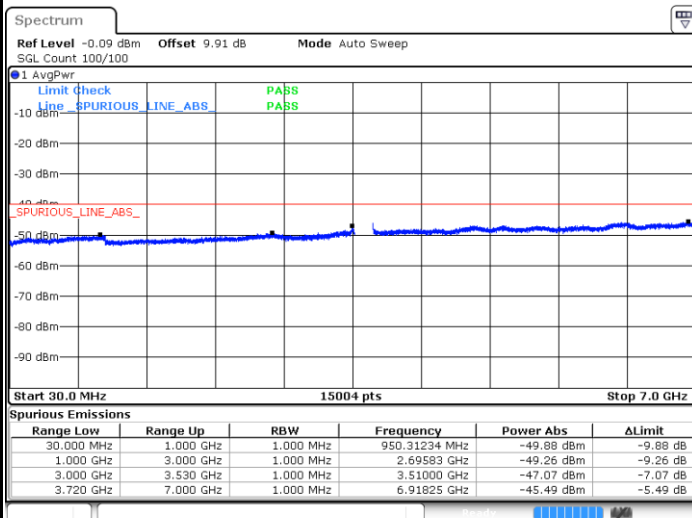




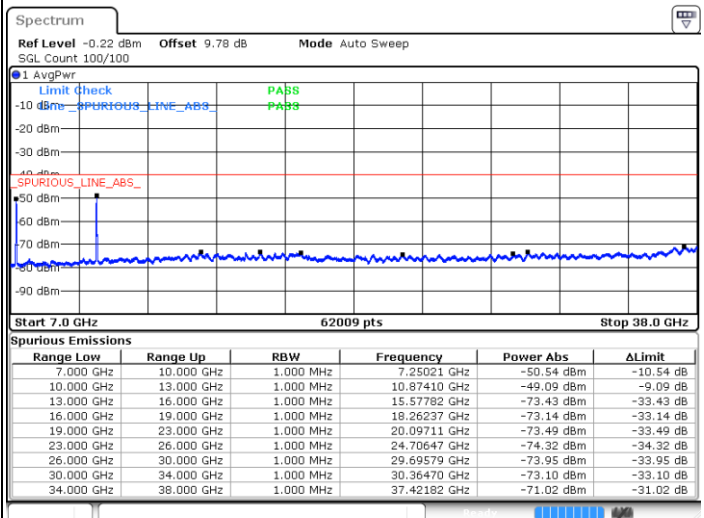
LTE Band 48 / 20MHz

64QAM / Middle channel

Port 3

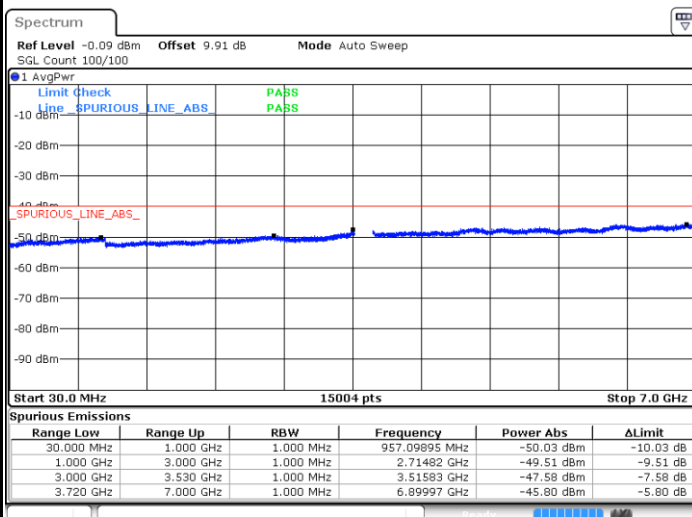


Date: 2 DEC. 2020 15:26:25

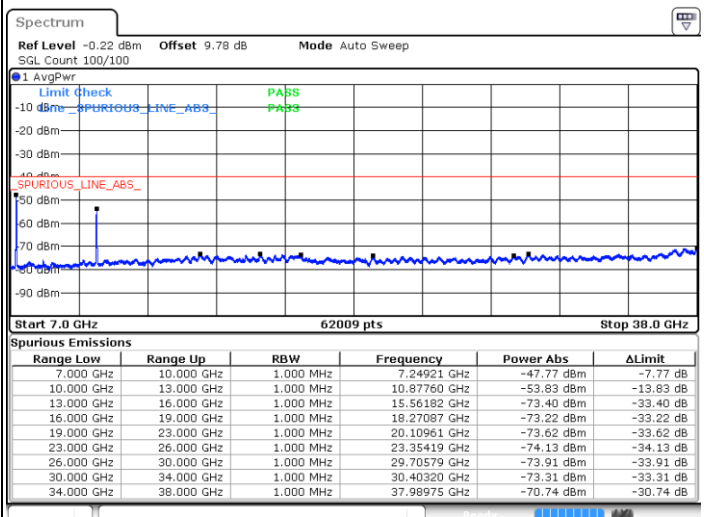


Date: 20 NOV. 2020 16:54:41

Port 4



Date: 2 DEC. 2020 15:36:19



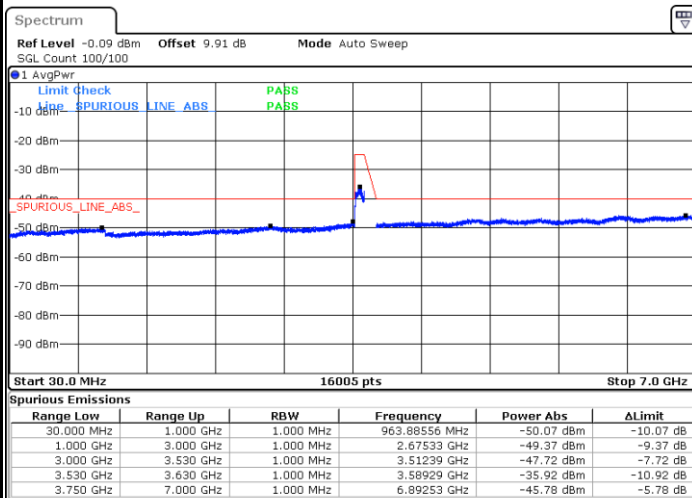
Date: 20 NOV. 2020 16:42:22



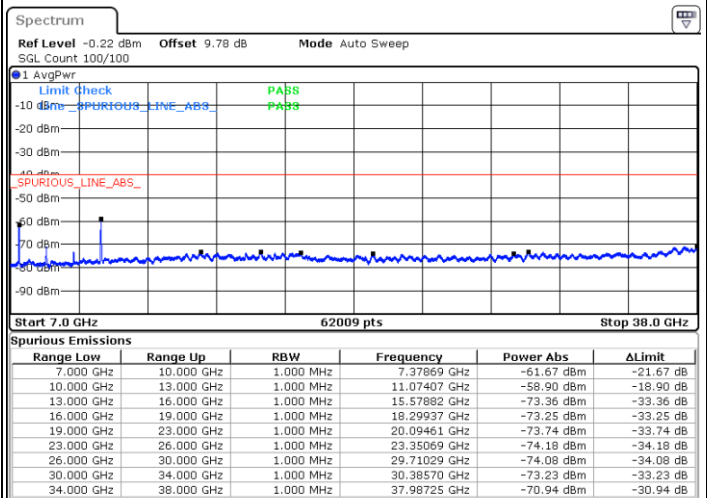
LTE Band 48 / 20MHz

64QAM / High channel

Port 1

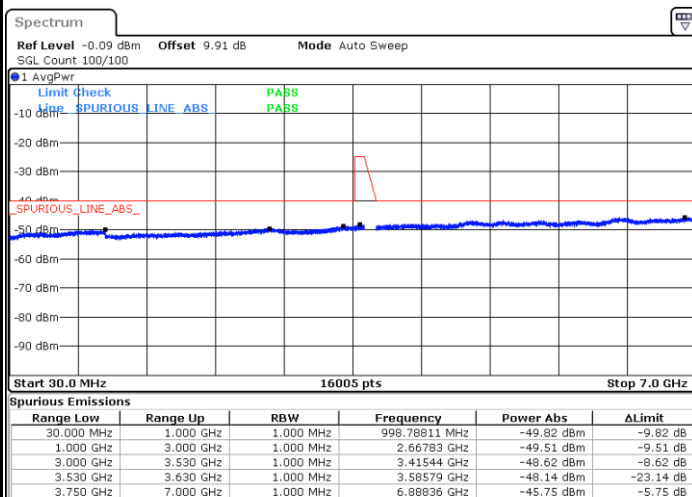


Date: 2 DEC. 2020 19:07:37

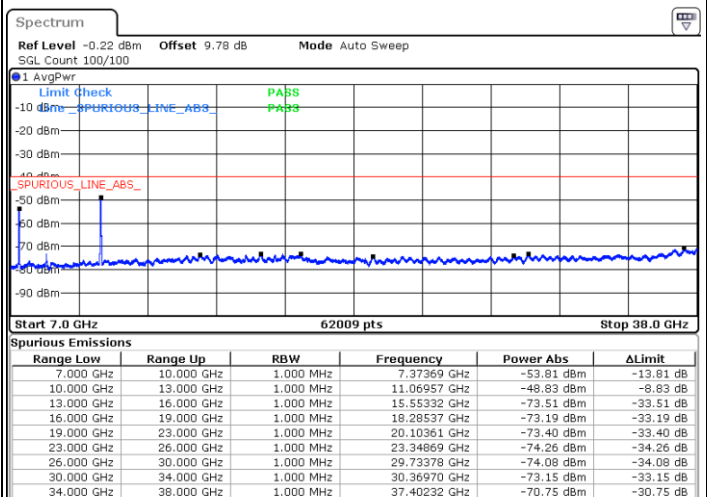


Date: 20 NOV. 2020 18:16:30

Port 2



Date: 2 DEC. 2020 18:59:35



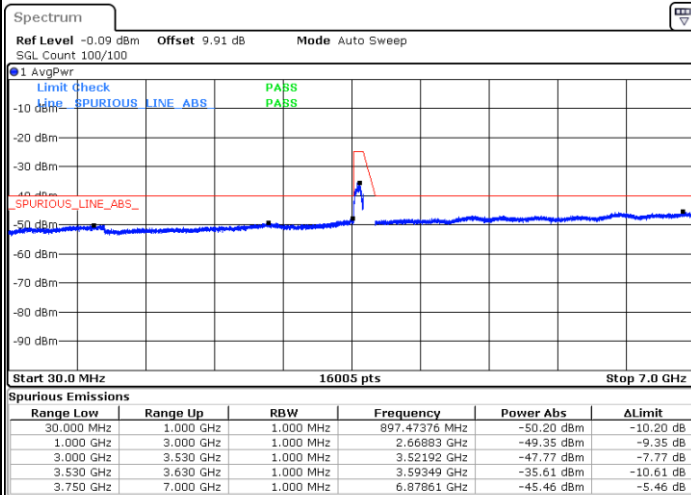
Date: 20 NOV. 2020 18:29:22



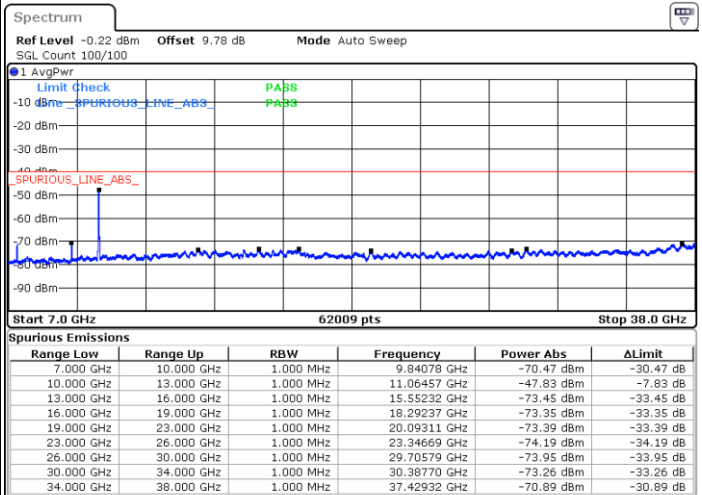
LTE Band 48 / 20MHz

64QAM / High channel

Port 3

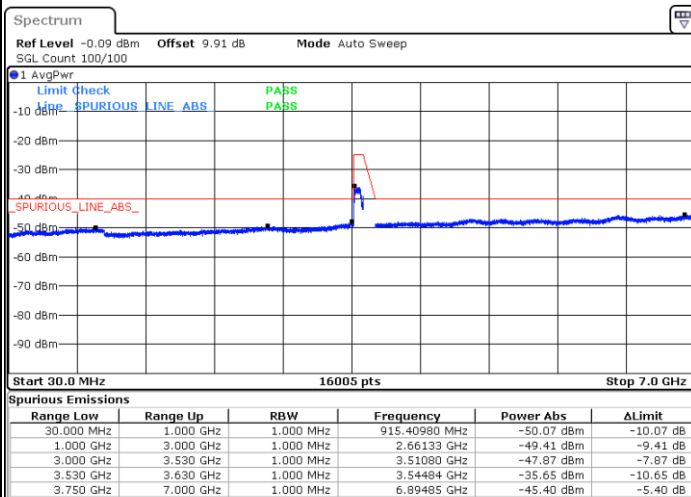


Date: 2 DEC. 2020 18:34:17

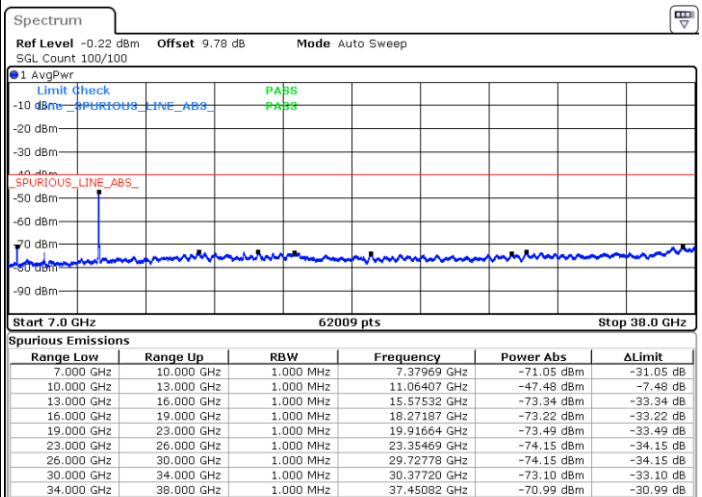


Date: 20 NOV. 2020 19:39:49

Port 4



Date: 2 DEC. 2020 18:42:26



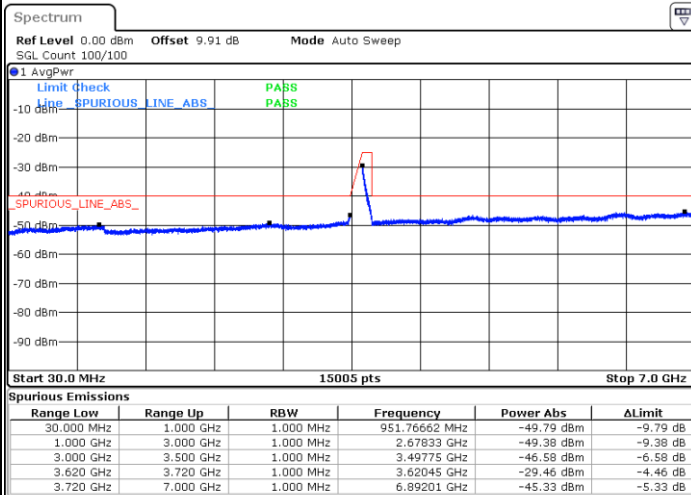
Date: 20 NOV. 2020 19:57:47



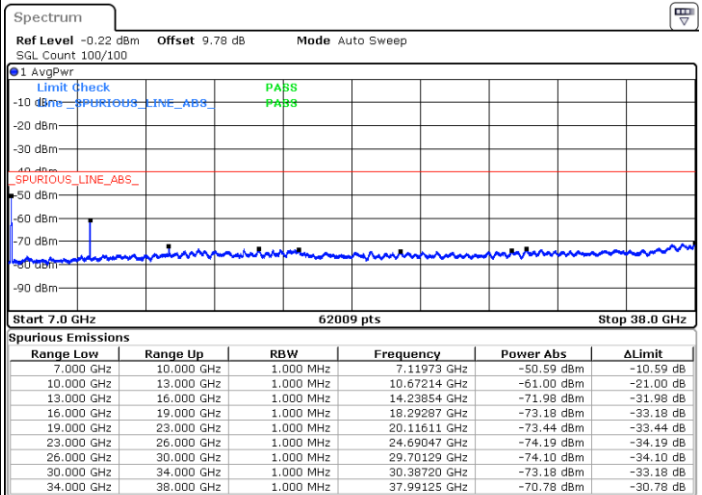
LTE Band 48 / 20MHz

256QAM / Low channel

Port 1

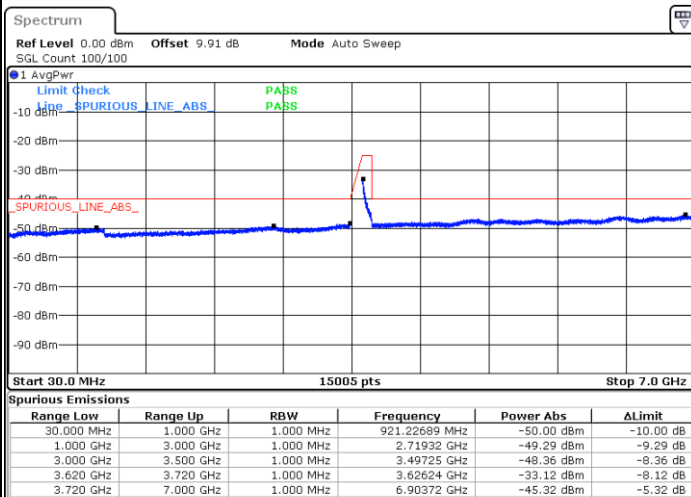


Date: 2 DEC. 2020 09:40:03

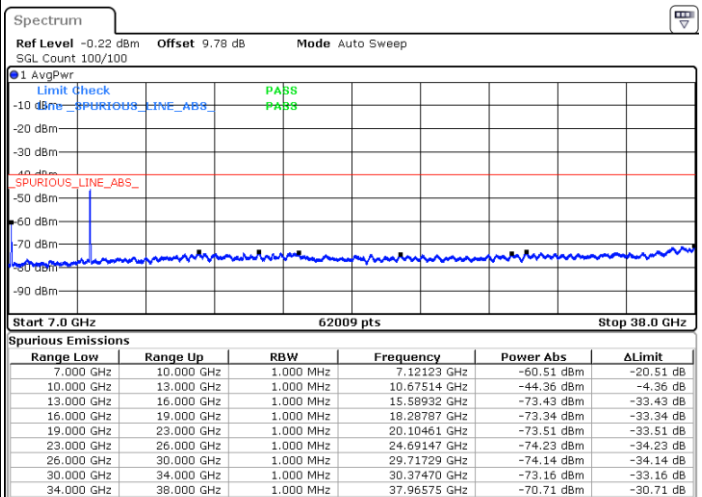


Date: 19 NOV. 2020 19:31:13

Port 2



Date: 2 DEC. 2020 10:05:28



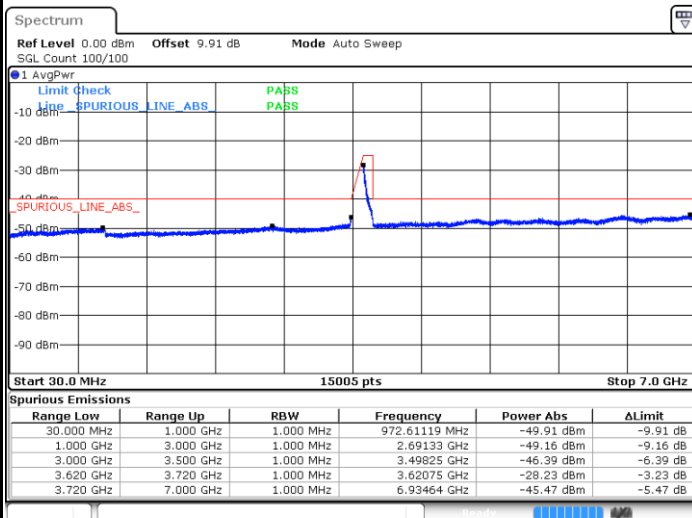
Date: 19 NOV. 2020 19:26:33



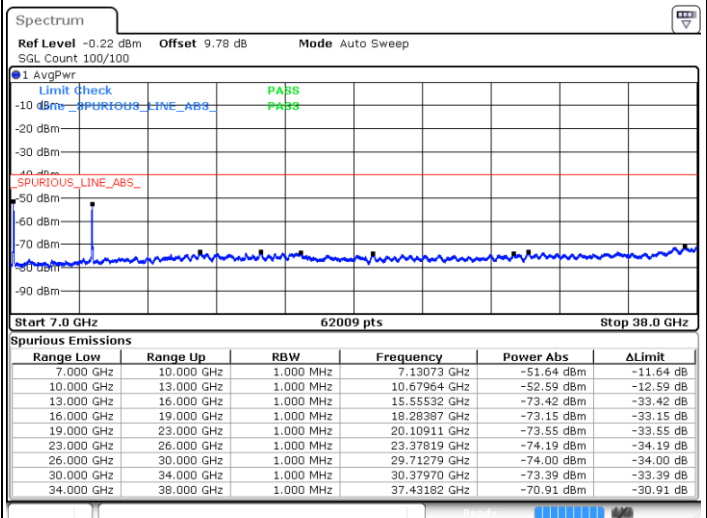
LTE Band 48 / 20MHz

256QAM / Low channel

Port 3

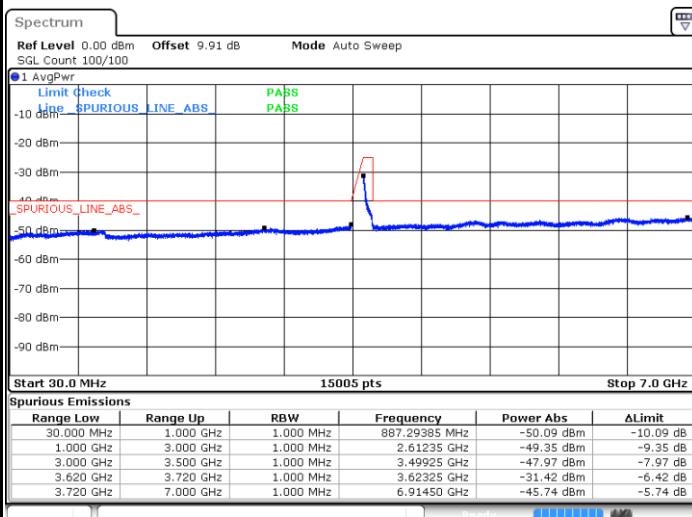


Date: 2 DEC. 2020 10:34:57

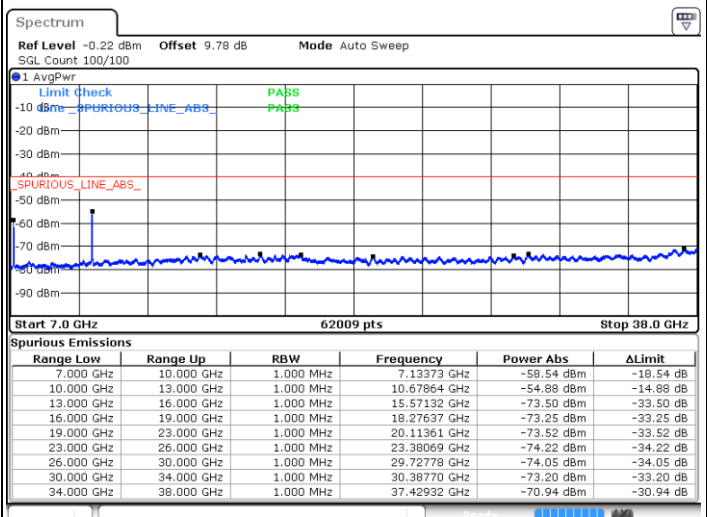


Date: 20 NOV. 2020 15:53:06

Port 4



Date: 2 DEC. 2020 11:00:46



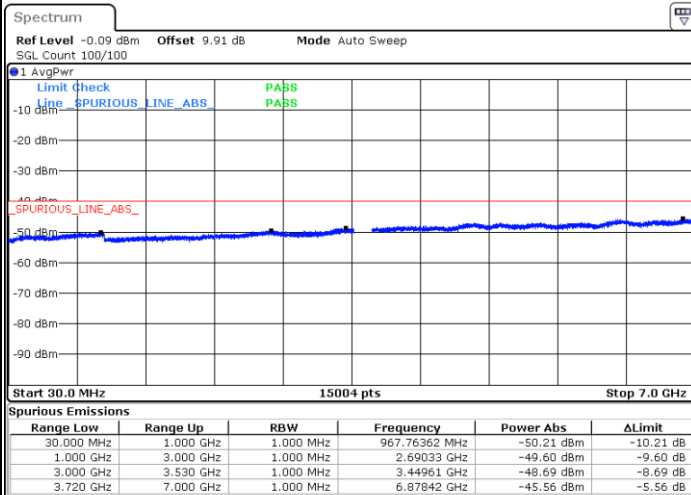
Date: 20 NOV. 2020 16:15:30



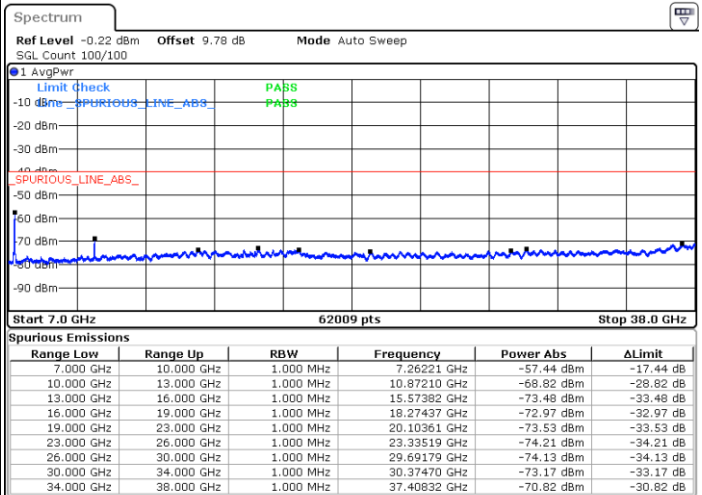
LTE Band 48 / 20MHz

256QAM / Middle channel

Port 1

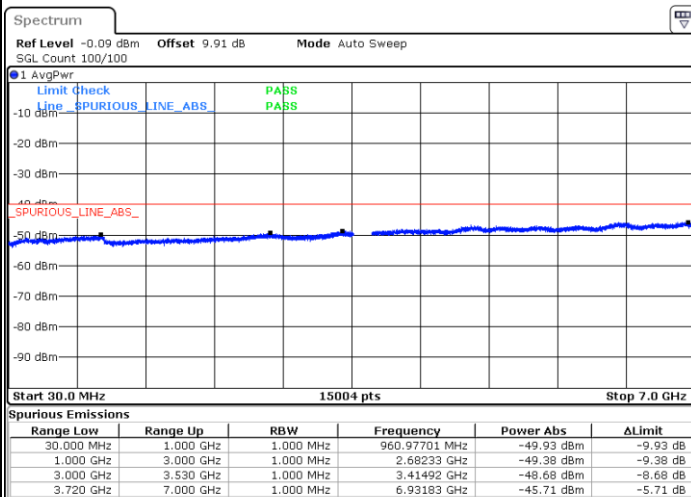


Date: 2 DEC. 2020 16:18:21

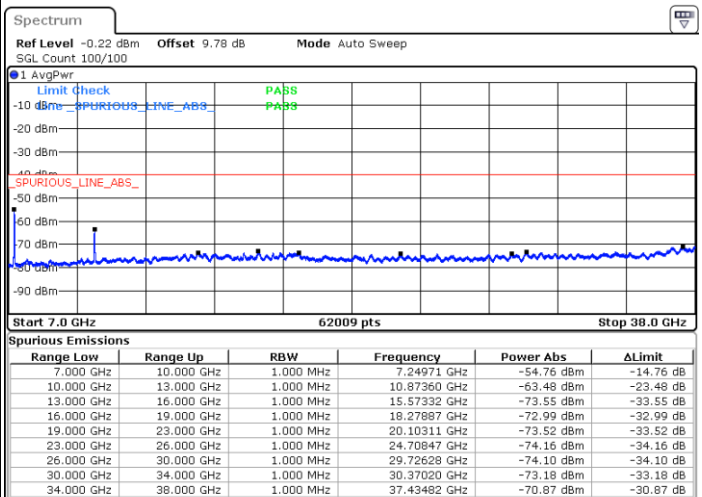


Date: 20 NOV. 2020 17:20:20

Port 2



Date: 2 DEC. 2020 16:11:34



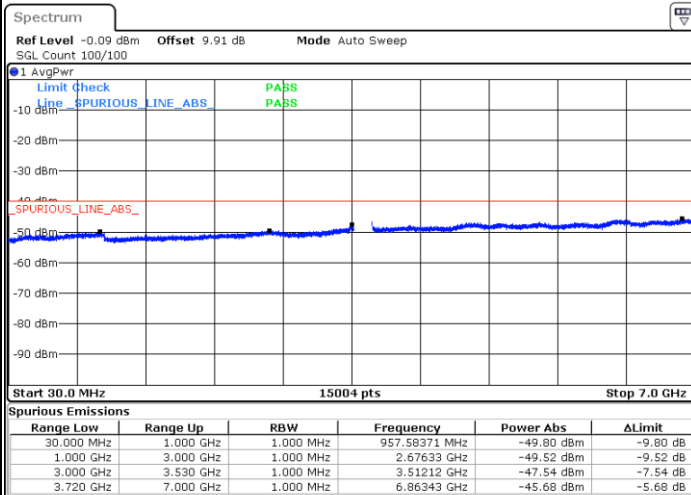
Date: 20 NOV. 2020 17:42:57



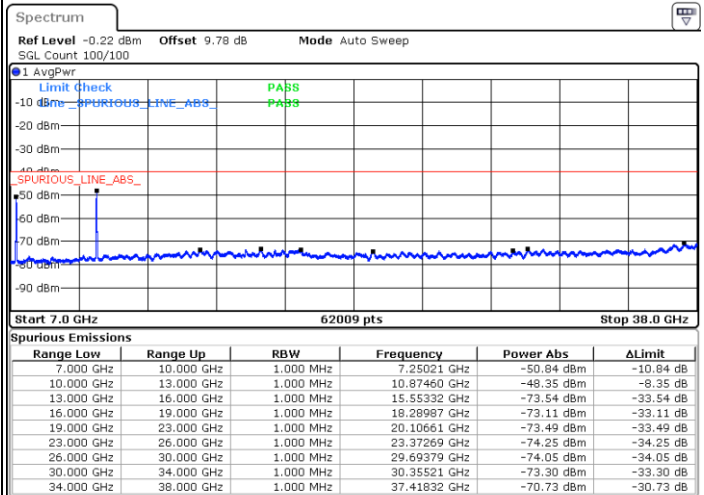
LTE Band 48 / 20MHz

256QAM / Middle channel

Port 3

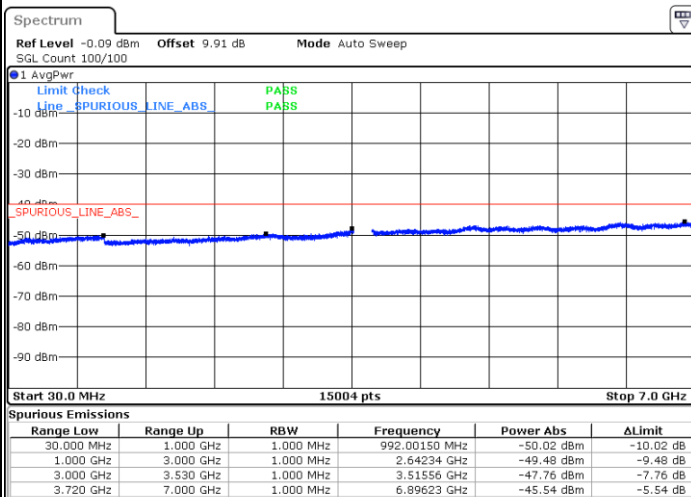


Date: 2 DEC. 2020 15:28:40

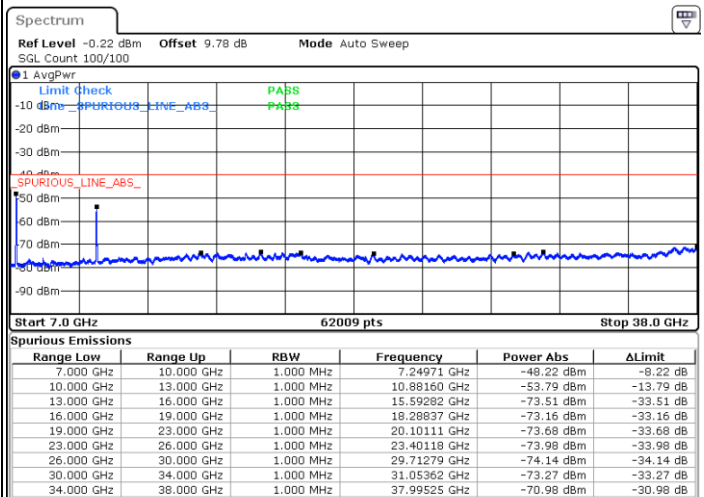


Date: 20 NOV. 2020 16:56:59

Port 4



Date: 2 DEC. 2020 15:34:22



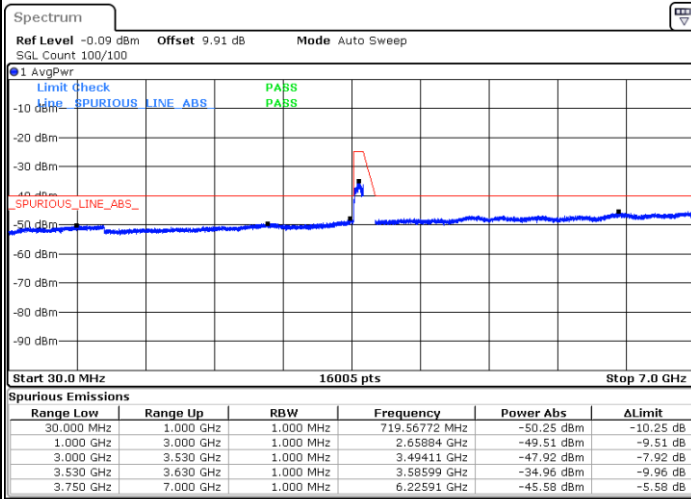
Date: 20 NOV. 2020 16:40:14



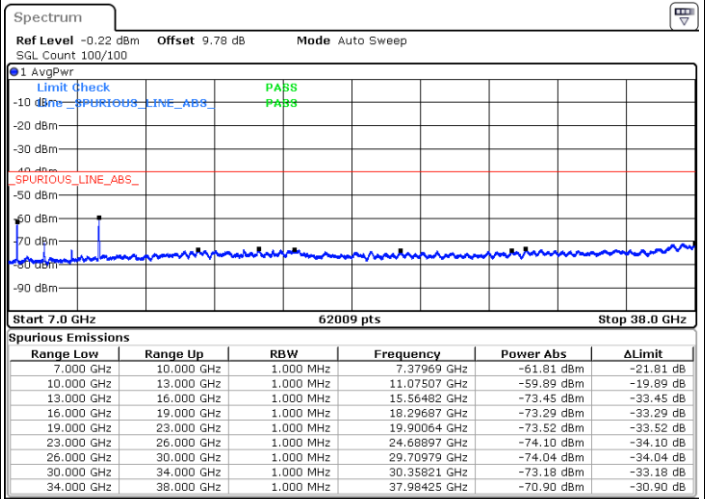
LTE Band 48 / 20MHz

256QAM / High channel

Port 1

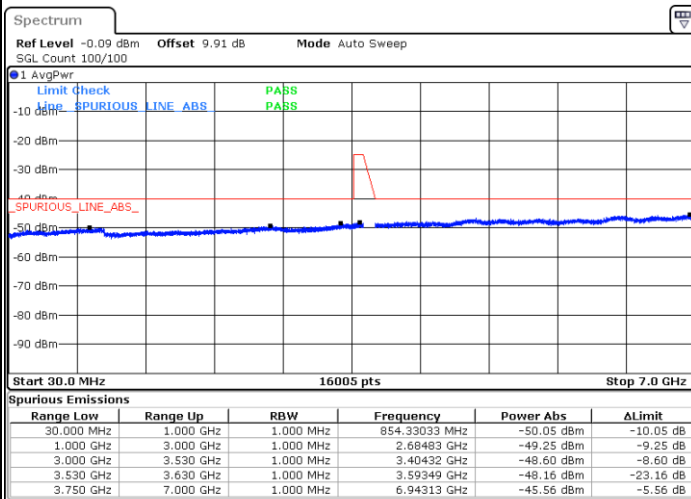


Date: 2 DEC. 2020 19:05:33

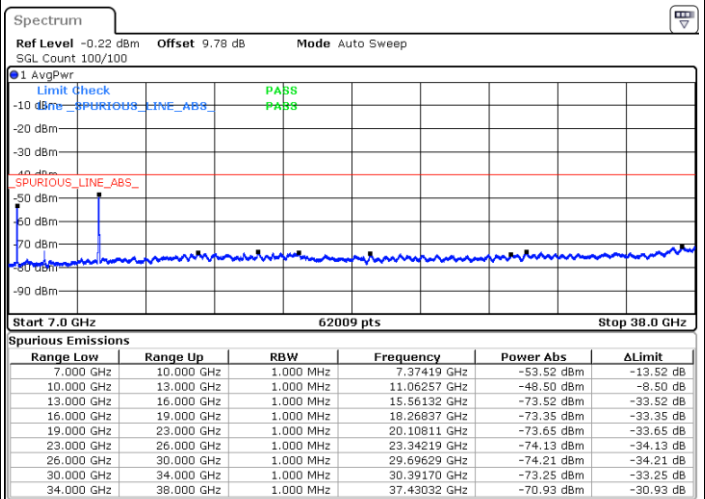


Date: 20 NOV. 2020 18:14:02

Port 2



Date: 2 DEC. 2020 19:01:34



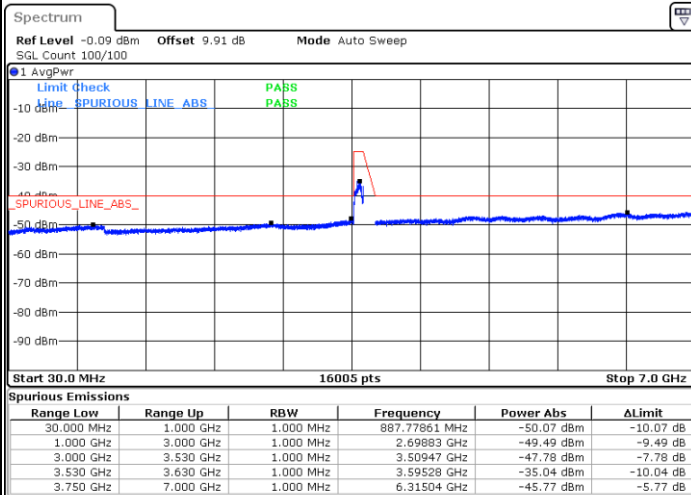
Date: 20 NOV. 2020 18:31:45



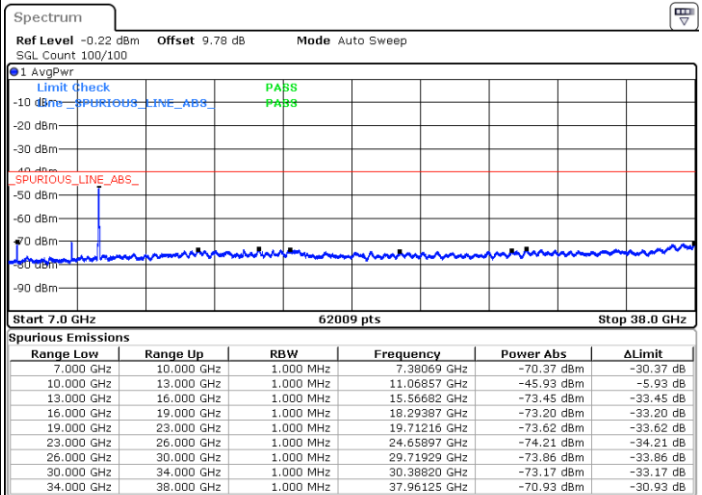
LTE Band 48 / 20MHz

256QAM / High channel

Port 3

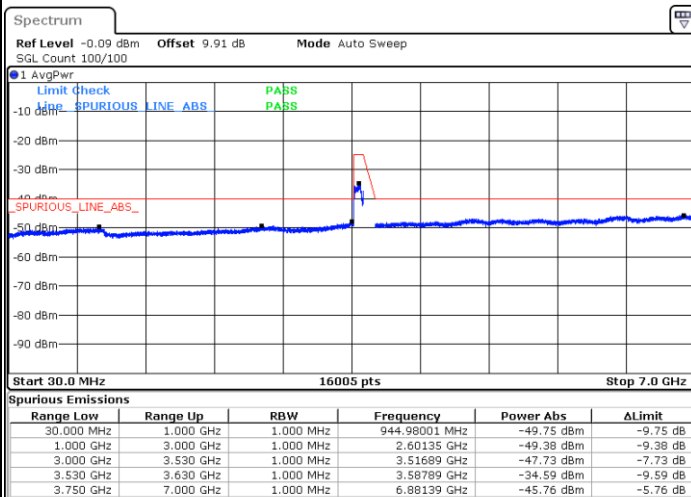


Date: 2 DEC. 2020 18:37:02

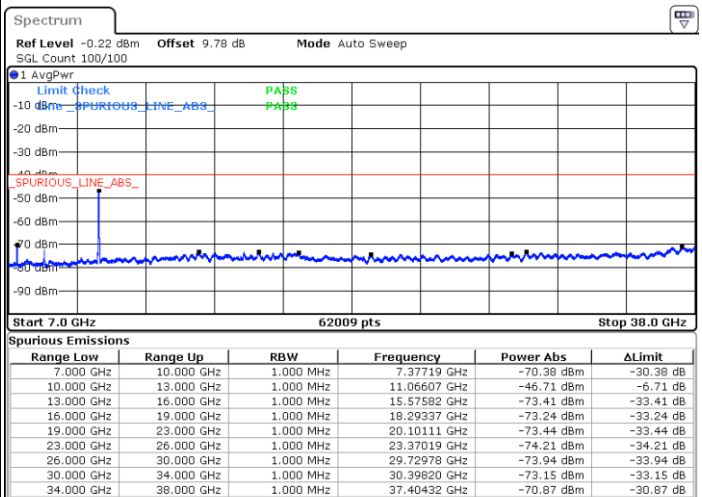


Date: 20 NOV. 2020 19:37:30

Port 4



Date: 2 DEC. 2020 18:40:29



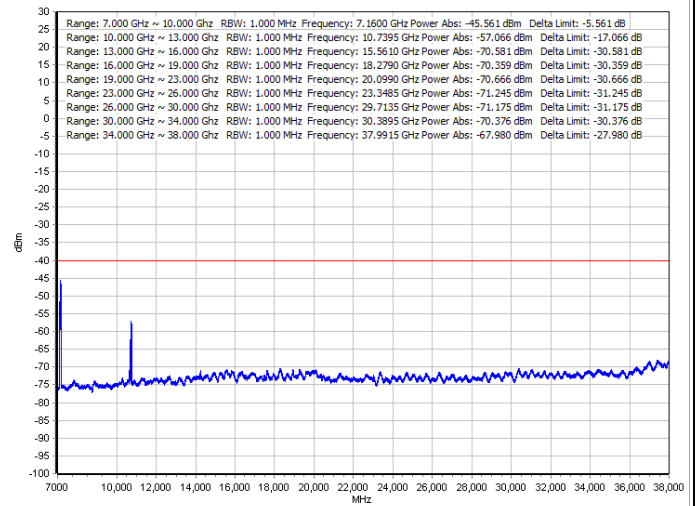
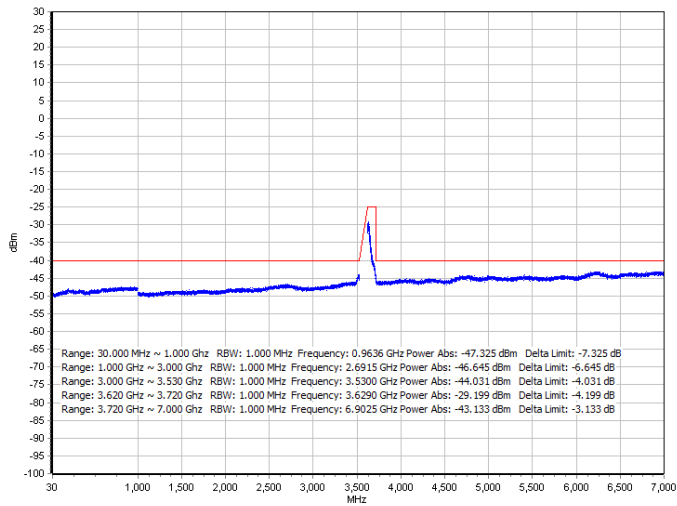
Date: 20 NOV. 2020 20:00:58



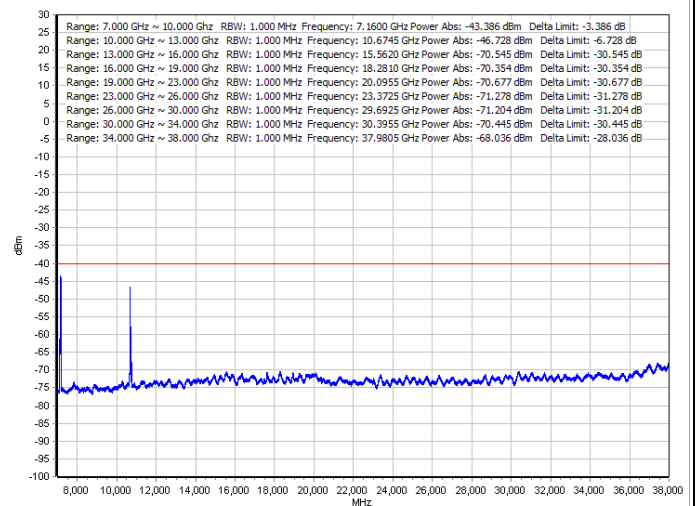
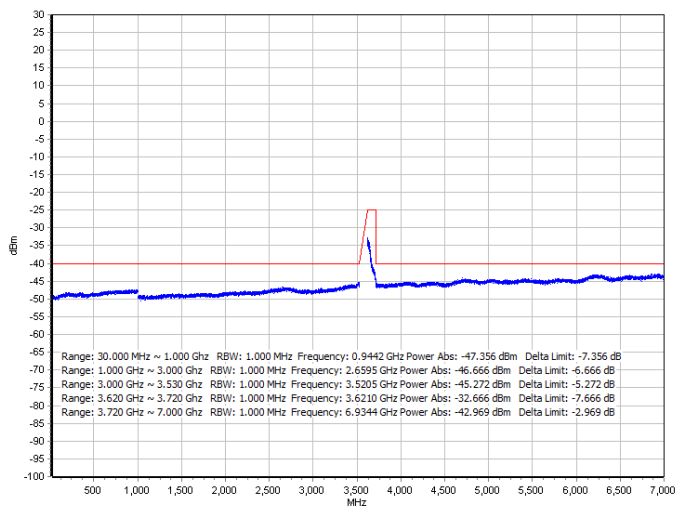
LTE Band 48 / 20MHz + 20MHz

QPSK / Low channel

Port 1 + Port 3



Port 2 + Port 4

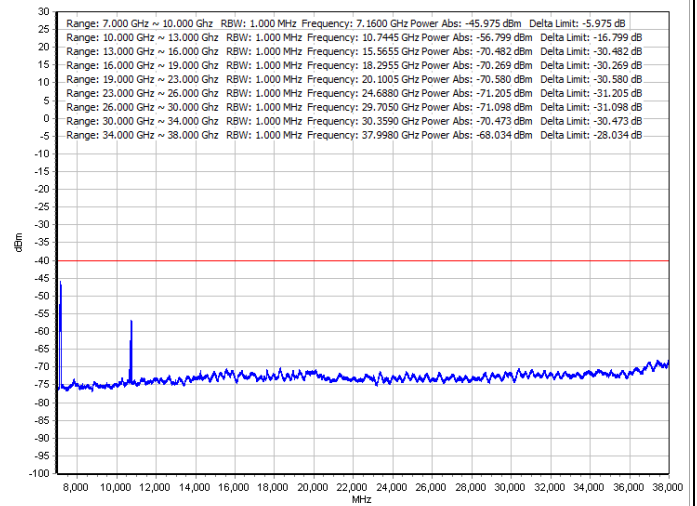
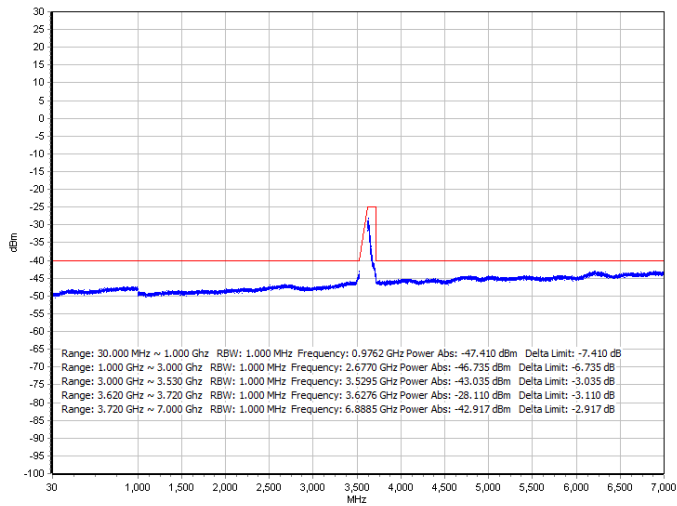




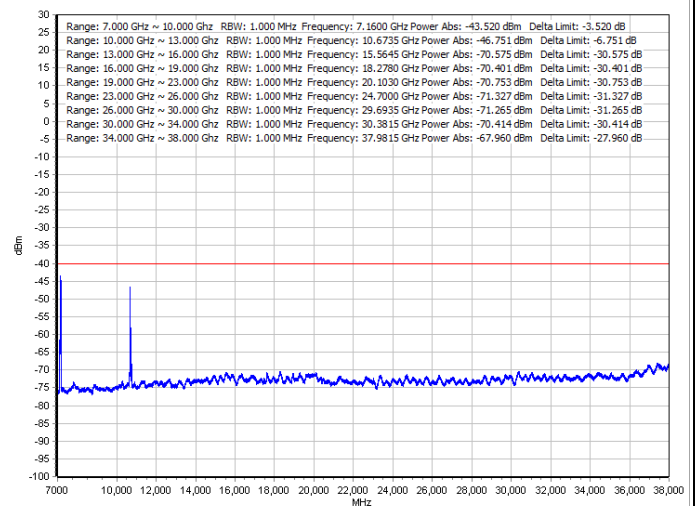
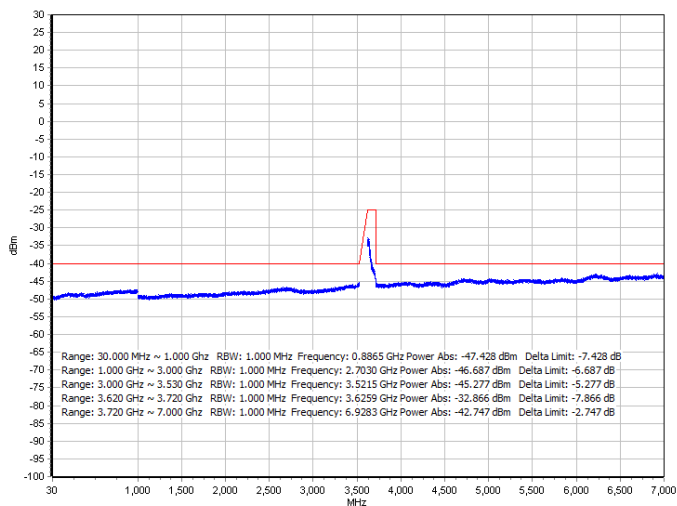
LTE Band 48 / 20MHz + 20MHz

16QAM / Low channel

Port 1 + Port 3



Port 2 + Port 4

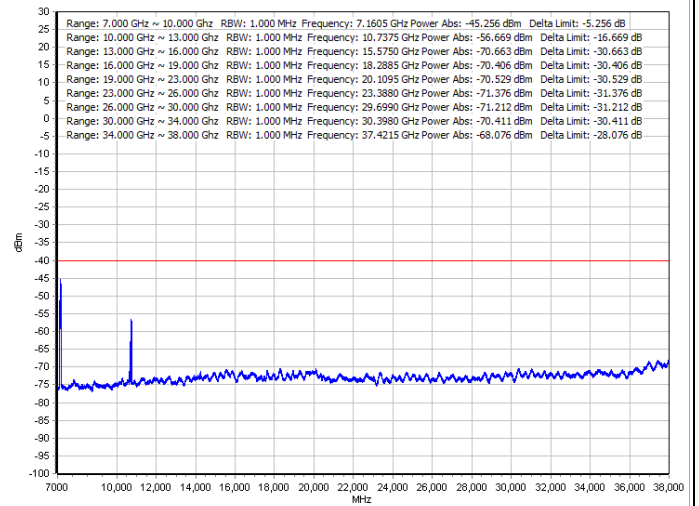
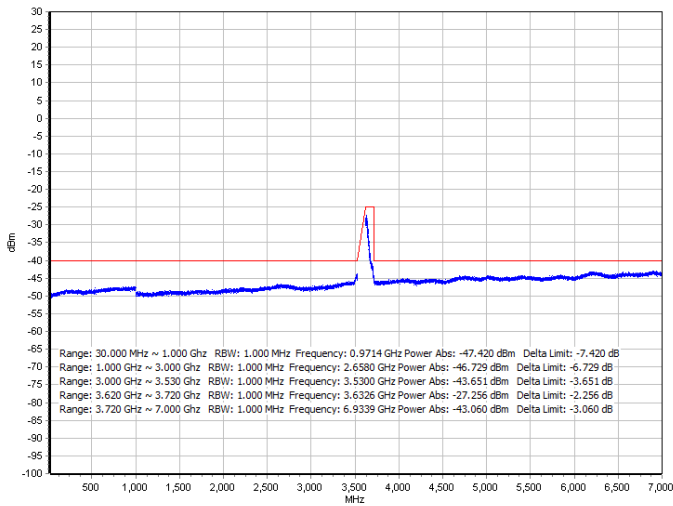




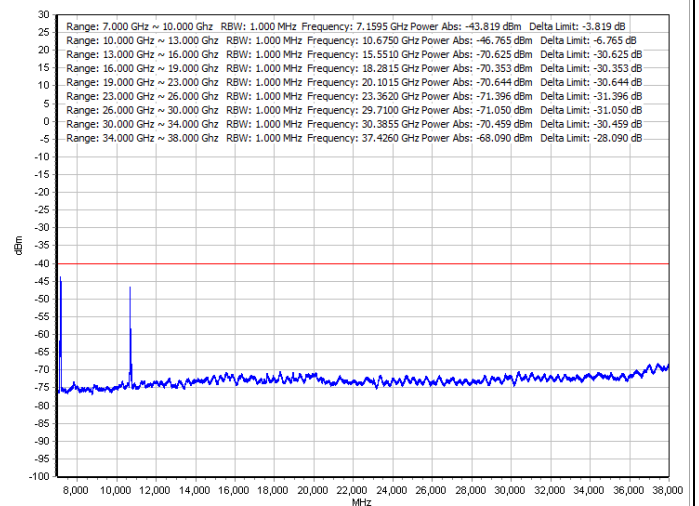
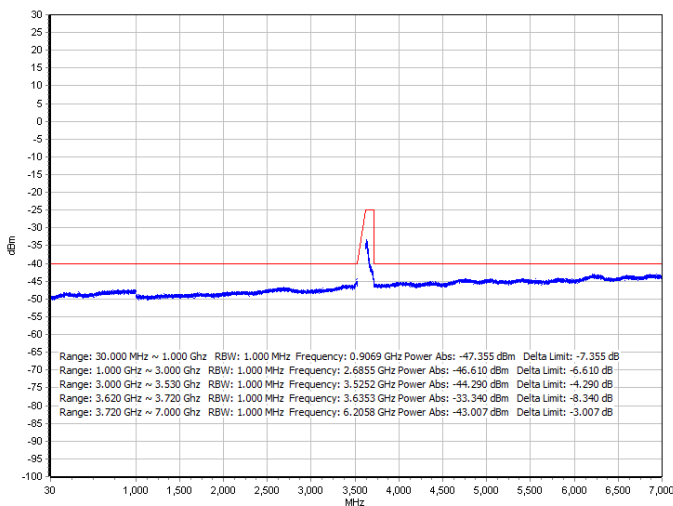
LTE Band 48 / 20MHz + 20MHz

64QAM / Low channel

Port 1 + Port 3



Port 2 + Port 4

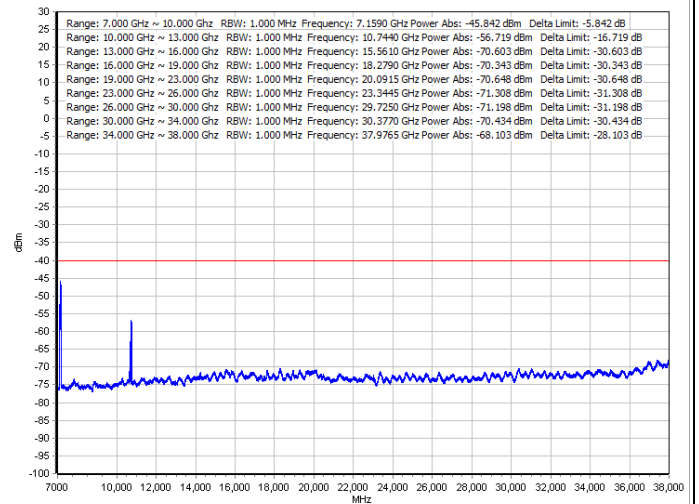
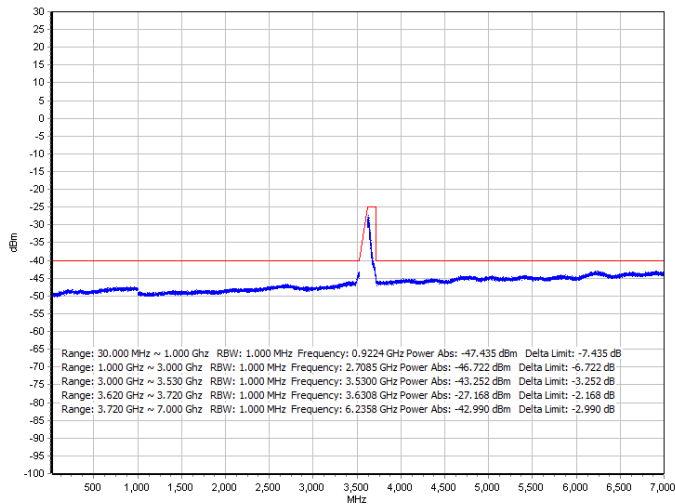




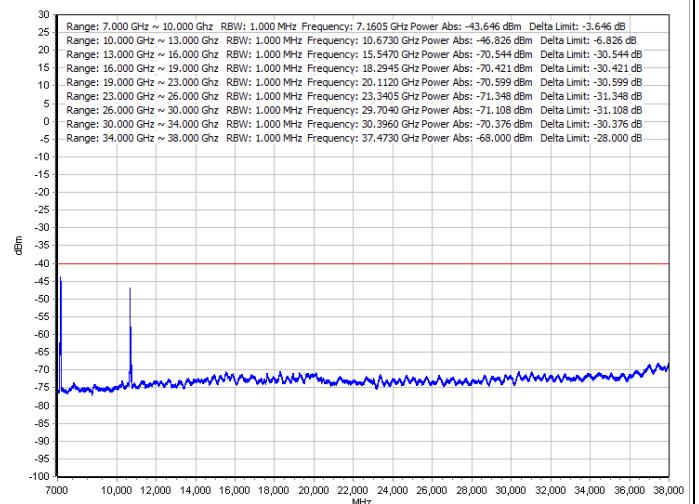
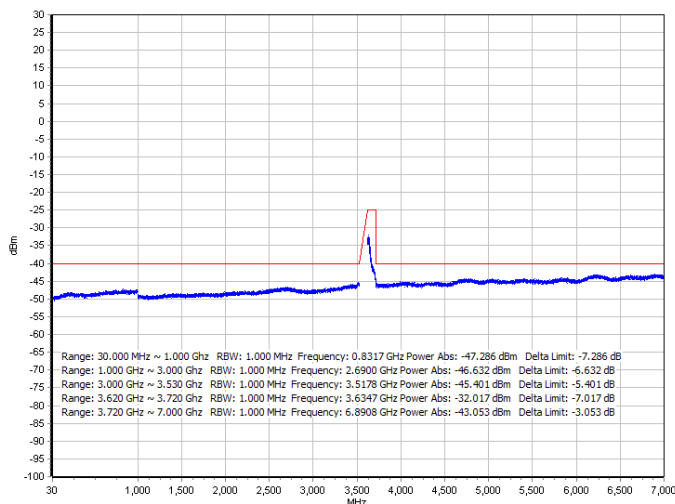
LTE Band 48 / 20MHz + 20MHz

256QAM / Low channel

Port 1 + Port 3



Port 2 + Port 4

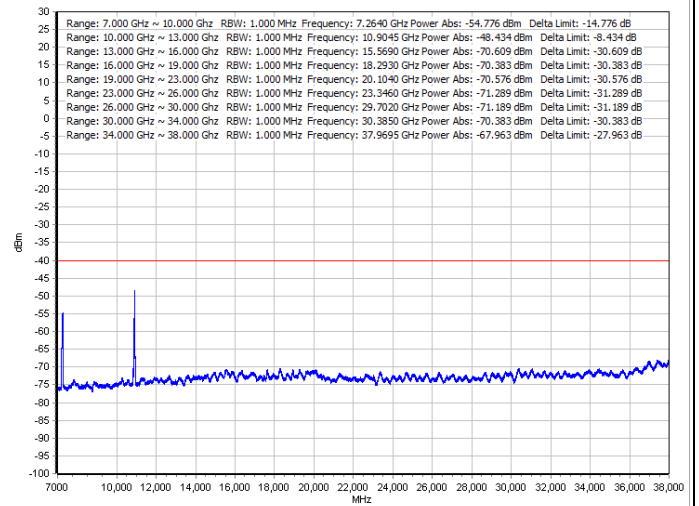
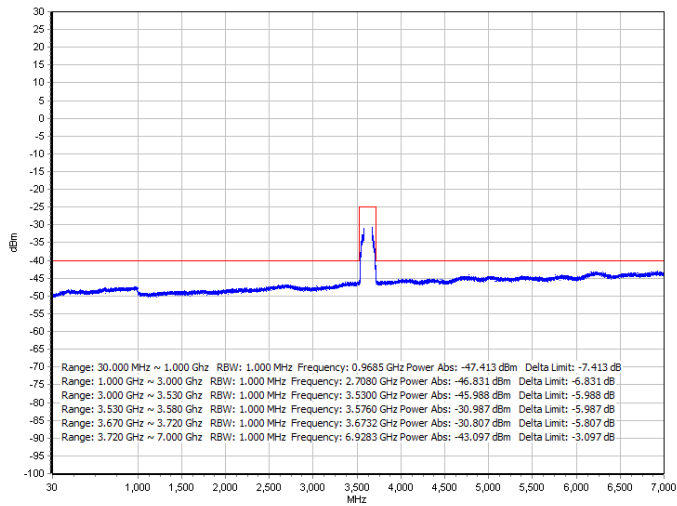




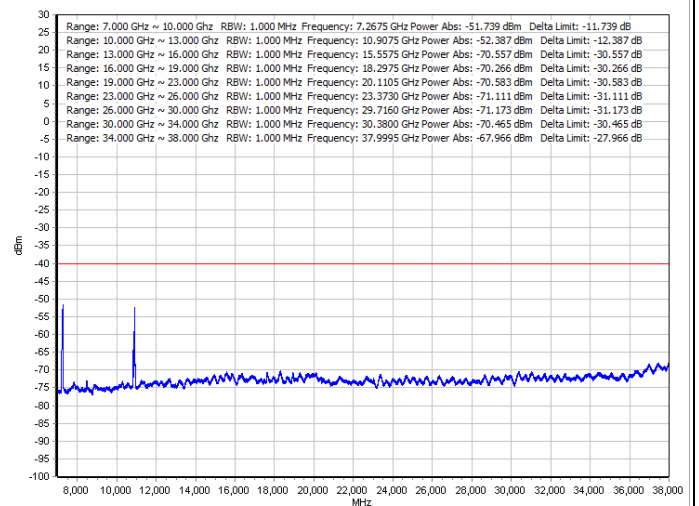
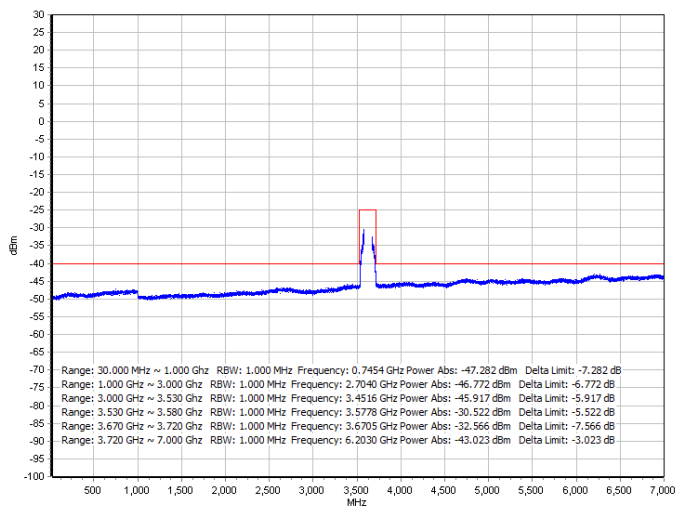
LTE Band 48 / 20MHz + 20MHz

QPSK / Middle channel

Port 1 + Port 3



Port 2 + Port 4

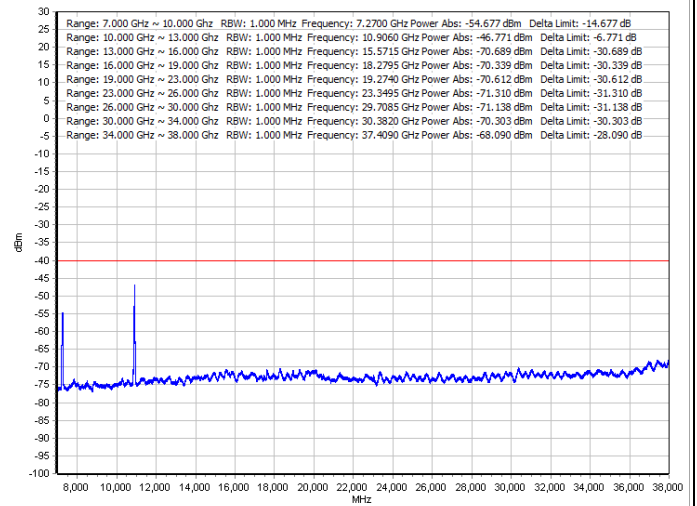
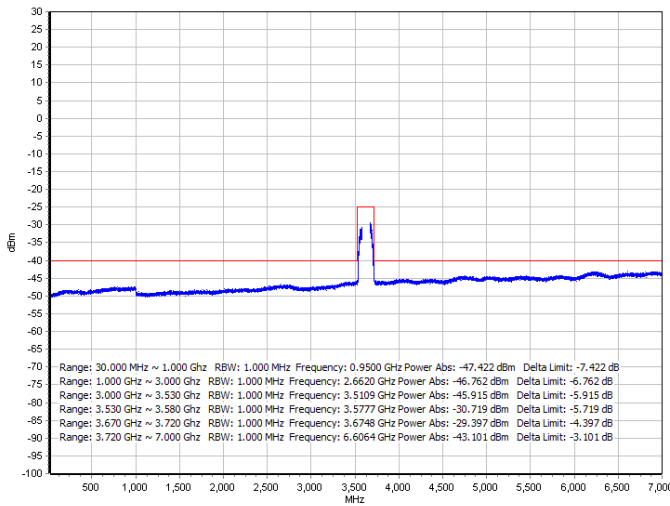




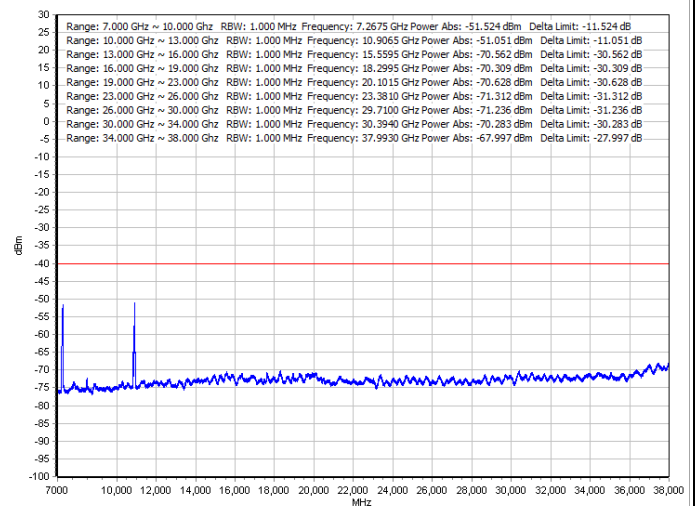
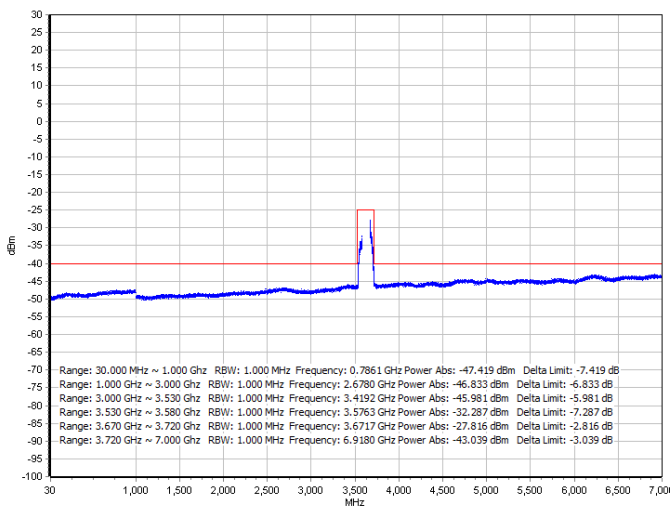
LTE Band 48 / 20MHz + 20MHz

16QAM / Middle channel

Port 1 + Port 3



Port 2 + Port 4

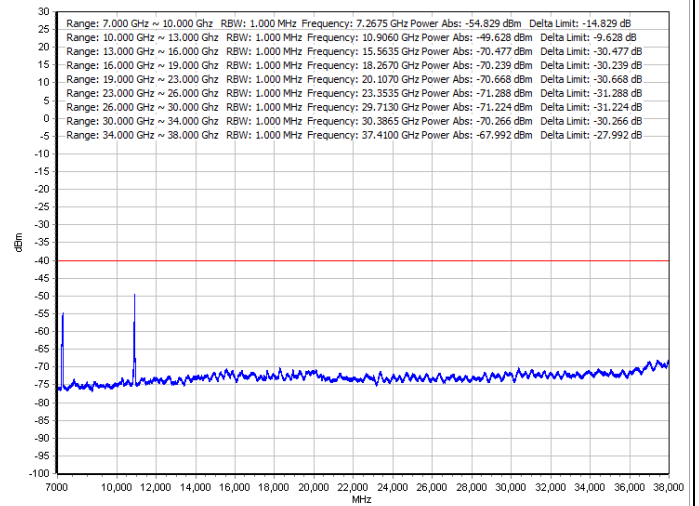
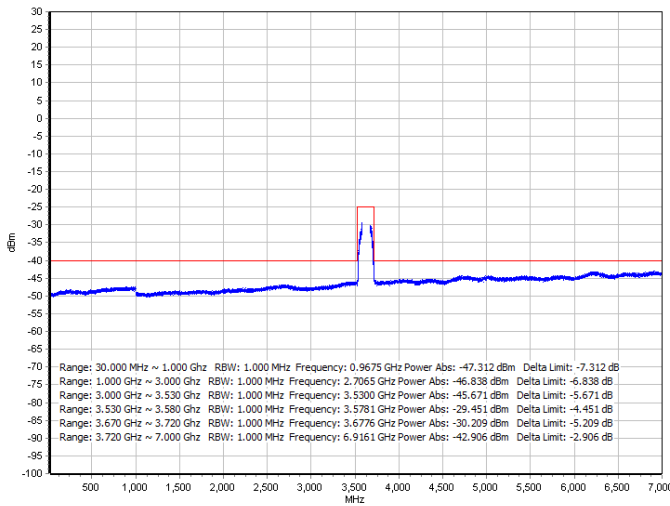




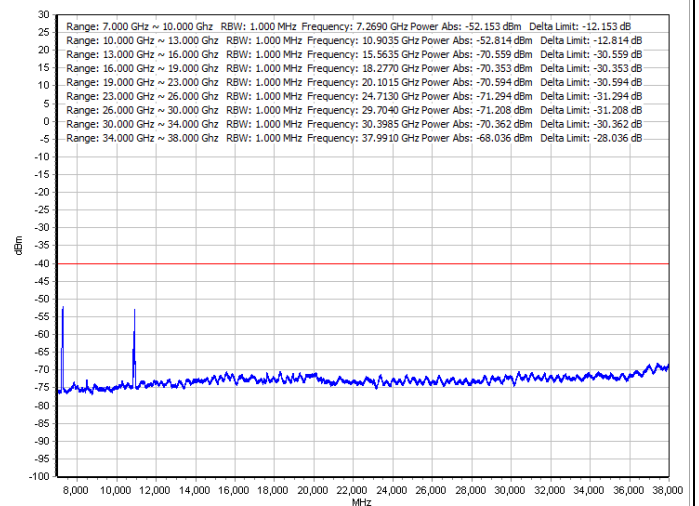
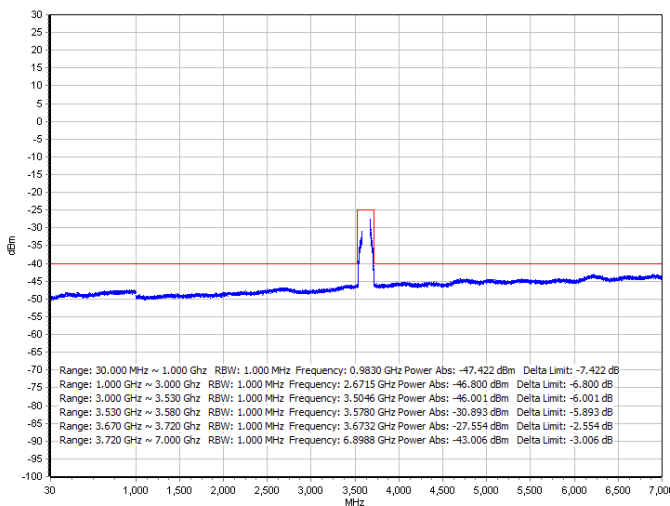
LTE Band 48 / 20MHz + 20MHz

64QAM / Middle channel

Port 1 + Port 3



Port 2 + Port 4

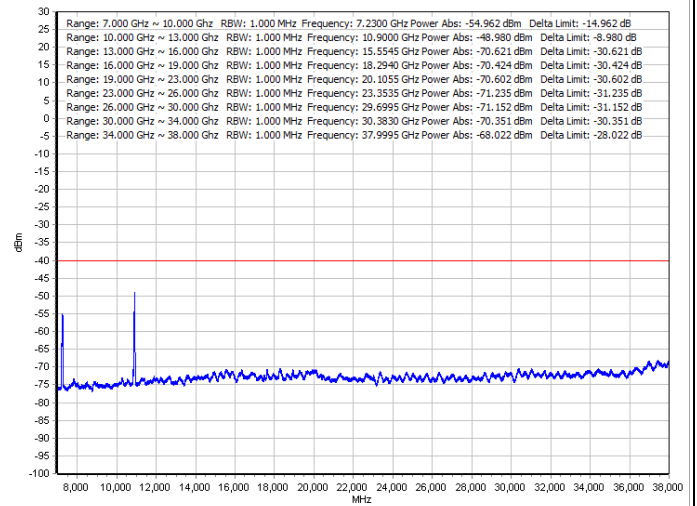
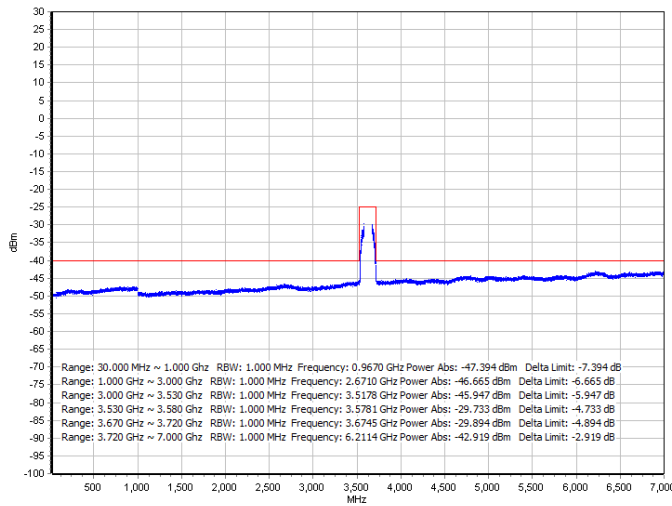




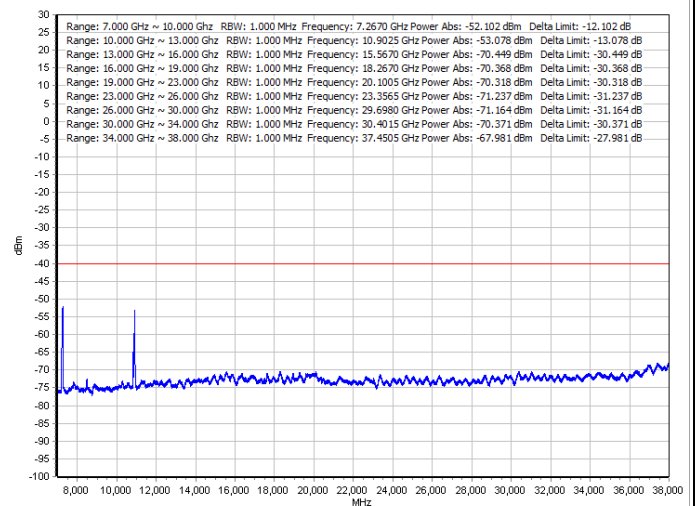
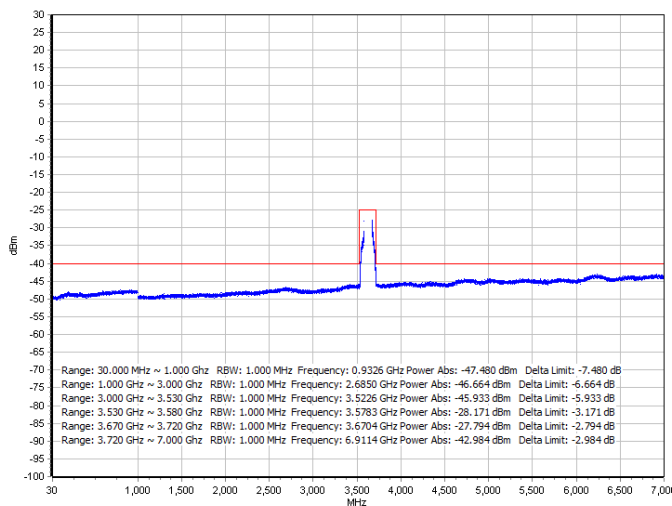
LTE Band 48 / 20MHz + 20MHz

256QAM / Middle channel

Port 1 + Port 3



Port 2 + Port 4

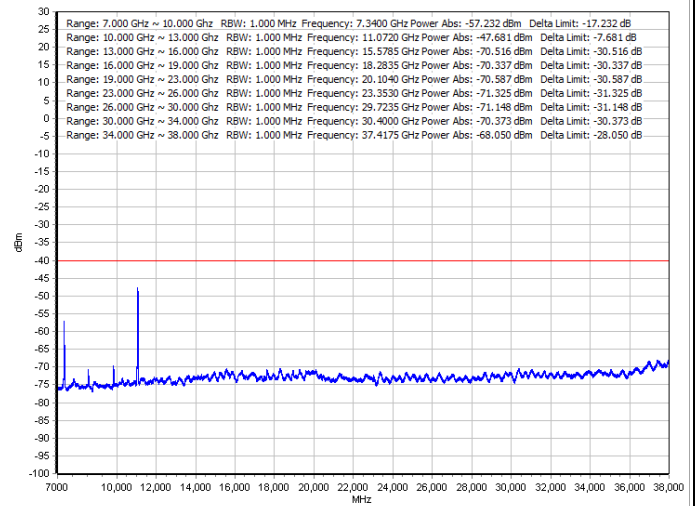
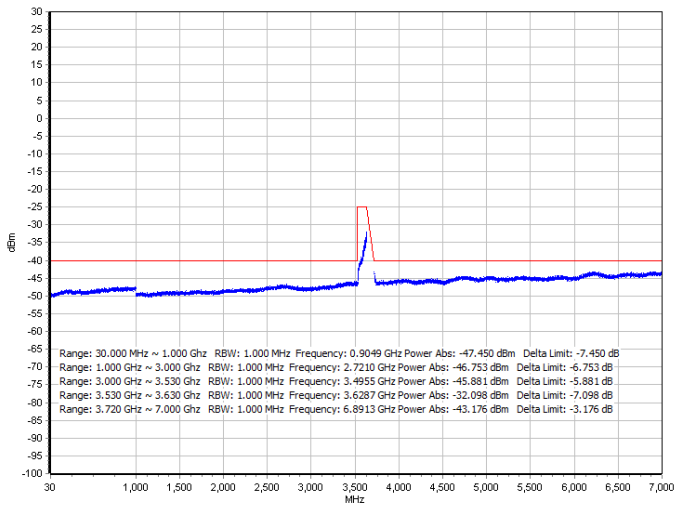




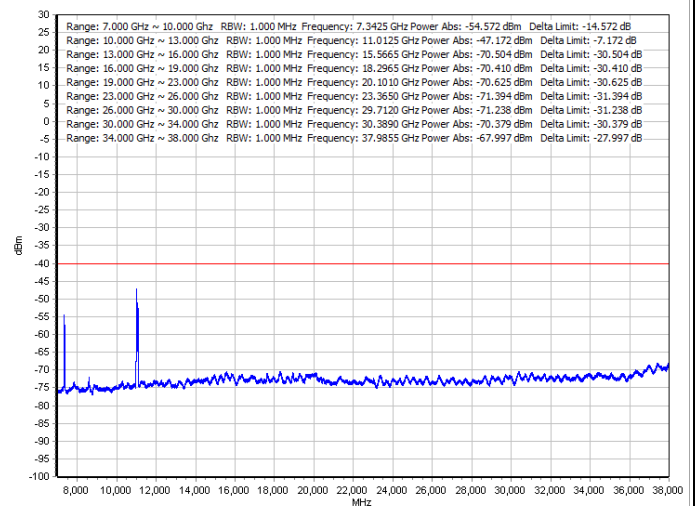
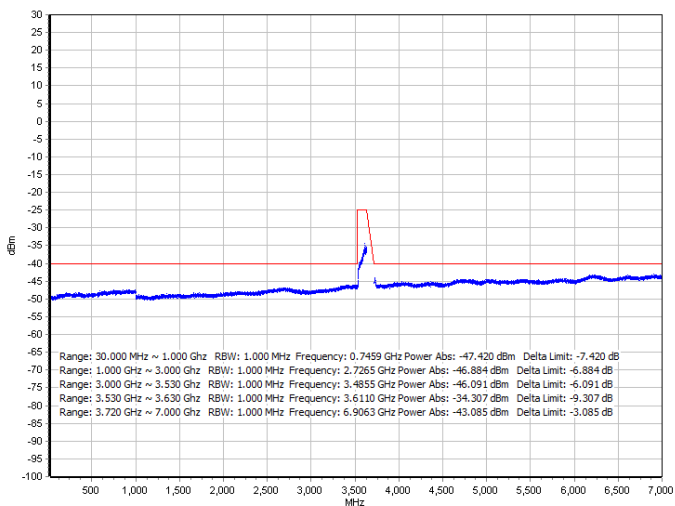
LTE Band 48 / 20MHz + 20MHz

QPSK / High channel

Port 1 + Port 3



Port 2 + Port 4

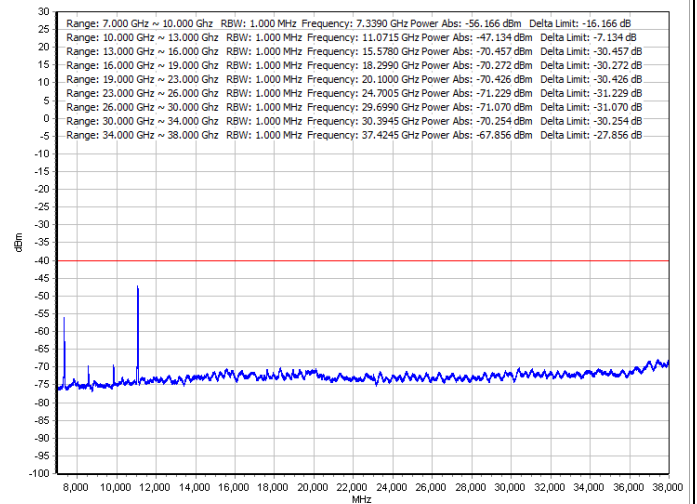
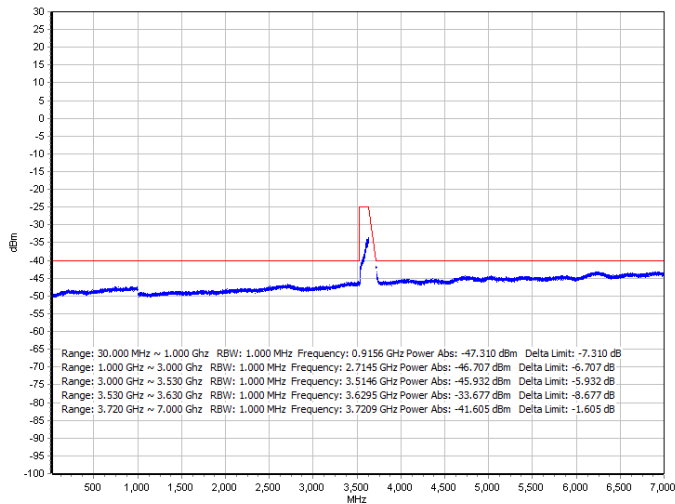




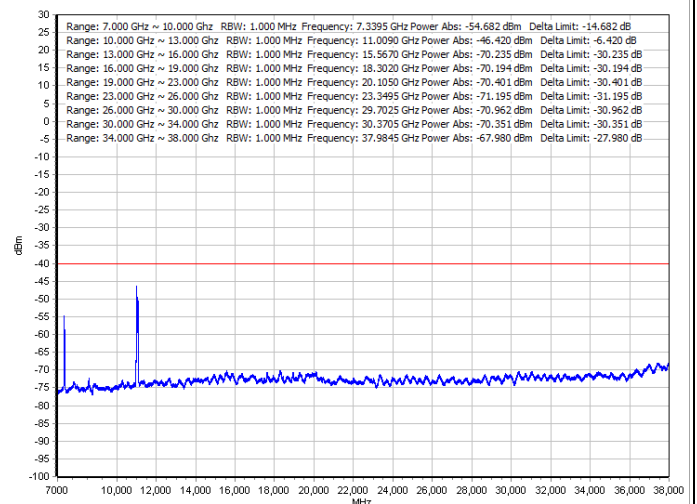
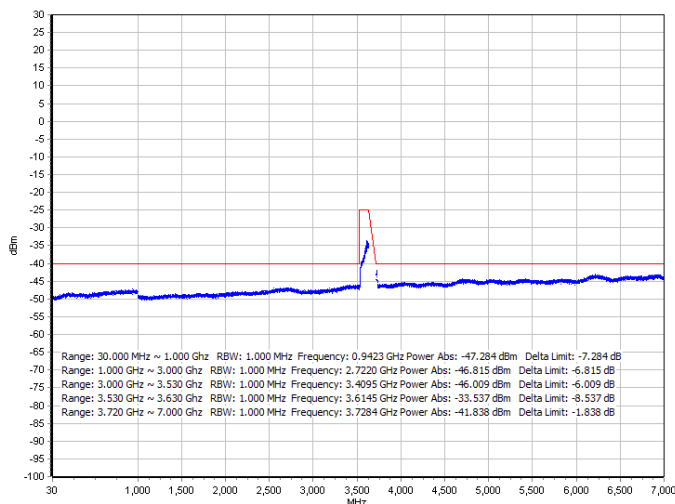
LTE Band 48 / 20MHz + 20MHz

16QAM / High channel

Port 1 + Port 3



Port 2 + Port 4

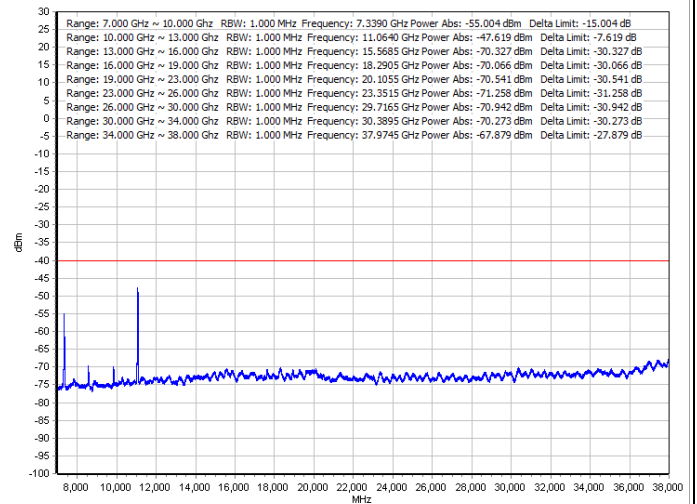
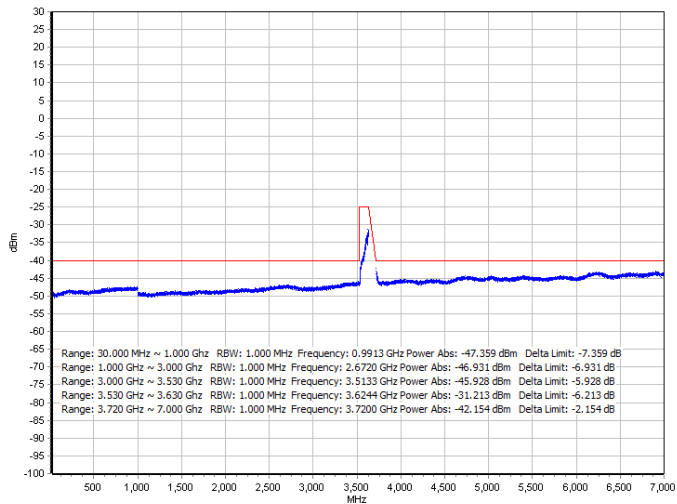




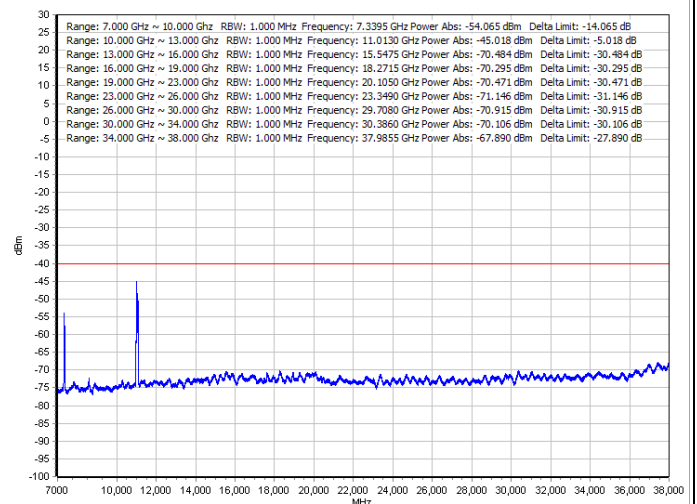
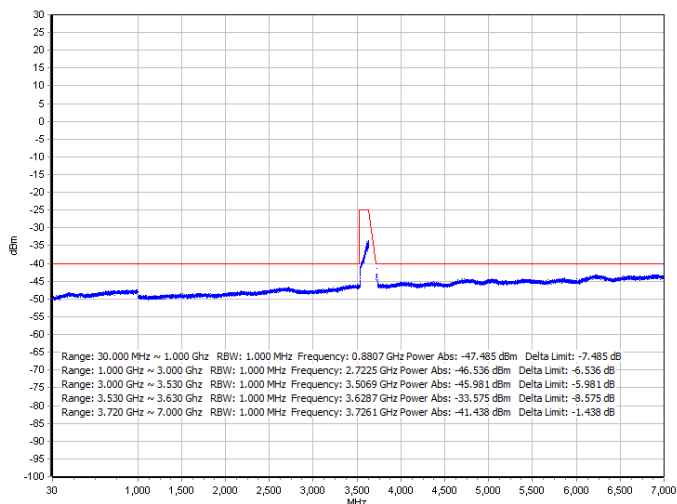
LTE Band 48 / 20MHz + 20MHz

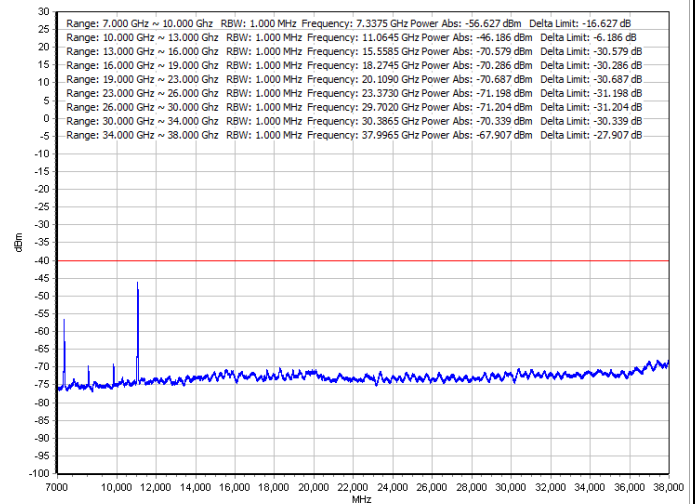
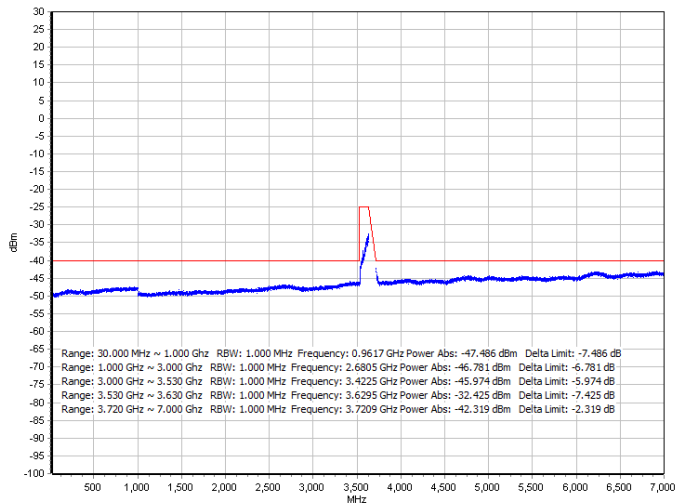
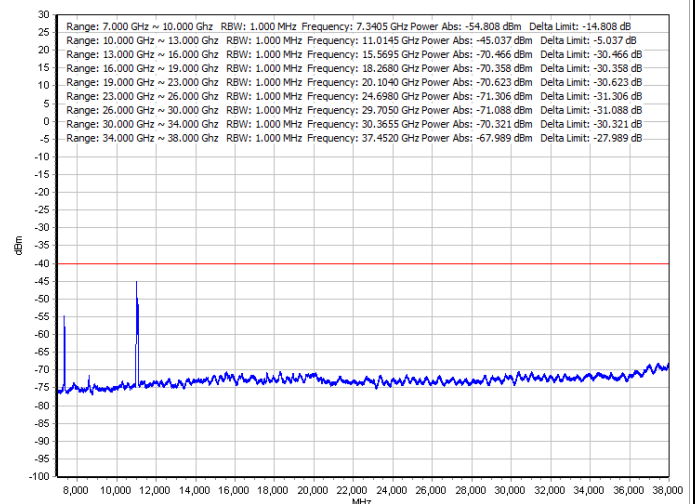
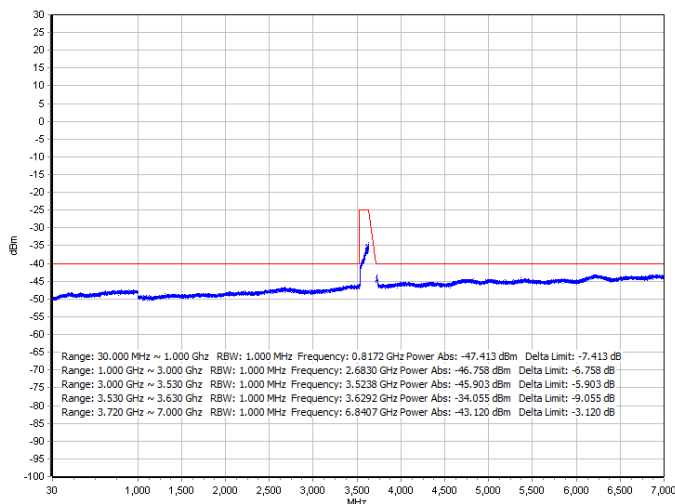
64QAM / High channel

Port 1 + Port 3



Port 2 + Port 4



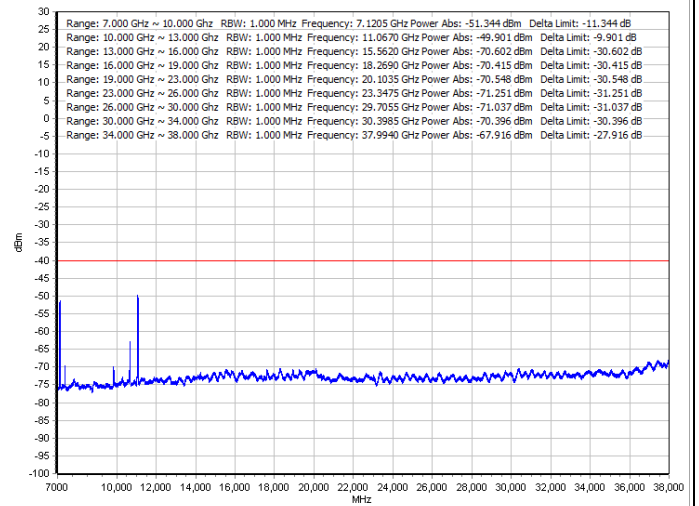
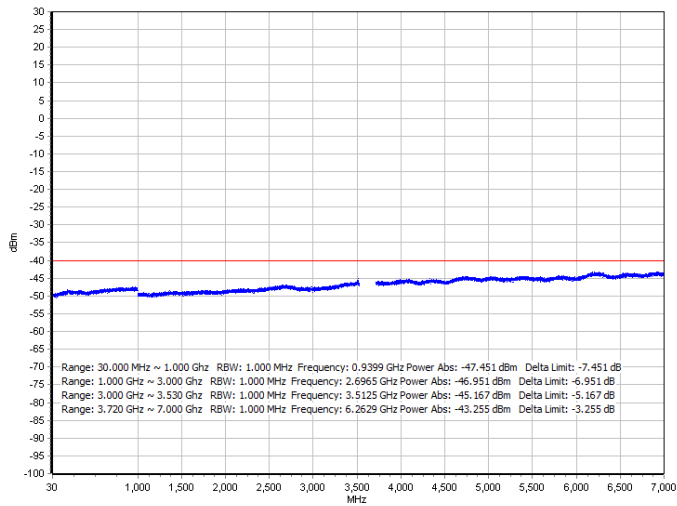
**LTE Band 48 / 20MHz + 20MHz****256QAM / High channel****Port 1 + Port 3****Port 2 + Port 4**



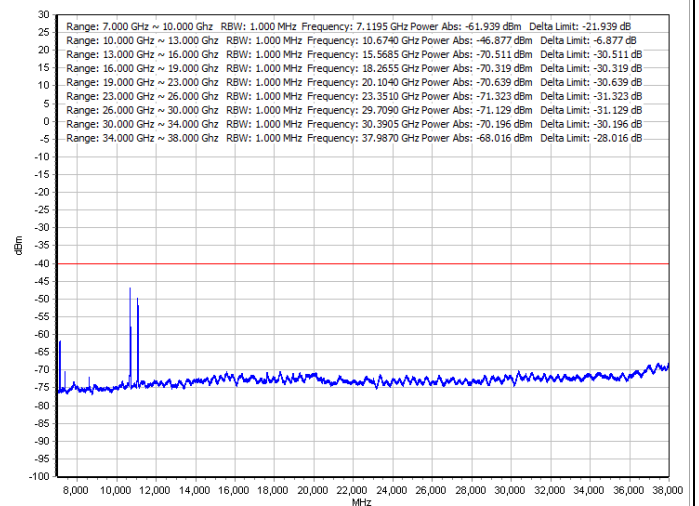
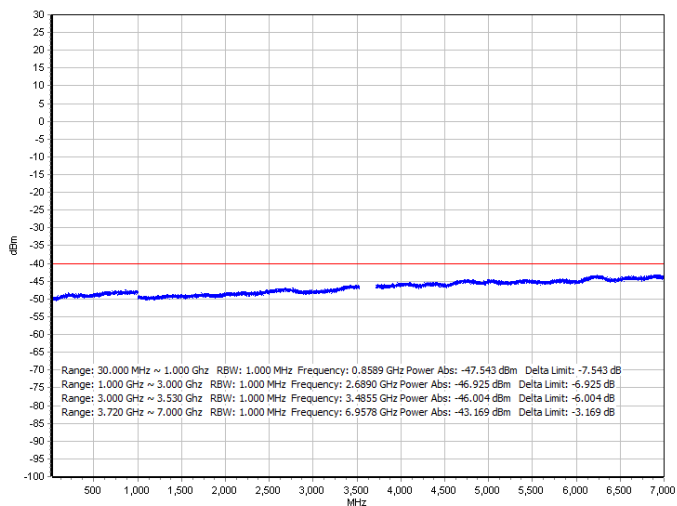
LTE Band 48 / 20MHz + 20MHz

QPSK / non-contiguous

Port 1 + Port 3



Port 2 + Port 4

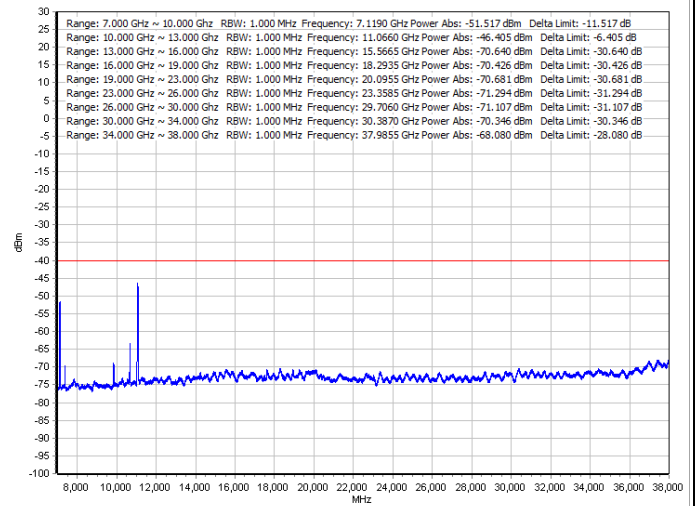
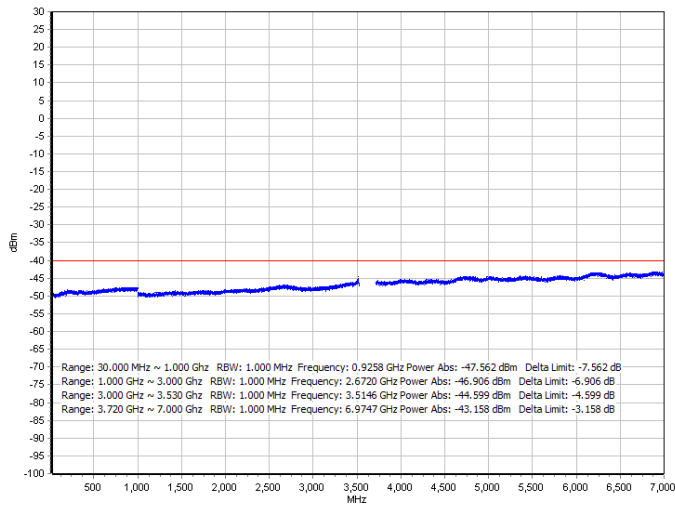




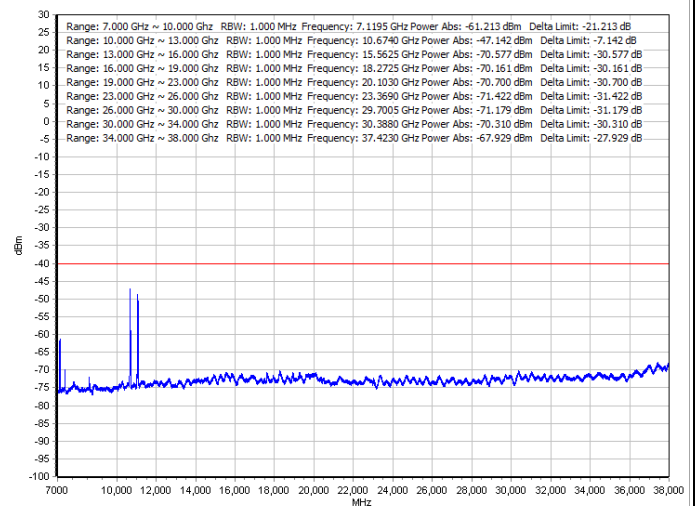
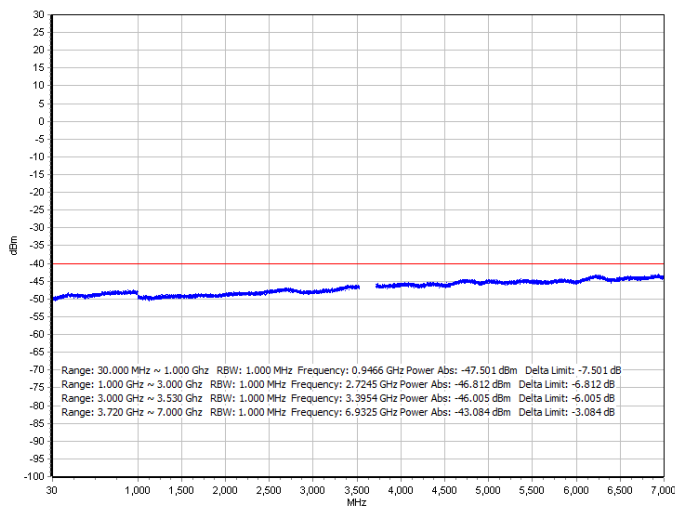
LTE Band 48 / 20MHz + 20MHz

16QAM / non-contiguous

Port 1 + Port 3



Port 2 + Port 4

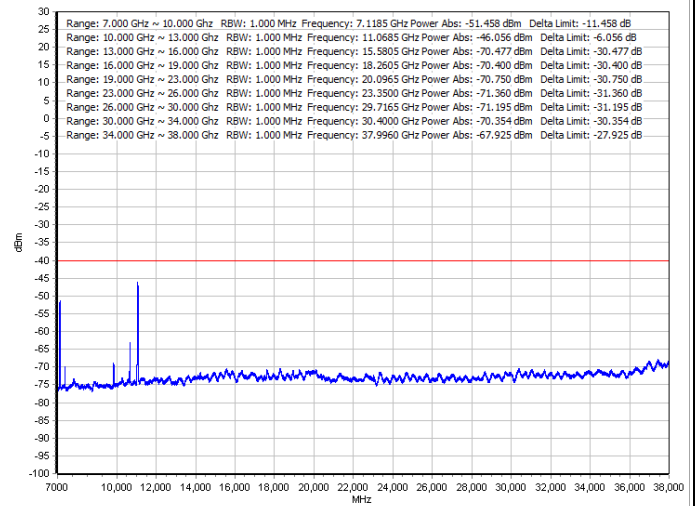
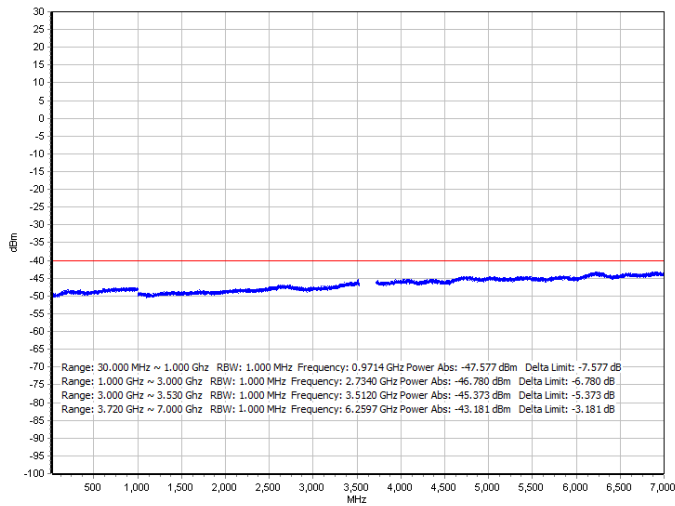




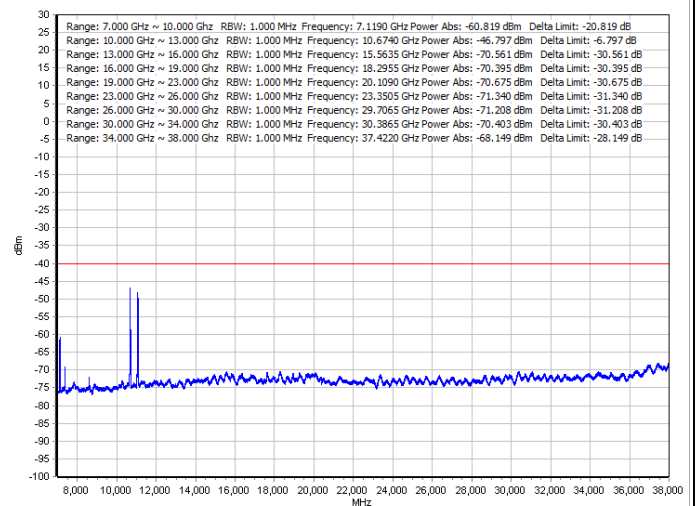
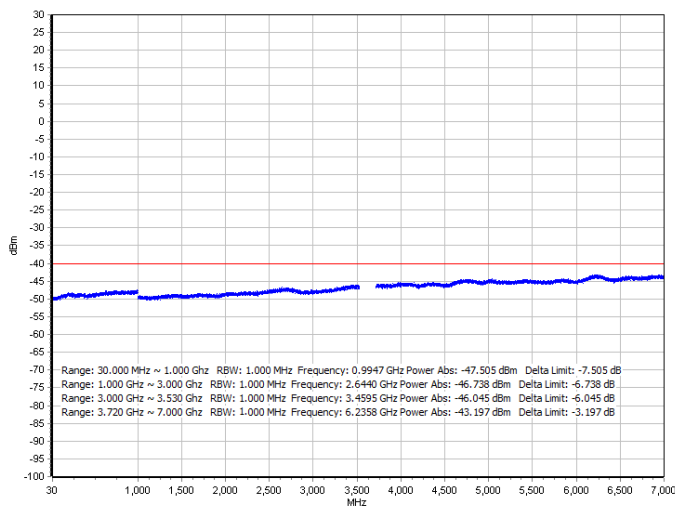
LTE Band 48 / 20MHz + 20MHz

64QAM / non-contiguous

Port 1 + Port 3



Port 2 + Port 4

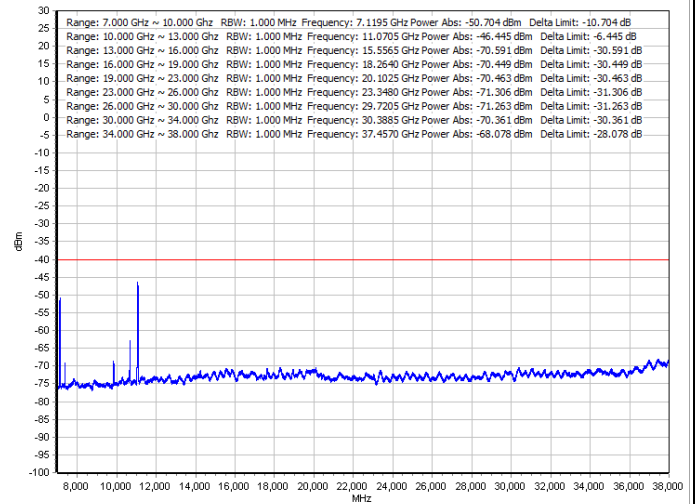
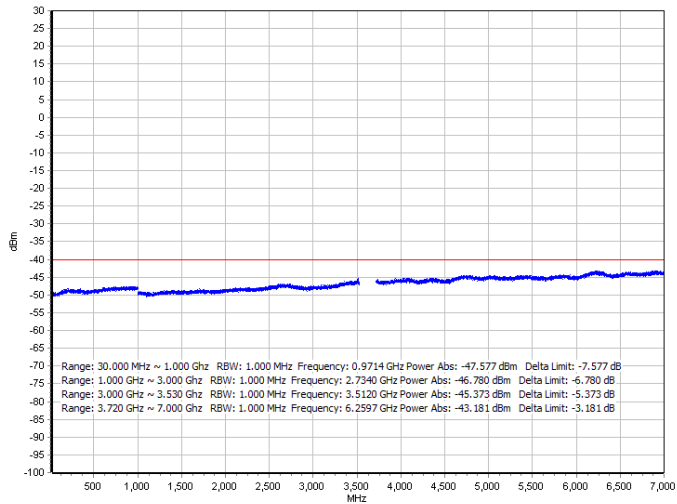




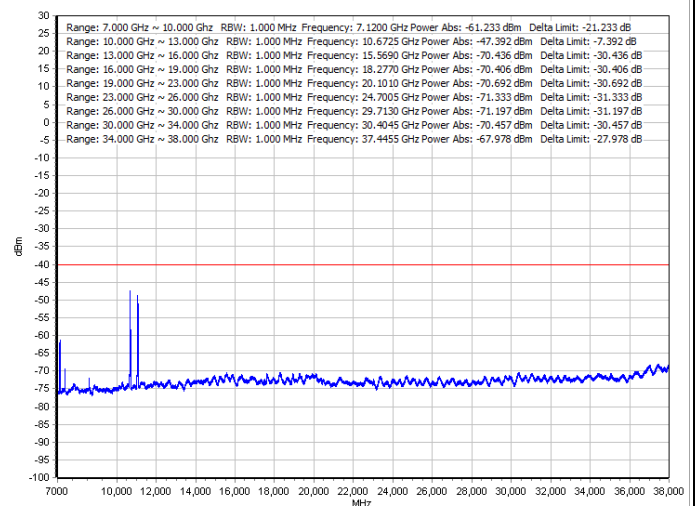
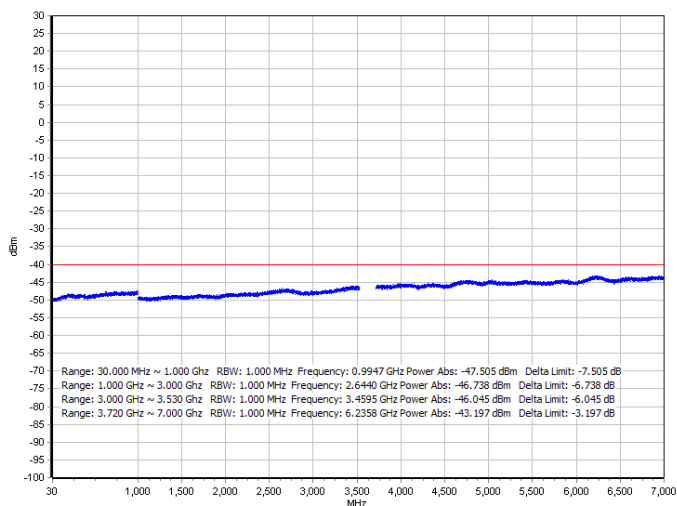
LTE Band 48 / 20MHz + 20MHz

256QAM / non-contiguous

Port 1 + Port 3



Port 2 + Port 4





Appendix B. Test Results of Radiated Test

LTE Band 48

<Single Carrier 1 Mode>

LTE Band 48 / 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)
Low	7110	-51.32	-40	-11.32	-47.52	-60.60	2.35	11.62	H
	10665	-47.61	-40	-7.61	-47.87	-55.71	2.86	10.97	H
	14220	-53.12	-40	-13.12	-57.64	-61.53	3.39	11.80	H
	7110	-50.80	-40	-10.80	-47.03	-60.08	2.35	11.62	V
	10665	-48.87	-40	-8.87	-49.45	-56.97	2.86	10.97	V
	14220	-53.11	-40	-13.11	-57.88	-61.52	3.39	11.80	V
Middle	7250	-52.68	-40	-12.68	-49.23	-61.70	2.38	11.40	H
	10875	-53.71	-40	-13.71	-54.62	-61.70	2.93	10.93	H
	14500	-53.91	-40	-13.91	-57.79	-61.70	3.51	11.30	H
	7250	-49.00	-40	-9.00	-45.78	-58.02	2.38	11.40	V
	10875	-53.76	-40	-13.76	-54.99	-61.75	2.93	10.93	V
	14500	-53.16	-40	-13.16	-57.84	-60.95	3.51	11.30	V



LTE Band 48 / 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)
High	7390	-50.13	-40	-10.13	-47.52	-58.89	2.41	11.18	H
	11085	-49.19	-40	-9.19	-50.56	-57.19	2.99	10.99	H
	14780	-53.72	-40	-13.72	-58.17	-62.44	3.48	12.20	H
	7390	-53.06	-40	-13.06	-50.22	-61.82	2.41	11.18	V
	11085	-46.35	-40	-6.35	-48.06	-54.35	2.99	10.99	V
	14780	-53.18	-40	-13.18	-58.47	-61.90	3.48	12.20	V

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



<Single Carrier 2 Mode>

LTE Band 48 / 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)
Low	7110	-50.04	-40	-10.04	-46.24	-59.32	2.35	11.62	H
	10665	-40.50	-40	-0.50	-40.76	-48.60	2.86	10.97	H
	14220	-53.34	-40	-13.34	-57.86	-61.75	3.39	11.80	H
	7110	-45.32	-40	-5.32	-41.55	-54.60	2.35	11.62	V
	10665	-43.85	-40	-3.85	-44.43	-51.95	2.86	10.97	V
	14220	-53.14	-40	-13.14	-57.91	-61.55	3.39	11.80	V
Middle	7250	-47.07	-40	-7.07	-43.62	-56.09	2.38	11.40	H
	10875	-49.28	-40	-9.28	-50.19	-57.27	2.93	10.93	H
	14500	-54.05	-40	-14.05	-57.93	-61.84	3.51	11.30	H
	7250	-48.65	-40	-8.65	-45.43	-57.67	2.38	11.40	V
	10875	-46.75	-40	-6.75	-47.98	-54.74	2.93	10.93	V
	14500	-52.80	-40	-12.80	-57.48	-60.59	3.51	11.30	V



LTE Band 48 / 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)
High	7390	-49.88	-40	-9.88	-47.27	-58.64	2.41	11.18	H
	11085	-48.22	-40	-8.22	-49.59	-56.22	2.99	10.99	H
	14780	-53.63	-40	-13.63	-58.08	-62.35	3.48	12.20	H
	7390	-49.91	-40	-9.91	-47.07	-58.67	2.41	11.18	V
	11085	-47.35	-40	-7.35	-49.06	-55.35	2.99	10.99	V
	14780	-53.51	-40	-13.51	-58.8	-62.23	3.48	12.20	V

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

LTE Band 48 CA

<Multi Carrier Continuous Mode>

LTE Band 48 / 20MHz+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)
Low + Low	7120	-55.40	-40	-15.40	-51.61	-64.66	2.35	11.61	H
	7160	-52.79	-40	-12.79	-49.02	-61.98	2.36	11.54	H
	10680	-48.32	-40	-8.32	-48.62	-56.42	2.87	10.96	H
	10740	-47.03	-40	-7.03	-47.52	-55.10	2.89	10.95	H
	14240	-53.87	-40	-13.87	-58.35	-62.24	3.40	11.77	H
	14320	-53.97	-40	-13.97	-58.26	-62.16	3.43	11.62	H
	7120	-52.24	-40	-12.24	-48.52	-61.50	2.35	11.61	V
	7160	-49.65	-40	-9.65	-46.11	-58.84	2.36	11.54	V
	10680	-53.49	-40	-13.49	-54.11	-61.59	2.87	10.96	V
	10740	-43.07	-40	-3.07	-43.88	-51.14	2.89	10.95	V
	14240	-53.43	-40	-13.43	-58.19	-61.80	3.40	11.77	V
	14320	-53.68	-40	-13.68	-58.41	-61.87	3.43	11.62	V



LTE Band 48 / 20MHz+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 + Middle	7230	-53.66	-40	-13.66	-50.09	-62.72	2.38	11.43	H
	7270	-49.03	-40	-9.03	-45.71	-58.01	2.38	11.37	H
	10845	-51.99	-40	-11.99	-52.8	-60.00	2.92	10.93	H
	10905	-47.10	-40	-7.10	-48.1	-55.08	2.94	10.92	H
	14460	-54.04	-40	-14.04	-58.01	-61.92	3.49	11.37	H
	14540	-54.15	-40	-14.15	-58.11	-62.07	3.51	11.43	H
	7230	-51.88	-40	-11.88	-48.6	-60.94	2.38	11.43	V
	7270	-50.12	-40	-10.12	-46.96	-59.10	2.38	11.37	V
	10845	-53.23	-40	-13.23	-54.35	-61.24	2.92	10.93	V
	10905	-42.57	-40	-2.57	-43.89	-50.55	2.94	10.92	V
	14460	-53.35	-40	-13.35	-58.04	-61.23	3.49	11.37	V
	14540	-53.47	-40	-13.47	-58.23	-61.39	3.51	11.43	V



LTE Band 48 / 20MHz+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)
High + High	7340	-51.27	-40	-11.27	-48.36	-60.12	2.40	11.26	H
	7380	-51.82	-40	-11.82	-49.15	-60.60	2.41	11.19	H
	11010	-54.94	-40	-14.94	-56.24	-62.88	2.97	10.91	H
	11070	-48.53	-40	-8.53	-49.89	-56.52	2.98	10.97	H
	14680	-54.01	-40	-14.01	-58.26	-62.40	3.49	11.88	H
	14760	-54.54	-40	-14.54	-58.95	-63.19	3.48	12.13	H
	7340	-51.28	-40	-11.28	-48.3	-60.13	2.40	11.26	V
	7380	-51.03	-40	-11.03	-48.16	-59.81	2.41	11.19	V
	11010	-53.44	-40	-13.44	-55.06	-61.38	2.97	10.91	V
	11070	-48.36	-40	-8.36	-50.05	-56.35	2.98	10.97	V
	14680	-53.19	-40	-13.19	-58.26	-61.58	3.49	11.88	V
	14760	-53.62	-40	-13.62	-58.87	-62.27	3.48	12.13	V

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



<Multi Carrier Non-Continuous Mode>

LTE Band 48 / 20MHz+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)
Low + High	7120	-54.27	-40	-14.27	-50.48	-63.53	2.35	11.61	H
	7380	-51.46	-40	-11.46	-48.79	-60.24	2.41	11.19	H
	10680	-48.78	-40	-8.78	-49.08	-56.88	2.87	10.96	H
	11070	-49.51	-40	-9.51	-50.87	-57.50	2.98	10.97	H
	14240	-53.71	-40	-13.71	-58.19	-62.08	3.40	11.77	H
	14760	-54.34	-40	-14.34	-58.75	-62.99	3.48	12.13	H
	7120	-51.86	-40	-11.86	-48.14	-61.12	2.35	11.61	V
	7380	-51.25	-40	-11.25	-48.38	-60.03	2.41	11.19	V
	10680	-53.83	-40	-13.83	-54.45	-61.93	2.87	10.96	V
	11070	-47.83	-40	-7.83	-49.52	-55.82	2.98	10.97	V
	14240	-53.53	-40	-13.53	-58.29	-61.90	3.40	11.77	V
	14760	-53.42	-40	-13.42	-58.67	-62.07	3.48	12.13	V

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

Appendix C. Setup Photographs

X Plane

LF



HF



SHF



————THE END————