

RF Power Output and Effective Radiated Power

LTE Band 4	Channel/ Frequency(MHz)	Index	RB# RBstart QPSK	RB# RBstart 16QAM	Conducted Power (dBm)	
					QPSK	16QAM
1.4MHz	19957 1710.7	0	1#0	1#0	22.86	21.76
		0	6#0	5#0	20.73	20.77
	20175/1732.5	0	1#0	1#0	23.07	21.83
		0	6#0	5#0	20.80	20.84
	20393/1754.3	0	1#5	1#5	23.05	21.90
		0	6#0	5#0	21.00	21.03
3MHz	19965/1711.5	0	1#0	1#0	22.92	21.78
		0	6#0	5#0	20.72	20.74
	20175/1732.5	0	1#0	1#0	23.15	22.08
		0	6#0	5#0	20.88	21.04
	20385/1753.5	1	1#5	1#5	23.05	21.90
		1	6#0	5#0	21.02	21.04
5MHz	19975/1712.5	3	1#0	1#0	22.79	22.55
		0	6#0	5#0	21.75	20.90
	20175/1732.5	0	1#0	1#0	23.11	23.26
		0	6#0	5#0	21.81	20.88
	20375/1752.5	0	1#5	1#5	22.84	22.70
		3	6#0	5#0	22.12	21.31
10MHz	20000/1715	3	1#0	1#0	22.70	22.56
		0	4#0	4#0	22.67	21.23
	20175/1732.5	0	1#0	1#0	23.09	23.16
		0	4#0	4#0	22.84	21.80
	20350/1750	4	1#5	1#5	23.14	23.28
		7	4#2	4#2	23.04	22.06
15MHz	20025/1717.5	3	1#0	1#0	22.87	22.54
		0	6#0	5#0	22.67	22.90
	20175/1732.5	0	1#0	1#0	22.94	23.12
		0	6#0	5#0	22.74	22.81
	20325/1747.5	8	1#5	1#5	22.86	22.58
		11	6#0	5#0	23.02	23.26
20MHz	20050/1720	3	1#0	1#0	22.67	22.48
		0	6#0	5#0	22.69	22.92
	20175/1732.5	0	1#0	1#0	23.14	23.11
		0	6#0	5#0	22.77	22.84
	20300/1745	12	1#5	1#5	22.84	22.57
		15	6#0	5#0	23.13	23.25

LTE Band 12	Channel/ Frequency(MHz)	Index	RB# RBstart QPSK	RB# RBstart 16QAM	Conducted Power (dBm)	
					QPSK	16QAM
1.4MHz	23017/699.7	0	1#0	1#0	22.53	21.96
		0	6#0	5#0	20.68	20.85
	23095/707.5	0	1#0	1#0	22.59	21.87
		0	6#0	5#0	20.56	20.64
	23173/715.3	0	1#5	1#5	22.34	21.74
		0	6#0	5#0	20.47	20.67
3MHz	23025/700.5	0	1#0	1#0	22.67	21.97
		0	6#0	5#0	20.63	20.75
	23095/707.5	0	1#0	1#0	22.49	21.38
		0	6#0	5#0	20.60	20.53
	23165/714.5	1	1#5	1#5	22.39	21.69
		1	6#0	5#0	20.54	20.64
5MHz	23035/701.5	3	1#0	1#0	22.62	22.28
		0	6#0	5#0	21.60	20.76
	23095/707.5	0	1#0	1#0	22.51	22.72
		0	6#0	5#0	21.41	20.80
	23155/713.5	0	1#5	1#5	22.39	22.11
		3	6#0	5#0	21.34	20.63
10MHz	23060/704	3	1#0	1#0	22.48	22.24
		0	4#0	4#0	22.30	20.91
	23095/707.5	0	1#0	1#0	22.55	22.73
		0	4#0	4#0	22.30	21.39
	23130/711	4	1#5	1#5	22.36	22.56
		7	4#2	4#2	22.10	21.19

LTE Band 13	Channel/ Frequency(MHz)	Index	RB# RBstart QPSK	RB# RBstart 16QAM	Conducted Power (dBm)	
					QPSK	16QAM
5MHz	23205/779.5	3	1#0	1#0	22.64	22.25
		0	6#0	5#0	21.37	20.46
	23230/782	0	1#0	1#0	22.92	22.83
		0	6#0	5#0	21.51	20.60
	23255/784.5	0	1#5	1#5	22.48	22.12
		3	6#0	5#0	21.49	20.56
10MHz	23230/782	0	1#0	1#0	22.78	22.55
		0	4#0	4#0	22.49	21.29

LTE Band 66	Channel/ Frequency(MHz)	Index	RB# RBstart QPSK	RB# RBstart 16QAM	Conducted Power (dBm)	
					QPSK	16QAM
1.4MHz	131979/1710.7	0	1#0	1#0	22.94	21.82
		0	6#0	5#0	20.77	20.85
	132322/1745	0	1#0	1#0	23.20	22.18
		0	6#0	5#0	20.94	21.01
	132665/1779.3	0	1#5	1#5	23.45	22.15
		0	6#0	5#0	21.16	21.08
3MHz	131987/1711.5	0	1#0	1#0	22.98	21.95
		0	6#0	5#0	20.88	20.87
	132322/1745	0	1#0	1#0	23.18	22.14
		0	6#0	5#0	20.93	21.03
	132657/1778.5	1	1#5	1#5	23.36	22.19
		1	6#0	5#0	21.14	21.13
5MHz	131997/1712.5	3	1#0	1#0	23.06	22.63
		0	6#0	5#0	21.88	21.05
	132322/1745	0	1#0	1#0	23.12	23.07
		0	6#0	5#0	21.98	21.01
	132647/1777.5	0	1#5	1#5	23.31	22.82
		3	6#0	5#0	22.19	21.48
10MHz	132022/1715	3	1#0	1#0	22.81	22.70
		0	4#0	4#0	22.83	21.44
	132322/1745	0	1#0	1#0	23.17	23.03
		0	4#0	4#0	22.90	21.86
	132622/1775	4	1#5	1#5	23.29	22.75
		7	4#2	4#2	23.11	21.51
15MHz	132047/1717.5	3	1#0	1#0	23.09	22.62
		0	6#0	5#0	22.77	23.02
	132322/1745	0	1#0	1#0	22.99	23.26
		0	6#0	5#0	22.86	23.02
	132597/1772.5	8	1#5	1#5	23.18	22.84
		11	6#0	5#0	23.15	23.51
20MHz	132072/1720	3	1#0	1#0	22.78	22.66
		0	6#0	5#0	22.77	22.99
	132322/1745	0	1#0	1#0	22.99	23.02
		0	6#0	5#0	22.88	23.03
	132572/1770	12	1#5	1#5	22.45	22.21
		15	6#0	5#0	23.13	23.22

LTE Band 85	Channel/ Frequency(MHz)	Index	RB# RBstart QPSK	RB# RBstart 16QAM	Conducted Power (dBm)	
					QPSK	16QAM
5MHz	134027/700.5	3	1#0	1#0	22.89	22.82
		0	6#0	5#0	21.54	21.54
	134092/707	0	1#0	1#0	22.84	22.70
		0	6#0	5#0	21.65	21.52
	134157/713.5	0	1#5	1#5	22.78	22.69
		3	6#0	5#0	21.76	21.75
10MHz	134052/703	3	1#0	1#0	22.92	22.80
		0	4#0	4#0	22.43	21.83
	134092/707	0	1#0	1#0	22.83	22.87
		0	4#0	4#0	22.65	22.63
	134132/711	4	1#5	1#5	22.93	22.66
		7	4#2	4#2	22.59	22.13

Occupied Bandwidth

Mode	Bandwidth	Modulation	Channel/ Frequency(MHz)	RB	Bandwidth(MHz)	
					99% Power	-26dBc
LTE Band4	10MHz	QPSK	20175/1732.5	6#0	1.1191	1.375
		16QAM	20175/1732.5	6#0	0.9670	1.247

Mode	Bandwidth	Modulation	Channel/ Frequency(MHz)	RB	Bandwidth(MHz)	
					99% Power	-26dBc
LTE Band12	10MHz	QPSK	23095/707.5	6#0	1.1167	1.331
		16QAM	23095/707.5	6#0	0.9632	1.191

Mode	Bandwidth	Modulation	Channel/ Frequency(MHz)	RB	Bandwidth(MHz)	
					99% Power	-26dBc
LTE Band13	5MHz	QPSK	23230/782	6#0	1.1079	1.335
		16QAM	23230/782	6#0	0.9470	1.176

Mode	Bandwidth	Modulation	Channel/ Frequency(MHz)	RB	Bandwidth(MHz)	
					99% Power	-26dBc
LTE Band66	15MHz	QPSK	132322/1745	6#0	1.1319	1.368
		16QAM	132322/1745	6#0	0.9624	1.454

Mode	Bandwidth	Modulation	Channel/ Frequency(MHz)	RB	Bandwidth(MHz)	
					99% Power	-26dBc
LTE Band85	10MHz	QPSK	20175/1732.5	6#0	1.1178	1.329
		16QAM	20175/1732.5	6#0	0.9582	1.155



LTE Band 4 10MHz QPSK CH-Middle



LTE Band 4 10MHz 16QAM CH-Middle



LTE Band 12 10MHz QPSK CH-Middle



LTE Band 12 10MHz 16QAM CH-Middle



LTE Band 13 5MHz QPSK CH-Middle



LTE Band 13 5MHz 16QAM CH-Middle





LTE Band 66 15MHz QPSK CH-Middle



LTE Band 66 15MHz 16QAM CH-Middle



LTE Band 85 10MHz QPSK CH-Middle

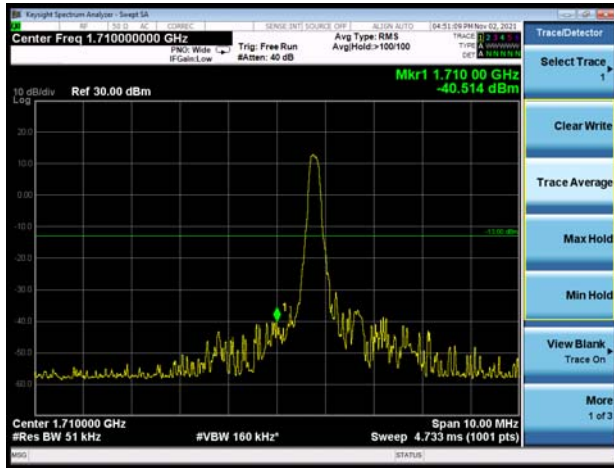


LTE Band 85 10MHz 16QAM CH-Middle

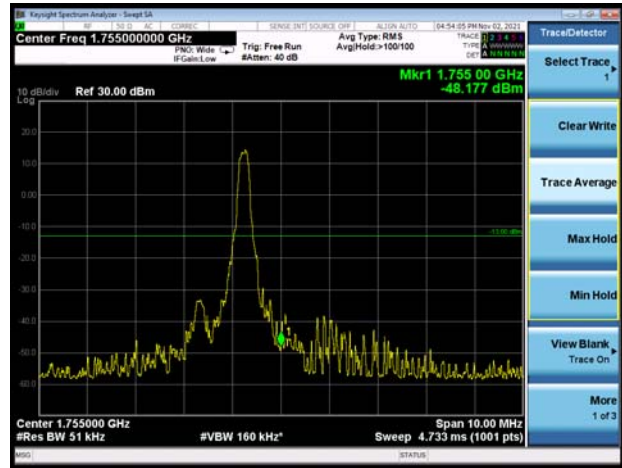


Band Edge Compliance

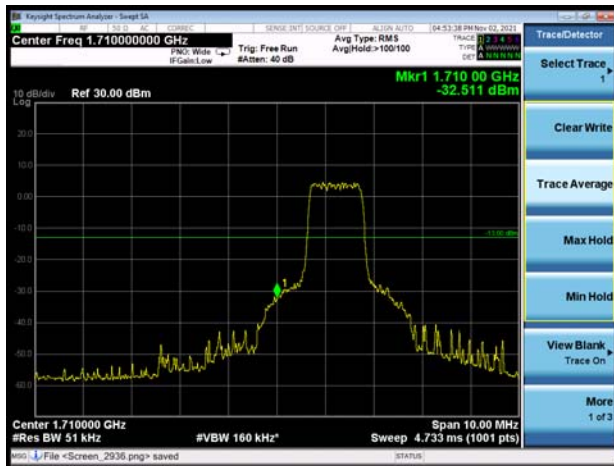
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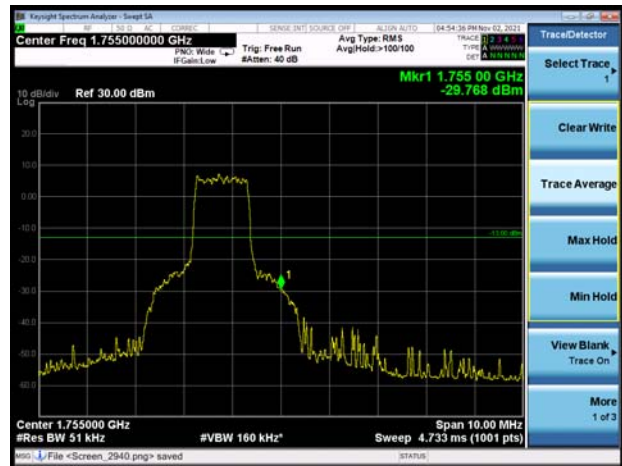
LTE Band 4 10MHz QPSK 1RB CH-High



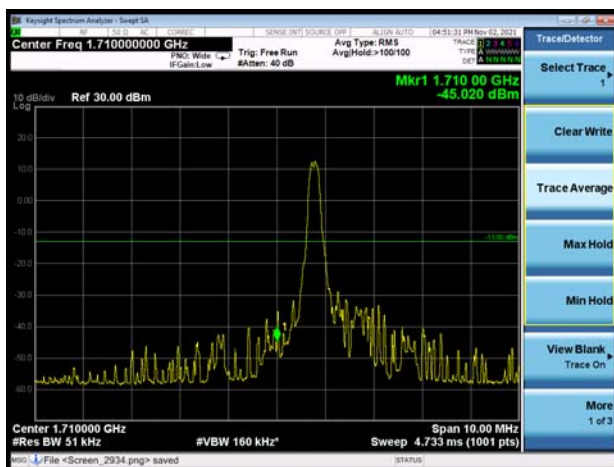
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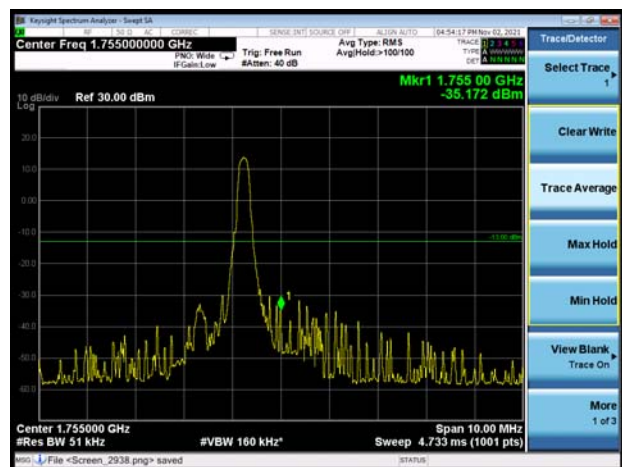
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LTE Band 4 10MHz 16QAM 1RB CH-Low

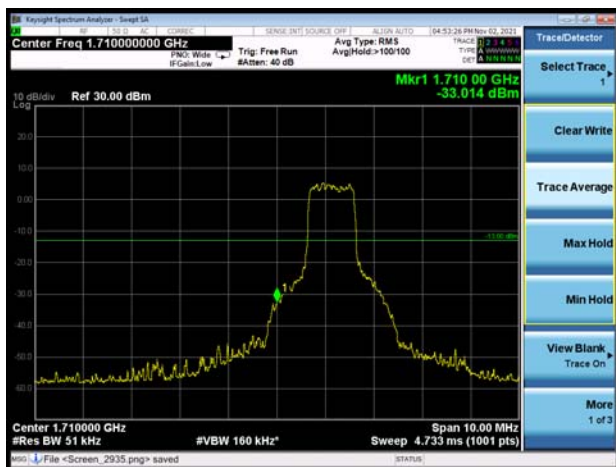


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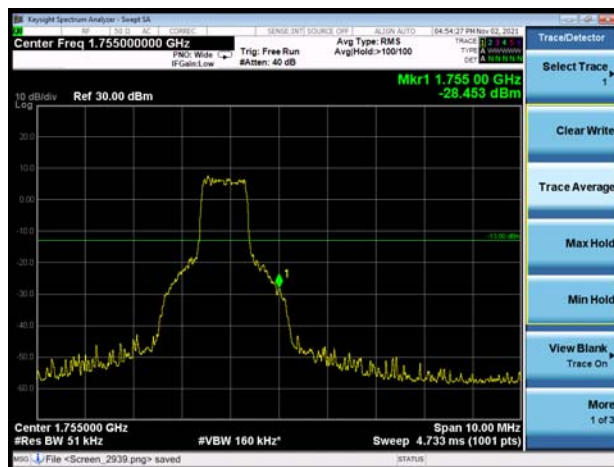




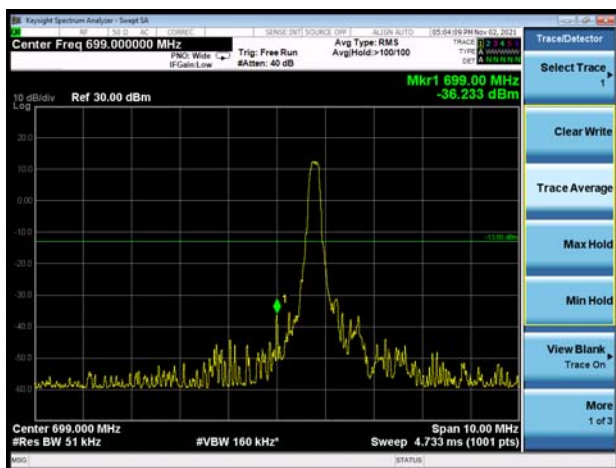
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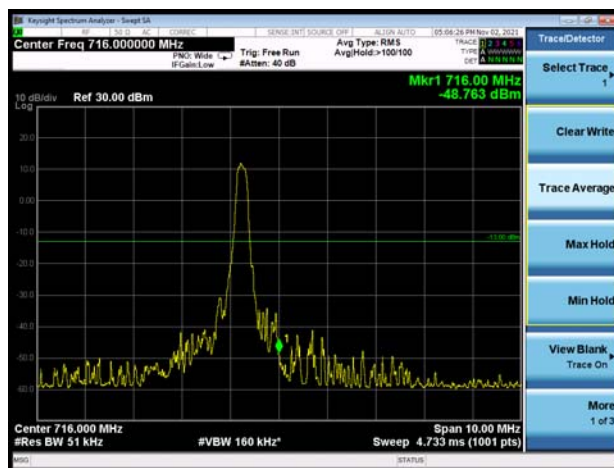
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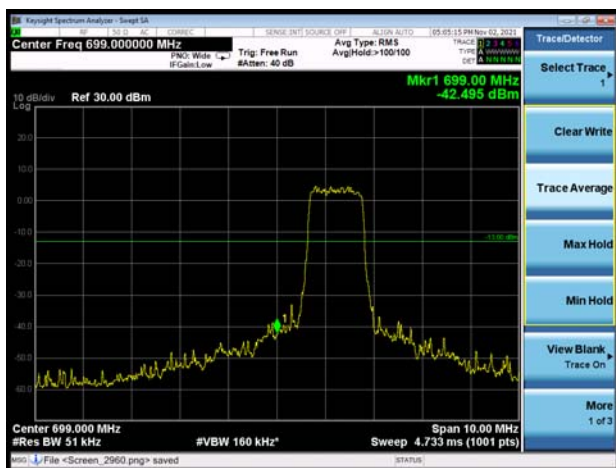
LTE Band 12 10MHz QPSK 1RB CH-Low



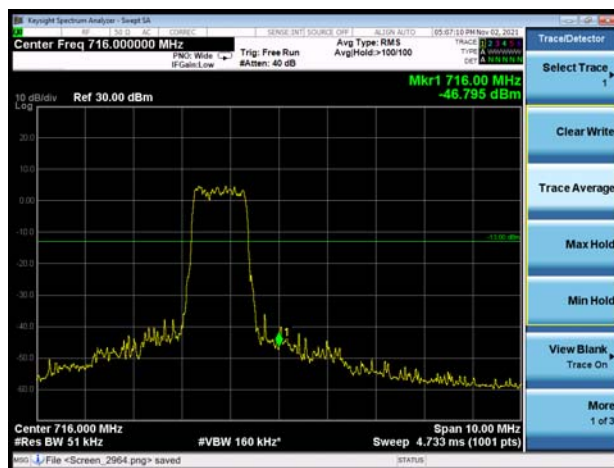
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LTE Band 12 10MHz QPSK 100%RB CH-Low

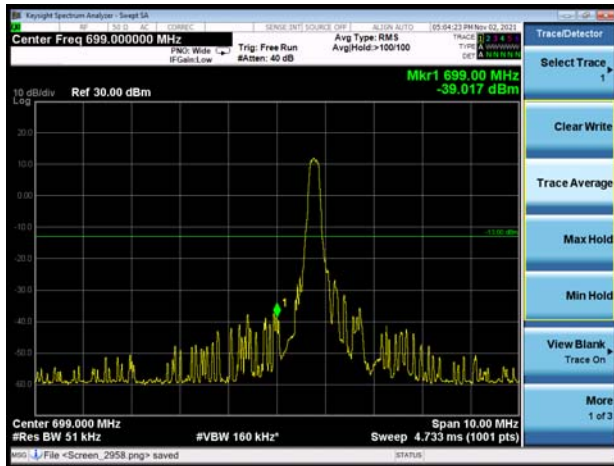


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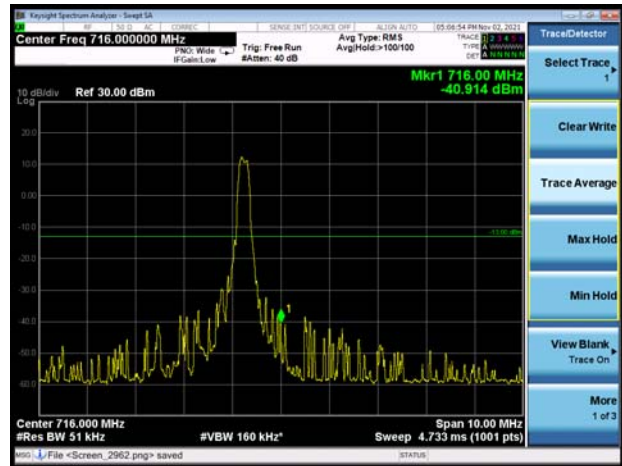




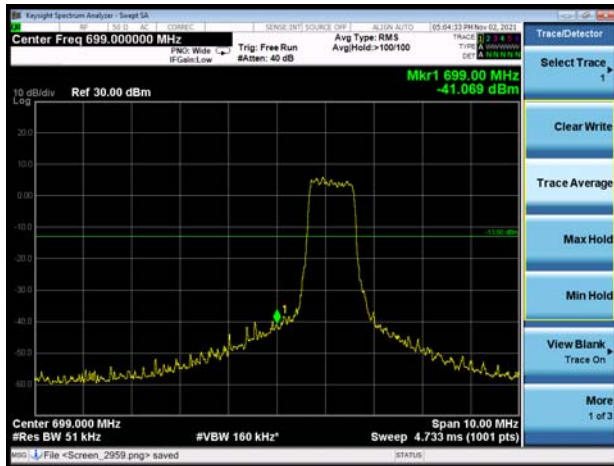
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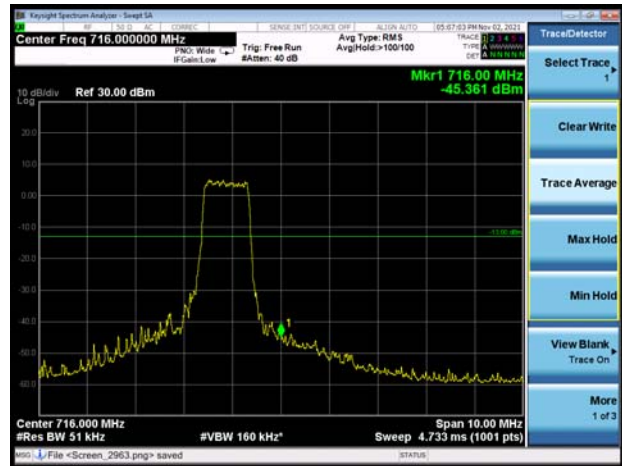
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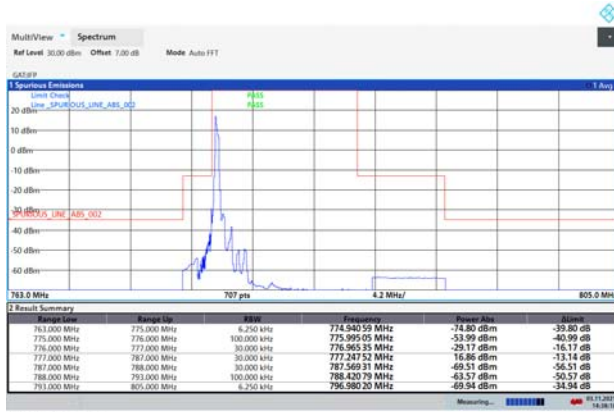
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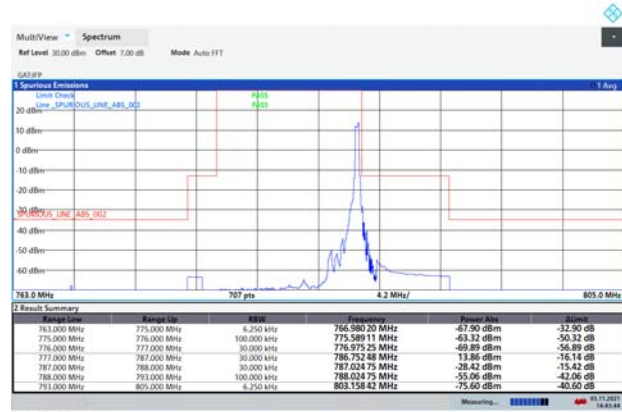
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LTE Band 13 5MHz QPSK 1RB CH-Low



LTE Band 13 5MHz QPSK 1RB CH-High





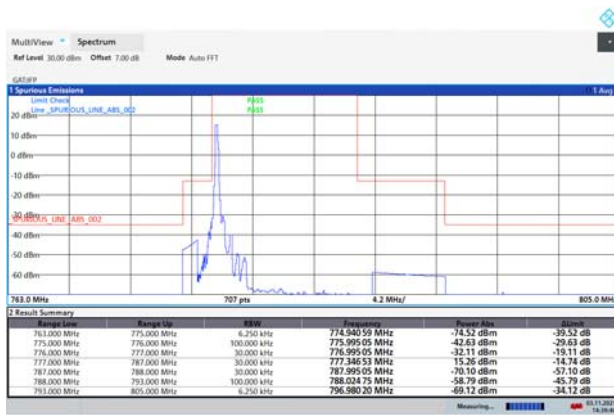
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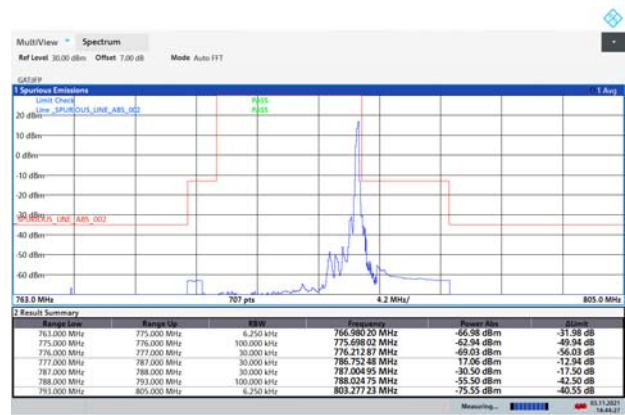
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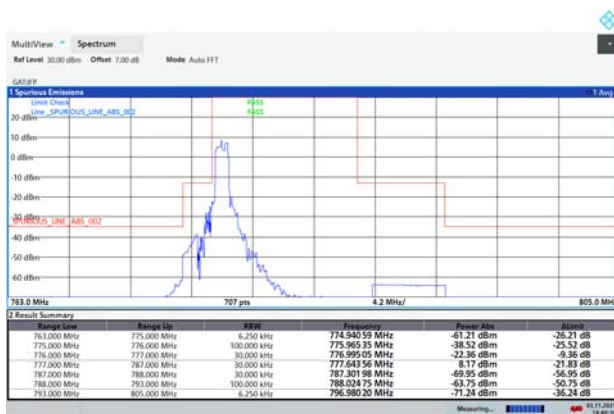
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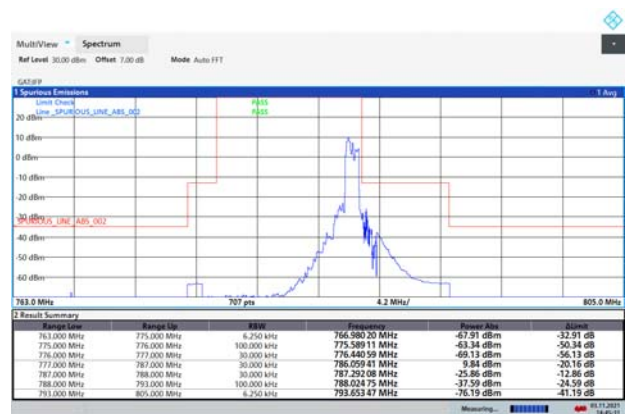
LTE Band 13 5MHz 16QAM 1RB CH-High



LTE Band 13 5MHz 16QAM 100%RB CH-Low

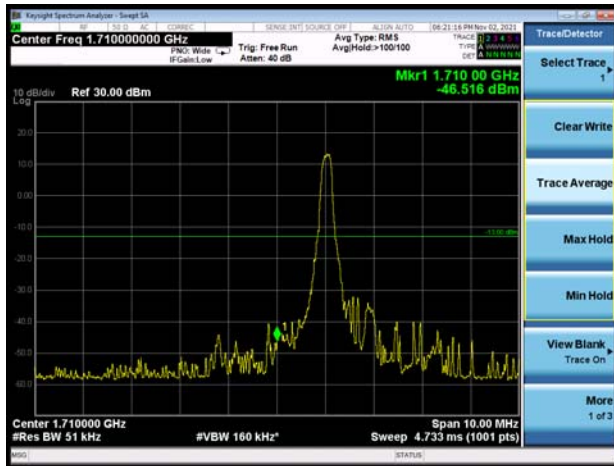


LTE Band 13 5MHz 16QAM 100%RB CH-High

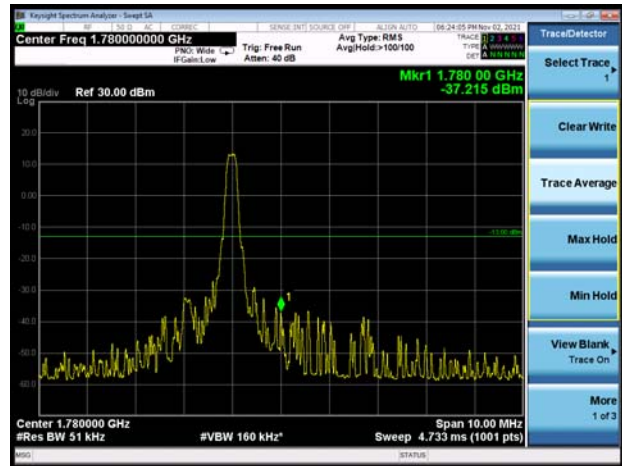




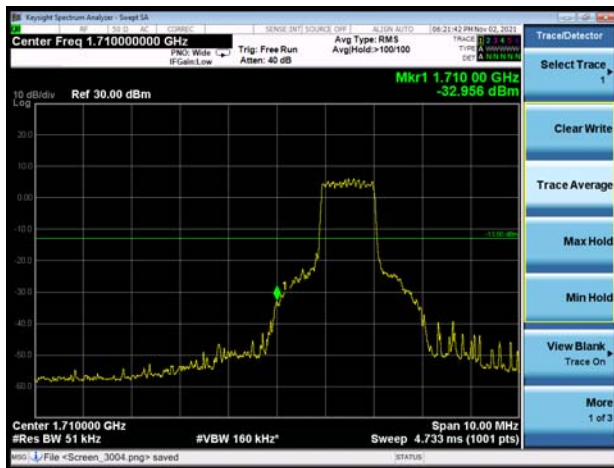
LTE Band 66 15MHz QPSK 1RB CH-Low



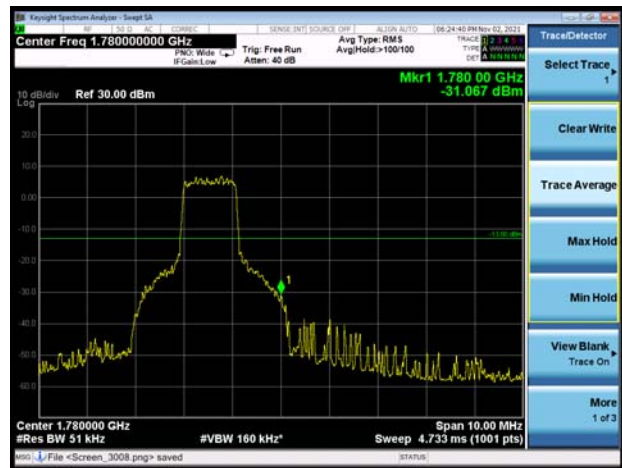
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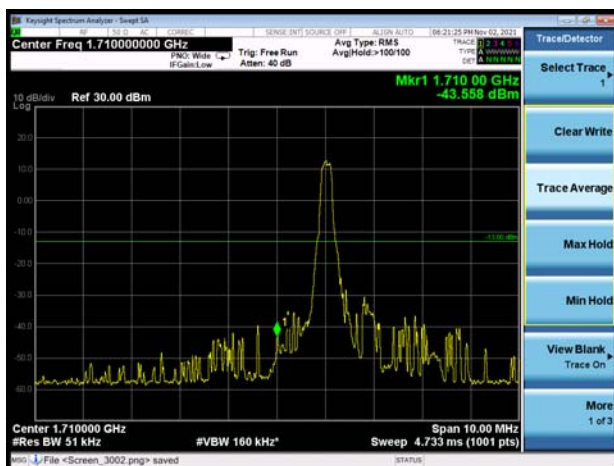
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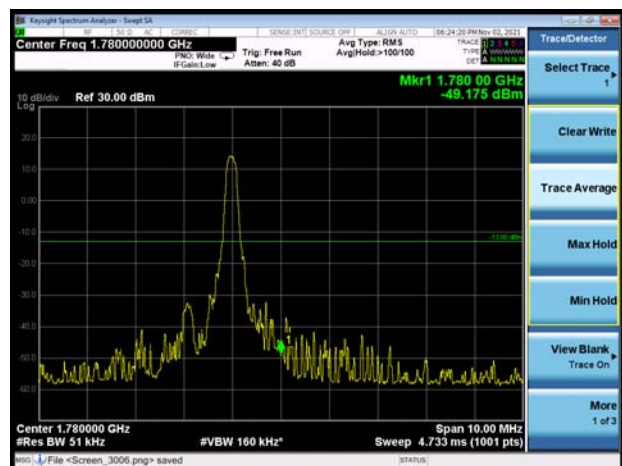
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LTE Band66 15MHz 16QAM 1RB CH-Low

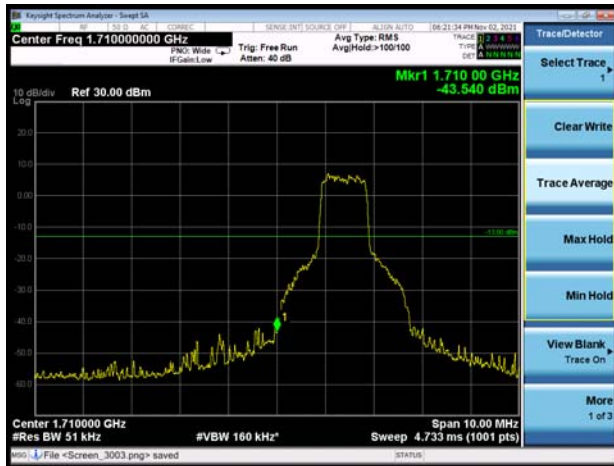


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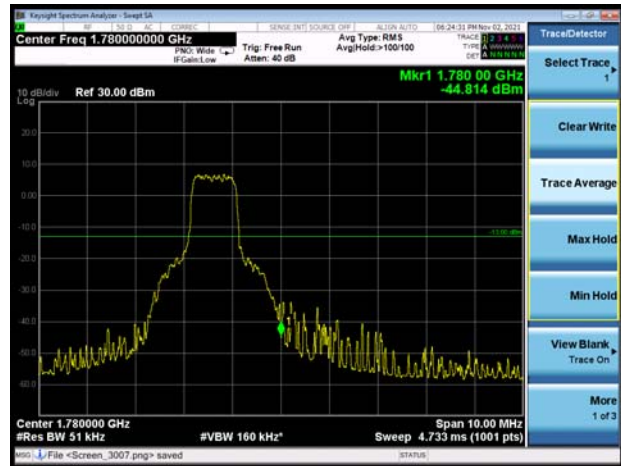




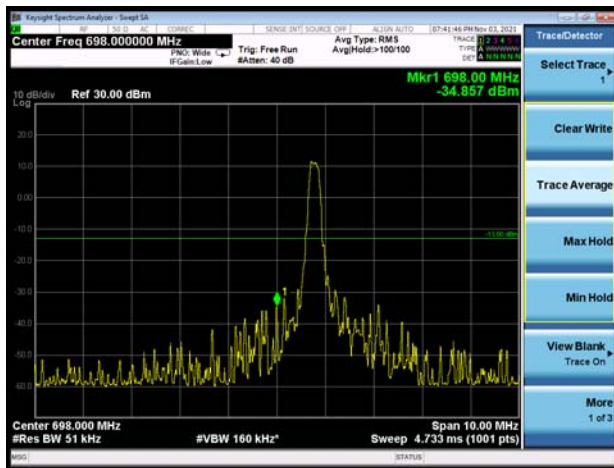
LTE Band 66 15MHz 16QAM 100%RB CH-Low



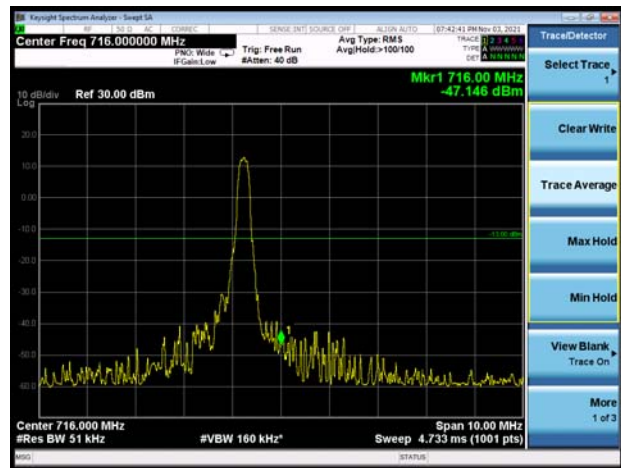
LTE Band 66 15MHz 16QAM 100%RB CH-High



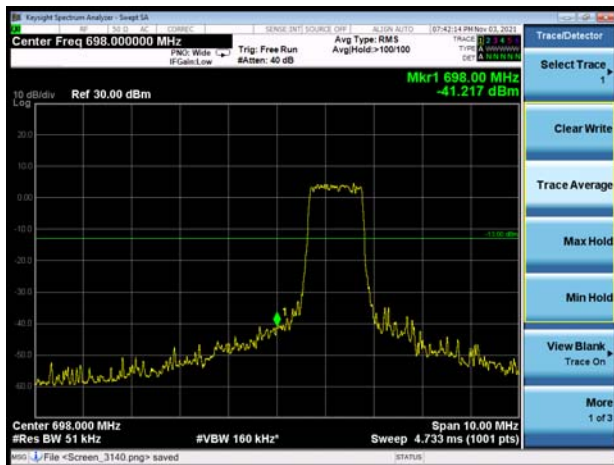
LTE Band 85 10MHz QPSK 1RB CH-Low



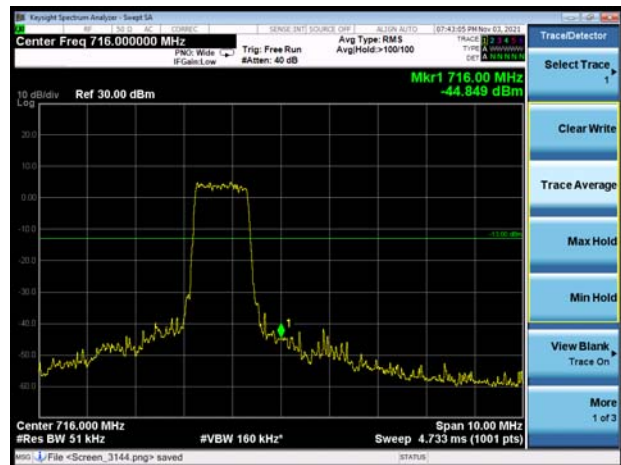
LTE Band 85 10MHz QPSK 1RB CH-High



LTE Band 85 10MHz QPSK 100%RB CH-Low

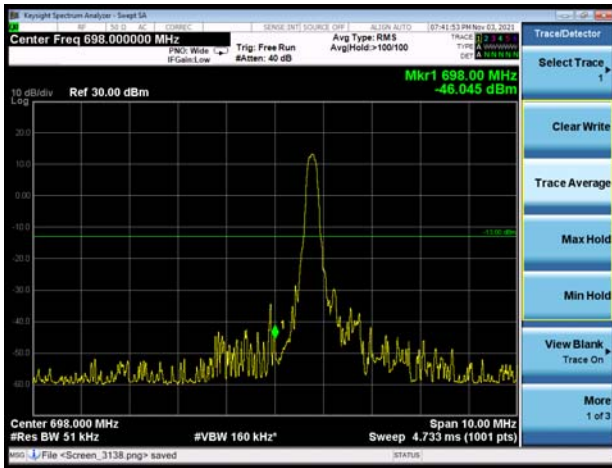


LTE Band 85 10MHz QPSK 100%RB CH-High

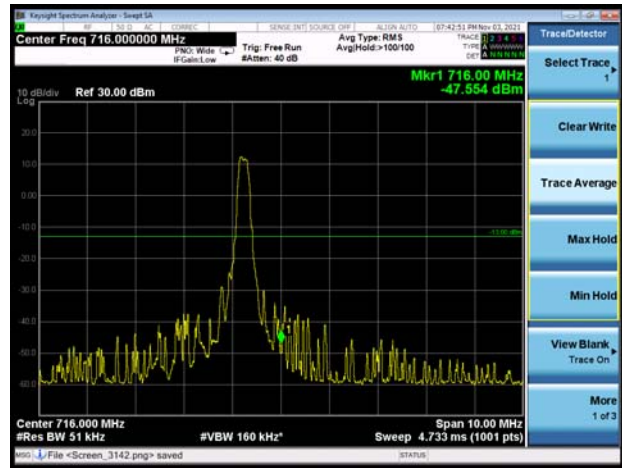




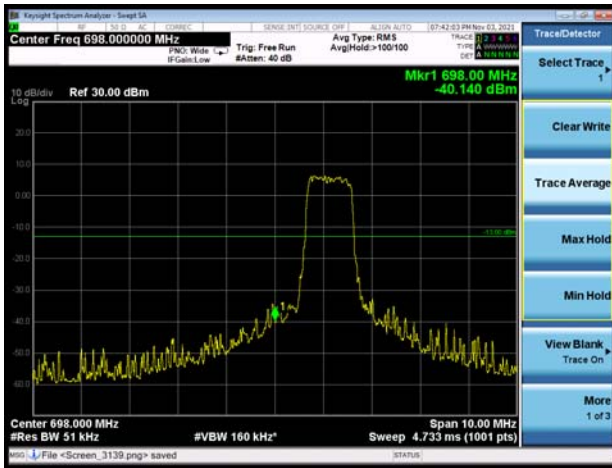
LTE Band 85 10MHz 16QAM 1RB CH-Low



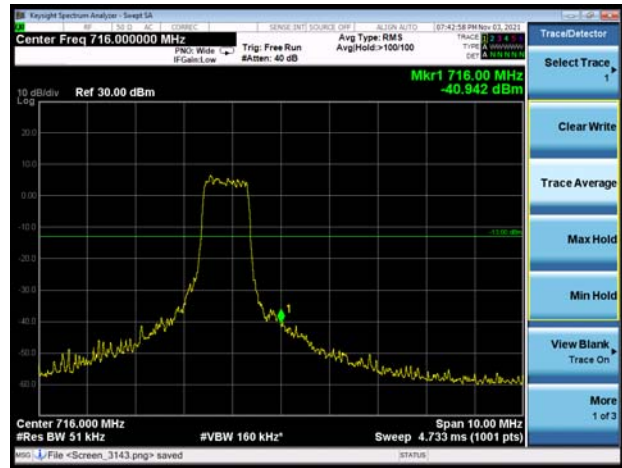
LTE Band 85 10MHz 16QAM 1RB CH-High



LTE Band 85 10MHz 16QAM 100%RB CH-Low



LTE Band 85 10MHz 16QAM 100%RB CH-High



Peak-to-Average Power Ratio (PAPR)

Mode	Bandwidth	Modulation	Channel/ Frequency(MHz)	Peak-to-Average Power Ratio (PAPR)			Limit(dB)	Conclusion
				Peak(dBm)	Avg(dBm)	PAPR(dB)		
LTE Band 4	1.4MHz	QPSK	20175/1732.5	25.60	16.46	9.14	≤13	PASS
		16QAM	20175/1732.5	26.20	16.63	9.57	≤13	PASS
	3MHz	QPSK	20175/1732.5	25.60	16.06	9.54	≤13	PASS
		16QAM	20175/1732.5	26.46	16.72	9.74	≤13	PASS
	5MHz	QPSK	20175/1732.5	26.40	17.28	9.12	≤13	PASS
		16QAM	20175/1732.5	26.30	16.71	9.59	≤13	PASS
	10MHz	QPSK	20175/1732.5	26.29	17.10	9.19	≤13	PASS
		16QAM	20175/1732.5	26.94	17.37	9.57	≤13	PASS
	15MHz	QPSK	20175/1732.5	26.92	18.01	8.91	≤13	PASS
		16QAM	20175/1732.5	27.38	17.72	9.66	≤13	PASS
	20MHz	QPSK	20175/1732.5	26.81	17.95	8.86	≤13	PASS
		16QAM	20175/1732.5	27.32	17.70	9.62	≤13	PASS

Mode	Bandwidth	Modulation	Channel/ Frequency(MHz)	Peak-to-Average Power Ratio (PAPR)			Limit(dB)	Conclusion
				Peak(dBm)	Avg(dBm)	PAPR(dB)		
LTE Band 12	1.4MHz	QPSK	23095/707.5	24.90	14.37	10.53	≤13	PASS
		16QAM	23095/707.5	25.89	14.72	11.17	≤13	PASS
	3MHz	QPSK	23095/707.5	24.97	15.56	9.41	≤13	PASS
		16QAM	23095/707.5	25.92	15.41	10.51	≤13	PASS
	5MHz	QPSK	23095/707.5	26.02	16.15	9.87	≤13	PASS
		16QAM	23095/707.5	25.89	14.07	11.82	≤13	PASS
	10MHz	QPSK	23095/707.5	25.95	15.90	10.05	≤13	PASS
		16QAM	23095/707.5	26.88	16.66	10.22	≤13	PASS

Mode	Bandwidth	Modulation	Channel/ Frequency(MHz)	Peak-to-Average Power Ratio (PAPR)			Limit(dB)	Conclusion
				Peak(dBm)	Avg(dBm)	PAPR(dB)		
LTE Band 13	5MHz	QPSK	23230/782	25.81	16.29	9.52	≤13	PASS
		16QAM	23230/782	25.64	15.90	9.74	≤13	PASS
	10MHz	QPSK	23230/782	25.67	16.21	9.46	≤13	PASS
		16QAM	23230/782	26.30	16.18	10.12	≤13	PASS

Mode	Bandwidth	Modulation	Channel/ Frequency(MHz)	Peak-to-Average Power Ratio (PAPR)			Limit(dB)	Conclusion
				Peak(dBm)	Avg(dBm)	PAPR(dB)		
LTE Band 66	1.4MHz	QPSK	132322/1745	26.02	16.72	9.30	≤13	PASS
		16QAM	132322/1745	26.61	17.53	9.08	≤13	PASS
	3MHz	QPSK	132322/1745	25.94	16.38	9.56	≤13	PASS
		16QAM	132322/1745	26.66	16.58	10.08	≤13	PASS
	5MHz	QPSK	132322/1745	26.69	17.69	9.00	≤13	PASS
		16QAM	132322/1745	26.68	17.29	9.39	≤13	PASS
	10MHz	QPSK	132322/1745	26.65	17.47	9.18	≤13	PASS
		16QAM	132322/1745	27.25	17.90	9.35	≤13	PASS
	15MHz	QPSK	132322/1745	27.31	18.63	8.68	≤13	PASS
		16QAM	132322/1745	27.88	18.87	9.01	≤13	PASS
	20MHz	QPSK	132322/1745	27.28	18.72	8.56	≤13	PASS
		16QAM	132322/1745	27.85	19.00	8.85	≤13	PASS

Mode	Bandwidth	Modulation	Channel/ Frequency(MHz)	Peak-to-Average Power Ratio (PAPR)			Limit(dB)	Conclusion
				Peak(dBm)	Avg(dBm)	PAPR(dB)		
LTE Band 85	5MHz	QPSK	20175/1732.5	26.39	16.45	9.94	≤13	PASS
		16QAM	20175/1732.5	27.24	16.57	10.67	≤13	PASS
	10MHz	QPSK	20175/1732.5	26.36	16.50	9.86	≤13	PASS
		16QAM	20175/1732.5	27.75	15.86	11.89	≤13	PASS

Frequency Stability

LTE Band 4						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	9.39	16.14	0.00542	0.00932	PASS
Extreme (85℃)		7.40	9.30	0.00427	0.00537	PASS
Extreme (80℃)		4.29	7.48	0.00247	0.00432	PASS
Extreme (70℃)		4.98	14.97	0.00288	0.00864	PASS
Extreme (60℃)		2.30	13.82	0.00133	0.00798	PASS
Extreme (50℃)		8.88	2.39	0.00513	0.00138	PASS
Extreme (40℃)		3.64	14.43	0.00210	0.00833	PASS
Extreme (30℃)		14.16	13.92	0.00818	0.00804	PASS
Extreme (20℃)		3.67	4.75	0.00212	0.00274	PASS
Extreme (10℃)		16.00	17.93	0.00924	0.01035	PASS
Extreme (0℃)		10.96	15.29	0.00633	0.00882	PASS
Extreme (-10℃)		5.54	3.98	0.00320	0.00230	PASS
Extreme (-20℃)		10.70	3.79	0.00617	0.00219	PASS
Extreme (-30℃)		5.66	11.04	0.00326	0.00637	PASS
Extreme (-40℃)		4.86	14.50	0.00281	0.00837	PASS
25℃	LV	1.97	9.41	0.00114	0.00543	PASS
	HV	9.15	10.45	0.00528	0.00603	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	16.35	10.89	0.00944	0.00628	PASS
Extreme (85℃)		10.45	11.52	0.00603	0.00665	PASS
Extreme (80℃)		3.95	5.98	0.00228	0.00345	PASS
Extreme (70℃)		16.60	9.59	0.00958	0.00554	PASS
Extreme (60℃)		11.53	16.83	0.00666	0.00971	PASS
Extreme (50℃)		4.22	4.91	0.00244	0.00283	PASS
Extreme (40℃)		11.85	2.85	0.00684	0.00165	PASS
Extreme (30℃)		17.08	6.64	0.00986	0.00383	PASS
Extreme (20℃)		4.04	13.76	0.00233	0.00794	PASS
Extreme (10℃)		9.68	16.08	0.00559	0.00928	PASS
Extreme (0℃)		12.06	17.18	0.00696	0.00992	PASS
Extreme (-10℃)		9.78	12.49	0.00564	0.00721	PASS
Extreme (-20℃)		11.49	12.20	0.00663	0.00704	PASS



Extreme (-30℃)		11.76	3.67	0.00679	0.00212	PASS
Extreme (-40℃)		11.54	1.64	0.00666	0.00095	PASS
25℃	LV	11.19	2.42	0.00646	0.00139	PASS
	HV	2.71	5.21	0.00156	0.00301	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	17.41	13.71	0.01005	0.00791	PASS
Extreme (85℃)		8.25	6.77	0.00476	0.00391	PASS
Extreme (80℃)		3.38	11.76	0.00195	0.00679	PASS
Extreme (70℃)		14.02	5.26	0.00809	0.00303	PASS
Extreme (60℃)		14.48	17.60	0.00836	0.01016	PASS
Extreme (50℃)		16.40	3.36	0.00947	0.00194	PASS
Extreme (40℃)		3.04	9.79	0.00176	0.00565	PASS
Extreme (30℃)		12.04	1.43	0.00695	0.00083	PASS
Extreme (20℃)		12.42	4.59	0.00717	0.00265	PASS
Extreme (10℃)		14.90	7.88	0.00860	0.00455	PASS
Extreme (0℃)		17.43	15.93	0.01006	0.00920	PASS
Extreme (-10℃)		10.36	8.00	0.00598	0.00462	PASS
Extreme (-20℃)		13.78	13.82	0.00795	0.00798	PASS
Extreme (-30℃)		7.39	4.73	0.00426	0.00273	PASS
Extreme (-40℃)		7.42	8.86	0.00428	0.00512	PASS
25℃	LV	12.06	12.64	0.00696	0.00730	PASS
	HV	3.50	4.12	0.00202	0.00238	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	9.75	7.06	0.00563	0.00407	PASS
Extreme (85℃)		17.69	5.02	0.01021	0.00290	PASS
Extreme (80℃)		5.74	15.36	0.00331	0.00886	PASS
Extreme (70℃)		1.44	1.29	0.00083	0.00074	PASS
Extreme (60℃)		4.37	6.65	0.00252	0.00384	PASS
Extreme (50℃)		14.98	12.18	0.00864	0.00703	PASS
Extreme (40℃)		16.42	6.39	0.00948	0.00369	PASS
Extreme (30℃)		12.22	7.12	0.00706	0.00411	PASS
Extreme (20℃)		13.24	7.10	0.00764	0.00410	PASS
Extreme (10℃)		12.14	10.11	0.00701	0.00583	PASS
Extreme (0℃)		2.77	3.36	0.00160	0.00194	PASS
Extreme (-10℃)		13.46	9.32	0.00777	0.00538	PASS



Extreme (-20℃)		2.01	8.78	0.00116	0.00507	PASS
Extreme (-30℃)		1.10	6.14	0.00063	0.00354	PASS
Extreme (-40℃)		14.69	10.81	0.00848	0.00624	PASS
25℃	LV	9.22	10.10	0.00532	0.00583	PASS
	HV	4.76	8.05	0.00275	0.00464	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	15.97	5.18	0.00922	0.00299	PASS
Extreme (85℃)		10.70	12.23	0.00617	0.00706	PASS
Extreme (80℃)		4.20	14.29	0.00242	0.00825	PASS
Extreme (70℃)		3.83	17.04	0.00221	0.00984	PASS
Extreme (60℃)		9.75	5.94	0.00563	0.00343	PASS
Extreme (50℃)		17.26	12.08	0.00996	0.00698	PASS
Extreme (40℃)		5.40	11.05	0.00311	0.00638	PASS
Extreme (30℃)		8.89	10.71	0.00513	0.00618	PASS
Extreme (20℃)		2.07	12.58	0.00119	0.00726	PASS
Extreme (10℃)		6.20	3.33	0.00358	0.00192	PASS
Extreme (0℃)		9.72	7.79	0.00561	0.00449	PASS
Extreme (-10℃)		2.17	6.97	0.00125	0.00402	PASS
Extreme (-20℃)		13.12	16.46	0.00757	0.00950	PASS
Extreme (-30℃)		2.66	14.78	0.00154	0.00853	PASS
Extreme (-40℃)		2.35	6.75	0.00136	0.00389	PASS
25℃	LV	11.04	2.16	0.00637	0.00124	PASS
	HV	4.41	9.78	0.00254	0.00564	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	17.17	8.82	0.00991	0.00509	PASS
Extreme (85℃)		10.90	14.08	0.00629	0.00813	PASS
Extreme (80℃)		7.26	17.21	0.00419	0.00993	PASS
Extreme (70℃)		13.51	9.80	0.00780	0.00566	PASS
Extreme (60℃)		10.54	1.29	0.00608	0.00074	PASS
Extreme (50℃)		4.40	17.74	0.00254	0.01024	PASS
Extreme (40℃)		3.87	5.01	0.00224	0.00289	PASS
Extreme (30℃)		2.03	6.86	0.00117	0.00396	PASS
Extreme (20℃)		2.46	8.58	0.00142	0.00495	PASS
Extreme (10℃)		1.88	3.58	0.00109	0.00207	PASS
Extreme (0℃)		12.15	12.78	0.00701	0.00737	PASS



Extreme (-10℃)		1.86	12.92	0.00107	0.00746	PASS
Extreme (-20℃)		15.46	4.22	0.00892	0.00243	PASS
Extreme (-30℃)		14.59	13.12	0.00842	0.00757	PASS
Extreme (-40℃)		4.72	16.09	0.00273	0.00928	PASS
25℃	LV	15.50	16.97	0.00895	0.00980	PASS
	HV	12.05	14.40	0.00696	0.00831	PASS

LTE Band 12						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	15.74	15.40	0.02225	0.02177	
Extreme (85℃)		2.34	16.07	0.00331	0.02272	PASS
Extreme (80℃)		17.51	17.45	0.02475	0.02467	PASS
Extreme (70℃)		9.28	15.28	0.01312	0.02160	PASS
Extreme (60℃)		9.71	15.86	0.01372	0.02241	PASS
Extreme (50℃)		15.26	3.27	0.02157	0.00461	PASS
Extreme (40℃)		9.35	1.64	0.01321	0.00232	PASS
Extreme (30℃)		17.00	2.80	0.02403	0.00396	PASS
Extreme (20℃)		2.70	6.14	0.00381	0.00868	PASS
Extreme (10℃)		8.30	11.04	0.01173	0.01560	PASS
Extreme (0℃)		7.66	7.07	0.01083	0.00999	PASS
Extreme (-10℃)		11.64	4.13	0.01645	0.00584	PASS
Extreme (-20℃)		8.98	13.46	0.01269	0.01903	PASS
Extreme (-30℃)		15.78	5.06	0.02231	0.00715	PASS
Extreme (-40℃)		1.59	6.13	0.00225	0.00867	PASS
25℃	LV	1.69	8.13	0.00239	0.01149	PASS
	HV	2.16	14.27	0.00305	0.02016	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	15.30	11.40	0.02162	0.01612	
Extreme (85℃)		12.67	5.16	0.01790	0.00730	PASS
Extreme (80℃)		16.41	17.67	0.02319	0.02497	PASS
Extreme (70℃)		6.03	11.08	0.00852	0.01565	PASS
Extreme (60℃)		7.42	2.71	0.01049	0.00383	PASS
Extreme (50℃)		7.34	11.56	0.01038	0.01634	PASS
Extreme (40℃)		12.75	3.08	0.01802	0.00435	PASS
Extreme (30℃)		17.83	11.62	0.02521	0.01643	PASS



Extreme (20℃)		12.69	7.37	0.01793	0.01042	PASS
Extreme (10℃)		9.48	6.31	0.01340	0.00892	PASS
Extreme (0℃)		6.32	13.40	0.00893	0.01894	PASS
Extreme (-10℃)		17.67	8.24	0.02498	0.01165	PASS
Extreme (-20℃)		9.31	9.21	0.01316	0.01302	PASS
Extreme (-30℃)		1.66	3.51	0.00234	0.00497	PASS
Extreme (-40℃)		14.09	10.35	0.01991	0.01463	PASS
25℃	LV	14.33	16.71	0.02025	0.02362	PASS
	HV	2.15	9.18	0.00303	0.01298	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	9.92	8.30	0.01402	0.01173	
Extreme (85℃)		10.70	3.60	0.01513	0.00508	PASS
Extreme (80℃)		5.45	17.95	0.00770	0.02537	PASS
Extreme (70℃)		17.36	15.11	0.02453	0.02136	PASS
Extreme (60℃)		13.45	17.43	0.01900	0.02463	PASS
Extreme (50℃)		13.76	12.07	0.01945	0.01705	PASS
Extreme (40℃)		14.16	17.08	0.02001	0.02414	PASS
Extreme (30℃)		5.95	7.92	0.00841	0.01120	PASS
Extreme (20℃)		11.21	3.95	0.01584	0.00558	PASS
Extreme (10℃)		10.11	10.42	0.01428	0.01473	PASS
Extreme (0℃)		6.08	13.74	0.00859	0.01942	PASS
Extreme (-10℃)		4.41	1.90	0.00623	0.00269	PASS
Extreme (-20℃)		11.65	13.96	0.01647	0.01973	PASS
Extreme (-30℃)		4.02	13.80	0.00568	0.01951	PASS
Extreme (-40℃)		14.46	12.45	0.02043	0.01760	PASS
25℃	LV	3.57	3.90	0.00504	0.00552	PASS
	HV	5.07	2.25	0.00716	0.00319	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	14.71	15.41	0.02079	0.02179	
Extreme (85℃)		3.02	15.30	0.00427	0.02162	PASS
Extreme (80℃)		15.05	2.74	0.02127	0.00388	PASS
Extreme (70℃)		11.00	15.31	0.01555	0.02164	PASS
Extreme (60℃)		3.07	5.65	0.00434	0.00798	PASS
Extreme (50℃)		6.63	2.90	0.00938	0.00410	PASS
Extreme (40℃)		17.70	6.18	0.02502	0.00874	PASS



Extreme (30℃)		17.66	4.09	0.02497	0.00578	PASS
Extreme (20℃)		8.63	14.81	0.01220	0.02093	PASS
Extreme (10℃)		4.78	3.25	0.00675	0.00459	PASS
Extreme (0℃)		1.70	14.46	0.00240	0.02044	PASS
Extreme (-10℃)		6.38	10.44	0.00901	0.01476	PASS
Extreme (-20℃)		6.35	4.21	0.00897	0.00596	PASS
Extreme (-30℃)		5.53	3.13	0.00782	0.00443	PASS
Extreme (-40℃)		2.95	1.85	0.00417	0.00262	PASS
25℃	LV	7.90	8.44	0.01116	0.01192	PASS
	HV	9.25	13.36	0.01308	0.01889	PASS

LTE Band 13						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	4.94	9.79	0.00632	0.00521	PASS
Extreme (85℃)		11.44	4.82	0.01463	0.00256	PASS
Extreme (80℃)		9.74	14.45	0.01246	0.00769	PASS
Extreme (70℃)		14.56	1.99	0.01862	0.00106	PASS
Extreme (60℃)		8.59	13.25	0.01099	0.00705	PASS
Extreme (50℃)		16.18	11.45	0.02068	0.00609	PASS
Extreme (40℃)		3.30	15.86	0.00421	0.00844	PASS
Extreme (30℃)		6.30	11.16	0.00805	0.00594	PASS
Extreme (20℃)		3.78	1.60	0.00483	0.00085	PASS
Extreme (10℃)		5.37	15.21	0.00687	0.00809	PASS
Extreme (0℃)		5.02	2.34	0.00641	0.00125	PASS
Extreme (-10℃)		8.75	5.44	0.01119	0.00290	PASS
Extreme (-20℃)		3.86	11.66	0.00494	0.00620	PASS
Extreme (-30℃)		11.26	9.31	0.01439	0.00495	PASS
Extreme (-40℃)		9.85	11.90	0.01260	0.00633	PASS
25℃	LV	11.79	8.22	0.01508	0.00437	PASS
	HV	2.26	10.11	0.00289	0.00538	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	10.91	17.14	0.01395	0.00912	PASS
Extreme (85℃)		12.81	9.93	0.01638	0.00528	PASS
Extreme (80℃)		10.57	1.70	0.01351	0.00091	PASS



Extreme (70℃)		16.96	13.00	0.02169	0.00691	PASS
Extreme (60℃)		7.66	13.44	0.00980	0.00715	PASS
Extreme (50℃)		8.94	9.55	0.01143	0.00508	PASS
Extreme (40℃)		3.42	14.34	0.00437	0.00763	PASS
Extreme (30℃)		6.19	2.55	0.00792	0.00136	PASS
Extreme (20℃)		3.65	14.11	0.00466	0.00751	PASS
Extreme (10℃)		11.45	16.58	0.01464	0.00882	PASS
Extreme (0℃)		16.19	14.14	0.02070	0.00752	PASS
Extreme (-10℃)		16.87	7.60	0.02157	0.00404	PASS
Extreme (-20℃)		5.97	10.60	0.00763	0.00564	PASS
Extreme (-30℃)		1.50	11.40	0.00192	0.00607	PASS
Extreme (-40℃)		10.44	15.09	0.01335	0.00803	PASS
25℃	LV	10.12	9.95	0.01294	0.00529	PASS
	HV	14.56	4.31	0.01862	0.00229	PASS

LTE Band 66						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	1.19	8.98	0.00068	0.00515	PASS
Extreme (85℃)		6.10	15.73	0.00350	0.00902	PASS
Extreme (80℃)		7.76	8.10	0.00445	0.00464	PASS
Extreme (70℃)		2.53	2.55	0.00145	0.00146	PASS
Extreme (60℃)		8.36	11.89	0.00479	0.00682	PASS
Extreme (50℃)		17.02	10.90	0.00975	0.00625	PASS
Extreme (40℃)		9.80	7.09	0.00562	0.00406	PASS
Extreme (30℃)		12.53	6.09	0.00718	0.00349	PASS
Extreme (20℃)		12.28	12.37	0.00704	0.00709	PASS
Extreme (10℃)		9.12	4.37	0.00523	0.00251	PASS
Extreme (0℃)		10.66	3.53	0.00611	0.00202	PASS
Extreme (-10℃)		11.01	17.66	0.00631	0.01012	PASS
Extreme (-20℃)		13.09	4.04	0.00750	0.00232	PASS
Extreme (-30℃)		12.35	6.37	0.00708	0.00365	PASS
Extreme (-40℃)		12.34	4.99	0.00707	0.00286	PASS
25℃	LV	10.99	2.04	0.00630	0.00117	PASS
	HV	7.94	13.04	0.00455	0.00747	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	



Normal (25℃)	Normal	7.20	4.69	0.00413	0.00269	PASS
Extreme (85℃)		9.91	5.86	0.00568	0.00336	PASS
Extreme (80℃)		8.83	3.24	0.00506	0.00186	PASS
Extreme (70℃)		2.16	3.60	0.00124	0.00206	PASS
Extreme (60℃)		14.82	15.52	0.00849	0.00889	PASS
Extreme (50℃)		9.07	13.31	0.00520	0.00763	PASS
Extreme (40℃)		5.69	4.13	0.00326	0.00237	PASS
Extreme (30℃)		8.35	8.93	0.00479	0.00512	PASS
Extreme (20℃)		1.03	11.32	0.00059	0.00649	PASS
Extreme (10℃)		9.16	1.27	0.00525	0.00073	PASS
Extreme (0℃)		11.88	8.61	0.00681	0.00493	PASS
Extreme (-10℃)		16.52	3.66	0.00947	0.00210	PASS
Extreme (-20℃)		15.28	3.28	0.00876	0.00188	PASS
Extreme (-30℃)		16.13	11.19	0.00924	0.00641	PASS
Extreme (-40℃)		11.70	14.39	0.00671	0.00825	PASS
25℃	LV	5.15	7.17	0.00295	0.00411	PASS
	HV	13.26	11.46	0.00760	0.00657	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz					
Temperature	Voltage					
Normal (25℃)	Normal	10.32	8.18	0.00591	0.00469	PASS
Extreme (85℃)		12.92	10.13	0.00741	0.00580	PASS
Extreme (80℃)		9.87	16.63	0.00566	0.00953	PASS
Extreme (70℃)		3.13	15.00	0.00179	0.00859	PASS
Extreme (60℃)		10.04	5.66	0.00575	0.00324	PASS
Extreme (50℃)		17.04	2.81	0.00977	0.00161	PASS
Extreme (40℃)		9.18	2.99	0.00526	0.00171	PASS
Extreme (30℃)		15.26	16.77	0.00875	0.00961	PASS
Extreme (20℃)		3.40	3.52	0.00195	0.00202	PASS
Extreme (10℃)		4.95	2.43	0.00284	0.00139	PASS
Extreme (0℃)		17.34	4.94	0.00994	0.00283	PASS
Extreme (-10℃)		4.87	6.43	0.00279	0.00368	PASS
Extreme (-20℃)		7.58	11.45	0.00434	0.00656	PASS
Extreme (-30℃)		4.35	8.42	0.00249	0.00482	PASS
Extreme (-40℃)		11.36	1.84	0.00651	0.00106	PASS
25℃	LV	14.20	13.24	0.00814	0.00759	PASS
	HV	3.73	3.15	0.00214	0.00180	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz					



Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	6.43	14.19	0.00369	0.00813	PASS
Extreme (85℃)		15.90	17.71	0.00911	0.01015	PASS
Extreme (80℃)		12.44	3.12	0.00713	0.00179	PASS
Extreme (70℃)		10.33	6.76	0.00592	0.00387	PASS
Extreme (60℃)		7.94	17.45	0.00455	0.01000	PASS
Extreme (50℃)		9.92	13.62	0.00568	0.00781	PASS
Extreme (40℃)		4.14	6.17	0.00237	0.00353	PASS
Extreme (30℃)		4.02	2.53	0.00230	0.00145	PASS
Extreme (20℃)		7.37	11.85	0.00422	0.00679	PASS
Extreme (10℃)		4.95	5.82	0.00283	0.00334	PASS
Extreme (0℃)		12.17	11.98	0.00697	0.00687	PASS
Extreme (-10℃)		11.23	6.90	0.00644	0.00396	PASS
Extreme (-20℃)		2.32	10.89	0.00133	0.00624	PASS
Extreme (-30℃)		1.72	2.61	0.00098	0.00150	PASS
Extreme (-40℃)		2.66	12.32	0.00152	0.00706	PASS
25℃	LV	7.77	7.60	0.00445	0.00435	PASS
	HV	1.67	12.94	0.00096	0.00741	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	10.39	17.53	0.00596	0.01004	PASS
Extreme (85℃)		12.17	4.98	0.00697	0.00285	PASS
Extreme (80℃)		6.58	2.68	0.00377	0.00154	PASS
Extreme (70℃)		6.97	15.37	0.00399	0.00881	PASS
Extreme (60℃)		17.04	10.52	0.00977	0.00603	PASS
Extreme (50℃)		3.39	1.41	0.00194	0.00081	PASS
Extreme (40℃)		2.47	15.52	0.00142	0.00890	PASS
Extreme (30℃)		14.78	3.85	0.00847	0.00221	PASS
Extreme (20℃)		7.04	15.01	0.00404	0.00860	PASS
Extreme (10℃)		17.84	6.80	0.01022	0.00390	PASS
Extreme (0℃)		5.83	2.64	0.00334	0.00151	PASS
Extreme (-10℃)		3.46	2.17	0.00199	0.00124	PASS
Extreme (-20℃)		6.70	3.57	0.00384	0.00205	PASS
Extreme (-30℃)		12.84	6.68	0.00736	0.00383	PASS
Extreme (-40℃)		13.19	17.56	0.00756	0.01006	PASS
25℃	LV	7.83	16.04	0.00449	0.00919	PASS
	HV	2.52	5.16	0.00144	0.00296	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability	Frequency Stability	Verdict



BANDWIDTH	20MHz			(ppm)	(ppm)	
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	5.04	12.12	0.00289	0.00695	PASS
Extreme (85℃)		10.61	4.65	0.00608	0.00266	PASS
Extreme (80℃)		4.60	9.60	0.00263	0.00550	PASS
Extreme (70℃)		11.28	7.02	0.00646	0.00402	PASS
Extreme (60℃)		6.77	5.99	0.00388	0.00343	PASS
Extreme (50℃)		17.55	5.17	0.01006	0.00297	PASS
Extreme (40℃)		1.24	2.69	0.00071	0.00154	PASS
Extreme (30℃)		1.07	7.91	0.00062	0.00453	PASS
Extreme (20℃)		4.65	8.23	0.00266	0.00472	PASS
Extreme (10℃)		7.36	4.89	0.00422	0.00280	PASS
Extreme (0℃)		8.93	17.67	0.00512	0.01012	PASS
Extreme (-10℃)		10.63	8.32	0.00609	0.00477	PASS
Extreme (-20℃)		7.57	5.43	0.00434	0.00311	PASS
Extreme (-30℃)		15.49	8.44	0.00888	0.00483	PASS
Extreme (-40℃)		1.76	16.34	0.00101	0.00936	PASS
25℃	LV	12.21	13.70	0.00700	0.00785	PASS
	HV	16.08	4.78	0.00922	0.00274	PASS

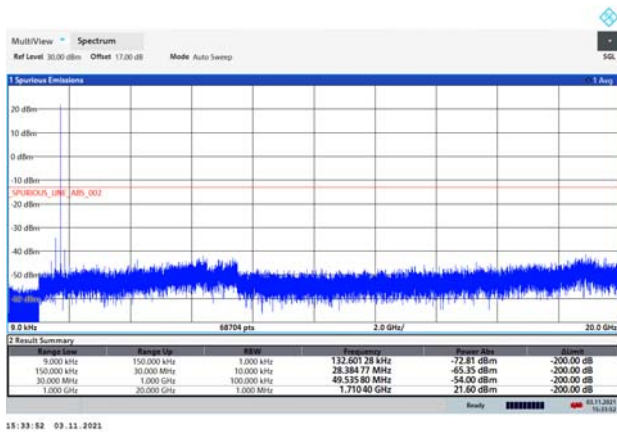
LTE Band 85						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	10.91	14.20	0.00625	0.00814	PASS
Extreme (85℃)		14.47	10.22	0.00829	0.00586	PASS
Extreme (80℃)		17.14	12.32	0.00982	0.00706	PASS
Extreme (70℃)		8.57	14.55	0.00491	0.00834	PASS
Extreme (60℃)		11.60	6.75	0.00665	0.00387	PASS
Extreme (50℃)		9.24	15.07	0.00530	0.00863	PASS
Extreme (40℃)		16.24	15.47	0.00931	0.00886	PASS
Extreme (30℃)		2.31	15.10	0.00132	0.00865	PASS
Extreme (20℃)		16.71	16.98	0.00958	0.00973	PASS
Extreme (10℃)		5.03	5.65	0.00288	0.00324	PASS
Extreme (0℃)		5.02	13.66	0.00288	0.00783	PASS
Extreme (-10℃)		5.16	7.97	0.00296	0.00457	PASS
Extreme (-20℃)		13.37	12.81	0.00766	0.00734	PASS
Extreme (-30℃)		14.36	10.19	0.00823	0.00584	PASS
Extreme (-40℃)		5.31	14.92	0.00304	0.00855	PASS
25℃	LV	14.70	4.30	0.00842	0.00247	PASS



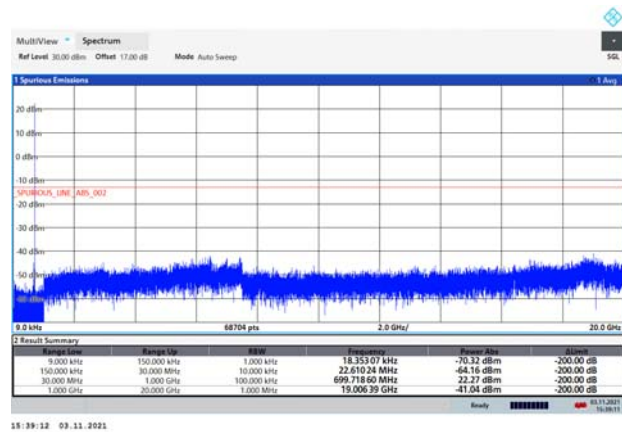
	HV	11.59	15.65	0.00664	0.00897	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz					
Temperature	Voltage	16QAM	QPSK	16QAM	QPSK	
Normal (25℃)	Normal	10.58	7.94	0.00606	0.00455	PASS
Extreme (85℃)		7.48	9.48	0.00429	0.00543	PASS
Extreme (80℃)		6.00	1.05	0.00344	0.00060	PASS
Extreme (70℃)		7.84	9.10	0.00449	0.00522	PASS
Extreme (60℃)		13.76	11.86	0.00789	0.00680	PASS
Extreme (50℃)		12.23	4.15	0.00701	0.00238	PASS
Extreme (40℃)		7.67	4.95	0.00439	0.00283	PASS
Extreme (30℃)		3.10	2.90	0.00177	0.00166	PASS
Extreme (20℃)		9.53	2.07	0.00546	0.00119	PASS
Extreme (10℃)		10.25	6.33	0.00588	0.00363	PASS
Extreme (0℃)		7.53	13.77	0.00431	0.00789	PASS
Extreme (-10℃)		15.30	11.61	0.00877	0.00665	PASS
Extreme (-20℃)		4.82	7.21	0.00276	0.00413	PASS
Extreme (-30℃)		17.60	15.80	0.01009	0.00906	PASS
Extreme (-40℃)		1.21	6.13	0.00069	0.00351	PASS
25℃	LV	12.68	12.43	0.00727	0.00712	PASS
	HV	2.06	12.36	0.00118	0.00708	PASS

Spurious Emissions at Antenna Terminals

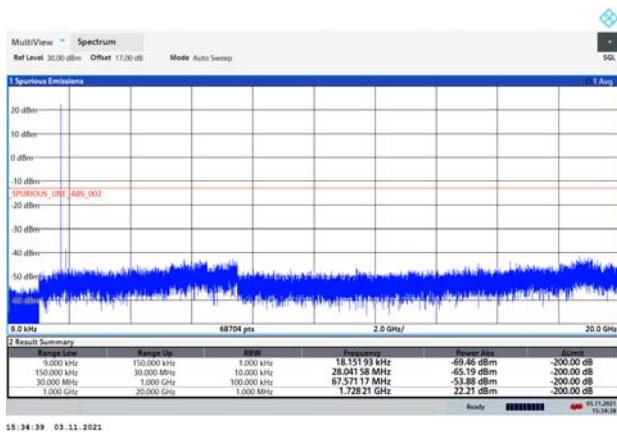
LTE Band 4 10MHz CH-Low 9kHz~20GHz



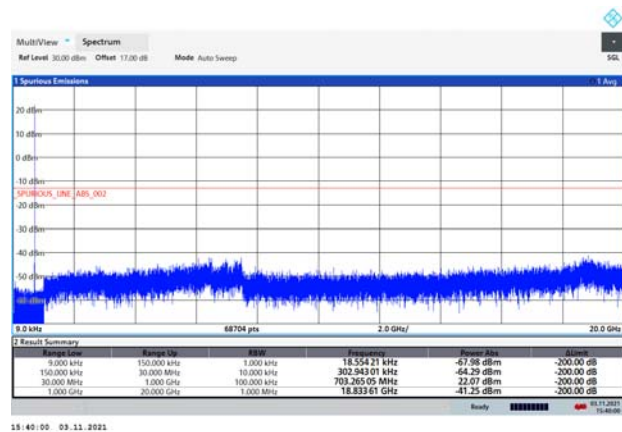
LTE Band 12 10MHz CH-Low 9kHz~20GHz



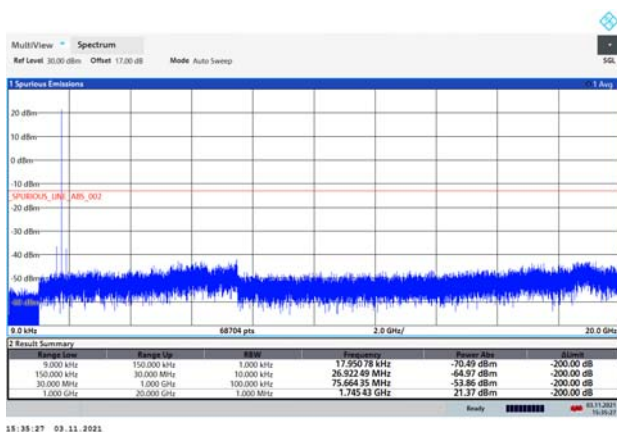
LTE Band 4 10MHz CH-Middle 9kHz~20GHz



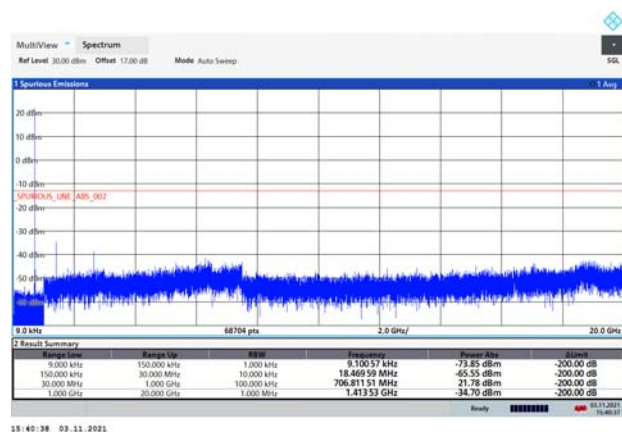
LTE Band 12 10MHz CH-Middle 9kHz~20GHz



LTE Band 4 10MHz CH-High 9kHz~20GHz

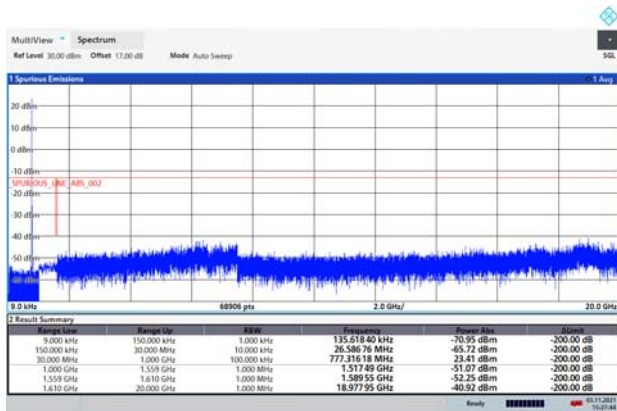


LTE Band 12 10MHz CH-High 9kHz~20GHz



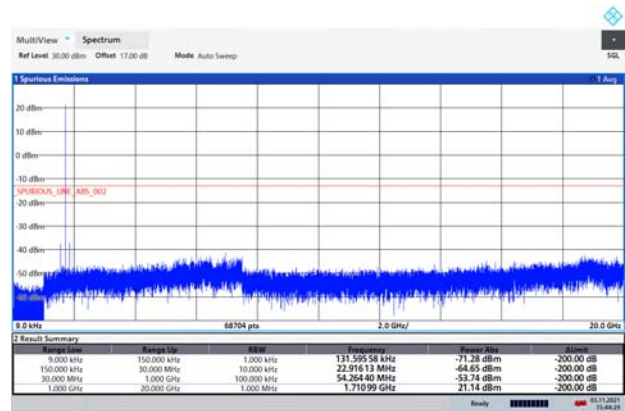


LTE Band 13 5MHz CH-Low 9kHz~20GHz



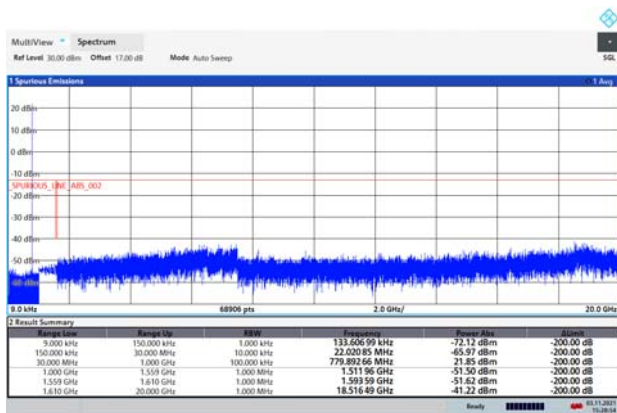
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LTE Band 66 15MHz CH-Low 9kHz~20GHz



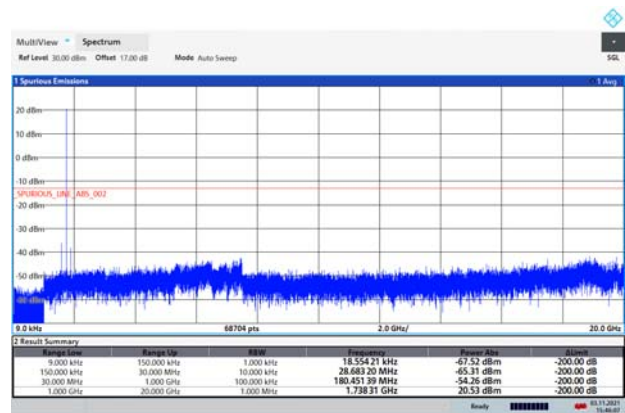
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LTE Band 13 5MHz CH-Middle 9kHz~20GHz



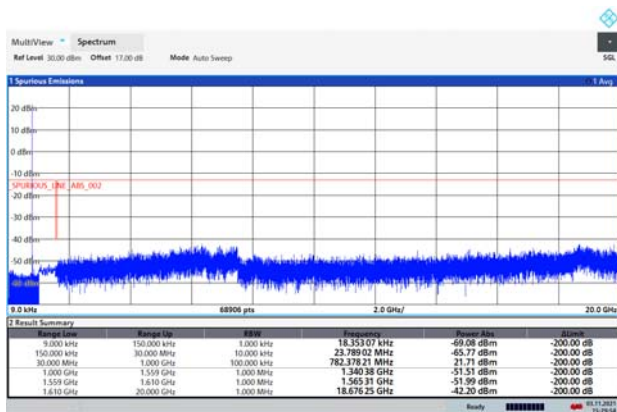
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LTE Band 66 15MHz CH-Middle 9kHz~20GHz



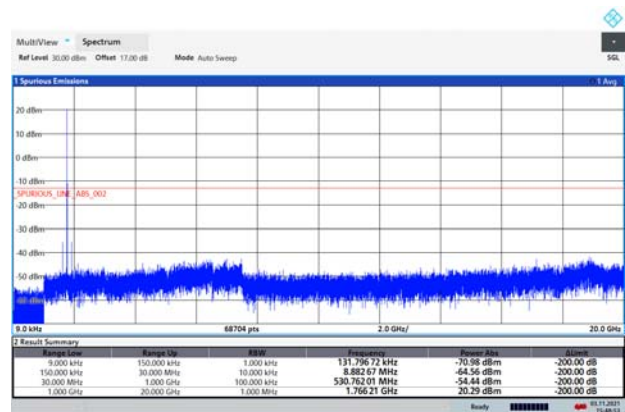
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LTE Band 13 5MHz CH-High 9kHz~20GHz



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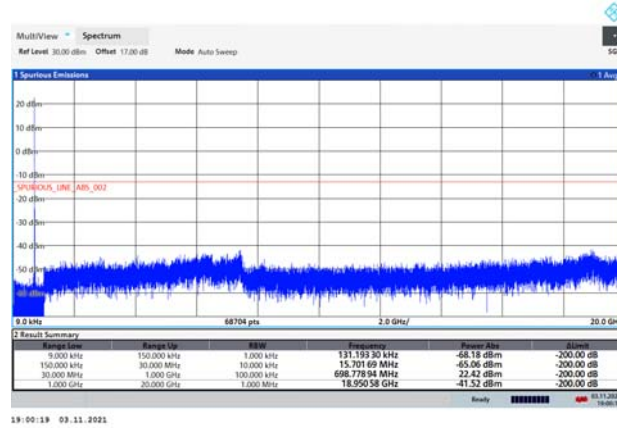
LTE Band 66 15MHz CH-High 9kHz~20GHz



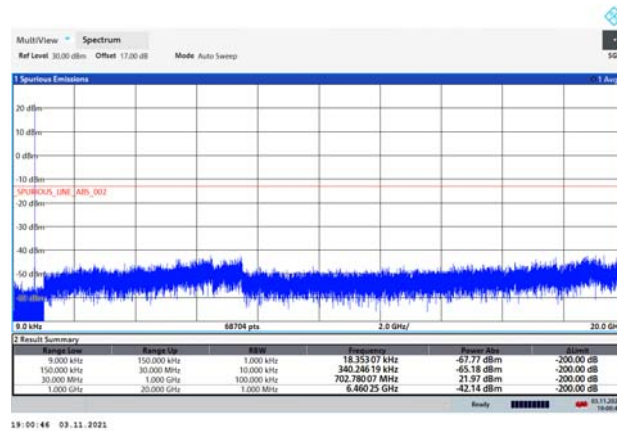
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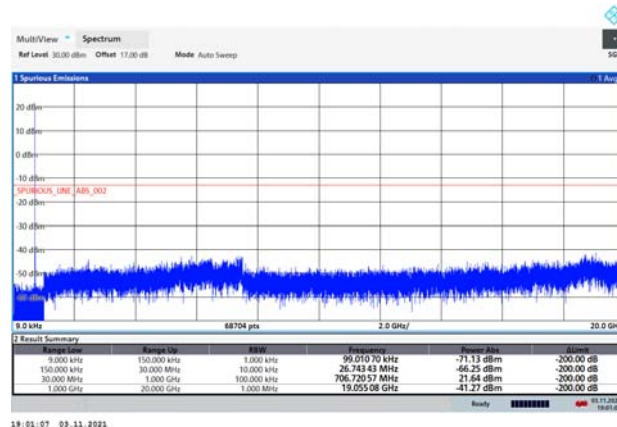
LTE Band 85 10MHz CH-Low 9kHz~20GHz



LTE Band 85 10MHz CH-Middle 9kHz~20GHz



LTE Band 85 10MHz CH-High 9kHz~20GHz



Radiates Spurious Emission

LTE Band 4 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3460.5	-54.63	2.6	10.75	Horizontal	-46.48	-13.0	33.48	270
3	5191.5	-58.55	2.4	11.05	Horizontal	-49.90	-13.0	36.90	225
4	6930.0	-55.93	4.5	11.15	Horizontal	-49.28	-13.0	36.28	135
5	8662.5	-53.92	5.1	11.35	Horizontal	-47.67	-13.0	34.67	90
6	10395.0	-53.56	5.3	11.95	Horizontal	-46.91	-13.0	33.91	0
7	12127.5	-55.07	5.5	13.55	Horizontal	-47.02	-13.0	34.02	180
8	13860.0	-49.49	6.3	13.75	Horizontal	-42.04	-13.0	29.04	90
9	15592.5	-53.04	6.7	13.85	Horizontal	-45.89	-13.0	32.89	135
10	17325.0	-49.64	6.8	14.25	Horizontal	-42.19	-13.0	29.19	135

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

LTE Band 12 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1410.6	-54.08	2.00	10.75	Horizontal	-47.48	-13.0	34.48	45
3	2115.9	-67.49	2.51	11.05	Horizontal	-61.10	-13.0	48.10	90
4	2821.2	-62.82	4.20	11.15	Horizontal	-58.02	-13.0	45.02	45
5	3512.5	-61.09	5.20	11.15	Horizontal	-57.29	-13.0	44.29	180
6	4215.0	-59.30	5.50	11.95	Horizontal	-55.00	-13.0	42.00	225
7	4917.5	-60.93	5.70	13.55	Horizontal	-55.23	-13.0	42.23	90
8	5620.0	-58.97	6.30	13.75	Horizontal	-53.67	-13.0	40.67	45
9	6322.5	-57.59	6.80	13.85	Horizontal	-52.69	-13.0	39.69	90
10	7025.0	-55.80	6.90	14.25	Horizontal	-50.60	-13.0	37.60	0

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

LTE Band 13 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1564.0	-55.59	2.51	11.05	Horizontal	-49.20	-40.0	9.20	0
3	2346.0	-54.83	2.51	11.05	Horizontal	-48.44	-13.0	35.44	45
4	3128.0	-56.58	4.20	11.15	Horizontal	-51.78	-13.0	38.78	315
5	3910.0	-58.62	5.20	11.15	Horizontal	-54.82	-13.0	41.82	225
6	4692.0	-58.37	5.50	11.95	Horizontal	-54.07	-13.0	41.07	315
7	5474.0	-59.47	5.70	13.55	Horizontal	-53.77	-13.0	40.77	180
8	6256.0	-59.96	6.30	13.75	Horizontal	-54.66	-13.0	41.66	90
9	7038.0	-54.19	6.80	13.85	Horizontal	-49.29	-13.0	36.29	0
10	7820.0	-54.65	6.90	14.25	Horizontal	-49.45	-13.0	36.45	0

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

LTE Band 66 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3472.9	-57.60	2.6	10.75	Horizontal	-49.45	-13.00	36.45	45
3	5209.0	-59.30	2.4	11.05	Horizontal	-50.65	-13.00	37.65	225
4	6945.8	-56.51	4.5	11.15	Horizontal	-49.86	-13.00	36.86	135
5	8682.0	-54.84	5.1	11.35	Horizontal	-48.59	-13.00	35.59	225
6	10418.6	-53.12	5.3	11.95	Horizontal	-46.47	-13.00	33.47	135
7	12455.0	-54.15	5.5	13.55	Horizontal	-46.10	-13.00	33.10	225
8	13891.5	-50.00	6.3	13.75	Horizontal	-42.55	-13.00	29.55	45
9	15627.0	-56.21	6.7	13.85	Horizontal	-49.06	-13.00	36.06	90
10	17364.4	-52.85	6.8	14.25	Horizontal	-45.40	-13.00	32.40	90

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



LTE Band 85 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1410.6	-51.88	2.00	10.75	Horizontal	-45.28	-13.00	32.28	180
3	2115.9	-64.86	2.51	11.05	Horizontal	-58.47	-13.00	45.47	180
4	2821.2	-62.84	4.20	11.15	Horizontal	-58.04	-13.00	45.04	0
5	3526.5	-60.00	5.20	11.15	Horizontal	-56.20	-13.00	43.20	0
6	4231.8	-61.53	5.50	11.95	Horizontal	-57.23	-13.00	44.23	0
7	4937.1	-61.78	5.70	13.55	Horizontal	-56.08	-13.00	43.08	45
8	5642.4	-60.34	6.30	13.75	Horizontal	-55.04	-13.00	42.04	225
9	6347.7	-59.37	6.80	13.85	Horizontal	-54.47	-13.00	41.47	135
10	7053.0	-55.87	6.90	14.25	Horizontal	-50.67	-13.00	37.67	90

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

Main Test Instruments

Date of Testing (variant): August 31, 2021 ~ November 5, 2021

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Base Station Simulator	R&S	CMW500	113824	2021-05-15	2022-05-14
Climate Chamber	Weiss	VT4002	582261194500 10	2021-05-15	2022-05-14
Spectrum Analyzer	Key sight	N9020	MY52330084	2021-05-15	2022-05-14
Signal Analyzer	R&S	FSV3030	101411	2020-12-13	2021-12-12
Signal Analyzer	R&S	FSV30	100815	2020-12-13	2021-12-12
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	01111	2019--9-12	2022-09-11
Horn Antenna	Schwarzbeck	BBHA 9120D	1594	2020-12-17	2021-12-16