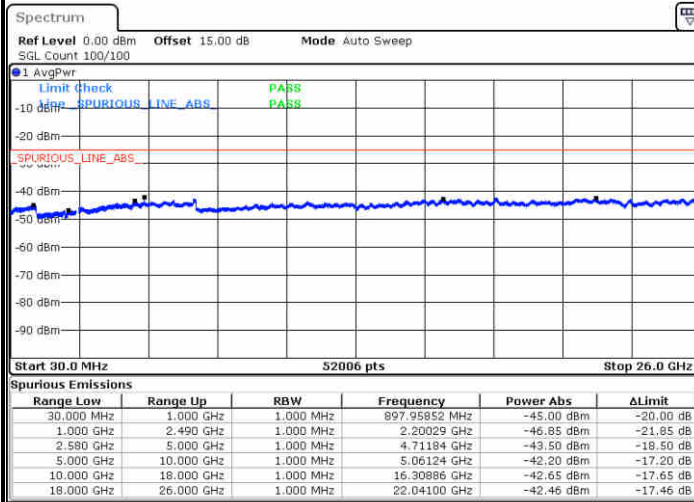




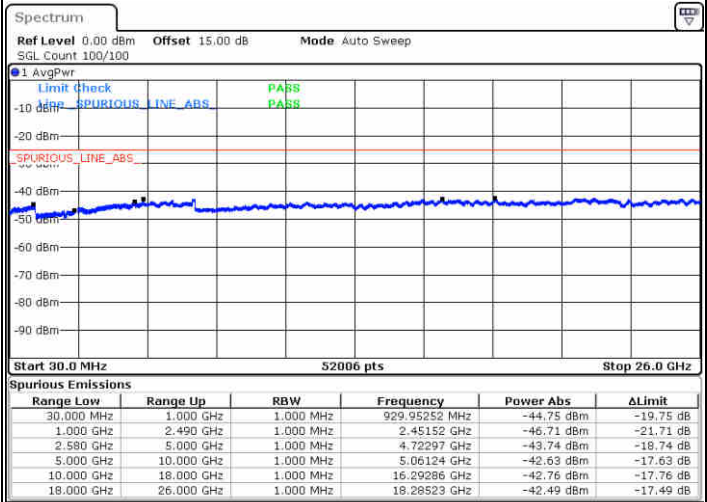
LTE Band 7 / 10MHz

Middle Channel / QPSK



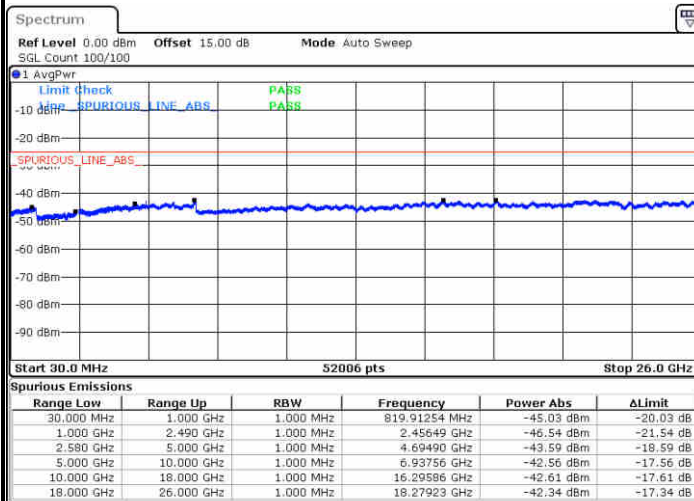
Date: 31 MAY 2019 22:25:20

Middle Channel / 16QAM



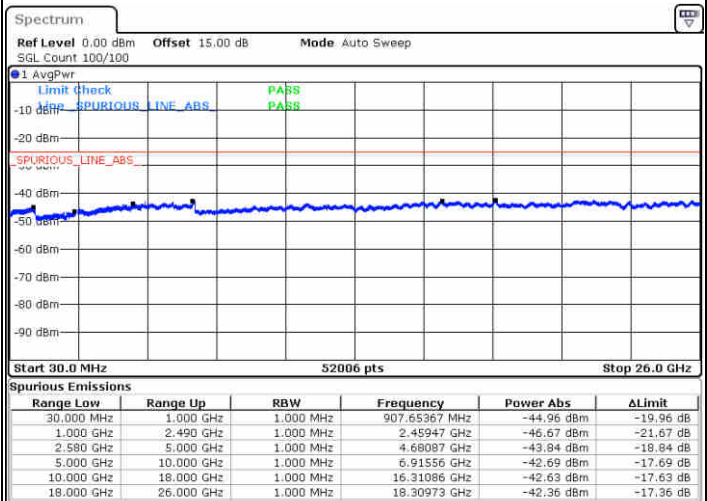
Date: 31 MAY 2019 22:28:00

Highest Channel / QPSK



Date: 31 MAY 2019 22:26:13

Highest Channel / 16QAM

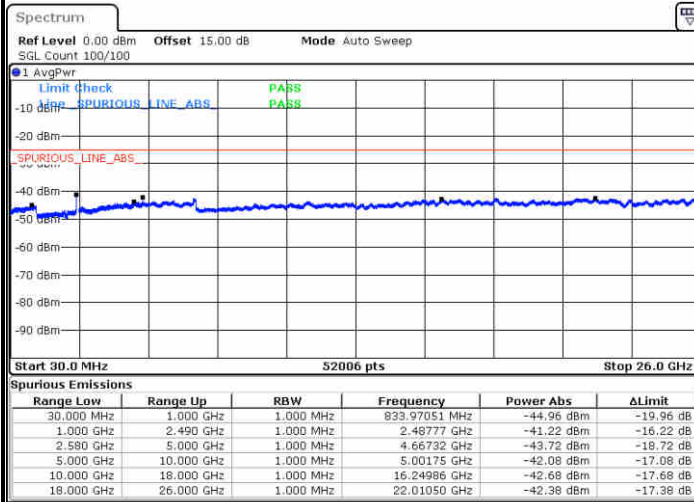


Date: 31 MAY 2019 22:28:54



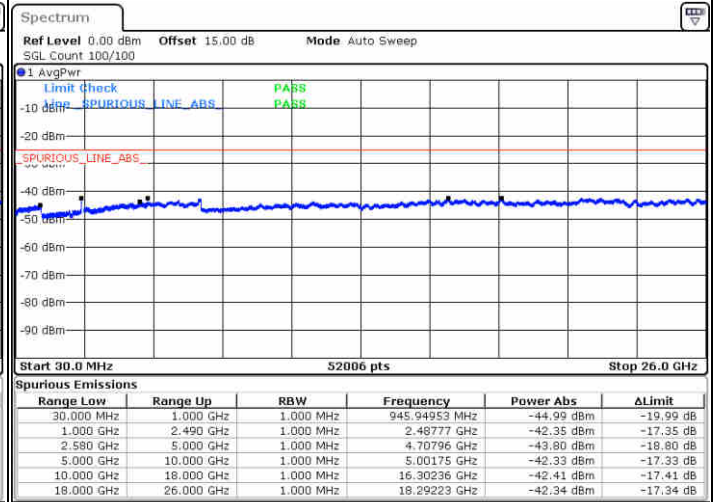
LTE Band 7 / 15MHz

Lowest Channel / QPSK



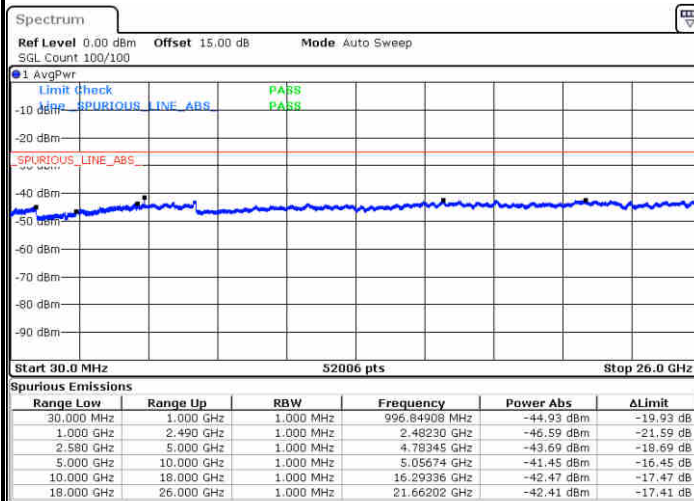
Date: 31 MAY 2019 22:31:52

Lowest Channel / 16QAM



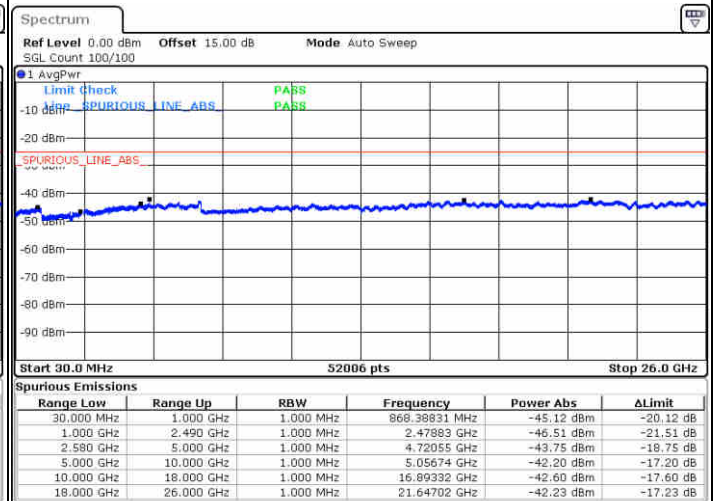
Date: 31 MAY 2019 22:34:33

Middle Channel / QPSK



Date: 31 MAY 2019 22:32:46

Middle Channel / 16QAM

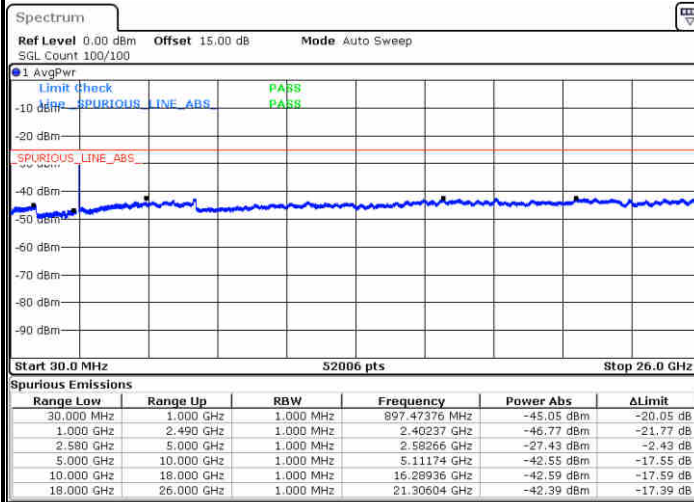


Date: 31 MAY 2019 22:35:26



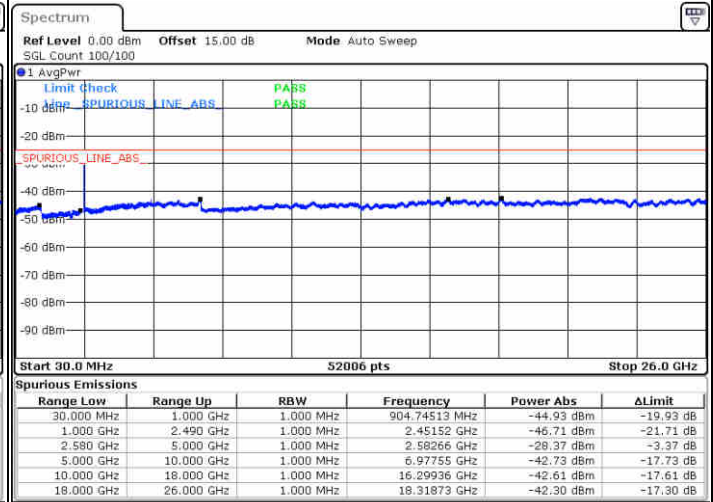
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 31 MAY 2019 22:33:39

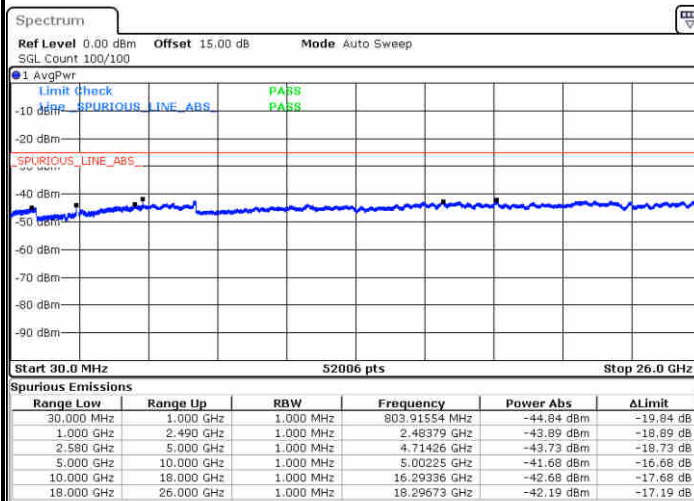
Highest Channel / 16QAM



Date: 31 MAY 2019 22:36:19

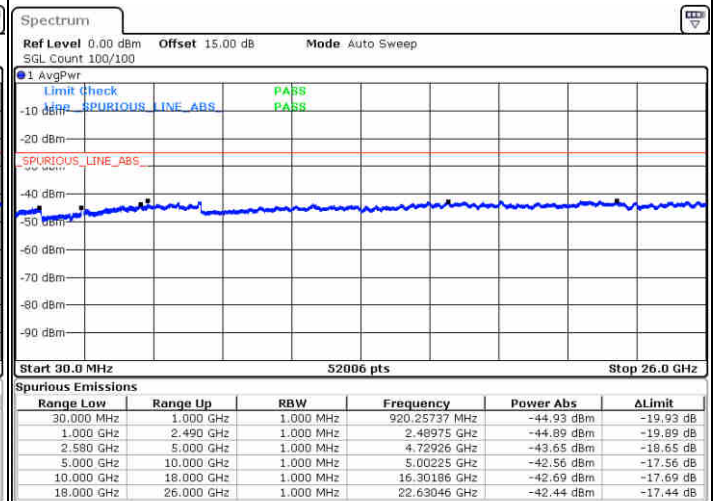
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 31 MAY 2019 22:39:18

Lowest Channel / 16QAM

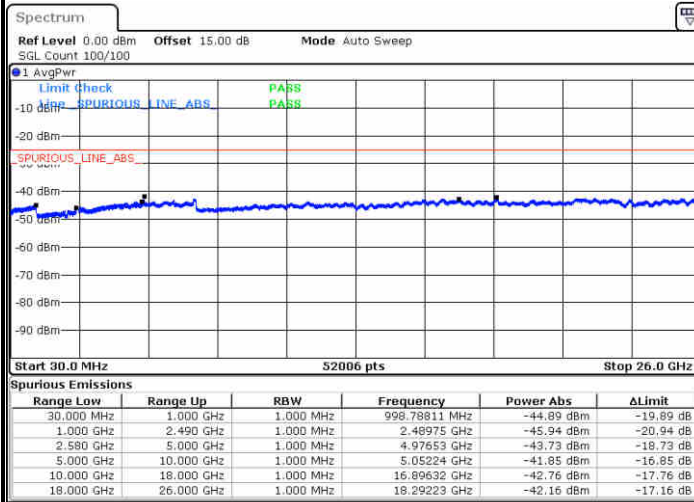


Date: 31 MAY 2019 22:41:58



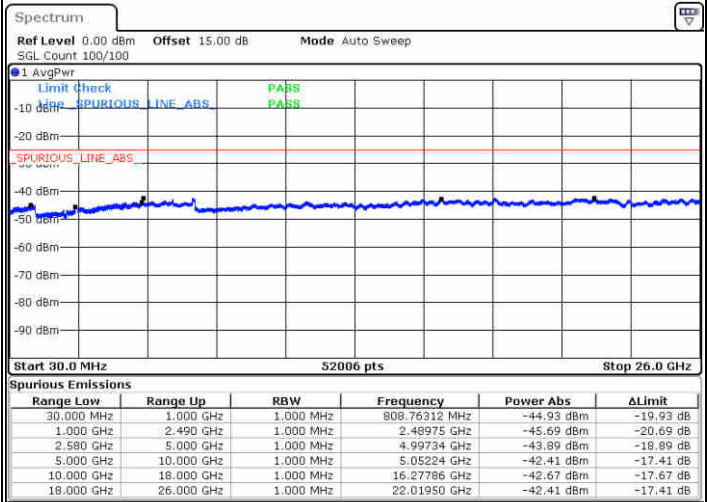
LTE Band 7 / 20MHz

Middle Channel / QPSK



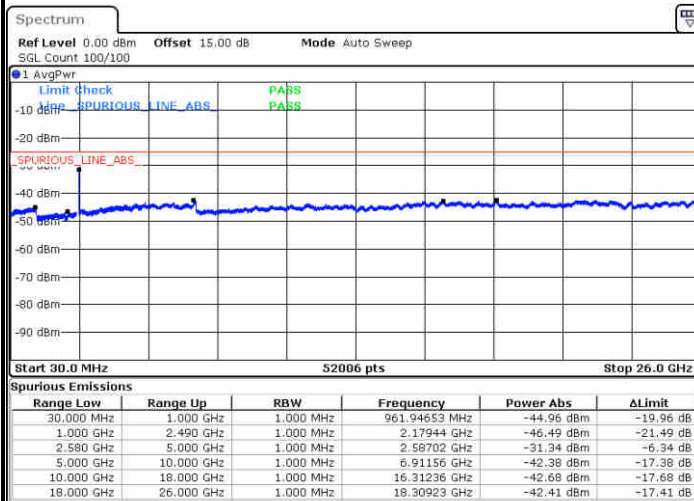
Date: 31 MAY 2019 22:40:11

Middle Channel / 16QAM



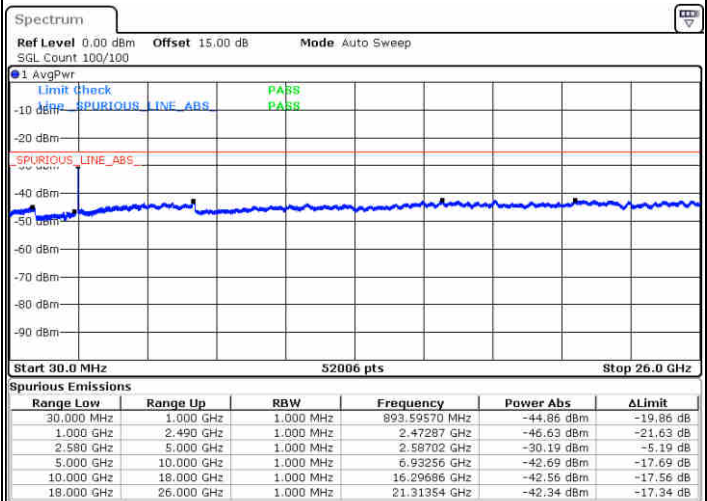
Date: 31 MAY 2019 22:42:51

Highest Channel / QPSK



Date: 31 MAY 2019 22:41:04

Highest Channel / 16QAM



Date: 31 MAY 2019 22:43:45

**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	0.0006	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0009	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0009	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 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	0.0007	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0011	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0008	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 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	0.0012	PASS
40	Normal Voltage	0.0006	
30	Normal Voltage	0.0027	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0017	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0013	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0001	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0005	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 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	3742.18	-55.78	-13	-42.78	-62.04	1.843	8.10	H
	5613	-53.64	-13	-40.64	-61.95	2.19	10.50	H
	7488	-51.85	-13	-38.85	-60.77	2.58	11.50	H
	3741	-55.58	-13	-42.58	-61.84	1.84	8.10	V
	5613.27	-53.65	-13	-40.65	-61.96	2.19	10.50	V
	7488	-51.81	-13	-38.81	-60.73	2.58	11.50	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	-57.99	-13	-44.99	-68.73	2.604	13.34	H
	5172	-48.31	-13	-35.31	-58.82	3.011	13.52	H
	6894	-55.44	-13	-42.44	-65.64	3.271	13.47	H
	3447	-62.46	-13	-49.46	-73.20	2.604	13.34	V
	5172	-50.34	-13	-37.34	-60.85	3.011	13.52	V
	6894	-54.98	-13	-41.98	-65.18	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)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-63.16	-13	-50.16	-66.40	1.11	6.50	H
	2496.27	-57.80	-13	-44.80	-60.42	1.43	6.20	H
	3330	-59.43	-13	-46.43	-63.87	1.71	8.30	H
	1664	-61.81	-13	-48.81	-65.05	1.11	6.50	V
	2496	-57.51	-13	-44.51	-60.13	1.43	6.20	V
	3330	-59.48	-13	-46.48	-63.92	1.71	8.30	V

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

LTE Band 7 / 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	5052	-52.92	-25	-27.92	-63.13	3.03	13.24	H
	7580	-50.76	-25	-25.76	-60.21	3.56	13.01	H
	10104	-32.51	-25	-7.51	-42.03	3.92	13.44	H
	12630	-50.21	-25	-25.21	-60.13	4.44	14.36	H
	5052	-55.20	-25	-30.20	-65.41	3.03	13.24	V
	7580	-50.17	-25	-25.17	-59.62	3.56	13.01	V
	10104	-34.79	-25	-9.79	-44.31	3.92	13.44	V
	12630	-55.79	-25	-30.79	-65.71	4.44	14.36	V

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