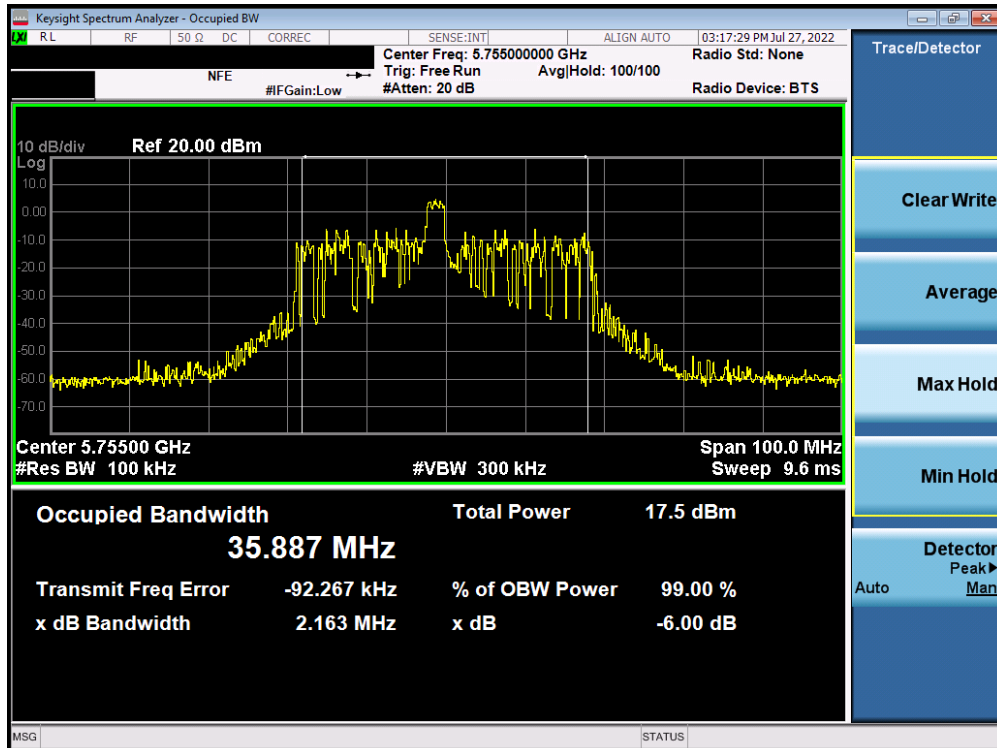
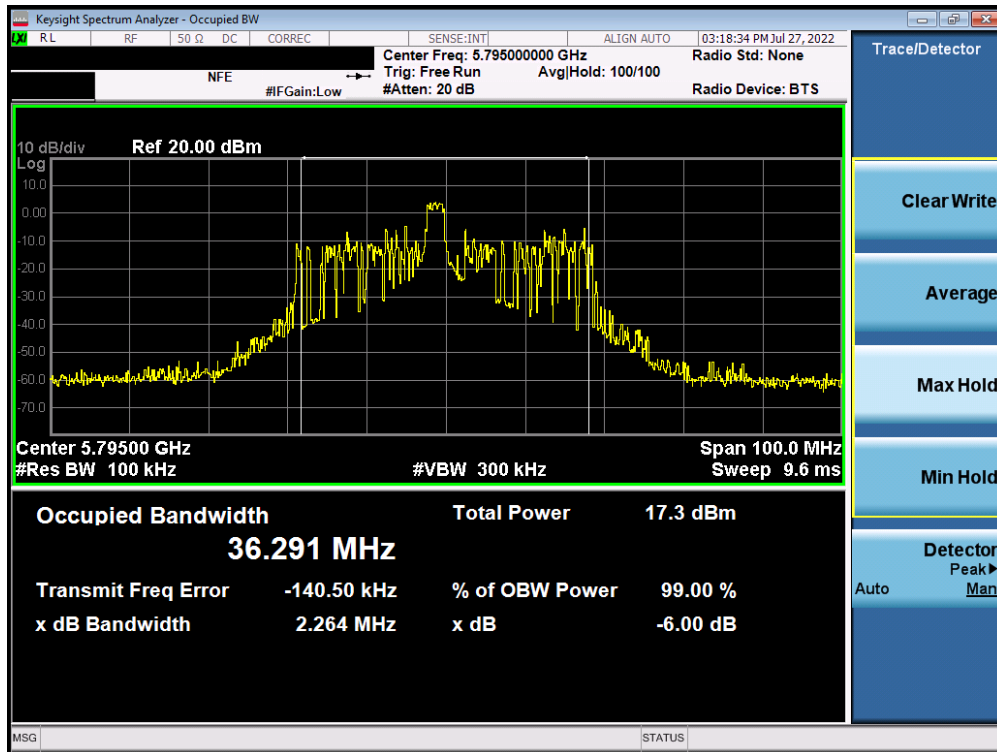


Plot 7-111. 6dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 165)

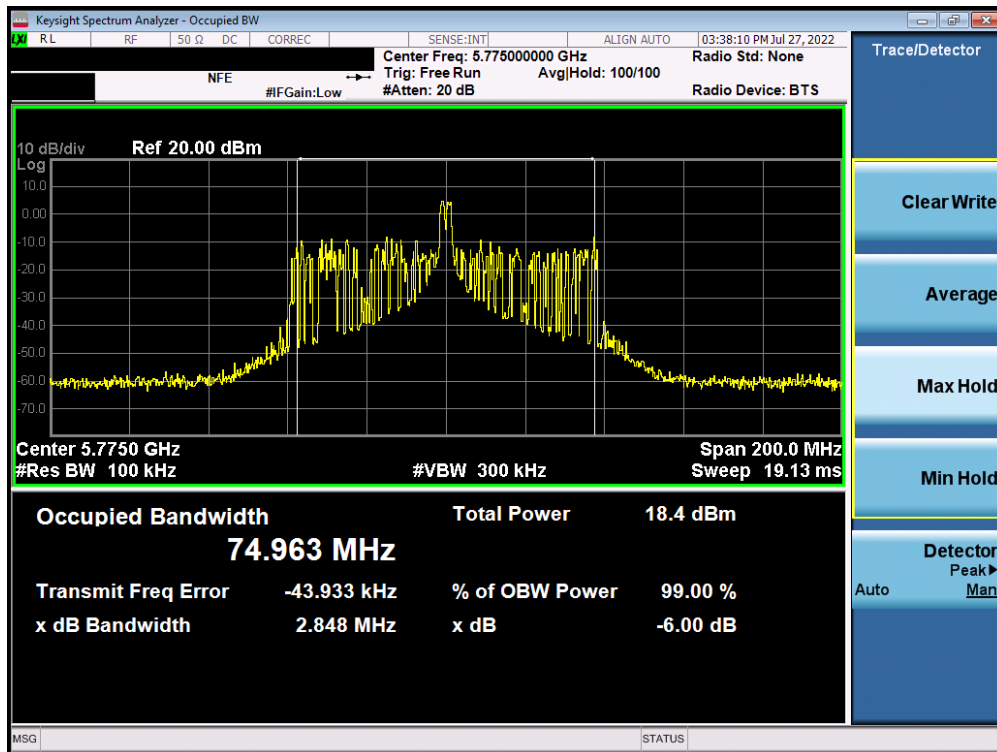


Plot 7-112. 6dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 151)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 79 of 189                    |



Plot 7-113. 6dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 159)



Plot 7-114. 6dB Bandwidth Plot MIMO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 155)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 80 of 189                    |

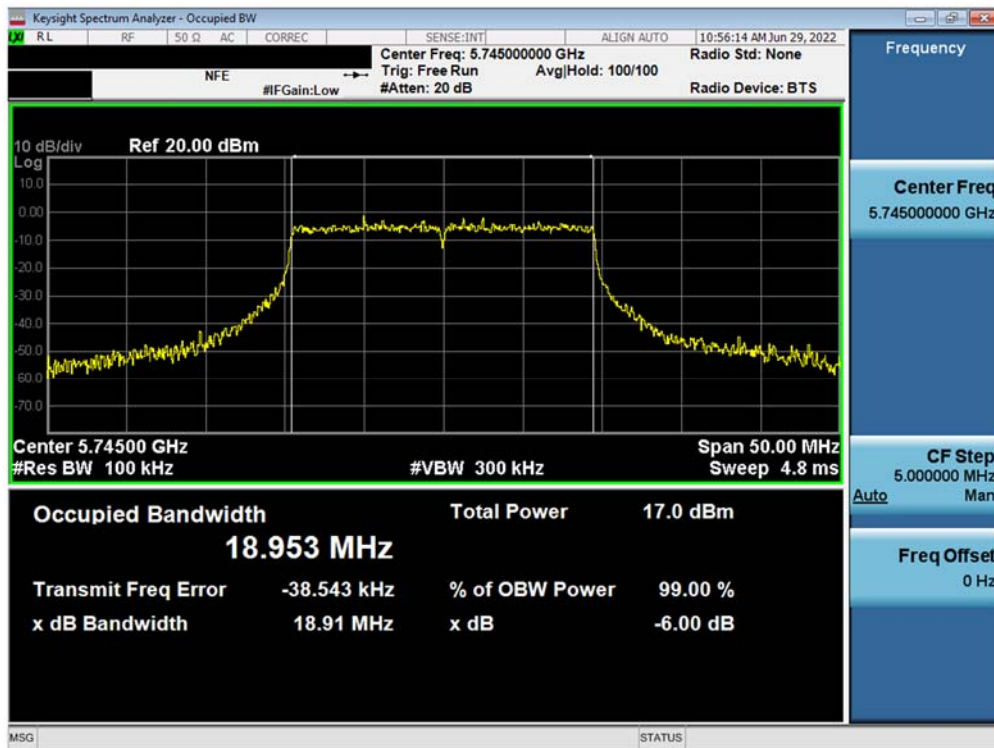


### MIMO Antenna-2 6dB Bandwidth Measurements (Full Tones)

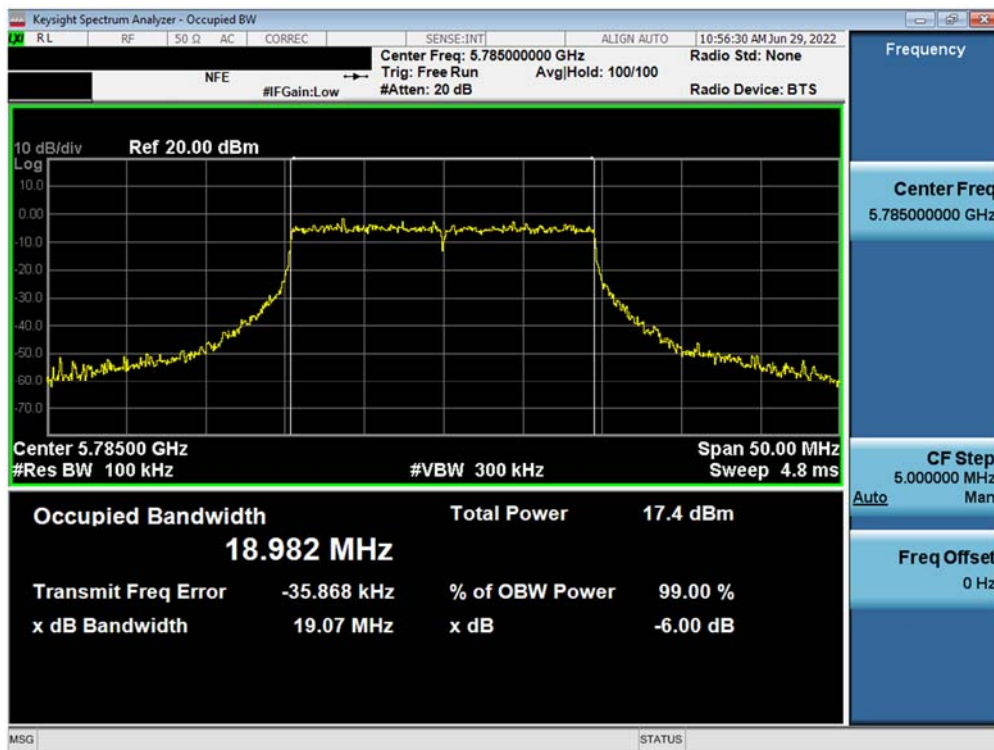
|               | Frequency [MHz] | Channel No. | 802.11 Mode | Tones | Data Rate [Mbps] | Measured 6dB Bandwidth [MHz] |
|---------------|-----------------|-------------|-------------|-------|------------------|------------------------------|
| <b>Band 3</b> | 5745            | 149         | ax (20MHz)  | 242T  | MCS0             | 18.91                        |
|               | 5785            | 157         | ax (20MHz)  | 242T  | MCS0             | 19.07                        |
|               | 5825            | 165         | ax (20MHz)  | 242T  | MCS0             | 19.10                        |
|               | 5755            | 151         | ax (40MHz)  | 484T  | MCS0             | 38.19                        |
|               | 5795            | 159         | ax (40MHz)  | 484T  | MCS0             | 38.10                        |
|               | 5775            | 155         | ax (80MHz)  | 996T  | MCS0             | 78.23                        |

**Table 7-9. Conducted Bandwidth Measurements MIMO ANT2 (Full Tones)**

|  |   |                                      |  |
|--|---|--------------------------------------|--|
| <b>FCC ID:</b> PY7-58692W                      | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2207200079-11.PY7 | <b>Test Dates:</b><br>6/3/2022-7/29/2022      | <b>EUT Type:</b><br>Portable Handset | Page 81 of 189                           |

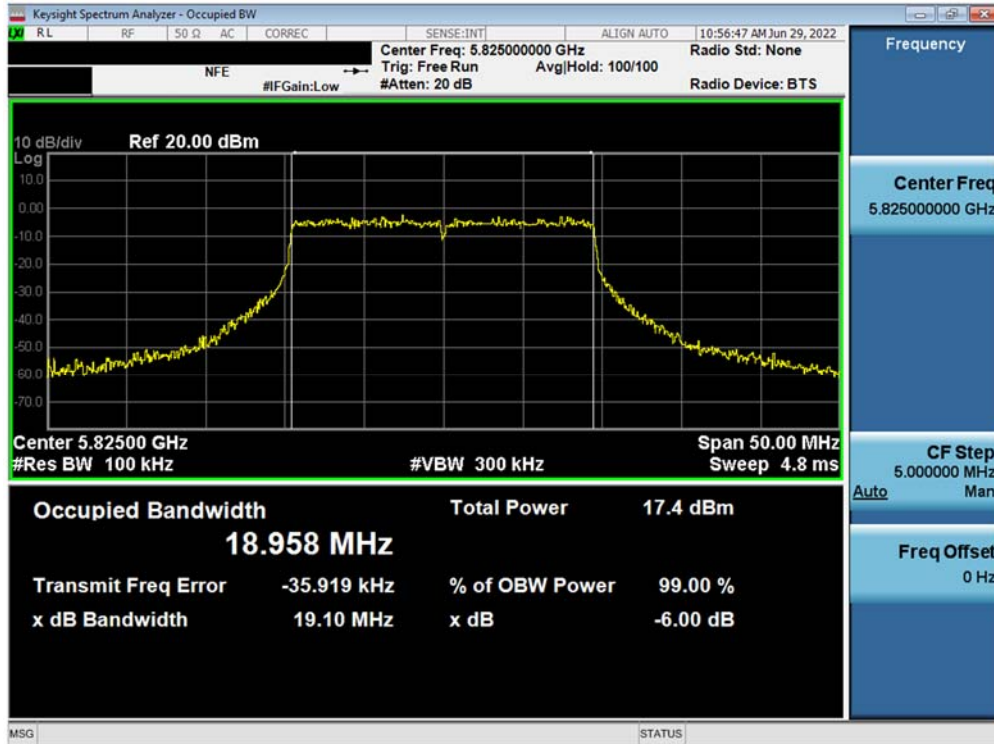


Plot 7-115. 6dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 149)

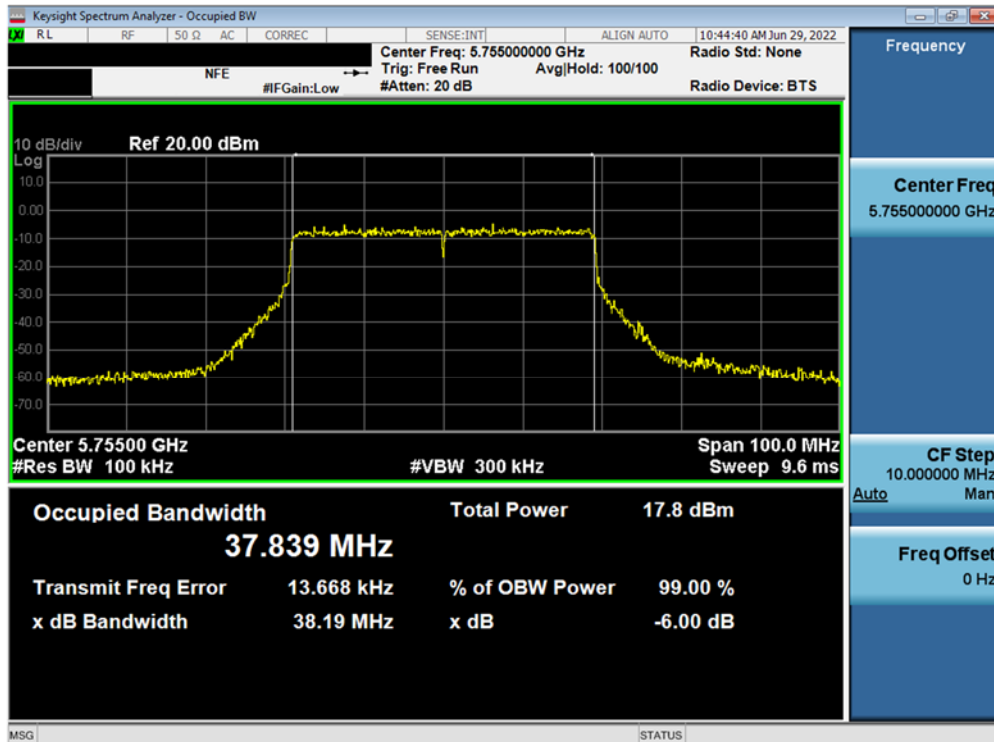


Plot 7-116. 6dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 157)

| FCC ID: PY7-58692W                      |                                   | MEASUREMENT REPORT (CERTIFICATION) |                | Approved by:<br>Technical Manager |
|---|-----------------------------------|------------------------------------|----------------|-----------------------------------|
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022 | EUT Type:<br>Portable Handset      | Page 82 of 189 |                                   |

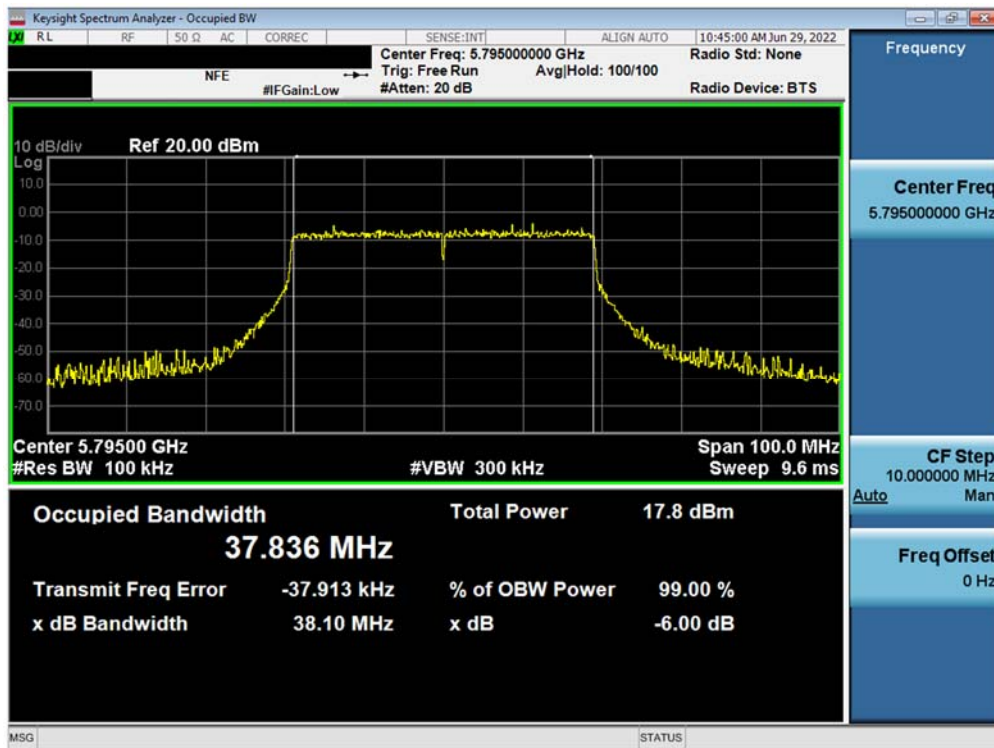


Plot 7-117. 6dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 165)

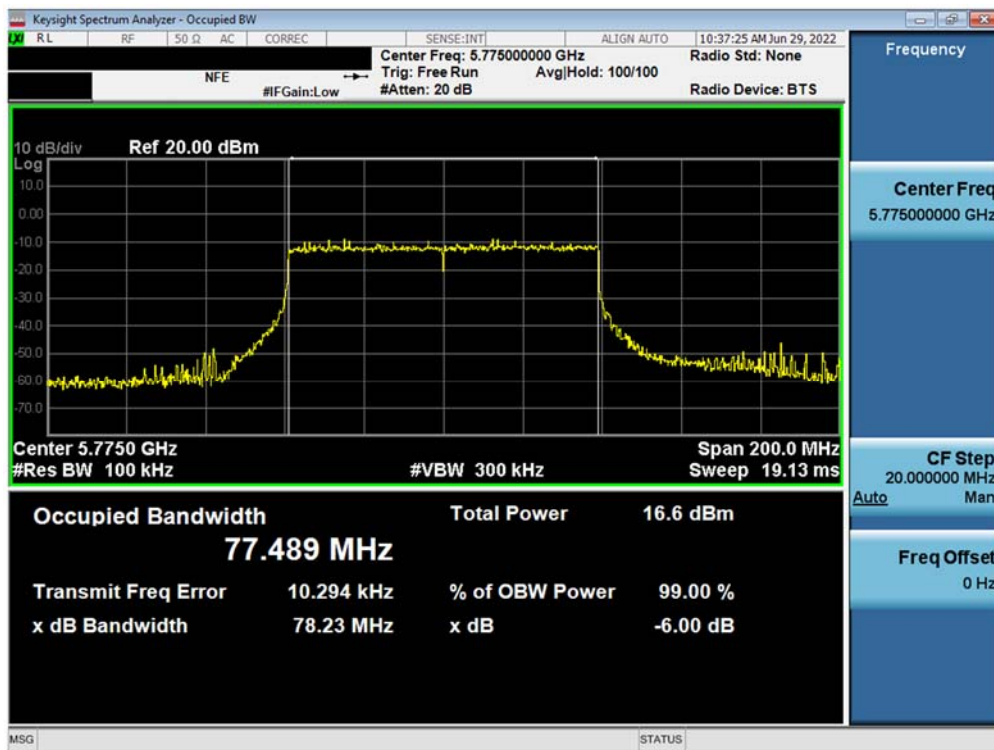


Plot 7-118. 6dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 151)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 83 of 189                    |



Plot 7-119. 6dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 159)



Plot 7-120. 6dB Bandwidth Plot MIMO ANT2 (80MHz BW 802.11ax – 996 Tones (UNII Band 3) – Ch. 155)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 84 of 189                    |



## 7.4 UNII Output Power Measurement – 802.11ax OFDMA

§15.407(a.1.iv) §15.407(a.2) §15.407(a.3); RSS-247 [6.2]

### Test Overview and Limits

A transmitter antenna terminal of the EUT is connected to the input of an RF pulse power sensor. Measurement is made using a broadband average power meter while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies.

***In the 5.15 – 5.25GHz band, the maximum permissible conducted output power is 250mW (23.98dBm). The maximum e.i.r.p. shall not exceed the lesser of 200 mW or  $10 + 10 \log_{10}B$ , dBm.***

***In the 5.25 – 5.35GHz band, the maximum permissible conducted output power is the lesser of 250mW (23.98dBm) or  $11 \text{ dBm} + 10\log_{10}(26\text{dB BW}) = 11 \text{ dBm} + 10\log_{10}(N/A) = N/\text{AdBm}$ . The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or  $17 + 10 \log_{10}B$ , dBm.***

***In the 5.47 – 5.725GHz band, the maximum permissible conducted output power is the lesser of 250mW (23.98dBm) or  $11 \text{ dBm} + 10\log_{10}(26\text{dB BW}) = 11 \text{ dBm} + 10\log_{10}(N/A) = N/\text{AdBm}$ . The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or  $17 + 10 \log_{10}B$ , dBm.***

***In the 5.725 – 5.850GHz band, the maximum permissible conducted output power is 1W (30dBm). The maximum e.i.r.p. is 36 dBm.***

### Test Procedure Used

ANSI C63.10-2013 – Section 12.3.3.2 Method PM-G  
 KDB 789033 D02 v02r01 – Section E)3)b) Method PM-G  
 ANSI C63.10-2013 – Section 14.2 Measure-and-Sum Technique  
 KDB 662911 v02r01 – Section E)1) Measure-and-Sum Technique

### Test Settings

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 diagram below.



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

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 85 of 189                    |

## MIMO Maximum Conducted Output Power Measurements (26 Tones)

| 5GHz (20MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |      |      |       |      |      |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|------|------|-------|------|------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 0        |       |      | 4    |       |      | 8    |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO | ANT1 | ANT2  | MIMO | ANT1 | ANT2  | MIMO  |                             |                             |
| 5180                   | 36         | AVG     | 26T      | 8.44  | 9.10     | 11.79 | 8.53 | 9.30 | 11.94 | 8.47 | 9.21 | 11.87 | 23.98 | -12.04                      |                             |
| 5200                   | 40         | AVG     | 26T      | 8.41  | 9.13     | 11.80 | 8.41 | 9.29 | 11.88 | 8.28 | 9.19 | 11.77 | 23.98 | -12.10                      |                             |
| 5240                   | 48         | AVG     | 26T      | 8.68  | 9.25     | 11.98 | 8.61 | 9.24 | 11.95 | 8.46 | 9.38 | 11.95 | 23.98 | -11.99                      |                             |
| 5260                   | 52         | AVG     | 26T      | 8.65  | 9.28     | 11.99 | 8.64 | 9.29 | 11.99 | 8.63 | 9.23 | 11.95 | 23.47 | -11.48                      |                             |
| 5280                   | 56         | AVG     | 26T      | 8.54  | 9.20     | 11.89 | 8.67 | 9.28 | 12.00 | 8.57 | 9.19 | 11.90 | 23.47 | -11.47                      |                             |
| 5320                   | 64         | AVG     | 26T      | 8.19  | 9.12     | 11.69 | 8.20 | 9.19 | 11.73 | 8.05 | 9.09 | 11.61 | 23.47 | -11.74                      |                             |
| 5500                   | 100        | AVG     | 26T      | 8.22  | 9.34     | 11.83 | 8.34 | 9.39 | 11.91 | 8.28 | 9.23 | 11.79 | 22.80 | -10.89                      |                             |
| 5600                   | 120        | AVG     | 26T      | 8.02  | 8.95     | 11.52 | 8.25 | 8.90 | 11.60 | 8.09 | 8.92 | 11.54 | 22.80 | -11.20                      |                             |
| 5720                   | 144        | AVG     | 26T      | 8.13  | 8.69     | 11.43 | 8.26 | 8.71 | 11.50 | 8.27 | 8.79 | 11.55 | 22.80 | -11.25                      |                             |
| 5745                   | 149        | AVG     | 26T      | 8.19  | 8.62     | 11.42 | 8.21 | 8.72 | 11.48 | 8.27 | 8.73 | 11.52 | 30.00 | -18.48                      |                             |
| 5785                   | 157        | AVG     | 26T      | 8.69  | 8.57     | 11.64 | 8.72 | 8.52 | 11.63 | 8.73 | 8.47 | 11.61 | 30.00 | -18.36                      |                             |
| 5825                   | 165        | AVG     | 26T      | 8.01  | 8.27     | 11.15 | 8.12 | 8.43 | 11.29 | 8.15 | 8.43 | 11.30 | 30.00 | -18.70                      |                             |

Table 7-10. MIMO 20MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

| 5GHz (40MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |      |      |       |      |      |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|------|------|-------|------|------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 0        |       |      | 8    |       |      | 17   |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO | ANT1 | ANT2  | MIMO | ANT1 | ANT2  | MIMO  |                             |                             |
| 5190                   | 38         | AVG     | 26T      | 8.64  | 8.88     | 11.77 | 8.71 | 8.75 | 11.74 | 8.57 | 8.88 | 11.74 | 23.98 | -12.21                      |                             |
| 5230                   | 46         | AVG     | 26T      | 8.63  | 8.98     | 11.82 | 8.69 | 8.90 | 11.81 | 8.63 | 8.88 | 11.77 | 23.98 | -12.16                      |                             |
| 5270                   | 54         | AVG     | 26T      | 8.70  | 8.94     | 11.83 | 8.64 | 8.82 | 11.74 | 8.62 | 8.79 | 11.72 | 23.47 | -11.64                      |                             |
| 5310                   | 62         | AVG     | 26T      | 8.42  | 8.81     | 11.63 | 8.56 | 8.71 | 11.65 | 8.45 | 8.90 | 11.69 | 23.47 | -11.78                      |                             |
| 5510                   | 102        | AVG     | 26T      | 8.48  | 8.97     | 11.74 | 8.47 | 8.78 | 11.64 | 8.38 | 8.81 | 11.61 | 22.80 | -11.06                      |                             |
| 5590                   | 118        | AVG     | 26T      | 8.82  | 8.58     | 11.71 | 8.45 | 8.49 | 11.48 | 8.52 | 8.50 | 11.52 | 22.80 | -11.09                      |                             |
| 5710                   | 142        | AVG     | 26T      | 8.73  | 8.19     | 11.48 | 8.96 | 8.84 | 11.91 | 8.60 | 8.47 | 11.55 | 22.80 | -10.89                      |                             |
| 5755                   | 151        | AVG     | 26T      | 8.69  | 8.21     | 11.47 | 8.48 | 8.78 | 11.64 | 8.61 | 8.44 | 11.54 | 30.00 | -18.36                      |                             |
| 5795                   | 159        | AVG     | 26T      | 8.60  | 8.50     | 11.56 | 8.85 | 8.41 | 11.65 | 8.64 | 8.66 | 11.66 | 30.00 | -18.34                      |                             |

Table 7-11. MIMO 40MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

| 5GHz (80MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |      |      |       |      |      |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|------|------|-------|------|------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 0        |       |      | 18   |       |      | 36   |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO | ANT1 | ANT2  | MIMO | ANT1 | ANT2  | MIMO  |                             |                             |
| 5210                   | 42         | AVG     | 26T      | 8.47  | 8.64     | 11.57 | 8.24 | 8.48 | 11.37 | 8.50 | 8.87 | 11.70 | 23.98 | -12.28                      |                             |
| 5290                   | 58         | AVG     | 26T      | 8.54  | 8.69     | 11.63 | 8.49 | 8.35 | 11.43 | 8.35 | 8.80 | 11.59 | 23.47 | -11.84                      |                             |
| 5530                   | 106        | AVG     | 26T      | 8.43  | 8.52     | 11.49 | 8.59 | 8.86 | 11.74 | 8.54 | 8.36 | 11.46 | 22.80 | -11.06                      |                             |
| 5610                   | 122        | AVG     | 26T      | 8.17  | 8.65     | 11.43 | 8.56 | 8.46 | 11.52 | 8.44 | 8.77 | 11.62 | 22.80 | -11.18                      |                             |
| 5690                   | 138        | AVG     | 26T      | 8.62  | 8.97     | 11.81 | 8.94 | 8.69 | 11.83 | 8.83 | 8.62 | 11.74 | 22.80 | -10.97                      |                             |
| 5775                   | 155        | AVG     | 26T      | 8.71  | 8.64     | 11.69 | 8.40 | 8.47 | 11.45 | 8.36 | 8.84 | 11.62 | 30.00 | -18.31                      |                             |

Table 7-12. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

|   |                                    |                               |                                   |
|---|------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT (CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022  | EUT Type:<br>Portable Handset | Page 86 of 189                    |



## MIMO Conducted Output Power Measurements (52 Tones)

| 5GHz (20MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       |       |       |       |       |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 37       |       |       | 39    |       |       | 40    |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  |                             |                             |
| 5180                   | 36         | AVG     | 52T      | 10.04 | 10.70    | 13.39 | 10.22 | 10.82 | 13.54 | 10.31 | 10.83 | 13.59 | 23.98 | -10.39                      |                             |
| 5200                   | 40         | AVG     | 52T      | 11.02 | 10.59    | 13.82 | 11.07 | 10.62 | 13.86 | 10.77 | 11.09 | 13.94 | 23.98 | -10.04                      |                             |
| 5240                   | 48         | AVG     | 52T      | 11.13 | 10.64    | 13.90 | 11.12 | 10.71 | 13.93 | 10.90 | 11.16 | 14.04 | 23.98 | -9.94                       |                             |
| 5260                   | 52         | AVG     | 52T      | 10.98 | 10.75    | 13.88 | 10.95 | 10.88 | 13.93 | 10.75 | 11.21 | 14.00 | 23.47 | -9.47                       |                             |
| 5280                   | 56         | AVG     | 52T      | 11.09 | 10.82    | 13.97 | 11.09 | 10.86 | 13.99 | 10.80 | 10.87 | 13.85 | 23.47 | -9.48                       |                             |
| 5320                   | 64         | AVG     | 52T      | 11.33 | 10.95    | 14.15 | 11.27 | 11.15 | 14.22 | 11.00 | 10.98 | 14.00 | 23.47 | -9.25                       |                             |
| 5500                   | 100        | AVG     | 52T      | 11.46 | 11.17    | 14.33 | 11.50 | 11.20 | 14.36 | 11.31 | 11.13 | 14.23 | 22.80 | -8.44                       |                             |
| 5600                   | 120        | AVG     | 52T      | 11.38 | 10.74    | 14.08 | 11.61 | 10.87 | 14.27 | 11.29 | 10.74 | 14.03 | 22.80 | -8.53                       |                             |
| 5720                   | 144        | AVG     | 52T      | 11.52 | 11.05    | 14.30 | 11.61 | 11.23 | 14.43 | 11.40 | 11.21 | 14.32 | 22.80 | -8.37                       |                             |
| 5745                   | 149        | AVG     | 52T      | 11.38 | 11.11    | 14.26 | 11.46 | 11.30 | 14.39 | 11.28 | 11.13 | 14.22 | 30.00 | -15.61                      |                             |
| 5785                   | 157        | AVG     | 52T      | 11.23 | 10.82    | 14.04 | 11.36 | 10.94 | 14.17 | 11.12 | 10.86 | 14.00 | 30.00 | -15.83                      |                             |
| 5825                   | 165        | AVG     | 52T      | 11.43 | 10.71    | 14.10 | 11.55 | 10.95 | 14.27 | 11.34 | 10.89 | 14.13 | 30.00 | -15.73                      |                             |

Table 7-13. MIMO 20MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

| 5GHz (40MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       |       |       |       |       |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 37       |       |       | 40    |       |       | 44    |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  |                             |                             |
| 5190                   | 38         | AVG     | 52T      | 10.27 | 10.86    | 13.59 | 10.74 | 10.71 | 13.74 | 10.81 | 10.91 | 13.87 | 23.98 | -10.11                      |                             |
| 5230                   | 46         | AVG     | 52T      | 11.44 | 11.33    | 14.40 | 11.20 | 11.26 | 14.24 | 11.33 | 11.34 | 14.35 | 23.98 | -9.58                       |                             |
| 5270                   | 54         | AVG     | 52T      | 11.32 | 11.40    | 14.37 | 11.10 | 11.36 | 14.24 | 11.15 | 11.40 | 14.29 | 23.47 | -9.10                       |                             |
| 5310                   | 62         | AVG     | 52T      | 11.39 | 11.28    | 14.35 | 11.11 | 11.16 | 14.15 | 11.17 | 11.29 | 14.24 | 23.47 | -9.12                       |                             |
| 5510                   | 102        | AVG     | 52T      | 11.29 | 11.25    | 14.28 | 11.09 | 11.19 | 14.15 | 11.34 | 11.31 | 14.34 | 22.80 | -8.46                       |                             |
| 5590                   | 118        | AVG     | 52T      | 11.21 | 10.86    | 14.05 | 11.06 | 10.82 | 13.95 | 11.43 | 11.06 | 14.26 | 22.80 | -8.54                       |                             |
| 5710                   | 142        | AVG     | 52T      | 11.45 | 11.03    | 14.26 | 11.58 | 11.12 | 14.37 | 11.34 | 11.39 | 14.38 | 22.80 | -8.42                       |                             |
| 5755                   | 151        | AVG     | 52T      | 11.15 | 11.21    | 14.19 | 11.06 | 11.08 | 14.08 | 11.40 | 11.38 | 14.40 | 30.00 | -15.60                      |                             |
| 5795                   | 159        | AVG     | 52T      | 11.14 | 10.95    | 14.06 | 11.07 | 11.23 | 14.16 | 11.46 | 11.17 | 14.33 | 30.00 | -15.67                      |                             |

Table 7-14. MIMO 40MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

| 5GHz (80MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       |       |       |       |       |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 37       |       |       | 44    |       |       | 52    |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  |                             |                             |
| 5210                   | 42         | AVG     | 52T      | 11.07 | 10.96    | 14.03 | 11.43 | 11.41 | 14.43 | 11.01 | 11.18 | 14.11 | 23.98 | -9.55                       |                             |
| 5290                   | 58         | AVG     | 52T      | 11.03 | 11.23    | 14.14 | 11.14 | 11.49 | 14.33 | 10.86 | 11.31 | 14.10 | 23.47 | -9.14                       |                             |
| 5530                   | 106        | AVG     | 52T      | 10.90 | 11.21    | 14.07 | 11.16 | 11.40 | 14.29 | 11.08 | 11.07 | 14.09 | 22.80 | -8.51                       |                             |
| 5610                   | 122        | AVG     | 52T      | 10.75 | 11.33    | 14.06 | 11.20 | 10.91 | 14.07 | 11.05 | 11.35 | 14.21 | 22.80 | -8.59                       |                             |
| 5690                   | 138        | AVG     | 52T      | 11.12 | 11.08    | 14.11 | 10.92 | 11.17 | 14.06 | 11.00 | 11.28 | 14.15 | 22.80 | -8.65                       |                             |
| 5775                   | 155        | AVG     | 52T      | 11.09 | 10.83    | 13.97 | 10.99 | 10.88 | 13.95 | 11.10 | 11.08 | 14.10 | 30.00 | -15.90                      |                             |

Table 7-15. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 87 of 189                    |

## MIMO Conducted Output Power Measurements (106 Tones)

| 5GHz (20MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       |       |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 53       |       |       | 54    |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  |                             |                             |
| 5180                   | 36         | AVG     | 106T     | 8.44  | 8.44     | 11.45 | 8.57  | 8.54  | 11.57 | 23.98 | -12.41                      |                             |
| 5200                   | 40         | AVG     | 106T     | 11.45 | 11.31    | 14.39 | 11.47 | 11.29 | 14.39 | 23.98 | -9.59                       |                             |
| 5240                   | 48         | AVG     | 106T     | 11.11 | 11.33    | 14.23 | 11.06 | 11.31 | 14.20 | 23.98 | -9.75                       |                             |
| 5260                   | 52         | AVG     | 106T     | 10.89 | 11.37    | 14.15 | 10.89 | 11.38 | 14.15 | 23.47 | -9.32                       |                             |
| 5280                   | 56         | AVG     | 106T     | 11.03 | 11.01    | 14.03 | 11.00 | 10.97 | 14.00 | 23.47 | -9.44                       |                             |
| 5320                   | 64         | AVG     | 106T     | 10.86 | 10.99    | 13.94 | 10.87 | 10.81 | 13.85 | 23.47 | -9.53                       |                             |
| 5500                   | 100        | AVG     | 106T     | 8.39  | 8.49     | 11.45 | 8.46  | 8.35  | 11.42 | 22.80 | -11.35                      |                             |
| 5600                   | 120        | AVG     | 106T     | 11.49 | 10.98    | 14.25 | 11.45 | 10.99 | 14.24 | 22.80 | -8.55                       |                             |
| 5720                   | 144        | AVG     | 106T     | 11.44 | 11.30    | 14.38 | 11.43 | 11.40 | 14.43 | 22.80 | -8.37                       |                             |
| 5745                   | 149        | AVG     | 106T     | 11.28 | 11.42    | 14.36 | 11.42 | 11.49 | 14.47 | 30.00 | -15.53                      |                             |
| 5785                   | 157        | AVG     | 106T     | 11.26 | 11.11    | 14.20 | 11.22 | 11.08 | 14.16 | 30.00 | -15.80                      |                             |
| 5825                   | 165        | AVG     | 106T     | 11.40 | 10.93    | 14.18 | 11.48 | 11.06 | 14.29 | 30.00 | -15.71                      |                             |

Table 7-16. MIMO 20MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

| 5GHz (40MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       |       |       |       |       |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 53       |       |       | 54    |       |       | 56    |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  |                             |                             |
| 5190                   | 38         | AVG     | 106T     | 8.45  | 8.64     | 11.56 | 8.89  | 8.89  | 11.90 | 8.59  | 8.78  | 11.70 | 23.98 | -12.08                      |                             |
| 5230                   | 46         | AVG     | 106T     | 11.04 | 11.02    | 14.04 | 11.32 | 11.31 | 14.33 | 10.87 | 11.07 | 13.98 | 23.98 | -9.65                       |                             |
| 5270                   | 54         | AVG     | 106T     | 10.97 | 11.10    | 14.05 | 11.10 | 11.28 | 14.20 | 11.26 | 11.09 | 14.19 | 23.47 | -9.27                       |                             |
| 5310                   | 62         | AVG     | 106T     | 10.99 | 10.98    | 14.00 | 10.98 | 10.85 | 13.93 | 10.79 | 10.99 | 13.90 | 23.47 | -9.47                       |                             |
| 5510                   | 102        | AVG     | 106T     | 8.41  | 8.25     | 11.34 | 8.46  | 8.40  | 11.44 | 8.29  | 8.27  | 11.29 | 22.80 | -11.36                      |                             |
| 5590                   | 118        | AVG     | 106T     | 11.44 | 11.15    | 14.31 | 11.15 | 10.84 | 14.01 | 10.91 | 11.15 | 14.04 | 22.80 | -8.49                       |                             |
| 5710                   | 142        | AVG     | 106T     | 11.30 | 11.26    | 14.29 | 10.96 | 11.13 | 14.06 | 11.47 | 11.48 | 14.49 | 22.80 | -8.31                       |                             |
| 5755                   | 151        | AVG     | 106T     | 11.39 | 11.43    | 14.42 | 11.03 | 11.20 | 14.13 | 11.46 | 11.43 | 14.46 | 30.00 | -15.54                      |                             |
| 5795                   | 159        | AVG     | 106T     | 11.29 | 11.00    | 14.16 | 11.12 | 11.24 | 14.19 | 11.08 | 11.16 | 14.13 | 30.00 | -15.81                      |                             |

Table 7-17. MIMO 40MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

| 5GHz (80MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       |       |       |       |       |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 53       |       |       | 56    |       |       | 60    |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  |                             |                             |
| 5210                   | 42         | AVG     | 106T     | 10.91 | 11.01    | 13.97 | 10.97 | 11.24 | 14.12 | 11.03 | 11.14 | 14.10 | 23.98 | -9.86                       |                             |
| 5290                   | 58         | AVG     | 106T     | 11.09 | 11.24    | 14.18 | 11.07 | 11.33 | 14.21 | 10.84 | 11.22 | 14.04 | 23.47 | -9.26                       |                             |
| 5530                   | 106        | AVG     | 106T     | 7.72  | 7.85     | 10.80 | 7.97  | 8.08  | 11.04 | 8.48  | 7.70  | 11.12 | 22.80 | -11.68                      |                             |
| 5610                   | 122        | AVG     | 106T     | 11.43 | 11.26    | 14.36 | 11.20 | 11.48 | 14.35 | 10.95 | 11.30 | 14.14 | 22.80 | -8.44                       |                             |
| 5690                   | 138        | AVG     | 106T     | 10.98 | 11.46    | 14.24 | 11.46 | 11.13 | 14.31 | 10.96 | 11.20 | 14.09 | 22.80 | -8.49                       |                             |
| 5775                   | 155        | AVG     | 106T     | 11.28 | 11.14    | 14.22 | 10.91 | 11.46 | 14.20 | 11.02 | 11.44 | 14.25 | 30.00 | -15.75                      |                             |

Table 7-18. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

|   |                                    |                               |                                   |
|---|------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT (CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022  | EUT Type:<br>Portable Handset | Page 88 of 189                    |

## MIMO Conducted Output Power Measurements (242 Tones)

| 5GHz (20MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 61       |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  |                             |                             |
| 5180                   | 36         | AVG     | 242T     | 11.09 | 11.30    | 14.21 | 23.98 | -9.77                       |                             |
| 5200                   | 40         | AVG     | 242T     | 10.99 | 11.31    | 14.16 | 23.98 | -9.82                       |                             |
| 5240                   | 48         | AVG     | 242T     | 11.02 | 11.40    | 14.22 | 23.98 | -9.75                       |                             |
| 5260                   | 52         | AVG     | 242T     | 10.87 | 11.48    | 14.20 | 23.47 | -9.27                       |                             |
| 5280                   | 56         | AVG     | 242T     | 10.99 | 11.11    | 14.06 | 23.47 | -9.41                       |                             |
| 5320                   | 64         | AVG     | 242T     | 11.20 | 11.31    | 14.27 | 23.47 | -9.20                       |                             |
| 5500                   | 100        | AVG     | 242T     | 11.36 | 11.46    | 14.42 | 22.80 | -8.38                       |                             |
| 5600                   | 120        | AVG     | 242T     | 11.44 | 11.06    | 14.26 | 22.80 | -8.54                       |                             |
| 5720                   | 144        | AVG     | 242T     | 11.47 | 11.48    | 14.49 | 22.80 | -8.31                       |                             |
| 5745                   | 149        | AVG     | 242T     | 9.85  | 10.43    | 13.16 | 30.00 | -16.84                      |                             |
| 5785                   | 157        | AVG     | 242T     | 11.41 | 11.19    | 14.31 | 30.00 | -15.69                      |                             |
| 5825                   | 165        | AVG     | 242T     | 11.62 | 11.07    | 14.36 | 30.00 | -15.64                      |                             |

Table 7-19. MIMO 20MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

| 5GHz (40MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       |       |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 61       |       |       | 62    |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  |                             |                             |
| 5190                   | 38         | AVG     | 242T     | 11.19 | 10.89    | 14.05 | 11.22 | 10.96 | 14.10 | 23.98 | -9.88                       |                             |
| 5230                   | 46         | AVG     | 242T     | 11.13 | 11.14    | 14.15 | 11.02 | 11.08 | 14.06 | 23.98 | -9.83                       |                             |
| 5270                   | 54         | AVG     | 242T     | 11.01 | 11.14    | 14.09 | 10.86 | 11.14 | 14.01 | 23.47 | -9.38                       |                             |
| 5310                   | 62         | AVG     | 242T     | 10.58 | 10.46    | 13.53 | 10.37 | 10.57 | 13.48 | 23.47 | -9.94                       |                             |
| 5510                   | 102        | AVG     | 242T     | 11.49 | 10.92    | 14.22 | 10.97 | 10.94 | 13.97 | 22.80 | -8.58                       |                             |
| 5590                   | 118        | AVG     | 242T     | 10.89 | 11.11    | 14.01 | 10.99 | 11.09 | 14.05 | 22.80 | -8.75                       |                             |
| 5710                   | 142        | AVG     | 242T     | 11.39 | 11.23    | 14.32 | 11.46 | 11.38 | 14.43 | 22.80 | -8.37                       |                             |
| 5755                   | 151        | AVG     | 242T     | 10.87 | 11.36    | 14.13 | 10.96 | 11.44 | 14.22 | 30.00 | -15.78                      |                             |
| 5795                   | 159        | AVG     | 242T     | 10.93 | 10.99    | 13.97 | 11.02 | 11.08 | 14.06 | 30.00 | -15.94                      |                             |

Table 7-20. MIMO 40MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

| 5GHz (80MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       |       |       |       |       |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 61       |       |       | 62    |       |       | 64    |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  |                             |                             |
| 5210                   | 42         | AVG     | 242T     | 9.02  | 9.49     | 12.27 | 9.15  | 9.12  | 12.15 | 8.91  | 9.15  | 12.04 | 23.98 | -11.71                      |                             |
| 5290                   | 58         | AVG     | 242T     | 10.60 | 10.59    | 13.61 | 10.58 | 10.72 | 13.66 | 10.82 | 10.79 | 13.82 | 23.47 | -9.65                       |                             |
| 5530                   | 106        | AVG     | 242T     | 8.94  | 9.20     | 12.08 | 9.08  | 9.30  | 12.20 | 9.01  | 9.06  | 12.05 | 22.80 | -10.60                      |                             |
| 5610                   | 122        | AVG     | 242T     | 11.03 | 10.89    | 13.97 | 11.25 | 10.97 | 14.12 | 11.18 | 10.93 | 14.07 | 22.80 | -8.68                       |                             |
| 5690                   | 138        | AVG     | 242T     | 11.27 | 11.14    | 14.22 | 10.90 | 11.26 | 14.09 | 11.17 | 11.36 | 14.28 | 22.80 | -8.52                       |                             |
| 5775                   | 155        | AVG     | 242T     | 9.87  | 9.87     | 12.88 | 9.36  | 9.98  | 12.69 | 9.62  | 9.43  | 12.54 | 30.00 | -17.12                      |                             |

Table 7-21. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 89 of 189                    |

## MIMO Conducted Output Power Measurements (484 Tones)

| 5GHz (40MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 65       |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  |                             |                             |
|                        |            |         |          |       | 5190     | 38    | AVG   |                             |                             |
| 5230                   | 46         | AVG     | 484T     | 11.23 | 11.10    | 14.18 | 23.98 | -9.80                       |                             |
| 5270                   | 54         | AVG     | 484T     | 11.05 | 11.12    | 14.10 | 23.47 | -9.37                       |                             |
| 5310                   | 62         | AVG     | 484T     | 10.60 | 11.00    | 13.81 | 23.47 | -9.66                       |                             |
| 5510                   | 102        | AVG     | 484T     | 10.96 | 10.94    | 13.96 | 22.80 | -8.84                       |                             |
| 5590                   | 118        | AVG     | 484T     | 10.89 | 11.07    | 13.99 | 22.80 | -8.81                       |                             |
| 5710                   | 142        | AVG     | 484T     | 11.41 | 11.21    | 14.32 | 22.80 | -8.48                       |                             |
| 5755                   | 151        | AVG     | 484T     | 10.82 | 11.38    | 14.12 | 30.00 | -15.88                      |                             |
| 5795                   | 159        | AVG     | 484T     | 10.91 | 10.97    | 13.95 | 30.00 | -16.05                      |                             |

Table 7-22. MIMO 40MHz BW (UNII) Maximum Conducted Output Power (484 Tones)

| 5GHz (80MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       |       |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 65       |       |       | 66    |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  | ANT1  | ANT2  | MIMO  |                             |                             |
|                        |            |         |          |       | 5210     | 42    | AVG   | 484T  | 9.06  | 9.04  |                             |                             |
| 5290                   | 58         | AVG     | 484T     | 10.59 | 10.56    | 13.59 | 10.87 | 10.66 | 13.78 | 23.47 | -9.69                       |                             |
| 5530                   | 106        | AVG     | 484T     | 9.00  | 9.24     | 12.13 | 9.01  | 9.17  | 12.10 | 22.80 | -10.67                      |                             |
| 5610                   | 122        | AVG     | 484T     | 11.10 | 10.91    | 14.02 | 11.16 | 10.95 | 14.07 | 22.80 | -8.73                       |                             |
| 5690                   | 138        | AVG     | 484T     | 11.43 | 11.16    | 14.31 | 11.06 | 11.37 | 14.23 | 22.80 | -8.49                       |                             |
| 5775                   | 155        | AVG     | 484T     | 9.96  | 9.21     | 12.61 | 9.51  | 9.45  | 12.49 | 30.00 | -17.39                      |                             |

Table 7-23. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (484 Tones)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 90 of 189                    |



### MIMO Conducted Output Power Measurements (996 Tones)

| 5GHz (80MHz Bandwidth) | Freq [MHz] | Channel | Detector | Tones | RU Index |       |       | Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------------------|------------|---------|----------|-------|----------|-------|-------|-----------------------------|-----------------------------|
|                        |            |         |          |       | 67       |       |       |                             |                             |
|                        |            |         |          |       | ANT1     | ANT2  | MIMO  |                             |                             |
|                        |            |         |          |       | 5210     | 42    | AVG   |                             |                             |
| 5290                   | 58         | AVG     | 996T     | 10.47 | 10.59    | 13.54 | 23.47 | -9.93                       |                             |
| 5530                   | 106        | AVG     | 996T     | 9.12  | 9.22     | 12.18 | 22.80 | -10.62                      |                             |
| 5610                   | 122        | AVG     | 996T     | 11.23 | 10.97    | 14.11 | 22.80 | -8.69                       |                             |
| 5690                   | 138        | AVG     | 996T     | 11.01 | 11.27    | 14.15 | 22.80 | -8.65                       |                             |
| 5775                   | 155        | AVG     | 996T     | 9.48  | 9.32     | 12.41 | 30.00 | -17.59                      |                             |

Table 7-24. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (996 Tones)

|   |                                    |                               |                                   |
|---|------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT (CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022  | EUT Type:<br>Portable Handset | Page 91 of 189                    |



**Note:**

Per ANSI C63.10-2013 and KDB 662911 v02r01 Section E1), the conducted powers at Antenna 1 and Antenna 2 were first measured separately during MIMO transmission as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

Per ANSI C63.10-2013 Section 14.4.3, the directional gain is calculated using the following formula, where  $G_N$  is the gain of the nth antenna and  $N_{ANT}$ , the total number of antennas used.

$$\text{Directional gain} = 10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] \text{ dBi}$$

**Sample MIMO Calculation:**

At 5180MHz in 802.11n (20MHz BW) mode, the average conducted output power was measured to be 10.97 dBm for Antenna 1 and 11.23 dBm for Antenna 2.

Antenna 1 + Antenna 2 = MIMO

$$(10.97 \text{ dBm} + 11.23 \text{ dBm}) = (12.50 \text{ mW} + 13.27 \text{ mW}) = 25.78 \text{ mW} = 14.11 \text{ dBm}$$

**Sample e.i.r.p. Calculation:**

At 5180MHz in 802.11n (20MHz BW) mode, the average MIMO conducted power was calculated to be 14.11 dBm with directional gain of N/A dBi.

$$\text{e.i.r.p. (dBm)} = \text{Conducted Power (dBm)} + \text{Ant gain (dBi)}$$

$$14.11 \text{ dBm} + \text{N/A dBi} = \text{N/A dBm}$$

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 92 of 189                    |



**7.5 Maximum Power Spectral Density – 802.11ax OFDMA**  
§15.407(a.1.iv) §15.407(a.2) §15.407(a.3); RSS-247 [6.2]

**Test Overview and Limit**

The spectrum analyzer was connected to the antenna terminal while the EUT was operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. Method SA-1, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, was used to measure the power spectral density.

***In the 5.25 – 5.35GHz and 5.47 – 5.725GHz bands, the maximum permissible power spectral density is 11dBm/MHz.***

***In the 5.725 – 5.850GHz band, the maximum permissible power spectral density is 30dBm/500kHz.***

**Test Procedure Used**

- ANSI C63.10-2013 – Section 12.3.2.2
- KDB 789033 D02 v02r01 – Section F
- ANSI C63.10-2013 – Section 14.3.2.2 Measure-and-Sum Technique
- KDB 662911 v02r01 – Section E)2) Measure-and-Sum Technique

**Test Settings**

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire emission bandwidth of the signal
3. RBW = 1MHz
4. VBW = 3MHz
5. Number of sweep points  $\geq 2 \times$  (span/RBW)
6. Sweep time = auto
7. Detector = power averaging (RMS)
8. Trigger was set to free run for all modes
9. Trace was averaged over 100 sweeps
10. The peak search function of the spectrum analyzer was used to find the peak of the spectrum.

**Test Setup**

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



**Figure 7-4. Test Instrument & Measurement Setup**

**Test Notes**

The power spectral density for each channel was measured with the RU index showing the highest conducted power

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 93 of 189                    |

## Summed MIMO Power Spectral Density Measurements

|           | Frequency [MHz] | Channel No.   | 802.11 Mode   | Tones | Data Rate [Mbps] | Antenna-1 Power Density [dBm] | Antenna-2 Power Density [dBm] | Summed MIMO Power Density [dBm] | Max Power Density [dBm/MHz] | Margin [dB] |
|-----------|-----------------|---------------|---------------|-------|------------------|-------------------------------|-------------------------------|---------------------------------|-----------------------------|-------------|
| Band 1    | 5180            | 36            | ax (20MHz)    | 26T   | MCS0             | 4.80                          | 7.05                          | 9.08                            | 11.00                       | -1.92       |
|           | 5200            | 40            | ax (20MHz)    | 26T   | MCS0             | 5.31                          | 7.16                          | 9.34                            | 11.00                       | -1.66       |
|           | 5240            | 48            | ax (20MHz)    | 26T   | MCS0             | 6.40                          | 7.12                          | 9.79                            | 11.00                       | -1.21       |
|           | 5190            | 38            | ax (40MHz)    | 26T   | MCS0             | 5.77                          | 7.78                          | 9.90                            | 11.00                       | -1.10       |
|           | 5230            | 46            | ax (40MHz)    | 26T   | MCS0             | 5.99                          | 7.97                          | 10.10                           | 11.00                       | -0.90       |
| Band 1/2A | 5210            | 42            | ax (80MHz)    | 26T   | MCS0             | 5.83                          | 7.02                          | 9.48                            | 11.00                       | -1.52       |
|           | 5250            | 50            | ax (160MHz) L | 26T   | MCS0             | 6.79                          | 5.51                          | 9.21                            | 11.00                       | -1.79       |
| Band 2A   | 5250            | 50            | ax (160MHz) U | 26T   | MCS0             | 6.30                          | 7.27                          | 9.82                            | 11.00                       | -1.18       |
|           | 5260            | 52            | ax (20MHz)    | 26T   | MCS0             | 6.61                          | 7.35                          | 10.01                           | 11.00                       | -0.99       |
|           | 5280            | 56            | ax (20MHz)    | 26T   | MCS0             | 5.35                          | 6.58                          | 9.02                            | 11.00                       | -1.98       |
|           | 5320            | 64            | ax (20MHz)    | 26T   | MCS0             | 5.13                          | 6.29                          | 8.76                            | 11.00                       | -2.24       |
|           | 5270            | 54            | ax (40MHz)    | 26T   | MCS0             | 6.11                          | 7.92                          | 10.12                           | 11.00                       | -0.88       |
| Band 2C   | 5310            | 62            | ax (40MHz)    | 26T   | MCS0             | 6.26                          | 7.68                          | 10.04                           | 11.00                       | -0.96       |
|           | 5290            | 58            | ax (80MHz)    | 26T   | MCS0             | 5.83                          | 6.49                          | 9.18                            | 11.00                       | -1.82       |
|           | 5500            | 100           | ax (20MHz)    | 26T   | MCS0             | 4.71                          | 7.56                          | 9.38                            | 11.00                       | -1.62       |
|           | 5600            | 120           | ax (20MHz)    | 26T   | MCS0             | 4.46                          | 6.65                          | 8.70                            | 11.00                       | -2.30       |
|           | 5720            | 144           | ax (20MHz)    | 26T   | MCS0             | 5.17                          | 6.28                          | 8.77                            | 11.00                       | -2.23       |
|           | 5510            | 102           | ax (40MHz)    | 26T   | MCS0             | 5.10                          | 7.74                          | 9.63                            | 11.00                       | -1.37       |
|           | 5590            | 118           | ax (40MHz)    | 26T   | MCS0             | 5.88                          | 7.01                          | 9.49                            | 11.00                       | -1.51       |
|           | 5710            | 142           | ax (40MHz)    | 26T   | MCS0             | 5.73                          | 7.89                          | 9.95                            | 11.00                       | -1.05       |
|           | 5530            | 106           | ax (80MHz)    | 26T   | MCS0             | 4.48                          | 6.78                          | 8.79                            | 11.00                       | -2.21       |
|           | 5610            | 122           | ax (80MHz)    | 26T   | MCS0             | 4.58                          | 6.01                          | 8.36                            | 11.00                       | -2.64       |
|           | 5690            | 138           | ax (80MHz)    | 26T   | MCS0             | 4.99                          | 6.03                          | 8.55                            | 11.00                       | -2.45       |
| 5570      | 114             | ax (160MHz) L | 26T           | MCS0  | 6.62             | 7.31                          | 9.99                          | 11.00                           | -1.01                       |             |
| 5570      | 114             | ax (160MHz) U | 26T           | MCS0  | 5.49             | 6.72                          | 9.16                          | 11.00                           | -1.84                       |             |

Table 7-25. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements MIMO (26 Tones)

|        | Frequency [MHz] | Channel No. | 802.11 Mode | Tones | Data Rate [Mbps] | Antenna-1 Power Density [dBm] | Antenna-2 Power Density [dBm] | Summed MIMO Power Density [dBm] | Max Permissible Power Density | Margin [dB] |
|--------|-----------------|-------------|-------------|-------|------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------|
| Band 3 | 5745            | 149         | ax (20MHz)  | 26T   | MCS0             | 2.66                          | 4.30                          | 6.57                            | 30.00                         | -23.43      |
|        | 5785            | 157         | ax (20MHz)  | 26T   | MCS0             | 3.30                          | 4.25                          | 6.81                            | 30.00                         | -23.19      |
|        | 5825            | 165         | ax (20MHz)  | 26T   | MCS0             | 2.70                          | 3.53                          | 6.15                            | 30.00                         | -23.85      |
|        | 5755            | 151         | ax (40MHz)  | 26T   | MCS0             | 2.73                          | 4.09                          | 6.47                            | 30.00                         | -23.53      |
|        | 5795            | 159         | ax (40MHz)  | 26T   | MCS0             | 3.21                          | 4.13                          | 6.70                            | 30.00                         | -23.30      |
|        | 5775            | 155         | ax (80MHz)  | 26T   | MCS0             | 3.05                          | 3.70                          | 6.40                            | 30.00                         | -23.60      |

Table 7-26. Band 3 MIMO Conducted Power Spectral Density Measurements MIMO (26 Tones)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 94 of 189                    |

|           | Frequency [MHz] | Channel No. | 802.11 Mode | Tones | Data Rate [Mbps] | Antenna-1 Power Density [dBm] | Antenna-2 Power Density [dBm] | Summed MIMO Power Density [dBm] | Max Power Density [dBm/MHz] | Margin [dB] |
|-----------|-----------------|-------------|-------------|-------|------------------|-------------------------------|-------------------------------|---------------------------------|-----------------------------|-------------|
| Band 1    | 5180            | 36          | ax (20MHz)  | 242T  | MCS0             | -0.53                         | -0.02                         | 2.74                            | 11.00                       | -8.26       |
|           | 5200            | 40          | ax (20MHz)  | 242T  | MCS0             | -0.48                         | -0.05                         | 2.75                            | 11.00                       | -8.25       |
|           | 5240            | 48          | ax (20MHz)  | 242T  | MCS0             | -0.39                         | 0.15                          | 2.90                            | 11.00                       | -8.10       |
|           | 5190            | 38          | ax (40MHz)  | 484T  | MCS0             | -3.73                         | -3.69                         | -0.70                           | 11.00                       | -11.70      |
|           | 5230            | 46          | ax (40MHz)  | 484T  | MCS0             | -3.48                         | -3.51                         | -0.48                           | 11.00                       | -11.48      |
|           | 5210            | 42          | ax (80MHz)  | 996T  | MCS0             | -9.30                         | -9.28                         | -6.28                           | 11.00                       | -17.28      |
| Band 1/2A | 5250            | 50          | ax (160MHz) | 996T  | MCS0             | -9.95                         | -10.54                        | -7.22                           | 12.00                       | -19.22      |
| Band 2A   | 5260            | 52          | ax (20MHz)  | 242T  | MCS0             | -0.33                         | -0.09                         | 2.80                            | 11.00                       | -8.20       |
|           | 5280            | 56          | ax (20MHz)  | 242T  | MCS0             | -0.32                         | 0.17                          | 2.94                            | 11.00                       | -8.06       |
|           | 5320            | 64          | ax (20MHz)  | 242T  | MCS0             | -0.30                         | -0.06                         | 2.83                            | 11.00                       | -8.17       |
|           | 5270            | 54          | ax (40MHz)  | 484T  | MCS0             | -3.62                         | -3.72                         | -0.66                           | 11.00                       | -11.66      |
|           | 5310            | 62          | ax (40MHz)  | 484T  | MCS0             | -4.13                         | -4.23                         | -1.17                           | 11.00                       | -12.17      |
|           | 5290            | 58          | ax (80MHz)  | 996T  | MCS0             | -7.09                         | -7.74                         | -4.39                           | 11.00                       | -15.39      |
| Band 2C   | 5500            | 100         | ax (20MHz)  | 242T  | MCS0             | -0.32                         | 0.08                          | 2.89                            | 11.00                       | -8.11       |
|           | 5600            | 120         | ax (20MHz)  | 242T  | MCS0             | -0.53                         | -0.94                         | 2.28                            | 11.00                       | -8.72       |
|           | 5720            | 144         | ax (20MHz)  | 242T  | MCS0             | -0.52                         | -0.47                         | 2.52                            | 11.00                       | -8.48       |
|           | 5510            | 102         | ax (40MHz)  | 484T  | MCS0             | -3.84                         | -3.25                         | -0.52                           | 11.00                       | -11.52      |
|           | 5590            | 118         | ax (40MHz)  | 484T  | MCS0             | -4.01                         | -3.56                         | -0.77                           | 11.00                       | -11.77      |
|           | 5710            | 142         | ax (40MHz)  | 484T  | MCS0             | -3.69                         | -3.35                         | -0.51                           | 11.00                       | -11.51      |
|           | 5530            | 106         | ax (80MHz)  | 996T  | MCS0             | -9.15                         | -9.00                         | -6.06                           | 11.00                       | -17.06      |
|           | 5610            | 122         | ax (80MHz)  | 996T  | MCS0             | -6.92                         | -7.27                         | -4.08                           | 11.00                       | -15.08      |
|           | 5690            | 138         | ax (80MHz)  | 996T  | MCS0             | -7.43                         | -6.93                         | -4.16                           | 11.00                       | -15.16      |
|           | 5570            | 114         | ax (160MHz) | 996T  | MCS0             | -9.29                         | -8.89                         | -6.08                           | 11.00                       | -17.08      |

Table 7-27. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements MIMO (Full Tones)

|        | Frequency [MHz] | Channel No. | 802.11 Mode | Tones | Data Rate [Mbps] | Antenna-1 Power Density [dBm] | Antenna-2 Power Density [dBm] | Summed MIMO Power Density [dBm] | Max Permissible Power Density | Margin [dB] |
|--------|-----------------|-------------|-------------|-------|------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------|
| Band 3 | 5745            | 149         | ax (20MHz)  | 242T  | MCS0             | -4.84                         | -4.06                         | -1.42                           | 30.00                         | -31.42      |
|        | 5785            | 157         | ax (20MHz)  | 242T  | MCS0             | -3.29                         | -3.71                         | -0.48                           | 30.00                         | -30.48      |
|        | 5825            | 165         | ax (20MHz)  | 242T  | MCS0             | -3.10                         | -3.58                         | -0.32                           | 30.00                         | -30.32      |
|        | 5755            | 151         | ax (40MHz)  | 484T  | MCS0             | -6.36                         | -6.05                         | -3.19                           | 30.00                         | -33.19      |
|        | 5795            | 159         | ax (40MHz)  | 484T  | MCS0             | -6.79                         | -6.52                         | -3.64                           | 30.00                         | -33.64      |
|        | 5775            | 155         | ax (80MHz)  | 996T  | MCS0             | -11.45                        | -10.98                        | -8.20                           | 30.00                         | -38.20      |

Table 7-28. Band 3 MIMO Conducted Power Spectral Density Measurements MIMO (Full Tones)

|   |                                    |                               |                                   |
|---|------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT (CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022  | EUT Type:<br>Portable Handset | Page 95 of 189                    |



**Note:**

Per ANSI C63.10-2013 Section 14.3.2.2 and KDB 662911 v02r01 Section E)2), the power spectral density at Antenna-1 and Antenna-2 were first measured separately with reduced Antenna-1 and Antenna-2 powers per manufacture’s tune-up document. The measured values were then summed in linear power units then converted back to dBm.

**Sample Directional Gain Calculation:**

Assuming the antenna gain is -8.61 dBi for Antenna-1 and -7.68 dBi for Antenna-2.

$$\begin{aligned}
 \text{Directional gain} &= 10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{\text{ANT}}] \text{ dBi} \\
 &= 10 \log[(10^{-8.61/20} + 10^{-7.68/20} / 2] \text{ dBi} \\
 &= (-5.12) \text{ dBi}
 \end{aligned}$$

**Sample MIMO Calculation:**

Assuming the average conducted power spectral density was measured to be 5.88 dBm for Antenna-1 and 6.27 dBm for Antenna-2.

$$\begin{aligned}
 &\text{Antenna-1} + \text{Antenna-2} = \text{MIMO} \\
 &(5.88 \text{ dBm} + 6.27 \text{ dBm}) = (3.87 \text{ mW} + 4.24 \text{ mW}) = 8.11 \text{ mW} = 9.09 \text{ dBm}
 \end{aligned}$$

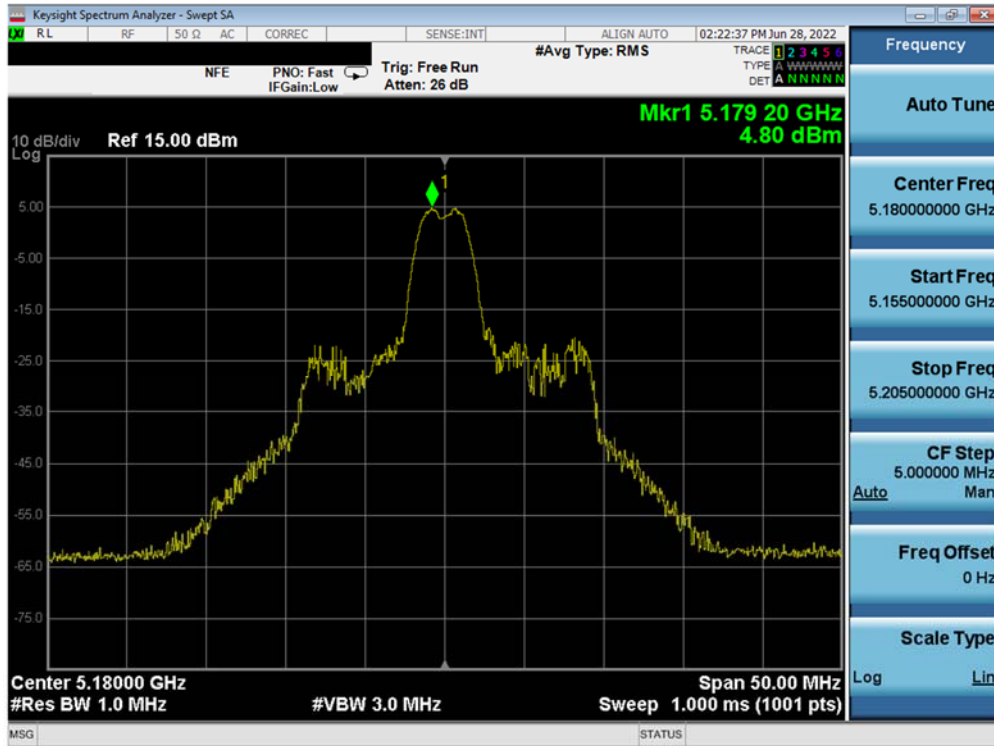
**Sample e.i.r.p Power Spectral Density Calculation:**

Assuming the average MIMO power density was calculated to be 9.09 dBm with directional gain of -5.12 dBi.

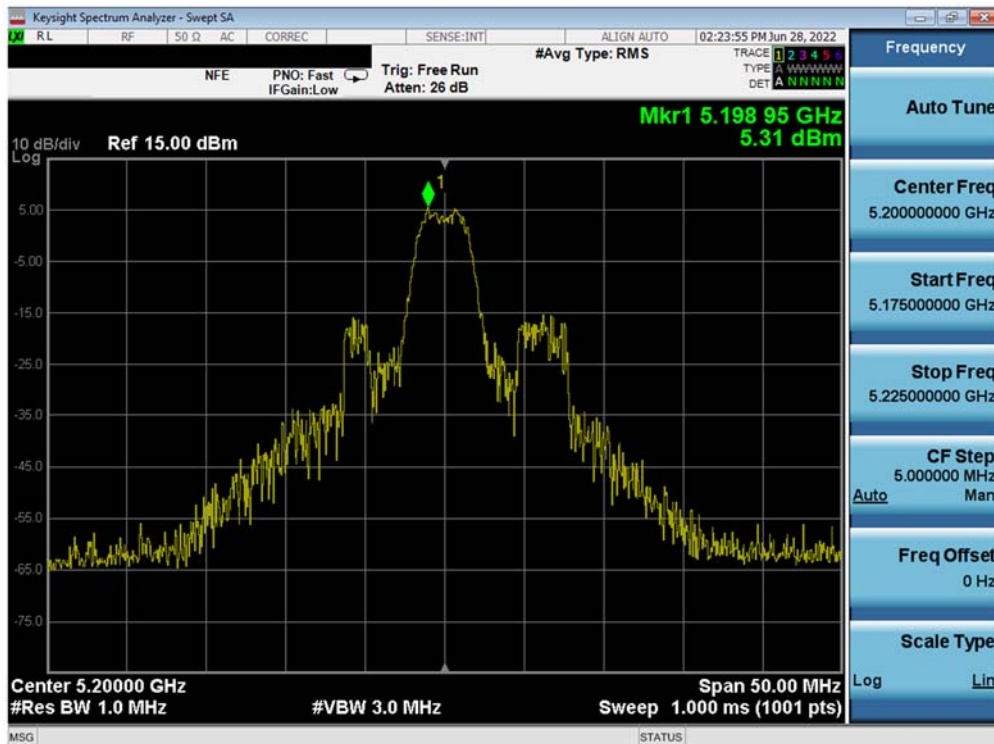
$$\begin{aligned}
 \text{e.i.r.p. Power Spectral Density(dBm)} &= \text{Power Spectral Density (dBm)} + \text{directional gain (dBi)} \\
 9.09 \text{ dBm} + (-5.12) \text{ dBi} &= 3.97 \text{ dBm}
 \end{aligned}$$

|   |   |                               |                                   |
|---|---|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022             | EUT Type:<br>Portable Handset | Page 96 of 189                    |

## MIMO Antenna-1 Power Spectral Density Measurements

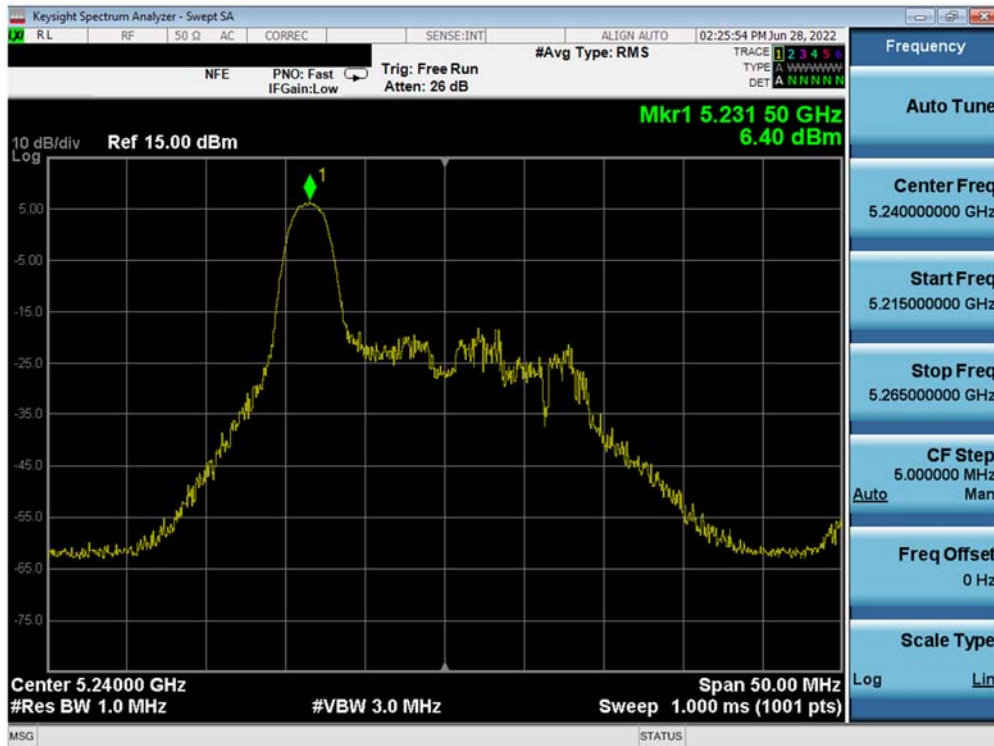


Plot 7-121. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 36)

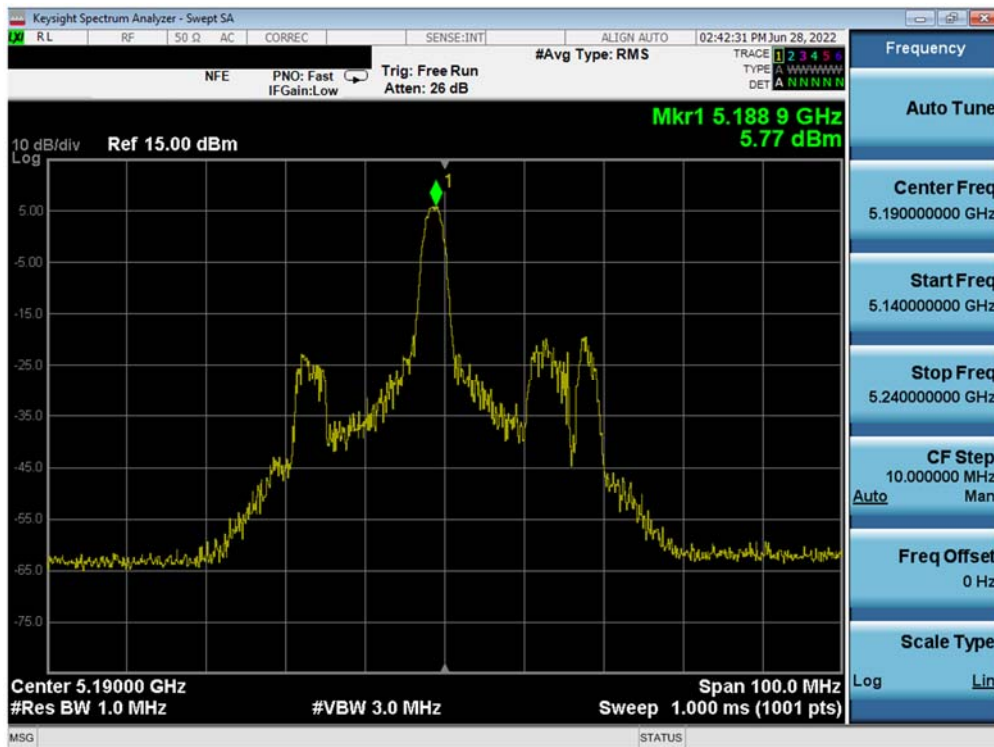


Plot 7-122. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 40)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 97 of 189                    |



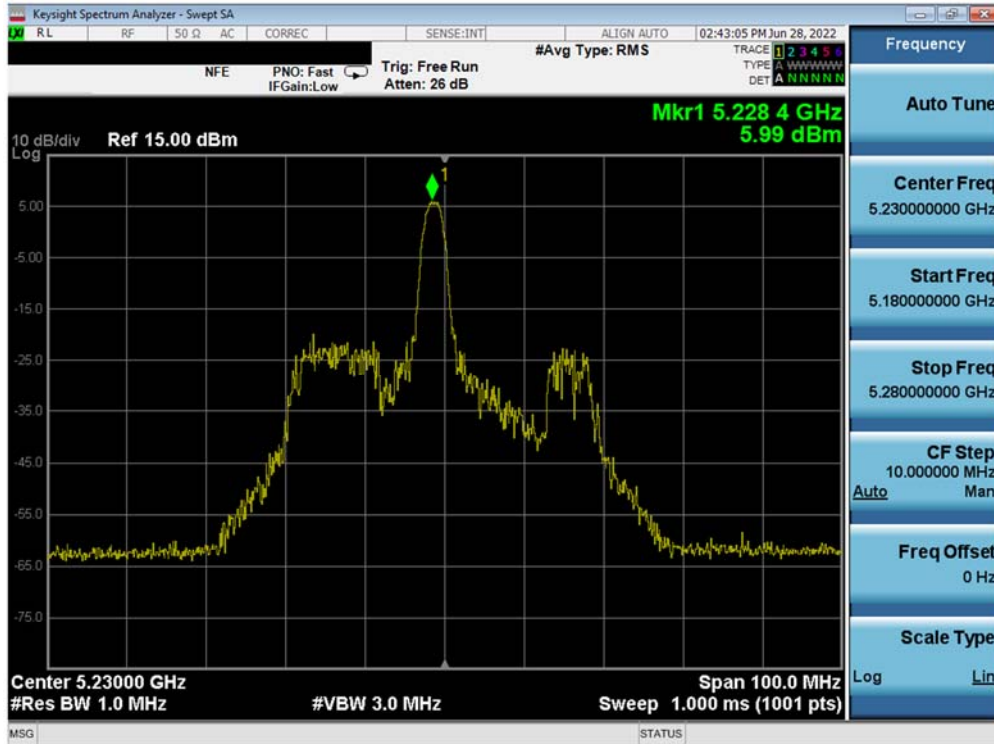
Plot 7-123. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 48)



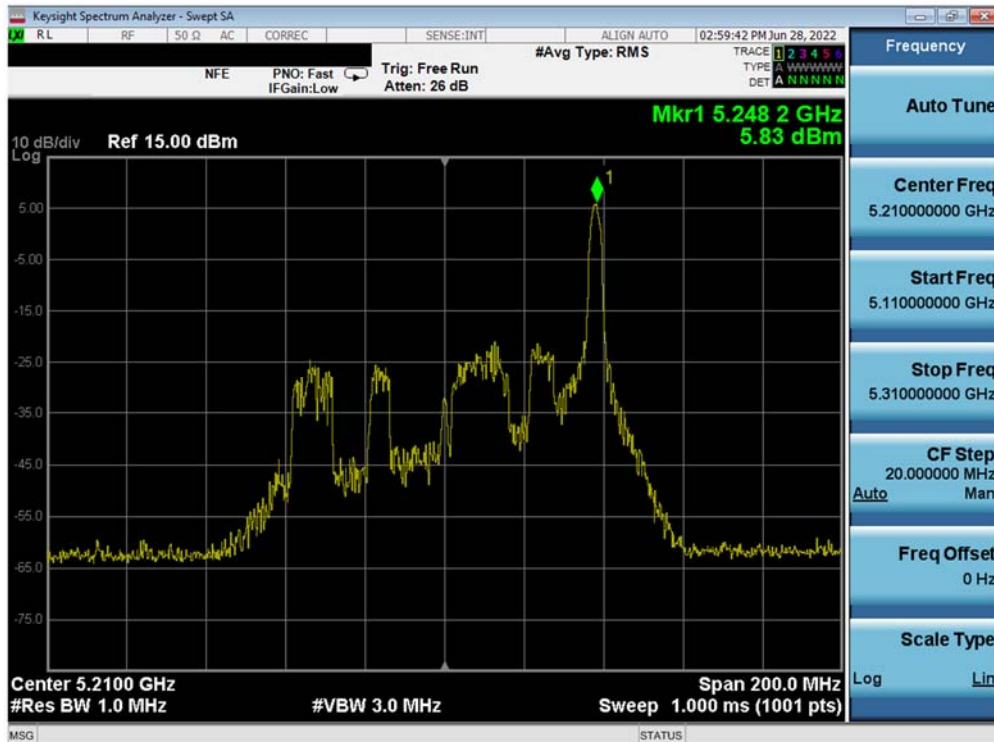
Plot 7-124. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 38)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 98 of 189                    |



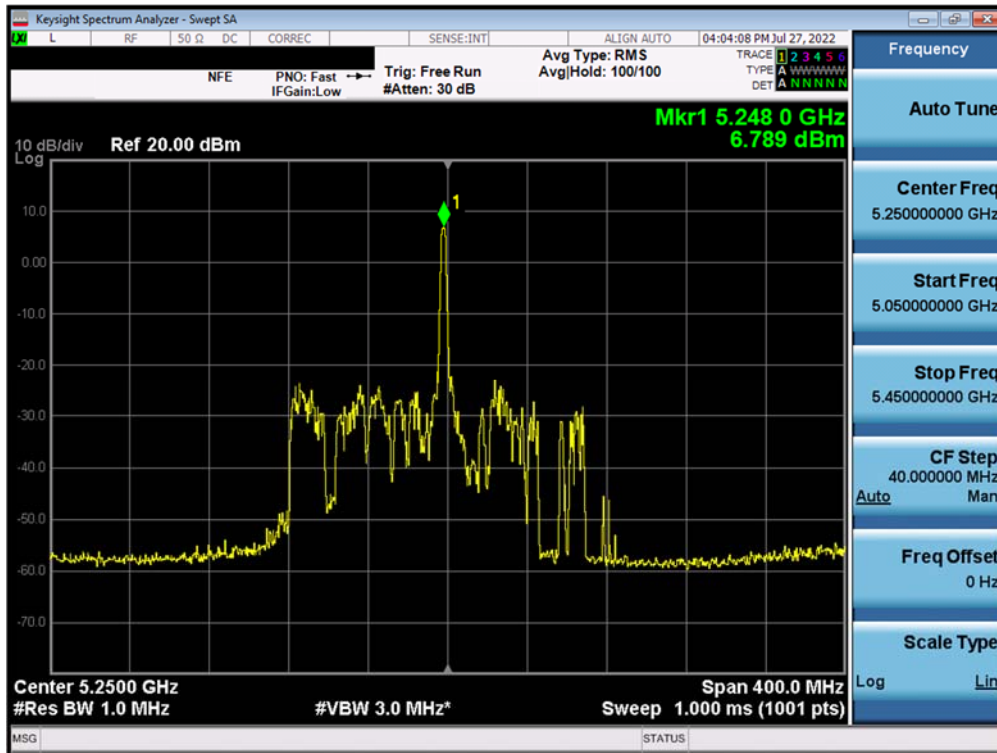


Plot 7-125. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 46)

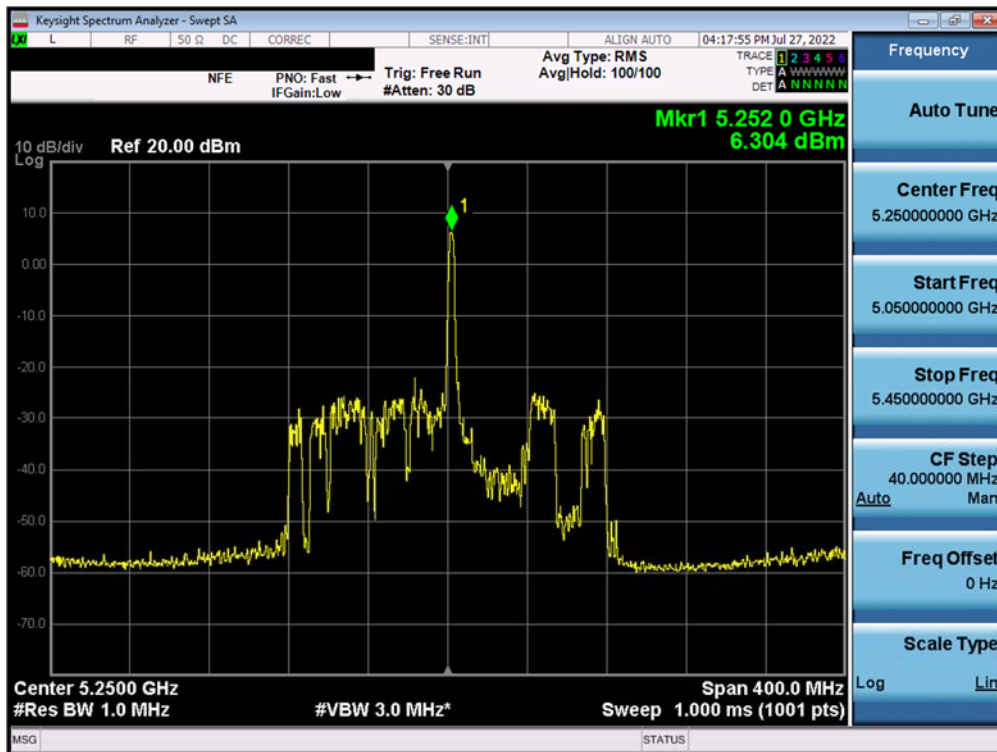


Plot 7-126. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 42)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 99 of 189                    |

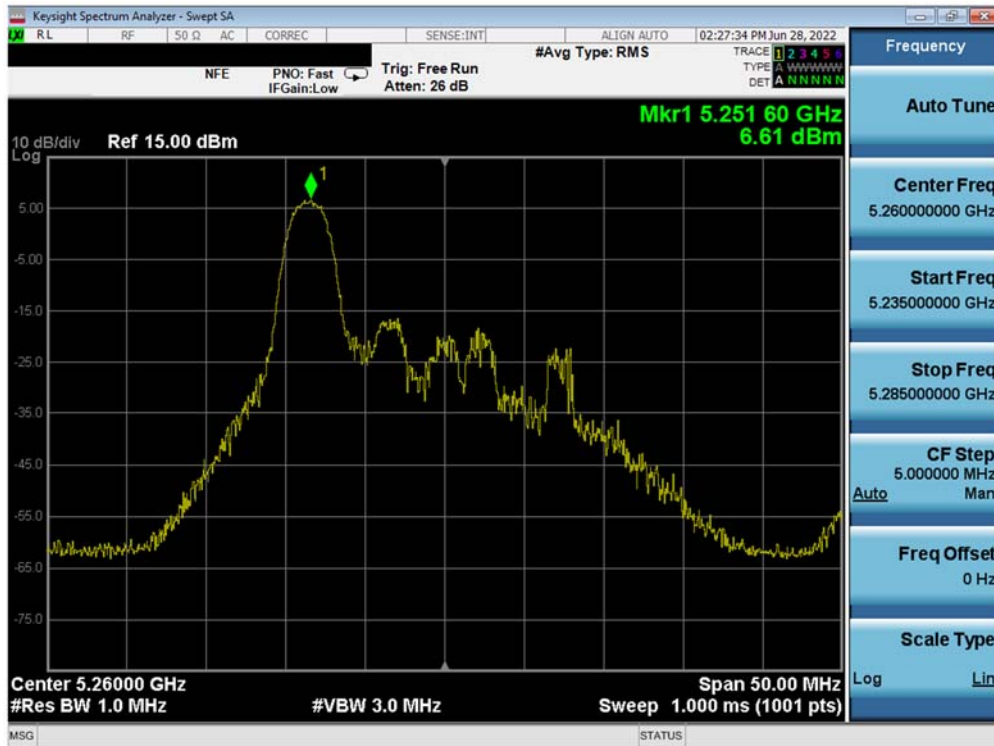


Plot 7-127. Power Spectral Density Plot MIMO ANT1 (160MHz L BW 802.11ax – 26 Tones (UNII Band 1/2A) – Ch. 50)

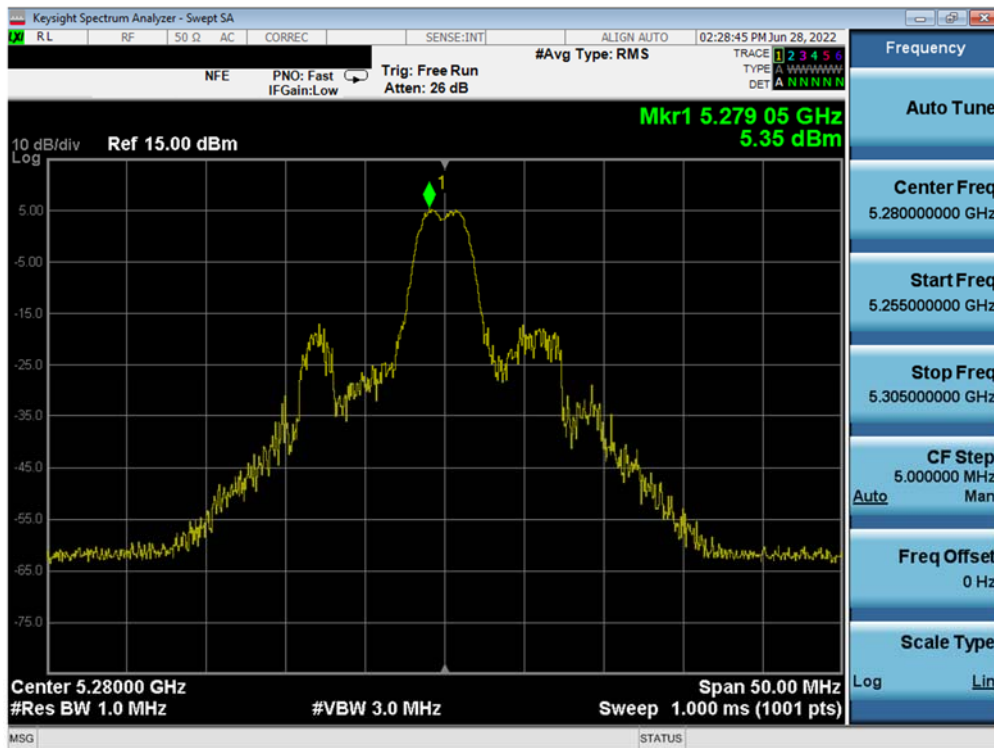


Plot 7-128. Power Spectral Density Plot MIMO ANT1 (160MHz U BW 802.11ax – 26 Tones (UNII Band 1/2A) – Ch. 50)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 100 of 189                   |

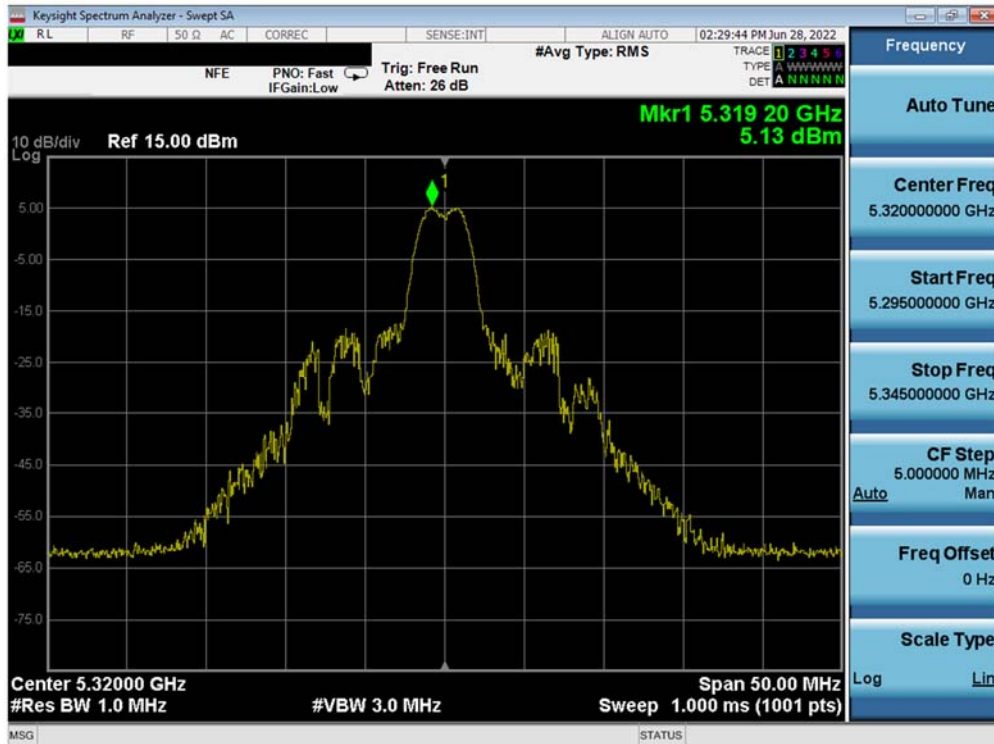


Plot 7-129. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 52)

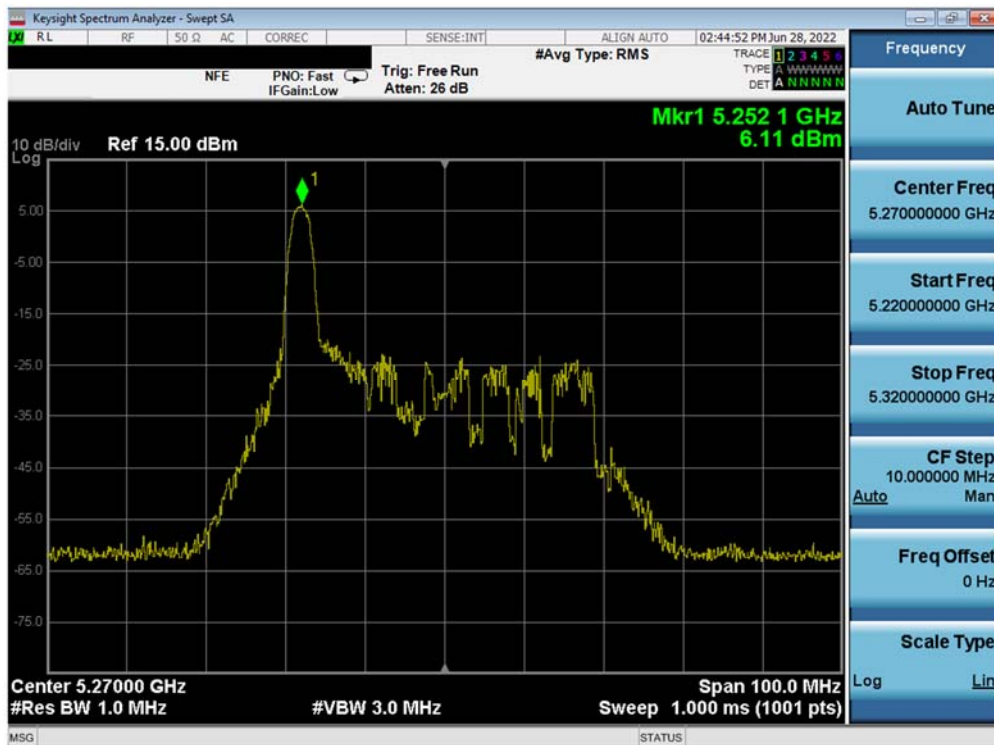


Plot 7-130. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 56)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 101 of 189                   |



Plot 7-131. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 64)



Plot 7-132. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 54)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 102 of 189                   |



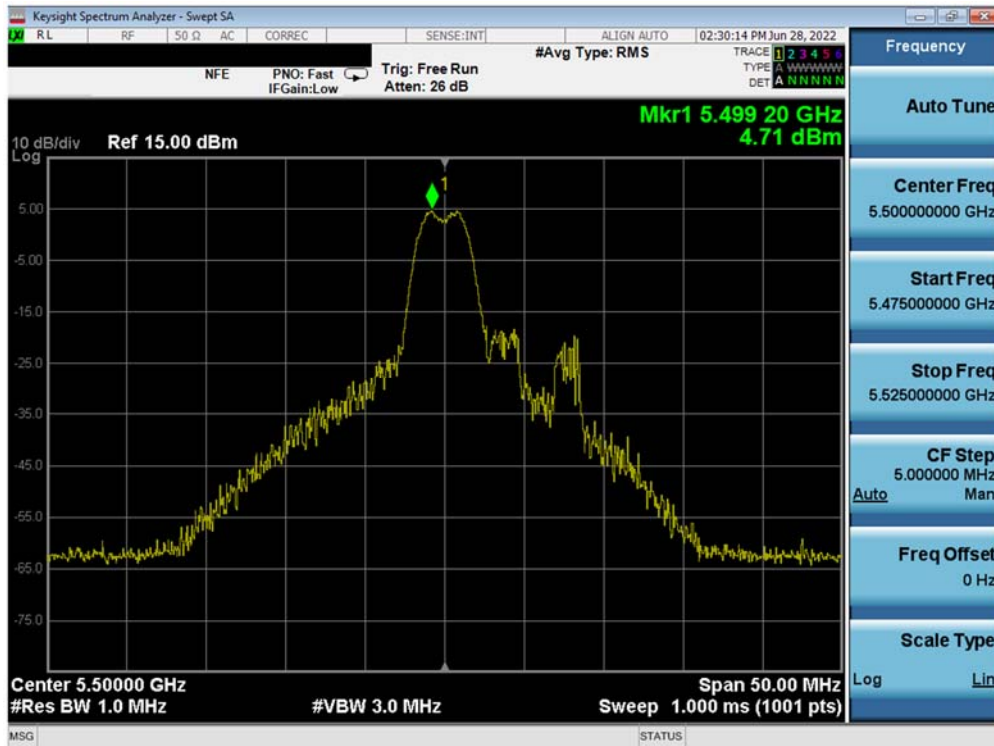


Plot 7-133. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 62)

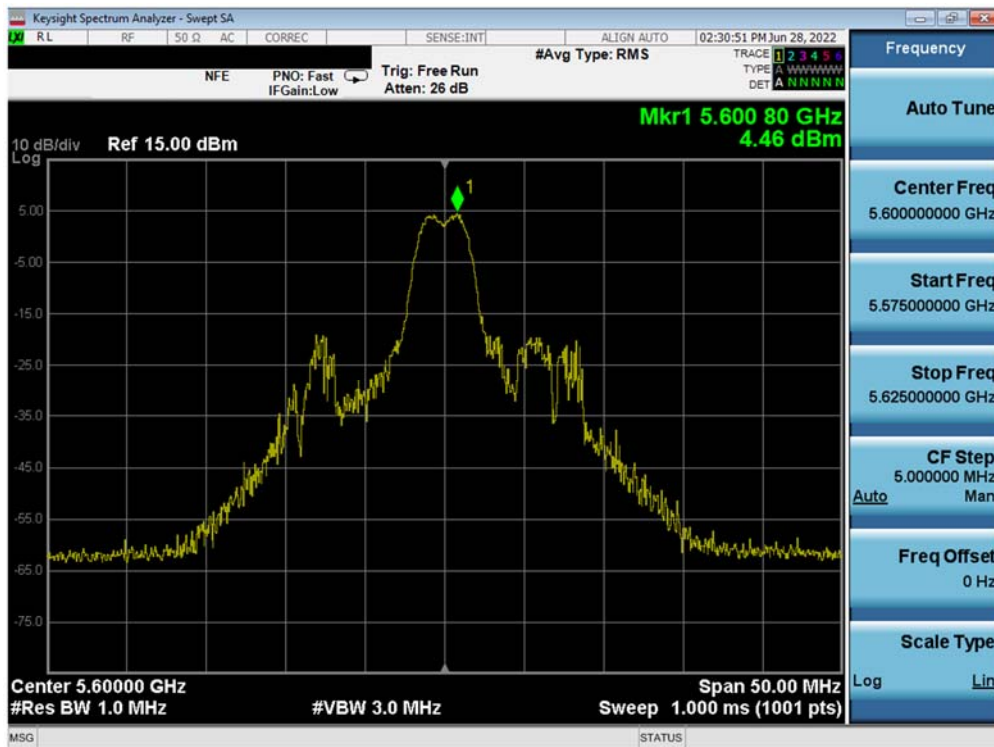


Plot 7-134. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 58)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 103 of 189                   |



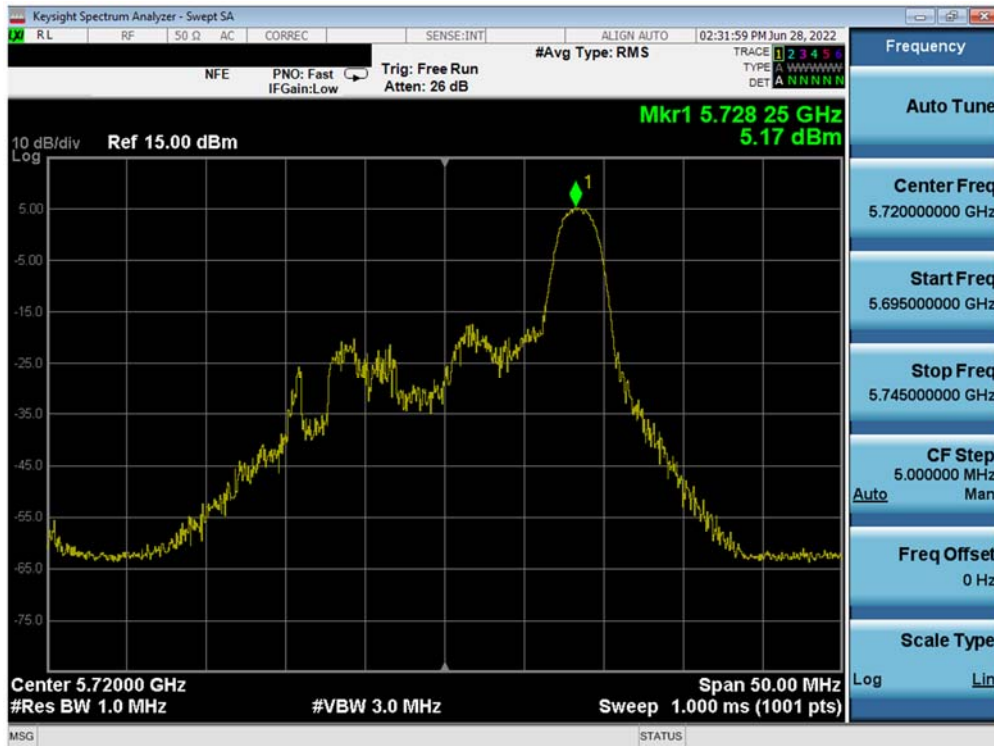
Plot 7-135. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 100)



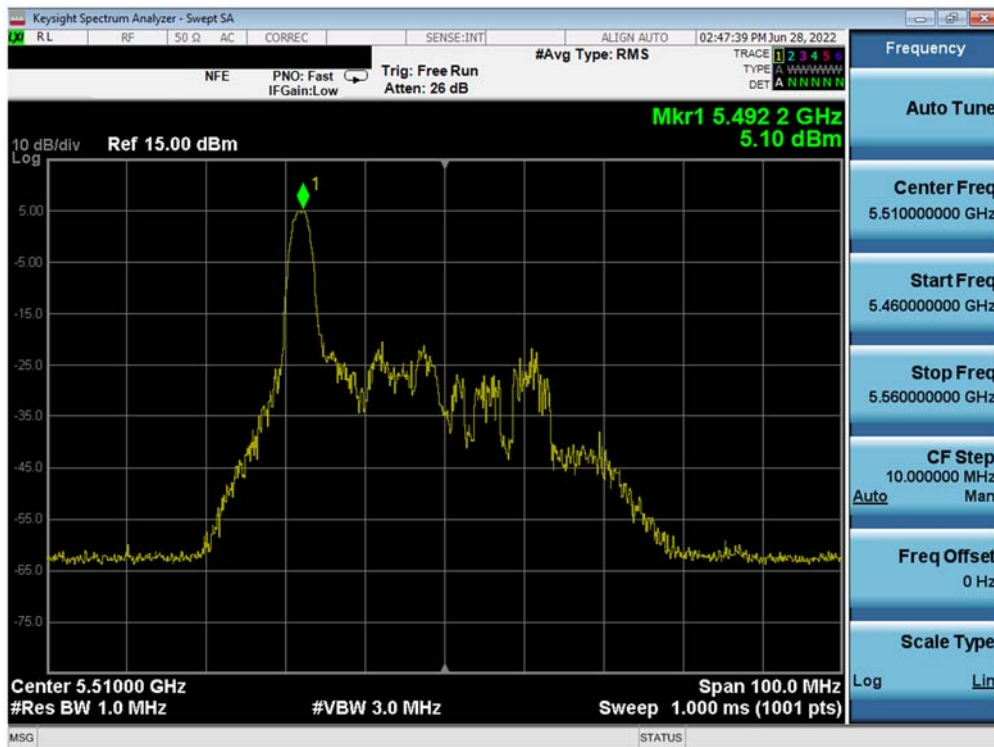
Plot 7-136. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 120)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 104 of 189                   |



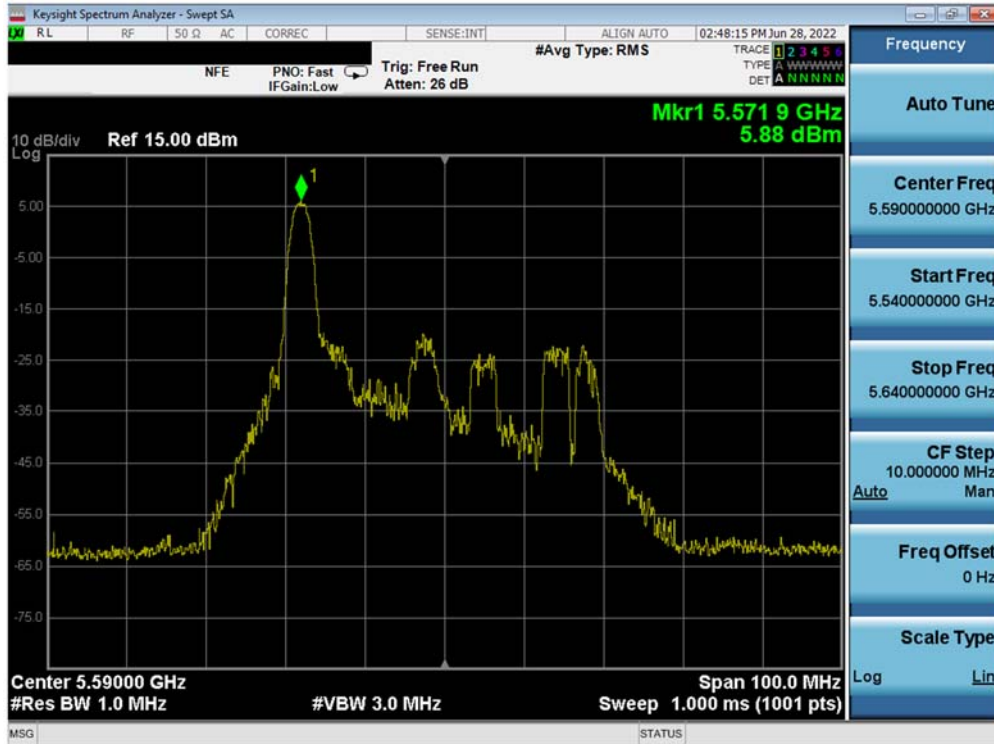


Plot 7-137. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 144)

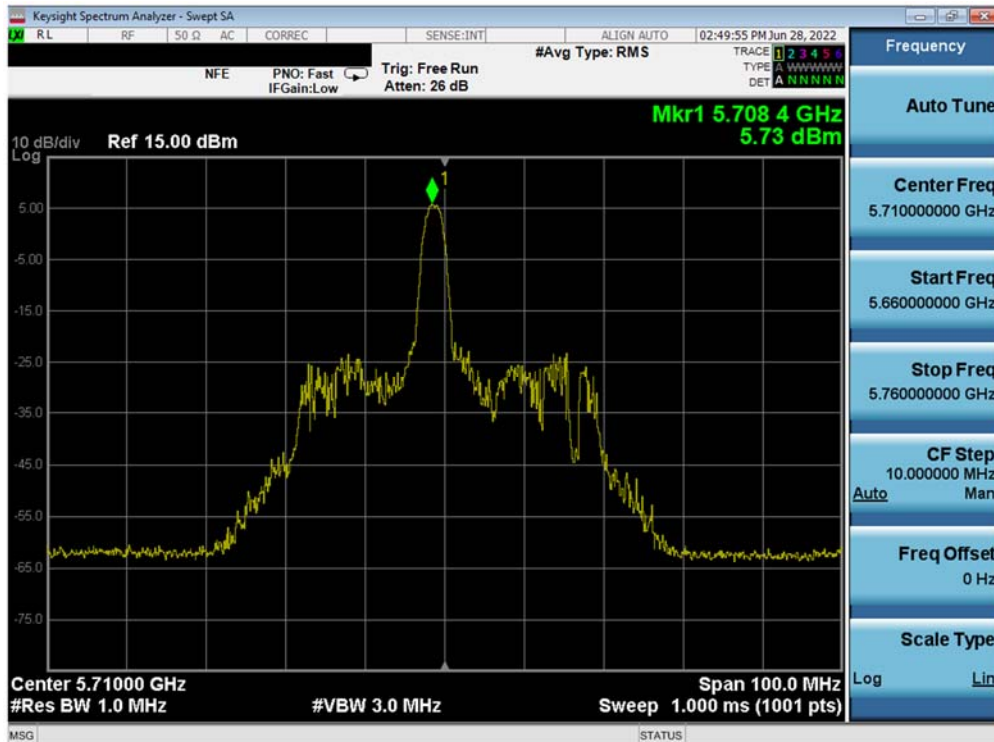


Plot 7-138. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 102)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 105 of 189                   |

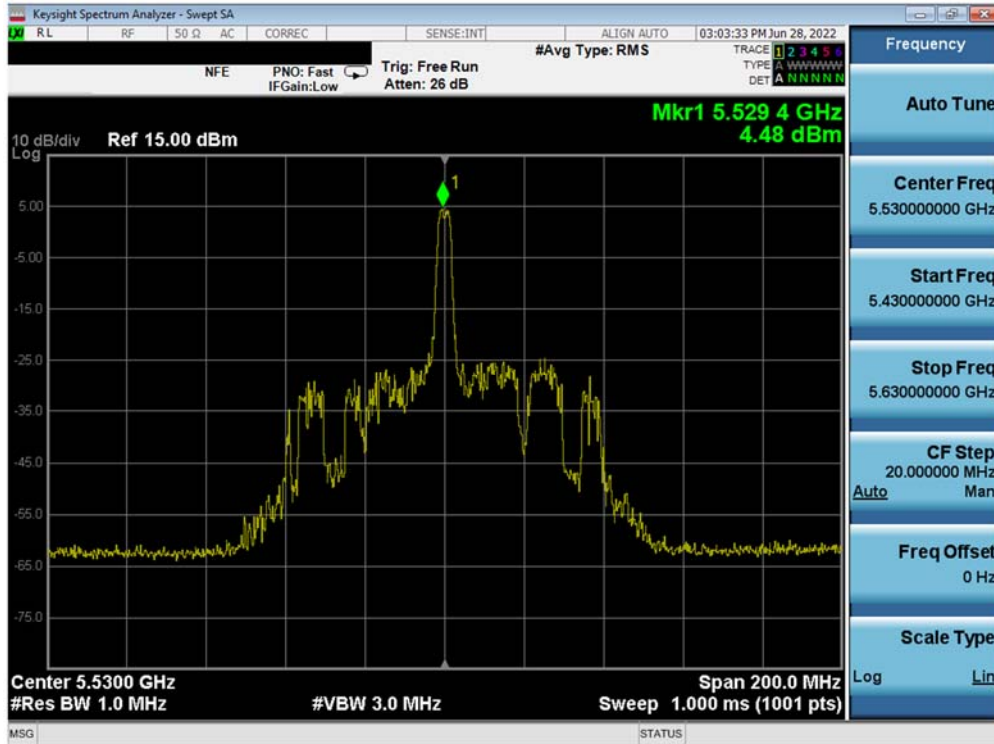


Plot 7-139. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 118)

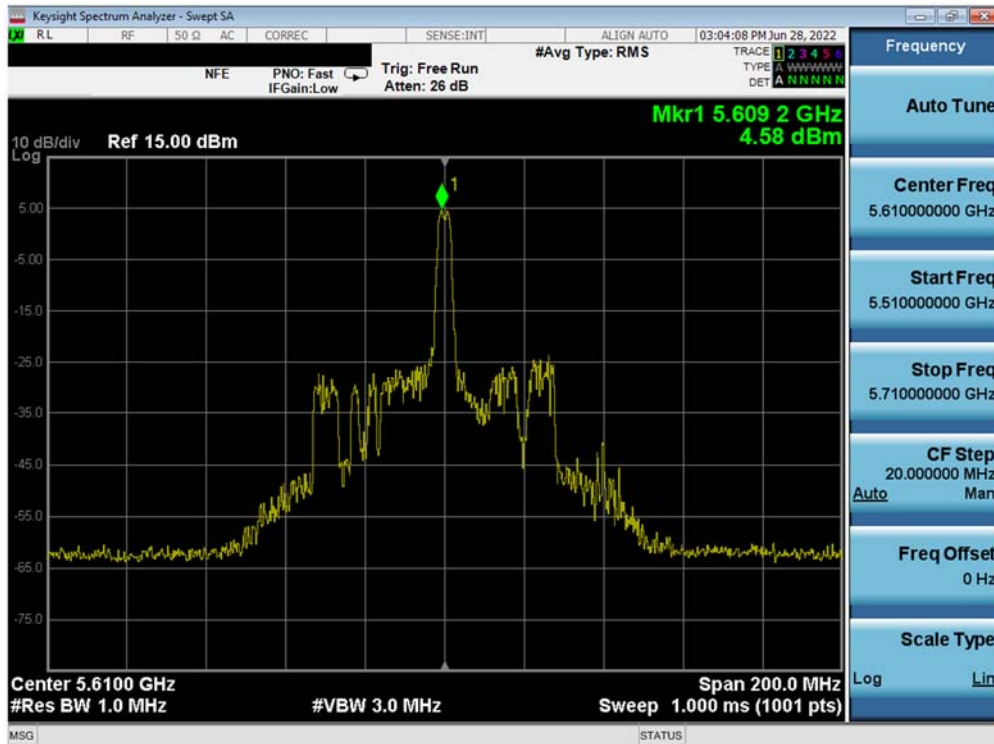


Plot 7-140. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 142)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 106 of 189                   |

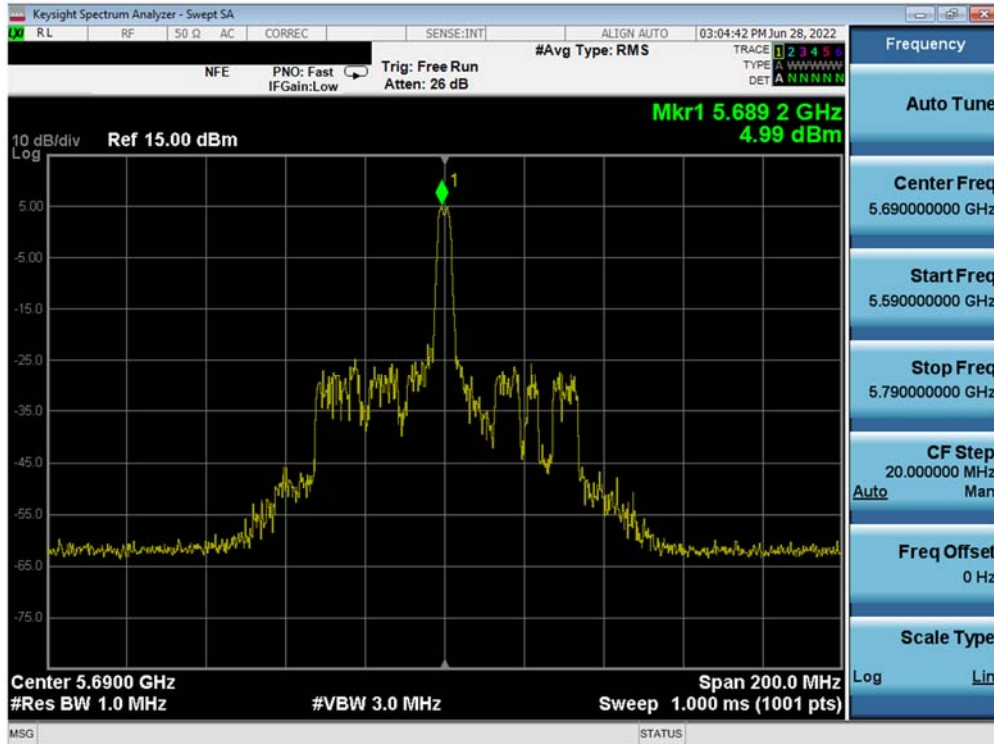


Plot 7-141. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 106)

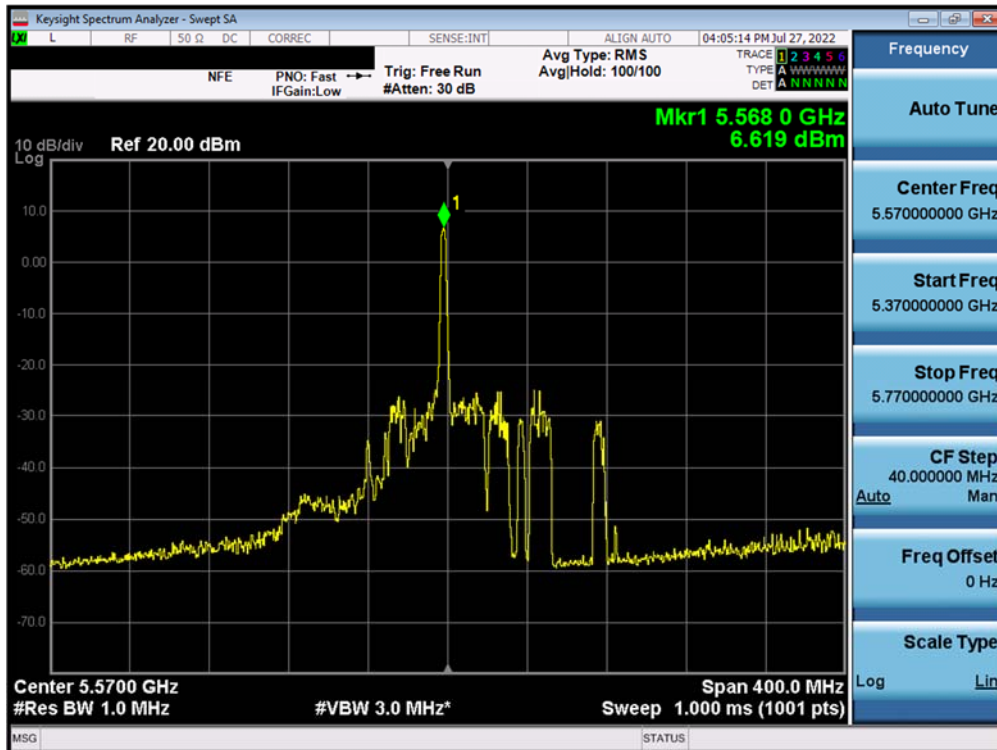


Plot 7-142. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 122)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 107 of 189                   |



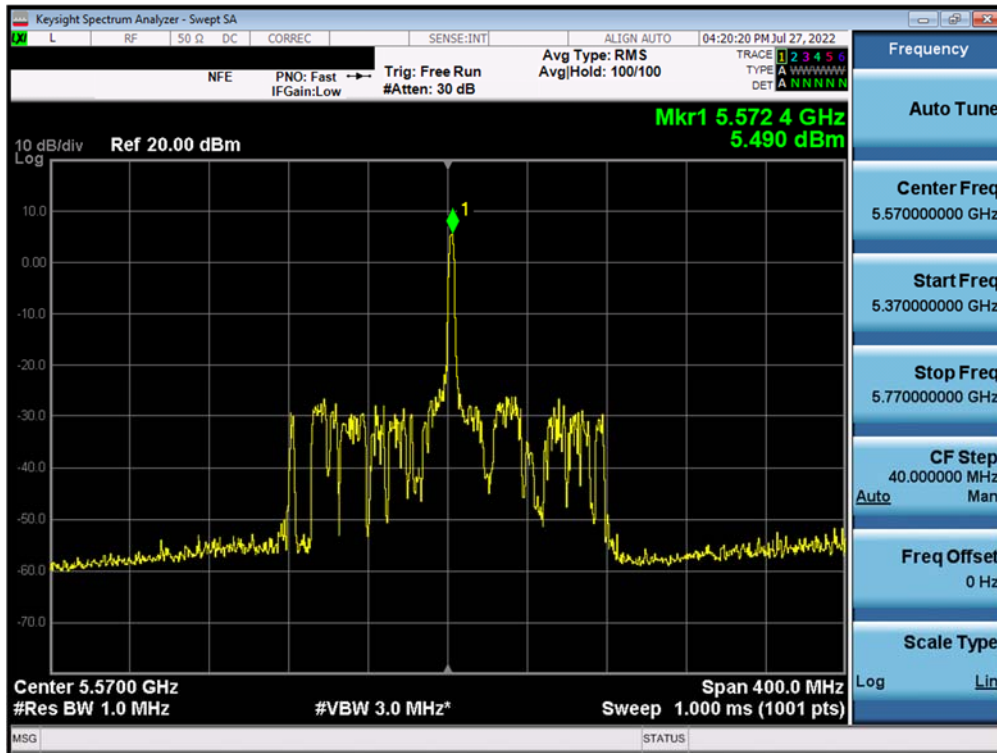
Plot 7-143. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 138)



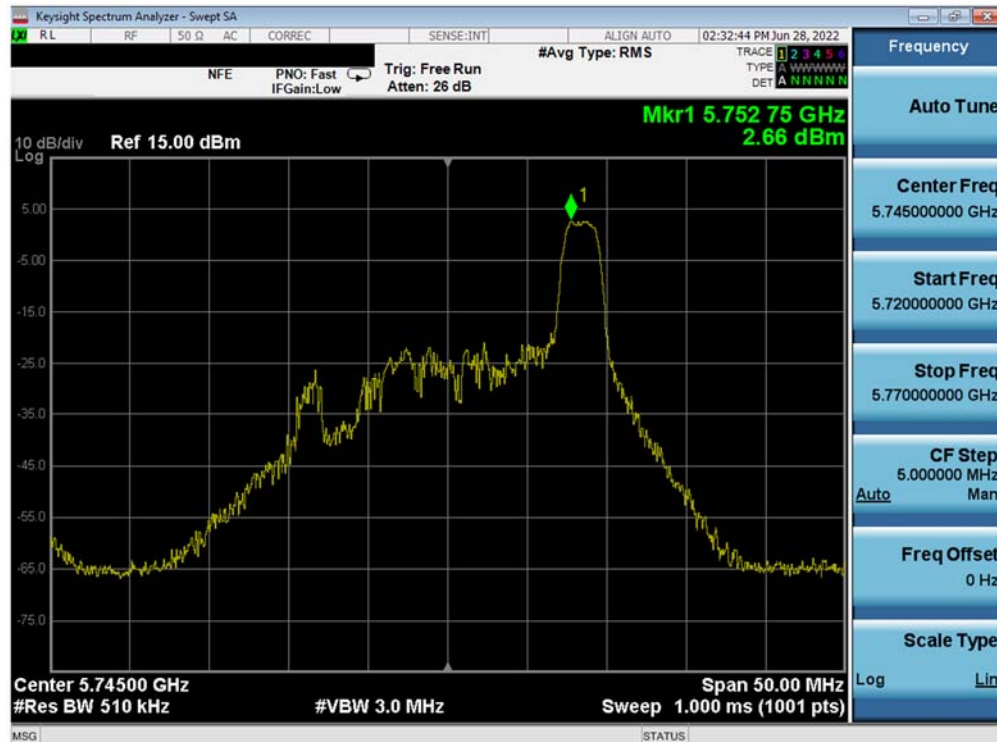
Plot 7-144. Power Spectral Density Plot MIMO ANT1 (160MHz L BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 114)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 108 of 189                   |



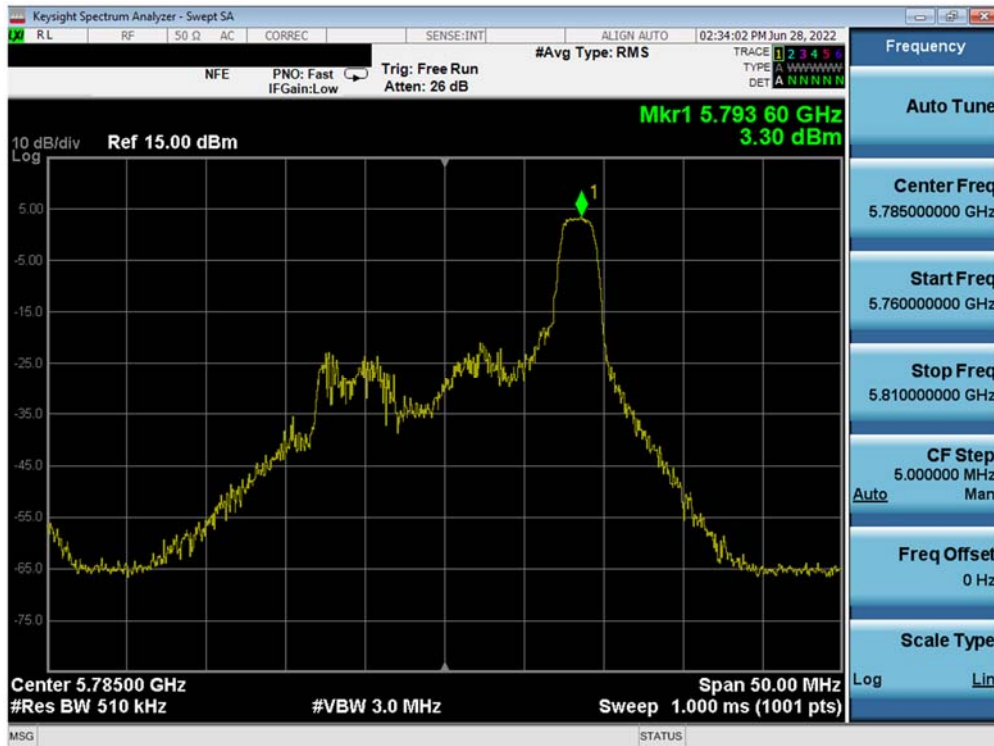


Plot 7-145. Power Spectral Density Plot MIMO ANT1 (160MHz U BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 114)

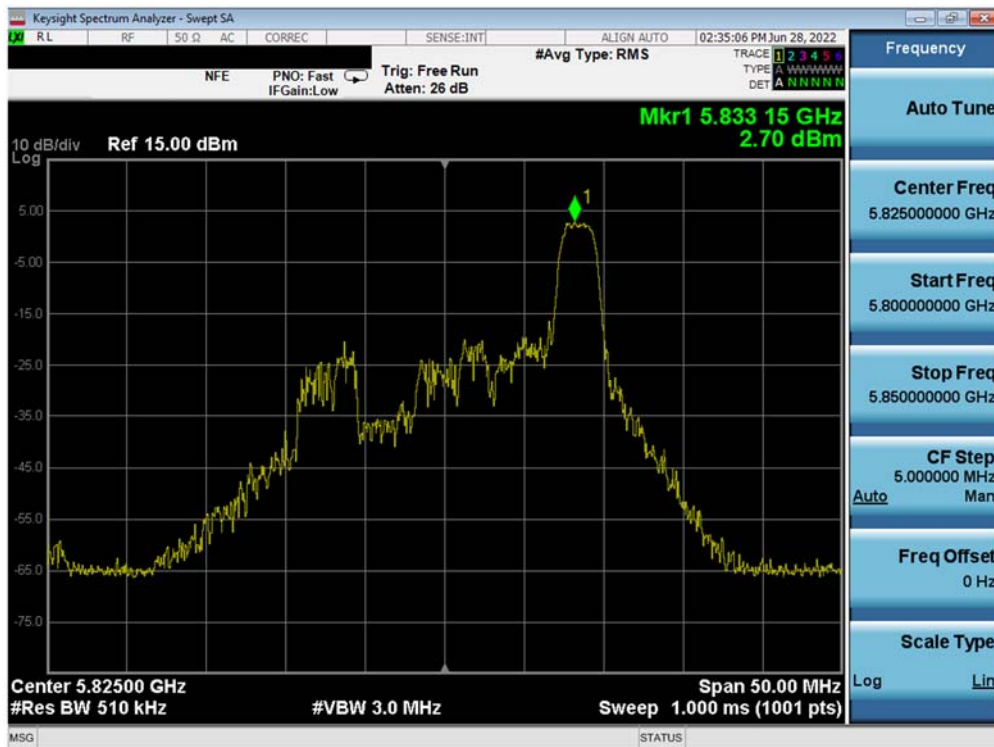


Plot 7-146. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 149)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 109 of 189                   |



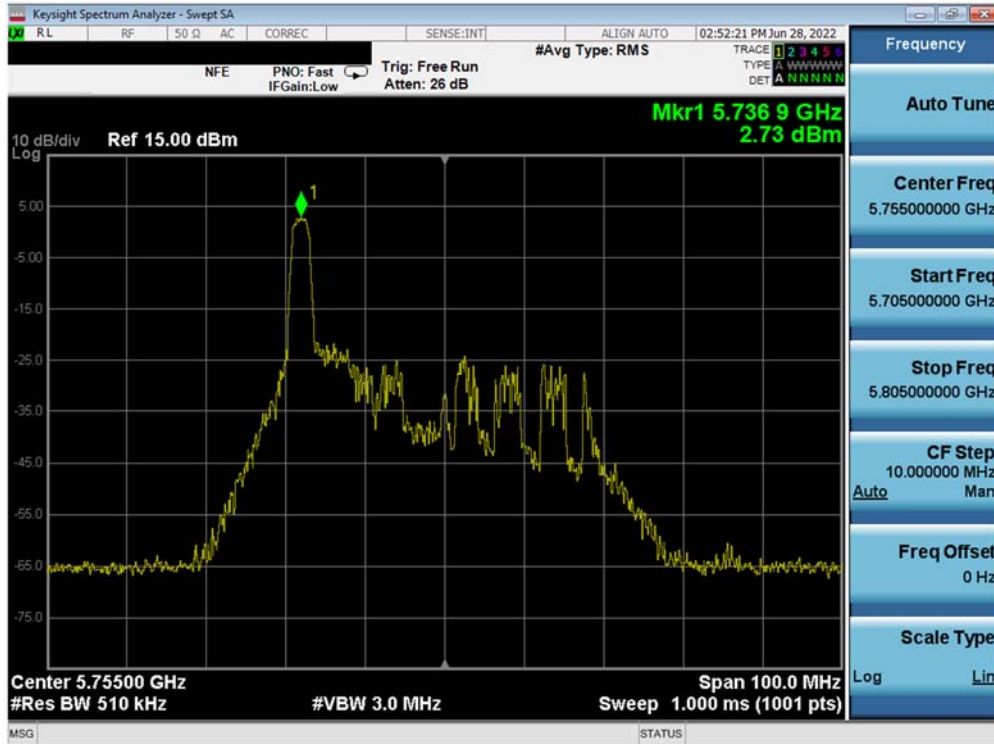
Plot 7-147. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 157)



Plot 7-148. Power Spectral Density Plot MIMO ANT1 (20 MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 165)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 110 of 189                   |



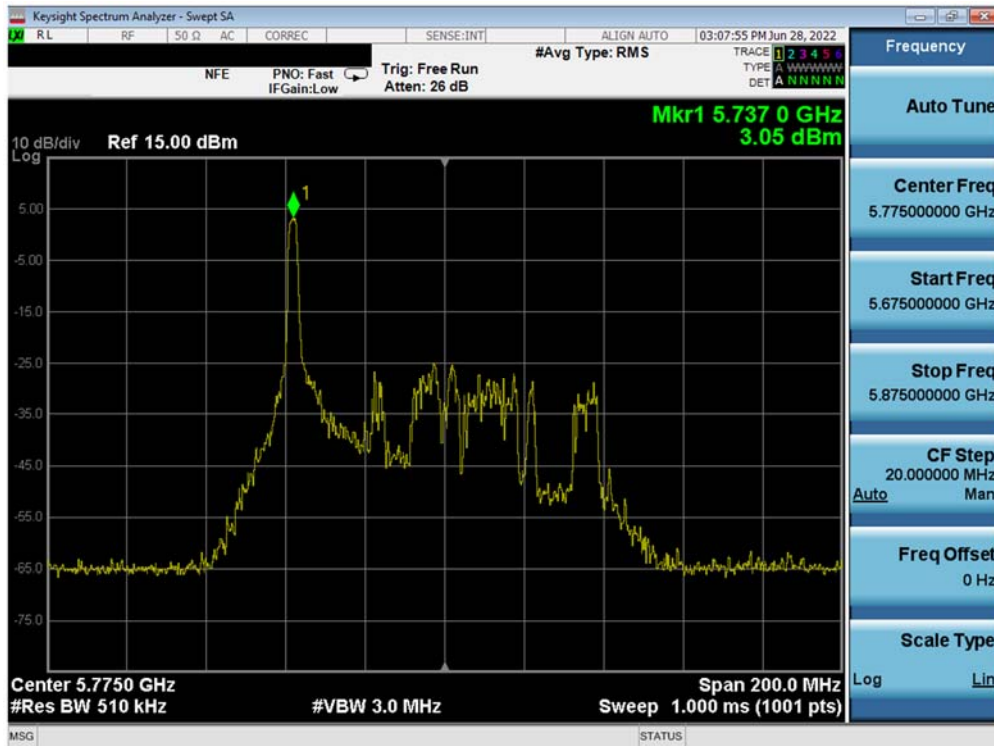


Plot 7-149. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 151)



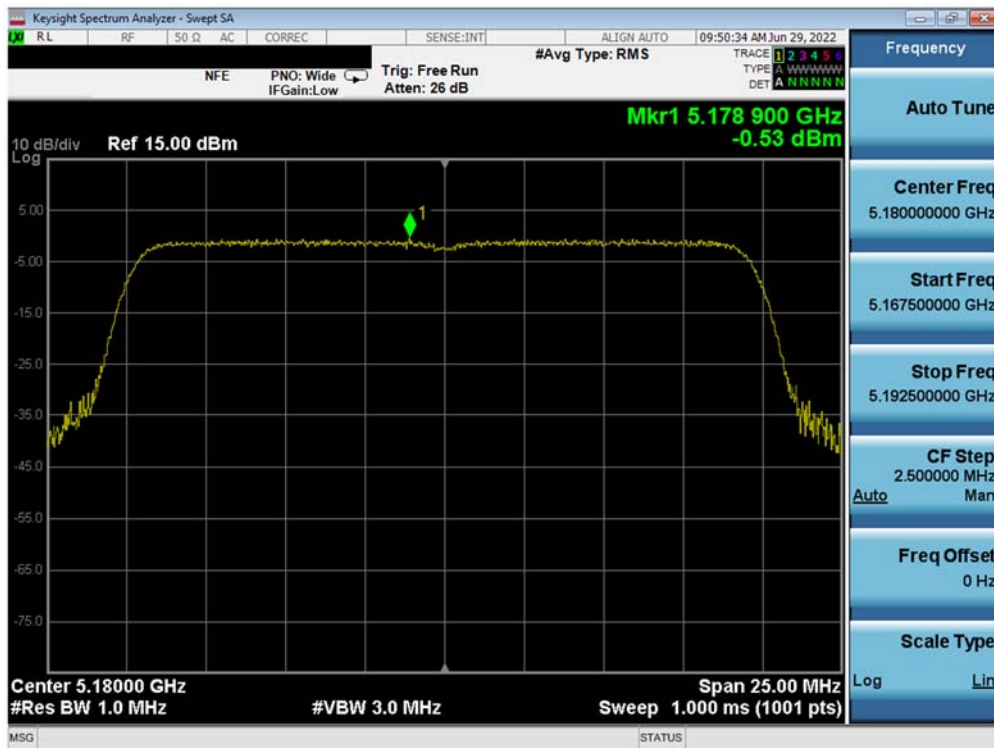
Plot 7-150. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 159)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 111 of 189                   |

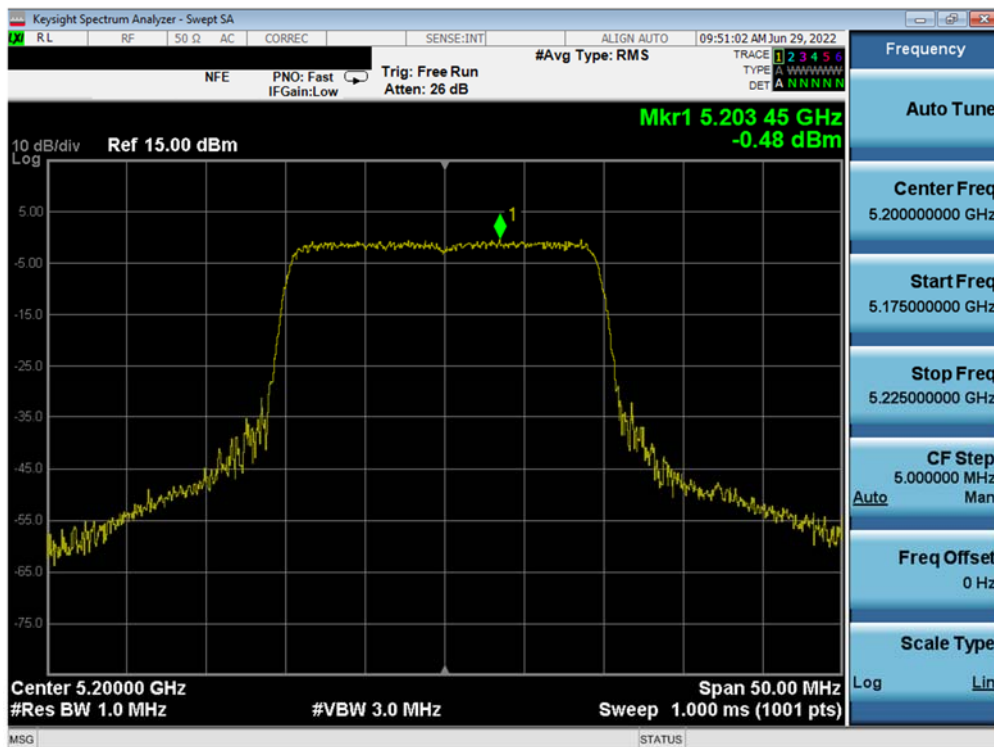


Plot 7-151. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 155)

|   |   |                               |                                   |
|---|---|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022             | EUT Type:<br>Portable Handset | Page 112 of 189                   |

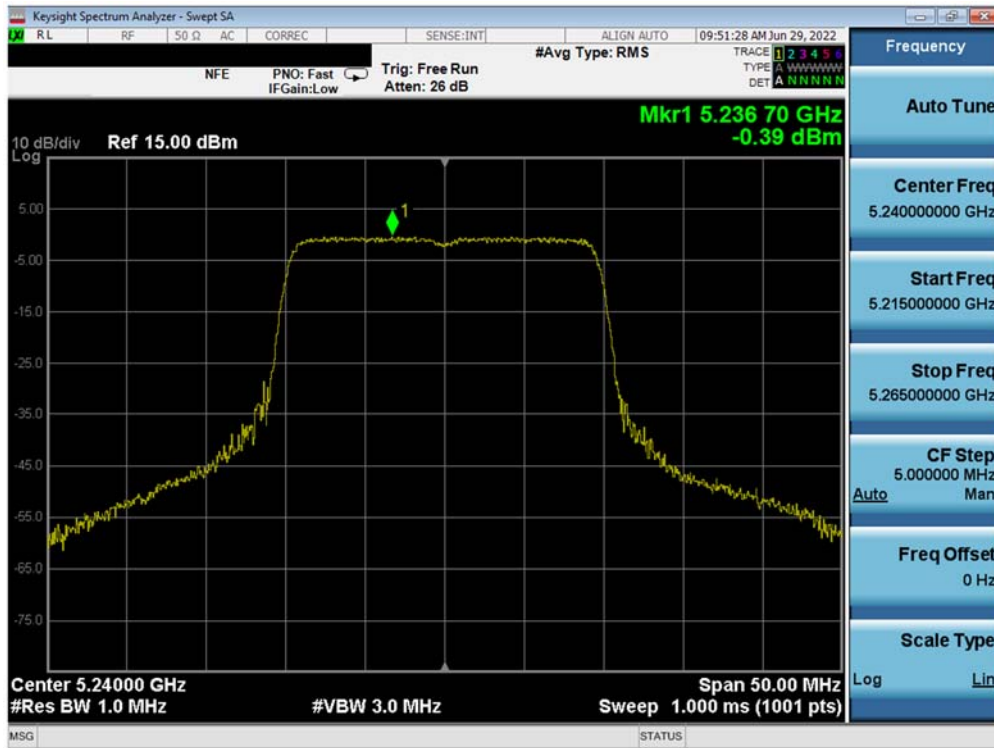


Plot 7-152. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 36)

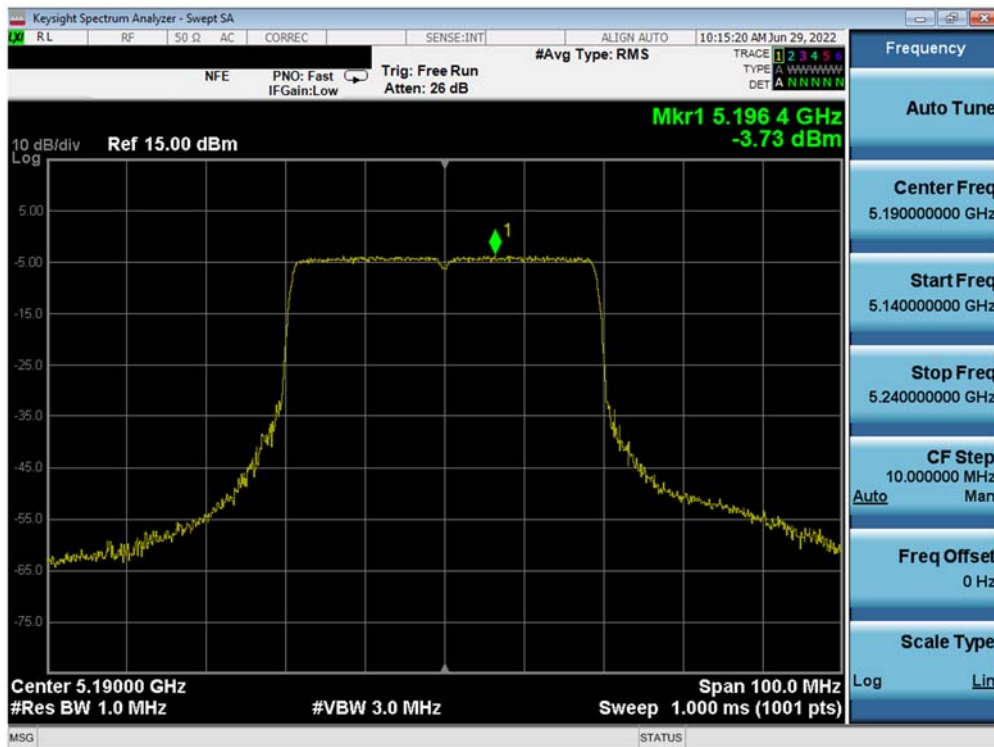


Plot 7-153. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 40)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 113 of 189                   |

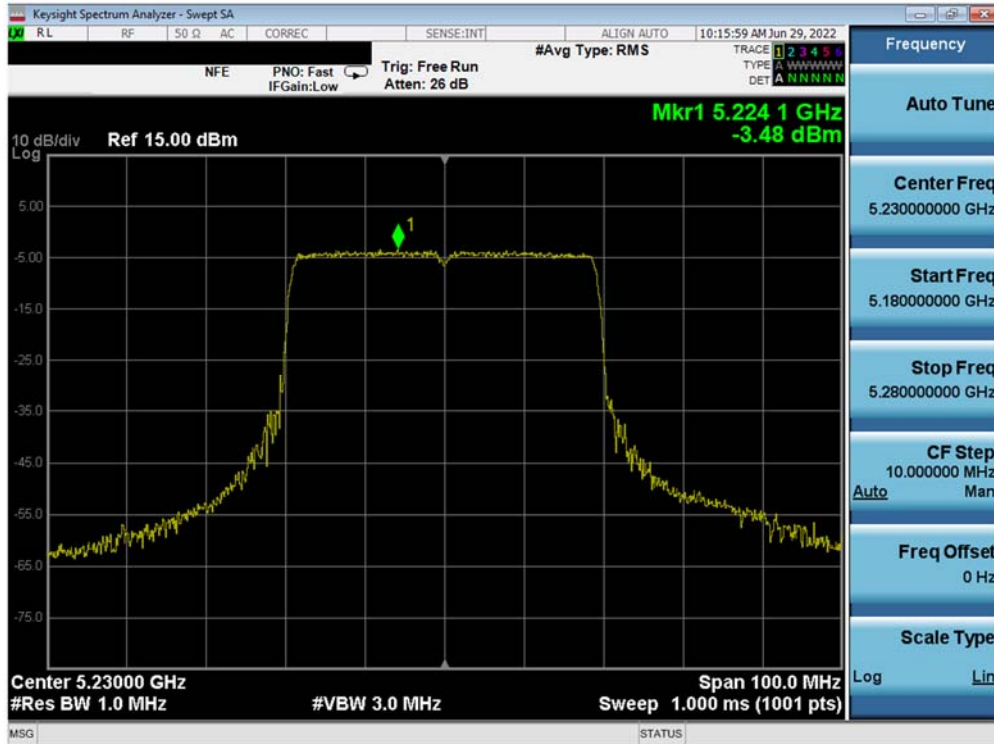


Plot 7-154. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 48)

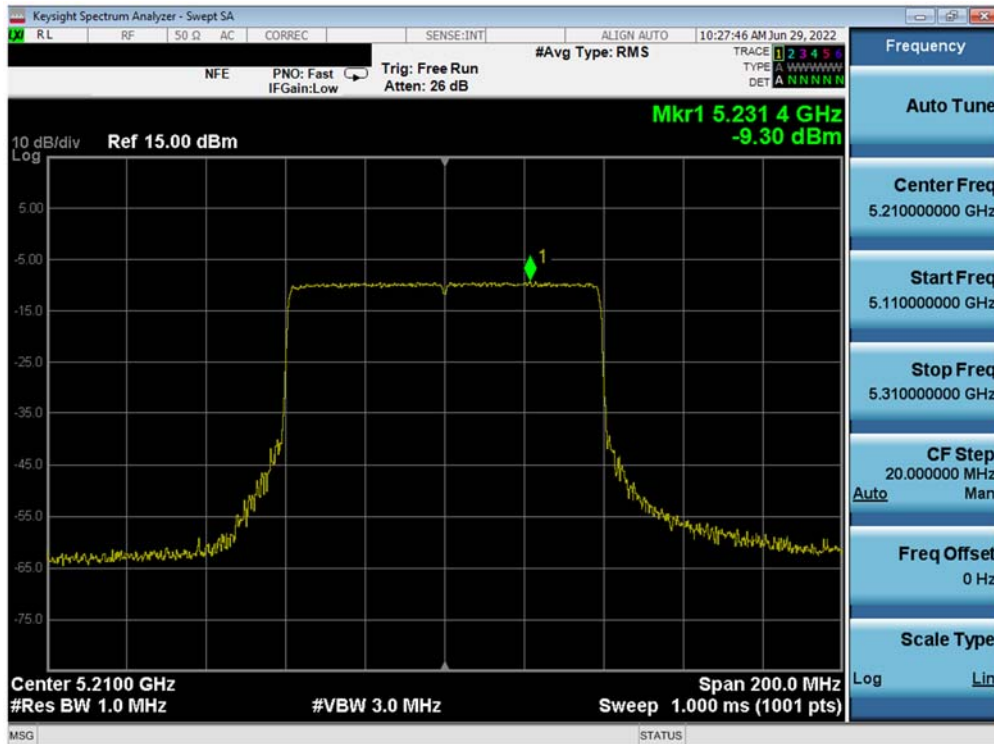


Plot 7-155. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 38)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 114 of 189                   |



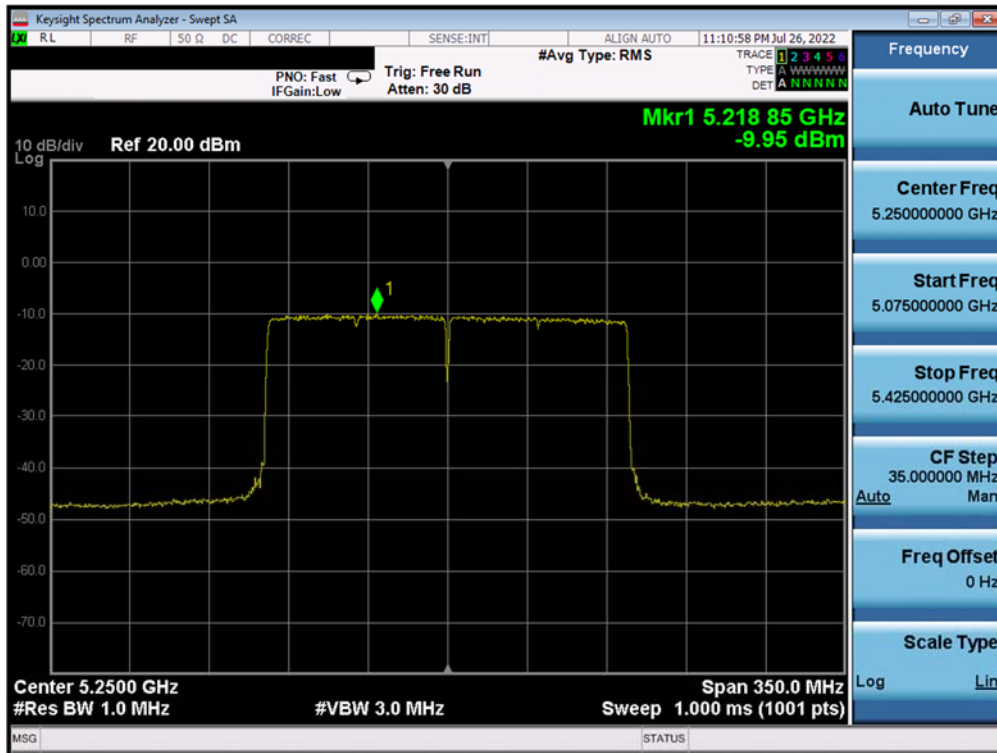
Plot 7-156. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 46)



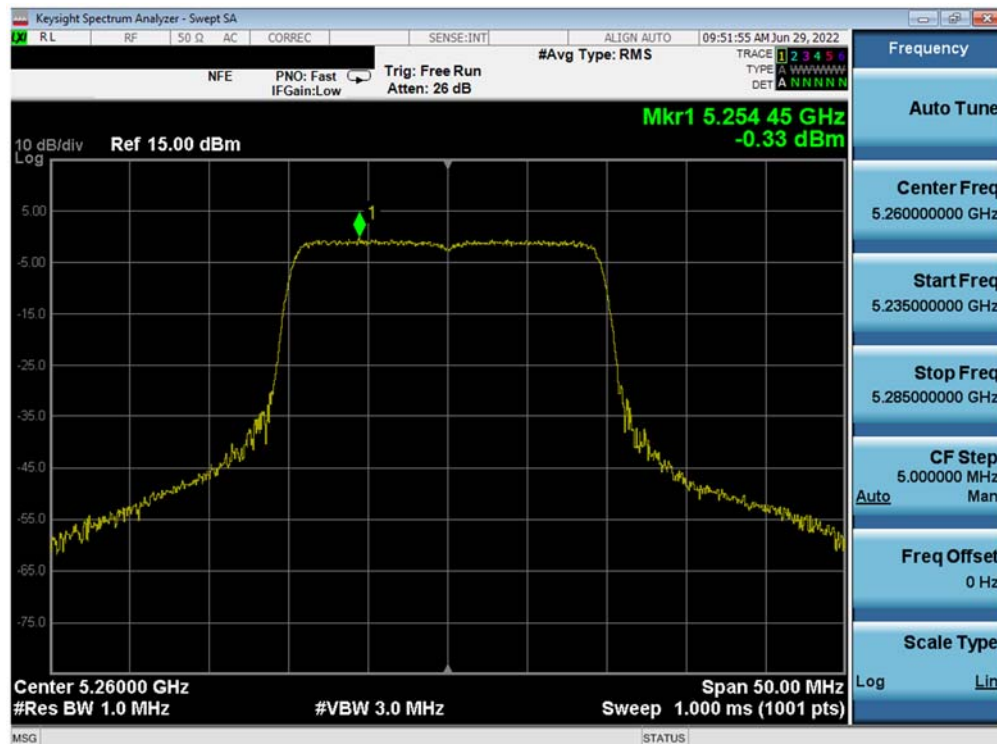
Plot 7-157. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – Full Tones (UNII Band 1) – Ch. 42)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 115 of 189                   |



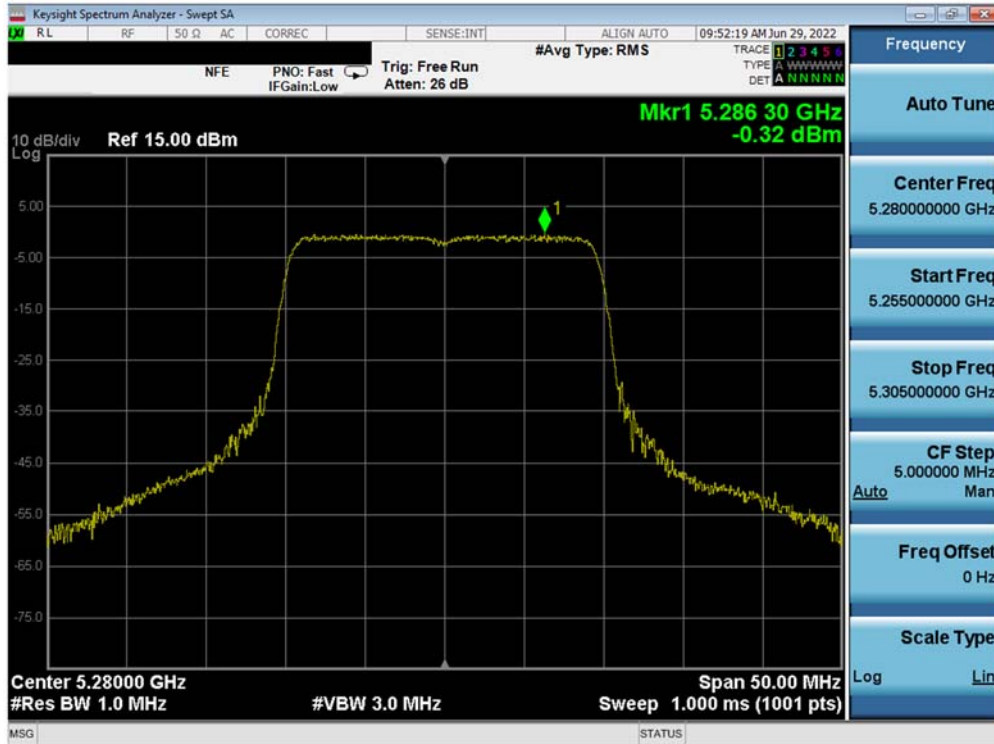


Plot 7-158. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802.11ax – Full Tones (UNII Band 1/2A) – Ch. 50)

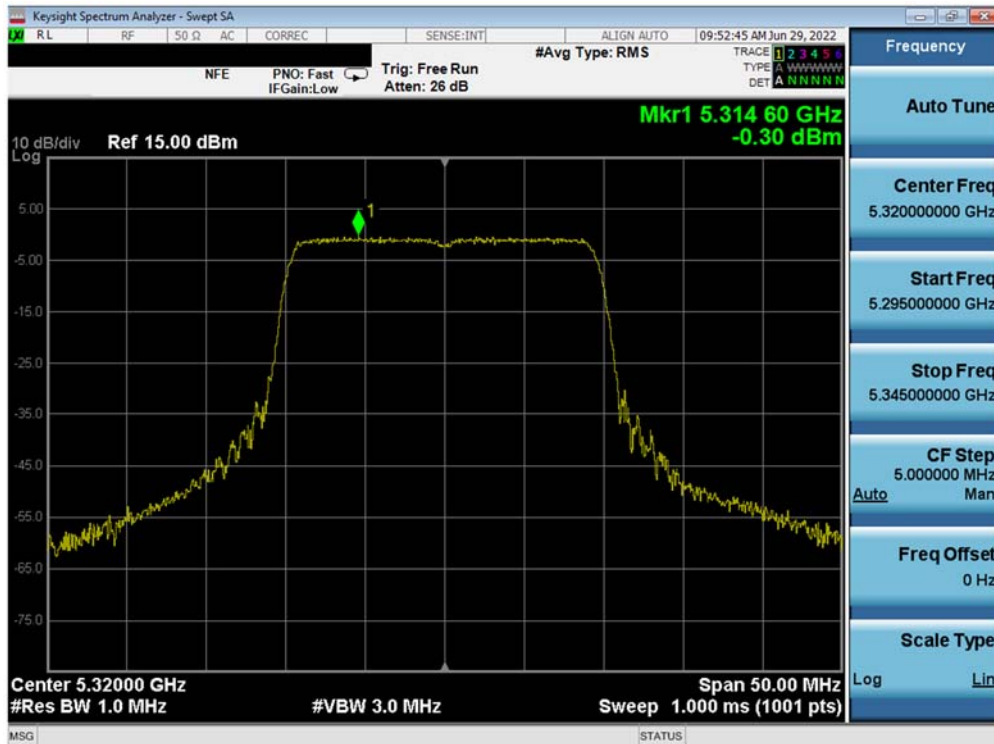


Plot 7-159. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – Full Tones (UNII Band 2A) – Ch. 52)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 116 of 189                   |



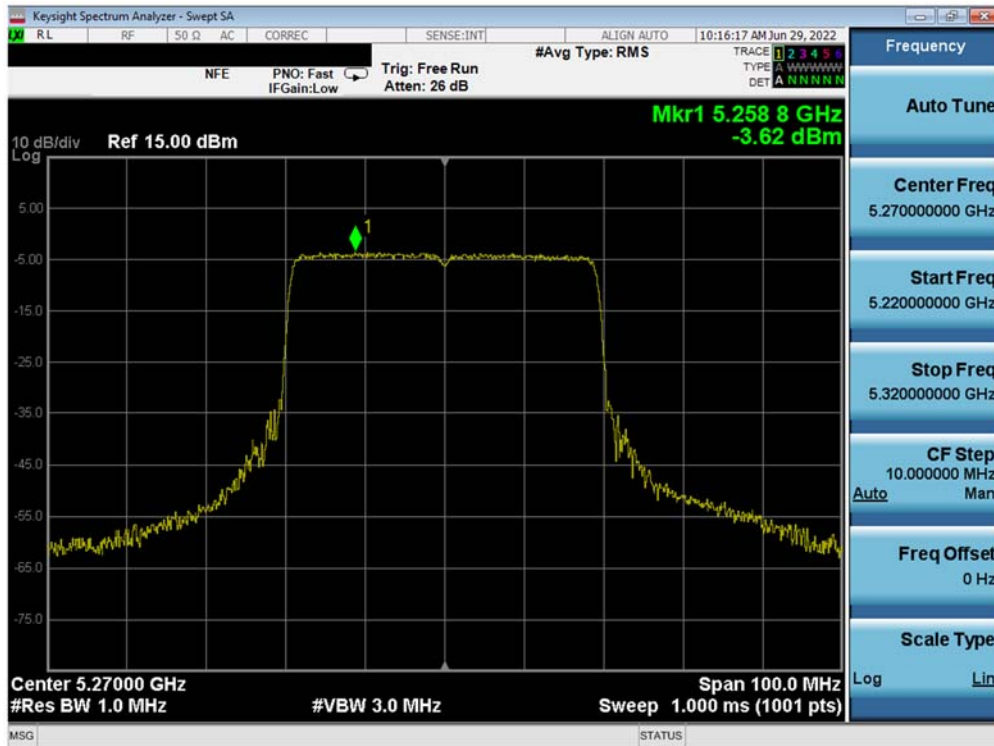
Plot 7-160. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – Full Tones (UNII Band 2A) – Ch. 56)



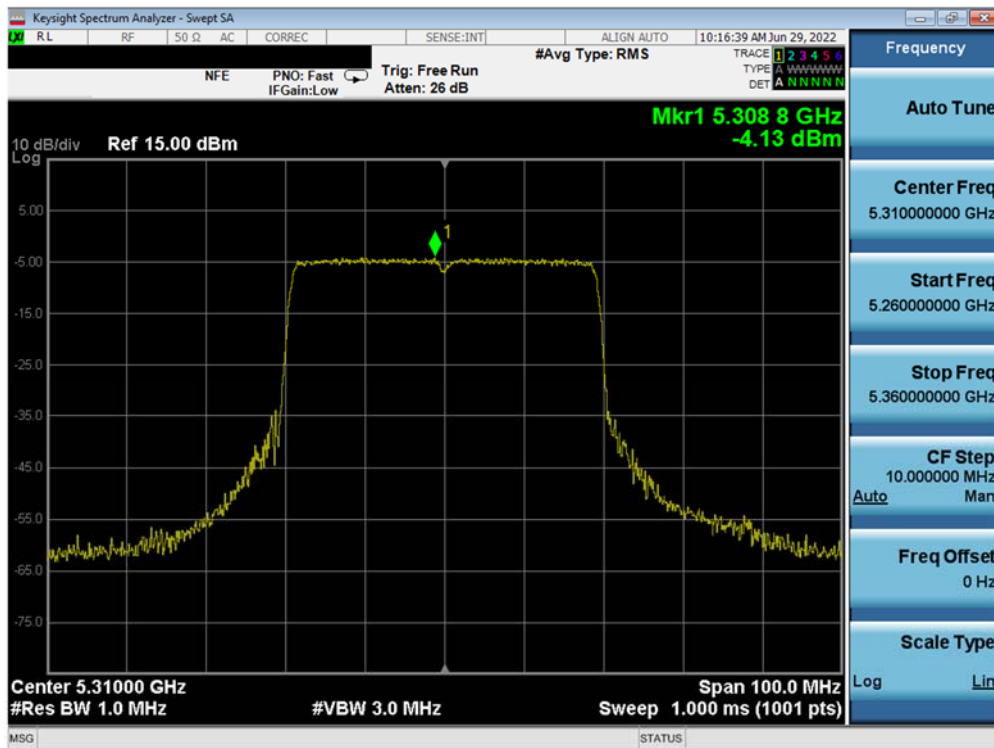
Plot 7-161. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – Full Tones (UNII Band 2A) – Ch. 64)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 117 of 189                   |



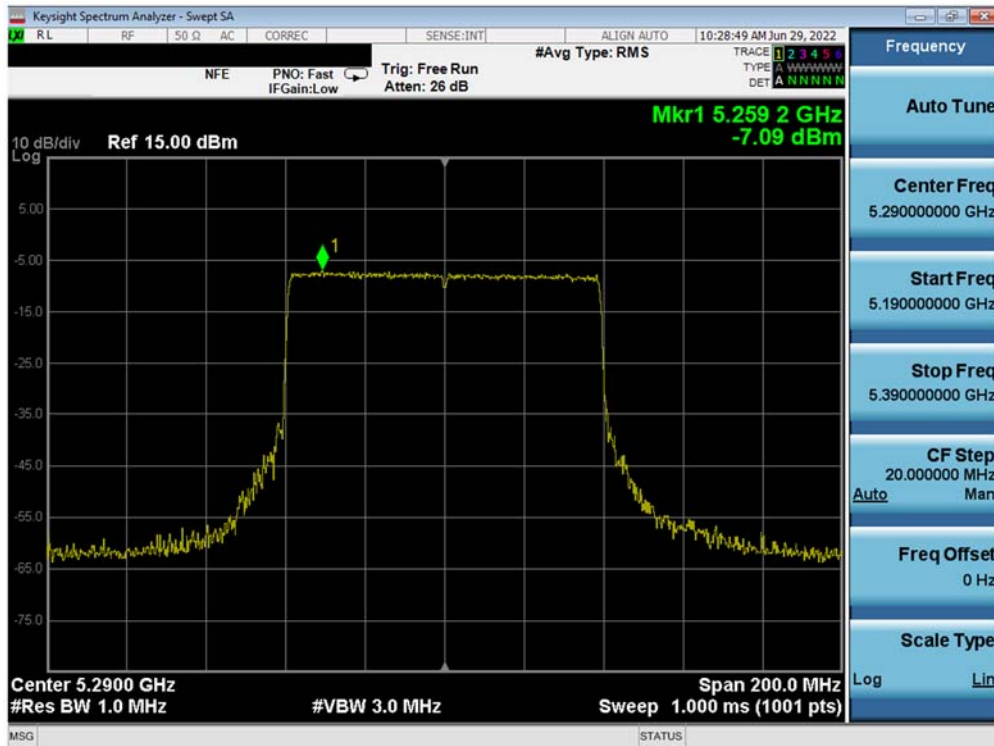


Plot 7-162. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – Full Tones (UNII Band 2A) – Ch. 54)

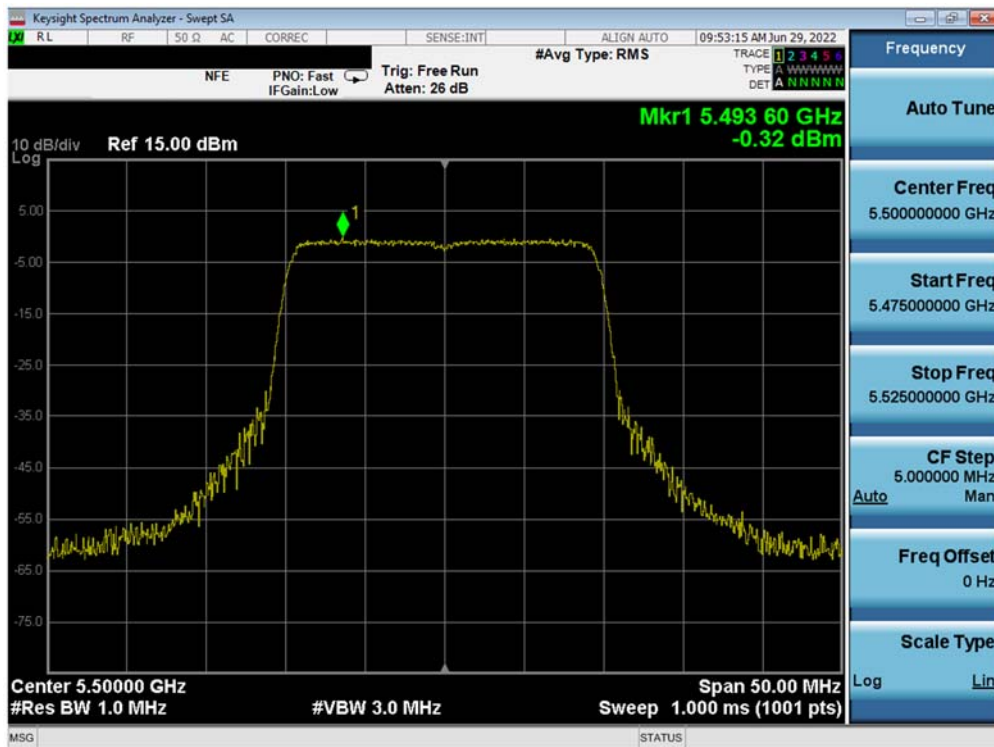


Plot 7-163. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – Full Tones (UNII Band 2A) – Ch. 62)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 118 of 189                   |

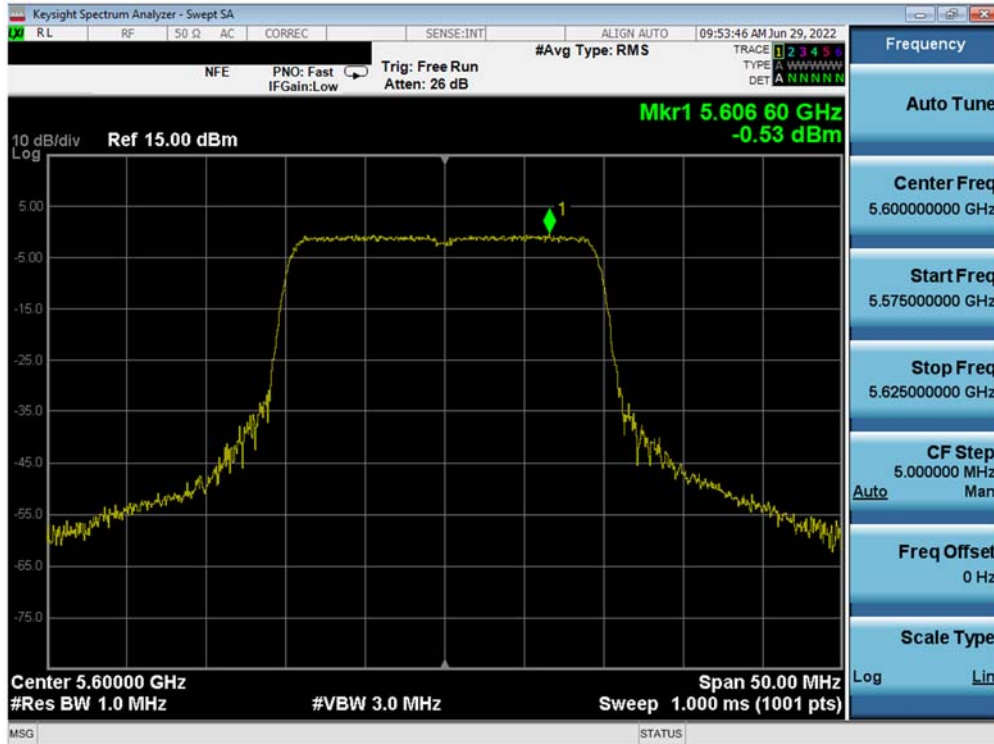


Plot 7-164. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – Full Tones (UNII Band 2A) – Ch. 58)

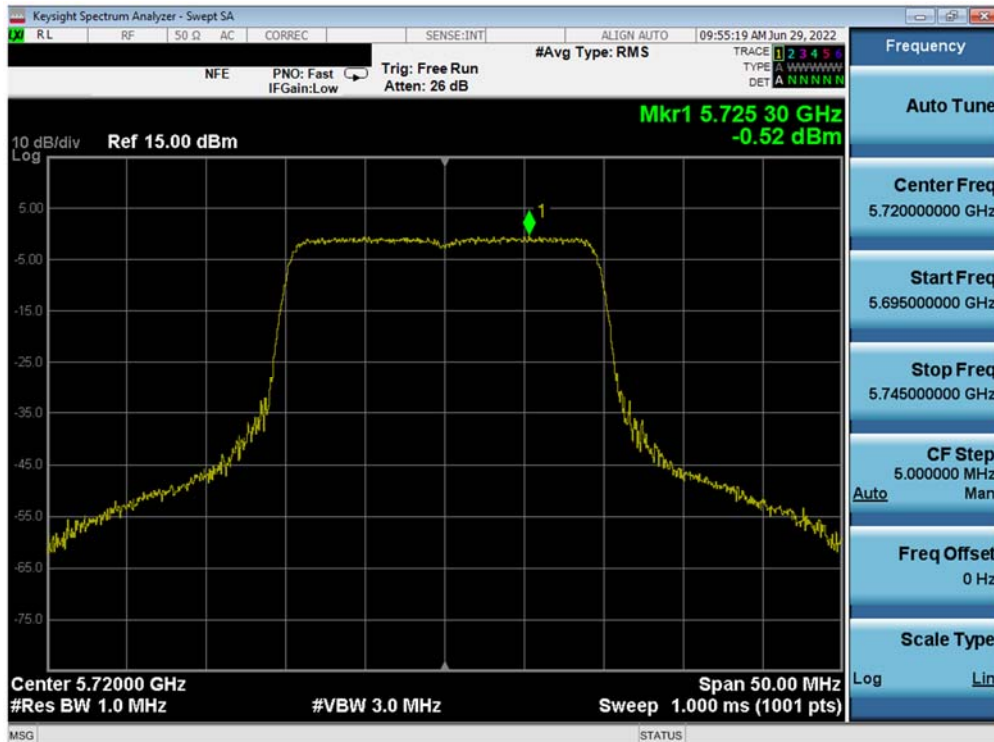


Plot 7-165. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 100)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 119 of 189                   |

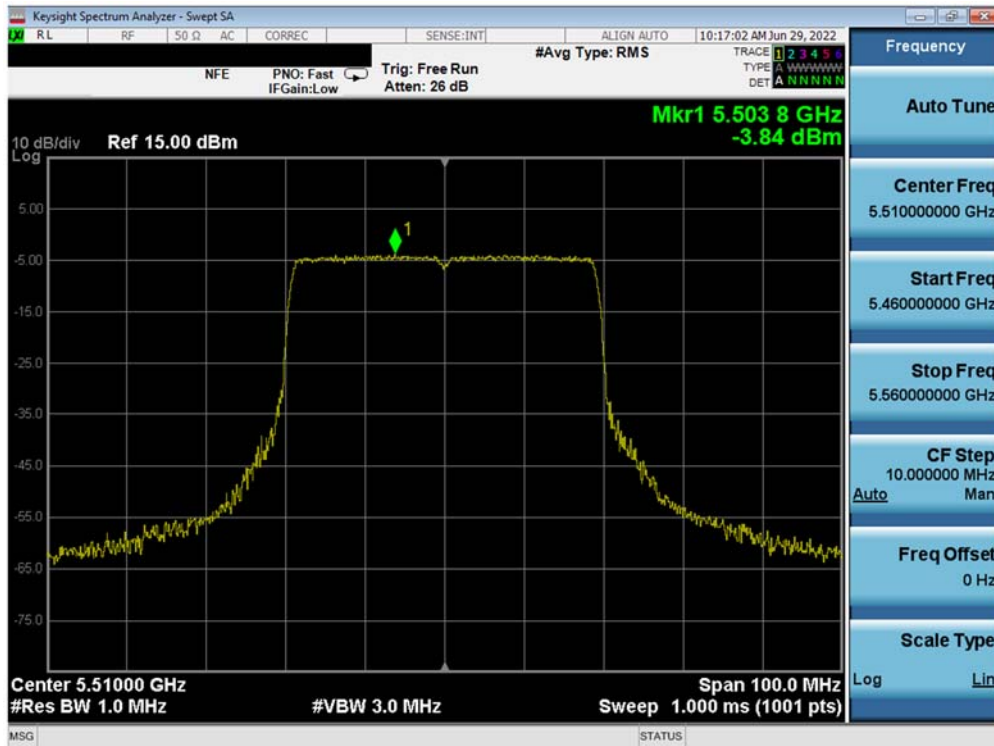


Plot 7-166. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 120)

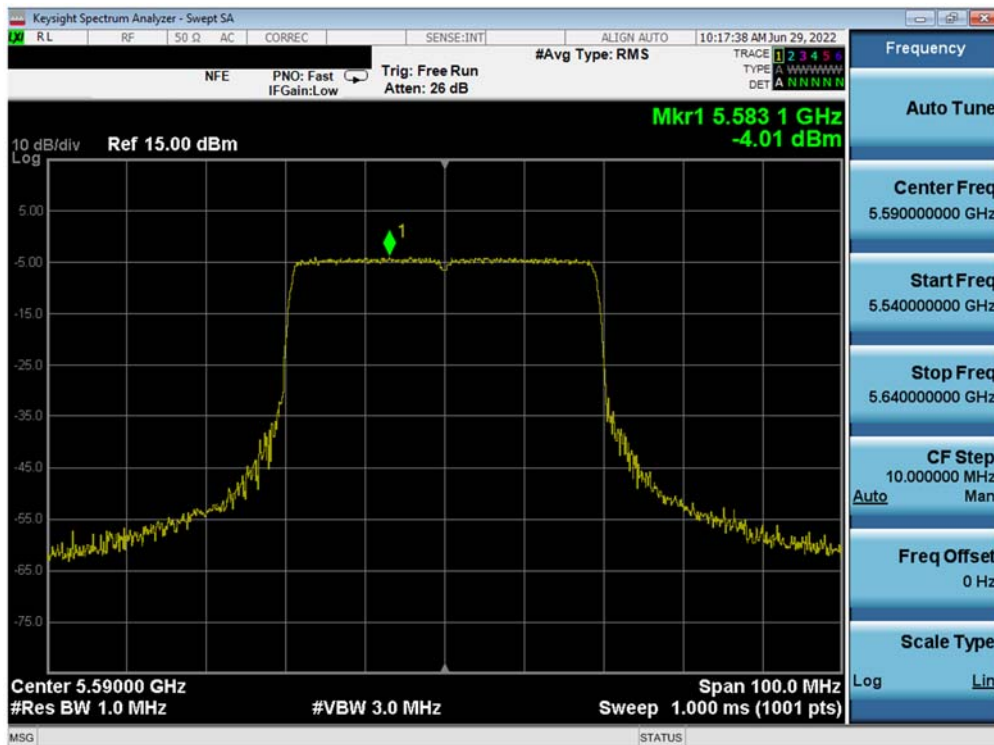


Plot 7-167. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 144)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 120 of 189                   |



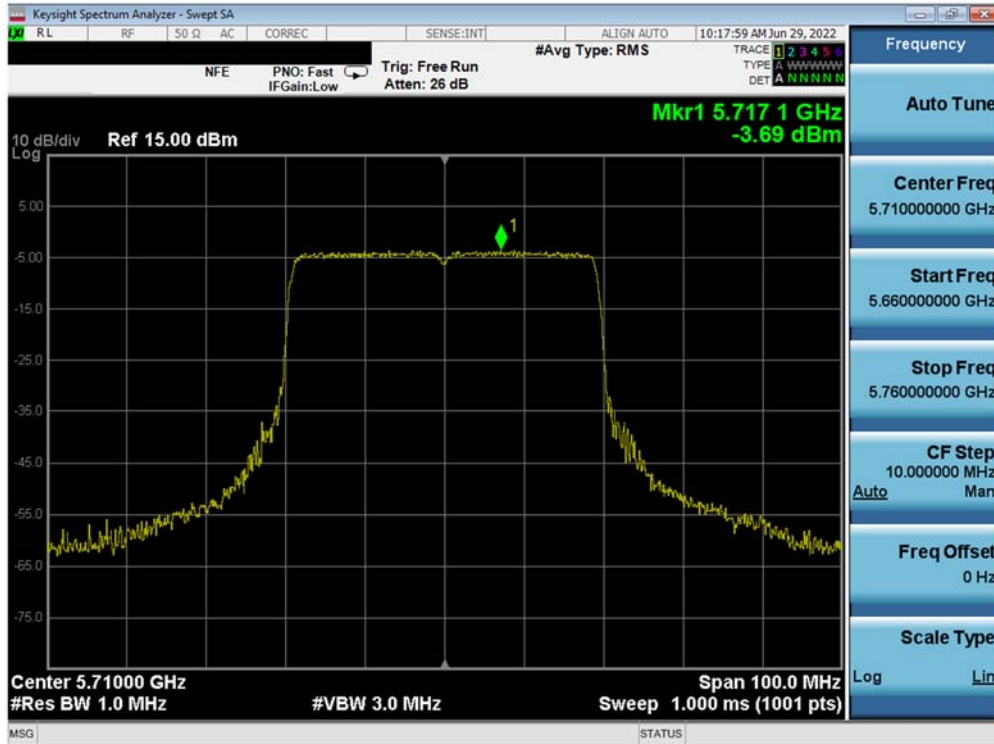
Plot 7-168. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 102)



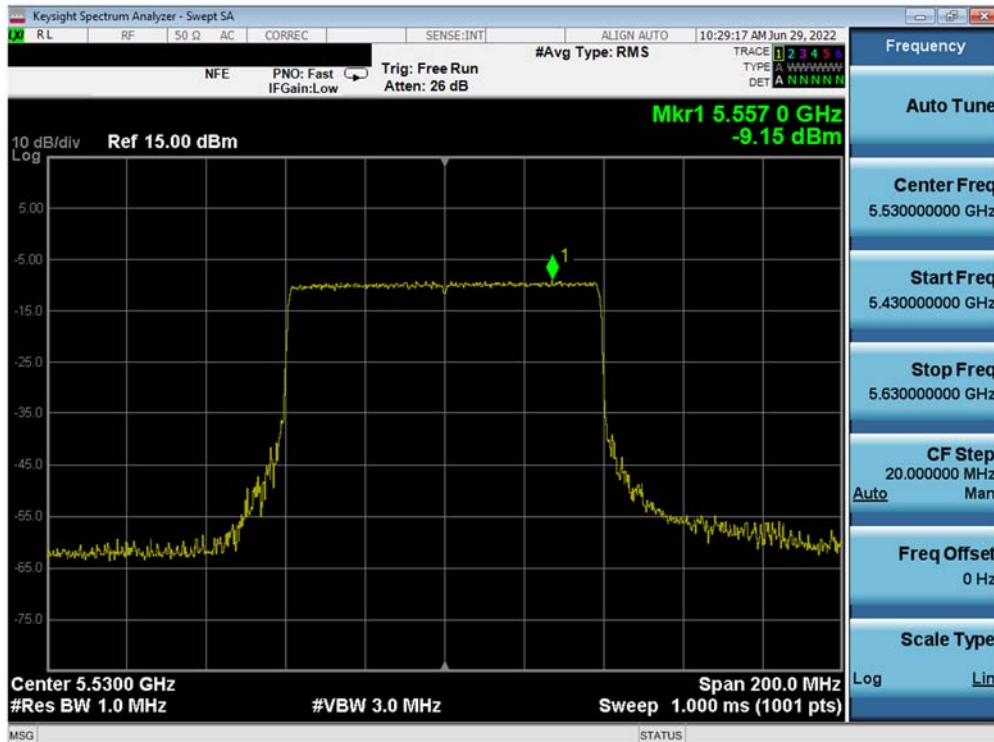
Plot 7-169. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 118)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 121 of 189                   |



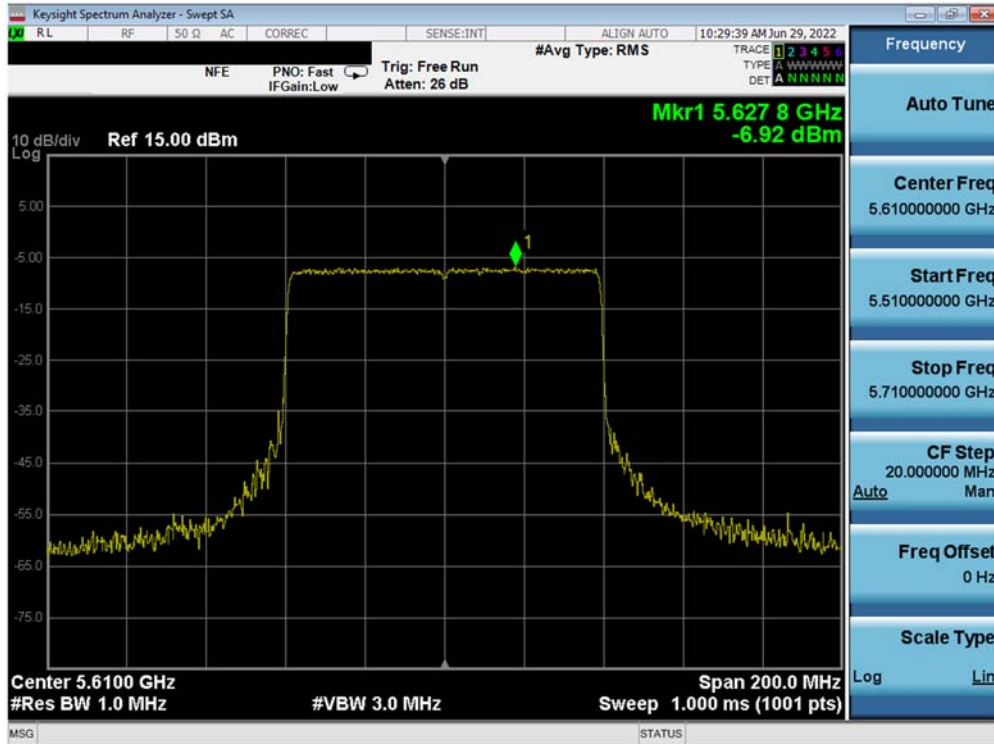


Plot 7-170. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 142)

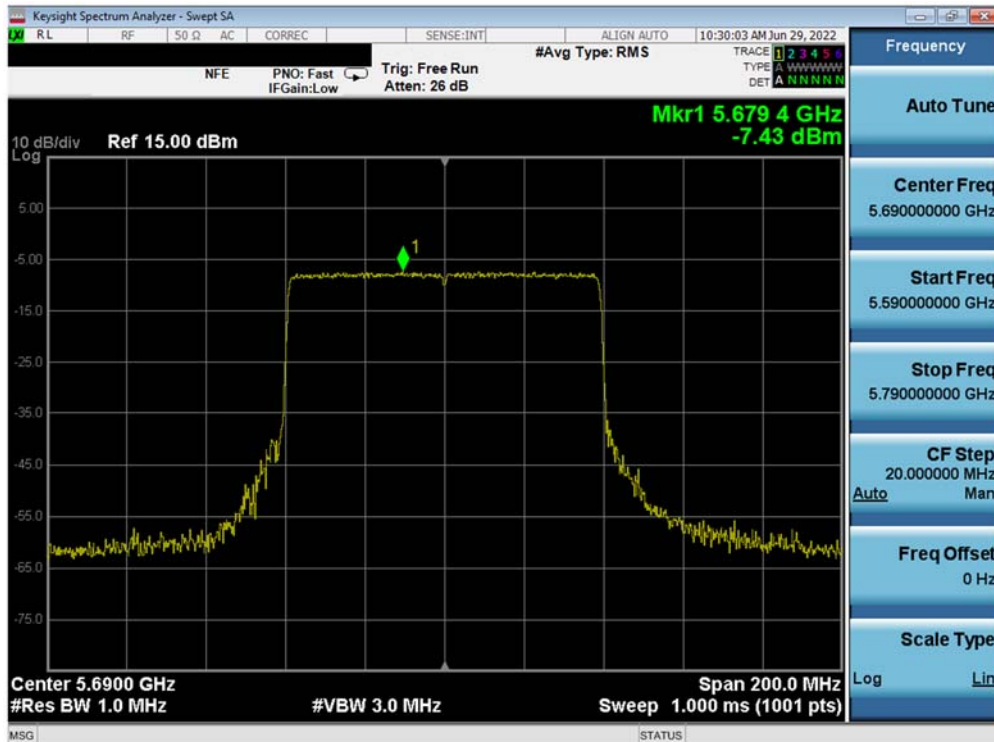


Plot 7-171. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 106)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 122 of 189                   |

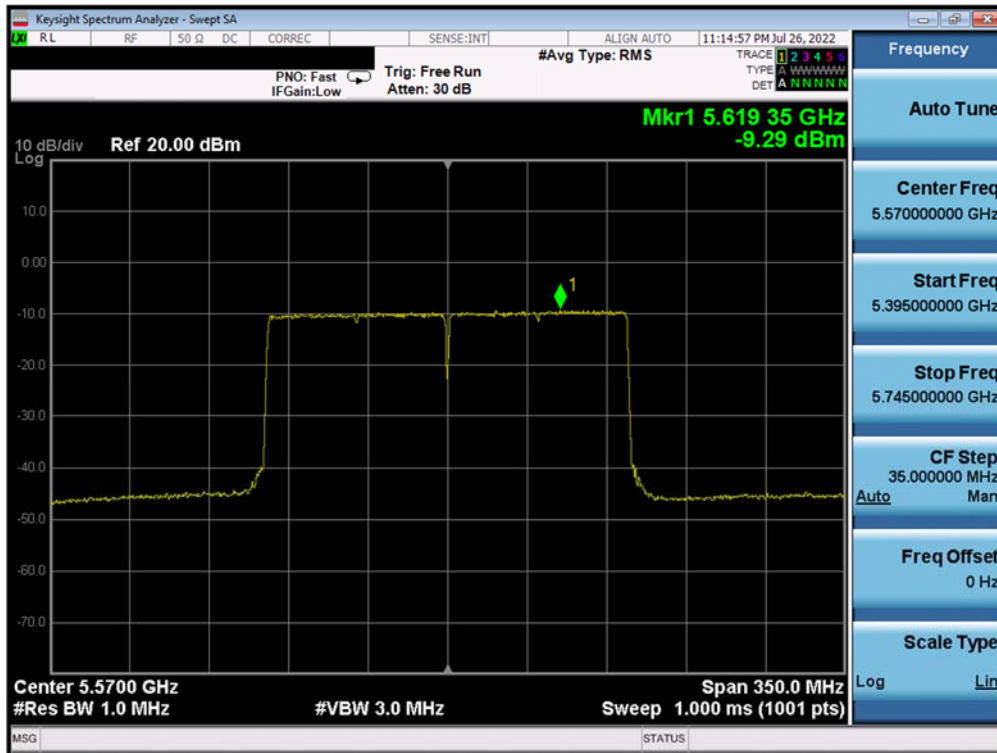


Plot 7-172. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 122)

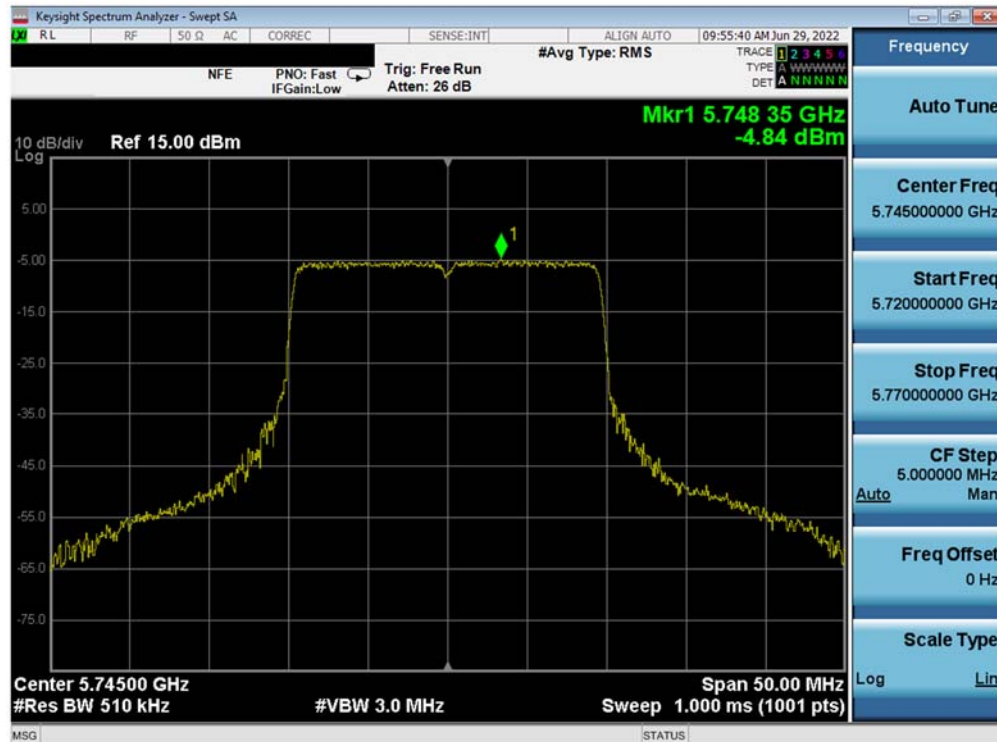


Plot 7-173. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 138)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 123 of 189                   |



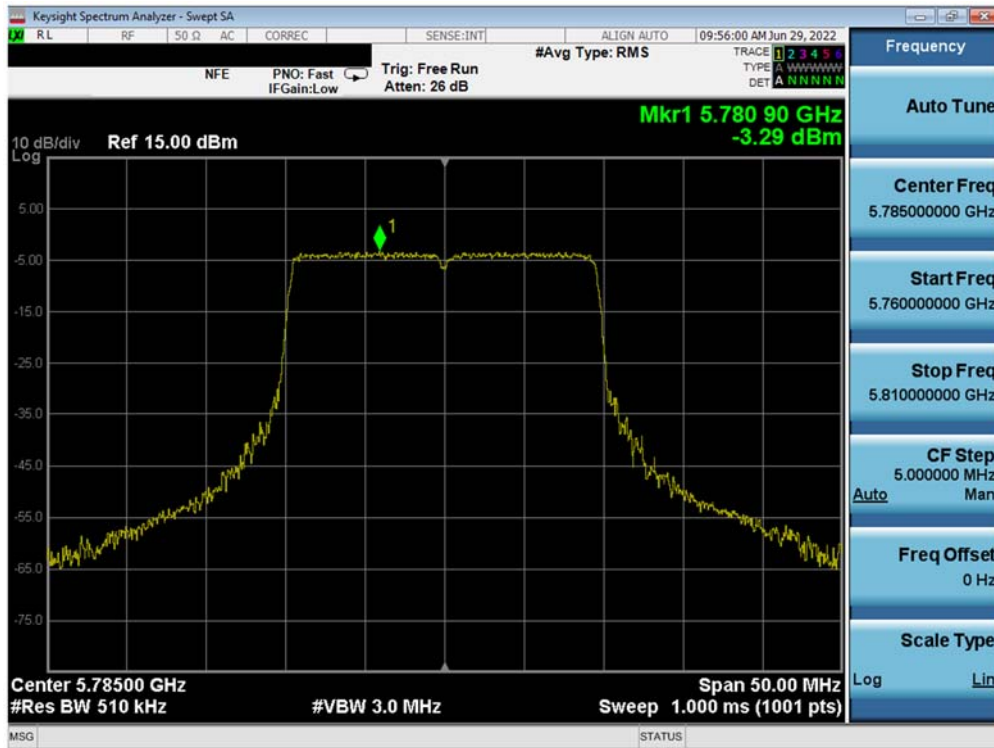
Plot 7-174. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802.11ax – Full Tones (UNII Band 2C) – Ch. 114)



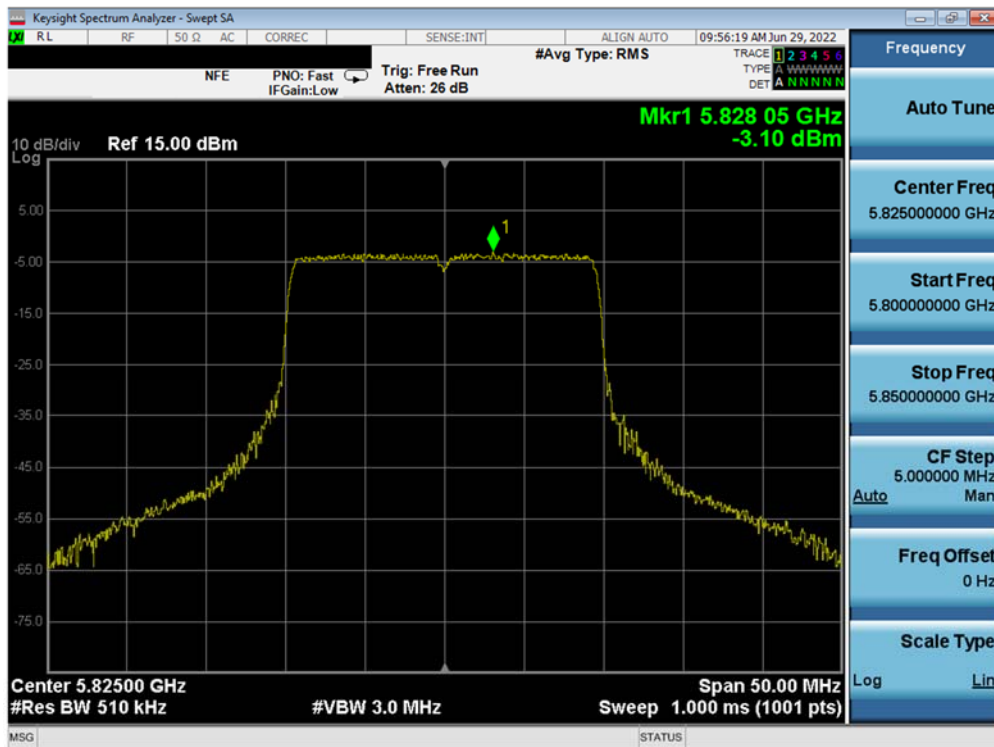
Plot 7-175. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – Full Tones (UNII Band 3) – Ch. 149)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 124 of 189                   |



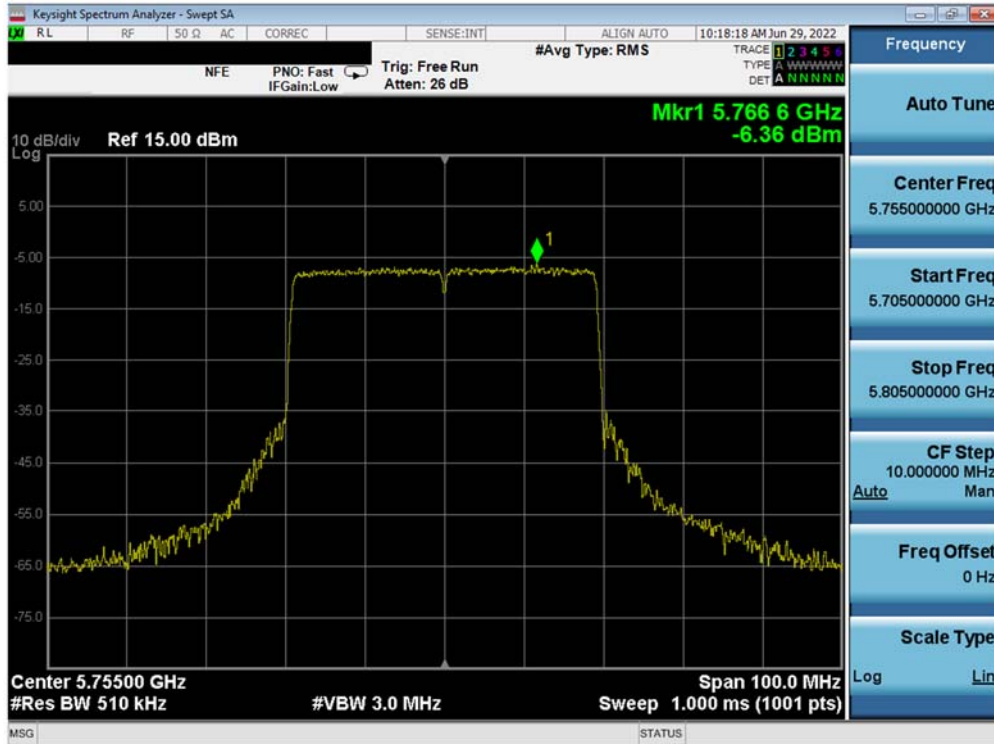


Plot 7-176. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – Full Tones (UNII Band 3) – Ch. 157)

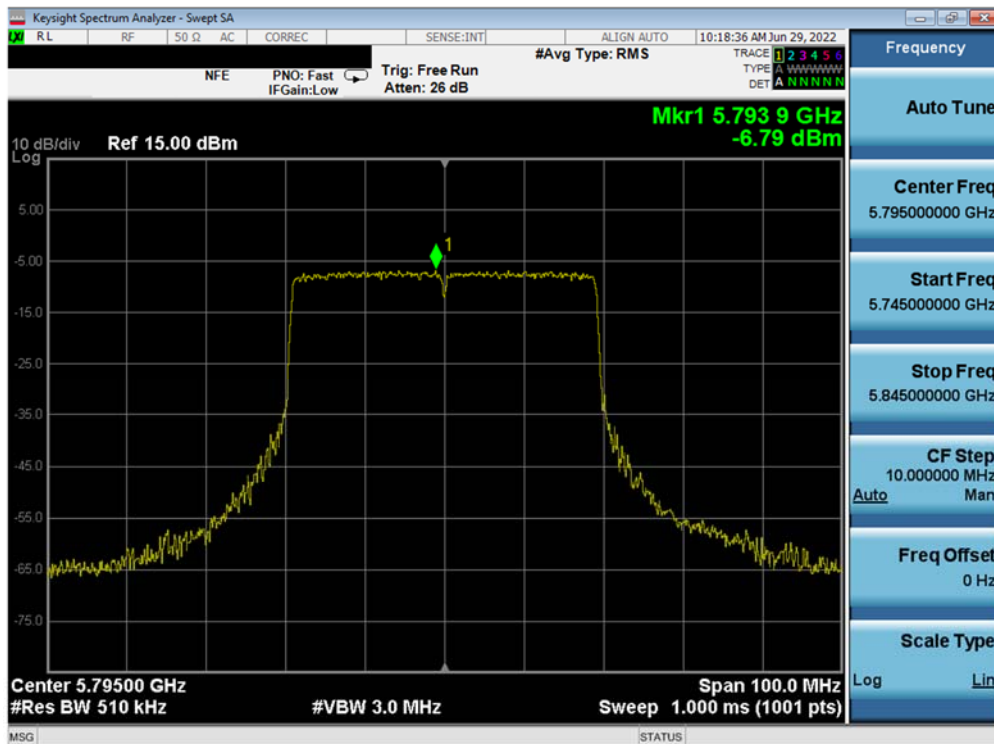


Plot 7-177. Power Spectral Density Plot MIMO ANT1 (20 MHz BW 802.11ax – Full Tones (UNII Band 3) – Ch. 165)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | MEASUREMENT REPORT<br>(CERTIFICATION) |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022     | EUT Type:<br>Portable Handset | Page 125 of 189                   |

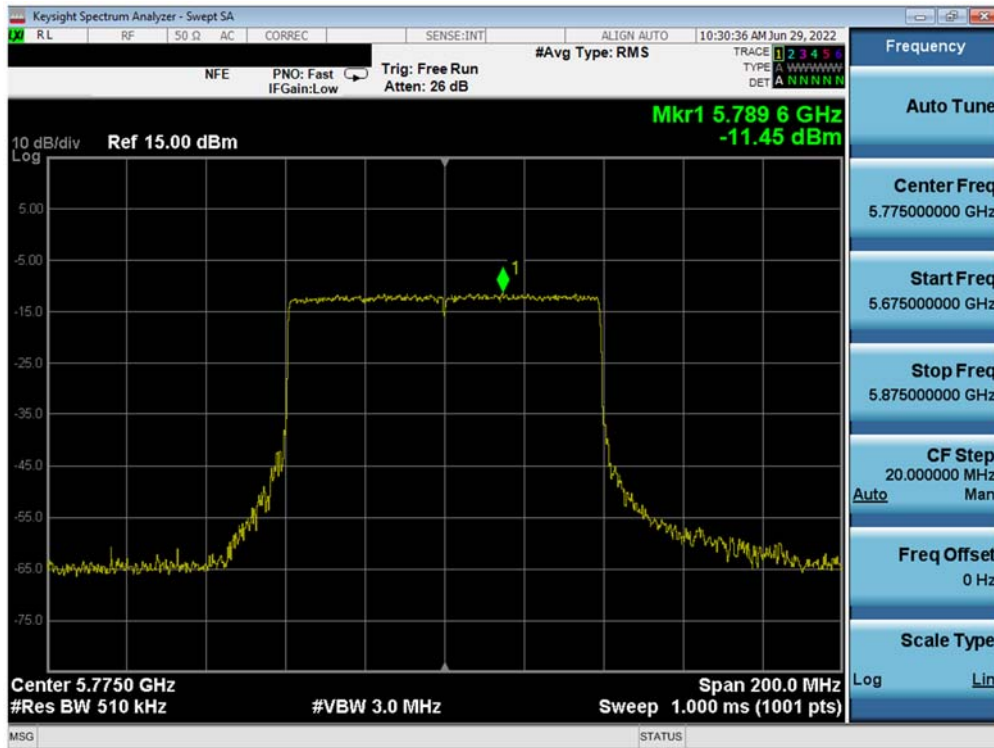


Plot 7-178. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – Full Tones (UNII Band 3) – Ch. 151)



Plot 7-179. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – Full Tones (UNII Band 3) – Ch. 159)

| FCC ID: PY7-58692W                      |                                   | MEASUREMENT REPORT (CERTIFICATION) |                 | Approved by:<br>Technical Manager |
|---|-----------------------------------|------------------------------------|-----------------|-----------------------------------|
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022 | EUT Type:<br>Portable Handset      | Page 126 of 189 |                                   |



Plot 7-180. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – Full Tones (UNII Band 3) – Ch. 155)

|   |   |                               |                                   |
|---|---|-------------------------------|-----------------------------------|
| FCC ID: PY7-58692W                      | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2207200079-11.PY7 | Test Dates:<br>6/3/2022-7/29/2022             | EUT Type:<br>Portable Handset | Page 127 of 189                   |