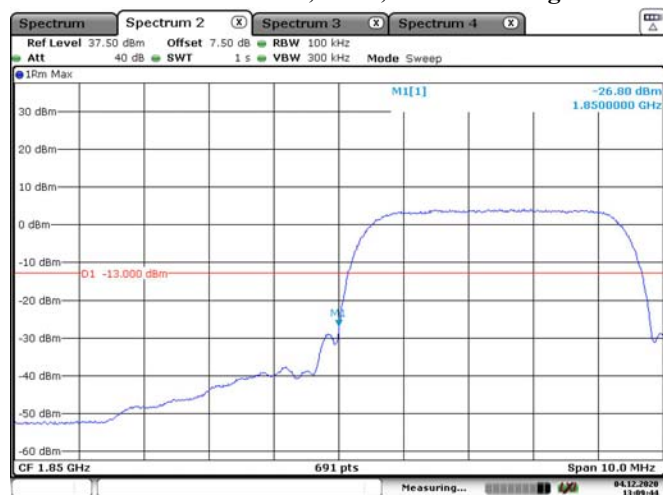
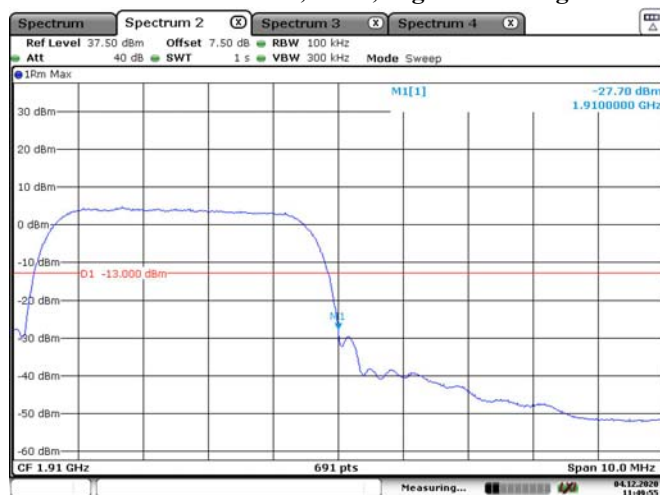


WCDMA Band II, Rel99, Left Band Edge



WCDMA Band II, Rel99, Right Band Edge



WCDMA Band II, HSDPA, Left Band Edge



WCDMA Band II, HSDPA, Right Band Edge



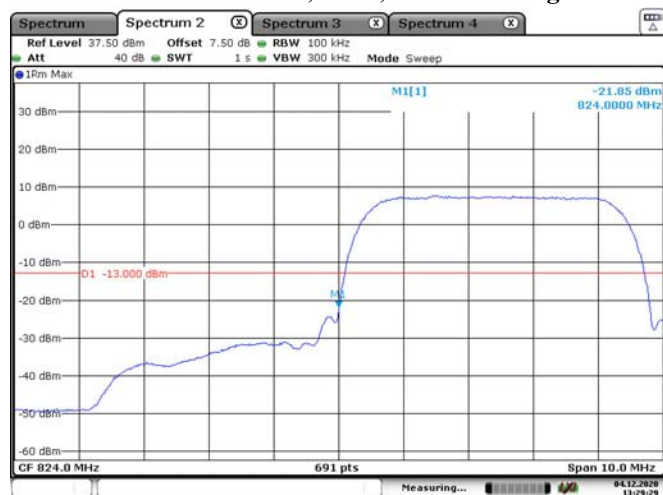
WCDMA Band II, HSUPA, Left Band Edge



WCDMA Band II, HSUPA, Right Band Edge

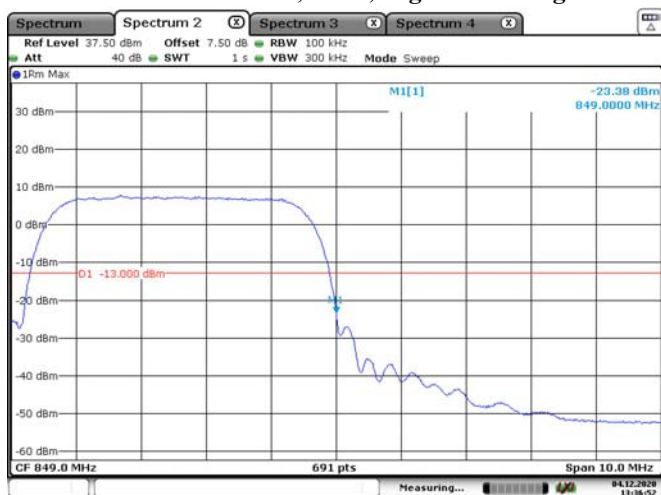


WCDMA Band V, Rel99, Left Band Edge



Date: 4.DEC.2020 13:29:29

WCDMA Band V, Rel99, Right Band Edge



Date: 4.DEC.2020 13:36:52

WCDMA Band V, HSDPA, Left Band Edge



Date: 4.DEC.2020 13:46:18

WCDMA Band V, HSDPA, Right Band Edge



Date: 4.DEC.2020 13:52:11

WCDMA Band V, HSUPA, Left Band Edge

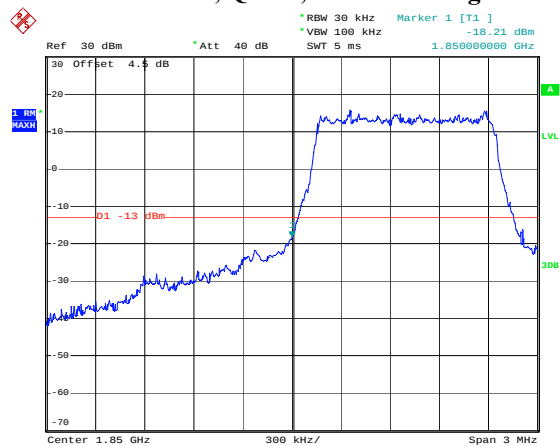


Date: 4.DEC.2020 14:43:10

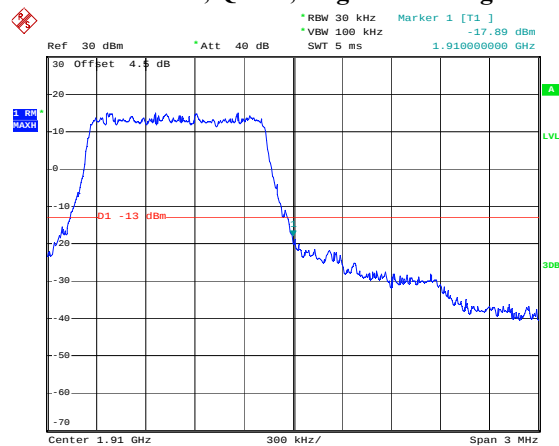
WCDMA Band V, HSUPA, Right Band Edge



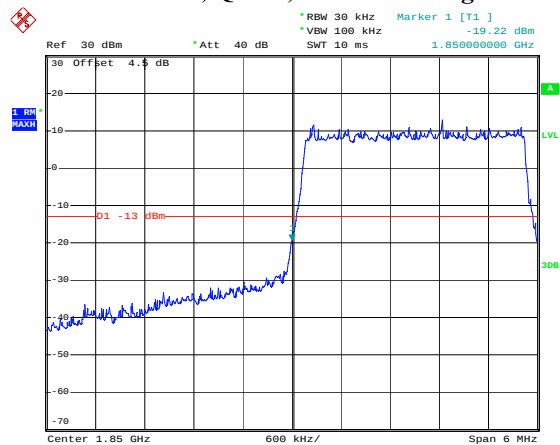
Date: 4.DEC.2020 14:49:52

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

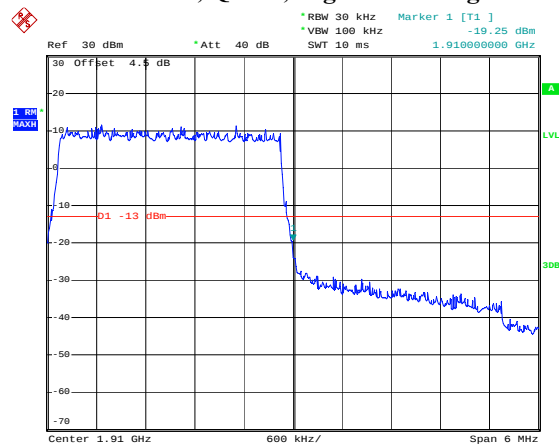
Date: 6.DEC.2020 13:57:19

1.4M, QPSK, Right Band Edge

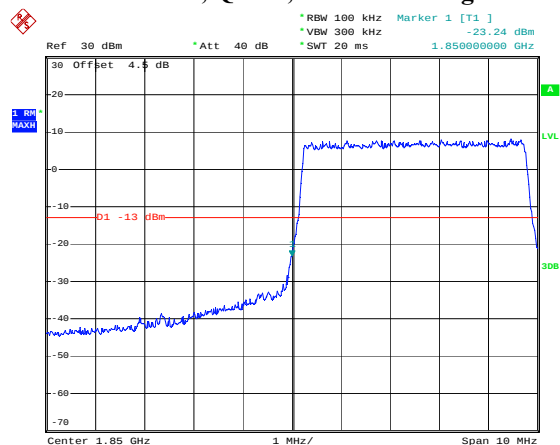
Date: 6.DEC.2020 13:57:54

3M, QPSK, Left Band Edge

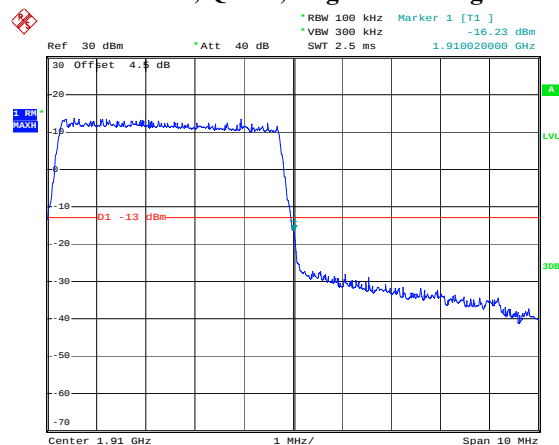
Date: 6.DEC.2020 13:58:46

3M, QPSK, Right Band Edge

Date: 6.DEC.2020 13:59:24

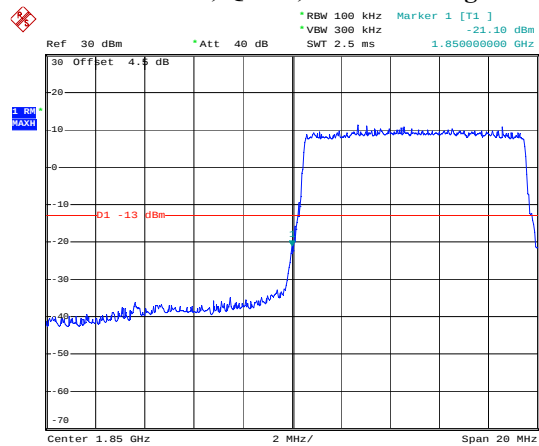
5M, QPSK, Left Band Edge

Date: 7.DEC.2020 16:51:55

5M, QPSK, Right Band Edge

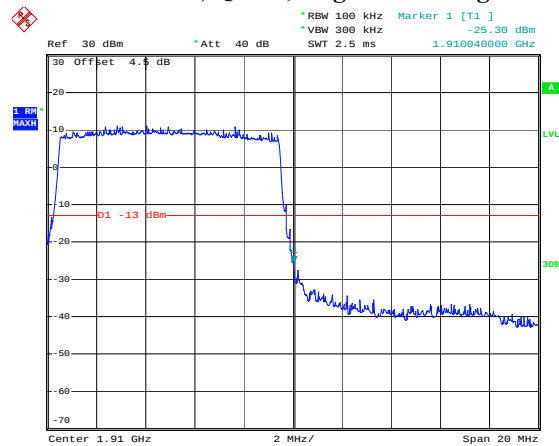
Date: 6.DEC.2020 14:00:52

10M, QPSK, Left Band Edge



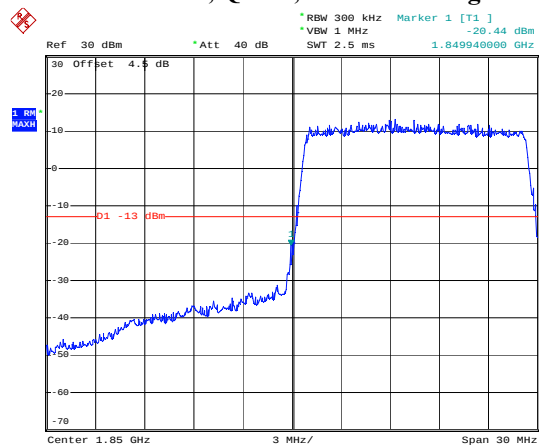
Date: 6.DEC.2020 14:01:43

10M, QPSK, Right Band Edge



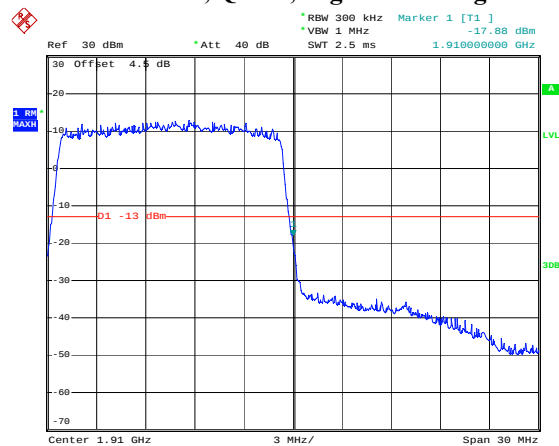
Date: 6.DEC.2020 14:02:21

15M, QPSK, Left Band Edge



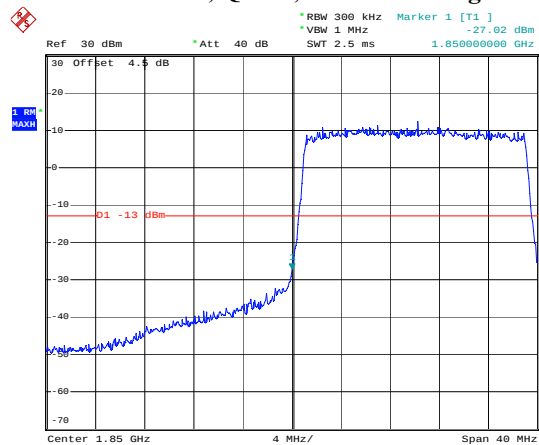
Date: 6.DEC.2020 14:03:13

15M, QPSK, Right Band Edge



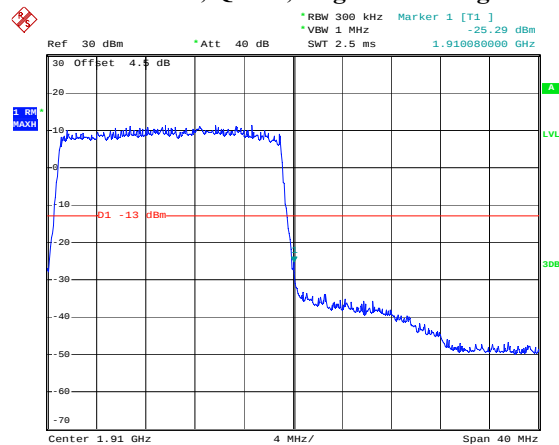
Date: 6.DEC.2020 14:03:58

20M, QPSK, Left Band Edge



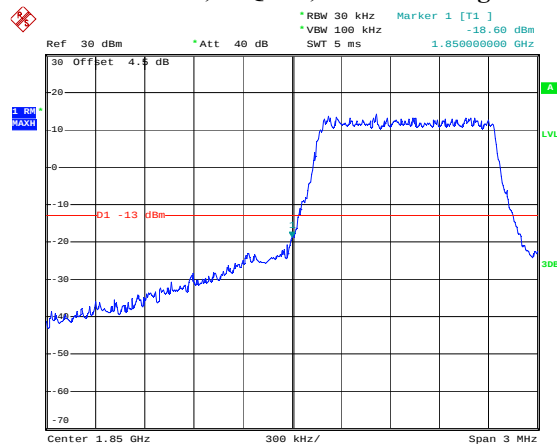
Date: 6.DEC.2020 14:05:05

20M, QPSK, Right Band Edge



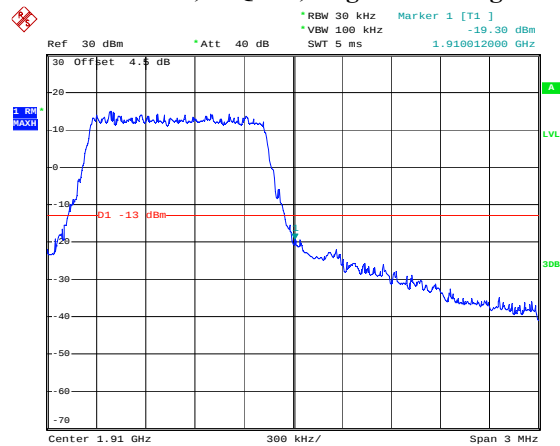
Date: 6.DEC.2020 14:05:47

1.4M, 16QAM, Left Band Edge



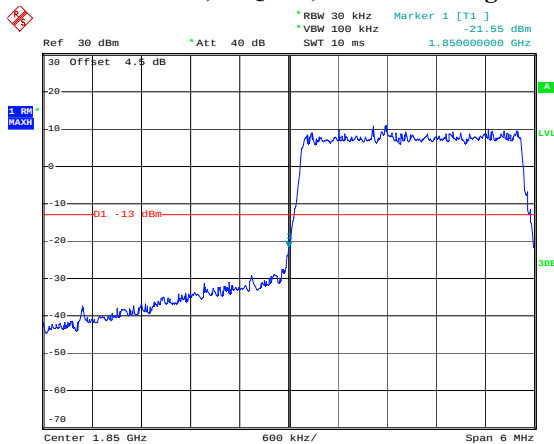
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1.4M, 16QAM, Right Band Edge



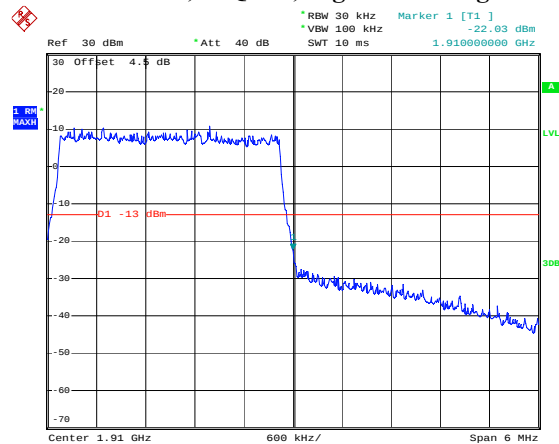
Date: 6.DEC.2020 13:58:15

3M, 16QAM, Left Band Edge



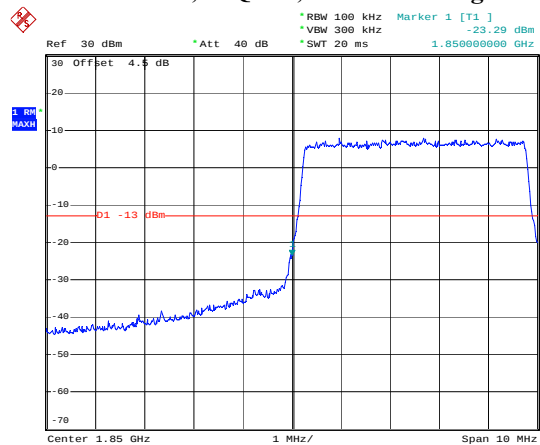
Date: 6.DEC.2020 13:59:06

3M, 16QAM, Right Band Edge



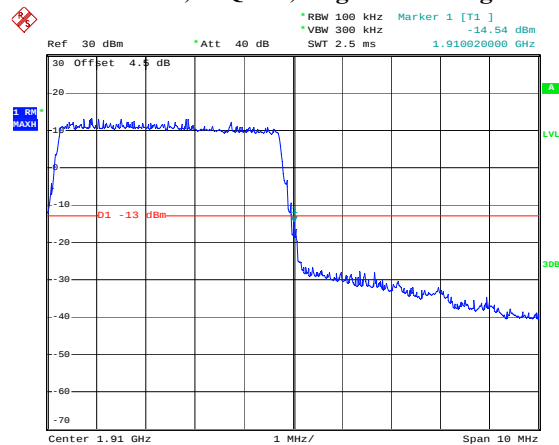
Date: 6.DEC.2020 13:59:41

5M, 16QAM, Left Band Edge



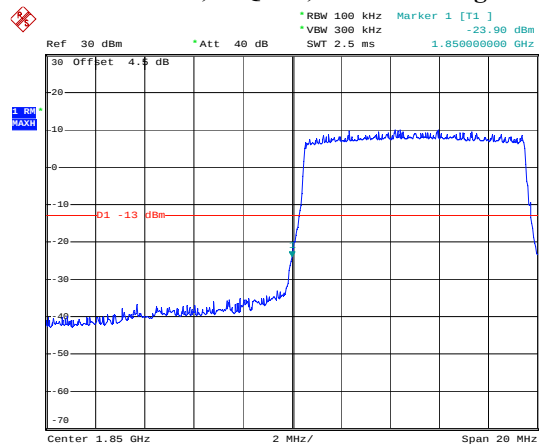
Date: 7.DEC.2020 15:02:39

5M, 16QAM, Right Band Edge



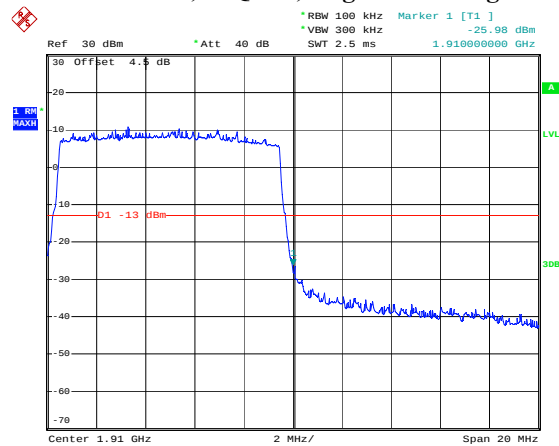
Date: 6.DEC.2020 14:01:09

10M, 16QAM, Left Band Edge



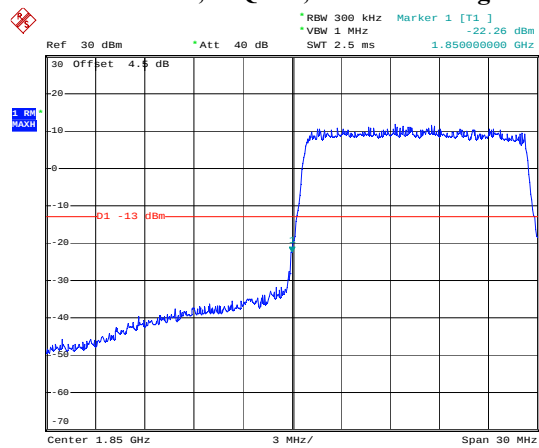
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10M, 16QAM, Right Band Edge



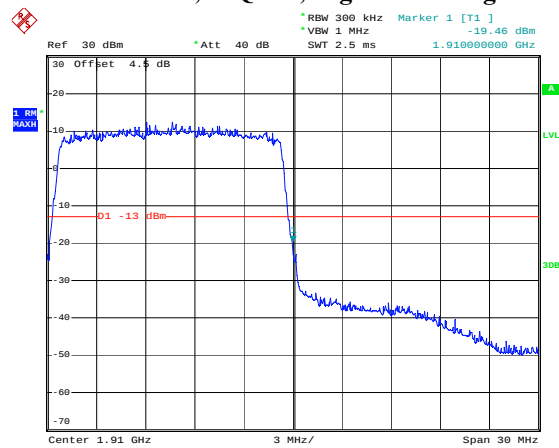
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15M, 16QAM, Left Band Edge



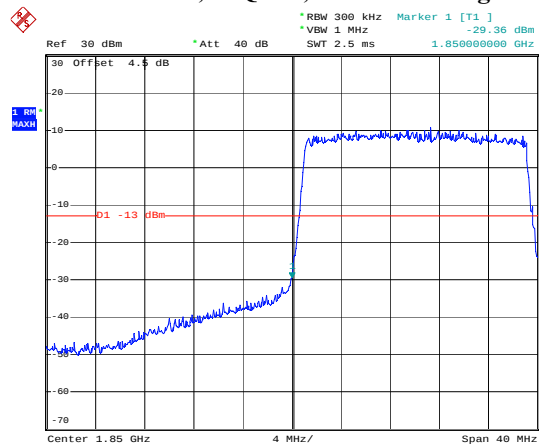
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15M, 16QAM, Right Band Edge



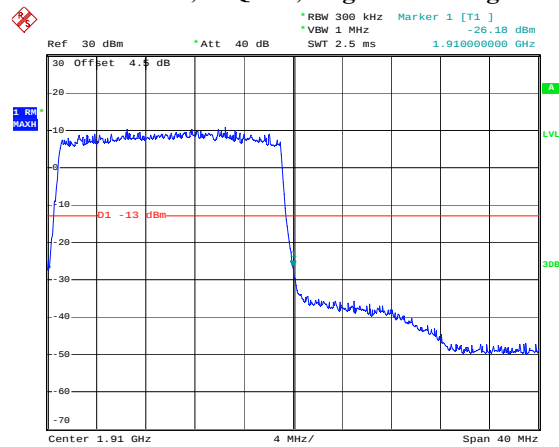
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20M, 16QAM, Left Band Edge

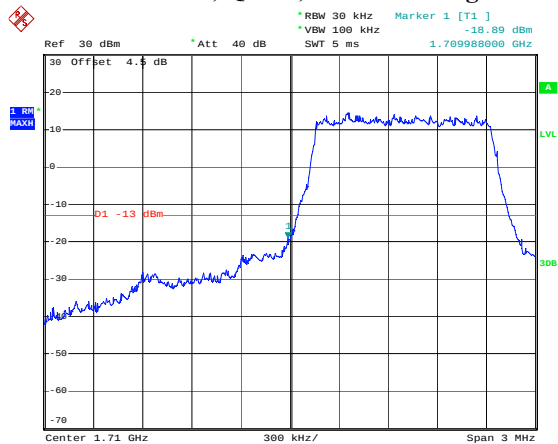


Date: 6.DEC.2020 14:05:25

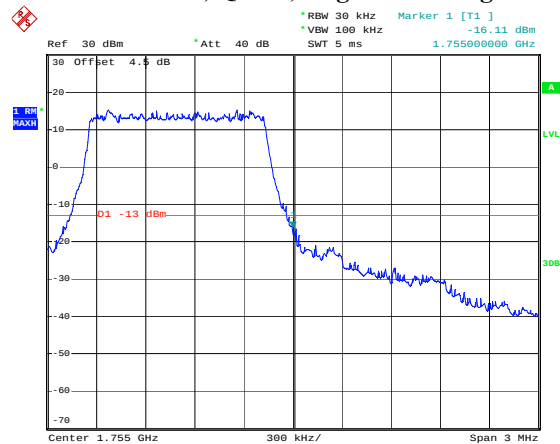
20M, 16QAM, Right Band Edge



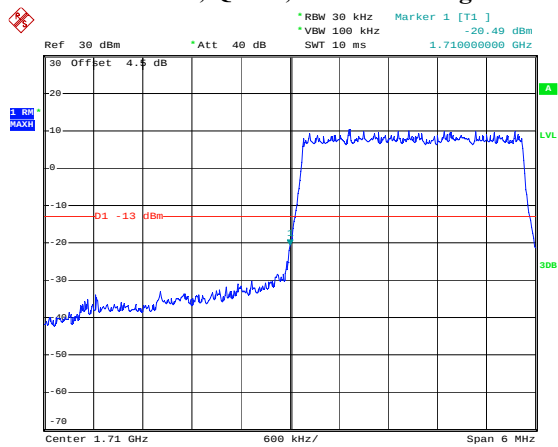
Date: 6.DEC.2020 14:06:07

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

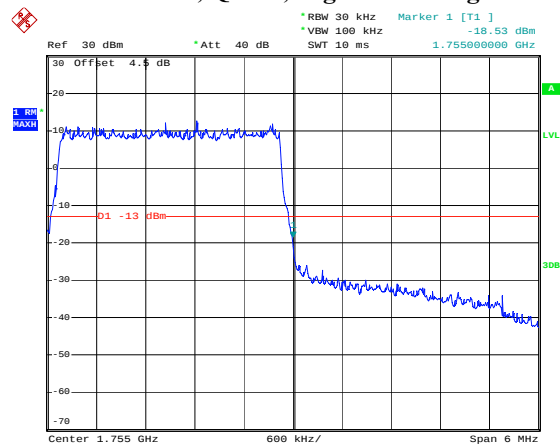
Date: 6.DEC.2020 14:06:55

1.4M, QPSK, Right Band Edge

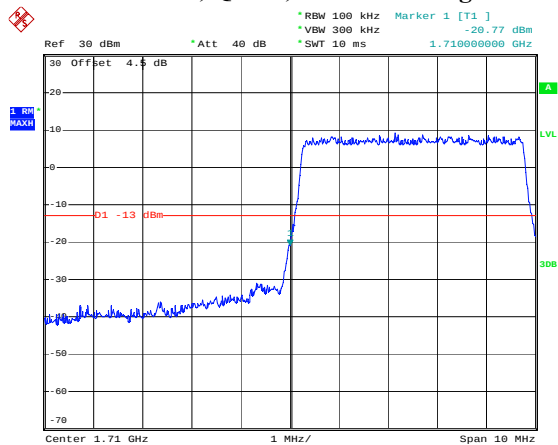
Date: 6.DEC.2020 14:07:30

3M, QPSK, Left Band Edge

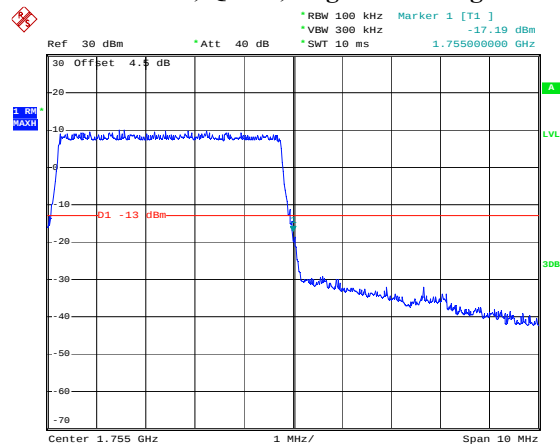
Date: 6.DEC.2020 14:08:36

3M, QPSK, Right Band Edge

Date: 6.DEC.2020 14:09:14

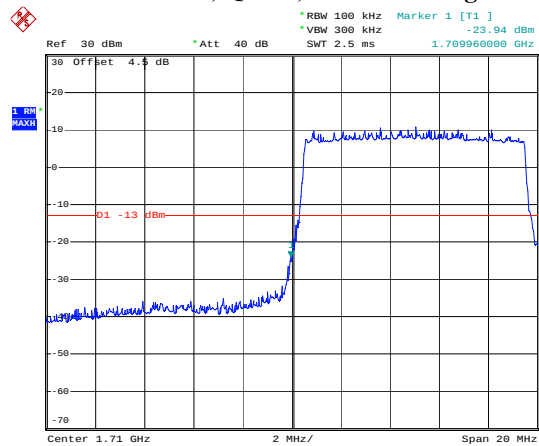
5M, QPSK, Left Band Edge

Date: 7.DEC.2020 15:06:10

5M, QPSK, Right Band Edge

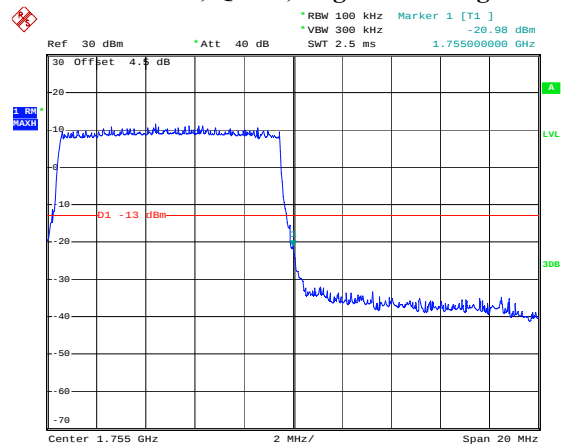
Date: 7.DEC.2020 15:12:34

10M, QPSK, Left Band Edge



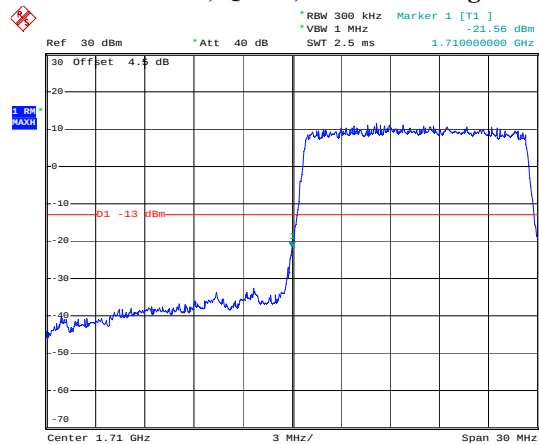
Date: 6.DEC.2020 14:11:54

10M, QPSK, Right Band Edge



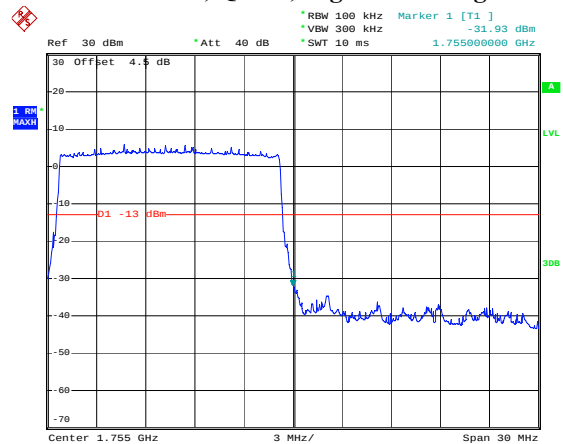
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15M, QPSK, Left Band Edge



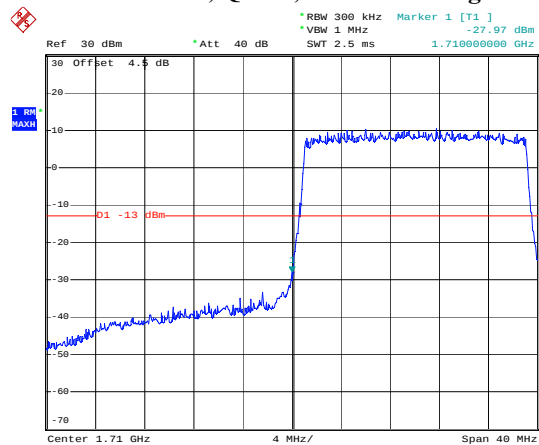
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15M, QPSK, Right Band Edge



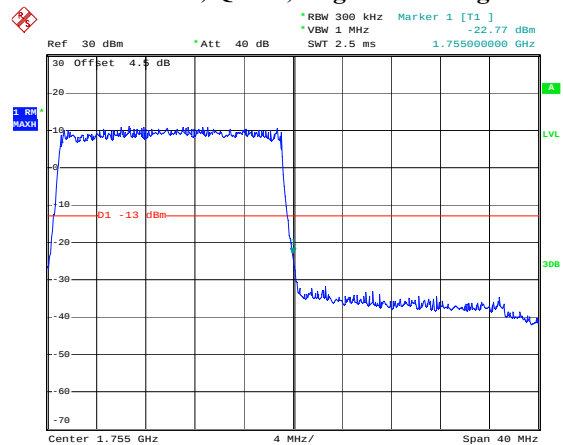
Date: 7.DEC.2020 15:20:08

20M, QPSK, Left Band Edge



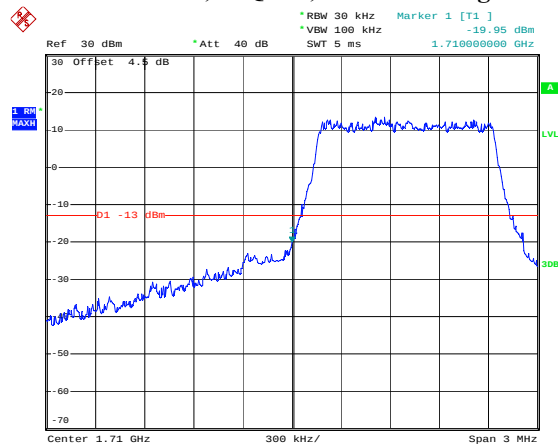
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20M, QPSK, Right Band Edge



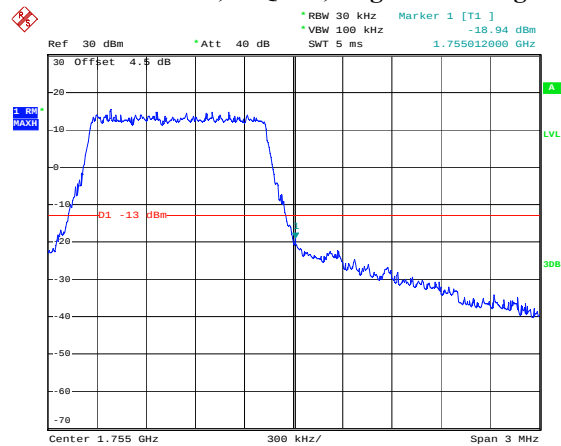
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1.4M, 16QAM, Left Band Edge



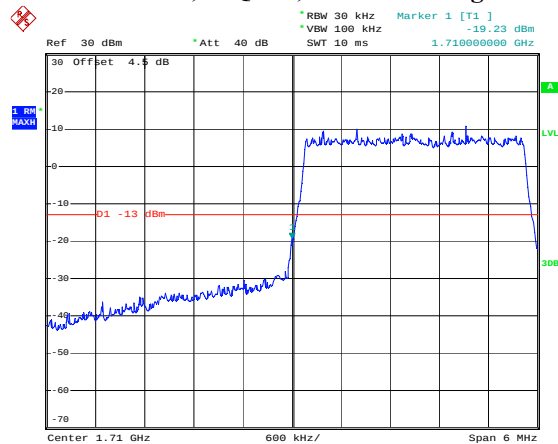
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1.4M, 16QAM, Right Band Edge



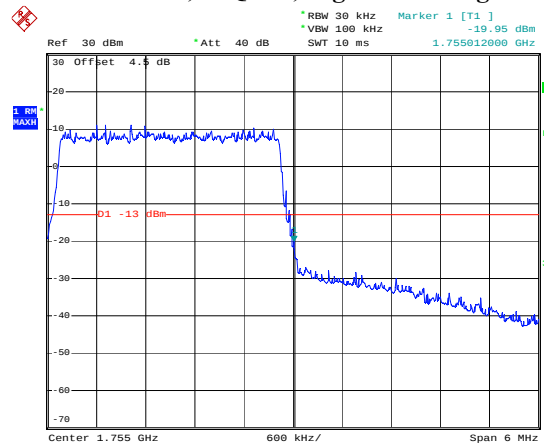
Date: 6.DEC.2020 14:07:51

3M, 16QAM, Left Band Edge



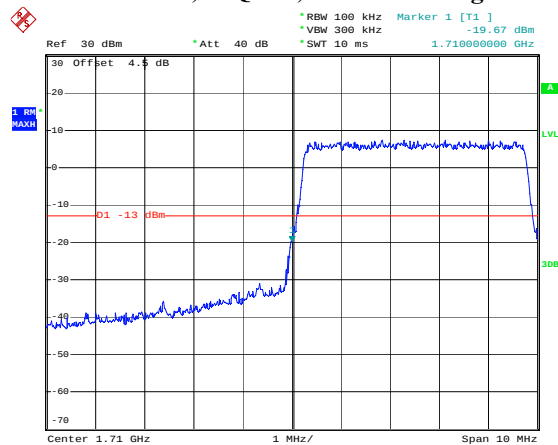
Date: 6.DEC.2020 14:08:56

3M, 16QAM, Right Band Edge



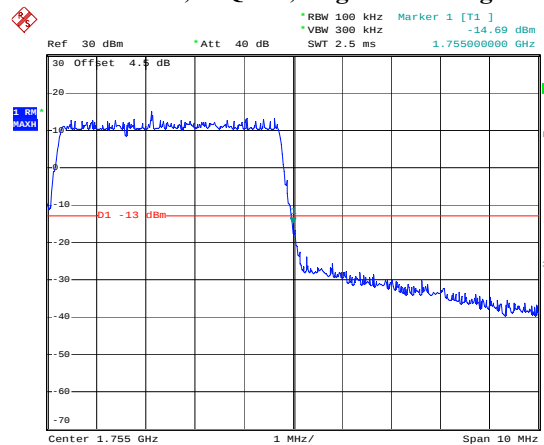
Date: 6.DEC.2020 14:09:31

5M, 16QAM, Left Band Edge



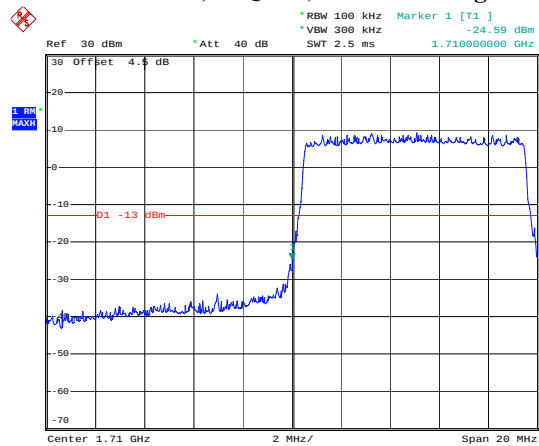
Date: 7.DEC.2020 15:06:50

5M, 16QAM, Right Band Edge



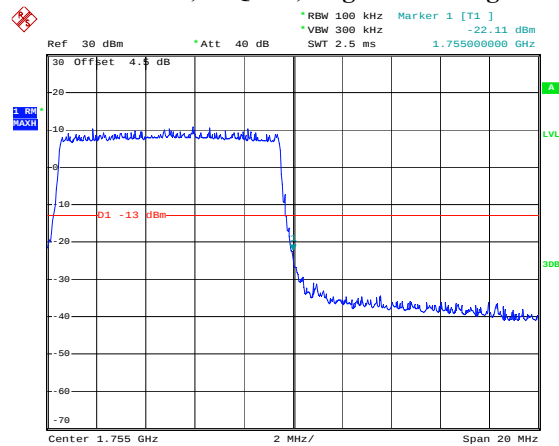
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10M, 16QAM, Left Band Edge



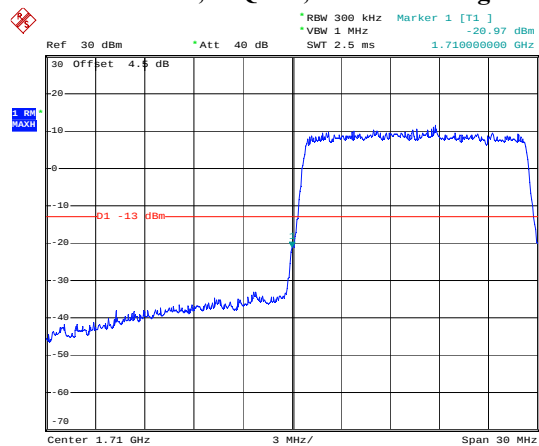
Date: 6.DEC.2020 14:12:16

10M, 16QAM, Right Band Edge



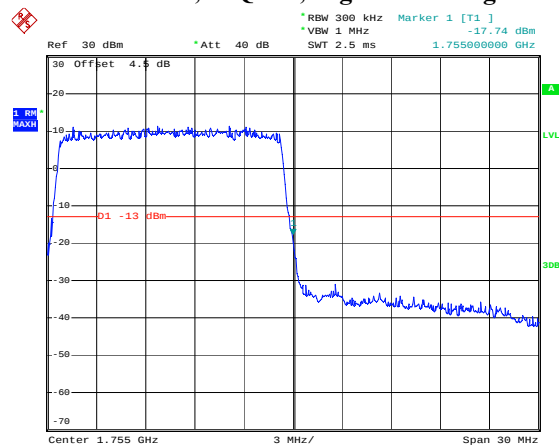
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15M, 16QAM, Left Band Edge



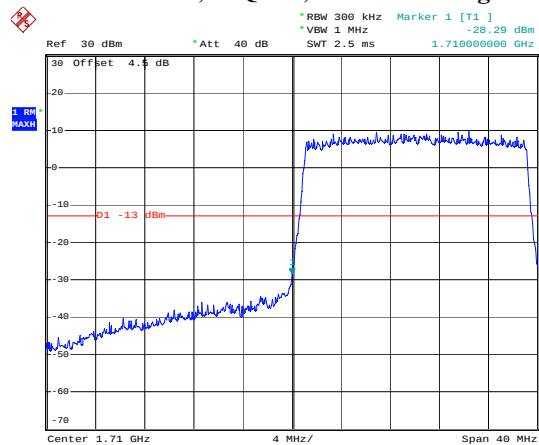
Date: 6.DEC.2020 14:14:05

15M, 16QAM, Right Band Edge



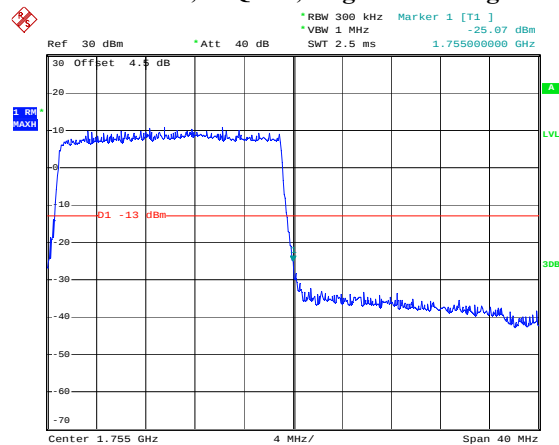
Date: 6.DEC.2020 14:14:46

20M, 16QAM, Left Band Edge



Date: 6.DEC.2020 14:15:31

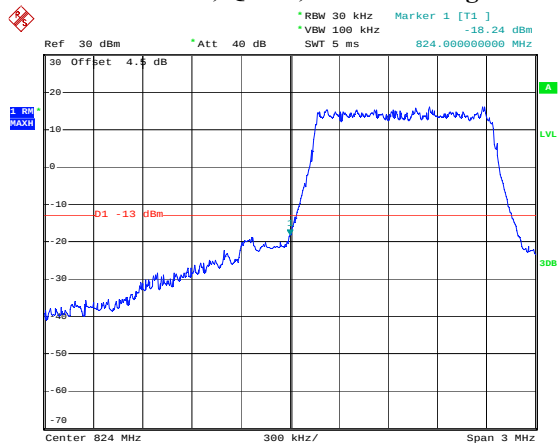
20M, 16QAM, Right Band Edge



Date: 6.DEC.2020 14:16:19

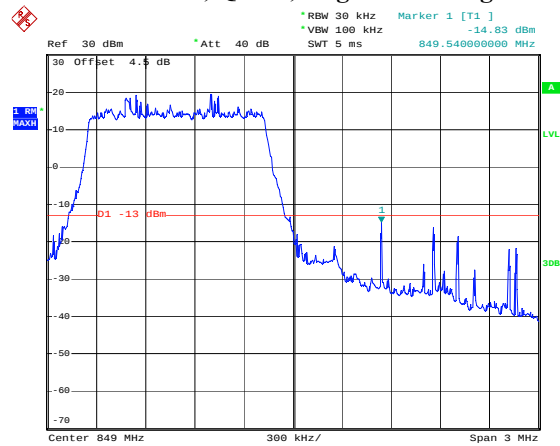
LTE Band 5:

1.4M, QPSK, Left Band Edge



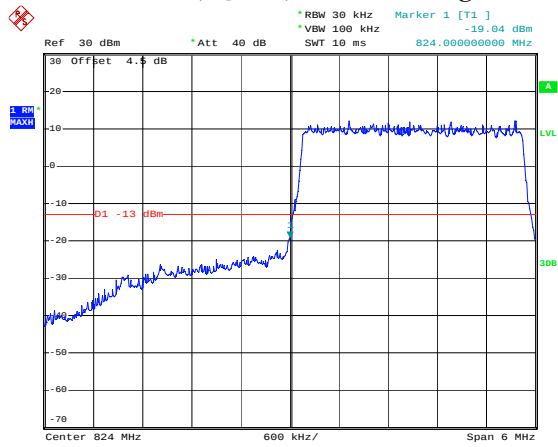
Date: 6.DEC.2020 14:19:03

1.4M, QPSK, Right Band Edge



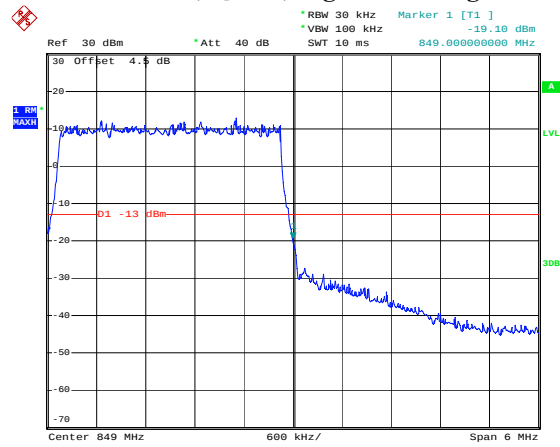
Date: 6.DEC.2020 14:19:38

3M, QPSK, Left Band Edge



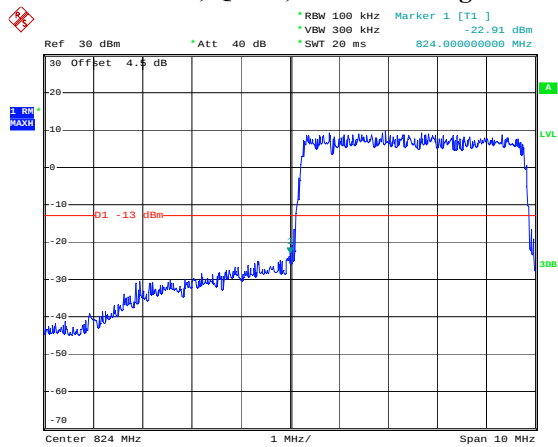
Date: 6.DEC.2020 14:20:37

3M, QPSK, Right Band Edge



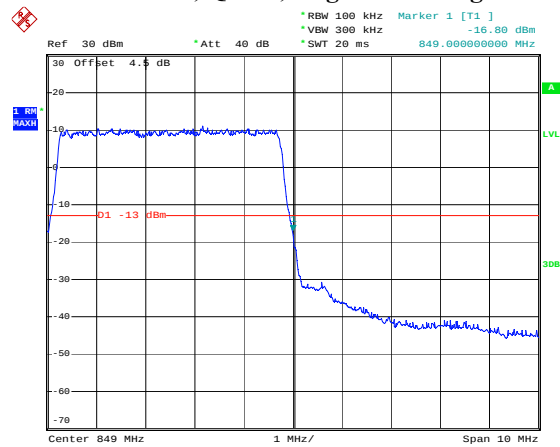
Date: 6.DEC.2020 14:27:45

5M, QPSK, Left Band Edge



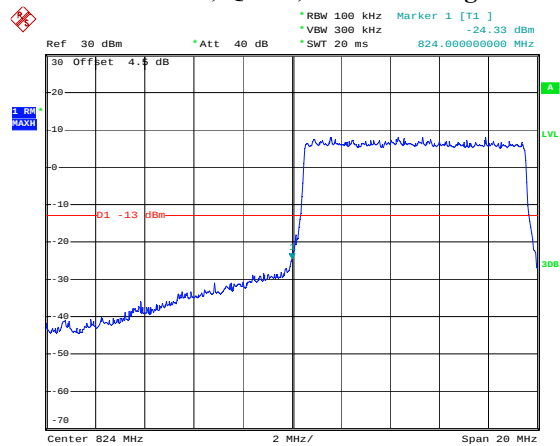
Date: 6.DEC.2020 14:29:55

5M, QPSK, Right Band Edge



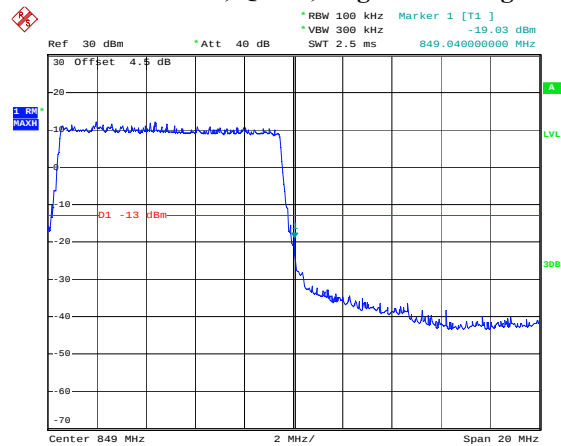
Date: 6.DEC.2020 14:30:49

10M, QPSK, Left Band Edge



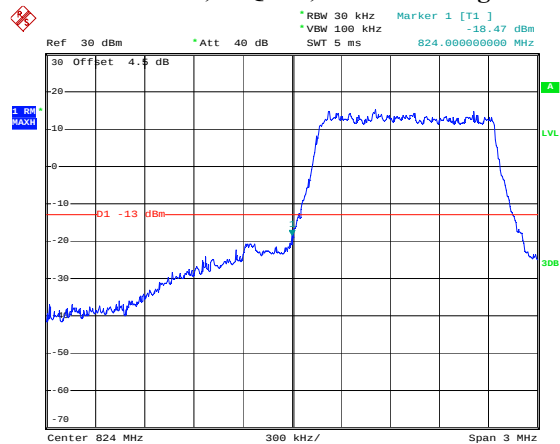
Date: 6.DEC.2020 14:32:01

10M, QPSK, Right Band Edge



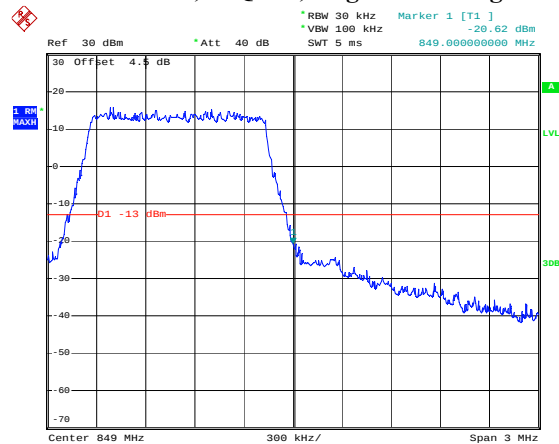
Date: 6.DEC.2020 14:32:42

1.4M, 16QAM, Left Band Edge



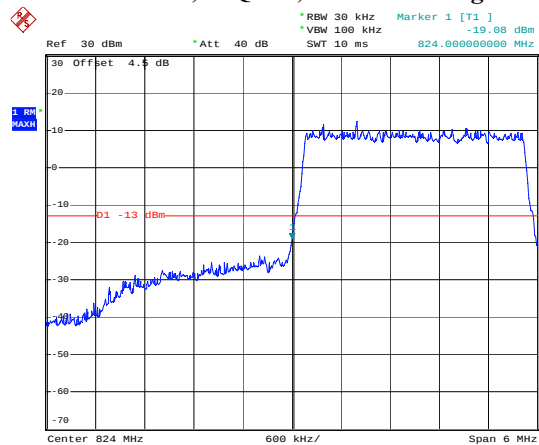
Date: 6.DEC.2020 14:19:20

1.4M, 16QAM, Right Band Edge



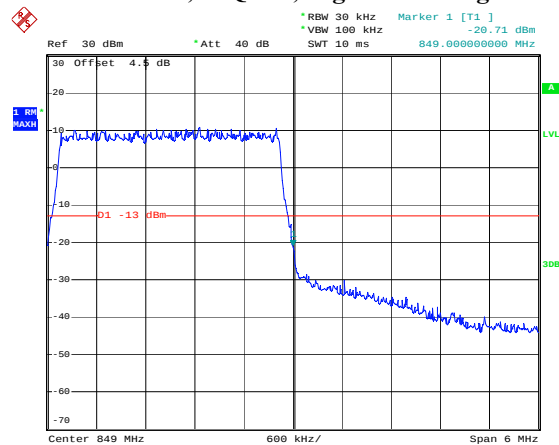
Date: 6.DEC.2020 14:19:55

3M, 16QAM, Left Band Edge



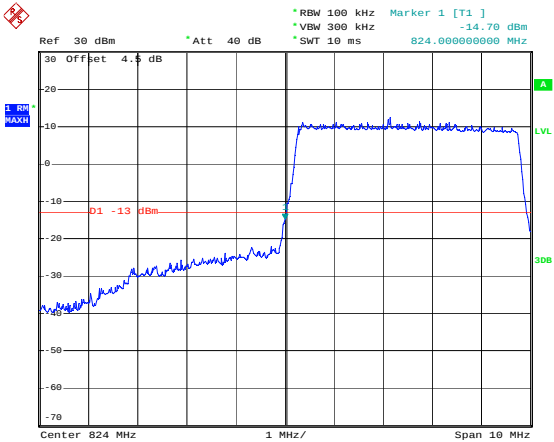
Date: 6.DEC.2020 14:20:57

3M, 16QAM, Right Band Edge



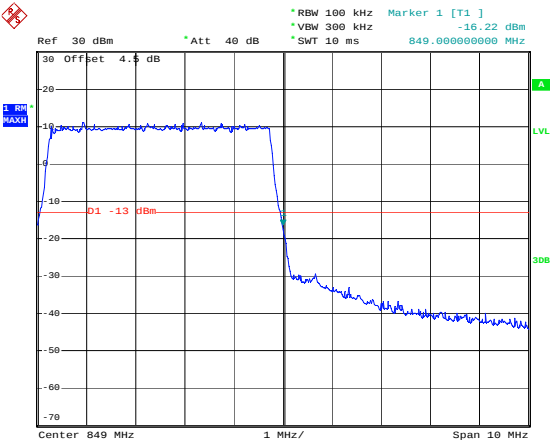
Date: 6.DEC.2020 14:28:02

5M, 16QAM, Left Band Edge



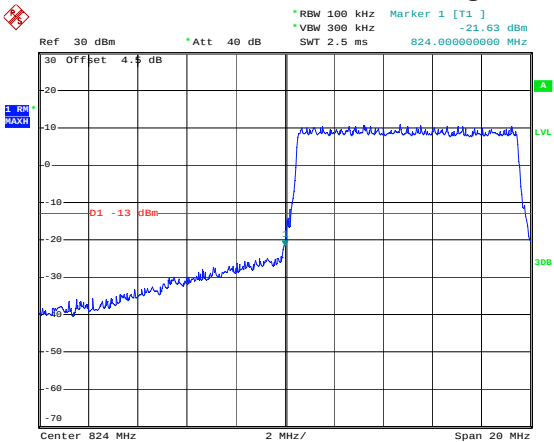
Date: 7.DEC.2020 15:27:00

5M, 16QAM, Right Band Edge



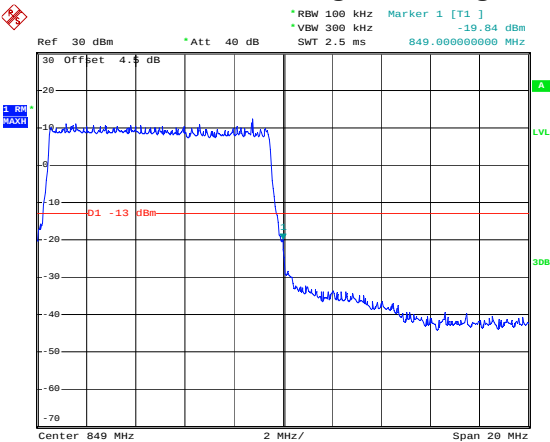
Date: 7.DEC.2020 15:28:37

10M, 16QAM, Left Band Edge



Date: 6.DEC.2020 14:32:23

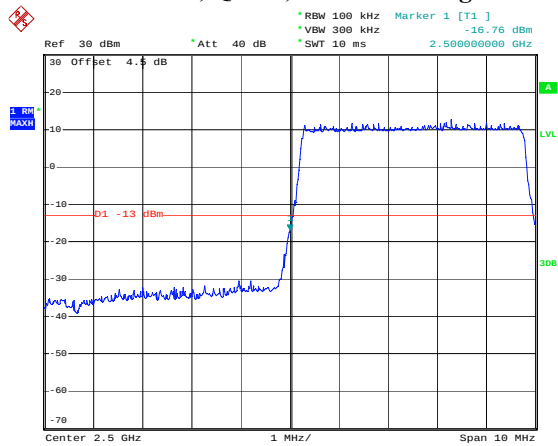
10M, 16QAM, Right Band Edge



Date: 6.DEC.2020 14:33:00

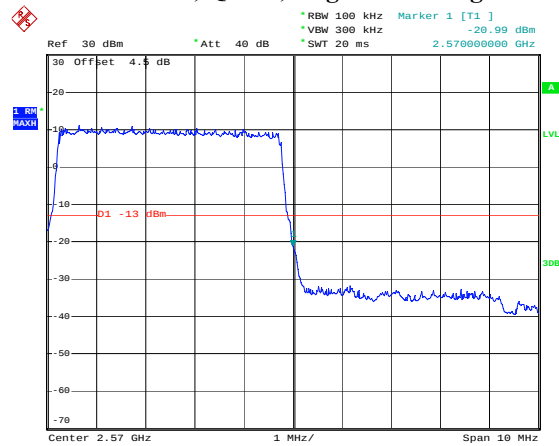
LTE Band 7:

5M, QPSK, Left Band Edge



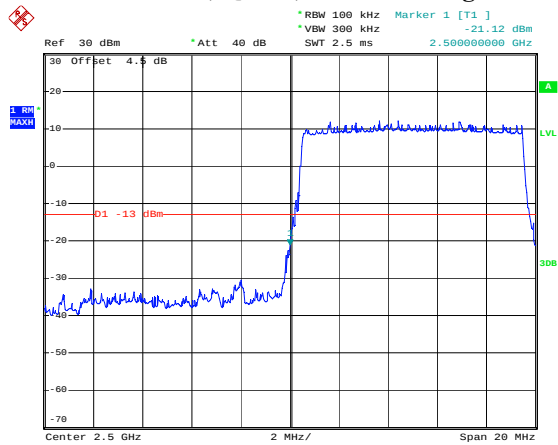
Date: 7.DEC.2020 16:05:02

5M, QPSK, Right Band Edge



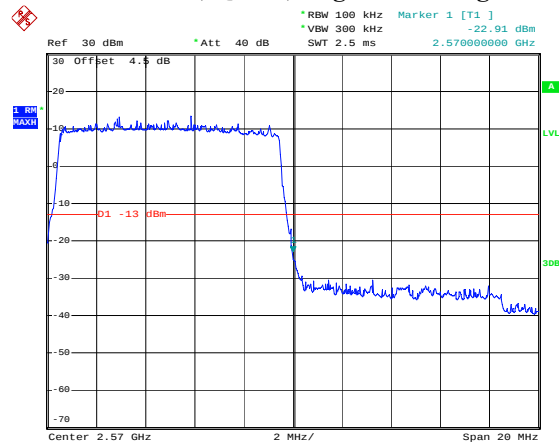
Date: 6.DEC.2020 14:34:39

10M, QPSK, Left Band Edge



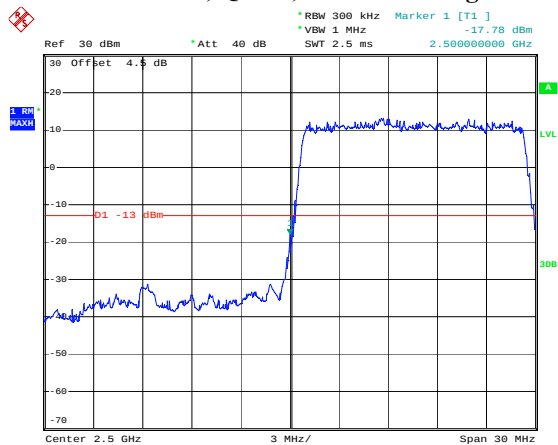
Date: 6.DEC.2020 14:35:35

10M, QPSK, Right Band Edge



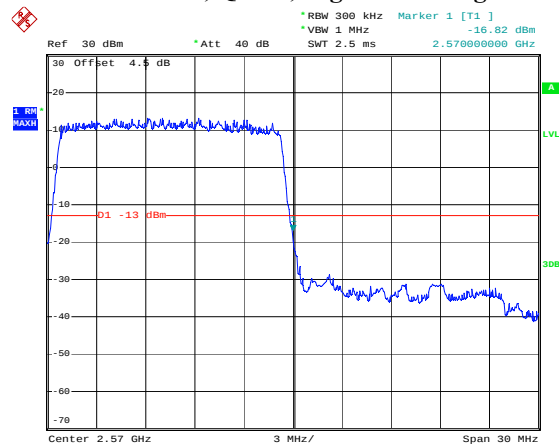
Date: 6.DEC.2020 14:36:19

15M, QPSK, Left Band Edge



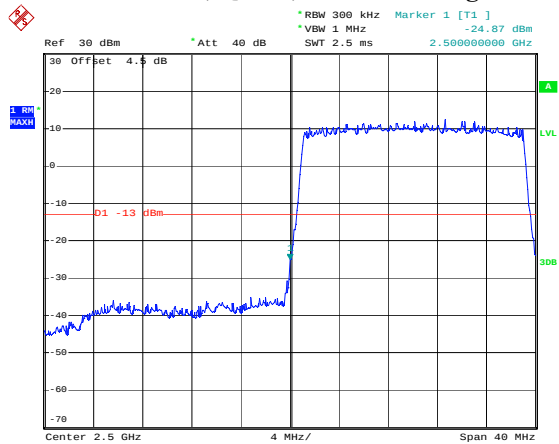
Date: 6.DEC.2020 14:37:04

15M, QPSK, Right Band Edge



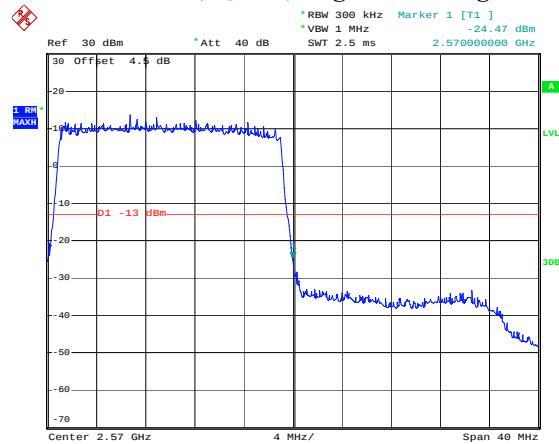
Date: 6.DEC.2020 14:37:46

20M, QPSK, Left Band Edge



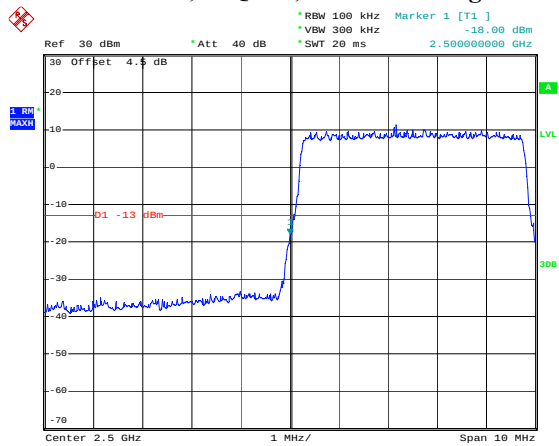
Date: 6.DEC.2020 14:38:33

20M, QPSK, Right Band Edge



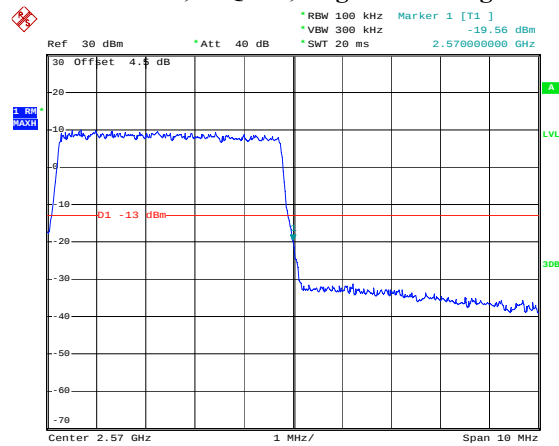
Date: 6.DEC.2020 14:39:15

5M, 16QAM, Left Band Edge



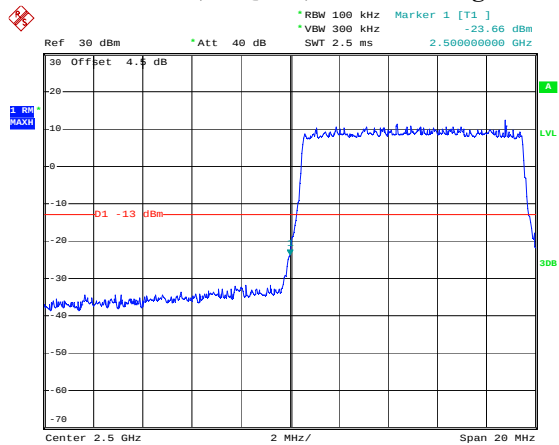
Date: 6.DEC.2020 14:34:04

5M, 16QAM, Right Band Edge



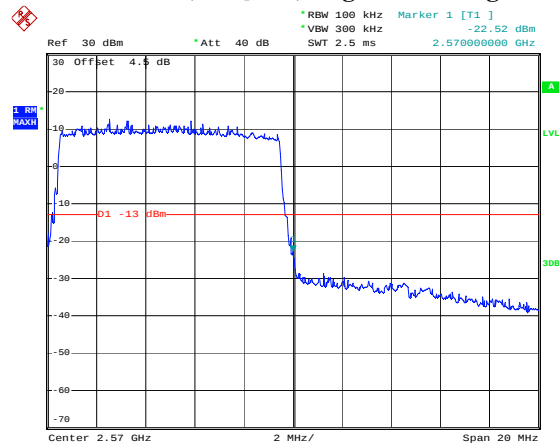
Date: 6.DEC.2020 14:35:13

10M, 16QAM, Left Band Edge



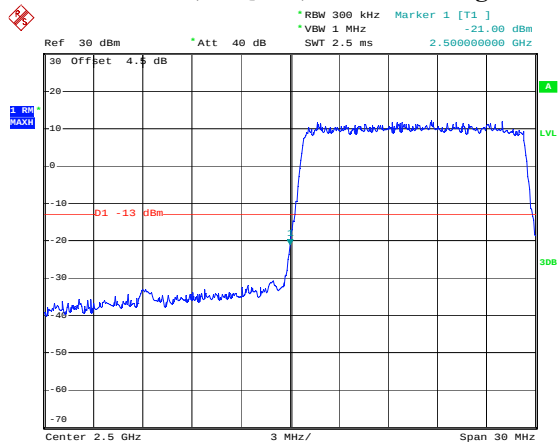
Date: 6.DEC.2020 14:35:56

10M, 16QAM, Right Band Edge



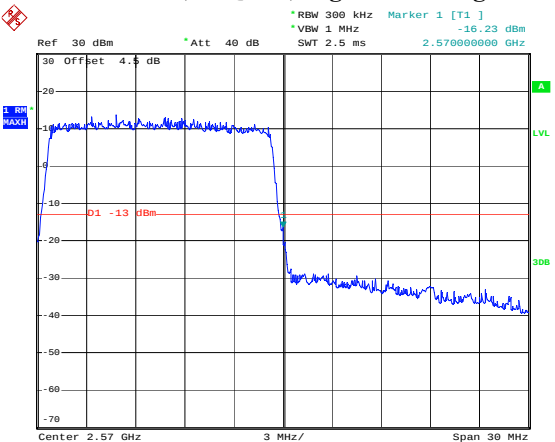
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15M, 16QAM, Left Band Edge



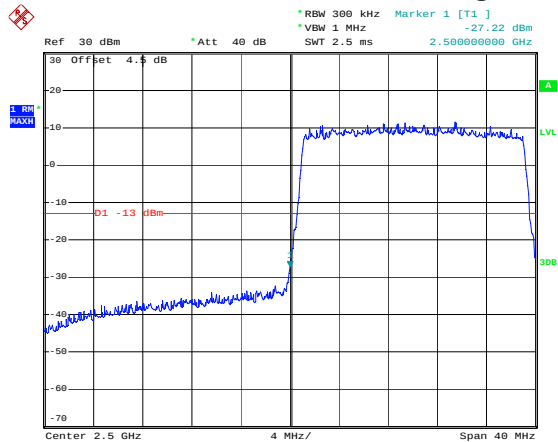
Date: 6.DEC.2020 14:37:24

15M, 16QAM, Right Band Edge



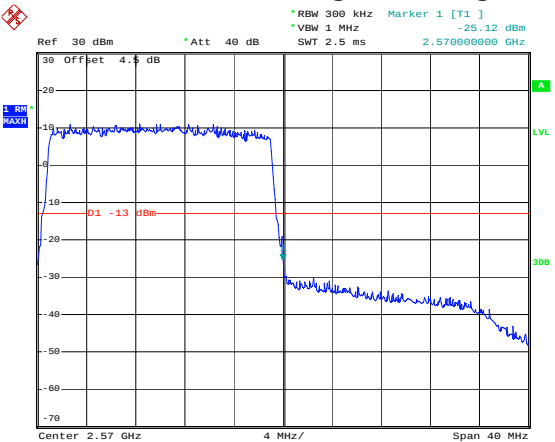
Date: 6.DEC.2020 14:38:09

20M, 16QAM, Left Band Edge

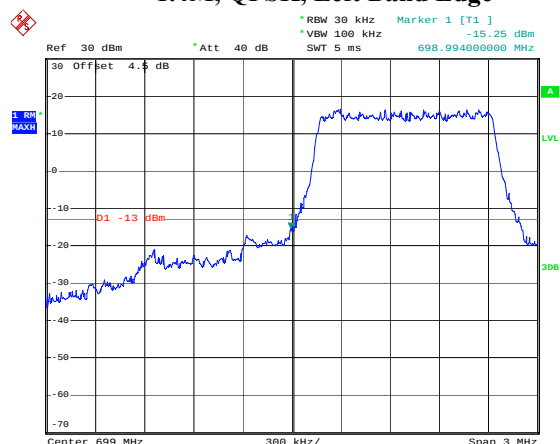


Date: 6.DEC.2020 14:38:54

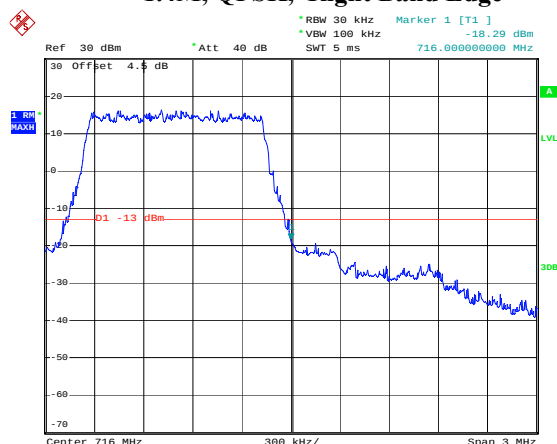
20M, 16QAM, Right Band Edge



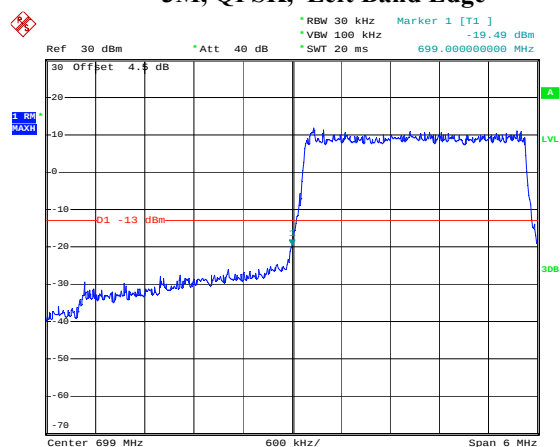
Date: 6.DEC.2020 14:39:35

LTE Band 12:**1.4M, QPSK, Left Band Edge**

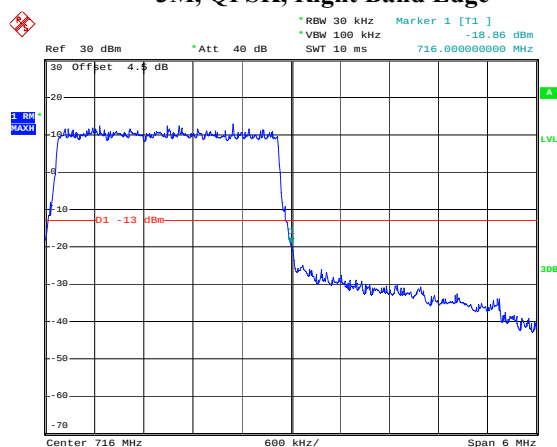
Date: 6.DEC.2020 14:46:02

1.4M, QPSK, Right Band Edge

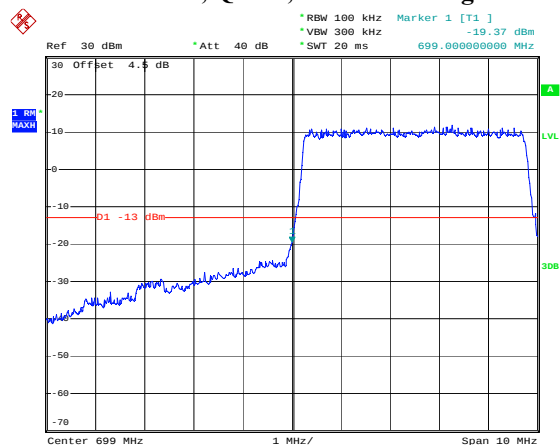
Date: 6.DEC.2020 14:46:38

3M, QPSK, Left Band Edge

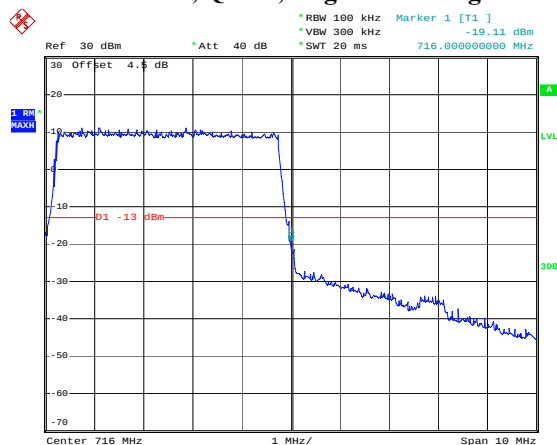
Date: 6.DEC.2020 14:47:35

3M, QPSK, Right Band Edge

Date: 6.DEC.2020 14:48:16

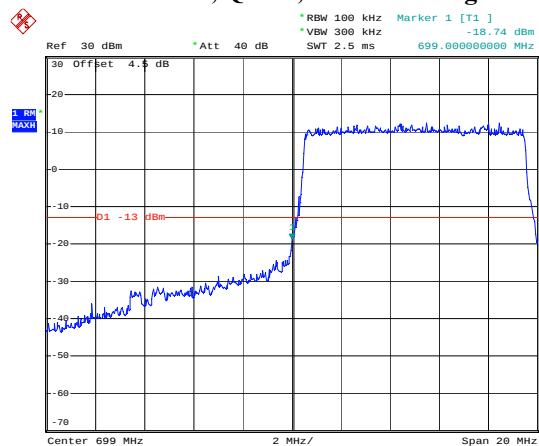
5M, QPSK, Left Band Edge

Date: 6.DEC.2020 14:49:16

5M, QPSK, Right Band Edge

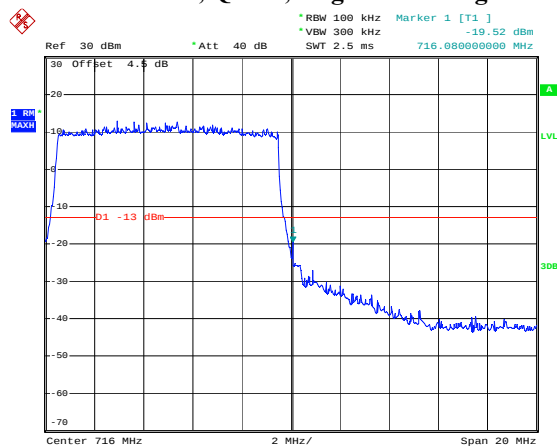
Date: 6.DEC.2020 14:50:23

10M, QPSK, Left Band Edge



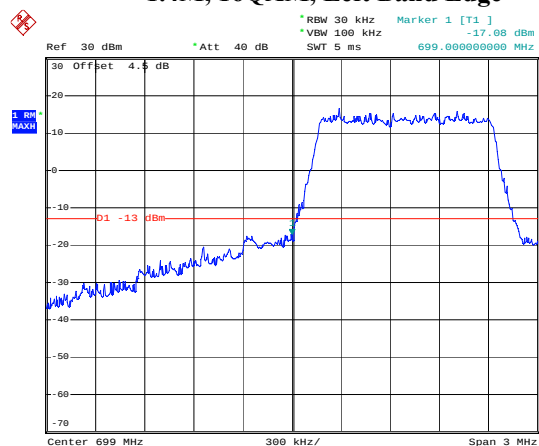
Date: 6.DEC.2020 14:51:16

10M, QPSK, Right Band Edge



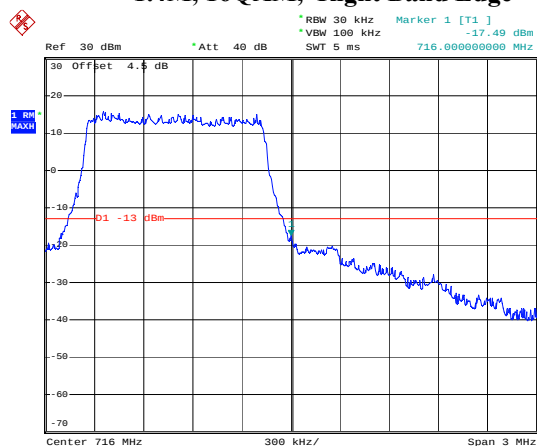
Date: 6.DEC.2020 14:51:53

1.4M, 16QAM, Left Band Edge



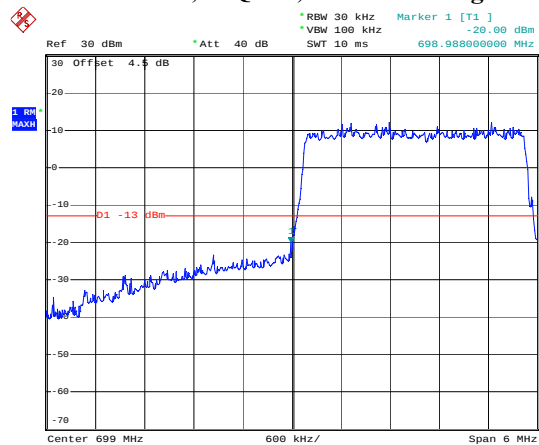
Date: 6.DEC.2020 14:46:20

1.4M, 16QAM, Right Band Edge



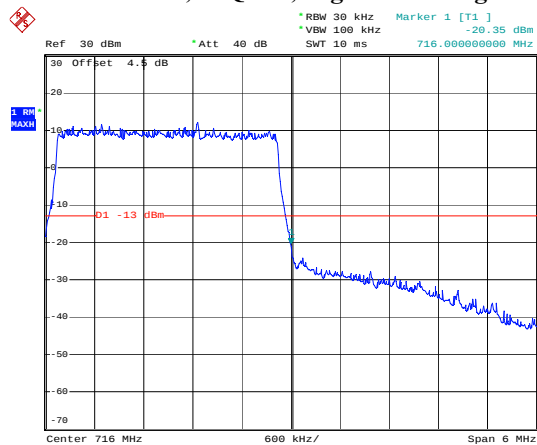
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3M, 16QAM, Left Band Edge

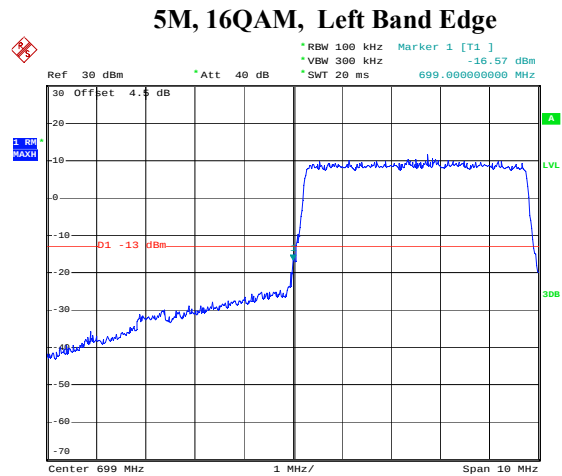


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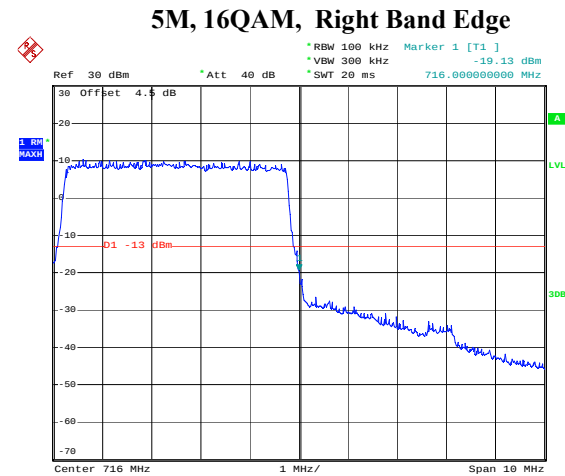
3M, 16QAM, Right Band Edge



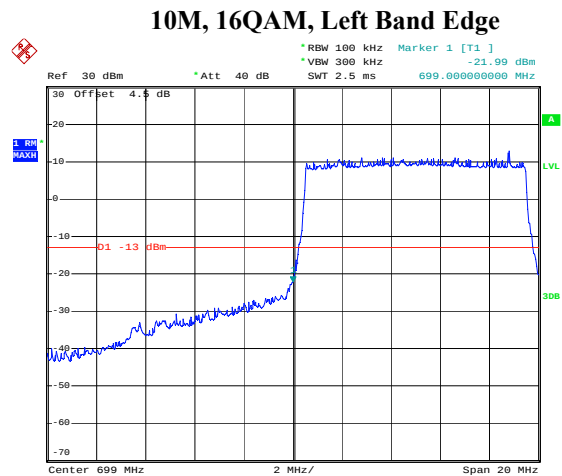
Date: 6.DEC.2020 14:48:36



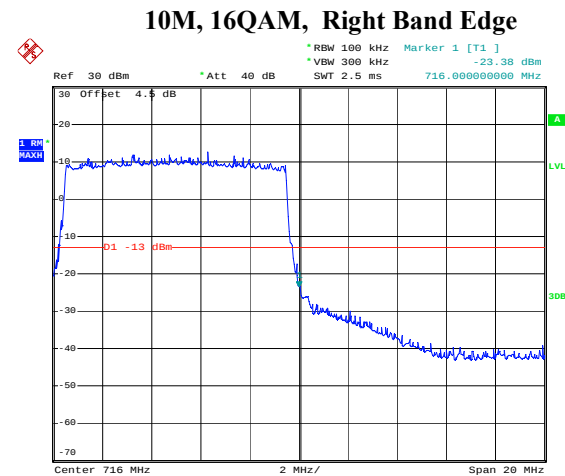
Date: 6.DEC.2020 14:49:51



Date: 6.DEC.2020 14:50:54



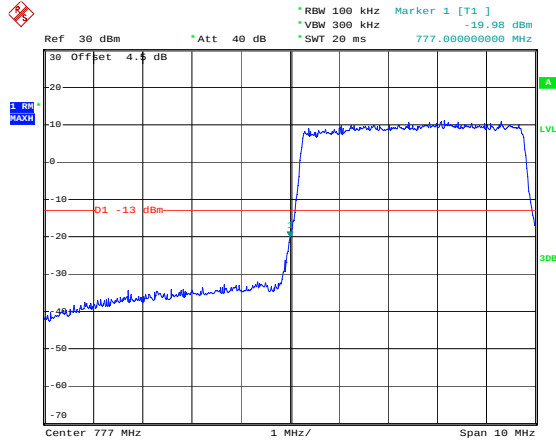
Date: 6.DEC.2020 14:51:34



Date: 6.DEC.2020 14:52:15

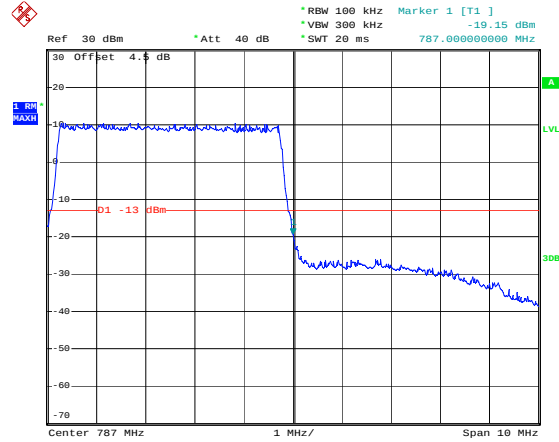
LTE Band 13:

5M, QPSK, Left Band Edge



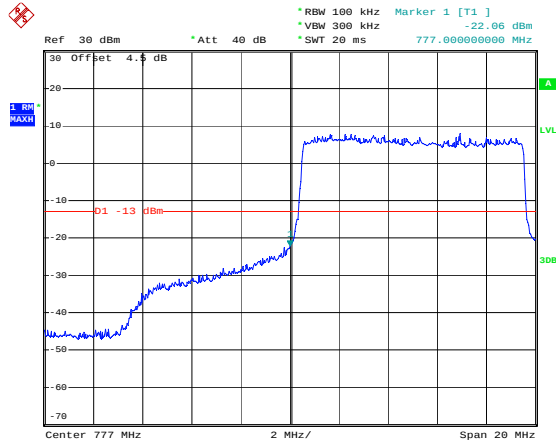
Date: 6.DEC.2020 14:52:57

5M, QPSK, Right Band Edge



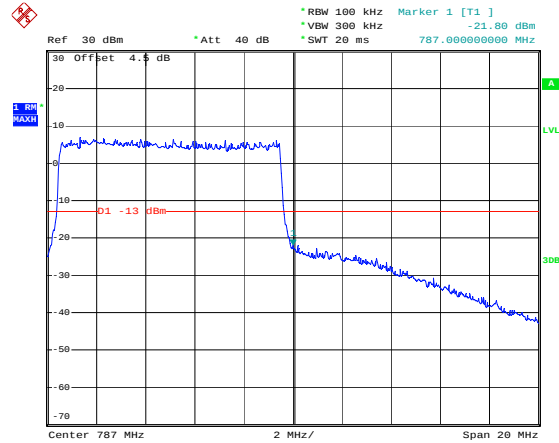
Date: 6.DEC.2020 14:54:02

10M, QPSK, Left Band Edge



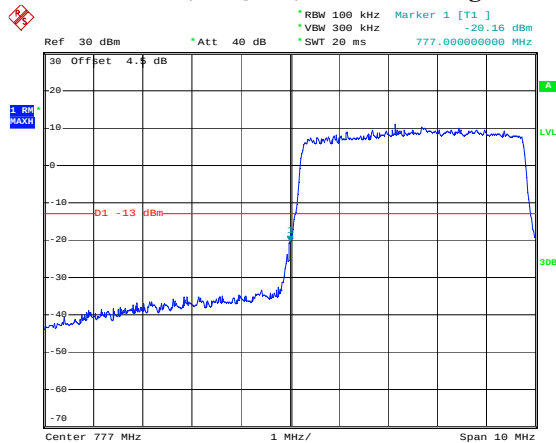
Date: 14.JAN.2021 01:40:56

10M, QPSK, Right Band Edge



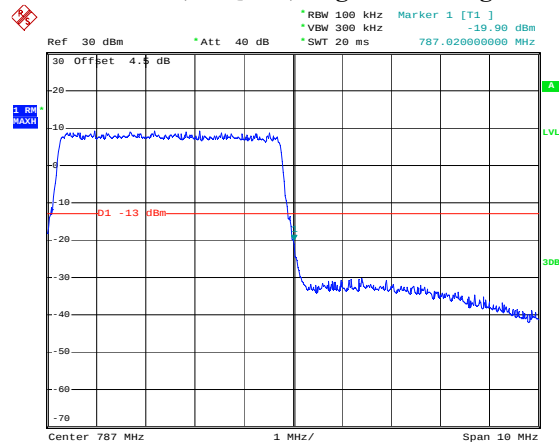
Date: 14.JAN.2021 01:43:01

5M, 16QAM, Left Band Edge

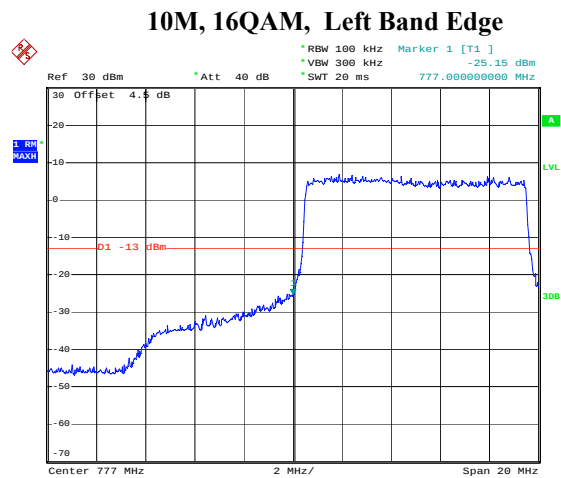


Date: 6.DEC.2020 14:53:26

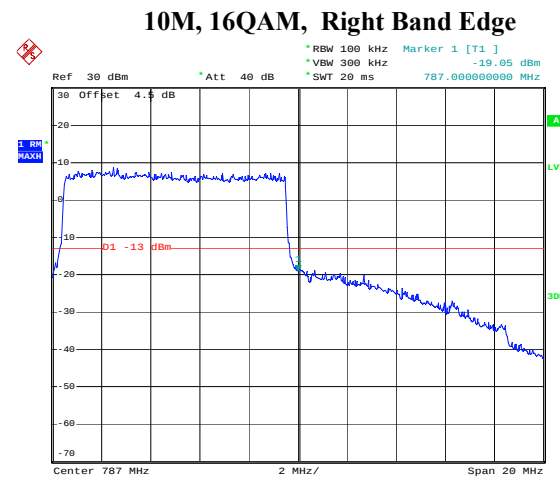
5M, 16QAM, Right Band Edge



Date: 7.DEC.2020 09:14:53



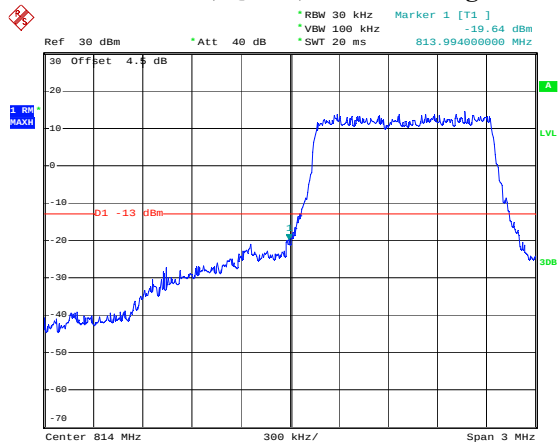
Date: 14.JAN.2021 01:41:25



Date: 14.JAN.2021 01:42:42

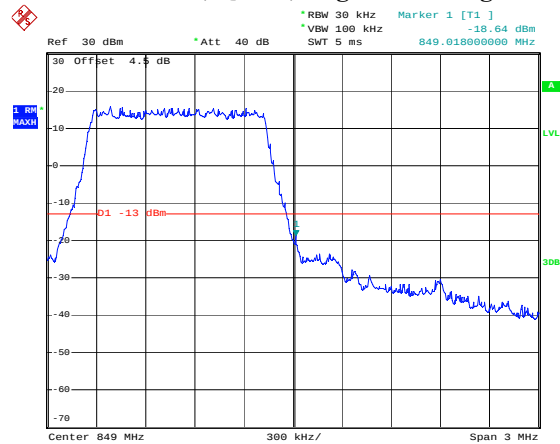
LTE Band 26:

1.4M, QPSK, Left Band Edge



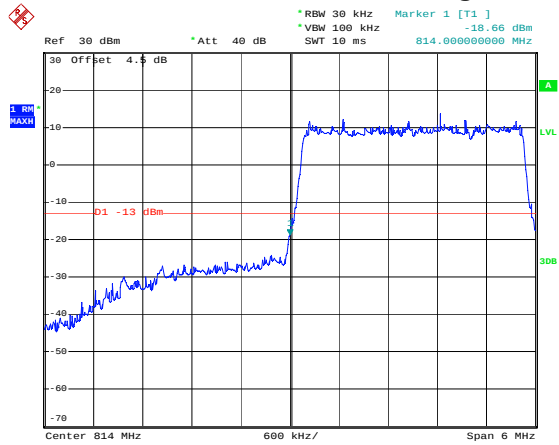
Date: 7.DEC.2020 09:41:04

1.4M, QPSK, Right Band Edge



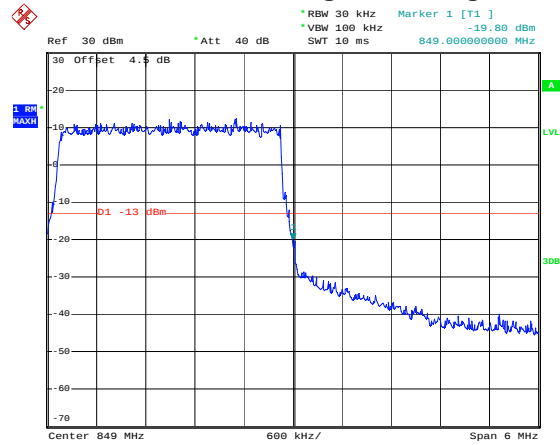
Date: 7.DEC.2020 09:41:56

3M, QPSK, Left Band Edge



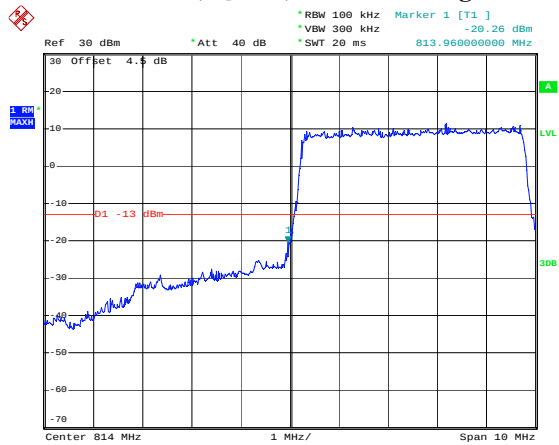
Date: 7.DEC.2020 09:42:38

3M, QPSK, Right Band Edge



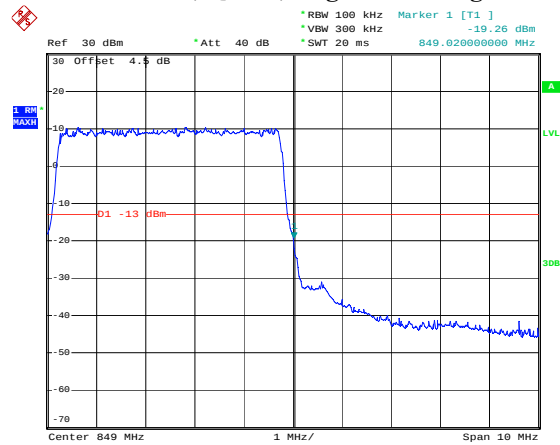
Date: 7.DEC.2020 09:43:19

5M, QPSK, Left Band Edge



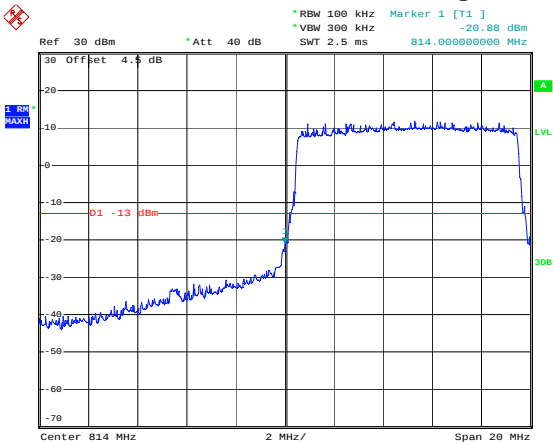
Date: 7.DEC.2020 09:44:32

5M, QPSK, Right Band Edge



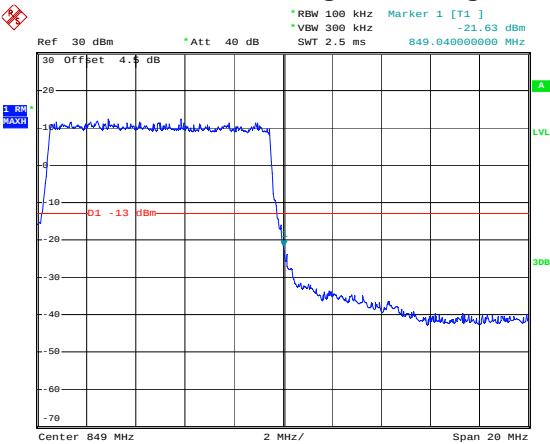
Date: 7.DEC.2020 09:45:35

10M, QPSK, Left Band Edge



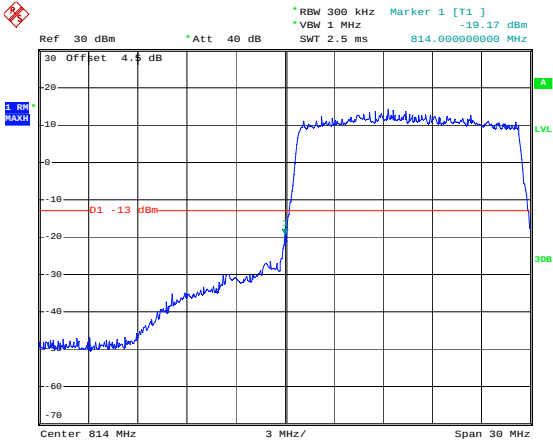
Date: 7.DEC.2020 09:46:27

10M, QPSK, Right Band Edge



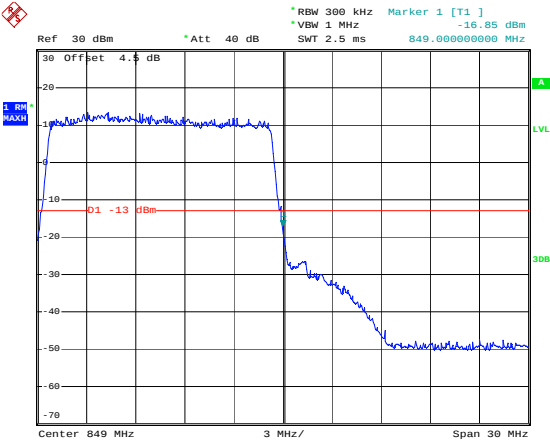
Date: 7.DEC.2020 09:47:33

15M, QPSK, Left Band Edge



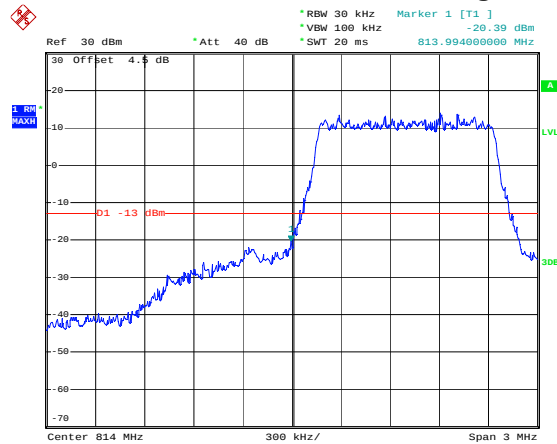
Date: 7.DEC.2020 09:48:22

15M, QPSK, Right Band Edge



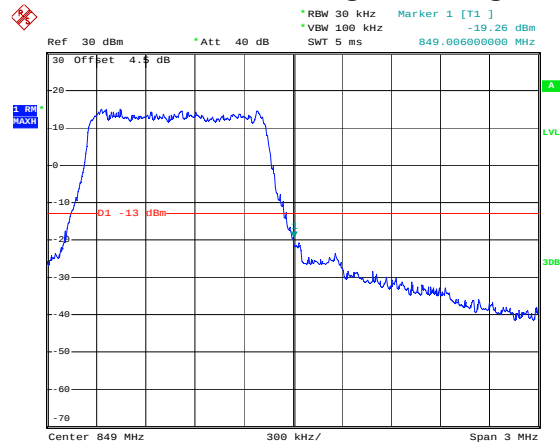
Date: 7.DEC.2020 09:49:09

1.4M, 16QAM, Left Band Edge



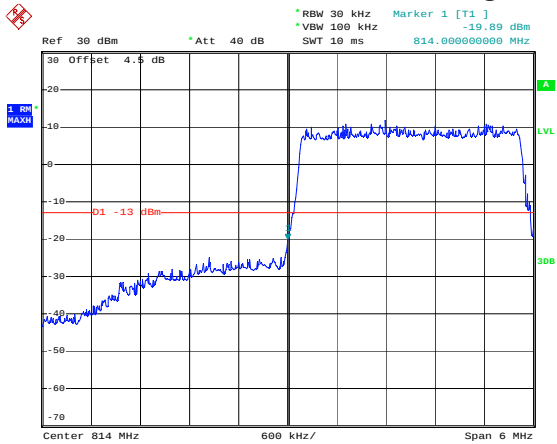
Date: 7.DEC.2020 09:41:36

1.4M, 16QAM, Right Band Edge



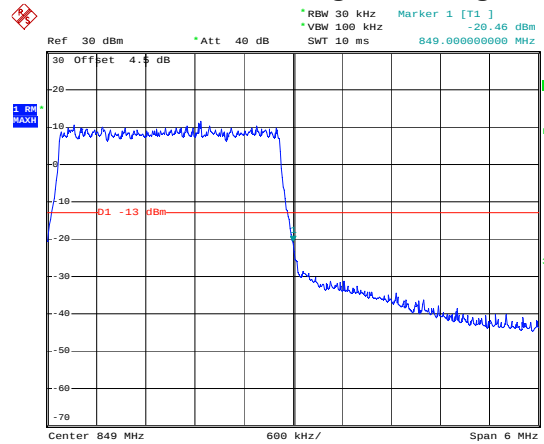
Date: 7.DEC.2020 09:42:16

3M, 16QAM, Left Band Edge



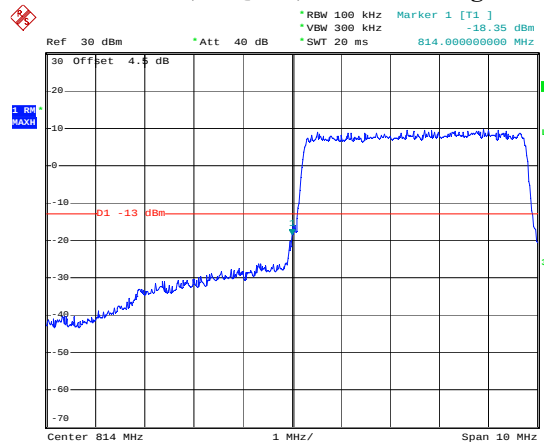
Date: 7.DEC.2020 09:42:58

3M, 16QAM, Right Band Edge



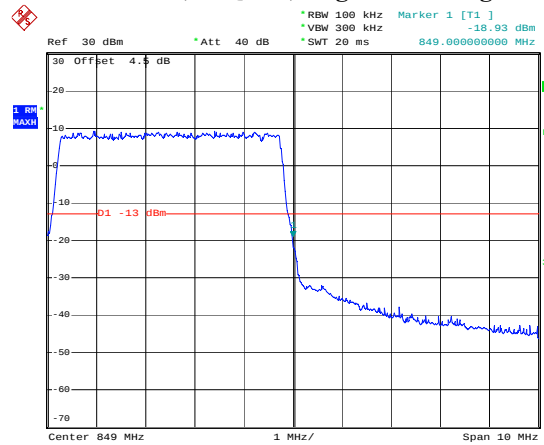
Date: 7.DEC.2020 09:43:42

5M, 16QAM, Left Band Edge

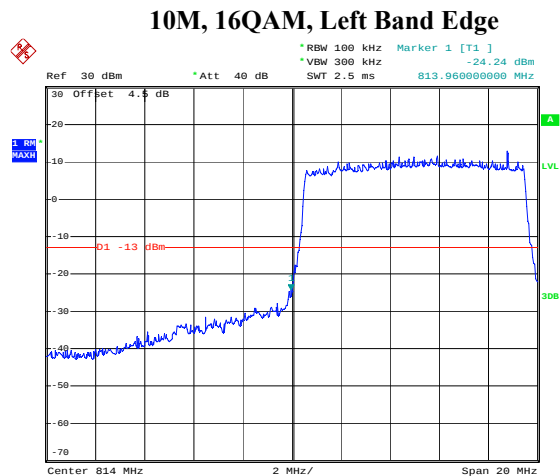


Date: 7.DEC.2020 09:45:03

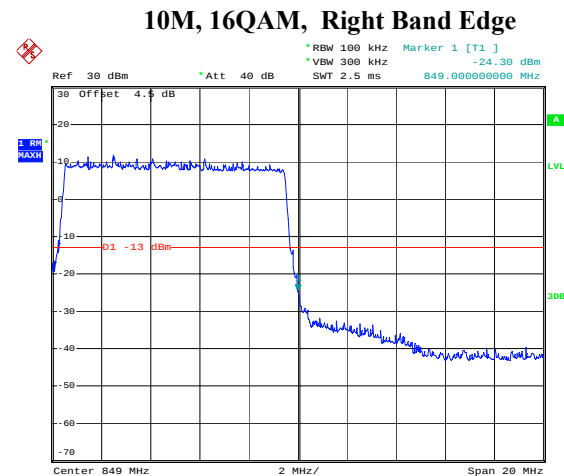
5M, 16QAM, Right Band Edge



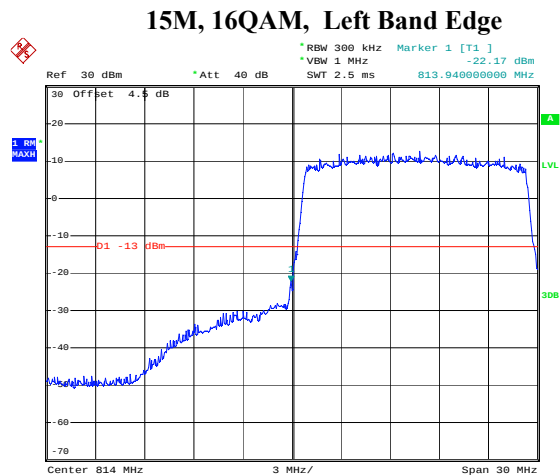
Date: 7.DEC.2020 09:46:05



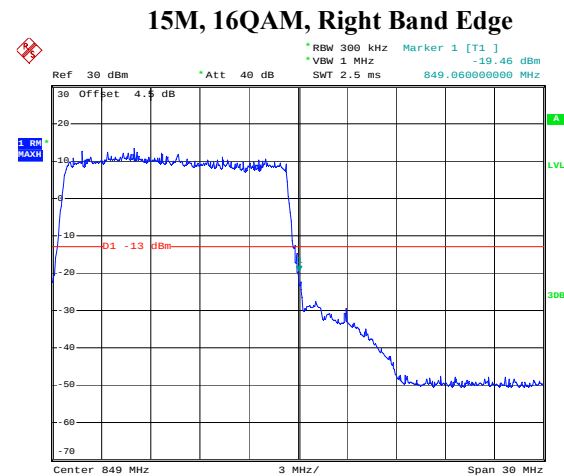
Date: 7.DEC.2020 09:46:49



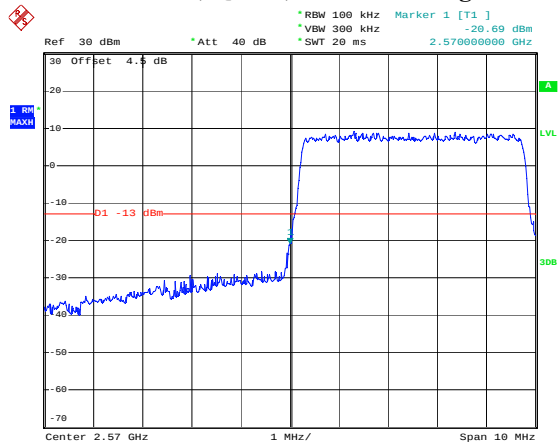
Date: 7.DEC.2020 09:47:54



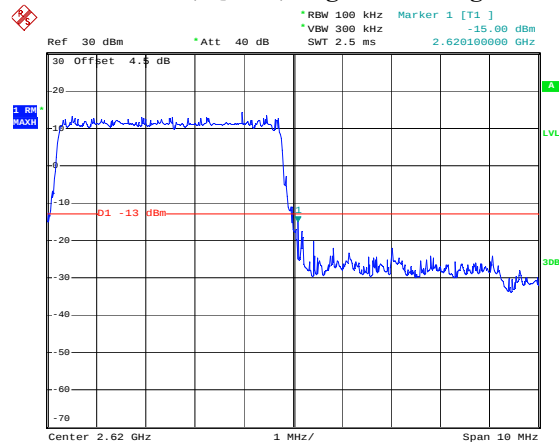
Date: 7.DEC.2020 09:48:43



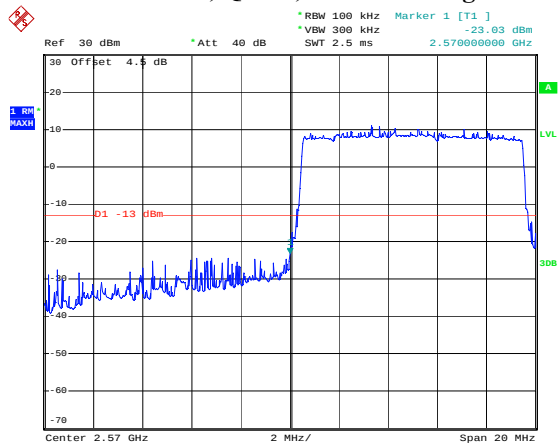
Date: 7.DEC.2020 09:49:29

LTE Band 38:**5M, QPSK, Left Band Edge**

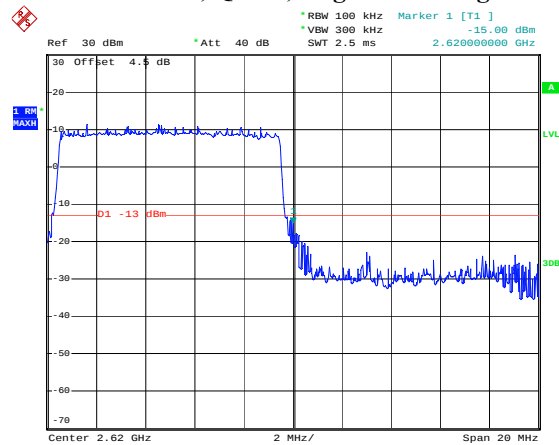
Date: 7.DEC.2020 09:50:43

5M, QPSK, Right Band Edge

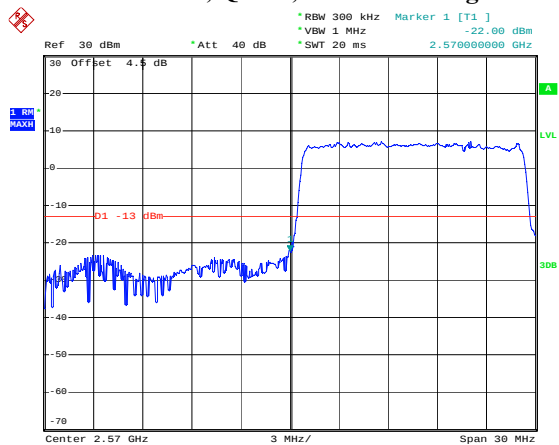
Date: 7.DEC.2020 09:51:26

10M, QPSK, Left Band Edge

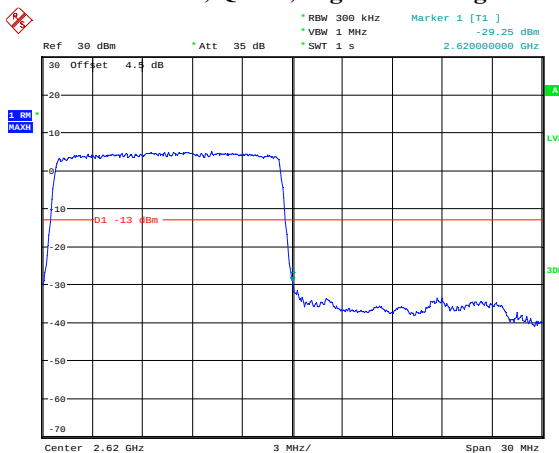
Date: 7.DEC.2020 09:52:28

10M, QPSK, Right Band Edge

Date: 7.DEC.2020 09:53:18

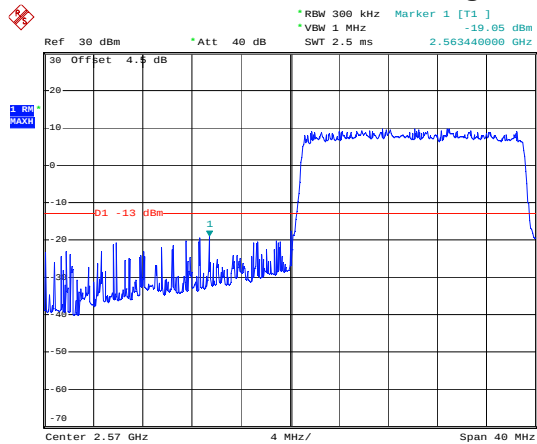
15M, QPSK, Left Band Edge

Date: 7.DEC.2020 10:01:35

15M, QPSK, Right Band Edge

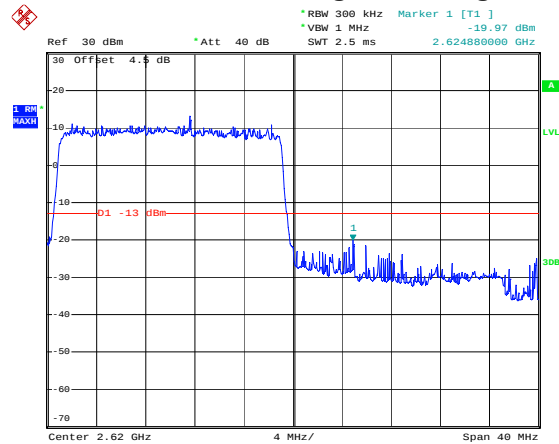
Date: 17.DEC.2020 21:06:18

20M, QPSK, Left Band Edge



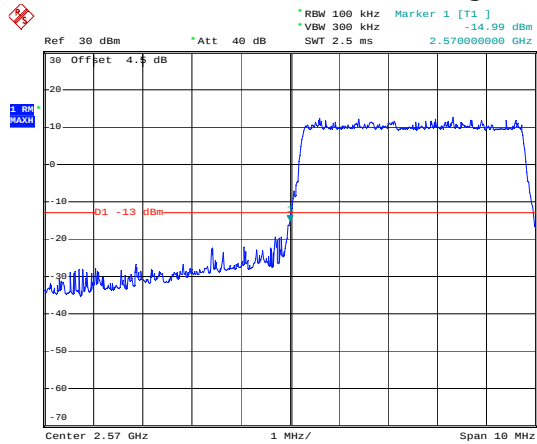
Date: 7.DEC.2020 10:06:24

20M, QPSK, Right Band Edge



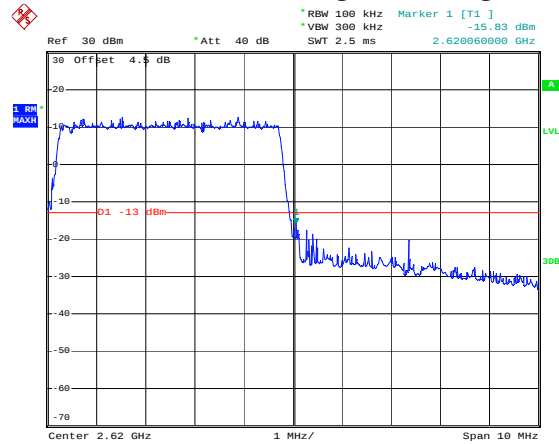
Date: 7.DEC.2020 10:07:21

5M, 16QAM, Left Band Edge



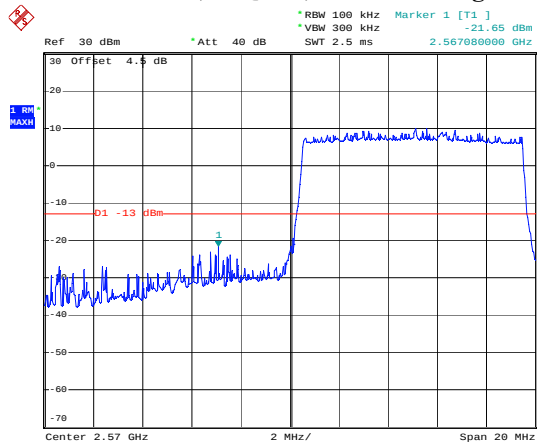
Date: 7.DEC.2020 09:51:08

5M, 16QAM, Right Band Edge



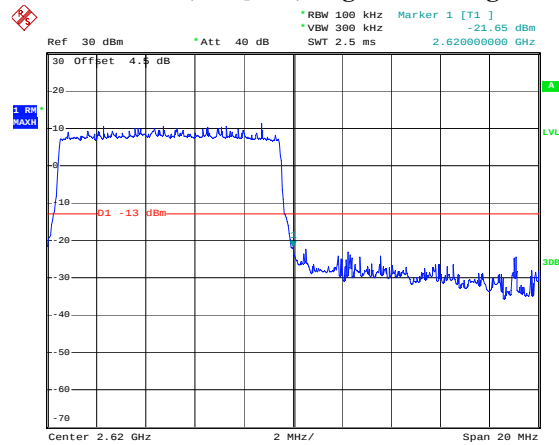
Date: 7.DEC.2020 09:51:43

10M, 16QAM, Left Band Edge

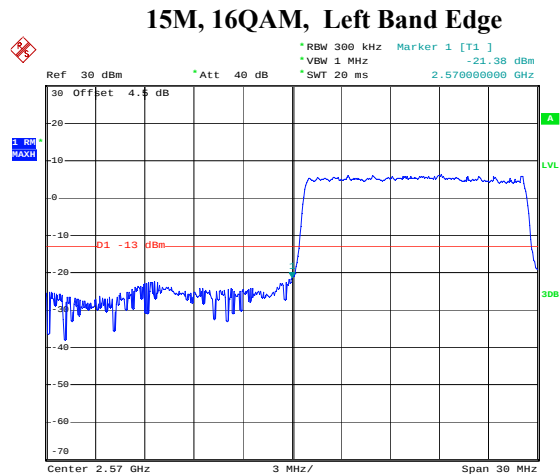


Date: 7.DEC.2020 09:52:53

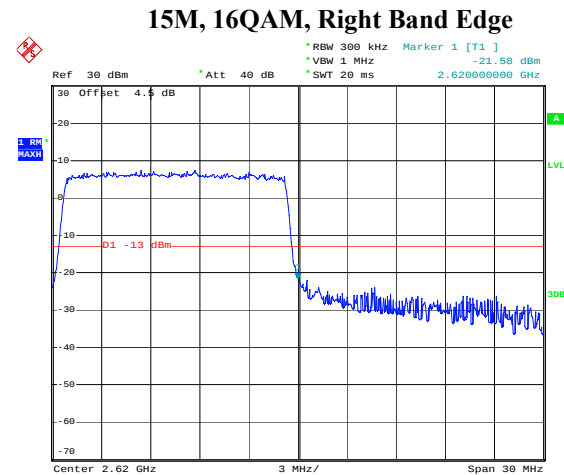
10M, 16QAM, Right Band Edge



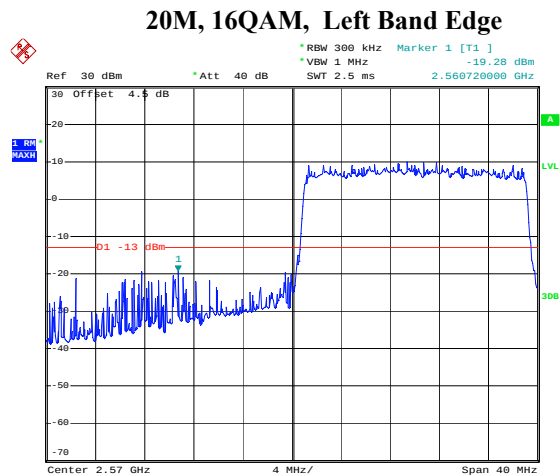
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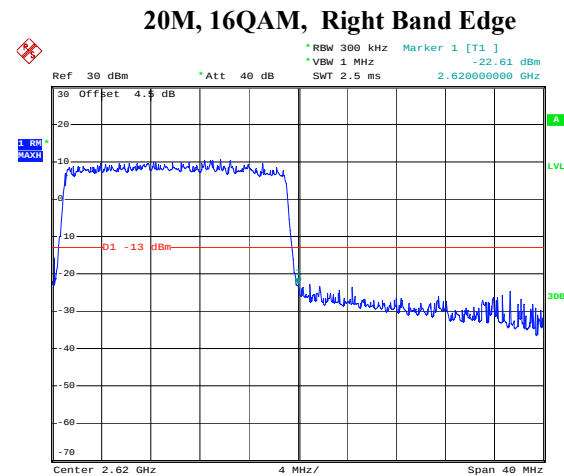
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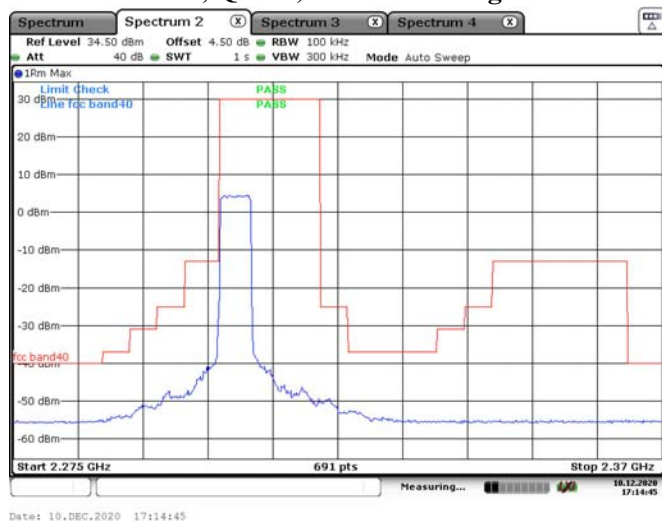
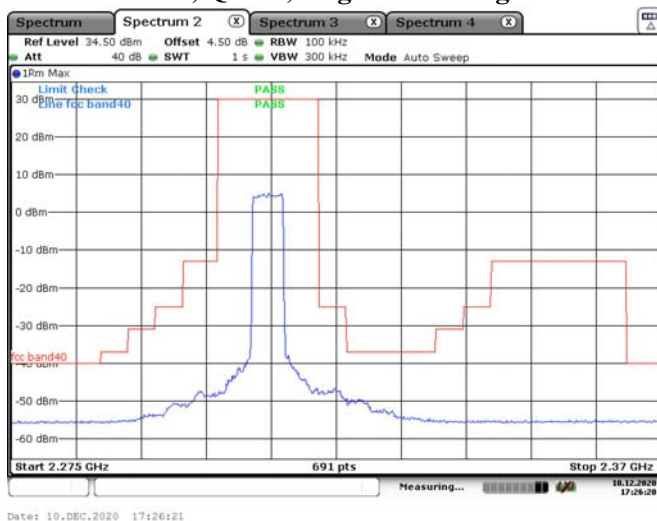
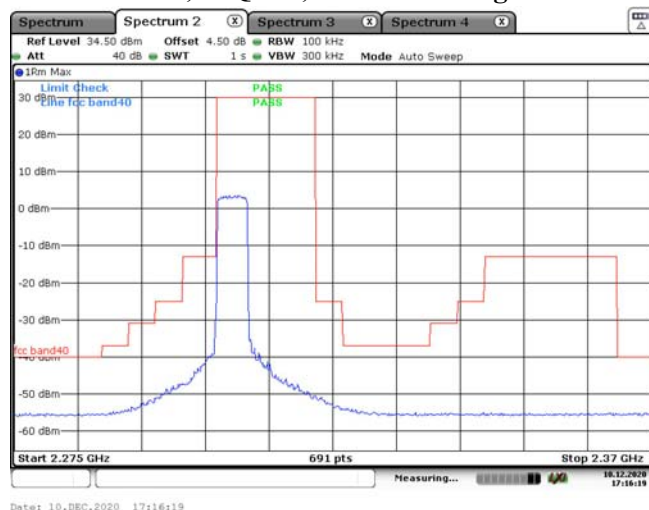
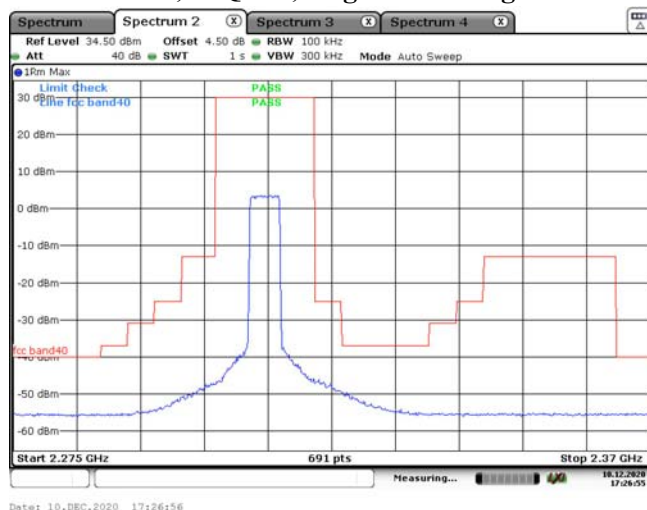
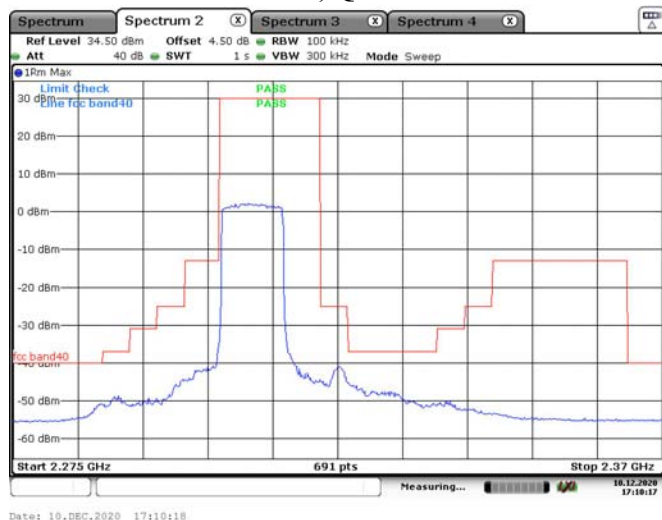
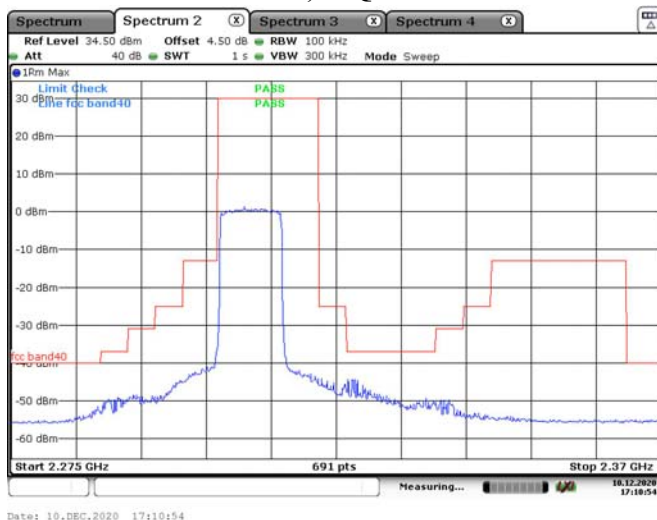
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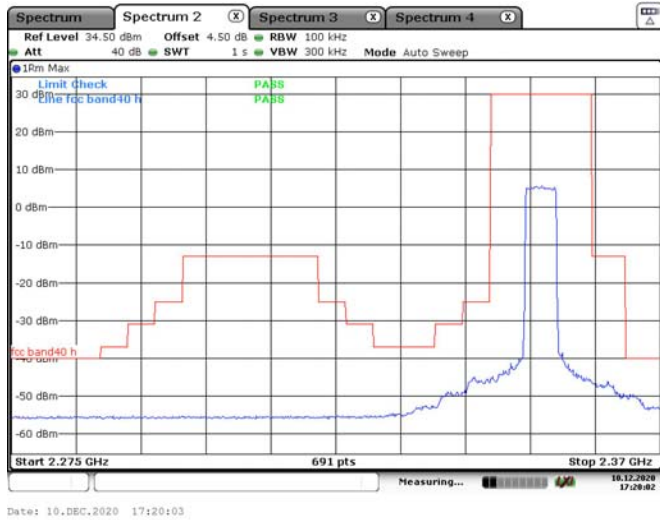
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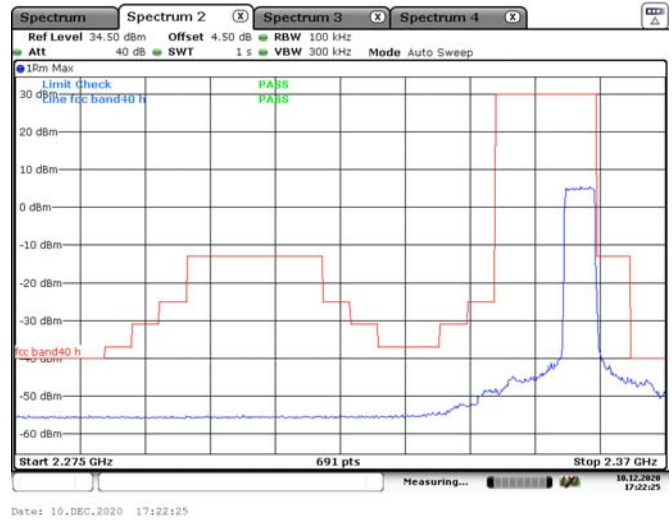
Date: 7.DEC.2020 10:07:48

**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**

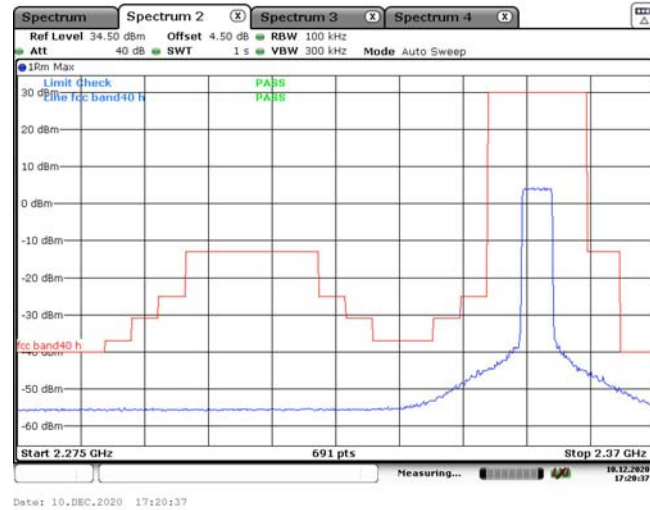
LTE Band 40 Upper: 5M, QPSK, Left Band Edge



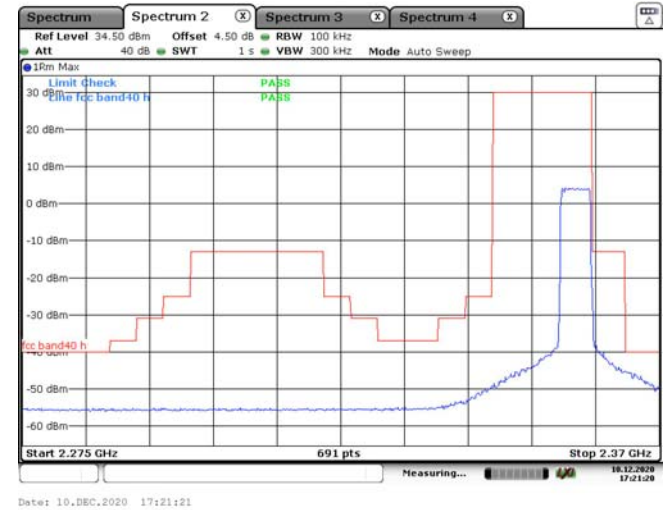
5M, QPSK, Right Band Edge



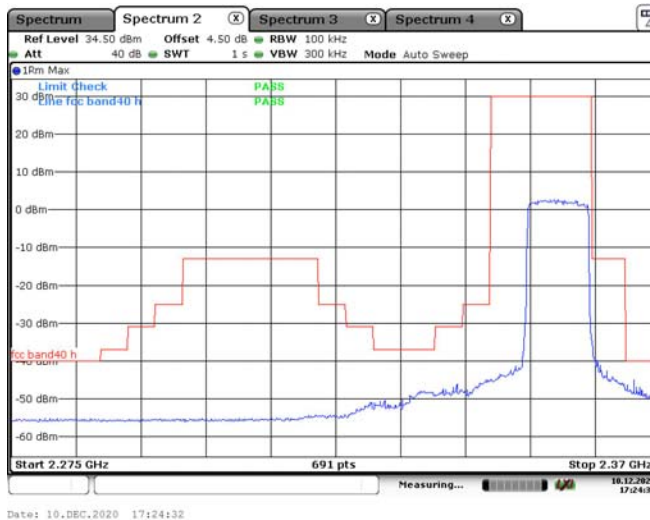
5M, 16QAM, Left Band Edge



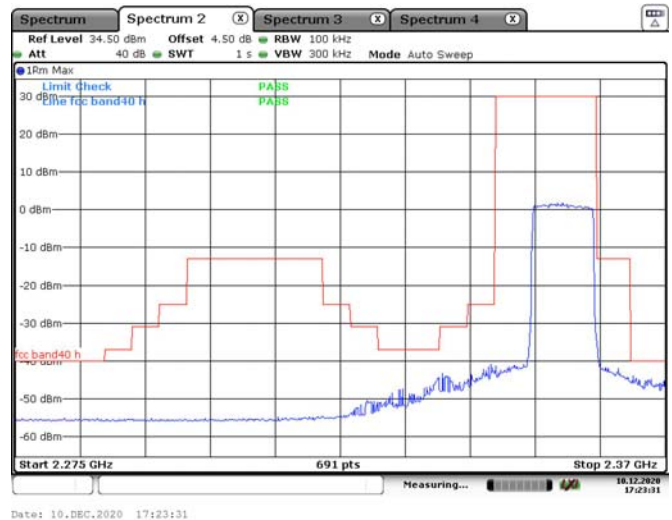
5M, 16QAM, Right Band Edge

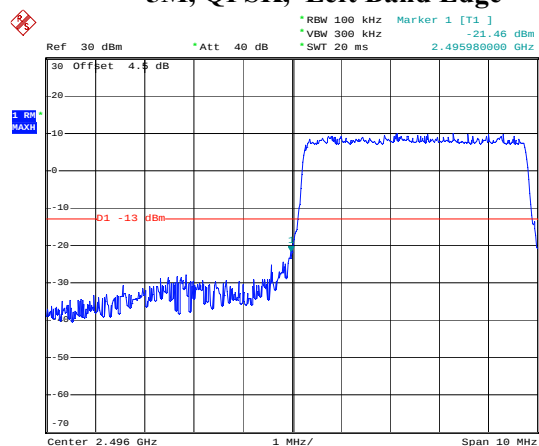


10M, QPSK

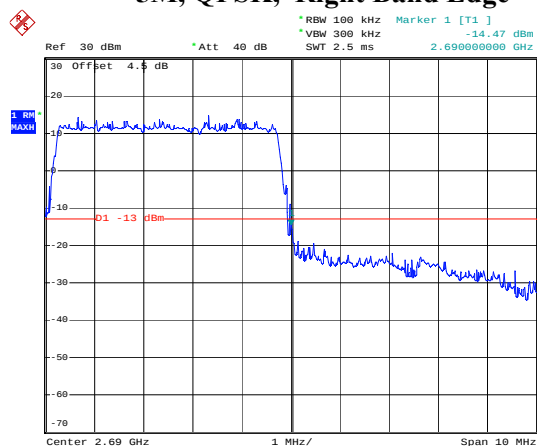


10M, 16QAM

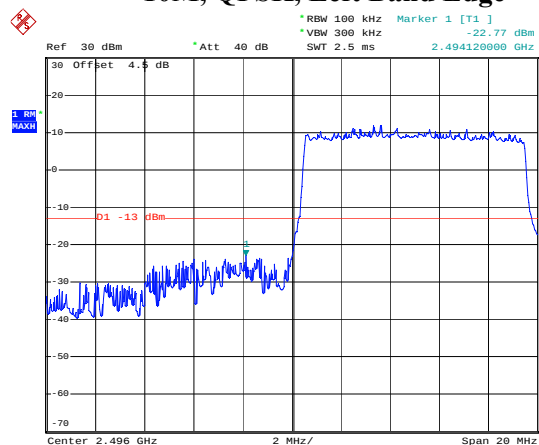


LTE Band 41:**5M, QPSK, Left Band Edge**

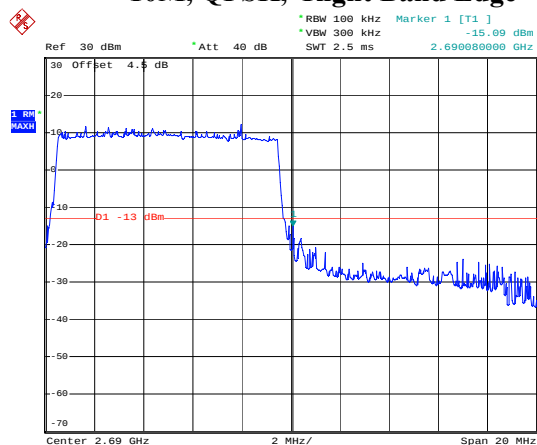
Date: 7.DEC.2020 10:28:00

5M, QPSK, Right Band Edge

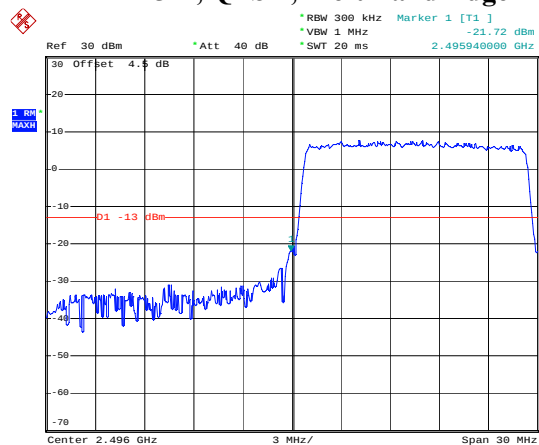
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10M, QPSK, Left Band Edge

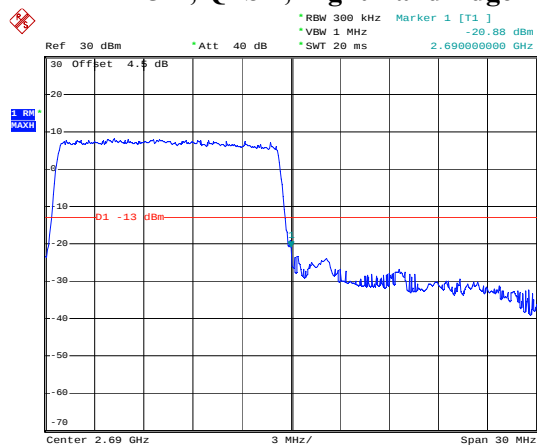
Date: 7.DEC.2020 10:39:08

10M, QPSK, Right Band Edge

Date: 7.DEC.2020 10:40:04

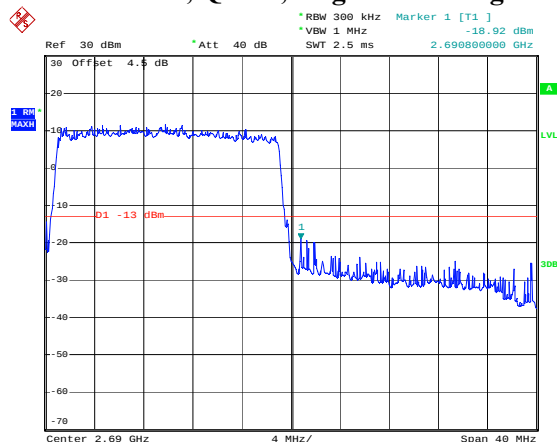
15M, QPSK, Left Band Edge

Date: 7.DEC.2020 10:42:33

15M, QPSK, Right Band Edge

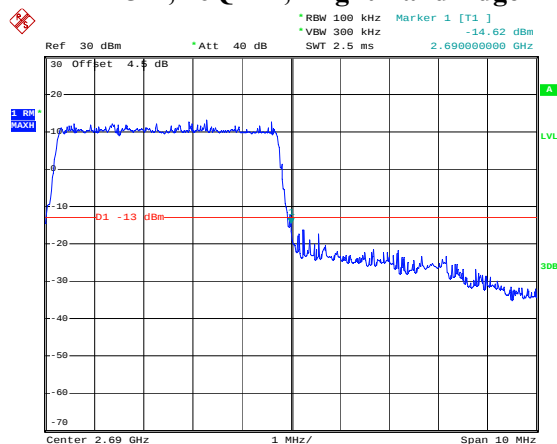
Date: 7.DEC.2020 10:43:47

20M, QPSK, Right Band Edge



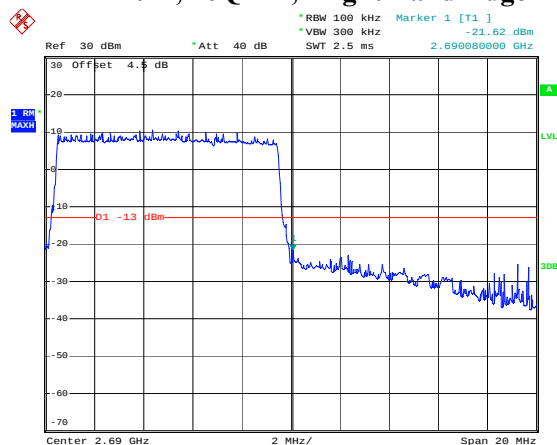
Date: 7.DEC.2020 10:46:55

5M, 16QAM, Right Band Edge

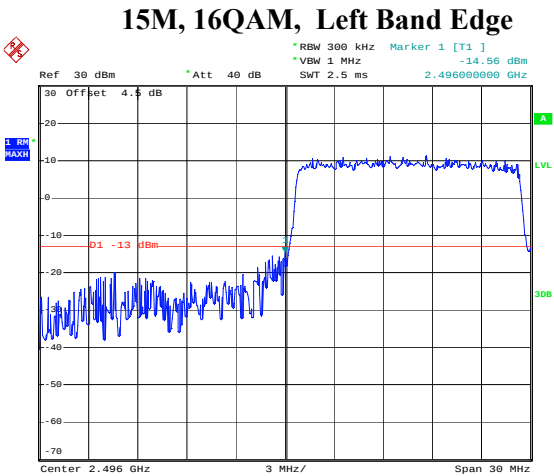


Date: 7.DEC.2020 10:29:01

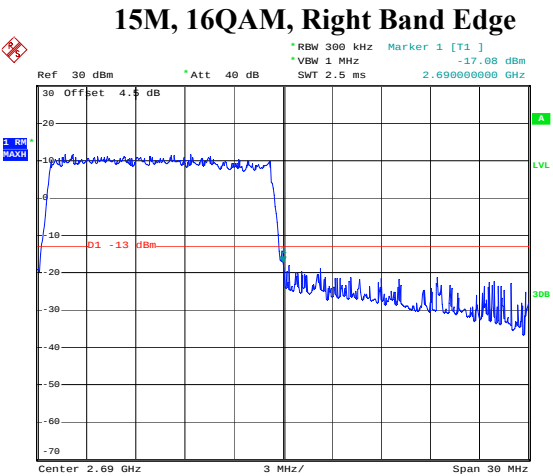
10M, 16QAM, Right Band Edge



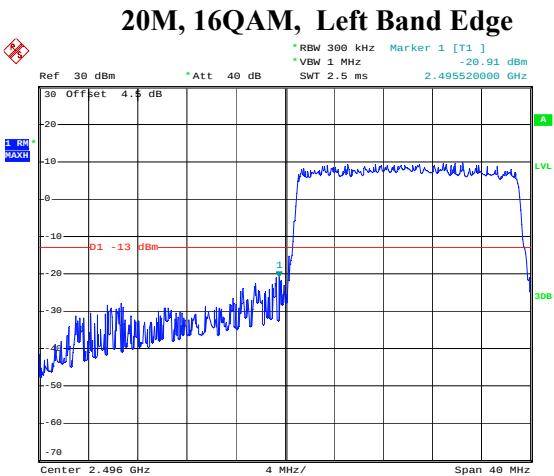
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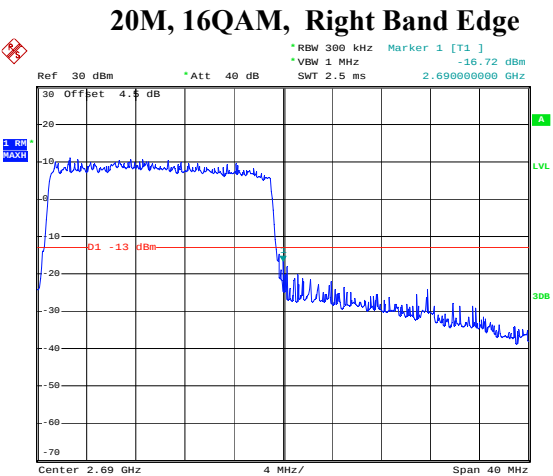
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Date: 7.DEC.2020 10:44:14



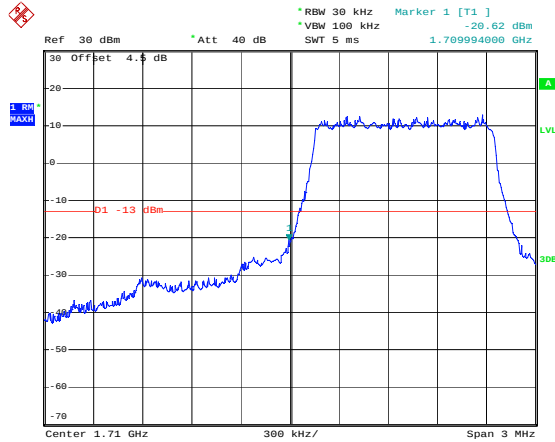
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Date: 7.DEC.2020 10:47:21

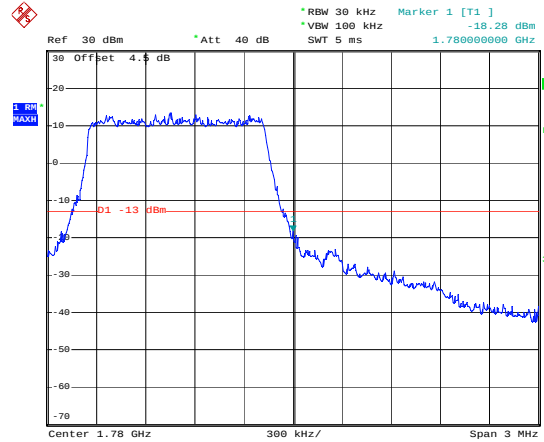
LTE Band 66:

1.4M, QPSK, Left Band Edge



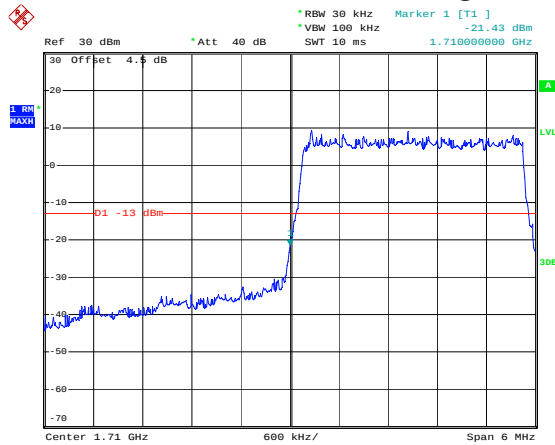
Date: 7.DEC.2020 10:50:52

1.4M, QPSK, Right Band Edge



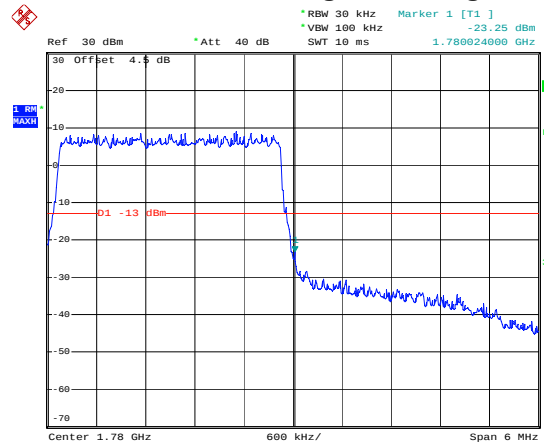
Date: 7.DEC.2020 10:51:33

3M, QPSK, Left Band Edge



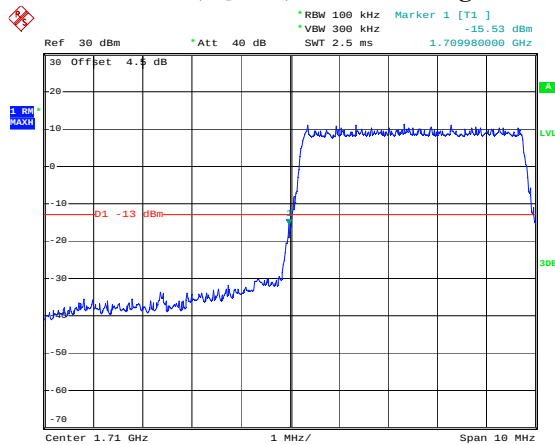
Date: 7.DEC.2020 10:52:13

3M, QPSK, Right Band Edge



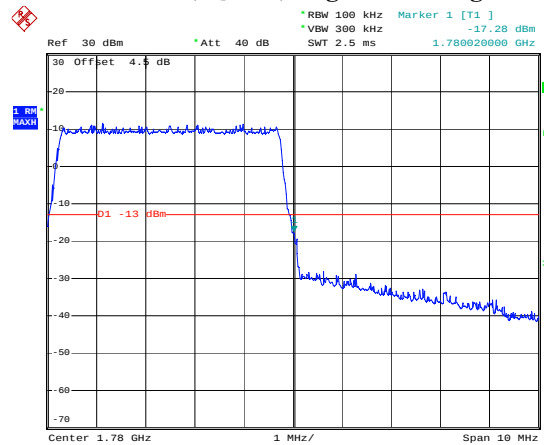
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5M, QPSK, Left Band Edge



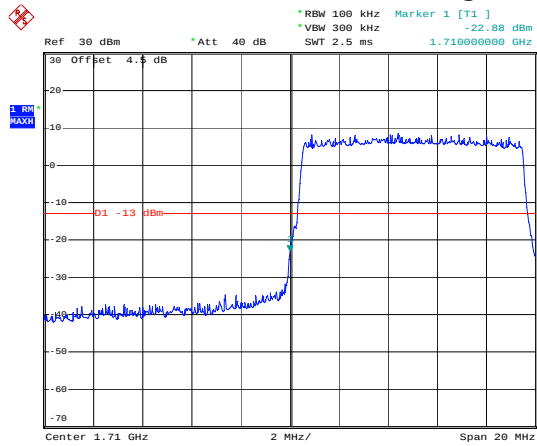
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5M, QPSK, Right Band Edge



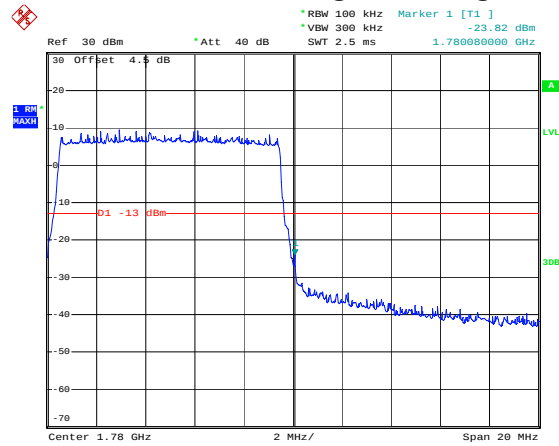
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10M, QPSK, Left Band Edge



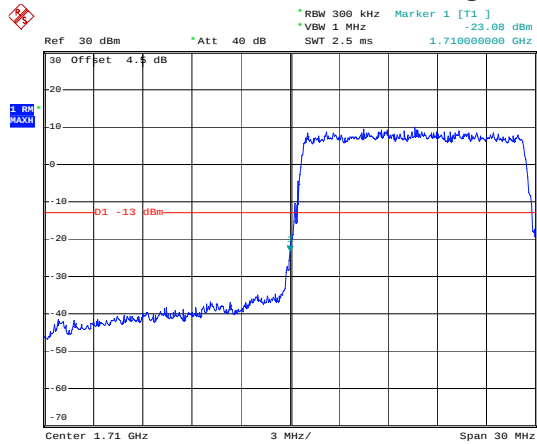
Date: 7.DEC.2020 13:08:12

10M, QPSK, Right Band Edge



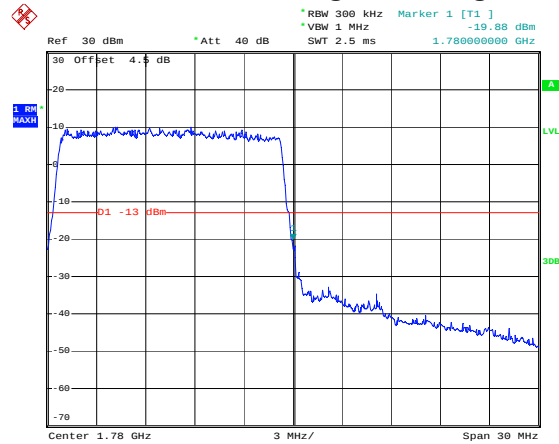
Date: 7.DEC.2020 13:08:53

15M, QPSK, Left Band Edge



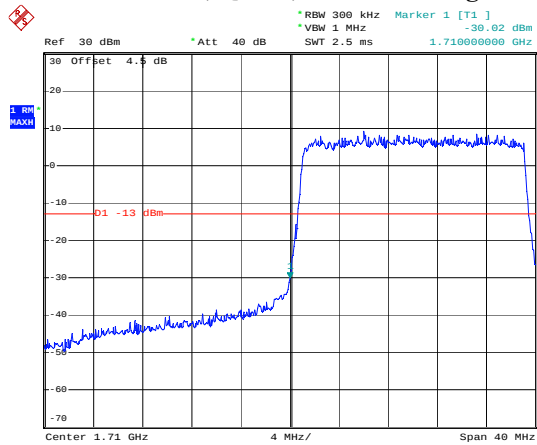
Date: 7.DEC.2020 13:41:37

15M, QPSK, Right Band Edge



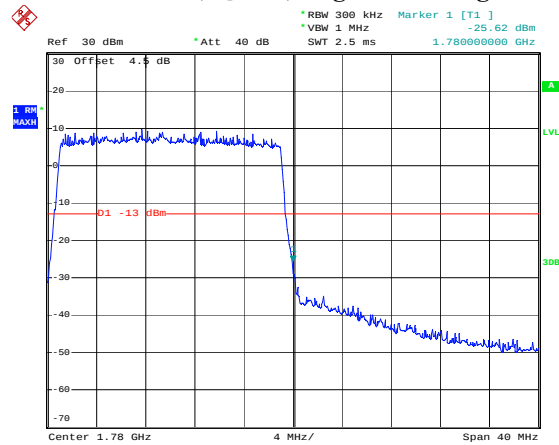
Date: 7.DEC.2020 13:42:22

20M, QPSK, Left Band Edge

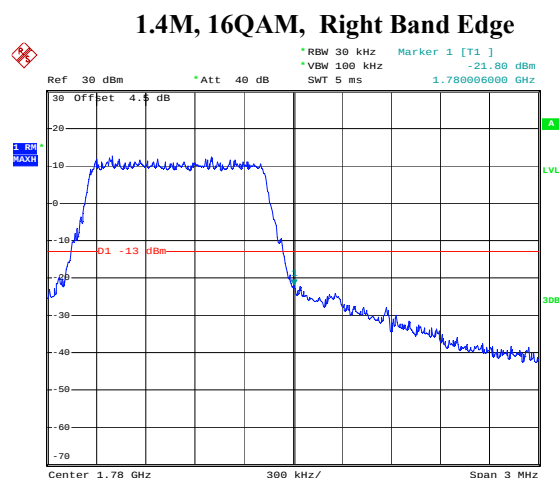


Date: 7.DEC.2020 13:43:08

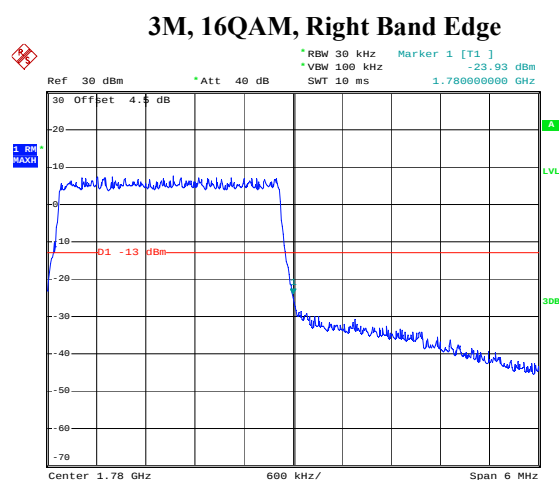
20M, QPSK, Right Band Edge



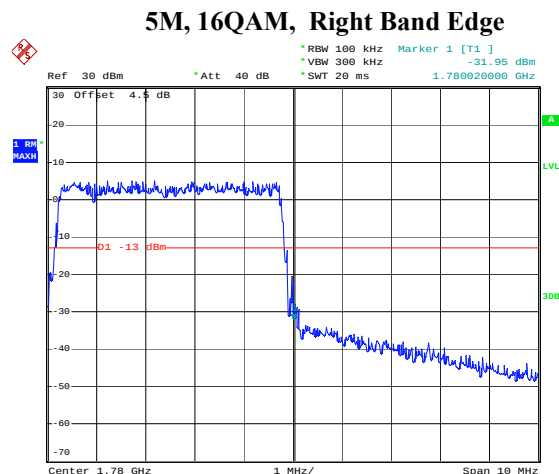
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Date: 7.DEC.2020 10:51:53

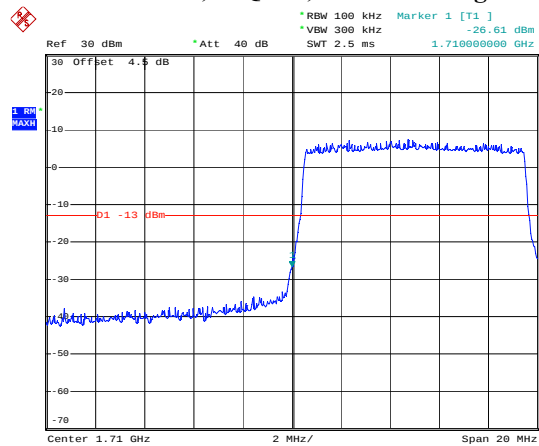


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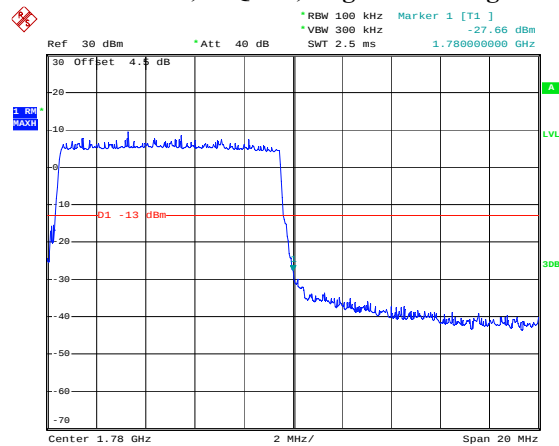
Date: 7.DEC.2020 13:02:08

10M, 16QAM, Left Band Edge



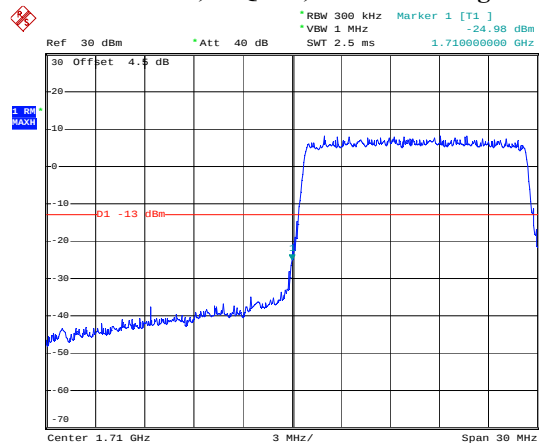
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10M, 16QAM, Right Band Edge



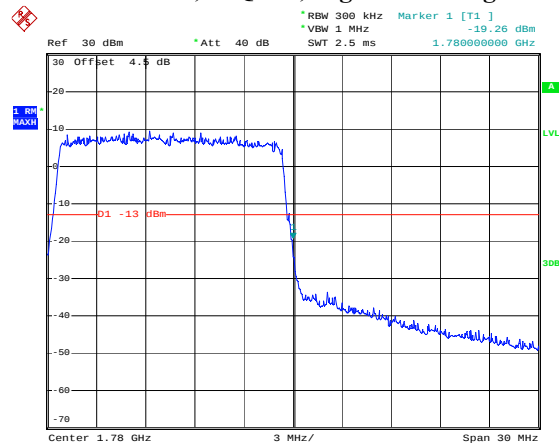
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15M, 16QAM, Left Band Edge



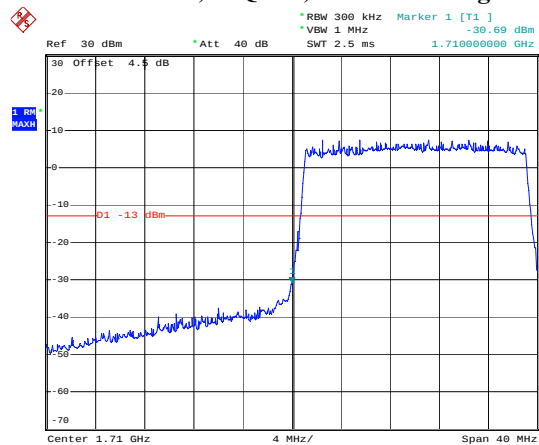
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15M, 16QAM, Right Band Edge



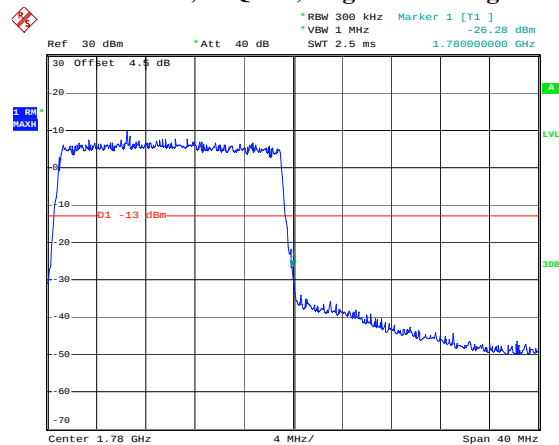
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20M, 16QAM, Left Band Edge



Date: 7.DEC.2020 13:43:29

20M, 16QAM, Right Band Edge



Date: 7.DEC.2020 13:44:10

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

Applicable Standard

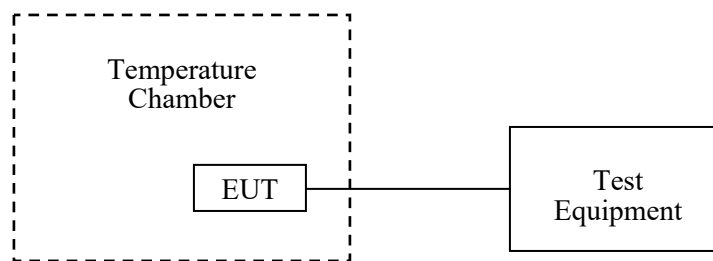
FCC § 2.1055 (a), § 2.1055 (d), §22.355, §24.235, §27.54, §90.213

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	2020-07-07	2021-07-07
R&S	Spectrum Analyzer	FSV40	101474	2020-07-07	2021-07-07
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41010012	2020-09-05	2021-09-05
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	2020-03-10	2021-03-09
UNI-T	Multimeter	UT39A	M130199938	2020-07-24	2021-07-24
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:	22.1~23.5 °C
Relative Humidity:	35~40%
ATM Pressure:	101.6~102.4kPa
Tester:	Theshy Xie
Test Date:	2020-12-03~2020-12-07

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	3.85	-8	-0.00956	2.5
-20		-5	-0.00598	
-10		7	0.00837	
0		3	0.00359	
10		6	0.00717	
20		4	0.00478	
30		-3	-0.00359	
40		-6	-0.00717	
50		5	0.00598	
20	3.5	12	0.01434	
20	4.2	6	0.00717	

GMSK, Middle Channel, $f_c = 1880$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Result
°C	V _{DC}	Hz	ppm	
-30	3.85	-3	-0.00160	Pass
-20		4	0.00213	
-10		2	0.00106	
0		-6	-0.00319	
10		8	0.00426	
20		2	0.00106	
30		-6	-0.00319	
40		5	0.00266	
50		4	0.00213	
20	3.5	-7	-0.00372	
20	4.2	5	0.00266	

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	3.85	3	0.00359	2.5
-20		-12	-0.01434	
-10		-11	-0.01315	
0		8	0.00956	
10		5	0.00598	
20		13	0.01554	
30		-12	-0.01434	
40		-8	-0.00956	
50		7	0.00837	
20	3.5	12	0.01434	
20	4.2	6	0.00717	

8PSK, Middle Channel, $f_c = 1880\text{ MHz}$				
Temperature	Voltage	Frequency Error	Frequency Error	Result
$^{\circ}\text{C}$	V_{DC}	Hz	ppm	
-30	3.85	-12	-0.00638	Pass
-20		-8	-0.00426	
-10		8	0.00426	
0		5	0.00266	
10		3	0.00160	
20		9	0.00479	
30		-8	-0.00426	
40		-7	-0.00372	
50		8	0.00426	
20	3.5	-3	-0.00160	
20	4.2	-7	-0.00372	

WCDMA Band II: R99

Middle Channel, $f_c = 1880.0$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Result
°C	V _{DC}	Hz	ppm	
-30	3.85	-2	-0.00106	Pass
-20		4	0.00213	
-10		5	0.00266	
0		2	0.00106	
10		-2	-0.00106	
20		-7	-0.00372	
30		2	0.00106	
40		8	0.00426	
50		4	0.00213	
20	3.5	-5	-0.00266	
20	4.2	6	0.00319	

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	3.85	-6	-0.00717	2.5
-20		-4	-0.00478	
-10		3	0.00359	
0		10	0.01195	
10		-6	-0.00717	
20		-3	-0.00359	
30		6	0.00717	
40		4	0.00478	
50		2	0.00239	
20	3.5	-8	-0.00956	
20	4.2	3	0.00359	

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	3.85	-3.46	-0.0018	Pass
-20		-7.66	-0.0041	
-10		-6.29	-0.0033	
0		-7.64	-0.0041	
10		-8.64	-0.0046	
20		9.69	0.0052	
30		7.70	0.0041	
40		7.44	0.004	
50		-9.28	-0.0049	
20	3.5	-9.19	-0.0049	
20	4.2	6.82	0.0036	

16QAM, Channel Bandwidth:20MHz Middle Channel, $f_c = 1880$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Result
°C	V_{DC}	Hz	ppm	
-30	3.85	-4.25	-0.0023	Pass
-20		7.98	0.0042	
-10		-9.98	-0.0053	
0		-6.17	-0.0033	
10		-8.44	-0.0045	
20		-8.36	-0.0044	
30		-7.75	-0.0041	
40		-5.34	-0.0028	
50		5.96	0.0032	
20	3.5	6.02	0.0032	
20	4.2	-9.68	-0.0051	

LTE Band 4

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	1710.515500	1710	1754.485100	1755
	-20	1710.513100		1754.484800	
	-10	1710.514000		1754.486600	
	0	1710.512800		1754.487800	
	10	1710.513700		1754.485400	
	20	1710.520000		1754.480000	
	30	1710.514000		1754.486000	
	40	1710.515500		1754.484500	
	50	1710.513100		1754.487500	
3.5	20	1710.515200	1710	1754.486000	1755
4.2	20	1710.513700		1754.485100	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	1710.512500	1710	1754.487200	1755
	-20	1710.511900		1754.485700	
	-10	1710.513400		1754.488100	
	0	1710.513700		1754.486600	
	10	1710.511900		1754.488100	
	20	1710.520000		1754.480000	
	30	1710.514900		1754.486300	
	40	1710.514000		1754.488100	
	50	1710.513100		1754.485400	
3.5	20	1710.514600	1710	1754.486900	1755
4.2	20	1710.514900		1754.487200	

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	3.85	0.30	0.0004	2.5
-20		8.60	0.0103	
-10		-9.50	-0.0114	
0		6.95	0.0083	
10		-7.03	-0.0084	
20		-9.47	-0.0113	
30		7.54	0.009	
40		6.74	0.0081	
50		5.69	0.0068	
20	3.5	5.85	0.007	
20	4.2	8.56	0.0102	

Middle Channel, $f_c = 836.5$ MHz, Channel Bandwidth:10MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V _{DC}	Hz	ppm	ppm
-30	3.85	-0.51	-0.0006	2.5
-20		9.86	0.0118	
-10		7.93	0.0095	
0		6.90	0.0082	
10		5.86	0.007	
20		-7.97	-0.0095	
30		-8.77	-0.0105	
40		7.39	0.0088	
50		8.38	0.01	
20	3.5	8.67	0.0104	
20	4.2	7.33	0.0088	

LTE Band 7

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2500.350000	2500	2569.550000	2570
	-20	2500.400000		2569.550000	
	-10	2500.450000		2569.750000	
	0	2500.350000		2569.700000	
	10	2500.350000		2569.600000	
	20	2500.520000		2569.480000	
	30	2500.400000		2569.650000	
	40	2500.450000		2569.600000	
	50	2500.450000		2569.750000	
3.5	20	2500.300000		2569.550000	
4.2	20	2500.450000		2569.650000	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2500.350000	2500	2569.700000	2570
	-20	2500.400000		2569.750000	
	-10	2500.400000		2569.550000	
	0	2500.450000		2569.700000	
	10	2500.350000		2569.700000	
	20	2500.520000		2569.480000	
	30	2500.400000		2569.600000	
	40	2500.400000		2569.750000	
	50	2500.350000		2569.600000	
3.5	20	2500.450000		2569.700000	
4.2	20	2500.250000		2569.550000	

LTE Band 12

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	699.250000	699	715.550000	716
	-20	699.400000		715.600000	
	-10	699.450000		715.750000	
	0	699.350000		715.650000	
	10	699.450000		715.600000	
	20	699.520000		715.480000	
	30	699.350000		715.700000	
	40	699.350000		715.700000	
	50	699.450000		715.600000	
3.5	20	699.350000	699	715.550000	716
4.2	20	699.450000		715.700000	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	699.250000	699	715.600000	716
	-20	699.450000		715.700000	
	-10	699.250000		715.650000	
	0	699.250000		715.550000	
	10	699.300000		715.600000	
	20	699.520000		715.480000	
	30	699.350000		715.750000	
	40	699.450000		715.650000	
	50	699.450000		715.700000	
3.5	20	699.300000	699	715.700000	716
4.2	20	699.400000		715.750000	

LTE Band 13

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	777.632000	777	786.582000	787
	-20	777.735000		786.733000	
	-10	777.785000		786.683000	
	0	777.787000		786.685000	
	10	777.683000		786.584000	
	20	777.486000		786.485000	
	30	777.735000		786.635000	
	40	777.686000		786.634000	
	50	777.535000		786.534000	
3.5	20	777.536000		786.584000	
4.2	20	777.684000		786.585000	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	777.632000	777	786.534000	787
	-20	777.735000		786.584000	
	-10	777.785000		786.585000	
	0	777.787000		786.534000	
	10	777.683000		786.680000	
	20	777.785000		786.520000	
	30	777.787000		786.630000	
	40	777.535000		786.580000	
	50	777.536000		786.683000	
3.5	20	777.684000		786.685000	
4.2	20	777.530000		786.584000	

LTE Band 26:

Middle Channel, $f_c = 831.5$ MHz, Channel Bandwidth:10MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V _{DC}	Hz	ppm	ppm
-30	3.85	-0.59	-0.0007	2.5
-20		5.78	0.007	
-10		9.35	0.0112	
0		-9.50	-0.0114	
10		8.11	0.0098	
20		8.51	0.0102	
30		5.70	0.0069	
40		-9.73	-0.0117	
50		6.51	0.0078	
20	3.5	7.06	0.0085	
20	4.2	-7.91	-0.0095	

Middle Channel, $f_c = 831.5$ MHz, Channel Bandwidth:10MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V _{DC}	Hz	ppm	ppm
-30	3.85	-1.40	-0.0017	2.5
-20		5.43	0.0065	
-10		-9.97	-0.012	
0		6.80	0.0082	
10		-8.10	-0.0097	
20		-9.35	-0.0112	
30		6.97	0.0084	
40		7.94	0.0095	
50		8.49	0.0102	
20	3.5	7.17	0.0086	
20	4.2	-6.42	-0.0077	

LTE Band 38

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2570.520000	2570	2619.480000	2620
	-20	2570.520000		2619.530000	
	-10	2570.540000		2619.480000	
	0	2570.520000		2619.480000	
	10	2570.520000		2619.470000	
	20	2570.520000		2619.480000	
	30	2570.520000		2619.480000	
	40	2570.570000		2619.480000	
	50	2570.520000		2619.430000	
3.5	20	2570.610000	2570	2619.480000	2620
4.2	20	2570.520000		2619.480000	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2570.520000	2570	2619.480000	2620
	-20	2570.520000		2619.480000	
	-10	2570.570000		2619.370000	
	0	2570.630000		2619.550000	
	10	2570.520000		2619.480000	
	20	2570.520000		2619.480000	
	30	2570.520000		2619.480000	
	40	2570.520000		2619.480000	
	50	2570.470000		2619.440000	
3.5	20	2570.520000	2570	2619.480000	2620
4.2	20	2570.520000		2619.480000	

LTE Band 40 Lower:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2305.400000	2305	2314.480000	2315
	-20	2305.300000		2314.530000	
	-10	2305.250000		2314.480000	
	0	2305.350000		2314.480000	
	10	2305.400000		2314.470000	
	20	2305.520000		2314.480000	
	30	2305.250000		2314.480000	
	40	2305.450000		2314.480000	
	50	2305.450000		2314.430000	
3.5	20	2305.400000	2305	2314.480000	2315
4.2	20	2305.300000		2314.480000	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2305.350000	2305	2314.480000	2315
	-20	2305.300000		2314.430000	
	-10	2305.250000		2314.480000	
	0	2305.520000		2314.480000	
	10	2305.250000		2314.470000	
	20	2305.450000		2314.480000	
	30	2305.400000		2314.480000	
	40	2305.450000		2314.530000	
	50	2305.400000		2314.480000	
3.5	20	2305.400000	2305	2314.480000	2315
4.2	20	2305.300000		2314.480000	

LTE Band 40 Upper:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2350.400000	2350	2359.480000	2360
	-20	2350.300000		2359.530000	
	-10	2350.250000		2359.480000	
	0	2350.353000		2359.480000	
	10	2350.440000		2359.470000	
	20	2350.524000		2359.480000	
	30	2350.256000		2359.480000	
	40	2350.456000		2359.480000	
	50	2350.458000		2359.430000	
3.5	20	2350.440000		2359.480000	
4.2	20	2350.360000		2359.480000	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2350.256000	2350	2359.480000	2360
	-20	2350.360000		2359.480000	
	-10	2350.250000		2359.480000	
	0	2350.353000		2359.480000	
	10	2350.456000		2359.470000	
	20	2350.458000		2359.480000	
	30	2350.440000		2359.480000	
	40	2350.440000		2359.530000	
	50	2350.524000		2359.430000	
3.5	20	2350.400000		2359.480000	
4.2	20	2350.300000		2359.480000	

LTE Band 41:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2496.350000	2496	2689.700000	2690
	-20	2496.350000		2689.550000	
	-10	2496.250000		2689.550000	
	0	2496.400000		2689.650000	
	10	2496.400000		2689.700000	
	20	2496.520000		2689.480000	
	30	2496.250000		2689.600000	
	40	2496.450000		2689.750000	
	50	2496.400000		2689.550000	
3.5	20	2496.400000	2496	2689.650000	2690
4.2	20	2496.300000		2689.650000	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2496.250000	2496	2689.750000	2690
	-20	2496.350000		2689.650000	
	-10	2496.450000		2689.650000	
	0	2496.300000		2689.600000	
	10	2496.250000		2689.700000	
	20	2496.520000		2689.480000	
	30	2496.450000		2689.600000	
	40	2496.300000		2689.600000	
	50	2496.300000		2689.700000	
3.5	20	2496.350000	2496	2689.550000	2690
4.2	20	2496.400000		2689.700000	

LTE Band 66:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	1710.250000	1710	1779.700000	1780
	-20	1710.450000		1779.650000	
	-10	1710.250000		1779.550000	
	0	1710.250000		1779.700000	
	10	1710.300000		1779.650000	
	20	1710.520000		1779.480000	
	30	1710.400000		1779.550000	
	40	1710.300000		1779.650000	
	50	1710.250000		1779.650000	
3.5	20	1710.350000	1710	1779.750000	1780
4.2	20	1710.400000		1779.600000	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	1710.350000	1710	1779.750000	1780
	-20	1710.350000		1779.600000	
	-10	1710.450000		1779.650000	
	0	1710.450000		1779.550000	
	10	1710.300000		1779.750000	
	20	1710.520000		1779.480000	
	30	1710.350000		1779.650000	
	40	1710.400000		1779.550000	
	50	1710.450000		1779.600000	
3.5	20	1710.350000	1710	1779.750000	1780
4.2	20	1710.300000		1779.750000	

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 *******