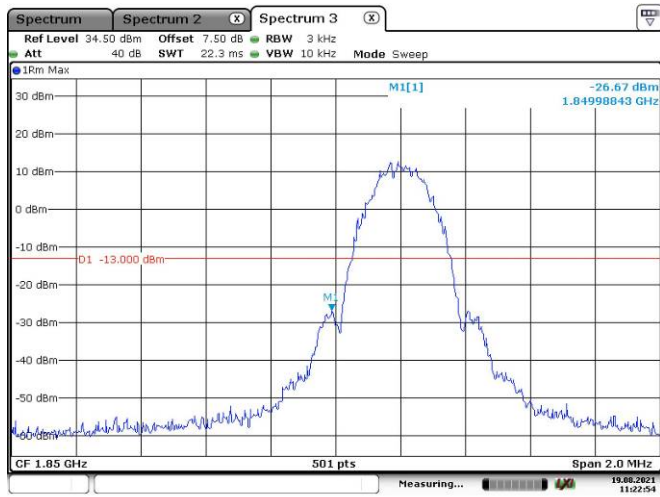
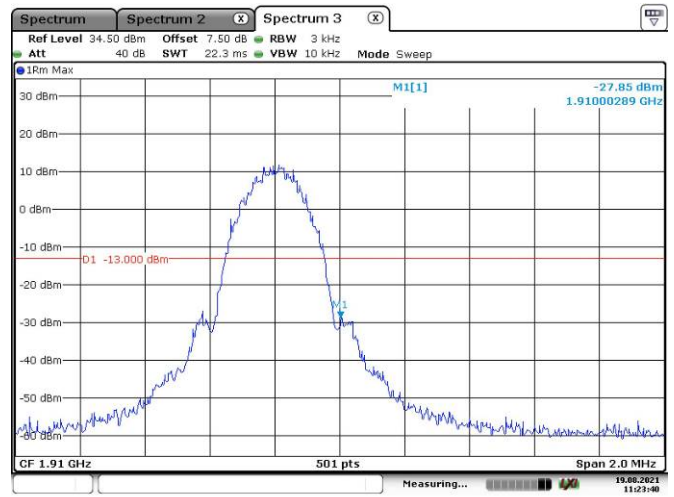


EGPRS 1900, Left Band Edge



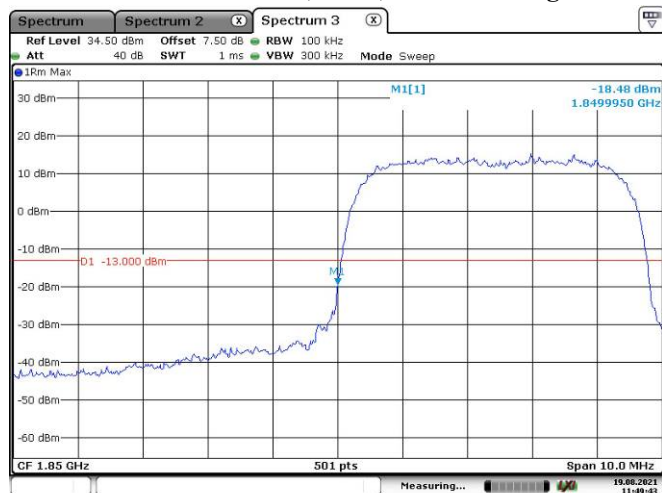
Date: 19.AUG.2021 11:22:55

EGPRS 1900, Right Band Edge



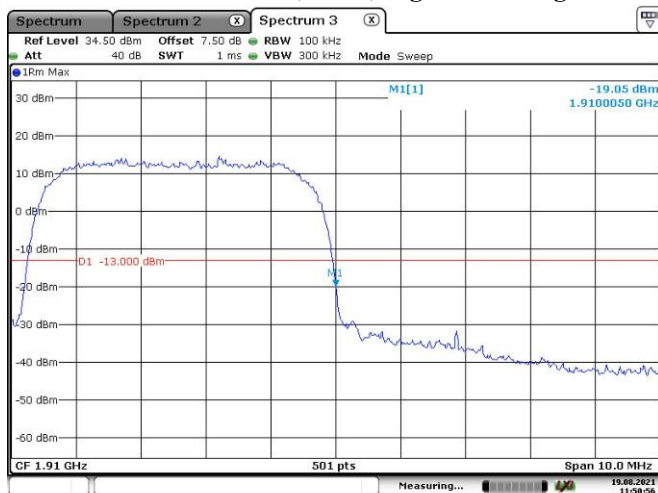
Date: 19.AUG.2021 11:23:41

WCDMA Band II, Rel99, Left Band Edge



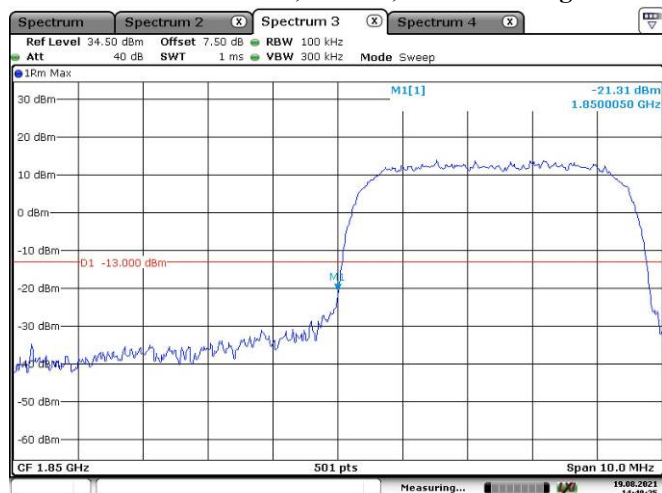
Date: 19.AUG.2021 11:49:44

WCDMA Band II, Rel99, Right Band Edge



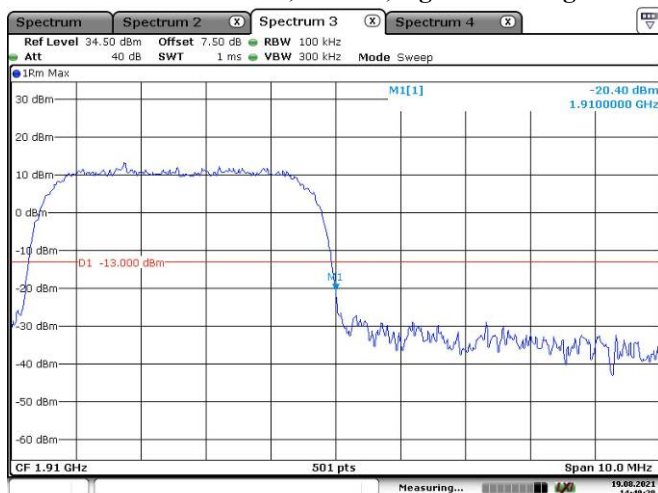
Date: 19.AUG.2021 11:50:56

WCDMA Band II, HSDPA, Left Band Edge



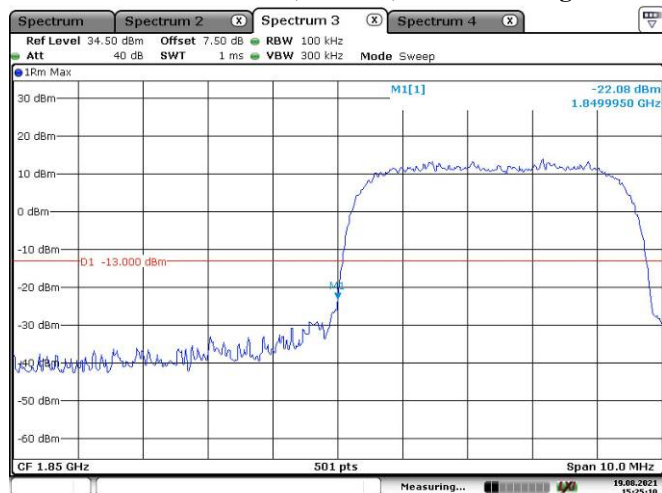
Date: 19.AUG.2021 14:48:26

WCDMA Band II, HSDPA, Right Band Edge



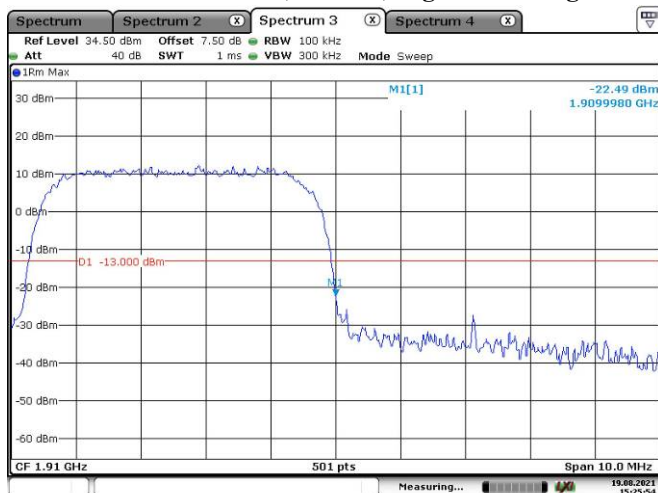
Date: 19.AUG.2021 14:49:28

WCDMA Band II, HSUPA, Left Band Edge



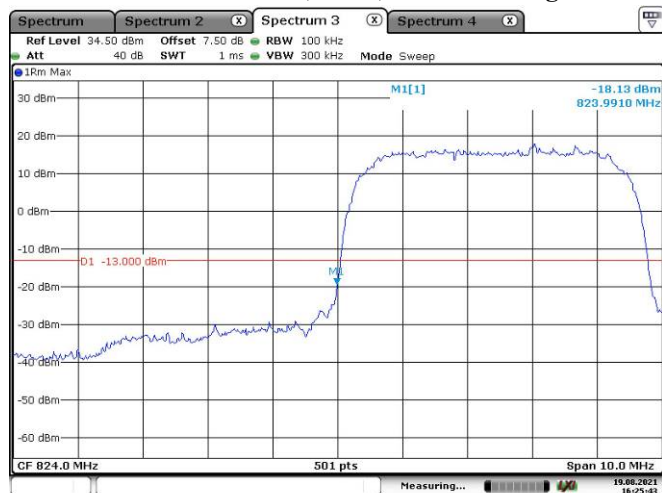
Date: 19.AUG.2021 15:25:11

WCDMA Band II, HSUPA, Right Band Edge



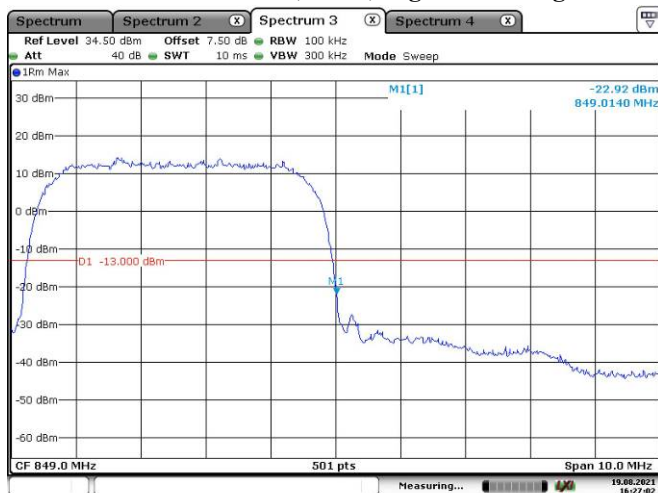
Date: 19.AUG.2021 15:25:55

WCDMA Band V, Rel99, Left Band Edge



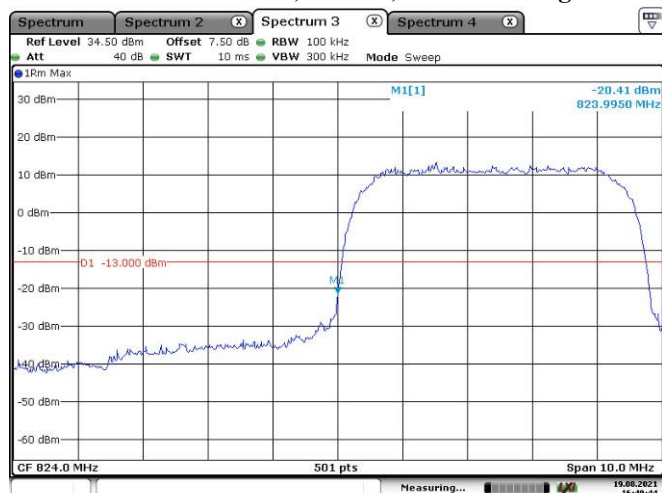
Date: 19.AUG.2021 16:25:43

WCDMA Band V, Rel99, Right Band Edge



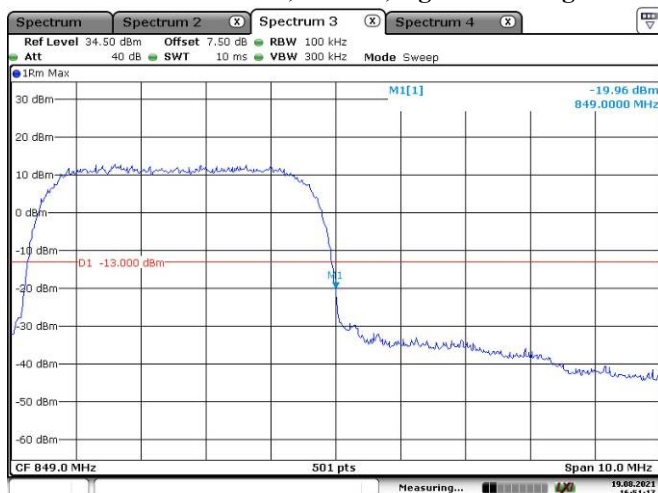
Date: 19.AUG.2021 16:27:02

WCDMA Band V, HSDPA, Left Band Edge



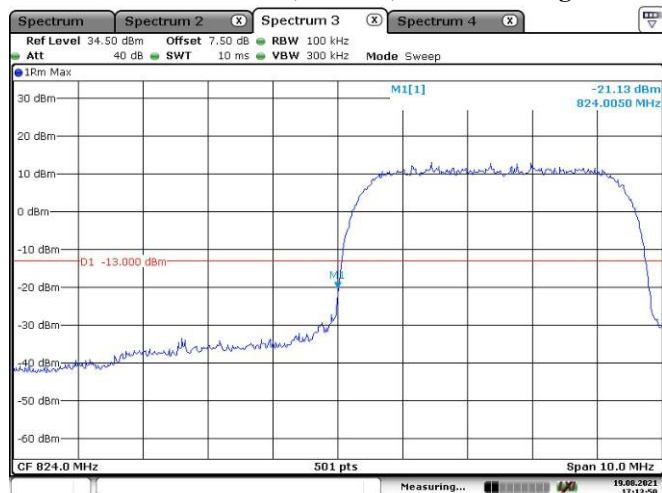
Date: 19.AUG.2021 16:49:44

WCDMA Band V, HSDPA, Right Band Edge



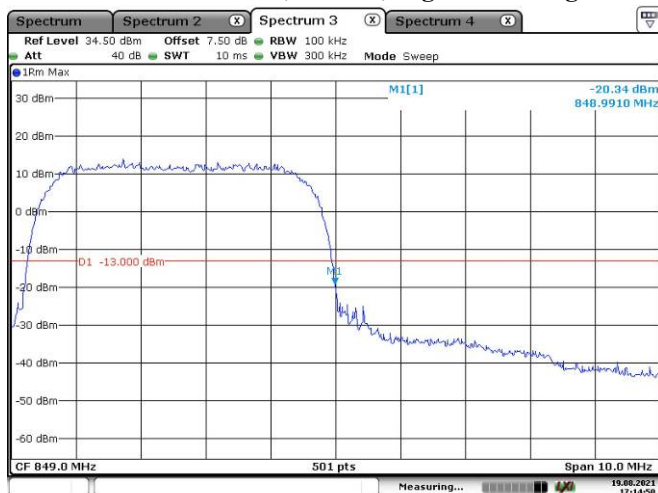
Date: 19.AUG.2021 16:51:17

WCDMA Band V, HSUPA, Left Band Edge

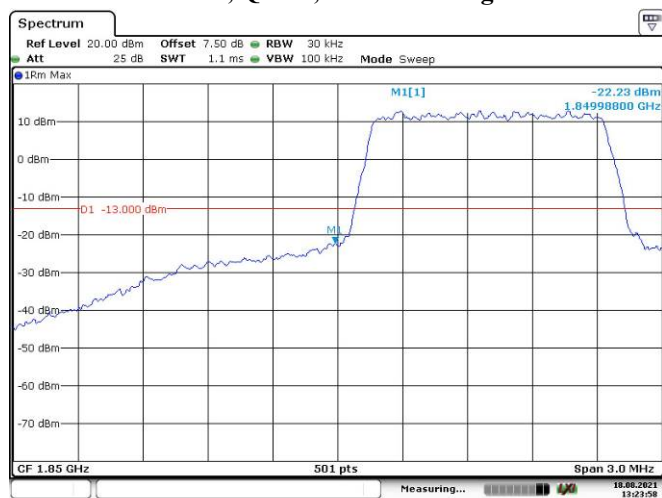


Date: 19.AUG.2021 17:13:50

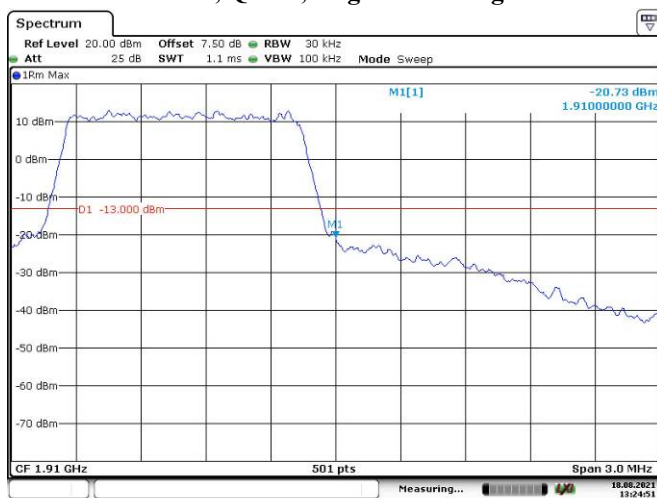
WCDMA Band V, HSUPA, Right Band Edge



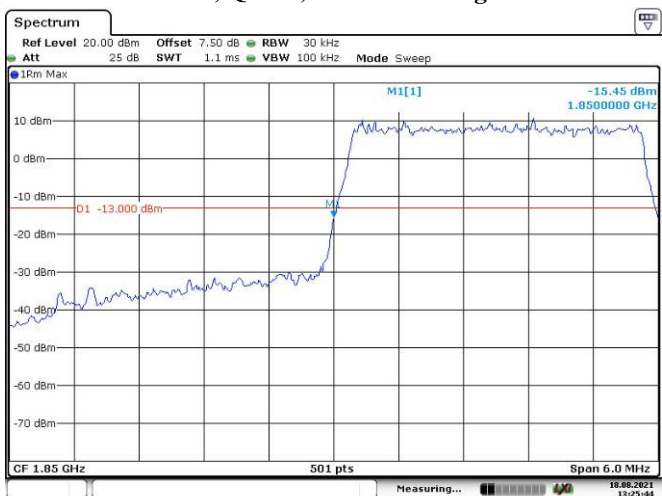
Date: 19.AUG.2021 17:14:56

LTE Band 2:**1.4M, QPSK, Left Band Edge**

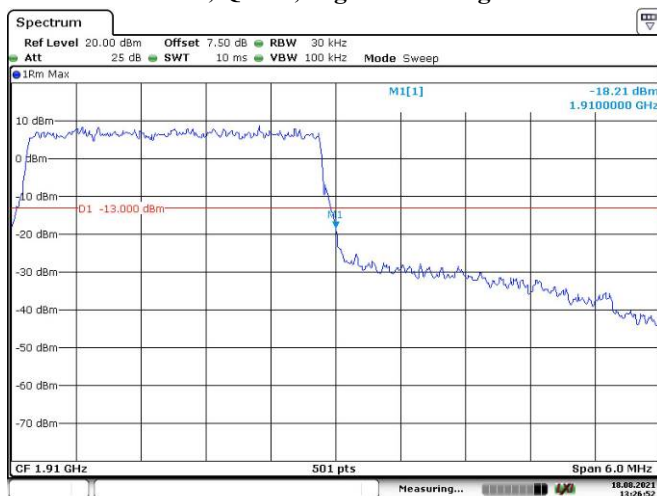
Date: 18.AUG.2021 13:23:58

1.4M, QPSK, Right Band Edge

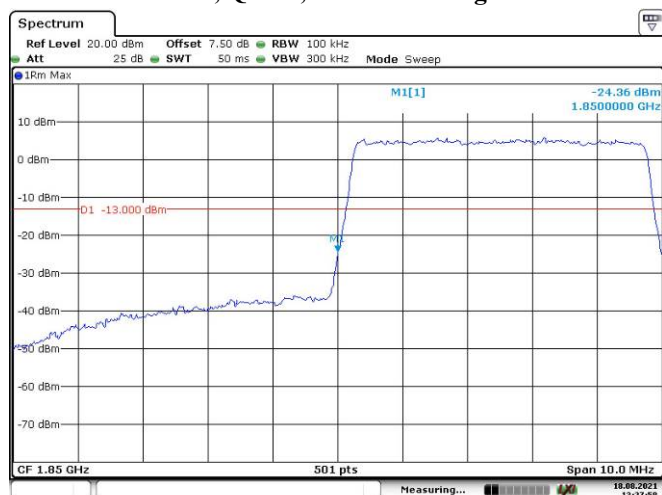
Date: 18.AUG.2021 13:24:52

3M, QPSK, Left Band Edge

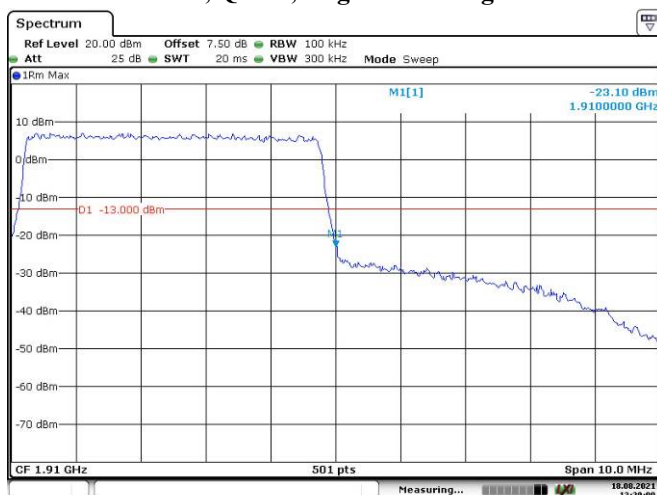
Date: 18.AUG.2021 13:25:45

3M, QPSK, Right Band Edge

Date: 18.AUG.2021 13:26:53

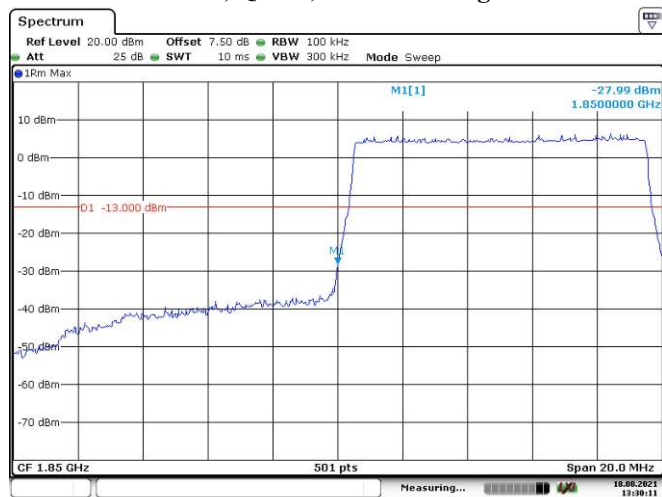
5M, QPSK, Left Band Edge

Date: 18.AUG.2021 13:27:58

5M, QPSK, Right Band Edge

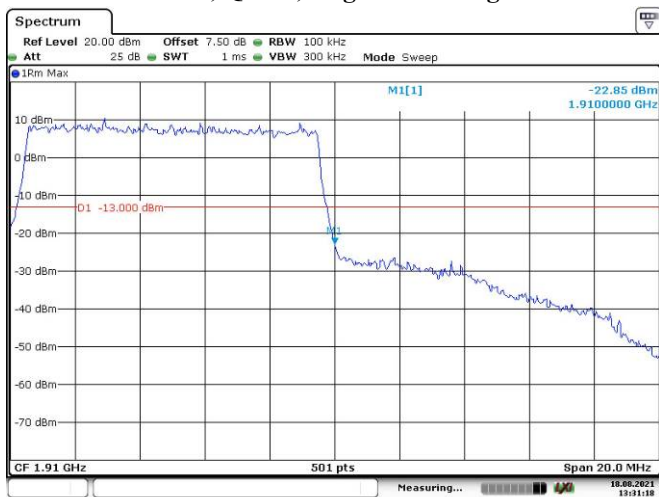
Date: 18.AUG.2021 13:29:01

10M, QPSK, Left Band Edge



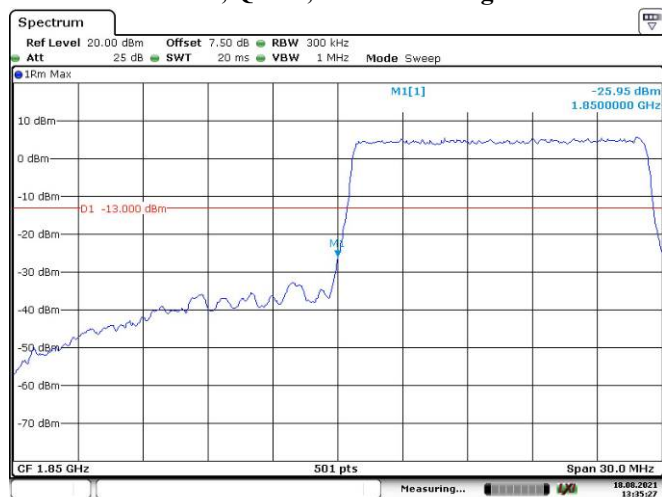
Date: 18.AUG.2021 13:30:12

10M, QPSK, Right Band Edge



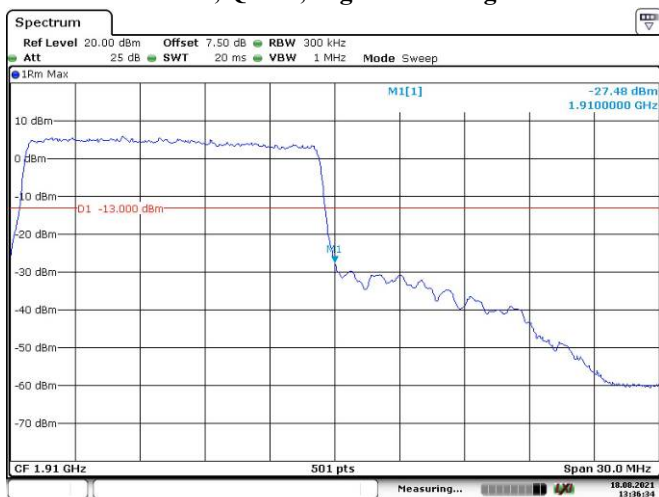
Date: 18.AUG.2021 13:31:18

15M, QPSK, Left Band Edge



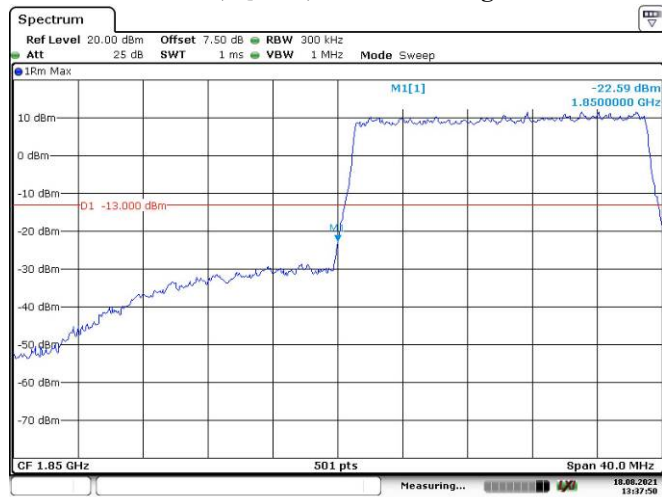
Date: 18.AUG.2021 13:35:27

15M, QPSK, Right Band Edge



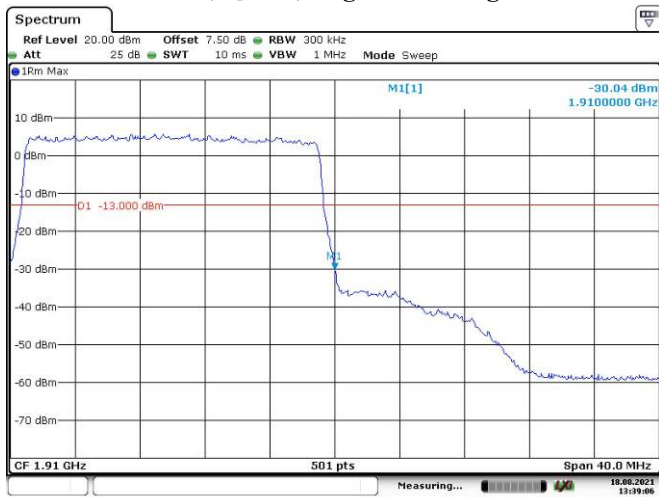
Date: 18.AUG.2021 13:36:34

20M, QPSK, Left Band Edge



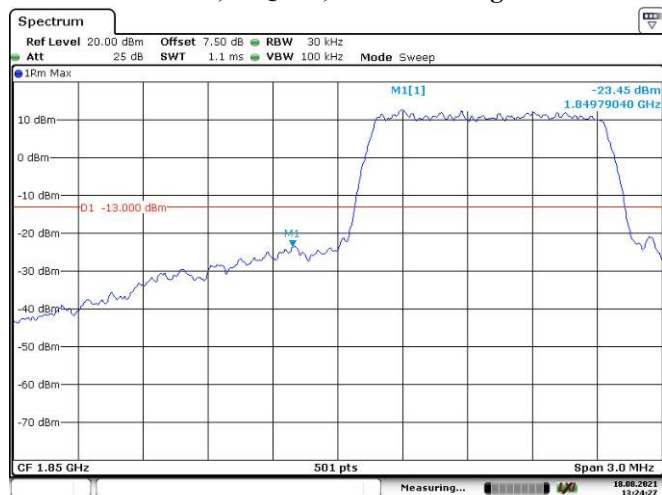
Date: 18.AUG.2021 13:37:50

20M, QPSK, Right Band Edge



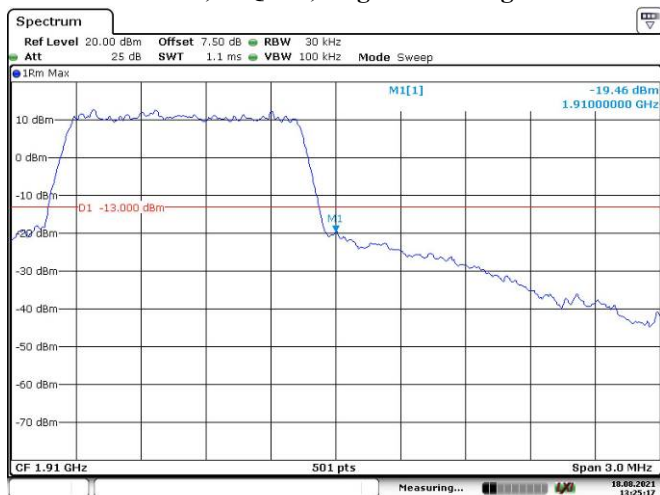
Date: 18.AUG.2021 13:39:05

1.4M, 16QAM, Left Band Edge



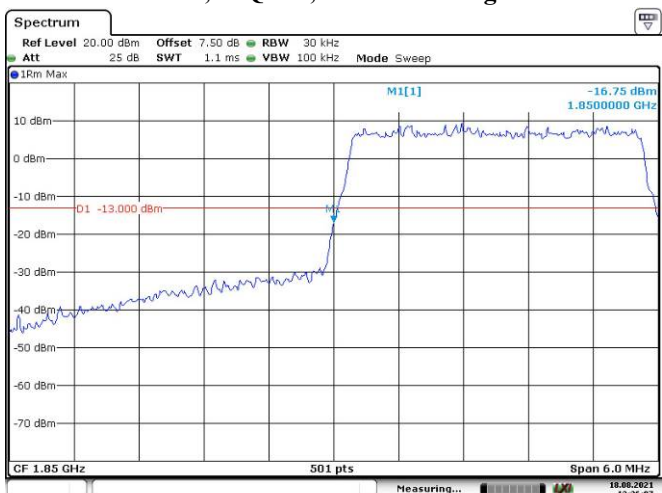
Date: 18.AUG.2021 13:24:27

1.4M, 16QAM, Right Band Edge



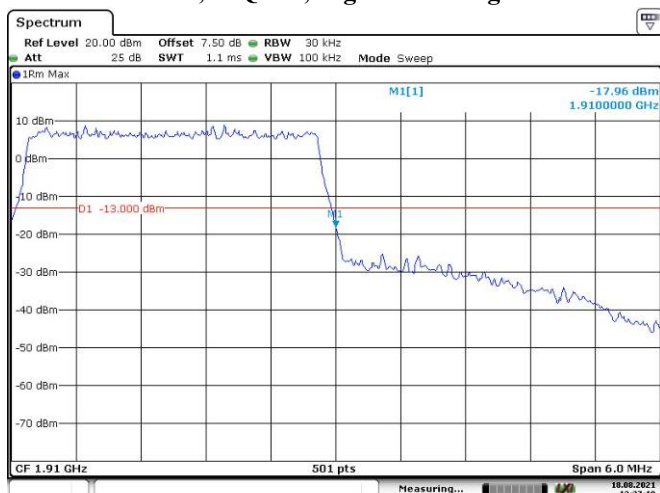
Date: 18.AUG.2021 13:25:17

3M, 16QAM, Left Band Edge



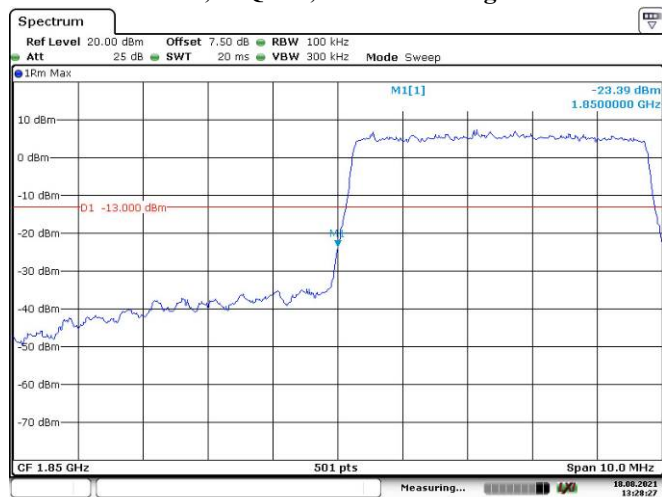
Date: 18.AUG.2021 13:26:08

3M, 16QAM, Right Band Edge



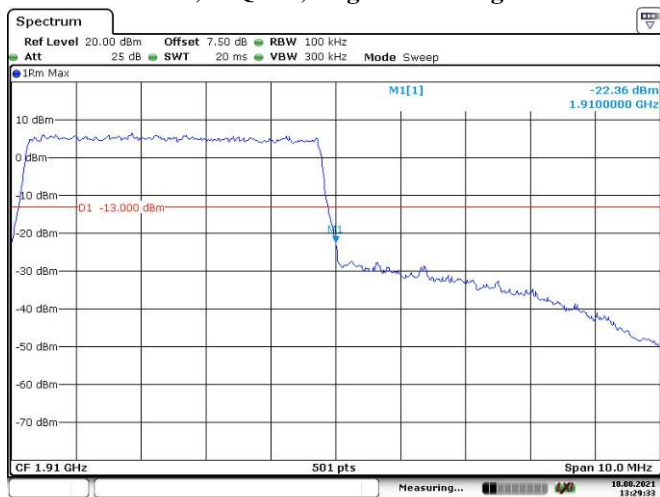
Date: 18.AUG.2021 13:27:19

5M, 16QAM, Left Band Edge



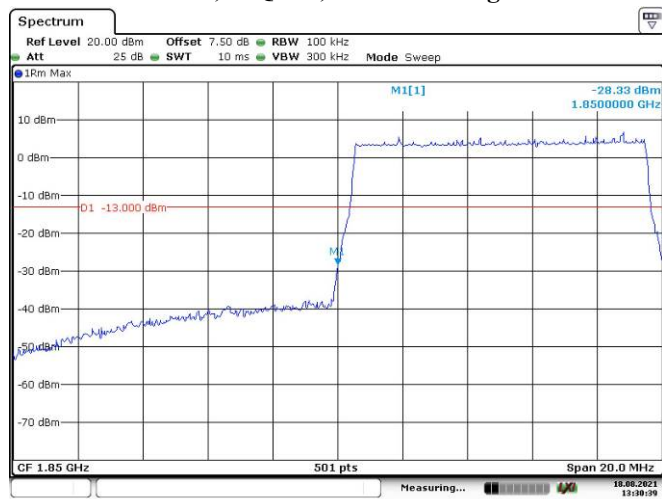
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5M, 16QAM, Right Band Edge

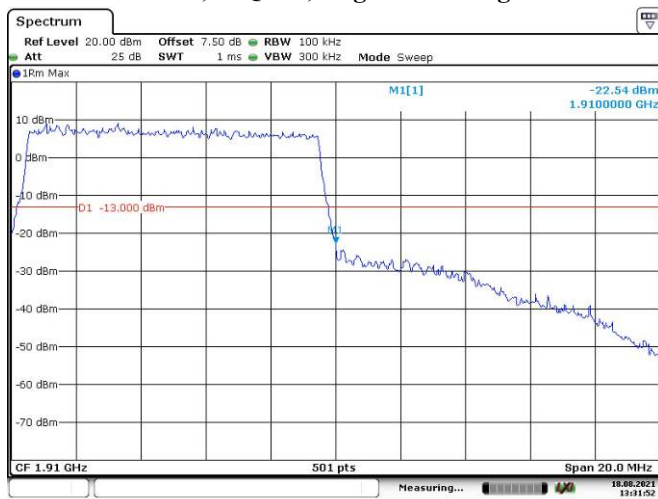


Date: 18.AUG.2021 13:29:33

10M, 16QAM, Left Band Edge



10M, 16QAM, Right Band Edge



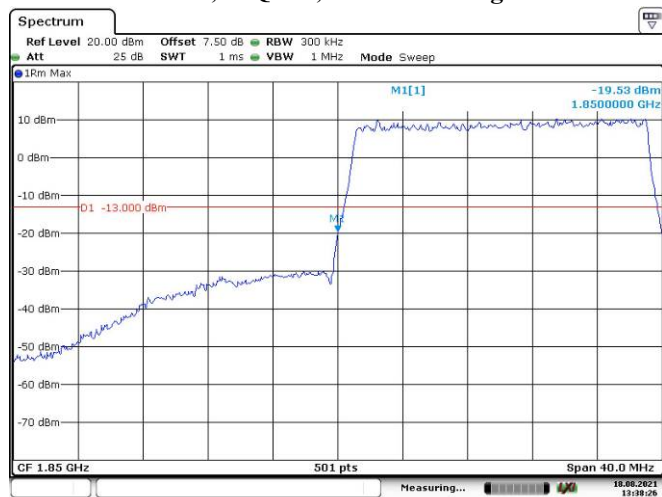
15M, 16QAM, Left Band Edge



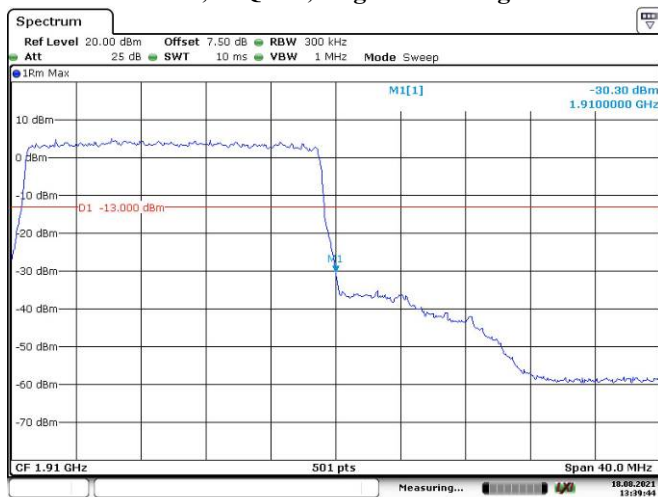
15M, 16QAM, Right Band Edge

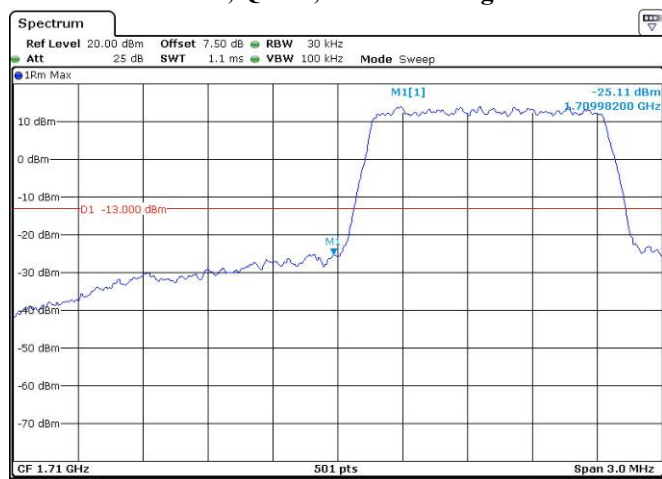


20M, 16QAM, Left Band Edge

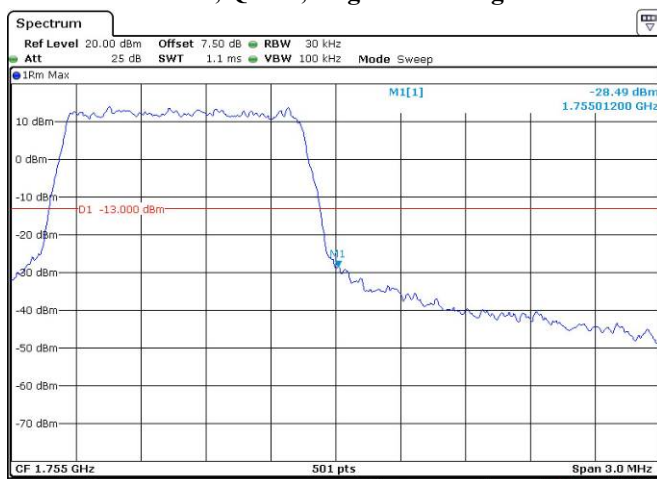


20M, 16QAM, Right Band Edge

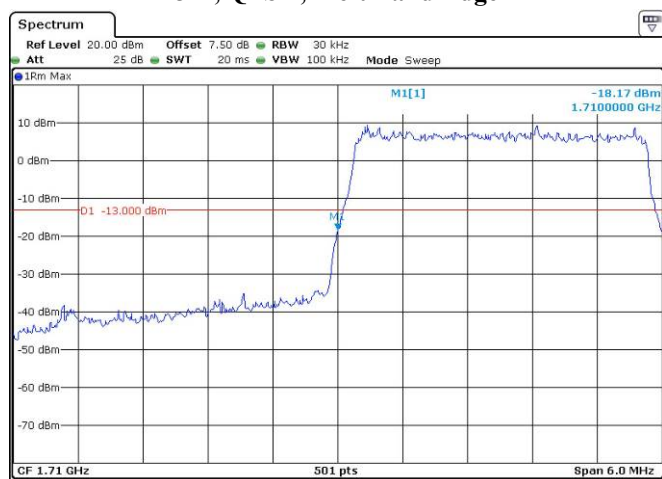


LTE Band 4:**1.4M, QPSK, Left Band Edge**

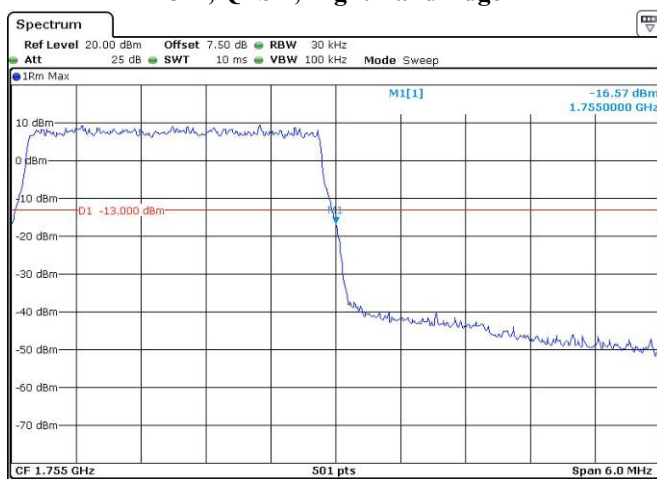
Date: 18.AUG.2021 13:40:14

1.4M, QPSK, Right Band Edge

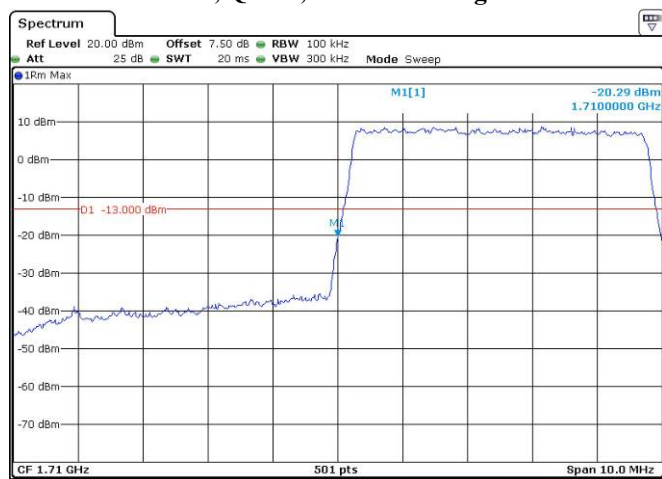
Date: 18.AUG.2021 13:41:01

3M, QPSK, Left Band Edge

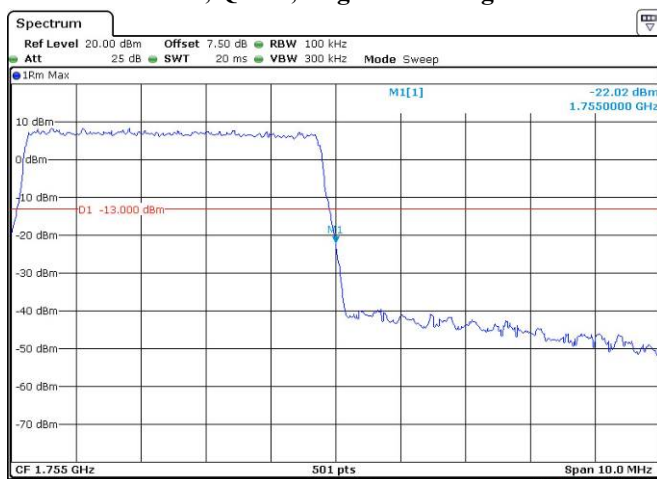
Date: 18.AUG.2021 13:42:09

3M, QPSK, Right Band Edge

Date: 18.AUG.2021 13:43:34

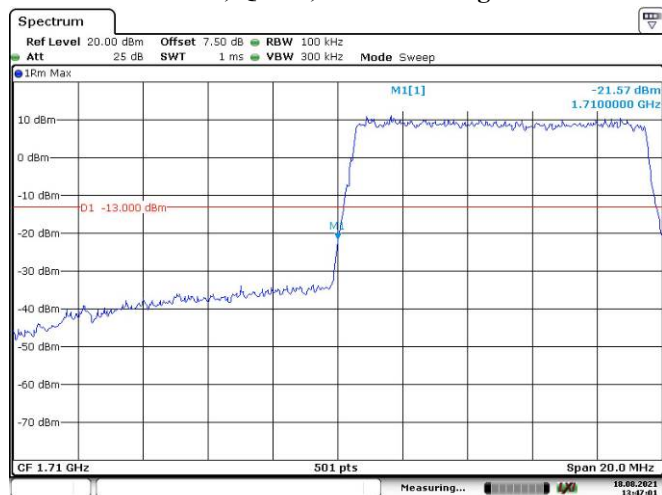
5M, QPSK, Left Band Edge

Date: 18.AUG.2021 13:44:48

5M, QPSK, Right Band Edge

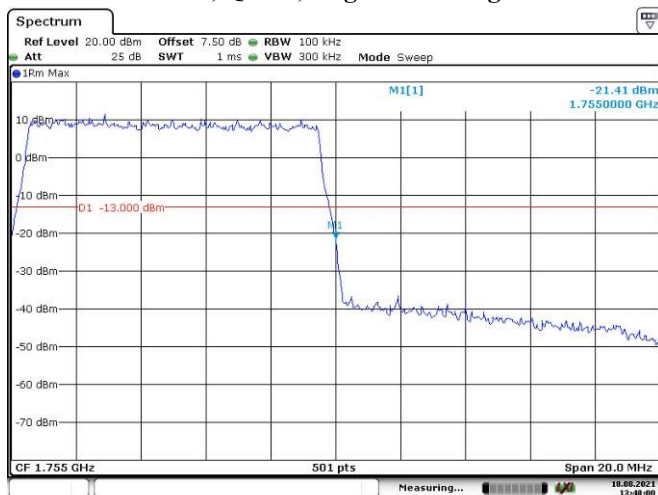
Date: 18.AUG.2021 13:45:53

10M, QPSK, Left Band Edge



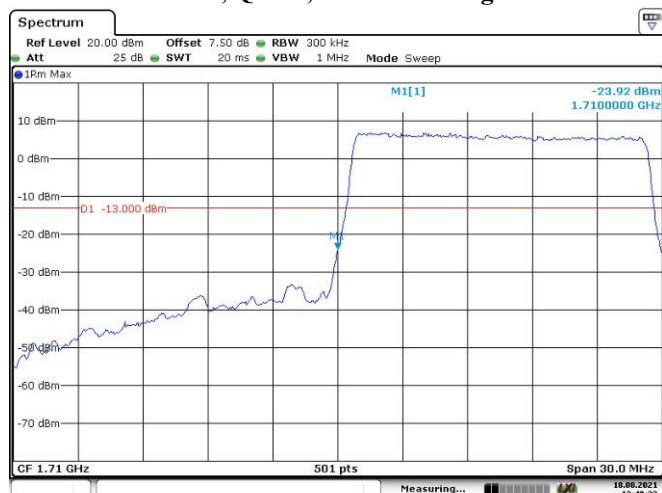
Date: 18.AUG.2021 13:47:01

10M, QPSK, Right Band Edge



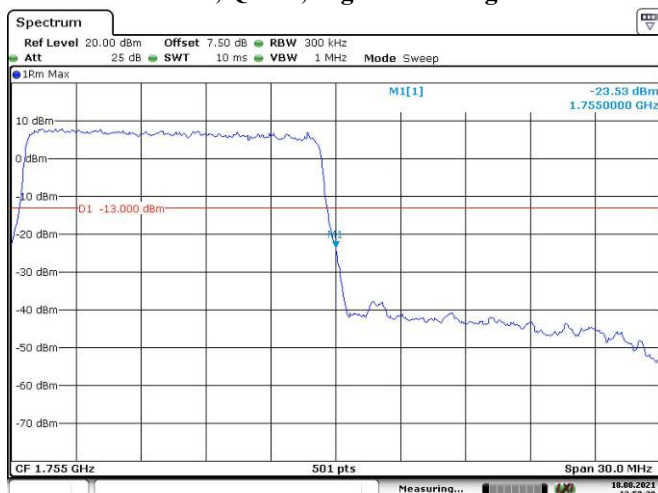
Date: 18.AUG.2021 13:48:00

15M, QPSK, Left Band Edge



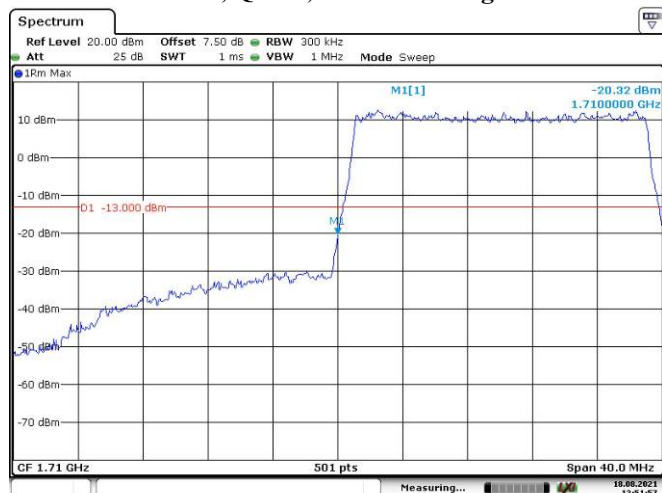
Date: 18.AUG.2021 13:49:23

15M, QPSK, Right Band Edge



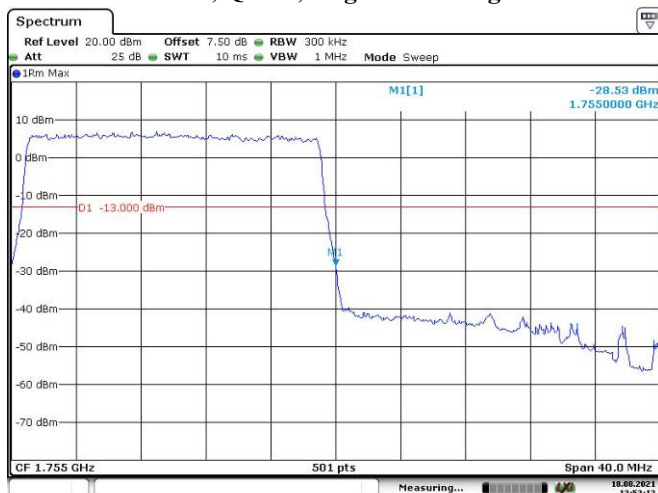
Date: 18.AUG.2021 13:50:39

20M, QPSK, Left Band Edge



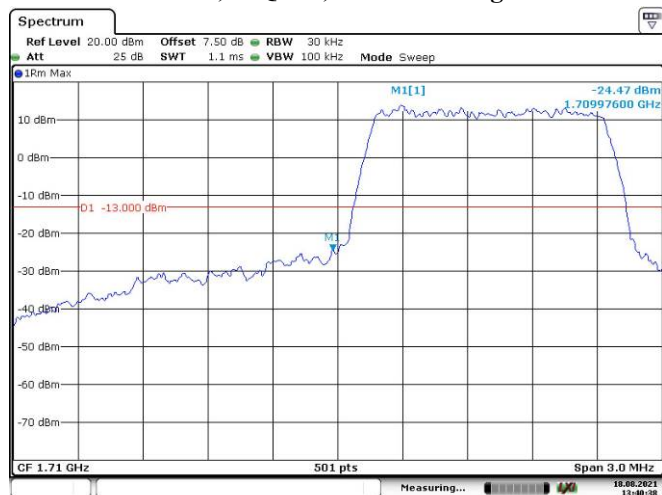
Date: 18.AUG.2021 13:51:57

20M, QPSK, Right Band Edge

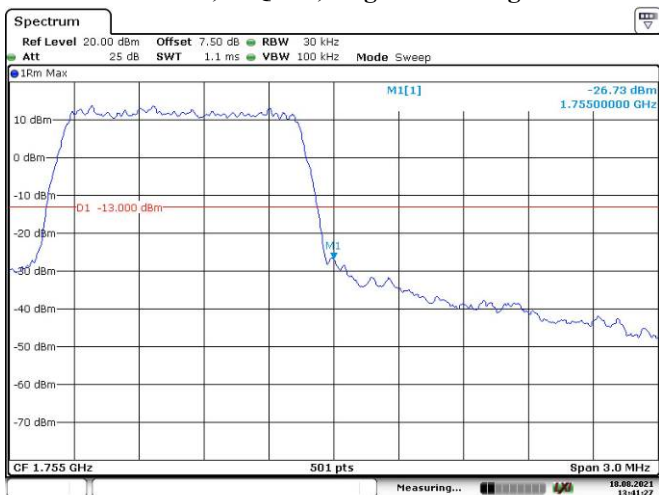


Date: 18.AUG.2021 13:53:13

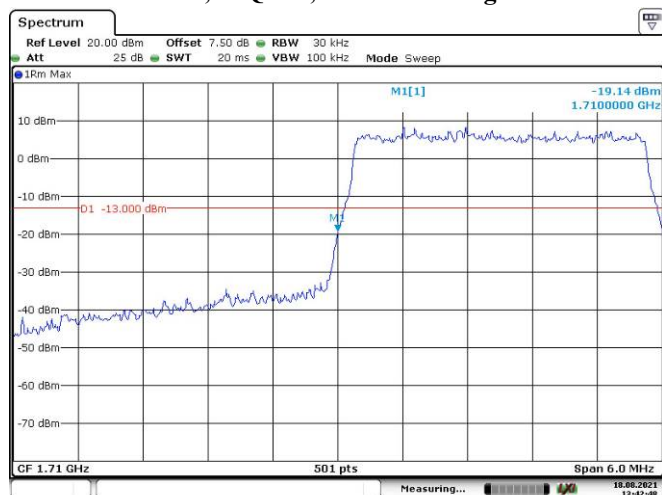
1.4M, 16QAM, Left Band Edge



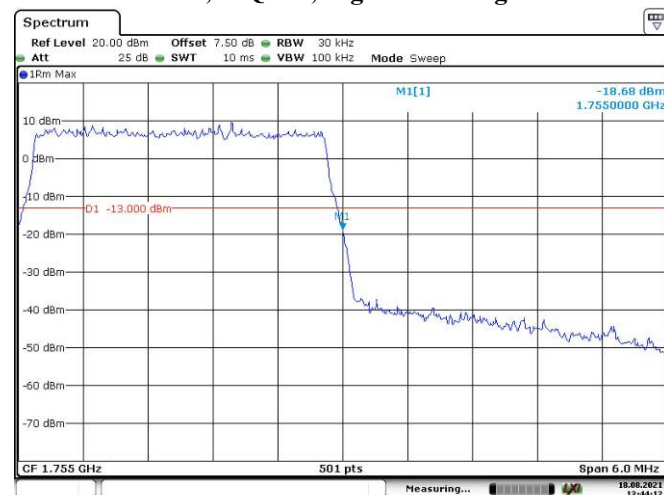
1.4M, 16QAM, Right Band Edge



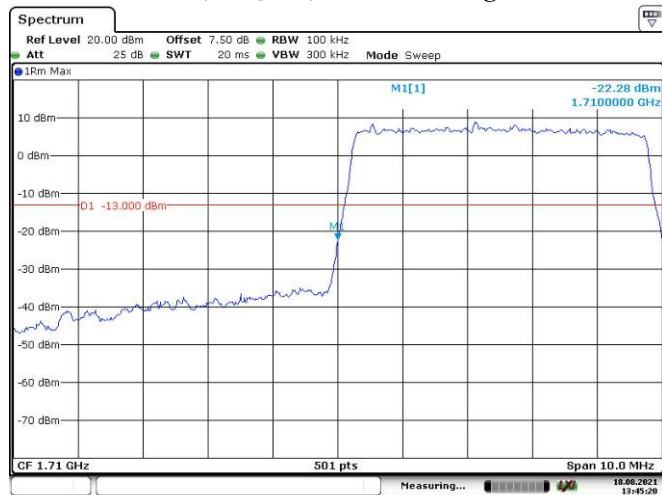
3M, 16QAM, Left Band Edge



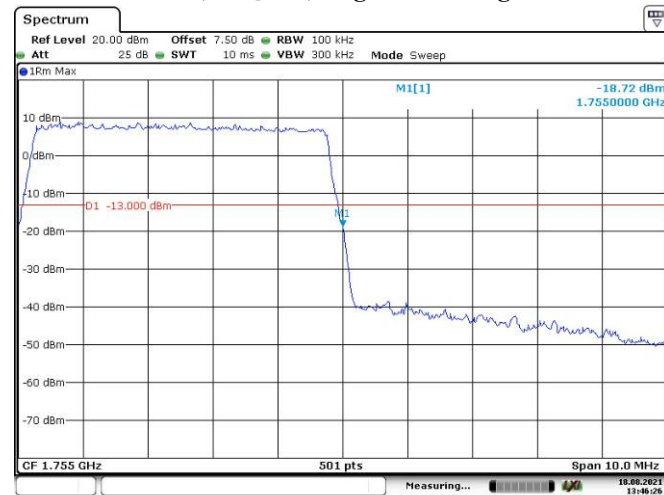
3M, 16QAM, Right Band Edge



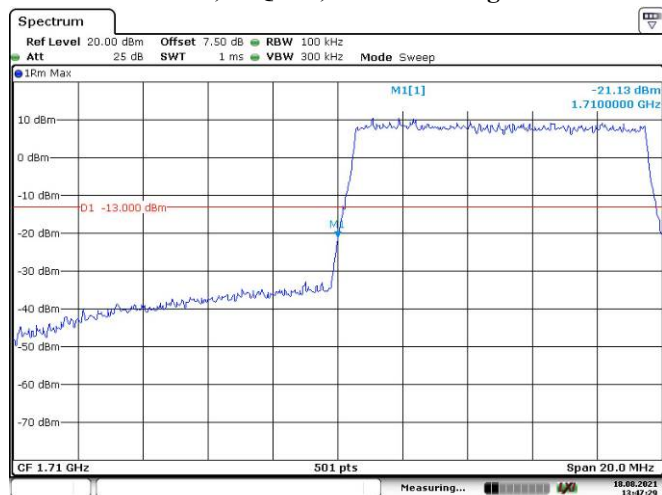
5M, 16QAM, Left Band Edge



5M, 16QAM, Right Band Edge

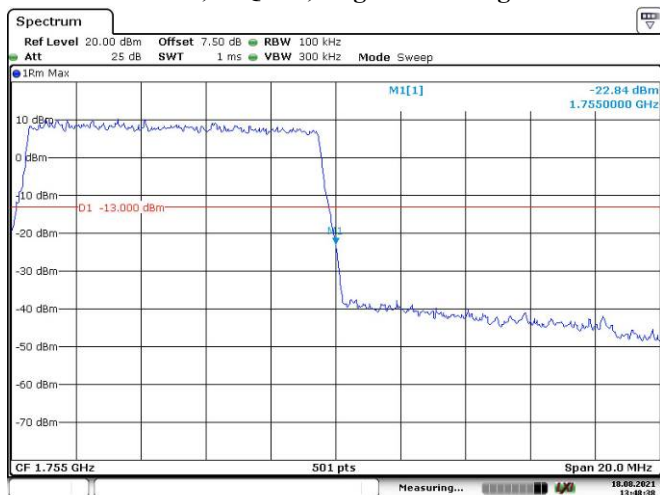


10M, 16QAM, Left Band Edge



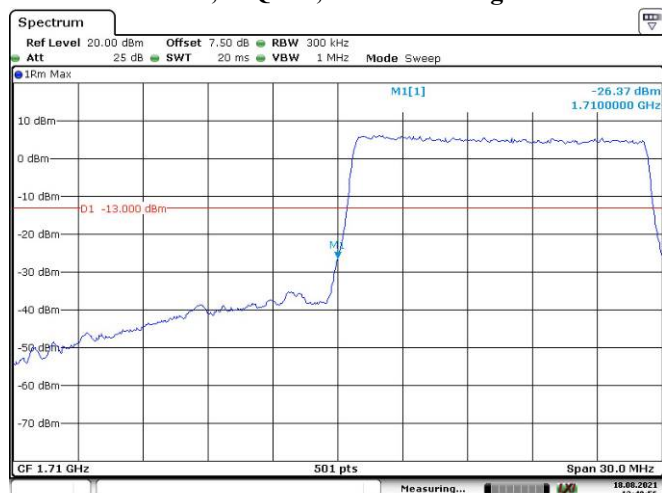
Date: 18.AUG.2021 13:47:29

10M, 16QAM, Right Band Edge



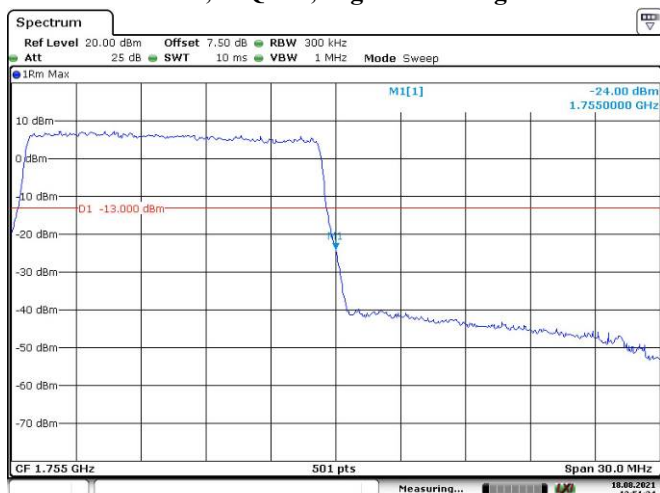
Date: 18.AUG.2021 13:48:38

15M, 16QAM, Left Band Edge



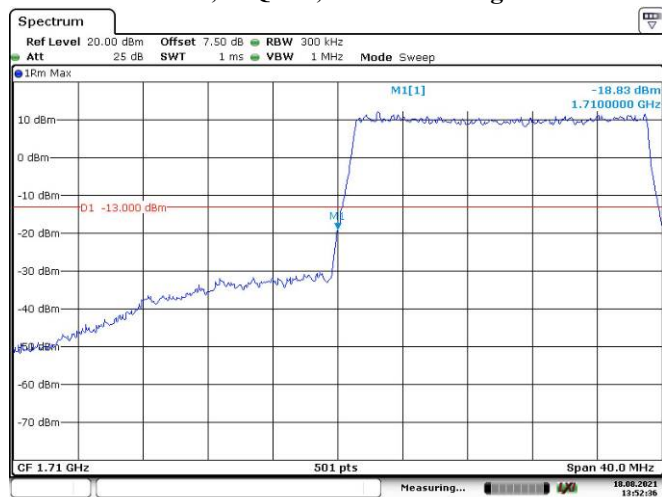
Date: 18.AUG.2021 13:49:56

15M, 16QAM, Right Band Edge



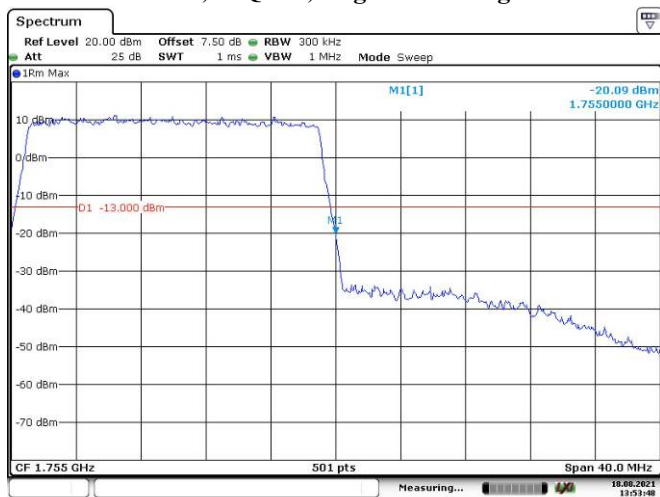
Date: 18.AUG.2021 13:51:24

20M, 16QAM, Left Band Edge

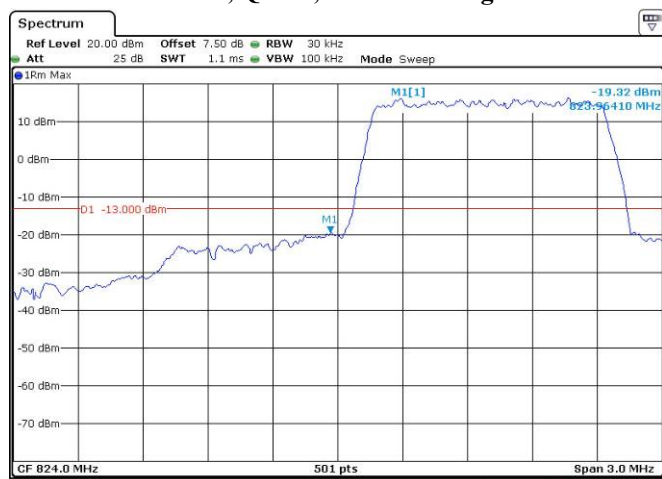


Date: 18.AUG.2021 13:52:36

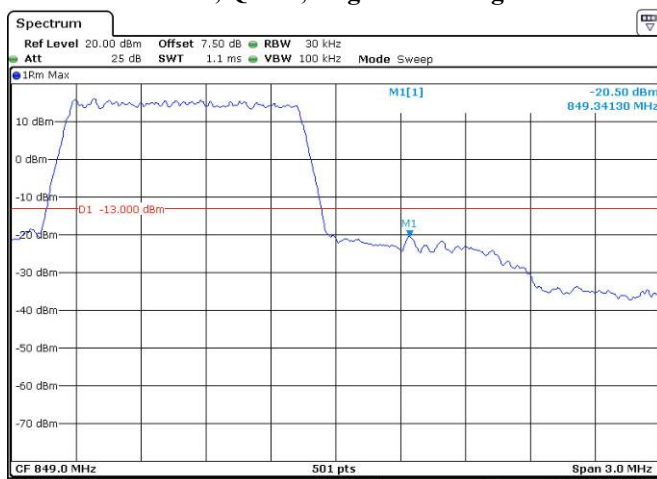
20M, 16QAM, Right Band Edge



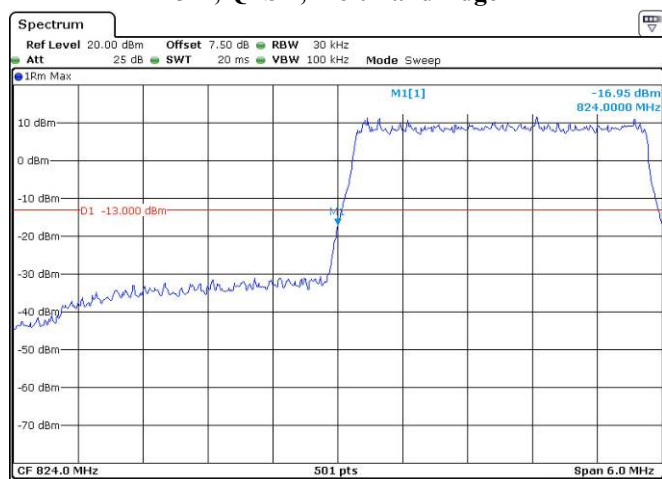
Date: 18.AUG.2021 13:53:48

LTE Band 5:**1.4M, QPSK, Left Band Edge**

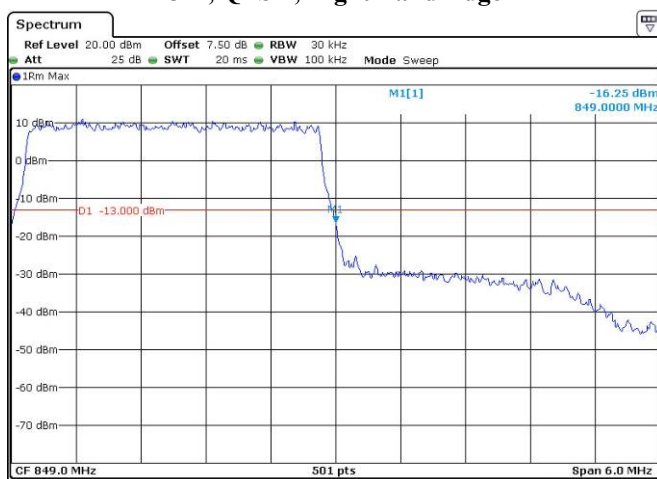
Date: 18.AUG.2021 13:54:15

1.4M, QPSK, Right Band Edge

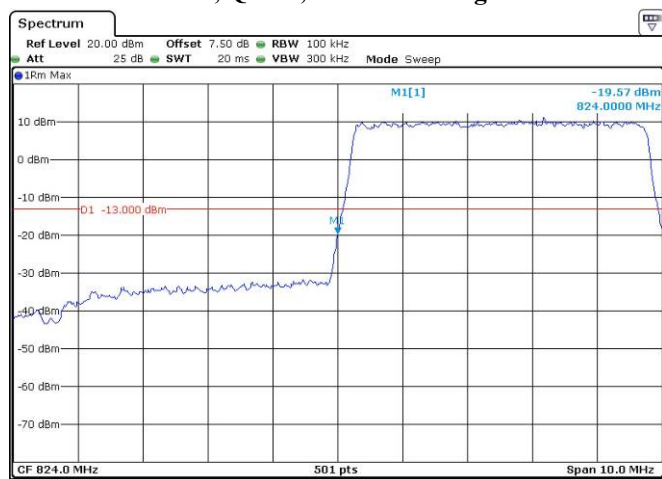
Date: 18.AUG.2021 13:54:59

3M, QPSK, Left Band Edge

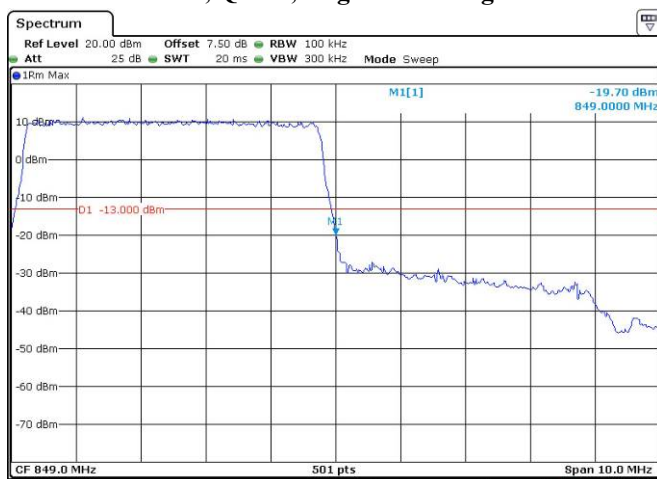
Date: 18.AUG.2021 13:56:01

3M, QPSK, Right Band Edge

Date: 18.AUG.2021 14:01:14

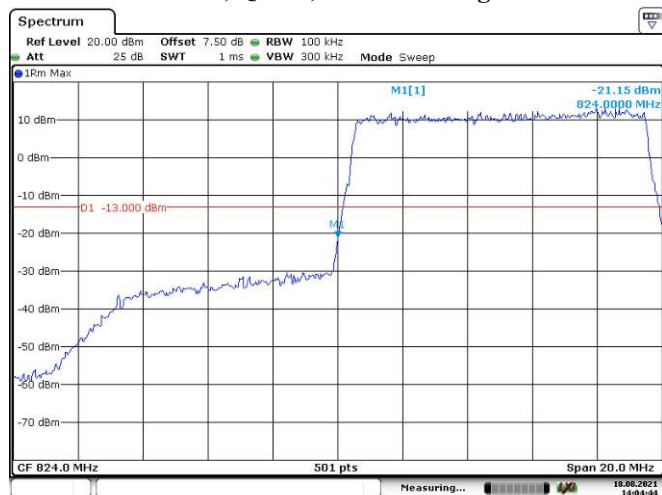
5M, QPSK, Left Band Edge

Date: 18.AUG.2021 14:02:28

5M, QPSK, Right Band Edge

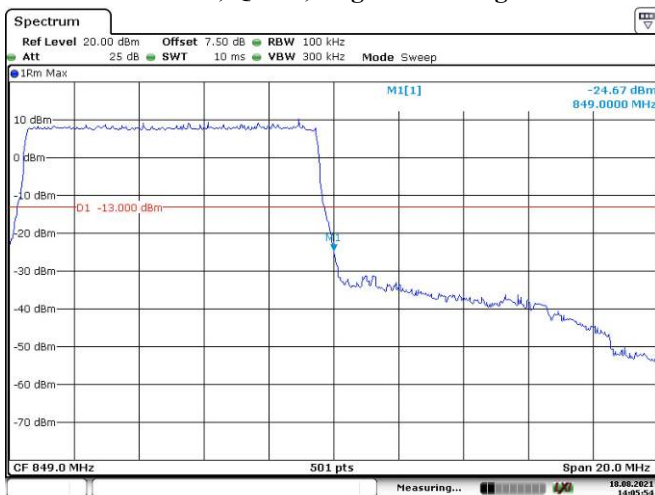
Date: 18.AUG.2021 14:03:34

10M, QPSK, Left Band Edge



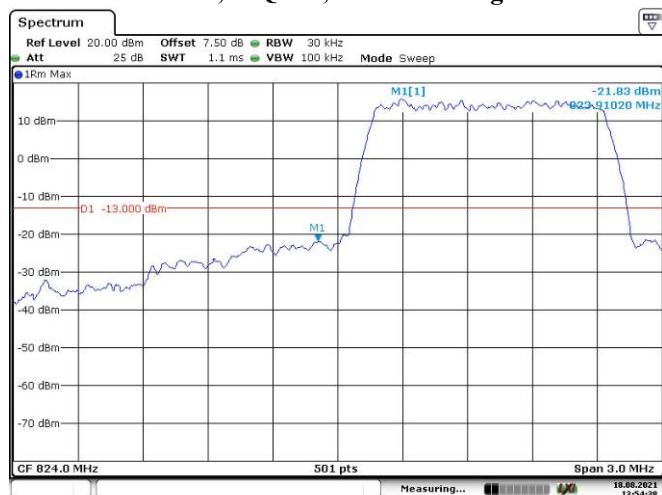
Date: 18.AUG.2021 14:04:44

10M, QPSK, Right Band Edge



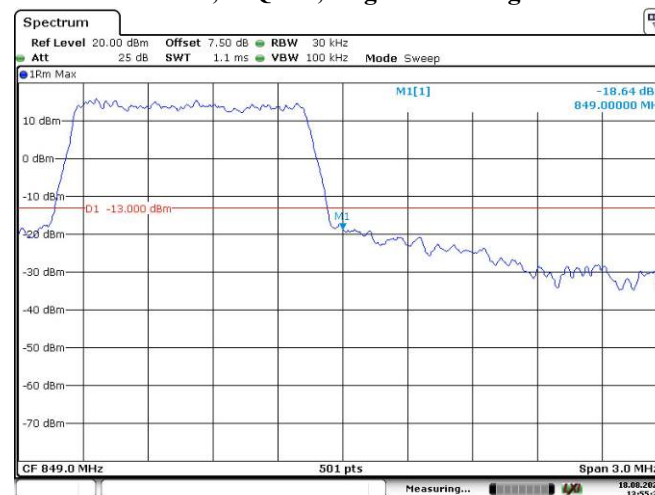
Date: 18.AUG.2021 14:05:54

1.4M, 16QAM, Left Band Edge



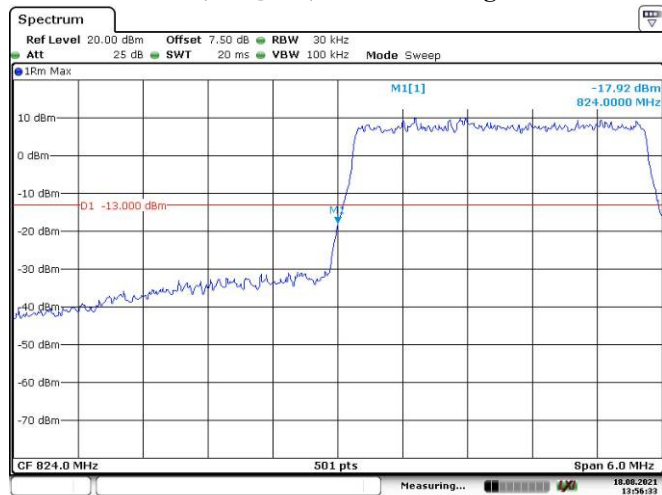
Date: 18.AUG.2021 13:54:38

1.4M, 16QAM, Right Band Edge



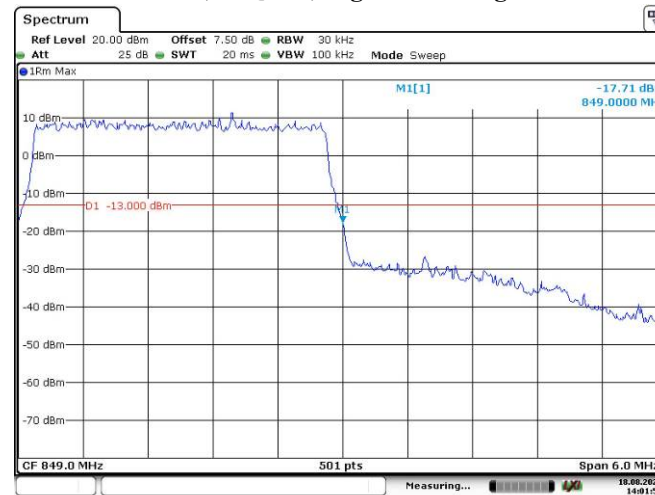
Date: 18.AUG.2021 13:55:22

3M, 16QAM, Left Band Edge



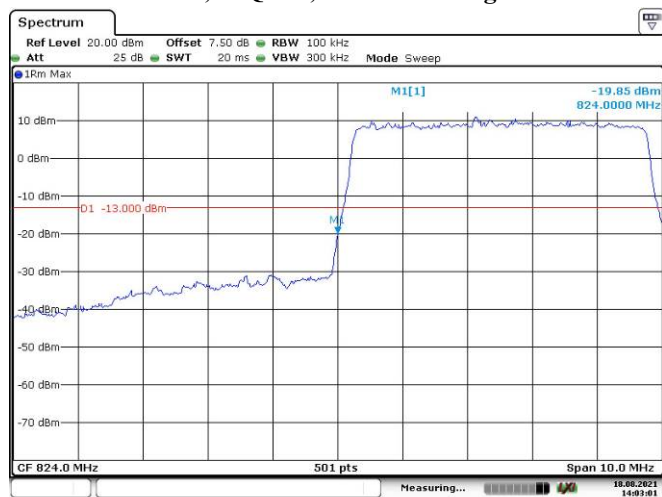
Date: 18.AUG.2021 13:56:34

3M, 16QAM, Right Band Edge



Date: 18.AUG.2021 14:01:55

5M, 16QAM, Left Band Edge



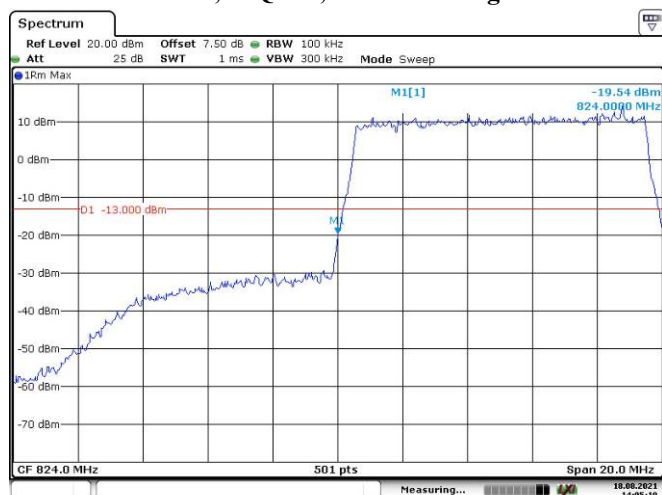
Date: 18.AUG.2021 14:03:01

5M, 16QAM, Right Band Edge



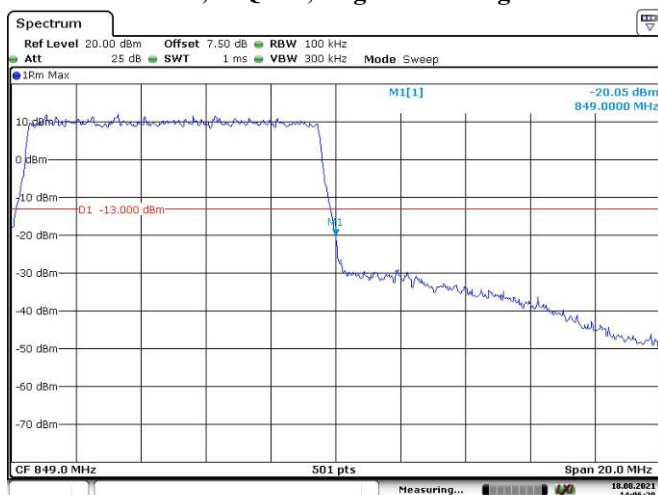
Date: 18.AUG.2021 14:04:03

10M, 16QAM, Left Band Edge

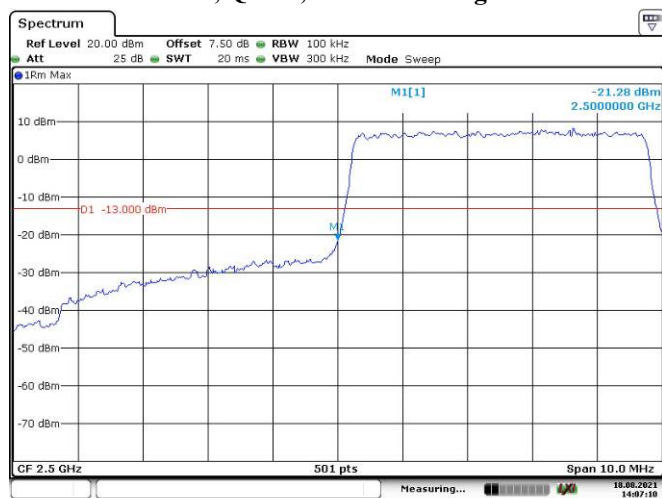
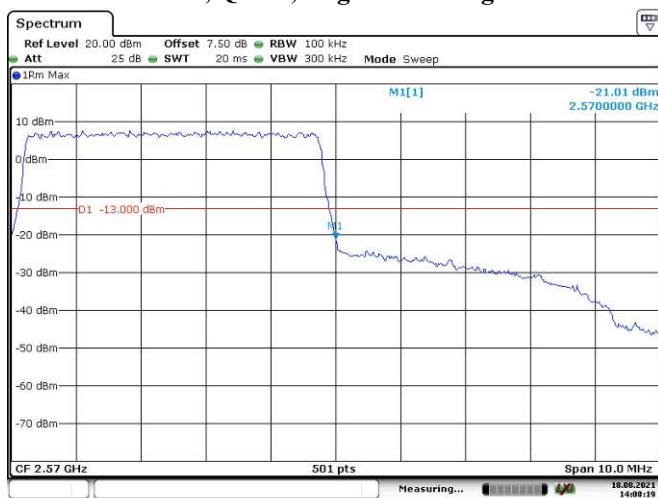
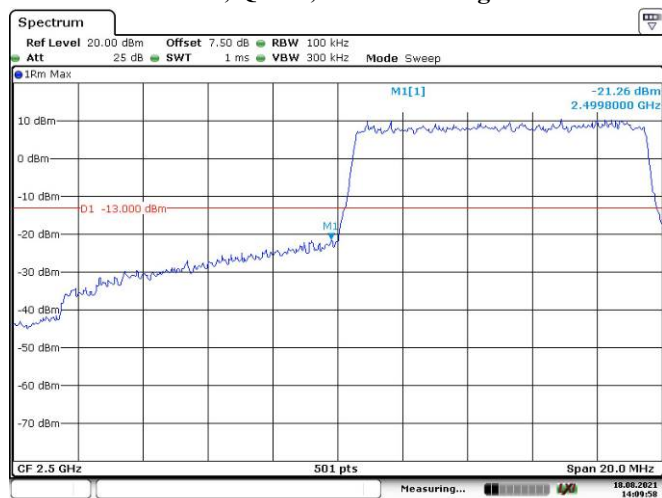
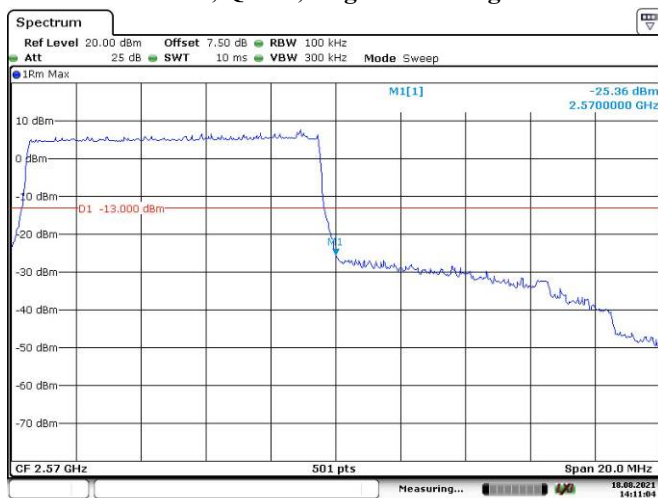
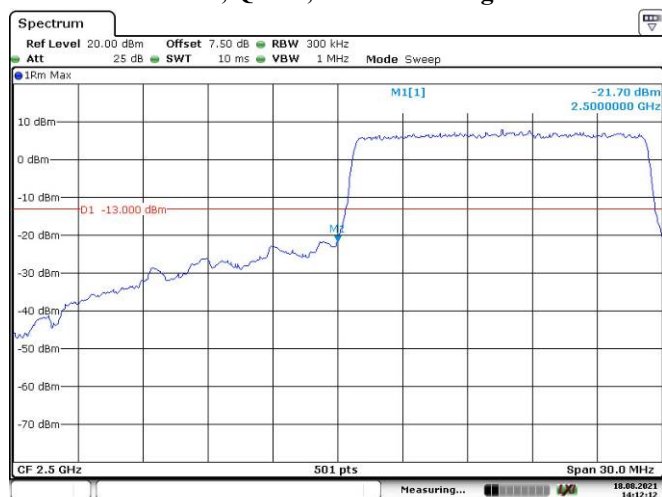
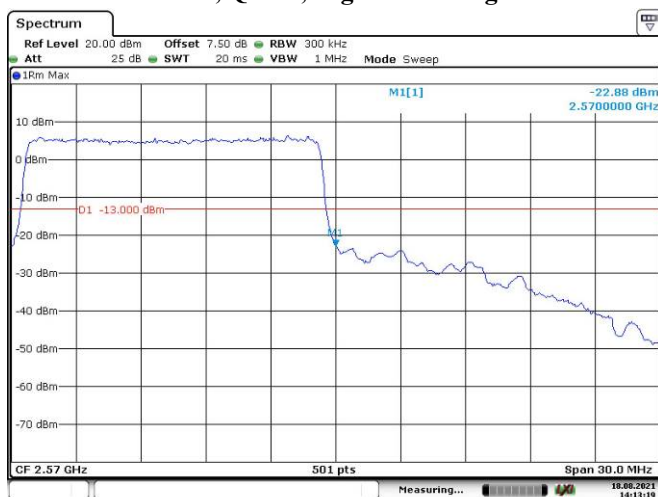


Date: 18.AUG.2021 14:05:19

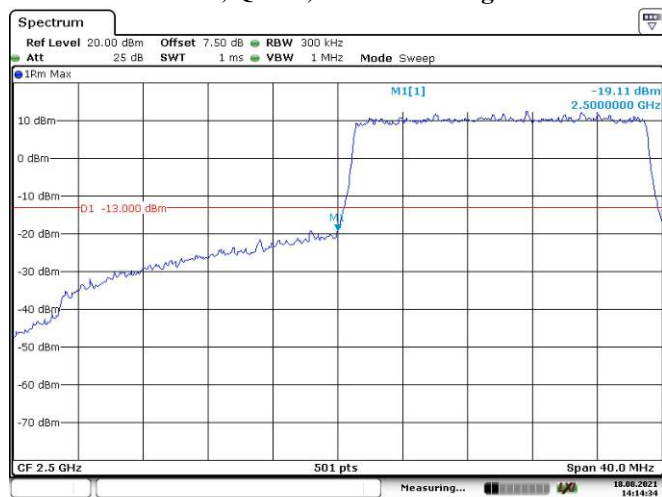
10M, 16QAM, Right Band Edge



Date: 18.AUG.2021 14:06:28

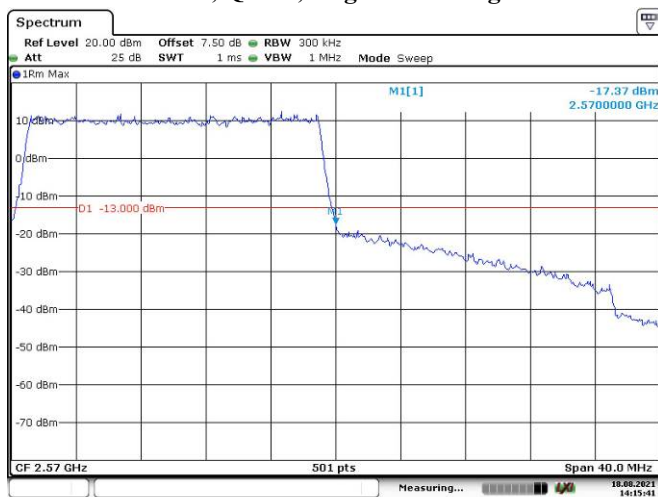
LTE Band 7:**5M, QPSK, Left Band Edge****5M, QPSK, Right Band Edge****10M, QPSK, Left Band Edge****10M, QPSK, Right Band Edge****15M, QPSK, Left Band Edge****15M, QPSK, Right Band Edge**

20M, QPSK, Left Band Edge



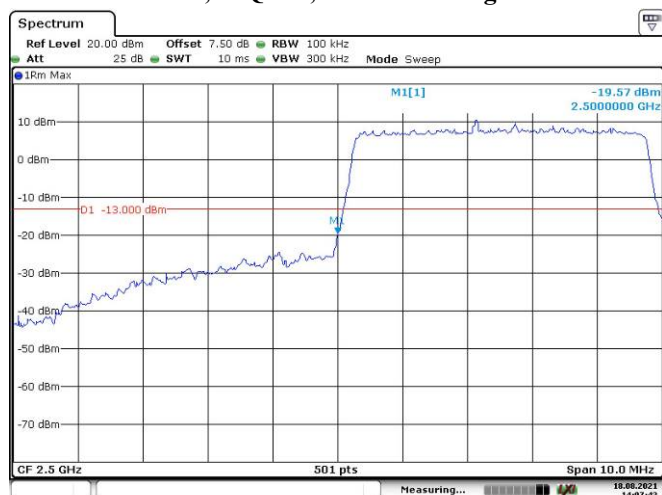
Date: 18.AUG.2021 14:14:35

20M, QPSK, Right Band Edge



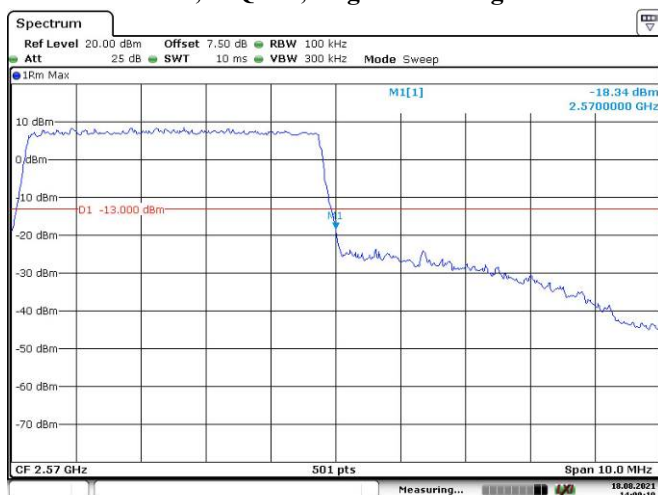
Date: 18.AUG.2021 14:15:41

5M, 16QAM, Left Band Edge



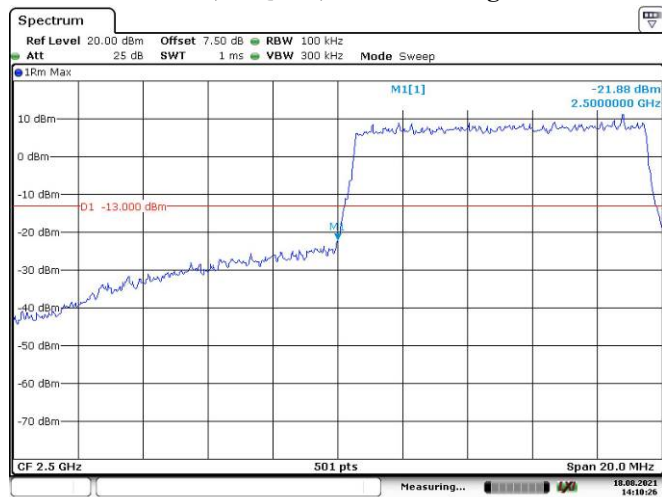
Date: 18.AUG.2021 14:07:43

5M, 16QAM, Right Band Edge



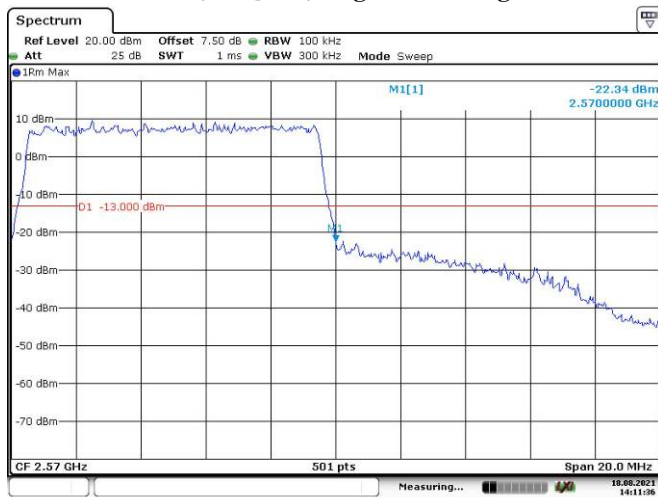
Date: 18.AUG.2021 14:09:20

10M, 16QAM, Left Band Edge



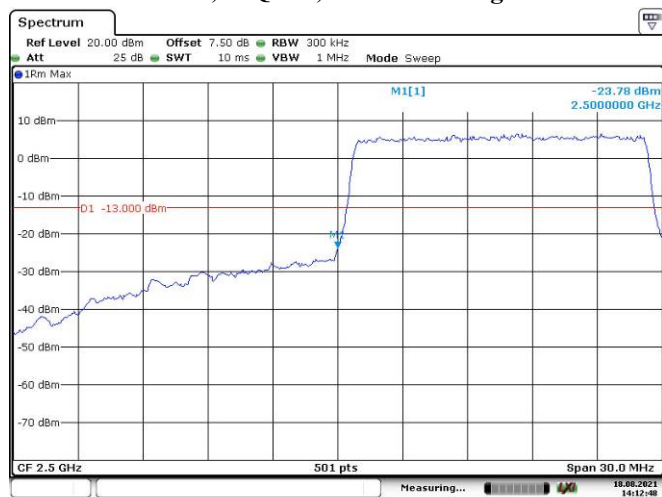
Date: 18.AUG.2021 14:10:26

10M, 16QAM, Right Band Edge



Date: 18.AUG.2021 14:11:36

15M, 16QAM, Left Band Edge



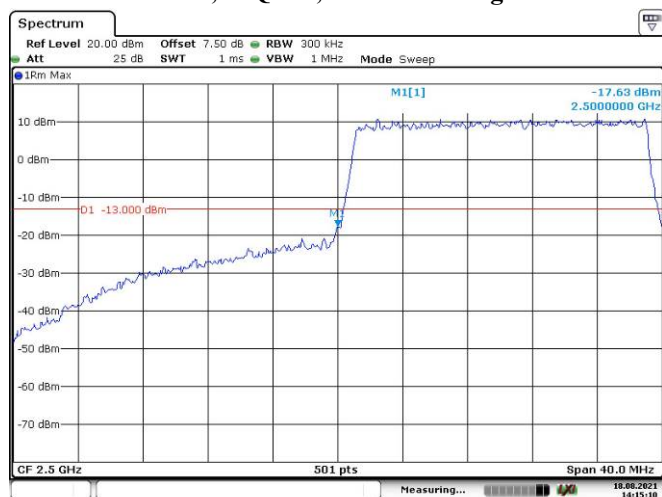
Date: 18.AUG.2021 14:12:48

15M, 16QAM, Right Band Edge



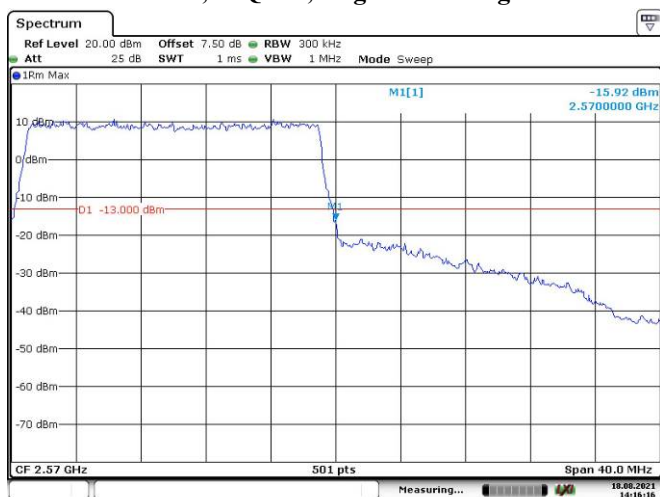
Date: 18.AUG.2021 14:13:51

20M, 16QAM, Left Band Edge



Date: 18.AUG.2021 14:15:10

20M, 16QAM, Right Band Edge



Date: 18.AUG.2021 14:16:17

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

Applicable Standard

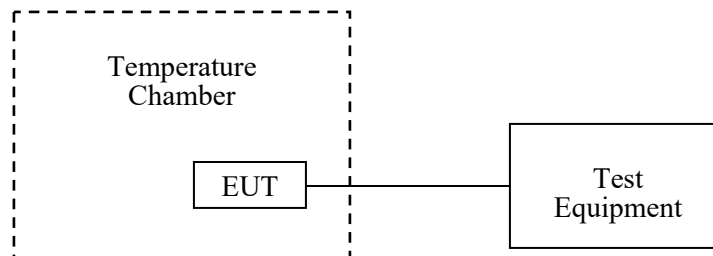
FCC § 2.1055 (a), § 2.1055 (d), §22.355, §24.235, §27.54

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	FSV40	101474	2021/7/22	2022/7/21
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41010012	Each time	N/A
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41005011	Each time	N/A
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	N/A
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	2020/9/23	2021/9/22
BACL	TEMP&HUMI Test Chamber	BTH-150	30022	2021/2/24	2022/2/23
UNI-T	Multimeter	UT39A	M130199938	2020/8/25	2021/8/24
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:	27.2°C ~28.2°C
Relative Humidity:	51 %~56 %
ATM Pressure:	100.1kPa~100.3kPa
Tester:	Lay Lei
Test Date:	2021.08.17~2021.08.19

Test Result: Compliance.

GMSK, Middle Channel, $f_c = 836.6$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V _{DC}	Hz	ppm	ppm
-30	3.7	8	0.00956	2.5
-20		12	0.01434	
-10		14	0.01673	
0		16	0.01913	
10		10	0.01195	
20		14	0.01673	
30		6	0.00717	
40		11	0.01315	
50		18	0.02152	
20	3.5	14	0.01673	2.5
20	4.2	12	0.01434	

GMSK, Middle Channel, $f_c = 1880$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Result
°C	V _{DC}	Hz	ppm	
-30	3.7	-8	-0.00426	Pass
-20		12	0.00638	
-10		10	0.00532	
0		14	0.00745	
10		18	0.00957	
20		15	0.00798	
30		16	0.00851	
40		12	0.00638	
50		-15	-0.00798	
20	3.5	-12	-0.00638	Pass
20	4.2	14	0.00745	

8PSK, Middle Channel, $f_c = 836.6\text{MHz}$				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
$^{\circ}\text{C}$	V_{DC}	Hz	ppm	ppm
-30	3.7	12	0.01434	2.5
-20		10	0.01195	
-10		14	0.01673	
0		12	0.01434	
10		10	0.01195	
20		14	0.01673	
30		8	0.00956	
40		16	0.01913	
50		12	0.01434	
20	3.5	14	0.01673	
20	4.2	18	0.02152	

8PSK, Middle Channel, $f_c = 1880\text{ MHz}$				
Temperature	Voltage	Frequency Error	Frequency Error	Result
$^{\circ}\text{C}$	V_{DC}	Hz	ppm	
-30	3.7	15	0.00798	Pass
-20		10	0.00532	
-10		-12	-0.00638	
0		-14	-0.00745	
10		16	0.00851	
20		15	0.00798	
30		12	0.00638	
40		13	0.00691	
50		14	0.00745	
20	3.5	16	0.00851	
20	4.2	18	0.00957	

WCDMA Band II: R99

Middle Channel, $f_c = 1880.0$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Result
°C	V _{DC}	Hz	ppm	
-30	3.7	17	0.00904	Pass
-20		22	0.01170	
-10		24	0.01277	
0		22	0.01170	
10		-14	-0.00745	
20		22	0.01170	
30		26	0.01383	
40		22	0.01170	
50		-16	-0.00851	
20	3.5	18	0.00957	
20	4.2	20	0.01064	

WCDMA Band V: R99

Middle Channel, $f_c = 836.6$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V _{DC}	Hz	ppm	ppm
-30	3.7	16	0.01913	2.5
-20		12	0.01434	
-10		20	0.02391	
0		18	0.02152	
10		22	0.02630	
20		24	0.02869	
30		20	0.02391	
40		18	0.02152	
50		14	0.01673	
20	3.5	18	0.02152	
20	4.2	16	0.01913	

LTE Band 2:

QPSK, Channel Bandwidth:20MHz Middle Channel, $f_c = 1880$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Result
°C	V_{DC}	Hz	ppm	
-30	3.7	42.490000	0.0226	Pass
-20		9.130000	0.0049	
-10		8.500000	0.0045	
0		-9.430000	-0.005	
10		-8.100000	-0.0043	
20		6.120000	0.0033	
30		-7.800000	-0.0041	
40		9.520000	0.0051	
50		9.900000	0.0053	
20	3.5	7.980000	0.0042	
20	4.2	-6.540000	-0.0035	

16QAM, Channel Bandwidth:20MHz Middle Channel, $f_c = 1880$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Result
°C	V_{DC}	Hz	ppm	
-30	3.7	-13.820000	-0.0074	Pass
-20		-7.850000	-0.0042	
-10		5.210000	0.0028	
0		-6.580000	-0.0035	
10		-8.980000	-0.0048	
20		8.460000	0.0045	
30		7.300000	0.0039	
40		8.850000	0.0047	
50		-6.060000	-0.0032	
20	3.5	-8.590000	-0.0046	
20	4.2	-8.550000	-0.0045	

LTE Band 4

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.7	-30	1710.528200	1710	1754.471500	1755
	-20	1710.528100		1754.471700	
	-10	1710.528700		1754.471200	
	0	1710.528400		1754.471300	
	10	1710.528500		1754.471700	
	20	1710.528900		1754.471100	
	30	1710.528600		1754.471400	
	40	1710.528200		1754.471200	
	50	1710.528700		1754.471600	
3.5	20	1710.528300		1754.471400	
4.2	20	1710.528700		1754.471800	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.7	-30	1710.527500	1710	1754.471400	1755
	-20	1710.528400		1754.471700	
	-10	1710.528600		1754.471500	
	0	1710.528200		1754.471400	
	10	1710.528400		1754.471200	
	20	1710.528900		1754.471100	
	30	1710.528200		1754.471700	
	40	1710.528100		1754.471800	
	50	1710.528200		1754.471300	
3.5	20	1710.528700		1754.471400	
4.2	20	1710.528200		1754.471800	

LTE Band 5:

Middle Channel, $f_c = 836.5$ MHz, Channel Bandwidth:10MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V _{DC}	Hz	ppm	ppm
-30	3.7	0.200000	0.0002	2.5
-20		-5.810000	-0.0069	
-10		7.840000	0.0094	
0		7.130000	0.0085	
10		7.260000	0.0087	
20		-9.410000	-0.0112	
30		-8.760000	-0.0105	
40		5.540000	0.0066	
50		6.640000	0.0079	
20	3.5	8.980000	0.0107	
20	4.2	-7.980000	-0.0095	

Middle Channel, $f_c = 836.5$ MHz, Channel Bandwidth:10MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V _{DC}	Hz	ppm	ppm
-30	3.7	10.570000	0.0126	2.5
-20		-8.440000	-0.0101	
-10		6.040000	0.0072	
0		6.220000	0.0074	
10		5.940000	0.0071	
20		-5.650000	-0.0068	
30		6.770000	0.0081	
40		-9.020000	-0.0108	
50		6.040000	0.0072	
20	3.5	7.120000	0.0085	
20	4.2	7.470000	0.0089	

LTE Band 7

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.7	-30	2500.528500	2500	2569.511500	2570
	-20	2500.528100		2569.511700	
	-10	2500.528500		2569.512600	
	0	2500.528200		2569.512700	
	10	2500.528400		2569.511200	
	20	2500.528900		2569.511000	
	30	2500.528400		2569.511300	
	40	2500.528700		2569.512400	
	50	2500.528200		2569.514500	
3.5	20	2500.528400		2569.512800	
4.2	20	2500.528300		2569.511700	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.7	-30	2500.528700	2500	2569.511500	2570
	-20	2500.528200		2569.511400	
	-10	2500.528100		2569.511200	
	0	2500.528500		2569.511700	
	10	2500.528400		2569.511600	
	20	2500.528900		2569.511000	
	30	2500.528200		2569.511500	
	40	2500.528100		2569.511300	
	50	2500.528700		2569.512400	
3.5	20	2500.527700		2569.512800	
4.2	20	2500.527800		2569.512600	

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 *******