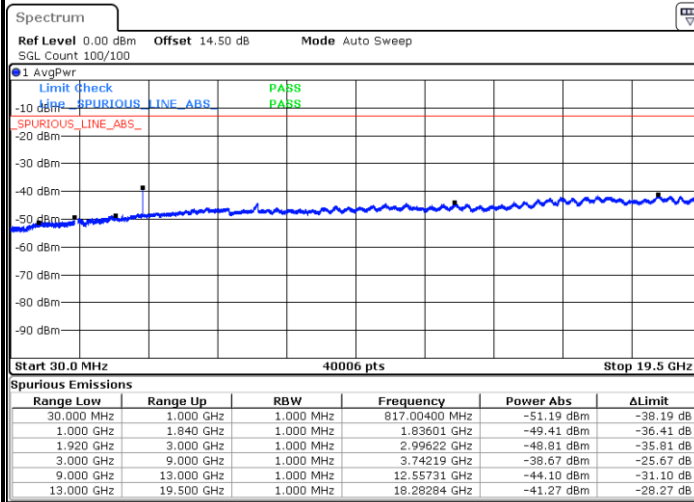




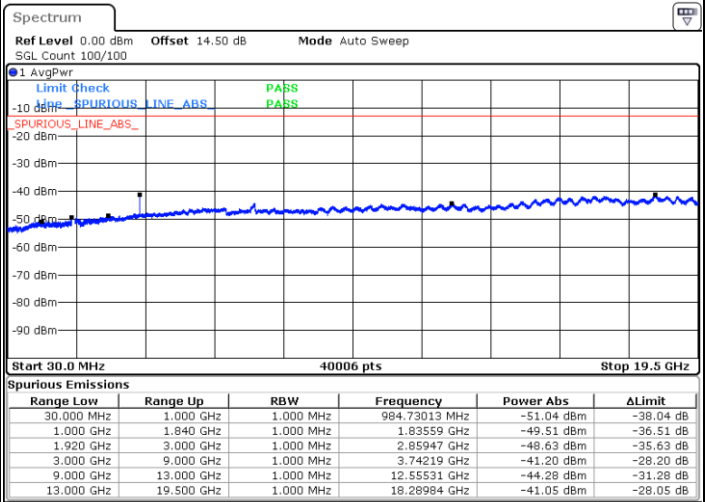
LTE Band 2 / 20MHz

Middle Channel / QPSK



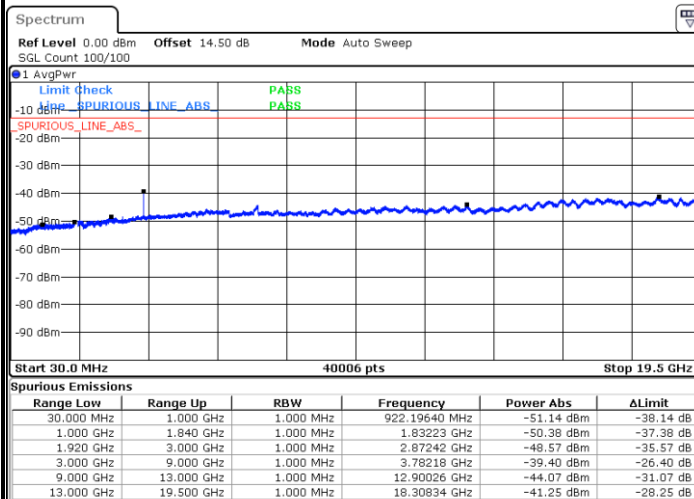
Date: 25.JUN.2019 09:38:07

Middle Channel / 16QAM



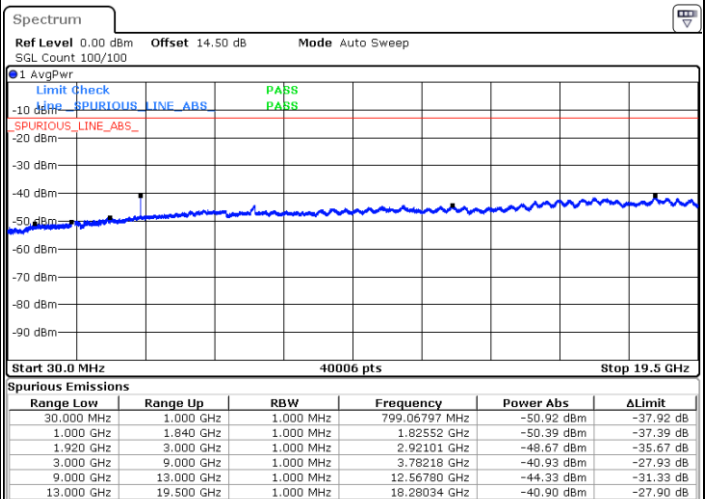
Date: 25.JUN.2019 09:39:03

Highest Channel / QPSK



Date: 25.JUN.2019 09:45:16

Highest Channel / 16QAM

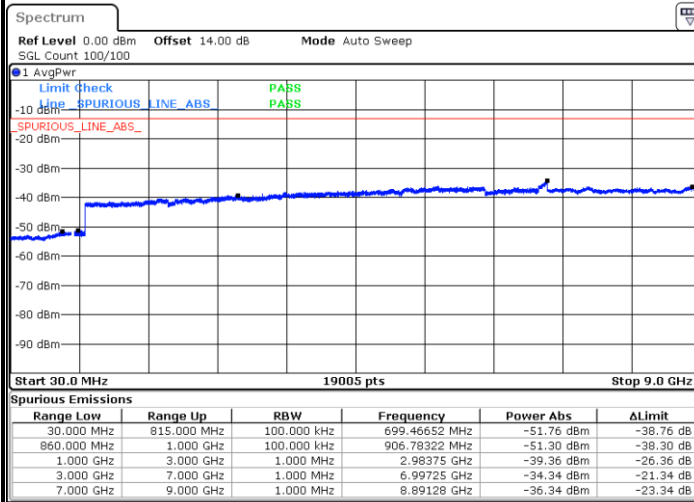


Date: 25.JUN.2019 09:46:12



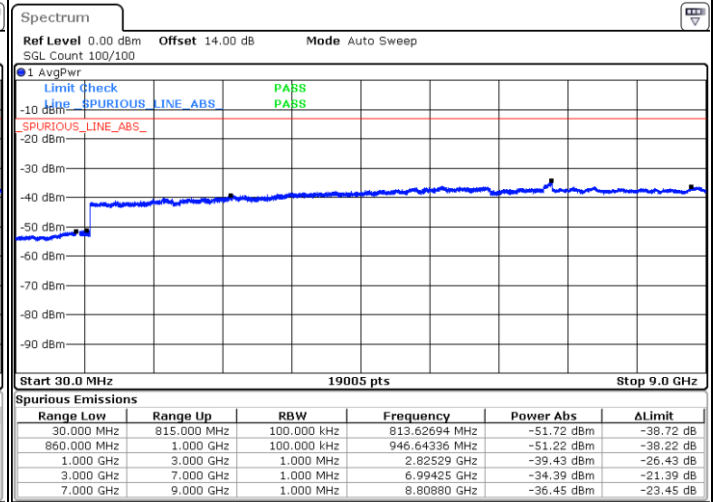
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



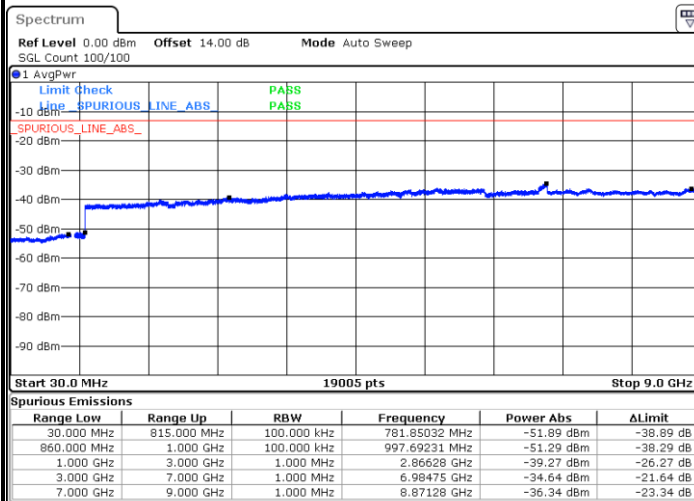
Date: 25.JUN.2019 05:25:45

Lowest Channel / 16QAM



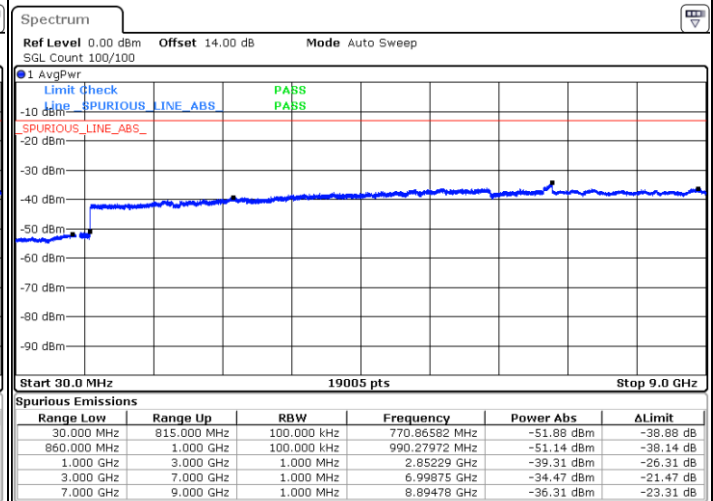
Date: 25.JUN.2019 05:26:41

Middle Channel / QPSK



Date: 25.JUN.2019 05:28:19

Middle Channel / 16QAM

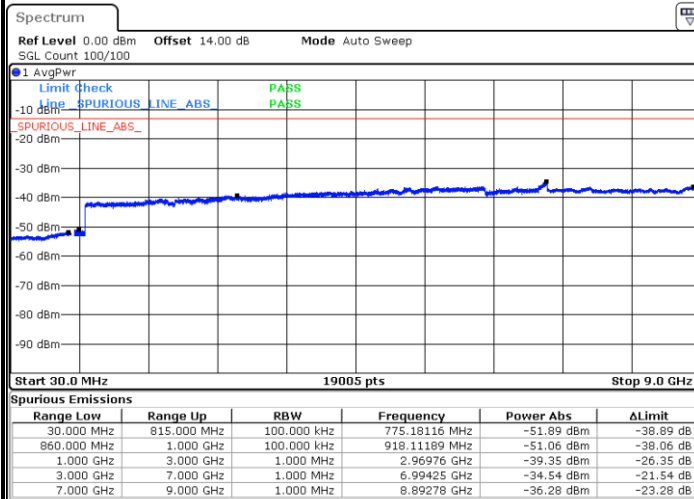


Date: 25.JUN.2019 05:29:15



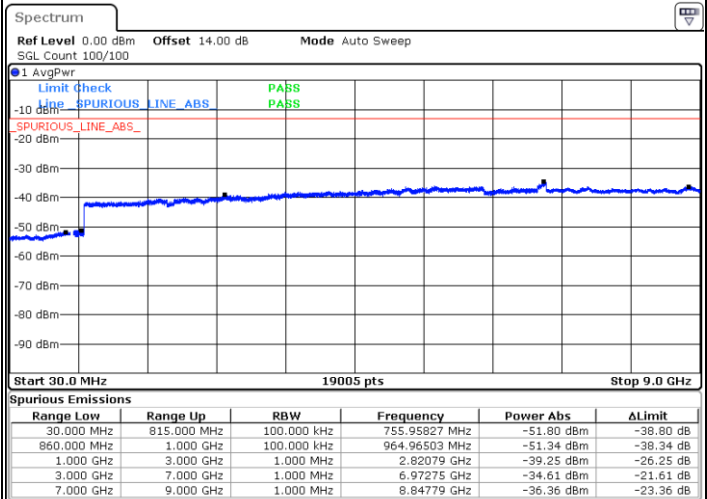
LTE Band 5 / 1.4MHz

Highest Channel / QPSK



Date: 25.JUN.2019 05:37:30

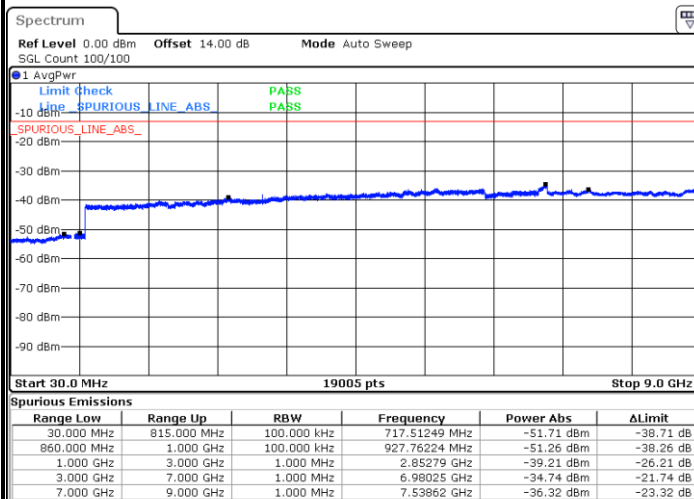
Highest Channel / 16QAM



Date: 25.JUN.2019 05:38:26

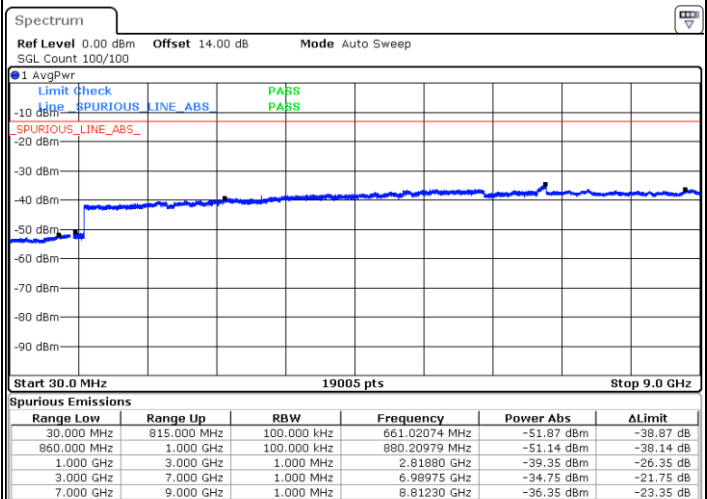
LTE Band 5 / 3MHz

Lowest Channel / QPSK



Date: 25.JUN.2019 05:51:34

Lowest Channel / 16QAM

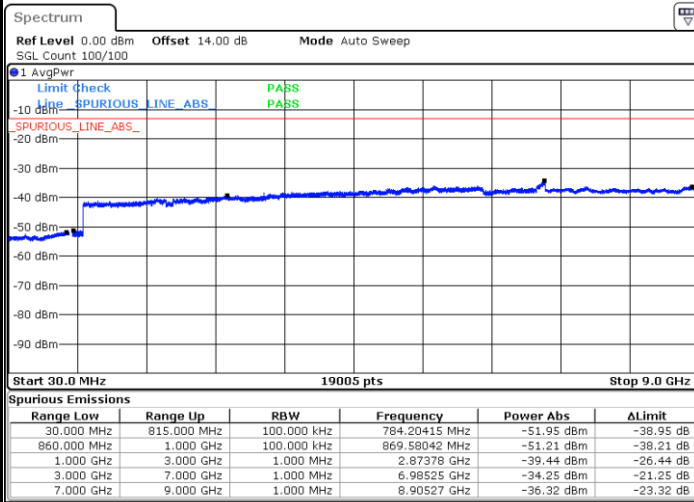


Date: 25.JUN.2019 05:52:30



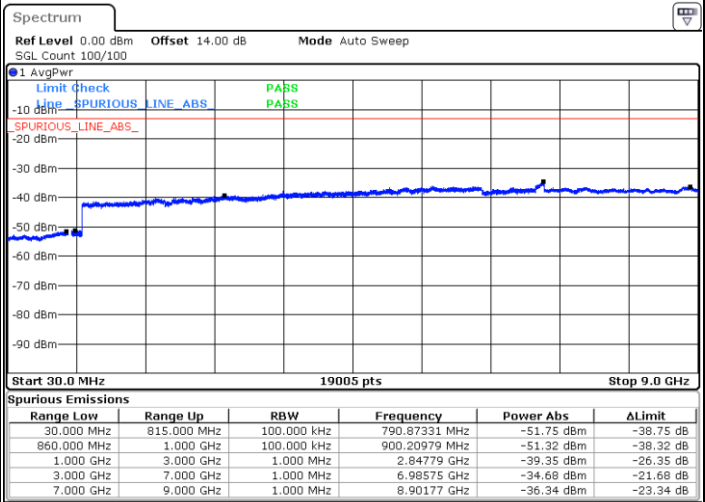
LTE Band 5 / 3MHz

Middle Channel / QPSK



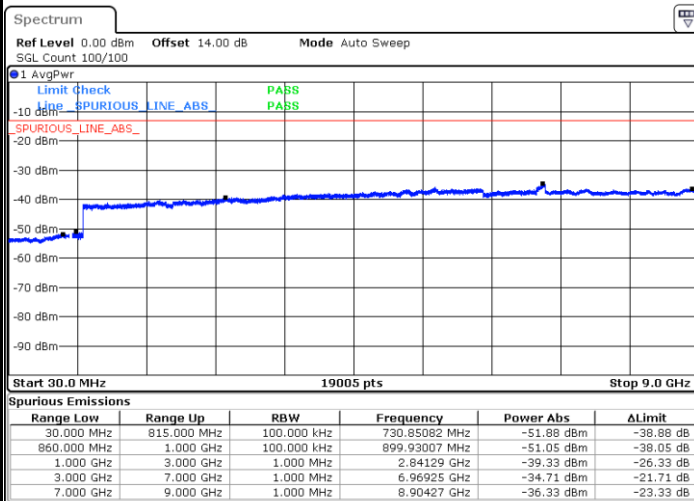
Date: 25.JUN.2019 05:54:07

Middle Channel / 16QAM



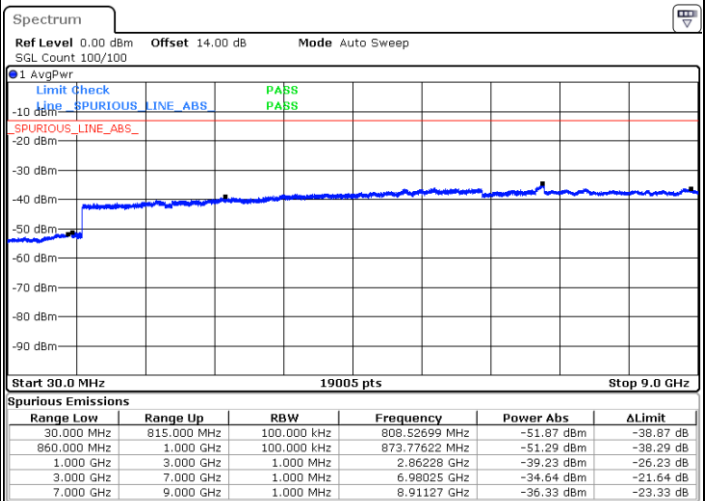
Date: 25.JUN.2019 05:55:03

Highest Channel / QPSK



Date: 25.JUN.2019 06:03:17

Highest Channel / 16QAM

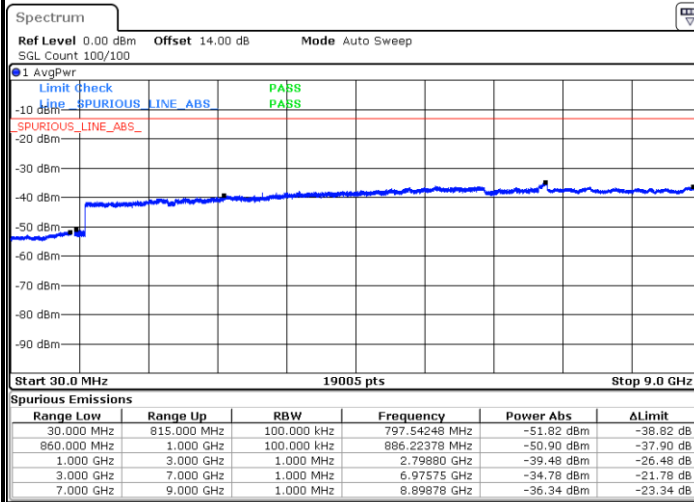


Date: 25.JUN.2019 06:04:13



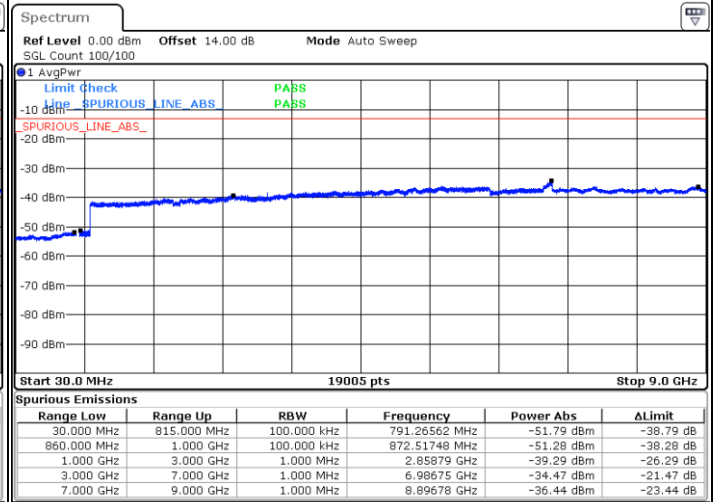
LTE Band 5 / 5MHz

Lowest Channel / QPSK



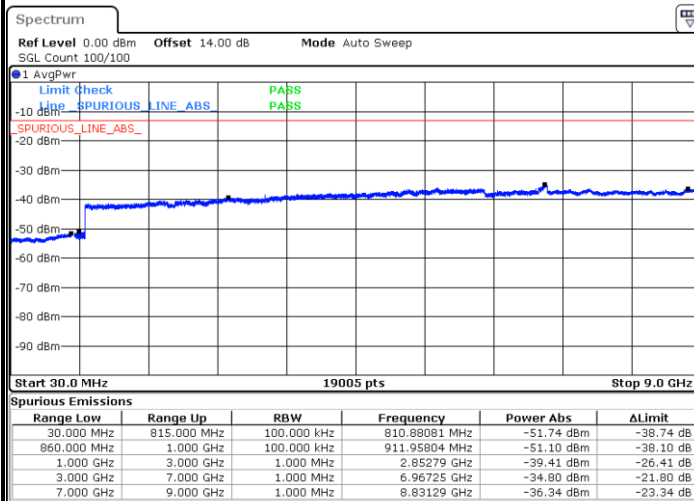
Date: 25.JUN.2019 06:17:36

Lowest Channel / 16QAM



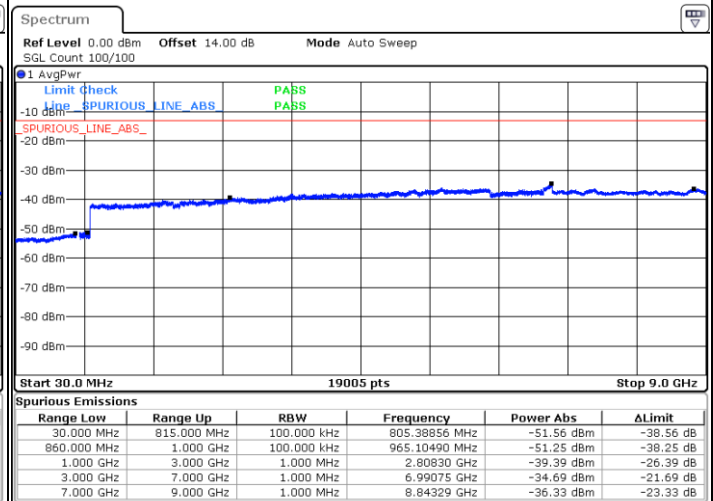
Date: 25.JUN.2019 06:18:32

Middle Channel / QPSK



Date: 25.JUN.2019 06:20:09

Middle Channel / 16QAM

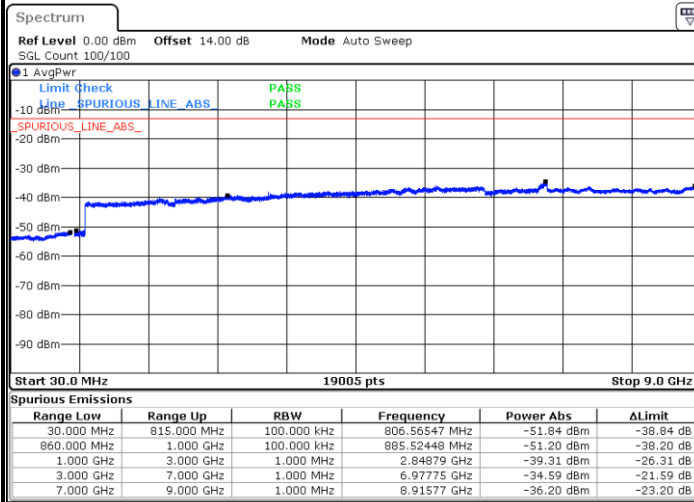


Date: 25.JUN.2019 06:21:05



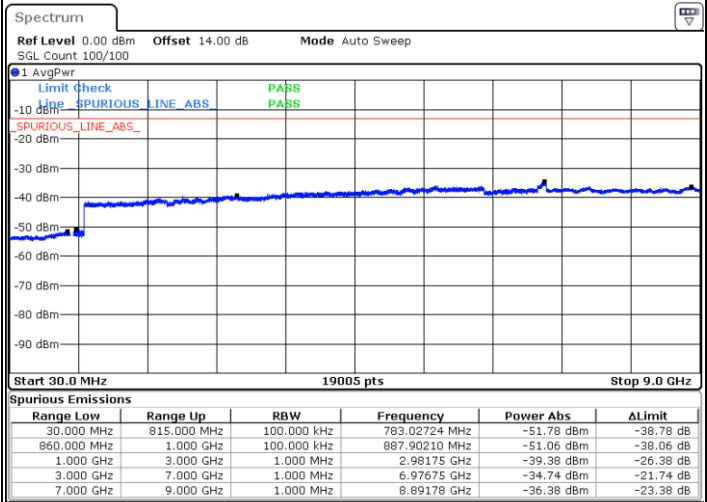
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 25.JUN.2019 06:29:19

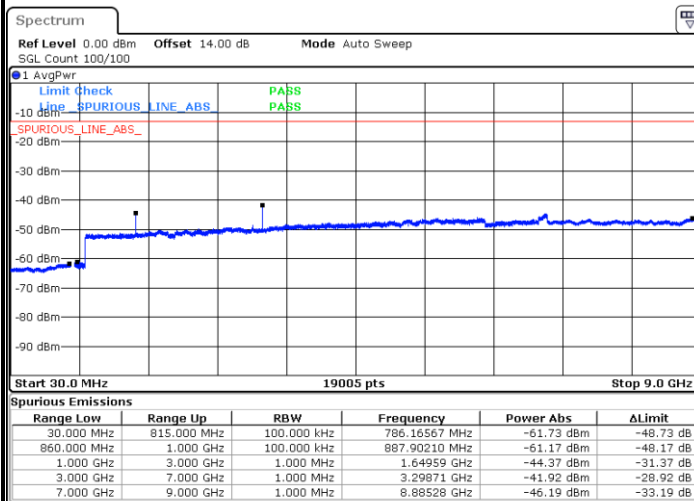
Highest Channel / 16QAM



Date: 25.JUN.2019 06:30:15

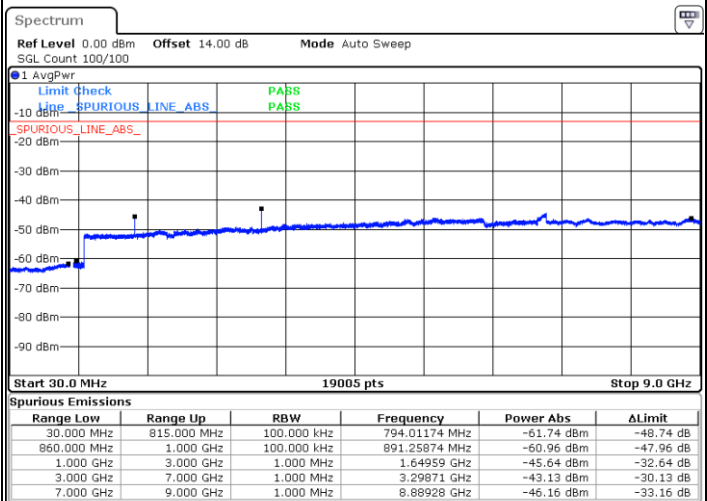
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 25.JUN.2019 06:58:44

Lowest Channel / 16QAM

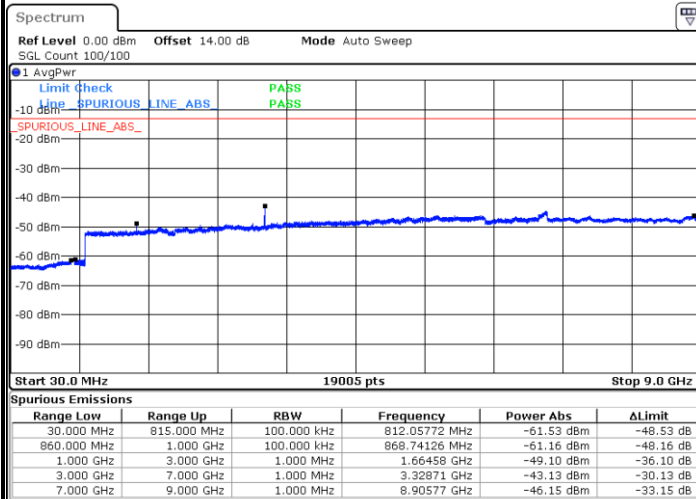


Date: 25.JUN.2019 06:59:40



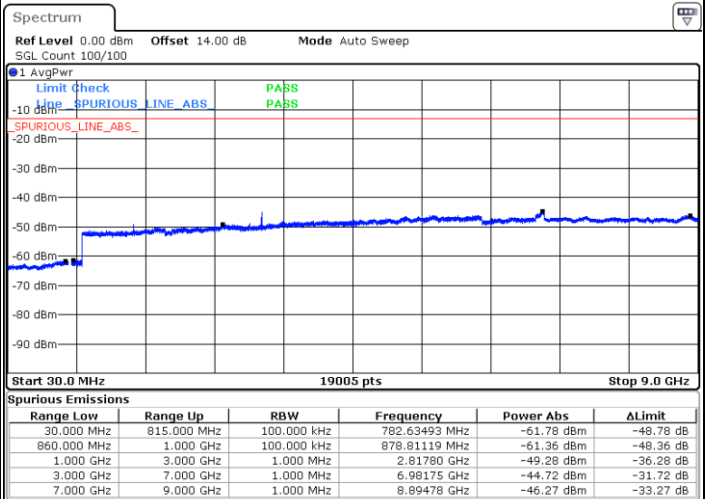
LTE Band 5 / 10MHz

Middle Channel / QPSK



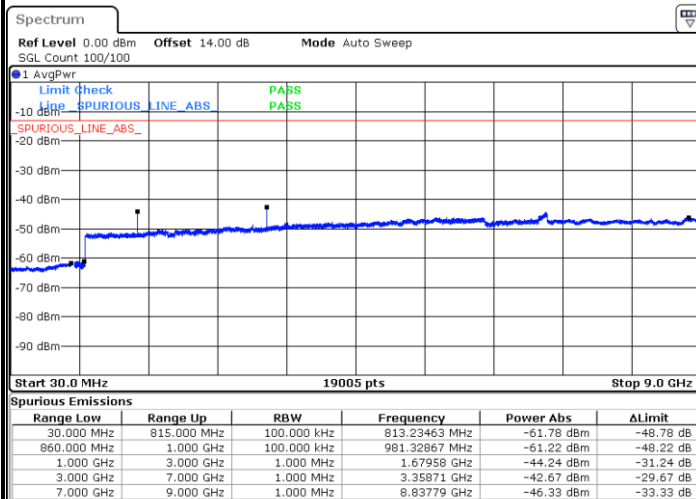
Date: 25.JUN.2019 07:01:17

Middle Channel / 16QAM



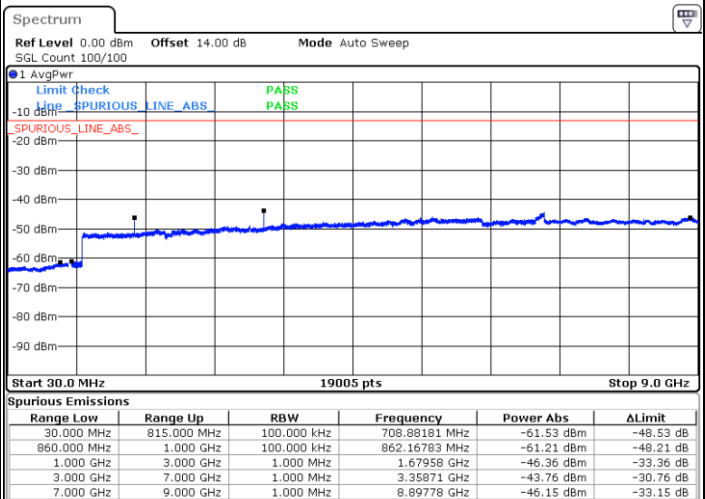
Date: 25.JUN.2019 07:02:13

Highest Channel / QPSK



Date: 25.JUN.2019 07:10:27

Highest Channel / 16QAM

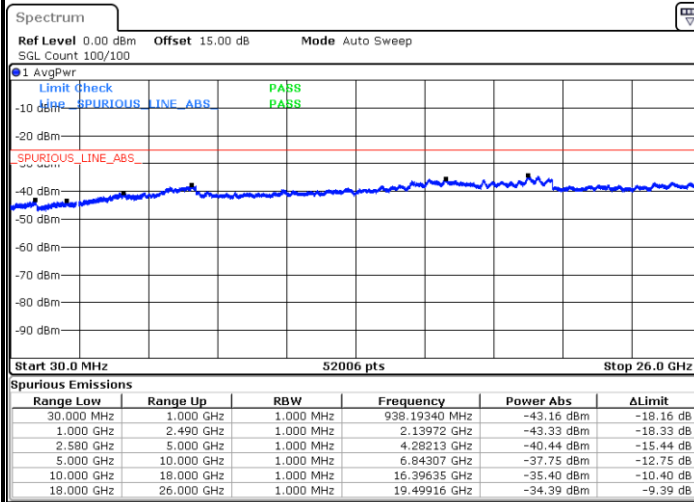


Date: 25.JUN.2019 07:11:23



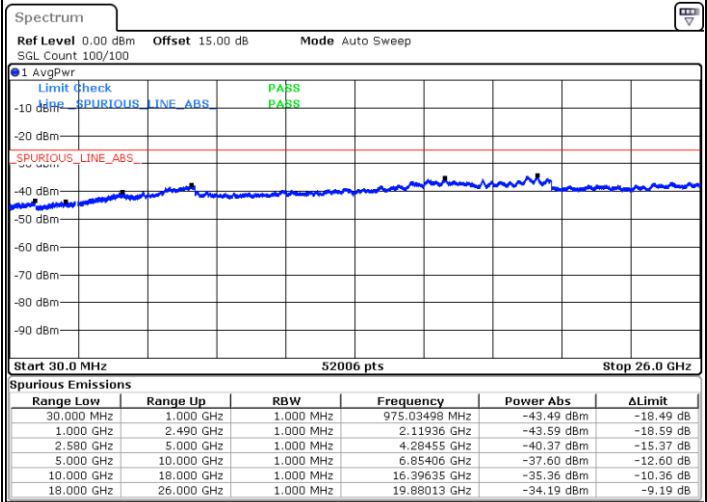
LTE Band 7 / 5MHz

Lowest Channel / QPSK



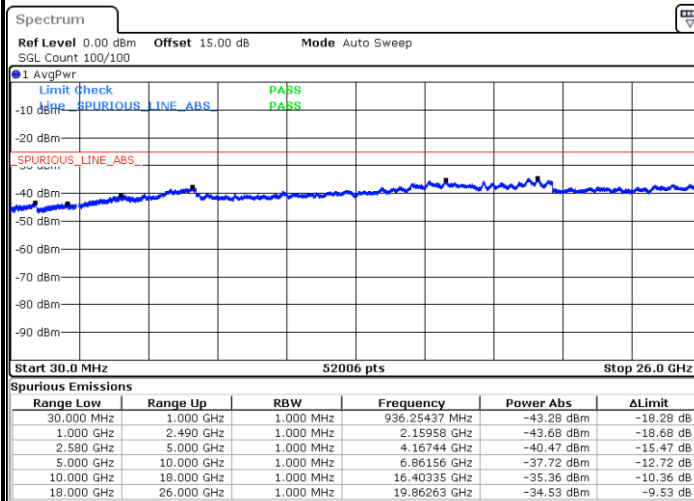
Date: 24 JUN 2019 11:37:59

Lowest Channel / 16QAM



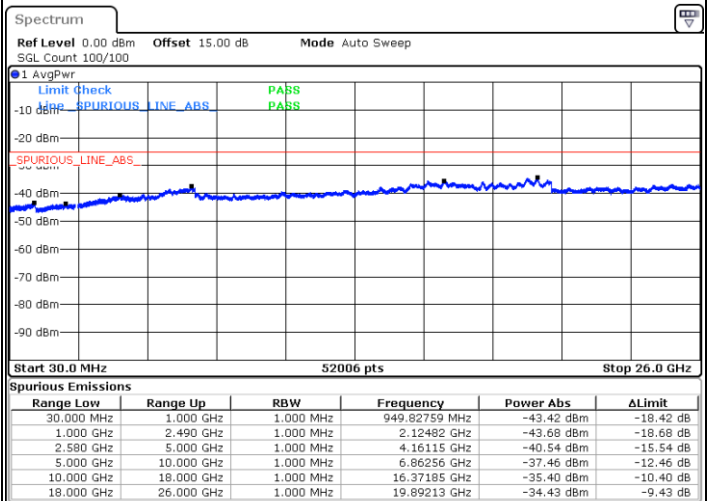
Date: 24 JUN 2019 11:41:38

Middle Channel / QPSK



Date: 24 JUN 2019 11:38:52

Middle Channel / 16QAM

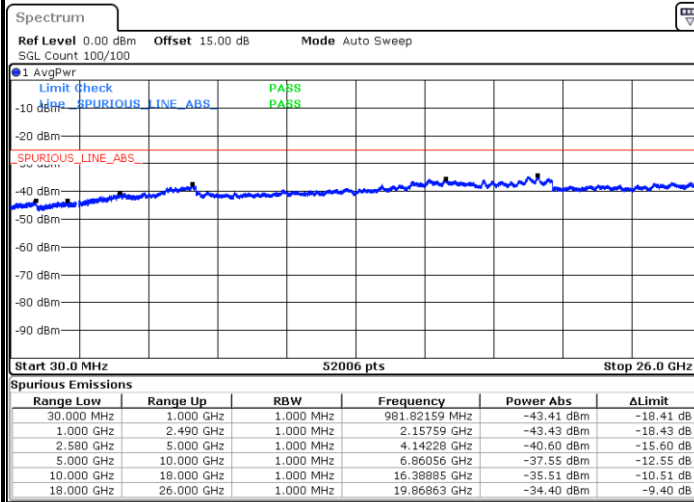


Date: 24 JUN 2019 11:42:31



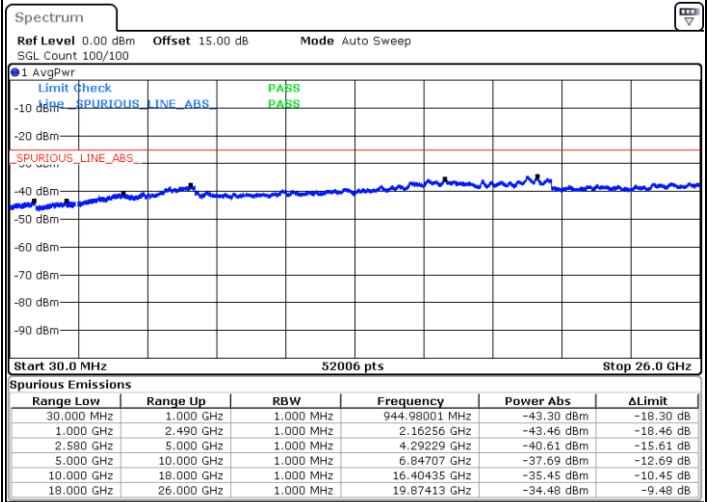
LTE Band 7 / 5MHz

Highest Channel / QPSK



Date: 24 JUN 2019 11:39:45

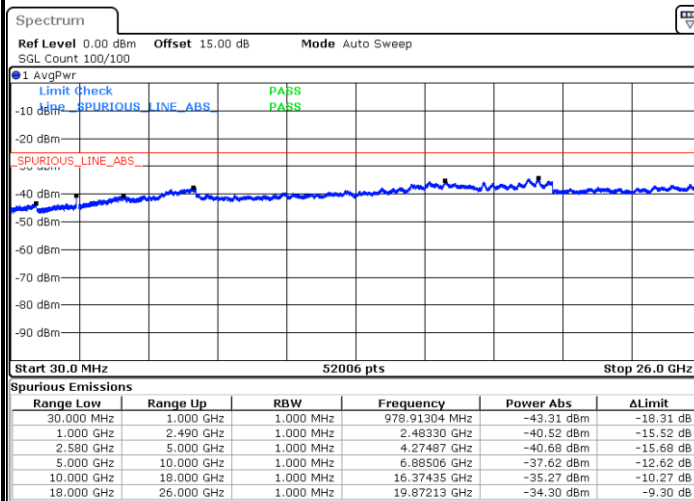
Highest Channel / 16QAM



Date: 24 JUN 2019 11:43:23

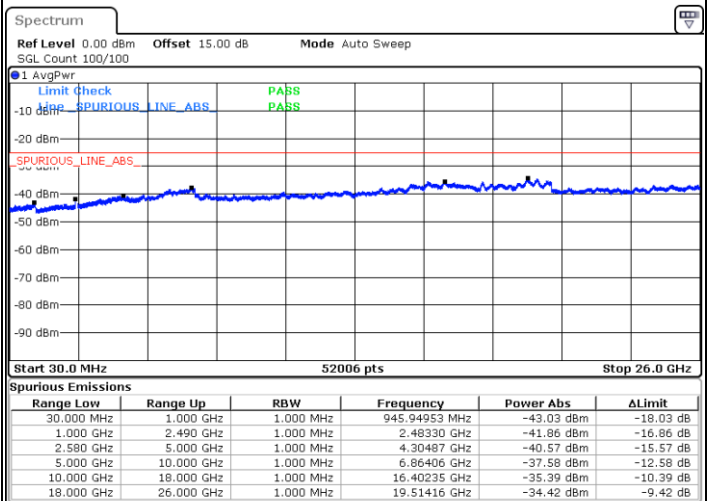
LTE Band 7 / 10MHz

Lowest Channel / QPSK



Date: 24 JUN 2019 11:46:19

Lowest Channel / 16QAM

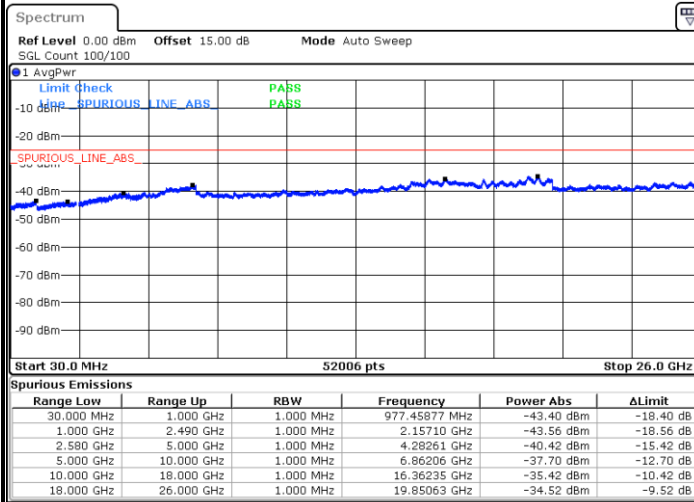


Date: 24 JUN 2019 11:48:57



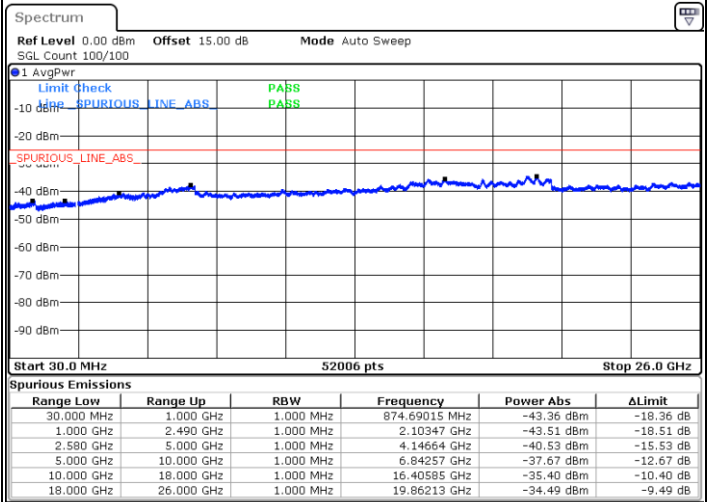
LTE Band 7 / 10MHz

Middle Channel / QPSK



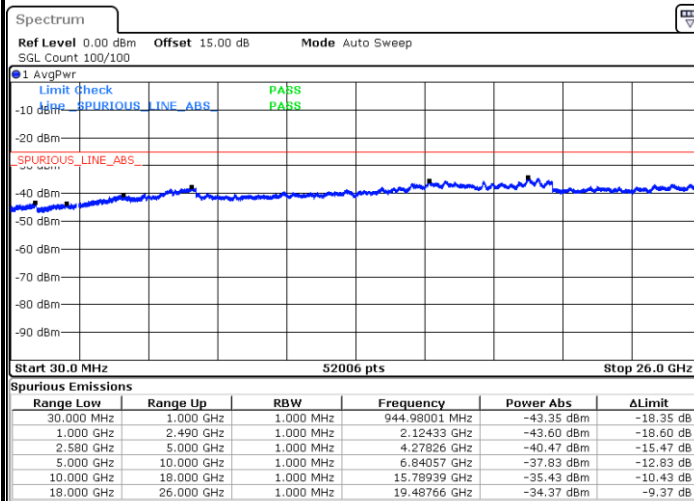
Date: 24 JUN 2019 11:47:12

Middle Channel / 16QAM



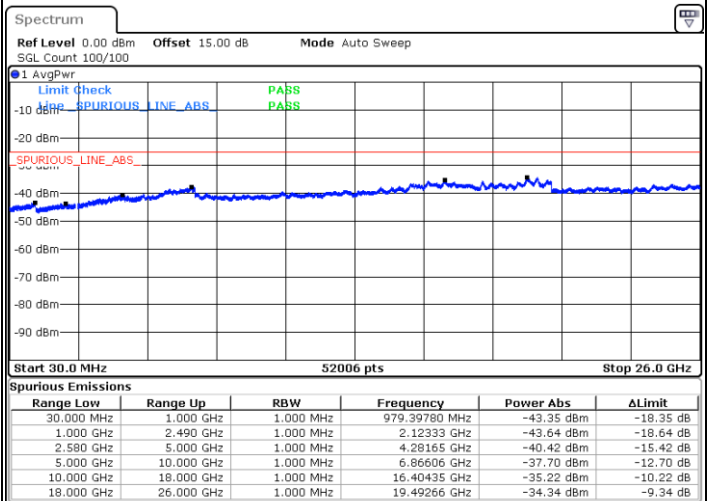
Date: 24 JUN 2019 11:49:50

Highest Channel / QPSK



Date: 24 JUN 2019 11:48:05

Highest Channel / 16QAM

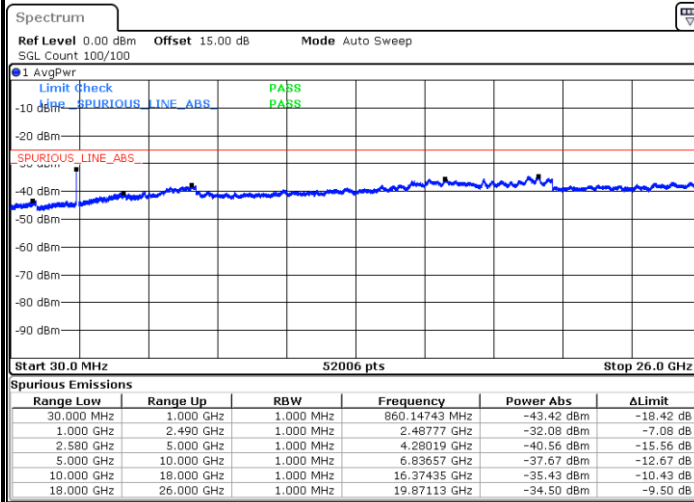


Date: 24 JUN 2019 11:50:43



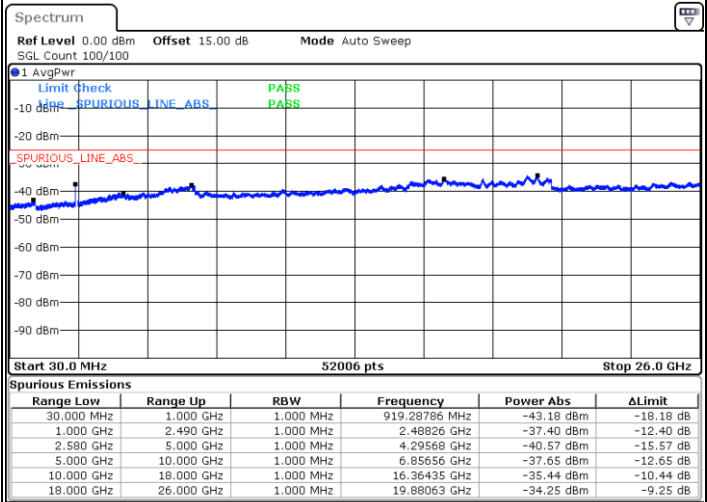
LTE Band 7 / 15MHz

Lowest Channel / QPSK



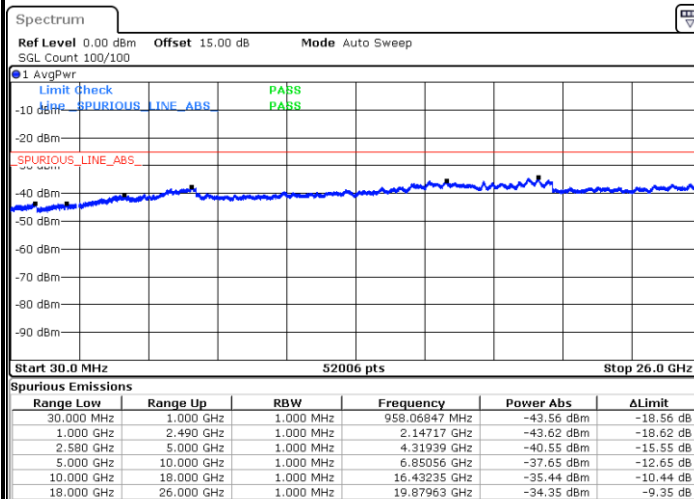
Date: 24 JUN 2019 11:53:37

Lowest Channel / 16QAM



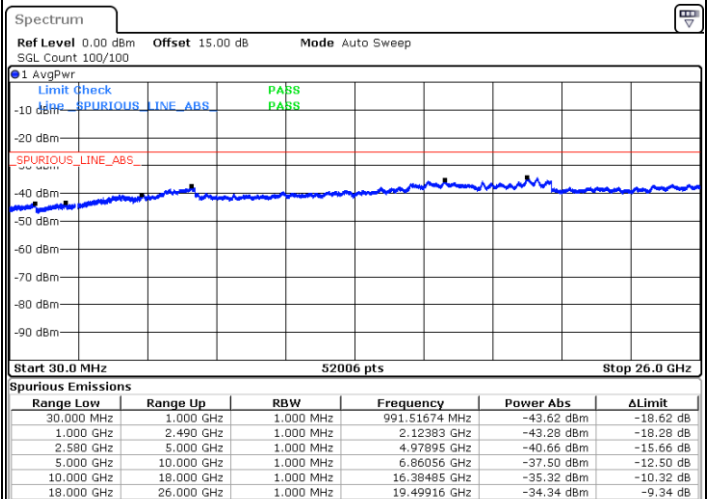
Date: 24 JUN 2019 11:56:15

Middle Channel / QPSK



Date: 24 JUN 2019 11:54:30

Middle Channel / 16QAM

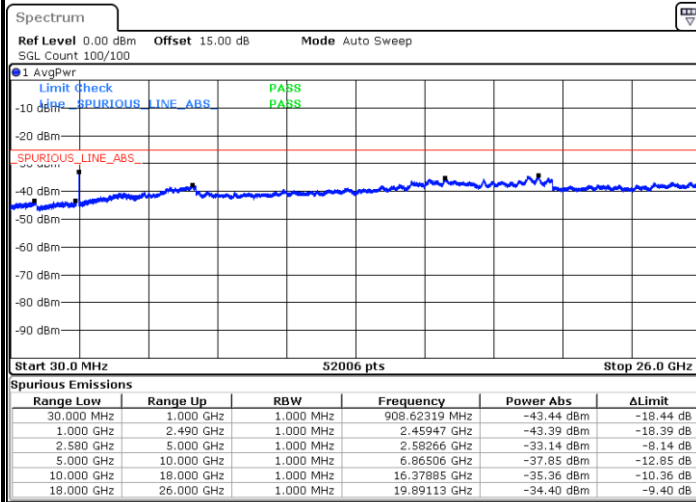


Date: 24 JUN 2019 11:57:08



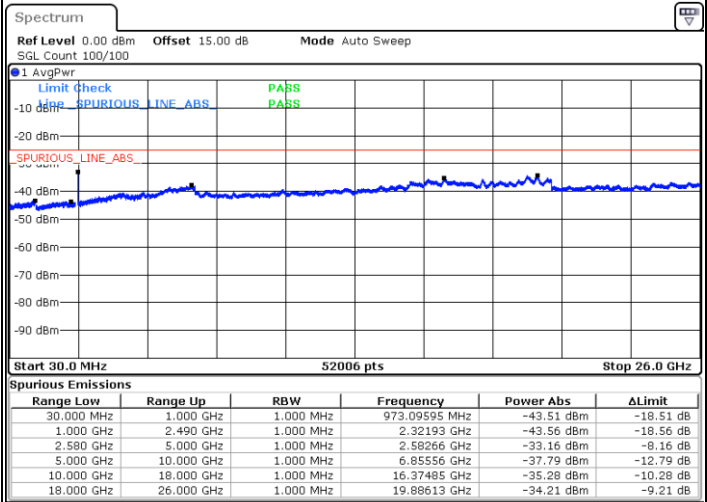
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 24 JUN 2019 11:55:23

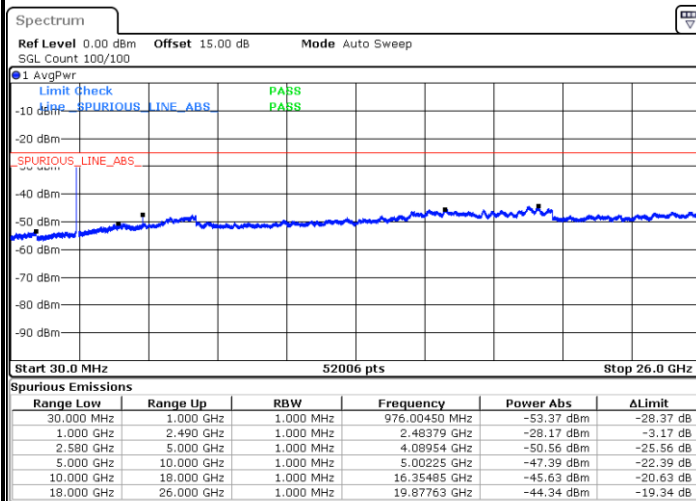
Highest Channel / 16QAM



Date: 24 JUN 2019 11:58:00

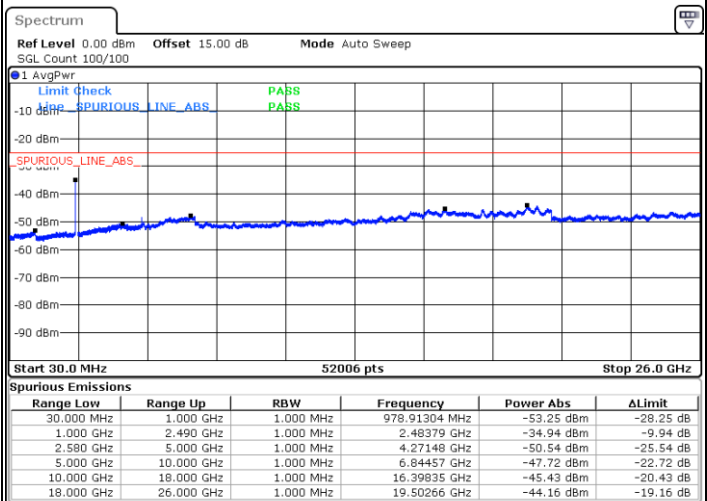
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 24 JUN 2019 12:00:55

Lowest Channel / 16QAM

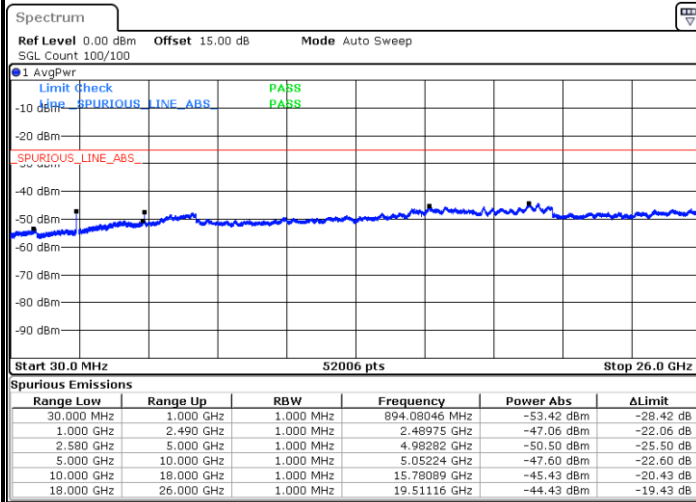


Date: 24 JUN 2019 12:03:33



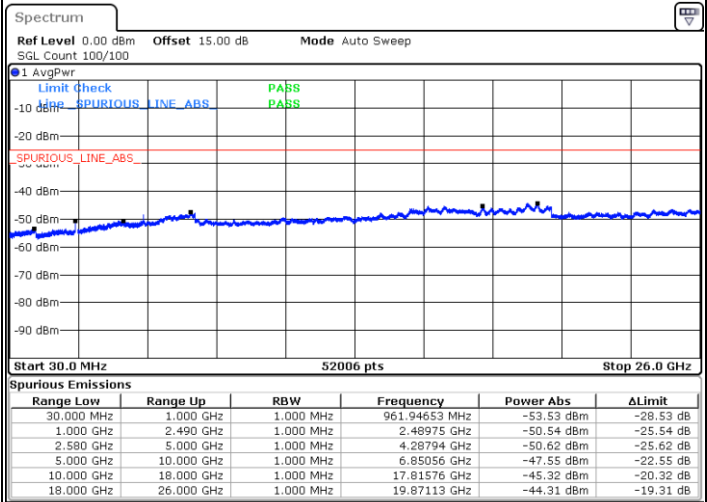
LTE Band 7 / 20MHz

Middle Channel / QPSK



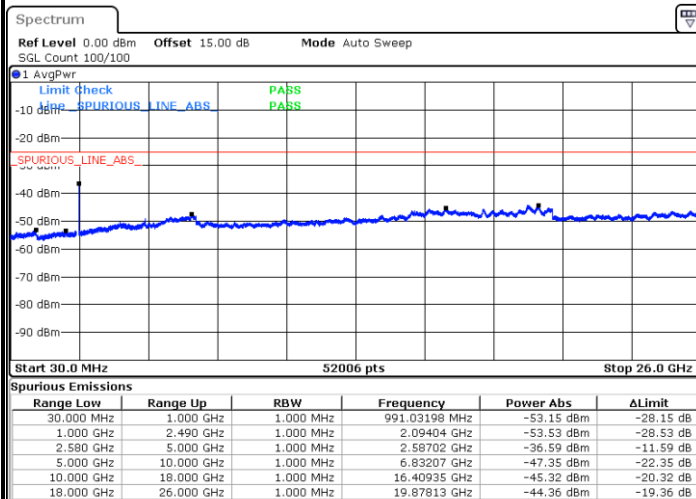
Date: 24 JUN 2019 12:01:48

Middle Channel / 16QAM



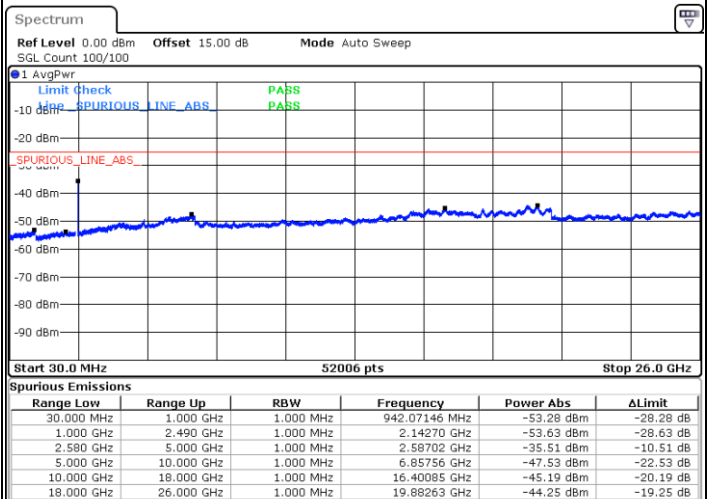
Date: 24 JUN 2019 12:04:26

Highest Channel / QPSK



Date: 24 JUN 2019 12:02:41

Highest Channel / 16QAM



Date: 24 JUN 2019 12:05:19

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	0.0009	PASS
40	Normal Voltage	0.0012	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0019	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 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	0.0161	PASS
40	Normal Voltage	0.0037	
30	Normal Voltage	0.0116	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0153	
0	Normal Voltage	0.0161	
-10	Normal Voltage	0.0153	
-20	Normal Voltage	0.0126	
-30	Normal Voltage	0.0112	
20	Maximum Voltage	0.0121	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0032	

Note: Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0000	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0001	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 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 / 1.4MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3758.92	-55.75	-13	-42.75	-69.37	-63.35	5.00	12.60	H
	5638.38	-62.51	-13	-49.51	-79.11	-68.31	7.30	13.10	H
	7517.84	-59.92	-13	-46.92	-79.90	-63.49	7.73	11.30	H
	3758.92	-56.85	-13	-43.85	-71.18	-64.45	5.00	12.60	V
	5638.38	-63.01	-13	-50.01	-79.54	-68.81	7.30	13.10	V
	7517.84	-60.10	-13	-47.10	-79.74	-63.67	7.73	11.30	V

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

LTE Band 2 / 3MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3757.48	-54.88	-13	-41.88	-68.50	-62.48	5.00	12.60	H
	5636.22	-62.74	-13	-49.74	-79.34	-68.54	7.30	13.10	H
	7514.96	-59.67	-13	-46.67	-79.65	-63.24	7.73	11.30	H
	3757.48	-57.80	-13	-44.80	-72.13	-65.40	5.00	12.60	V
	5636.22	-62.80	-13	-49.80	-79.33	-68.60	7.30	13.10	V
	7514.96	-60.02	-13	-47.02	-79.66	-63.59	7.73	11.30	V

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



LTE Band 2 / 5MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3755.68	-55.63	-13	-42.63	-69.25	-63.23	5.00	12.60	H
	5633.52	-62.51	-13	-49.51	-79.11	-68.31	7.30	13.10	H
	7511.36	-59.47	-13	-46.47	-79.45	-63.04	7.73	11.30	H
	3755.68	-58.70	-13	-45.70	-73.03	-66.30	5.00	12.60	V
	5633.52	-62.76	-13	-49.76	-79.29	-68.56	7.30	13.10	V
	7511.36	-60.14	-13	-47.14	-79.78	-63.71	7.73	11.30	V

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

LTE Band 2 / 10MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3751.18	-56.88	-13	-43.88	-70.50	-64.48	5.00	12.60	H
	5626.77	-62.67	-13	-49.67	-79.27	-68.47	7.30	13.10	H
	7502.00	-59.92	-13	-46.92	-79.90	-63.49	7.73	11.30	H
	3751.18	-57.83	-13	-44.83	-72.16	-65.43	5.00	12.60	V
	5626.77	-62.80	-13	-49.80	-79.33	-68.60	7.30	13.10	V
	7502.00	-59.85	-13	-46.85	-79.49	-63.42	7.73	11.30	V

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



LTE Band 2 / 15MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3746.68	-56.54	-13	-43.54	-70.16	-64.14	5.00	12.60	H
	5620.02	-62.70	-13	-49.70	-79.30	-68.50	7.30	13.10	H
	7493.36	-59.59	-13	-46.59	-79.57	-63.16	7.73	11.30	H
	3746.68	-58.02	-13	-45.02	-72.35	-65.62	5.00	12.60	V
	5620.02	-62.87	-13	-49.87	-79.4	-68.67	7.30	13.10	V
	7493.36	-59.86	-13	-46.86	-79.5	-63.43	7.73	11.30	V

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

LTE Band 2 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3742.18	-57.39	-13	-44.39	-71.01	-64.99	5.00	12.60	H
	5613.27	-62.81	-13	-49.81	-79.41	-68.61	7.30	13.10	H
	7484.36	-59.66	-13	-46.66	-79.64	-63.23	7.73	11.30	H
	3742.18	-58.66	-13	-45.66	-72.99	-66.26	5.00	12.60	V
	5613.27	-62.99	-13	-49.99	-79.52	-68.79	7.30	13.10	V
	7484.36	-59.87	-13	-46.87	-79.51	-63.44	7.73	11.30	V

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



LTE Band 5 / 1.4MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1671.92	-68.57	-13	-55.57	-70.28	-72.94	2.88	9.40	H
	2507.88	-70.66	-13	-57.66	-76.72	-76.61	2.5	10.60	H
	3343.84	-65.36	-13	-52.36	-73.36	-71.18	4.63	12.60	H
	1671.92	-61.37	-13	-48.37	-63.21	-65.74	2.88	9.40	V
	2507.88	-70.51	-13	-57.51	-76.46	-76.46	2.50	10.60	V
	3343.84	-57.07	-13	-44.07	-65.10	-62.89	4.63	12.60	V

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

LTE Band 5 / 3MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1670.48	-68.19	-13	-55.19	-69.90	-72.56	2.88	9.40	H
	2505.72	-70.24	-13	-57.24	-76.30	-76.19	2.5	10.60	H
	3340.96	-65.68	-13	-52.68	-73.68	-71.50	4.63	12.60	H
	1670.48	-60.92	-13	-47.92	-62.76	-65.29	2.88	9.40	V
	2505.72	-69.71	-13	-56.71	-75.66	-75.66	2.50	10.60	V
	3340.96	-57.97	-13	-44.97	-66.00	-63.79	4.63	12.60	V

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



LTE Band 5 / 5MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1668.68	-68.75	-13	-55.75	-70.46	-73.12	2.88	9.40	H
	2503.02	-70.30	-13	-57.30	-76.36	-75.25	3.50	10.60	H
	3337.36	-65.95	-13	-52.95	-73.95	-71.77	4.63	12.60	H
	1668.68	-61.13	-13	-48.13	-62.97	-65.50	2.88	9.40	V
	2503.02	-69.97	-13	-56.97	-75.92	-74.92	3.50	10.60	V
	3337.36	-58.38	-13	-45.38	-66.41	-64.20	4.63	12.60	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664.18	-63.93	-13	-50.93	-65.64	-68.30	2.88	9.40	H
	2496.27	-67.96	-13	-54.96	-74.02	-72.91	3.50	10.60	H
	3328.36	-63.13	-13	-50.13	-71.13	-68.95	4.63	12.60	H
	1664.18	-54.59	-13	-41.59	-56.57	-58.96	2.88	9.40	V
	2496.27	-65.00	-13	-52.00	-70.95	-69.95	3.50	10.60	V
	3328.36	-57.10	-13	-44.10	-65.13	-62.92	4.63	12.60	V

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



LTE Band 7 / 5MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5065.68	-61.15	-25	-36.15	-78.22	-68.00	6.25	13.10	H
	7598.52	-58.41	-25	-33.41	-79.28	-61.98	7.73	11.30	H
	10131.36	-55.42	-25	-30.42	-81.52	-59.08	8.44	12.10	H
	5065.68	-60.54	-25	-35.54	-77.28	-67.39	6.25	13.10	V
	7598.52	-59.25	-25	-34.25	-79.79	-62.82	7.73	11.30	V
	10131.36	-56.93	-25	-31.93	-81.22	-60.59	8.44	12.10	V

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

LTE Band 7 / 10MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5061.18	-60.69	-25	-35.69	-77.76	-67.54	6.25	13.10	H
	7591.77	-58.92	-25	-33.92	-79.79	-62.49	7.73	11.30	H
	10122.36	-55.54	-25	-30.54	-81.64	-59.20	8.44	12.10	H
	5061.18	-60.89	-25	-35.89	-77.63	-67.74	6.25	13.10	V
	7591.77	-59.19	-25	-34.19	-79.73	-62.76	7.73	11.30	V
	10122.36	-57.20	-25	-32.20	-81.49	-60.86	8.44	12.10	V

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



LTE Band 7 / 15MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5056.68	-61.30	-25	-36.30	-78.37	-68.15	6.25	13.10	H
	7585.02	-58.92	-25	-33.92	-79.79	-62.49	7.73	11.30	H
	10113.36	-55.38	-25	-30.38	-81.48	-59.04	8.44	12.10	H
	5056.68	-61.37	-25	-36.37	-78.11	-68.22	6.25	13.10	V
	7585.02	-58.76	-25	-33.76	-79.3	-62.33	7.73	11.30	V
	10113.36	-57.15	-25	-32.15	-81.44	-60.81	8.44	12.10	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5052.18	-60.29	-25	-35.29	-77.36	-67.14	6.25	13.10	H
	7578.27	-58.96	-25	-33.96	-79.83	-62.53	7.73	11.30	H
	10104.36	-55.60	-25	-30.60	-81.70	-59.26	8.44	12.10	H
	5052.18	-60.73	-25	-35.73	-77.47	-67.58	6.25	13.10	V
	7578.27	-59.28	-25	-34.28	-79.82	-62.85	7.73	11.30	V
	10104.36	-57.26	-25	-32.26	-81.55	-60.92	8.44	12.10	V

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