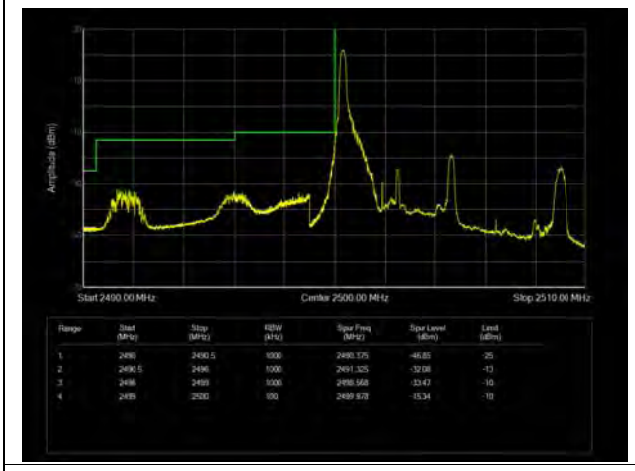
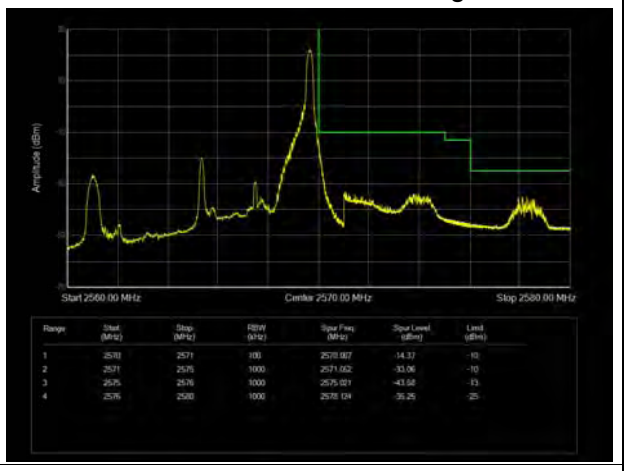
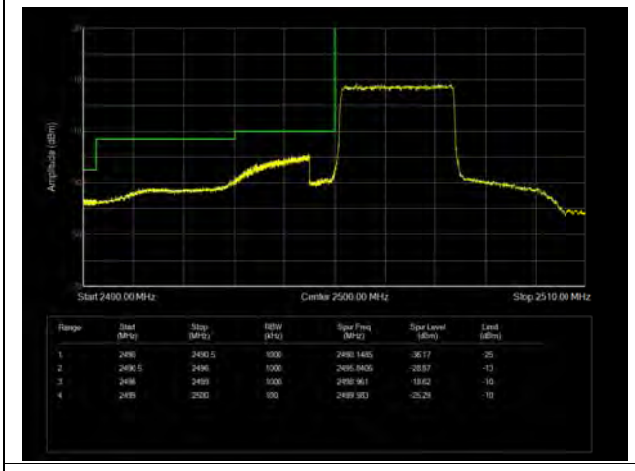
LTE Band 7 QPSK 5MHz CH-Low, 1 RB



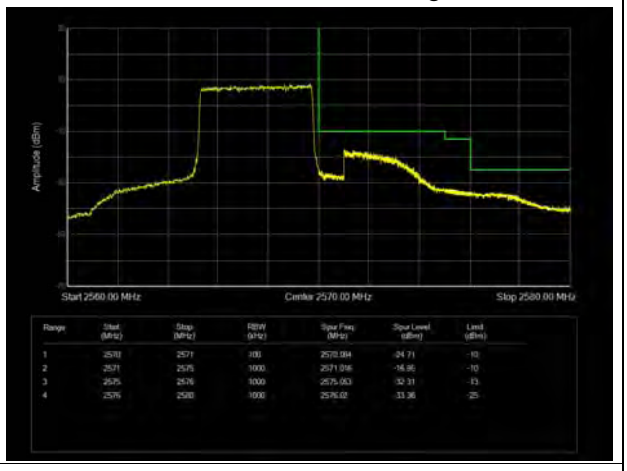
LTE Band 7 QPSK 5MHz CH-High, 1 RB



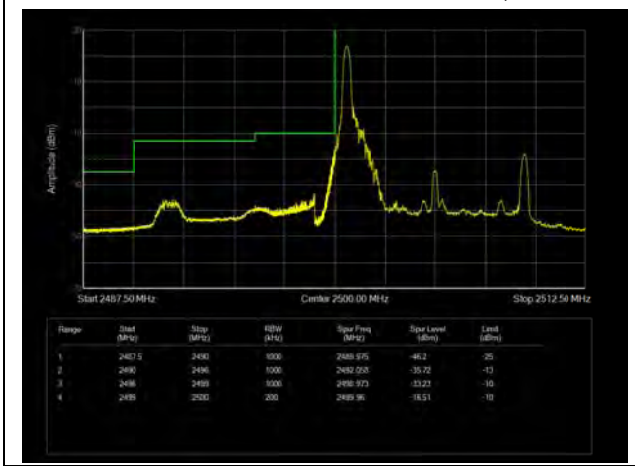
LTE Band 7 QPSK 5MHz CH-Low, 100%RB



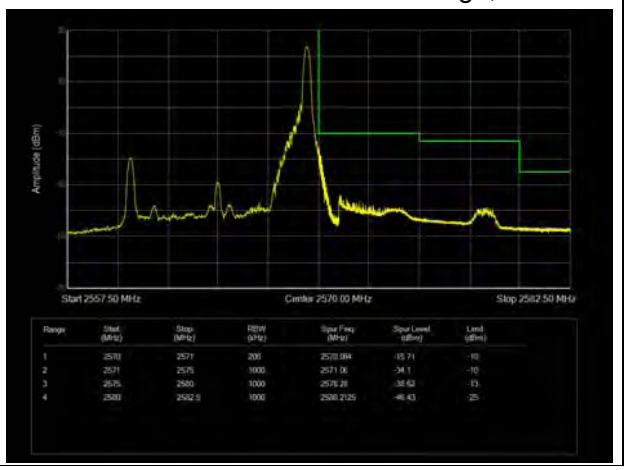
LTE Band 7 QPSK 5MHz CH-High, 100%RB



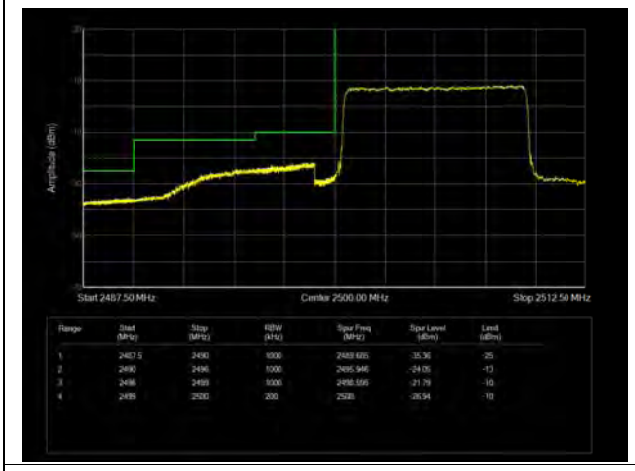
LTE Band 7 QPSK 10MHz CH-Low, 1 RB



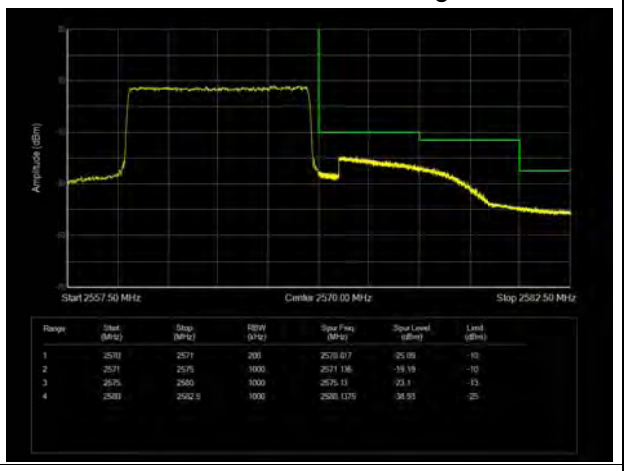
LTE Band 7 QPSK 10MHz CH-High, 1 RB



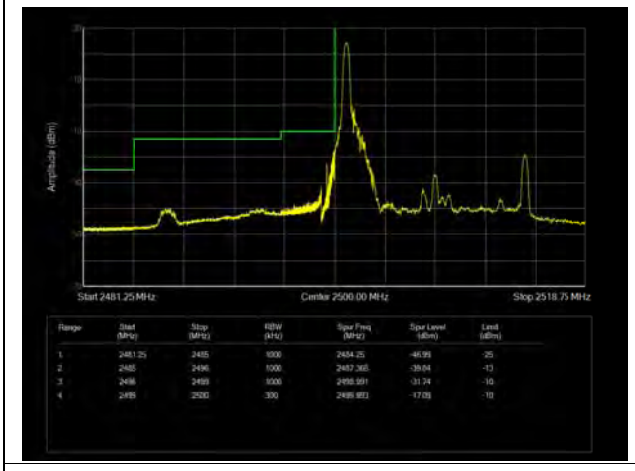
LTE Band 7 QPSK 10MHz CH-Low, 100%RB



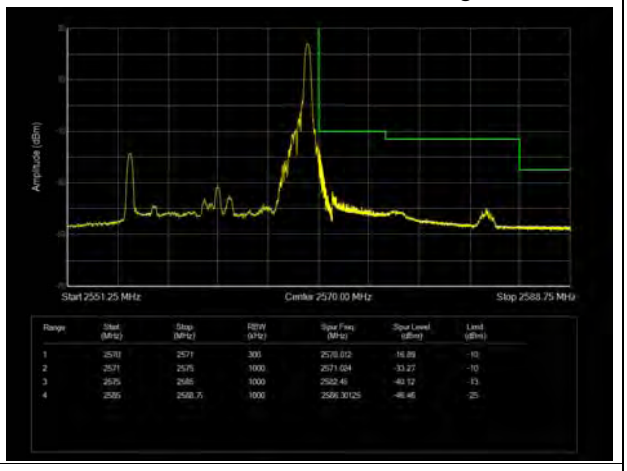
LTE Band 7 QPSK 10MHz CH-High, 100%RB



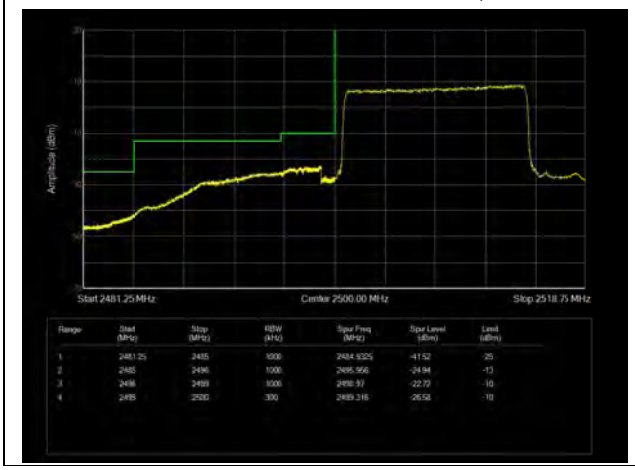
LTE Band 7 QPSK 15MHz CH-Low, 1 RB



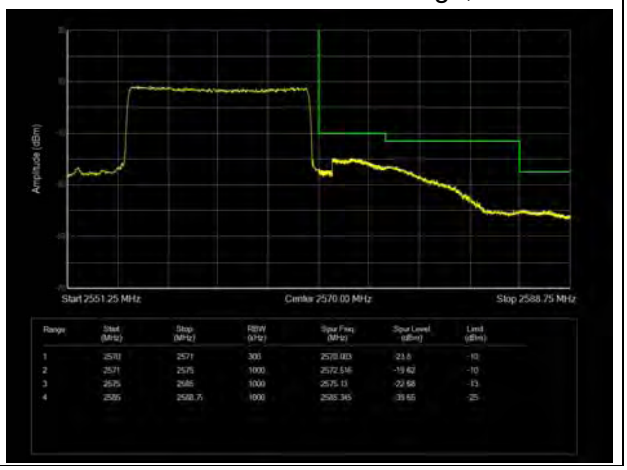
LTE Band 7 QPSK 15MHz CH-High, 1 RB



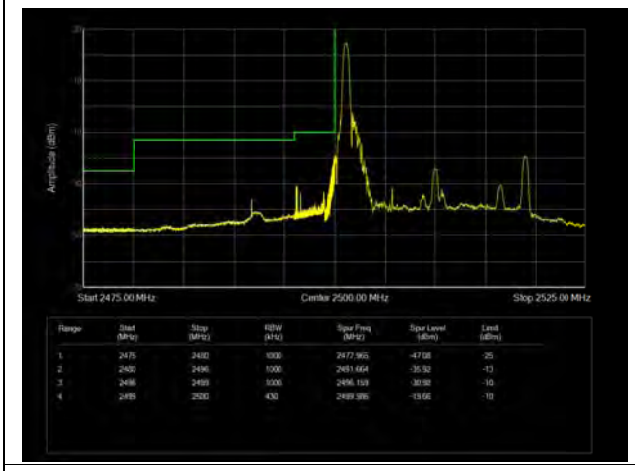
LTE Band 7 QPSK 15MHz CH-Low, 100%RB



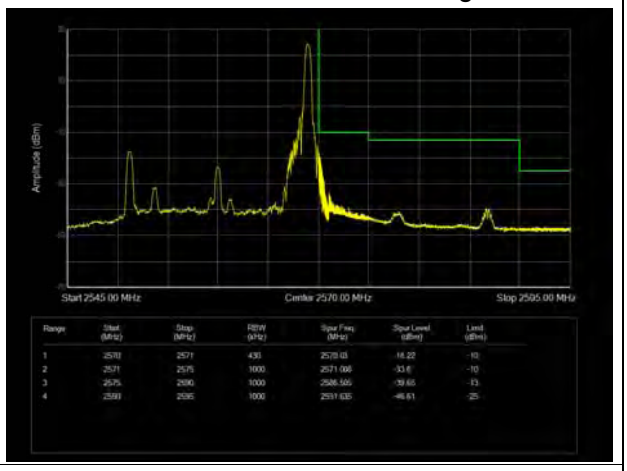
LTE Band 7 QPSK 15MHz CH-High, 100%RB



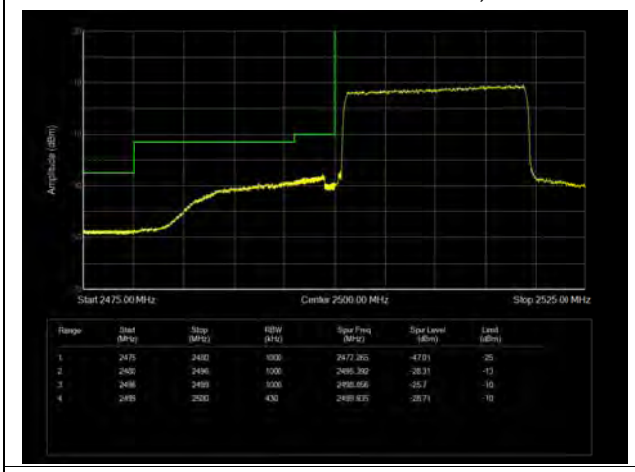
LTE Band 7 QPSK 20MHz CH-Low, 1 RB



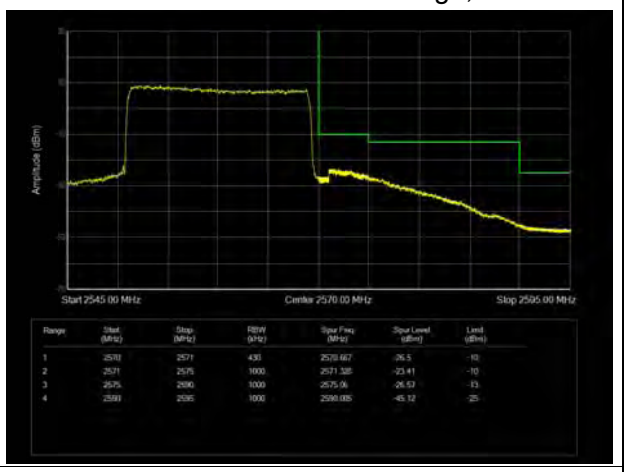
LTE Band 7 QPSK 20MHz CH-High, 1 RB



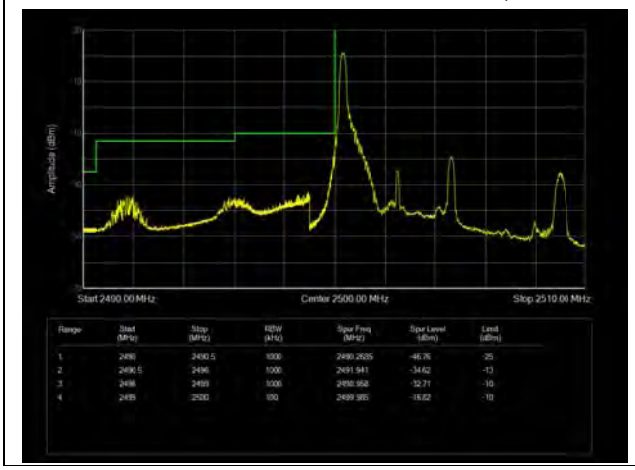
LTE Band 7 QPSK 20MHz CH-Low, 100%RB



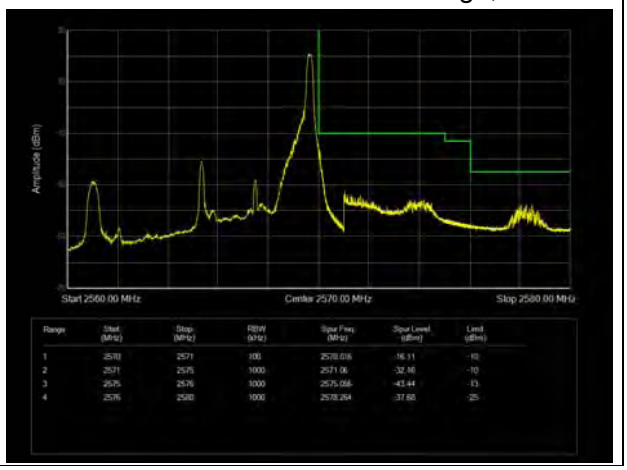
LTE Band 7 QPSK 20MHz CH-High, 100%RB



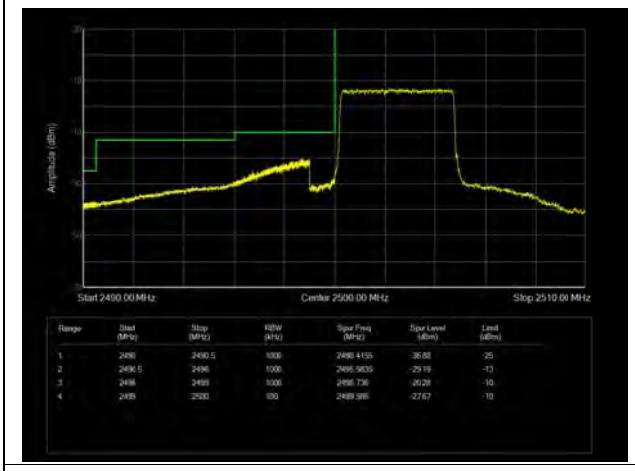
LTE Band 7 16QAM 5MHz CH-Low, 1 RB



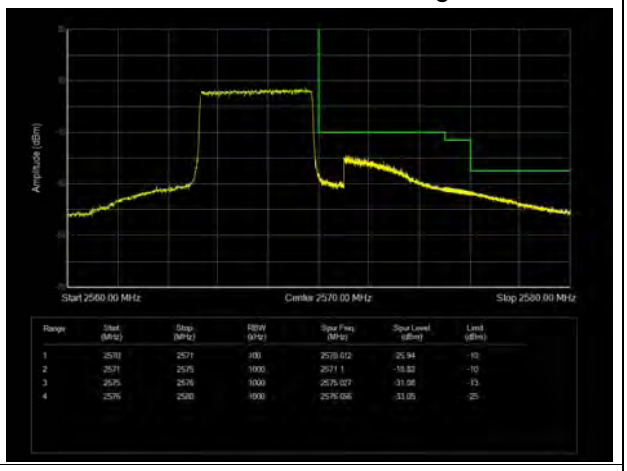
LTE Band 7 16QAM 5MHz CH-High, 1 RB



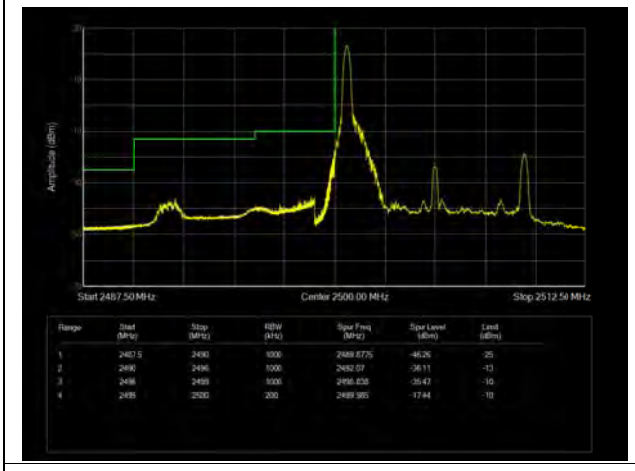
LTE Band 7 16QAM 5MHz CH-Low, 100%RB



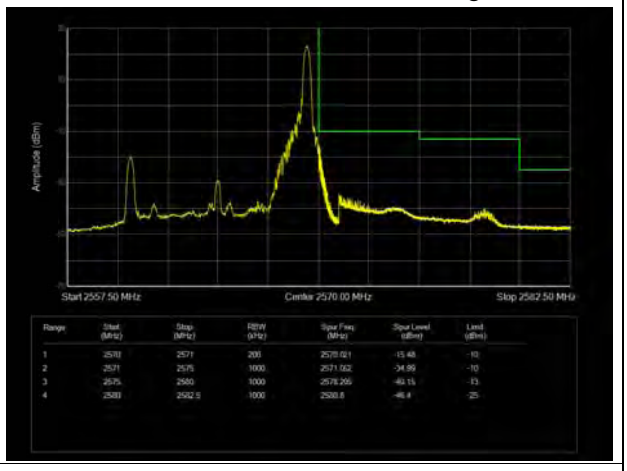
LTE Band 7 16QAM 5MHz CH-High, 100%RB



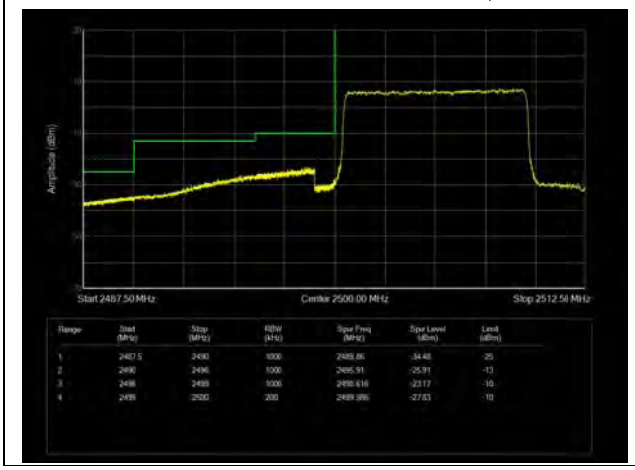
LTE Band 7 16QAM 10MHz CH-Low, 1 RB



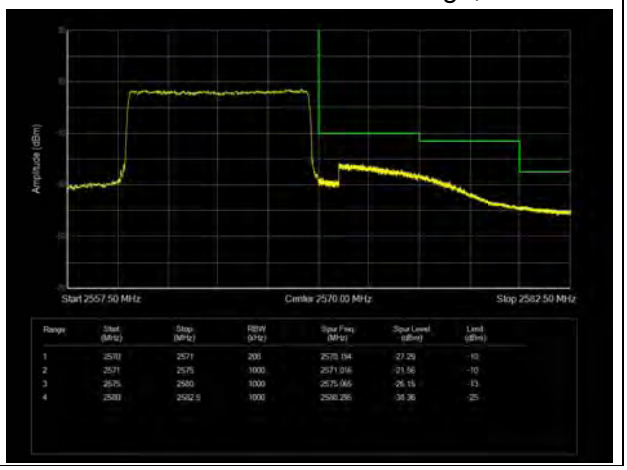
LTE Band 7 16QAM 10MHz CH-High, 1 RB



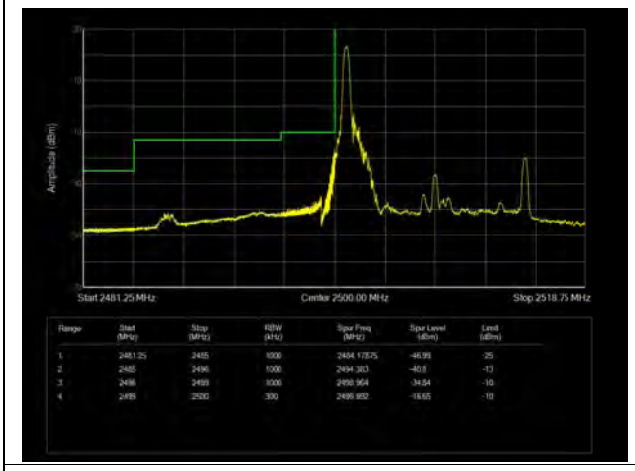
LTE Band 7 16QAM 10MHz CH-Low, 100%RB



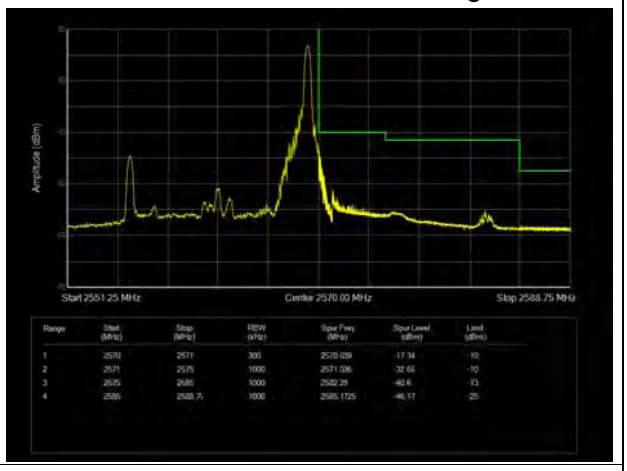
LTE Band 7 16QAM 10MHz CH-High, 100%RB



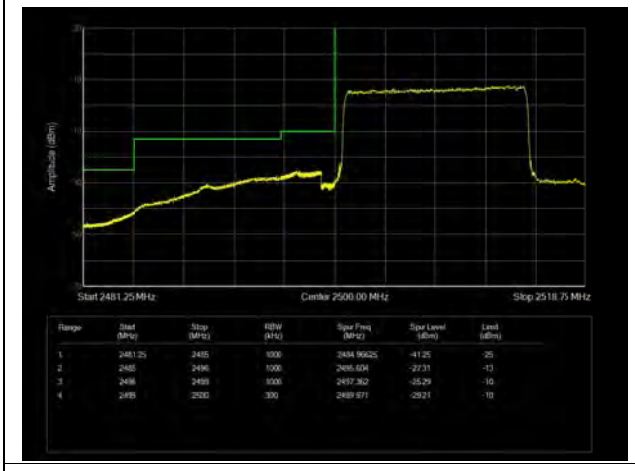
LTE Band 7 16QAM 15MHz CH-Low, 1 RB



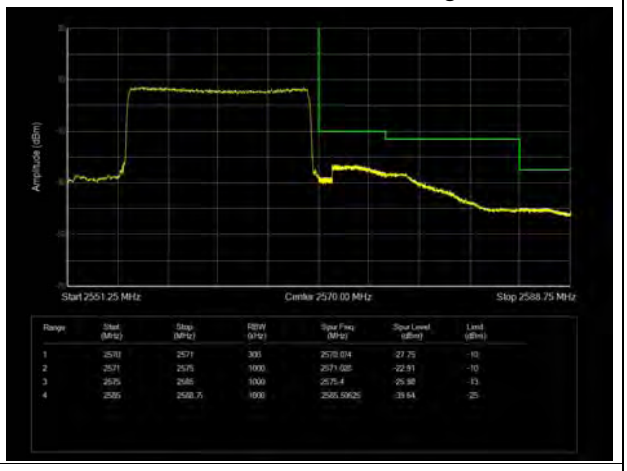
LTE Band 7 16QAM 15MHz CH-High, 1 RB



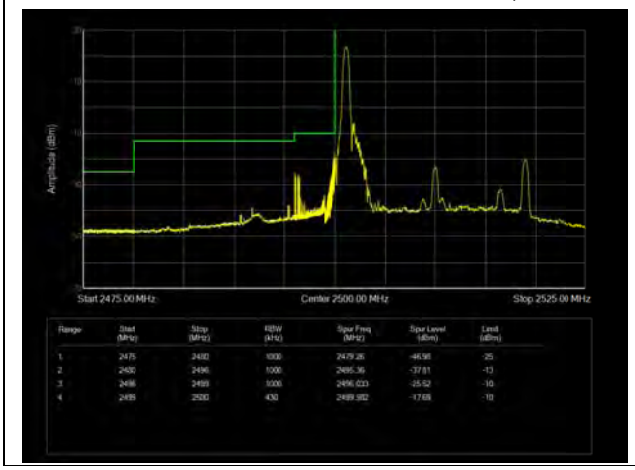
LTE Band 7 16QAM 15MHz CH-Low, 100%RB



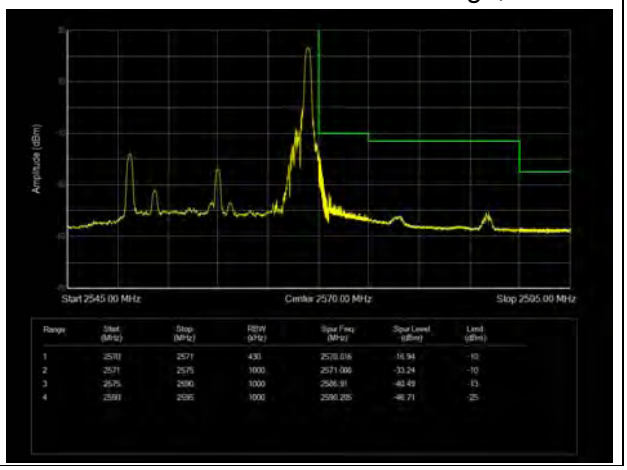
LTE Band 7 16QAM 15MHz CH-High, 100%RB



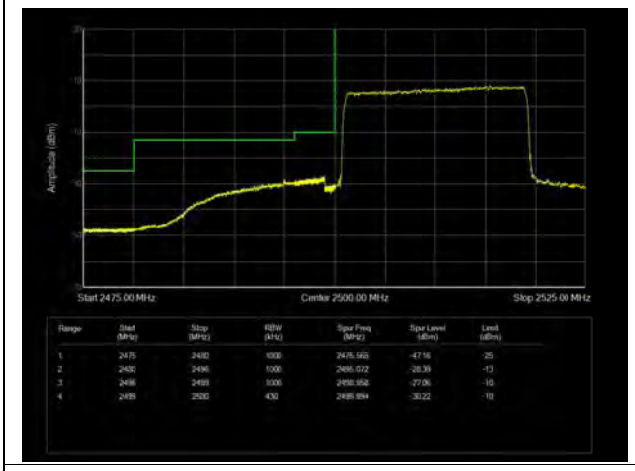
LTE Band 7 16QAM 20MHz CH-Low, 1 RB



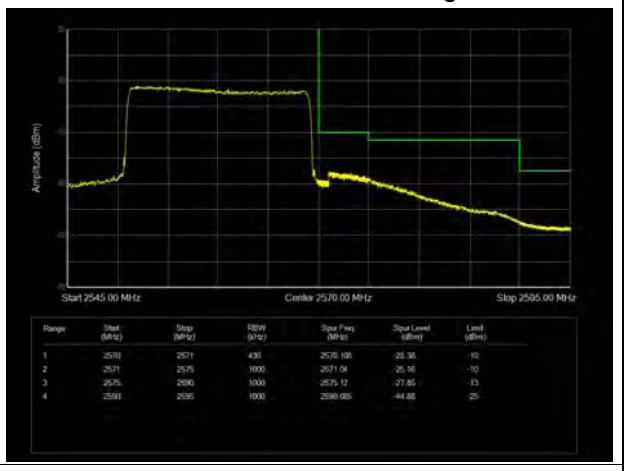
LTE Band 7 16QAM 20MHz CH-High, 1 RB



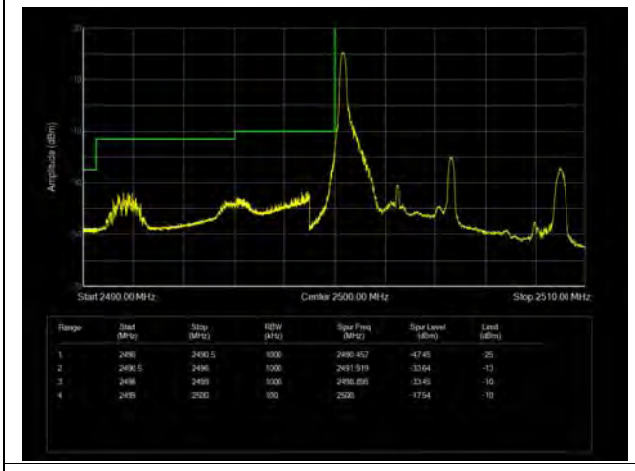
LTE Band 7 16QAM 20MHz CH-Low, 100%RB



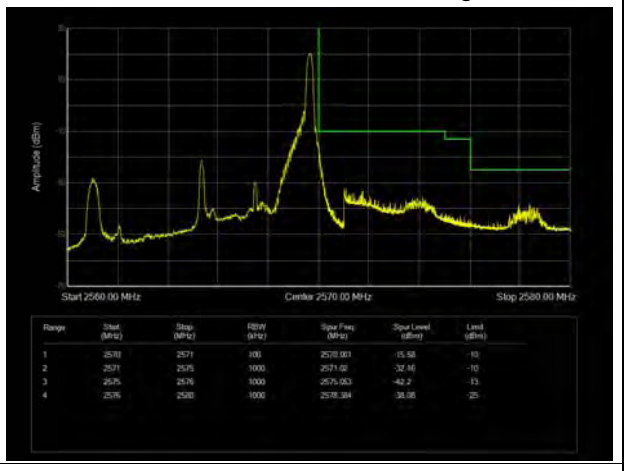
LTE Band 7 16QAM 20MHz CH-High, 100%RB



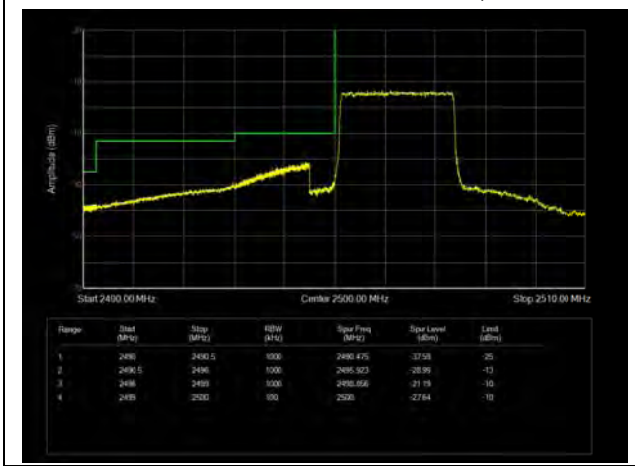
LTE Band 7 64QAM 5MHz CH-Low, 1 RB



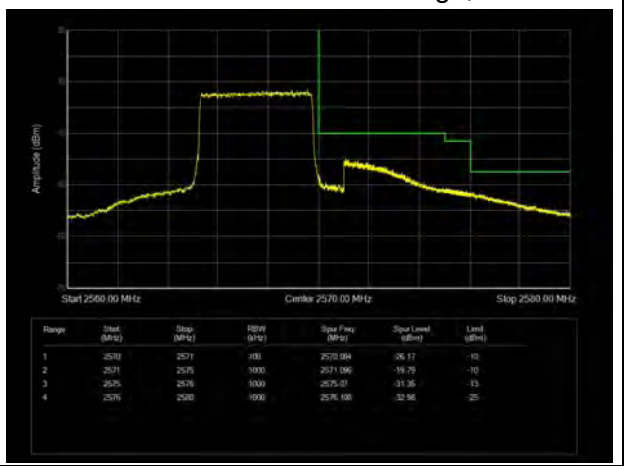
LTE Band 7 64QAM 5MHz CH-High, 1 RB



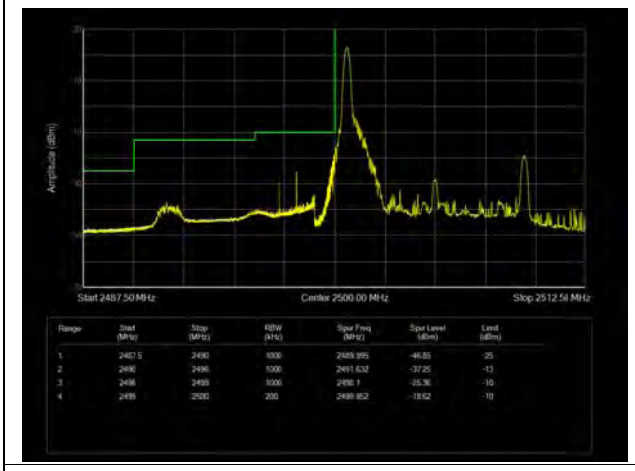
LTE Band 7 64QAM 5MHz CH-Low, 100%RB



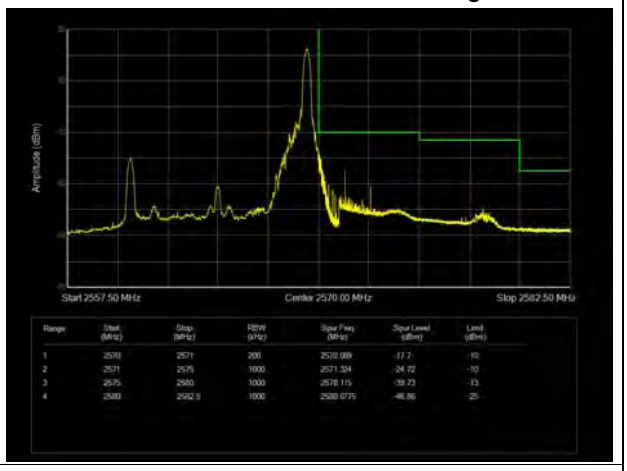
LTE Band 7 64QAM 5MHz CH-High, 100%RB



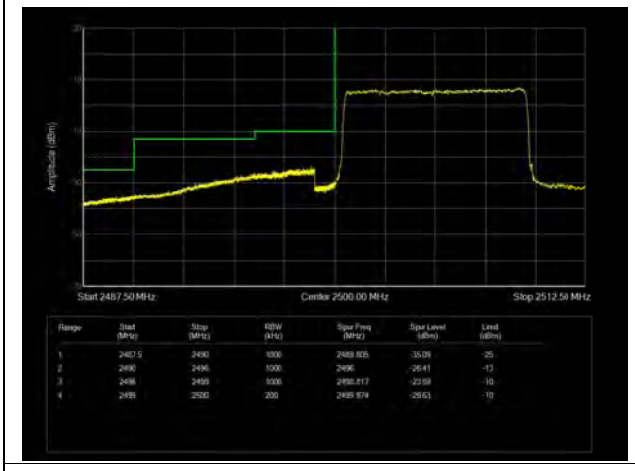
LTE Band 7 64QAM 10MHz CH-Low, 1 RB



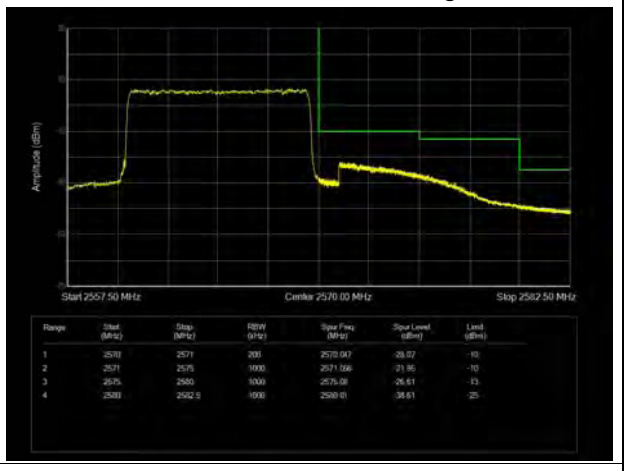
LTE Band 7 64QAM 10MHz CH-High, 1 RB



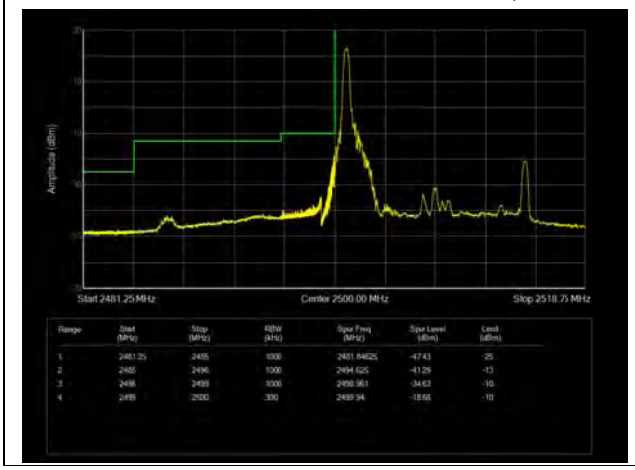
LTE Band 7 64QAM 10MHz CH-Low, 100%RB



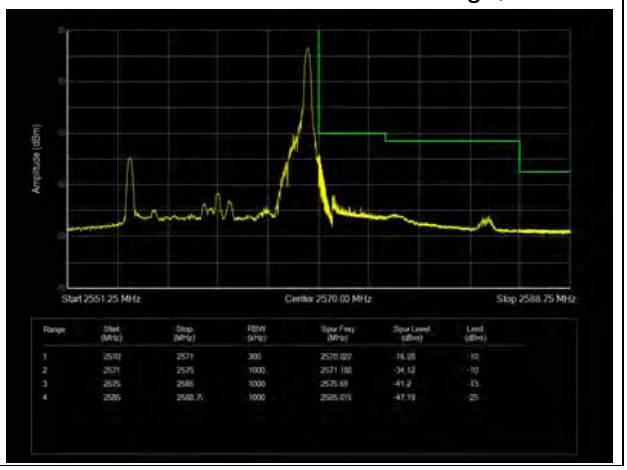
LTE Band 7 64QAM 10MHz CH-High, 100%RB



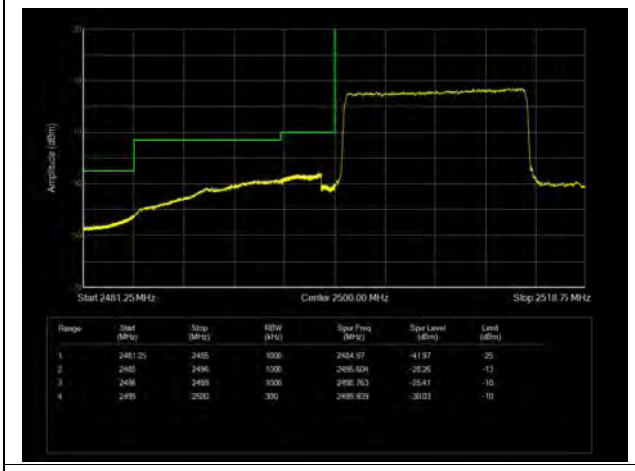
LTE Band 7 64QAM 15MHz CH-Low, 1 RB



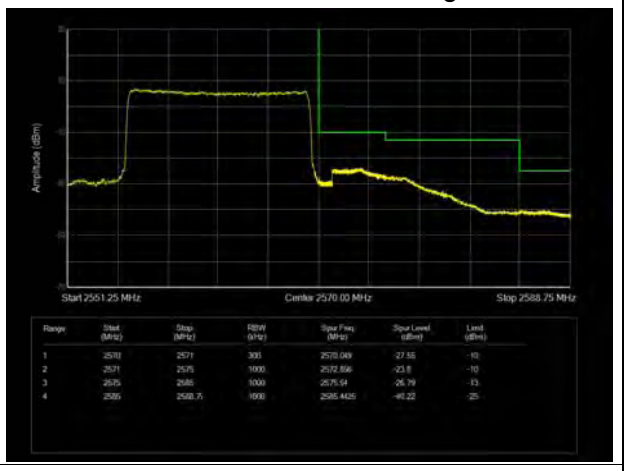
LTE Band 7 64QAM 15MHz CH-High, 1 RB



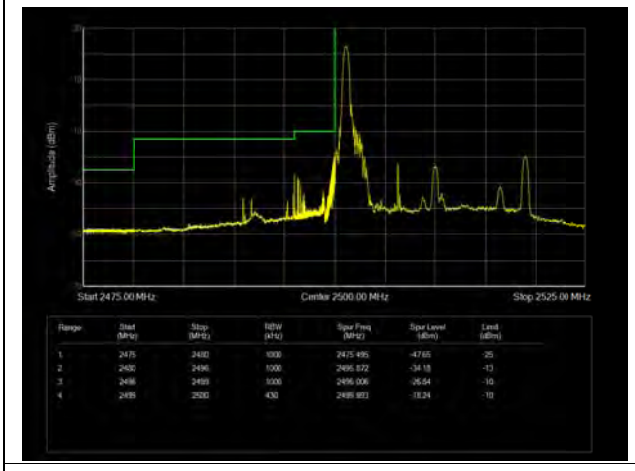
LTE Band 7 64QAM 15MHz CH-Low, 100%RB



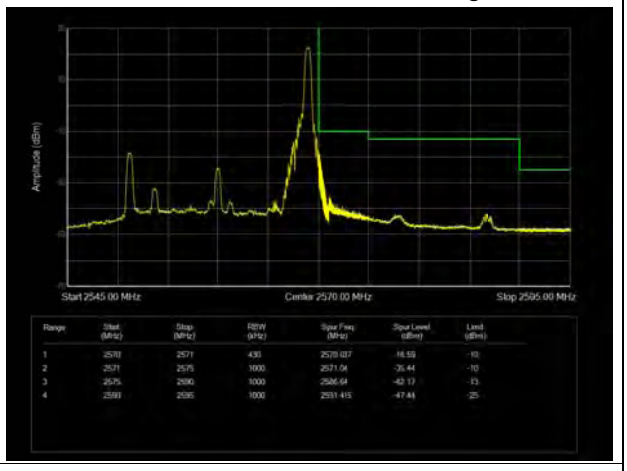
LTE Band 7 64QAM 15MHz CH-High, 100%RB



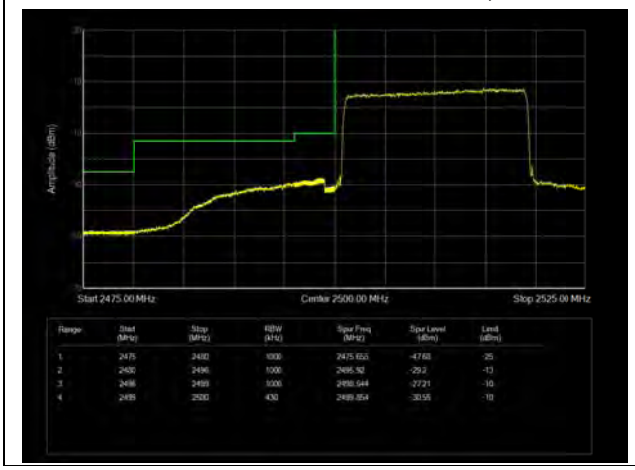
LTE Band 7 64QAM 20MHz CH-Low, 1 RB



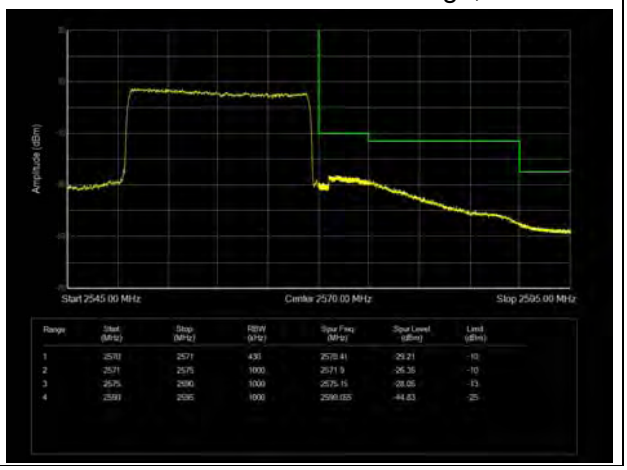
LTE Band 7 64QAM 20MHz CH-High, 1 RB



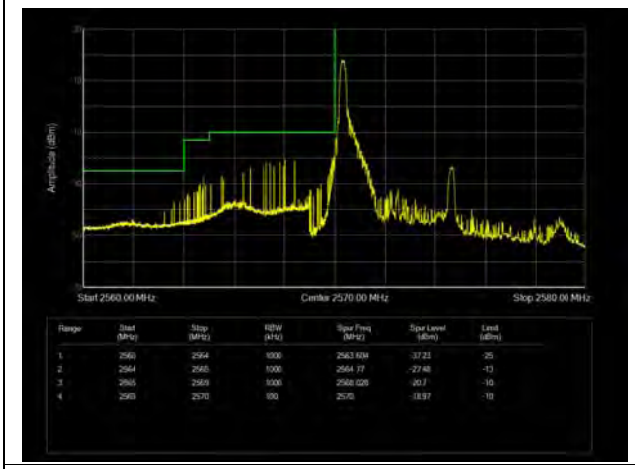
LTE Band 7 64QAM 20MHz CH-Low, 100%RB



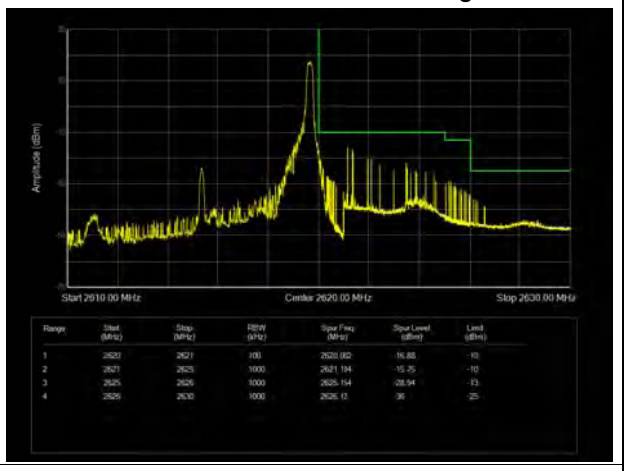
LTE Band 7 64QAM 20MHz CH-High, 100%RB



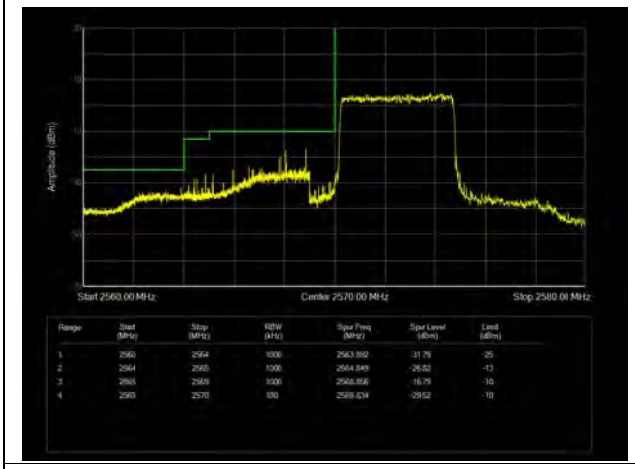
LTE Band 38 QPSK 5MHz CH-Low, 1 RB



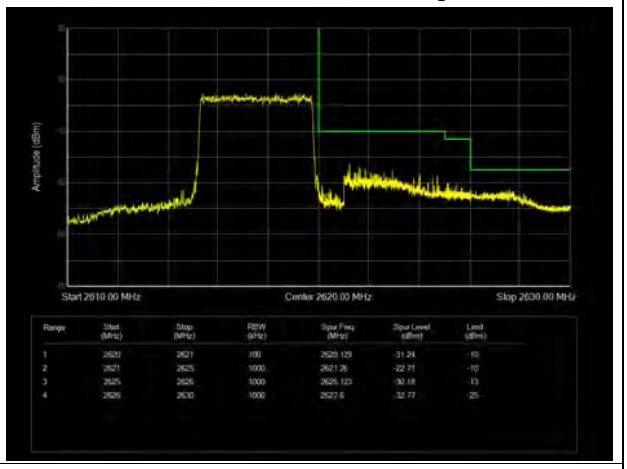
LTE Band 38 QPSK 5MHz CH-High, 1 RB



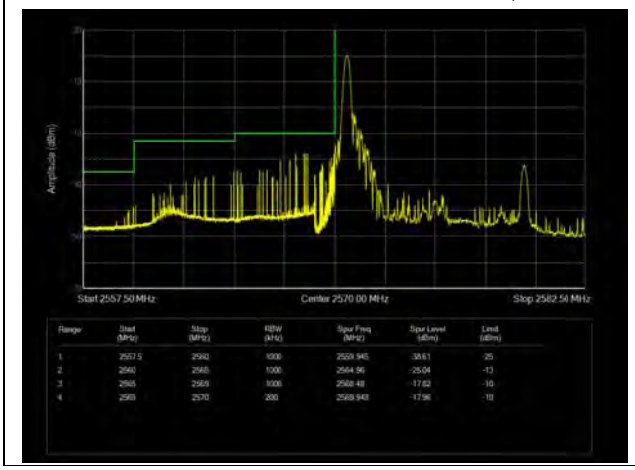
LTE Band 38 QPSK 5MHz CH-Low, 100%RB



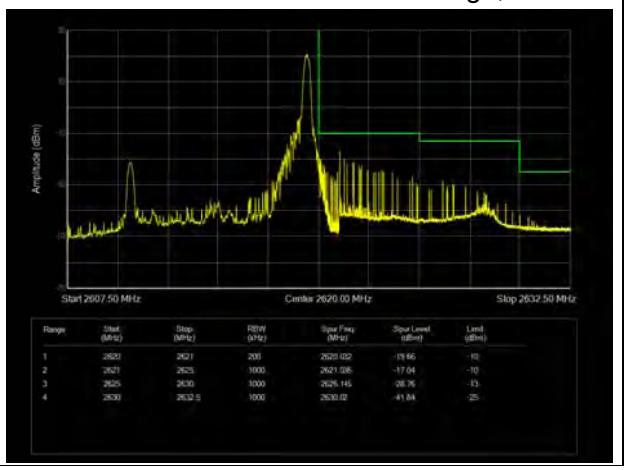
LTE Band 38 QPSK 5MHz CH-High, 100%RB



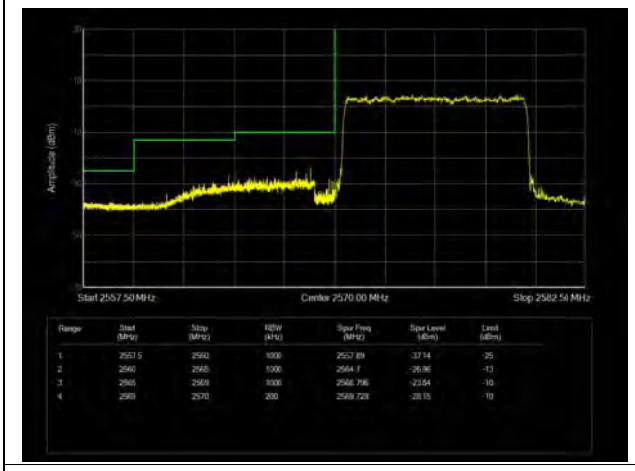
LTE Band 38 QPSK 10MHz CH-Low, 1 RB



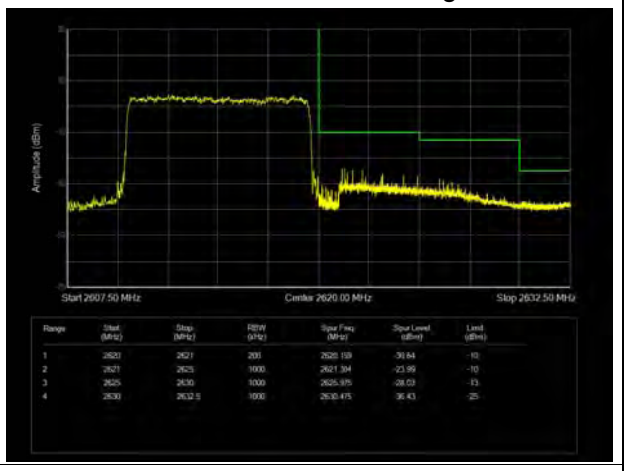
LTE Band 38 QPSK 10MHz CH-High, 1 RB



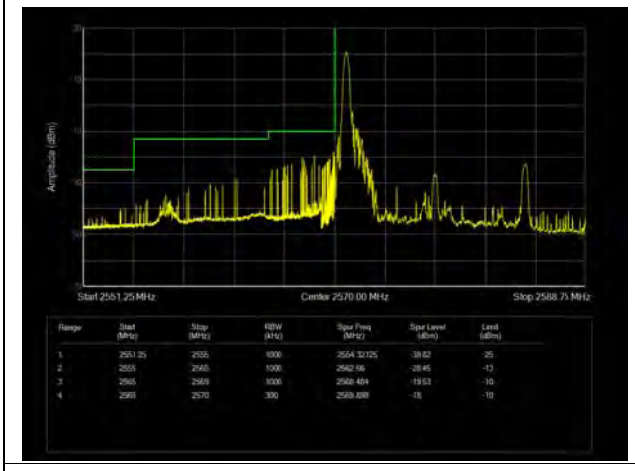
LTE Band 38 QPSK 10MHz CH-Low, 100%RB



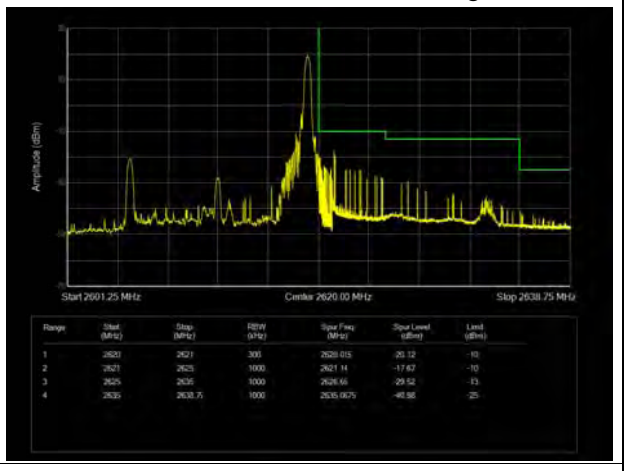
LTE Band 38 QPSK 10MHz CH-High, 100%RB



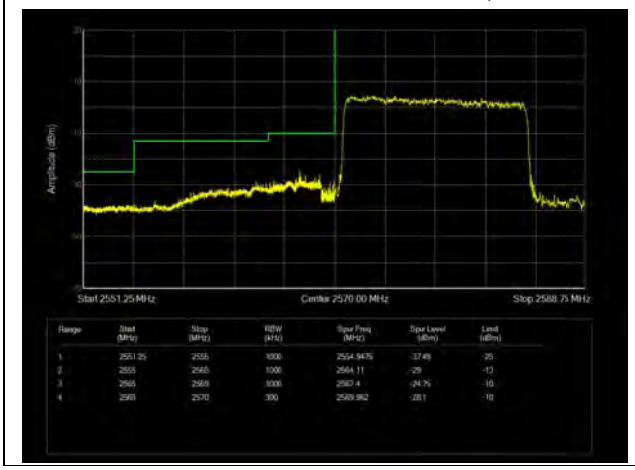
LTE Band 38 QPSK 15MHz CH-Low, 1 RB



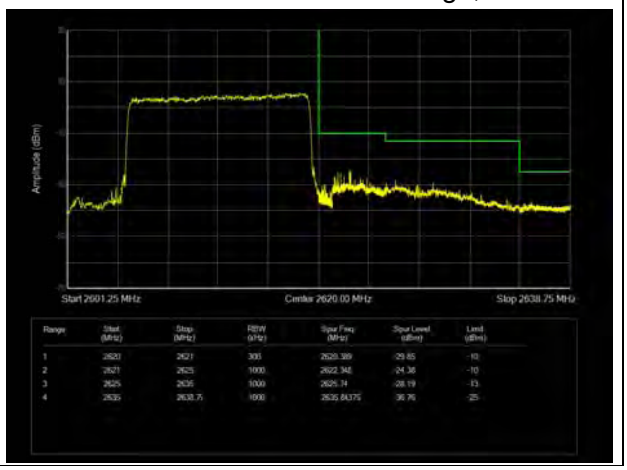
LTE Band 38 QPSK 15MHz CH-High, 1 RB



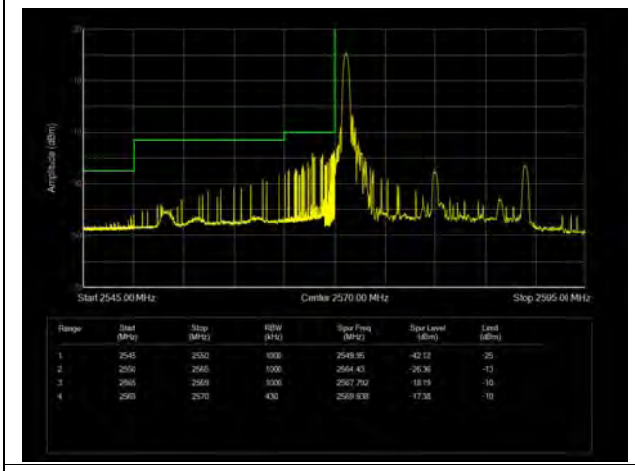
LTE Band 38 QPSK 15MHz CH-Low, 100%RB



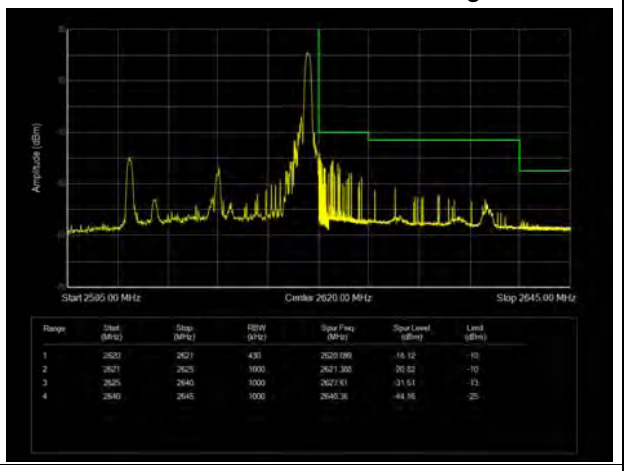
LTE Band 38 QPSK 15MHz CH-High, 100%RB



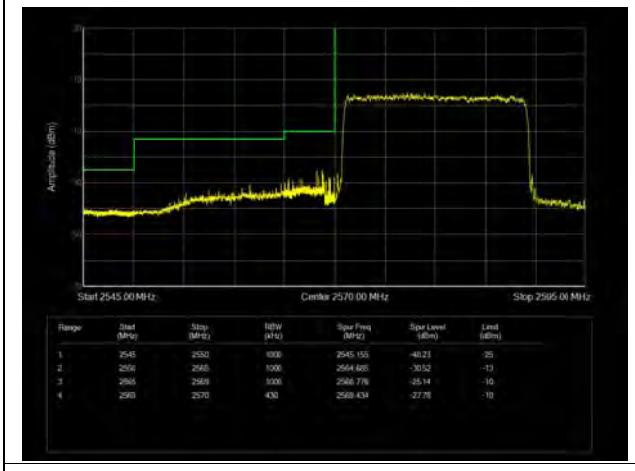
LTE Band 38 QPSK 20MHz CH-Low, 1 RB



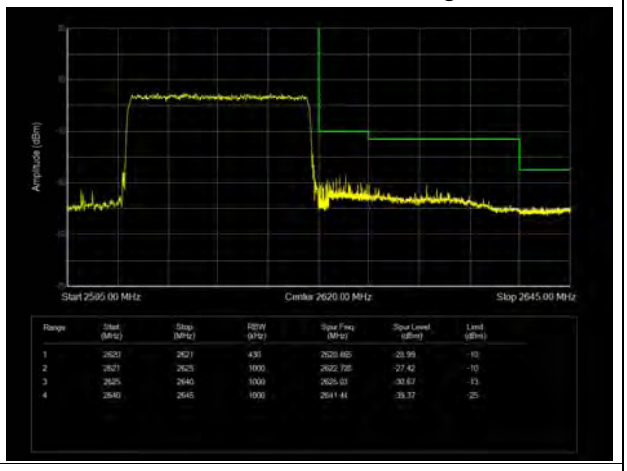
LTE Band 38 QPSK 20MHz CH-High, 1 RB



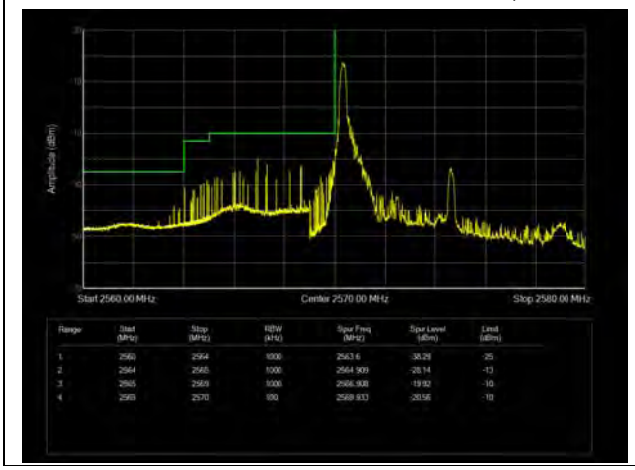
LTE Band 38 QPSK 20MHz CH-Low, 100%RB



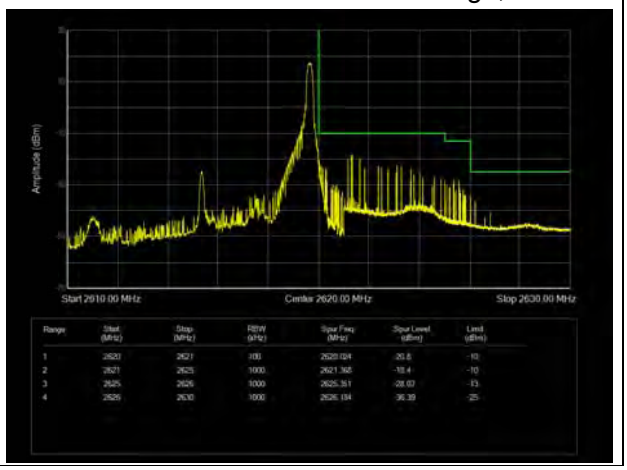
LTE Band 38 QPSK 20MHz CH-High, 100%RB



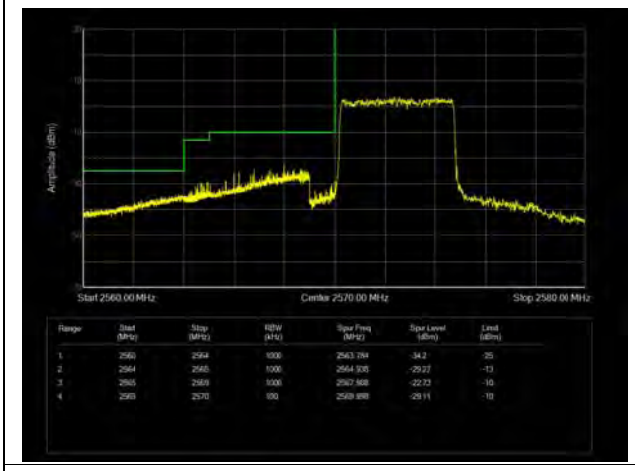
LTE Band 38 16QAM 5MHz CH-Low, 1 RB



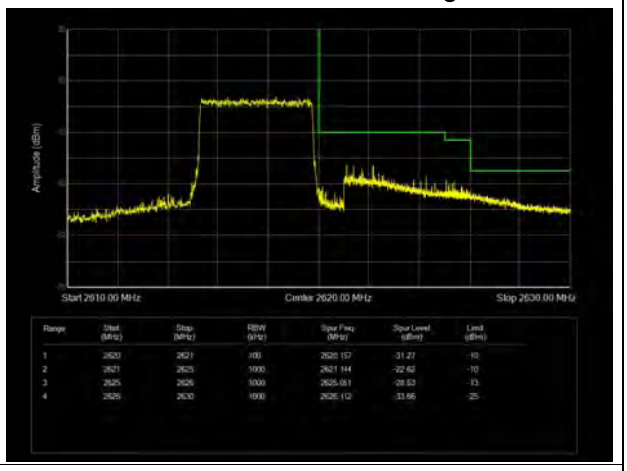
LTE Band 38 16QAM 5MHz CH-High, 1 RB



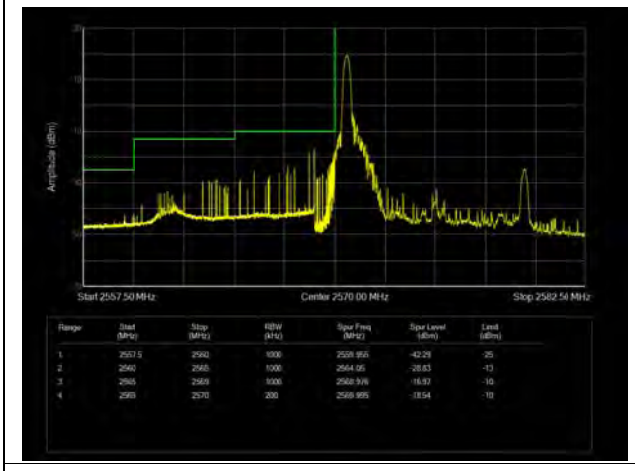
LTE Band 38 16QAM 5MHz CH-Low, 100%RB



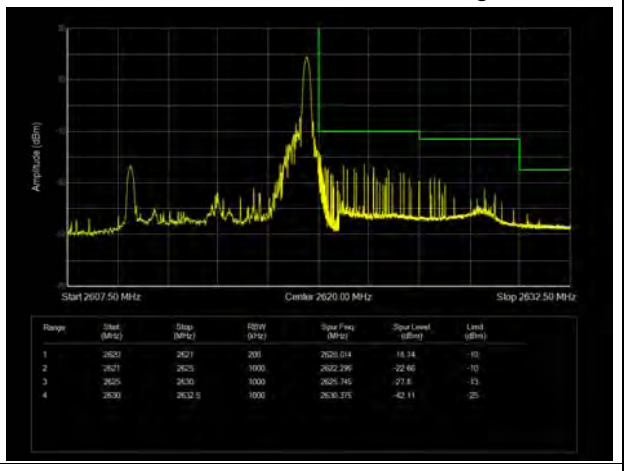
LTE Band 38 16QAM 5MHz CH-High, 100%RB



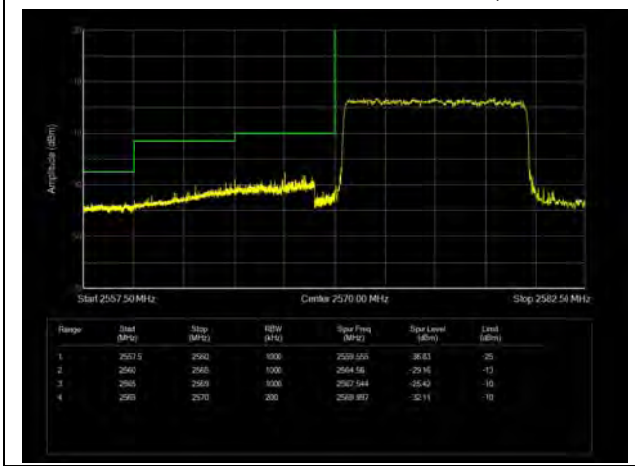
LTE Band 38 16QAM 10MHz CH-Low, 1 RB



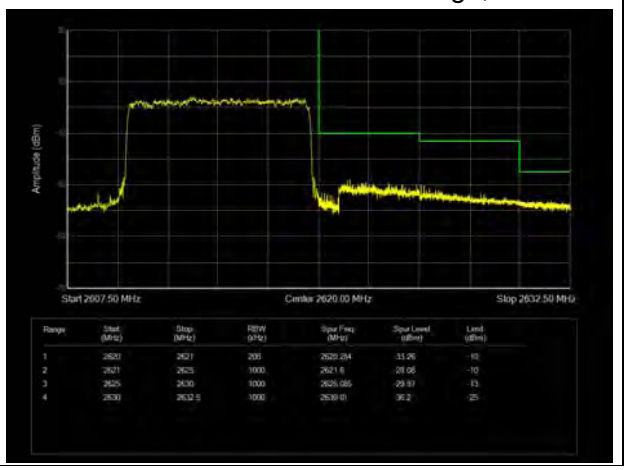
LTE Band 38 16QAM 10MHz CH-High, 1 RB



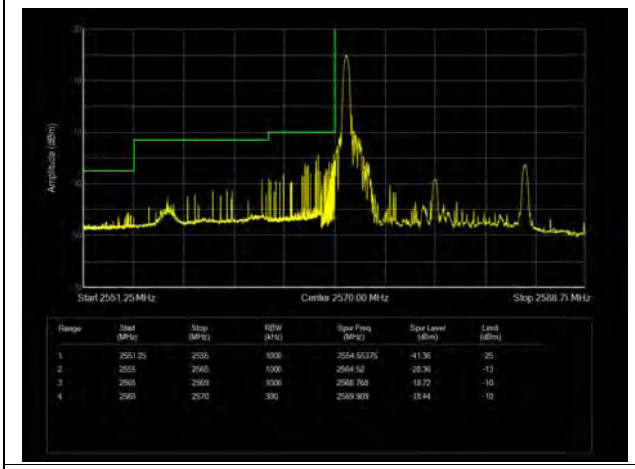
LTE Band 38 16QAM 10MHz CH-Low, 100%RB



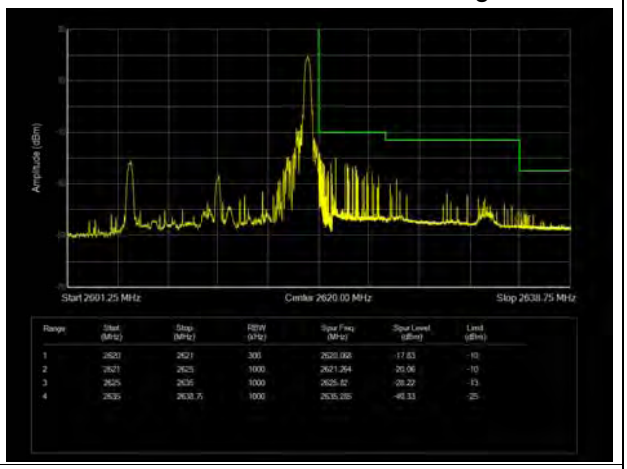
LTE Band 38 16QAM 10MHz CH-High, 100%RB



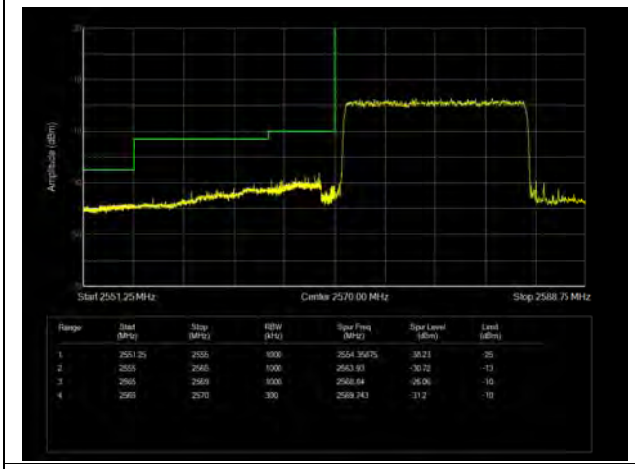
LTE Band 38 16QAM 15MHz CH-Low, 1 RB



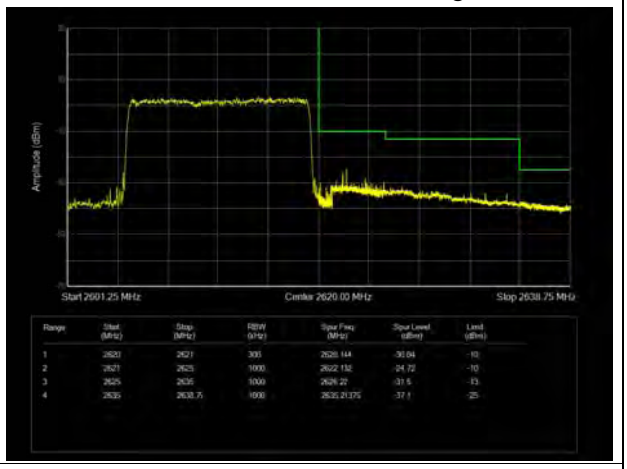
LTE Band 38 16QAM 15MHz CH-High, 1 RB



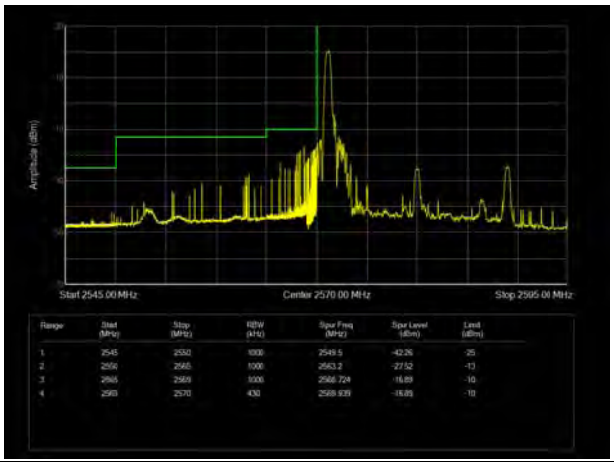
LTE Band 38 16QAM 15MHz CH-Low, 100%RB



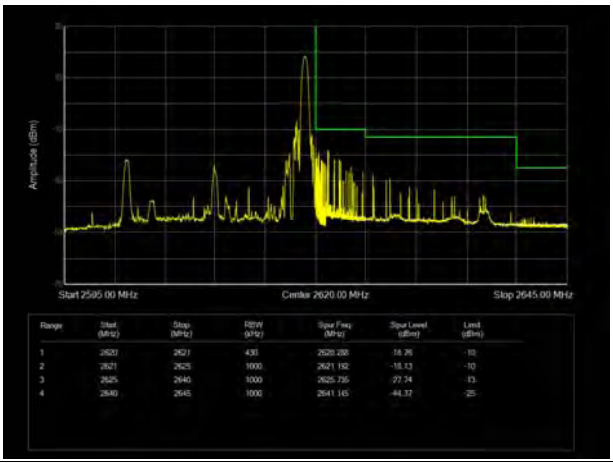
LTE Band 38 16QAM 15MHz CH-High, 100%RB



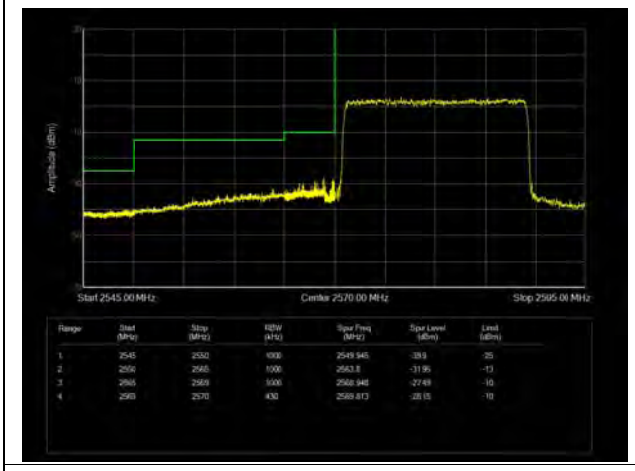
LTE Band 38 16QAM 20MHz CH-Low, 1 RB



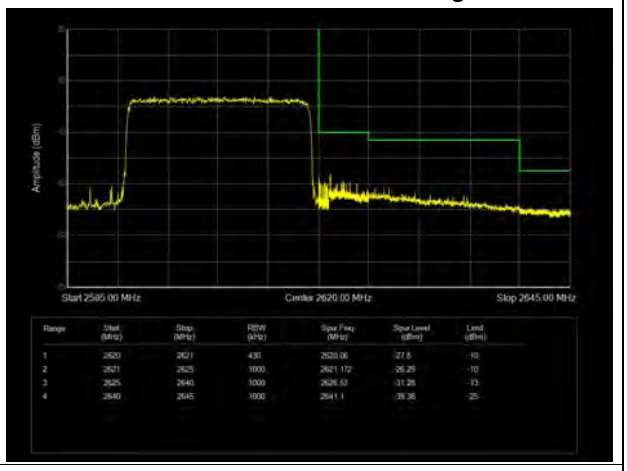
LTE Band 38 16QAM 20MHz CH-High, 1 RB



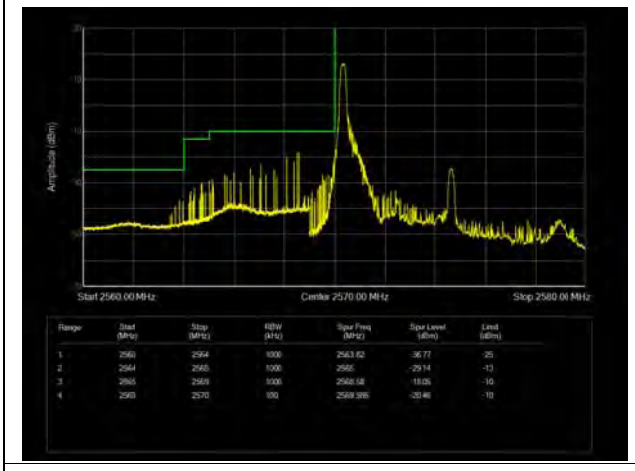
LTE Band 38 16QAM 20MHz CH-Low, 100%RB



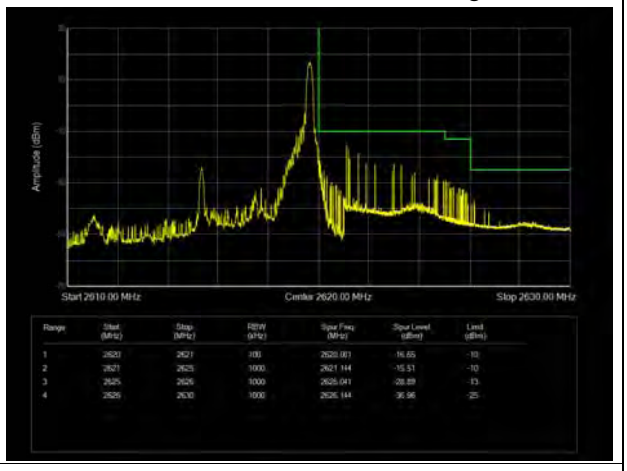
LTE Band 38 16QAM 20MHz CH-High, 100%RB



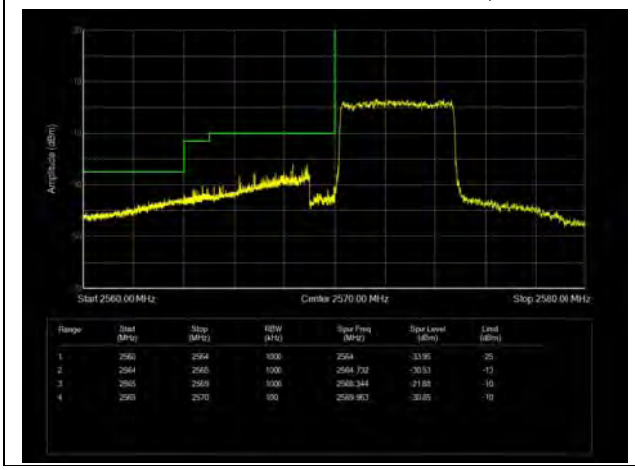
LTE Band 38 64QAM 5MHz CH-Low, 1 RB



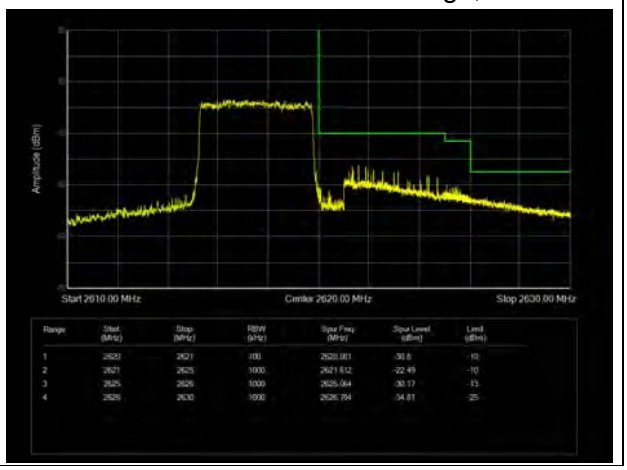
LTE Band 38 64QAM 5MHz CH-High, 1 RB



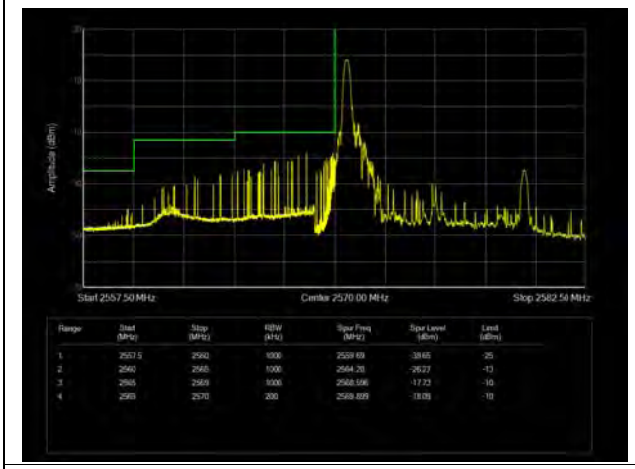
LTE Band 38 64QAM 5MHz CH-Low, 100%RB



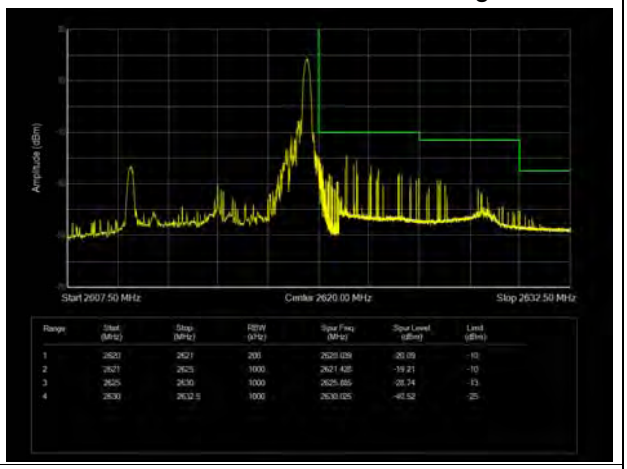
LTE Band 38 64QAM 5MHz CH-High, 100%RB



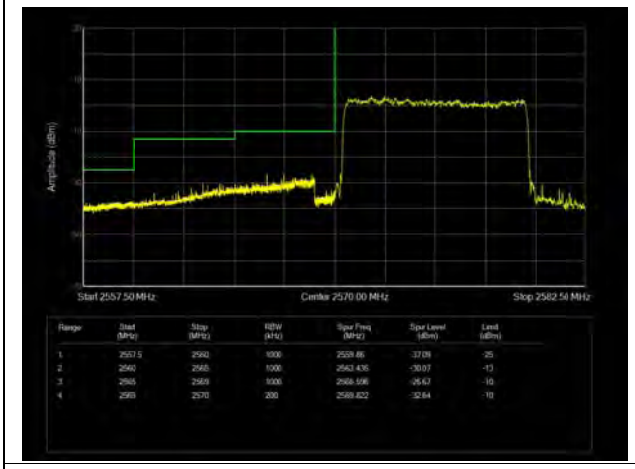
LTE Band 38 64QAM 10MHz CH-Low, 1 RB



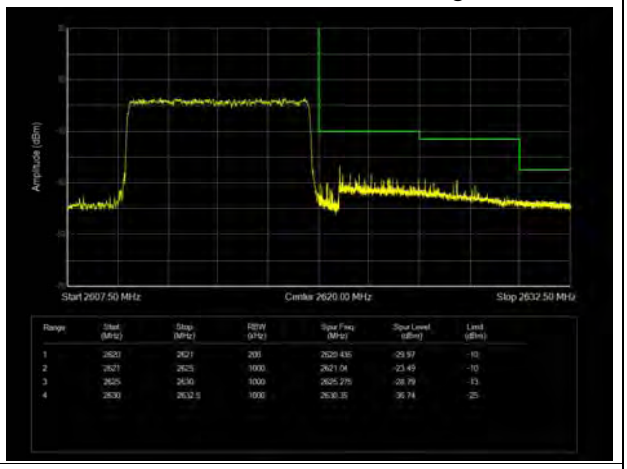
LTE Band 38 64QAM 10MHz CH-High, 1 RB



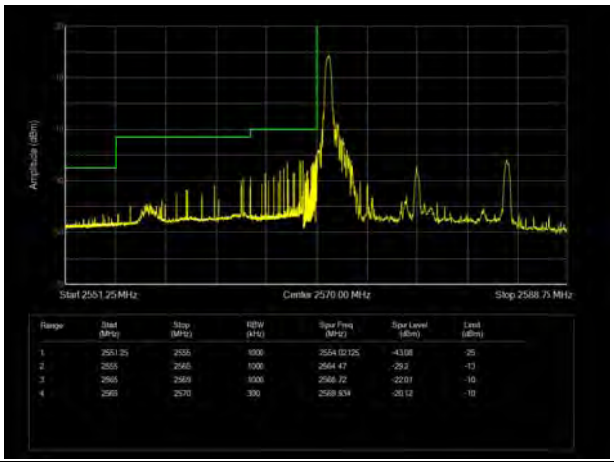
LTE Band 38 64QAM 10MHz CH-Low, 100%RB



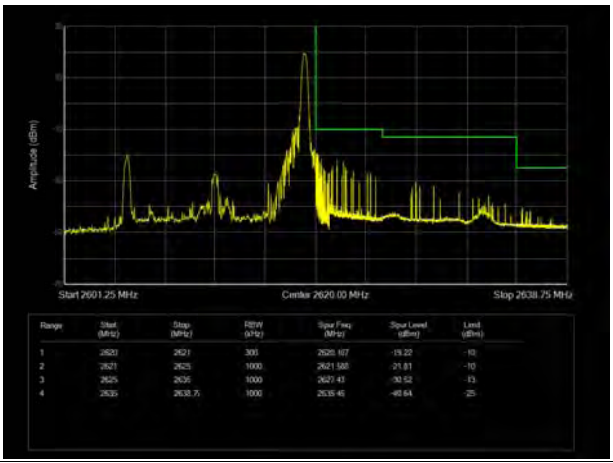
LTE Band 38 64QAM 10MHz CH-High, 100%RB



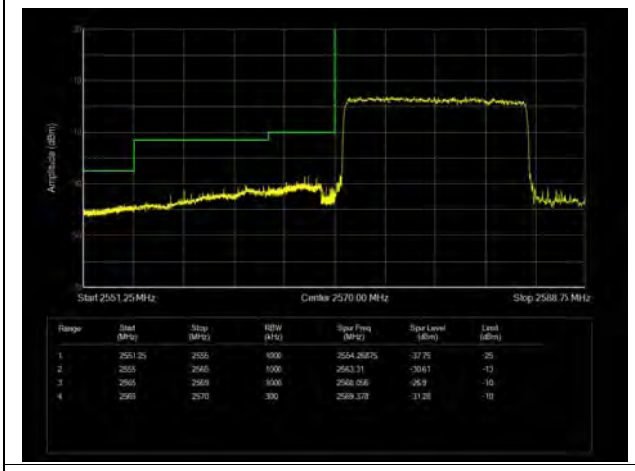
LTE Band 38 64QAM 15MHz CH-Low, 1 RB



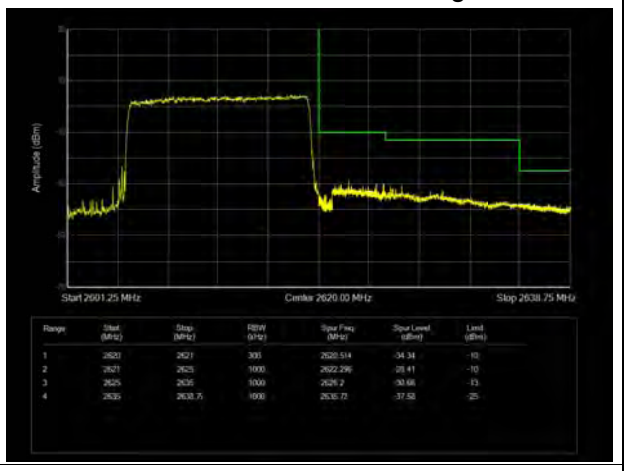
LTE Band 38 64QAM 15MHz CH-High, 1 RB



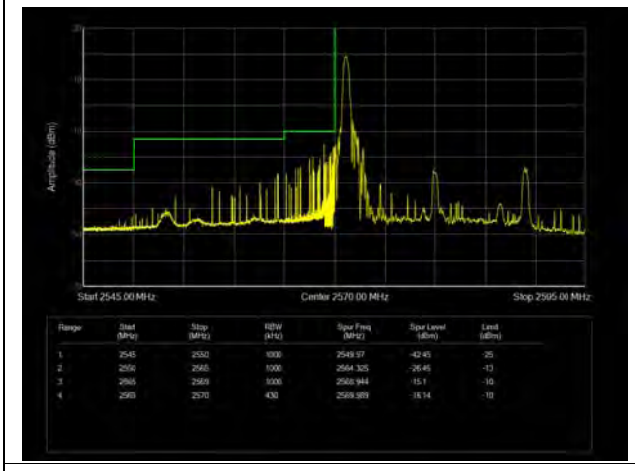
LTE Band 38 64QAM 15MHz CH-Low, 100%RB



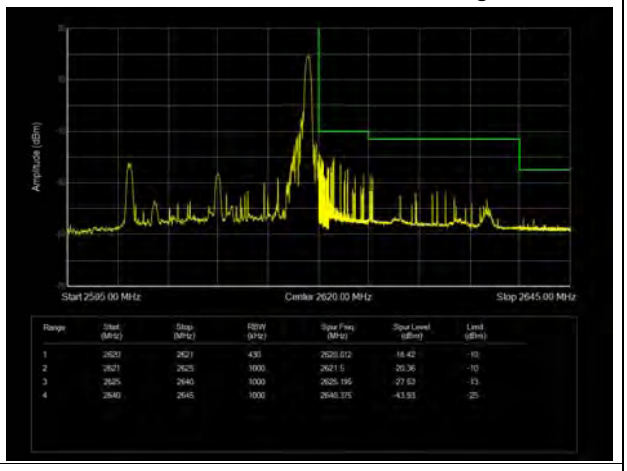
LTE Band 38 64QAM 15MHz CH-High, 100%RB



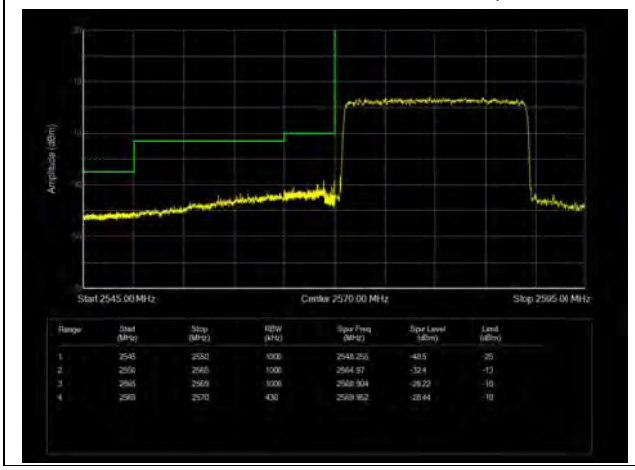
LTE Band 38 64QAM 20MHz CH-Low, 1 RB



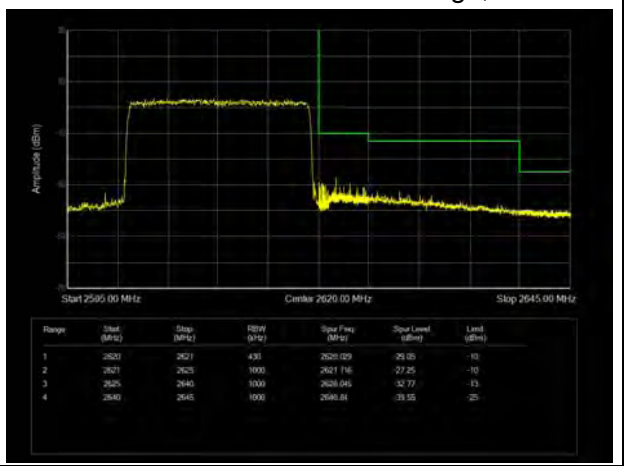
LTE Band 38 64QAM 20MHz CH-High, 1 RB



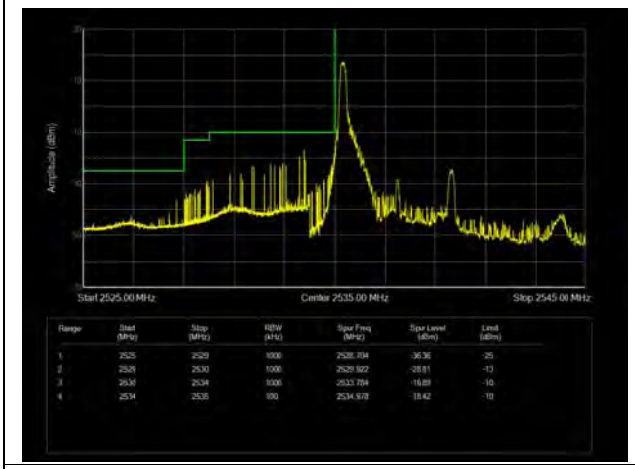
LTE Band 38 64QAM 20MHz CH-Low, 100%RB



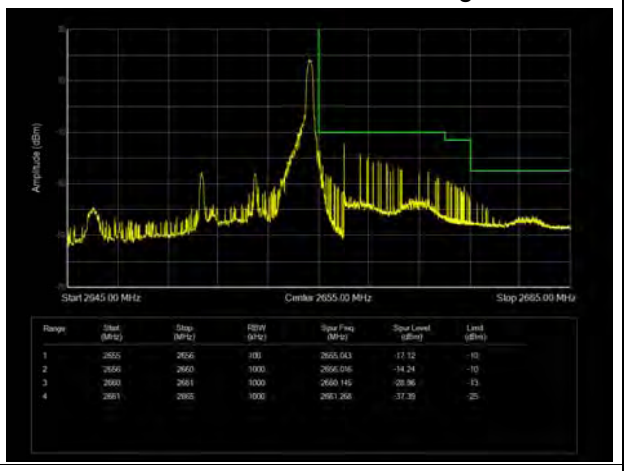
LTE Band 38 64QAM 20MHz CH-High, 100%RB



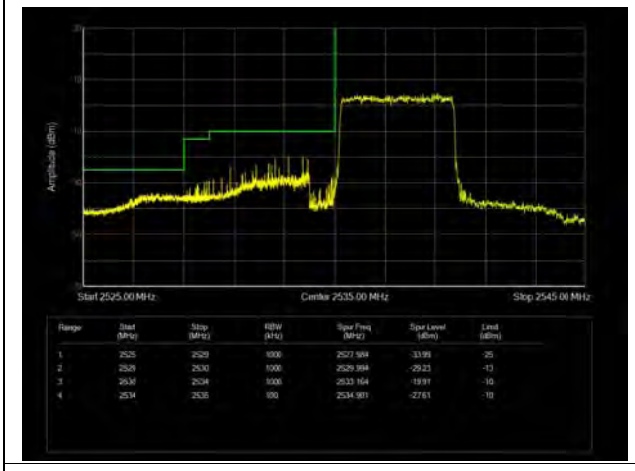
LTE Band 41 QPSK 5MHz CH-Low, 1 RB



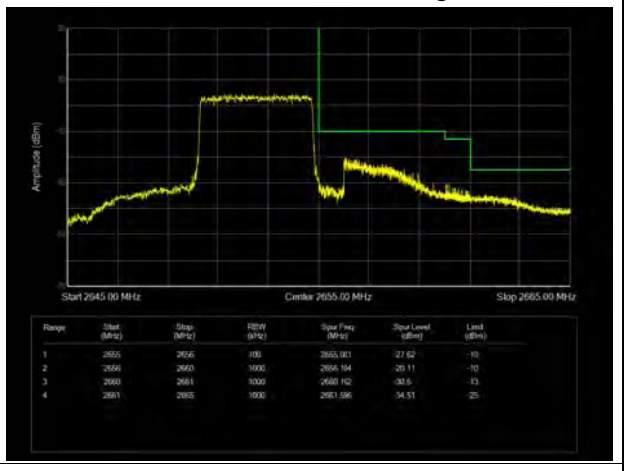
LTE Band 41 QPSK 5MHz CH-High, 1 RB



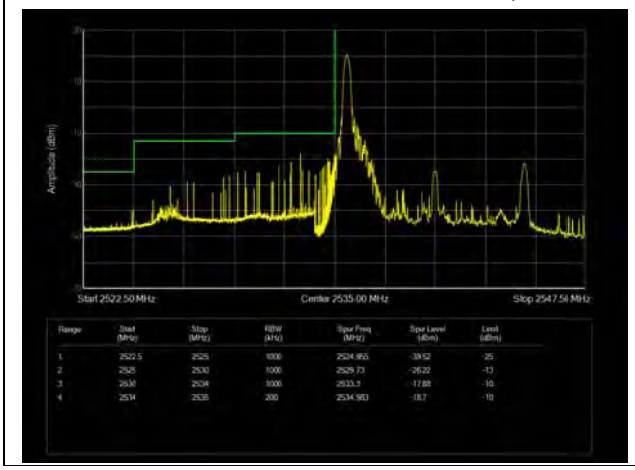
LTE Band 41 QPSK 5MHz CH-Low, 100%RB



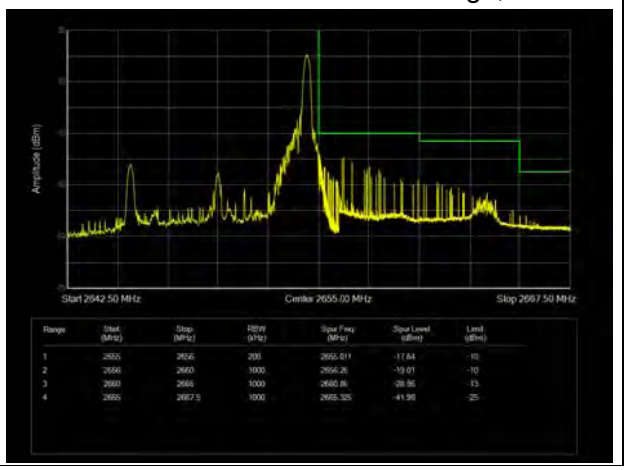
LTE Band 41 QPSK 5MHz CH-High, 100%RB



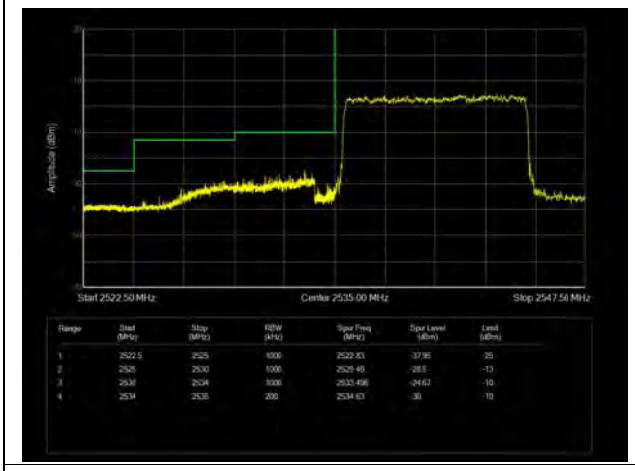
LTE Band 41 QPSK 10MHz CH-Low, 1 RB



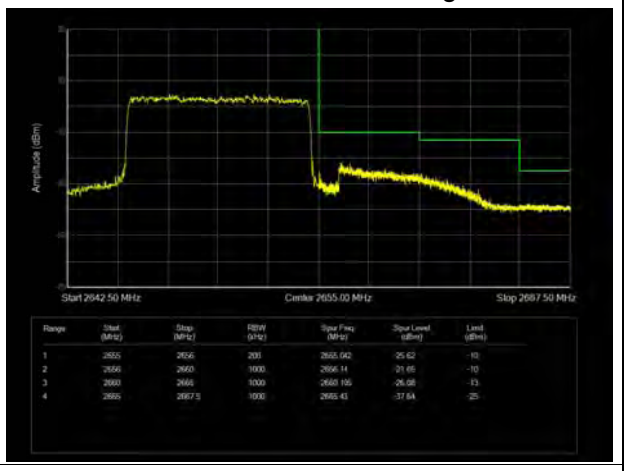
LTE Band 41 QPSK 10MHz CH-High, 1 RB



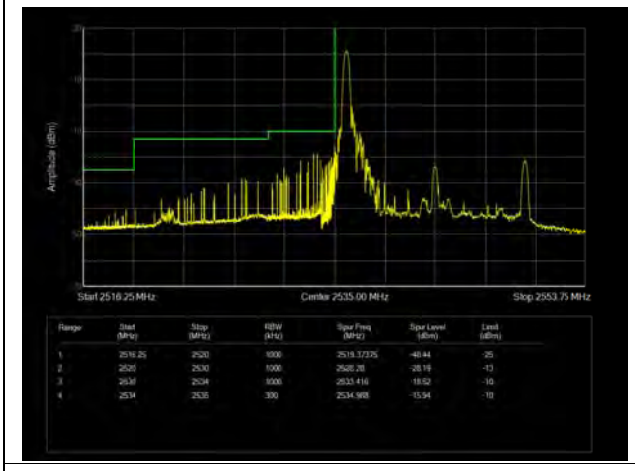
LTE Band 41 QPSK 10MHz CH-Low, 100%RB



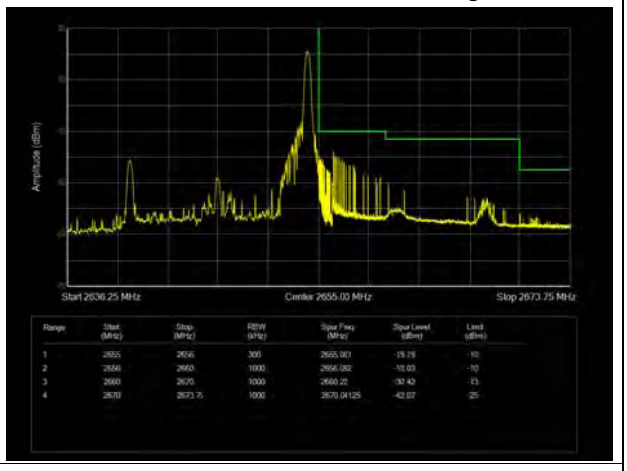
LTE Band 41 QPSK 10MHz CH-High, 100%RB



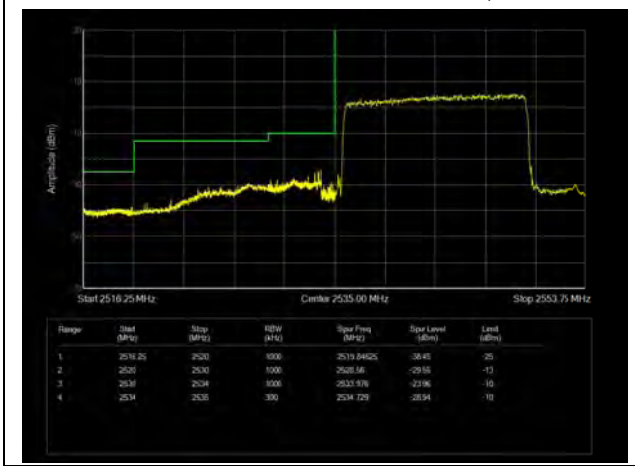
LTE Band 41 QPSK 15MHz CH-Low, 1 RB



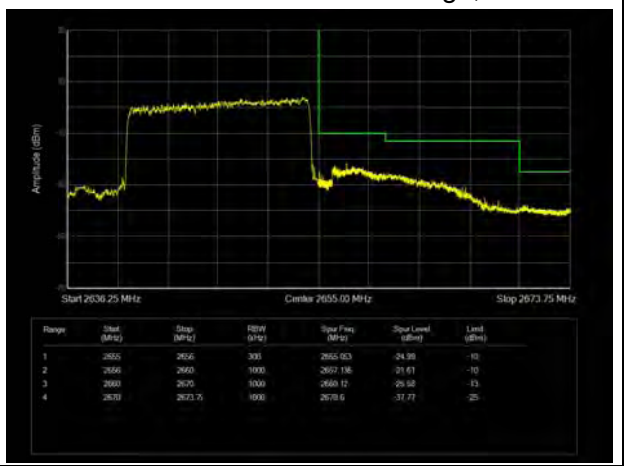
LTE Band 41 QPSK 15MHz CH-High, 1 RB



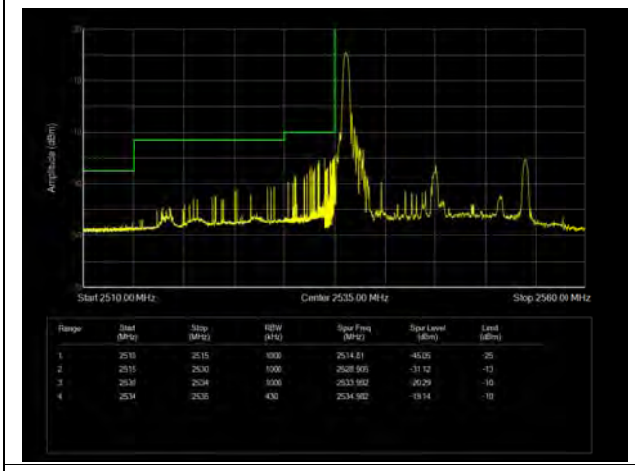
LTE Band 41 QPSK 15MHz CH-Low, 100%RB



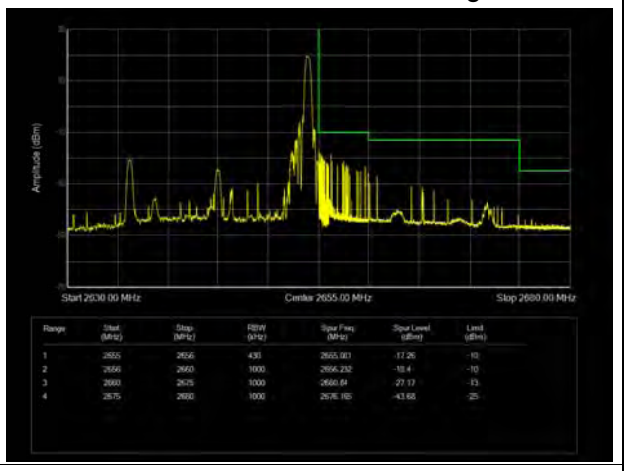
LTE Band 41 QPSK 15MHz CH-High, 100%RB



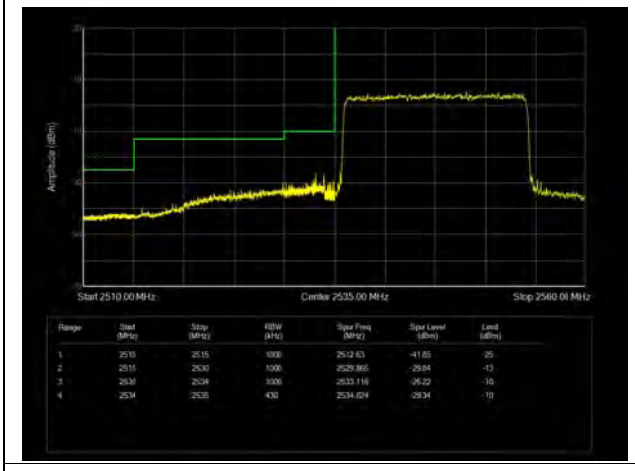
LTE Band 41 QPSK 20MHz CH-Low, 1 RB



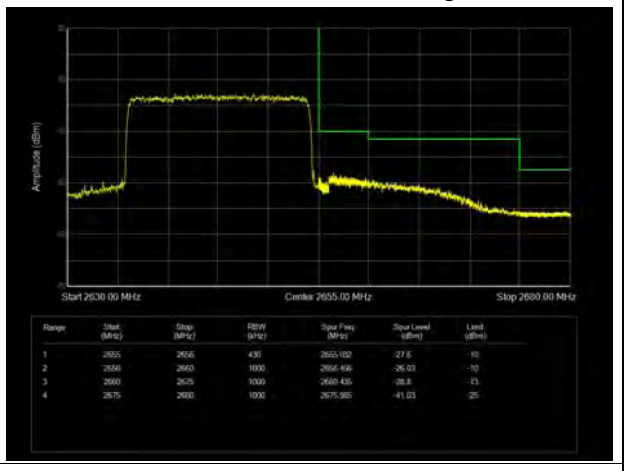
LTE Band 41 QPSK 20MHz CH-High, 1 RB



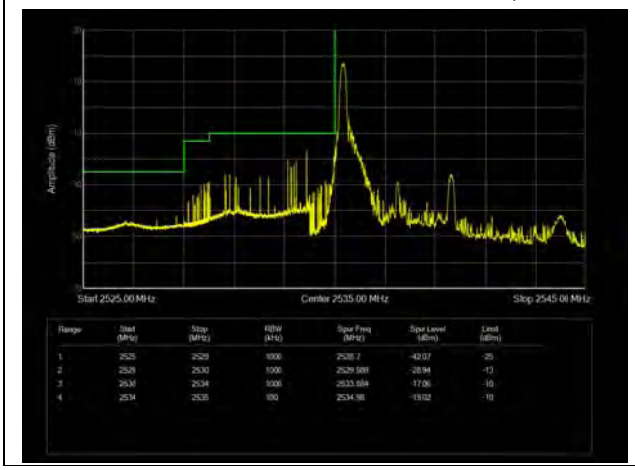
LTE Band 41 QPSK 20MHz CH-Low, 100%RB



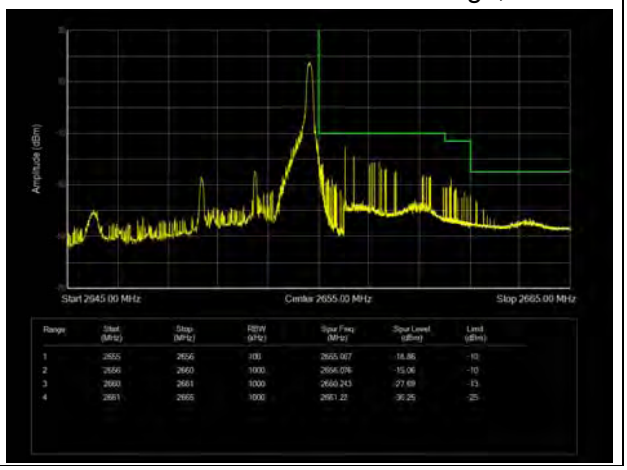
LTE Band 41 QPSK 20MHz CH-High, 100%RB



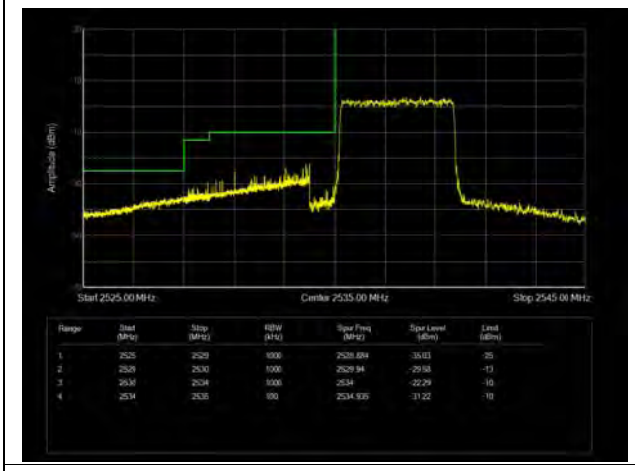
LTE Band 41 16QAM 5MHz CH-Low, 1 RB



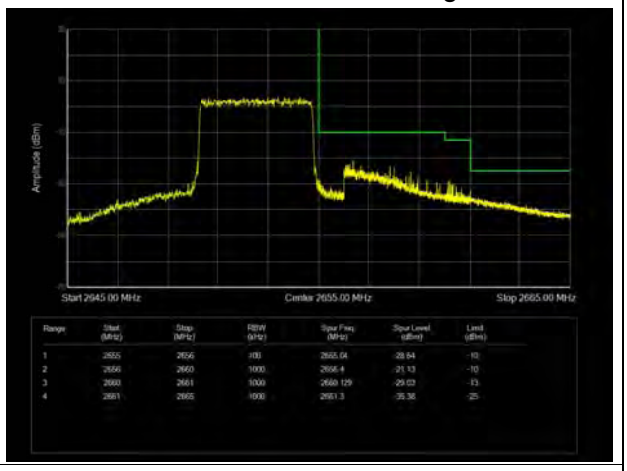
LTE Band 41 16QAM 5MHz CH-High, 1 RB



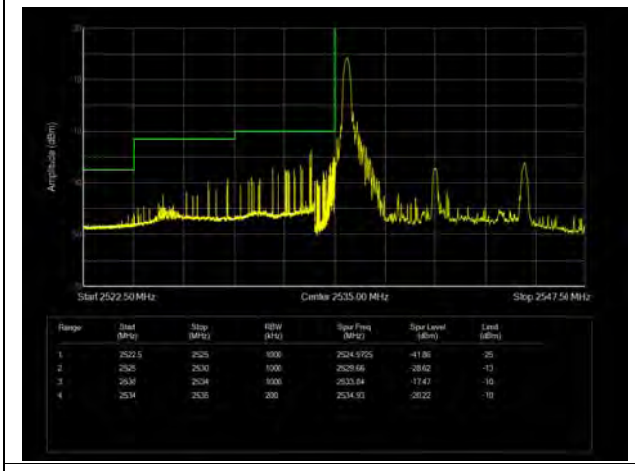
LTE Band 41 16QAM 5MHz CH-Low, 100%RB



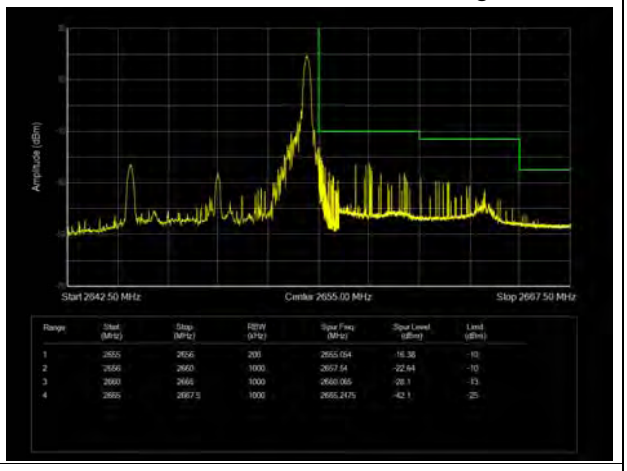
LTE Band 41 16QAM 5MHz CH-High, 100%RB



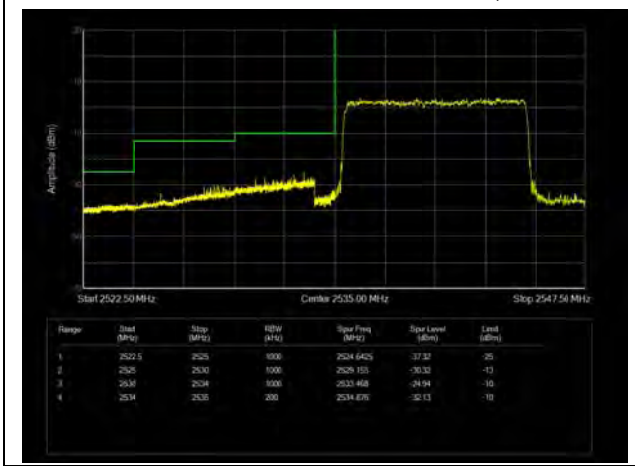
LTE Band 41 16QAM 10MHz CH-Low, 1 RB



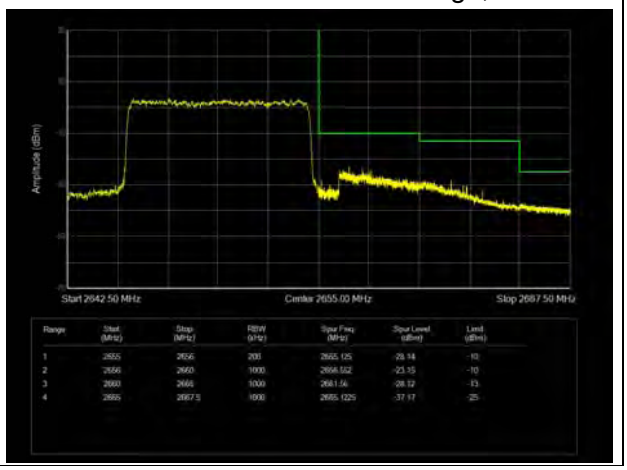
LTE Band 41 16QAM 10MHz CH-High, 1 RB



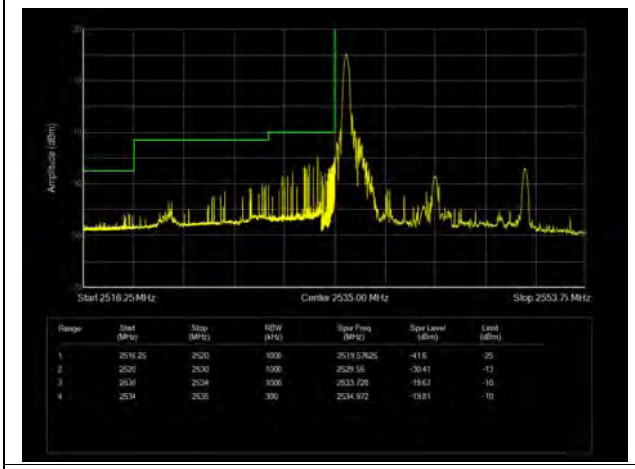
LTE Band 41 16QAM 10MHz CH-Low, 100%RB



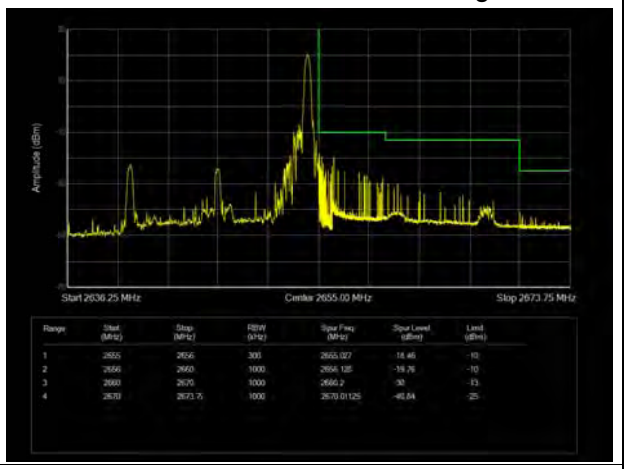
LTE Band 41 16QAM 10MHz CH-High, 100%RB



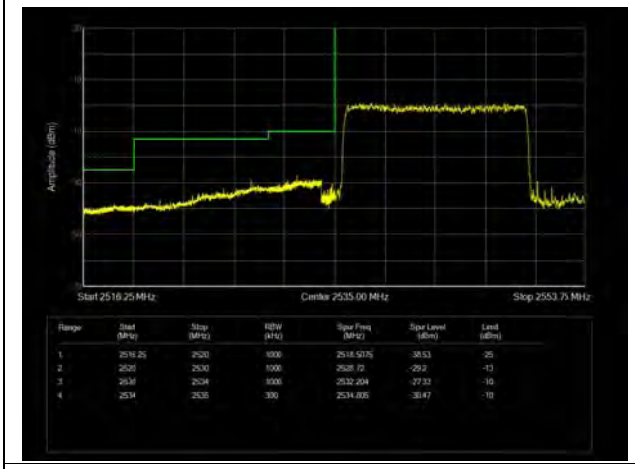
LTE Band 41 16QAM 15MHz CH-Low, 1 RB



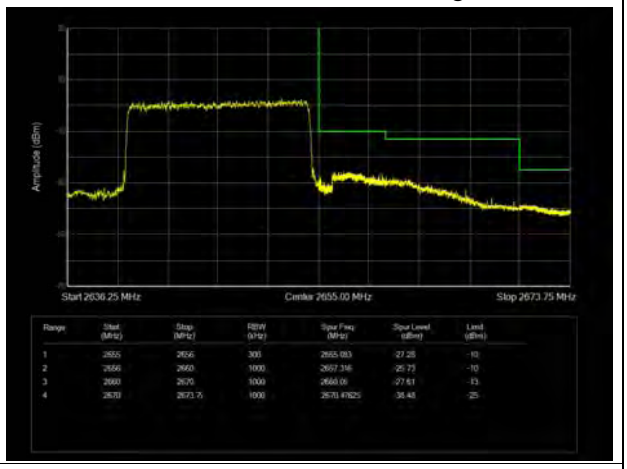
LTE Band 41 16QAM 15MHz CH-High, 1 RB



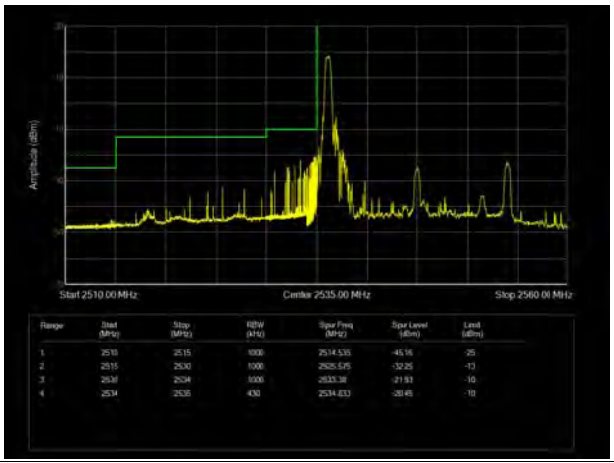
LTE Band 41 16QAM 15MHz CH-Low, 100%RB



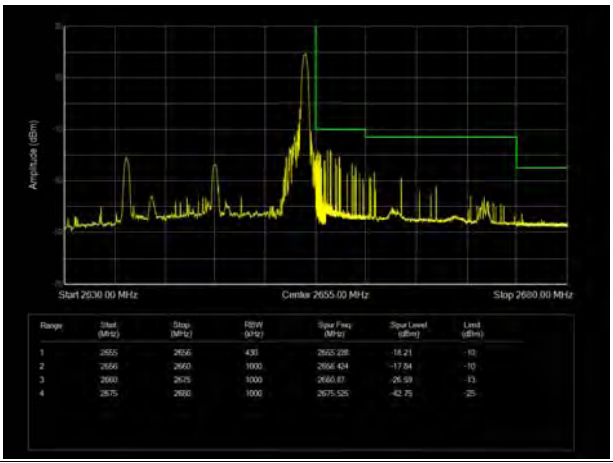
LTE Band 41 16QAM 15MHz CH-High, 100%RB



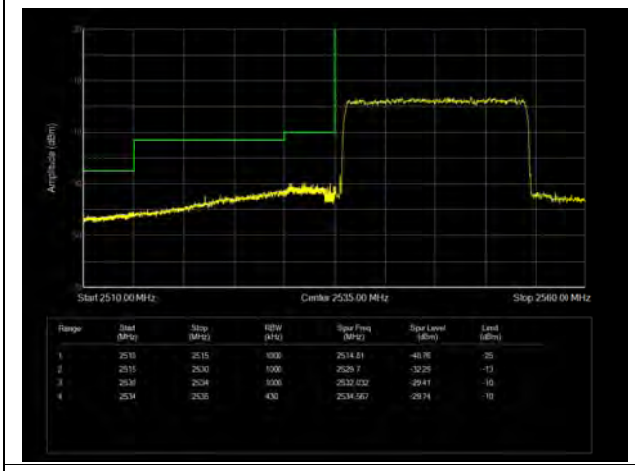
LTE Band 41 16QAM 20MHz CH-Low, RB 1



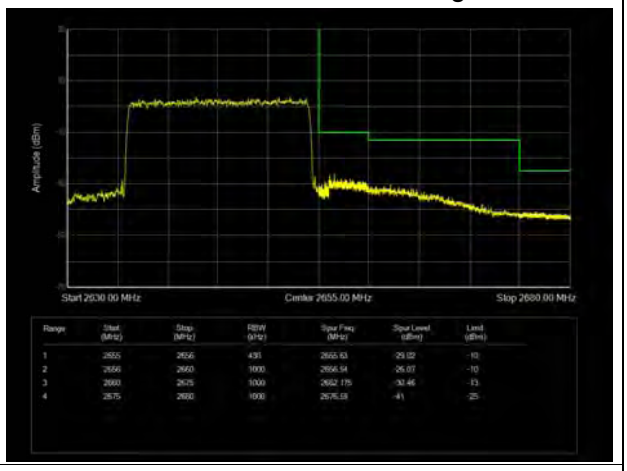
LTE Band 41 16QAM 20MHz CH-High, RB 1



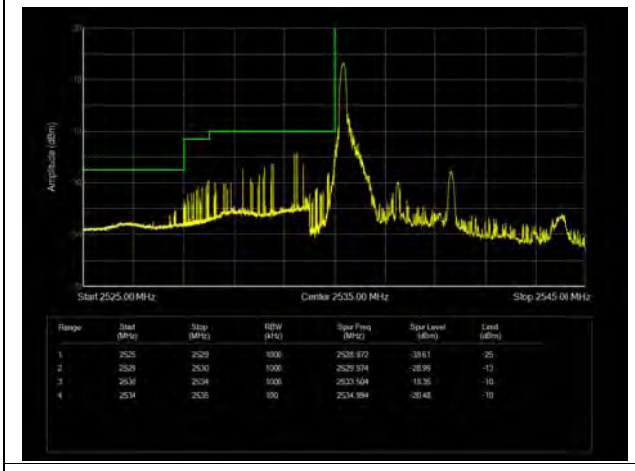
LTE Band 41 16QAM 20MHz CH-Low, 100%RB



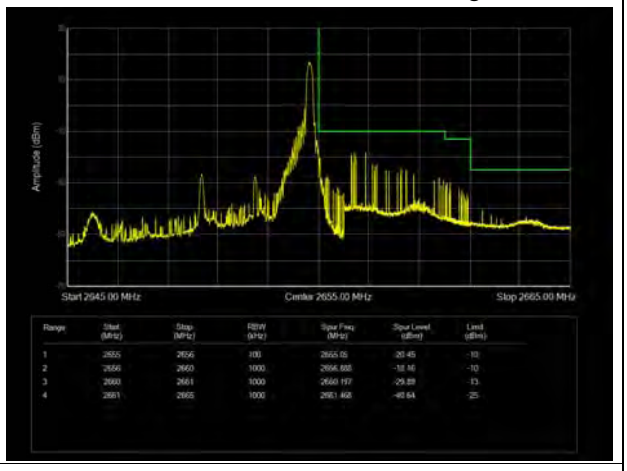
LTE Band 41 16QAM 20MHz CH-High, 100%RB



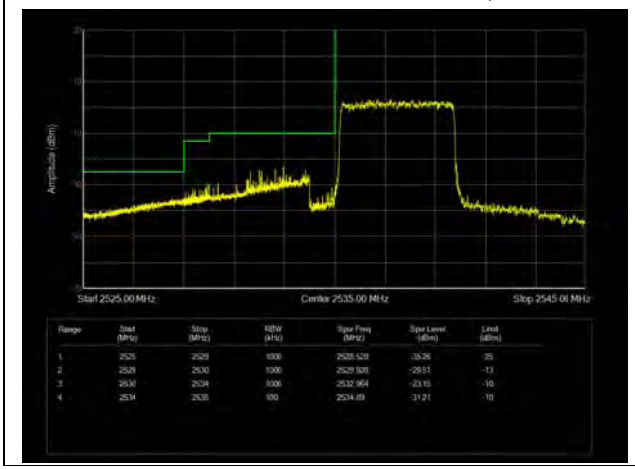
LTE Band 41 64QAM 5MHz CH-Low, 1 RB



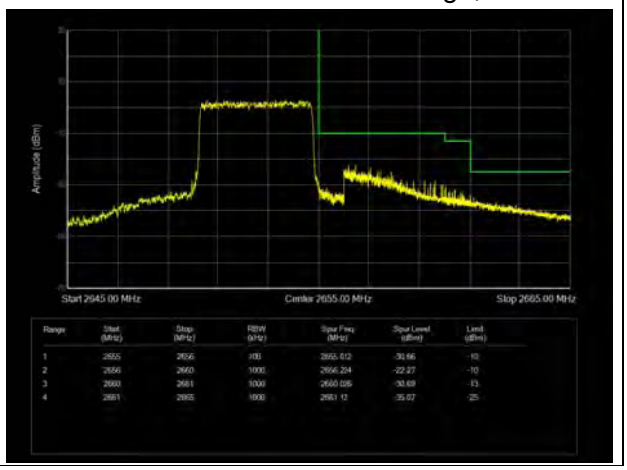
LTE Band 41 64QAM 5MHz CH-High, 1 RB



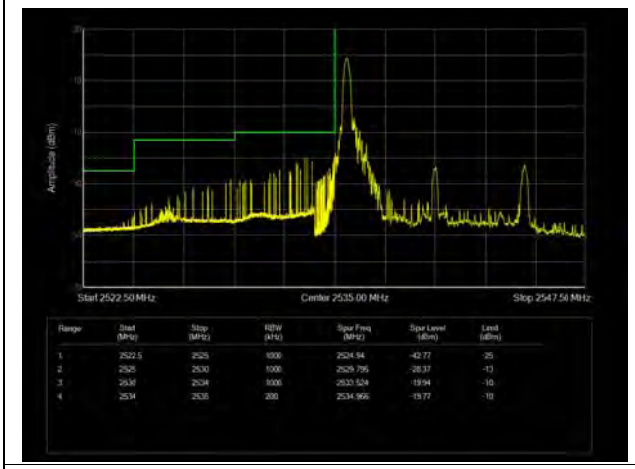
LTE Band 41 64QAM 5MHz CH-Low, 100%RB



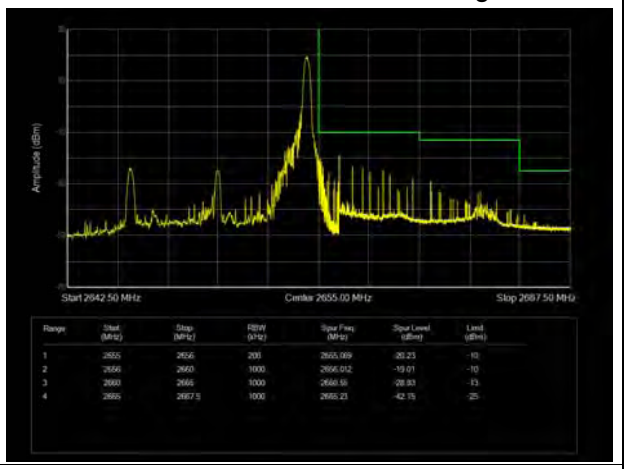
LTE Band 41 64QAM 5MHz CH-High, 100%RB



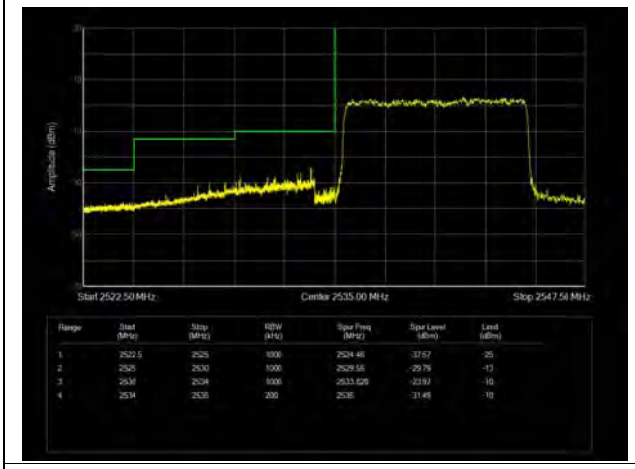
LTE Band 41 64QAM 10MHz CH-Low, 1 RB



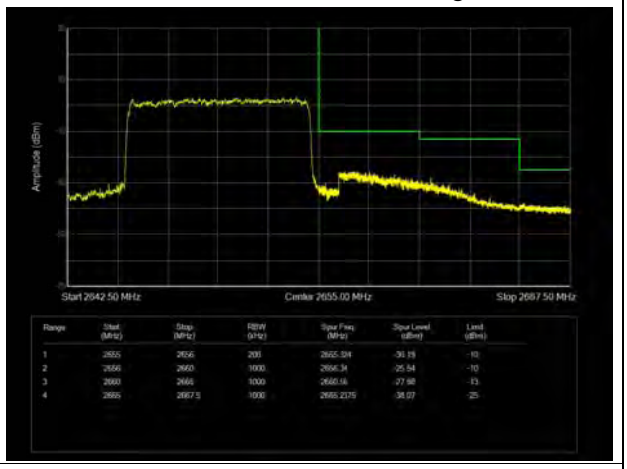
LTE Band 41 64QAM 10MHz CH-High, 1 RB



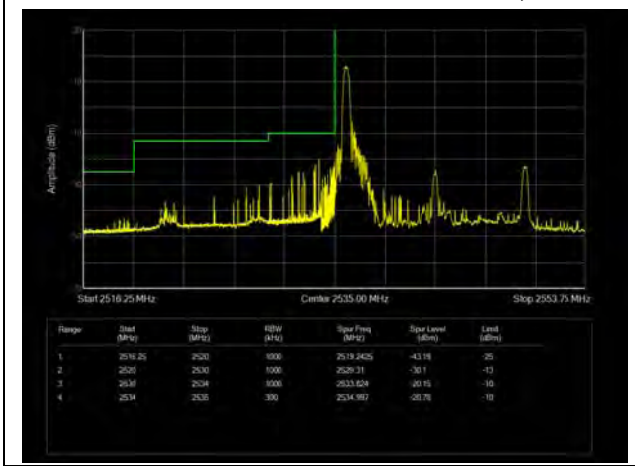
LTE Band 41 64QAM 10MHz CH-Low, 100%RB



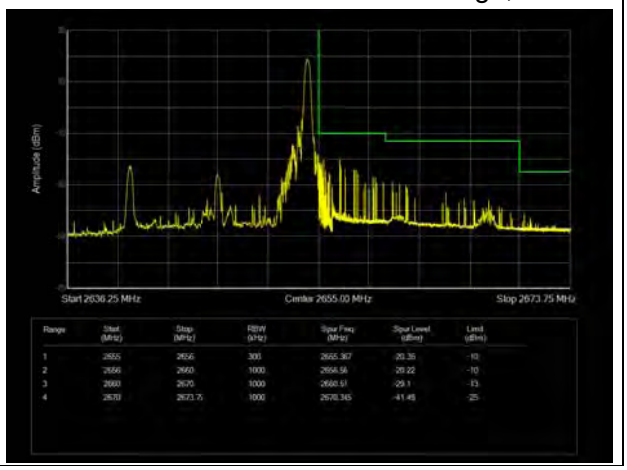
LTE Band 41 64QAM 10MHz CH-High, 100%RB



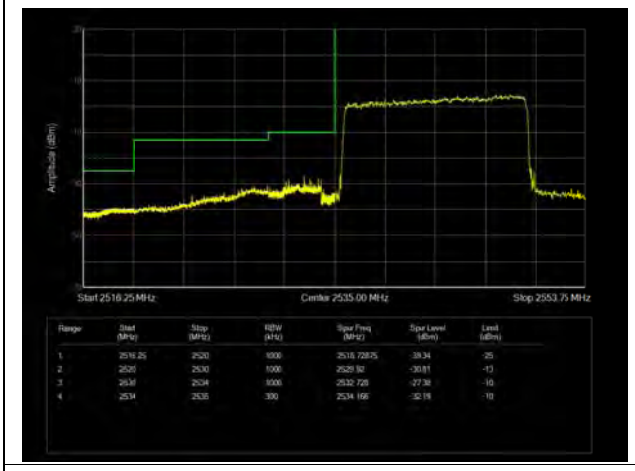
LTE Band 41 64QAM 15MHz CH-Low, 1 RB



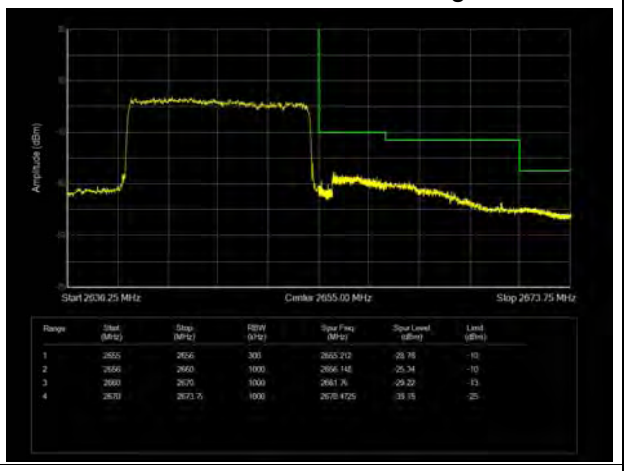
LTE Band 41 64QAM 15MHz CH-High, 1 RB



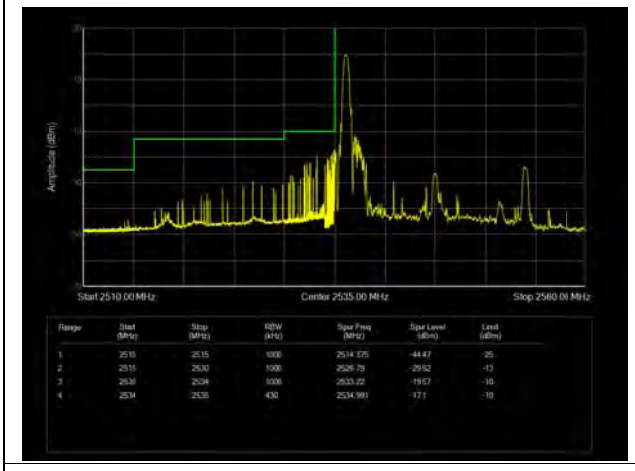
LTE Band 41 64QAM 15MHz CH-Low, 100%RB



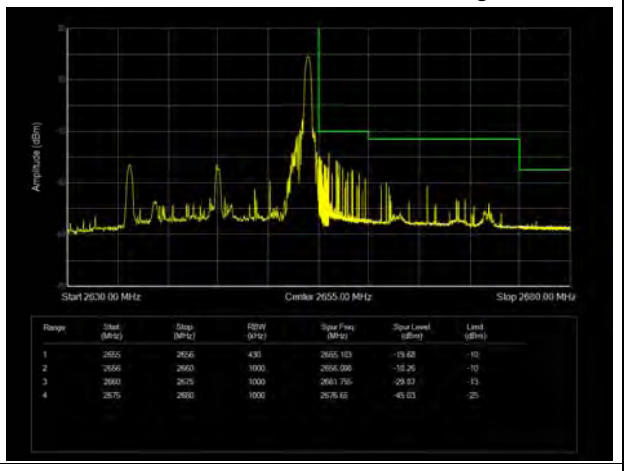
LTE Band 41 64QAM 15MHz CH-High, 100%RB



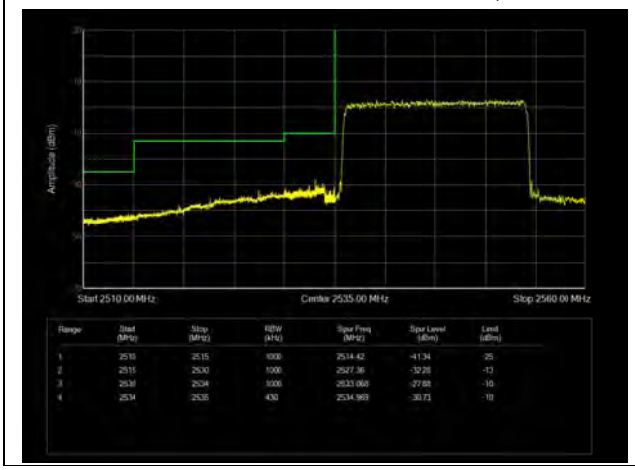
LTE Band 41 64QAM 20MHz CH-Low, 1 RB



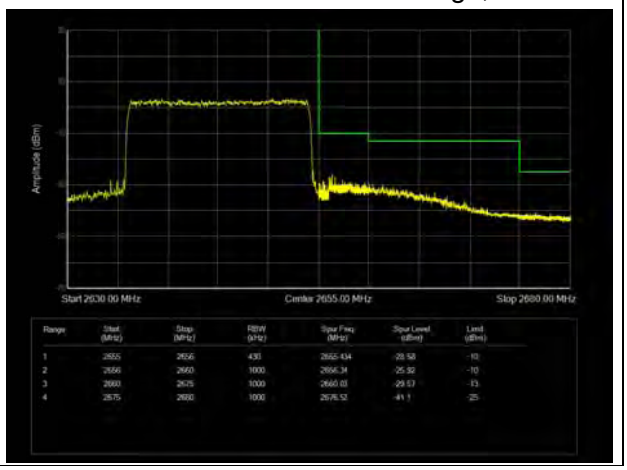
LTE Band 41 64QAM 20MHz CH-High, 1 RB



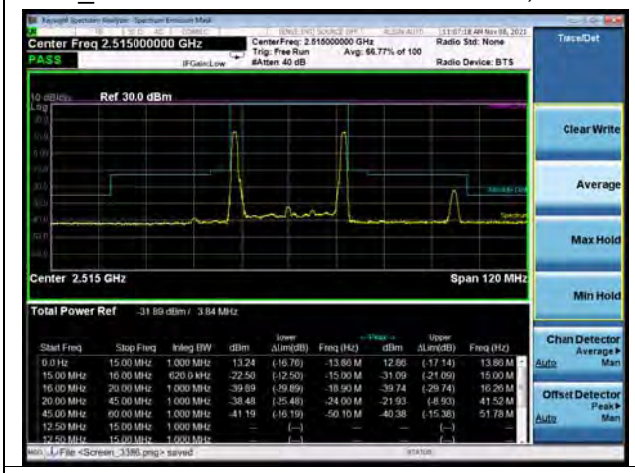
LTE Band 41 64QAM 20MHz CH-Low, 100%RB



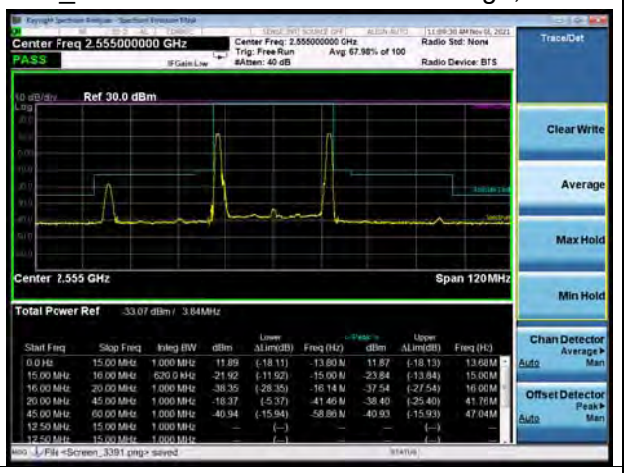
LTE Band 41 64QAM 20MHz CH-High, 100%RB



CA_7C QPSK 20MHz+10MHz CH-Low, 1 RB



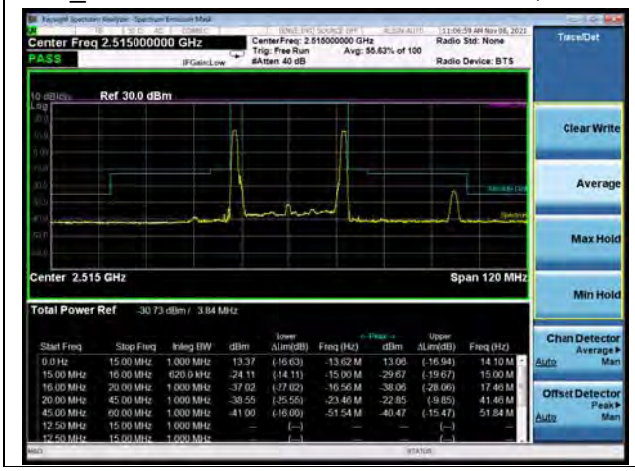
CA_7C QPSK 20MHz+10MHz CH-High, 1 RB



CA_7C QPSK 20MHz+10MHz CH-Low, 100%RB

CA_7C QPSK 20MHz+10MHz CH-High, 100%RB

CA_7C 16QAM 20MHz+10MHz CH-Low, 1 RB

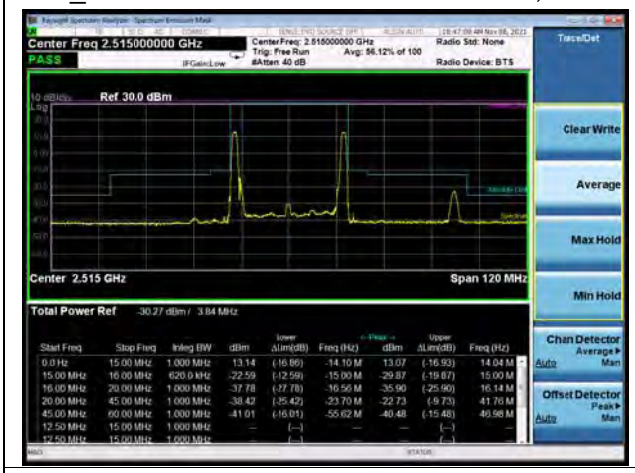


CA_7C 16QAM 20MHz+10MHz CH-High, 1 RB

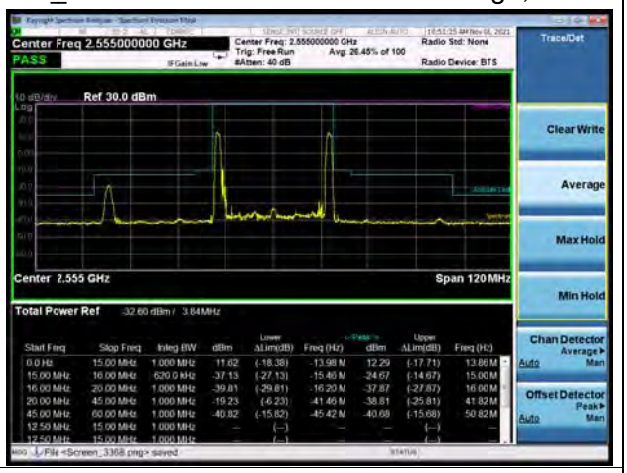
CA_7C 16QAM 20MHz+10MHz CH-Low, 100%RB

CA_7C 16QAM 20MHz+10MHz CH-High, 100%RB

CA_7C 64QAM 20MHz+10MHz CH-Low, 1 RB



CA_7C 64QAM 20MHz+10MHz CH-High, 1 RB



CA_7C 64QAM 20MHz+10MHz CH-Low, 100%RB

CA_7C 64QAM 20MHz+10MHz CH-High, 100%RB

CA_7C QPSK 20MHz+20MHz CH-Low, 1 RB

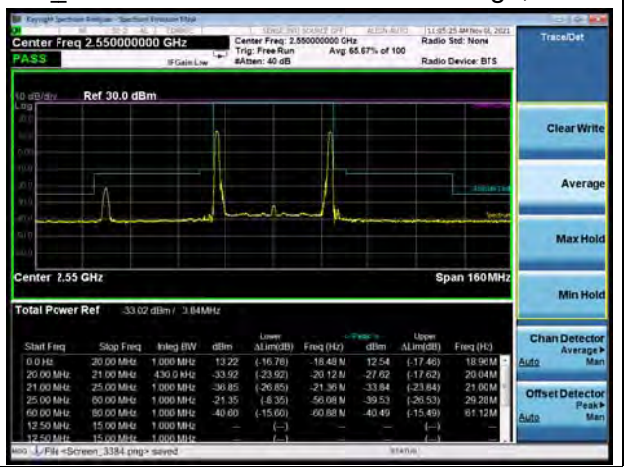
CA_7C QPSK 20MHz+20MHz CH-High, 1 RB

CA_7C QPSK 20MHz+20MHz CH-Low, 100%RB

CA_7C QPSK 20MHz+20MHz CH-High,, 100%RB

CA_7C 16QAM 20MHz+20MHz CH-Low, 1 RB

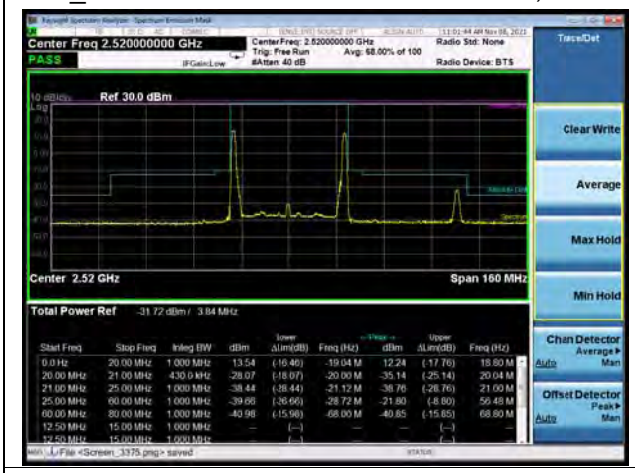
CA_7C 16QAM 20MHz+20MHz CH-High, 1 RB



CA_7C 16QAM 20MHz+20MHz CH-Low, 100%RB

CA_7C 16QAM 20MHz+20MHz CH-High, 100%RB

CA_7C 64QAM 20MHz+20MHz CH-Low, 1 RB



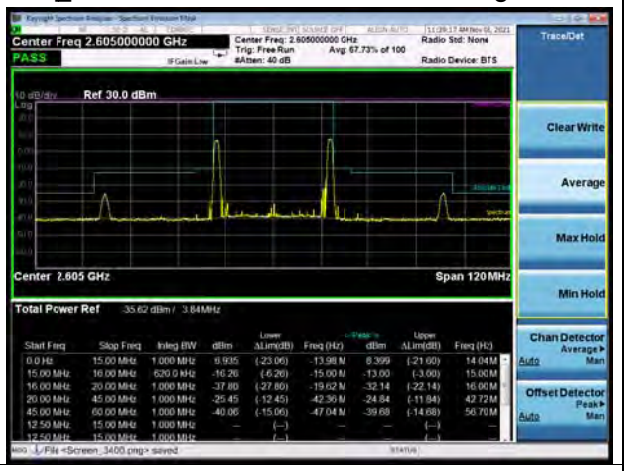
CA_7C 64QAM 20MHz+20MHz CH-High, 1 RB

CA_7C 64QAM 20MHz+20MHz CH-Low, 100%RB

CA_7C 64QAM 20MHz+20MHz CH-High, 100%RB

CA_38C QPSK 15MHz+15MHz CH-Low,1 RB

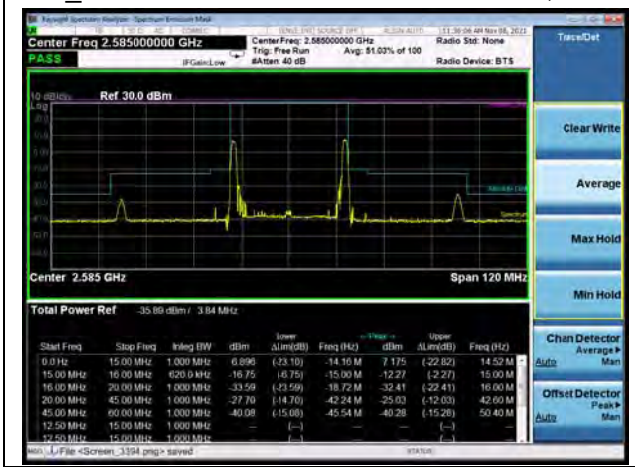
CA_38C QPSK 15MHz+15MHz CH-High,1 RB



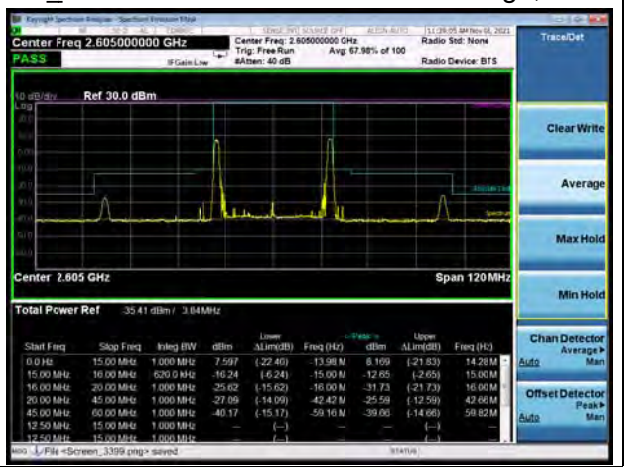
CA_38C QPSK 15MHz+15MHz CH-Low, 100%RB

CA_38C QPSK 15MHz+15MHz CH-High, 100%RB

CA_38C 16QAM 15MHz+15MHz CH-Low,1 RB



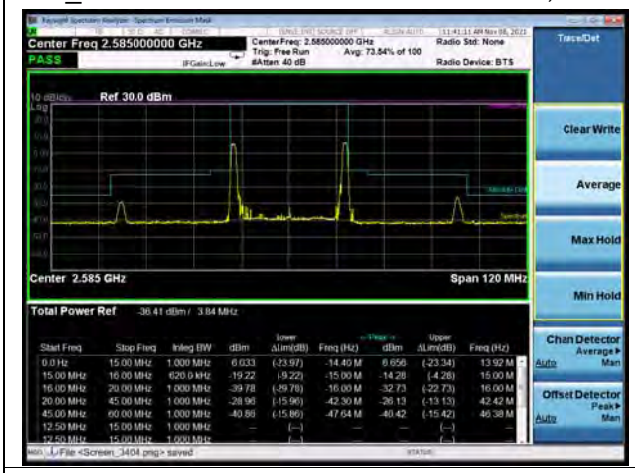
CA_38C 16QAM 15MHz+15MHz CH-High,1 RB



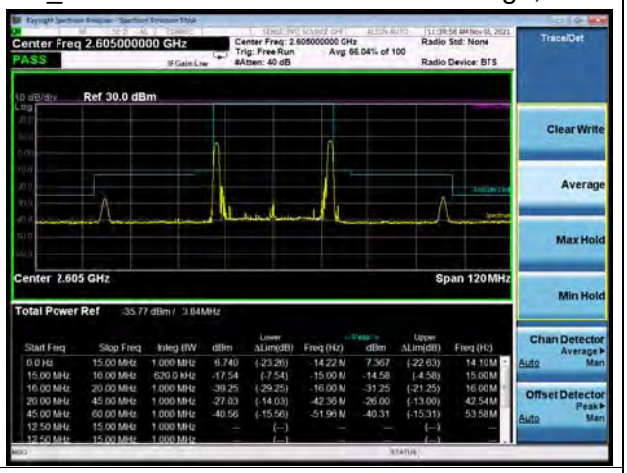
CA_38C 16QAM 15MHz+15MHz
CH-Low,100%RB

CA_38C 16QAM 15MHz+15MHz
CH-High,100%RB

CA_38C 64QAM 15MHz+15MHz CH-Low,1 RB



CA_38C 64QAM 15MHz+15MHz CH-High,1 RB

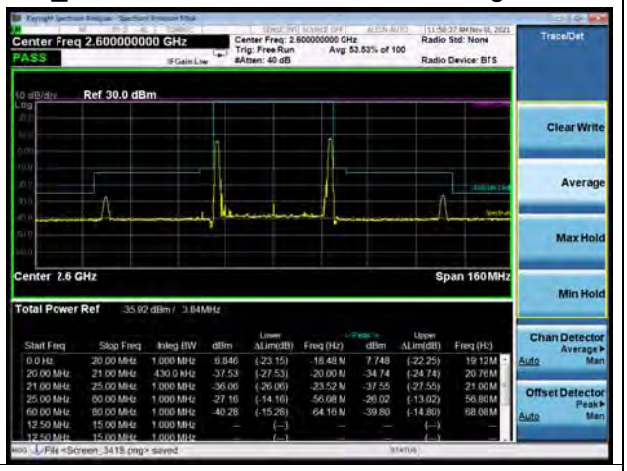


CA_38C 64QAM 15MHz+15MHz
CH-Low,100%RB

CA_38C 64QAM 15MHz+15MHz
CH-High,100%RB

CA_38C QPSK 20MHz+20MHz CH-Low, 1 RB

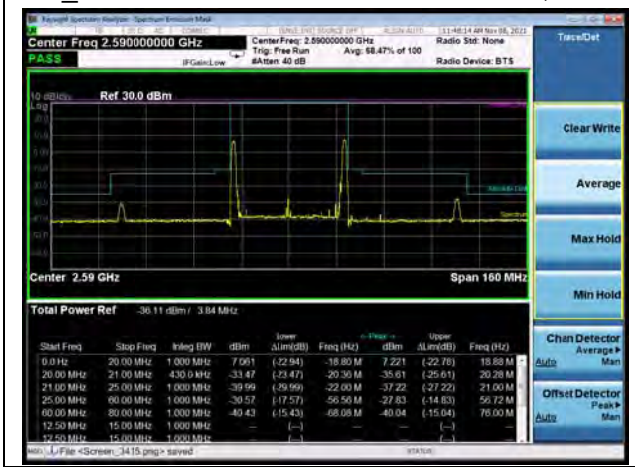
CA_38C QPSK 20MHz+20MHz CH-High, 1 RB



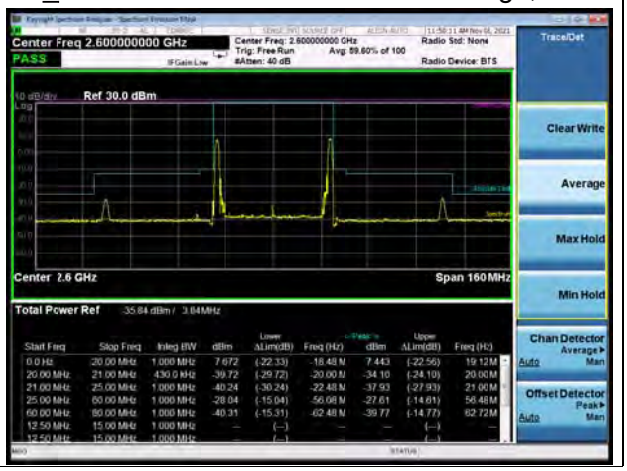
CA_38C QPSK 20MHz+20MHz CH-Low, 100%RB

CA_38C QPSK 20MHz+20MHz CH-High, 100%RB

CA_38C 16QAM 20MHz+20MHz CH-Low, 1 RB



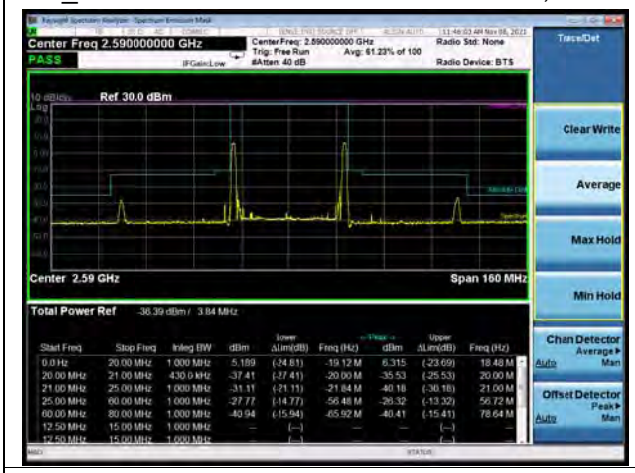
CA_38C 16QAM 20MHz+20MHz CH-High, 1 RB



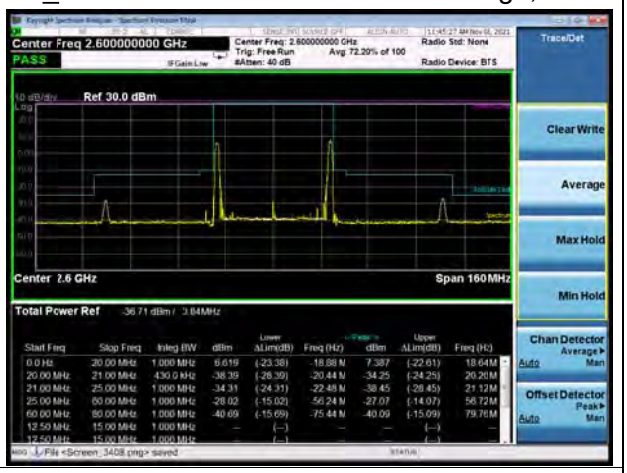
CA_38C 16QAM 20MHz+20MHz CH-Low, 100%RB

CA_38C 16QAM 20MHz+20MHz CH-High, 100%RB

CA_38C 64QAM 20MHz+20MHz CH-Low, 1 RB



CA_38C 64QAM 20MHz+20MHz CH-High, 1 RB



CA_38C 64QAM 20MHz+20MHz CH-Low, 100%RB

CA_38C 64QAM 20MHz+20MHz CH-High, 100%RB

5.4 Peak-to-Average Power Ratio (PAPR)

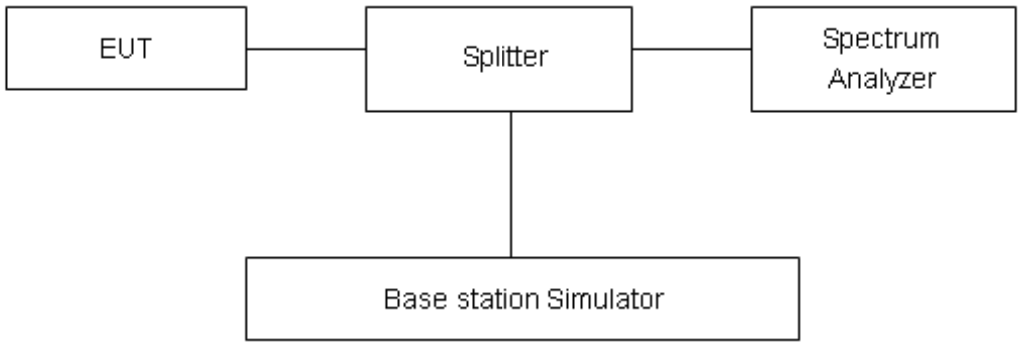
Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

Measure the total peak power and record as PPk. And measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (*e.g.*, dBm). Determine the PAPR from:
PAPR (dB) = PPk (dBm) - PAvg (dBm).

Test Setup



Limits

Rule Part 27.50(d)(5) Equipment employed must be authorized in accordance with the provisions of 24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for thenormal distribution is with the coverage factor k = 2, U= 0.4 dB.

Test Results

WCDMA Band IV	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
RMC	1312	1712.4	26.38	23.61	2.77	≤13	PASS
	1413	1732.6	26.61	23.74	2.87	≤13	PASS
	1513	1752.6	26.63	23.72	2.91	≤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	27.56	23.15	4.41	≤13	PASS
		20175	1732.5	27.87	23.09	4.78	≤13	PASS
		20393	1754.3	27.98	23.05	4.93	≤13	PASS
	3	19965	1711.5	27.65	23.06	4.59	≤13	PASS
		20175	1732.5	27.95	23.06	4.89	≤13	PASS
		20385	1753.5	28.03	23.04	4.99	≤13	PASS
	5	19975	1712.5	27.80	23.06	4.74	≤13	PASS
		20175	1732.5	27.96	23.06	4.90	≤13	PASS
		20375	1752.5	28.14	23.06	5.08	≤13	PASS
	10	20000	1715	28.00	23.10	4.90	≤13	PASS
		20175	1732.5	28.03	23.06	4.97	≤13	PASS
		20350	1750	28.14	23.09	5.05	≤13	PASS
	15	20025	1717.5	28.55	23.23	5.32	≤13	PASS
		20175	1732.5	28.45	23.16	5.29	≤13	PASS
		20325	1747.5	28.52	23.15	5.37	≤13	PASS
	20	20050	1720	28.40	23.14	5.26	≤13	PASS
		20175	1732.5	28.21	23.01	5.20	≤13	PASS
		20300	1745	28.36	23.10	5.26	≤13	PASS
16QAM	1.4	19957	1710.7	27.35	22.12	5.23	≤13	PASS
		20175	1732.5	27.58	22.06	5.52	≤13	PASS
		20393	1754.3	27.95	22.11	5.84	≤13	PASS
	3	19965	1711.5	27.54	22.13	5.41	≤13	PASS
		20175	1732.5	27.78	22.06	5.72	≤13	PASS
		20385	1753.5	27.92	22.04	5.88	≤13	PASS
	5	19975	1712.5	27.62	22.12	5.50	≤13	PASS
		20175	1732.5	27.82	22.09	5.73	≤13	PASS
		20375	1752.5	27.90	22.07	5.83	≤13	PASS
	10	20000	1715	27.84	22.15	5.69	≤13	PASS
		20175	1732.5	27.85	22.08	5.77	≤13	PASS
		20350	1750	27.97	22.08	5.89	≤13	PASS

	15	20025	1717.5	28.16	22.23	5.93	≤13	PASS
		20175	1732.5	28.02	22.12	5.90	≤13	PASS
		20325	1747.5	28.12	22.13	5.99	≤13	PASS
	20	20050	1720	28.19	22.17	6.02	≤13	PASS
		20175	1732.5	27.96	21.98	5.98	≤13	PASS
		20300	1745	28.11	22.12	5.99	≤13	PASS
64QAM	1.4	19957	1710.7	26.95	21.64	5.31	≤13	PASS
		20175	1732.5	27.21	21.59	5.62	≤13	PASS
		20393	1754.3	27.52	21.61	5.91	≤13	PASS
	3	19965	1711.5	27.10	21.64	5.46	≤13	PASS
		20175	1732.5	27.33	21.58	5.75	≤13	PASS
		20385	1753.5	27.53	21.56	5.97	≤13	PASS
	5	19975	1712.5	27.23	21.64	5.59	≤13	PASS
		20175	1732.5	27.38	21.59	5.79	≤13	PASS
		20375	1752.5	27.56	21.63	5.93	≤13	PASS
	10	20000	1715	27.42	21.69	5.73	≤13	PASS
		20175	1732.5	27.39	21.59	5.80	≤13	PASS
		20350	1750	27.47	21.56	5.91	≤13	PASS
	15	20025	1717.5	27.75	21.74	6.01	≤13	PASS
		20175	1732.5	27.60	21.63	5.97	≤13	PASS
		20325	1747.5	27.68	21.64	6.04	≤13	PASS
	20	20050	1720	27.78	21.72	6.06	≤13	PASS
		20175	1732.5	27.52	21.50	6.02	≤13	PASS
		20300	1745	27.66	21.62	6.04	≤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	28.23	23.52	4.71	≤13	PASS
		21100	2535	28.21	23.24	4.97	≤13	PASS
		21425	2567.5	27.93	23.29	4.64	≤13	PASS
	10	20800	2505	28.37	23.50	4.87	≤13	PASS
		21100	2535	28.34	23.33	5.01	≤13	PASS
		21400	2565	28.08	23.37	4.71	≤13	PASS
	15	20825	2507.5	28.82	23.53	5.29	≤13	PASS
		21100	2535	28.73	23.36	5.37	≤13	PASS
		21375	2562.5	28.55	23.40	5.15	≤13	PASS
	20	20850	2510	28.61	23.43	5.18	≤13	PASS

		21100	2535	28.72	23.36	5.36	≤13	PASS
		21350	2560	28.52	23.36	5.16	≤13	PASS
16QAM	5	20775	2502.5	28.01	22.49	5.52	≤13	PASS
		21100	2535	27.95	22.23	5.72	≤13	PASS
		21425	2567.5	27.74	22.28	5.46	≤13	PASS
	10	20800	2505	28.20	22.52	5.68	≤13	PASS
		21100	2535	28.10	22.33	5.77	≤13	PASS
		21400	2565	27.89	22.38	5.51	≤13	PASS
	15	20825	2507.5	28.40	22.49	5.91	≤13	PASS
		21100	2535	28.33	22.33	6.00	≤13	PASS
		21375	2562.5	28.14	22.33	5.81	≤13	PASS
	20	20850	2510	28.32	22.41	5.91	≤13	PASS
		21100	2535	28.41	22.39	6.02	≤13	PASS
		21350	2560	28.26	22.36	5.90	≤13	PASS
64QAM	5	20775	2502.5	27.55	21.88	5.67	≤13	PASS
		21100	2535	27.44	21.64	5.80	≤13	PASS
		21425	2567.5	27.21	21.69	5.52	≤13	PASS
	10	20800	2505	27.67	21.93	5.74	≤13	PASS
		21100	2535	27.63	21.76	5.87	≤13	PASS
		21400	2565	27.32	21.75	5.57	≤13	PASS
	15	20825	2507.5	27.81	21.87	5.94	≤13	PASS
		21100	2535	27.71	21.70	6.01	≤13	PASS
		21375	2562.5	27.62	21.73	5.89	≤13	PASS
	20	20850	2510	27.77	21.82	5.95	≤13	PASS
		21100	2535	27.81	21.74	6.07	≤13	PASS
		21350	2560	27.67	21.71	5.96	≤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	27.95	18.74	9.21	≤13	PASS
		38000	2595	28.17	18.72	9.45	≤13	PASS
		38225	2617.5	27.95	18.64	9.31	≤13	PASS
	10	37800	2575	28.10	20.77	7.33	≤13	PASS

		38000	2595	28.20	18.93	9.27	≤13	PASS
		38200	2615	27.99	18.74	9.25	≤13	PASS
	15	37825	2577.5	28.37	18.89	9.48	≤13	PASS
		38000	2595	28.58	19.43	9.15	≤13	PASS
		38175	2612.5	28.44	19.41	9.03	≤13	PASS
	20	37850	2580	28.18	19.39	8.79	≤13	PASS
		38000	2595	28.22	19.00	9.22	≤13	PASS
		38150	2610	28.22	19.32	8.90	≤13	PASS
16QAM	5	37775	2572.5	27.71	18.26	9.45	≤13	PASS
		38000	2595	28.01	19.00	9.01	≤13	PASS
		38225	2617.5	27.73	18.17	9.56	≤13	PASS
	10	37800	2575	27.77	18.32	9.45	≤13	PASS
		38000	2595	27.96	18.82	9.14	≤13	PASS
		38200	2615	27.77	17.89	9.88	≤13	PASS
	15	37825	2577.5	27.94	17.41	10.53	≤13	PASS
		38000	2595	28.21	19.16	9.05	≤13	PASS
		38175	2612.5	27.98	17.41	10.57	≤13	PASS
	20	37850	2580	27.81	17.68	10.13	≤13	PASS
		38000	2595	28.04	18.79	9.25	≤13	PASS
		38150	2610	28.06	19.25	8.81	≤13	PASS
64QAM	5	37775	2572.5	27.16	17.76	9.40	≤13	PASS
		38000	2595	27.37	17.72	9.65	≤13	PASS
		38225	2617.5	27.25	17.55	9.70	≤13	PASS
	10	37800	2575	27.28	17.77	9.51	≤13	PASS
		38000	2595	27.47	18.32	9.15	≤13	PASS
		38200	2615	27.28	17.51	9.77	≤13	PASS
	15	37825	2577.5	27.38	16.62	10.76	≤13	PASS
		38000	2595	27.66	18.27	9.39	≤13	PASS
		38175	2612.5	27.35	16.53	10.82	≤13	PASS
	20	37850	2580	27.47	18.60	8.87	≤13	PASS
		38000	2595	27.39	17.25	10.14	≤13	PASS
		38150	2610	27.16	17.07	10.09	≤13	PASS

LTE Band 41								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	40065	2537.5	27.95	19.89	8.06	≤13	PASS
		40640	2595	28.06	18.60	9.46	≤13	PASS
		41215	2652.5	27.40	18.33	9.07	≤13	PASS
	10	40090	2540	27.88	19.91	7.97	≤13	PASS
		40640	2595	28.00	18.77	9.23	≤13	PASS
		41190	2650	27.45	18.38	9.07	≤13	PASS
	15	40115	2542.5	28.18	19.08	9.10	≤13	PASS
		40640	2595	28.50	20.66	7.84	≤13	PASS
		41165	2647.5	27.99	19.99	8.00	≤13	PASS
	20	40140	2545	27.88	18.95	8.93	≤13	PASS
		40640	2595	28.02	18.70	9.32	≤13	PASS
		41140	2645	27.78	19.04	8.74	≤13	PASS
16QAM	5	40065	2537.5	27.65	18.49	9.16	≤13	PASS
		40640	2595	27.87	18.63	9.24	≤13	PASS
		41215	2652.5	27.23	17.59	9.64	≤13	PASS
	10	40090	2540	27.59	17.84	9.75	≤13	PASS
		40640	2595	27.62	16.91	10.71	≤13	PASS
		41190	2650	27.32	18.15	9.17	≤13	PASS
	15	40115	2542.5	27.61	16.51	11.10	≤13	PASS
		40640	2595	28.04	19.33	8.71	≤13	PASS
		41165	2647.5	27.61	18.39	9.22	≤13	PASS
	20	40140	2545	27.68	18.29	9.39	≤13	PASS
		40640	2595	27.73	17.68	10.05	≤13	PASS
		41140	2645	27.52	18.14	9.38	≤13	PASS
64QAM	5	40065	2537.5	27.04	17.16	9.88	≤13	PASS
		40640	2595	27.31	17.91	9.40	≤13	PASS
		41215	2652.5	26.69	16.93	9.76	≤13	PASS
	10	40090	2540	27.12	18.04	9.08	≤13	PASS
		40640	2595	27.27	17.86	9.41	≤13	PASS
		41190	2650	26.75	17.36	9.39	≤13	PASS
	15	40115	2542.5	27.33	17.94	9.39	≤13	PASS
		40640	2595	27.35	17.02	10.33	≤13	PASS

		41165	2647.5	26.93	15.97	10.96	≤13	PASS
	20	40140	2545	27.02	16.49	10.53	≤13	PASS
		40640	2595	27.15	17.01	10.14	≤13	PASS
		41140	2645	27.00	17.87	9.13	≤13	PASS

CA_7C	PCC		SCC1		Modulation	Peak-to-Average Power Ratio (PAPR)		
	Channel	Frequency (MHz)	Channel	Frequency (MHz)		Peak(dBm)	Avg(dBm)	PAPR(dB)
10MHz+20MHz_QPSK	21006	2525.6	21150	2540	QPSK	26.68	20.83	5.85
10MHz+20MHz_16QAM	21006	2525.6	21150	2540	16QAM	26.35	19.83	6.52
10MHz+20MHz_64QAM	21006	2525.6	21150	2540	64QAM	25.88	19.34	6.54
20MHz+10MHz_QPSK	21051	2530.1	21195	2544.5	QPSK	26.57	20.58	5.99
20MHz+10MHz_16QAM	21051	2530.1	21195	2544.5	16QAM	26.22	19.57	6.65
20MHz+10MHz_64QAM	21051	2530.1	21195	2544.5	64QAM	25.69	19.04	6.65
15MHz+10MHz_QPSK	21051	2530.1	21171	2542.1	QPSK	27.57	22.56	5.01
15MHz+10MHz_16QAM	21051	2530.1	21171	2542.1	16QAM	27.70	22.48	5.22
15MHz+10MHz_64QAM	21051	2530.1	21171	2542.1	64QAM	27.24	21.99	5.25
15MHz+15MHz_QPSK	21025	2527.5	21175	2542.5	QPSK	26.86	20.76	6.10
15MHz+15MHz_16QAM	21025	2527.5	21175	2542.5	16QAM	26.39	19.70	6.69
15MHz+15MHz_64QAM	21025	2527.5	21175	2542.5	64QAM	25.92	19.23	6.69
15MHz+20MHz_QPSK	21003	2525.3	21174	2542.4	QPSK	26.89	20.91	5.98
15MHz+20MHz_16QAM	21003	2525.3	21174	2542.4	16QAM	61.70	23.84	37.86
15MHz+20MHz_64QAM	21003	2525.3	21174	2542.4	64QAM	25.95	19.34	6.61
20MHz+15MHz_QPSK	21026	2527.6	21197	2544.7	QPSK	26.71	20.70	6.01
20MHz+15MHz_16QAM	21026	2527.6	21197	2544.7	16QAM	26.33	19.70	6.63
20MHz+15MHz_64QAM	21026	2527.6	21197	2544.7	64QAM	25.88	19.26	6.62
20MHz+20MHz_QPSK	21001	2525.1	21199	2544.9	QPSK	26.98	20.83	6.15
20MHz+20MHz_16QAM	21001	2525.1	21199	2544.9	16QAM	26.54	19.84	6.70
20MHz+20MHz_64QAM	21001	2525.1	21199	2544.9	64QAM	26.01	19.32	6.69

CA_38C	PCC		SCC1		Modulation	Peak-to-Average Power Ratio (PAPR)		
	Channel	Frequency (MHz)	Channel	Frequency (MHz)		Peak(dBm)	Avg(dBm)	PAPR(dB)
15MHz+15MHz_QPSK	37925	2587.5	38075	2602.5	QPSK	28.39	18.35	10.04
5MHz+15MHz_16QAM	37925	2587.5	38075	2602.5	16QAM	27.75	16.98	10.77
15MHz+15MHz_64QAM	37925	2587.5	38075	2602.5	64QAM	27.38	17.30	10.08
20MHz+20MHz_QPSK	37901	2585.1	38099	2604.9	QPSK	28.18	18.51	9.67
20MHz+20MHz_16QAM	37901	2585.1	38099	2604.9	16QAM	27.75	17.35	10.40
20MHz+20MHz_64QAM	37901	2585.1	38099	2604.9	64QAM	27.29	17.15	10.14

5.5 Frequency Stability

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The temperature inside the climate chamber is varied from -30°C to +50°C in 10°C step size,

(1) With all power removed, the temperature was decreased to 0°C and permitted to stabilize for three hours.

(2) Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.

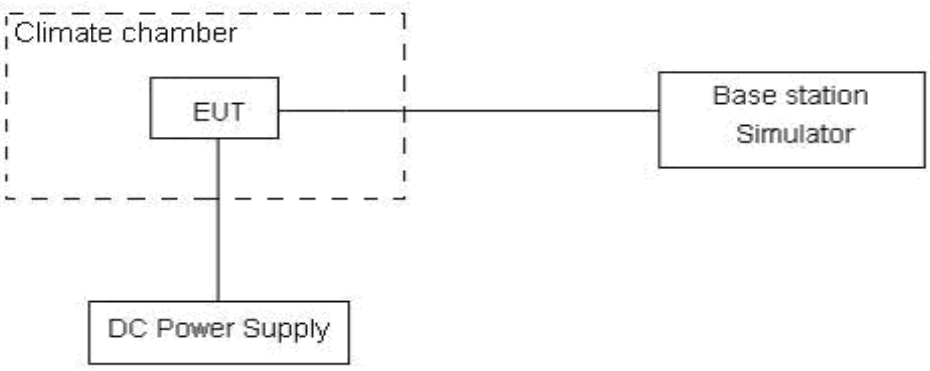
(3) Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements. Frequency Stability (Voltage Variation)

The frequency stability shall be measured with variation of primary supply voltage as follows:

Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

This transceiver is specified to operate with an input voltage of between 3.6 V and 4.45 V, with a nominal voltage of 3.87V.

Test setup



Limits

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75％ confidence level for the normal distribution is with the coverage factor k = 3,U=0.01ppm.

Test Result

WCDMA Band IV						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
Temperature	Voltage	QPSK	BPSK	QPSK	BPSK	
Normal（25℃）	Normal	4.44	6.37	0.00256	0.00368	PASS
Extreme（50℃）		16.00	14.34	0.00923	0.00828	PASS
Extreme（40℃）		11.13	4.32	0.00643	0.00249	PASS
Extreme（30℃）		10.85	3.85	0.00626	0.00222	PASS
Extreme（20℃）		6.42	15.30	0.00370	0.00883	PASS
Extreme（10℃）		3.72	11.73	0.00215	0.00677	PASS
Extreme（0℃）		17.79	3.26	0.01027	0.00188	PASS
Extreme（-10℃）		5.22	12.84	0.00301	0.00741	PASS
Extreme（-20℃）		9.36	4.80	0.00540	0.00277	PASS
Extreme（-30℃）		3.85	17.69	0.00222	0.01021	PASS
25℃	LV	11.25	5.83	0.00649	0.00336	PASS
	HV	12.58	5.99	0.00726	0.00346	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	17.89	3.66	12.86	0.01033	0.00211	0.00742	PASS
Extreme（50℃）		2.70	8.22	4.54	0.00156	0.00475	0.00262	PASS
Extreme（40℃）		17.94	10.84	1.61	0.01035	0.00626	0.00093	PASS
Extreme（30℃）		12.76	10.92	2.64	0.00737	0.00630	0.00153	PASS
Extreme（20℃）		7.32	13.63	1.81	0.00422	0.00787	0.00104	PASS
Extreme（10℃）		17.70	3.80	12.61	0.01021	0.00219	0.00728	PASS
Extreme（0℃）		10.44	4.24	3.49	0.00602	0.00244	0.00201	PASS
Extreme（-10℃）		3.87	9.64	14.41	0.00223	0.00556	0.00832	PASS
Extreme（-20℃）		17.10	5.36	5.35	0.00987	0.00309	0.00309	PASS
Extreme（-30℃）		16.02	17.33	17.07	0.00924	0.01000	0.00985	PASS
25℃	LV	2.40	8.47	7.09	0.00138	0.00489	0.00409	PASS
	HV	12.87	10.47	14.43	0.00743	0.00604	0.00833	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	3.30	9.88	15.87	0.00191	0.00570	0.00916	PASS
Extreme（50℃）		17.97	16.16	8.71	0.01037	0.00932	0.00503	PASS
Extreme（40℃）		3.49	15.98	7.05	0.00202	0.00922	0.00407	PASS
Extreme（30℃）		2.94	7.84	5.54	0.00170	0.00453	0.00320	PASS
Extreme（20℃）		8.53	15.98	5.87	0.00492	0.00923	0.00339	PASS
Extreme（10℃）		2.70	8.73	5.74	0.00156	0.00504	0.00331	PASS
Extreme（0℃）		7.41	14.28	2.93	0.00428	0.00824	0.00169	PASS
Extreme（-10℃）		16.51	6.07	7.98	0.00953	0.00350	0.00461	PASS
Extreme（-20℃）		1.11	15.38	15.44	0.00064	0.00888	0.00891	PASS
Extreme（-30℃）		13.83	8.70	14.39	0.00798	0.00502	0.00831	PASS
25℃	LV	11.61	4.29	3.23	0.00670	0.00247	0.00187	PASS
	HV	4.44	13.53	1.12	0.00256	0.00781	0.00065	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	13.58	3.15	9.73	0.00784	0.00182	0.00561	PASS
Extreme（50℃）		13.67	1.22	17.02	0.00789	0.00070	0.00982	PASS
Extreme（40℃）		4.26	4.18	5.61	0.00246	0.00241	0.00324	PASS
Extreme（30℃）		1.65	4.62	3.15	0.00095	0.00267	0.00182	PASS
Extreme（20℃）		1.94	6.35	6.18	0.00112	0.00366	0.00357	PASS
Extreme（10℃）		10.55	9.19	3.21	0.00609	0.00531	0.00186	PASS
Extreme（0℃）		4.89	3.81	4.00	0.00282	0.00220	0.00231	PASS
Extreme（-10℃）		5.58	10.14	9.20	0.00322	0.00585	0.00531	PASS
Extreme（-20℃）		15.23	10.74	10.95	0.00879	0.00620	0.00632	PASS
Extreme（-30℃）		8.68	11.22	17.99	0.00501	0.00647	0.01038	PASS
25℃	LV	14.11	6.56	9.63	0.00815	0.00379	0.00556	PASS
	HV	13.05	5.91	16.87	0.00753	0.00341	0.00973	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	16.62	10.37	5.43	0.00959	0.00599	0.00313	PASS
Extreme（50℃）		6.63	17.34	16.44	0.00383	0.01001	0.00949	PASS
Extreme（40℃）		9.91	1.77	9.79	0.00572	0.00102	0.00565	PASS
Extreme（30℃）		5.88	16.34	3.99	0.00339	0.00943	0.00230	PASS
Extreme（20℃）		8.80	6.49	6.05	0.00508	0.00374	0.00349	PASS
Extreme（10℃）		13.98	17.02	14.51	0.00807	0.00982	0.00838	PASS
Extreme（0℃）		10.20	8.00	15.48	0.00589	0.00462	0.00894	PASS
Extreme（-10℃）		8.22	8.37	15.15	0.00474	0.00483	0.00875	PASS
Extreme（-20℃）		1.05	6.14	2.20	0.00061	0.00355	0.00127	PASS

Extreme（-30℃）		5.75	14.83	1.89	0.00332	0.00856	0.00109	PASS
25℃	LV	1.41	16.52	14.16	0.00082	0.00954	0.00817	PASS
	HV	13.00	5.05	15.29	0.00750	0.00292	0.00882	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	11.89	16.35	11.03	0.00686	0.00944	0.00637	PASS
Extreme（50℃）		8.52	12.37	9.98	0.00492	0.00714	0.00576	PASS
Extreme（40℃）		1.07	15.72	7.41	0.00062	0.00907	0.00428	PASS
Extreme（30℃）		2.50	11.00	4.10	0.00144	0.00635	0.00237	PASS
Extreme（20℃）		3.80	5.60	17.91	0.00219	0.00323	0.01034	PASS
Extreme（10℃）		2.51	16.00	11.74	0.00145	0.00924	0.00678	PASS
Extreme（0℃）		3.21	9.40	14.59	0.00185	0.00542	0.00842	PASS
Extreme（-10℃）		13.40	15.35	10.60	0.00773	0.00886	0.00612	PASS
Extreme（-20℃）		11.05	3.09	13.49	0.00638	0.00178	0.00778	PASS
Extreme（-30℃）		7.59	17.82	16.88	0.00438	0.01029	0.00974	PASS
25℃	LV	16.51	4.89	16.88	0.00953	0.00282	0.00974	PASS
	HV	10.87	4.37	15.46	0.00627	0.00252	0.00892	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	13.46	11.74	15.53	0.00777	0.00678	0.00896	PASS
Extreme（50℃）		16.63	15.83	6.52	0.00960	0.00914	0.00376	PASS
Extreme（40℃）		12.81	12.31	3.67	0.00740	0.00711	0.00212	PASS
Extreme（30℃）		10.53	5.43	5.32	0.00608	0.00313	0.00307	PASS
Extreme（20℃）		9.27	14.60	15.71	0.00535	0.00842	0.00907	PASS
Extreme（10℃）		4.77	8.27	17.06	0.00276	0.00477	0.00985	PASS
Extreme（0℃）		12.76	6.80	1.83	0.00737	0.00393	0.00105	PASS
Extreme（-10℃）		7.11	6.61	8.15	0.00410	0.00382	0.00471	PASS
Extreme（-20℃）		4.16	9.32	2.32	0.00240	0.00538	0.00134	PASS
Extreme（-30℃）		11.99	12.74	7.93	0.00692	0.00736	0.00458	PASS
25℃	LV	12.49	7.45	2.23	0.00721	0.00430	0.00129	PASS
	HV	14.85	13.64	4.34	0.00857	0.00787	0.00250	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	3.16	14.05	6.68	0.00125	0.00554	0.00263	PASS
Extreme（50℃）		9.06	2.55	7.18	0.00358	0.00101	0.00283	PASS
Extreme（40℃）		7.20	6.62	3.16	0.00284	0.00261	0.00125	PASS
Extreme（30℃）		1.88	10.90	7.89	0.00074	0.00430	0.00311	PASS
Extreme（20℃）		2.73	12.42	1.14	0.00108	0.00490	0.00045	PASS
Extreme（10℃）		2.98	15.74	2.50	0.00118	0.00621	0.00099	PASS
Extreme（0℃）		3.74	17.03	2.11	0.00148	0.00672	0.00083	PASS
Extreme（-10℃）		16.09	15.55	1.88	0.00635	0.00613	0.00074	PASS
Extreme（-20℃）		13.69	14.32	4.39	0.00540	0.00565	0.00173	PASS
Extreme（-30℃）		5.50	7.88	16.48	0.00217	0.00311	0.00650	PASS
25℃	LV	5.97	17.73	15.82	0.00235	0.00699	0.00624	PASS
	HV	13.64	17.10	13.82	0.00538	0.00674	0.00545	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	13.64	3.42	6.92	0.00538	0.00135	0.00273	PASS
Extreme（50℃）		9.29	14.10	14.07	0.00367	0.00556	0.00555	PASS
Extreme（40℃）		1.25	8.40	3.83	0.00049	0.00331	0.00151	PASS
Extreme（30℃）		12.16	4.88	9.26	0.00480	0.00192	0.00365	PASS
Extreme（20℃）		5.97	3.11	12.76	0.00235	0.00123	0.00503	PASS
Extreme（10℃）		3.13	7.11	8.42	0.00123	0.00280	0.00332	PASS
Extreme（0℃）		13.82	1.87	14.92	0.00545	0.00074	0.00588	PASS
Extreme（-10℃）		11.72	17.83	16.49	0.00462	0.00703	0.00650	PASS
Extreme（-20℃）		15.13	16.00	12.96	0.00597	0.00631	0.00511	PASS
Extreme（-30℃）		2.93	2.41	1.17	0.00115	0.00095	0.00046	PASS
25℃	LV	5.57	6.60	1.86	0.00220	0.00260	0.00074	PASS
	HV	3.25	16.23	7.89	0.00128	0.00640	0.00311	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	5.54	16.93	1.67	0.00219	0.00668	0.00066	PASS
Extreme（50℃）		9.94	10.95	9.54	0.00392	0.00432	0.00376	PASS
Extreme（40℃）		3.43	3.12	4.98	0.00135	0.00123	0.00196	PASS

Extreme（30℃）		14.59	4.48	5.78	0.00576	0.00177	0.00228	PASS
Extreme（20℃）		17.83	13.59	17.59	0.00703	0.00536	0.00694	PASS
Extreme（10℃）		14.84	14.01	11.48	0.00585	0.00553	0.00453	PASS
Extreme（0℃）		15.88	5.64	12.33	0.00626	0.00222	0.00486	PASS
Extreme（-10℃）		2.26	9.11	11.43	0.00089	0.00359	0.00451	PASS
Extreme（-20℃）		17.34	17.23	3.95	0.00684	0.00680	0.00156	PASS
Extreme（-30℃）		17.01	17.79	15.02	0.00671	0.00702	0.00593	PASS
25℃	LV	4.39	15.80	3.23	0.00173	0.00623	0.00127	PASS
	HV	3.65	12.30	5.85	0.00144	0.00485	0.00231	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	7.00	11.36	7.18	0.00276	0.00448	0.00283	PASS
Extreme（50℃）		3.86	15.19	15.81	0.00152	0.00599	0.00624	PASS
Extreme（40℃）		8.38	9.39	4.25	0.00331	0.00370	0.00168	PASS
Extreme（30℃）		8.30	6.77	15.86	0.00327	0.00267	0.00626	PASS
Extreme（20℃）		6.77	10.05	1.25	0.00267	0.00396	0.00049	PASS
Extreme（10℃）		7.10	9.64	2.54	0.00280	0.00380	0.00100	PASS
Extreme（0℃）		5.61	7.70	12.14	0.00221	0.00304	0.00479	PASS
Extreme（-10℃）		9.29	1.94	10.95	0.00366	0.00077	0.00432	PASS
Extreme（-20℃）		12.21	10.66	16.64	0.00482	0.00420	0.00656	PASS
Extreme（-30℃）		14.77	6.54	7.82	0.00582	0.00258	0.00309	PASS
25℃	LV	1.14	16.44	11.41	0.00045	0.00648	0.00450	PASS
	HV	6.14	15.99	11.22	0.00242	0.00631	0.00443	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	7.35	10.16	5.59	0.00283	0.00392	0.00215	PASS
Extreme（50℃）		8.26	2.04	8.61	0.00318	0.00078	0.00332	PASS
Extreme（40℃）		9.33	7.10	9.39	0.00360	0.00274	0.00362	PASS
Extreme（30℃）		10.62	2.22	13.48	0.00409	0.00085	0.00520	PASS
Extreme（20℃）		8.99	7.15	4.14	0.00346	0.00276	0.00160	PASS
Extreme（10℃）		11.38	5.38	8.95	0.00439	0.00207	0.00345	PASS
Extreme（0℃）		10.75	6.27	3.27	0.00414	0.00241	0.00126	PASS
Extreme（-10℃）		12.96	17.25	8.65	0.00499	0.00665	0.00333	PASS
Extreme（-20℃）		8.99	10.78	12.11	0.00346	0.00415	0.00467	PASS
Extreme（-30℃）		14.58	2.34	9.55	0.00562	0.00090	0.00368	PASS

25℃	LV	16.64	3.15	4.75	0.00641	0.00121	0.00183	PASS
	HV	7.80	12.14	10.01	0.00301	0.00468	0.00386	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	11.39	10.42	2.90	0.00439	0.00401	0.00112	PASS
Extreme（50℃）		6.72	3.84	9.43	0.00259	0.00148	0.00364	PASS
Extreme（40℃）		16.59	7.07	14.46	0.00639	0.00273	0.00557	PASS
Extreme（30℃）		15.19	8.73	9.02	0.00585	0.00336	0.00347	PASS
Extreme（20℃）		9.30	12.96	15.87	0.00358	0.00499	0.00612	PASS
Extreme（10℃）		5.70	16.83	9.92	0.00220	0.00648	0.00382	PASS
Extreme（0℃）		6.65	2.82	4.38	0.00256	0.00108	0.00169	PASS
Extreme（-10℃）		13.27	10.69	14.45	0.00511	0.00412	0.00557	PASS
Extreme（-20℃）		13.64	12.52	16.40	0.00526	0.00483	0.00632	PASS
Extreme（-30℃）		8.33	15.44	12.64	0.00321	0.00595	0.00487	PASS
25℃	LV	3.38	2.52	5.96	0.00130	0.00097	0.00230	PASS
	HV	17.52	11.94	9.49	0.00675	0.00460	0.00366	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	13.00	17.00	5.00	0.00501	0.00655	0.00193	PASS
Extreme（50℃）		15.00	10.00	3.00	0.00578	0.00385	0.00116	PASS
Extreme（40℃）		2.00	14.00	10.00	0.00077	0.00539	0.00385	PASS
Extreme（30℃）		11.00	16.00	13.00	0.00424	0.00617	0.00501	PASS
Extreme（20℃）		3.00	13.00	11.00	0.00116	0.00501	0.00424	PASS
Extreme（10℃）		7.00	4.00	2.00	0.00270	0.00154	0.00077	PASS
Extreme（0℃）		16.00	15.00	12.00	0.00617	0.00578	0.00462	PASS
Extreme（-10℃）		6.00	15.00	12.00	0.00231	0.00578	0.00462	PASS
Extreme（-20℃）		1.00	13.00	2.00	0.00039	0.00501	0.00077	PASS
Extreme（-30℃）		17.00	17.00	9.00	0.00655	0.00655	0.00347	PASS
25℃	LV	14.00	3.00	17.00	0.00539	0.00116	0.00655	PASS
	HV	1.00	5.00	9.00	0.00039	0.00193	0.00347	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	4.00	8.00	8.00	0.00154	0.00308	0.00308	PASS
Extreme（50℃）		6.00	7.00	4.00	0.00231	0.00270	0.00154	PASS
Extreme（40℃）		8.00	7.00	10.00	0.00308	0.00270	0.00385	PASS

Extreme（30℃）		5.00	6.00	5.00	0.00193	0.00231	0.00193	PASS
Extreme（20℃）		16.00	3.00	2.00	0.00617	0.00116	0.00077	PASS
Extreme（10℃）		7.00	13.00	17.00	0.00270	0.00501	0.00655	PASS
Extreme（0℃）		2.00	8.00	4.00	0.00077	0.00308	0.00154	PASS
Extreme（-10℃）		4.00	15.00	4.00	0.00154	0.00578	0.00154	PASS
Extreme（-20℃）		2.00	2.00	3.00	0.00077	0.00077	0.00116	PASS
Extreme（-30℃）		5.00	3.00	3.00	0.00193	0.00116	0.00116	PASS
25℃	LV	3.00	15.00	8.00	0.00116	0.00578	0.00308	PASS
	HV	3.00	11.00	2.00	0.00116	0.00424	0.00077	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	13.00	8.00	8.00	0.00501	0.00309	0.00309	PASS
Extreme（50℃）		2.00	12.00	15.00	0.00077	0.00463	0.00578	PASS
Extreme（40℃）		12.00	14.00	5.00	0.00463	0.00540	0.00193	PASS
Extreme（30℃）		9.00	1.00	8.00	0.00347	0.00039	0.00309	PASS
Extreme（20℃）		4.00	15.00	2.00	0.00154	0.00578	0.00077	PASS
Extreme（10℃）		8.00	9.00	4.00	0.00309	0.00347	0.00154	PASS
Extreme（0℃）		3.00	4.00	9.00	0.00116	0.00154	0.00347	PASS
Extreme（-10℃）		3.00	2.00	4.00	0.00116	0.00077	0.00154	PASS
Extreme（-20℃）		7.00	9.00	4.00	0.00270	0.00347	0.00154	PASS
Extreme（-30℃）		5.00	4.00	7.00	0.00193	0.00154	0.00270	PASS
25℃	LV	13.00	11.00	5.00	0.00501	0.00424	0.00193	PASS
	HV	1.00	3.00	15.00	0.00039	0.00116	0.00578	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	3.00	2.00	16.00	0.00116	0.00077	0.00617	PASS
Extreme（50℃）		12.00	14.00	10.00	0.00463	0.00540	0.00386	PASS
Extreme（40℃）		3.00	8.00	15.00	0.00116	0.00309	0.00578	PASS
Extreme（30℃）		17.00	2.00	12.00	0.00656	0.00077	0.00463	PASS
Extreme（20℃）		2.00	2.00	1.00	0.00077	0.00077	0.00039	PASS
Extreme（10℃）		2.00	9.00	8.00	0.00077	0.00347	0.00309	PASS
Extreme（0℃）		13.00	14.00	14.00	0.00501	0.00540	0.00540	PASS
Extreme（-10℃）		7.00	3.00	9.00	0.00270	0.00116	0.00347	PASS
Extreme（-20℃）		11.00	8.00	14.00	0.00424	0.00309	0.00540	PASS
Extreme（-30℃）		4.00	7.00	14.00	0.00154	0.00270	0.00540	PASS

25℃	LV	3.00	15.00	12.00	0.00116	0.00578	0.00463	PASS
	HV	14.00	13.00	16.00	0.00540	0.00501	0.00617	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	14.00	3.00	2.00	0.00540	0.00116	0.00077	PASS
Extreme（50℃）		4.00	16.00	3.00	0.00154	0.00617	0.00116	PASS
Extreme（40℃）		5.00	2.00	13.00	0.00193	0.00077	0.00501	PASS
Extreme（30℃）		5.00	2.00	4.00	0.00193	0.00077	0.00154	PASS
Extreme（20℃）		1.00	17.00	17.00	0.00039	0.00656	0.00656	PASS
Extreme（10℃）		7.00	5.00	3.00	0.00270	0.00193	0.00116	PASS
Extreme（0℃）		2.00	1.00	17.00	0.00077	0.00039	0.00656	PASS
Extreme（-10℃）		17.00	8.00	5.00	0.00656	0.00309	0.00193	PASS
Extreme（-20℃）		11.00	7.00	11.00	0.00424	0.00270	0.00424	PASS
Extreme（-30℃）		6.00	11.00	14.00	0.00231	0.00424	0.00540	PASS
25℃	LV	10.00	5.00	1.00	0.00386	0.00193	0.00039	PASS
	HV	16.00	3.00	3.00	0.00617	0.00116	0.00116	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	4.00	2.00	16.00	0.00154	0.00077	0.00617	PASS
Extreme（50℃）		5.00	8.00	9.00	0.00193	0.00309	0.00347	PASS
Extreme（40℃）		13.00	8.00	6.00	0.00501	0.00309	0.00231	PASS
Extreme（30℃）		11.00	1.00	5.00	0.00424	0.00039	0.00193	PASS
Extreme（20℃）		8.00	5.00	1.00	0.00309	0.00193	0.00039	PASS
Extreme（10℃）		7.00	11.00	4.00	0.00270	0.00424	0.00154	PASS
Extreme（0℃）		7.00	4.00	3.00	0.00270	0.00154	0.00116	PASS
Extreme（-10℃）		8.00	8.00	16.00	0.00309	0.00309	0.00617	PASS
Extreme（-20℃）		11.00	8.00	16.00	0.00424	0.00309	0.00617	PASS
Extreme（-30℃）		13.00	13.00	13.00	0.00501	0.00501	0.00501	PASS
25℃	LV	16.00	9.00	16.00	0.00617	0.00347	0.00617	PASS
	HV	16.00	1.00	4.00	0.00617	0.00039	0.00154	PASS

CA_7C_QPSK		20MHz+10MHz(Bandwidth)		20MHz+20MHz(Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal（25℃）	Normal	2.84	0.00151	9.12	0.00485	PASS
Extreme（50℃）		4.64	0.00247	7.90	0.00420	PASS
Extreme（40℃）		1.10	0.00059	11.81	0.00628	PASS
Extreme（30℃）		4.20	0.00223	7.25	0.00386	PASS
Extreme（20℃）		8.26	0.00440	5.43	0.00289	PASS
Extreme（10℃）		1.01	0.00053	17.67	0.00940	PASS
Extreme（0℃）		11.36	0.00604	17.02	0.00905	PASS
Extreme（-10℃）		11.98	0.00637	11.92	0.00634	PASS
Extreme（-20℃）		11.71	0.00623	9.82	0.00522	PASS
Extreme（-30℃）		4.88	0.00260	17.75	0.00944	PASS
25℃	LV	5.46	0.00290	16.88	0.00898	PASS
	HV	17.30	0.00920	17.92	0.00953	PASS
CA_7C_16QAM		20MHz+10MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal（25℃）	Normal	2.52	0.00134	4.85	0.00258	PASS
Extreme（50℃）		14.60	0.00776	14.24	0.00758	PASS
Extreme（40℃）		12.88	0.00685	14.90	0.00793	PASS
Extreme（30℃）		8.70	0.00463	1.25	0.00067	PASS
Extreme（20℃）		8.56	0.00455	16.22	0.00863	PASS
Extreme（10℃）		13.66	0.00727	9.24	0.00491	PASS
Extreme（0℃）		13.70	0.00729	1.98	0.00105	PASS
Extreme（-10℃）		1.10	0.00058	6.46	0.00343	PASS
Extreme（-20℃）		17.68	0.00940	17.84	0.00949	PASS
Extreme（-30℃）		5.40	0.00287	5.31	0.00283	PASS
25℃	LV	13.21	0.00702	5.90	0.00314	PASS
	HV	5.44	0.00289	10.09	0.00537	PASS
CA_7C_64QAM		20MHz+10MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal（25℃）	Normal	14.85	0.00790	2.82	0.00150	PASS
Extreme（50℃）		11.61	0.00618	10.34	0.00550	PASS
Extreme（40℃）		8.35	0.00444	1.36	0.00072	PASS

Extreme（30℃）		16.17	0.00860	17.66	0.00939	PASS
Extreme（20℃）		5.84	0.00310	9.87	0.00525	PASS
Extreme（10℃）		17.96	0.00955	14.92	0.00794	PASS
Extreme（0℃）		6.14	0.00327	7.77	0.00413	PASS
Extreme（-10℃）		9.61	0.00511	14.29	0.00760	PASS
Extreme（-20℃）		6.37	0.00339	9.60	0.00511	PASS
Extreme（-30℃）		10.25	0.00545	14.24	0.00757	PASS
25℃	LV	13.08	0.00696	13.45	0.00715	PASS
	HV	1.30	0.00069	14.89	0.00792	PASS

CA_38C_QPSK		15MHz+15MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal（25℃）	Normal	11.21	0.00596	14.20	0.00755	PASS
Extreme（50℃）		6.29	0.00335	17.44	0.00928	PASS
Extreme（40℃）		6.27	0.00333	4.83	0.00257	PASS
Extreme（30℃）		17.61	0.00937	15.08	0.00802	PASS
Extreme（20℃）		12.97	0.00690	9.00	0.00479	PASS
Extreme（10℃）		7.07	0.00376	12.14	0.00646	PASS
Extreme（0℃）		2.76	0.00147	9.53	0.00507	PASS
Extreme（-10℃）		4.69	0.00249	16.49	0.00877	PASS
Extreme（-20℃）		15.81	0.00841	2.33	0.00124	PASS
Extreme（-30℃）		1.92	0.00102	1.32	0.00070	PASS
25℃	LV	4.47	0.00238	16.19	0.00861	PASS
	HV	16.50	0.00878	5.10	0.00271	PASS
CA_38C_16QAM		15MHz+15MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal（25℃）	Normal	16.72	0.00890	11.30	0.00601	PASS
Extreme（50℃）		6.23	0.00332	6.33	0.00337	PASS
Extreme（40℃）		9.78	0.00520	17.45	0.00928	PASS
Extreme（30℃）		11.91	0.00634	16.41	0.00873	PASS
Extreme（20℃）		15.73	0.00837	3.95	0.00210	PASS
Extreme（10℃）		10.35	0.00551	10.12	0.00538	PASS
Extreme（0℃）		8.21	0.00437	16.42	0.00874	PASS
Extreme（-10℃）		13.69	0.00728	2.77	0.00148	PASS
Extreme（-20℃）		17.51	0.00932	9.35	0.00497	PASS
Extreme（-30℃）		3.67	0.00195	11.31	0.00602	PASS

25℃	LV	10.50	0.00558	16.36	0.00870	PASS
	HV	16.91	0.00899	9.60	0.00511	PASS
CA_38C_64QAM		15MHz+15MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal（25℃）	Normal	6.10	0.00325	9.72	0.00517	PASS
Extreme（50℃）		7.34	0.00390	8.42	0.00448	PASS
Extreme（40℃）		4.21	0.00224	4.65	0.00247	PASS
Extreme（30℃）		4.78	0.00254	4.85	0.00258	PASS
Extreme（20℃）		3.78	0.00201	12.19	0.00648	PASS
Extreme（10℃）		6.68	0.00355	4.84	0.00257	PASS
Extreme（0℃）		17.74	0.00944	3.53	0.00188	PASS
Extreme（-10℃）		9.86	0.00524	3.57	0.00190	PASS
Extreme（-20℃）		13.44	0.00715	15.87	0.00844	PASS
Extreme（-30℃）		10.53	0.00560	10.24	0.00545	PASS
25℃	LV	5.98	0.00318	3.81	0.00203	PASS
	HV	15.71	0.00836	8.51	0.00453	PASS

5.6 Spurious Emissions at Antenna Terminals

Ambient condition

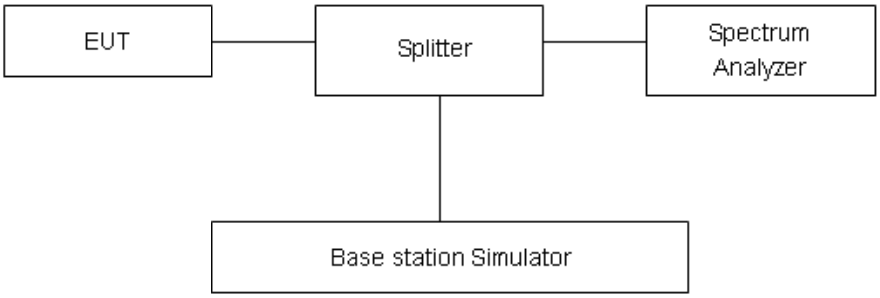
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The measurement is carried out using a spectrum analyzer. The spectrum analyzer scans from 9kHz to the 10th harmonic of the carrier. The peak detector is used.
RBW is set to 100kHz, VBW is set to 300kHz for 30MHz~1GHz
RBW is set to 1MHz, VBW is set to 3MHz for above 1GHz, Sweep is set to ATUO.
RBW is set to 1 kHz (0.009MHz~ 0.15 MHz),
RBW is set to 10 kHz (0.15 MHz~ 30 MHz)
RBW is set to 100 kHz (30MHz~1000 MHz)
RBW is set to 1000 kHz (above 1000MHz)

Of those disturbances below (limit – 20 dB), the mark is not required for the EUT.
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup



Limits

Rule Part 27.53(h) specifies that “for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB..”
Rule Part 27.53(m) 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(4) of this section.

Part 27.53(h) Limit	-13 dBm

Part 27.53(m) Limit	-25 dBm

Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75％ confidence level for the normal distribution is with the coverage factor *k* = 1.96.

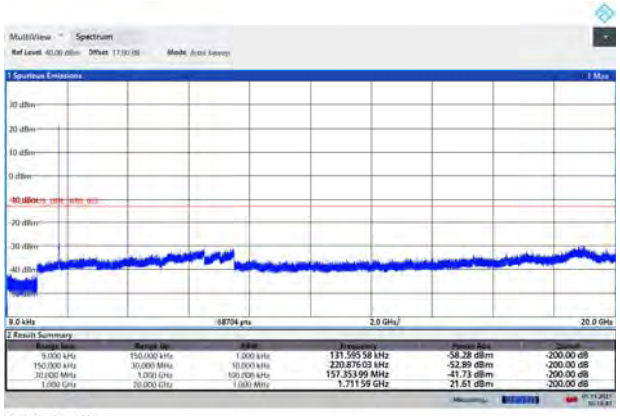
Frequency	Uncertainty
9kHz-1GHz	0.684 dB
1GHz-27GHz	1.407 dB

Test Result

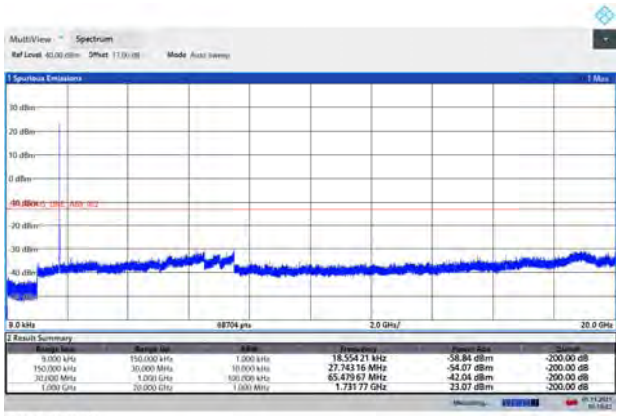
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.

The signal beyond the limit is carrier.

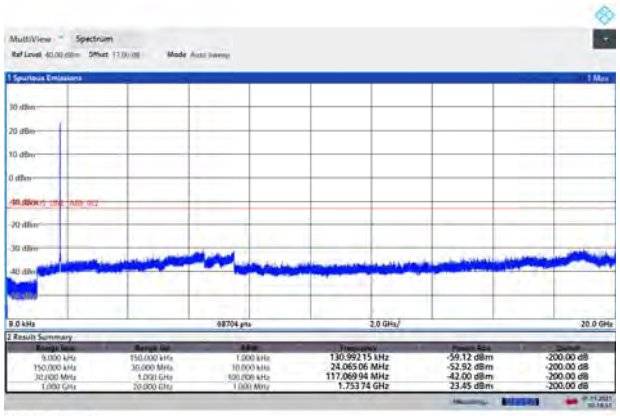
WCDMA Band IV CH-Low 9kHz~20GHz



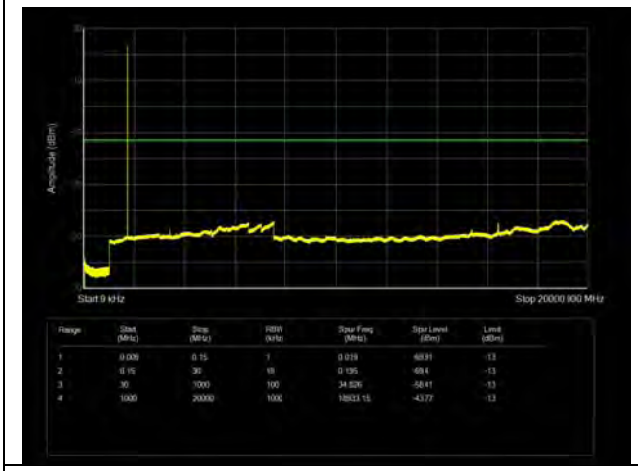
WCDMA Band IV CH-Middle 9kHz~20GHz



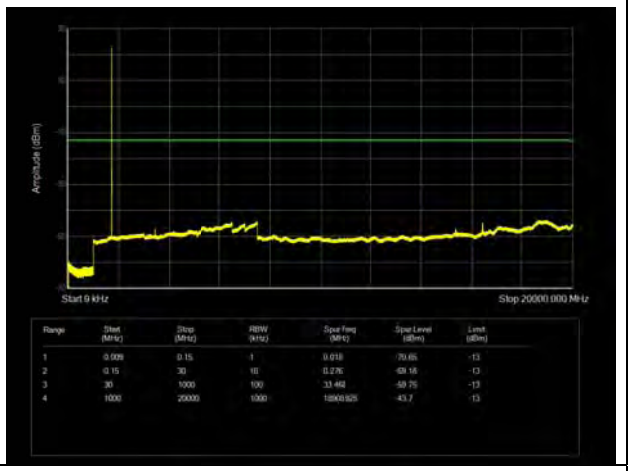
WCDMA Band IV CH-High 9kHz~20GHz



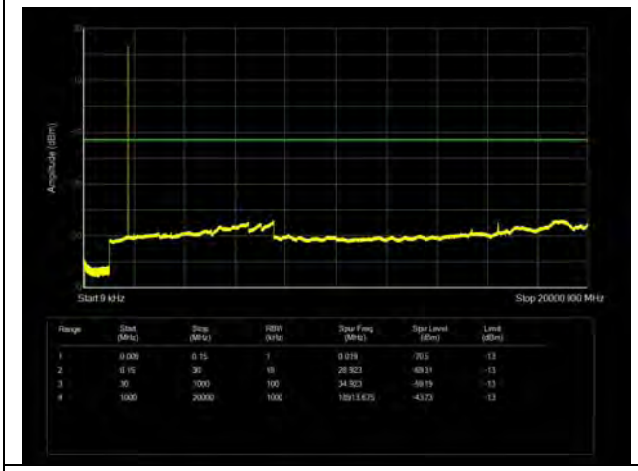
LTE Band 4 1.4MHz CH-Low 9kHz~20GHz



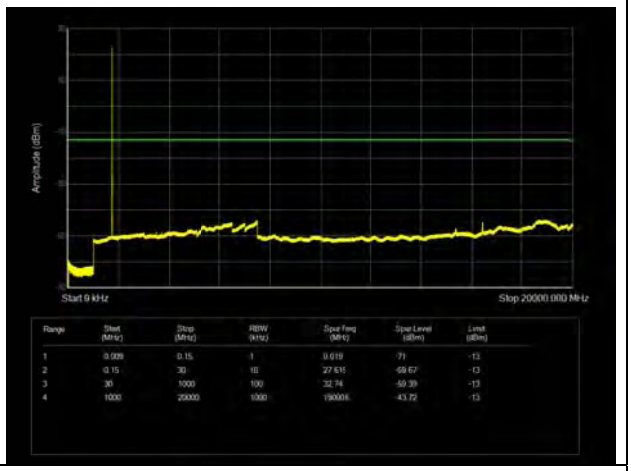
LTE Band 4 3MHz CH- Low 9kHz~20GHz



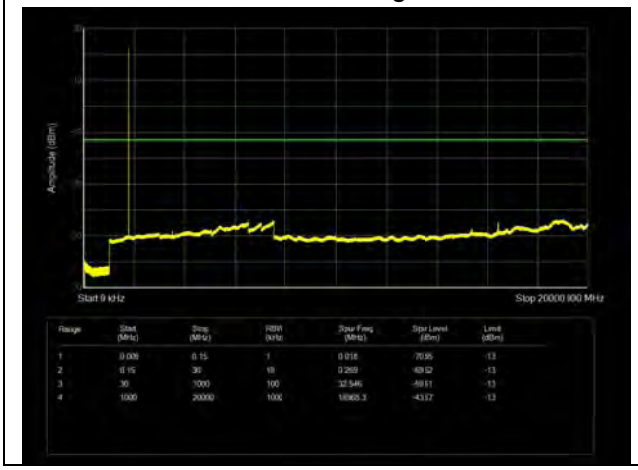
LTE Band 4 1.4MHz CH- Middle 9kHz~20GHz



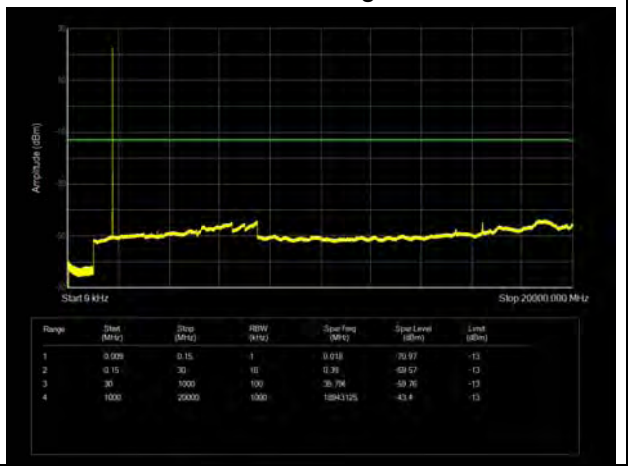
LTE Band 4 3MHz CH- Middle 9kHz~20GHz



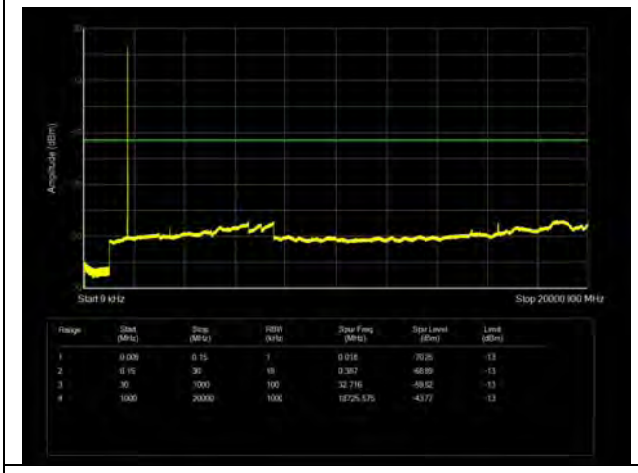
LTE Band 4 1.4MHz CH- High 9kHz~20GHz



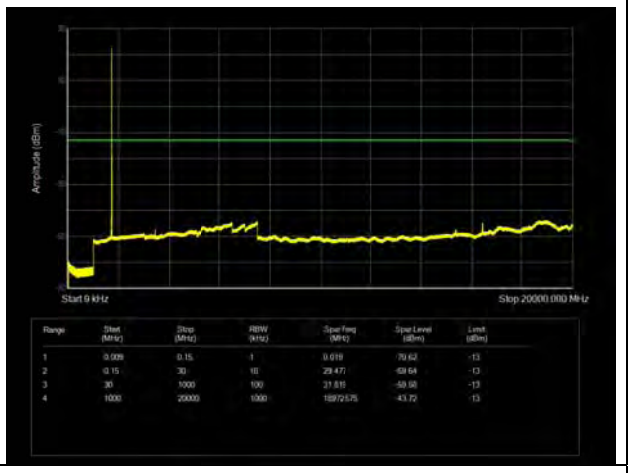
LTE Band 4 3MHz CH-High 9kHz~20GHz



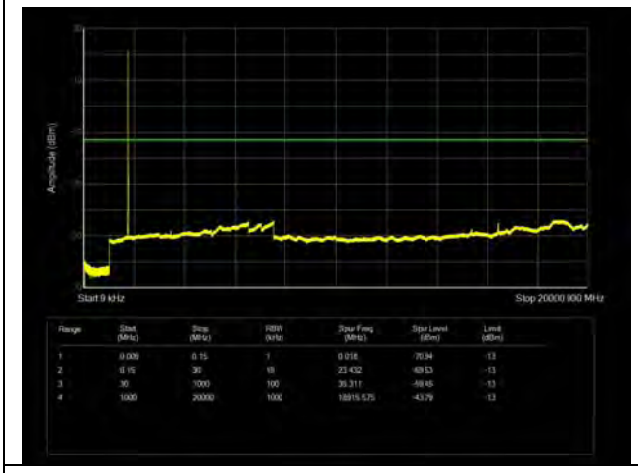
LTE Band 4 5MHz CH- Low 9kHz~20GHz



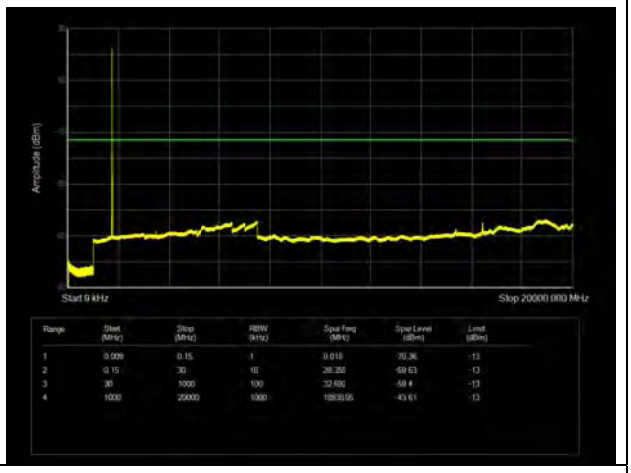
LTE Band 4 10MHz CH-Low 9kHz~20GHz



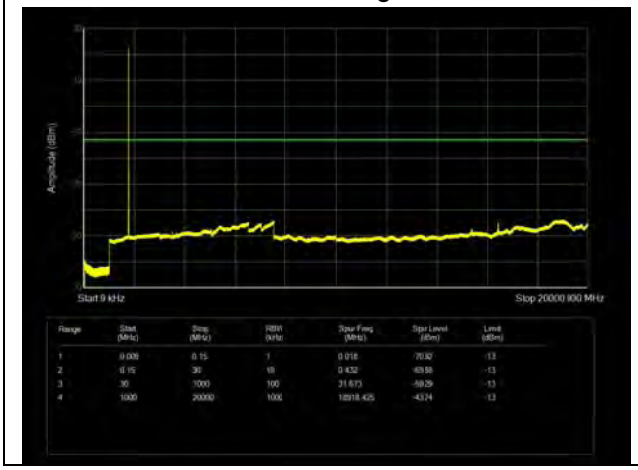
LTE Band 4 5MHz CH- Middle 9kHz~20GHz



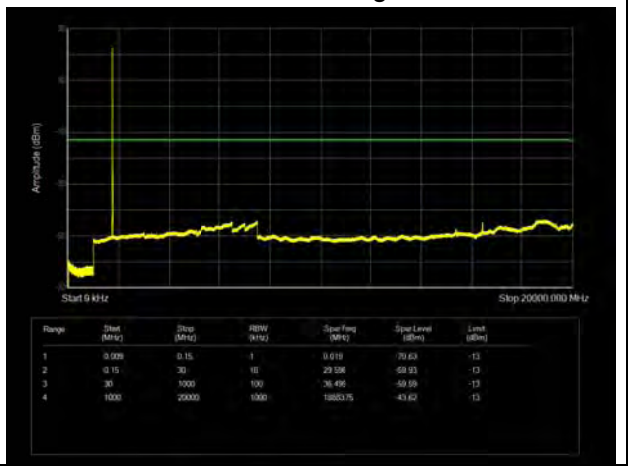
LTE Band 4 10MHz CH- Middle 9kHz~20GHz



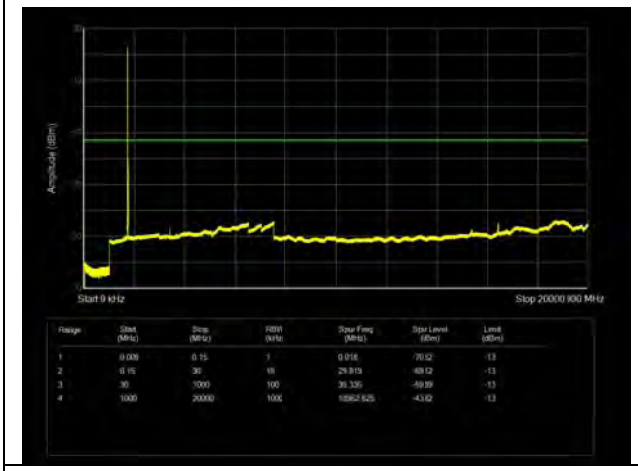
LTE Band 4 5MHz CH-High 9kHz~20GHz



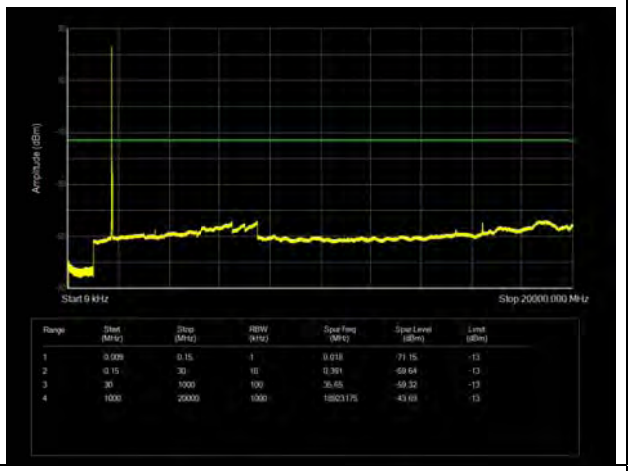
LTE Band 4 10MHz CH- High 9kHz~20GHz



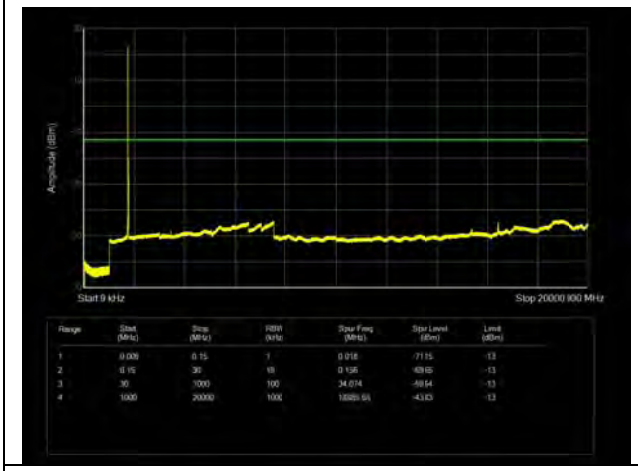
LTE Band 4 15MHz CH- Low 9kHz~20GHz



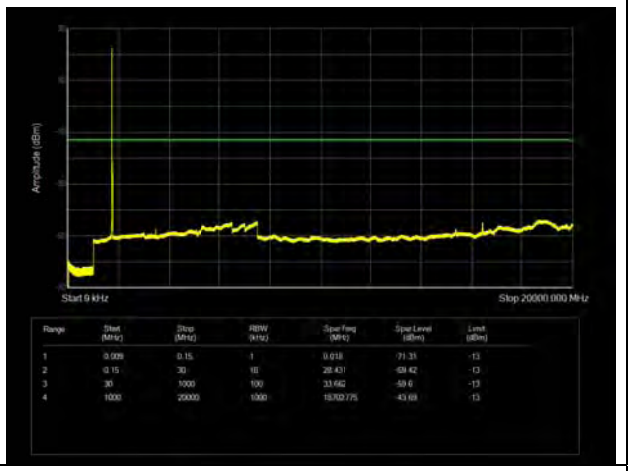
LTE Band 4 20MHz CH-Low 9kHz~20GHz



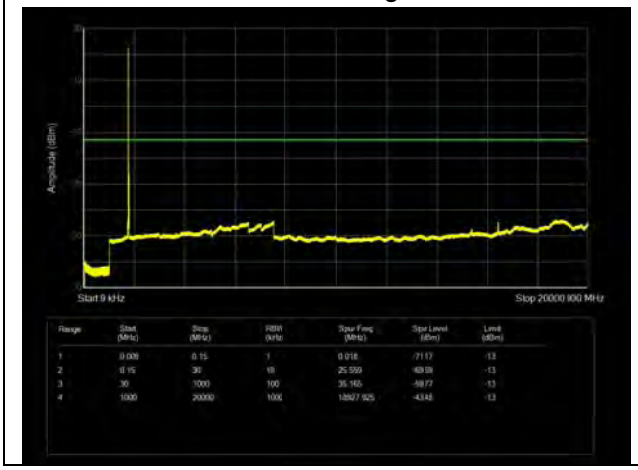
LTE Band 4 15MHz CH- Middle 9kHz~20GHz



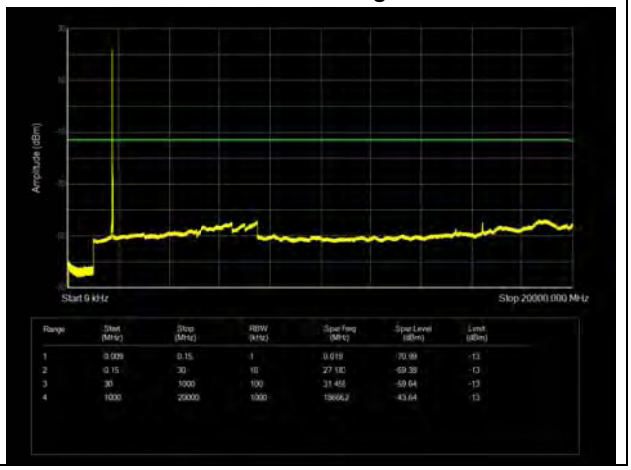
LTE Band 4 20MHz CH- Middle 9kHz~20GHz



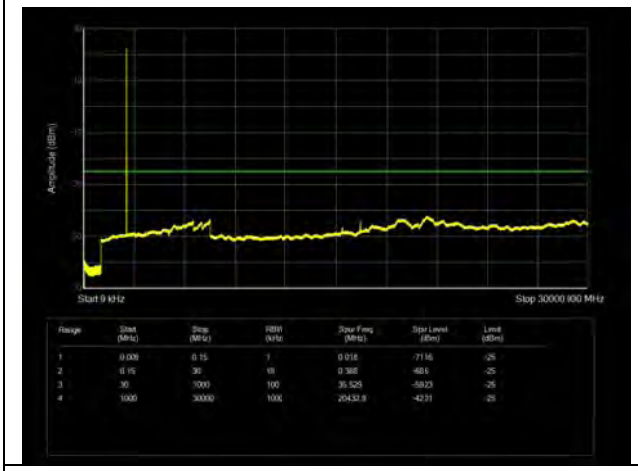
LTE Band 4 15MHz CH-High 9kHz~20GHz



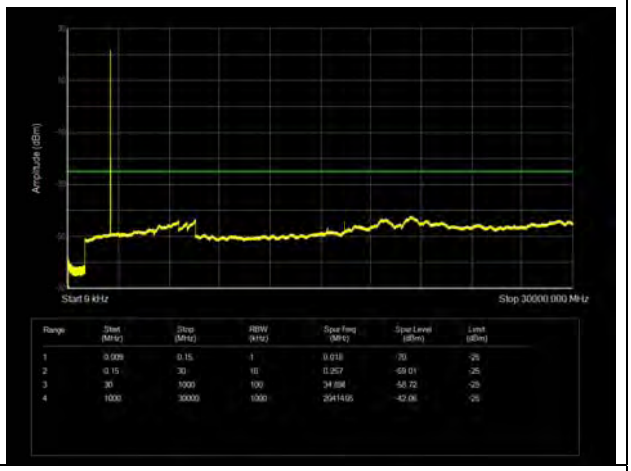
LTE Band 4 20MHz CH- High 9kHz~20GHz



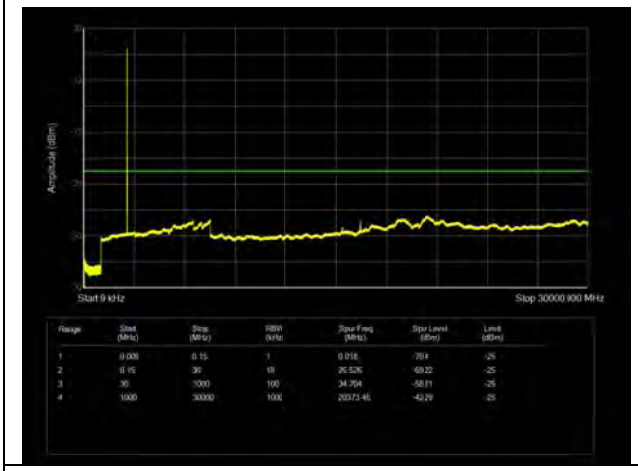
LTE Band 7 5MHz CH- Low 9kHz~30GHz



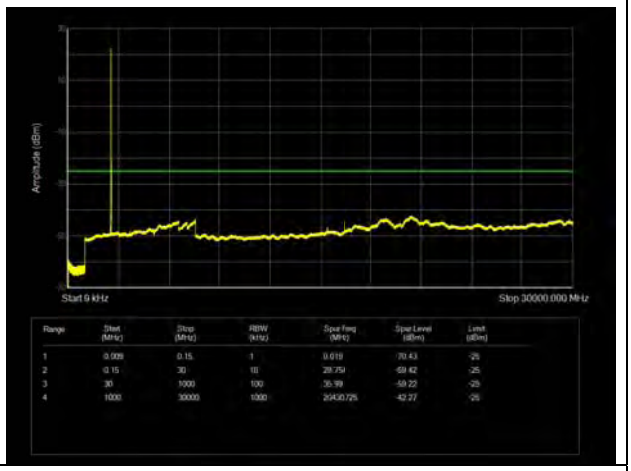
LTE Band 7 10MHz CH-Low 9kHz~30GHz



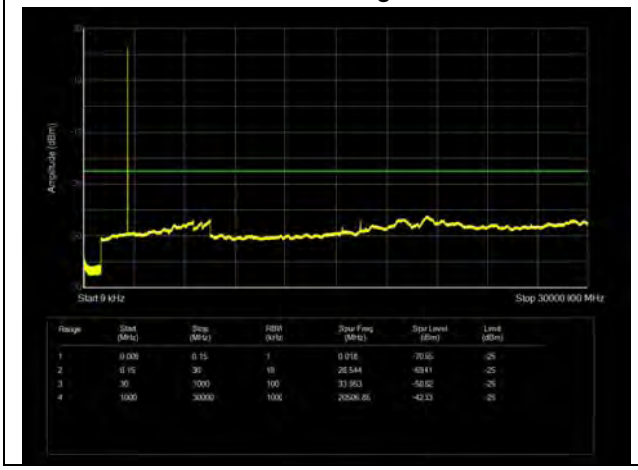
LTE Band 7 5MHz CH- Middle 9kHz~30GHz



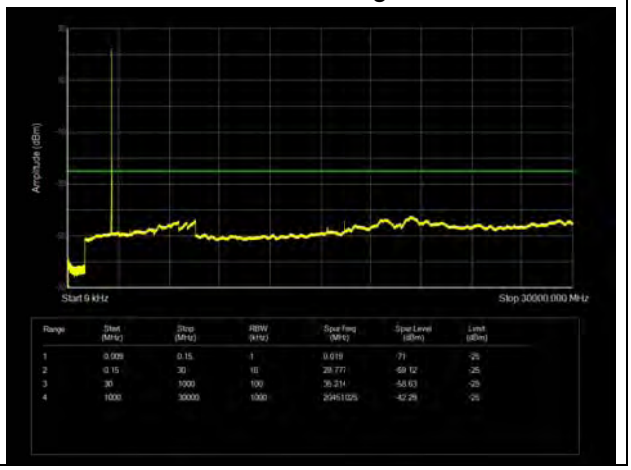
LTE Band 7 10MHz CH- Middle 9kHz~30GHz



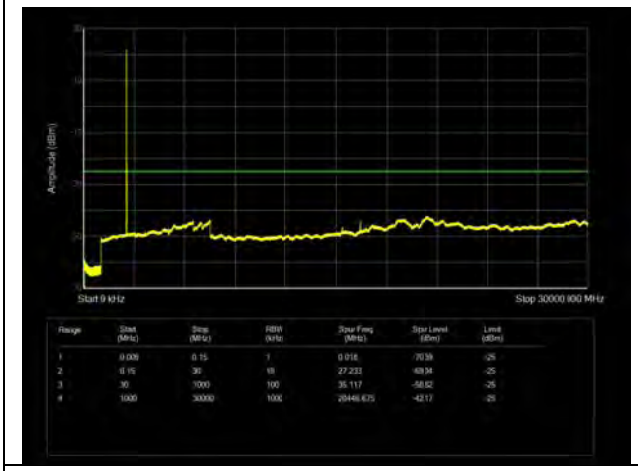
LTE Band 7 5MHz CH-High 9kHz~30GHz



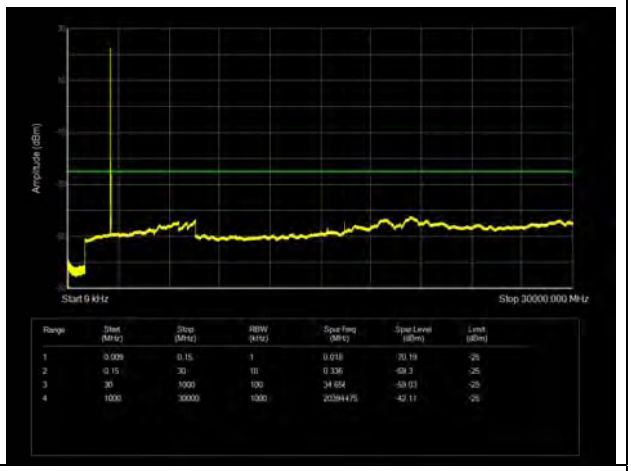
LTE Band 7 10MHz CH- High 9kHz~30GHz



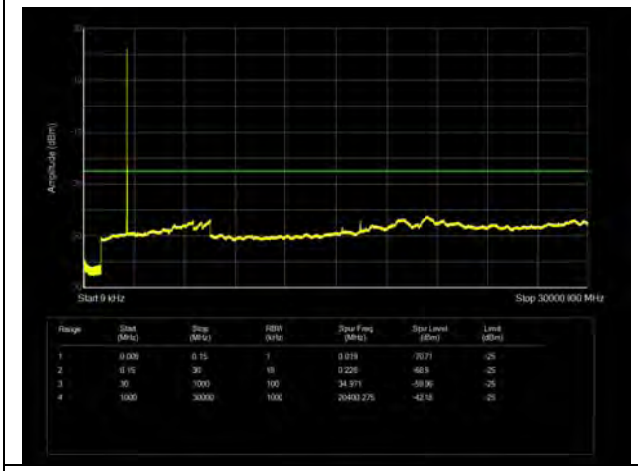
LTE Band 7 15MHz CH- Low 9kHz~30GHz



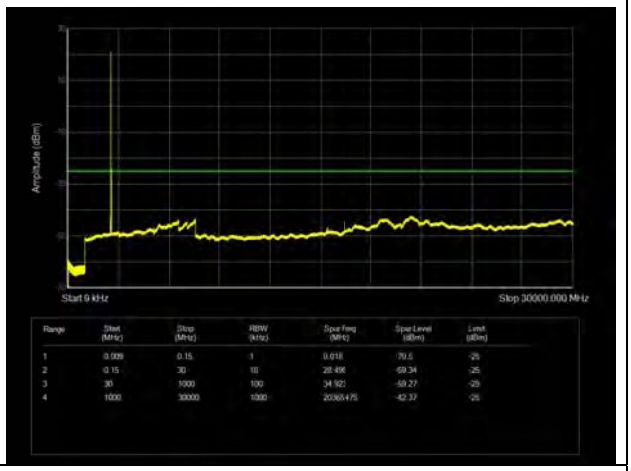
LTE Band 7 20MHz CH-Low 9kHz~30GHz



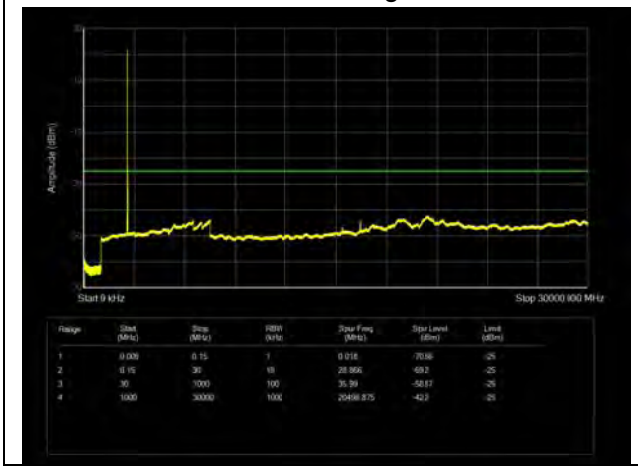
LTE Band 7 15MHz CH- Middle 9kHz~30GHz



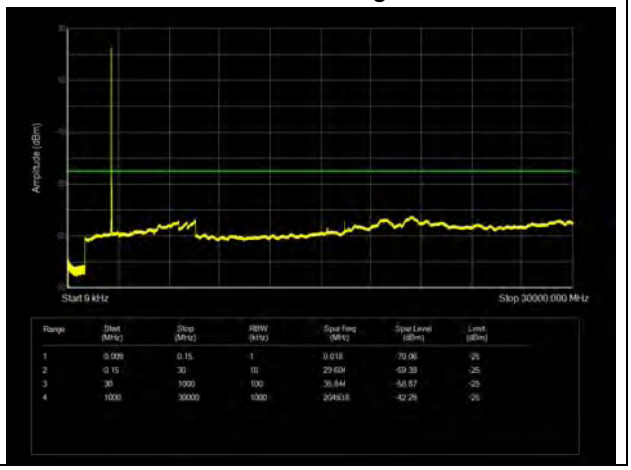
LTE Band 7 20MHz CH- Middle 9kHz~30GHz



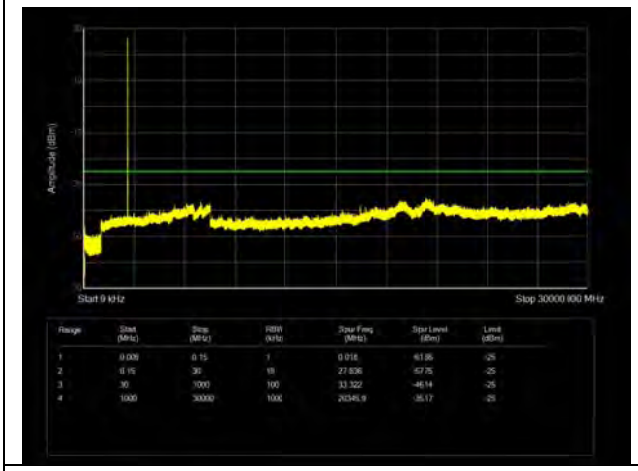
LTE Band 7 15MHz CH-High 9kHz~30GHz



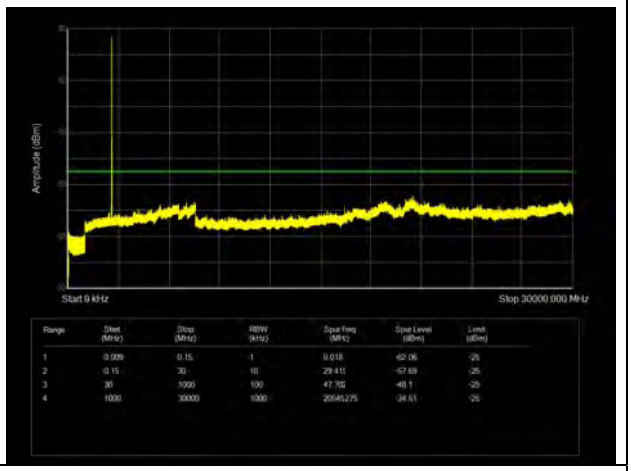
LTE Band 7 20MHz CH- High 9kHz~30GHz



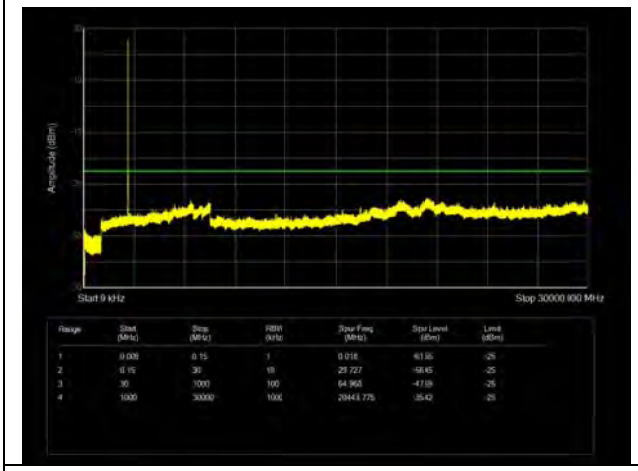
LTE Band 38 5MHz CH- Low 9kHz~30GHz



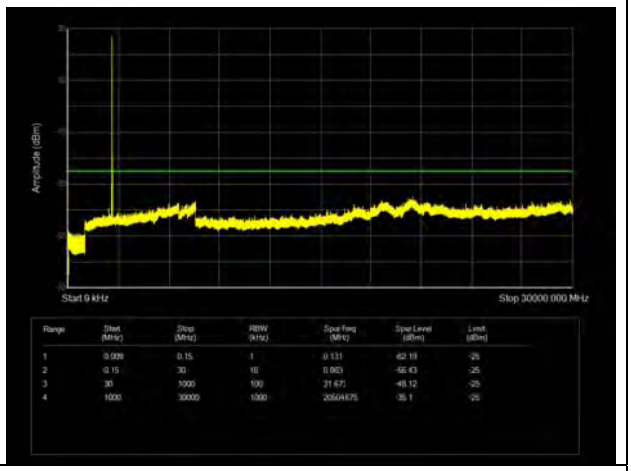
LTE Band 38 10MHz CH- Low 9kHz~30GHz



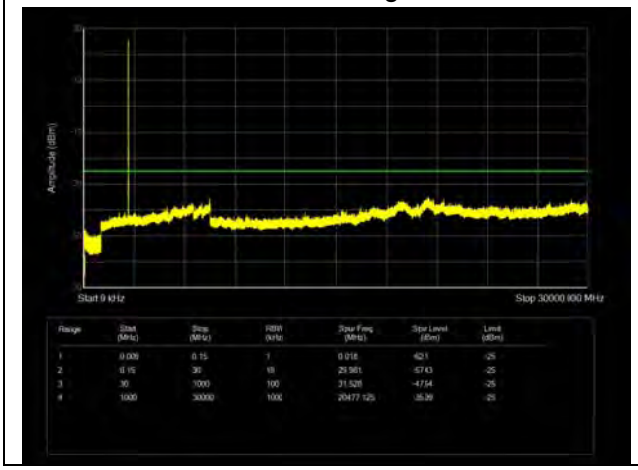
LTE Band 38 5MHz CH- Middle 9kHz~30GHz



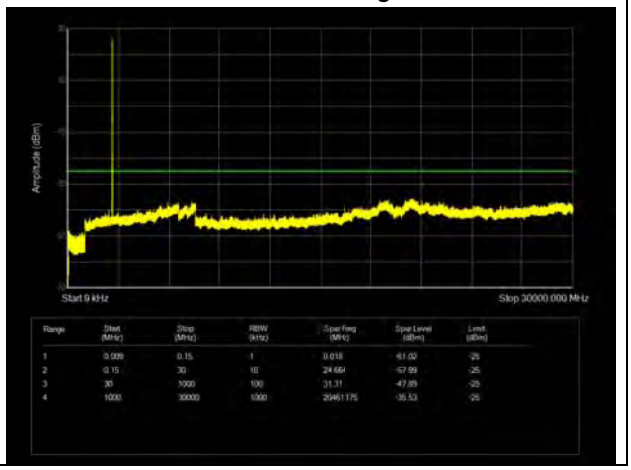
LTE Band 38 5 10MHz CH- Middle 9kHz~30GHz



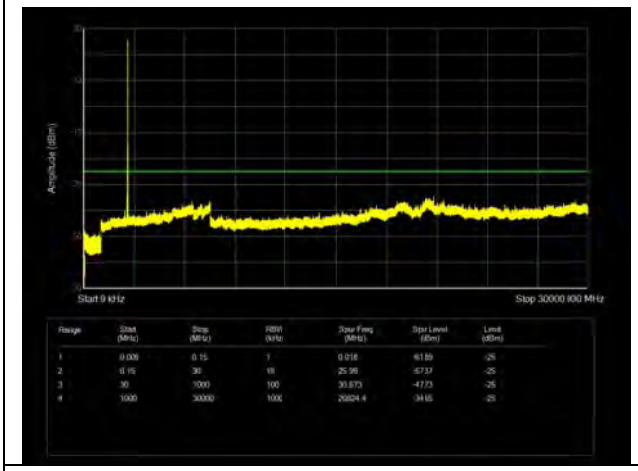
LTE Band 38 5MHz CH-High 9kHz~30GHz



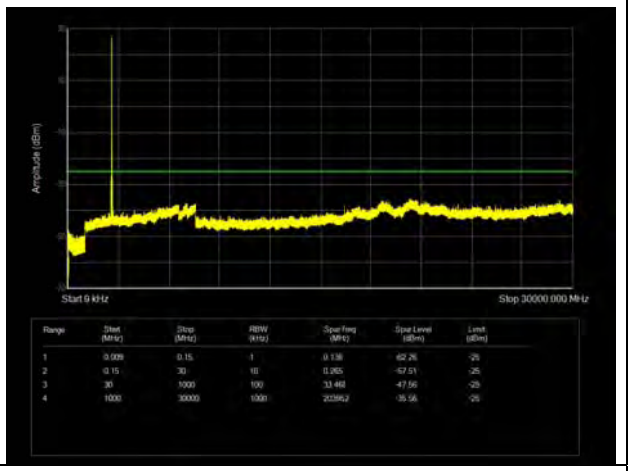
LTE Band 38 10MHz CH-High 9kHz~30GHz



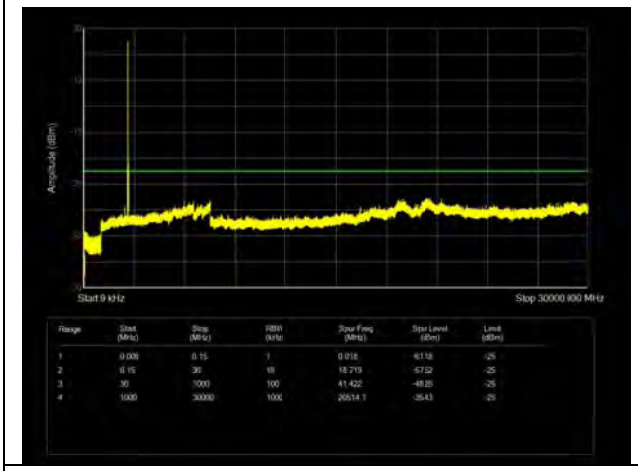
LTE Band 38 15MHz CH- Low 9kHz~30GHz



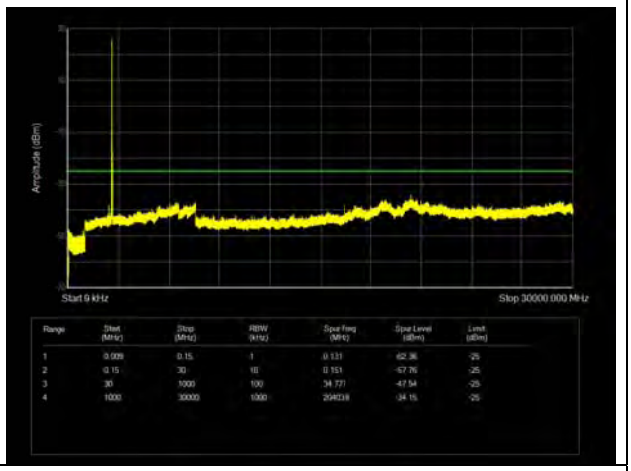
LTE Band 38 20MHz CH-Low 9kHz~30GHz



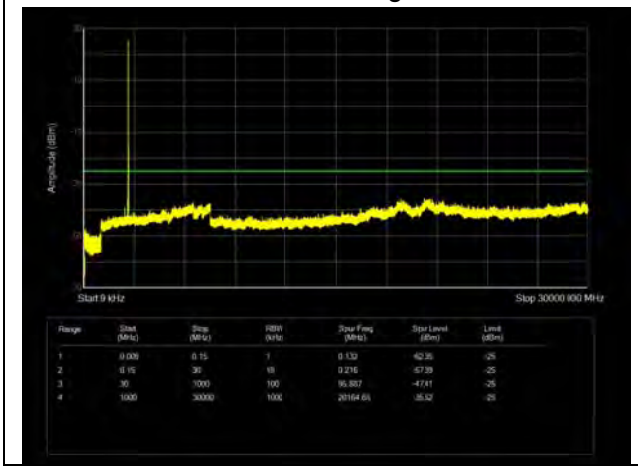
LTE Band 38 15MHz CH- Middle 9kHz~30GHz



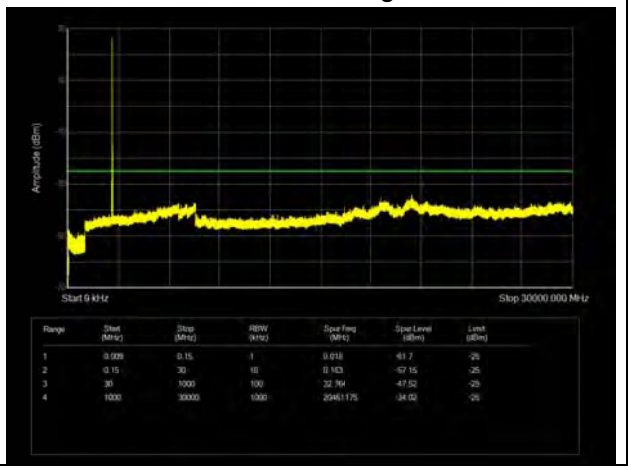
LTE Band 38 20MHz CH- Middle 9kHz~30GHz



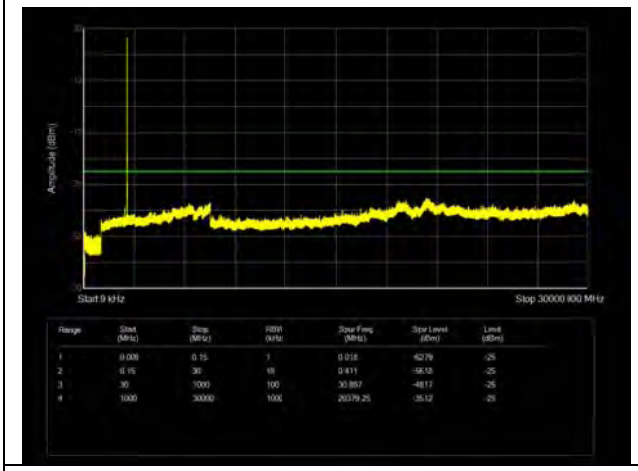
LTE Band 3815MHz CH-High 9kHz~30GHz



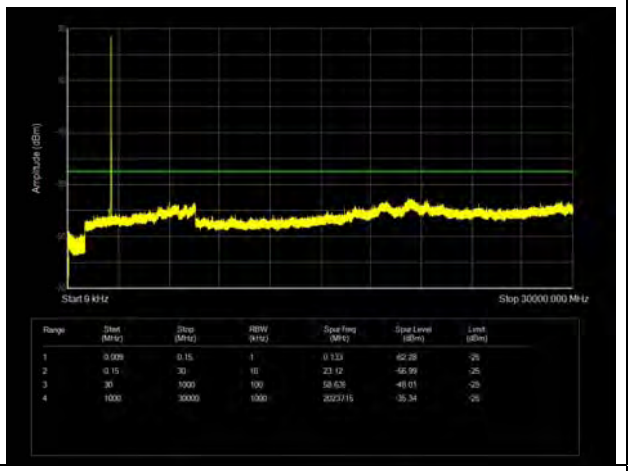
LTE Band 38 20MHz CH- High 9kHz~30GHz



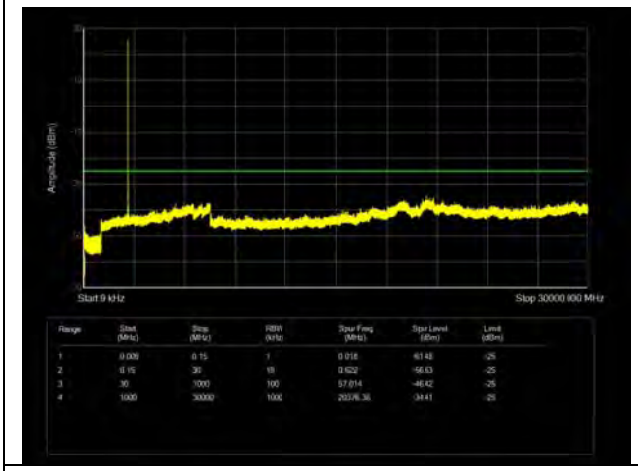
LTE Band 41 5MHz CH- Low 9kHz~30GHz



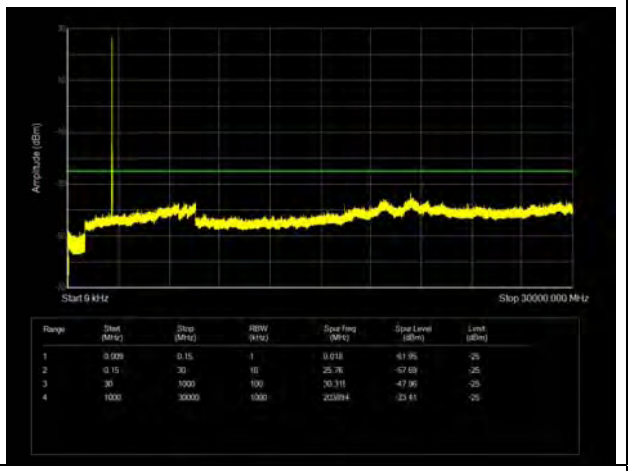
LTE Band 41 10MHz CH- Low 9kHz~30GHz



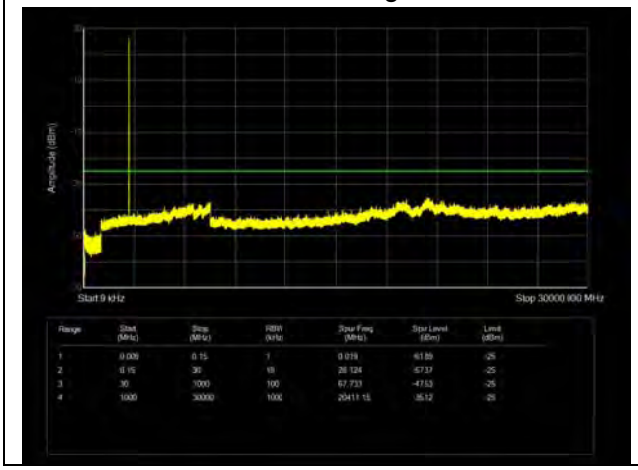
LTE Band 41 5MHz CH- Middle 9kHz~30GHz



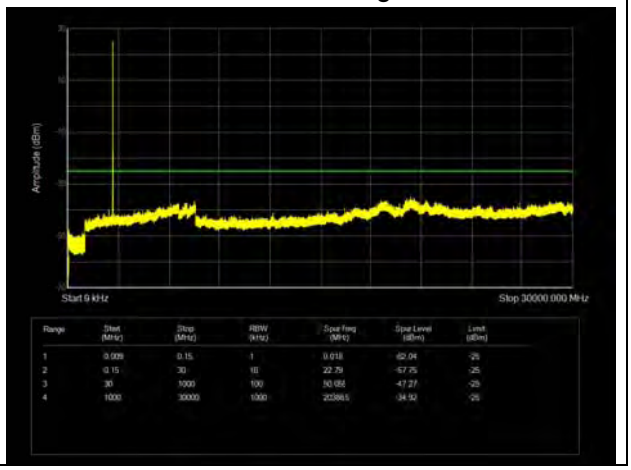
LTE Band 41 10MHz CH- Middle 9kHz~30GHz



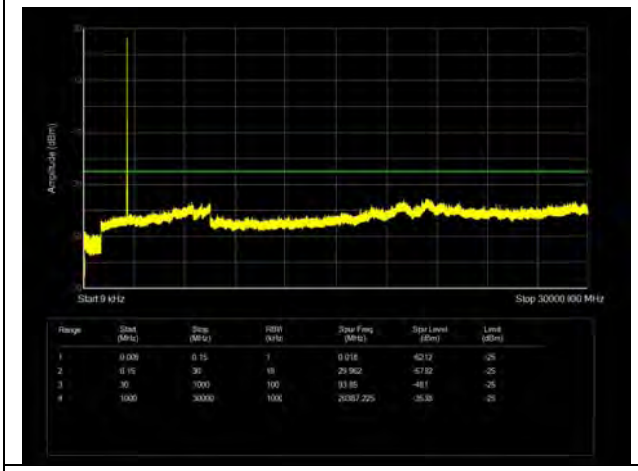
LTE Band 41 5MHz CH-High 9kHz~30GHz



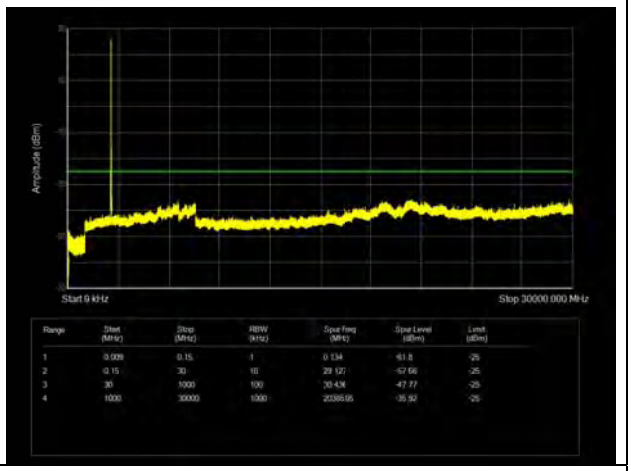
LTE Band 41 10MHz CH-High 9kHz~30GHz



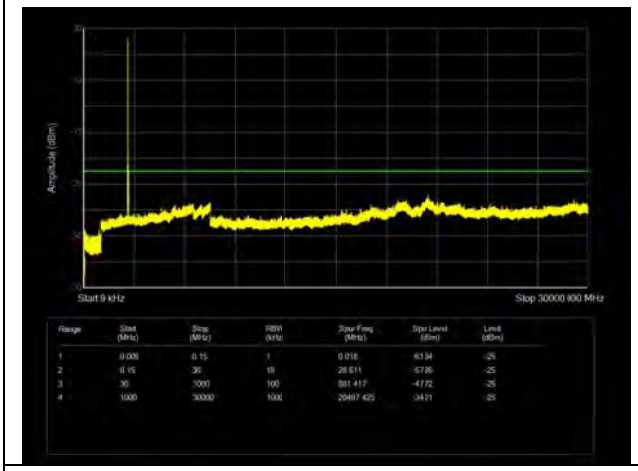
LTE Band 41 15MHz CH- Low 9kHz~30GHz



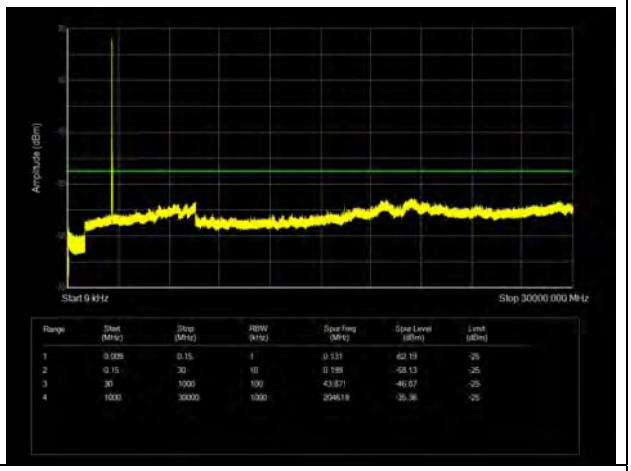
LTE Band 41 20MHz CH-Low 9kHz~30GHz



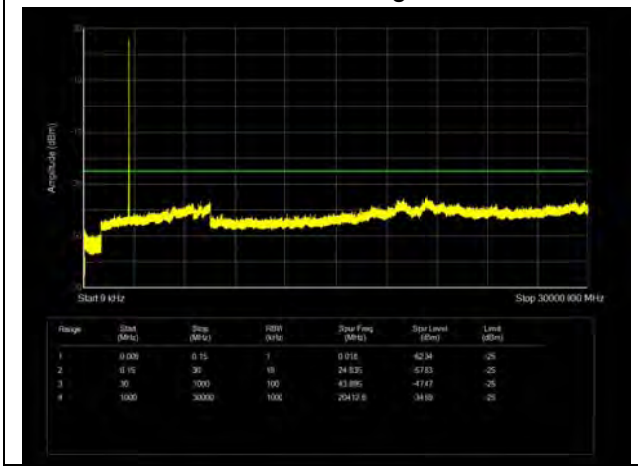
LTE Band 41 15MHz CH- Middle 9kHz~30GHz



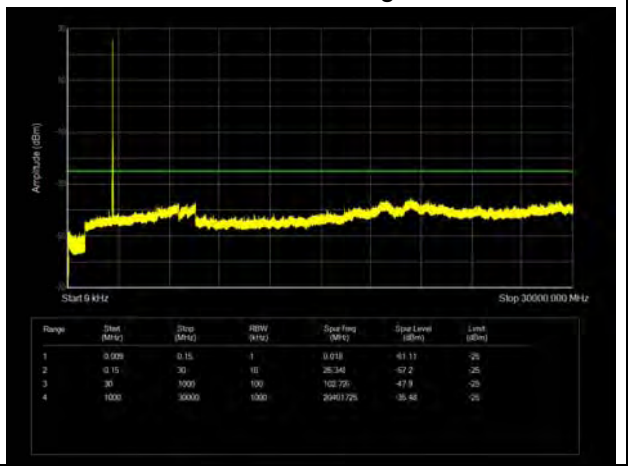
LTE Band 41 20MHz CH- Middle 9kHz~30GHz



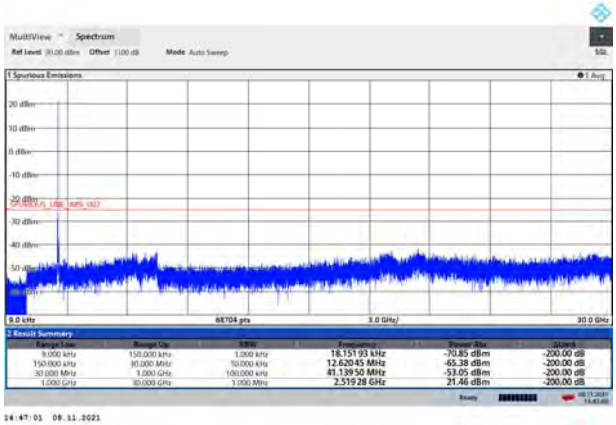
LTE Band 41 15MHz CH-High 9kHz~30GHz



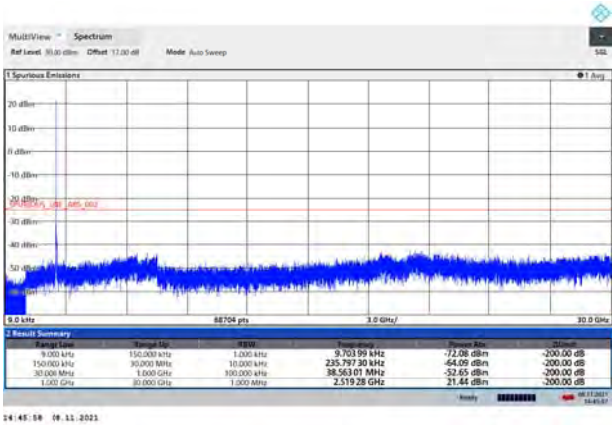
LTE Band 41 20MHz CH- High 9kHz~30GHz



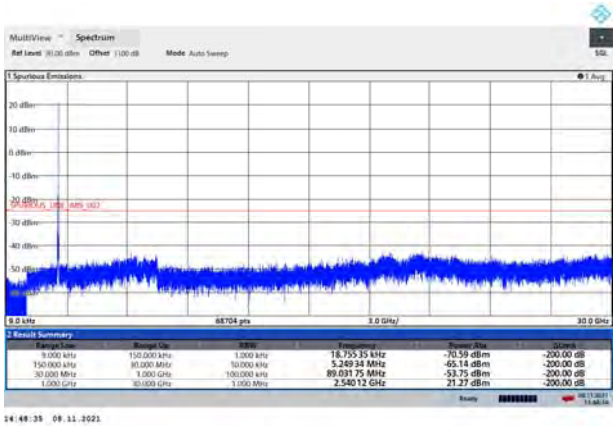
CA_7C QPSK 20MHz+10MHz CH- Low
9kHz~30GHz



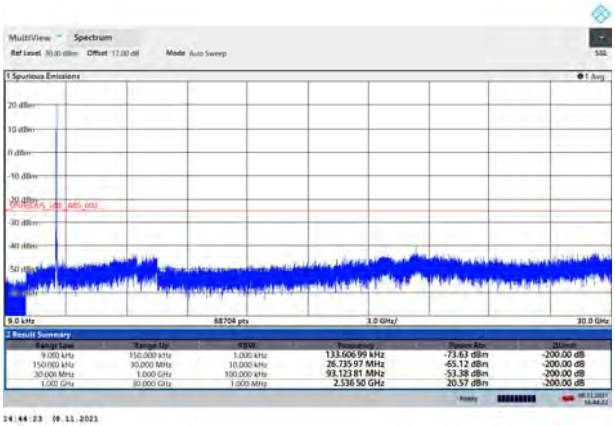
CA_7C QPSK 20MHz+20MHz CH- Low
9kHz~30GHz



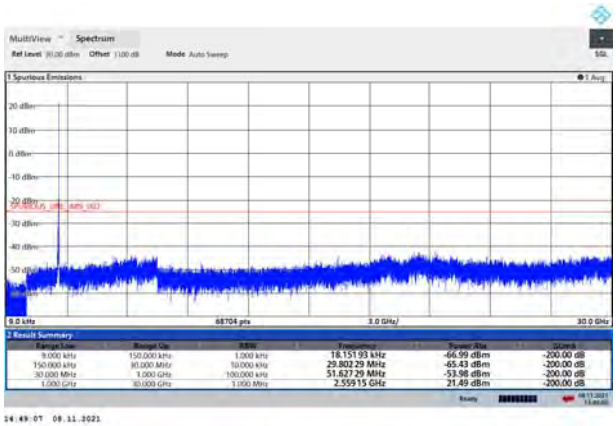
CA_7C QPSK 20MHz+10MHz CH- Middle
9kHz~30GHz



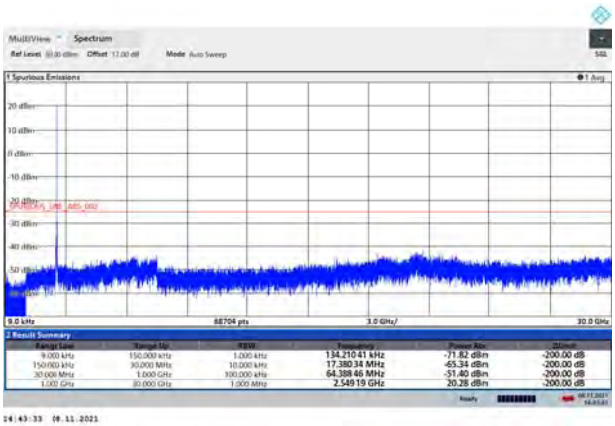
CA_7C QPSK 20MHz+20MHz CH- Middle
9kHz~30GHz



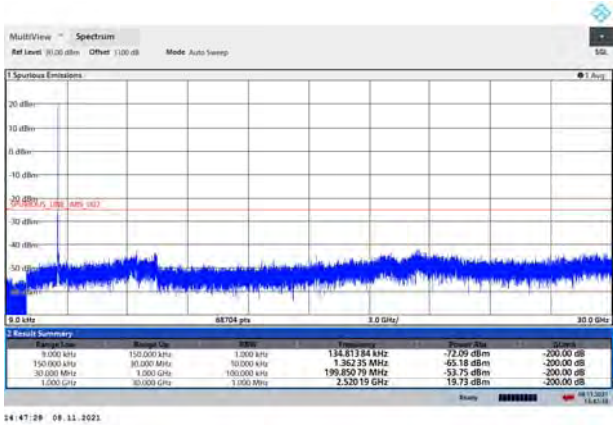
CA_7C QPSK 20MHz+10MHz CH-High
9kHz~30GHz



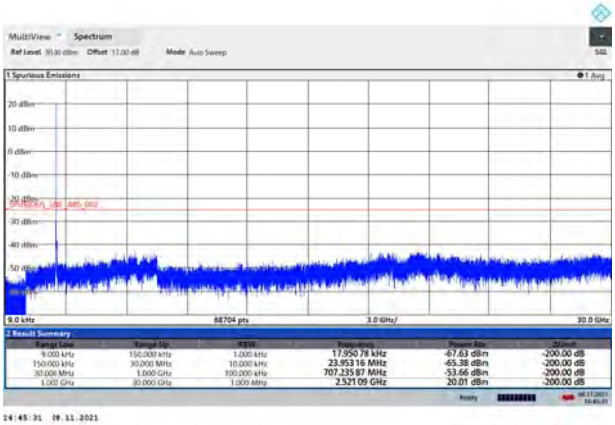
CA_7C QPSK 20MHz+20MHz CH-High
9kHz~30GHz



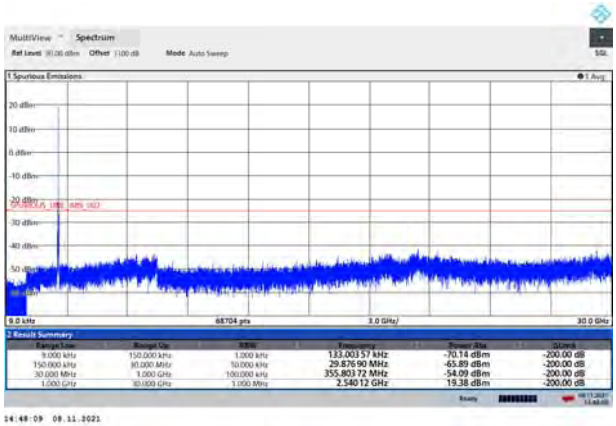
CA_7C 16QAM 20MHz+10MHz CH- Low
9kHz~30GHz



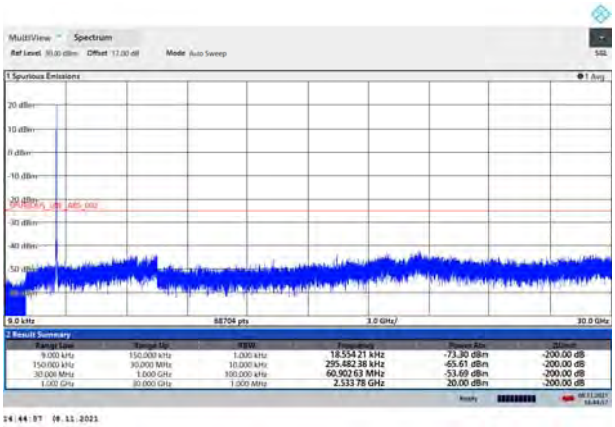
CA_7C 16QAM 20MHz+20MHz CH- Low
9kHz~30GHz



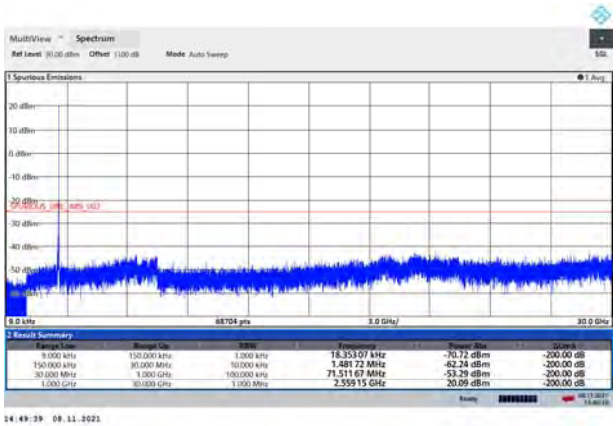
CA_7C 16QAM 20MHz+10MHz CH- Middle
9kHz~30GHz



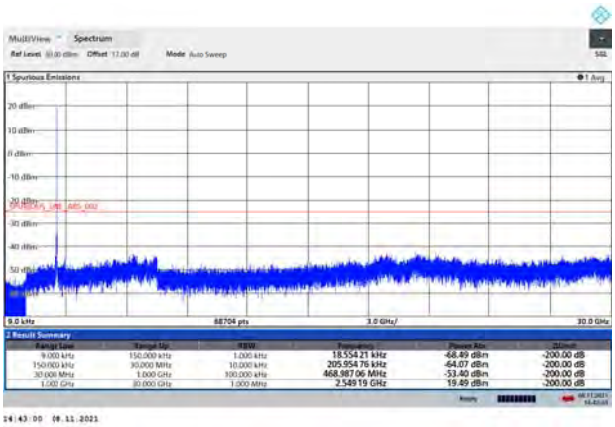
CA_7C 16QAM 20MHz+20MHz CH- Middle
9kHz~30GHz



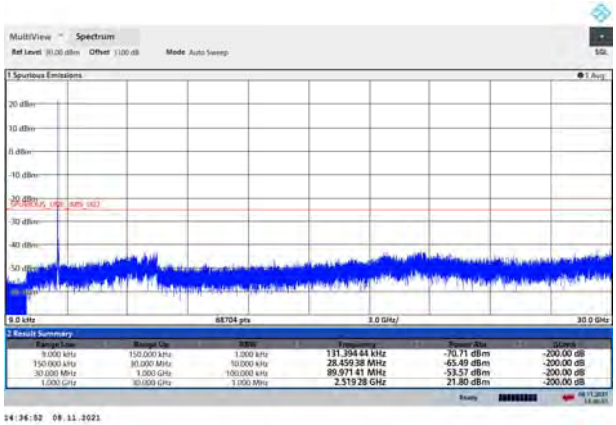
CA_7C 16QAM 20MHz+10MHz CH-High
9kHz~30GHz



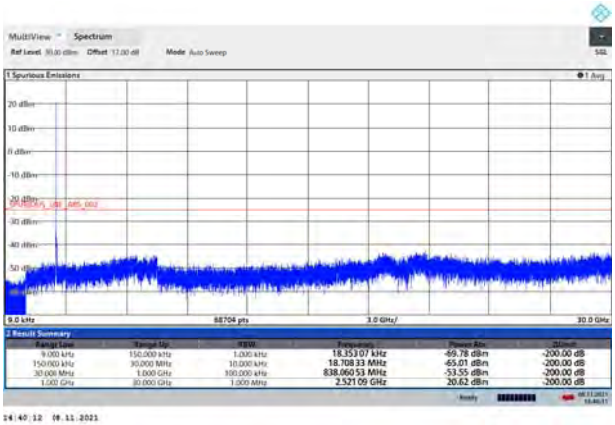
CA_7C 16QAM 20MHz+20MHz CH-High
9kHz~30GHz



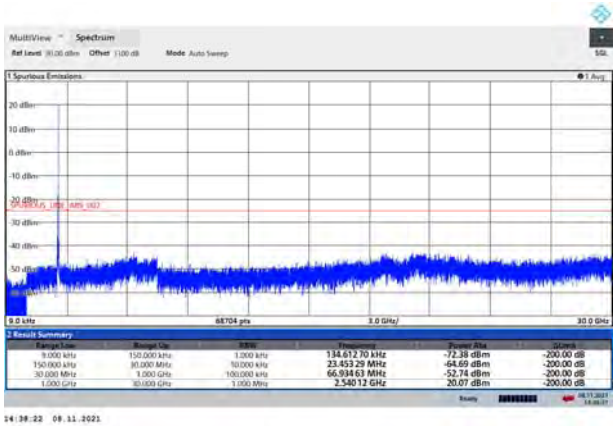
CA_7C 64QAM 20MHz+10MHz CH- Low
9kHz~30GHz



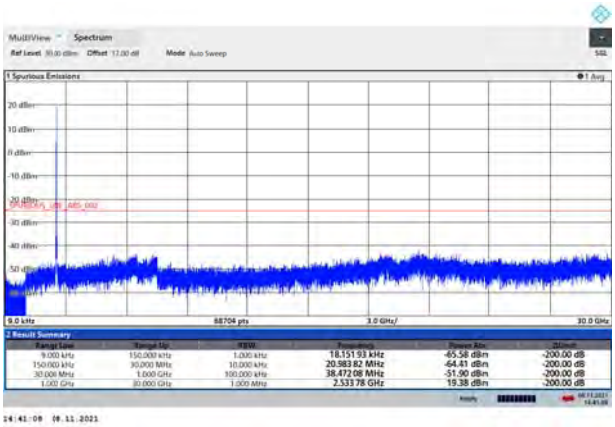
CA_7C 64QAM 20MHz+20MHz CH- Low
9kHz~30GHz



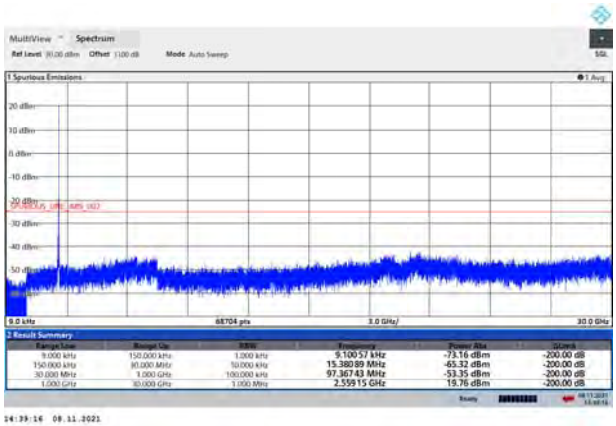
CA_7C 64QAM 20MHz+10MHz CH- Middle
9kHz~30GHz



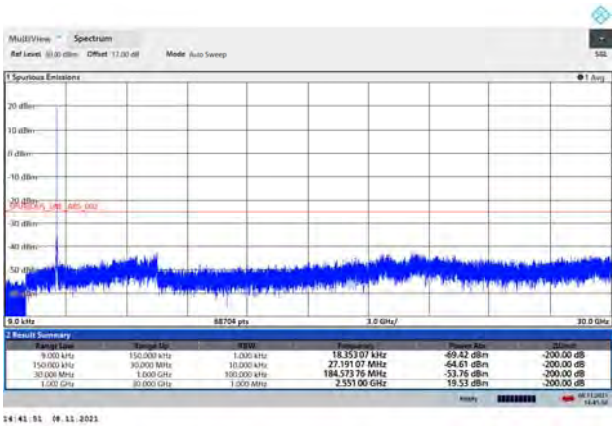
CA_7C 64QAM 20MHz+20MHz CH- Middle
9kHz~30GHz



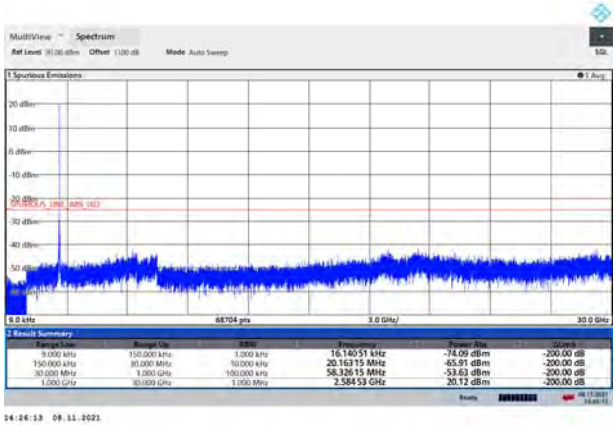
CA_7C 64QAM 20MHz+10MHz CH-High
9kHz~30GHz



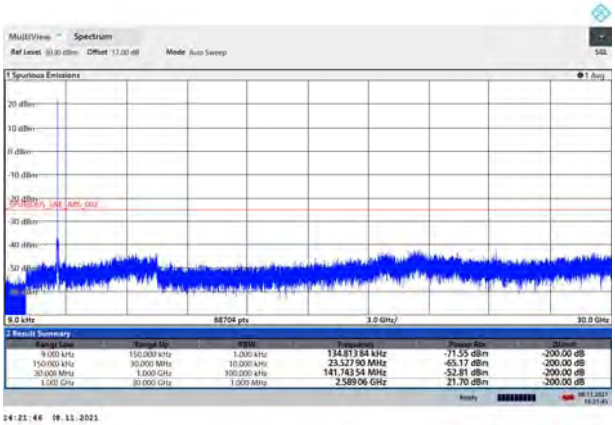
CA_7C 64QAM 20MHz+20MHz CH-High
9kHz~30GHz



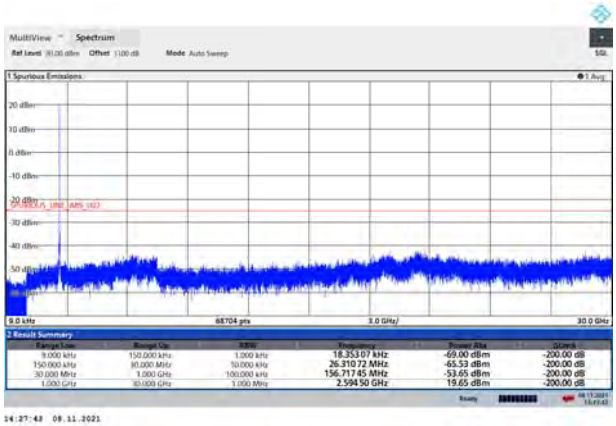
CA_38C QPSK 15MHz+15MHz CH- Low
9kHz~30GHz



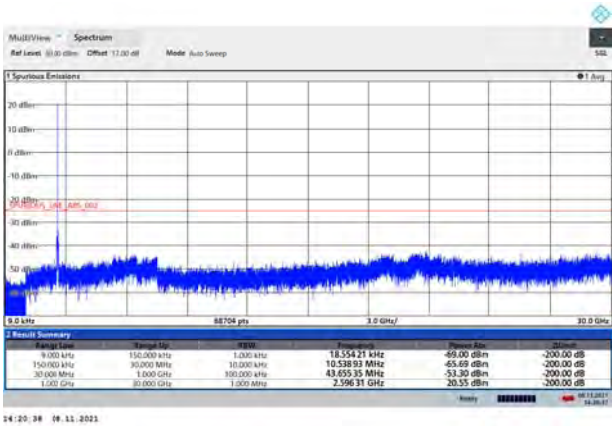
CA_38C QPSK 20MHz+20MHz CH- Low
9kHz~30GHz



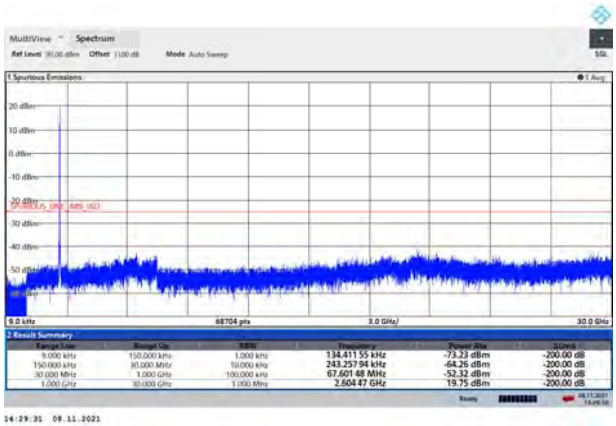
CA_38C QPSK 15MHz+15MHz CH- Middle
9kHz~30GHz



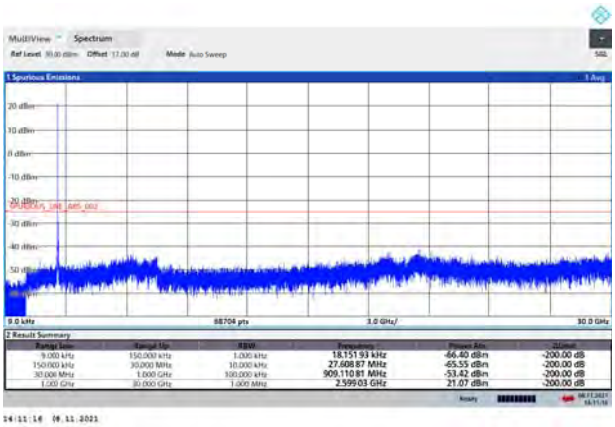
CA_38C QPSK 20MHz+20MHz CH- Middle
9kHz~30GHz



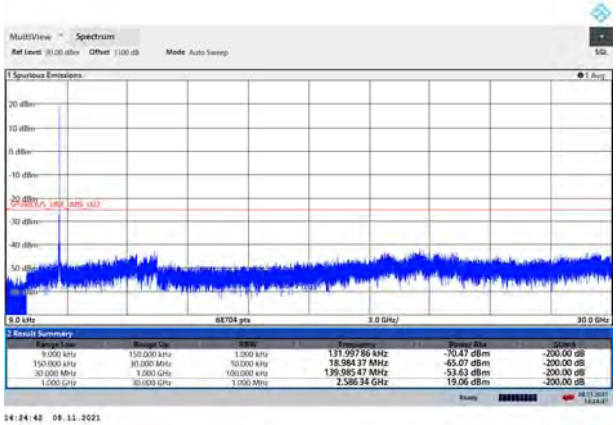
CA_38C QPSK 15MHz+15MHz CH-High
9kHz~30GHz



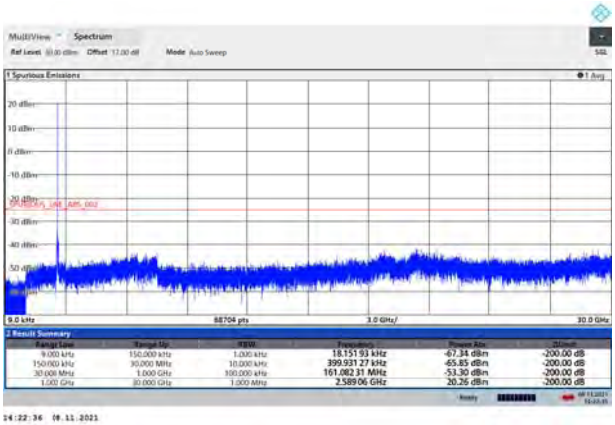
CA_38C QPSK 20MHz+20MHz CH-High
9kHz~30GHz



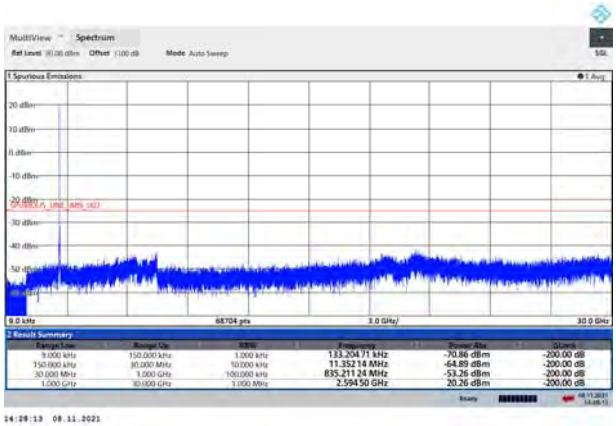
CA_38C 16QAM 15MHz+15MHz CH- Low
9kHz~30GHz



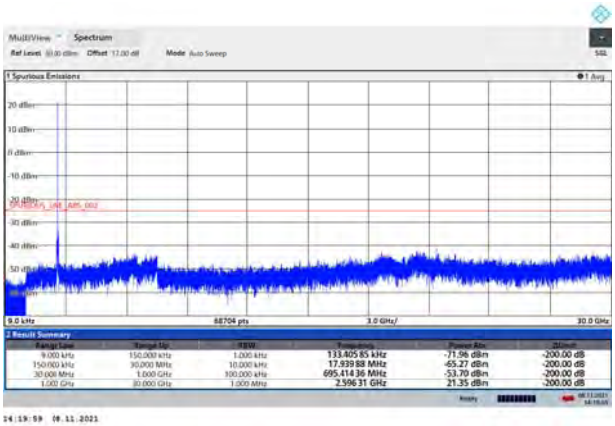
CA_38C 16QAM 20MHz+20MHz CH- Low
9kHz~30GHz



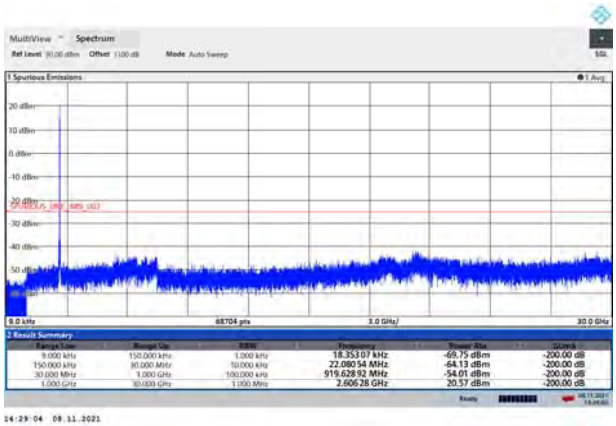
CA_38C 16QAM 15MHz+15MHz CH- Middle
9kHz~30GHz



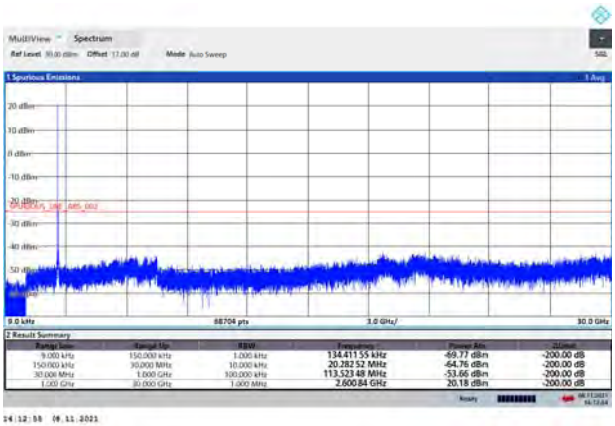
CA_38C 16QAM 20MHz+20MHz CH- Middle
9kHz~30GHz



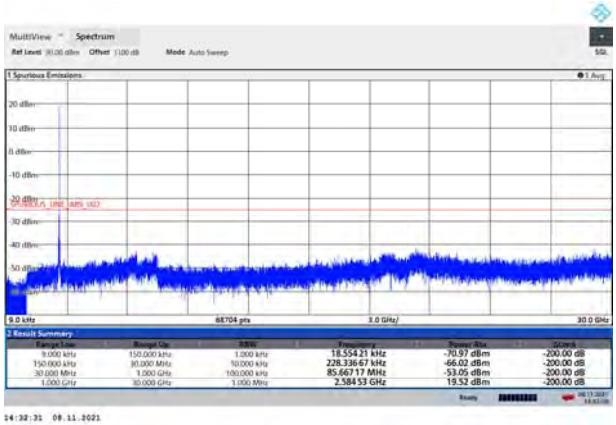
CA_38C 16QAM 15MHz+15MHz CH-High
9kHz~30GHz



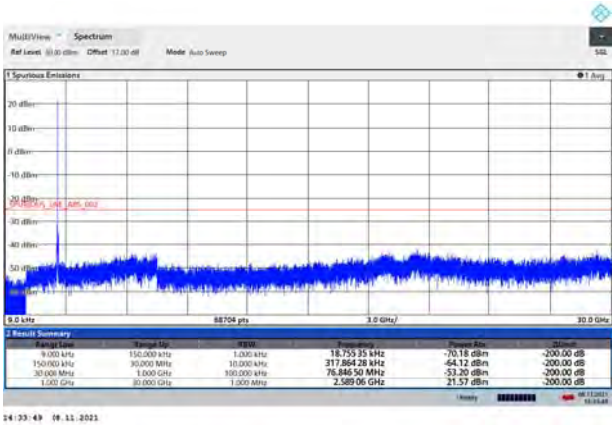
CA_38C 16QAM 20MHz+20MHz CH-High
9kHz~30GHz



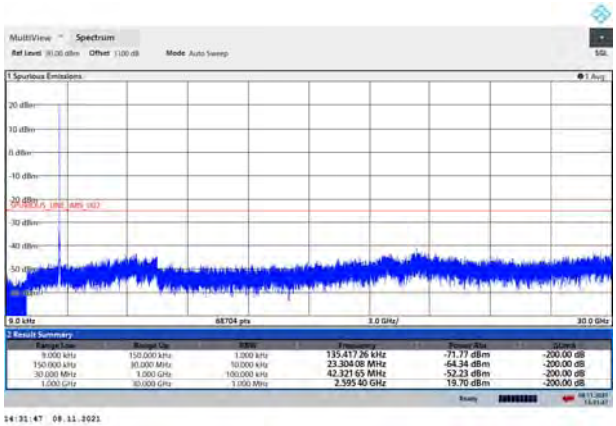
CA_38C 64QAM 15MHz+15MHz CH- Low
9kHz~30GHz



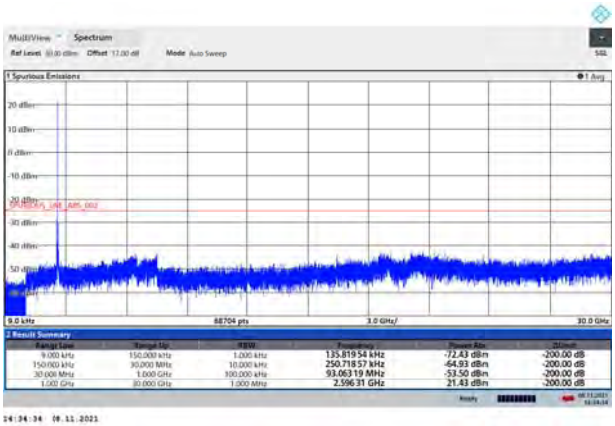
CA_38C 64QAM 20MHz+20MHz CH- Low
9kHz~30GHz



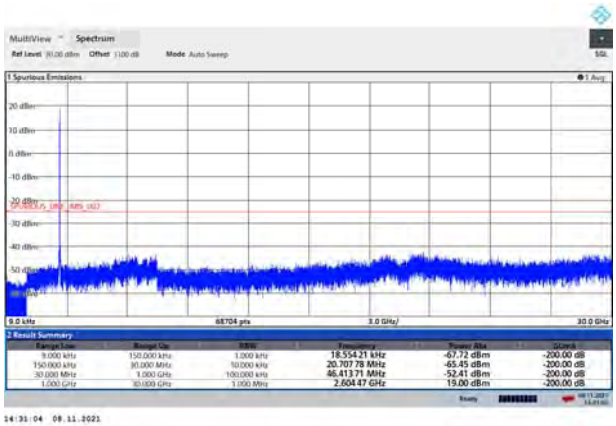
CA_38C 64QAM 15MHz+15MHz CH- Middle
9kHz~30GHz



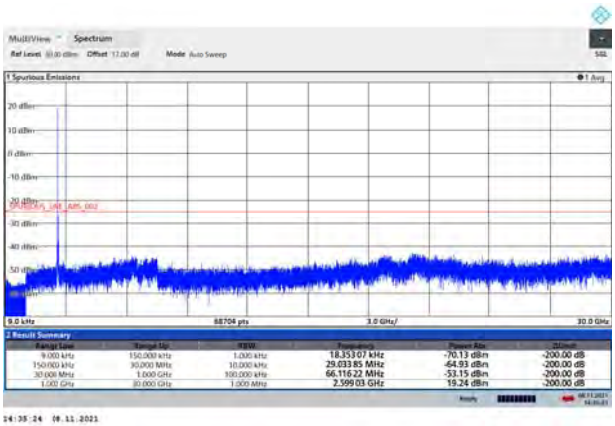
CA_38C 64QAM 20MHz+20MHz CH- Middle
9kHz~30GHz



CA_38C 64QAM 15MHz+15MHz CH-High
9kHz~30GHz



CA_38C 64QAM 20MHz+20MHz CH-High
9kHz~30GHz



5.7 Radiates Spurious Emission

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

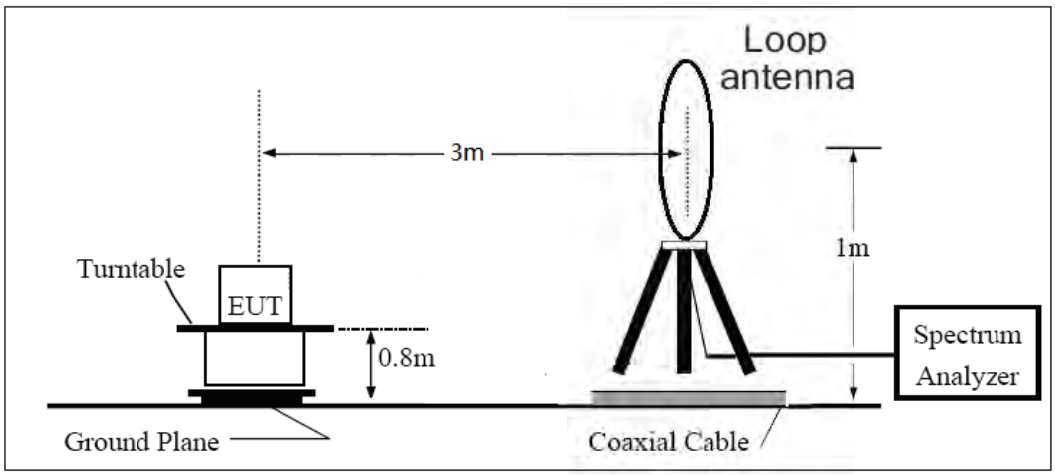
Method of Measurement

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=100kHz, VBW=300kHz for 30MHz to 1GHz and RBW=1MHz, VBW=3MHz for above 1GHz, and the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
7. The measurement results are obtained as described below:
Power(EIRP)=PMea- PAg - Pcl + Ga
The measurement results are amend as described below:
Power(EIRP)=PMea- Pcl + Ga
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP-2.15dB.

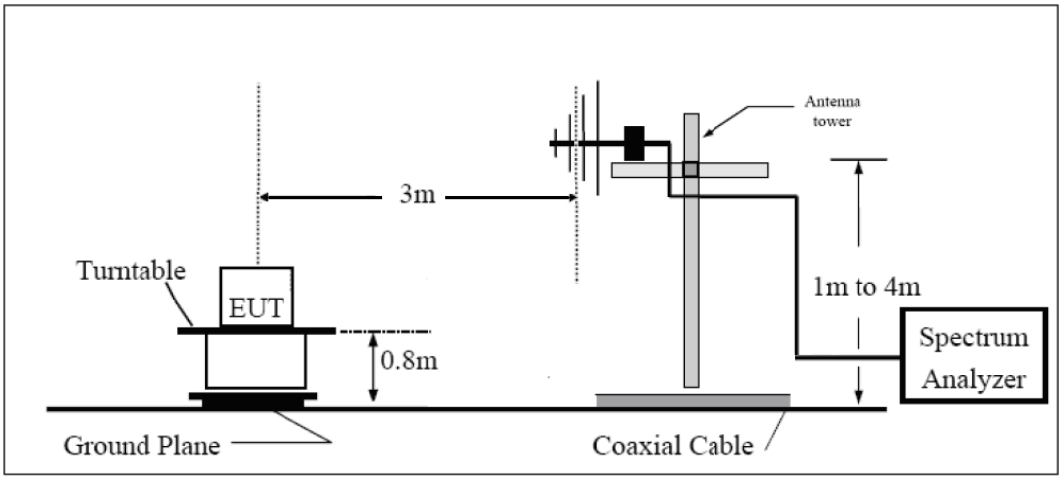
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

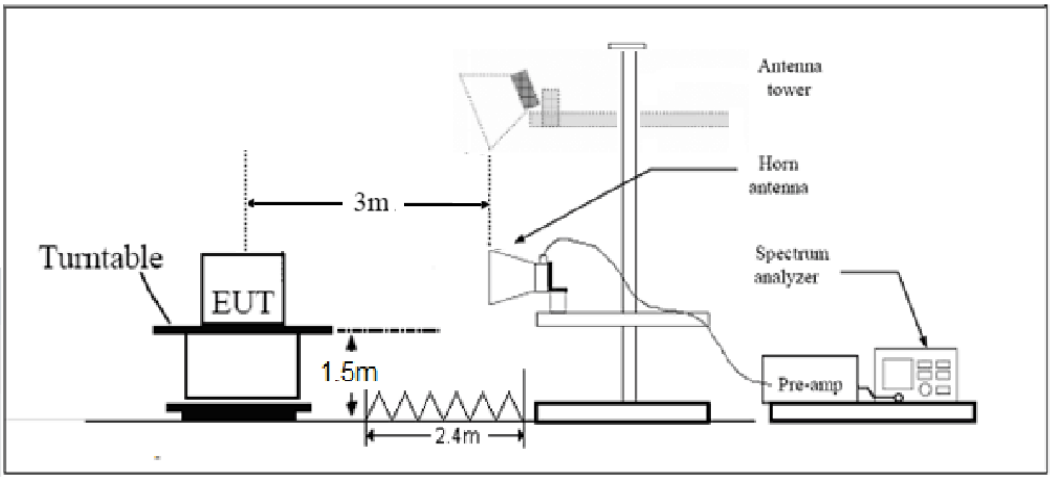
9KHz ~ 30MHz



30MHz ~ 1GHz



Above 1GHz



Note: Area side: 2.4mX3.6m

Limits

Rule Part 27.53(h) specifies that “for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.”
Rule Part 27.53(m) 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(4) of this section.

Part 27.53(h) Limit	-13 dBm
Part 27.53(m) Limit	-25 dBm

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95％ confidence level for the normal distribution is with the coverage factor k = ±1.96, U= ±3.55 dB.

Test Result

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.

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	-63.23	2.70	12.70	Horizontal	-53.23	-13.00	40.23	90
3	5197.80	-65.49	3.20	12.50	Horizontal	-56.19	-13.00	43.19	135
4	6930.40	-60.57	4.20	11.80	Horizontal	-52.97	-13.00	39.97	45
5	8663.00	-57.56	4.40	12.50	Horizontal	-49.46	-13.00	36.46	225
6	10395.60	-53.02	4.70	11.30	Horizontal	-46.42	-13.00	33.42	0
7	12128.20	-55.60	5.20	13.80	Horizontal	-47.00	-13.00	34.00	0
8	13860.80	-47.98	5.70	11.30	Horizontal	-42.38	-13.00	29.38	45
9	15593.40	-57.32	6.10	16.80	Horizontal	-46.62	-13.00	33.62	315
10	17326.00	-50.27	6.10	14.20	Horizontal	-42.17	-13.00	29.17	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 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	-61.11	2.70	12.70	Horizontal	-51.11	-13.00	38.11	45
3	5197.50	-60.61	3.20	12.50	Horizontal	-51.31	-13.00	38.31	135
4	6930.00	-59.54	4.20	11.80	Horizontal	-51.94	-13.00	38.94	315
5	8662.50	-57.07	4.40	12.50	Horizontal	-48.97	-13.00	35.97	0
6	10395.00	-53.92	4.70	11.30	Horizontal	-47.32	-13.00	34.32	45
7	12127.50	-54.01	5.20	13.80	Horizontal	-45.41	-13.00	32.41	90
8	13860.00	-48.47	5.70	11.30	Horizontal	-42.87	-13.00	29.87	225
9	15592.50	-57.19	6.10	16.80	Horizontal	-46.49	-13.00	33.49	45
10	17325.00	-49.31	6.10	14.20	Horizontal	-41.21	-13.00	28.21	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 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	-61.28	2.70	12.70	Horizontal	-51.28	-13.00	38.28	90
3	5191.50	-61.12	3.20	12.50	Horizontal	-51.82	-13.00	38.82	0
4	6930.00	-58.35	4.20	11.80	Horizontal	-50.75	-13.00	37.75	0
5	8662.50	-55.57	4.40	12.50	Horizontal	-47.47	-13.00	34.47	45
6	10395.00	-54.92	4.70	11.30	Horizontal	-48.32	-13.00	35.32	135
7	12127.50	-54.82	5.20	13.80	Horizontal	-46.22	-13.00	33.22	270
8	13860.00	-49.43	5.70	11.30	Horizontal	-43.83	-13.00	30.83	90
9	15592.50	-57.25	6.10	16.80	Horizontal	-46.55	-13.00	33.55	45
10	17325.00	-51.22	6.10	14.20	Horizontal	-43.12	-13.00	30.12	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 Horizontal 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	3465.00	-60.48	2.70	12.70	Horizontal	-50.48	-13.00	37.48	45
3	5170.88	-61.77	3.20	12.50	Horizontal	-52.47	-13.00	39.47	270
4	6930.00	-59.89	4.20	11.80	Horizontal	-52.29	-13.00	39.29	180
5	8662.50	-57.76	4.40	12.50	Horizontal	-49.66	-13.00	36.66	0
6	10395.00	-53.18	4.70	11.30	Horizontal	-46.58	-13.00	33.58	90
7	12127.50	-52.96	5.20	13.80	Horizontal	-44.36	-13.00	31.36	135
8	13860.00	-48.69	5.70	11.30	Horizontal	-43.09	-13.00	30.09	90
9	15592.50	-56.12	6.10	16.80	Horizontal	-45.42	-13.00	32.42	45
10	17325.00	-48.71	6.10	14.20	Horizontal	-40.61	-13.00	27.61	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 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	5065.80	-62.88	3.40	12.50	Horizontal	-53.78	-25.00	28.78	0
3	7598.60	-57.01	4.40	12.20	Horizontal	-49.21	-25.00	24.21	45
4	10130.63	-52.14	4.70	11.30	Horizontal	-45.54	-25.00	20.54	315
5	12675.00	-53.97	5.40	13.20	Horizontal	-46.17	-25.00	21.17	90
6	15210.00	-52.33	6.10	13.10	Horizontal	-45.33	-25.00	20.33	45
7	17745.00	-52.12	6.10	14.20	Horizontal	-44.02	-25.00	19.02	135
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 Horizontal 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	5052.20	-62.50	3.40	12.50	Horizontal	-53.40	-25.00	28.40	45
3	7578.30	-57.92	4.40	12.20	Horizontal	-50.12	-25.00	25.12	270
4	10104.40	-52.35	4.70	11.30	Horizontal	-45.75	-25.00	20.75	135
5	12630.50	-53.36	5.40	13.20	Horizontal	-45.56	-25.00	20.56	90
6	15156.60	-53.11	6.10	13.10	Horizontal	-46.11	-25.00	21.11	45
7	17745.00	-50.31	6.10	14.20	Horizontal	-42.21	-25.00	17.21	180
8	20208.80	--	--	--	--	--	--	--	--
9	22734.90	--	--	--	--	--	--	--	--
10	25261.00	--	--	--	--	--	--	--	--
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 Horizontal 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	-55.69	3.20	12.50	Horizontal	-46.39	-25.00	21.39	0
3	7777.50	-53.74	4.40	12.30	Horizontal	-45.84	-25.00	20.84	45
4	10370.00	-54.34	4.70	11.80	Horizontal	-47.24	-25.00	22.24	315
5	12962.50	-54.46	5.40	14.00	Horizontal	-45.86	-25.00	20.86	180
6	15555.00	-57.13	6.10	16.80	Horizontal	-46.43	-25.00	21.43	90
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 Horizontal 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	-56.54	3.20	12.50	Horizontal	-47.24	-25.00	22.24	0
3	7755.00	-54.92	4.40	12.30	Horizontal	-47.02	-25.00	22.02	0
4	10340.00	-53.86	4.70	11.80	Horizontal	-46.76	-25.00	21.76	45
5	12925.00	-53.41	5.40	14.00	Horizontal	-44.81	-25.00	19.81	315
6	15510.00	-56.92	6.10	16.80	Horizontal	-46.22	-25.00	21.22	180
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 Horizontal 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	5163.30	-57.08	3.20	12.50	Horizontal	-47.78	-25.00	22.78	90
3	7744.95	-55.24	4.40	12.30	Horizontal	-47.34	-25.00	22.34	45
4	10326.60	-53.29	4.70	11.80	Horizontal	-46.19	-25.00	21.19	180
5	12908.25	-52.59	5.40	14.00	Horizontal	-43.99	-25.00	18.99	270
6	15489.90	-55.82	6.10	16.80	Horizontal	-45.12	-25.00	20.12	135
7	18071.55	--	--	--	--	--	--	--	--
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 Horizontal 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	5149.60	-61.25	3.20	12.50	Horizontal	-51.95	-25.00	26.95	315
3	7724.40	-52.22	4.40	12.30	Horizontal	-44.32	-25.00	19.32	0
4	10299.20	-53.74	4.70	11.80	Horizontal	-46.64	-25.00	21.64	45
5	12874.00	-52.62	5.40	14.00	Horizontal	-44.02	-25.00	19.02	315
6	15448.80	-57.26	6.10	16.80	Horizontal	-46.56	-25.00	21.56	90
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 Horizontal position.									

CA_7C 15MHz +15MHz 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	5056.60	-64.04	3.40	12.50	Horizontal	-54.94	-25.00	29.94	315
3	7562.40	-58.58	4.40	12.20	Horizontal	-50.78	-25.00	25.78	135
4	10113.20	-52.31	4.70	11.30	Horizontal	-45.71	-25.00	20.71	0
5	12641.50	-52.87	5.40	13.20	Horizontal	-45.07	-25.00	20.07	90
6	15169.80	-52.17	6.10	13.10	Horizontal	-45.17	-25.00	20.17	45
7	17698.10	-52.01	6.10	14.20	Horizontal	-43.91	-25.00	18.91	270
8	20226.40	--	--	--	--	--	--	--	--
9	22754.70	--	--	--	--	--	--	--	--
10	25283.00	--	--	--	--	--	--	--	--
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 Horizontal position.									

CA_7C 10MHz +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	5052.24	-63.33	3.40	12.50	Horizontal	-54.23	-25.00	29.23	0
3	7578.36	-56.27	4.40	12.20	Horizontal	-48.47	-25.00	23.47	90
4	10104.48	-54.22	4.70	11.30	Horizontal	-47.62	-25.00	22.62	45
5	12630.60	-52.85	5.40	13.20	Horizontal	-45.05	-25.00	20.05	180
6	15156.72	-54.67	6.10	13.10	Horizontal	-47.67	-25.00	22.67	135
7	17682.84	-52.60	6.10	14.20	Horizontal	-44.50	-25.00	19.50	90
8	20208.96	--	--	--	--	--	--	--	--
9	22735.08	--	--	--	--	--	--	--	--
10	25261.20	--	--	--	--	--	--	--	--
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.									

CA_7C 20MHz +10MHz 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	5061.24	-63.85	3.40	12.50	Horizontal	-54.75	-25.00	29.75	0
3	7591.86	-57.65	4.40	12.20	Horizontal	-49.85	-25.00	24.85	0
4	10122.48	-52.86	4.70	11.30	Horizontal	-46.26	-25.00	21.26	45
5	12653.10	-53.63	5.40	13.20	Horizontal	-45.83	-25.00	20.83	90
6	15183.72	-53.03	6.10	13.10	Horizontal	-46.03	-25.00	21.03	45
7	17714.34	-51.72	6.10	14.20	Horizontal	-43.62	-25.00	18.62	315
8	20244.96	--	--	--	--	--	--	--	--
9	22775.58	--	--	--	--	--	--	--	--
10	25306.20	--	--	--	--	--	--	--	--
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.									

CA_7C 20MHz +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	5052.14	-63.61	3.40	12.50	Horizontal	-54.51	-25.00	29.51	45
3	7578.21	-58.88	4.40	12.20	Horizontal	-51.08	-25.00	26.08	135
4	10104.28	-52.08	4.70	11.30	Horizontal	-45.48	-25.00	20.48	270
5	12630.35	-54.57	5.40	13.20	Horizontal	-46.77	-25.00	21.77	90
6	15156.42	-53.92	6.10	13.10	Horizontal	-46.92	-25.00	21.92	45
7	17682.49	-51.38	6.10	14.20	Horizontal	-43.28	-25.00	18.28	270
8	20208.56	--	--	--	--	--	--	--	--
9	22734.63	--	--	--	--	--	--	--	--
10	25260.70	--	--	--	--	--	--	--	--
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.									

CA_38C 15MHz+15MHz 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	5161.96	-63.25	3.20	12.50	Horizontal	-53.95	-25.00	28.95	45
3	7742.94	-56.62	4.40	12.30	Horizontal	-48.72	-25.00	23.72	315
4	10323.92	-55.17	4.70	11.80	Horizontal	-48.07	-25.00	23.07	45
5	12904.90	-55.22	5.40	14.00	Horizontal	-46.62	-25.00	21.62	225
6	15485.88	-56.36	6.10	16.80	Horizontal	-45.66	-25.00	20.66	90
7	18066.86	--	--	--	--	--	--	--	--
8	20647.84	--	--	--	--	--	--	--	--
9	23228.82	--	--	--	--	--	--	--	--
10	25809.80	--	--	--	--	--	--	--	--
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.									

CA_38C 20MHz+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	5152.40	-64.81	3.20	12.50	Horizontal	-55.51	-25.00	30.51	45
3	7728.60	-57.00	4.40	12.30	Horizontal	-49.10	-25.00	24.10	270
4	10304.80	-53.73	4.70	11.80	Horizontal	-46.63	-25.00	21.63	90
5	12881.00	-52.73	5.40	14.00	Horizontal	-44.13	-25.00	19.13	45
6	15457.20	-56.33	6.10	16.80	Horizontal	-45.63	-25.00	20.63	315
7	18033.40	--	--	--	--	--	--	--	--
8	20609.60	--	--	--	--	--	--	--	--
9	23185.80	--	--	--	--	--	--	--	--
10	25762.00	--	--	--	--	--	--	--	--
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 Horizontal position.									

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	-63.48	2.70	12.70	Horizontal	-53.48	-13.00	40.48	135
3	5197.80	-64.13	3.20	12.50	Horizontal	-54.83	-13.00	41.83	45
4	6930.40	-60.45	4.20	11.80	Horizontal	-52.85	-13.00	39.85	0
5	8663.00	-57.78	4.40	12.50	Horizontal	-49.68	-13.00	36.68	90
6	10395.60	-54.62	4.70	11.30	Horizontal	-48.02	-13.00	35.02	225
7	12128.20	-56.39	5.20	13.80	Horizontal	-47.79	-13.00	34.79	315
8	13860.80	-49.28	5.70	11.30	Horizontal	-43.68	-13.00	30.68	45
9	15593.40	-59.40	6.10	16.80	Horizontal	-48.70	-13.00	35.70	180
10	17326.00	-51.75	6.10	14.20	Horizontal	-43.65	-13.00	30.65	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 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	3464.25	-57.83	2.70	12.70	Horizontal	-47.83	-13.00	34.83	45
3	5197.50	-60.99	3.20	12.50	Horizontal	-51.69	-13.00	38.69	270
4	6930.00	-59.48	4.20	11.80	Horizontal	-51.88	-13.00	38.88	45
5	8662.50	-56.66	4.40	12.50	Horizontal	-48.56	-13.00	35.56	225
6	10395.00	-53.92	4.70	11.30	Horizontal	-47.32	-13.00	34.32	180
7	12127.50	-54.53	5.20	13.80	Horizontal	-45.93	-13.00	32.93	45
8	13860.00	-48.79	5.70	11.30	Horizontal	-43.19	-13.00	30.19	315
9	15592.50	-55.91	6.10	16.80	Horizontal	-45.21	-13.00	32.21	0
10	17325.00	-51.72	6.10	14.20	Horizontal	-43.62	-13.00	30.62	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 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	-55.51	2.70	12.70	Horizontal	-45.51	-13.00	32.51	0
3	5191.50	-60.41	3.20	12.50	Horizontal	-51.11	-13.00	38.11	270
4	6930.00	-59.55	4.20	11.80	Horizontal	-51.95	-13.00	38.95	0
5	8662.50	-57.15	4.40	12.50	Horizontal	-49.05	-13.00	36.05	90
6	10395.00	-53.95	4.70	11.30	Horizontal	-47.35	-13.00	34.35	45
7	12127.50	-54.33	5.20	13.80	Horizontal	-45.73	-13.00	32.73	315
8	13860.00	-48.69	5.70	11.30	Horizontal	-43.09	-13.00	30.09	180
9	15592.50	-57.42	6.10	16.80	Horizontal	-46.72	-13.00	33.72	45
10	17325.00	-51.79	6.10	14.20	Horizontal	-43.69	-13.00	30.69	270
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 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	3447.00	-54.25	2.70	12.70	Horizontal	-44.25	-13.00	31.25	45
3	5167.50	-61.52	3.20	12.50	Horizontal	-52.22	-13.00	39.22	90
4	6890.00	-58.01	4.20	11.80	Horizontal	-50.41	-13.00	37.41	135
5	8612.50	-57.93	4.40	12.50	Horizontal	-49.83	-13.00	36.83	225
6	10335.00	-54.29	4.70	11.30	Horizontal	-47.69	-13.00	34.69	315
7	12057.50	-55.38	5.20	13.80	Horizontal	-46.78	-13.00	33.78	0
8	13780.00	-48.64	5.70	11.30	Horizontal	-43.04	-13.00	30.04	180
9	15502.50	-57.72	6.10	16.80	Horizontal	-47.02	-13.00	34.02	90
10	17225.00	-51.58	6.10	14.20	Horizontal	-43.48	-13.00	30.48	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 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	5065.80	-64.08	3.40	12.50	Horizontal	-54.98	-25.00	29.98	270
3	7598.60	-58.13	4.40	12.20	Horizontal	-50.33	-25.00	25.33	45
4	10130.63	-52.84	4.70	11.30	Horizontal	-46.24	-25.00	21.24	225
5	12675.00	-55.50	5.40	13.20	Horizontal	-47.70	-25.00	22.70	0
6	15210.00	-52.77	6.10	13.10	Horizontal	-45.77	-25.00	20.77	315
7	17745.00	-53.11	6.10	14.20	Horizontal	-45.01	-25.00	20.01	90
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 Horizontal 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	5052.20	-63.96	3.40	12.50	Horizontal	-54.86	-25.00	29.86	45
3	7578.30	-58.34	4.40	12.20	Horizontal	-50.54	-25.00	25.54	135
4	10104.40	-54.00	4.70	11.30	Horizontal	-47.40	-25.00	22.40	225
5	12630.50	-54.49	5.40	13.20	Horizontal	-46.69	-25.00	21.69	0
6	15156.60	-52.94	6.10	13.10	Horizontal	-45.94	-25.00	20.94	180
7	17745.00	-53.67	6.10	14.20	Horizontal	-45.57	-25.00	20.57	315
8	20208.80	--	--	--	--	--	--	--	--
9	22734.90	--	--	--	--	--	--	--	--
10	25261.00	--	--	--	--	--	--	--	--
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 Horizontal 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	-65.63	3.20	12.50	Horizontal	-56.33	-25.00	31.33	0
3	7777.50	-57.33	4.40	12.30	Horizontal	-49.43	-25.00	24.43	135
4	10370.00	-54.36	4.70	11.80	Horizontal	-47.26	-25.00	22.26	315
5	12962.50	-52.84	5.40	14.00	Horizontal	-44.24	-25.00	19.24	45
6	15555.00	-57.84	6.10	16.80	Horizontal	-47.14	-25.00	22.14	90
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 Horizontal 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	-64.33	3.20	12.50	Horizontal	-55.03	-25.00	30.03	225
3	7755.00	-57.75	4.40	12.30	Horizontal	-49.85	-25.00	24.85	135
4	10340.00	-55.49	4.70	11.80	Horizontal	-48.39	-25.00	23.39	0
5	12925.00	-52.35	5.40	14.00	Horizontal	-43.75	-25.00	18.75	90
6	15510.00	-59.94	6.10	16.80	Horizontal	-49.24	-25.00	24.24	180
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 Horizontal 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	5163.30	-64.92	3.20	12.50	Horizontal	-55.62	-25.00	30.62	225
3	7744.95	-59.46	4.40	12.30	Horizontal	-51.56	-25.00	26.56	45
4	10326.60	-53.96	4.70	11.80	Horizontal	-46.86	-25.00	21.86	135
5	12908.25	-54.15	5.40	14.00	Horizontal	-45.55	-25.00	20.55	90
6	15489.90	-57.51	6.10	16.80	Horizontal	-46.81	-25.00	21.81	45
7	18071.55	--	--	--	--	--	--	--	--
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 Horizontal 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	5149.60	-63.83	3.20	12.50	Horizontal	-54.53	-25.00	29.53	45
3	7724.40	-57.23	4.40	12.30	Horizontal	-49.33	-25.00	24.33	135
4	10299.20	-54.23	4.70	11.80	Horizontal	-47.13	-25.00	22.13	90
5	12874.00	-54.23	5.40	14.00	Horizontal	-45.63	-25.00	20.63	135
6	15448.80	-57.82	6.10	16.80	Horizontal	-47.12	-25.00	22.12	90
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 Horizontal position.									

CA_7C 15MHz +15MHz 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	5056.60	-63.09	3.40	12.50	Horizontal	-53.99	-25.00	28.99	0
3	7562.40	-60.15	4.40	12.20	Horizontal	-52.35	-25.00	27.35	270
4	10113.20	-53.82	4.70	11.30	Horizontal	-47.22	-25.00	22.22	90
5	12641.50	-55.26	5.40	13.20	Horizontal	-47.46	-25.00	22.46	135
6	15169.80	-54.03	6.10	13.10	Horizontal	-47.03	-25.00	22.03	180
7	17698.10	-54.00	6.10	14.20	Horizontal	-45.90	-25.00	20.90	90
8	20226.40	--	--	--	--	--	--	--	--
9	22754.70	--	--	--	--	--	--	--	--
10	25283.00	--	--	--	--	--	--	--	--
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 Horizontal position.									

CA_7C 10MHz +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	5052.24	-65.28	3.40	12.50	Horizontal	-56.18	-25.00	31.18	0
3	7578.36	-59.62	4.40	12.20	Horizontal	-51.82	-25.00	26.82	135
4	10104.48	-54.64	4.70	11.30	Horizontal	-48.04	-25.00	23.04	225
5	12630.60	-55.16	5.40	13.20	Horizontal	-47.36	-25.00	22.36	45
6	15156.72	-54.04	6.10	13.10	Horizontal	-47.04	-25.00	22.04	180
7	17682.84	-54.75	6.10	14.20	Horizontal	-46.65	-25.00	21.65	315
8	20208.96	--	--	--	--	--	--	--	--
9	22735.08	--	--	--	--	--	--	--	--
10	25261.20	--	--	--	--	--	--	--	--
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.									

CA_7C 20MHz +10MHz 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	5061.24	-63.83	3.40	12.50	Horizontal	-54.73	-25.00	29.73	135
3	7591.86	-59.62	4.40	12.20	Horizontal	-51.82	-25.00	26.82	225
4	10122.48	-53.09	4.70	11.30	Horizontal	-46.49	-25.00	21.49	0
5	12653.10	-56.13	5.40	13.20	Horizontal	-48.33	-25.00	23.33	90
6	15183.72	-54.31	6.10	13.10	Horizontal	-47.31	-25.00	22.31	315
7	17714.34	-54.10	6.10	14.20	Horizontal	-46.00	-25.00	21.00	180
8	20244.96	--	--	--	--	--	--	--	--
9	22775.58	--	--	--	--	--	--	--	--
10	25306.20	--	--	--	--	--	--	--	--
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.									

CA_7C 20MHz +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	5052.14	-64.47	3.40	12.50	Horizontal	-55.37	-25.00	30.37	45
3	7578.21	-61.40	4.40	12.20	Horizontal	-53.60	-25.00	28.60	180
4	10104.28	-54.68	4.70	11.30	Horizontal	-48.08	-25.00	23.08	270
5	12630.35	-56.89	5.40	13.20	Horizontal	-49.09	-25.00	24.09	0
6	15156.42	-54.34	6.10	13.10	Horizontal	-47.34	-25.00	22.34	90
7	17682.49	-53.47	6.10	14.20	Horizontal	-45.37	-25.00	20.37	315
8	20208.56	--	--	--	--	--	--	--	--
9	22734.63	--	--	--	--	--	--	--	--
10	25260.70	--	--	--	--	--	--	--	--
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.									

CA_38C 15MHz+15MHz 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	5161.96	-65.58	3.20	12.50	Horizontal	-56.28	-25.00	31.28	0
3	7742.94	-57.38	4.40	12.30	Horizontal	-49.48	-25.00	24.48	180
4	10323.92	-54.81	4.70	11.80	Horizontal	-47.71	-25.00	22.71	315
5	12904.90	-55.38	5.40	14.00	Horizontal	-46.78	-25.00	21.78	45
6	15485.88	-58.68	6.10	16.80	Horizontal	-47.98	-25.00	22.98	225
7	18066.86	--	--	--	--	--	--	--	--
8	20647.84	--	--	--	--	--	--	--	--
9	23228.82	--	--	--	--	--	--	--	--
10	25809.80	--	--	--	--	--	--	--	--
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.									

CA_38C 20MHz+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	5152.40	-65.94	3.20	12.50	Horizontal	-56.64	-25.00	31.64	45
3	7728.60	-58.41	4.40	12.30	Horizontal	-50.51	-25.00	25.51	135
4	10304.80	-56.12	4.70	11.80	Horizontal	-49.02	-25.00	24.02	0
5	12881.00	-55.01	5.40	14.00	Horizontal	-46.41	-25.00	21.41	270
6	15457.20	-58.82	6.10	16.80	Horizontal	-48.12	-25.00	23.12	90
7	18033.40	--	--	--	--	--	--	--	--
8	20609.60	--	--	--	--	--	--	--	--
9	23185.80	--	--	--	--	--	--	--	--
10	25762.00	--	--	--	--	--	--	--	--
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 Horizontal position.									

6 Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Climate Chamber	WEISS	VT 4002	582261194500 10	2021-05-15	2022-05-14
Wireless Communication Tester	R&S	CMW500	150415	2021-05-15	2022-05-14
Spectrum Analyzer	Keysight	N9020A	MY52330084	2021-05-15	2022-05-14
Universal Radio Communication Tester	Agilent	E5515C	GB44400275	2021-05-15	2022-05-14
Spectrum Analyzer	R&S	FSV3030	101411	2020-12-13	2021-12-12
Spectrum Analyzer	R&S	FSV30	100815	2020-12-17	2021-12-16
Horn Antenna	Schwarzbeck	BBHA 9120D	01799	2019-09-21	2022-09-20
Horn Antenna	Schwarzbeck	VULB 9163	01439	2021-06-30	2024-06-29
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.