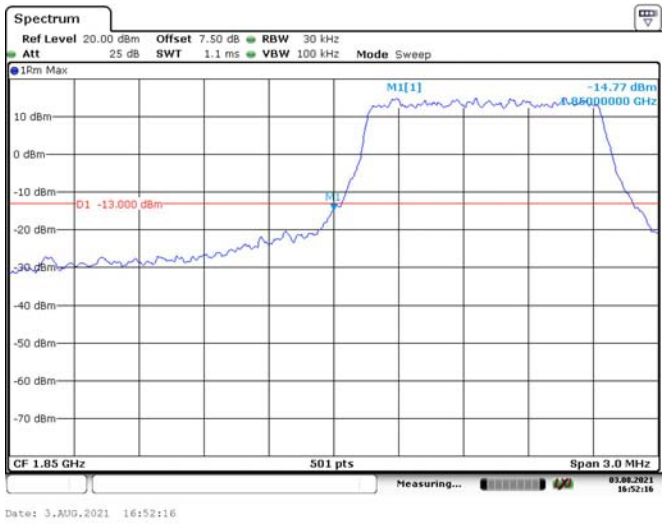
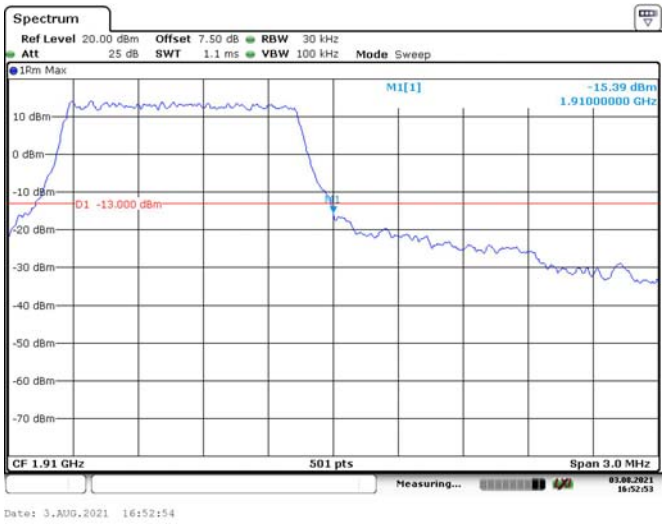
LTE Band 2:

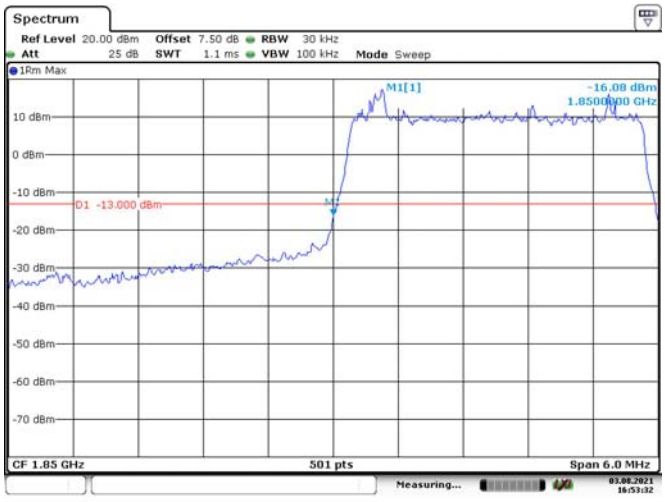
1.4M, QPSK, Left Band Edge



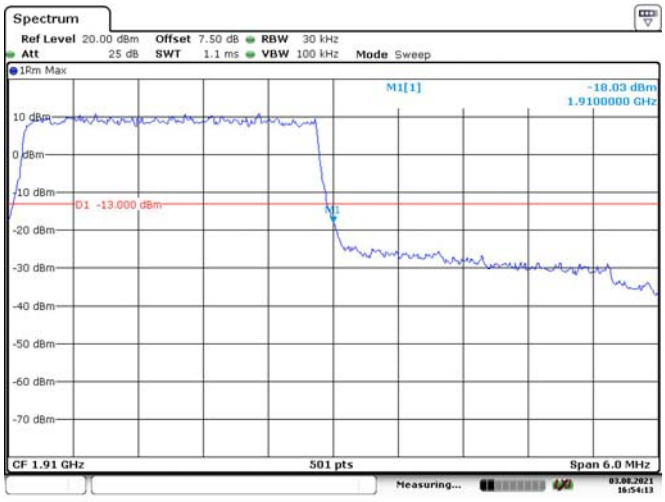
1.4M, QPSK, Right Band Edge



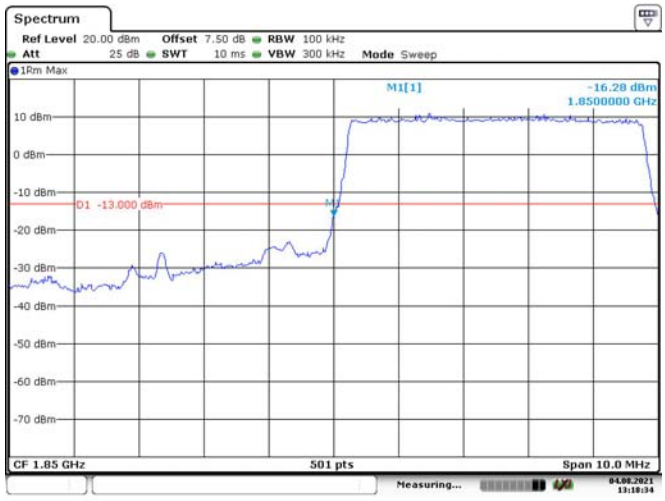
3M, QPSK, Left Band Edge



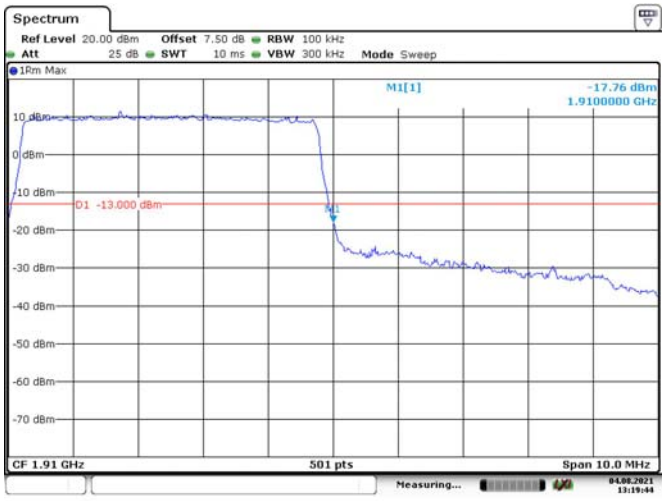
3M, QPSK, Right Band Edge



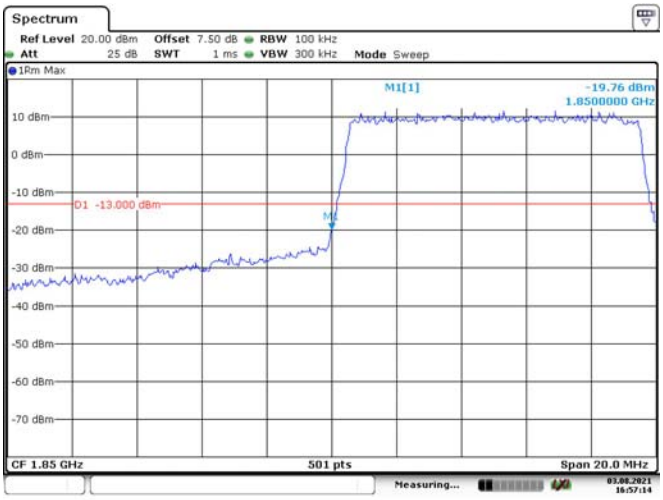
5M, QPSK, Left Band Edge



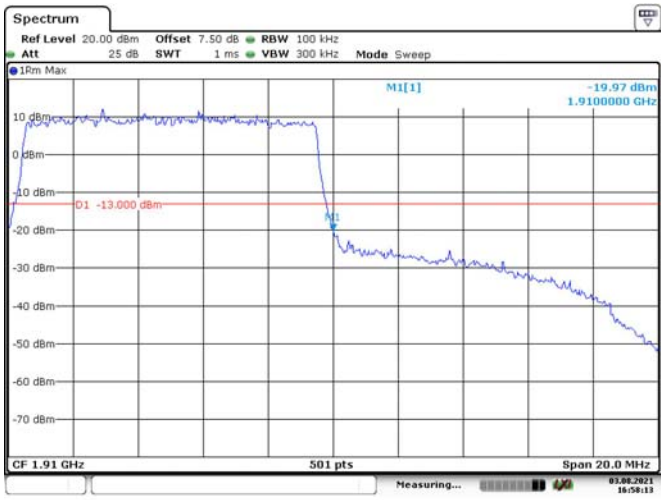
5M, QPSK, Right Band Edge



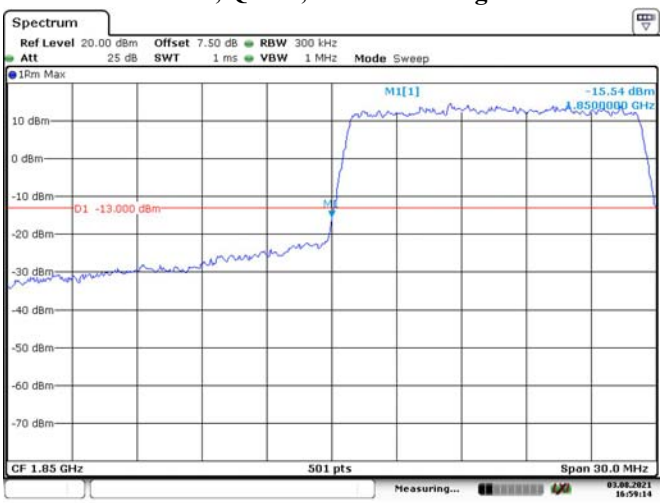
10M, QPSK, Left Band Edge



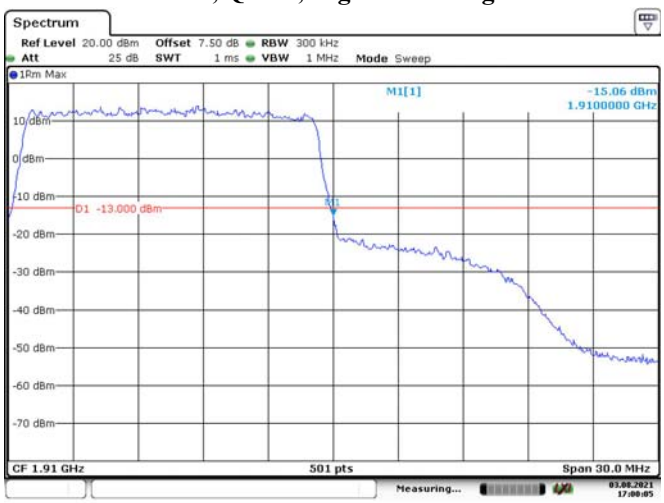
10M, QPSK, Right Band Edge



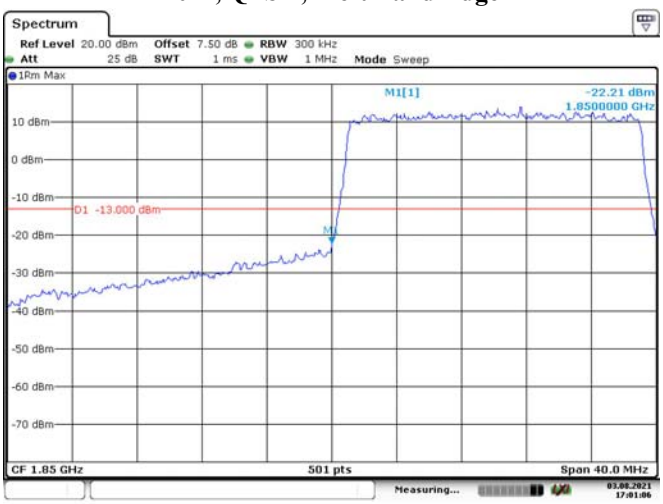
15M, QPSK, Left Band Edge



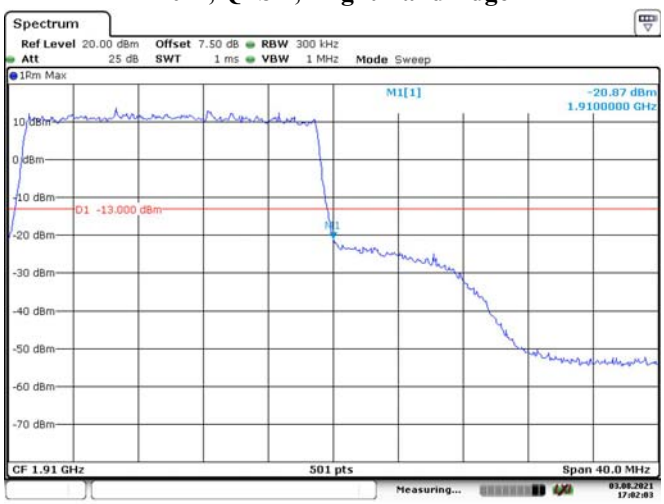
15M, QPSK, Right Band Edge



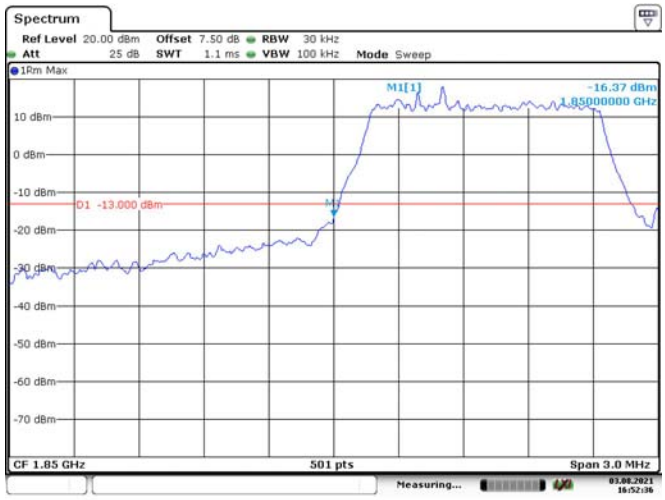
20M, QPSK, Left Band Edge



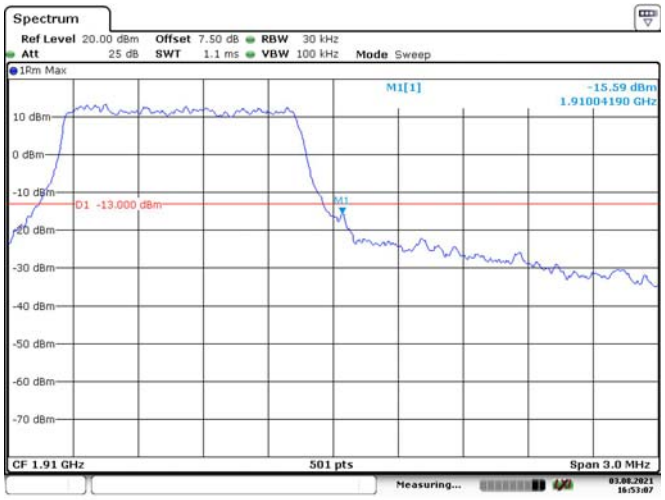
20M, QPSK, Right Band Edge



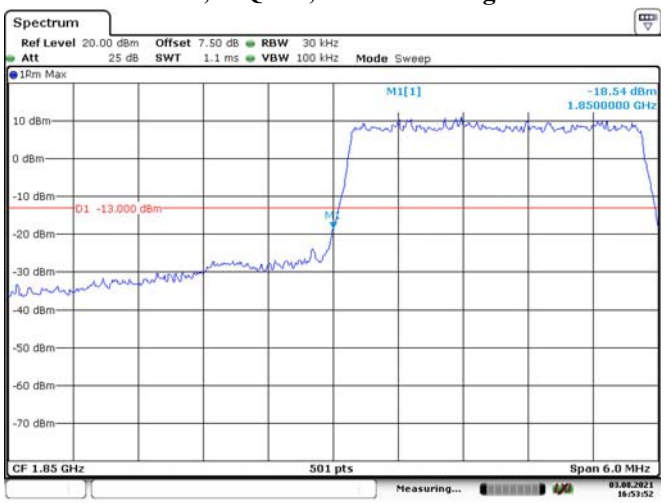
1.4M, 16QAM, Left Band Edge



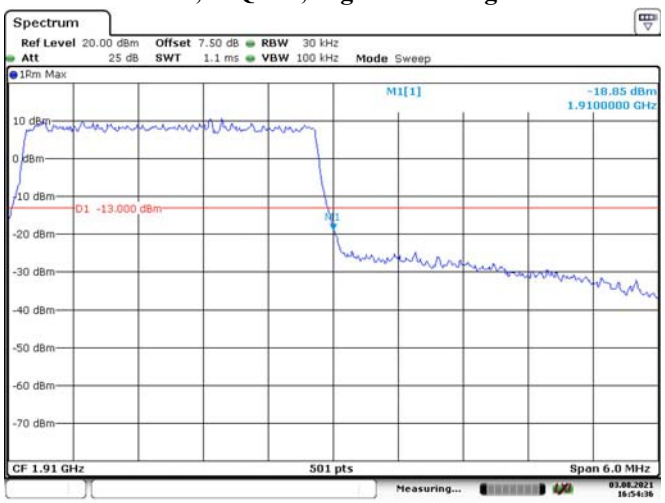
1.4M, 16QAM, Right Band Edge



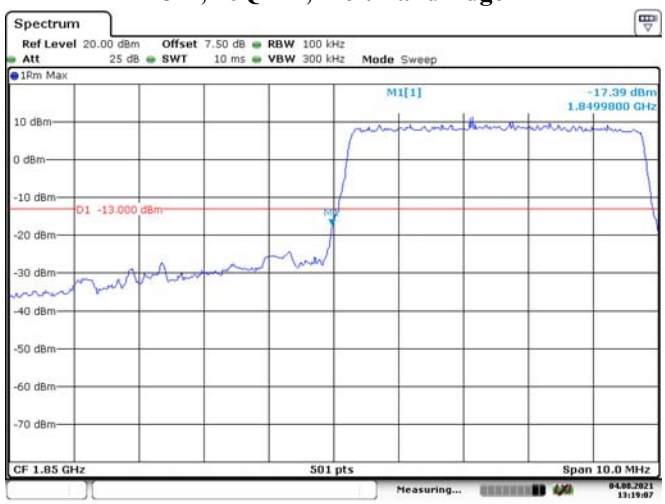
3M, 16QAM, Left Band Edge



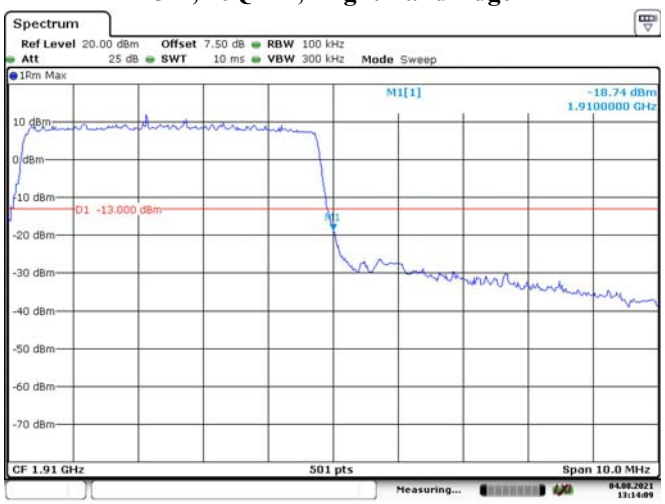
3M, 16QAM, Right Band Edge



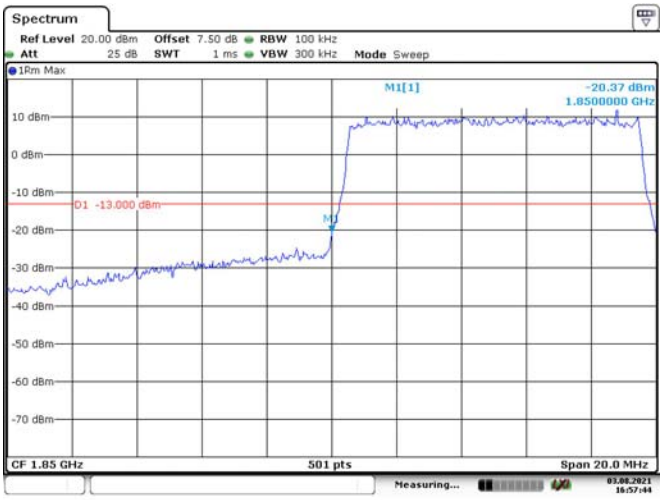
5M, 16QAM, Left Band Edge



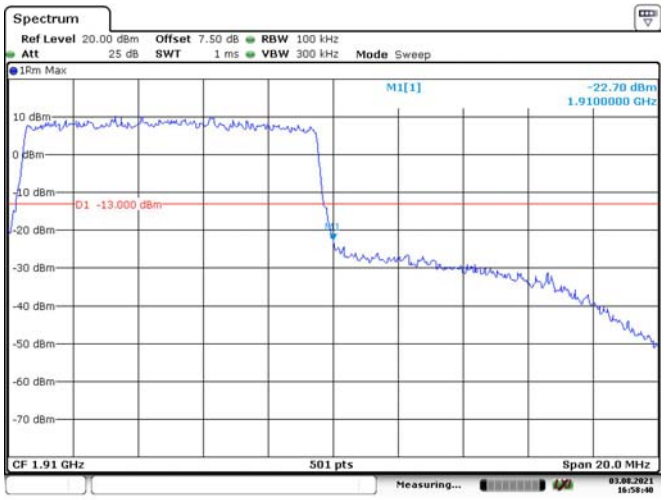
5M, 16QAM, Right Band Edge



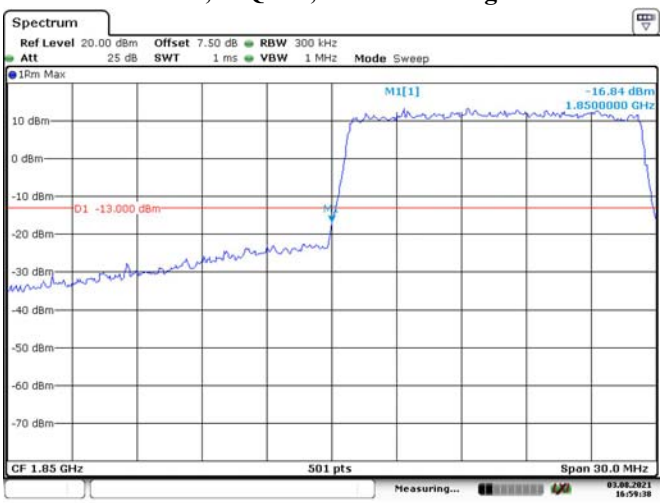
10M, 16QAM, Left Band Edge



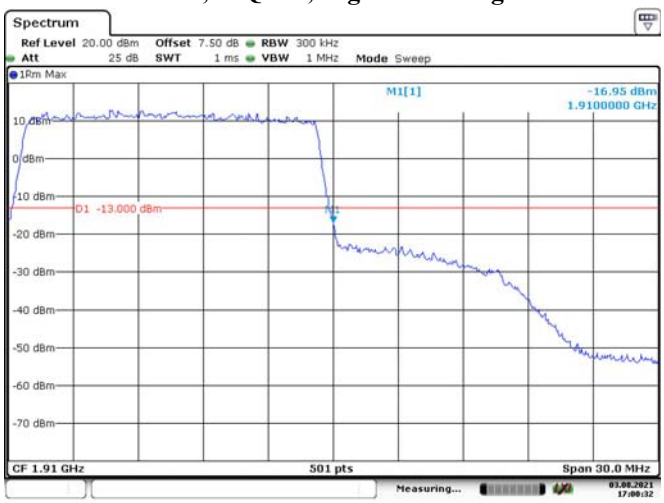
10M, 16QAM, Right Band Edge



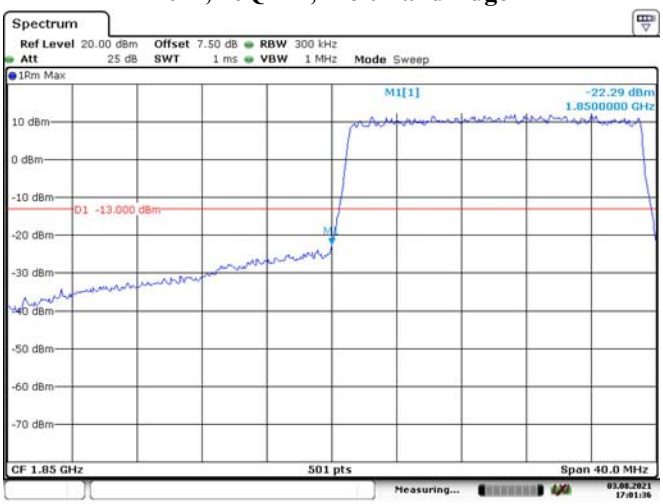
15M, 16QAM, Left Band Edge



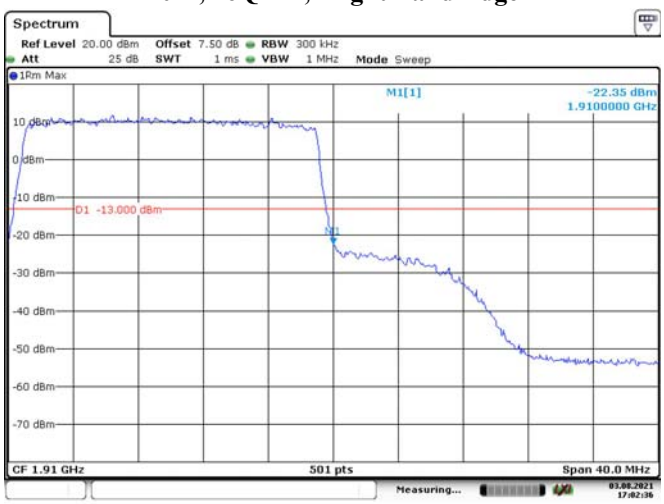
15M, 16QAM, Right Band Edge



20M, 16QAM, Left Band Edge

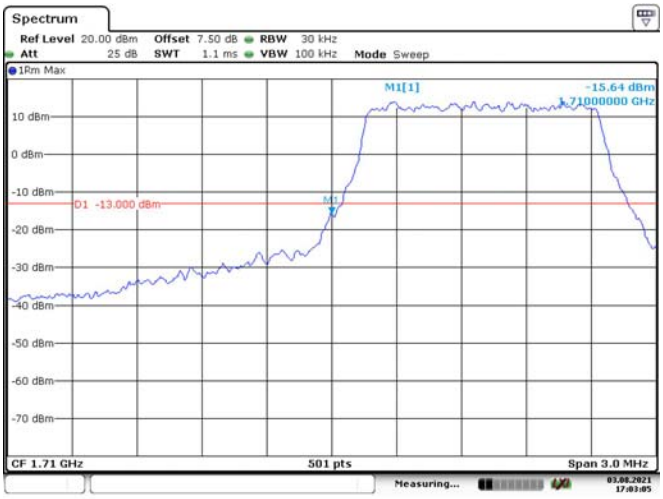


20M, 16QAM, Right Band Edge

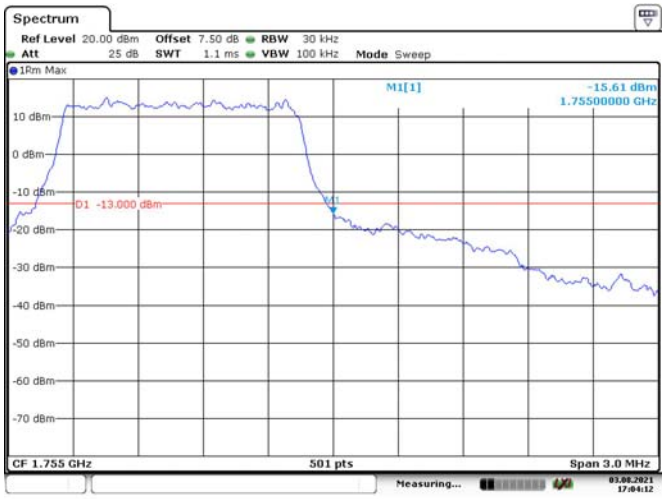


LTE Band 4:

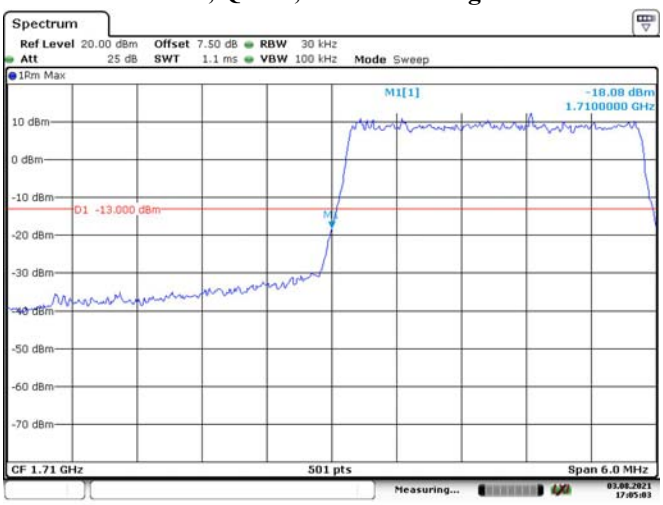
1.4M, QPSK, Left Band Edge



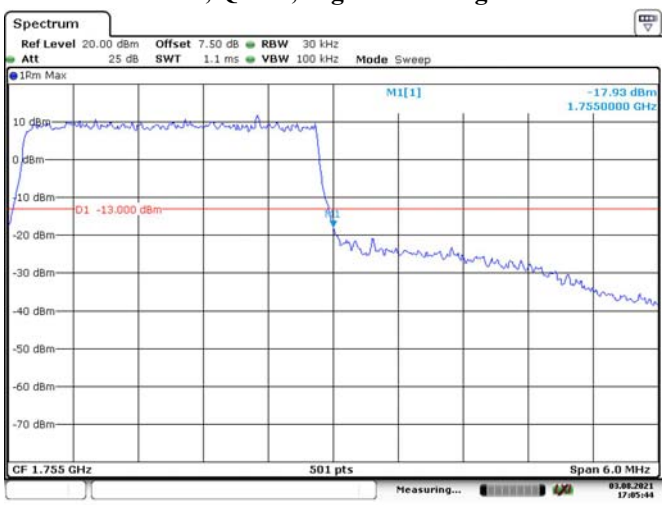
1.4M, QPSK, Right Band Edge



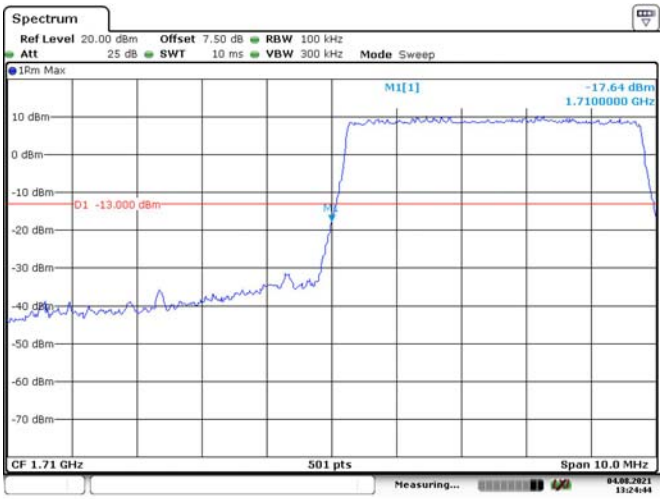
3M, QPSK, Left Band Edge



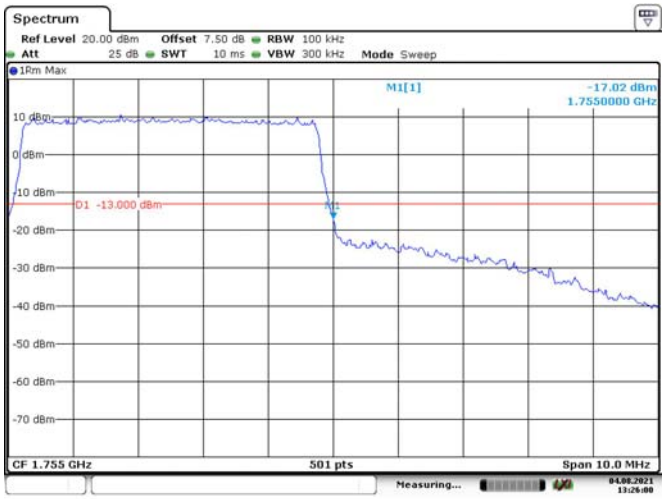
3M, QPSK, Right Band Edge



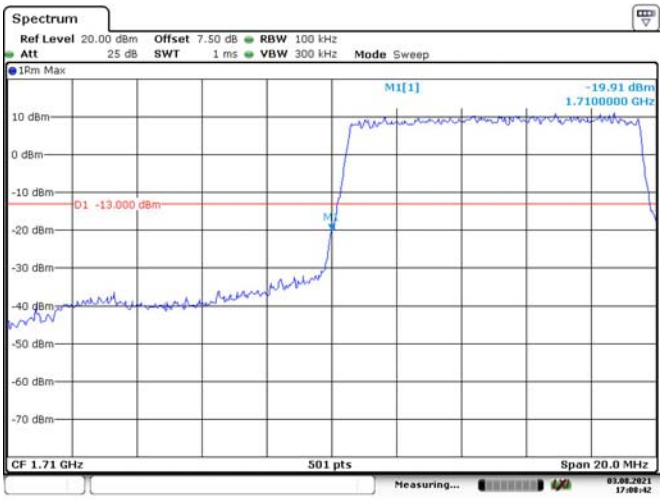
5M, QPSK, Left Band Edge



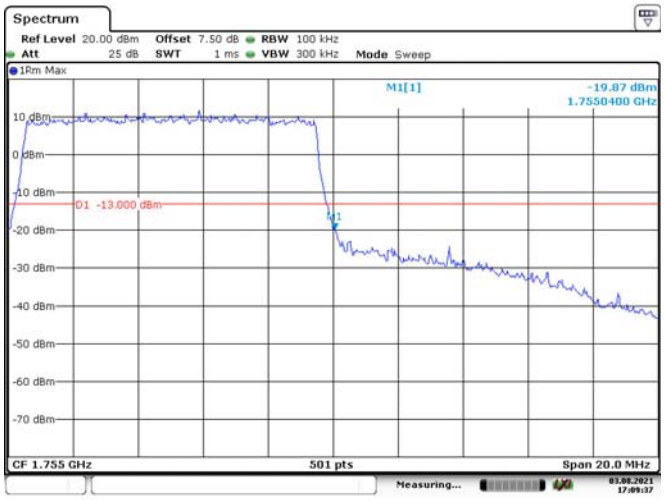
5M, QPSK, Right Band Edge



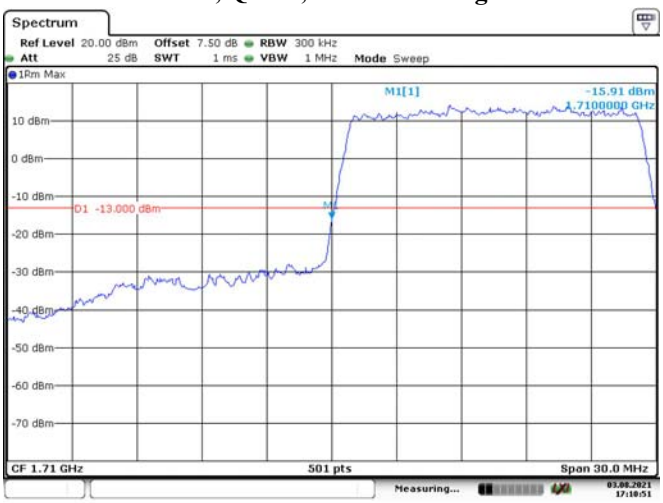
10M, QPSK, Left Band Edge



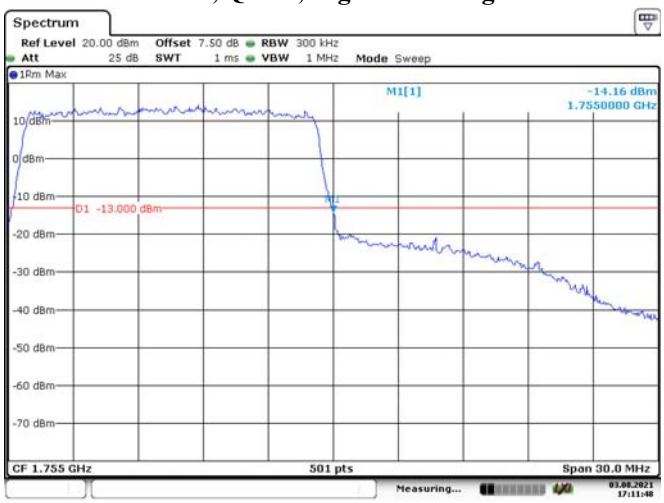
10M, QPSK, Right Band Edge



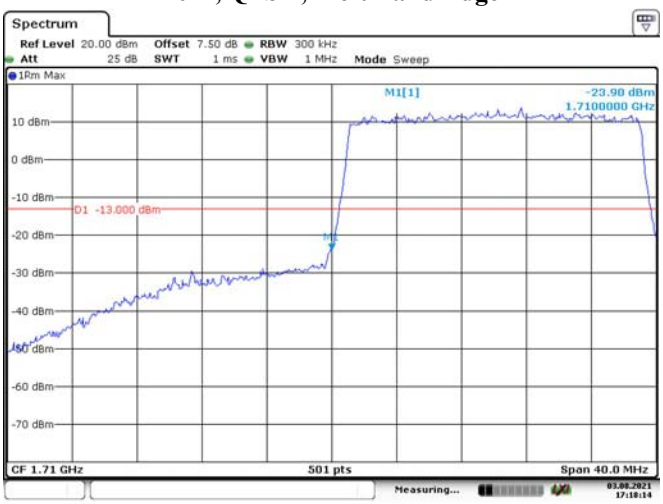
15M, QPSK, Left Band Edge



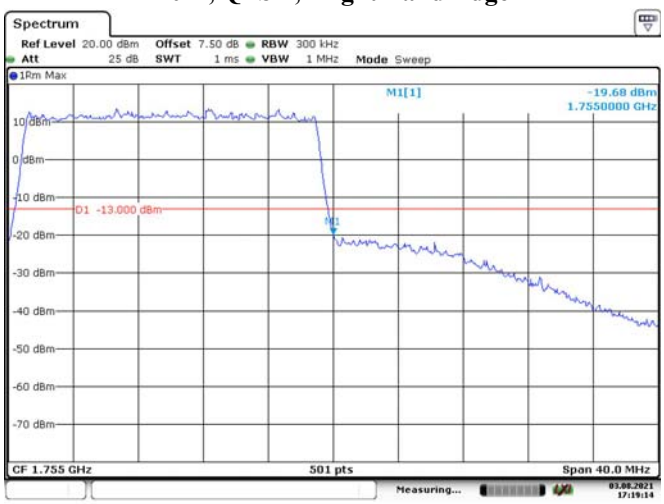
15M, QPSK, Right Band Edge



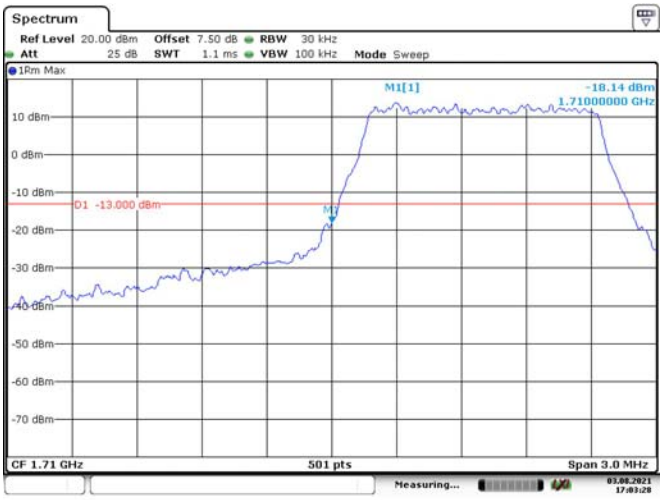
20M, QPSK, Left Band Edge



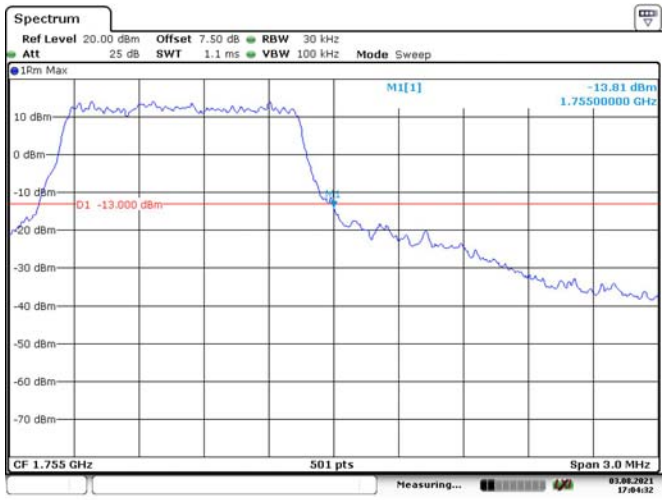
20M, QPSK, Right Band Edge



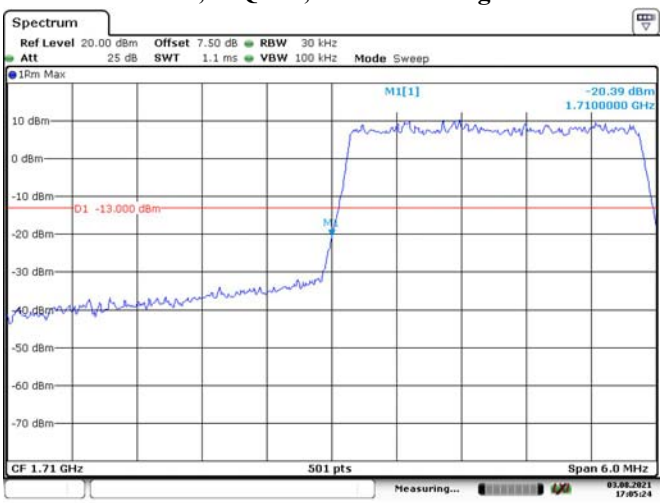
1.4M, 16QAM, Left Band Edge



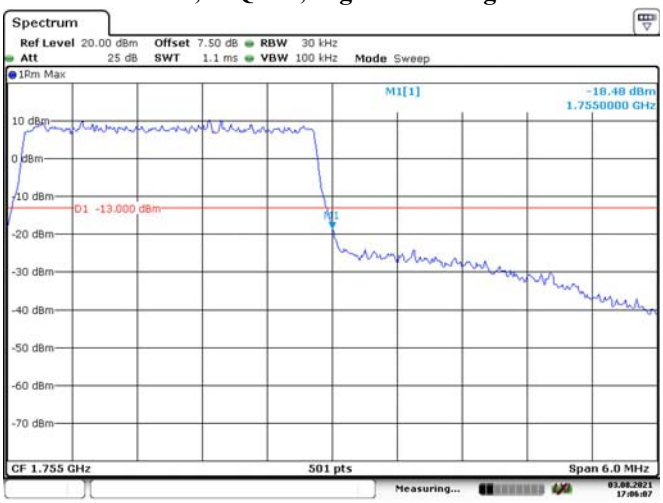
1.4M, 16QAM, Right Band Edge



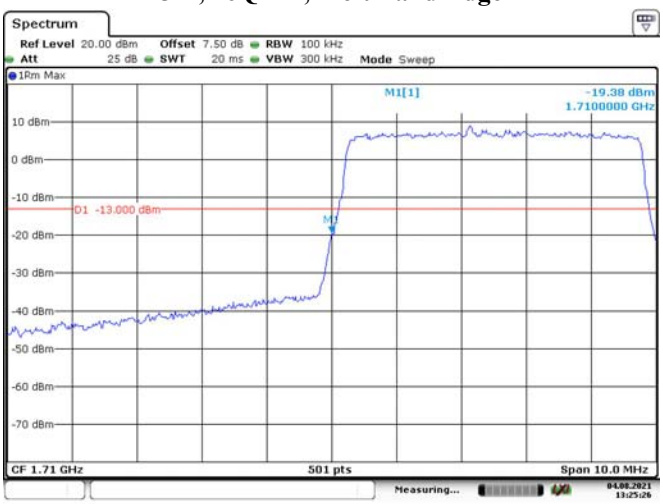
3M, 16QAM, Left Band Edge



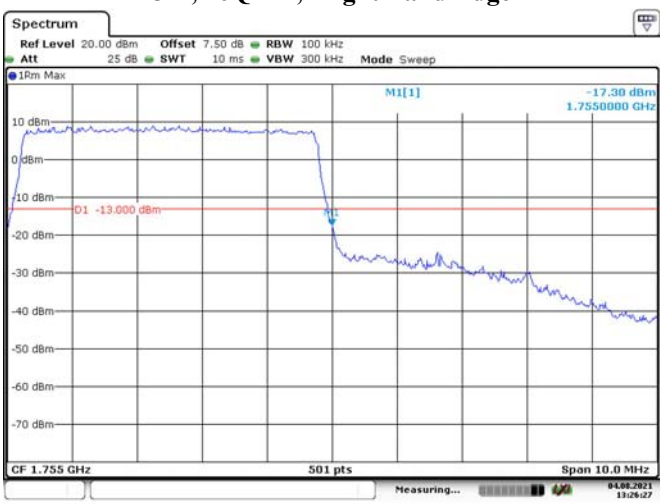
3M, 16QAM, Right Band Edge



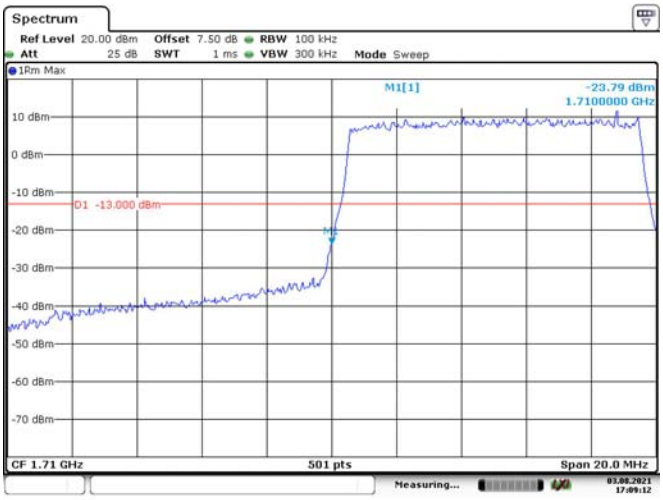
5M, 16QAM, Left Band Edge



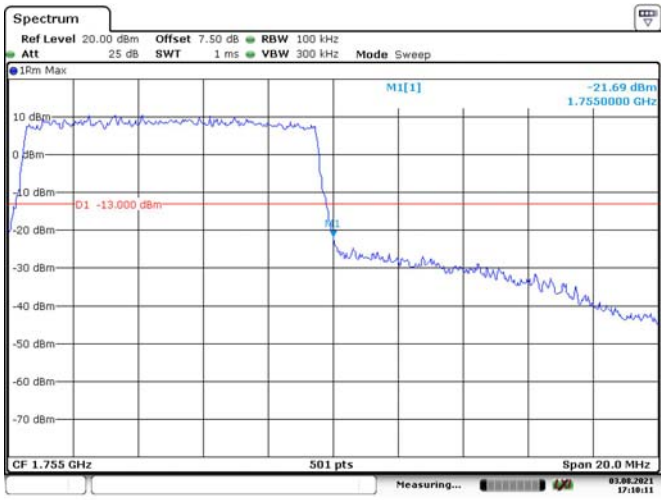
5M, 16QAM, Right Band Edge



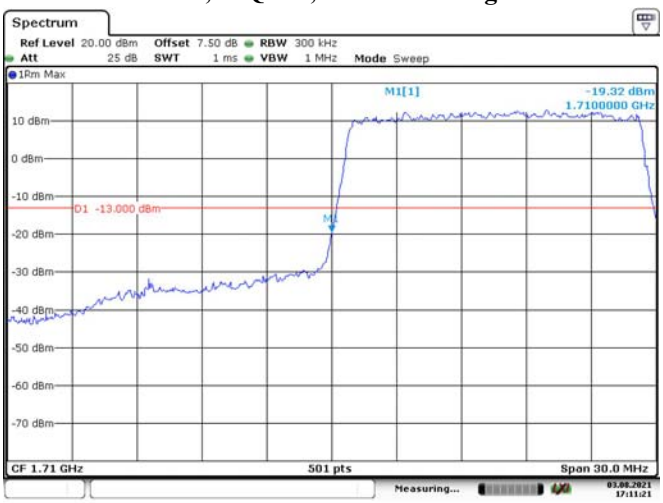
10M, 16QAM, Left Band Edge



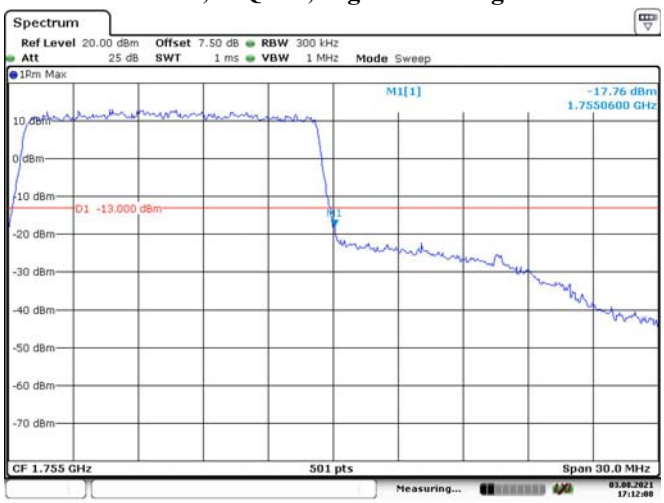
10M, 16QAM, Right Band Edge



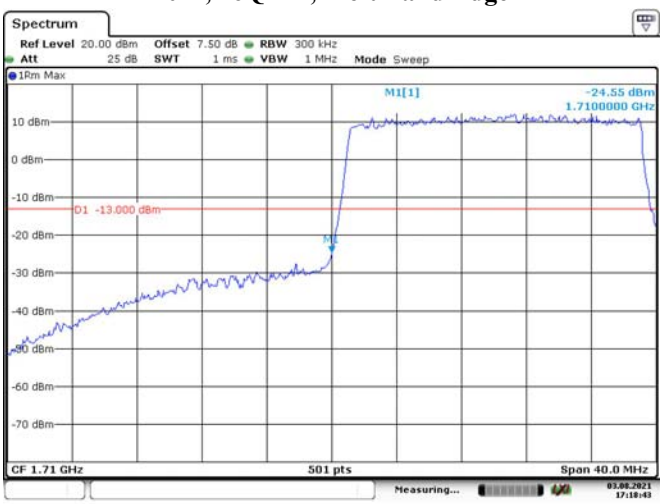
15M, 16QAM, Left Band Edge



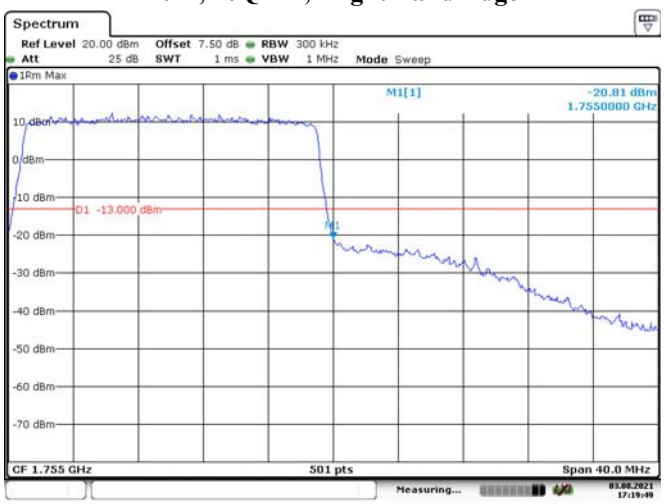
15M, 16QAM, Right Band Edge



20M, 16QAM, Left Band Edge

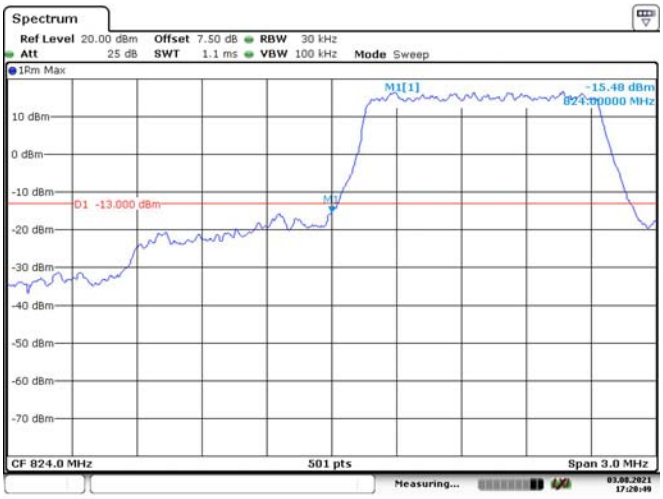


20M, 16QAM, Right Band Edge

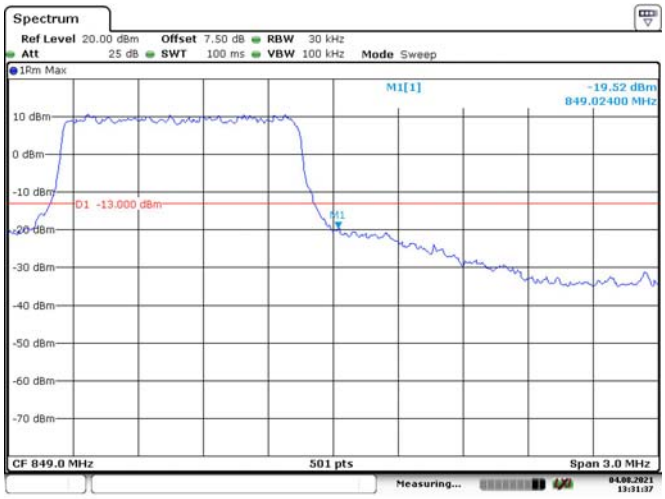


LTE Band 5:

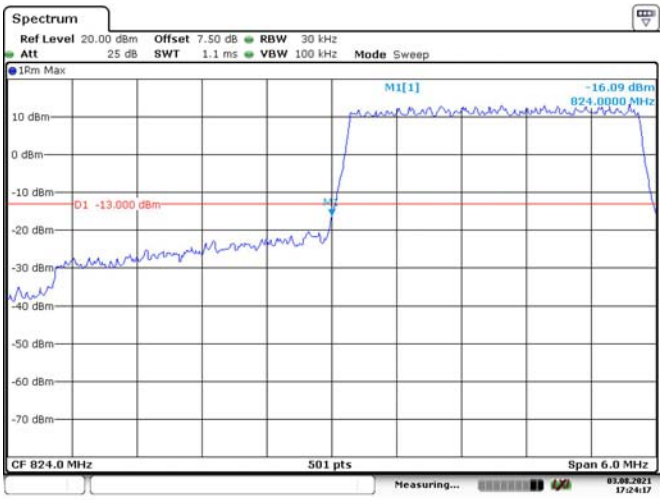
1.4M, QPSK, Left Band Edge



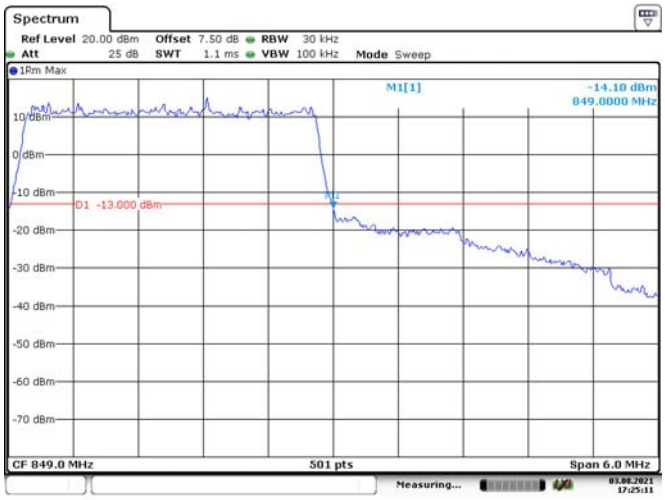
1.4M, QPSK, Right Band Edge



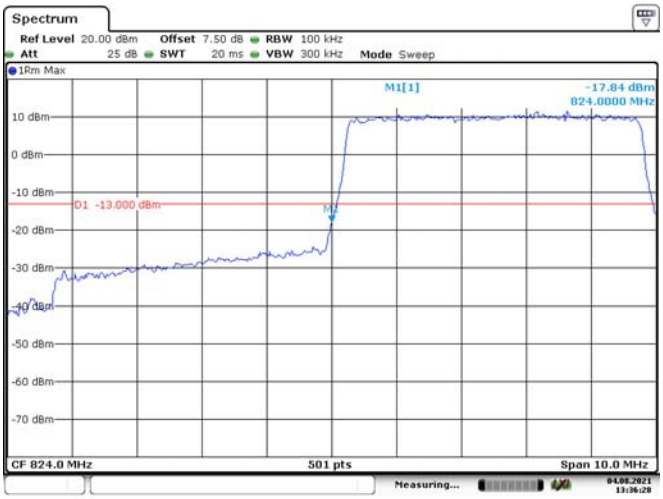
3M, QPSK, Left Band Edge



3M, QPSK, Right Band Edge

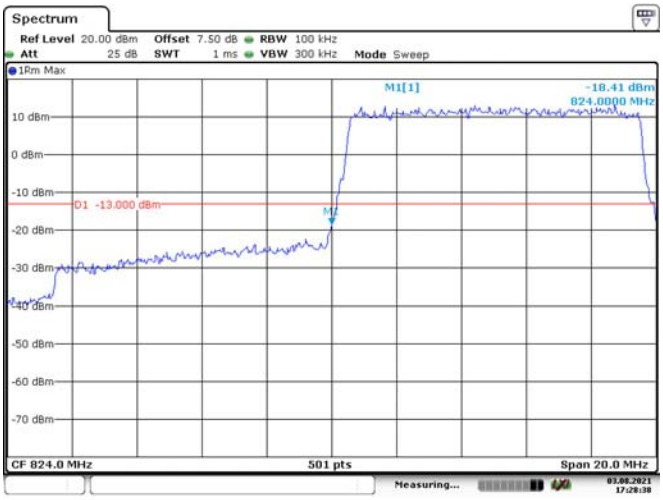


5M, QPSK, Left Band Edge

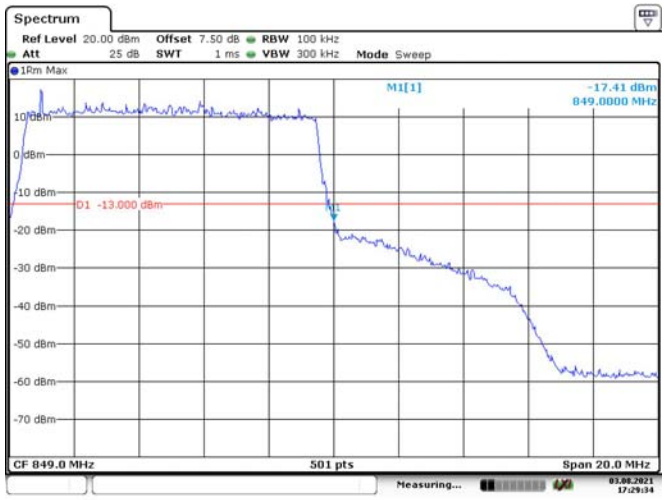


5M, QPSK, Right Band Edge

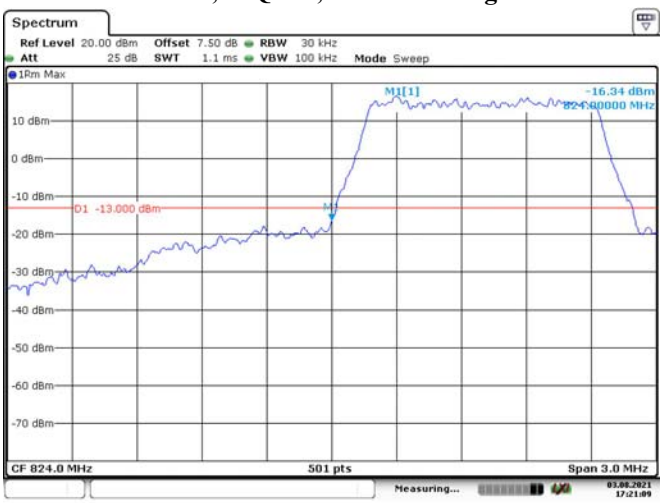
10M, QPSK, Left Band Edge



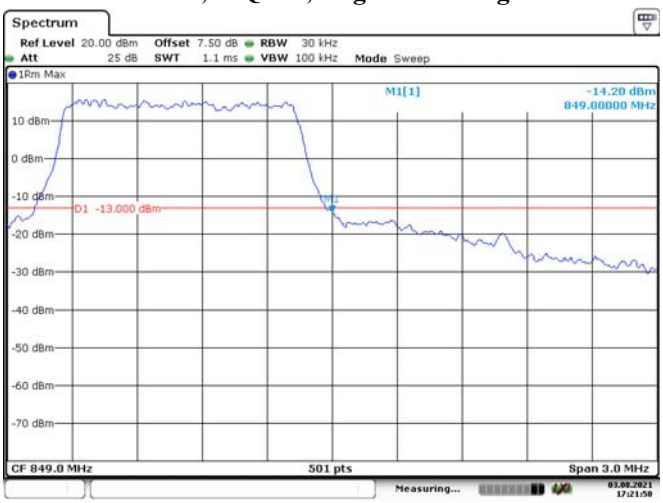
10M, QPSK, Right Band Edge



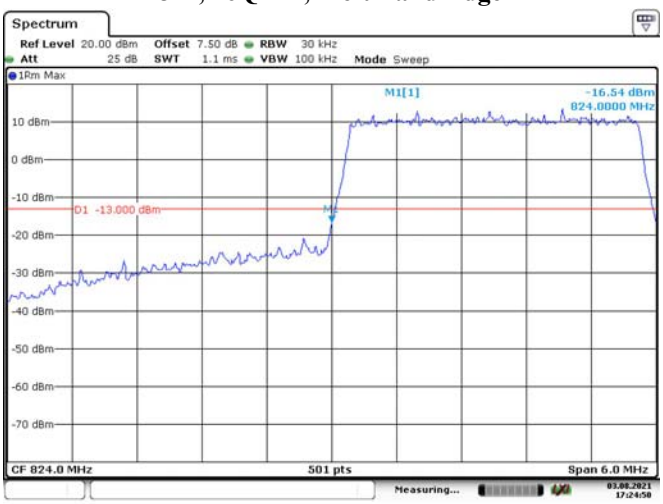
1.4M, 16QAM, Left Band Edge



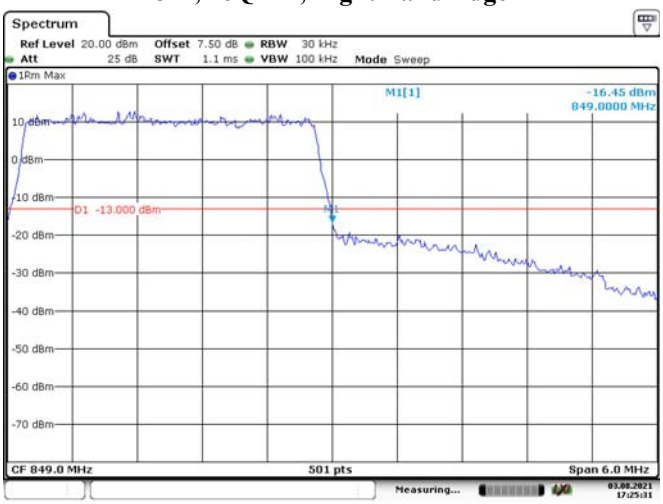
1.4M, 16QAM, Right Band Edge



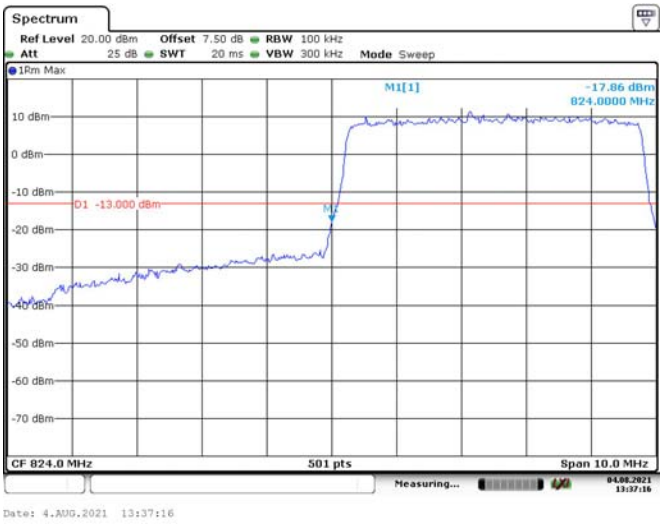
3M, 16QAM, Left Band Edge



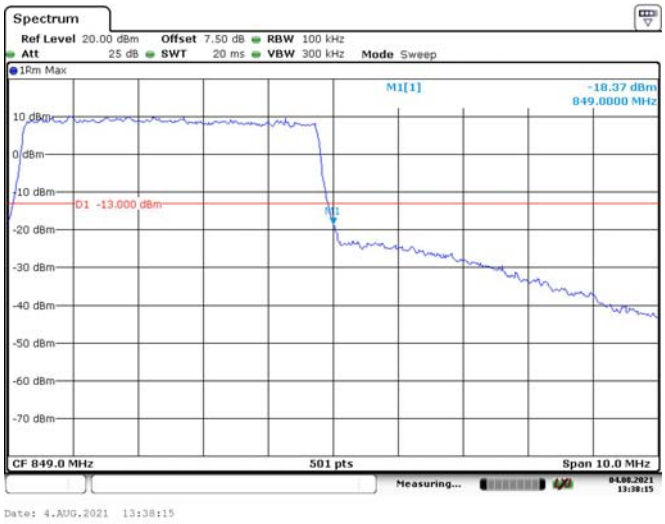
3M, 16QAM, Right Band Edge



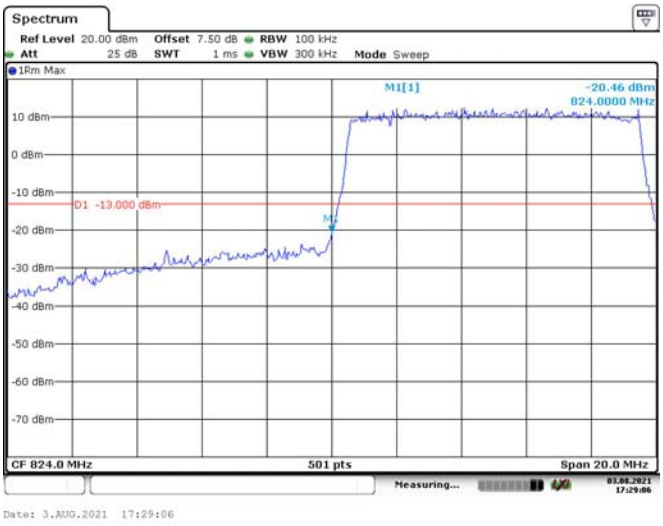
5M, 16QAM, Left Band Edge



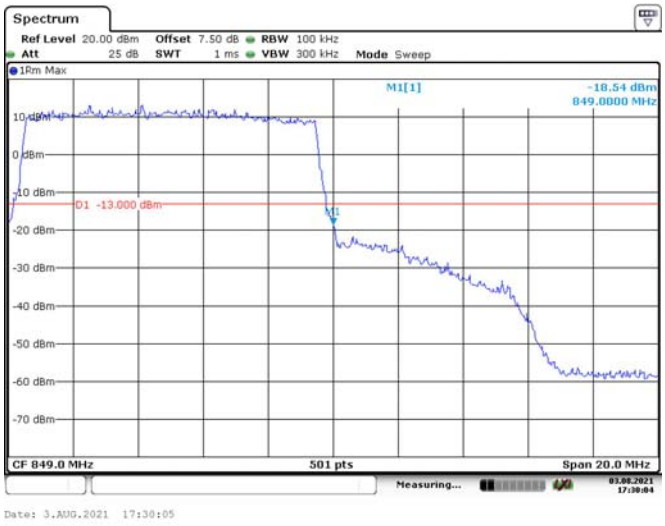
5M, 16QAM, Right Band Edge



10M, 16QAM, Left Band Edge

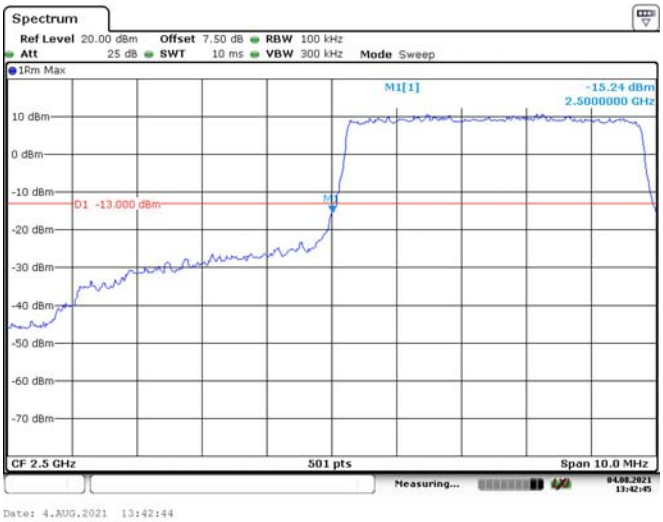


10M, 16QAM, Right Band Edge

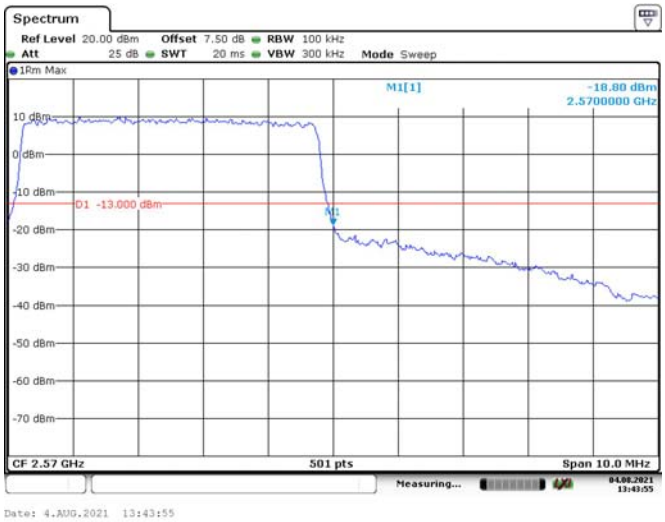


LTE Band 7:

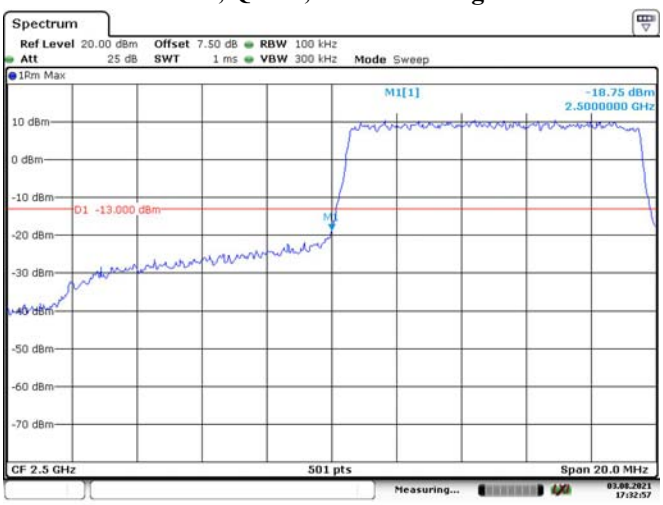
5M, QPSK, Left Band Edge



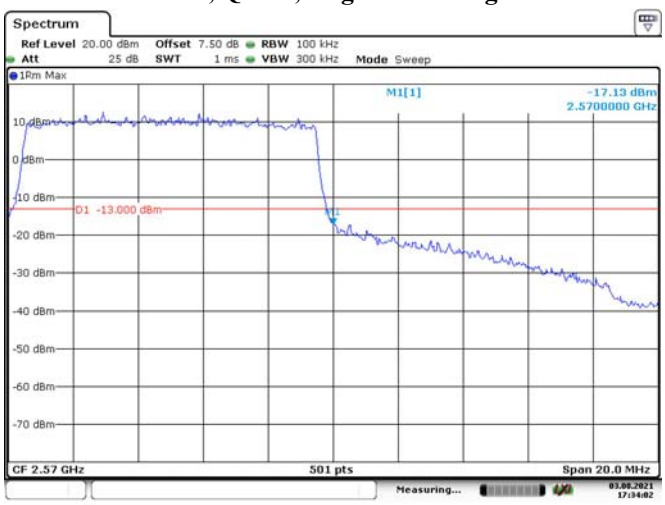
5M, QPSK, Right Band Edge



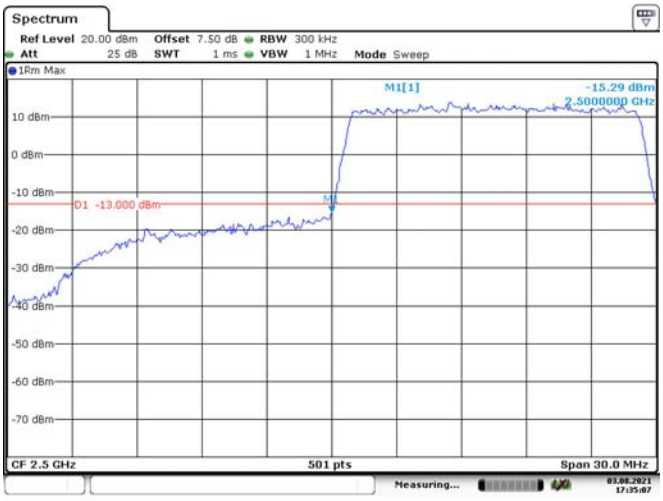
10M, QPSK, Left Band Edge



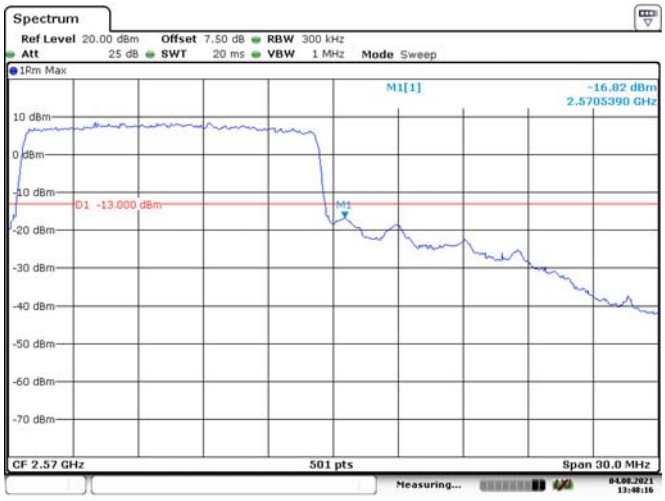
10M, QPSK, Right Band Edge



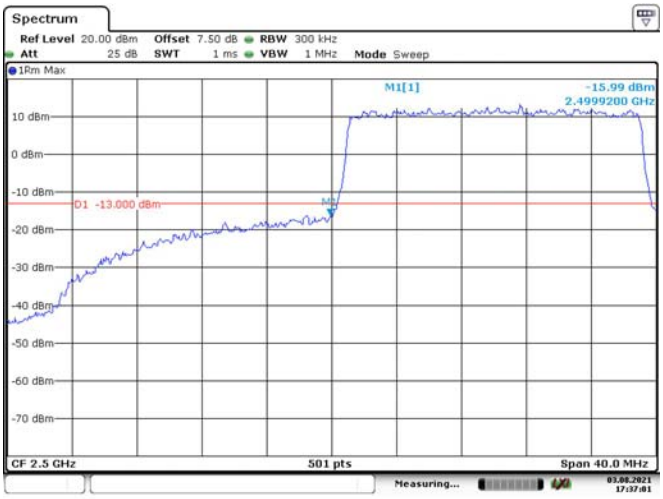
15M, QPSK, Left Band Edge



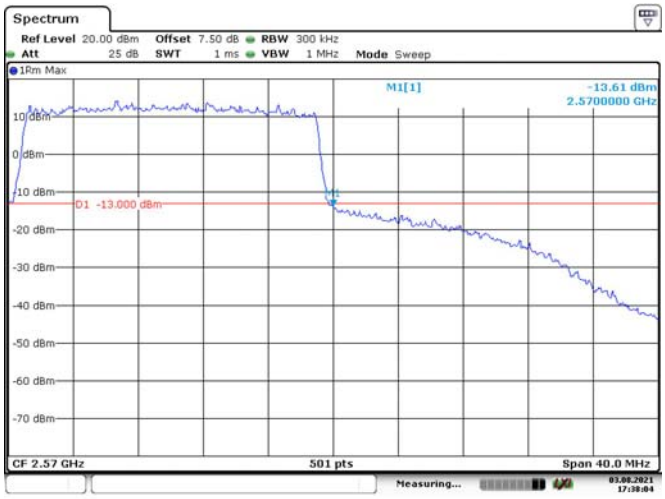
15M, QPSK, Right Band Edge



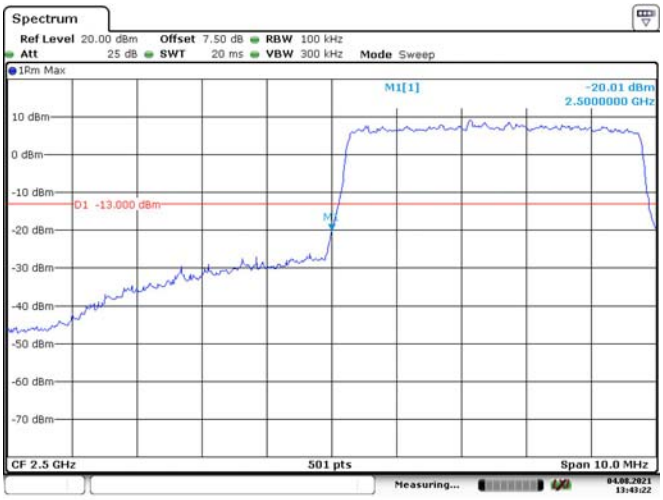
20M, QPSK, Left Band Edge



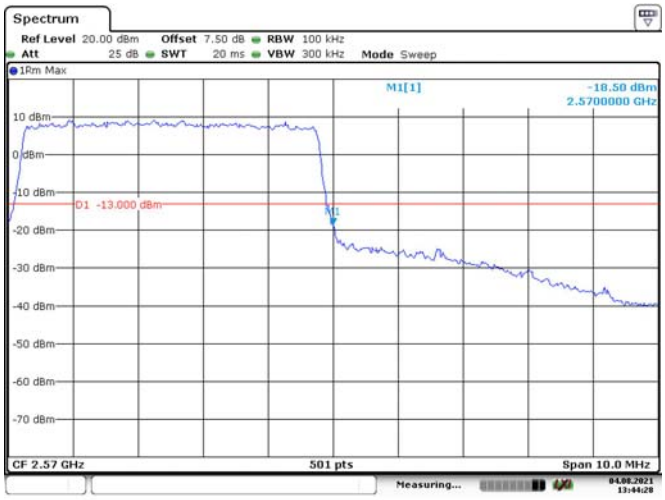
20M, QPSK, Right Band Edge



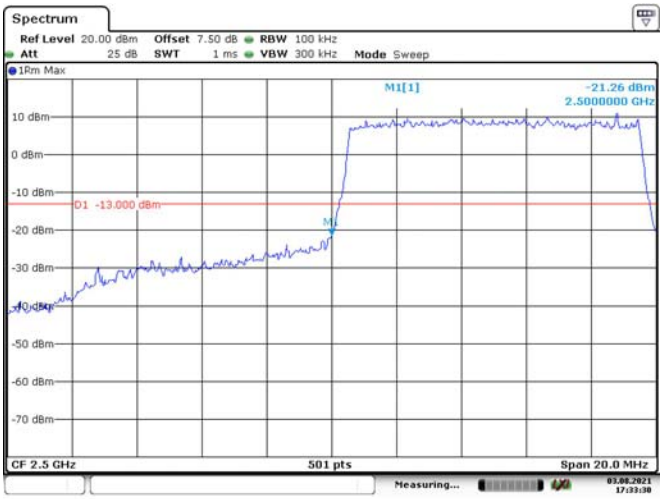
5M, 16QAM, Left Band Edge



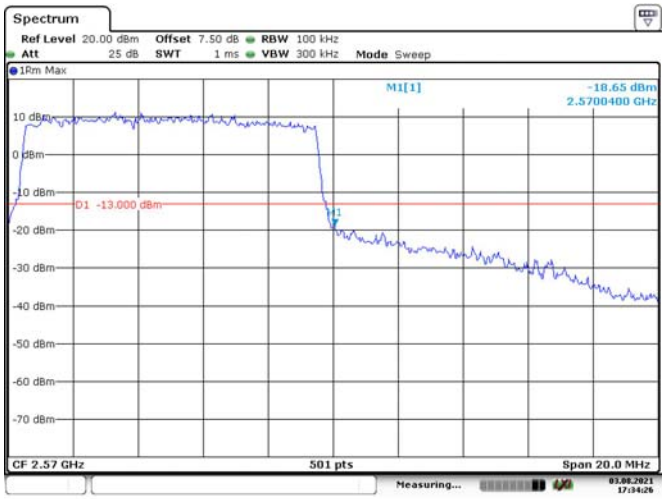
5M, 16QAM, Right Band Edge



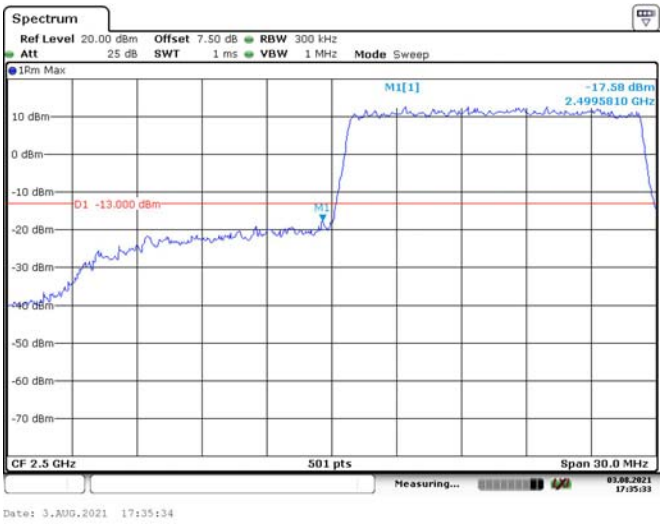
10M, 16QAM, Left Band Edge



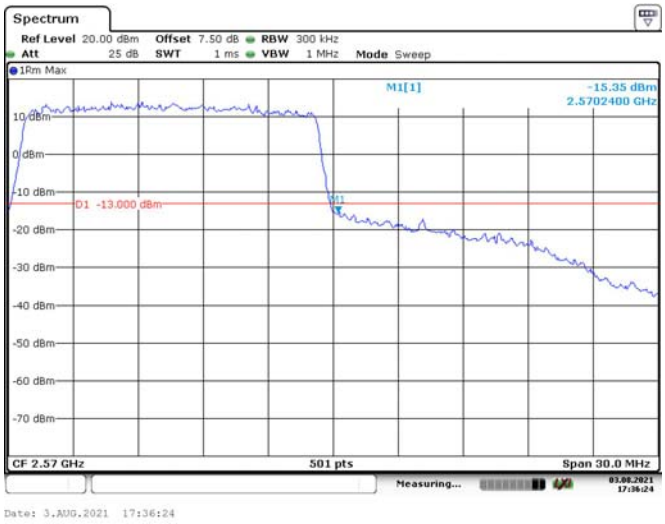
10M, 16QAM, Right Band Edge



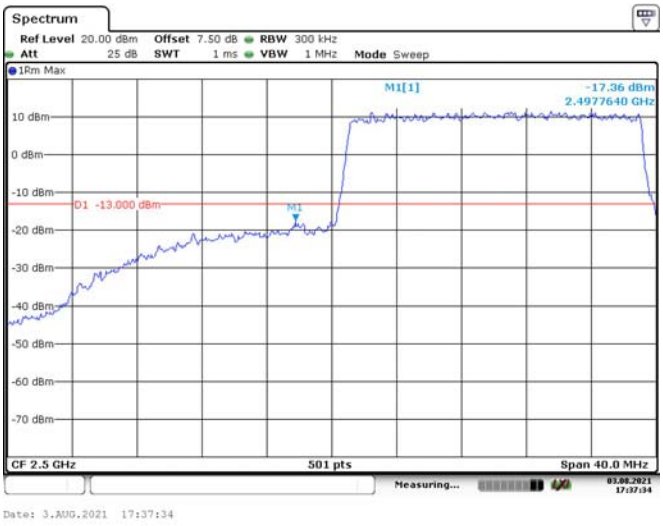
15M, 16QAM, Left Band Edge



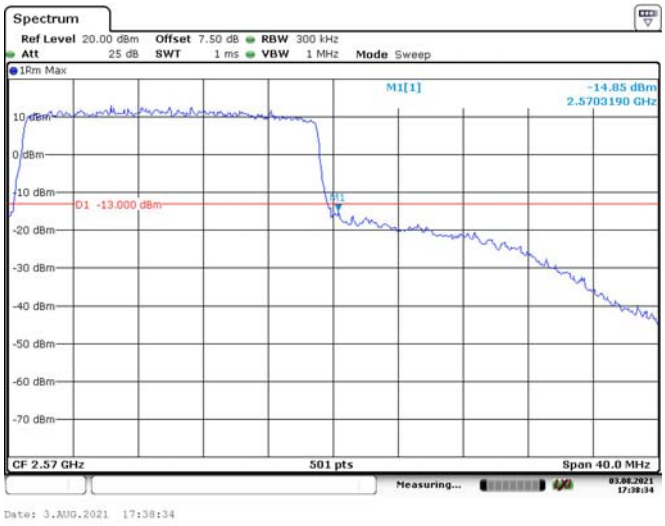
15M, 16QAM, Right Band Edge



20M, 16QAM, Left Band Edge

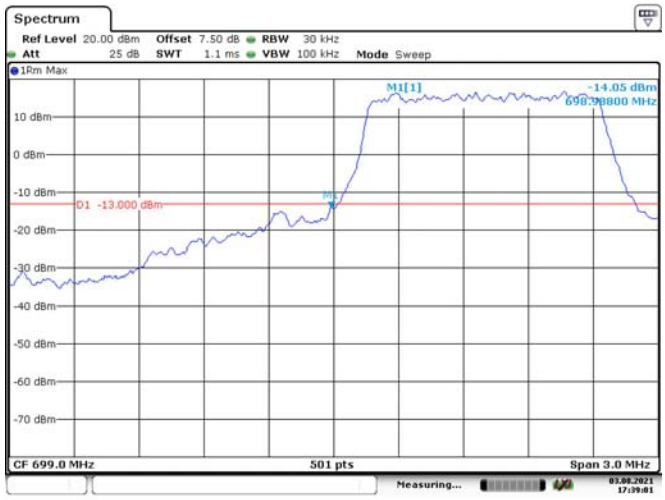


20M, 16QAM, Right Band Edge

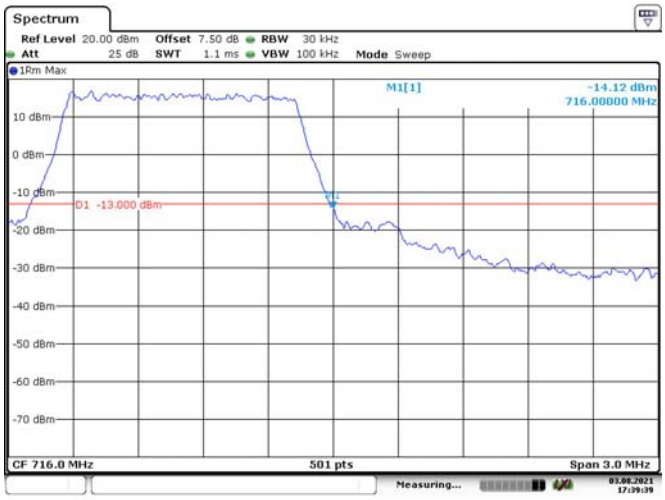


LTE Band1 2:

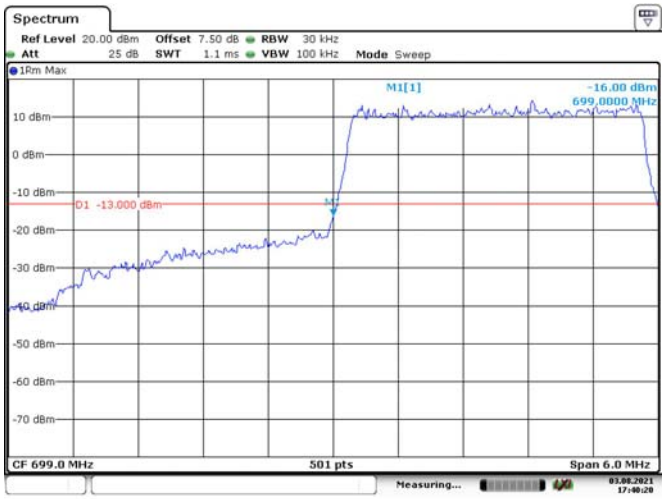
1.4M, QPSK, Left Band Edge



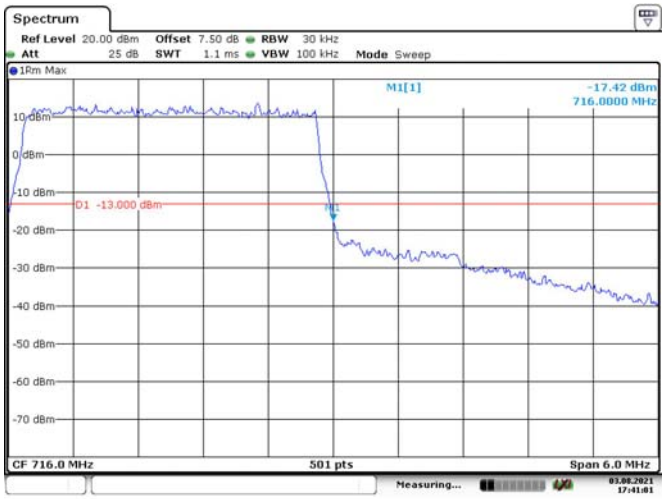
1.4M, QPSK, Right Band Edge



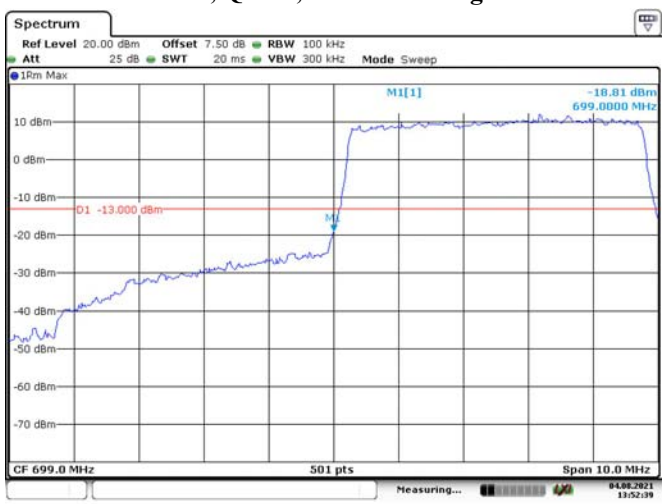
3M, QPSK, Left Band Edge



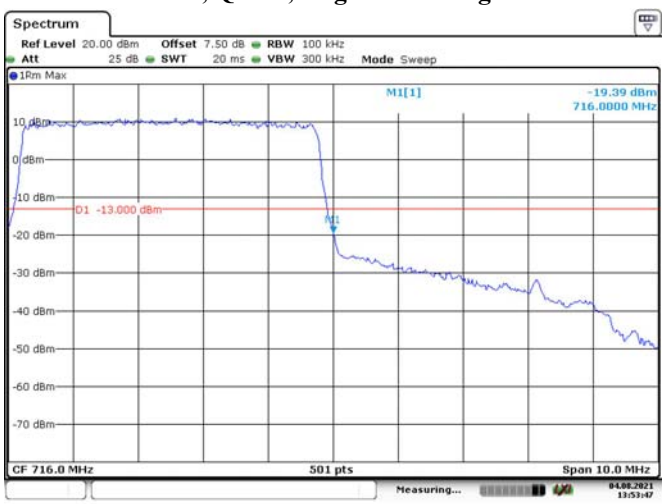
3M, QPSK, Right Band Edge



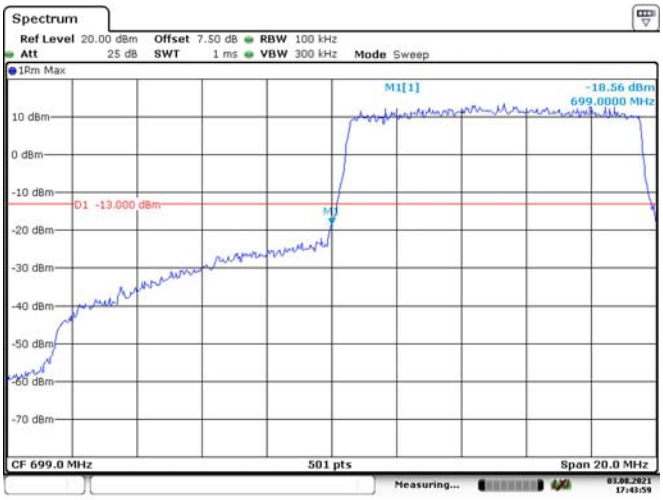
5M, QPSK, Left Band Edge



5M, QPSK, Right Band Edge

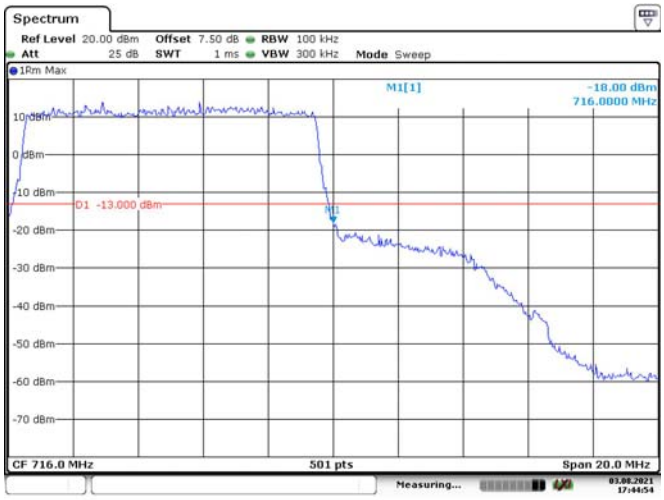


10M, QPSK, Left Band Edge



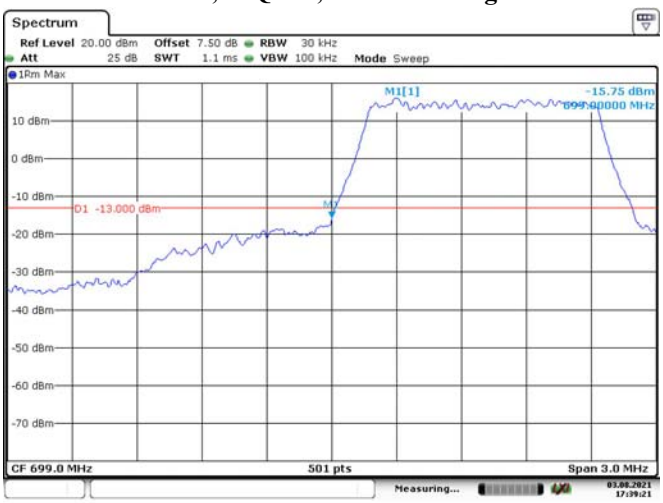
Date: 3.AUG.2021 17:43:59

10M, QPSK, Right Band Edge



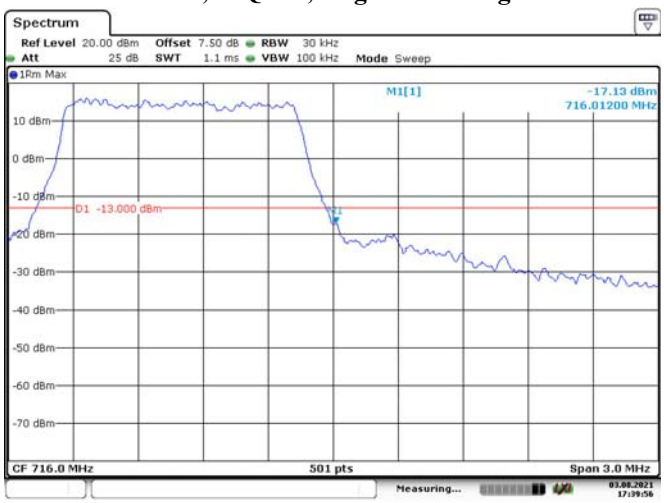
Date: 3.AUG.2021 17:44:55

1.4M, 16QAM, Left Band Edge



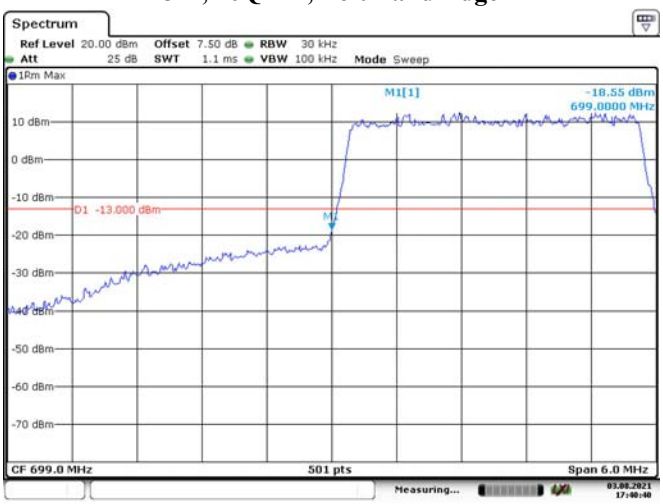
Date: 3.AUG.2021 17:39:21

1.4M, 16QAM, Right Band Edge



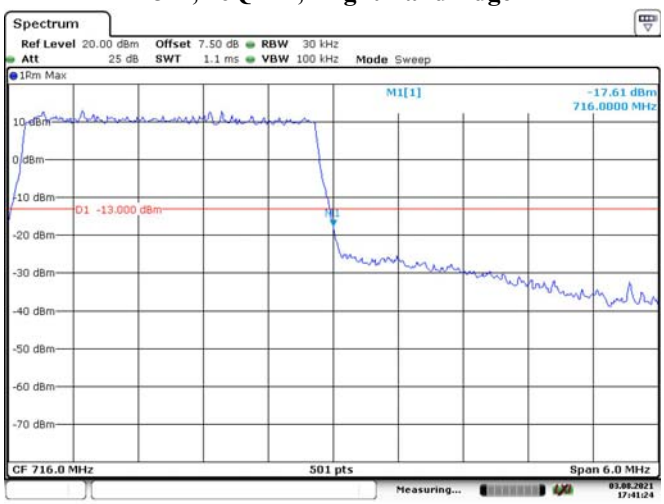
Date: 3.AUG.2021 17:39:56

3M, 16QAM, Left Band Edge



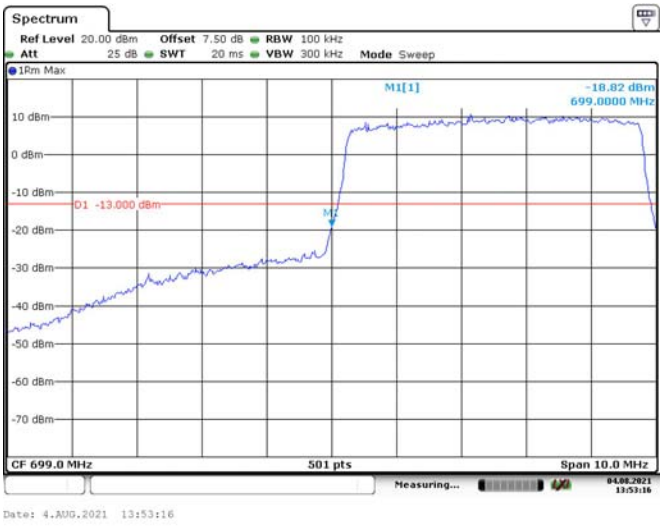
Date: 3.AUG.2021 17:40:41

3M, 16QAM, Right Band Edge

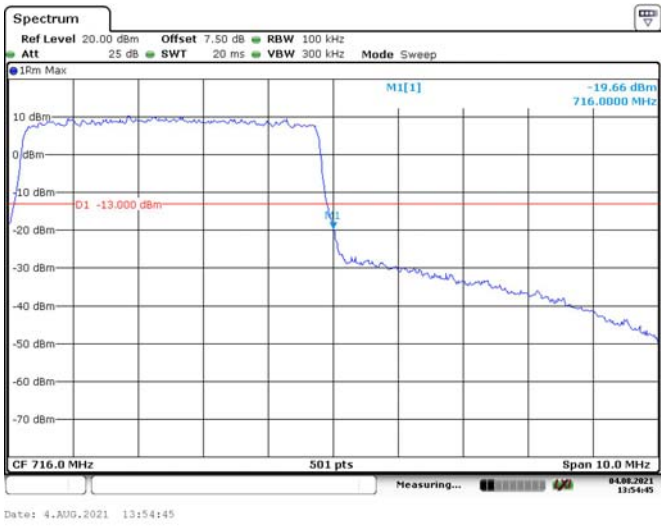


Date: 3.AUG.2021 17:41:25

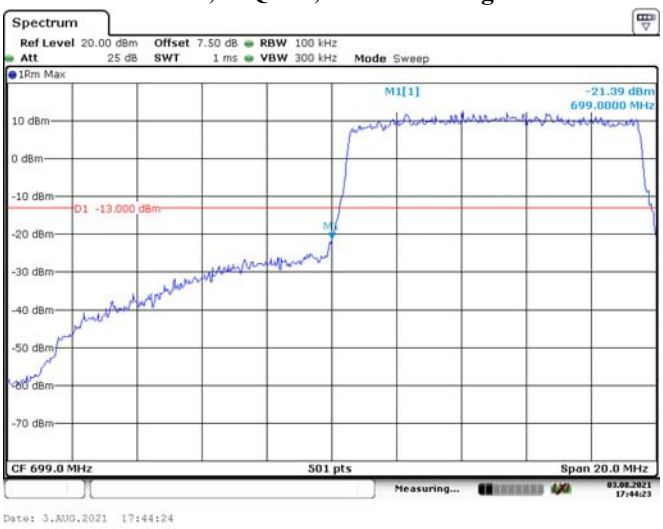
5M, 16QAM, Left Band Edge



5M, 16QAM, Right Band Edge



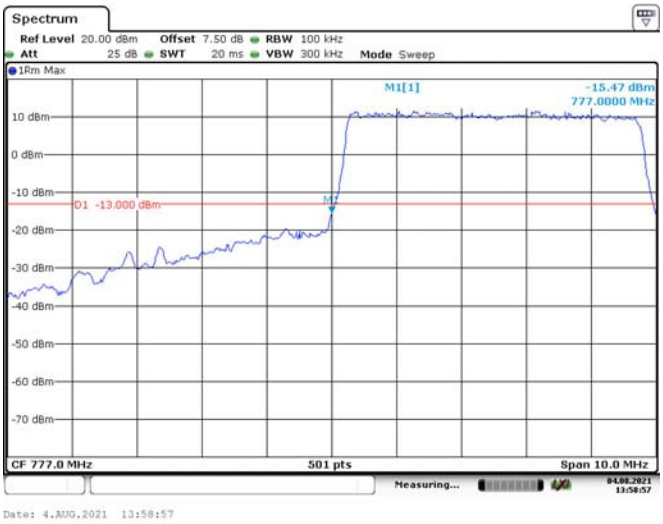
10M, 16QAM, Left Band Edge



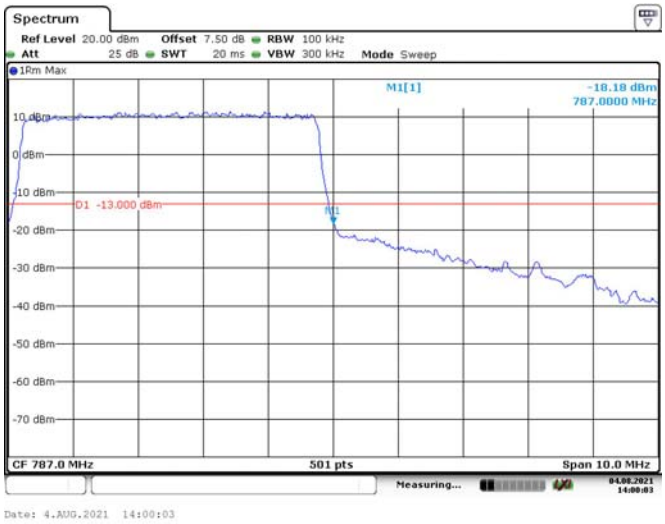
10M, 16QAM, Right Band Edge

LTE Band 13：

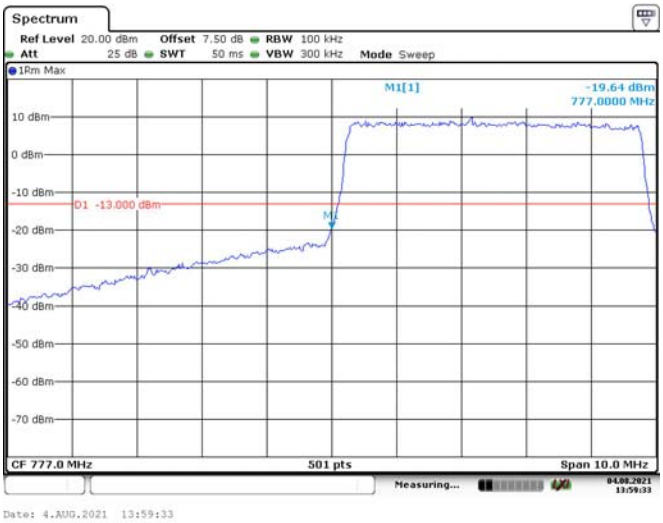
5M, QPSK, Left Band Edge



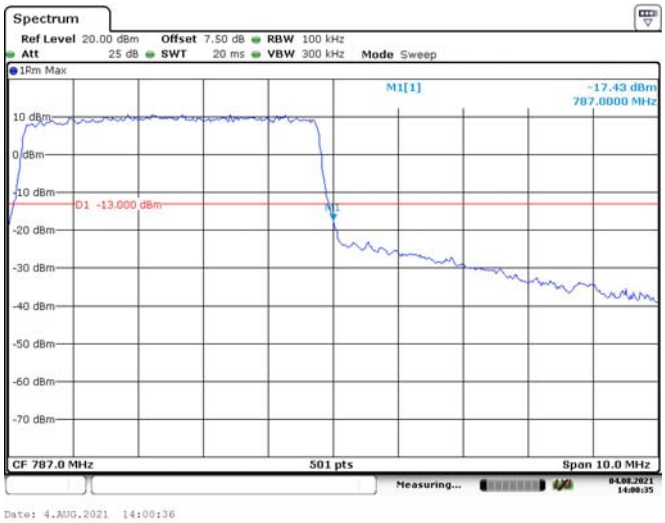
5M, QPSK, Right Band Edge



10M, 16QAM, Left Band Edge

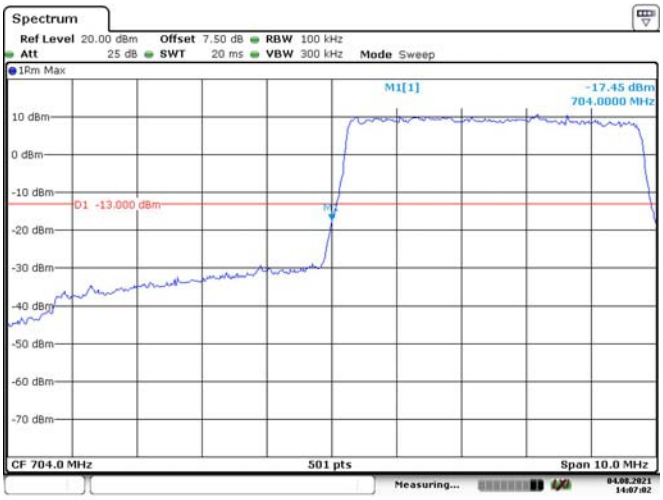


10M, 16QAM, Right Band Edge

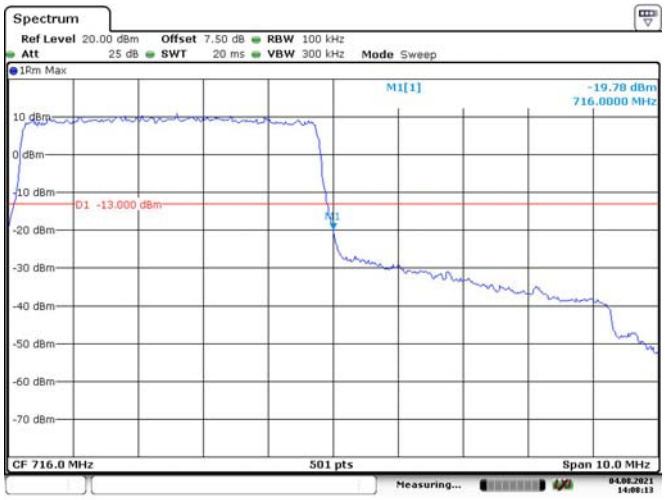


LTE Band 17:

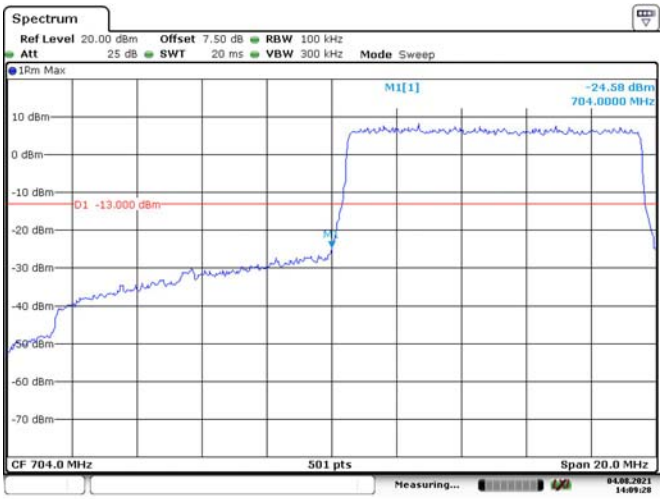
5M, QPSK, Left Band Edge



5M, QPSK, Right Band Edge

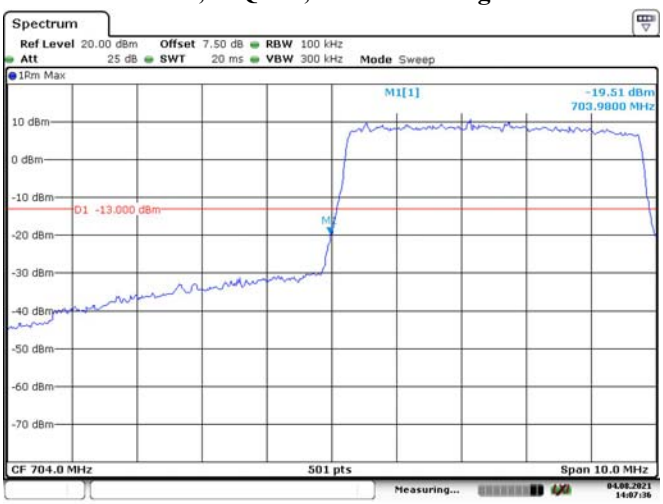


10M, QPSK, Left Band Edge

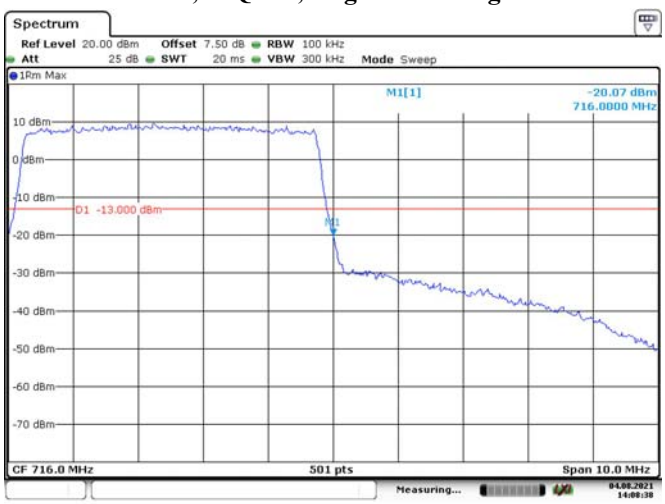


10M, QPSK, Right Band Edge

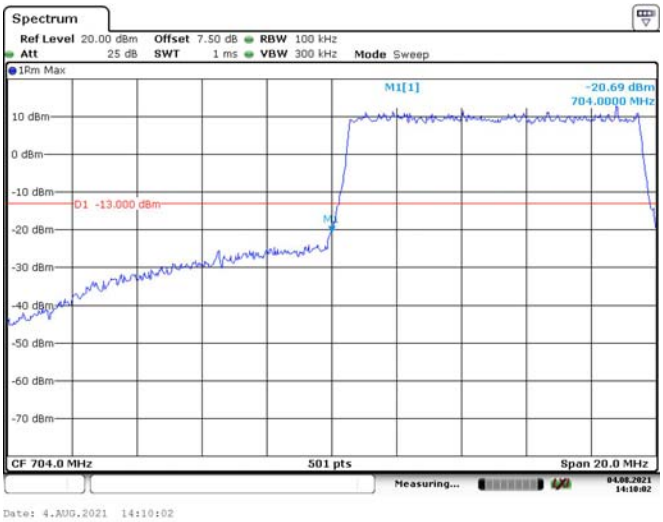
5M, 16QAM, Left Band Edge



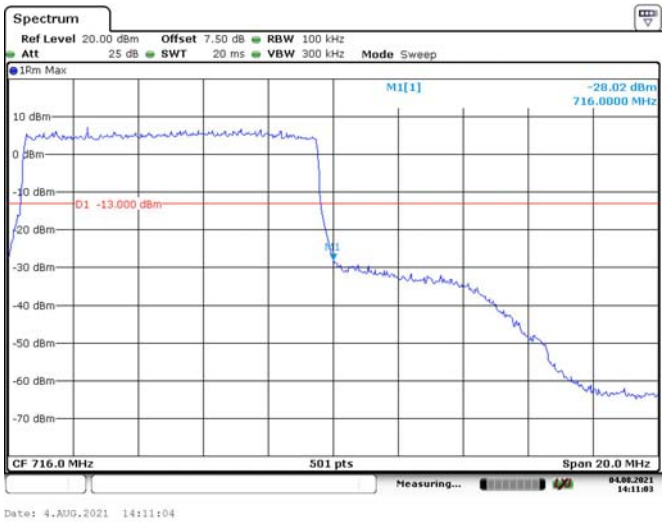
5M, 16QAM, Right Band Edge



10M, 16QAM, Left Band Edge

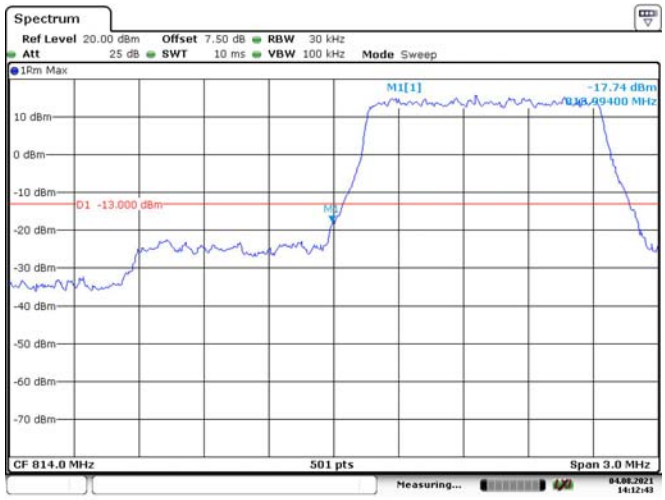


10M, 16QAM, Right Band Edge

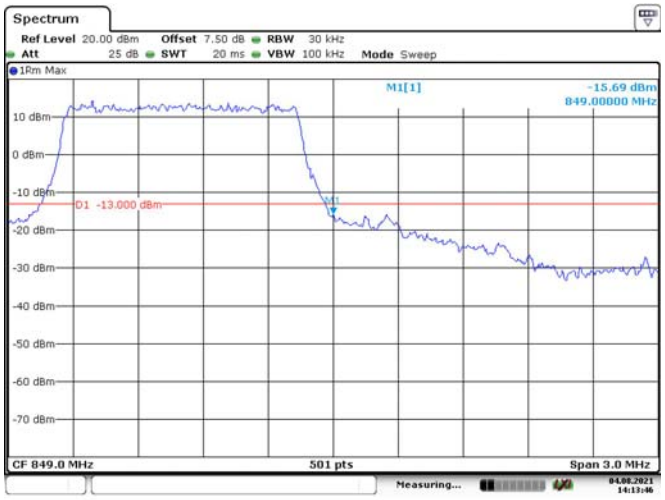


LTE Band 26:

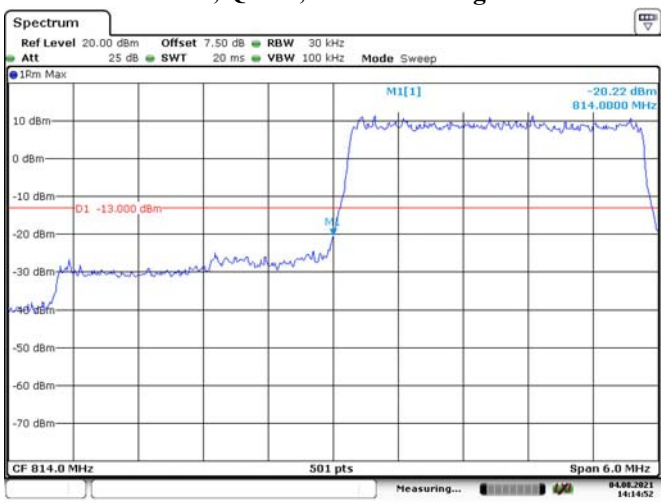
1.4M, QPSK, Left Band Edge



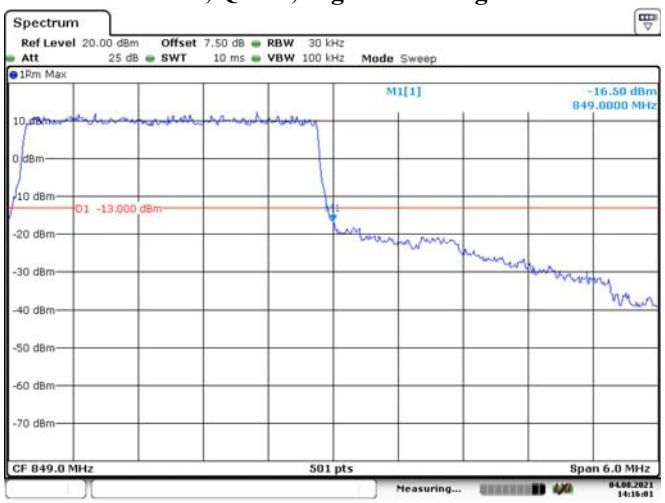
1.4M, QPSK, Right Band Edge



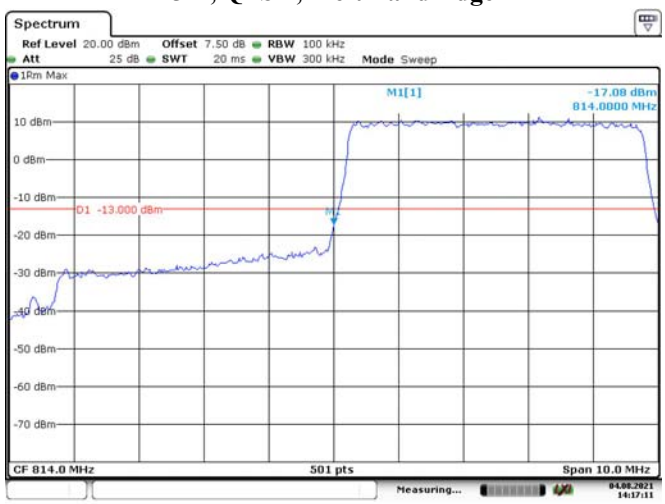
3M, QPSK, Left Band Edge



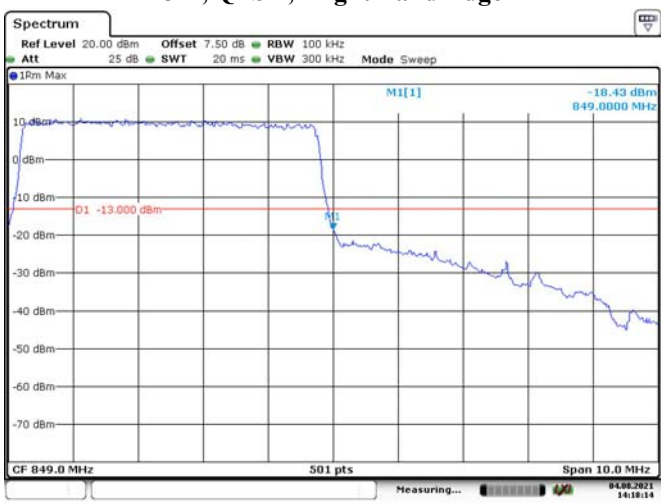
3M, QPSK, Right Band Edge



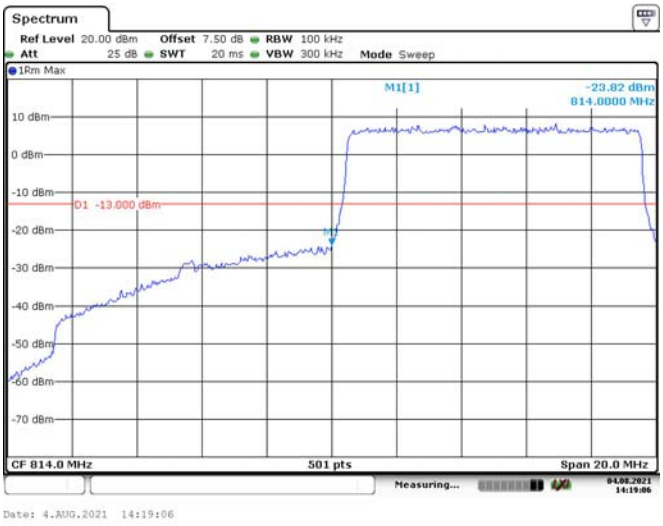
5M, QPSK, Left Band Edge



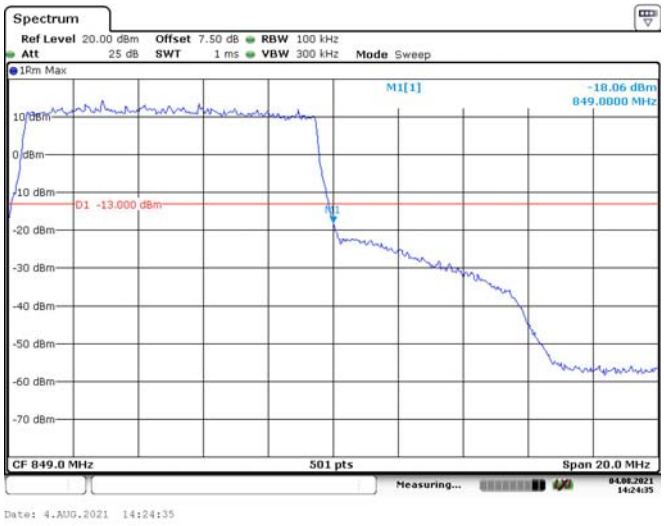
5M, QPSK, Right Band Edge



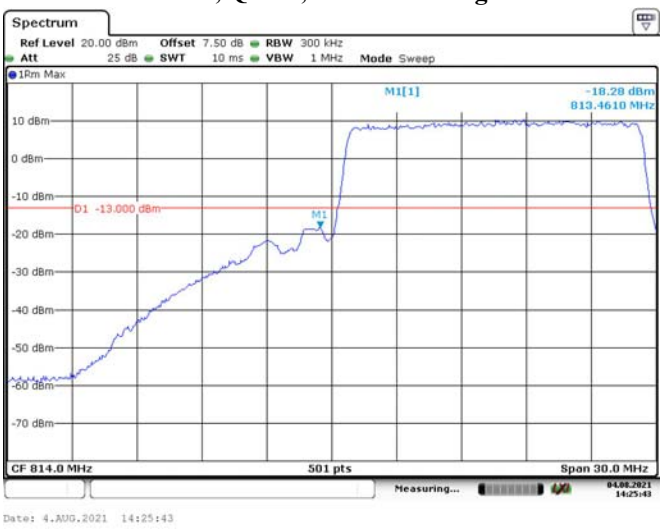
10M, QPSK, Left Band Edge



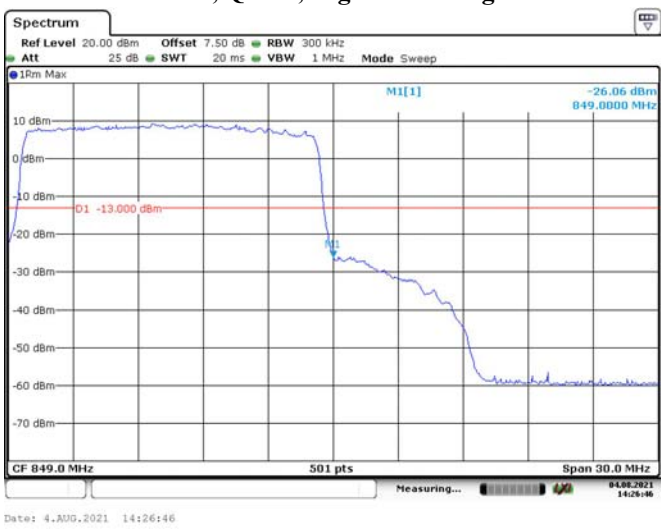
10M, QPSK, Right Band Edge



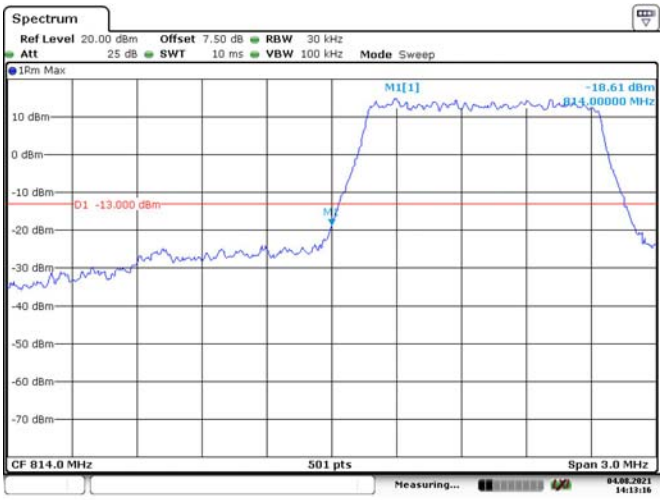
15M, QPSK, Left Band Edge



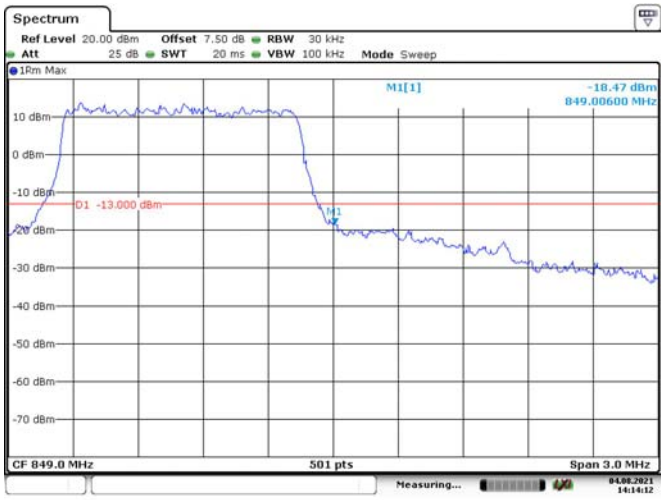
15M, QPSK, Right Band Edge



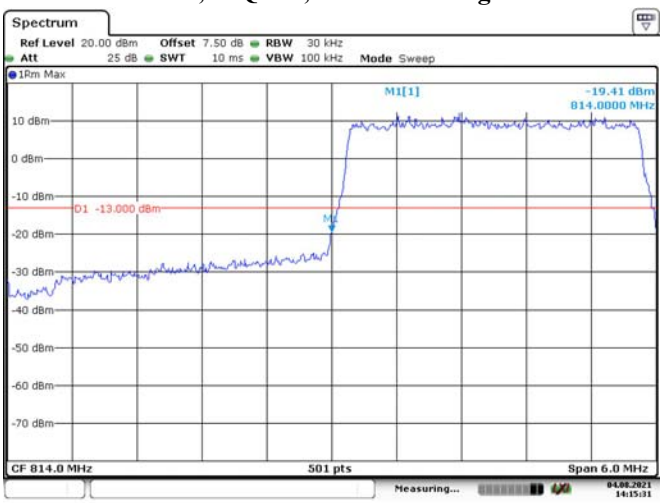
1.4M, 16QAM, Left Band Edge



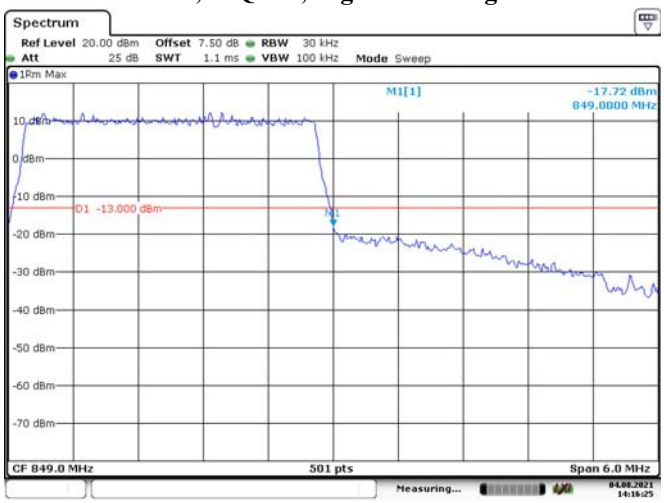
1.4M, 16QAM, Right Band Edge



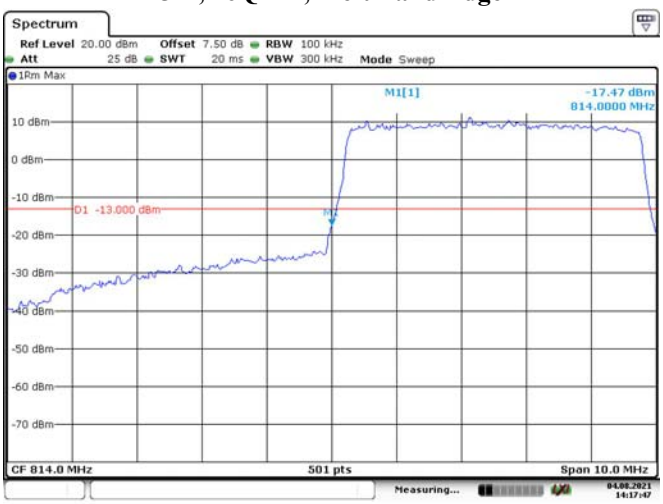
3M, 16QAM, Left Band Edge



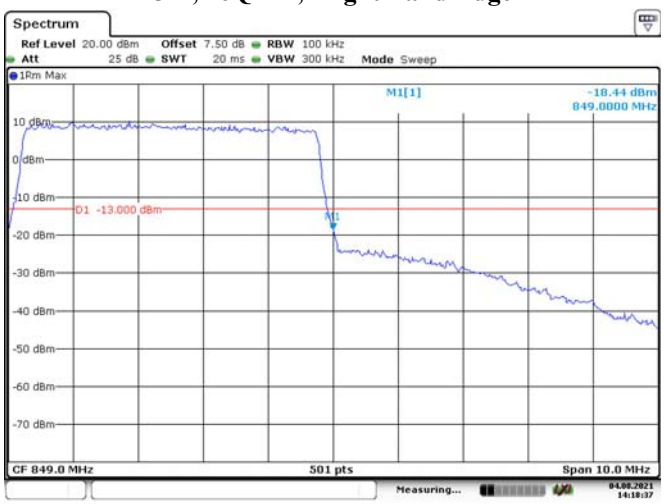
3M, 16QAM, Right Band Edge



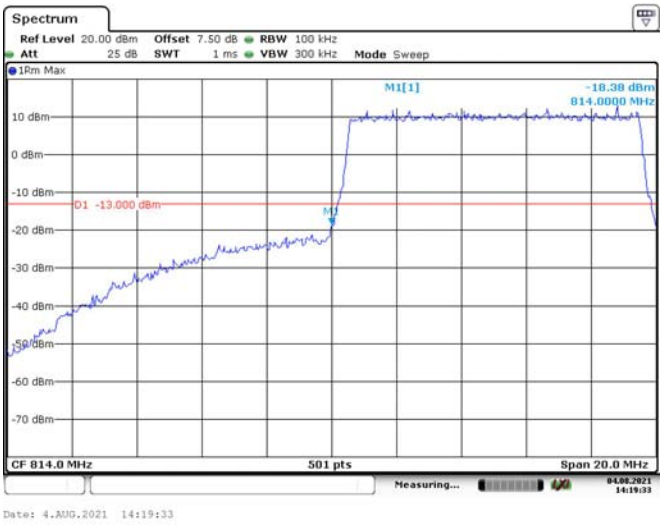
5M, 16QAM, Left Band Edge



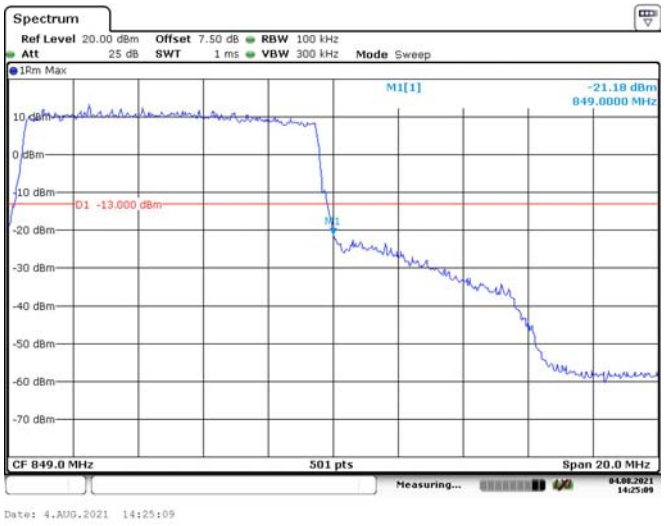
5M, 16QAM, Right Band Edge



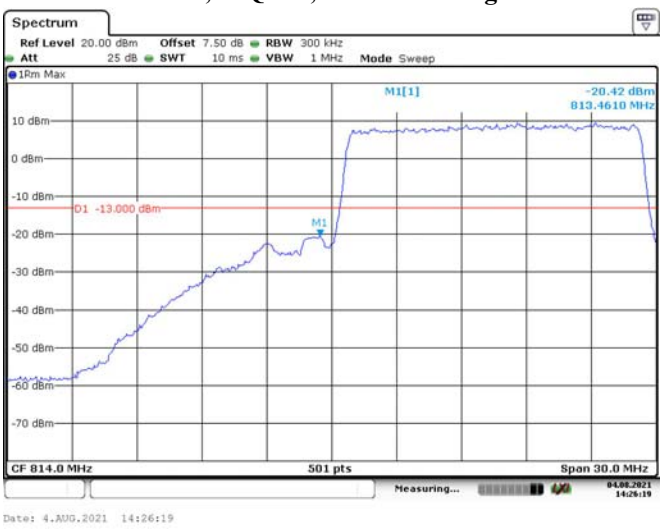
10M, 16QAM, Left Band Edge



10M, 16QAM, Right Band Edge



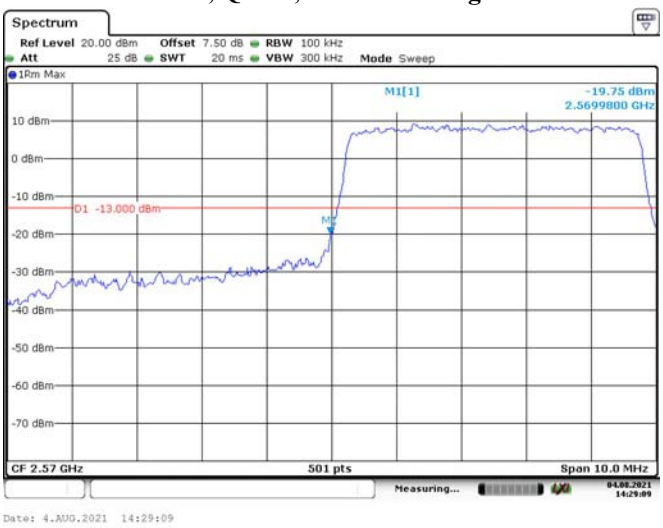
15M, 16QAM, Left Band Edge



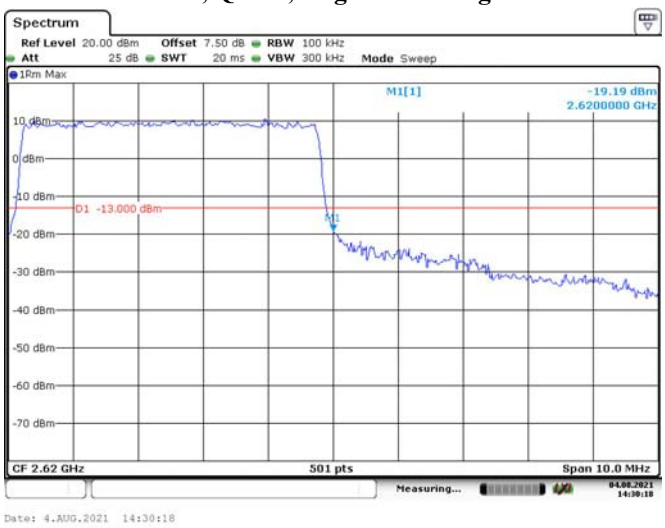
15M, 16QAM, Right Band Edge

LTE Band 38:

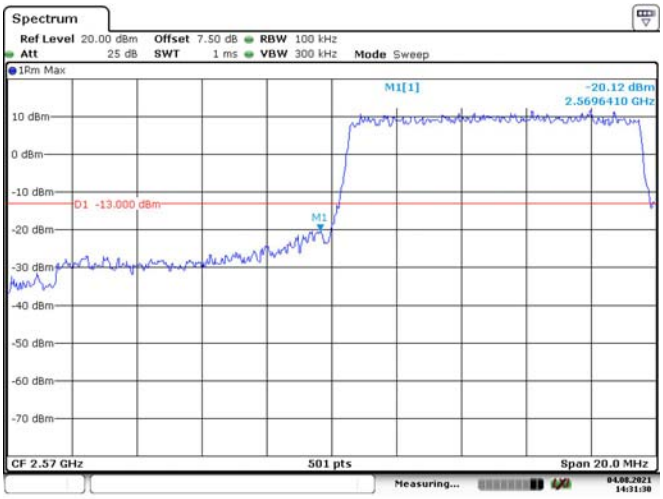
5M, QPSK, Left Band Edge



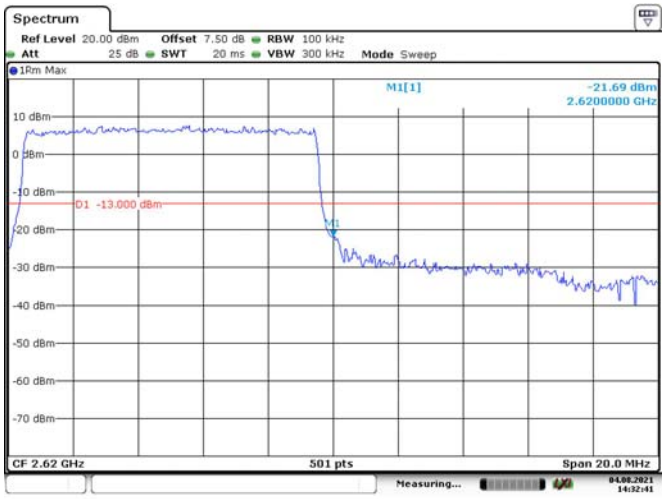
5M, QPSK, Right Band Edge



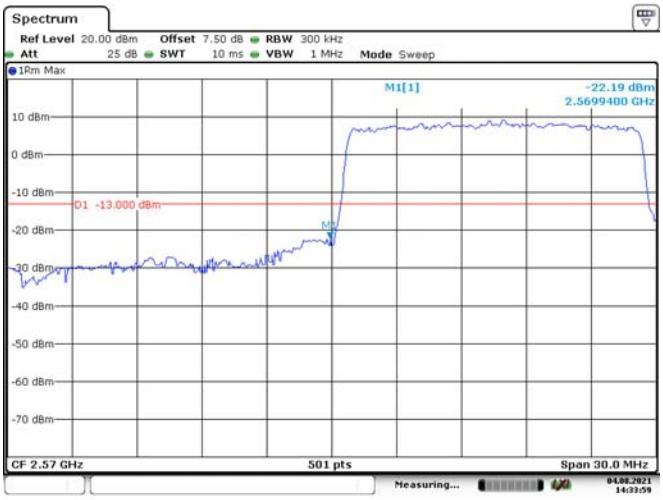
10M, QPSK, Left Band Edge



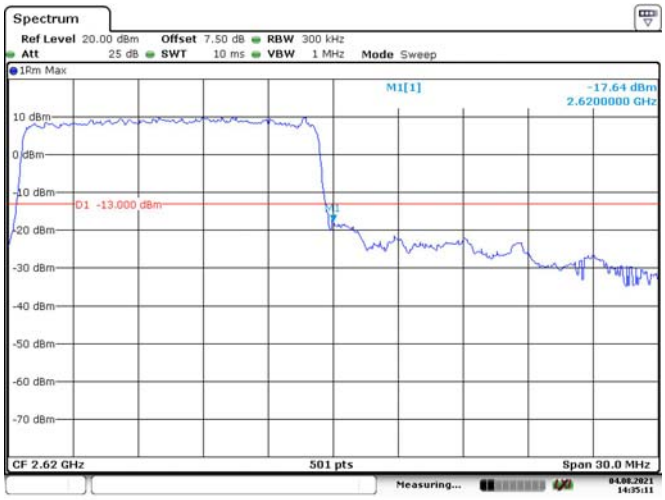
10M, QPSK, Right Band Edge



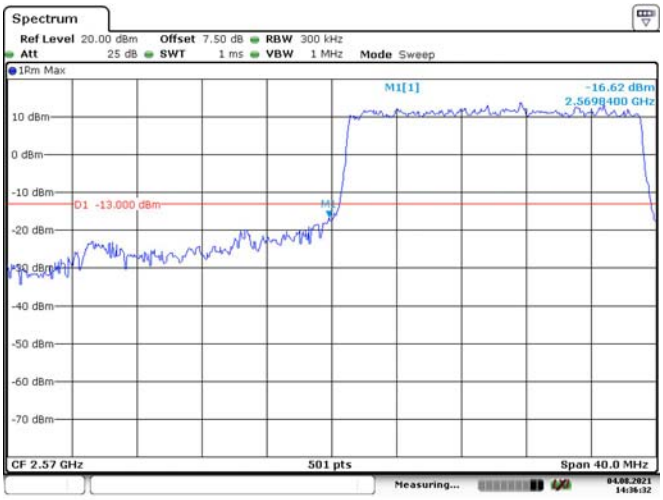
15M, QPSK, Left Band Edge



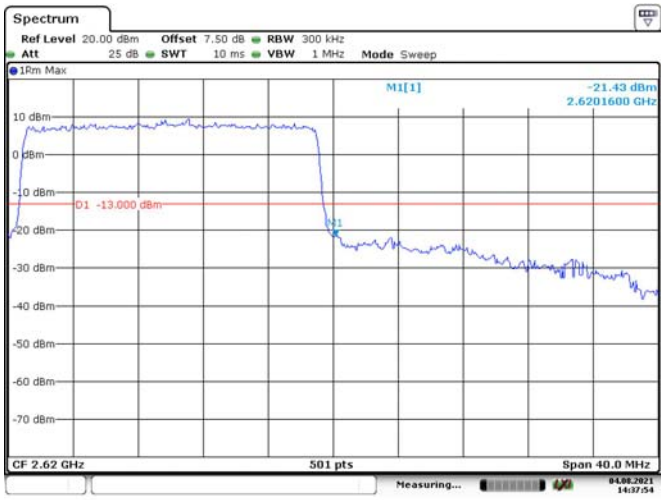
15M, QPSK, Right Band Edge



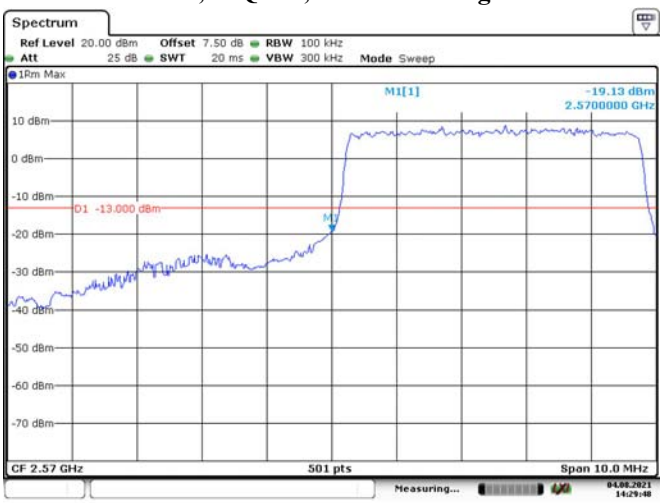
20M, QPSK, Left Band Edge



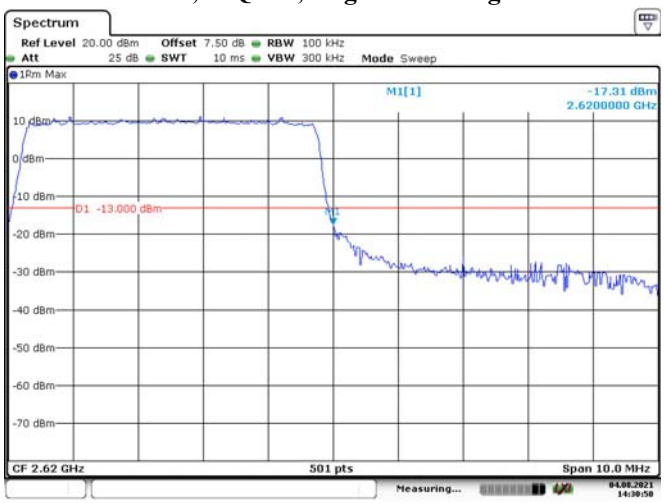
20M, QPSK, Right Band Edge



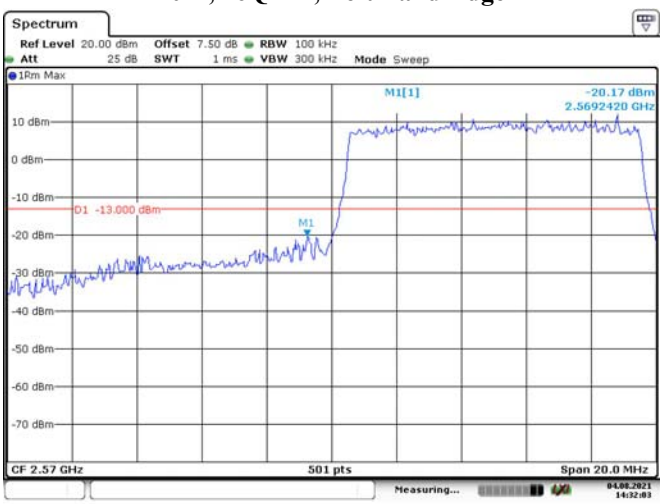
5M, 16QAM, Left Band Edge



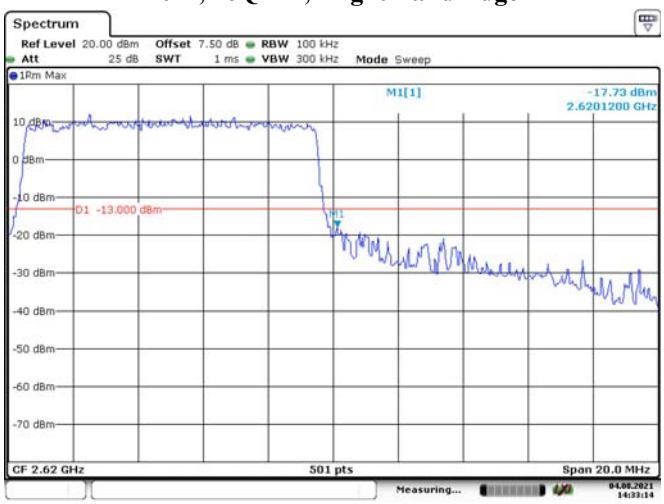
5M, 16QAM, Right Band Edge



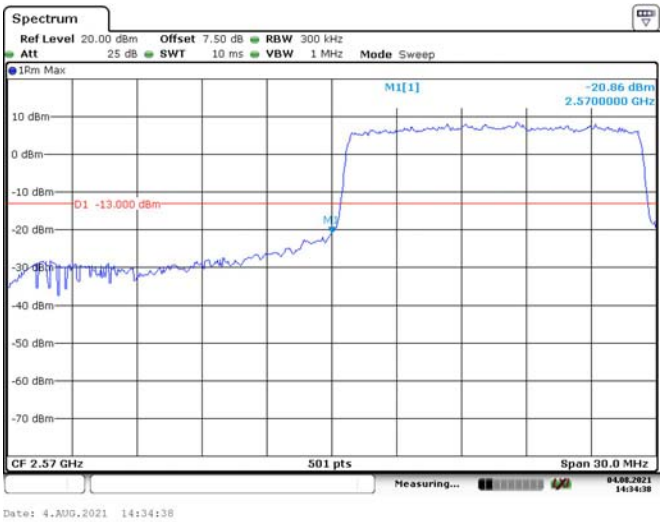
10M, 16QAM, Left Band Edge



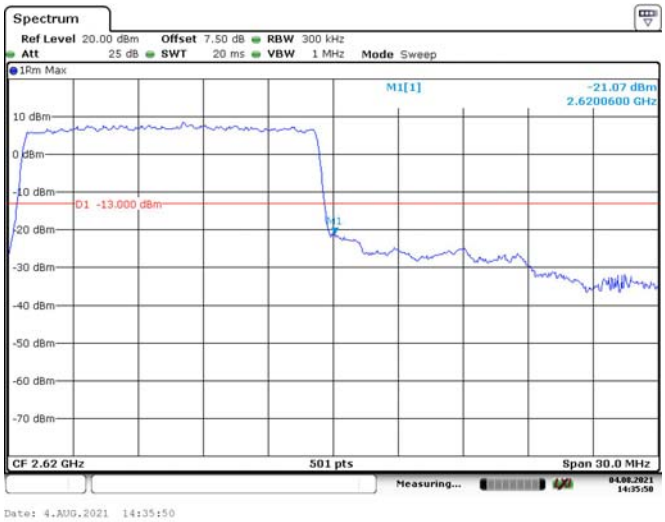
10M, 16QAM, Right Band Edge



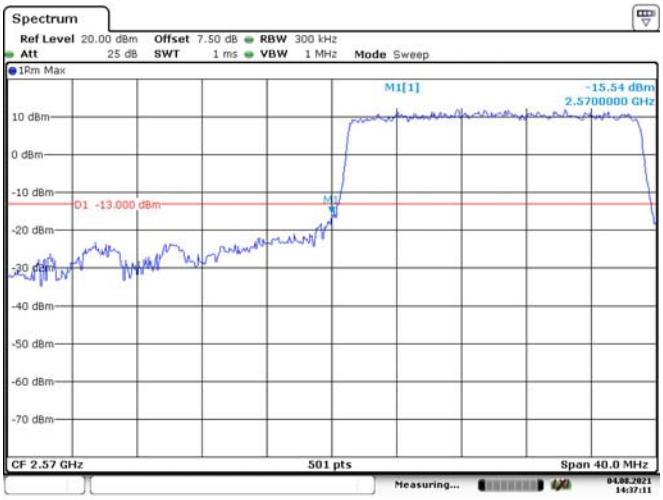
15M, 16QAM, Left Band Edge



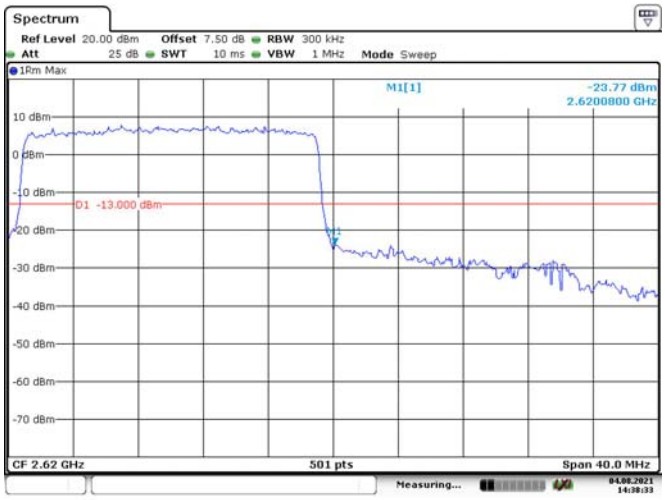
15M, 16QAM, Right Band Edge



20M, 16QAM, Left Band Edge

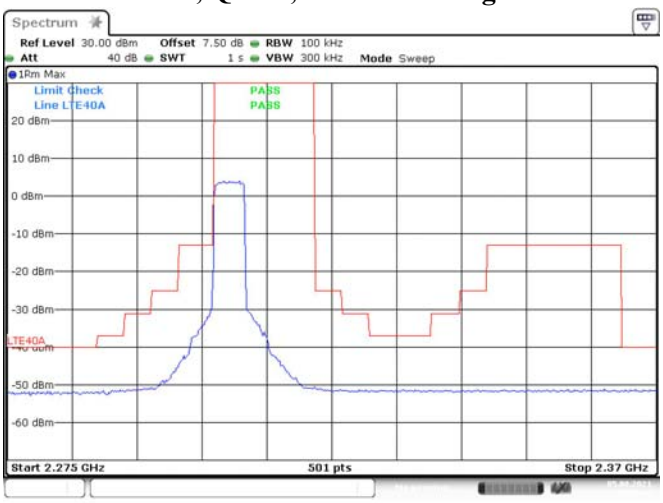


20M, 16QAM, Right Band Edge

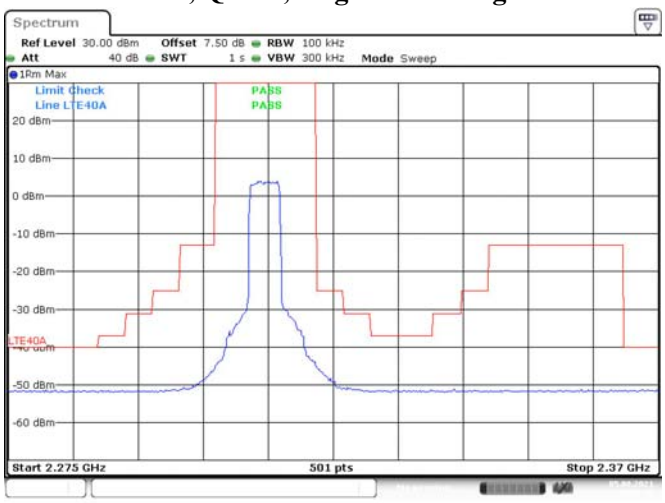


LTE Band 40 Lower:

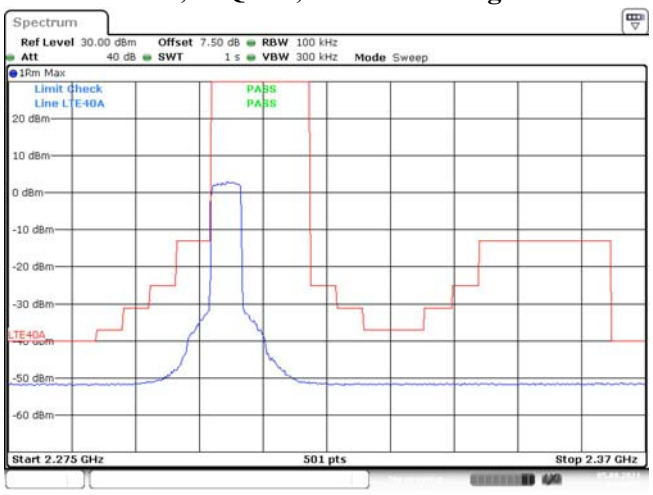
5M, QPSK, Left Band Edge



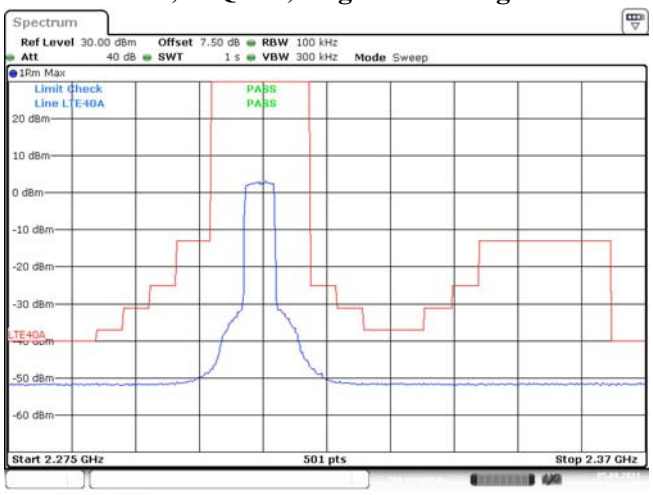
5M, QPSK, Right Band Edge



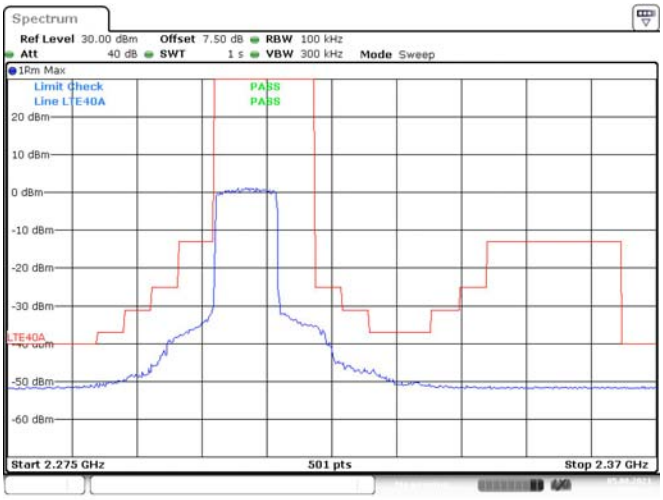
5M, 16QAM, Left Band Edge



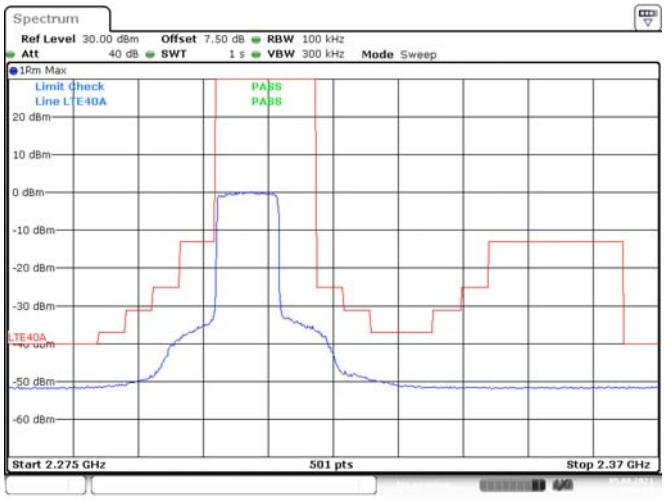
5M, 16QAM, Right Band Edge



10M, QPSK

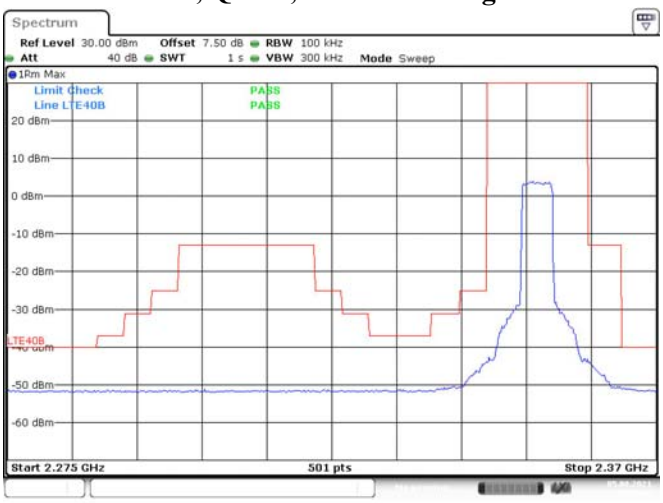


10M, 16QAM

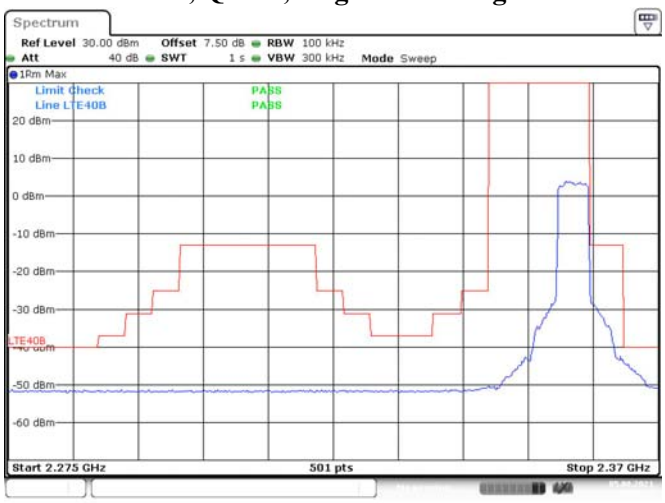


LTE Band 40 Upper:

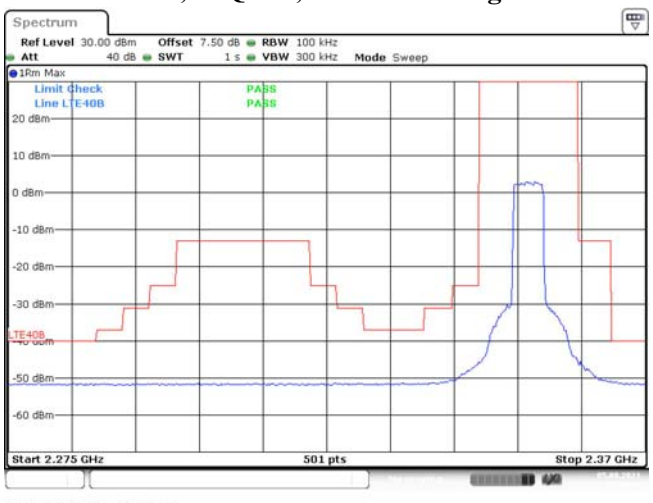
5M, QPSK, Left Band Edge



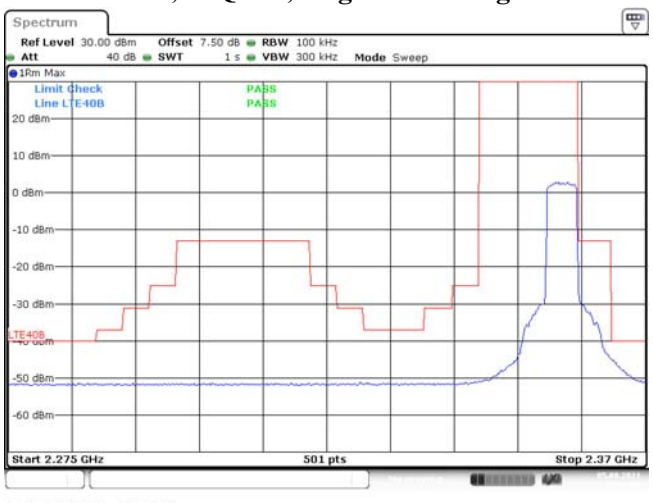
5M, QPSK, Right Band Edge



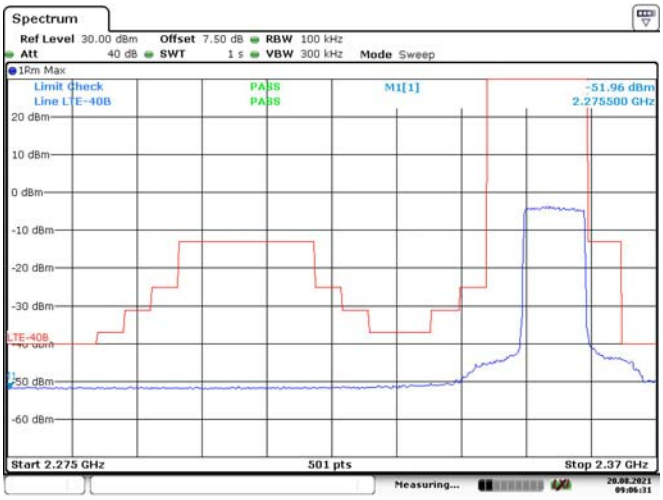
5M, 16QAM, Left Band Edge



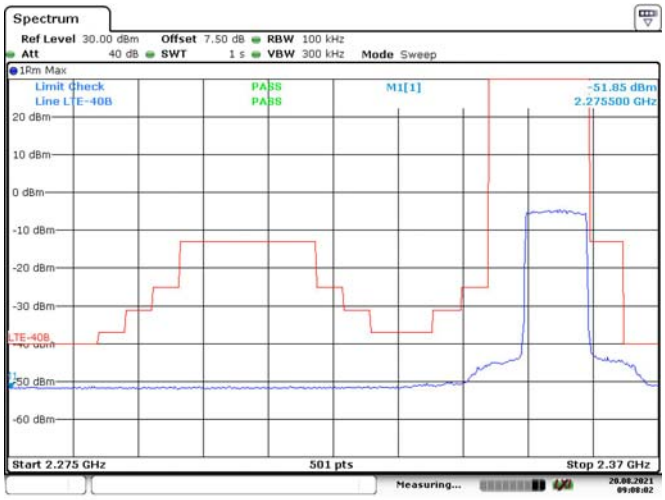
5M, 16QAM, Right Band Edge



10M, QPSK

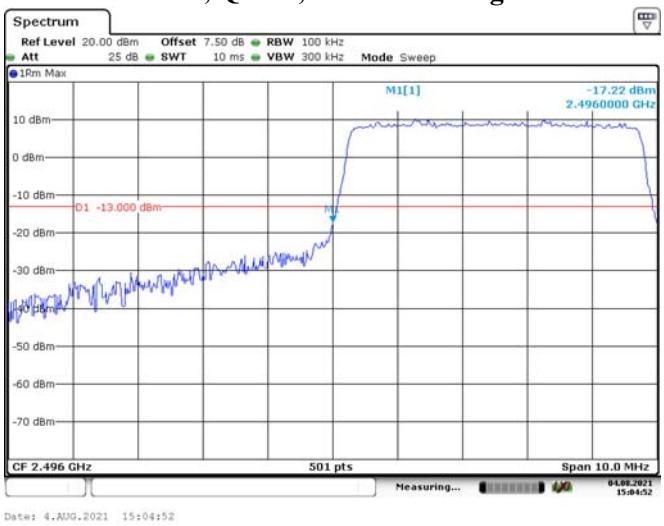


10M, 16QAM

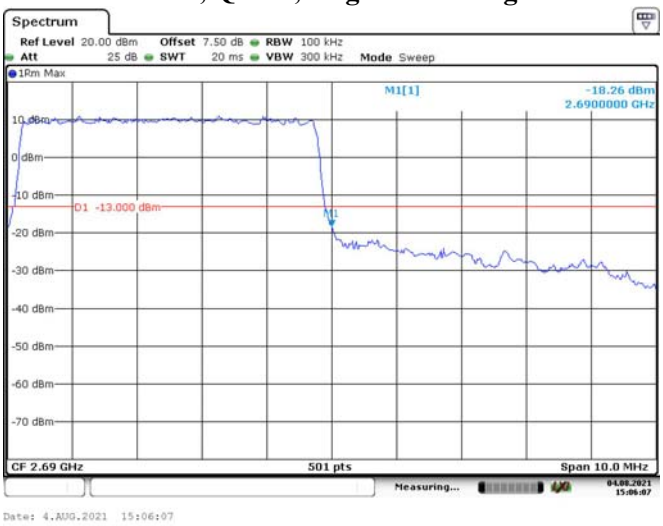


LTE Band 41:

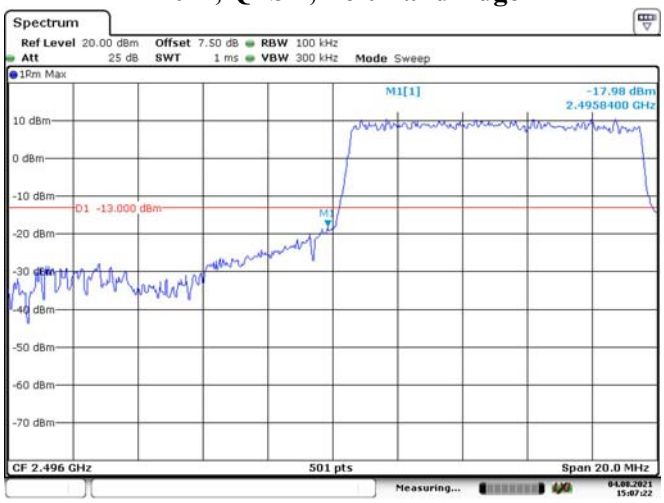
5M, QPSK, Left Band Edge



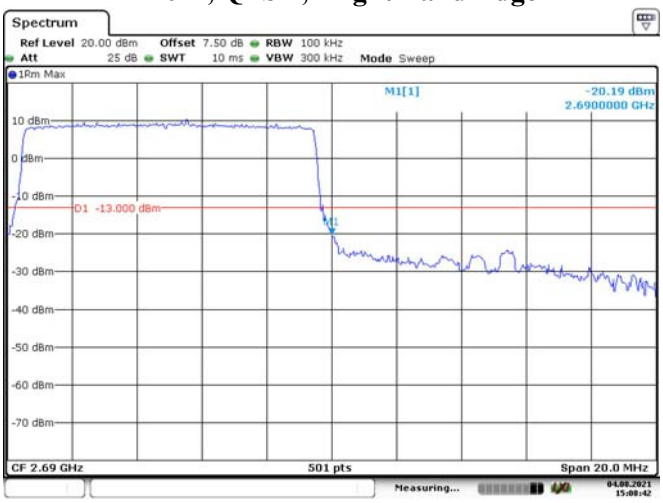
5M, QPSK, Right Band Edge



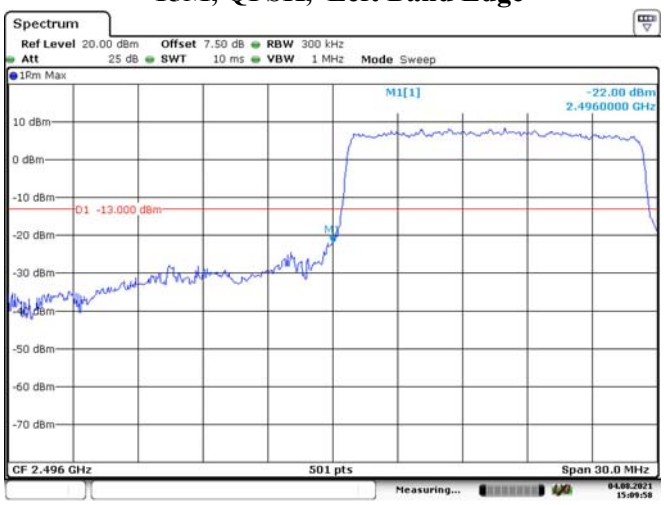
10M, QPSK, Left Band Edge



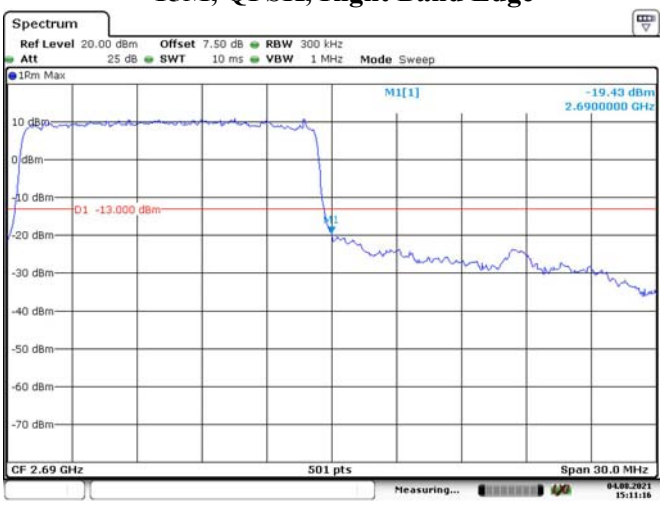
10M, QPSK, Right Band Edge



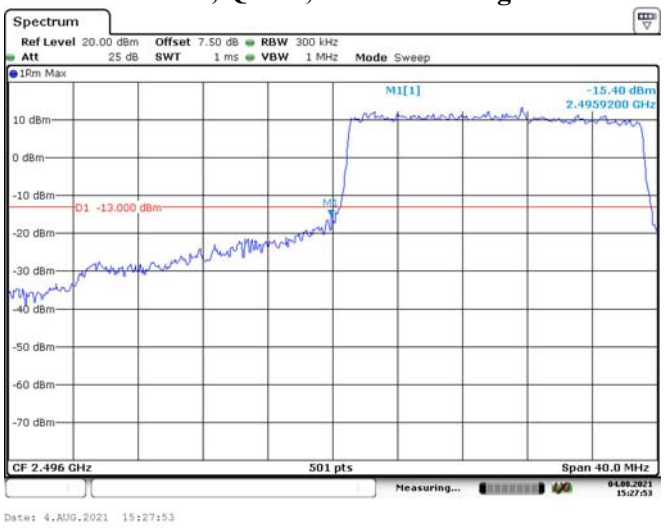
15M, QPSK, Left Band Edge



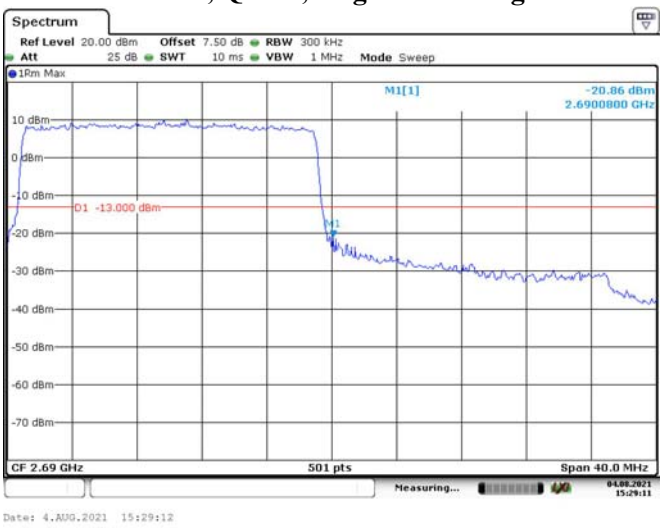
15M, QPSK, Right Band Edge



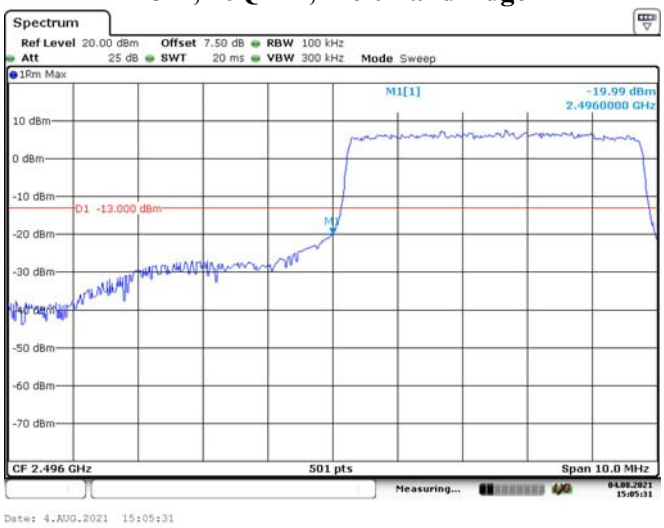
20M, QPSK, Left Band Edge



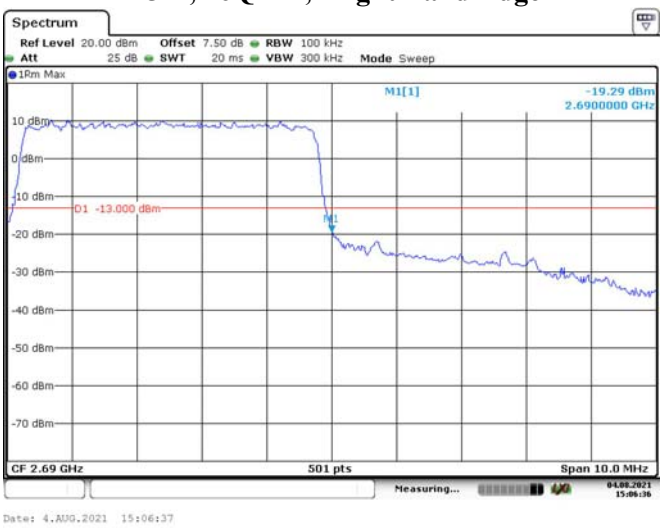
20M, QPSK, Right Band Edge



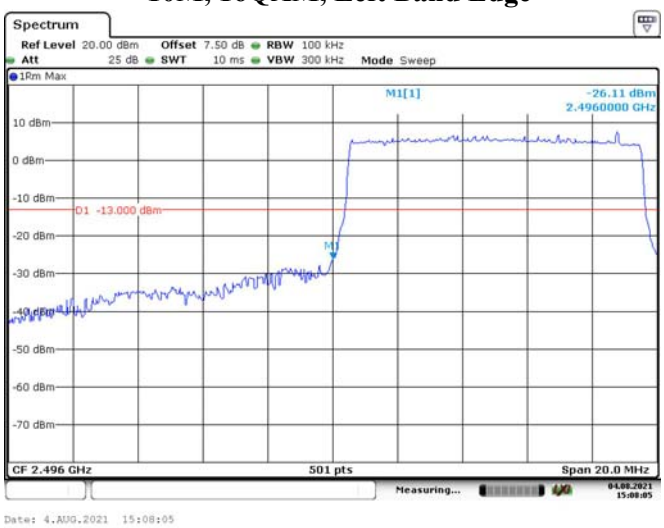
5M, 16QAM, Left Band Edge



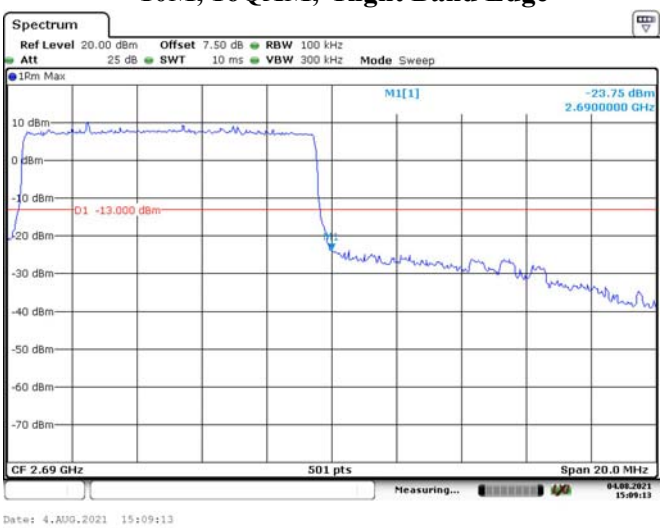
5M, 16QAM, Right Band Edge



10M, 16QAM, Left Band Edge



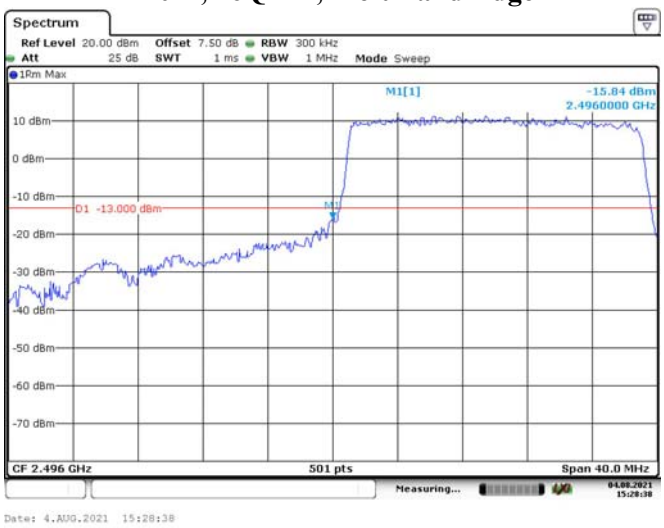
10M, 16QAM, Right Band Edge



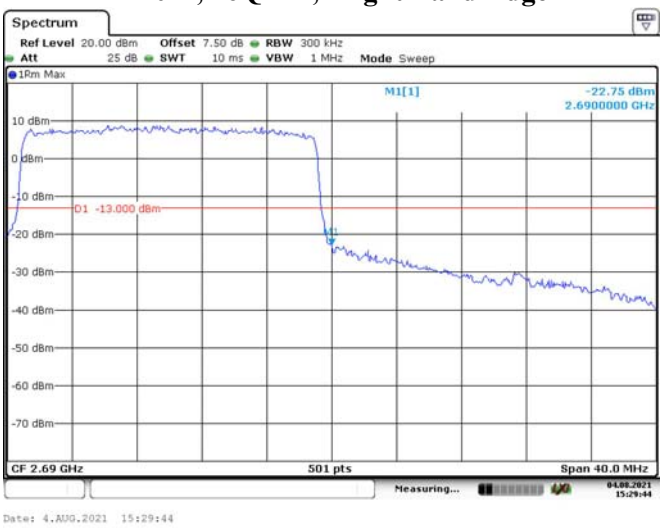
15M, 16QAM, Left Band Edge

15M, 16QAM, Right Band Edge

20M, 16QAM, Left Band Edge



20M, 16QAM, Right Band Edge



FCC §2.1055, §22.355 & §24.235 & §27.54& §90.213 - FREQUENCY STABILITY

Applicable Standard

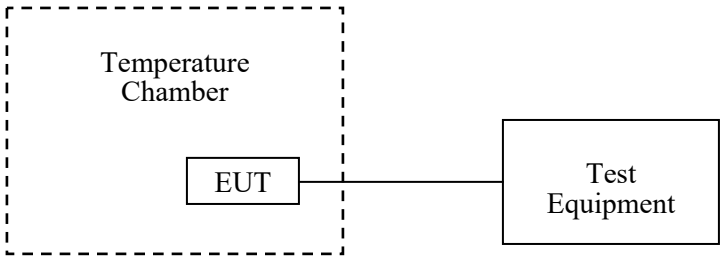
FCC § 2.1055 (a), § 2.1055 (d), §22.355, §24.235, §27.54 and §90.213

Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to communication test set via feed-through attenuators. The EUT was placed inside the temperature chamber. The leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the communication test set.

Frequency Stability vs. Voltage: An external variable DC power supply was connected to the battery terminals of the equipment under test. The voltage was set from 85% to 115% of the nominal value and was then decreased until the transmitter light no longer illuminated; i.e., the battery end point. The output frequency was recorded for each battery voltage.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2021-07-07	2022-07-07
R&S	Spectrum Analyzer	FSV40	101474	2021-07-07	2022-07-07
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41010012	Each time	N/A
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	147473	2020-09-23	2021-09-22
E-Microwave	Blocking Control	EMDCB-00036	0E01201047	Each time	N/A
Unknown	Attenuator	UNAT-3+	15529	Each time	N/A
R&S	Universal Radio Communication Tester	CMU200	106 891	2020-09-12	2021-09-12
ESPEC	Constant temperature and humidity Tester	ESX-4CA	018 463	2021-03-10	2022-03-09
UNI-T	Multimeter	UT39A	M130199938	2021-07-24	2022-07-24
Pro instrument	DC Power Supply	pps3300	3300012	N/A	N/A

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	26.7~29.8 °C
Relative Humidity:	46~62 %
ATM Pressure:	99.3~100.7 kPa
Tester:	Lay Lei
Test Date:	2021-08-03~2021-08-20

Test Result: Compliance.

GSM 850_GMSK, Middle Channel, f_c = 836.6 MHz				
Temperature	**Voltage**	**Frequency Error**	**Frequency Error**	**Limit**
℃	**V_{DC}**	**Hz**	**ppm**	**ppm**
-30	3.85	6	0.00717	2.5
-20		2	0.00239	
-10		5	0.00598	
0		3	0.00359	
10		5	0.00598	
20		7	0.00837	
30		4	0.00478	
40		5	0.00598	
50		3	0.00359	
20	3.6	7	0.00837	
20	4.3	6	0.00717	

PCS 1900_GMSK, Middle Channel, f_c = 1880 MHz				
Temperature	**Voltage**	**Frequency Error**	**Frequency Error**	**Result**
℃	**V_{DC}**	**Hz**	**ppm**	
-30	3.85	15	0.00798	Pass
-20		14	0.00745	
-10		10	0.00532	
0		12	0.00638	
10		10	0.00532	
20		16	0.00851	
30		15	0.00798	
40		14	0.00745	
50		10	0.00532	
20	3.6	13	0.00691	
20	4.3	16	0.00851	

GSM 850_8PSK, Middle Channel, f_c = 836.6MHz				
Temperature	**Voltage**	**Frequency Error**	**Frequency Error**	**Limit**
℃	**V_{DC}**	**Hz**	**ppm**	**ppm**
-30	3.85	6	0.00717	2.5
-20		14	0.01673	
-10		15	0.01793	
0		8	0.00956	
10		13	0.01554	
20		12	0.01434	
30		7	0.00837	
40		14	0.01673	
50		15	0.01793	
20	3.6	8	0.00956	
20	4.3	13	0.01554	

PCS 1900_8PSK, Middle Channel, f_c = 1880 MHz				
Temperature	**Voltage**	**Frequency Error**	**Frequency Error**	**Limit ppm**
℃	**V_{DC}**	**Hz**	**ppm**	
-30	3.85	23	0.01223	2.5
-20		22	0.01170	
-10		18	0.00957	
0		20	0.01064	
10		24	0.01277	
20		22	0.01170	
30		18	0.00957	
40		16	0.00851	
50		12	0.00638	
20	3.6	15	0.00798	
20	4.3	17	0.00904	

WCDMA Band II: R99

Middle Channel, f_c = 1880.0 MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit ppm
℃	V_{DC}	Hz	ppm	
-30	3.85	-21	-0.01117	2.5
-20		-17	-0.00904	
-10		-25	-0.01330	
0		-23	-0.01223	
10		-18	-0.00957	
20		-22	-0.01170	
30		-15	-0.00798	
40		-16	-0.00851	
50		-17	-0.00904	
20	3.6	-13	-0.00691	
20	4.3	-15	-0.00798	

WCDMA Band IV: R99

Rel 99_Middle Channel					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	℃	MHz	MHz	MHz	MHz
3.85	-30	1710.5271	1710	1754.4654	1755
	-20	1710.5276		1754.4668	
	-10	1710.5282		1754.4671	
	0	1710.5273		1754.4677	
	10	1710.5291		1754.4692	
	20	1710.5282		1754.4713	
	30	1710.5285		1754.4722	
	40	1710.5273		1754.4734	
	50	1710.5258		1754.4772	
3.5	20	1710.5287		1754.4761	
4.2	20	1710.5284		1754.4772	

WCDMA Band Ⅴ: R99

Middle Channel, f_c = 836.6 MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
℃	V_{DC}	Hz	ppm	ppm
-30	3.85	-14	-0.01673	2.5
-20		-12	-0.01434	
-10		-8	-0.00956	
0		-14	-0.01673	
10		-13	-0.01554	
20		-16	-0.01913	
30		-13	-0.01554	
40		-8	-0.00956	
50		-12	-0.01434	
20	3.6	-10	-0.01195	
20	4.3	-15	-0.01793	

LTE Band 2:

QPSK, Channel Bandwidth:20MHz Middle Channel, f_c = 1880 MHz				
Temperature	**Voltage**	**Frequency Error**	**Frequency Error**	**Limit ppm**
℃	**V_{DC}**	**Hz**	**ppm**	
-30	3.85	-4.55	-0.0024	2.5
-20		7.43	0.004	
-10		-8.10	-0.0043	
0		-8.84	-0.0047	
10		-7.63	-0.0041	
20		-6.09	-0.0032	
30		7.48	0.004	
40		6.20	0.0033	
50		-5.98	-0.0032	
20	3.6	-5.06	-0.0027	
20	4.3	5.68	0.003	

16QAM, Channel Bandwidth:20MHz Middle Channel, f_c =1880 MHz				
Temperature	**Voltage**	**Frequency Error**	**Frequency Error**	**Limit ppm**
℃	**V_{DC}**	**Hz**	**ppm**	
-30	3.85	-4.79	-0.0025	2.5
-20		-6.90	-0.0037	
-10		5.76	0.0031	
0		-9.19	-0.0049	
10		-6.29	-0.0033	
20		5.20	0.0028	
30		-7.37	-0.0039	
40		-6.19	-0.0033	
50		-7.51	-0.004	
20	3.6	9.88	0.0053	
20	4.3	-7.79	-0.0041	

LTE Band 4

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	℃	MHz	MHz	MHz	MHz
3.85	-30	1710.5288	1710	1754.4734	1755
	-20	1710.5286		1754.4726	
	-10	1710.5287		1754.4717	
	0	1710.5286		1754.4716	
	10	1710.5295		1754.4725	
	20	1710.5289		1754.4711	
	30	1710.5282		1754.4742	
	40	1710.5283		1754.4727	
	50	1710.5288		1754.4718	
3.6	20	1710.5257		1754.4737	
4.3	20	1710.5268		1754.4715	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	℃	MHz	MHz	MHz	MHz
3.85	-30	1710.5285	1710	1754.4717	1755
	-20	1710.5282		1754.4714	
	-10	1710.5286		1754.4715	
	0	1710.5283		1754.4716	
	10	1710.5281		1754.4717	
	20	1710.5289		1754.4711	
	30	1710.5287		1754.4716	
	40	1710.5287		1754.4712	
	50	1710.5282		1754.4712	
3.6	20	1710.5283		1754.4727	
4.3	20	1710.5287		1754.4725	

LTE Band 5:

Middle Channel, f_c = 836.5 MHz, Channel Bandwidth:10MHz				
Temperature	**Voltage**	**Frequency Error**	**Frequency Error**	**Limit**
℃	**V_{DC}**	**Hz**	**ppm**	**ppm**
-30	3.85	-1.34	-0.0016	2.5
-20		-5.63	-0.0067	
-10		-5.04	-0.0060	
0		5.17	0.0062	
10		6.74	0.0081	
20		5.45	0.0065	
30		-6.39	-0.0076	
40		9.91	0.0118	
50		-8.78	-0.0105	
20	3.6	-9.98	-0.0119	
20	4.3	-7.96	-0.0095	

Middle Channel, f_c = 836.5 MHz, Channel Bandwidth:10MHz				
Temperature	**Voltage**	**Frequency Error**	**Frequency Error**	**Limit**
℃	**V_{DC}**	**Hz**	**ppm**	**ppm**
-30	3.85	-1.00	-0.0012	2.5
-20		-5.02	-0.0060	
-10		-9.15	-0.0109	
0		-9.50	-0.0114	
10		5.97	0.0071	
20		6.76	0.0081	
30		7.95	0.0095	
40		-8.24	-0.0099	
50		-9.35	-0.0112	
20	3.6	-7.30	-0.0087	
20	4.3	5.78	0.0069	

LTE Band 7

QPSK, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	2500.5275	2500	2569.4715	2570
	-20	2500.5281		2569.4712	
	-10	2500.5274		2569.4715	
	0	2500.5272		2569.4714	
	10	2500.5283		2569.4717	
	20	2500.5289		2569.4711	
	30	2500.5272		2569.4724	
	40	2500.5277		2569.4723	
	50	2500.5272		2569.4718	
3.6	20	2500.5286		2569.4717	
4.3	20	2500.5287		2569.4719	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	2500.5287	2500	2569.4712	2570
	-20	2500.5283		2569.4717	
	-10	2500.5292		2569.4726	
	0	2500.5281		2569.4728	
	10	2500.5282		2569.4737	
	20	2500.5289		2569.4711	
	30	2500.5285		2569.4719	
	40	2500.5273		2569.4712	
	50	2500.5278		2569.4714	
3.6	20	2500.5292		2569.4722	
4.3	20	2500.5285		2569.4724	

LTE Band 12

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	℃	MHz	MHz	MHz	MHz
3.85	-30	699.5691	699	715.4715	716
	-20	699.5683		715.4718	
	-10	699.5685		715.4717	
	0	699.5681		715.4714	
	10	699.5675		715.4724	
	20	699.5689		715.4711	
	30	699.5682		715.4717	
	40	699.5679		715.4713	
	50	699.5683		715.4717	
3.6	20	699.5685		715.4714	
4.3	20	699.5681		715.4725	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	℃	MHz	MHz	MHz	MHz
3.85	-30	699.5681	699	715.4717	716
	-20	699.5682		715.4715	
	-10	699.5684		715.4712	
	0	699.5696		715.4717	
	10	699.5684		715.4714	
	20	699.5689		715.4711	
	30	699.5687		715.4714	
	40	699.5679		715.4717	
	50	699.5685		715.4712	
3.6	20	699.5687		715.4716	
4.3	20	699.5682		715.4717	

LTE Band 13

QPSK, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	777.5282	777	786.4728	787
	-20	777.5284		786.4734	
	-10	777.5282		786.4728	
	0	777.5281		786.4724	
	10	777.5287		786.4718	
	20	777.5289		786.4711	
	30	777.5281		786.4717	
	40	777.5287		786.4725	
	50	777.5287		786.4775	
3.6	20	777.5285		786.4728	
4.3	20	777.5283		786.4753	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	777.5282	777	786.4728	787
	-20	777.5292		786.4737	
	-10	777.5287		786.4726	
	0	777.5282		786.4758	
	10	777.5284		786.4747	
	20	777.5289		786.4711	
	30	777.5282		786.4717	
	40	777.5281		786.4728	
	50	777.5287		786.4735	
3.6	20	777.5284		786.4714	
4.3	20	777.5287		786.4717	

LTE Band 17:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	704.4895	704	715.5125	716
	-20	704.4887		715.5147	
	-10	704.4846		715.5156	
	0	704.4843		715.5127	
	10	704.4898		715.5147	
	20	704.4890		715.5110	
	30	704.4897		715.5127	
	40	704.4895		715.5126	
	50	704.4887		715.5145	
3.6	20	704.4882		715.5146	
4.3	20	704.4883		715.5172	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	704.5282	704	715.5117	716
	-20	704.5287		715.5125	
	-10	704.5281		715.5126	
	0	704.5282		715.5118	
	10	704.5287		715.5113	
	20	704.5289		715.5110	
	30	704.5285		715.5117	
	40	704.5284		715.5112	
	50	704.5286		715.5135	
3.6	20	704.5287		715.5146	
4.3	20	704.5281		715.5127	

LTE Band 26

Middle Channel, f_c = 836.5 MHz, Channel Bandwidth:10MHz				
Temperature	**Voltage**	**Frequency Error**	**Frequency Error**	**Limit**
℃	**V_{DC}**	**Hz**	**ppm**	**ppm**
-30	3.85	-0.27	-0.0001	2.5
-20		-5.58	-0.0030	
-10		9.06	0.0048	
0		-8.64	-0.0046	
10		6.51	0.0035	
20		-5.52	-0.0029	
30		7.78	0.0041	
40		-8.57	-0.0046	
50		-9.51	-0.0051	
20	3.6	5.71	0.0030	
20	4.3	-7.23	-0.0038	

Middle Channel, f_c = 836.5 MHz, Channel Bandwidth:10MHz				
Temperature	**Voltage**	**Frequency Error**	**Frequency Error**	**Limit**
℃	**V_{DC}**	**Hz**	**ppm**	**ppm**
-30	3.85	-1.20	-0.0006	2.5
-20		-6.43	-0.0034	
-10		-5.22	-0.0028	
0		8.50	0.0045	
10		-6.30	-0.0034	
20		-8.16	-0.0043	
30		7.63	0.0041	
40		-7.17	-0.0038	
50		-8.35	-0.0044	
20	3.6	-7.67	-0.0041	
20	4.3	6.35	0.0034	

LTE Band 38

QPSK, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	2570.5282	2570	2619.4728	2620
	-20	2570.5284		2619.4775	
	-10	2570.5282		2619.4735	
	0	2570.5292		2619.4724	
	10	2570.5228		2619.4746	
	20	2570.5289		2619.4711	
	30	2570.5287		2619.4728	
	40	2570.5281		2619.4717	
	50	2570.5282		2619.4717	
3.6	20	2570.5287		2619.4716	
4.3	20	2570.5287		2619.4713	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	2570.5282	2570	2619.4715	2620
	-20	2570.5285		2619.4717	
	-10	2570.5284		2619.4725	
	0	2570.5282		2619.4734	
	10	2570.5284		2619.4726	
	20	2570.5289		2619.4711	
	30	2570.5282		2619.4717	
	40	2570.5284		2619.4718	
	50	2570.5287		2619.4757	
3.6	20	2570.5296		2619.4726	
4.3	20	2570.5291		2619.4738	

LTE Band 40 Lower:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	2305.5275	2305	2314.4723	2315
	-20	2305.5284		2314.4756	
	-10	2305.5281		2314.4724	
	0	2305.5285		2314.4718	
	10	2305.5287		2314.4717	
	20	2305.5289		2314.4711	
	30	2305.5287		2314.4717	
	40	2305.5285		2314.4714	
	50	2305.5281		2314.4717	
3.6	20	2305.5282		2314.4716	
4.3	20	2305.5287		2314.4717	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	2305.5281	2305	2314.4712	2315
	-20	2305.5282		2314.4723	
	-10	2305.5285		2314.4752	
	0	2305.5284		2314.4726	
	10	2305.5286		2314.4742	
	20	2305.5289		2314.4711	
	30	2305.5282		2314.4724	
	40	2305.5287		2314.4728	
	50	2305.5282		2314.4734	
3.6	20	2305.5284		2314.4717	
4.3	20	2305.5282		2314.4718	

LTE Band 40 Upper:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	2350.5287	2350	2359.5117	2360
	-20	2350.5275		2359.5128	
	-10	2350.5272		2359.5134	
	0	2350.5283		2359.5129	
	10	2350.5287		2359.5136	
	20	2350.5289		2359.5110	
	30	2350.5282		2359.5127	
	40	2350.5283		2359.5158	
	50	2350.5281		2359.5145	
3.6	20	2350.5287		2359.5118	
4.3	20	2350.5285		2359.5117	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	**Temperature**	**F_L**	**Limit**	**F_H**	**Limit**
Vdc	**℃**	**MHz**	**MHz**	**MHz**	**MHz**
3.85	-30	2350.5287	2350	2359.4717	2360
	-20	2350.5277		2359.4726	
	-10	2350.5274		2359.4724	
	0	2350.5242		2359.4718	
	10	2350.5235		2359.4719	
	20	2350.5289		2359.4711	
	30	2350.5284		2359.4724	
	40	2350.5282		2359.4735	
	50	2350.5281		2359.4727	
3.6	20	2350.5293		2359.4728	
4.3	20	2350.5287		2359.4749	

LTE Band 41:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	℃	MHz	MHz	MHz	MHz
3.85	-30	2496.5284	2496	2689.4717	2690
	-20	2496.5281		2689.4715	
	-10	2496.5284		2689.4712	
	0	2496.5286		2689.4714	
	10	2496.5287		2689.4728	
	20	2496.5289		2689.4711	
	30	2496.5282		2689.4717	
	40	2496.5282		2689.4734	
	50	2496.5293		2689.4727	
3.6	20	2496.5281		2689.4724	
4.3	20	2496.5287		2689.4729	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	℃	MHz	MHz	MHz	MHz
3.85	-30	2496.5282	2496	2689.4717	2690
	-20	2496.5246		2689.4715	
	-10	2496.5275		2689.4724	
	0	2496.5262		2689.4736	
	10	2496.5275		2689.4727	
	20	2496.5289		2689.4711	
	30	2496.5254		2689.4734	
	40	2496.5274		2689.4728	
	50	2496.5225		2689.4734	
3.6	20	2496.5248		2689.4746	
4.3	20	2496.5228		2689.4727	

Note: The fundamental emissions stay within the authorized bands of operation based on the frequency deviation measured is small, the extreme voltage was declared by applicant.

******* END OF REPORT *******