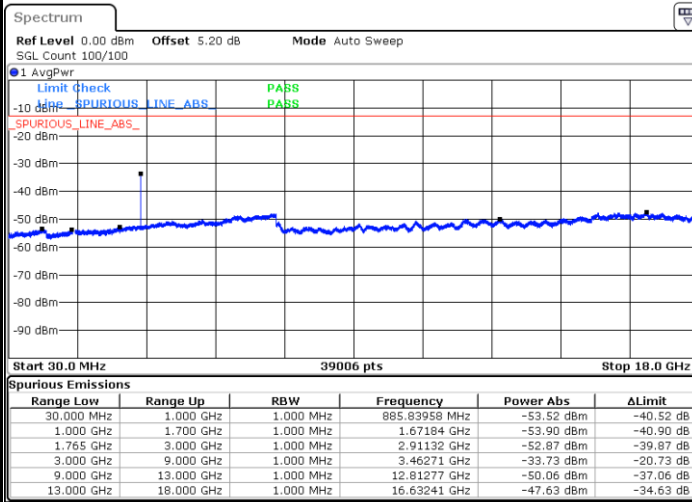




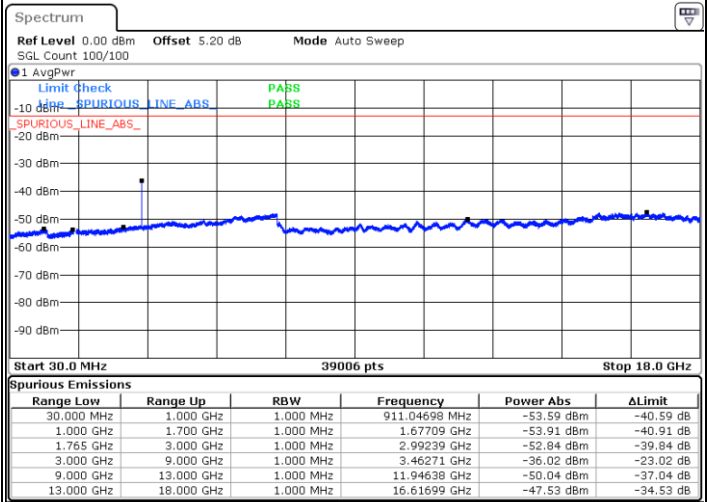
LTE Band 4 / 3MHz

Middle Channel / QPSK



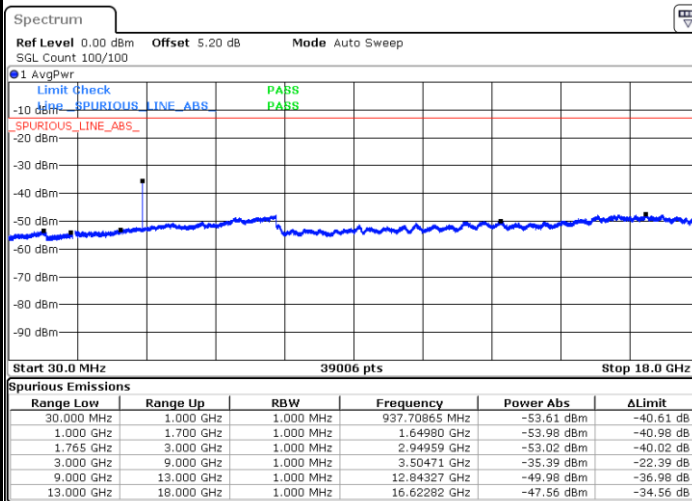
Date: 27 APR 2019 12:06:51

Middle Channel / 16QAM



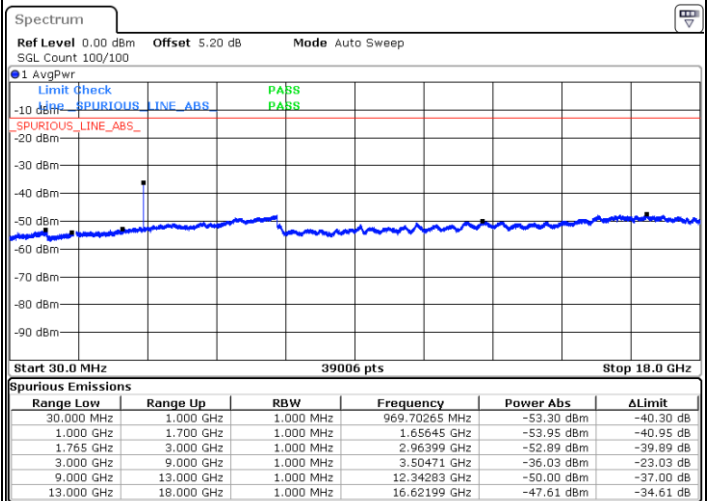
Date: 27 APR 2019 12:07:45

Highest Channel / QPSK



Date: 27 APR 2019 12:13:47

Highest Channel / 16QAM

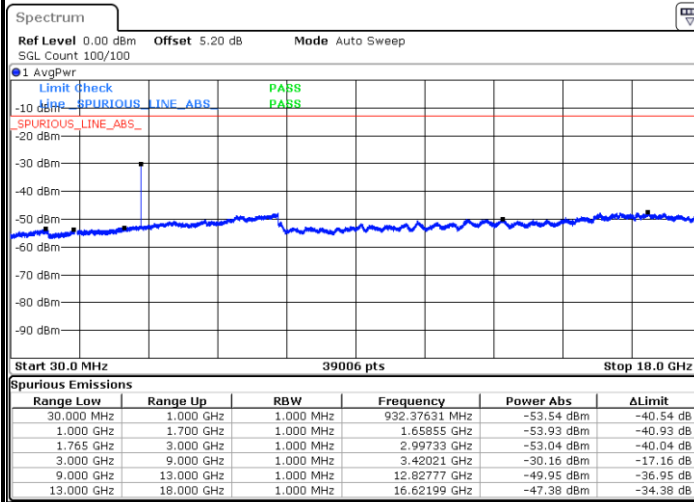


Date: 27 APR 2019 12:14:40



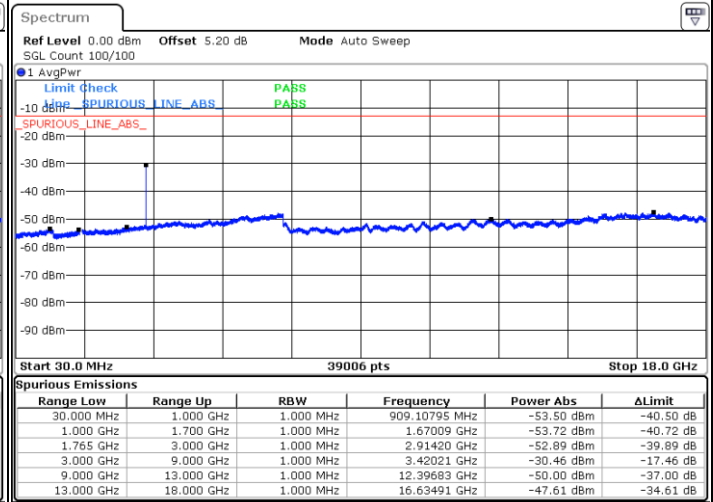
LTE Band 4 / 5MHz

Lowest Channel / QPSK



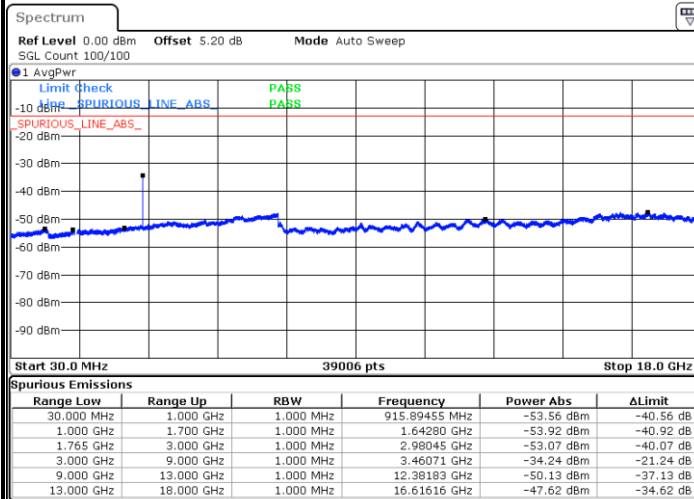
Date: 27 APR 2019 12:20:42

Lowest Channel / 16QAM



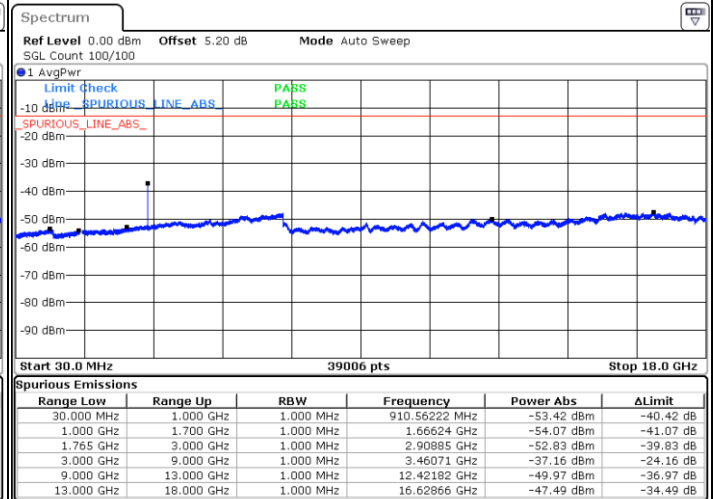
Date: 27 APR 2019 12:21:35

Middle Channel / QPSK



Date: 27 APR 2019 12:23:09

Middle Channel / 16QAM

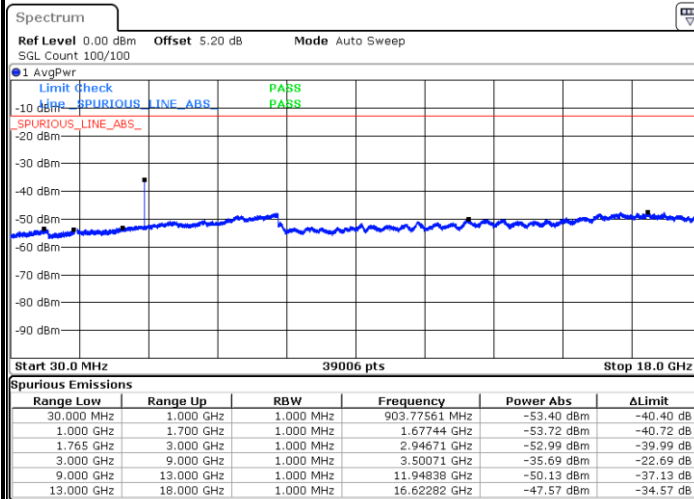


Date: 27 APR 2019 12:24:02



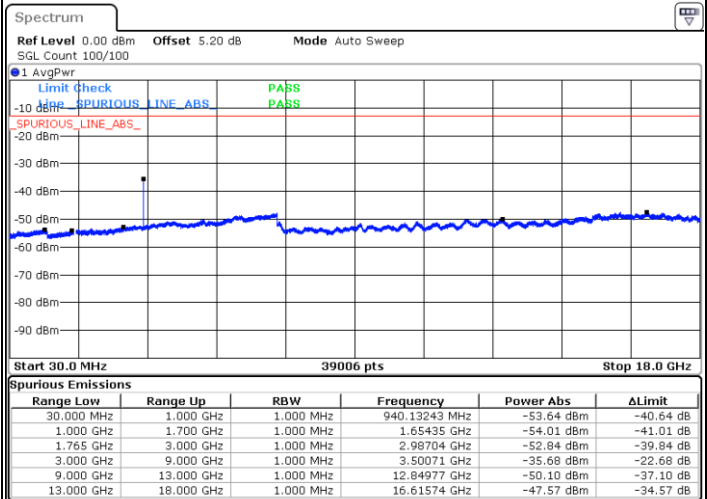
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 27 APR 2019 12:30:04

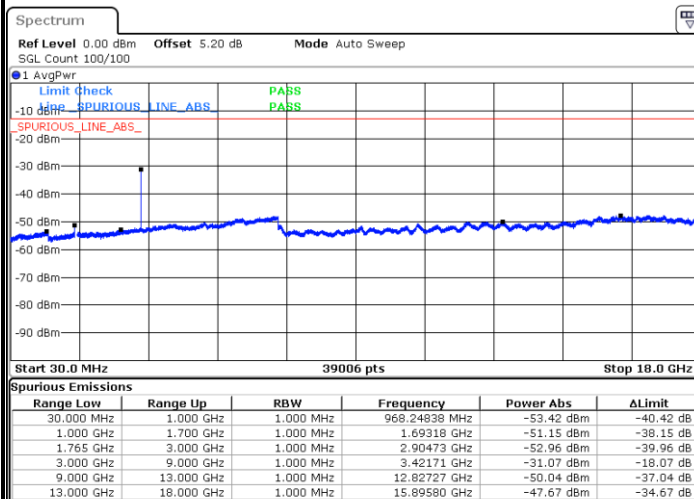
Highest Channel / 16QAM



Date: 27 APR 2019 12:30:58

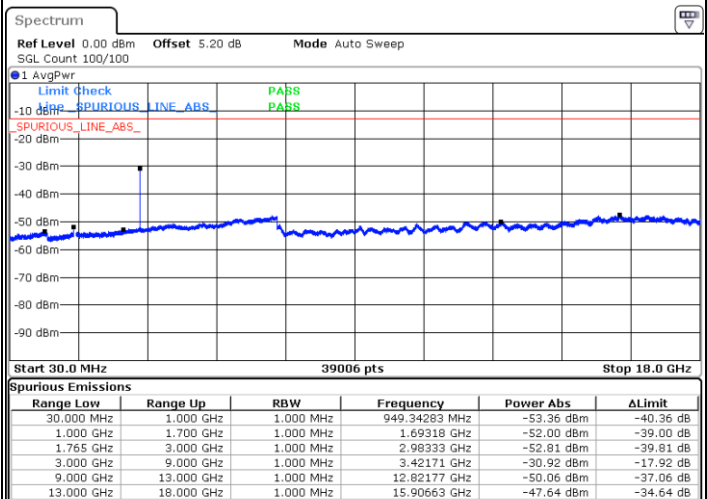
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 27 APR 2019 12:37:02

Lowest Channel / 16QAM

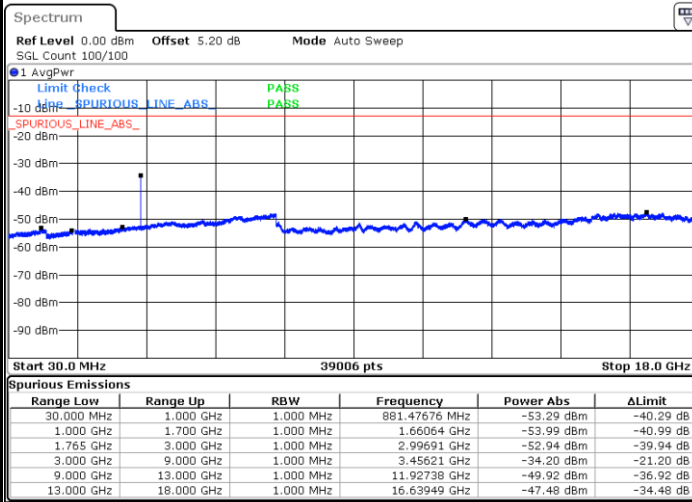


Date: 27 APR 2019 12:37:56



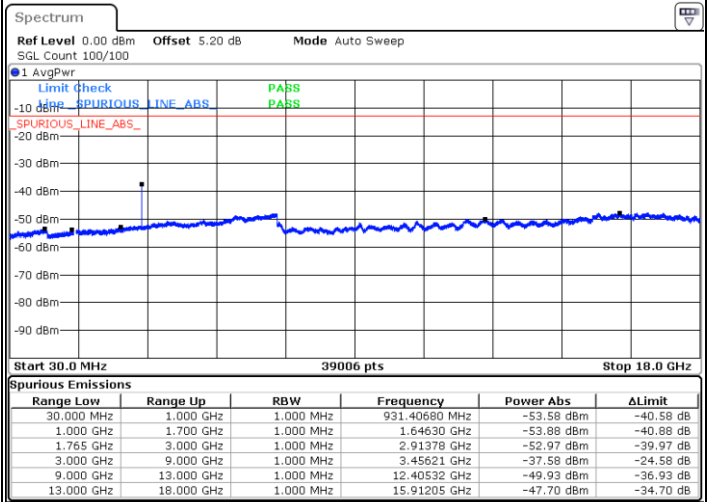
LTE Band 4 / 10MHz

Middle Channel / QPSK



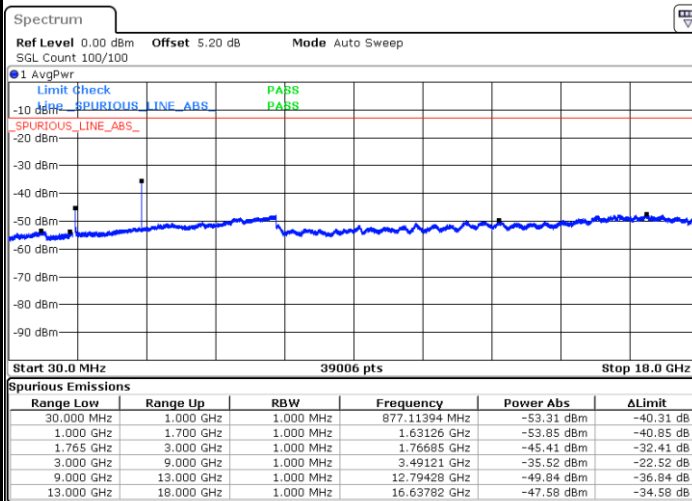
Date: 27 APR 2019 12:39:29

Middle Channel / 16QAM



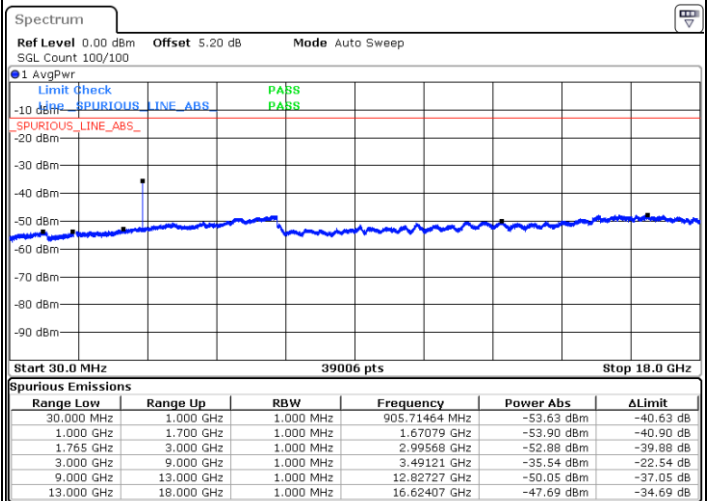
Date: 27 APR 2019 12:40:23

Highest Channel / QPSK



Date: 27 APR 2019 12:46:25

Highest Channel / 16QAM

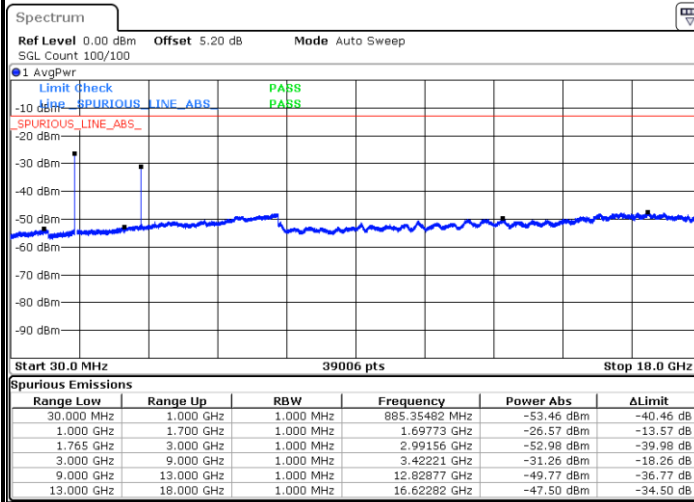


Date: 27 APR 2019 12:47:19



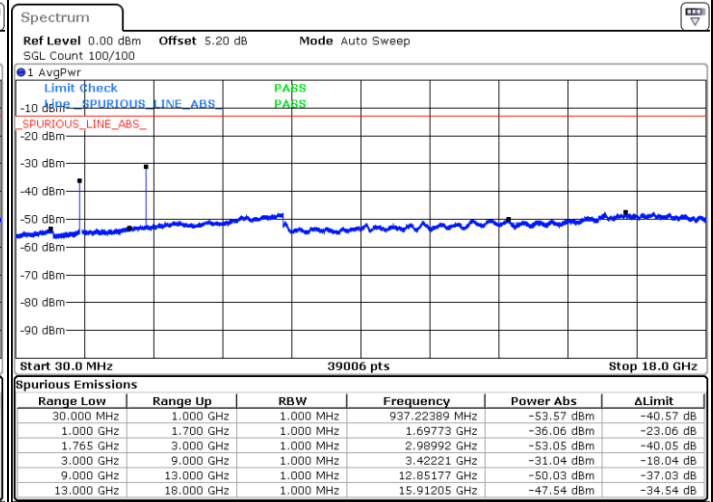
LTE Band 4 / 15MHz

Lowest Channel / QPSK



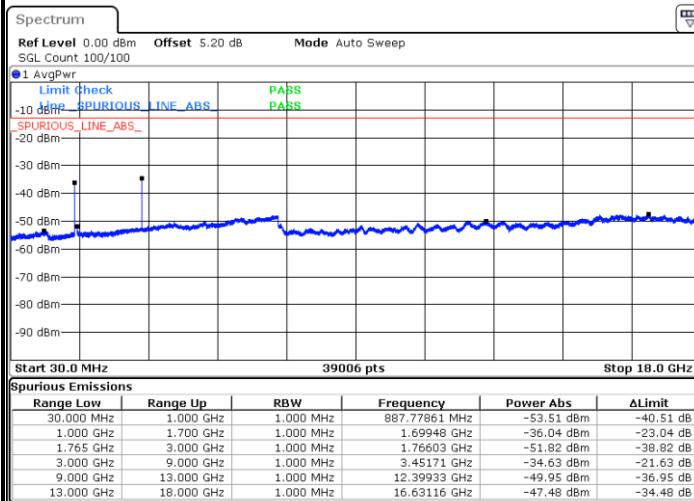
Date: 27 APR 2019 12:53:21

Lowest Channel / 16QAM



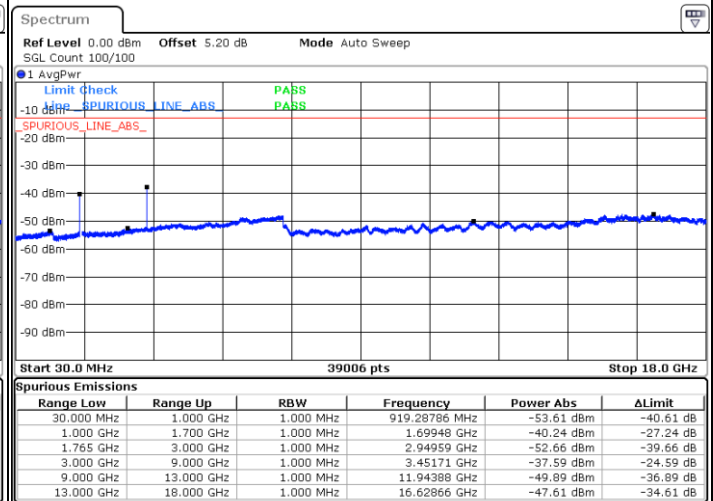
Date: 27 APR 2019 12:54:14

Middle Channel / QPSK



Date: 27 APR 2019 12:55:48

Middle Channel / 16QAM

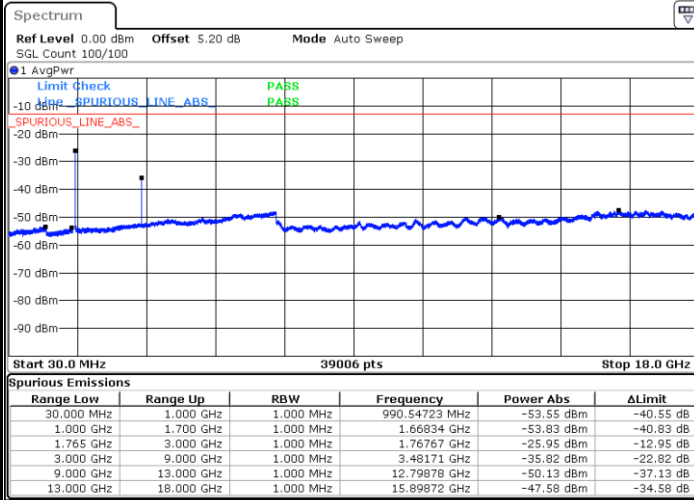


Date: 27 APR 2019 12:56:42



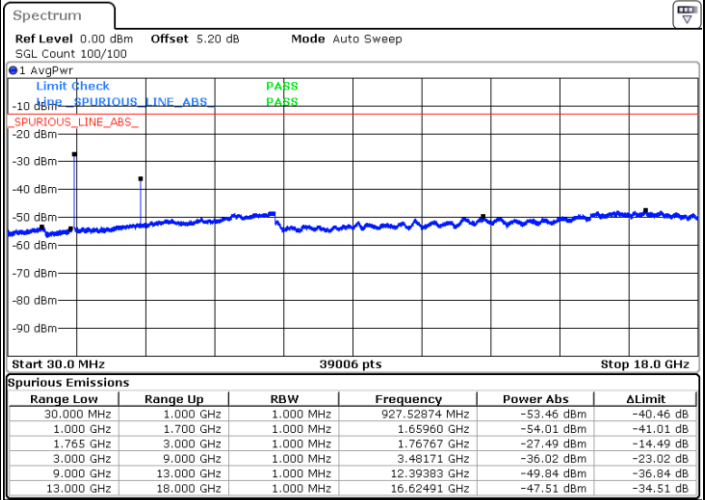
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 27 APR 2019 13:02:44

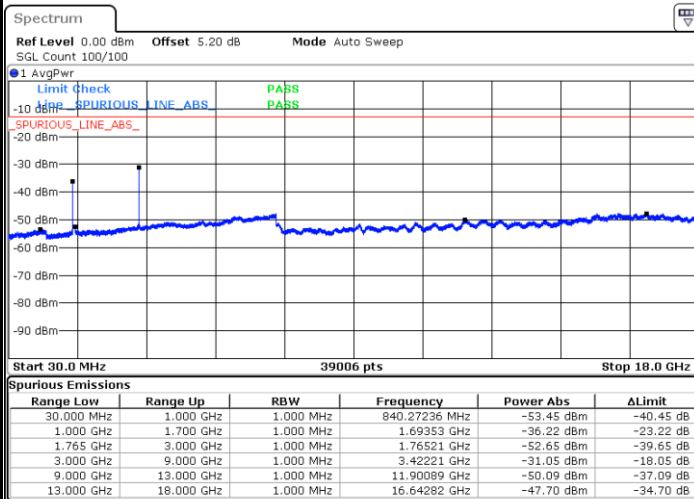
Highest Channel / 16QAM



Date: 27 APR 2019 13:03:38

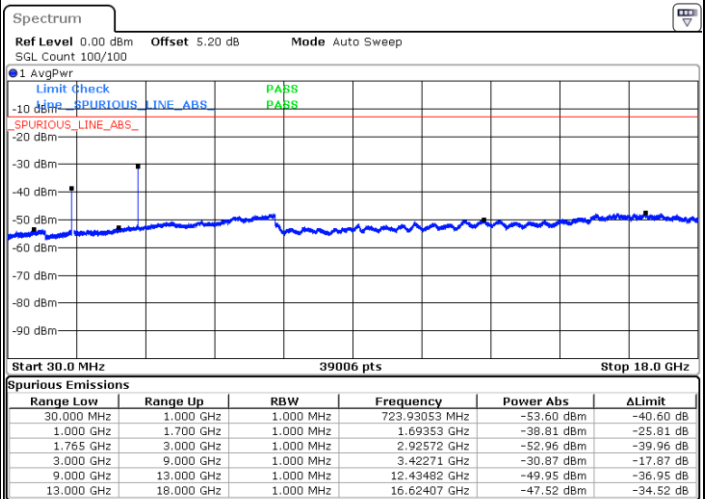
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 27 APR 2019 13:09:39

Lowest Channel / 16QAM

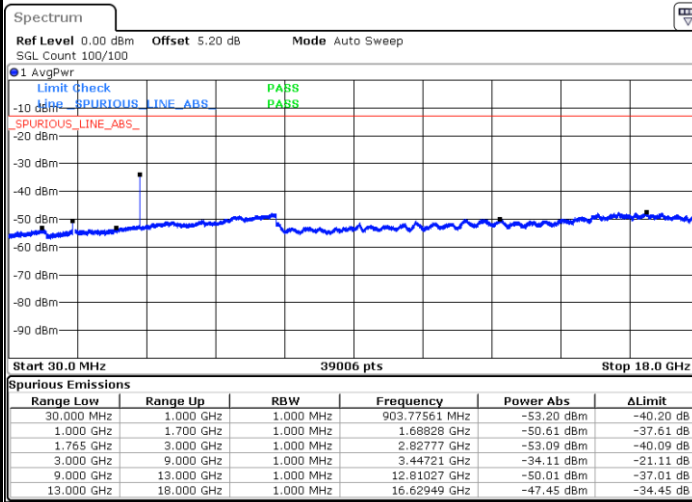


Date: 27 APR 2019 13:10:33



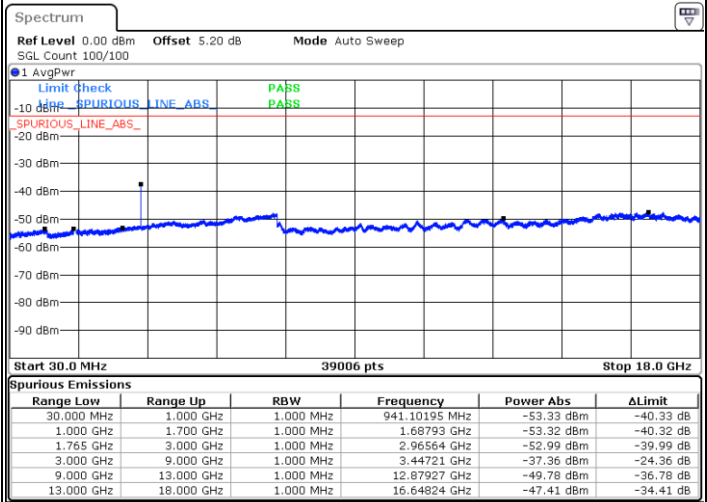
LTE Band 4 / 20MHz

Middle Channel / QPSK



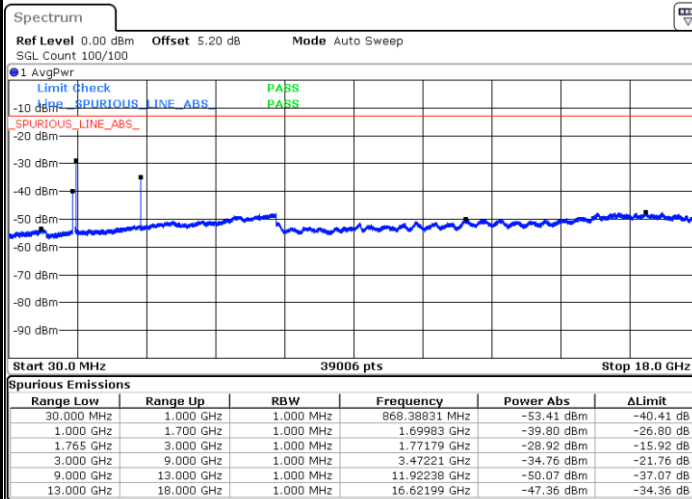
Date: 27 APR 2019 13:12:07

Middle Channel / 16QAM



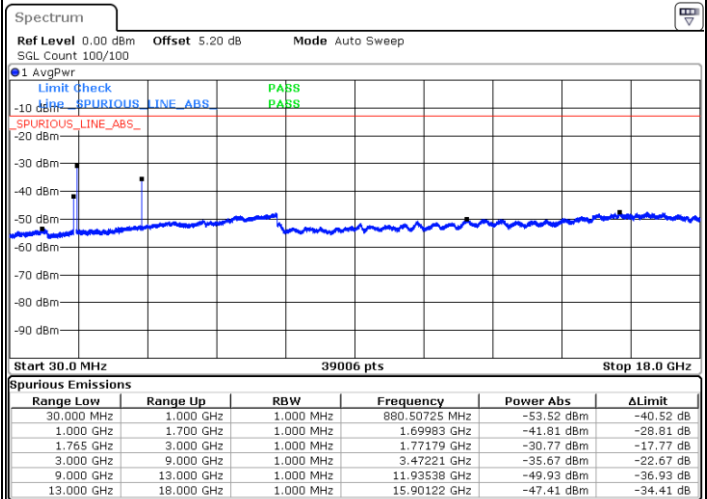
Date: 27 APR 2019 13:13:01

Highest Channel / QPSK



Date: 27 APR 2019 13:19:02

Highest Channel / 16QAM

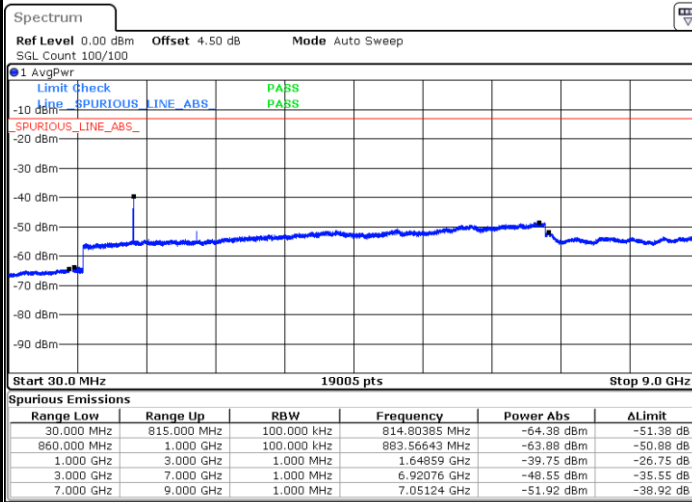


Date: 27 APR 2019 13:19:56



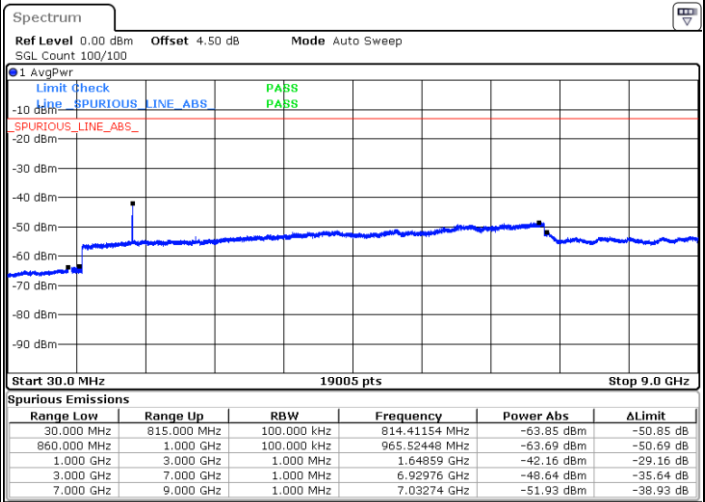
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



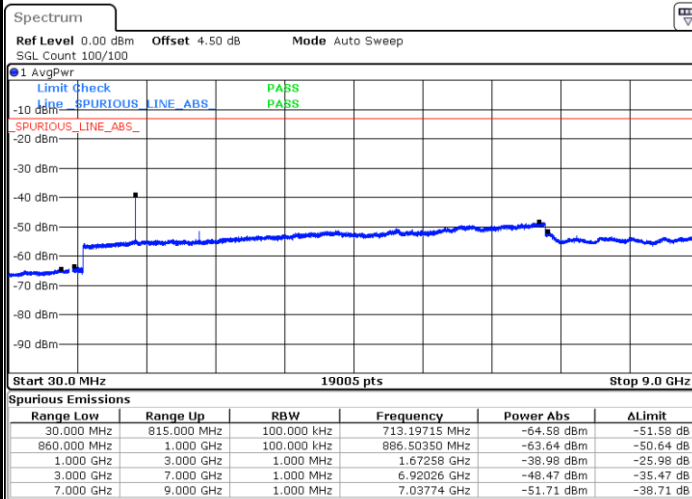
Date: 27 APR 2019 15:25:52

Lowest Channel / 16QAM



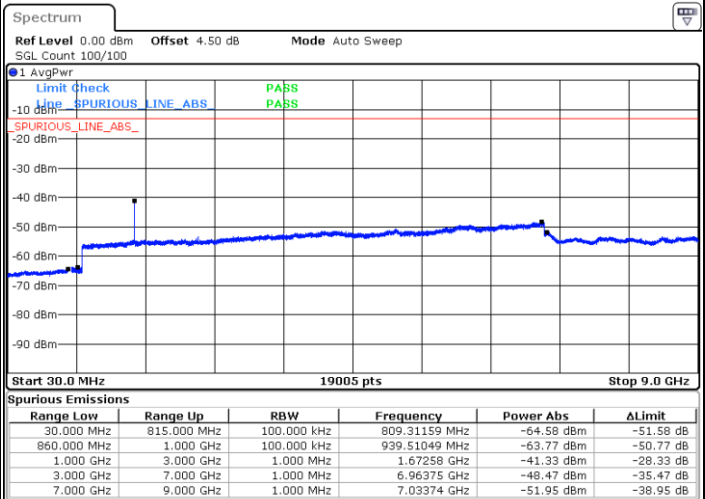
Date: 27 APR 2019 14:13:04

Middle Channel / QPSK



Date: 27 APR 2019 14:14:37

Middle Channel / 16QAM

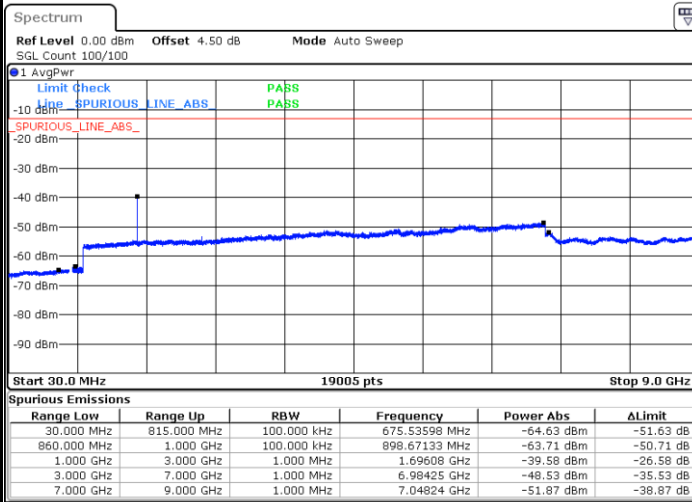


Date: 27 APR 2019 14:15:31



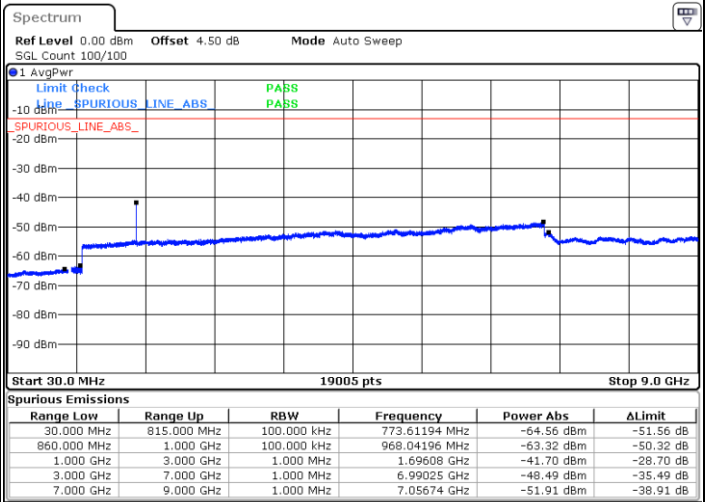
LTE Band 5 / 1.4MHz

Highest Channel / QPSK



Date: 27 APR 2019 14:23:32

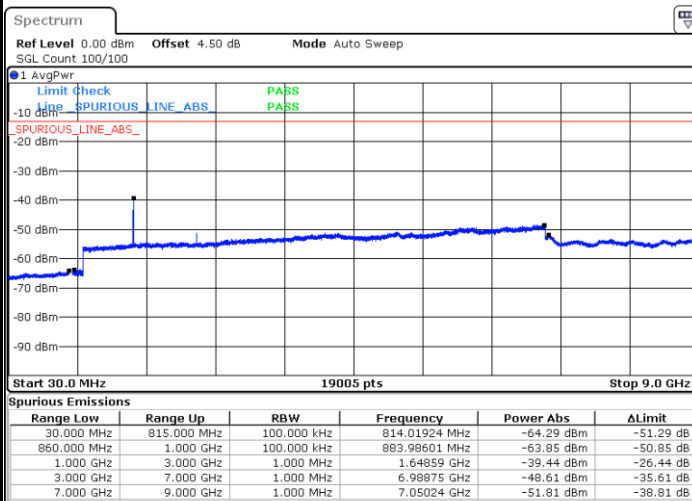
Highest Channel / 16QAM



Date: 27 APR 2019 14:24:26

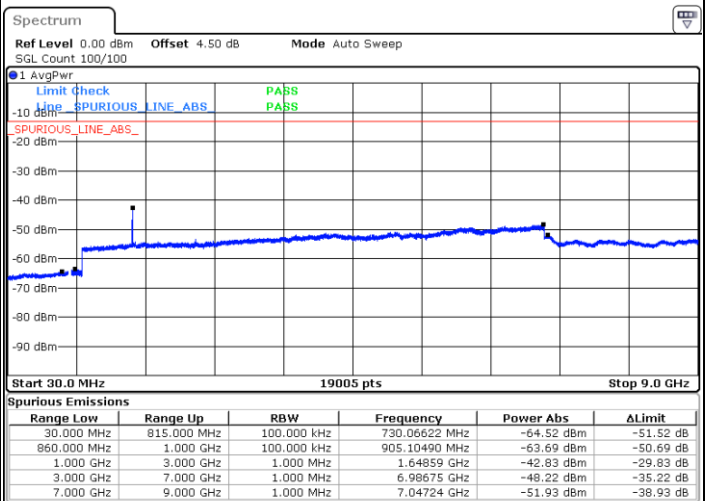
LTE Band 5 / 3MHz

Lowest Channel / QPSK



Date: 27 APR 2019 15:06:52

Lowest Channel / 16QAM

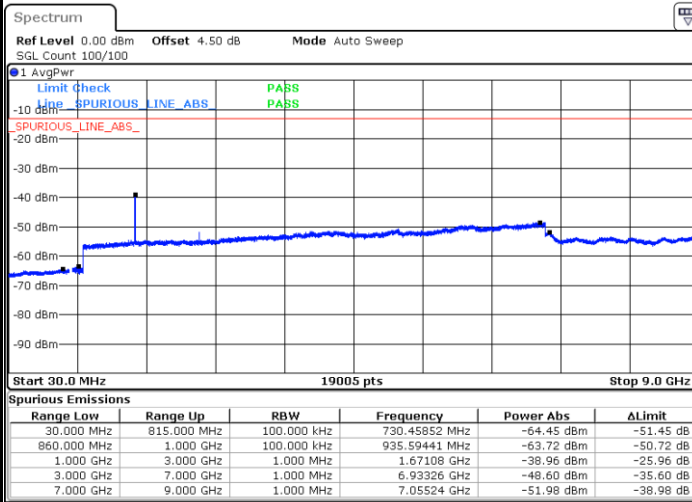


Date: 27 APR 2019 15:07:45



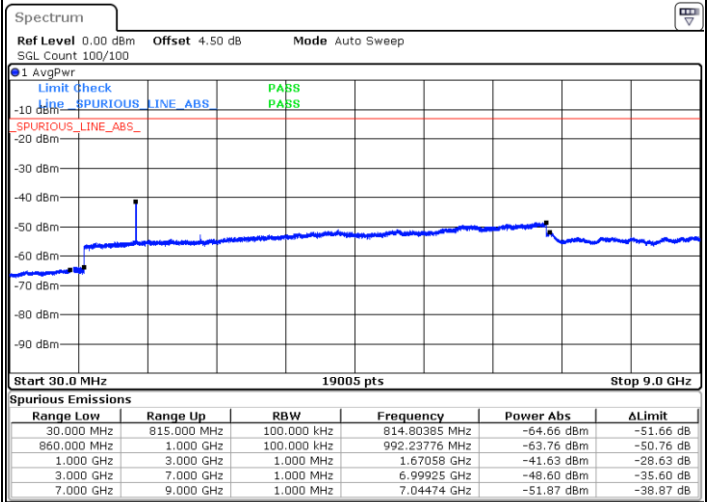
LTE Band 5 / 3MHz

Middle Channel / QPSK



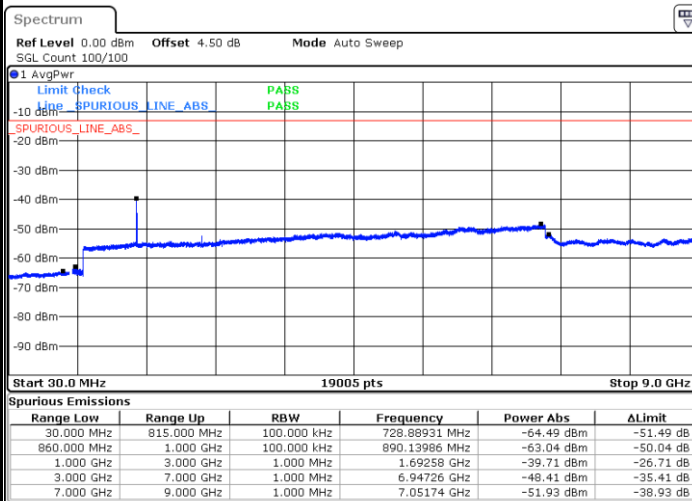
Date: 27 APR 2019 15:09:19

Middle Channel / 16QAM



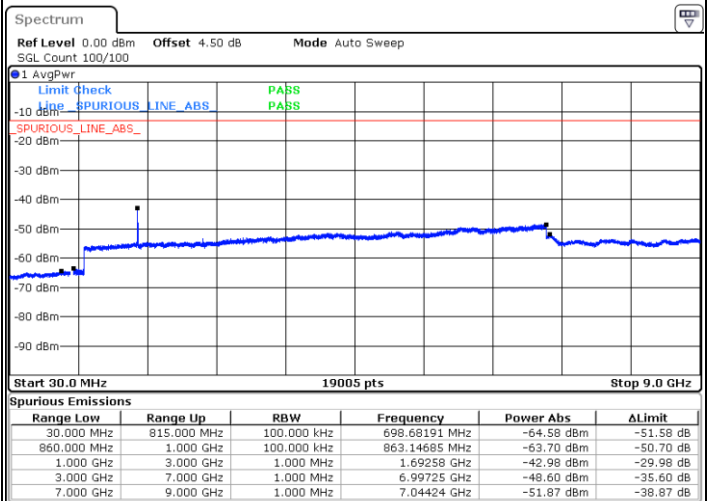
Date: 27 APR 2019 15:10:12

Highest Channel / QPSK



Date: 27 APR 2019 15:18:14

Highest Channel / 16QAM

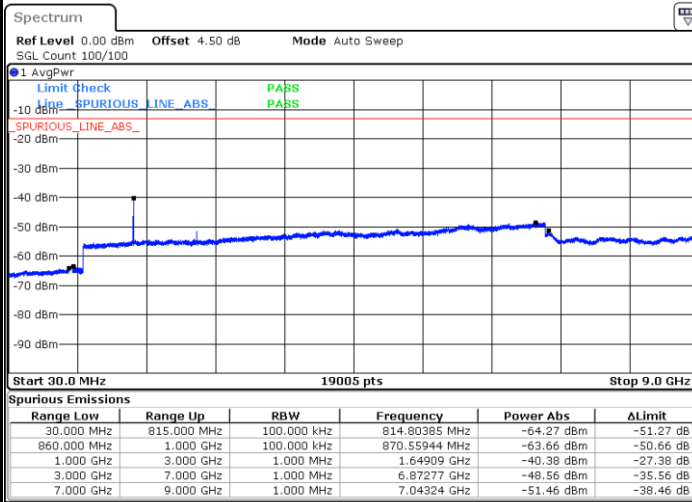


Date: 27 APR 2019 15:19:07



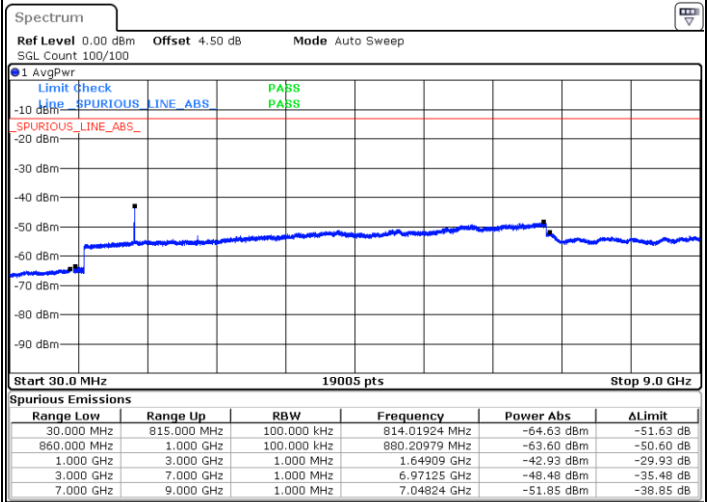
LTE Band 5 / 5MHz

Lowest Channel / QPSK



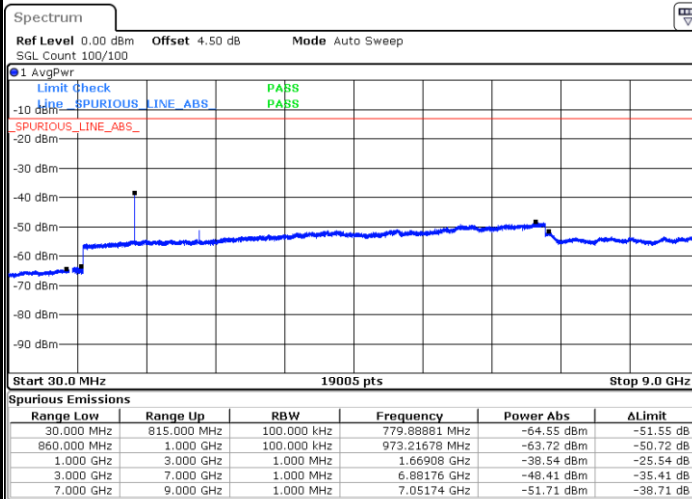
Date: 27 APR 2019 15:21:19

Lowest Channel / 16QAM



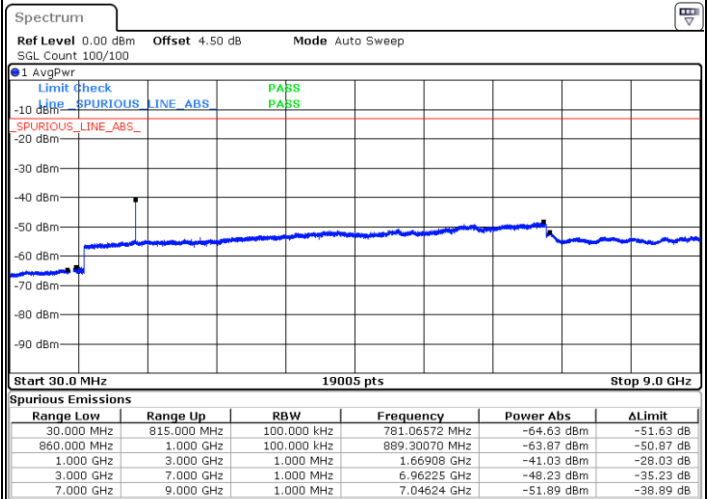
Date: 27 APR 2019 14:25:19

Middle Channel / QPSK



Date: 27 APR 2019 14:26:53

Middle Channel / 16QAM

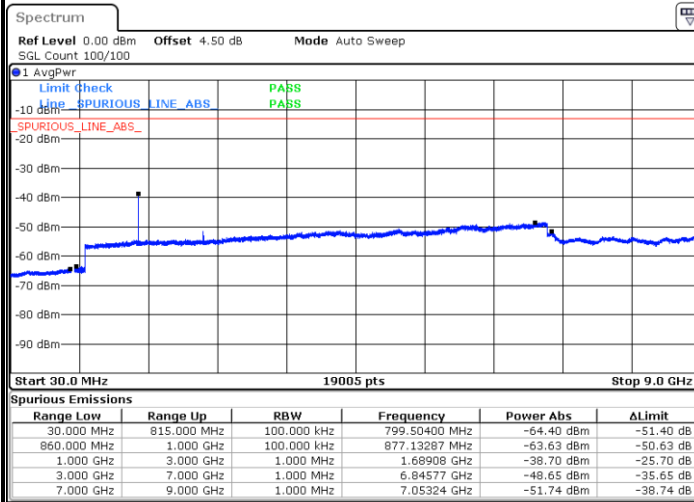


Date: 27 APR 2019 14:27:46



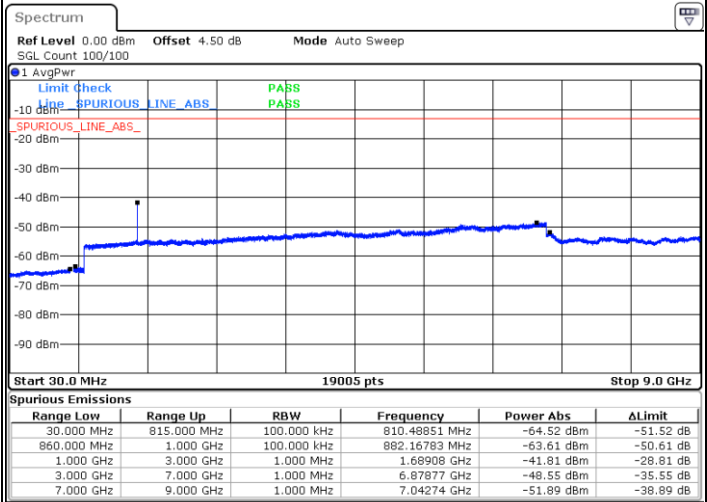
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 27 APR 2019 14:35:48

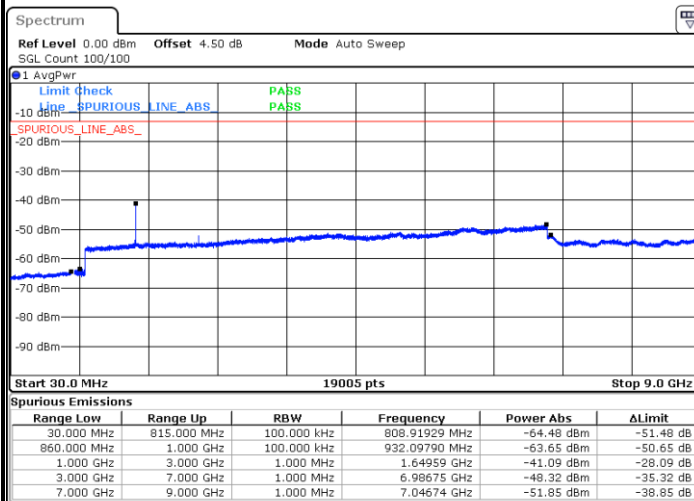
Highest Channel / 16QAM



Date: 27 APR 2019 14:36:41

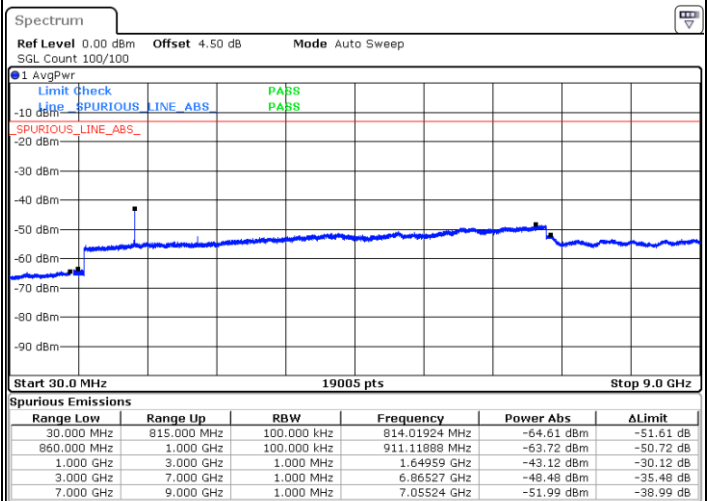
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 27 APR 2019 14:44:43

Lowest Channel / 16QAM

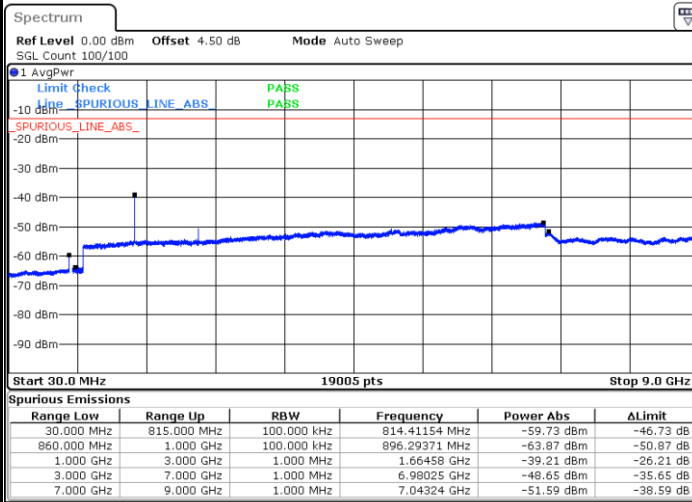


Date: 27 APR 2019 14:45:36



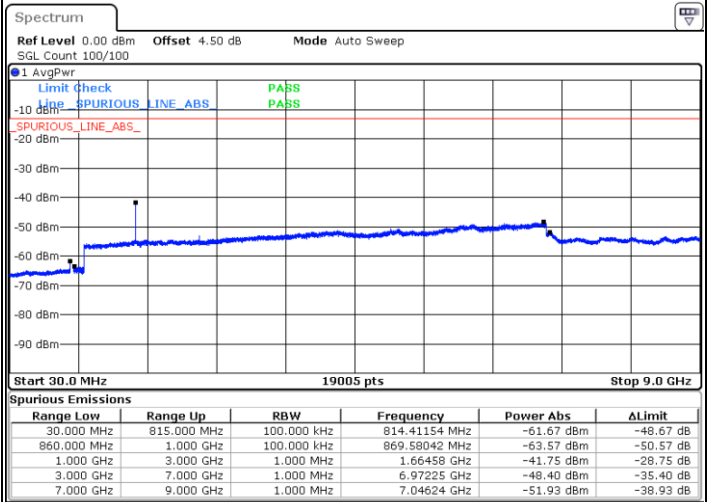
LTE Band 5 / 10MHz

Middle Channel / QPSK



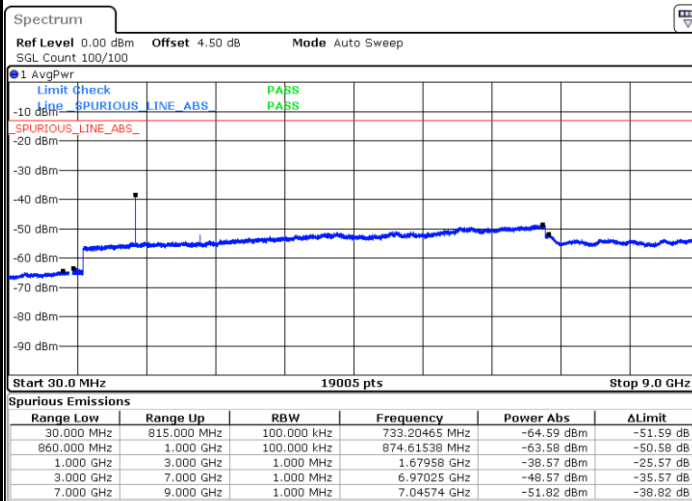
Date: 27 APR 2019 14:47:10

Middle Channel / 16QAM



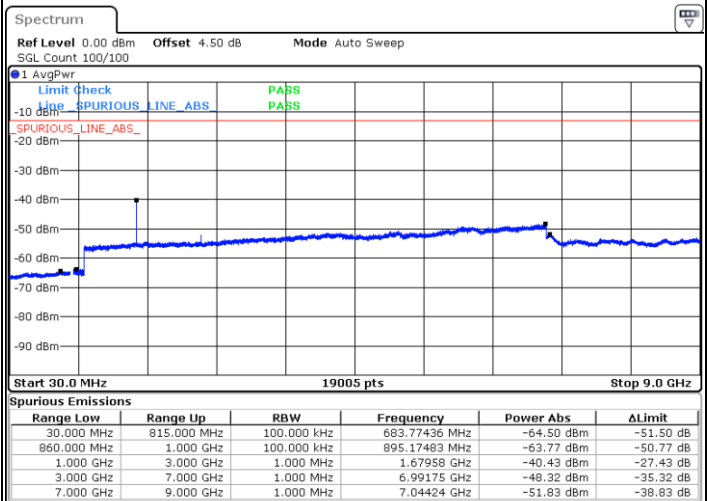
Date: 27 APR 2019 14:48:03

Highest Channel / QPSK



Date: 27 APR 2019 14:53:52

Highest Channel / 16QAM

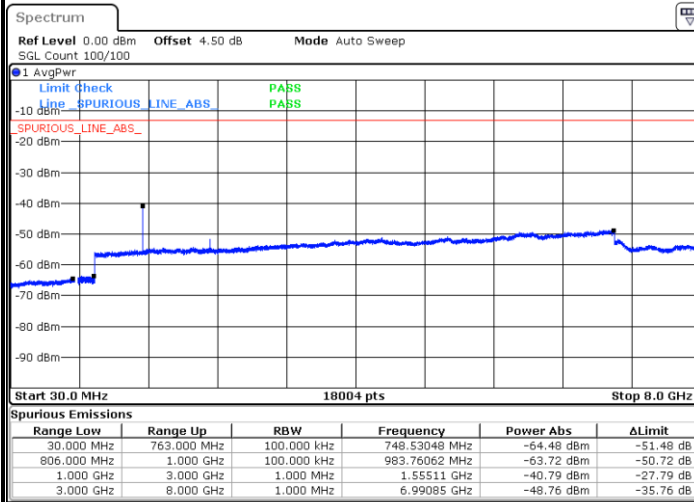


Date: 27 APR 2019 14:57:15



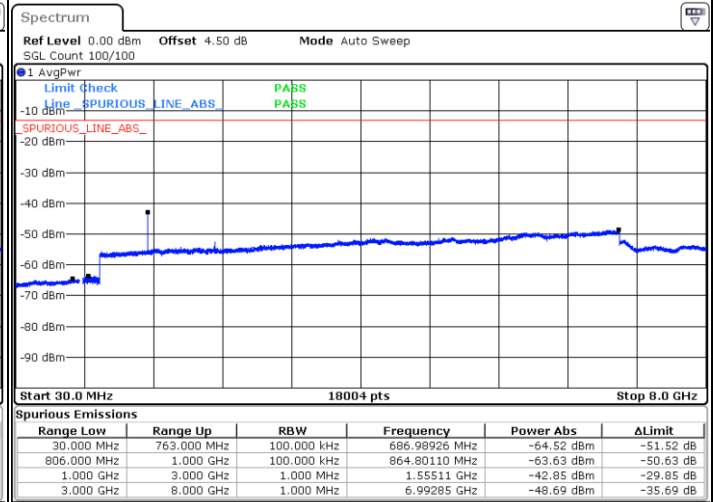
LTE Band 13 / 5MHz

Lowest Channel / QPSK



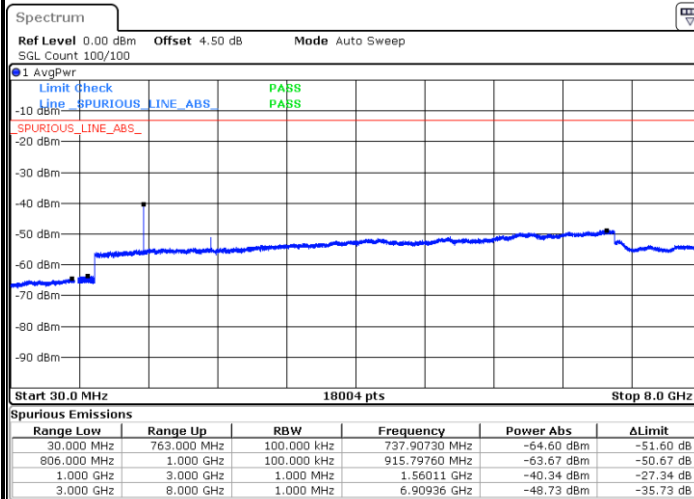
Date: 27 APR 2019 15:43:22

Lowest Channel / 16QAM



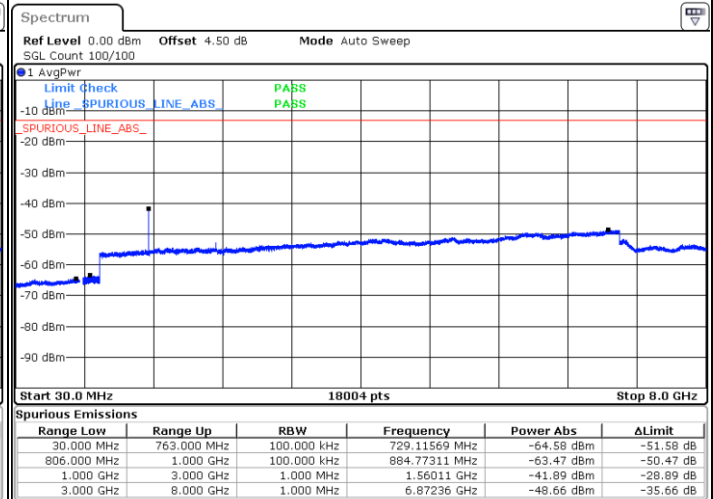
Date: 27 APR 2019 15:42:29

Middle Channel / QPSK



Date: 27 APR 2019 15:44:56

Middle Channel / 16QAM

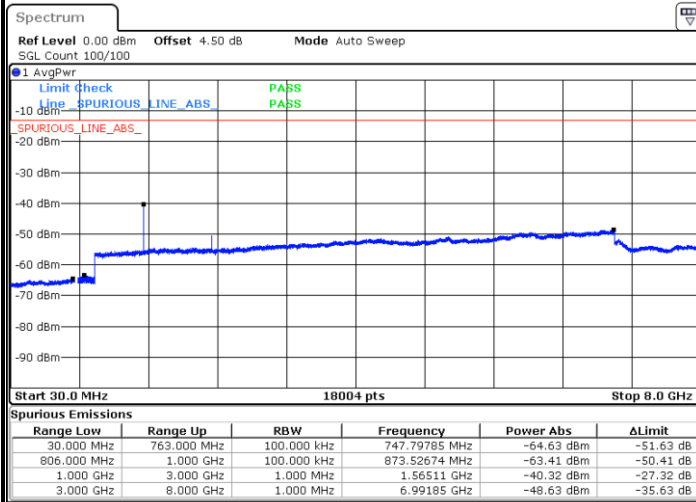


Date: 27 APR 2019 15:45:49



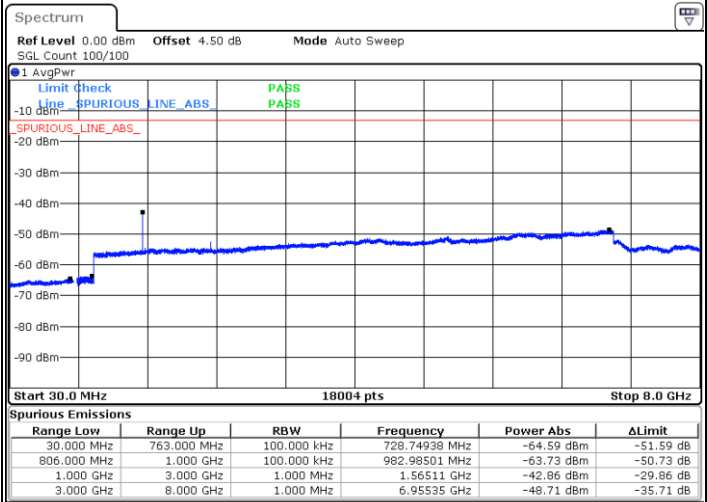
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 27 APR 2019 15:54:44

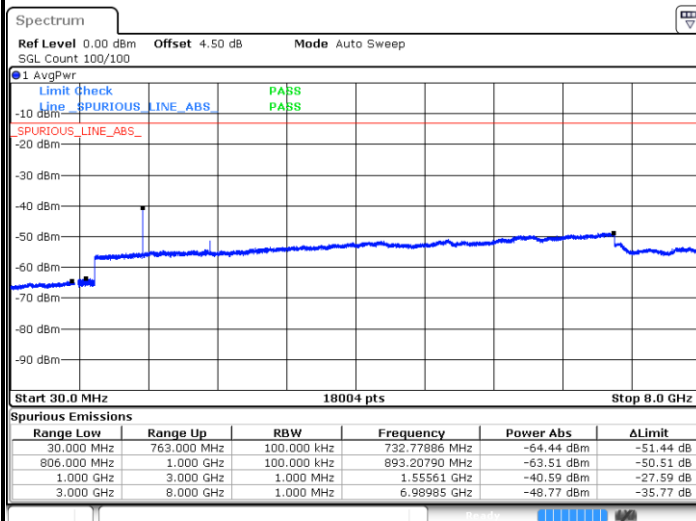
Highest Channel / 16QAM



Date: 27 APR 2019 15:53:51

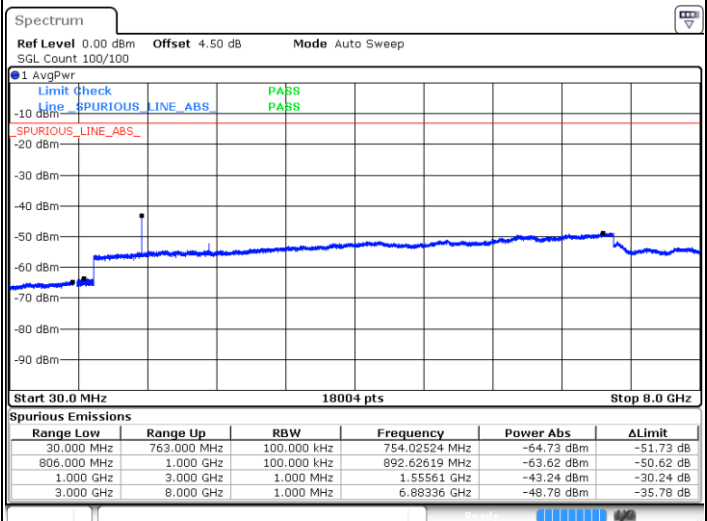
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 27 APR 2019 15:55:37

Middle Channel / 16QAM



Date: 27 APR 2019 15:56:31

**Frequency Stability**

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0011	PASS
40	Normal Voltage	0.0008	
30	Normal Voltage	0.0019	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0022	
-10	Normal Voltage	0.0025	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0029	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0001	
20	Battery End Point	0.0022	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0021	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0039	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0020	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0010	
20	Normal Voltage	0.0019	
20	Battery End Point	0.0005	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0001	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0050	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0044	
0	Normal Voltage	0.0050	
-10	Normal Voltage	0.0051	
-20	Normal Voltage	0.0023	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0058	
20	Normal Voltage	0.0060	
20	Battery End Point	0.0012	

Note : Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.



Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0014	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0041	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0054	
0	Normal Voltage	0.0060	
-10	Normal Voltage	0.0010	
-20	Normal Voltage	0.0058	
-30	Normal Voltage	0.0069	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0009	
20	Battery End Point	0.0046	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

LTE Band 2 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3741	-54.75	-13	-41.75	-67.01	2.641	14.90	H
	5613	-55.92	-13	-42.92	-67.78	2.94	14.80	H
	7482	-51.66	-13	-38.66	-61.43	3.39	13.16	H
	3741	-53.82	-13	-40.82	-66.08	2.64	14.90	V
	5613	-56.62	-13	-43.62	-68.48	2.94	14.80	V
	7482	-51.12	-13	-38.12	-60.89	3.39	13.16	V

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

LTE Band 4 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3447	-52.90	-13	-39.90	-63.64	2.604	13.34	H
	5172	-58.42	-13	-45.42	-68.93	3.011	13.52	H
	6894	-55.00	-13	-42.00	-65.20	3.271	13.47	H
	3447	-56.45	-13	-43.45	-67.19	2.604	13.34	V
	5170	-58.61	-13	-45.61	-69.12	3.011	13.52	V
	6894	-54.72	-13	-41.72	-64.92	3.271	13.47	V

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



LTE Band 5 / 10MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-58.35	-13	-45.35	-65.32	1.58	10.70	H
	2496	-62.68	-13	-49.68	-70.93	2.102	12.50	H
	3328	-62.47	-13	-49.47	-71.36	2.856	13.90	H
	1664	-65.82	-13	-52.82	-72.79	1.58	10.70	V
	2496	-62.46	-13	-49.46	-70.71	2.10	12.50	V
	3328	-62.33	-13	-49.33	-71.22	2.86	13.90	V

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

LTE Band 13/ 10MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1555	-65.44	-13	-52.44	-67.15	2.23	6.09	H
	2332	-64.39	-13	-51.39	-64.92	2.83	5.51	H
	3110	-61.64	-13	-48.64	-63.58	3.21	7.30	H
	1555	-62.75	-13	-49.75	-64.46	2.23	6.09	V
	2330	-64.46	-13	-51.46	-64.99	2.83	5.51	V
	3107	-61.78	-13	-48.78	-63.72	3.21	7.30	V

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