

## MEASUREMENT REPORT

### FCC PART 15.247 / ISSED RSS-247 WLAN 802.11b/g/n/ax-SU

**Applicant Name:**

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

**Date of Testing:**

05/30/2022 - 09/14/2022

**Test Site/Location:**

Element Washington DC LLC Morgan Hill, CA, USA

**Test Report Serial No.:**

1C2205090023-10.BCG

**FCC ID:**

BCGA2757

**IC:**

579C-A2757

**APPLICANT:**

Apple Inc.

**Application Type:**

Certification

**Model/HVIN:**

A2757(A2777)

**EUT Type:**

Tablet Device

**Frequency Range:**

2412 – 2472MHz

**FCC Classification:**

Digital Transmission System (DTS)

**FCC Rule Part(s):**

Part 15 Subpart C (15.247)

**ISSED Specification:**

RSS-247 Issue 2

**Test Procedure(s):**

ANSI C63.10-2013, KDB 558074 D01 v05r02,  
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 558074 D01 v05r02. 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.



RJ Ortanez  
Executive Vice President



|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 1 of 440                     |

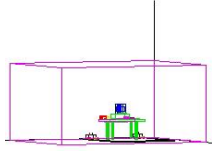
V 10.5 12/15/2021

## TABLE OF CONTENTS

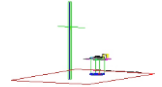
|       |                                                               |     |
|-------|---------------------------------------------------------------|-----|
| 1.0   | INTRODUCTION.....                                             | 5   |
| 1.1   | Scope.....                                                    | 5   |
| 1.2   | Element Washington DC LLC Test Location.....                  | 5   |
| 1.3   | Test Facility / Accreditations.....                           | 5   |
| 2.0   | PRODUCT INFORMATION.....                                      | 6   |
| 2.1   | Equipment Description.....                                    | 6   |
| 2.2   | Device Capabilities .....                                     | 6   |
| 2.3   | Antenna Description .....                                     | 9   |
| 2.4   | Test Support Equipment .....                                  | 9   |
| 2.5   | Test Configuration .....                                      | 10  |
| 2.6   | Software and Firmware .....                                   | 10  |
| 2.7   | EMI Suppression Device(s)/Modifications .....                 | 10  |
| 3.0   | DESCRIPTION OF TESTS.....                                     | 11  |
| 3.1   | Evaluation Procedure.....                                     | 11  |
| 3.2   | AC Line Conducted Emissions .....                             | 11  |
| 3.3   | Radiated Emissions .....                                      | 12  |
| 3.4   | Environmental Conditions .....                                | 12  |
| 4.0   | ANTENNA REQUIREMENTS.....                                     | 13  |
| 5.0   | MEASUREMENT UNCERTAINTY.....                                  | 14  |
| 6.0   | TEST EQUIPMENT CALIBRATION DATA .....                         | 15  |
| 7.0   | TEST RESULTS .....                                            | 16  |
| 7.1   | Summary .....                                                 | 16  |
| 7.2   | 6dB and 99% OBW Measurement .....                             | 17  |
| 7.3   | Output Power Measurement .....                                | 55  |
| 7.3.1 | Average Output Power Measurement .....                        | 56  |
| 7.3.2 | Peak Output Power Measurement .....                           | 62  |
| 7.4   | Power Spectral Density.....                                   | 69  |
| 7.5   | Conducted Authorized Band Edge .....                          | 136 |
| 7.6   | Conducted Spurious Emissions .....                            | 266 |
| 7.7   | Radiated Spurious Emissions – Above 1 GHz.....                | 274 |
| 7.7.1 | Antenna 3a Radiated Spurious Emission Measurements .....      | 277 |
| 7.7.2 | Antenna 1a Radiated Spurious Emission Measurements .....      | 283 |
| 7.7.3 | CDD Radiated Spurious Emission Measurements.....              | 289 |
| 7.7.4 | Simultaneous Tx Radiated Spurious Emission Measurements ..... | 297 |
| 7.7.5 | Antenna 3a Radiated Restricted Band Edge Measurements .....   | 300 |
| 7.7.6 | Antenna 1a Radiated Restricted Band Edge Measurements .....   | 344 |
| 7.7.7 | CDD Radiated Restricted Band Edge Measurements .....          | 388 |
| 7.8   | Radiated Spurious Emissions – Below 1GHz .....                | 429 |
| 7.9   | AC Line-Conducted Emissions Measurement .....                 | 434 |
| 8.0   | CONCLUSION .....                                              | 440 |

|                                                  |                                                                                     |                                               |                                          |
|--------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------|
| <b>FCC ID:</b> BCGA2757<br><b>IC:</b> 579C-A2757 |  | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1C2205090023-10.BCG   | <b>Test Dates:</b><br>05/30/2022 - 09/14/2022                                       | <b>EUT Type:</b><br>Tablet Device             | Page 2 of 440                            |

V 10.5 12/15/2021



## MEASUREMENT REPORT



| Mode          | Tx Frequency (MHz) | Antenna 3a      |                  |                 |                  | Antenna 1a      |                  |                 |                  |
|---------------|--------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
|               |                    | Avg Conducted   |                  | Peak Conducted  |                  | Avg Conducted   |                  | Peak Conducted  |                  |
|               |                    | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) |
| 802.11g       | 2412 - 2472        | 138.357         | 21.41            | 445.656         | 26.49            | 140.929         | 21.49            | 435.512         | 26.39            |
| 802.11n       | 2412 - 2472        | 138.676         | 21.42            | 476.431         | 26.78            | 141.254         | 21.50            | 452.898         | 26.56            |
| 802.11ax (SU) | 2412 - 2467        | 124.738         | 20.96            | 446.684         | 26.50            | 124.165         | 20.94            | 438.531         | 26.42            |

### EUT Overview SISO (Low Data Rate)

| Mode          | Tx Frequency (MHz) | Antenna 3a      |                  |                 |                  | Antenna 1a      |                  |                 |                  | CDD             |                  |                 |                  |
|---------------|--------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
|               |                    | Avg Conducted   |                  | Peak Conducted  |                  | Avg Conducted   |                  | Peak Conducted  |                  | Avg Conducted   |                  | Peak Conducted  |                  |
|               |                    | 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) | Max. Power (mW) | Max. Power (dBm) |
| 802.11g       | 2412 - 2472        | 134.896         | 21.30            | 389.942         | 25.91            | 135.831         | 21.33            | 367.282         | 25.65            | 271.019         | 24.33            | 756.833         | 28.79            |
| 802.11n       | 2412 - 2472        | 134.896         | 21.30            | 316.228         | 25.00            | 133.660         | 21.26            | 281.838         | 24.50            | 268.534         | 24.29            | 598.412         | 27.77            |
| 802.11ax (SU) | 2412 - 2467        | 120.781         | 20.82            | 383.707         | 25.84            | 125.314         | 20.98            | 362.243         | 25.59            | 246.037         | 23.91            | 746.449         | 28.73            |

### EUT Overview CDD (Low Data Rate)

| Mode          | Tx Frequency (MHz) | Antenna 3a      |                  |                 |                  | Antenna 1a      |                  |                 |                  |
|---------------|--------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
|               |                    | Avg Conducted   |                  | Peak Conducted  |                  | Avg Conducted   |                  | Peak Conducted  |                  |
|               |                    | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) |
| 802.11g       | 2412 - 2472        | 139.637         | 21.45            | 517.607         | 27.14            | 135.207         | 21.31            | 495.450         | 26.95            |
| 802.11n       | 2412 - 2472        | 135.207         | 21.31            | 534.564         | 27.28            | 136.773         | 21.36            | 467.735         | 26.70            |
| 802.11ax (SU) | 2412 - 2467        | 123.027         | 20.90            | 508.159         | 27.06            | 121.619         | 20.85            | 488.652         | 26.89            |

### EUT Overview SISO (Mid Data Rate)

| Mode          | Tx Frequency (MHz) | Antenna 3a      |                  |                 |                  | Antenna 1a      |                  |                 |                  | CDD             |                  |                 |                  |
|---------------|--------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
|               |                    | Avg Conducted   |                  | Peak Conducted  |                  | Avg Conducted   |                  | Peak Conducted  |                  | Avg Conducted   |                  | Peak Conducted  |                  |
|               |                    | 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) | Max. Power (mW) | Max. Power (dBm) |
| 802.11g       | 2412 - 2472        | 140.929         | 21.49            | 451.856         | 26.55            | 138.676         | 21.42            | 440.555         | 26.44            | 279.898         | 24.47            | 893.305         | 29.51            |
| 802.11n       | 2412 - 2472        | 140.281         | 21.47            | 475.335         | 26.77            | 140.929         | 21.49            | 457.088         | 26.60            | 281.190         | 24.49            | 933.254         | 29.70            |
| 802.11ax (SU) | 2412 - 2467        | 109.396         | 20.39            | 390.841         | 25.92            | 111.944         | 20.49            | 390.841         | 25.92            | 221.309         | 23.45            | 760.326         | 28.81            |

### EUT Overview CDD (Mid Data Rate)

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device |                                   |
|                                         |                                                                                                                                   |                            | Page 3 of 440                     |

V 10.5 12/15/2021

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| Mode          | Tx Frequency (MHz) | Antenna 3a      |                  |                 |                  | Antenna 1a      |                  |                 |                  |
|---------------|--------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
|               |                    | Avg Conducted   |                  | Peak Conducted  |                  | Avg Conducted   |                  | Peak Conducted  |                  |
|               |                    | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) | Max. Power (mW) | Max. Power (dBm) |
| 802.11b       | 2412 - 2472        | 197.242         | 22.95            | 355.631         | 25.51            | 196.789         | 22.94            | 351.560         | 25.46            |
| 802.11g       | 2412 - 2472        | 119.950         | 20.79            | 521.195         | 27.17            | 123.310         | 20.91            | 509.331         | 27.07            |
| 802.11n       | 2412 - 2472        | 125.603         | 20.99            | 564.937         | 27.52            | 122.744         | 20.89            | 542.001         | 27.34            |
| 802.11ax (SU) | 2412 - 2467        | 108.893         | 20.37            | 545.758         | 27.37            | 112.202         | 20.50            | 530.884         | 27.25            |

### EUT Overview SISO (High Data Rate)

| Mode          | Tx Frequency (MHz) | Antenna 3a      |                  |                 |                  | Antenna 1a      |                  |                 |                  | CDD             |                  |                 |                  |
|---------------|--------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
|               |                    | Avg Conducted   |                  | Peak Conducted  |                  | Avg Conducted   |                  | Peak Conducted  |                  | Avg Conducted   |                  | Peak Conducted  |                  |
|               |                    | 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) | Max. Power (mW) | Max. Power (dBm) |
| 802.11g       | 2412 - 2472        | 109.648         | 20.40            | 407.380         | 26.10            | 108.393         | 20.35            | 376.704         | 25.76            | 218.273         | 23.39            | 783.430         | 28.94            |
| 802.11n       | 2412 - 2472        | 110.408         | 20.43            | 479.733         | 26.81            | 109.144         | 20.38            | 385.478         | 25.86            | 219.280         | 23.41            | 799.834         | 29.03            |
| 802.11ax (SU) | 2412 - 2467        | 97.275          | 19.88            | 488.652         | 26.89            | 95.940          | 19.82            | 422.669         | 26.26            | 193.197         | 22.86            | 912.011         | 29.60            |

### EUT Overview CDD (High Data Rate)

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 4 of 440                     |

V 10.5 12/15/2021

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## 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 Element Washington DC LLC Test Location

These measurement tests were conducted at the Element Washington DC LLC 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 Element Washington DC LLC located in Morgan Hill, CA 95037, U.S.A.

- Element Washington DC LLC is an ISO 17025-2017 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.
- Element Washington DC LLC 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).
- Element Washington DC LLC facility is a registered (22831) test laboratory with the site description on file with ISED.

|                                         |                                                                                     |                                       |                                   |
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 5 of 440                     |

V 10.5 12/15/2021

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## 2.0 PRODUCT INFORMATION

### 2.1 Equipment Description

The Equipment Under Test (EUT) is the **Apple Tablet Device FCC ID: BCGA2757, IC: 579C-A2757**. The test data contained in this report pertains only to the emissions due to the EUT's WLAN (DTS) transmitter.

**Test Device Serial No.:** TPF4T67Q9F, GT2C57YW2H, GY7LR9NHRW, C47217501641K7N46

### 2.2 Device Capabilities

This device contains the following capabilities:

850/1700/1900 WCDMA/HSPA, Multi-band LTE, 5G NR (FR1), 802.11b/g/n/ax WLAN, 802.11a/n/ac/ax UNII, Bluetooth (1x, EDR, LE1M, LE2M, HDR4, HDR8)

This device supports BT Beamforming

| Ch. | Frequency (MHz) | Ch. | Frequency (MHz) |
|-----|-----------------|-----|-----------------|
| 1   | 2412            | 8   | 2447            |
| 2   | 2417            | 9   | 2452            |
| 3   | 2422            | 10  | 2457            |
| 4   | 2427            | 11  | 2462            |
| 5   | 2432            | 12  | 2467            |
| 6   | 2437            | 13* | 2472            |
| 7   | 2442            |     |                 |

**Table 2-1. 802.11b/g/n/ax Frequency/ Channel Operations**

\*Channel 13 is disabled for DTS 802.11ax HE20.

**Note:** 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 6.0 b) of KDB 558074 D01 v05r02 and ANSI C63.10-2013. 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 [%] |            |      |
|                      |                            | Antenna 3a     | Antenna 1a | CDD  |
| 2.4GHz               | b                          | 98.7           | 98.7       | N/A  |
|                      | g (Low Data Rate)          | 97.7           | 97.7       | 97.8 |
|                      | g (Mid Data Rate)          | 96.9           | 96.9       | 96.7 |
|                      | g (High Data Rate)         | 94.4           | 94.4       | 94.3 |
|                      | n (Low Data Rate)          | 95.8           | 96.7       | 93.5 |
|                      | n (Mid Data Rate)          | 93.9           | 94.1       | 90.4 |
|                      | n (High Data Rate)         | 92.4           | 92.3       | 88.1 |
|                      | 11ax (SU) (Low Data Rate)  | 95.9           | 96.0       | 96.1 |
|                      | 11ax (SU) (Mid Data Rate)  | 93.3           | 92.7       | 93.3 |
|                      | 11ax (SU) (High Data Rate) | 90.2           | 91.4       | 91.1 |

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

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 6 of 440                     |

V 10.5 12/15/2021

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The device employs CDD technology. Below are the possible configurations.

| WiFi Configurations |      | SISO       |            | SDM        |            | CDD        |            |
|---------------------|------|------------|------------|------------|------------|------------|------------|
|                     |      | Antenna 3a | Antenna 1a | Antenna 3a | Antenna 1a | Antenna 3a | Antenna 1a |
| 2.4GHz              | 11b  | ✓          | ✓          | ✗          | ✗          | ✗          | ✗          |
|                     | 11g  | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          |
|                     | 11n  | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          |
|                     | 11ax | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          |

**Table 2-3. Wi-Fi Configurations**

✓ = Support ; ✗ = NOT Support

**SISO** = Single Input Single Output

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

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

Data Rates Supported: 1Mbps, 2Mbps, 5.5Mbps, 11Mbps (b)  
 12Mbps, 9Mbps, 12Mbps, 24Mbps, 24Mbps, 312Mbps, 48Mbps, 36Mbps (g)  
 6.5/7.2Mbps, 13/14.4Mbps, 19.5/21.7Mbps, 26/28.9Mbps, 39/43.3Mbps,  
 52/57.8Mbps, 58.5/65Mbps, 65/72.2Mbps (n)  
 13/14.4Mbps, 26/28.9Mbps, 39/43.3Mbps, 52/57.8Mbps, 78/86.7Mbps,  
 104/115.12Mbps, 117/130Mbps, 130/144.4Mbps (CDD n)  
 8/8.12Mbps, 16/17.2Mbps, 24/25.8Mbps, 33/34.4Mbps, 49/51.12Mbps,  
 65/68.8Mbps, 73/77.4Mbps, 81/86.0Mbps, 98/103.2Mbps, 108/114.7Mbps (ax –  
 20MHz)  
 16/17.2Mbps, 32/34.4Mbps, 48/51.12Mbps, 66/68.8Mbps, 98/103.2Mbps,  
 130/137.12Mbps, 146/154.8Mbps, 162/172Mbps, 196/206.4Mbps, 216/229.4Mbps  
 (CDD ax – 20MHz)

|                                         |                                                                                                                                   |                            |                                   |
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V 10.5 12/15/2021

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This device supports simultaneous transmission operations, which allows for multiple transmitters to transmit simultaneously on the same antenna. The table below shows all configurations possible.

| Antenna | Simultaneous Tx Config | WiFi 2.4GHz     | Bluetooth                | WiFi 5GHz        | WCDMA / LTE / FR1 NR |           |                 |
|---------|------------------------|-----------------|--------------------------|------------------|----------------------|-----------|-----------------|
|         |                        | 802.11 b/g/n/ax | BDR, EDR, HDR4/8, LE1/2M | 802.11 a/n/ac/ax | Mid Band             | High Band | Ultra High Band |
| 3a      | Config 1               | ✗               | ✓                        | ✓                | ✗                    | ✗         | ✗               |
| 3a      | Config 2               | ✓               | ✗                        | ✗                | ✓                    | ✗         | ✗               |
| 3a      | Config 3               | ✓               | ✗                        | ✗                | ✗                    | ✓         | ✗               |
| 3a      | Config 4               | ✗               | ✓                        | ✓                | ✓                    | ✗         | ✗               |
| 3a      | Config 5               | ✗               | ✓                        | ✓                | ✗                    | ✓         | ✗               |
| 1b      | Config 6               | ✗               | ✗                        | ✓                | ✓                    | ✗         | ✗               |
| 1b      | Config 7               | ✗               | ✗                        | ✓                | ✗                    | ✓         | ✗               |
| 1a      | Config 8               | ✓               | ✗                        | ✗                | ✗                    | ✗         | ✓               |
| 1a      | Config 9               | ✗               | ✓                        | ✗                | ✗                    | ✗         | ✓               |

**Table 2-4. Simultaneous Transmission Configurations**

✓ = Support; ✗ = Not Support

**Note:**

Wi-Fi 2.4GHz and Bluetooth 2.4 GHz can transmit simultaneously on separate antennas. Specific 2.4 GHz Wi-Fi antenna that can only transmit simultaneously with 2.4 GHz Bluetooth antenna is listed in the SAR test report. For BT (2.4 GHz) in connected mode and Wi-Fi (2.4 GHz) – Wi-Fi max power will not exceed minimum of (13.5dBm, SAR max cap, Reg max cap) power. For BT (2.4 GHz) in disconnected mode and Wi-Fi (2.4 GHz) – BT will be using iPA only and Wi-Fi max power will not exceed minimum of (SAR max cap, Reg max cap) power.

|                                         |                                        |                                                                                                                                   |  |                                   |
|-----------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |                                        |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |  | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022 | EUT Type:<br>Tablet Device                                                                                                        |  | Page 8 of 440                     |

V 10.5 12/15/2021



## 2.3 Antenna Description

Following antenna gains provided by manufacturer were used for the testing.

| Frequency [GHz] | Antenna Gain (dBi) |            |
|-----------------|--------------------|------------|
|                 | Antenna 3a         | Antenna 1a |
| 2.4             | 2.3                | 1.5        |

Table 2-5. Highest Antenna Gain

## 2.4 Test Support Equipment

|   |                   |                 |                   |
|---|-------------------|-----------------|-------------------|
| 1 | Apple MacBook Pro | Model: A2141    | S/N: C02DV7VKMD6T |
|   | w/AC/DC Adapter   | Model: A2166    | S/N: N/A          |
| 2 | Apple USB-C Cable | Model: Spartan  | S/N: 000MKTR02U   |
| 3 | USB-C Cable       | Model: A246     | S/N: N/A          |
|   | w/ AC Adapter     | Model: A2305    | S/N: N/A          |
| 4 | Apple Pencil      | Model: N/A      | S/N: GQXGSXBJKM9  |
| 5 | DC Power Supply   | Model: KPS3010D | S/N: N/A          |

Table 2-6. Test Support Equipment List

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 9 of 440                     |

V 10.5 12/15/2021

## 2.5 Test Configuration

The EUT was tested per the guidance of ANSI C63.10-2013 and KDB 558074 D01 v05r02. ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing. See Sections 3.2 for AC line conducted emissions test setups, Section 3.3 for radiated emissions test setups, and, 7.2, 7.3, 7.4, 7.5, and 7.6 for antenna port conducted emissions test setups.

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 and the worst case channel.

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.

For AC line conducted and radiated test below 1GHz, following configuration were investigated and EUT powered by AC/DC was the worst case.

- EUT powered by AC/DC adaptor via USB-C cable with wire charger
- EUT powered by host PC via USB-C cable with wire charger

802.11n CDD mode test data provided in this report covers 802.11n SDM.

802.11ax-SU HE20 2TX CDD mode test data provided in this report covers 802.11ax-SU HE20 2TX SDM.

The data rates have been classified into three different groups; low data rate, middle data rate, and high data rate. All three groups of data rate have been investigated and only the worst case data rate per group is reported. The worst case data rate for each group per mode are as follows:

- 802.11b
  - 11Mbps
- 802.11g
  - Low Data Rate: 12Mbps
  - Mid Data Rate: 24Mbps
  - High Data Rate: 36Mbps
- 802.11n
  - Low Data Rate: MCS2/MCS10 (SISO/CDD)
  - Mid Data Rate: MCS4/MCS12 (SISO/CDD)
  - High Data Rate: MCS5/MCS13 (SISO/CDD)
- 802.11ax(SU)
  - Low Data Rate: MCS2
  - Mid Data Rate: MCS4
  - High Data Rate: MCS5

For 802.11ax-RU test results, see separate WLAN (OFDMA) report, 1C2205090023-11.BCG

## 2.6 Software and Firmware

The test was conducted with firmware version 20A32640u 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: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 10 of 440                    |

V 10.5 12/15/2021

## 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 558074 D01 v05r02 were used in the measurement of the EUT.

Deviation from measurement procedure.....None

### 3.2 AC Line Conducted Emissions

The line-conducted facility is located inside a 7m x 3.66m x 2.7m shielded enclosure. The shielded enclosure is manufactured by AP Americas. The shielding effectiveness of the shielded room is in accordance with MIL-Std-285 or NSA 65-6. A 1m x 1.5m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50μH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. The external power line filter is EPCOS 2X60A Power Line Filter (100dB Attenuation, 14kHz-18GHz) and the two EPCOs 2X48A filters (100dB Minimum Insertion Loss, 14kHz - 10GHz). These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply line(s) will be connected to the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference groundplane. Power cables for support equipment were routed down to the second LISN while ensuring that the cables were not draped over the second LISN.

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 RF output of the LISN was connected to the spectrum analyzer and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The spectrum was scanned from 150kHz to 30MHz with a spectrum analyzer. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 10kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions is used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

Line conducted emissions test results are shown in Section 7.9. Automated test software was used to perform the AC line conducted emissions testing. Automated measurement software utilized is Rohde & Schwarz EMC32, Version 10.50.40.

|                                         |                                                                                                                                   |                            |                                          |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | <b>Approved by:</b><br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 11 of 440                           |

V 10.5 12/15/2021

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### 3.3 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 D01 v01r01, 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 rotated about its vertical axis 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.

### 3.4 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> BCGA2757<br><b>IC:</b> 579C-A2757 |  | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1C2205090023-10.BCG   | <b>Test Dates:</b><br>05/30/2022 - 09/14/2022                                       | <b>EUT Type:</b><br>Tablet Device             | Page 12 of 440                           |

V 10.5 12/15/2021

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## 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 connections to an external antenna.

**Conclusion:**

The EUT unit complies with the requirement of §15.203.

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 13 of 440                    |

V 10.5 12/15/2021

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## 5.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.23-2012. 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 | 1.77                             |
| Line Conducted Disturbance       | 2.70                             |
| Radiated Disturbance (<30MHz)    | 4.38                             |
| Radiated Disturbance (<1GHz)     | 4.75                             |
| Radiated Disturbance (>1GHz)     | 5.20                             |
| Radiated Disturbance (>18GHz)    | 4.72                             |

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 14 of 440                    |

V 10.5 12/15/2021

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## 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               | 6/10/2022  | Annual       | 6/10/2023  | MY49430244    |
| Agilent Technologies  | N9020A      | MXA Signal Analyzer                         | 4/26/2022  | Annual       | 4/26/2023  | MY56470202    |
| Anritsu               | ML2496A     | Power Meter                                 | 11/29/2021 | Annual       | 11/29/2022 | 1840005       |
| Anritsu               | MA2411B     | Pulse Power Sensor                          | 11/30/2021 | Annual       | 11/30/2022 | 1726261       |
| Anritsu               | MA2411B     | Pulse Power Sensor                          | 11/30/2021 | Annual       | 11/30/2022 | 1726262       |
| ATM                   | 180-442A-KF | 20dB Nominal Gain Horn Antenna              | 1/19/2022  | Annual       | 1/19/2023  | T058701-02    |
| Com-Power Corporation | LIN-120A    | Line Impedance Stabilization Network (LISN) | 3/7/2022   | Annual       | 3/7/2023   | 241296        |
| ETS-Lindgren          | 3142E       | Biconilog Antenna (26-6000MHz)              | 10/21/2021 | Annual       | 10/21/2022 | 208204        |
| ETS-Lindgren          | 3117        | Double Ridged Guide Horn Antenna (1-18GHz)  | 10/25/2021 | Annual       | 10/25/2022 | 227597        |
| Keysight Technology   | N9040B      | UXA Signal Analyzer                         | 2/8/2022   | Annual       | 2/8/2023   | MY57212015    |
| Rohde & Schwarz       | TS-PR8      | Pre-Amplifier (30MHz-6GHz)                  | 1/6/2022   | Annual       | 1/6/2023   | 102328        |
| Rohde & Schwarz       | ESW26       | EMI Test Receiver                           | 5/19/2022  | Annual       | 5/19/2023  | 101299        |
| Rohde & Schwarz       | ESW44       | EMI Test Receiver                           | 12/2/2021  | Annual       | 12/2/2022  | 101570        |
| Rohde & Schwarz       | FSV40       | Signal Analyzer (10Hz-40GHz)                | 3/4/2022   | Annual       | 3/4/2023   | 101619        |
| Rohde & Schwarz       | FSVA3044    | Signal Analyzer (up to 44 GHz)              | 5/12/2022  | Annual       | 5/12/2023  | 101098        |
| Rohde & Schwarz       | HFH2-Z2     | Loop Antenna                                | 4/3/2022   | Annual       | 4/3/2023   | 100546        |
| Rohde & Schwarz       | TC-TA18     | Cross-Polarized Antenna 400MHz-18GHz        | 1/25/2022  | Annual       | 1/25/2023  | 101063        |
| Rohde & Schwarz       | TS-PR18     | Pre-Amplifier (1GHz-18GHz)                  | 1/6/2022   | Annual       | 1/6/2023   | 101639        |
| Rohde & Schwarz       | TS-PR1840   | Pre-Amplifier (18GHz-40GHz)                 | 4/18/2022  | Annual       | 4/18/2023  | 100050        |

**Table 6-1. Test Equipment List**

### **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: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 15 of 440                    |

V 10.5 12/15/2021

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## 7.0 TEST RESULTS

### 7.1 Summary

Company Name: Apple Inc.

FCC ID: BCGA2757

IC: 579C-A2757

FCC Classification: Digital Transmission System (DTS)

| FCC Part Section(s) | RSS Section(s) | Test Description                                                              | Test Limit                                                                                     | Test Condition    | Test Result | Reference         |
|---------------------|----------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------|-------------|-------------------|
| 15.247(a)(2)        | RSS-247 [5.2]  | 6dB Bandwidth                                                                 | > 500kHz                                                                                       | CONDUCTED         | PASS        | Section 7.2       |
| 2.1049              | RSS-Gen [6.7]  | Occupied Bandwidth                                                            | N/A                                                                                            |                   | N/A         | Section 7.2       |
| 15.247(b)(3)        | RSS-247 [5.4]  | Transmitter Output Power                                                      | < 1 Watt                                                                                       |                   | PASS        | Sections 7.3      |
| 15.247(e)           | RSS-247 [5.2]  | Transmitter Power Spectral Density                                            | < 8dBm / 3kHz Band                                                                             |                   | PASS        | Section 7.4       |
| 15.247(d)           | RSS-247 [5.5]  | Band Edge / Out-of-Band Emissions                                             | ≥ 20dBc                                                                                        |                   | PASS        | Sections 7.5, 7.6 |
| 15.205<br>15.209    | 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]) | RADIATED          | PASS        | Sections 7.7, 7.8 |
| 15.207              | RSS-Gen [8.8]  | AC Conducted Emissions 150kHz – 30MHz                                         | < FCC 15.207 limits (RSS-Gen[8.8])                                                             | AC LINE CONDUCTED | PASS        | Section 7.9       |

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

#### Notes:

1. All modes of operation and data rates were investigated. 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 Element "WLAN Automation," Version 5.0.
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 Element "Chamber Automation," Version 1.3.2.

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 16 of 440                    |

V 10.5 12/15/2021



## 7.2 6dB and 99% OBW Measurement

§15.247(a.2); §2.1049; RSS-247 [5.2]; RSS-Gen [6.7]

### Test Overview and Limit

The bandwidth at 6dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the transmitter antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated and the worst case configuration results are reported in this section.

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst-case configuration results are reported in this section.

***The minimum permissible 6dB bandwidth is 500 kHz.***

### Test Procedure Used

ANSI C63.10-2013 – Subclause 11.8.2 Option 2

KDB 558074 D01 v05r02 – Section 8.2

RSS-Gen [6.7]

### Test Settings

1. The signal analyzer's automatic bandwidth measurement capability of the spectrum analyzer was used to perform the 99% occupied bandwidth and the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to  $X = 6$ . The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 100kHz
3. VBW  $\geq 3 \times$  RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, step 2 – 7 were repeated after changing the RBW such that it would be within 1 -5% of the 99% occupied bandwidth observed in Step 7

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 17 of 440                    |

V 10.5 12/15/2021

### 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

The data rates have been classified into three different groups: low data rate, middle data rate, and high data rate. All three data rate groups have been investigated and only the worst case data rate per groups is reported.

|                                         |                                                                                                                                   |                            |                                          |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | <b>Approved by:</b><br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 18 of 440                           |

V 10.5 12/15/2021

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## Antenna 3a 6dB BW and 99% OBW Measurements

| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured 99% Occupied Bandwidth [MHz] | Measured 6dB Bandwidth [MHz] | Minimum 6dB Bandwidth [MHz] | Pass / Fail |
|-----------------|-------------|-------------|------------------|---------------------------------------|------------------------------|-----------------------------|-------------|
| 2412            | 1           | g           | 12               | 16.460                                | 15.932                       | 0.500                       | Pass        |
| 2437            | 6           | g           | 12               | 16.439                                | 15.810                       | 0.500                       | Pass        |
| 2462            | 11          | g           | 12               | 16.449                                | 15.770                       | 0.500                       | Pass        |
| 2412            | 1           | n           | 19.5/21.7 (MCS2) | 17.652                                | 16.633                       | 0.500                       | Pass        |
| 2437            | 6           | n           | 19.5/21.7 (MCS2) | 17.633                                | 16.873                       | 0.500                       | Pass        |
| 2462            | 11          | n           | 19.5/21.7 (MCS2) | 17.649                                | 16.958                       | 0.500                       | Pass        |
| 2412            | 1           | ax (SU)     | 24/25.8 (MCS2)   | 18.825                                | 17.726                       | 0.500                       | Pass        |
| 2437            | 6           | ax (SU)     | 24/25.8 (MCS2)   | 18.883                                | 18.865                       | 0.500                       | Pass        |
| 2462            | 11          | ax (SU)     | 24/25.8 (MCS2)   | 18.883                                | 18.807                       | 0.500                       | Pass        |

**Table 7-2. Conducted Bandwidth Measurements Antenna 3a (Low Data Rate)**

| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured 99% Occupied Bandwidth [MHz] | Measured 6dB Bandwidth [MHz] | Minimum 6dB Bandwidth [MHz] | Pass / Fail |
|-----------------|-------------|-------------|------------------|---------------------------------------|------------------------------|-----------------------------|-------------|
| 2412            | 1           | g           | 24               | 16.418                                | 16.380                       | 0.500                       | Pass        |
| 2437            | 6           | g           | 24               | 16.430                                | 16.429                       | 0.500                       | Pass        |
| 2462            | 11          | g           | 24               | 16.408                                | 16.392                       | 0.500                       | Pass        |
| 2412            | 1           | n           | 39/43.3 (MCS4)   | 17.622                                | 17.637                       | 0.500                       | Pass        |
| 2437            | 6           | n           | 39/43.3 (MCS4)   | 17.650                                | 17.650                       | 0.500                       | Pass        |
| 2462            | 11          | n           | 39/43.3 (MCS4)   | 17.610                                | 17.655                       | 0.500                       | Pass        |
| 2412            | 1           | ax (SU)     | 49/51.6 (MCS4)   | 18.858                                | 18.888                       | 0.500                       | Pass        |
| 2437            | 6           | ax (SU)     | 49/51.6 (MCS4)   | 18.893                                | 18.915                       | 0.500                       | Pass        |
| 2462            | 11          | ax (SU)     | 49/51.6 (MCS4)   | 18.879                                | 18.988                       | 0.500                       | Pass        |

**Table 7-3. Conducted Bandwidth Measurements Antenna 3a (Mid Data Rate)**

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 19 of 440                    |

V 10.5 12/15/2021

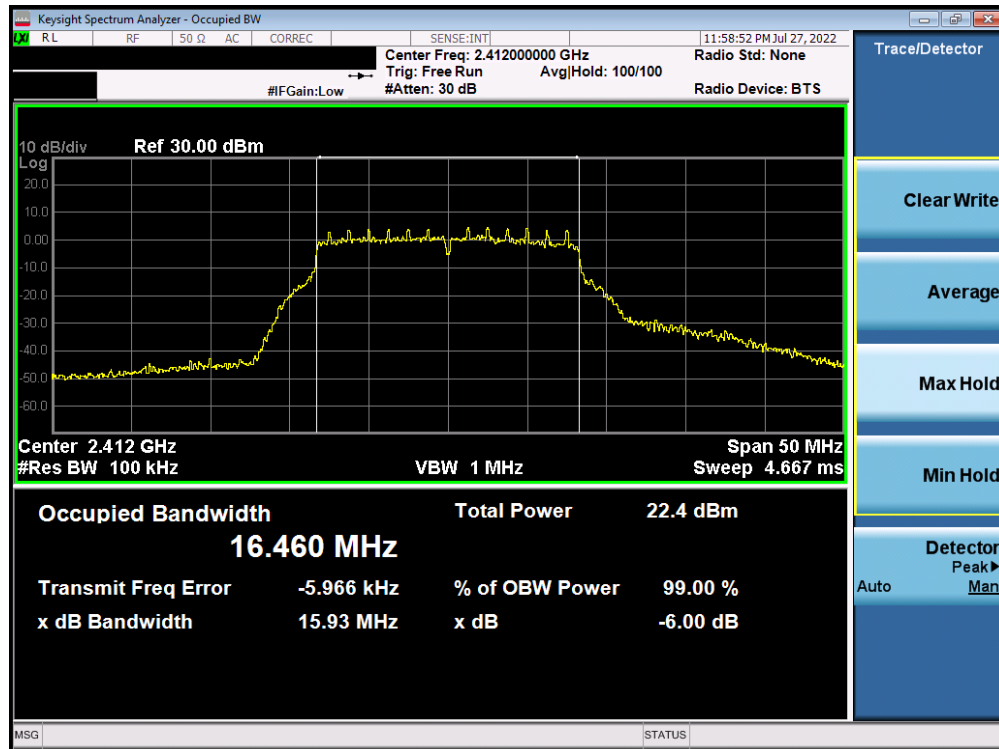
| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured 99% Occupied Bandwidth [MHz] | Measured 6dB Bandwidth [MHz] | Minimum 6dB Bandwidth [MHz] | Pass / Fail |
|-----------------|-------------|-------------|------------------|---------------------------------------|------------------------------|-----------------------------|-------------|
| 2412            | 1           | b           | 11               | 12.696                                | 8.239                        | 0.500                       | Pass        |
| 2437            | 6           | b           | 11               | 12.735                                | 8.667                        | 0.500                       | Pass        |
| 2462            | 11          | b           | 11               | 12.784                                | 8.554                        | 0.500                       | Pass        |
| 2412            | 1           | g           | 36               | 16.395                                | 16.074                       | 0.500                       | Pass        |
| 2437            | 6           | g           | 36               | 16.431                                | 16.434                       | 0.500                       | Pass        |
| 2462            | 11          | g           | 36               | 16.382                                | 16.303                       | 0.500                       | Pass        |
| 2412            | 1           | n           | 52/57.8 (MCS5)   | 17.644                                | 17.709                       | 0.500                       | Pass        |
| 2437            | 6           | n           | 52/57.8 (MCS5)   | 17.683                                | 17.709                       | 0.500                       | Pass        |
| 2462            | 11          | n           | 52/57.8 (MCS5)   | 17.632                                | 17.661                       | 0.500                       | Pass        |
| 2412            | 1           | ax (SU)     | 65/68.8 (MCS5)   | 18.888                                | 18.855                       | 0.500                       | Pass        |
| 2437            | 6           | ax (SU)     | 65/68.8 (MCS5)   | 18.934                                | 19.025                       | 0.500                       | Pass        |
| 2462            | 11          | ax (SU)     | 65/68.8 (MCS5)   | 18.941                                | 19.064                       | 0.500                       | Pass        |

**Table 7-4. Conducted Bandwidth Measurements Antenna 3a (High Data Rate)**

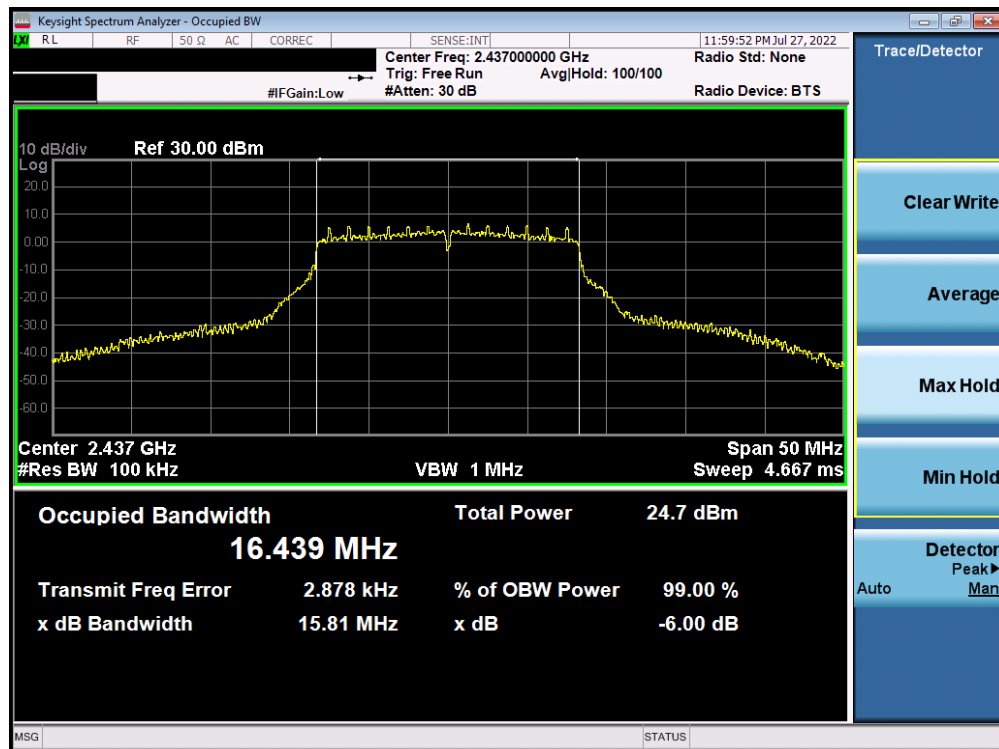
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 20 of 440                    |

V 10.5 12/15/2021

## Low Data Rate



Plot 7-1. 6dB BW and 99% OBW Plot Antenna 3a (802.11g – Ch. 1) – 12Mbps

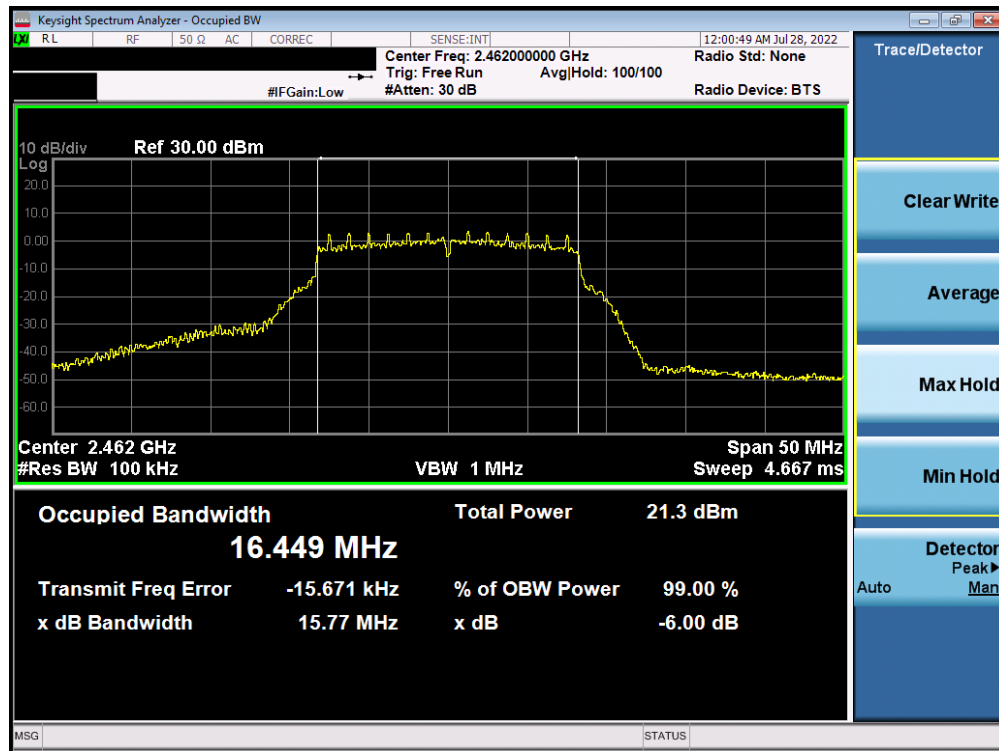


Plot 7-2. 6dB BW and 99% OBW Plot Antenna 3a (802.11g – Ch. 6) – 12Mbps

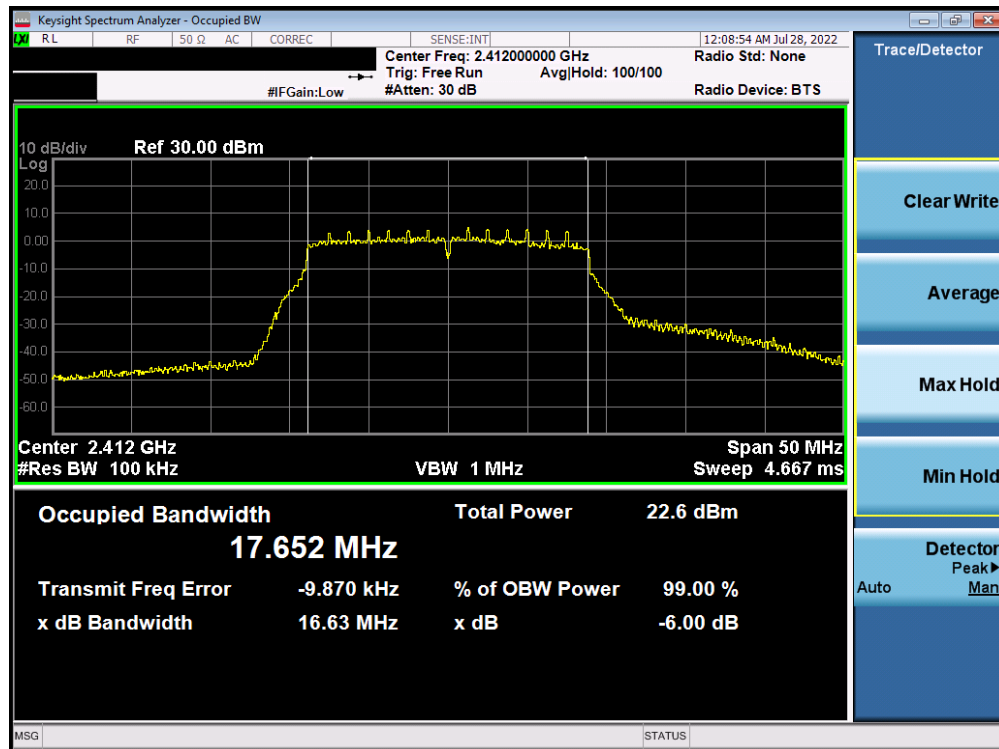
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 21 of 440                    |

V 10.5 12/15/2021

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Plot 7-3. 6dB BW and 99% OBW Plot Antenna 3a (802.11g – Ch. 11) – 12Mbps

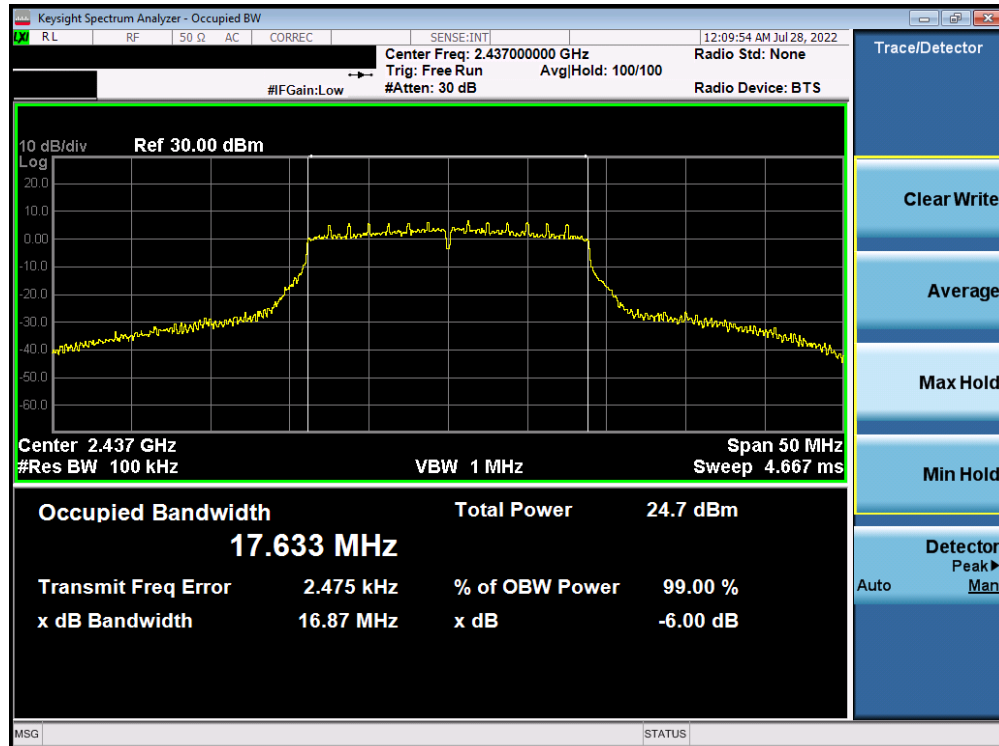


Plot 7-4. 6dB BW and 99% OBW Plot Antenna 3a (802.11n (2.4GHz) – Ch. 1) – MCS2

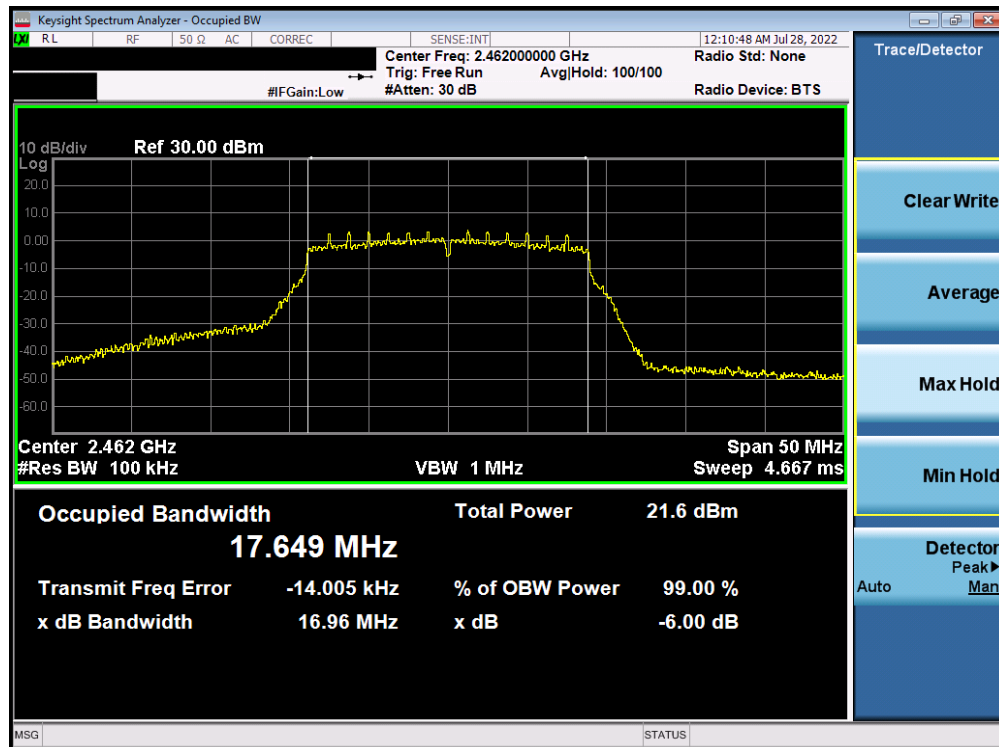
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 22 of 440                    |

V 10.5 12/15/2021

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Plot 7-5. 6dB BW and 99% OBW Plot Antenna 3a (802.11n (2.4GHz) – Ch. 6) – MCS2

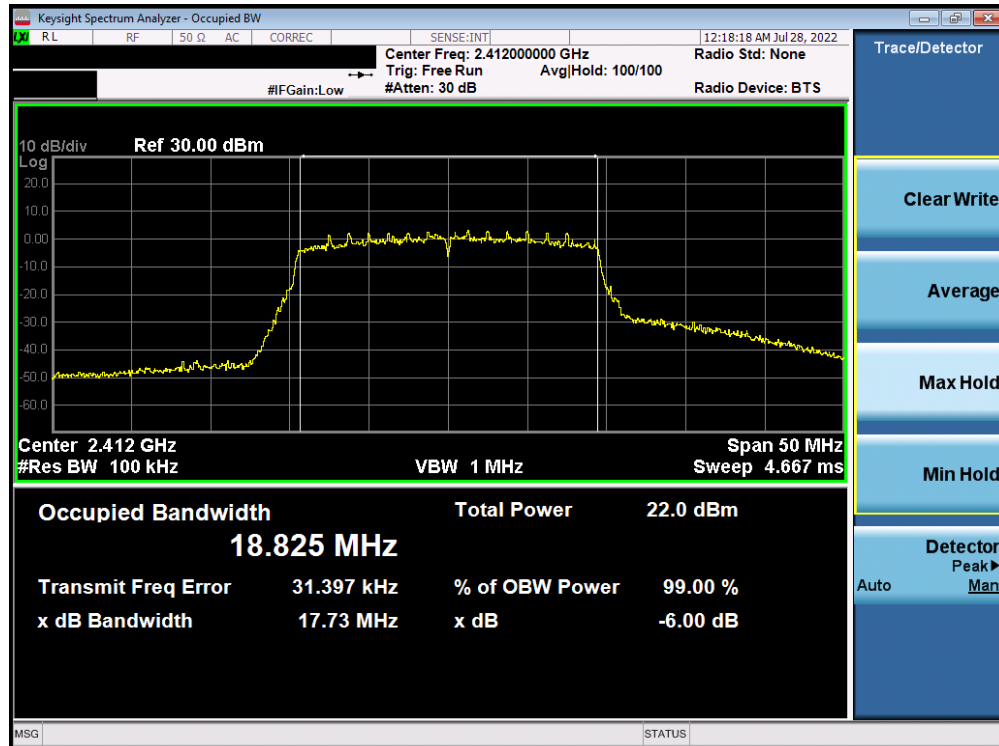


Plot 7-6. 6dB BW and 99% OBW Plot Antenna 3a (802.11n (2.4GHz) – Ch. 11) – MCS2

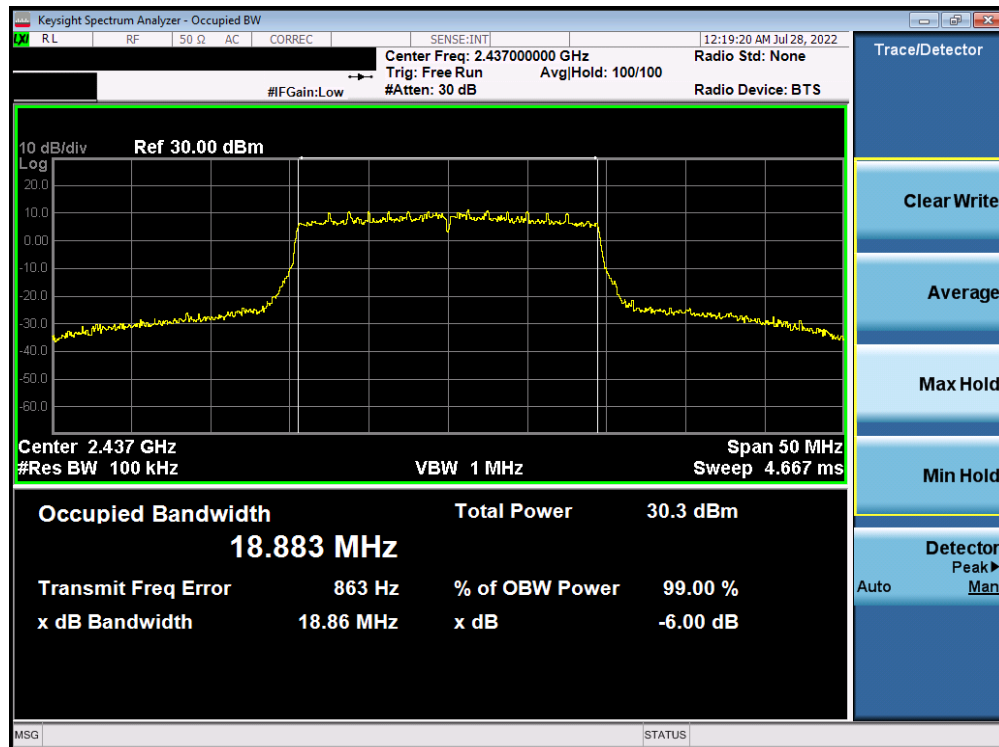
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 23 of 440                    |

V 10.5 12/15/2021

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Plot 7-7. 6dB BW and 99% OBW Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 1) – MCS2

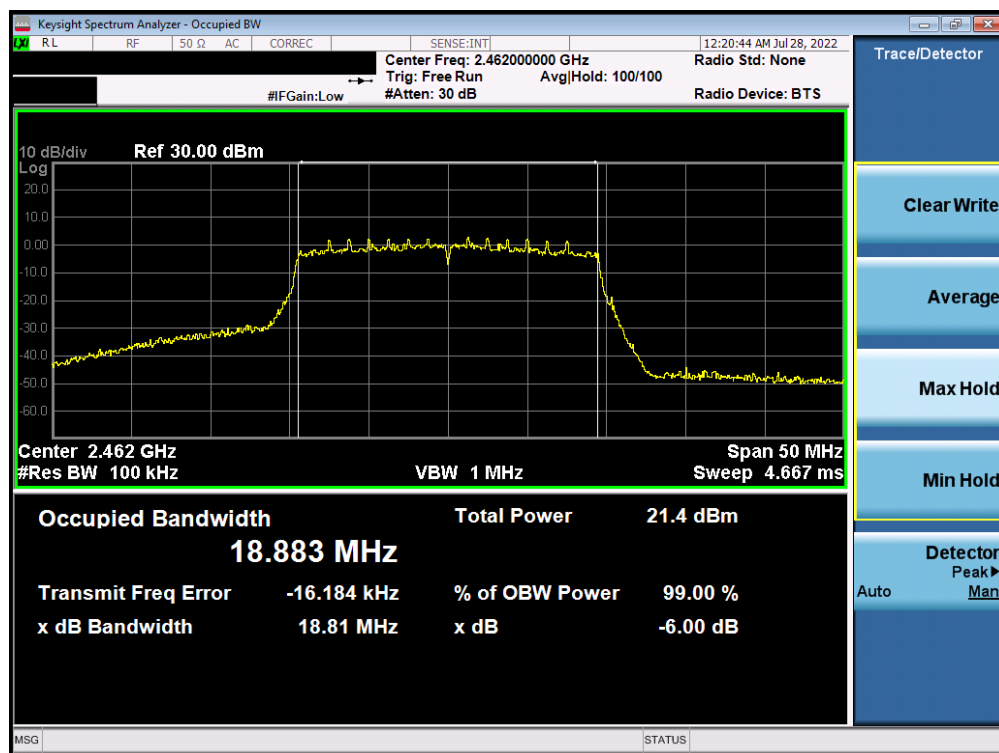


Plot 7-8. 6dB BW and 99% OBW Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 6) – MCS2

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 24 of 440                    |

V 10.5 12/15/2021



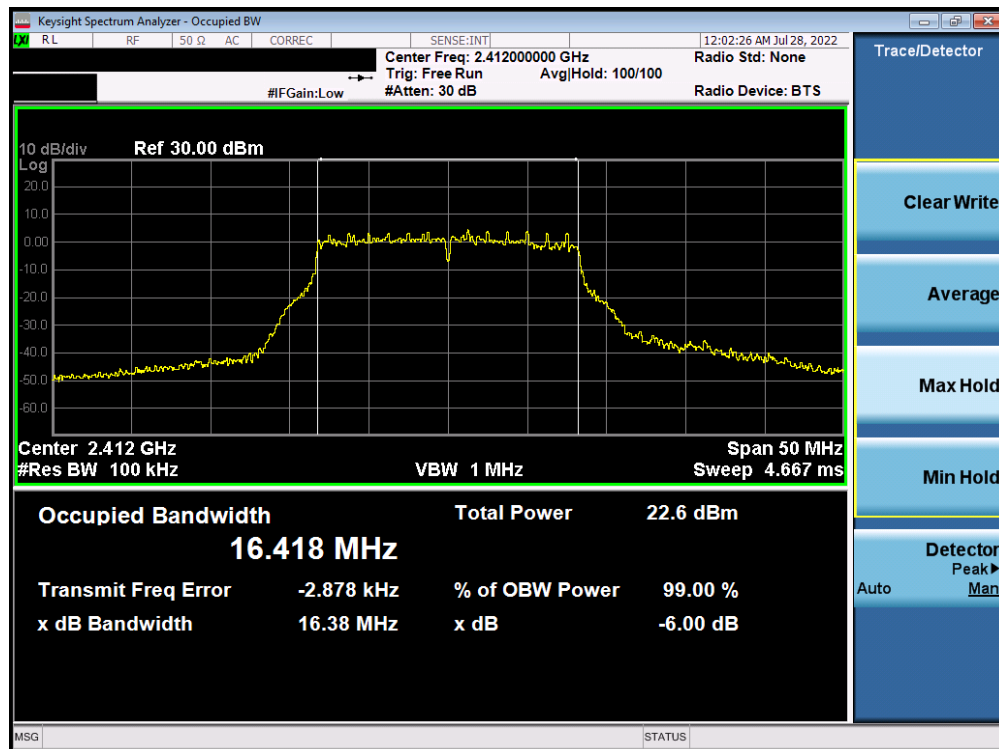


Plot 7-9. 6dB BW and 99% OBW Plot Antenna 3a (802. 11ax (SU - 2.4GHz) – Ch. 11) – MCS2

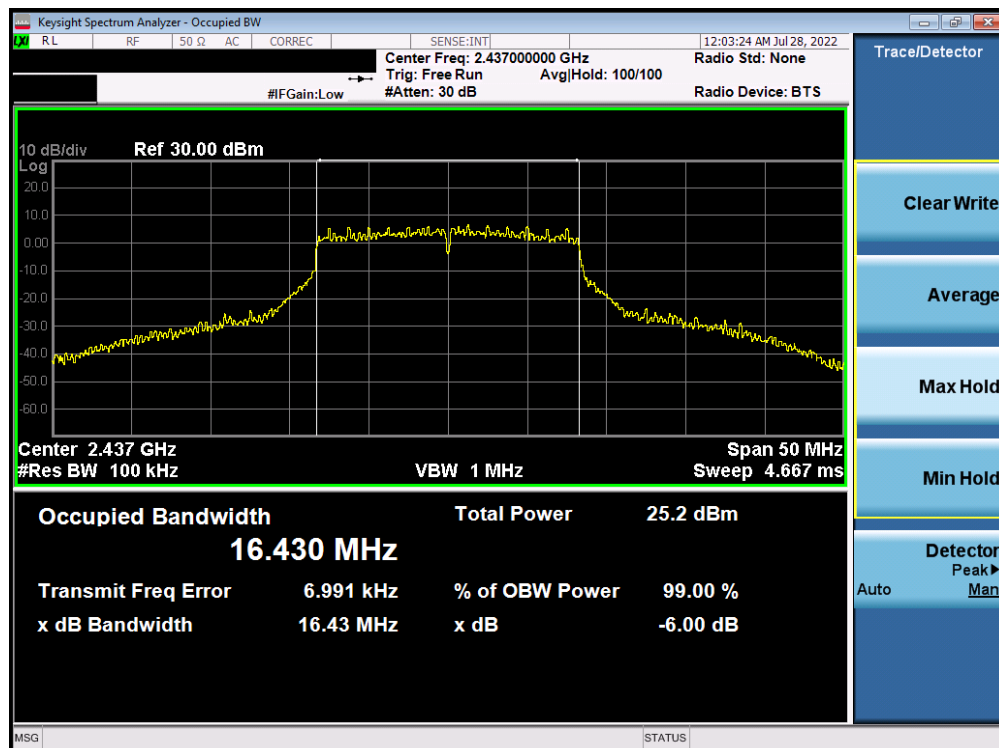
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 25 of 440                    |

V 10.5 12/15/2021

## Mid Data Rate



Plot 7-10. 6dB BW and 99% OBW Plot Antenna 3a (802.11g – Ch. 1) – 24Mbps

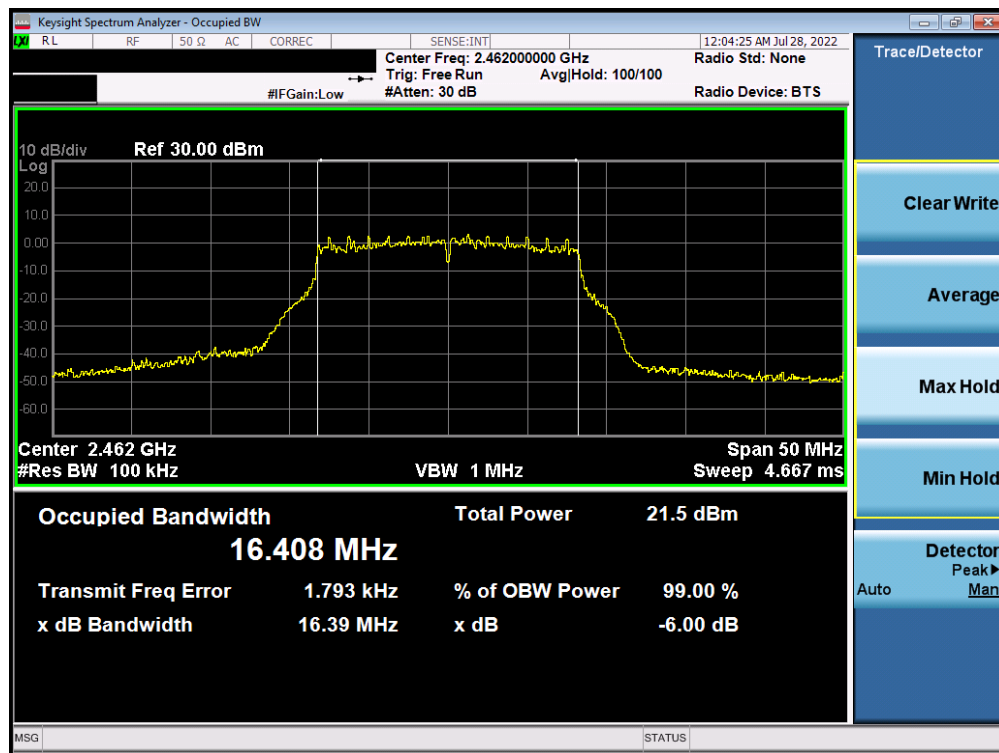


Plot 7-11. 6dB BW and 99% OBW Plot Antenna 3a (802.11g – Ch. 6) – 24Mbps

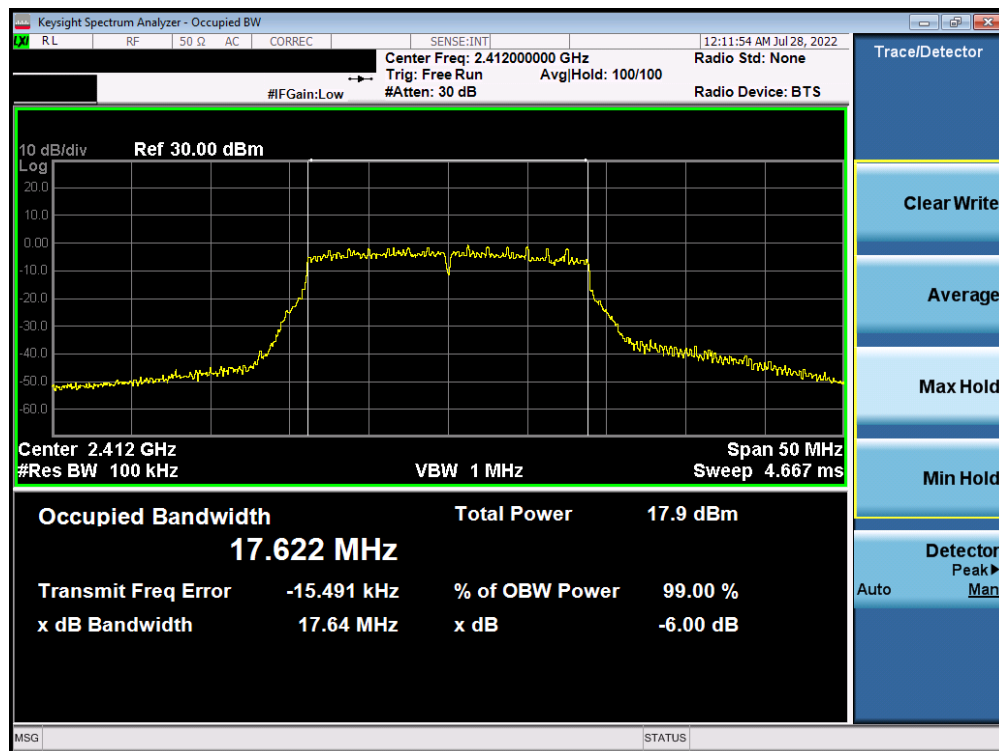
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 26 of 440                    |

V 10.5 12/15/2021

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Plot 7-12. 6dB BW and 99% OBW Plot Antenna 3a (802.11g – Ch. 11) – 24Mbps

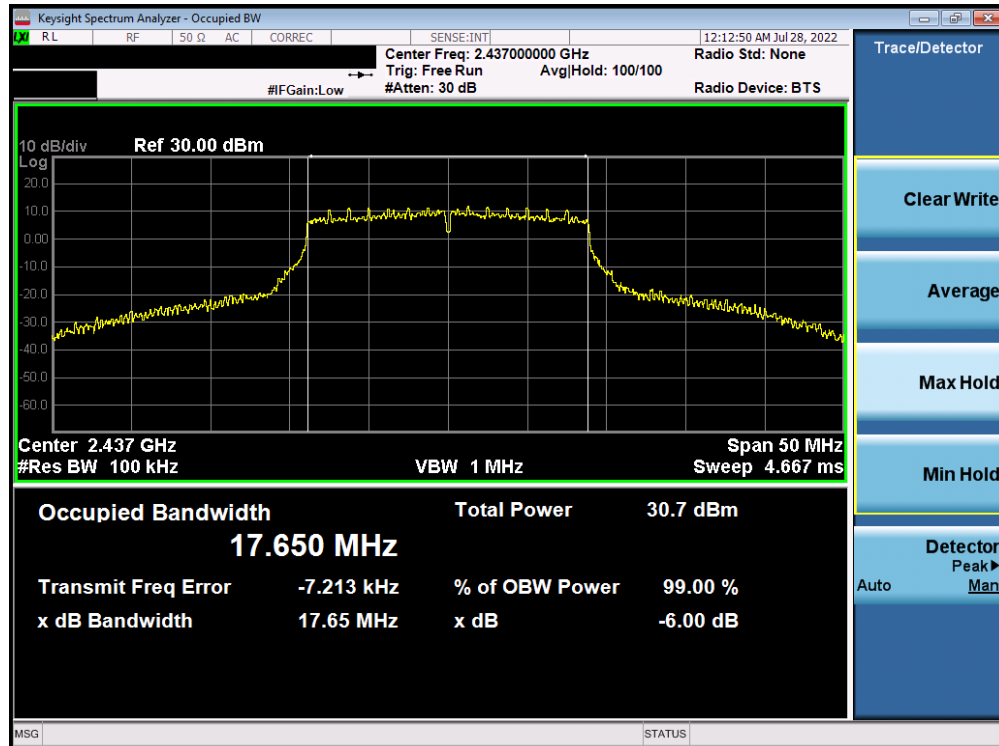


Plot 7-13. 6dB BW and 99% OBW Plot Antenna 3a (802.11n (2.4GHz) – Ch. 1) – MCS4

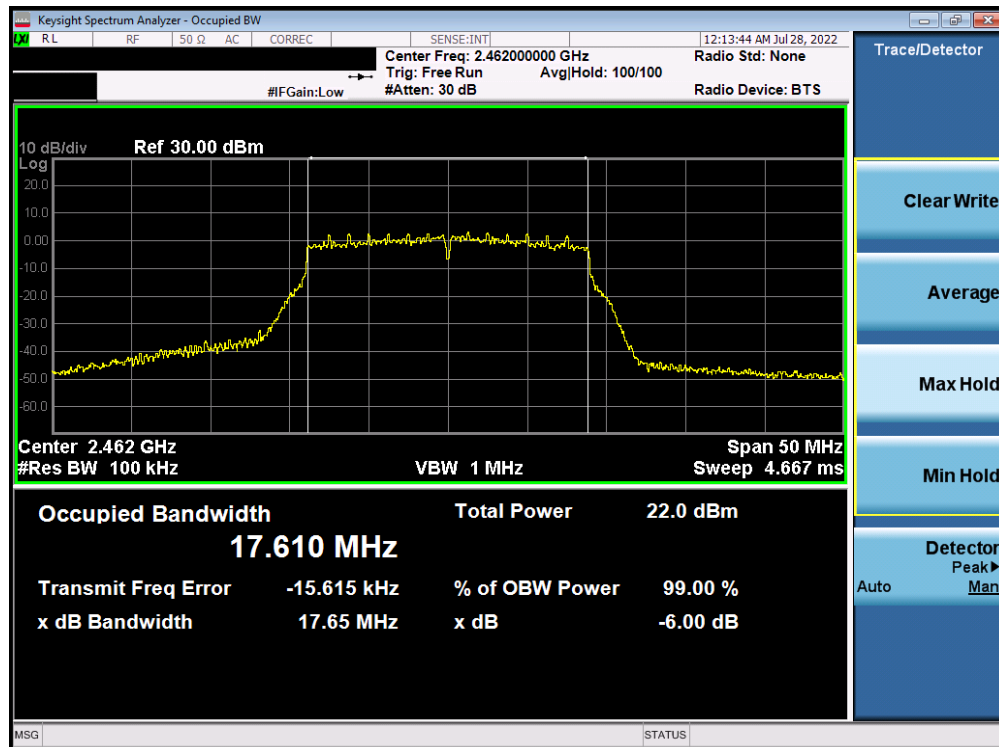
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 27 of 440                    |

V 10.5 12/15/2021

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Plot 7-14. 6dB BW and 99% OBW Plot Antenna 3a (802.11n (2.4GHz) – Ch. 6) – MCS4

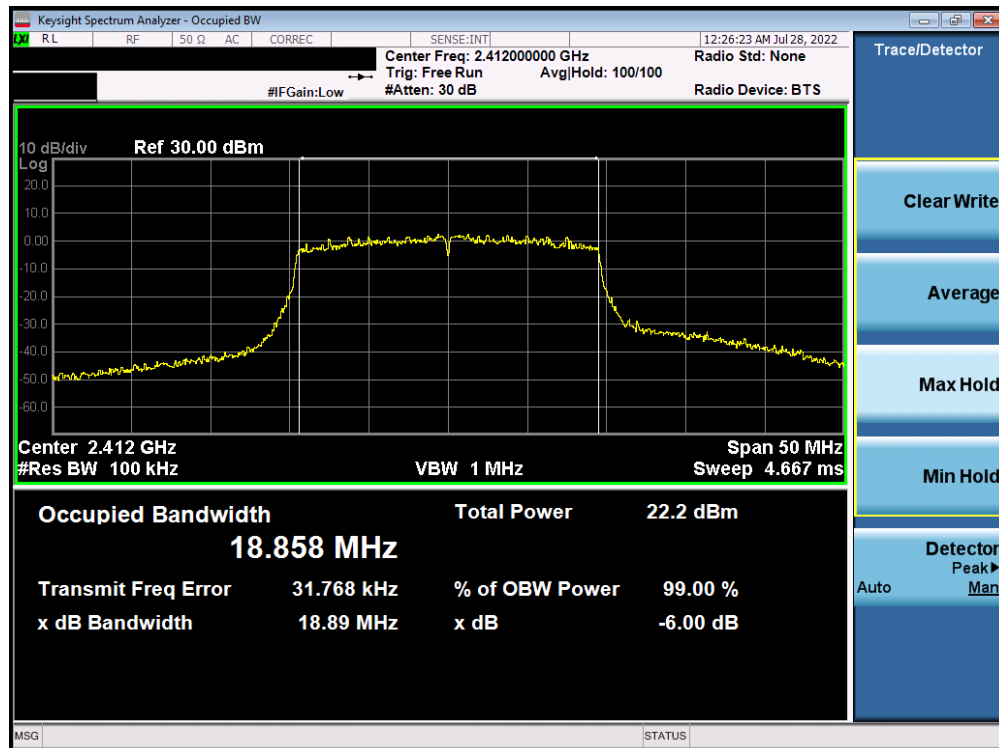


Plot 7-15. 6dB BW and 99% OBW Plot Antenna 3a (802.11n (2.4GHz) – Ch. 11) – MCS4

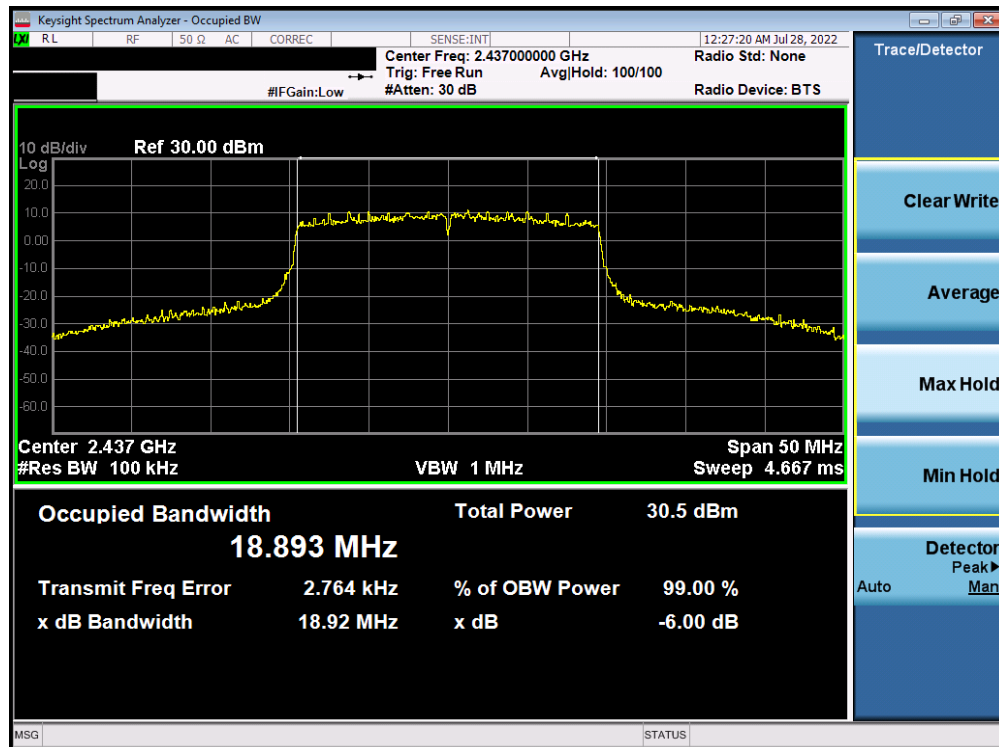
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 28 of 440                    |

V 10.5 12/15/2021

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Plot 7-16. 6dB BW and 99% OBW Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 1) – MCS4

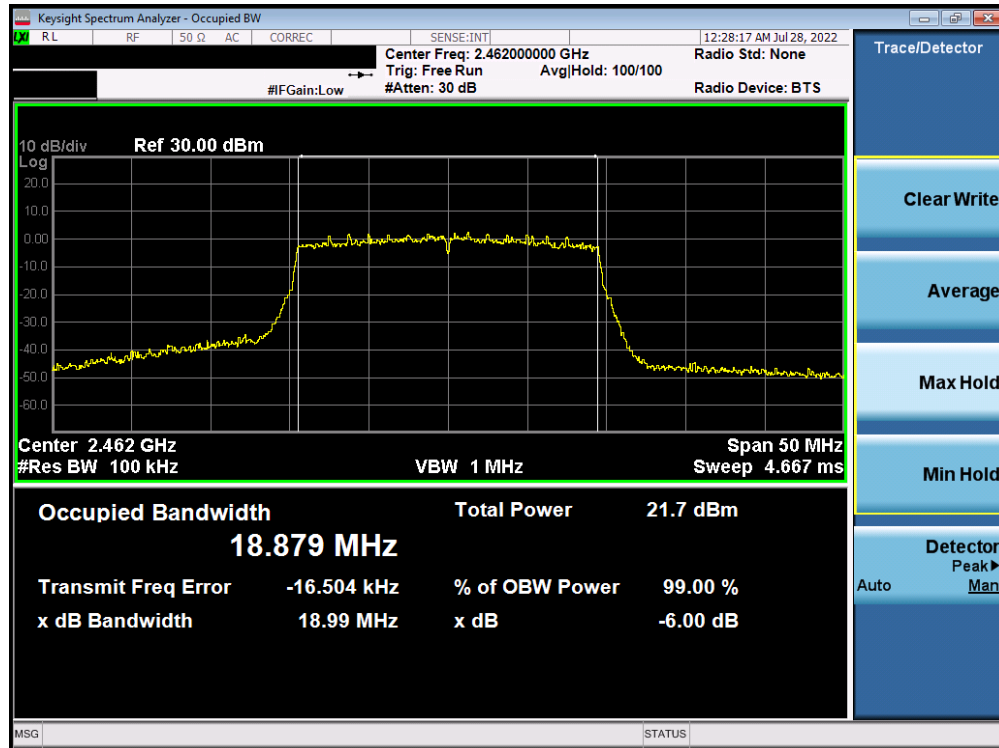


Plot 7-17. 6dB BW and 99% OBW Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 6) – MCS4

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 29 of 440                    |

V 10.5 12/15/2021

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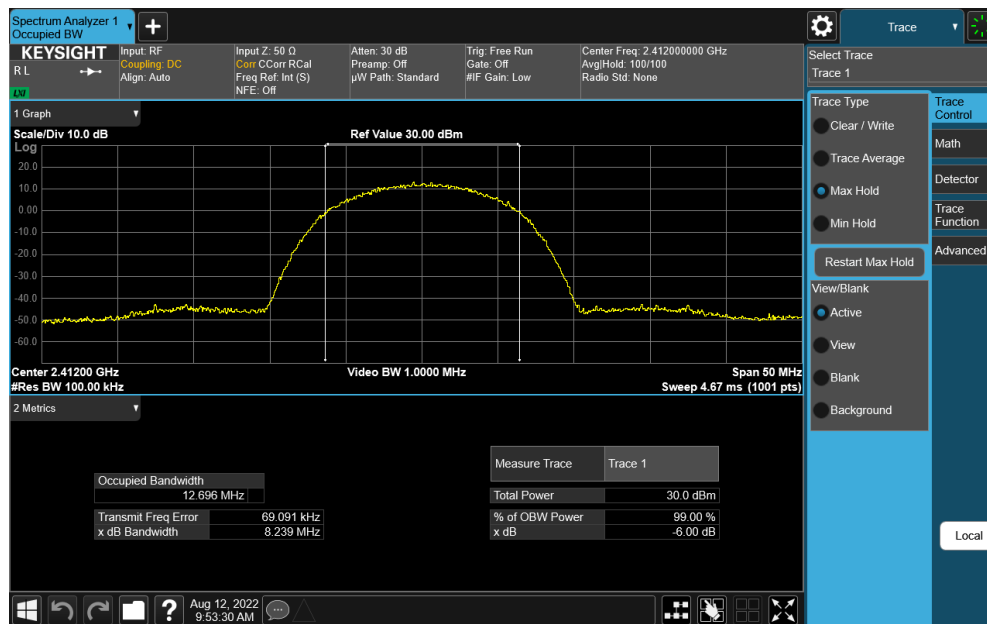


Plot 7-18. 6dB BW and 99% OBW Plot Antenna 3a (802. 11ax (SU - 2.4GHz) – Ch. 11) – MCS4

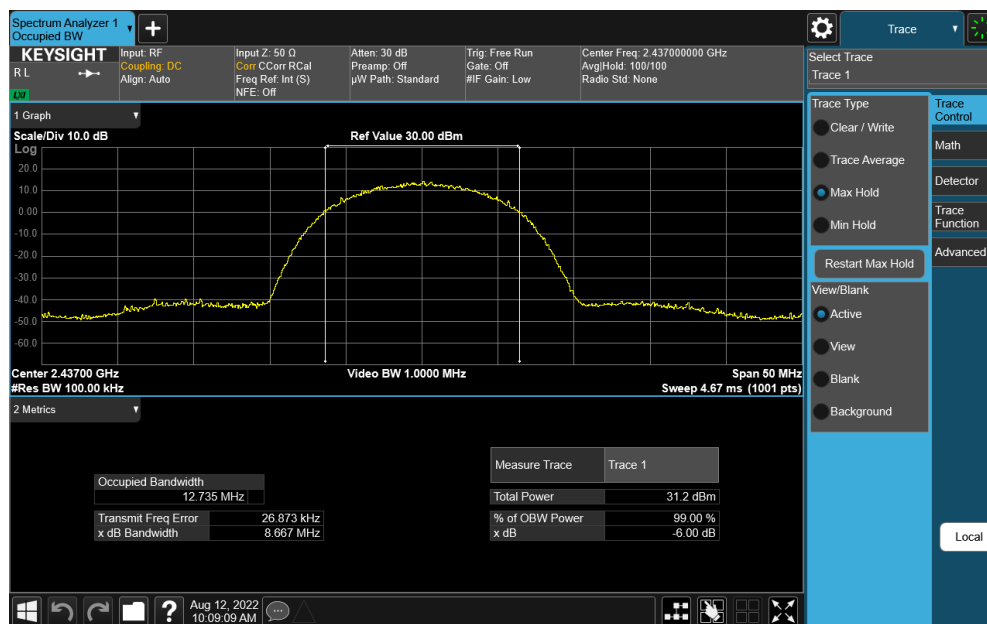
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 30 of 440                    |

V 10.5 12/15/2021

## High Data Rate



Plot 7-19. 6dB BW and 99% OBW Plot Antenna 3a (802.11b – Ch. 1) – 11Mbps

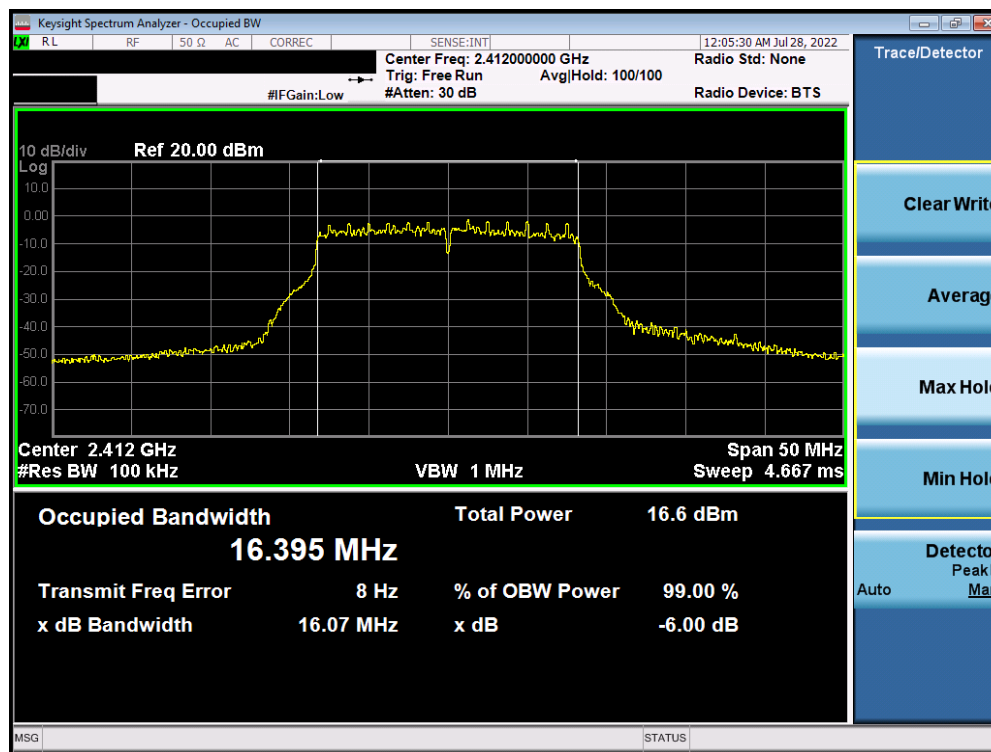
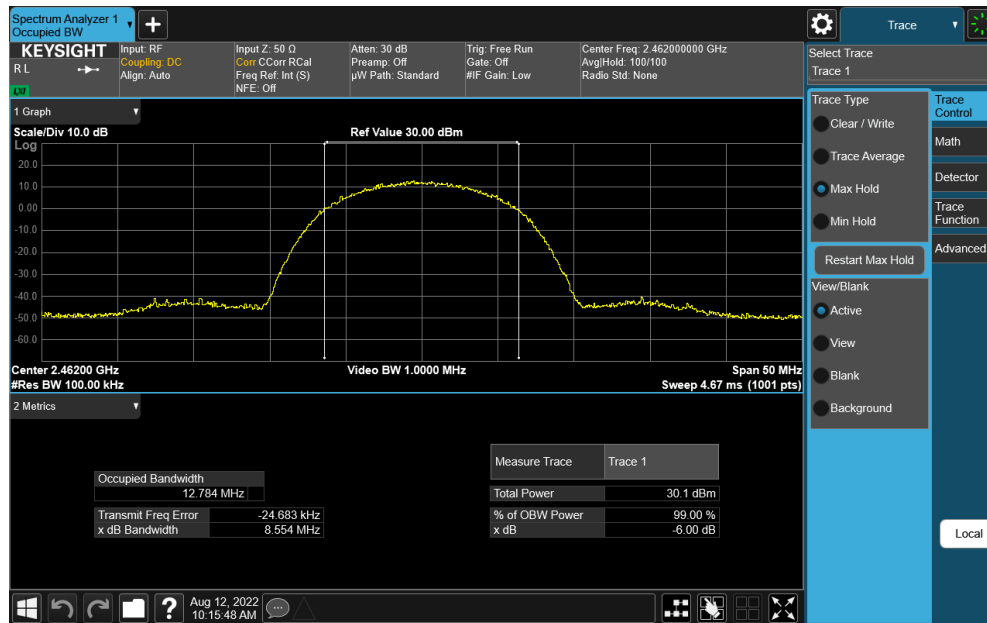


Plot 7-20. 6dB BW and 99% OBW Plot Antenna 3a (802.11b – Ch. 6) – 11Mbps

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 31 of 440                    |

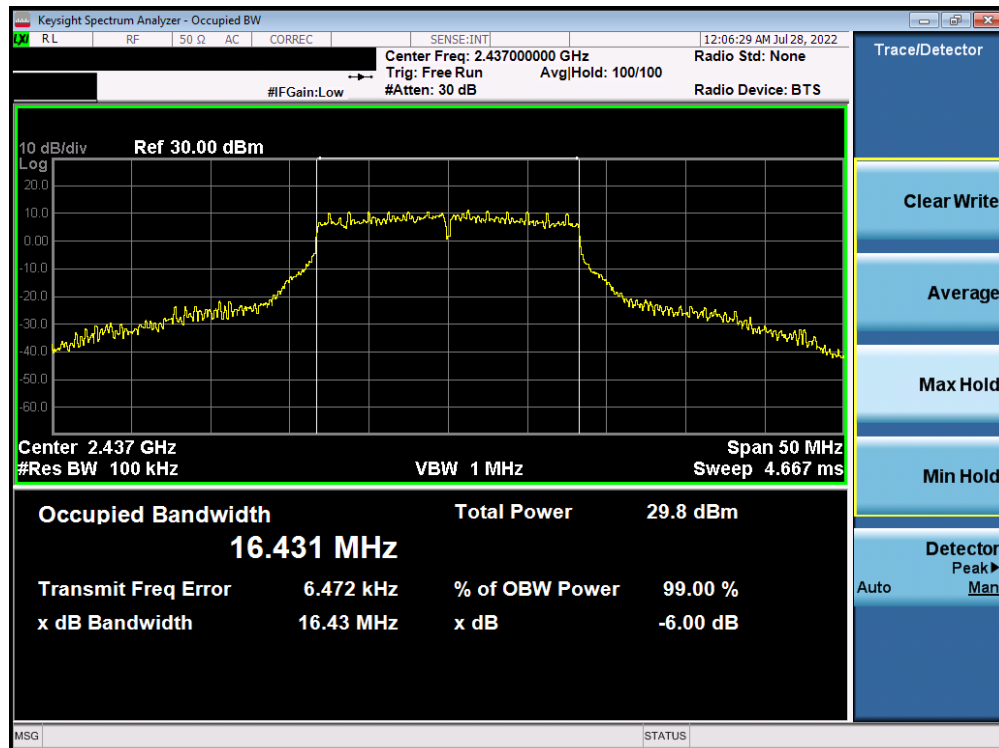
V 10.5 12/15/2021

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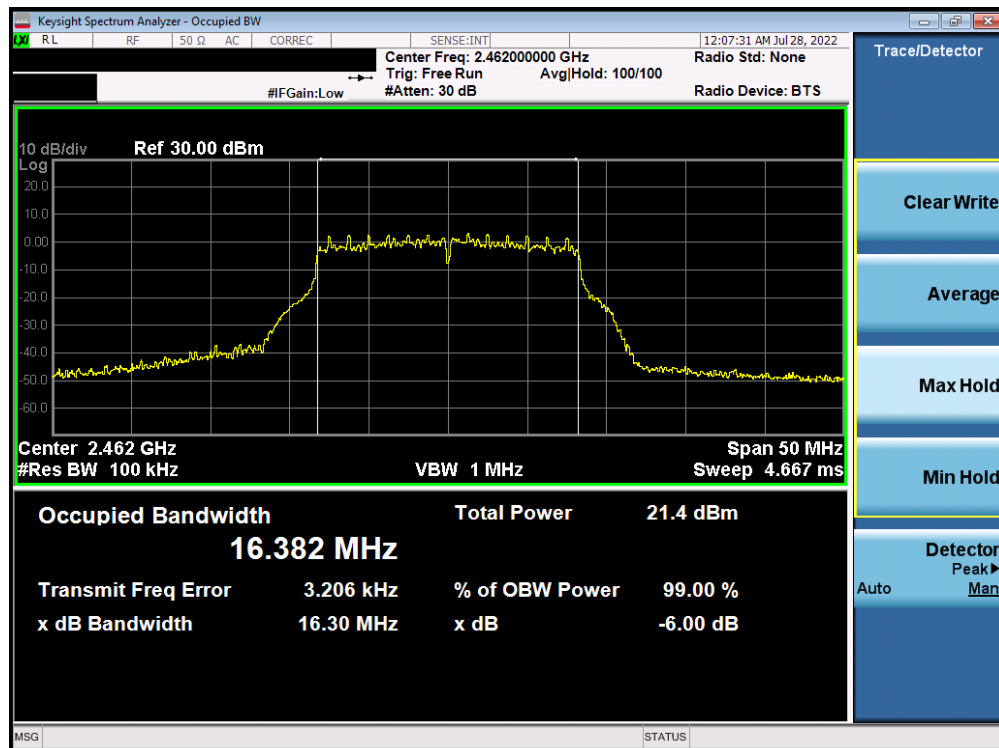


|                                         |                                                                                                                                   |                            |                                          |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | <b>Approved by:</b><br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 32 of 440                           |





Plot 7-23. 6dB BW and 99% OBW Plot Antenna 3a (802.11g – Ch. 6) – 36Mbps

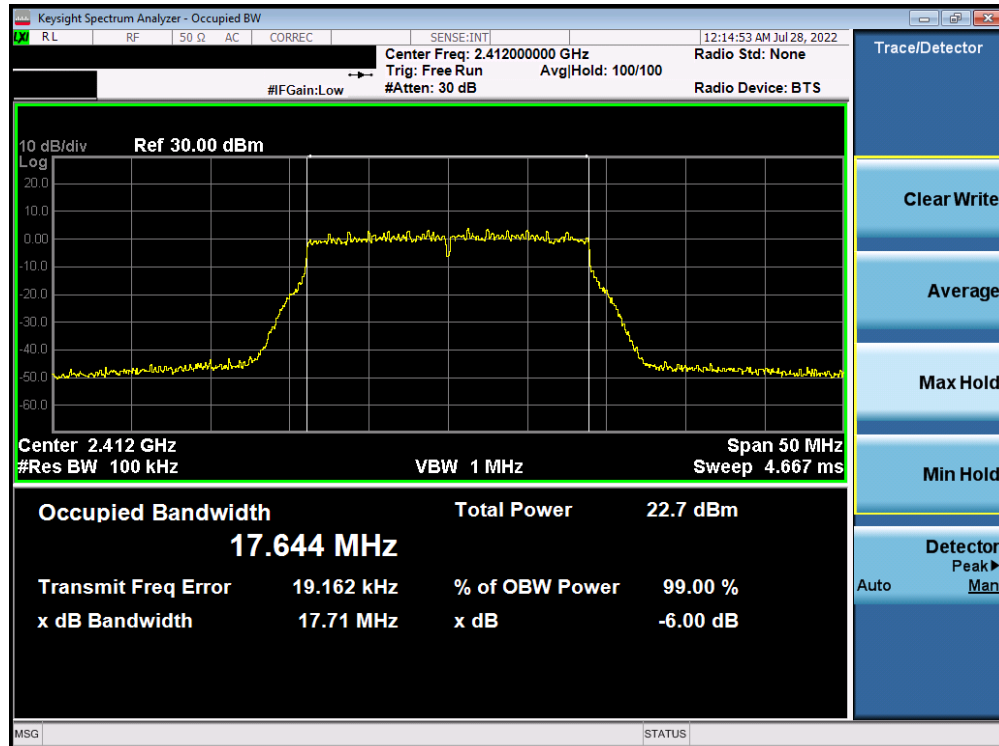


Plot 7-24. 6dB BW and 99% OBW Plot Antenna 3a (802.11g – Ch. 11) – 36Mbps

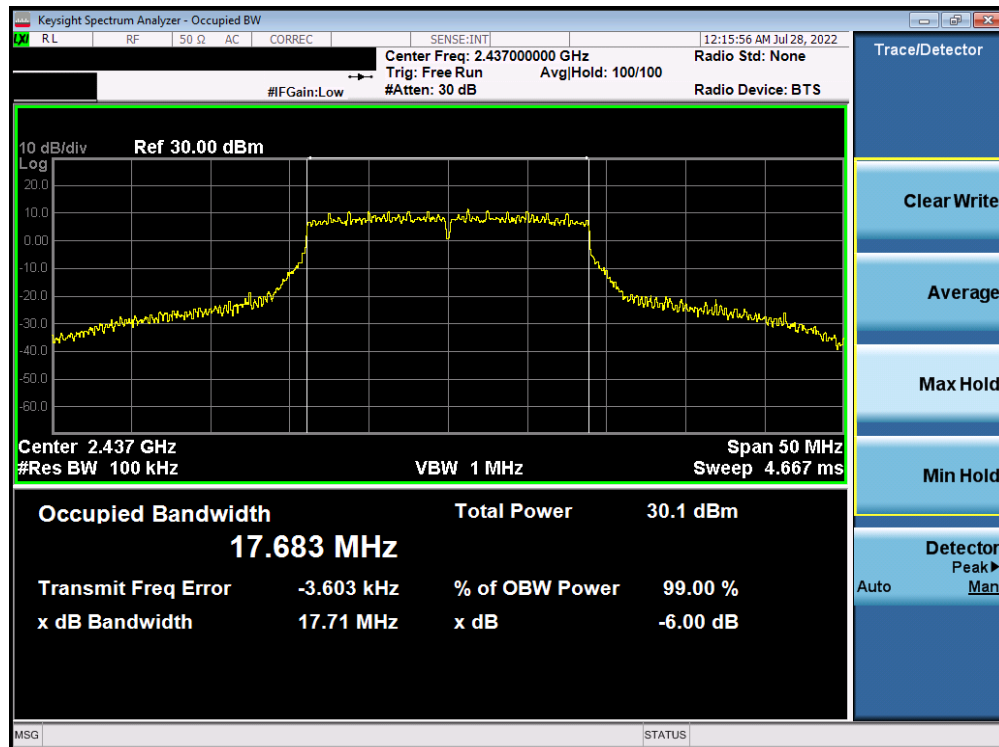
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 33 of 440                    |

V 10.5 12/15/2021

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Plot 7-25. 6dB BW and 99% OBW Plot Antenna 3a (802.11n (2.4GHz) – Ch. 1) – MCS5

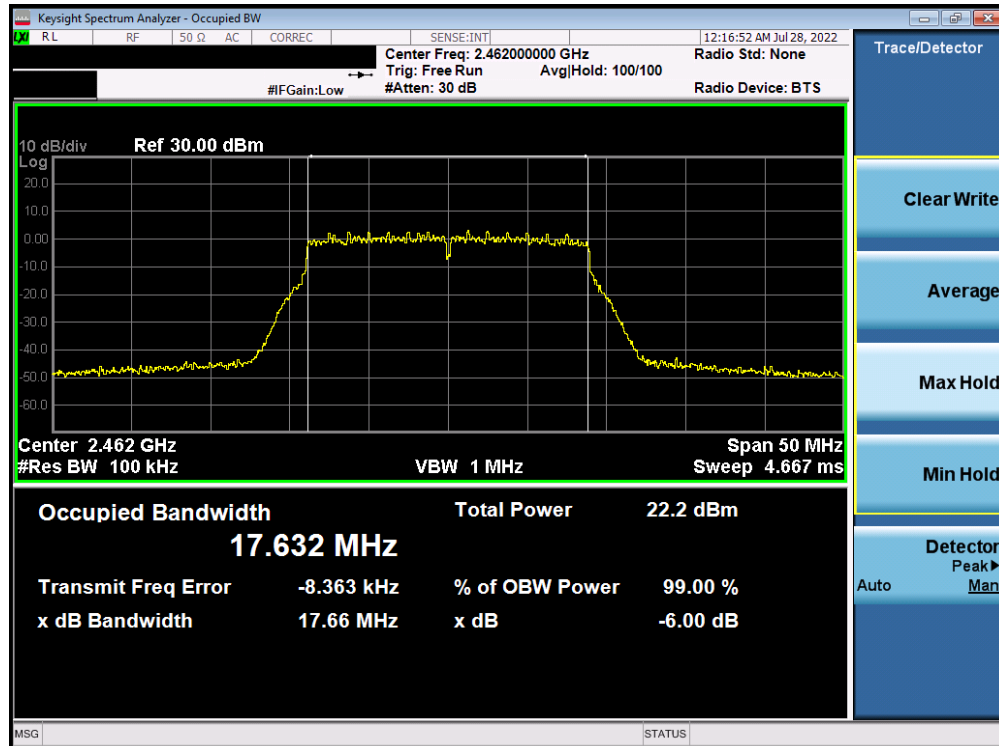


Plot 7-26. 6dB BW and 99% OBW Plot Antenna 3a (802.11n (2.4GHz) – Ch. 6) – MCS5

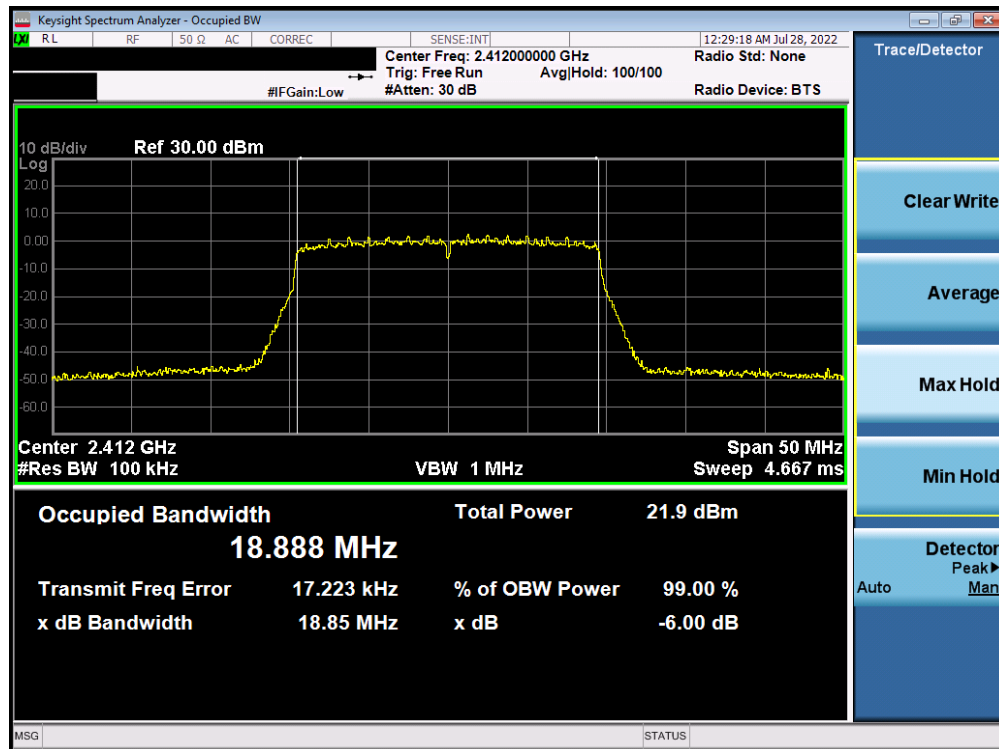
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 34 of 440                    |

V 10.5 12/15/2021

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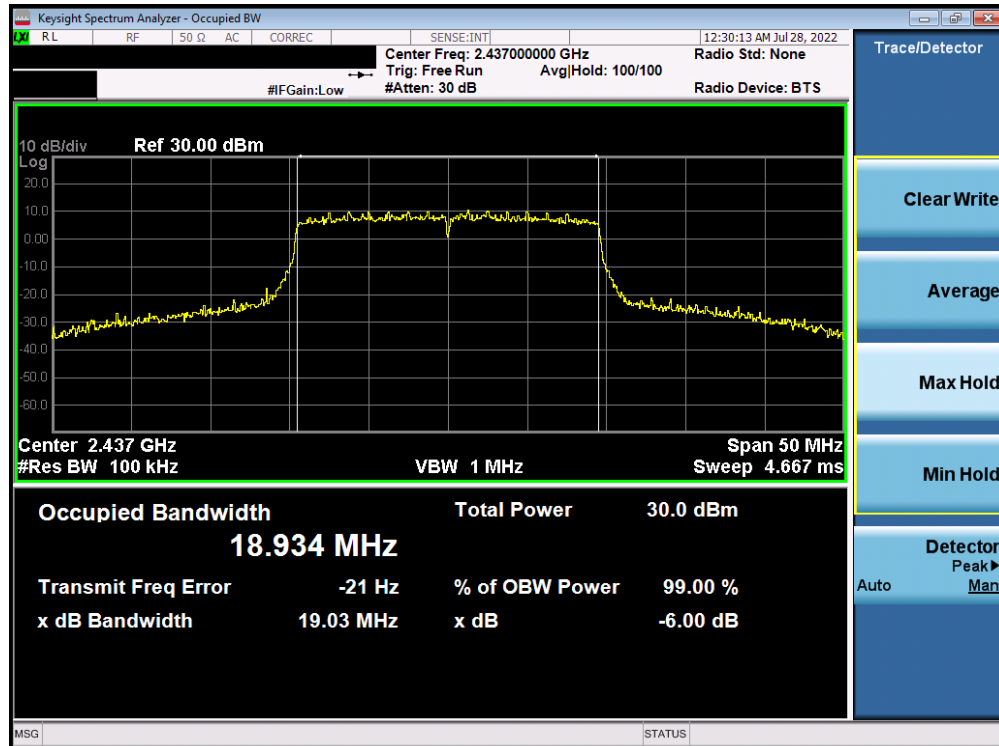
Plot 7-27. 6dB BW and 99% OBW Plot Antenna 3a (802.11n (2.4GHz) – Ch. 11) – MCS5



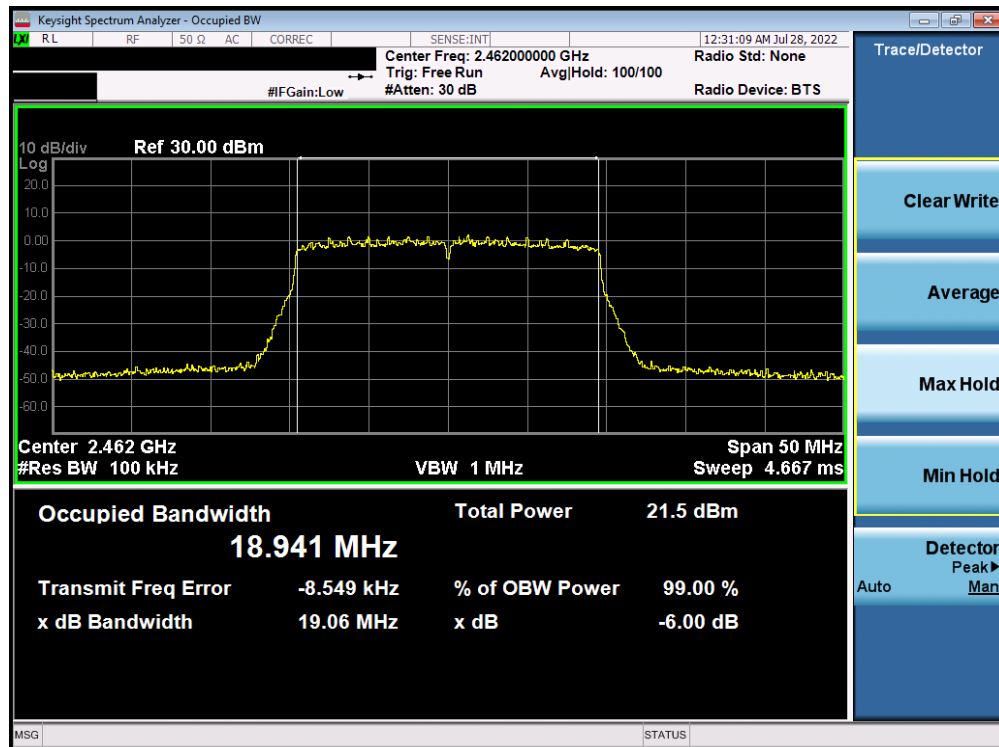
Plot 7-28. 6dB BW and 99% OBW Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 1) – MCS5

|                                         |                                                                                     |                                       |                                   |
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 35 of 440                    |

V 10.5 12/15/2021



Plot 7-29. 6dB BW and 99% OBW Plot Antenna 3a (802. 11ax (SU - 2.4GHz) – Ch. 6) – MCS5



Plot 7-30. 6dB BW and 99% OBW Plot Antenna 3a (802. 11ax (SU - 2.4GHz) – Ch. 11) – MCS5

|                                         |                                                                                     |                                       |                                   |
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 36 of 440                    |

V 10.5 12/15/2021

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## Antenna 1a 6dB BW and 99% OBW Measurements

| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured 99% Occupied Bandwidth [MHz] | Measured 6dB Bandwidth [MHz] | Minimum 6dB Bandwidth [MHz] | Pass / Fail |
|-----------------|-------------|-------------|------------------|---------------------------------------|------------------------------|-----------------------------|-------------|
| 2412            | 1           | g           | 12               | 16.470                                | 15.945                       | 0.500                       | Pass        |
| 2437            | 6           | g           | 12               | 16.453                                | 16.045                       | 0.500                       | Pass        |
| 2462            | 11          | g           | 12               | 16.447                                | 15.785                       | 0.500                       | Pass        |
| 2412            | 1           | n           | 19.5/21.7 (MCS2) | 17.675                                | 16.636                       | 0.500                       | Pass        |
| 2437            | 6           | n           | 19.5/21.7 (MCS2) | 17.664                                | 16.905                       | 0.500                       | Pass        |
| 2462            | 11          | n           | 19.5/21.7 (MCS2) | 17.631                                | 16.321                       | 0.500                       | Pass        |
| 2412            | 1           | ax (SU)     | 24/25.8 (MCS2)   | 18.888                                | 17.986                       | 0.500                       | Pass        |
| 2437            | 6           | ax (SU)     | 24/25.8 (MCS2)   | 18.911                                | 18.820                       | 0.500                       | Pass        |
| 2462            | 11          | ax (SU)     | 24/25.8 (MCS2)   | 18.882                                | 18.706                       | 0.500                       | Pass        |

**Table 7-5. Conducted Bandwidth Measurements Antenna 1a (Low Data Rate)**

| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured 99% Occupied Bandwidth [MHz] | Measured 6dB Bandwidth [MHz] | Minimum 6dB Bandwidth [MHz] | Pass / Fail |
|-----------------|-------------|-------------|------------------|---------------------------------------|------------------------------|-----------------------------|-------------|
| 2412            | 1           | g           | 24               | 16.424                                | 16.386                       | 0.500                       | Pass        |
| 2437            | 6           | g           | 24               | 16.456                                | 16.453                       | 0.500                       | Pass        |
| 2462            | 11          | g           | 24               | 16.407                                | 16.395                       | 0.500                       | Pass        |
| 2412            | 1           | n           | 39/43.3 (MCS4)   | 17.641                                | 17.686                       | 0.500                       | Pass        |
| 2437            | 6           | n           | 39/43.3 (MCS4)   | 17.682                                | 17.674                       | 0.500                       | Pass        |
| 2462            | 11          | n           | 39/43.3 (MCS4)   | 17.613                                | 17.646                       | 0.500                       | Pass        |
| 2412            | 1           | ax (SU)     | 49/51.6 (MCS4)   | 18.883                                | 18.876                       | 0.500                       | Pass        |
| 2437            | 6           | ax (SU)     | 49/51.6 (MCS4)   | 18.930                                | 18.968                       | 0.500                       | Pass        |
| 2462            | 11          | ax (SU)     | 49/51.6 (MCS4)   | 18.870                                | 18.824                       | 0.500                       | Pass        |

**Table 7-6. Conducted Bandwidth Measurements Antenna 1a (Mid Data Rate)**

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 37 of 440                    |

V 10.5 12/15/2021

| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured 99% Occupied Bandwidth [MHz] | Measured 6dB Bandwidth [MHz] | Minimum 6dB Bandwidth [MHz] | Pass / Fail |
|-----------------|-------------|-------------|------------------|---------------------------------------|------------------------------|-----------------------------|-------------|
| 2412            | 1           | b           | 11               | 12.652                                | 8.450                        | 0.500                       | Pass        |
| 2437            | 6           | b           | 11               | 12.735                                | 8.611                        | 0.500                       | Pass        |
| 2462            | 11          | b           | 11               | 12.755                                | 8.584                        | 0.500                       | Pass        |
| 2412            | 1           | g           | 36               | 16.407                                | 16.081                       | 0.500                       | Pass        |
| 2437            | 6           | g           | 36               | 16.423                                | 16.331                       | 0.500                       | Pass        |
| 2462            | 11          | g           | 36               | 16.383                                | 16.069                       | 0.500                       | Pass        |
| 2412            | 1           | n           | 52/57.8 (MCS5)   | 17.660                                | 17.745                       | 0.500                       | Pass        |
| 2437            | 6           | n           | 52/57.8 (MCS5)   | 17.690                                | 17.715                       | 0.500                       | Pass        |
| 2462            | 11          | n           | 52/57.8 (MCS5)   | 17.642                                | 17.722                       | 0.500                       | Pass        |
| 2412            | 1           | ax (SU)     | 65/68.8 (MCS5)   | 18.914                                | 19.039                       | 0.500                       | Pass        |
| 2437            | 6           | ax (SU)     | 65/68.8 (MCS5)   | 18.975                                | 19.064                       | 0.500                       | Pass        |
| 2462            | 11          | ax (SU)     | 65/68.8 (MCS5)   | 18.923                                | 19.070                       | 0.500                       | Pass        |

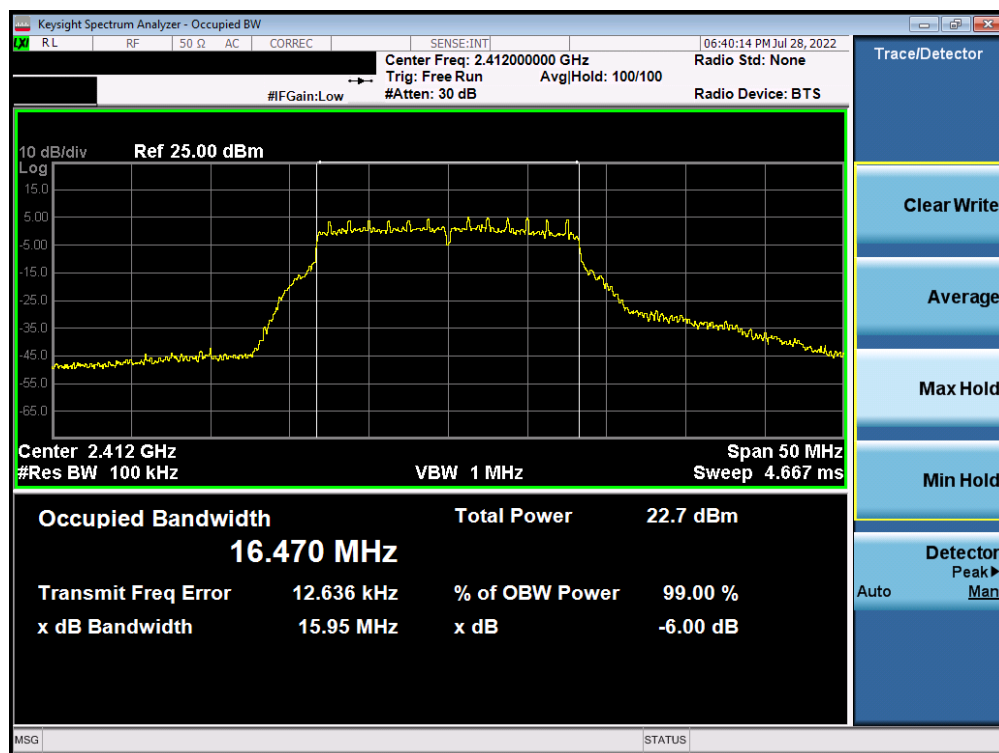
**Table 7-7. Conducted Bandwidth Measurements Antenna 1a (High Data Rate)**

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 38 of 440                    |

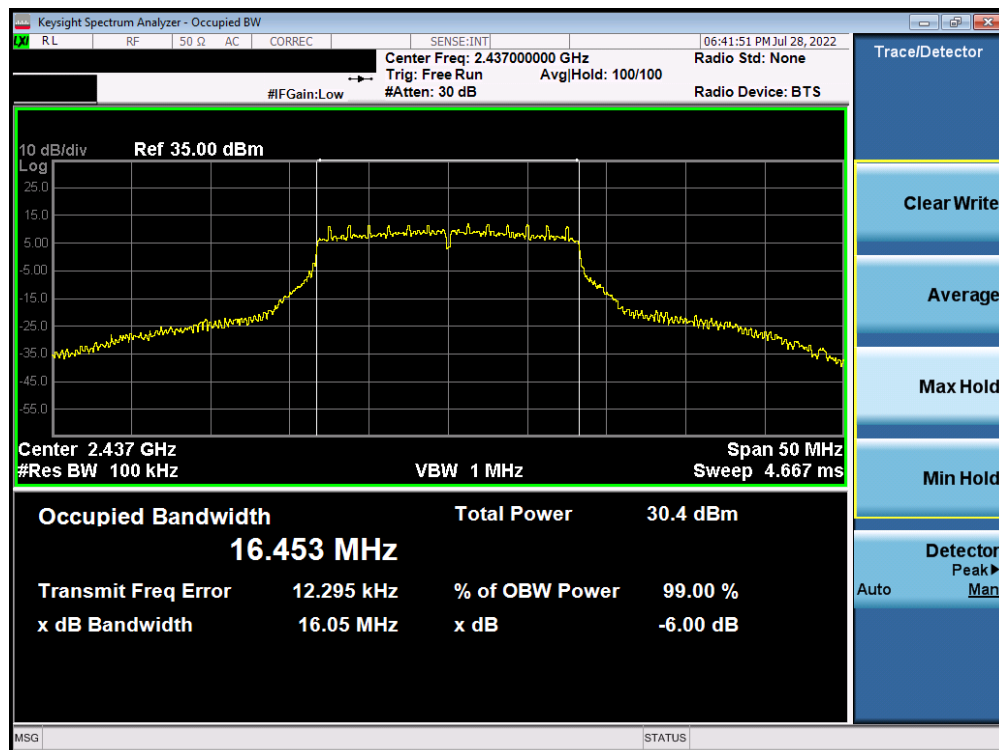
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## Low Data Rate



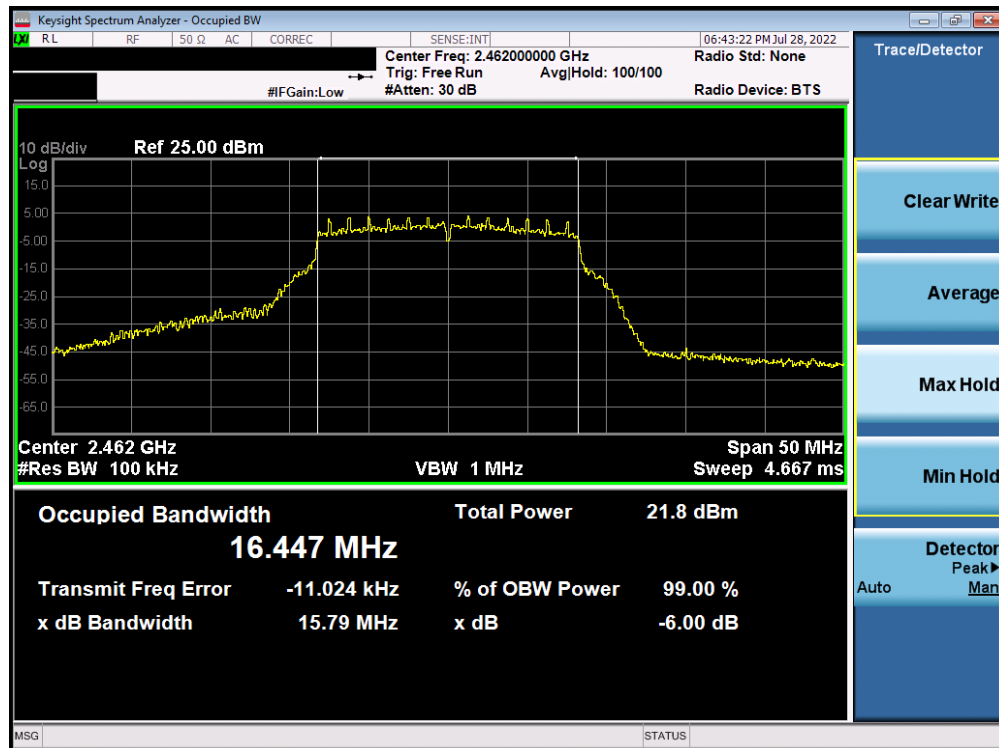
Plot 7-31. 6dB BW and 99% OBW Plot Antenna 1a (802.11g – Ch. 1) – 12Mbps



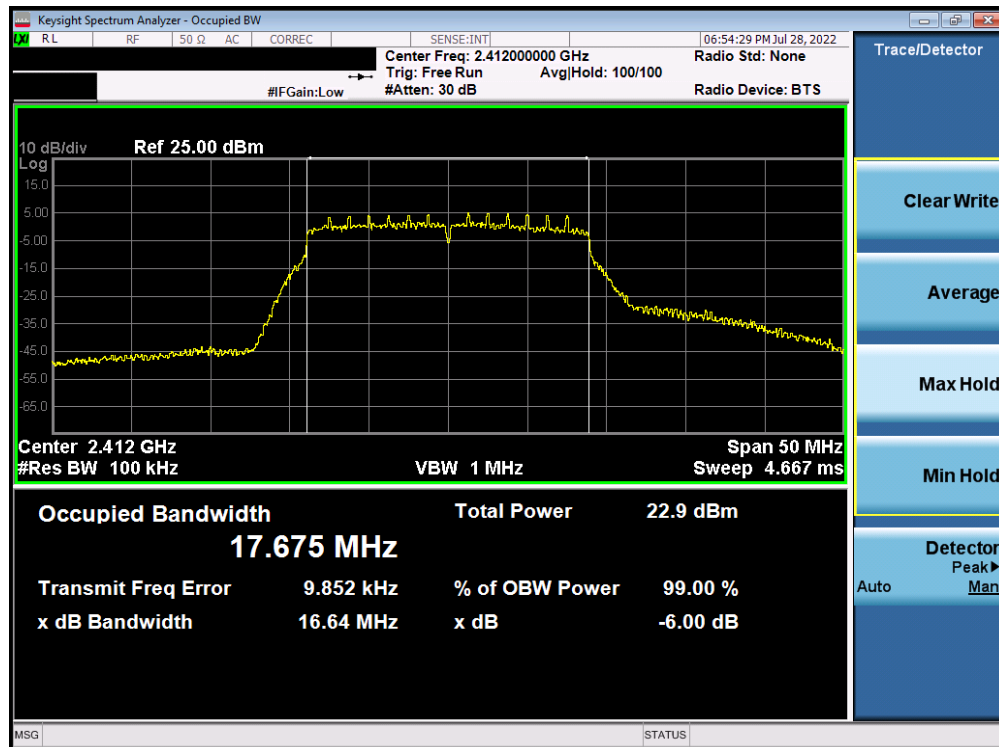
Plot 7-32. 6dB BW and 99% OBW Plot Antenna 1a (802.11g – Ch. 6) – 12Mbps

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
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V 10.5 12/15/2021



Plot 7-33. 6dB BW and 99% OBW Plot Antenna 1a (802.11g – Ch. 11) – 12Mbps

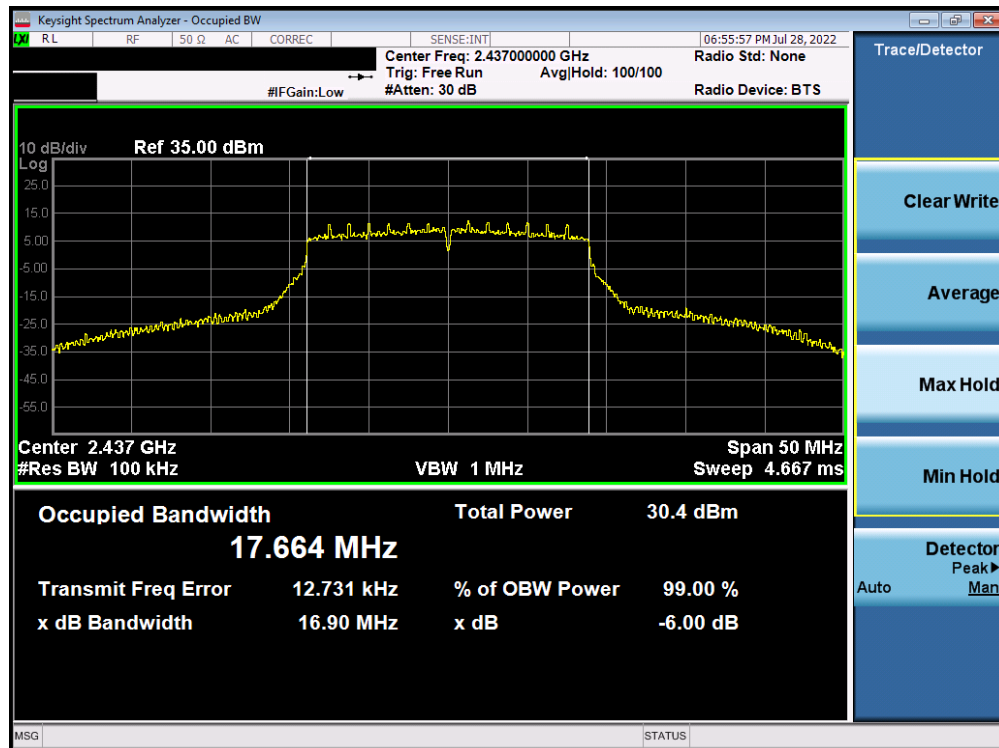


Plot 7-34. 6dB BW and 99% OBW Plot Antenna 1a (802.11n (2.4GHz) – Ch. 1) – MCS2

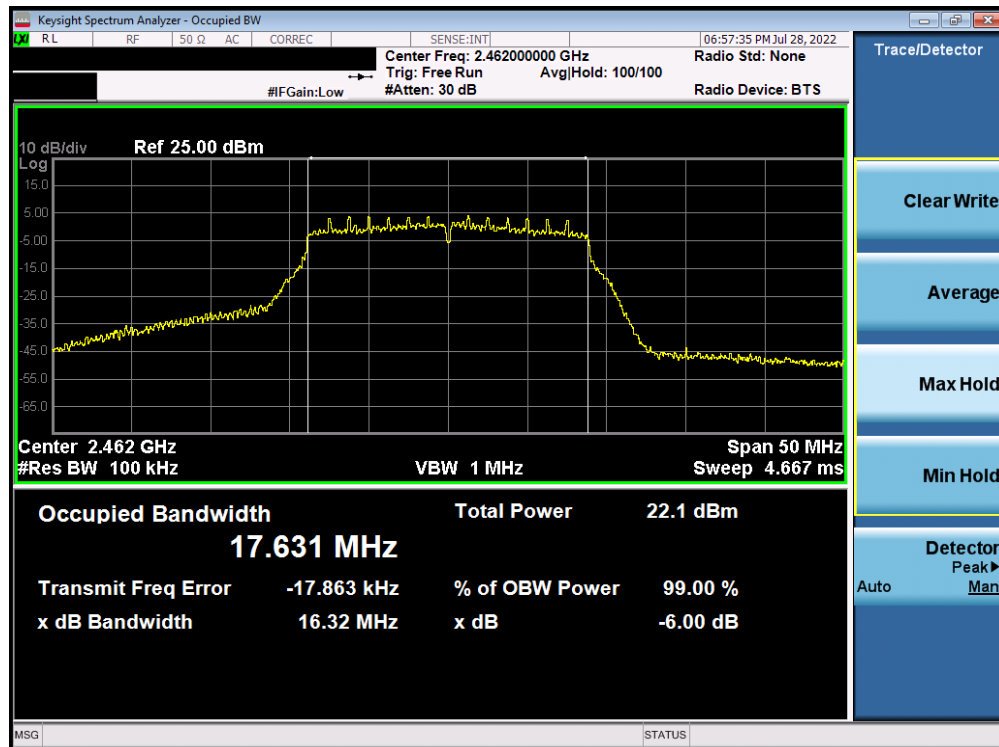
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
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V 10.5 12/15/2021





Plot 7-35. 6dB BW and 99% OBW Plot Antenna 1a (802.11n (2.4GHz) – Ch. 6) – MCS2

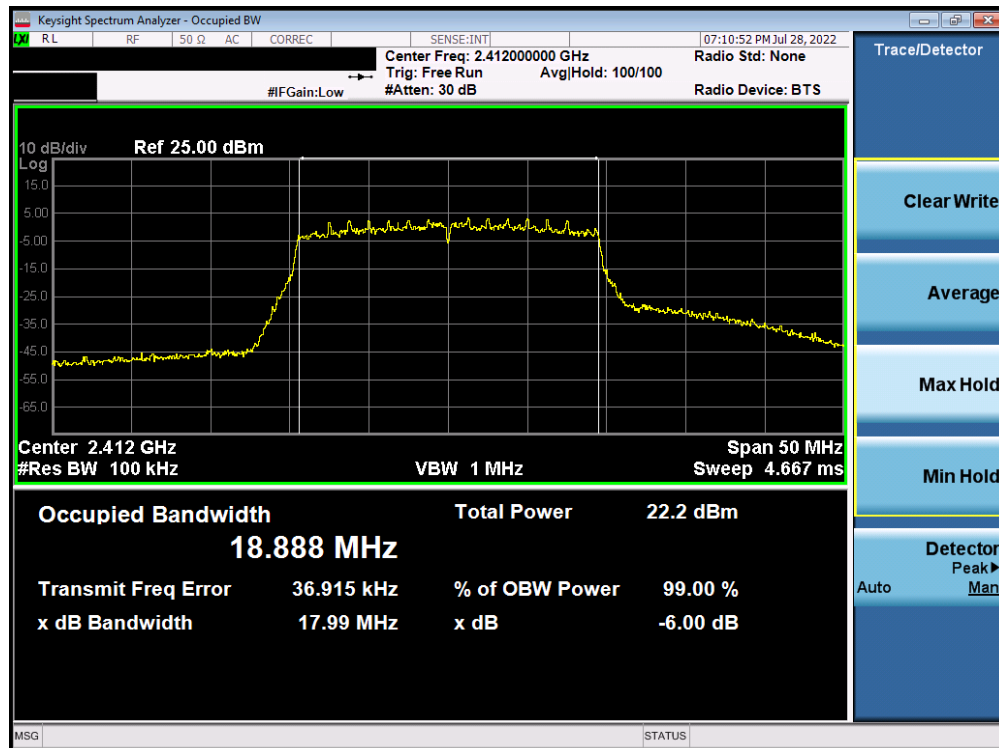


Plot 7-36. 6dB BW and 99% OBW Plot Antenna 1a (802.11n (2.4GHz) – Ch. 11) – MCS2

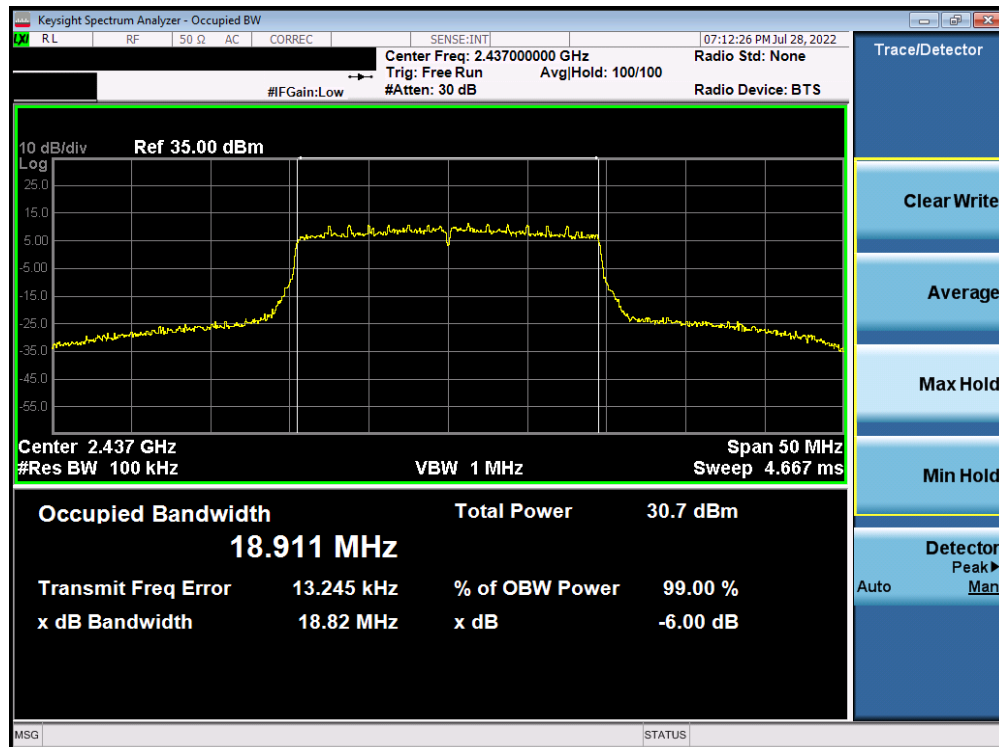
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
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V 10.5 12/15/2021

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Plot 7-37. 6dB BW and 99% OBW Plot Antenna 1a (802.11ax (SU - 2.4GHz) – Ch. 1) – MCS2

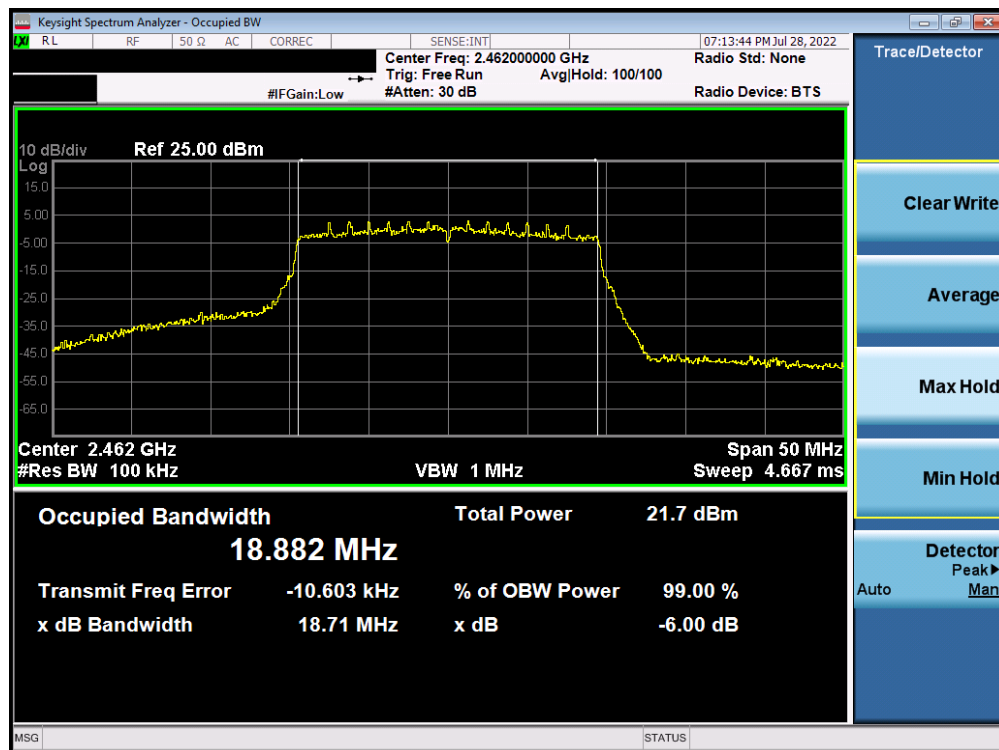


Plot 7-38. 6dB BW and 99% OBW Plot Antenna 1a (802.11ax (SU - 2.4GHz) – Ch. 6) – MCS2

|                                         |                                                                                     |                                       |                                   |
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V 10.5 12/15/2021

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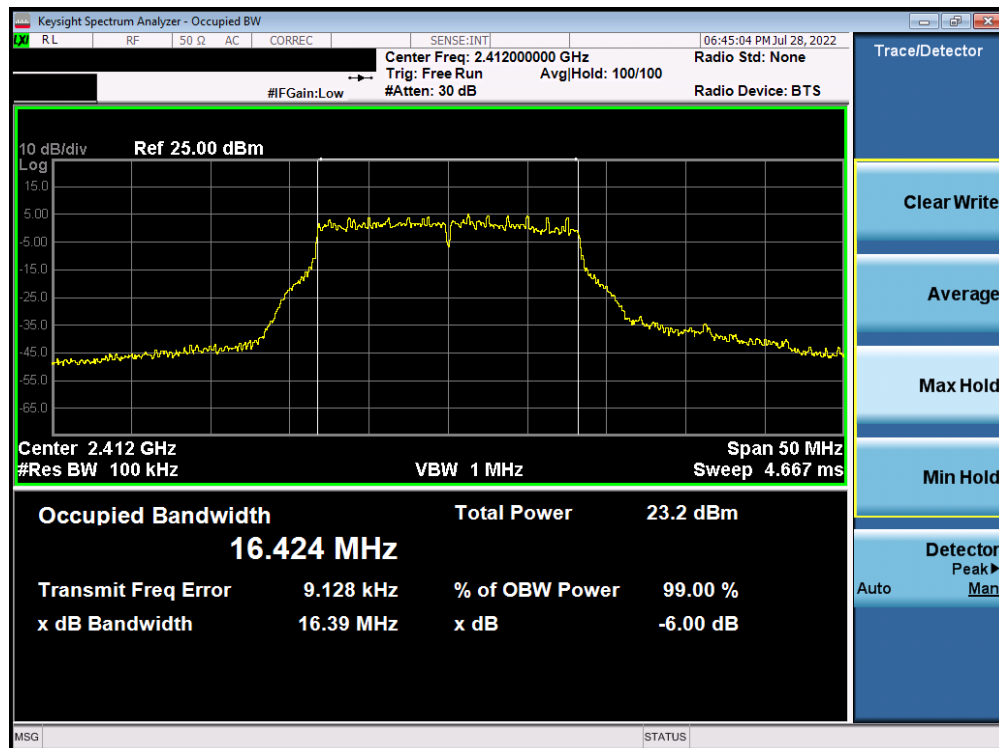


Plot 7-39. 6dB BW and 99% OBW Plot Antenna 1a (802. 11ax (SU - 2.4GHz) – Ch. 11) – MCS2

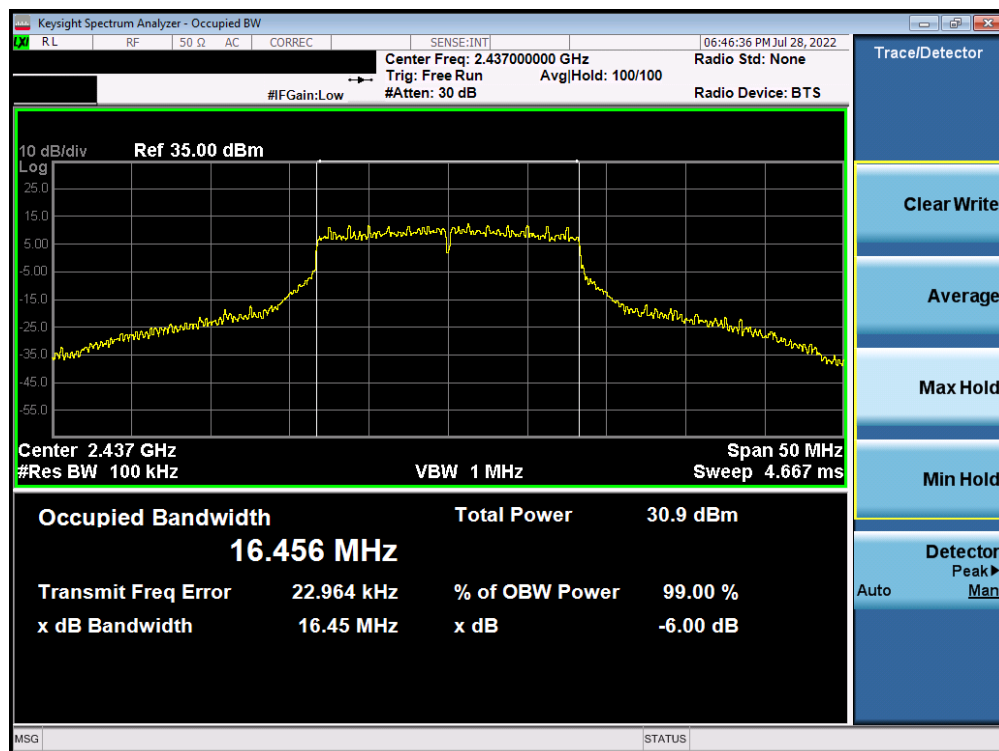
|                                         |                                                                                     |                                       |                                   |
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 43 of 440                    |

V 10.5 12/15/2021

## Mid Data Rate



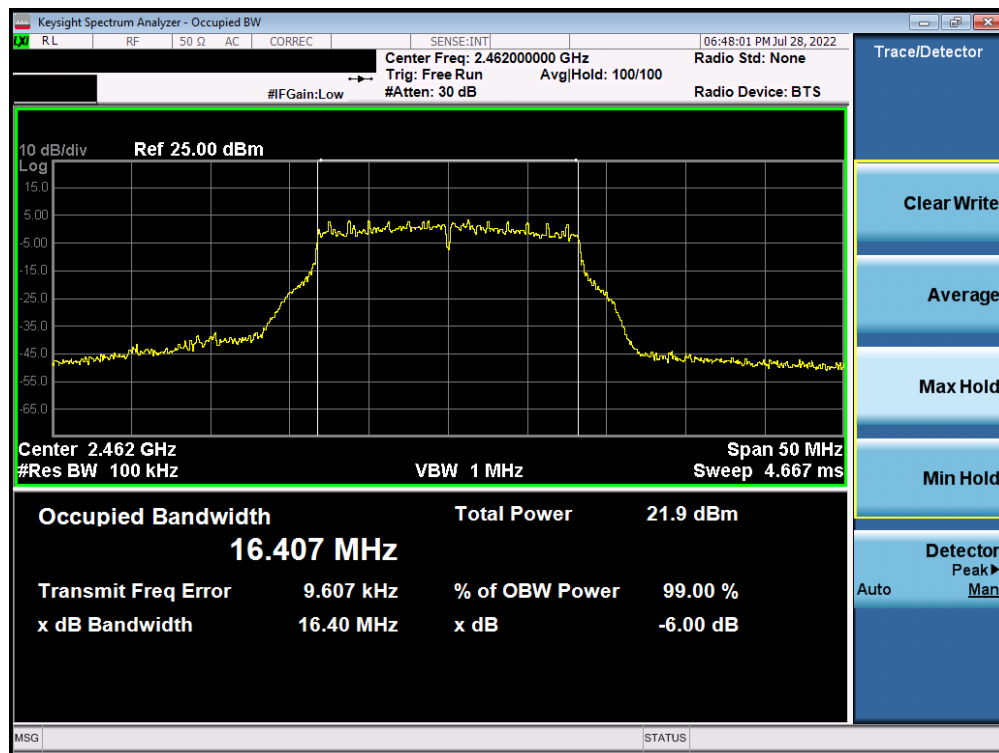
Plot 7-40. 6dB BW and 99% OBW Plot Antenna 1a (802.11g – Ch. 1) – 24Mbps



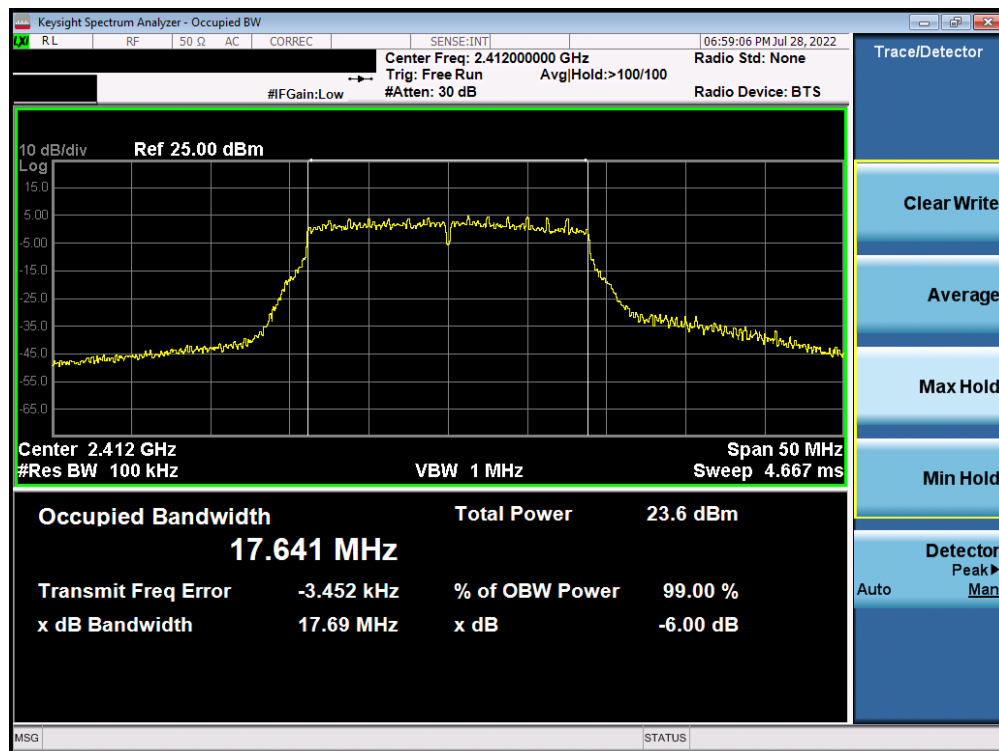
Plot 7-41. 6dB BW and 99% OBW Plot Antenna 1a (802.11g – Ch. 6) – 24Mbps

|                                         |                                                                                     |                                       |                                   |
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 44 of 440                    |

V 10.5 12/15/2021



Plot 7-42. 6dB BW and 99% OBW Plot Antenna 1a (802.11g – Ch. 11) – 24Mbps

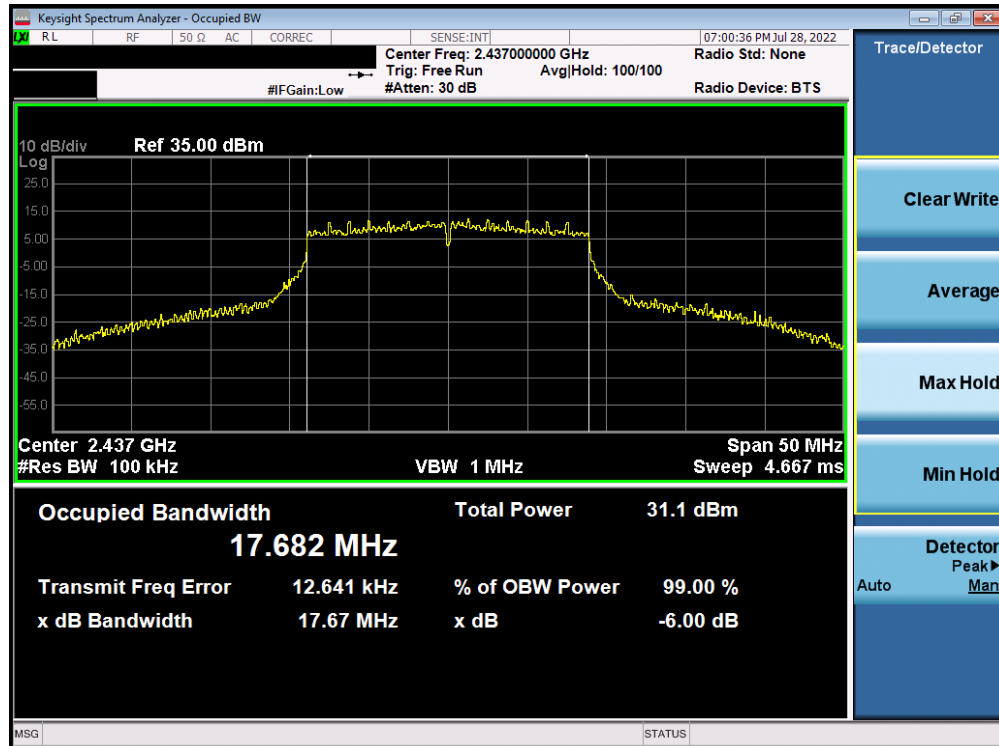


Plot 7-43. 6dB BW and 99% OBW Plot Antenna 1a (802.11n (2.4GHz) – Ch. 1) – MCS4

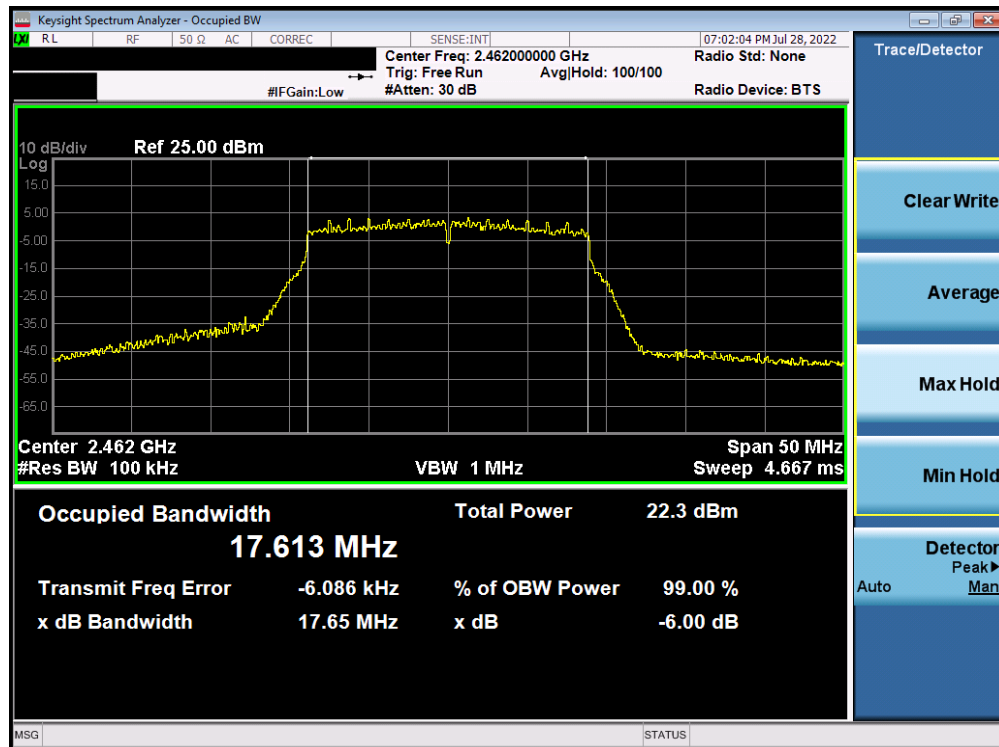
|                                         |                                                                                     |                                       |                                   |
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 45 of 440                    |

V 10.5 12/15/2021

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Plot 7-44. 6dB BW and 99% OBW Plot Antenna 1a (802.11n (2.4GHz) – Ch. 6) – MCS4

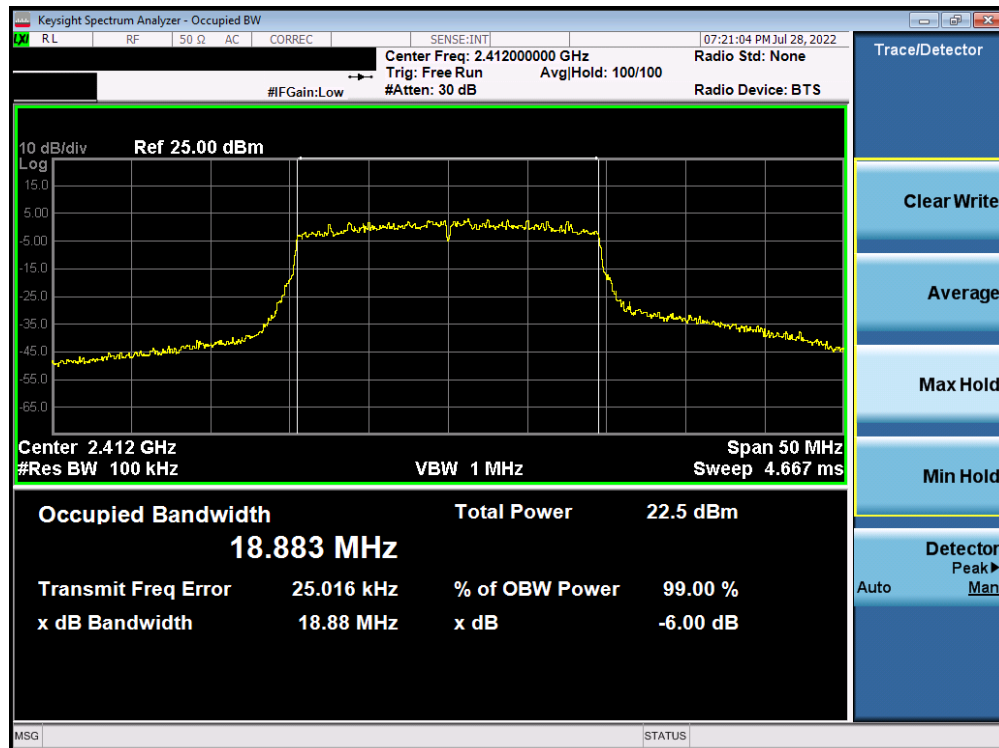


Plot 7-45. 6dB BW and 99% OBW Plot Antenna 1a (802.11n (2.4GHz) – Ch. 11) – MCS4

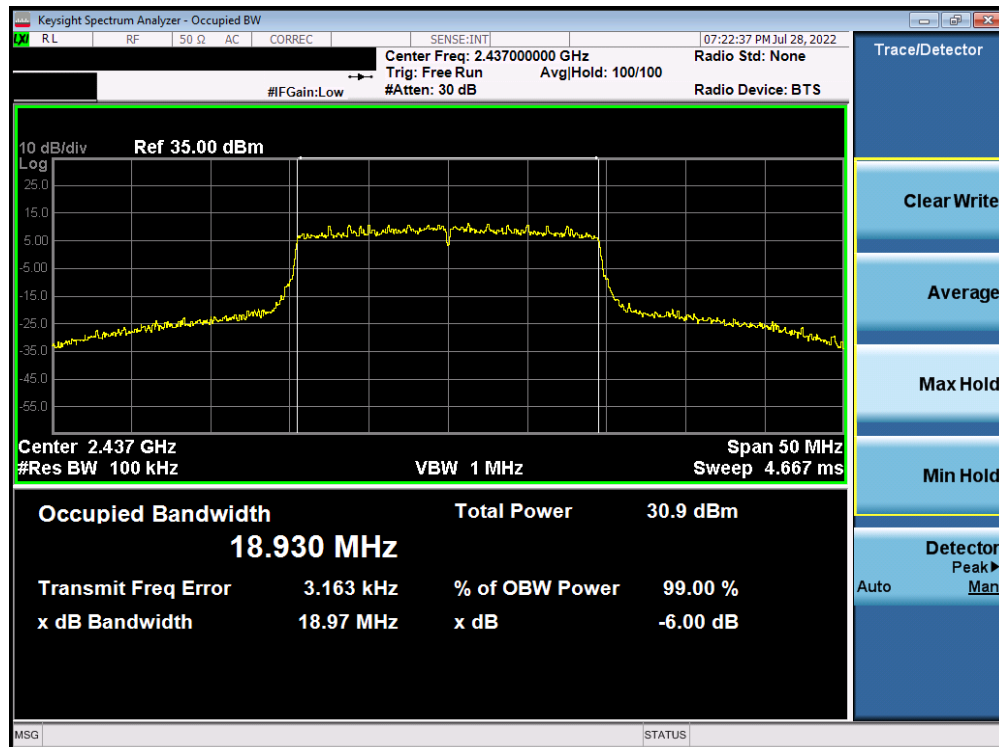
|                                         |                                                                                     |                                       |                                   |
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 46 of 440                    |

V 10.5 12/15/2021

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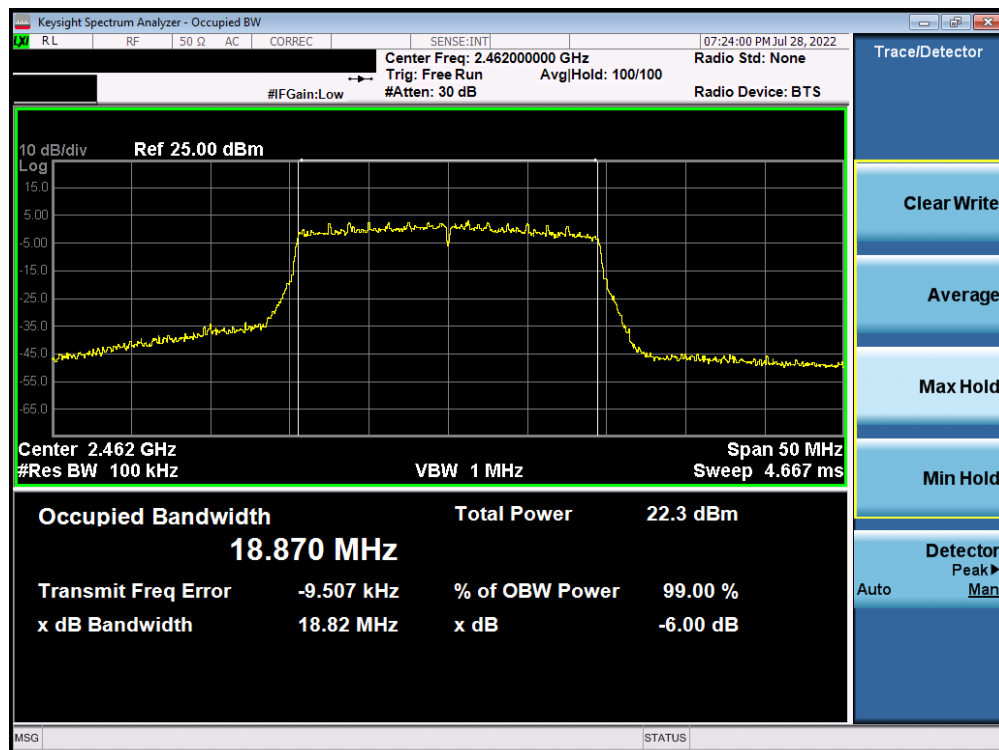
Plot 7-46. 6dB BW and 99% OBW Plot Antenna 1a (802.11ax (SU - 2.4GHz) – Ch. 1) – MCS4



Plot 7-47. 6dB BW and 99% OBW Plot Antenna 1a (802.11ax (SU - 2.4GHz) – Ch. 6) – MCS4

|                                         |                                                                                     |                                       |                                   |
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 47 of 440                    |

V 10.5 12/15/2021



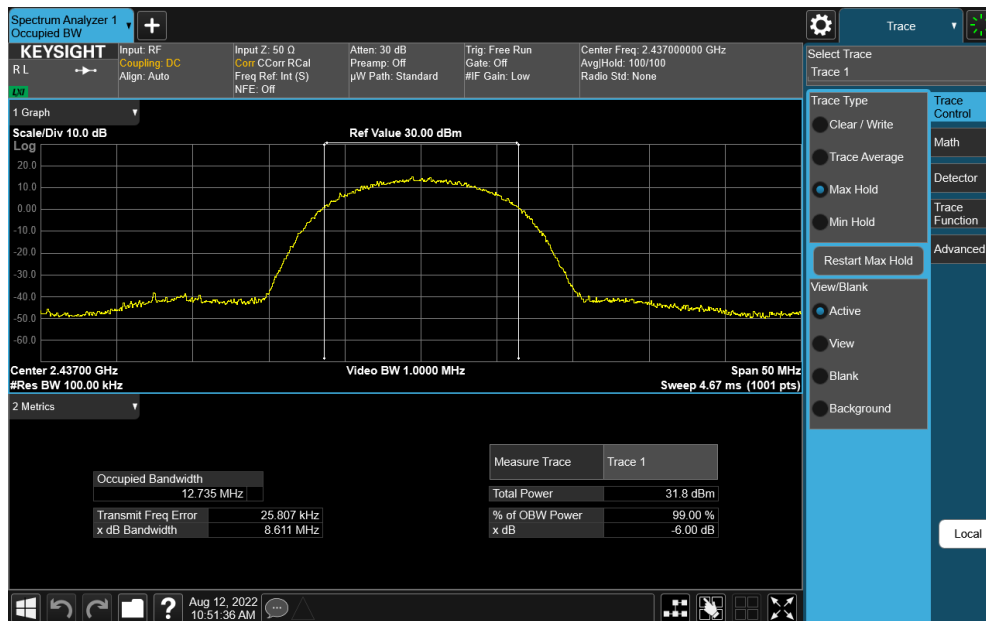
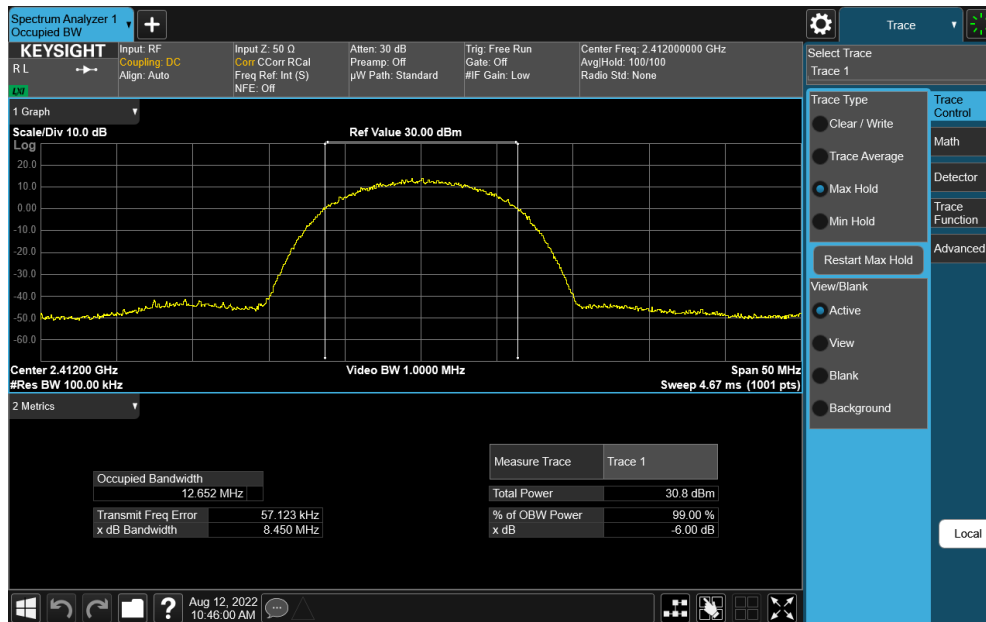
Plot 7-48. 6dB BW and 99% OBW Plot Antenna 1a (802. 11ax (SU - 2.4GHz) – Ch. 11) – MCS4

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
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V 10.5 12/15/2021



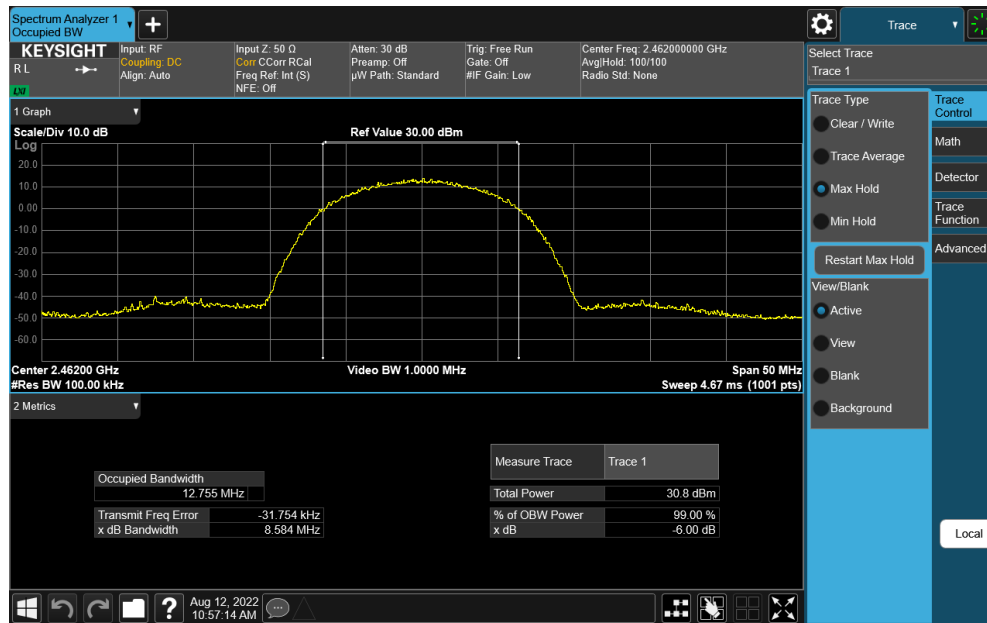
## High Data Rate



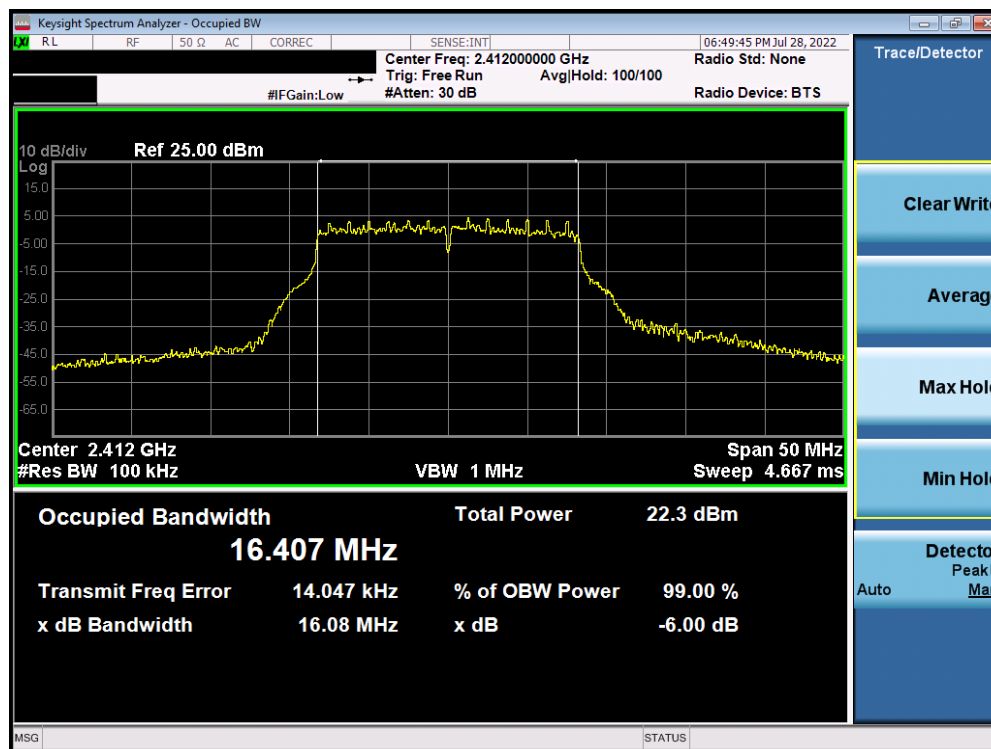
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|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 49 of 440                    |

V 10.5 12/15/2021

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Plot 7-51. 6dB BW and 99% OBW Plot Antenna 1a (802.11b – Ch. 11) – 11Mbps

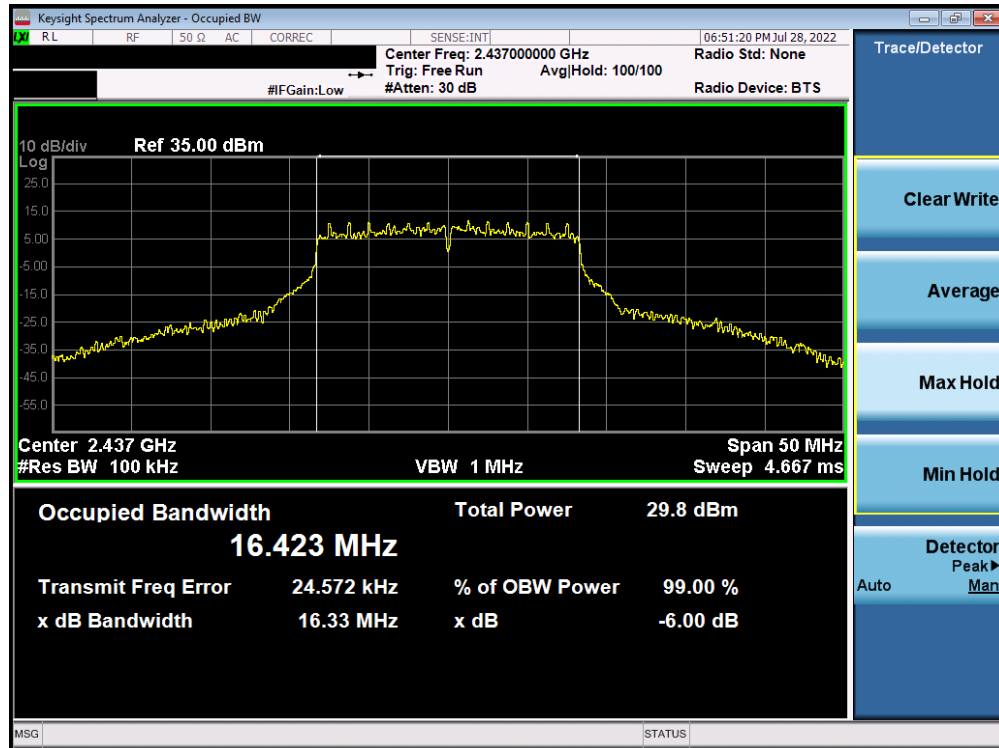


Plot 7-52. 6dB BW and 99% OBW Plot Antenna 1a (802.11g – Ch. 1) – 36Mbps

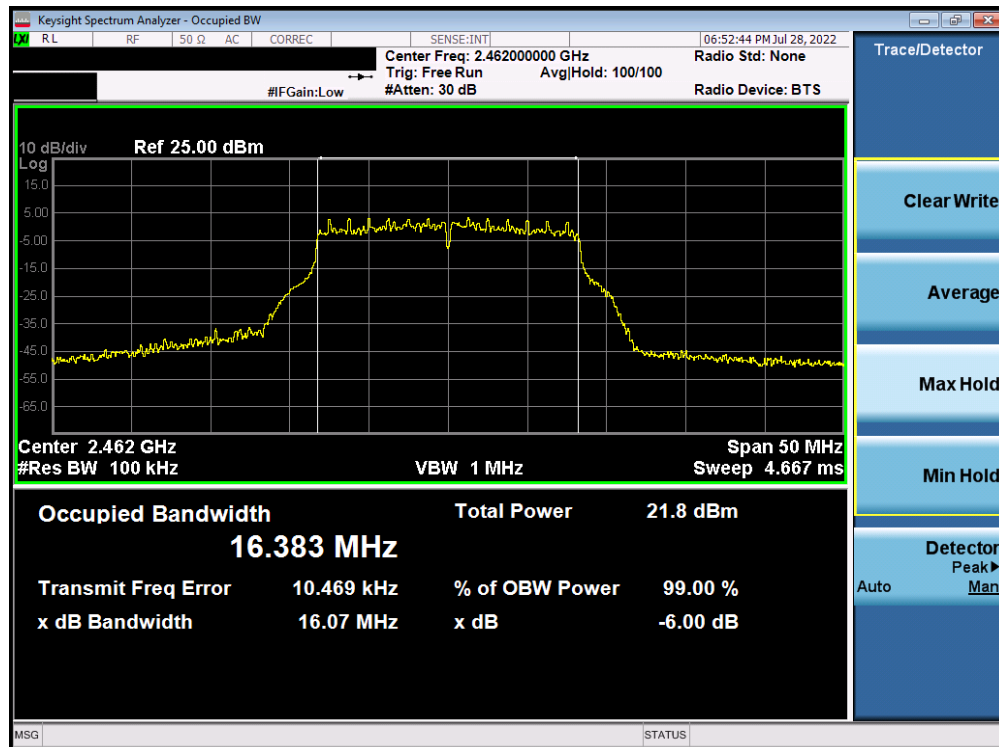
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|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 50 of 440                    |

V 10.5 12/15/2021

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Plot 7-53. 6dB BW and 99% OBW Plot Antenna 1a (802.11g – Ch. 6) – 36Mbps

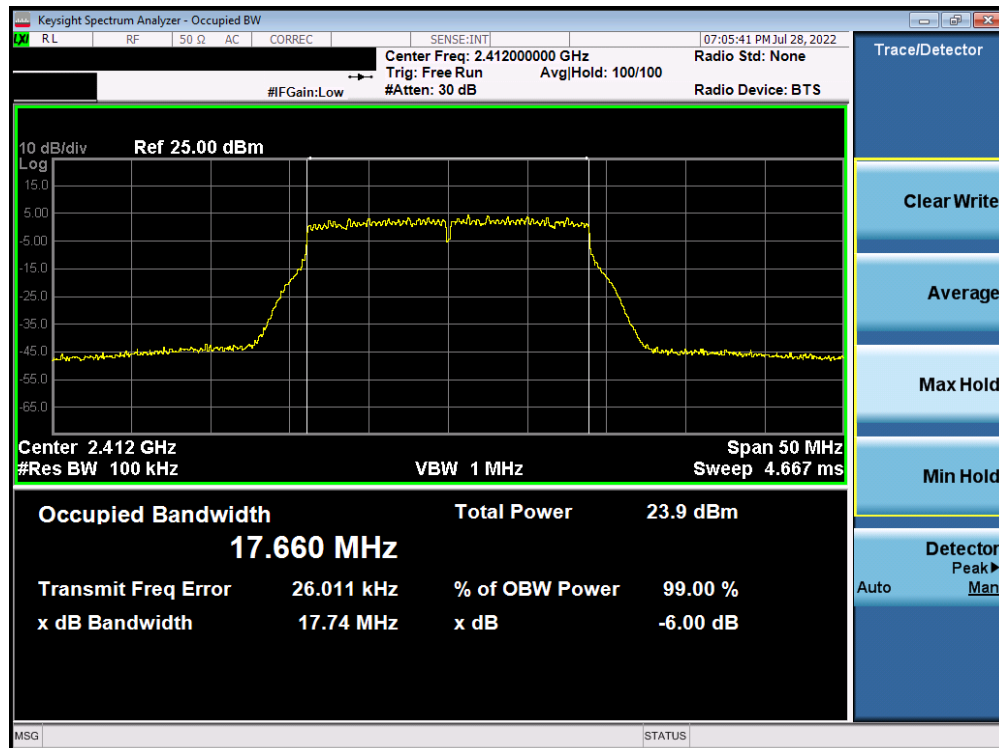


Plot 7-54. 6dB BW and 99% OBW Plot Antenna 1a (802.11g – Ch. 11) – 36Mbps

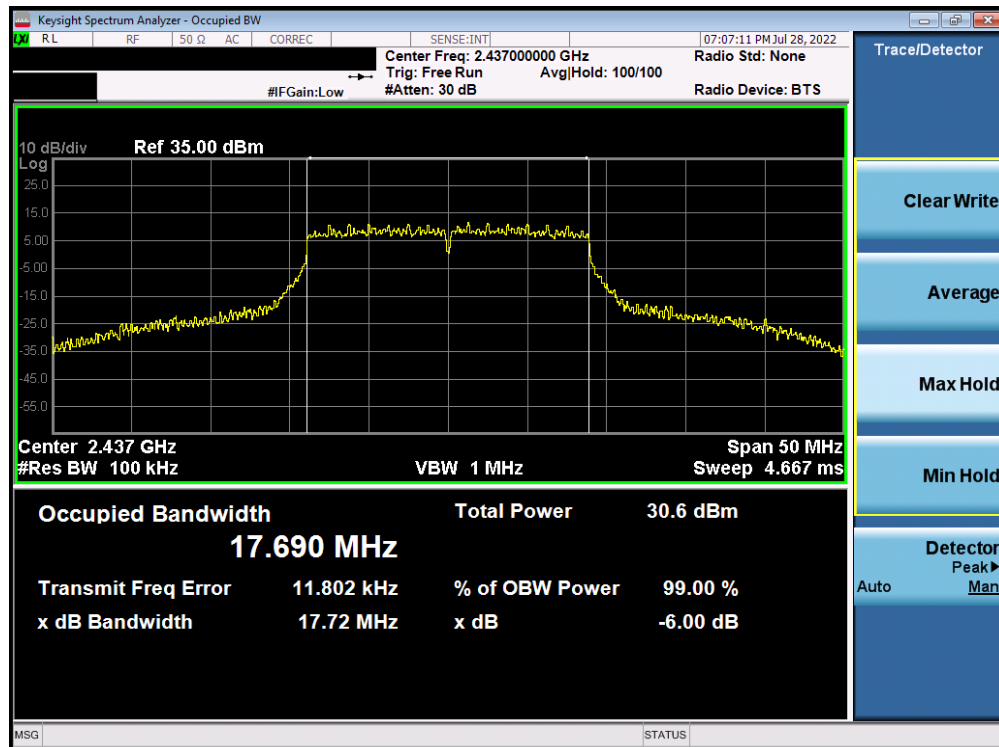
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 51 of 440                    |

V 10.5 12/15/2021

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Plot 7-55. 6dB BW and 99% OBW Plot Antenna 1a (802.11n (2.4GHz) – Ch. 1) – MCS5

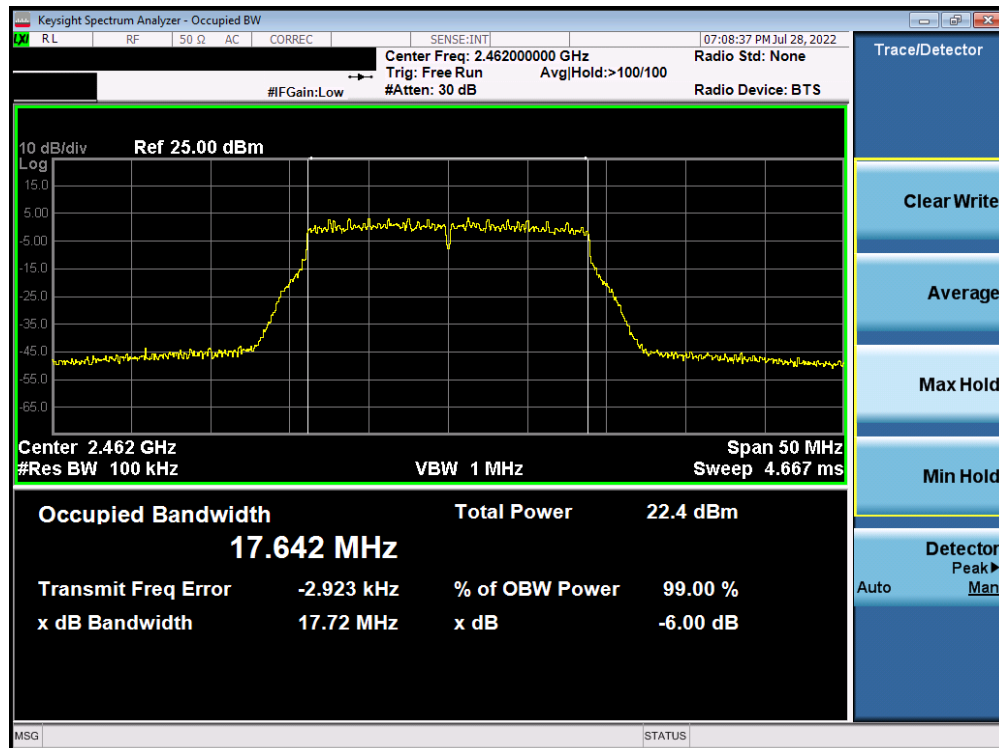


Plot 7-56. 6dB BW and 99% OBW Plot Antenna 1a (802.11n (2.4GHz) – Ch. 6) – MCS5

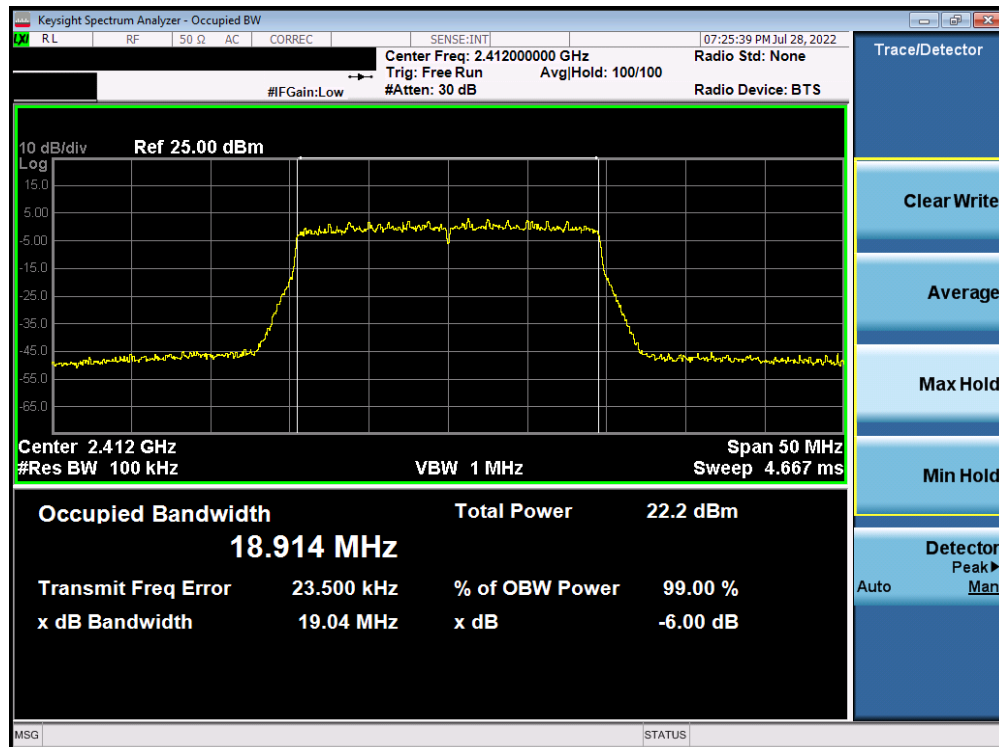
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 52 of 440                    |

V 10.5 12/15/2021

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Plot 7-57. 6dB BW and 99% OBW Plot Antenna 1a (802.11n (2.4GHz) – Ch. 11) – MCS5

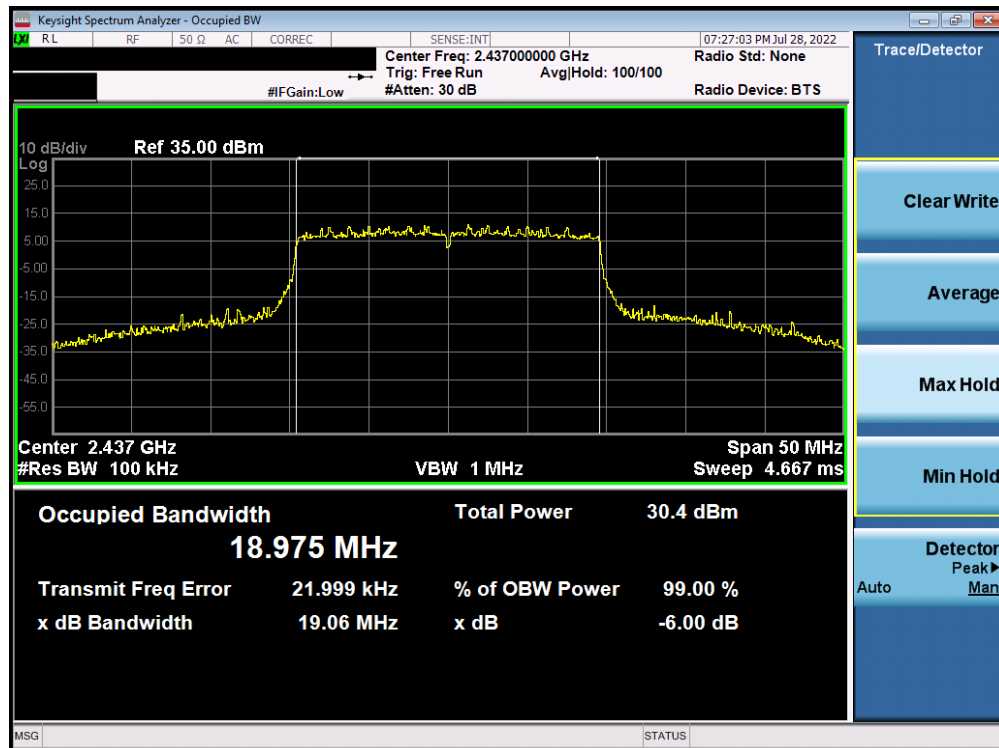


Plot 7-58. 6dB BW and 99% OBW Plot Antenna 1a (802.11ax (SU - 2.4GHz) – Ch. 1) – MCS5

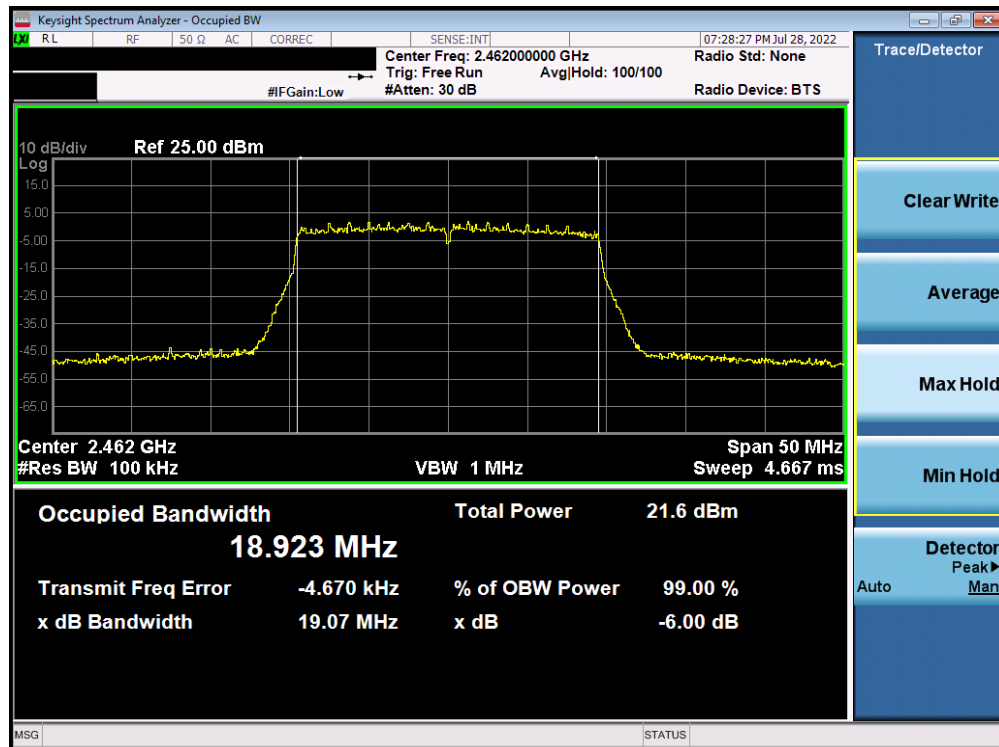
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 53 of 440                    |

V 10.5 12/15/2021

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Plot 7-59. 6dB BW and 99% OBW Plot Antenna 1a (802.11ax (SU - 2.4GHz) – Ch. 6) – MCS5



Plot 7-60. 6dB BW and 99% OBW Plot Antenna 1a (802.11ax (SU - 2.4GHz) – Ch. 11) – MCS5

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 54 of 440                    |

V 10.5 12/15/2021

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## 7.3 Output Power Measurement

**§15.247(b.3); RSS-247 [5.4]**

### **Test Overview and Limits**

A transmitter antenna terminal of EUT is connected to the input of an RF power sensor. Measurement is made using a broadband power meter capable of making peak and average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

***The maximum peak conducted output power of digital modulation systems operating in the 2400-2483.5 MHz band is 1 Watt.***

***The conducted output power limit on paragraph above is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.***

***For DTSSs employing digital modulation techniques operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W.***

### **Test Procedure Used**

ANSI C63.10-2013 – Subclause 11.9.1.3 PKPM1 Peak Power Method  
 KDB 558074 D01 v05r02 – Section 8.3.1.3 PKPM1 Peak-reading Power Meter Method  
 ANSI C63.10-2013 – Subclause 11.9.2.3.2 Method AVGPM-G  
 KDB 558074 D01 v05r02 – Section 8.3.2.3 Measurement using a Power Meter (PM)  
 ANSI C63.10-2013 – Subclause 14.2 Measure-and-Sum Technique  
 KDB 662911 D01 v02r01 – Section E)1) Measure-and-Sum Technique

### **Test Settings**

#### **Method PKPM1 (Peak Power Measurement)**

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

#### **Method AVGPM-G (Average Power Measurement)**

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

### **Test Setup**

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



**Figure 7-2. Test Instrument & Measurement Setup for Power Meter Measurements**

### **Test Notes**

1. 802.11ax does not support channel 13.

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
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| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 55 of 440                    |

V 10.5 12/15/2021

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### 7.3.1 Average Output Power Measurement

§15.247(b.3); RSS-247 [5.4]

#### Low Data Rate

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11g               | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | AVG      | 14.16                 | 14.09   | 13.43         | 30.00                       | -15.84                      | 2.30            | 16.46              | 36.02                    | -19.56               |
| 2417       | 2       | AVG      | 19.22                 | 19.17   | 17.75         | 30.00                       | -10.78                      | 2.30            | 21.52              | 36.02                    | -14.50               |
| 2422       | 3       | AVG      | 20.34                 | 20.24   | 19.93         | 30.00                       | -9.66                       | 2.30            | 22.64              | 36.02                    | -13.38               |
| 2427       | 4       | AVG      | 21.00                 | 20.94   | 20.50         | 30.00                       | -9.00                       | 2.30            | 23.30              | 36.02                    | -12.72               |
| 2432       | 5       | AVG      | 20.74                 | 20.98   | 20.96         | 30.00                       | -9.02                       | 2.30            | 23.28              | 36.02                    | -12.74               |
| 2437       | 6       | AVG      | 21.41                 | 21.42   | 20.81         | 30.00                       | -8.58                       | 2.30            | 23.72              | 36.02                    | -12.30               |
| 2442       | 7       | AVG      | 21.35                 | 21.31   | 20.80         | 30.00                       | -8.65                       | 2.30            | 23.65              | 36.02                    | -12.37               |
| 2447       | 8       | AVG      | 20.41                 | 20.34   | 19.85         | 30.00                       | -9.59                       | 2.30            | 22.71              | 36.02                    | -13.31               |
| 2452       | 9       | AVG      | 19.44                 | 19.27   | 19.25         | 30.00                       | -10.56                      | 2.30            | 21.74              | 36.02                    | -14.28               |
| 2457       | 10      | AVG      | 18.97                 | 19.24   | 17.74         | 30.00                       | -10.76                      | 2.30            | 21.54              | 36.02                    | -14.48               |
| 2462       | 11      | AVG      | 13.39                 | 13.47   | 13.00         | 30.00                       | -16.53                      | 2.30            | 15.77              | 36.02                    | -20.25               |
| 2467       | 12      | AVG      | 11.05                 | 11.13   | 11.13         | 30.00                       | -18.87                      | 2.30            | 13.43              | 36.02                    | -22.59               |
| 2472       | 13      | AVG      | 7.82                  | 7.73    | -             | 30.00                       | -22.18                      | 2.30            | 10.12              | 36.02                    | -25.90               |

**Table 7-8. Average Conducted Output Power Measurements Antenna 3a – Low Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11g               | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | AVG      | 14.19                 | 14.18   | 13.50         | 30.00                       | -15.81                      | 1.50            | 15.69              | 36.02                    | -20.33               |
| 2417       | 2       | AVG      | 19.24                 | 19.11   | 17.90         | 30.00                       | -10.76                      | 1.50            | 20.74              | 36.02                    | -15.28               |
| 2422       | 3       | AVG      | 20.46                 | 20.41   | 19.71         | 30.00                       | -9.54                       | 1.50            | 21.96              | 36.02                    | -14.06               |
| 2427       | 4       | AVG      | 21.00                 | 21.00   | 20.31         | 30.00                       | -9.00                       | 1.50            | 22.50              | 36.02                    | -13.52               |
| 2432       | 5       | AVG      | 21.00                 | 20.94   | 20.79         | 30.00                       | -9.00                       | 1.50            | 22.50              | 36.02                    | -13.52               |
| 2437       | 6       | AVG      | 21.36                 | 21.36   | 20.82         | 30.00                       | -8.64                       | 1.50            | 22.86              | 36.02                    | -13.16               |
| 2442       | 7       | AVG      | 21.49                 | 21.50   | 20.94         | 30.00                       | -8.50                       | 1.50            | 23.00              | 36.02                    | -13.02               |
| 2447       | 8       | AVG      | 20.50                 | 20.50   | 19.89         | 30.00                       | -9.50                       | 1.50            | 22.00              | 36.02                    | -14.02               |
| 2452       | 9       | AVG      | 19.30                 | 19.34   | 19.42         | 30.00                       | -10.58                      | 1.50            | 20.92              | 36.02                    | -15.10               |
| 2457       | 10      | AVG      | 19.09                 | 19.17   | 17.72         | 30.00                       | -10.83                      | 1.50            | 20.67              | 36.02                    | -15.35               |
| 2462       | 11      | AVG      | 13.30                 | 13.38   | 13.00         | 30.00                       | -16.62                      | 1.50            | 14.88              | 36.02                    | -21.14               |
| 2467       | 12      | AVG      | 11.18                 | 11.06   | 11.10         | 30.00                       | -18.82                      | 1.50            | 12.68              | 36.02                    | -23.34               |
| 2472       | 13      | AVG      | 7.73                  | 7.71    | -             | 30.00                       | -22.27                      | 1.50            | 9.23               | 36.02                    | -26.79               |

**Table 7-9. Average Conducted Output Power Measurements Antenna 1a – Low Data Rate**

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 56 of 440                    |

V 10.5 12/15/2021

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| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | AVG      | 13.94                 | 13.77      | 16.87  | 30.00                       | -13.13                      | 4.92                        | 21.79              | 36.02                    | -14.23               |
| 2417       | 2       | AVG      | 18.50                 | 18.48      | 21.50  | 30.00                       | -8.50                       | 4.92                        | 26.42              | 36.02                    | -9.60                |
| 2422       | 3       | AVG      | 19.80                 | 19.77      | 22.80  | 30.00                       | -7.20                       | 4.92                        | 27.72              | 36.02                    | -8.30                |
| 2427       | 4       | AVG      | 20.50                 | 20.32      | 23.42  | 30.00                       | -6.58                       | 4.92                        | 28.34              | 36.02                    | -7.68                |
| 2432       | 5       | AVG      | 20.99                 | 20.96      | 23.99  | 30.00                       | -6.01                       | 4.92                        | 28.91              | 36.02                    | -7.11                |
| 2437       | 6       | AVG      | 21.30                 | 21.33      | 24.33  | 30.00                       | -5.67                       | 4.92                        | 29.25              | 36.02                    | -6.77                |
| 2442       | 7       | AVG      | 20.95                 | 20.99      | 23.98  | 30.00                       | -6.02                       | 4.92                        | 28.90              | 36.02                    | -7.12                |
| 2447       | 8       | AVG      | 19.89                 | 19.75      | 22.83  | 30.00                       | -7.17                       | 4.92                        | 27.75              | 36.02                    | -8.27                |
| 2452       | 9       | AVG      | 19.46                 | 19.48      | 22.48  | 30.00                       | -7.52                       | 4.92                        | 27.40              | 36.02                    | -8.62                |
| 2457       | 10      | AVG      | 18.30                 | 18.33      | 21.33  | 30.00                       | -8.67                       | 4.92                        | 26.25              | 36.02                    | -9.77                |
| 2462       | 11      | AVG      | 12.86                 | 12.75      | 15.82  | 30.00                       | -14.18                      | 4.92                        | 20.74              | 36.02                    | -15.28               |
| 2467       | 12      | AVG      | 10.95                 | 10.89      | 13.93  | 30.00                       | -16.07                      | 4.92                        | 18.85              | 36.02                    | -17.17               |
| 2472       | 13      | AVG      | 7.43                  | 7.30       | 10.38  | 30.00                       | -19.62                      | 4.92                        | 15.30              | 36.02                    | -20.72               |

**Table 7-10. Average Conducted Output Power Measurements CDD (802.11g) – Low Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | AVG      | 13.96                 | 13.72      | 16.85  | 30.00                       | -13.15                      | 4.92                        | 21.77              | 36.02                    | -14.25               |
| 2417       | 2       | AVG      | 18.38                 | 18.28      | 21.34  | 30.00                       | -8.66                       | 4.92                        | 26.26              | 36.02                    | -9.76                |
| 2422       | 3       | AVG      | 20.00                 | 19.80      | 22.91  | 30.00                       | -7.09                       | 4.92                        | 27.83              | 36.02                    | -8.19                |
| 2427       | 4       | AVG      | 20.50                 | 20.38      | 23.45  | 30.00                       | -6.55                       | 4.92                        | 28.37              | 36.02                    | -7.65                |
| 2432       | 5       | AVG      | 20.78                 | 20.82      | 23.81  | 30.00                       | -6.19                       | 4.92                        | 28.73              | 36.02                    | -7.29                |
| 2437       | 6       | AVG      | 21.30                 | 21.26      | 24.29  | 30.00                       | -5.71                       | 4.92                        | 29.21              | 36.02                    | -6.81                |
| 2442       | 7       | AVG      | 20.79                 | 20.88      | 23.85  | 30.00                       | -6.15                       | 4.92                        | 28.77              | 36.02                    | -7.25                |
| 2447       | 8       | AVG      | 20.00                 | 19.95      | 22.99  | 30.00                       | -7.01                       | 4.92                        | 27.91              | 36.02                    | -8.11                |
| 2452       | 9       | AVG      | 19.32                 | 19.41      | 22.38  | 30.00                       | -7.62                       | 4.92                        | 27.30              | 36.02                    | -8.72                |
| 2457       | 10      | AVG      | 18.50                 | 18.45      | 21.49  | 30.00                       | -8.51                       | 4.92                        | 26.41              | 36.02                    | -9.61                |
| 2462       | 11      | AVG      | 12.97                 | 12.75      | 15.87  | 30.00                       | -14.13                      | 4.92                        | 20.79              | 36.02                    | -15.23               |
| 2467       | 12      | AVG      | 10.98                 | 11.00      | 14.00  | 30.00                       | -16.00                      | 4.92                        | 18.92              | 36.02                    | -17.10               |
| 2472       | 13      | AVG      | 7.49                  | 7.36       | 10.44  | 30.00                       | -19.56                      | 4.92                        | 15.36              | 36.02                    | -20.66               |

**Table 7-11. Average Conducted Output Power Measurements CDD (802.11n) – Low Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | AVG      | 12.80                 | 12.78      | 15.80  | 30.00                       | -14.20                      | 4.92                        | 20.72              | 36.02                    | -15.30               |
| 2417       | 2       | AVG      | 16.77                 | 16.87      | 19.83  | 30.00                       | -10.17                      | 4.92                        | 24.75              | 36.02                    | -11.27               |
| 2422       | 3       | AVG      | 19.50                 | 19.40      | 22.46  | 30.00                       | -7.54                       | 4.92                        | 27.38              | 36.02                    | -8.64                |
| 2427       | 4       | AVG      | 20.00                 | 19.75      | 22.89  | 30.00                       | -7.11                       | 4.92                        | 27.81              | 36.02                    | -8.21                |
| 2432       | 5       | AVG      | 20.43                 | 20.50      | 23.48  | 30.00                       | -6.52                       | 4.92                        | 28.40              | 36.02                    | -7.62                |
| 2437       | 6       | AVG      | 20.82                 | 20.98      | 23.91  | 30.00                       | -6.09                       | 4.92                        | 28.83              | 36.02                    | -7.19                |
| 2442       | 7       | AVG      | 20.42                 | 20.47      | 23.46  | 30.00                       | -6.54                       | 4.92                        | 28.38              | 36.02                    | -7.64                |
| 2447       | 8       | AVG      | 19.50                 | 19.38      | 22.45  | 30.00                       | -7.55                       | 4.92                        | 27.37              | 36.02                    | -8.65                |
| 2452       | 9       | AVG      | 18.96                 | 18.85      | 21.92  | 30.00                       | -8.08                       | 4.92                        | 26.84              | 36.02                    | -9.18                |
| 2457       | 10      | AVG      | 16.97                 | 16.86      | 19.93  | 30.00                       | -10.07                      | 4.92                        | 24.85              | 36.02                    | -11.17               |
| 2462       | 11      | AVG      | 12.87                 | 12.95      | 15.92  | 30.00                       | -14.08                      | 4.92                        | 20.84              | 36.02                    | -15.18               |
| 2467       | 12      | AVG      | 10.80                 | 10.90      | 13.86  | 30.00                       | -16.14                      | 4.92                        | 18.78              | 36.02                    | -17.24               |

**Table 7-12. Average Conducted Output Power Measurements CDD (802.11ax - SU) – Low Data Rate**

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 57 of 440                    |

## Mid Data Rate

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11g               | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | AVG      | 13.84                 | 13.88   | 12.76         | 30.00                       | -16.12                      | 2.30            | 16.18              | 36.02                    | -19.84               |
| 2417       | 2       | AVG      | 18.20                 | 18.38   | 16.73         | 30.00                       | -11.62                      | 2.30            | 20.68              | 36.02                    | -15.34               |
| 2422       | 3       | AVG      | 20.06                 | 20.06   | 18.77         | 30.00                       | -9.94                       | 2.30            | 22.36              | 36.02                    | -13.66               |
| 2427       | 4       | AVG      | 20.26                 | 20.44   | 19.86         | 30.00                       | -9.56                       | 2.30            | 22.74              | 36.02                    | -13.28               |
| 2432       | 5       | AVG      | 20.92                 | 20.95   | 20.32         | 30.00                       | -9.05                       | 2.30            | 23.25              | 36.02                    | -12.77               |
| 2437       | 6       | AVG      | 21.45                 | 21.31   | 20.90         | 30.00                       | -8.55                       | 2.30            | 23.75              | 36.02                    | -12.27               |
| 2442       | 7       | AVG      | 20.99                 | 20.84   | 20.37         | 30.00                       | -9.01                       | 2.30            | 23.29              | 36.02                    | -12.73               |
| 2447       | 8       | AVG      | 20.00                 | 20.00   | 19.41         | 30.00                       | -10.00                      | 2.30            | 22.30              | 36.02                    | -13.72               |
| 2452       | 9       | AVG      | 18.81                 | 18.89   | 18.87         | 30.00                       | -11.11                      | 2.30            | 21.19              | 36.02                    | -14.83               |
| 2457       | 10      | AVG      | 18.31                 | 18.42   | 17.46         | 30.00                       | -11.58                      | 2.30            | 20.72              | 36.02                    | -15.30               |
| 2462       | 11      | AVG      | 12.82                 | 13.00   | 12.50         | 30.00                       | -17.00                      | 2.30            | 15.30              | 36.02                    | -20.72               |
| 2467       | 12      | AVG      | 10.87                 | 10.81   | 11.00         | 30.00                       | -19.00                      | 2.30            | 13.30              | 36.02                    | -22.72               |
| 2472       | 13      | AVG      | 6.84                  | 6.87    | -             | 30.00                       | -23.13                      | 2.30            | 9.17               | 36.02                    | -26.85               |

**Table 7-13. Average Conducted Output Power Measurements Antenna 3a – Mid Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11g               | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | AVG      | 13.78                 | 13.79   | 12.77         | 30.00                       | -16.21                      | 1.50            | 15.29              | 36.02                    | -20.73               |
| 2417       | 2       | AVG      | 18.28                 | 18.39   | 16.89         | 30.00                       | -11.61                      | 1.50            | 19.89              | 36.02                    | -16.13               |
| 2422       | 3       | AVG      | 20.13                 | 20.24   | 18.99         | 30.00                       | -9.76                       | 1.50            | 21.74              | 36.02                    | -14.28               |
| 2427       | 4       | AVG      | 20.31                 | 20.42   | 19.82         | 30.00                       | -9.58                       | 1.50            | 21.92              | 36.02                    | -14.10               |
| 2432       | 5       | AVG      | 20.91                 | 20.71   | 20.32         | 30.00                       | -9.09                       | 1.50            | 22.41              | 36.02                    | -13.61               |
| 2437       | 6       | AVG      | 21.31                 | 21.36   | 20.85         | 30.00                       | -8.64                       | 1.50            | 22.86              | 36.02                    | -13.16               |
| 2442       | 7       | AVG      | 20.91                 | 20.99   | 20.44         | 30.00                       | -9.01                       | 1.50            | 22.49              | 36.02                    | -13.53               |
| 2447       | 8       | AVG      | 19.87                 | 19.74   | 19.45         | 30.00                       | -10.13                      | 1.50            | 21.37              | 36.02                    | -14.65               |
| 2452       | 9       | AVG      | 18.72                 | 18.79   | 18.94         | 30.00                       | -11.06                      | 1.50            | 20.44              | 36.02                    | -15.58               |
| 2457       | 10      | AVG      | 18.50                 | 18.50   | 17.32         | 30.00                       | -11.50                      | 1.50            | 20.00              | 36.02                    | -16.02               |
| 2462       | 11      | AVG      | 12.80                 | 12.89   | 12.46         | 30.00                       | -17.11                      | 1.50            | 14.39              | 36.02                    | -21.63               |
| 2467       | 12      | AVG      | 10.72                 | 10.78   | 10.88         | 30.00                       | -19.12                      | 1.50            | 12.38              | 36.02                    | -23.64               |
| 2472       | 13      | AVG      | 6.99                  | 6.74    | -             | 30.00                       | -23.01                      | 1.50            | 8.49               | 36.02                    | -27.53               |

**Table 7-14. Average Conducted Output Power Measurements Antenna 1a – Mid Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | AVG      | 13.45                 | 13.28      | 16.38  | 30.00                       | -13.62                      | 4.92                        | 21.30              | 36.02                    | -14.72               |
| 2417       | 2       | AVG      | 17.97                 | 17.91      | 20.95  | 30.00                       | -9.05                       | 4.92                        | 25.87              | 36.02                    | -10.15               |
| 2422       | 3       | AVG      | 19.42                 | 19.32      | 22.38  | 30.00                       | -7.62                       | 4.92                        | 27.30              | 36.02                    | -8.72                |
| 2427       | 4       | AVG      | 20.00                 | 19.90      | 22.96  | 30.00                       | -7.04                       | 4.92                        | 27.88              | 36.02                    | -8.14                |
| 2432       | 5       | AVG      | 20.39                 | 20.31      | 23.36  | 30.00                       | -6.64                       | 4.92                        | 28.28              | 36.02                    | -7.74                |
| 2437       | 6       | AVG      | 21.49                 | 21.42      | 24.47  | 30.00                       | -5.53                       | 4.92                        | 29.39              | 36.02                    | -6.63                |
| 2442       | 7       | AVG      | 20.98                 | 20.84      | 23.92  | 30.00                       | -6.08                       | 4.92                        | 28.84              | 36.02                    | -7.18                |
| 2447       | 8       | AVG      | 19.32                 | 19.49      | 22.42  | 30.00                       | -7.58                       | 4.92                        | 27.34              | 36.02                    | -8.68                |
| 2452       | 9       | AVG      | 18.85                 | 18.81      | 21.84  | 30.00                       | -8.16                       | 4.92                        | 26.76              | 36.02                    | -9.26                |
| 2457       | 10      | AVG      | 17.81                 | 17.94      | 20.89  | 30.00                       | -9.11                       | 4.92                        | 25.81              | 36.02                    | -10.21               |
| 2462       | 11      | AVG      | 12.99                 | 12.99      | 16.00  | 30.00                       | -14.00                      | 4.92                        | 20.92              | 36.02                    | -15.10               |
| 2467       | 12      | AVG      | 10.95                 | 10.98      | 13.98  | 30.00                       | -16.02                      | 4.92                        | 18.90              | 36.02                    | -17.12               |
| 2472       | 13      | AVG      | 6.84                  | 6.92       | 9.89   | 30.00                       | -20.11                      | 4.92                        | 14.81              | 36.02                    | -21.21               |

**Table 7-15. Average Conducted Output Power Measurements CDD (802.11g) – Mid Data Rate**

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 58 of 440                    |

V 10.5 12/15/2021

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| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | AVG      | 13.45                 | 13.42      | 16.45  | 30.00                       | -13.55                      | 4.92                        | 21.37              | 36.02                    | -14.65               |
| 2417       | 2       | AVG      | 17.73                 | 17.75      | 20.75  | 30.00                       | -9.25                       | 4.92                        | 25.67              | 36.02                    | -10.35               |
| 2422       | 3       | AVG      | 19.22                 | 19.21      | 22.23  | 30.00                       | -7.77                       | 4.92                        | 27.15              | 36.02                    | -8.87                |
| 2427       | 4       | AVG      | 19.91                 | 19.98      | 22.96  | 30.00                       | -7.04                       | 4.92                        | 27.88              | 36.02                    | -8.14                |
| 2432       | 5       | AVG      | 20.37                 | 20.41      | 23.40  | 30.00                       | -6.60                       | 4.92                        | 28.32              | 36.02                    | -7.70                |
| 2437       | 6       | AVG      | 21.47                 | 21.49      | 24.49  | 30.00                       | -5.51                       | 4.92                        | 29.41              | 36.02                    | -6.61                |
| 2442       | 7       | AVG      | 20.97                 | 20.96      | 23.98  | 30.00                       | -6.02                       | 4.92                        | 28.90              | 36.02                    | -7.12                |
| 2447       | 8       | AVG      | 19.42                 | 19.48      | 22.46  | 30.00                       | -7.54                       | 4.92                        | 27.38              | 36.02                    | -8.64                |
| 2452       | 9       | AVG      | 18.94                 | 18.97      | 21.97  | 30.00                       | -8.03                       | 4.92                        | 26.89              | 36.02                    | -9.13                |
| 2457       | 10      | AVG      | 17.86                 | 17.91      | 20.90  | 30.00                       | -9.10                       | 4.92                        | 25.82              | 36.02                    | -10.20               |
| 2462       | 11      | AVG      | 12.94                 | 12.78      | 15.87  | 30.00                       | -14.13                      | 4.92                        | 20.79              | 36.02                    | -15.23               |
| 2467       | 12      | AVG      | 10.87                 | 10.95      | 13.92  | 30.00                       | -16.08                      | 4.92                        | 18.84              | 36.02                    | -17.18               |
| 2472       | 13      | AVG      | 6.85                  | 6.98       | 9.93   | 30.00                       | -20.07                      | 4.92                        | 14.85              | 36.02                    | -21.17               |

**Table 7-16. Average Conducted Output Power Measurements CDD (802.11n) – Mid Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | AVG      | 12.30                 | 12.46      | 15.39  | 30.00                       | -14.61                      | 4.92                        | 20.31              | 36.02                    | -15.71               |
| 2417       | 2       | AVG      | 16.25                 | 16.43      | 19.35  | 30.00                       | -10.65                      | 4.92                        | 24.27              | 36.02                    | -11.75               |
| 2422       | 3       | AVG      | 18.43                 | 18.46      | 21.46  | 30.00                       | -8.54                       | 4.92                        | 26.38              | 36.02                    | -9.64                |
| 2427       | 4       | AVG      | 19.16                 | 19.21      | 22.20  | 30.00                       | -7.80                       | 4.92                        | 27.12              | 36.02                    | -8.90                |
| 2432       | 5       | AVG      | 20.00                 | 19.97      | 23.00  | 30.00                       | -7.00                       | 4.92                        | 27.92              | 36.02                    | -8.10                |
| 2437       | 6       | AVG      | 20.38                 | 20.45      | 23.43  | 30.00                       | -6.57                       | 4.92                        | 28.35              | 36.02                    | -7.67                |
| 2442       | 7       | AVG      | 20.39                 | 20.49      | 23.45  | 30.00                       | -6.55                       | 4.92                        | 28.37              | 36.02                    | -7.65                |
| 2447       | 8       | AVG      | 18.90                 | 18.83      | 21.88  | 30.00                       | -8.12                       | 4.92                        | 26.80              | 36.02                    | -9.22                |
| 2452       | 9       | AVG      | 18.31                 | 18.31      | 21.32  | 30.00                       | -8.68                       | 4.92                        | 26.24              | 36.02                    | -9.78                |
| 2457       | 10      | AVG      | 16.45                 | 16.30      | 19.39  | 30.00                       | -10.61                      | 4.92                        | 24.31              | 36.02                    | -11.71               |
| 2462       | 11      | AVG      | 12.36                 | 12.42      | 15.40  | 30.00                       | -14.60                      | 4.92                        | 20.32              | 36.02                    | -15.70               |
| 2467       | 12      | AVG      | 10.48                 | 10.41      | 13.46  | 30.00                       | -16.54                      | 4.92                        | 18.38              | 36.02                    | -17.64               |

**Table 7-17. Average Conducted Output Power Measurements CDD (802.11ax - SU) – Mid Data Rate**

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 59 of 440                    |

V 10.5 12/15/2021

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## High Data Rate

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11b               | 802.11g | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | AVG      | 21.38                 | 13.33   | 13.30   | 12.28         | 30.00                       | -8.62                       | 2.30            | 23.68              | 36.02                    | -12.34               |
| 2417       | 2       | AVG      | 21.89                 | 17.42   | 17.38   | 16.45         | 30.00                       | -8.11                       | 2.30            | 24.19              | 36.02                    | -11.83               |
| 2422       | 3       | AVG      | 22.90                 | 18.94   | 18.85   | 17.93         | 30.00                       | -7.10                       | 2.30            | 25.20              | 36.02                    | -10.82               |
| 2427       | 4       | AVG      | 22.80                 | 19.33   | 19.27   | 18.87         | 30.00                       | -7.20                       | 2.30            | 25.10              | 36.02                    | -10.92               |
| 2432       | 5       | AVG      | 22.91                 | 20.37   | 20.34   | 20.00         | 30.00                       | -7.09                       | 2.30            | 25.21              | 36.02                    | -10.81               |
| 2437       | 6       | AVG      | 22.80                 | 20.79   | 20.99   | 20.37         | 30.00                       | -7.20                       | 2.30            | 25.10              | 36.02                    | -10.92               |
| 2442       | 7       | AVG      | 22.69                 | 20.33   | 20.32   | 19.99         | 30.00                       | -7.31                       | 2.30            | 24.99              | 36.02                    | -11.03               |
| 2447       | 8       | AVG      | 22.95                 | 19.27   | 19.27   | 18.95         | 30.00                       | -7.05                       | 2.30            | 25.25              | 36.02                    | -10.77               |
| 2452       | 9       | AVG      | 22.43                 | 18.45   | 18.45   | 18.50         | 30.00                       | -7.57                       | 2.30            | 24.73              | 36.02                    | -11.29               |
| 2457       | 10      | AVG      | 21.86                 | 17.48   | 17.46   | 15.41         | 30.00                       | -8.14                       | 2.30            | 24.16              | 36.02                    | -11.86               |
| 2462       | 11      | AVG      | 20.99                 | 12.84   | 12.94   | 11.97         | 30.00                       | -9.01                       | 2.30            | 23.29              | 36.02                    | -12.73               |
| 2467       | 12      | AVG      | 17.81                 | 10.50   | 10.45   | 10.40         | 30.00                       | -12.19                      | 2.30            | 20.11              | 36.02                    | -15.91               |
| 2472       | 13      | AVG      | 16.45                 | 6.74    | 6.98    | -             | 30.00                       | -13.55                      | 2.30            | 18.75              | 36.02                    | -17.27               |

**Table 7-18. Average Conducted Output Power Measurements Antenna 3a – High Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11b               | 802.11g | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | AVG      | 21.28                 | 13.38   | 13.25   | 12.42         | 30.00                       | -8.72                       | 1.50            | 22.78              | 36.02                    | -13.24               |
| 2417       | 2       | AVG      | 21.86                 | 17.31   | 17.39   | 16.47         | 30.00                       | -8.14                       | 1.50            | 23.36              | 36.02                    | -12.66               |
| 2422       | 3       | AVG      | 22.92                 | 18.90   | 18.82   | 17.95         | 30.00                       | -7.08                       | 1.50            | 24.42              | 36.02                    | -11.60               |
| 2427       | 4       | AVG      | 22.82                 | 19.34   | 19.46   | 18.79         | 30.00                       | -7.18                       | 1.50            | 24.32              | 36.02                    | -11.70               |
| 2432       | 5       | AVG      | 22.94                 | 20.20   | 20.50   | 19.93         | 30.00                       | -7.06                       | 1.50            | 24.44              | 36.02                    | -11.58               |
| 2437       | 6       | AVG      | 22.84                 | 20.91   | 20.89   | 20.50         | 30.00                       | -7.16                       | 1.50            | 24.34              | 36.02                    | -11.68               |
| 2442       | 7       | AVG      | 22.78                 | 20.35   | 20.42   | 20.00         | 30.00                       | -7.22                       | 1.50            | 24.28              | 36.02                    | -11.74               |
| 2447       | 8       | AVG      | 22.85                 | 19.39   | 19.42   | 18.96         | 30.00                       | -7.15                       | 1.50            | 24.35              | 36.02                    | -11.67               |
| 2452       | 9       | AVG      | 22.21                 | 18.36   | 18.34   | 18.34         | 30.00                       | -7.79                       | 1.50            | 23.71              | 36.02                    | -12.31               |
| 2457       | 10      | AVG      | 21.83                 | 17.46   | 17.29   | 15.41         | 30.00                       | -8.17                       | 1.50            | 23.33              | 36.02                    | -12.69               |
| 2462       | 11      | AVG      | 20.78                 | 13.00   | 12.67   | 11.92         | 30.00                       | -9.22                       | 1.50            | 22.28              | 36.02                    | -13.74               |
| 2467       | 12      | AVG      | 17.88                 | 10.39   | 10.41   | 10.41         | 30.00                       | -12.12                      | 1.50            | 19.38              | 36.02                    | -16.64               |
| 2472       | 13      | AVG      | 16.37                 | 6.95    | 6.93    | -             | 30.00                       | -13.63                      | 1.50            | 17.87              | 36.02                    | -18.15               |

**Table 7-19. Average Conducted Output Power Measurements Antenna 1a – High Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | AVG      | 12.83                 | 12.76      | 15.81  | 30.00                       | -14.19                      | 4.92                        | 20.73              | 36.02                    | -15.29               |
| 2417       | 2       | AVG      | 17.50                 | 17.41      | 20.47  | 30.00                       | -9.53                       | 4.92                        | 25.39              | 36.02                    | -10.63               |
| 2422       | 3       | AVG      | 17.35                 | 17.34      | 20.36  | 30.00                       | -9.64                       | 4.92                        | 25.28              | 36.02                    | -10.74               |
| 2427       | 4       | AVG      | 19.47                 | 19.50      | 22.50  | 30.00                       | -7.50                       | 4.92                        | 27.42              | 36.02                    | -8.60                |
| 2432       | 5       | AVG      | 20.00                 | 20.00      | 23.01  | 30.00                       | -6.99                       | 4.92                        | 27.93              | 36.02                    | -8.09                |
| 2437       | 6       | AVG      | 20.36                 | 20.35      | 23.37  | 30.00                       | -6.63                       | 4.92                        | 28.29              | 36.02                    | -7.73                |
| 2442       | 7       | AVG      | 20.40                 | 20.35      | 23.39  | 30.00                       | -6.61                       | 4.92                        | 28.31              | 36.02                    | -7.71                |
| 2447       | 8       | AVG      | 18.88                 | 18.84      | 21.87  | 30.00                       | -8.13                       | 4.92                        | 26.79              | 36.02                    | -9.23                |
| 2452       | 9       | AVG      | 17.93                 | 17.91      | 20.93  | 30.00                       | -9.07                       | 4.92                        | 25.85              | 36.02                    | -10.17               |
| 2457       | 10      | AVG      | 16.93                 | 16.73      | 19.84  | 30.00                       | -10.16                      | 4.92                        | 24.76              | 36.02                    | -11.26               |
| 2462       | 11      | AVG      | 12.98                 | 13.00      | 16.00  | 30.00                       | -14.00                      | 4.92                        | 20.92              | 36.02                    | -15.10               |
| 2467       | 12      | AVG      | 10.28                 | 10.43      | 13.37  | 30.00                       | -16.63                      | 4.92                        | 18.29              | 36.02                    | -17.73               |
| 2472       | 13      | AVG      | 6.84                  | 6.90       | 9.88   | 30.00                       | -20.12                      | 4.92                        | 14.80              | 36.02                    | -21.22               |

**Table 7-20. Average Conducted Output Power Measurements CDD (802.11g) – High Data Rate**

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 60 of 440                    |

V 10.5 12/15/2021

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | AVG      | 12.90                 | 12.79      | 15.86  | 30.00                       | -14.14                      | 4.92                        | 20.78              | 36.02                    | -15.24               |
| 2417       | 2       | AVG      | 17.42                 | 17.36      | 20.40  | 30.00                       | -9.60                       | 4.92                        | 25.32              | 36.02                    | -10.70               |
| 2422       | 3       | AVG      | 17.38                 | 17.31      | 20.36  | 30.00                       | -9.64                       | 4.92                        | 25.28              | 36.02                    | -10.74               |
| 2427       | 4       | AVG      | 19.46                 | 19.37      | 22.43  | 30.00                       | -7.57                       | 4.92                        | 27.35              | 36.02                    | -8.67                |
| 2432       | 5       | AVG      | 19.90                 | 19.84      | 22.88  | 30.00                       | -7.12                       | 4.92                        | 27.80              | 36.02                    | -8.22                |
| 2437       | 6       | AVG      | 20.43                 | 20.35      | 23.40  | 30.00                       | -6.60                       | 4.92                        | 28.32              | 36.02                    | -7.70                |
| 2442       | 7       | AVG      | 20.41                 | 20.38      | 23.41  | 30.00                       | -6.59                       | 4.92                        | 28.33              | 36.02                    | -7.69                |
| 2447       | 8       | AVG      | 18.71                 | 18.90      | 21.82  | 30.00                       | -8.18                       | 4.92                        | 26.74              | 36.02                    | -9.28                |
| 2452       | 9       | AVG      | 17.93                 | 17.88      | 20.92  | 30.00                       | -9.08                       | 4.92                        | 25.84              | 36.02                    | -10.18               |
| 2457       | 10      | AVG      | 16.96                 | 16.91      | 19.95  | 30.00                       | -10.05                      | 4.92                        | 24.87              | 36.02                    | -11.15               |
| 2462       | 11      | AVG      | 12.88                 | 12.80      | 15.85  | 30.00                       | -14.15                      | 4.92                        | 20.77              | 36.02                    | -15.25               |
| 2467       | 12      | AVG      | 10.38                 | 10.45      | 13.43  | 30.00                       | -16.57                      | 4.92                        | 18.35              | 36.02                    | -17.67               |
| 2472       | 13      | AVG      | 6.99                  | 6.70       | 9.86   | 30.00                       | -20.14                      | 4.92                        | 14.78              | 36.02                    | -21.24               |

**Table 7-21. Average Conducted Output Power Measurements CDD (802.11n) – High Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | AVG      | 12.47                 | 12.30      | 15.40  | 30.00                       | -14.60                      | 4.92                        | 20.32              | 36.02                    | -15.70               |
| 2417       | 2       | AVG      | 15.76                 | 15.75      | 18.77  | 30.00                       | -11.23                      | 4.92                        | 23.69              | 36.02                    | -12.33               |
| 2422       | 3       | AVG      | 17.48                 | 17.33      | 20.42  | 30.00                       | -9.58                       | 4.92                        | 25.34              | 36.02                    | -10.68               |
| 2427       | 4       | AVG      | 18.42                 | 18.25      | 21.35  | 30.00                       | -8.65                       | 4.92                        | 26.27              | 36.02                    | -9.75                |
| 2432       | 5       | AVG      | 19.50                 | 19.28      | 22.40  | 30.00                       | -7.60                       | 4.92                        | 27.32              | 36.02                    | -8.70                |
| 2437       | 6       | AVG      | 19.80                 | 19.75      | 22.79  | 30.00                       | -7.21                       | 4.92                        | 27.71              | 36.02                    | -8.31                |
| 2442       | 7       | AVG      | 19.88                 | 19.82      | 22.86  | 30.00                       | -7.14                       | 4.92                        | 27.78              | 36.02                    | -8.24                |
| 2447       | 8       | AVG      | 18.40                 | 18.44      | 21.43  | 30.00                       | -8.57                       | 4.92                        | 26.35              | 36.02                    | -9.67                |
| 2452       | 9       | AVG      | 18.00                 | 17.97      | 21.00  | 30.00                       | -9.00                       | 4.92                        | 25.92              | 36.02                    | -10.10               |
| 2457       | 10      | AVG      | 15.38                 | 15.25      | 18.33  | 30.00                       | -11.67                      | 4.92                        | 23.25              | 36.02                    | -12.77               |
| 2462       | 11      | AVG      | 12.00                 | 11.99      | 15.01  | 30.00                       | -14.99                      | 4.92                        | 19.93              | 36.02                    | -16.09               |
| 2467       | 12      | AVG      | 9.97                  | 9.82       | 12.91  | 30.00                       | -17.09                      | 4.92                        | 17.83              | 36.02                    | -18.19               |

**Table 7-22. Average Conducted Output Power Measurements CDD (802.11ax - SU) – High Data Rate**

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 61 of 440                    |

V 10.5 12/15/2021

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## 7.3.2 Peak Output Power Measurement

§15.247(b.3); RSS-247 [5.4]

### Low Data Rate

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11g               | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | PEAK     | 18.72                 | 18.62   | 17.71         | 30.00                       | -11.28                      | 2.30            | 21.02              | 36.02                    | -15.00               |
| 2417       | 2       | PEAK     | 23.38                 | 23.40   | 22.00         | 30.00                       | -6.60                       | 2.30            | 25.70              | 36.02                    | -10.32               |
| 2422       | 3       | PEAK     | 24.37                 | 24.41   | 23.98         | 30.00                       | -5.59                       | 2.30            | 26.71              | 36.02                    | -9.31                |
| 2427       | 4       | PEAK     | 26.44                 | 26.60   | 26.28         | 30.00                       | -3.40                       | 2.30            | 28.90              | 36.02                    | -7.12                |
| 2432       | 5       | PEAK     | 26.24                 | 26.60   | 26.50         | 30.00                       | -3.40                       | 2.30            | 28.90              | 36.02                    | -7.12                |
| 2437       | 6       | PEAK     | 26.49                 | 26.78   | 26.43         | 30.00                       | -3.22                       | 2.30            | 29.08              | 36.02                    | -6.94                |
| 2442       | 7       | PEAK     | 26.45                 | 26.68   | 26.36         | 30.00                       | -3.32                       | 2.30            | 28.98              | 36.02                    | -7.04                |
| 2447       | 8       | PEAK     | 25.92                 | 26.13   | 25.76         | 30.00                       | -3.87                       | 2.30            | 28.43              | 36.02                    | -7.59                |
| 2452       | 9       | PEAK     | 23.51                 | 23.46   | 23.38         | 30.00                       | -6.49                       | 2.30            | 25.81              | 36.02                    | -10.21               |
| 2457       | 10      | PEAK     | 23.09                 | 23.42   | 21.91         | 30.00                       | -6.58                       | 2.30            | 25.72              | 36.02                    | -10.30               |
| 2462       | 11      | PEAK     | 17.80                 | 17.90   | 17.48         | 30.00                       | -12.10                      | 2.30            | 20.20              | 36.02                    | -15.82               |
| 2467       | 12      | PEAK     | 15.60                 | 15.72   | 15.78         | 30.00                       | -14.22                      | 2.30            | 18.08              | 36.02                    | -17.94               |
| 2472       | 13      | PEAK     | 14.80                 | 14.67   | -             | 30.00                       | -15.20                      | 2.30            | 17.10              | 36.02                    | -18.92               |

**Table 7-23. Peak Conducted Output Power Measurements Antenna 3a – Low Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11g               | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | PEAK     | 18.74                 | 18.76   | 17.76         | 30.00                       | -11.24                      | 1.50            | 20.26              | 36.02                    | -15.76               |
| 2417       | 2       | PEAK     | 23.40                 | 23.37   | 22.23         | 30.00                       | -6.60                       | 1.50            | 24.90              | 36.02                    | -11.12               |
| 2422       | 3       | PEAK     | 24.51                 | 24.45   | 23.85         | 30.00                       | -5.49                       | 1.50            | 26.01              | 36.02                    | -10.01               |
| 2427       | 4       | PEAK     | 26.30                 | 26.56   | 26.09         | 30.00                       | -3.44                       | 1.50            | 28.06              | 36.02                    | -7.96                |
| 2432       | 5       | PEAK     | 26.22                 | 26.47   | 26.34         | 30.00                       | -3.53                       | 1.50            | 27.97              | 36.02                    | -8.05                |
| 2437       | 6       | PEAK     | 26.23                 | 26.43   | 26.35         | 30.00                       | -3.57                       | 1.50            | 27.93              | 36.02                    | -8.09                |
| 2442       | 7       | PEAK     | 26.39                 | 26.51   | 26.42         | 30.00                       | -3.49                       | 1.50            | 28.01              | 36.02                    | -8.01                |
| 2447       | 8       | PEAK     | 26.09                 | 26.30   | 25.88         | 30.00                       | -3.70                       | 1.50            | 27.80              | 36.02                    | -8.22                |
| 2452       | 9       | PEAK     | 23.34                 | 23.49   | 23.49         | 30.00                       | -6.51                       | 1.50            | 24.99              | 36.02                    | -11.03               |
| 2457       | 10      | PEAK     | 23.24                 | 23.40   | 21.99         | 30.00                       | -6.60                       | 1.50            | 24.90              | 36.02                    | -11.12               |
| 2462       | 11      | PEAK     | 17.70                 | 17.93   | 17.50         | 30.00                       | -12.07                      | 1.50            | 19.43              | 36.02                    | -16.59               |
| 2467       | 12      | PEAK     | 15.87                 | 15.64   | 15.74         | 30.00                       | -14.13                      | 1.50            | 17.37              | 36.02                    | -18.65               |
| 2472       | 13      | PEAK     | 14.86                 | 14.82   | -             | 30.00                       | -15.14                      | 1.50            | 16.36              | 36.02                    | -19.66               |

**Table 7-24. Peak Conducted Output Power Measurements Antenna 1a – Low Data Rate**

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 62 of 440                    |

V 10.5 12/15/2021

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| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | PEAK     | 18.66                 | 18.44      | 21.56  | 30.00                       | -8.44                       | 4.92                        | 26.48              | 36.02                    | -9.54                |
| 2417       | 2       | PEAK     | 22.92                 | 22.87      | 25.91  | 30.00                       | -4.09                       | 4.92                        | 30.83              | 36.02                    | -5.19                |
| 2422       | 3       | PEAK     | 24.08                 | 23.97      | 27.04  | 30.00                       | -2.96                       | 4.92                        | 31.96              | 36.02                    | -4.06                |
| 2427       | 4       | PEAK     | 25.50                 | 25.16      | 28.34  | 30.00                       | -1.66                       | 4.92                        | 33.26              | 36.02                    | -2.76                |
| 2432       | 5       | PEAK     | 25.82                 | 25.45      | 28.65  | 30.00                       | -1.35                       | 4.92                        | 33.57              | 36.02                    | -2.45                |
| 2437       | 6       | PEAK     | 25.91                 | 25.65      | 28.79  | 30.00                       | -1.21                       | 4.92                        | 33.71              | 36.02                    | -2.31                |
| 2442       | 7       | PEAK     | 25.71                 | 25.41      | 28.57  | 30.00                       | -1.43                       | 4.92                        | 33.49              | 36.02                    | -2.53                |
| 2447       | 8       | PEAK     | 24.96                 | 24.68      | 27.83  | 30.00                       | -2.17                       | 4.92                        | 32.75              | 36.02                    | -3.27                |
| 2452       | 9       | PEAK     | 23.63                 | 23.67      | 26.66  | 30.00                       | -3.34                       | 4.92                        | 31.58              | 36.02                    | -4.44                |
| 2457       | 10      | PEAK     | 22.61                 | 22.62      | 25.63  | 30.00                       | -4.37                       | 4.92                        | 30.55              | 36.02                    | -5.47                |
| 2462       | 11      | PEAK     | 17.42                 | 17.21      | 20.33  | 30.00                       | -9.67                       | 4.92                        | 25.25              | 36.02                    | -10.77               |
| 2467       | 12      | PEAK     | 15.73                 | 15.60      | 18.68  | 30.00                       | -11.32                      | 4.92                        | 23.60              | 36.02                    | -12.42               |
| 2472       | 13      | PEAK     | 14.65                 | 14.46      | 17.57  | 30.00                       | -12.43                      | 4.92                        | 22.49              | 36.02                    | -13.53               |

**Table 7-25. Peak Conducted Output Power Measurements CDD (802.11g) – Low Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | PEAK     | 18.84                 | 18.55      | 21.71  | 30.00                       | -8.29                       | 4.92                        | 26.63              | 36.02                    | -9.39                |
| 2417       | 2       | PEAK     | 23.00                 | 22.90      | 25.96  | 30.00                       | -4.04                       | 4.92                        | 30.88              | 36.02                    | -5.14                |
| 2422       | 3       | PEAK     | 24.43                 | 24.19      | 27.32  | 30.00                       | -2.68                       | 4.92                        | 32.24              | 36.02                    | -3.78                |
| 2427       | 4       | PEAK     | 24.81                 | 24.31      | 27.58  | 30.00                       | -2.42                       | 4.92                        | 32.50              | 36.02                    | -3.52                |
| 2432       | 5       | PEAK     | 24.89                 | 24.39      | 27.66  | 30.00                       | -2.34                       | 4.92                        | 32.58              | 36.02                    | -3.44                |
| 2437       | 6       | PEAK     | 25.00                 | 24.50      | 27.77  | 30.00                       | -2.23                       | 4.92                        | 32.69              | 36.02                    | -3.33                |
| 2442       | 7       | PEAK     | 24.82                 | 24.44      | 27.64  | 30.00                       | -2.36                       | 4.92                        | 32.56              | 36.02                    | -3.46                |
| 2447       | 8       | PEAK     | 24.37                 | 24.17      | 27.28  | 30.00                       | -2.72                       | 4.92                        | 32.20              | 36.02                    | -3.82                |
| 2452       | 9       | PEAK     | 23.79                 | 23.86      | 26.84  | 30.00                       | -3.16                       | 4.92                        | 31.76              | 36.02                    | -4.26                |
| 2457       | 10      | PEAK     | 23.17                 | 23.00      | 26.10  | 30.00                       | -3.90                       | 4.92                        | 31.02              | 36.02                    | -5.00                |
| 2462       | 11      | PEAK     | 17.77                 | 17.40      | 20.60  | 30.00                       | -9.40                       | 4.92                        | 25.52              | 36.02                    | -10.50               |
| 2467       | 12      | PEAK     | 15.95                 | 15.95      | 18.96  | 30.00                       | -11.04                      | 4.92                        | 23.88              | 36.02                    | -12.14               |
| 2472       | 13      | PEAK     | 14.86                 | 14.64      | 17.76  | 30.00                       | -12.24                      | 4.92                        | 22.68              | 36.02                    | -13.34               |

**Table 7-26. Peak Conducted Output Power Measurements CDD (802.11n) – Low Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | PEAK     | 17.23                 | 17.12      | 20.19  | 30.00                       | -9.81                       | 4.92                        | 25.11              | 36.02                    | -10.91               |
| 2417       | 2       | PEAK     | 21.14                 | 21.30      | 24.23  | 30.00                       | -5.77                       | 4.92                        | 29.15              | 36.02                    | -6.87                |
| 2422       | 3       | PEAK     | 23.90                 | 23.71      | 26.82  | 30.00                       | -3.18                       | 4.92                        | 31.74              | 36.02                    | -4.28                |
| 2427       | 4       | PEAK     | 25.42                 | 24.98      | 28.22  | 30.00                       | -1.78                       | 4.92                        | 33.14              | 36.02                    | -2.88                |
| 2432       | 5       | PEAK     | 25.66                 | 25.42      | 28.55  | 30.00                       | -1.45                       | 4.92                        | 33.47              | 36.02                    | -2.55                |
| 2437       | 6       | PEAK     | 25.84                 | 25.59      | 28.73  | 30.00                       | -1.27                       | 4.92                        | 33.65              | 36.02                    | -2.37                |
| 2442       | 7       | PEAK     | 25.56                 | 25.30      | 28.44  | 30.00                       | -1.56                       | 4.92                        | 33.36              | 36.02                    | -2.66                |
| 2447       | 8       | PEAK     | 25.05                 | 24.83      | 27.95  | 30.00                       | -2.05                       | 4.92                        | 32.87              | 36.02                    | -3.15                |
| 2452       | 9       | PEAK     | 23.27                 | 23.16      | 26.23  | 30.00                       | -3.77                       | 4.92                        | 31.15              | 36.02                    | -4.87                |
| 2457       | 10      | PEAK     | 21.31                 | 21.16      | 24.25  | 30.00                       | -5.75                       | 4.92                        | 29.17              | 36.02                    | -6.85                |
| 2462       | 11      | PEAK     | 17.51                 | 17.50      | 20.52  | 30.00                       | -9.48                       | 4.92                        | 25.44              | 36.02                    | -10.58               |
| 2467       | 12      | PEAK     | 15.64                 | 15.67      | 18.67  | 30.00                       | -11.33                      | 4.92                        | 23.59              | 36.02                    | -12.43               |

**Table 7-27. Peak Conducted Output Power Measurements CDD (802.11ax - SU) – Low Data Rate**

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 63 of 440                    |

## Mid Data Rate

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11g               | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | PEAK     | 20.79                 | 20.51   | 18.82         | 30.00                       | -9.21                       | 2.30            | 23.09              | 36.02                    | -12.93               |
| 2417       | 2       | PEAK     | 25.22                 | 24.93   | 23.22         | 30.00                       | -4.78                       | 2.30            | 27.52              | 36.02                    | -8.50                |
| 2422       | 3       | PEAK     | 26.14                 | 26.05   | 24.99         | 30.00                       | -3.86                       | 2.30            | 28.44              | 36.02                    | -7.58                |
| 2427       | 4       | PEAK     | 26.60                 | 26.92   | 26.58         | 30.00                       | -3.08                       | 2.30            | 29.22              | 36.02                    | -6.80                |
| 2432       | 5       | PEAK     | 26.91                 | 27.13   | 26.79         | 30.00                       | -2.87                       | 2.30            | 29.43              | 36.02                    | -6.59                |
| 2437       | 6       | PEAK     | 27.14                 | 27.28   | 27.06         | 30.00                       | -2.72                       | 2.30            | 29.58              | 36.02                    | -6.44                |
| 2442       | 7       | PEAK     | 26.94                 | 27.08   | 26.78         | 30.00                       | -2.92                       | 2.30            | 29.38              | 36.02                    | -6.64                |
| 2447       | 8       | PEAK     | 26.45                 | 26.70   | 26.27         | 30.00                       | -3.30                       | 2.30            | 29.00              | 36.02                    | -7.02                |
| 2452       | 9       | PEAK     | 25.31                 | 25.13   | 24.96         | 30.00                       | -4.69                       | 2.30            | 27.61              | 36.02                    | -8.41                |
| 2457       | 10      | PEAK     | 24.90                 | 24.83   | 23.83         | 30.00                       | -5.10                       | 2.30            | 27.20              | 36.02                    | -8.82                |
| 2462       | 11      | PEAK     | 19.87                 | 19.81   | 19.07         | 30.00                       | -10.13                      | 2.30            | 22.17              | 36.02                    | -13.85               |
| 2467       | 12      | PEAK     | 18.09                 | 17.60   | 17.62         | 30.00                       | -11.91                      | 2.30            | 20.39              | 36.02                    | -15.63               |
| 2472       | 13      | PEAK     | 15.16                 | 15.02   | -             | 30.00                       | -14.84                      | 2.30            | 17.46              | 36.02                    | -18.56               |

**Table 7-28. Peak Conducted Output Power Measurements Antenna 3a – Mid Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11g               | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | PEAK     | 20.74                 | 20.47   | 18.96         | 30.00                       | -9.26                       | 1.50            | 22.24              | 36.02                    | -13.78               |
| 2417       | 2       | PEAK     | 24.96                 | 24.81   | 23.53         | 30.00                       | -5.04                       | 1.50            | 26.46              | 36.02                    | -9.56                |
| 2422       | 3       | PEAK     | 26.13                 | 25.91   | 25.11         | 30.00                       | -3.87                       | 1.50            | 27.63              | 36.02                    | -8.39                |
| 2427       | 4       | PEAK     | 26.51                 | 26.46   | 26.38         | 30.00                       | -3.49                       | 1.50            | 28.01              | 36.02                    | -8.01                |
| 2432       | 5       | PEAK     | 26.76                 | 26.50   | 26.62         | 30.00                       | -3.24                       | 1.50            | 28.26              | 36.02                    | -7.76                |
| 2437       | 6       | PEAK     | 26.95                 | 26.70   | 26.89         | 30.00                       | -3.05                       | 1.50            | 28.45              | 36.02                    | -7.57                |
| 2442       | 7       | PEAK     | 26.62                 | 26.65   | 26.78         | 30.00                       | -3.22                       | 1.50            | 28.28              | 36.02                    | -7.74                |
| 2447       | 8       | PEAK     | 26.33                 | 26.17   | 26.34         | 30.00                       | -3.66                       | 1.50            | 27.84              | 36.02                    | -8.18                |
| 2452       | 9       | PEAK     | 25.28                 | 24.97   | 25.04         | 30.00                       | -4.72                       | 1.50            | 26.78              | 36.02                    | -9.24                |
| 2457       | 10      | PEAK     | 25.14                 | 24.73   | 23.76         | 30.00                       | -4.86                       | 1.50            | 26.64              | 36.02                    | -9.38                |
| 2462       | 11      | PEAK     | 19.93                 | 19.69   | 19.17         | 30.00                       | -10.07                      | 1.50            | 21.43              | 36.02                    | -14.59               |
| 2467       | 12      | PEAK     | 18.07                 | 17.77   | 17.60         | 30.00                       | -11.93                      | 1.50            | 19.57              | 36.02                    | -16.45               |
| 2472       | 13      | PEAK     | 15.27                 | 14.94   | -             | 30.00                       | -14.73                      | 1.50            | 16.77              | 36.02                    | -19.25               |

**Table 7-29. Peak Conducted Output Power Measurements Antenna 1a – Mid Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | PEAK     | 20.41                 | 20.25      | 23.34  | 30.00                       | -6.66                       | 4.92                        | 28.26              | 36.02                    | -7.76                |
| 2417       | 2       | PEAK     | 24.68                 | 24.70      | 27.70  | 30.00                       | -2.30                       | 4.92                        | 32.62              | 36.02                    | -3.40                |
| 2422       | 3       | PEAK     | 25.79                 | 25.51      | 28.66  | 30.00                       | -1.34                       | 4.92                        | 33.58              | 36.02                    | -2.44                |
| 2427       | 4       | PEAK     | 26.53                 | 26.22      | 29.39  | 30.00                       | -0.61                       | 4.92                        | 34.31              | 36.02                    | -1.71                |
| 2432       | 5       | PEAK     | 26.55                 | 26.44      | 29.51  | 30.00                       | -0.49                       | 4.92                        | 34.43              | 36.02                    | -1.59                |
| 2437       | 6       | PEAK     | 26.28                 | 25.90      | 29.10  | 30.00                       | -0.90                       | 4.92                        | 34.02              | 36.02                    | -2.00                |
| 2442       | 7       | PEAK     | 26.04                 | 25.71      | 28.89  | 30.00                       | -1.11                       | 4.92                        | 33.81              | 36.02                    | -2.21                |
| 2447       | 8       | PEAK     | 25.09                 | 25.26      | 28.19  | 30.00                       | -1.81                       | 4.92                        | 33.11              | 36.02                    | -2.91                |
| 2452       | 9       | PEAK     | 25.36                 | 25.22      | 28.30  | 30.00                       | -1.70                       | 4.92                        | 33.22              | 36.02                    | -2.80                |
| 2457       | 10      | PEAK     | 24.50                 | 24.70      | 27.61  | 30.00                       | -2.39                       | 4.92                        | 32.53              | 36.02                    | -3.49                |
| 2462       | 11      | PEAK     | 20.11                 | 20.14      | 23.14  | 30.00                       | -6.86                       | 4.92                        | 28.06              | 36.02                    | -7.96                |
| 2467       | 12      | PEAK     | 18.25                 | 18.31      | 21.29  | 30.00                       | -8.71                       | 4.92                        | 26.21              | 36.02                    | -9.81                |
| 2472       | 13      | PEAK     | 15.47                 | 15.55      | 18.52  | 30.00                       | -11.48                      | 4.92                        | 23.44              | 36.02                    | -12.58               |

**Table 7-30. Peak Conducted Output Power Measurements CDD (802.11g) – Mid Data Rate**

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 64 of 440                    |

V 10.5 12/15/2021

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| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | PEAK     | 20.62                 | 20.66      | 23.65  | 30.00                       | -6.35                       | 4.92                        | 28.57              | 36.02                    | -7.45                |
| 2417       | 2       | PEAK     | 24.89                 | 24.90      | 27.91  | 30.00                       | -2.09                       | 4.92                        | 32.83              | 36.02                    | -3.19                |
| 2422       | 3       | PEAK     | 25.97                 | 25.94      | 28.97  | 30.00                       | -1.03                       | 4.92                        | 33.89              | 36.02                    | -2.13                |
| 2427       | 4       | PEAK     | 26.11                 | 26.04      | 29.09  | 30.00                       | -0.91                       | 4.92                        | 34.01              | 36.02                    | -2.01                |
| 2432       | 5       | PEAK     | 26.35                 | 26.19      | 29.28  | 30.00                       | -0.72                       | 4.92                        | 34.20              | 36.02                    | -1.82                |
| 2437       | 6       | PEAK     | 26.77                 | 26.60      | 29.70  | 30.00                       | -0.30                       | 4.92                        | 34.62              | 36.02                    | -1.40                |
| 2442       | 7       | PEAK     | 26.57                 | 26.49      | 29.54  | 30.00                       | -0.46                       | 4.92                        | 34.46              | 36.02                    | -1.56                |
| 2447       | 8       | PEAK     | 25.81                 | 25.86      | 28.85  | 30.00                       | -1.15                       | 4.92                        | 33.77              | 36.02                    | -2.25                |
| 2452       | 9       | PEAK     | 25.57                 | 25.75      | 28.67  | 30.00                       | -1.33                       | 4.92                        | 33.59              | 36.02                    | -2.43                |
| 2457       | 10      | PEAK     | 24.83                 | 24.98      | 27.92  | 30.00                       | -2.08                       | 4.92                        | 32.84              | 36.02                    | -3.18                |
| 2462       | 11      | PEAK     | 20.27                 | 20.16      | 23.23  | 30.00                       | -6.77                       | 4.92                        | 28.15              | 36.02                    | -7.87                |
| 2467       | 12      | PEAK     | 18.40                 | 18.46      | 21.44  | 30.00                       | -8.56                       | 4.92                        | 26.36              | 36.02                    | -9.66                |
| 2472       | 13      | PEAK     | 15.77                 | 15.88      | 18.84  | 30.00                       | -11.16                      | 4.92                        | 23.76              | 36.02                    | -12.26               |

**Table 7-31. Peak Conducted Output Power Measurements CDD (802.11n) – Mid Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | PEAK     | 18.51                 | 18.72      | 21.63  | 30.00                       | -8.37                       | 4.92                        | 26.55              | 36.02                    | -9.47                |
| 2417       | 2       | PEAK     | 22.82                 | 23.19      | 26.02  | 30.00                       | -3.98                       | 4.92                        | 30.94              | 36.02                    | -5.08                |
| 2422       | 3       | PEAK     | 24.78                 | 24.70      | 27.75  | 30.00                       | -2.25                       | 4.92                        | 32.67              | 36.02                    | -3.35                |
| 2427       | 4       | PEAK     | 25.28                 | 25.07      | 28.19  | 30.00                       | -1.81                       | 4.92                        | 33.11              | 36.02                    | -2.91                |
| 2432       | 5       | PEAK     | 25.73                 | 25.40      | 28.58  | 30.00                       | -1.42                       | 4.92                        | 33.50              | 36.02                    | -2.52                |
| 2437       | 6       | PEAK     | 25.92                 | 25.67      | 28.81  | 30.00                       | -1.19                       | 4.92                        | 33.73              | 36.02                    | -2.29                |
| 2442       | 7       | PEAK     | 25.88                 | 25.69      | 28.80  | 30.00                       | -1.20                       | 4.92                        | 33.72              | 36.02                    | -2.30                |
| 2447       | 8       | PEAK     | 25.09                 | 25.92      | 28.54  | 30.00                       | -1.46                       | 4.92                        | 33.46              | 36.02                    | -2.56                |
| 2452       | 9       | PEAK     | 24.60                 | 24.58      | 27.60  | 30.00                       | -2.40                       | 4.92                        | 32.52              | 36.02                    | -3.50                |
| 2457       | 10      | PEAK     | 22.85                 | 22.82      | 25.85  | 30.00                       | -4.15                       | 4.92                        | 30.77              | 36.02                    | -5.25                |
| 2462       | 11      | PEAK     | 19.09                 | 19.22      | 22.17  | 30.00                       | -7.83                       | 4.92                        | 27.09              | 36.02                    | -8.93                |
| 2467       | 12      | PEAK     | 17.42                 | 17.37      | 20.41  | 30.00                       | -9.59                       | 4.92                        | 25.33              | 36.02                    | -10.69               |

**Table 7-32. Peak Conducted Output Power Measurements CDD (802.11ax - SU) – Mid Data Rate**

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 65 of 440                    |

V 10.5 12/15/2021

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## High Data Rate

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11b               | 802.11g | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | PEAK     | 24.05                 | 20.35   | 23.80   | 22.59         | 30.00                       | -5.95                       | 2.30            | 26.35              | 36.02                    | -9.67                |
| 2417       | 2       | PEAK     | 24.54                 | 24.25   | 26.34   | 25.86         | 30.00                       | -3.66                       | 2.30            | 28.64              | 36.02                    | -7.38                |
| 2422       | 3       | PEAK     | 25.45                 | 25.37   | 26.88   | 26.51         | 30.00                       | -3.12                       | 2.30            | 29.18              | 36.02                    | -6.84                |
| 2427       | 4       | PEAK     | 25.36                 | 26.48   | 27.07   | 26.88         | 30.00                       | -2.93                       | 2.30            | 29.37              | 36.02                    | -6.65                |
| 2432       | 5       | PEAK     | 25.47                 | 26.97   | 27.36   | 27.28         | 30.00                       | -2.64                       | 2.30            | 29.66              | 36.02                    | -6.36                |
| 2437       | 6       | PEAK     | 25.37                 | 27.17   | 27.52   | 27.37         | 30.00                       | -2.48                       | 2.30            | 29.82              | 36.02                    | -6.20                |
| 2442       | 7       | PEAK     | 25.27                 | 26.95   | 27.33   | 27.23         | 30.00                       | -2.67                       | 2.30            | 29.63              | 36.02                    | -6.39                |
| 2447       | 8       | PEAK     | 25.51                 | 26.39   | 27.00   | 26.84         | 30.00                       | -3.00                       | 2.30            | 29.30              | 36.02                    | -6.72                |
| 2452       | 9       | PEAK     | 25.04                 | 24.99   | 26.62   | 26.62         | 30.00                       | -3.38                       | 2.30            | 28.92              | 36.02                    | -7.10                |
| 2457       | 10      | PEAK     | 24.52                 | 24.24   | 26.28   | 25.06         | 30.00                       | -3.72                       | 2.30            | 28.58              | 36.02                    | -7.44                |
| 2462       | 11      | PEAK     | 23.70                 | 19.89   | 23.12   | 22.10         | 30.00                       | -6.30                       | 2.30            | 26.00              | 36.02                    | -10.02               |
| 2467       | 12      | PEAK     | 20.53                 | 17.62   | 20.75   | 20.50         | 30.00                       | -9.25                       | 2.30            | 23.05              | 36.02                    | -12.97               |
| 2472       | 13      | PEAK     | 19.20                 | 15.55   | 17.08   | 0.00          | 30.00                       | -10.80                      | 2.30            | 21.50              | 36.02                    | -14.52               |

**Table 7-33. Peak Conducted Output Power Measurements Antenna 3a – High Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |         |         |               | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|---------|---------|---------------|-----------------------------|-----------------------------|-----------------|--------------------|--------------------------|----------------------|
|            |         |          | 802.11b               | 802.11g | 802.11n | 802.11ax (SU) |                             |                             |                 |                    |                          |                      |
| 2412       | 1       | PEAK     | 23.96                 | 20.36   | 23.64   | 22.95         | 30.00                       | -6.04                       | 1.50            | 25.46              | 36.02                    | -10.56               |
| 2417       | 2       | PEAK     | 24.48                 | 24.24   | 26.30   | 25.89         | 30.00                       | -3.70                       | 1.50            | 27.80              | 36.02                    | -8.22                |
| 2422       | 3       | PEAK     | 25.44                 | 25.38   | 26.79   | 26.50         | 30.00                       | -3.21                       | 1.50            | 28.29              | 36.02                    | -7.73                |
| 2427       | 4       | PEAK     | 25.37                 | 26.38   | 26.94   | 26.79         | 30.00                       | -3.06                       | 1.50            | 28.44              | 36.02                    | -7.58                |
| 2432       | 5       | PEAK     | 25.46                 | 26.77   | 27.18   | 27.04         | 30.00                       | -2.82                       | 1.50            | 28.68              | 36.02                    | -7.34                |
| 2437       | 6       | PEAK     | 25.39                 | 27.07   | 27.34   | 27.25         | 30.00                       | -2.66                       | 1.50            | 28.84              | 36.02                    | -7.18                |
| 2442       | 7       | PEAK     | 25.33                 | 26.80   | 27.30   | 27.21         | 30.00                       | -2.70                       | 1.50            | 28.80              | 36.02                    | -7.22                |
| 2447       | 8       | PEAK     | 25.39                 | 26.41   | 27.09   | 26.91         | 30.00                       | -2.91                       | 1.50            | 28.59              | 36.02                    | -7.43                |
| 2452       | 9       | PEAK     | 24.80                 | 25.08   | 26.72   | 26.69         | 30.00                       | -3.28                       | 1.50            | 28.22              | 36.02                    | -7.80                |
| 2457       | 10      | PEAK     | 24.46                 | 24.28   | 26.26   | 25.24         | 30.00                       | -3.74                       | 1.50            | 27.76              | 36.02                    | -8.26                |
| 2462       | 11      | PEAK     | 23.49                 | 20.12   | 23.08   | 22.22         | 30.00                       | -6.51                       | 1.50            | 24.99              | 36.02                    | -11.03               |
| 2467       | 12      | PEAK     | 20.59                 | 17.44   | 20.74   | 20.80         | 30.00                       | -9.20                       | 1.50            | 22.30              | 36.02                    | -13.72               |
| 2472       | 13      | PEAK     | 19.09                 | 15.73   | 17.12   | 0.00          | 30.00                       | -10.91                      | 1.50            | 20.59              | 36.02                    | -15.43               |

**Table 7-34. Peak Conducted Output Power Measurements Antenna 1a – High Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | PEAK     | 19.86                 | 19.79      | 22.84  | 30.00                       | -7.16                       | 4.92                        | 27.76              | 36.02                    | -8.26                |
| 2417       | 2       | PEAK     | 24.43                 | 24.25      | 27.35  | 30.00                       | -2.65                       | 4.92                        | 32.27              | 36.02                    | -3.75                |
| 2422       | 3       | PEAK     | 24.16                 | 24.15      | 27.17  | 30.00                       | -2.83                       | 4.92                        | 32.09              | 36.02                    | -3.93                |
| 2427       | 4       | PEAK     | 25.66                 | 25.38      | 28.53  | 30.00                       | -1.47                       | 4.92                        | 33.45              | 36.02                    | -2.57                |
| 2432       | 5       | PEAK     | 25.92                 | 25.63      | 28.79  | 30.00                       | -1.21                       | 4.92                        | 33.71              | 36.02                    | -2.31                |
| 2437       | 6       | PEAK     | 26.10                 | 25.76      | 28.94  | 30.00                       | -1.06                       | 4.92                        | 33.86              | 36.02                    | -2.16                |
| 2442       | 7       | PEAK     | 26.02                 | 25.70      | 28.87  | 30.00                       | -1.13                       | 4.92                        | 33.79              | 36.02                    | -2.23                |
| 2447       | 8       | PEAK     | 25.29                 | 25.16      | 28.24  | 30.00                       | -1.76                       | 4.92                        | 33.16              | 36.02                    | -2.86                |
| 2452       | 9       | PEAK     | 24.58                 | 24.56      | 27.58  | 30.00                       | -2.42                       | 4.92                        | 32.50              | 36.02                    | -3.52                |
| 2457       | 10      | PEAK     | 22.69                 | 23.54      | 26.15  | 30.00                       | -3.85                       | 4.92                        | 31.07              | 36.02                    | -4.95                |
| 2462       | 11      | PEAK     | 19.98                 | 20.04      | 23.02  | 30.00                       | -6.98                       | 4.92                        | 27.94              | 36.02                    | -8.08                |
| 2467       | 12      | PEAK     | 17.31                 | 17.59      | 20.46  | 30.00                       | -9.54                       | 4.92                        | 25.38              | 36.02                    | -10.64               |
| 2472       | 13      | PEAK     | 15.65                 | 15.59      | 18.63  | 30.00                       | -11.37                      | 4.92                        | 23.55              | 36.02                    | -12.47               |

**Table 7-35. Peak Conducted Output Power Measurements CDD (802.11g) – High Data Rate**

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 66 of 440                    |

V 10.5 12/15/2021

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| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | PEAK     | 22.06                 | 22.01      | 25.05  | 30.00                       | -4.95                       | 4.92                        | 29.97              | 36.02                    | -6.05                |
| 2417       | 2       | PEAK     | 25.86                 | 25.63      | 28.76  | 30.00                       | -1.24                       | 4.92                        | 33.68              | 36.02                    | -2.34                |
| 2422       | 3       | PEAK     | 25.75                 | 25.57      | 28.67  | 30.00                       | -1.33                       | 4.92                        | 33.59              | 36.02                    | -2.43                |
| 2427       | 4       | PEAK     | 26.81                 | 20.46      | 27.72  | 30.00                       | -2.28                       | 4.92                        | 32.64              | 36.02                    | -3.38                |
| 2432       | 5       | PEAK     | 26.02                 | 25.63      | 28.84  | 30.00                       | -1.16                       | 4.92                        | 33.76              | 36.02                    | -2.26                |
| 2437       | 6       | PEAK     | 26.21                 | 25.81      | 29.02  | 30.00                       | -0.98                       | 4.92                        | 33.94              | 36.02                    | -2.08                |
| 2442       | 7       | PEAK     | 26.18                 | 25.86      | 29.03  | 30.00                       | -0.97                       | 4.92                        | 33.95              | 36.02                    | -2.07                |
| 2447       | 8       | PEAK     | 25.41                 | 25.38      | 28.41  | 30.00                       | -1.59                       | 4.92                        | 33.33              | 36.02                    | -2.69                |
| 2452       | 9       | PEAK     | 25.00                 | 24.90      | 27.96  | 30.00                       | -2.04                       | 4.92                        | 32.88              | 36.02                    | -3.14                |
| 2457       | 10      | PEAK     | 24.38                 | 24.28      | 27.34  | 30.00                       | -2.66                       | 4.92                        | 32.26              | 36.02                    | -3.76                |
| 2462       | 11      | PEAK     | 21.89                 | 21.79      | 24.85  | 30.00                       | -5.15                       | 4.92                        | 29.77              | 36.02                    | -6.25                |
| 2467       | 12      | PEAK     | 19.33                 | 19.57      | 22.46  | 30.00                       | -7.54                       | 4.92                        | 27.38              | 36.02                    | -8.64                |
| 2472       | 13      | PEAK     | 15.91                 | 15.60      | 18.77  | 30.00                       | -11.23                      | 4.92                        | 23.69              | 36.02                    | -12.33               |

**Table 7-36. Peak Conducted Output Power Measurements CDD (802.11n) – High Data Rate**

| Freq [MHz] | Channel | Detector | Conducted Power [dBm] |            |        | Conducted Power Limit [dBm] | Conducted Power Margin [dB] | Directional Ant. Gain [dBi] | Max e.i.r.p. [dBm] | Max e.i.r.p. Limit [dBm] | e.i.r.p. Margin [dB] |
|------------|---------|----------|-----------------------|------------|--------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------------|----------------------|
|            |         |          | Antenna 3a            | Antenna 1a | Summed |                             |                             |                             |                    |                          |                      |
| 2412       | 1       | PEAK     | 23.30                 | 23.05      | 26.19  | 30.00                       | -3.81                       | 4.92                        | 31.11              | 36.02                    | -4.91                |
| 2417       | 2       | PEAK     | 25.00                 | 24.86      | 27.94  | 30.00                       | -2.06                       | 4.92                        | 32.86              | 36.02                    | -3.16                |
| 2422       | 3       | PEAK     | 26.07                 | 25.65      | 28.88  | 30.00                       | -1.12                       | 4.92                        | 33.80              | 36.02                    | -2.22                |
| 2427       | 4       | PEAK     | 26.12                 | 25.98      | 29.06  | 30.00                       | -0.94                       | 4.92                        | 33.98              | 36.02                    | -2.04                |
| 2432       | 5       | PEAK     | 26.83                 | 26.16      | 29.52  | 30.00                       | -0.48                       | 4.92                        | 34.44              | 36.02                    | -1.58                |
| 2437       | 6       | PEAK     | 26.89                 | 26.26      | 29.60  | 30.00                       | -0.40                       | 4.92                        | 34.52              | 36.02                    | -1.50                |
| 2442       | 7       | PEAK     | 25.81                 | 25.48      | 28.66  | 30.00                       | -1.34                       | 4.92                        | 33.58              | 36.02                    | -2.44                |
| 2447       | 8       | PEAK     | 25.30                 | 25.06      | 28.19  | 30.00                       | -1.81                       | 4.92                        | 33.11              | 36.02                    | -2.91                |
| 2452       | 9       | PEAK     | 25.07                 | 24.86      | 27.98  | 30.00                       | -2.02                       | 4.92                        | 32.90              | 36.02                    | -3.12                |
| 2457       | 10      | PEAK     | 24.46                 | 24.48      | 27.48  | 30.00                       | -2.52                       | 4.92                        | 32.40              | 36.02                    | -3.62                |
| 2462       | 11      | PEAK     | 22.60                 | 22.55      | 25.59  | 30.00                       | -4.41                       | 4.92                        | 30.51              | 36.02                    | -5.51                |
| 2467       | 12      | PEAK     | 20.69                 | 20.40      | 23.56  | 30.00                       | -6.44                       | 4.92                        | 28.48              | 36.02                    | -7.54                |

**Table 7-37. Peak Conducted Output Power Measurements CDD (802.11ax - SU) – High Data Rate**

|                                         |  |                                                                                                                                   |                            |                                   |
|-----------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG |  | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 67 of 440                    |

V 10.5 12/15/2021

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**Note:**

Per ANSI C63.10-2013 and KDB 662911 D01 v02r01 Section E)1), the conducted powers at Antenna 3a and Antenna 1a were first measured separately during CDD transmission as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

**Sample CDD Calculation:**

At 2412MHz the average conducted output power was measured to be 21.30 dBm for Antenna 3a and 21.26 dBm for Antenna 1a.

$$\text{Antenna 3a} + \text{Antenna 1a} = \text{CDD}$$

$$(21.30 \text{ dBm} + 21.26 \text{ dBm}) = (134.896 \text{ mW} + 133.660 \text{ mW}) = 268.556 \text{ mW} = 24.29 \text{ dBm}$$

|                                                  |                                                                                     |                                               |                                          |
|--------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------|
| <b>FCC ID:</b> BCGA2757<br><b>IC:</b> 579C-A2757 |  | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1C2205090023-10.BCG   | <b>Test Dates:</b><br>05/30/2022 - 09/14/2022                                       | <b>EUT Type:</b><br>Tablet Device             | Page 68 of 440                           |

V 10.5 12/15/2021

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## 7.4 Power Spectral Density

§15.247(e); RSS-247 [5.2]

### Test Overview and Limit

The peak power density is measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated and the worst case configuration results are reported in this section.

***The maximum permissible power spectral density is 8 dBm in any 3 kHz band.***

### Test Procedure Used

ANSI C63.10-2013 – Subclause 11.10.2 Method PKPSD

KDB 558074 D01 v05r02 – Section 8.4 DTS Maximum Power Spectral Density level in the fundamental emission

ANSI C63.10-2013 – Subclause 14.3.2.2 Measure-and-Sum Technique

KDB 662911 D01 v02r01 – Section E)2) Measure-and-Sum Technique

### Test Settings

1. Analyzer was set to the center frequency of the DTS channel under investigation
2. Span = 1.5 times the DTS channel bandwidth
3. RBW = 3kHz
4. VBW = 1MHz
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Trace was allowed to stabilize

### Test Setup

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



**Figure 7-3. Test Instrument & Measurement Setup**

### Test Notes

The data rate have been classified into three different groups: low data rate, middle data rate, and high data rate. All three data rate groups have been investigated and only the worst case data rate per group is reported.

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 69 of 440                    |

V 10.5 12/15/2021

## Antenna 3a Power Spectral Density Measurements

| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Spectral Density [dBm / 3kHz] | Maximum Permissible Power Density [dBm / 3kHz] | Margin [dB] | Pass / Fail |
|-----------------|-------------|-------------|------------------|----------------------------------------------|------------------------------------------------|-------------|-------------|
| 2412            | 1           | g           | 12               | -9.17                                        | 8.00                                           | -17.17      | Pass        |
| 2437            | 6           | g           | 12               | -1.75                                        | 8.00                                           | -9.75       | Pass        |
| 2462            | 11          | g           | 12               | -10.59                                       | 8.00                                           | -18.59      | Pass        |
| 2412            | 1           | n           | 19.5/21.7 (MCS2) | -9.16                                        | 8.00                                           | -17.16      | Pass        |
| 2437            | 6           | n           | 19.5/21.7 (MCS2) | -2.01                                        | 8.00                                           | -10.01      | Pass        |
| 2462            | 11          | n           | 19.5/21.7 (MCS2) | -9.61                                        | 8.00                                           | -17.61      | Pass        |
| 2412            | 1           | ax (SU)     | 24/25.8 (MCS2)   | -10.98                                       | 8.00                                           | -18.98      | Pass        |
| 2437            | 6           | ax (SU)     | 24/25.8 (MCS2)   | -2.95                                        | 8.00                                           | -10.95      | Pass        |
| 2462            | 11          | ax (SU)     | 24/25.8 (MCS2)   | -12.81                                       | 8.00                                           | -20.81      | Pass        |

**Table 7-38. Conducted Power Density Measurements Antenna 3a (Low Data Rate)**

| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Spectral Density [dBm / 3kHz] | Maximum Permissible Power Density [dBm / 3kHz] | Margin [dB] | Pass / Fail |
|-----------------|-------------|-------------|------------------|----------------------------------------------|------------------------------------------------|-------------|-------------|
| 2412            | 1           | g           | 24               | -9.74                                        | 8.00                                           | -17.74      | Pass        |
| 2437            | 6           | g           | 24               | -1.53                                        | 8.00                                           | -9.53       | Pass        |
| 2462            | 11          | g           | 24               | -10.92                                       | 8.00                                           | -18.92      | Pass        |
| 2412            | 1           | n           | 39/43.3 (MCS4)   | -9.89                                        | 8.00                                           | -17.89      | Pass        |
| 2437            | 6           | n           | 39/43.3 (MCS4)   | -1.56                                        | 8.00                                           | -9.56       | Pass        |
| 2462            | 11          | n           | 39/43.3 (MCS4)   | -10.22                                       | 8.00                                           | -18.22      | Pass        |
| 2412            | 1           | ax (SU)     | 49/51.6 (MCS4)   | -11.15                                       | 8.00                                           | -19.15      | Pass        |
| 2437            | 6           | ax (SU)     | 49/51.6 (MCS4)   | -2.99                                        | 8.00                                           | -10.99      | Pass        |
| 2462            | 11          | ax (SU)     | 49/51.6 (MCS4)   | -12.47                                       | 8.00                                           | -20.47      | Pass        |

**Table 7-39. Conducted Power Density Measurements Antenna 3a (Mid Data Rate)**

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 70 of 440                    |

V 10.5 12/15/2021

| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Spectral Density [dBm / 3kHz] | Maximum Permissible Power Density [dBm / 3kHz] | Margin [dB] | Pass / Fail |
|-----------------|-------------|-------------|------------------|----------------------------------------------|------------------------------------------------|-------------|-------------|
| 2412            | 1           | b           | 11               | -1.18                                        | 8.00                                           | -9.18       | Pass        |
| 2437            | 6           | b           | 11               | -0.04                                        | 8.00                                           | -8.04       | Pass        |
| 2462            | 11          | b           | 11               | -1.24                                        | 8.00                                           | -9.24       | Pass        |
| 2412            | 1           | g           | 36               | -10.36                                       | 8.00                                           | -18.36      | Pass        |
| 2437            | 6           | g           | 36               | -2.35                                        | 8.00                                           | -10.35      | Pass        |
| 2462            | 11          | g           | 36               | -11.50                                       | 8.00                                           | -19.50      | Pass        |
| 2412            | 1           | n           | 52/57.8 (MCS5)   | -9.40                                        | 8.00                                           | -17.40      | Pass        |
| 2437            | 6           | n           | 52/57.8 (MCS5)   | -2.74                                        | 8.00                                           | -10.74      | Pass        |
| 2462            | 11          | n           | 52/57.8 (MCS5)   | -10.77                                       | 8.00                                           | -18.77      | Pass        |
| 2412            | 1           | ax (SU)     | 65/68.8 (MCS5)   | -11.30                                       | 8.00                                           | -19.30      | Pass        |
| 2437            | 6           | ax (SU)     | 65/68.8 (MCS5)   | -4.39                                        | 8.00                                           | -12.39      | Pass        |
| 2462            | 11          | ax (SU)     | 65/68.8 (MCS5)   | -12.19                                       | 8.00                                           | -20.19      | Pass        |

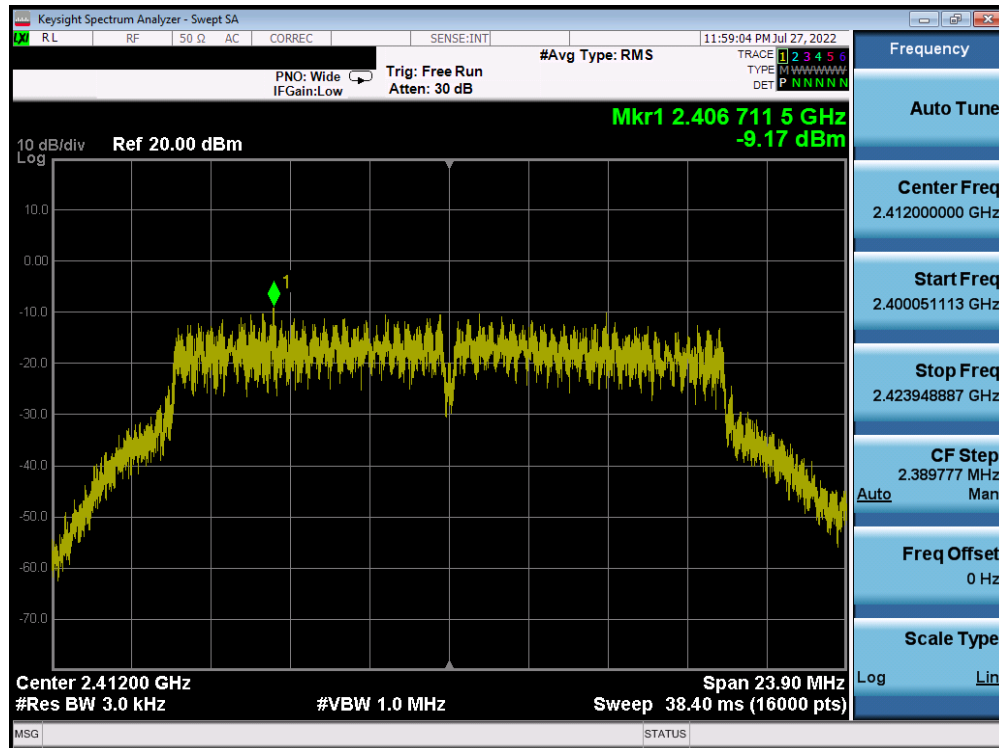
**Table 7-40. Conducted Power Density Measurements Antenna 3a (High Data Rate)**

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 71 of 440                    |

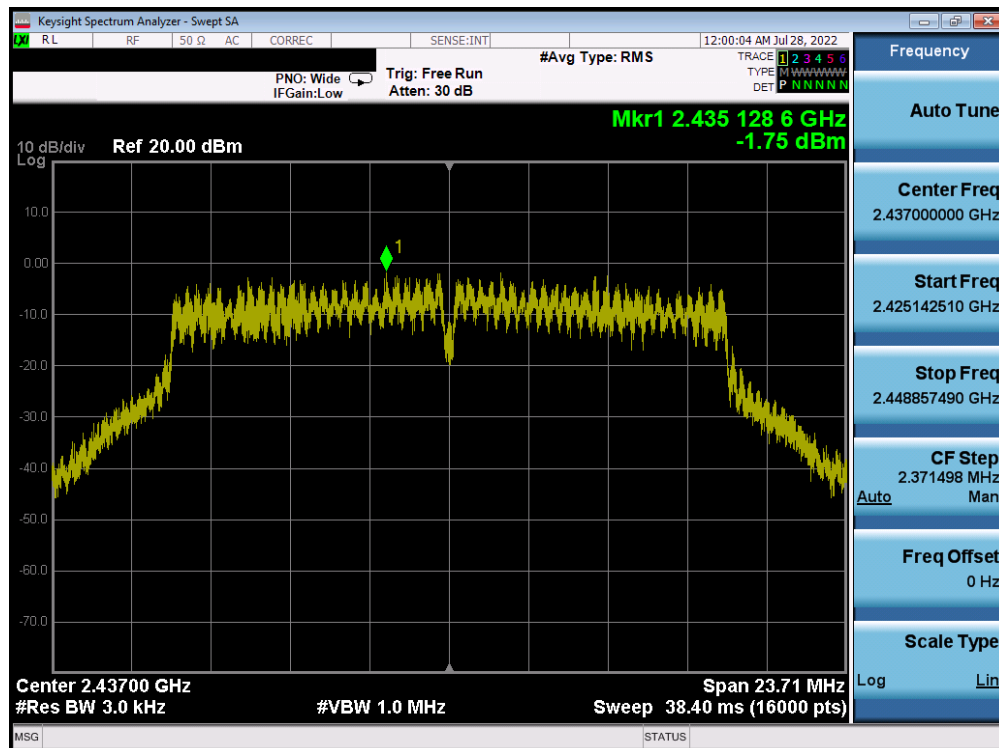
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## Low Data Rate



Plot 7-61. Power Spectral Density Plot Antenna 3a (802.11g – Ch. 1) – 12Mbps



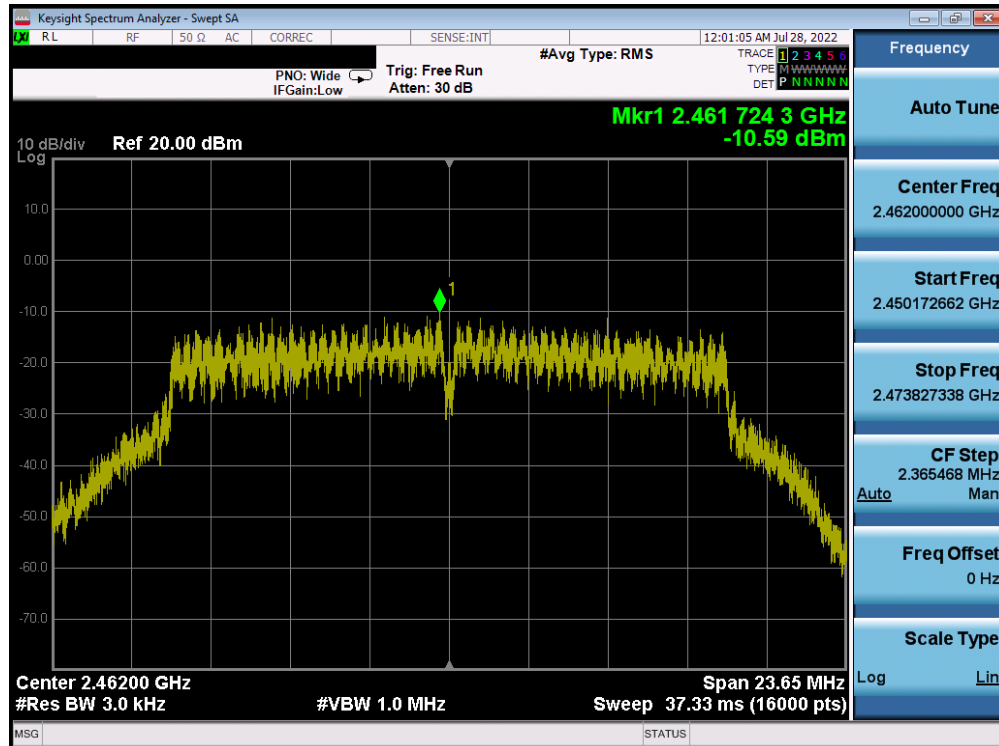
Plot 7-62. Power Spectral Density Plot Antenna 3a (802.11g – Ch. 6) – 12Mbps

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 72 of 440                    |

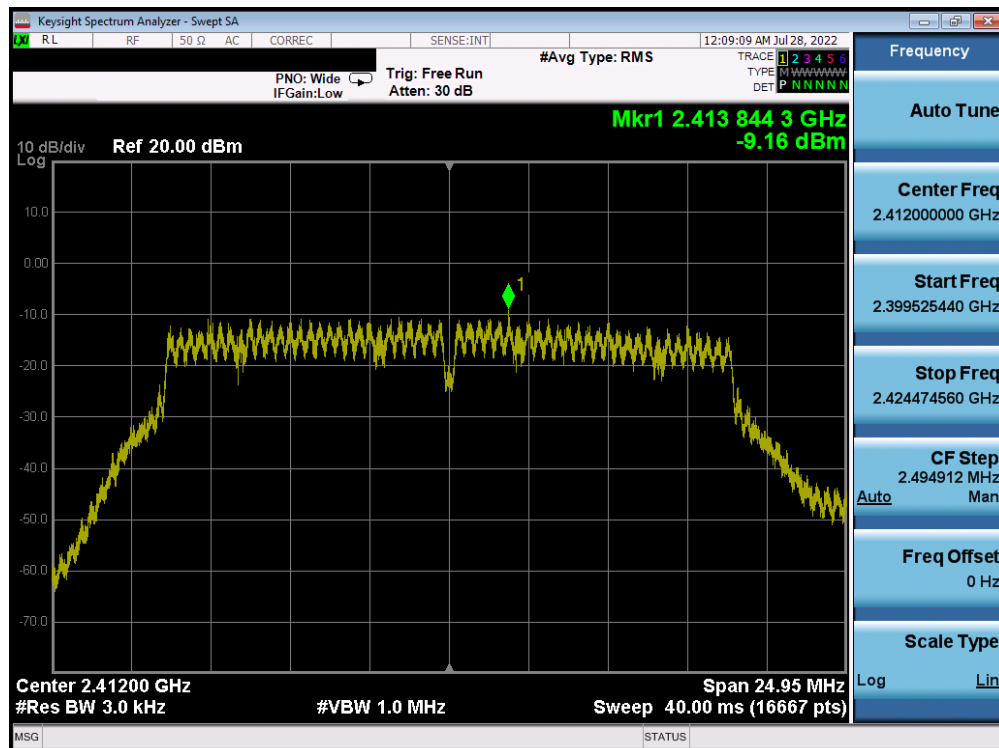
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Plot 7-63. Power Spectral Density Plot Antenna 3a (802.11g – Ch. 11) – 12Mbps

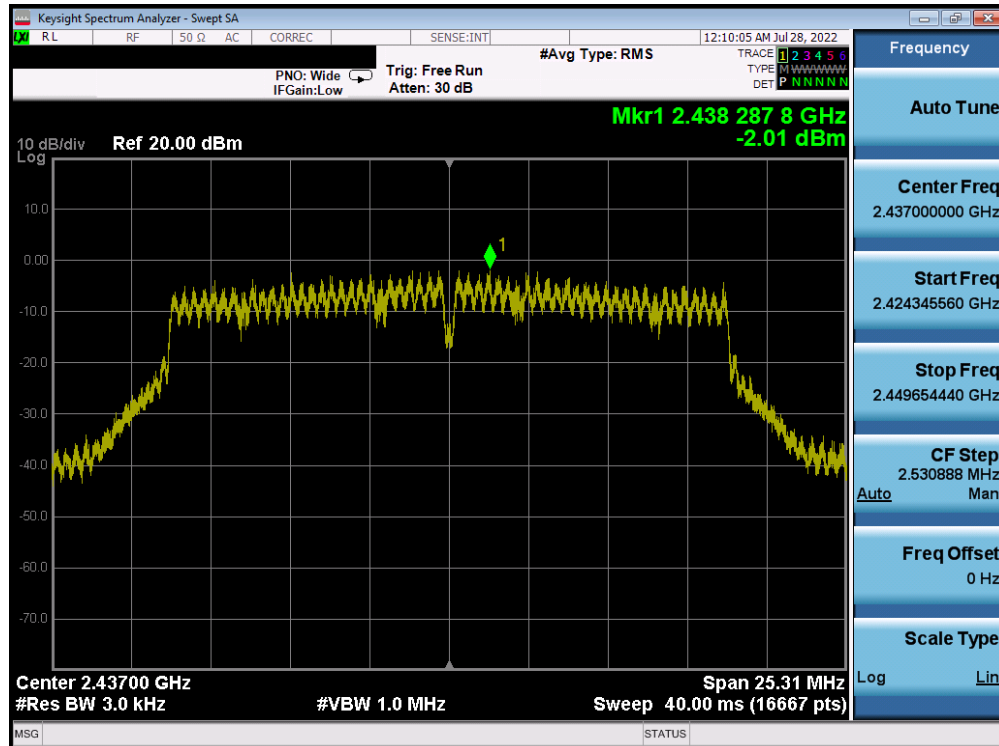


Plot 7-64. Power Spectral Density Plot Antenna 3a (802.11n (2.4GHz) – Ch. 1) – MCS2

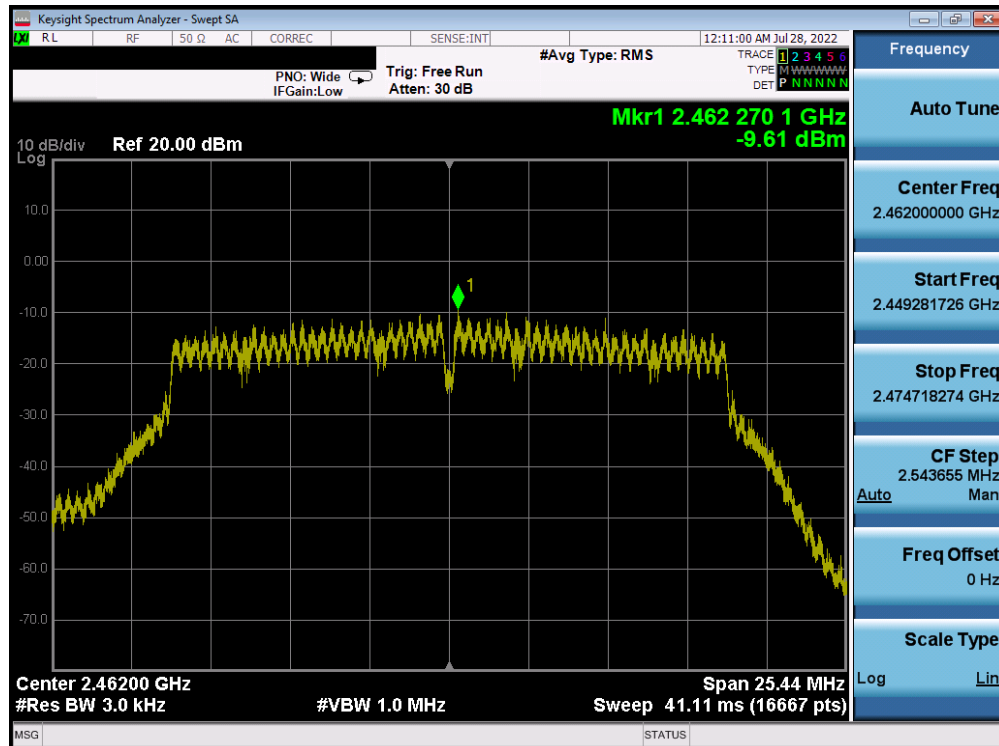
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 73 of 440                    |

V 10.5 12/15/2021

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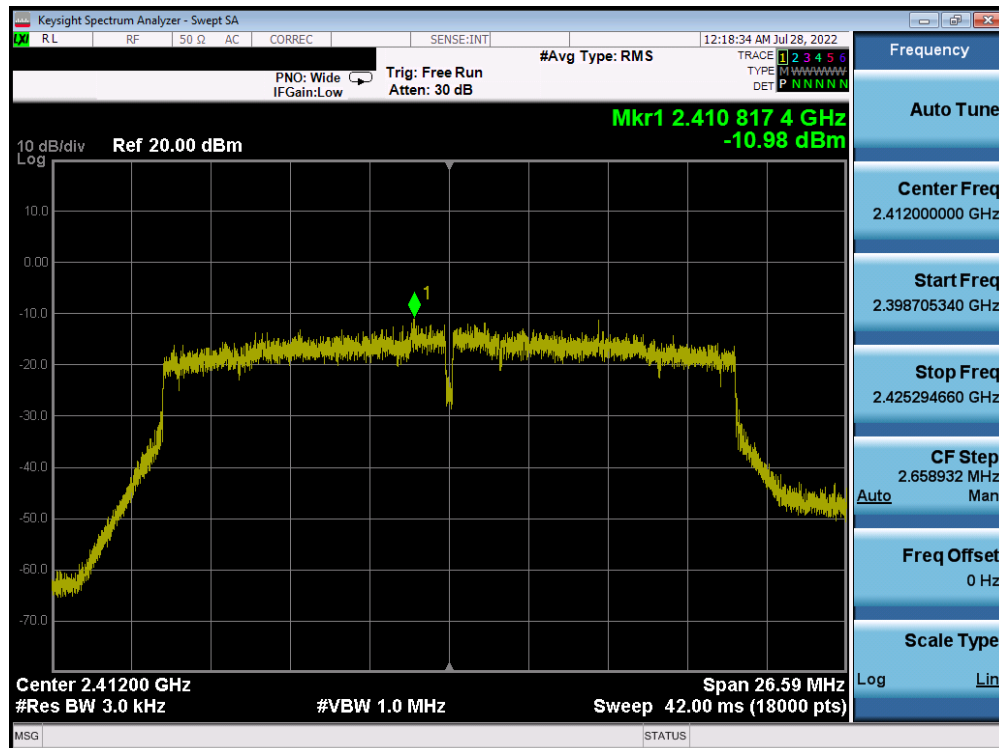
Plot 7-65. Power Spectral Density Plot Antenna 3a (802.11n (2.4GHz) – Ch. 6) – MCS2



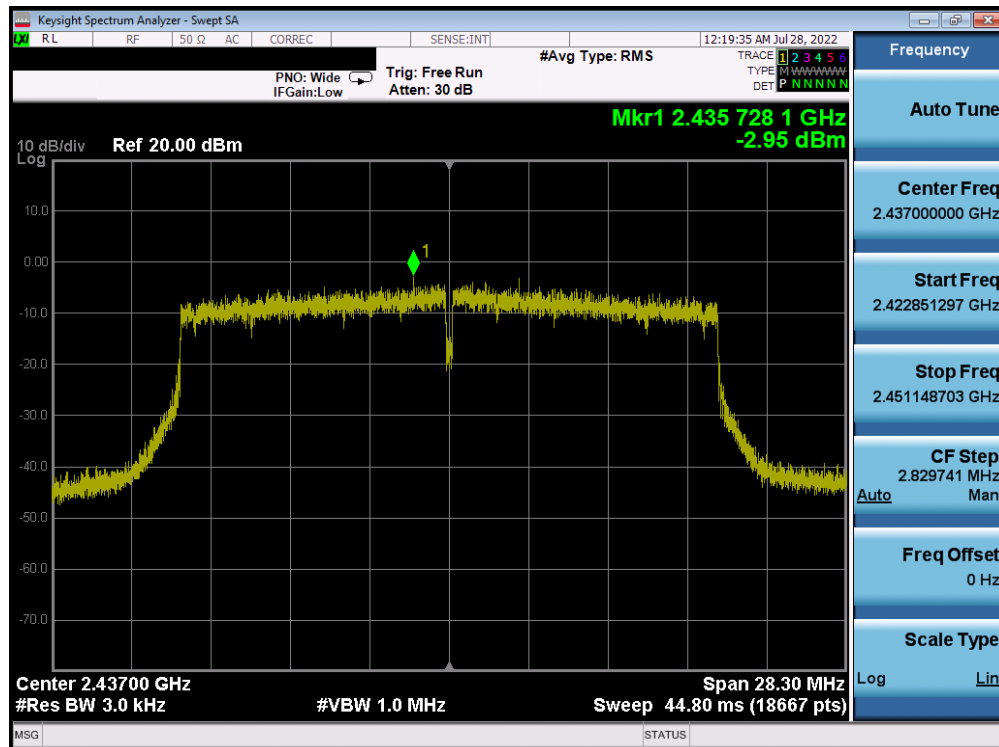
Plot 7-66. Power Spectral Density Plot Antenna 3a (802.11n (2.4GHz) – Ch. 11) – MCS2

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 74 of 440                    |

V 10.5 12/15/2021



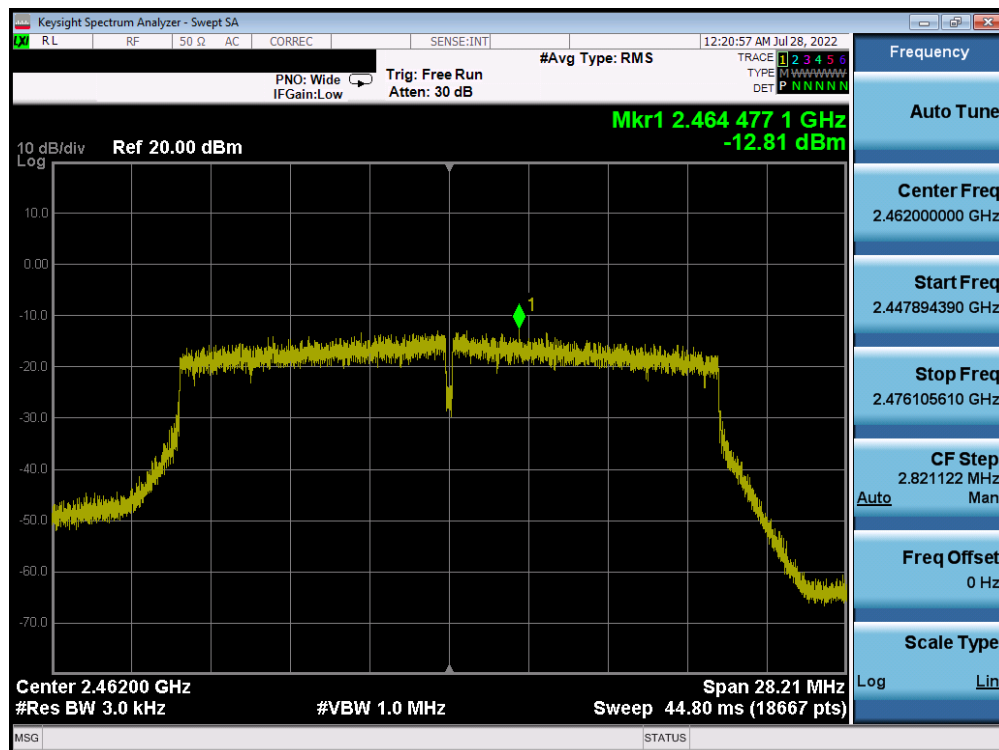
Plot 7-67. Power Spectral Density Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 1) – MCS2



Plot 7-68. Power Spectral Density Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 6) – MCS2

|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 75 of 440                    |

V 10.5 12/15/2021

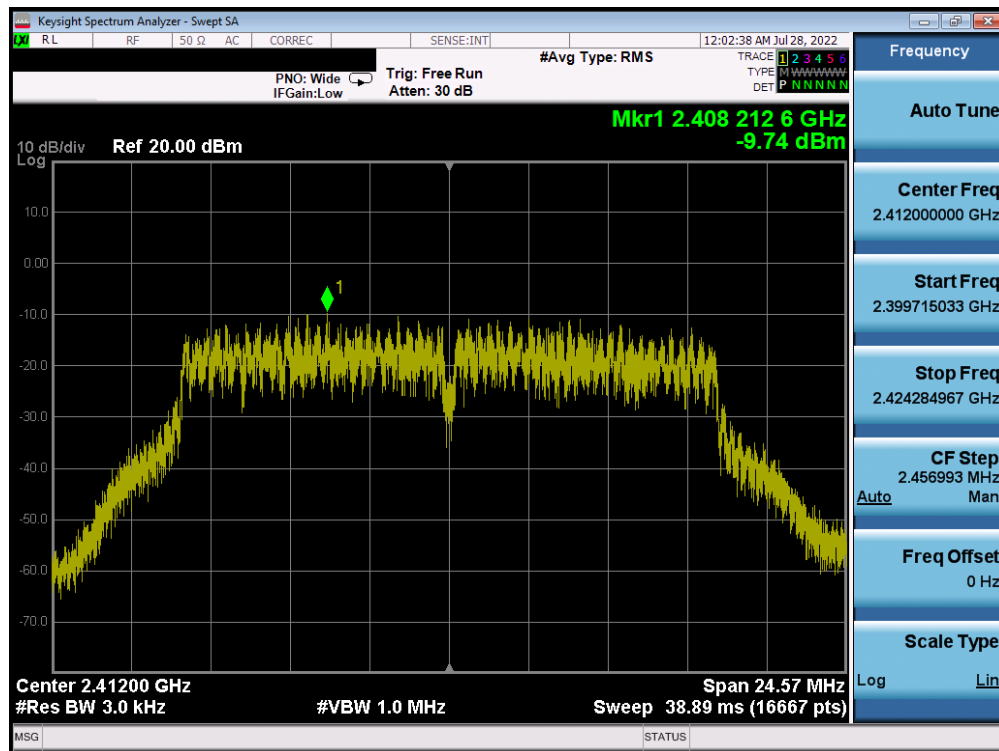


Plot 7-69. Power Spectral Density Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 11) – MCS2

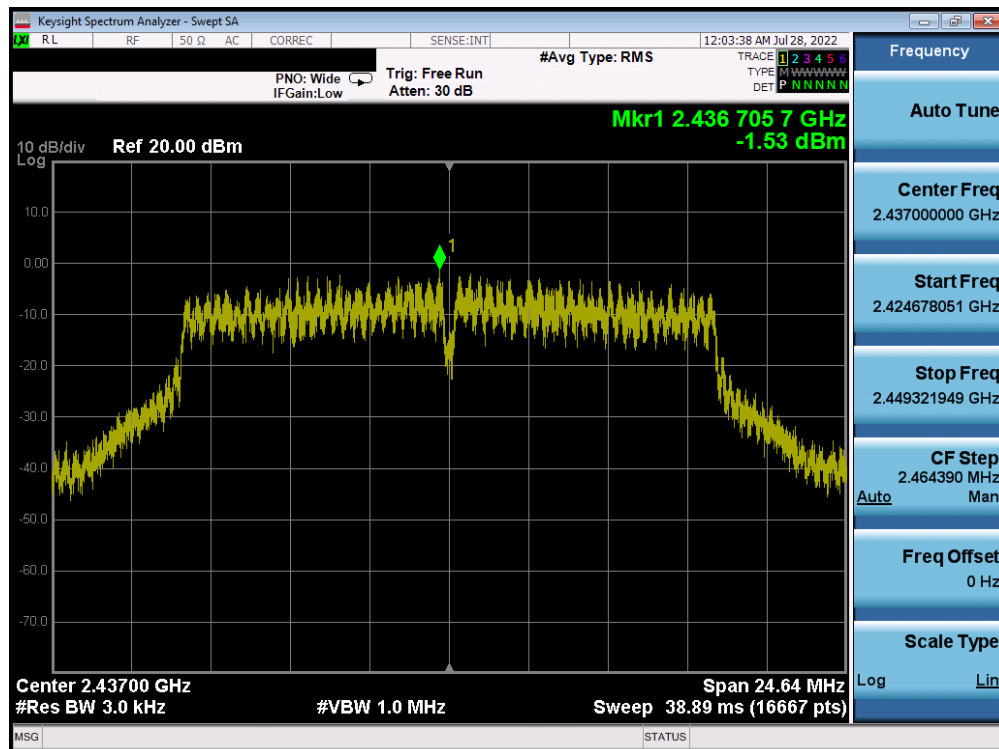
|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 76 of 440                    |

V 10.5 12/15/2021

## Mid Data Rate



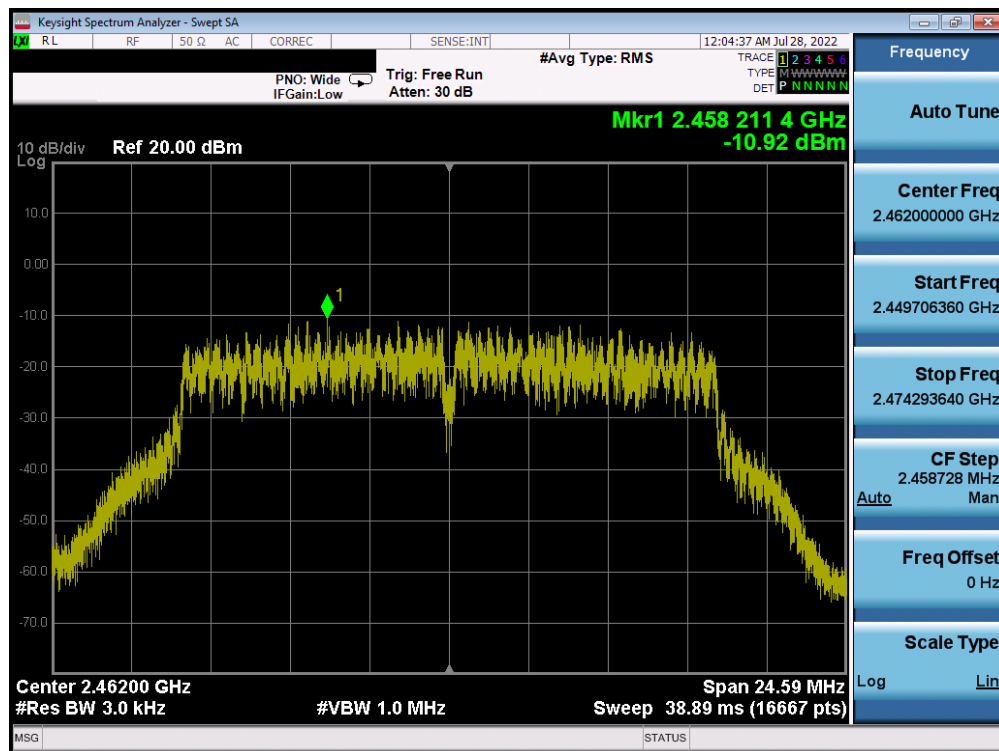
Plot 7-70. Power Spectral Density Plot Antenna 3a (802.11g – Ch. 1) – 24Mbps



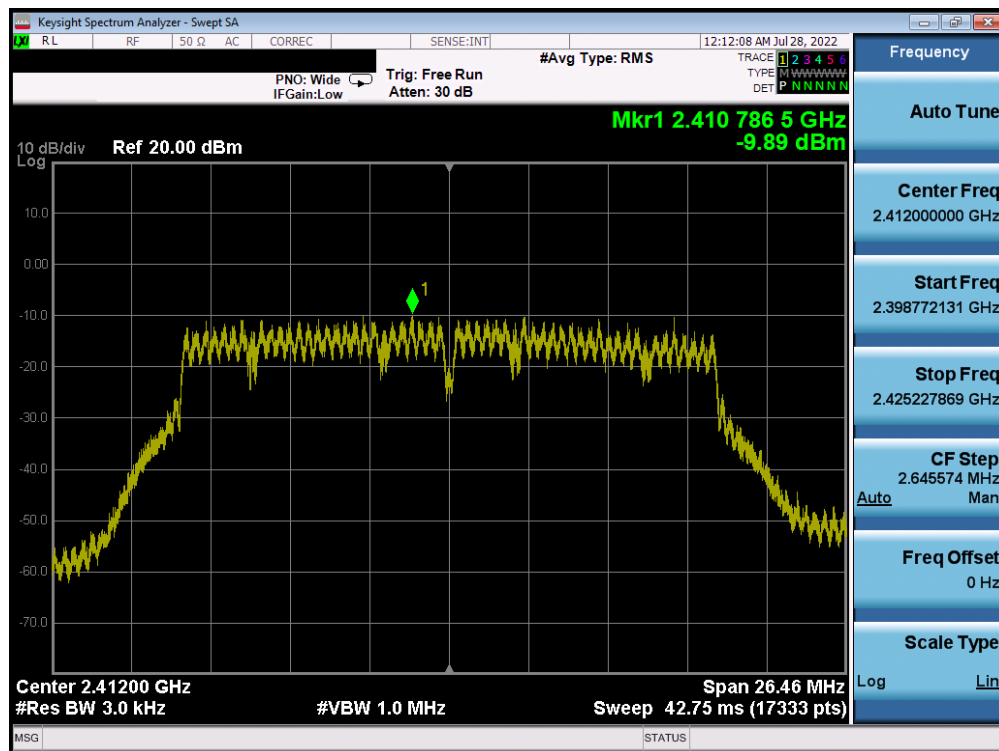
Plot 7-71. Power Spectral Density Plot Antenna 3a (802.11g – Ch. 6) – 24Mbps

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 77 of 440                    |

V 10.5 12/15/2021



Plot 7-72. Power Spectral Density Plot Antenna 3a (802.11g – Ch. 11) – 24Mbps

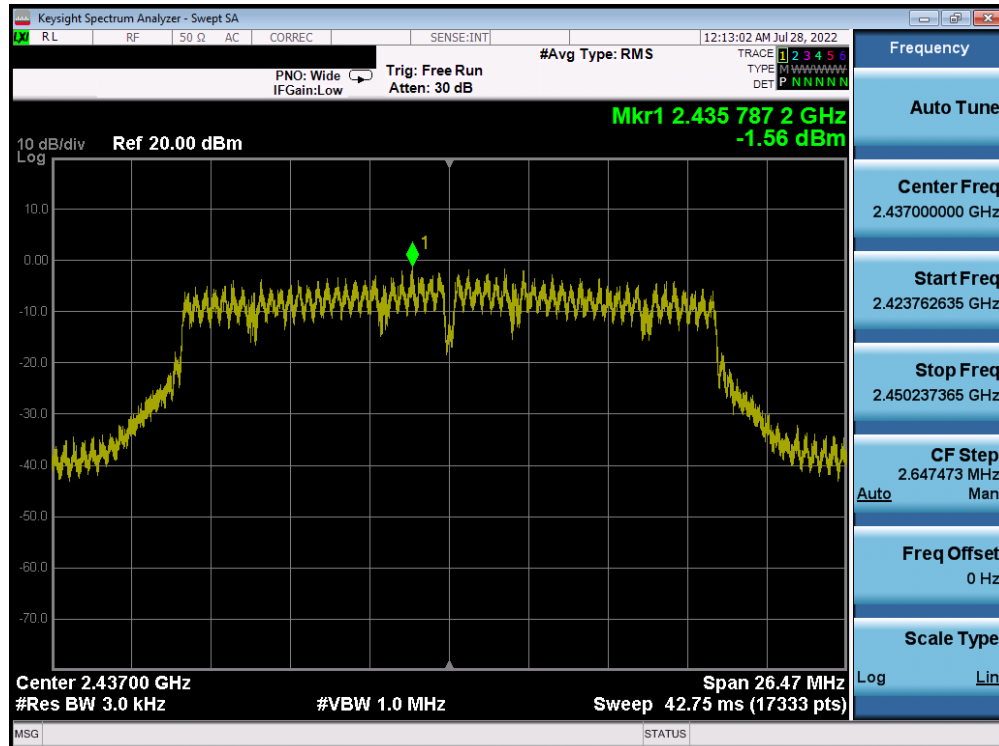


Plot 7-73. Power Spectral Density Plot Antenna 3a (802.11n (2.4GHz) – Ch. 1) – MCS4

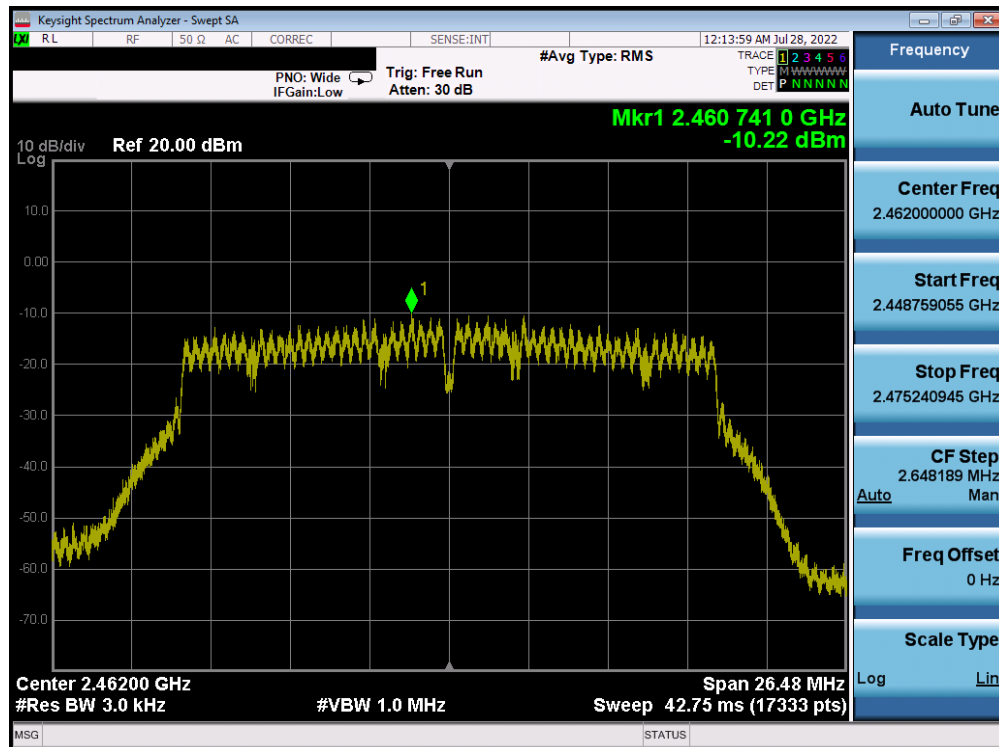
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 78 of 440                    |

V 10.5 12/15/2021

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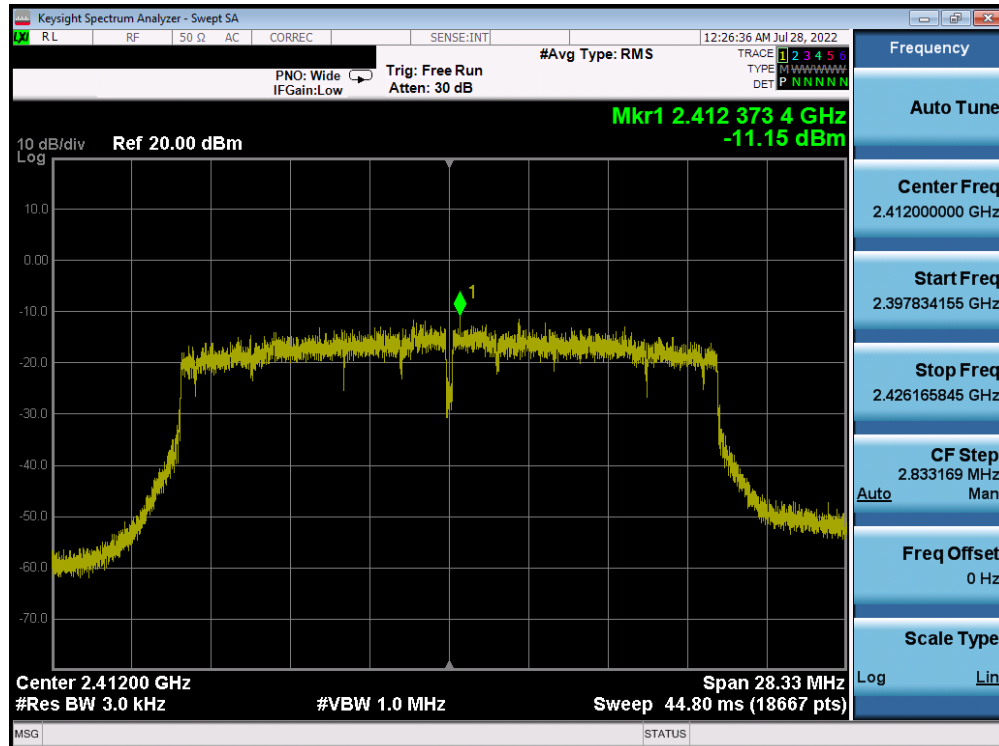
Plot 7-74. Power Spectral Density Plot Antenna 3a (802.11n (2.4GHz) – Ch. 6) – MCS4



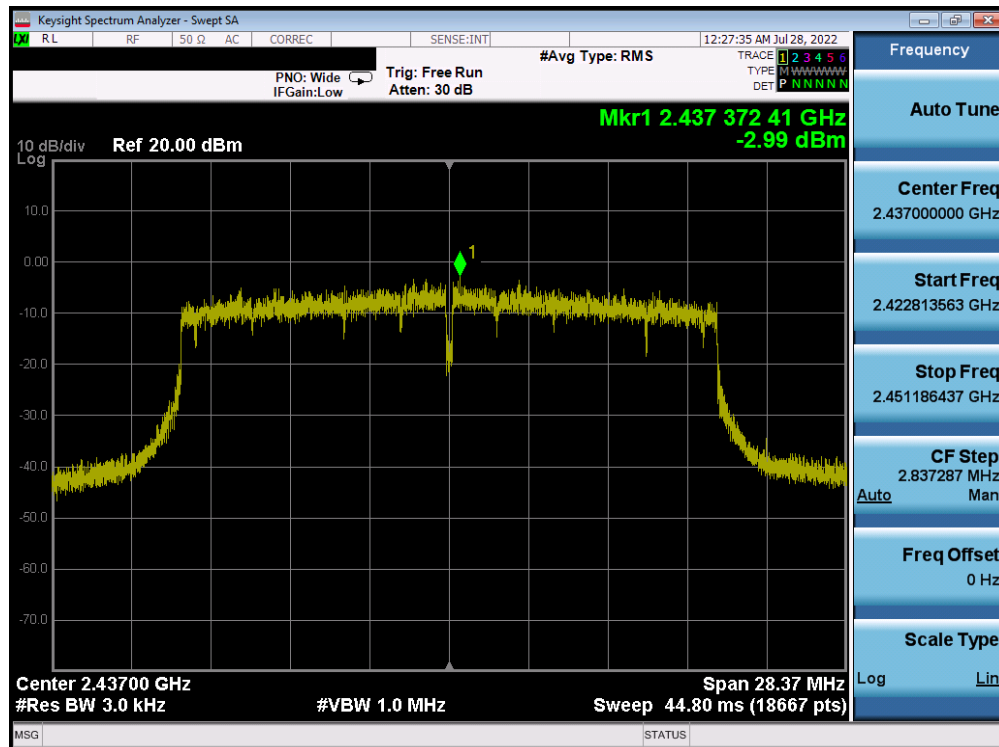
Plot 7-75. Power Spectral Density Plot Antenna 3a (802.11n (2.4GHz) – Ch. 11) – MCS4

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 79 of 440                    |

V 10.5 12/15/2021



Plot 7-76. Power Spectral Density Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 1) – MCS4



Plot 7-77. Power Spectral Density Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 6) – MCS4

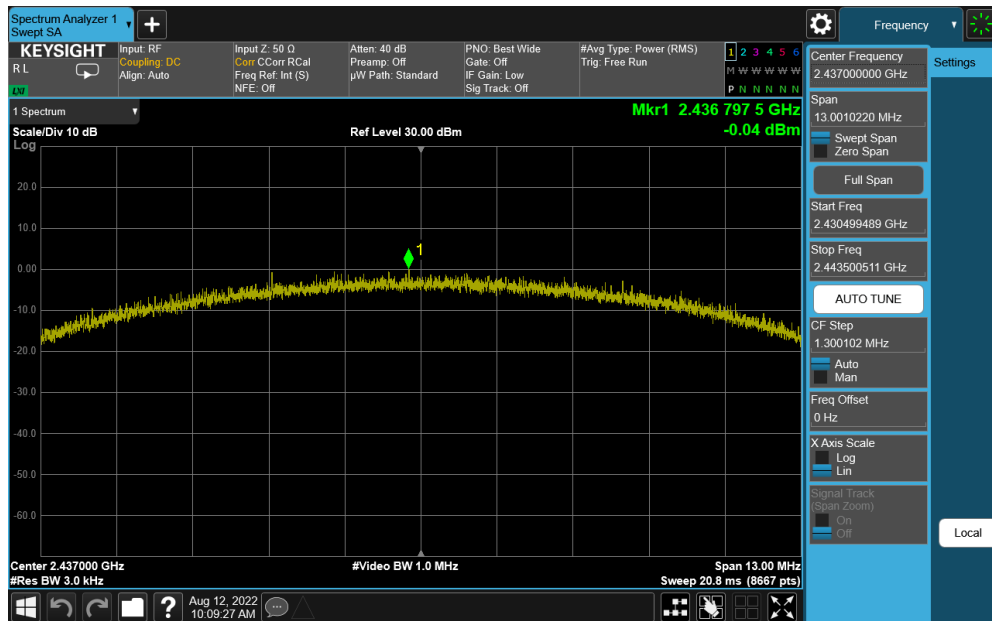
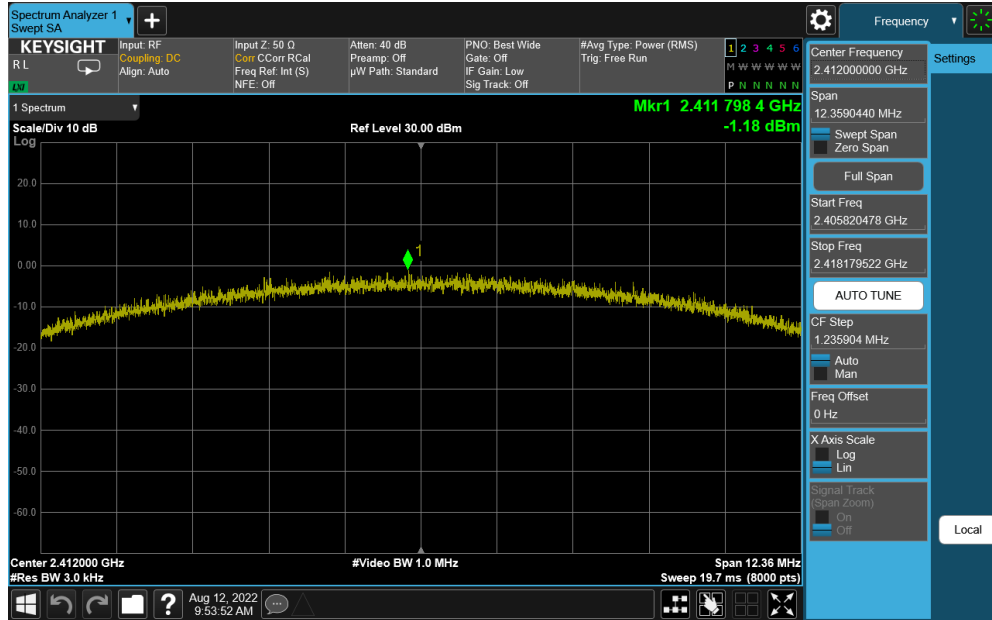
|                                         |                                                                                                                                   |                            |                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                            | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                                                                            | EUT Type:<br>Tablet Device | Page 80 of 440                    |

V 10.5 12/15/2021





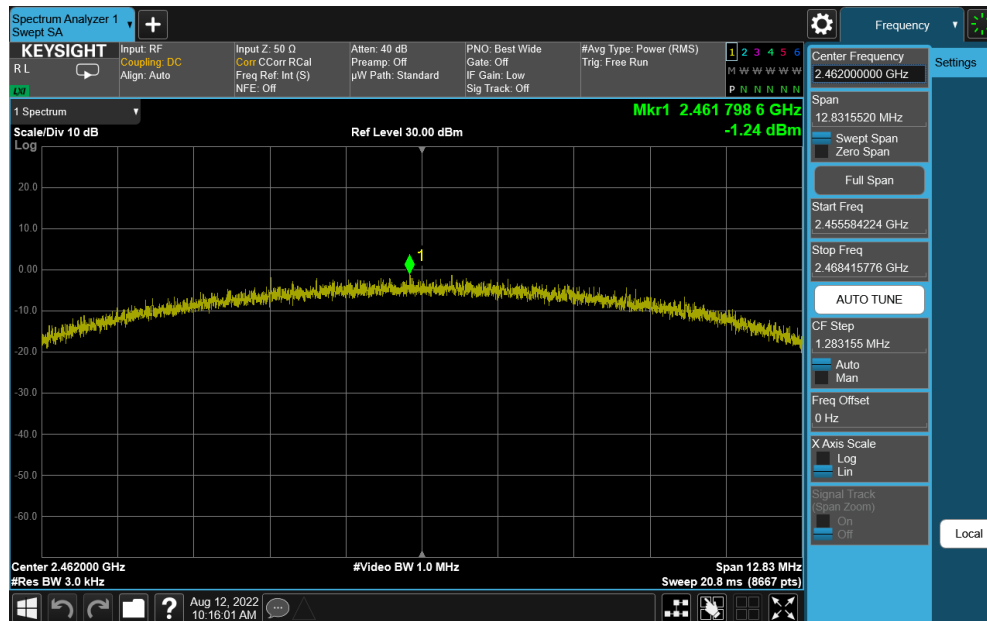
## High Data Rate



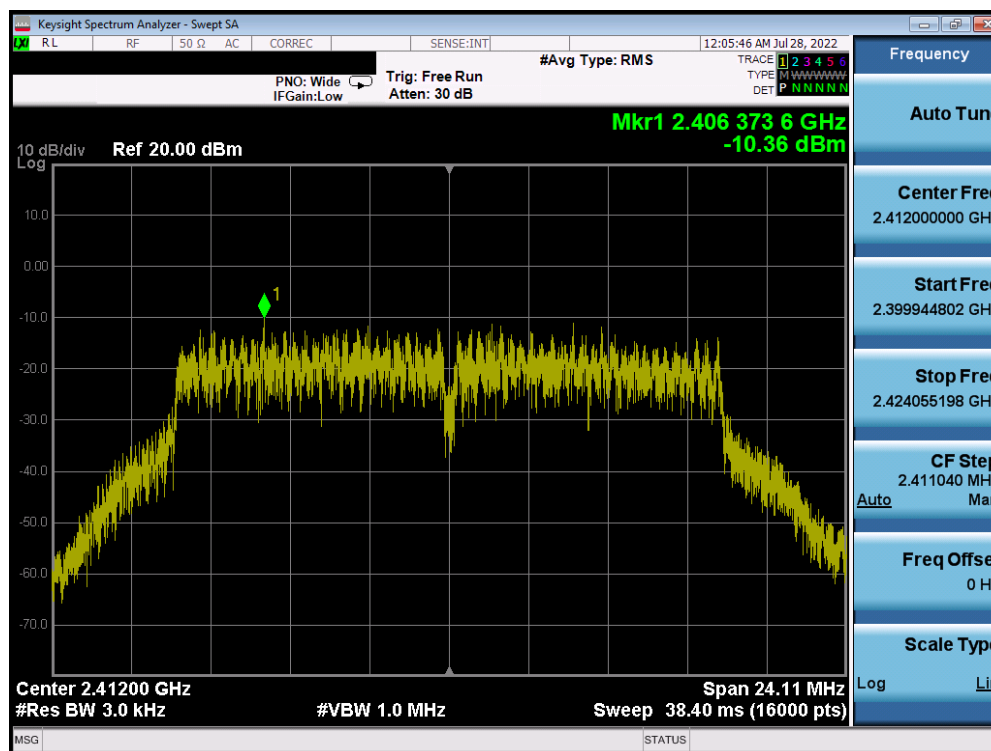
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 82 of 440                    |

V 10.5 12/15/2021

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Plot 7-81. Power Spectral Density Plot Antenna 3a (802.11b – Ch. 11) – 11Mbps

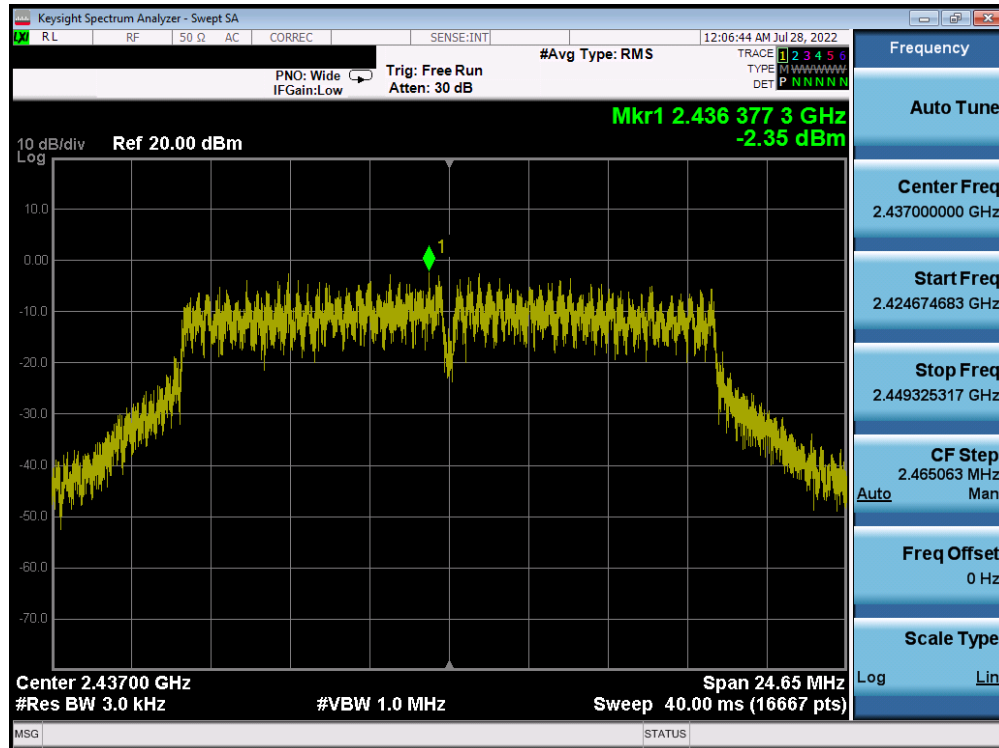


Plot 7-82. Power Spectral Density Plot Antenna 3a (802.11g – Ch. 1) – 36Mbps

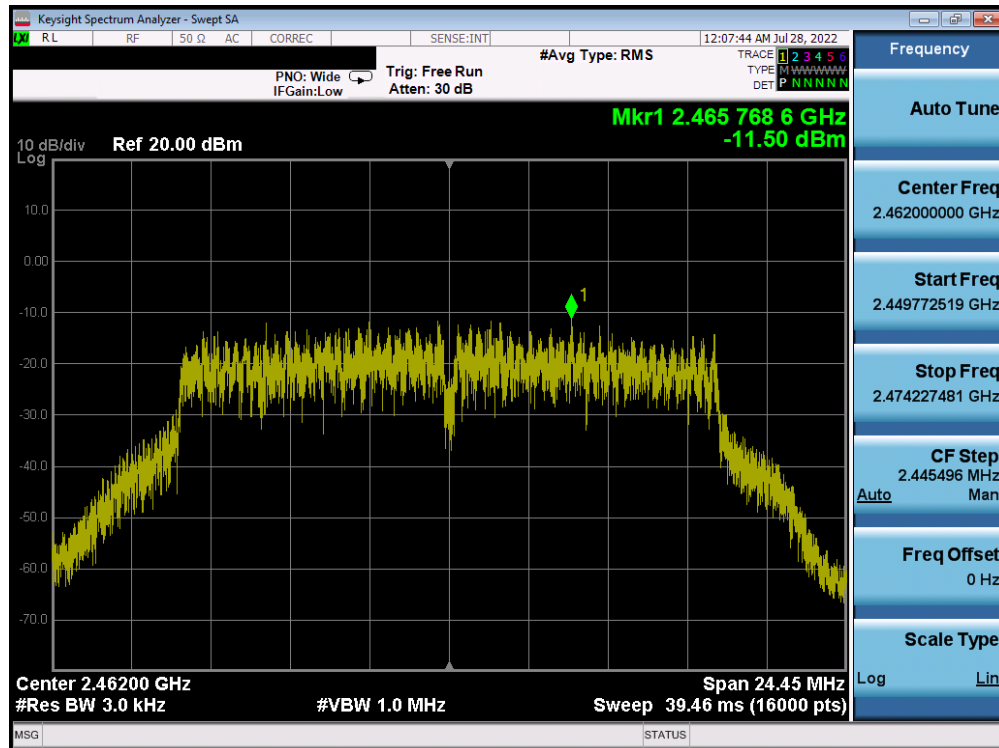
|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 83 of 440                    |

V 10.5 12/15/2021

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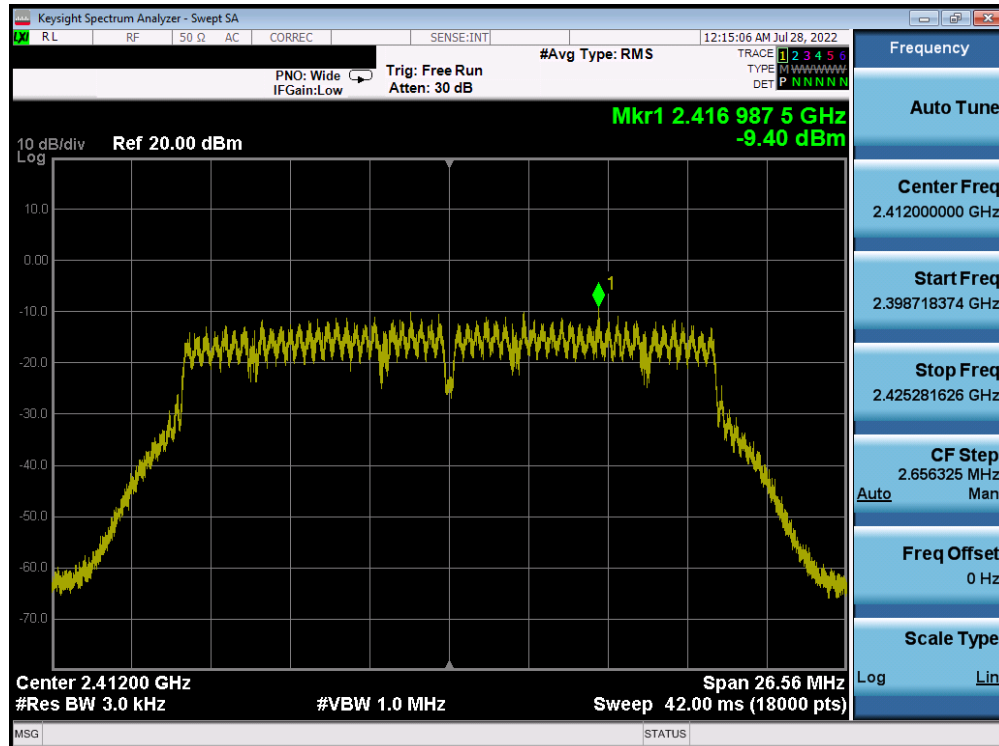
Plot 7-83. Power Spectral Density Plot Antenna 3a (802.11g – Ch. 6) – 36Mbps



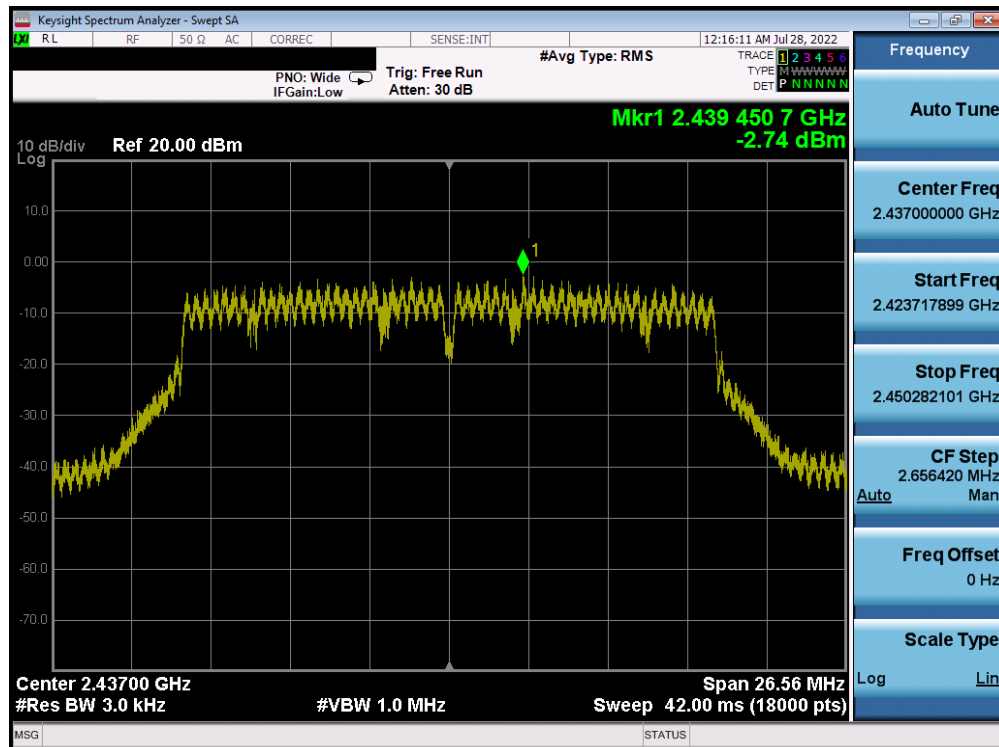
Plot 7-84. Power Spectral Density Plot Antenna 3a (802.11g – Ch. 11) – 36Mbps

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 84 of 440                    |

V 10.5 12/15/2021



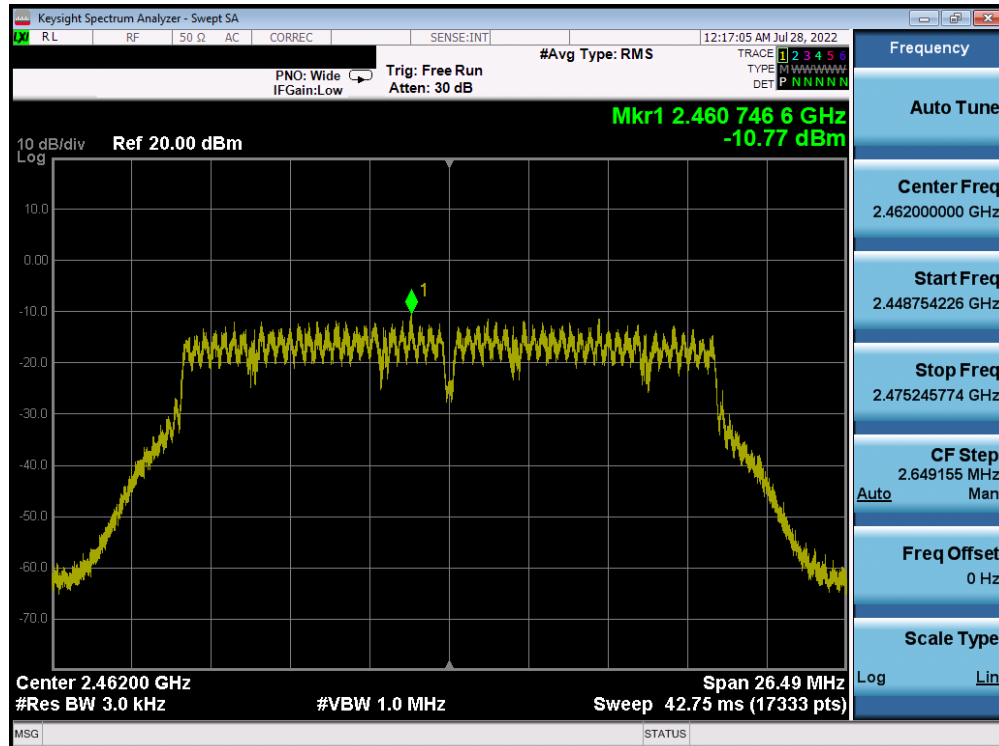
Plot 7-85. Power Spectral Density Plot Antenna 3a (802.11n (2.4GHz) – Ch. 1) – MCS5



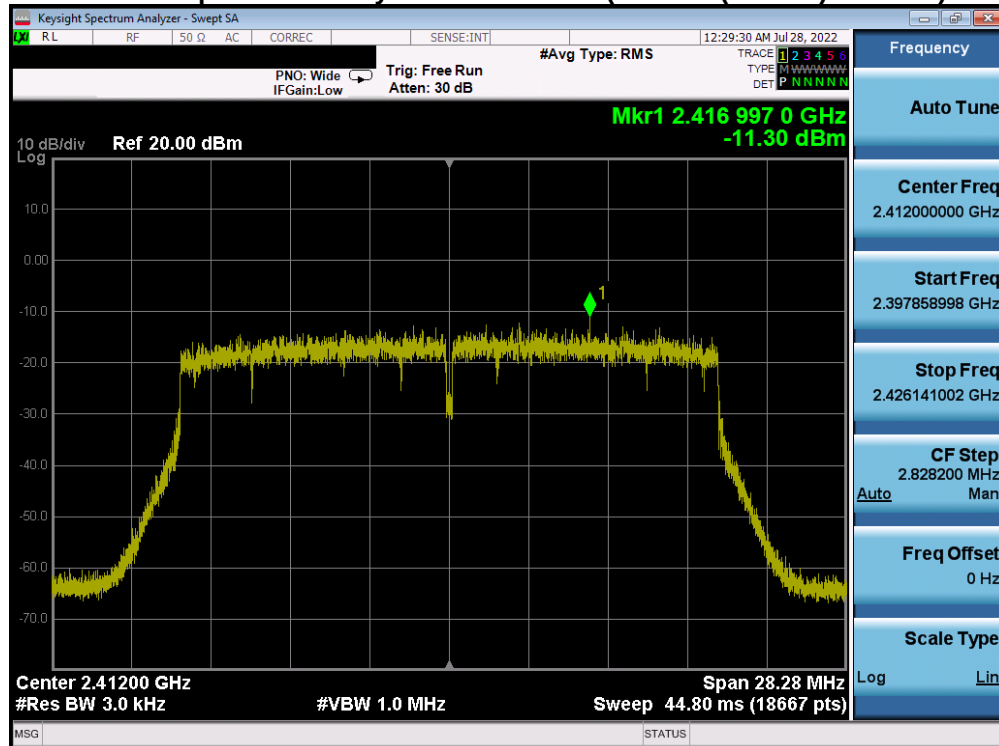
Plot 7-86. Power Spectral Density Plot Antenna 3a (802.11n (2.4GHz) – Ch. 6) – MCS5

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 85 of 440                    |

V 10.5 12/15/2021

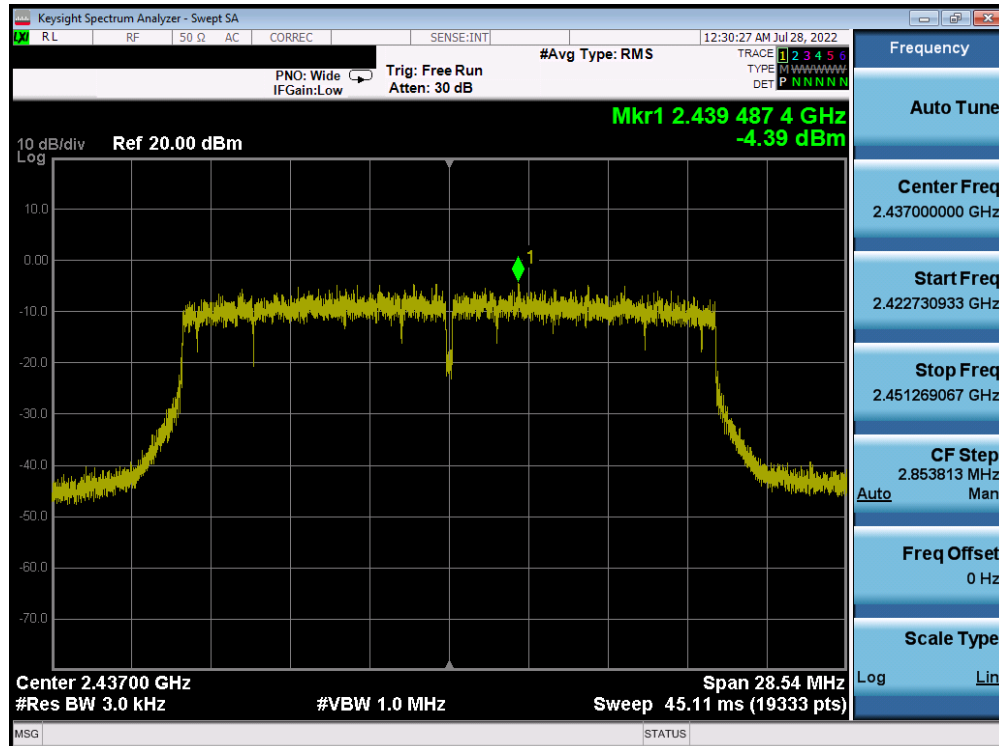


**Plot 7-87. Power Spectral Density Plot Antenna 3a (802.11n (2.4GHz) – Ch. 11) – MCS5**

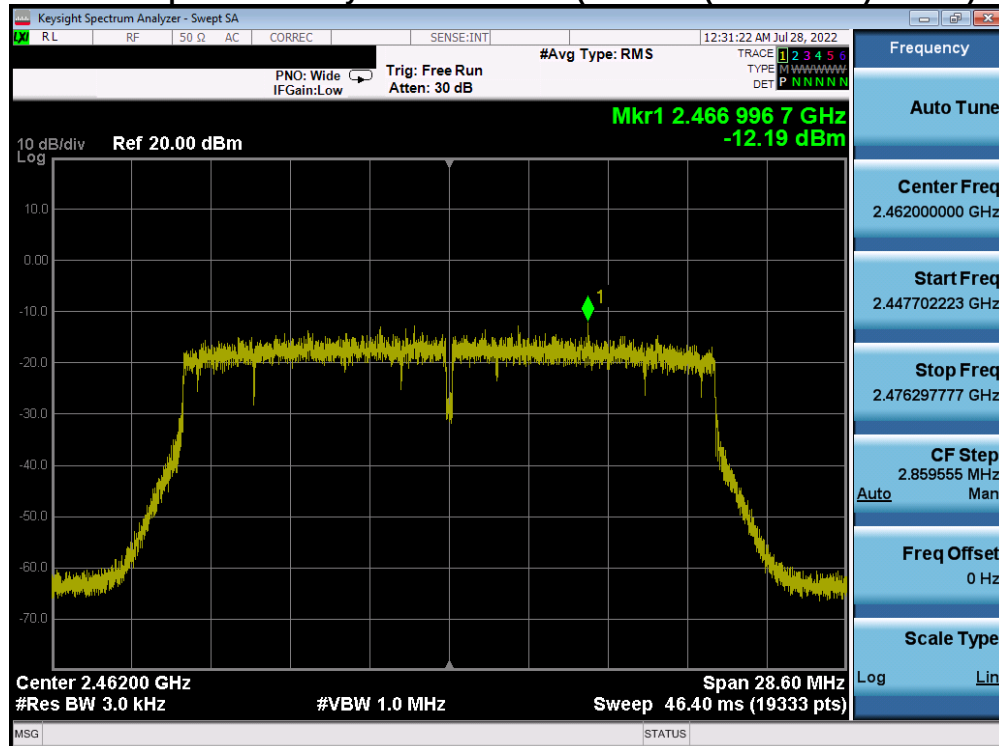


**Plot 7-88. Power Spectral Density Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 1) – MCS5**

|                                                  |                                                                                                                                   |                                   |                                          |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------|
| <b>FCC ID:</b> BCGA2757<br><b>IC:</b> 579C-A2757 |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                                   | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1C2205090023-10.BCG   | <b>Test Dates:</b><br>05/30/2022 - 09/14/2022                                                                                     | <b>EUT Type:</b><br>Tablet Device | Page 86 of 440                           |



Plot 7-89. Power Spectral Density Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 6) – MCS5



Plot 7-90. Power Spectral Density Plot Antenna 3a (802.11ax (SU - 2.4GHz) – Ch. 11) – MCS5

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 87 of 440                    |

V 10.5 12/15/2021

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## Antenna 1a Power Spectral Density Measurements

| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Spectral Density [dBm / 3kHz] | Maximum Permissible Power Density [dBm / 3kHz] | Margin [dB] | Pass / Fail |
|-----------------|-------------|-------------|------------------|----------------------------------------------|------------------------------------------------|-------------|-------------|
| 2412            | 1           | g           | 12               | -8.85                                        | 8.00                                           | -16.85      | Pass        |
| 2437            | 6           | g           | 12               | -1.47                                        | 8.00                                           | -9.47       | Pass        |
| 2462            | 11          | g           | 12               | -10.15                                       | 8.00                                           | -18.15      | Pass        |
| 2412            | 1           | n           | 19.5/21.7 (MCS2) | -9.77                                        | 8.00                                           | -17.77      | Pass        |
| 2437            | 6           | n           | 19.5/21.7 (MCS2) | -1.12                                        | 8.00                                           | -9.12       | Pass        |
| 2462            | 11          | n           | 19.5/21.7 (MCS2) | -9.77                                        | 8.00                                           | -17.77      | Pass        |
| 2412            | 1           | ax (SU)     | 24/25.8 (MCS2)   | -11.41                                       | 8.00                                           | -19.41      | Pass        |
| 2437            | 6           | ax (SU)     | 24/25.8 (MCS2)   | -3.51                                        | 8.00                                           | -11.51      | Pass        |
| 2462            | 11          | ax (SU)     | 24/25.8 (MCS2)   | -11.72                                       | 8.00                                           | -19.72      | Pass        |

**Table 7-41. Conducted Power Density Measurements Antenna 1a (Low Data Rate)**

| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Spectral Density [dBm / 3kHz] | Maximum Permissible Power Density [dBm / 3kHz] | Margin [dB] | Pass / Fail |
|-----------------|-------------|-------------|------------------|----------------------------------------------|------------------------------------------------|-------------|-------------|
| 2412            | 1           | g           | 24               | -9.23                                        | 8.00                                           | -17.23      | Pass        |
| 2437            | 6           | g           | 24               | -1.39                                        | 8.00                                           | -9.39       | Pass        |
| 2462            | 11          | g           | 24               | -10.48                                       | 8.00                                           | -18.48      | Pass        |
| 2412            | 1           | n           | 39/43.3 (MCS4)   | -9.78                                        | 8.00                                           | -17.78      | Pass        |
| 2437            | 6           | n           | 39/43.3 (MCS4)   | -0.64                                        | 8.00                                           | -8.64       | Pass        |
| 2462            | 11          | n           | 39/43.3 (MCS4)   | -9.21                                        | 8.00                                           | -17.21      | Pass        |
| 2412            | 1           | ax (SU)     | 49/51.6 (MCS4)   | -10.85                                       | 8.00                                           | -18.85      | Pass        |
| 2437            | 6           | ax (SU)     | 49/51.6 (MCS4)   | -2.97                                        | 8.00                                           | -10.97      | Pass        |
| 2462            | 11          | ax (SU)     | 49/51.6 (MCS4)   | -11.48                                       | 8.00                                           | -19.48      | Pass        |

**Table 7-42. Conducted Power Density Measurements Antenna 1a (Mid Data Rate)**

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 88 of 440                    |

V 10.5 12/15/2021



| Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Spectral Density [dBm / 3kHz] | Maximum Permissible Power Density [dBm / 3kHz] | Margin [dB] | Pass / Fail |
|-----------------|-------------|-------------|------------------|----------------------------------------------|------------------------------------------------|-------------|-------------|
| 2412            | 1           | b           | 11               | -0.25                                        | 8.00                                           | -8.25       | Pass        |
| 2437            | 6           | b           | 11               | 0.79                                         | 8.00                                           | -7.21       | Pass        |
| 2462            | 11          | b           | 11               | -0.09                                        | 8.00                                           | -8.09       | Pass        |
| 2412            | 1           | g           | 36               | -10.12                                       | 8.00                                           | -18.12      | Pass        |
| 2437            | 6           | g           | 36               | -3.39                                        | 8.00                                           | -11.39      | Pass        |
| 2462            | 11          | g           | 36               | -11.26                                       | 8.00                                           | -19.26      | Pass        |
| 2412            | 1           | n           | 52/57.8 (MCS5)   | -10.00                                       | 8.00                                           | -18.00      | Pass        |
| 2437            | 6           | n           | 52/57.8 (MCS5)   | -2.53                                        | 8.00                                           | -10.53      | Pass        |
| 2462            | 11          | n           | 52/57.8 (MCS5)   | -10.51                                       | 8.00                                           | -18.51      | Pass        |
| 2412            | 1           | ax (SU)     | 65/68.8 (MCS5)   | -11.08                                       | 8.00                                           | -19.08      | Pass        |
| 2437            | 6           | ax (SU)     | 65/68.8 (MCS5)   | -3.76                                        | 8.00                                           | -11.76      | Pass        |
| 2462            | 11          | ax (SU)     | 65/68.8 (MCS5)   | -12.12                                       | 8.00                                           | -20.12      | Pass        |

**Table 7-43. Conducted Power Density Measurements Antenna 1a (High Data Rate)**

|                                         |                                                                                     |                                       |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|
| FCC ID: BCGA2757<br>IC: 579C-A2757      |  | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1C2205090023-10.BCG | Test Dates:<br>05/30/2022 - 09/14/2022                                              | EUT Type:<br>Tablet Device            | Page 89 of 440                    |

V 10.5 12/15/2021