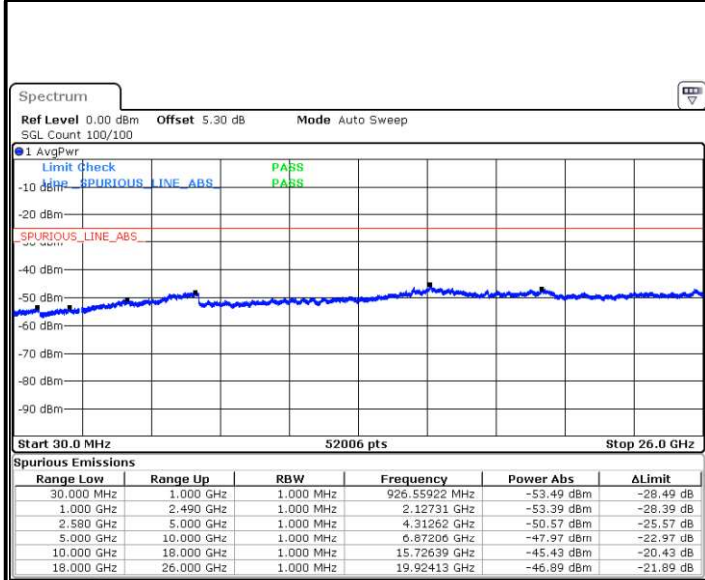




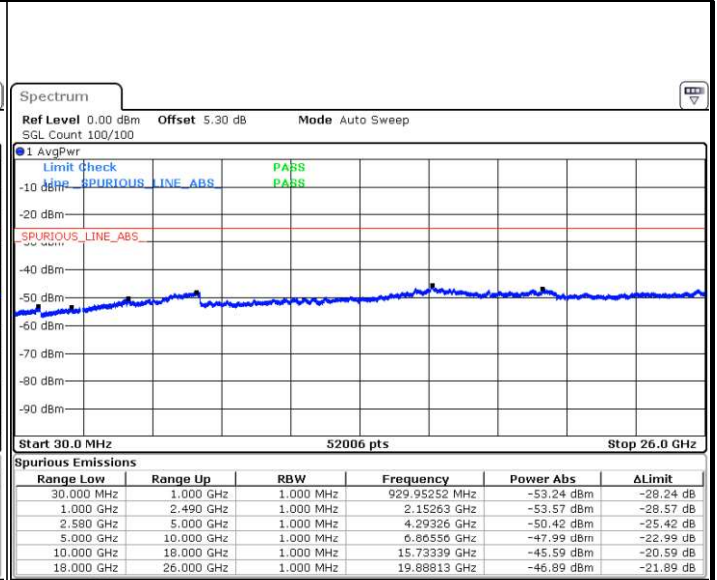
LTE Band 7 / 5MHz

Highest Channel / QPSK



Date: 6 APR 2019 12:07:34

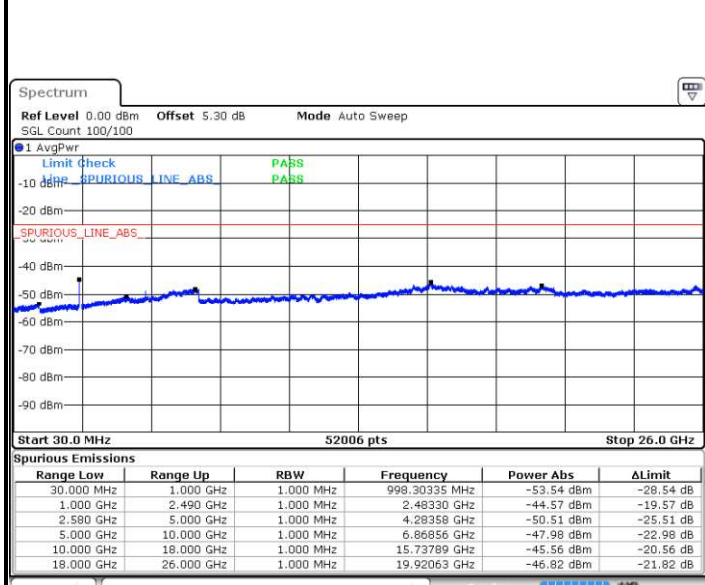
Highest Channel / 16QAM



Date: 6 APR 2019 12:08:28

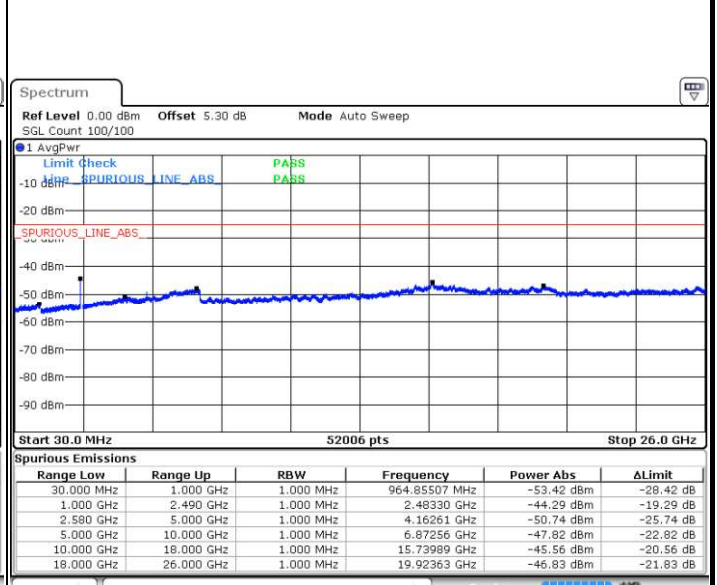
LTE Band 7 / 10MHz

Lowest Channel / QPSK



Date: 6 APR 2019 12:20:26

Lowest Channel / 16QAM



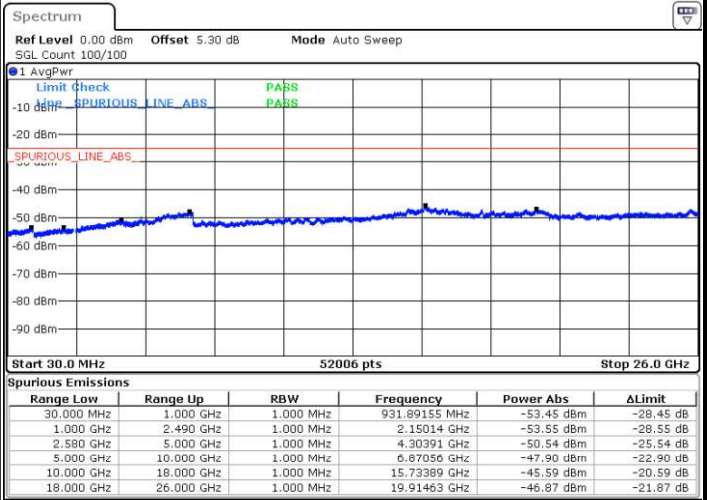
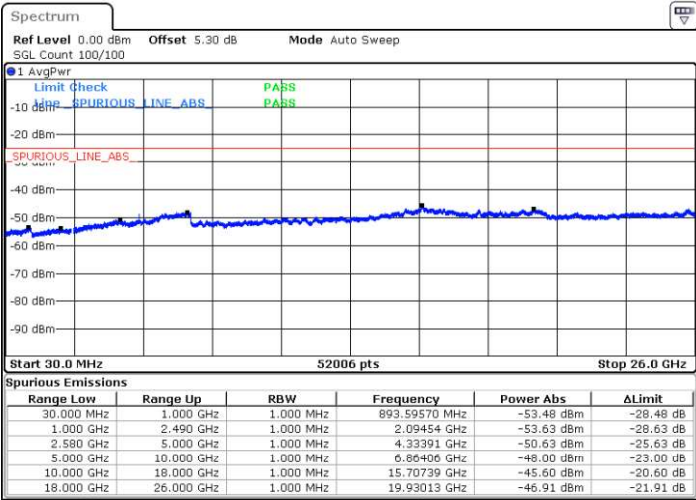
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LTE Band 7 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

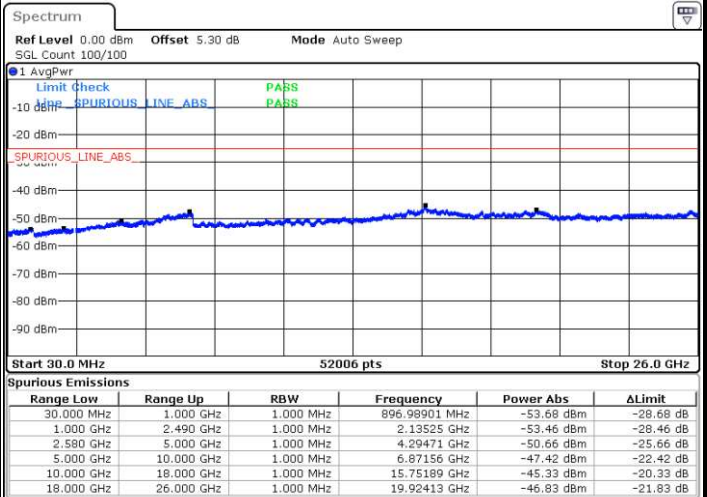
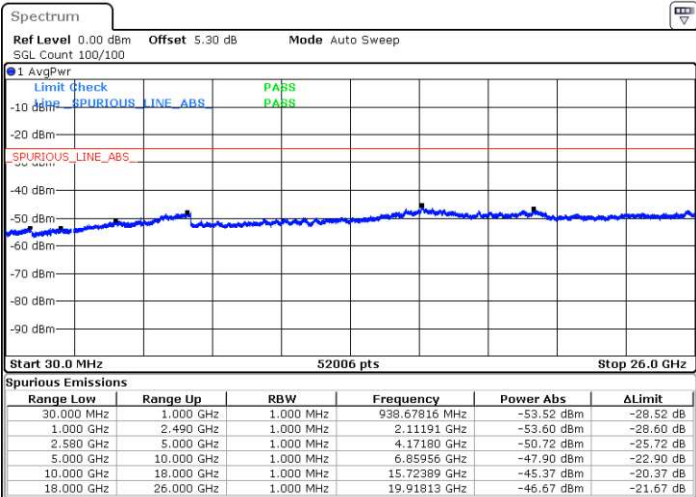


Date: 6 APR 2019 12:23:08

Date: 6 APR 2019 12:22:14

Highest Channel / QPSK

Highest Channel / 16QAM



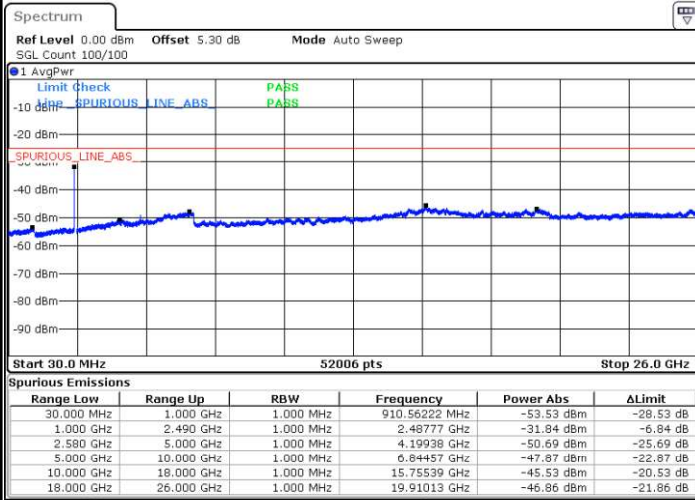
Date: 6 APR 2019 12:24:02

Date: 6 APR 2019 12:24:55



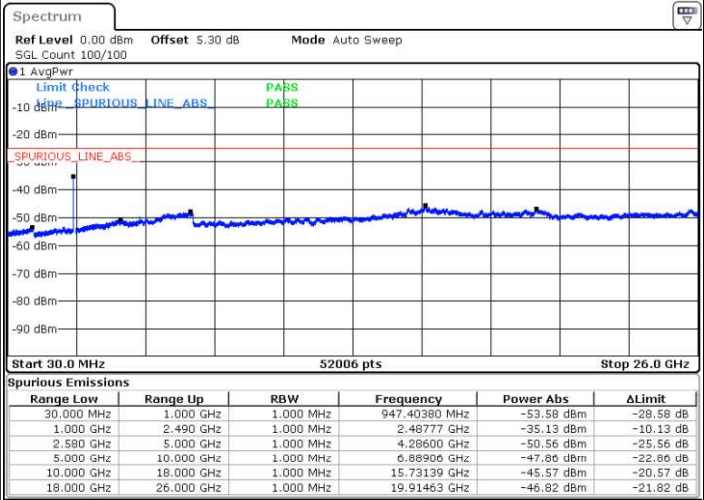
LTE Band 7 / 15MHz

Lowest Channel / QPSK



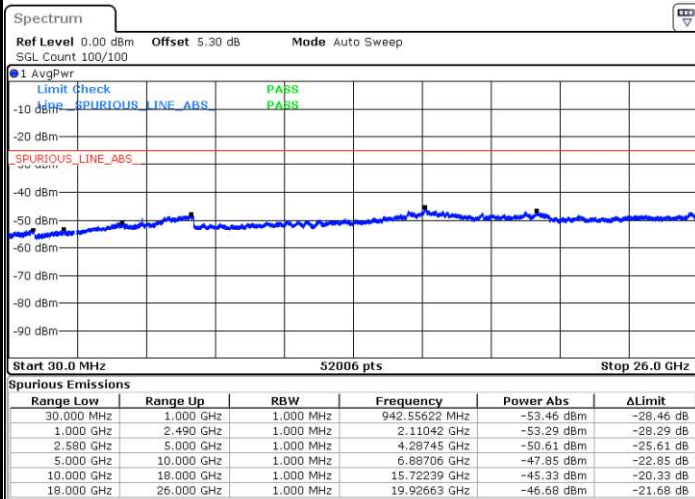
Date: 6 APR 2019 12:36:56

Lowest Channel / 16QAM



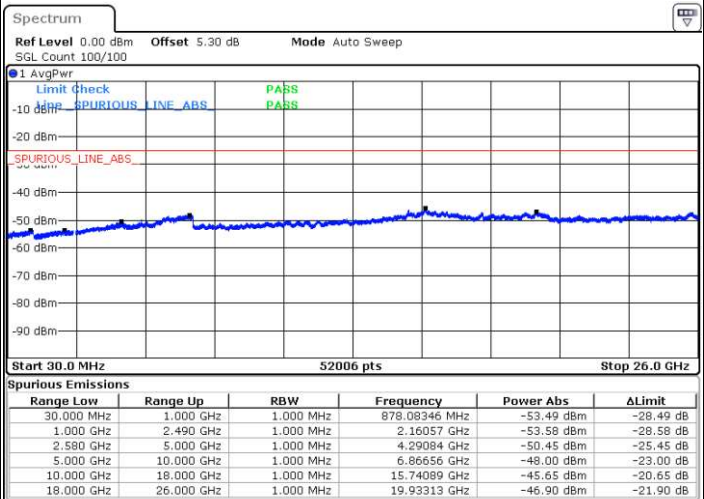
Date: 6 APR 2019 12:37:50

Middle Channel / QPSK



Date: 6 APR 2019 12:39:38

Middle Channel / 16QAM

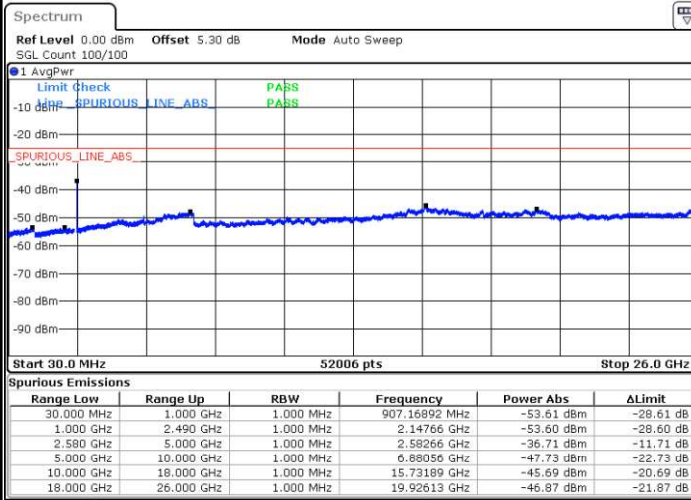


Date: 6 APR 2019 12:38:44



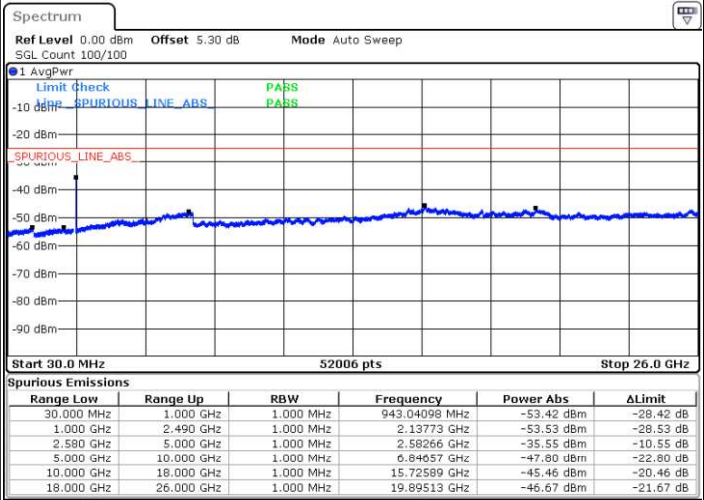
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 6 APR 2019 12:40:32

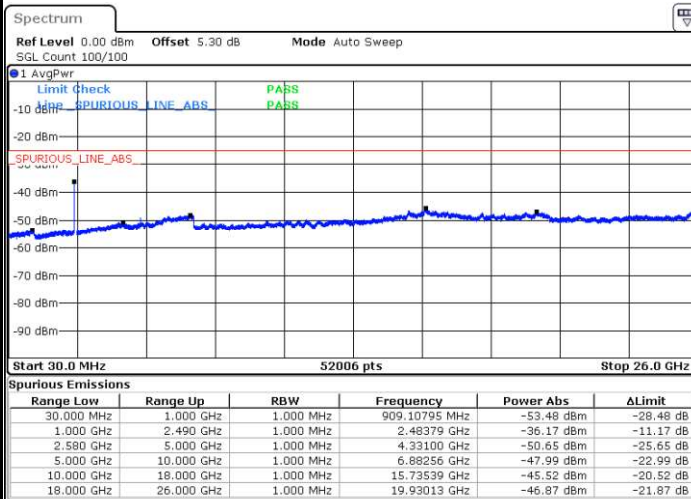
Highest Channel / 16QAM



Date: 6 APR 2019 12:41:26

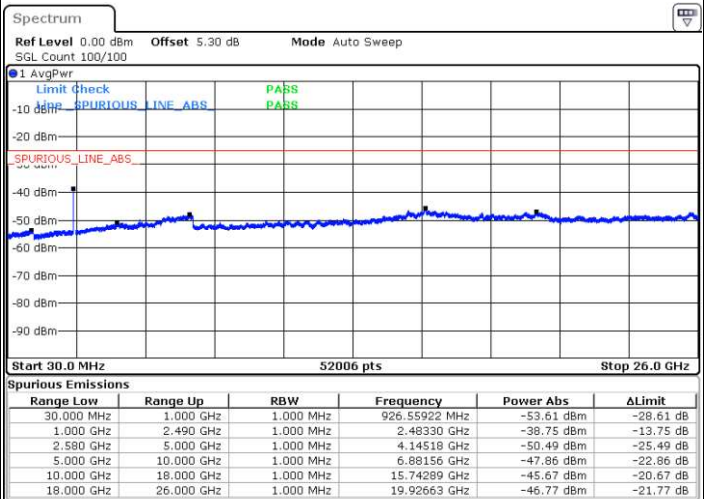
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 6 APR 2019 12:53:26

Lowest Channel / 16QAM



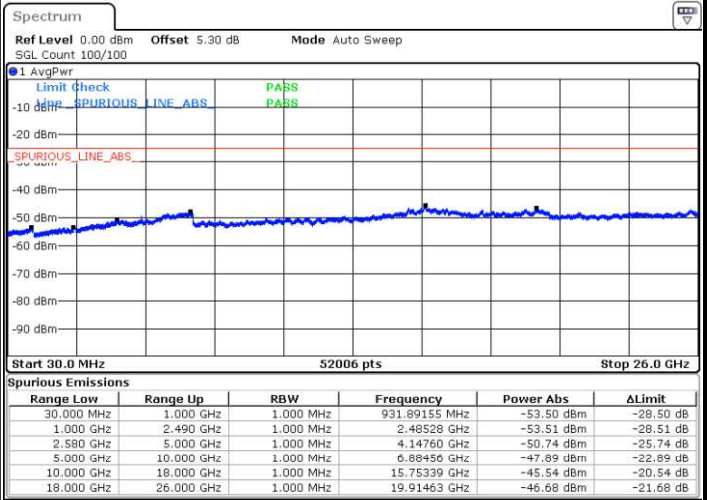
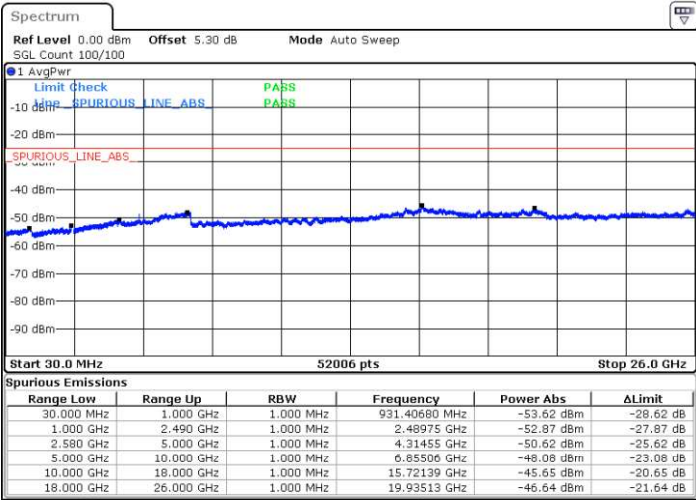
Date: 6 APR 2019 12:54:20



LTE Band 7 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

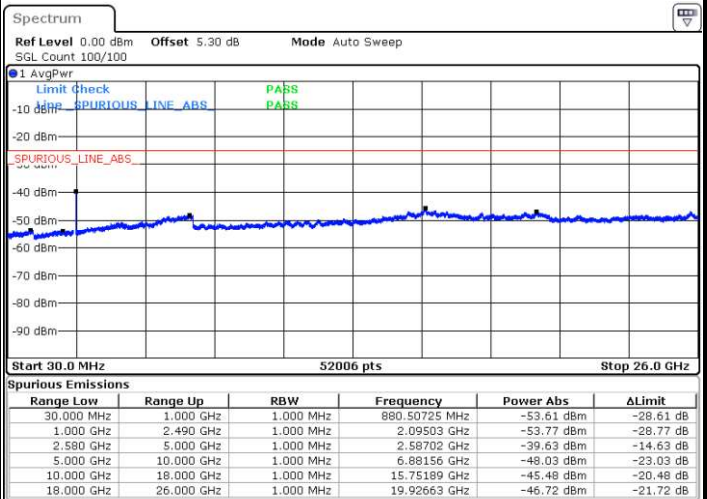
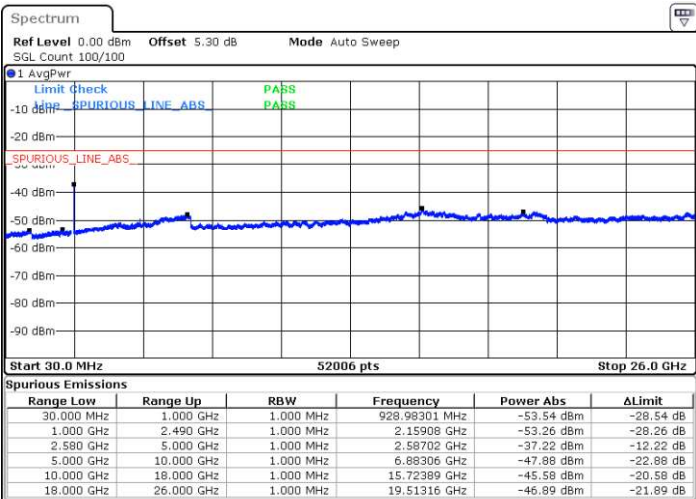


Date: 6 APR 2019 12:56:08

Date: 6 APR 2019 12:55:14

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 6 APR 2019 12:57:02

Date: 6 APR 2019 12:57:56



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	0.0004	PASS
40	Normal Voltage	0.0030	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0021	
0	Normal Voltage	0.0009	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0026	
-30	Normal Voltage	0.0029	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0013	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.3 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	0.0019	
30	Normal Voltage	0.0028	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0020	
-30	Normal Voltage	0.0018	
20	Maximum Voltage	0.0038	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0008	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.3 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	0.0017	PASS
40	Normal Voltage	0.0062	
30	Normal Voltage	0.0080	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0083	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0057	
-30	Normal Voltage	0.0071	
20	Maximum Voltage	0.0054	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

Note: Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.3 V.



Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0025	PASS
40	Normal Voltage	0.0032	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0018	
0	Normal Voltage	0.0038	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0025	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0027	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.3 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	-55.64	-13	-42.64	-61.90	1.843	8.10	H
	5613	-49.59	-13	-36.59	-57.90	2.19	10.50	H
	7482	-52.17	-13	-39.17	-61.09	2.58	11.50	H
	3741	-52.28	-13	-39.28	-58.54	1.84	8.10	V
	5613	-41.31	-13	-28.31	-49.62	2.19	10.50	V
	7482	-51.84	-13	-38.84	-60.76	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	-51.51	-13	-38.51	-58.20	1.75	8.44	H
	5172	-52.10	-13	-39.10	-60.52	1.94	10.36	H
	6894	-51.92	-13	-38.92	-61.16	2.47	11.71	H
	3447	-54.01	-13	-41.01	-60.70	1.75	8.44	V
	5172	-46.47	-13	-33.47	-54.89	1.94	10.36	V
	6894	-52.02	-13	-39.02	-61.26	2.47	11.71	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	-62.28	-13	-49.28	-65.52	1.11	6.50	H
	2496	-60.48	-13	-47.48	-63.10	1.43	6.20	H
	3330	-59.04	-13	-46.04	-63.48	1.71	8.30	H
	1664	-62.45	-13	-49.45	-65.69	1.11	6.50	V
	2496	-59.43	-13	-46.43	-62.05	1.43	6.20	V
	3330	-58.93	-13	-45.93	-63.37	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	5050	-62.74	-25	-37.74	-71.23	1.83	10.32	H
	7580	-62.30	-25	-37.30	-71.31	2.60	11.61	H
	10107	-58.17	-25	-33.17	-68.93	2.67	13.43	H
	5050	-59.09	-25	-34.09	-67.58	1.83	10.32	V
	7580	-60.20	-25	-35.20	-69.21	2.60	11.61	V
	10107	-54.90	-25	-29.90	-65.66	2.67	13.43	V

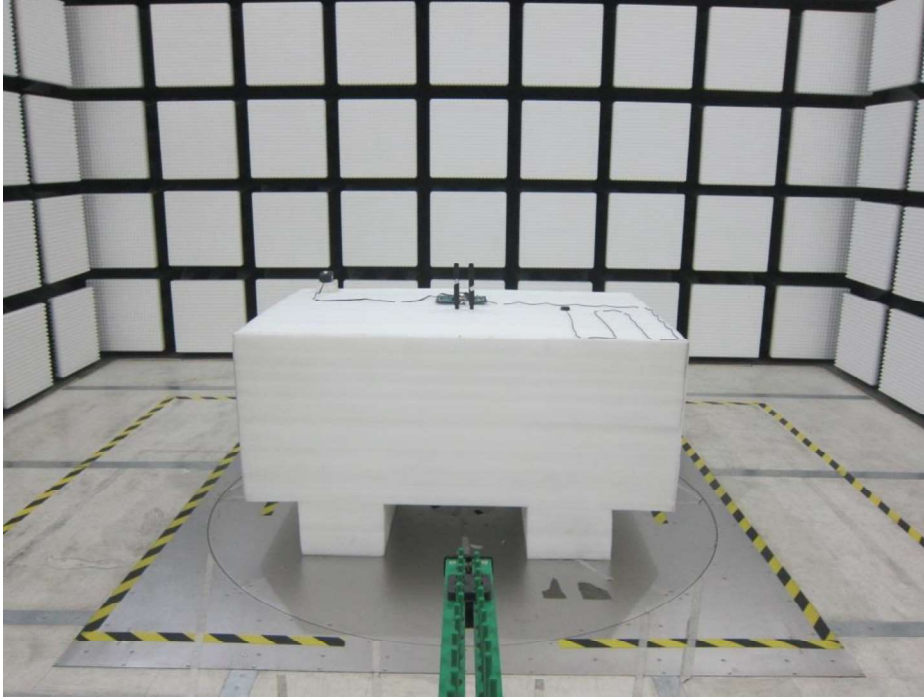
Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

Appendix C. Setup Photographs

<Radiated Emission>

for Band 2, 5, 7

LF



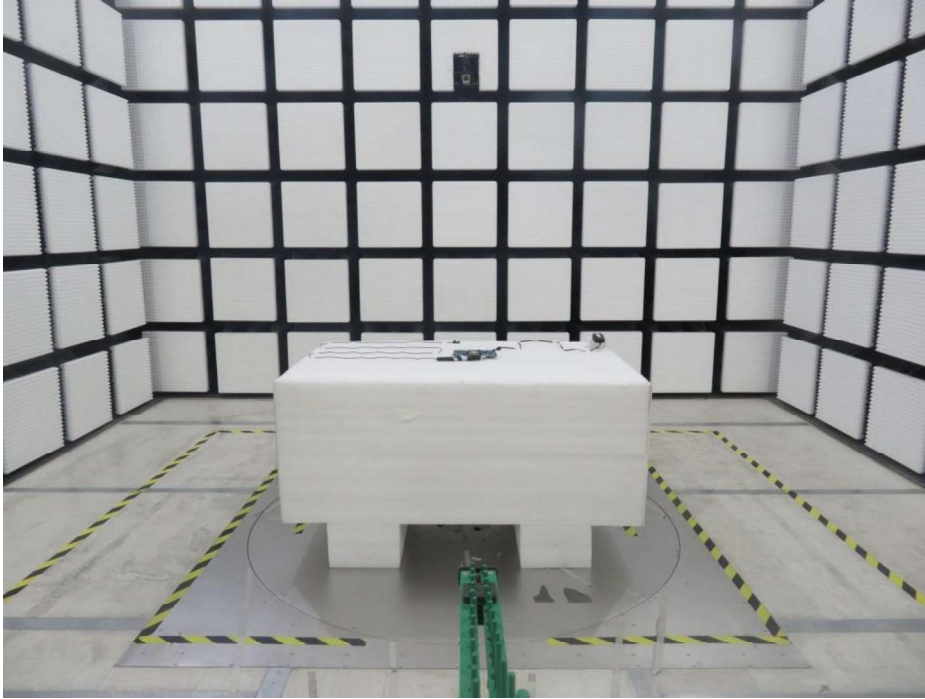
HF



<Radiated Emission>

for Band 4

LF



HF

