

Report No.: AAEMT/RF/250402-01-04

# FCC RADIO TEST REPORT

Part 15 subpart E

FCC ID: 2AM8R-D810

Report Reference No.....: AAEMT/RF/250402-01-04

Date of issue.....: 2025-05-24

Testing Laboratory.....: AA Electro Magnetic Test Laboratory Private Limited

Address .....: Plot No 174, Udyog Vihar - Phase 4, Sector 18,  
Gurgaon, Haryana, India

\*Applicant's name .....: Netradyne Inc

\*Address .....: 9171 Towne Centre Drive, Suite 110, San Diego, CA 92122

\*Manufacturer.....: Netradyne Inc

\*Address .....: 9171 Towne Centre Drive, Suite 110, San Diego, CA 92122

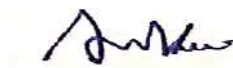
\*Test item description.....: Driveri

\*Trade Mark .....:  **netradyne**

\*Model/Type reference .....: D-810

Ratings .....: **Input of AC Adapter: AC 100-240V, 0.5A, 50-60Hz**  
**Output of AC Adapter/Input of EUT : DC 12V, 5A**

Prepared By: (+ signature) Ankur Kumar



Reviewed &amp; Approved by: (+ signature)



Dr. Lenin Raja (Authorized Representative) (/ lenin83/)

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## TEST REPORT DECLARE

|                      |   |                                                                                             |
|----------------------|---|---------------------------------------------------------------------------------------------|
| Applicant            | : | Netradyne Inc                                                                               |
| Address              | : | 9171 Towne Centre Drive, Suite 110, San Diego, CA 92122                                     |
| Equipment under Test | : | Driveri                                                                                     |
| Model No             | : | D-810                                                                                       |
| Trade Mark           | : |  netradyne |
| Manufacturer         | : | Netradyne Inc                                                                               |
| Address              | : | 9171 Towne Centre Drive, Suite 110, San Diego, CA 92122                                     |

Test Standard Used: FCC Part 15E 15.407

Test procedure used: ANSI C63.10-2013 and KDB 789033 D02 General UNII Test Procedures New Rules v02r01 .

### We Declare:

The equipment described above is tested by AA Electro Magnetic Test Laboratory Private Limited and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and AA Electro Magnetic Test Laboratory Private Limited is assumed of full responsibility for the accuracy and completeness of these tests.

**After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.**

*Disclaimer: The \* Information are provided by Manufacturer and it is verified through the Request form and Marking Label, AA Electro Magnetic Test Laboratory is not responsible for the above information accuracy.*

|               |                         |                 |               |
|---------------|-------------------------|-----------------|---------------|
| Report No:    | AAEMT/RF/250402-01-04   |                 |               |
| Date of Test: | Apr. 02 ~ May. 15, 2025 | Date of Report: | May. 24, 2025 |

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of AA Electro Magnetic Test Laboratory Private Limited

## 1. SUMMARY OF TEST RESULTS

| The EUT have been tested according to the applicable standards as referenced below. |                           |         |
|-------------------------------------------------------------------------------------|---------------------------|---------|
| FCC Part15 (15.407) , Subpart E                                                     |                           |         |
| Description of Test Item                                                            | Standard                  | Results |
| AC Power Line Conducted Emissions                                                   | FCC §15.207/ RSS-Gen      | PASS    |
| Spurious Radiated Emissions                                                         | FCC §15.209(a), 15.407(b) | PASS    |
| 26 dB and 99% Emission Bandwidth                                                    | FCC §15.407(a)            | PASS    |
| Maximum Conducted Output Power                                                      | FCC §407(a) (1)           | PASS    |
| Band Edges                                                                          | FCC §2.1051, §15.407(b)   | PASS    |
| Power Spectral Density                                                              | FCC §15.407(a)(1)         | PASS    |
| Spurious Emissions at Antenna Terminals                                             | FCC §2.1051, §15.407(b)   | PASS    |
| Antenna Requirement                                                                 | FCC §15.203               | PASS    |

## 2. GENERAL TEST INFORMATION

### 2.1. DESCRIPTION OF EUT

|                                |                                                                                                                                                                                    |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| *EUT Name                      | : Driveri                                                                                                                                                                          |
| *Model Number                  | : D-810                                                                                                                                                                            |
| *Derivative model No.:         | : D-810A, D-811                                                                                                                                                                    |
| Power supply                   | : DC 12V, 5A                                                                                                                                                                       |
| Operation frequency            | WiFi:<br>802.11a/n(HT20)/ac(VHT20):<br>5180MHz~5240MHz; 5745MHz~5825MHz<br>802.11n(HT40)/ac(VHT40):<br>5190MHz~5230MHz; 5755MHz~5795MHz<br>802.11ac(VHT80):5210MHz; 5775MHz        |
| Modulation                     | 802.11a/n: BPSK/QPSK/16QAM/64QAM<br>802.11ac: BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM                                                                                                 |
| Data Rate                      | 802.11a:6,9,12,18,24,36,48,54Mbps;<br>802.11ac(VHT20):MCS0-MCS8<br>802.11ac(VHT40/80):MCS0-MCS11<br>802.11n(HT20):MCS0-MCS7;<br>802.11n(HT40):MCS0-MCS7;                           |
| *Antenna Type:                 | : Patch Antenna                                                                                                                                                                    |
| *Antenna Gain:                 | : 5.5dBi                                                                                                                                                                           |
| *H/W No.                       | : 125-00-00001                                                                                                                                                                     |
| *S/W No.                       | : 15.0.5                                                                                                                                                                           |
| Battery                        | : N/A                                                                                                                                                                              |
| Date of Receipt                | : Apr. 02, 2025                                                                                                                                                                    |
| Condition of Sample on receipt | Good                                                                                                                                                                               |
| Note:                          | 1 .For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.<br>2. Antenna gain and antenna type provided by manufacturer. |
| Opinions and Interpretations:  | : See the specific Note / Annexure if any in the whole /full report/NA                                                                                                             |

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| Channel List         |                 |         |                 |         |                 |         |                 |
|----------------------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|
| 802.11a/n/ac (20MHz) |                 |         |                 |         |                 |         |                 |
| Channel              | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 36                   | 5180            | 40      | 5200            | 44      | 5220            | 48      | 5240            |
| 149                  | 5745            | 153     | 5765            | 157     | 5785            | 161     | 5805            |
| 165                  | 5825            | --      | --              | --      | --              | --      | --              |
| 802.11n/ac (40MHz)   |                 |         |                 |         |                 |         |                 |
| Channel              | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 38                   | 5190            | 46      | 5230            | 151     | 5755            | 159     | 5795            |
| 802.11ac (80MHz)     |                 |         |                 |         |                 |         |                 |
| Channel              | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 42                   | 5210            | -       | -               | -       | -               | 155     | 5775            |

## 2.2. ACCESSORIES OF EUT

| Description of Accessories | Shielded Type | Ferrite Core | Length |
|----------------------------|---------------|--------------|--------|
| AC ADAPTER                 | N/A           | N/A          | N/A    |

## 2.3. ASSISTANT EQUIPMENT USED FOR TEST

| Description of Assistant equipment | Manufacturer | Model number or Type | EMC Compliance | SN      |
|------------------------------------|--------------|----------------------|----------------|---------|
| Laptop                             | DELL         | Latitude 3490        | -              | 5M2Z1W2 |

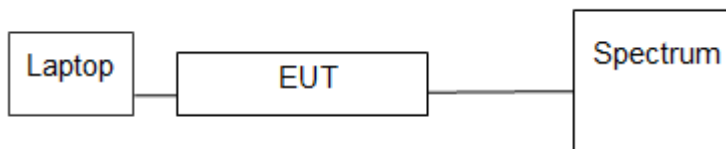
### 3. EQUIPMENT'S LIST FOR ALL TEST ITEMS

| No | Test Equipment             | Manufacturer      | Model No    | Serial No         | Cal. Date  | Cal.Due Date |
|----|----------------------------|-------------------|-------------|-------------------|------------|--------------|
| 1  | Spectrum Analyser          | R&S               | FSP         | -                 | 2024/01/10 | 2026/01/10   |
| 2  | Loop antenna               | DAZE Beijing      | ZN30900C    | 18052             | 2023/09/15 | 2026/09/15   |
| 3  | Hi power horn antenna      | DAZE Beijing      | ZN30700     | 18012             | 2023/09/11 | 2026/09/10   |
| 4  | MXA Signal Analyzer        | KEYSIGHT          | N9020A      | MY53290443        | 2023/07/27 | 2025/07/27   |
| 5  | Horn antenna               | DAZE Beijing      | ZN30703     | 18005             | 2023/09/11 | 2026/09/10   |
| 6  | Pre-Amplifier              | KELIANDA          | LNA-0009295 | -                 | 2024/01/10 | 2026/01/10   |
| 7  | Pre-Amplifier              | HP                | 8447FOPTH64 | -                 | 2024/01/10 | 2026/01/10   |
| 8  | Biconical Antenna          | DAZE Beijing      | ZN30505C    | 17038             | 2023/09/11 | 2026/09/10   |
| 9  | EMI- Test RECEIVER         | Rohde and Schwarz | ESIB26      | 509371            | 2023/06/11 | 2025/06/10   |
| 10 | LISN                       | Kyoritsu          | KNW-407     | 8-1789-5          | 2024/01/10 | 2026/01/10   |
| 11 | Network – LISN             | Schwarzbeck       | NNBM8125    | 81251314          | 2024/01/10 | 2026/01/10   |
| 12 | Network – LISN             | Schwarzbeck       | NNBM8125    | 81251315          | 2024/01/10 | 2026/01/10   |
| 13 | PULSE LIMITER              | Rohde and Schwarz | ESH3-Z2     | 100681            | -          | -            |
| 14 | 50Ω Coaxial Switch         | DAIWA             | 1565157     | -                 | -          | -            |
| 15 | 50Ω Coaxial Switch         | -                 | -           | -                 | -          | -            |
| 16 | USB RF Power Sensor        | DARE!!            | RPR3006W    | 18I00043SN<br>O02 | 2025/01/13 | 2026/01/12   |
| 17 | USB RF Power Sensor        | DARE!!            | RPR3006W    | 18I00043SN<br>O04 | 2025/01/13 | 2026/01/12   |
| 18 | Signal Generator           | KEYSIGHT          | N5181A      | 512071            | 2024/01/10 | 2026/01/10   |
| 19 | RF Vector Signal Generator | KEYSIGHT          | N5182B      | 512094            | 2024/01/10 | 2026/01/10   |

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|    |                                          |                    |          |            |            |            |
|----|------------------------------------------|--------------------|----------|------------|------------|------------|
| 20 | Spectrum analyzer                        | ROHDE & SCHWARZ    | FSV40-N  | 101385     | 2023/04/28 | 2025/04/28 |
| 21 | Radio Communication Tester               | ROHDE &            | CMW 500  | 124589     | 2023/09/08 | 2025/09/08 |
| 22 | Signal Generator                         | R&S                | SMP 02   | 837017/004 | 2023/09/08 | 2025/09/07 |
| 23 | DC Regulated Power                       | Mettravi           | RPS-3005 | 669076     | 2023/12/12 | 2025/12/11 |
| 24 | Climatic Chamber (Environmental Chamber) | SUNRISE SCIENTIFIC | -        | -          | 2024/11/06 | 2025/11/05 |
| 25 | Attenuators                              | HP                 | 8494B    | 1510A04625 | 2024/03/21 | 2026/03/21 |
| 26 | Attenuators                              | AGILENT            | 8495B    | MY42140429 | 2024/03/21 | 2026/03/21 |

### 3.1. BLOCK DIAGRAM OF EUT CONFIGURATION FOR TEST



### 3.2. TEST ENVIRONMENT CONDITIONS

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

|                    |           |
|--------------------|-----------|
| Temperature range: | 21-25°C   |
| Humidity range:    | 40-75%    |
| Pressure range:    | 86-106kPa |

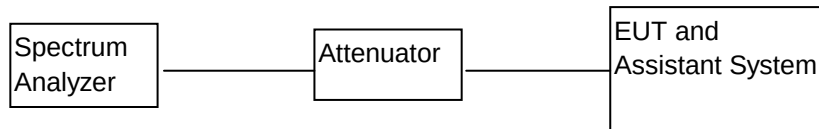
### 3.3. MEASUREMENT UNCERTAINTY

| No. | Item                          | Uncertainty |
|-----|-------------------------------|-------------|
| 1   | Conducted Emission Test       | 2.70dB      |
| 2   | Radiated Emission Test        | 3.09dB      |
| 3   | RF power, conducted           | 2.46dB      |
| 4   | RF power density, conducted   | 2.24dB      |
| 5   | Spurious emissions, conducted | 2.71dB      |
| 6   | All emissions, radiated(<1G)  | 3.08dB      |
| 7   | All emissions, radiated(>1G)  | 3.09dB      |

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

## 4. POWER SPECTRAL DENSITY TEST

### 4.1. BLOCK DIAGRAM OF TEST SETUP



### 4.2. APPLIED PROCEDURES / LIMIT

#### According to FCC §15.407(a)(3)

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omni directional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi..

#### 4.3. TEST PROCEDURE

( For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth ( $< 1$  MHz, or  $< 500$  kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

- a) Set  $RBW \geq 1/T$ , where T is defined in section II.B.1.a).
- b) Set  $VBW \geq 3$  RBW.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add  $10\log(500\text{kHz}/RBW)$  to the measured result, whereas RBW ( $< 500$  KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add  $10\log(1\text{MHz}/RBW)$  to the measured result, whereas RBW ( $< 1$  MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 KHz for the sections 5.c) and 5.d) above, since RBW=100 KHz is available on nearly all spectrum analyzers.

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#### 4.4. TEST RESULT:

##### Antenna 0:

| CH. No.            | Frequency | power density<br>(dBm/MHz) | Limit<br>(dBm/MHz) | Result |
|--------------------|-----------|----------------------------|--------------------|--------|
| TX 802.11a Mode    |           |                            |                    |        |
| CH36               | 5180      | 10.26                      | 11                 | Pass   |
| CH40               | 5200      | 10.01                      | 11                 | Pass   |
| CH48               | 5240      | 9.54                       | 11                 | Pass   |
| TX 802.11n20 Mode  |           |                            |                    |        |
| CH36               | 5180      | 9.81                       | 11                 | Pass   |
| CH40               | 5200      | 10.33                      | 11                 | Pass   |
| CH48               | 5240      | 9.44                       | 11                 | Pass   |
| TX 802.11n40 Mode  |           |                            |                    |        |
| CH38               | 5190      | 8.27                       | 11                 | Pass   |
| CH46               | 5230      | 8.98                       | 11                 | Pass   |
| TX 802.11ac20 Mode |           |                            |                    |        |
| CH36               | 5180      | 9.99                       | 11                 | Pass   |
| CH40               | 5200      | 10.60                      | 11                 | Pass   |
| CH48               | 5240      | 9.19                       | 11                 | Pass   |
| TX 802.11ac40 Mode |           |                            |                    |        |
| CH38               | 5190      | 8.56                       | 11                 | Pass   |
| CH46               | 5230      | 8.67                       | 11                 | Pass   |
| TX 802.11ac80 Mode |           |                            |                    |        |
| CH42               | 5210      | 5.40                       | 11                 | Pass   |

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| CH. No.            | Frequency | power density<br>(dBm/500KHz) | Limit<br>(dBm/500KHz) | Result |
|--------------------|-----------|-------------------------------|-----------------------|--------|
| TX 802.11a Mode    |           |                               |                       |        |
| CH 149             | 5745      | 9.08                          | 30                    | Pass   |
| CH 157             | 5785      | 9.23                          | 30                    | Pass   |
| CH 165             | 5825      | 10.07                         | 30                    | Pass   |
| TX 802.11n20 Mode  |           |                               |                       |        |
| CH 149             | 5745      | 9.16                          | 30                    | Pass   |
| CH 157             | 5785      | 9.66                          | 30                    | Pass   |
| CH 165             | 5825      | 9.70                          | 30                    | Pass   |
| TX 802.11n40 Mode  |           |                               |                       |        |
| CH151              | 5755      | 6.95                          | 30                    | Pass   |
| CH159              | 5795      | 5.62                          | 30                    | Pass   |
| TX 802.11ac20 Mode |           |                               |                       |        |
| CH 149             | 5745      | 9.41                          | 30                    | Pass   |
| CH 157             | 5785      | 10.46                         | 30                    | Pass   |
| CH 165             | 5825      | 10.19                         | 30                    | Pass   |
| TX 802.11ac40 Mode |           |                               |                       |        |
| CH151              | 5755      | 7.17                          | 30                    | Pass   |
| CH159              | 5795      | 5.89                          | 30                    | Pass   |
| TX 802.11ac80 Mode |           |                               |                       |        |
| CH155              | 5775      | 7.27                          | 30                    | Pass   |

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**Antenna 1:**

| CH. No.            | Frequency | power density<br>(dBm/MHz) | Limit<br>(dBm/MHz) | Result |
|--------------------|-----------|----------------------------|--------------------|--------|
| TX 802.11a Mode    |           |                            |                    |        |
| CH36               | 5180      | 10.59                      | 11                 | Pass   |
| CH40               | 5200      | 10.01                      | 11                 | Pass   |
| CH48               | 5240      | 9.54                       | 11                 | Pass   |
| TX 802.11n20 Mode  |           |                            |                    |        |
| CH36               | 5180      | 10.69                      | 11                 | Pass   |
| CH40               | 5200      | 10.33                      | 11                 | Pass   |
| CH48               | 5240      | 9.44                       | 11                 | Pass   |
| TX 802.11n40 Mode  |           |                            |                    |        |
| CH38               | 5190      | 7.49                       | 11                 | Pass   |
| CH46               | 5230      | 8.53                       | 11                 | Pass   |
| TX 802.11ac20 Mode |           |                            |                    |        |
| CH36               | 5180      | 10.77                      | 11                 | Pass   |
| CH40               | 5200      | 10.88                      | 11                 | Pass   |
| CH48               | 5240      | 9.19                       | 11                 | Pass   |
| TX 802.11ac40 Mode |           |                            |                    |        |
| CH38               | 5190      | 7.75                       | 11                 | Pass   |
| CH46               | 5230      | 8.65                       | 11                 | Pass   |
| TX 802.11ac80 Mode |           |                            |                    |        |
| CH42               | 5210      | 5.21                       | 11                 | Pass   |

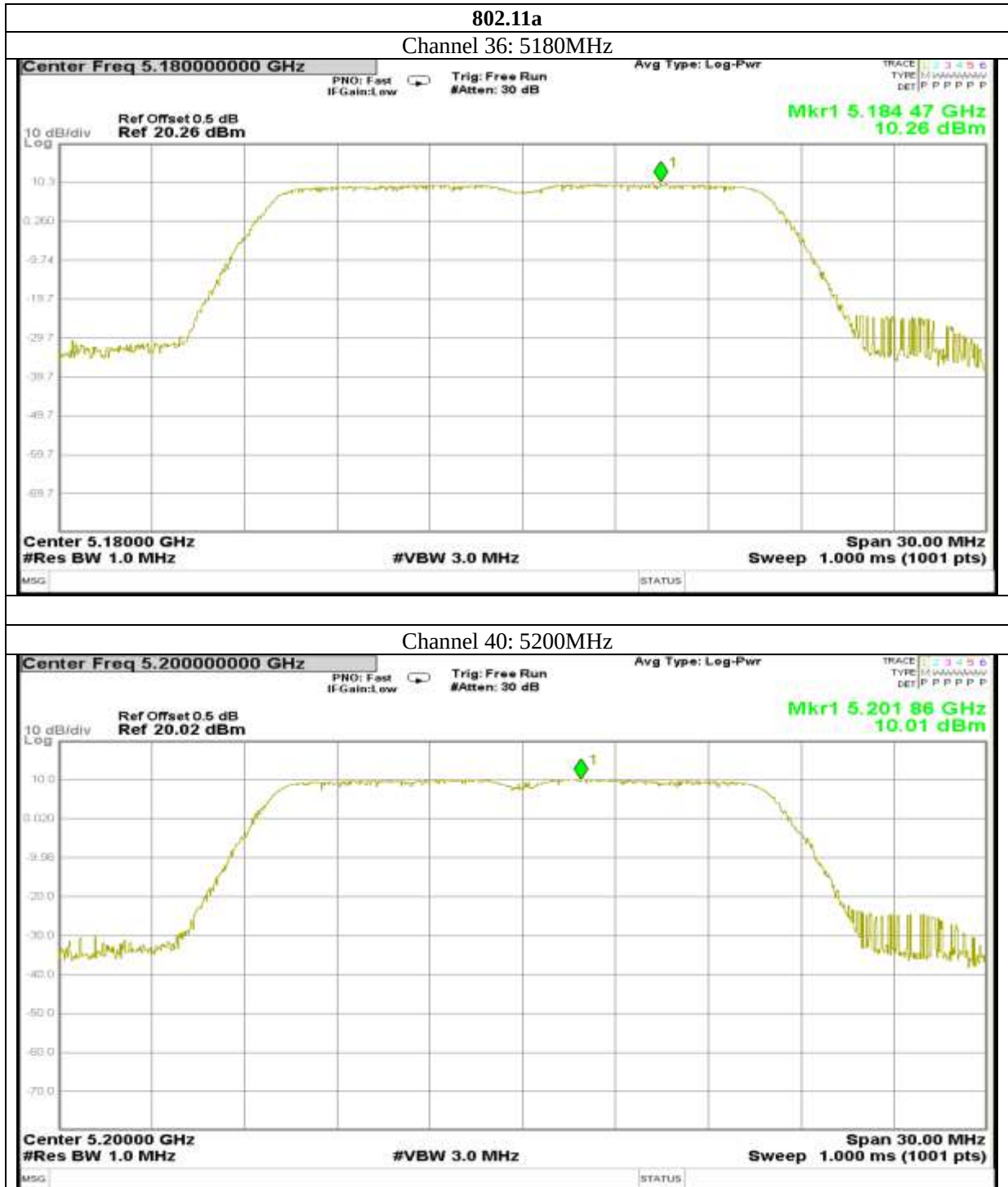
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| CH. No.            | Frequency | power density<br>(dBm/500kHz) | Limit<br>(dBm/500kHz) | Result |
|--------------------|-----------|-------------------------------|-----------------------|--------|
| TX 802.11a Mode    |           |                               |                       |        |
| CH 149             | 5745      | 8.61                          | 30                    | Pass   |
| CH 157             | 5785      | 9.51                          | 30                    | Pass   |
| CH 165             | 5825      | 9.07                          | 30                    | Pass   |
| TX 802.11n20 Mode  |           |                               |                       |        |
| CH 149             | 5745      | 8.81                          | 30                    | Pass   |
| CH 157             | 5785      | 9.13                          | 30                    | Pass   |
| CH 165             | 5825      | 8.54                          | 30                    | Pass   |
| TX 802.11n40 Mode  |           |                               |                       |        |
| CH151              | 5755      | 6.19                          | 30                    | Pass   |
| CH159              | 5795      | 5.71                          | 30                    | Pass   |
| TX 802.11ac20 Mode |           |                               |                       |        |
| CH 149             | 5745      | 9.26                          | 30                    | Pass   |
| CH 157             | 5785      | 8.87                          | 30                    | Pass   |
| CH 165             | 5825      | 8.97                          | 30                    | Pass   |
| TX 802.11ac40 Mode |           |                               |                       |        |
| CH151              | 5755      | 6.11                          | 30                    | Pass   |
| CH159              | 5795      | 5.84                          | 30                    | Pass   |
| TX 802.11ac80 Mode |           |                               |                       |        |
| CH155              | 5775      | 6.85                          | 30                    | Pass   |

Report No.: AAEMT/RF/250402-01-04

Test plots as followed

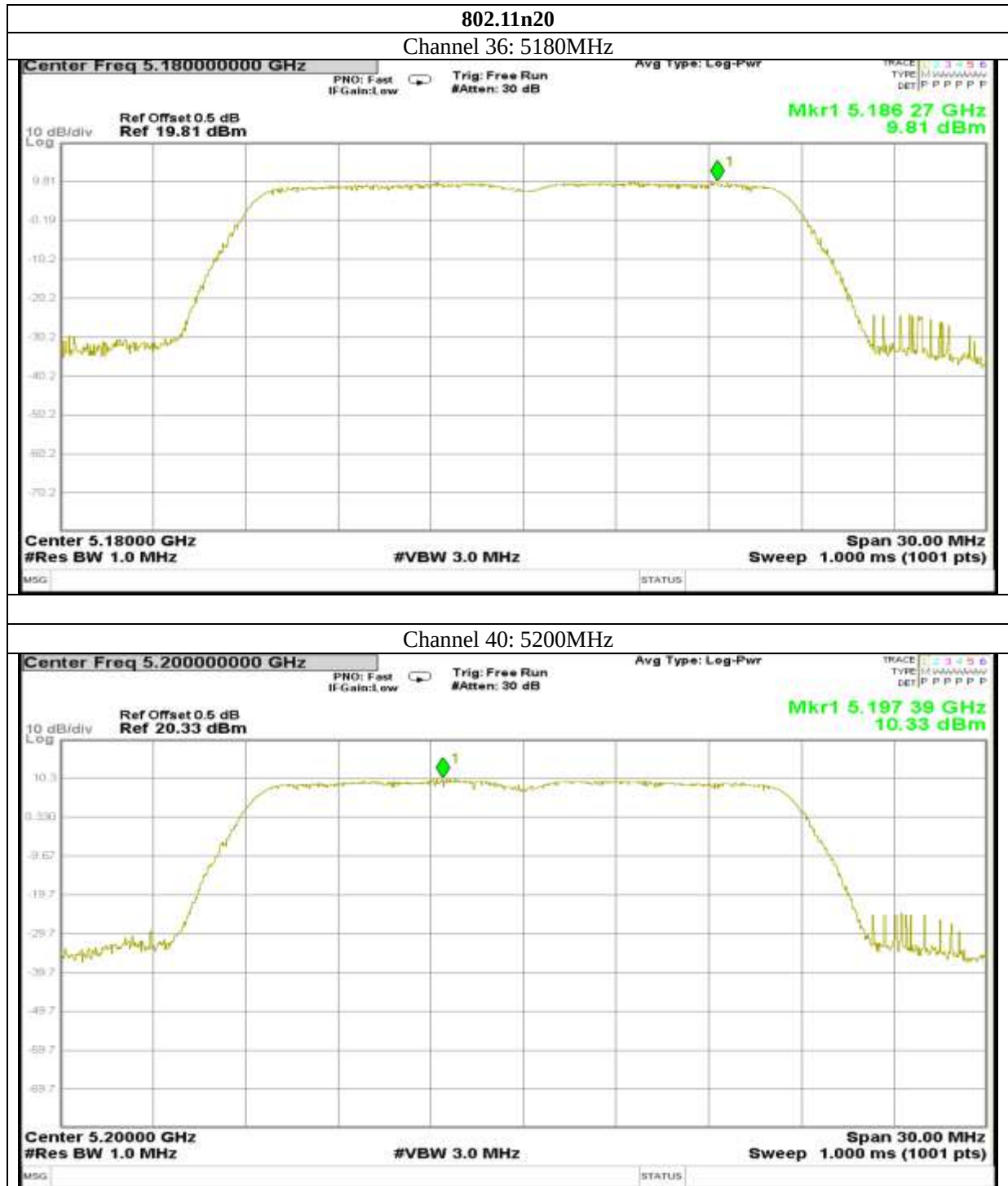
Antenna 0:



Report No.: AAEMT/RF/250402-01-04



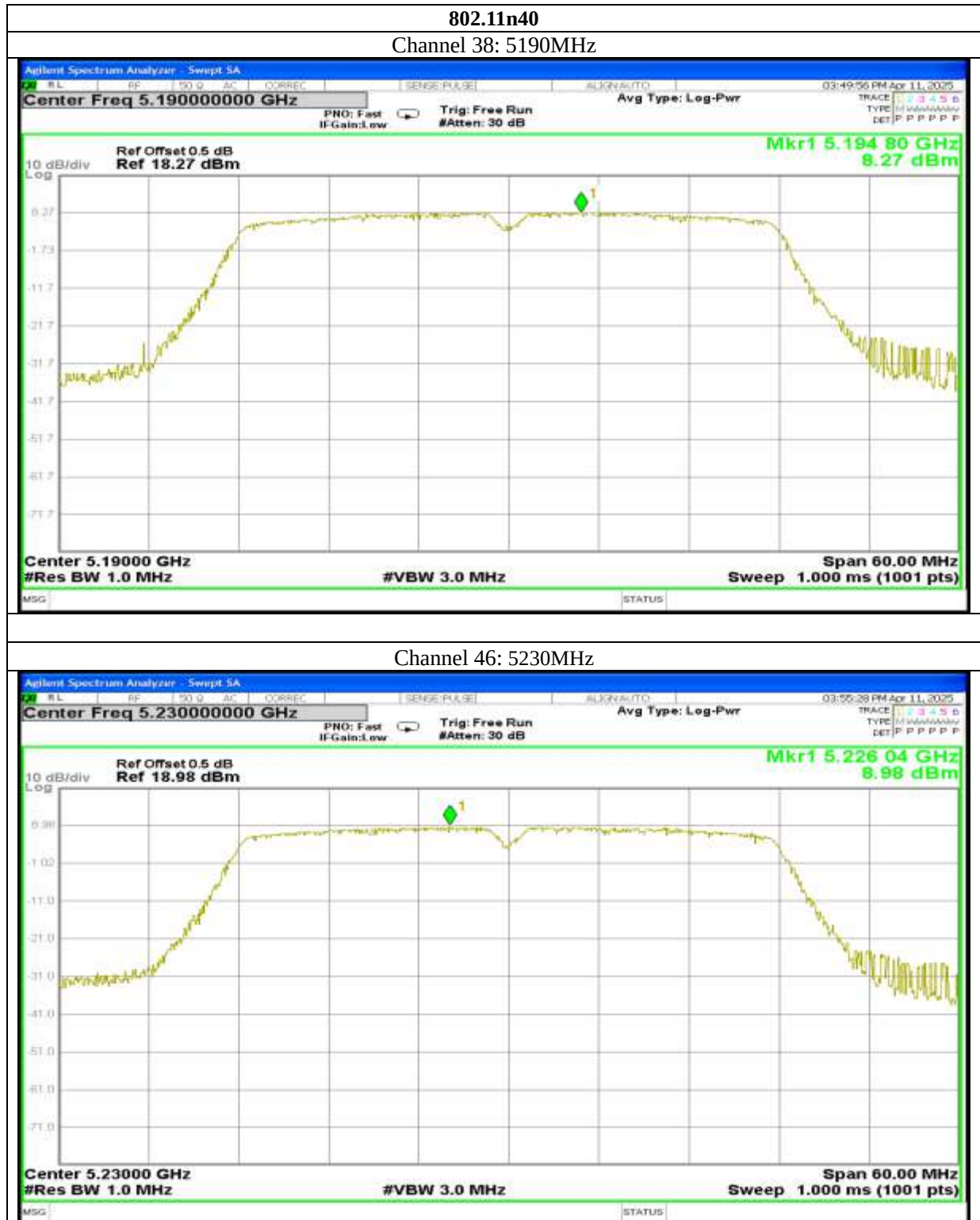
Report No.: AAEMT/RF/250402-01-04



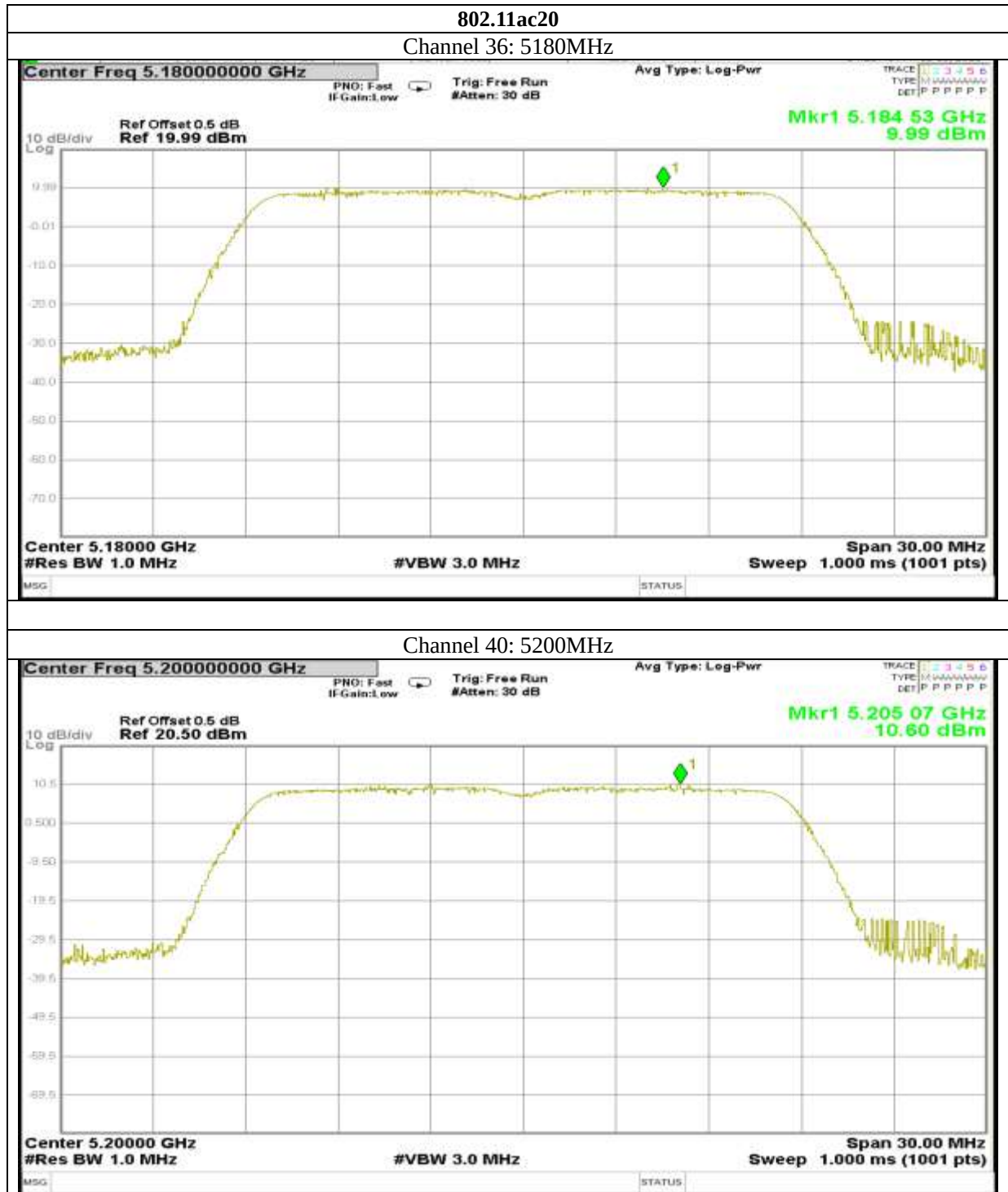
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Report No.: AAEMT/RF/250402-01-04



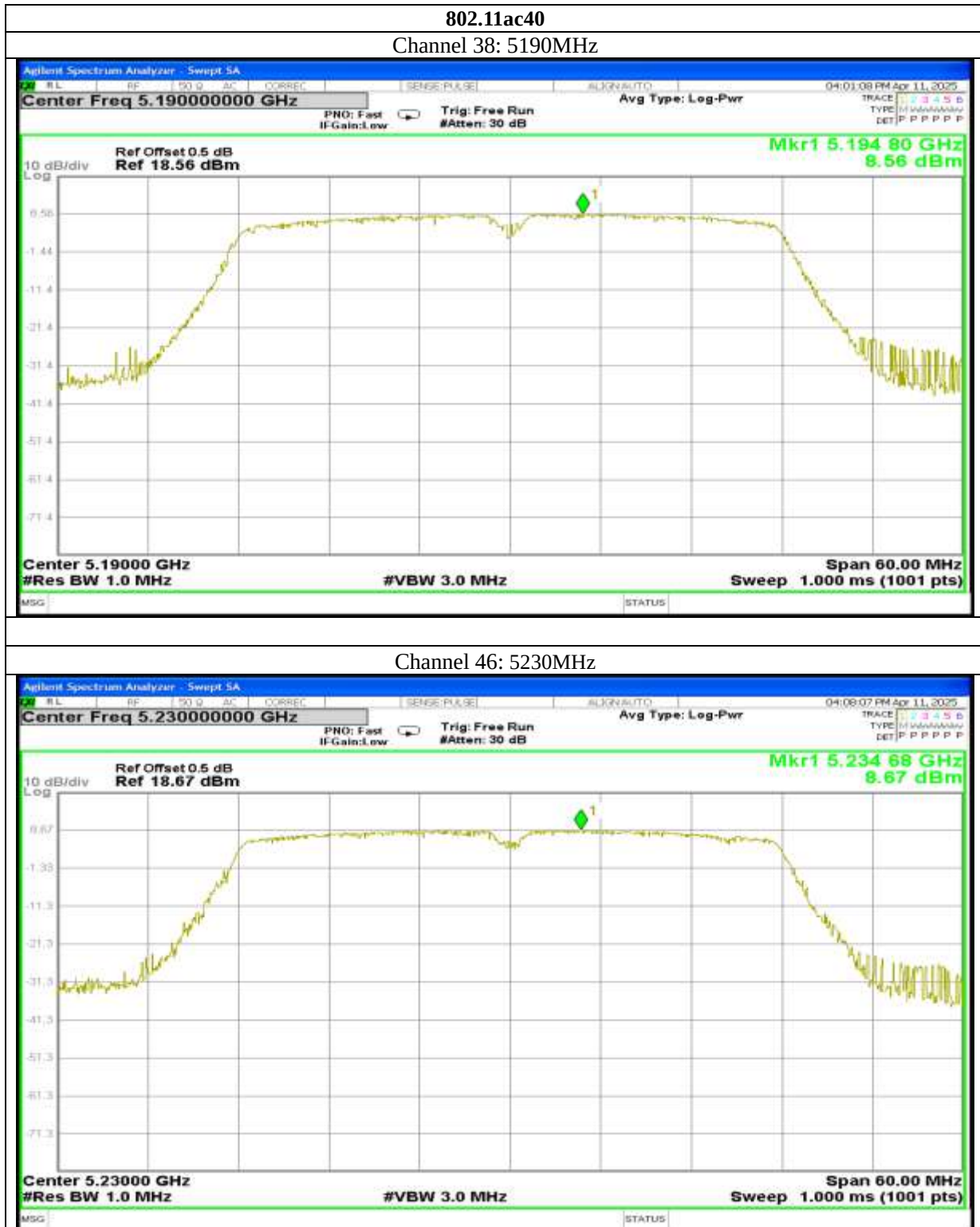
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Report No.: AAEMT/RF/250402-01-04



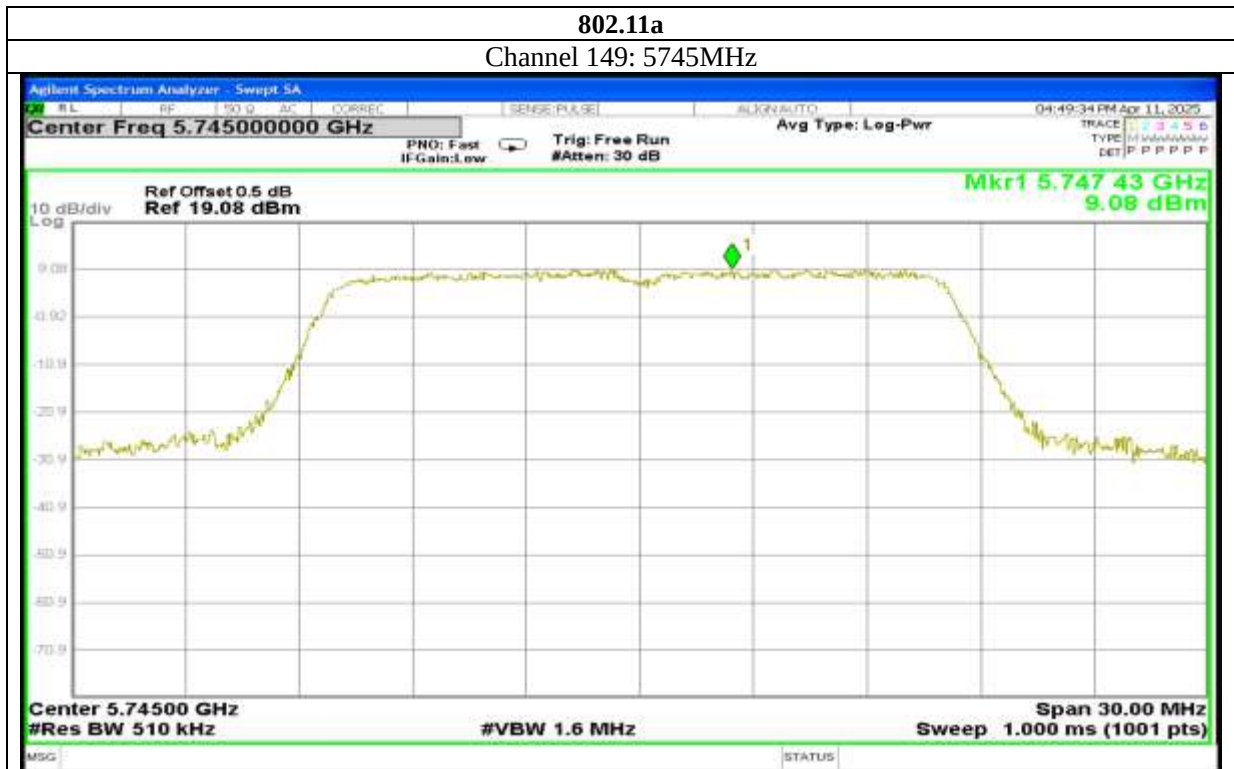
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Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04

802.11n20

Channel 149: 5745MHz

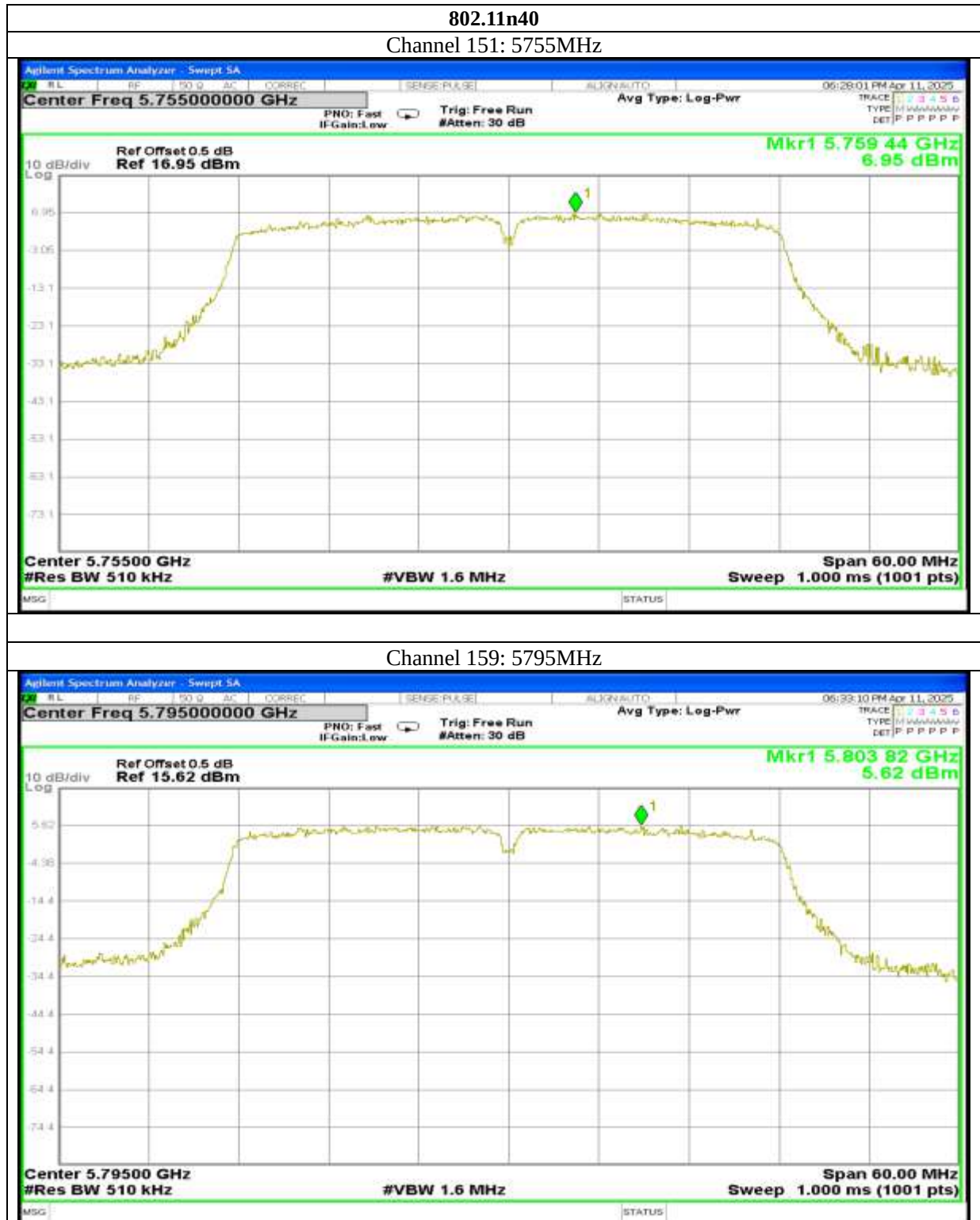


Channel 157: 5785MHz





Report No.: AAEMT/RF/250402-01-04

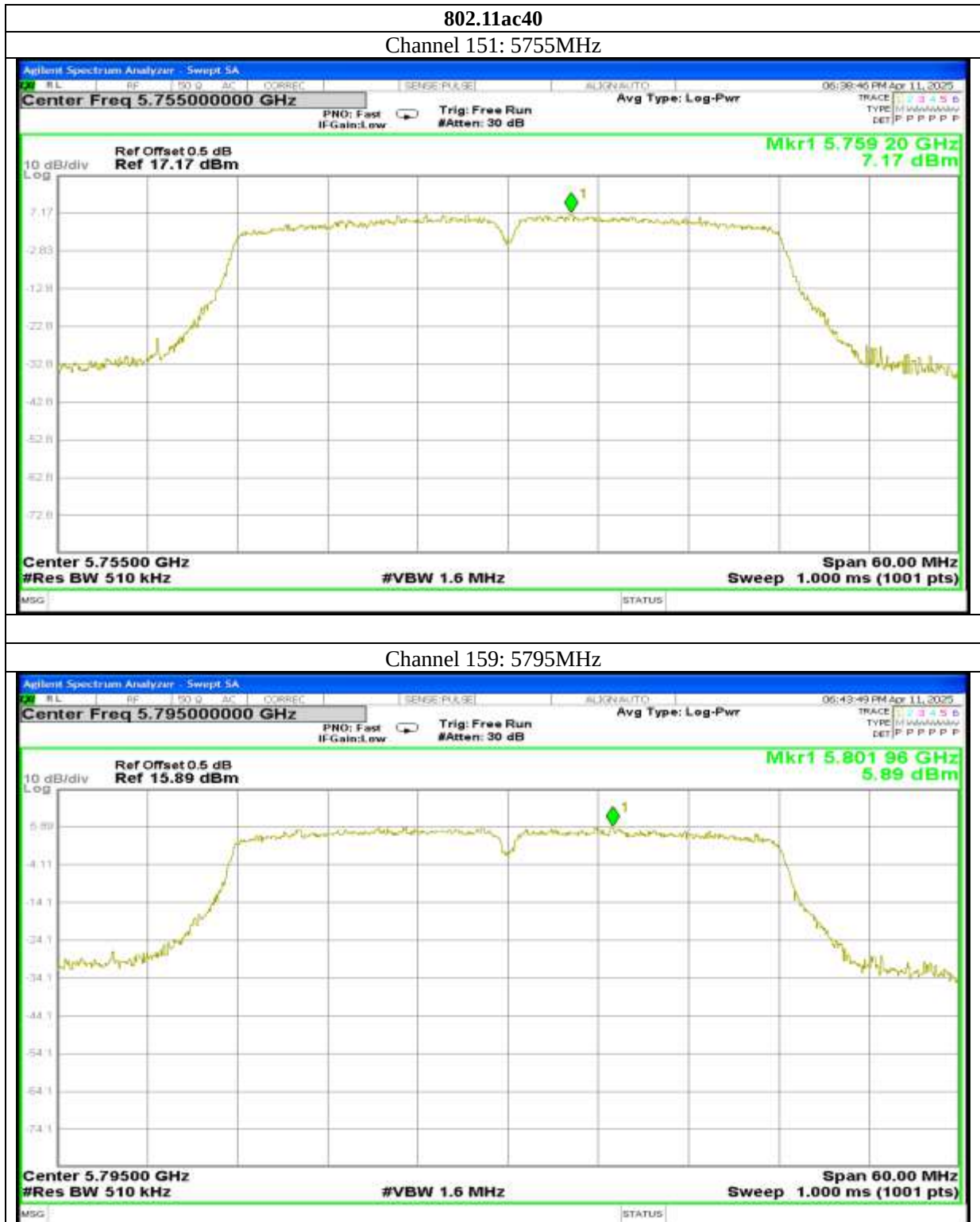


Report No.: AAEMT/RF/250402-01-04





Report No.: AAEMT/RF/250402-01-04

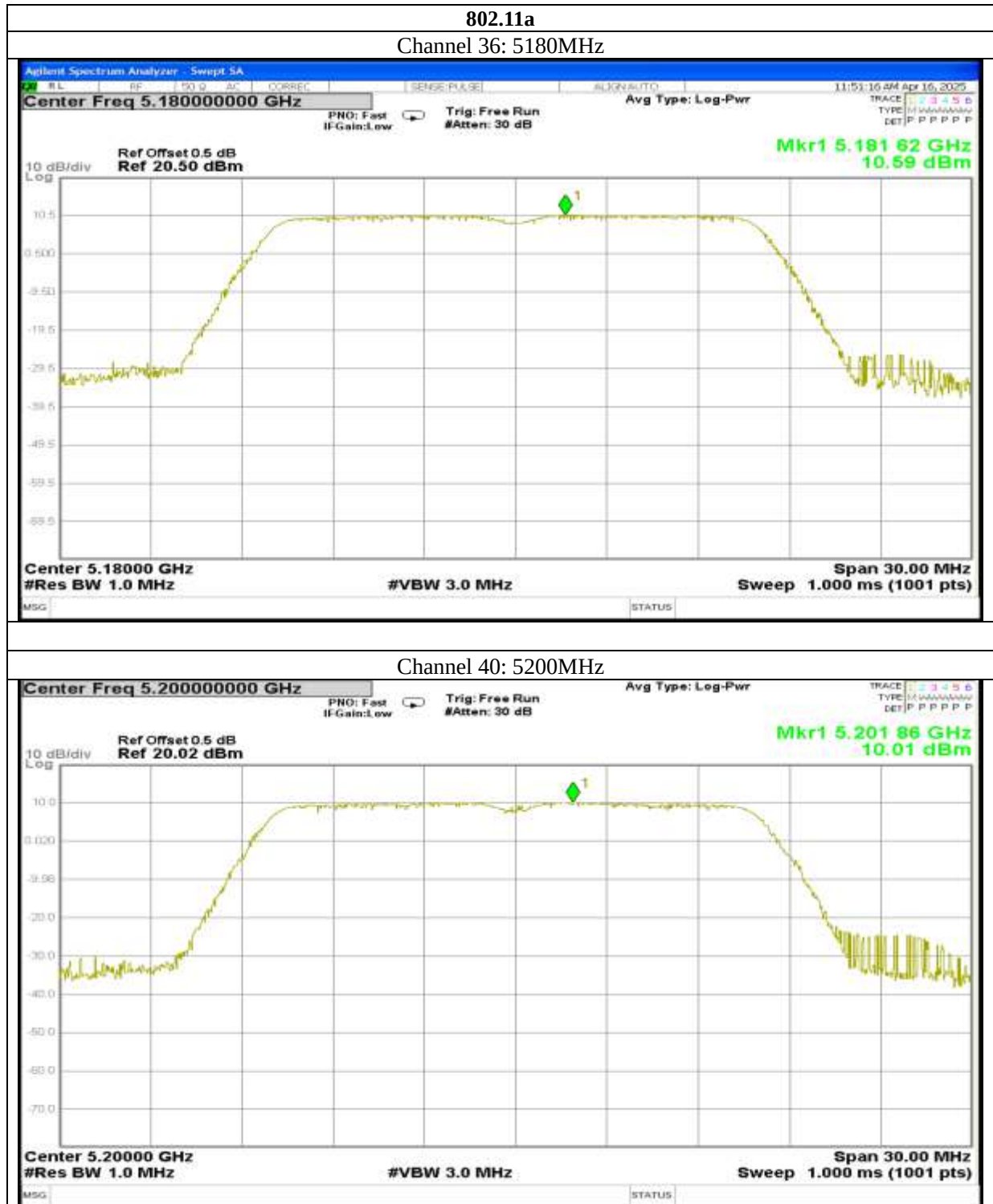


Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04

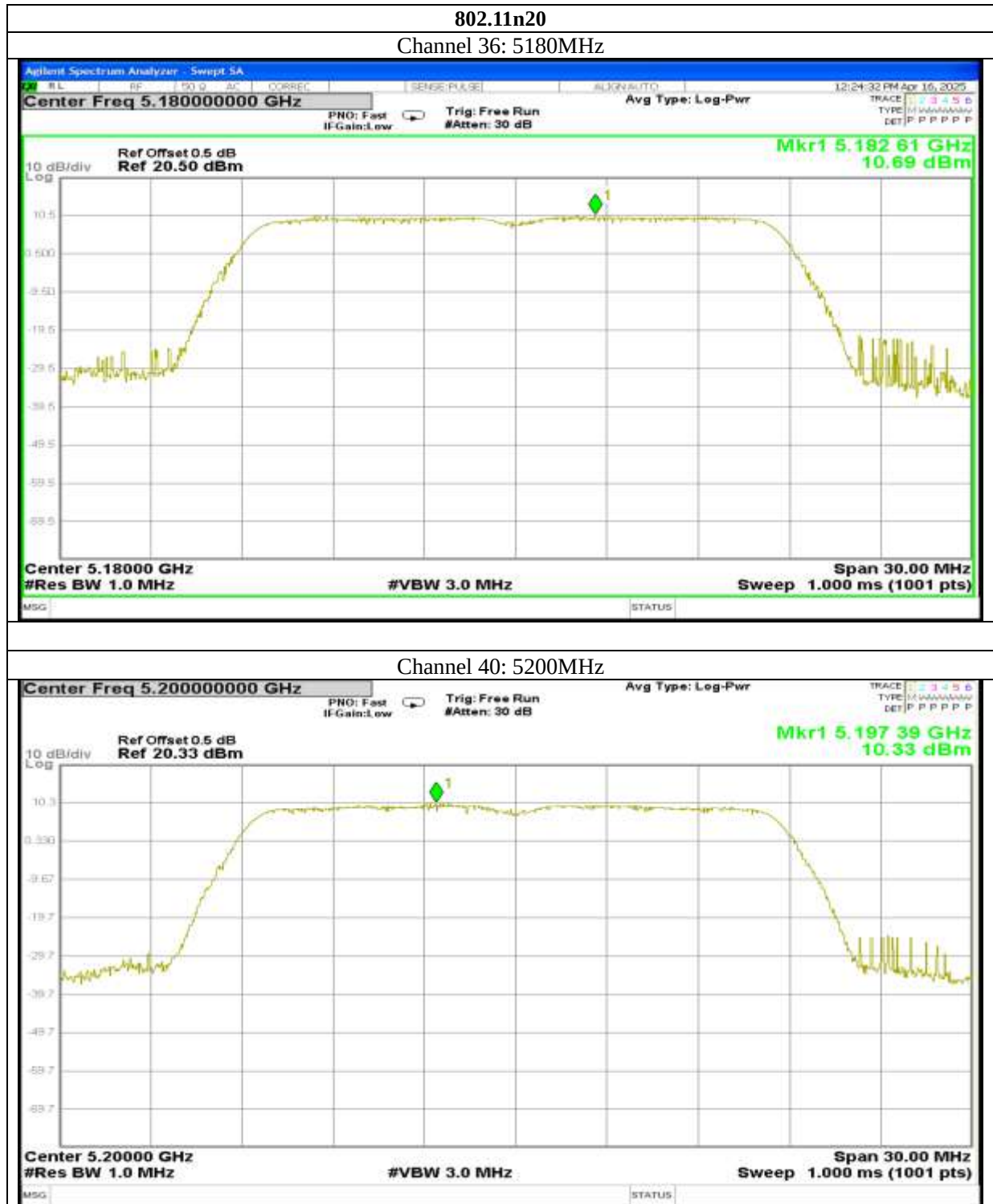
### Antenna 1:



Report No.: AAEMT/RF/250402-01-04



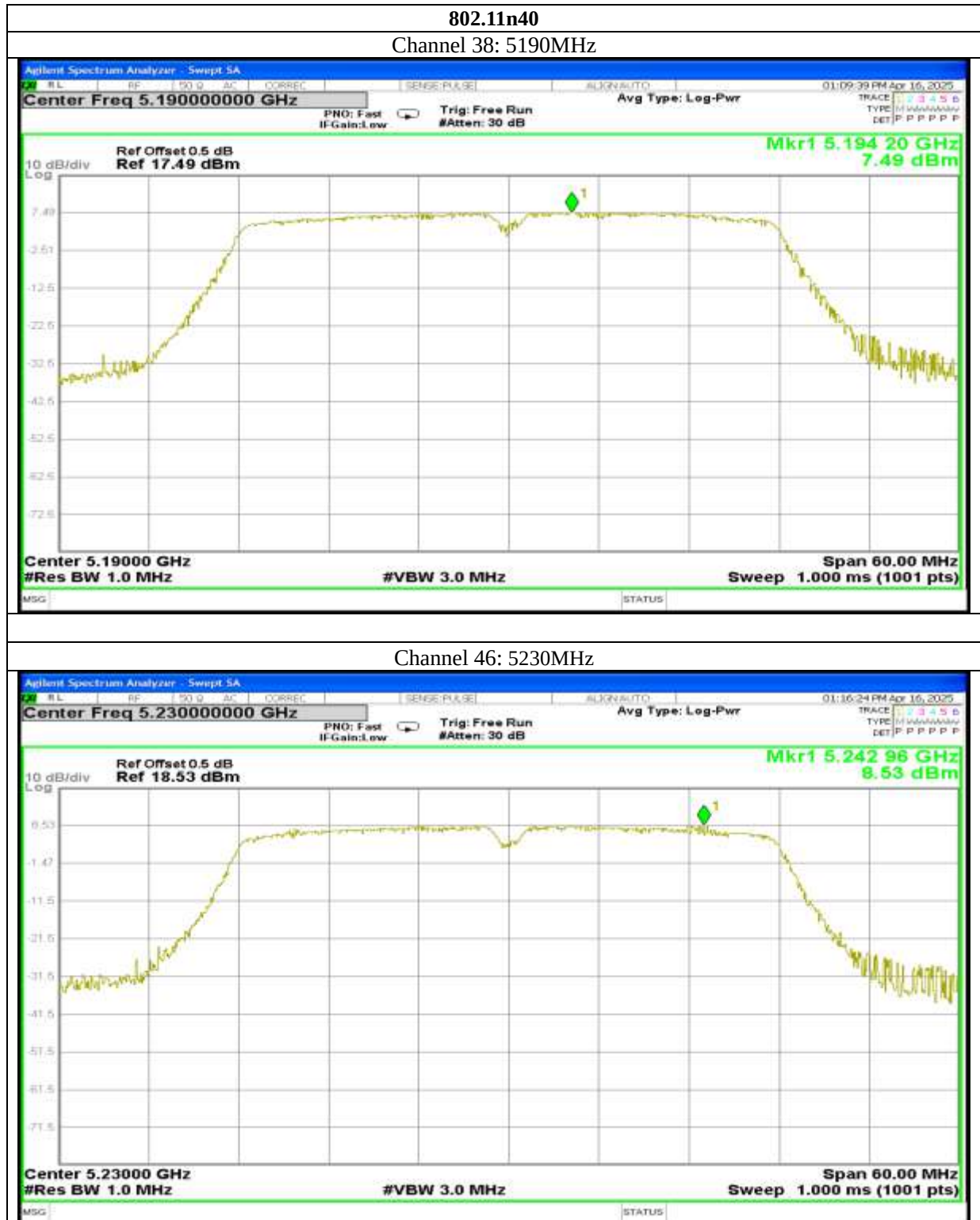
Report No.: AAEMT/RF/250402-01-04



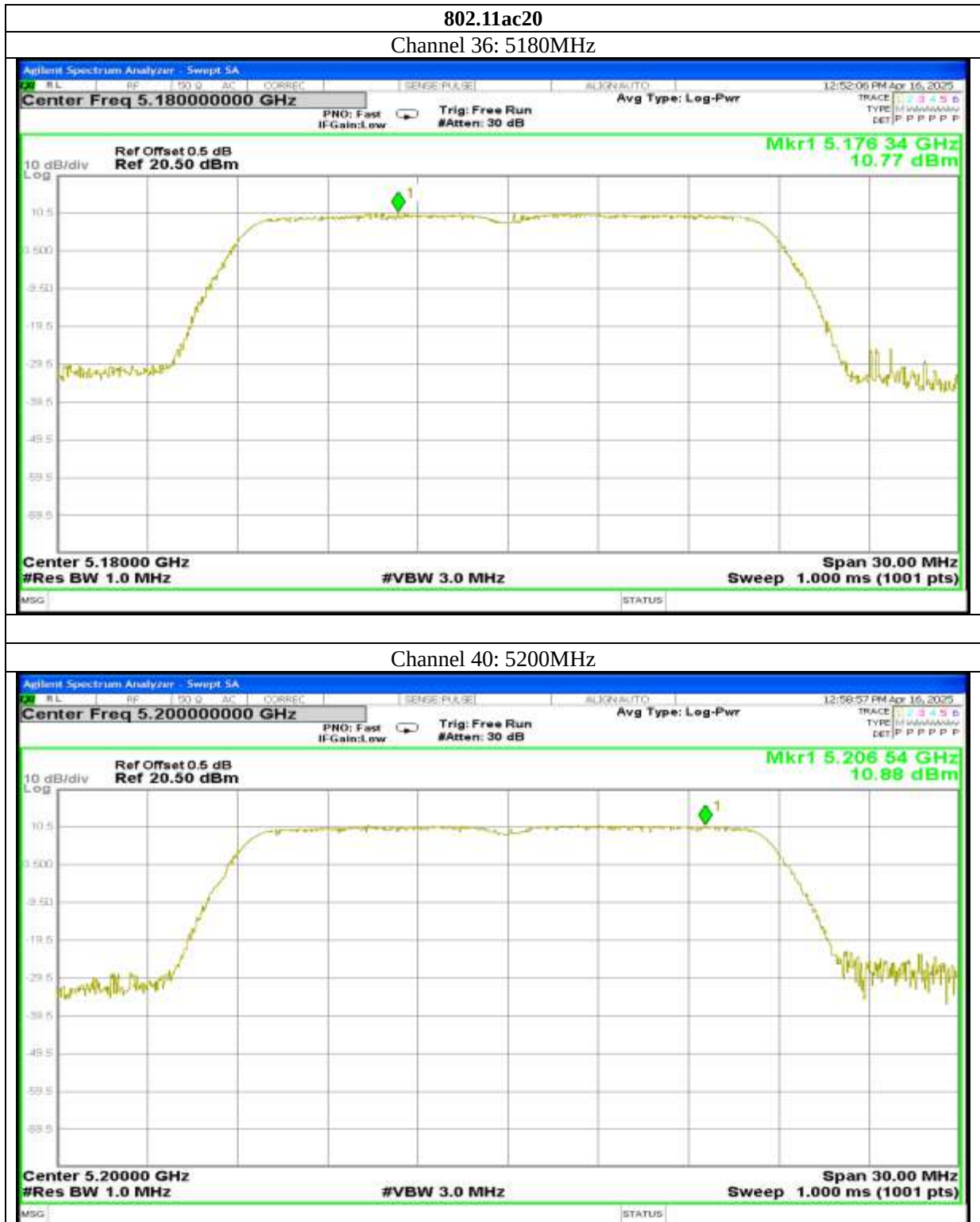
Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04



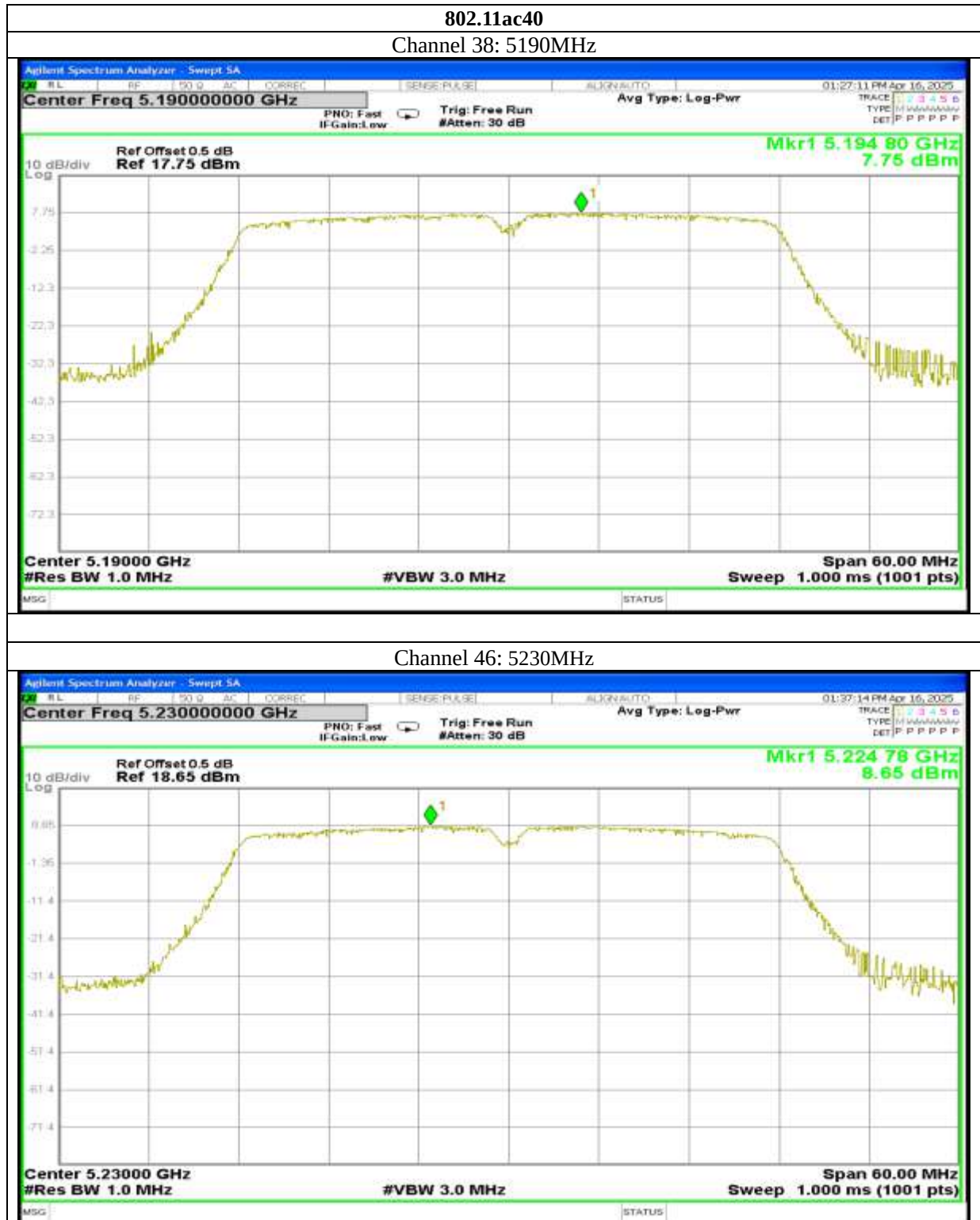
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Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04

802.11a

Channel 149: 5745MHz



Channel 157: 5785MHz



Report No.: AAEMT/RF/250402-01-04

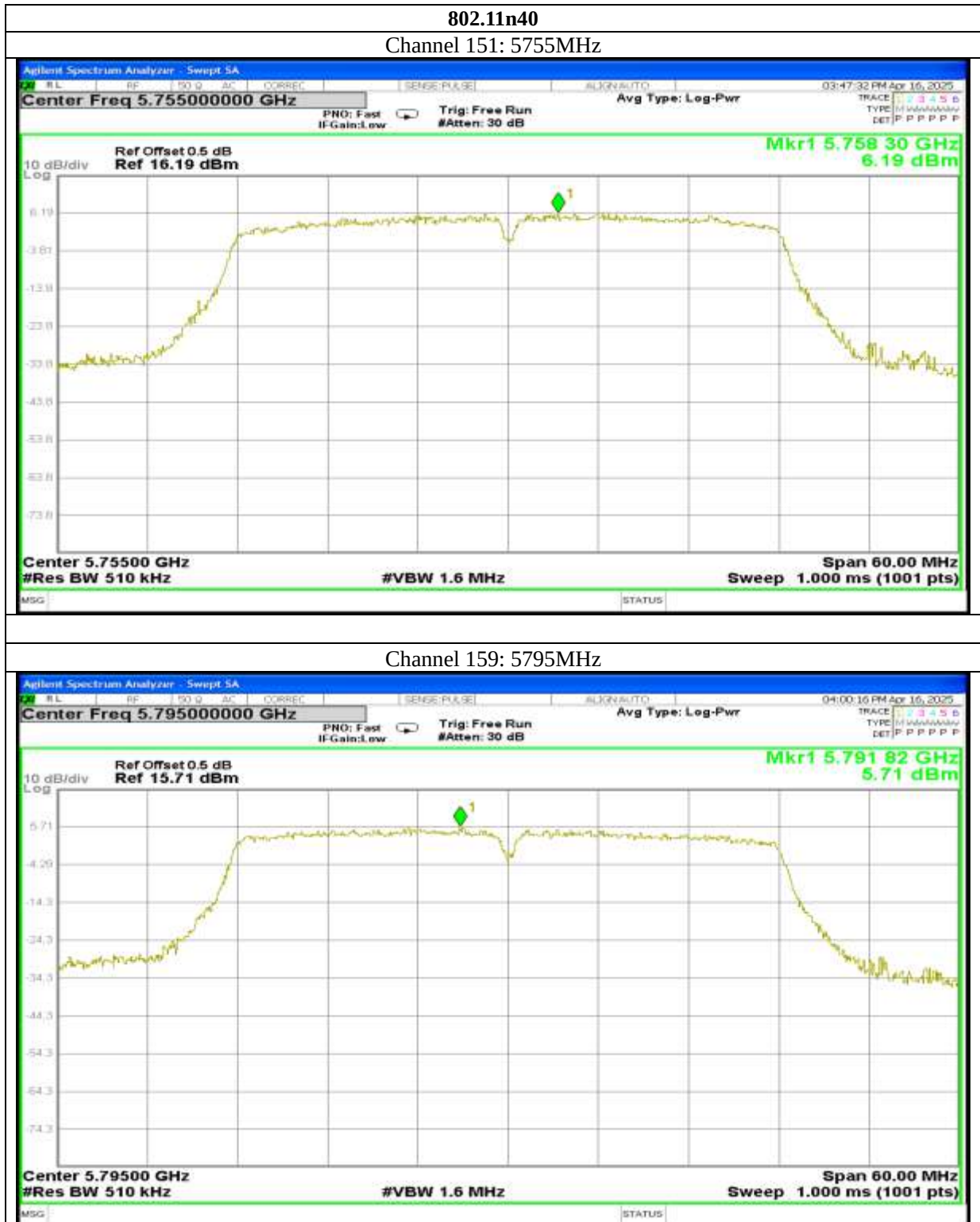


Report No.: AAEMT/RF/250402-01-04

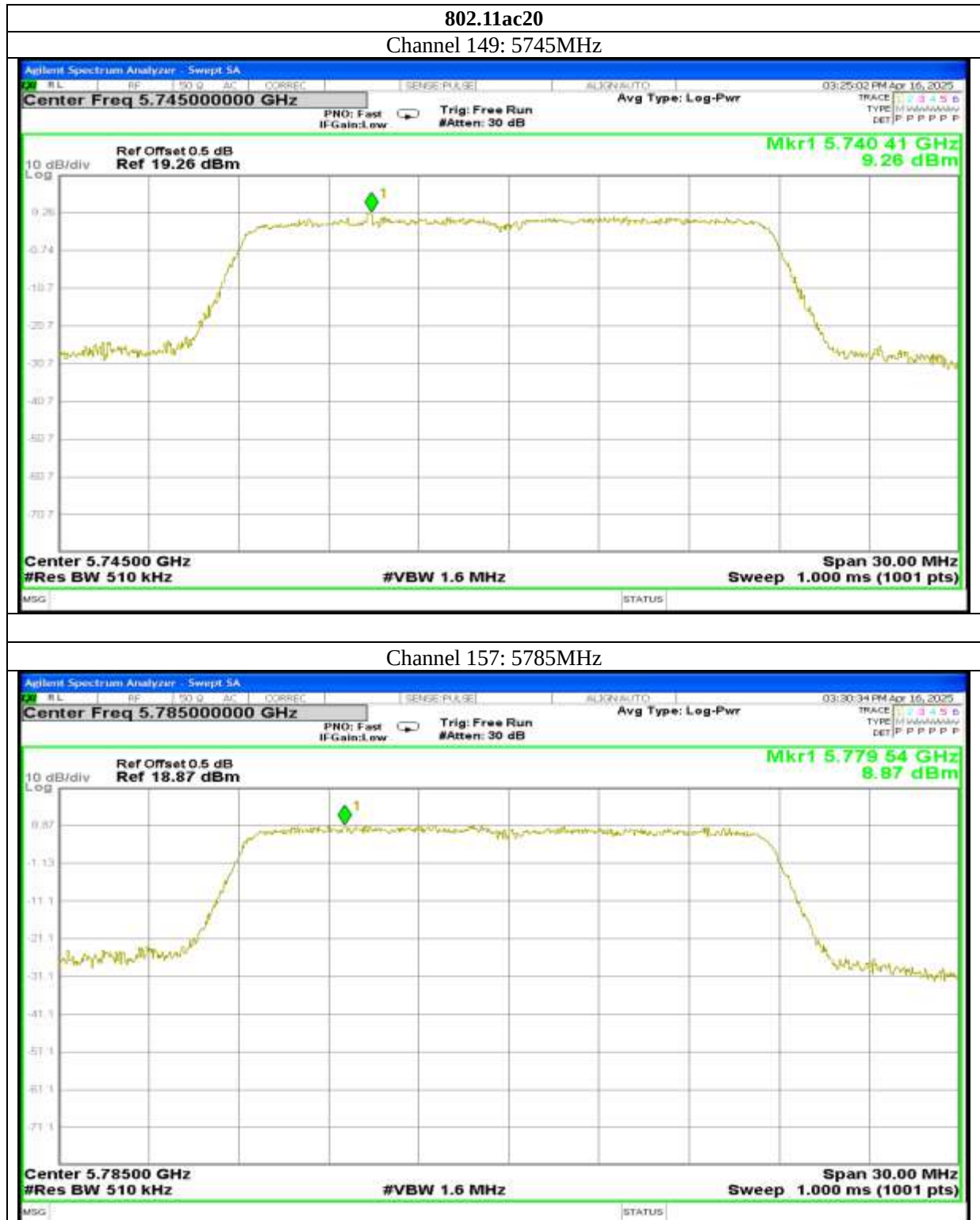




Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04





Report No.: AAEMT/RF/250402-01-04

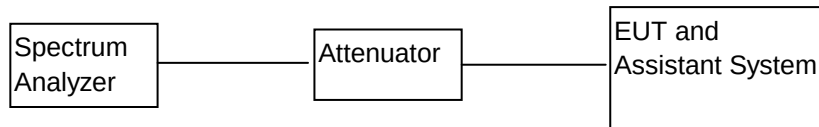


Report No.: AAEMT/RF/250402-01-04



## 5. 26 dB & 99% Emission Bandwidth

### 5.1. BLOCK DIAGRAM OF TEST SETUP



### 5.2. APPLIED PROCEDURES / LIMIT

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

### 5.3. TEST PROCEDURE

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

The following procedure shall be used for measuring (99 %) power bandwidth:

- Set center frequency to the nominal EUT channel center frequency.
- Set span = 1.5 times to 5.0 times the OBW.
- Set RBW = 1 % to 5 % of the OBW
- Set  $VBW \geq 3 \cdot RBW$
- Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- Use the 99 % power bandwidth function of the instrument (if available).
- If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

## 5.4. TEST RESULT

### Antenna 0:

| CH. No. | Frequency (MHz) | 26dB Occupied Bandwidth (MHz) |                |                  | 99% Occupied Bandwidth (MHz) |                |                  |
|---------|-----------------|-------------------------------|----------------|------------------|------------------------------|----------------|------------------|
|         |                 | 802.11a                       | 802.11n (HT20) | 802.11ac (VHT20) | 802.11a                      | 802.11n (HT20) | 802.11ac (VHT20) |
| 36      | 5180.00         | 18.480                        | 19.350         | 19.380           | 16.317                       | 17.496         | 17.501           |
| 40      | 5200.00         | 18.360                        | 19.350         | 19.290           | 16.295                       | 17.504         | 17.492           |
| 48      | 5240.00         | 18.690                        | 19.350         | 19.380           | 16.354                       | 17.499         | 17.507           |
| CH. No. | Frequency (MHz) | 6dB Occupied Bandwidth (MHz)  |                |                  | 99% Occupied Bandwidth (MHz) |                |                  |
|         |                 | 802.11a                       | 802.11n (HT20) | 802.11ac (VHT20) | 802.11a                      | 802.11n (HT20) | 802.11ac (VHT20) |
| 149     | 5745.00         | 16.380                        | 17.220         | 17.370           | 16.321                       | 17.504         | 17.511           |
| 157     | 5785.00         | 16.380                        | 17.610         | 17.640           | 16.352                       | 17.519         | 17.510           |
| 165     | 5825.00         | 16.380                        | 17.370         | 17.400           | 16.319                       | 17.509         | 17.514           |

| CH. No. | Frequency (MHz) | 26dB Occupied Bandwidth (MHz) |                  | 99% Occupied Bandwidth (MHz) |                  |
|---------|-----------------|-------------------------------|------------------|------------------------------|------------------|
|         |                 | 802.11n (HT40)                | 802.11ac (VHT40) | 802.11n (HT40)               | 802.11ac (VHT40) |
| 38      | 5190.00         | 40.740                        | 40.860           | 36.045                       | 36.050           |
| 46      | 5230.00         | 40.980                        | 41.040           | 36.094                       | 36.087           |
| CH. No. | Frequency (MHz) | 6dB Occupied Bandwidth (MHz)  |                  | 99% Occupied Bandwidth (MHz) |                  |
|         |                 | 802.11n (HT40)                | 802.11ac (VHT40) | 802.11n (HT40)               | 802.11ac (VHT40) |
| 151     | 5755.00         | 35.220                        | 35.160           | 35.984                       | 35.929           |
| 159     | 5795.00         | 35.160                        | 35.580           | 36.106                       | 36.075           |

| CH. No. | Frequency (MHz) | 26dB Occupied Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) |
|---------|-----------------|-------------------------------|------------------------------|
|         |                 | 802.11ac (VHT80)              | 802.11ac (VHT80)             |
| 42      | 5210.00         | 80.880                        | 74.627                       |
| CH. No. | Frequency (MHz) | 6dB Occupied Bandwidth (MHz)  | 99% Occupied Bandwidth (MHz) |
|         |                 | 802.11ac (VHT80)              | 802.11ac (VHT80)             |
| 155     | 5775.00         | 74.040                        | 74.558                       |

Report No.: AAEMT/RF/250402-01-04

### Antenna 1:

| CH. No. | Frequency (MHz) | 26dB Occupied Bandwidth (MHz) |                |                  | 99% Occupied Bandwidth (MHz) |                |                  |
|---------|-----------------|-------------------------------|----------------|------------------|------------------------------|----------------|------------------|
|         |                 | 802.11a                       | 802.11n (HT20) | 802.11ac (VHT20) | 802.11a                      | 802.11n (HT20) | 802.11ac (VHT20) |
| 36      | 5180.00         | 18.540                        | 19.470         | 19.380           | 16.327                       | 17.509         | 17.496           |
| 40      | 5200.00         | 18.420                        | 19.350         | 19.290           | 16.322                       | 17.498         | 17.490           |
| 48      | 5240.00         | 18.540                        | 19.320         | 19.350           | 16.316                       | 17.504         | 17.501           |
| CH. No. | Frequency (MHz) | 6dB Occupied Bandwidth (MHz)  |                |                  | 99% Occupied Bandwidth (MHz) |                |                  |
|         |                 | 802.11a                       | 802.11n (HT20) | 802.11ac (VHT20) | 802.11a                      | 802.11n (HT20) | 802.11ac (VHT20) |
| 149     | 5745.00         | 16.380                        | 17.220         | 17.340           | 16.342                       | 17.510         | 17.508           |
| 157     | 5785.00         | 16.380                        | 17.610         | 17.580           | 16.319                       | 17.503         | 17.495           |
| 165     | 5825.00         | 16.380                        | 17.610         | 17.370           | 16.323                       | 17.513         | 17.515           |

| CH. No. | Frequency (MHz) | 26dB Occupied Bandwidth (MHz) |                  | 99% Occupied Bandwidth (MHz) |                  |
|---------|-----------------|-------------------------------|------------------|------------------------------|------------------|
|         |                 | 802.11n (HT40)                | 802.11ac (VHT40) | 802.11n (HT40)               | 802.11ac (VHT40) |
| 38      | 5190.00         | 40.860                        | 41.040           | 36.112                       | 36.073           |
| 46      | 5230.00         | 40.680                        | 40.920           | 36.010                       | 36.062           |
| CH. No. | Frequency (MHz) | 6dB Occupied Bandwidth (MHz)  |                  | 99% Occupied Bandwidth (MHz) |                  |
|         |                 | 802.11n (HT40)                | 802.11ac (VHT40) | 802.11n (HT40)               | 802.11ac (VHT40) |
| 151     | 5755.00         | 35.460                        | 35.160           | 36.036                       | 36.044           |
| 159     | 5795.00         | 35.280                        | 35.700           | 36.076                       | 36.073           |

| CH. No. | Frequency (MHz) | 26dB Occupied Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) |
|---------|-----------------|-------------------------------|------------------------------|
|         |                 | 802.11ac (VHT80)              | 802.11ac (VHT80)             |
| 42      | 5210.00         | 80.880                        | 74.674                       |
| CH. No. | Frequency (MHz) | 6dB Occupied Bandwidth (MHz)  | 99% Occupied Bandwidth (MHz) |
|         |                 | 802.11ac (VHT80)              | 802.11ac (VHT80)             |
| 155     | 5775.00         | 75.360                        | 74.433                       |

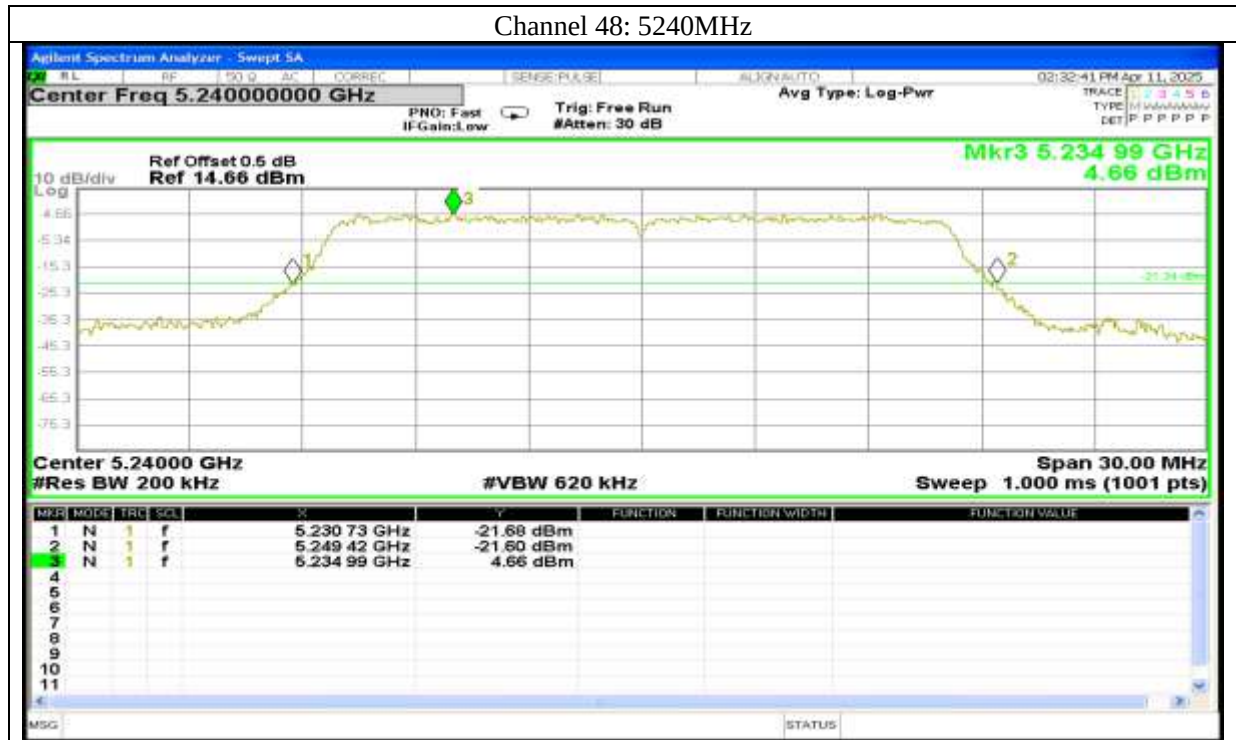
Report No.: AAEMT/RF/250402-01-04

Test plots as followed:

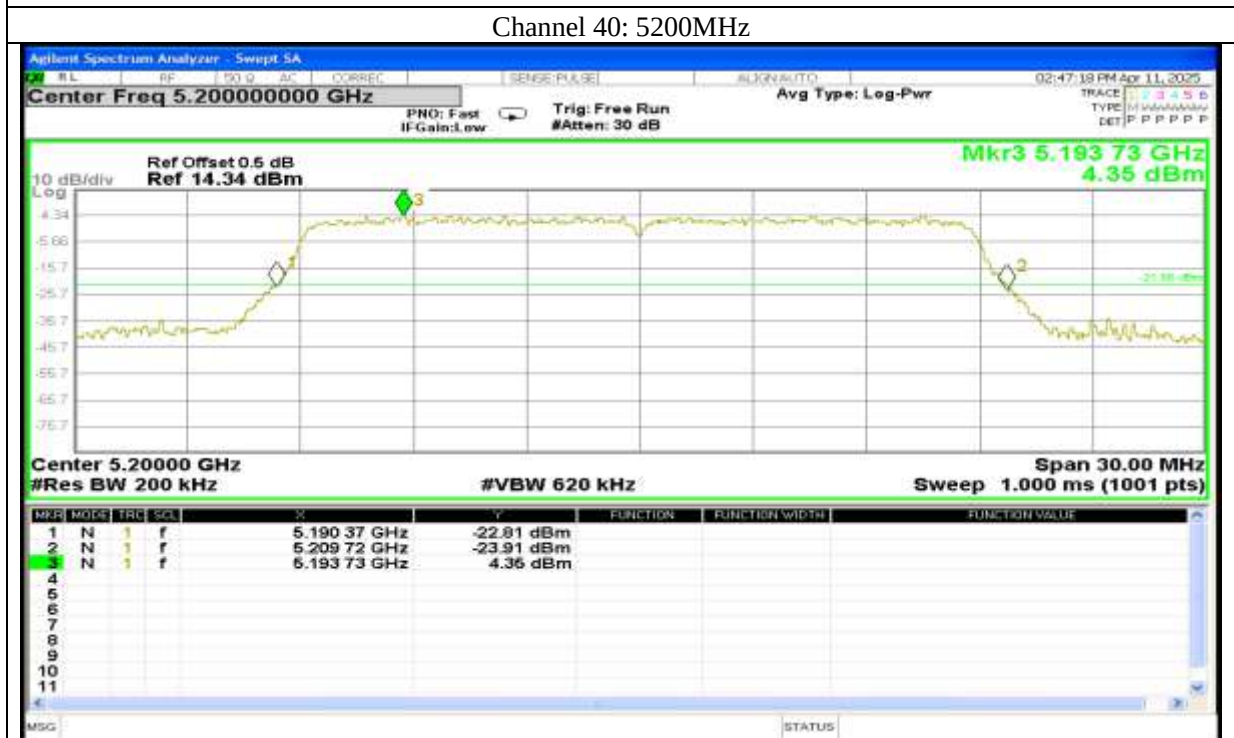
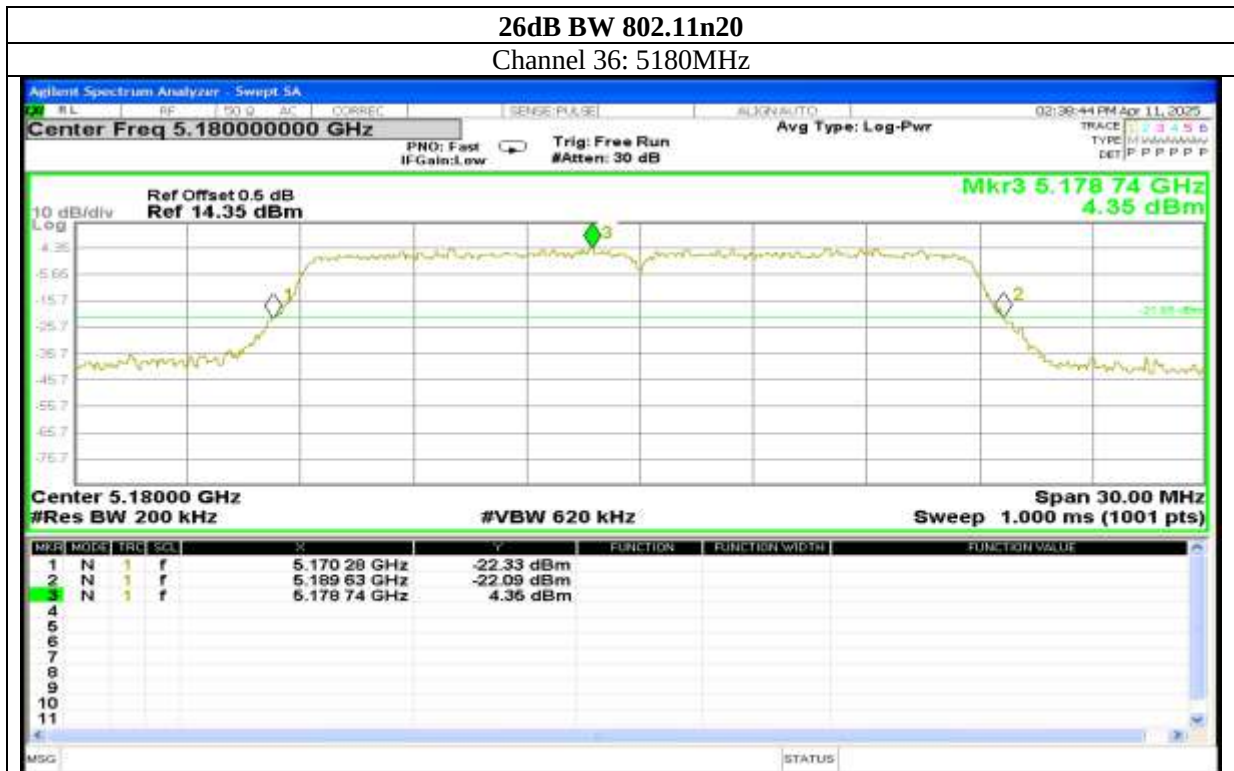
Antenna 0:

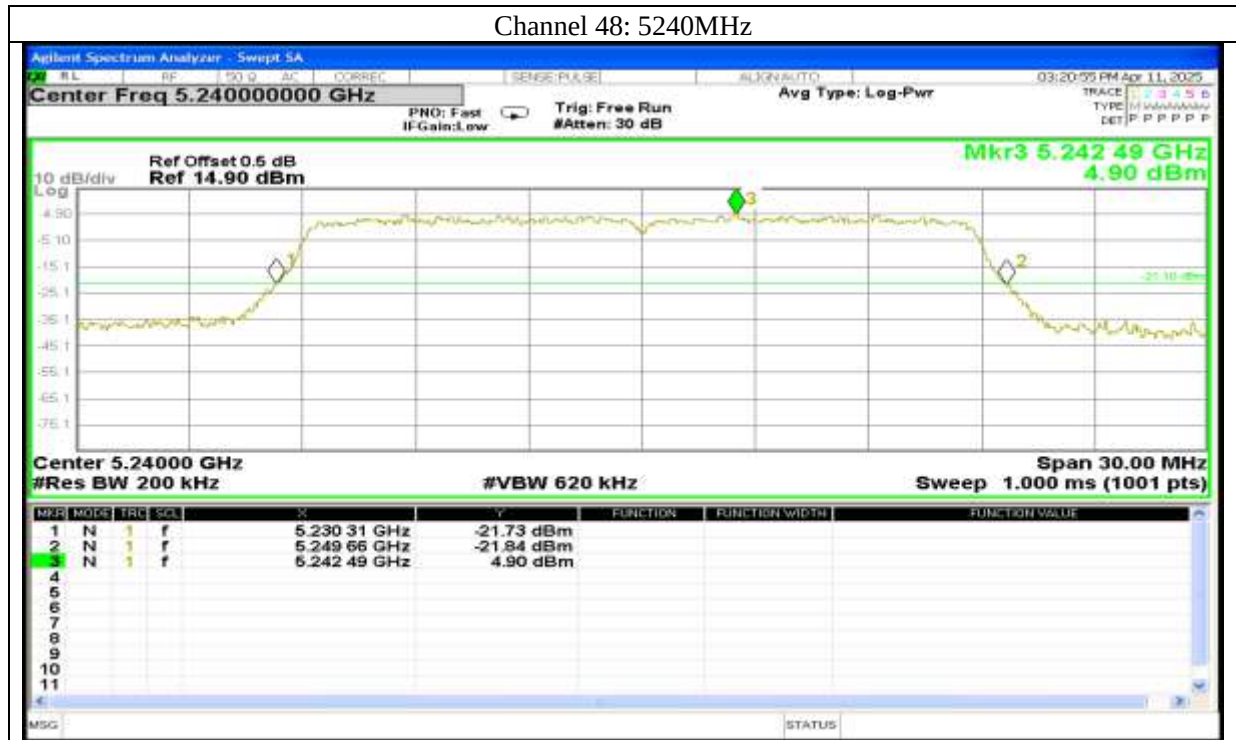


Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04





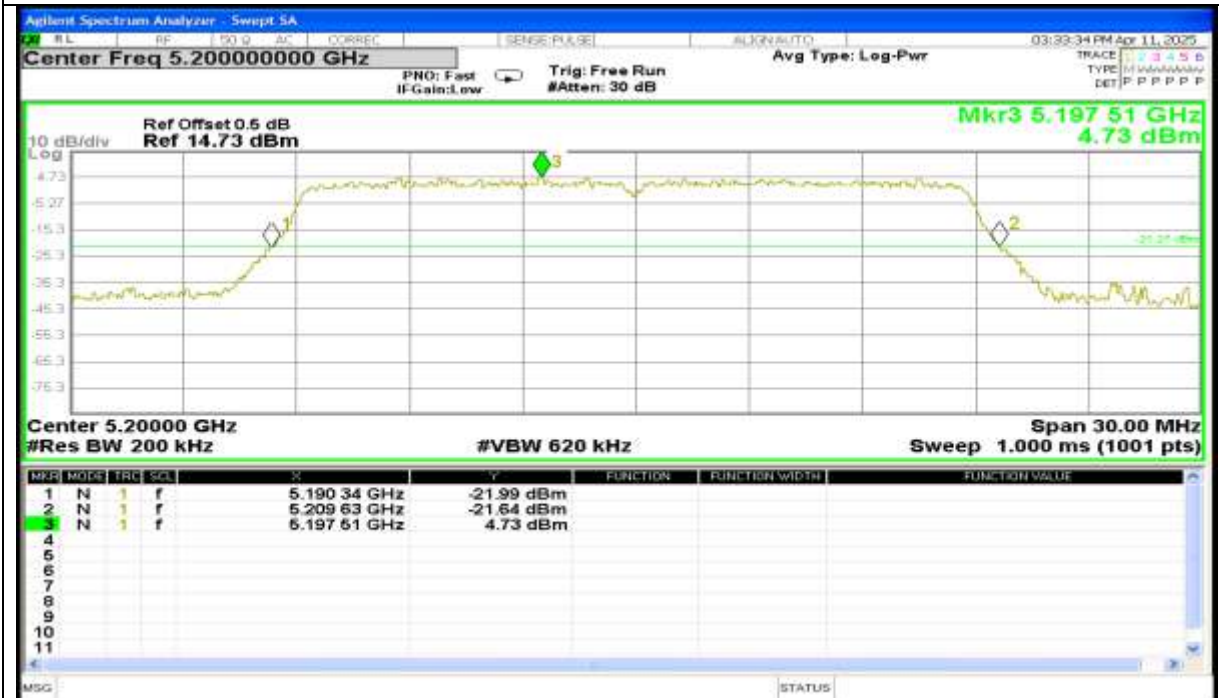
Report No.: AAEMT/RF/250402-01-04

26dB BW 802.11ac20

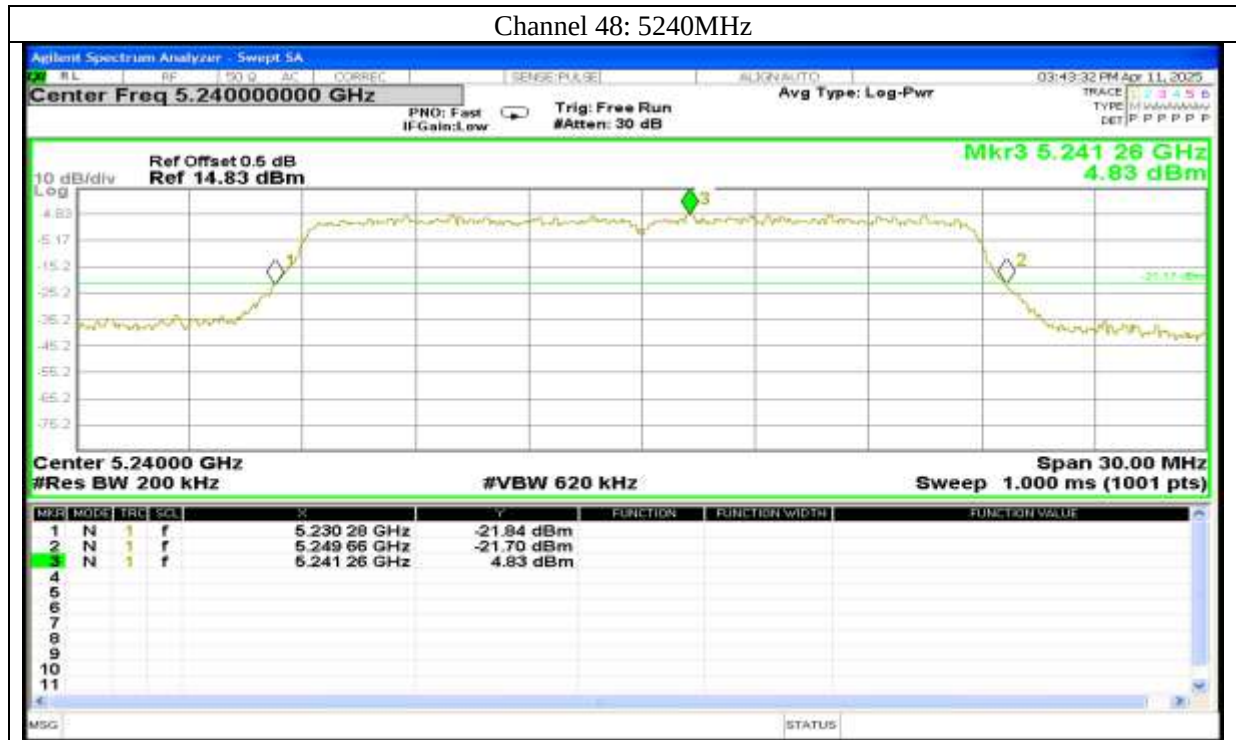
Channel 36: 5180MHz



Channel 40: 5200MHz

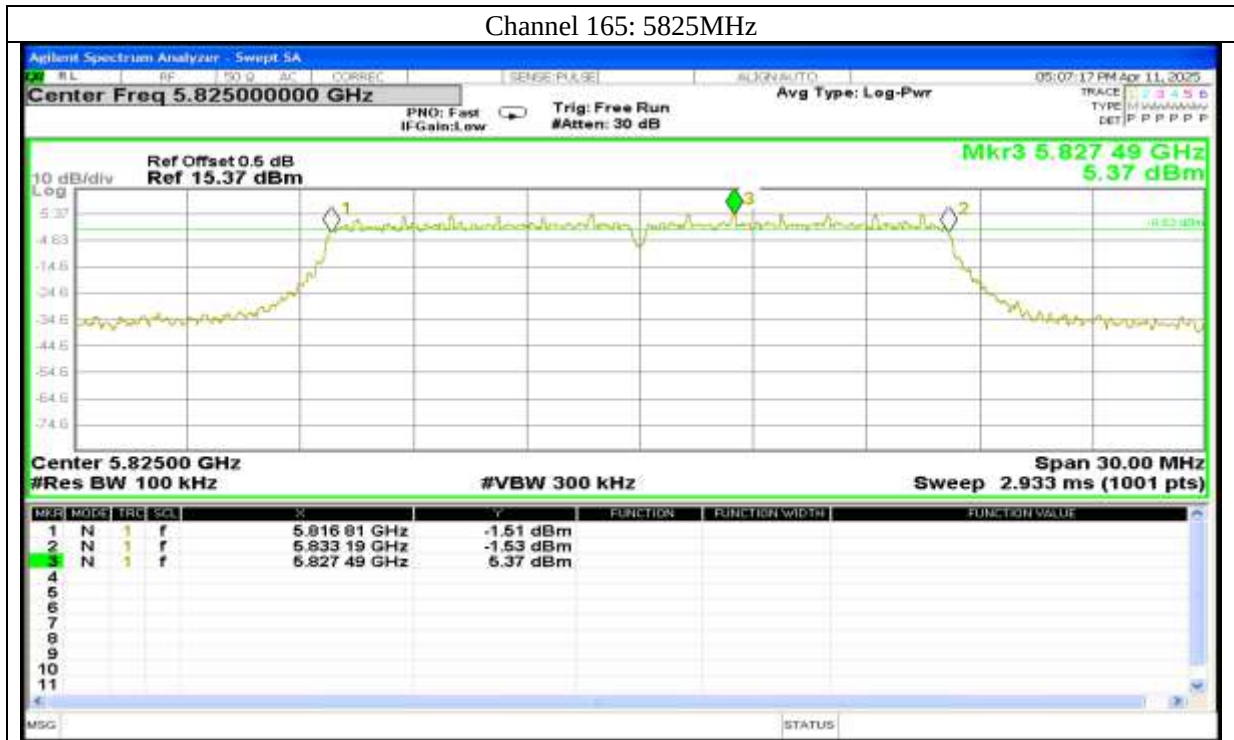


Report No.: AAEMT/RF/250402-01-04



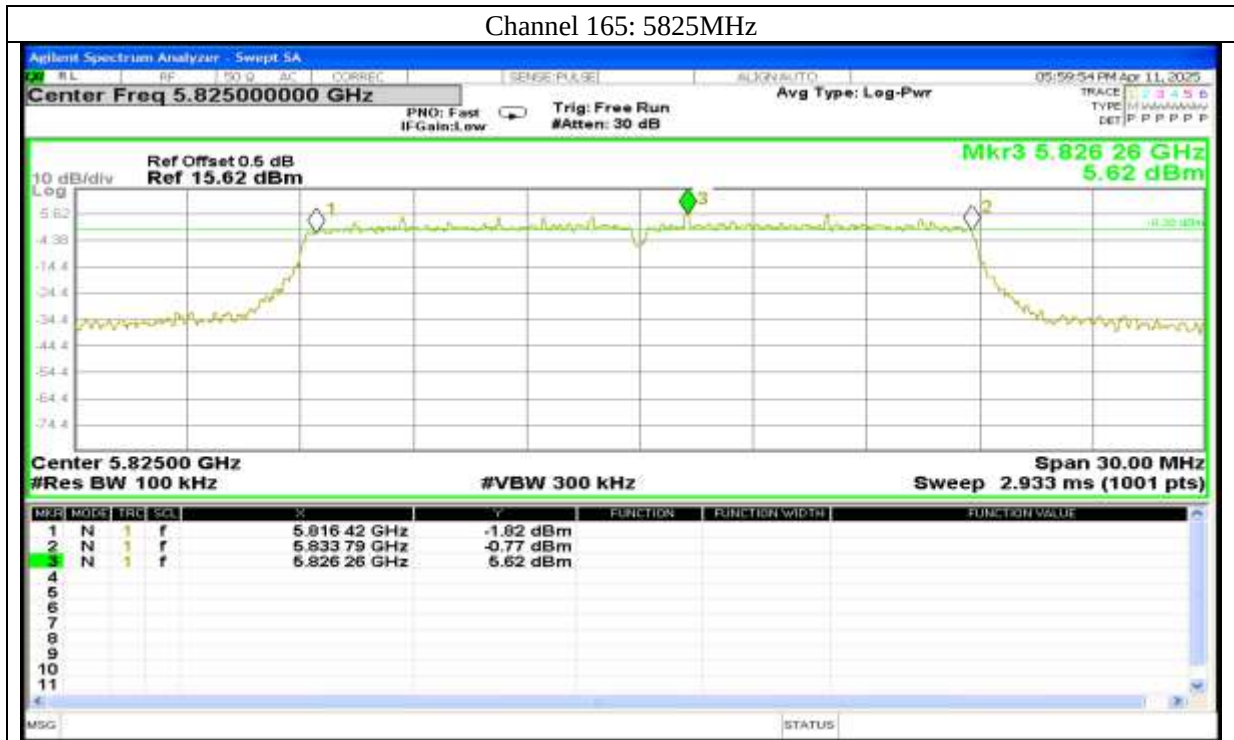
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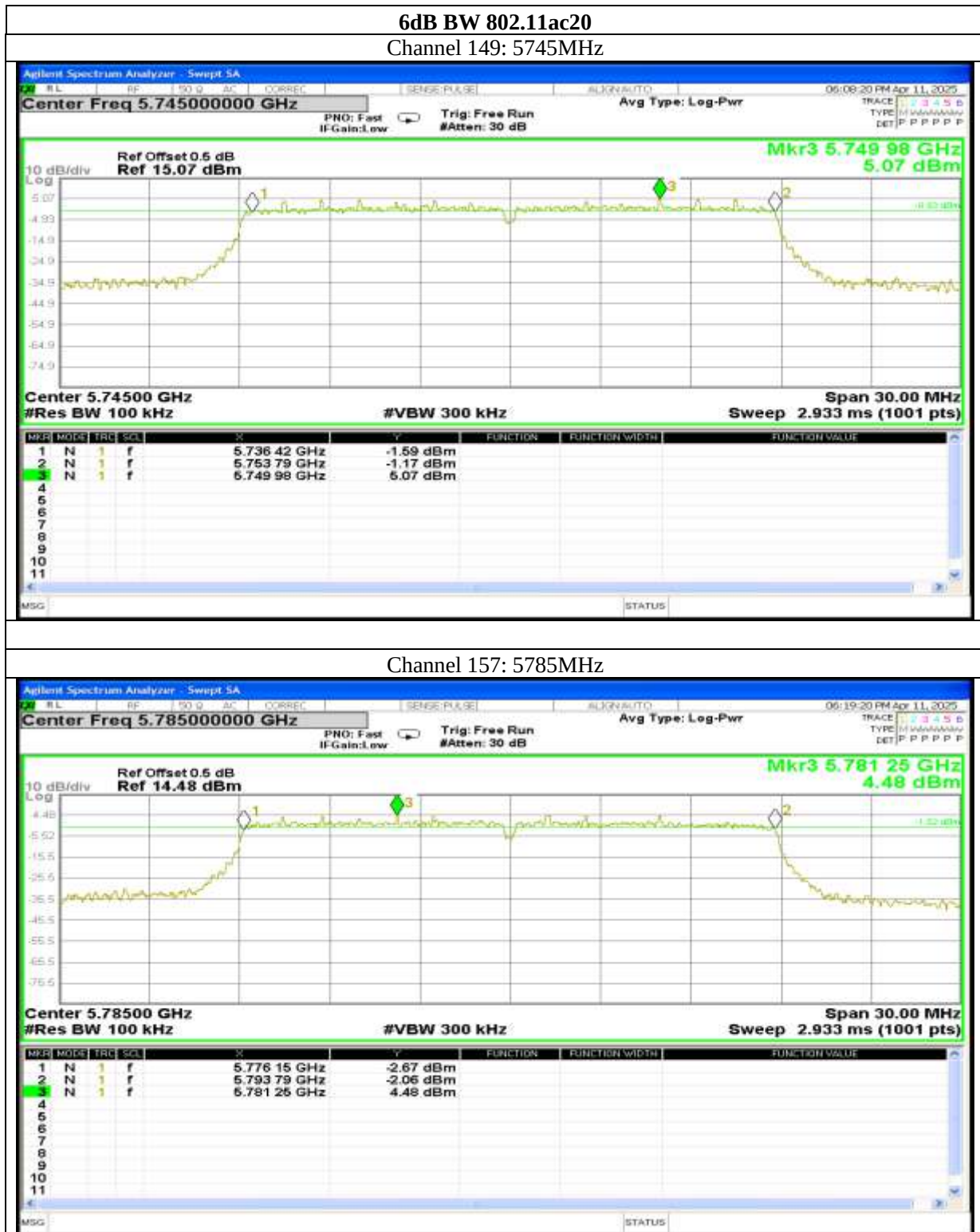


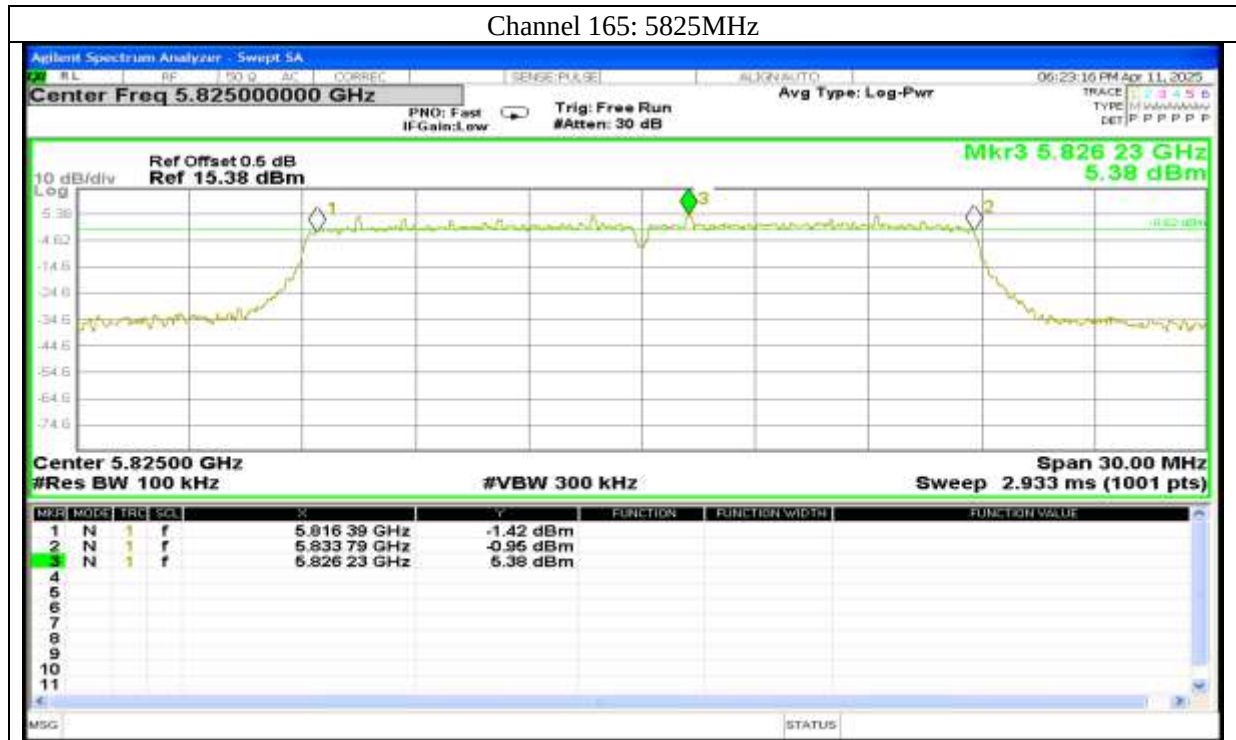
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Report No.: AAEMT/RF/250402-01-04

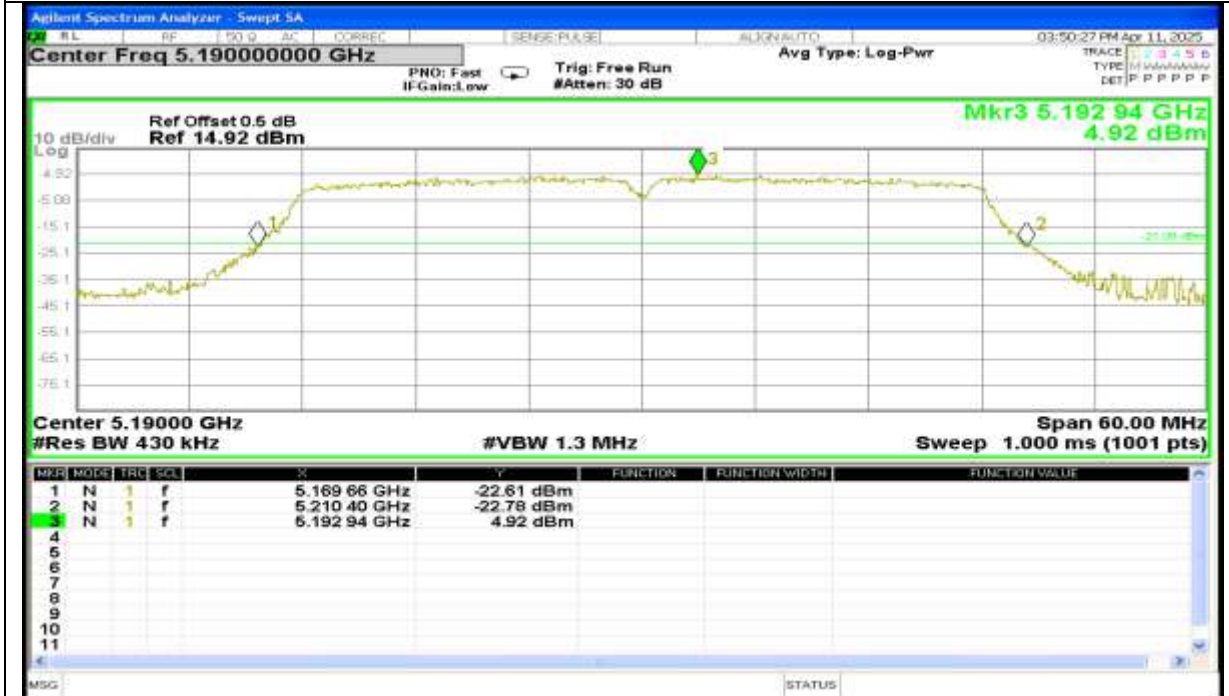




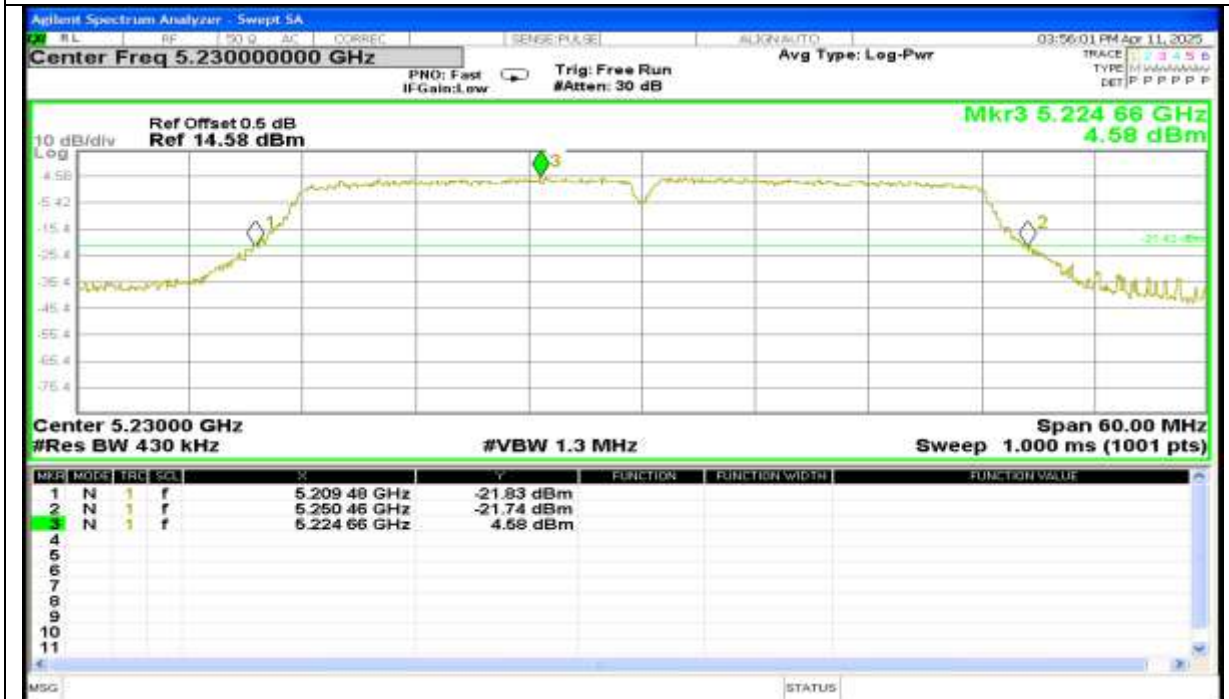
Report No.: AAEMT/RF/250402-01-04

26dB BW 802.11n40

Channel 38: 5190MHz

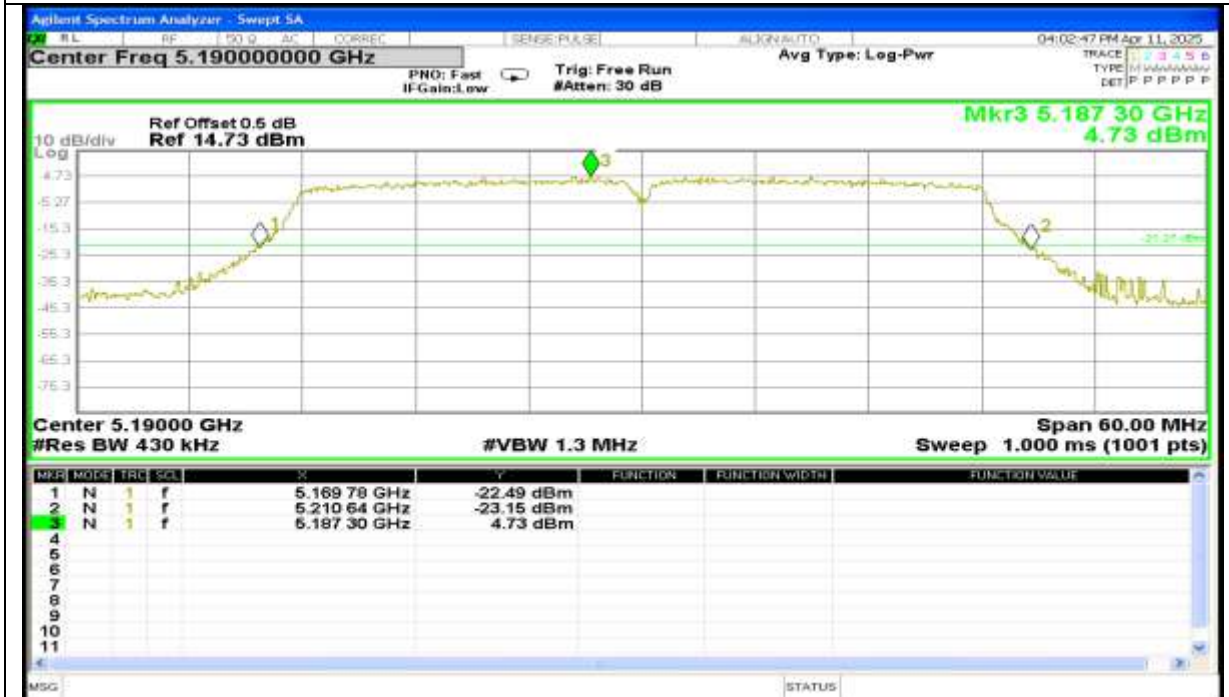


Channel 46: 5230MHz

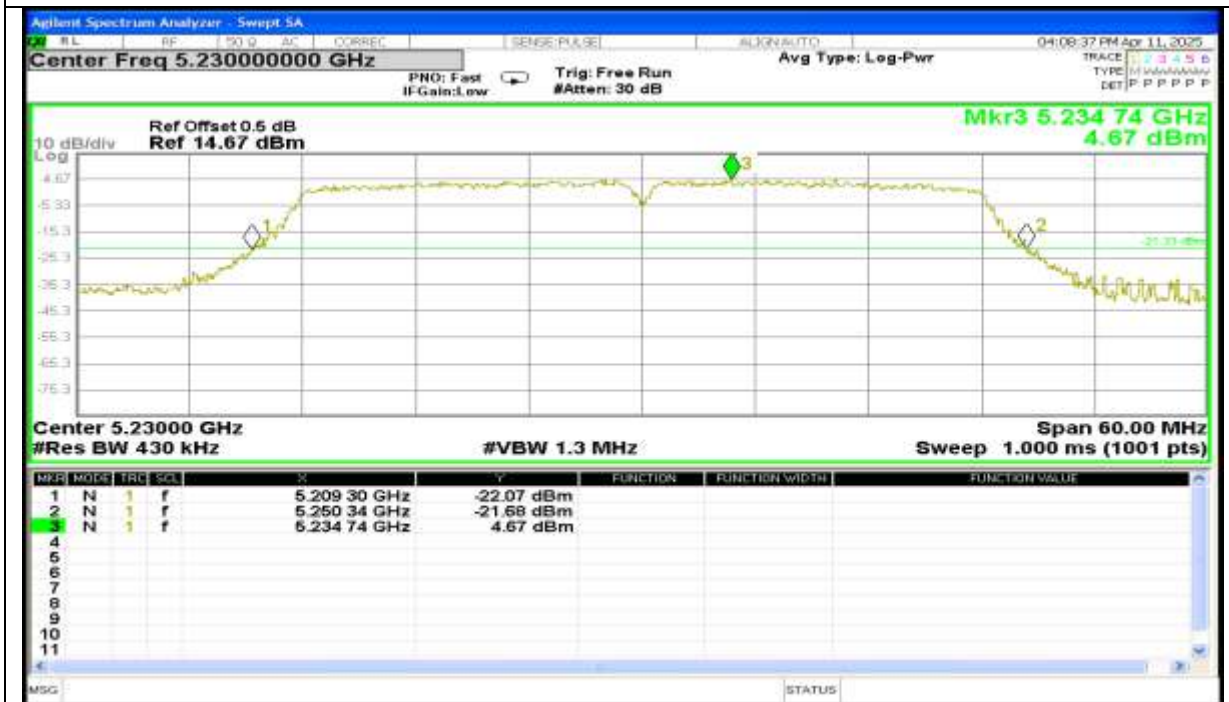


26dB BW 802.11ac40

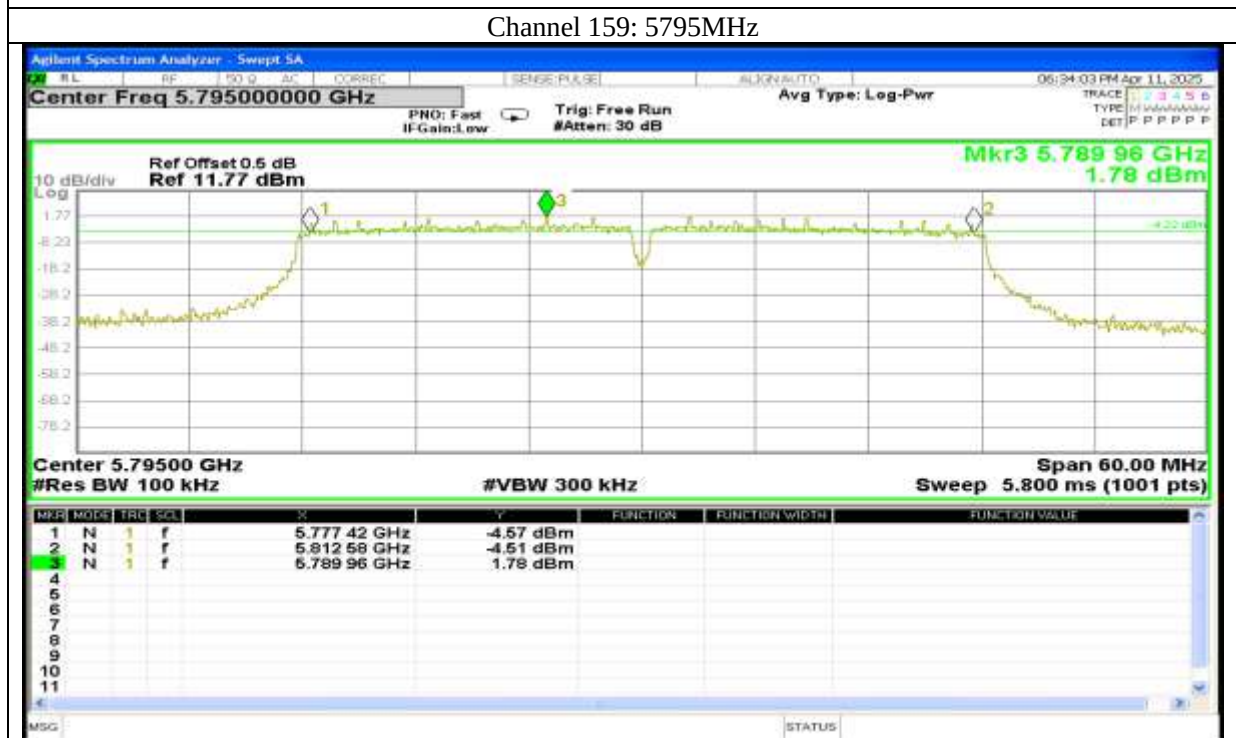
Channel 38: 5190MHz



Channel 46: 5230MHz



Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04

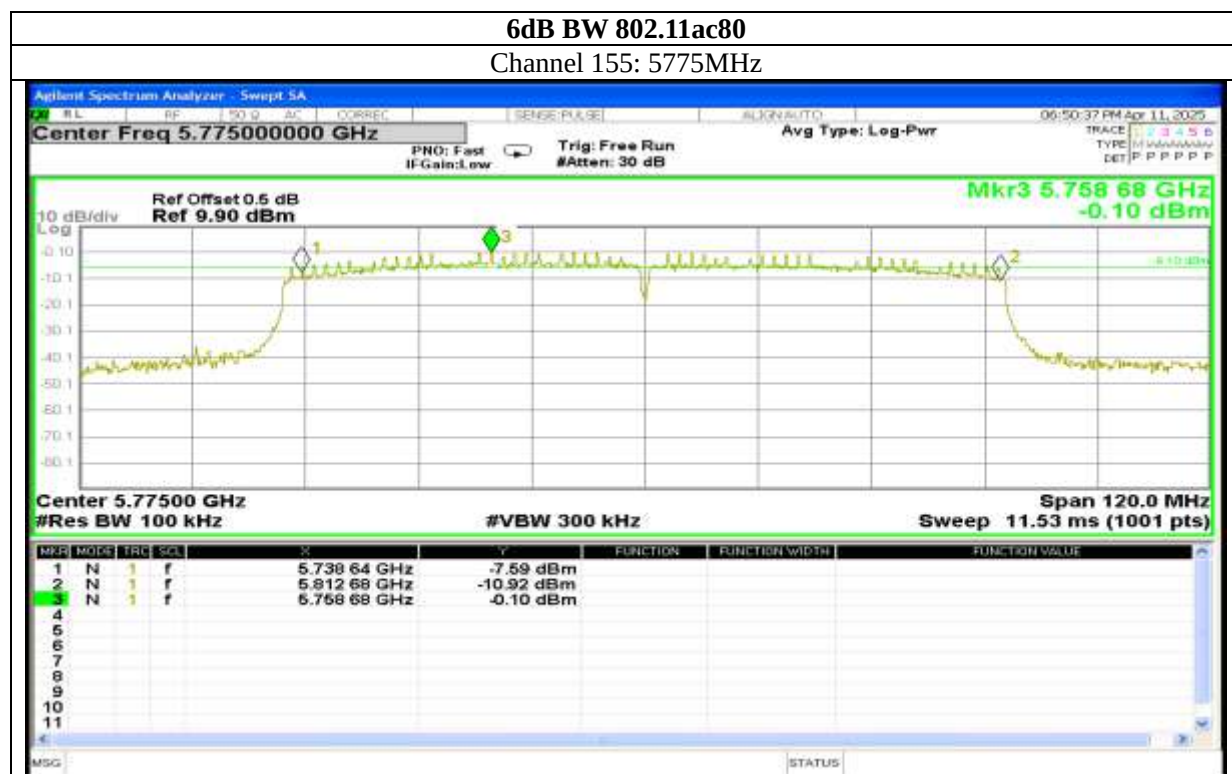
26dB BW 802.11ac80

Channel 42: 5210MHz

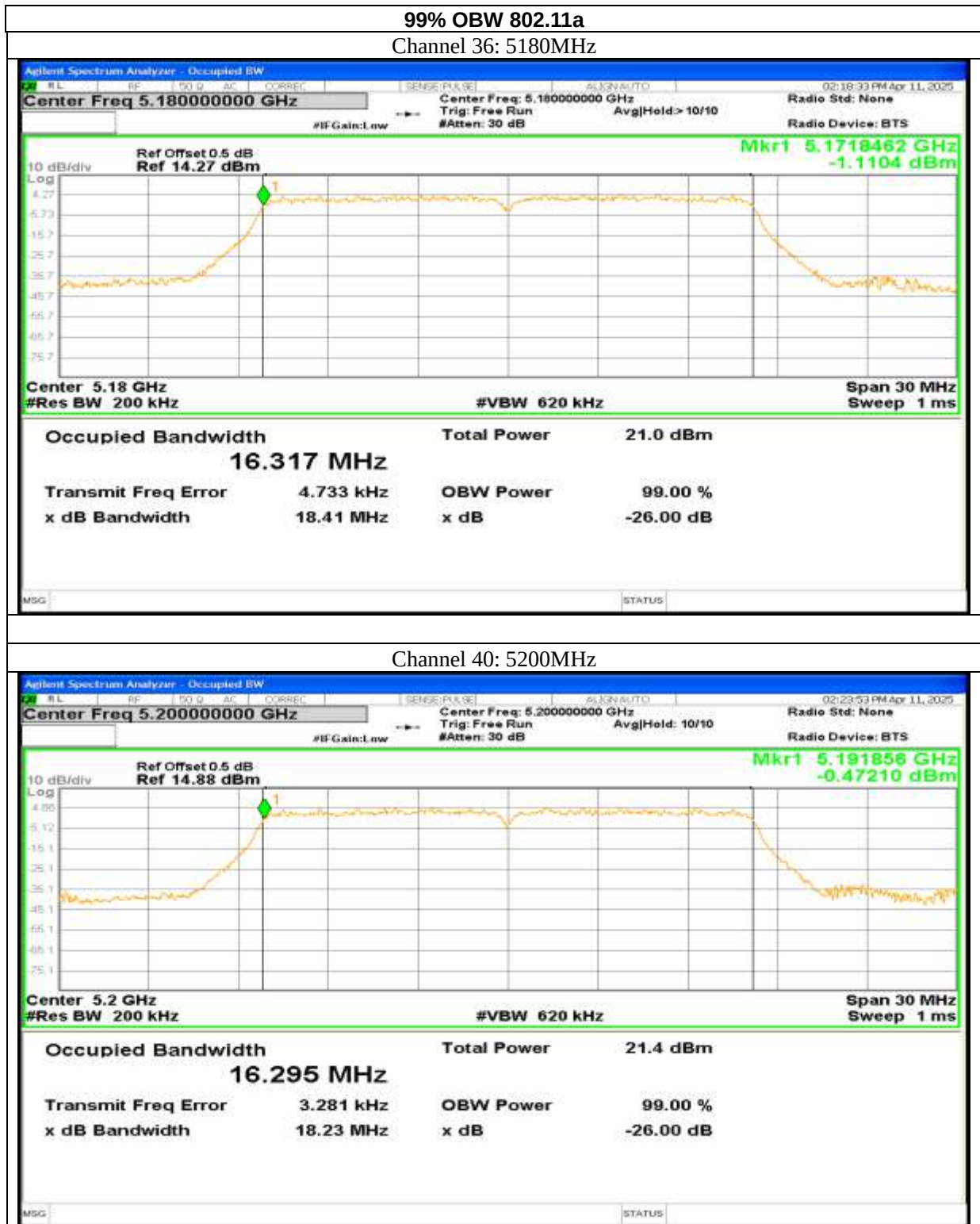


6dB BW 802.11ac80

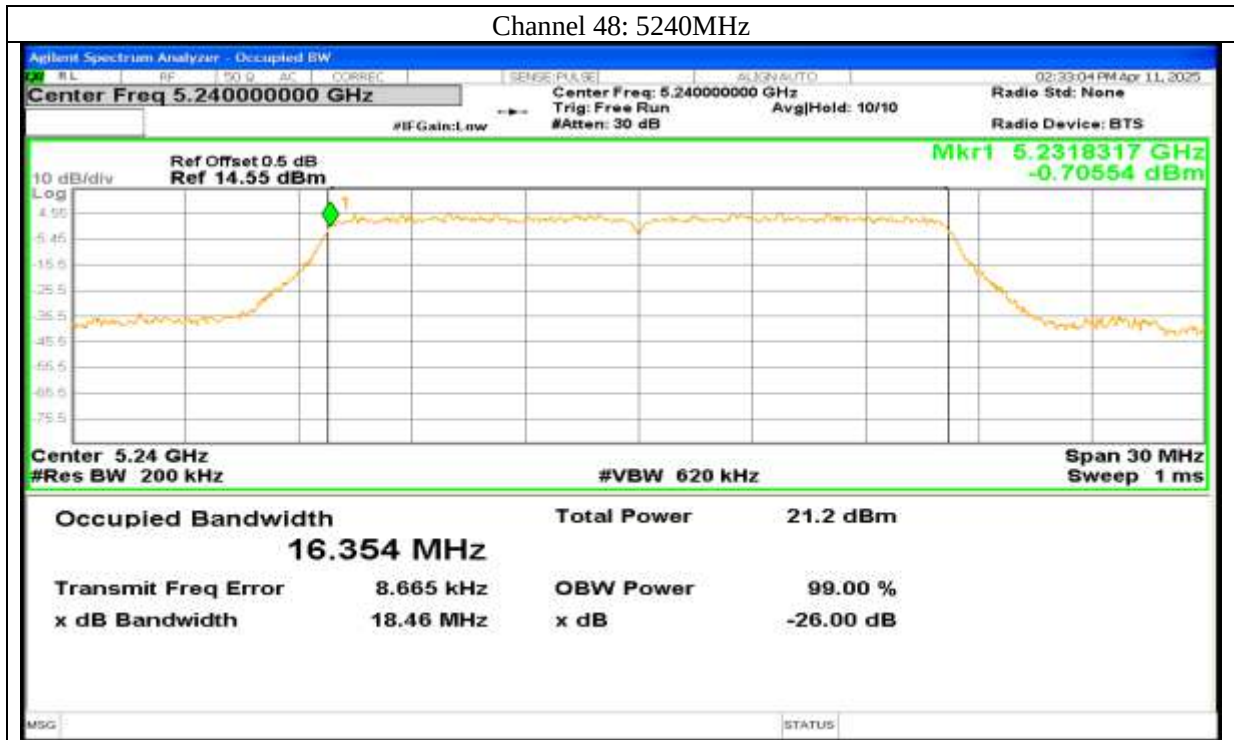
Channel 155: 5775MHz



Report No.: AAEMT/RF/250402-01-04



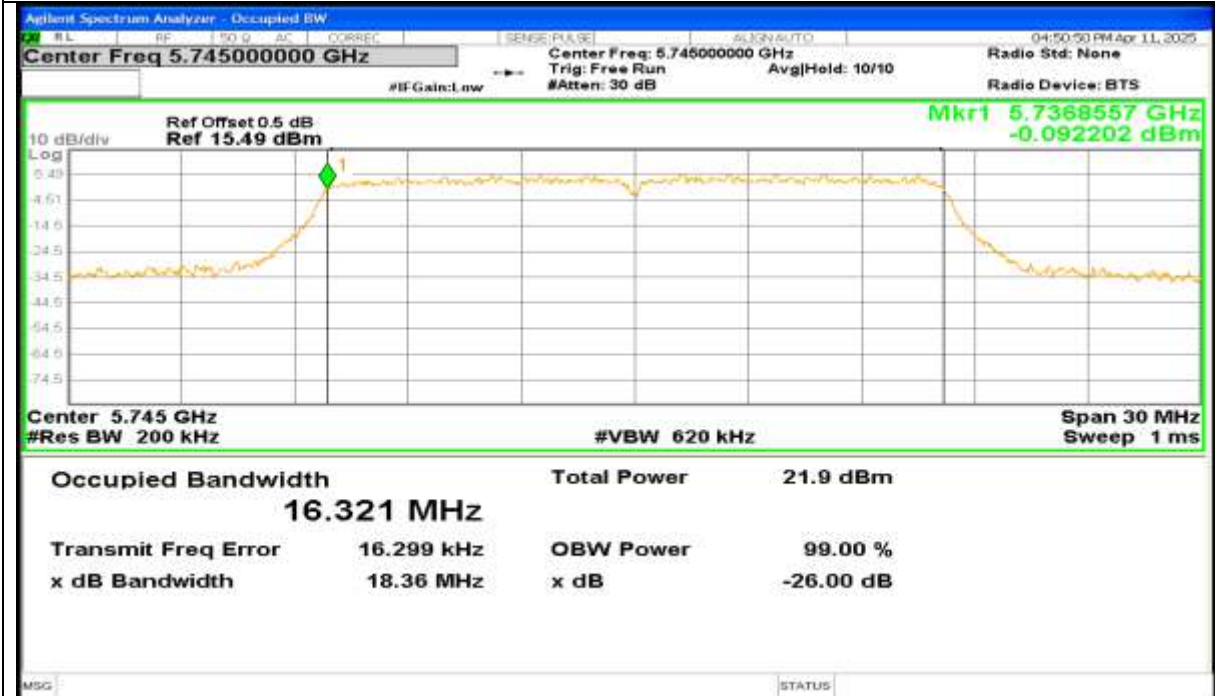
Report No.: AAEMT/RF/250402-01-04



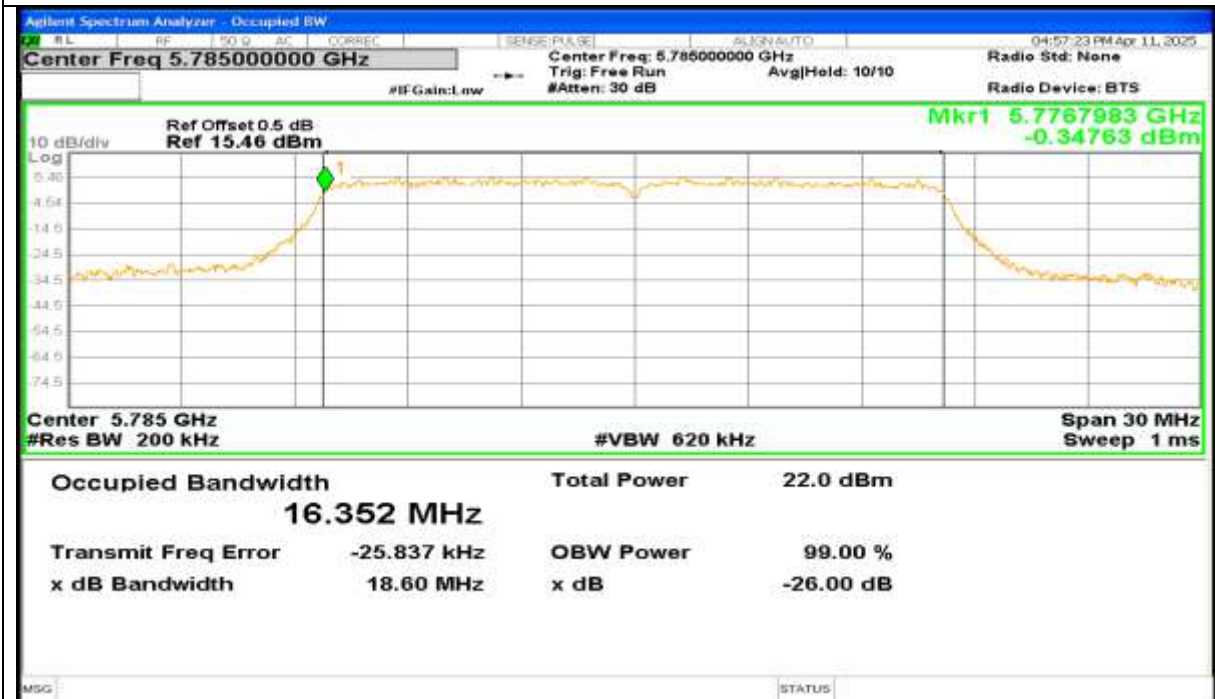
Report No.: AAEMT/RF/250402-01-04

### 99% OBW 802.11a

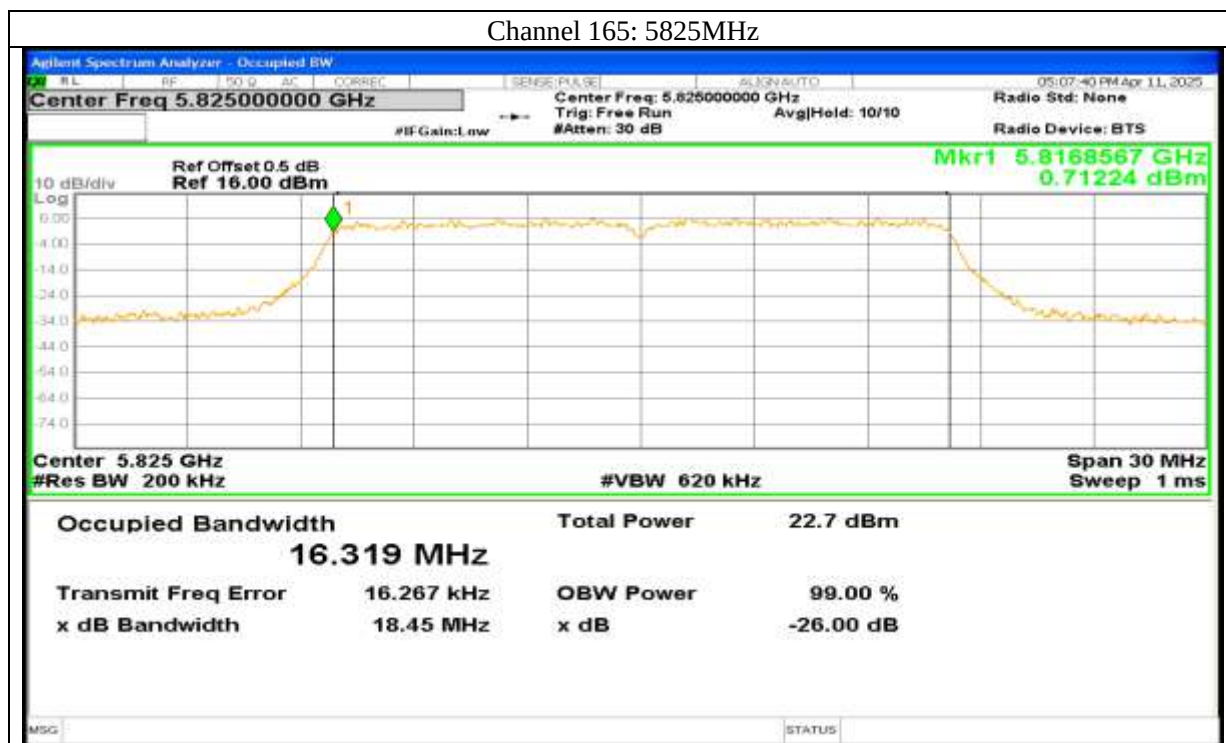
Channel 149: 5745MHz



Channel 157: 5785MHz



Report No.: AAEMT/RF/250402-01-04



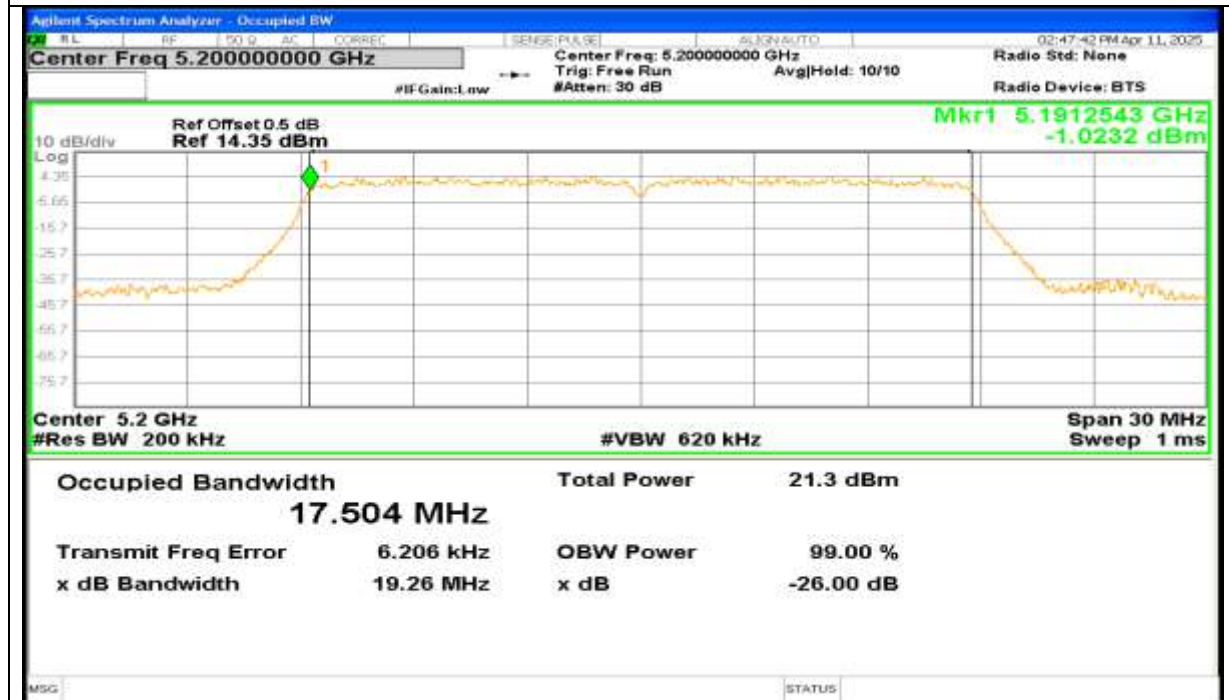
Report No.: AAEMT/RF/250402-01-04

99% OBW 802.11n20

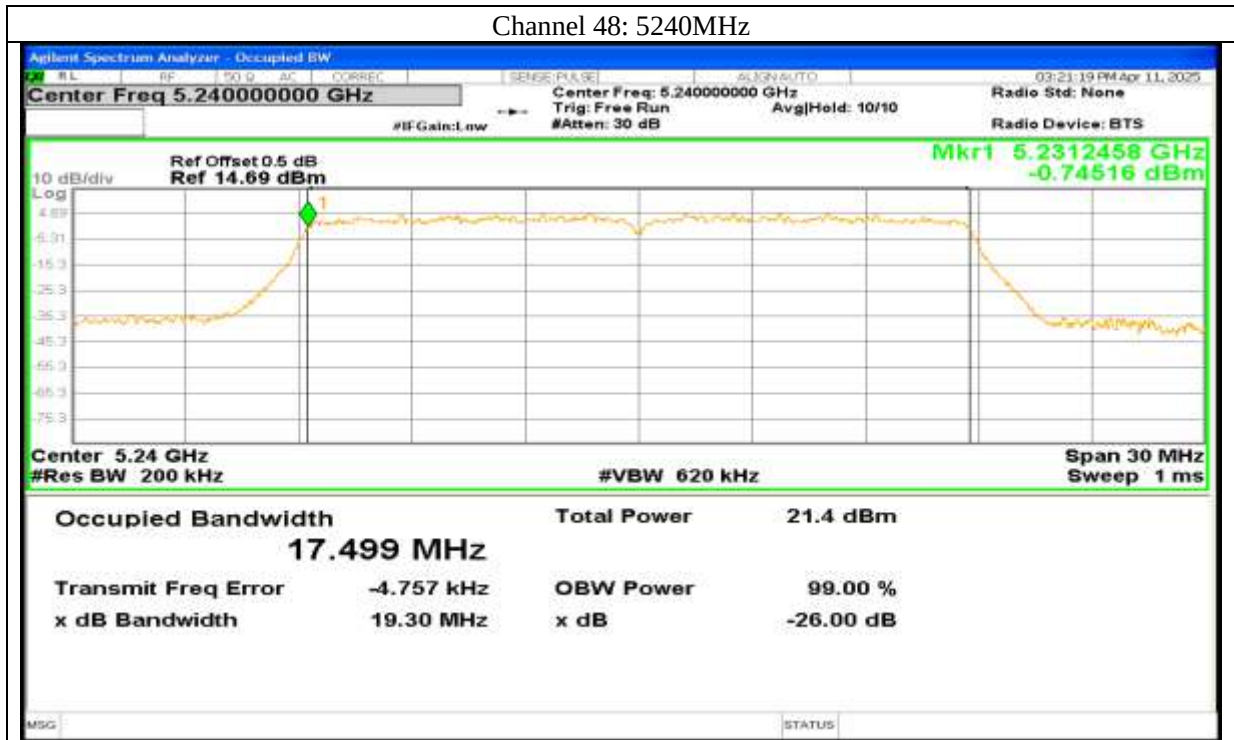
Channel 36: 5180MHz



Channel 40: 5200MHz



Report No.: AAEMT/RF/250402-01-04



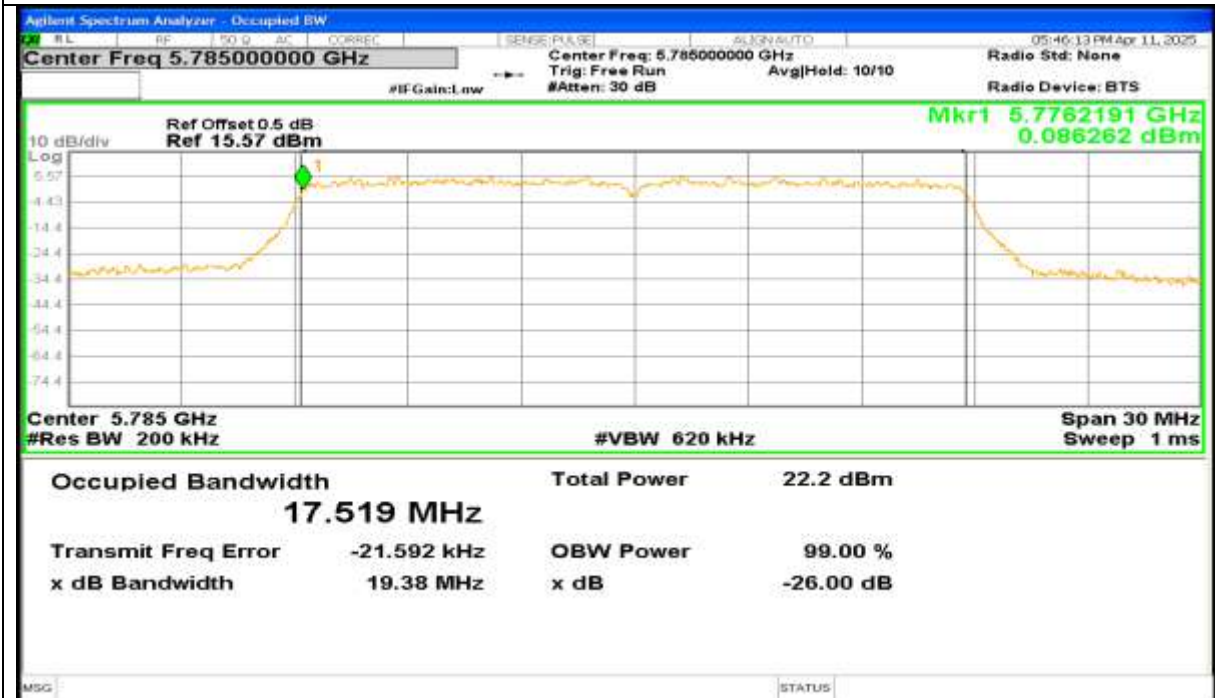
Report No.: AAEMT/RF/250402-01-04

### 99% OBW 802.11n20

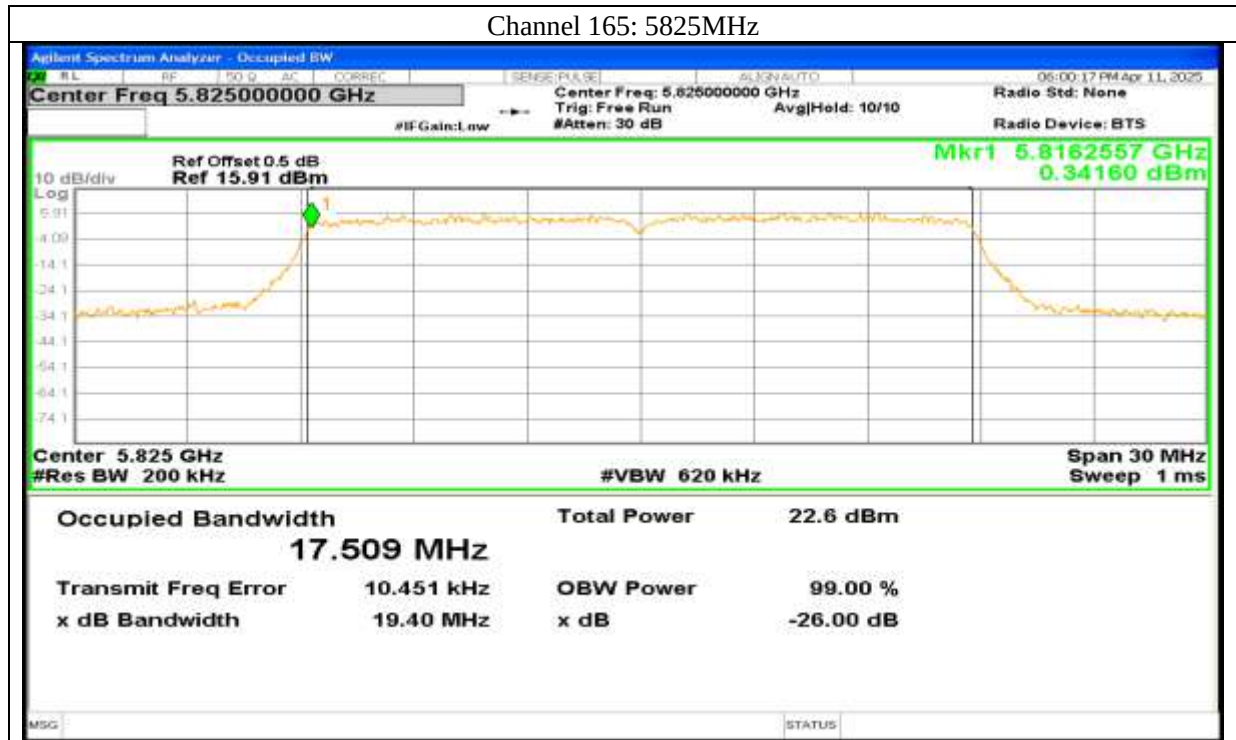
Channel 149: 5745MHz



### Channel 157: 5785MHz



Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04

### 99% OBW 802.11ac20

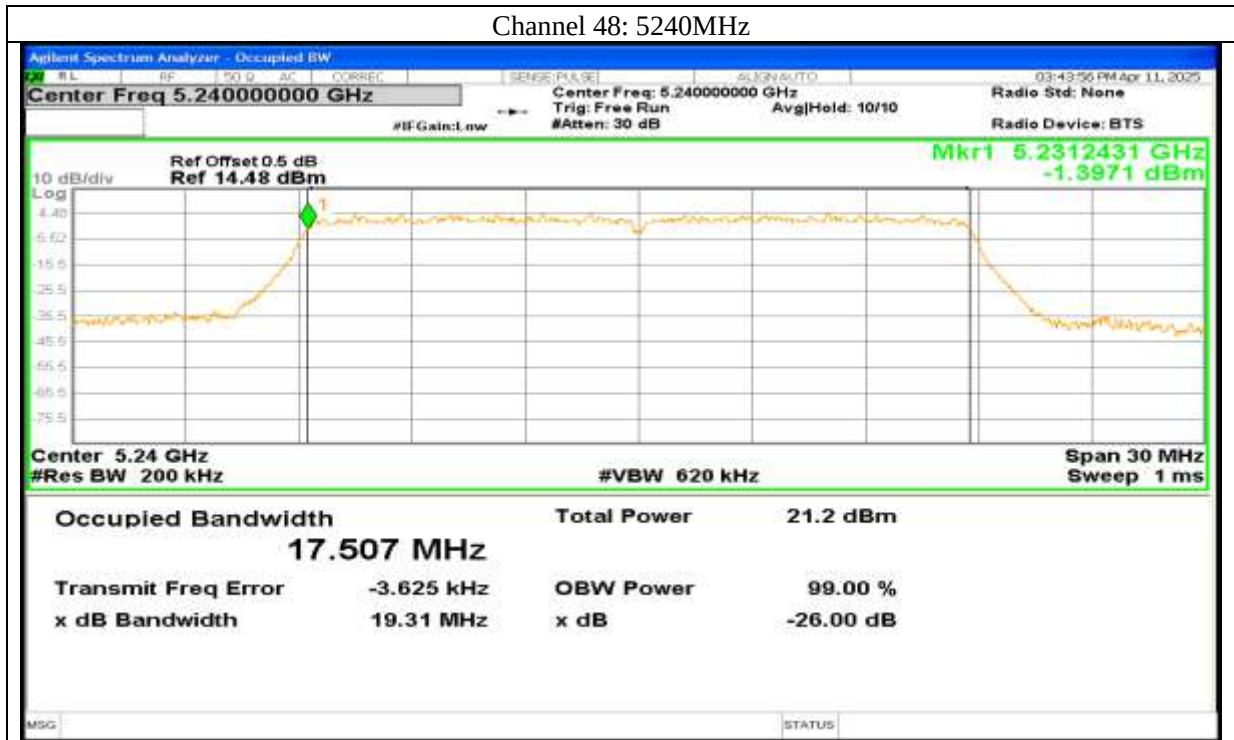
Channel 36: 5180MHz



Channel 40: 5200MHz



Report No.: AAEMT/RF/250402-01-04



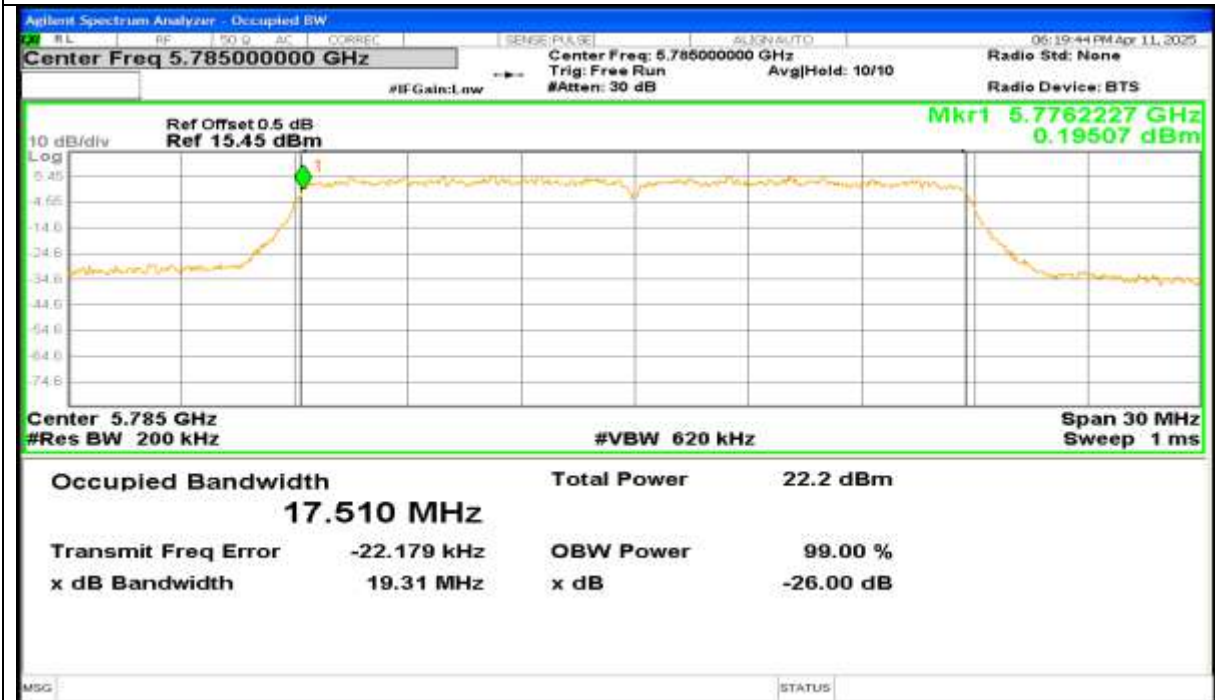
Report No.: AAEMT/RF/250402-01-04

### 99% OBW 802.11ac20

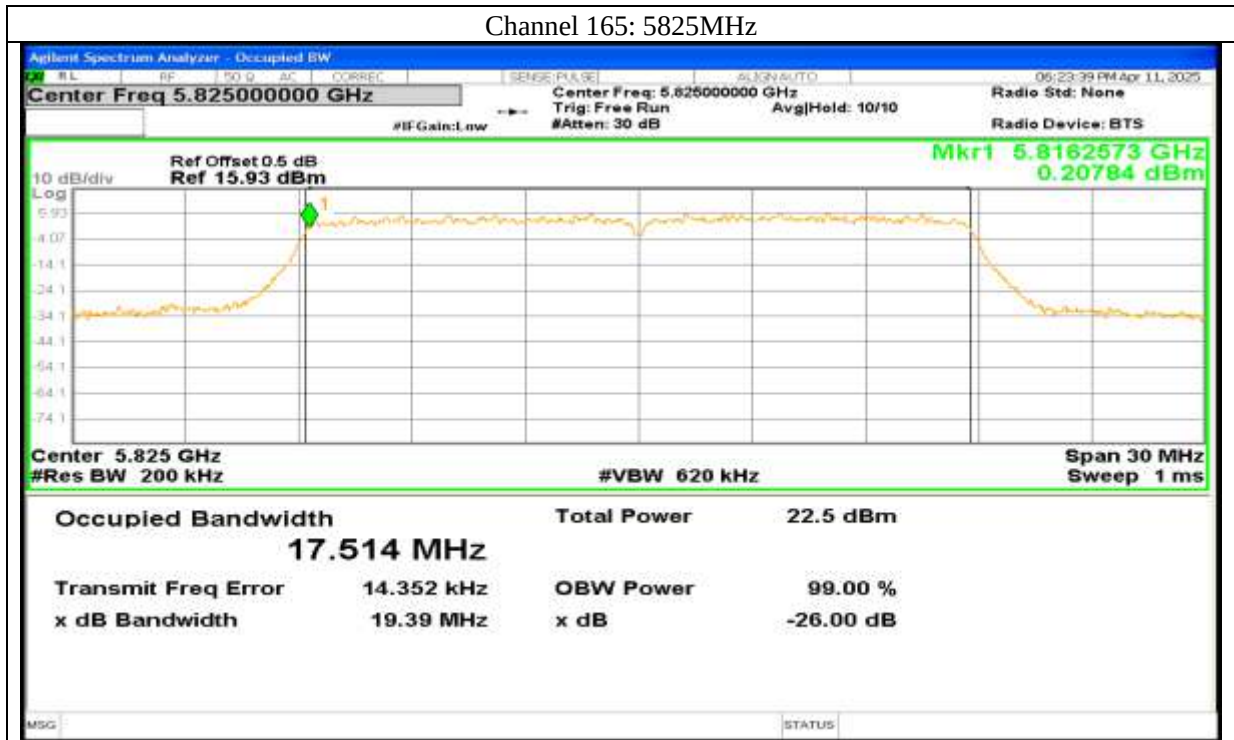
Channel 149: 5745MHz



### Channel 157: 5785MHz



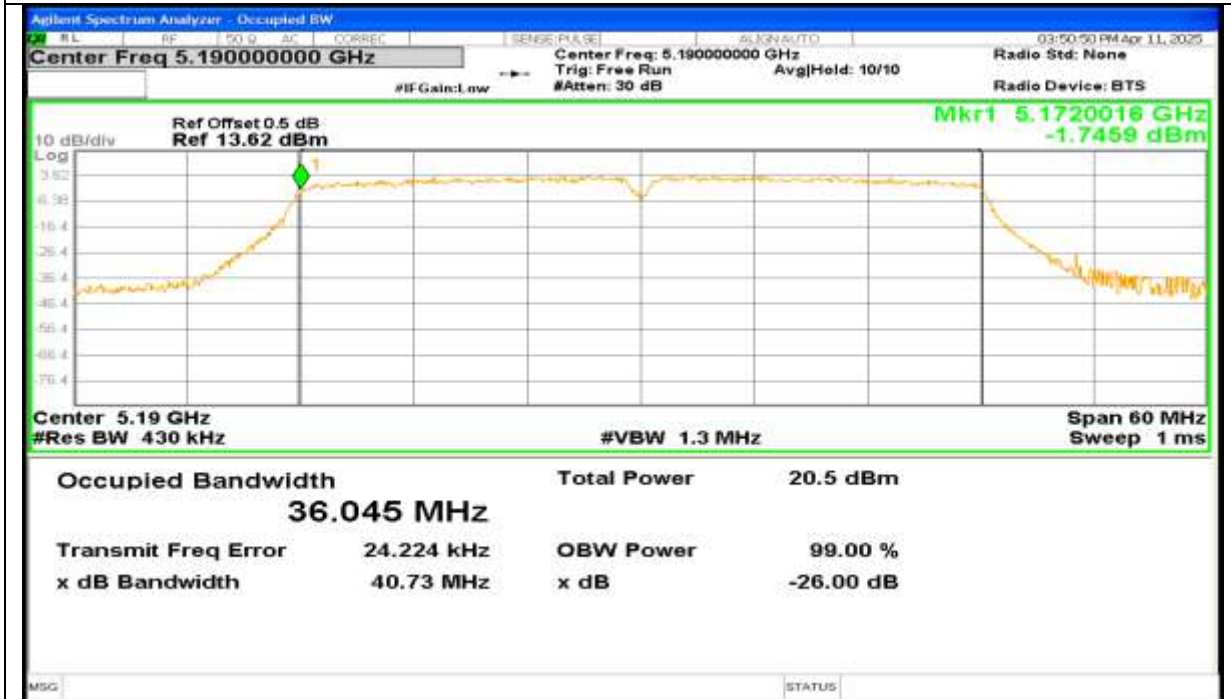
Report No.: AAEMT/RF/250402-01-04



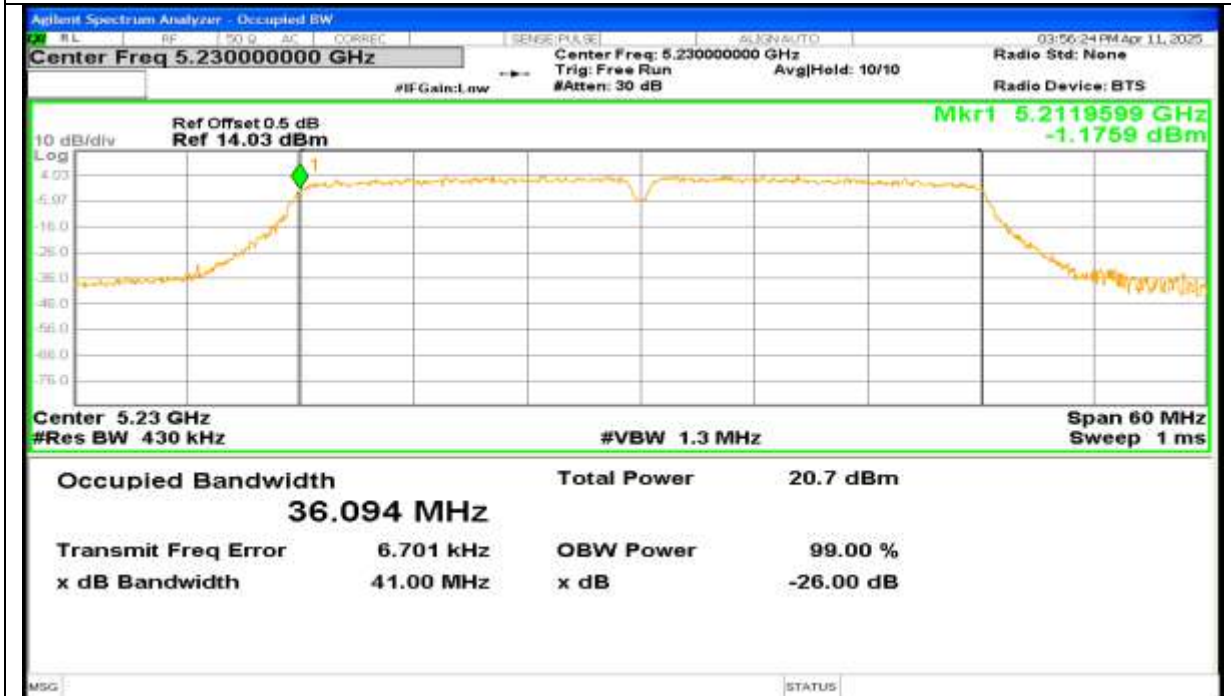
Report No.: AAEMT/RF/250402-01-04

### 99% OBW 802.11n40

Channel 38: 5190MHz



### Channel 46: 5230MHz



Report No.: AAEMT/RF/250402-01-04

**99% OBW 802.11n40**

Channel 151: 5755MHz



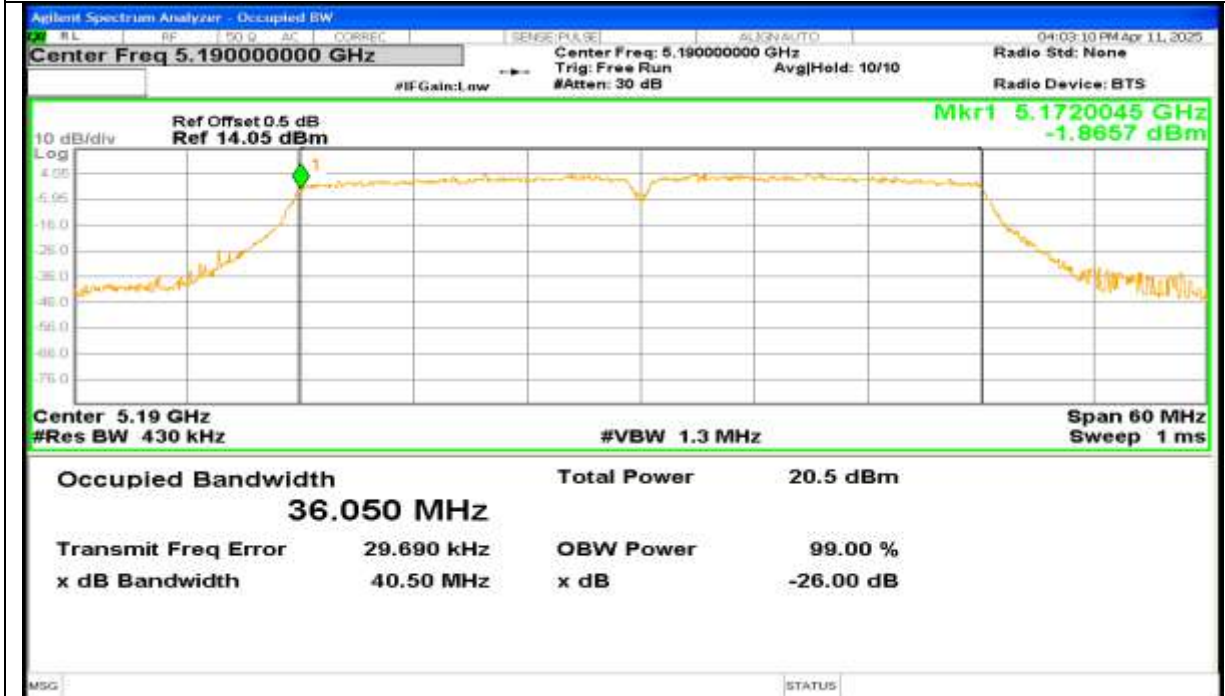
Channel 159: 5795MHz



Report No.: AAEMT/RF/250402-01-04

99% OBW 802.11ac40

Channel 38: 5190MHz



Channel 46: 5230MHz



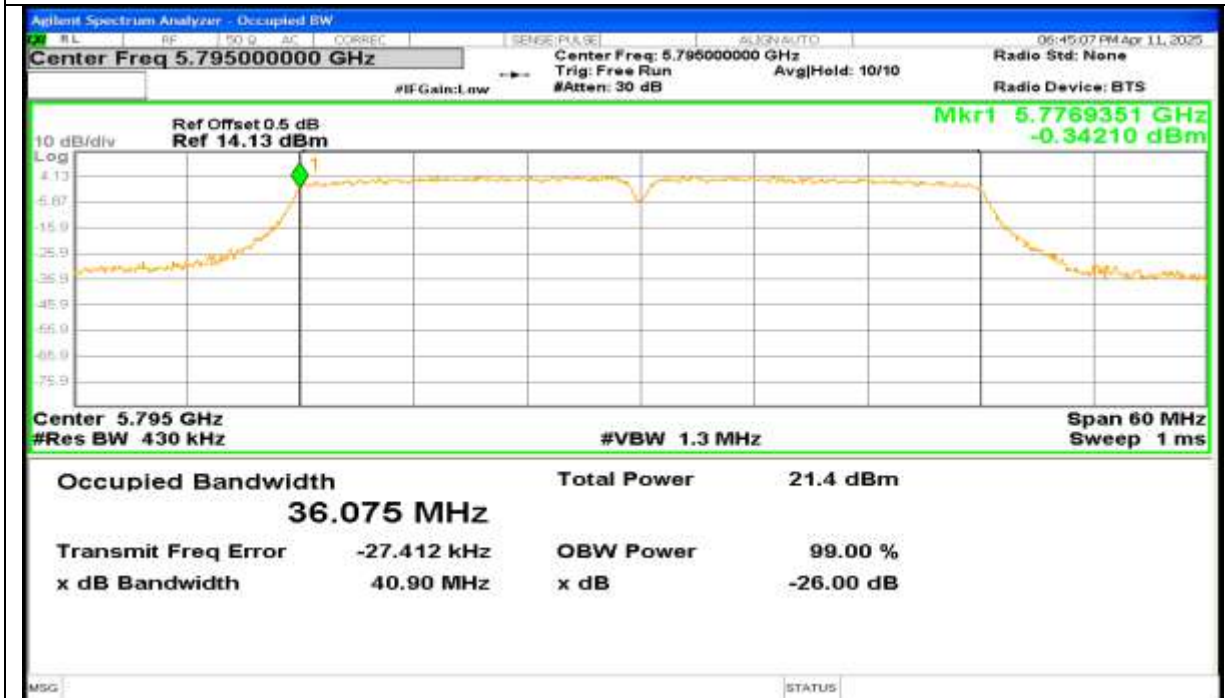
Report No.: AAEMT/RF/250402-01-04

**99% OBW 802.11ac40**

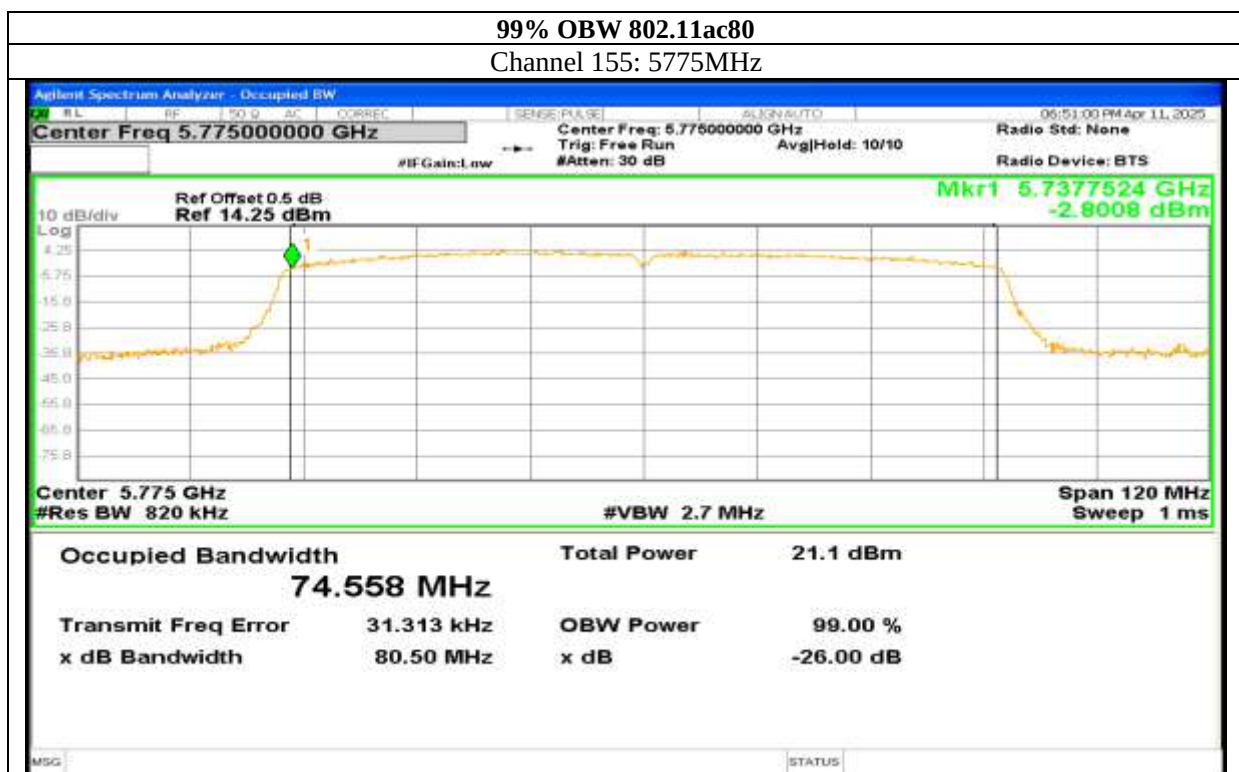
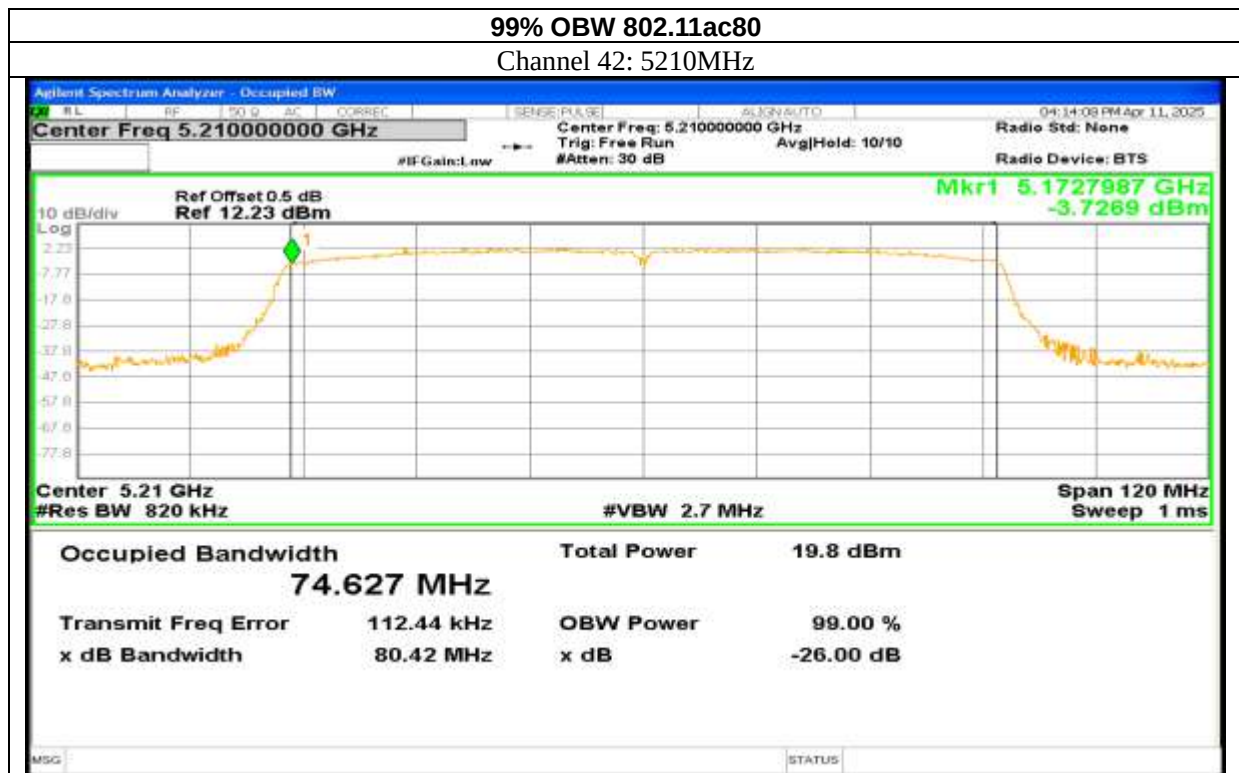
Channel 151: 5755MHz



**Channel 159: 5795MHz**



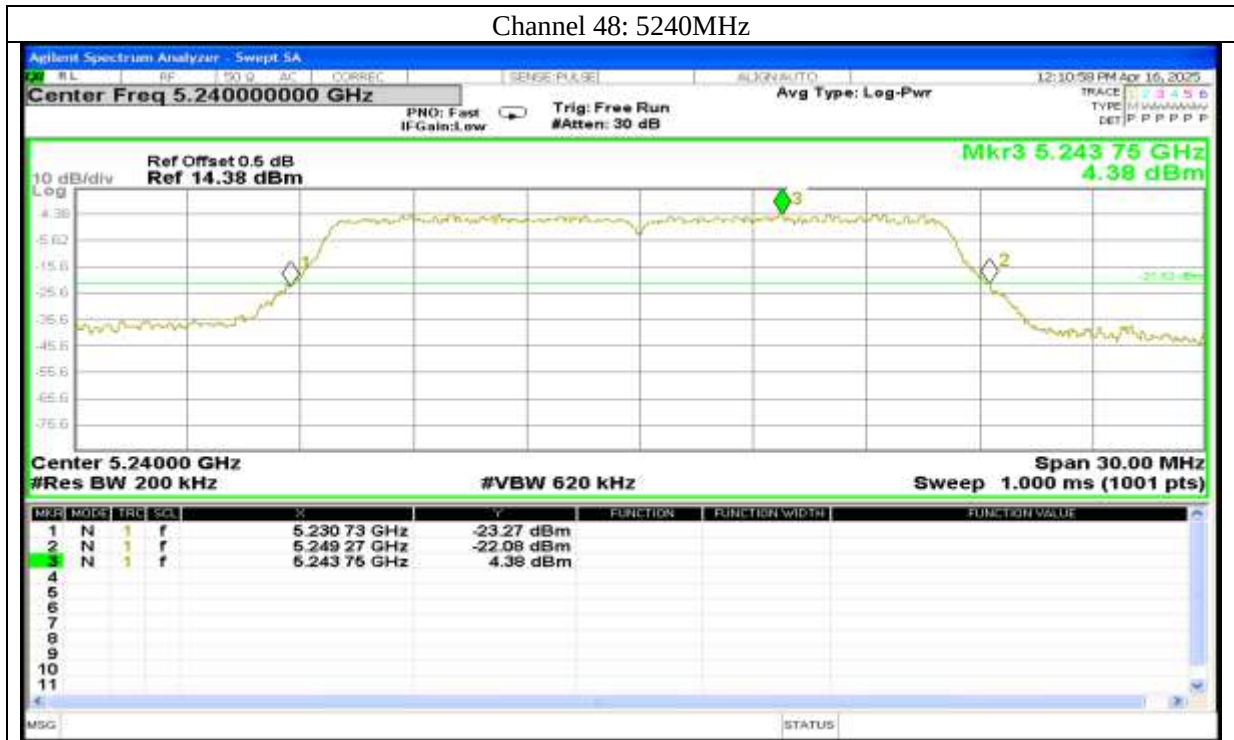
Report No.: AAEMT/RF/250402-01-04



Report No.: AAEMT/RF/250402-01-04

### Antenna 1:

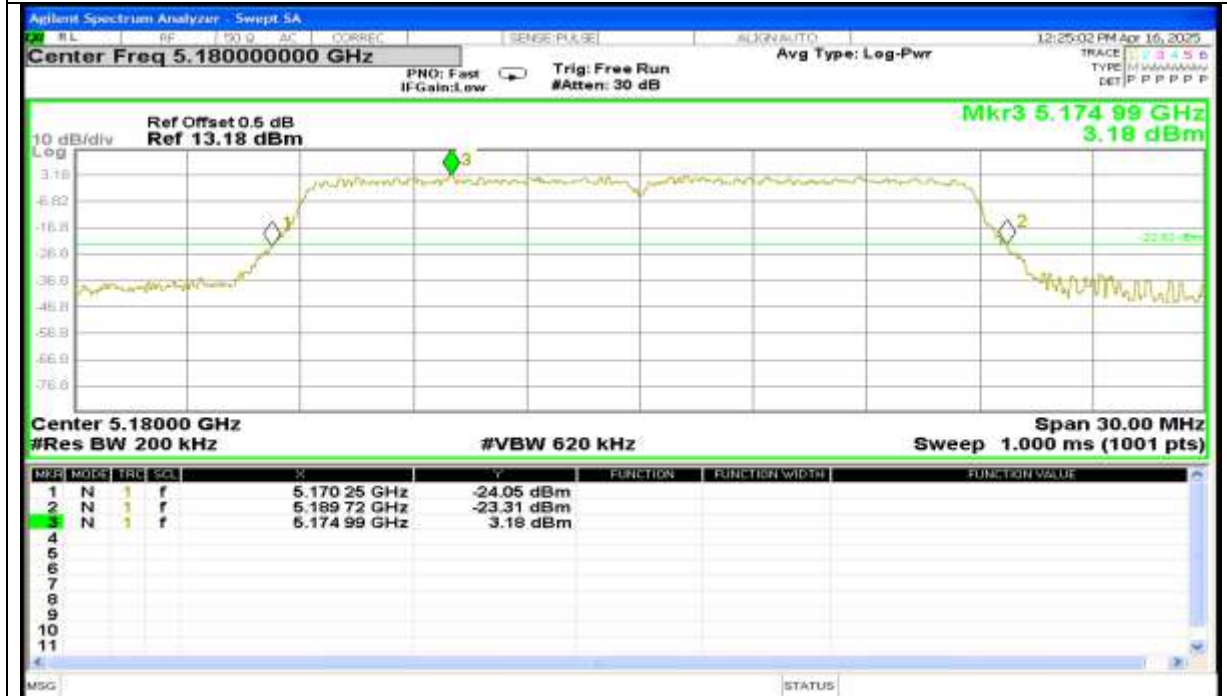




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26dB BW 802.11n20

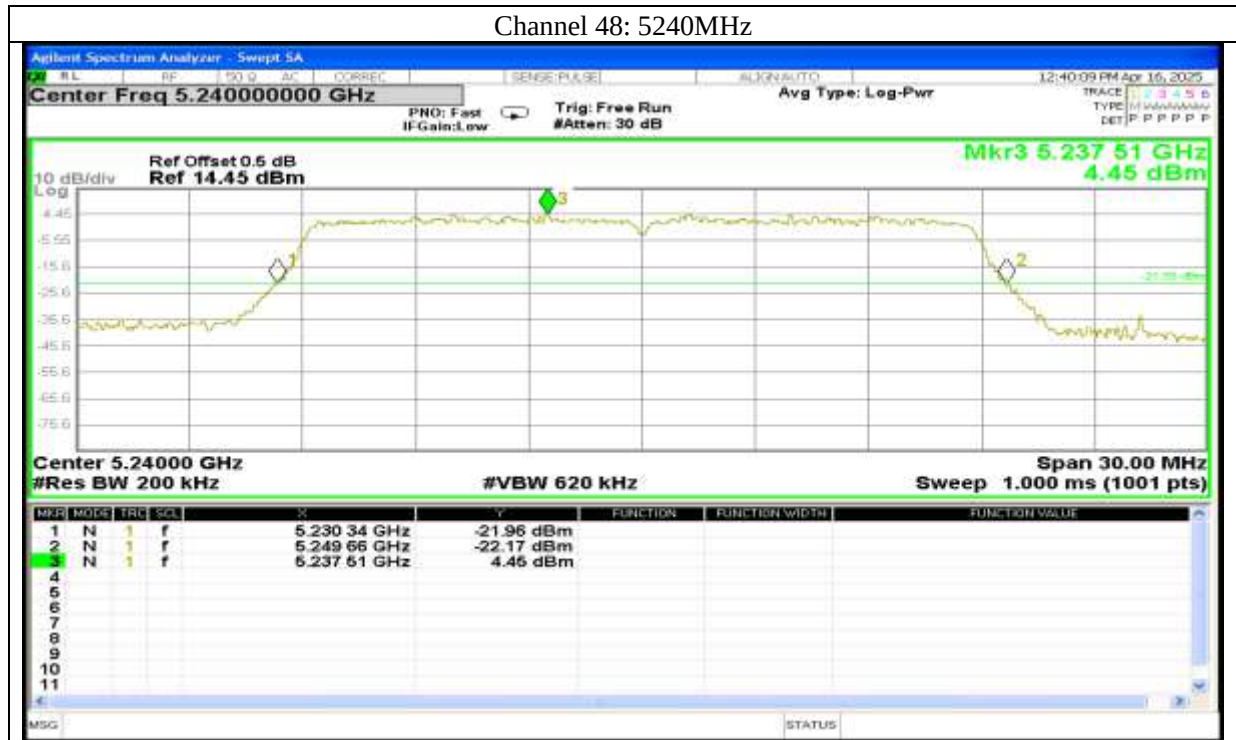
Channel 36: 5180MHz



Channel 40: 5200MHz



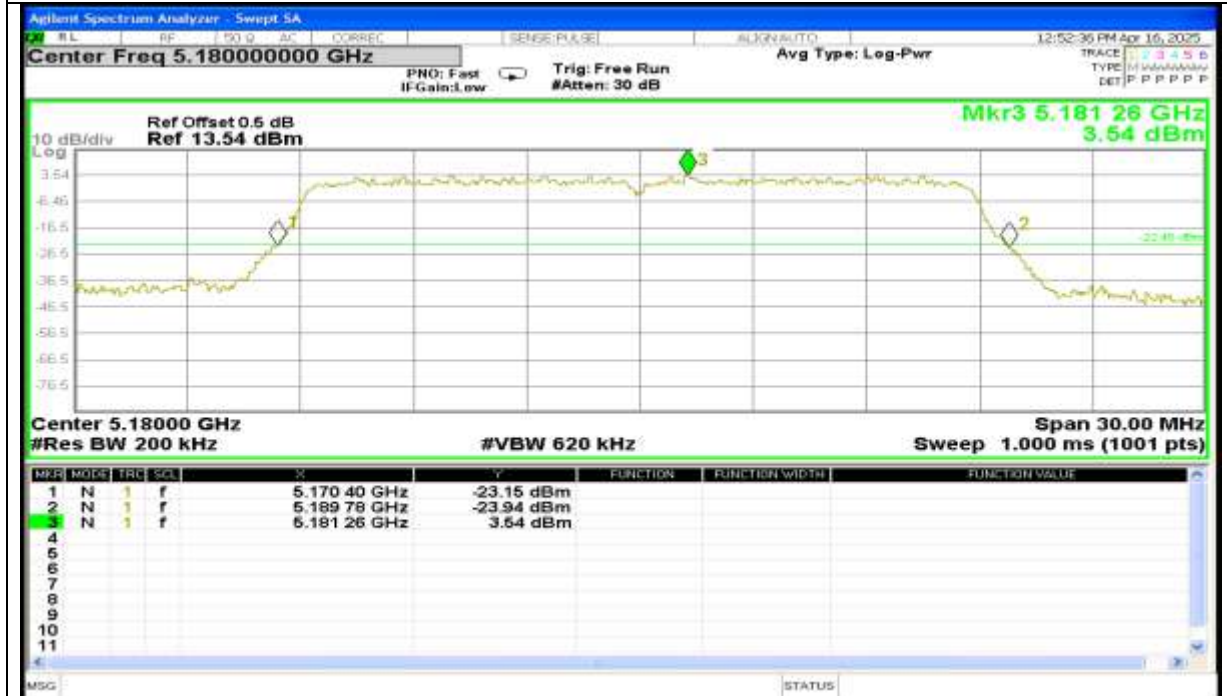
Report No.: AAEMT/RF/250402-01-04



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26dB BW 802.11ac20

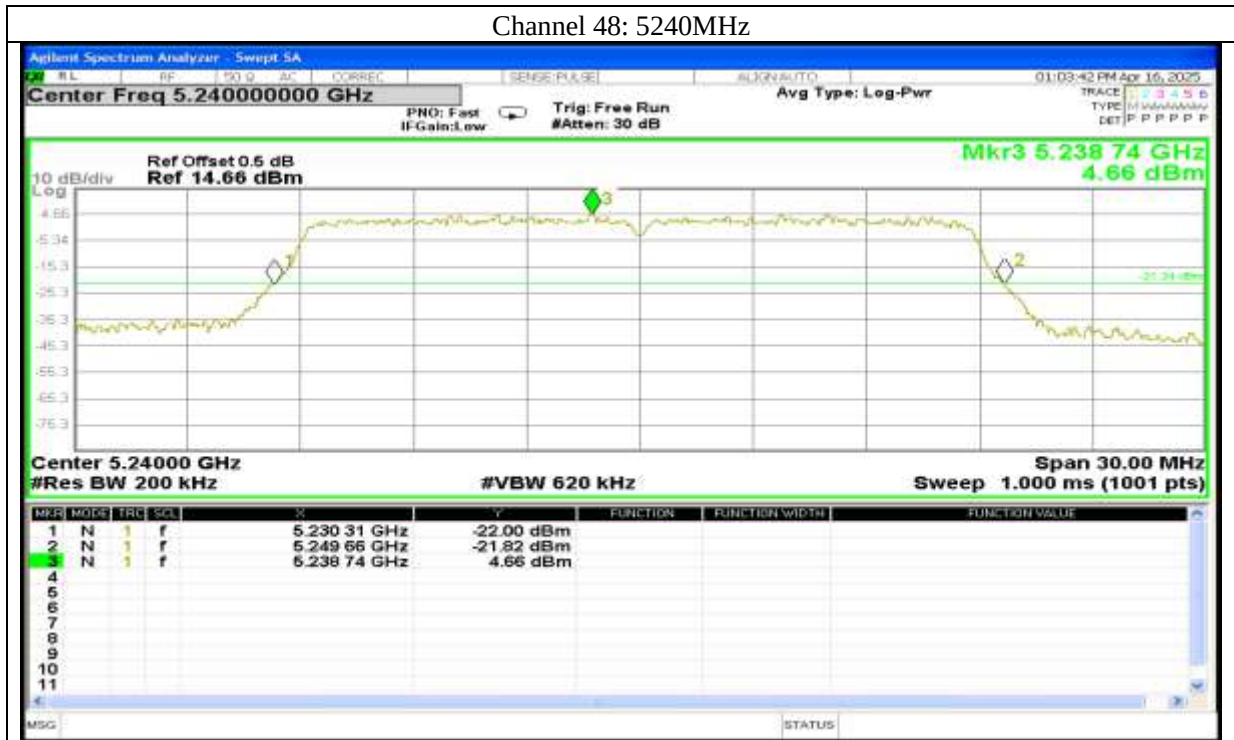
Channel 36: 5180MHz



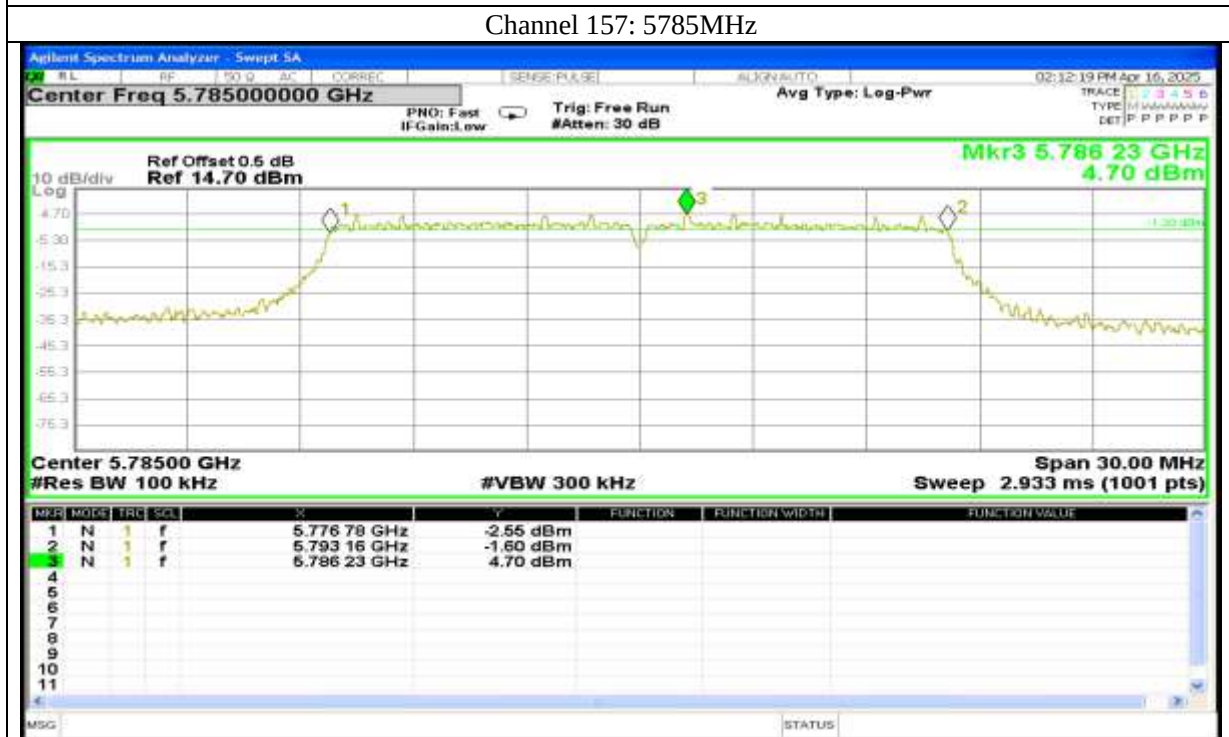
Channel 40: 5200MHz

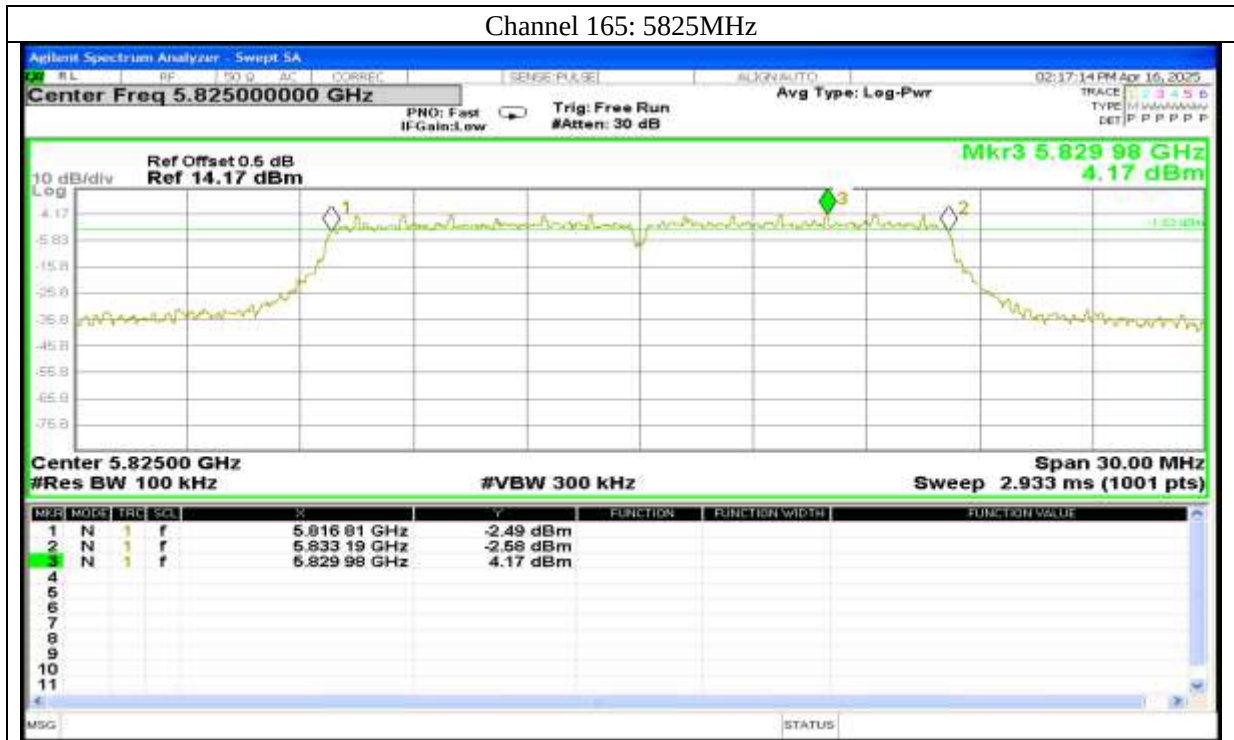


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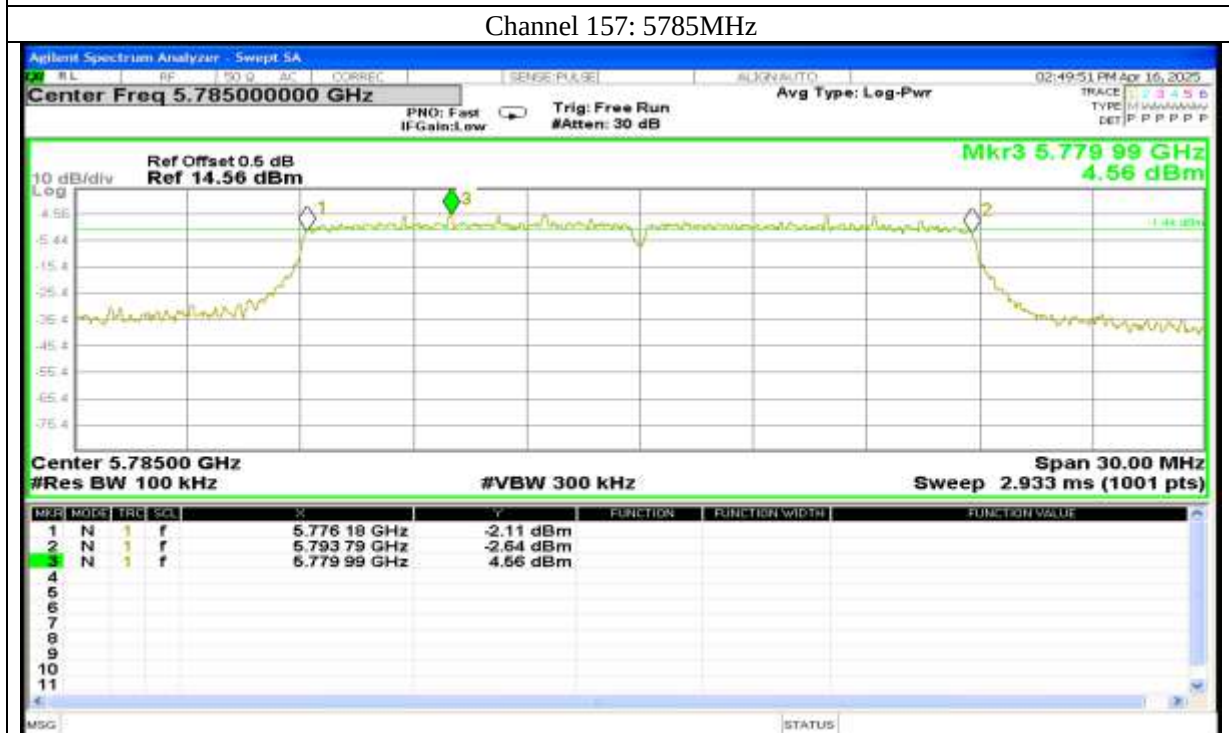
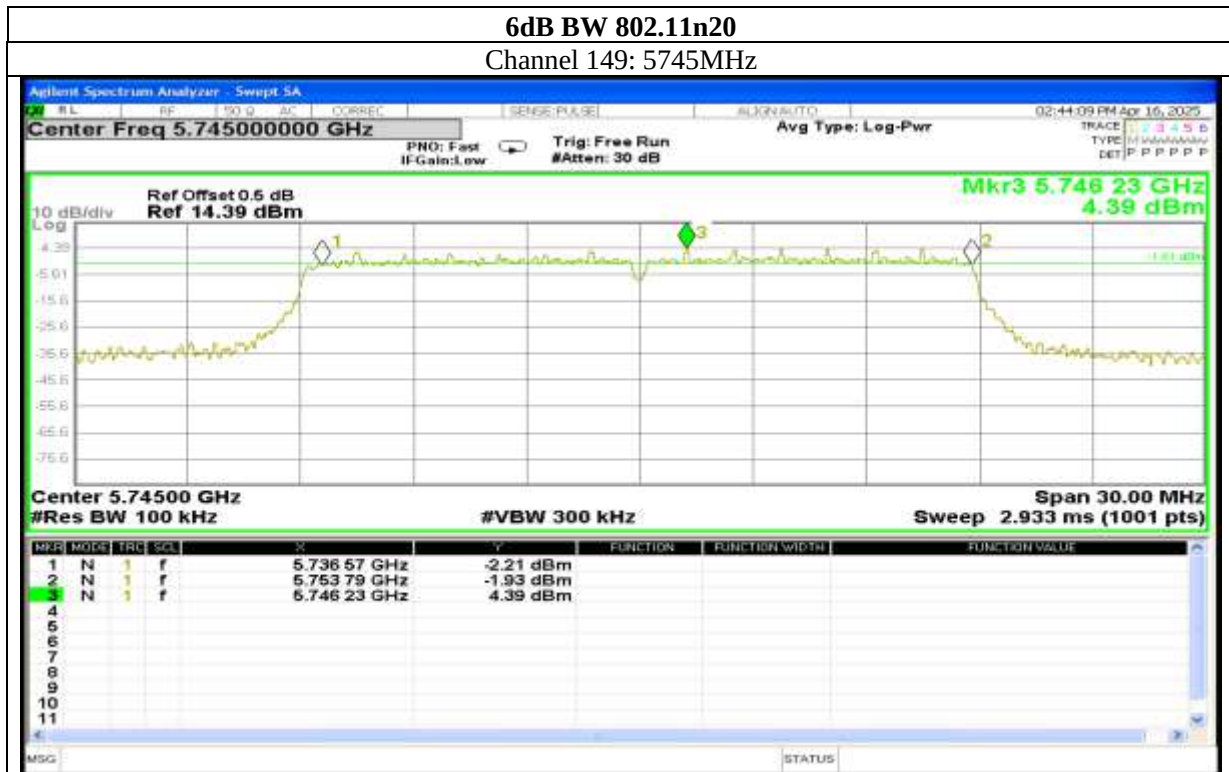


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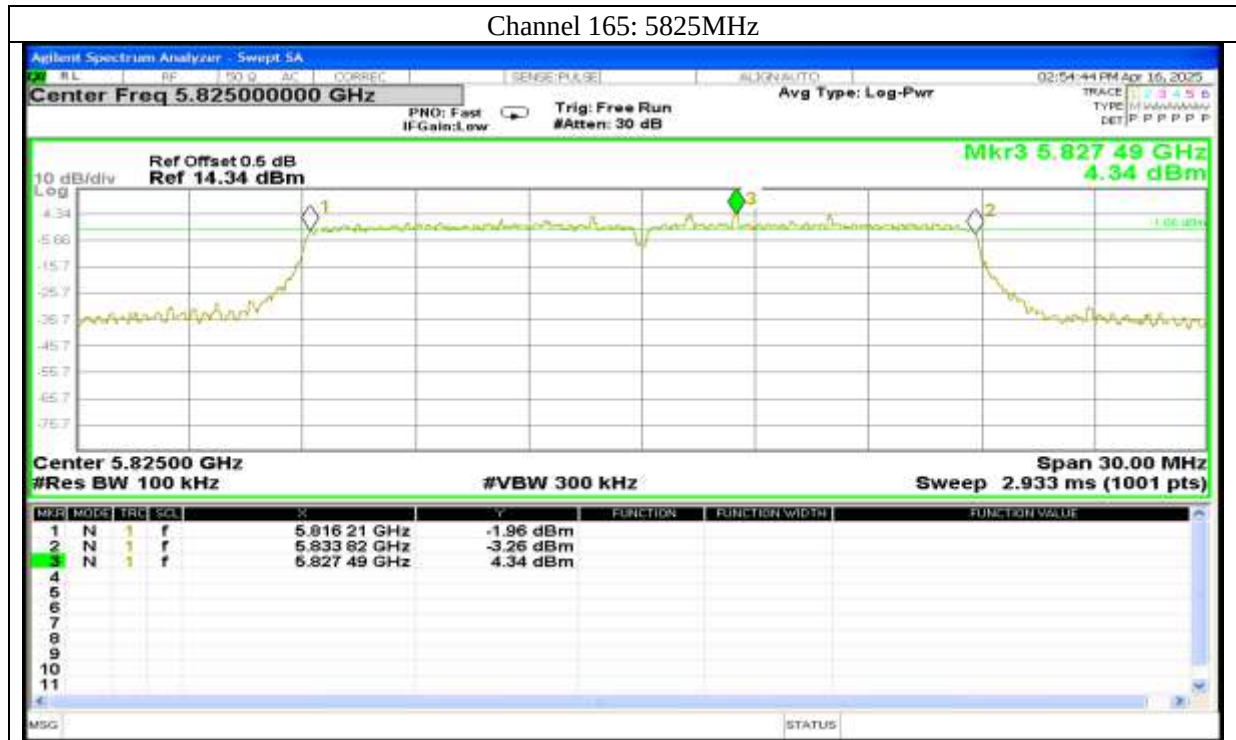




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