



# TEST REPORT

**APPLICANT** : Reliance Communications LLC

**PRODUCT NAME** : Orbic TAB10R 4G

**MODEL NAME** : RC10RLT

**BRAND NAME** : Orbic

**FCC ID** : 2ABGH-RC10RLT

**STANDARD(S)** : 47 CFR Part 2  
: 47 CFR Part 27

**RECEIPT DATE** : 2023-05-10

**TEST DATE** : 2023-05-25 to 2023-07-21

**ISSUE DATE** : 2023-08-17



Edited by: Li Huaijie  
Li Huaijie (Rapporteur)

Approved by: Shen Junsheng  
Shen Junsheng(Supervisor)

**NOTE:** This document is issued by Shenzhen Morlab Communication Technology Co., Ltd., the test report shall not be reproduced except in full without prior written permission of the company. The test results apply only to the particular sample(s) tested and to the specific tests carried out which is available on request for validation and information confirmed at our website.





# DIRECTORY

- 1. Technical Information ..... 3**
- 1.1. Applicant and Manufacturer Information ..... 3**
- 1.2. Equipment Under Test (EUT) Description ..... 3**
- 1.3. Maximum ERP/EIRP and Emission Designator ..... 5**
- 1.4. Test Standards and Results ..... 6**
- 1.5. Environmental Conditions ..... 7**
- 2. Summary Test Results And Description ..... 8**
- 2.1. Transmitter Conducted Output Power and ERP/EIPR ..... 8**
- 2.2. Occupied Bandwidth ..... 10**
- 2.3. Conducted Spurious Emissions ..... 28**
- 2.4. Band Edge ..... 59**
- 2.5. Radiated Spurious Emissions ..... 70**
- Annex A Test Uncertainty ..... 85**
- Annex B Testing Laboratory Information ..... 86**

| Change History |            |                   |
|----------------|------------|-------------------|
| Version        | Date       | Reason for change |
| 1.0            | 2023-08-17 | First edition     |



# 1. Technical Information

Note: Provide by applicant.

## 1.1. Applicant and Manufacturer Information

|                              |   |
|------------------------------|---|
| <b>Applicant:</b>            | Reliance Communications LLC   |
| <b>Applicant Address:</b>    | 555 Wireless Blvd. Hauppauge, NY 11788, United States                                 |
| <b>Manufacturer:</b>         | Unimaxcomm  |
| <b>Manufacturer Address:</b> | 35F,HBC HuiLong Center Building-II Minzhi Street,Longhua, Shenzhen, P.R. China 518110 |

## 1.2. Equipment Under Test (EUT) Description

|                               |                         |   |
|-------------------------------|-------------------------|---|
| <b>Product Name:</b>          | Orbic TAB10R 4G         |   |
| <b>Sample No.:</b>            | 2#,5#                   |   |
| <b>Hardware Version:</b>      | T1003K_MB_V1.0          |   |
| <b>Software Version:</b>      | ORB10RLT_v1.0.17_BVT-NA |   |
| <b>Modulation Type:</b>       | QPSK, 16QAM, 64QAM      |   |
| <b>Operation Band:</b>        | Uplink: CA_41C          |   |
| <b>Frequency Range:</b>       | LTE CA_41C              | Tx: 2496 MHz–2690MHz  |
|                               |                         | Rx: 2496 MHz–2690MHz  |
| <b>Channel Bandwidth:</b>     | LTE CA_41C              | 5MHz+20MHz,20MHz+5MHz,10MHz+15MHz,15MHz+10MHz,10MHz+20MHz,20MHz+10MHz,15MHz+15MHz,15MHz+20MHz,20MHz+15MHz,20MHz+20MHz |
| <b>Antenna Type:</b>          | PIFA Internal Antenna   |   |
| <b>Antenna Gain:</b>          | LTE Band 41             | 3.13 dBi  |
| <b>Accessory Information:</b> | Battery                 |   |
|                               | <b>Brand Name:</b>      | Orbic   |
|                               | <b>Model No.:</b>       | BTE-6001  |
|                               | <b>Serial No.:</b>      | N/A   |
|                               | <b>Rated Capacity:</b>  | 6100 mAh  |
|                               | <b>Rated Voltage:</b>   | 3.85V   |
|                               | <b>Charge Limit:</b>    | 4.40V   |
|                               | <b>Manufacturer:</b>    | Huizhou Highpower Technology Co., Ltd   |



|                               |               |  |
|-------------------------------|---------------|--|
| <b>Accessory Information:</b> | AC Adapter    |  |
|                               | Brand Name:   | N/A  |
|                               | Model No.:    | TPA-10S120150UU01  |
|                               | Serial No.:   | N/A  |
|                               | Rated Output: | 5.0V $\Rightarrow$ 3.0A or 9.0V $\Rightarrow$ 2.0A or 12.0V $\Rightarrow$ 1.5A |
|                               | Rated Input:  | 100-240V $\sim$ 50/60Hz, 0.6A  |
|                               | Manufacturer: | Shenzhen Tianyin Electronics Co.,Ltd   |
|                               | USB Cable:    |  |
|                               | Model No.:    | USB2.0 TYPE A TO C L=1M (Black)  |
|                               | Manufacturer: | HUIZHOU WASHIN ELECTRONICS CO.,LTD   |

**Note 1:** For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



### 1.3. Maximum ERP/EIRP and Emission Designator

| Channel bandwidth | Maximum ERP/EIRP (W) |       |       |
|-------------------|----------------------|-------|-------|
| LTE CA_41C        | QPSK                 | 16QAM | 64QAM |
| 20+20             | 0.422                | /     | /     |

| Channel bandwidth | Emission Designator (99%OBW) |         |         |
|-------------------|------------------------------|---------|---------|
| LTE CA_41C        | QPSK                         | 16QAM   | 64QAM   |
| 5+20              | 22M7G7D                      | 22M7D7W | 22M7D7W |
| 10+15             | 23M0G7D                      | 23M1D7W | 23M1D7W |
| 10+20             | 27M6G7D                      | 27M6D7W | 27M6D7W |
| 15+10             | 23M1G7D                      | 23M1D7W | 23M1D7W |
| 15+15             | 28M2G7D                      | 28M3D7W | 28M2D7W |
| 15+20             | 32M5G7D                      | 32M5D7W | 32M5D7W |
| 20+5              | 22M8G7D                      | 22M8D7W | 22M9D7W |
| 20+10             | 27M7G7D                      | 27M7D7W | 27M7D7W |
| 20+15             | 32M5G7D                      | 32M6D7W | 32M5D7W |
| 20+20             | 37M2G7D                      | 37M4D7W | 37M4D7W |



## 1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2, Part 27 for the EUT FCC ID Certification:

| No | Identity       | Document Title  |
|----|----------------|---|
| 1  | 47 CFR Part 2  | Frequency Allocations and Radio Treaty Matters; General Rules and Regulations |
| 2  | 47 CFR Part 27 | Miscellaneous Wireless Communications Services                                |

| B41  |                          |                                |        |
|--|--------------------------|--------------------------------|--------|
| Item   | FCC Rule No.             | Requirements                   | Result |
| Effective (Isotropic) Radiated Power Output Data | §2.1046,<br>§27.50(h)(2) | EIRP $\leq$ 2W                 | PASS   |
| Peak-Average Ratio                               | N/A                      | N/A                            | N/A    |
| Bandwidth  | §2.1049                  | OBW: No limit<br>EBW: No limit | PASS   |
| Band Edges Compliance                            | §2.1051,<br>§27.53(m)(4) | Refer to section 2.6           | PASS   |
| Spurious Emission at Antenna Terminals           | §2.1051,<br>§27.53(m)(4) | $\leq$ -25 dBm/1MHz            | PASS   |
| Field Strength of Spurious Radiation             | §2.1053,<br>§27.53(m)(4) | $\leq$ -25 dBm/1MHz            | PASS   |
| Frequency Stability                              | §2.1055,<br>§27.54       | No limit                       | N/A    |



Test detailed items/section required by FCC rules and results are as below:

| Description  | Test Date  | Test Engineer             | Result | Method Determination /Remark |
|--|------------|---------------------------|--------|------------------------------|
| Transmitter Conducted Output Power and ERP/EIRP  | 2023/05/25 | Tan Xiaowei<br>Li Huaijie | PASS   | No deviation                 |
| Occupied Bandwidth   | 2023/05/25 | Li Huaijie                | PASS   | No deviation                 |
| Conducted Spurious Emissions   | 2023/05/25 | Li Huaijie                | PASS   | No deviation                 |
| Band Edge  | 2023/05/25 | Li Huaijie                | PASS   | No deviation                 |
| Radiated Spurious Emissions  | 2023/07/21 | Li hanbin                 | PASS   | No deviation                 |
| <p><b>Note 1:</b> The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 and ANSI/TIA-603-E-2016.</p> <p><b>Note 2:</b> The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipment. The ref offset 8dB contains two parts that cable loss 5dB and Attenuator3dB.</p> <p><b>Note 3:</b> The declared of product specification for EUT presented in the report are provided by manufacturer and the test laboratory is not responsible for the accuracy of the information.</p> <p><b>Note 4:</b> When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.</p> |            |                           |        |                              |

## 1.5. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

|                                    |         |
|------------------------------------|---------|
| <b>Temperature (°C):</b>           | 15 - 35 |
| <b>Relative Humidity (%):</b>      | 30 - 60 |
| <b>Atmospheric Pressure (kPa):</b> | 86-106  |

## 2. Summary Test Results And Description

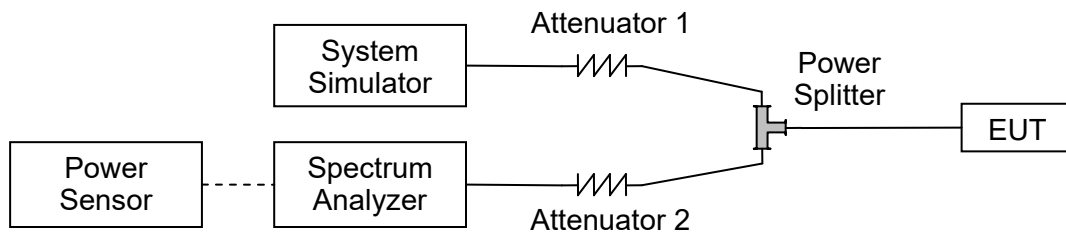
### 2.1. Transmitter Conducted Output Power and ERP/EIPR

#### 2.1.1. Requirement

According to FCC section 2.1046(a) for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

According to FCC section 27.50 (h)(2) for LTE Band 7, 41, Mobile and other user stations. Mobile stations are limited to 2 watts E.I.R.P. All user stations are limited to 2 watts transmitter output power.

#### 2.1.1. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

#### 2.1.2. Test procedure

KDB 971168 D01v03 Section 5.2 and ANSI/TIA-603-E-2016.

$EIRP \text{ (dBm)} = \text{Conducted Output Power (dBm)} + \text{Antenna Gain (dBi)}$

$ERP \text{ (dBm)} = EIPR \text{ (dBm)} - 2.15$





### 2.1.3. Result

#### Conducted Output Power

| LTE CA_41C                           |             |            |         |           |         |           |               |                     |
|--------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|---------------------|
| Combination:20MHz+20MHz(100RB+100RB) |             |            |         |           |         |           |               |                     |
| PCC Channel<br>(3GPP)                | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Measured Power(dBm) |
|                                      |             |            | RB Size | RB Offset | RB Size | RB Offset |               |                     |
| 39750                                | 39948       | QPSK       | 1       | 0         | 100     | 0         | 1             | 23.12               |
| 40521                                | 40719       | QPSK       | 1       | 0         | 100     | 0         | 1             | 23.17               |
| 41292                                | 41490       | QPSK       | 1       | 0         | 100     | 0         | 1             | 23.10               |

#### Effective Radiated Power and Effective Isotropic Radiated Power

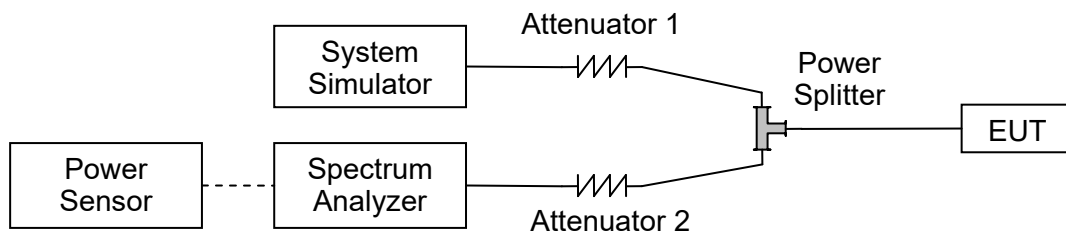
| LTE CA_41C                           |             |            |         |           |         |           |               |                     |                  |
|--------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|---------------------|------------------|
| Combination:20MHz+20MHz(100RB+100RB) |             |            |         |           |         |           |               |                     |                  |
| PCC Channel                          | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Measured Power(dBm) | Measured EIRP(W) |
|                                      |             |            | RB Size | RB Offset | RB Size | RB Offset |               |                     |                  |
| 55340                                | 55538       | QPSK       | 1       | 0         | 100     | 0         | 1             | 26.25               | 0.422            |
| 55891                                | 56089       | QPSK       | 1       | 0         | 100     | 0         | 1             | 26.30               | 0.427            |
| 56442                                | 56640       | QPSK       | 1       | 0         | 100     | 0         | 1             | 26.23               | 0.420            |

## 2.2. Occupied Bandwidth

### 2.2.1. Requirement

According to FCC section 2.1049, the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Occupied bandwidth is also known as the 99% emission bandwidth.

### 2.2.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

### 2.2.3. Test procedure

KDB 971168 D01v03 Section 4.1 and ANSI/TIA-603-E-2016.

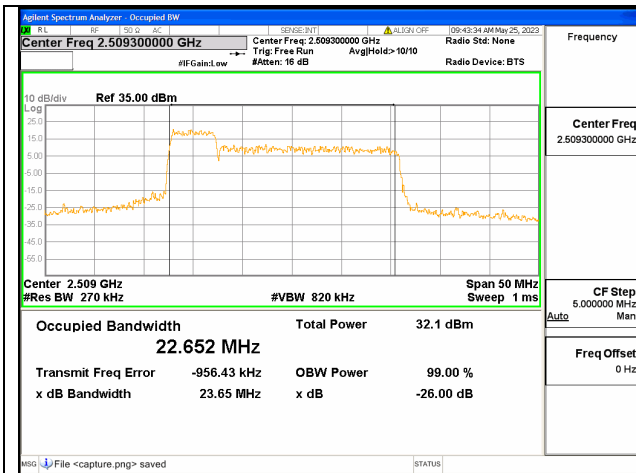
### 2.2.4. Test Result



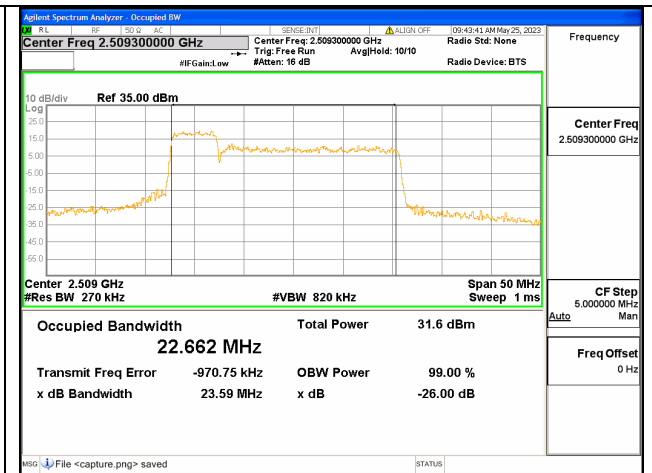
| LTE CA_41C |               |        |        |            |              |               |        |
|------------|---------------|--------|--------|------------|--------------|---------------|--------|
| BW(MHz)    | Channel Level | PCC CH | SCC CH | Modulation | 99% BW (MHz) | 26dB BW (MHz) | Result |
| 5+20       | Low           | 39683  | 39800  | QPSK       | 22.65        | 23.65         | PASS   |
| 5+20       | Low           | 39683  | 39800  | 16QAM      | 22.66        | 23.59         | PASS   |
| 5+20       | Low           | 39683  | 39800  | 64QAM      | 22.66        | 23.59         | PASS   |
| 20+5       | Low           | 39750  | 39867  | QPSK       | 22.81        | 23.76         | PASS   |
| 20+5       | Low           | 39750  | 39867  | 16QAM      | 22.84        | 23.92         | PASS   |
| 20+5       | Low           | 39750  | 39867  | 64QAM      | 22.73        | 23.70         | PASS   |
| 10+15      | Low           | 39703  | 39823  | QPSK       | 23.04        | 24.20         | PASS   |
| 10+15      | Low           | 39703  | 39823  | 16QAM      | 23.05        | 24.14         | PASS   |
| 10+15      | Low           | 39703  | 39823  | 64QAM      | 23.07        | 24.23         | PASS   |
| 15+10      | Low           | 39725  | 39845  | QPSK       | 23.10        | 24.26         | PASS   |
| 15+10      | Low           | 39725  | 39845  | 16QAM      | 23.12        | 24.33         | PASS   |
| 15+10      | Low           | 39725  | 39845  | 64QAM      | 23.01        | 24.25         | PASS   |
| 10+20      | Low           | 39705  | 39849  | QPSK       | 27.55        | 28.72         | PASS   |
| 10+20      | Low           | 39705  | 39849  | 16QAM      | 27.54        | 28.74         | PASS   |
| 10+20      | Low           | 39705  | 39849  | 64QAM      | 27.64        | 28.73         | PASS   |
| 20+10      | Low           | 39750  | 39894  | QPSK       | 27.66        | 29.15         | PASS   |
| 20+10      | Low           | 39750  | 39894  | 16QAM      | 27.72        | 29.34         | PASS   |
| 20+10      | Low           | 39750  | 39894  | 64QAM      | 27.67        | 29.13         | PASS   |
| 15+15      | Low           | 39725  | 39875  | QPSK       | 28.22        | 29.67         | PASS   |
| 15+15      | Low           | 39725  | 39875  | 16QAM      | 28.25        | 29.48         | PASS   |
| 15+15      | Low           | 39725  | 39875  | 64QAM      | 28.20        | 29.53         | PASS   |
| 15+20      | Low           | 39728  | 39899  | QPSK       | 32.47        | 34.04         | PASS   |
| 15+20      | Low           | 39728  | 39899  | 16QAM      | 32.53        | 33.87         | PASS   |
| 15+20      | Low           | 39728  | 39899  | 64QAM      | 32.48        | 34.24         | PASS   |
| 20+15      | Low           | 39750  | 39921  | QPSK       | 32.49        | 33.96         | PASS   |
| 20+15      | Low           | 39750  | 39921  | 16QAM      | 32.47        | 34.90         | PASS   |
| 20+15      | Low           | 39750  | 39921  | 64QAM      | 32.42        | 34.10         | PASS   |
| 20+20      | Low           | 39750  | 39948  | QPSK       | 37.24        | 38.96         | PASS   |
| 20+20      | Low           | 39750  | 39948  | 16QAM      | 37.29        | 39.13         | PASS   |
| 20+20      | Low           | 39750  | 39948  | 64QAM      | 37.37        | 39.55         | PASS   |
| 5+20       | Mid           | 40528  | 40645  | QPSK       | 22.64        | 23.60         | PASS   |
| 5+20       | Mid           | 40528  | 40645  | 16QAM      | 22.72        | 23.58         | PASS   |
| 5+20       | Mid           | 40528  | 40645  | 64QAM      | 22.72        | 23.69         | PASS   |
| 20+5       | Mid           | 40595  | 40712  | QPSK       | 22.75        | 23.81         | PASS   |
| 20+5       | Mid           | 40595  | 40712  | 16QAM      | 22.79        | 23.82         | PASS   |
| 20+5       | Mid           | 40595  | 40712  | 64QAM      | 22.85        | 23.70         | PASS   |
| 10+15      | Mid           | 40549  | 40669  | QPSK       | 22.99        | 24.09         | PASS   |
| 10+15      | Mid           | 40549  | 40669  | 16QAM      | 22.95        | 23.94         | PASS   |
| 10+15      | Mid           | 40549  | 40669  | 64QAM      | 22.96        | 24.06         | PASS   |
| 15+10      | Mid           | 40571  | 40691  | QPSK       | 23.10        | 24.34         | PASS   |
| 15+10      | Mid           | 40571  | 40691  | 16QAM      | 23.08        | 24.34         | PASS   |
| 15+10      | Mid           | 40571  | 40691  | 64QAM      | 23.09        | 24.35         | PASS   |
| 10+20      | Mid           | 40526  | 40670  | QPSK       | 27.58        | 28.85         | PASS   |
| 10+20      | Mid           | 40526  | 40670  | 16QAM      | 27.58        | 28.61         | PASS   |
| 10+20      | Mid           | 40526  | 40670  | 64QAM      | 27.59        | 28.91         | PASS   |
| 20+10      | Mid           | 40571  | 40715  | QPSK       | 27.65        | 28.99         | PASS   |
| 20+10      | Mid           | 40571  | 40715  | 16QAM      | 27.70        | 29.17         | PASS   |



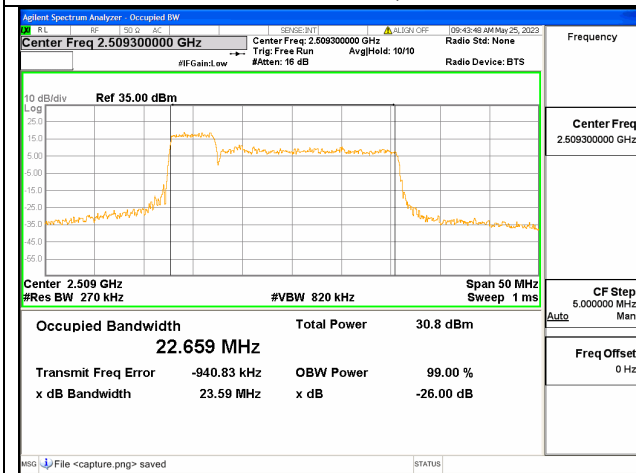
|       |      |       |       |       |       |       |      |
|-------|------|-------|-------|-------|-------|-------|------|
| 20+10 | Mid  | 40571 | 40715 | 64QAM | 27.66 | 28.96 | PASS |
| 15+15 | Mid  | 40545 | 40695 | QPSK  | 28.23 | 29.28 | PASS |
| 15+15 | Mid  | 40545 | 40695 | 16QAM | 28.20 | 29.61 | PASS |
| 15+15 | Mid  | 40545 | 40695 | 64QAM | 28.13 | 29.46 | PASS |
| 15+20 | Mid  | 40523 | 40694 | QPSK  | 32.42 | 34.14 | PASS |
| 15+20 | Mid  | 40523 | 40694 | 16QAM | 32.37 | 33.86 | PASS |
| 15+20 | Mid  | 40523 | 40694 | 64QAM | 32.39 | 33.91 | PASS |
| 20+15 | Mid  | 40546 | 40717 | QPSK  | 32.35 | 33.85 | PASS |
| 20+15 | Mid  | 40546 | 40717 | 16QAM | 32.59 | 34.09 | PASS |
| 20+15 | Mid  | 40546 | 40717 | 64QAM | 32.42 | 33.92 | PASS |
| 20+20 | Mid  | 40521 | 40719 | QPSK  | 37.21 | 39.00 | PASS |
| 20+20 | Mid  | 40521 | 40719 | 16QAM | 37.33 | 40.14 | PASS |
| 20+20 | Mid  | 40521 | 40719 | 64QAM | 37.22 | 38.94 | PASS |
| 5+20  | High | 41373 | 41490 | QPSK  | 22.68 | 23.64 | PASS |
| 5+20  | High | 41373 | 41490 | 16QAM | 22.74 | 23.78 | PASS |
| 5+20  | High | 41373 | 41490 | 64QAM | 22.72 | 23.83 | PASS |
| 20+5  | High | 41440 | 41557 | QPSK  | 22.78 | 23.89 | PASS |
| 20+5  | High | 41440 | 41557 | 16QAM | 22.81 | 23.86 | PASS |
| 20+5  | High | 41440 | 41557 | 64QAM | 22.74 | 23.76 | PASS |
| 10+15 | High | 41395 | 41515 | QPSK  | 22.97 | 23.96 | PASS |
| 10+15 | High | 41395 | 41515 | 16QAM | 22.89 | 23.87 | PASS |
| 10+15 | High | 41395 | 41515 | 64QAM | 23.00 | 24.07 | PASS |
| 15+10 | High | 41417 | 41537 | QPSK  | 23.06 | 24.31 | PASS |
| 15+10 | High | 41417 | 41537 | 16QAM | 23.06 | 24.30 | PASS |
| 15+10 | High | 41417 | 41537 | 64QAM | 23.08 | 24.27 | PASS |
| 10+20 | High | 41346 | 41490 | QPSK  | 27.57 | 28.70 | PASS |
| 10+20 | High | 41346 | 41490 | 16QAM | 27.53 | 28.73 | PASS |
| 10+20 | High | 41346 | 41490 | 64QAM | 27.61 | 28.74 | PASS |
| 20+10 | High | 41391 | 41535 | QPSK  | 27.68 | 28.88 | PASS |
| 20+10 | High | 41391 | 41535 | 16QAM | 27.64 | 29.08 | PASS |
| 20+10 | High | 41391 | 41535 | 64QAM | 27.68 | 28.92 | PASS |
| 15+15 | High | 41365 | 41515 | QPSK  | 28.19 | 29.41 | PASS |
| 15+15 | High | 41365 | 41515 | 16QAM | 28.18 | 29.60 | PASS |
| 15+15 | High | 41365 | 41515 | 64QAM | 28.18 | 29.50 | PASS |
| 15+20 | High | 41319 | 41490 | QPSK  | 32.42 | 34.06 | PASS |
| 15+20 | High | 41319 | 41490 | 16QAM | 32.43 | 33.76 | PASS |
| 15+20 | High | 41319 | 41490 | 64QAM | 32.43 | 33.89 | PASS |
| 20+15 | High | 41341 | 41512 | QPSK  | 32.39 | 33.98 | PASS |
| 20+15 | High | 41341 | 41512 | 16QAM | 32.50 | 34.91 | PASS |
| 20+15 | High | 41341 | 41512 | 64QAM | 32.46 | 33.97 | PASS |
| 20+20 | High | 41292 | 41490 | QPSK  | 37.20 | 38.97 | PASS |
| 20+20 | High | 41292 | 41490 | 16QAM | 37.35 | 38.99 | PASS |
| 20+20 | High | 41292 | 41490 | 64QAM | 37.24 | 39.78 | PASS |



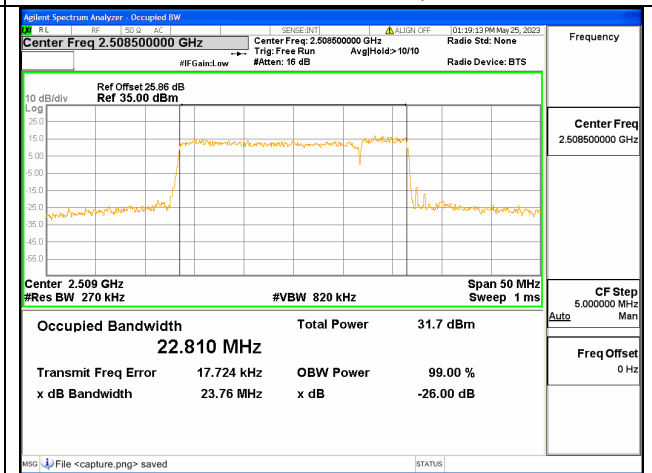
Band41C / 5+20MHz / QPSK/ Low CH



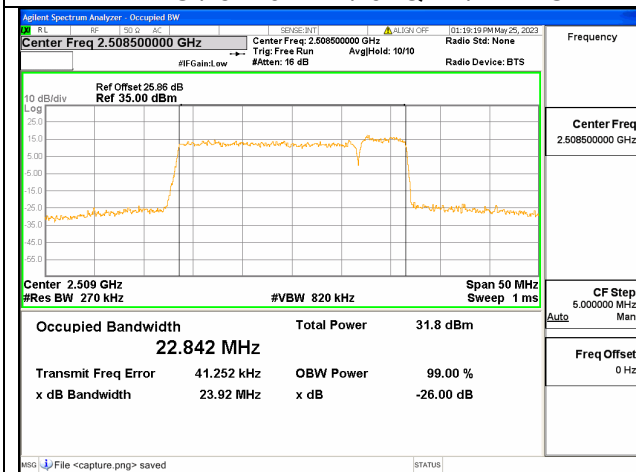
Band41C / 5+20MHz / 16QAM/ Low CH



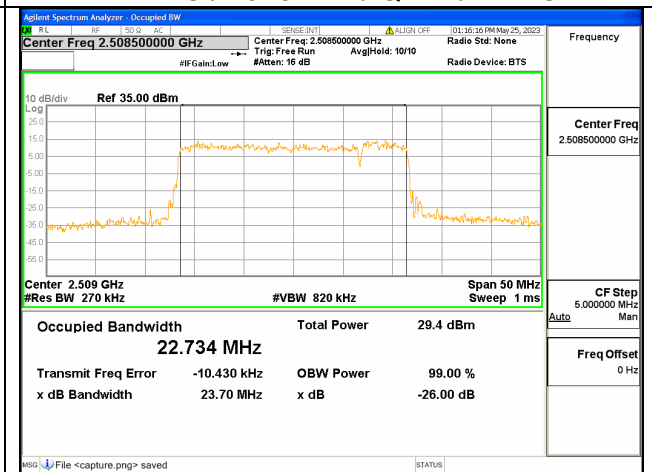
Band41C / 5+20MHz / 64QAM/ Low CH



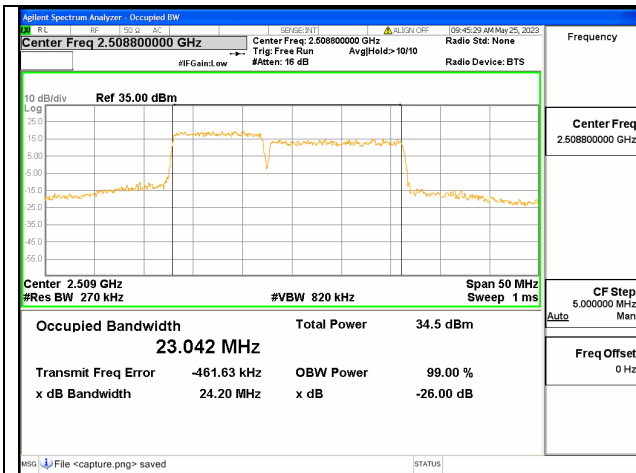
Band41C / 20+5MHz / 16QAM/ Low CH



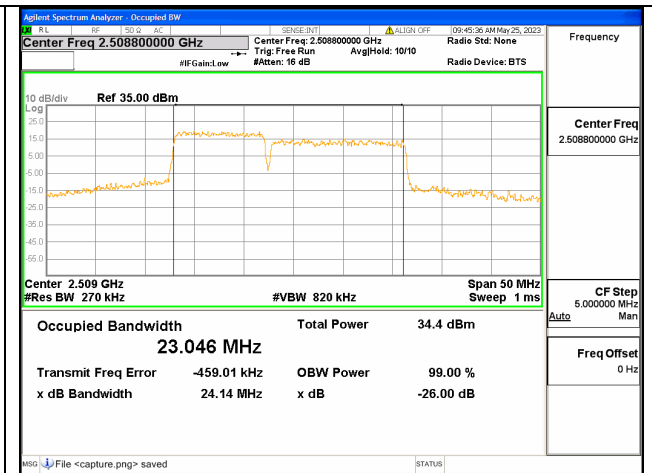
Band41C / 20+5MHz / 64QAM/ Low CH



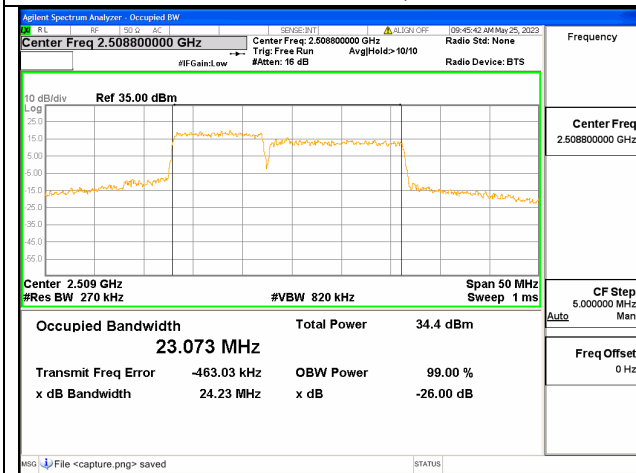
Band41C / 20+5MHz / QPSK/ Low CH



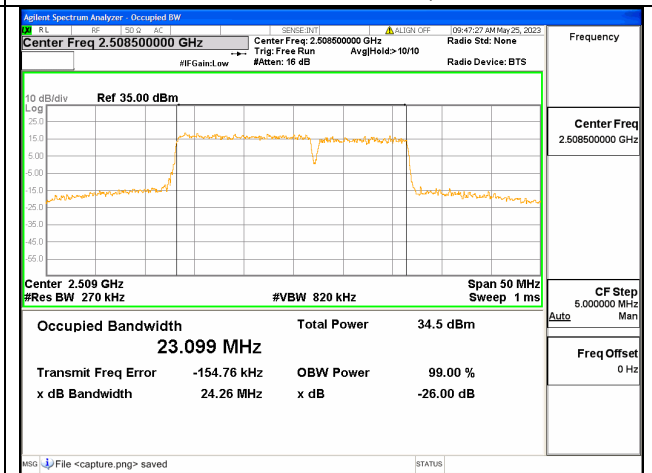
Band41C / 10+15MHz / QPSK/ Low CH



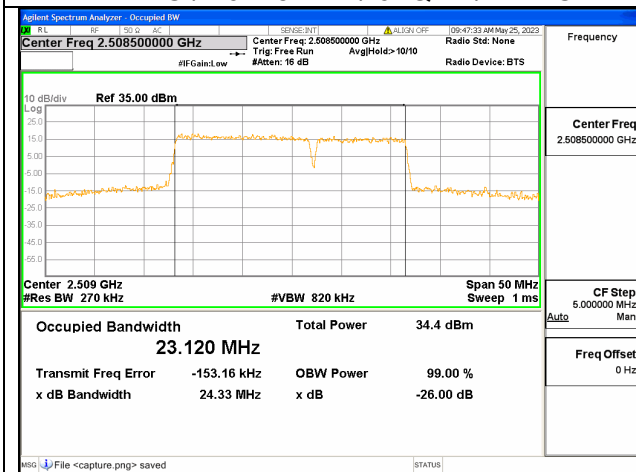
Band41C / 10+15MHz / 16QAM/ Low CH



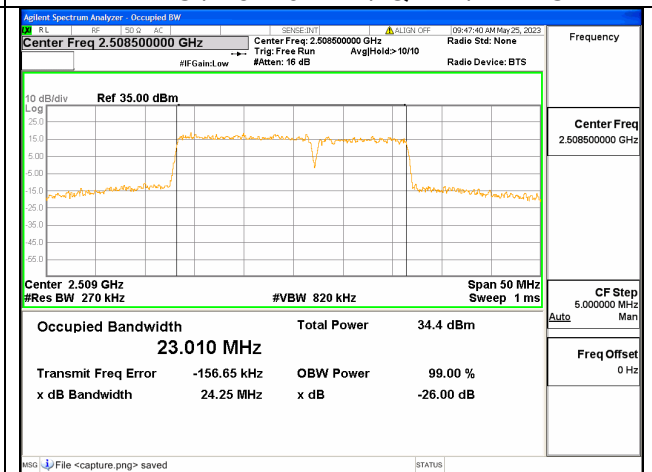
Band41C / 10+15MHz / 64QAM/ Low CH



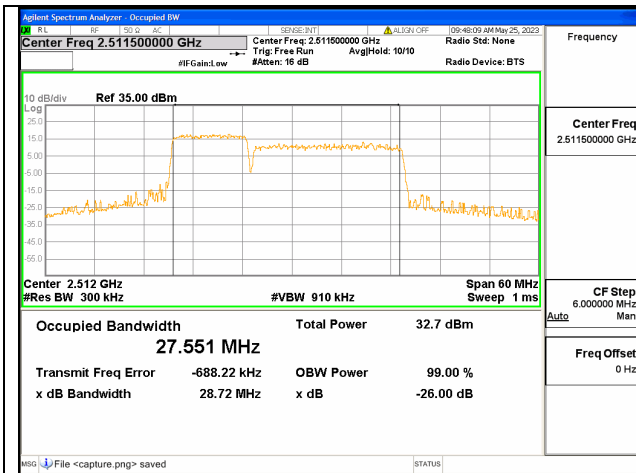
Band41C / 15+10MHz / QPSK/ Low CH



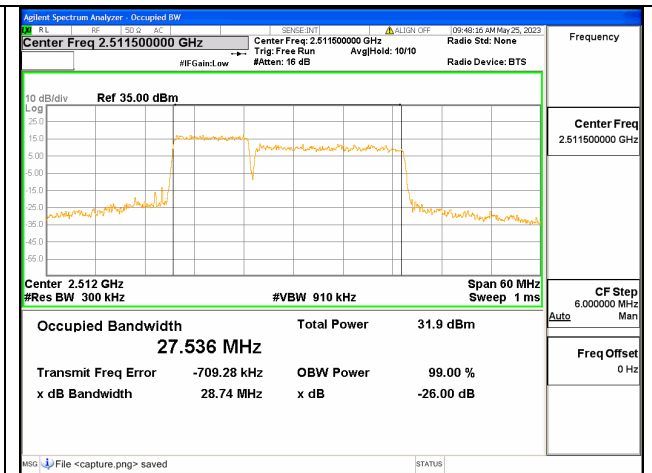
Band41C / 15+10MHz / 16QAM/ Low CH



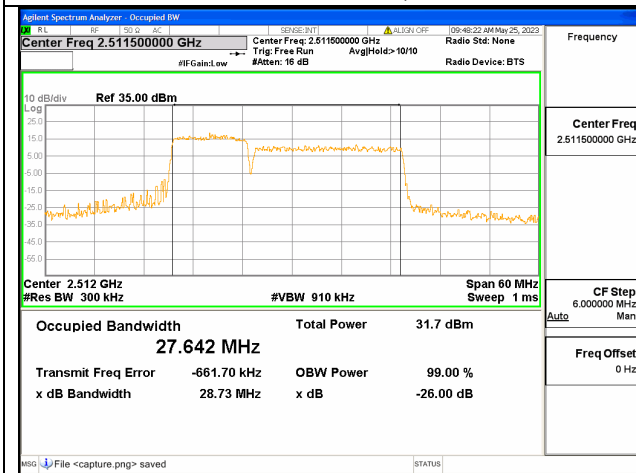
Band41C / 15+10MHz / 64QAM/ Low CH



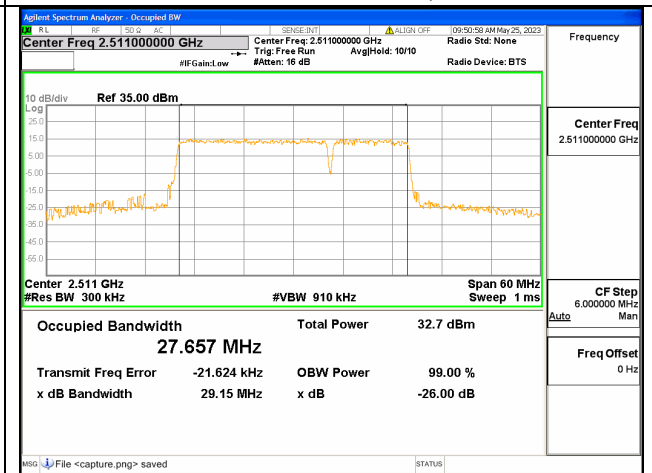
Band41C / 10+20MHz / QPSK/ Low CH



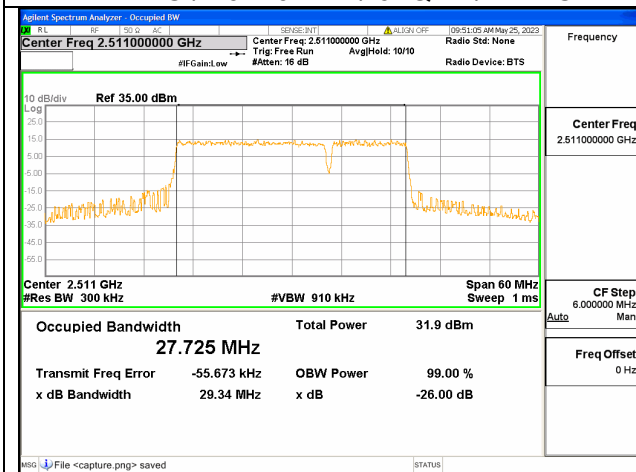
Band41C / 10+20MHz / 16QAM/ Low CH



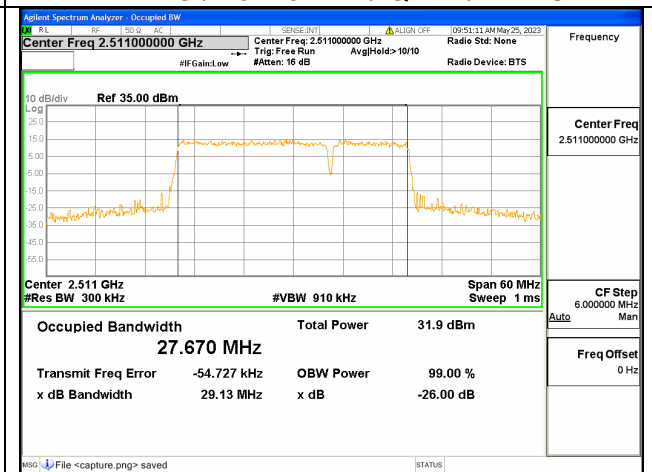
Band41C / 10+20MHz / 64QAM/ Low CH



Band41C / 20+10MHz / QPSK/ Low CH

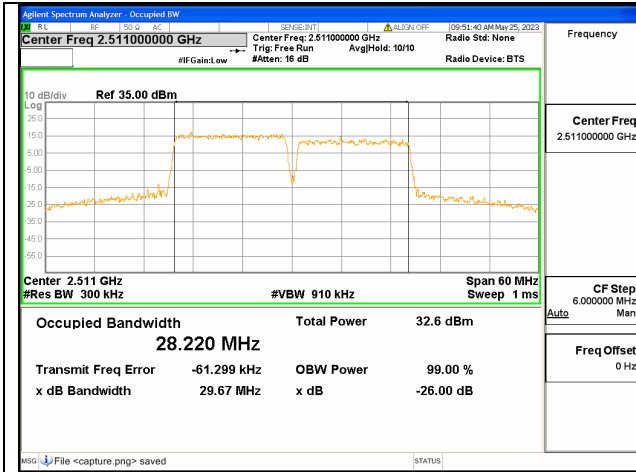


Band41C / 20+10MHz / 16QAM/ Low CH

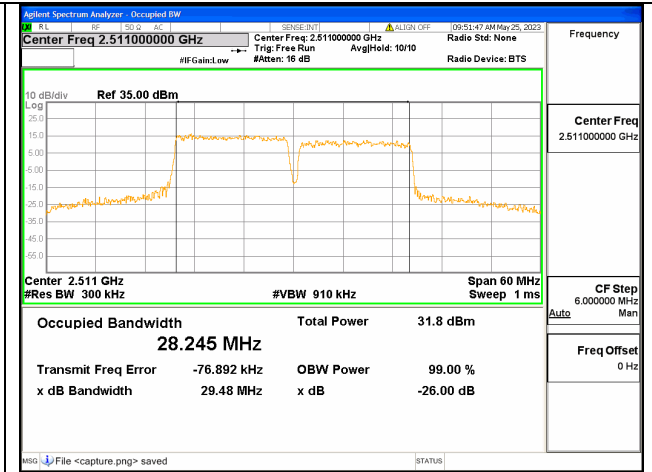


Band41C / 20+10MHz / 64QAM/ Low CH

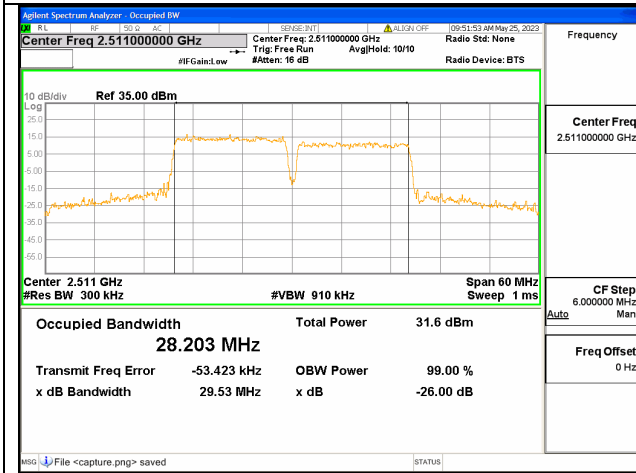




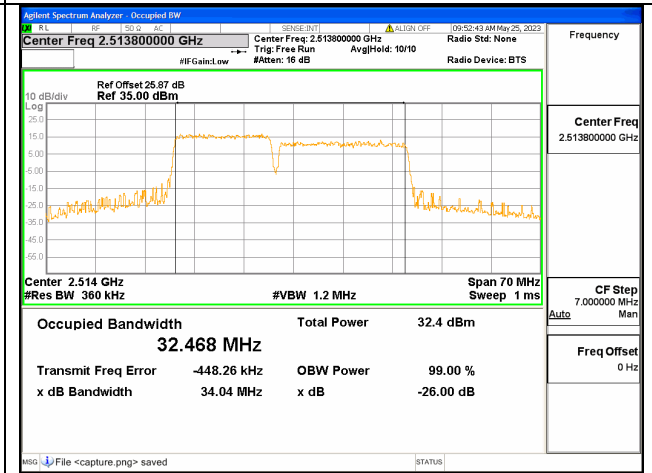
Band41C / 15+15MHz / QPSK/ Low CH



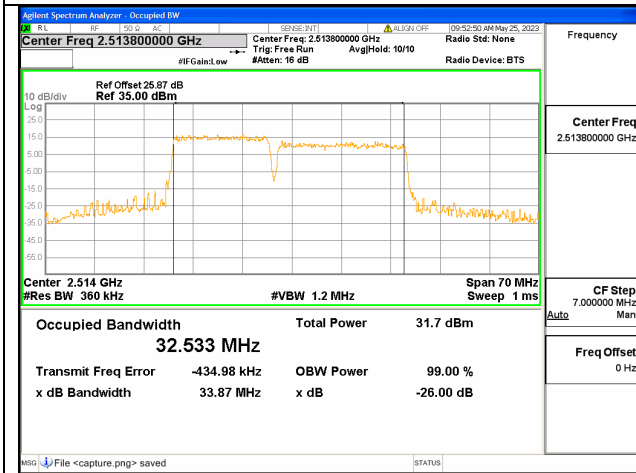
Band41C / 15+15MHz / 16QAM/ Low CH



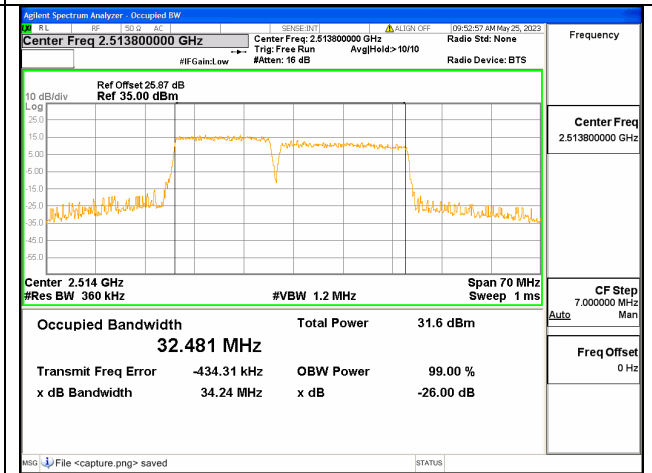
Band41C / 15+15MHz / 64QAM/ Low CH



Band41C / 15+20MHz / QPSK/ Low CH

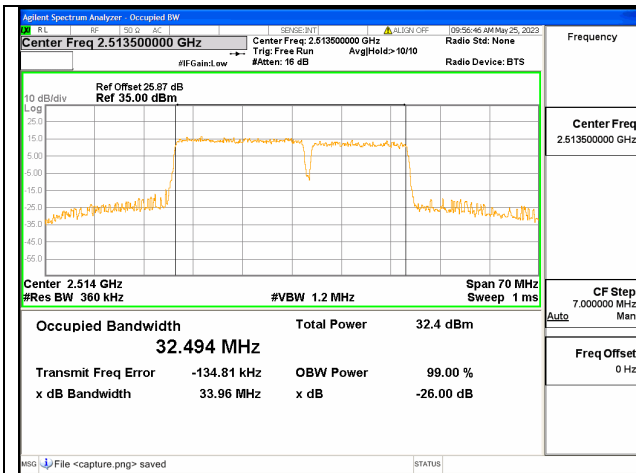


Band41C / 15+20MHz / 16QAM/ Low CH

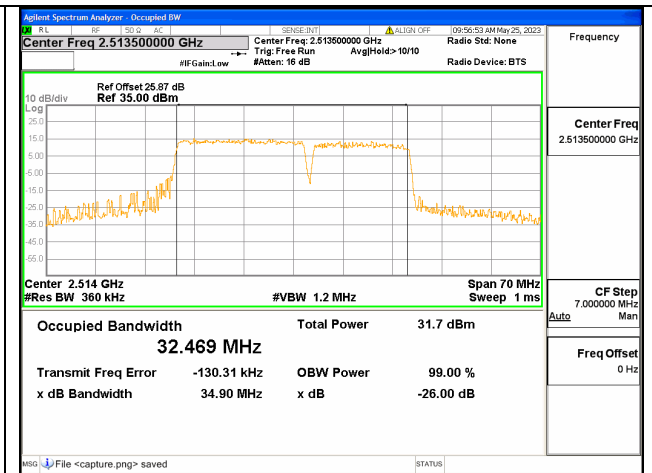


Band41C / 15+20MHz / 64QAM/ Low CH

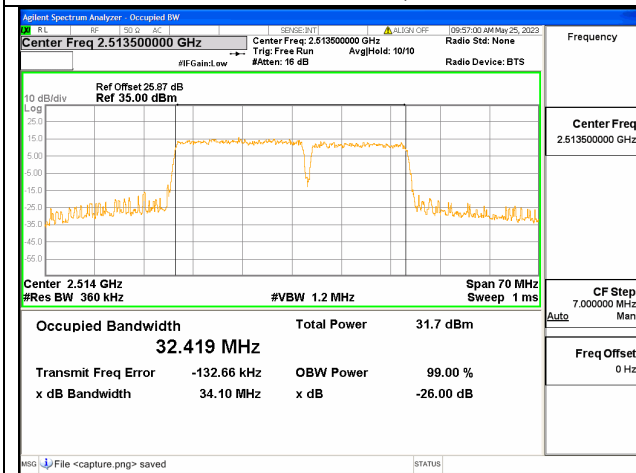




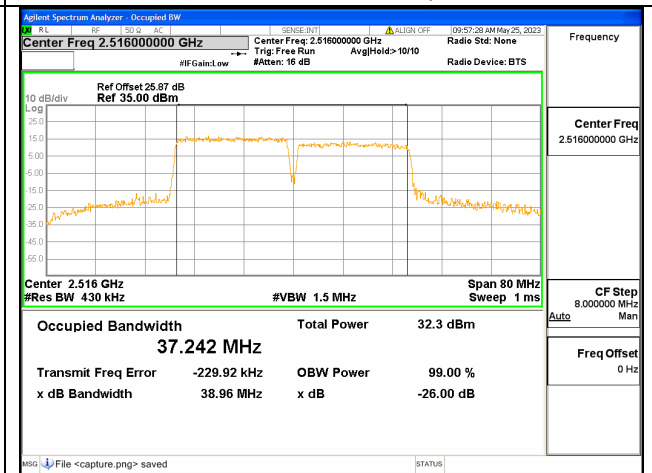
Band41C / 20+15MHz / QPSK/ Low CH



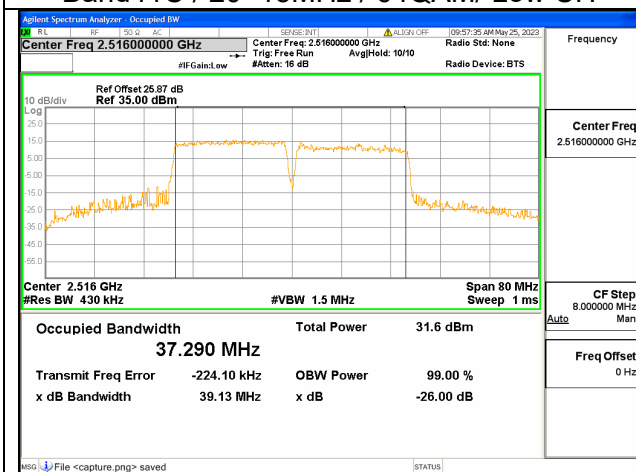
Band41C / 20+15MHz / 16QAM/ Low CH



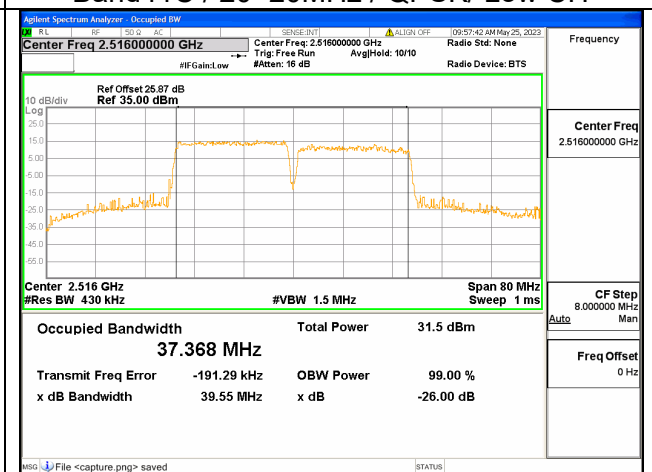
Band41C / 20+15MHz / 64QAM/ Low CH



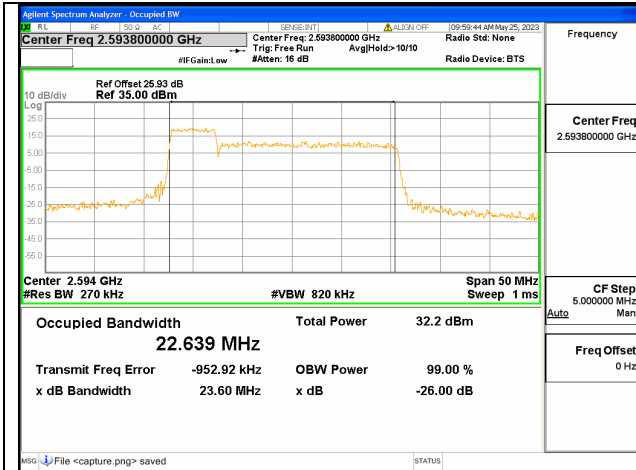
Band41C / 20+20MHz / QPSK/ Low CH



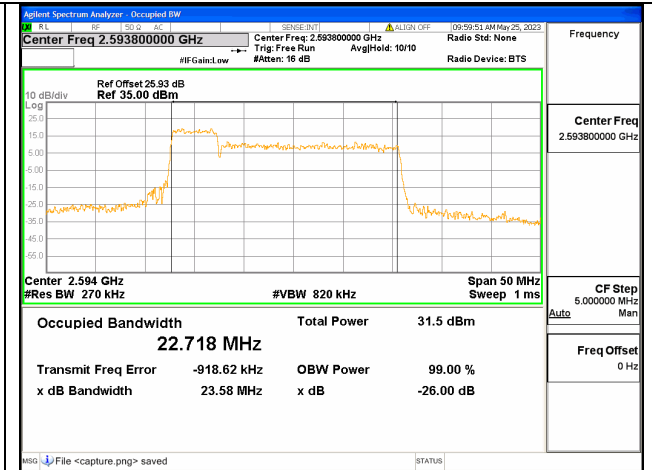
Band41C / 20+20MHz / 16QAM/ Low CH



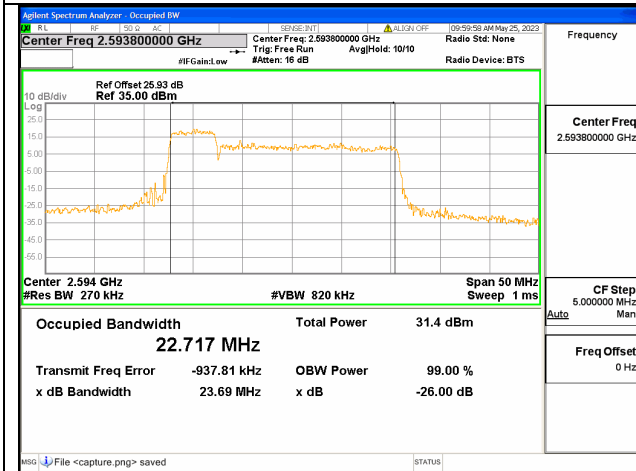
Band41C / 20+20MHz / 64QAM/ Low CH



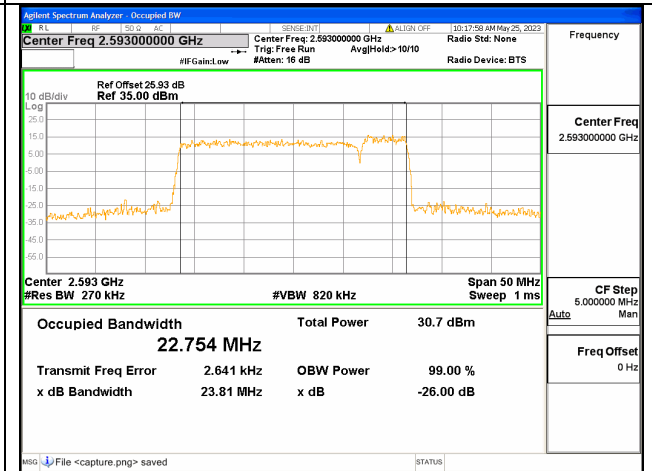
Band41C / 5+20MHz / QPSK/ Mid CH



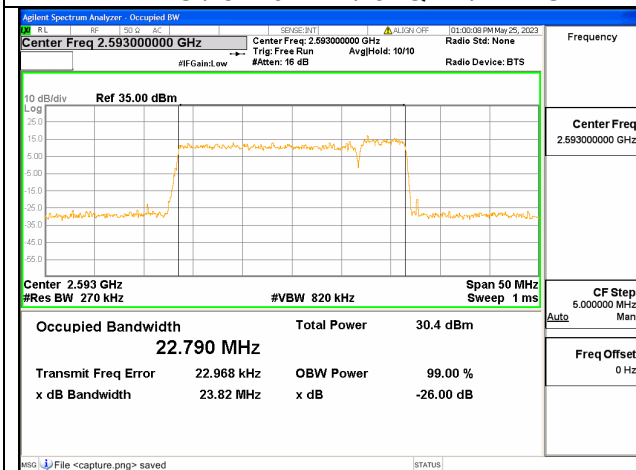
Band41C / 5+20MHz / 16QAM/ Mid CH



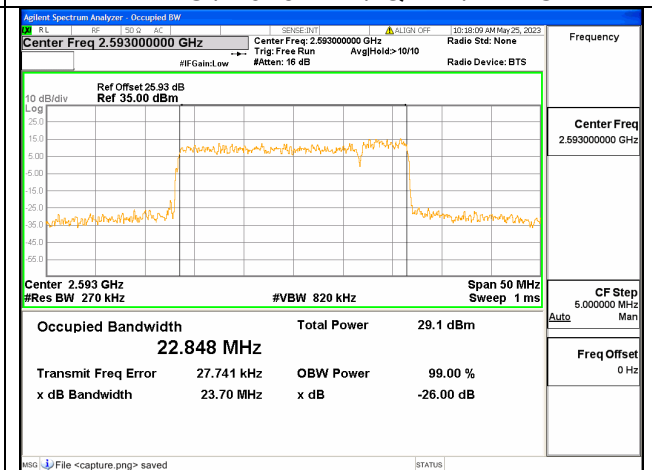
Band41C / 5+20MHz / 64QAM/ Mid CH



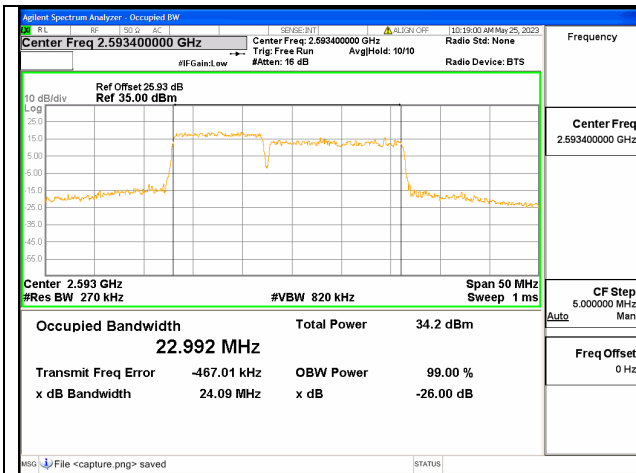
Band41C / 20+5MHz / QPSK/ Mid CH



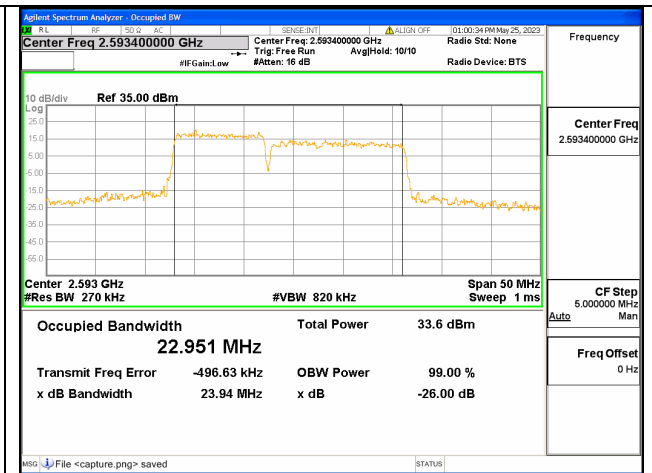
Band41C / 20+5MHz / 16QAM/ Mid CH



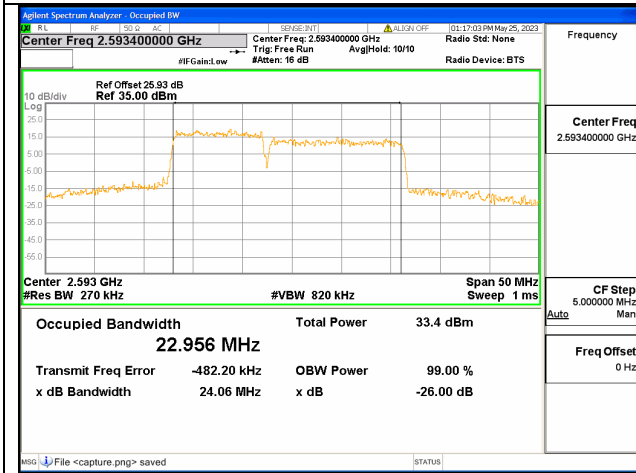
Band41C / 20+5MHz / 64QAM/ Mid CH



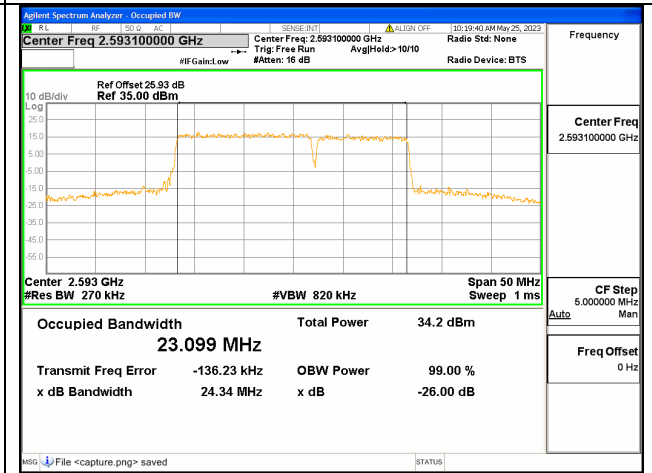
Band41C / 10+15MHz / QPSK/ Mid CH



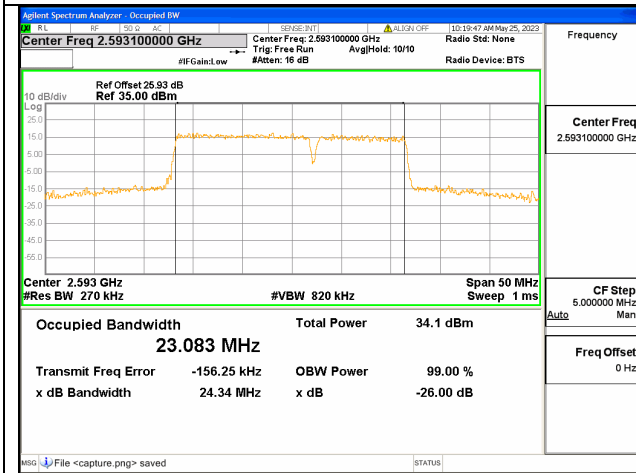
Band41C / 10+15MHz / 16QAM/ Mid CH



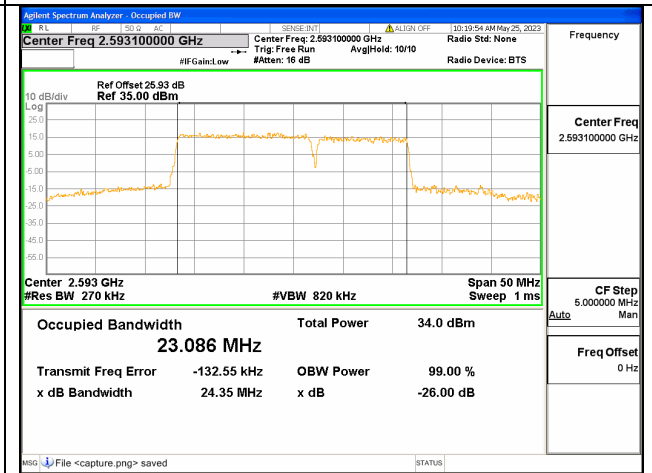
Band41C / 10+15MHz / 64QAM/ Mid CH



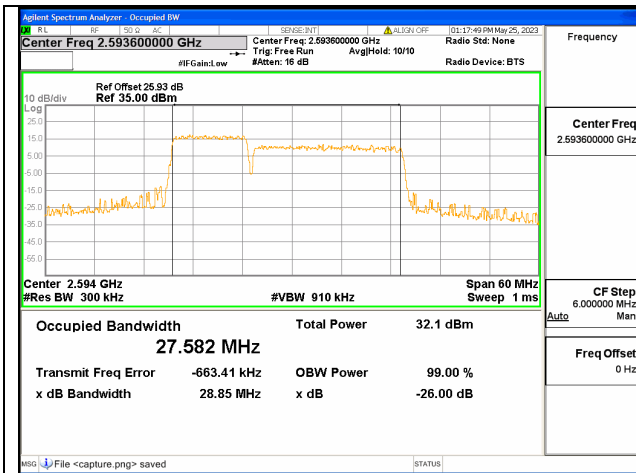
Band41C / 15+10MHz / QPSK/ Mid CH



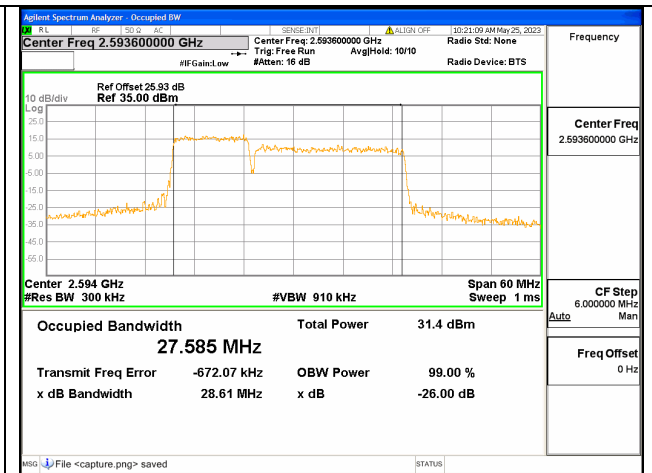
Band41C / 15+10MHz / 16QAM/ Mid CH



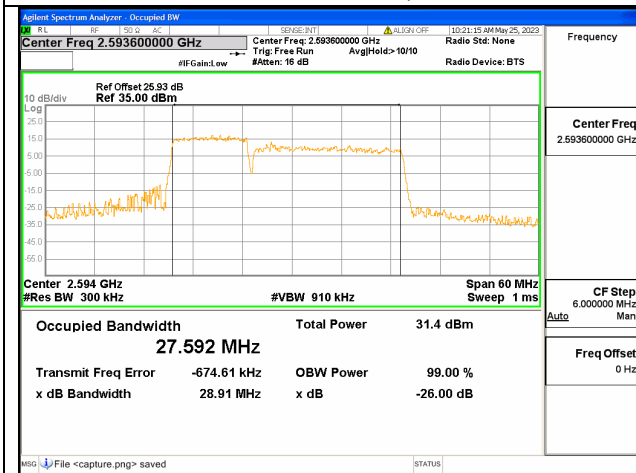
Band41C / 15+10MHz / 64QAM/ Mid CH



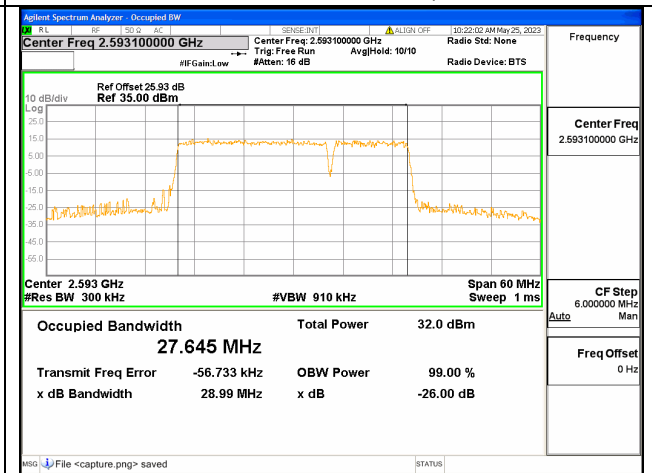
Band41C / 10+20MHz / QPSK/ Mid CH



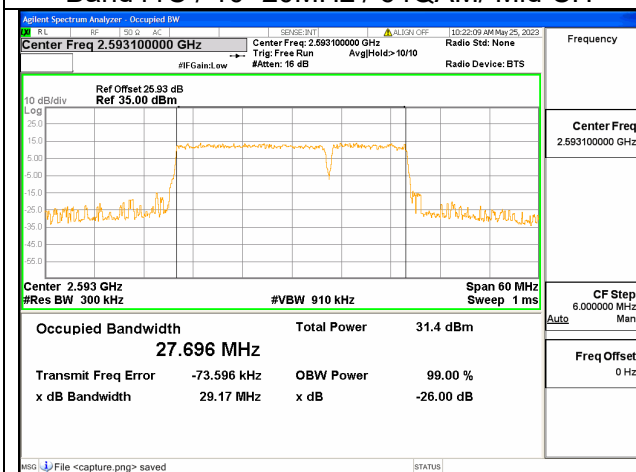
Band41C / 10+20MHz / 16QAM/ Mid CH



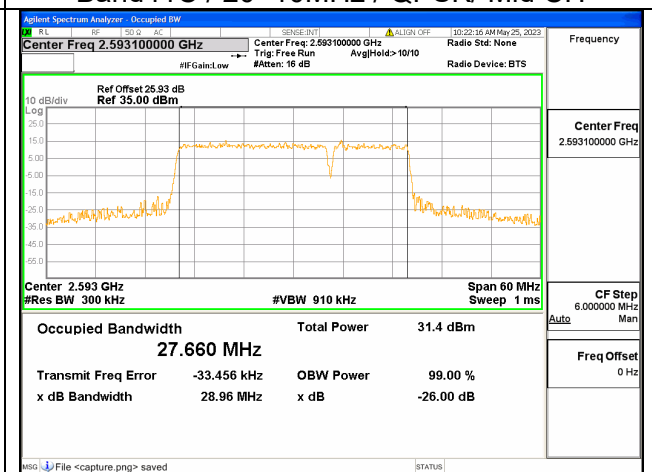
Band41C / 10+20MHz / 64QAM/ Mid CH



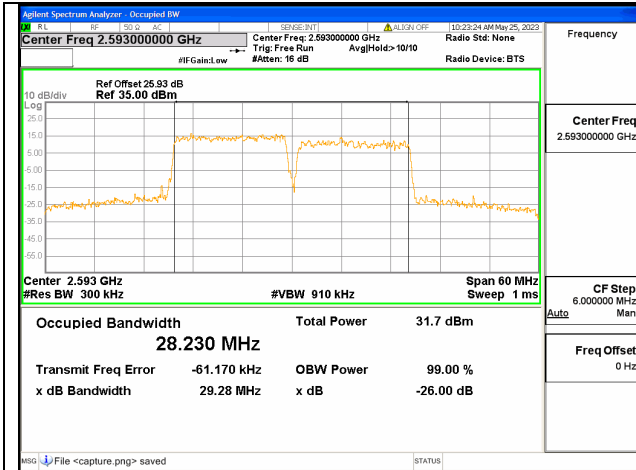
Band41C / 20+10MHz / QPSK/ Mid CH



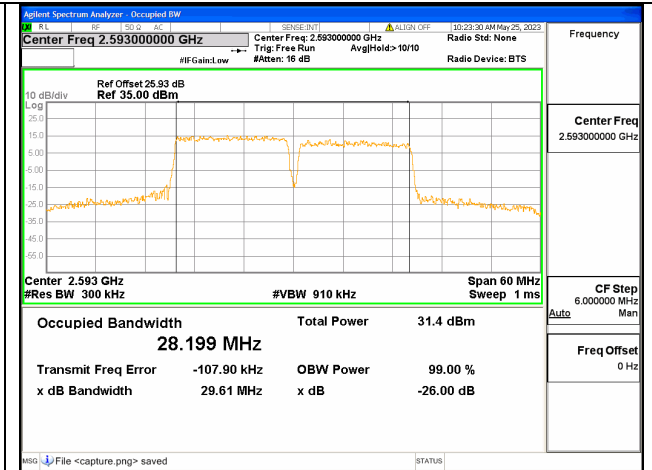
Band41C / 20+10MHz / 16QAM/ Mid CH



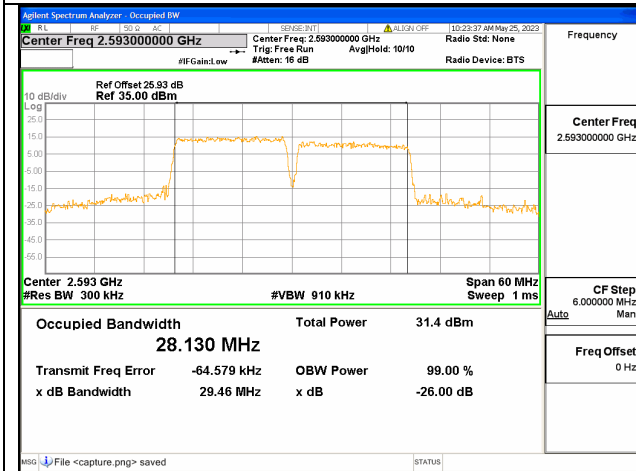
Band41C / 20+10MHz / 64QAM/ Mid CH



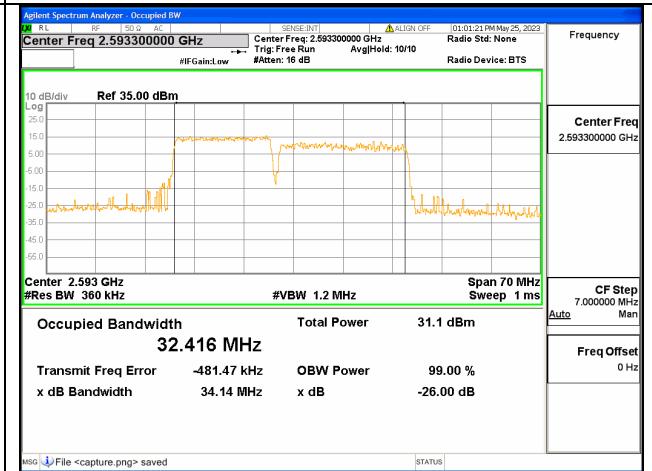
Band41C / 15+15MHz / QPSK/ Mid CH



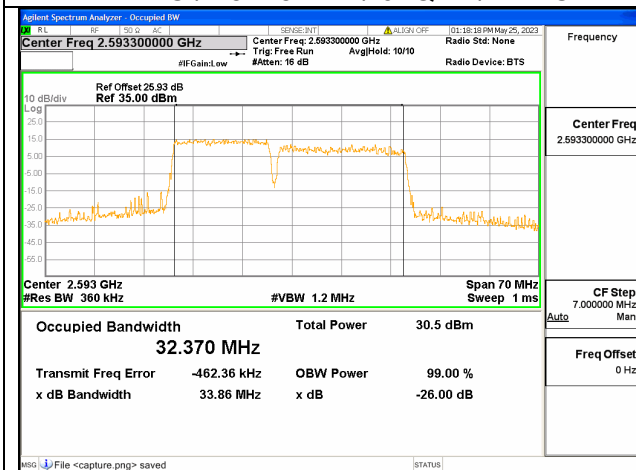
Band41C / 15+15MHz / 16QAM/ Mid CH



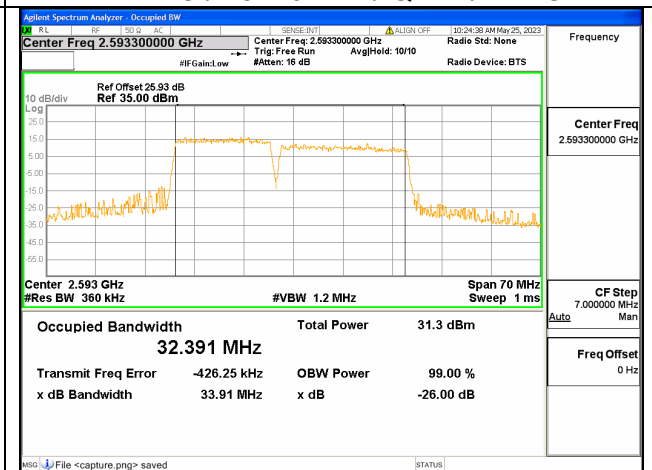
Band41C / 15+15MHz / 64QAM/ Mid CH



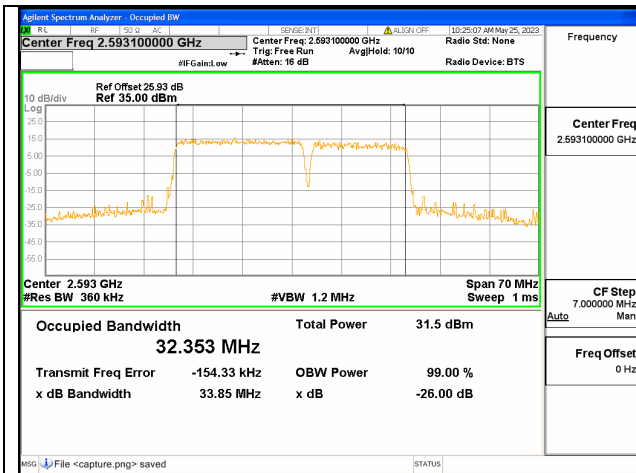
Band41C / 15+20MHz / 16QAM/ Mid CH



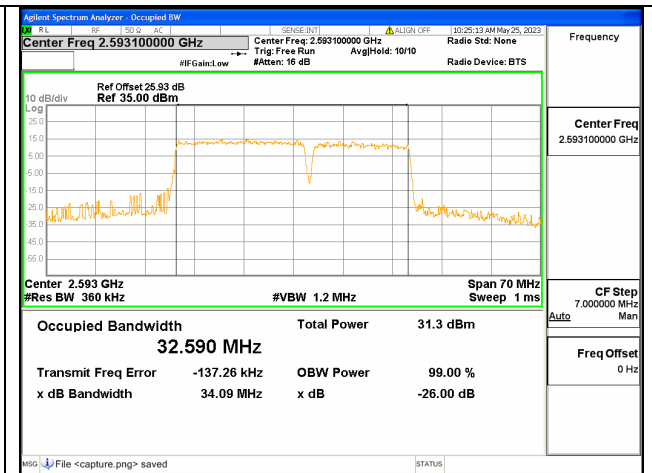
Band41C / 15+20MHz / 64QAM/ Mid CH



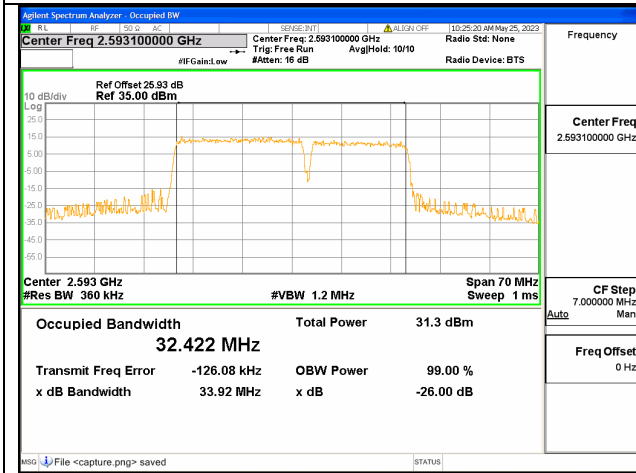
Band41C / 15+20MHz / 16QAM/ Mid CH



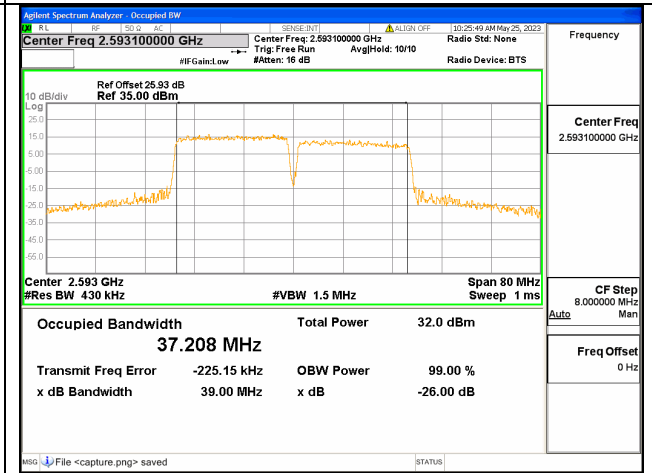
Band41C / 20+15MHz / QPSK/ Mid CH



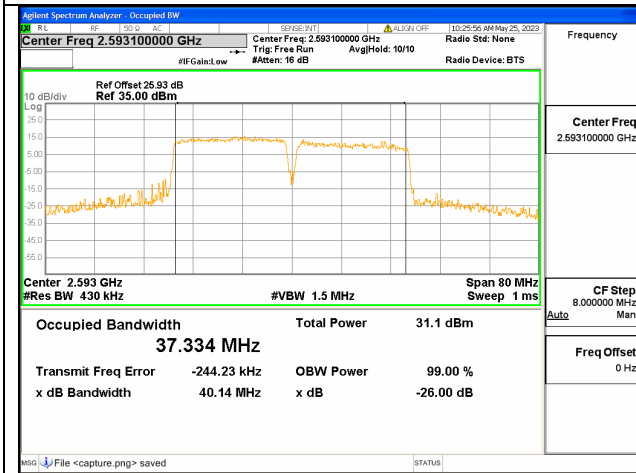
Band41C / 20+15MHz / 16QAM/ Mid CH



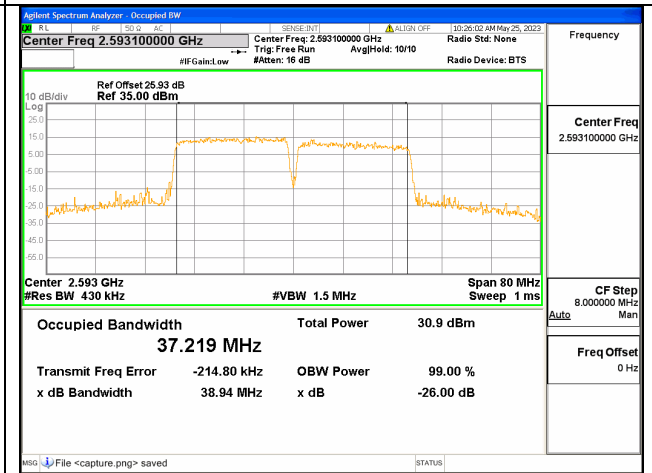
Band41C / 20+15MHz / 64QAM/ Mid CH



Band41C / 20+20MHz / 16QAM/ Mid CH

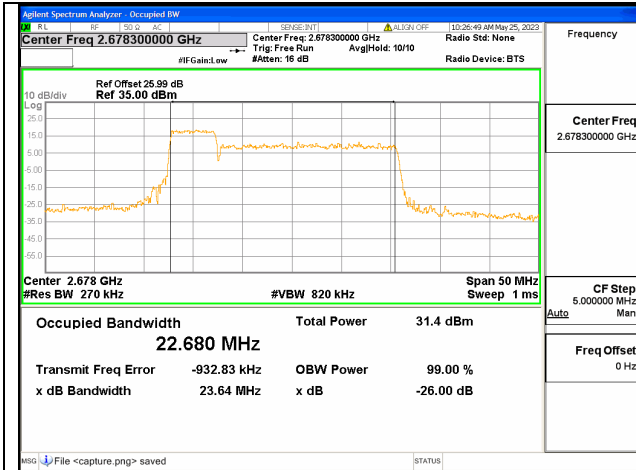


Band41C / 20+20MHz / 64QAM/ Mid CH

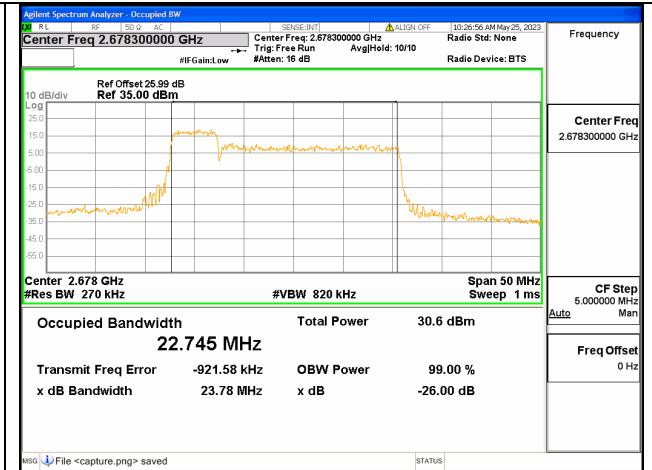


Band41C / 20+20MHz / QPSK/ Mid CH

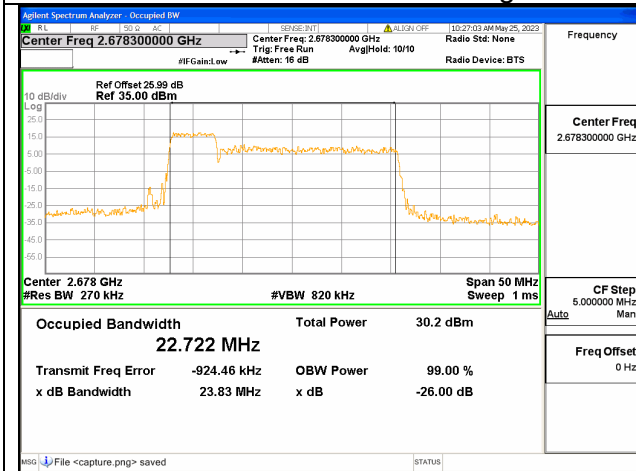




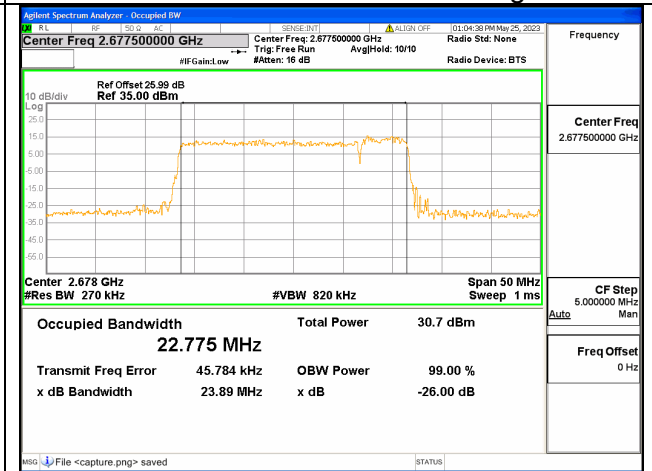
Band41C / 5+20MHz / QPSK/ High CH



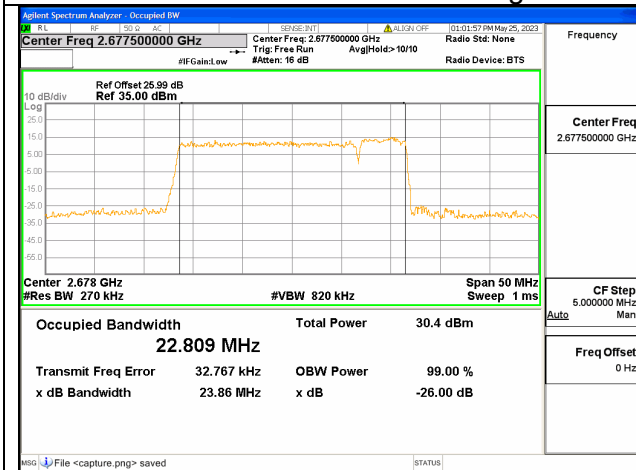
Band41C / 5+20MHz / 16QAM/ High CH



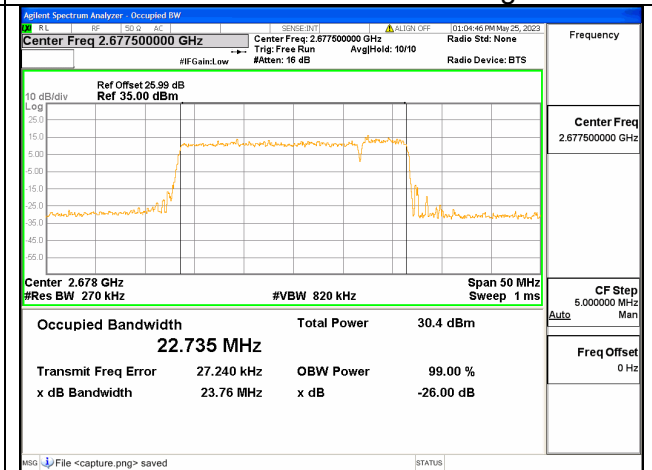
Band41C / 5+20MHz / 64QAM/ High CH



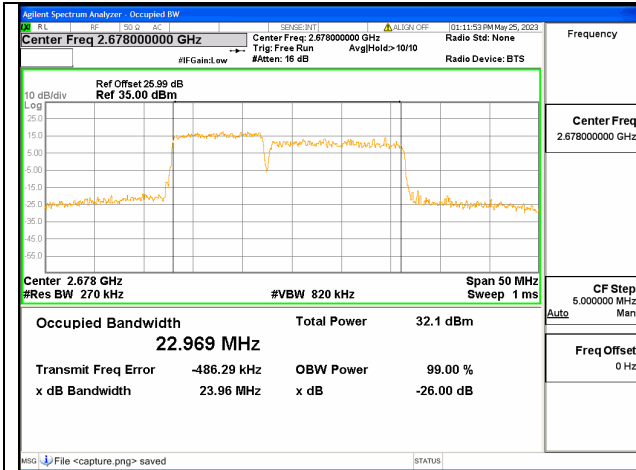
Band41C / 20+5MHz / QPSK/ High CH



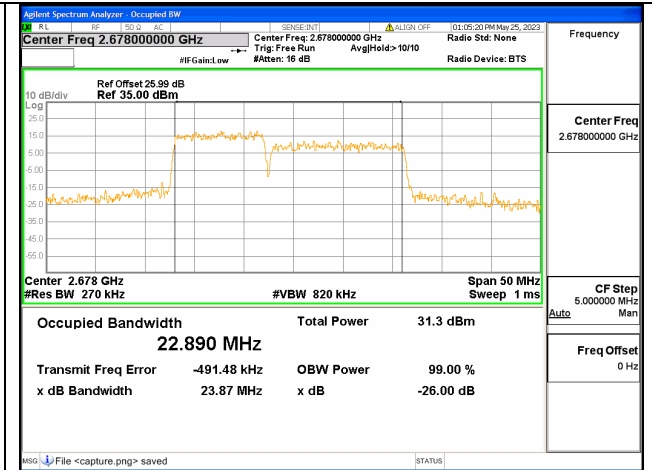
Band41C / 20+5MHz / 16QAM/ High CH



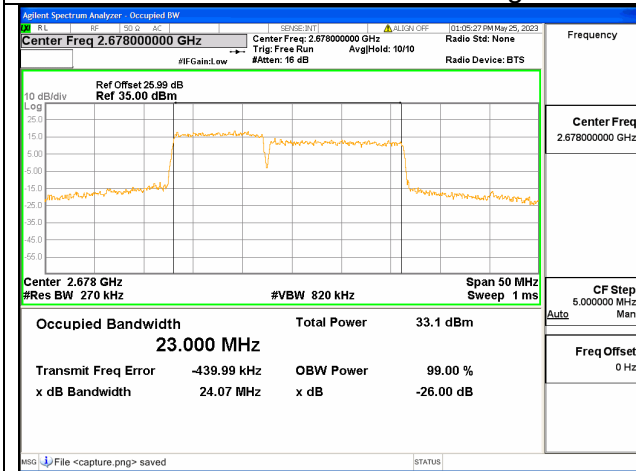
Band41C / 20+5MHz / 64QAM/ High CH



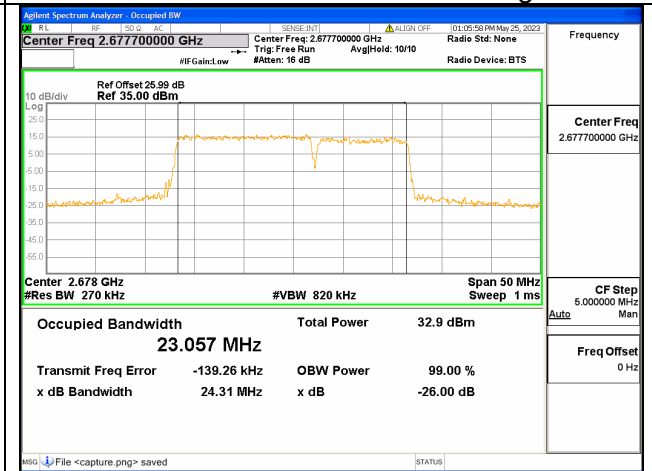
Band41C / 10+15MHz / QPSK/ High CH



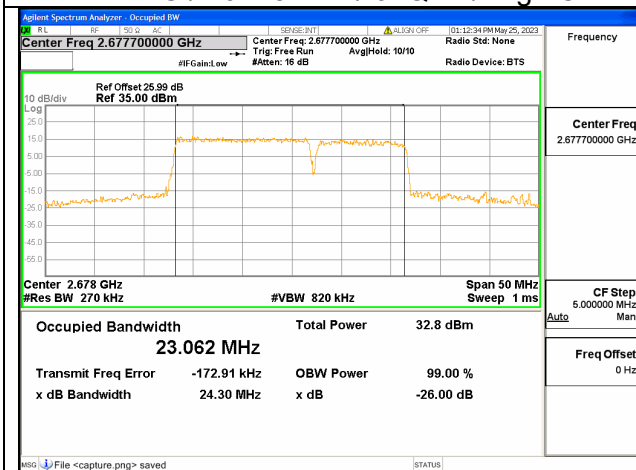
Band41C / 10+15MHz / 16QAM/ High CH



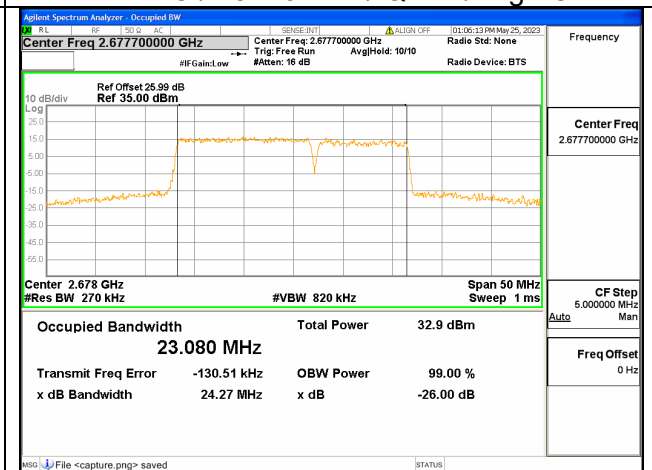
Band41C / 10+15MHz / 64QAM/ High CH



Band41C / 15+10MHz / QPSK/ High CH

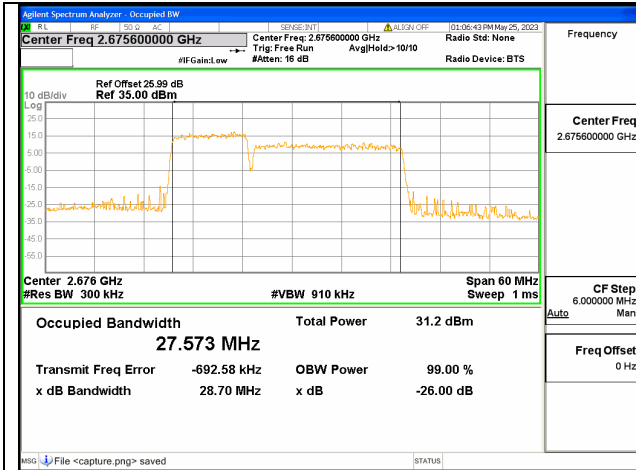


Band41C / 15+10MHz / 16QAM/ High CH

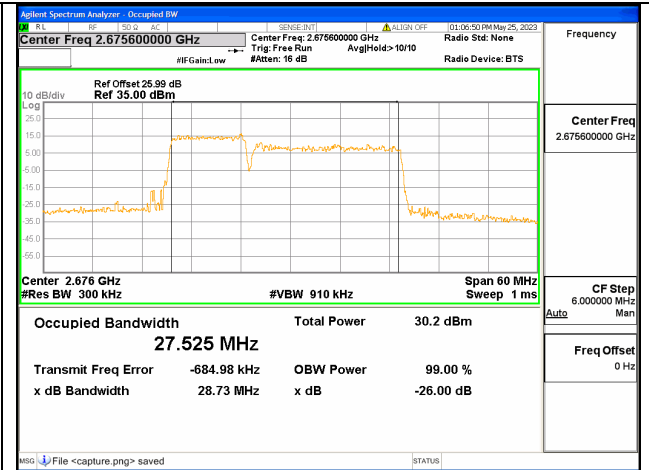


Band41C / 15+10MHz / 64QAM/ High CH

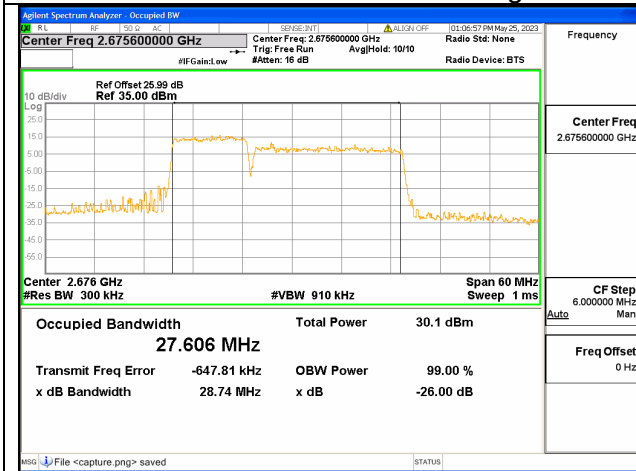




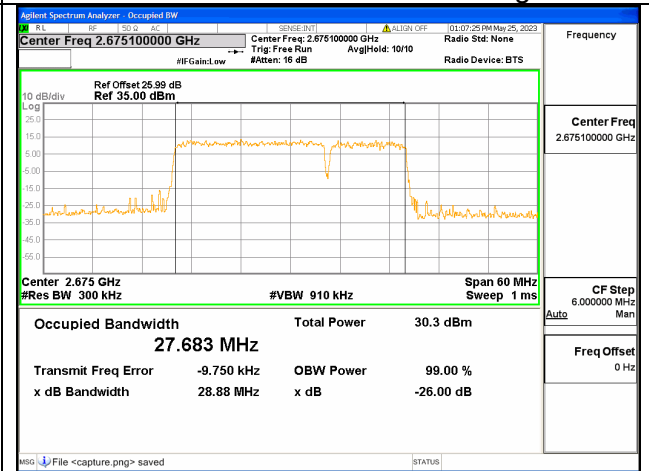
Band41C / 10+20MHz / QPSK/ High CH



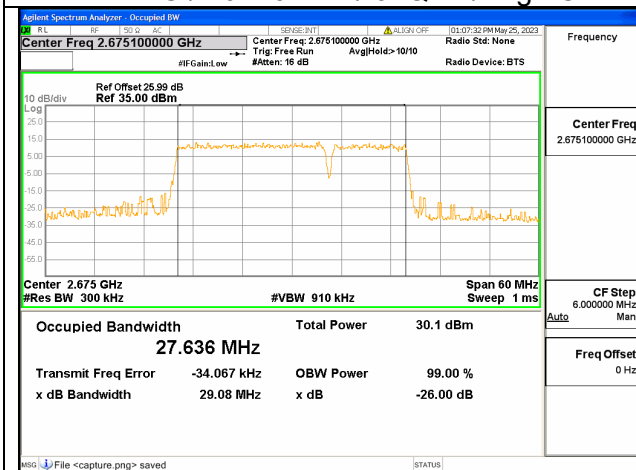
Band41C / 10+20MHz / 16QAM/ High CH



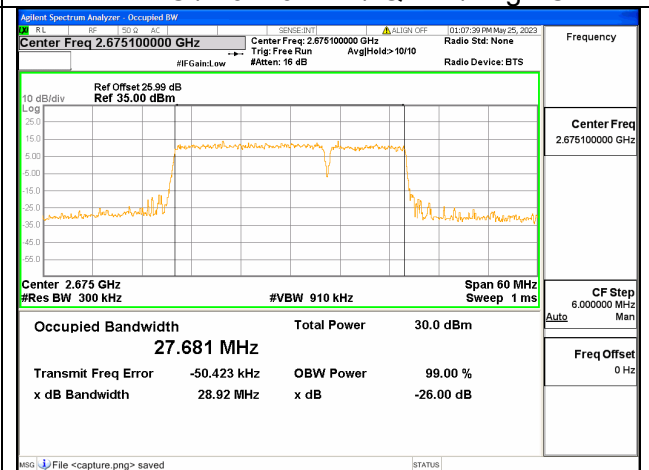
Band41C / 10+20MHz / 64QAM/ High CH



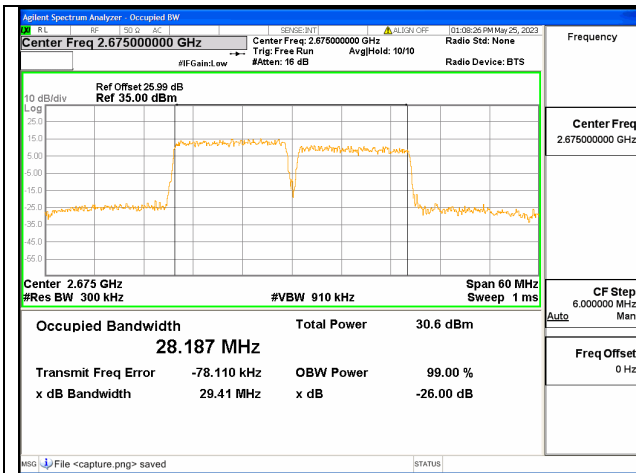
Band41C / 20+10MHz / QPSK/ High CH



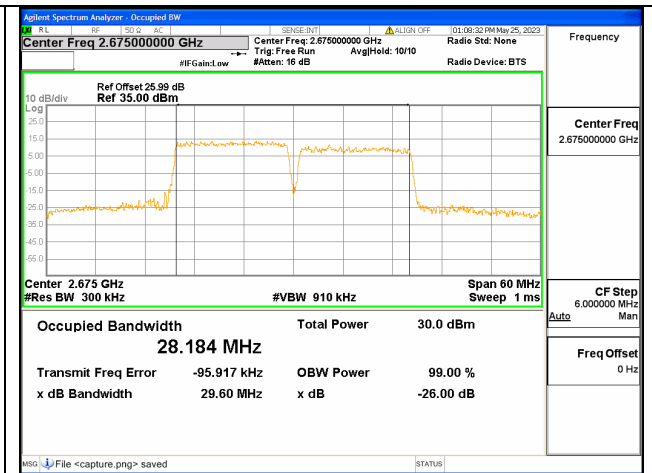
Band41C / 20+10MHz / 16QAM/ High CH



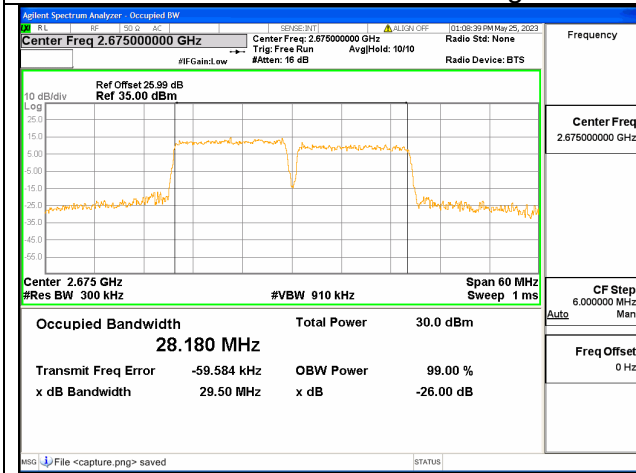
Band41C / 20+10MHz / 64QAM/ High CH



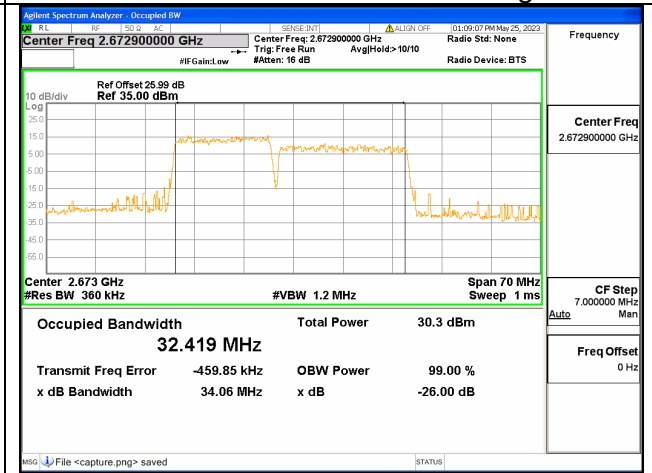
Band41C / 15+15MHz / QPSK/ High CH



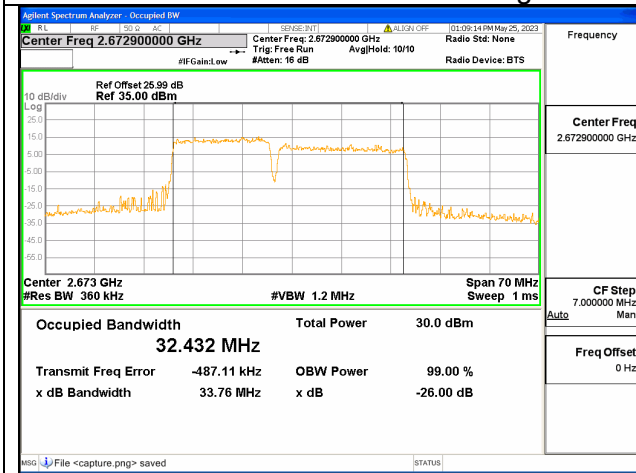
Band41C / 15+15MHz / 16QAM/ High CH



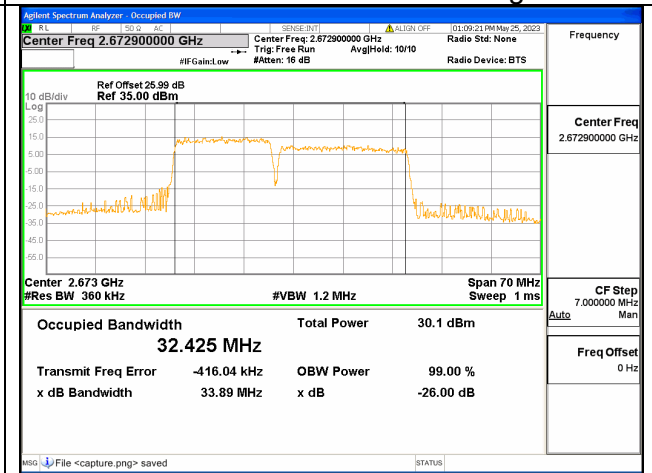
Band41C / 15+15MHz / 64QAM/ High CH



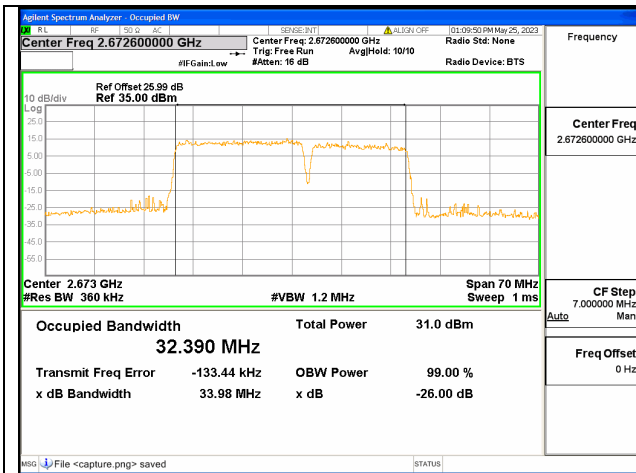
Band41C / 15+20MHz / 16QAM/ High CH



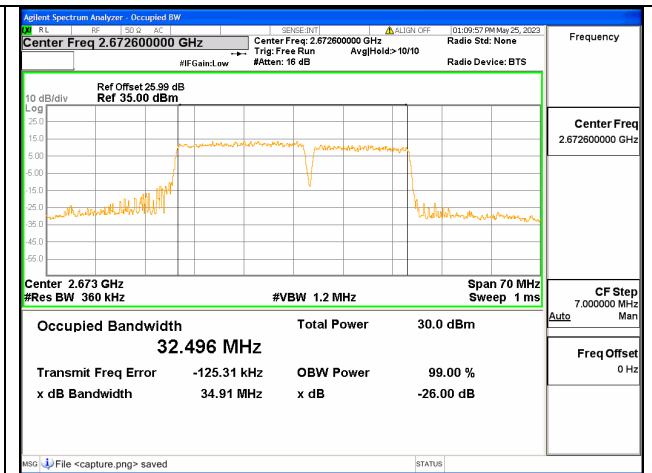
Band41C / 15+20MHz / 64QAM/ High CH



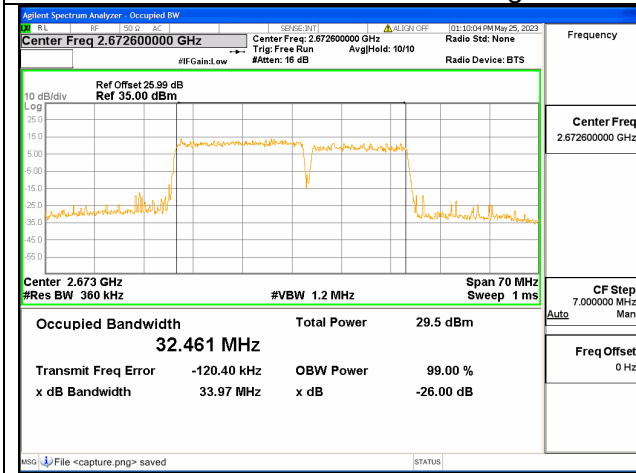
Band41C / 15+20MHz / 16QAM/ High CH



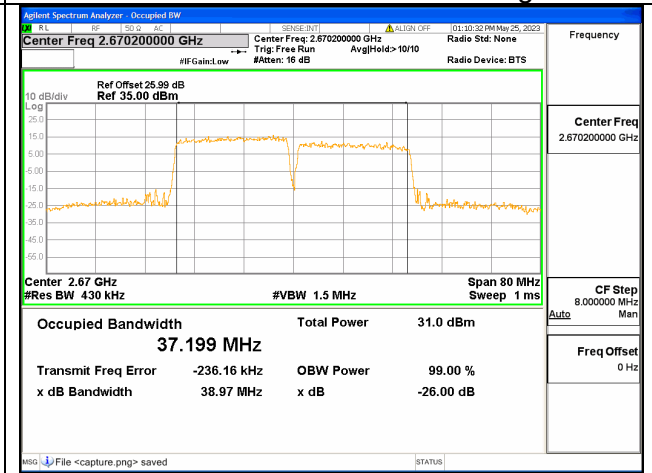
Band41C / 20+15MHz / QPSK/ High CH



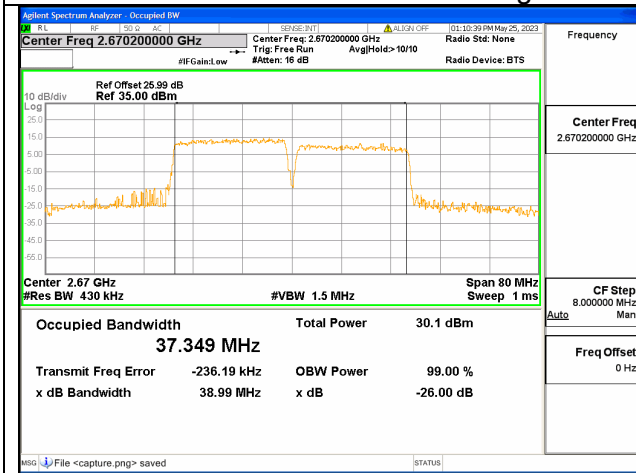
Band41C / 20+15MHz / 16QAM/ High CH



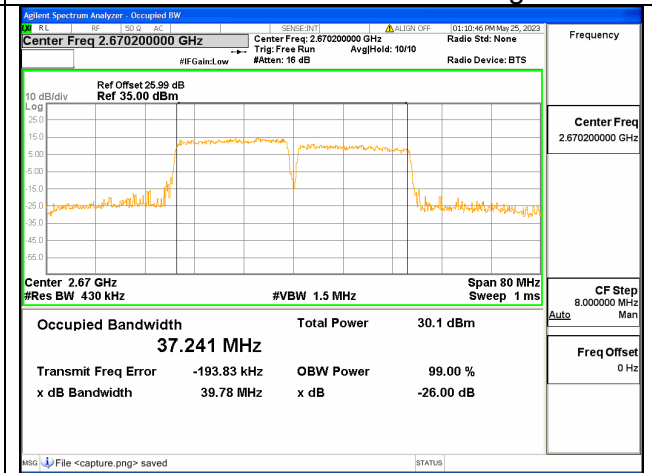
Band41C / 20+15MHz / 64QAM/ High CH



Band41C / 20+20MHz / QPSK/ High CH



Band41C / 20+20MHz / 16QAM/ High CH



Band41C / 20+20MHz / 64QAM/ High CH

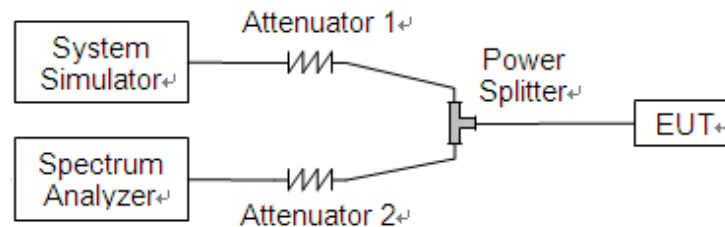
## 2.3. Conducted Spurious Emissions

### 2.3.1. Requirement

According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43+10*\log(P)$ dB. This calculated to be -13dBm.

Additional requirement for LTE Band 41, The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $55 + 10 \log(P)$  dB. This calculated to be -25dBm.

### 2.3.2. Test Description



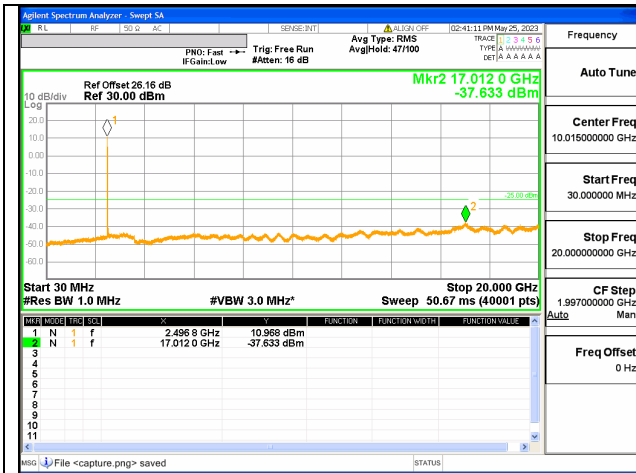
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

### 2.3.3. Test procedure

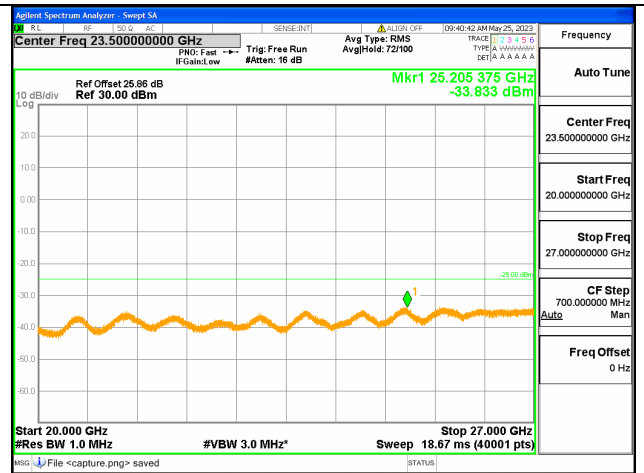
KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016



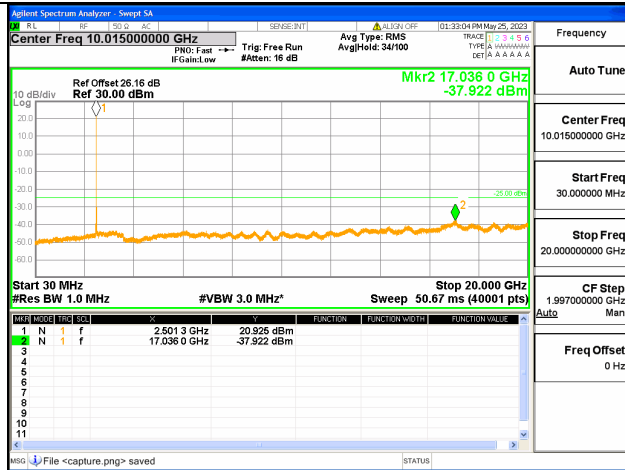
2.3.4. Test Result



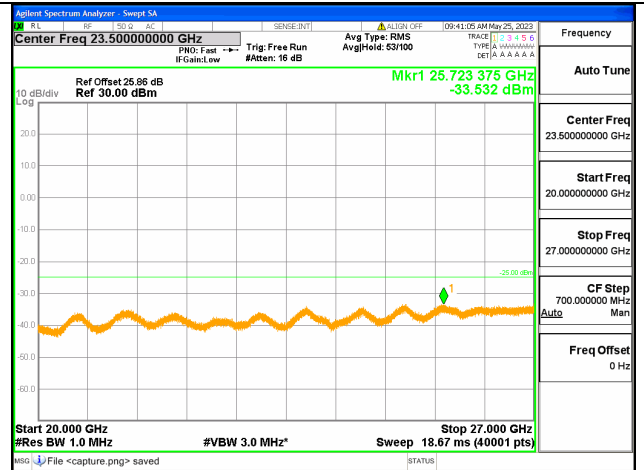
Band41C-30M-20G / 5+20MHz /1RB+1RB/ QPSK / Low CH



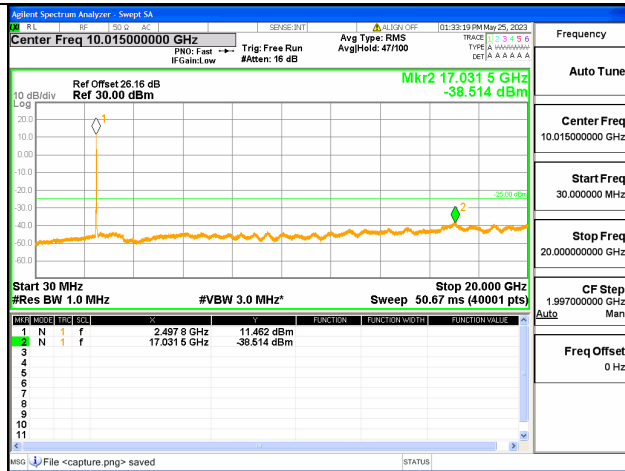
Band41C-20G-27G / 5+20MHz /1RB+1RB/ QPSK / Low CH



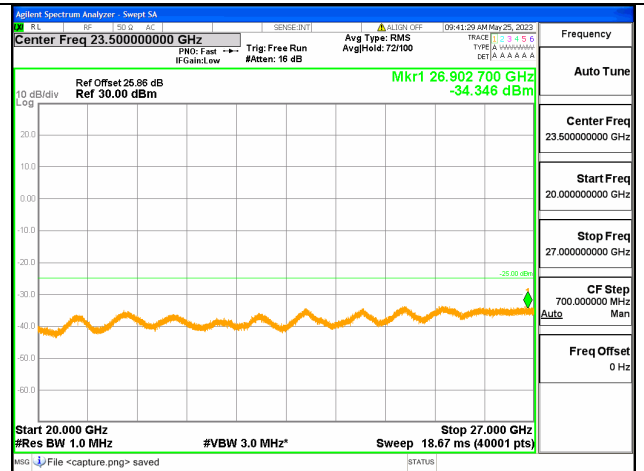
Band41C-30M-20G / 5+20MHz /1RB+1RB/ QPSK / Low CH



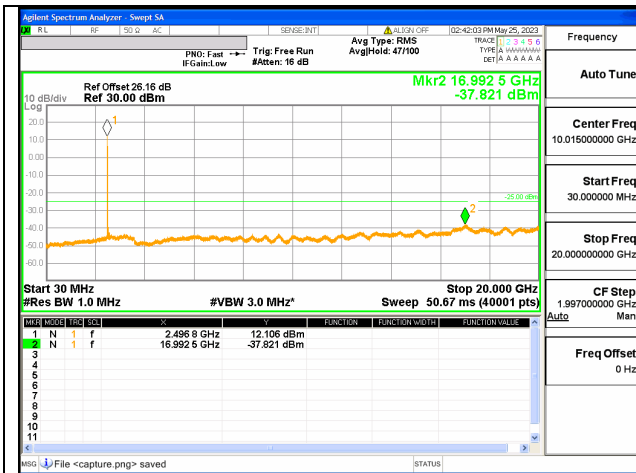
Band41C-20G-27G / 5+20MHz /1RB+1RB/ QPSK / Low CH



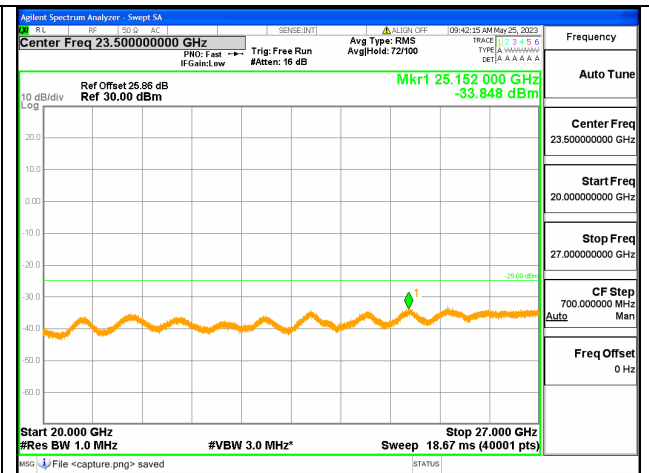
Band41C-30M-20G / 5+20MHz /25RB+100RB/ QPSK / Low CH



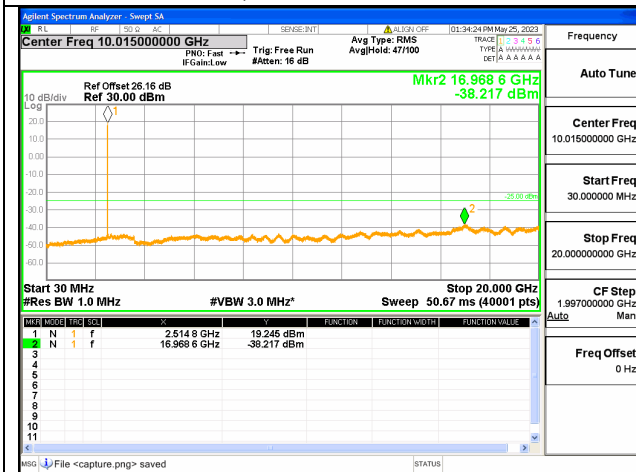
Band41C-20G-27G / 5+20MHz /25RB+100RB/ QPSK / Low CH



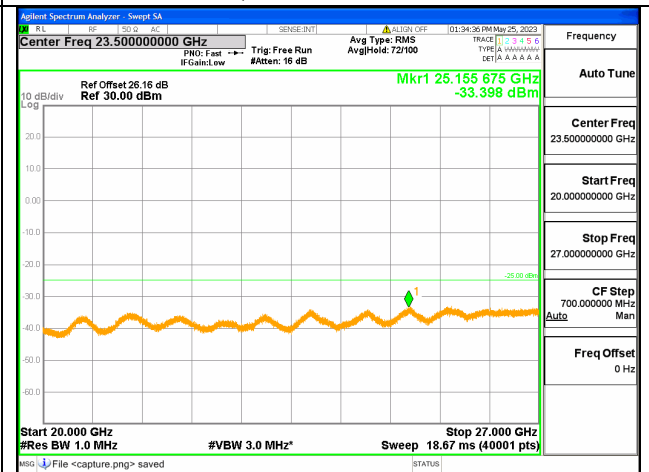
Band41C-30M-20G / 20+5MHz / 1RB+1RB / QPSK / Low CH



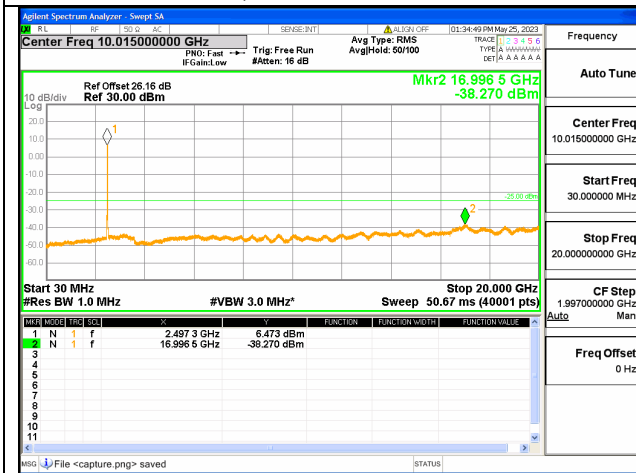
Band41C-20G-27G / 20+5MHz / 1RB+1RB / QPSK / Low CH



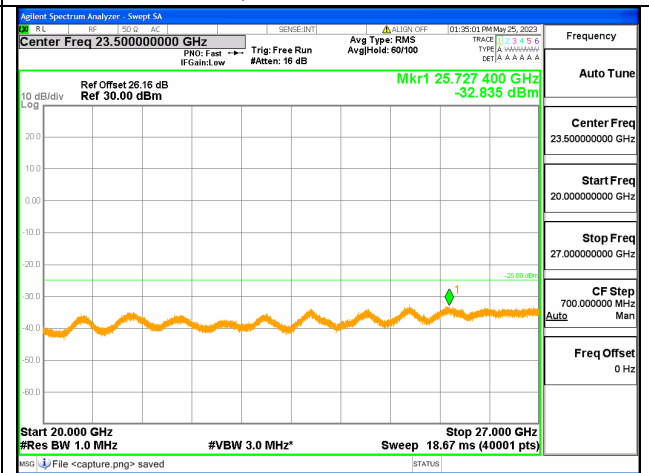
Band41C-30M-20G / 20+5MHz / 1RB+1RB / QPSK / Low CH



Band41C-20G-27G / 20+5MHz / 1RB+1RB / QPSK / Low CH

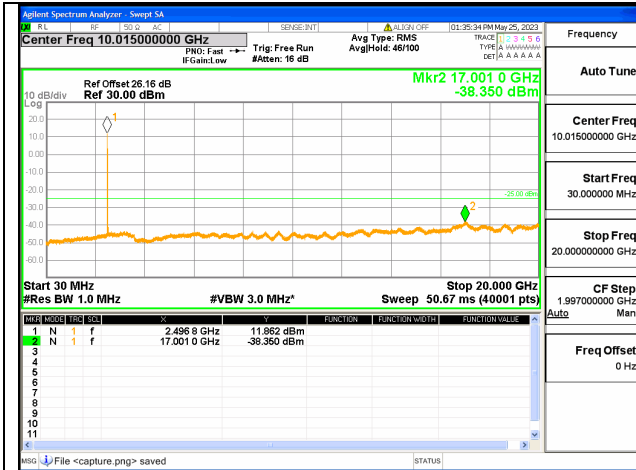


Band41C-30M-20G / 20+5MHz / 100RB+25RB / QPSK / Low CH

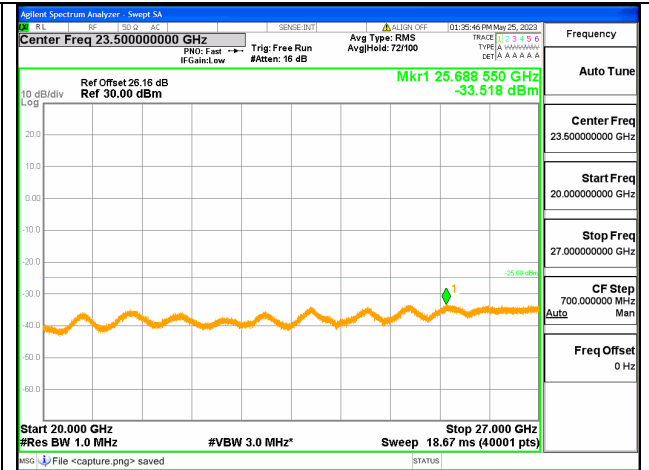


Band41C-20G-27G / 20+5MHz / 100RB+25RB / QPSK / Low CH

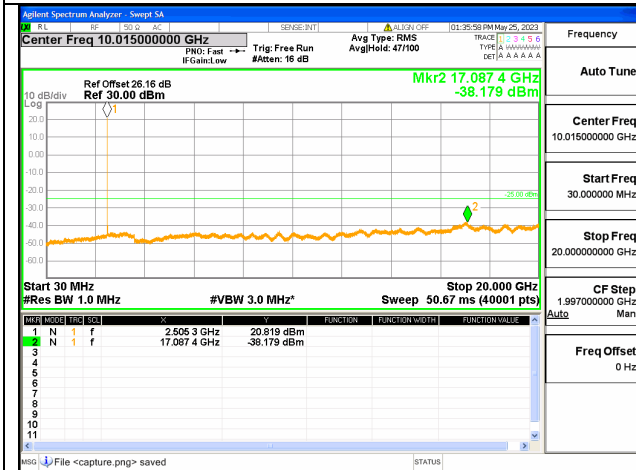




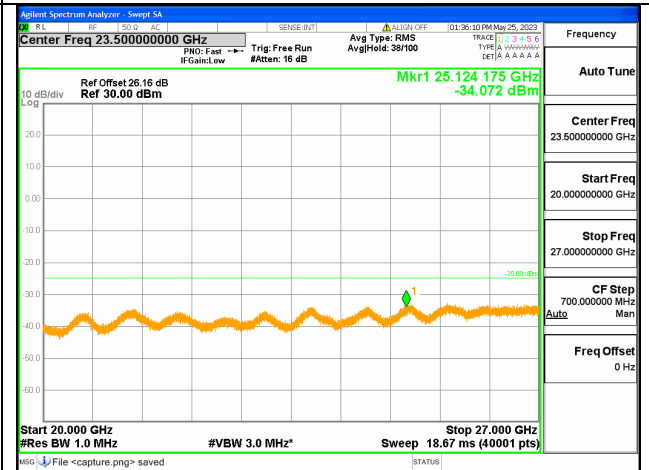
Band41C-30M-20G / 10+15MHz /1RB+1RB/  
QPSK / Low CH



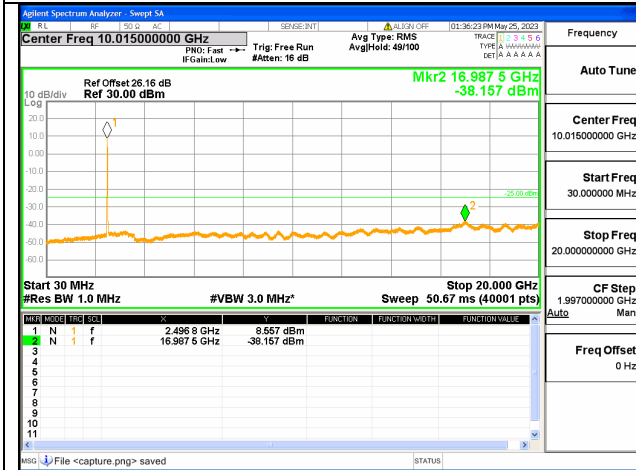
Band41C-20G-27G / 10+15MHz /1RB+1RB/  
QPSK / Low CH



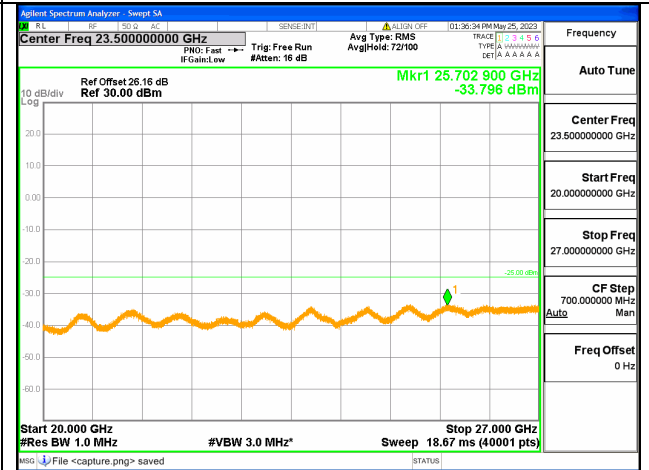
Band41C-30M-20G / 10+15MHz /1RB+1RB/  
QPSK / Low CH



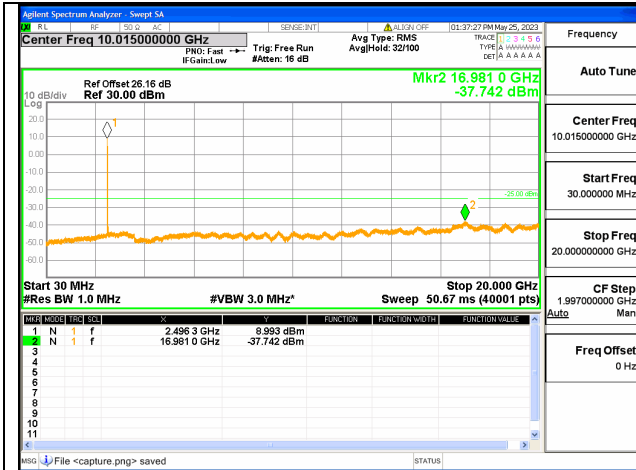
Band41C-20G-27G / 10+15MHz /1RB+1RB/  
QPSK / Low CH



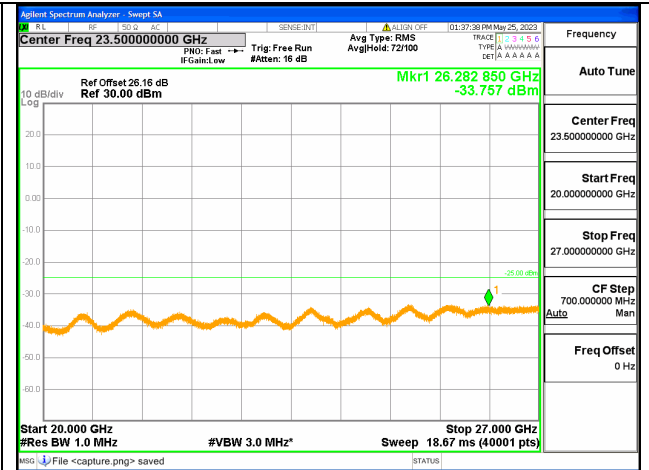
Band41C-30M-20G / 10+15MHz /50RB+75RB/  
QPSK / Low CH



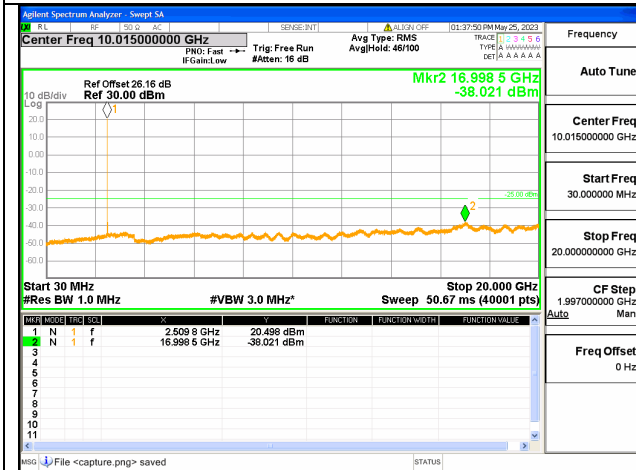
Band41C-20G-27G / 10+15MHz /50RB+75RB/  
QPSK / Low CH



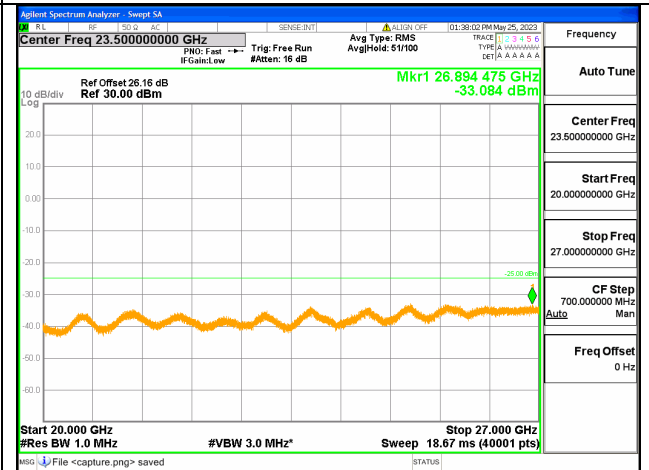
Band41C-30M-20G / 15+10MHz / 1RB+1RB / QPSK / Low CH



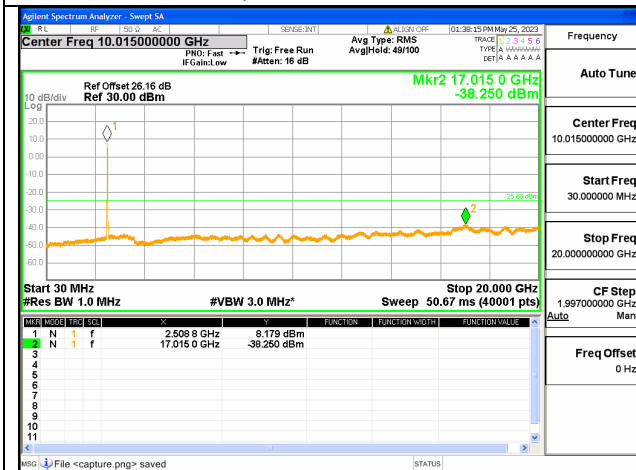
Band41C-20G-27G / 15+10MHz / 1RB+1RB / QPSK / Low CH



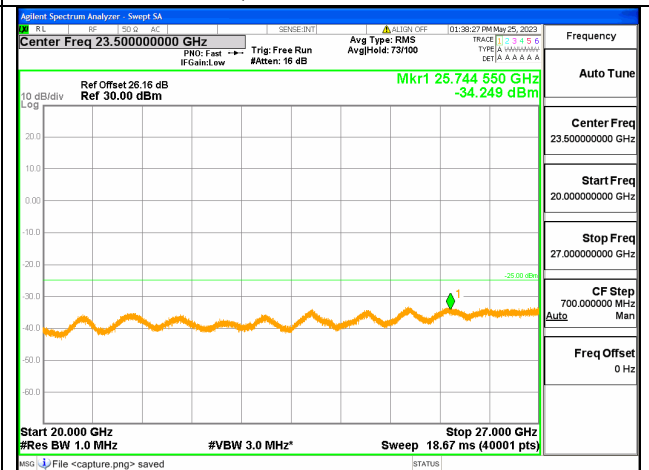
Band41C-30M-20G / 15+10MHz / 1RB+1RB / QPSK / Low CH



Band41C-20G-27G / 15+10MHz / 1RB+1RB / QPSK / Low CH

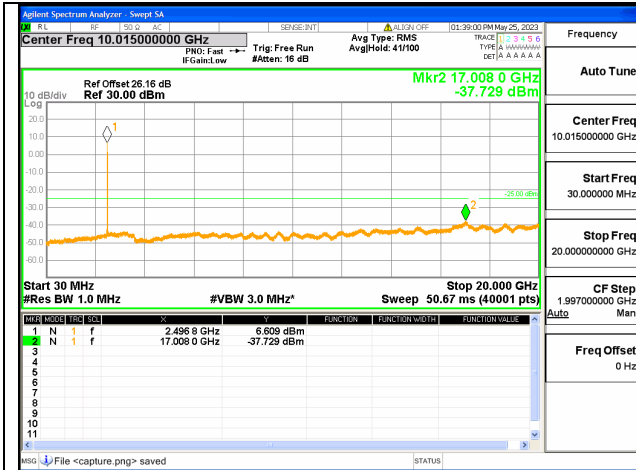


Band41C-30M-20G / 15+10MHz / 75RB+50RB / QPSK / Low CH

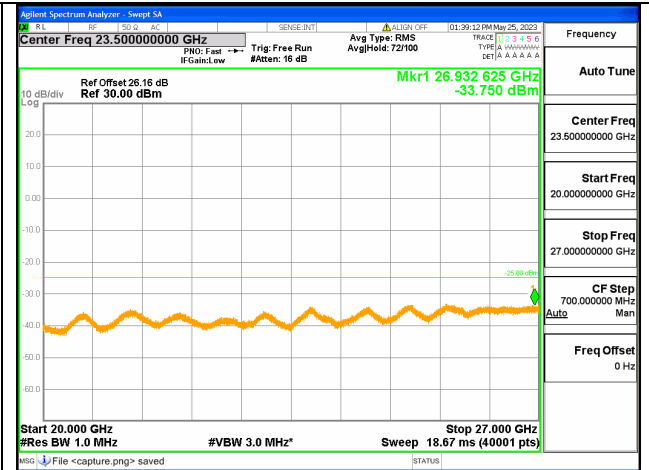


Band41C-20G-27G / 15+10MHz / 75RB+50RB / QPSK / Low CH

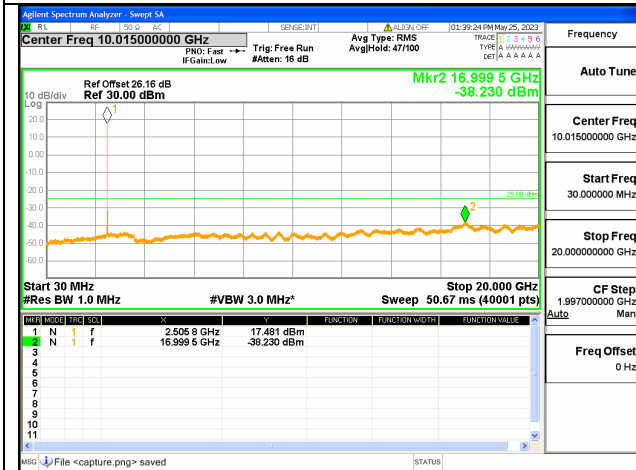




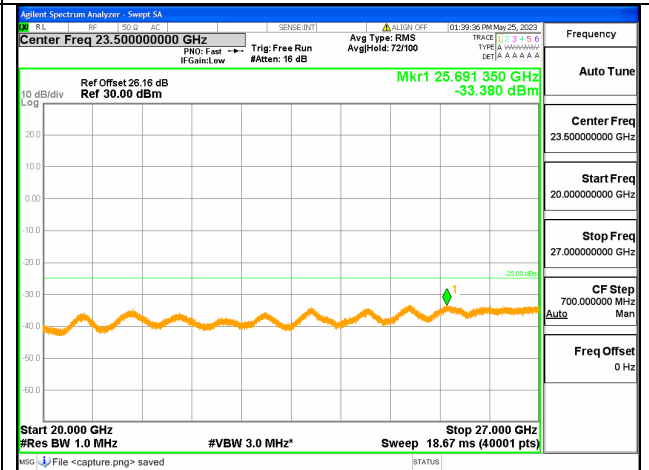
Band41C-30M-20G / 10+20MHz / 1RB+1RB / QPSK / Low CH



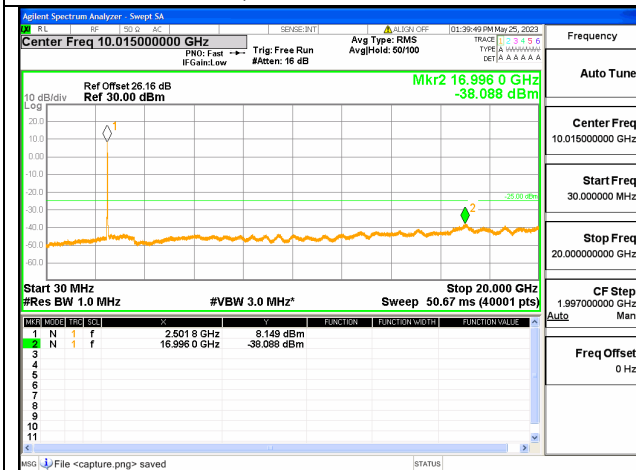
Band41C-20G-27G / 10+20MHz / 1RB+1RB / QPSK / Low CH



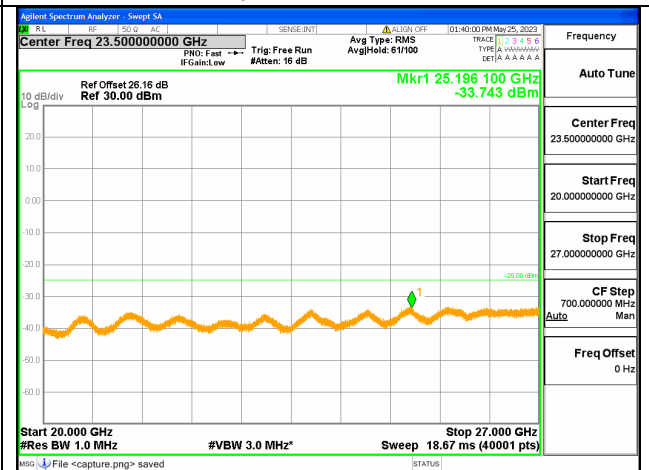
Band41C-30M-20G / 10+20MHz / 1RB+1RB / QPSK / Low CH



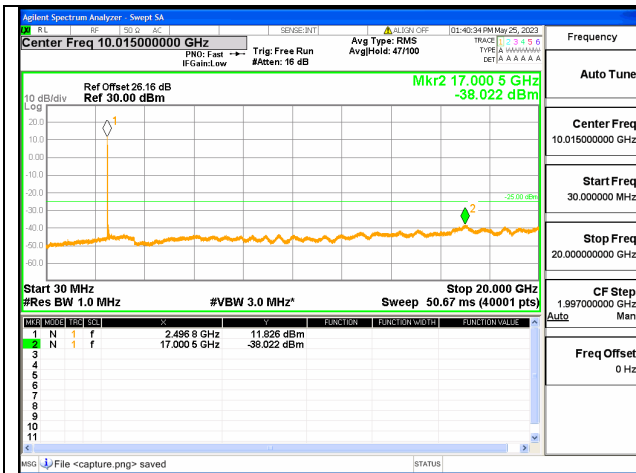
Band41C-20G-27G / 10+20MHz / 1RB+1RB / QPSK / Low CH



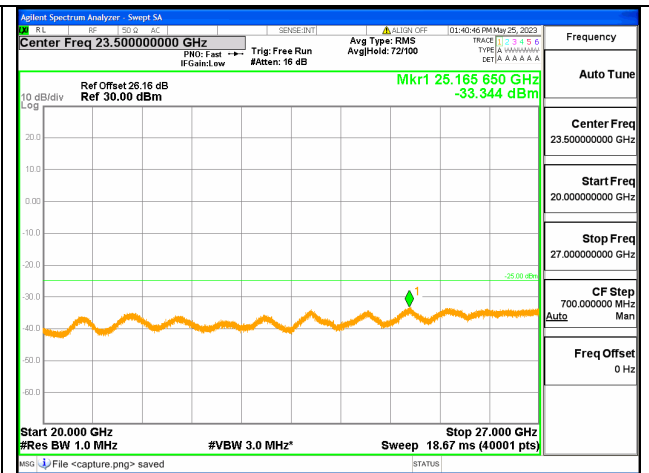
Band41C-30M-20G / 10+20MHz / 50RB+100RB / QPSK / Low CH



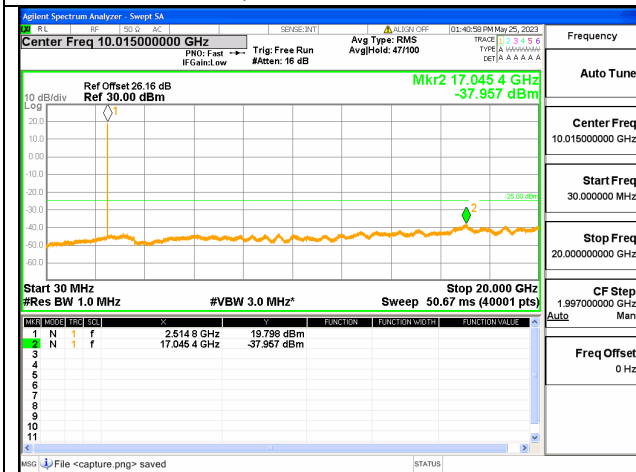
Band41C-20G-27G / 10+20MHz / 50RB+100RB / QPSK / Low CH



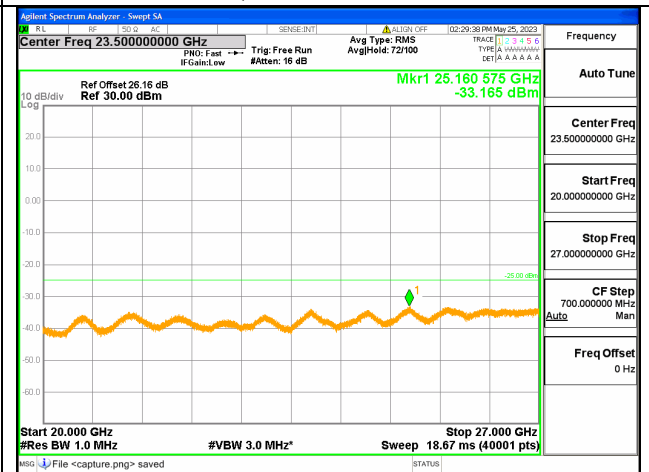
Band41C-30M-20G / 20+10MHz / 1RB+1RB / QPSK / Low CH



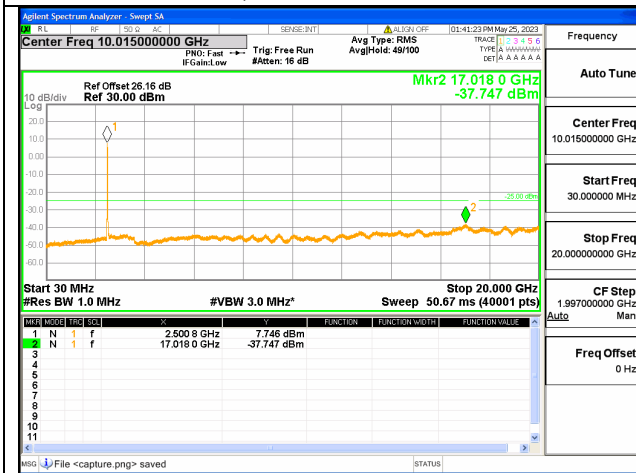
Band41C-20G-27G / 20+10MHz / 1RB+1RB / QPSK / Low CH



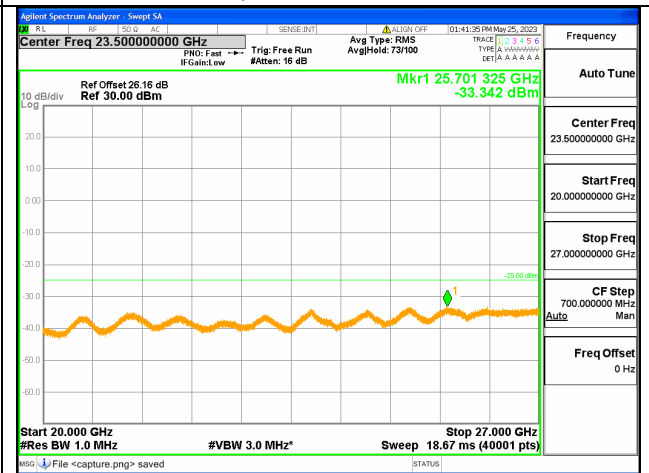
Band41C-30M-20G / 20+10MHz / 1RB+1RB / QPSK / Low CH



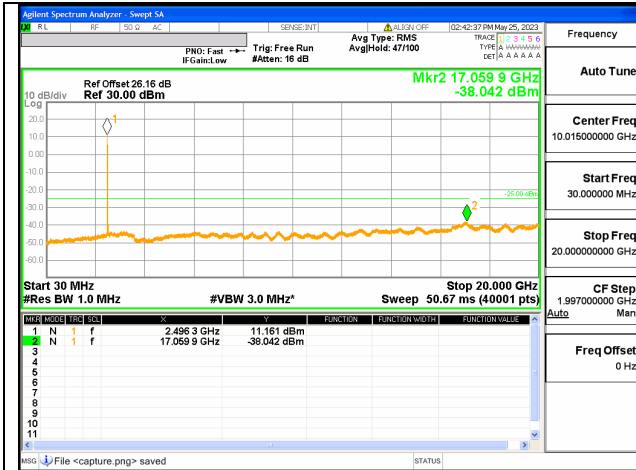
Band41C-20G-27G / 20+10MHz / 1RB+1RB / QPSK / Low CH



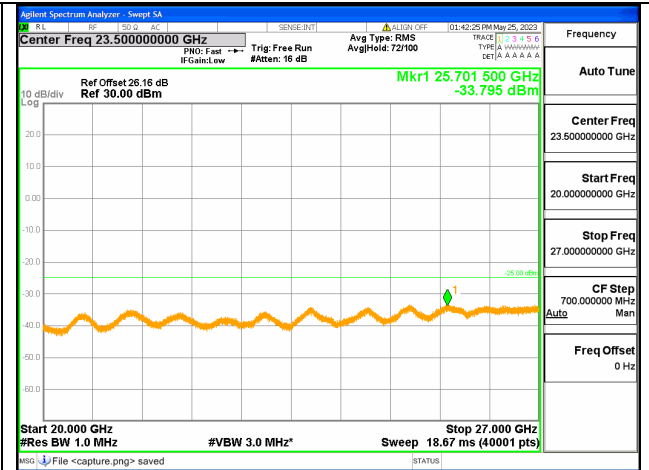
Band41C-30M-20G / 20+10MHz / 100RB+50RB / QPSK / Low CH



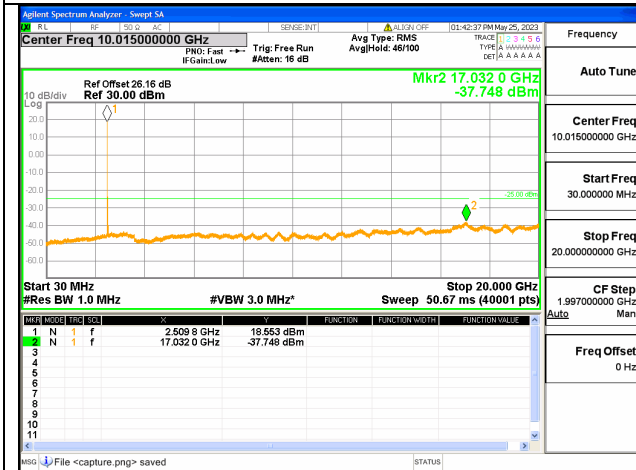
Band41C-20G-27G / 20+10MHz / 100RB+50RB / QPSK / Low CH



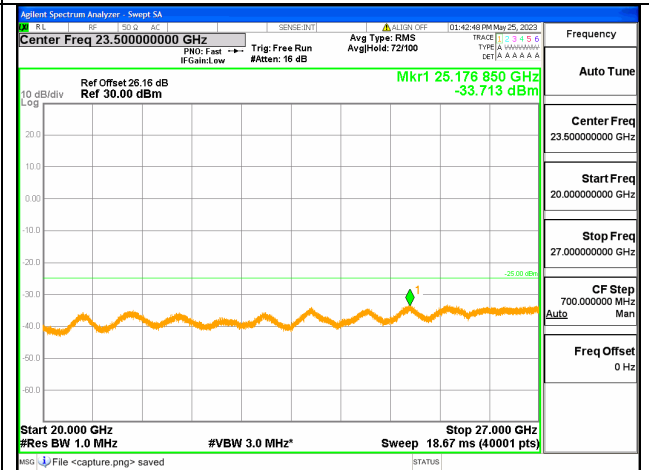
Band41C-30M-20G / 15+15MHz / 1RB+1RB / QPSK / Low CH



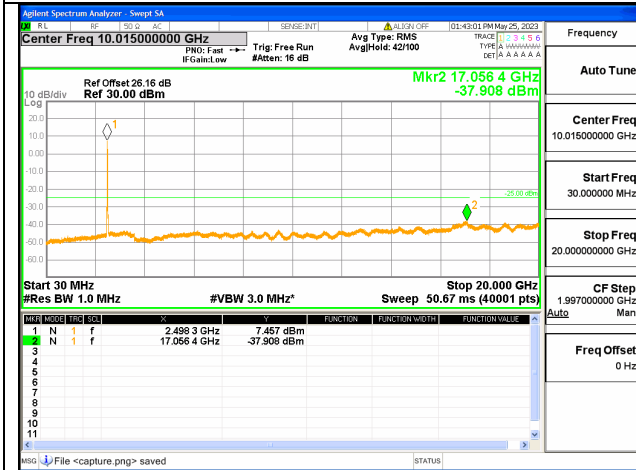
Band41C-20G-27G / 15+15MHz / 1RB+1RB / QPSK / Low CH



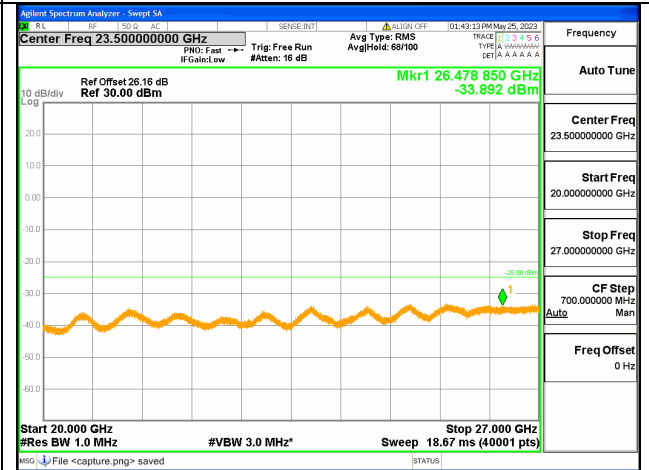
Band41C-30M-20G / 15+15MHz / 1RB+1RB / QPSK / Low CH



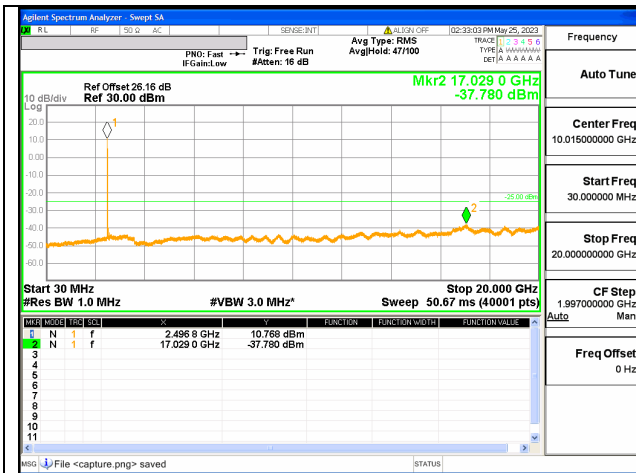
Band41C-20G-27G / 15+15MHz / 1RB+1RB / QPSK / Low CH



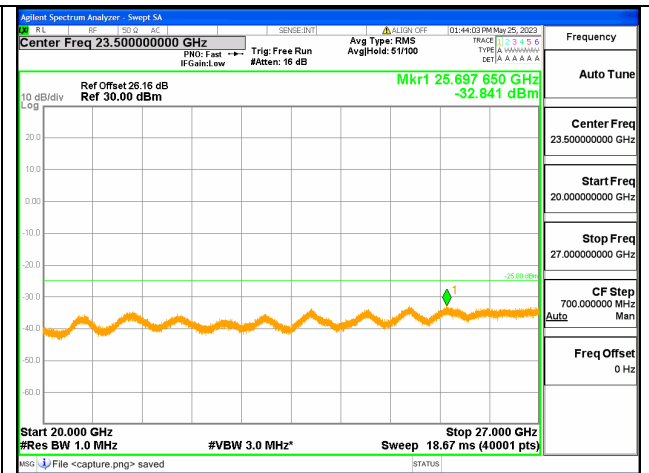
Band41C-30M-20G / 15+15MHz / 75RB+75RB / QPSK / Low CH



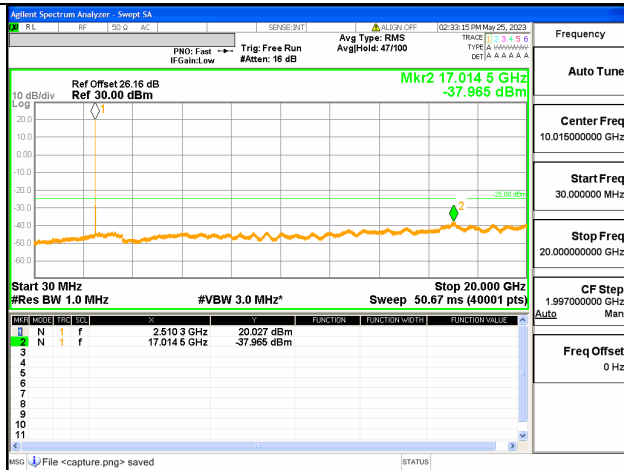
Band41C-20G-27G / 15+15MHz / 75RB+75RB / QPSK / Low CH



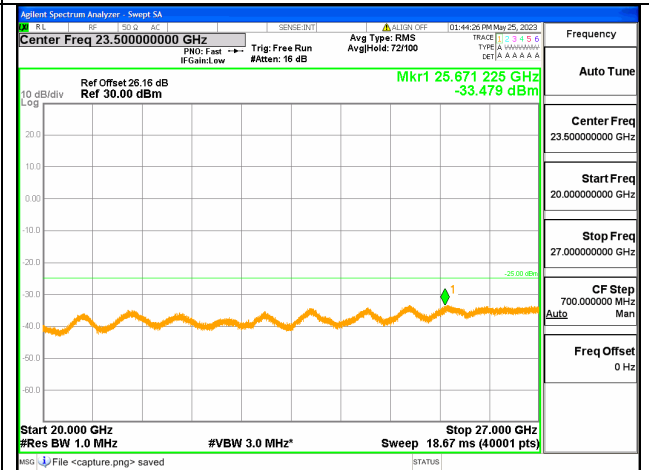
Band41C-30M-20G / 15+20MHz / 1RB+1RB / QPSK / Low CH



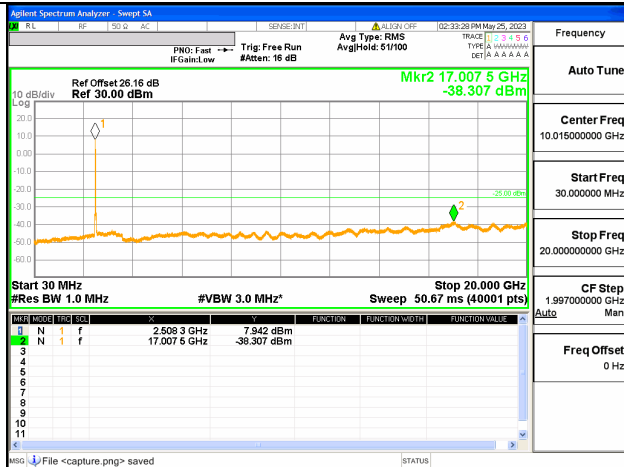
Band41C-20G-27G / 15+20MHz / 1RB+1RB / QPSK / Low CH



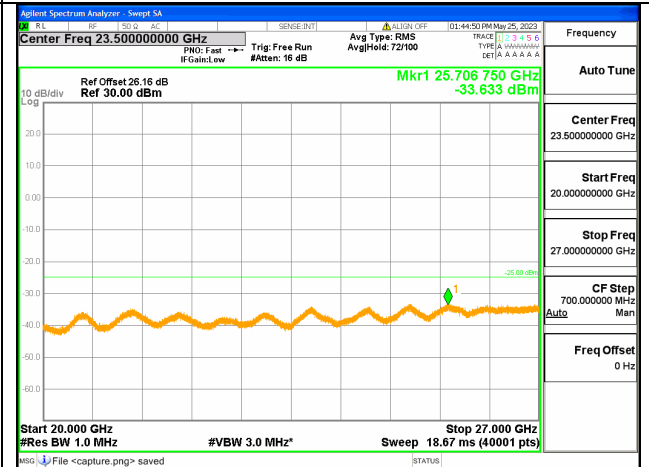
Band41C-30M-20G / 15+20MHz / 1RB+1RB / QPSK / Low CH



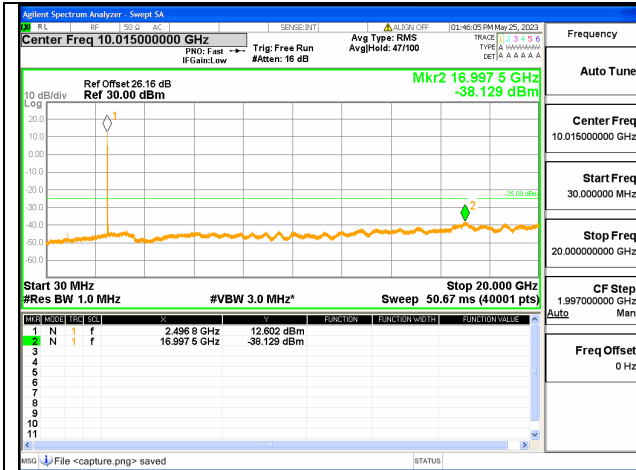
Band41C-20G-27G / 15+20MHz / 1RB+1RB / QPSK / Low CH



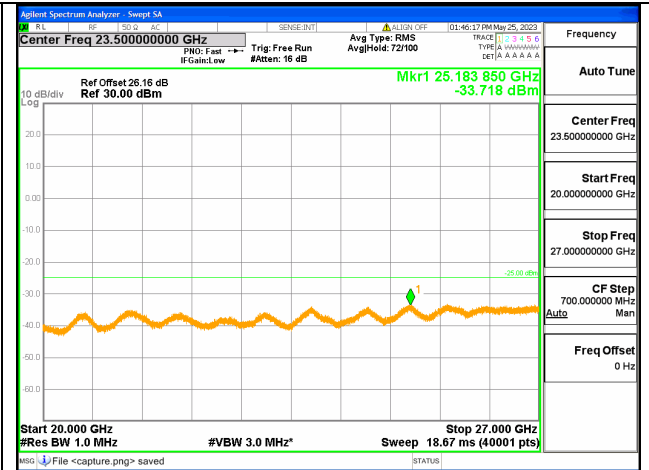
Band41C-30M-20G / 15+20MHz / 75RB+100RB / QPSK / Low CH



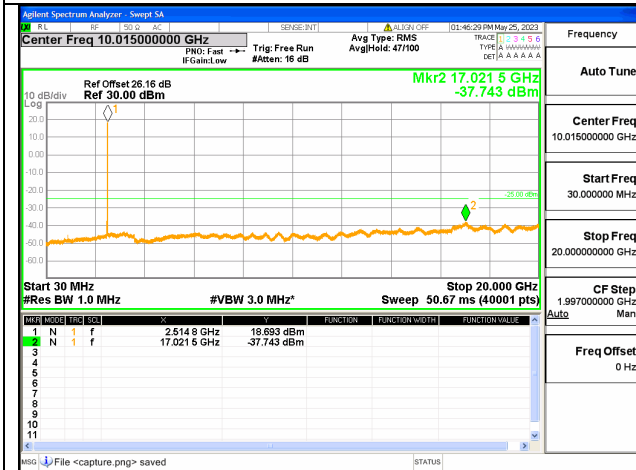
Band41C-20G-27G / 15+20MHz / 75RB+100RB / QPSK / Low CH



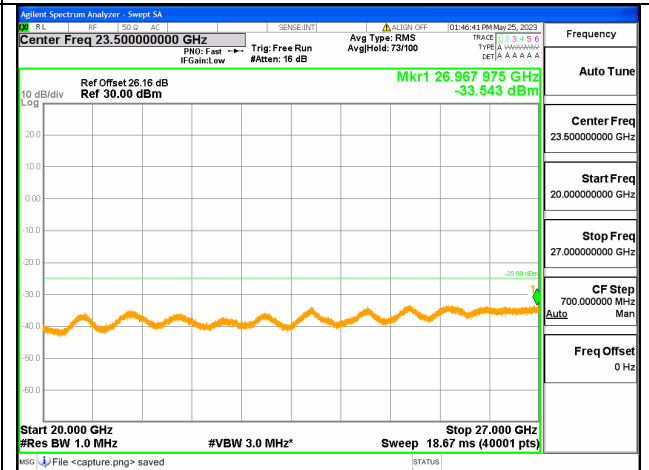
Band41C-30M-20G / 20+15MHz / 1RB+1RB / QPSK / Low CH



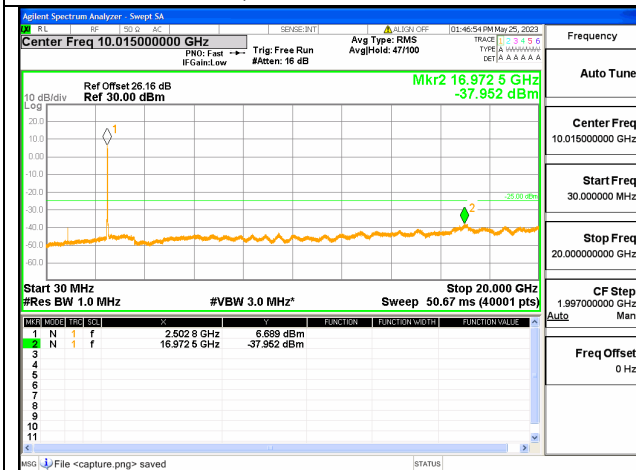
Band41C-20G-27G / 20+15MHz / 1RB+1RB / QPSK / Low CH



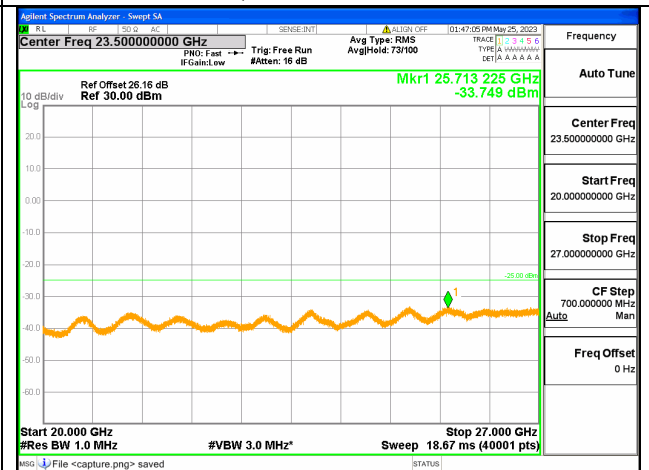
Band41C-30M-20G / 20+15MHz / 1RB+1RB / QPSK / Low CH



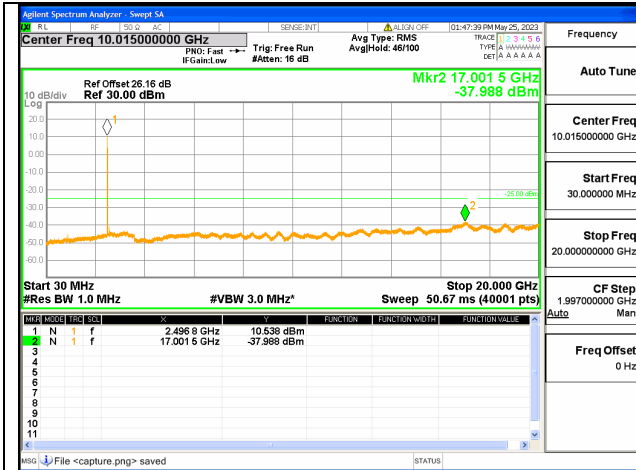
Band41C-20G-27G / 20+15MHz / 1RB+1RB / QPSK / Low CH



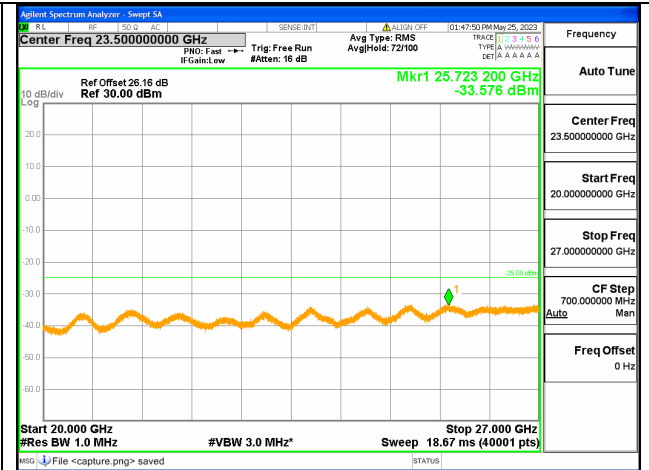
Band41C-30M-20G / 20+15MHz / 100RB+75RB / QPSK / Low CH



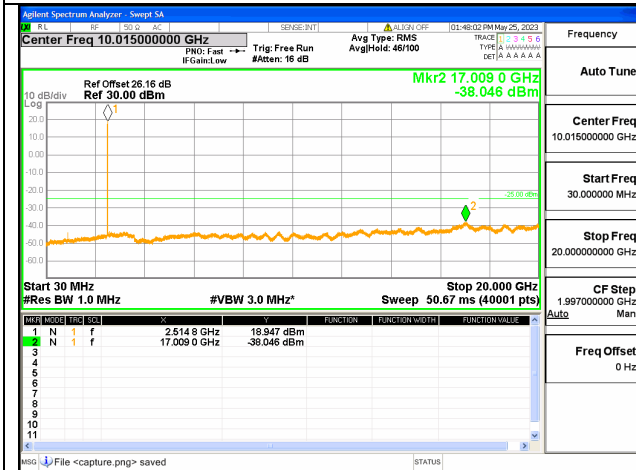
Band41C-20G-27G / 20+15MHz / 100RB+75RB / QPSK / Low CH



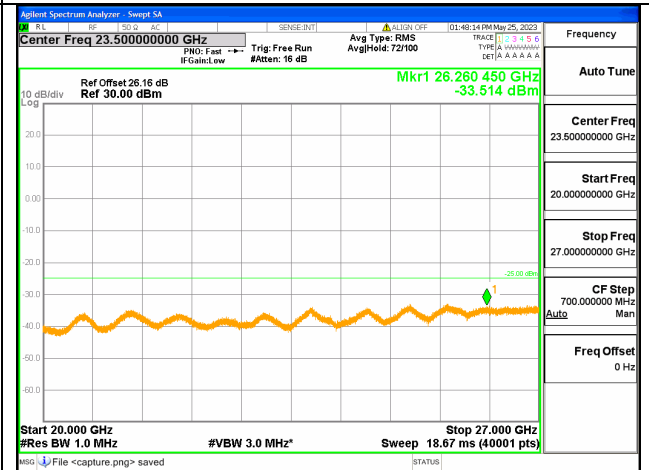
Band41C-30M-20G / 20+20MHz / 1RB+1RB / QPSK / Low CH



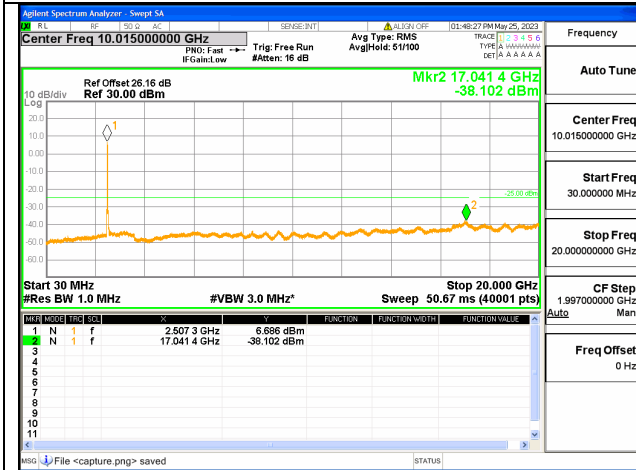
Band41C-20G-27G / 20+20MHz / 1RB+1RB / QPSK / Low CH



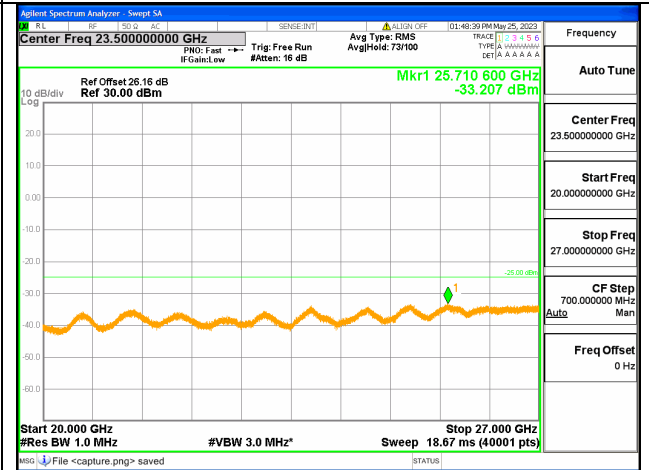
Band41C-30M-20G / 20+20MHz / 1RB+1RB / QPSK / Low CH



Band41C-20G-27G / 20+20MHz / 1RB+1RB / QPSK / Low CH

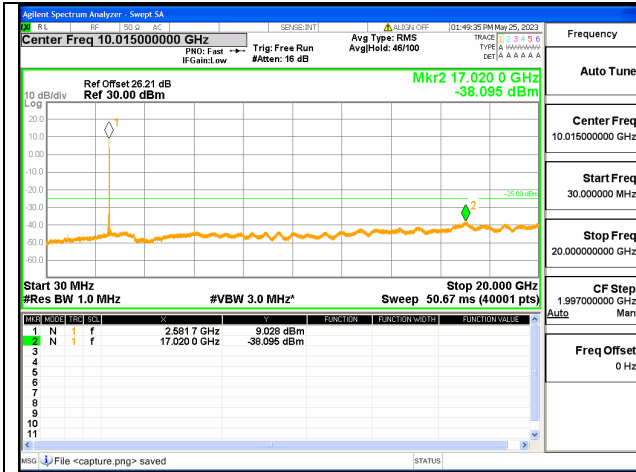


Band41C-30M-20G / 20+20MHz / 100RB+100RB / QPSK / Low CH

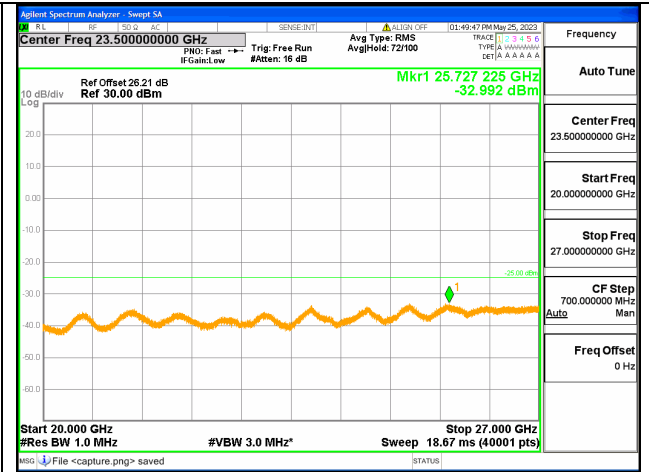


Band41C-20G-27G / 20+20MHz / 100RB+100RB / QPSK / Low CH

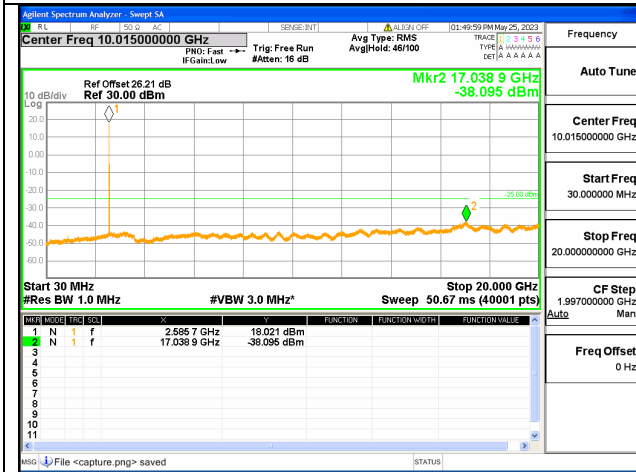




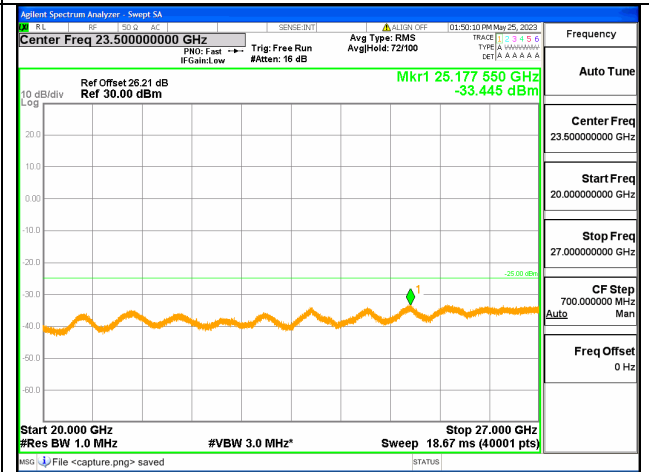
Band41C-30M-20G / 5+20MHz / 1RB+1RB / QPSK / Mid CH



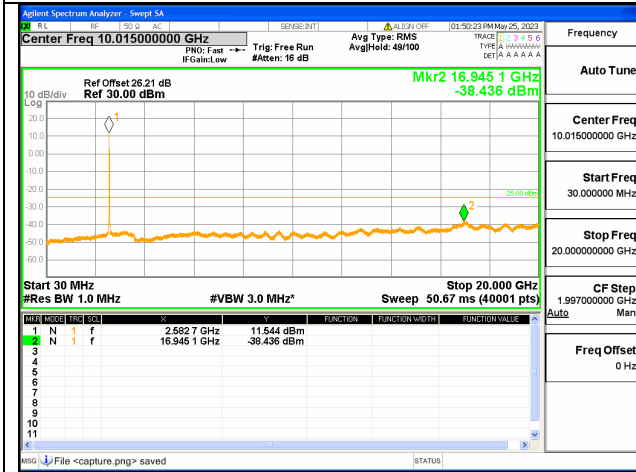
Band41C-20G-27G / 5+20MHz / 1RB+1RB / QPSK / Mid CH



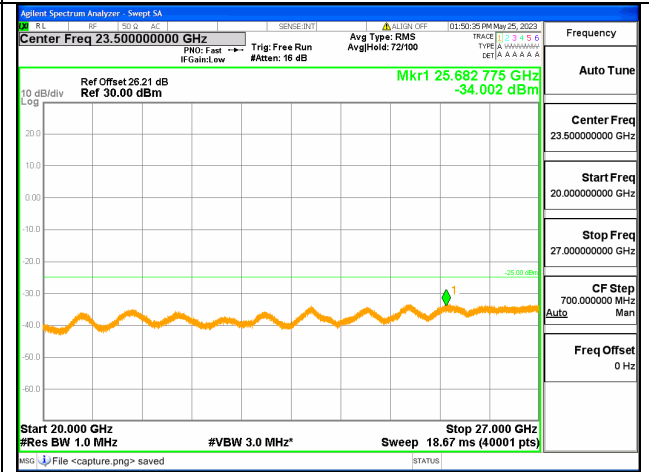
Band41C-30M-20G / 5+20MHz / 1RB+1RB / QPSK / Mid CH



Band41C-20G-27G / 5+20MHz / 1RB+1RB / QPSK / Mid CH



Band41C-30M-20G / 5+20MHz / 25RB+100RB / QPSK / Mid CH



Band41C-20G-27G / 5+20MHz / 25RB+100RB / QPSK / Mid CH