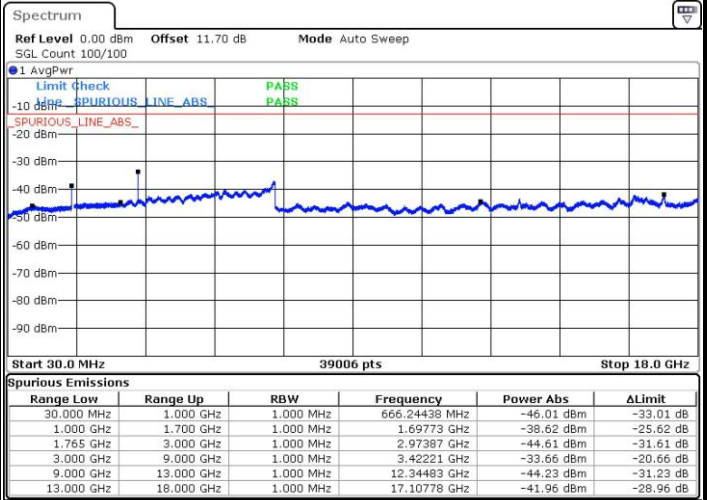
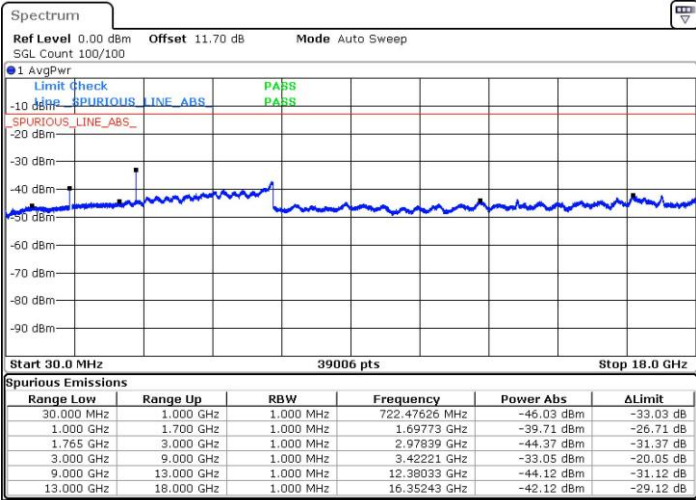




LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

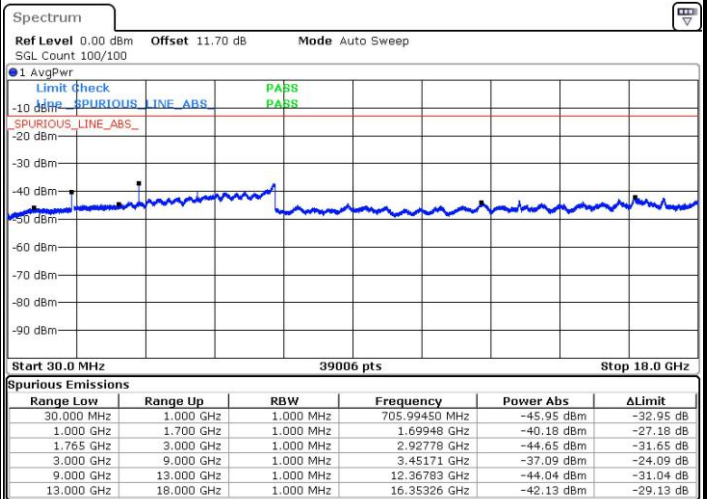
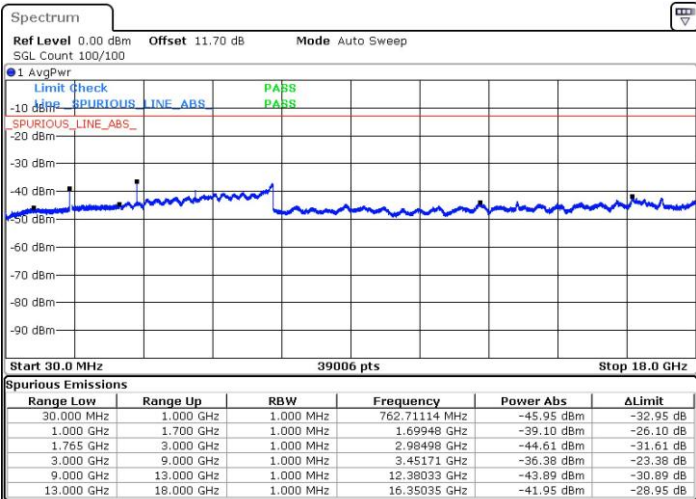


Date: 11.APR.2018 16:45:21

Date: 11.APR.2018 16:46:19

Middle Channel / QPSK

Middle Channel / 16QAM



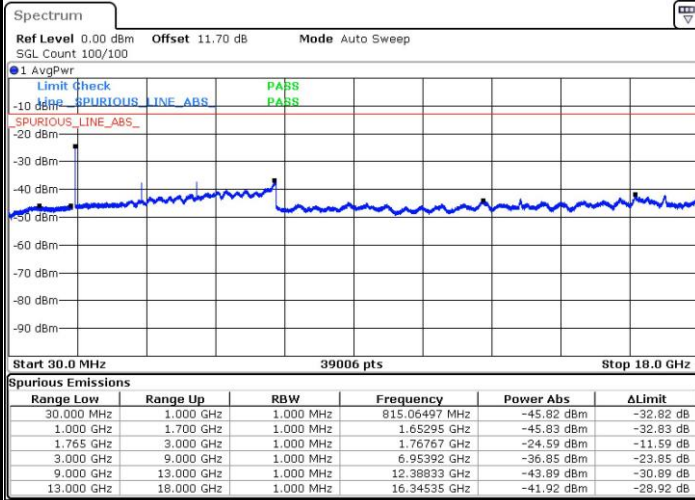
Date: 11.APR.2018 16:48:04

Date: 11.APR.2018 16:49:02



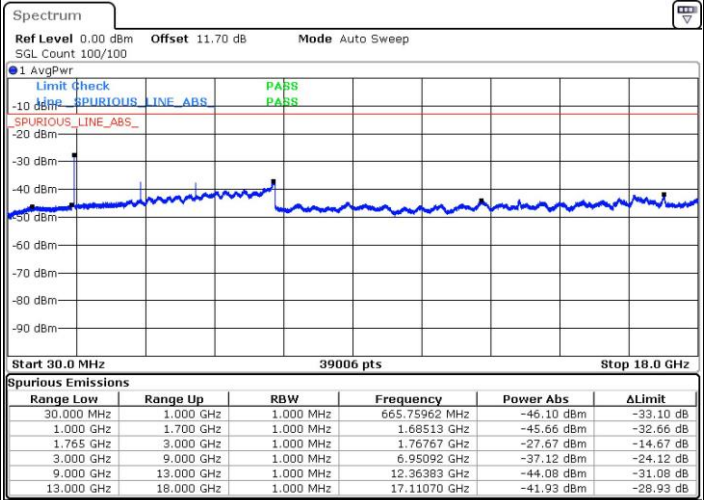
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 11.APR.2018 16:55:24

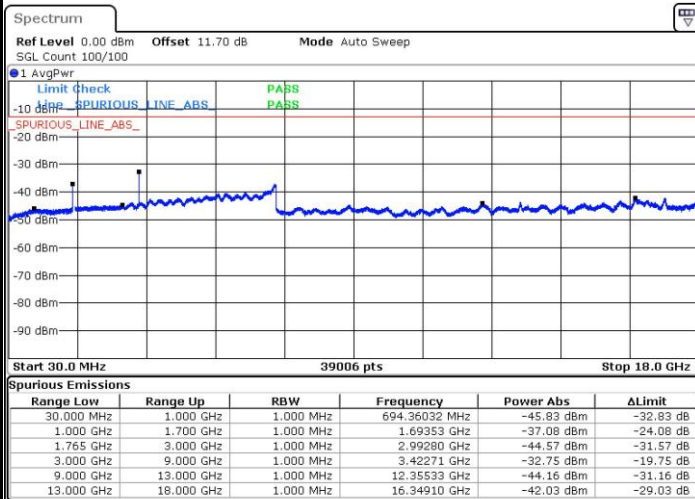
Highest Channel / 16QAM



Date: 11.APR.2018 16:56:22

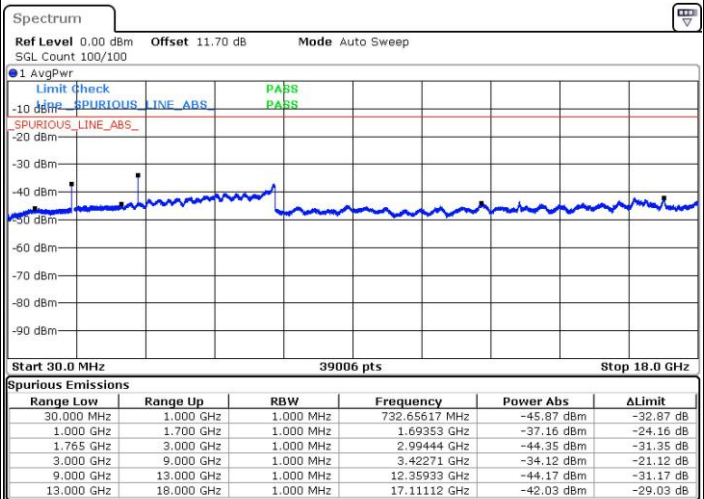
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 11.APR.2018 17:02:44

Lowest Channel / 16QAM



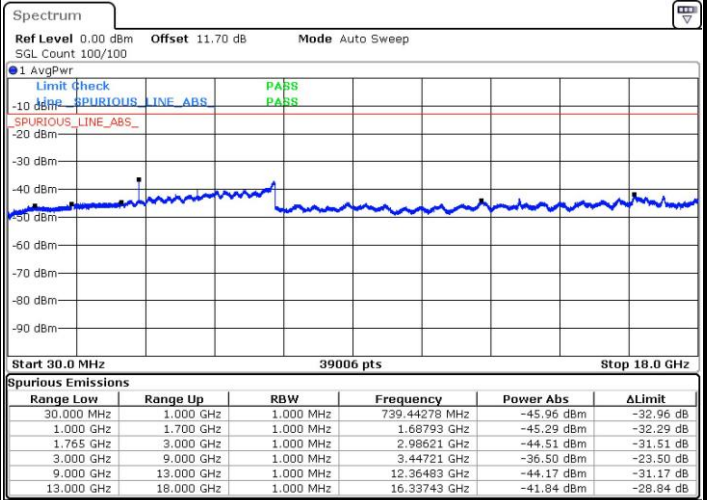
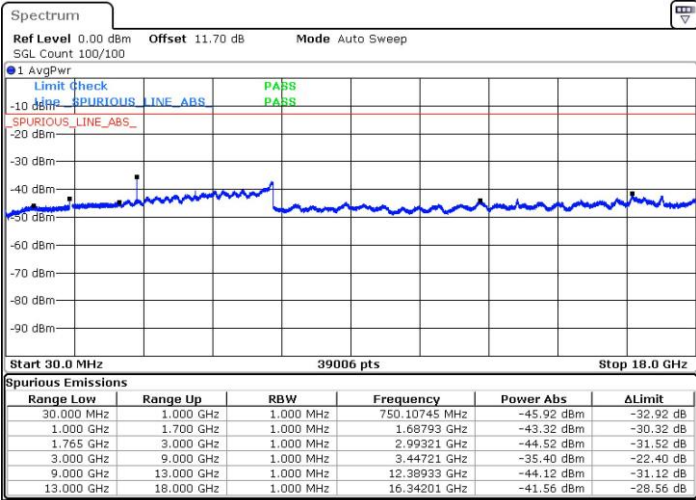
Date: 11.APR.2018 17:03:42



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

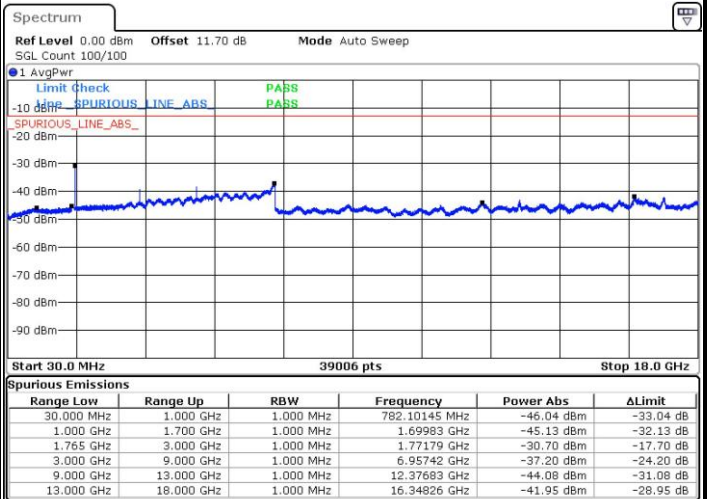
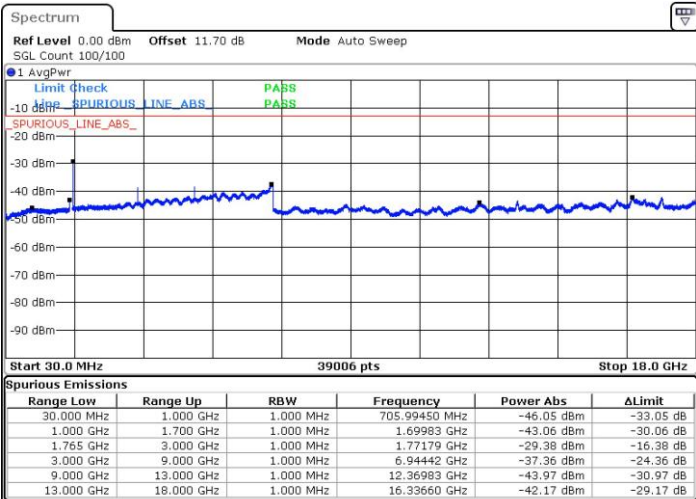


Date: 11.APR.2018 17:05:27

Date: 11.APR.2018 17:06:25

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 11.APR.2018 17:12:48

Date: 11.APR.2018 17:13:46



Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0028	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0031	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0024	
0	Normal Voltage	0.0036	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0042	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0008	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.1 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of ERP/EIRP and Radiated Test

ERP/EIRP

LTE Band 2 / 1.4MHz (Average) (GT - LC = 2.08 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	5	23.42	0.2198	25.50	0.3548
Middle		1	5	23.01	0.2000	25.09	0.3228
Highest		1	5	22.61	0.1824	24.69	0.2944
Lowest	16QAM	3	1	22.33	0.1710	24.41	0.2761
Middle		3	1	22.12	0.1629	24.20	0.2630
Highest		3	1	22.06	0.1607	24.14	0.2594
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 3MHz (Average) (GT - LC = 2.08 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	23.19	0.2084	25.27	0.3365
Middle		1	0	23.14	0.2061	25.22	0.3327
Highest		1	0	22.94	0.1968	25.02	0.3177
Lowest	16QAM	1	8	22.16	0.1644	24.24	0.2655
Middle		1	8	22.31	0.1702	24.39	0.2748
Highest		1	8	21.48	0.1406	23.56	0.2270
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 5MHz (Average) (GT - LC = 2.08 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	23.20	0.2089	25.28	0.3373
Middle		1	12	23.05	0.2018	25.13	0.3258
Highest		1	12	22.93	0.1963	25.01	0.3170
Lowest	16QAM	1	12	21.84	0.1528	23.92	0.2466
Middle		1	12	22.37	0.1726	24.45	0.2786
Highest		1	12	21.55	0.1429	23.63	0.2307
Limit	EIRP < 2W			Result		PASS	



LTE Band 2 / 10MHz (Average) (GT - LC = 2.08 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	23.36	0.2168	25.44	0.3499
Middle		1	49	22.81	0.1910	24.89	0.3083
Highest		1	49	22.58	0.1811	24.66	0.2924
Lowest	16QAM	1	25	22.10	0.1622	24.18	0.2618
Middle		1	25	22.46	0.1762	24.54	0.2844
Highest		1	25	21.58	0.1439	23.66	0.2323
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 15MHz (Average) (GT - LC = 2.08 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	23.41	0.2193	25.49	0.3540
Middle		1	0	23.20	0.2089	25.28	0.3373
Highest		1	0	22.93	0.1963	25.01	0.3170
Lowest	16QAM	1	37	22.67	0.1849	24.75	0.2985
Middle		1	37	22.26	0.1683	24.34	0.2716
Highest		1	37	21.61	0.1449	23.69	0.2339
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 20MHz (Average) (GT - LC = 2.08 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	23.47	0.2223	25.55	0.3589
Middle		1	49	23.28	0.2128	25.36	0.3436
Highest		1	49	22.95	0.1972	25.03	0.3184
Lowest	16QAM	1	49	21.96	0.1570	24.04	0.2535
Middle		1	49	21.87	0.1538	23.95	0.2483
Highest		1	49	21.61	0.1449	23.69	0.2339
Limit	EIRP < 2W			Result		PASS	



LTE Band 4 / 1.4MHz (Average) (GT - LC = 1.03 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	3	1	23.58	0.2280	24.61	0.2891
Middle		3	1	23.51	0.2244	24.54	0.2844
Highest		3	1	23.19	0.2084	24.22	0.2642
Lowest	16QAM	1	3	22.12	0.1629	23.15	0.2065
Middle		1	3	22.72	0.1871	23.75	0.2371
Highest		1	3	22.45	0.1758	23.48	0.2228
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 3MHz (Average) (GT - LC = 1.03 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	23.39	0.2183	24.42	0.2767
Middle		1	0	23.27	0.2123	24.30	0.2692
Highest		1	0	23.01	0.2000	24.04	0.2535
Lowest	16QAM	1	0	22.12	0.1629	23.15	0.2065
Middle		1	0	22.54	0.1795	23.57	0.2275
Highest		1	0	21.79	0.1510	22.82	0.1914
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 5MHz (Average) (GT - LC = 1.03 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	23.42	0.2198	24.45	0.2786
Middle		1	12	23.47	0.2223	24.50	0.2818
Highest		1	12	23.16	0.2070	24.19	0.2624
Lowest	16QAM	1	0	22.45	0.1758	23.48	0.2228
Middle		1	0	21.90	0.1549	22.93	0.1963
Highest		1	0	21.52	0.1419	22.55	0.1799
Limit	EIRP < 1W			Result		PASS	



LTE Band 4 / 10MHz (Average) (GT - LC = 1.03 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	23.86	0.2432	24.89	0.3083
Middle		1	25	23.56	0.2270	24.59	0.2877
Highest		1	25	23.20	0.2089	24.23	0.2649
Lowest	16QAM	1	25	22.16	0.1644	23.19	0.2084
Middle		1	25	22.58	0.1811	23.61	0.2296
Highest		1	25	22.03	0.1596	23.06	0.2023
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 15MHz (Average) (GT - LC = 1.03 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	23.87	0.2438	24.90	0.3090
Middle		1	37	23.42	0.2198	24.45	0.2786
Highest		1	37	23.44	0.2208	24.47	0.2799
Lowest	16QAM	1	0	22.17	0.1648	23.20	0.2089
Middle		1	0	22.20	0.1660	23.23	0.2104
Highest		1	0	22.34	0.1714	23.37	0.2173
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 20MHz (Average) (GT - LC = 1.03 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	23.89	0.2449	24.92	0.3105
Middle		1	49	23.91	0.2460	24.94	0.3119
Highest		1	49	23.52	0.2249	24.55	0.2851
Lowest	16QAM	1	0	22.05	0.1603	23.08	0.2032
Middle		1	0	22.37	0.1726	23.40	0.2188
Highest		1	0	22.46	0.1762	23.49	0.2234
Limit	EIRP < 1W			Result		PASS	



Radiated Spurious Emission

Part24E LTE Band 2

LTE Band 2 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3721	-56.85	-13	-43.85	-74.65	-67.13	1.98	12.27	H
	5576	-56.45	-13	-43.45	-77.66	-66.62	2.14	12.31	H
	7438	-52.13	-13	-39.13	-77.16	-60.09	2.15	10.11	H
									H
									H
									H
	3721	-56.86	-13	-43.86	-74.09	-67.14	1.98	12.27	V
	5576	-56.39	-13	-43.39	-77.82	-66.56	2.14	12.31	V
	7438	-52.93	-13	-39.93	-77.05	-60.89	2.15	10.11	V
									V
									V
									V
Middle	3763	-49.40	-13	-36.40	-67.06	-59.64	2.01	12.24	H
	5639	-55.71	-13	-42.71	-76.88	-65.98	2.12	12.39	H
	7529	-50.44	-13	-37.44	-75.93	-58.43	2.11	10.10	H
									H
									H
									H
	3763	-52.21	-13	-39.21	-69.37	-62.45	2.01	12.24	V
	5639	-56.27	-13	-43.27	-77.63	-66.54	2.12	12.39	V
	7529	-52.14	-13	-39.14	-76.87	-60.13	2.11	10.10	V
									V
									V
									V



Highest	3798	-49.45	-13	-36.45	-67	-59.65	2.02	12.22	H
	5702	-56.68	-13	-43.68	-77.9	-67.05	2.11	12.48	H
	7599	-51.81	-13	-38.81	-77.1	-60.05	2.11	10.36	H
									H
									H
									H
									H
	3798	-51.12	-13	-38.12	-68.23	-61.32	2.02	12.22	V
	5702	-56.27	-13	-43.27	-77.63	-66.64	2.11	12.48	V
	7599	-52.18	-13	-39.18	-77.05	-60.42	2.11	10.36	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



Part27L LTE Band 4

LTE Band 4 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3441	-30.83	-13	-17.83	-47.84	-41.23	1.82	12.22	H
	5160	-55.41	-13	-42.41	-76.04	-65.25	2.29	12.13	H
	6878	-53.16	-13	-40.16	-76.67	-61.80	2.38	11.02	H
									H
									H
									H
									H
	3441	-35.77	-13	-22.77	-52.31	-46.17	1.82	12.22	V
	5160	-56.14	-13	-43.14	-76.7	-65.98	2.29	12.13	V
	6878	-53.48	-13	-40.48	-76.22	-62.12	2.38	11.02	V
									V
									V
									V
									V
Middle	3462	-36.58	-13	-23.58	-53.77	-47.03	1.84	12.29	H
	5198	-56.38	-13	-43.38	-77.04	-66.24	2.28	12.14	H
	6929	-53.51	-13	-40.51	-77.31	-62.09	2.40	10.97	H
									H
									H
									H
									H
	3462	-38.84	-13	-25.84	-55.57	-49.29	1.84	12.29	V
	5198	-56.18	-13	-43.18	-76.73	-66.04	2.28	12.14	V
	6929	-54.43	-13	-41.43	-77.32	-63.01	2.40	10.97	V
									V
									V
									V
									V



Highest	3490	-34.20	-13	-21.20	-51.73	-44.71	1.86	12.37	H
	5233	-56.24	-13	-43.24	-76.96	-66.12	2.26	12.15	H
	6983	-68.83	-13	-55.83	-76.79	-77.33	2.41	10.92	H
									H
									H
									H
									H
	3490	-36.70	-13	-23.70	-53.77	-47.21	1.86	12.37	V
	5233	-56.15	-13	-43.15	-76.83	-66.03	2.26	12.15	V
	6983	-54.12	-13	-41.12	-77.17	-62.62	2.41	10.92	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.