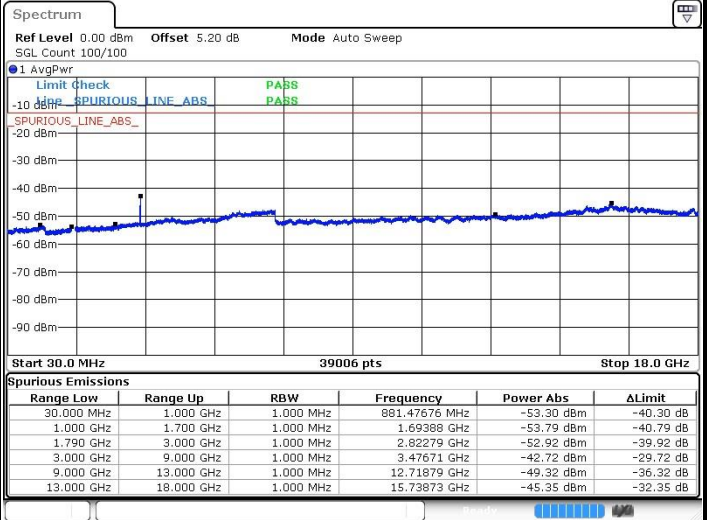
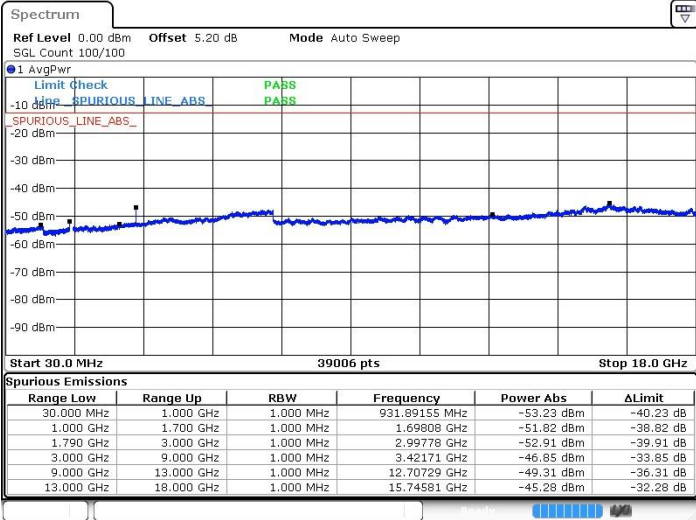




LTE Band 66 / 15MHz

Lowest Channel / 64QAM

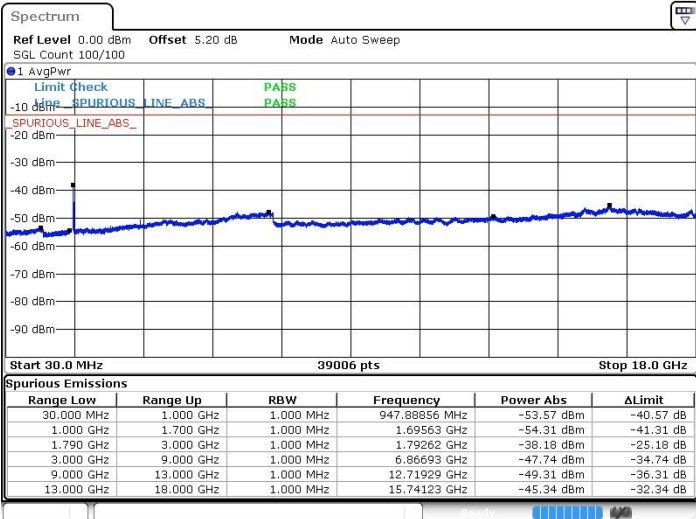
Middle Channel / 64QAM



Date: 31.JAN.2019 15:29:31

Date: 31.JAN.2019 15:31:08

Highest Channel / 64QAM



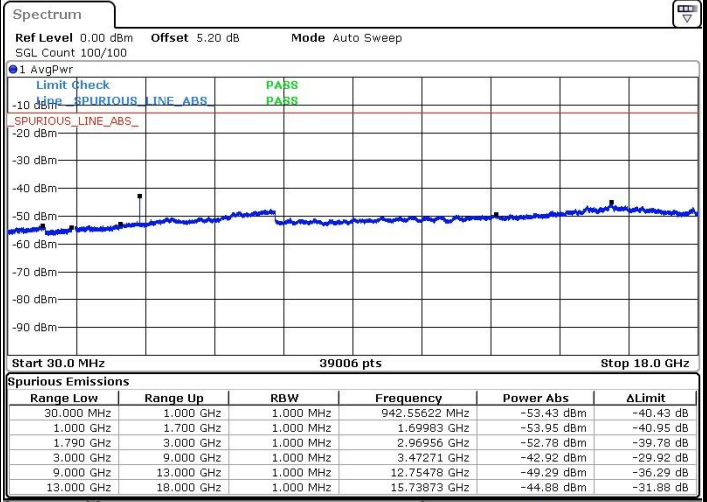
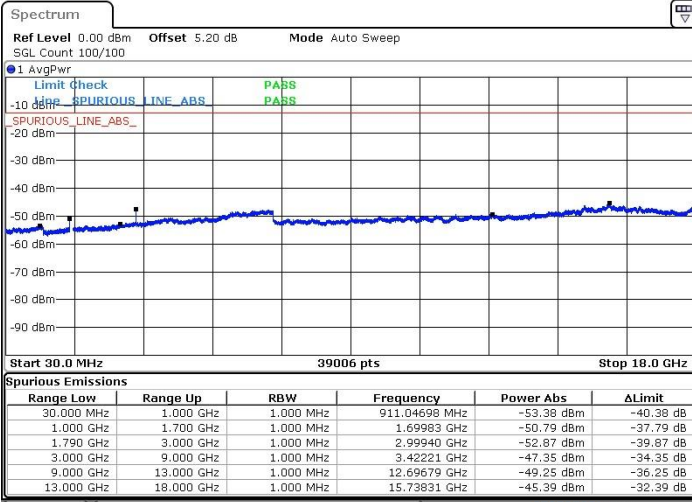
Date: 31.JAN.2019 15:41:22



LTE Band 66 / 20MHz

Lowest Channel / 64QAM

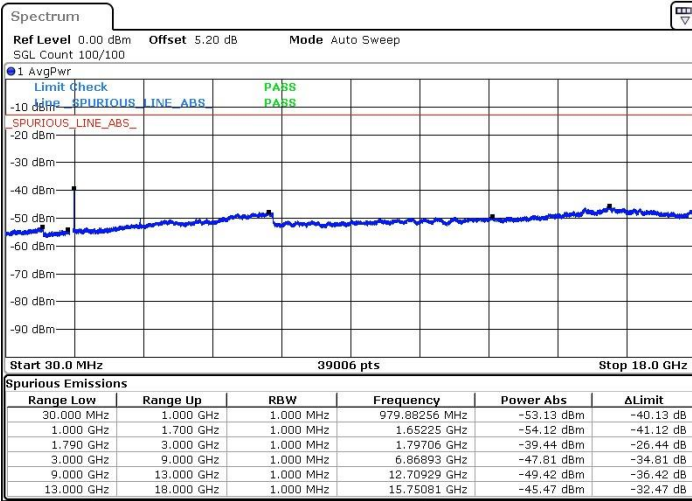
Middle Channel / 64QAM



Date: 31.JAN.2019 16:28:56

Date: 31.JAN.2019 16:27:13

Highest Channel / 64QAM



Date: 31.JAN.2019 16:19:16

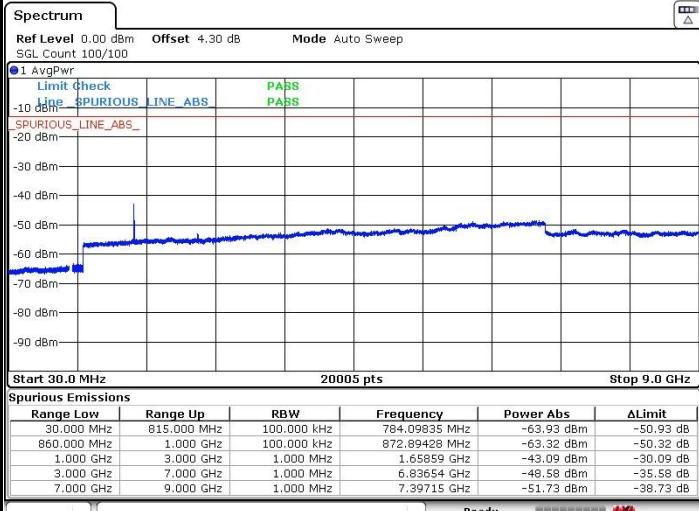


For CA:

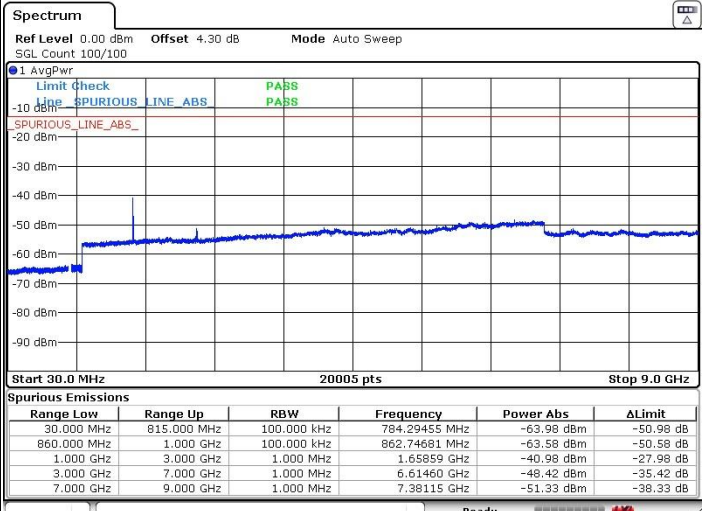
LTE Band 5 / 5MHz+10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



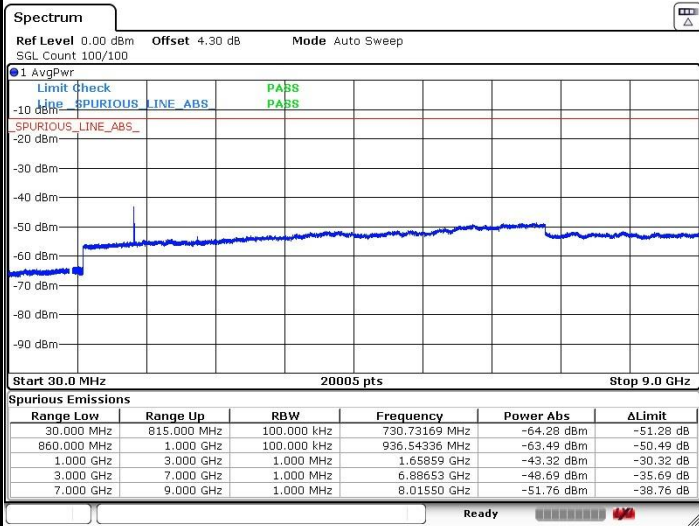
Date: 26 FEB 2019 17:07:33



Date: 26 FEB 2019 17:07:03

Lowest Channel 64QAM

N/A



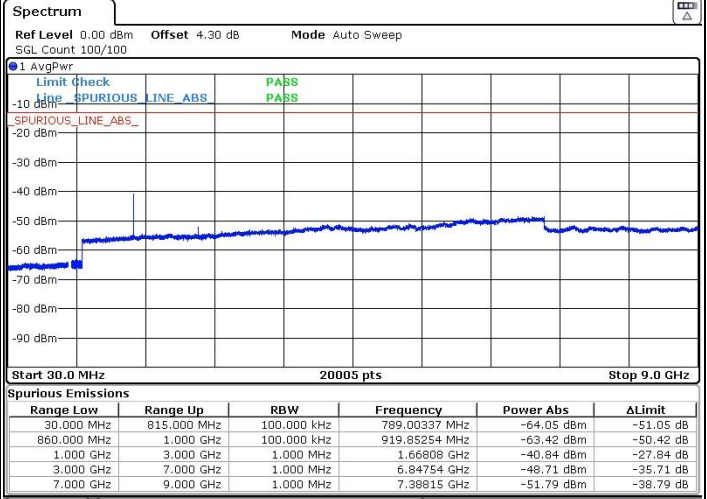
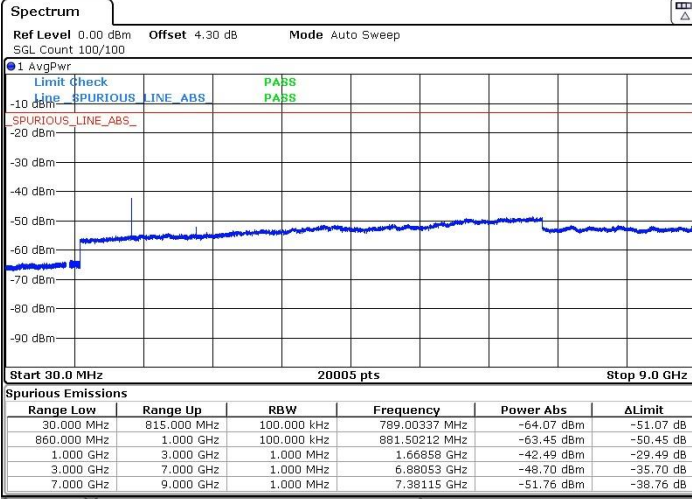
Date: 26 FEB 2019 17:08:24



LTE Band 5 / 5MHz+10MHz

Middle Channel / QPSK

Middle Channel /16QAM

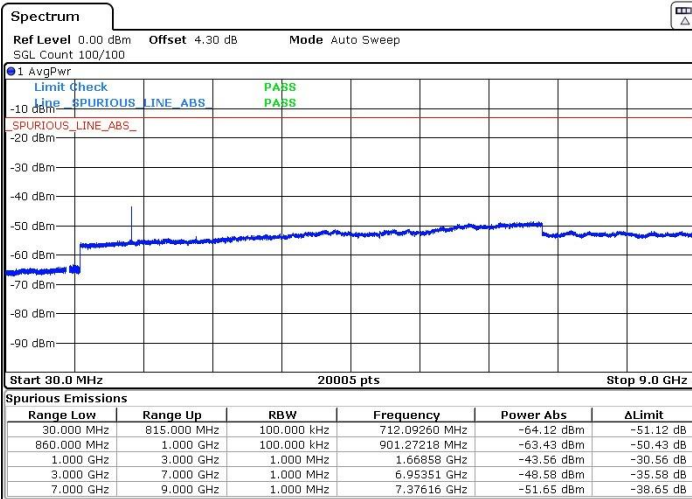


Date: 26.FEB.2019 17:08:10

Date: 26.FEB.2019 17:08:42

Middle Channel / 64QAM

N/A



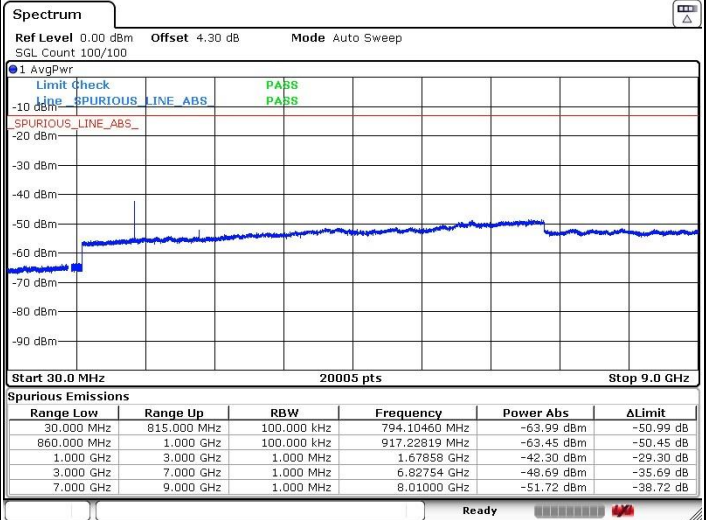
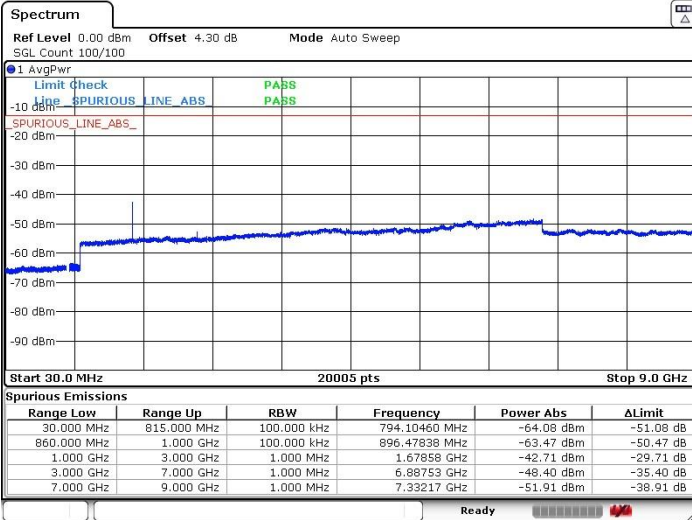
Date: 26.FEB.2019 17:09:13



LTE Band 5 / 5MHz+10MHz

Highest Channel / QPSK

Highest Channel / 16QAM

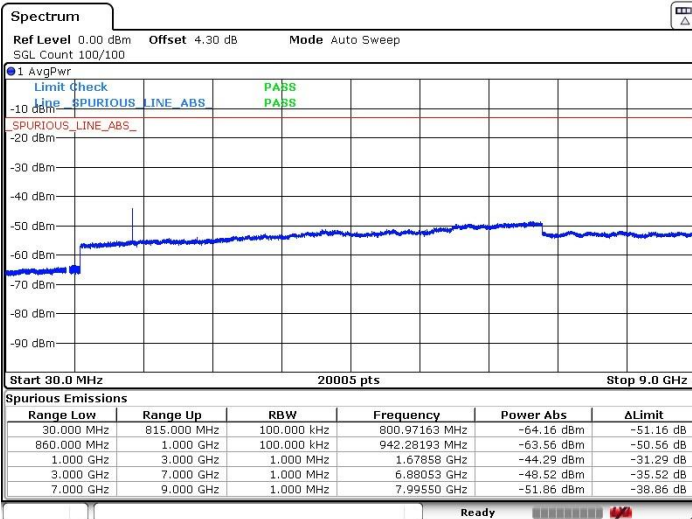


Date: 26.FEB.2019 17:11:35

Date: 26.FEB.2019 17:10:57

Highest Channel / 64QAM

N/A



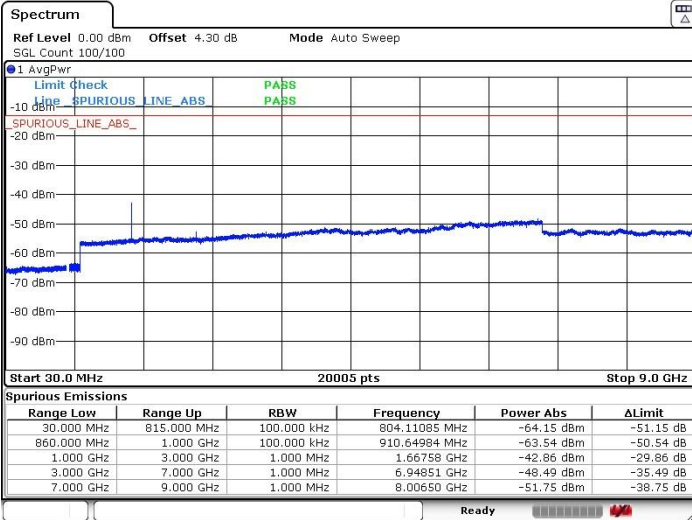
Date: 26.FEB.2019 17:09:53



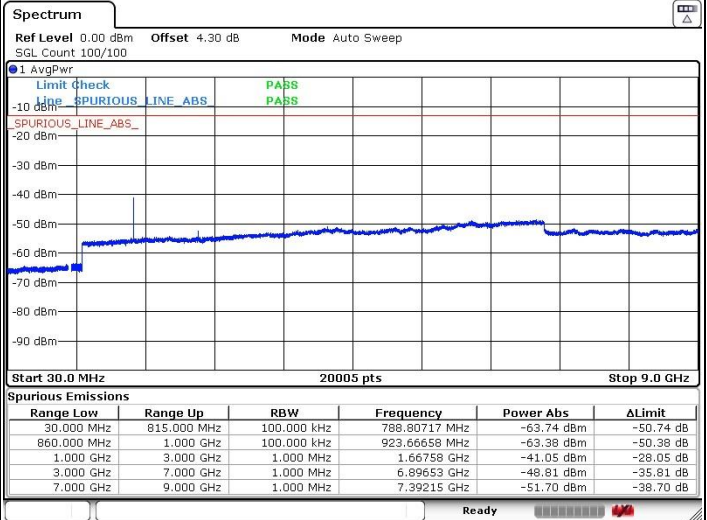
LTE Band 5 / 10MHz+5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



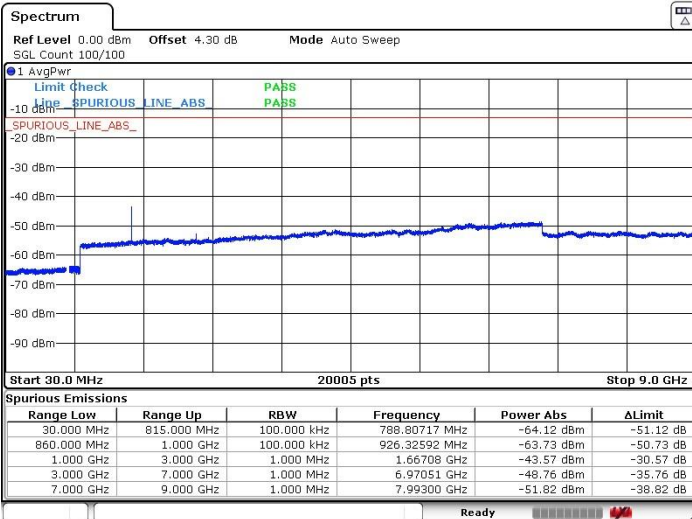
Date: 26 FEB 2019 16:59:39



Date: 26 FEB 2019 17:00:23

Lowest Channel / 64QAM

N/A



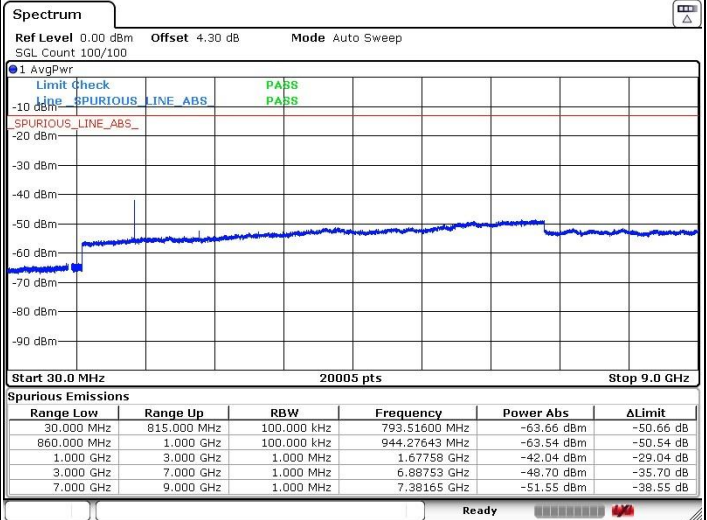
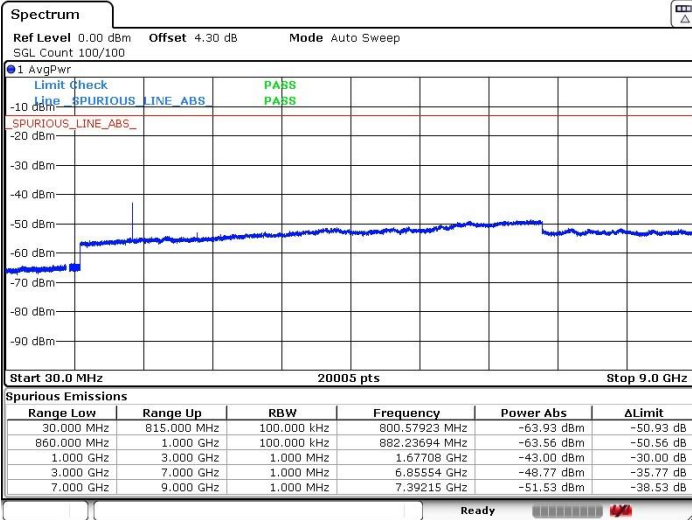
Date: 26 FEB 2019 17:00:52



LTE Band 5 / 10MHz+5MHz

MiddleChannel / QPSK

Middle Channel / 16QAM

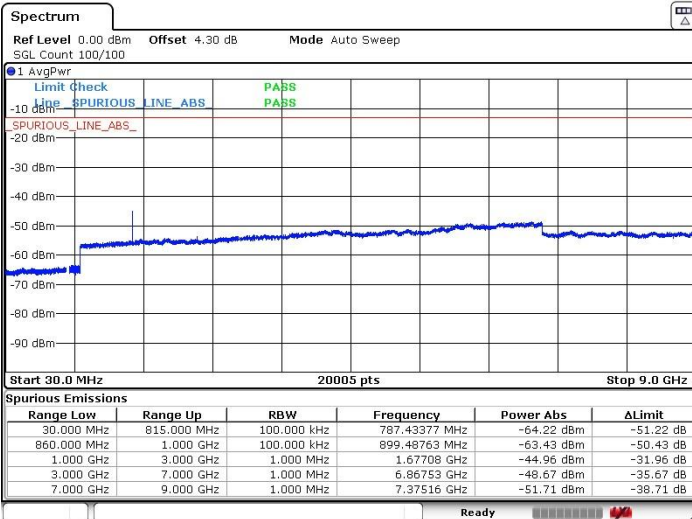


Date: 26.FEB.2019 17:02:27

Date: 26.FEB.2019 17:02:02

Middle Channel / 64QAM

N/A



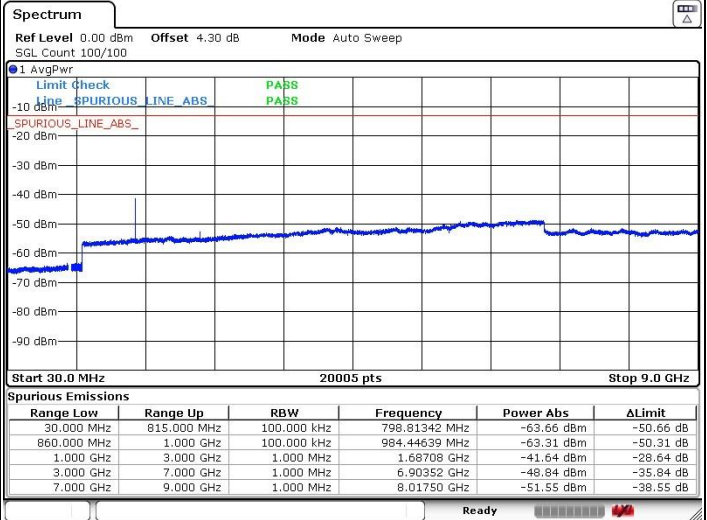
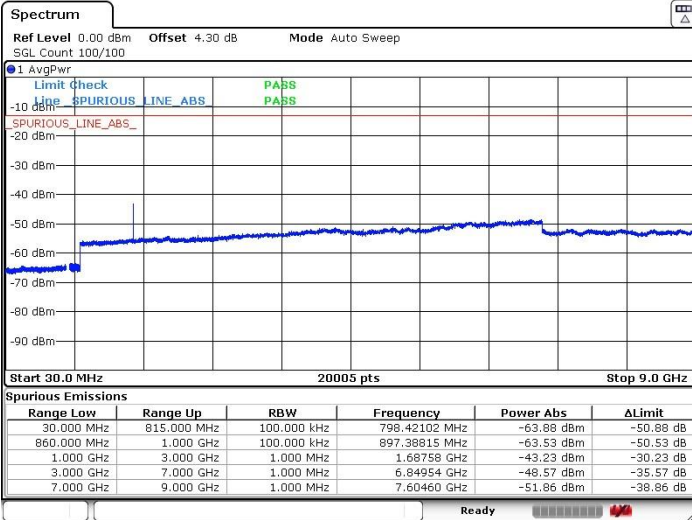
Date: 26.FEB.2019 17:01:30



LTE Band 5 / 10MHz+5MHz

Highest Channel / QPSK

Highest Channel / 16QAM

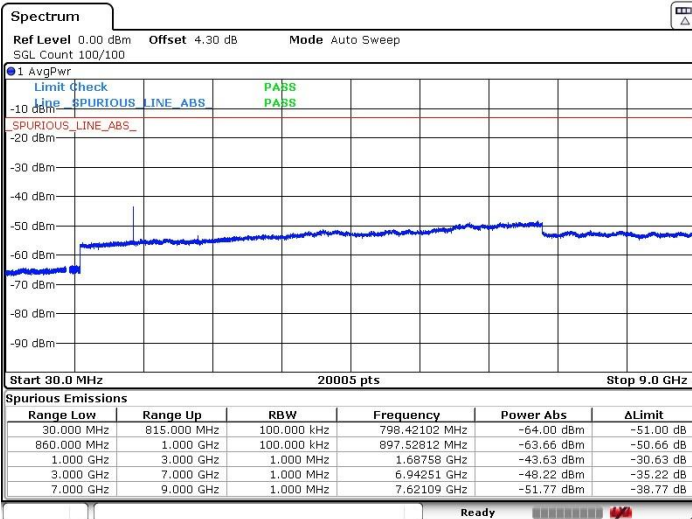


Date: 26.FEB.2019 17:03:44

Date: 26.FEB.2019 17:04:11

Highest Channel / 64QAM

N/A



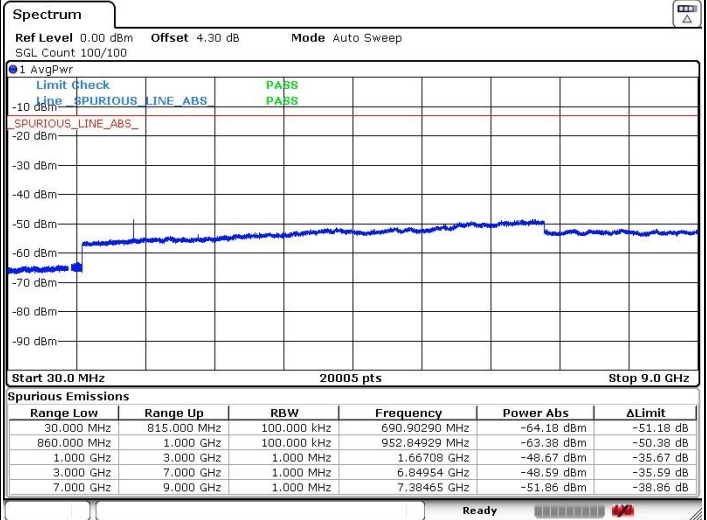
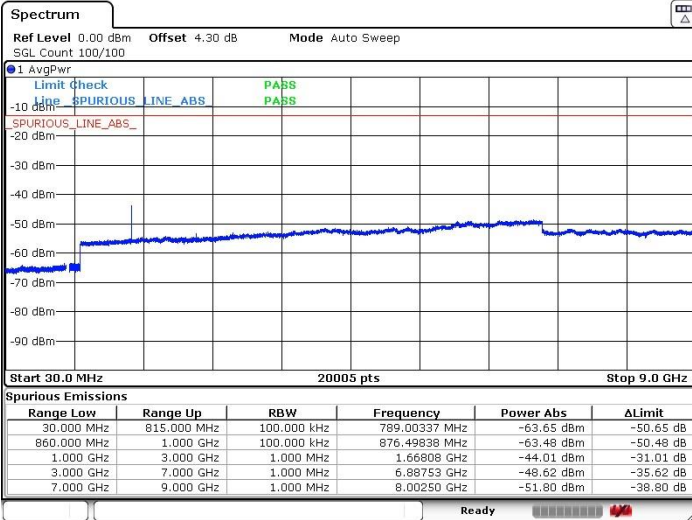
Date: 26.FEB.2019 17:04:39



LTE Band 5 / 10MHz+10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

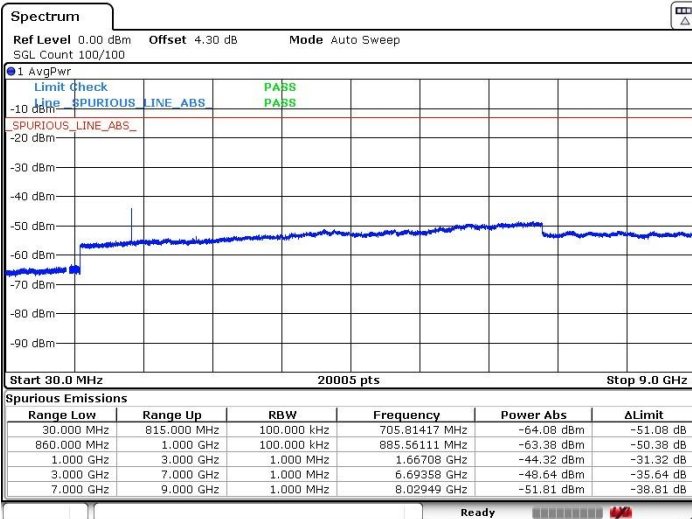


Date: 26 FEB 2019 16:58:36

Date: 26 FEB 2019 16:58:08

Lowest Channel / 64QAM

N/A



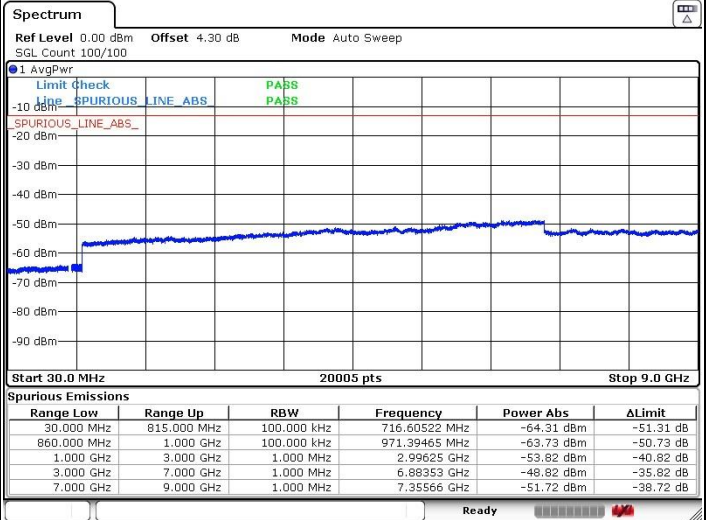
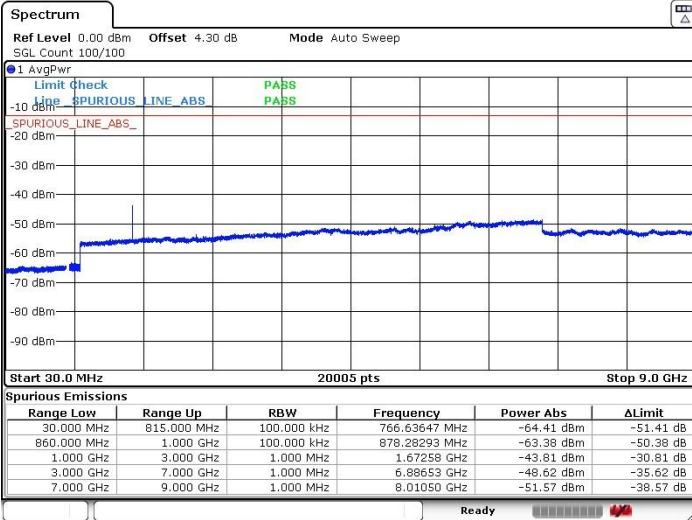
Date: 26 FEB 2019 16:57:33



LTE Band 5 / 10MHz+10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

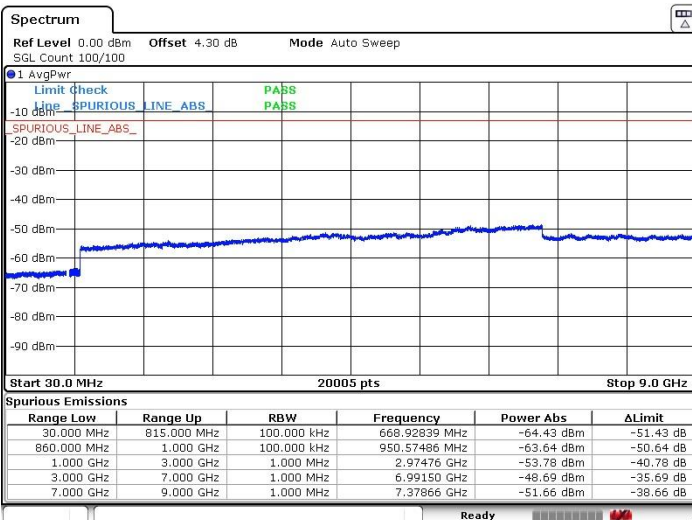


Date: 26 FEB 2019 16:55:10

Date: 26 FEB 2019 16:55:38

Middle Channel / 64QAM

N/A



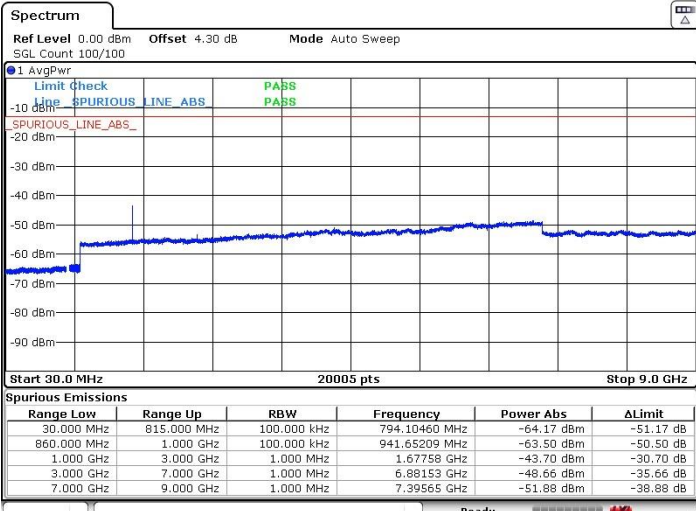
Date: 26 FEB 2019 16:58:12



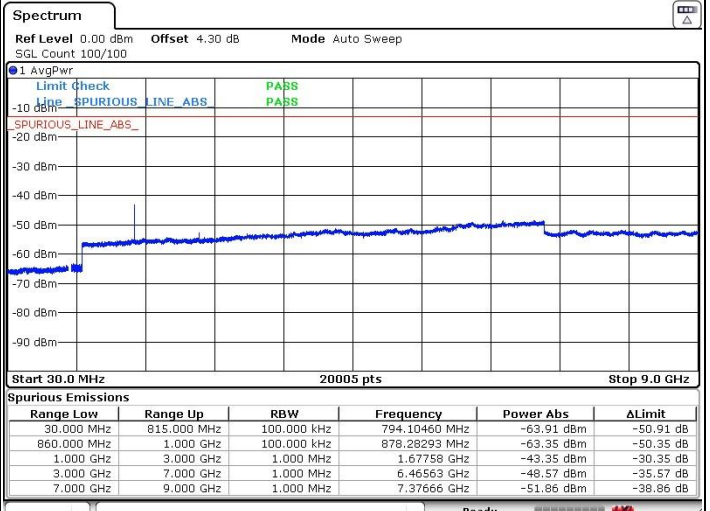
LTE Band 5 / 10MHz+10MHz

Highest Channel / QPSK

Highest Channel / 16QAM



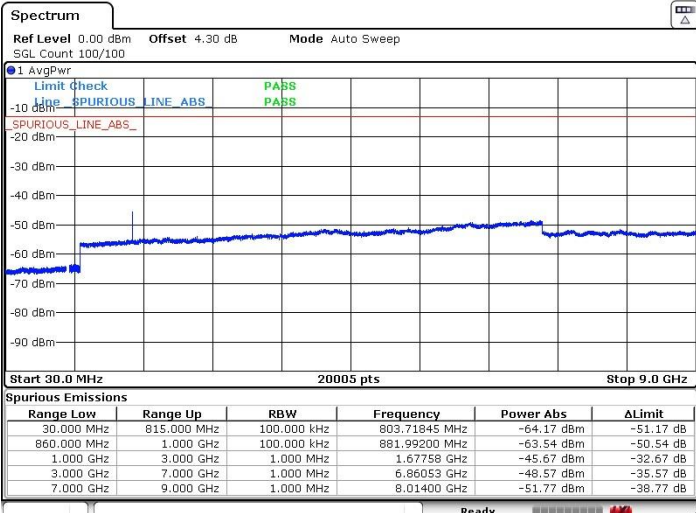
Date: 26.FEB.2019 16:54:11



Date: 26.FEB.2019 16:53:41

Highest Channel / 64QAM

N/A



Date: 26.FEB.2019 16:52:45



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	0.0004	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0009	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0028	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0012	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 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	0.0017	PASS
40	Normal Voltage	0.0082	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0085	
0	Normal Voltage	0.0021	
-10	Normal Voltage	0.0028	
-20	Normal Voltage	0.0107	
-30	Normal Voltage	0.0027	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0007	

Note: Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.



Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0023	PASS
40	Normal Voltage	0.0026	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0034	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0020	
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) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0082	
30	Normal Voltage	0.0054	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0092	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0065	
20	Maximum Voltage	0.0081	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0064	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



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	0.0048	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0054	
0	Normal Voltage	0.0063	
-10	Normal Voltage	0.0010	
-20	Normal Voltage	0.0054	
-30	Normal Voltage	0.0062	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0045	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 66 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0001	PASS
40	Normal Voltage	0.0021	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0022	
-10	Normal Voltage	0.0008	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0023	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0006	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.4V.
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	-62.12	-13	-49.12	-65.62	3.60	7.10	H
	5613	-55.13	-13	-42.13	-61.11	4.42	10.40	H
	7485	-58.19	-13	-45.19	-65.00	5.13	11.94	H
	3741	-62.15	-13	-49.15	-65.65	3.60	7.10	V
	5613	-55.03	-13	-42.03	-61.01	4.42	10.40	V
	7485	-58.25	-13	-45.25	-65.06	5.13	11.94	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	-67.87	-13	-54.87	-69.24	2.28	5.80	H
	2496	-44.63	-13	-31.63	-46.54	2.84	6.90	H
	3327	-63.05	-13	-50.05	-65.11	3.29	7.50	H
	1664	-66.34	-13	-53.34	-67.71	2.28	5.80	V
	2496	-46.34	-13	-33.34	-48.25	2.84	6.90	V
	3327	-62.40	-13	-49.40	-64.46	3.29	7.50	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	-51.62	-25	-26.62	-56.59	3.85	8.82	H
	7580	-59.66	-25	-34.66	-66.50	5.09	11.93	H
	10100	-60.72	-25	-35.72	-66.64	6.08	12.01	H
	5052	-42.42	-25	-17.42	-47.39	3.85	8.82	V
	7578.27	-60.61	-25	-35.61	-67.45	5.09	11.93	V
	10100	-62.04	-25	-37.04	-67.96	6.08	12.01	V

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

LTE Band 12 / 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	1406	-62.55	-13	-49.55	-62.90	2.08	4.58	H
	2110	-41.76	-13	-28.76	-43.15	2.57	6.10	H
	2812	-54.52	-13	-41.52	-56.42	2.98	7.03	H
	1406	-63.49	-13	-50.49	-63.84	2.08	4.58	V
	2110	-46.15	-13	-33.15	-47.54	2.57	6.10	V
	2812	-52.69	-13	-39.69	-54.59	2.98	7.03	V

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



LTE Band 13 / 5MHz / 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	1560	-66.59	-40	-26.59	-70.45	2.23	6.09	H
	2340	-66.42	-13	-53.42	-66.95	2.83	5.51	H
	3120	-65.83	-13	-52.83	-67.77	3.21	7.30	H
	1560	-66.17	-40	-26.17	-70.03	2.23	6.09	V
	2340	-66.88	-13	-53.88	-67.41	2.83	5.51	V
	3120	-65.95	-13	-52.95	-67.89	3.21	7.30	V

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

LTE Band 13 / 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	1556	-66.99	-13	-53.99	-68.70	2.23	6.09	H
	2332	-63.41	-13	-50.41	-63.94	2.83	5.51	H
	3108	-65.04	-13	-52.04	-66.98	3.21	7.30	H
	1556	-67.12	-13	-54.12	-68.83	2.23	6.09	V
	2332	-65.37	-13	-52.37	-65.90	2.83	5.51	V
	3108	-64.79	-13	-51.79	-66.73	3.21	7.30	V

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

LTE Band 66 / 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	3471	-54.17	-13	-41.17	-64.91	2.604	13.34	H
	5208	-41.36	-13	-28.36	-51.87	3.011	13.52	H
	6945	-53.36	-13	-40.36	-63.56	3.271	13.47	H
	3471	-59.29	-13	-46.29	-70.03	2.604	13.34	V
	5208	-41.14	-13	-28.14	-51.65	3.011	13.52	V
	6945	-53.77	-13	-40.77	-63.97	3.271	13.47	V

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



For CA:

LTE Band 5B_CA / 10MHz+10 MHz / 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	1674	-63.56	-13	-50.56	-64.93	2.28	5.80	H
	2510	-50.19	-13	-37.19	-52.10	2.84	6.90	H
	3348	-65.00	-13	-52.00	-67.06	3.29	7.50	H
	1674	-68.28	-13	-55.28	-69.65	2.28	5.80	V
	2510	-51.60	-13	-38.60	-53.51	2.84	6.90	V
	3348	-65.16	-13	-52.16	-67.22	3.29	7.50	V

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