

## 12.2.6 Occupied bandwidth

### Description:

Measurement of the occupied bandwidth of the transmitted signal.

### Measurement:

Similar to conducted emissions, occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the extreme and mid frequencies of the LTE band 25 frequency band. The table below lists the measured 99% power and -26dBc occupied bandwidths. Spectrum analyzer plots are included on the following pages.

| Measurement parameters   |                         |
|--------------------------|-------------------------|
| Detector:                | Peak                    |
| Sweep time:              | 180s                    |
| Video bandwidth:         | 100 kHz                 |
| Resolution bandwidth:    | 30 kHz                  |
| Span:                    | 2 x nominal bandwidth   |
| Trace-Mode:              | Max Hold                |
| Used equipment:          | See chapter 8.4 setup A |
| Measurement uncertainty: | See chapter 9           |
| Measurement procedure    | FCC: § 2.1049           |

### Limits:

| FCC            |
|----------------|
| § 2.1049       |
| Reporting only |

**Results:**

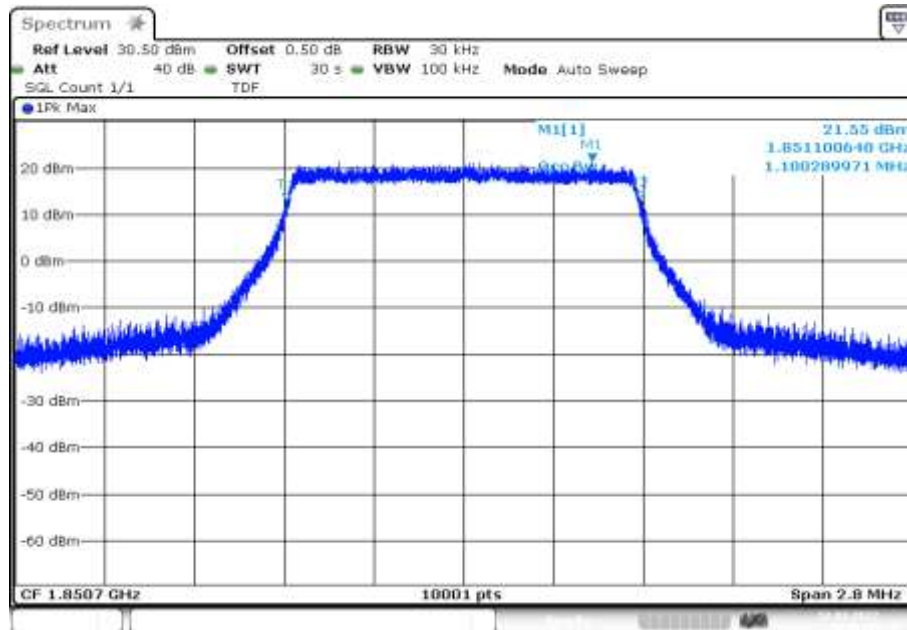
| Occupied Bandwidth – QPSK |         |               |                  |
|---------------------------|---------|---------------|------------------|
| Bandwidth                 | Channel | 99% OBW (MHz) | -26 dBc BW (MHz) |
| 1.4                       | low     | 1.10          | 1.38             |
|                           | mid     | 1.10          | 1.39             |
|                           | high    | 1.10          | 1.39             |
| 3.0                       | low     | 2.75          | 3.18             |
|                           | mid     | 2.75          | 3.19             |
|                           | high    | 2.74          | 3.17             |
| 5.0                       | low     | 4.52          | 5.15             |
|                           | mid     | 4.53          | 5.19             |
|                           | high    | 4.52          | 5.19             |
| 10.0                      | low     | 9.10          | 10.3             |
|                           | mid     | 9.09          | 10.3             |
|                           | high    | 9.08          | 10.3             |
| 15.0                      | low     | 13.5          | 15.2             |
|                           | mid     | 13.5          | 15.1             |
|                           | high    | 13.5          | 15.1             |
| 20.0                      | low     | 18.1          | 20.2             |
|                           | mid     | 18.1          | 20.2             |
|                           | high    | 18.1          | 20.0             |

| Occupied Bandwidth – 16-QAM |         |               |                  |
|-----------------------------|---------|---------------|------------------|
| Bandwidth                   | Channel | 99% OBW (MHz) | -26 dBc BW (MHz) |
| 1.4                         | low     | 1.11          | 1.39             |
|                             | mid     | 1.10          | 1.40             |
|                             | high    | 1.10          | 1.40             |
| 3.0                         | low     | 2.75          | 3.16             |
|                             | mid     | 2.75          | 3.16             |
|                             | high    | 2.74          | 3.14             |
| 5.0                         | low     | 4.53          | 5.22             |
|                             | mid     | 4.53          | 5.23             |
|                             | high    | 4.51          | 5.20             |
| 10.0                        | low     | 9.10          | 11.3             |
|                             | mid     | 9.10          | 10.3             |
|                             | high    | 9.08          | 10.3             |
| 15.0                        | low     | 13.5          | 15.1             |
|                             | mid     | 13.5          | 15.0             |
|                             | high    | 13.5          | 15.0             |
| 20.0                        | low     | 18.1          | 20.1             |
|                             | mid     | 18.1          | 20.2             |
|                             | high    | 18.1          | 20.1             |

| Occupied Bandwidth – 64-QAM |         |               |                  |
|-----------------------------|---------|---------------|------------------|
| Bandwidth                   | Channel | 99% OBW (MHz) | -26 dBc BW (MHz) |
| 1.4                         | low     | 1.10          | 1.38             |
|                             | mid     | 1.10          | 1.38             |
|                             | high    | 1.10          | 1.39             |
| 3.0                         | low     | 2.74          | 3.15             |
|                             | mid     | 2.75          | 3.16             |
|                             | high    | 2.74          | 3.13             |
| 5.0                         | low     | 4.52          | 5.19             |
|                             | mid     | 4.52          | 5.19             |
|                             | high    | 4.52          | 5.17             |
| 10.0                        | low     | 9.10          | 10.3             |
|                             | mid     | 9.09          | 10.4             |
|                             | high    | 9.08          | 10.4             |
| 15.0                        | low     | 13.5          | 15.2             |
|                             | mid     | 13.5          | 15.0             |
|                             | high    | 13.5          | 15.1             |
| 20.0                        | low     | 18.1          | 20.3             |
|                             | mid     | 18.1          | 20.2             |
|                             | high    | 18.1          | 20.1             |

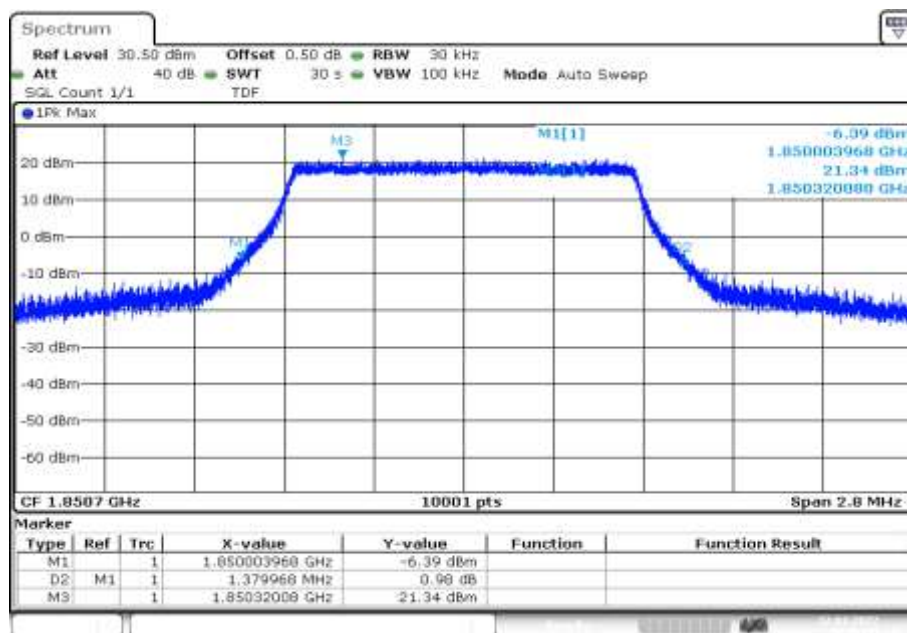
**Plots:**

Plot 1: 1.4 MHz – QPSK - lowest channel (99% - OBW)



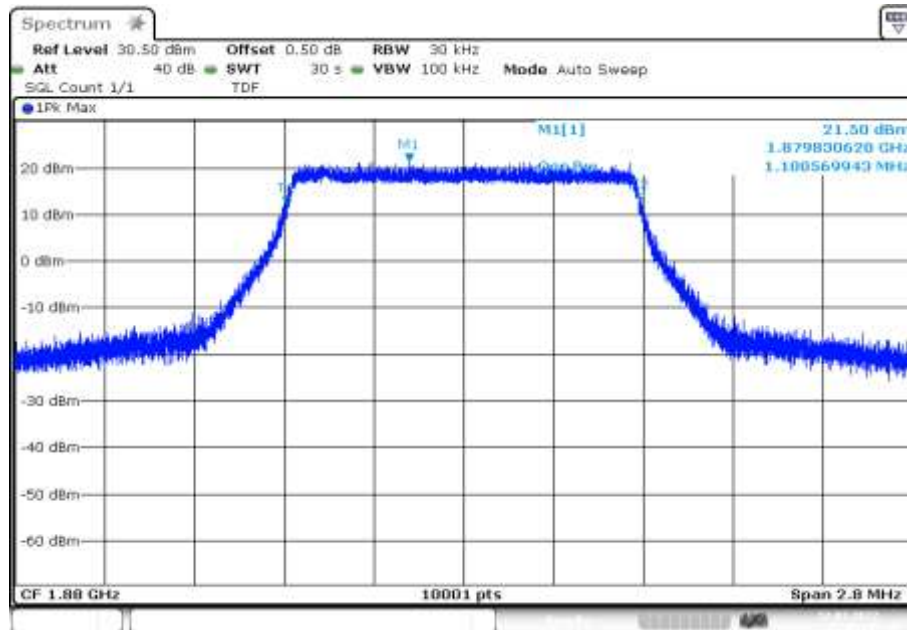
Date: 12.MAR.2022 18:48:33

Plot 2: 1.4 MHz – QPSK - lowest channel (-26 dBc BW)



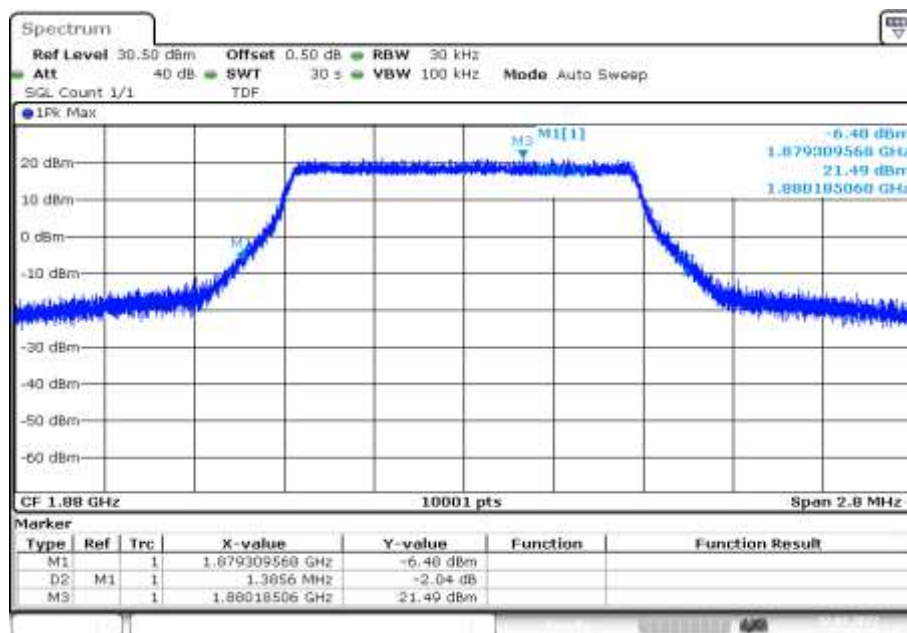
Date: 12.MAR.2022 18:49:05

Plot 3: 1.4 MHz – QPSK – middle channel (99% - OBW)



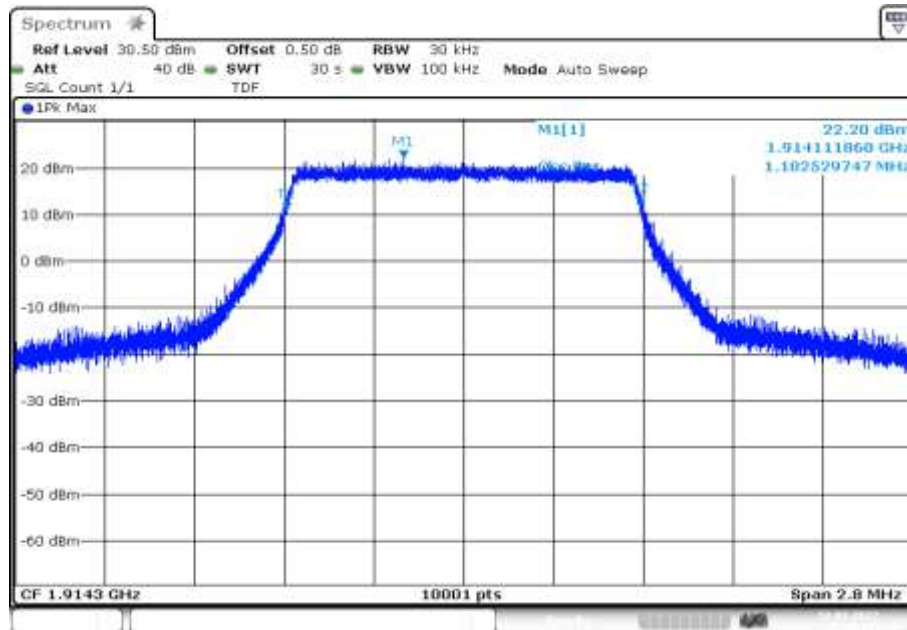
Date: 12.MAR.2022 21:13:38

Plot 4: 1.4 MHz – QPSK – middle channel (-26 dBc BW)



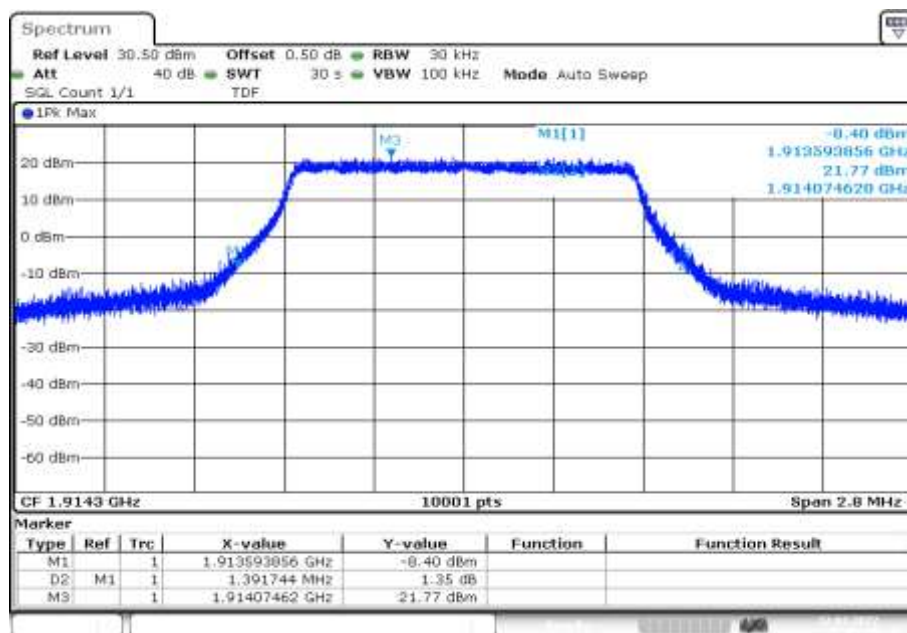
Date: 12.MAR.2022 21:14:10

Plot 5: 1.4 MHz – QPSK - highest channel (99% - OBW)



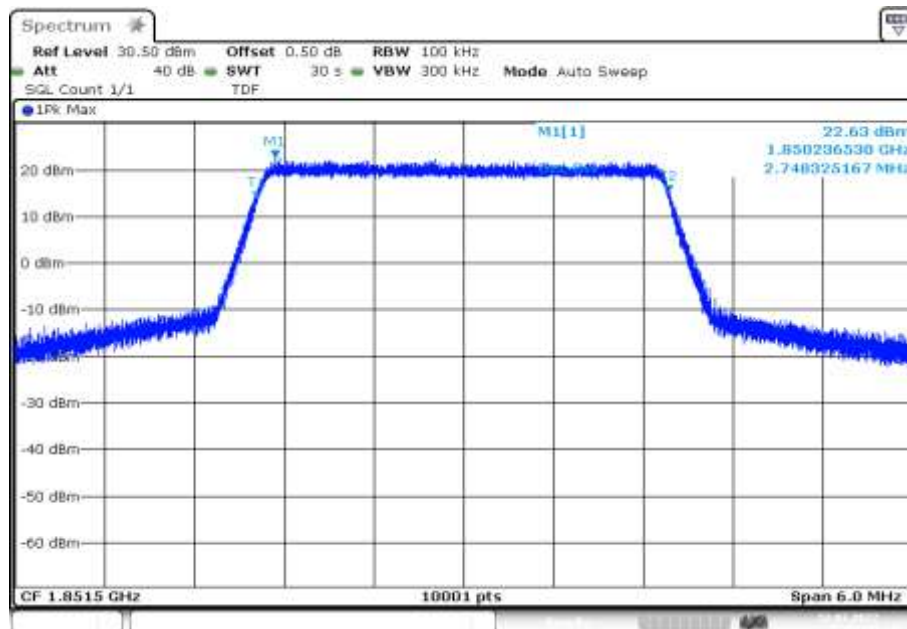
Date: 12.MAR.2022 22:12:46

Plot 6: 1.4 MHz – QPSK - highest channel (-26 dBc BW)



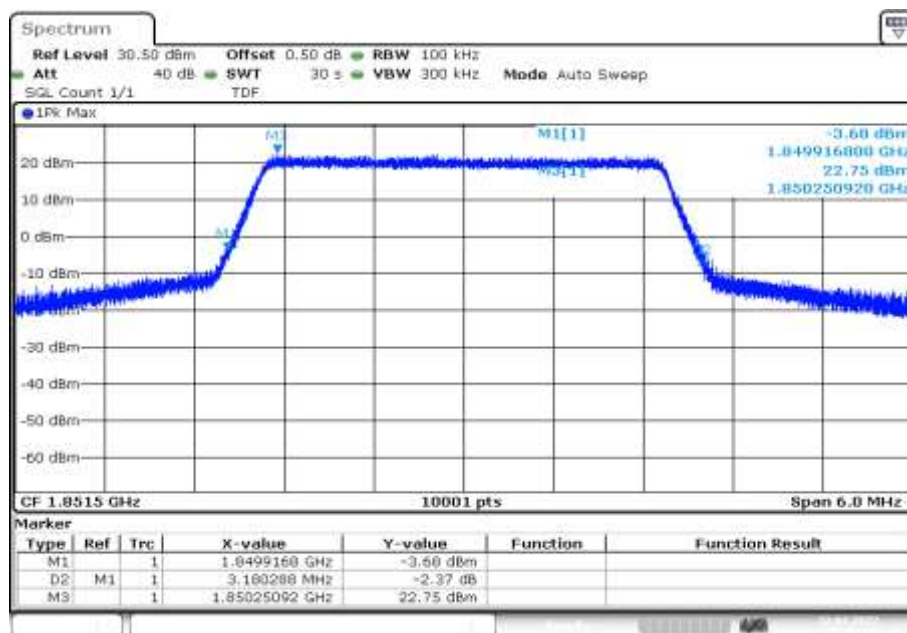
Date: 12.MAR.2022 22:13:19

Plot 7: 3 MHz – QPSK - lowest channel (99% - OBW)



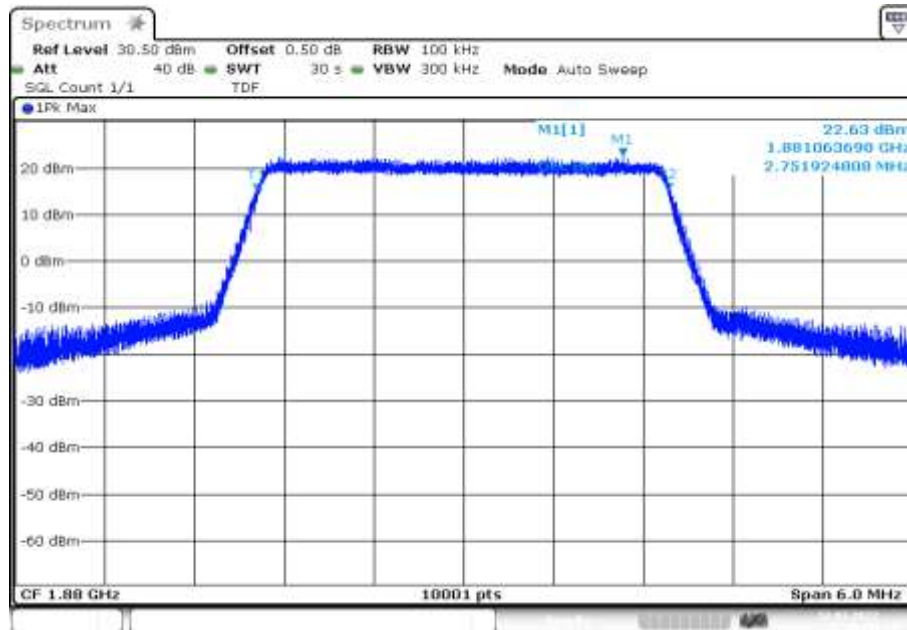
Date: 12.MAR.2022 22:37:05

Plot 8: 3 MHz – QPSK - lowest channel (-26 dBc BW)



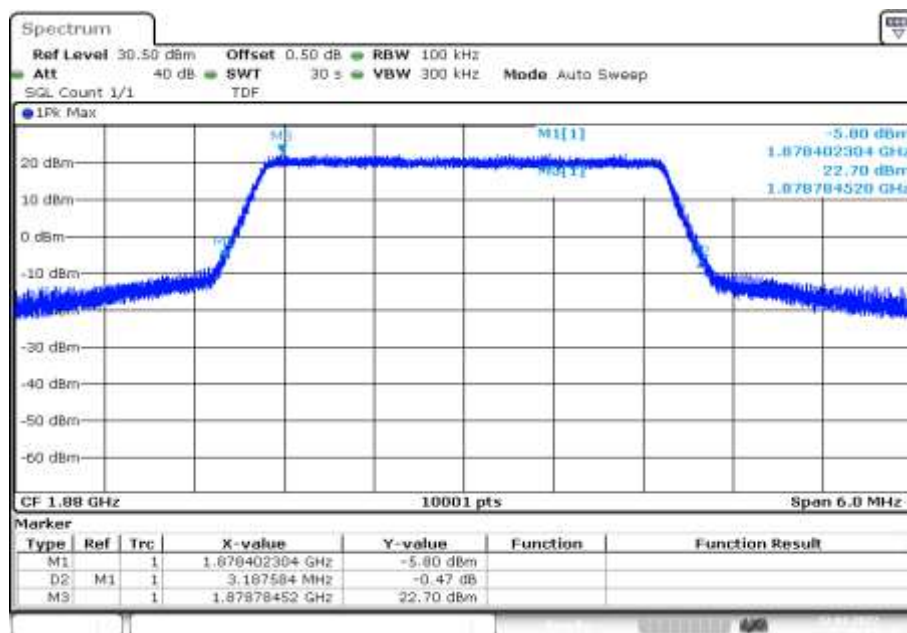
Date: 12.MAR.2022 22:37:38

Plot 9: 3 MHz – QPSK - middle channel (99% - OBW)



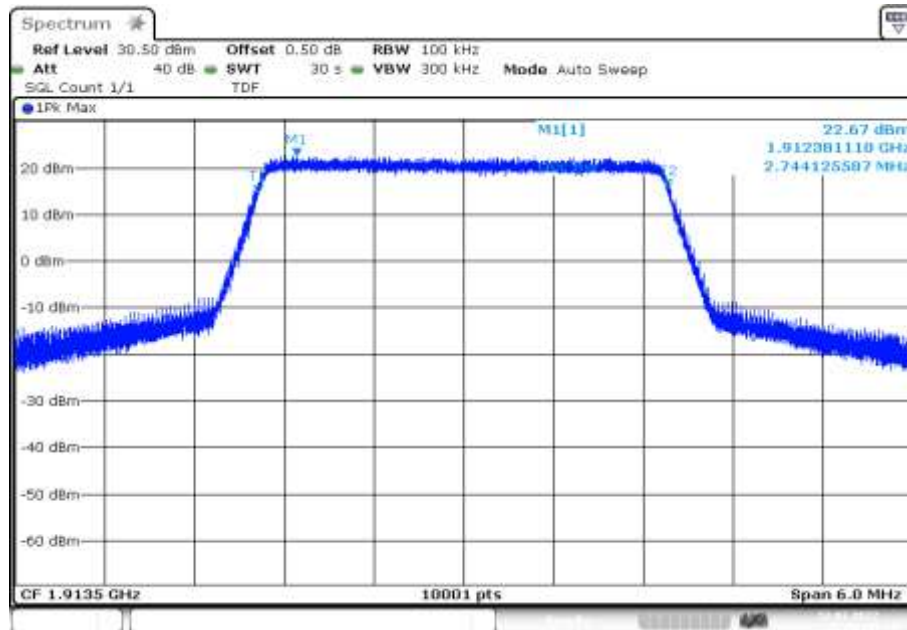
Date: 12.MAR.2022 22:48:50

Plot 10: 3 MHz – QPSK - middle channel (-26 dBc BW)



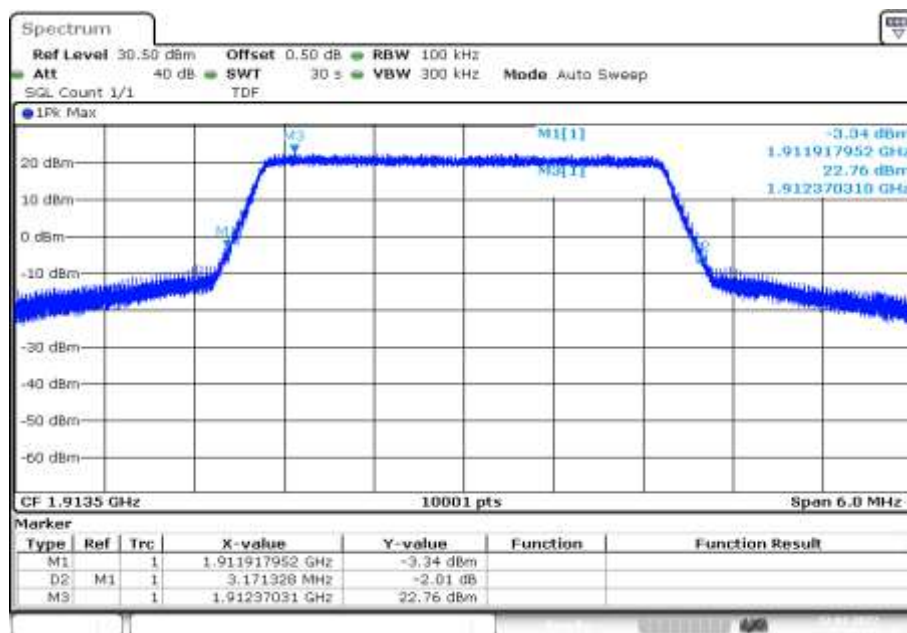
Date: 12.MAR.2022 22:49:23

Plot 11: 3 MHz – QPSK - highest channel (99% - OBW)



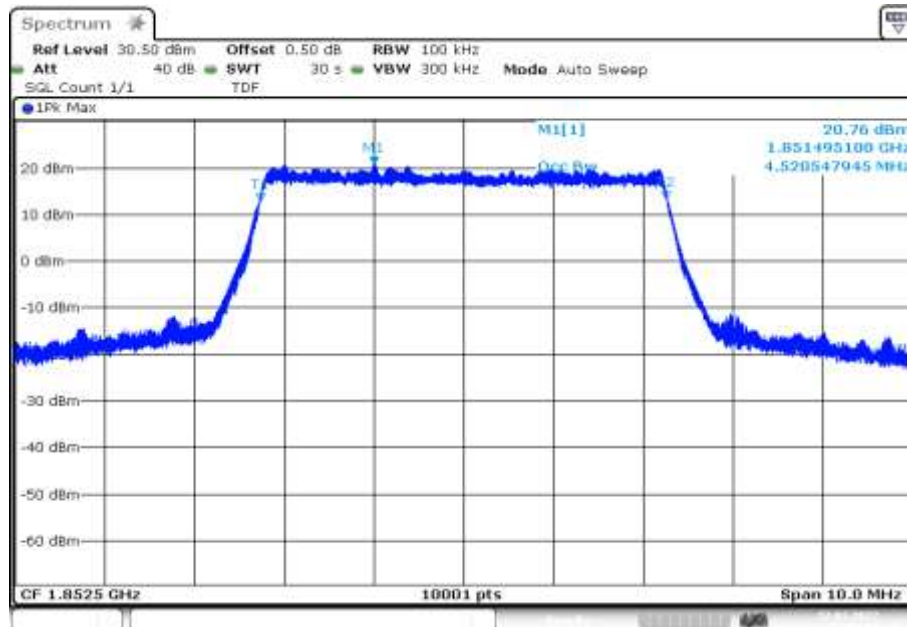
Date: 12.MAR.2022 22:59:00

Plot 12: 3 MHz – QPSK - highest channel (-26 dBc BW)



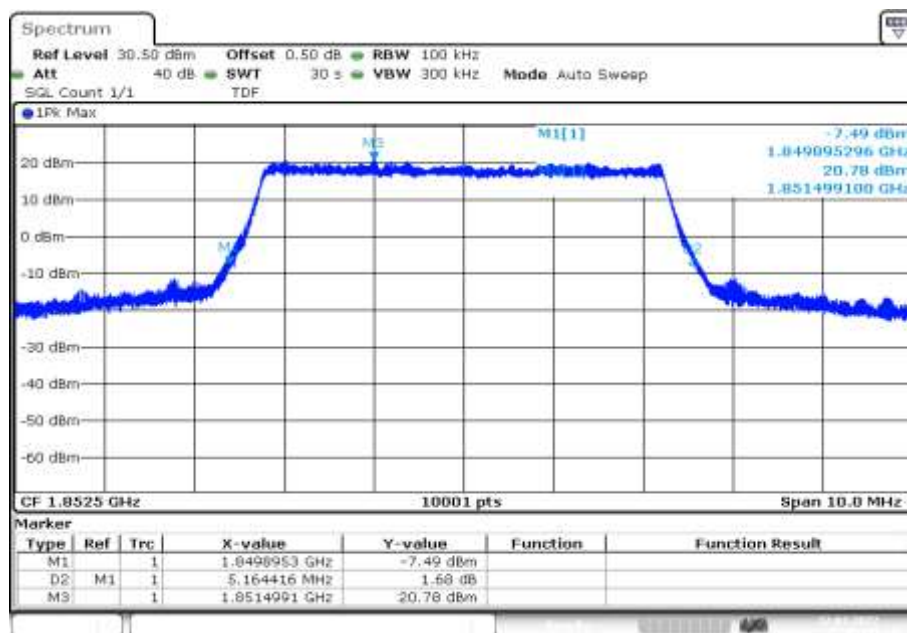
Date: 12.MAR.2022 22:59:32

Plot 13: 5 MHz – QPSK - lowest channel (99% - OBW)



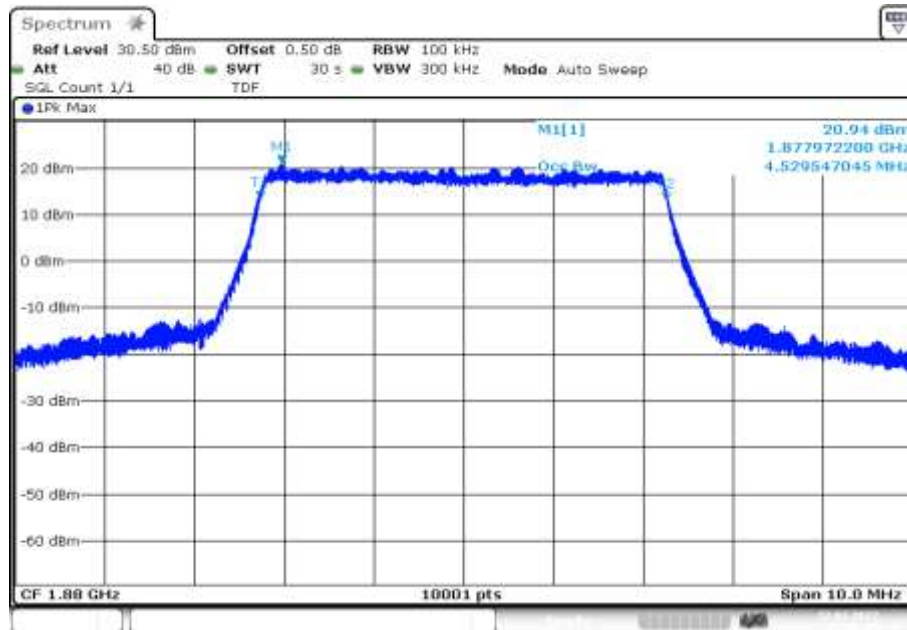
Date: 12.MAR.2022 23:08:02

Plot 14: 5 MHz – QPSK - lowest channel (-26 dBc BW)



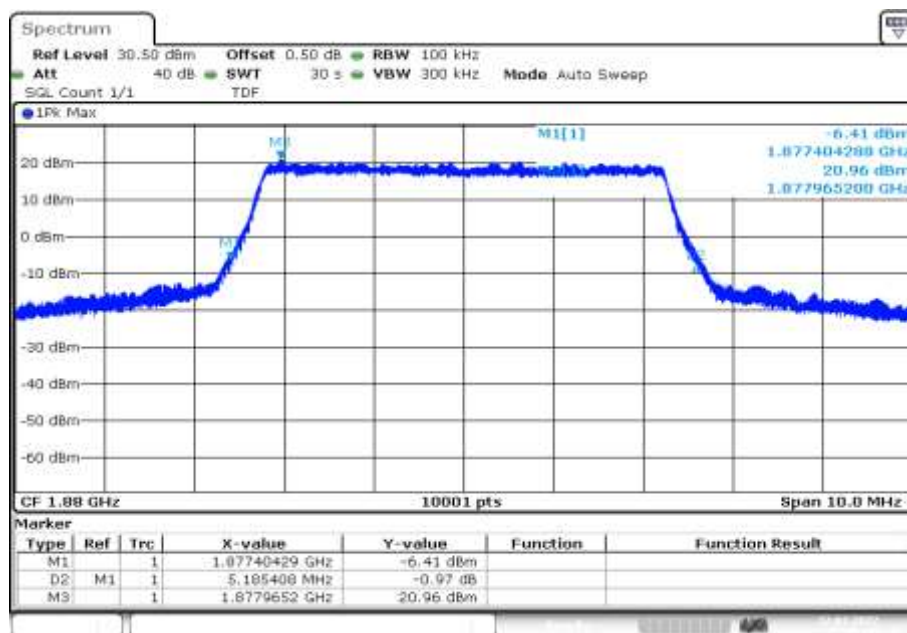
Date: 12.MAR.2022 23:08:35

Plot 15: 5 MHz – QPSK - middle channel (99% - OBW)



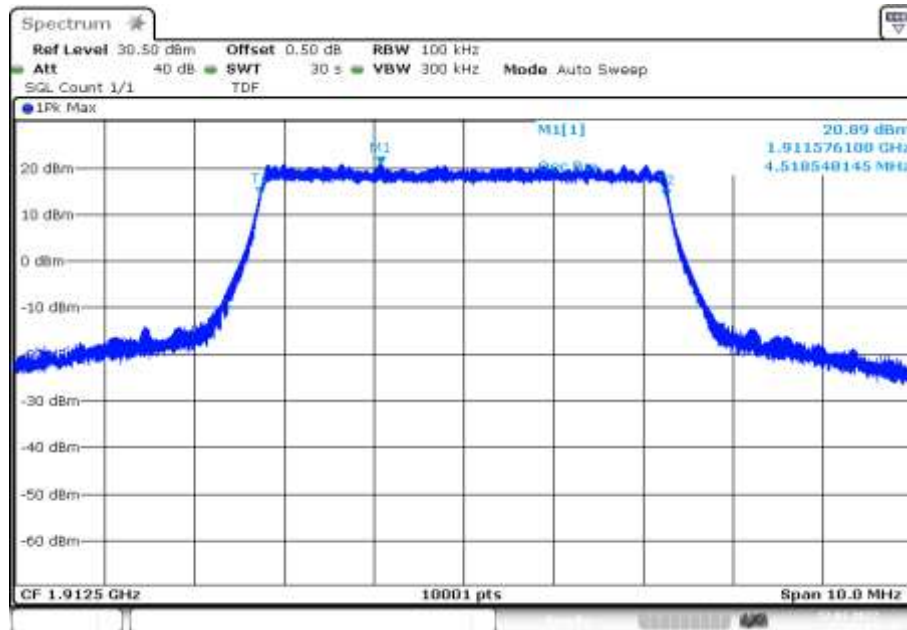
Date: 12.MAR.2022 23:15:09

Plot 16: 5 MHz – QPSK - middle channel (-26 dBc BW)



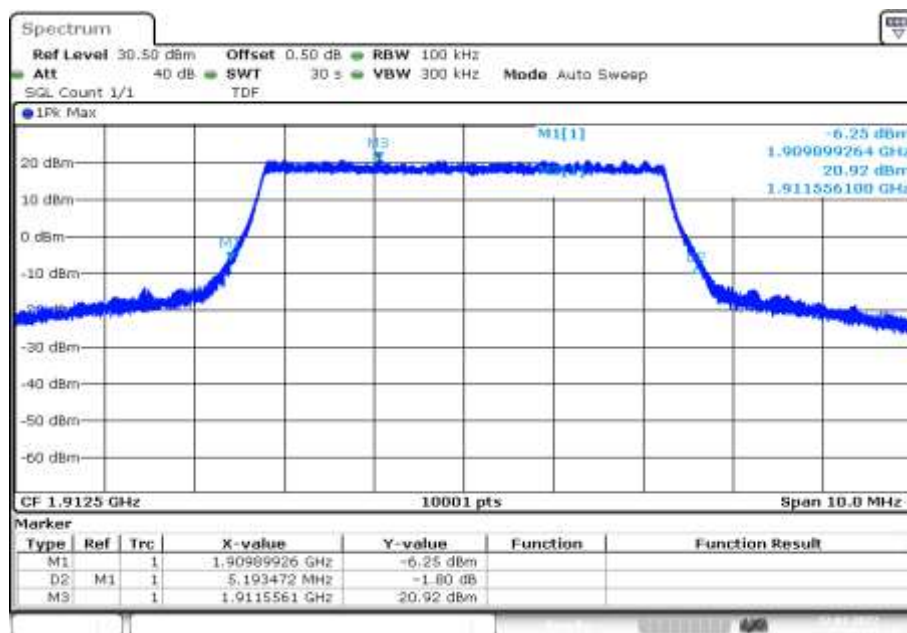
Date: 12.MAR.2022 23:15:42

Plot 17: 5 MHz – QPSK - highest channel (99% - OBW)



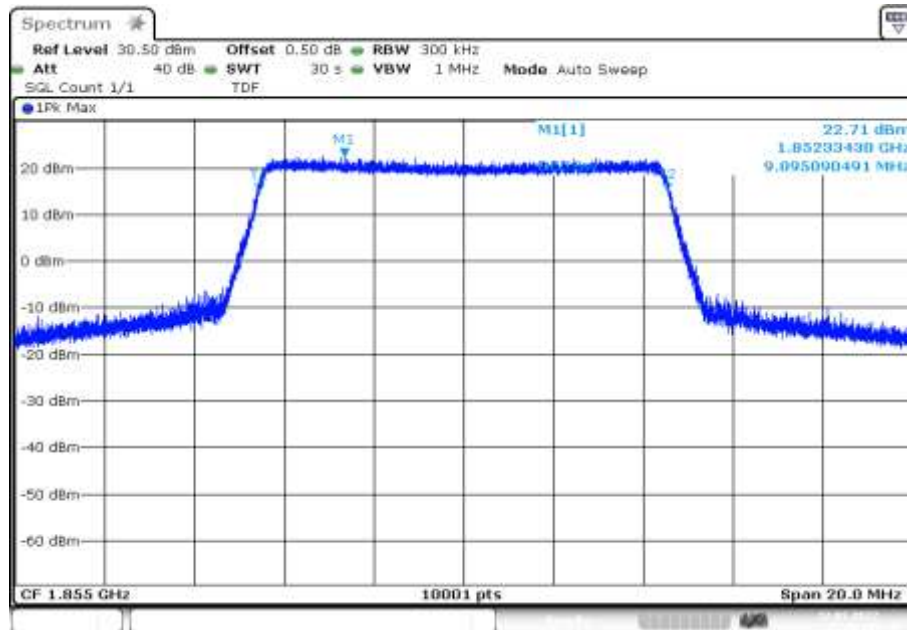
Date: 12.MAR.2022 23:22:02

Plot 18: 5 MHz – QPSK - highest channel (-26 dBc BW)



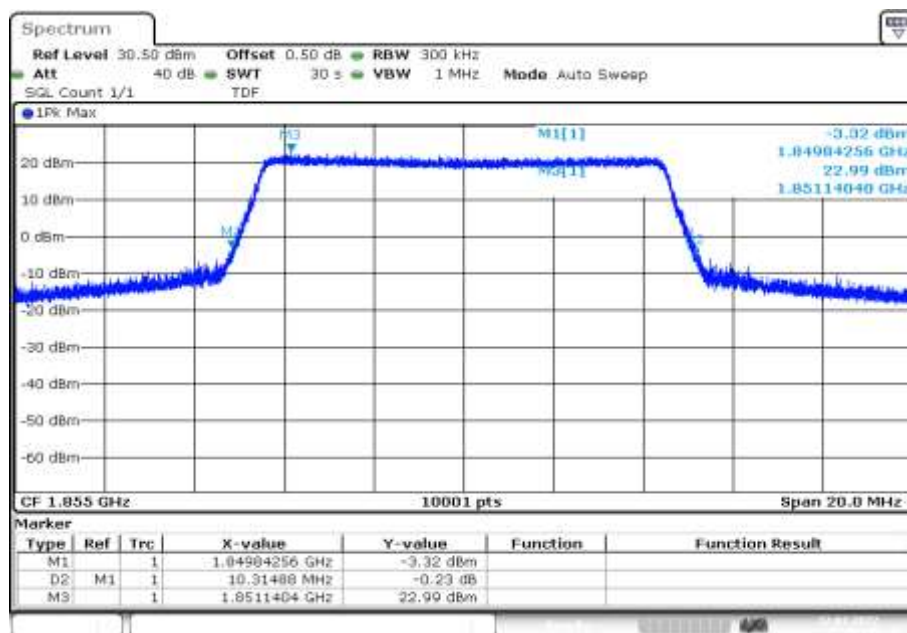
Date: 12.MAR.2022 23:22:35

Plot 19: 10 MHz – QPSK - lowest channel (99% - OBW)



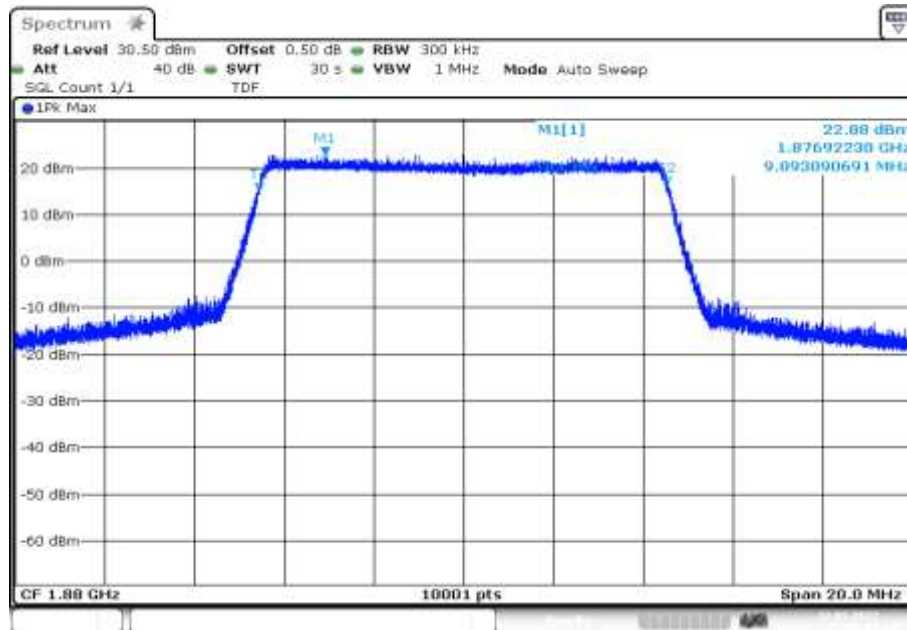
Date: 12.MAR.2022 23:32:06

Plot 20: 10 MHz – QPSK - lowest channel (-26 dBc BW)



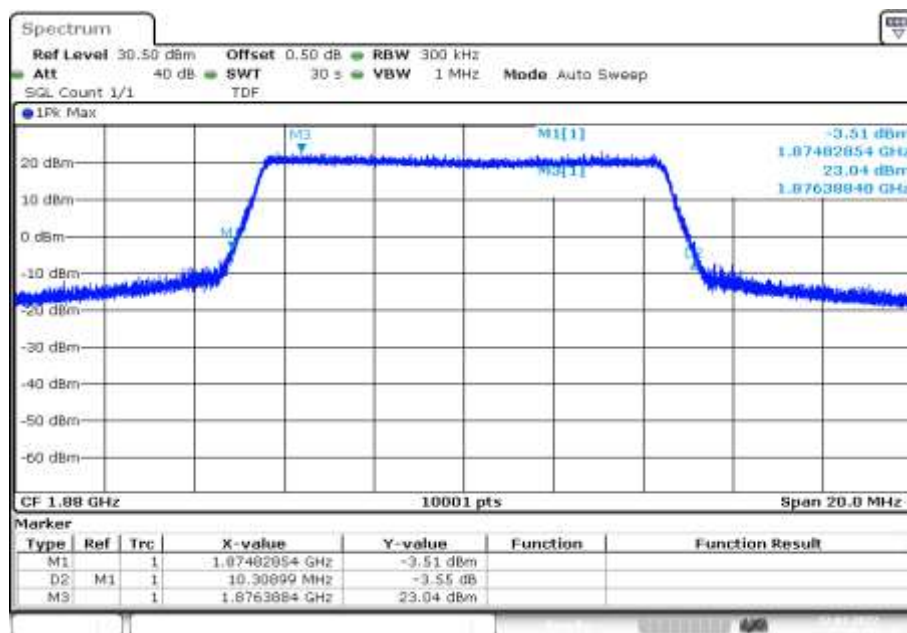
Date: 12.MAR.2022 23:32:39

Plot 21: 10 MHz – QPSK - middle channel (99% - OBW)



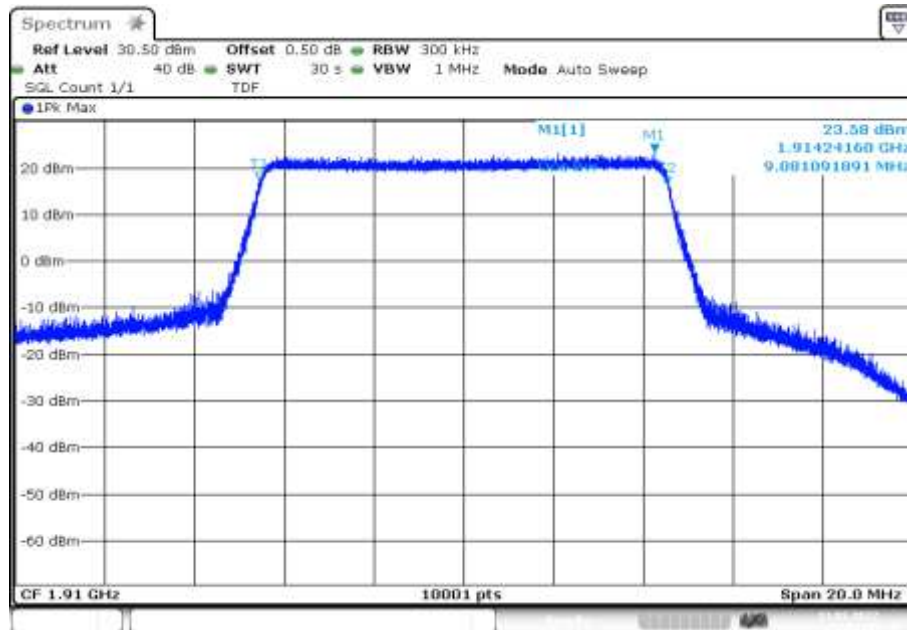
Date: 12.MAR.2022 23:41:20

Plot 22: 10 MHz – QPSK - middle channel (-26 dBc BW)



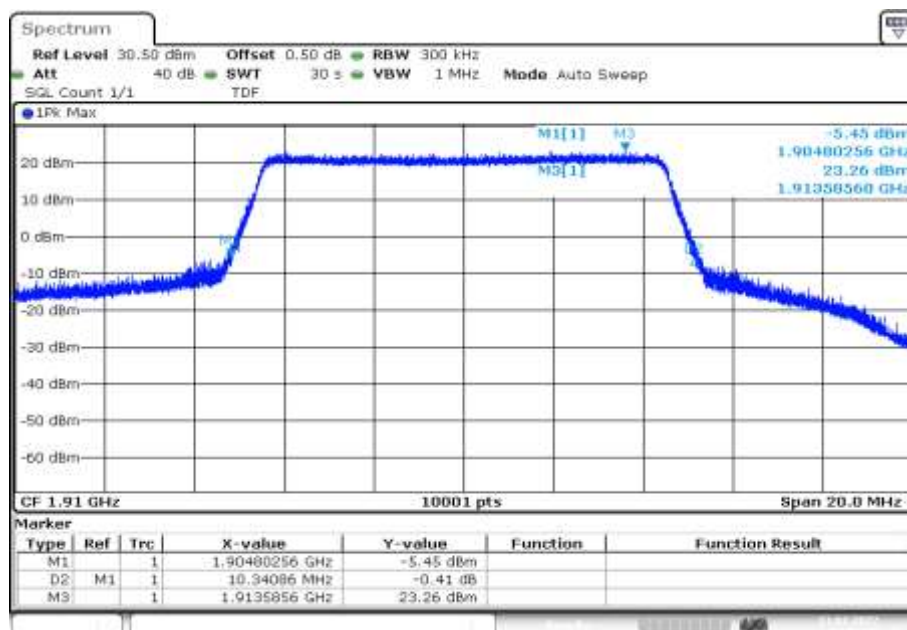
Date: 12.MAR.2022 23:41:52

Plot 23: 10 MHz – QPSK - highest channel (99% - OBW)



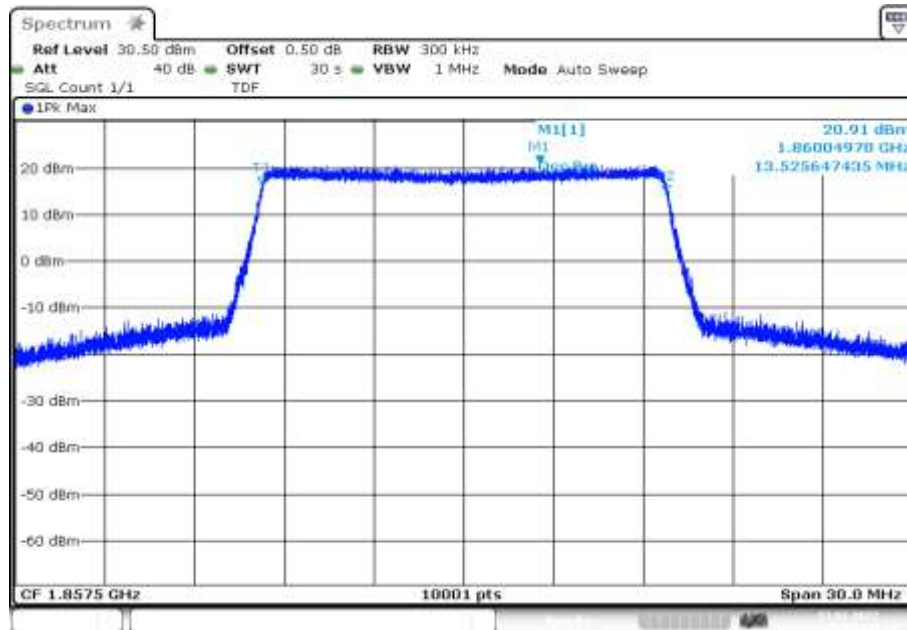
Date: 13.MAR.2022 07:51:31

Plot 24: 10 MHz – QPSK - highest channel (-26 dBc BW)



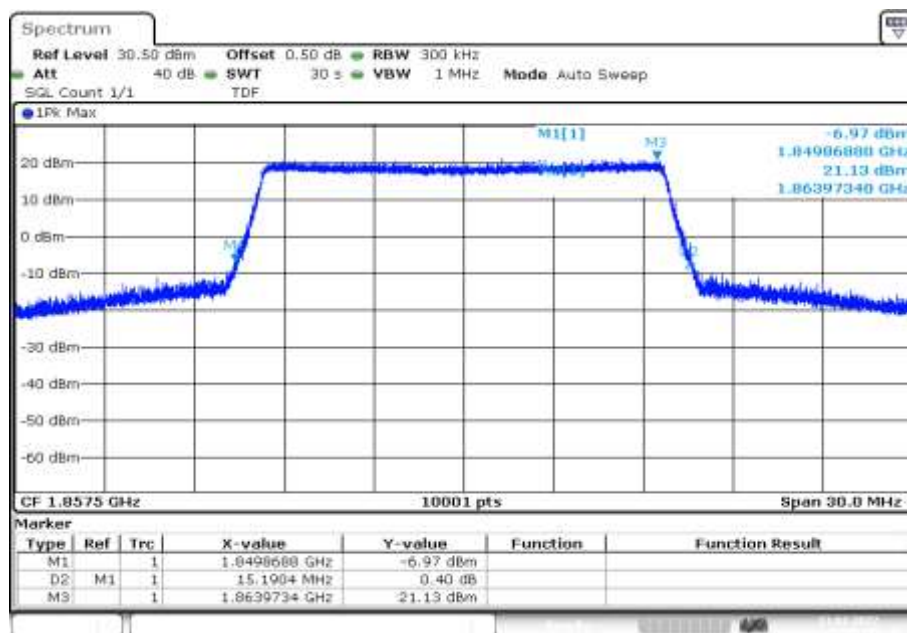
Date: 13.MAR.2022 07:52:04

Plot 25: 15 MHz – QPSK - lowest channel (99% - OBW)



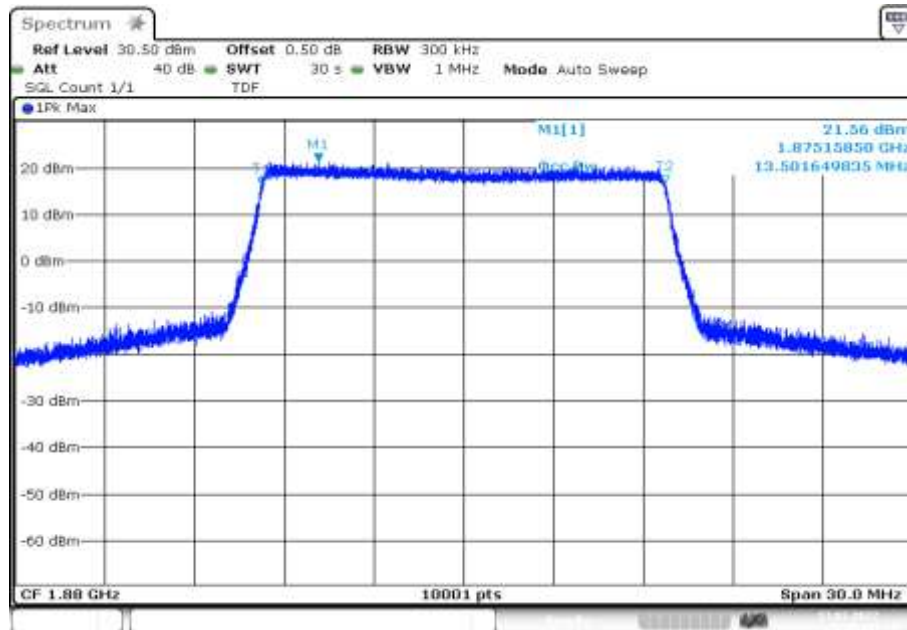
Date: 13.MAR.2022 07:59:24

Plot 26: 15 MHz – QPSK - lowest channel (-26 dBc BW)



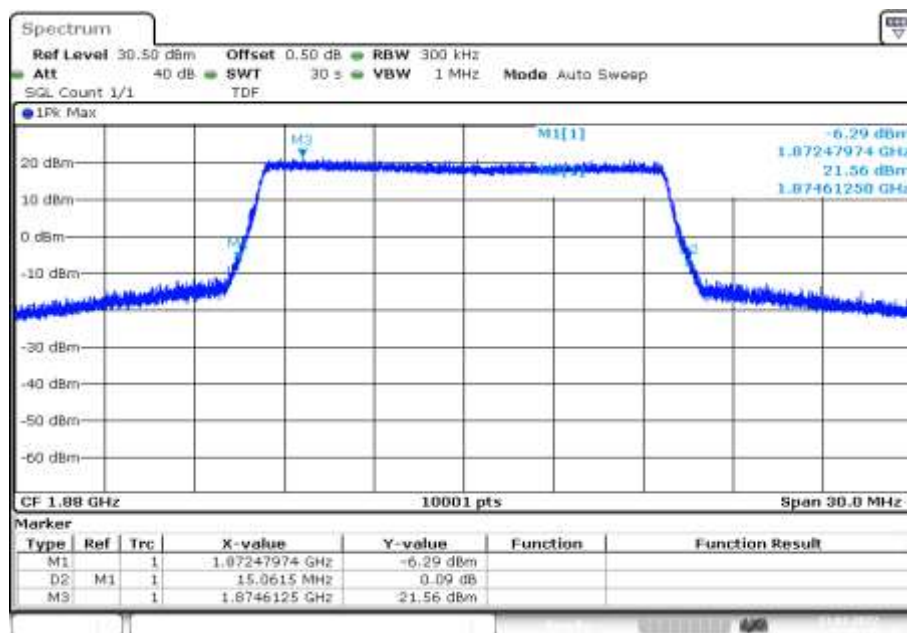
Date: 13.MAR.2022 07:59:57

Plot 27: 15 MHz – QPSK - middle channel (99% - OBW)



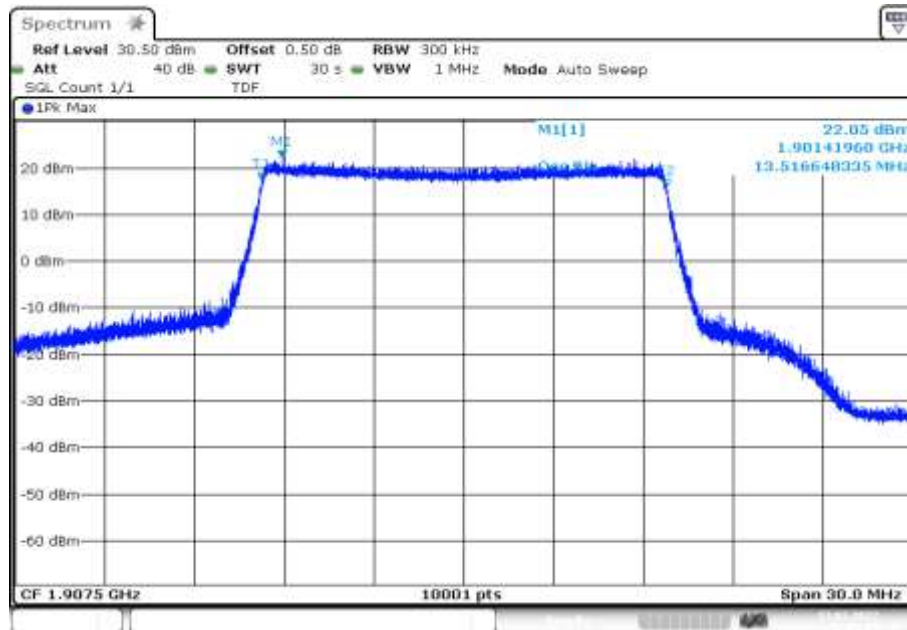
Date: 13.MAR.2022 08:06:14

Plot 28: 15 MHz – QPSK - middle channel (-26 dBc BW)



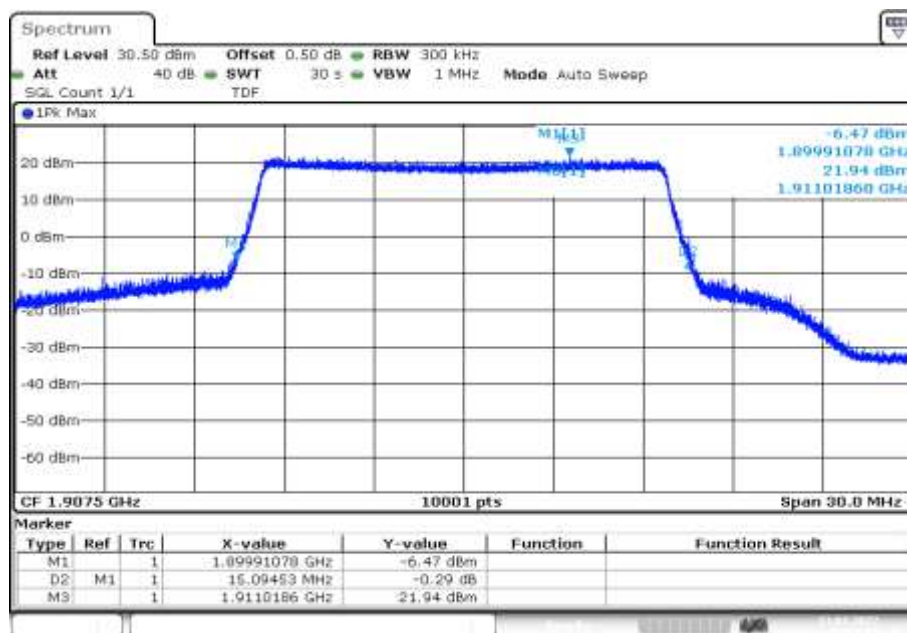
Date: 13.MAR.2022 08:06:47

Plot 29: 15 MHz – QPSK - highest channel (99% - OBW)



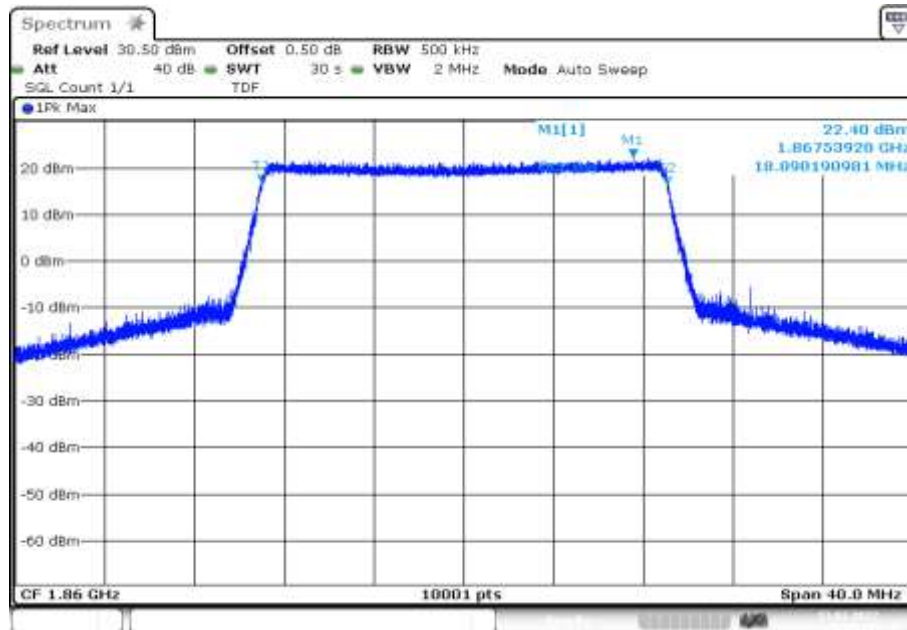
Date: 13.MAR.2022 08:13:29

Plot 30: 15 MHz – QPSK - highest channel (-26 dBc BW)



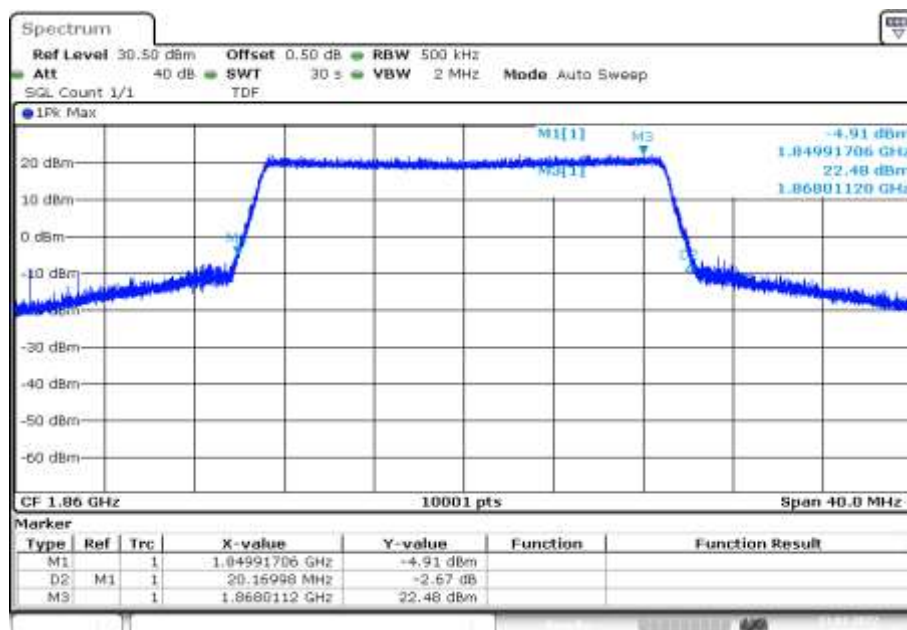
Date: 13.MAR.2022 08:14:02

Plot 31: 20 MHz – QPSK - lowest channel (99% - OBW)



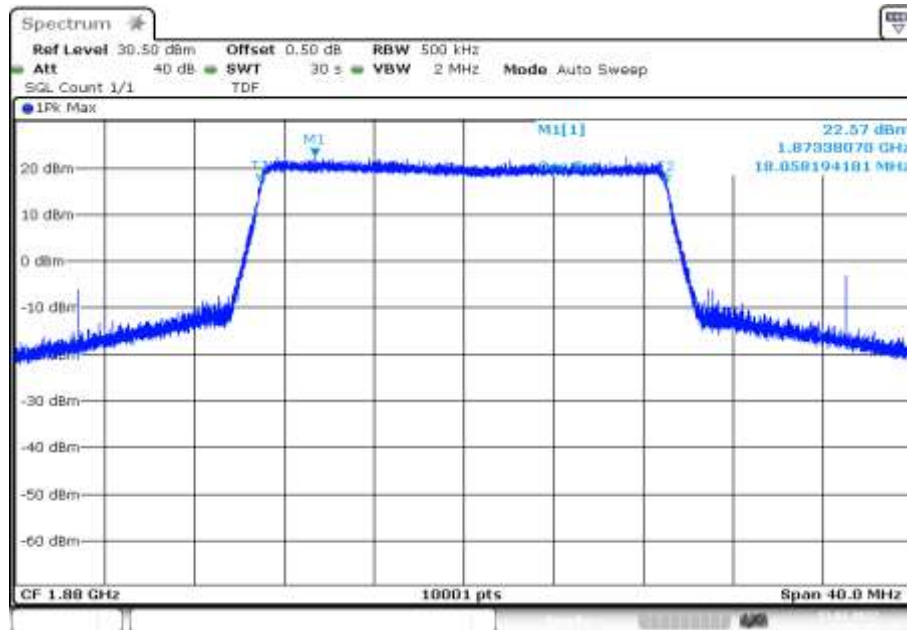
Date: 13.MAR.2022 08:35:06

Plot 32: 20 MHz – QPSK - lowest channel (-26 dBc BW)



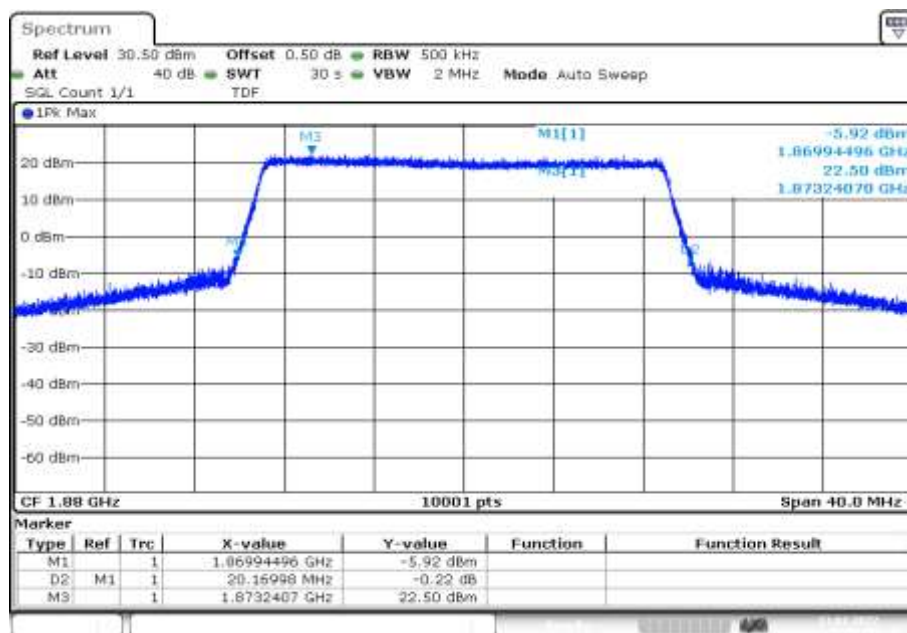
Date: 13.MAR.2022 08:35:39

Plot 33: 20 MHz – QPSK - middle channel (99% - OBW)



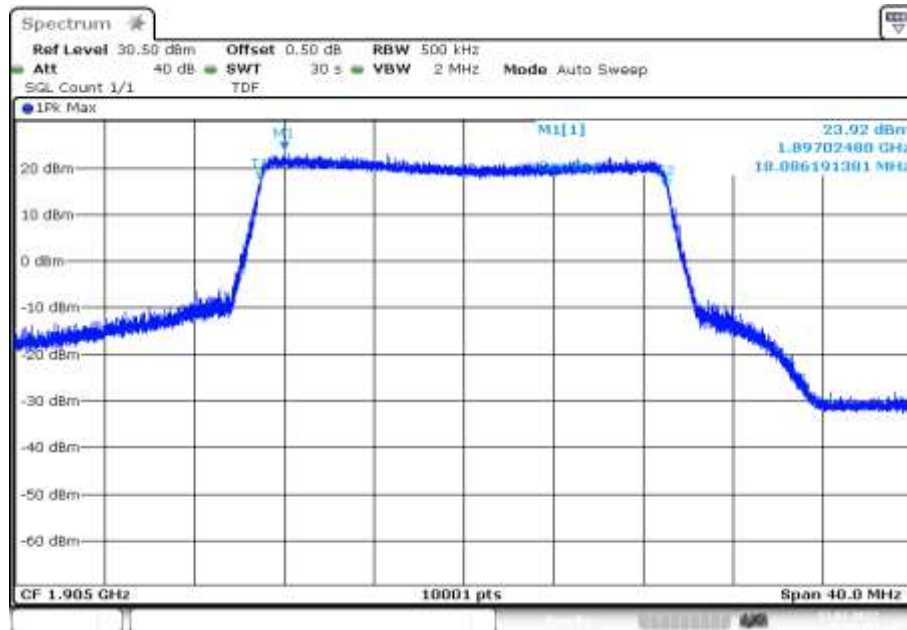
Date: 13.MAR.2022 08:58:26

Plot 34: 20 MHz – QPSK - middle channel (-26 dBc BW)



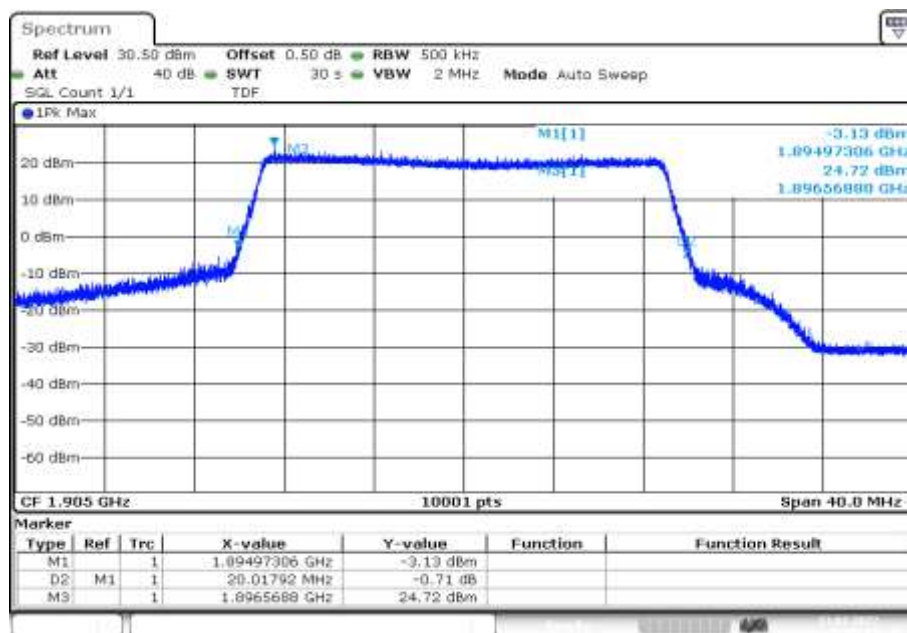
Date: 13.MAR.2022 08:58:59

Plot 35: 20 MHz – QPSK - highest channel (99% - OBW)



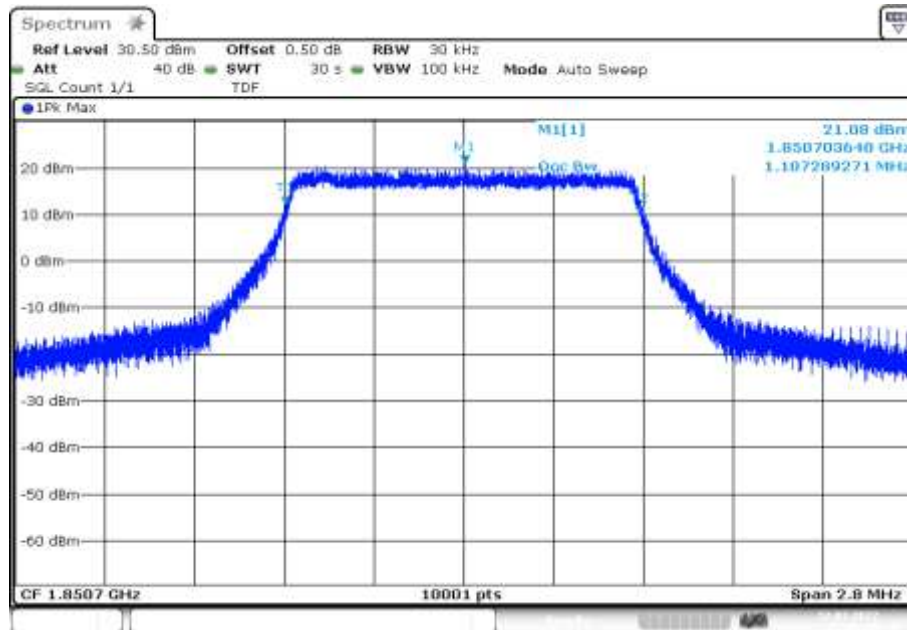
Date: 13.MAR.2022 10:19:51

Plot 36: 20 MHz – QPSK - highest channel (-26 dBc BW)



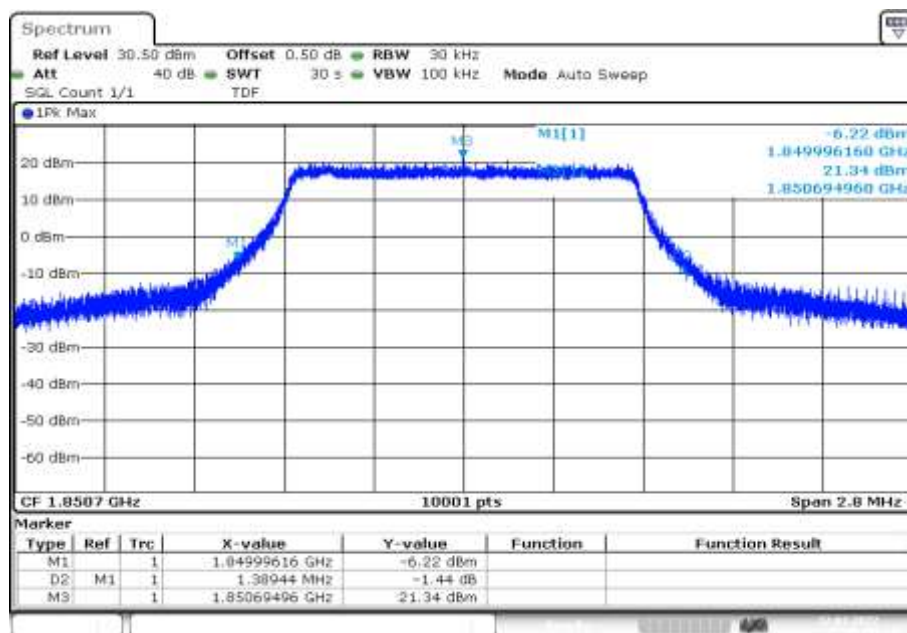
Date: 13.MAR.2022 10:20:24

Plot 37: 1.4 MHz – 16-QAM - lowest channel (99% - OBW)



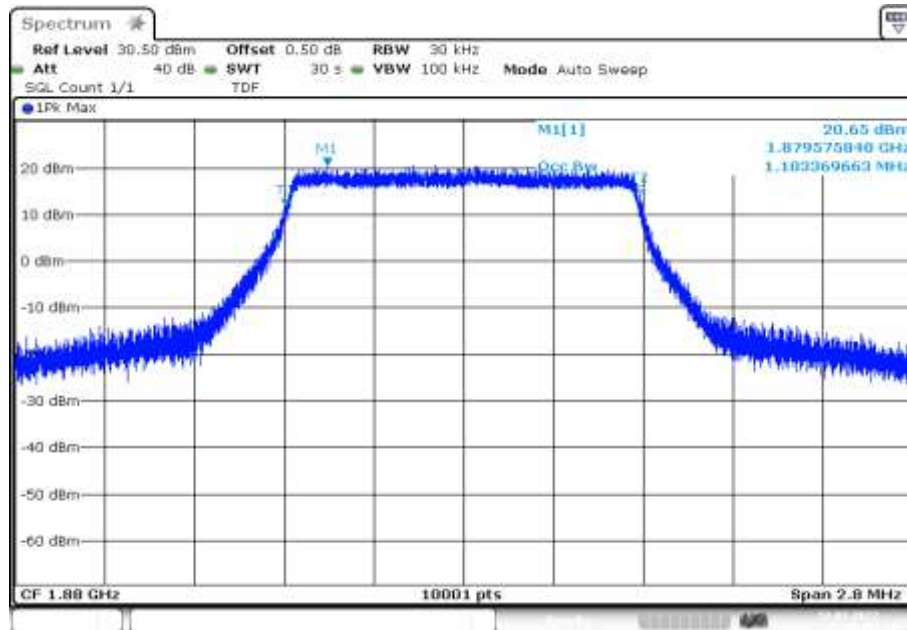
Date: 12.MAR.2022 21:10:18

Plot 38: 1.4 MHz – 16-QAM - lowest channel (-26 dBc BW)



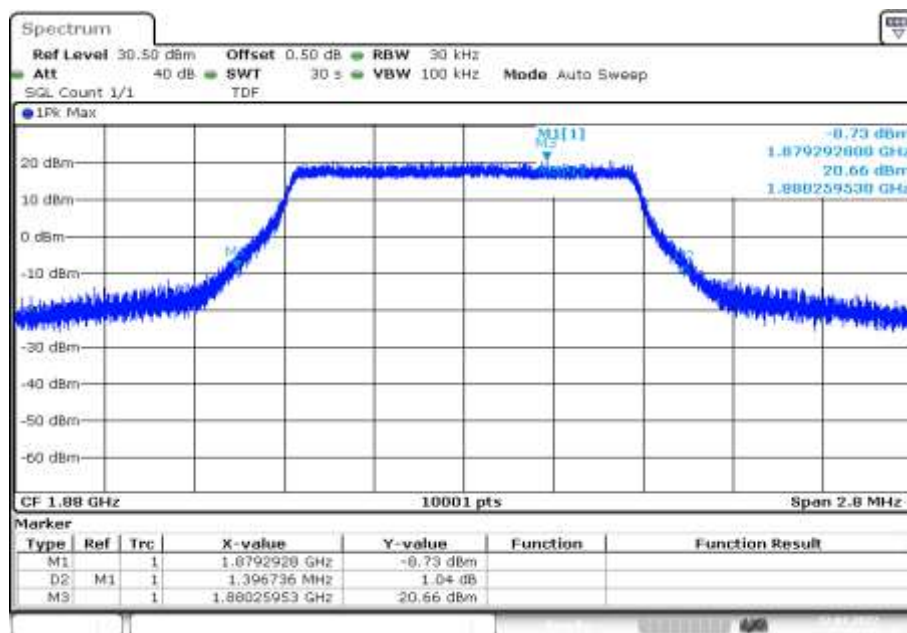
Date: 12.MAR.2022 21:10:51

Plot 39: 1.4 MHz – 16-QAM - middle channel (99% - OBW)



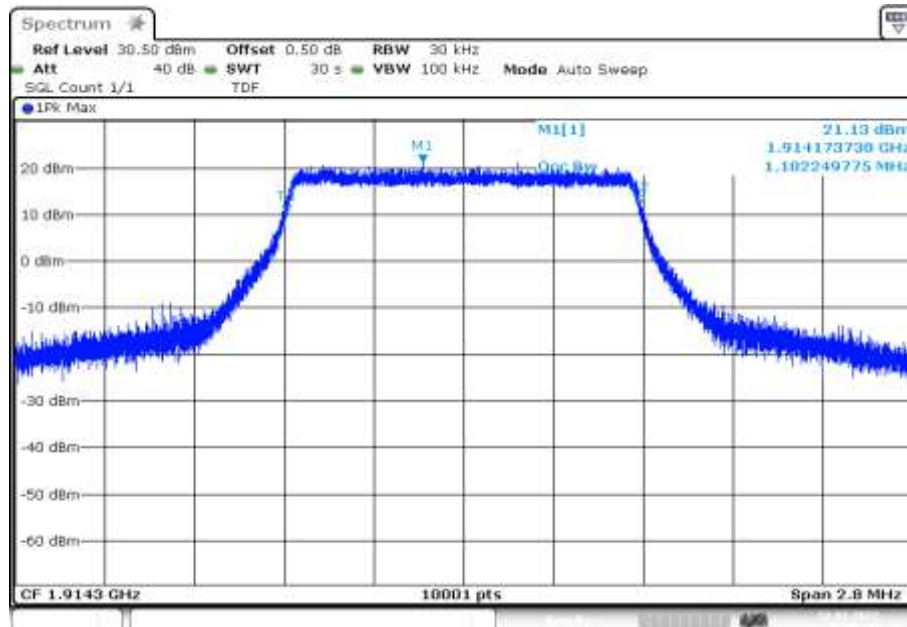
Date: 12.MAR.2022 21:16:54

Plot 40: 1.4 MHz – 16-QAM - middle channel (-26 dBc BW)



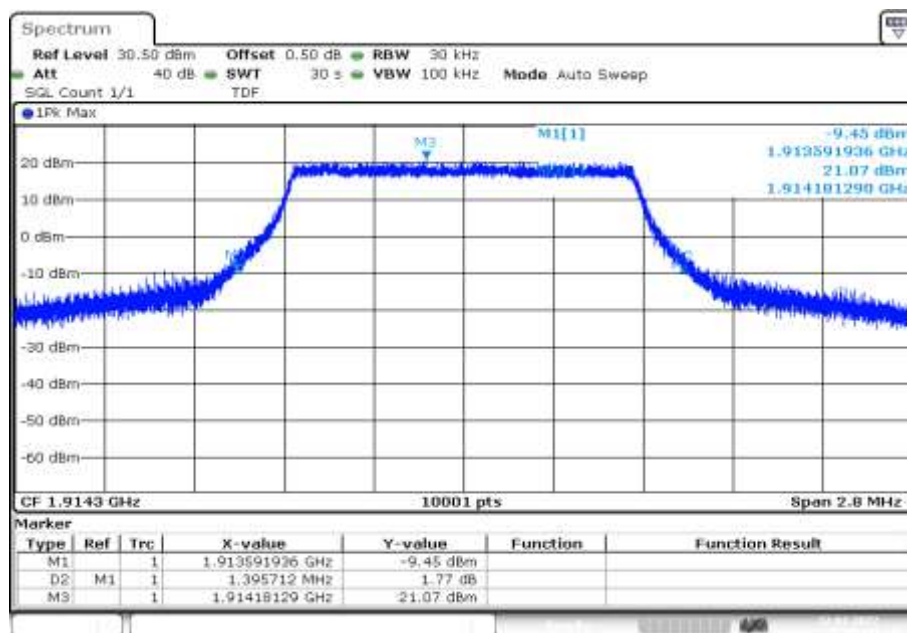
Date: 12.MAR.2022 21:17:27

Plot 41: 1.4 MHz – 16-QAM - highest channel (99% - OBW)



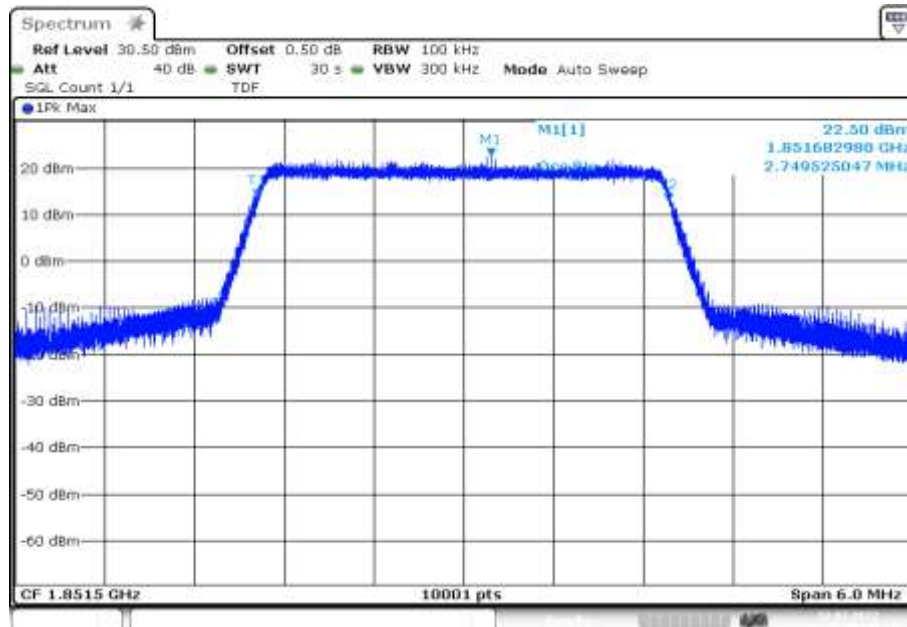
Date: 12.MAR.2022 22:30:42

Plot 42: 1.4 MHz – 16-QAM - highest channel (-26 dBc BW)



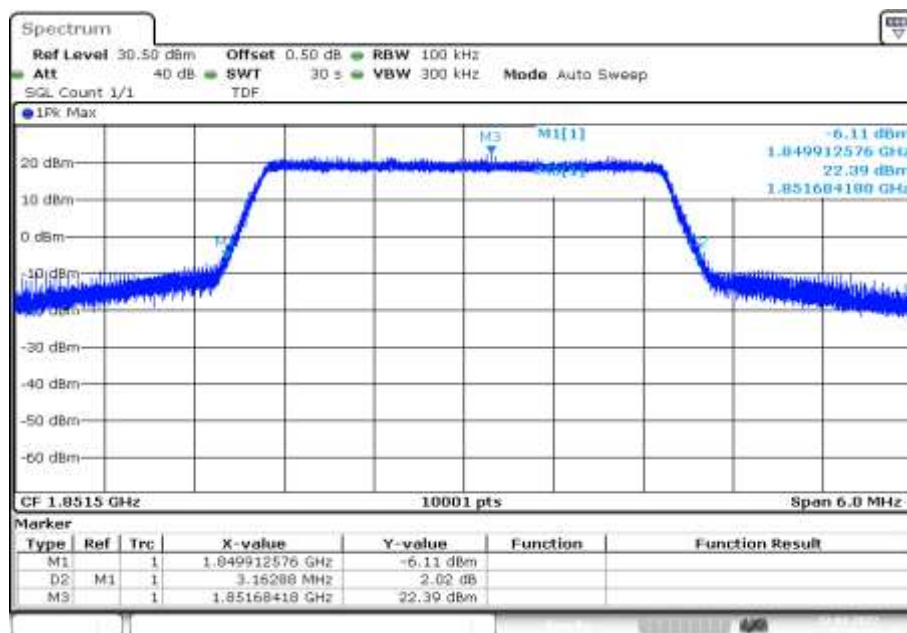
Date: 12.MAR.2022 22:31:15

Plot 43: 3 MHz – 16-QAM - lowest channel (99% - OBW)



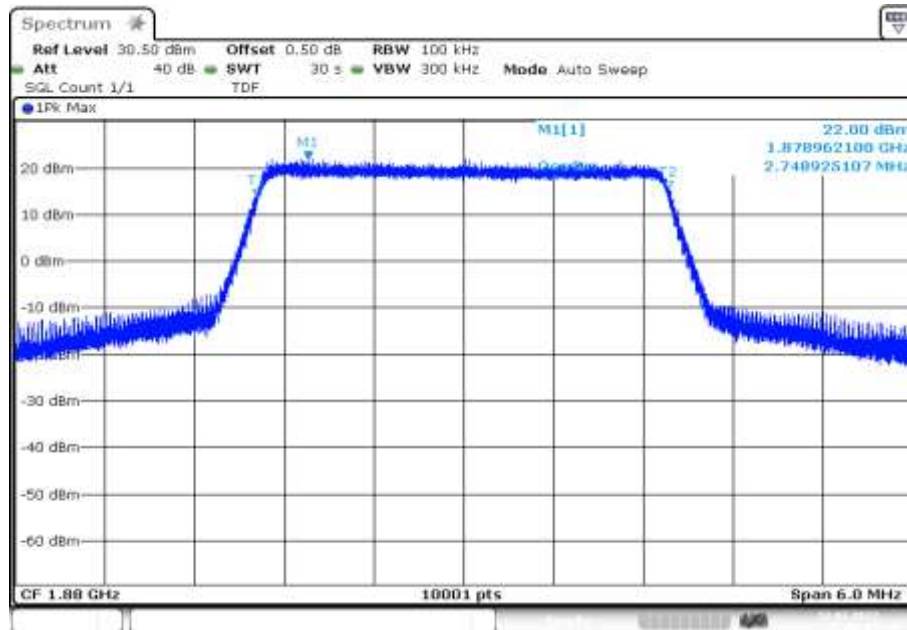
Date: 12.MAR.2022 22:45:31

Plot 44: 3 MHz – 16-QAM - lowest channel (-26 dBc BW)



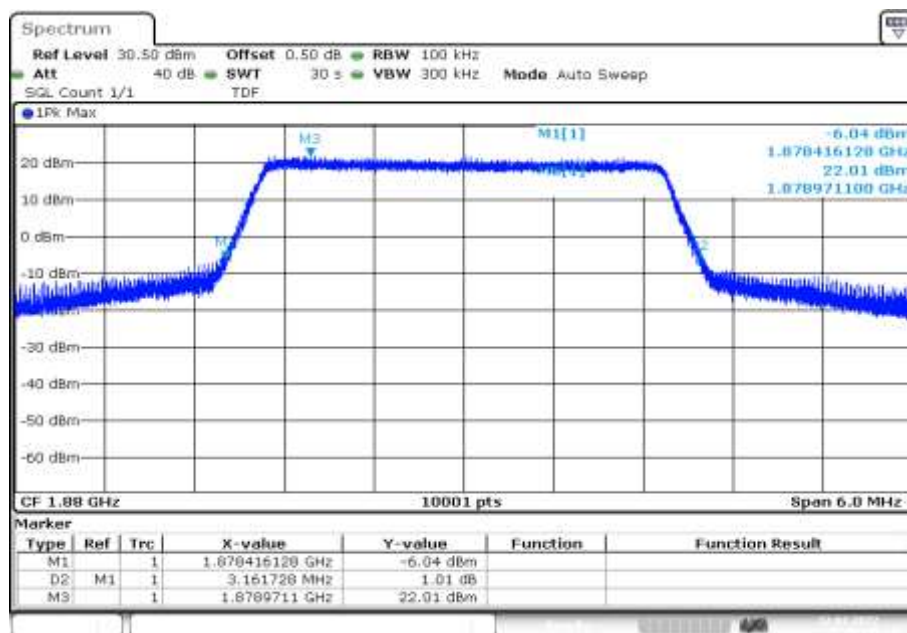
Date: 12.MAR.2022 22:46:03

Plot 45: 3 MHz – 16-QAM - middle channel (99% - OBW)



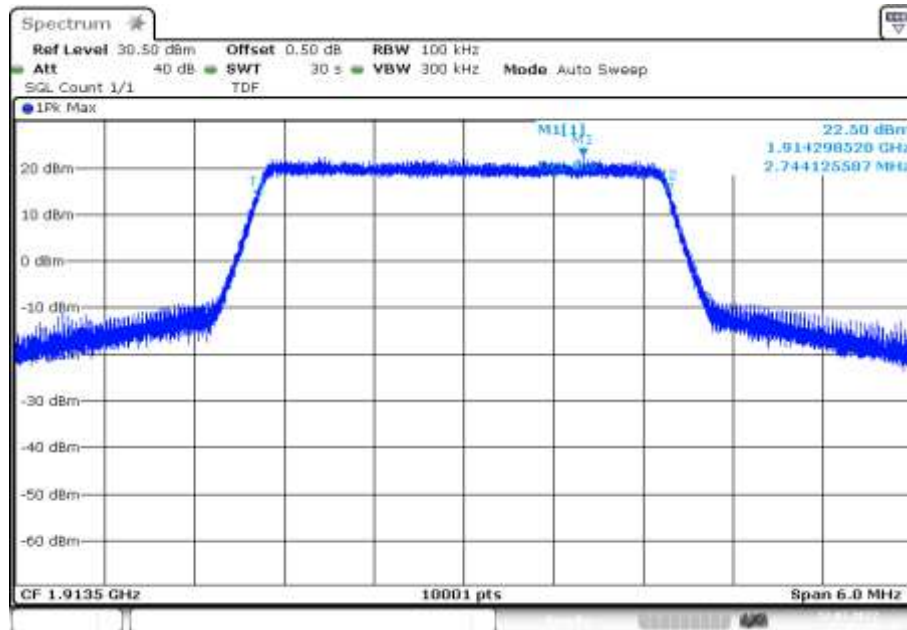
Date: 12.MAR.2022 22:52:08

Plot 46: 3 MHz – 16-QAM - middle channel (-26 dBc BW)



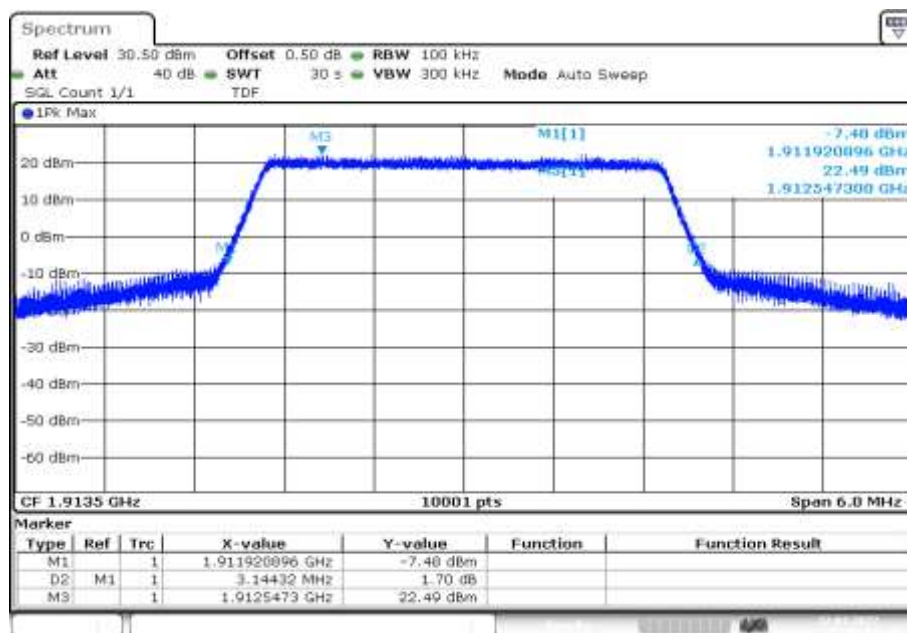
Date: 12.MAR.2022 22:52:40

Plot 47: 3 MHz – 16-QAM - highest channel (99% - OBW)



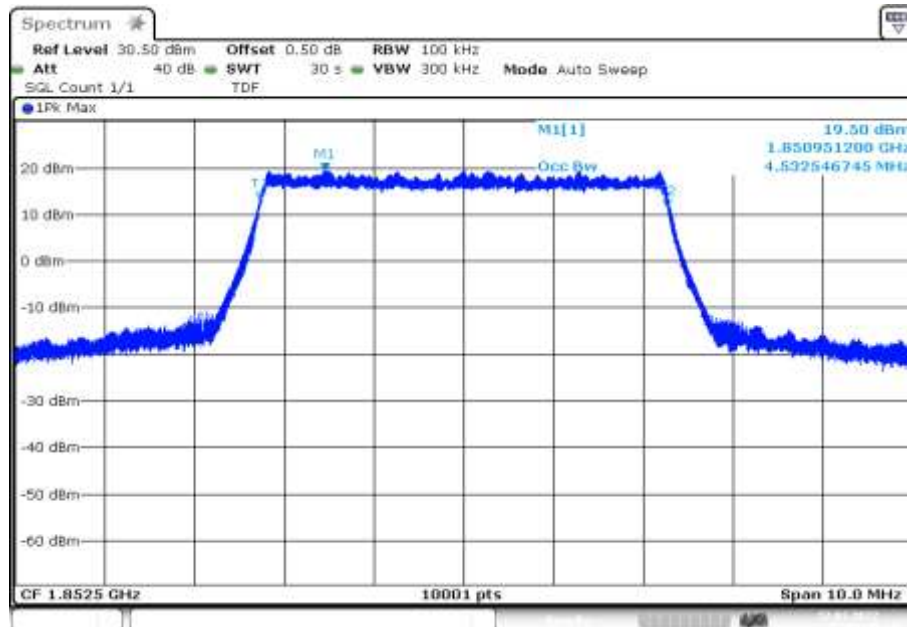
Date: 12.MAR.2022 23:02:19

Plot 48: 3 MHz – 16-QAM - highest channel (-26 dBc BW)



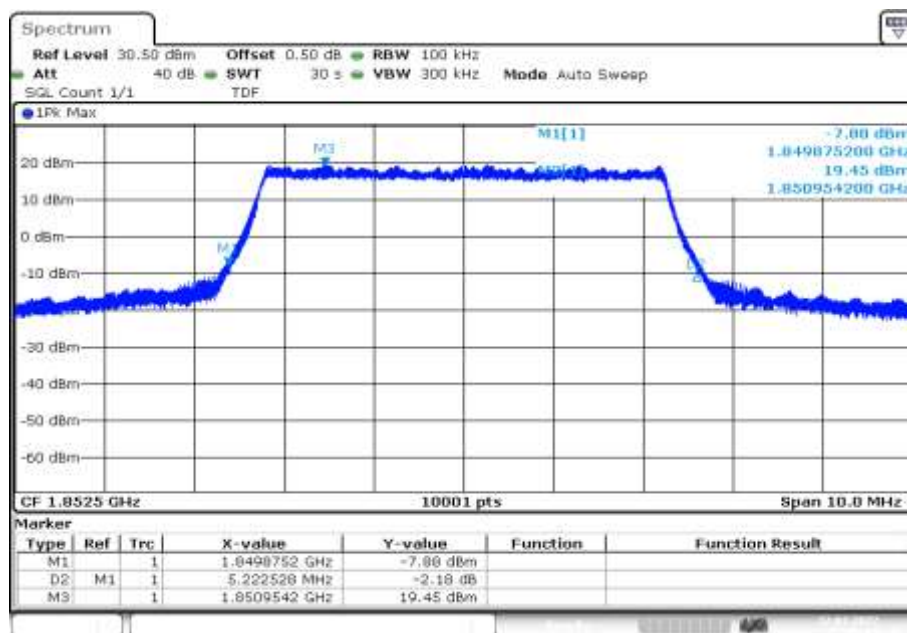
Date: 12.MAR.2022 23:02:52

Plot 49: 5 MHz – 16-QAM - lowest channel (99% - OBW)



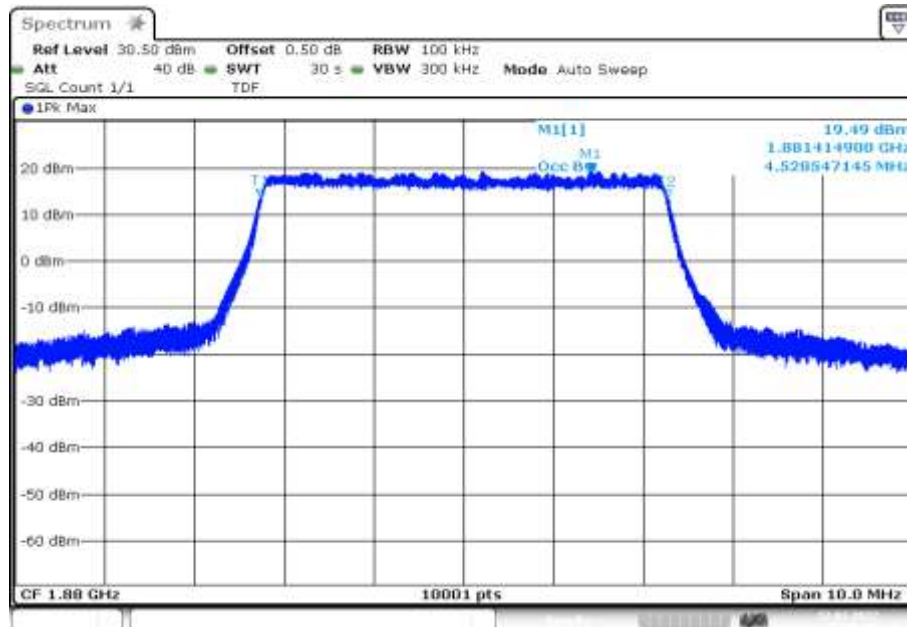
Date: 12.MAR.2022 23:11:49

Plot 50: 5 MHz – 16-QAM - lowest channel (-26 dBc BW)



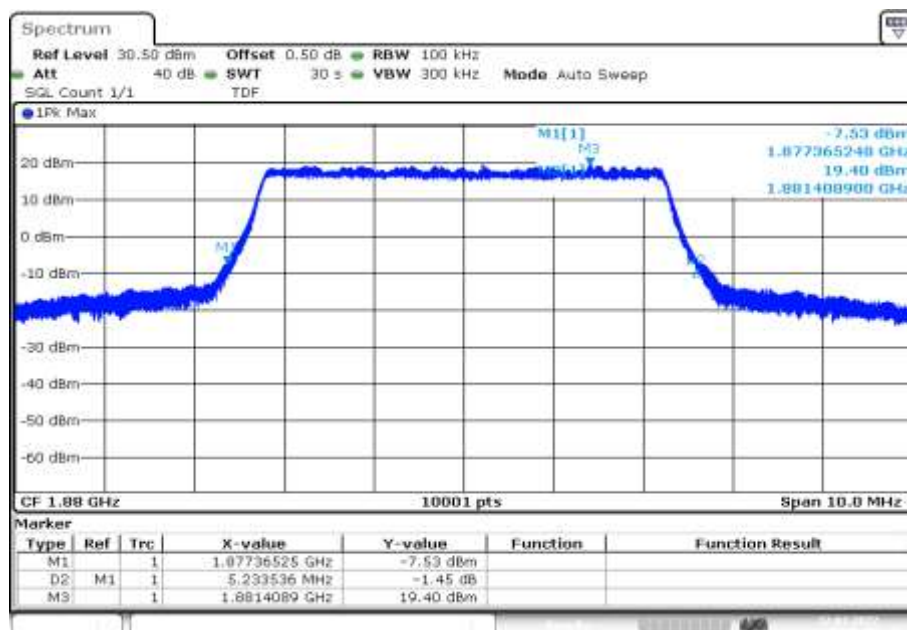
Date: 12.MAR.2022 23:12:22

Plot 51: 5 MHz – 16-QAM - middle channel (99% - OBW)



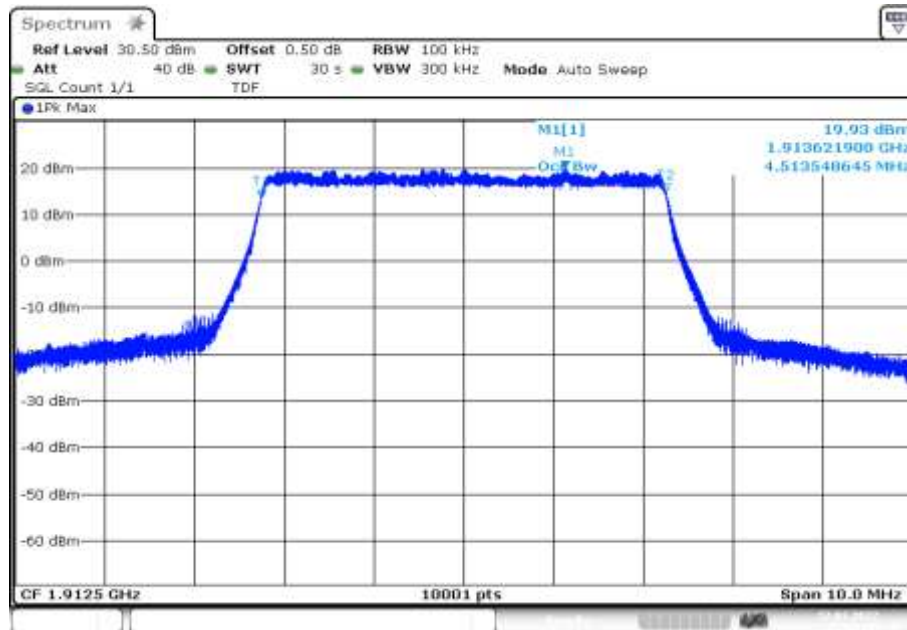
Date: 12.MAR.2022 23:18:26

Plot 52: 5 MHz – 16-QAM - middle channel (-26 dBc BW)



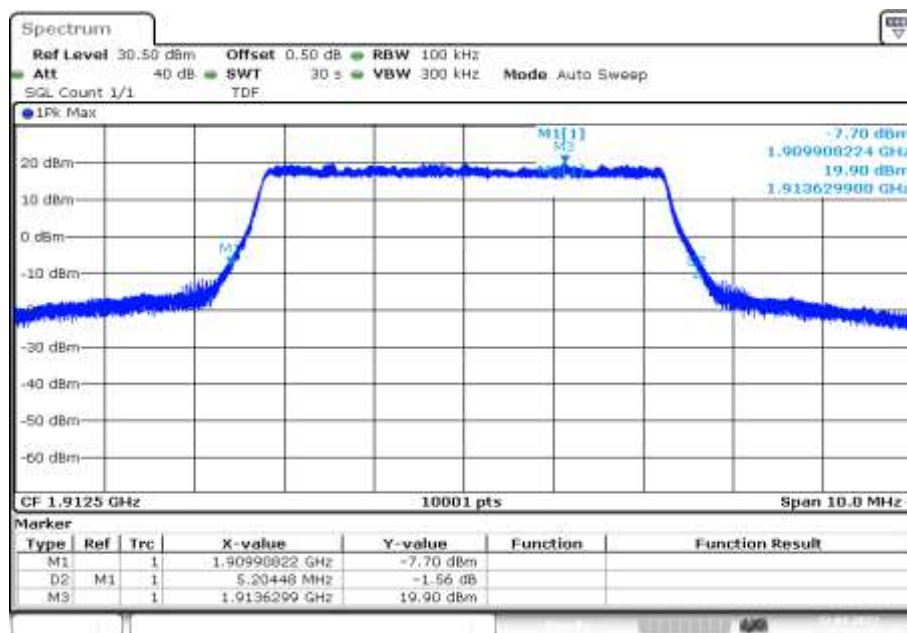
Date: 12.MAR.2022 23:18:59

Plot 53: 5 MHz – 16-QAM - highest channel (99% - OBW)



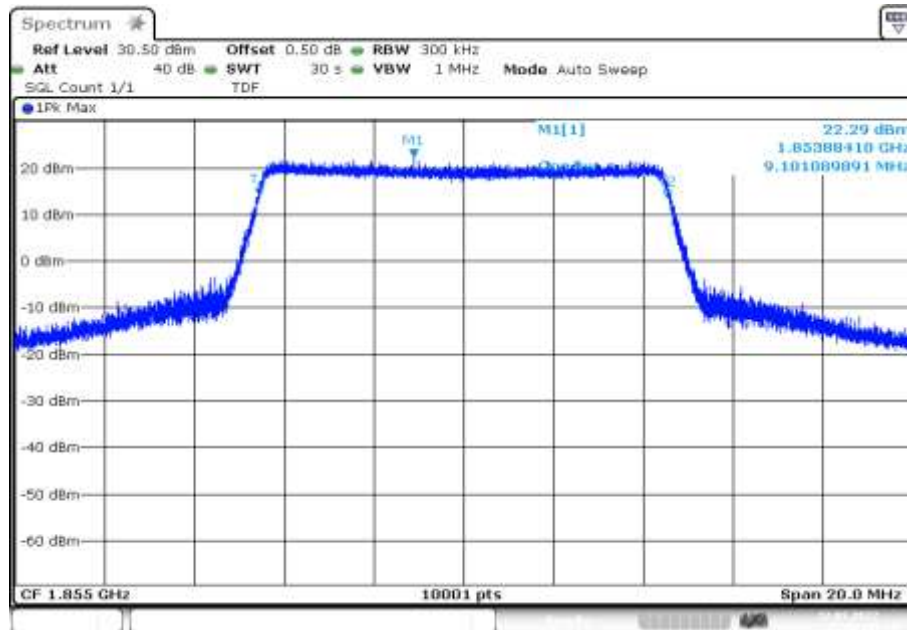
Date: 12.MAR.2022 23:27:03

Plot 54: 5 MHz – 16-QAM - highest channel (-26 dBc BW)



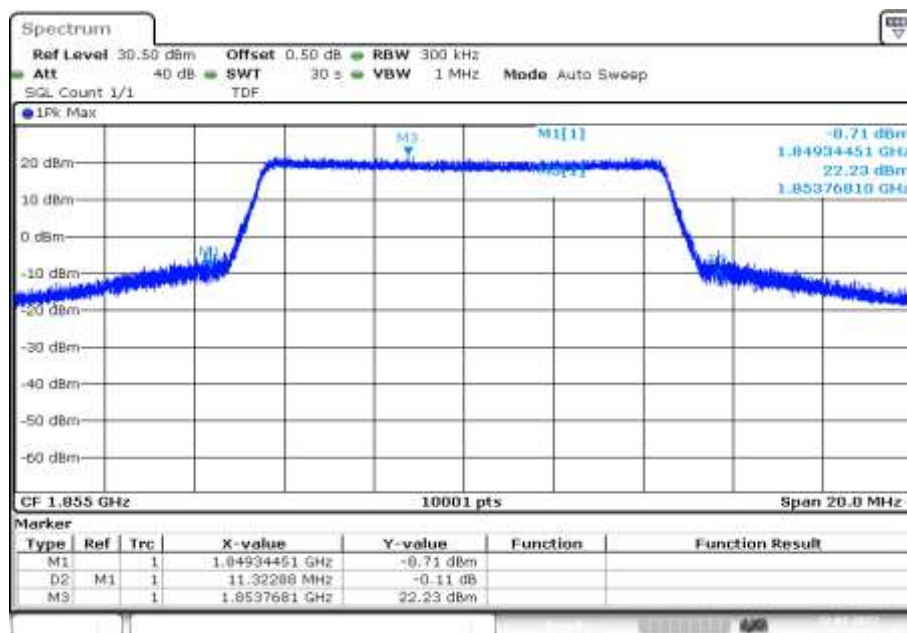
Date: 12.MAR.2022 23:27:36

Plot 55: 10 MHz – 16-QAM - lowest channel (99% - OBW)



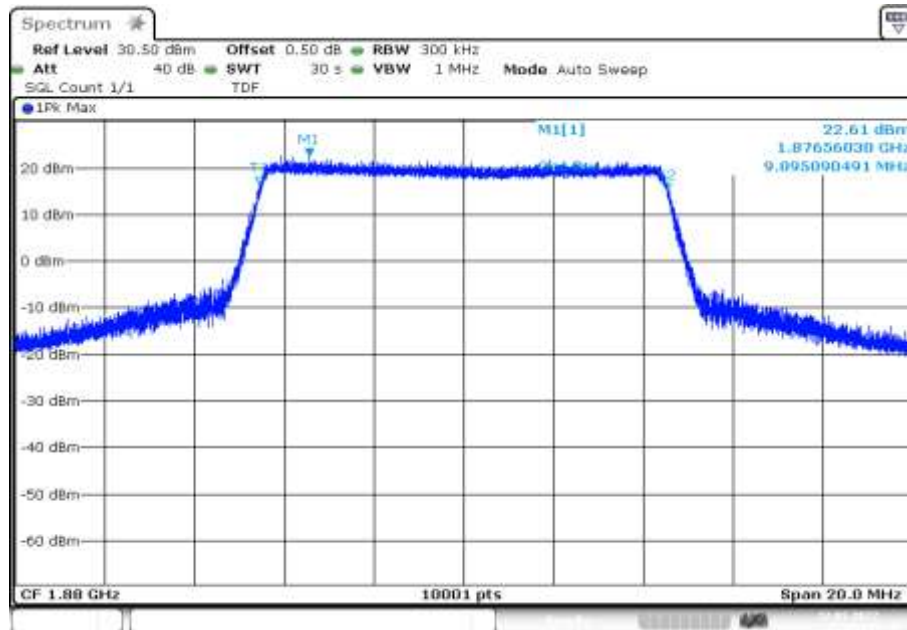
Date: 12.MAR.2022 23:38:00

Plot 56: 10 MHz – 16-QAM - lowest channel (-26 dBc BW)



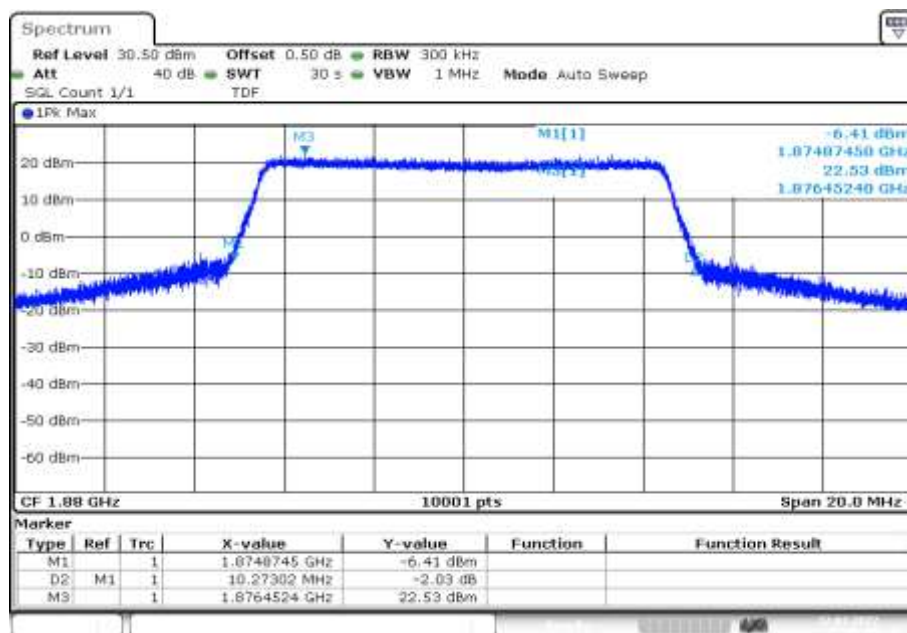
Date: 12.MAR.2022 23:38:32

Plot 57: 10 MHz – 16-QAM - middle channel (99% - OBW)



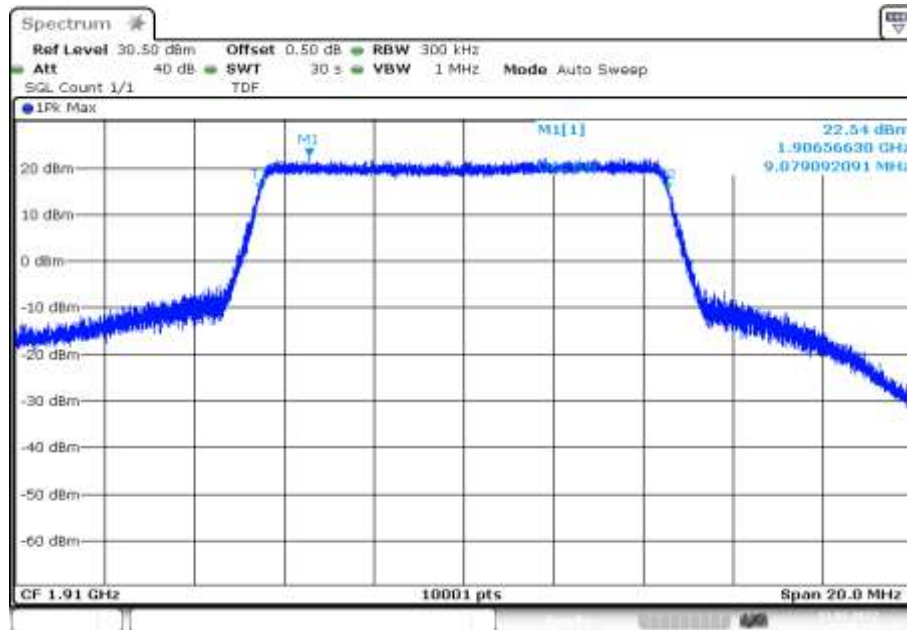
Date: 12.MAR.2022 23:44:36

Plot 58: 10 MHz – 16-QAM - middle channel (-26 dBc BW)



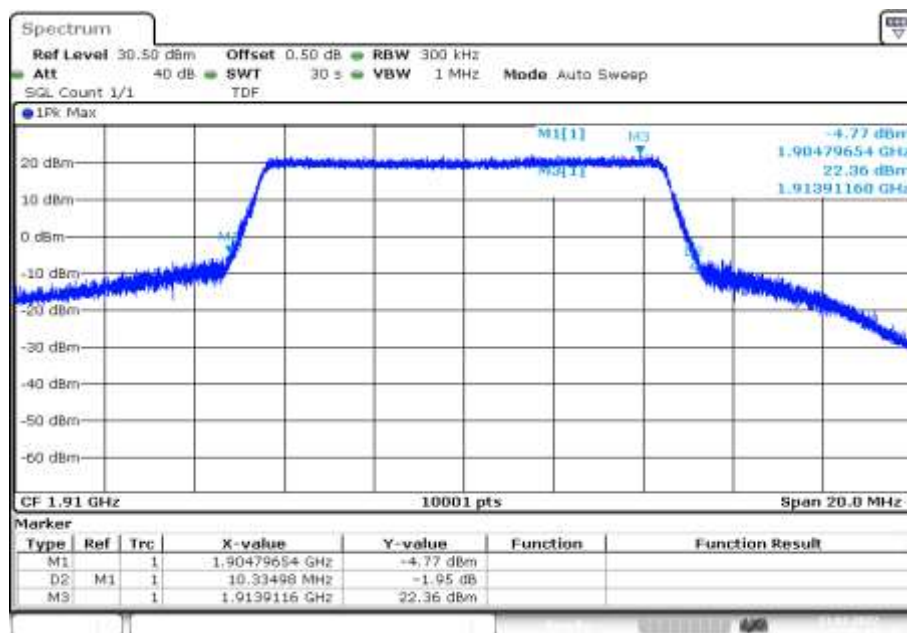
Date: 12.MAR.2022 23:45:09

Plot 59: 10 MHz – 16-QAM - highest channel (99% - OBW)



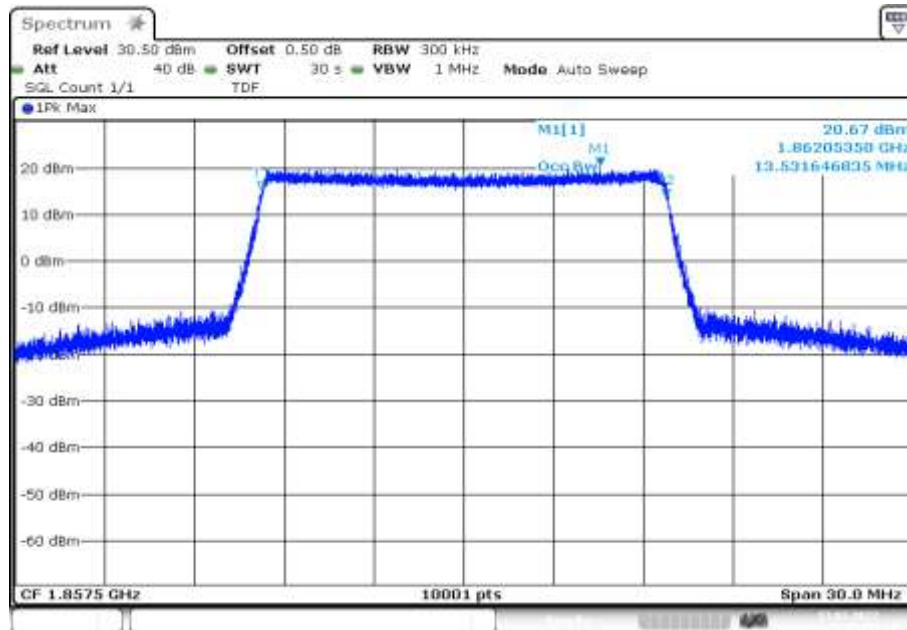
Date: 13.MAR.2022 07:55:39

Plot 60: 10 MHz – 16-QAM - highest channel (-26 dBc BW)



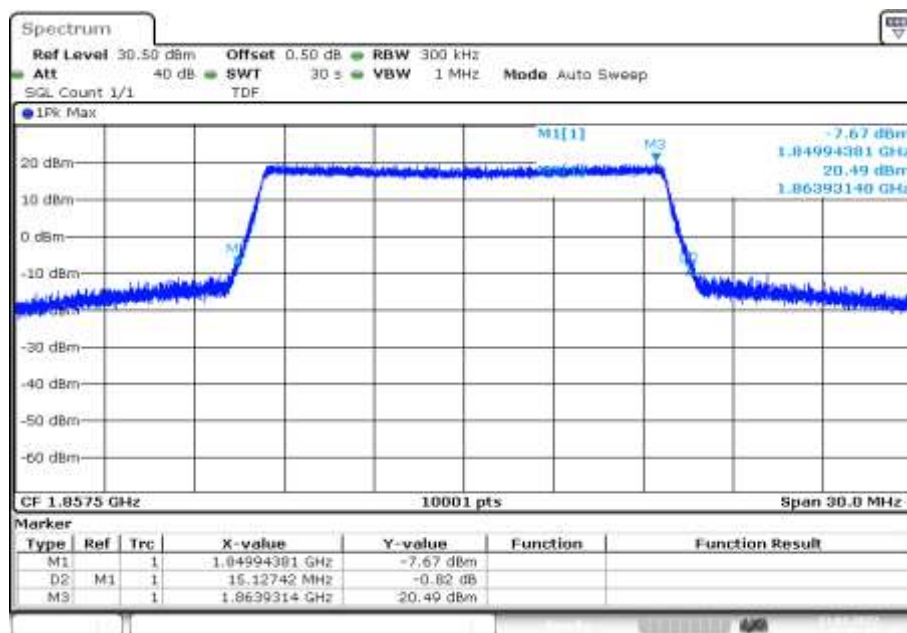
Date: 13.MAR.2022 07:56:12

Plot 61: 15 MHz – 16-QAM - lowest channel (99% - OBW)



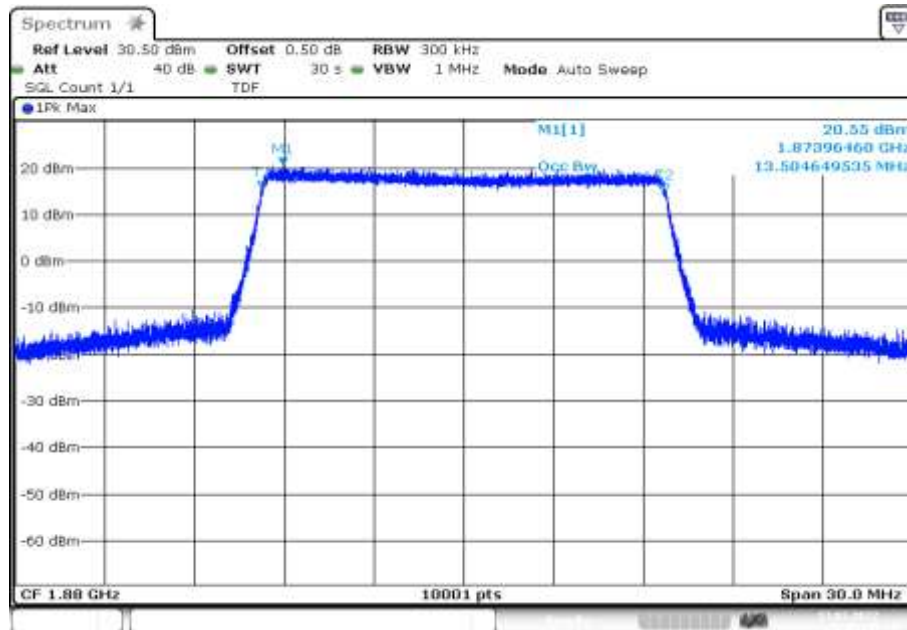
Date: 13.MAR.2022 08:02:55

Plot 62: 15 MHz – 16-QAM - lowest channel (-26 dBc BW)



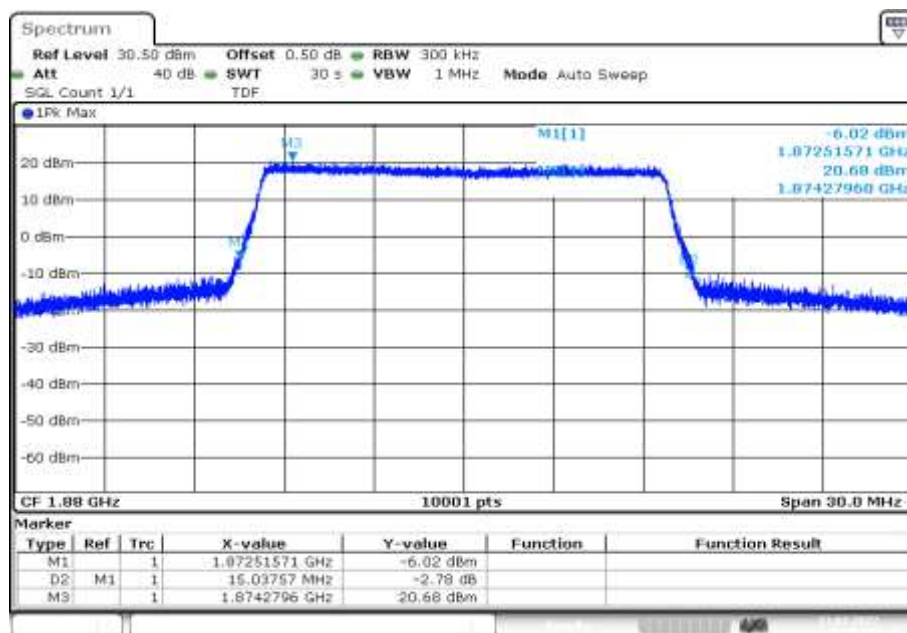
Date: 13.MAR.2022 08:03:28

Plot 63: 15 MHz – 16-QAM - middle channel (99% - OBW)



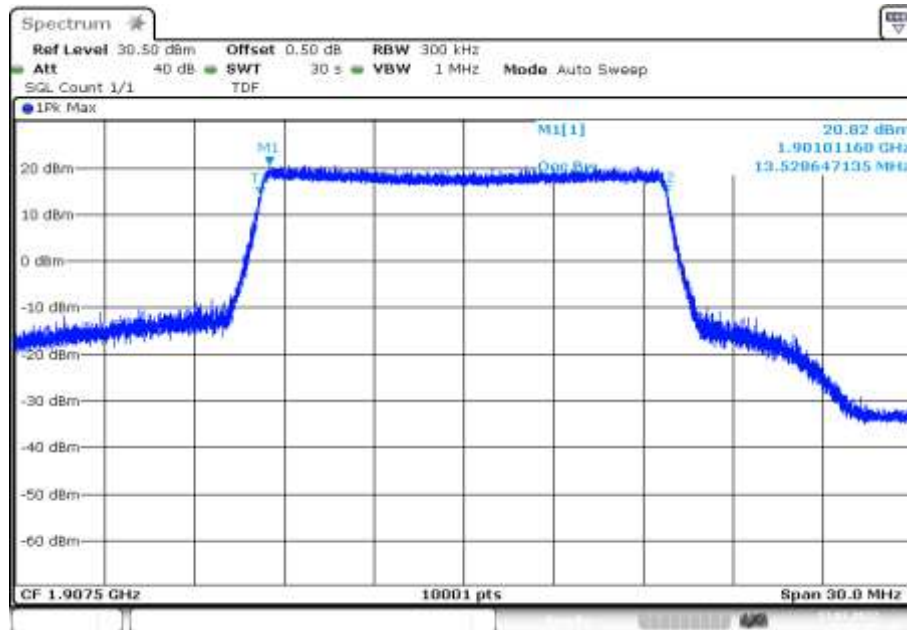
Date: 13.MAR.2022 08:09:31

Plot 64: 15 MHz – 16-QAM - middle channel (-26 dBc BW)



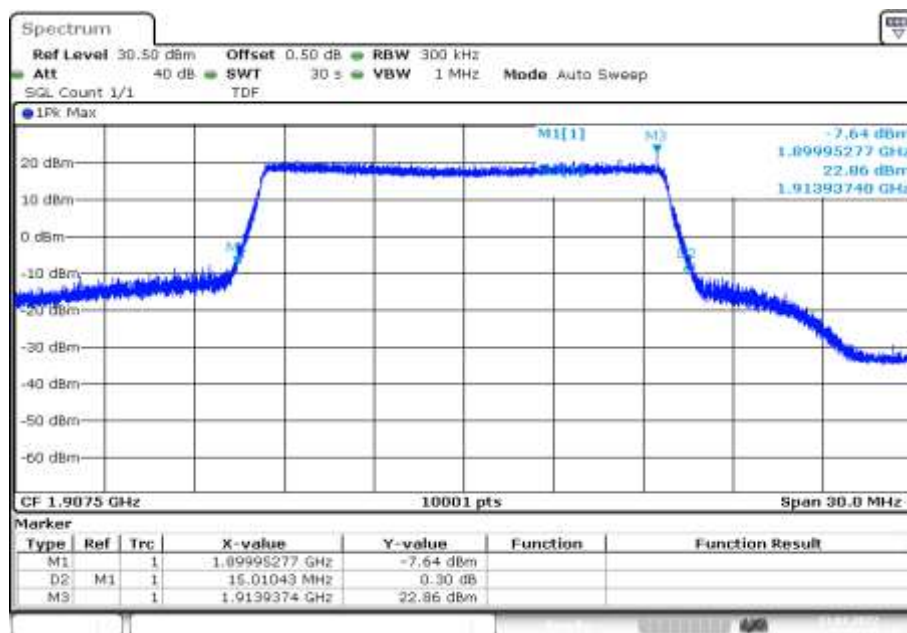
Date: 13.MAR.2022 08:10:04

Plot 65: 15 MHz – 16-QAM - highest channel (99% - OBW)



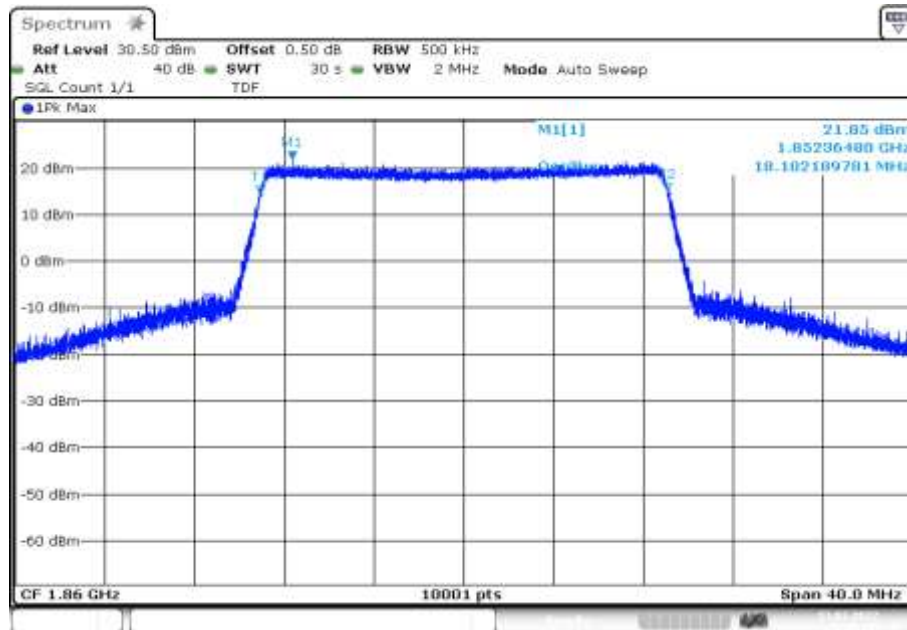
Date: 13.MAR.2022 08:17:08

Plot 66: 15 MHz – 16-QAM - highest channel (-26 dBc BW)



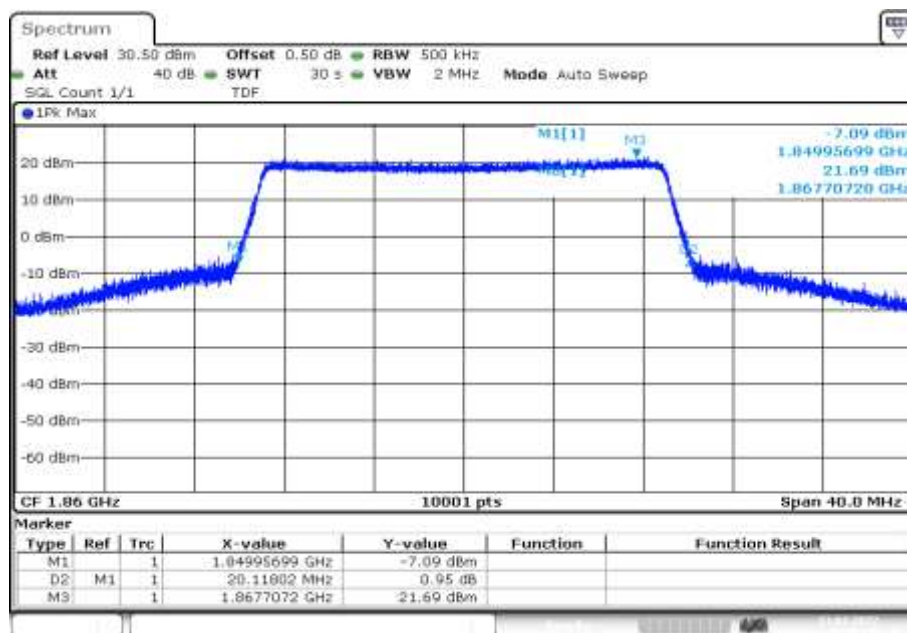
Date: 13.MAR.2022 08:17:41

Plot 67: 20 MHz – 16-QAM - lowest channel (99% - OBW)



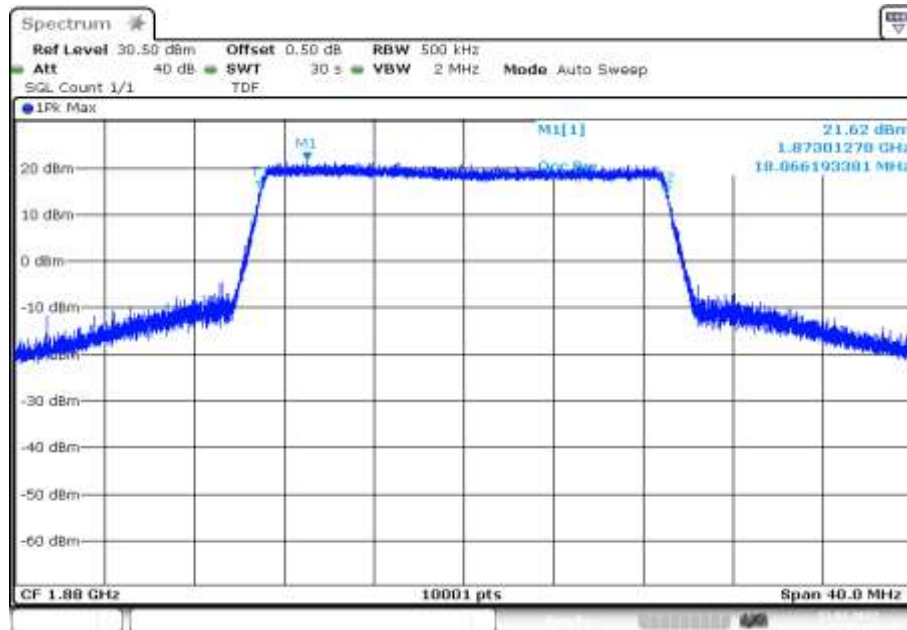
Date: 13.MAR.2022 08:55:06

Plot 68: 20 MHz – 16-QAM - lowest channel (-26 dBc BW)



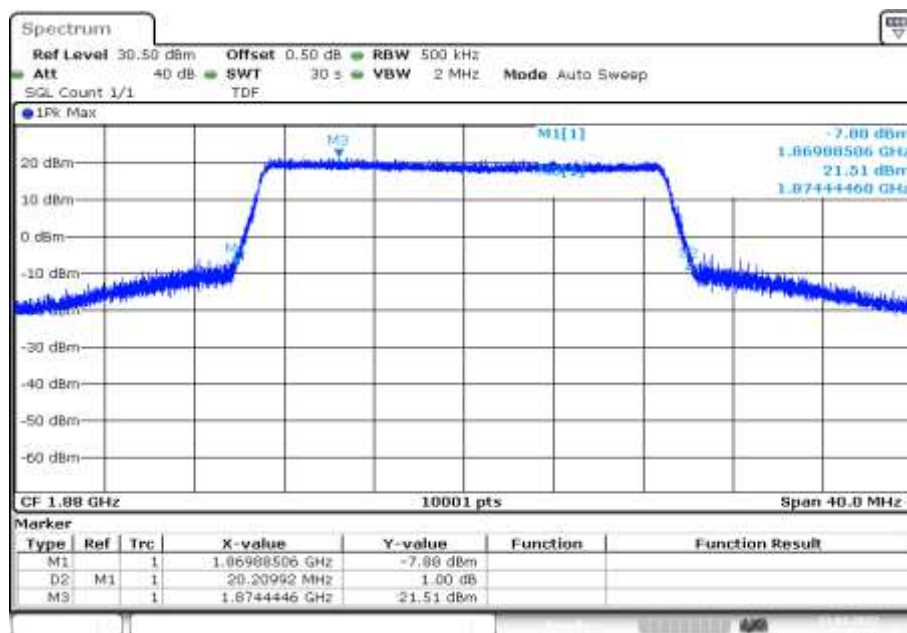
Date: 13.MAR.2022 08:55:39

Plot 69: 20 MHz – 16-QAM - middle channel (99% - OBW)



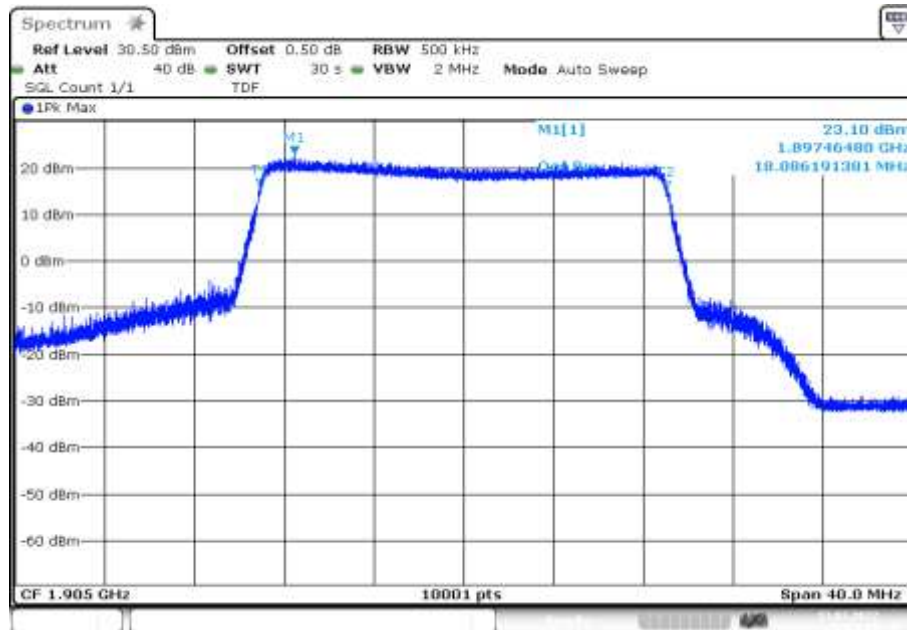
Date: 13.MAR.2022 09:01:43

Plot 70: 20 MHz – 16-QAM - middle channel (-26 dBc BW)



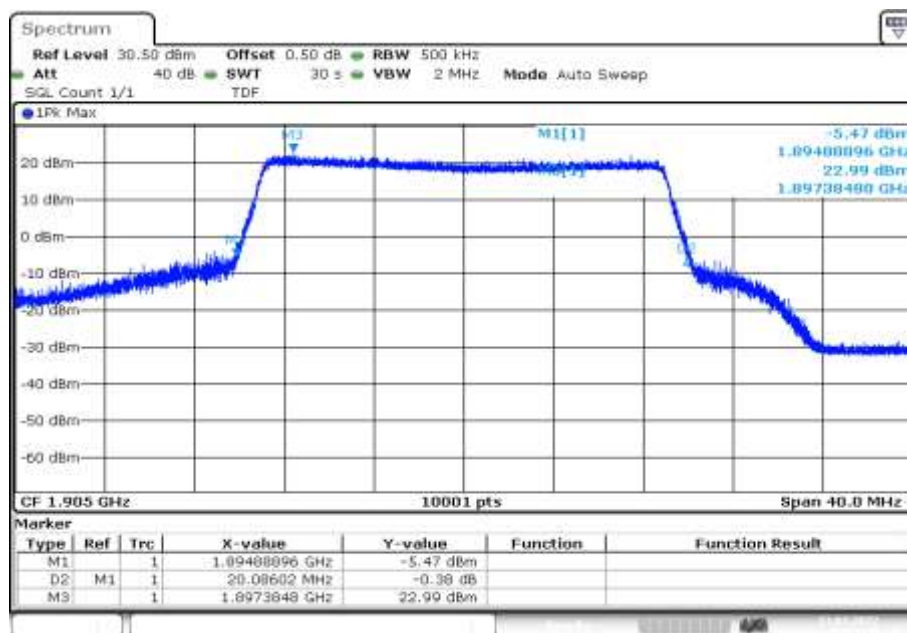
Date: 13.MAR.2022 09:02:15

Plot 71: 20 MHz – 16-QAM - highest channel (99% - OBW)



Date: 13.MAR.2022 10:24:16

Plot 72: 20 MHz – 16-QAM - highest channel (-26 dBc BW)



Date: 13.MAR.2022 10:24:49

Spectrum

Ref Level 30.00 dBm RBW 30 kHz

Att 40 dB SWT 30 s VBW 100 kHz Mode Auto Sweep

SQL Count 1/1 TDF

1Pk Max

20 dBm

10 dBm

0 dBm

-10 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

CF 1.8507 GHz

10001 pts

Span 2.8 MHz

20.69 dBm

1.850750390 GHz

1.102089691 MHz

M1[1]

**Spectrum**

Ref Level 30.00 dBm      RBW 30 kHz  
Att 40 dB      SWF 30 s      VBW 100 kHz      Mode Auto Sweep  
SQL Count 1/1      TDF

● 1Pk Max

20 dBm  
10 dBm  
0 dBm  
-10 dBm  
-30 dBm  
-40 dBm  
-50 dBm  
-60 dBm

CF 1.8507 GHz      10001 pts      Span 2.6 MHz

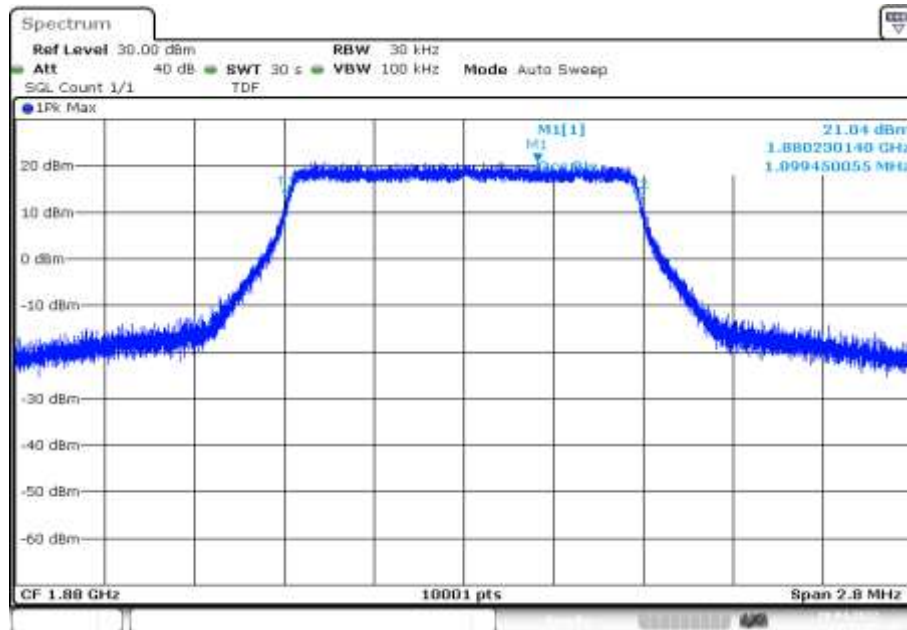
M1[1] -7.92 dBm  
1.850005888 GHz  
21.26 dBm  
1.850635338 GHz

**Marker**

| Type | Ref | Trc | X-value         | Y-value    | Function | Function Result |
|------|-----|-----|-----------------|------------|----------|-----------------|
| M1   |     | 1   | 1.850005888 GHz | -7.92 dBm  |          |                 |
| M2   | M1  | 1   | 1.38368 MHz     | 1.57 dB    |          |                 |
| M3   |     | 1   | 1.850635338 GHz | -21.26 dBm |          |                 |

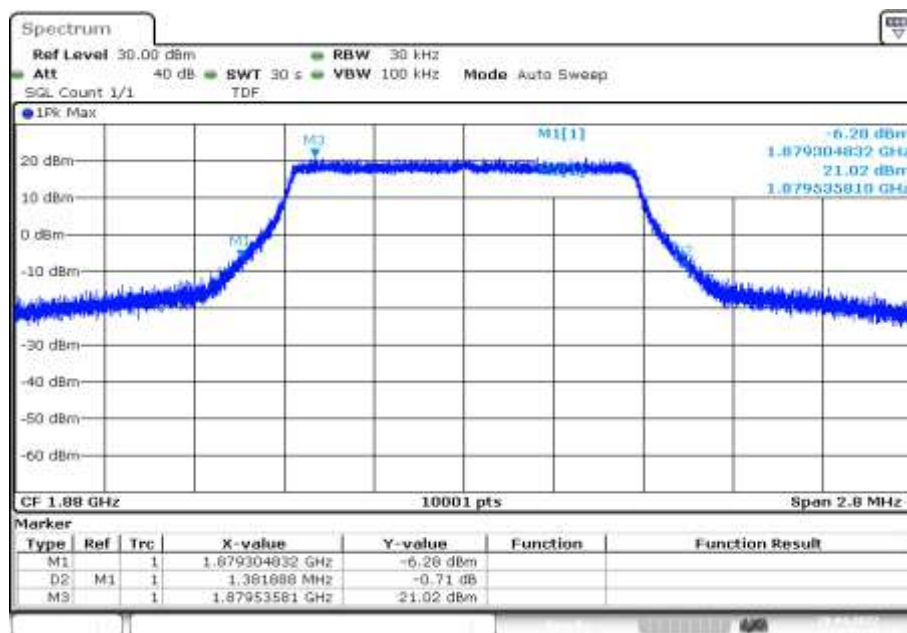
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Plot 75: 1.4 MHz – 64-QAM - middle channel (99% - OBW)



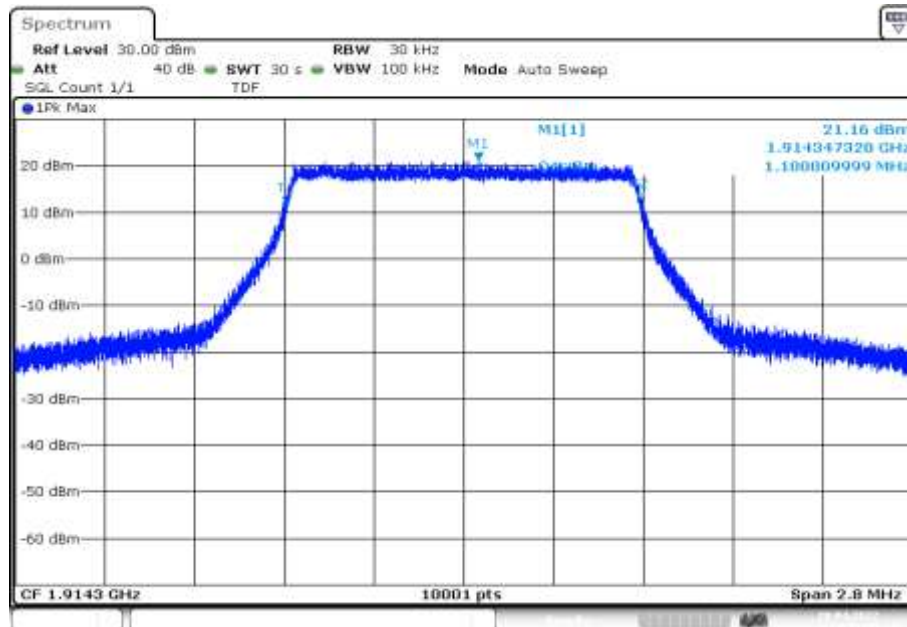
Date: 28.APR.2022 14:51:07

Plot 76: 1.4 MHz – 64-QAM - middle channel (-26 dBc BW)



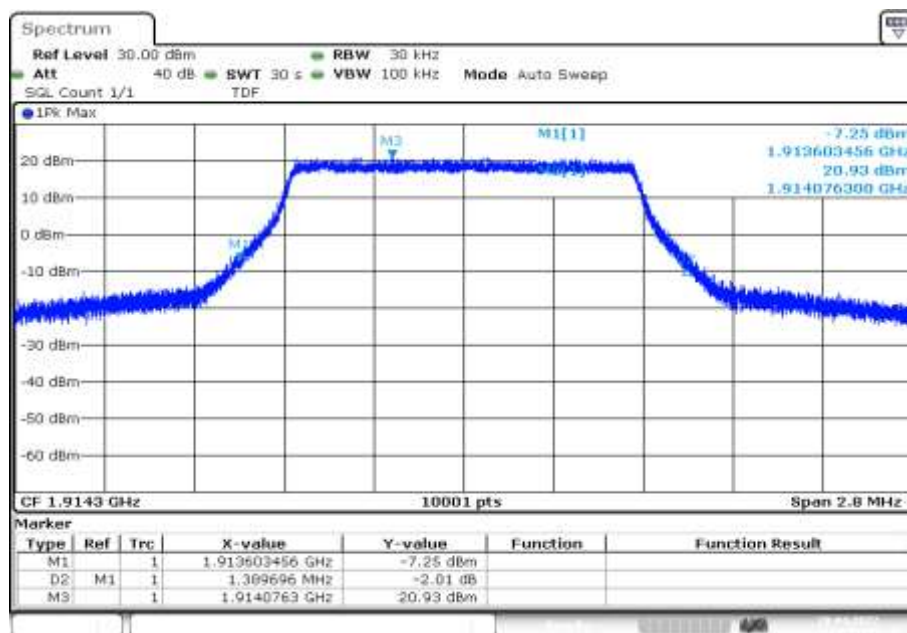
Date: 28.APR.2022 14:51:40

Plot 77: 1.4 MHz – 64-QAM - highest channel (99% - OBW)



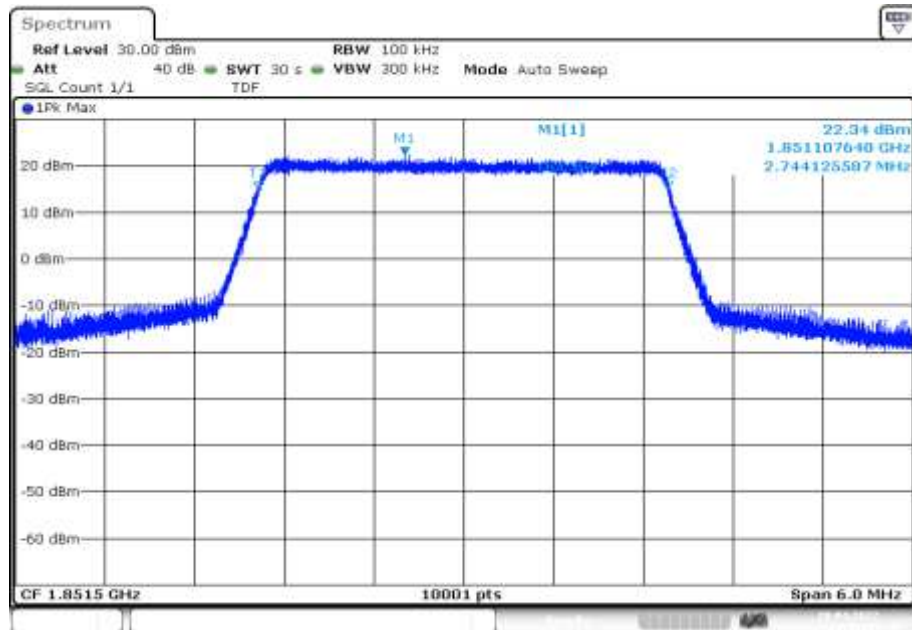
Date: 28.APR.2022 14:55:00

Plot 78: 1.4 MHz – 64-QAM - highest channel (-26 dBc BW)



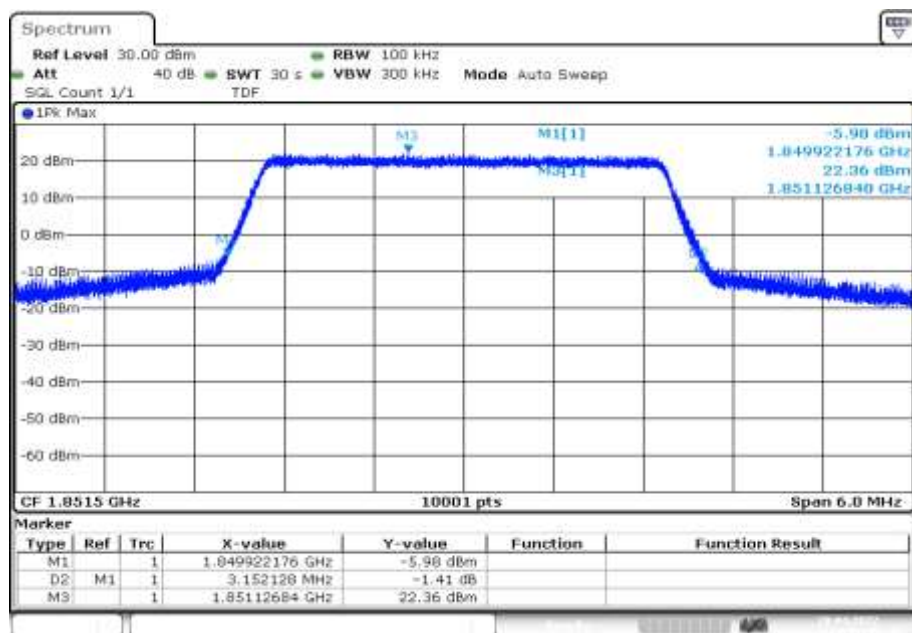
Date: 28.APR.2022 14:55:33

Plot 79: 3 MHz – 64-QAM - lowest channel (99% - OBW)



Date: 28.APR.2022 14:59:03

Plot 80: 3 MHz – 64-QAM - lowest channel (-26 dBc BW)



Date: 28.APR.2022 14:59:36

Plot 81: 3 MHz – 64-QAM - middle channel (99% - OBW)



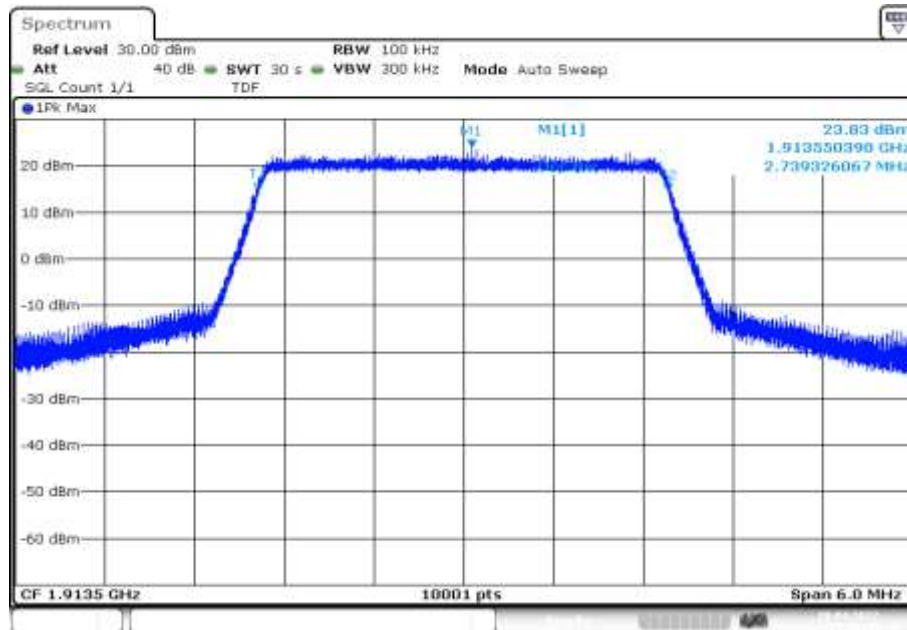
Date: 28.APR.2022 15:02:23

Plot 82: 3 MHz – 64-QAM - middle channel (-26 dBc BW)



Date: 28.APR.2022 15:02:56

Plot 83: 3 MHz – 64-QAM - highest channel (99% - OBW)



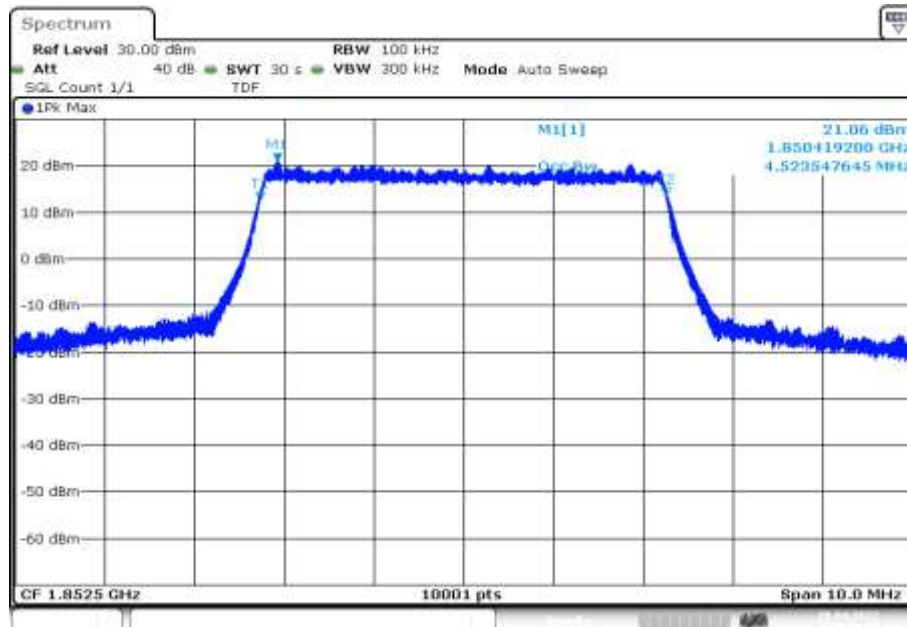
Date: 28.APR.2022 15:06:15

Plot 84: 3 MHz – 64-QAM - highest channel (-26 dBc BW)



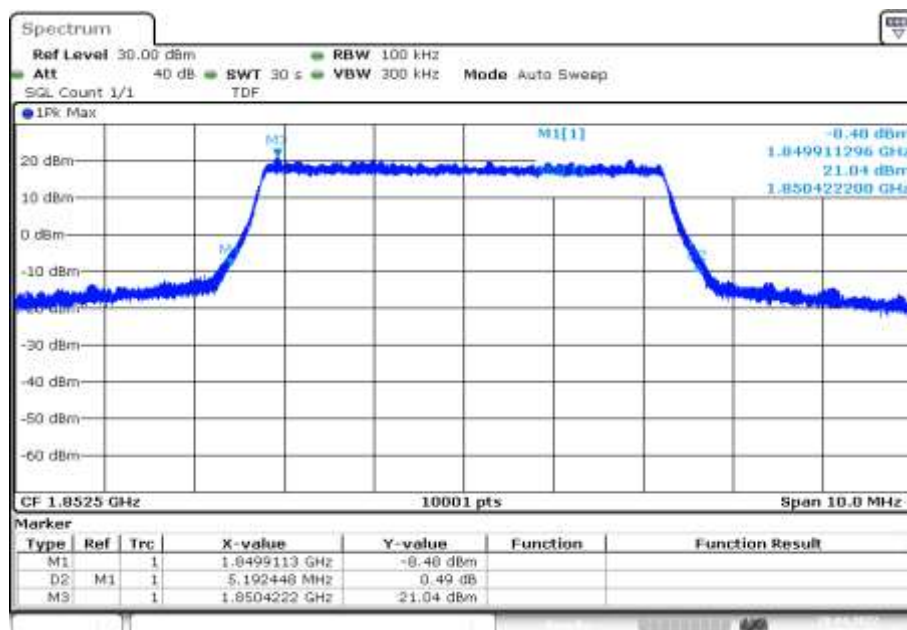
Date: 28.APR.2022 15:06:49

Plot 85: 5 MHz – 64-QAM - lowest channel (99% - OBW)



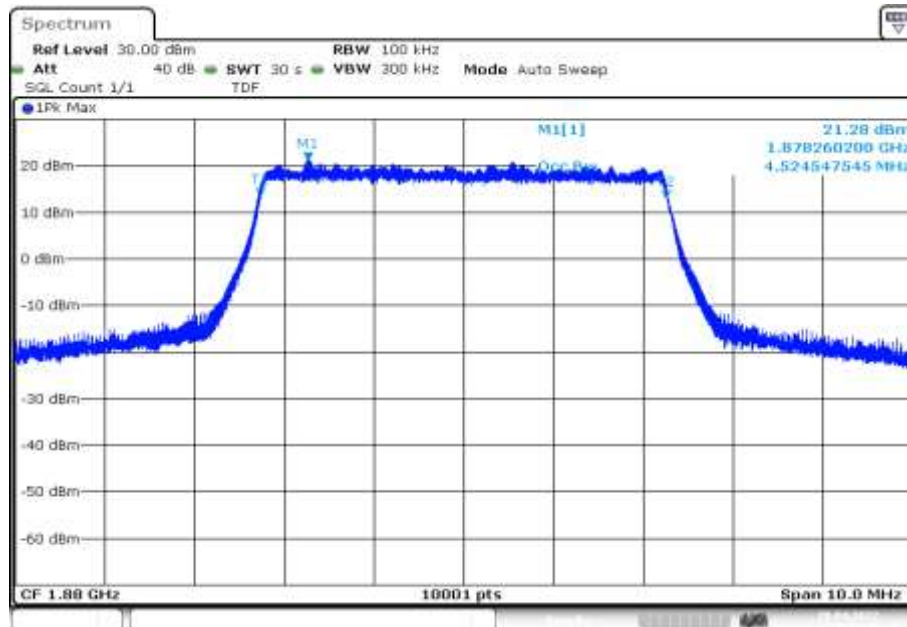
Date: 28.APR.2022 15:10:19

Plot 86: 5 MHz – 64-QAM - lowest channel (-26 dBc BW)



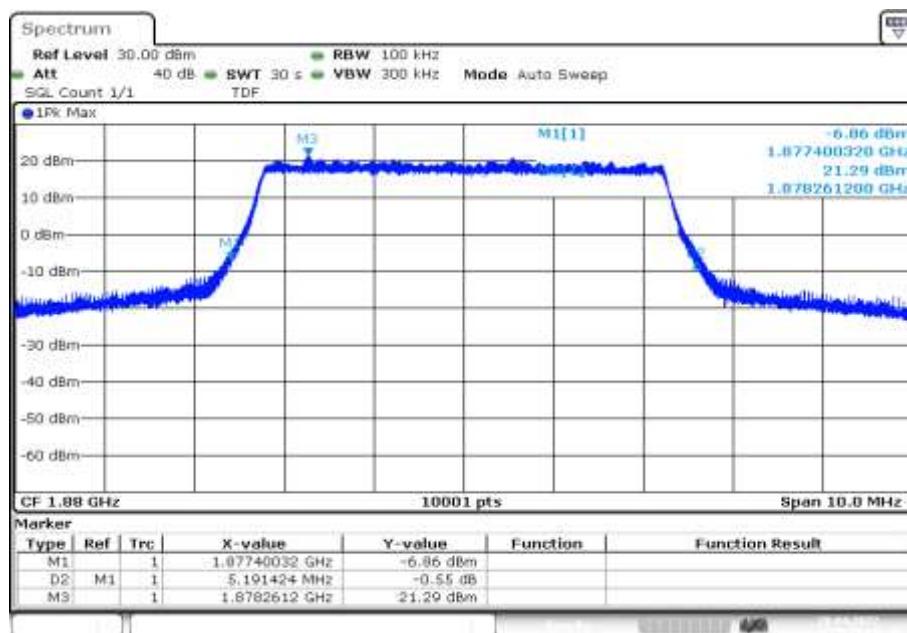
Date: 28.APR.2022 15:10:52

Plot 87: 5 MHz – 64-QAM - middle channel (99% - OBW)



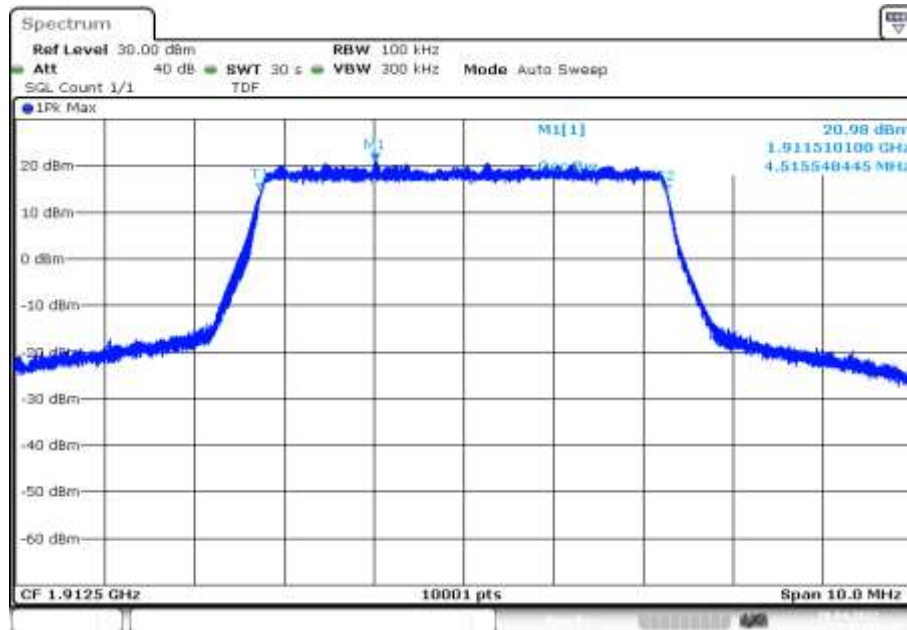
Date: 28.APR.2022 15:13:38

Plot 88: 5 MHz – 64-QAM - middle channel (-26 dBc BW)



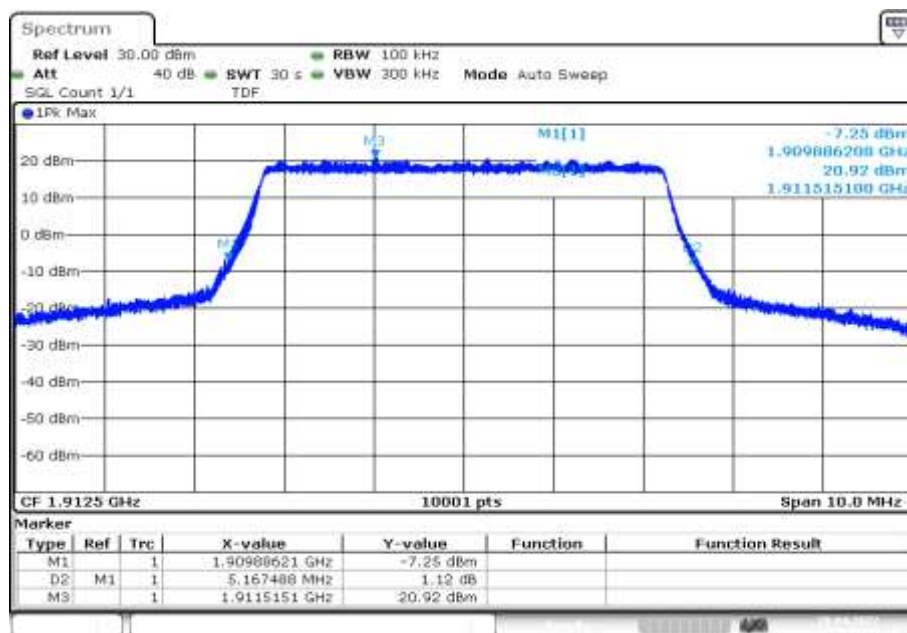
Date: 28.APR.2022 15:14:11

Plot 89: 5 MHz – 64-QAM - highest channel (99% - OBW)



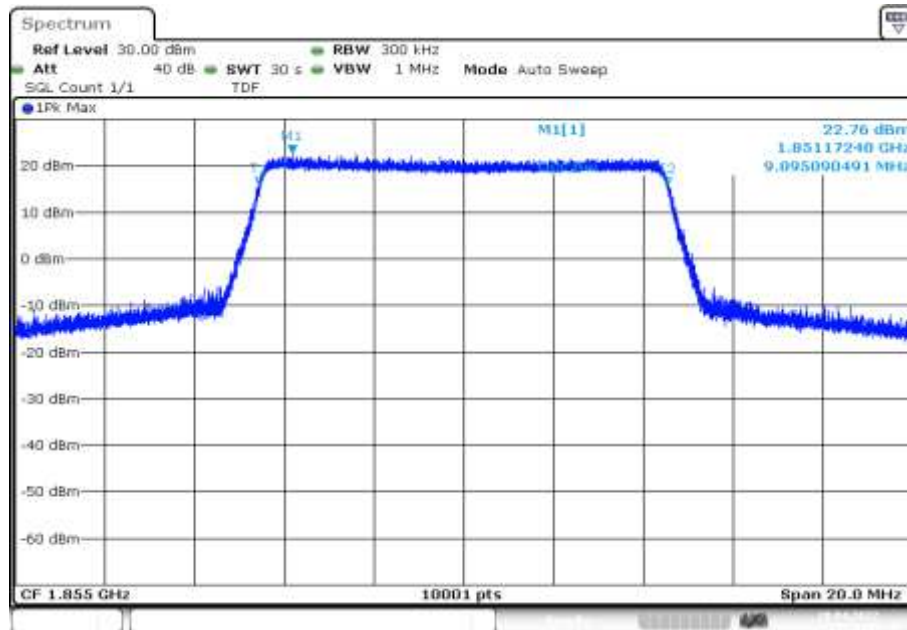
Date: 28.APR.2022 15:17:31

Plot 90: 5 MHz – 64-QAM - highest channel (-26 dBc BW)



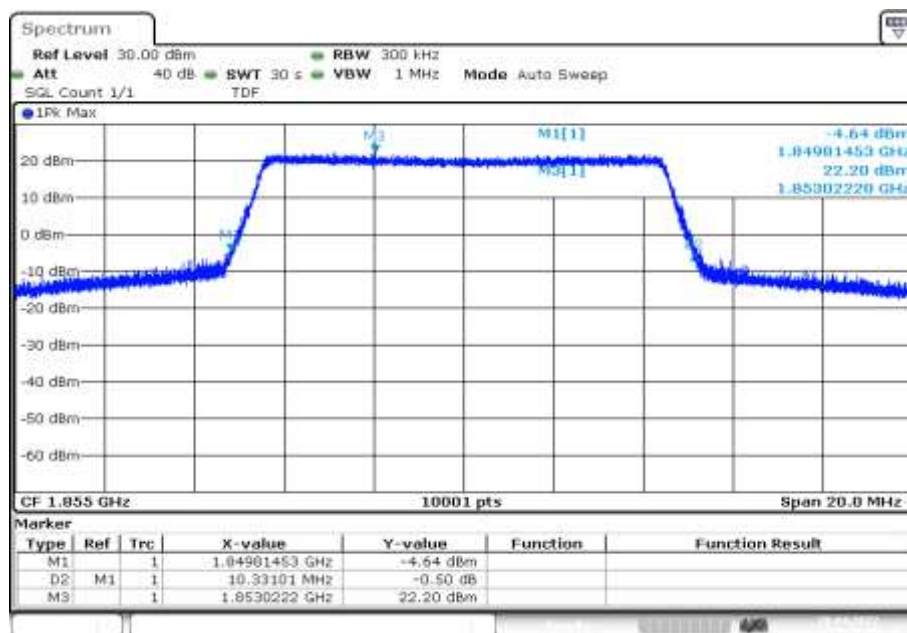
Date: 28.APR.2022 15:18:04

Plot 91: 10 MHz – 64-QAM - lowest channel (99% - OBW)



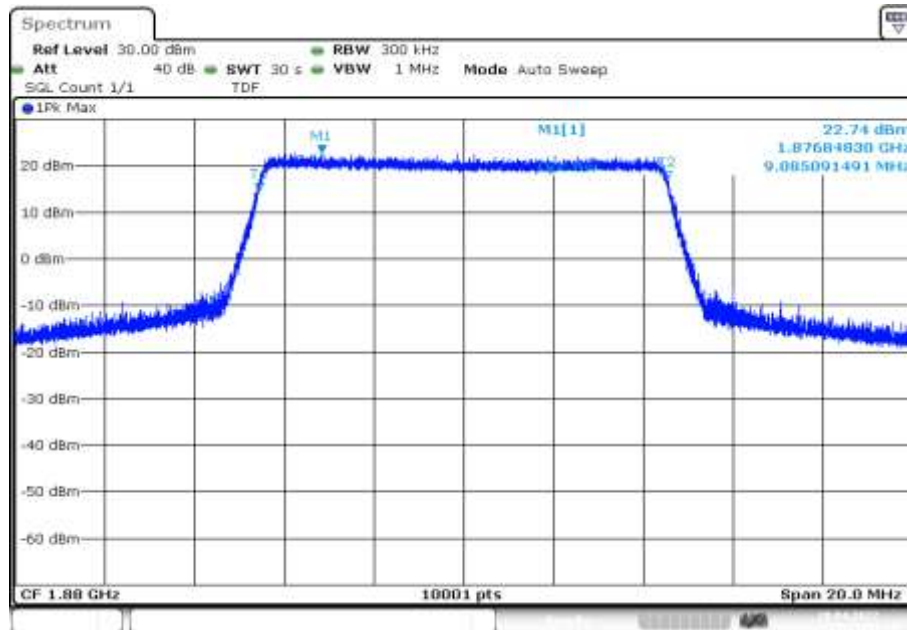
Date: 28.APR.2022 15:21:34

Plot 92: 10 MHz – 64-QAM - lowest channel (-26 dBc BW)



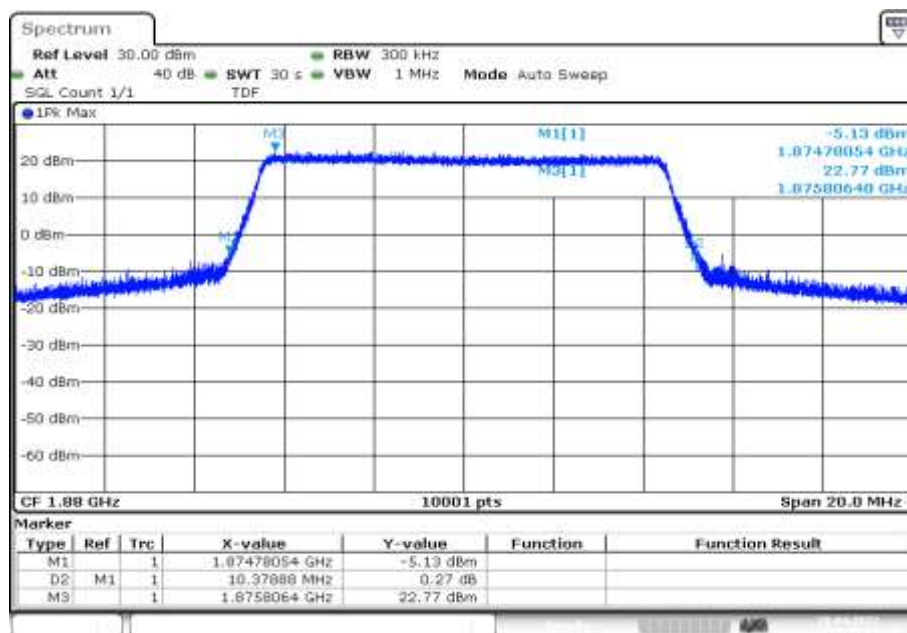
Date: 28.APR.2022 15:22:08

Plot 93: 10 MHz – 64-QAM - middle channel (99% - OBW)



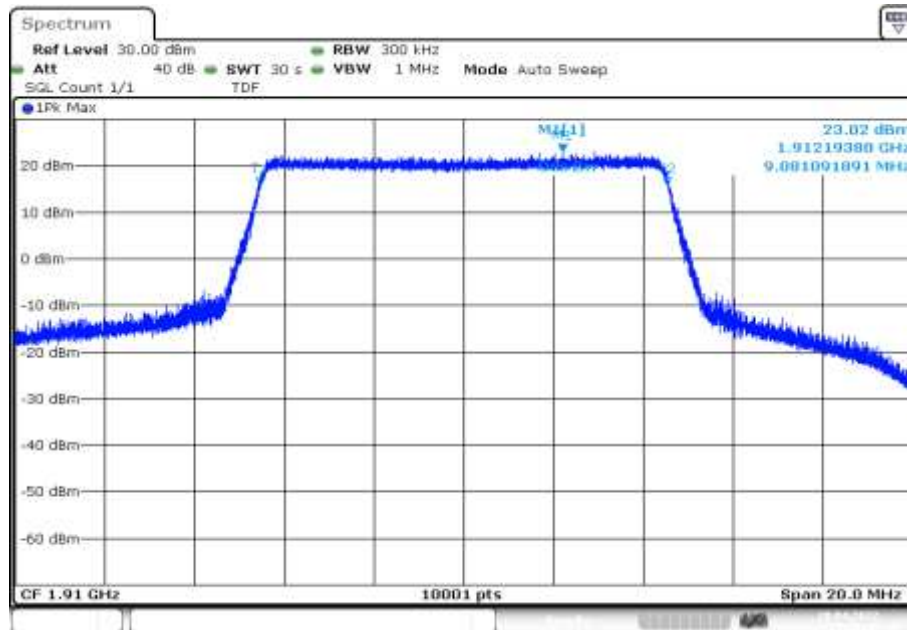
Date: 28.APR.2022 15:24:54

Plot 94: 10 MHz – 64-QAM - middle channel (-26 dBc BW)



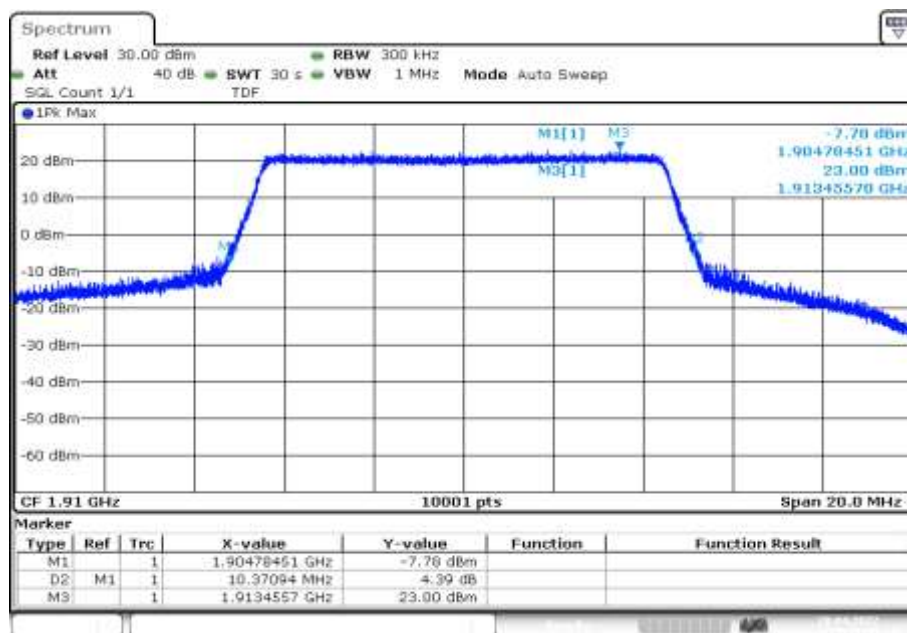
Date: 28.APR.2022 15:25:27

Plot 95: 10 MHz – 64-QAM - highest channel (99% - OBW)



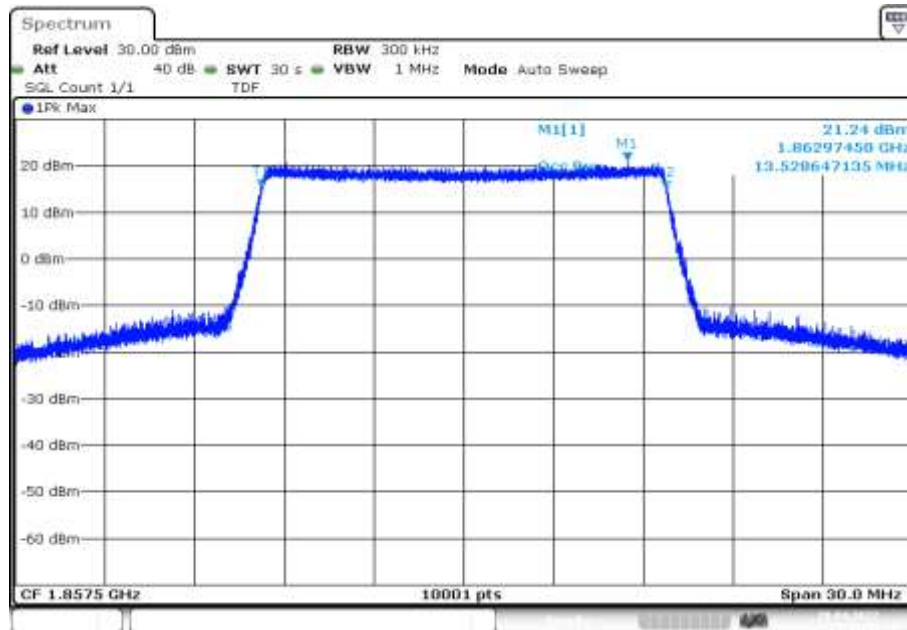
Date: 28.APR.2022 15:28:47

Plot 96: 10 MHz – 64-QAM - highest channel (-26 dBc BW)



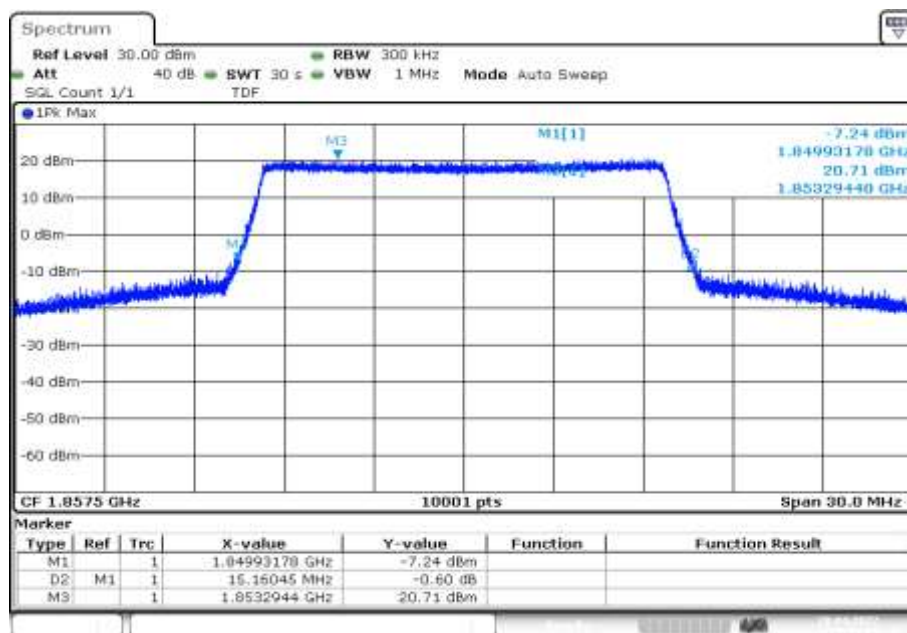
Date: 28.APR.2022 15:29:20

Plot 97: 15 MHz – 16-QAM - lowest channel (99% - OBW)



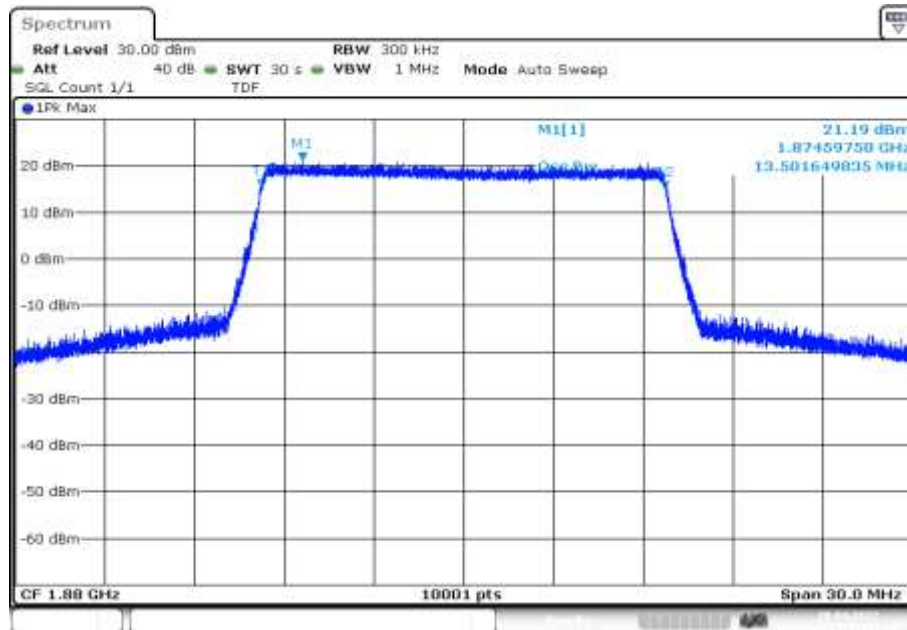
Date: 28.APR.2022 15:32:50

Plot 98: 15 MHz – 16-QAM - lowest channel (-26 dBc BW)



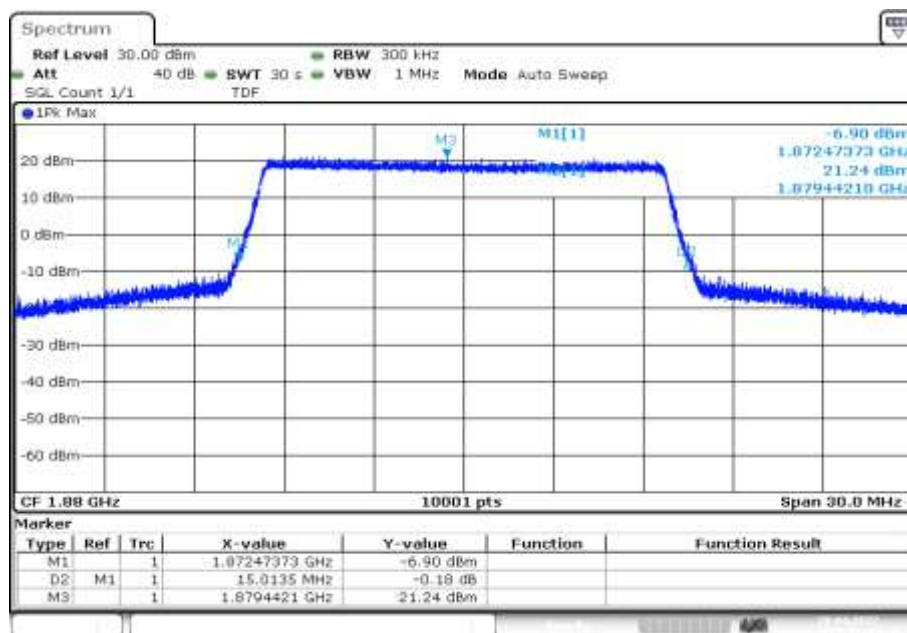
Date: 28.APR.2022 15:33:23

Plot 99: 15 MHz – 64-QAM - middle channel (99% - OBW)



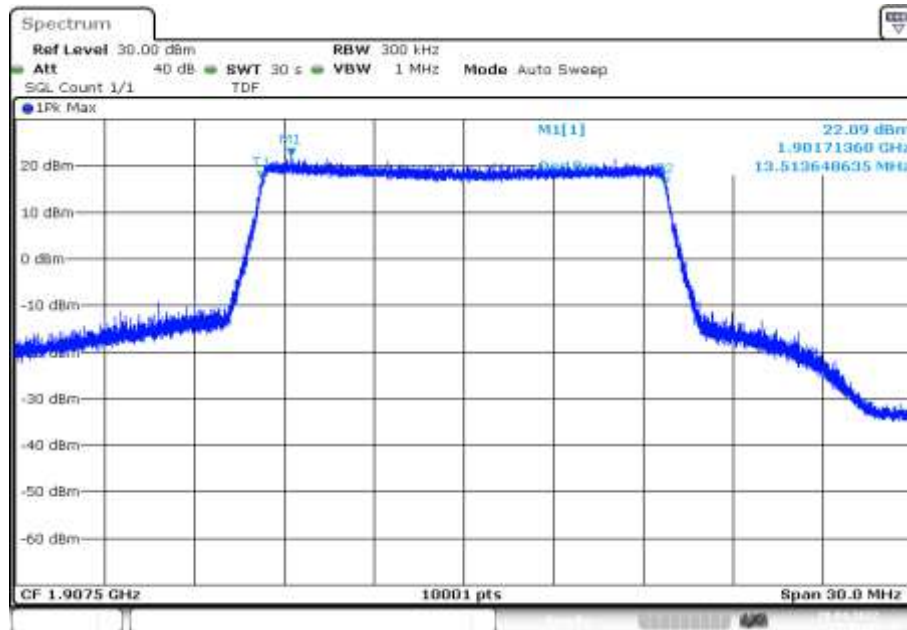
Date: 28.APR.2022 15:36:10

Plot 100: 15 MHz – 64-QAM - middle channel (-26 dBc BW)



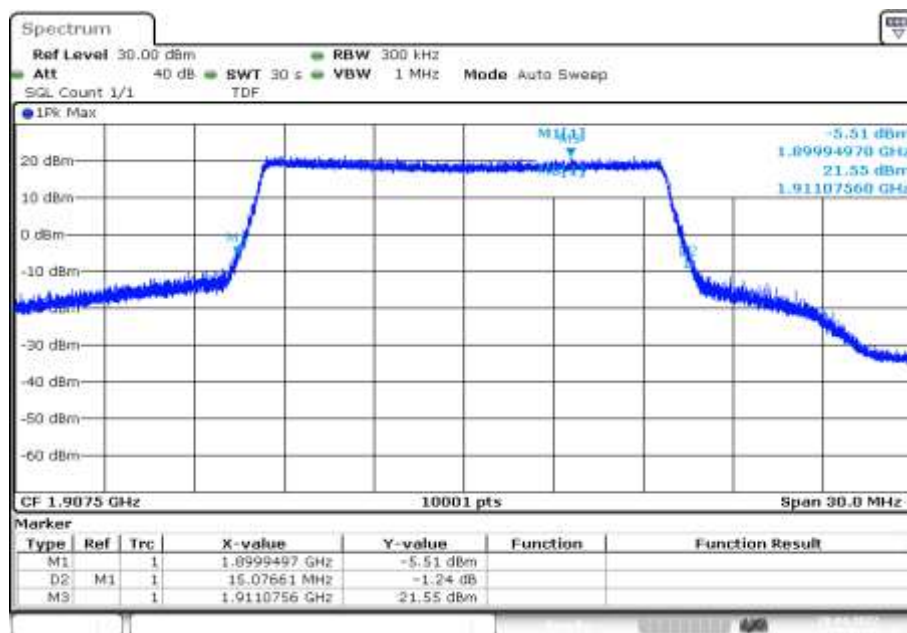
Date: 28.APR.2022 15:36:43

Plot 101: 15 MHz – 64-QAM - highest channel (99% - OBW)



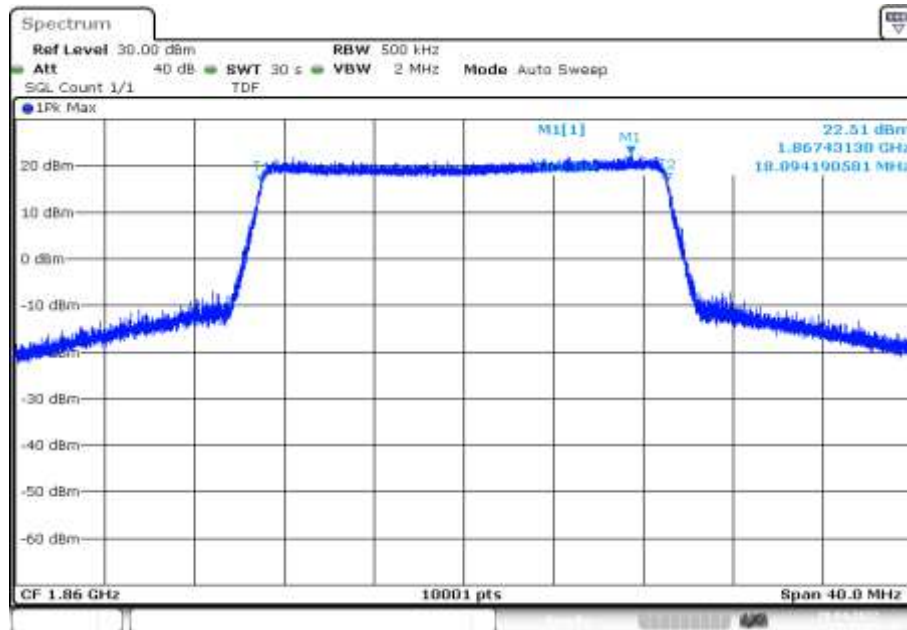
Date: 28.APR.2022 15:40:02

Plot 102: 15 MHz – 64-QAM - highest channel (-26 dBc BW)



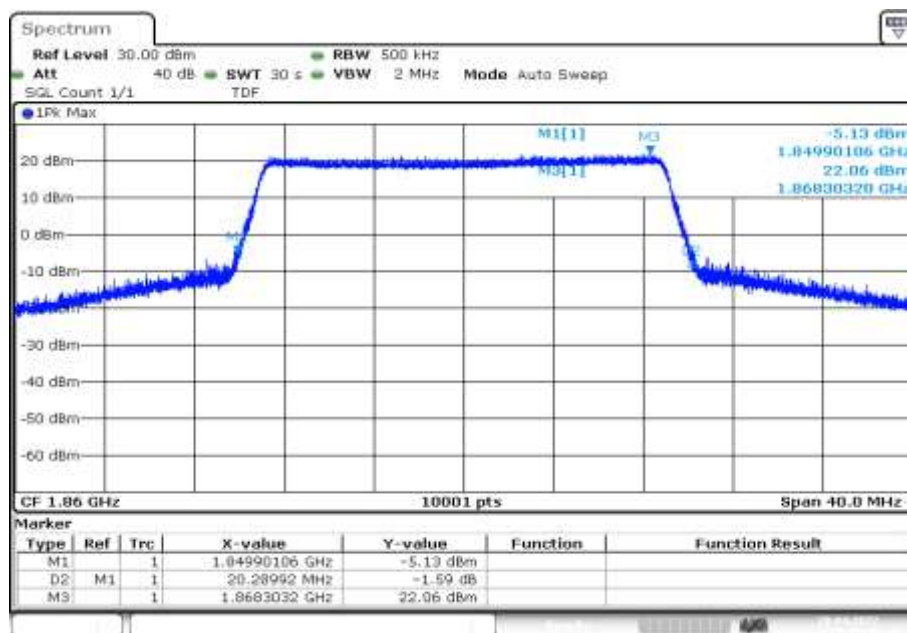
Date: 28.APR.2022 15:40:35

Plot 103: 20 MHz – 64-QAM - lowest channel (99% - OBW)



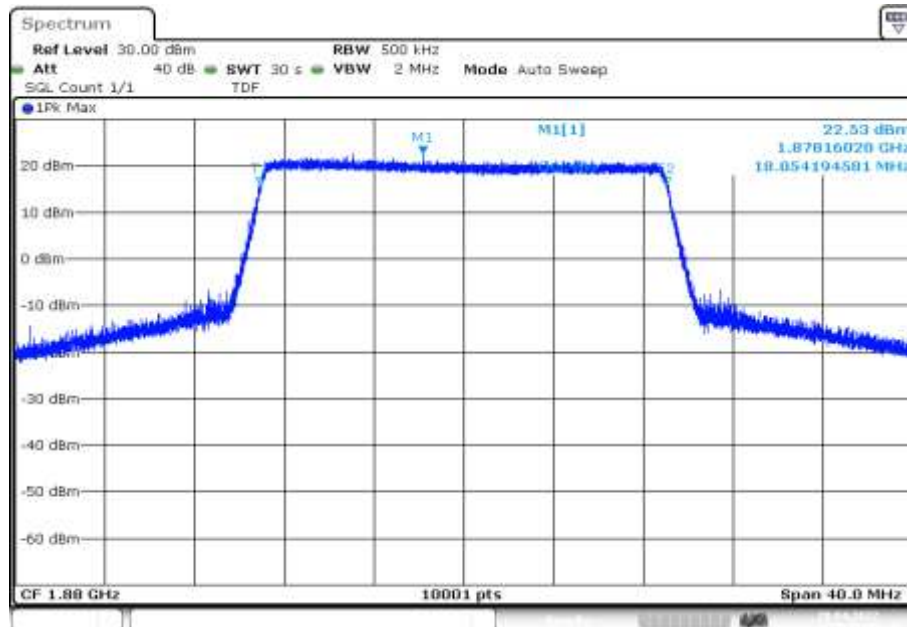
Date: 28.APR.2022 15:44:05

Plot 104: 20 MHz – 64-QAM - lowest channel (-26 dBc BW)



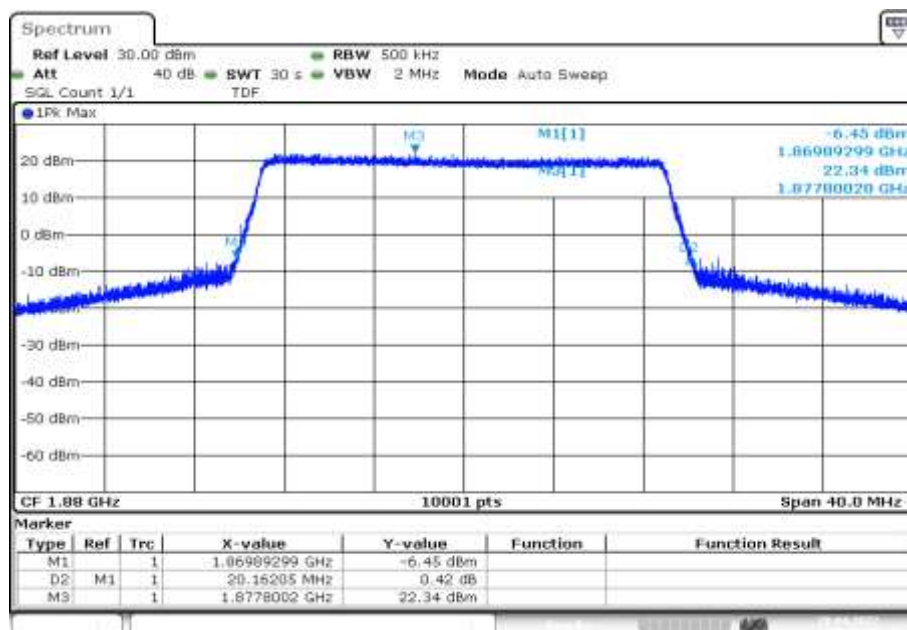
Date: 28.APR.2022 15:44:38

Plot 105: 20 MHz – 64-QAM - middle channel (99% - OBW)



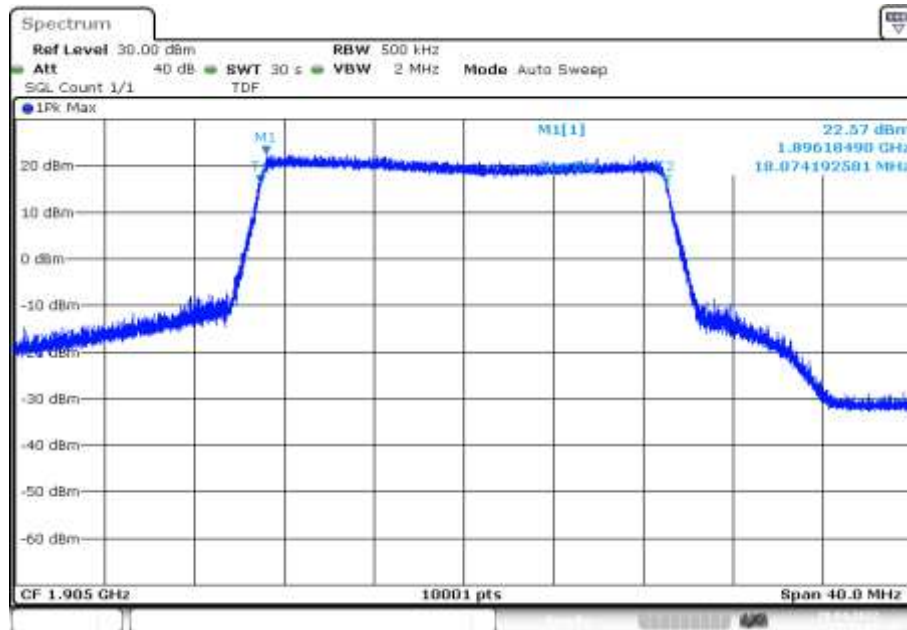
Date: 28.APR.2022 15:47:25

Plot 106: 20 MHz – 64-QAM - middle channel (-26 dBc BW)



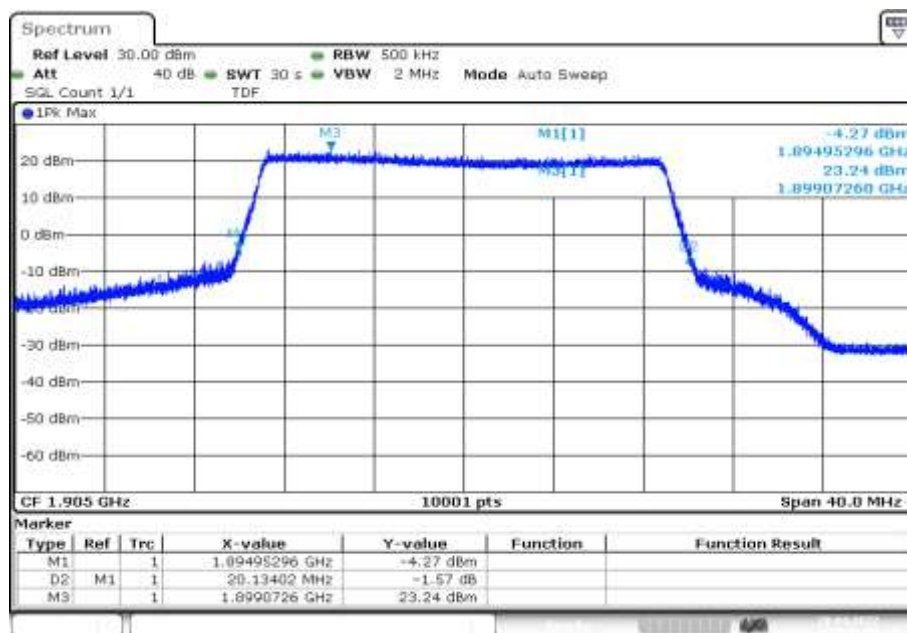
Date: 28.APR.2022 15:47:58

Plot 107: 20 MHz – 64-QAM - highest channel (99% - OBW)



Date: 28.APR.2022 15:51:17

Plot 108: 20 MHz – 64-QAM - highest channel (-26 dBc BW)



Date: 28.APR.2022 15:51:50

### 13 Glossary

|                        |                                                    |
|------------------------|----------------------------------------------------|
| <b>EUT</b>             | Equipment under test                               |
| <b>DUT</b>             | Device under test                                  |
| <b>UUT</b>             | Unit under test                                    |
| <b>GUE</b>             | GNSS User Equipment                                |
| <b>ETSI</b>            | European Telecommunications Standards Institute    |
| <b>EN</b>              | European Standard                                  |
| <b>FCC</b>             | Federal Communications Commission                  |
| <b>FCC ID</b>          | Company Identifier at FCC                          |
| <b>IC</b>              | Industry Canada                                    |
| <b>PMN</b>             | Product marketing name                             |
| <b>HMN</b>             | Host marketing name                                |
| <b>HVIN</b>            | Hardware version identification number             |
| <b>FVIN</b>            | Firmware version identification number             |
| <b>EMC</b>             | Electromagnetic Compatibility                      |
| <b>HW</b>              | Hardware                                           |
| <b>SW</b>              | Software                                           |
| <b>Inv. No.</b>        | Inventory number                                   |
| <b>S/N or SN</b>       | Serial number                                      |
| <b>C</b>               | Compliant                                          |
| <b>NC</b>              | Not compliant                                      |
| <b>NA</b>              | Not applicable                                     |
| <b>NP</b>              | Not performed                                      |
| <b>PP</b>              | Positive peak                                      |
| <b>QP</b>              | Quasi peak                                         |
| <b>AVG</b>             | Average                                            |
| <b>OC</b>              | Operating channel                                  |
| <b>OCW</b>             | Operating channel bandwidth                        |
| <b>OBW</b>             | Occupied bandwidth                                 |
| <b>OOB</b>             | Out of band                                        |
| <b>DFS</b>             | Dynamic frequency selection                        |
| <b>CAC</b>             | Channel availability check                         |
| <b>OP</b>              | Occupancy period                                   |
| <b>NOP</b>             | Non occupancy period                               |
| <b>DC</b>              | Duty cycle                                         |
| <b>PER</b>             | Packet error rate                                  |
| <b>CW</b>              | Clean wave                                         |
| <b>MC</b>              | Modulated carrier                                  |
| <b>WLAN</b>            | Wireless local area network                        |
| <b>RLAN</b>            | Radio local area network                           |
| <b>DSSS</b>            | Dynamic sequence spread spectrum                   |
| <b>OFDM</b>            | Orthogonal frequency division multiplexing         |
| <b>FHSS</b>            | Frequency hopping spread spectrum                  |
| <b>GNSS</b>            | Global Navigation Satellite System                 |
| <b>C/N<sub>0</sub></b> | Carrier to noise-density ratio, expressed in dB-Hz |

## 14 Document history

| Version | Applied changes | Date of release |
|---------|-----------------|-----------------|
| -/-     | Initial release | 2022-05-27      |

## 15 Accreditation Certificate – D-PL-12076-01-05

| first page                                                                         | last page                                                                           |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |

**Note: The current certificate annex is published on the websites (link see below).**

<https://www.dakks.de/files/data/as/pdf/D-PL-12076-01-05e.pdf>

or

[https://ctcadvanced.com/app/uploads/2020/06/D-PL-12076-01-05\\_TCB\\_USA.pdf](https://ctcadvanced.com/app/uploads/2020/06/D-PL-12076-01-05_TCB_USA.pdf)

##### END OF TEST REPORT #####