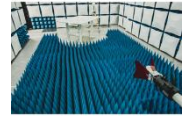




**PCTEST**  
18855 Adams Court, Morgan Hill, CA 95037 USA  
Tel. 410.290.6652 / Fax 410.290.6654  
<http://www.pctest.com>



## MEASUREMENT REPORT

### FCC PART 15.407 / ISSED RSS-247 UNII 802.11ax OFDMA

**Applicant Name:**

Apple Inc.  
One Apple Park Way  
Cupertino, CA 95014  
United States

**Date of Testing:**

12/10/2019 - 02/24/2020

**Test Site/Location:**

PCTEST. Morgan Hill, CA, USA

**Test Report Serial No.:**

1C1912170054-13-R1.BCG

|                   |                   |
|-------------------|-------------------|
| <b>FCC ID:</b>    | <b>BCGA2069</b>   |
| <b>IC:</b>        | <b>579C-A2069</b> |
| <b>APPLICANT:</b> | <b>Apple Inc.</b> |

**Application Type:**

Certification

**Model/HVIN:**

A2069

**EUT Type:**

Tablet Device

**Frequency Range:**

5180 – 5825MHz

**FCC Classification:**

Unlicensed National Information Infrastructure (UNII)

**FCC Rule Part(s):**

Part 15 Subpart E (15.407)

**ISED Specification:**

RSS-247 Issue 2

**Test Procedure(s):**

ANSI C63.10-2013, KDB 789033 D02 v02r01,  
KDB 662911 D01 v02r01

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013 and KDB 789033 D02 v02r01. Test results reported herein relate only to the item(s) tested.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

  
Randy Ortanez  
President

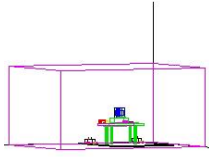


|                                                   |                                                                                                                                  |                                        |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>FCC ID:</b> BCGA2069                           |  <b>MEASUREMENT REPORT</b><br>(CERTIFICATION) | <b>Approved by:</b><br>Quality Manager |
| <b>Test Report S/N:</b><br>1C1912170054-13-R1.BCG | <b>Test Dates:</b><br>12/10/2019 - 02/24/2020                                                                                    | <b>EUT Type:</b><br>Tablet Device      |
|                                                   |                                                                                                                                  | Page 1 of 541                          |

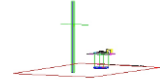
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|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 2 of 541                   |



## MEASUREMENT REPORT



| UNII Band | Channel Bandwidth (MHz) | Tx Frequency (MHz) | SISO            |                  |                 |                  | CDD             |                  |                 |                  |                 |                  |
|-----------|-------------------------|--------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
|           |                         |                    | Core 0          |                  | Core 1          |                  | Core 0          |                  | Core 1          |                  | Summed          |                  |
|           |                         |                    | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) |
| 1         | 20                      | 5180 - 5240        | 50.119          | 17.00            | 50.119          | 17.00            | 50.119          | 17.00            | 49.659          | 16.96            | 99.778          | 19.99            |
| 2A        |                         | 5260 - 5320        | 47.315          | 16.75            | 47.315          | 16.75            | 47.315          | 16.75            | 47.315          | 16.75            | 94.630          | 19.76            |
| 2C        |                         | 5500 - 5720        | 35.481          | 15.50            | 35.481          | 15.50            | 35.481          | 15.50            | 35.481          | 15.50            | 70.963          | 18.51            |
| 3         |                         | 5745 - 5825        | 37.584          | 15.75            | 35.481          | 15.50            | 37.584          | 15.75            | 35.481          | 15.50            | 73.065          | 18.64            |
| 1         | 40                      | 5190 - 5230        | 50.119          | 17.00            | 49.659          | 16.96            | 50.119          | 17.00            | 50.119          | 17.00            | 100.237         | 20.01            |
| 2A        |                         | 5270 - 5310        | 47.315          | 16.75            | 47.315          | 16.75            | 47.315          | 16.75            | 47.315          | 16.75            | 94.630          | 19.76            |
| 2C        |                         | 5510 - 5710        | 35.481          | 15.50            | 35.481          | 15.50            | 35.481          | 15.50            | 35.481          | 15.50            | 70.963          | 18.51            |
| 3         |                         | 5755 - 5795        | 37.584          | 15.75            | 35.481          | 15.50            | 37.584          | 15.75            | 35.481          | 15.50            | 72.725          | 18.62            |
| 1         | 80                      | 5210               | 15.849          | 12.00            | 15.849          | 12.00            | 11.220          | 10.50            | 11.220          | 10.50            | 22.440          | 13.51            |
| 2A        |                         | 5290               | 14.125          | 11.50            | 14.028          | 11.47            | 10.000          | 10.00            | 10.000          | 10.00            | 20.000          | 13.01            |
| 2C        |                         | 5530 - 5690        | 35.481          | 15.50            | 35.481          | 15.50            | 35.481          | 15.50            | 34.914          | 15.43            | 70.395          | 18.48            |
| 3         |                         | 5775               | 35.481          | 15.50            | 35.481          | 15.50            | 25.119          | 14.00            | 25.119          | 14.00            | 50.238          | 17.01            |

### FCC EUT Overview

| UNII Band | Channel Bandwidth (MHz) | Tx Frequency (MHz) | SISO            |                  |                 |                  | CDD             |                  |                 |                  |                 |                  |
|-----------|-------------------------|--------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
|           |                         |                    | Core 0          |                  | Core 1          |                  | Core 0          |                  | Core 1          |                  | Summed          |                  |
|           |                         |                    | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) |
| 1         | 20                      | 5180 - 5240        | 33.497          | 15.25            | 33.497          | 15.25            | 8.356           | 9.22             | 8.414           | 9.25             | 16.597          | 12.20            |
| 2A        |                         | 5260 - 5320        | 47.315          | 16.75            | 47.315          | 16.75            | 47.315          | 16.75            | 47.315          | 16.75            | 94.630          | 19.76            |
| 2C        |                         | 5500 - 5720        | 35.481          | 15.50            | 35.481          | 15.50            | 35.481          | 15.50            | 35.481          | 15.50            | 70.963          | 18.51            |
| 3         |                         | 5745 - 5825        | 37.584          | 15.75            | 35.481          | 15.50            | 37.584          | 15.75            | 35.481          | 15.50            | 73.065          | 18.64            |
| 1         | 40                      | 5190 - 5230        | 50.119          | 17.00            | 50.003          | 16.99            | 18.836          | 12.75            | 18.493          | 12.67            | 37.329          | 15.72            |
| 2A        |                         | 5270 - 5310        | 47.315          | 16.75            | 47.315          | 16.75            | 47.315          | 16.75            | 47.315          | 16.75            | 94.630          | 19.76            |
| 2C        |                         | 5510 - 5710        | 35.481          | 15.50            | 35.481          | 15.50            | 35.481          | 15.50            | 35.481          | 15.50            | 70.963          | 18.51            |
| 3         |                         | 5755 - 5795        | 37.584          | 15.75            | 35.481          | 15.50            | 37.584          | 15.75            | 35.481          | 15.50            | 72.725          | 18.62            |
| 1         | 80                      | 5210               | 15.849          | 12.00            | 15.849          | 12.00            | 11.220          | 10.50            | 11.220          | 10.50            | 22.440          | 13.51            |
| 2A        |                         | 5290               | 14.125          | 11.50            | 14.028          | 11.47            | 10.000          | 10.00            | 10.000          | 10.00            | 20.000          | 13.01            |
| 2C        |                         | 5530 - 5690        | 35.481          | 15.50            | 35.481          | 15.50            | 35.481          | 15.50            | 34.914          | 15.43            | 70.395          | 18.48            |
| 3         |                         | 5775               | 35.481          | 15.50            | 35.481          | 15.50            | 25.119          | 14.00            | 25.119          | 14.00            | 50.238          | 17.01            |

### ISED EUT Overview

|                                            |                                                                                                                               |                            |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  <b>MEASUREMENT REPORT (CERTIFICATION)</b> |                            | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                                                                        | EUT Type:<br>Tablet Device | Page 3 of 541                   |

## 1.0 INTRODUCTION

### 1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

### 1.2 PCTEST Test Location

These measurement tests were conducted at the PCTEST facility located at 18855 Adams Court, Morgan Hill, CA 95037. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014 and KDB 414788 D01 v01r01.

### 1.3 Test Facility / Accreditations

Measurements were performed at PCTEST located in Morgan Hill, CA 95037, U.S.A.

- PCTEST is an ISO 17025-2005 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.02 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- PCTEST TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).
- PCTEST facility is a registered (22831) test laboratory with the site description on file with ISED.

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 4 of 541                   |

## 2.0 PRODUCT INFORMATION

### 2.1 Equipment Description

The Equipment Under Test (EUT) is the **Apple Tablet Device FCC ID: BCGA2069**. The test data contained in this report pertains only to the emissions due to the EUT's UNII transmitter.

**Test Device Serial No.:** DLXZV00EPQLD, DLXZV017PQLD

### 2.2 Device Capabilities

This device contains the following capabilities:

850/1900 GSM/GPRS/EDGE, 850/1700/1900 WCDMA/HSPA, Multi-band LTE, 802.11b/g/n/ax WLAN, 802.11a/n/ac/ax UNII, Bluetooth (1x, EDR, LE, HDR4, HDR8)

This device supports BT Beamforming

| Band 1 |                 | Band 2A |                 | Band 2C |                 | Band 3 |                 |
|--------|-----------------|---------|-----------------|---------|-----------------|--------|-----------------|
| Ch.    | Frequency (MHz) | Ch.     | Frequency (MHz) | Ch.     | Frequency (MHz) | Ch.    | Frequency (MHz) |
| 36     | 5180            | 52      | 5260            | 100     | 5500            | 149    | 5745            |
| :      | :               | :       | :               | :       | :               | :      | :               |
| 42     | 5210            | 56      | 5280            | 116     | 5580            | 157    | 5785            |
| :      | :               | :       | :               | :       | :               | :      | :               |
| 48     | 5240            | 64      | 5320            | 144     | 5720            | 165    | 5825            |

Table 2-1. 802.11ax (20MHz) Frequency / Channel Operations

| Band 1 |                 | Band 2A |                 | Band 2C |                 | Band 3 |                 |
|--------|-----------------|---------|-----------------|---------|-----------------|--------|-----------------|
| Ch.    | Frequency (MHz) | Ch.     | Frequency (MHz) | Ch.     | Frequency (MHz) | Ch.    | Frequency (MHz) |
| 38     | 5190            | 54      | 5270            | 102     | 5510            | 151    | 5755            |
| :      | :               | :       | :               | :       | :               | :      | :               |
| 46     | 5230            | 62      | 5310            | 110     | 5550            | 159    | 5795            |
|        |                 |         |                 | :       | :               |        |                 |
|        |                 |         |                 | 142     | 5710            |        |                 |

Table 2-2. 802.11ax (40MHz BW) Frequency / Channel Operations

| Band 1 |                 | Band 2A |                 | Band 2C |                 | Band 3 |                 |
|--------|-----------------|---------|-----------------|---------|-----------------|--------|-----------------|
| Ch.    | Frequency (MHz) | Ch.     | Frequency (MHz) | Ch.     | Frequency (MHz) | Ch.    | Frequency (MHz) |
| 42     | 5210            | 58      | 5290            | 106     | 5530            | 155    | 5775            |
|        |                 |         |                 | :       | :               |        |                 |
|        |                 |         |                 | 138     | 5690            |        |                 |

Table 2-3. 802.11ax (80MHz BW) Frequency / Channel Operations

|                                            |                                                                                                                               |                            |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  <b>MEASUREMENT REPORT (CERTIFICATION)</b> |                            | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                                                                        | EUT Type:<br>Tablet Device | Page 5 of 541                   |

#### Notes:

- 5GHz NII operation is possible in 20MHz, and 40MHz, and 80MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = peak per the guidance of Section B)2)b) of ANSI C63.10-2013 and KDB 789033 D02 v02r01. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

| Measured Duty Cycles |           |                |        |      |
|----------------------|-----------|----------------|--------|------|
| 802.11 Mode/Band     |           | Duty Cycle [%] |        |      |
|                      |           | CORE 0         | CORE 1 | CDD  |
| 5GHz                 | ax (HE20) | 99.4           | 99.3   | 98.7 |
|                      | ax (HE40) | 99.3           | 99.1   | 98.1 |
|                      | ax (HE80) | 98.4           | 97.9   | 98.6 |

**Table 2-4. Measured Duty Cycles**

- 5GHz ANTUpper is correlating to Core 0 and 5GHz ANTLower is correlating to Core 1.
- The device employs CDD/SDM technology. Below are the possible configurations.

| WiFi Configurations |              | SISO   |        | CDD    |        | SDM    |        | STBC   |        |
|---------------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|
|                     |              | CORE 0 | CORE 1 | CORE 0 | CORE 1 | CORE 0 | CORE 1 | CORE 0 | CORE 1 |
| 5GHz                | 11ax (20MHz) | ✓      | ✓      | ✓      | ✓      | ✗      | ✗      | ✗      | ✗      |
|                     | 11ax (40MHz) | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      |
|                     | 11ax (80MHz) | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      |

**Table 2-5. Frequency / Channel Operations**

✓ = Support ; ✗ = NOT Support

**SISO** = Single Input Single Output

**CDD** = Cyclic Delay Diversity – 2Tx Function

**SDM** = Spatial Diversity Multiplexing – CDD/SDM function

**STBC** = Space-Time Block Coding – 2Tx Function

## 2.3 Antenna Description

Following antennas were used for the testing.

| Frequency [GHz] | Antenna Gain (dBi) |          |
|-----------------|--------------------|----------|
|                 | ANTUpper           | ANTLower |
| 5.150 – 5.250   | 2.8                | 2.6      |
| 5.260 – 5.350   | 3.6                | 3.0      |
| 5.470 – 5.725   | 3.5                | 2.0      |
| 5.745 – 5.850   | 4.5                | 2.5      |

**Table 2-6. Highest Antenna Gain**

|                                            |                                                                                                                                   |                            |                                 |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                                                                            | EUT Type:<br>Tablet Device | Page 6 of 541                   |

## 2.4 Test Support Equipment

|   |                   |                 |                        |
|---|-------------------|-----------------|------------------------|
| 1 | Apple MacBook     | Model: A1398    | S/N: C2QKP008F6F3      |
|   | w/ AC/DC Adapter  | Model: A1435    | S/N: C04325505K1F288BG |
| 2 | Apple USB-C Cable | Model: Chimp    | S/N: 304523            |
| 3 | USB-C Cable       | Model: A1997    | S/N: N/A               |
|   | w / AC/DC Adapter | Model: A1720    | S/N: C3D9274B06YLHDAE  |
| 4 | Apple Pencil      | Model: A2051    | S/N: GQXYGSXCJKM9      |
| 5 | DC Power Supply   | Model: KPS3010D | S/N: N/A               |

Table 2-7. Test Support Equipment Used

## 2.5 Test Configuration

The EUT was tested per the guidance of KDB 789033 D02 v02r01. ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testing.

There are two vendors of the WiFi/Bluetooth radio modules, variant 1 and variant 2. Both radio modules have the same mechanical outline, same on-board antenna matching circuit, identical antenna structure, and are built and tested to conform to the same specifications and to operate within the same tolerances. The worst case configuration was found between the two variants. The EUT was also investigated with and without charger.

For emissions from 1GHz – 18GHz, low, mid, and high channels were tested with highest power and worst case configuration. The emissions below 1GHz and above 18GHz were tested with the highest transmitting power channel and the worst case configuration.

The EUT was manipulated through three orthogonal planes of X-orientation (flatbed), Y-orientation (landscape), and Z-orientation (portrait) during the testing. Only the worst case emissions were reported in this test report.

Throughout the report, 5GHz ANTUpper is correlating to Core 0 and 5GHz ANTLower is correlating to Core 1.

For 802.11a/n/ac test results, see separate UNII report, 1C1912170054-12-R1.BCG.

## 2.6 Software and Firmware

The test was conducted with firmware version 17E228 installed on the EUT.

## 2.7 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 7 of 541                   |

## 3.0 DESCRIPTION OF TESTS

### 3.1 Evaluation Procedure

The measurement procedures described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10-2013) and the guidance provided in KDB 789033 D02 v02r01 were used in the measurement of the EUT.

Deviation from measurement procedure.....None

### 3.2 Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4-2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. An 80cm tall test table made of Styrodur is placed on top of the turn table. For measurements above 1GHz, an additional Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

Per KDB 414788, radiated emission test sites other than open-field test sites (e.g., shielded anechoic chambers), may be employed for emission measurements below 30MHz if characterized so that the measurements correspond to those obtained at an open-field test site. To determine test site equivalency, a reference sample transmitting at 149kHz was measured on an open field test site (asphalt with no ground plane) and then measured in the 3m semi-anechoic chamber. A calibrated 60cm loop antenna was used while the reference device was rotated through the X, Y and Z axis in order to capture the worst case level. A maximum deviation of 2.77dB at 149kHz was measured when comparing the 3 meter semi-anechoic chamber to the open field site.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33 depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up was placed on top of the 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, mode of operation, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions.

|                                            |                                                                                                                                   |                            |                                 |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                                                                            | EUT Type:<br>Tablet Device | Page 8 of 541                   |

### 3.3 Environmental Conditions

The temperature is controlled within range of 15°C to 35°C. The relative humidity is controlled within range of 10% to 75%. The atmospheric pressure is monitored within the range 86-106kPa (860-1060mbar).

|                                                   |                                                                                     |                                               |                                        |
|---------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------|
| <b>FCC ID:</b> BCGA2069                           |  | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> | <b>Approved by:</b><br>Quality Manager |
| <b>Test Report S/N:</b><br>1C1912170054-13-R1.BCG | <b>Test Dates:</b><br>12/10/2019 - 02/24/2020                                       | <b>EUT Type:</b><br>Tablet Device             | Page 9 of 541                          |

## 4.0 ANTENNA REQUIREMENTS

### Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- The antennas of the EUT are **permanently attached**.
- There are no provisions for connection to an external antenna.

### Conclusion:

The EUT complies with the requirement of §15.203.

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 10 of 541                  |

## 5.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2013. All measurement uncertainty values are shown with a coverage factor of  $k = 2$  to indicate a 95% level of confidence. The measurement uncertainty shown below meets or exceeds the  $U_{\text{CISPR}}$  measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

| Contribution                     | Expanded Uncertainty ( $\pm$ dB) |
|----------------------------------|----------------------------------|
| Conducted Bench Top Measurements | 1.29                             |
| Line Conducted Disturbance       | 2.48                             |
| Radiated Disturbance (<1GHz)     | 4.15                             |
| Radiated Disturbance (>1GHz)     | 4.70                             |
| Radiated Disturbance (>18GHz)    | 5.01                             |

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 11 of 541                  |

## 6.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

| Manufacturer         | Model       | Description                                    | Cal Date   | Cal Interval | Cal Due    | Serial Number |
|----------------------|-------------|------------------------------------------------|------------|--------------|------------|---------------|
| Agilent Technologies | N9030A      | 3Hz-44GHz PXA Signal Analyzer                  | 3/13/2019  | Annual       | 3/13/2020  | MY49430244    |
| Anritsu              | ML2496A     | Power Meter                                    | 10/29/2019 | Annual       | 10/29/2020 | 184005        |
| Anritsu              | MA2411B     | Pulse Power Sensor                             | 10/29/2019 | Annual       | 10/29/2020 | 1726261       |
| Anritsu              | MA2411B     | Pulse Power Sensor                             | 10/29/2019 | Annual       | 10/29/2020 | 1726262       |
| ATM                  | 180-442A-KF | 20dB Nominal Gain Horn Antenna                 | 10/29/2019 | Annual       | 10/29/2020 | T058701-02    |
| COM-POWER            | LIN-120A    | LISN                                           | 3/13/2019  | Annual       | 3/13/2020  | 241297        |
| ETS-Lindgren         | 3142E-PA    | Pre-Amplifier (30MHz - 6GHz)                   | 9/19/2019  | Annual       | 9/19/2020  | 213236        |
| ETS-Lindgren         | 3142E       | BiConiLog Antenna (30MHz - 6GHz)               | 8/14/2019  | Annual       | 8/14/2020  | 224569        |
| ETS-Lindgren         | 3117        | Double Ridged Guide Antenna (1-18 GHz)         | 3/12/2019  | Annual       | 3/12/2020  | 205956        |
| Rohde & Schwarz      | ESW26       | EMI Test Receiver                              | 5/21/2019  | Annual       | 5/21/2020  | 101299        |
| Rohde & Schwarz      | ESW44       | EMI Test Receiver                              | 7/27/2019  | Annual       | 7/27/2020  | 101668        |
| Rohde & Schwarz      | TS-PR1840   | Pre-Amplifier (18GHz - 40GHz)                  | 9/19/2019  | Annual       | 9/19/2020  | 100051        |
| Rohde & Schwarz      | TC-TA18     | Cross Polarized Vivaldi Antenna (400MHz-18GHz) | 11/14/2019 | Annual       | 11/14/2020 | 101057        |
| Rohde & Schwarz      | HFH2-Z2     | Loop Antenna                                   | 3/21/2019  | Annual       | 3/21/2020  | 100519        |

**Table 6-1. Annual Test Equipment Calibration Schedule**

**Note:**

For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.

|                                            |                                                                                                                                   |                            |                                 |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                                                                            | EUT Type:<br>Tablet Device | Page 12 of 541                  |

## 7.0 TEST RESULTS

### 7.1 Summary

Company Name: Apple Inc.  
 FCC ID: BCGA2069  
 FCC Classification: Unlicensed National Information Infrastructure (UNII)

| FCC Part Section(s)                | RSS Section(s) | Test Description                                                              | Test Limit                                                                                     | Test Condition | Test Result | Reference                                      |
|------------------------------------|----------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------|-------------|------------------------------------------------|
| N/A                                | RSS-Gen [6.7]  | 26dB Bandwidth                                                                | N/A                                                                                            | CONDUCTED      | PASS        | Section 7.2                                    |
| 15.407(e)                          | RSS-Gen [6.7]  | 6dB Bandwidth                                                                 | >500kHz(5725-5850MHz)                                                                          |                | PASS        | Section 7.3                                    |
| 15.407 (a.1.iv), (a.2), (a.3)      | RSS-247 [6.2]  | Maximum Conducted Output Power                                                | Maximum conducted powers must meet the limits detailed in 15.407 (a) (RSS-247 [6.2])           |                | PASS        | Section 7.4                                    |
| 15.407 (a.1.iv), (a.2), (a.3)      | RSS-247 [6.2]  | Maximum Power Spectral Density                                                | Maximum power spectral density must meet the limits detailed in 15.407 (a) (RSS-247 [6.2])     |                | PASS        | Section 7.5                                    |
| 15.407(h)                          | RSS-247 [6.3]  | Dynamic Frequency Selection                                                   | See DFS Test Report                                                                            | RADIATED       | PASS        | See DFS Test Report (1C1912170054-11.BCG)      |
| 15.407(b.1), (2), (3), (4)         | RSS-247 [6.2]  | Undesirable Emissions                                                         | Undesirable emissions must meet the limits detailed in 15.407(b) (RSS-247 [6.2])               |                | PASS        | Section 7.6                                    |
| 15.205, 15.407(b.1), (4), (5), (6) | RSS-Gen [8.9]  | General Field Strength Limits (Restricted Bands and Radiated Emission Limits) | Emissions in restricted bands must meet the radiated limits detailed in 15.209 (RSS-Gen [8.9]) |                | PASS        | Section 7.6, 7.7                               |
| 15.407                             | RSS-Gen [8.8]  | AC Conducted Emissions 150kHz – 30MHz                                         | < FCC 15.207 (RSS-Gen [8.8]) limits                                                            | LINE CONDUCTED | PASS        | See UNII Test Report (1C191217005 4-12-R1.BCG) |

**Table 7-1. Summary of Test Results**

#### Notes:

- 1) All channels, modes, and modulations/data rates were investigated among all UNII bands. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables and attenuators.
- 4) For conducted spurious emissions, automated test software was used to measure emissions and capture the corresponding plots necessary to show compliance. The measurement software utilized is PCTEST "UNII Automation," Version 4.7.
- 5) For radiated band edge, automated test software was used to measure emissions and capture the corresponding plots necessary to show compliance. The measurement software utilized is PCTEST "Chamber Automation," Version 1.3.1.
- 6) Per RSS-247 Section 6.2.3, transmission on channels which overlap the 5600-5650 MHz is prohibited. This device operates under these frequencies only under the control of a certified master device and does not support active scanning on these channels. This device does not transmit any beacons or initiate any transmissions in UNII Bands 2A or 2C.
- 7) 802.11ax OFDMA testing was performed for all signal tone configurations as specified by the 802.11ax standard. Worst case results are determined and reported per the guidance provided at the October 2018 TCB Workshop.
- 8) Only one RU index could be selected at a time so no contiguous or non-contiguous RU's were considered for testing.

|                                            |                                                                                                                               |                            |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  <b>MEASUREMENT REPORT (CERTIFICATION)</b> |                            | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                                                                        | EUT Type:<br>Tablet Device | Page 13 of 541                  |

## 7.2 26dB Bandwidth Measurement – 802.11ax OFDMA

RSS-Gen [6.7]

### Test Overview and Limit

The bandwidth at 26dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26dB bandwidth.

*The 26dB bandwidth is used to determine the conducted power limits.*

### Test Procedure Used

ANSI C63.10-2013 – Section 12.4

KDB 789033 D02 v02r01 – Section C

### Test Settings

1. The signal analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to  $X = 26$ . The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth
3.  $VBW \geq 3 \times RBW$
4. Detector = Peak
5. Trace mode = max hold

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-1. Test Instrument & Measurement Setup**

### Test Notes

1. All antenna configurations were investigated and only the worst case is reported
2. All RU's were investigated and only worst case partially-loaded and fully-loaded RU's were reported.

|                                            |                                                                                                                                   |                            |                                 |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                                                                            | EUT Type:<br>Tablet Device | Page 14 of 541                  |

## SISO Core 0 26 dB Bandwidth Measurements

|         | Frequency [MHz] | Channel No. | 802.11 Mode | RU Size | RU Index | Data Rate [Mbps] | Measured 26dB Bandwidth [MHz] |
|---------|-----------------|-------------|-------------|---------|----------|------------------|-------------------------------|
| Band 1  | 5180            | 36          | ax (20MHz)  | 26      | 0        | MSC0             | 19.52                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.98                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.22                         |
|         | 5200            | 40          | ax (20MHz)  | 26      | 0        | MSC0             | 19.23                         |
|         |                 |             |             | 26      | 4        | MSC0             | 19.14                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.33                         |
|         | 5240            | 48          | ax (20MHz)  | 26      | 0        | MSC0             | 19.92                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.56                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.51                         |
|         | 5190            | 38          | ax (40MHz)  | 26      | 0        | MSC0             | 20.07                         |
|         |                 |             |             | 26      | 8        | MSC0             | 22.30                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.48                         |
|         | 5230            | 46          | ax (40MHz)  | 26      | 0        | MSC0             | 19.85                         |
|         |                 |             |             | 26      | 8        | MSC0             | 21.75                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.34                         |
|         | 5210            | 42          | ax (80MHz)  | 26      | 0        | MSC0             | 19.46                         |
|         |                 |             |             | 26      | 18       | MSC0             | 38.77                         |
|         |                 |             |             | 26      | 36       | MSC0             | 19.37                         |
| Band 2A | 5260            | 52          | ax (20MHz)  | 26      | 0        | MSC0             | 19.86                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.92                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.27                         |
|         | 5280            | 56          | ax (20MHz)  | 26      | 0        | MSC0             | 19.84                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.85                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.35                         |
|         | 5320            | 64          | ax (20MHz)  | 26      | 0        | MSC0             | 19.79                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.67                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.34                         |
|         | 5270            | 54          | ax (40MHz)  | 26      | 0        | MSC0             | 19.69                         |
|         |                 |             |             | 26      | 8        | MSC0             | 22.22                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.44                         |
|         | 5310            | 62          | ax (40MHz)  | 26      | 0        | MSC0             | 19.87                         |
|         |                 |             |             | 26      | 8        | MSC0             | 21.98                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.43                         |
|         | 5290            | 58          | ax (80MHz)  | 26      | 0        | MSC0             | 19.50                         |
|         |                 |             |             | 26      | 18       | MSC0             | 38.45                         |
|         |                 |             |             | 26      | 36       | MSC0             | 20.23                         |
| Band 2C | 5500            | 100         | ax (20MHz)  | 26      | 0        | MSC0             | 19.53                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.90                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.30                         |
|         | 5580            | 116         | ax (20MHz)  | 26      | 0        | MSC0             | 19.86                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.66                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.33                         |
|         | 5720            | 144         | ax (20MHz)  | 26      | 0        | MSC0             | 19.76                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.69                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.37                         |
|         | 5510            | 102         | ax (40MHz)  | 26      | 0        | MSC0             | 19.45                         |
|         |                 |             |             | 26      | 8        | MSC0             | 21.47                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.46                         |
|         | 5550            | 110         | ax (40MHz)  | 26      | 0        | MSC0             | 19.38                         |
|         |                 |             |             | 26      | 8        | MSC0             | 21.95                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.74                         |
|         | 5710            | 142         | ax (40MHz)  | 26      | 0        | MSC0             | 19.45                         |
|         |                 |             |             | 26      | 8        | MSC0             | 22.20                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.52                         |
|         | 5530            | 106         | ax (80MHz)  | 26      | 0        | MSC0             | 19.36                         |
|         |                 |             |             | 26      | 18       | MSC0             | 38.96                         |
|         |                 |             |             | 26      | 36       | MSC0             | 20.26                         |
|         | 5690            | 138         | ax (80MHz)  | 26      | 0        | MSC0             | 19.37                         |
|         |                 |             |             | 26      | 18       | MSC0             | 38.97                         |
|         |                 |             |             | 26      | 36       | MSC0             | 20.18                         |

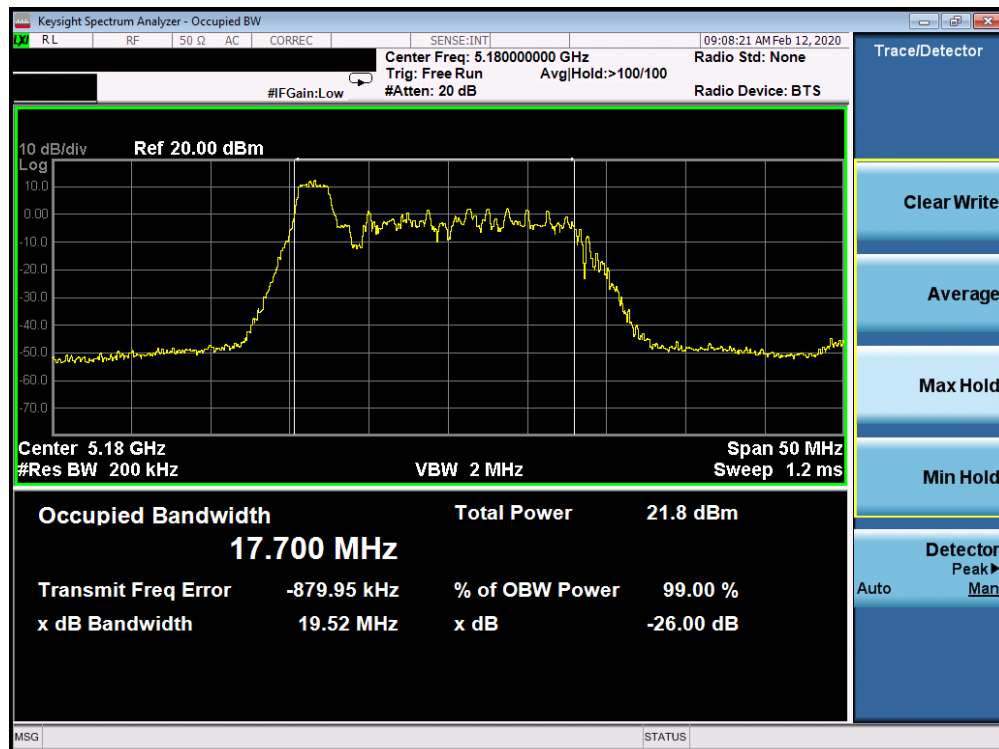
**Table 7-2. Conducted Bandwidth Measurements SISO CORE 0 (RU26)**

|                                            |                                                                                                                               |                            |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  <b>MEASUREMENT REPORT (CERTIFICATION)</b> |                            | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                                                                        | EUT Type:<br>Tablet Device | Page 15 of 541                  |

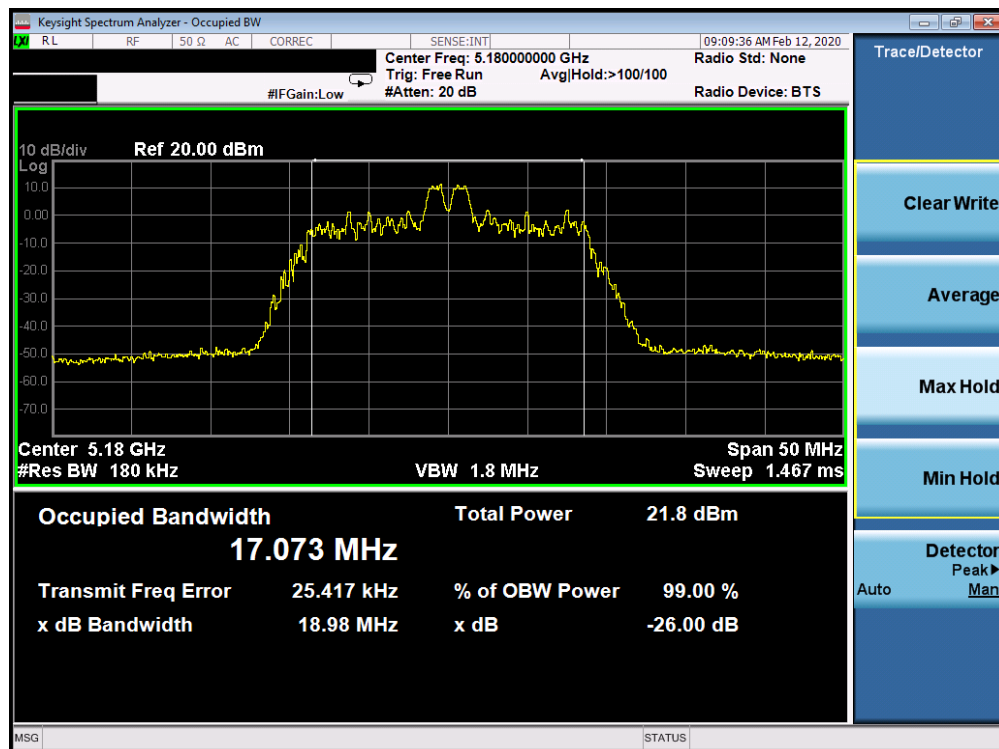
|         | Frequency<br>[MHz] | Channel<br>No. | 802.11 Mode | RU Size | RU Index | Data Rate<br>[Mbps] | Measured 26dB<br>Bandwidth<br>[MHz] |
|---------|--------------------|----------------|-------------|---------|----------|---------------------|-------------------------------------|
| Band 1  | 5180               | 36             | ax (20MHz)  | 242     | 61       | MCS0                | 20.72                               |
|         | 5200               | 40             | ax (20MHz)  | 242     | 61       | MCS0                | 20.90                               |
|         | 5240               | 48             | ax (20MHz)  | 242     | 61       | MCS0                | 20.91                               |
|         | 5190               | 38             | ax (40MHz)  | 484     | 65       | MCS0                | 39.83                               |
|         | 5230               | 46             | ax (40MHz)  | 484     | 65       | MCS0                | 39.85                               |
|         | 5210               | 42             | ax (80MHz)  | 996     | 67       | MCS0                | 80.68                               |
| Band 2A | 5260               | 52             | ax (20MHz)  | 242     | 61       | MCS0                | 20.86                               |
|         | 5280               | 56             | ax (20MHz)  | 242     | 61       | MCS0                | 20.95                               |
|         | 5320               | 64             | ax (20MHz)  | 242     | 61       | MCS0                | 20.82                               |
|         | 5270               | 54             | ax (40MHz)  | 484     | 65       | MCS0                | 40.16                               |
|         | 5310               | 62             | ax (40MHz)  | 484     | 65       | MCS0                | 39.92                               |
|         | 5290               | 58             | ax (80MHz)  | 996     | 67       | MCS0                | 81.00                               |
| Band 2C | 5500               | 100            | ax (20MHz)  | 242     | 61       | MCS0                | 20.79                               |
|         | 5580               | 116            | ax (20MHz)  | 242     | 61       | MCS0                | 20.91                               |
|         | 5720               | 144            | ax (20MHz)  | 242     | 61       | MCS0                | 20.76                               |
|         | 5510               | 102            | ax (40MHz)  | 484     | 65       | MCS0                | 40.05                               |
|         | 5550               | 110            | ax (40MHz)  | 484     | 65       | MCS0                | 39.92                               |
|         | 5710               | 142            | ax (40MHz)  | 484     | 65       | MCS0                | 39.84                               |
|         | 5530               | 106            | ax (80MHz)  | 996     | 67       | MCS0                | 80.57                               |
|         | 5690               | 138            | ax (80MHz)  | 996     | 67       | MCS0                | 80.99                               |

**Table 7-3. Conducted Bandwidth Measurements SISO CORE 0 (Fully-loaded RU)**

|                                            |                                                                                                                                   |                            |                                 |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                                                                            | EUT Type:<br>Tablet Device | Page 16 of 541                  |

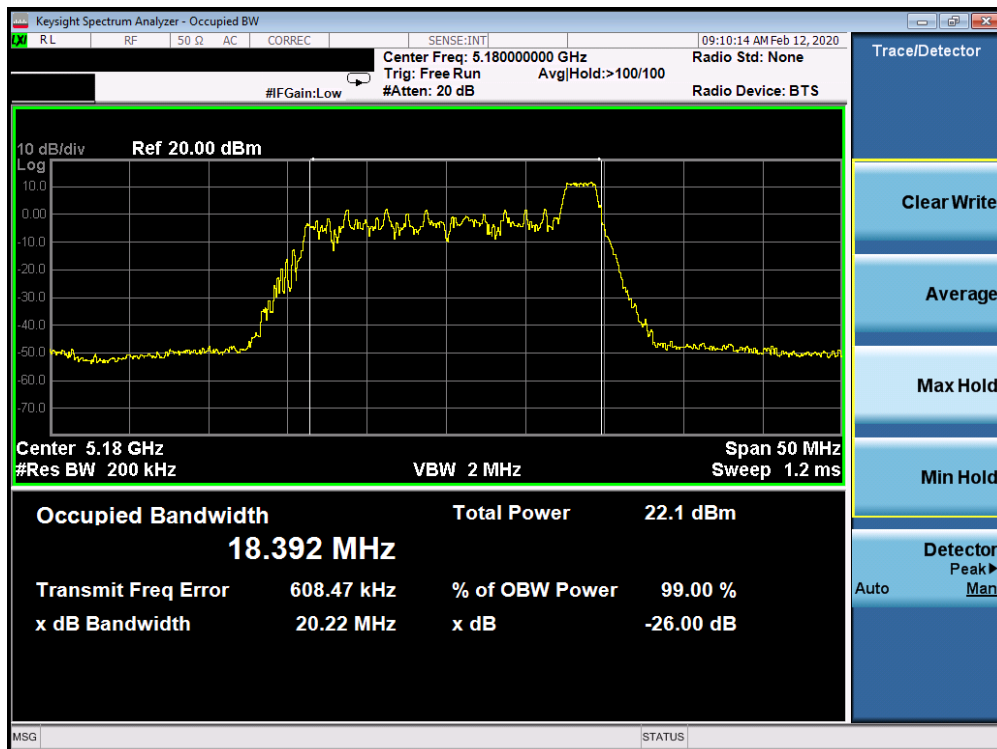


Plot 7-1. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 36)

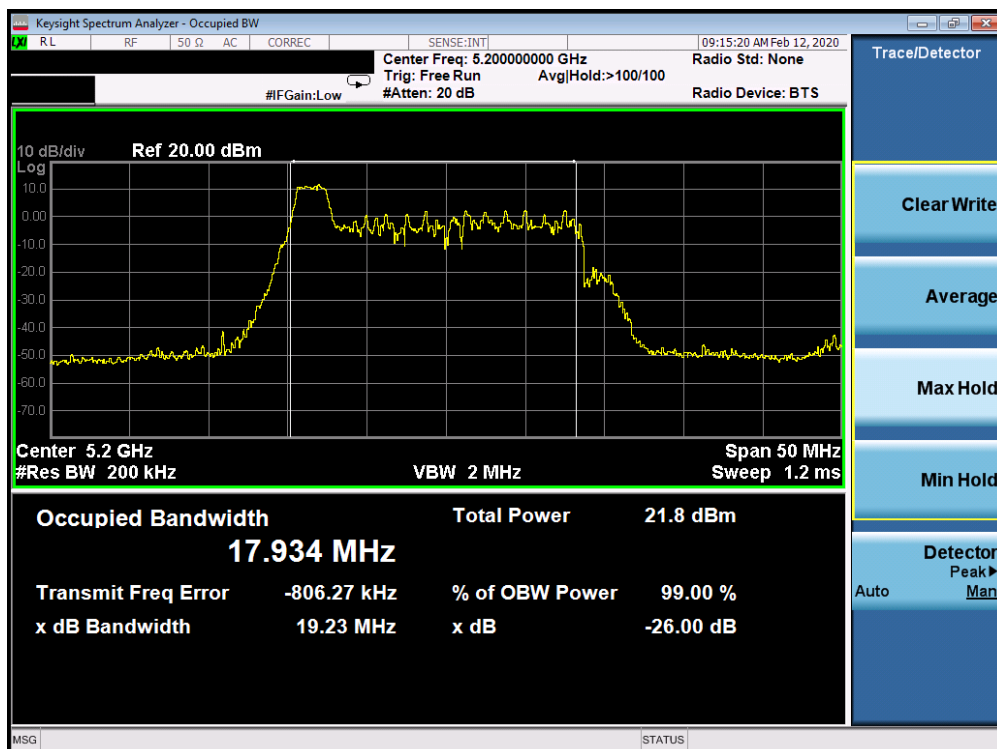


Plot 7-2. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 1) – Ch. 36)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 17 of 541                  |

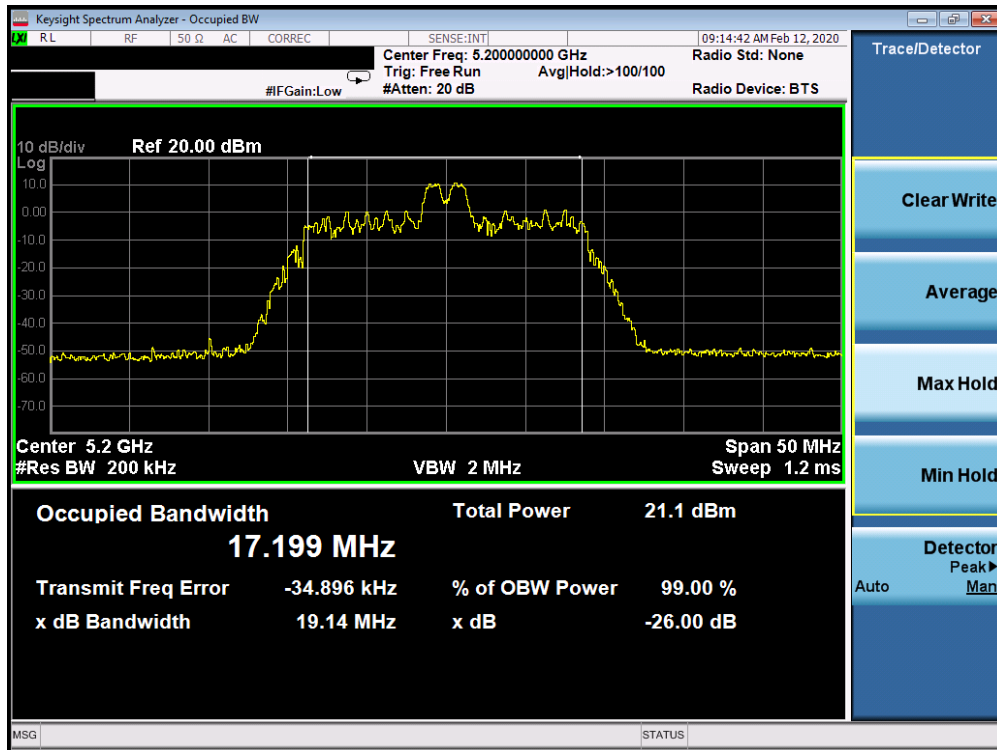


Plot 7-3. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 1) – Ch. 36)

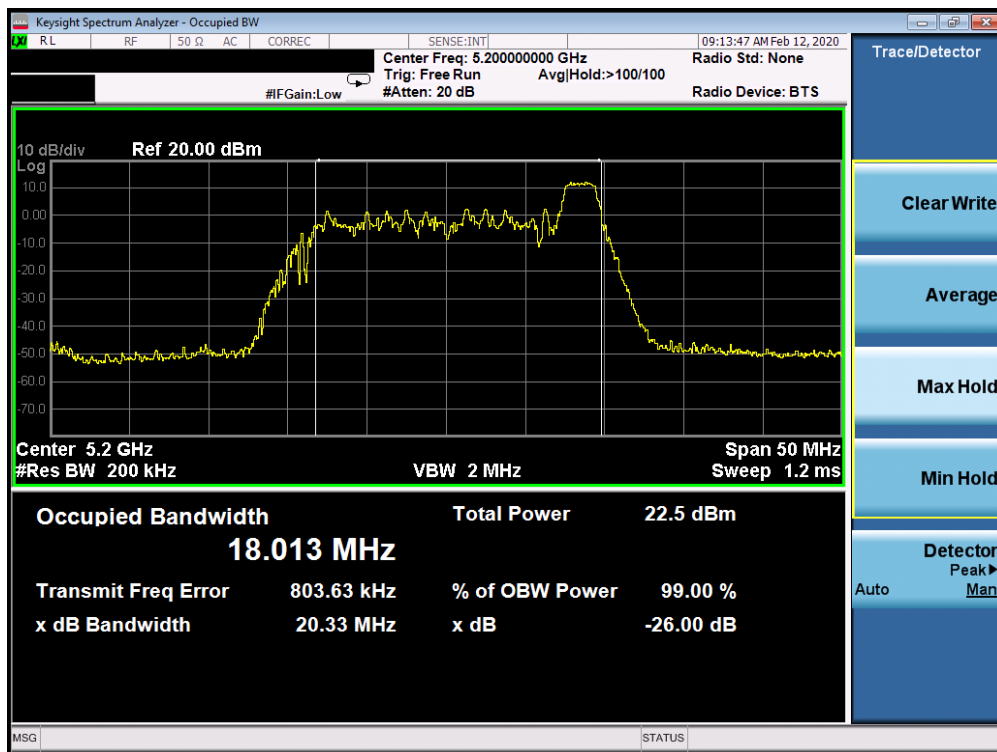


Plot 7-4. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 40)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 18 of 541                  |

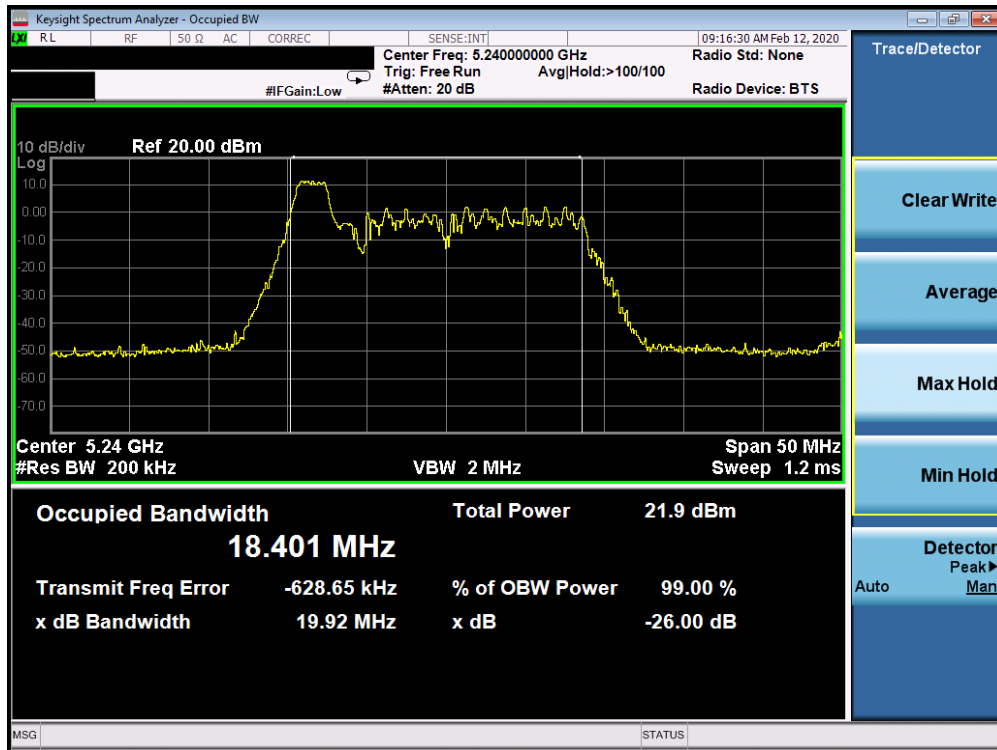


Plot 7-5. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 1) – Ch. 40)

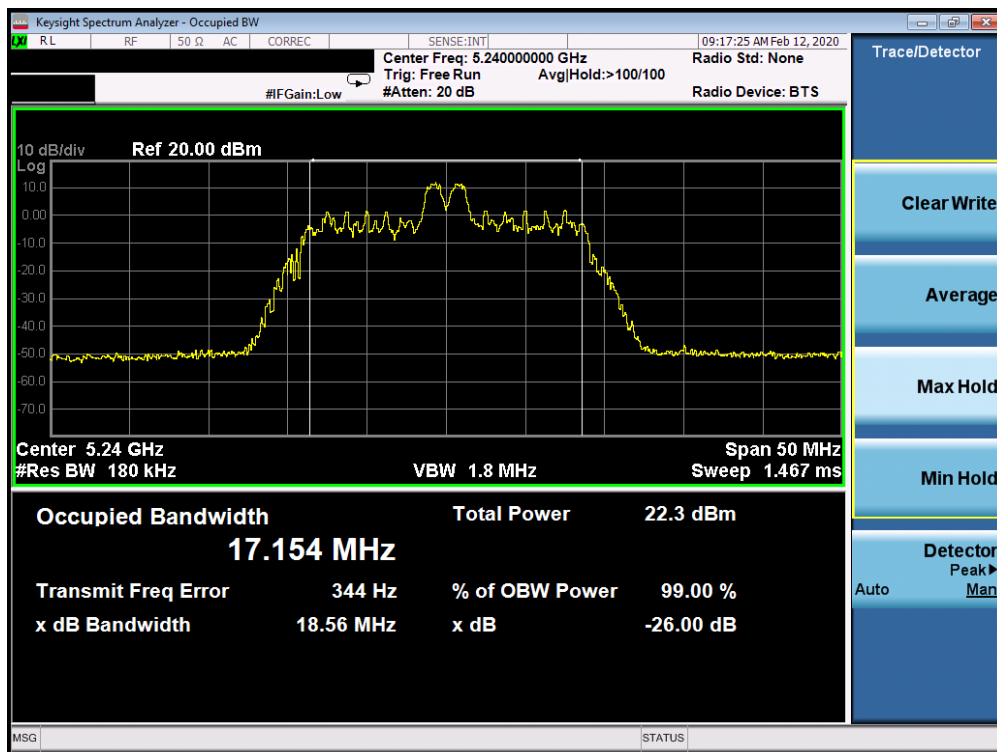


Plot 7-6. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 8– RU26 (UNII Band 1) – Ch. 40)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 19 of 541                  |

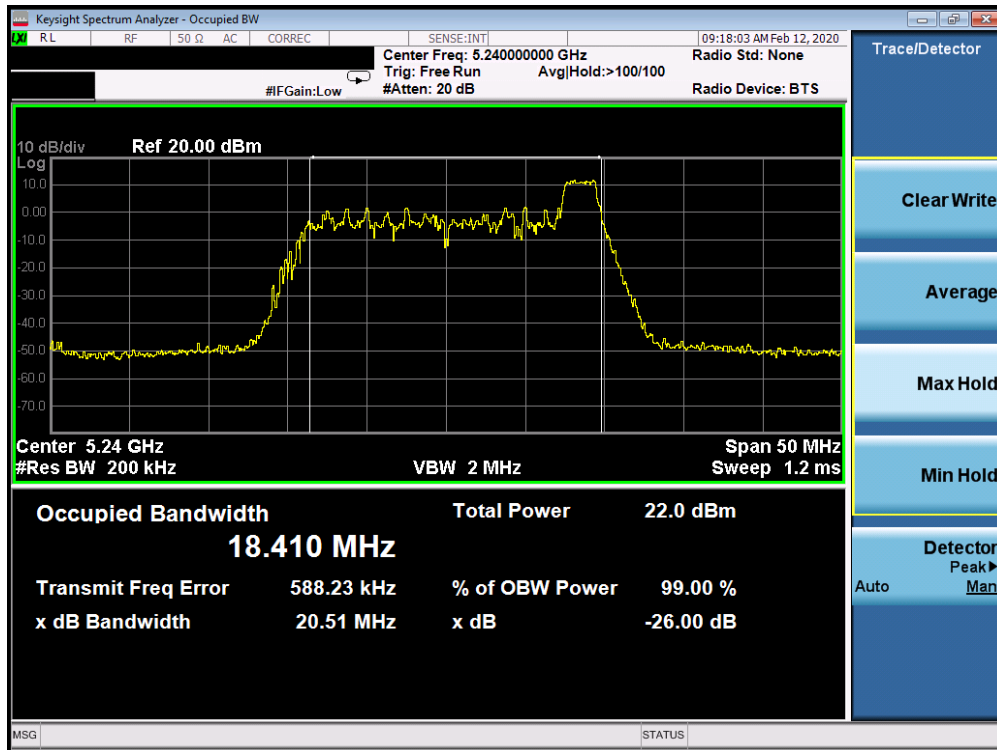


Plot 7-7. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 48)

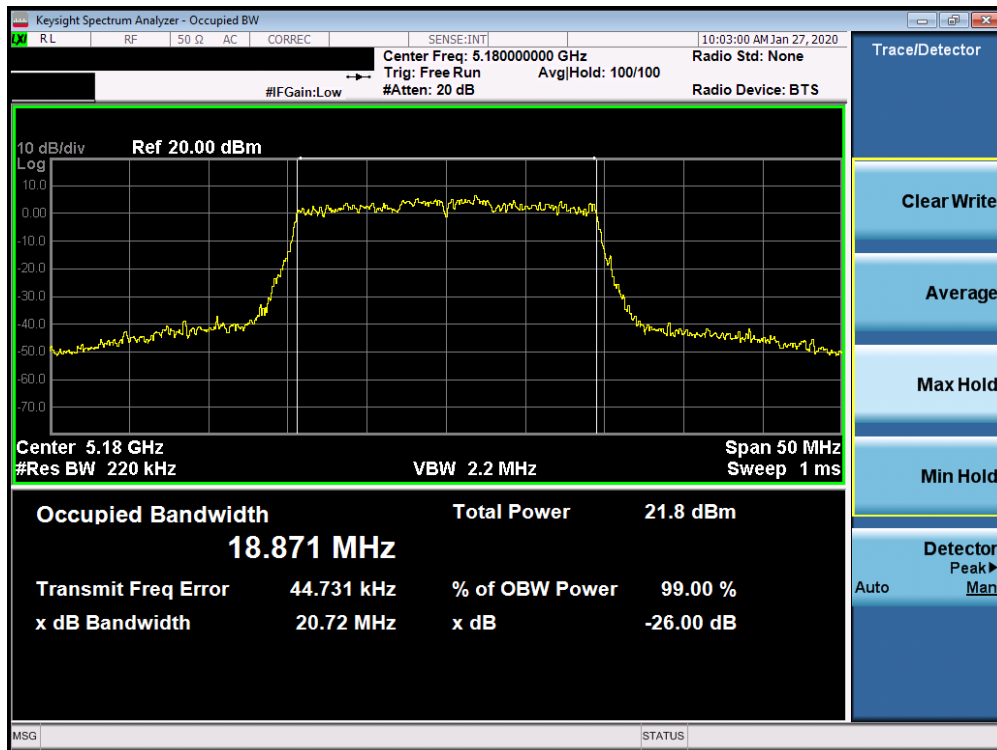


Plot 7-8. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 1) – Ch. 48)

|                                            |                                        |                                       |                                 |
|--------------------------------------------|----------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           | <b>PCTEST</b>                          | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020 | EUT Type:<br>Tablet Device            | Page 20 of 541                  |

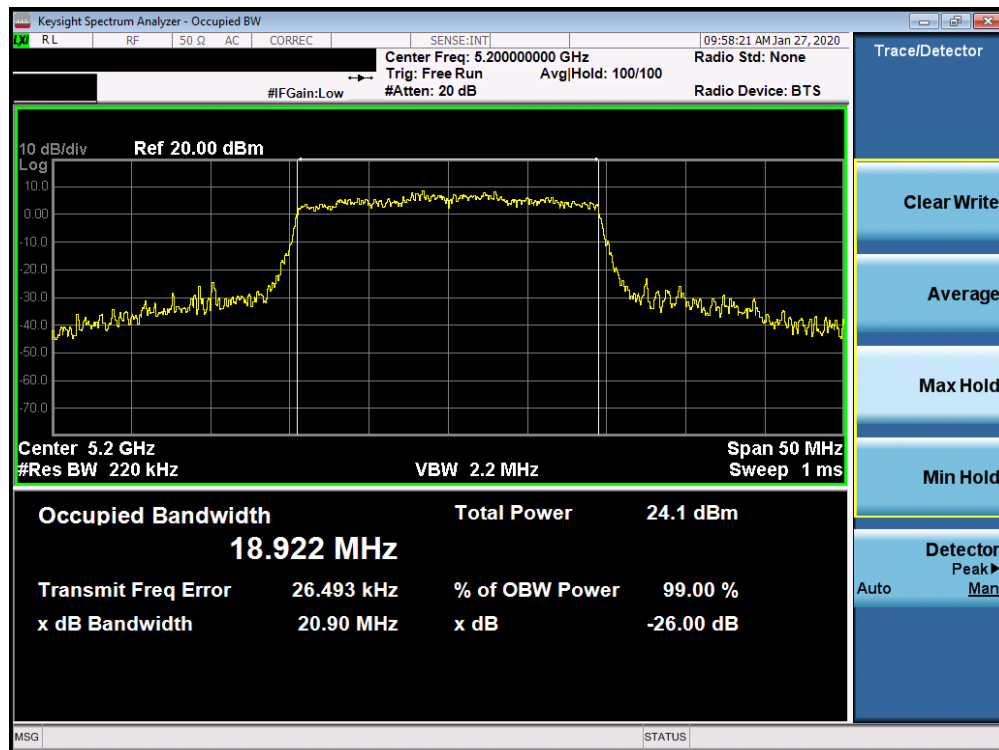


Plot 7-9. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 1) – Ch. 48)

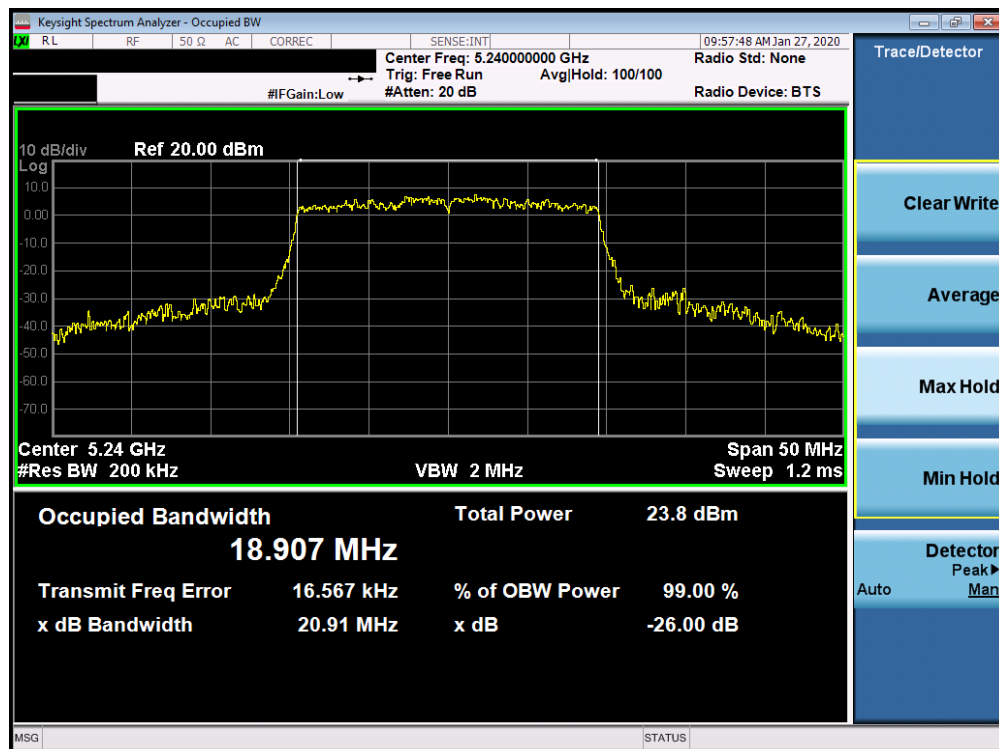


Plot 7-10. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax– RU242 (UNII Band 1) – Ch. 36)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 21 of 541                  |

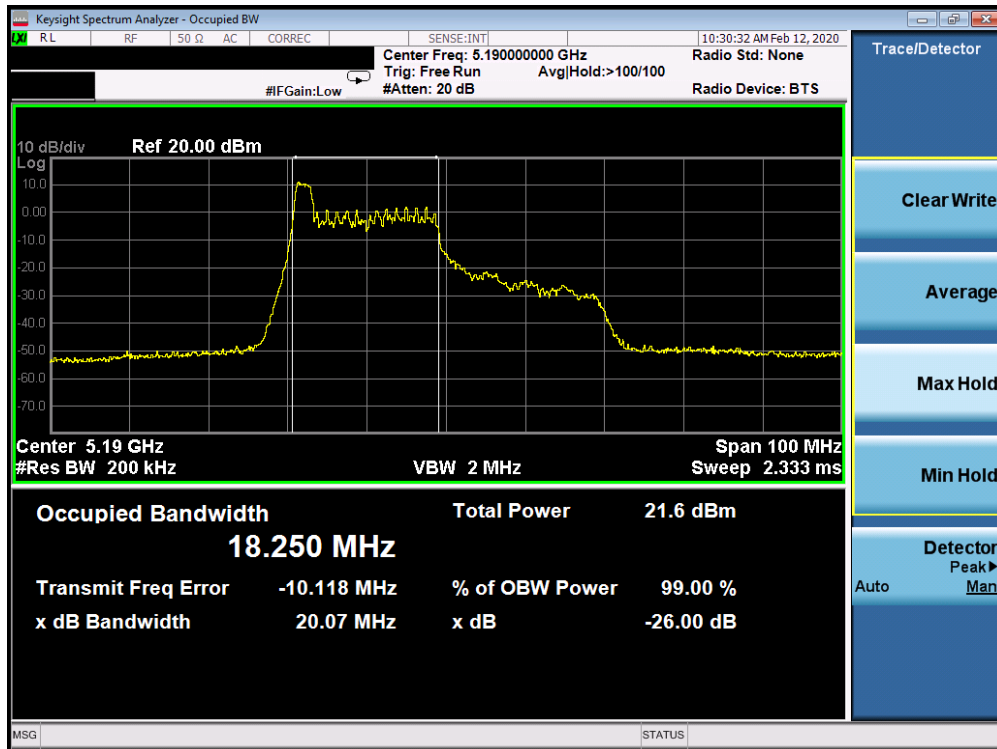


Plot 7-11. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax– RU242 (UNII Band 1) – Ch. 40)

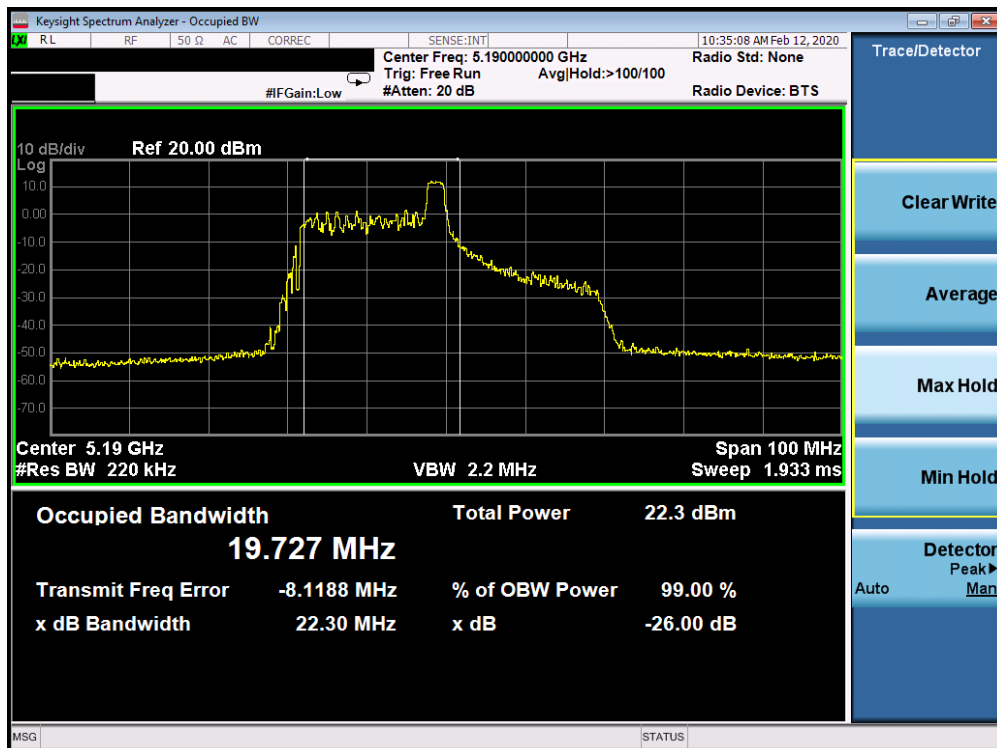


Plot 7-12. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax– RU242 (UNII Band 1) – Ch. 48)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 22 of 541                  |

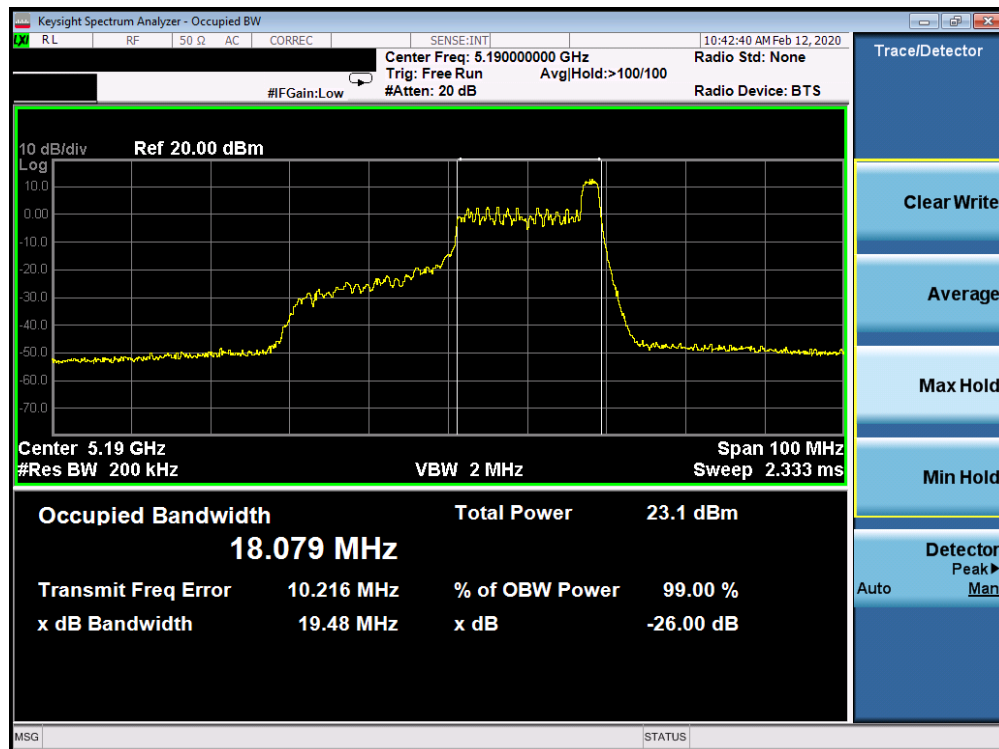


Plot 7-13. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 38)

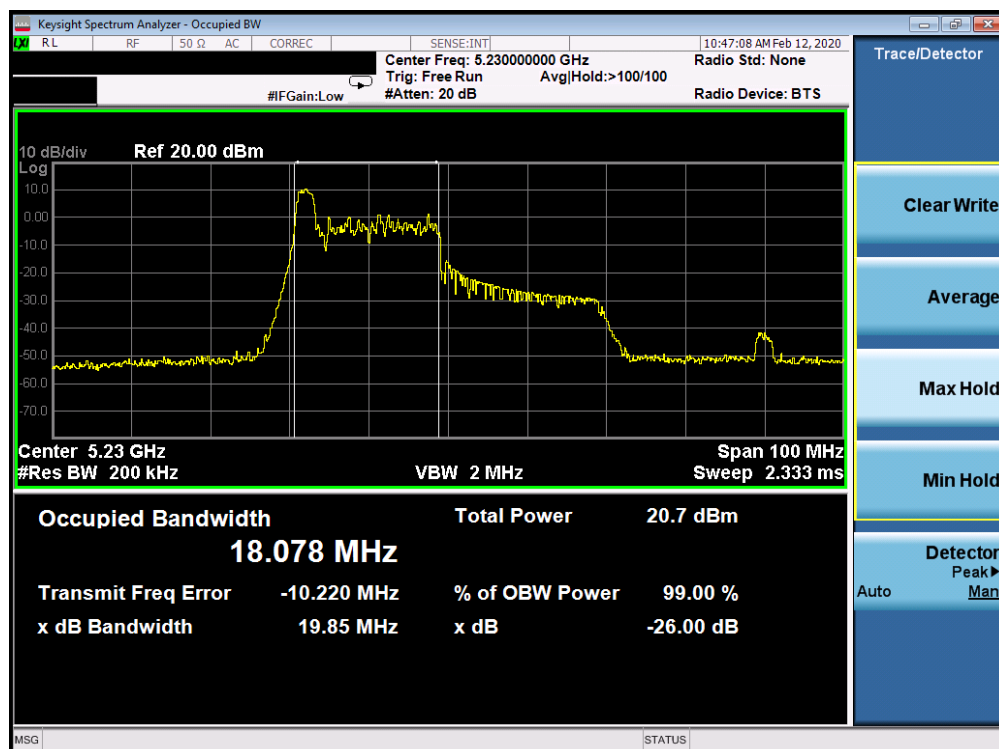


Plot 7-14. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 1) – Ch. 38)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 23 of 541                  |

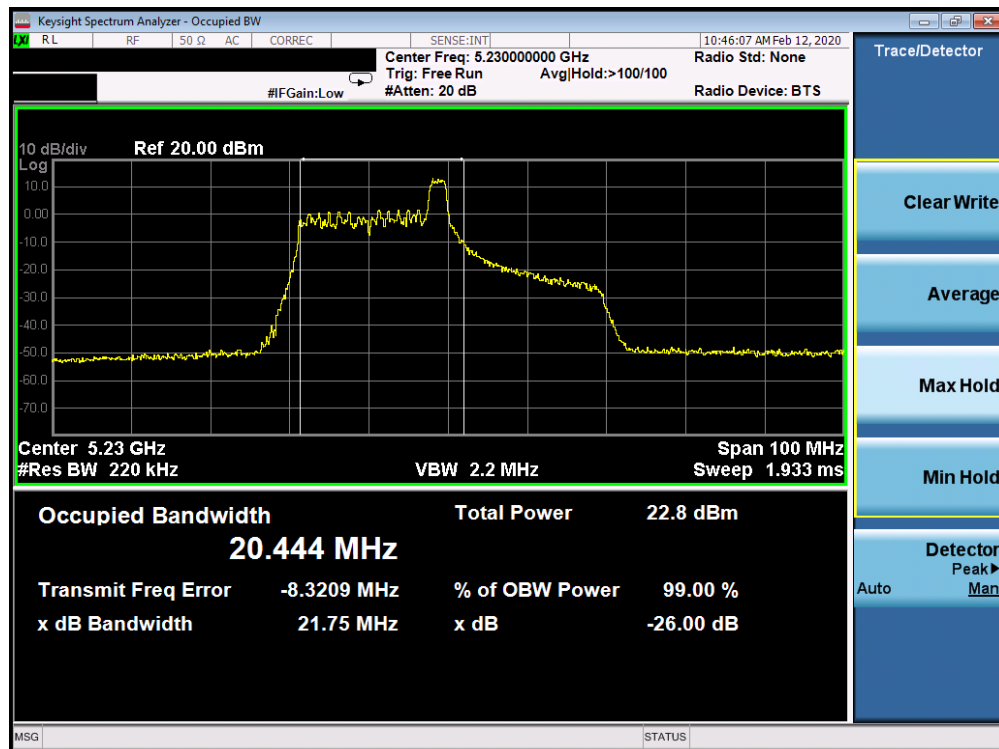


Plot 7-15. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 1) – Ch. 38)

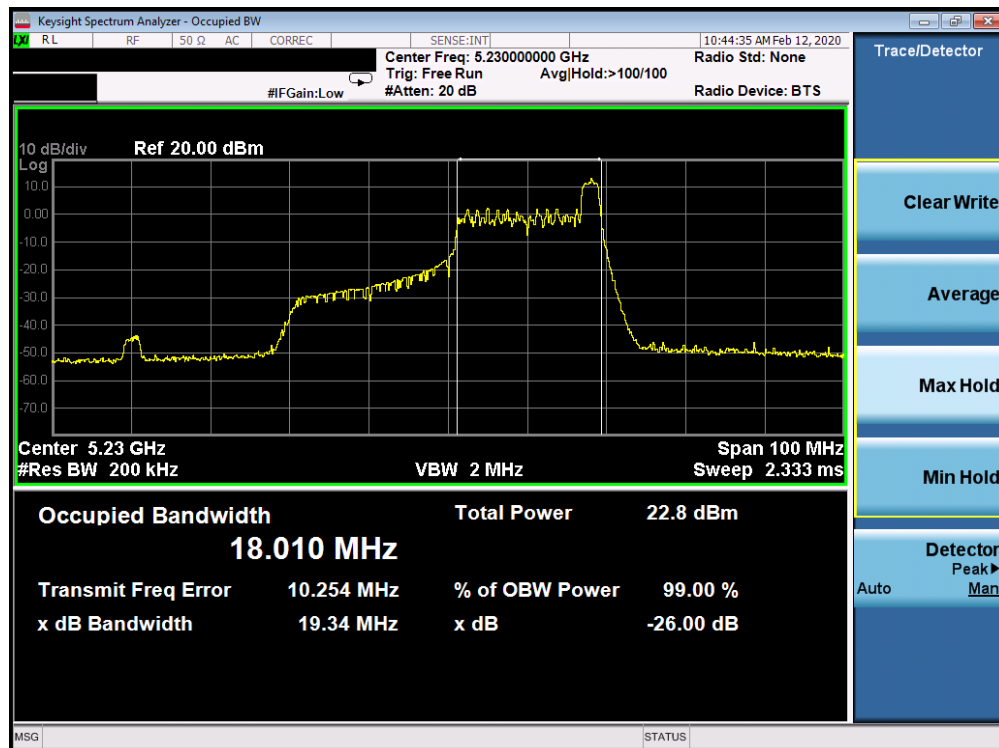


Plot 7-16. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 46)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 24 of 541                  |

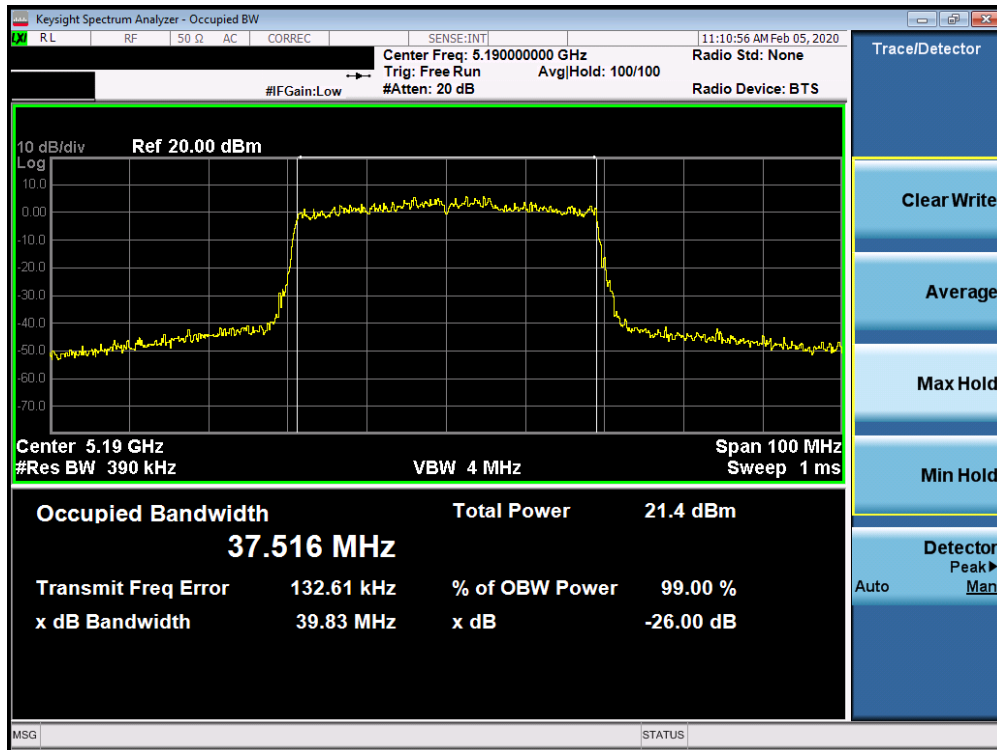


Plot 7-17. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 1) – Ch. 46)

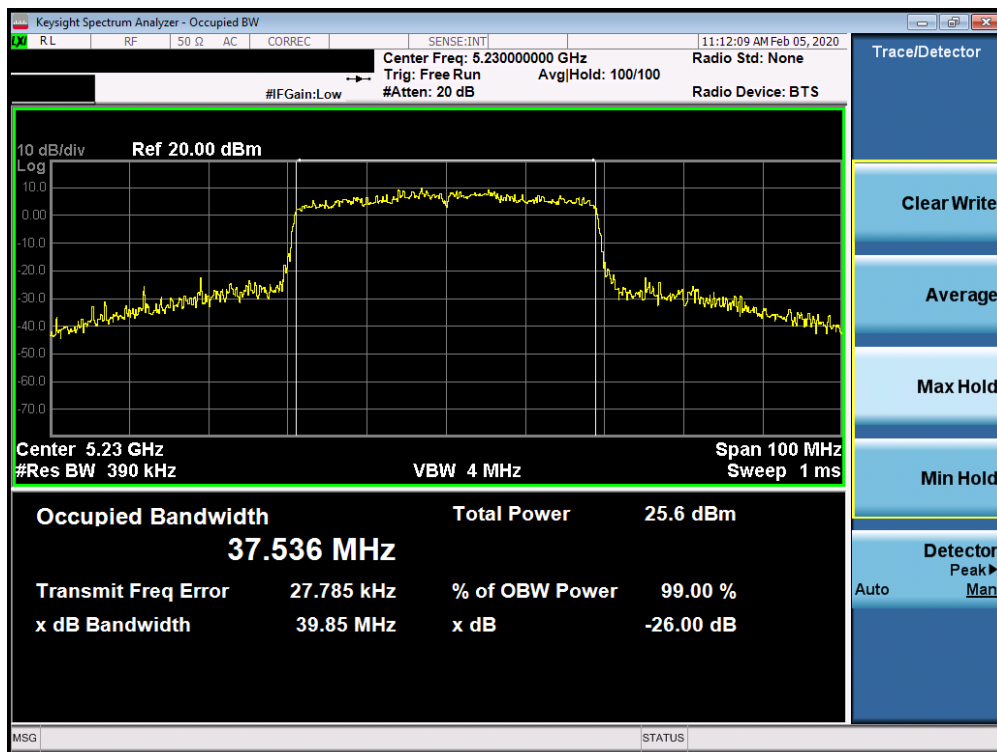


Plot 7-18. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 1) – Ch. 46)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 25 of 541                  |

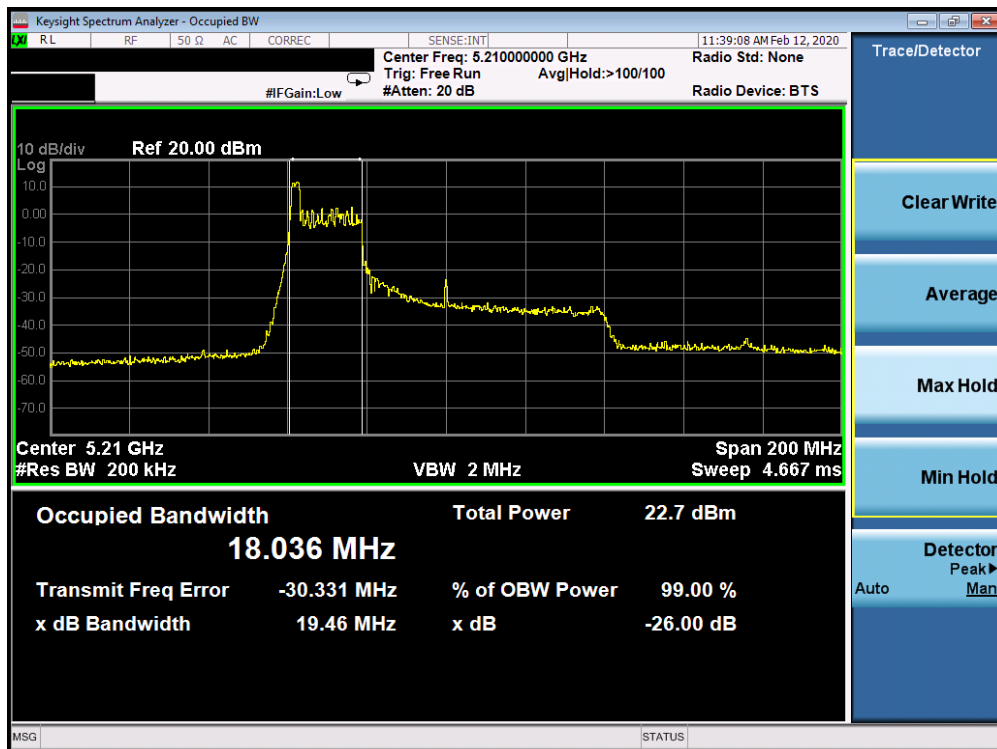


Plot 7-19. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax – RU484 (UNII Band 1) – Ch. 38)

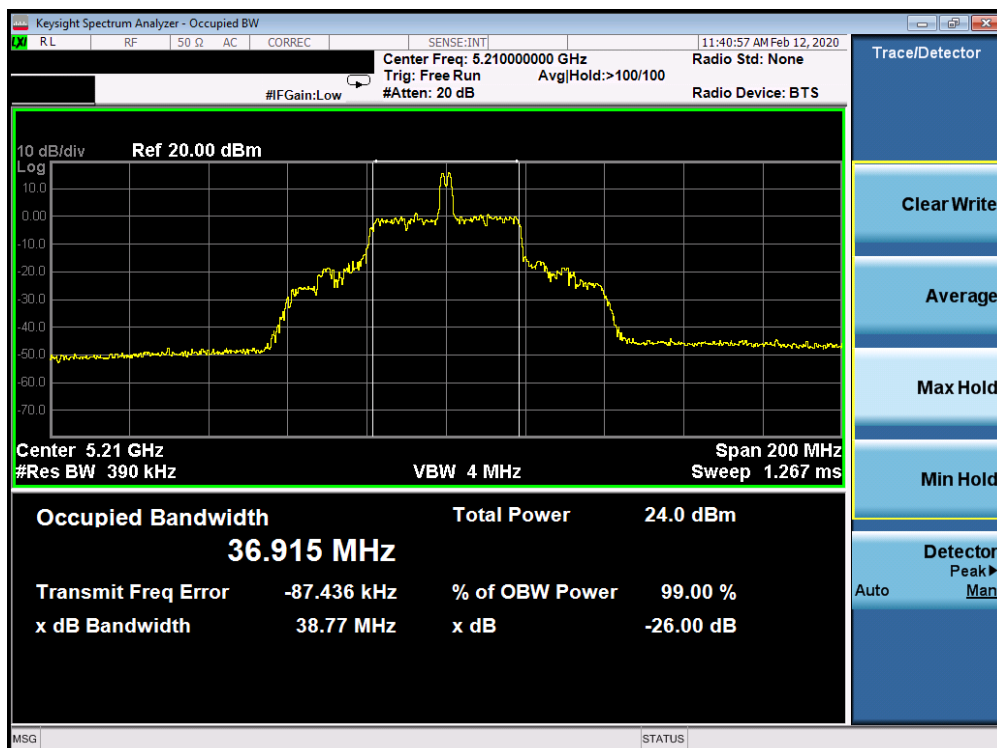


Plot 7-20. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax – RU484 (UNII Band 1) – Ch. 46)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 26 of 541                  |

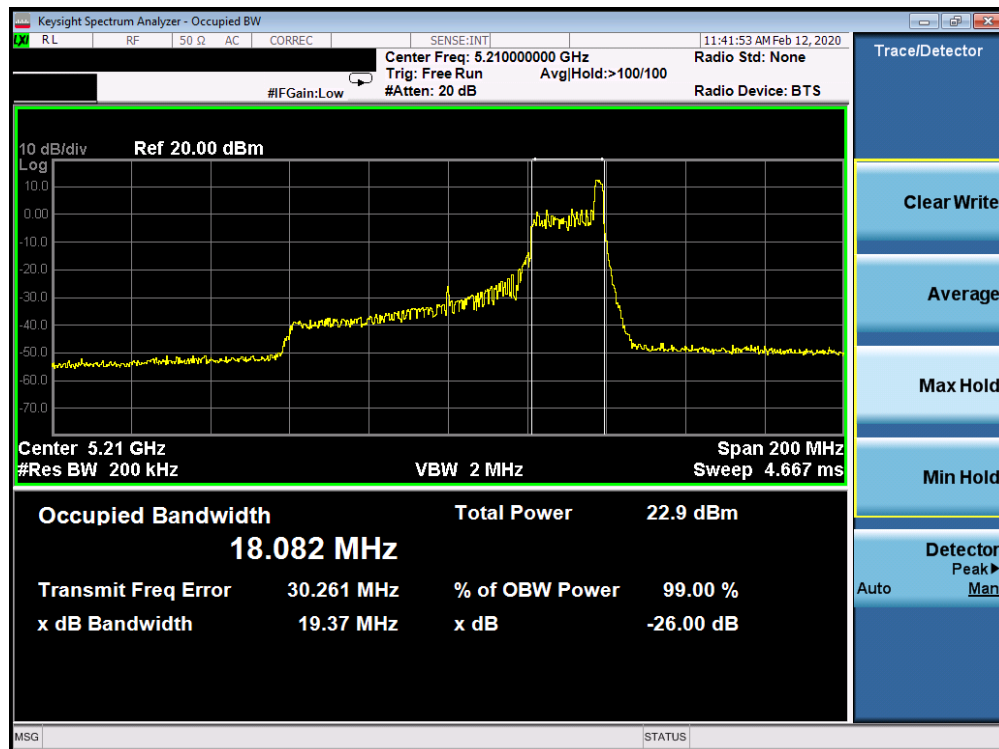


Plot 7-21. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 42)

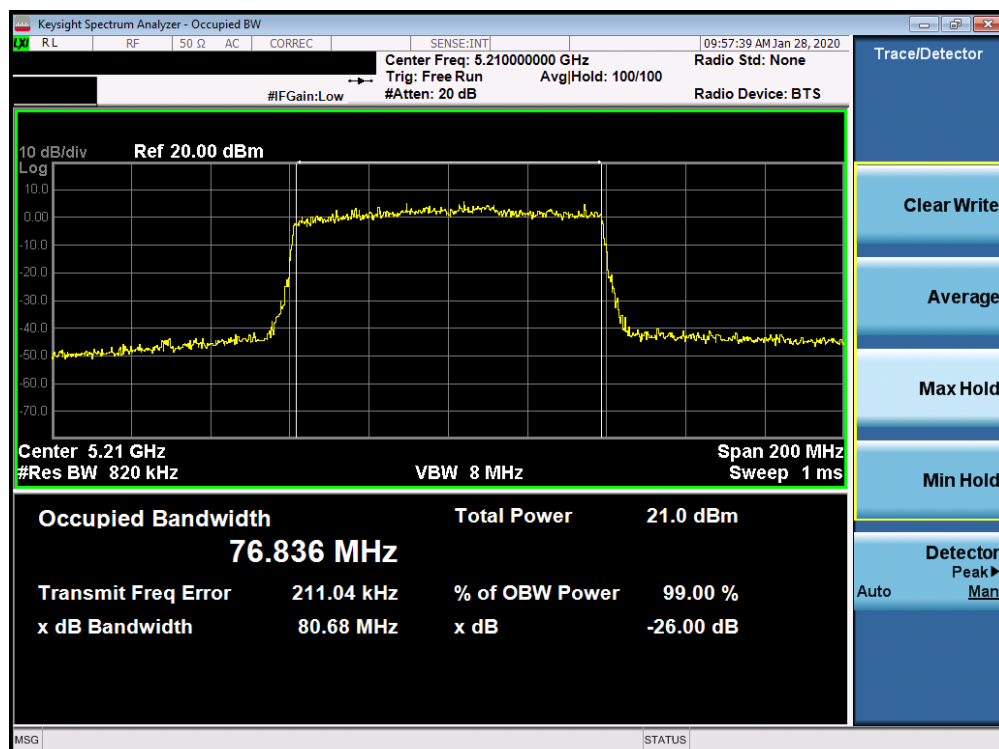


Plot 7-22. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 18 – RU26 (UNII Band 1) – Ch. 42)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 27 of 541                  |

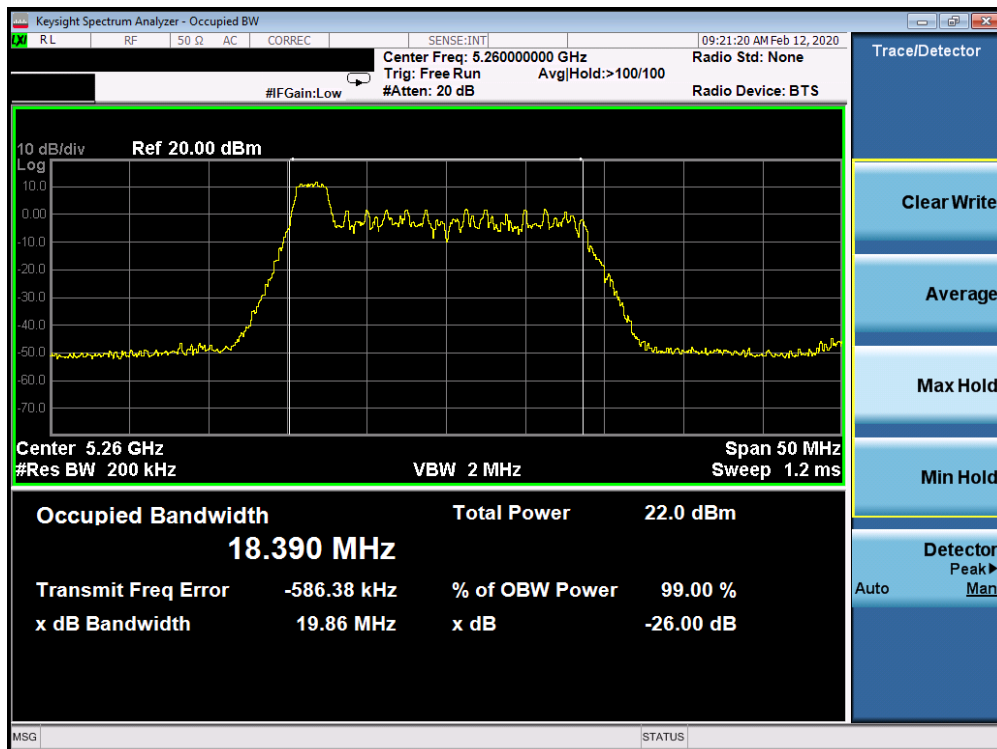


Plot 7-23. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 36 – RU26 (UNII Band 1) – Ch. 42)

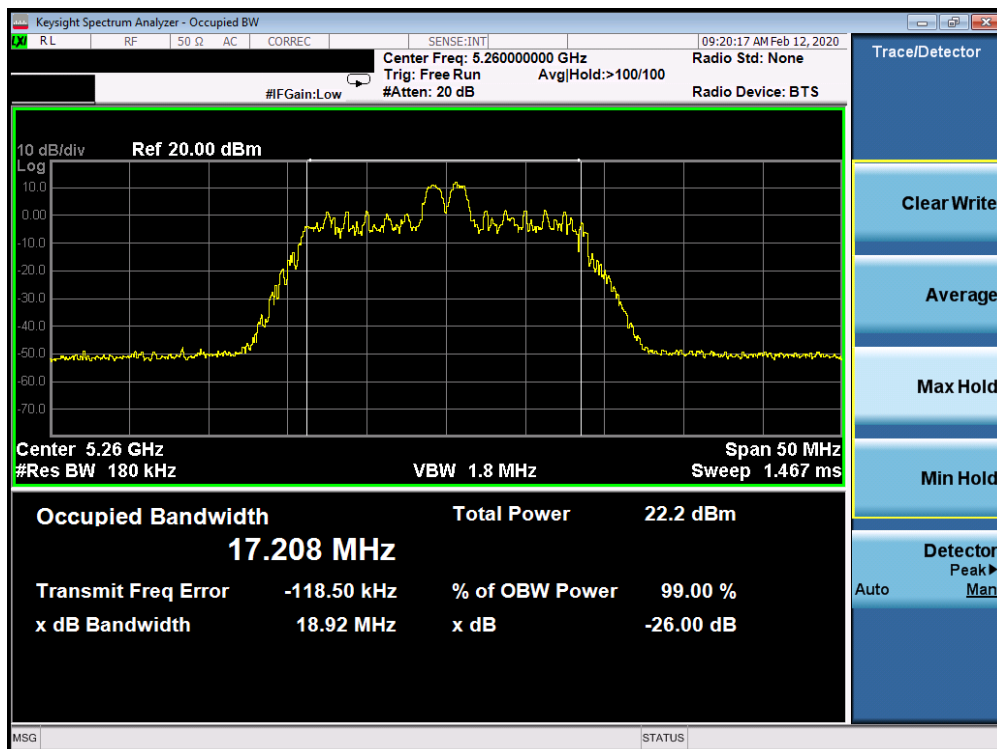


Plot 7-24. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax – RU996 (UNII Band 1) – Ch. 42)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 28 of 541                  |

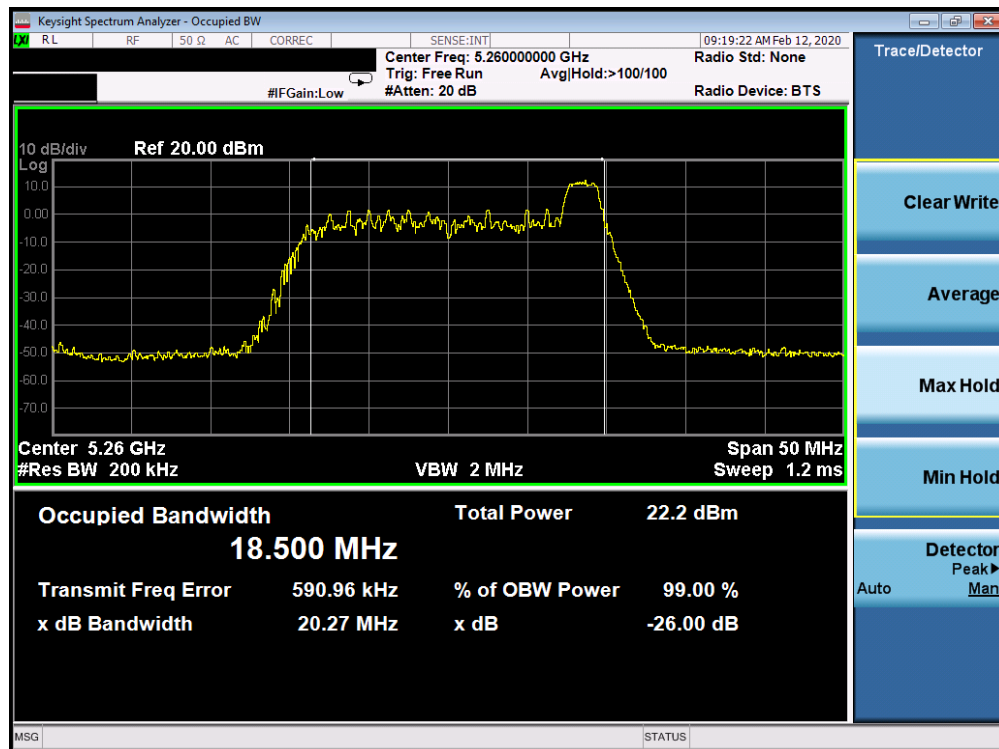


Plot 7-25. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 52)

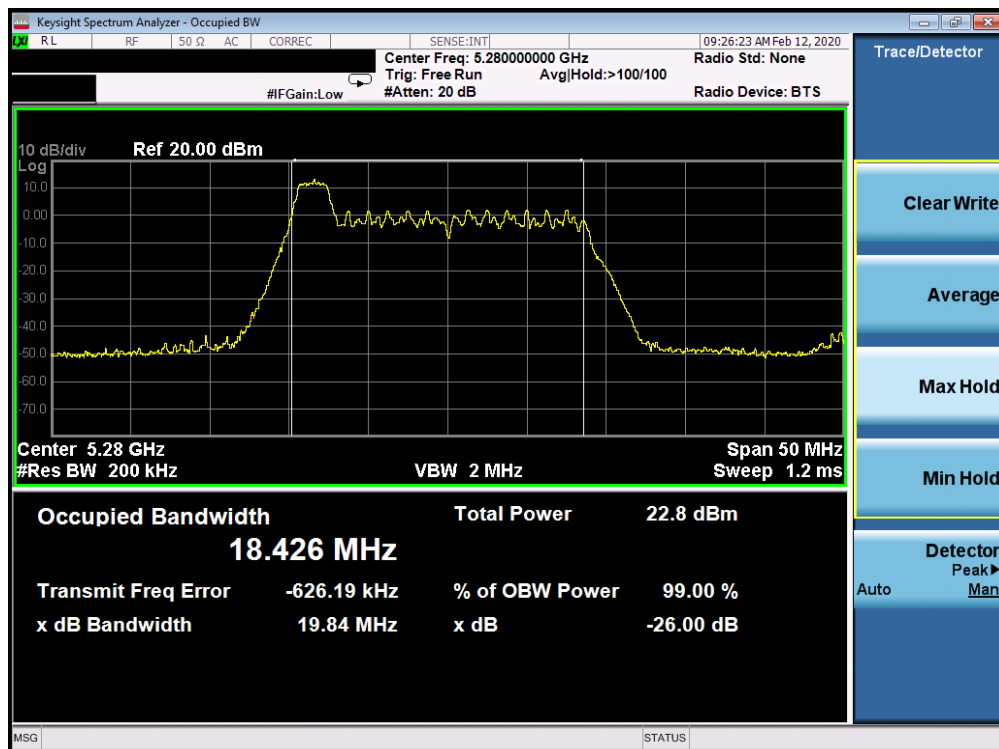


Plot 7-26. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2A) – Ch. 52)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 29 of 541                  |

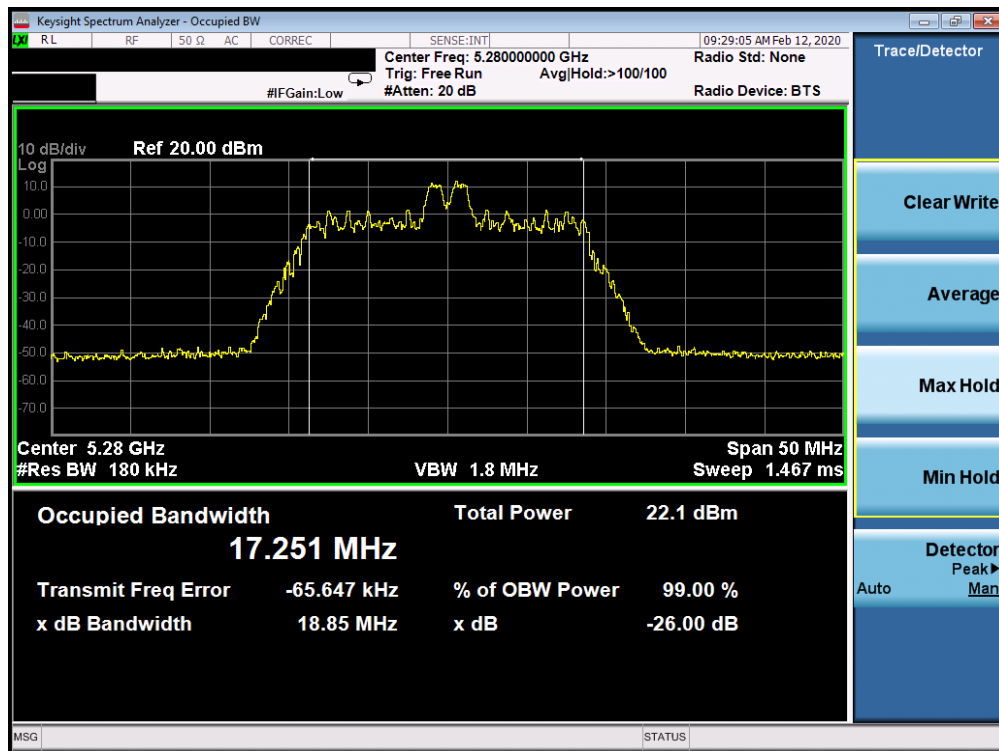


Plot 7-27. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 2A) – Ch. 52)

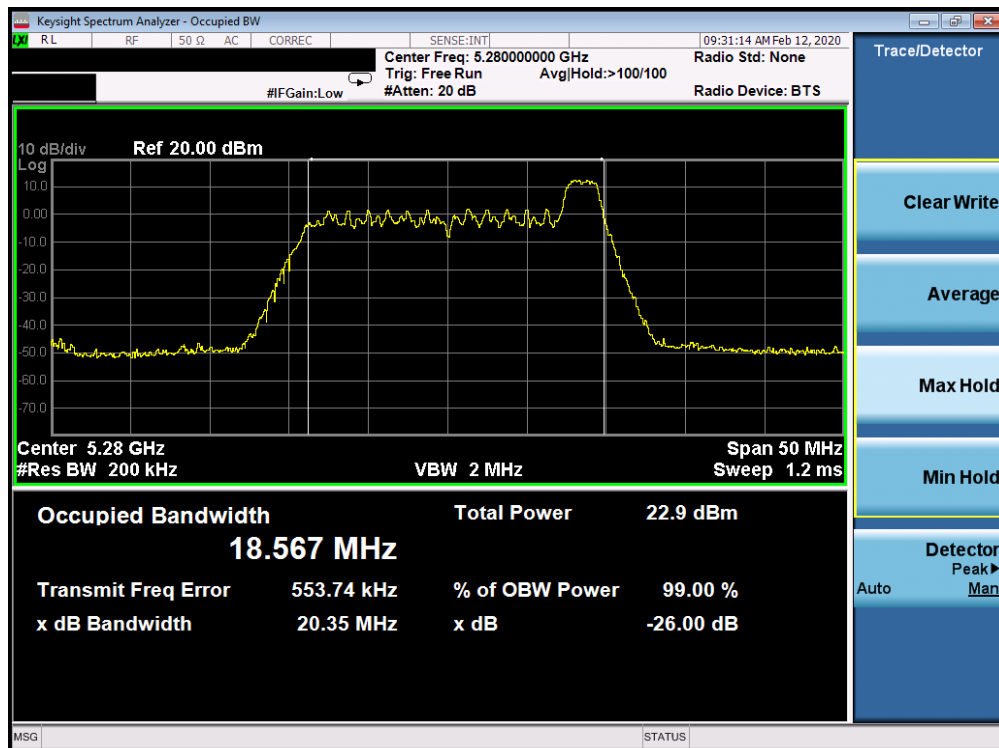


Plot 7-28. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 56)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 30 of 541                  |

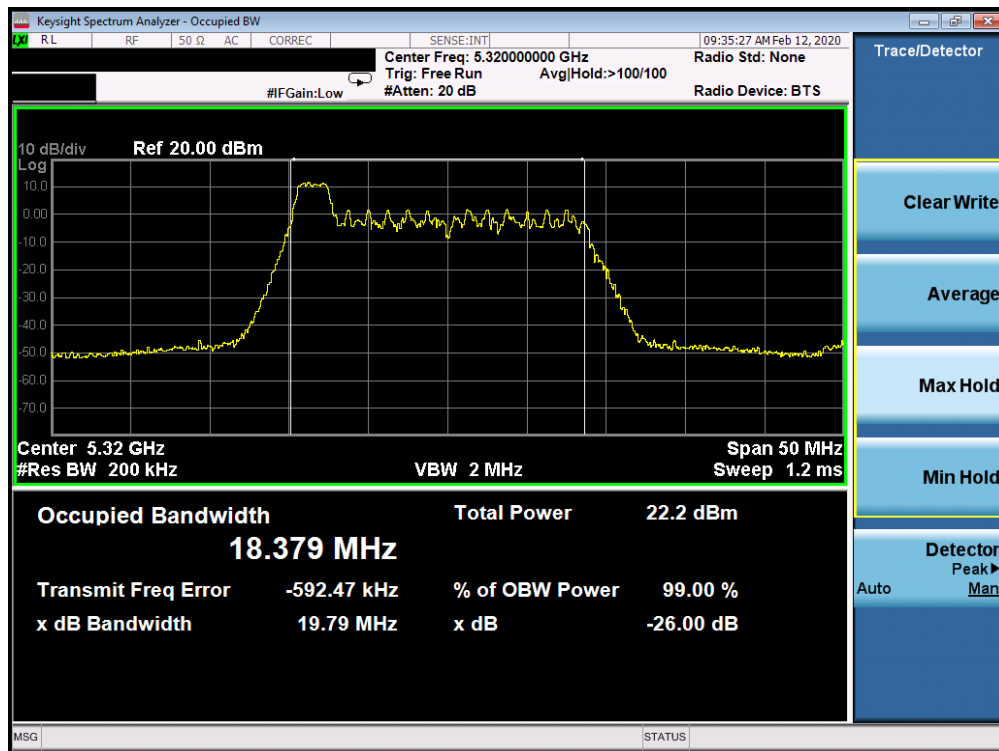


Plot 7-29. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2A) – Ch. 56)

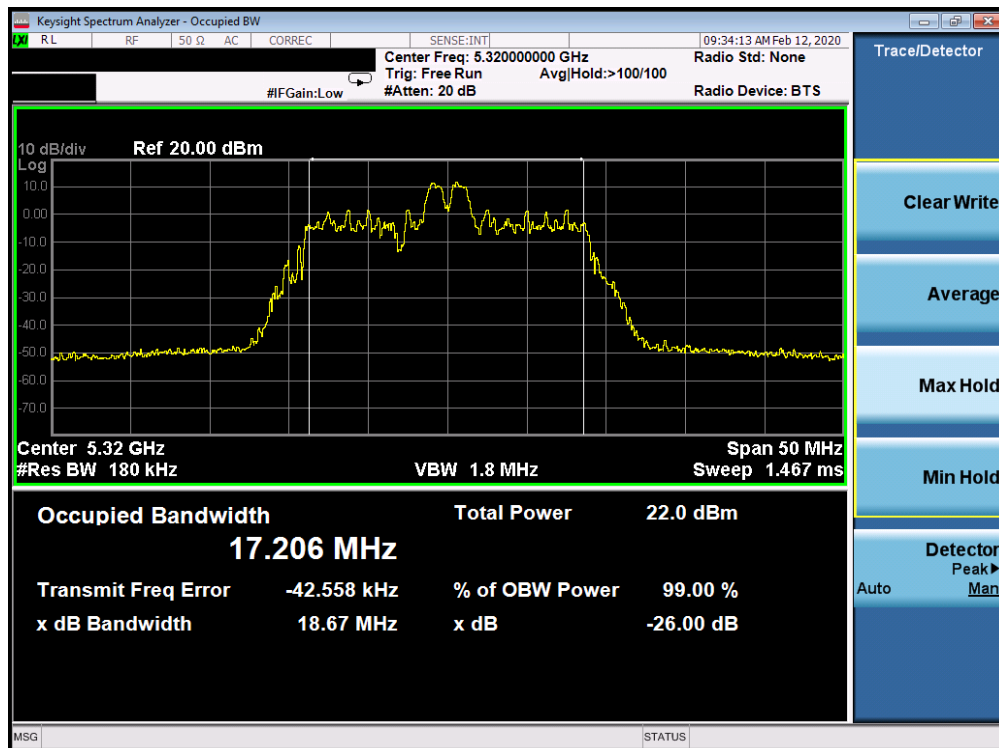


Plot 7-30. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 8– RU26 (UNII Band 2A) – Ch. 56)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 31 of 541                  |

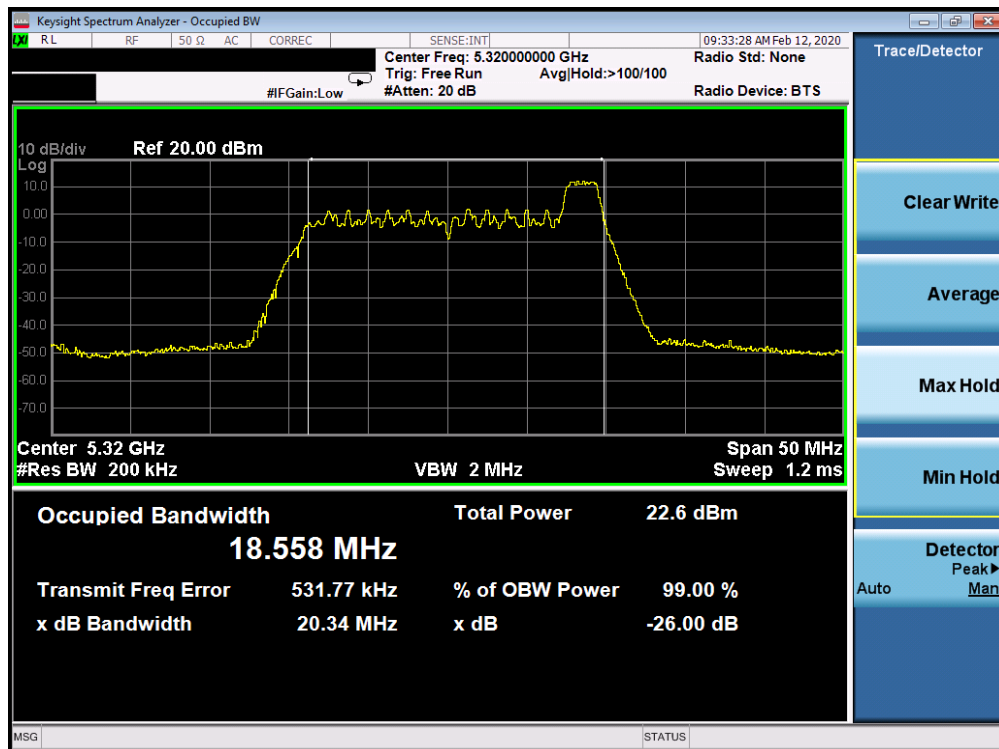


Plot 7-31. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 64)

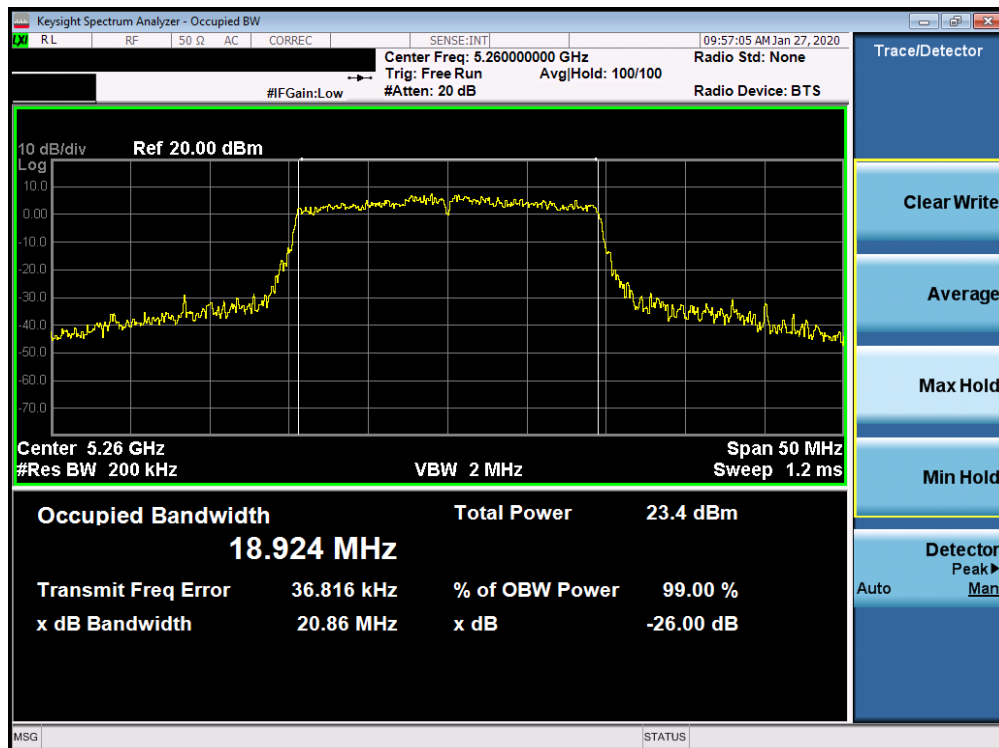


Plot 7-32. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2A) – Ch. 64)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 32 of 541                  |

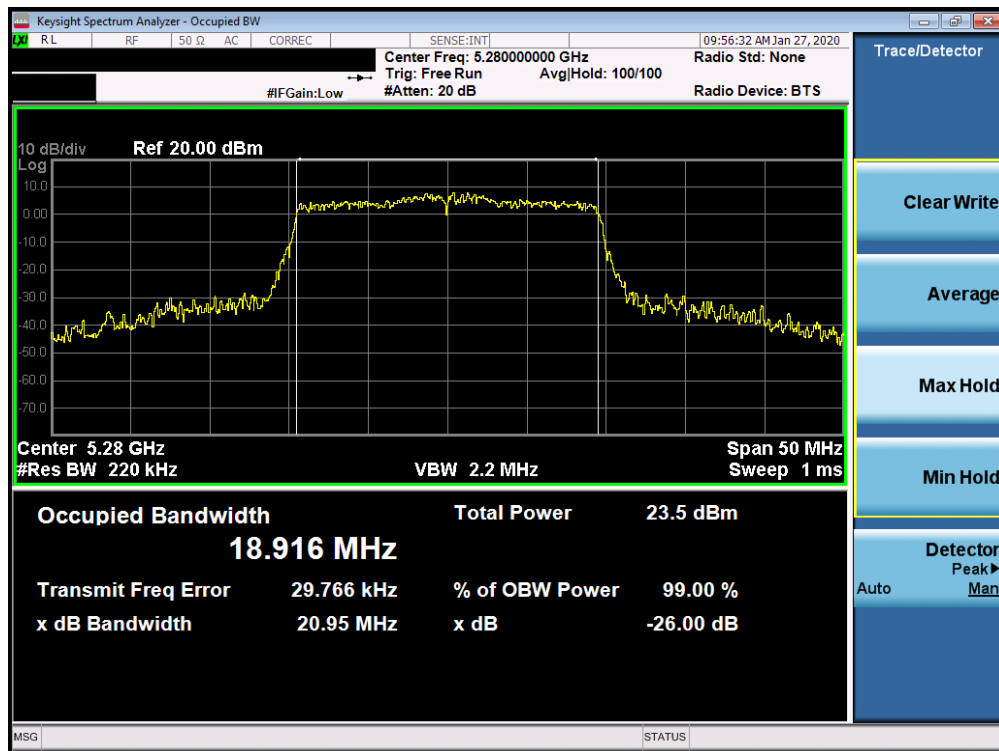


Plot 7-33. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 2A) – Ch. 64)

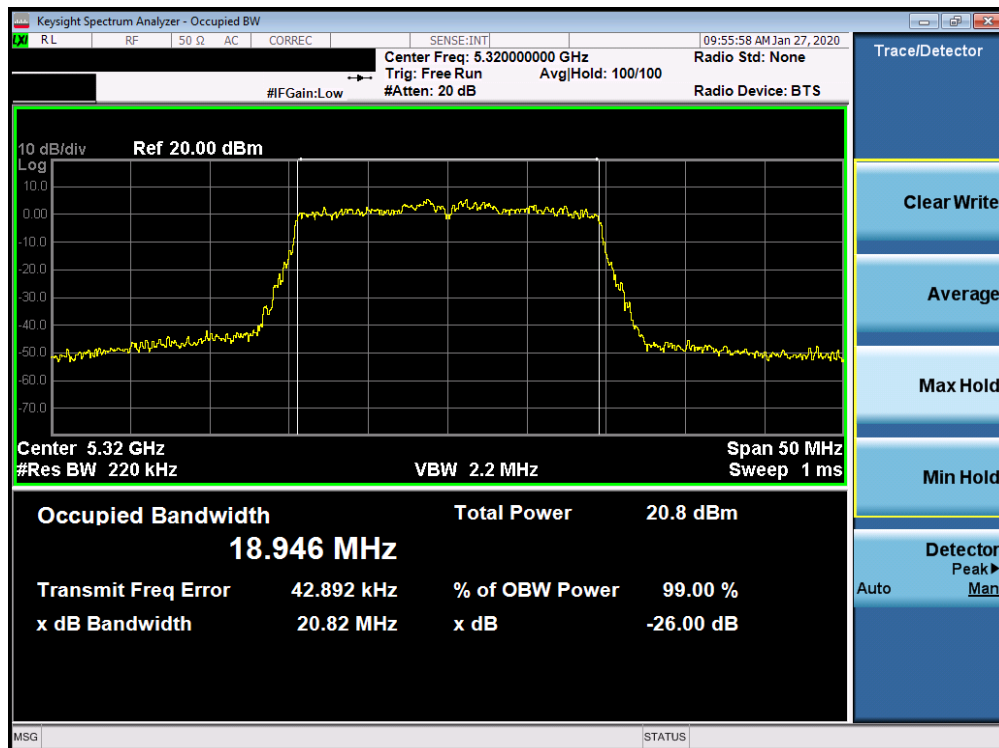


Plot 7-34. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax– RU242 (UNII Band 2A) – Ch. 52)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 33 of 541                  |

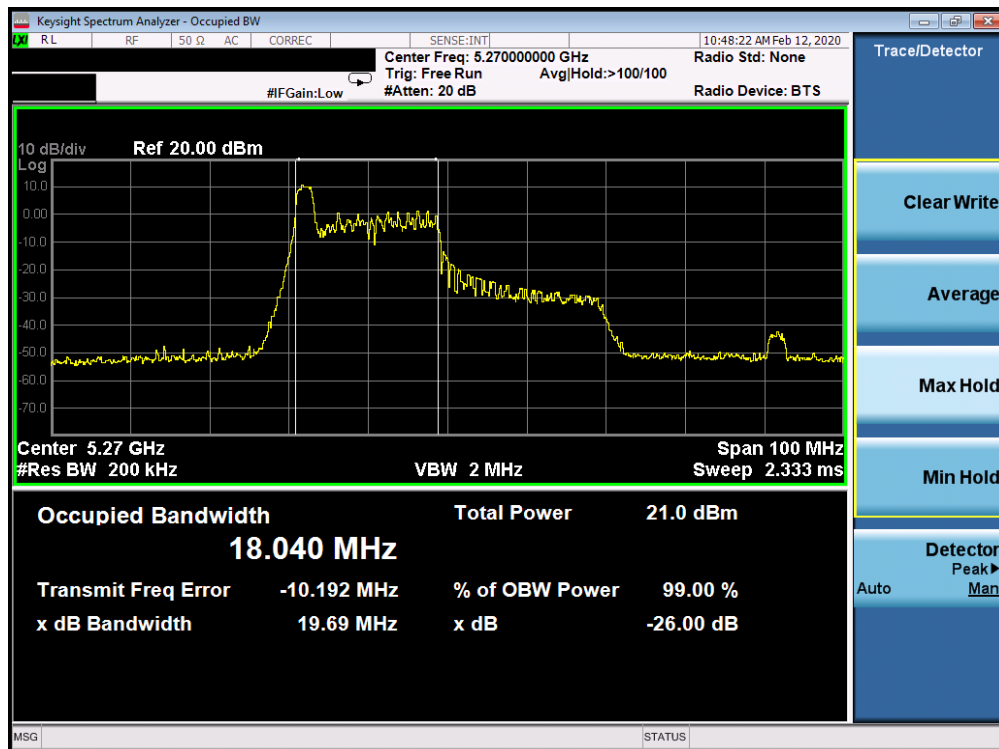


Plot 7-35. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax– RU242 (UNII Band 2A) – Ch. 56)

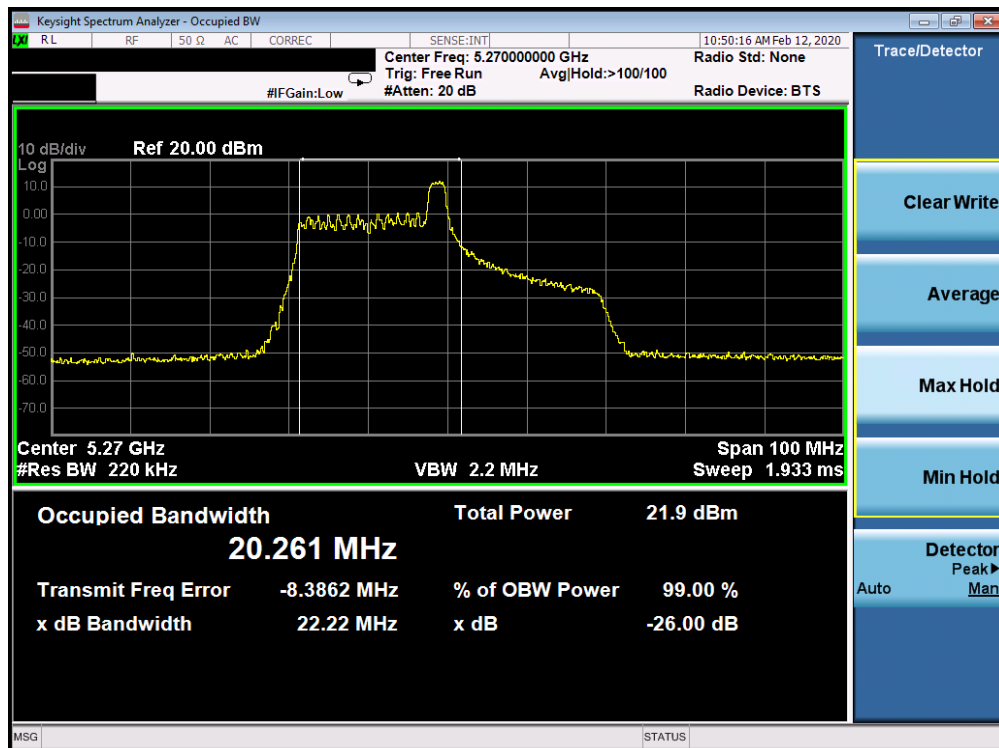


Plot 7-36. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax– RU242 (UNII Band 2A) – Ch. 64)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 34 of 541                  |

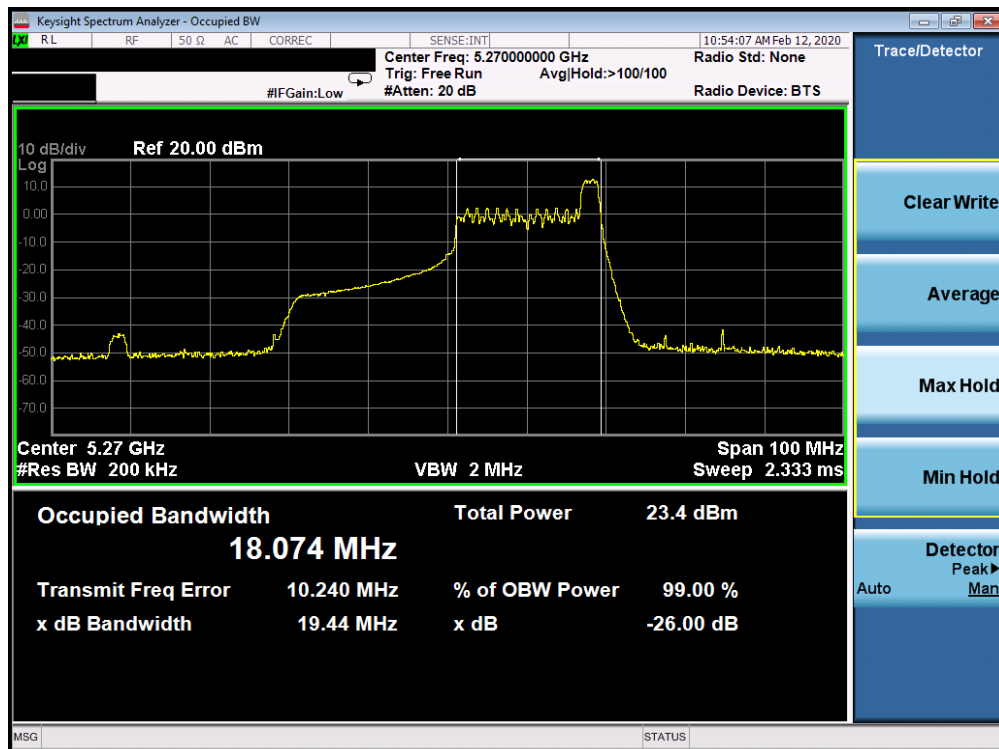


Plot 7-37. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 54)

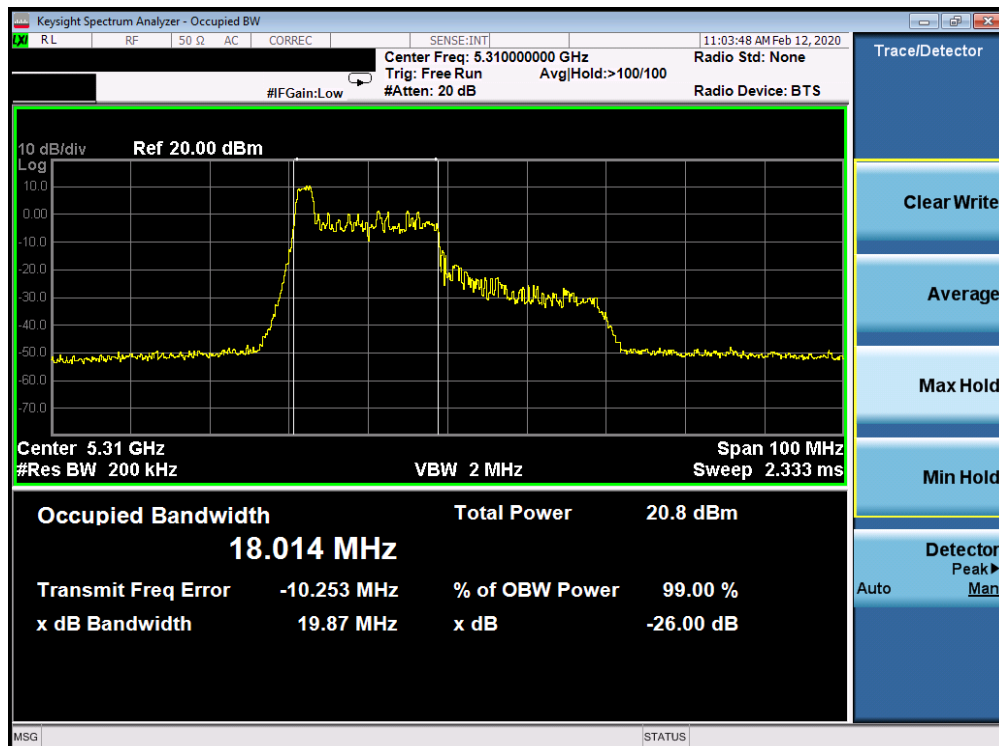


Plot 7-38. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 2A) – Ch. 54)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 35 of 541                  |

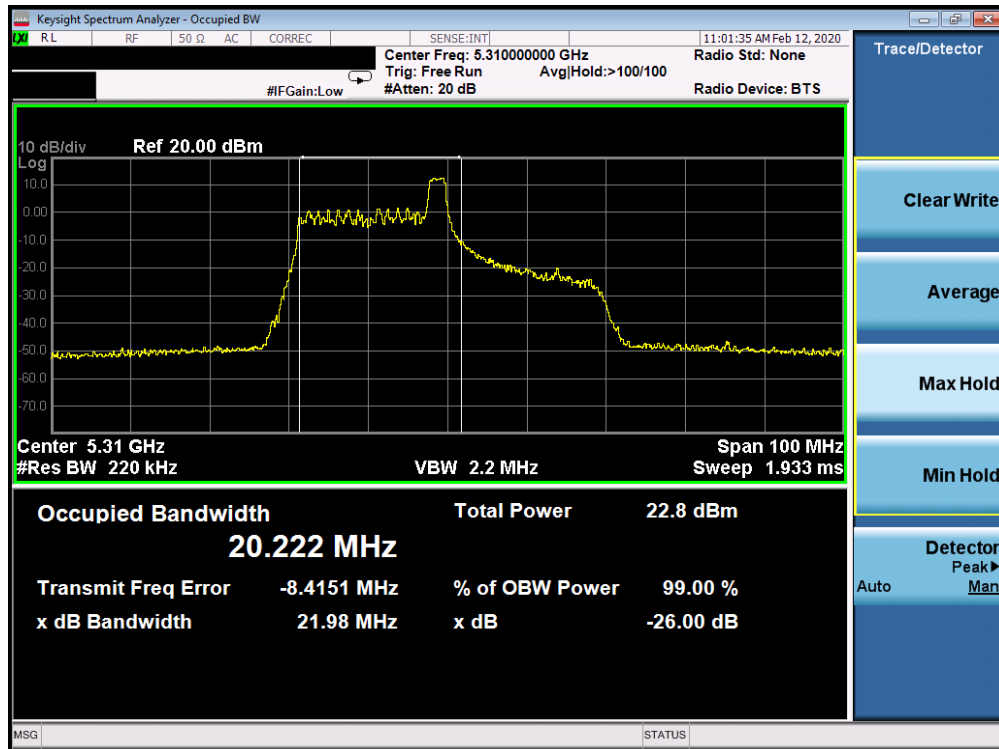


Plot 7-39. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 2A) – Ch. 54)

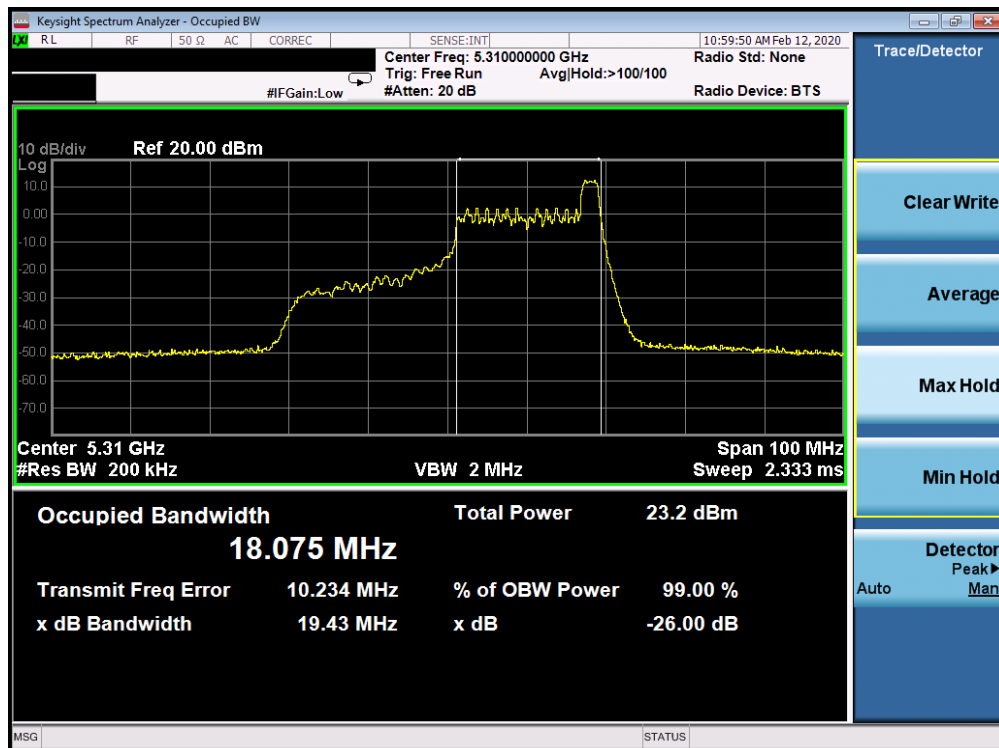


Plot 7-40. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 62)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 36 of 541                  |

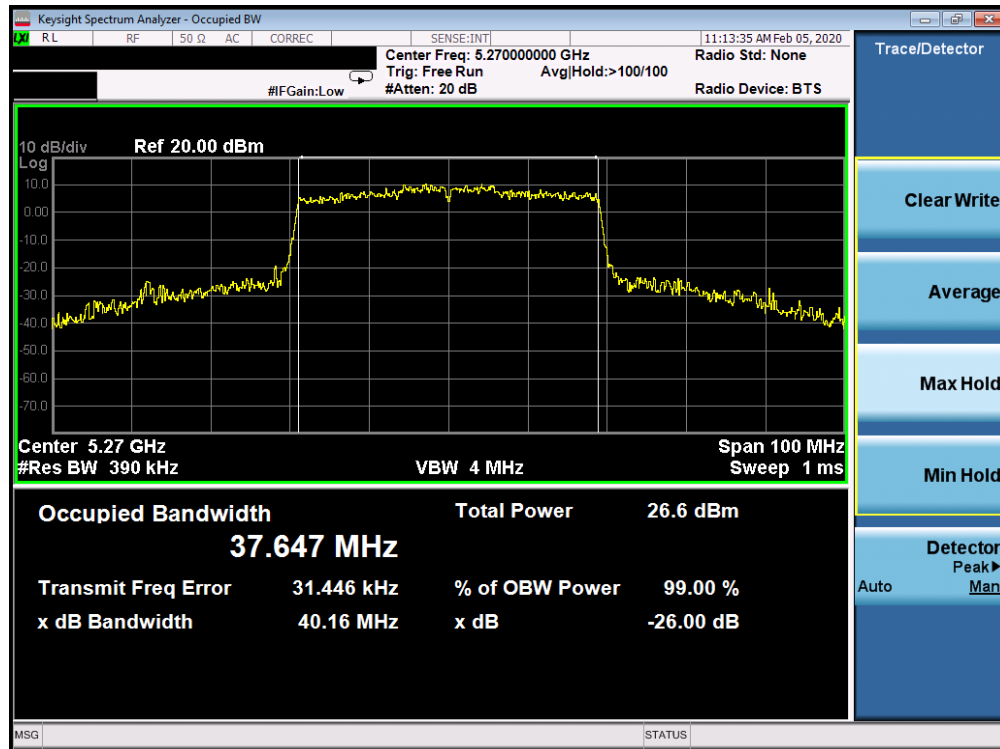


Plot 7-41. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 2A) – Ch. 62)

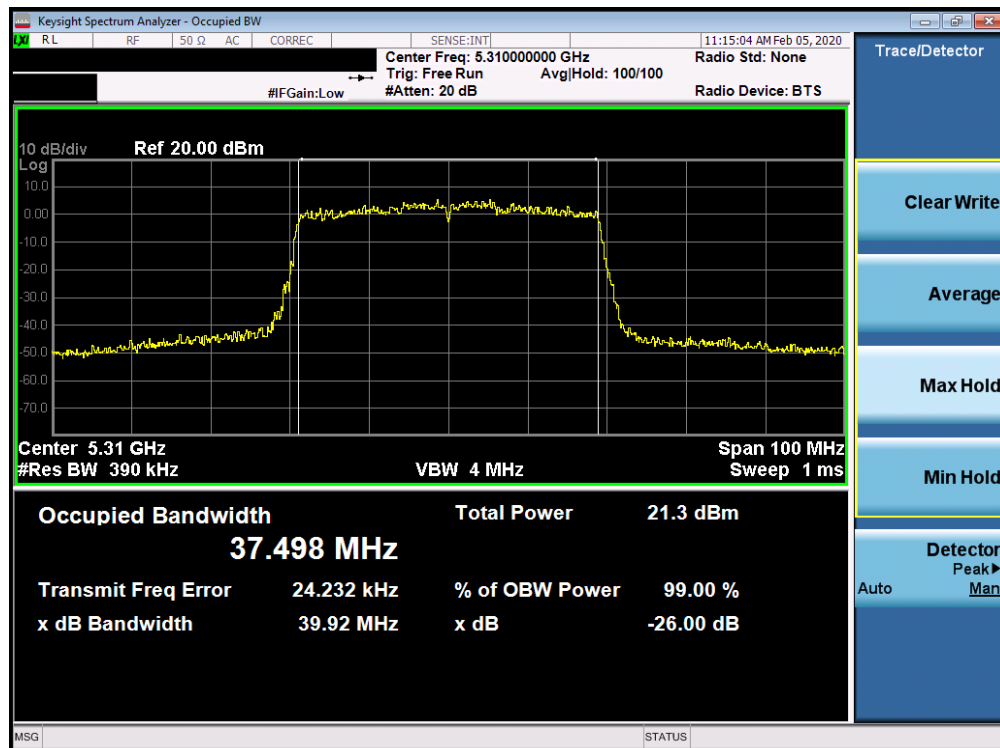


Plot 7-42. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 2A) – Ch. 62)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 37 of 541                  |

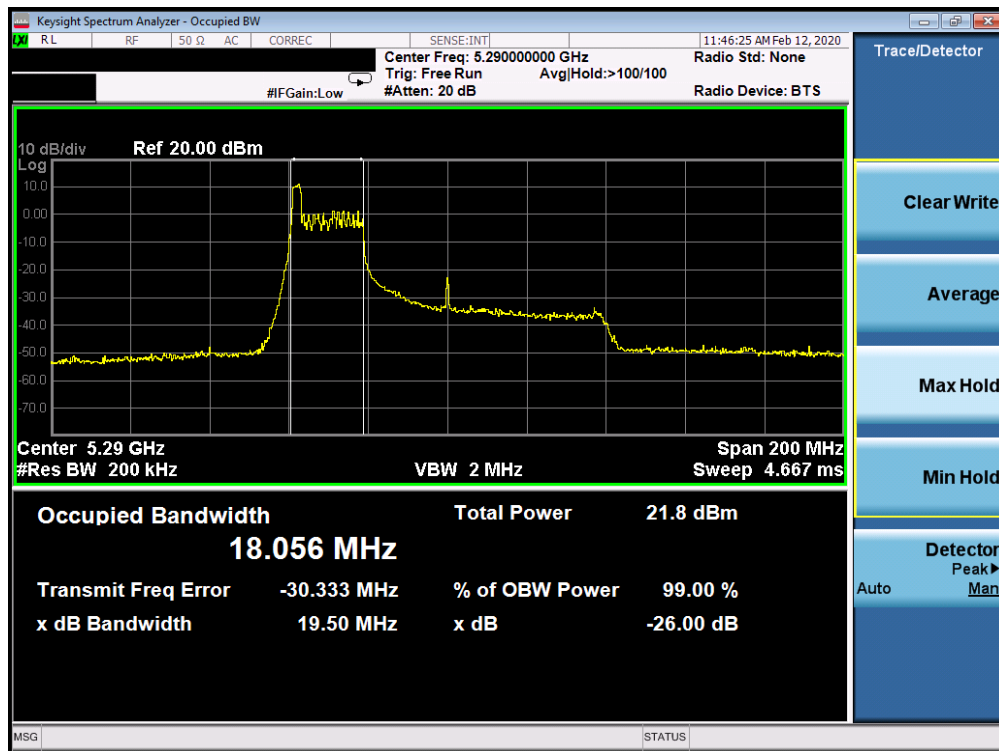


Plot 7-43. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax – RU484 (UNII Band 2A) – Ch. 54)



Plot 7-44. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax – RU484 (UNII Band 2A) – Ch. 62)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 38 of 541                  |

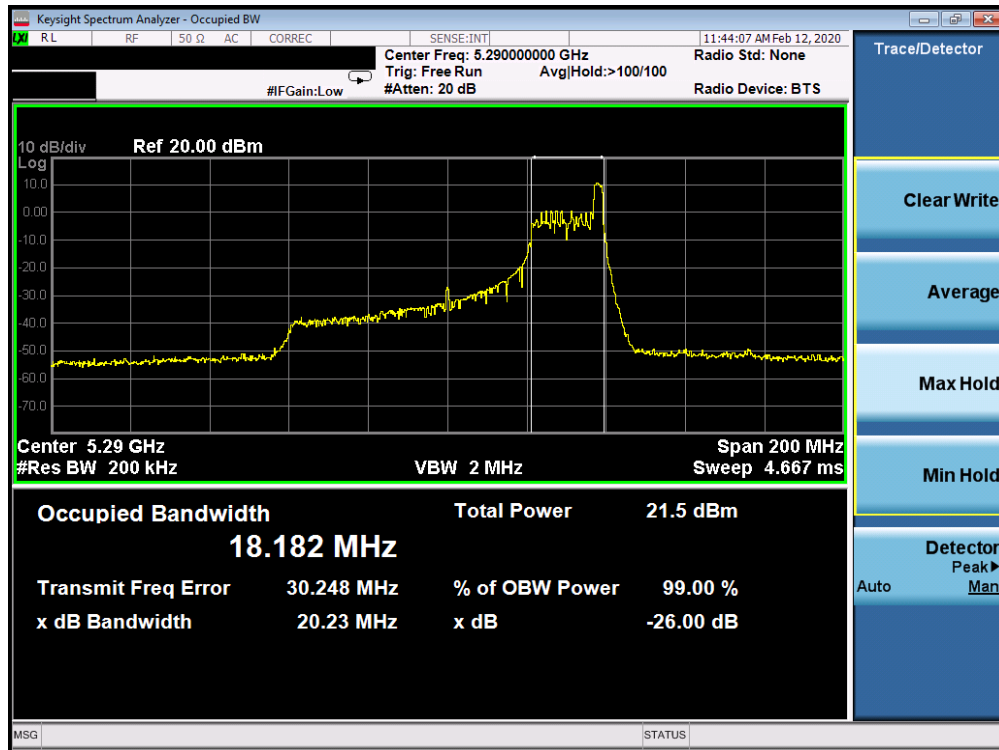


Plot 7-45. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 58)

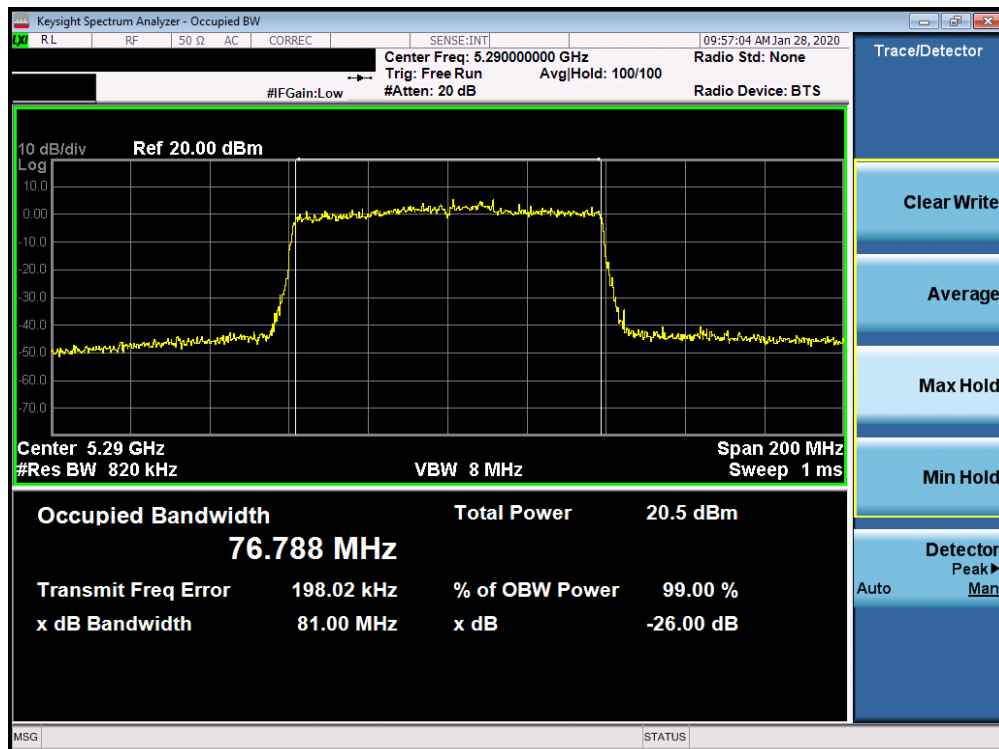


Plot 7-46. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 18 – RU26 (UNII Band 2A) – Ch. 58)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 39 of 541                  |

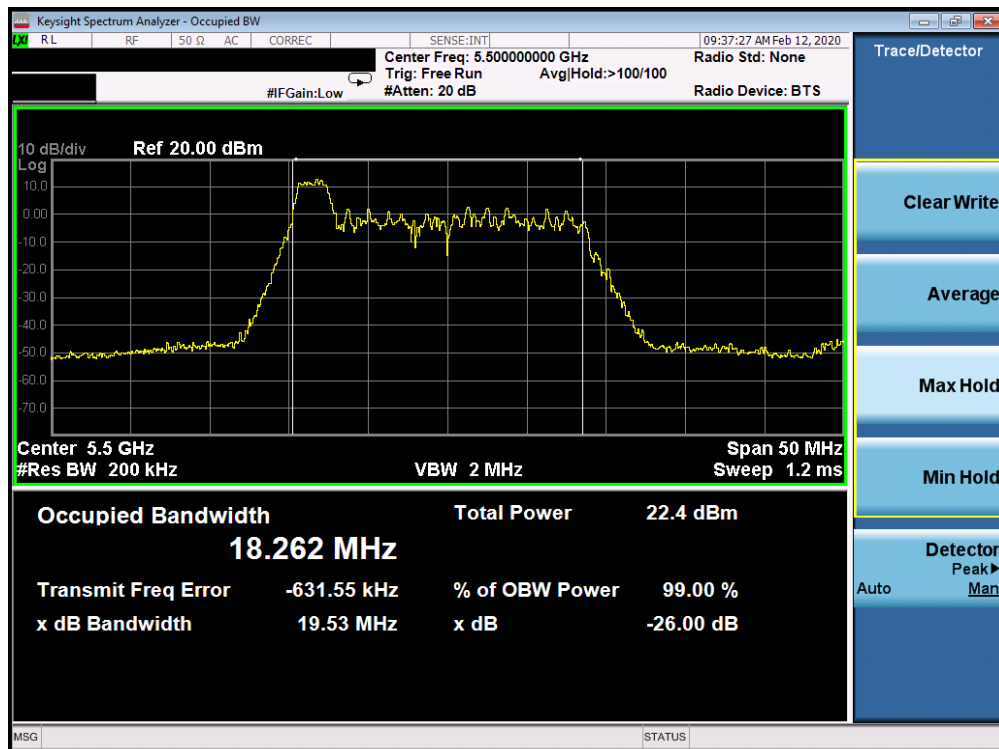


Plot 7-47. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 36 – RU26 (UNII Band 2A) – Ch. 58)

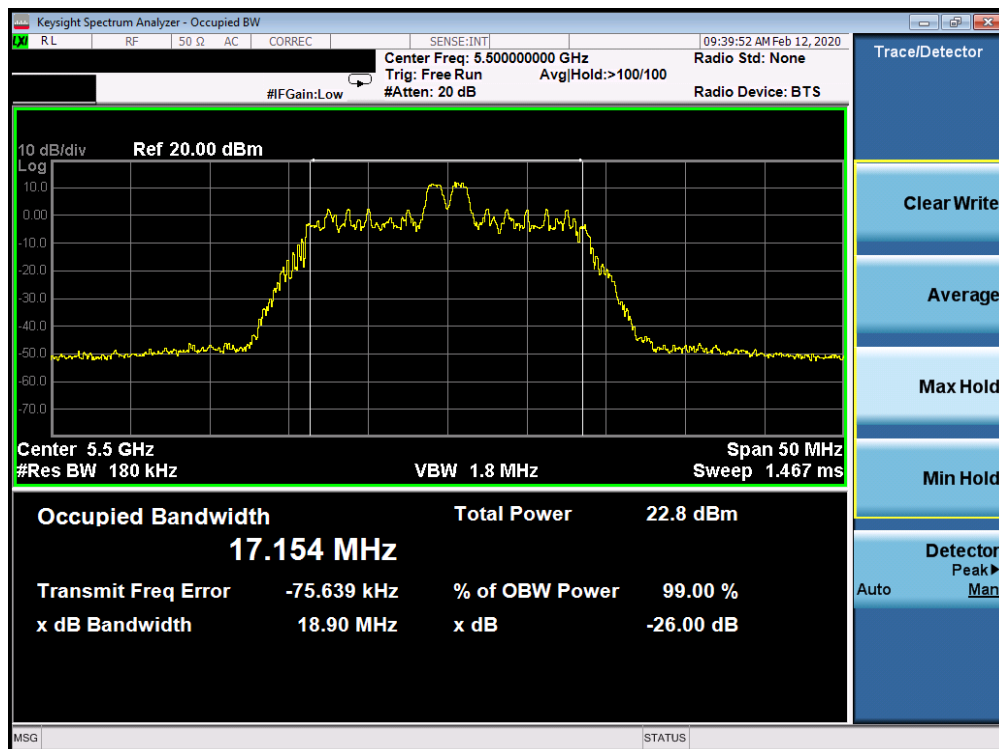


Plot 7-48. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax - RU996 (UNII Band 2A) - Ch. 58)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 40 of 541                  |

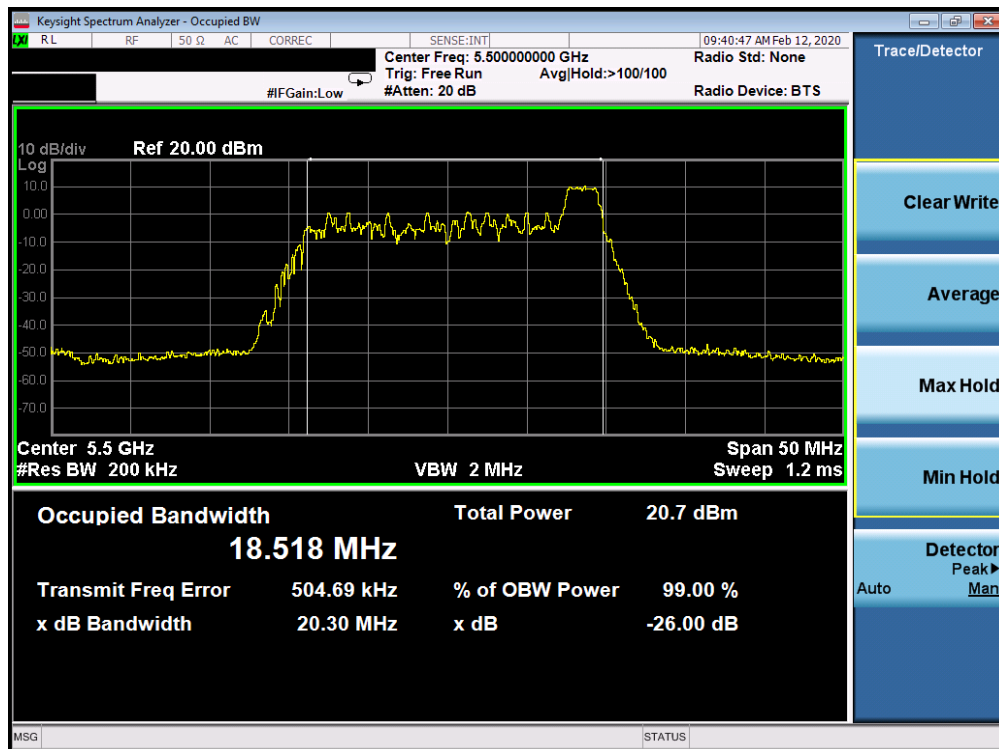


Plot 7-49. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 100)

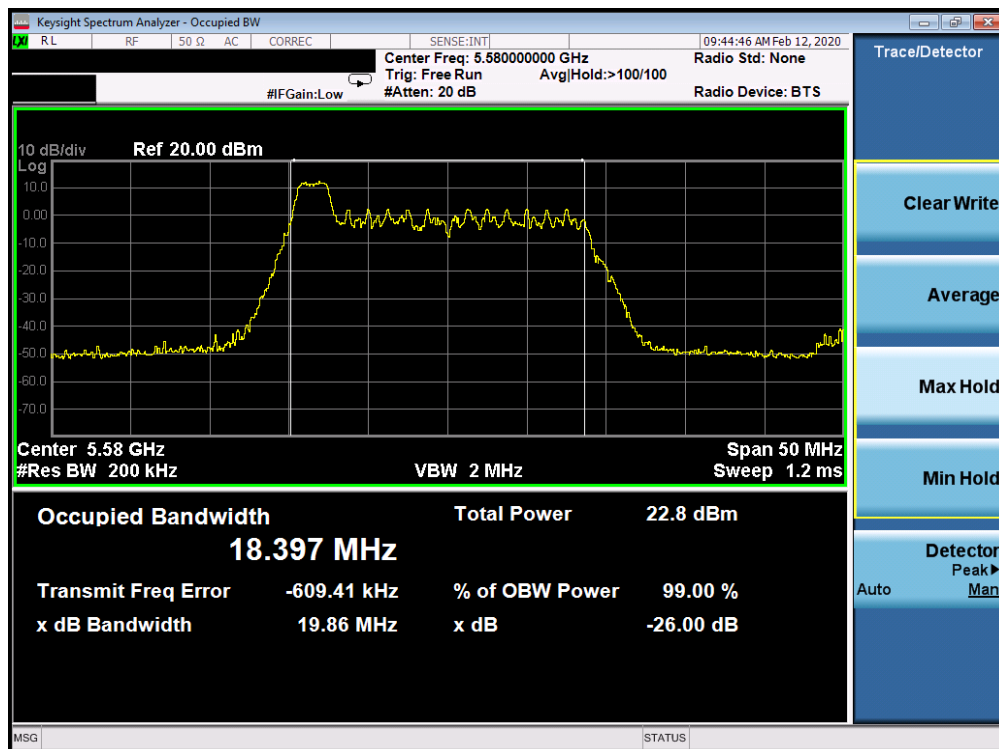


Plot 7-50. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2C) – Ch. 100)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 41 of 541                  |

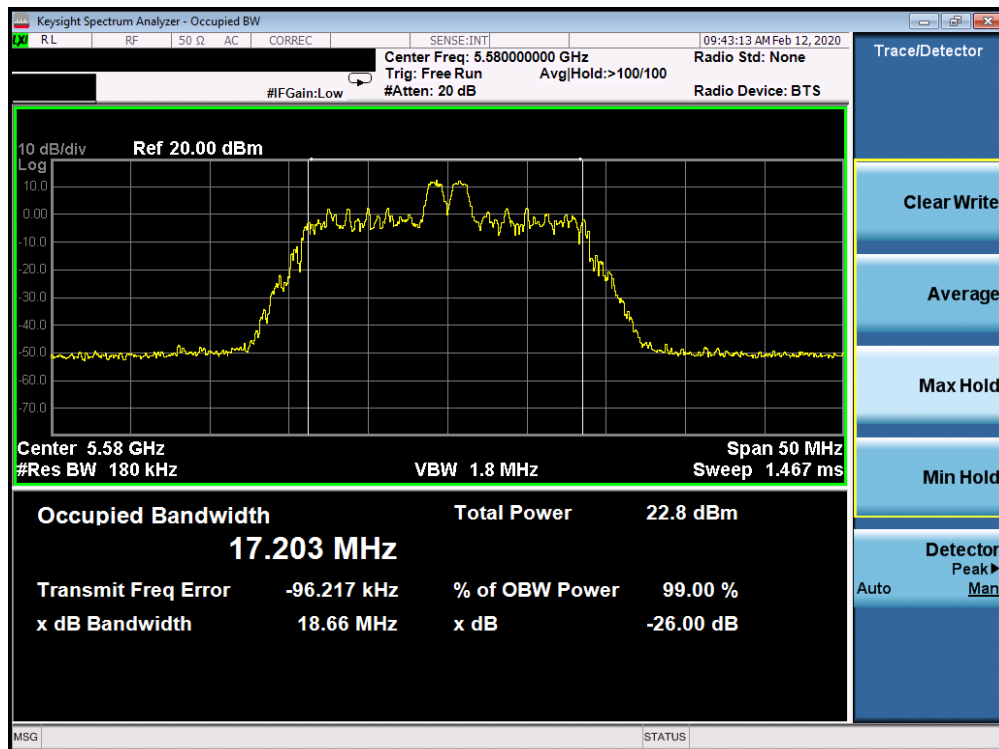


Plot 7-51. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 2C) – Ch. 100)

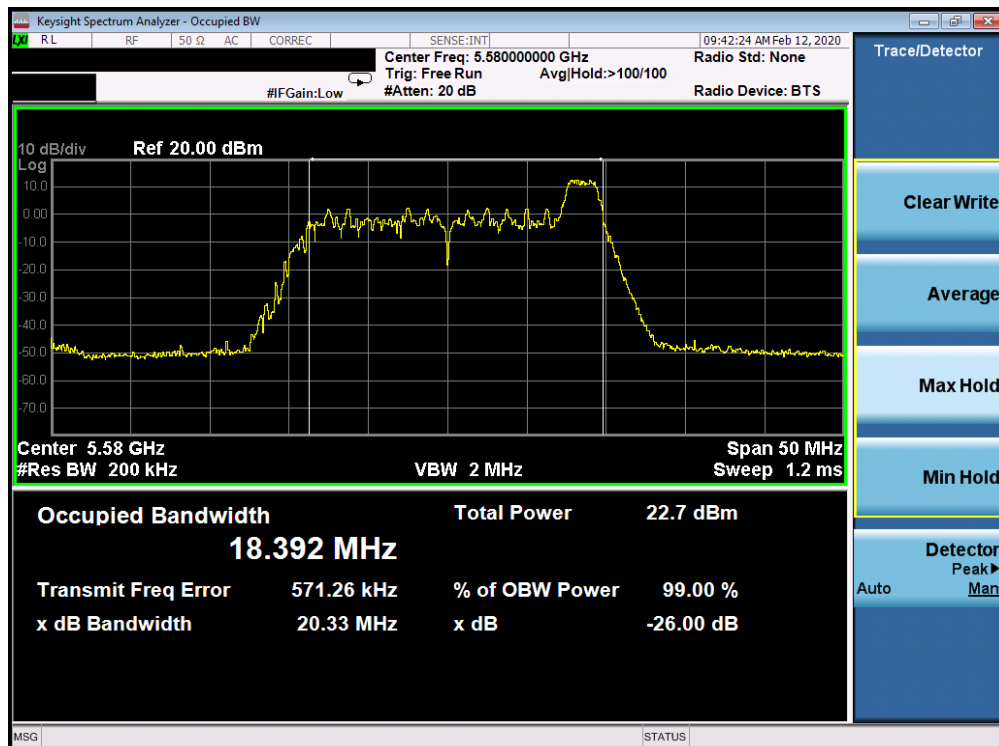


Plot 7-52. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 116)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 42 of 541                  |

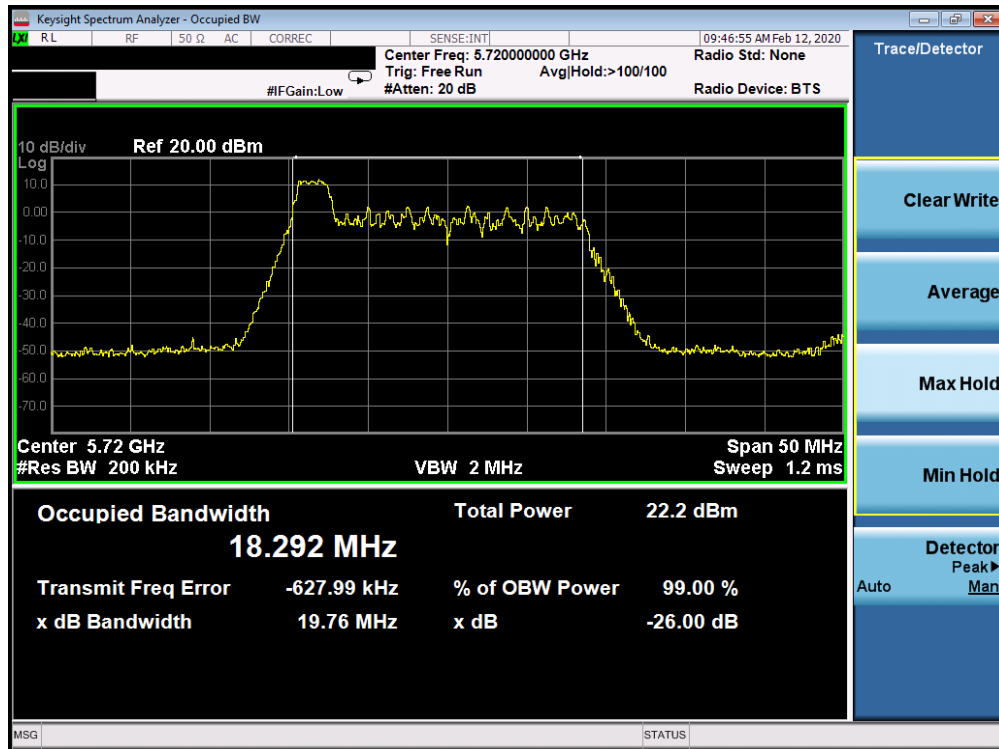


Plot 7-53. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2C) – Ch. 116)

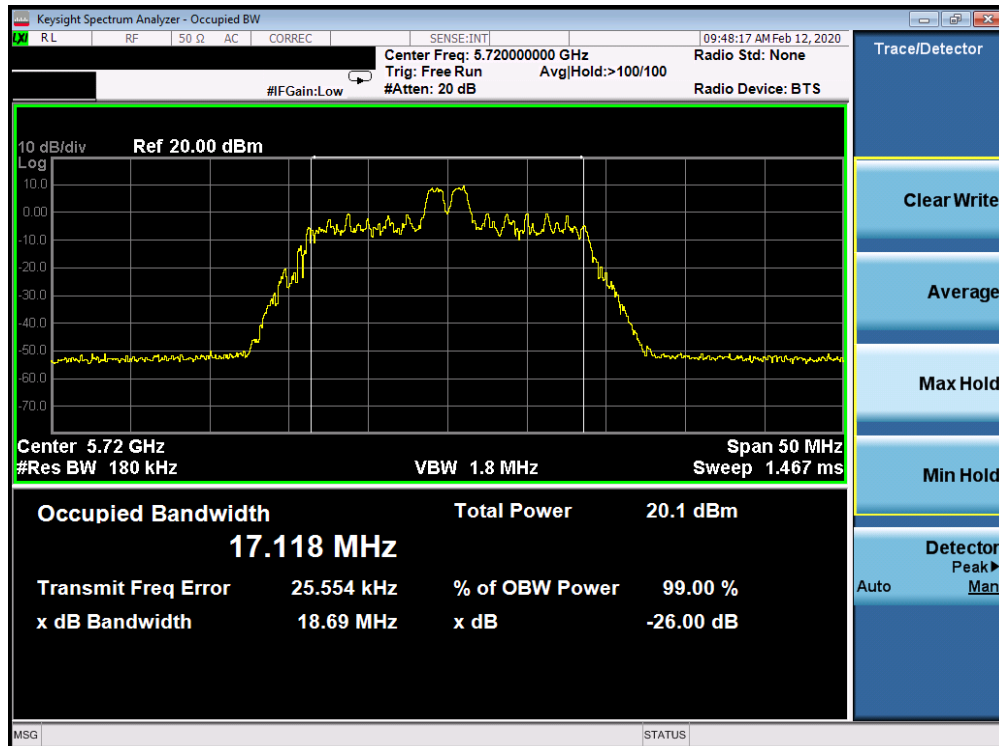


Plot 7-54. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 8– RU26 (UNII Band 2C) – Ch. 116)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 43 of 541                  |

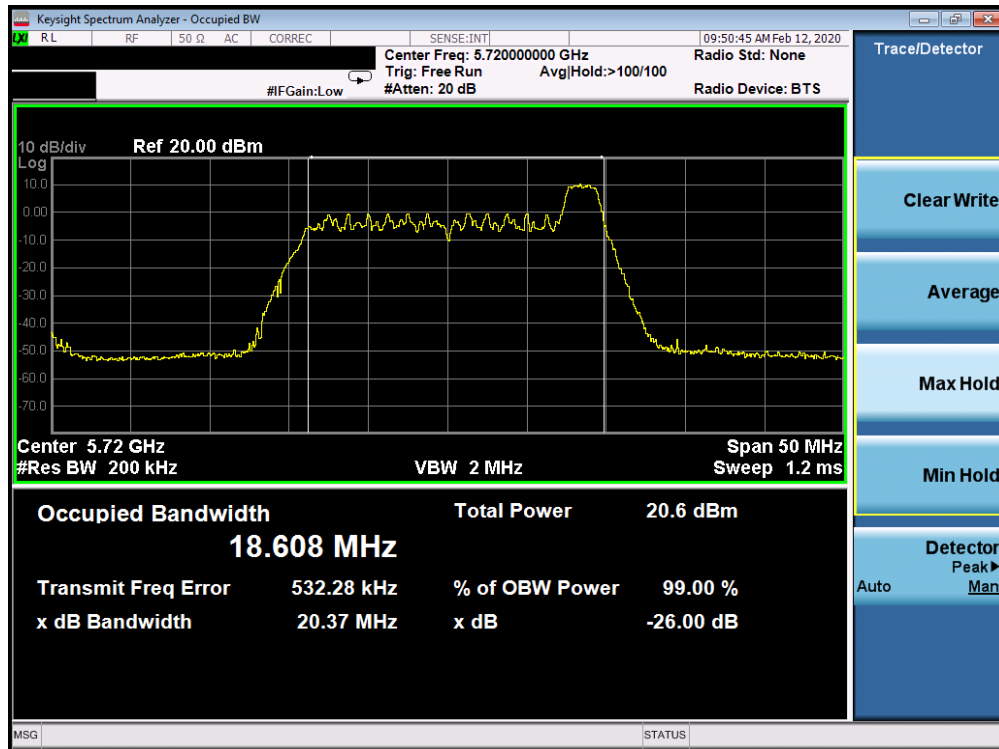


Plot 7-55. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 144)

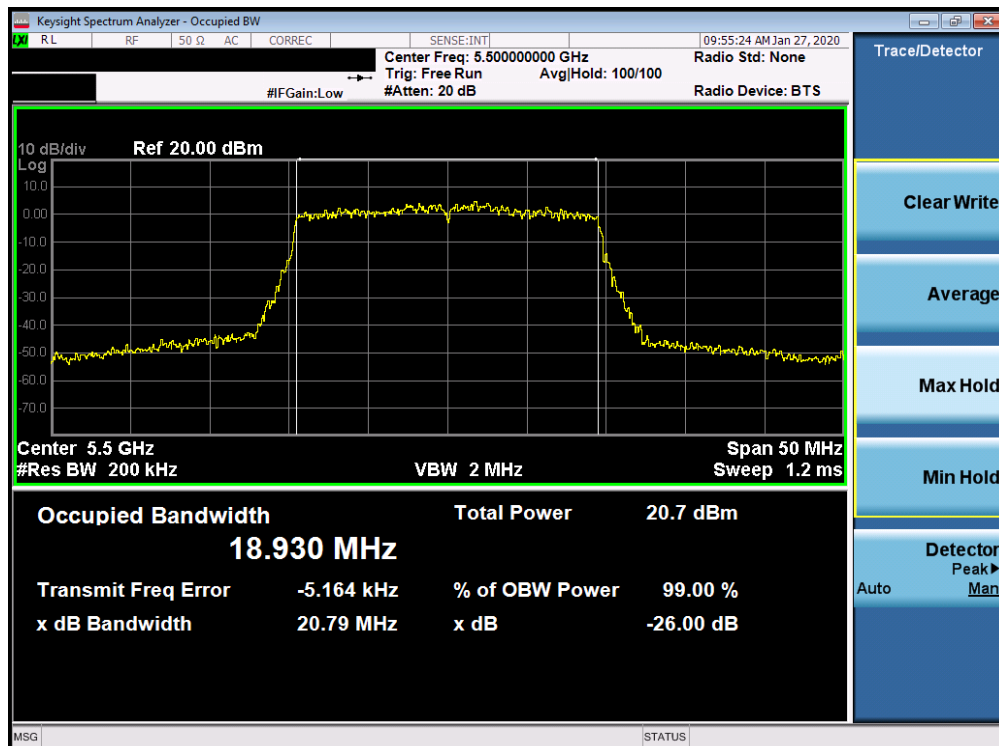


Plot 7-56. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2C) – Ch. 144)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 44 of 541                  |

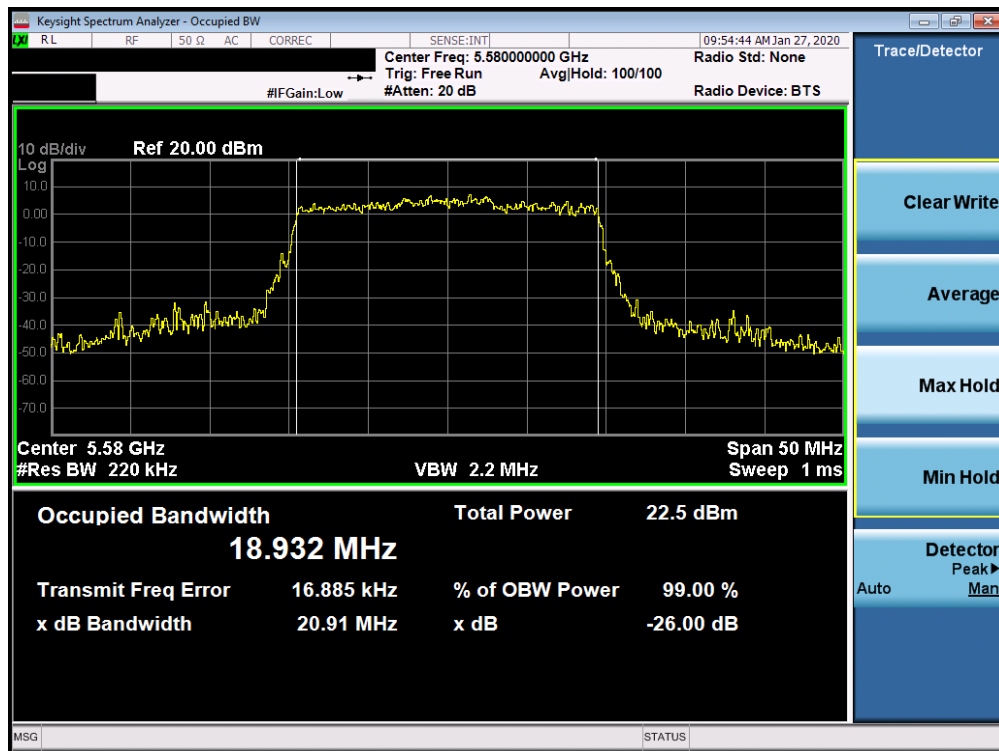


Plot 7-57. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 2C) – Ch. 144)

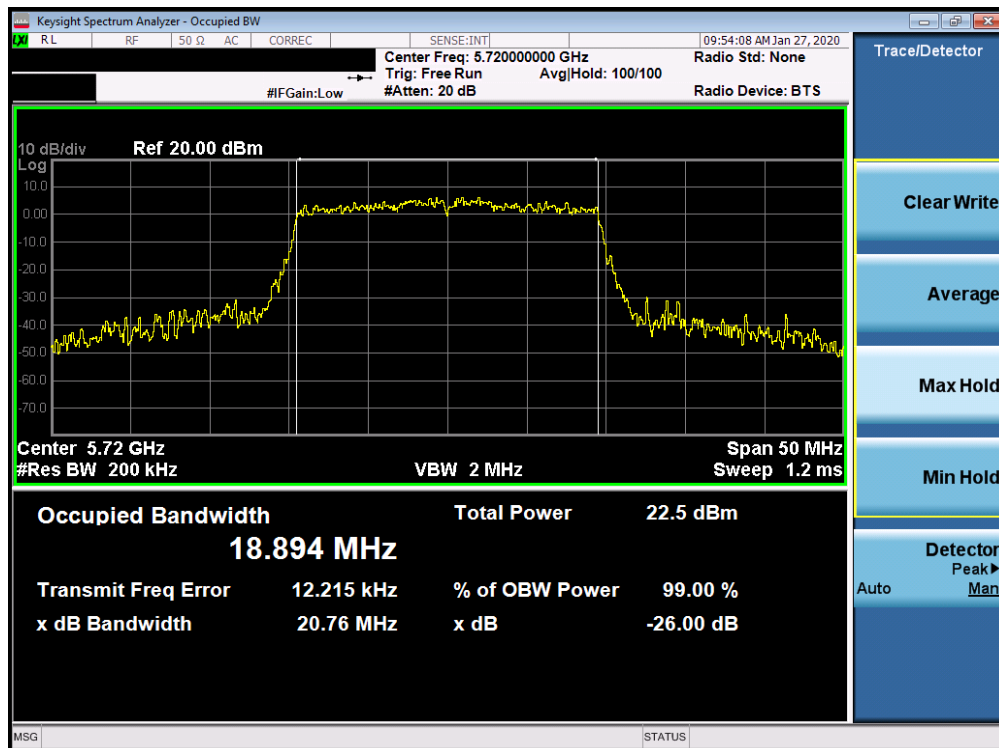


Plot 7-58. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax– RU242 (UNII Band 2C) – Ch. 100)

|                                            |                                        |                                       |                                 |
|--------------------------------------------|----------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           | <b>PCTEST</b>                          | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020 | EUT Type:<br>Tablet Device            | Page 45 of 541                  |

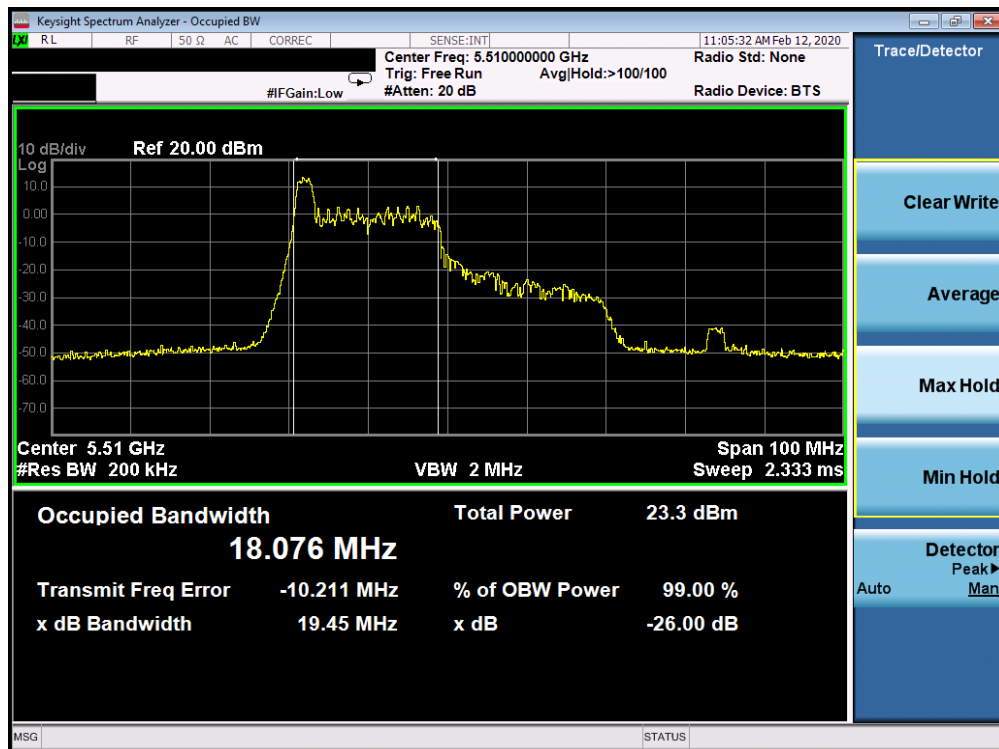


Plot 7-59. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax– RU242 (UNII Band 2C) – Ch. 116)

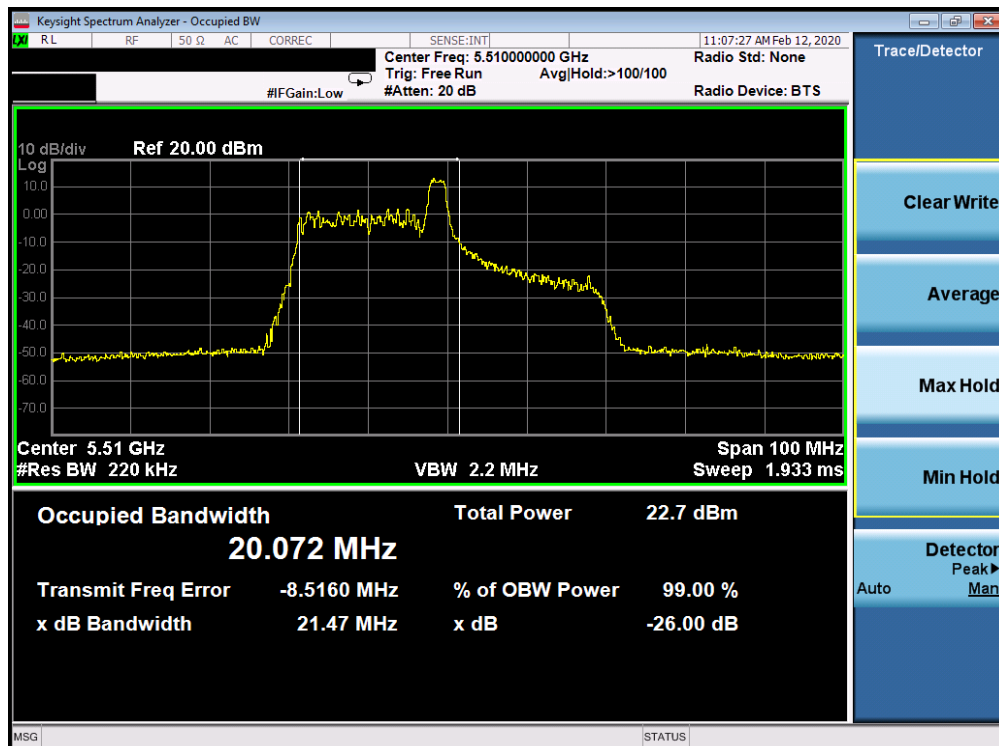


Plot 7-60. 26dB Bandwidth Plot SISO CORE 0 (20MHz BW 802.11ax– RU242 (UNII Band 2C) – Ch. 144)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 46 of 541                  |

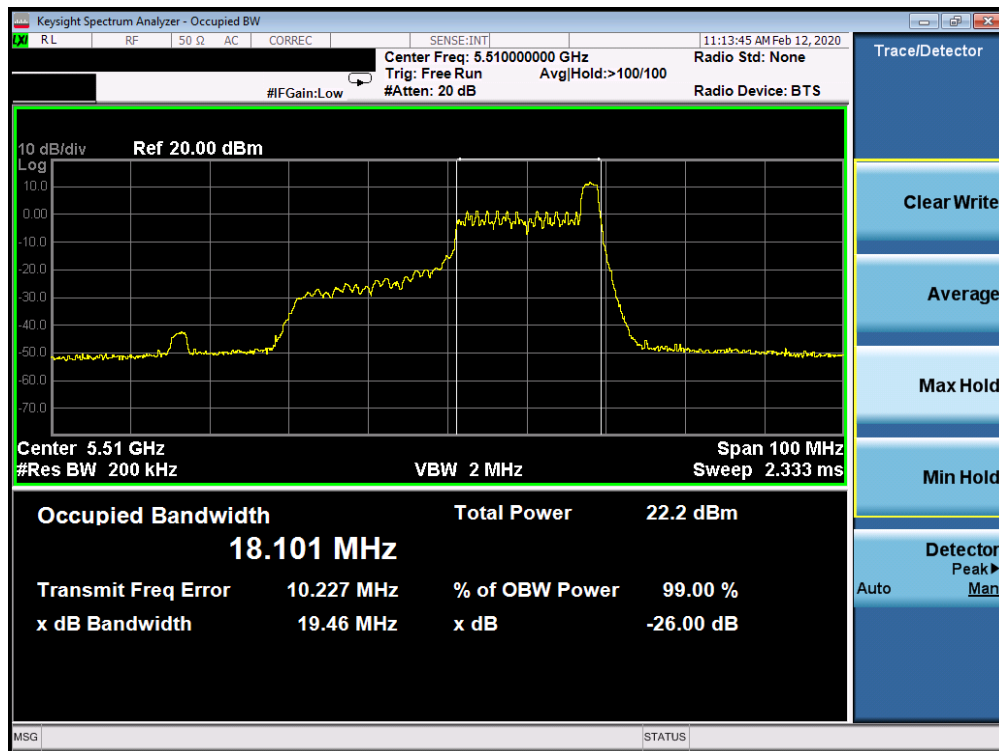


Plot 7-61. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 102)

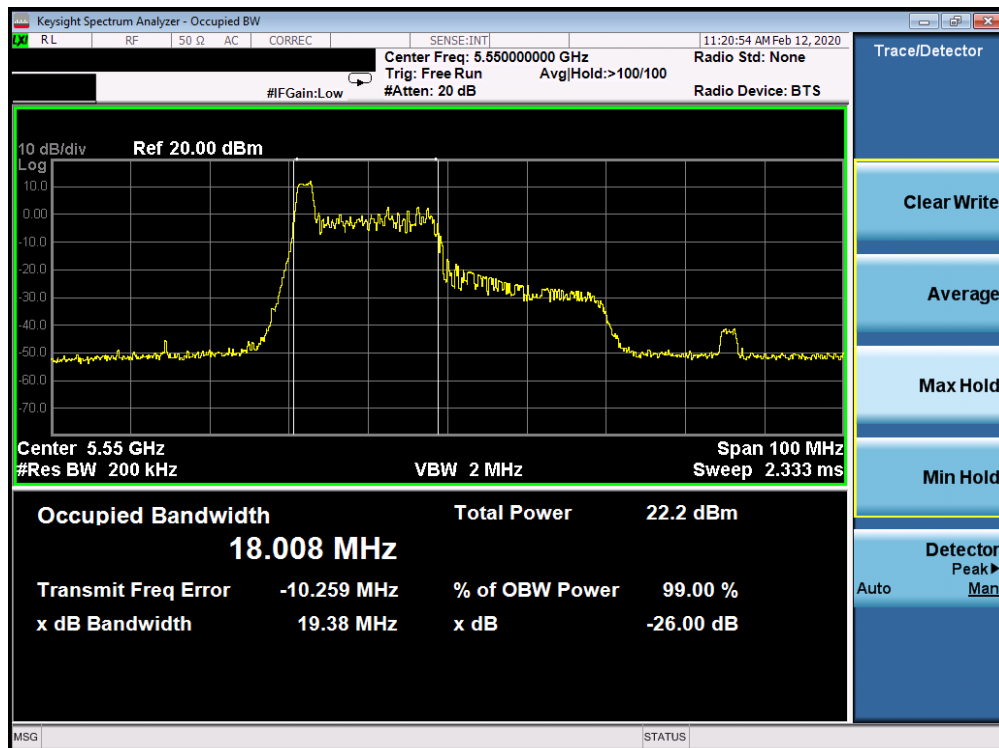


Plot 7-62. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 2C) – Ch. 102)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 47 of 541                  |

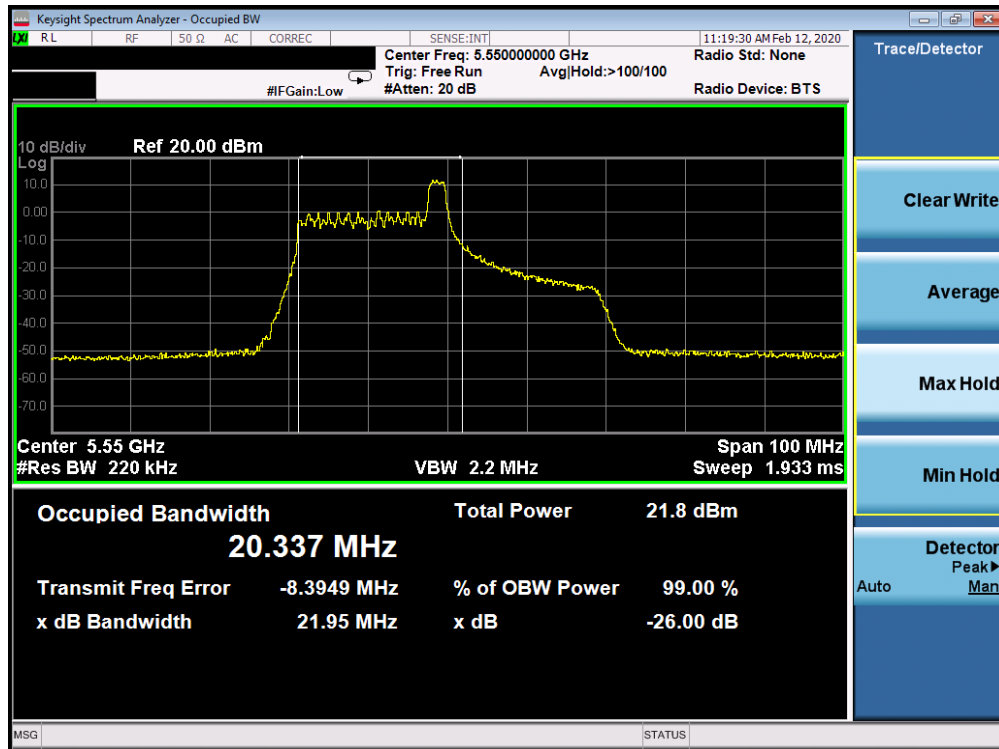


Plot 7-63. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 2C) – Ch. 102)

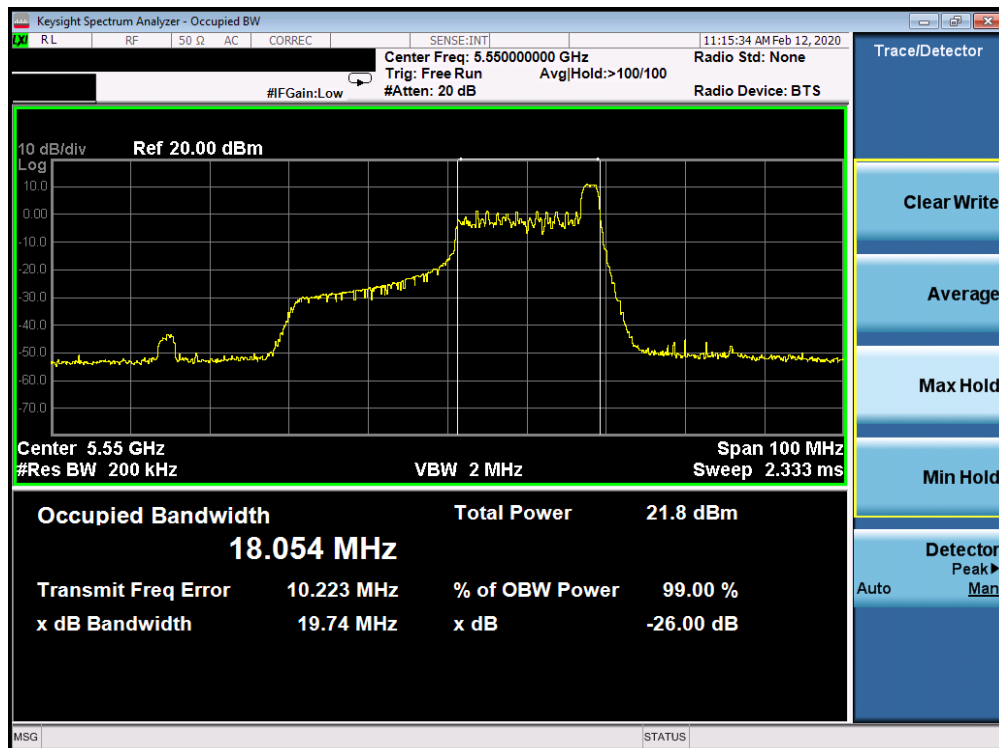


Plot 7-64. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 110)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 48 of 541                  |

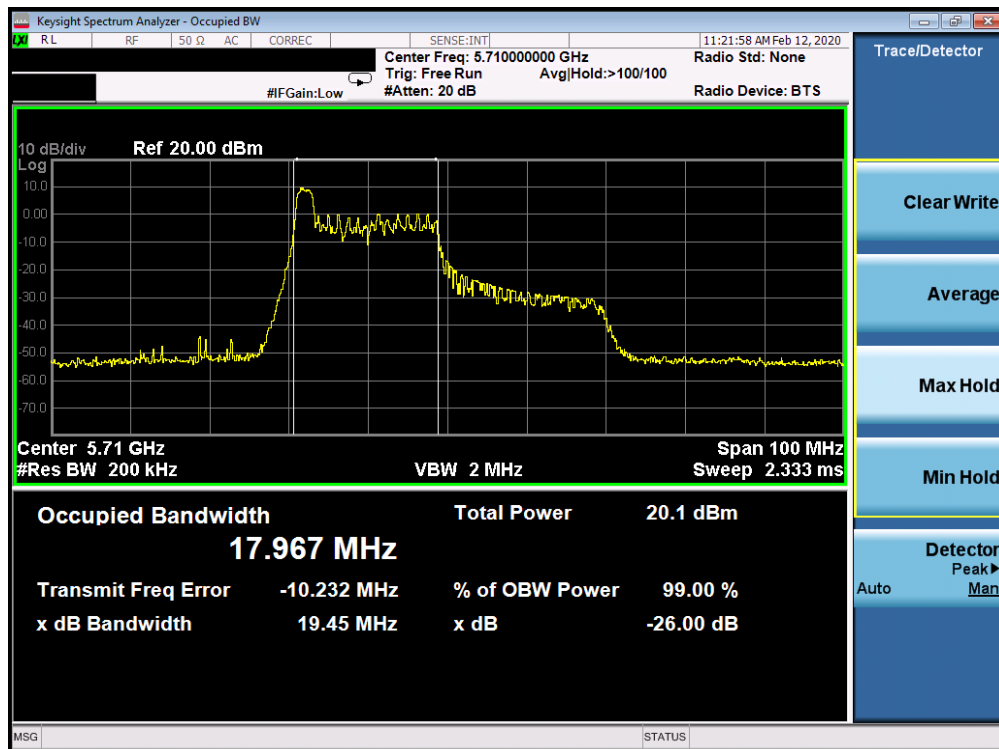


Plot 7-65. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 2C) – Ch. 110)

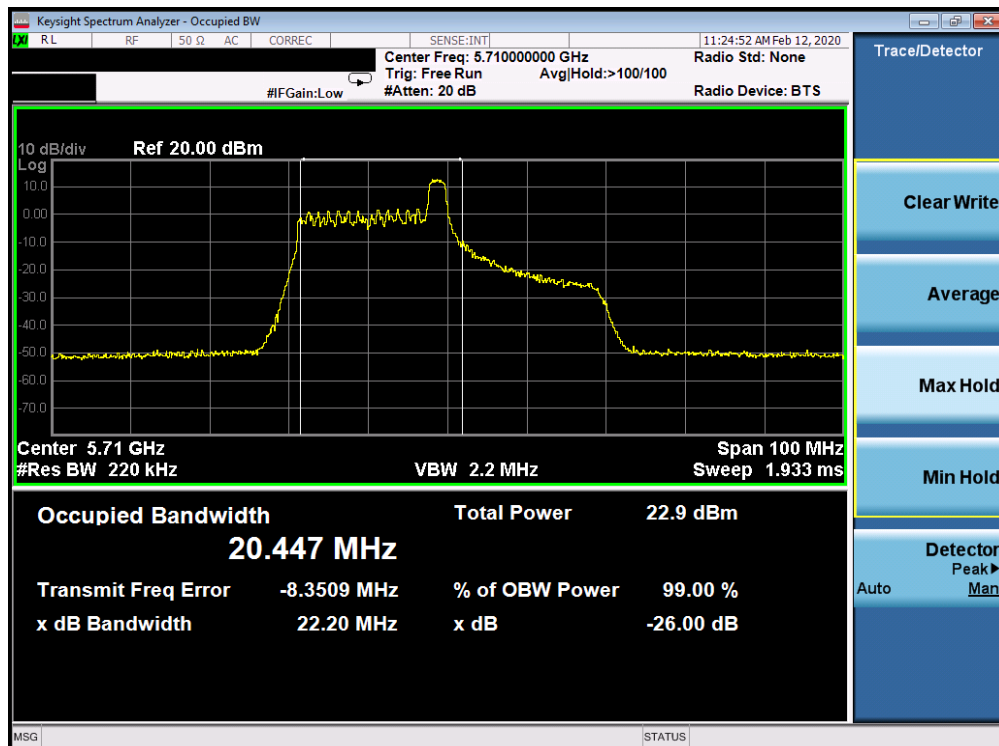


Plot 7-66. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 2C) – Ch. 110)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 49 of 541                  |

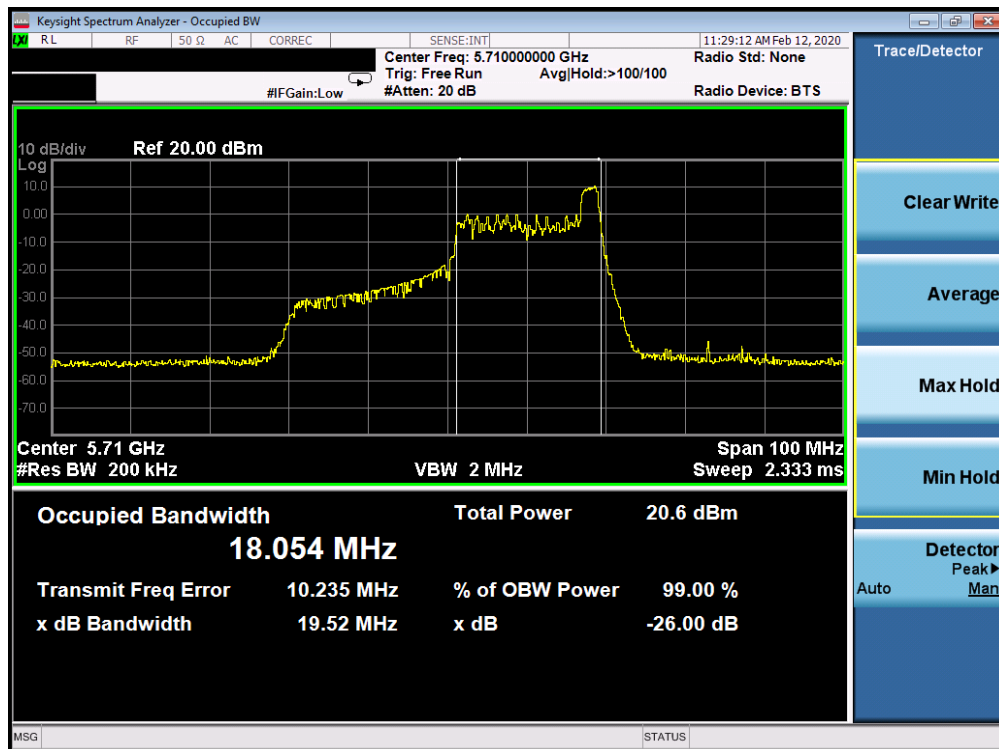


Plot 7-67. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 142)

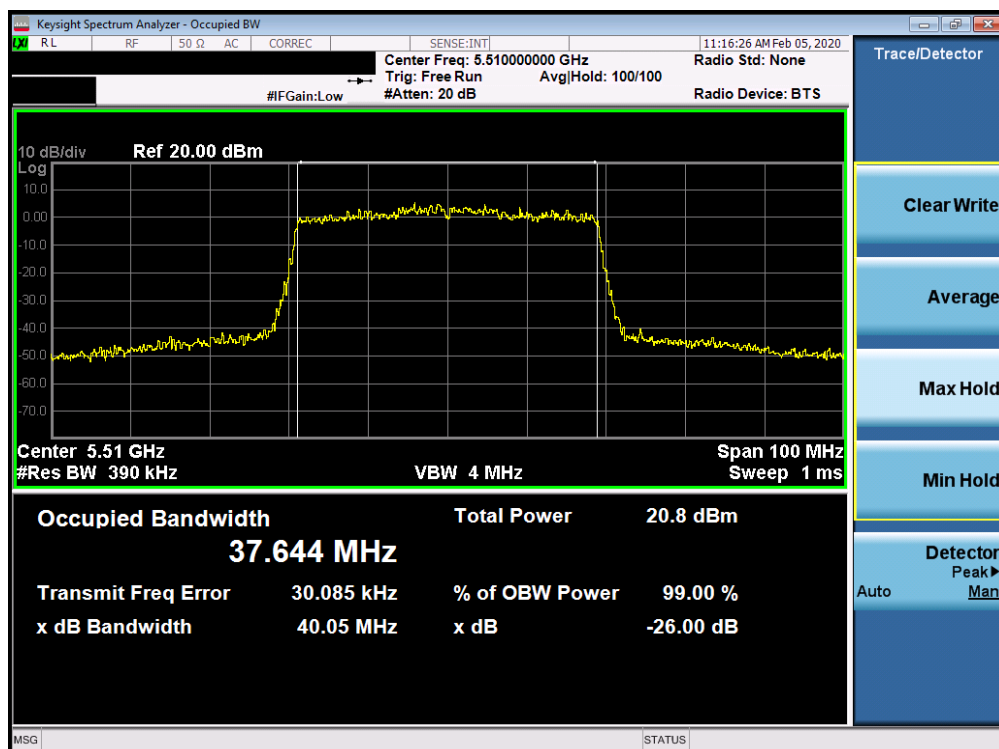


Plot 7-68. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 2C) – Ch. 142)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 50 of 541                  |

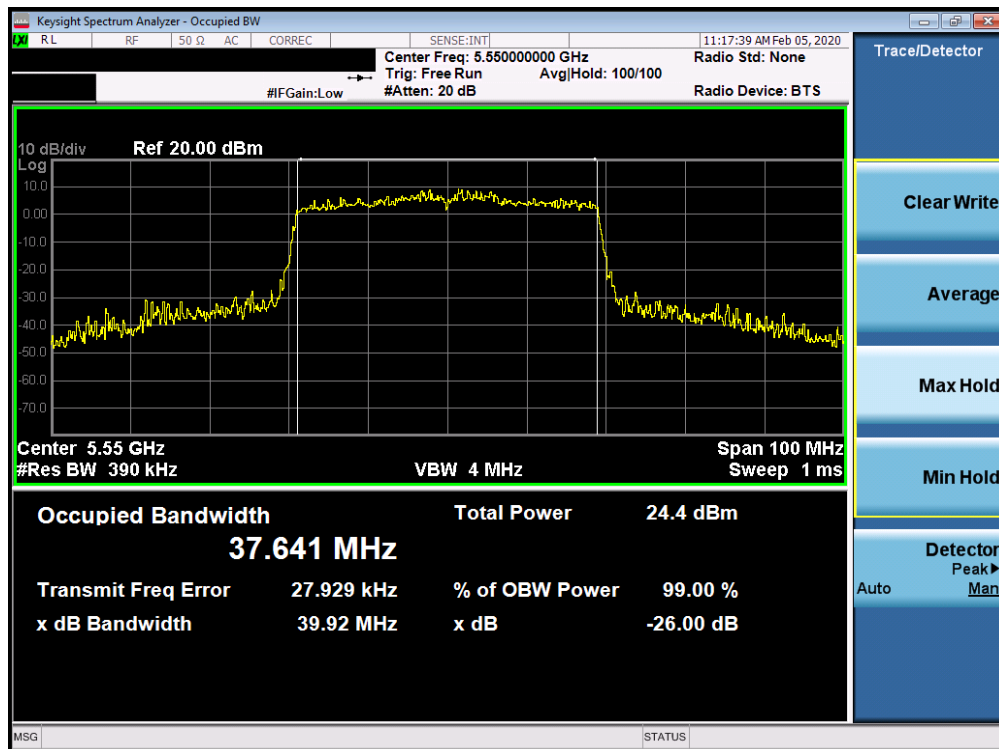


Plot 7-69. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 2C) – Ch. 142)

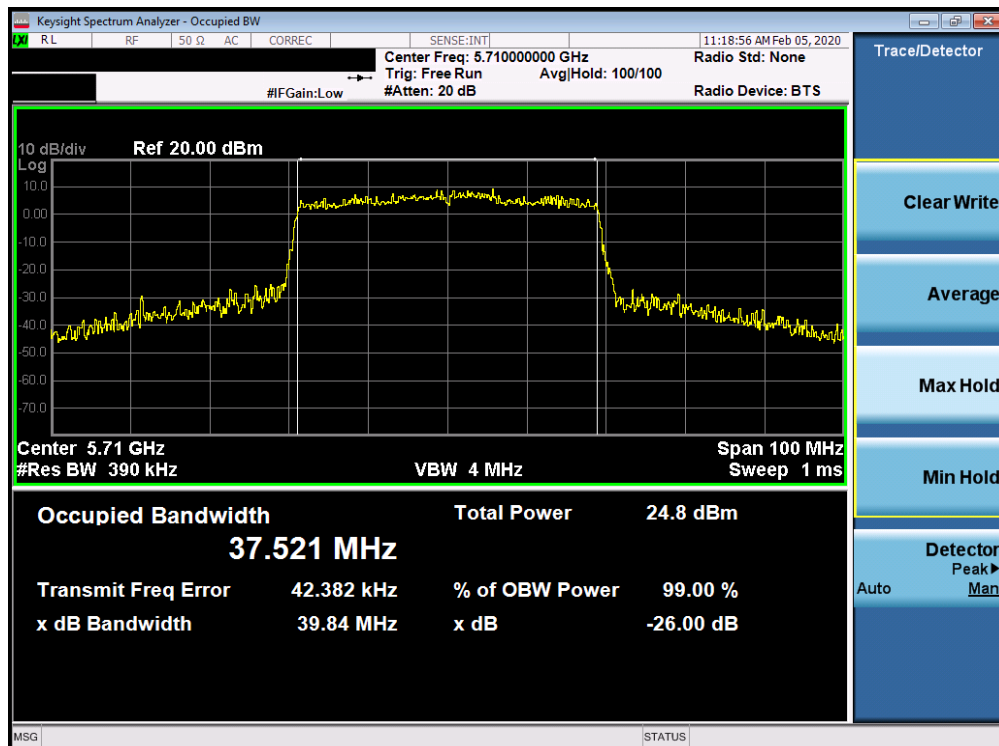


Plot 7-70. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax – RU484 (UNII Band 2C) – Ch. 102)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 51 of 541                  |

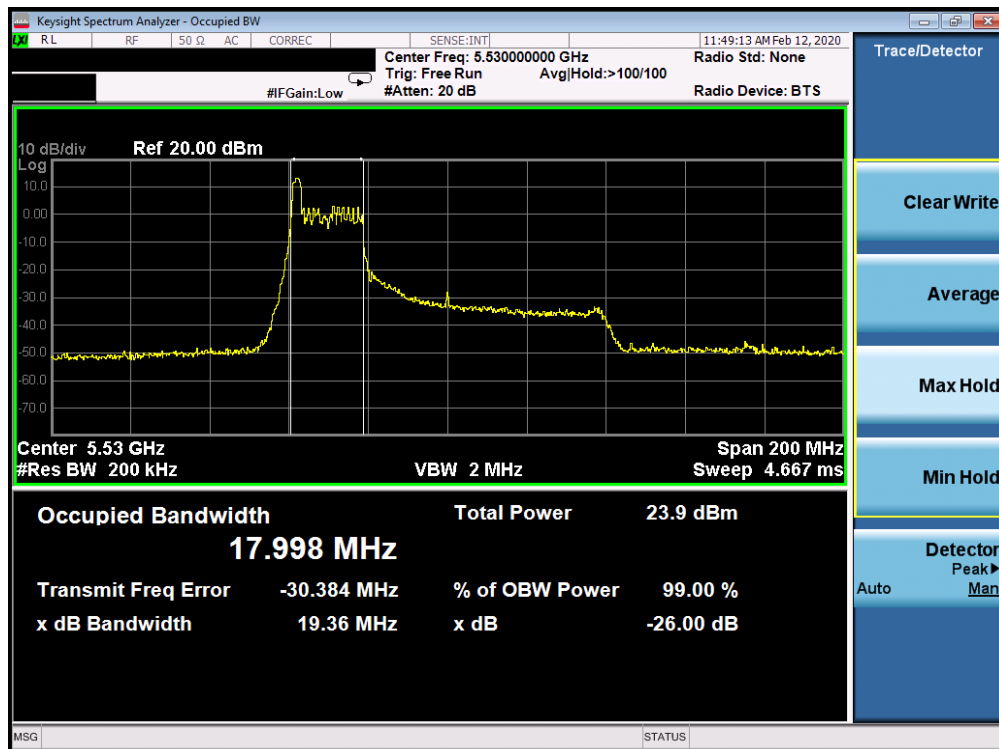


Plot 7-71. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax – RU484 (UNII Band 2C) – Ch. 110)

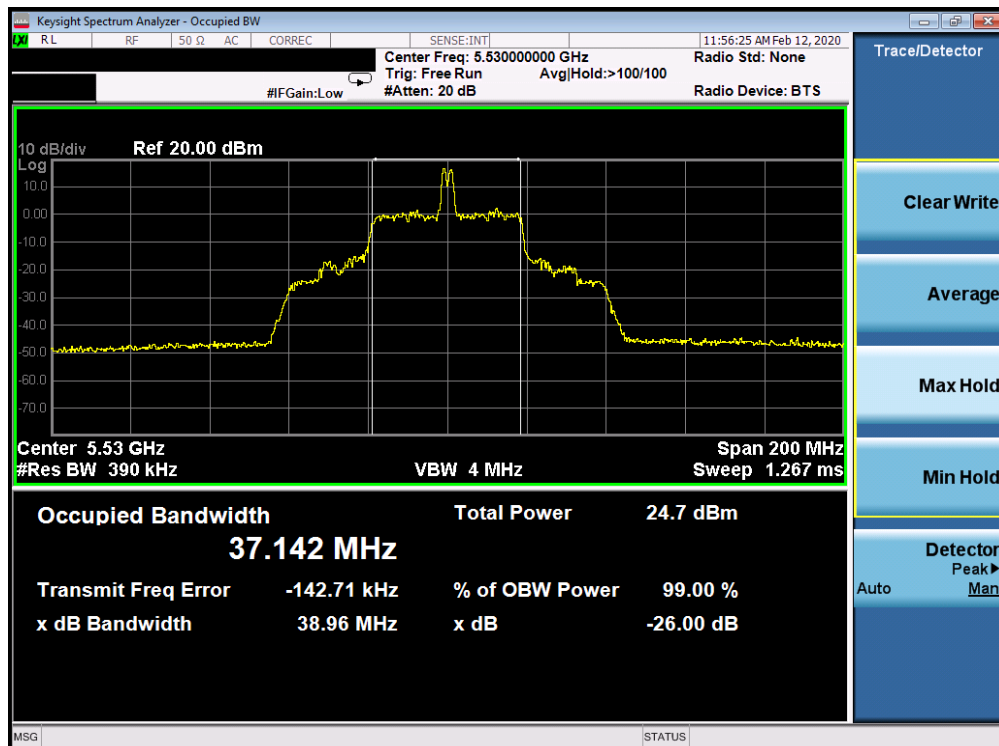


Plot 7-72. 26dB Bandwidth Plot SISO CORE 0 (40MHz BW 802.11ax – RU484 (UNII Band 2C) – Ch. 142)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 52 of 541                  |

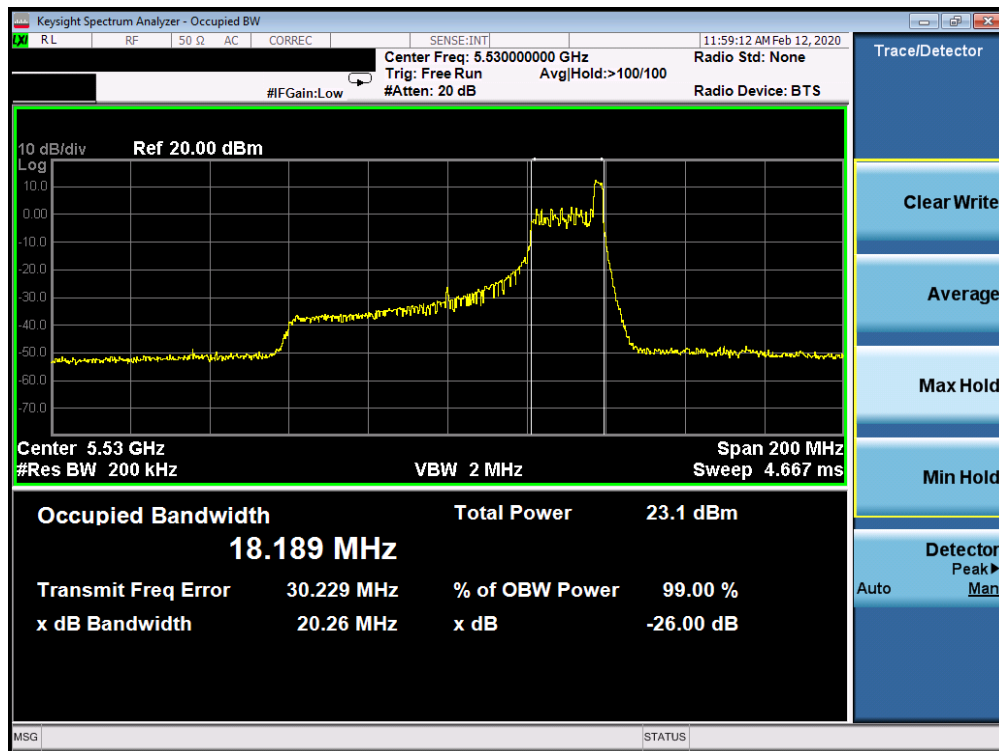


Plot 7-73. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 106)

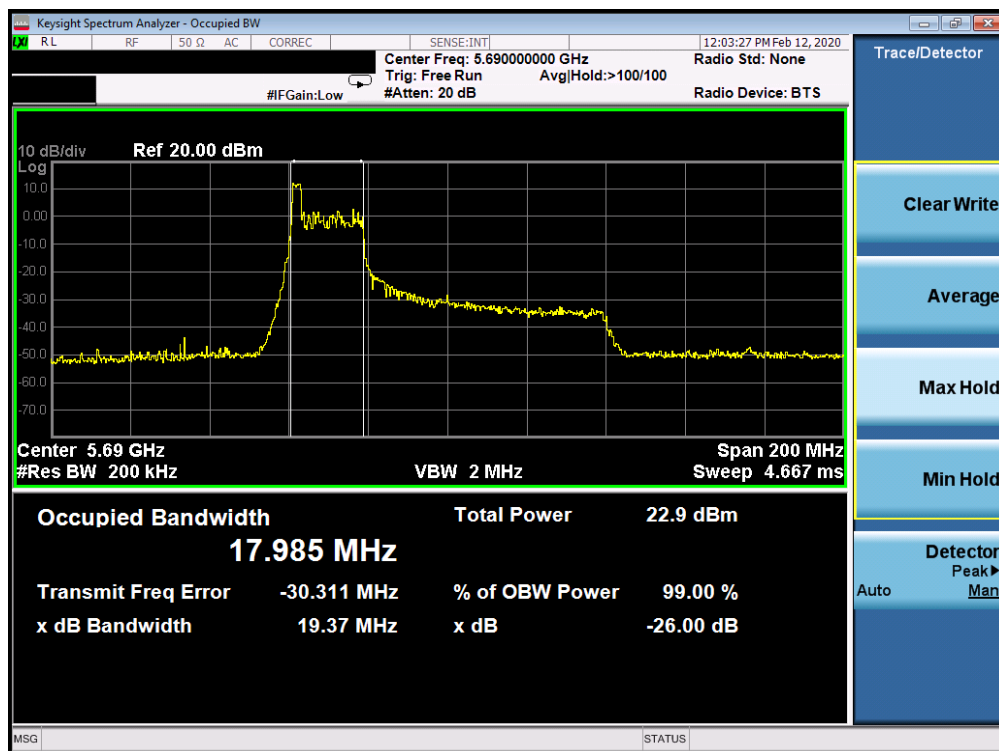


Plot 7-74. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 18 – RU26 (UNII Band 2C) – Ch. 106)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 53 of 541                  |

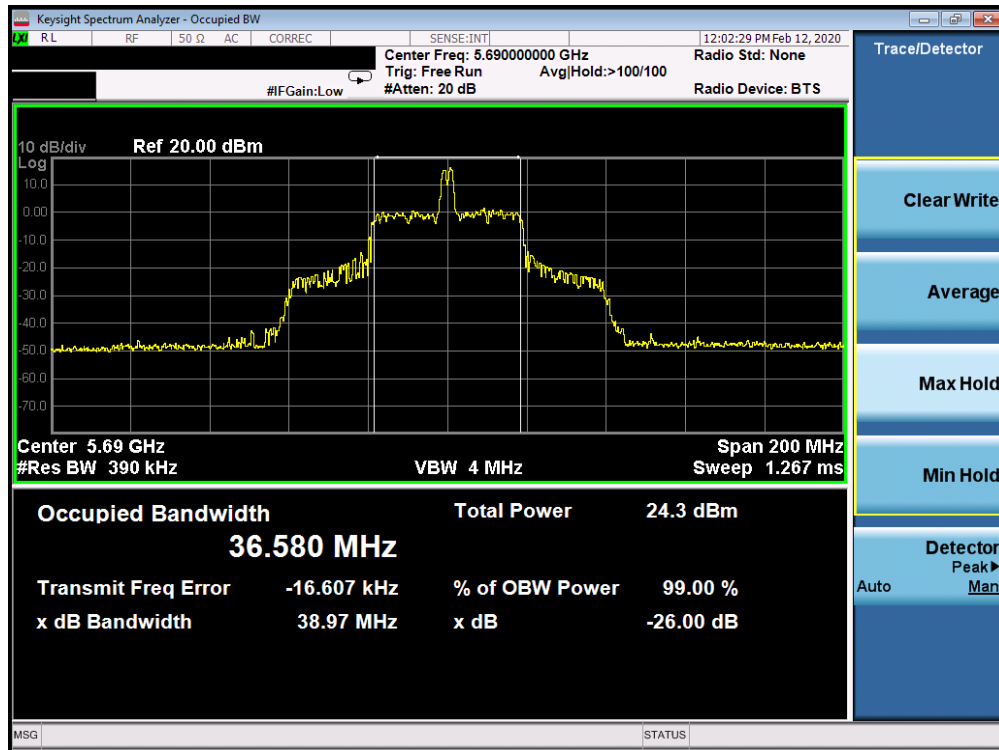


Plot 7-75. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 36 – RU26 (UNII Band 2C) – Ch. 106)

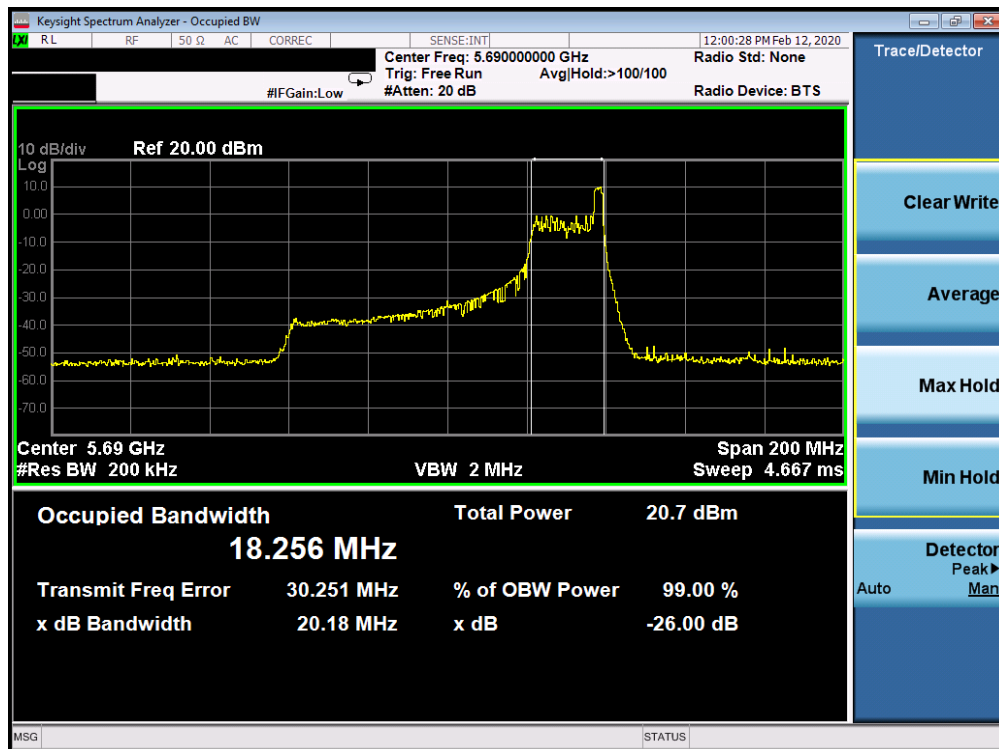


Plot 7-76. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 138)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 54 of 541                  |

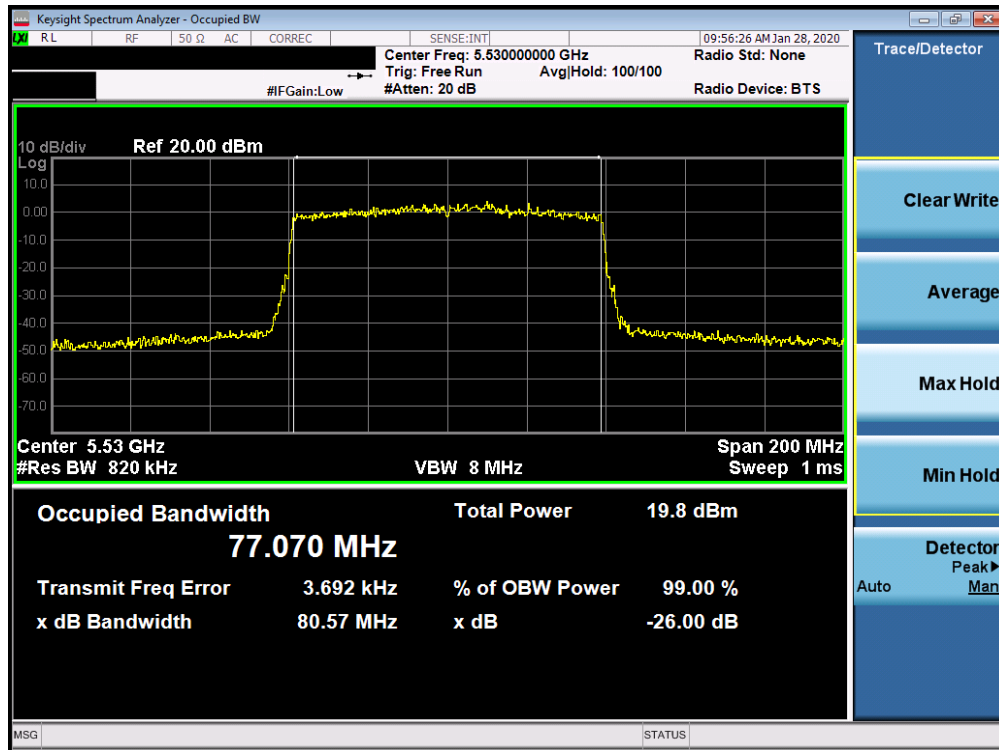


Plot 7-77. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 18 – RU26 (UNII Band 2C) – Ch. 138)

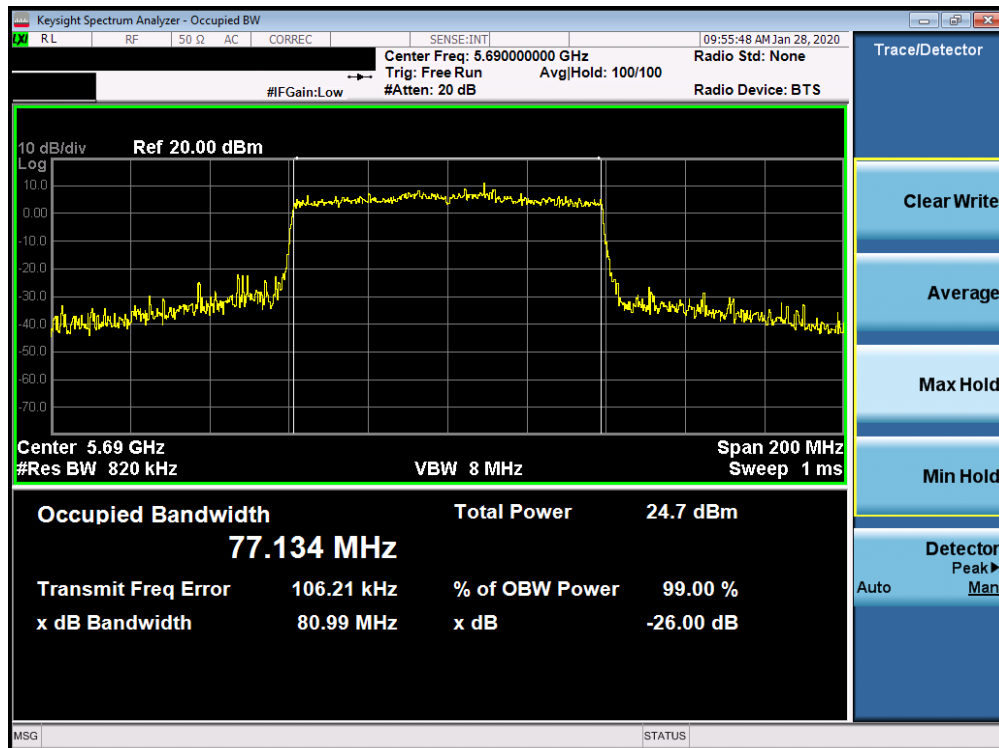


Plot 7-78. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax Index 36 – RU26 (UNII Band 2C) – Ch. 138)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 55 of 541                  |



Plot 7-79. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax – RU996 (UNII Band 2C) – Ch. 106)



Plot 7-80. 26dB Bandwidth Plot SISO CORE 0 (80MHz BW 802.11ax – RU996 (UNII Band 2C) – Ch. 138)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 56 of 541                  |

## SISO Core 1 26dB Bandwidth Measurements

|         | Frequency [MHz] | Channel No. | 802.11 Mode | RU Size | RU Index | Data Rate [Mbps] | Measured 26dB Bandwidth [MHz] |
|---------|-----------------|-------------|-------------|---------|----------|------------------|-------------------------------|
| Band 1  | 5180            | 36          | ax (20MHz)  | 26      | 0        | MSC0             | 19.76                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.90                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.07                         |
|         | 5200            | 40          | ax (20MHz)  | 26      | 0        | MSC0             | 19.42                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.87                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.20                         |
|         | 5240            | 48          | ax (20MHz)  | 26      | 0        | MSC0             | 19.96                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.60                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.31                         |
|         | 5190            | 38          | ax (40MHz)  | 26      | 0        | MSC0             | 20.08                         |
|         |                 |             |             | 26      | 8        | MSC0             | 21.84                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.46                         |
|         | 5230            | 46          | ax (40MHz)  | 26      | 0        | MSC0             | 19.58                         |
|         |                 |             |             | 26      | 8        | MSC0             | 22.20                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.47                         |
|         | 5210            | 42          | ax (80MHz)  | 26      | 0        | MSC0             | 19.49                         |
|         |                 |             |             | 26      | 18       | MSC0             | 37.90                         |
|         |                 |             |             | 26      | 36       | MSC0             | 20.12                         |
| Band 2A | 5260            | 52          | ax (20MHz)  | 26      | 0        | MSC0             | 19.81                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.71                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.35                         |
|         | 5280            | 56          | ax (20MHz)  | 26      | 0        | MSC0             | 19.80                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.79                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.32                         |
|         | 5320            | 64          | ax (20MHz)  | 26      | 0        | MSC0             | 19.80                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.66                         |
|         |                 |             |             | 26      | 8        | MSC0             | 19.89                         |
|         | 5270            | 54          | ax (40MHz)  | 26      | 0        | MSC0             | 19.48                         |
|         |                 |             |             | 26      | 8        | MSC0             | 22.28                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.43                         |
|         | 5310            | 62          | ax (40MHz)  | 26      | 0        | MSC0             | 20.09                         |
|         |                 |             |             | 26      | 8        | MSC0             | 21.34                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.48                         |
|         | 5290            | 58          | ax (80MHz)  | 26      | 0        | MSC0             | 19.41                         |
|         |                 |             |             | 26      | 18       | MSC0             | 38.58                         |
|         |                 |             |             | 26      | 36       | MSC0             | 20.10                         |
| Band 2C | 5500            | 100         | ax (20MHz)  | 26      | 0        | MSC0             | 19.85                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.89                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.35                         |
|         | 5580            | 116         | ax (20MHz)  | 26      | 0        | MSC0             | 19.76                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.45                         |
|         |                 |             |             | 26      | 8        | MSC0             | 19.75                         |
|         | 5720            | 144         | ax (20MHz)  | 26      | 0        | MSC0             | 19.79                         |
|         |                 |             |             | 26      | 4        | MSC0             | 18.56                         |
|         |                 |             |             | 26      | 8        | MSC0             | 20.51                         |
|         | 5510            | 102         | ax (40MHz)  | 26      | 0        | MSC0             | 19.82                         |
|         |                 |             |             | 26      | 8        | MSC0             | 22.12                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.45                         |
|         | 5550            | 110         | ax (40MHz)  | 26      | 0        | MSC0             | 19.76                         |
|         |                 |             |             | 26      | 8        | MSC0             | 21.96                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.40                         |
|         | 5710            | 142         | ax (40MHz)  | 26      | 0        | MSC0             | 19.58                         |
|         |                 |             |             | 26      | 8        | MSC0             | 21.81                         |
|         |                 |             |             | 26      | 17       | MSC0             | 19.37                         |
|         | 5530            | 106         | ax (80MHz)  | 26      | 0        | MSC0             | 19.61                         |
|         |                 |             |             | 26      | 18       | MSC0             | 39.16                         |
|         |                 |             |             | 26      | 36       | MSC0             | 19.95                         |
|         | 5690            | 138         | ax (80MHz)  | 26      | 0        | MSC0             | 19.43                         |
|         |                 |             |             | 26      | 18       | MSC0             | 38.65                         |
|         |                 |             |             | 26      | 36       | MSC0             | 20.44                         |

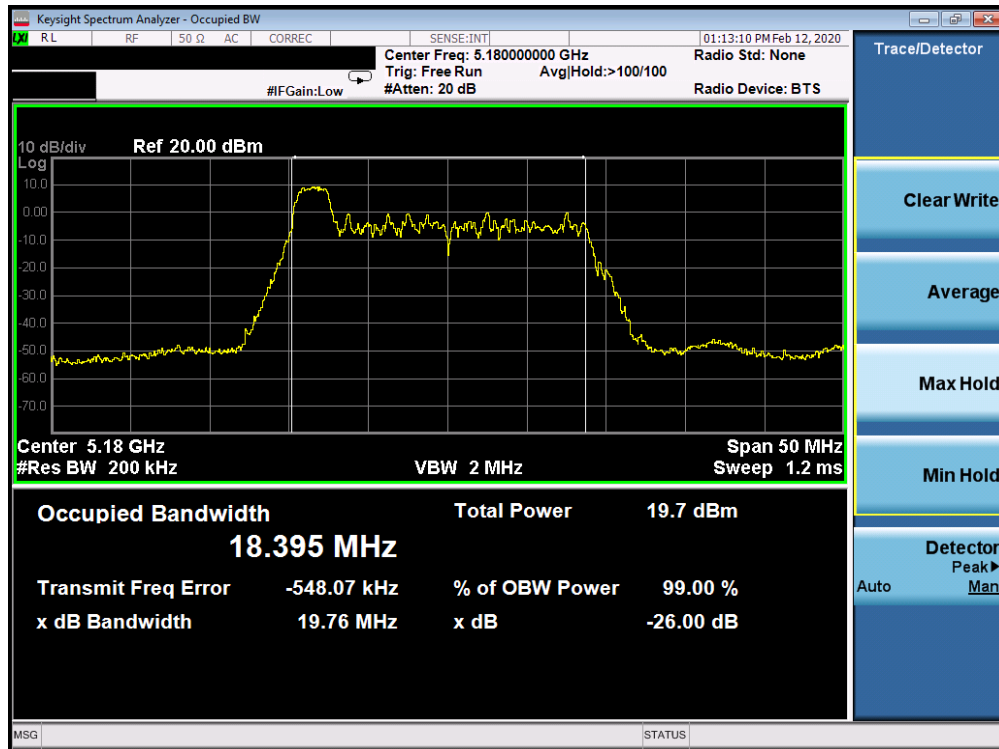
**Table 7-4. Conducted Bandwidth Measurements SISO CORE 1 (RU26)**

|                                            |                                                                                                                               |                            |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  <b>MEASUREMENT REPORT (CERTIFICATION)</b> |                            | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                                                                        | EUT Type:<br>Tablet Device | Page 57 of 541                  |

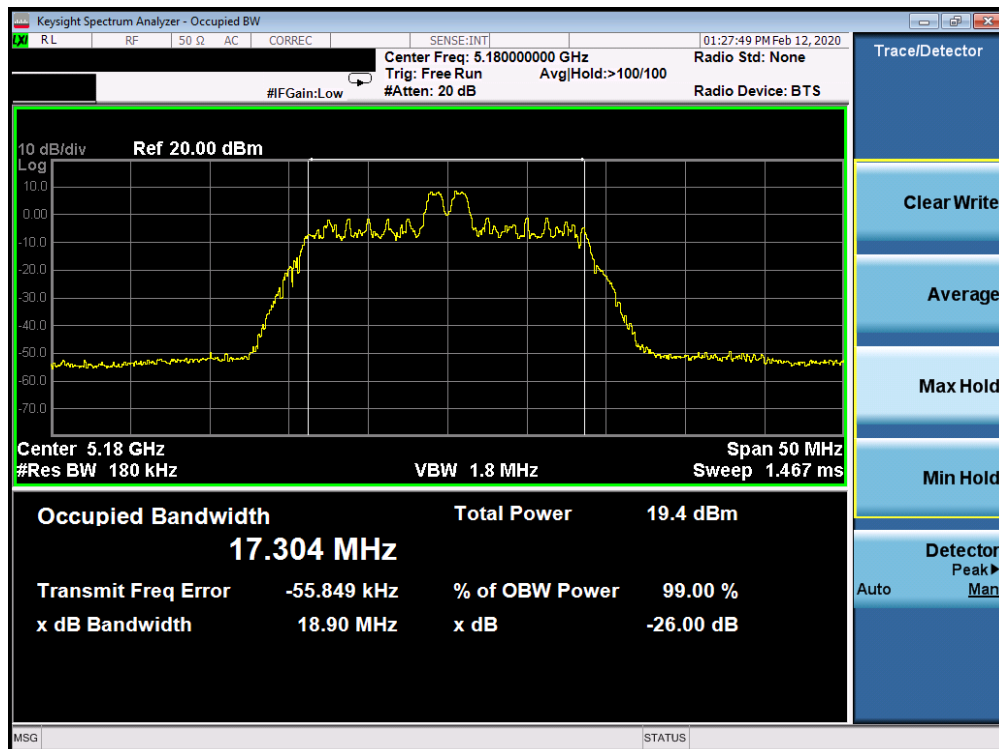
|         | Frequency [MHz] | Channel No. | 802.11 Mode | RU Size | RU Index | Data Rate [Mbps] | Measured 6dB Bandwidth [MHz] |
|---------|-----------------|-------------|-------------|---------|----------|------------------|------------------------------|
| Band 1  | 5180            | 36          | ax (20MHz)  | 242     | 61       | MCS0             | 20.70                        |
|         | 5200            | 40          | ax (20MHz)  | 242     | 61       | MCS0             | 20.89                        |
|         | 5240            | 48          | ax (20MHz)  | 242     | 61       | MCS0             | 21.11                        |
|         | 5190            | 38          | ax (40MHz)  | 484     | 65       | MCS0             | 40.14                        |
|         | 5230            | 46          | ax (40MHz)  | 484     | 65       | MCS0             | 40.14                        |
|         | 5210            | 42          | ax (80MHz)  | 996     | 67       | MCS0             | 81.03                        |
| Band 2A | 5260            | 52          | ax (20MHz)  | 242     | 61       | MCS0             | 21.10                        |
|         | 5280            | 56          | ax (20MHz)  | 242     | 61       | MCS0             | 20.99                        |
|         | 5320            | 64          | ax (20MHz)  | 242     | 61       | MCS0             | 20.95                        |
|         | 5270            | 54          | ax (40MHz)  | 484     | 65       | MCS0             | 39.88                        |
|         | 5310            | 62          | ax (40MHz)  | 484     | 65       | MCS0             | 40.14                        |
|         | 5290            | 58          | ax (80MHz)  | 996     | 67       | MCS0             | 81.13                        |
| Band 2C | 5500            | 100         | ax (20MHz)  | 242     | 61       | MCS0             | 20.96                        |
|         | 5580            | 116         | ax (20MHz)  | 242     | 61       | MCS0             | 21.07                        |
|         | 5720            | 144         | ax (20MHz)  | 242     | 61       | MCS0             | 21.13                        |
|         | 5510            | 102         | ax (40MHz)  | 484     | 65       | MCS0             | 40.12                        |
|         | 5550            | 110         | ax (40MHz)  | 484     | 65       | MCS0             | 38.89                        |
|         | 5710            | 142         | ax (40MHz)  | 484     | 65       | MCS0             | 39.97                        |
|         | 5530            | 106         | ax (80MHz)  | 996     | 67       | MCS0             | 81.79                        |
|         | 5690            | 138         | ax (80MHz)  | 996     | 67       | MCS0             | 80.97                        |

**Table 7-5. Conducted Bandwidth Measurements SISO CORE 1 (Fully-loaded RU)**

|                                            |                                                                                                                               |                            |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  <b>MEASUREMENT REPORT (CERTIFICATION)</b> |                            | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                                                                        | EUT Type:<br>Tablet Device | Page 58 of 541                  |

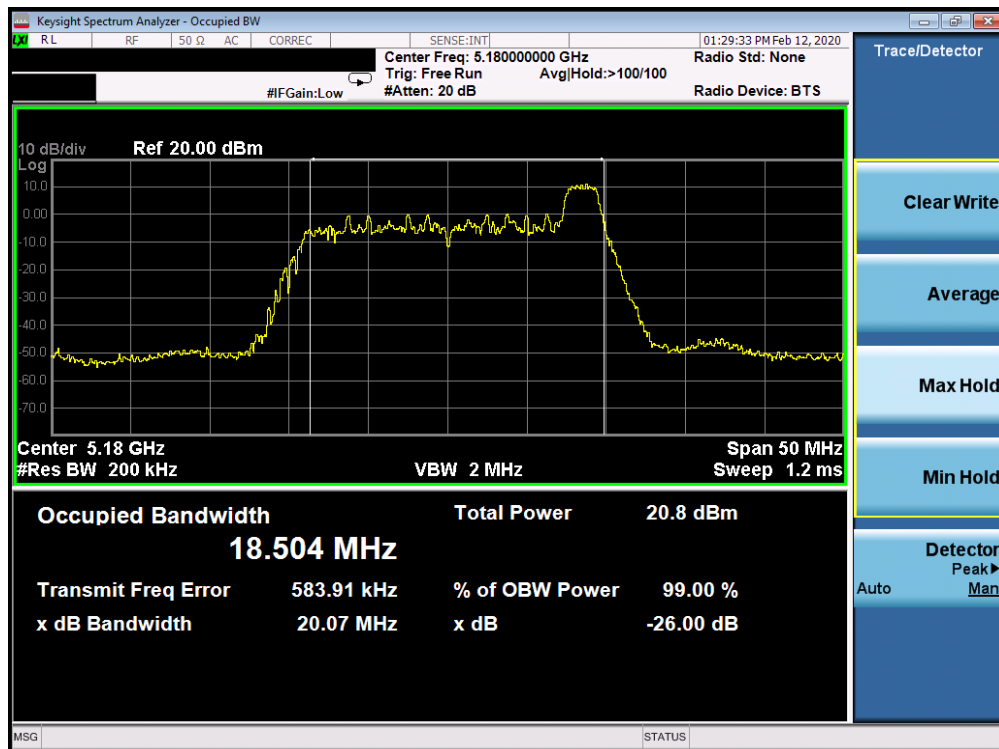


Plot 7-81. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 36)

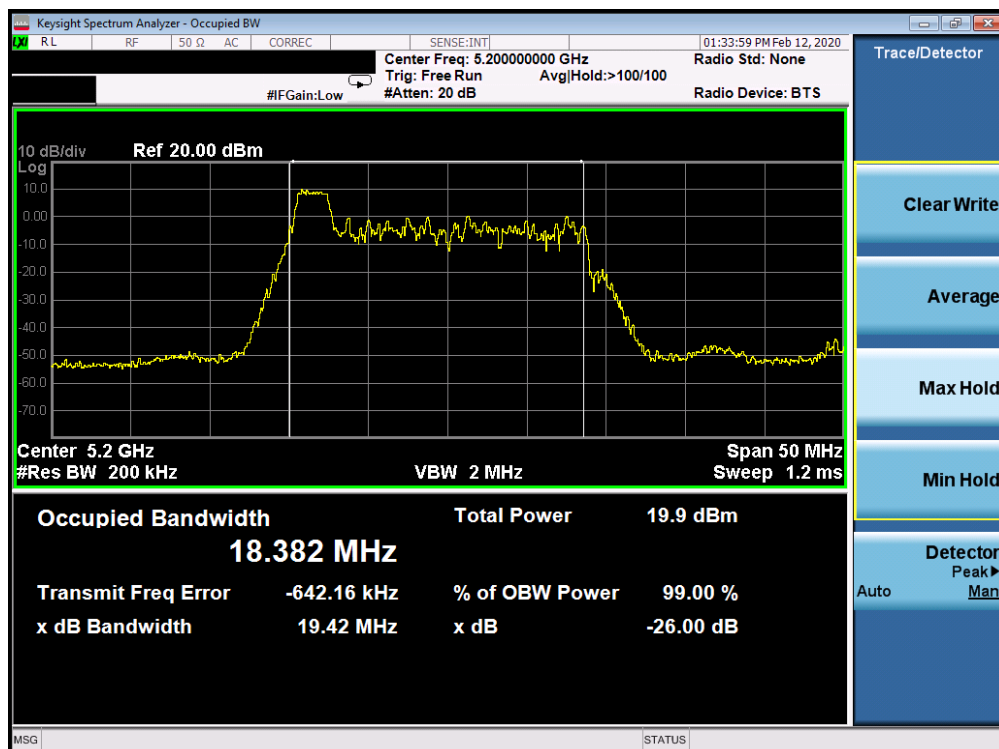


Plot 7-82. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 1) – Ch. 36)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 59 of 541                  |

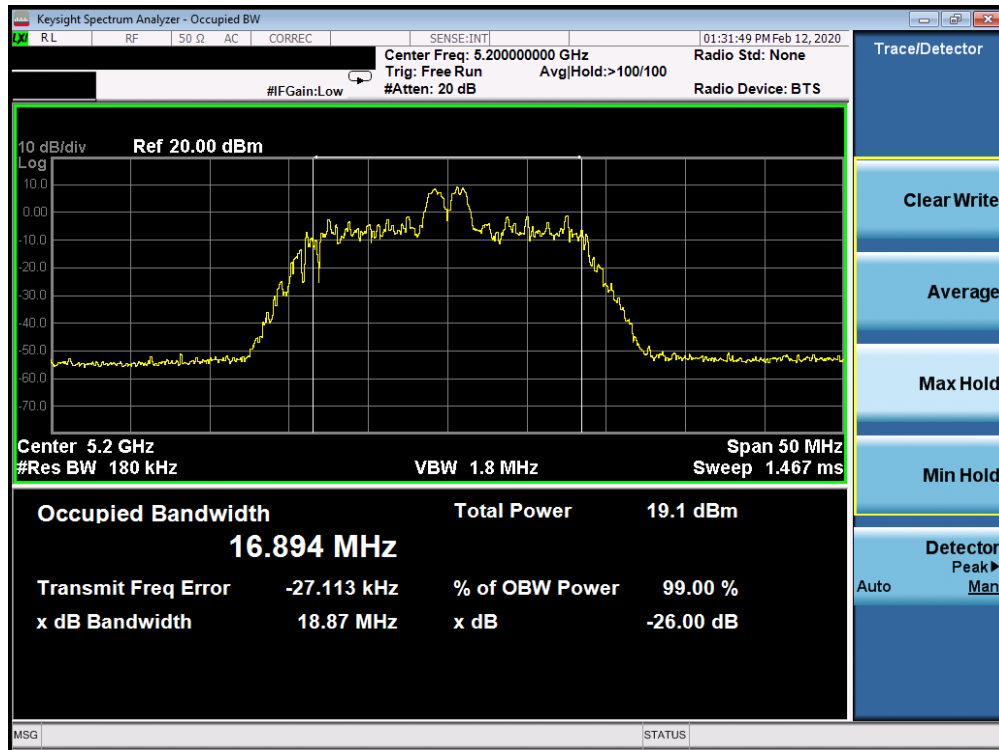


Plot 7-83. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 1) – Ch. 36)

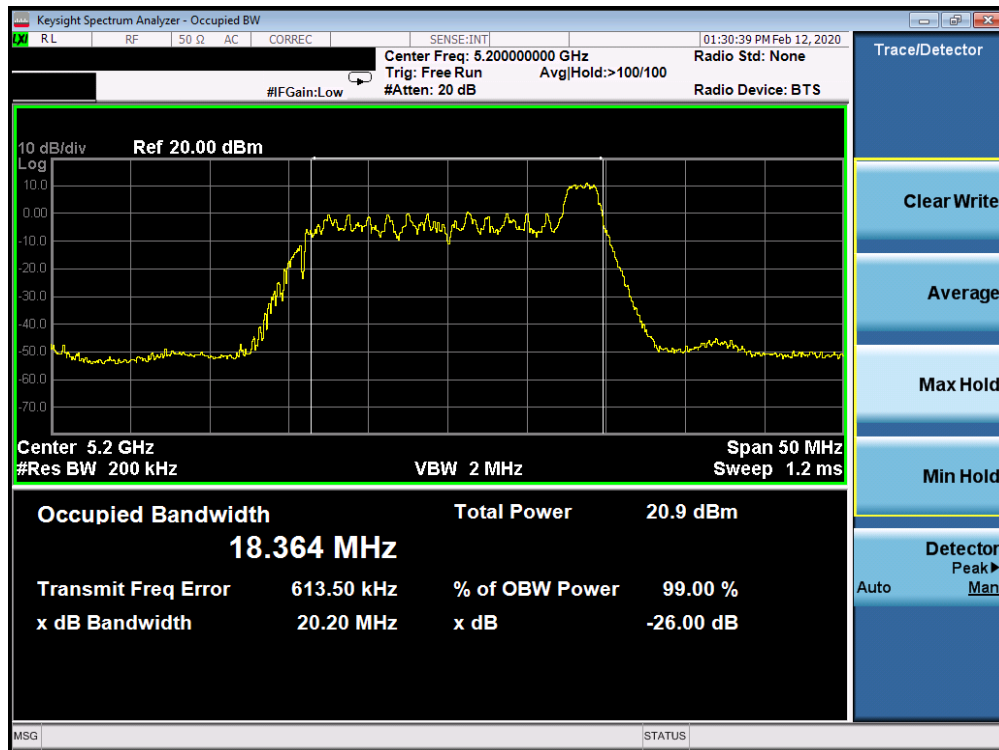


Plot 7-84. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 40)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 60 of 541                  |

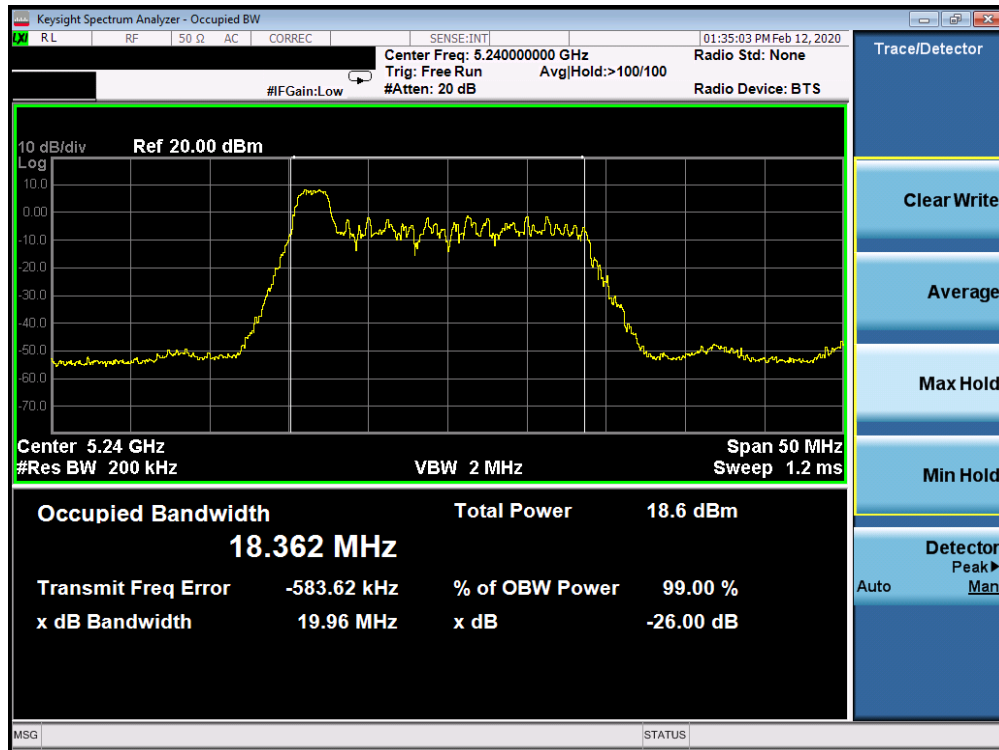


Plot 7-85. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 1) – Ch. 40)

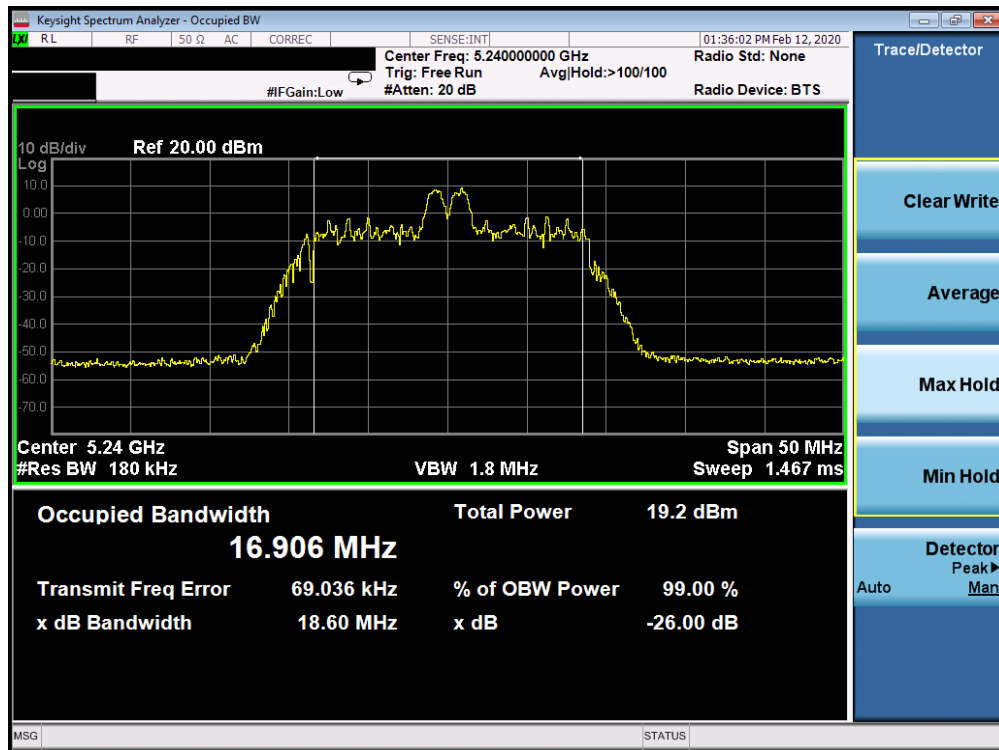


Plot 7-86. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 8– RU26 (UNII Band 1) – Ch. 40)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 61 of 541                  |

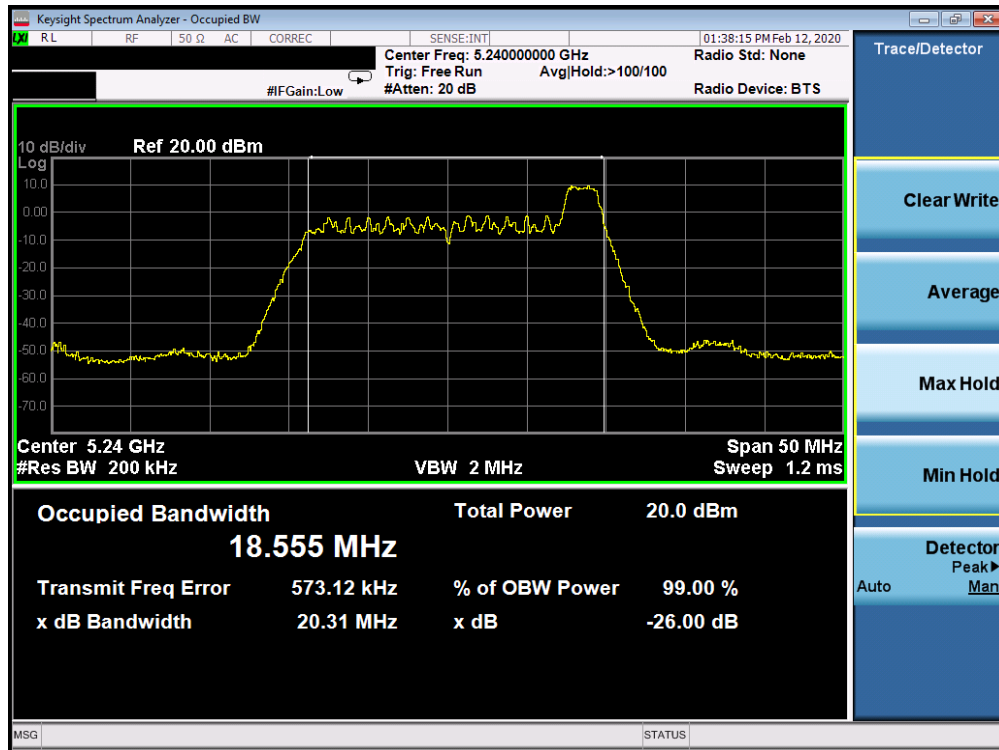


Plot 7-87. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 48)

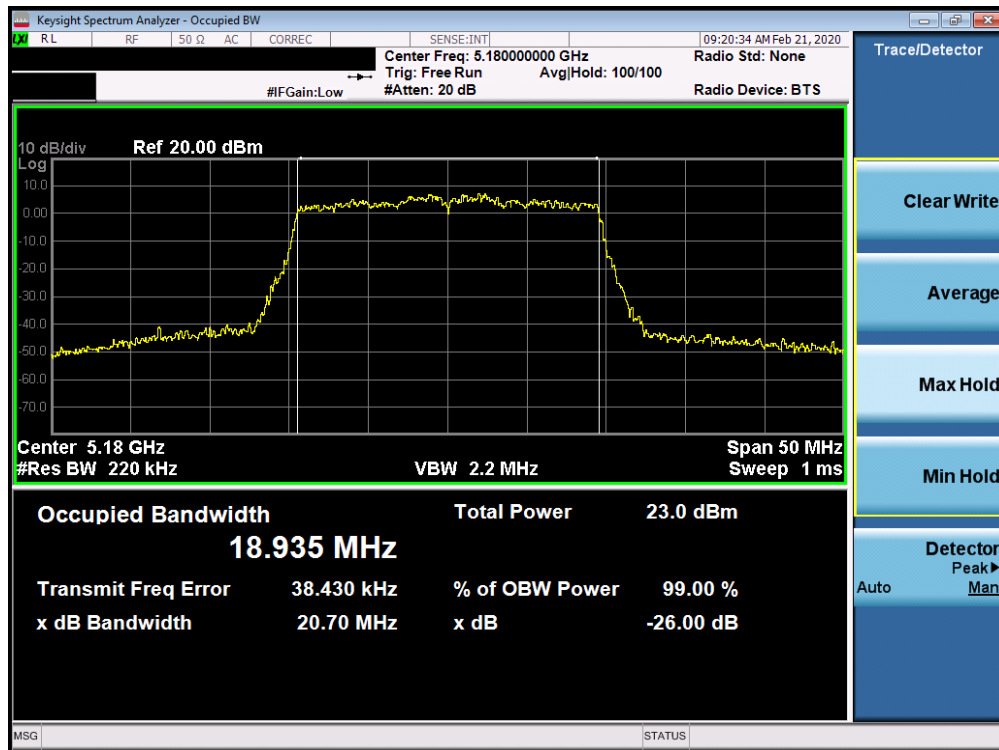


Plot 7-88. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 1) – Ch. 48)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 62 of 541                  |

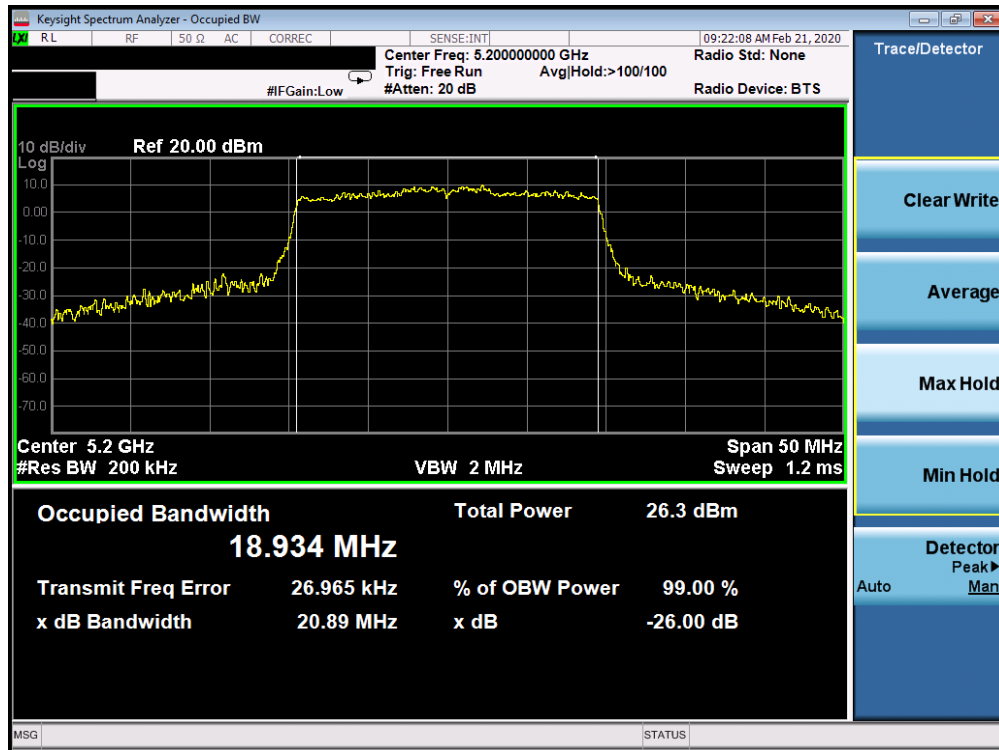


Plot 7-89. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 1) – Ch. 48)

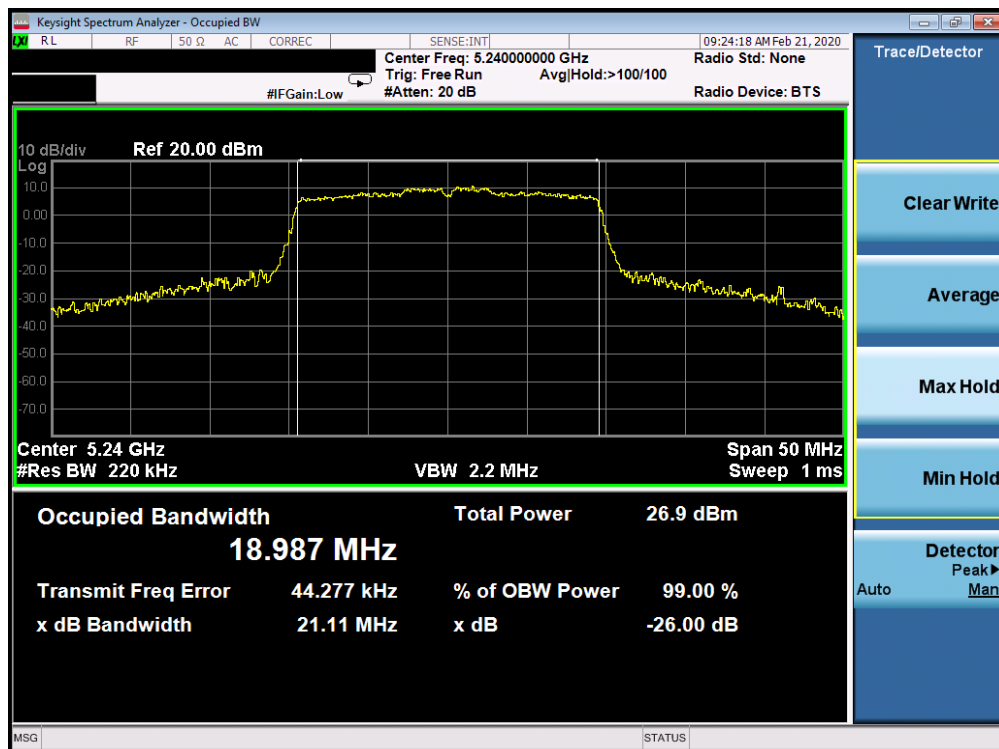


Plot 7-90. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax– RU242 (UNII Band 1) – Ch. 36)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 63 of 541                  |

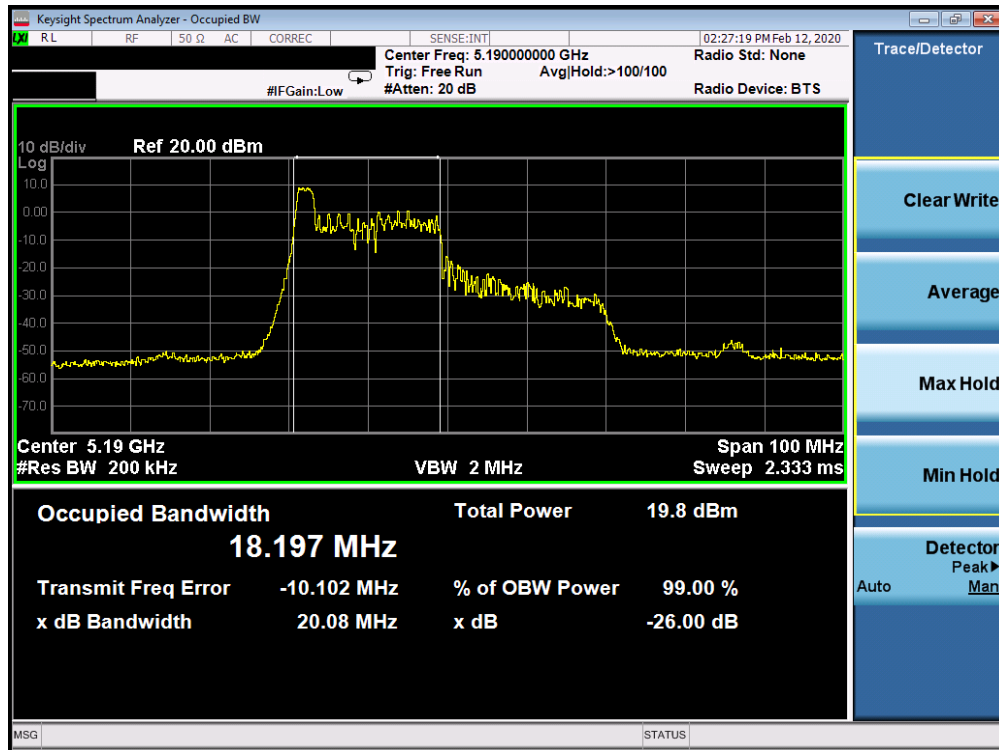


Plot 7-91. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax– RU242 (UNII Band 1) – Ch. 40)

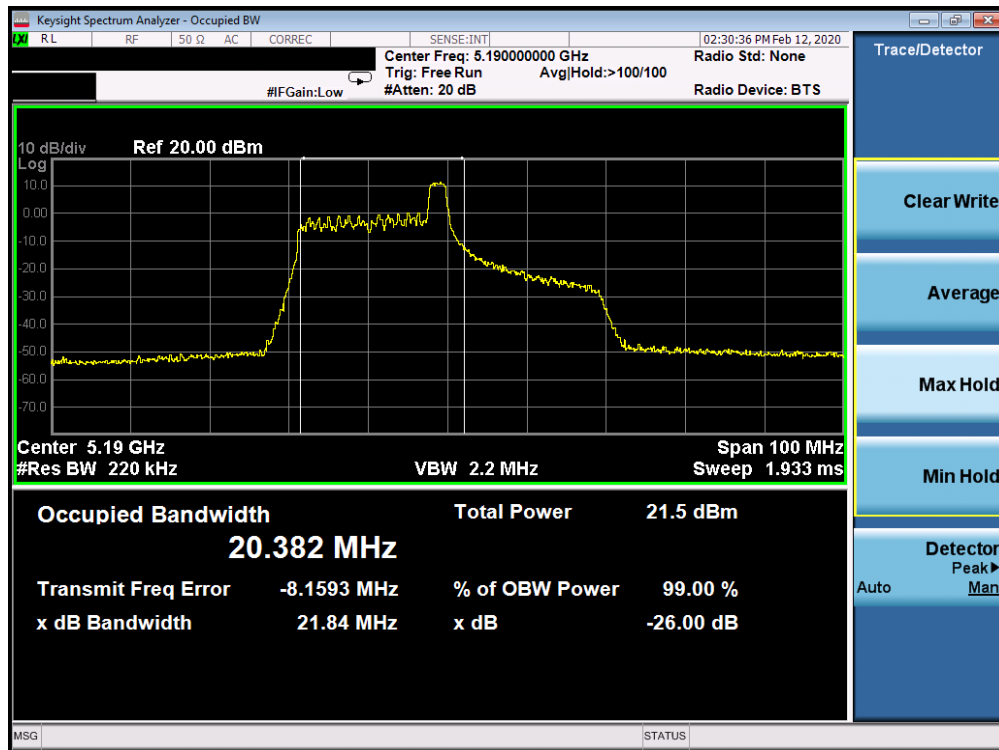


Plot 7-92. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax– RU242 (UNII Band 1) – Ch. 48)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 64 of 541                  |

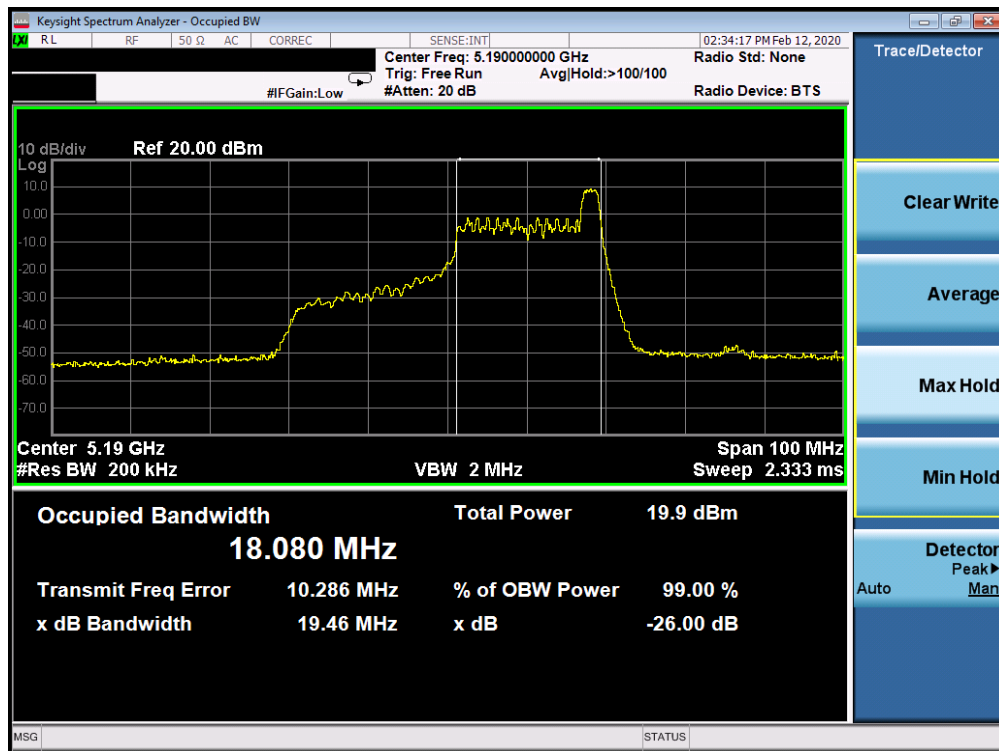


Plot 7-93. 26dB Bandwidth Plot SISO CORE 1 (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 38)

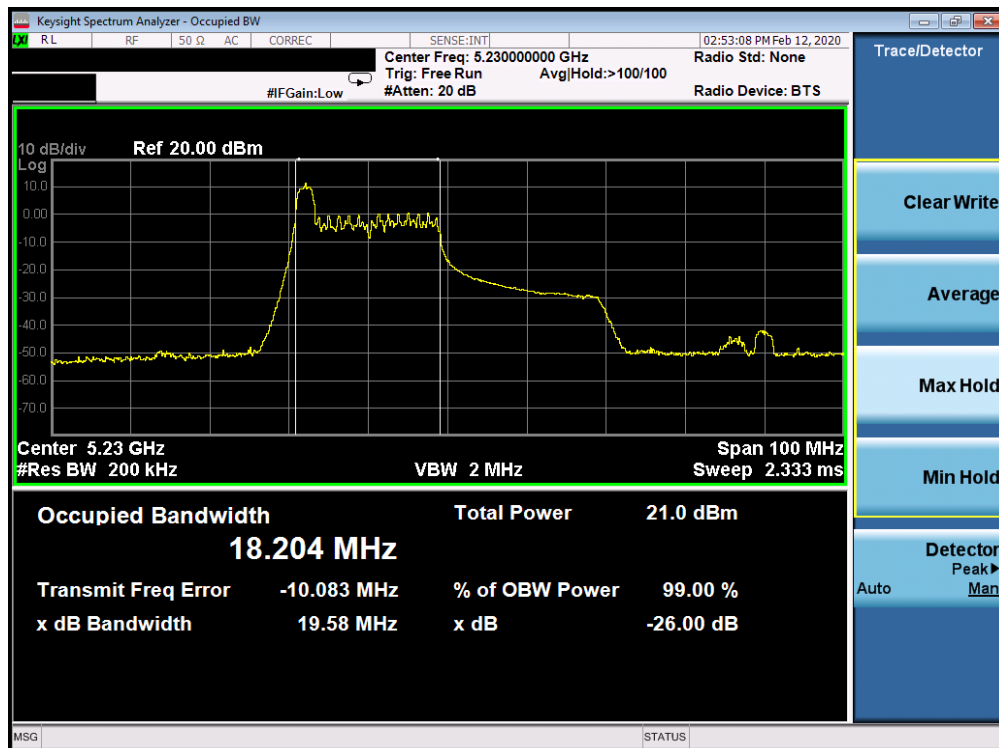


Plot 7-94. 26dB Bandwidth Plot SISO CORE 1 (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 1) – Ch. 38)

|                                            |                                        |                                       |                                 |
|--------------------------------------------|----------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           | <b>PCTEST</b>                          | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020 | EUT Type:<br>Tablet Device            | Page 65 of 541                  |

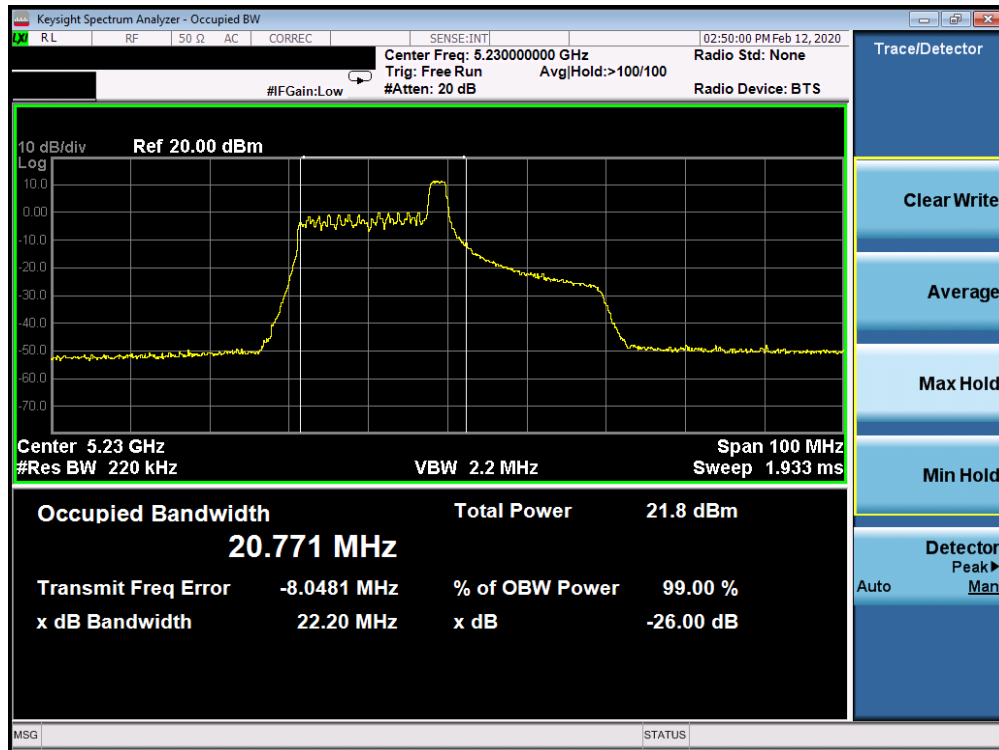


Plot 7-95. 26dB Bandwidth Plot SISO CORE 1 (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 1) – Ch. 38)

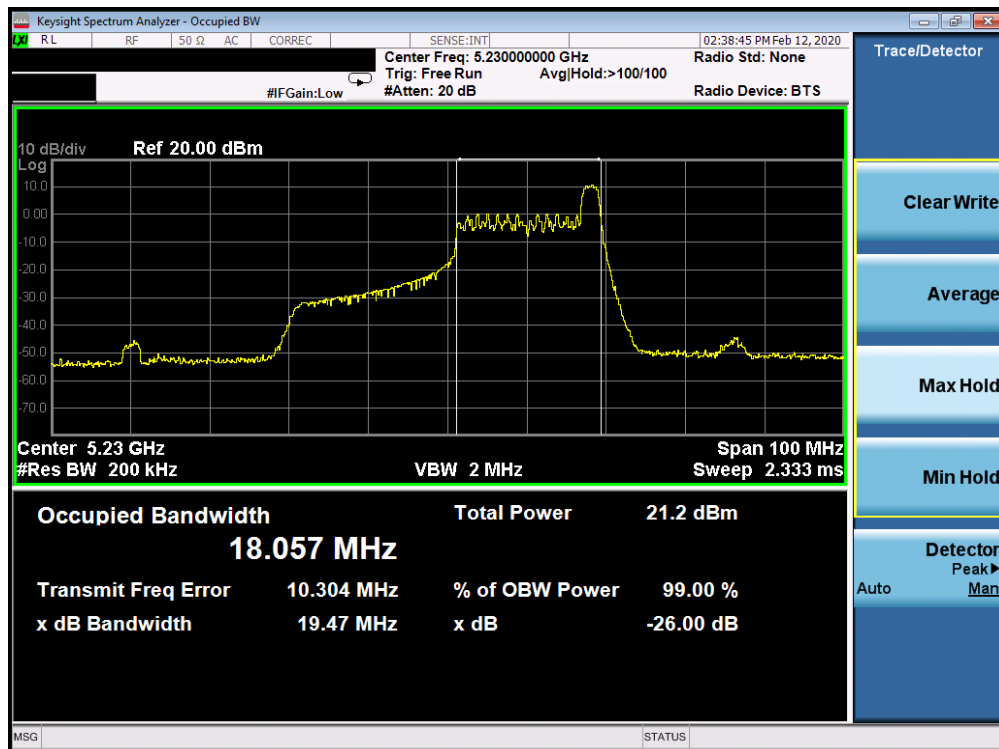


Plot 7-96. 26dB Bandwidth Plot SISO CORE 1 (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 46)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 66 of 541                  |

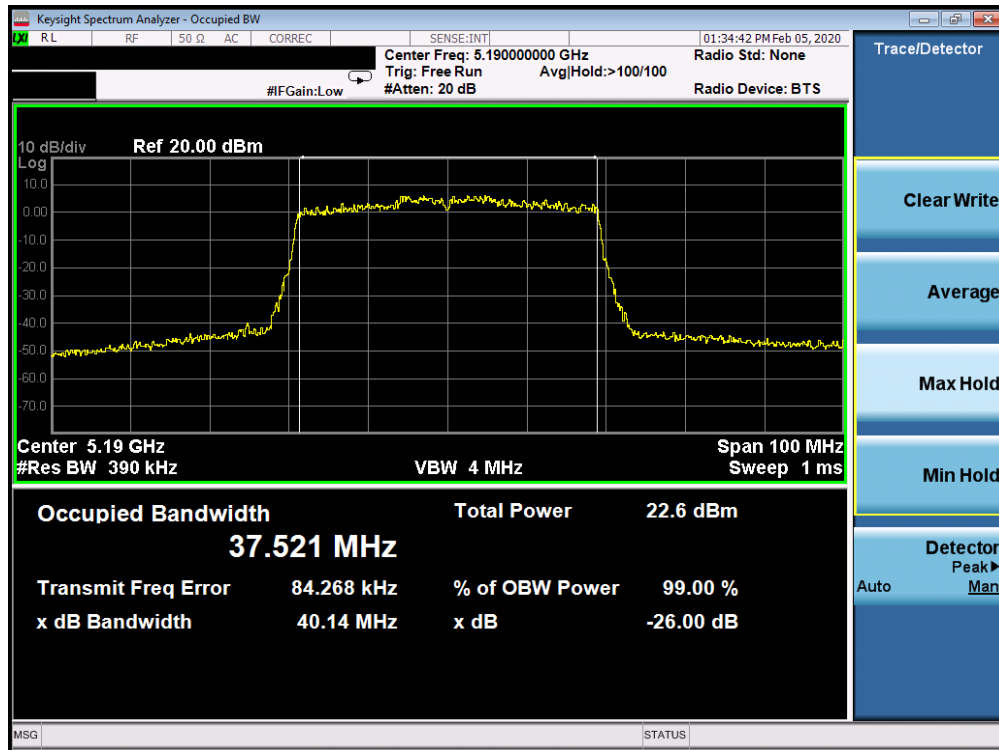


Plot 7-97. 26dB Bandwidth Plot SISO CORE 1 (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 1) – Ch. 46)

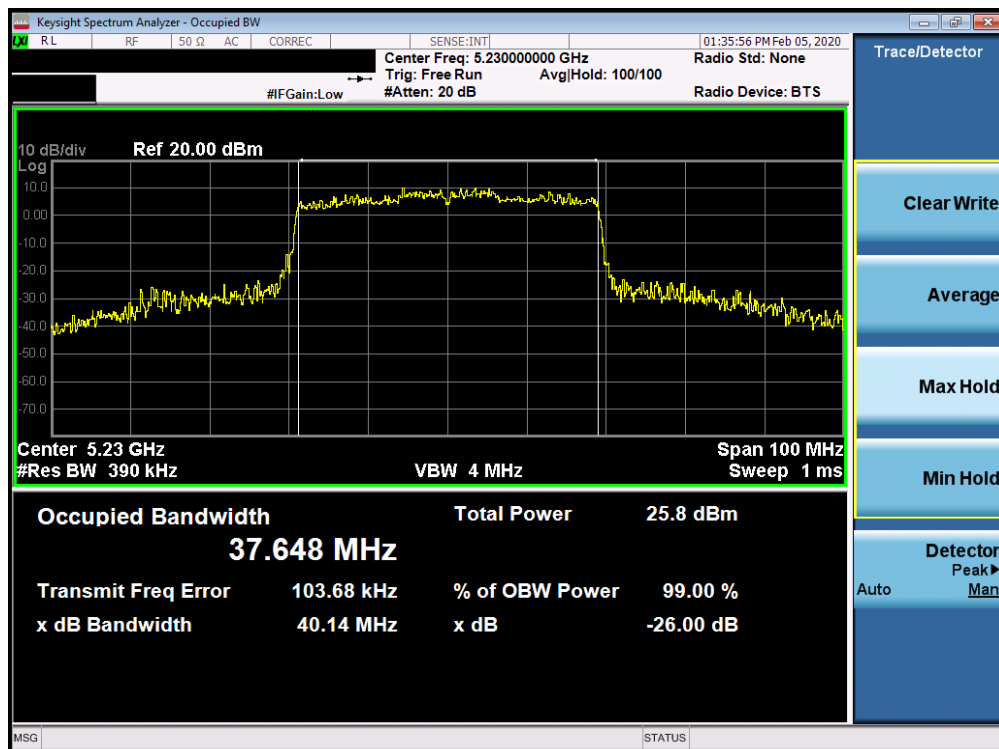


Plot 7-98. 26dB Bandwidth Plot SISO CORE 1 (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 1) – Ch. 46)

|                                            |                                        |                                       |                                 |
|--------------------------------------------|----------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           | <b>PCTEST</b>                          | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020 | EUT Type:<br>Tablet Device            | Page 67 of 541                  |

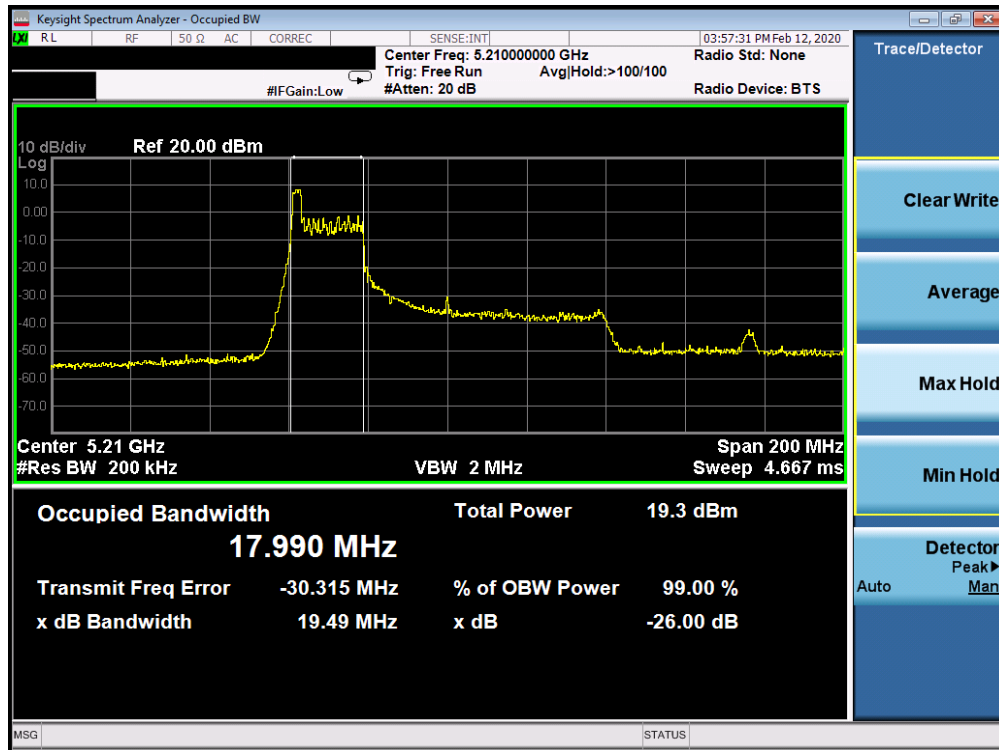


Plot 7-99. 26dB Bandwidth Plot SISO CORE 1 (40MHz BW 802.11ax – RU484 (UNII Band 1) – Ch. 38)

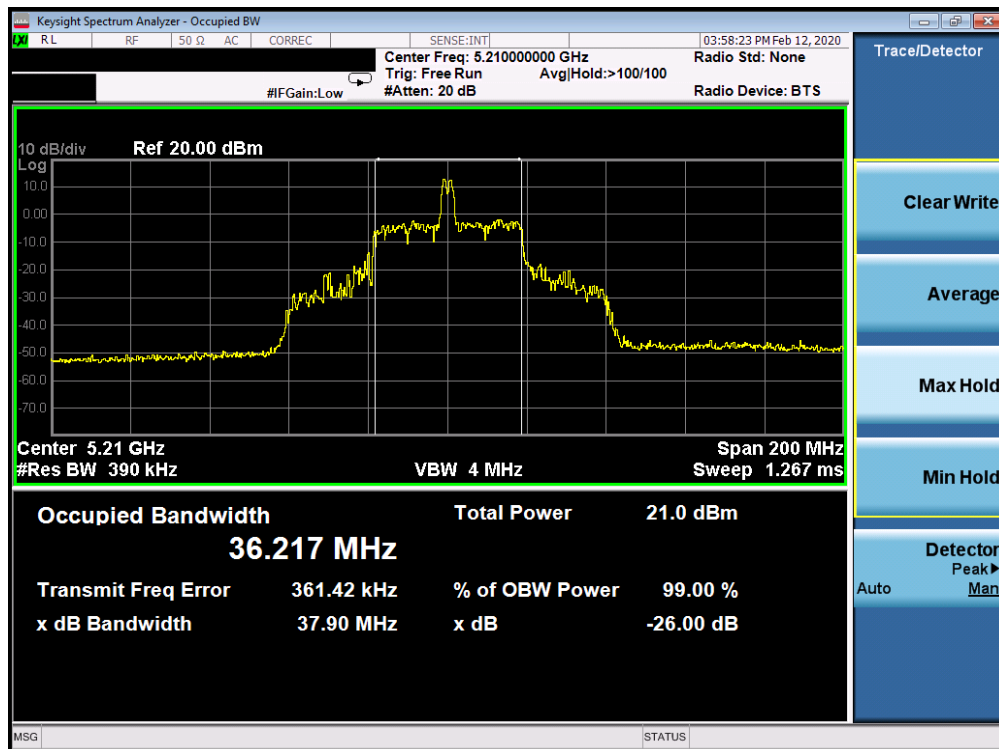


Plot 7-100. 26dB Bandwidth Plot SISO CORE 1 (40MHz BW 802.11ax – RU484 (UNII Band 1) – Ch. 46)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 68 of 541                  |

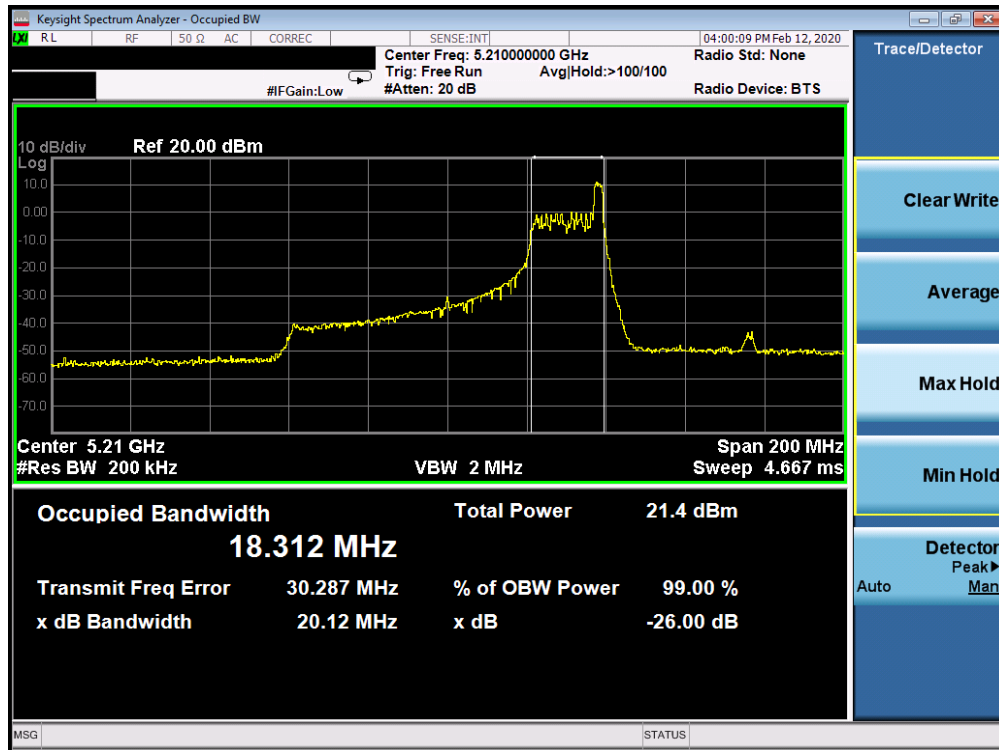


Plot 7-101. 26dB Bandwidth Plot SISO CORE 1 (80MHz BW 802.11ax Index 0 – RU26 (UNII Band 1) – Ch. 42)

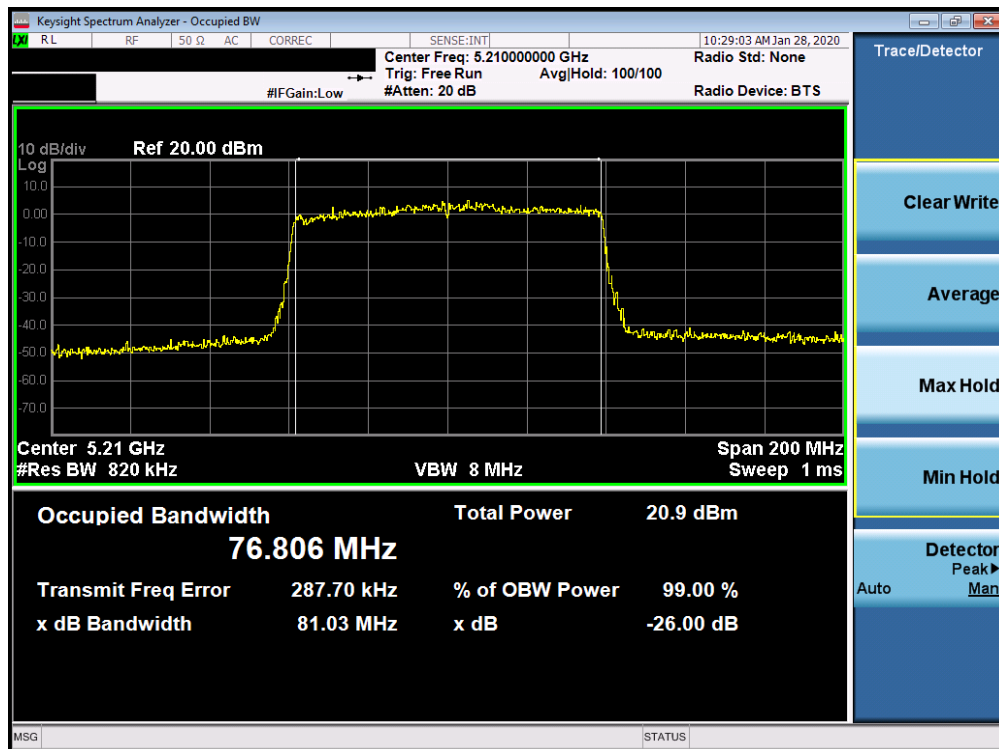


Plot 7-102. 26dB Bandwidth Plot SISO CORE 1 (80MHz BW 802.11ax Index 18 – RU26 (UNII Band 1) – Ch. 42)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 69 of 541                  |

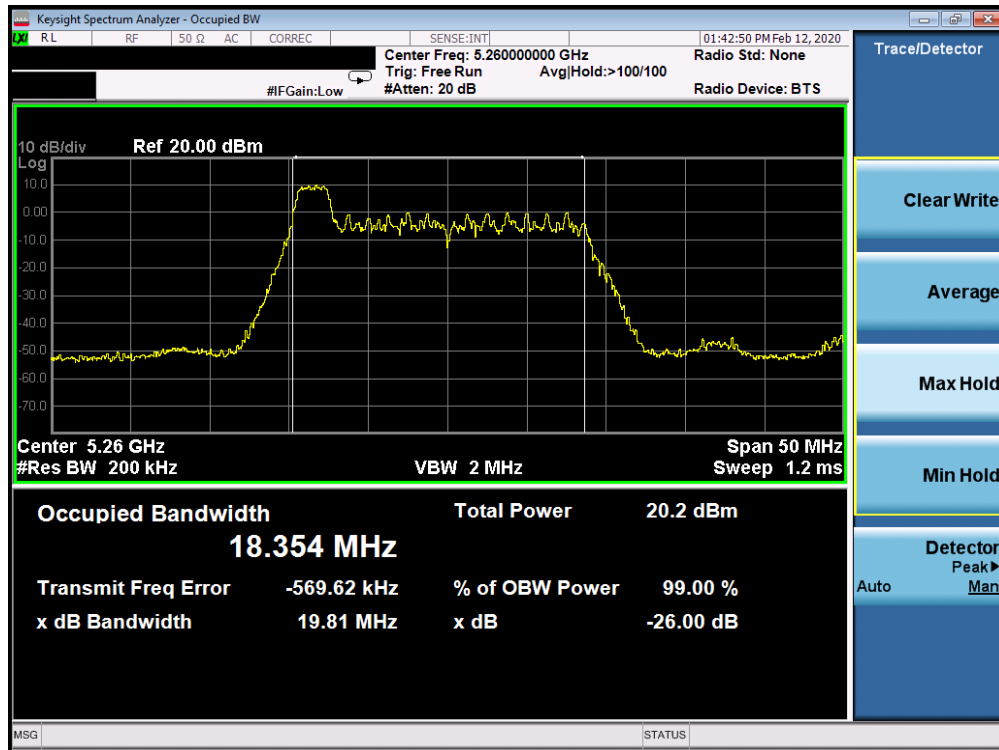


Plot 7-103. 26dB Bandwidth Plot SISO CORE 1 (80MHz BW 802.11ax Index 36 – RU26 (UNII Band 1) – Ch. 42)

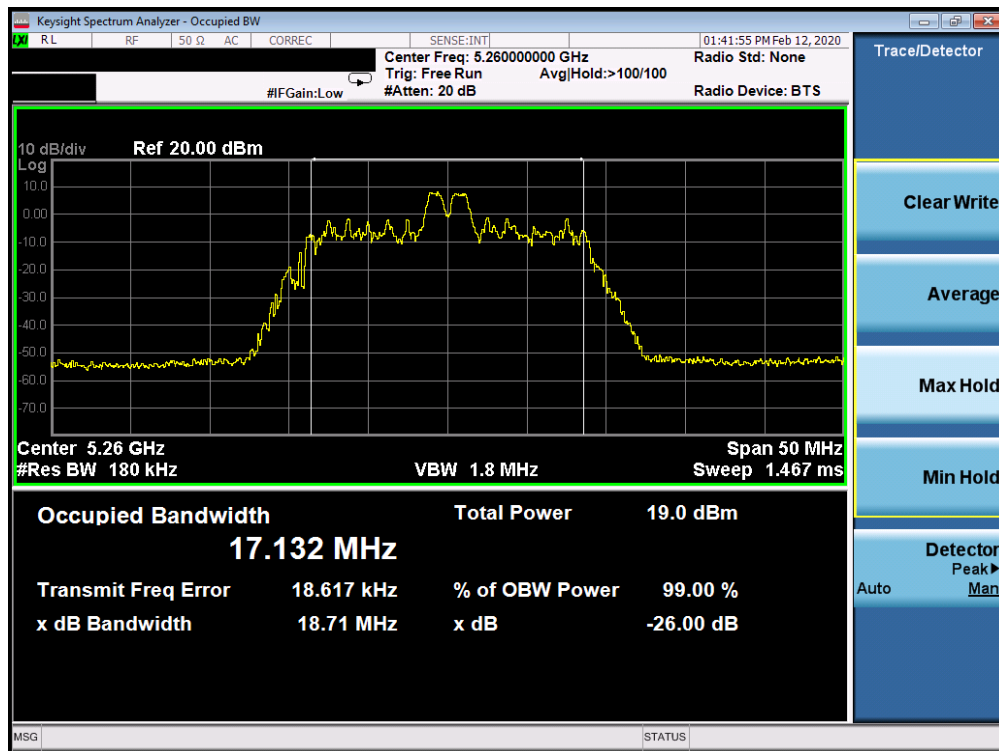


Plot 7-104. 26dB Bandwidth Plot SISO CORE 1 (80MHz BW 802.11ax – RU996 (UNII Band 1) – Ch. 42)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 70 of 541                  |

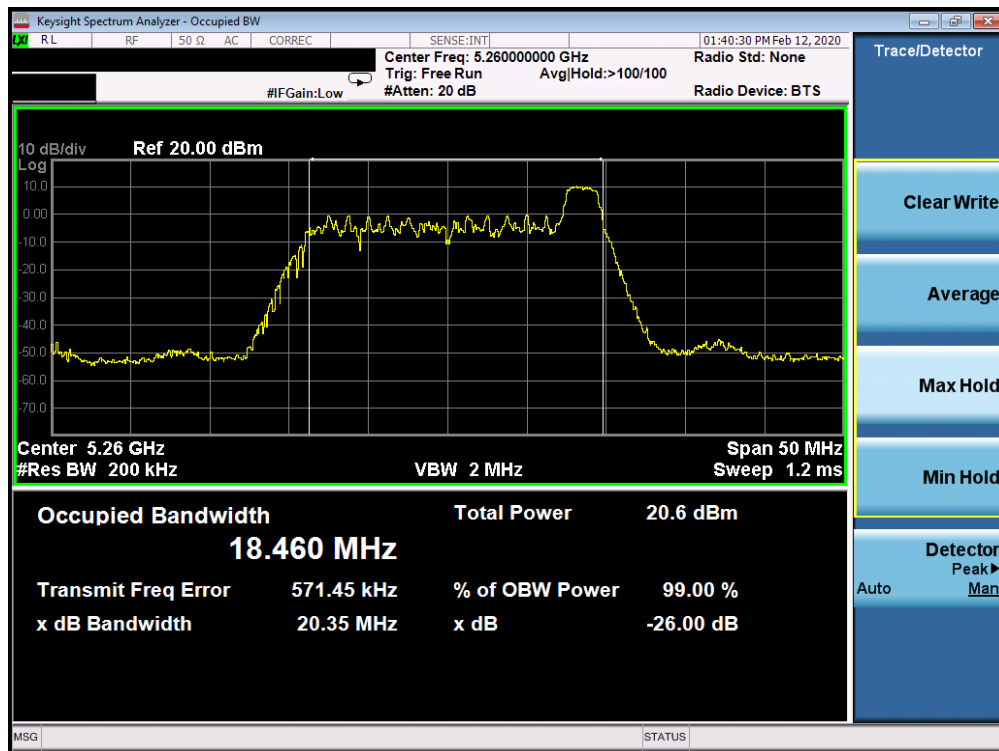


Plot 7-105. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 52)

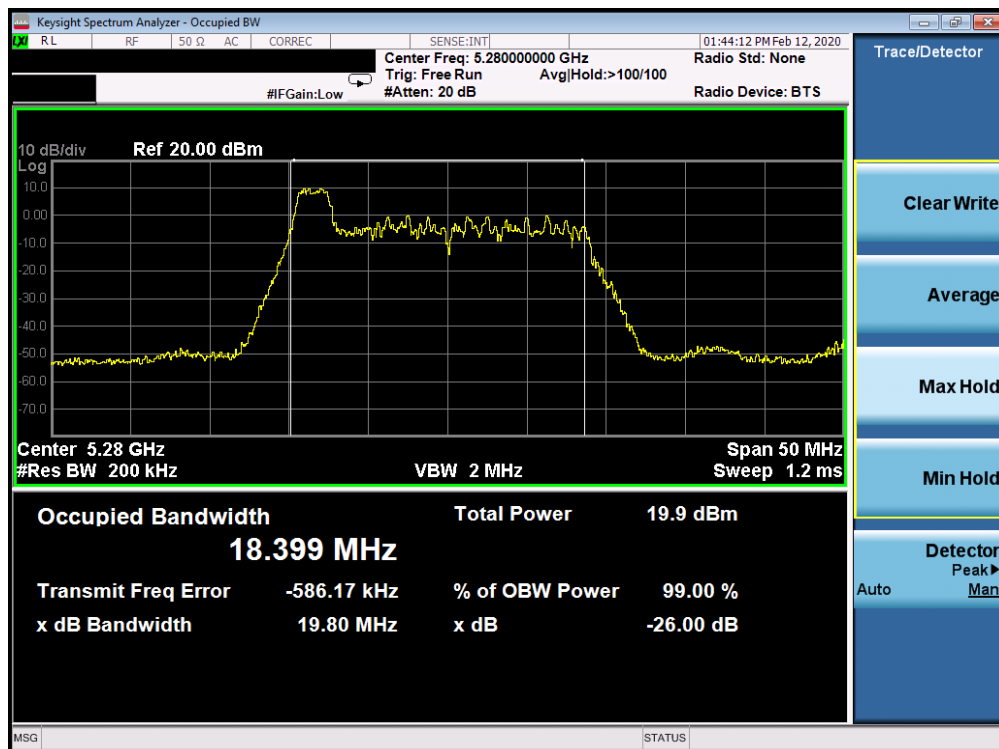


Plot 7-106. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2A) – Ch. 52)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 71 of 541                  |

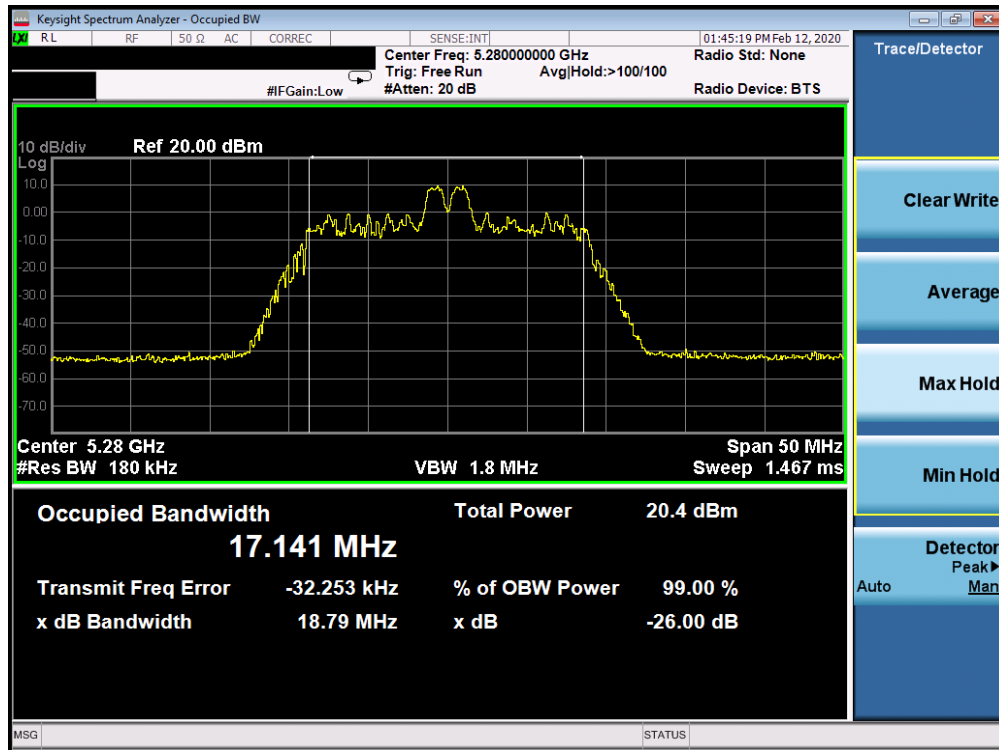


Plot 7-107. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 2A) – Ch. 52)

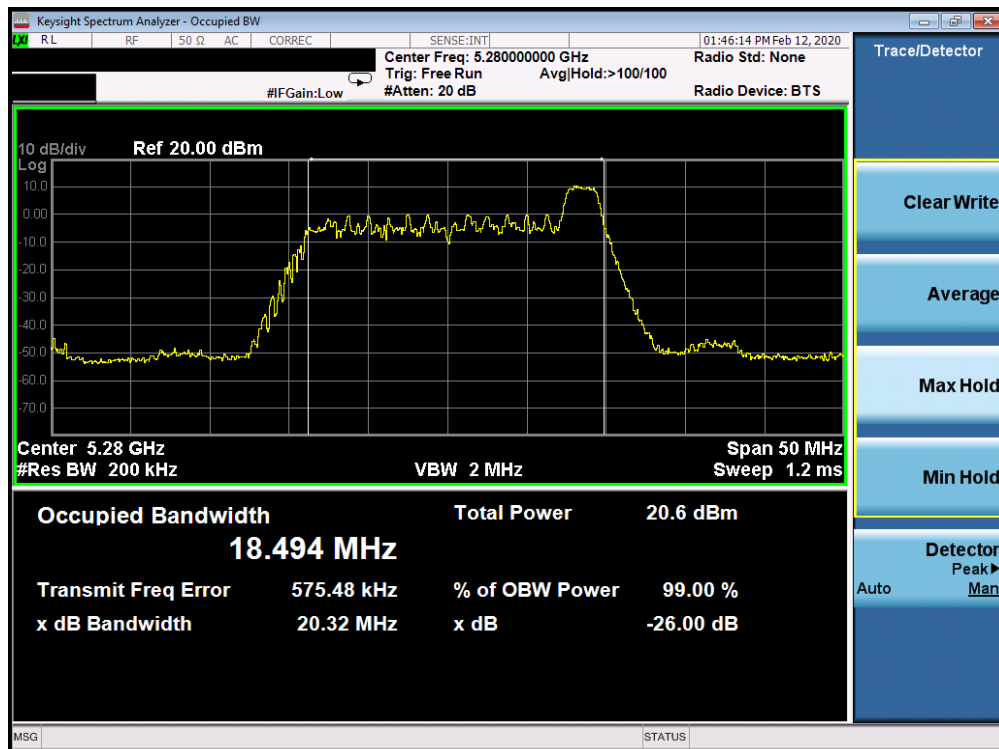


Plot 7-108. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 56)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 72 of 541                  |

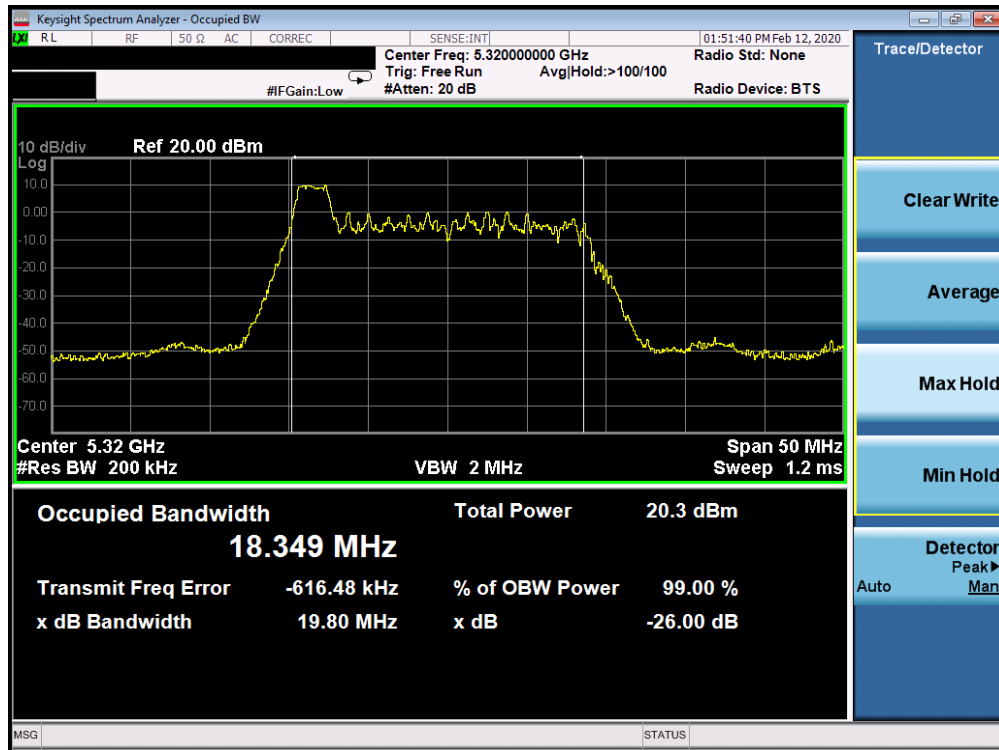


Plot 7-109. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2A) – Ch. 56)

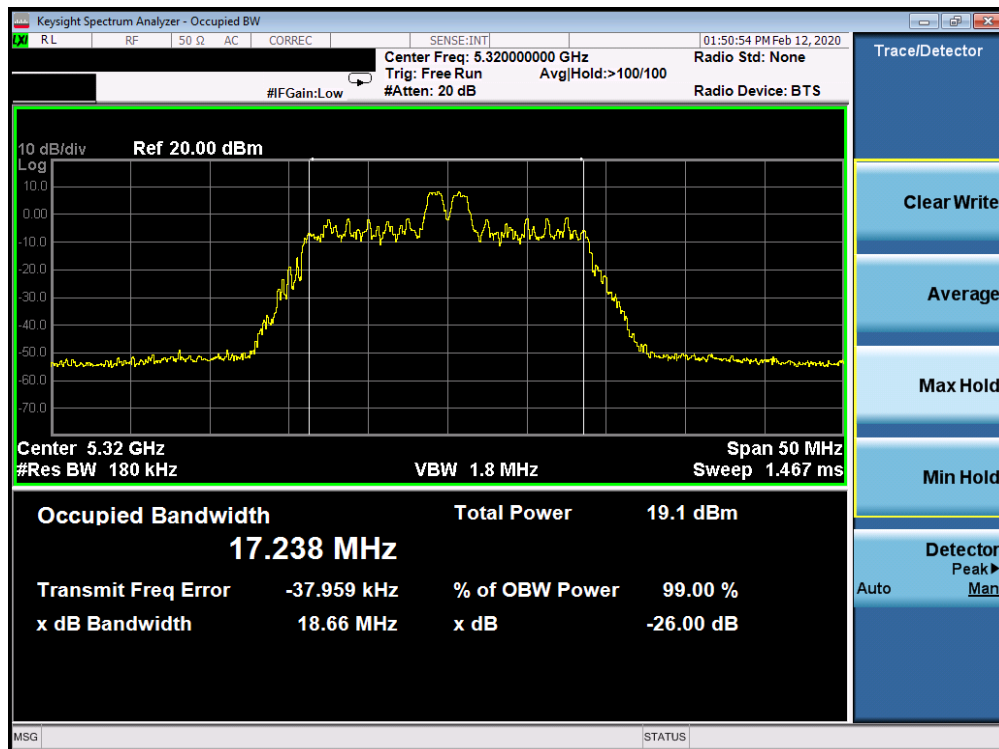


Plot 7-110. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 8– RU26 (UNII Band 2A) – Ch. 56)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 73 of 541                  |

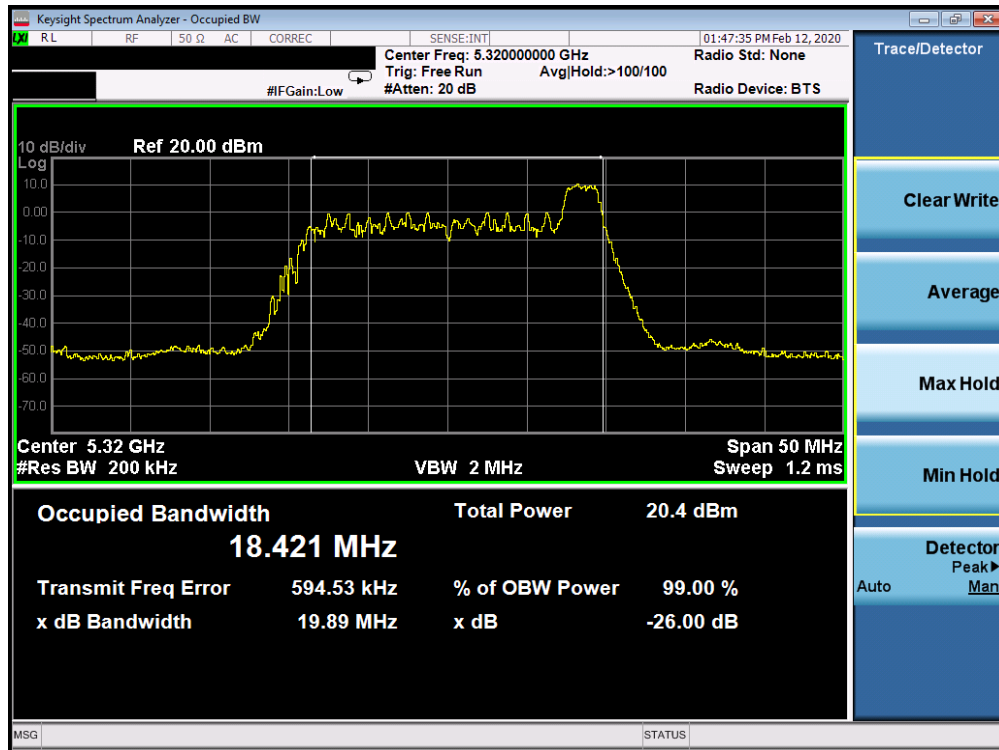


Plot 7-111. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 64)

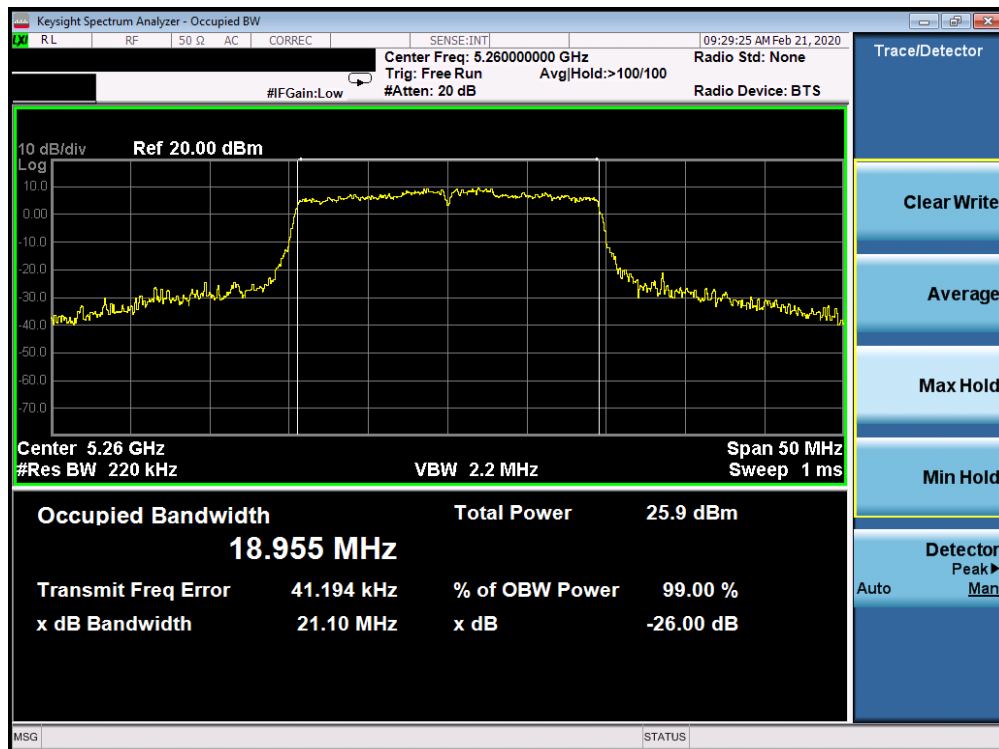


Plot 7-112. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2A) – Ch. 64)

|                                            |                                                                                     |                                       |                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020                                              | EUT Type:<br>Tablet Device            | Page 74 of 541                  |



Plot 7-113. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 2A) – Ch. 64)



Plot 7-114. 26dB Bandwidth Plot SISO CORE 1 (20MHz BW 802.11ax– RU242 (UNII Band 2A) – Ch. 52)

|                                            |                                        |                                       |                                 |
|--------------------------------------------|----------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: BCGA2069                           | <b>PCTEST</b>                          | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1C1912170054-13-R1.BCG | Test Dates:<br>12/10/2019 - 02/24/2020 | EUT Type:<br>Tablet Device            | Page 75 of 541                  |