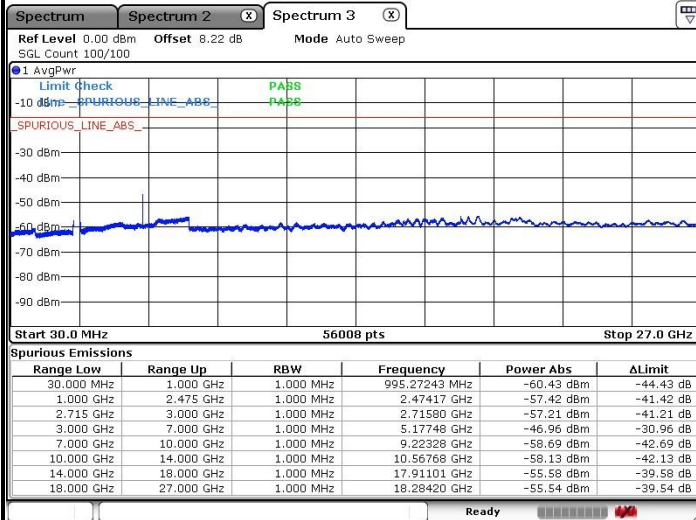




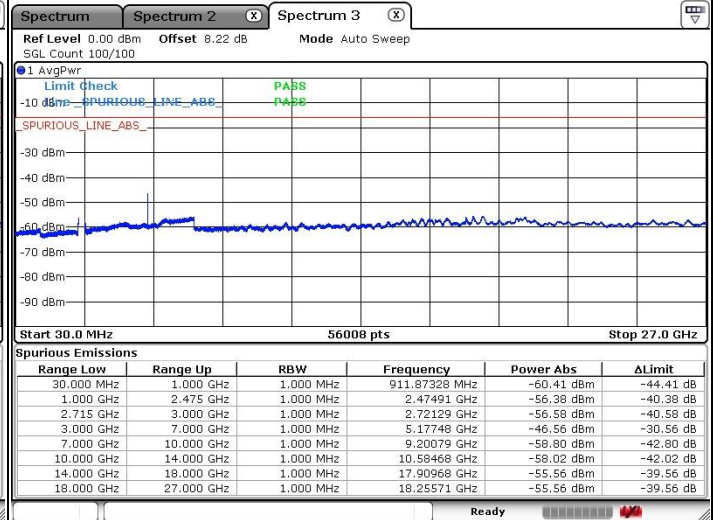
LTE Band 41 / 10MHz

Middle Channel / QPSK



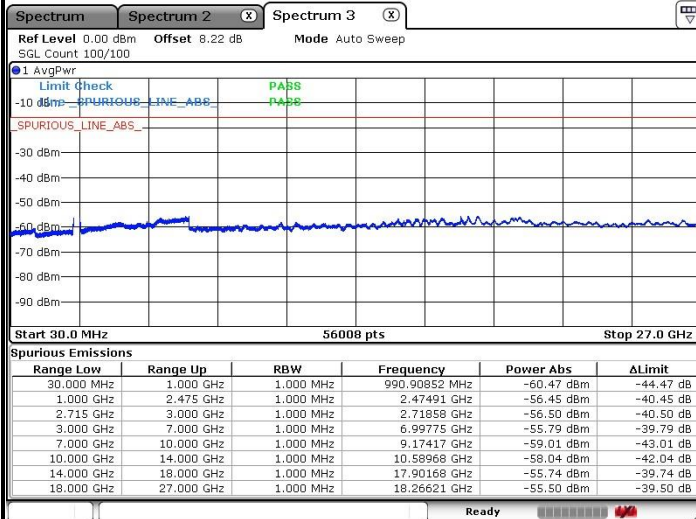
Date: 30 JUL 2019 16:03:50

Middle Channel / 16QAM



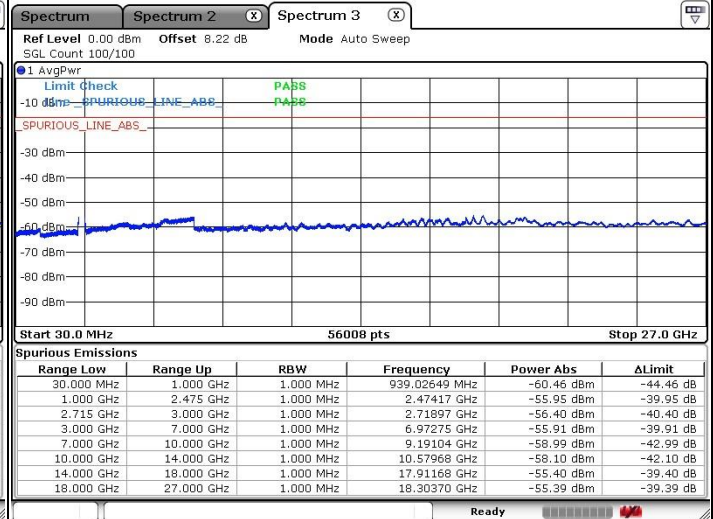
Date: 30 JUL 2019 16:04:51

Highest Channel / QPSK



Date: 30 JUL 2019 16:10:32

Highest Channel / 16QAM

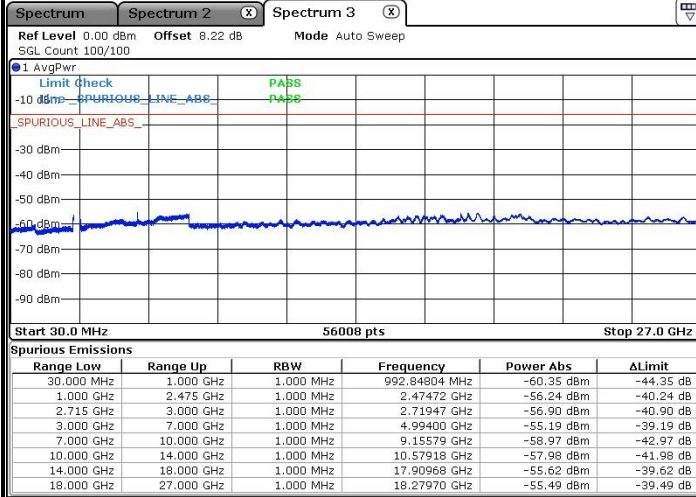


Date: 30 JUL 2019 16:13:52



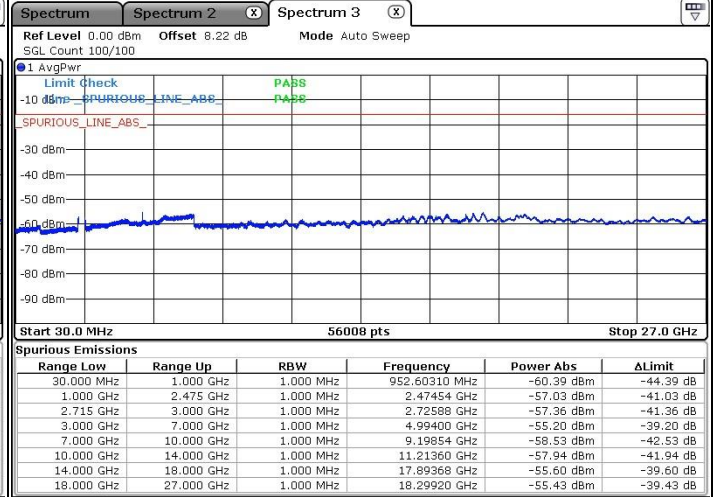
LTE Band 41 / 15MHz

Lowest Channel / QPSK



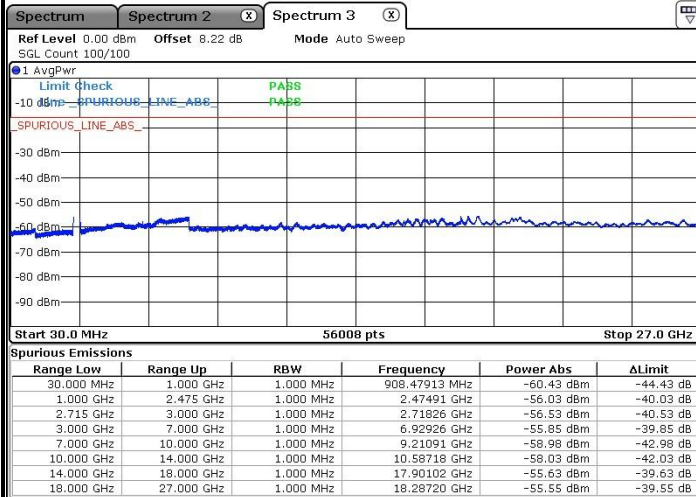
Date: 30.JUL.2019 16:41:19

Lowest Channel / 16QAM



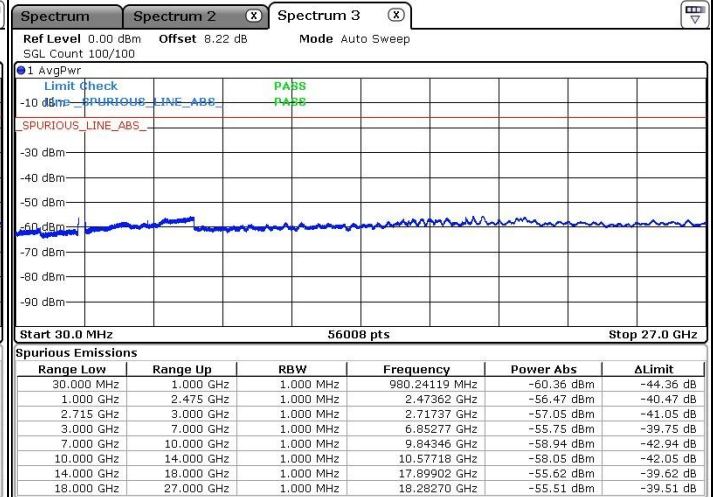
Date: 30.JUL.2019 16:42:51

Middle Channel / QPSK



Date: 30.JUL.2019 16:52:21

Middle Channel / 16QAM

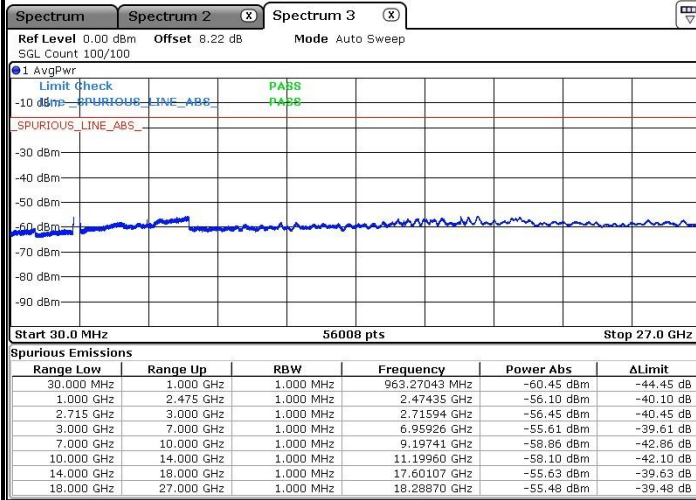


Date: 30.JUL.2019 16:53:18



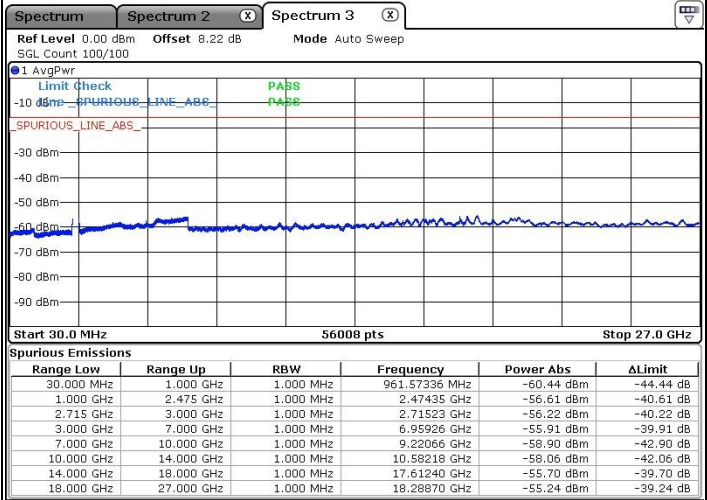
LTE Band 41 / 15MHz

Highest Channel / QPSK



Date: 30 JUL 2019 16:58:55

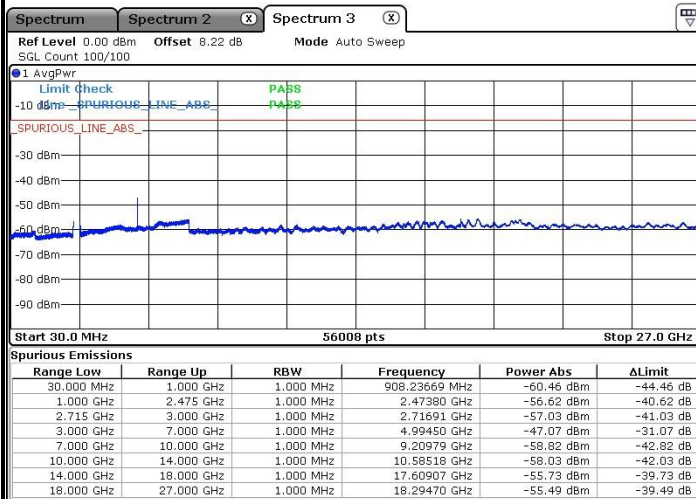
Highest Channel / 16QAM



Date: 30 JUL 2019 17:02:12

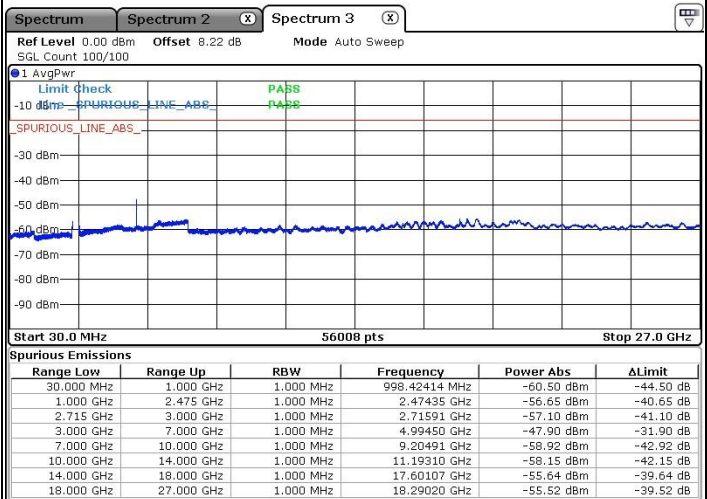
LTE Band 41 / 20MHz

Lowest Channel / QPSK



Date: 30 JUL 2019 17:21:58

Lowest Channel / 16QAM

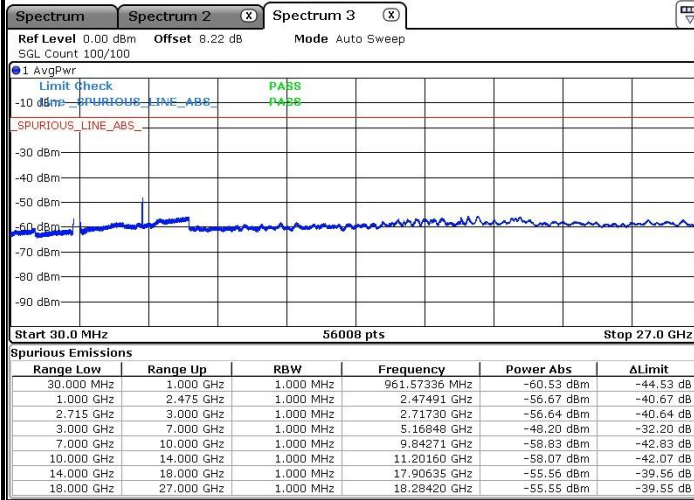


Date: 30 JUL 2019 17:21:06



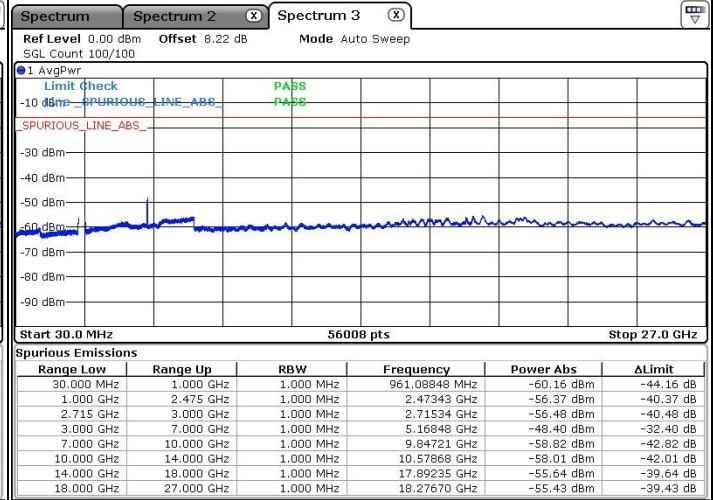
LTE Band 41 / 20MHz

Middle Channel / QPSK



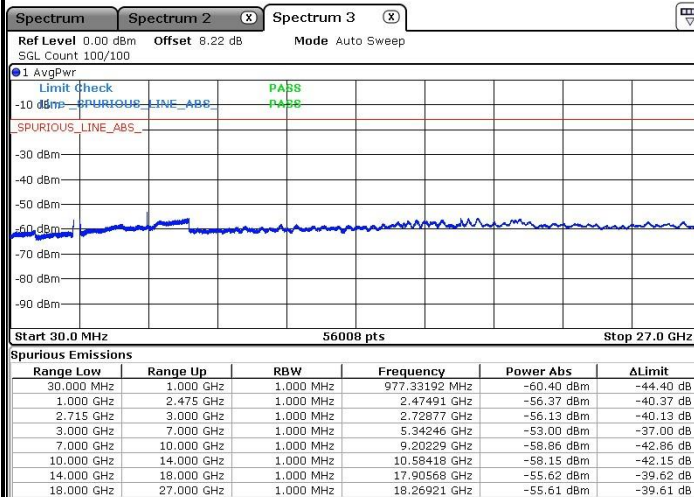
Date: 30.JUL.2019 17:25:21

Middle Channel / 16QAM



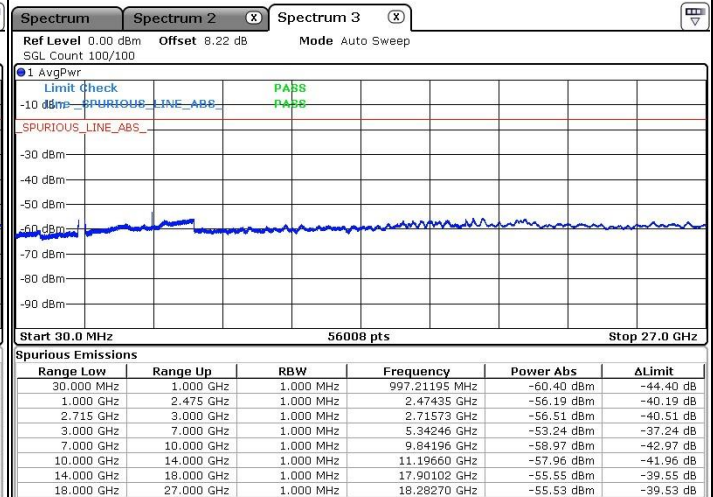
Date: 30.JUL.2019 17:26:18

Highest Channel / QPSK



Date: 30.JUL.2019 17:30:42

Highest Channel / 16QAM

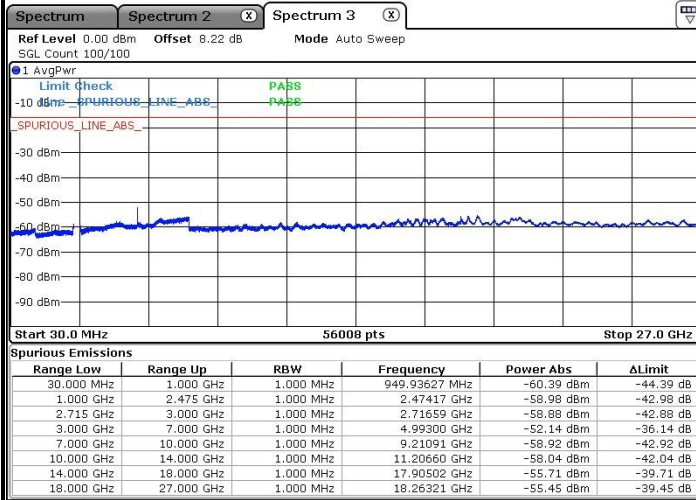


Date: 30.JUL.2019 17:33:33



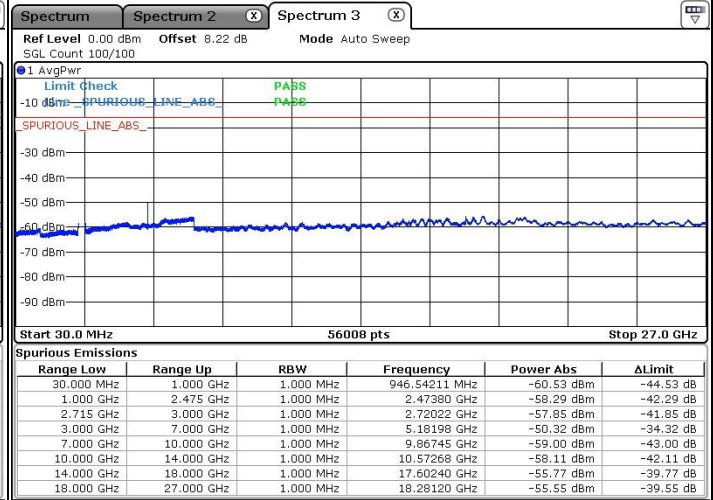
LTE Band 41 / 5MHz

Lowest Channel / 64QAM



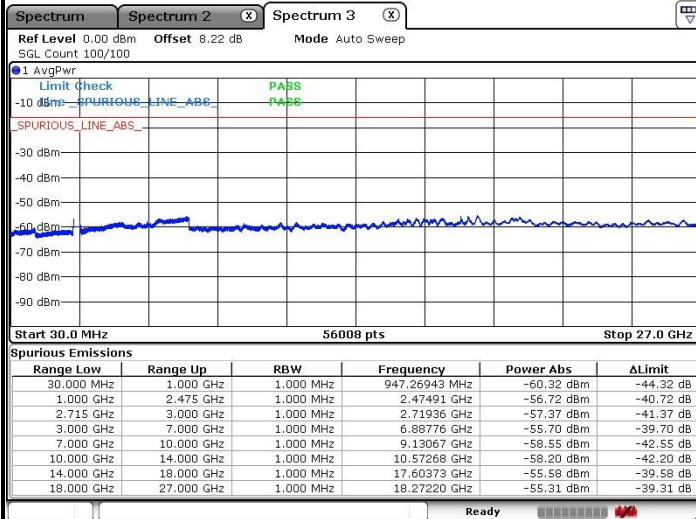
Date: 30.JUL.2019 15:38:07

Middle Channel / 64QAM



Date: 30.JUL.2019 15:25:25

Highest Channel / 64QAM

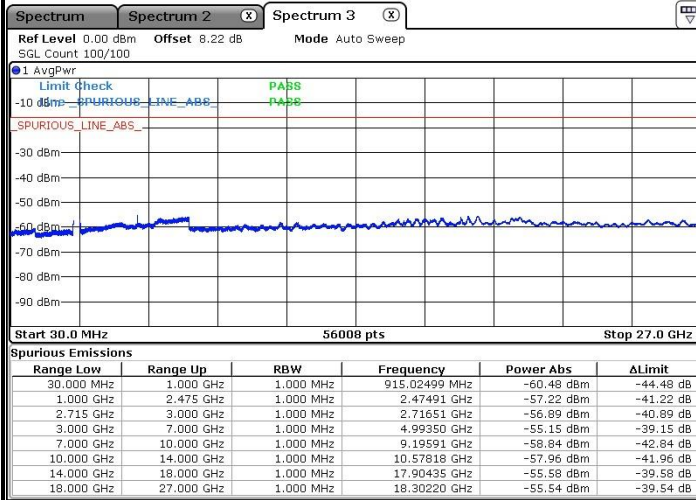


Date: 30.JUL.2019 15:18:48



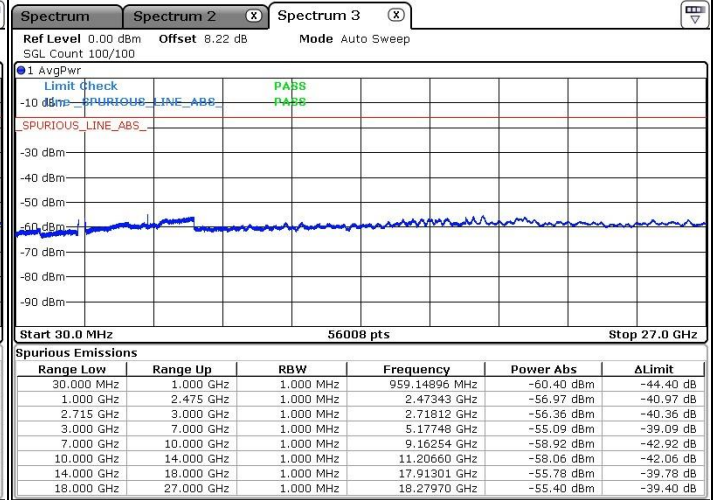
LTE Band 41 / 10MHz

Lowest Channel / 64QAM



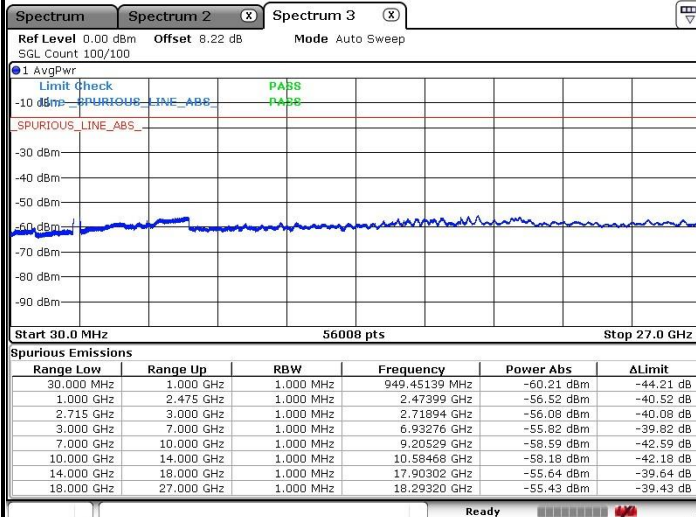
Date: 30 JUL 2019 15:58:27

Middle Channel / 64QAM



Date: 30 JUL 2019 16:08:03

Highest Channel / 64QAM

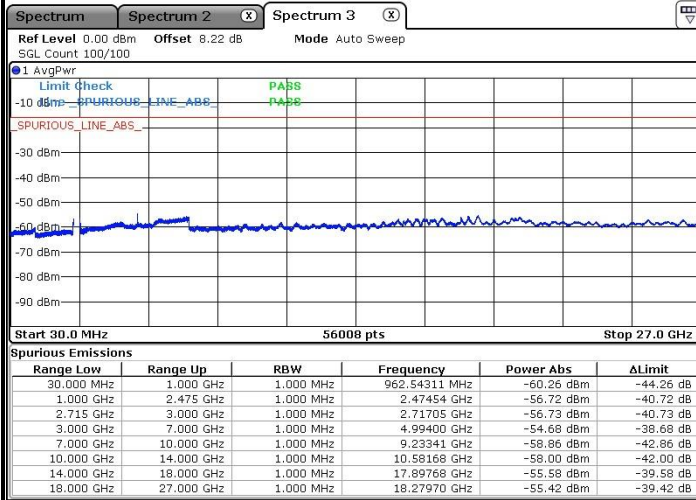


Date: 30 JUL 2019 16:15:31



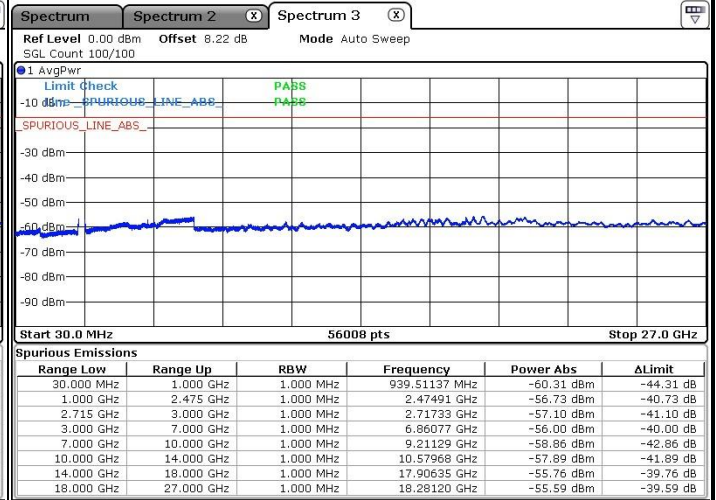
LTE Band 41 / 15MHz

Lowest Channel / 64QAM



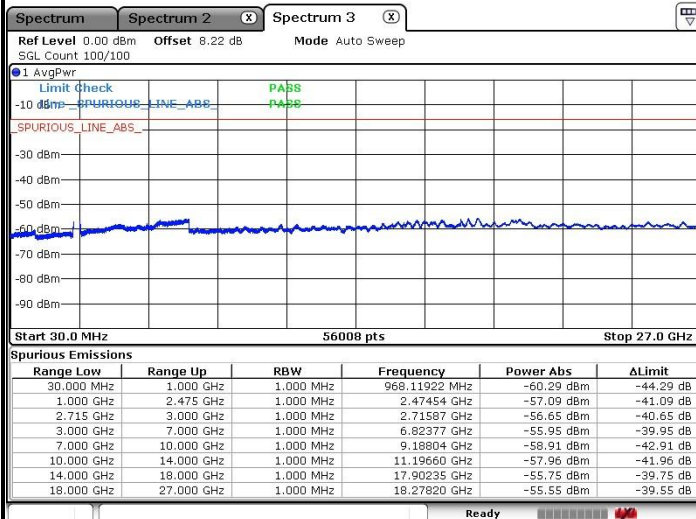
Date: 30 JUL 2019 16:46:21

Middle Channel / 64QAM



Date: 30 JUL 2019 16:56:54

Highest Channel / 64QAM

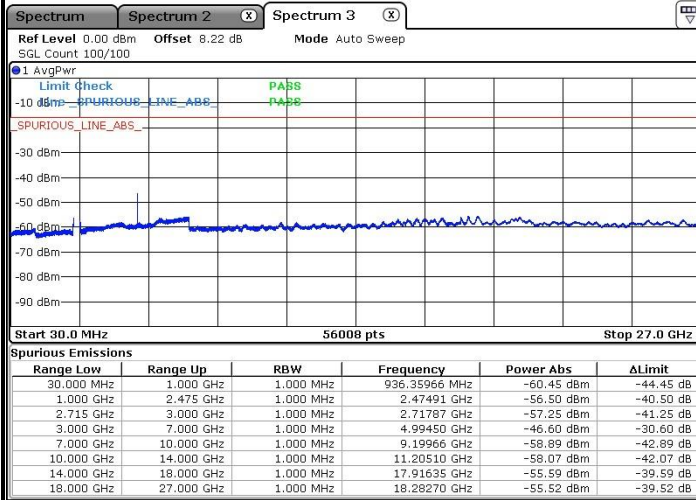


Date: 30 JUL 2019 17:03:18



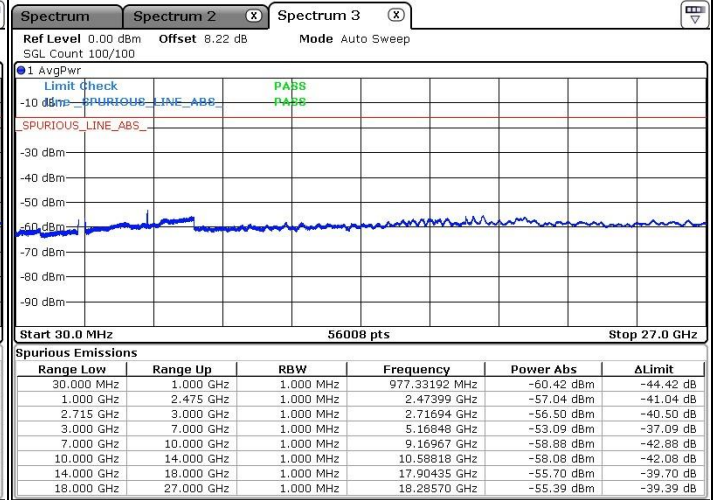
LTE Band 41 / 20MHz

Lowest Channel / 64QAM



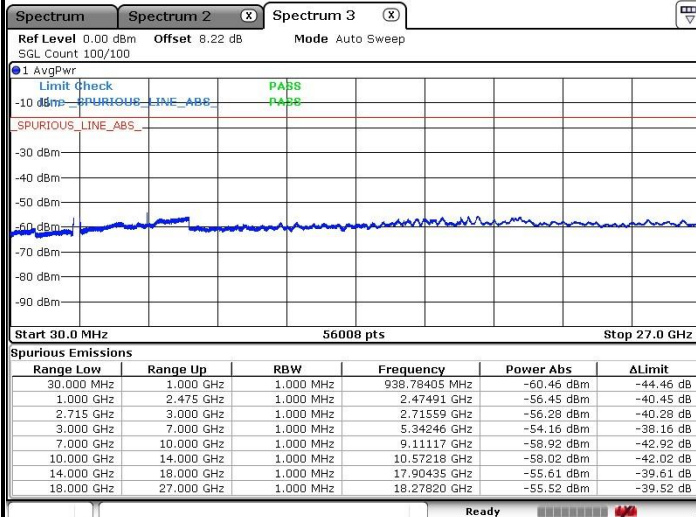
Date: 30 JUL 2019 17:17:36

Middle Channel / 64QAM



Date: 30 JUL 2019 17:29:11

Highest Channel / 64QAM



Date: 30 JUL 2019 17:34:39

A.3.7 Frequency Stability

Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0021	
30	Normal Voltage	0.0020	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0008	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0013	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0008	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage = 120 V. ; Battery End Point (BEP) = 90 V. ; Maximum Voltage =264 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



A.4 MIMO Antenna 1+2

A.4.1 Conducted Output Power(Average power)

LTE Band 41 Maximum Average Power [dBm]							Limit [dBm]	Test Result
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest		
20	1	0	QPSK	21.89	21.40	21.22	33.01	Pass
20	1	99		21.72	22.39	21.92		
20	18	0		21.54	21.48	21.15		
20	18	82		21.08	21.95	21.36		
20	100	0		20.93	21.23	21.39		
20	1	0	16-QAM	21.69	21.74	21.76		
20	1	99		21.60	22.40	21.95		
20	18	0		21.49	21.46	21.14		
20	18	82		21.02	21.93	21.32		
20	100	0		20.92	21.12	21.35		
20	1	0	64-QAM	21.82	21.63	21.43		
20	1	99		21.65	22.39	22.06		
20	18	0		21.48	21.31	21.13		
20	18	82		20.99	21.64	21.33		
20	100	0		20.90	21.15	21.38		
15	1	0	QPSK	21.64	21.66	21.47		
15	1	74		20.97	21.69	22.39		
15	16	0		20.56	20.70	20.52		
15	16	59		20.80	20.94	21.80		
15	75	0		20.72	20.94	21.39		
15	1	0	16-QAM	21.33	21.35	21.36		
15	1	74		20.99	21.63	22.35		
15	16	0		20.53	20.57	20.46		
15	16	59		20.73	20.95	21.65		
15	75	0		20.71	20.91	21.33		
15	1	0	64-QAM	21.57	21.75	21.62		
15	1	74		21.22	21.94	22.33		
15	16	0		20.55	20.62	20.50		
15	16	59		20.75	20.98	21.68		
15	75	0		20.70	20.90	21.33		



LTE Band 41 Maximum Average Power [dBm]							Limit [dBm]	Test Result
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest		
10	1	0	QPSK	21.72	21.64	21.22	33.01	Pass
10	1	49		21.35	22.17	21.76		
10	12	0		21.53	21.63	21.34		
10	12	38		21.03	21.78	21.32		
10	50	0		21.11	21.21	21.61		
10	1	0	16-QAM	21.65	21.77	21.18		
10	1	49		21.31	22.04	21.73		
10	12	0		21.47	21.56	21.28		
10	12	38		20.98	21.78	21.26		
10	50	0		21.06	21.23	21.53		
10	1	0	64-QAM	21.91	22.07	21.54		
10	1	49		21.50	22.42	21.93		
10	12	0		21.48	21.57	21.37		
10	12	38		20.99	21.76	21.07		
10	50	0		21.08	21.17	21.62		
5	1	0	QPSK	21.44	20.83	21.39		
5	1	24		20.73	21.02	20.91		
5	8	0		21.83	21.41	22.12		
5	8	17		20.66	21.27	21.31		
5	25	0		21.04	21.22	21.54		
5	1	0	16-QAM	21.50	20.75	21.41		
5	1	24		20.62	20.99	20.80		
5	8	0		21.71	21.10	22.07		
5	8	17		21.03	21.21	21.25		
5	25	0		21.03	21.22	21.47		
5	1	0	64-QAM	21.58	21.08	21.54		
5	1	24		20.91	21.31	21.11		
5	8	0		21.85	21.32	22.02		
5	8	17		20.54	21.23	21.28		
5	25	0		20.95	21.19	21.50		



Appendix B. Test Results of Spurious Emission

B.1 SISO Antenna 1

LTE Band 41 / 15MHz / 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	5172	-46.97	-13	-33.97	-57.18	3.03	13.24	H
	7760	-57.64	-13	-44.64	-67.09	3.56	13.01	H
	10350	-57.98	-13	-44.98	-67.50	3.92	13.44	H
	5172	-41.05	-13	-28.05	-51.26	3.03	13.24	V
	7760	-55.60	-13	-42.60	-65.05	3.56	13.01	V
	10350	-57.14	-13	-44.14	-66.66	3.92	13.44	V

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

**B.2 MIMO Antenna 1+2**

LTE Band 41 / 15MHz / 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	5172	-46.61	-13	-33.61	-56.82	3.03	13.24	H
	7760	-57.14	-13	-44.14	-66.59	3.56	13.01	H
	10350	-57.86	-13	-44.86	-67.38	3.92	13.44	H
	5172	-39.46	-13	-26.46	-49.67	3.03	13.24	V
	7760	-54.00	-13	-41.00	-63.45	3.56	13.01	V
	10350	-58.77	-13	-45.77	-68.29	3.92	13.44	V

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