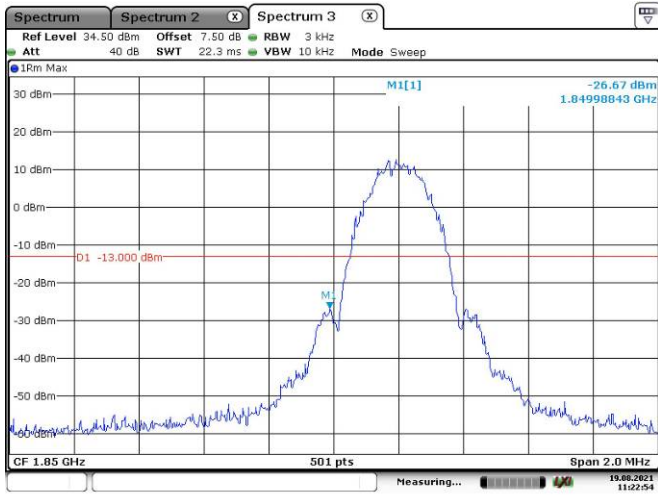
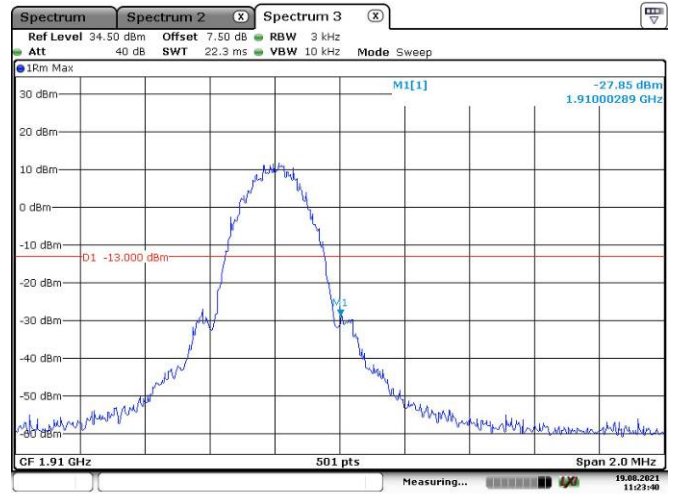


EGPRS 1900, Left Band Edge



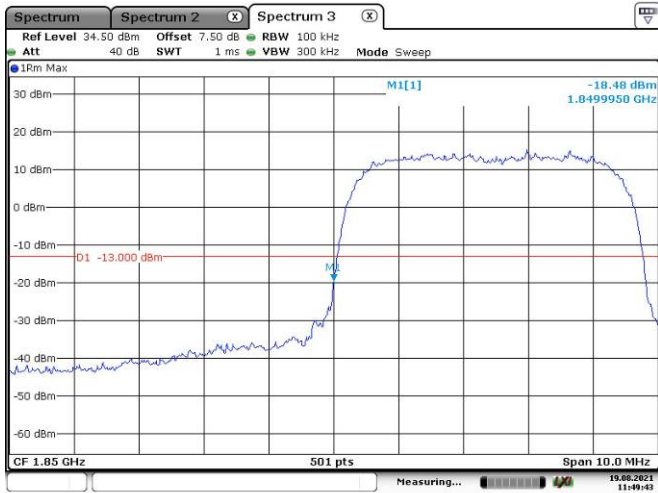
Date: 19.AUG.2021 11:22:55

EGPRS 1900, Right Band Edge



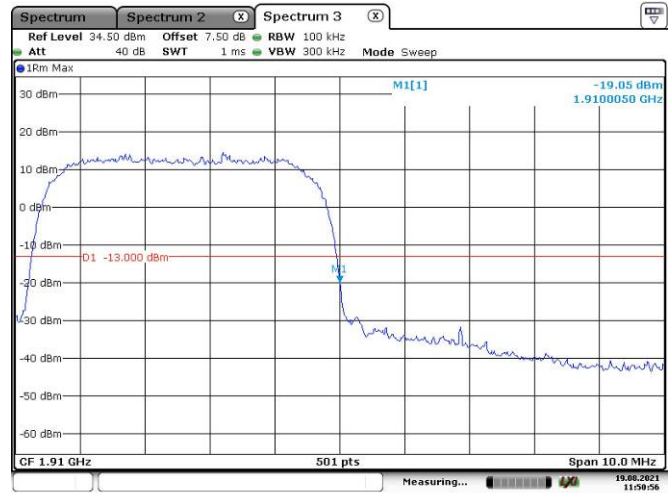
Date: 19.AUG.2021 11:23:41

WCDMA Band II,Rel99, Left Band Edge



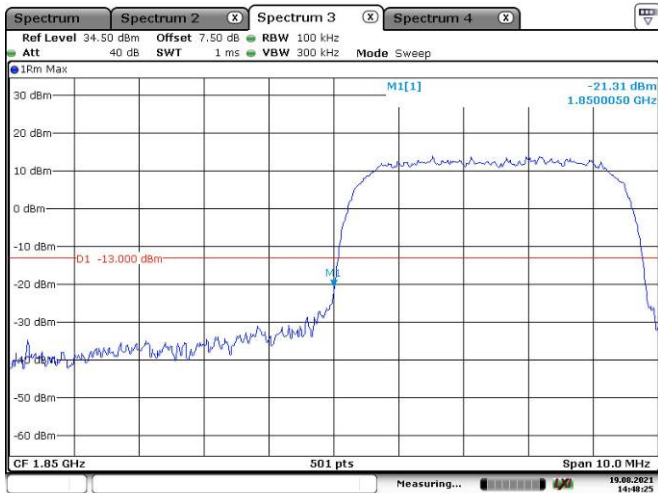
Date: 19.AUG.2021 11:49:44

WCDMA Band II,Rel99, Right Band Edge



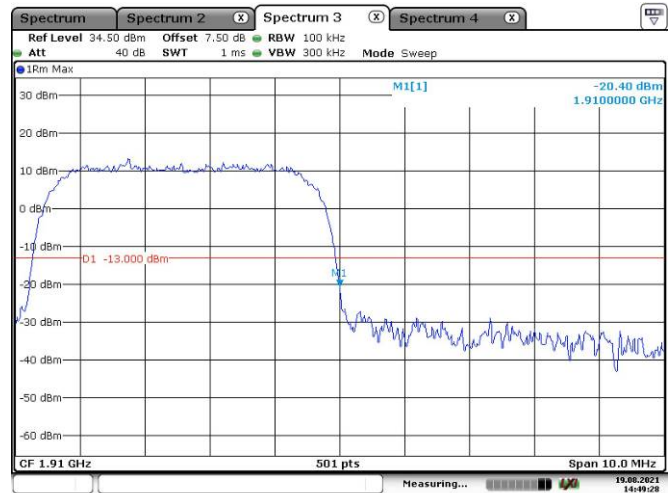
Date: 19.AUG.2021 11:50:56

WCDMA Band II,HSDPA, Left Band Edge



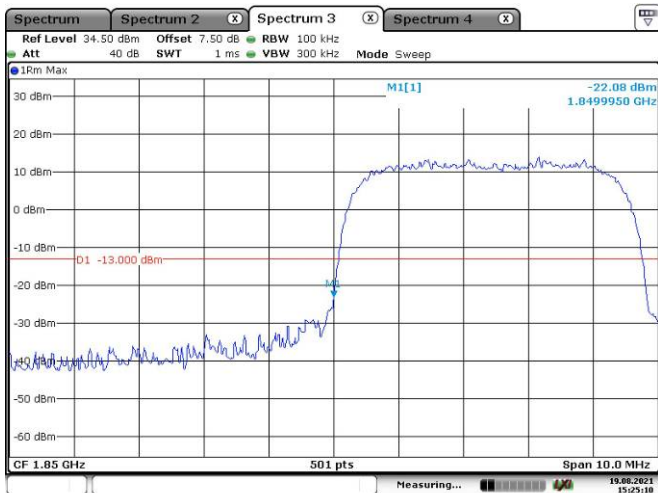
Date: 19.AUG.2021 14:48:26

WCDMA Band II,HSDPA, Right Band Edge



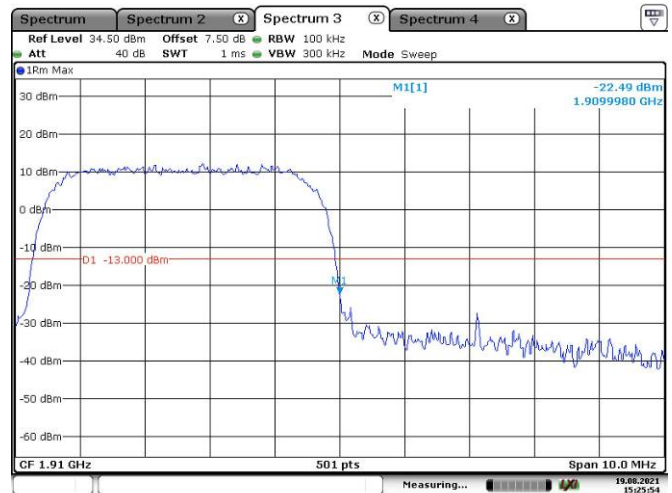
Date: 19.AUG.2021 14:49:28

WCDMA Band II,HSUPA, Left Band Edge



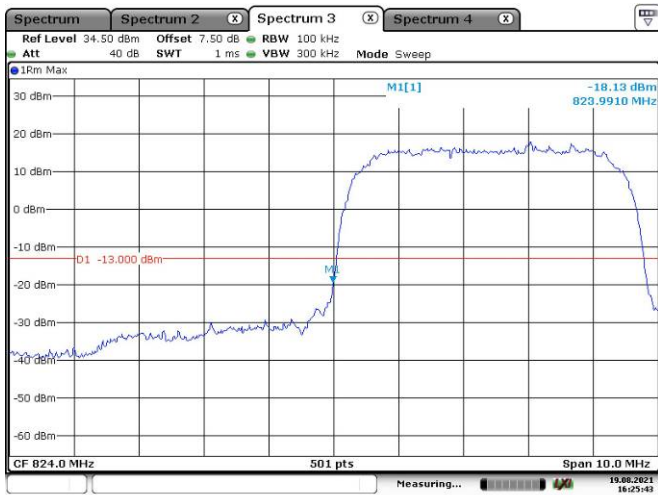
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WCDMA Band II,HSUPA, Right Band Edge



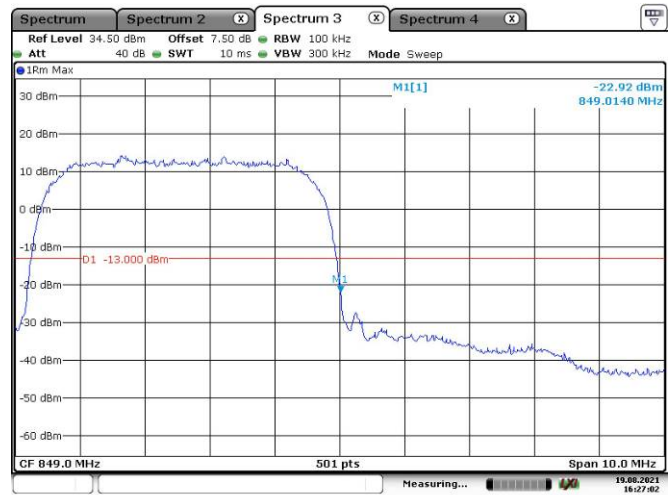
Date: 19.AUG.2021 15:25:55

WCDMA Band V,Rel99, Left Band Edge



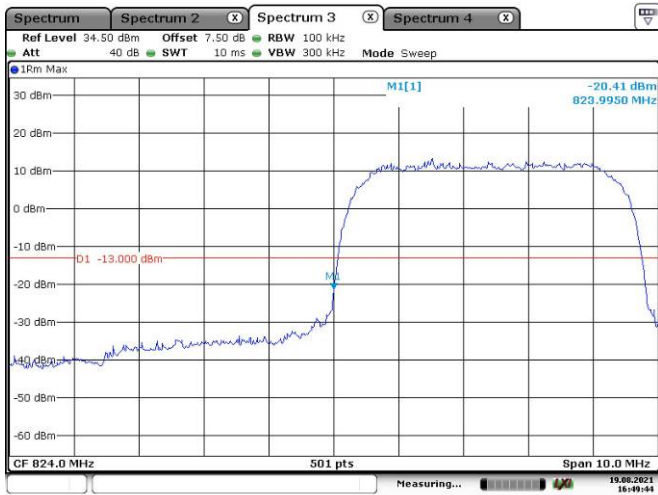
Date: 19.AUG.2021 16:25:43

WCDMA Band V,Rel99, Right Band Edge



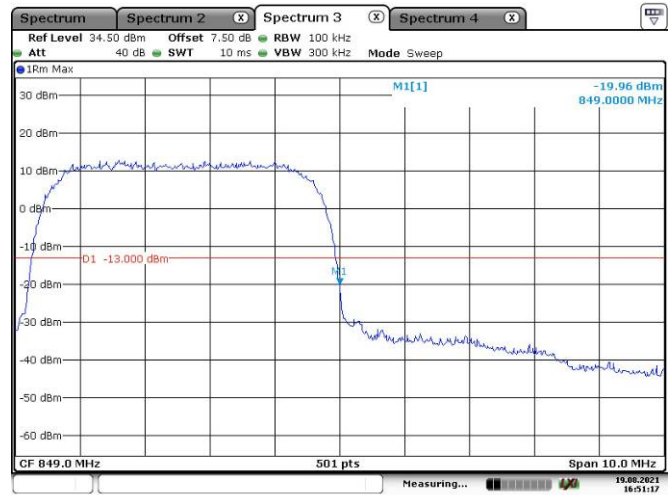
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WCDMA Band V,HSDPA, Left Band Edge



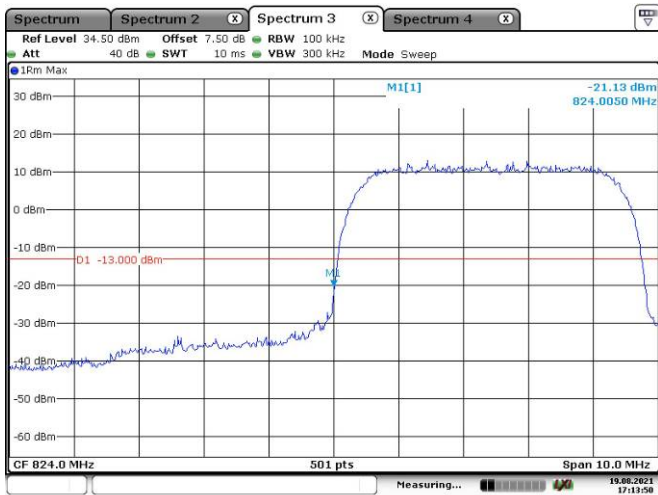
Date: 19.AUG.2021 16:49:44

WCDMA Band V,HSDPA,Right Band Edge



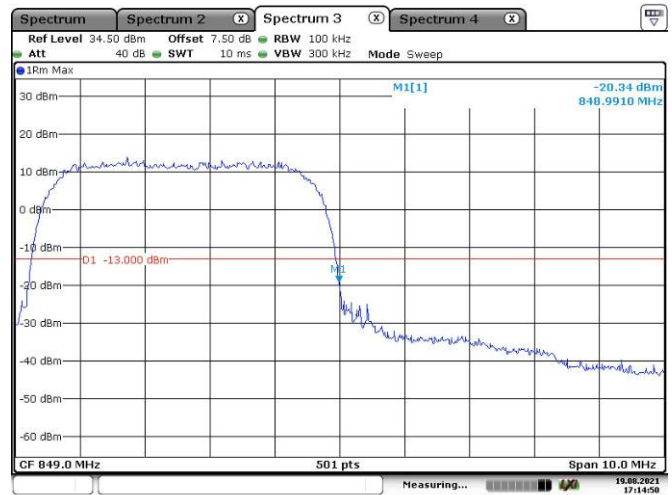
Date: 19.AUG.2021 16:51:17

WCDMA Band V,HSUPA, Left Band Edge



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

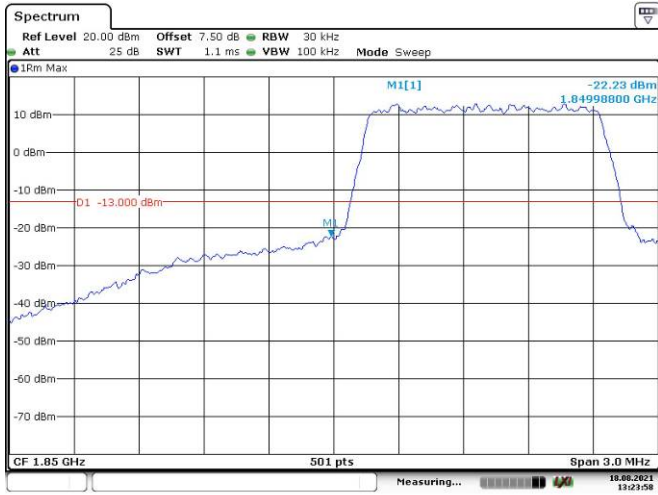
WCDMA Band V,HSUPA, Right Band Edge



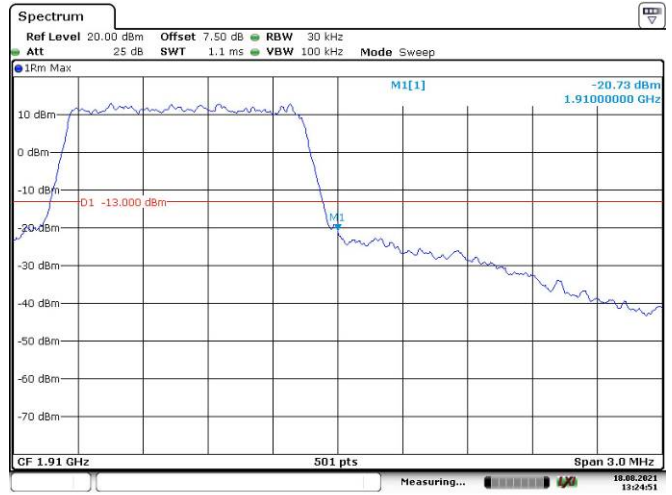
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LTE Band 2:

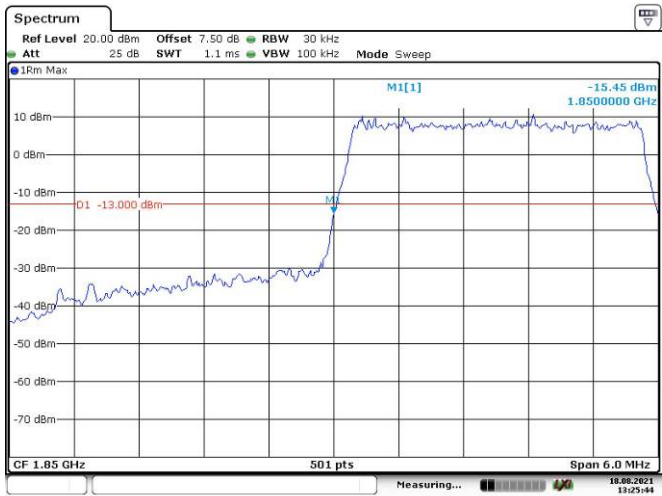
1.4M, QPSK, Left Band Edge



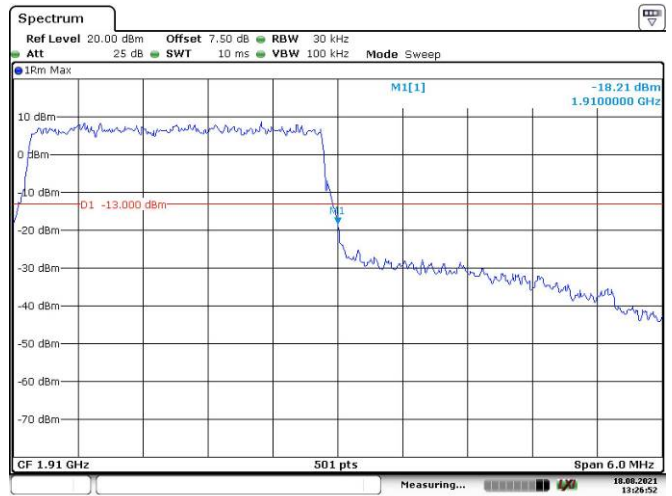
1.4M, QPSK, Right Band Edge



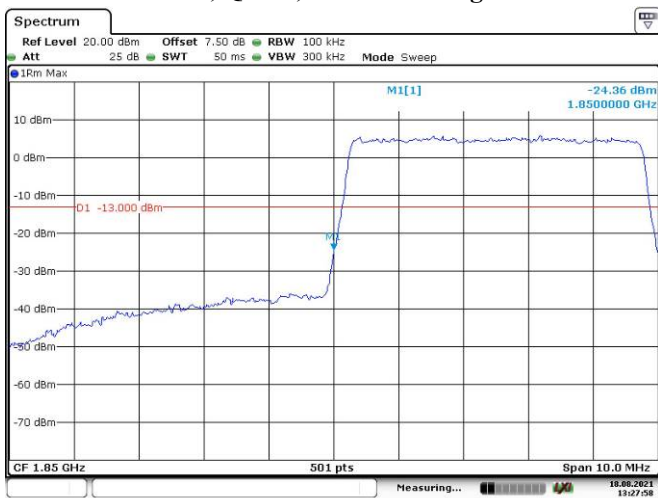
3M, QPSK, Left Band Edge



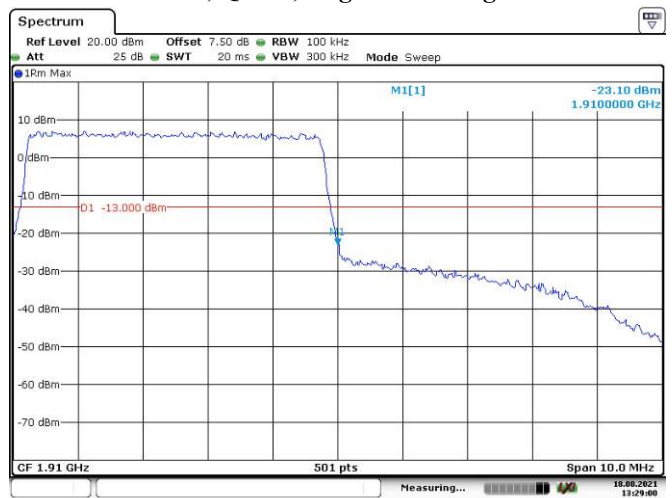
3M, QPSK, Right Band Edge



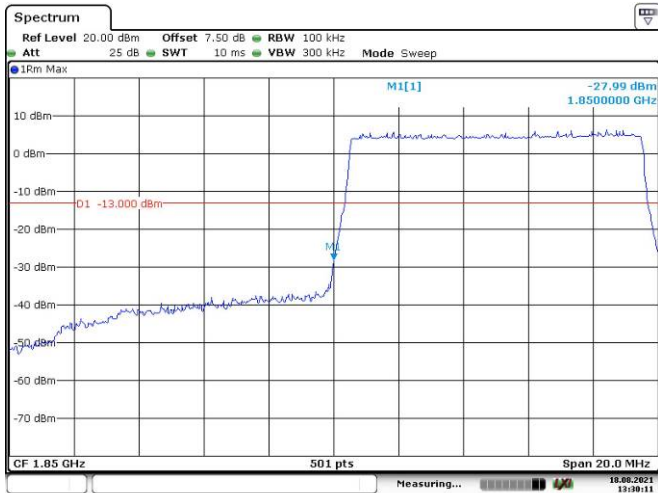
5M, QPSK, Left Band Edge



5M, QPSK, Right Band Edge

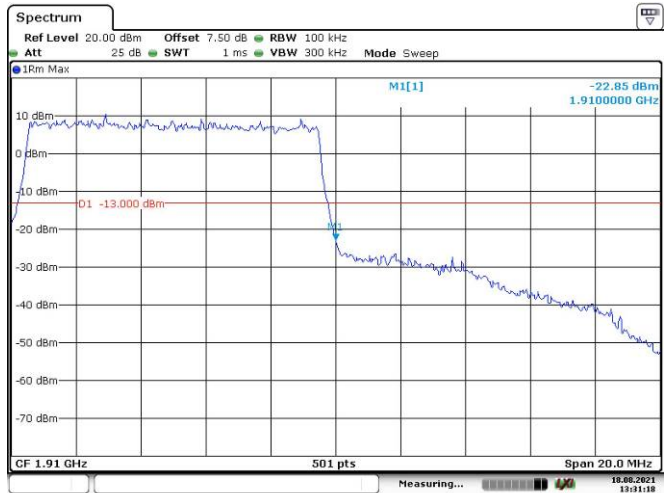


10M, QPSK, Left Band Edge



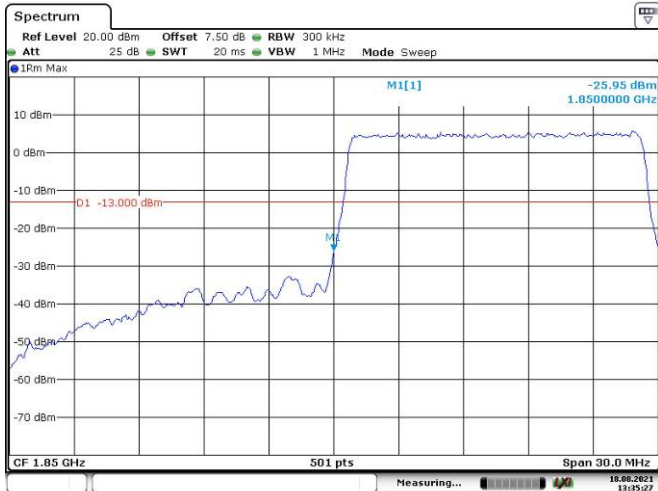
Date: 18.AUG.2021 13:30:12

10M, QPSK, Right Band Edge



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

15M, QPSK, Left Band Edge



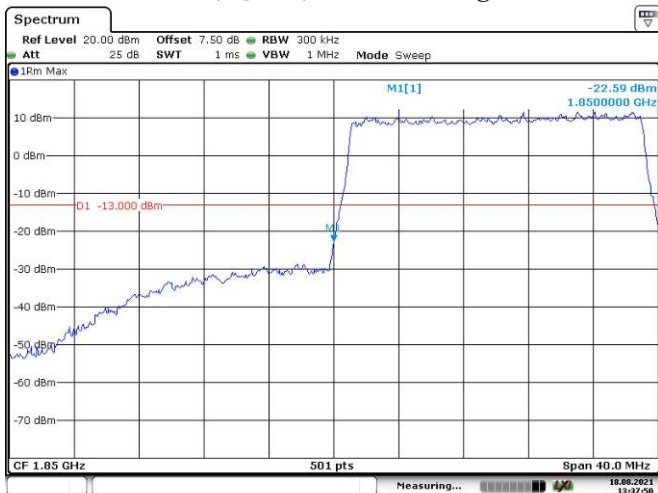
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15M, QPSK, Right Band Edge



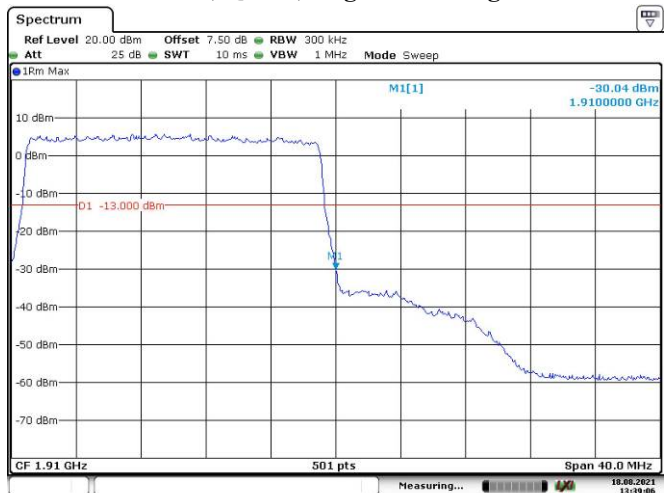
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20M, QPSK, Left Band Edge



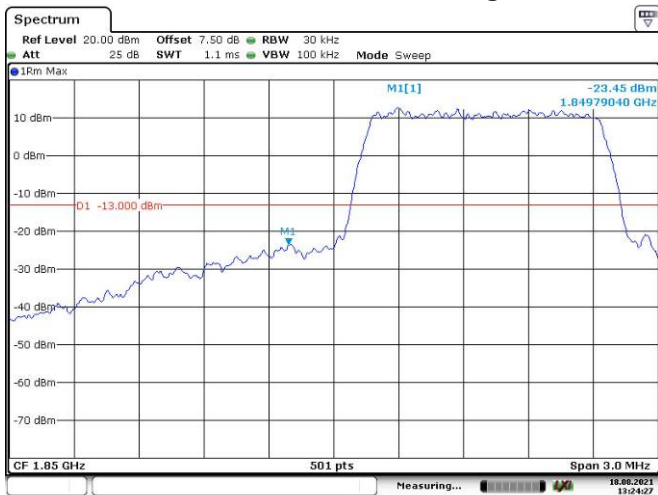
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20M, QPSK, Right Band Edge

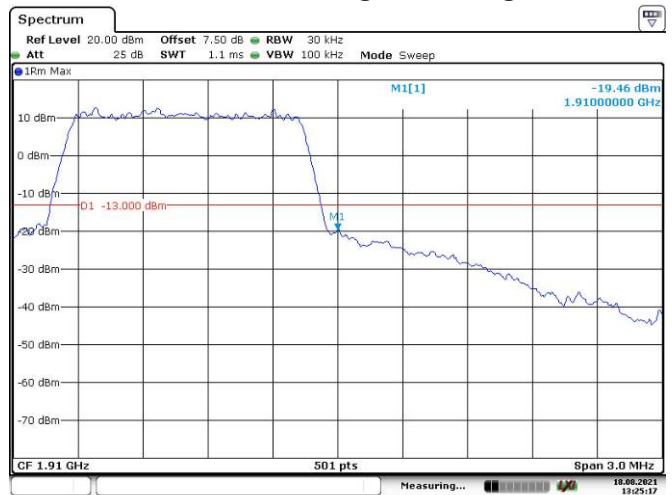


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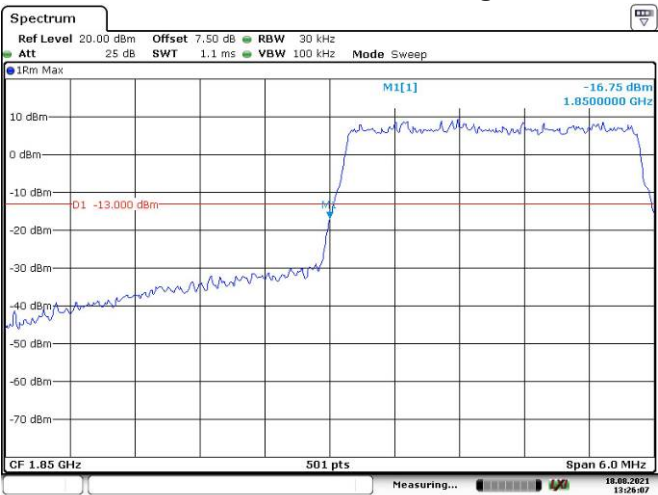
1.4M, 16QAM, Left Band Edge



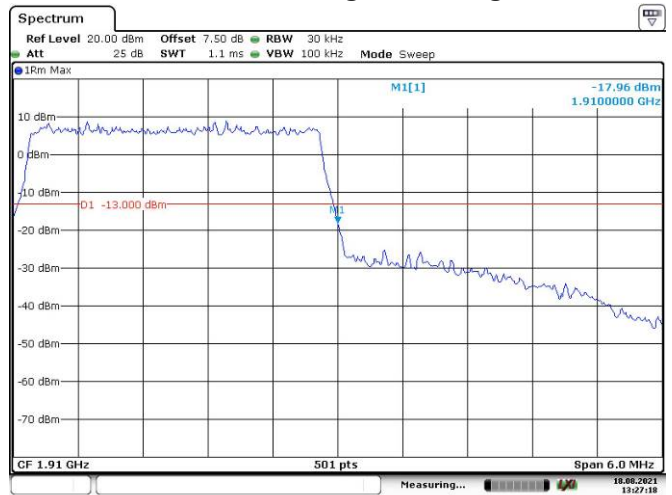
1.4M, 16QAM, Right Band Edge



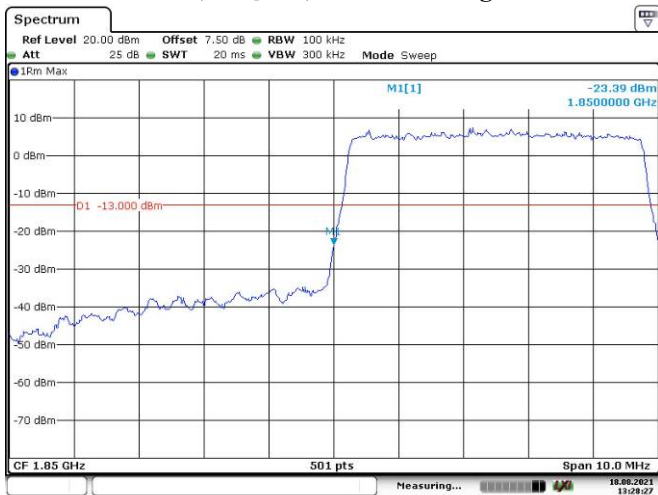
3M, 16QAM, Left Band Edge



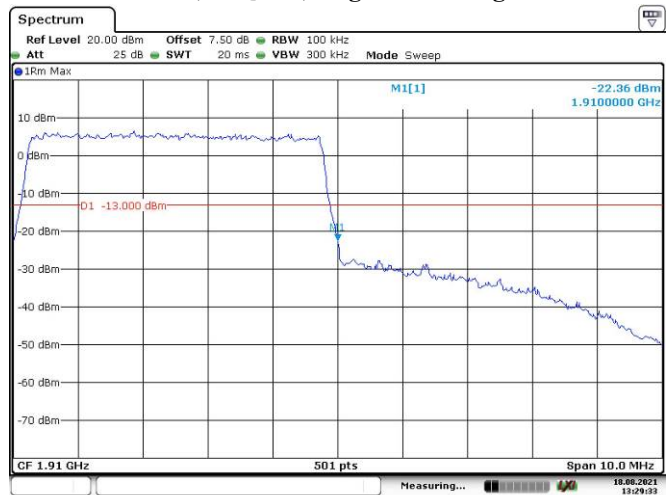
3M, 16QAM, Right Band Edge



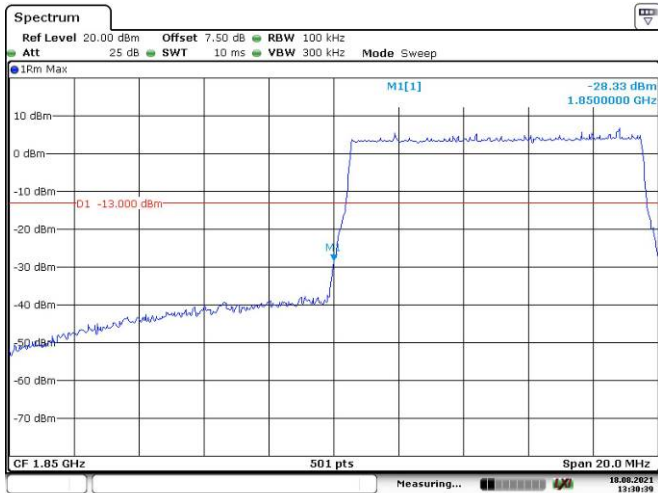
5M, 16QAM, Left Band Edge



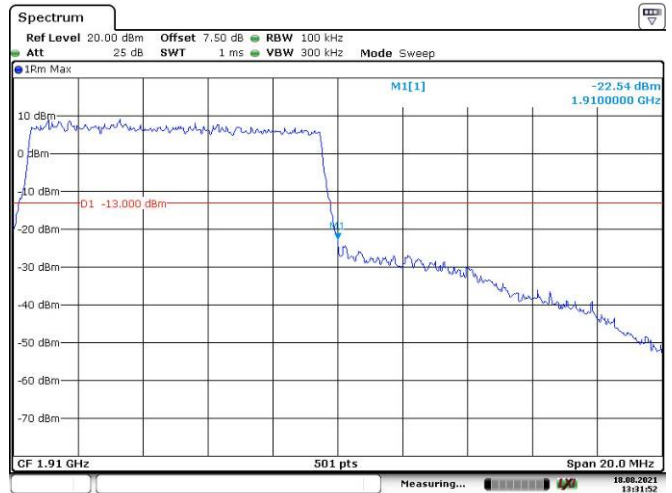
5M, 16QAM, Right Band Edge



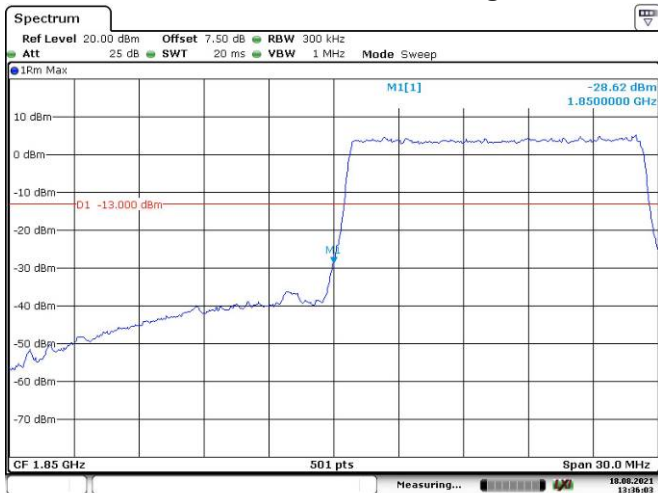
10M, 16QAM, Left Band Edge



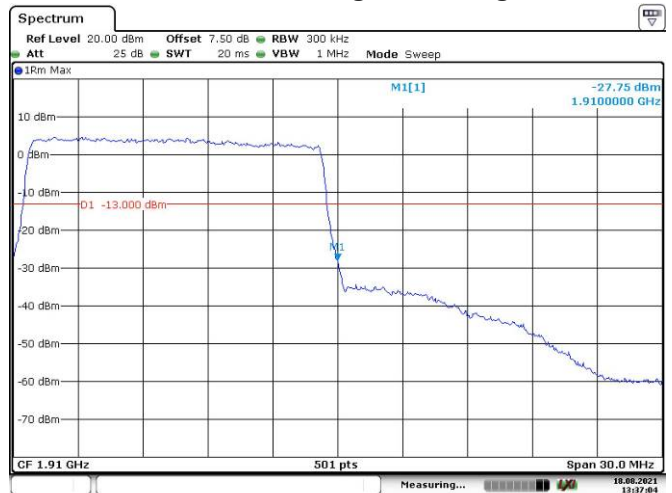
10M, 16QAM, Right Band Edge



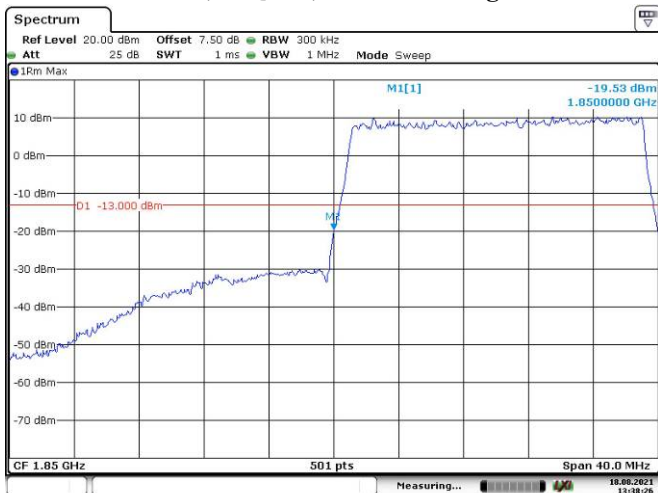
15M, 16QAM, Left Band Edge



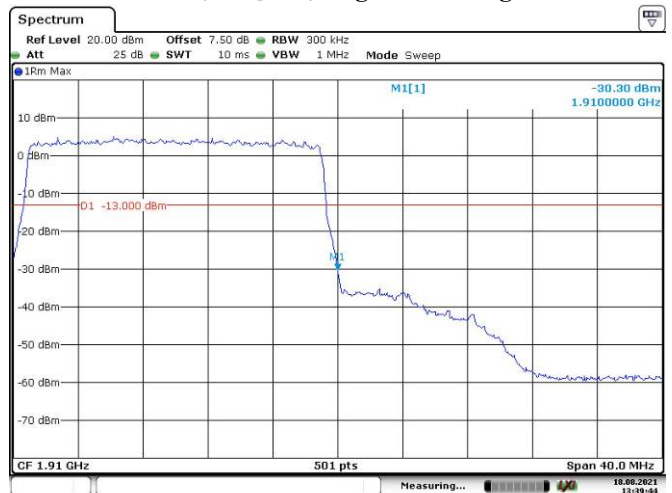
15M, 16QAM, Right Band Edge



20M, 16QAM, Left Band Edge

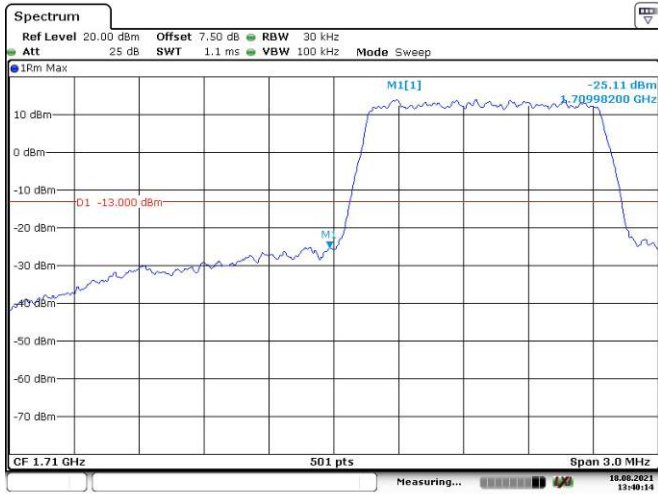


20M, 16QAM, Right Band Edge

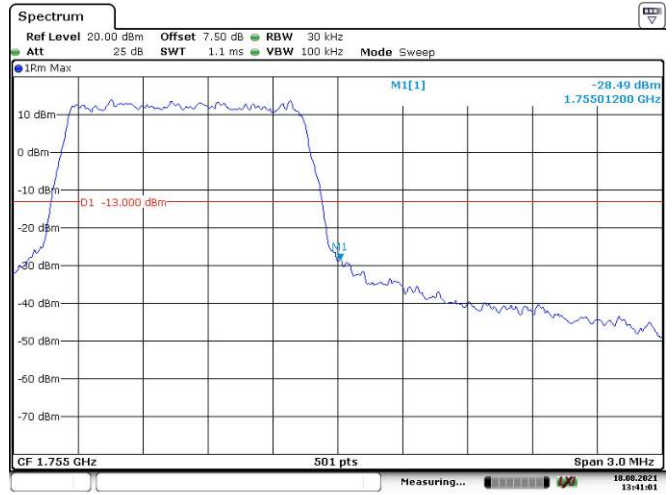


LTE Band 4:

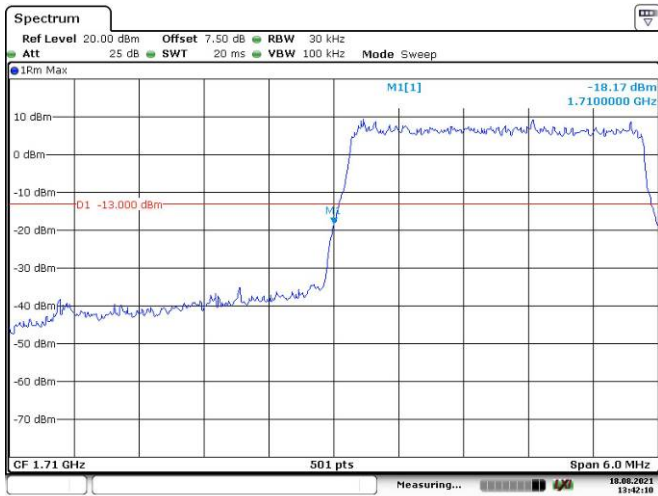
1.4M, QPSK, Left Band Edge



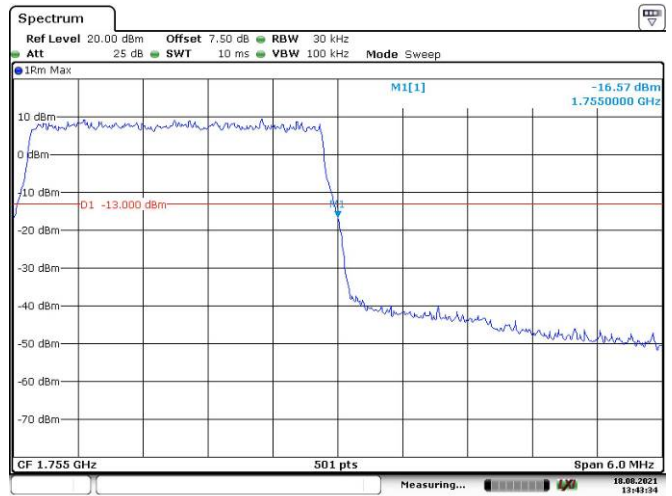
1.4M, QPSK, Right Band Edge



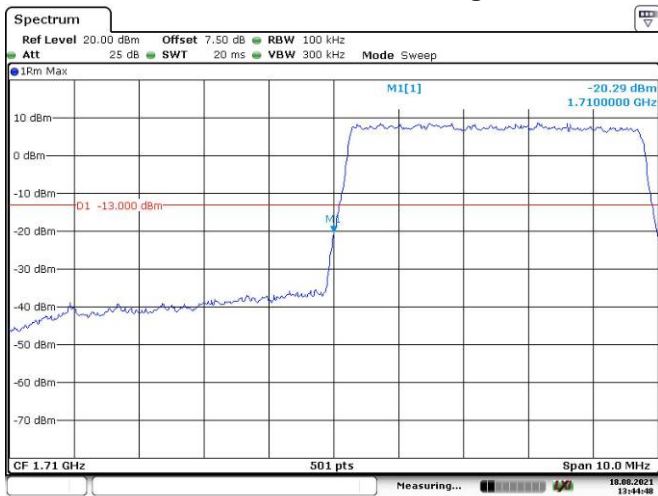
3M, QPSK, Left Band Edge



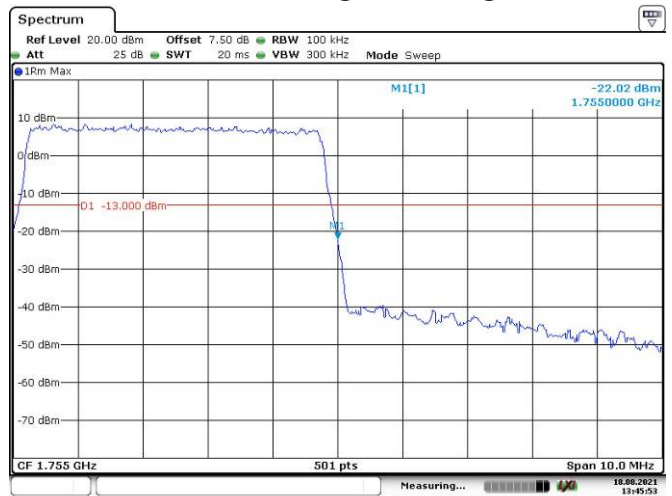
3M, QPSK, Right Band Edge



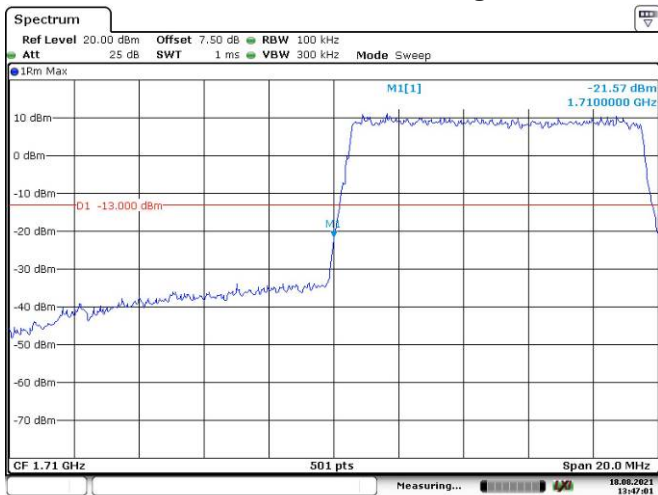
5M, QPSK, Left Band Edge



5M, QPSK, Right Band Edge

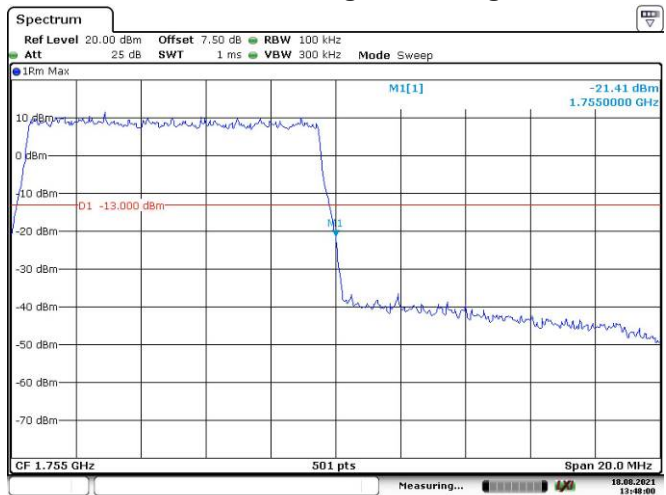


10M, QPSK, Left Band Edge



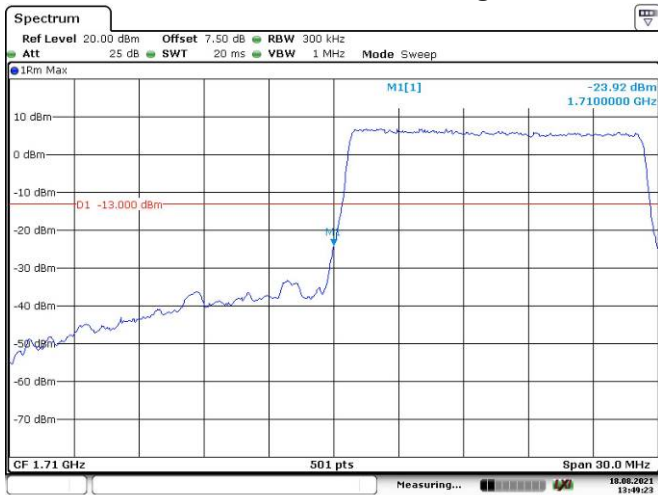
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10M, QPSK, Right Band Edge



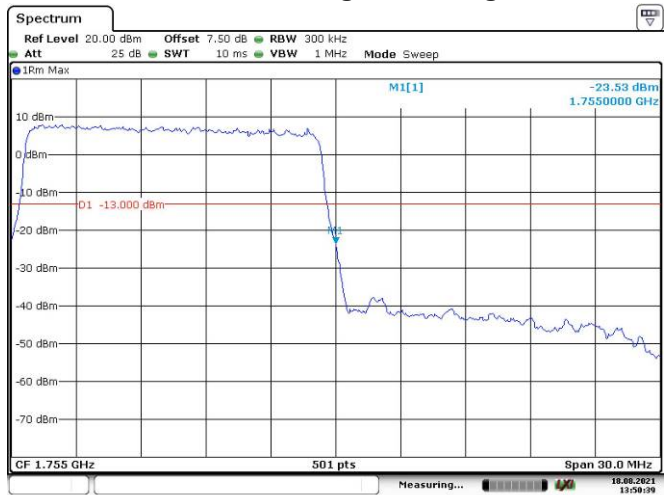
Date: 18.AUG.2021 13:48:00

15M, QPSK, Left Band Edge



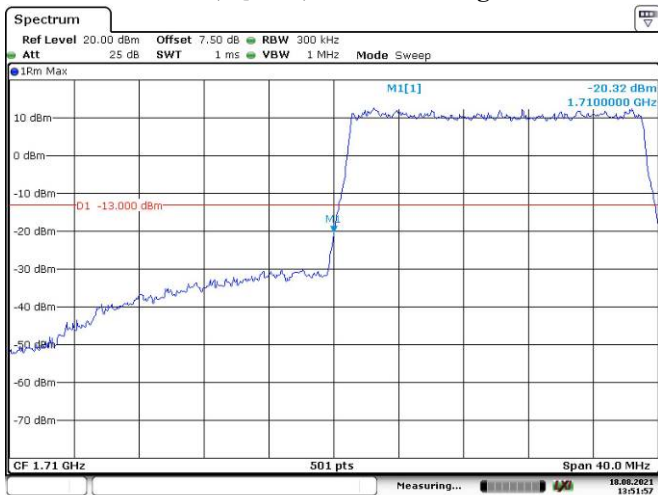
Date: 18.AUG.2021 13:49:23

15M, QPSK, Right Band Edge



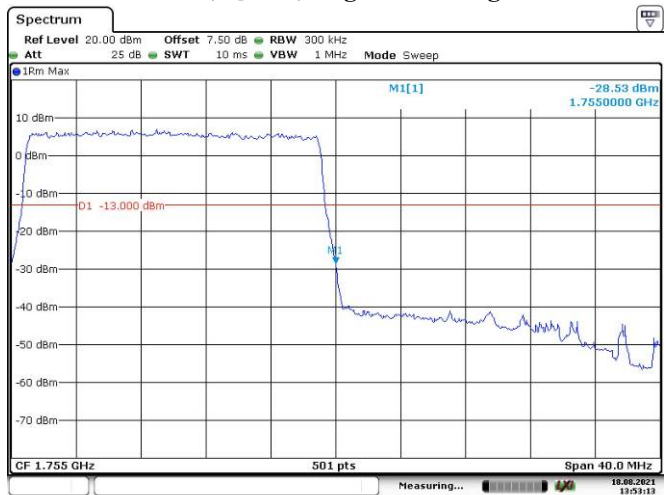
Date: 18.AUG.2021 13:50:39

20M, QPSK, Left Band Edge



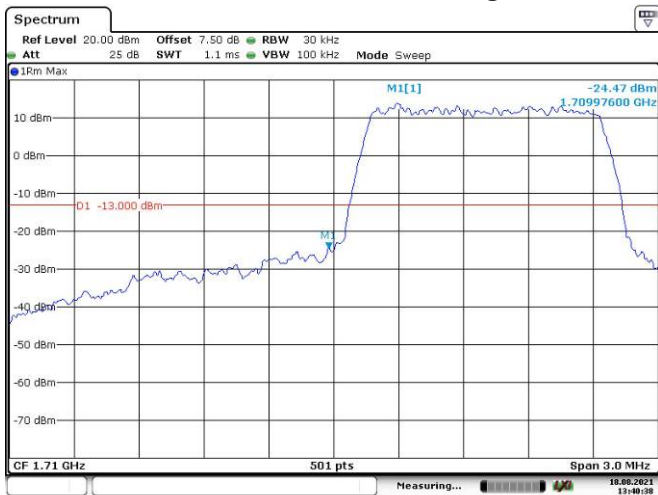
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20M, QPSK, Right Band Edge

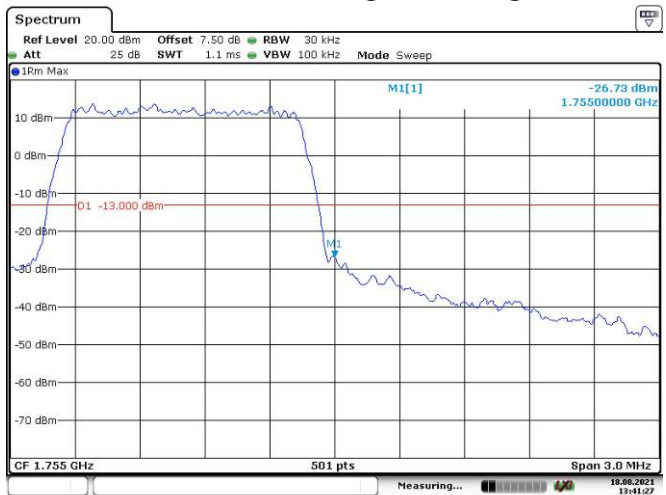


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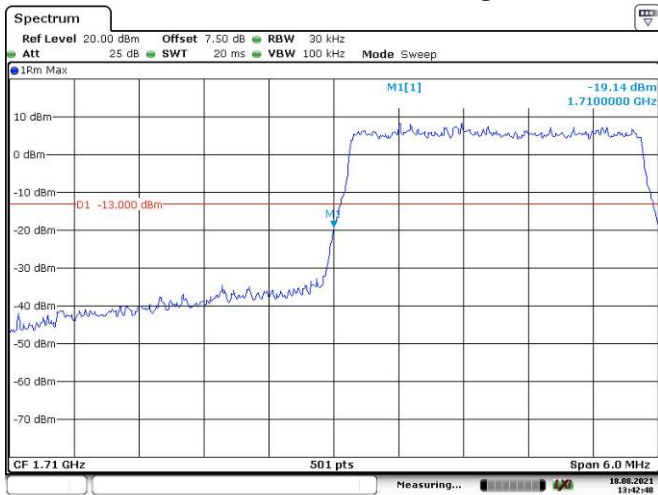
1.4M, 16QAM, Left Band Edge



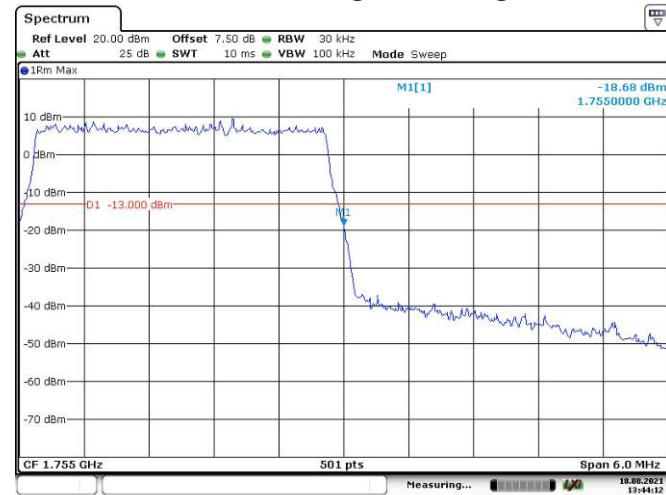
1.4M, 16QAM, Right Band Edge



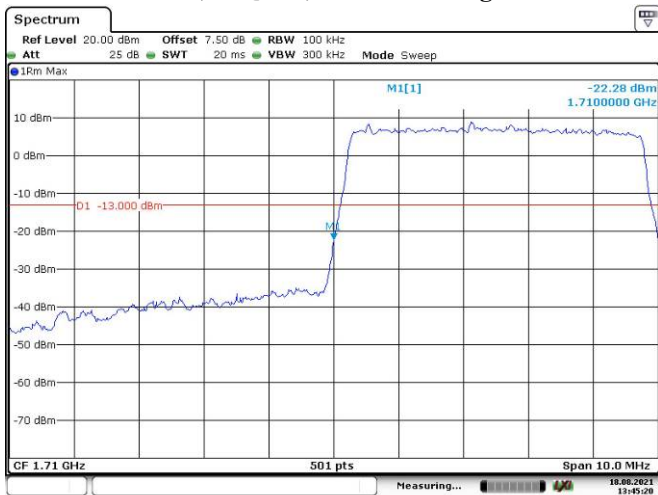
3M, 16QAM, Left Band Edge



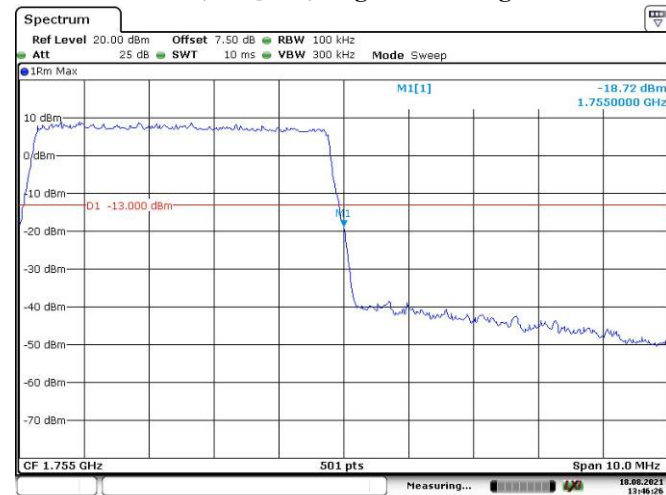
3M, 16QAM, Right Band Edge



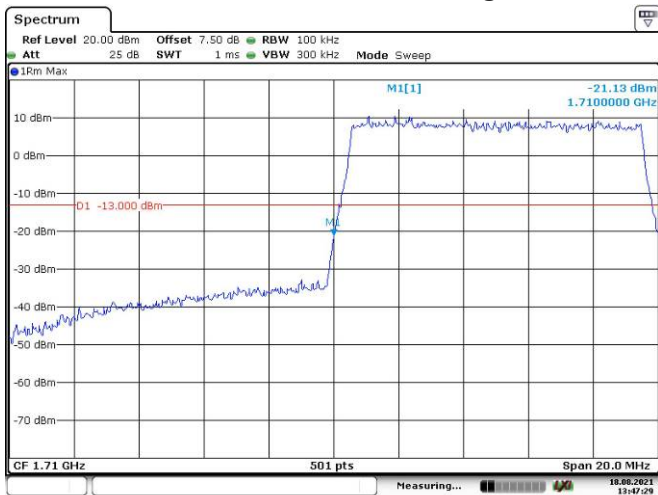
5M, 16QAM, Left Band Edge



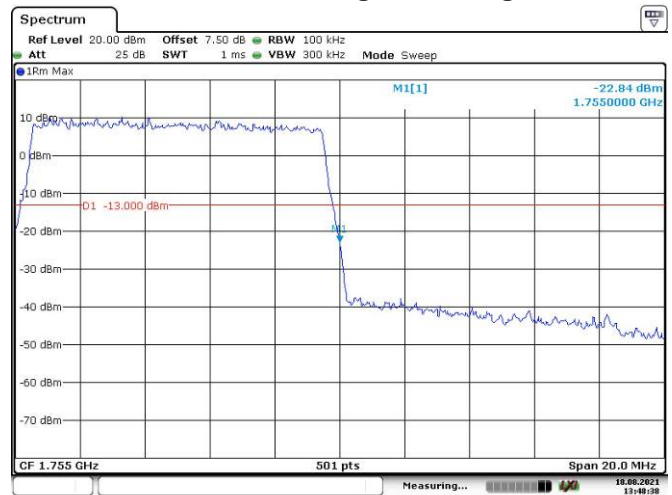
5M, 16QAM, Right Band Edge



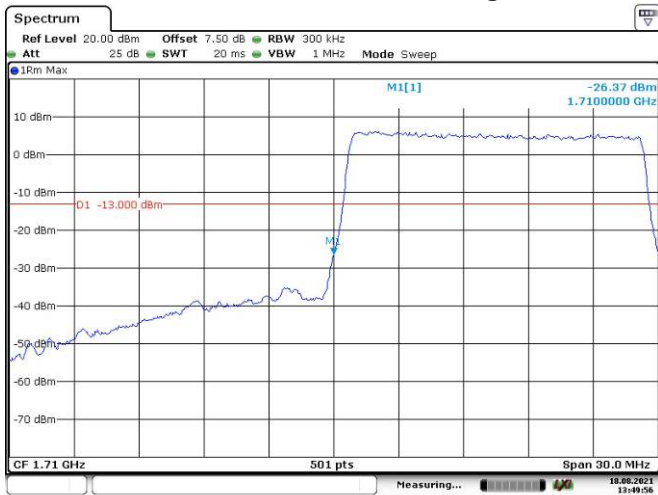
10M, 16QAM, Left Band Edge



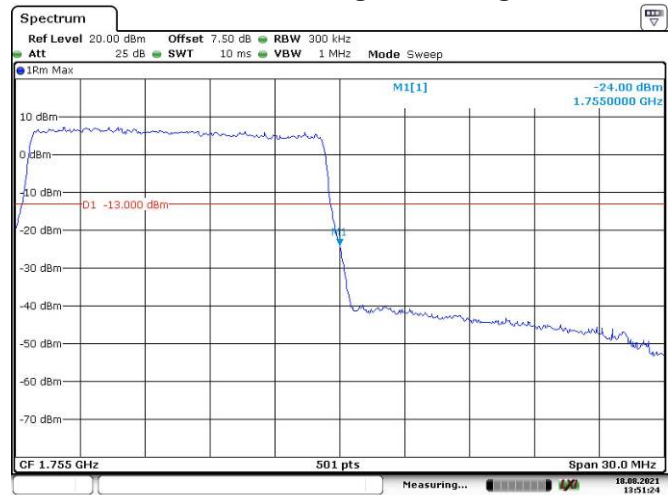
10M, 16QAM, Right Band Edge



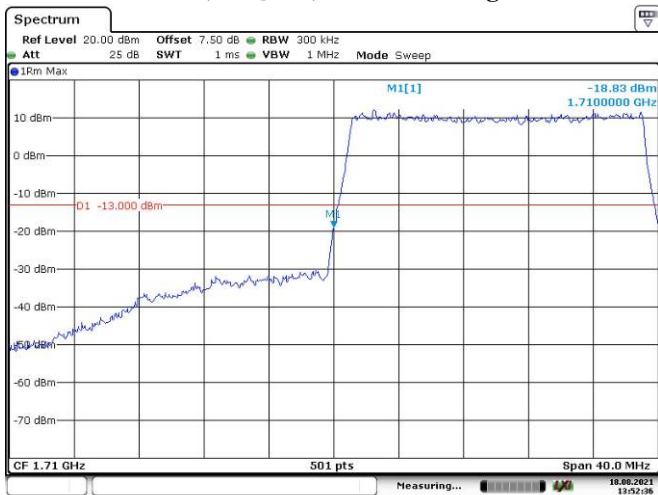
15M, 16QAM, Left Band Edge



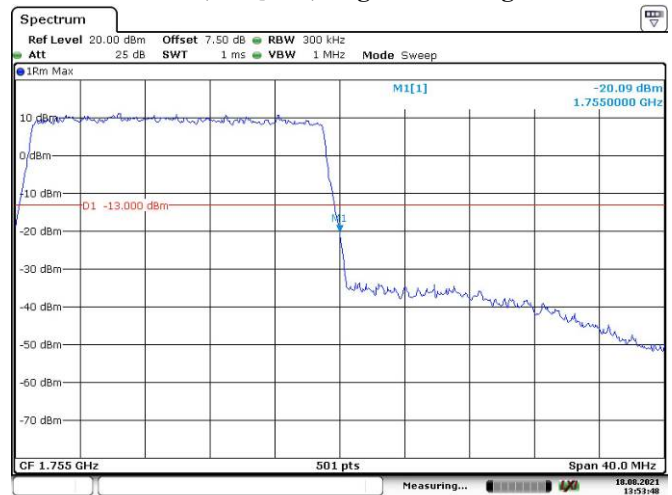
15M, 16QAM, Right Band Edge



20M, 16QAM, Left Band Edge

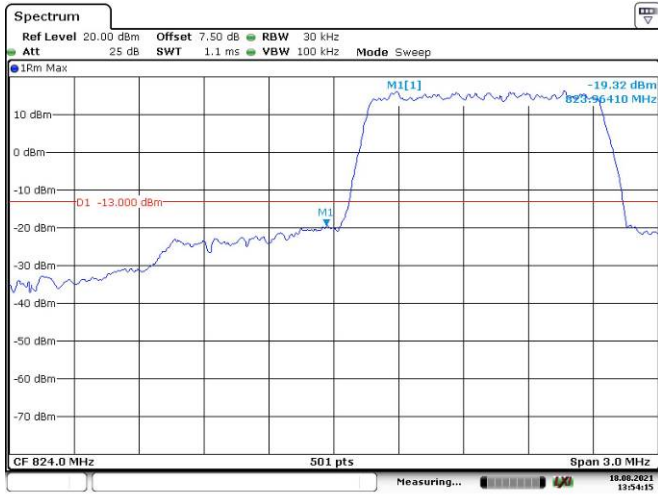


20M, 16QAM, Right Band Edge

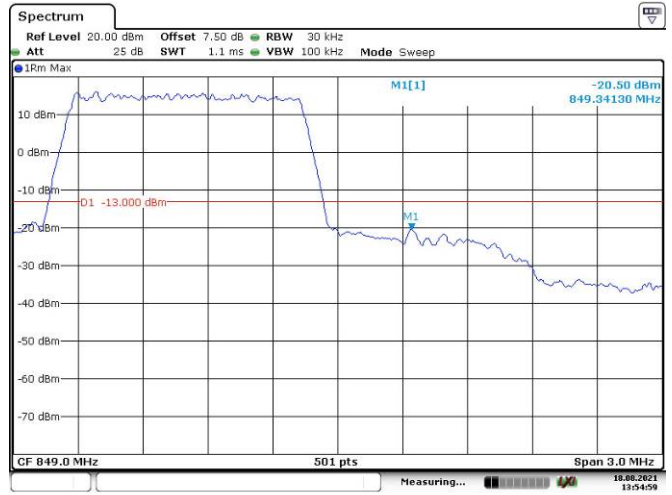


LTE Band 5:

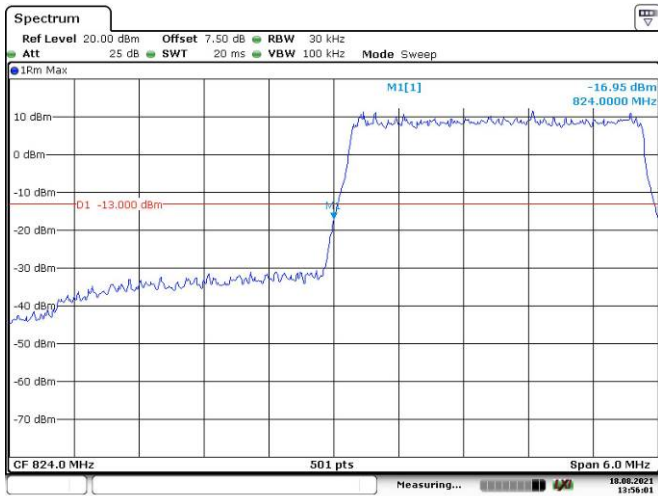
1.4M, QPSK, Left Band Edge



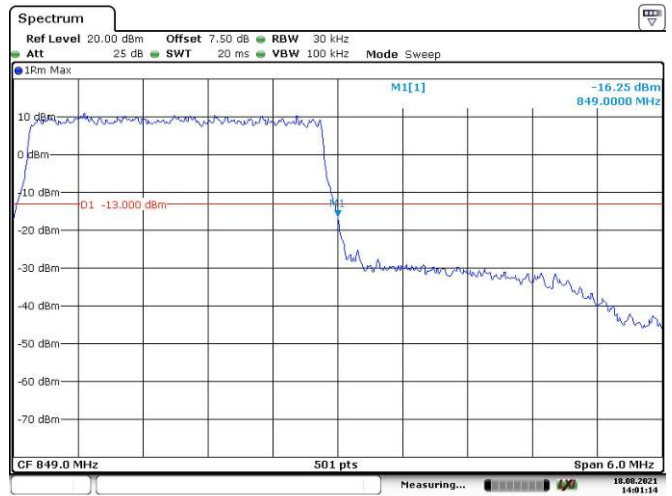
1.4M, QPSK, Right Band Edge



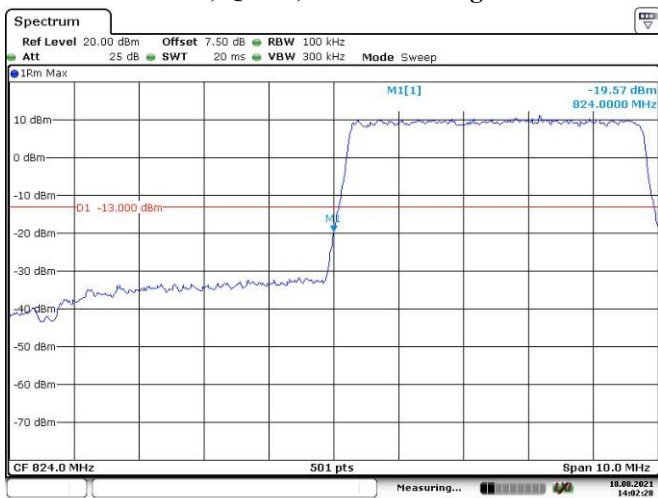
3M, QPSK, Left Band Edge



3M, QPSK, Right Band Edge



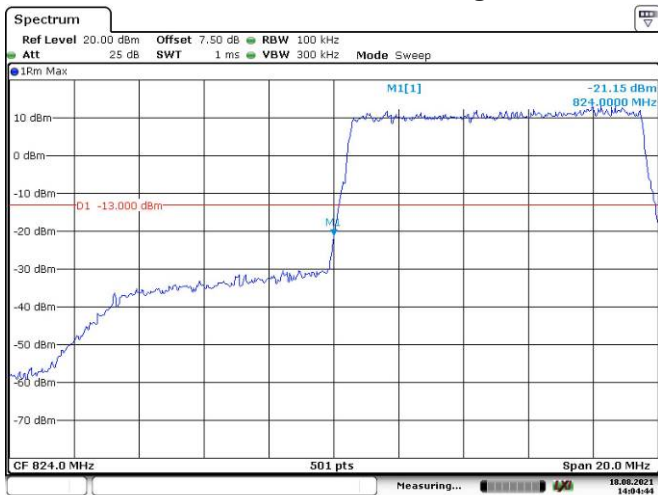
5M, QPSK, Left Band Edge



5M, QPSK, Right Band Edge

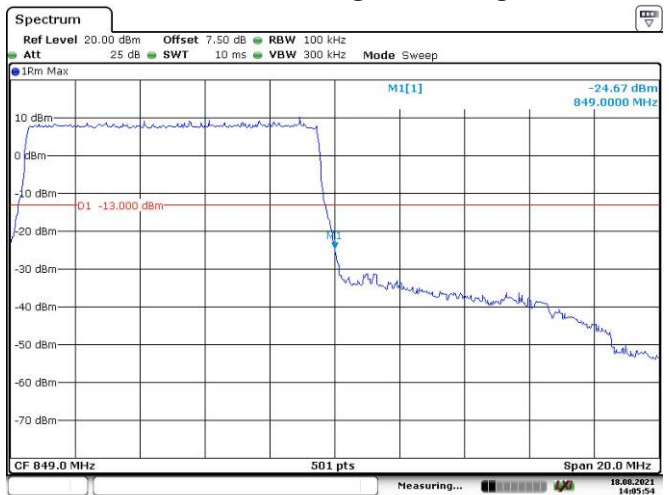


10M, QPSK, Left Band Edge



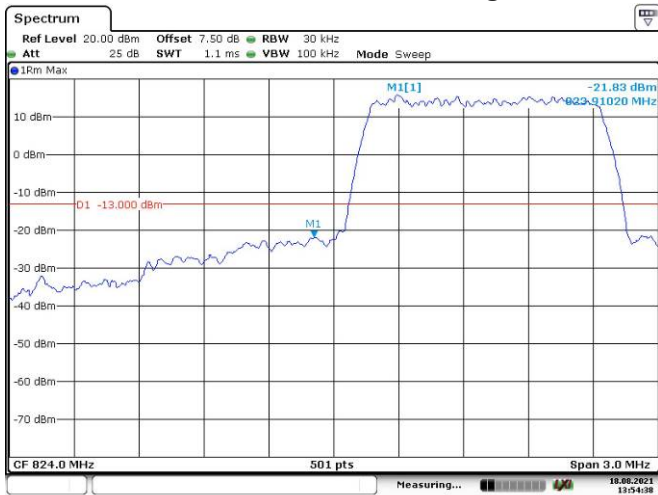
Date: 18.AUG.2021 14:04:44

10M, QPSK, Right Band Edge



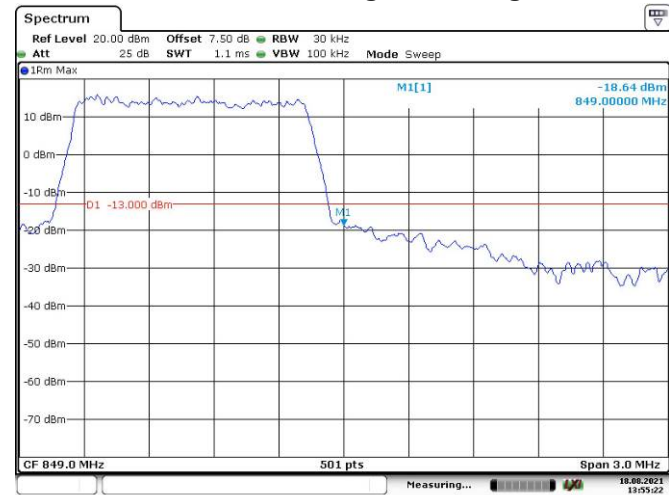
Date: 18.AUG.2021 14:05:54

1.4M, 16QAM, Left Band Edge



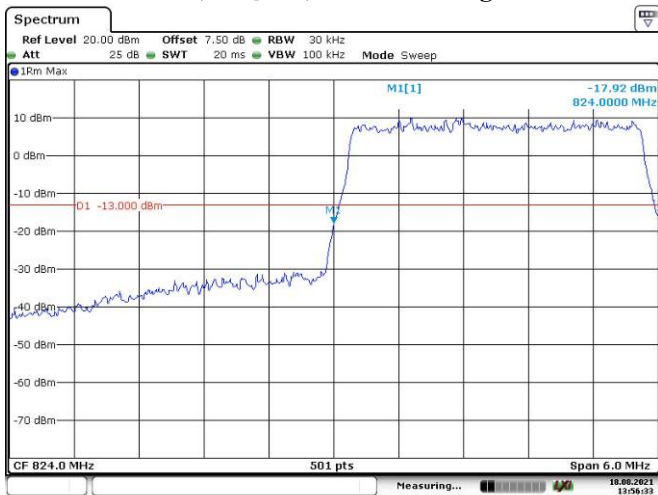
Date: 18.AUG.2021 13:54:38

1.4M, 16QAM, Right Band Edge



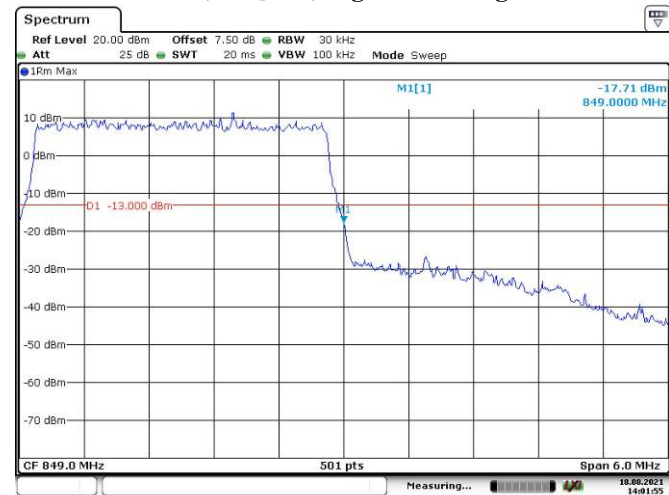
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3M, 16QAM, Left Band Edge



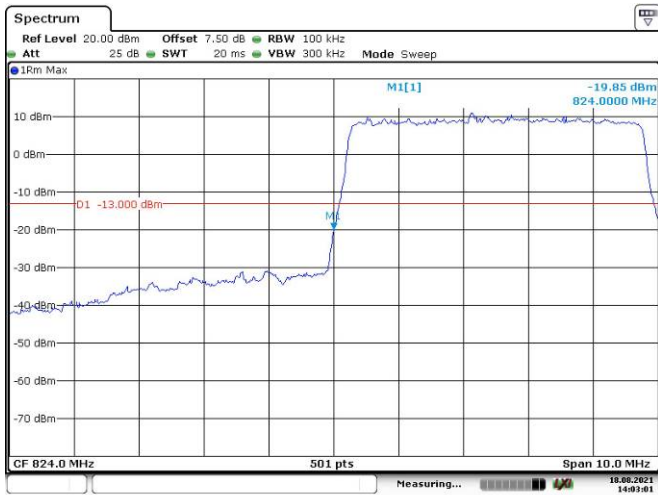
Date: 18.AUG.2021 13:56:34

3M, 16QAM, Right Band Edge



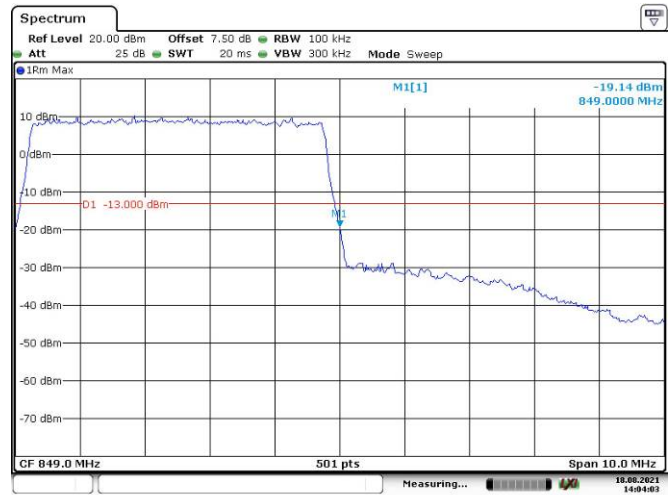
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5M, 16QAM, Left Band Edge



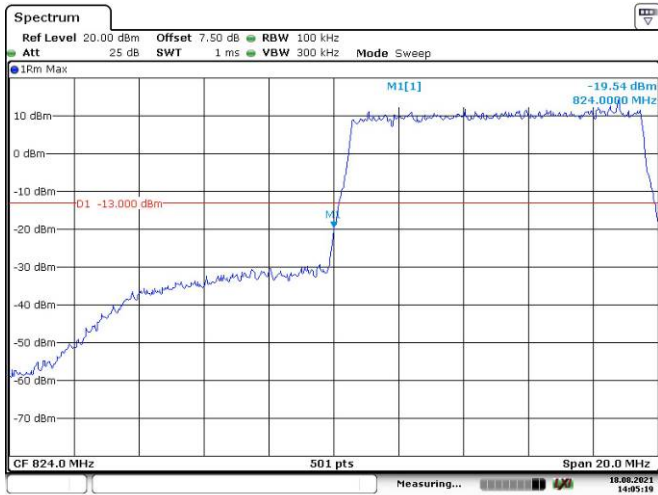
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5M, 16QAM, Right Band Edge



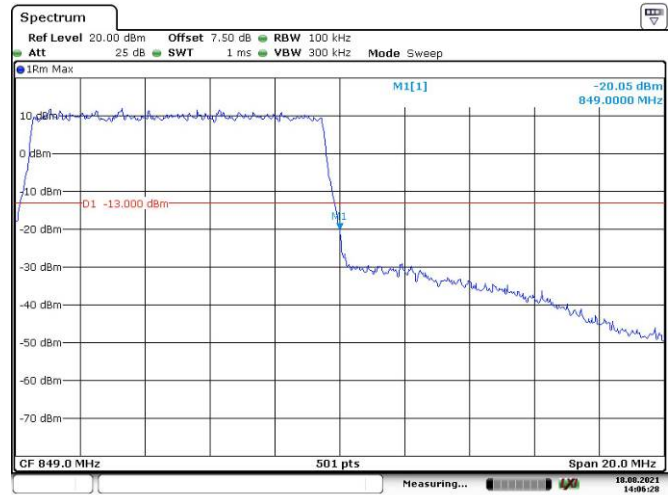
Date: 18.AUG.2021 14:04:03

10M, 16QAM, Left Band Edge



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

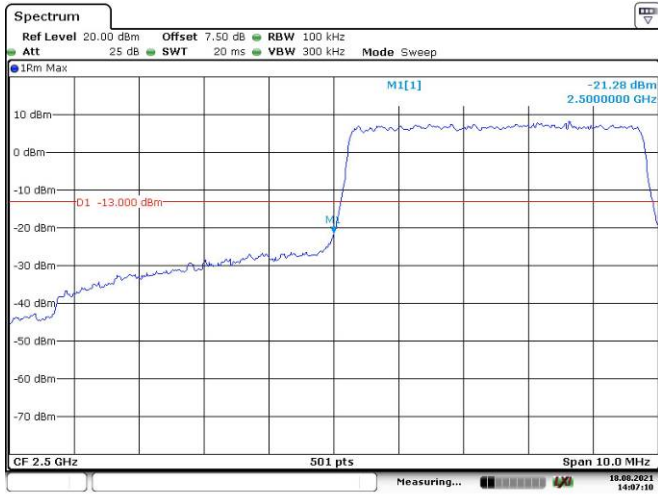
10M, 16QAM, Right Band Edge



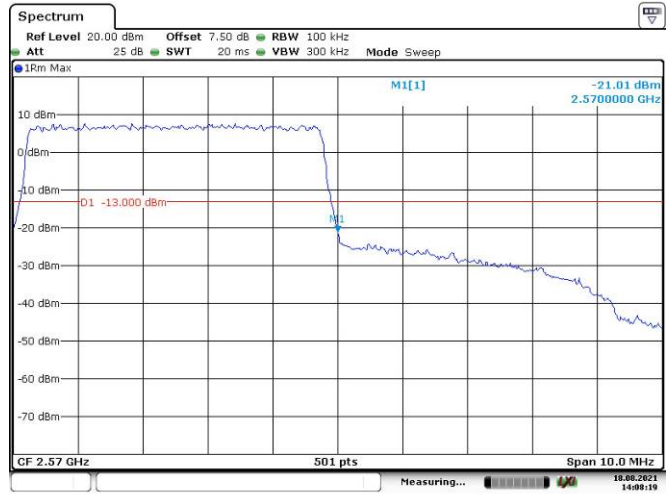
Date: 18.AUG.2021 14:06:28

LTE Band 7:

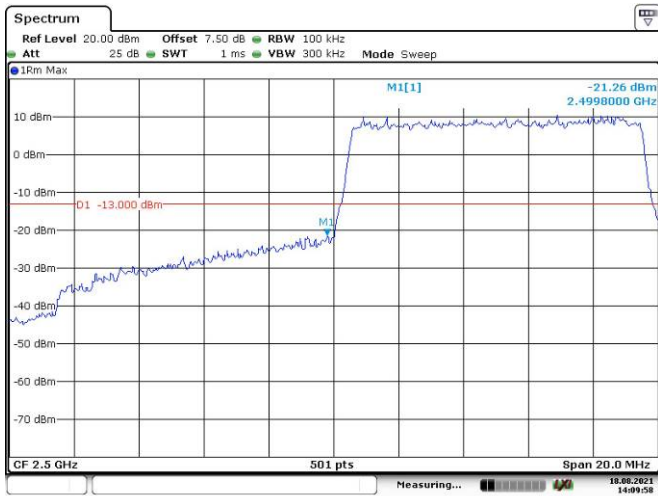
5M, QPSK, Left Band Edge



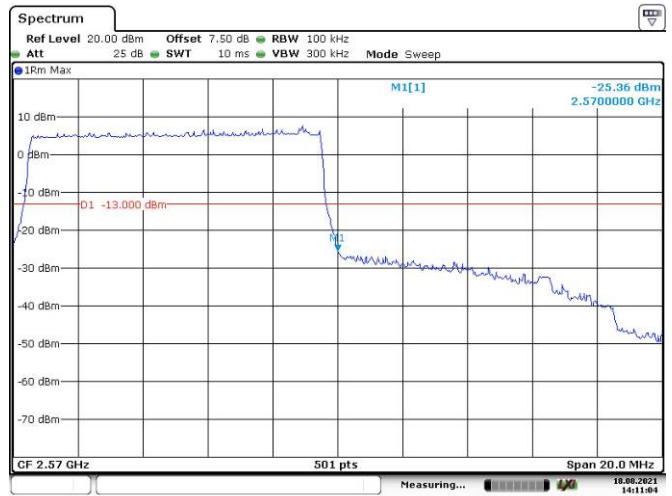
5M, QPSK, Right Band Edge



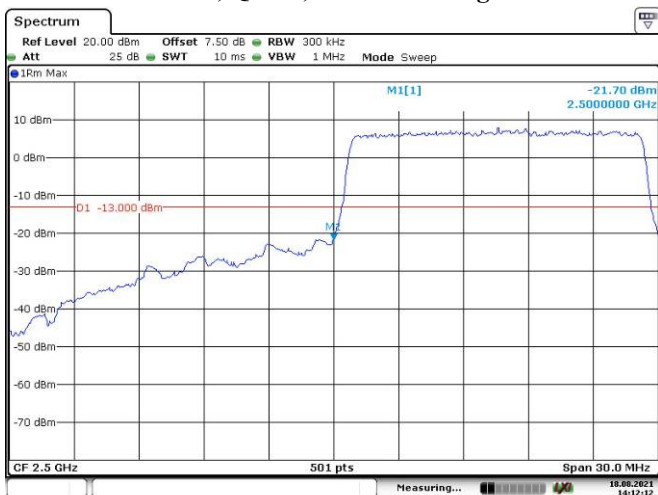
10M, QPSK, Left Band Edge



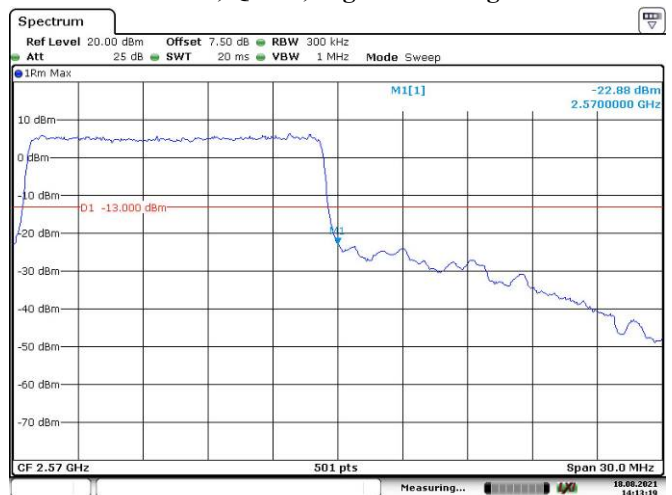
10M, QPSK, Right Band Edge



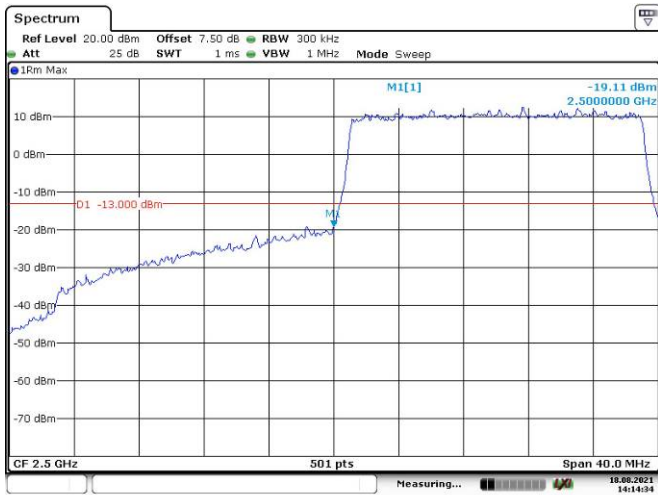
15M, QPSK, Left Band Edge



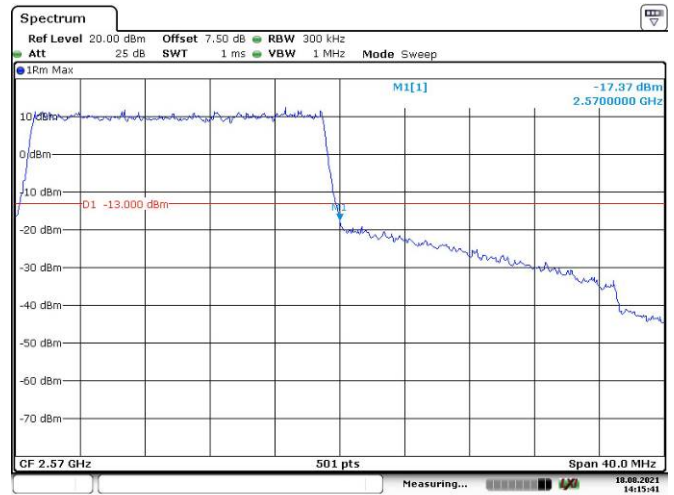
15M, QPSK, Right Band Edge



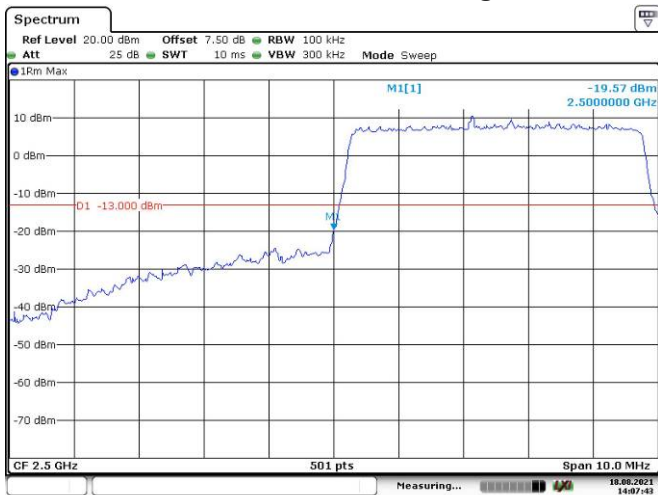
20M, QPSK, Left Band Edge



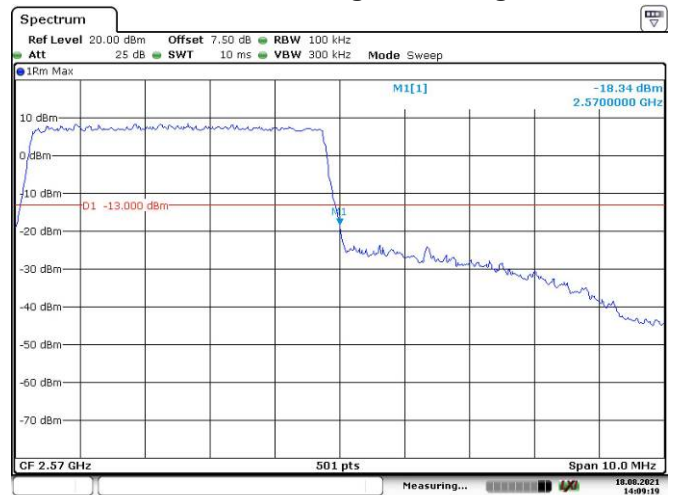
20M, QPSK, Right Band Edge



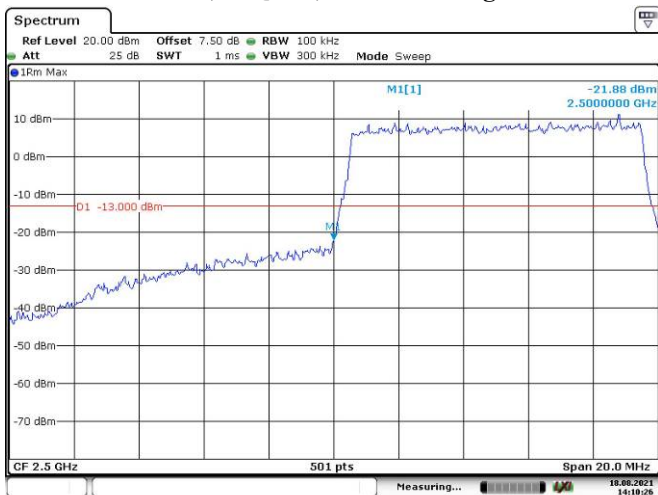
5M, 16QAM, Left Band Edge



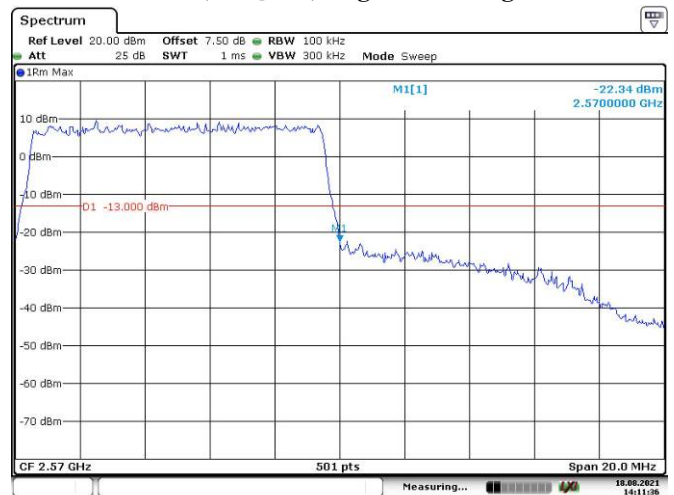
5M, 16QAM, Right Band Edge



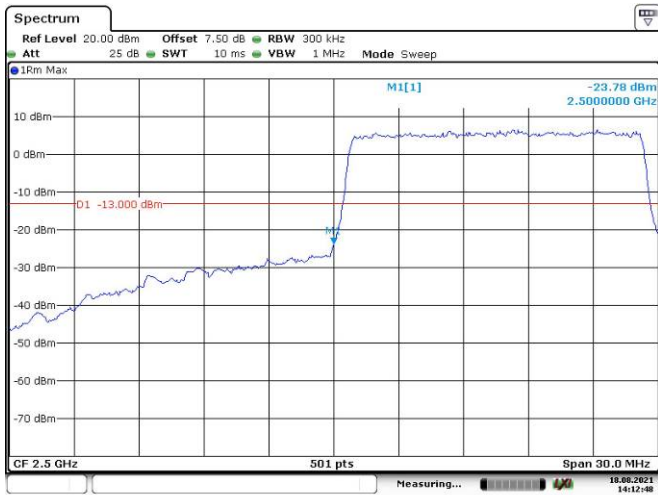
10M, 16QAM, Left Band Edge



10M, 16QAM, Right Band Edge

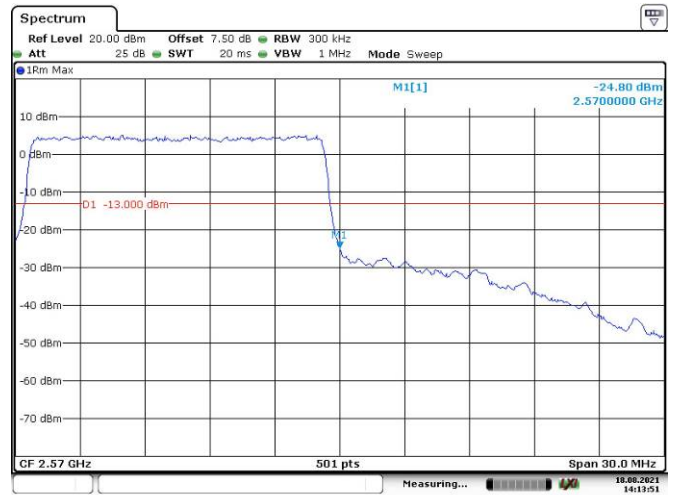


15M, 16QAM, Left Band Edge



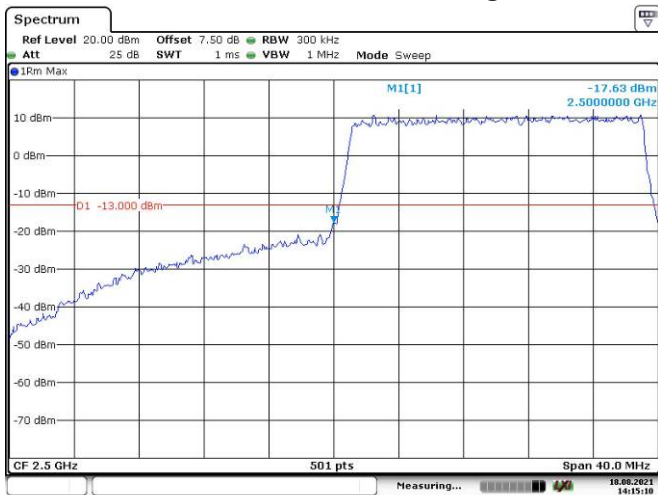
Date: 18.AUG.2021 14:12:48

15M, 16QAM, Right Band Edge



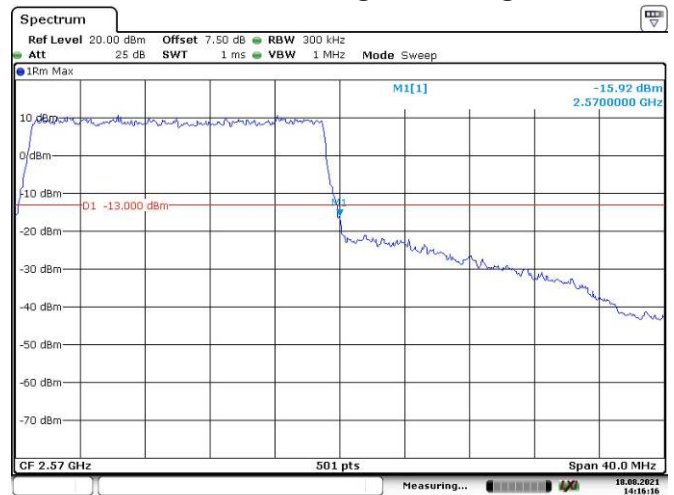
Date: 18.AUG.2021 14:13:51

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

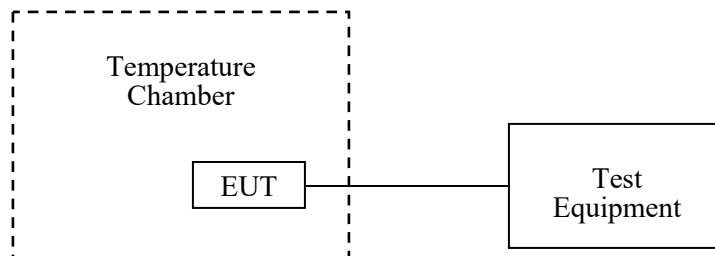
FCC § 2.1055 (a), § 2.1055 (d), §22.355, §24.235, §27.54

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 | |
| 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 | |
| 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 | |
| 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 | |
| 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 | |
| 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 | |
| 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 | |
| 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 | |
| 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 | |
| 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 | |
| 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 | |
| 3.5 | 20 | 2500.528400 | | 2569.514500 | |
| 4.2 | 20 | 2500.528300 | | 2569.512800 | |
| | | | | 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 | |
| 3.5 | 20 | 2500.527700 | | 2569.512400 | |
| 4.2 | 20 | 2500.527800 | | 2569.512800 | |
| | | | | 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 *******