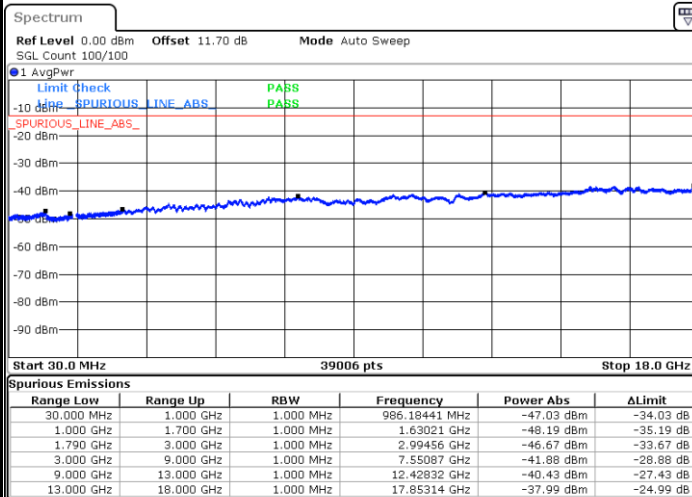




Conducted Spurious Emission

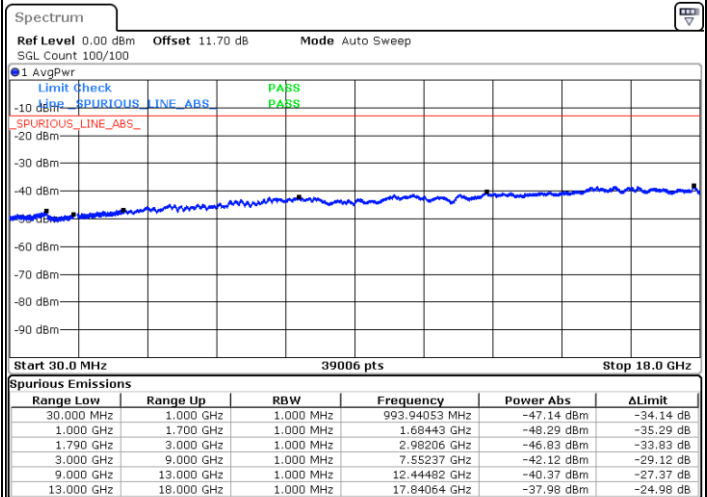
LTE Band 66 / 1.4MHz

Lowest Channel / QPSK



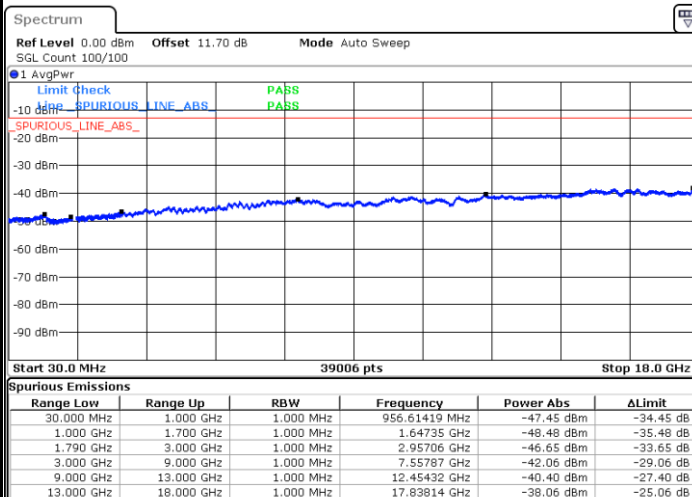
Date: 17.FEB.2020 19:16:27

Lowest Channel / 16QAM



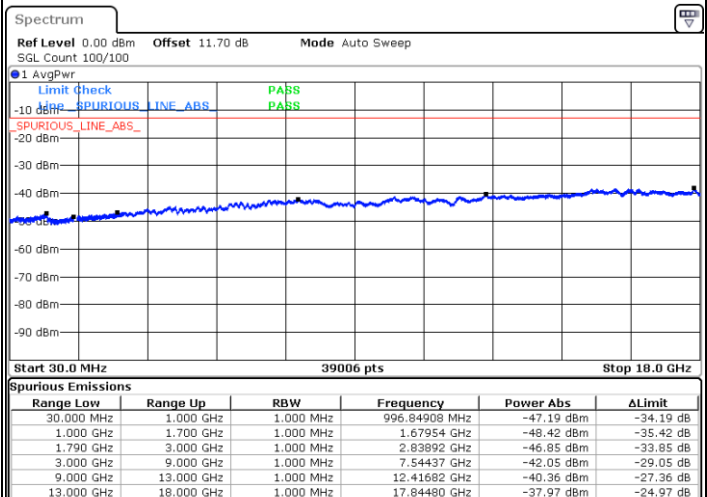
Date: 17.FEB.2020 19:17:09

Middle Channel / QPSK



Date: 17.FEB.2020 19:18:39

Middle Channel / 16QAM

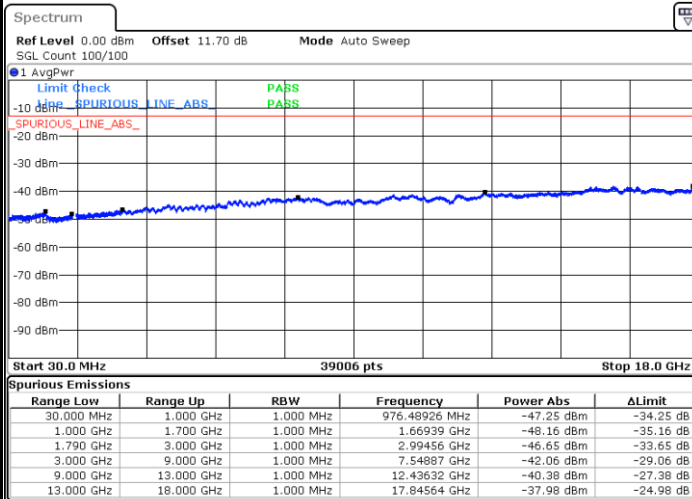


Date: 17.FEB.2020 19:19:21



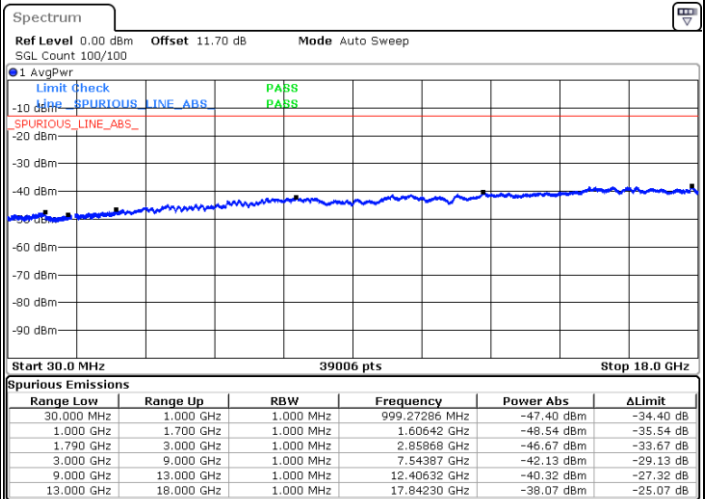
LTE Band 66 / 1.4MHz

Highest Channel / QPSK



Date: 17.FEB.2020 19:25:05

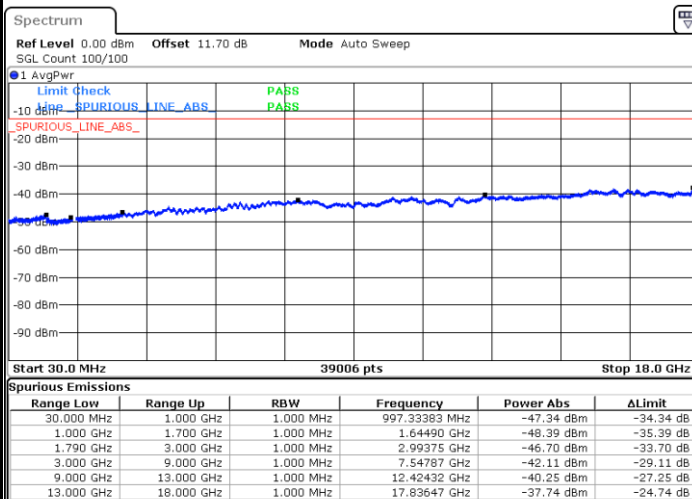
Highest Channel / 16QAM



Date: 17.FEB.2020 19:25:47

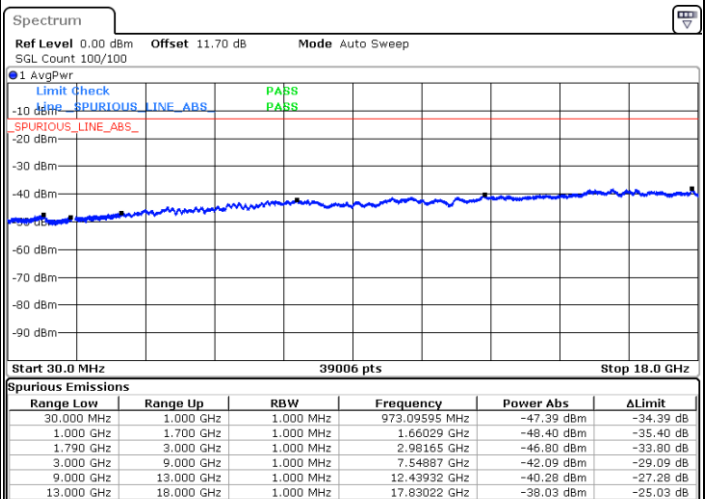
LTE Band 66 / 3MHz

Lowest Channel / QPSK



Date: 17.FEB.2020 19:38:52

Lowest Channel / 16QAM

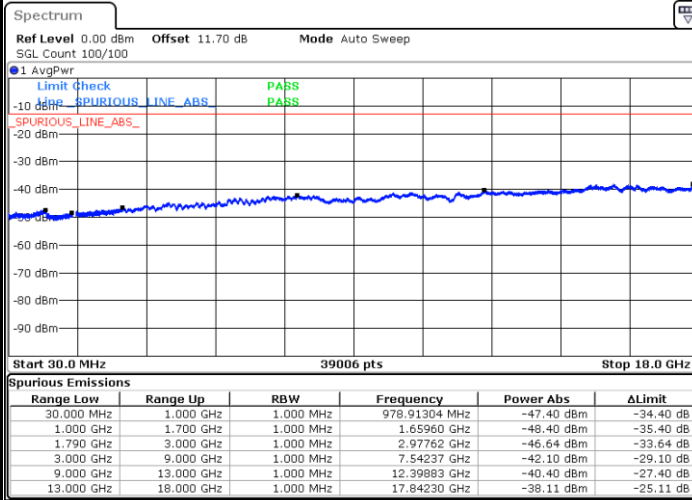


Date: 17.FEB.2020 19:39:34



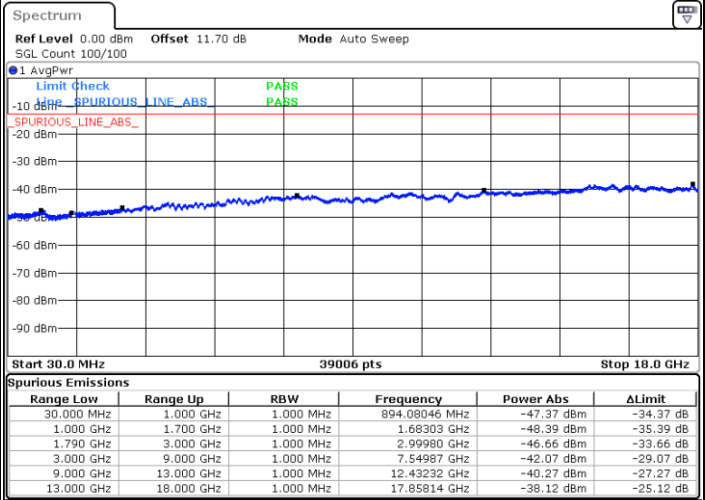
LTE Band 66 / 3MHz

Middle Channel / QPSK



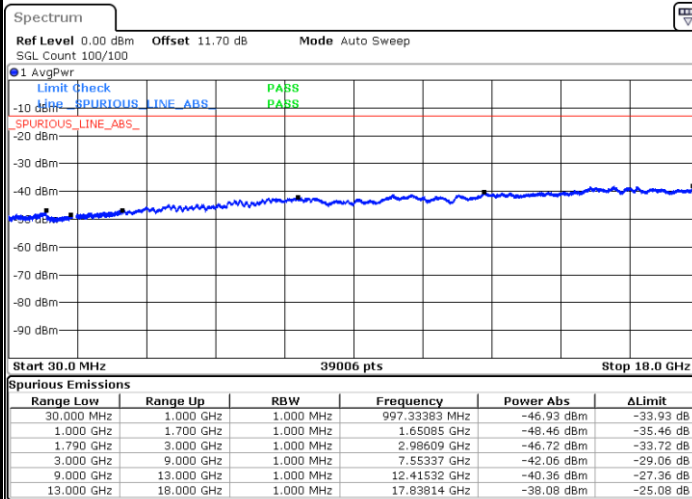
Date: 17.FEB.2020 19:41:04

Middle Channel / 16QAM



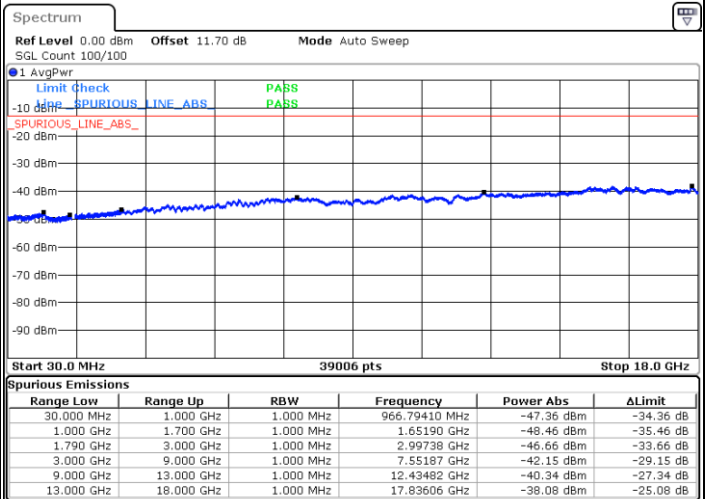
Date: 17.FEB.2020 19:41:45

Highest Channel / QPSK



Date: 17.FEB.2020 19:47:55

Highest Channel / 16QAM

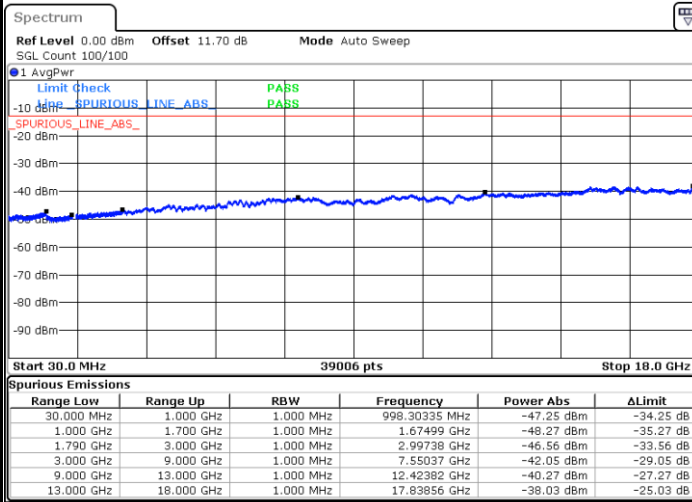


Date: 17.FEB.2020 19:48:37



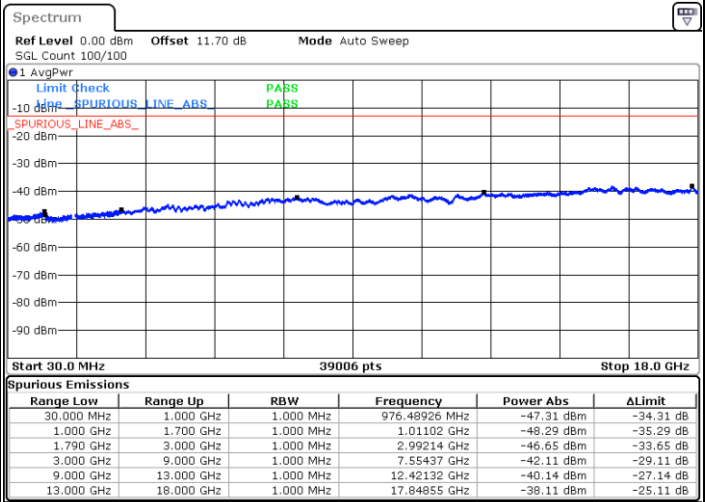
LTE Band 66 / 5MHz

Lowest Channel / QPSK



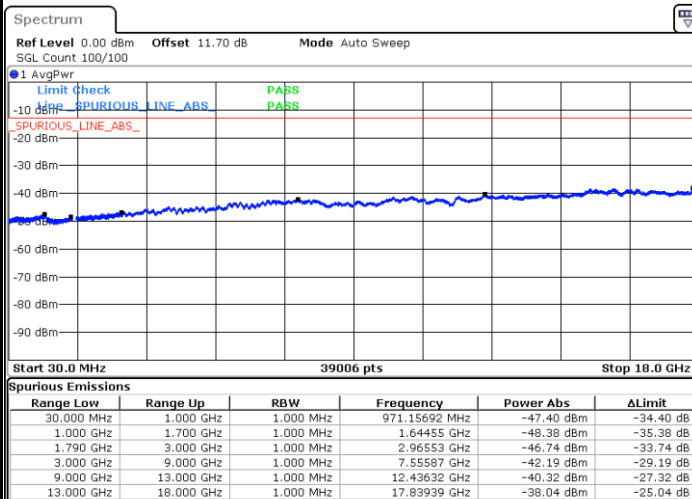
Date: 17.FEB.2020 20:04:50

Lowest Channel / 16QAM



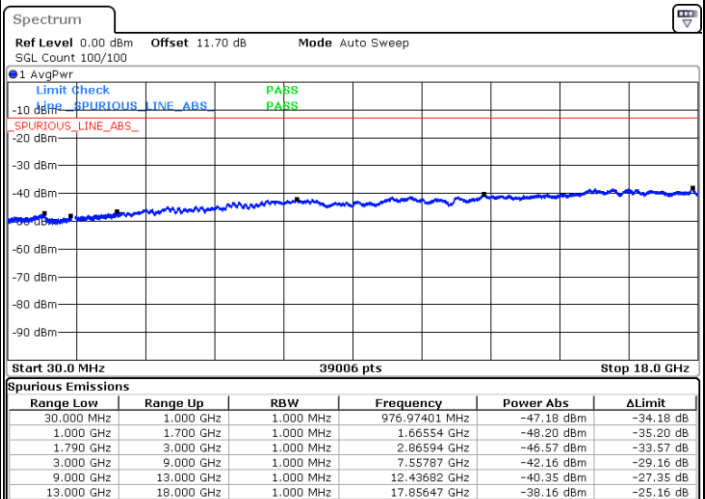
Date: 17.FEB.2020 20:05:31

Middle Channel / QPSK



Date: 17.FEB.2020 20:07:02

Middle Channel / 16QAM

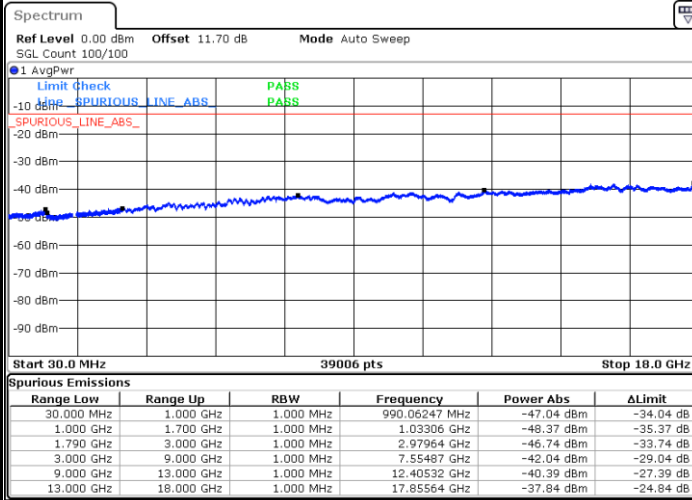


Date: 17.FEB.2020 20:07:43



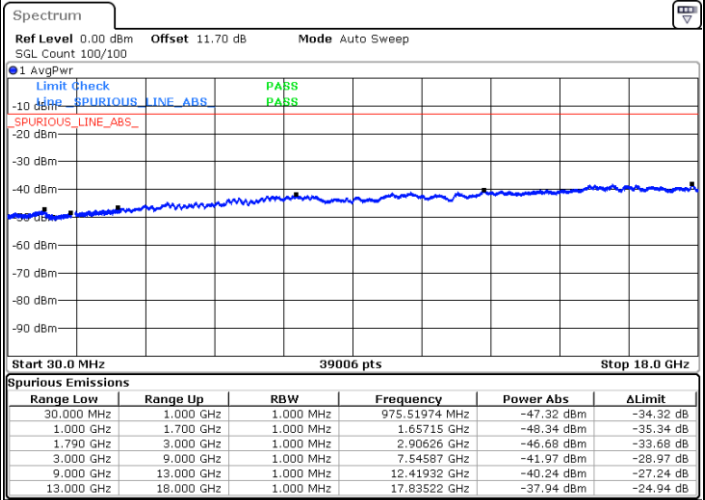
LTE Band 66 / 5MHz

Highest Channel / QPSK



Date: 17.FEB.2020 20:11:56

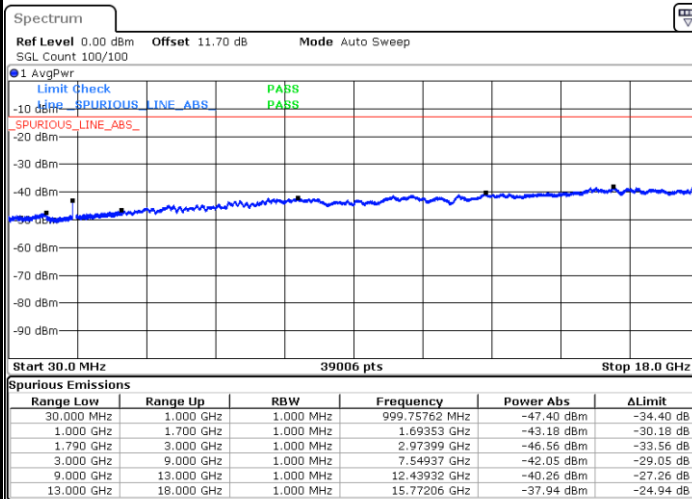
Highest Channel / 16QAM



Date: 17.FEB.2020 20:12:37

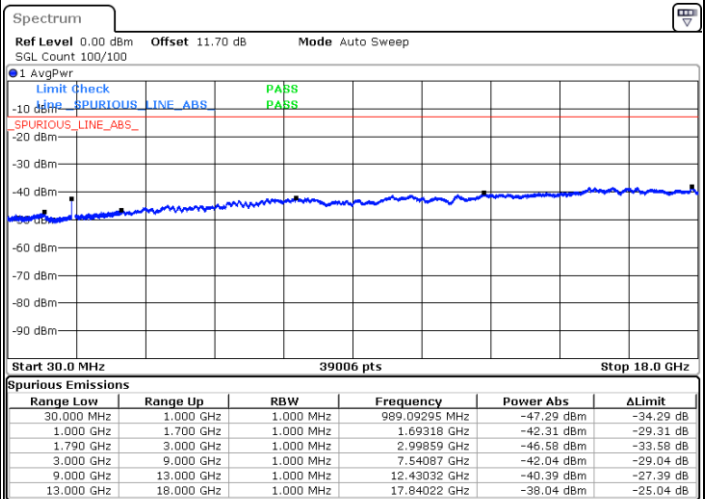
LTE Band 66 / 10MHz

Lowest Channel / QPSK



Date: 17.FEB.2020 20:16:50

Lowest Channel / 16QAM

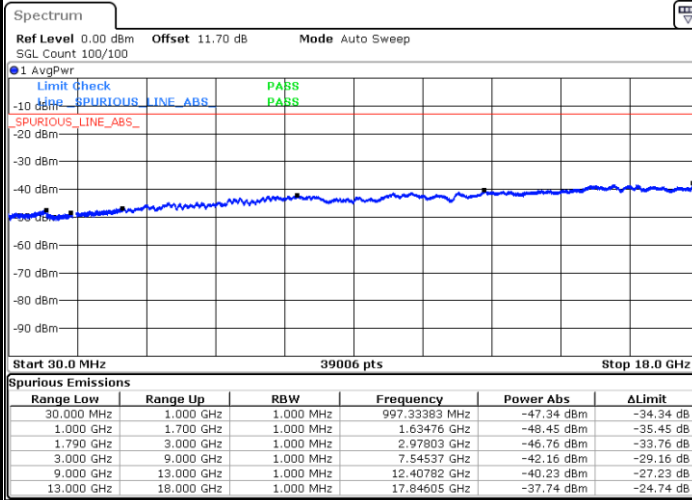


Date: 17.FEB.2020 20:17:32



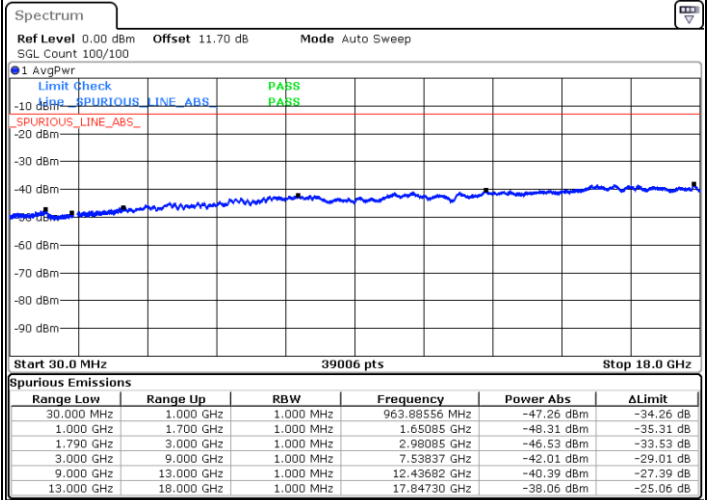
LTE Band 66 / 10MHz

Middle Channel / QPSK



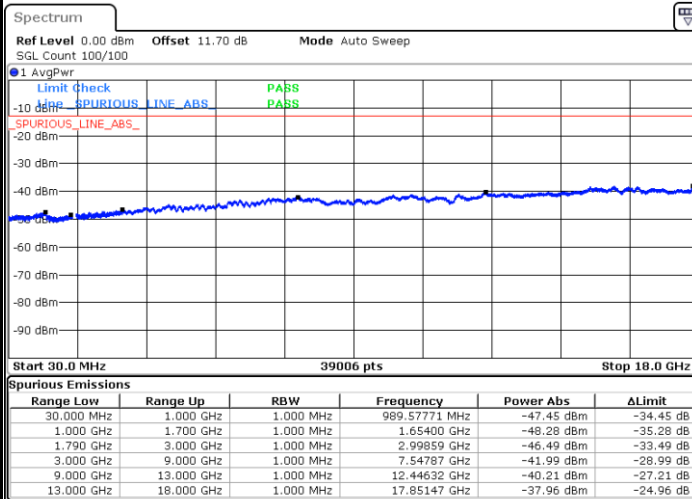
Date: 17.FEB.2020 20:19:02

Middle Channel / 16QAM



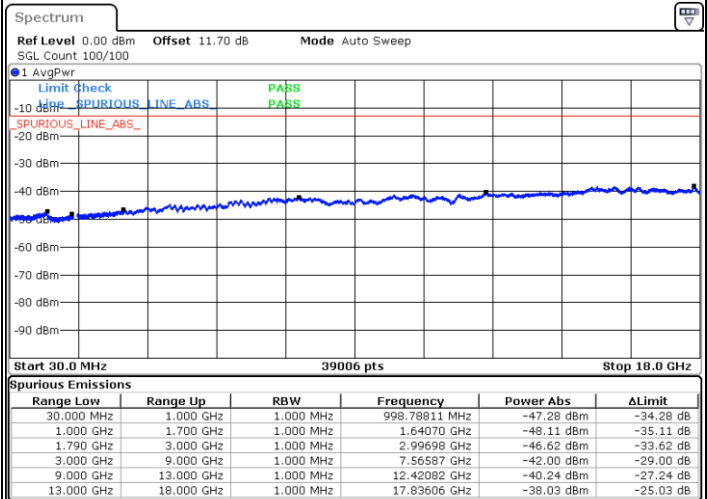
Date: 17.FEB.2020 20:19:44

Highest Channel / QPSK



Date: 17.FEB.2020 20:23:56

Highest Channel / 16QAM

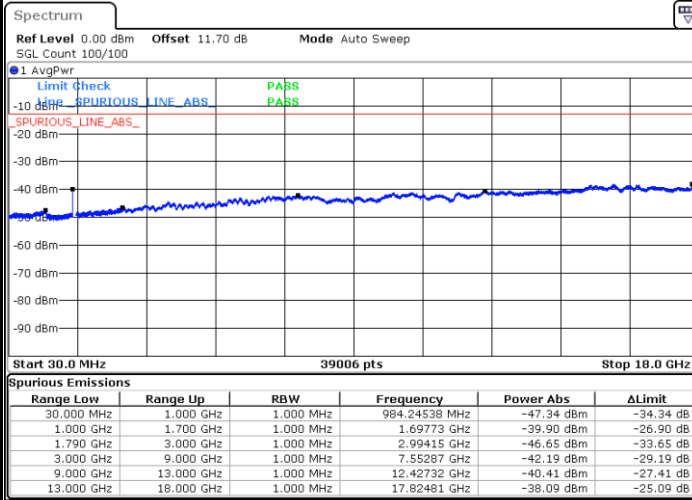


Date: 17.FEB.2020 20:24:38



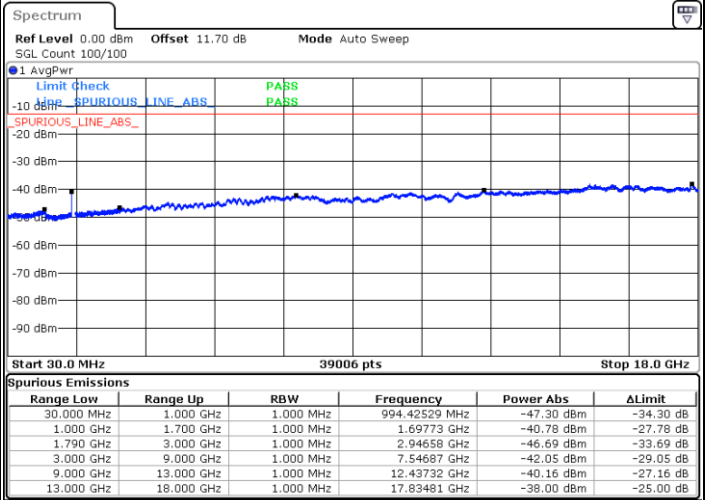
LTE Band 66 / 15MHz

Lowest Channel / QPSK



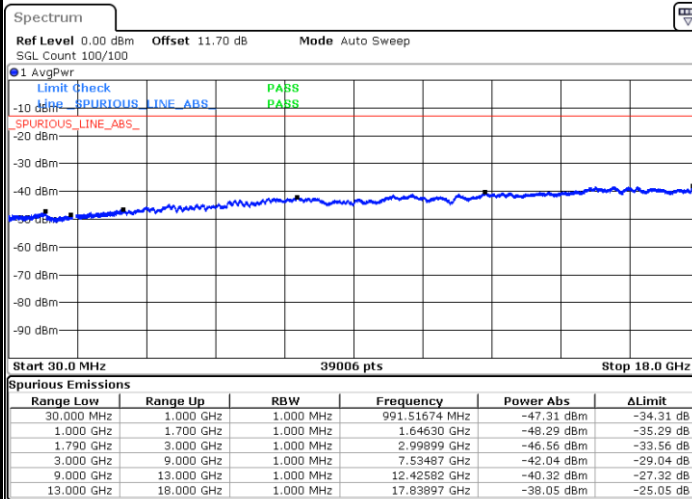
Date: 17.FEB.2020 20:40:50

Lowest Channel / 16QAM



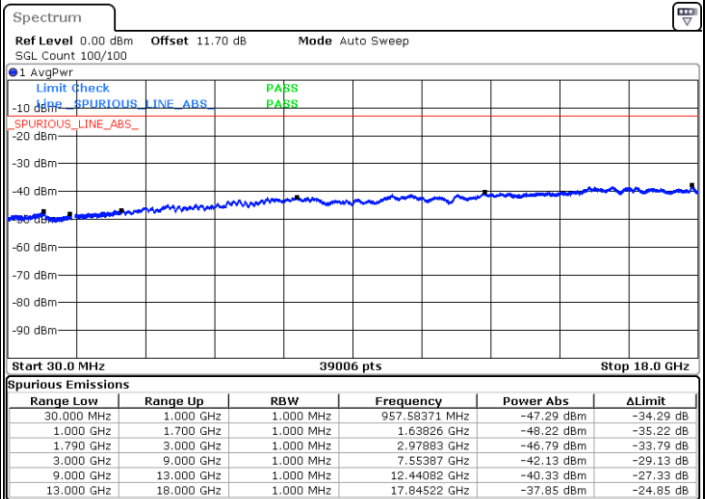
Date: 17.FEB.2020 20:41:32

Middle Channel / QPSK



Date: 17.FEB.2020 20:43:02

Middle Channel / 16QAM

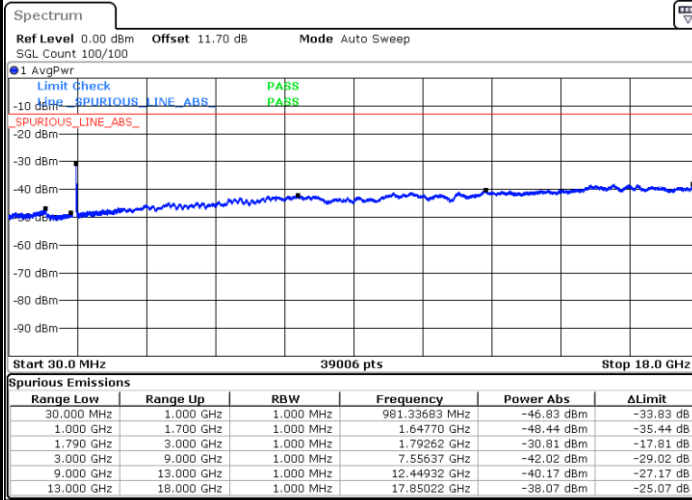


Date: 17.FEB.2020 20:43:44



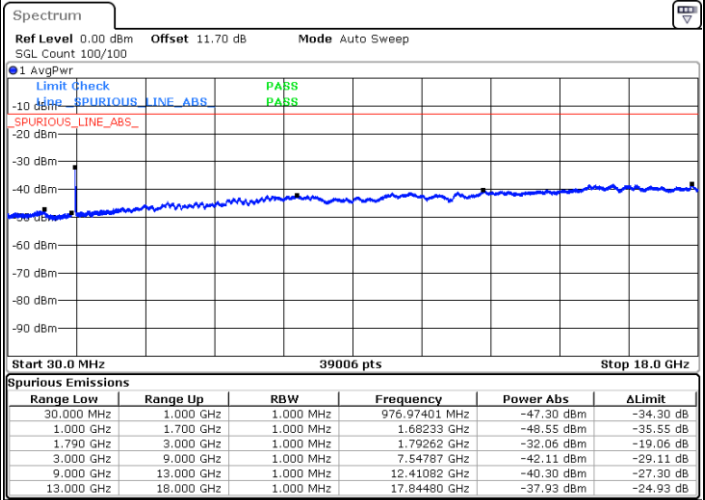
LTE Band 66 / 15MHz

Highest Channel / QPSK



Date: 17.FEB.2020 20:47:56

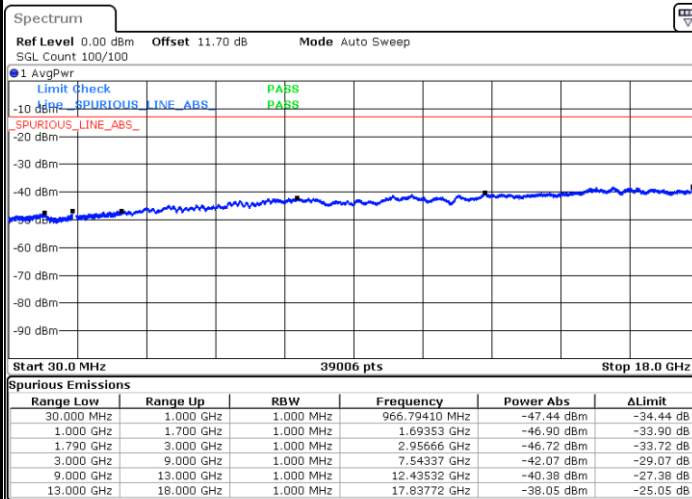
Highest Channel / 16QAM



Date: 17.FEB.2020 20:48:38

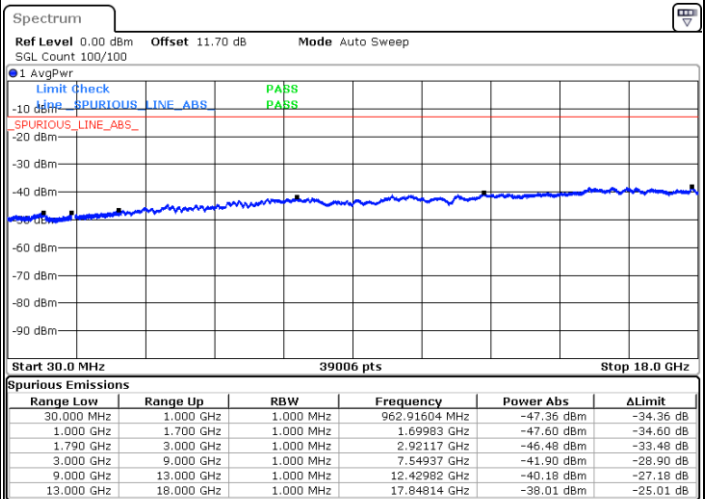
LTE Band 66 / 20MHz

Lowest Channel / QPSK



Date: 17.FEB.2020 20:52:51

Lowest Channel / 16QAM

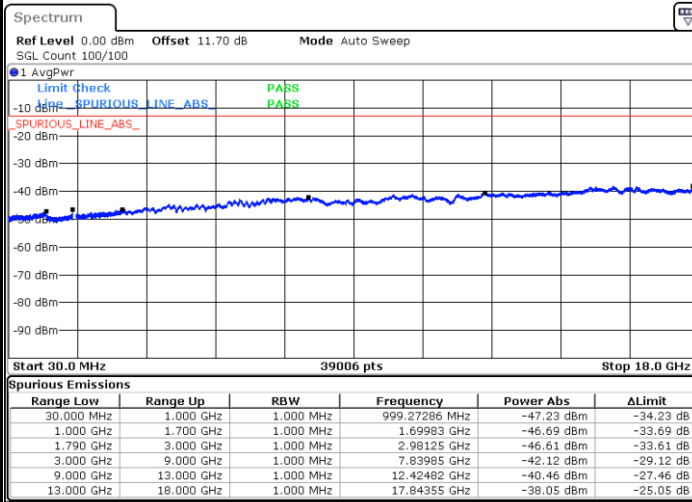


Date: 17.FEB.2020 20:53:32



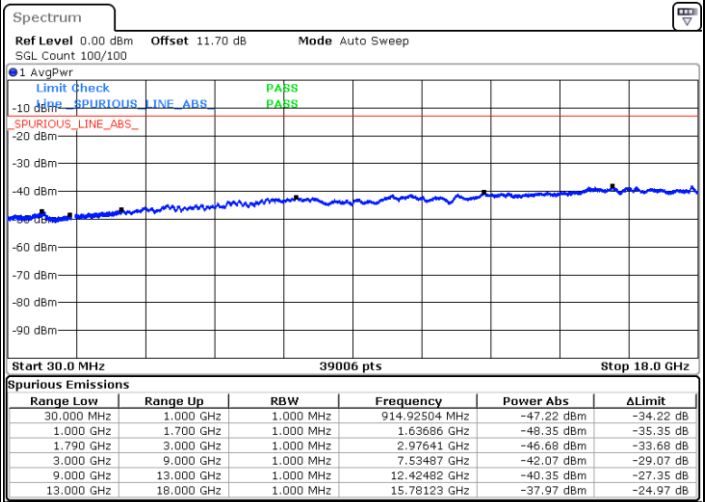
LTE Band 66 / 20MHz

Middle Channel / QPSK



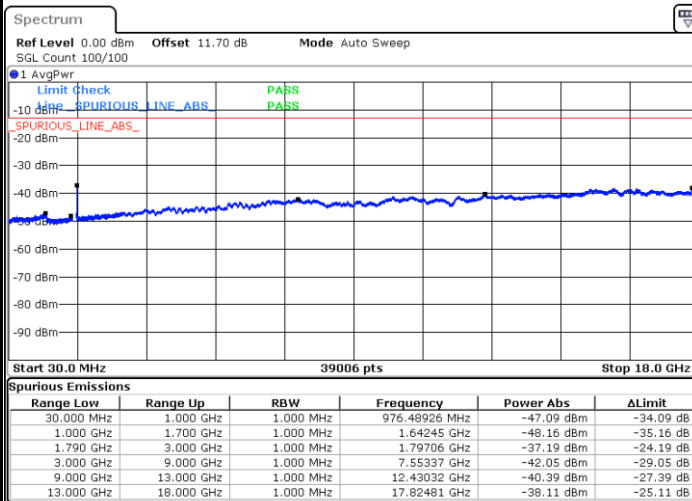
Date: 17.FEB.2020 20:55:03

Middle Channel / 16QAM



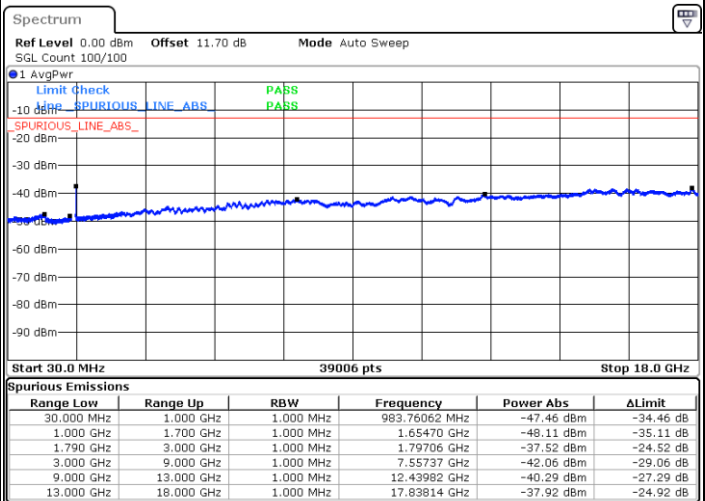
Date: 17.FEB.2020 20:55:44

Highest Channel / QPSK



Date: 17.FEB.2020 20:59:56

Highest Channel / 16QAM

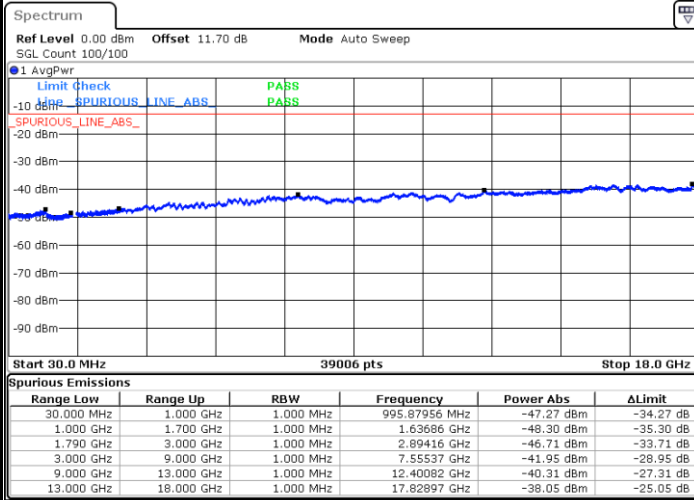


Date: 17.FEB.2020 21:00:38



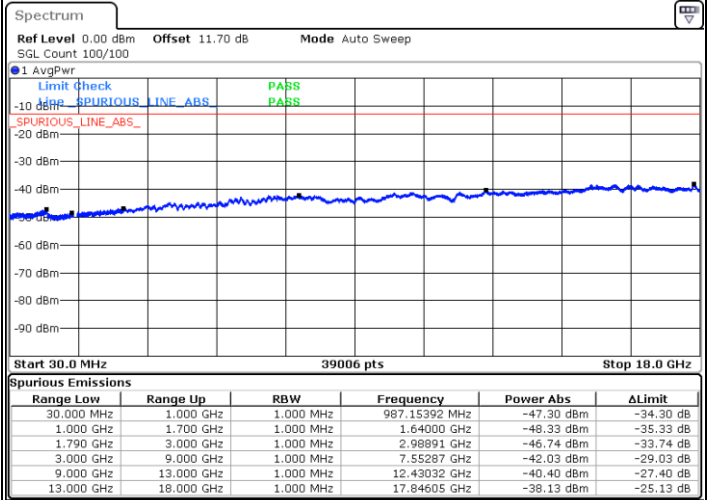
LTE Band 66 / 1.4MHz

Lowest Channel / 64QAM



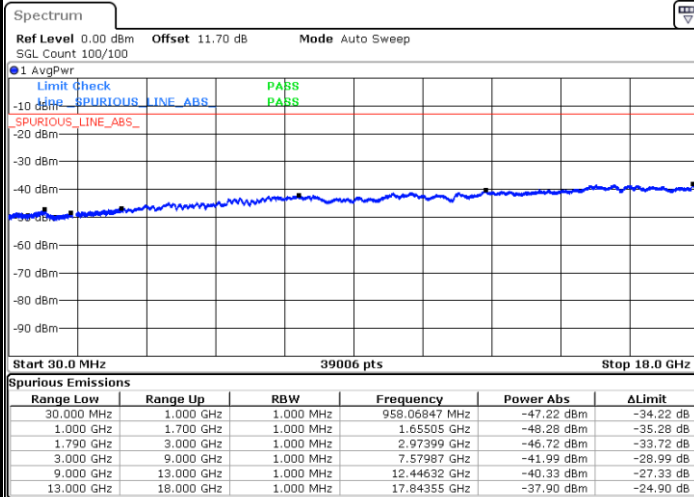
Date: 17.FEB.2020 19:29:00

Middle Channel / 64QAM



Date: 17.FEB.2020 19:30:06

Highest Channel / 64QAM

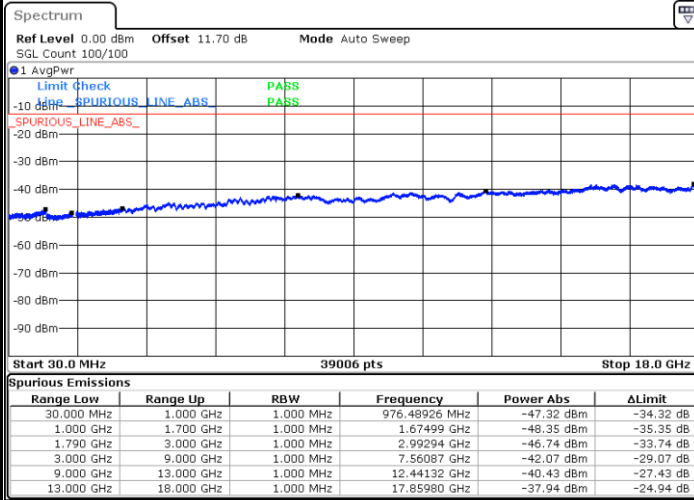


Date: 17.FEB.2020 19:33:19



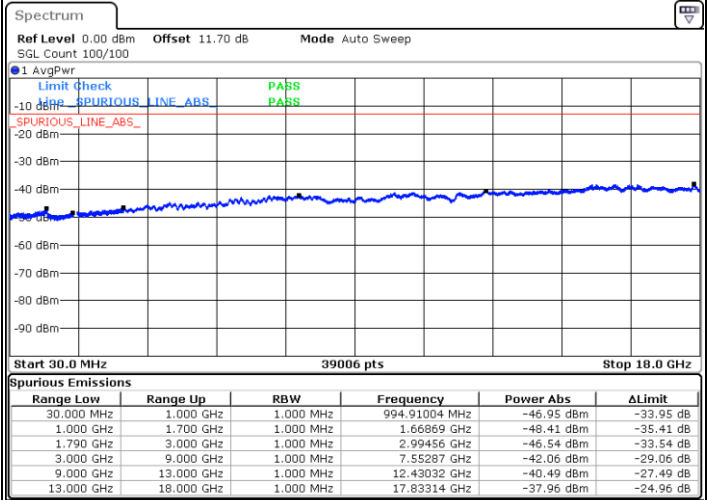
LTE Band 66 / 3MHz

Lowest Channel / 64QAM



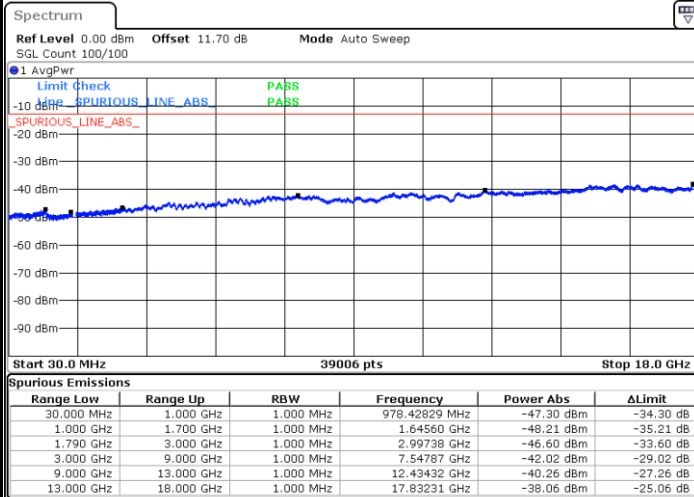
Date: 17.FEB.2020 19:51:04

Middle Channel / 64QAM



Date: 17.FEB.2020 19:52:10

Highest Channel / 64QAM

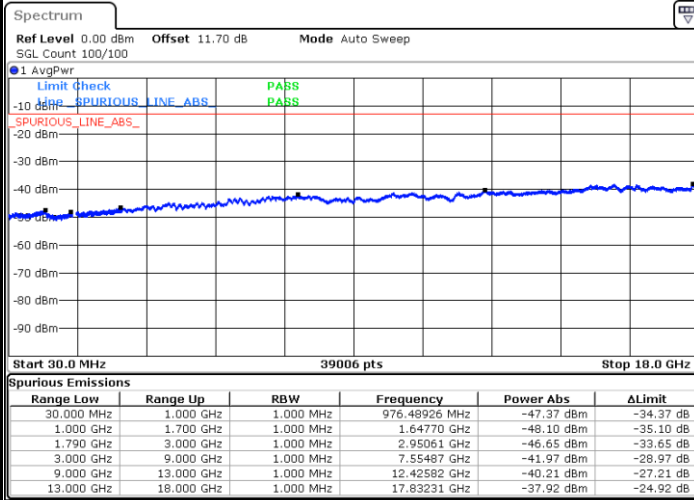


Date: 17.FEB.2020 19:54:37



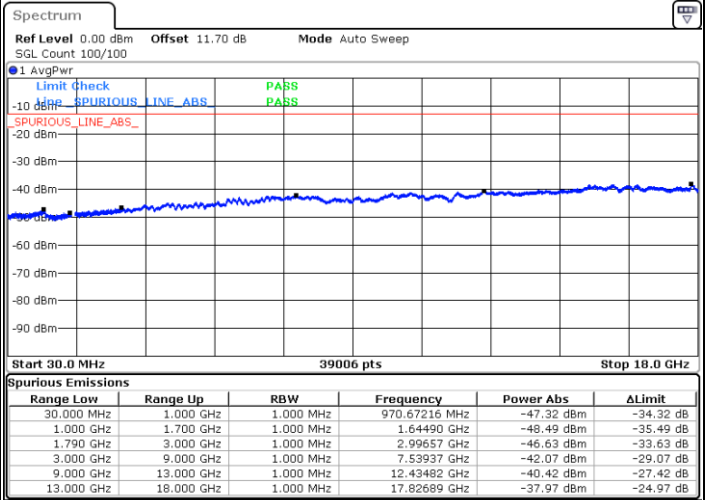
LTE Band 66 / 5MHz

Lowest Channel / 64QAM



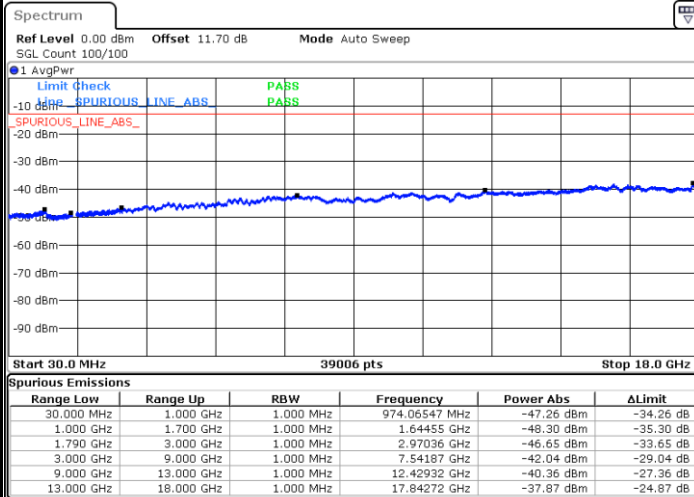
Date: 17.FEB.2020 19:57:04

Middle Channel / 64QAM



Date: 17.FEB.2020 19:58:10

Highest Channel / 64QAM

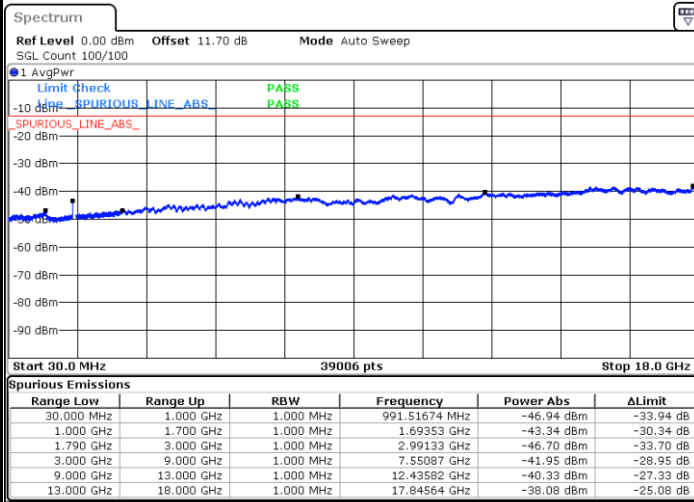


Date: 17.FEB.2020 20:00:37



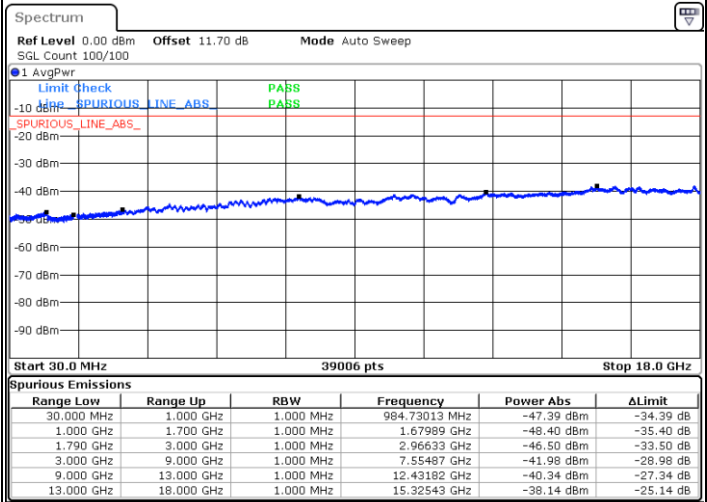
LTE Band 66 / 10MHz

Lowest Channel / 64QAM



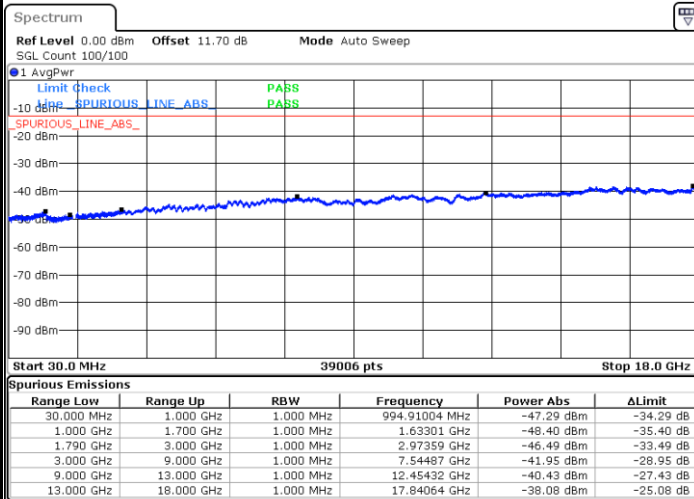
Date: 17.FEB.2020 20:27:05

Middle Channel / 64QAM



Date: 17.FEB.2020 20:28:11

Highest Channel / 64QAM

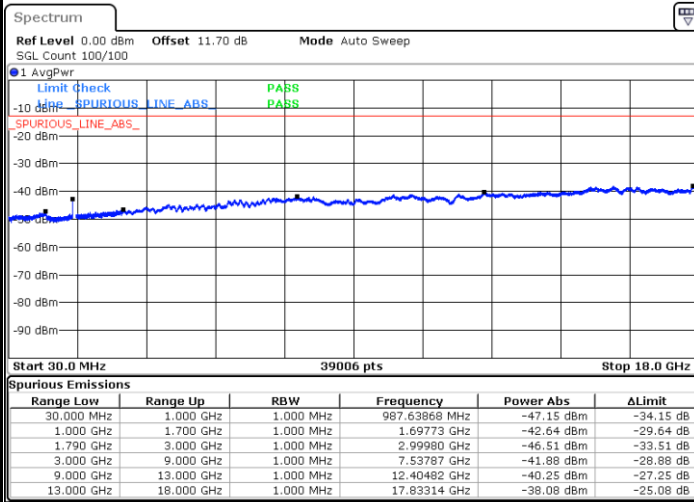


Date: 17.FEB.2020 20:30:37



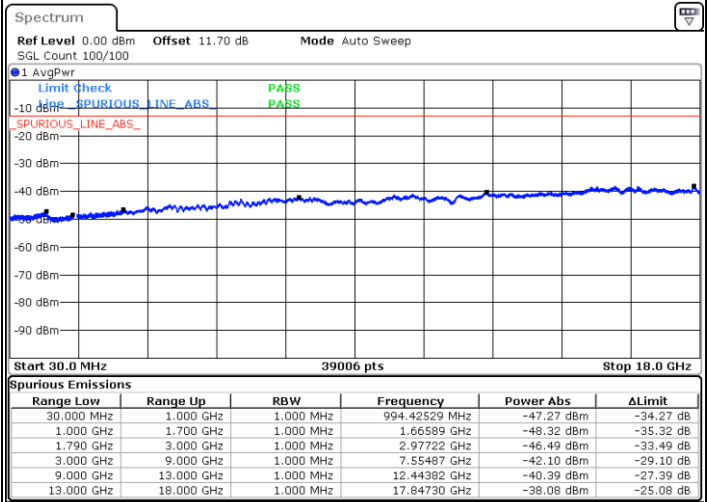
LTE Band 66 / 15MHz

Lowest Channel / 64QAM



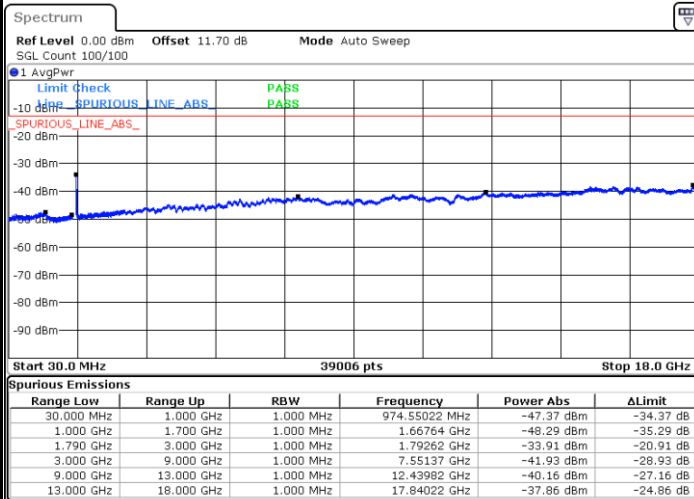
Date: 17.FEB.2020 20:33:04

Middle Channel / 64QAM



Date: 17.FEB.2020 20:34:10

Highest Channel / 64QAM

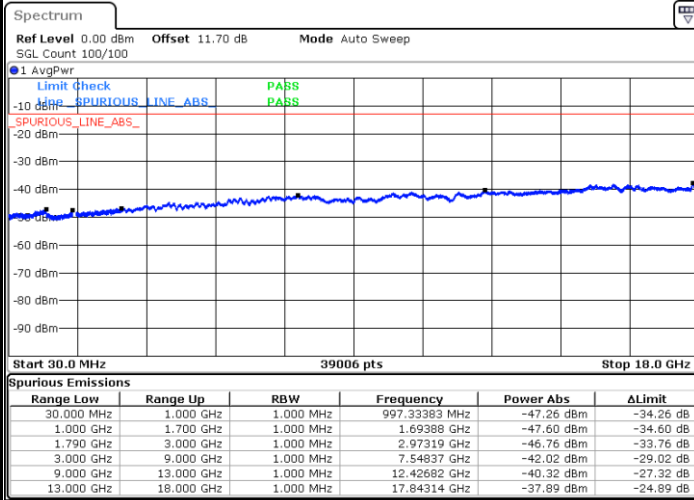


Date: 17.FEB.2020 20:36:38



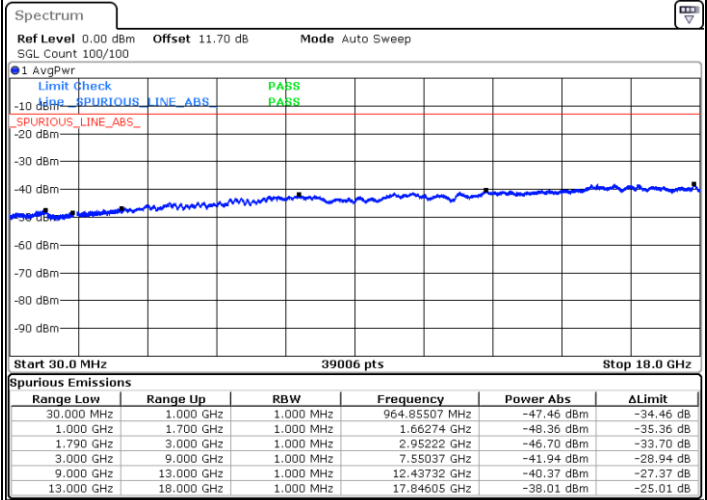
LTE Band 66 / 20MHz

Lowest Channel / 64QAM



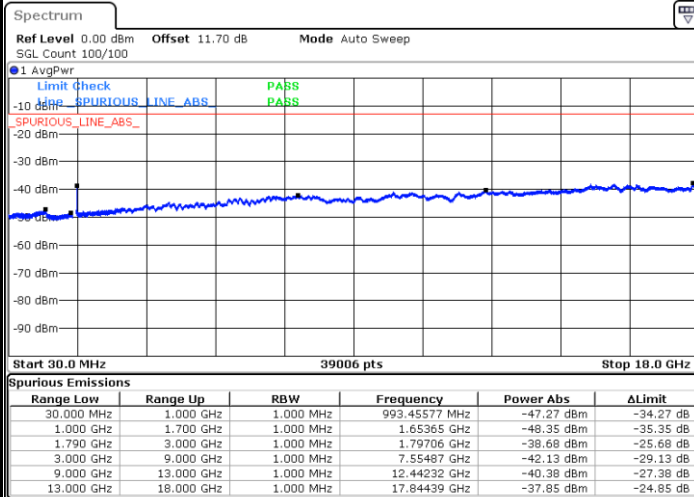
Date: 17.FEB.2020 21:03:05

Middle Channel / 64QAM



Date: 17.FEB.2020 21:04:10

Highest Channel / 64QAM



Date: 17.FEB.2020 21:06:37

Frequency Stability

Test Conditions		LTE Band 66 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0032	PASS
40	Normal Voltage	0.0031	
30	Normal Voltage	0.0041	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0030	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0050	
20	Maximum Voltage	0.0029	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0022	

Note:

1. Normal Voltage =4 V. ; Battery End Point (BEP) =3.7 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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3721	-51.99	-13	-38.99	-74.81	-63.21	1.42	12.63	H
	5583	-47.34	-13	-34.34	-74.95	-58.90	1.74	13.30	H
	7438	-43.32	-13	-30.32	-74.07	-52.56	1.96	11.20	H
	3721	-51.62	-13	-38.62	-74.61	-62.84	1.42	12.63	V
	5583	-47.64	-13	-34.64	-74.89	-59.20	1.74	13.30	V
	7438	-43.55	-13	-30.55	-74.19	-52.79	1.96	11.20	V
Middle	3763	-51.81	-13	-38.81	-74.78	-63.04	1.43	12.66	H
	5639	-47.55	-13	-34.55	-75.26	-59.12	1.73	13.30	H
	7522	-43.36	-13	-30.36	-73.67	-52.47	1.99	11.10	H
	3763	-51.64	-13	-38.64	-74.83	-62.87	1.43	12.66	V
	5639	-47.77	-13	-34.77	-75.08	-59.34	1.73	13.30	V
	7522	-43.72	-13	-30.72	-73.99	-52.83	1.99	11.10	V
Highest	3798	-51.58	-13	-38.58	-74.67	-61.78	2.02	12.22	H
	5702	-47.10	-13	-34.10	-75.1	-57.47	2.11	12.48	H
	7599	-44.04	-13	-31.04	-73.9	-52.28	2.11	10.36	H
	3798	-51.35	-13	-38.35	-74.71	-61.55	2.02	12.22	V
	5702	-47.78	-13	-34.78	-75.21	-58.15	2.11	12.48	V
	7599	-44.19	-13	-31.19	-74	-52.43	2.11	10.36	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3440	-54.08	-13	-41.08	-74.11	-65.09	1.35	12.36	H
	5160	-48.96	-13	-35.96	-75.44	-60.13	1.65	12.82	H
	6880	-44.90	-13	-31.90	-74.66	-55.23	1.74	12.07	H
	3440	-53.47	-13	-40.47	-74.9	-64.48	1.35	12.36	V
	5160	-49.02	-13	-36.02	-75.29	-60.19	1.65	12.82	V
	6880	-45.33	-13	-32.33	-74.67	-55.66	1.74	12.07	V
Middle	3465	-53.67	-13	-40.67	-74.94	-64.73	1.35	12.42	H
	5197	-49.00	-13	-36.00	-75.5	-60.21	1.66	12.88	H
	6930	-44.50	-13	-31.50	-74.48	-54.77	1.73	12.00	H
	3465	-53.44	-13	-40.44	-75.1	-64.50	1.35	12.42	V
	5197	-49.20	-13	-36.20	-75.53	-60.41	1.66	12.88	V
	6930	-44.77	-13	-31.77	-74.3	-55.04	1.73	12.00	V
Highest	3490	-53.35	-13	-40.35	-74.86	-64.47	1.36	12.48	H
	5235	-49.08	-13	-36.08	-75.71	-60.34	1.67	12.93	H
	6980	-43.94	-13	-30.94	-74.15	-54.15	1.72	11.93	H
	3490	-52.81	-13	-39.81	-74.69	-63.93	1.36	12.48	V
	5235	-49.13	-13	-36.13	-75.55	-60.39	1.67	12.93	V
	6980	-43.89	-13	-30.89	-73.61	-54.10	1.72	11.93	V

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



LTE Band 5 / 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)
Lowest	1658	-60.29	-13	-47.29	-73.79	-65.92	0.92	8.70	H
	2487	-56.48	-13	-43.48	-74.82	-63.86	1.15	10.68	H
	3316	-54.91	-13	-41.91	-75.01	-63.49	1.33	12.06	H
	1658	-60.82	-13	-47.82	-73.75	-66.45	0.92	8.70	V
	2487	-46.39	-13	-33.39	-64.91	-53.77	1.15	10.68	V
	3316	-53.71	-13	-40.71	-74.28	-62.29	1.33	12.06	V
Middle	1672	-60.49	-13	-47.49	-74.04	-66.17	0.93	8.75	H
	2510	-56.20	-13	-43.20	-74.54	-63.61	1.15	10.71	H
	3346	-54.79	-13	-41.79	-74.82	-63.44	1.33	12.13	H
	1672	-60.54	-13	-47.54	-73.46	-66.22	0.93	8.75	V
	2510	-56.45	-13	-43.45	-74.99	-63.86	1.15	10.71	V
	3346	-54.41	-13	-41.41	-74.89	-63.06	1.33	12.13	V
Highest	1688	-60.29	-13	-47.29	-73.89	-66.02	0.93	8.81	H
	2532	-56.23	-13	-43.23	-74.58	-63.66	1.16	10.74	H
	3376	-55.02	-13	-42.02	-75	-63.73	1.34	12.20	H
	1688	-61.39	-13	-48.39	-74.3	-67.12	0.93	8.81	V
	2532	-56.57	-13	-43.57	-75.06	-64.00	1.16	10.74	V
	3376	-54.17	-13	-41.17	-74.59	-62.88	1.34	12.20	V

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



LTE Band 12 / 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)
Lowest	1408	-53.88	-13.00	-40.88	-68.35	-58.56	0.85	7.68	H
	2112	-56.51	-13.00	-43.51	-74.37	-63.45	1.06	10.16	H
	2816	-55.43	-13.00	-42.43	-74.63	-63.13	1.23	11.08	H
	1408	-55.37	-13.00	-42.37	-68.62	-60.05	0.85	7.68	V
	2112	-57.77	-13.00	-44.77	-74.51	-64.71	1.06	10.16	V
	2816	-55.25	-13.00	-42.25	-74.40	-62.95	1.23	11.08	V
Middle	1416	-54.78	-13.00	-41.78	-69.22	-59.50	0.85	7.71	H
	2120	-47.49	-13.00	-34.49	-65.48	-54.44	1.07	10.17	H
	2832	-55.34	-13.00	-42.34	-74.61	-63.06	1.23	11.10	H
	1416	-54.87	-13.00	-41.87	-68.10	-59.59	0.85	7.71	V
	2120	-52.06	-13.00	-39.06	-68.92	-59.01	1.07	10.17	V
	2832	-55.33	-13.00	-42.33	-74.57	-63.05	1.23	11.10	V
Highest	1424	-56.01	-13.00	-43.01	-70.42	-60.76	0.85	7.75	H
	2133	-55.47	-13.00	-42.47	-73.70	-62.44	1.07	10.19	H
	2848	-55.10	-13.00	-42.10	-74.44	-62.83	1.23	11.12	H
	1424	-54.37	-13.00	-41.37	-67.59	-59.12	0.85	7.75	V
	2133	-57.30	-13.00	-44.30	-74.38	-64.27	1.07	10.19	V
	2848	-55.13	-13.00	-42.13	-74.46	-62.86	1.23	11.12	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3422	-53.57	-13	-40.57	-74.41	-64.54	1.35	12.31	H
	5133	-42.13	-13	-29.13	-68.59	-53.27	1.64	12.79	H
	6844	-44.55	-13	-31.55	-74.15	-54.93	1.74	12.12	H
	3422	-53.55	-13	-40.55	-74.81	-64.52	1.35	12.31	V
	5133	-45.99	-13	-32.99	-72.2	-57.13	1.64	12.79	V
	6844	-44.81	-13	-31.81	-74.02	-55.19	1.74	12.12	V
Middle	3472	-53.55	-13	-40.55	-74.88	-64.63	1.35	12.43	H
	5208	-42.59	-13	-29.59	-69.12	-53.82	1.66	12.89	H
	6944	-44.26	-13	-31.26	-74.31	-54.51	1.73	11.98	H
	3472	-53.19	-13	-40.19	-74.9	-64.27	1.35	12.43	V
	5208	-44.77	-13	-31.77	-71.13	-56.00	1.66	12.89	V
	6944	-44.54	-13	-31.54	-74.13	-54.79	1.73	11.98	V
Highest	3522	-52.71	-13	-39.71	-74.5	-63.86	1.37	12.51	H
	5283	-46.00	-13	-33.00	-72.79	-57.31	1.68	13.00	H
	7044	-43.50	-13	-30.50	-73.92	-53.59	1.74	11.83	H
	3522	-52.42	-13	-39.42	-74.49	-63.57	1.37	12.51	V
	5283	-47.69	-13	-34.69	-74.21	-59.00	1.68	13.00	V
	7044	-44.06	-13	-31.06	-74.03	-54.15	1.74	11.83	V

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