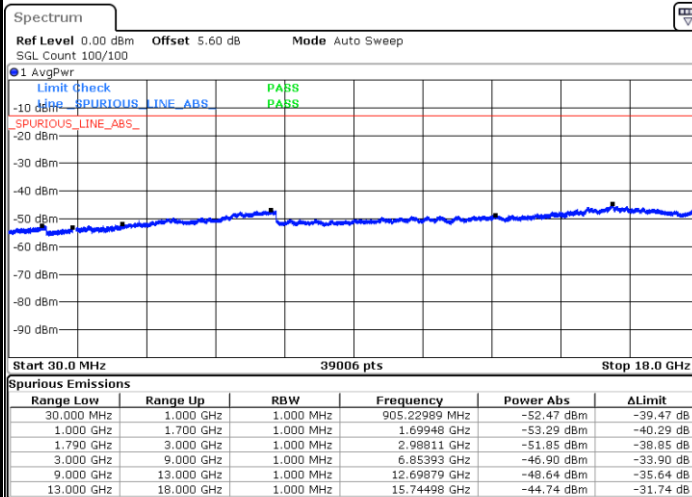




Conducted Spurious Emission

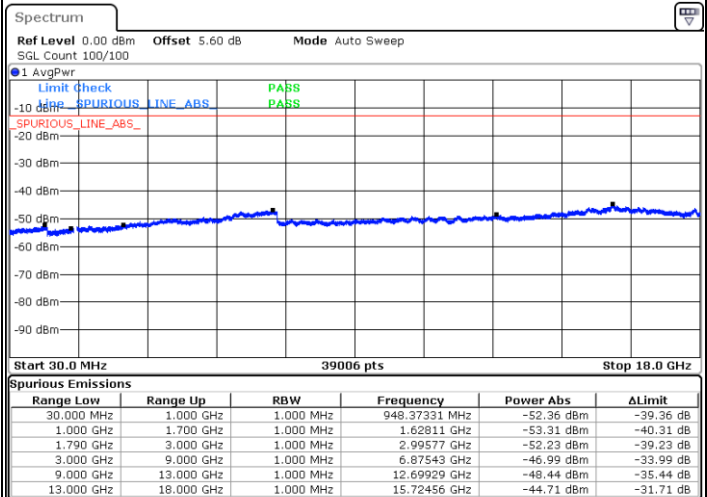
LTE Band 66 / 1.4MHz

Lowest Channel / QPSK



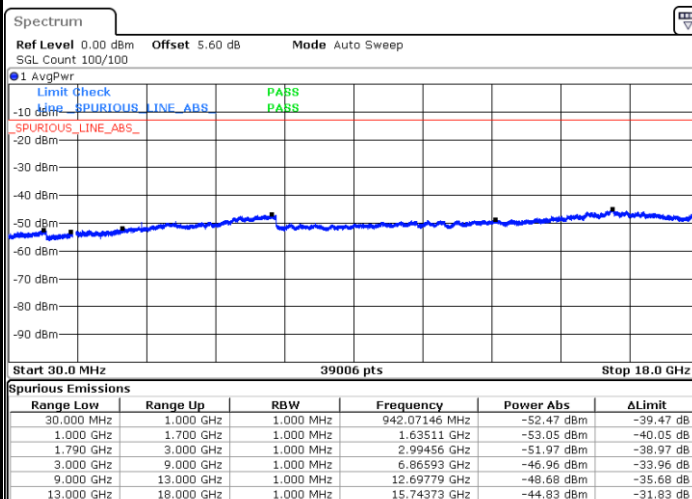
Date: 9.AUG.2020 13:57:36

Lowest Channel / 16QAM



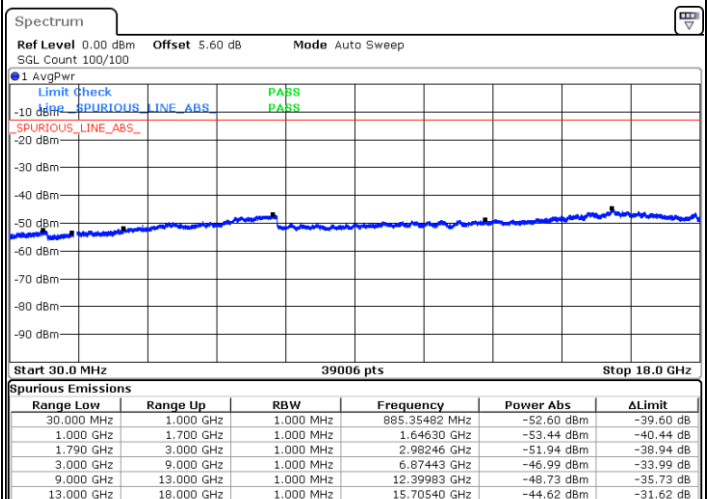
Date: 9.AUG.2020 14:00:28

Middle Channel / QPSK



Date: 9.AUG.2020 13:55:19

Middle Channel / 16QAM

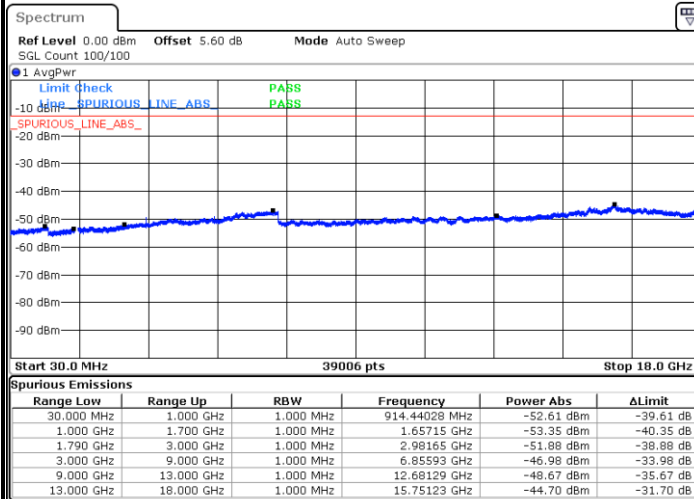


Date: 9.AUG.2020 13:54:37



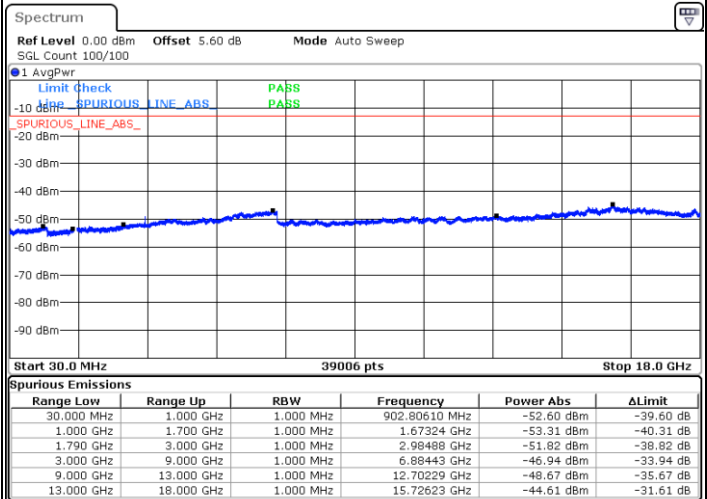
LTE Band 66 / 1.4MHz

Highest Channel / QPSK



Date: 9.AUG.2020 13:48:44

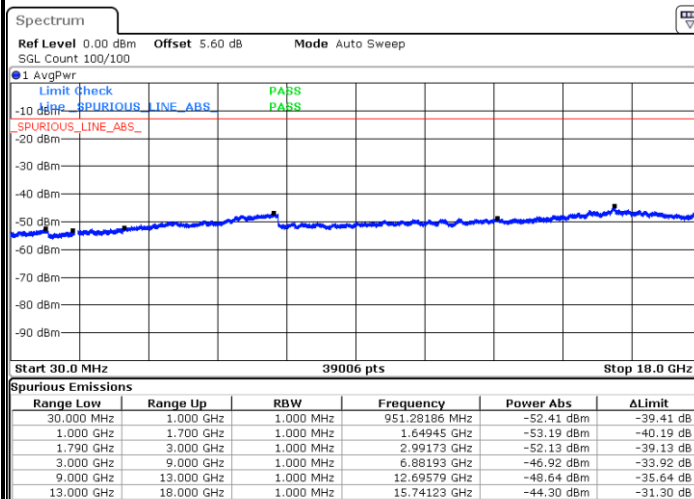
Highest Channel / 16QAM



Date: 9.AUG.2020 13:51:25

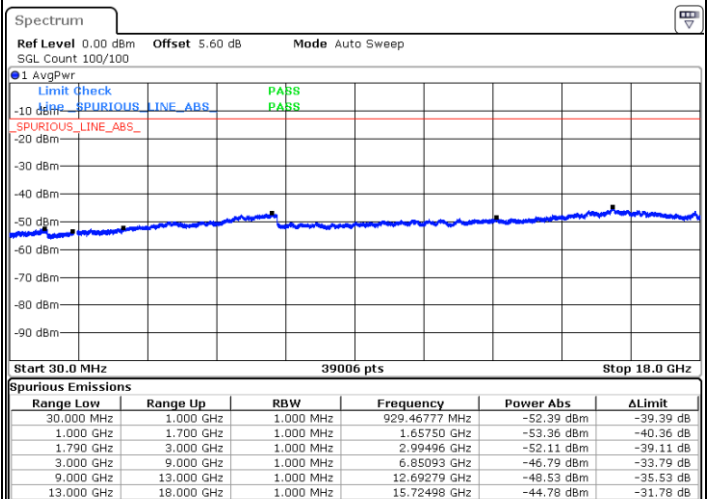
LTE Band 66 / 3MHz

Lowest Channel / QPSK



Date: 9.AUG.2020 14:41:48

Lowest Channel / 16QAM

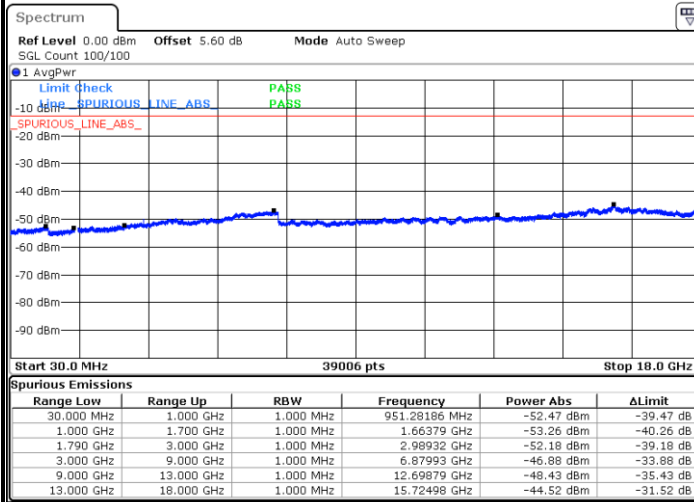


Date: 9.AUG.2020 14:43:04



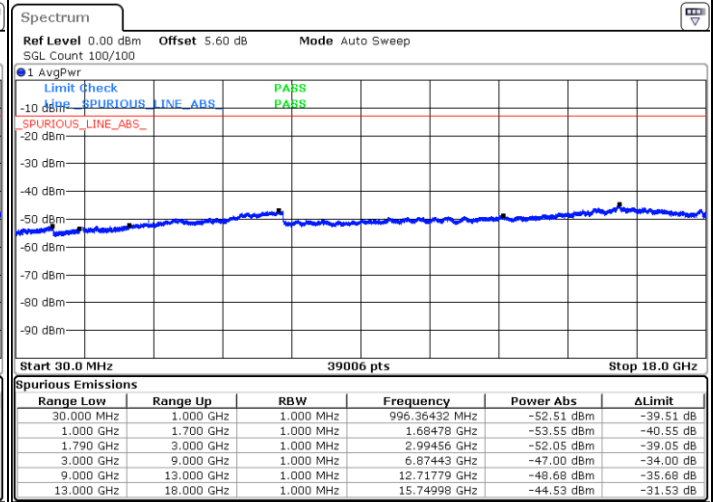
LTE Band 66 / 3MHz

Middle Channel / QPSK



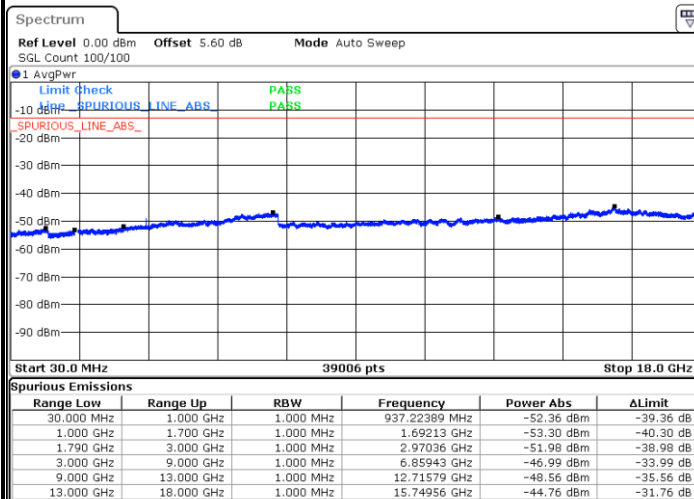
Date: 9.AUG.2020 14:39:30

Middle Channel / 16QAM



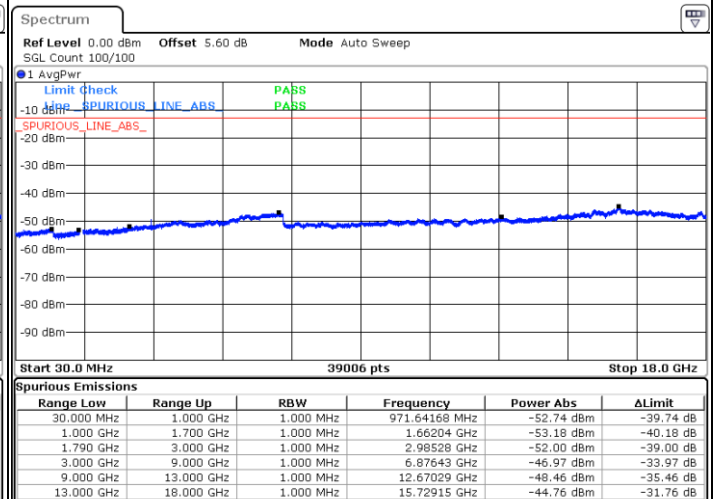
Date: 9.AUG.2020 14:38:28

Highest Channel / QPSK



Date: 9.AUG.2020 14:33:47

Highest Channel / 16QAM

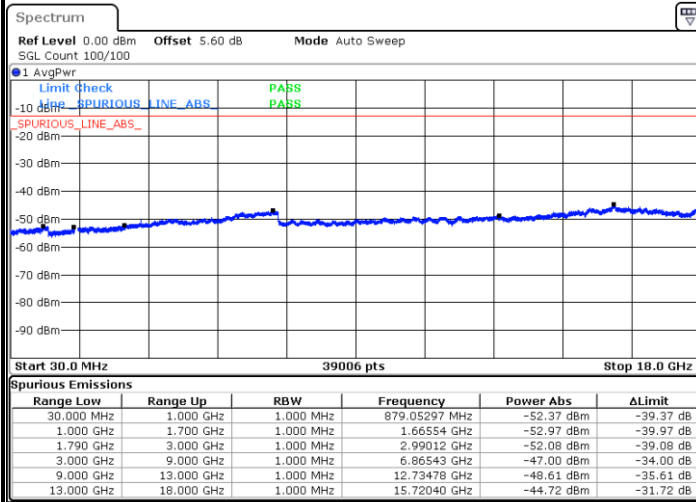


Date: 9.AUG.2020 14:35:59



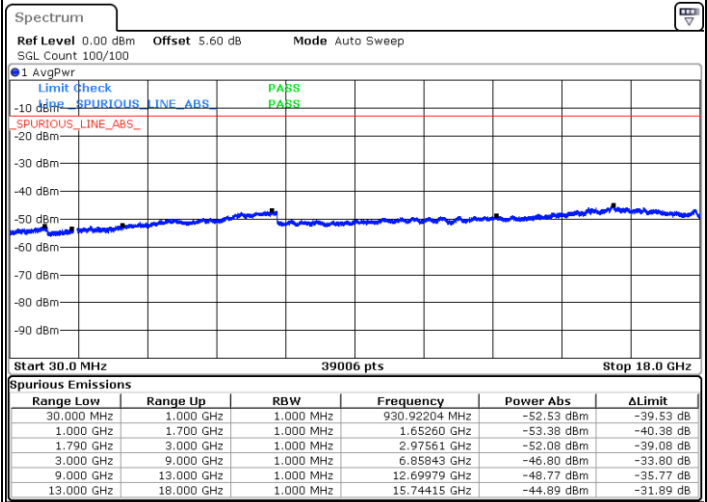
LTE Band 66 / 5MHz

Lowest Channel / QPSK



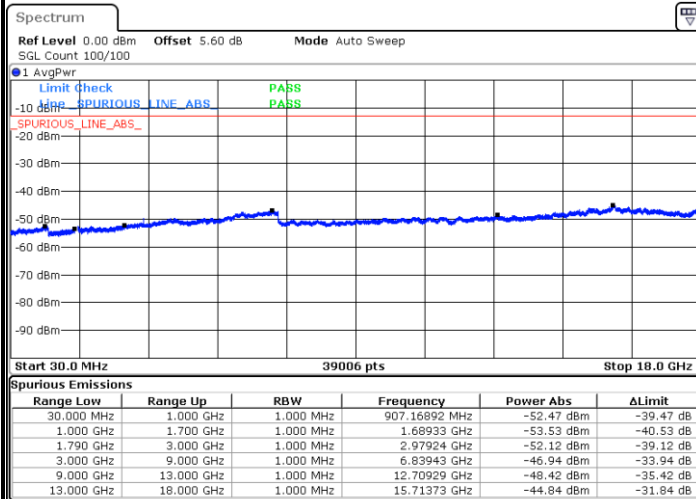
Date: 9.AUG.2020 15:17:02

Lowest Channel / 16QAM



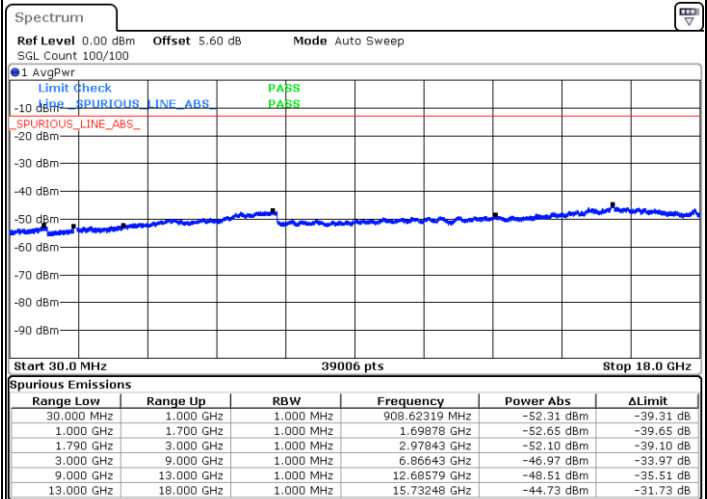
Date: 9.AUG.2020 15:18:16

Middle Channel / QPSK



Date: 9.AUG.2020 15:14:13

Middle Channel / 16QAM

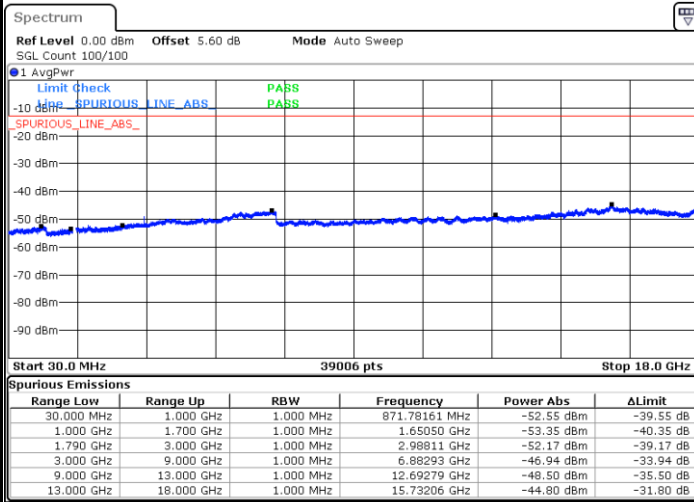


Date: 9.AUG.2020 15:12:32



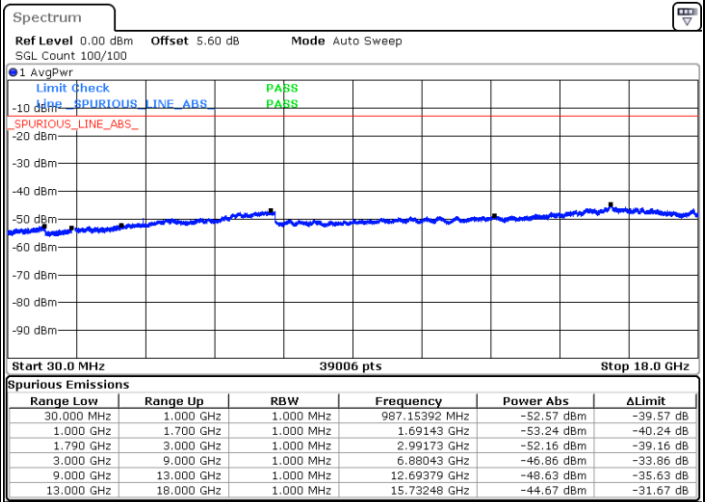
LTE Band 66 / 5MHz

Highest Channel / QPSK



Date: 9.AUG.2020 15:07:40

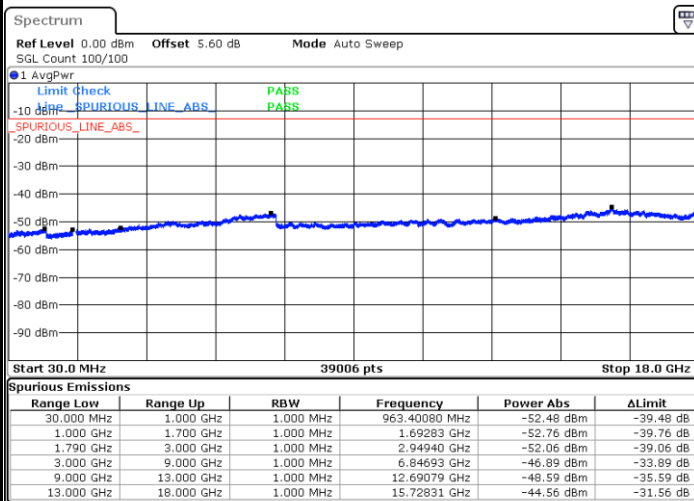
Highest Channel / 16QAM



Date: 9.AUG.2020 15:09:18

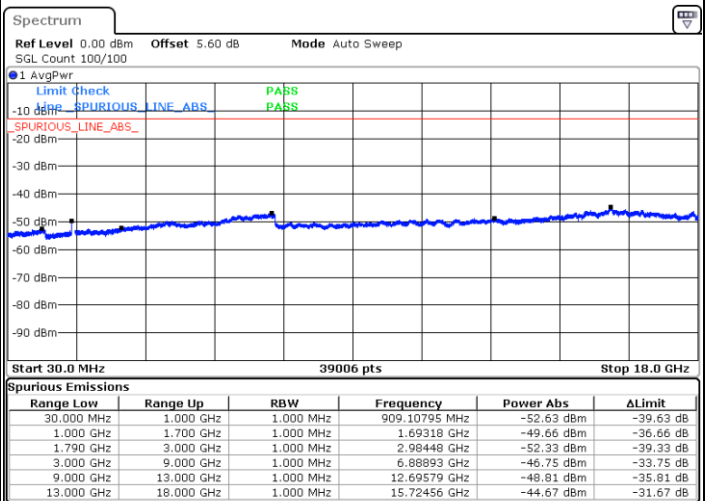
LTE Band 66 / 10MHz

Lowest Channel / QPSK



Date: 9.AUG.2020 15:33:59

Lowest Channel / 16QAM

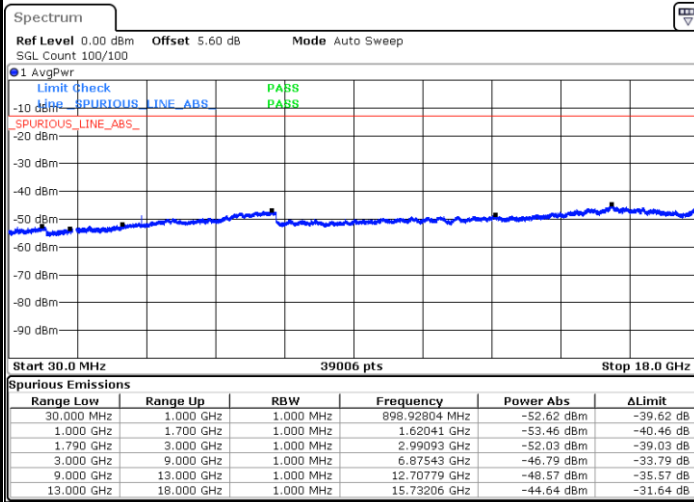


Date: 9.AUG.2020 15:35:43



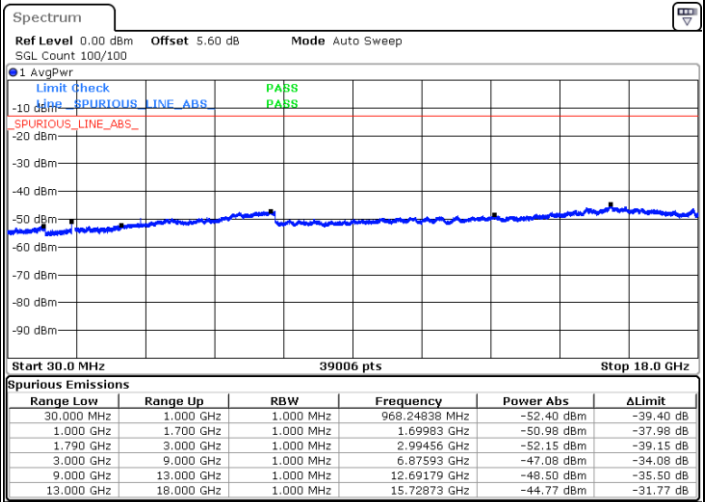
LTE Band 66 / 10MHz

Middle Channel / QPSK



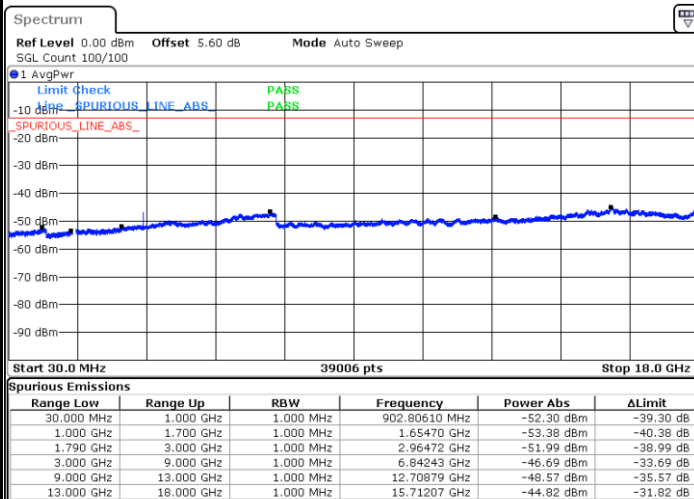
Date: 9.AUG.2020 15:31:45

Middle Channel / 16QAM



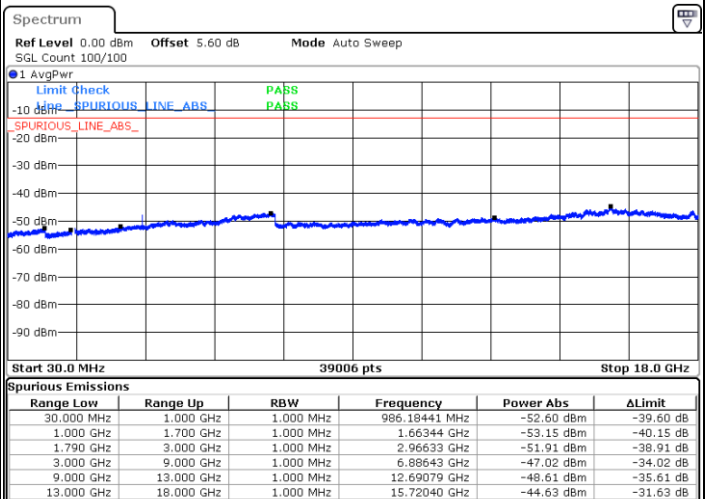
Date: 9.AUG.2020 15:30:55

Highest Channel / QPSK



Date: 9.AUG.2020 15:27:46

Highest Channel / 16QAM

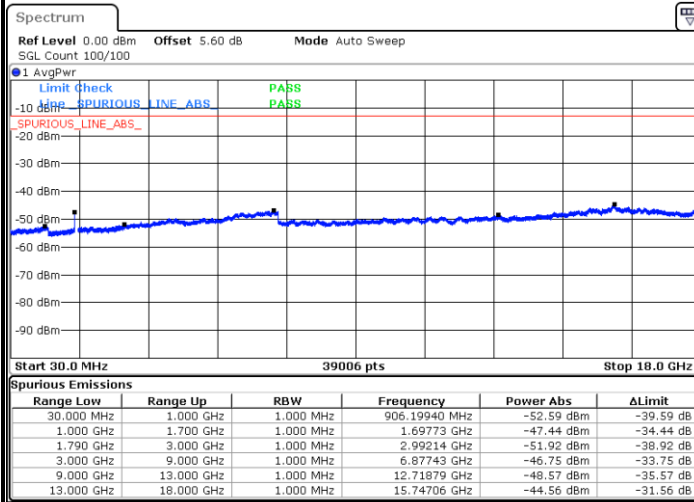


Date: 9.AUG.2020 15:28:33



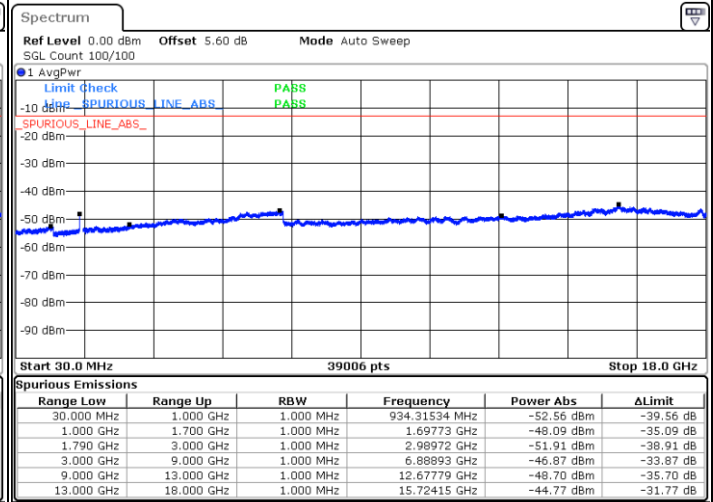
LTE Band 66 / 15MHz

Lowest Channel / QPSK



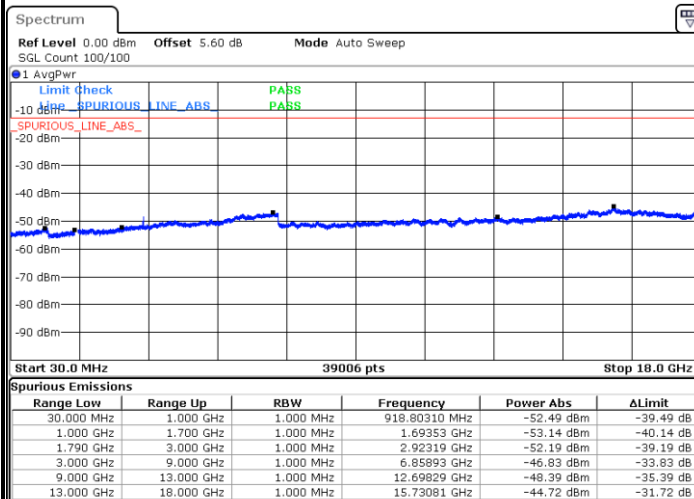
Date: 9.AUG.2020 15:55:25

Lowest Channel / 16QAM



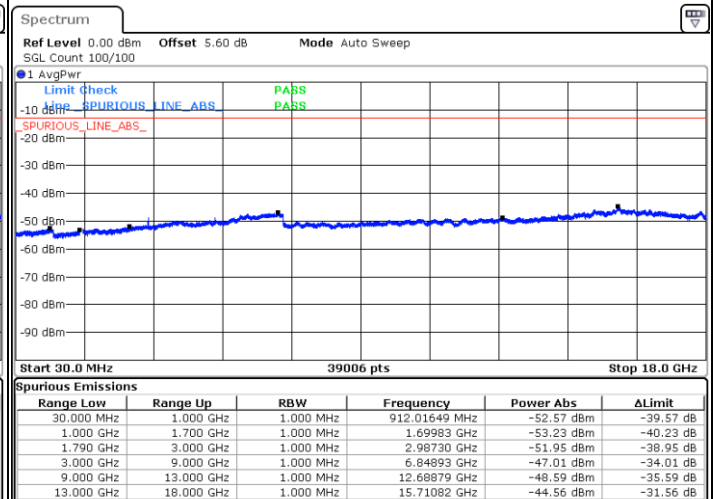
Date: 9.AUG.2020 15:56:14

Middle Channel / QPSK



Date: 9.AUG.2020 15:54:08

Middle Channel / 16QAM

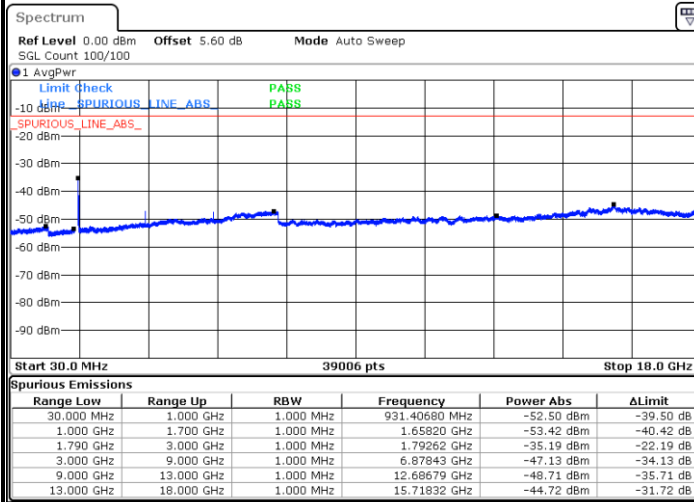


Date: 9.AUG.2020 15:53:17



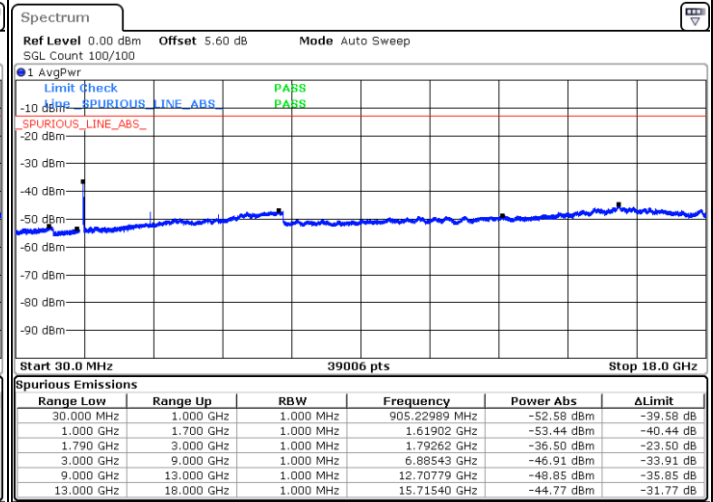
LTE Band 66 / 15MHz

Highest Channel / QPSK



Date: 9.AUG.2020 15:50:21

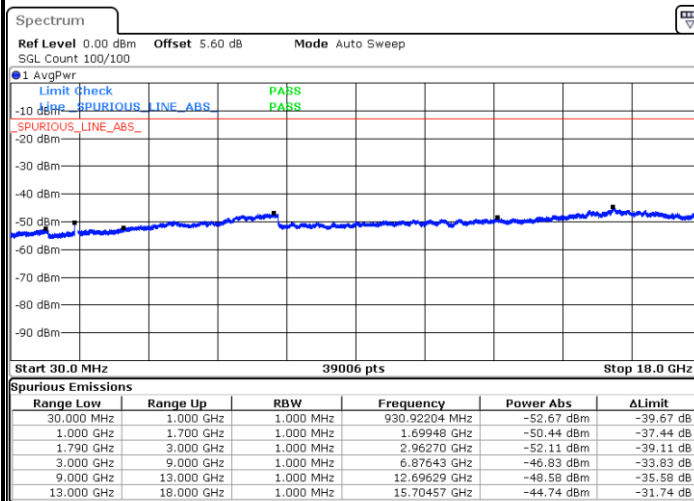
Highest Channel / 16QAM



Date: 9.AUG.2020 15:51:04

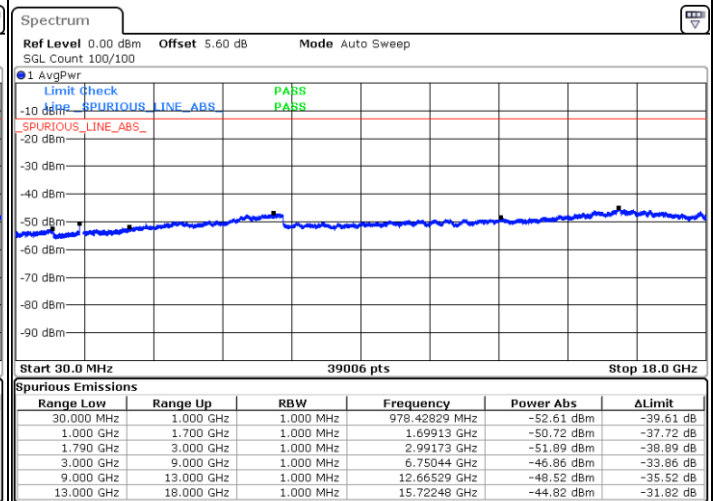
LTE Band 66 / 20MHz

Lowest Channel / QPSK



Date: 9.AUG.2020 16:01:31

Lowest Channel / 16QAM

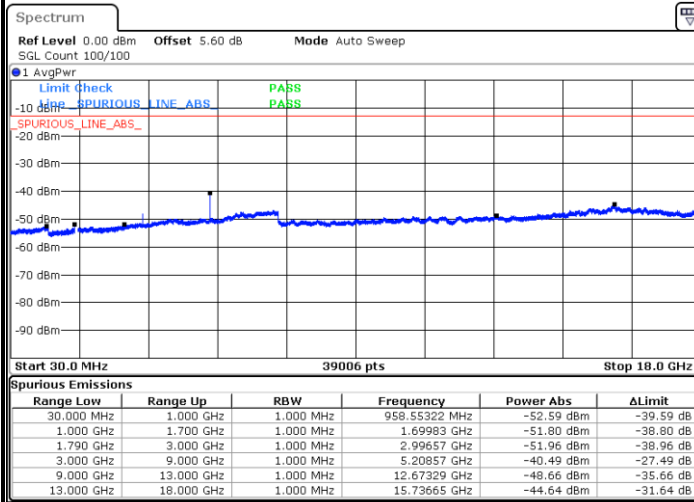


Date: 9.AUG.2020 16:02:22



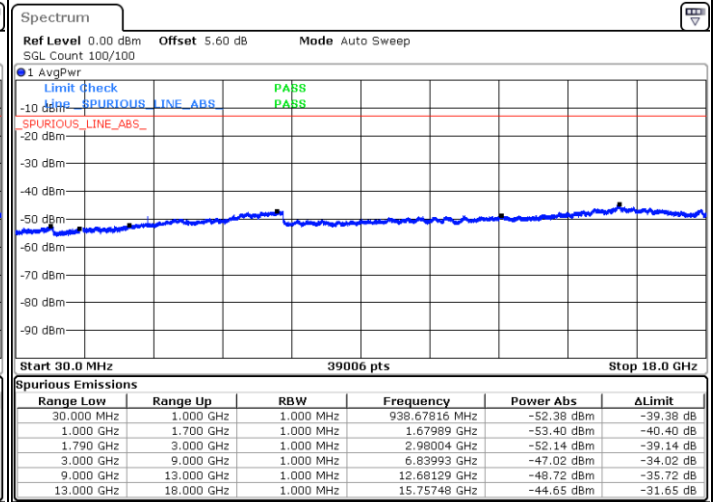
LTE Band 66 / 20MHz

Middle Channel / QPSK



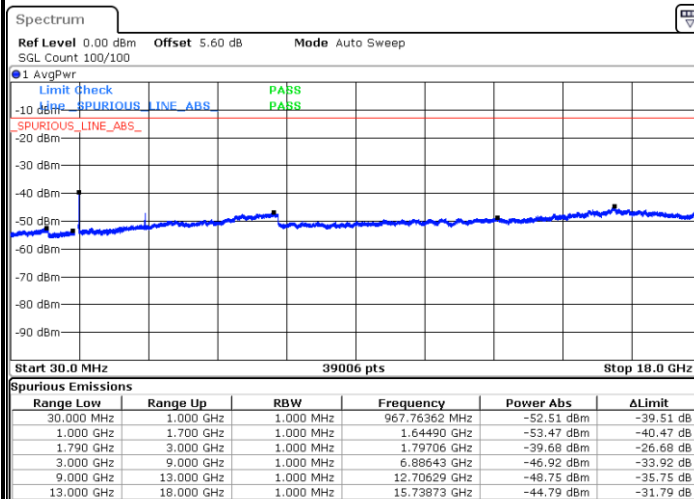
Date: 9.AUG.2020 16:07:12

Middle Channel / 16QAM



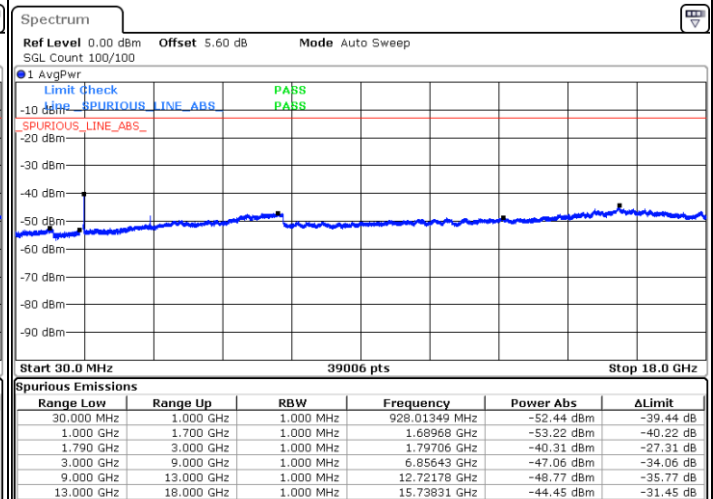
Date: 9.AUG.2020 16:08:07

Highest Channel / QPSK



Date: 9.AUG.2020 16:15:46

Highest Channel / 16QAM

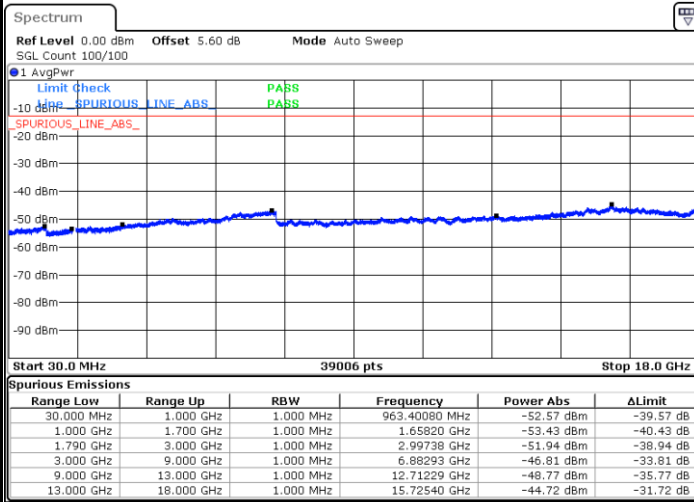


Date: 9.AUG.2020 16:17:09



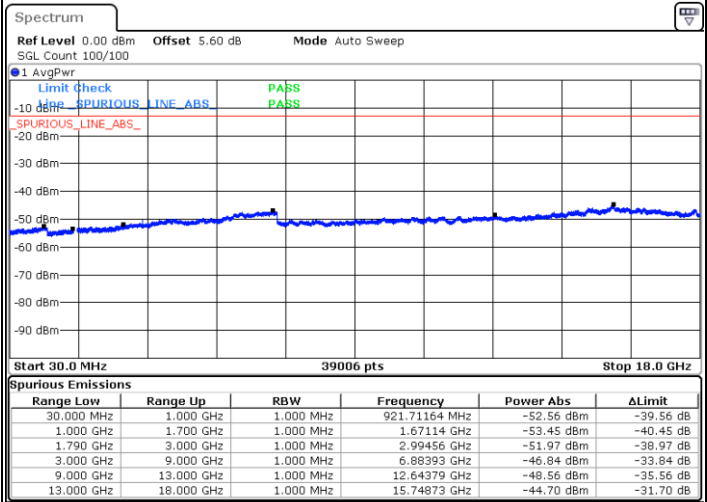
LTE Band 66 / 1.4MHz

Lowest Channel / 64QAM



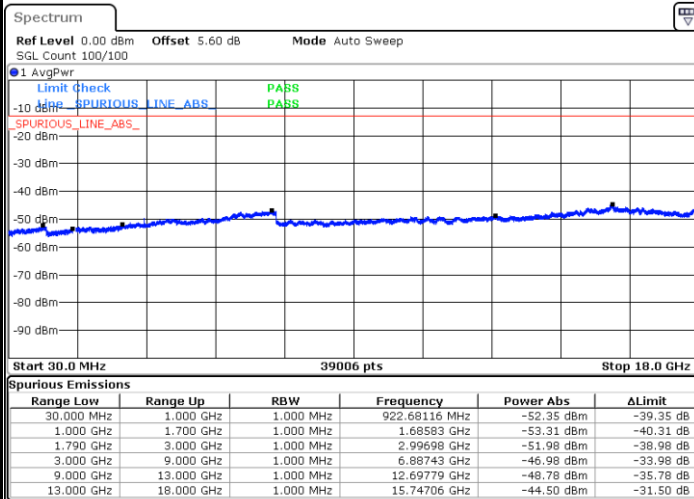
Date: 9.AUG.2020 14:56:35

Middle Channel / 64QAM



Date: 9.AUG.2020 14:54:29

Highest Channel / 64QAM

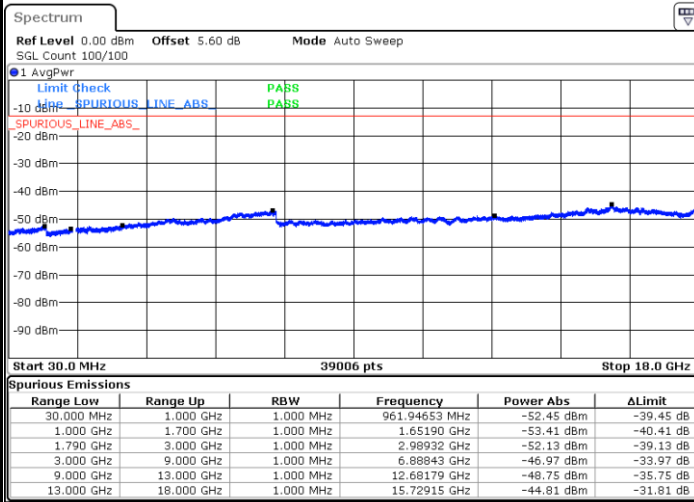


Date: 9.AUG.2020 14:53:34



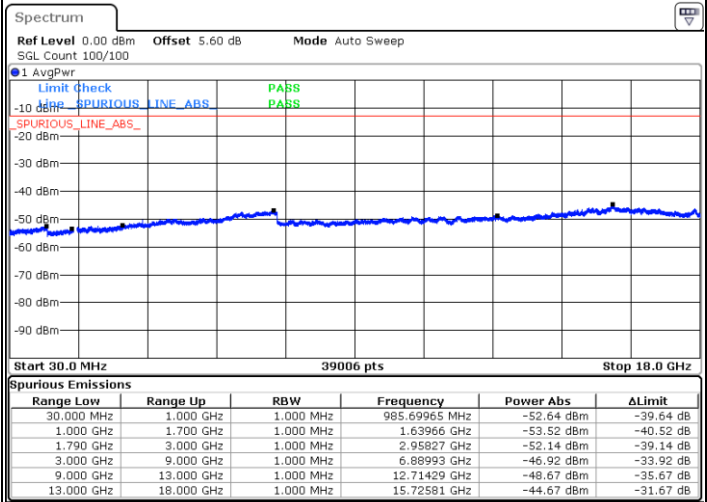
LTE Band 66 / 3MHz

Lowest Channel / 64QAM



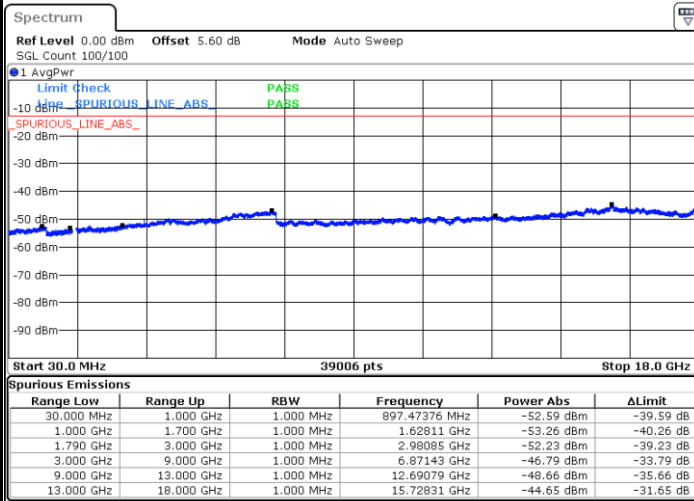
Date: 9.AUG.2020 14:44:37

Middle Channel / 64QAM



Date: 9.AUG.2020 14:37:47

Highest Channel / 64QAM

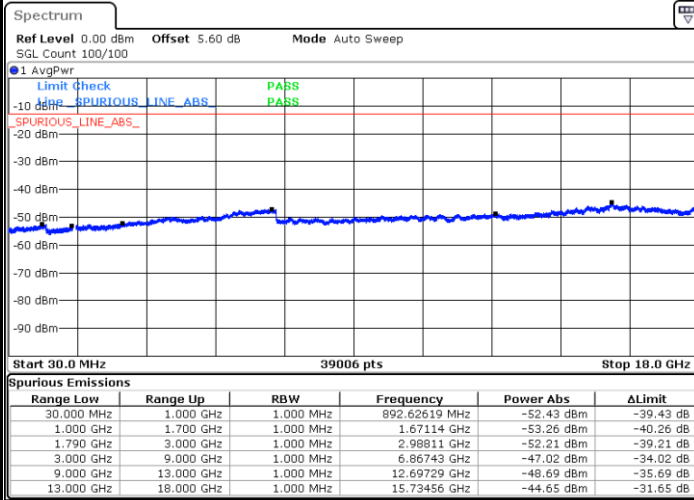


Date: 9.AUG.2020 14:36:51



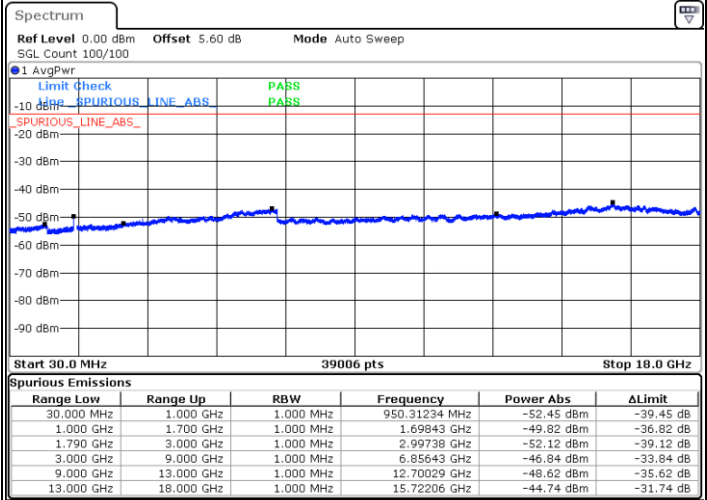
LTE Band 66 / 5MHz

Lowest Channel / 64QAM



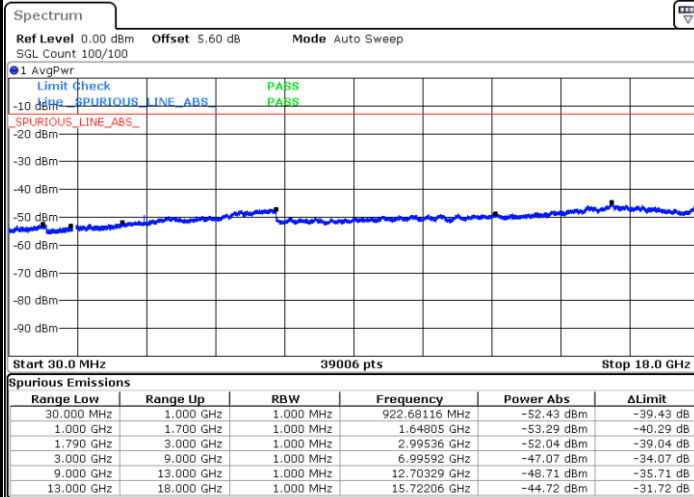
Date: 9.AUG.2020 15:20:22

Middle Channel / 64QAM



Date: 9.AUG.2020 15:13:17

Highest Channel / 64QAM

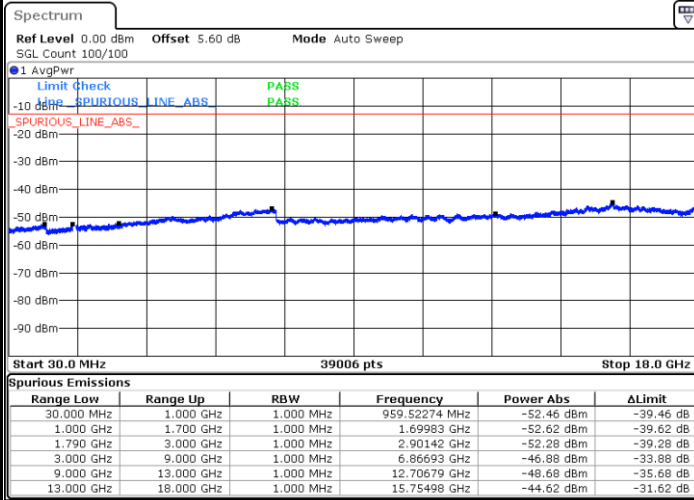


Date: 9.AUG.2020 15:10:09



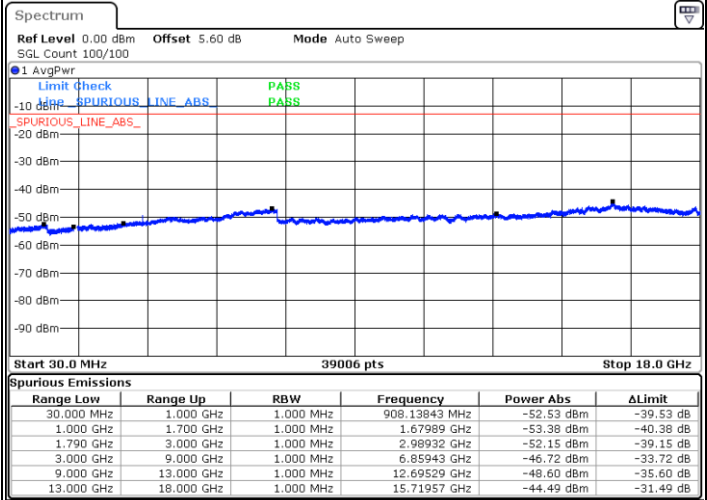
LTE Band 66 / 10MHz

Lowest Channel / 64QAM



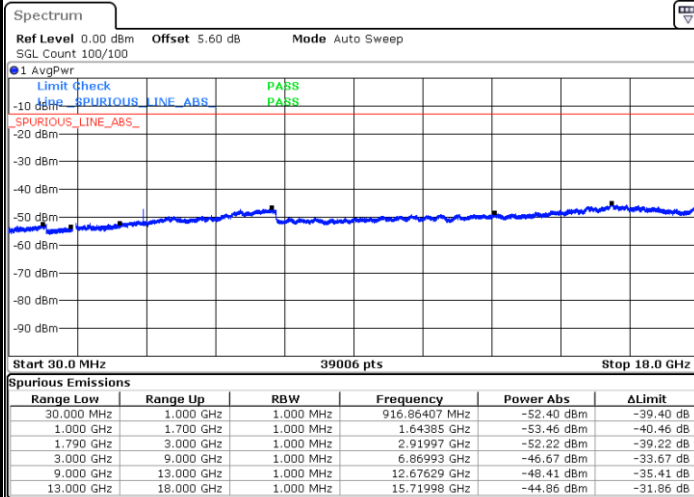
Date: 9.AUG.2020 15:43:08

Middle Channel / 64QAM



Date: 9.AUG.2020 15:30:09

Highest Channel / 64QAM

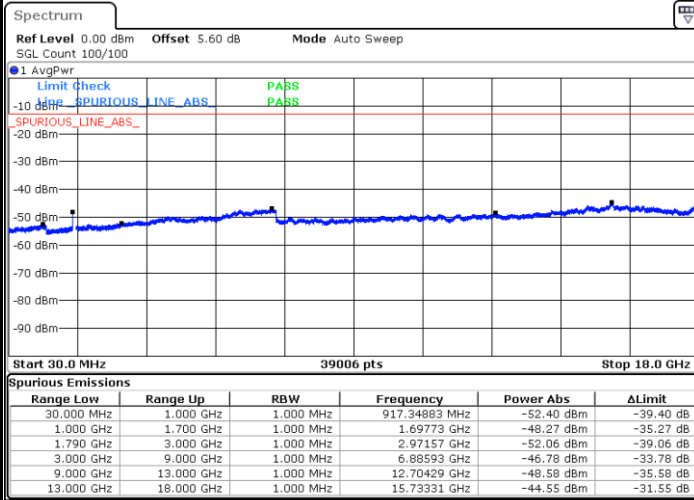


Date: 9.AUG.2020 15:29:17



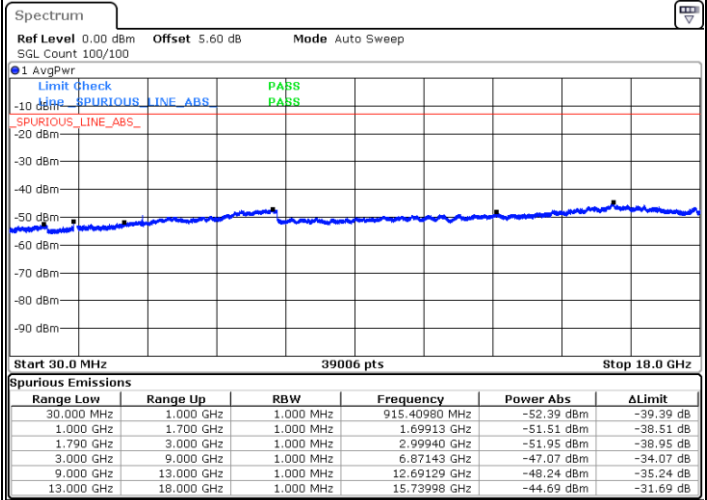
LTE Band 66 / 15MHz

Lowest Channel / 64QAM



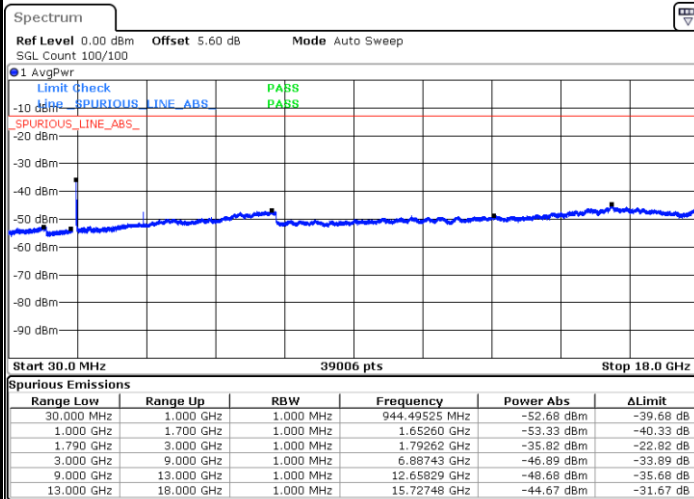
Date: 9.AUG.2020 15:57:09

Middle Channel / 64QAM



Date: 9.AUG.2020 15:52:35

Highest Channel / 64QAM

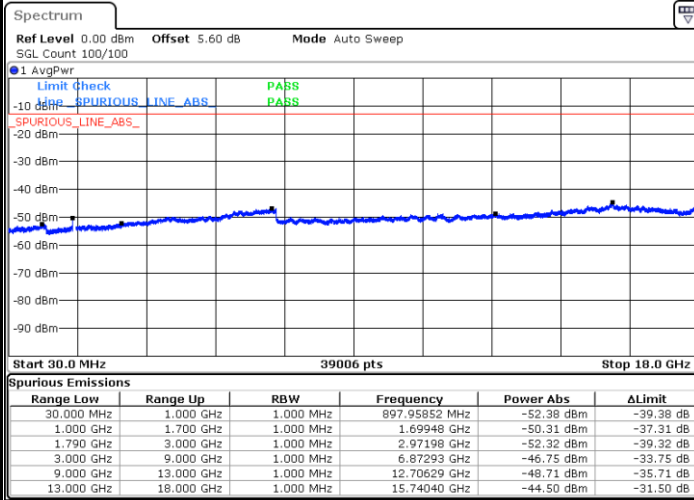


Date: 9.AUG.2020 15:51:46



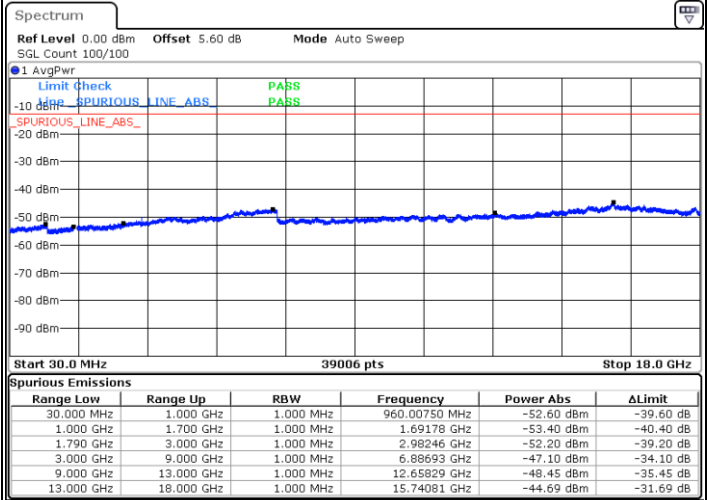
LTE Band 66 / 20MHz

Lowest Channel / 64QAM



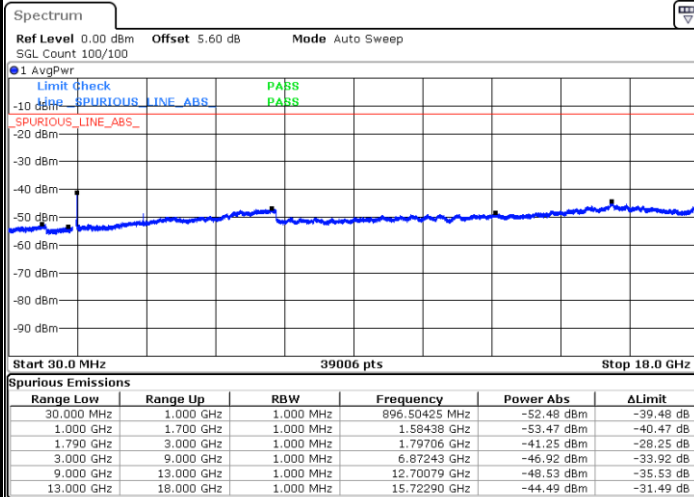
Date: 9.AUG.2020 16:03:14

Middle Channel / 64QAM



Date: 9.AUG.2020 16:08:53

Highest Channel / 64QAM



Date: 9.AUG.2020 16:18:18

**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	0.0010	PASS
40	Normal Voltage	0.0022	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0030	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0022	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0024	
20	Normal Voltage	0.0006	
20	Battery End Point	0.0007	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 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)
Lowest	3702	-59.63	-13	-46.63	-71.89	2.64	14.90	H
	5553	-55.23	-13	-42.23	-67.09	2.94	14.80	H
	7404	-50.53	-13	-37.53	-60.30	3.39	13.16	H
	3702	-59.79	-13	-46.79	-72.05	2.64	14.90	V
	5553	-54.78	-13	-41.78	-66.64	2.94	14.80	V
	7404	-49.93	-13	-36.93	-59.70	3.39	13.16	V
Middle	3741	-59.70	-13	-46.70	-71.96	2.64	14.90	H
	5613	-55.03	-13	-42.03	-66.89	2.94	14.80	H
	7488	-50.08	-13	-37.08	-59.85	3.39	13.16	H
	3741	-59.49	-13	-46.49	-71.75	2.64	14.90	V
	5613	-55.07	-13	-42.07	-66.93	2.94	14.80	V
	7488	-49.80	-13	-36.80	-59.57	3.39	13.16	V
Highest	3783	-59.54	-13	-46.54	-71.80	2.64	14.90	H
	5673	-55.39	-13	-42.39	-67.25	2.94	14.80	H
	7560	-50.12	-13	-37.12	-59.89	3.39	13.16	H
	3783	-59.91	-13	-46.91	-72.17	2.64	14.90	V
	5673	-55.25	-13	-42.25	-67.11	2.94	14.80	V
	7560	-49.59	-13	-36.59	-59.36	3.39	13.16	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1650	-67.95	-13	-54.95	-74.92	1.58	10.70	H
	2474	-65.76	-13	-52.76	-74.01	2.102	12.50	H
	3300	-63.56	-13	-50.56	-72.45	2.856	13.90	H
	1650	-67.89	-13	-54.89	-74.86	1.58	10.70	V
	2474	-65.64	-13	-52.64	-73.89	2.10	12.50	V
	3300	-63.02	-13	-50.02	-71.91	2.86	13.90	V
Middle	1664	-67.80	-13	-54.80	-74.77	1.58	10.70	H
	2496	-65.24	-13	-52.24	-73.49	2.102	12.50	H
	3330	-63.15	-13	-50.15	-72.04	2.856	13.90	H
	1664	-67.84	-13	-54.84	-74.81	1.58	10.70	V
	2496	-65.34	-13	-52.34	-73.59	2.10	12.50	V
	3330	-63.31	-13	-50.31	-72.20	2.86	13.90	V
Highest	1680	-68.13	-13	-55.13	-75.10	1.58	10.70	H
	2518	-64.90	-13	-51.90	-73.15	2.102	12.50	H
	3360	-63.11	-13	-50.11	-72.00	2.856	13.90	H
	1680	-67.84	-13	-54.84	-74.81	1.58	10.70	V
	2518	-65.36	-13	-52.36	-73.61	2.10	12.50	V
	3360	-63.40	-13	-50.40	-72.29	2.86	13.90	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)
Lowest	5000	-52.72	-25	-27.72	-62.93	3.03	13.24	H
	7504	-57.62	-25	-32.62	-67.07	3.56	13.01	H
	10000	-57.63	-25	-32.63	-67.15	3.92	13.44	H
	5000	-52.42	-25	-27.42	-62.63	3.03	13.24	V
	7504	-58.83	-25	-33.83	-68.28	3.56	13.01	V
	10000	-56.99	-25	-31.99	-66.51	3.92	13.44	V
Middle	5052	-51.38	-25	-26.38	-61.59	3.03	13.24	H
	7580	-56.67	-25	-31.67	-66.12	3.56	13.01	H
	10100	-57.12	-25	-32.12	-66.64	3.92	13.44	H
	5052	-53.38	-25	-28.38	-63.59	3.03	13.24	V
	7580	-57.99	-25	-32.99	-67.44	3.56	13.01	V
	10100	-57.04	-25	-32.04	-66.56	3.92	13.44	V
Highest	5100	-57.22	-25	-32.22	-67.43	3.03	13.24	H
	7652	-57.88	-25	-32.88	-67.33	3.56	13.01	H
	10200	-57.26	-25	-32.26	-66.78	3.92	13.44	H
	5100	-57.54	-25	-32.54	-67.75	3.03	13.24	V
	7652	-58.35	-25	-33.35	-67.80	3.56	13.01	V
	10200	-57.07	-25	-32.07	-66.59	3.92	13.44	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)
Lowest	3423	-60.73	-13	-47.73	-71.47	2.604	13.34	H
	5133	-56.55	-13	-43.55	-67.06	3.011	13.52	H
	6840	-52.76	-13	-39.76	-62.96	3.271	13.47	H
	3423	-60.81	-13	-47.81	-71.55	2.604	13.34	V
	5133	-56.77	-13	-43.77	-67.28	3.011	13.52	V
	6840	-52.45	-13	-39.45	-62.65	3.271	13.47	V
Middle	3471	-60.45	-13	-47.45	-71.19	2.604	13.34	H
	5208	-55.06	-13	-42.06	-65.57	3.011	13.52	H
	6948	-52.51	-13	-39.51	-62.71	3.271	13.47	H
	3471	-60.66	-13	-47.66	-71.40	2.604	13.34	V
	5208	-55.07	-13	-42.07	-65.58	3.011	13.52	V
	6948	-51.96	-13	-38.96	-62.16	3.271	13.47	V
Highest	3522	-60.73	-13	-47.73	-71.47	2.604	13.34	H
	5283	-56.66	-13	-43.66	-67.17	3.011	13.52	H
	7044	-51.93	-13	-38.93	-62.13	3.271	13.47	H
	3522	-60.54	-13	-47.54	-71.28	2.604	13.34	V
	5283	-56.20	-13	-43.20	-66.71	3.011	13.52	V
	7044	-51.53	-13	-38.53	-61.73	3.271	13.47	V

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