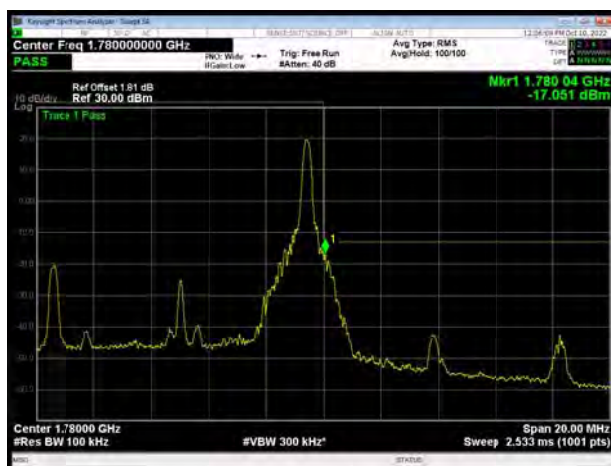


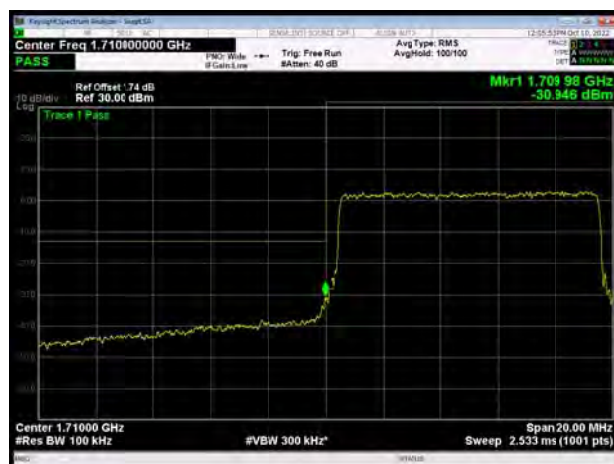
LTE Band 66 16QAM 10MHz CH-Low, 1 RB



LTE Band 66 16QAM 10MHz CH-High, 1 RB



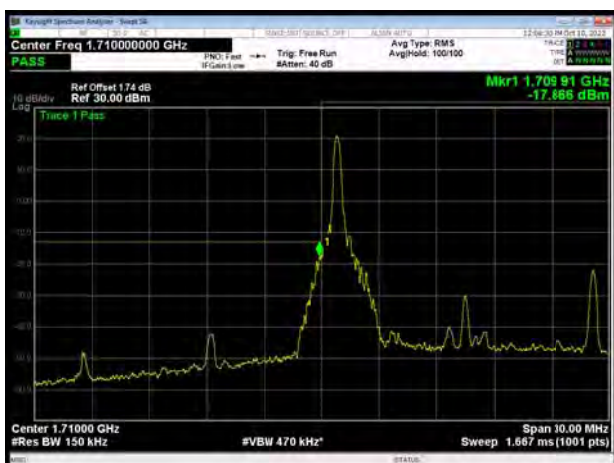
LTE Band 66 16QAM 10MHz CH-Low, 100%RB



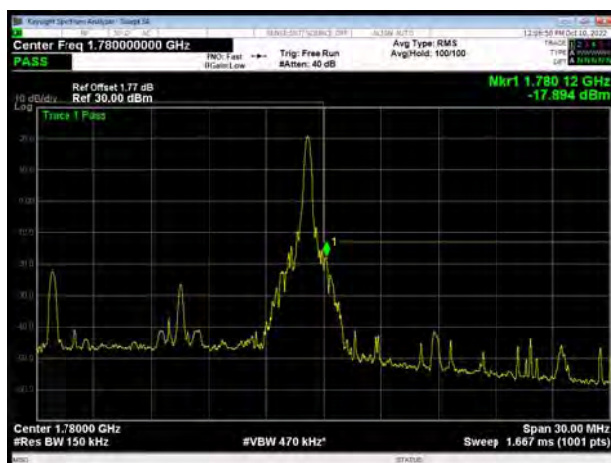
LTE Band 66 16QAM 10MHz CH-High, 100%RB



LTE Band 66 16QAM 15MHz CH-Low, 1 RB



LTE Band 66 16QAM 15MHz CH-High, 1 RB



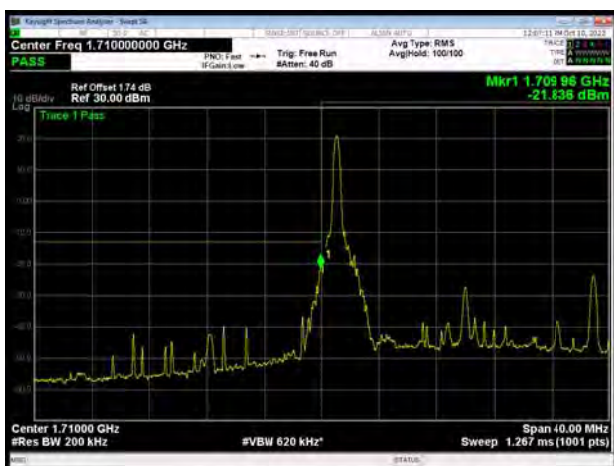
LTE Band 66 16QAM 15MHz CH-Low, 100%RB



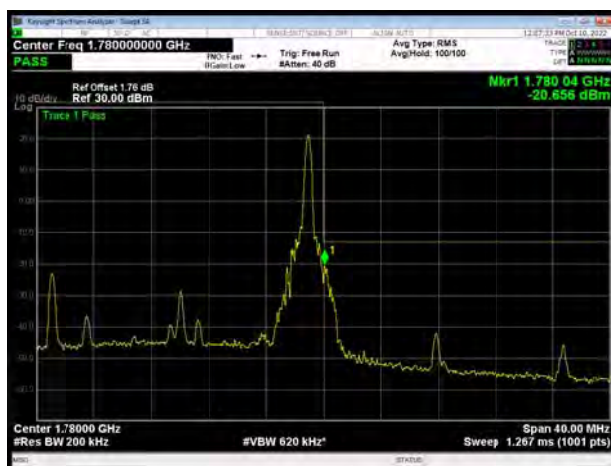
LTE Band 66 16QAM 15MHz CH-High, 100%RB



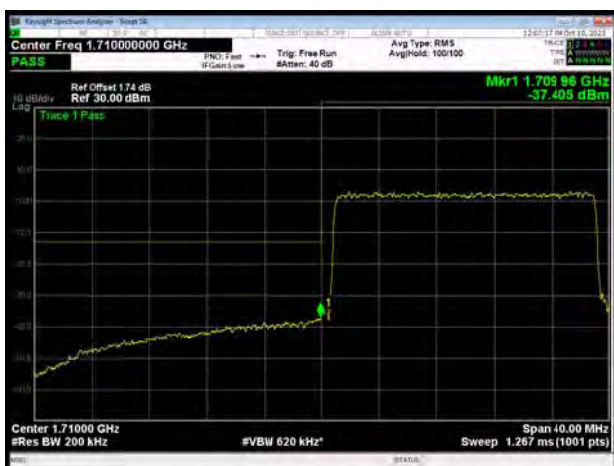
LTE Band 66 16QAM 20MHz CH-Low, 1 RB



LTE Band 66 16QAM 20MHz CH-High, 1 RB



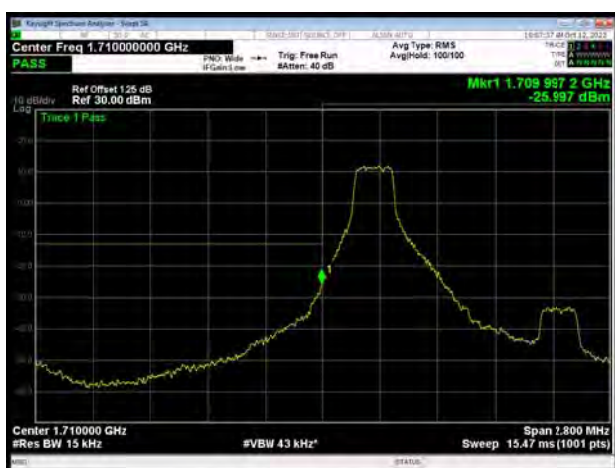
LTE Band 66 16QAM 20MHz CH-Low, 100%RB



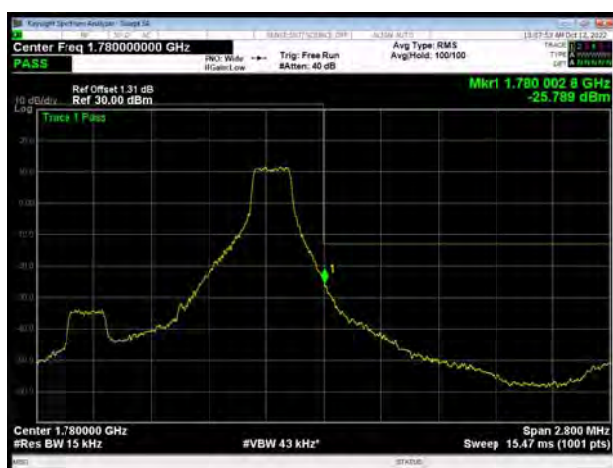
LTE Band 66 16QAM 20MHz CH-High, 100%RB



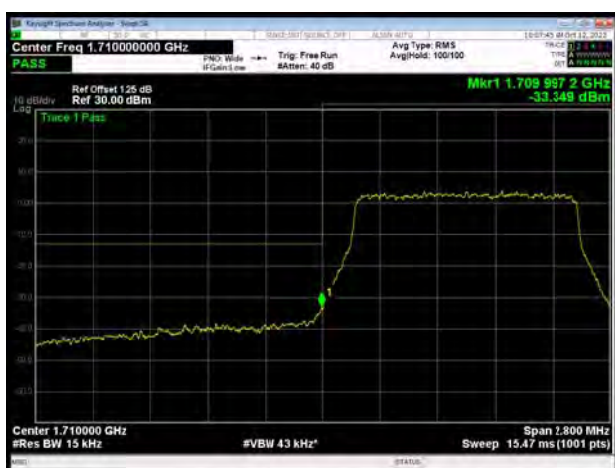
LTE Band 66 64QAM 1.4MHz CH-Low, 1 RB



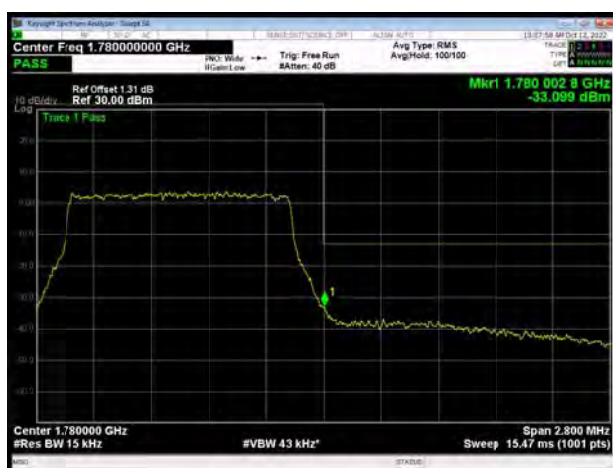
LTE Band 66 64QAM 1.4MHz CH-High, 1 RB



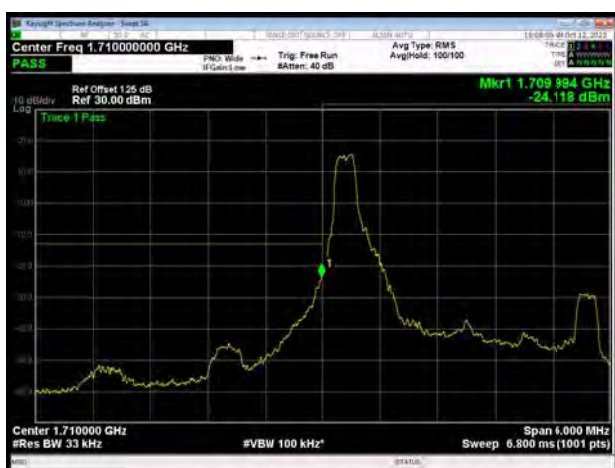
LTE Band 66 64QAM 1.4MHz CH-Low, 100%RB



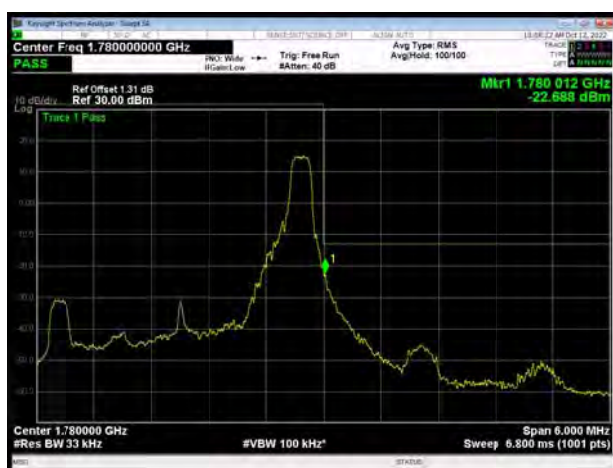
LTE Band 66 64QAM 1.4MHz CH-High, 100%RB



LTE Band 66 64QAM 3MHz CH-Low, 1 RB

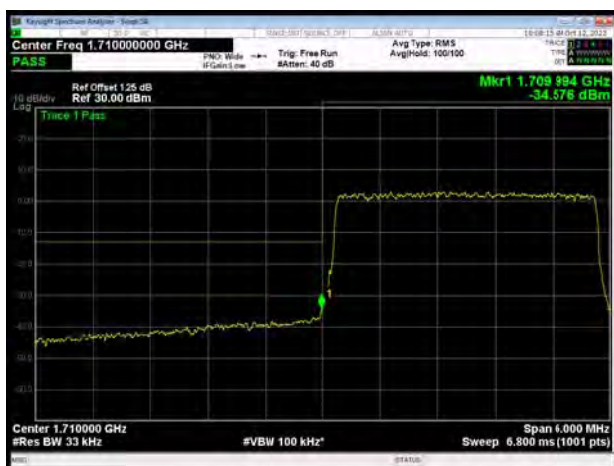


LTE Band 66 64QAM 3MHz CH-High, 1 RB





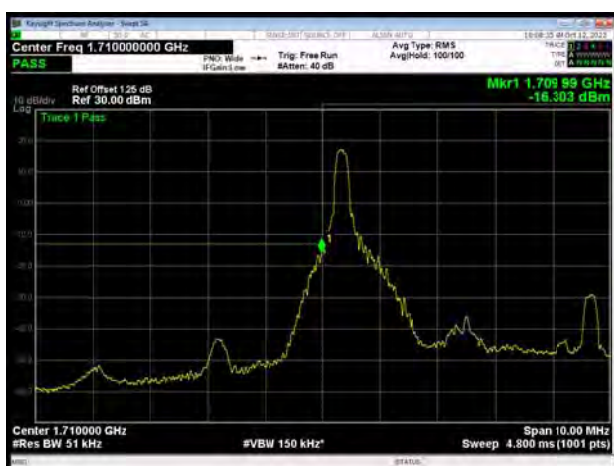
LTE Band 66 64QAM 3MHz CH-Low, 100%RB



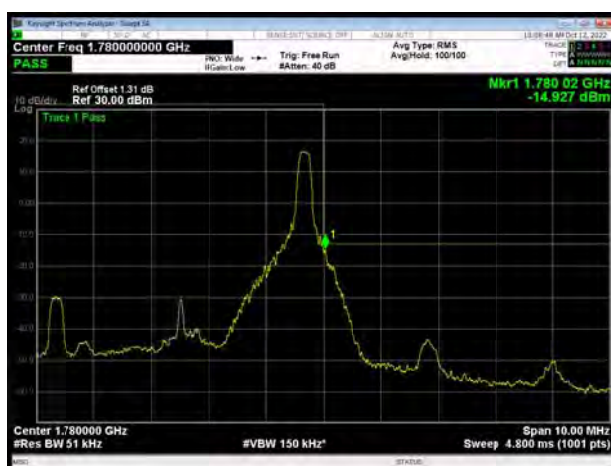
LTE Band 66 64QAM 3MHz CH-High, 100%RB



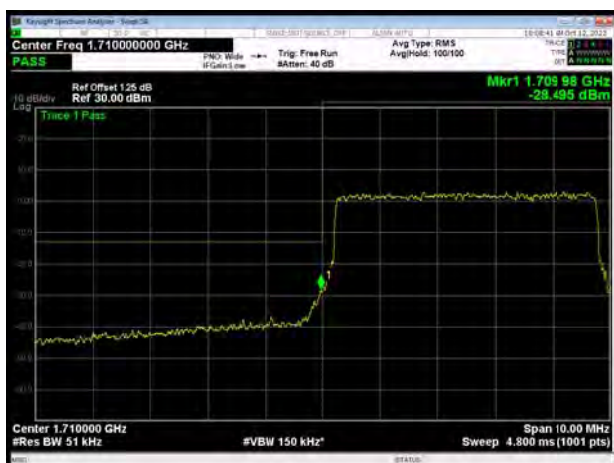
LTE Band 66 64QAM 5MHz CH-Low, 1 RB



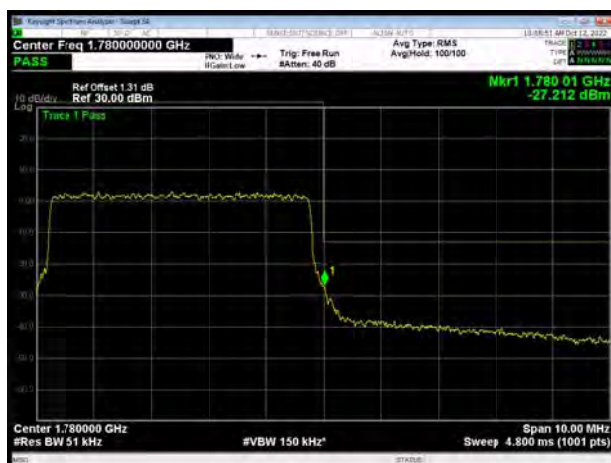
LTE Band 66 64QAM 5MHz CH-High, 1 RB



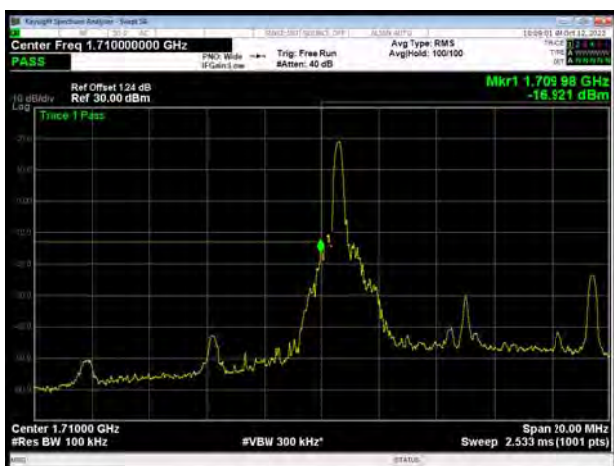
LTE Band 66 64QAM 5MHz CH-Low, 100%RB



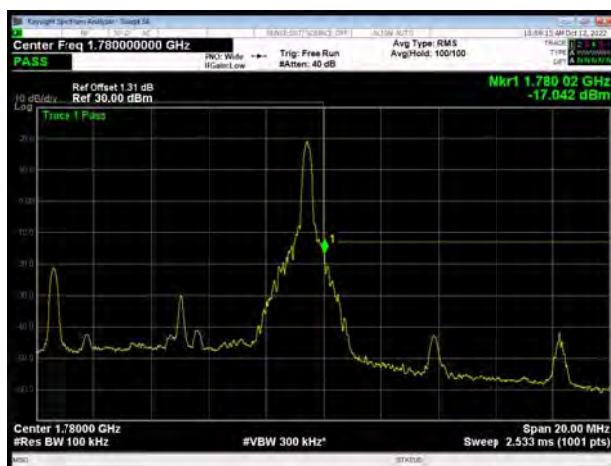
LTE Band 66 64QAM 5MHz CH-High, 100%RB



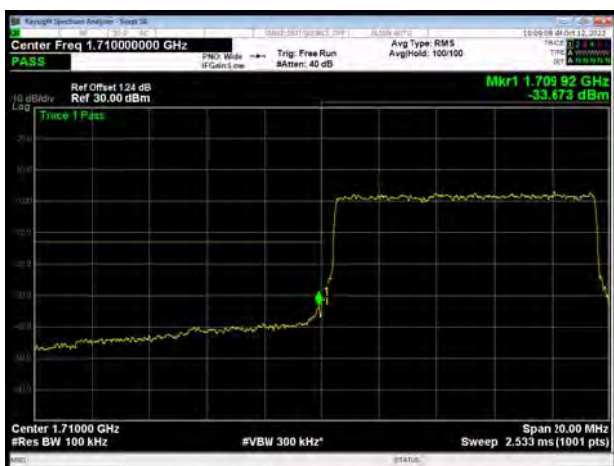
LTE Band 66 64QAM 10MHz CH-Low, 1 RB



LTE Band 66 64QAM 10MHz CH-High, 1 RB



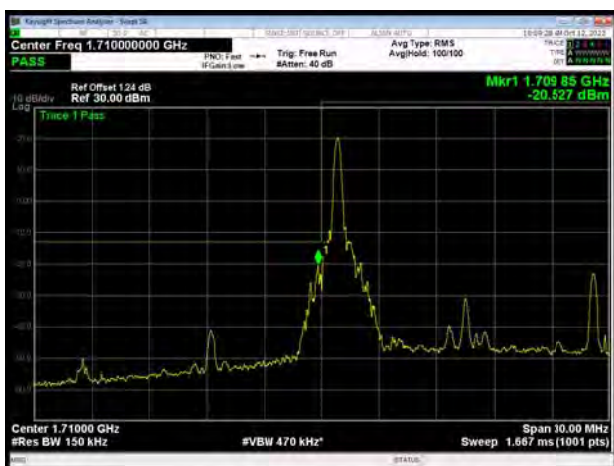
LTE Band 66 64QAM 10MHz CH-Low, 100%RB



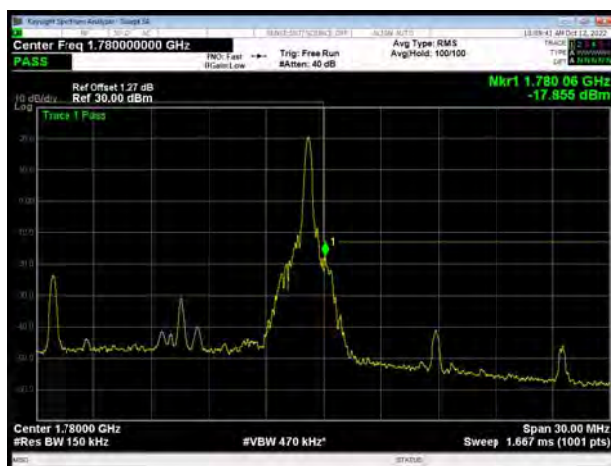
LTE Band 66 64QAM 10MHz CH-High, 100%RB



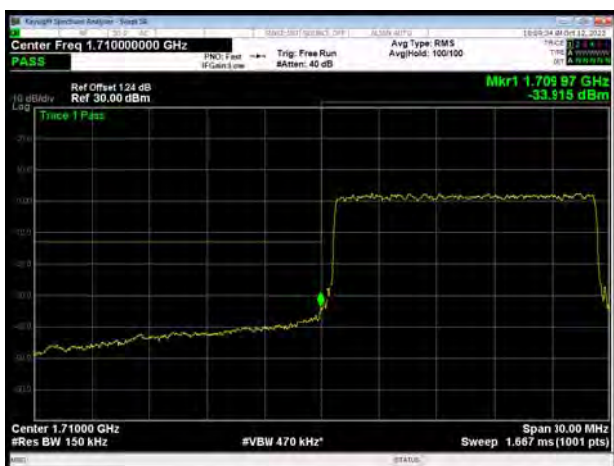
LTE Band 66 64QAM 15MHz CH-Low, 1 RB



LTE Band 66 64QAM 15MHz CH-High, 1 RB



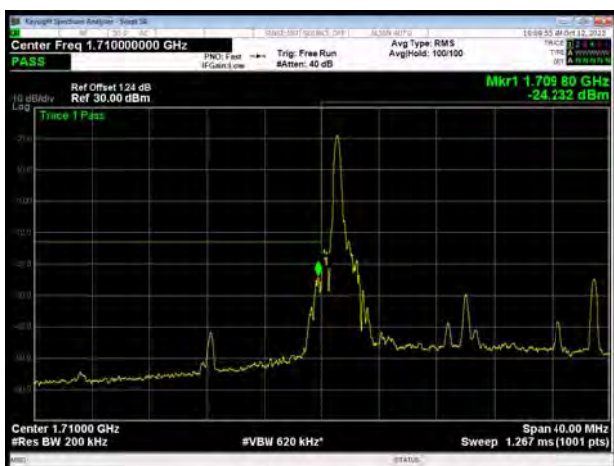
LTE Band 66 64QAM 15MHz CH-Low, 100%RB



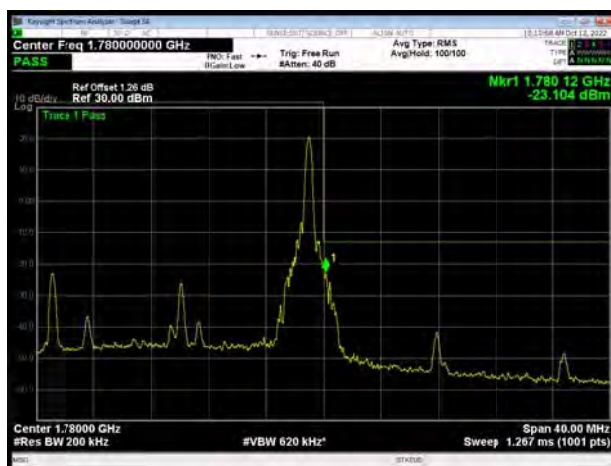
LTE Band 66 64QAM 15MHz CH-High, 100%RB



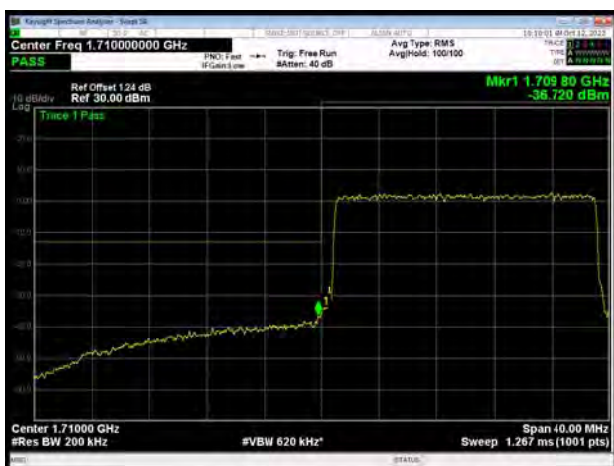
LTE Band 66 64QAM 20MHz CH-Low, 1 RB



LTE Band 66 64QAM 20MHz CH-High, 1 RB



LTE Band 66 64QAM 20MHz CH-Low, 100%RB



LTE Band 66 64QAM 20MHz CH-High, 100%RB



6.4 Peak-to-Average Power Ratio (PAPR)

WCDMA Band IV	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
RMC	1312	1712.4	25.99	23.15	2.84	≤13	PASS
	1413	1732.6	27.05	24.21	2.84	≤13	PASS
	1513	1752.6	25.85	23.14	2.71	≤13	PASS

LTE Band 4								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	19957	1710.7	27.53	22.45	5.08	≤13	PASS
		20175	1732.5	27.66	22.34	5.32	≤13	PASS
		20393	1754.3	27.37	22.37	5.00	≤13	PASS
	3	19965	1711.5	27.52	22.38	5.14	≤13	PASS
		20175	1732.5	27.57	22.27	5.30	≤13	PASS
		20385	1753.5	27.41	22.28	5.13	≤13	PASS
	5	19975	1712.5	27.73	22.39	5.34	≤13	PASS
		20175	1732.5	27.68	22.33	5.35	≤13	PASS
		20375	1752.5	27.49	22.30	5.19	≤13	PASS
	10	20000	1715	27.80	22.39	5.41	≤13	PASS
		20175	1732.5	27.69	22.35	5.34	≤13	PASS
		20350	1750	27.56	22.33	5.23	≤13	PASS
	15	20025	1717.5	28.13	22.41	5.72	≤13	PASS
		20175	1732.5	28.03	22.33	5.70	≤13	PASS
		20325	1747.5	27.92	22.38	5.54	≤13	PASS
	20	20050	1720	27.94	22.38	5.56	≤13	PASS
		20175	1732.5	27.77	22.25	5.52	≤13	PASS
		20300	1745	27.66	22.27	5.39	≤13	PASS
16QAM	1.4	19957	1710.7	27.37	21.50	5.87	≤13	PASS
		20175	1732.5	27.33	21.35	5.98	≤13	PASS
		20393	1754.3	27.33	21.45	5.88	≤13	PASS
	3	19965	1711.5	27.38	21.40	5.98	≤13	PASS
		20175	1732.5	27.49	21.34	6.15	≤13	PASS
		20385	1753.5	27.35	21.29	6.06	≤13	PASS
	5	19975	1712.5	27.54	21.43	6.11	≤13	PASS
		20175	1732.5	27.46	21.36	6.10	≤13	PASS
		20375	1752.5	27.24	21.30	5.94	≤13	PASS
	10	20000	1715	27.61	21.41	6.20	≤13	PASS



		20175	1732.5	27.50	21.35	6.15	≤13	PASS
		20350	1750	27.33	21.31	6.02	≤13	PASS
		20025	1717.5	27.68	21.41	6.27	≤13	PASS
	15	20175	1732.5	27.60	21.33	6.27	≤13	PASS
		20325	1747.5	27.48	21.33	6.15	≤13	PASS
		20050	1720	27.72	21.40	6.32	≤13	PASS
	20	20175	1732.5	27.51	21.29	6.22	≤13	PASS
		20300	1745	27.43	21.28	6.15	≤13	PASS
		20025	1717.5	27.68	21.41	6.27	≤13	PASS
64QAM	1.4	19957	1710.7	26.92	21.01	5.91	≤13	PASS
		20175	1732.5	26.95	20.87	6.08	≤13	PASS
		20393	1754.3	26.95	20.97	5.98	≤13	PASS
	3	19965	1711.5	27.02	20.91	6.11	≤13	PASS
		20175	1732.5	27.04	20.82	6.22	≤13	PASS
		20385	1753.5	26.83	20.82	6.01	≤13	PASS
	5	19975	1712.5	26.99	20.38	6.61	≤13	PASS
		20175	1732.5	27.02	20.28	6.74	≤13	PASS
		20375	1752.5	26.74	20.07	6.67	≤13	PASS
	10	20000	1715	27.06	20.92	6.14	≤13	PASS
		20175	1732.5	27.11	20.89	6.22	≤13	PASS
		20350	1750	26.88	20.81	6.07	≤13	PASS
	15	20025	1717.5	27.25	20.94	6.31	≤13	PASS
		20175	1732.5	27.15	20.83	6.32	≤13	PASS
		20325	1747.5	27.04	20.84	6.20	≤13	PASS
	20	20050	1720	27.18	20.91	6.27	≤13	PASS
		20175	1732.5	27.10	20.82	6.28	≤13	PASS
		20300	1745	26.98	20.78	6.20	≤13	PASS

LTE Band 7								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	20775	2502.5	26.59	21.54	5.05	≤13	PASS
		21100	2535	26.33	21.33	5.00	≤13	PASS
		21425	2567.5	26.08	21.32	4.76	≤13	PASS
	10	20800	2505	26.62	21.47	5.15	≤13	PASS
		21100	2535	26.34	21.32	5.02	≤13	PASS
		21400	2565	26.23	21.37	4.86	≤13	PASS
	15	20825	2507.5	26.93	21.42	5.51	≤13	PASS
		21100	2535	26.79	21.37	5.42	≤13	PASS



	20	21375	2562.5	26.70	21.39	5.31	≤13	PASS
		20850	2510	26.59	21.28	5.31	≤13	PASS
		21100	2535	26.67	21.28	5.39	≤13	PASS
		21350	2560	26.58	21.31	5.27	≤13	PASS
16QAM	5	20775	2502.5	26.41	20.55	5.86	≤13	PASS
		21100	2535	26.08	20.35	5.73	≤13	PASS
		21425	2567.5	25.92	20.35	5.57	≤13	PASS
	10	20800	2505	26.46	20.49	5.97	≤13	PASS
		21100	2535	26.12	20.33	5.79	≤13	PASS
		21400	2565	26.06	20.37	5.69	≤13	PASS
	15	20825	2507.5	26.44	20.40	6.04	≤13	PASS
		21100	2535	26.33	20.35	5.98	≤13	PASS
		21375	2562.5	26.31	20.37	5.94	≤13	PASS
	20	20850	2510	26.39	20.31	6.08	≤13	PASS
		21100	2535	26.32	20.29	6.03	≤13	PASS
		21350	2560	26.29	20.30	5.99	≤13	PASS
64QAM	5	20775	2502.5	26.06	20.15	5.91	≤13	PASS
		21100	2535	25.74	19.94	5.80	≤13	PASS
		21425	2567.5	25.60	19.93	5.67	≤13	PASS
	10	20800	2505	26.04	20.12	5.92	≤13	PASS
		21100	2535	25.85	19.97	5.88	≤13	PASS
		21400	2565	25.75	19.95	5.80	≤13	PASS
	15	20825	2507.5	26.12	20.03	6.09	≤13	PASS
		21100	2535	26.05	20.00	6.05	≤13	PASS
		21375	2562.5	25.96	19.94	6.02	≤13	PASS
	20	20850	2510	26.01	19.93	6.08	≤13	PASS
		21100	2535	26.03	19.94	6.09	≤13	PASS
		21350	2560	25.96	19.90	6.06	≤13	PASS

LTE Band 13								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	23205	779.5	27.39	22.19	5.20	≤13	PASS
		23230	782	27.51	22.24	5.27	≤13	PASS
		23255	784.5	27.52	21.83	5.69	≤13	PASS



	10	23230	782	27.49	22.22	5.27	≤13	PASS
16QAM	5	23205	779.5	27.14	21.16	5.98	≤13	PASS
		23230	782	27.20	21.22	5.98	≤13	PASS
		23255	784.5	27.26	20.52	6.74	≤13	PASS
	10	23230	782	27.22	21.18	6.04	≤13	PASS
64QAM	5	23205	779.5	26.66	20.71	5.95	≤13	PASS
		23230	782	26.72	20.75	5.97	≤13	PASS
		23255	784.5	26.83	20.75	6.08	≤13	PASS
	10	23230	782	26.81	20.72	6.09	≤13	PASS

LTE Band 38								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	37775	2572.5	26.36	16.94	9.42	≤13	PASS
		38000	2595	26.64	18.48	8.16	≤13	PASS
		38225	2617.5	26.73	17.37	9.36	≤13	PASS
	10	37800	2575	26.36	16.93	9.43	≤13	PASS
		38000	2595	26.52	16.90	9.62	≤13	PASS
		38200	2615	26.57	16.24	10.33	≤13	PASS
	15	37825	2577.5	26.70	17.00	9.70	≤13	PASS
		38000	2595	26.91	17.62	9.29	≤13	PASS
		38175	2612.5	27.01	17.29	9.72	≤13	PASS
	20	37850	2580	26.34	17.65	8.69	≤13	PASS
		38000	2595	26.52	17.45	9.07	≤13	PASS
		38150	2610	26.70	17.73	8.97	≤13	PASS
16QAM	5	37775	2572.5	25.86	15.59	10.27	≤13	PASS
		38000	2595	25.99	14.72	11.27	≤13	PASS
		38225	2617.5	26.30	15.66	10.64	≤13	PASS
	10	37800	2575	26.18	17.20	8.98	≤13	PASS
		38000	2595	26.18	15.92	10.26	≤13	PASS
		38200	2615	26.48	17.05	9.43	≤13	PASS
	15	37825	2577.5	26.15	15.67	10.48	≤13	PASS
		38000	2595	26.43	17.14	9.29	≤13	PASS
		38175	2612.5	26.33	13.96	12.37	≤13	PASS
	20	37850	2580	26.05	16.29	9.76	≤13	PASS
		38000	2595	26.13	16.13	10.00	≤13	PASS



		38150	2610	26.50	17.29	9.21	≤13	PASS
64QAM	5	37775	2572.5	25.44	16.38	9.06	≤13	PASS
		38000	2595	25.74	16.18	9.56	≤13	PASS
		38225	2617.5	25.93	16.52	9.41	≤13	PASS
	10	37800	2575	25.46	15.56	9.90	≤13	PASS
		38000	2595	25.77	16.11	9.66	≤13	PASS
		38200	2615	25.92	16.36	9.56	≤13	PASS
	15	37825	2577.5	25.57	14.98	10.59	≤13	PASS
		38000	2595	25.77	15.14	10.63	≤13	PASS
		38175	2612.5	26.12	16.94	9.18	≤13	PASS
	20	37850	2580	25.34	14.40	10.94	≤13	PASS
		38000	2595	25.63	15.27	10.36	≤13	PASS
		38150	2610	26.05	17.87	8.18	≤13	PASS

LTE Band 41								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	39675	2498.5	26.50	16.65	9.85	≤13	PASS
		40620	2593	26.51	16.99	9.52	≤13	PASS
		41565	2687.5	26.69	18.66	8.03	≤13	PASS
	10	39700	2501	26.38	17.07	9.31	≤13	PASS
		40620	2593	26.38	17.46	8.92	≤13	PASS
		41540	2685	26.60	17.46	9.14	≤13	PASS
	15	39725	2503.5	26.72	17.51	9.21	≤13	PASS
		40620	2593	26.84	18.11	8.73	≤13	PASS
		41515	2682.5	26.96	17.68	9.28	≤13	PASS
	20	39750	2506	26.23	16.35	9.88	≤13	PASS
		40620	2593	26.56	19.03	7.53	≤13	PASS
		41490	2680	26.57	16.12	10.45	≤13	PASS
16QAM	5	39675	2498.5	26.24	17.03	9.21	≤13	PASS
		40620	2593	26.02	15.03	10.99	≤13	PASS
		41565	2687.5	26.25	16.02	10.23	≤13	PASS
	10	39700	2501	25.79	13.67	12.12	≤13	PASS
		40620	2593	26.07	16.49	9.58	≤13	PASS
		41540	2685	26.40	17.13	9.27	≤13	PASS



	15	39725	2503.5	26.28	17.15	9.13	≤13	PASS
		40620	2593	26.13	15.50	10.63	≤13	PASS
		41515	2682.5	26.36	15.57	10.79	≤13	PASS
	20	39750	2506	26.15	17.34	8.81	≤13	PASS
		40620	2593	26.13	17.13	9.00	≤13	PASS
		41490	2680	26.28	16.10	10.18	≤13	PASS
64QAM	5	39675	2498.5	23.57	14.16	9.41	≤13	PASS
		40620	2593	25.58	14.98	10.60	≤13	PASS
		41565	2687.5	25.66	14.71	10.95	≤13	PASS
	10	39700	2501	25.49	16.20	9.29	≤13	PASS
		40620	2593	25.57	16.17	9.40	≤13	PASS
		41540	2685	25.64	15.23	10.41	≤13	PASS
	15	39725	2503.5	25.45	14.92	10.53	≤13	PASS
		40620	2593	25.78	16.29	9.49	≤13	PASS
		41515	2682.5	25.93	15.64	10.29	≤13	PASS
	20	39750	2506	25.26	14.96	10.30	≤13	PASS
		40620	2593	25.50	15.21	10.29	≤13	PASS
		41490	2680	25.63	15.05	10.58	≤13	PASS

LTE Band 66								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	131979	1710.7	27.43	22.27	5.16	≤13	PASS
		132322	1745	27.38	22.23	5.15	≤13	PASS
		132665	1779.3	27.19	22.23	4.96	≤13	PASS
	3	131987	1711.5	27.43	22.22	5.21	≤13	PASS
		132322	1745	27.38	22.17	5.21	≤13	PASS
		132657	1778.5	27.24	22.19	5.05	≤13	PASS
	5	131997	1712.5	27.68	22.25	5.43	≤13	PASS
		132322	1745	27.52	22.19	5.33	≤13	PASS
		132647	1777.5	27.24	22.19	5.05	≤13	PASS
	10	132022	1715	27.72	22.23	5.49	≤13	PASS
		132322	1745	27.54	22.25	5.29	≤13	PASS
		132622	1775	27.39	22.29	5.10	≤13	PASS
	15	132047	1717.5	28.06	22.23	5.83	≤13	PASS
		132322	1745	27.89	22.26	5.63	≤13	PASS
		132597	1772.5	27.69	22.27	5.42	≤13	PASS



	20	132072	1720	27.87	22.21	5.66	≤13	PASS
		132322	1745	27.63	22.15	5.48	≤13	PASS
		132572	1770	27.48	21.42	6.06	≤13	PASS
16QAM	1.4	131979	1710.7	27.25	21.25	6.00	≤13	PASS
		132322	1745	27.22	21.27	5.95	≤13	PASS
		132665	1779.3	27.10	21.29	5.81	≤13	PASS
	3	131987	1711.5	27.35	21.28	6.07	≤13	PASS
		132322	1745	27.30	21.22	6.08	≤13	PASS
		132657	1778.5	27.11	21.22	5.89	≤13	PASS
	5	131997	1712.5	27.43	21.29	6.14	≤13	PASS
		132322	1745	27.26	21.22	6.04	≤13	PASS
		132647	1777.5	27.09	21.24	5.85	≤13	PASS
	10	132022	1715	27.48	21.23	6.25	≤13	PASS
		132322	1745	27.31	21.24	6.07	≤13	PASS
		132622	1775	27.22	21.28	5.94	≤13	PASS
	15	132047	1717.5	27.54	21.20	6.34	≤13	PASS
		132322	1745	27.46	21.23	6.23	≤13	PASS
		132597	1772.5	27.29	21.22	6.07	≤13	PASS
	20	132072	1720	27.60	21.24	6.36	≤13	PASS
		132322	1745	27.32	20.50	6.82	≤13	PASS
		132572	1770	27.22	20.47	6.75	≤13	PASS
64QAM	1.4	131979	1710.7	26.77	20.74	6.03	≤13	PASS
		132322	1745	26.85	20.71	6.14	≤13	PASS
		132665	1779.3	26.45	20.71	5.74	≤13	PASS
	3	131987	1711.5	26.93	20.72	6.21	≤13	PASS
		132322	1745	26.82	20.63	6.19	≤13	PASS
		132657	1778.5	26.52	20.65	5.87	≤13	PASS
	5	131997	1712.5	26.89	20.72	6.17	≤13	PASS
		132322	1745	26.76	20.63	6.13	≤13	PASS
		132647	1777.5	26.55	20.70	5.85	≤13	PASS
	10	132022	1715	27.01	20.70	6.31	≤13	PASS
		132322	1745	26.83	20.68	6.15	≤13	PASS
		132622	1775	26.66	20.76	5.90	≤13	PASS
	15	132047	1717.5	27.09	20.67	6.42	≤13	PASS
		132322	1745	26.94	20.66	6.28	≤13	PASS
		132597	1772.5	26.74	20.65	6.09	≤13	PASS
	20	132072	1720	27.04	20.67	6.37	≤13	PASS
		132322	1745	26.89	20.60	6.29	≤13	PASS
		132572	1770	26.70	20.60	6.10	≤13	PASS



6.5 Frequency Stability

WCDMA Band IV						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
Temperature	Voltage	BPSK	QPSK	BPSK	QPSK	
Normal (25℃)	Normal	10.82	1.85	0.00624	0.00107	PASS
Extreme (50℃)		15.49	10.71	0.00894	0.00618	PASS
Extreme (40℃)		9.66	4.51	0.00558	0.00260	PASS
Extreme (30℃)		12.75	8.91	0.00736	0.00514	PASS
Extreme (20℃)		4.15	10.05	0.00239	0.00580	PASS
Extreme (10℃)		9.20	4.93	0.00531	0.00285	PASS
Extreme (0℃)		10.56	3.73	0.00609	0.00216	PASS
Extreme (-10℃)		11.11	3.81	0.00641	0.00220	PASS
Extreme (-20℃)		11.51	6.75	0.00664	0.00389	PASS
Extreme (-30℃)		10.03	13.45	0.00579	0.00776	PASS
25℃	LV	6.40	2.34	0.00370	0.00135	PASS
	HV	16.38	4.39	0.00946	0.00253	PASS

LTE Band 4								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	17.12	12.26	16.00	0.00988	0.00707	0.00924	PASS
Extreme (50℃)		4.85	10.49	1.35	0.00280	0.00606	0.00078	PASS
Extreme (40℃)		10.27	7.67	13.78	0.00593	0.00443	0.00795	PASS
Extreme (30℃)		17.40	10.66	9.77	0.01004	0.00616	0.00564	PASS
Extreme (20℃)		9.13	2.60	6.51	0.00527	0.00150	0.00376	PASS
Extreme (10℃)		1.41	12.58	11.35	0.00081	0.00726	0.00655	PASS
Extreme (0℃)		3.84	16.43	4.74	0.00222	0.00949	0.00273	PASS
Extreme (-10℃)		4.51	9.58	6.61	0.00260	0.00553	0.00381	PASS
Extreme (-20℃)		12.22	9.40	11.90	0.00705	0.00543	0.00687	PASS
Extreme (-30℃)		10.01	13.84	7.24	0.00578	0.00799	0.00418	PASS
25℃	LV	4.72	6.62	5.65	0.00272	0.00382	0.00326	PASS
	HV	4.35	4.89	7.58	0.00251	0.00282	0.00438	PASS



Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	11.13	17.05	9.73	0.00643	0.00984	0.00562	PASS
Extreme (50℃)		14.24	10.59	6.47	0.00822	0.00611	0.00373	PASS
Extreme (40℃)		2.91	5.95	7.29	0.00168	0.00343	0.00421	PASS
Extreme (30℃)		3.40	4.13	14.36	0.00196	0.00238	0.00829	PASS
Extreme (20℃)		5.25	17.24	2.40	0.00303	0.00995	0.00139	PASS
Extreme (10℃)		8.48	13.62	8.71	0.00490	0.00786	0.00503	PASS
Extreme (0℃)		16.38	11.86	3.16	0.00945	0.00685	0.00182	PASS
Extreme (-10℃)		7.40	10.11	7.30	0.00427	0.00584	0.00421	PASS
Extreme (-20℃)		4.91	10.98	6.13	0.00283	0.00634	0.00354	PASS
Extreme (-30℃)		17.51	17.27	13.05	0.01011	0.00997	0.00753	PASS
25℃	LV	17.17	17.80	10.35	0.00991	0.01028	0.00598	PASS
	HV	11.18	2.78	15.96	0.00645	0.00160	0.00921	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	1.99	3.92	1.35	0.00115	0.00226	0.00078	PASS
Extreme (50℃)		9.99	11.23	15.68	0.00577	0.00648	0.00905	PASS
Extreme (40℃)		11.21	15.74	8.48	0.00647	0.00908	0.00490	PASS
Extreme (30℃)		5.76	9.67	8.71	0.00332	0.00558	0.00503	PASS
Extreme (20℃)		10.74	9.21	15.85	0.00620	0.00532	0.00915	PASS
Extreme (10℃)		6.06	14.73	5.66	0.00350	0.00850	0.00326	PASS
Extreme (0℃)		13.51	3.03	7.41	0.00780	0.00175	0.00428	PASS
Extreme (-10℃)		13.50	3.53	3.34	0.00779	0.00204	0.00193	PASS
Extreme (-20℃)		17.17	16.02	3.48	0.00991	0.00925	0.00201	PASS
Extreme (-30℃)		13.88	2.17	15.45	0.00801	0.00125	0.00892	PASS
25℃	LV	3.01	3.36	9.16	0.00174	0.00194	0.00529	PASS
	HV	14.53	6.84	17.75	0.00838	0.00395	0.01025	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	8.01	12.09	17.03	0.00462	0.00698	0.00983	PASS
Extreme (50℃)		13.46	4.38	11.11	0.00777	0.00253	0.00641	PASS
Extreme (40℃)		13.68	9.81	3.49	0.00790	0.00566	0.00201	PASS
Extreme (30℃)		10.00	9.67	5.03	0.00577	0.00558	0.00291	PASS
Extreme (20℃)		16.10	5.14	7.86	0.00930	0.00296	0.00454	PASS



Extreme (10℃)		2.21	12.70	9.51	0.00128	0.00733	0.00549	PASS
Extreme (0℃)		14.44	9.90	1.46	0.00834	0.00571	0.00085	PASS
Extreme (-10℃)		10.71	15.06	1.07	0.00618	0.00869	0.00062	PASS
Extreme (-20℃)		17.03	2.24	4.79	0.00983	0.00129	0.00276	PASS
Extreme (-30℃)		3.77	8.14	12.01	0.00217	0.00470	0.00693	PASS
25℃	LV	3.19	11.75	3.00	0.00184	0.00678	0.00173	PASS
	HV	15.33	15.38	4.44	0.00885	0.00888	0.00256	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	13.78	14.62	2.87	0.00795	0.00844	0.00166	PASS
Extreme (50℃)		16.19	3.26	3.07	0.00935	0.00188	0.00177	PASS
Extreme (40℃)		12.25	2.51	12.80	0.00707	0.00145	0.00739	PASS
Extreme (30℃)		5.95	4.32	3.36	0.00343	0.00249	0.00194	PASS
Extreme (20℃)		6.90	9.79	5.31	0.00399	0.00565	0.00306	PASS
Extreme (10℃)		8.41	13.06	9.33	0.00486	0.00754	0.00538	PASS
Extreme (0℃)		15.67	17.21	3.78	0.00904	0.00993	0.00218	PASS
Extreme (-10℃)		14.49	2.29	8.91	0.00836	0.00132	0.00514	PASS
Extreme (-20℃)		14.60	3.27	2.47	0.00843	0.00189	0.00143	PASS
Extreme (-30℃)		2.17	13.08	16.17	0.00125	0.00755	0.00933	PASS
25℃	LV	7.36	7.23	7.20	0.00425	0.00417	0.00416	PASS
	HV	7.91	5.77	13.07	0.00457	0.00333	0.00754	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	15.50	9.84	5.14	0.00895	0.00568	0.00296	PASS
Extreme (50℃)		11.70	1.99	7.96	0.00675	0.00115	0.00460	PASS
Extreme (40℃)		9.30	9.28	7.22	0.00537	0.00535	0.00417	PASS
Extreme (30℃)		12.17	17.77	15.03	0.00703	0.01026	0.00868	PASS
Extreme (20℃)		2.53	8.26	16.58	0.00146	0.00477	0.00957	PASS
Extreme (10℃)		2.65	13.67	15.45	0.00153	0.00789	0.00892	PASS
Extreme (0℃)		3.61	12.34	15.30	0.00209	0.00712	0.00883	PASS
Extreme (-10℃)		4.19	9.51	2.41	0.00242	0.00549	0.00139	PASS
Extreme (-20℃)		2.12	12.85	5.29	0.00122	0.00742	0.00305	PASS
Extreme (-30℃)		14.42	1.97	1.84	0.00832	0.00114	0.00106	PASS
25℃	LV	2.11	13.61	8.91	0.00122	0.00786	0.00514	PASS
	HV	12.81	2.91	9.78	0.00739	0.00168	0.00564	PASS



LTE Band 7								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	1.19	3.37	15.81	0.00047	0.00133	0.00624	PASS
Extreme (50℃)		15.80	9.83	15.28	0.00623	0.00388	0.00603	PASS
Extreme (40℃)		7.50	14.71	10.91	0.00296	0.00580	0.00430	PASS
Extreme (30℃)		2.20	10.19	10.68	0.00087	0.00402	0.00421	PASS
Extreme (20℃)		7.13	7.66	2.57	0.00281	0.00302	0.00101	PASS
Extreme (10℃)		16.53	10.34	3.01	0.00652	0.00408	0.00119	PASS
Extreme (0℃)		6.19	7.94	15.53	0.00244	0.00313	0.00612	PASS
Extreme (-10℃)		4.06	16.21	3.31	0.00160	0.00640	0.00130	PASS
Extreme (-20℃)		1.51	5.85	5.82	0.00059	0.00231	0.00230	PASS
Extreme (-30℃)		8.66	17.65	17.18	0.00342	0.00696	0.00678	PASS
25℃	LV	6.71	10.96	14.06	0.00265	0.00432	0.00555	PASS
	HV	3.37	11.46	12.27	0.00133	0.00452	0.00484	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	14.35	13.68	7.40	0.00566	0.00540	0.00292	PASS
Extreme (50℃)		3.40	7.85	9.32	0.00134	0.00310	0.00368	PASS
Extreme (40℃)		16.59	12.85	10.52	0.00655	0.00507	0.00415	PASS
Extreme (30℃)		15.11	17.57	5.89	0.00596	0.00693	0.00232	PASS
Extreme (20℃)		9.35	2.05	4.96	0.00369	0.00081	0.00196	PASS
Extreme (10℃)		5.29	3.17	15.31	0.00209	0.00125	0.00604	PASS
Extreme (0℃)		2.27	11.86	4.71	0.00090	0.00468	0.00186	PASS
Extreme (-10℃)		6.12	9.38	15.10	0.00242	0.00370	0.00596	PASS
Extreme (-20℃)		4.19	5.96	6.17	0.00165	0.00235	0.00243	PASS
Extreme (-30℃)		3.80	12.35	3.51	0.00150	0.00487	0.00138	PASS
25℃	LV	4.23	9.56	11.85	0.00167	0.00377	0.00467	PASS
	HV	7.47	16.04	3.01	0.00295	0.00633	0.00119	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	9.05	17.39	3.71	0.00357	0.00686	0.00146	PASS
Extreme (50℃)		2.72	1.06	16.38	0.00107	0.00042	0.00646	PASS
Extreme (40℃)		6.21	11.21	10.81	0.00245	0.00442	0.00427	PASS
Extreme (30℃)		10.43	10.40	14.03	0.00411	0.00410	0.00554	PASS



Extreme (20℃)		4.83	13.47	6.55	0.00191	0.00531	0.00258	PASS
Extreme (10℃)		4.09	17.31	12.51	0.00161	0.00683	0.00494	PASS
Extreme (0℃)		11.33	10.35	6.62	0.00447	0.00408	0.00261	PASS
Extreme (-10℃)		10.89	15.14	5.43	0.00430	0.00597	0.00214	PASS
Extreme (-20℃)		14.08	7.33	7.12	0.00556	0.00289	0.00281	PASS
Extreme (-30℃)		15.37	13.55	9.83	0.00606	0.00535	0.00388	PASS
25℃	LV	6.92	11.38	11.18	0.00273	0.00449	0.00441	PASS
	HV	2.04	10.77	1.66	0.00081	0.00425	0.00066	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	11.69	3.65	13.23	0.00461	0.00144	0.00522	PASS
Extreme (50℃)		5.20	16.35	5.36	0.00205	0.00645	0.00212	PASS
Extreme (40℃)		7.76	9.35	2.68	0.00306	0.00369	0.00106	PASS
Extreme (30℃)		1.82	6.77	2.67	0.00072	0.00267	0.00105	PASS
Extreme (20℃)		14.84	11.17	11.18	0.00586	0.00441	0.00441	PASS
Extreme (10℃)		1.12	12.92	14.14	0.00044	0.00510	0.00558	PASS
Extreme (0℃)		1.44	2.06	3.24	0.00057	0.00081	0.00128	PASS
Extreme (-10℃)		3.19	4.05	11.17	0.00126	0.00160	0.00441	PASS
Extreme (-20℃)		10.60	12.29	17.13	0.00418	0.00485	0.00676	PASS
Extreme (-30℃)		15.61	1.06	15.76	0.00616	0.00042	0.00622	PASS
25℃	LV	11.76	11.69	9.59	0.00464	0.00461	0.00378	PASS
	HV	7.07	17.70	6.50	0.00279	0.00698	0.00256	PASS

LTE Band 13								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	17.80	5.72	1.23	0.02370	0.00762	0.00164	PASS
Extreme (50℃)		15.38	14.77	9.67	0.02048	0.01966	0.01288	PASS
Extreme (40℃)		2.71	8.51	1.90	0.00361	0.01133	0.00252	PASS
Extreme (30℃)		15.45	6.45	10.43	0.02057	0.00859	0.01389	PASS
Extreme (20℃)		9.45	9.29	15.49	0.01259	0.01237	0.02062	PASS
Extreme (10℃)		4.88	7.97	4.90	0.00650	0.01062	0.00653	PASS
Extreme (0℃)		17.39	4.24	2.44	0.02316	0.00564	0.00325	PASS
Extreme (-10℃)		10.02	17.24	9.72	0.01335	0.02296	0.01295	PASS
Extreme (-20℃)		11.50	10.06	11.81	0.01531	0.01339	0.01572	PASS
Extreme (-30℃)		9.50	5.03	5.49	0.01265	0.00670	0.00731	PASS
25℃	LV	6.53	17.30	3.35	0.00870	0.02303	0.00446	PASS



	HV	3.77	3.49	13.56	0.00502	0.00465	0.01806	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	9.43	4.21	7.85	0.01255	0.00561	0.01045	PASS
Extreme (50℃)		1.46	7.10	15.99	0.00195	0.00945	0.02130	PASS
Extreme (40℃)		17.67	3.38	10.52	0.02353	0.00450	0.01400	PASS
Extreme (30℃)		9.14	12.60	6.06	0.01217	0.01677	0.00807	PASS
Extreme (20℃)		15.92	12.33	13.86	0.02120	0.01642	0.01846	PASS
Extreme (10℃)		13.96	13.71	15.23	0.01859	0.01825	0.02027	PASS
Extreme (0℃)		13.35	15.75	2.12	0.01777	0.02098	0.00282	PASS
Extreme (-10℃)		12.53	5.39	6.24	0.01668	0.00718	0.00830	PASS
Extreme (-20℃)		12.88	7.76	7.74	0.01715	0.01034	0.01031	PASS
Extreme (-30℃)		4.15	17.31	8.69	0.00553	0.02304	0.01158	PASS
25℃	LV	4.80	2.59	8.14	0.00639	0.00345	0.01084	PASS
	HV	10.70	4.18	10.80	0.01425	0.00556	0.01437	PASS

LTE Band 38								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	8.74	15.23	15.45	0.00337	0.00587	0.00595	PASS
Extreme (50℃)		17.38	11.62	7.47	0.00670	0.00448	0.00288	PASS
Extreme (40℃)		13.56	15.55	13.23	0.00523	0.00599	0.00510	PASS
Extreme (30℃)		3.81	2.20	3.00	0.00147	0.00085	0.00115	PASS
Extreme (20℃)		4.66	7.93	2.33	0.00180	0.00305	0.00090	PASS
Extreme (10℃)		3.77	5.36	2.70	0.00145	0.00207	0.00104	PASS
Extreme (0℃)		1.71	9.88	11.72	0.00066	0.00381	0.00452	PASS
Extreme (-10℃)		10.99	17.24	1.56	0.00423	0.00664	0.00060	PASS
Extreme (-20℃)		7.55	10.70	2.76	0.00291	0.00412	0.00107	PASS
Extreme (-30℃)		5.19	4.54	3.11	0.00200	0.00175	0.00120	PASS
25℃	LV	2.76	4.17	5.09	0.00106	0.00161	0.00196	PASS
	HV	9.62	5.70	6.01	0.00371	0.00220	0.00232	PASS



Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	17.17	15.75	15.87	0.00661	0.00607	0.00612	PASS
Extreme (50℃)		12.41	13.75	15.46	0.00478	0.00530	0.00596	PASS
Extreme (40℃)		12.93	13.83	17.47	0.00498	0.00533	0.00673	PASS
Extreme (30℃)		4.02	8.16	7.18	0.00155	0.00314	0.00277	PASS
Extreme (20℃)		17.34	16.64	1.14	0.00668	0.00641	0.00044	PASS
Extreme (10℃)		9.54	7.88	16.29	0.00368	0.00304	0.00628	PASS
Extreme (0℃)		8.77	8.74	5.56	0.00338	0.00337	0.00214	PASS
Extreme (-10℃)		12.32	11.14	5.48	0.00475	0.00429	0.00211	PASS
Extreme (-20℃)		12.99	15.75	1.40	0.00500	0.00607	0.00054	PASS
Extreme (-30℃)		6.76	12.31	2.68	0.00260	0.00474	0.00103	PASS
25℃	LV	1.67	13.66	3.24	0.00064	0.00526	0.00125	PASS
	HV	1.12	11.62	12.04	0.00043	0.00448	0.00464	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	10.32	2.07	5.68	0.00398	0.00080	0.00219	PASS
Extreme (50℃)		3.32	1.39	1.06	0.00128	0.00054	0.00041	PASS
Extreme (40℃)		17.41	6.88	14.15	0.00671	0.00265	0.00545	PASS
Extreme (30℃)		13.14	14.10	5.00	0.00506	0.00543	0.00193	PASS
Extreme (20℃)		7.58	12.46	6.83	0.00292	0.00480	0.00263	PASS
Extreme (10℃)		6.00	1.46	4.57	0.00231	0.00056	0.00176	PASS
Extreme (0℃)		6.53	11.58	5.86	0.00252	0.00446	0.00226	PASS
Extreme (-10℃)		2.66	12.38	1.09	0.00102	0.00477	0.00042	PASS
Extreme (-20℃)		14.29	10.34	13.42	0.00551	0.00399	0.00517	PASS
Extreme (-30℃)		8.93	3.84	13.22	0.00344	0.00148	0.00509	PASS
25℃	LV	3.27	8.87	16.44	0.00126	0.00342	0.00634	PASS
	HV	7.58	14.41	14.08	0.00292	0.00555	0.00543	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	12.83	8.75	12.98	0.00494	0.00337	0.00500	PASS
Extreme (50℃)		14.01	17.72	6.18	0.00540	0.00683	0.00238	PASS
Extreme (40℃)		15.53	16.46	4.12	0.00598	0.00634	0.00159	PASS
Extreme (30℃)		2.44	8.31	7.13	0.00094	0.00320	0.00275	PASS
Extreme (20℃)		14.01	17.32	6.56	0.00540	0.00668	0.00253	PASS



Extreme (10℃)		15.93	2.96	9.16	0.00614	0.00114	0.00353	PASS
Extreme (0℃)		6.79	2.33	12.37	0.00262	0.00090	0.00477	PASS
Extreme (-10℃)		6.41	8.22	10.07	0.00247	0.00317	0.00388	PASS
Extreme (-20℃)		1.60	13.90	6.19	0.00062	0.00536	0.00238	PASS
Extreme (-30℃)		9.72	13.00	2.26	0.00375	0.00501	0.00087	PASS
25℃	LV	8.79	5.32	9.20	0.00339	0.00205	0.00355	PASS
	HV	3.68	11.52	12.88	0.00142	0.00444	0.00496	PASS

LTE Band 41								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	3.32	1.77	11.40	0.00128	0.00068	0.00440	PASS
Extreme (50℃)		10.10	15.20	12.54	0.00390	0.00586	0.00483	PASS
Extreme (40℃)		17.38	10.36	3.07	0.00670	0.00399	0.00118	PASS
Extreme (30℃)		14.22	15.42	8.93	0.00548	0.00595	0.00344	PASS
Extreme (20℃)		4.83	14.55	15.66	0.00186	0.00561	0.00604	PASS
Extreme (10℃)		1.77	14.28	7.68	0.00068	0.00551	0.00296	PASS
Extreme (0℃)		13.54	1.27	5.16	0.00522	0.00049	0.00199	PASS
Extreme (-10℃)		10.82	3.16	10.22	0.00417	0.00122	0.00394	PASS
Extreme (-20℃)		7.22	5.46	5.61	0.00279	0.00210	0.00216	PASS
Extreme (-30℃)		16.66	9.13	1.83	0.00642	0.00352	0.00071	PASS
25℃	LV	2.50	5.77	3.46	0.00096	0.00223	0.00133	PASS
	HV	10.85	16.53	13.10	0.00418	0.00638	0.00505	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	2.98	13.65	16.70	0.00115	0.00526	0.00644	PASS
Extreme (50℃)		3.83	1.63	4.75	0.00148	0.00063	0.00183	PASS
Extreme (40℃)		1.56	16.84	13.84	0.00060	0.00649	0.00534	PASS
Extreme (30℃)		16.92	11.52	9.65	0.00653	0.00444	0.00372	PASS
Extreme (20℃)		16.12	1.95	3.19	0.00622	0.00075	0.00123	PASS
Extreme (10℃)		7.36	5.19	12.84	0.00284	0.00200	0.00495	PASS
Extreme (0℃)		9.77	11.08	8.27	0.00377	0.00427	0.00319	PASS
Extreme (-10℃)		14.83	9.44	16.51	0.00572	0.00364	0.00637	PASS
Extreme (-20℃)		16.73	8.55	14.63	0.00645	0.00330	0.00564	PASS
Extreme (-30℃)		8.95	6.95	9.61	0.00345	0.00268	0.00371	PASS
25℃	LV	5.58	12.03	3.24	0.00215	0.00464	0.00125	PASS
	HV	7.81	11.99	9.93	0.00301	0.00462	0.00383	PASS



Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	12.35	6.43	10.11	0.00476	0.00248	0.00390	PASS
Extreme (50℃)		7.55	5.43	7.59	0.00291	0.00210	0.00293	PASS
Extreme (40℃)		12.14	5.11	11.66	0.00468	0.00197	0.00450	PASS
Extreme (30℃)		4.09	7.14	17.47	0.00158	0.00275	0.00674	PASS
Extreme (20℃)		11.22	1.12	14.35	0.00433	0.00043	0.00553	PASS
Extreme (10℃)		12.89	13.16	2.65	0.00497	0.00508	0.00102	PASS
Extreme (0℃)		3.92	7.78	4.79	0.00151	0.00300	0.00185	PASS
Extreme (-10℃)		5.53	8.92	16.07	0.00213	0.00344	0.00620	PASS
Extreme (-20℃)		1.21	12.46	13.69	0.00047	0.00480	0.00528	PASS
Extreme (-30℃)		17.19	4.35	13.40	0.00663	0.00168	0.00517	PASS
25℃	LV	6.52	16.60	13.25	0.00251	0.00640	0.00511	PASS
	HV	13.89	17.74	13.86	0.00536	0.00684	0.00535	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	10.72	8.13	5.78	0.00413	0.00314	0.00223	PASS
Extreme (50℃)		4.17	1.99	1.17	0.00161	0.00077	0.00045	PASS
Extreme (40℃)		15.20	7.14	12.15	0.00586	0.00275	0.00468	PASS
Extreme (30℃)		8.60	14.93	17.53	0.00332	0.00576	0.00676	PASS
Extreme (20℃)		10.06	10.25	17.52	0.00388	0.00395	0.00676	PASS
Extreme (10℃)		1.09	8.07	13.76	0.00042	0.00311	0.00531	PASS
Extreme (0℃)		2.00	2.42	11.22	0.00077	0.00093	0.00433	PASS
Extreme (-10℃)		6.58	13.17	14.56	0.00254	0.00508	0.00561	PASS
Extreme (-20℃)		8.43	15.94	4.51	0.00325	0.00615	0.00174	PASS
Extreme (-30℃)		4.81	12.24	3.02	0.00186	0.00472	0.00117	PASS
25℃	LV	1.86	17.26	17.57	0.00072	0.00665	0.00678	PASS
	HV	17.11	2.18	5.81	0.00660	0.00084	0.00224	PASS

LTE Band 66								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	1.97	5.38	8.91	0.00113	0.00308	0.00510	PASS
Extreme (50℃)		13.29	5.13	14.61	0.00762	0.00294	0.00837	PASS



Extreme (40℃)		6.64	14.70	12.01	0.00380	0.00842	0.00688	PASS
Extreme (30℃)		2.36	4.04	15.61	0.00135	0.00232	0.00894	PASS
Extreme (20℃)		15.46	10.05	7.04	0.00886	0.00576	0.00403	PASS
Extreme (10℃)		2.50	16.73	15.29	0.00143	0.00959	0.00876	PASS
Extreme (0℃)		6.62	12.87	4.36	0.00379	0.00738	0.00250	PASS
Extreme (-10℃)		5.78	17.54	14.77	0.00331	0.01005	0.00847	PASS
Extreme (-20℃)		11.07	11.59	1.92	0.00634	0.00664	0.00110	PASS
Extreme (-30℃)		12.78	11.36	5.53	0.00732	0.00651	0.00317	PASS
25℃	LV	15.03	16.31	15.36	0.00861	0.00935	0.00880	PASS
	HV	9.86	16.70	12.69	0.00565	0.00957	0.00727	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	14.20	1.61	3.56	0.00814	0.00092	0.00204	PASS
Extreme (50℃)		3.90	15.32	17.83	0.00223	0.00878	0.01022	PASS
Extreme (40℃)		1.40	15.60	15.25	0.00080	0.00894	0.00874	PASS
Extreme (30℃)		6.50	3.76	9.04	0.00372	0.00216	0.00518	PASS
Extreme (20℃)		13.16	11.61	11.30	0.00754	0.00665	0.00648	PASS
Extreme (10℃)		13.39	9.79	11.74	0.00767	0.00561	0.00673	PASS
Extreme (0℃)		16.53	11.48	14.18	0.00947	0.00658	0.00812	PASS
Extreme (-10℃)		11.19	10.19	12.86	0.00641	0.00584	0.00737	PASS
Extreme (-20℃)		8.22	10.20	16.78	0.00471	0.00585	0.00962	PASS
Extreme (-30℃)		8.91	8.63	17.06	0.00511	0.00495	0.00978	PASS
25℃	LV	15.75	10.58	12.28	0.00903	0.00606	0.00704	PASS
	HV	12.27	5.85	1.71	0.00703	0.00335	0.00098	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	11.16	10.12	3.60	0.00640	0.00580	0.00206	PASS
Extreme (50℃)		2.18	9.86	7.96	0.00125	0.00565	0.00456	PASS
Extreme (40℃)		1.73	4.12	6.53	0.00099	0.00236	0.00374	PASS
Extreme (30℃)		3.24	4.61	13.96	0.00186	0.00264	0.00800	PASS
Extreme (20℃)		15.78	6.63	11.06	0.00905	0.00380	0.00634	PASS
Extreme (10℃)		3.50	12.27	6.37	0.00200	0.00703	0.00365	PASS
Extreme (0℃)		9.93	10.56	16.71	0.00569	0.00605	0.00957	PASS
Extreme (-10℃)		16.04	5.21	6.42	0.00919	0.00299	0.00368	PASS
Extreme (-20℃)		14.57	17.58	15.09	0.00835	0.01007	0.00865	PASS
Extreme (-30℃)		9.24	13.73	17.34	0.00529	0.00787	0.00993	PASS
25℃	LV	4.95	7.26	5.00	0.00284	0.00416	0.00286	PASS



	HV	8.33	5.27	6.54	0.00477	0.00302	0.00375	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	14.11	6.57	10.56	0.00809	0.00377	0.00605	PASS
Extreme (50℃)		8.37	14.60	4.19	0.00480	0.00836	0.00240	PASS
Extreme (40℃)		4.06	16.23	14.24	0.00233	0.00930	0.00816	PASS
Extreme (30℃)		11.87	17.96	16.70	0.00680	0.01029	0.00957	PASS
Extreme (20℃)		16.25	17.12	11.88	0.00931	0.00981	0.00681	PASS
Extreme (10℃)		10.61	9.10	15.66	0.00608	0.00521	0.00898	PASS
Extreme (0℃)		2.61	1.26	2.40	0.00149	0.00072	0.00138	PASS
Extreme (-10℃)		10.89	3.01	1.29	0.00624	0.00172	0.00074	PASS
Extreme (-20℃)		5.79	13.88	9.81	0.00332	0.00796	0.00562	PASS
Extreme (-30℃)		12.85	7.11	10.75	0.00737	0.00408	0.00616	PASS
25℃	LV	1.89	8.51	11.18	0.00108	0.00488	0.00640	PASS
	HV	13.74	4.05	4.98	0.00787	0.00232	0.00286	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	2.71	17.79	15.96	0.00156	0.01019	0.00914	PASS
Extreme (50℃)		2.96	1.26	1.49	0.00170	0.00072	0.00085	PASS
Extreme (40℃)		9.19	9.28	15.62	0.00527	0.00532	0.00895	PASS
Extreme (30℃)		3.84	9.77	10.10	0.00220	0.00560	0.00579	PASS
Extreme (20℃)		10.12	9.66	1.86	0.00580	0.00554	0.00107	PASS
Extreme (10℃)		15.92	8.50	15.66	0.00912	0.00487	0.00898	PASS
Extreme (0℃)		3.42	6.66	12.77	0.00196	0.00381	0.00732	PASS
Extreme (-10℃)		4.33	14.94	5.48	0.00248	0.00856	0.00314	PASS
Extreme (-20℃)		4.27	9.88	1.97	0.00245	0.00566	0.00113	PASS
Extreme (-30℃)		8.38	9.81	14.38	0.00480	0.00562	0.00824	PASS
25℃	LV	8.62	11.23	1.79	0.00494	0.00644	0.00102	PASS
	HV	11.83	13.54	17.04	0.00678	0.00776	0.00977	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	1.41	5.21	17.62	0.00081	0.00299	0.01010	PASS
Extreme (50℃)		4.93	3.39	8.53	0.00283	0.00194	0.00489	PASS
Extreme (40℃)		3.69	6.87	4.15	0.00212	0.00394	0.00238	PASS
Extreme (30℃)		10.07	10.58	7.42	0.00577	0.00606	0.00425	PASS

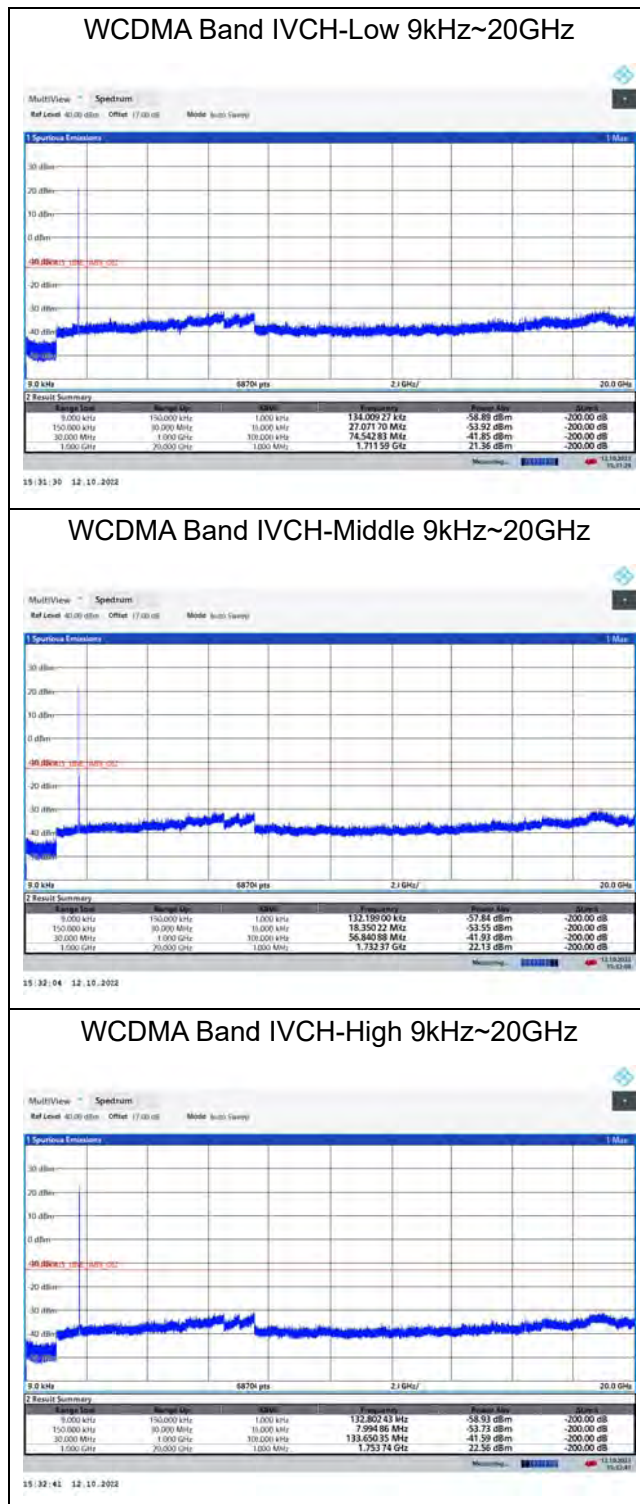


Extreme (20℃)		10.91	1.44	10.48	0.00625	0.00083	0.00601	PASS
Extreme (10℃)		5.97	7.86	2.10	0.00342	0.00451	0.00120	PASS
Extreme (0℃)		12.33	15.05	13.60	0.00706	0.00862	0.00779	PASS
Extreme (-10℃)		8.45	10.33	17.14	0.00484	0.00592	0.00982	PASS
Extreme (-20℃)		6.11	14.30	3.52	0.00350	0.00819	0.00202	PASS
Extreme (-30℃)		2.69	9.75	10.60	0.00154	0.00559	0.00608	PASS
25℃	LV	13.47	14.65	5.41	0.00772	0.00840	0.00310	PASS
	HV	13.69	16.01	5.59	0.00785	0.00918	0.00320	PASS

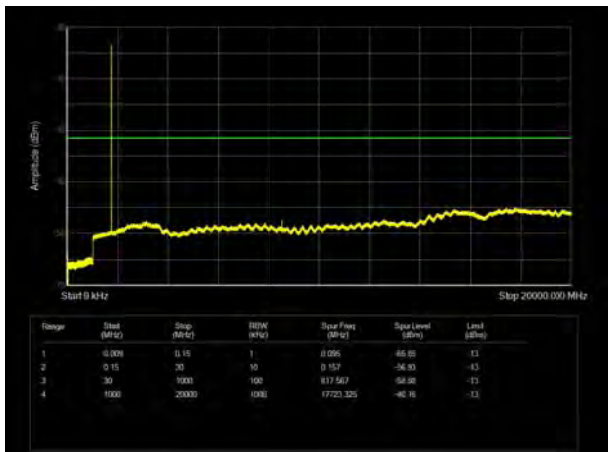
6.6 Spurious Emissions at Antenna Terminals

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.

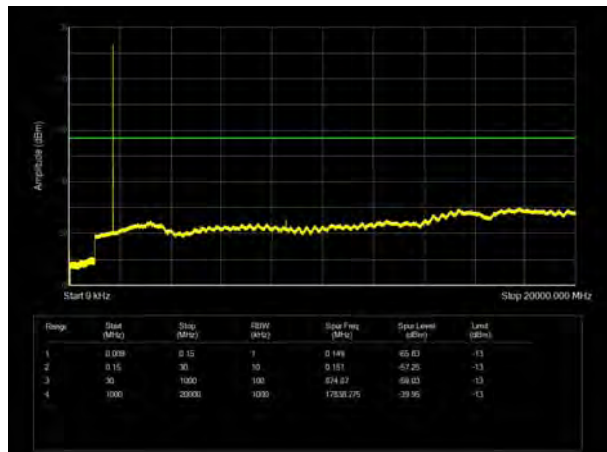
The signal beyond the limit is carrier.



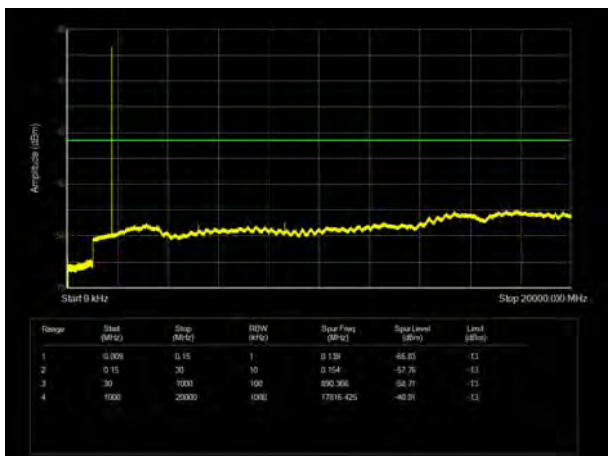
LTE Band 4 1.4MHz CH-Low 9kHz~20GHz



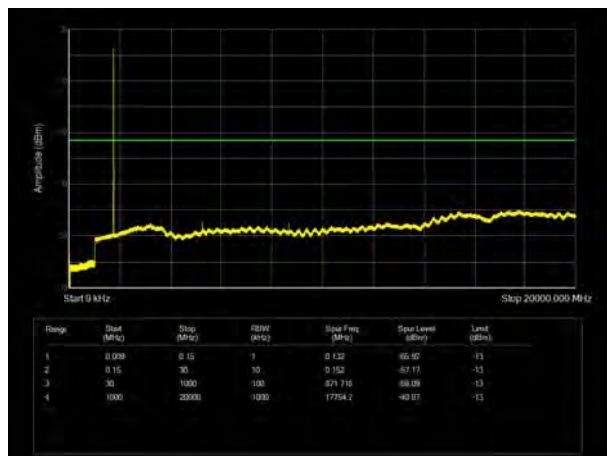
LTE Band 4 3MHz CH- Low 9kHz~20GHz



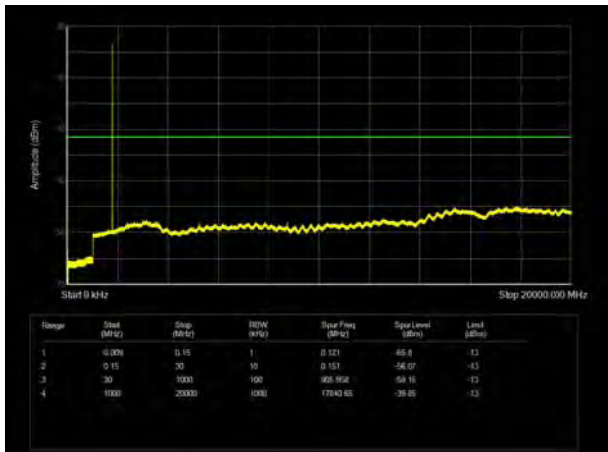
LTE Band 4 1.4MHz CH-Middle 9kHz~20GHz



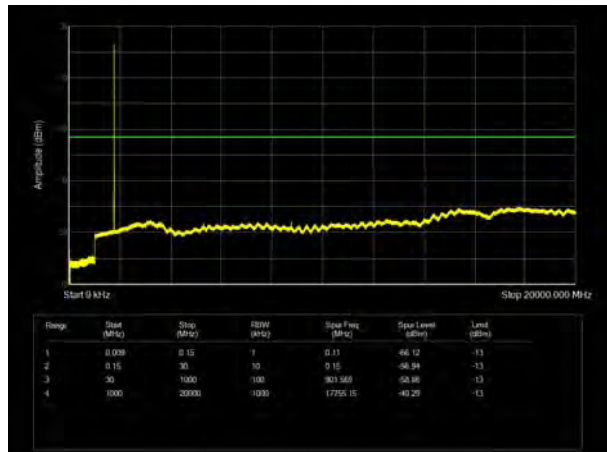
LTE Band 4 3MHz CH-Middle 9kHz~20GHz



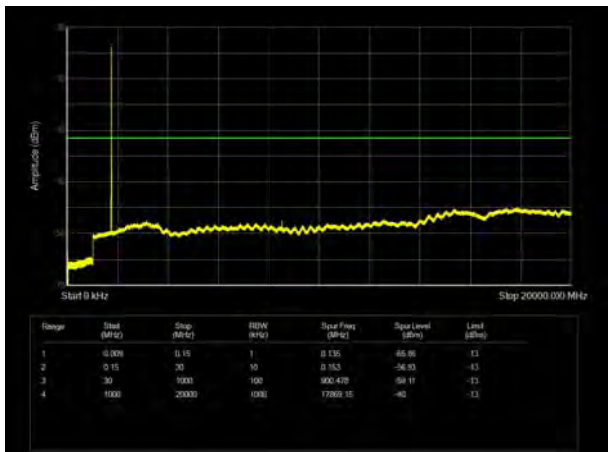
LTE Band 4 1.4MHz CH- High 9kHz~20GHz



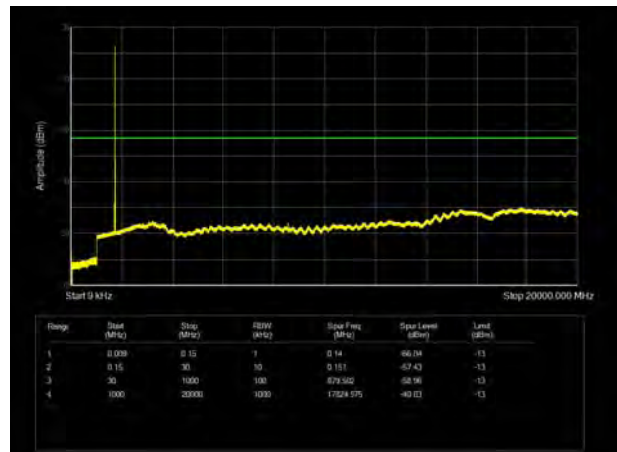
LTE Band 4 3MHz CH-High 9kHz~20GHz



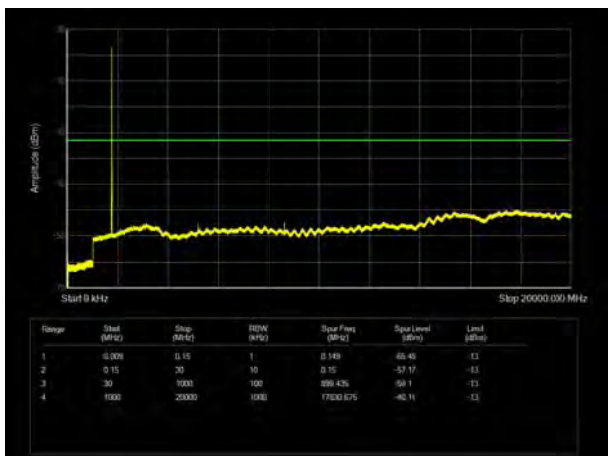
LTE Band 4 5MHz CH- Low 9kHz~20GHz



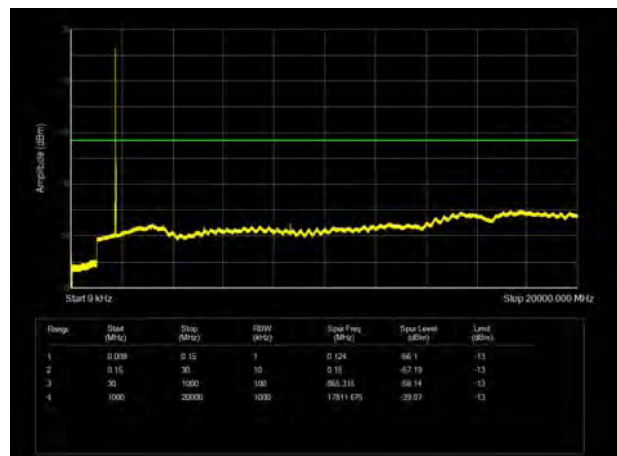
LTE Band 4 10MHz CH-Low 9kHz~20GHz



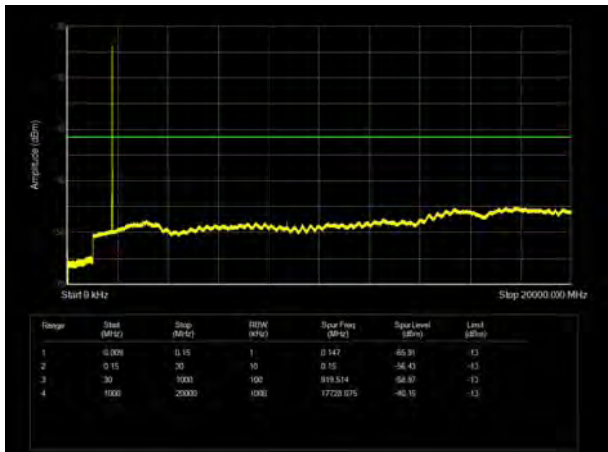
LTE Band 4 5MHz CH-Middle 9kHz~20GHz



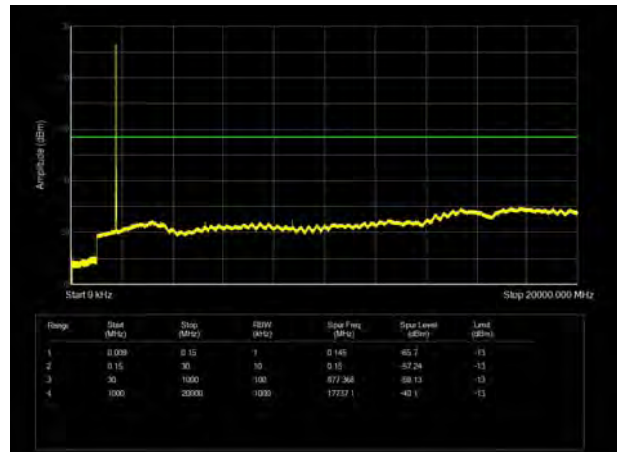
LTE Band 4 10MHz CH- Middle 9kHz~20GHz



LTE Band 4 5MHz CH-High 9kHz~20GHz

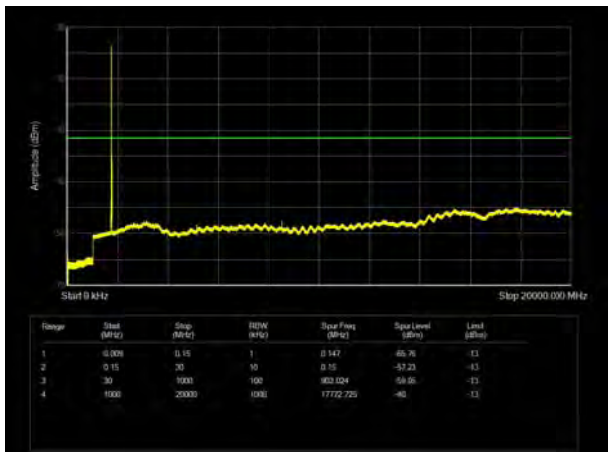


LTE Band 4 10MHz CH- High 9kHz~20GHz

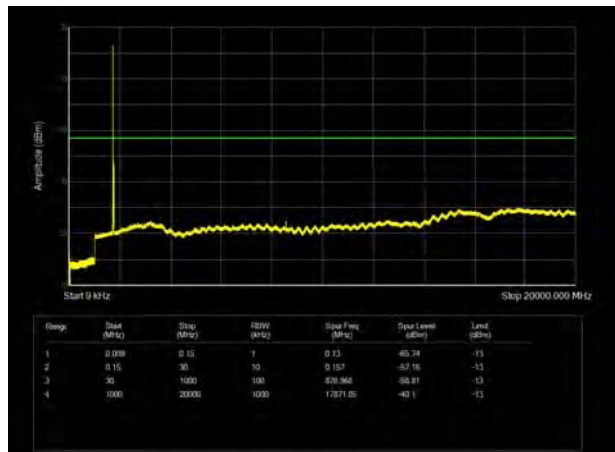




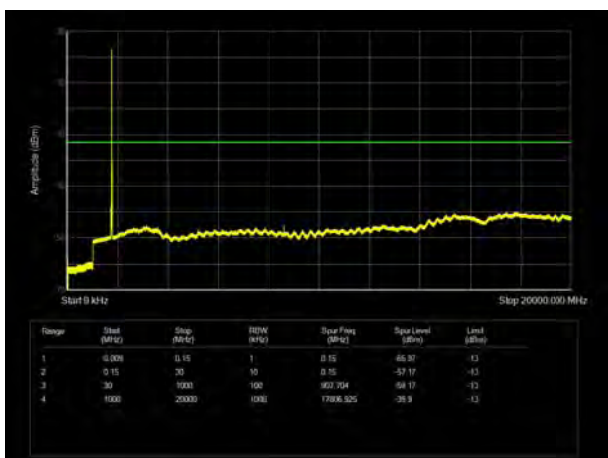
LTE Band 4 15MHz CH- Low 9kHz~20GHz



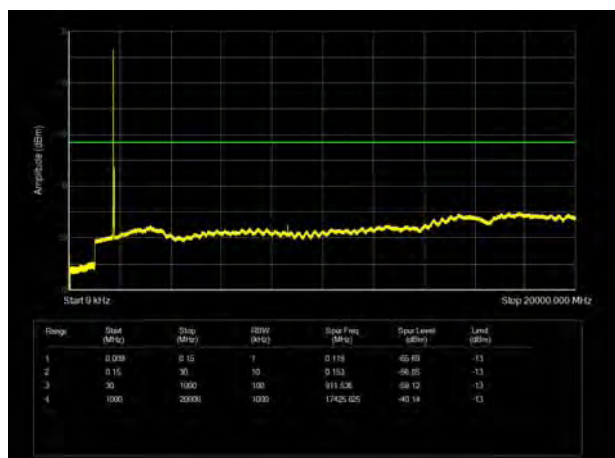
LTE Band 4 20MHz CH-Low 9kHz~20GHz



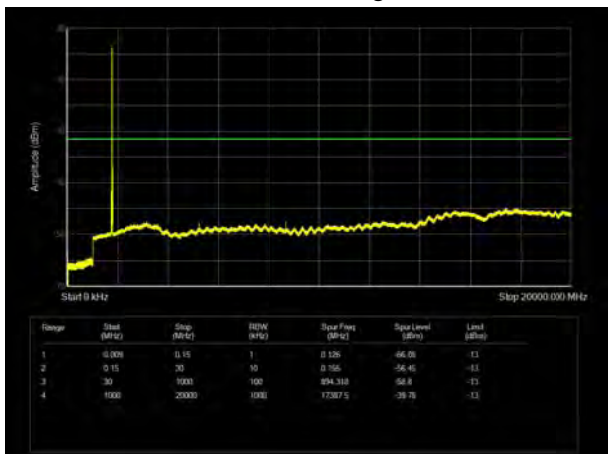
LTE Band 4 15MHz CH- Middle 9kHz~20GHz



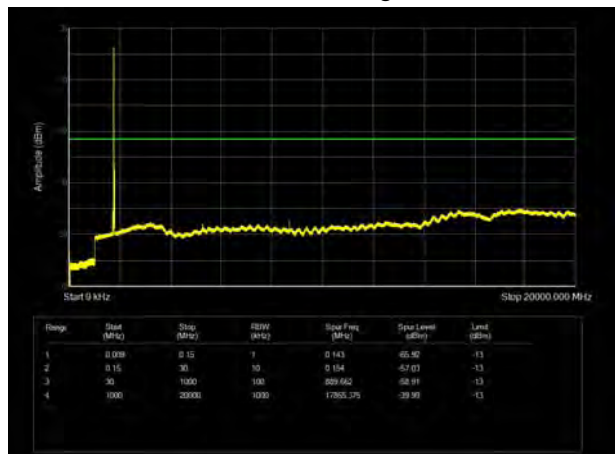
LTE Band 4 20MHz CH- Middle 9kHz~20GHz



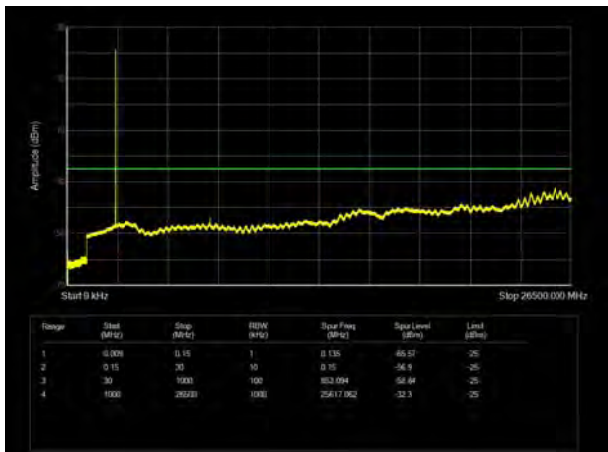
LTE Band 4 15MHz CH-High 9kHz~20GHz



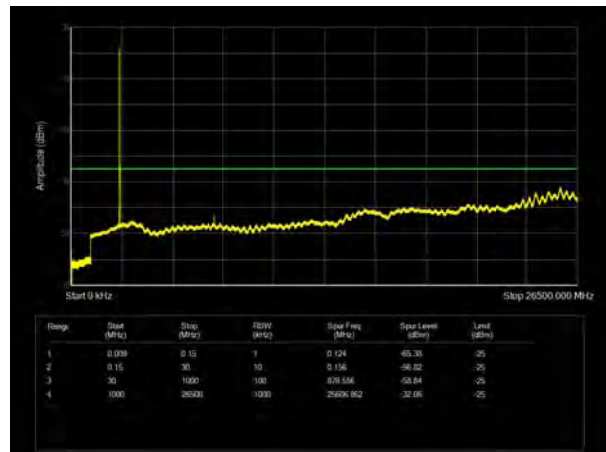
LTE Band 4 20MHz CH- High 9kHz~20GHz



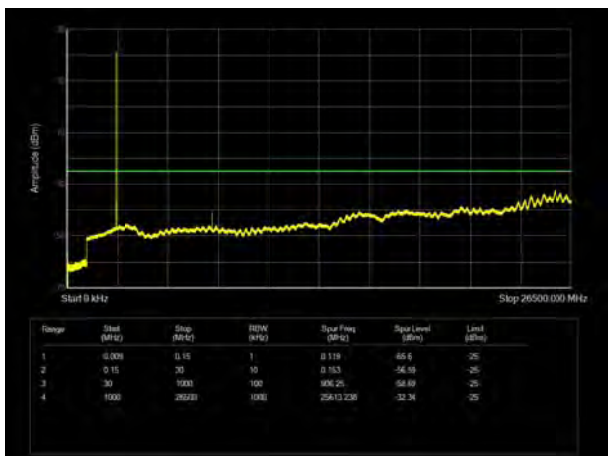
LTE Band 7 5MHz CH- Low 9kHz~26.5GHz



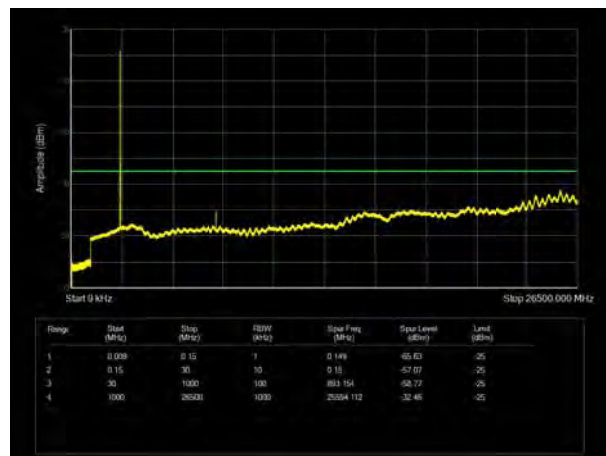
LTE Band 7 10MHz CH-Low 9kHz~26.5GHz



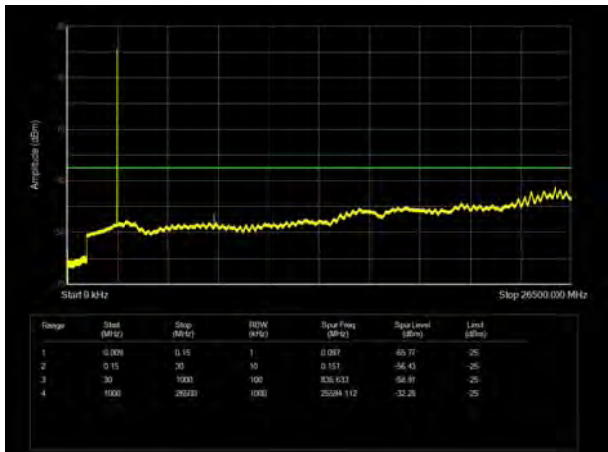
LTE Band 7 5MHz CH- Middle 9kHz~26.5GHz



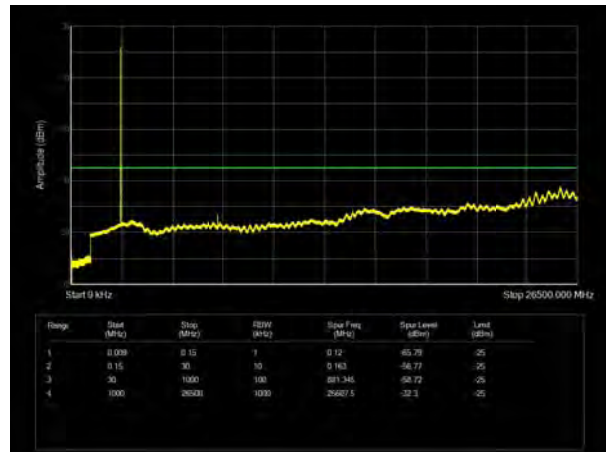
LTE Band 7 10MHz CH- Middle 9kHz~26.5GHz



LTE Band 7 5MHz CH-High 9kHz~26.5GHz

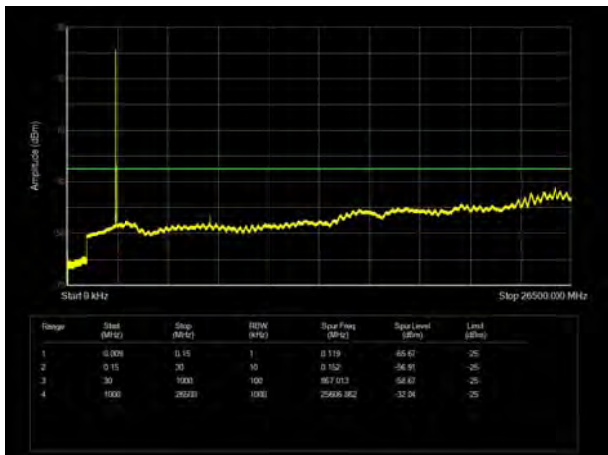


LTE Band 7 10MHz CH- High 9kHz~26.5GHz

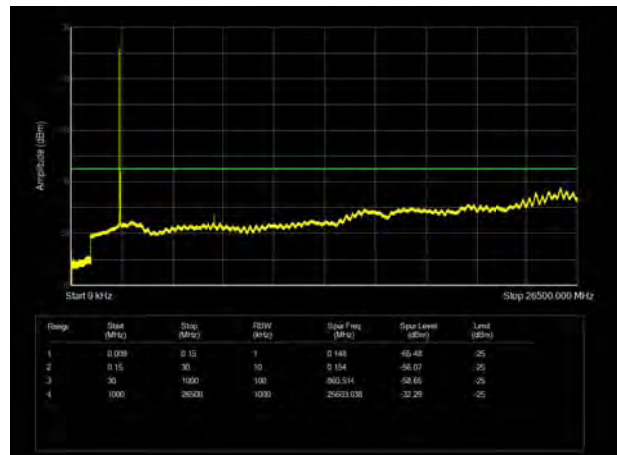




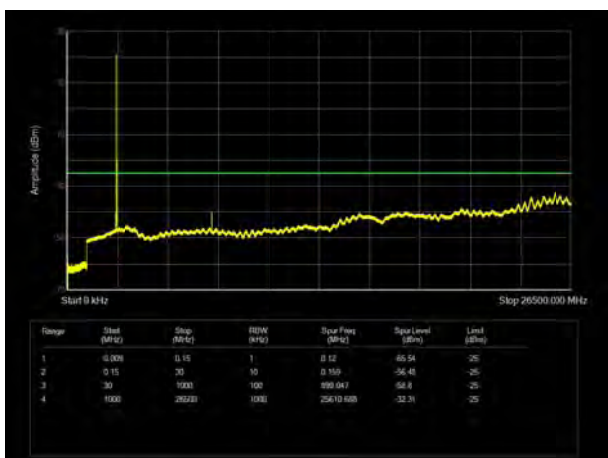
LTE Band 7 15MHz CH- Low 9kHz~26.5GHz



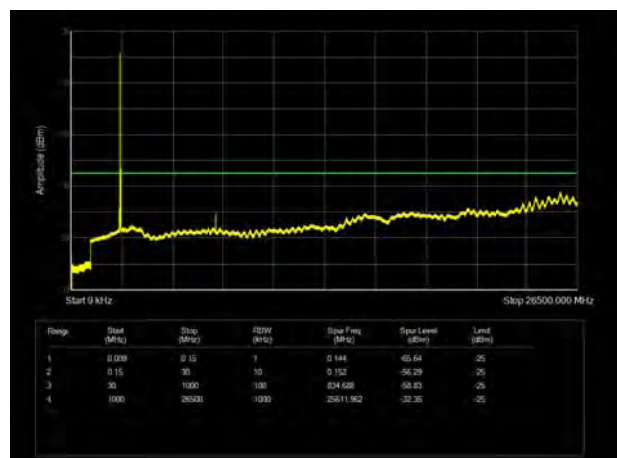
LTE Band 7 20MHz CH-Low 9kHz~26.5GHz



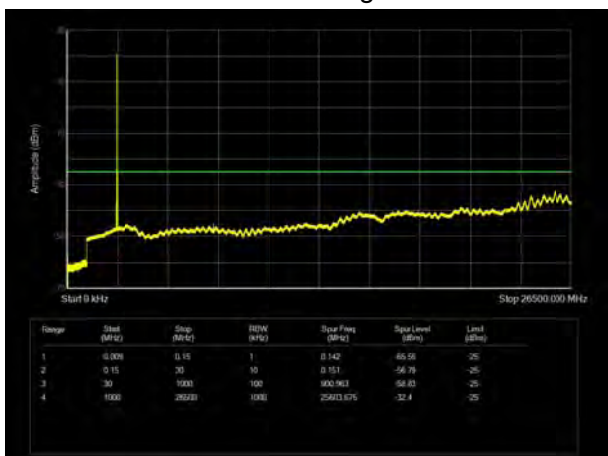
LTE Band 7 15MHz CH- Middle 9kHz~26.5GHz



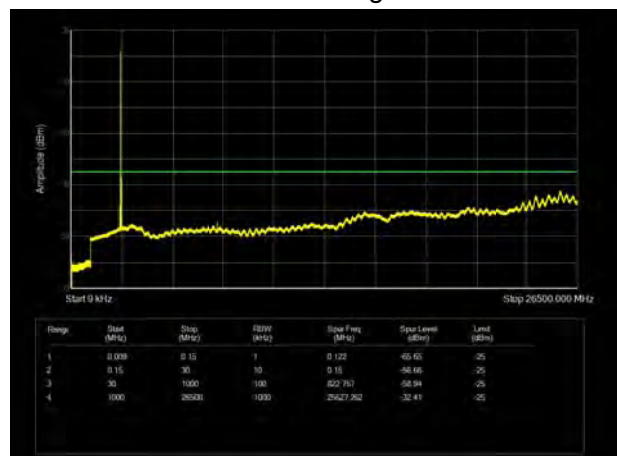
LTE Band 7 20MHz CH- Middle 9kHz~26.5GHz



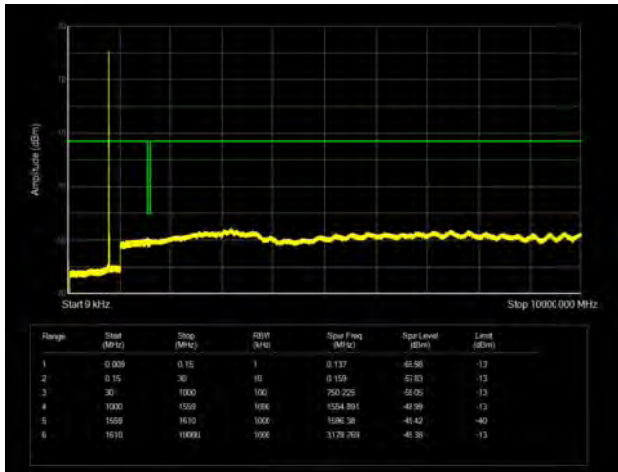
LTE Band 7 15MHz CH-High 9kHz~26.5GHz



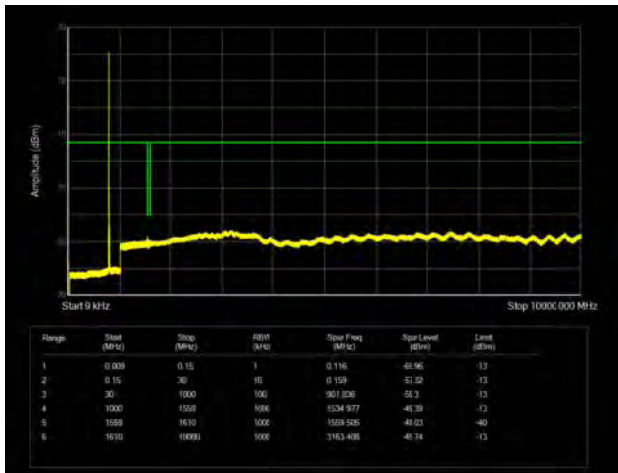
LTE Band 7 20MHz CH- High 9kHz~26.5GHz



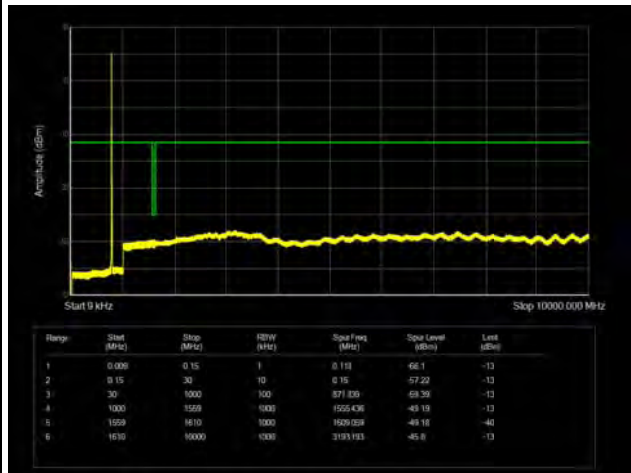
LTE Band 135MHzCH-Low 9kHz ~10GHz



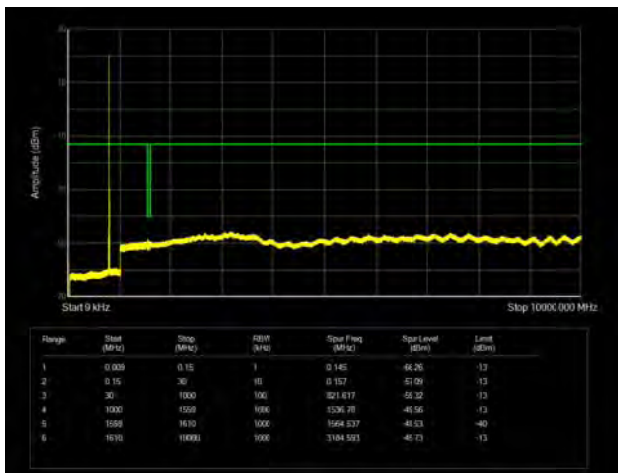
LTE Band 135MHzCH-Middle 9kHz ~10GHz



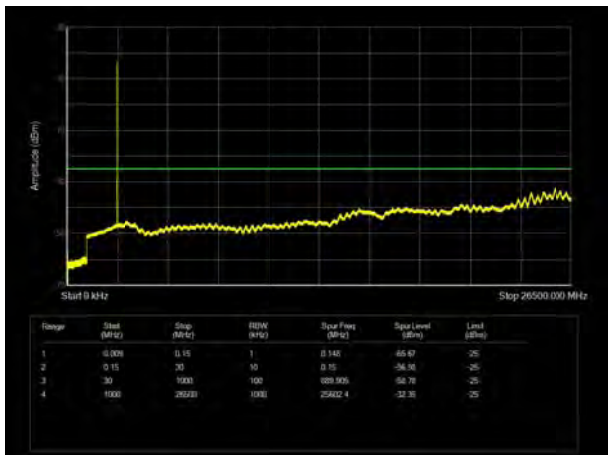
LTE Band 1310MHzCH-Middle 9kHz ~10GHz



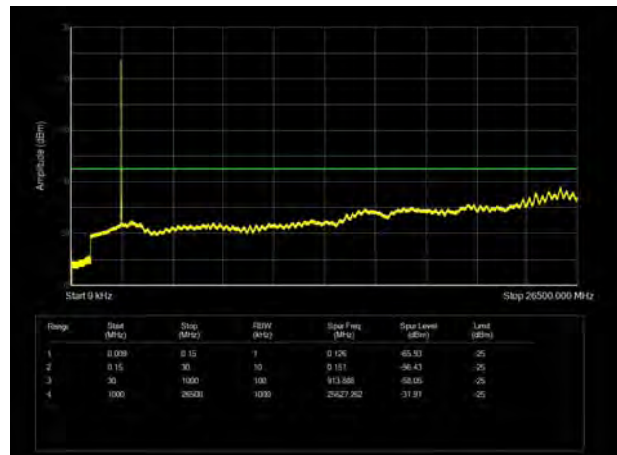
LTE Band 135MHzCH-High 9kHz ~10GHz



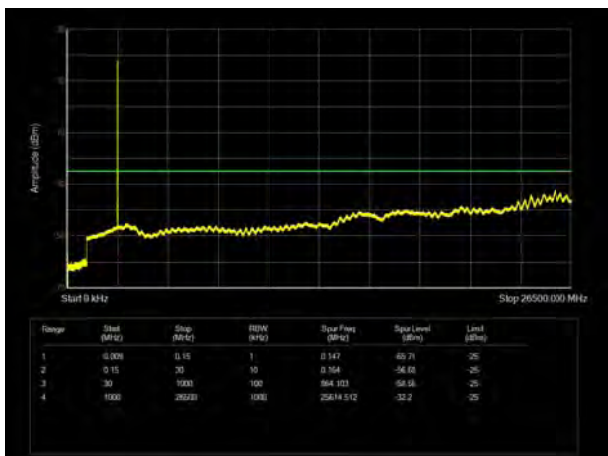
LTE Band 38 5MHz CH- Low 9kHz~26.5GHz



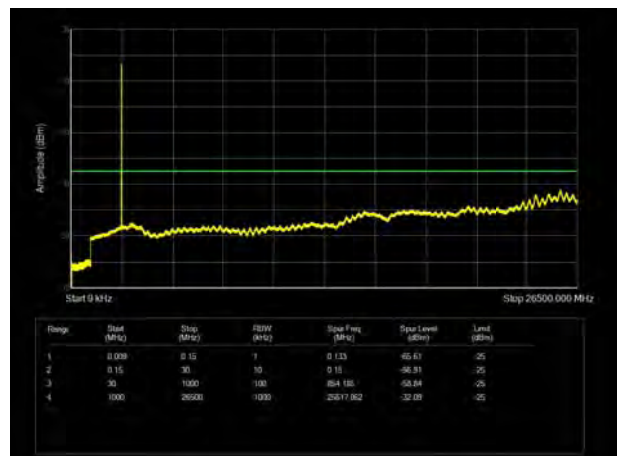
LTE Band 3810MHz CH- Low 9kHz~26.5GHz



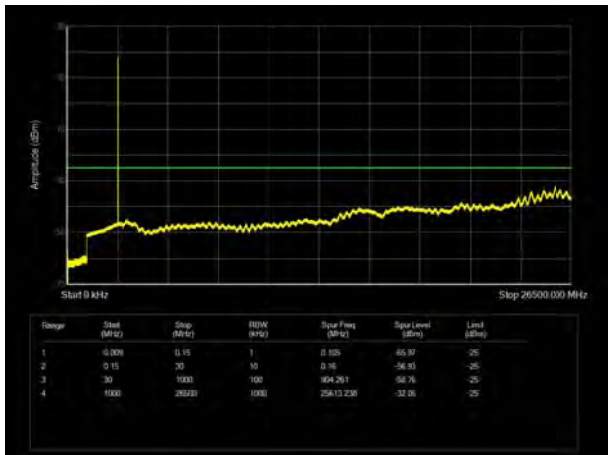
LTE Band 38 5MHz CH- Middle 9kHz~26.5GHz



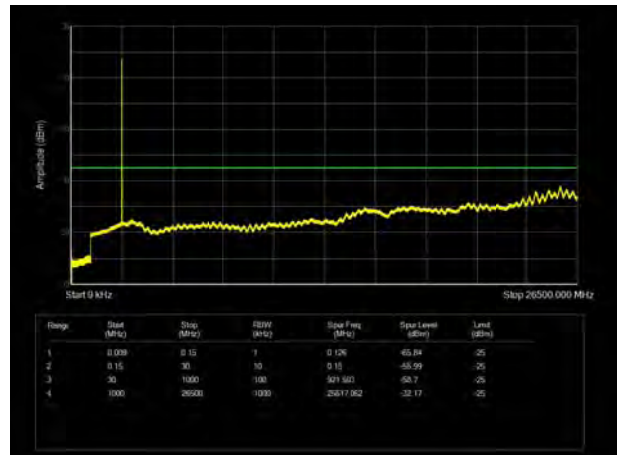
LTE Band 3810MHz CH- Middle 9kHz~26.5GHz



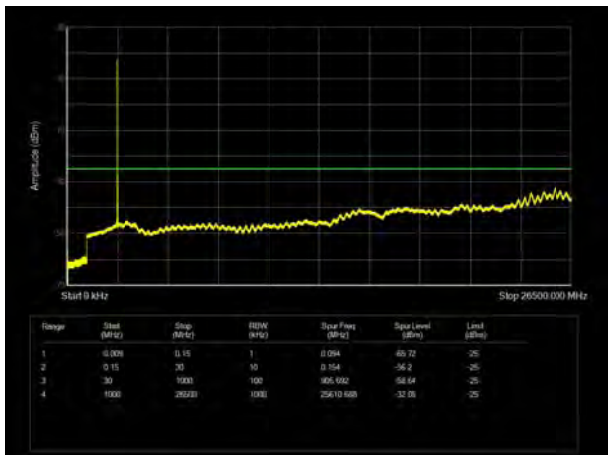
LTE Band 38 5MHz CH-High 9kHz~26.5GHz



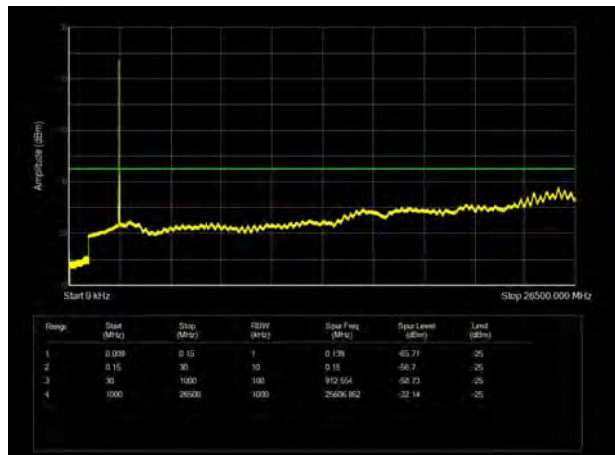
LTE Band 3810MHz CH-High 9kHz~26.5GHz



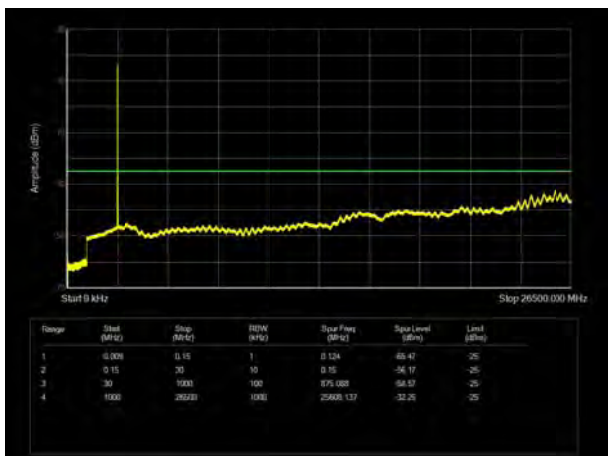
LTE Band 38 15MHz CH- Low 9kHz~26.5GHz



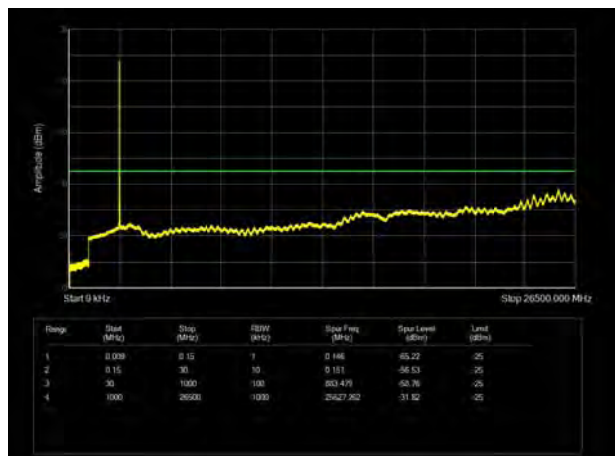
LTE Band 38 20MHz CH-Low 9kHz~26.5GHz



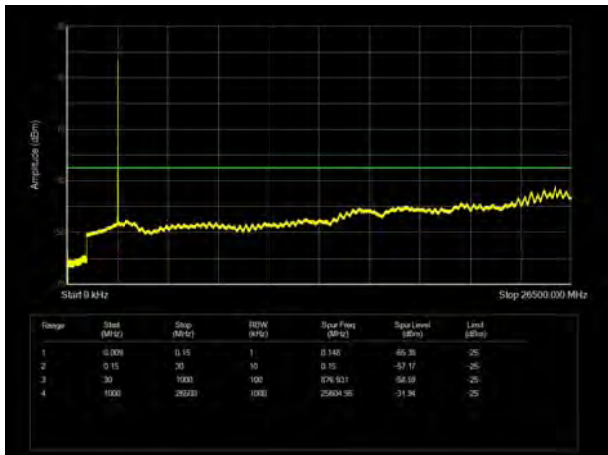
LTE Band 38 15MHz CH- Middle 9kHz~26.5GHz



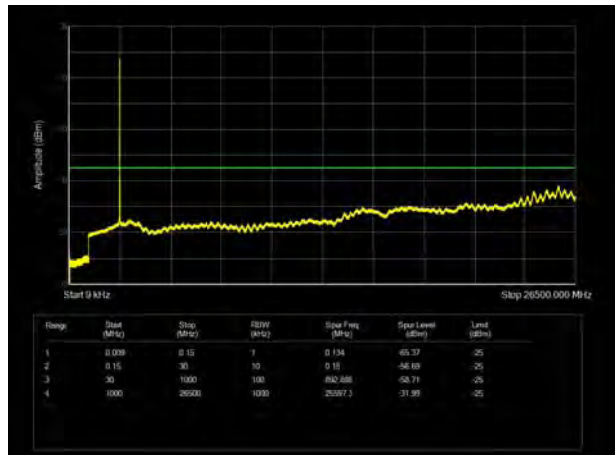
LTE Band 38 20MHz CH- Middle 9kHz~26.5GHz



LTE Band 38 15MHz CH-High 9kHz~26.5GHz

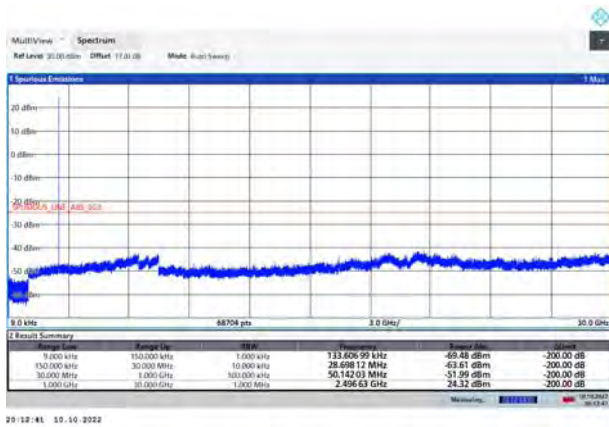


LTE Band 38 20MHz CH- High 9kHz~26.5GHz



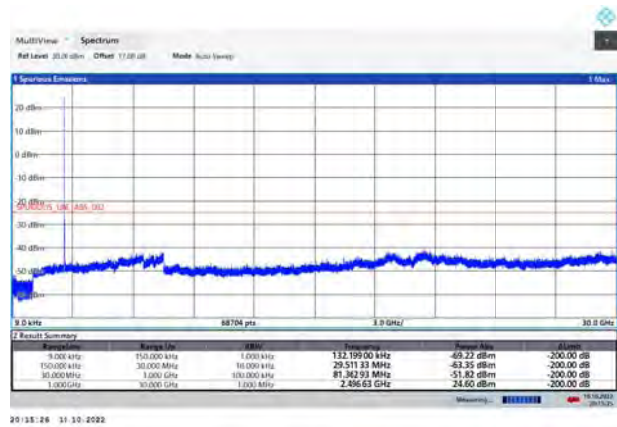


LTE Band 41 5MHz CH- Low 9kHz~30GHz



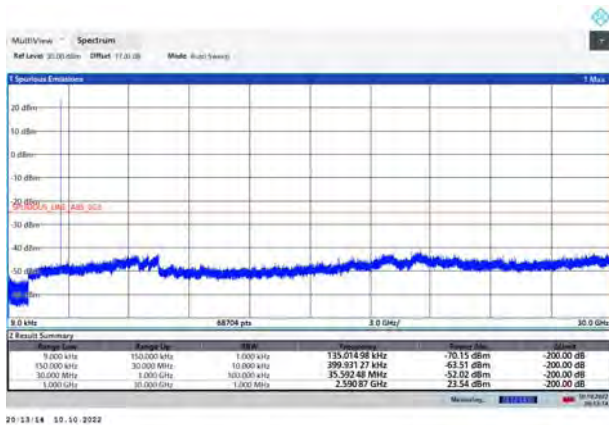
20:12:41 10-10-2022

LTE Band 41 10MHz CH- Low 9kHz~30GHz



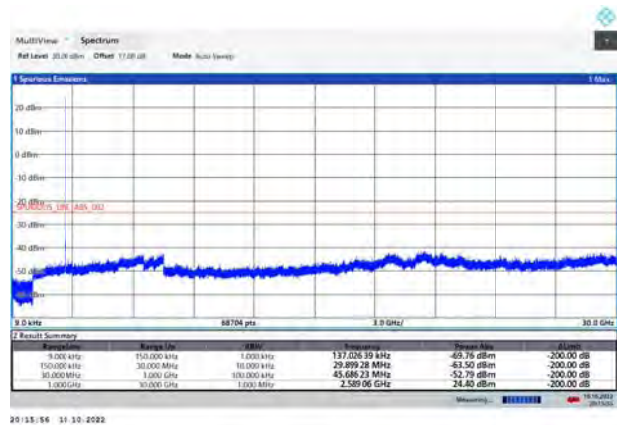
20:13:26 10-10-2022

LTE Band 41 5MHz CH- Middle 9kHz~30GHz



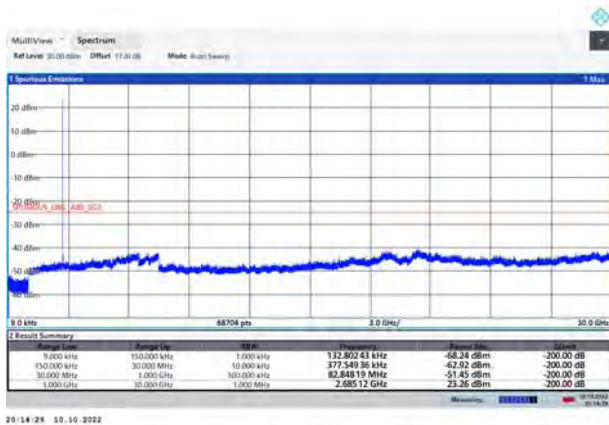
20:13:54 10-10-2022

LTE Band 41 10MHz CH- Middle 9kHz~30GHz



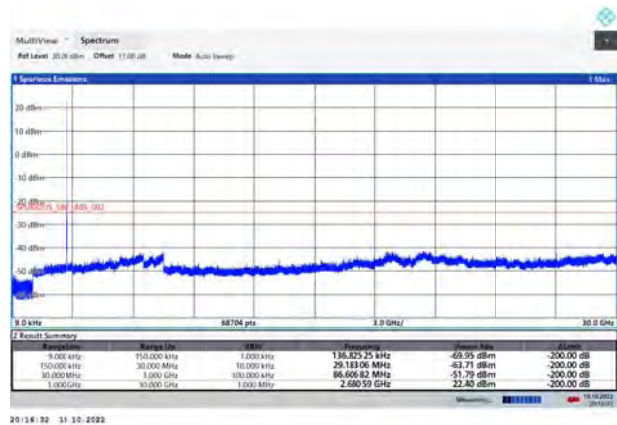
20:13:56 10-10-2022

LTE Band 41 5MHz CH- High 9kHz~30GHz



20:14:29 10-10-2022

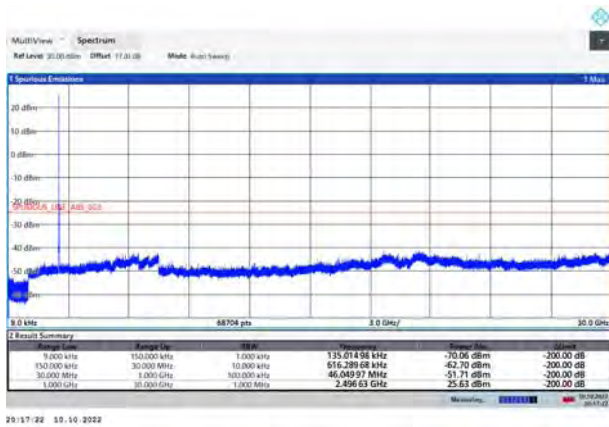
LTE Band 41 10MHz CH- High 9kHz~30GHz



20:14:52 10-10-2022

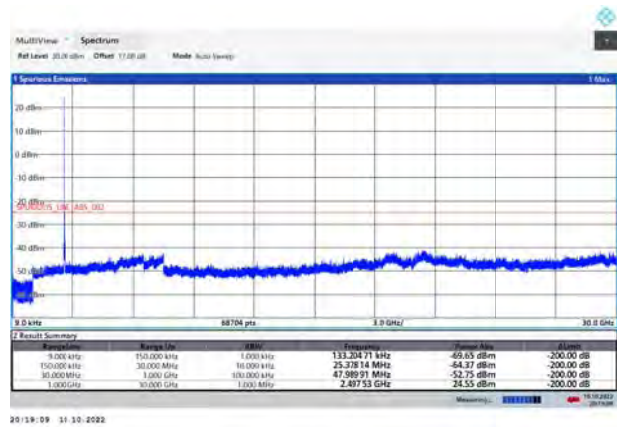


LTE Band 41 15MHz CH- Low 9kHz~30GHz



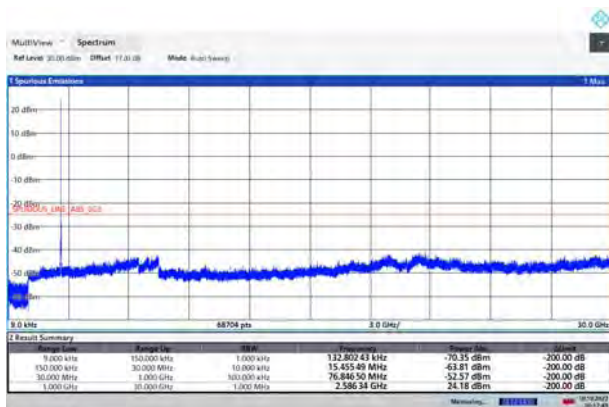
20/17/22 10:10:2022

LTE Band 41 20MHz CH-Low 9kHz~30GHz



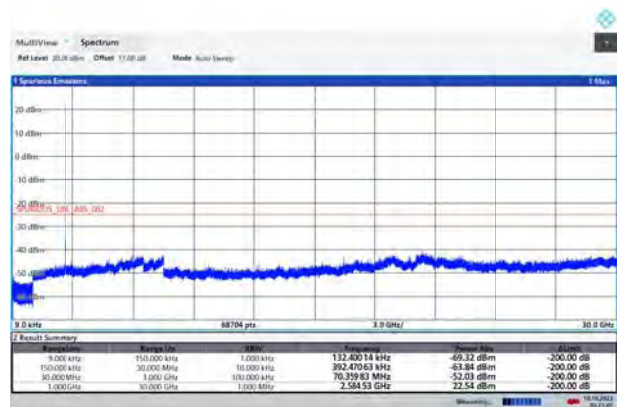
20/19/22 10:10:2022

LTE Band 41 15MHz CH- Middle 9kHz~30GHz



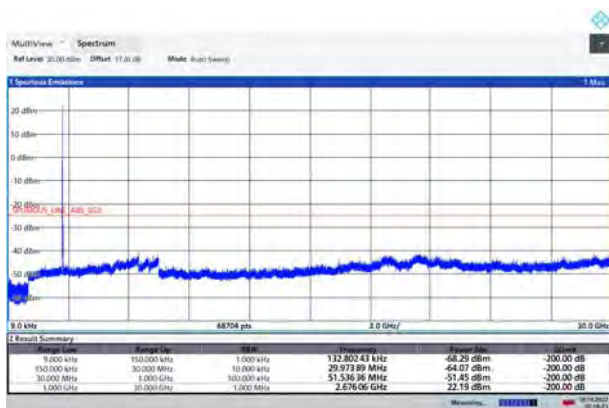
20/17/22 10:10:2022

LTE Band 41 20MHz CH- Middle 9kHz~30GHz



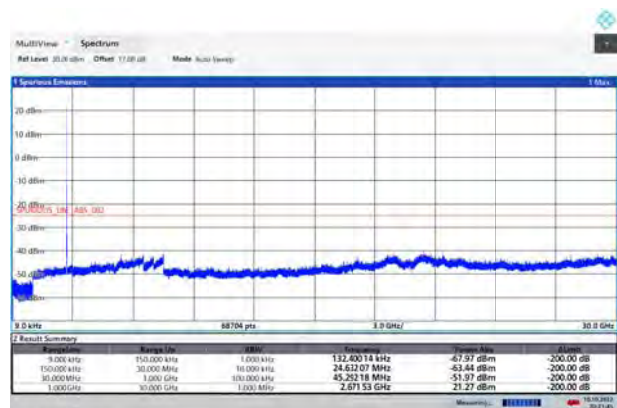
20/25/22 10:10:2022

LTE Band 41 15MHz CH-High 9kHz~30GHz



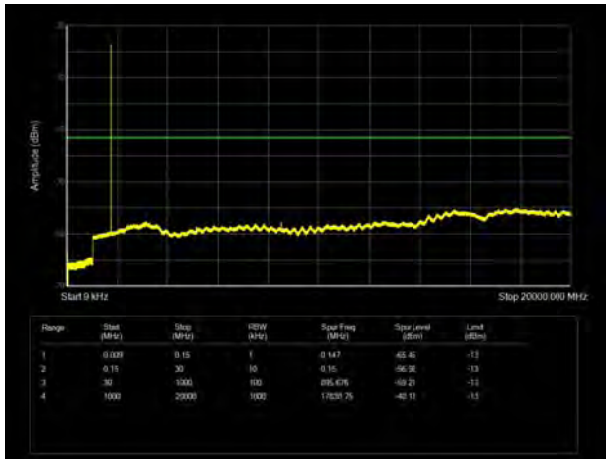
20/18/24 10:10:2022

LTE Band 41 20MHz CH- High 9kHz~30GHz

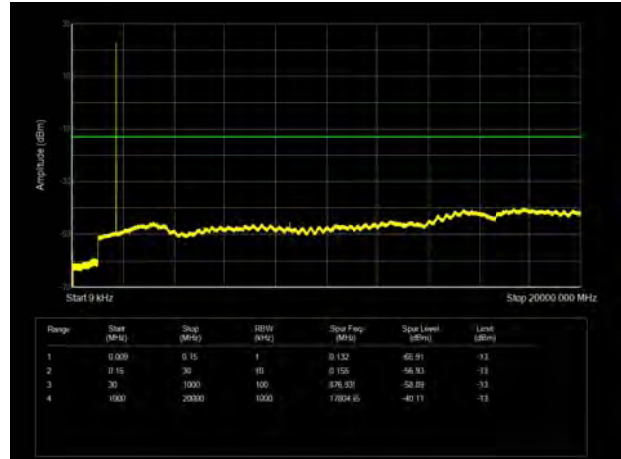


20/25/24 10:10:2022

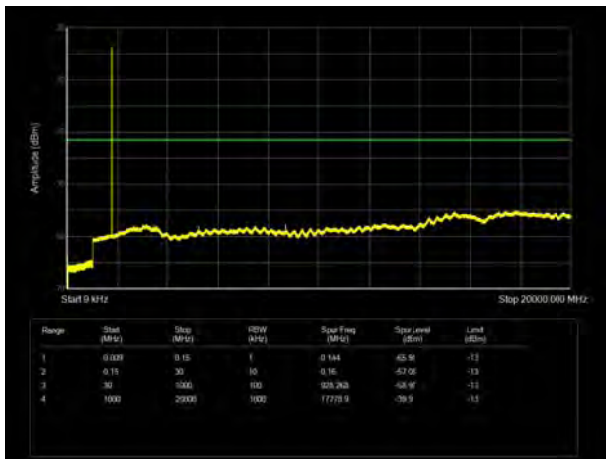
LTE Band 66 1.4MHz CH-Low 9kHz ~20GHz



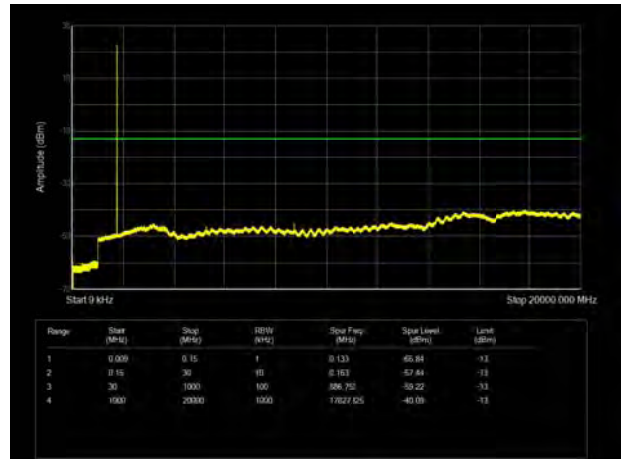
LTE Band 66 3MHzCH-Low 9kHz ~20GHz



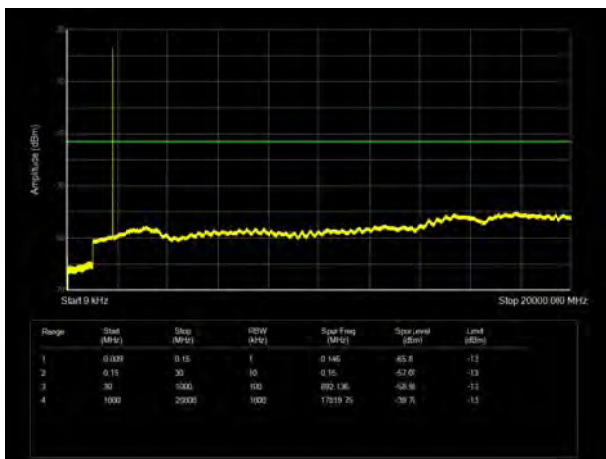
LTE Band 66 1.4MHz CH-Middle 9kHz ~20GHz



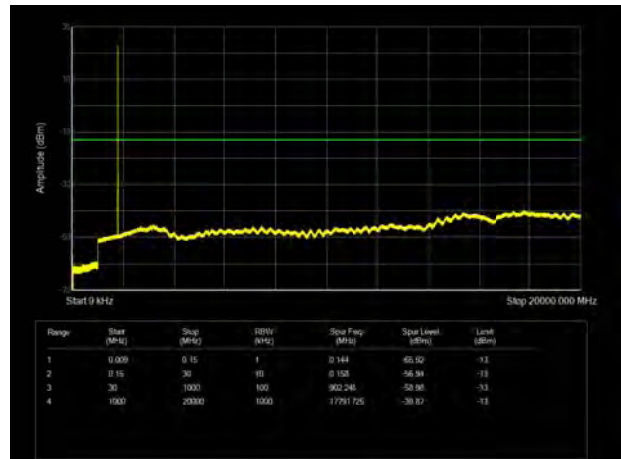
LTE Band 66 3MHzCH-Middle 9kHz ~20GHz



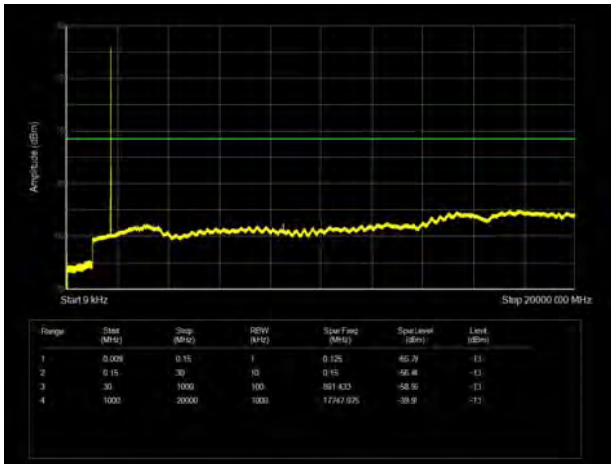
LTE Band 66 1.4MHz CH-High 9kHz ~20GHz



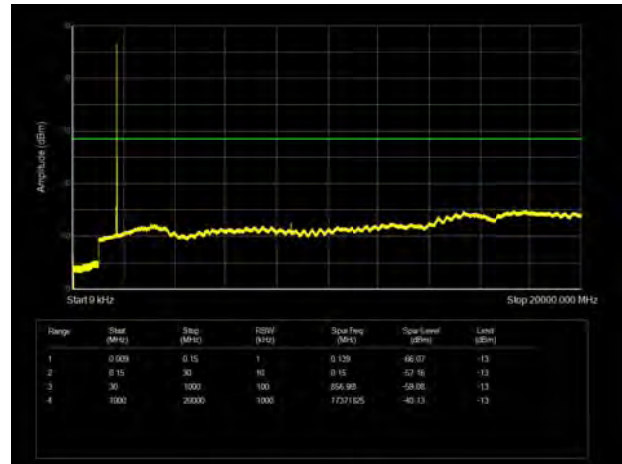
LTE Band 66 3MHzCH-High 9kHz ~20GHz



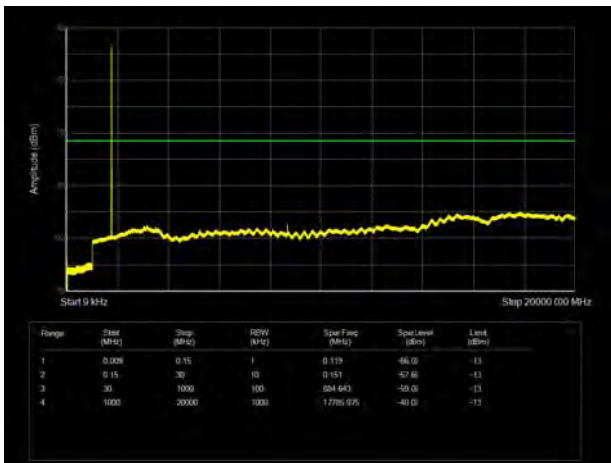
LTE Band 66 5MHz CH-Low 9kHz ~20GHz



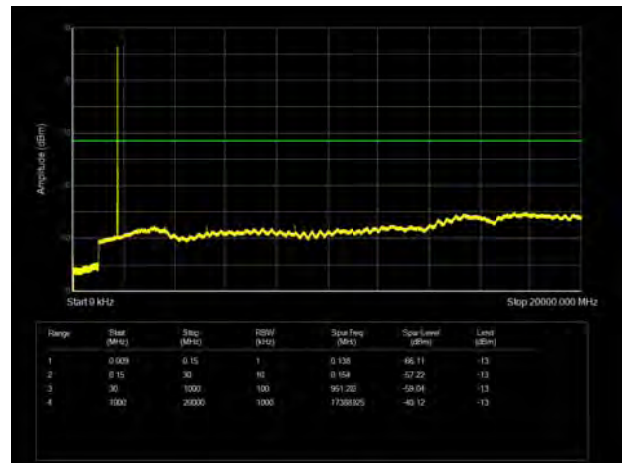
LTE Band 66 10MHz CH-Low 9kHz ~20GHz



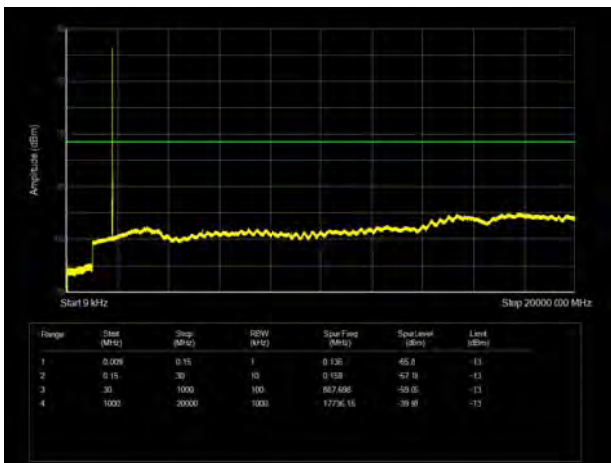
LTE Band 66 5MHz CH-Middle 9kHz ~20GHz



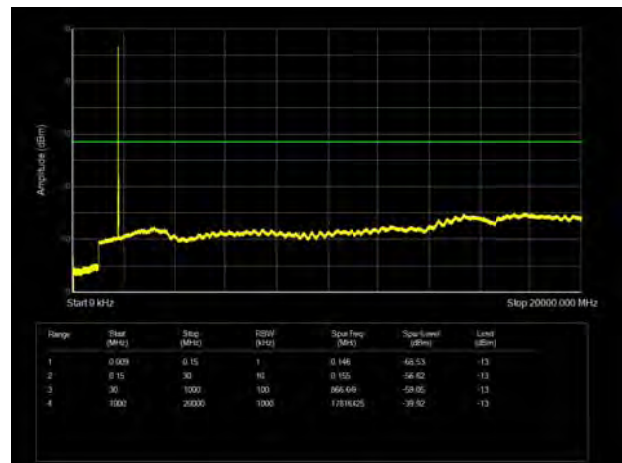
LTE Band 66 10MHz CH-Middle 9kHz ~20GHz



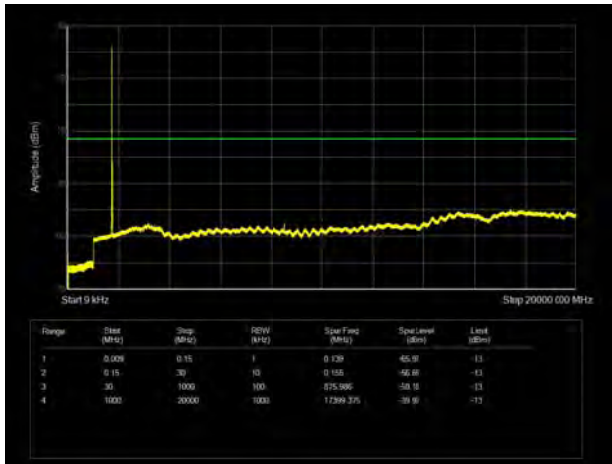
LTE Band 66 5MHz CH-High 9kHz ~20GHz



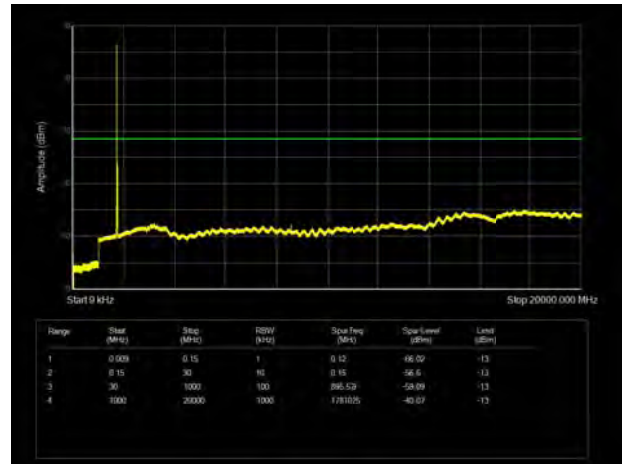
LTE Band 66 10MHz CH-High 9kHz ~20GHz



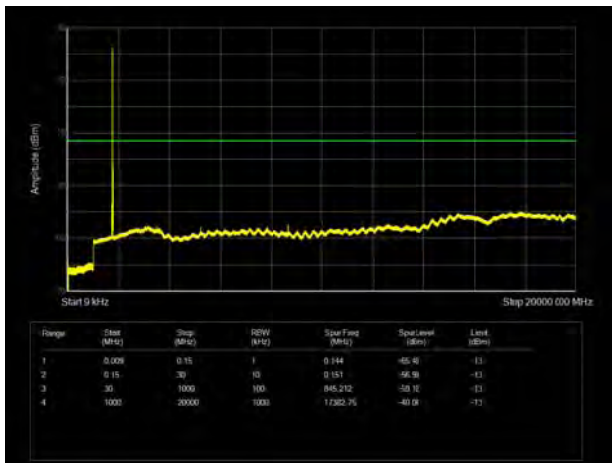
LTE Band 6615MHz CH-Low9kHz ~20GHz



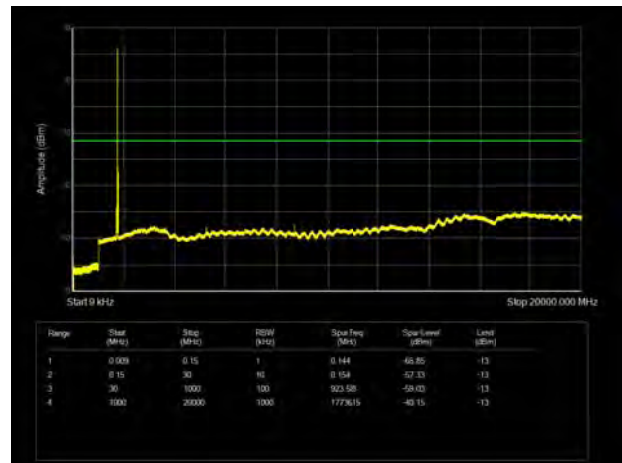
LTE Band 66 20MHz CH-Low9kHz ~20GHz



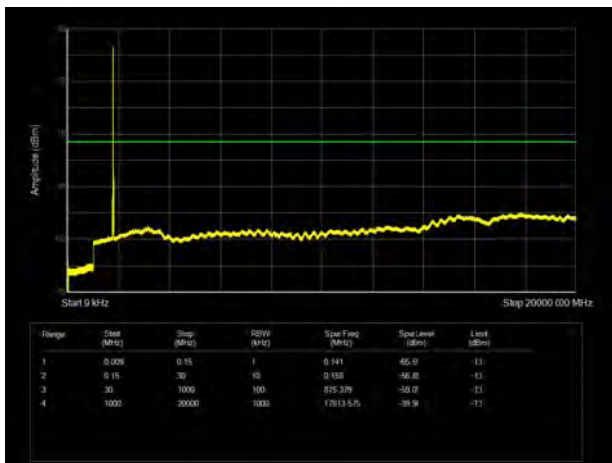
LTE Band 66 15MHz CH-Middle 9kHz ~20GHz



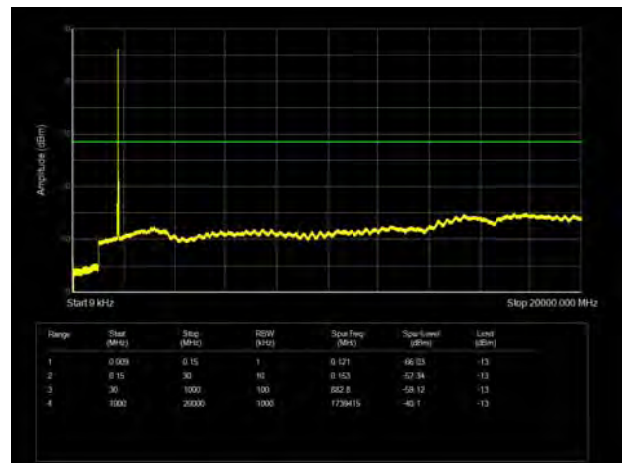
LTE Band 66 20MHz CH-Middle 9kHz ~20GHz



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



LTE Band 66 20MHz CH-High9kHz ~20GHz





6.7 Radiated Spurious Emission

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

Upper Antenna

WCDMA Band IV CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3465.20	-65.39	2.70	12.70	Vertical	-55.39	-13.00	42.39	91
3	5197.80	-61.17	3.20	12.50	Vertical	-51.87	-13.00	38.87	23
4	6930.40	-57.75	4.20	11.80	Vertical	-50.15	-13.00	37.15	167
5	8663.00	-54.71	4.40	12.50	Vertical	-46.61	-13.00	33.61	198
6	10395.60	-51.46	4.70	11.30	Vertical	-44.86	-13.00	31.86	44
7	12128.20	-53.78	5.20	13.80	Vertical	-45.18	-13.00	32.18	31
8	13860.80	-47.17	5.70	11.30	Vertical	-41.57	-13.00	28.57	182
9	15593.40	-55.46	6.10	16.80	Vertical	-44.76	-13.00	31.76	76
10	17326.00	-49.53	6.10	14.20	Vertical	-41.43	-13.00	28.43	12

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 Vertical position.

LTE Band 4 QPSK 1.4MHz 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	3464.25	-64.36	2.70	12.70	Vertical	-54.36	-13.00	41.36	190
3	5197.50	-57.12	3.20	12.50	Vertical	-47.82	-13.00	34.82	8
4	6930.00	-52.54	4.20	11.80	Vertical	-44.94	-13.00	31.94	308
5	8662.50	-55.52	4.40	12.50	Vertical	-47.42	-13.00	34.42	156
6	10395.00	-52.28	4.70	11.30	Vertical	-45.68	-13.00	32.68	183
7	12127.50	-53.63	5.20	13.80	Vertical	-45.03	-13.00	32.03	49
8	13860.00	-45.59	5.70	11.30	Vertical	-39.99	-13.00	26.99	38
9	15592.50	-51.74	6.10	16.80	Vertical	-41.04	-13.00	28.04	43
10	17325.00	-49.77	6.10	14.20	Vertical	-41.67	-13.00	28.67	229

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 Vertical position.



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	3460.50	-63.62	2.70	12.70	Vertical	-53.62	-13.00	40.62	45
3	5191.50	-55.35	3.20	12.50	Vertical	-46.05	-13.00	33.05	190
4	6930.00	-52.86	4.20	11.80	Vertical	-45.26	-13.00	32.26	236
5	8662.50	-55.72	4.40	12.50	Vertical	-47.62	-13.00	34.62	27
6	10395.00	-52.16	4.70	11.30	Vertical	-45.56	-13.00	32.56	96
7	12127.50	-54.00	5.20	13.80	Vertical	-45.40	-13.00	32.40	314
8	13860.00	-45.26	5.70	11.30	Vertical	-39.66	-13.00	26.66	90
9	15592.50	-53.29	6.10	16.80	Vertical	-42.59	-13.00	29.59	182
10	17325.00	-49.92	6.10	14.20	Vertical	-41.82	-13.00	28.82	39

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 Vertical position.

LTE Band 4 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	3447.75	-62.01	2.70	12.70	Vertical	-52.01	-13.00	39.01	61
3	5170.88	-57.59	3.20	12.50	Vertical	-48.29	-13.00	35.29	134
4	6930.00	-62.23	4.20	11.80	Vertical	-54.63	-13.00	41.63	29
5	8662.50	-56.00	4.40	12.50	Vertical	-47.90	-13.00	34.90	51
6	10395.00	-52.52	4.70	11.30	Vertical	-45.92	-13.00	32.92	125
7	12127.50	-53.88	5.20	13.80	Vertical	-45.28	-13.00	32.28	309
8	13860.00	-47.30	5.70	11.30	Vertical	-41.70	-13.00	28.70	227
9	15592.50	-56.40	6.10	16.80	Vertical	-45.70	-13.00	32.70	18
10	17325.00	-50.50	6.10	14.20	Vertical	-42.40	-13.00	29.40	96

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 Vertical position.



LTE Band 7 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	5070.00	-63.72	3.40	12.50	Vertical	-54.62	-25.00	29.62	93
3	7605.00	-51.63	4.40	12.20	Vertical	-43.83	-25.00	18.83	46
4	10140.00	-49.81	4.70	11.30	Vertical	-43.21	-25.00	18.21	180
5	12675.00	-52.26	5.40	13.20	Vertical	-44.46	-25.00	19.46	312
6	15210.00	-49.83	6.10	13.10	Vertical	-42.83	-25.00	17.83	190
7	17745.00	-51.68	6.10	14.20	Vertical	-43.58	-25.00	18.58	25
8	20280.00	--	--	--	--	--	--	--	--
9	22815.00	--	--	--	--	--	--	--	--
10	25350.00	--	--	--	--	--	--	--	--

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 Vertical position.

LTE Band 7 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	5050.00	-62.75	3.40	12.50	Vertical	-53.65	-25.00	28.65	115
3	7575.00	-48.41	4.40	12.20	Vertical	-40.61	-25.00	15.61	167
4	10100.00	-48.46	4.70	11.30	Vertical	-41.86	-25.00	16.86	53
5	12625.00	-51.86	5.40	13.20	Vertical	-44.06	-25.00	19.06	94
6	15150.00	-51.18	6.10	13.10	Vertical	-44.18	-25.00	19.18	267
7	17675.00	-51.21	6.10	14.20	Vertical	-43.11	-25.00	18.11	309
8	20200.00	--	--	--	--	--	--	--	--
9	22725.00	--	--	--	--	--	--	--	--
10	25250.00	--	--	--	--	--	--	--	--

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 Vertical 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	1559.00	-66.49	1.70	8.70	Vertical	-59.49	-40.00	19.49	180
Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
3	2338.50	-67.11	2.10	12.00	Vertical	-59.36	-13.00	46.36	244
4	3118.00	-67.10	2.30	13.10	Vertical	-58.45	-13.00	45.45	46
5	3897.50	-65.09	2.90	12.50	Vertical	-57.64	-13.00	44.64	273
6	4677.00	-63.57	3.10	12.50	Vertical	-56.32	-13.00	43.32	190
7	5456.50	-61.11	3.30	12.50	Vertical	-54.06	-13.00	41.06	186
8	6236.00	-61.22	3.50	12.80	Vertical	-54.07	-13.00	41.07	34
9	7015.50	-57.52	4.20	11.80	Vertical	-52.07	-13.00	39.07	90
10	7795.00	-56.98	4.40	12.30	Vertical	-51.23	-13.00	38.23	25
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 Vertical position.									

LTE Band 13 QPSK 10MHz 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	1555.45	-65.40	1.70	8.70	Vertical	-60.55	-13.00	47.55	125
3	2332.75	-60.52	2.10	12.00	Vertical	-52.77	-13.00	39.77	15
4	3108.00	-65.81	2.30	13.10	Vertical	-57.16	-13.00	44.16	2
5	3885.00	-62.16	2.90	12.50	Vertical	-54.71	-13.00	41.71	46
6	4662.00	-62.61	3.10	12.50	Vertical	-55.36	-13.00	42.36	97
7	5439.00	-62.53	3.30	12.50	Vertical	-55.48	-13.00	42.48	239
8	6216.00	-60.91	3.50	12.80	Vertical	-53.76	-13.00	40.76	18
9	6993.00	-59.72	4.20	11.80	Vertical	-54.27	-13.00	41.27	37
10	7770.00	-57.26	4.40	12.30	Vertical	-51.51	-13.00	38.51	180
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 Vertical position.									



LTE Band 38 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	5185.00	-62.36	3.20	12.50	Vertical	-53.06	-25.00	28.06	19
3	7777.50	-59.44	4.40	12.30	Vertical	-51.54	-25.00	26.54	234
4	10370.00	-52.69	4.70	11.80	Vertical	-45.59	-25.00	20.59	75
5	12962.50	-52.07	5.40	14.00	Vertical	-43.47	-25.00	18.47	36
6	15555.00	-49.61	6.10	16.80	Vertical	-38.91	-25.00	13.91	180
7	18147.50	--	--	--	--	--	--	--	--
8	20740.00	--	--	--	--	--	--	--	--
9	23332.50	--	--	--	--	--	--	--	--
10	25925.00	--	--	--	--	--	--	--	--

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 Vertical position.

LTE Band 38 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	5170.00	-63.45	3.20	12.50	Vertical	-54.15	-25.00	29.15	270
3	7755.00	-56.81	4.40	12.30	Vertical	-48.91	-25.00	23.91	86
4	10340.00	-48.86	4.70	11.80	Vertical	-41.76	-25.00	16.76	4
5	12925.00	-53.19	5.40	14.00	Vertical	-44.59	-25.00	19.59	31
6	15510.00	-50.59	6.10	16.80	Vertical	-39.89	-25.00	14.89	139
7	18095.00	--	--	--	--	--	--	--	--
8	20680.00	--	--	--	--	--	--	--	--
9	23265.00	--	--	--	--	--	--	--	--
10	25850.00	--	--	--	--	--	--	--	--

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 Vertical position.



LTE Band 41 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	5181.00	-64.69	3.20	12.50	Vertical	-55.39	-25.00	30.39	190
3	7771.50	-60.03	4.40	12.30	Vertical	-52.13	-25.00	27.13	266
4	10362.00	-46.72	4.70	11.80	Vertical	-39.62	-25.00	14.62	249
5	13952.50	-49.99	5.40	14.00	Vertical	-41.39	-25.00	16.39	38
6	15543.00	-53.04	6.10	16.80	Vertical	-42.34	-25.00	17.34	69
7	18133.50	--	--	--	--	--	--	--	--
8	20653.20	--	--	--	--	--	--	--	--
9	23234.85	--	--	--	--	--	--	--	--
10	25816.50	--	--	--	--	--	--	--	--
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 Vertical position.									

LTE Band 41 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	5166.00	-64.45	3.20	12.50	Vertical	-55.15	-25.00	30.15	45
3	7749.00	-59.37	4.40	12.30	Vertical	-51.47	-25.00	26.47	139
4	10332.00	-48.04	4.70	11.80	Vertical	-40.94	-25.00	15.94	76
5	12915.00	-52.14	5.40	14.00	Vertical	-43.54	-25.00	18.54	94
6	15498.00	-54.91	6.10	16.80	Vertical	-44.21	-25.00	19.21	280
7	18023.60	--	--	--	--	--	--	--	--
8	20598.40	--	--	--	--	--	--	--	--
9	23173.20	--	--	--	--	--	--	--	--
10	25748.00	--	--	--	--	--	--	--	--
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 Vertical position.									



LTE Band 66 QPSK 1.4MHz 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	3509.25	-74.75	2.70	12.70	Vertical	-64.75	-13.00	51.75	190
3	5262.50	-69.35	3.20	12.50	Vertical	-60.05	-13.00	47.05	47
4	7018.00	-65.59	4.20	11.80	Vertical	-57.99	-13.00	44.99	229
5	8772.50	-65.89	4.40	12.50	Vertical	-57.79	-13.00	44.79	31
6	10527.00	-63.17	4.70	11.80	Vertical	-56.07	-13.00	43.07	94
7	12281.50	-65.05	5.20	13.80	Vertical	-56.45	-13.00	43.45	267
8	14036.00	-59.02	5.70	13.20	Vertical	-51.52	-13.00	38.52	38
9	15790.50	-67.37	6.10	16.80	Vertical	-56.67	-13.00	43.67	90
10	17545.00	-61.26	6.10	14.20	Vertical	-53.16	-13.00	40.16	48

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 Vertical position.

LTE Band 66 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	3486.00	-73.85	2.70	12.70	Vertical	-63.85	-13.00	50.85	69
3	5229.00	-68.92	3.20	12.50	Vertical	-59.62	-13.00	46.62	247
4	6972.00	-64.82	4.20	11.80	Vertical	-57.22	-13.00	44.22	196
5	8715.00	-66.38	4.40	12.50	Vertical	-58.28	-13.00	45.28	77
6	10458.00	-62.53	4.70	11.80	Vertical	-55.43	-13.00	42.43	160
7	12201.00	-63.75	5.20	13.80	Vertical	-55.15	-13.00	42.15	0
8	13944.00	-59.66	5.70	13.20	Vertical	-52.16	-13.00	39.16	153
9	15687.00	-66.20	6.10	16.80	Vertical	-55.50	-13.00	42.50	45
10	17430.00	-61.00	6.10	14.20	Vertical	-52.90	-13.00	39.90	36

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 Vertical 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	3472.88	-71.33	2.70	12.70	Vertical	-61.33	-13.00	48.33	0
3	5209.00	-66.59	3.20	12.50	Vertical	-57.29	-13.00	44.29	40
4	6945.75	-62.65	4.20	11.80	Vertical	-55.05	-13.00	42.05	163
5	8682.00	-66.25	4.40	12.50	Vertical	-58.15	-13.00	45.15	279
6	10418.63	-62.27	4.70	11.80	Vertical	-55.17	-13.00	42.17	49
7	12455.00	-66.59	5.20	13.80	Vertical	-57.99	-13.00	44.99	36
8	13891.50	-60.62	5.70	13.20	Vertical	-53.12	-13.00	40.12	44
9	15627.00	-63.45	6.10	16.80	Vertical	-52.75	-13.00	39.75	186
10	17364.38	-60.73	6.10	14.20	Vertical	-52.63	-13.00	39.63	49
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 Vertical position.									

**Low Antenna**

WCDMA Band IV CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3465.20	-62.90	2.70	12.70	Horizontal	-52.90	-13.00	39.90	320
3	5197.80	-53.62	3.20	12.50	Horizontal	-44.32	-13.00	31.32	122
4	6930.40	-57.68	4.20	11.80	Horizontal	-50.08	-13.00	37.08	42
5	8663.00	-56.92	4.40	12.50	Horizontal	-48.82	-13.00	35.82	28
6	10395.60	-52.62	4.70	11.30	Horizontal	-46.02	-13.00	33.02	183
7	12128.20	-54.91	5.20	13.80	Horizontal	-46.31	-13.00	33.31	45
8	13860.80	-47.41	5.70	11.30	Horizontal	-41.81	-13.00	28.81	272
9	15593.40	-56.31	6.10	16.80	Horizontal	-45.61	-13.00	32.61	135
10	17326.00	-51.20	6.10	14.20	Horizontal	-43.10	-13.00	30.10	260

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 4 QPSK 1.4MHz 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	3463.60	-63.67	2.70	12.70	Vertical	-53.67	-13.00	40.67	118
3	5195.40	-49.87	3.20	12.50	Vertical	-40.57	-13.00	27.57	69
4	6927.20	-59.53	4.20	11.80	Vertical	-51.93	-13.00	38.93	23
5	8659.00	-55.57	4.40	12.50	Vertical	-47.47	-13.00	34.47	97
6	10390.80	-51.80	4.70	11.30	Vertical	-45.20	-13.00	32.20	72
7	12122.60	-53.19	5.20	13.80	Vertical	-44.59	-13.00	31.59	56
8	13854.40	-47.07	5.70	11.30	Vertical	-41.47	-13.00	28.47	81
9	15586.20	-52.20	6.10	16.80	Vertical	-41.50	-13.00	28.50	103
10	17318.00	-50.08	6.10	14.20	Vertical	-41.98	-13.00	28.98	57

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 Vertical position.



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	3460.00	-63.95	2.70	12.70	Vertical	-53.95	-13.00	40.95	15
3	5190.00	-47.16	3.20	12.50	Vertical	-37.86	-13.00	24.86	191
4	6920.00	-57.11	4.20	11.80	Vertical	-49.51	-13.00	36.51	98
5	8650.00	-56.15	4.40	12.50	Vertical	-48.05	-13.00	35.05	70
6	10380.00	-51.66	4.70	11.30	Vertical	-45.06	-13.00	32.06	186
7	12110.00	-53.98	5.20	13.80	Vertical	-45.38	-13.00	32.38	58
8	13840.00	-47.32	5.70	11.30	Vertical	-41.72	-13.00	28.72	304
9	15570.00	-51.34	6.10	16.80	Vertical	-40.64	-13.00	27.64	9
10	17300.00	-49.63	6.10	14.20	Vertical	-41.53	-13.00	28.53	225

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 Vertical position.

LTE Band 4 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	3445.00	-63.30	2.70	12.70	Vertical	-53.30	-13.00	40.30	3
3	5167.50	-51.33	3.20	12.50	Vertical	-42.03	-13.00	29.03	100
4	6890.00	-57.90	4.20	11.80	Vertical	-50.30	-13.00	37.30	198
5	8612.50	-56.45	4.40	12.50	Vertical	-48.35	-13.00	35.35	48
6	10335.00	-51.78	4.70	11.30	Vertical	-45.18	-13.00	32.18	31
7	12057.50	-54.64	5.20	13.80	Vertical	-46.04	-13.00	33.04	229
8	13780.00	-47.22	5.70	11.30	Vertical	-41.62	-13.00	28.62	99
9	15502.50	-53.40	6.10	16.80	Vertical	-42.70	-13.00	29.70	59
10	17225.00	-49.94	6.10	14.20	Vertical	-41.84	-13.00	28.84	33

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 Vertical position.



LTE Band 7 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	5070.00	-62.81	3.40	12.50	Vertical	-53.71	-25.00	28.71	333
3	7605.00	-48.48	4.40	12.20	Vertical	-40.68	-25.00	15.68	95
4	10140.00	-47.85	4.70	11.30	Vertical	-41.25	-25.00	16.25	278
5	12675.00	-53.68	5.40	13.20	Vertical	-45.88	-25.00	20.88	44
6	15210.00	-45.50	6.10	13.10	Vertical	-38.50	-25.00	13.50	315
7	17745.00	-50.82	6.10	14.20	Vertical	-42.72	-25.00	17.72	180
8	20280.00	--	--	--	--	--	--	--	--
9	22815.00	--	--	--	--	--	--	--	--
10	25350.00	--	--	--	--	--	--	--	--

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 Vertical position.

LTE Band 7 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	5050.00	-64.65	3.40	12.50	Vertical	-55.55	-25.00	30.55	18
3	7575.00	-49.21	4.40	12.20	Vertical	-41.41	-25.00	16.41	315
4	10100.00	-47.29	4.70	11.30	Vertical	-40.69	-25.00	15.69	22
5	12625.00	-53.08	5.40	13.20	Vertical	-45.28	-25.00	20.28	195
6	15150.00	-52.57	6.10	13.10	Vertical	-45.57	-25.00	20.57	265
7	17675.00	-52.17	6.10	14.20	Vertical	-44.07	-25.00	19.07	33
8	20200.00	--	--	--	--	--	--	--	--
9	22725.00	--	--	--	--	--	--	--	--
10	25250.00	--	--	--	--	--	--	--	--

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 Vertical 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	1559.00	-67.46	1.70	8.70	Vertical	-60.46	-40.00	20.46	123
Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
3	2338.50	-62.05	2.10	12.00	Vertical	-54.30	-13.00	41.30	74
4	3118.00	-66.23	2.30	13.10	Vertical	-57.58	-13.00	44.58	320
5	3897.50	-64.79	2.90	12.50	Vertical	-57.34	-13.00	44.34	44
6	4677.00	-62.55	3.10	12.50	Vertical	-55.30	-13.00	42.30	62
7	5456.50	-61.86	3.30	12.50	Vertical	-54.81	-13.00	41.81	240
8	6236.00	-59.90	3.50	12.80	Vertical	-52.75	-13.00	39.75	310
9	7015.50	-57.51	4.20	11.80	Vertical	-52.06	-13.00	39.06	222
10	7795.00	-56.60	4.40	12.30	Vertical	-50.85	-13.00	37.85	180
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 Vertical position.									

LTE Band 13 QPSK 10MHz 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	1555.20	-67.00	1.70	8.70	Vertical	-62.15	-13.00	49.15	1
3	2332.80	-63.75	2.10	12.00	Vertical	-56.00	-13.00	43.00	114
4	3108.00	-66.26	2.30	13.10	Vertical	-57.61	-13.00	44.61	350
5	3885.00	-64.65	2.90	12.50	Vertical	-57.20	-13.00	44.20	274
6	4662.00	-63.73	3.10	12.50	Vertical	-56.48	-13.00	43.48	331
7	5439.00	-61.44	3.30	12.50	Vertical	-54.39	-13.00	41.39	225
8	6216.00	-60.63	3.50	12.80	Vertical	-53.48	-13.00	40.48	32
9	6993.00	-60.76	4.20	11.80	Vertical	-55.31	-13.00	42.31	45
10	7770.00	-57.36	4.40	12.30	Vertical	-51.61	-13.00	38.61	180
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 Vertical position.									



LTE Band 38 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	5185.00	-64.74	3.20	12.50	Vertical	-55.44	-25.00	30.44	245
3	7777.50	-59.38	4.40	12.30	Vertical	-51.48	-25.00	26.48	108
4	10370.00	-53.41	4.70	11.80	Vertical	-46.31	-25.00	21.31	311
5	12962.50	-54.51	5.40	14.00	Vertical	-45.91	-25.00	20.91	123
6	15555.00	-55.67	6.10	16.80	Vertical	-44.97	-25.00	19.97	180
7	18147.50	--	--	--	--	--	--	--	--
8	20740.00	--	--	--	--	--	--	--	--
9	23332.50	--	--	--	--	--	--	--	--
10	25925.00	--	--	--	--	--	--	--	--

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 Vertical position.

LTE Band 38 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	5170.00	-64.11	3.20	12.50	Vertical	-54.81	-25.00	29.81	214
3	7755.00	-60.46	4.40	12.30	Vertical	-52.56	-25.00	27.56	135
4	10340.00	-49.56	4.70	11.80	Vertical	-42.46	-25.00	17.46	275
5	12925.00	-53.56	5.40	14.00	Vertical	-44.96	-25.00	19.96	54
6	15510.00	-56.49	6.10	16.80	Vertical	-45.79	-25.00	20.79	123
7	18095.00	--	--	--	--	--	--	--	--
8	20680.00	--	--	--	--	--	--	--	--
9	23265.00	--	--	--	--	--	--	--	--
10	25850.00	--	--	--	--	--	--	--	--

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 Vertical position.



LTE Band 41 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	5181.00	-64.03	3.20	12.50	Vertical	-54.73	-25.00	29.73	115
3	7771.50	-59.84	4.40	12.30	Vertical	-51.94	-25.00	26.94	240
4	10362.00	-50.58	4.70	11.80	Vertical	-43.48	-25.00	18.48	112
5	13952.50	-50.96	5.40	14.00	Vertical	-42.36	-25.00	17.36	312
6	15543.00	-55.03	6.10	16.80	Vertical	-44.33	-25.00	19.33	180
7	18133.50	--	--	--	--	--	--	--	--
8	20653.20	--	--	--	--	--	--	--	--
9	23234.85	--	--	--	--	--	--	--	--
10	25816.50	--	--	--	--	--	--	--	--
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 Vertical position.									

LTE Band 41 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	5166.00	-64.31	3.20	12.50	Vertical	-55.01	-25.00	30.01	189
3	7749.00	-60.61	4.40	12.30	Vertical	-52.71	-25.00	27.71	166
4	10332.00	-50.45	4.70	11.80	Vertical	-43.35	-25.00	18.35	335
5	12915.00	-53.43	5.40	14.00	Vertical	-44.83	-25.00	19.83	215
6	15498.00	-56.25	6.10	16.80	Vertical	-45.55	-25.00	20.55	180
7	18023.60	--	--	--	--	--	--	--	--
8	20598.40	--	--	--	--	--	--	--	--
9	23173.20	--	--	--	--	--	--	--	--
10	25748.00	--	--	--	--	--	--	--	--
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 Vertical position.									



LTE Band 66 QPSK 1.4MHz 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	3509.25	-66.29	2.70	12.70	Vertical	-56.29	-13.00	43.29	79
3	5262.50	-55.70	3.20	12.50	Vertical	-46.40	-13.00	33.40	239
4	7018.00	-63.04	4.20	11.80	Vertical	-55.44	-13.00	42.44	312
5	8772.50	-65.42	4.40	12.50	Vertical	-57.32	-13.00	44.32	27
6	10527.00	-62.52	4.70	11.80	Vertical	-55.42	-13.00	42.42	48
7	12281.50	-66.29	5.20	13.80	Vertical	-57.69	-13.00	44.69	139
8	14036.00	-59.02	5.70	13.20	Vertical	-51.52	-13.00	38.52	174
9	15790.50	-66.07	6.10	16.80	Vertical	-55.37	-13.00	42.37	96
10	17545.00	-60.87	6.10	14.20	Vertical	-52.77	-13.00	39.77	131

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 Vertical position.

LTE Band 66 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	3486.00	-66.56	2.70	12.70	Vertical	-56.56	-13.00	43.56	127
3	5229.00	-54.66	3.20	12.50	Vertical	-45.36	-13.00	32.36	46
4	6972.00	-65.53	4.20	11.80	Vertical	-57.93	-13.00	44.93	89
5	8715.00	-66.18	4.40	12.50	Vertical	-58.08	-13.00	45.08	221
6	10458.00	-62.90	4.70	11.80	Vertical	-55.80	-13.00	42.80	61
7	12201.00	-65.89	5.20	13.80	Vertical	-57.29	-13.00	44.29	193
8	13944.00	-60.33	5.70	13.20	Vertical	-52.83	-13.00	39.83	171
9	15687.00	-65.86	6.10	16.80	Vertical	-55.16	-13.00	42.16	82
10	17430.00	-61.20	6.10	14.20	Vertical	-53.10	-13.00	40.10	48

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 Vertical 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	3472.88	-69.95	2.70	12.70	Vertical	-59.95	-13.00	46.95	39
3	5209.00	-53.48	3.20	12.50	Vertical	-44.18	-13.00	31.18	0
4	6945.75	-66.42	4.20	11.80	Vertical	-58.82	-13.00	45.82	15
5	8682.00	-64.24	4.40	12.50	Vertical	-56.14	-13.00	43.14	183
6	10418.63	-63.03	4.70	11.80	Vertical	-55.93	-13.00	42.93	31
7	12455.00	-65.77	5.20	13.80	Vertical	-57.17	-13.00	44.17	182
8	13891.50	-59.49	5.70	13.20	Vertical	-51.99	-13.00	38.99	83
9	15627.00	-62.00	6.10	16.80	Vertical	-51.30	-13.00	38.30	49
10	17364.38	-60.35	6.10	14.20	Vertical	-52.25	-13.00	39.25	276
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 Vertical position.									



7 Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Base Station Simulator	R&S	CMW500	150415	2022-05-14	2023-05-13
Spectrum Analyzer	Key sight	N9020A	MY50510203	2021-12-12	2022-12-11
Signal Analyzer	R&S	FSV3030	101411	2021-12-12	2022-12-11
Universal Radio Communication Tester	Key sight	E5515C	GB44400275	2021-12-12	2022-12-11
Climatic Chamber	ESPEC	SU-242	93000506	2021-12-12	2022-12-11
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	1023	2020-05-05	2023-05-04
Spectrum Analyzer	R&S	FSV30	104028	2021-12-12	2022-12-11
Horn Antenna	Schwarzbeck	BBHA 9120D	1594	2020-12-17	2023-12-16
Horn Antenna	ETS-Lindgren	3160-09	00102643	2021-10-10	2024-10-09
Software	R&S	EMC32	10.35.10	/	/

*****END OF REPORT*****



ANNEX A:The EUT Appearance

The EUT Appearance are submitted separately.



ANNEX B:Test Setup Photos

The Test Setup Photos are submitted separately.