest	21.21	20.36	33.01	0.1321	0.1086	3	Pass
Channel Bandwidth: 20MHz							
Lowest	21.39	20.83	33.01	0.1377	0.1211	3	Pass
Middle	21.43	20.53	33.01	0.1390	0.1130	3	Pass
Highest	21.38	20.53	33.01	0.1374	0.1130	3	Pass

5.4 PEAK-TO-AVERAGE RATIO

Test Requirement:	LTE Band 2 & LTE Band 25: FCC 47 CFR Part 24.232(d)
	LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.50(d)(5)
	LTE Band 5 & LTE Band 26: FCC 47 CFR Part 22.913(a)
	LTE Band 41: FCC 47 CFR Part 27.50(d)(5)
	LTE Band 12 & 17 & Band 71: FCC 47 CFR Part 27.50(d)(5)
Test Method:	KDB 971168 D01v03r01 Section 5.7
Limit:	In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB
Test Procedure:	The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. a) Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth b) Set the number of counts to a value that stabilizes the measured CCDF curve c) Record the maximum PAPR level associated with a probability of 0.1 %
Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.	
Test Setup:	Refer to section 4.2.2 for details.
Instruments Used:	Refer to section 3 for details
Test Mode:	Link mode
Test Results:	Pass
Test Data:	Please refer to Appendix A

5.5 99%&26DB BANDWIDTH

Test Requirement: FCC 47 CFR Part 2.1049(h)

Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01 Section 4

Limit: No Limit, for reporting purposes only.

Test Procedure:

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The 99% and -26dB bandwidths was also measured and recorded.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.2.2 for details.

Instruments Used: Refer to section 3 for details

Test Mode: Link mode

Test Results: Pass

Test Data: Please refer to Appendix A

5.6 BAND EDGE AT ANTENNA TERMINALS

Test Requirement: LTE Band 2 & LTE Band 25: FCC 47 CFR Part 24.238(a)
LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.53(h)(1)
LTE Band 5 & LTE Band 26: FCC 47 CFR Part 22.917(a)
LTE Band 41: FCC 47 CFR Part 27.53(m)(4)
LTE Band 12 & 17 & Band 71: FCC 47 CFR Part 27.53(g)
LTE Band 26: FCC 47 CFR Part 90.691

Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Limit:

FCC 47 CFR Part 24.238(a), 27.53(h)(1), 22.917(a):

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

FCC 47 CFR Part 27.53(m)(4):

For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log(P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

FCC 47 CFR Part 27.53(g):

For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

FCC 47 CFR Part 90.691:

(a)(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 $\text{Log}_{10}(f/6.1)$ decibels or $50 + 10 \text{Log}_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(a)(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \text{Log}_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

Test Procedure:

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer.

For each band edge measurement:

- 1) Set the spectrum analyzer span to include the block edge frequency.
- 2) Set a marker to point the corresponding band edge frequency in each test case.
- 3) Set display line at -13 dBm
- 4) Set resolution bandwidth to at least 1% of emission bandwidth.
- 5) Set spectrum analyzer with RMS detector.
- 6) Record the max trace plot into the test report

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.2.2 for details.

Instruments Used: Refer to section 3 for details

Test Mode: Link mode

Test Results: Pass

Test Data: Please refer to Appendix A

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5.7 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Test Requirement: LTE Band 2 & LTE Band 25: FCC 47 CFR Part 24.238(a)
LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.53(h)
LTE Band 5 & LTE Band 26: FCC 47 CFR Part 22.917(a)
LTE Band 41: FCC 47 CFR Part 27.53(m)(4)
LTE Band 12 & Band 17 & Band 71: FCC 47 CFR Part 27.53(g)
LTE Band 26: FCC 47 CFR Part 90.691

Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Limit:

FCC 47 CFR Part 24.238(a), 27.53(h)(1), 22.917(a), 27.53(g), 27.53(c)(2), 90.691:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

FCC 47 CFR Part 27.53(m)(4):

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $55 + 10 \log(P)$ dB. The emission limit equal to -25 dBm.

Test Procedure:

The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range. b. Measuring frequency range is from 30 MHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.2.2 for details.

Instruments Used: Refer to section 3 for details

Test Mode: Link mode

Test Results: Pass

Test Data: Please refer to Appendix A

5.8 FIELD STRENGTH OF SPURIOUS RADIATION

Test Requirement: LTE Band 2 & LTE Band 25: FCC 47 CFR Part 24.238(a)
LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.53(h)
LTE Band 5 & LTE Band 26: FCC 47 CFR Part 22.917(a)
LTE Band 41: FCC 47 CFR Part 27.53(m)(4)
LTE Band 12 & Band 17 & Band 71: FCC 47 CFR Part 27.53(g)
LTE Band 26: FCC 47 CFR Part 90.691

Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Receiver Setup:

Frequency	Detector	RBW	VBW	Remark
0.009 MHz-30 MHz	Peak	10 kHz	30 KHz	Peak
30 MHz-1 GHz	Quasi-peak	100 kHz	300 KHz	Peak
Above 1 GHz	Peak	1 MHz	3 MHz	Peak

Limits:

FCC 47 CFR Part 24.238(a), 27.53(h)(1), 22.917(a), 27.53(g), 27.53(c)(2), 90.691:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

FCC 47 CFR Part 27.53(m)(4):

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $55 + 10 \log(P)$ dB. The emission limit equal to -25 dBm.

Test Setup: Refer to section 4.2.1 for details.

Test Procedures: KDB 971168 D01v03r01 Section 7

Equipment Used: Refer to section 3 for details.

Test Result: Pass

The worst measurement data as follows:

5.8.1 LTE Band 2

LTE Band 2_ 20 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	793.028	-81.0	13.0	-68.0	-13.0	-55.0	Horizontal
2	868.886	-81.5	13.7	-67.8	-13.0	-54.8	Horizontal
3	938.714	-82.5	14.7	-67.8	-13.0	-54.8	Horizontal
4	3720	-67.0	8.7	-58.3	-13.0	-45.3	Horizontal
5	5580	-66.1	12.1	-54.1	-13.0	-41.1	Horizontal
6	833.013	-81.4	13.1	-68.3	-13.0	-55.3	Vertical
7	906.304	-82.5	14.4	-68.1	-13.0	-55.1	Vertical
8	979.139	-82.3	14.9	-67.5	-13.0	-54.5	Vertical
9	3720	-67.0	8.7	-58.3	-13.0	-45.3	Vertical
10	5580	-70.4	12.1	-58.3	-13.0	-45.3	Vertical
Middle Channel							
1	703.731	-81.3	11.9	-69.4	-13.0	-56.4	Horizontal
2	787.475	-81.7	12.9	-68.8	-13.0	-55.8	Horizontal
3	875.013	-81.8	14.0	-67.8	-13.0	-54.8	Horizontal
4	3760	-65.8	8.8	-57.1	-13.0	-44.1	Horizontal
5	5640	-67.0	12.0	-55.0	-13.0	-42.0	Horizontal
6	760.287	-80.9	12.3	-68.6	-13.0	-55.6	Vertical
7	945.334	-82.9	14.4	-68.4	-13.0	-55.4	Vertical
8	979.139	-82.6	14.9	-67.7	-13.0	-54.7	Vertical
9	3760	-65.7	8.8	-56.9	-13.0	-43.9	Vertical
10	5640	-66.4	12.0	-54.4	-13.0	-41.4	Vertical
Highest Channel							
1	698.804	-81.3	12.0	-69.3	-13.0	-56.3	Horizontal
2	938.714	-82.4	14.7	-67.7	-13.0	-54.7	Horizontal
3	992.997	-82.4	14.8	-67.6	-13.0	-54.6	Horizontal
4	3800	-68.0	8.9	-59.1	-13.0	-46.1	Horizontal
5	5700	-66.6	11.9	-54.7	-13.0	-41.7	Horizontal
6	856.76	-81.0	13.1	-67.8	-13.0	-54.8	Vertical
7	899.958	-81.6	14.3	-67.3	-13.0	-54.3	Vertical
8	932.141	-81.9	14.9	-67.0	-13.0	-54.0	Vertical
9	3800	-67.2	8.9	-58.3	-13.0	-45.3	Vertical
10	5700	-67.7	11.9	-55.8	-13.0	-42.8	Vertical

5.8.2 LTE Band 4

LTE Band 4_ 20 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	821.387	-81.3	12.7	-68.6	-13.0	-55.6	Horizontal
2	925.613	-82.9	14.7	-68.2	-13.0	-55.2	Horizontal
3	965.474	-82.7	14.5	-68.2	-13.0	-55.2	Horizontal
4	3440	-64.6	7.6	-57.0	-13.0	-44.0	Horizontal
5	5160	-62.4	10.8	-51.6	-13.0	-38.6	Horizontal
6	821.387	-81.6	12.7	-69.0	-13.0	-56.0	Vertical
7	850.76	-81.5	13.1	-68.4	-13.0	-55.4	Vertical
8	932.141	-82.4	14.9	-67.6	-13.0	-54.6	Vertical
9	3440	-65.1	7.6	-57.5	-13.0	-44.5	Vertical
10	5160	-65.8	10.8	-55.0	-13.0	-42.0	Vertical
Middle Channel							
1	655.977	-81.0	11.1	-69.9	-13.0	-56.9	Horizontal
2	771.047	-81.3	12.5	-68.8	-13.0	-55.8	Horizontal
3	979.139	-82.8	14.9	-67.9	-13.0	-54.9	Horizontal
4	3465	-64.0	7.7	-56.3	-13.0	-43.3	Horizontal
5	5197.5	-64.8	10.9	-53.9	-13.0	-40.9	Horizontal
6	793.028	-80.9	13.0	-67.9	-13.0	-54.9	Vertical
7	875.013	-81.5	14.0	-67.5	-13.0	-54.5	Vertical
8	932.141	-83.1	14.9	-68.3	-13.0	-55.3	Vertical
9	3465	-64.4	7.7	-56.7	-13.0	-43.7	Vertical
10	5197.5	-65.3	10.9	-54.4	-13.0	-41.4	Vertical
Highest Channel							
1	693.91	-80.7	11.9	-68.8	-13.0	-55.8	Horizontal
2	844.803	-81.7	13.2	-68.5	-13.0	-55.5	Horizontal
3	932.141	-82.8	14.9	-68.0	-13.0	-55.0	Horizontal
4	3490	-65.0	7.9	-57.1	-13.0	-44.1	Horizontal
5	5235	-59.3	11.1	-48.2	-13.0	-35.2	Horizontal
6	744.427	-80.9	11.9	-69.0	-13.0	-56.0	Vertical
7	875.013	-82.4	14.0	-68.4	-13.0	-55.4	Vertical
8	932.141	-83.0	14.9	-68.1	-13.0	-55.1	Vertical
9	3490	-65.8	7.9	-57.9	-13.0	-44.9	Vertical
10	5235	-60.5	11.1	-49.4	-13.0	-36.4	Vertical

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5.8.3 LTE Band 5

LTE Band 5_ 10 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	703.731	-89.3	40.7	-48.6	-13.0	-35.6	Horizontal
2	760.287	-87.2	41.1	-46.1	-13.0	-33.1	Horizontal
3	932.141	-88.0	43.3	-44.7	-13.0	-31.7	Horizontal
4	1658	-60.3	0.1	-60.2	-13.0	-47.2	Horizontal
5	2487	-61.5	4.1	-57.4	-13.0	-44.4	Horizontal
6	793.028	-88.2	41.8	-46.4	-13.0	-33.4	Vertical
7	893.656	-87.6	42.7	-44.9	-13.0	-31.9	Vertical
8	979.139	-87.9	43.2	-44.6	-13.0	-31.6	Vertical
9	1658	-59.3	0.1	-59.2	-13.0	-46.2	Vertical
10	2487	-61.9	4.1	-57.8	-13.0	-44.8	Vertical
Middle Channel							
1	546.437	-88.1	37.3	-50.8	-13.0	-37.8	Horizontal
2	776.485	-88.2	41.5	-46.7	-13.0	-33.7	Horizontal
3	932.141	-87.6	43.3	-44.3	-13.0	-31.3	Horizontal
4	1673	-62.8	0.2	-62.6	-13.0	-49.6	Horizontal
5	2509.5	-63.3	4.2	-59.1	-13.0	-46.1	Horizontal
6	693.91	-88.6	40.7	-47.9	-13.0	-34.9	Vertical
7	793.028	-87.9	41.8	-46.1	-13.0	-33.1	Vertical
8	932.141	-87.2	43.3	-43.8	-13.0	-30.8	Vertical
9	1673	-62.0	0.2	-61.8	-13.0	-48.8	Vertical
10	2509.5	-64.0	4.2	-59.8	-13.0	-46.8	Vertical
Highest Channel							
1	798.62	-89.2	41.8	-47.4	-13.0	-34.4	Horizontal
2	925.613	-87.9	43.2	-44.7	-13.0	-31.7	Horizontal
3	965.474	-87.4	42.8	-44.5	-13.0	-31.5	Horizontal
4	1688	-62.9	0.2	-62.7	-13.0	-49.7	Horizontal
5	2532	-64.4	4.2	-60.2	-13.0	-47.2	Horizontal
6	693.91	-89.4	40.7	-48.7	-13.0	-35.7	Vertical
7	798.62	-88.5	41.8	-46.8	-13.0	-33.8	Vertical
8	925.613	-88.0	43.2	-44.8	-13.0	-31.8	Vertical
9	1688	-62.8	0.2	-62.6	-13.0	-49.6	Vertical
10	2532	-65.0	4.2	-60.8	-13.0	-47.8	Vertical

5.8.4 LTE Band 12

LTE Band 12_ 20 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	899.958	-87.7	42.9	-44.9	-13.0	-31.9	Horizontal
2	925.613	-87.9	43.2	-44.7	-13.0	-31.7	Horizontal
3	958.714	-87.2	42.9	-44.3	-13.0	-31.3	Horizontal
4	1408	-62.3	-0.8	-63.1	-13.0	-50.1	Horizontal
5	2112	-64.1	1.9	-62.2	-13.0	-49.2	Horizontal
6	856.76	-87.6	41.8	-45.8	-13.0	-32.8	Vertical
7	925.613	-88.2	43.2	-45.0	-13.0	-32.0	Vertical
8	986.044	-86.6	43.1	-43.6	-13.0	-30.6	Vertical
9	1408	-62.2	-0.8	-63.0	-13.0	-50.0	Vertical
10	2112	-64.7	1.9	-62.8	-13.0	-49.8	Vertical
Middle Channel							
1	401.105	-88.8	34.2	-54.6	-13.0	-41.6	Horizontal
2	850.76	-88.1	41.8	-46.4	-13.0	-33.4	Horizontal
3	932.141	-87.2	43.3	-43.9	-13.0	-30.9	Horizontal
4	1415	-61.8	-0.8	-62.6	-13.0	-49.6	Horizontal
5	2122.5	-62.7	2.0	-60.7	-13.0	-47.7	Horizontal
6	646.822	-88.6	39.8	-48.9	-13.0	-35.9	Vertical
7	809.924	-88.1	41.5	-46.6	-13.0	-33.6	Vertical
8	938.714	-87.8	43.2	-44.7	-13.0	-31.7	Vertical
9	1415	-61.0	-0.8	-61.7	-13.0	-48.7	Vertical
10	2122.5	-61.8	2.0	-59.8	-13.0	-46.8	Vertical
Highest Channel							
1	633.328	-87.5	39.3	-48.2	-13.0	-35.2	Horizontal
2	798.62	-87.9	41.8	-46.1	-13.0	-33.1	Horizontal
3	906.304	-87.4	42.9	-44.5	-13.0	-31.5	Horizontal
4	1422	-62.3	-0.7	-63.0	-13.0	-50.0	Horizontal
5	2133	-62.9	2.0	-60.9	-13.0	-47.9	Horizontal
6	793.028	-88.4	41.8	-46.6	-13.0	-33.6	Vertical
7	815.635	-87.3	41.5	-45.8	-13.0	-32.8	Vertical
8	938.714	-87.5	43.2	-44.3	-13.0	-31.3	Vertical
9	1422	-61.2	-0.7	-61.9	-13.0	-48.9	Vertical
10	2133	-60.6	2.0	-58.6	-13.0	-45.6	Vertical

5.8.5 LTE Band 17

LTE Band 17_ 10 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	550.29	-89.0	37.5	-51.5	-13.0	-38.5	Horizontal
2	642.292	-89.2	39.6	-49.6	-13.0	-36.6	Horizontal
3	938.714	-87.7	43.2	-44.5	-13.0	-31.5	Horizontal
4	1418	-60.3	-0.7	-61.0	-13.0	-48.0	Horizontal
5	2127	-62.3	2.0	-60.3	-13.0	-47.3	Horizontal
6	798.62	-88.0	41.8	-46.3	-13.0	-33.3	Vertical
7	925.613	-88.3	43.2	-45.1	-13.0	-32.1	Vertical
8	952.00	-86.7	42.9	-43.8	-13.0	-30.8	Vertical
9	1418	-61.3	-0.7	-62.1	-13.0	-49.1	Vertical
10	2127	-61.9	2.0	-59.9	-13.0	-46.9	Vertical
Middle Channel							
1	776.485	-88.2	41.5	-46.7	-13.0	-33.7	Horizontal
2	945.334	-87.6	42.9	-44.7	-13.0	-31.7	Horizontal
3	979.139	-87.5	43.2	-44.3	-13.0	-31.3	Horizontal
4	1420	-61.0	-0.7	-61.7	-13.0	-48.7	Horizontal
5	2130	-62.8	2.0	-60.8	-13.0	-47.8	Horizontal
6	637.795	-88.1	39.4	-48.7	-13.0	-35.7	Vertical
7	765.648	-88.2	41.2	-47.0	-13.0	-34.0	Vertical
8	945.334	-87.8	42.9	-44.9	-13.0	-31.9	Vertical
9	1420	-61.1	-0.7	-61.9	-13.0	-48.9	Vertical
10	2130	-63.1	2.0	-61.1	-13.0	-48.1	Vertical
Highest Channel							
1	674.677	-88.7	39.9	-48.8	-13.0	-35.8	Horizontal
2	815.635	-88.2	41.5	-46.7	-13.0	-33.7	Horizontal
3	958.714	-86.7	42.9	-43.8	-13.0	-30.8	Horizontal
4	1422	-61.5	-0.7	-62.2	-13.0	-49.2	Horizontal
5	2133	-60.7	2.0	-58.7	-13.0	-45.7	Horizontal
6	602.929	-89.5	38.9	-50.6	-13.0	-37.6	Vertical
7	827.179	-88.3	41.5	-46.8	-13.0	-33.8	Vertical
8	958.714	-87.4	42.9	-44.6	-13.0	-31.6	Vertical
9	1422	-61.1	-0.7	-61.9	-13.0	-48.9	Vertical
10	2133	-60.7	2.0	-58.7	-13.0	-45.7	Vertical

5.8.6 LTE Band 25

LTE Band 25_ 20 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	620.117	-80.4	10.3	-70.1	-13.0	-57.1	Horizontal
2	760.287	-81.6	12.3	-69.3	-13.0	-56.3	Horizontal
3	945.334	-82.0	14.4	-67.6	-13.0	-54.6	Horizontal
4	3720	-66.3	8.7	-57.6	-13.0	-44.6	Horizontal
5	5580	-72.2	12.1	-60.1	-13.0	-47.1	Horizontal
6	615.774	-80.8	10.3	-70.5	-13.0	-57.5	Vertical
7	838.887	-81.2	13.1	-68.1	-13.0	-55.1	Vertical
8	932.141	-82.1	14.9	-67.3	-13.0	-54.3	Vertical
9	3720	-66.7	8.7	-58.1	-13.0	-45.1	Vertical
10	5580	-70.9	12.1	-58.8	-13.0	-45.8	Vertical
Middle Channel							
1	776.485	-81.8	12.7	-69.1	-13.0	-56.1	Horizontal
2	833.013	-81.0	13.1	-67.9	-13.0	-54.9	Horizontal
3	945.334	-82.3	14.4	-67.9	-13.0	-54.9	Horizontal
4	3760	-64.7	8.8	-55.9	-13.0	-42.9	Horizontal
5	5640	-66.3	12.0	-54.3	-13.0	-41.3	Horizontal
6	698.804	-81.6	12.0	-69.6	-13.0	-56.6	Vertical
7	844.803	-81.0	13.2	-67.9	-13.0	-54.9	Vertical
8	938.714	-81.7	14.7	-67.0	-13.0	-54.0	Vertical
9	3760	-65.3	8.8	-56.5	-13.0	-43.5	Vertical
10	5640	-65.2	12.0	-53.2	-13.0	-40.2	Vertical
Highest Channel							
1	781.961	-81.4	12.8	-68.6	-13.0	-55.6	Horizontal
2	938.714	-82.5	14.7	-67.8	-13.0	-54.8	Horizontal
3	958.714	-82.5	14.5	-68.0	-13.0	-55.0	Horizontal
4	3810	-66.1	8.9	-57.2	-13.0	-44.2	Horizontal
5	5715	-67.1	11.9	-55.2	-13.0	-42.2	Horizontal
6	899.958	-82.4	14.3	-68.1	-13.0	-55.1	Vertical
7	932.141	-82.5	14.9	-67.7	-13.0	-54.7	Vertical
8	958.714	-82.5	14.5	-68.0	-13.0	-55.0	Vertical
9	3810	-67.0	8.9	-58.1	-13.0	-45.1	Vertical
10	5715	-69.3	11.9	-57.4	-13.0	-44.4	Vertical

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5.8.7 LTE Band 26

LTE Band 26_ 15 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	693.91	-88.7	40.7	-48.0	-13.0	-35.0	Horizontal
2	793.028	-88.4	41.8	-46.6	-13.0	-33.6	Horizontal
3	932.141	-88.3	43.3	-44.9	-13.0	-31.9	Horizontal
4	1663	-62.5	0.1	-62.4	-13.0	-49.4	Horizontal
5	2494.5	-63.9	4.2	-59.8	-13.0	-46.8	Horizontal
6	793.028	-88.6	41.8	-46.9	-13.0	-33.9	Vertical
7	887.398	-87.8	42.4	-45.4	-13.0	-32.4	Vertical
8	992.997	-87.2	43.2	-44.1	-13.0	-31.1	Vertical
9	1663	-60.7	0.1	-60.6	-13.0	-47.6	Vertical
10	2494.5	-64.3	4.2	-60.1	-13.0	-47.1	Vertical
Middle Channel							
1	749.676	-88.4	40.8	-47.6	-13.0	-34.6	Horizontal
2	798.62	-88.1	41.8	-46.3	-13.0	-33.3	Horizontal
3	958.714	-88.0	42.9	-45.1	-13.0	-32.1	Horizontal
4	1673	-64.3	0.2	-64.1	-13.0	-51.1	Horizontal
5	2509.5	-64.7	4.2	-60.5	-13.0	-47.5	Horizontal
6	821.387	-87.6	41.4	-46.2	-13.0	-33.2	Vertical
7	906.304	-88.1	42.9	-45.2	-13.0	-32.2	Vertical
8	952.000	-87.2	42.9	-44.3	-13.0	-31.3	Vertical
9	1673	-62.7	0.2	-62.6	-13.0	-49.6	Vertical
10	2509.5	-64.3	4.2	-60.1	-13.0	-47.1	Vertical
Highest Channel							
1	754.963	-87.8	40.9	-47.0	-13.0	-34.0	Horizontal
2	938.714	-88.1	43.2	-44.9	-13.0	-31.9	Horizontal
3	972.283	-87.9	43.0	-44.9	-13.0	-31.9	Horizontal
4	1683	-63.3	0.2	-63.1	-13.0	-50.1	Horizontal
5	2524.5	-65.1	4.2	-60.9	-13.0	-47.9	Horizontal
6	793.028	-88.2	41.8	-46.4	-13.0	-33.4	Vertical
7	899.958	-88.2	42.9	-45.4	-13.0	-32.4	Vertical
8	938.714	-87.7	43.2	-44.6	-13.0	-31.6	Vertical
9	1683	-63.1	0.2	-62.9	-13.0	-49.9	Vertical
10	2524.5	-63.2	4.2	-59.0	-13.0	-46.0	Vertical

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5.8.1 LTE Band 26 (Part 90S)

LTE Band 26_ 5 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	628.894	-88.7	39.4	-49.4	-13.0	-36.4	Horizontal
2	698.804	-88.5	40.8	-47.7	-13.0	-34.7	Horizontal
3	925.613	-87.6	43.2	-44.4	-13.0	-31.4	Horizontal
4	1633	-61.7	0.0	-61.7	-13.0	-48.7	Horizontal
5	2449.5	-62.2	3.9	-58.3	-13.0	-45.3	Horizontal
6	781.961	-88.5	41.6	-46.9	-13.0	-33.9	Vertical
7	925.613	-88.0	43.2	-44.8	-13.0	-31.8	Vertical
8	958.714	-87.4	42.9	-44.5	-13.0	-31.5	Vertical
9	1633	-60.6	0.0	-60.7	-13.0	-47.7	Vertical
10	2449.5	-61.5	3.9	-57.6	-13.0	-44.6	Vertical
Middle Channel							
1	793.028	-88.0	41.8	-46.2	-13.0	-33.2	Horizontal
2	906.304	-88.0	42.9	-45.1	-13.0	-32.1	Horizontal
3	945.334	-87.8	42.9	-44.9	-13.0	-31.9	Horizontal
4	1638	-61.3	0.0	-61.3	-13.0	-48.3	Horizontal
5	2457	-62.3	3.9	-58.4	-13.0	-45.4	Horizontal
6	655.977	-88.7	39.9	-48.8	-13.0	-35.8	Vertical
7	893.656	-87.8	42.7	-45.1	-13.0	-32.1	Vertical
8	958.714	-88.0	42.9	-45.1	-13.0	-32.1	Vertical
9	1638	-60.4	0.0	-60.4	-13.0	-47.4	Vertical
10	2457	-61.0	3.9	-57.1	-13.0	-44.1	Vertical
Highest Channel							
1	655.977	-88.9	39.9	-48.9	-13.0	-35.9	Horizontal
2	781.961	-88.2	41.6	-46.6	-13.0	-33.6	Horizontal
3	965.474	-87.5	42.8	-44.6	-13.0	-31.6	Horizontal
4	1643	-60.1	0.0	-60.0	-13.0	-47.0	Horizontal
5	2464.5	-62.1	4.0	-58.1	-13.0	-45.1	Horizontal
6	698.804	-88.7	40.8	-47.9	-13.0	-34.9	Vertical
7	787.475	-88.0	41.7	-46.2	-13.0	-33.2	Vertical
8	958.714	-87.5	42.9	-44.6	-13.0	-31.6	Vertical
9	1643	-60.9	0.0	-60.9	-13.0	-47.9	Vertical
10	2464.5	-62.4	4.0	-58.5	-13.0	-45.5	Vertical

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LTE Band 26_ 10 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Middle Channel							
1	689.051	-89.2	40.4	-48.7	-13.0	-35.7	Horizontal
2	713.692	-88.7	40.2	-48.5	-13.0	-35.5	Horizontal
3	958.714	-87.7	42.9	-44.8	-13.0	-31.8	Horizontal
4	1638	-61.3	0.0	-61.3	-13.0	-48.3	Horizontal
5	2457	-63.0	3.9	-59.1	-13.0	-46.1	Horizontal
6	703.731	-88.8	40.7	-48.1	-13.0	-35.1	Vertical
7	793.028	-88.2	41.8	-46.4	-13.0	-33.4	Vertical
8	925.613	-88.4	43.2	-45.2	-13.0	-32.2	Vertical
9	1638	-60.8	0.0	-60.8	-13.0	-47.8	Vertical
10	2457	-62.6	3.9	-58.7	-13.0	-45.7	Vertical

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5.8.2 LTE Band 41

LTE Band 41_ 20 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	850.76	-81.5	13.1	-68.5	-25.0	-43.5	Horizontal
2	887.398	-81.9	13.9	-68.1	-25.0	-43.1	Horizontal
3	925.613	-81.8	14.7	-67.1	-25.0	-42.1	Horizontal
4	5012	-64.9	10.4	-54.5	-25.0	-29.5	Horizontal
5	7518	-68.2	14.2	-54.1	-25.0	-29.1	Horizontal
6	787.475	-81.5	12.9	-68.6	-25.0	-43.6	Vertical
7	887.398	-80.3	13.9	-66.4	-25.0	-41.4	Vertical
8	945.334	-82.0	14.4	-67.6	-25.0	-42.6	Vertical
9	5012	-65.4	10.4	-54.9	-25.0	-29.9	Vertical
10	7518	-68.5	14.2	-54.4	-25.0	-29.4	Vertical
Middle Channel							
1	739.214	-81.6	11.8	-69.8	-25.0	-44.8	Horizontal
2	838.887	-82.1	13.1	-69.0	-25.0	-44.0	Horizontal
3	868.886	-81.6	13.7	-67.9	-25.0	-42.9	Horizontal
4	5186	-65.6	10.9	-54.7	-25.0	-29.7	Horizontal
5	7779	-69.2	14.7	-54.5	-25.0	-29.5	Horizontal
6	698.804	-81.3	12.0	-69.3	-25.0	-44.3	Vertical
7	787.475	-81.9	12.9	-69.0	-25.0	-44.0	Vertical
8	932.141	-81.7	14.9	-66.9	-25.0	-41.9	Vertical
9	5186	-65.8	10.9	-54.9	-25.0	-29.9	Vertical
10	7779	-69.1	14.7	-54.4	-25.0	-29.4	Vertical
Highest Channel							
1	833.013	-82.1	13.1	-69.0	-25.0	-44.0	Horizontal
2	912.695	-82.4	14.4	-68.0	-25.0	-43.0	Horizontal
3	958.714	-82.9	14.5	-68.5	-25.0	-43.5	Horizontal
4	5360	-70.5	11.6	-59.0	-25.0	-34.0	Horizontal
5	8040	-69.5	15.2	-54.3	-25.0	-29.3	Horizontal
6	781.961	-81.6	12.8	-68.8	-25.0	-43.8	Vertical
7	815.635	-81.6	12.7	-68.9	-25.0	-43.9	Vertical
8	906.304	-82.3	14.4	-67.9	-25.0	-42.9	Vertical
9	5360	-70.3	11.6	-58.7	-25.0	-33.7	Vertical
10	8040	-69.4	15.2	-54.2	-25.0	-29.2	Vertical

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5.8.3 LTE Band 66

LTE Band 66_ 20 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	611.462	-80.0	10.1	-69.9	-13.0	-56.9	Horizontal
2	703.731	-81.0	11.9	-69.1	-13.0	-56.1	Horizontal
3	862.802	-80.8	13.4	-67.4	-13.0	-54.4	Horizontal
4	3440	-65.0	7.6	-57.4	-13.0	-44.4	Horizontal
5	5160	-64.5	10.8	-53.7	-13.0	-40.7	Horizontal
6	651.383	-80.8	11.0	-69.8	-13.0	-56.8	Vertical
7	703.731	-81.5	11.9	-69.6	-13.0	-56.6	Vertical
8	958.714	-82.4	14.5	-67.9	-13.0	-54.9	Vertical
9	3440	-65.3	7.6	-57.7	-13.0	-44.7	Vertical
10	5160	-66.5	10.8	-55.7	-13.0	-42.7	Vertical
Middle Channel							
1	713.692	-81.2	11.4	-69.8	-13.0	-56.8	Horizontal
2	833.013	-81.6	13.1	-68.5	-13.0	-55.5	Horizontal
3	932.141	-82.3	14.9	-67.5	-13.0	-54.5	Horizontal
4	3490	-63.9	7.9	-56.0	-13.0	-43.0	Horizontal
5	5235	-61.3	11.1	-50.2	-13.0	-37.2	Horizontal
6	856.76	-81.3	13.1	-68.2	-13.0	-55.2	Vertical
7	893.656	-82.0	14.1	-67.9	-13.0	-54.9	Vertical
8	932.141	-82.3	14.9	-67.4	-13.0	-54.4	Vertical
9	3490	-65.4	7.9	-57.5	-13.0	-44.5	Vertical
10	5235	-58.8	11.1	-47.7	-13.0	-34.7	Vertical
Highest Channel							
1	868.886	-81.7	13.7	-68.0	-13.0	-55.0	Horizontal
2	899.958	-81.7	14.3	-67.3	-13.0	-54.3	Horizontal
3	945.334	-82.0	14.4	-67.6	-13.0	-54.6	Horizontal
4	3540	-67.8	8.1	-59.7	-13.0	-46.7	Horizontal
5	5310	-66.6	11.4	-55.2	-13.0	-42.2	Horizontal
6	809.924	-81.5	12.7	-68.8	-13.0	-55.8	Vertical
7	906.304	-81.9	14.4	-67.5	-13.0	-54.5	Vertical
8	972.283	-81.7	14.6	-67.1	-13.0	-54.1	Vertical
9	3540	-67.8	8.1	-59.8	-13.0	-46.8	Vertical
10	5310	-64.7	11.4	-53.3	-13.0	-40.3	Vertical

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5.8.4 LTE Band 71

LTE Band 71_ 20 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	651.383	-89.1	39.9	-49.3	-13.0	-36.3	Horizontal
2	804.252	-88.0	41.7	-46.4	-13.0	-33.4	Horizontal
3	925.613	-87.4	43.2	-44.2	-13.0	-31.2	Horizontal
4	1346	-61.9	-1.0	-62.8	-13.0	-49.8	Horizontal
5	2019	-64.2	1.5	-62.7	-13.0	-49.7	Horizontal
6	550.29	-89.2	37.5	-51.7	-13.0	-38.7	Vertical
7	771.047	-88.4	41.3	-47.1	-13.0	-34.1	Vertical
8	952.00	-86.8	42.9	-43.8	-13.0	-30.8	Vertical
9	1346	-59.1	-1.0	-60.1	-13.0	-47.1	Vertical
10	2019	-62.2	1.5	-60.7	-13.0	-47.7	Vertical
Middle Channel							
1	708.694	-88.4	40.5	-48.0	-13.0	-35.0	Horizontal
2	862.802	-87.7	42.0	-45.7	-13.0	-32.7	Horizontal
3	945.334	-87.3	42.9	-44.5	-13.0	-31.5	Horizontal
4	1366	-62.7	-0.9	-63.6	-13.0	-50.6	Horizontal
5	2049	-65.2	1.6	-63.6	-13.0	-50.6	Horizontal
6	655.977	-89.0	39.9	-49.1	-13.0	-36.1	Vertical
7	798.62	-88.2	41.8	-46.5	-13.0	-33.5	Vertical
8	925.613	-87.7	43.2	-44.5	-13.0	-31.5	Vertical
9	1366	-60.9	-0.9	-61.9	-13.0	-48.9	Vertical
10	2049	-64.4	1.6	-62.8	-13.0	-49.8	Vertical
Highest Channel							
1	809.924	-88.4	41.5	-47.0	-13.0	-34.0	Horizontal
2	875.013	-88.2	42.6	-45.6	-13.0	-32.6	Horizontal
3	952.000	-87.7	42.9	-44.8	-13.0	-31.8	Horizontal
4	1376	-61.4	-0.9	-62.3	-13.0	-49.3	Horizontal
5	2064	-63.7	1.7	-62.0	-13.0	-49.0	Horizontal
6	793.028	-88.4	41.8	-46.6	-13.0	-33.6	Vertical
7	875.013	-88.6	42.6	-46.0	-13.0	-33.0	Vertical
8	938.714	-87.8	43.2	-44.7	-13.0	-31.7	Vertical
9	1376	-60.6	-0.9	-61.5	-13.0	-48.5	Vertical
10	2064	-63.8	1.7	-62.2	-13.0	-49.2	Vertical

Remark:

1. Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain, the value was added to Original Receiver Reading by the software automatically.
2. Result = Reading + Correct Factor.
3. Margin = Result – Limit

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5.9 FREQUENCY STABILITY

Test Requirement: FCC 47 CFR Part 2.1055 &
FCC 47 CFR Part 22.355 &
FCC 47 CFR Part 24.235 &
FCC 47 CFR Part 27.54

Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Limits:

FCC 47 CFR Part 22.355, FCC 47 CFR Part 90.213

The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.

FCC 47 CFR Part 24.235, FCC 47 CFR Part 27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Setup: Refer to section 4.2.2 for details.

Test Procedures:

- 1) Use CMW 500 with Frequency Error measurement capability.
 - a) Temp. = -30° to $+50^{\circ}\text{C}$
 - b) Voltage = low voltage, 3.4 Vdc, Normal, 3.7 Vdc and High voltage, 4.2 Vdc.

- 2) Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to 20°C and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until $+50^{\circ}\text{C}$ is reached.

- 3) Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

Equipment Used: Refer to section 3 for details.

Test Result: Pass

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature ($^{\circ}\text{C}$)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 2 / 20MHz / Full RB							
QPSK	18900 / 1880.0	VL	TN	-7.02	-0.0037	Note 1	Pass
		VN		-6.15	-0.0033		Pass
		VH		-8.55	-0.0045		Pass
		VN	50	-6.25	-0.0033		Pass
			40	-3.32	-0.0018		Pass
			30	-4.58	-0.0024		Pass
			20	-6.15	-0.0033		Pass
			10	-5.73	-0.0030		Pass
			0	-8.12	-0.0043		Pass
			-10	-4.37	-0.0023		Pass
			-20	-5.45	-0.0029		Pass
			-30	-6.26	-0.0033		Pass

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Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 4 / 20MHz / Full RB							
QPSK	20175 / 1732.5	VL	TN	-5.39	-0.0031	Note 1	Pass
		VN		-8.23	-0.0048		Pass
		VH		-7.73	-0.0045		Pass
		VN	50	-8.57	-0.0049		Pass
			40	-4.62	-0.0027		Pass
			30	-6.37	-0.0037		Pass
			20	-8.23	-0.0048		Pass
			10	-5.42	-0.0031		Pass
			0	-4.63	-0.0027		Pass
			-10	-6.61	-0.0038		Pass
			-20	-2.54	-0.0015		Pass
			-30	-3.23	-0.0019		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 5 / 10MHz / Full RB							
QPSK	20525 / 836.5	VL	TN	-6.21	-0.0074	± 2.5	Pass
		VN		-7.96	-0.0095	± 2.5	Pass
		VH		-5.64	-0.0067	± 2.5	Pass
		VN	50	-4.53	-0.0054	± 2.5	Pass
			40	-4.58	-0.0055	± 2.5	Pass
			30	-8.6	-0.0103	± 2.5	Pass
			20	-7.96	-0.0095	± 2.5	Pass
			10	-5.63	-0.0067	± 2.5	Pass
			0	-4.58	-0.0055	± 2.5	Pass
			-10	-3.76	-0.0045	± 2.5	Pass
			-20	-3.58	-0.0043	± 2.5	Pass
			-30	-2.24	-0.0027	± 2.5	Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(℃)	(Hz)	(ppm)	(ppm)	
LTE Band 12 / 10MHz / Full RB							
QPSK	23095 / 707.5	VL	TN	-4.87	-0.0069	Note 1	Pass
		VN		-5.06	-0.0072		Pass
		VH		-7.28	-0.0103		Pass
		VN	50	-10.46	-0.0148		Pass
			40	-8.29	-0.0117		Pass
			30	-10.15	-0.0143		Pass
			20	-5.06	-0.0072		Pass
			10	-11.54	-0.0163		Pass
			0	-10.23	-0.0145		Pass
			-10	-9.15	-0.0129		Pass
			-20	-8.28	-0.0117		Pass
			-30	-10.88	-0.0154		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 17 / 10MHz / Full RB							
QPSK	23790 / 710	VL	TN	-9.31	-0.0131	Note 1	Pass
		VN		-7.91	-0.0111		Pass
		VH		-5.29	-0.0075		Pass
		VN	50	-7.09	-0.0100		Pass
			40	-9.16	-0.0129		Pass
			30	-8.83	-0.0124		Pass
			20	-7.91	-0.0111		Pass
			10	-9.42	-0.0133		Pass
			0	-5.63	-0.0079		Pass
			-10	-4.19	-0.0059		Pass
			-20	-6.73	-0.0095		Pass
			-30	-4.98	-0.0070		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 25/ 20MHz / Full RB							
QPSK	26590 / 1905	VL	TN	-12.63	-0.0066	Note 1	Pass
		VN		-15.94	-0.0084		Pass
		VH		-16.48	-0.0087		Pass
		VN	50	-14.91	-0.0078		Pass
			40	-12.51	-0.0066		Pass
			30	-13.73	-0.0072		Pass
			20	-15.94	-0.0084		Pass
			10	-14.31	-0.0075		Pass
			0	-11.88	-0.0062		Pass
			-10	-14.25	-0.0075		Pass
			-20	-13.14	-0.0069		Pass
			-30	-13.28	-0.0070		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 26 / 10MHz / Full RB							
QPSK	26740 / 819	VL	TN	4.02	0.0049	± 2.5	Pass
		VN		3.53	0.0043	± 2.5	Pass
		VH		5.14	0.0063	± 2.5	Pass
		VN	50	3.95	0.0048	± 2.5	Pass
			40	4.39	0.0054	± 2.5	Pass
			30	7.05	0.0086	± 2.5	Pass
			20	3.53	0.0043	± 2.5	Pass
			10	4.97	0.0061	± 2.5	Pass
			0	2.83	0.0035	± 2.5	Pass
			-10	3.59	0.0044	± 2.5	Pass
			-20	3.91	0.0048	± 2.5	Pass
			-30	4.99	0.0061	± 2.5	Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 26 / 10MHz / Full RB (Part 90S)							
QPSK	26915 / 836.5	VL	TN	3.14	0.0038	Note 1	Pass
		VN		2.72	0.0033		Pass
		VH		-4.36	-0.0052		Pass
		VN	50	-2.45	-0.0029		Pass
			40	-3.58	-0.0043		Pass
			30	-6.33	-0.0076		Pass
			20	4.72	0.0056		Pass
			10	-4.36	-0.0052		Pass
			0	3.78	0.0045		Pass
			-10	5.72	0.0068		Pass
			-20	-4.36	-0.0052		Pass
			-30	2.39	0.0029		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 41/ 20MHz / Full RB							
QPSK	40620 / 2593	VL	TN	-12.36	-0.0042	Note 1	Pass
		VN		-9.11	-0.0031		Pass
		VH		-11.27	-0.0038		Pass
		VN	50	-11.83	-0.0040		Pass
			40	-11.29	-0.0038		Pass
			30	-10.83	-0.0037		Pass
			20	-9.11	-0.0031		Pass
			10	-11.05	-0.0037		Pass
			0	-10.94	-0.0037		Pass
			-10	-12.38	-0.0042		Pass
			-20	-11.45	-0.0039		Pass
			-30	-12.34	-0.0042		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 66/ 20MHz / Full RB							
QPSK	132322 / 1745	VL	TN	-5.29	-0.0030	Note 1	Pass
		VN		-4.31	-0.0025		Pass
		VH		-6.94	-0.0040		Pass
		VN	50	-9.37	-0.0054		Pass
			40	-8.72	-0.0050		Pass
			30	-6.43	-0.0037		Pass
			20	-4.31	-0.0025		Pass
			10	-5.39	-0.0031		Pass
			0	-7.45	-0.0043		Pass
			-10	-8.31	-0.0048		Pass
			-20	-7.05	-0.0040		Pass
			-30	-6.97	-0.0040		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 71/ 20MHz / Full RB							
QPSK	133322 / 683.0	VL	TN	-5.58	-0.0082	Note 1	Pass
		VN		-4.42	-0.0065		Pass
		VH		-6.26	-0.0092		Pass
		VN	50	-7.68	-0.0112		Pass
			40	-5.73	-0.0084		Pass
			30	-6.59	-0.0096		Pass
			20	-4.42	-0.0065		Pass
			10	-5.83	-0.0085		Pass
			0	-6.62	-0.0097		Pass
			-10	-5.51	-0.0081		Pass
			-20	-2.82	-0.0041		Pass
			-30	-4.86	-0.0071		Pass

Note1: The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

APPENDIX A RF TEST DATA

A.1 LTE BAND 2

Peak to Average Ratio

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
2	20.0	18700	1860.0	QPSK	100@0	5.56	13	PASS
2	20.0	18700	1860.0	16QAM	100@0	6.39	13	PASS
2	20.0	18900	1880.0	QPSK	100@0	5.62	13	PASS
2	20.0	18900	1880.0	16QAM	100@0	6.38	13	PASS
2	20.0	19100	1900.0	QPSK	100@0	5.66	13	PASS
2	20.0	19100	1900.0	16QAM	100@0	6.34	13	PASS
2	15.0	18675	1857.5	QPSK	75@0	5.30	13	PASS
2	15.0	18675	1857.5	16QAM	75@0	6.14	13	PASS
2	15.0	18900	1880.0	QPSK	75@0	5.49	13	PASS
2	15.0	18900	1880.0	16QAM	75@0	6.16	13	PASS
2	15.0	19125	1902.5	QPSK	75@0	5.40	13	PASS
2	15.0	19125	1902.5	16QAM	75@0	6.13	13	PASS
2	10.0	18650	1855.0	QPSK	50@0	5.47	13	PASS
2	10.0	18650	1855.0	16QAM	50@0	6.25	13	PASS
2	10.0	18900	1880.0	QPSK	50@0	5.67	13	PASS
2	10.0	18900	1880.0	16QAM	50@0	6.32	13	PASS
2	10.0	19150	1905.0	QPSK	50@0	5.54	13	PASS
2	10.0	19150	1905.0	16QAM	50@0	6.24	13	PASS
2	5.0	18625	1852.5	QPSK	25@0	5.49	13	PASS
2	5.0	18625	1852.5	16QAM	25@0	6.14	13	PASS
2	5.0	18900	1880.0	QPSK	25@0	5.65	13	PASS
2	5.0	18900	1880.0	16QAM	25@0	6.33	13	PASS
2	5.0	19175	1907.5	QPSK	25@0	5.68	13	PASS
2	5.0	19175	1907.5	16QAM	25@0	6.39	13	PASS
2	3.0	18615	1851.5	QPSK	15@0	5.44	13	PASS
2	3.0	18615	1851.5	16QAM	15@0	6.16	13	PASS
2	3.0	18900	1880.0	QPSK	15@0	5.57	13	PASS
2	3.0	18900	1880.0	16QAM	15@0	6.35	13	PASS
2	3.0	19185	1908.5	QPSK	15@0	5.53	13	PASS
2	3.0	19185	1908.5	16QAM	15@0	6.38	13	PASS
2	1.4	18607	1850.7	QPSK	6@0	5.31	13	PASS
2	1.4	18607	1850.7	16QAM	6@0	6.13	13	PASS
2	1.4	18900	1880.0	QPSK	6@0	5.50	13	PASS
2	1.4	18900	1880.0	16QAM	6@0	6.21	13	PASS
2	1.4	19193	1909.3	QPSK	6@0	5.52	13	PASS
2	1.4	19193	1909.3	16QAM	6@0	6.34	13	PASS

Test Graphs

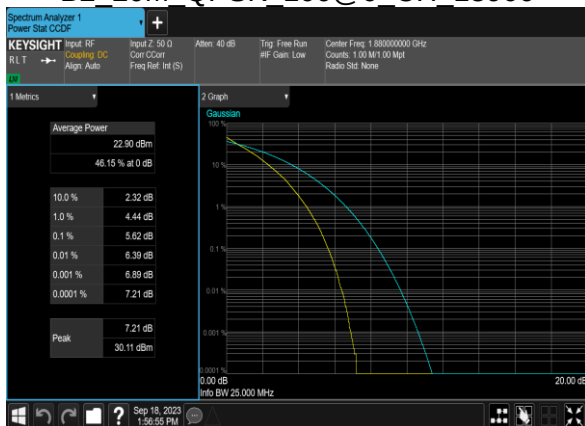
B2 20M QPSK 100@0 CH 18700



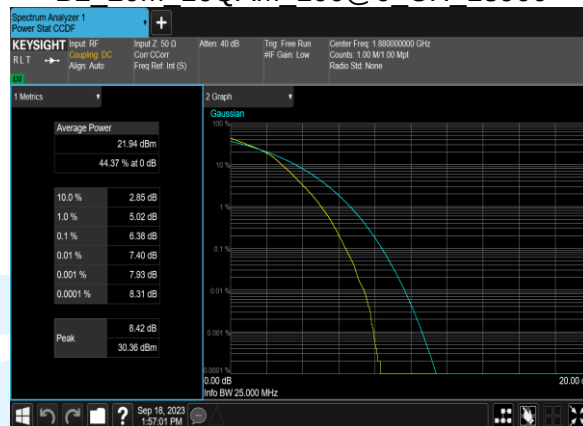
B2 20M 16QAM 100@0 CH 18700



B2_20M_QPSK_100@0_CH_18900



B2_20M_16QAM_100@0_CH_18900



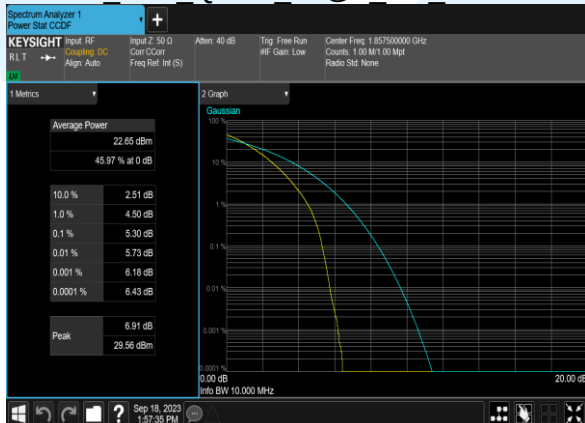
B2_20M_QPSK_100@0_CH_19100



B2_20M_16QAM_100@0_CH_19100



B2_15M_QPSK_75@0_CH_18675



B2_15M_16QAM_75@0_CH_18675



B2_15M_QPSK_75@0_CH_18900



B2_15M_16QAM_75@0_CH_18900

