# TEST REPORT

| | |
|---|---|
| Applicant Name : | LAVA International Limited |
| Address : | A-56, Sector 64, Noida Uttar Pradesh (U.P.) 201301, India |
| Report Number : | SZNS220829-39091E-RF-00C |
| FCC ID: | 2ARTX-Z21PRO |

**Test Standard (s)**

FCC PART 15.407

**Sample Description**

| | |
|---|---|
| Product Type: | Mobile Phone |
| Model No.: | LZG404 |
| Multiple Model(s) No.: | LZX405,YUVA |
| Trade Mark: | LAVA |
| Date Received: | 2022/08/29 |
| Report Date: | 2022/11/02 |

| | |
|---|---|
| Test Result: | Pass* |

* In the configuration tested, the EUT complied with the standards above.

**Prepared and Checked By:**

Roger Ling

EMC Engineer

**Approved By:**

Candy Li

EMC Engineer

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★ ".

Shenzhen Accurate Technology Co., Ltd. is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with an asterisk '*'. Customer model name, addresses, names, trademarks etc. are not considered data.

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# GENERAL INFORMATION

## Product Description for Equipment under Test (EUT)

| | |
|---|---|
| Product | Mobile Phone |
| Tested Model | LZG404 |
| Multiple Models | LZX405,YUVA<br>(model difference see product declaration letter of similarity ) |
| Frequency Range | 5G Wi-Fi: 5150-5250MHz; 5250-5350MHz ; 5725-5850MHz |
| Mode | 802.11a/n20/n40/ac20/ac40/ac80 |
| Maximum Conducted Average Output Power | 5150-5250MHz: 12.57dBm<br>5250-5350MHz: 12.32dBm<br>5725-5850MHz: 9.78dBm |
| Modulation Technique | OFDM |
| Antenna Specification* | 1.4dBi (provided by the applicant) |
| Voltage Range | DC3.85V from battery or DC5V from adapter |
| Sample serial number | SZNS220829-39091E-RF-S1 for Conducted and Radiation Emissions<br>SZNS220829-39091E-RF-S2 for RF Conducted Test<br>(Assigned by ATC) |
| Sample/EUT Status | Good condition |
| Adapter information | Model: TOP-804-050200<br>Input: AC 100-240V, 50/60Hz, 0.3A Max<br>Output: DC 5.0V, 2000mA |

## Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and E of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart E, section 15.203, 15.205, 15.207, 15.209 and 15.407 rules.

## Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices. And KDB789033 D02 General U-NII Test Procedures New Rules v02r01.

All emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

## Measurement Uncertainty

| Parameter | | Uncertainty |
|---|---|---|
| Occupied Channel Bandwidth | | 5% |
| RF Frequency | | $0.082*10^{-7}$ |
| RF output power, conducted | | 0.73dB |
| Unwanted Emission, conducted | | 1.6dB |
| AC Power Lines Conducted Emissions | | 2.72dB |
| Emissions, Radiated | 9kHz - 30MHz | 2.66dB |
| | 30MHz - 1GHz | 4.28dB |
| | 1GHz - 18GHz | 4.98dB |
| | 18GHz - 26.5GHz | 5.06dB |
| | 26.5GHz - 40GHz | 4.72dB |
| Temperature | | 1℃ |
| Humidity | | 6% |
| Supply voltages | | 0.4% |

*Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.*

## Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 708358, the FCC Designation No.: CN1189. Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 429 7.01.

Listed by Innovation, Science and Economic Development Canada (ISEDC), the Registration Number is 5077A.

# SYSTEM TEST CONFIGURATION

## Description of Test Configuration

The system was configured for testing in an engineering mode, which was provided by manufacturer.

For 5150-5250MHz Band, 7 channels are provided to testing:

| Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---|---|---|---|
| 36 | 5180 | 44 | 5220 |
| 38 | 5190 | 46 | 5230 |
| 40 | 5200 | 48 | 5240 |
| 42 | 5210 | / | / |

For 802.11a/n20/ac20 mode: channel 36, 40, 48 were tested;
For 802.11n40/ac40 mode: channel 38, 46 were tested;
For 802.11ac80 mode, channel 42 was tested.

For 5250-5350MHz Band, 7 channels are provided to testing:

| Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---|---|---|---|
| 52 | 5260 | 60 | 5300 |
| 54 | 5270 | 62 | 5310 |
| 56 | 5280 | 64 | 5320 |
| 58 | 5290 | / | / |

For 802.11a, 802.11n20/ac20 mode: channel 52, 56, 64 were tested;
For 802.11n40/ac40 mode: channel 54, 62 were tested;
For 802.11ac80 mode, channel 58 was tested.

For 5725-5850MHz Band, 8 channels are provided to testing:

| Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---|---|---|---|
| 149 | 5745 | 157 | 5785 |
| 151 | 5755 | 159 | 5795 |
| 153 | 5765 | 161 | 5805 |
| 155 | 5775 | 165 | 5825 |

For 802.11a/n20/ac20 mode: channel 149, 157, 165 were tested;
For 802.11n40/ac40 mode: channel 151, 159 were tested;
For 802.11ac80 mode, channel 155 was tested

## EUT Exercise Software

EUT was test in the engineering mode.

The worst case was performed under:

| Band (MHz) | Mode | Data Rate | Power Level* | | |
|---|---|---|---|---|---|
| | | | Low | Middle | High |
| 5150-5250 | 802.11a | 6Mbps | 16 | 16 | 16 |
| | 802.11n20 | MCS0 | 16 | 16 | 16 |
| | 802.11n40 | MCS0 | 16 | / | 16 |
| | 802.11ac20 | MCS0 | 16 | 16 | 16 |
| | 802.11ac40 | MCS0 | 16 | / | 16 |
| | 802.11ac80 | MCS0 | / | 16 | / |
| 5250-5350 | 802.11a | 6Mbps | 16 | 16 | 16 |
| | 802.11n20 | MCS0 | 16 | 16 | 16 |
| | 802.11n40 | MCS0 | 16 | / | 16 |
| | 802.11ac20 | MCS0 | 16 | 16 | 16 |
| | 802.11ac40 | MCS0 | 16 | / | 16 |
| | 802.11ac80 | MCS0 | / | 16 | / |
| 5725-5850 | 802.11a | 6Mbps | 16 | 16 | 16 |
| | 802.11n20 | MCS0 | 16 | 16 | 16 |
| | 802.11n40 | MCS0 | 16 | / | 16 |
| | 802.11ac20 | MCS0 | 16 | 16 | 16 |
| | 802.11ac40 | MCS0 | 16 | / | 16 |
| | 802.11ac80 | MCS0 | / | 16 | / |

The worse-case data rates are determined to be as follows for each mode based upon investigations by measuring the output power and PSD across all data rated bandwidths, and modulations.

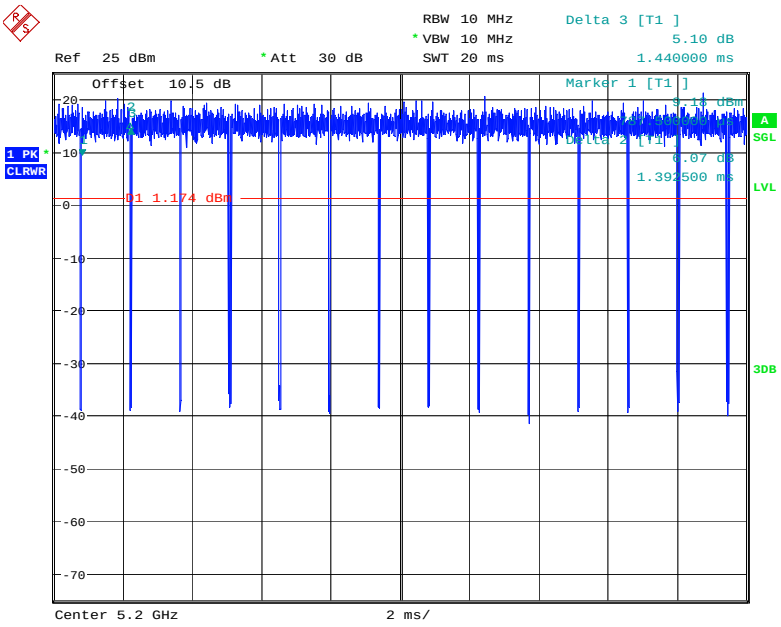
The power level was provided by the applicant.

## Duty cycle

### 5150 MHz – 5250 MHz:

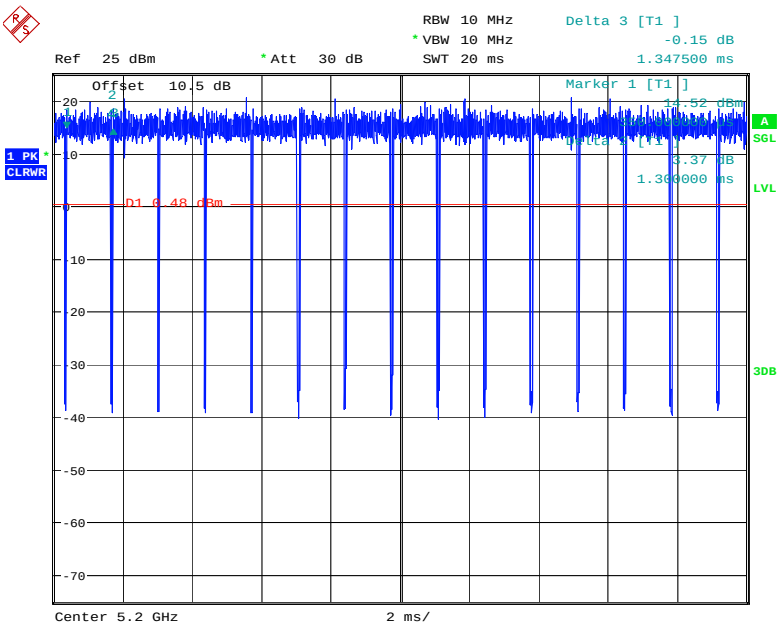
| Mode | $T_{on}$ (ms) | $T_{on+off}$ (ms) | Duty Cycle(%) |
|---|---|---|---|
| **802.11a** | 1.39 | 1.44 | 96.53 |
| **802.11n20** | 1.30 | 1.35 | 96.30 |
| **802.11n40** | 0.65 | 0.70 | 92.86 |
| **802.11ac20** | 1.31 | 1.36 | 96.32 |
| **802.11ac40** | 0.65 | 0.70 | 92.86 |
| **802.11ac80** | 0.33 | 0.37 | 89.19 |

**802.11a mode**




Date: 23.OCT.2022 14:30:29

## 802.11n20 mode

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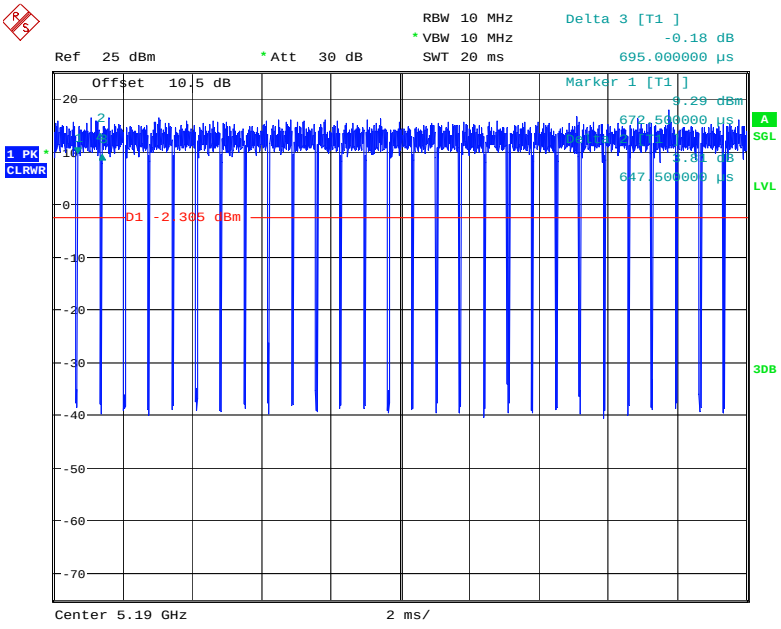
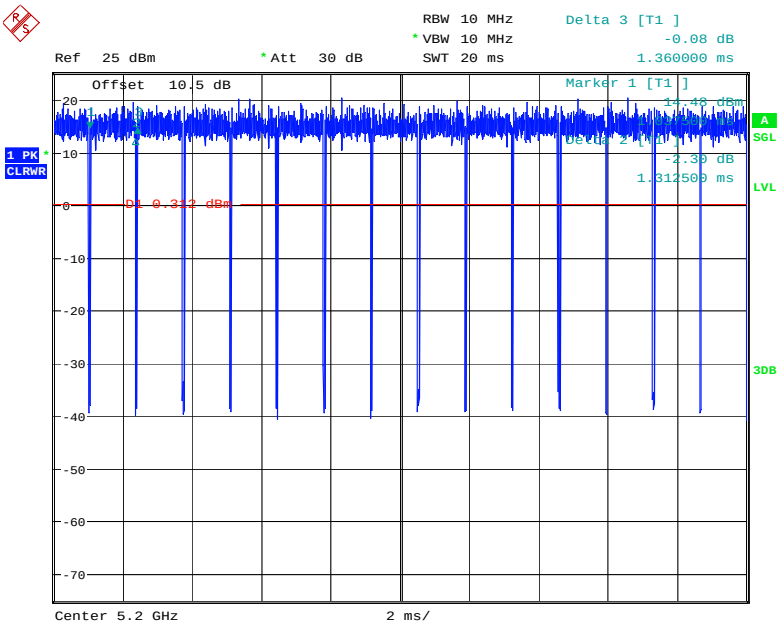
## 802.11n40 mode




Date: 23.OCT.2022 17:48:25

## 802.11ac20 mode

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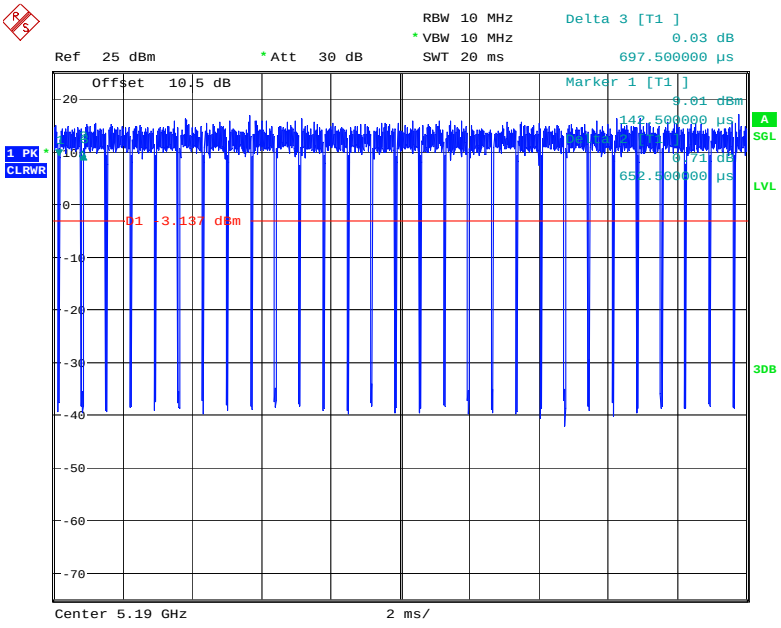
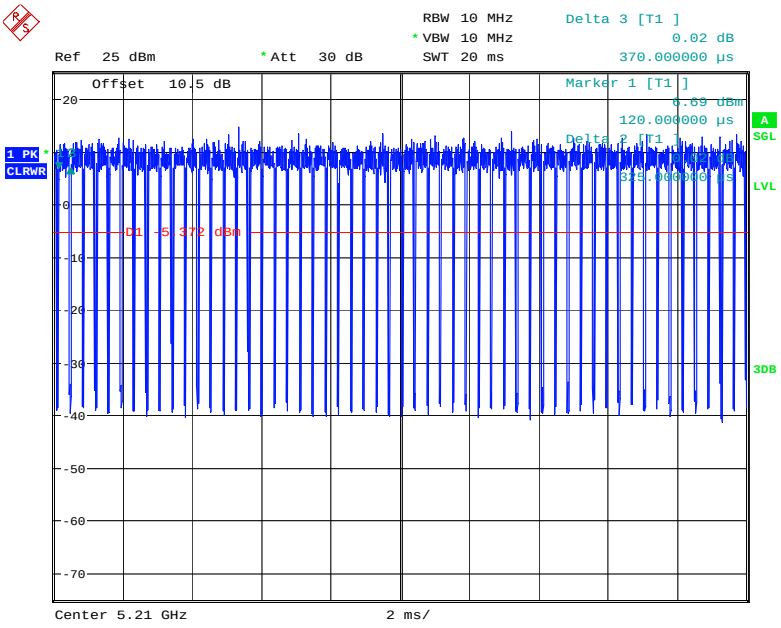
## 802.11ac40 mode




Date: 23.OCT.2022 16:32:45

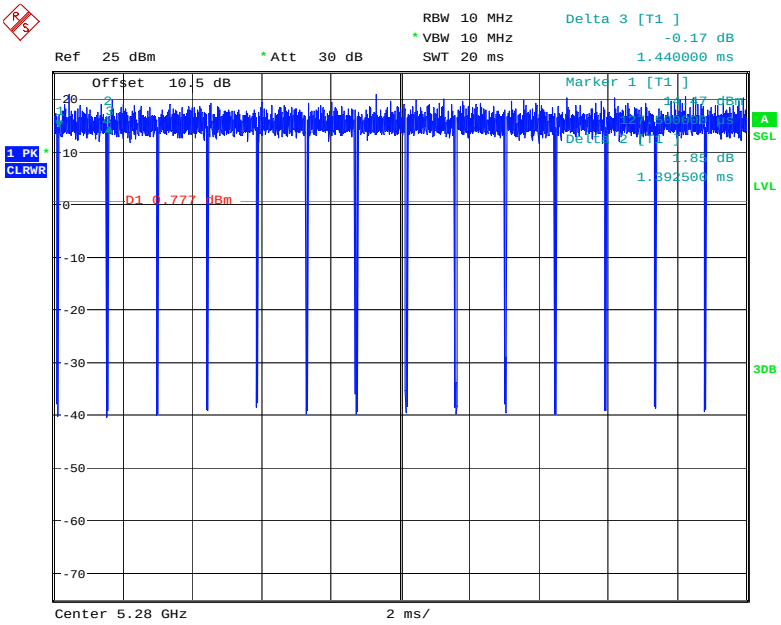
## 802.11ac80 Mode



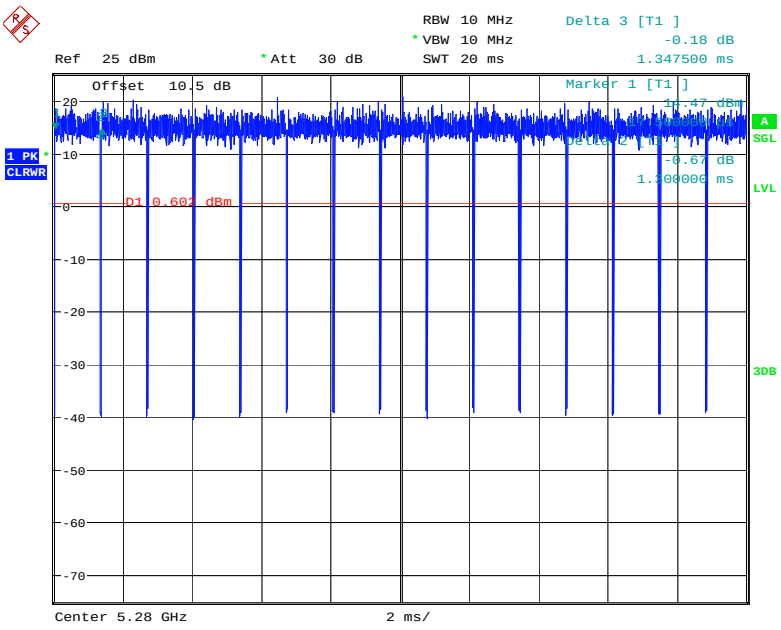
**5250 MHz – 5350 MHz:**

| Mode | $T_{on}$ (ms) | $T_{on+off}$ (ms) | Duty Cycle(%) |
|---|---|---|---|
| **802.11a** | 1.39 | 1.44 | 96.53 |
| **802.11n20** | 1.30 | 1.35 | 96.30 |
| **802.11n40** | 0.65 | 0.70 | 92.86 |
| **802.11ac20** | 1.31 | 1.36 | 96.32 |
| **802.11ac40** | 0.65 | 0.70 | 92.86 |
| **802.11ac80** | 0.33 | 0.37 | 89.19 |

**802.11a mode**

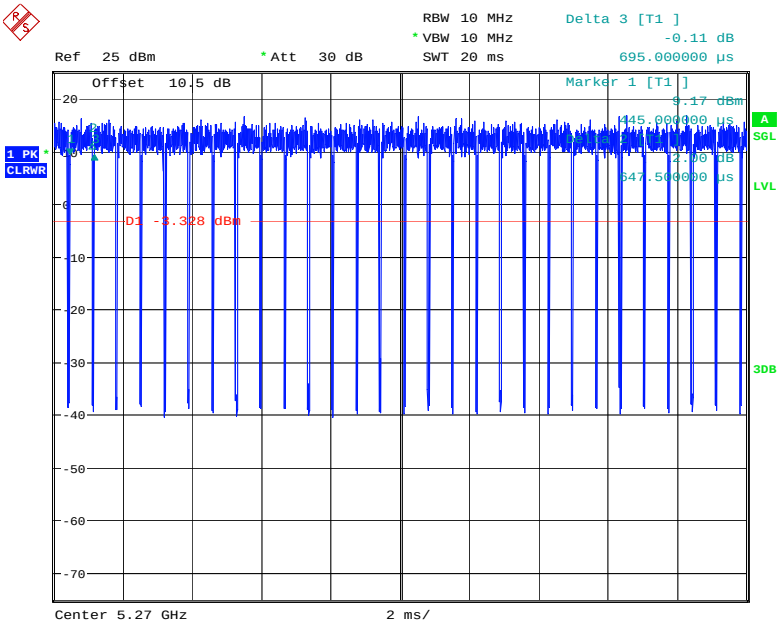


## 802.11n20 mode




Date: 23.OCT.2022 17:32:03

## 802.11n40 mode

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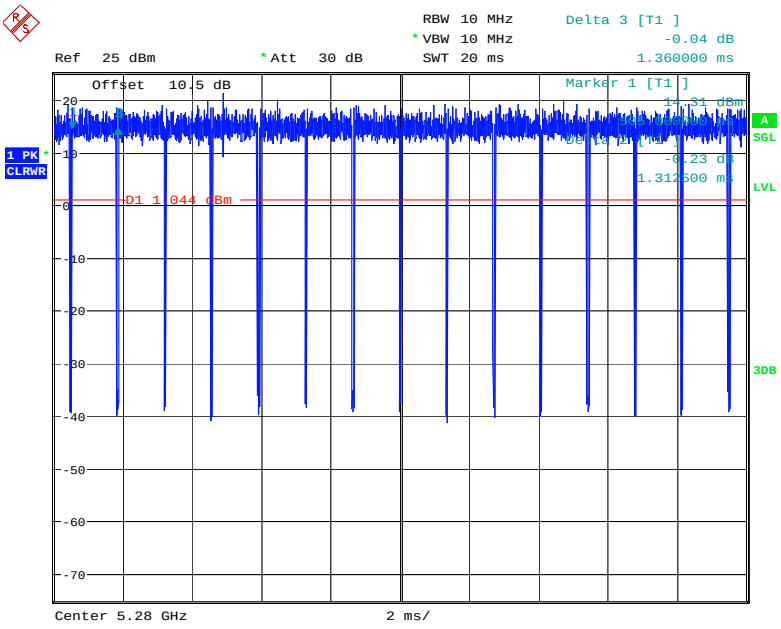
## 802.11ac20 mode

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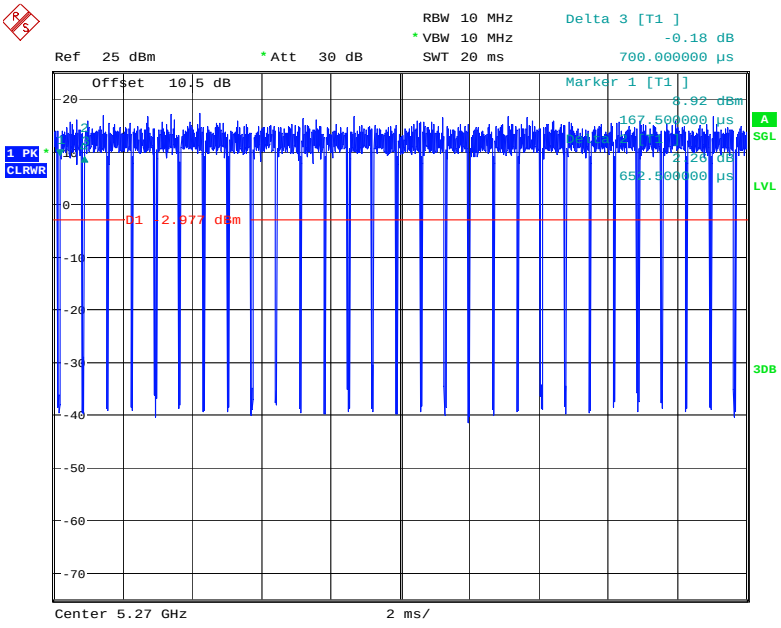
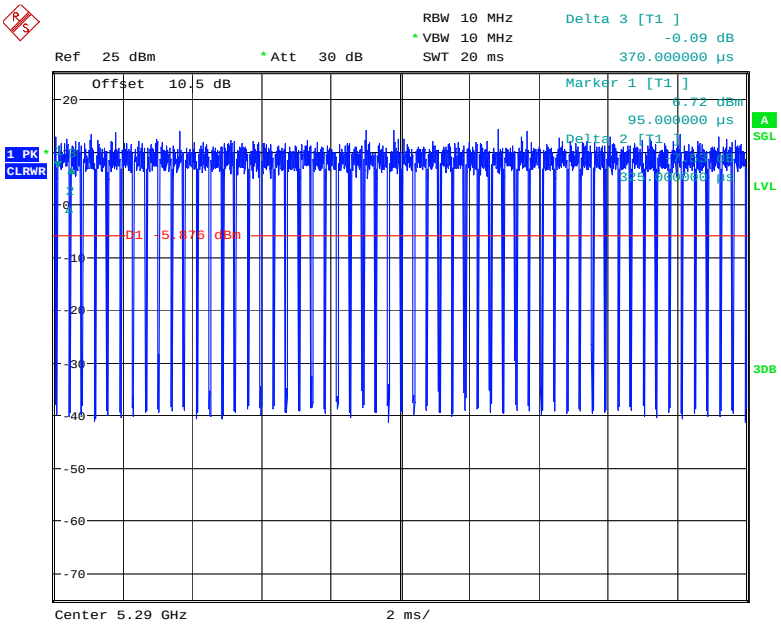
## 802.11ac40 mode




Date: 23.OCT.2022 16:44:08

## 802.11ac80 Mode

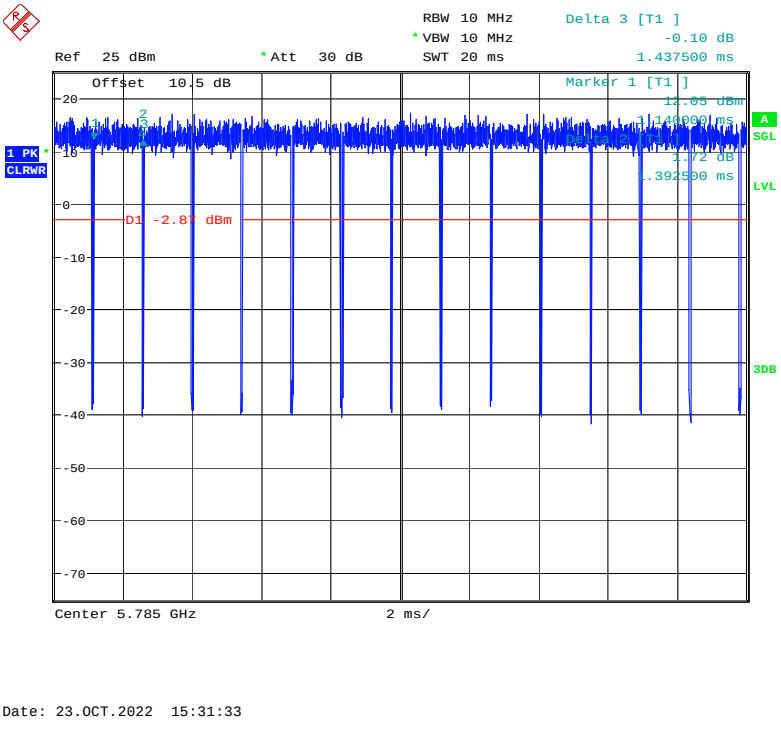



Date: 23.OCT.2022 17:07:52

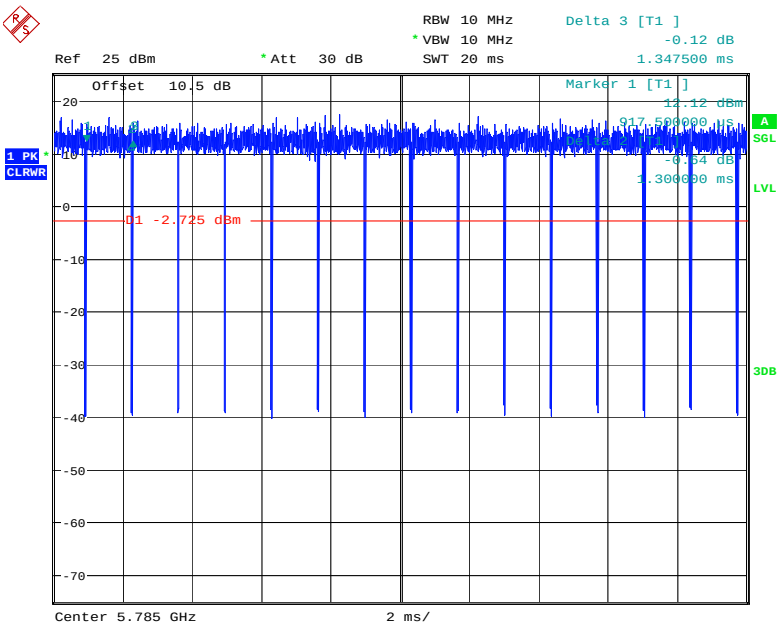
**5725-5850 MHz:**

| Mode | $T_{on}$ (ms) | $T_{on+off}$ (ms) | Duty Cycle(%) |
|---|---|---|---|
| **802.11a** | 1.39 | 1.44 | 96.53 |
| **802.11n20** | 1.30 | 1.35 | 96.30 |
| **802.11n40** | 0.65 | 0.70 | 92.86 |
| **802.11ac20** | 1.31 | 1.36 | 96.32 |
| **802.11ac40** | 0.65 | 0.70 | 92.86 |
| **802.11ac80** | 0.33 | 0.37 | 89.19 |

**802.11a mode**



## 802.11n20 mode

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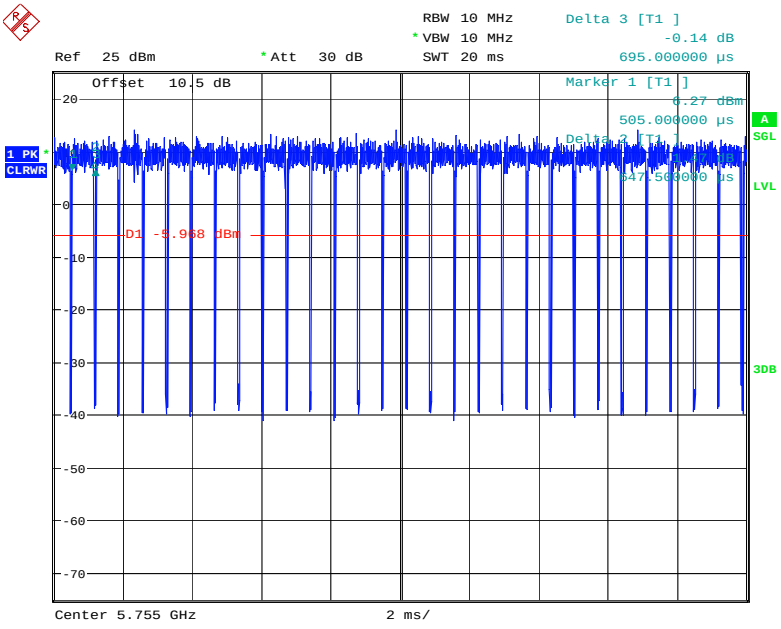
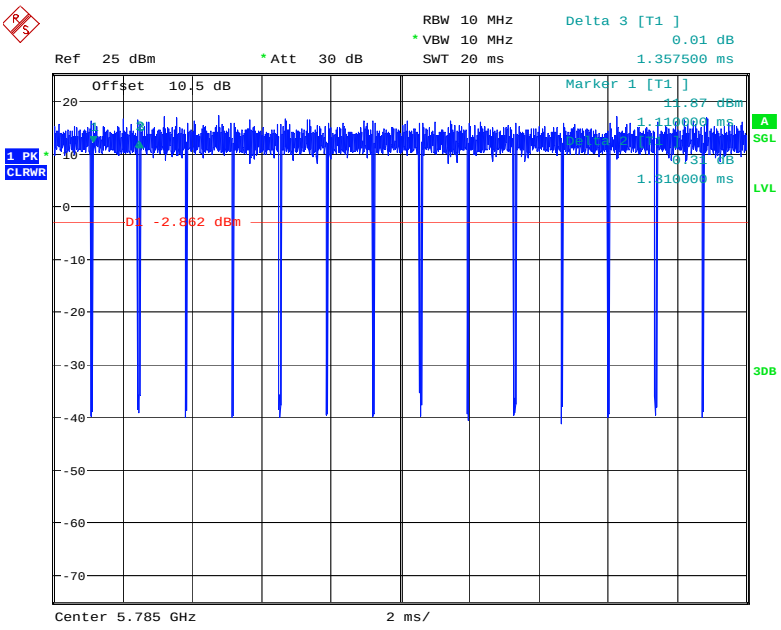
## 802.11n40 mode




Date: 23.OCT.2022 18:03:42

## 802.11ac20 mode

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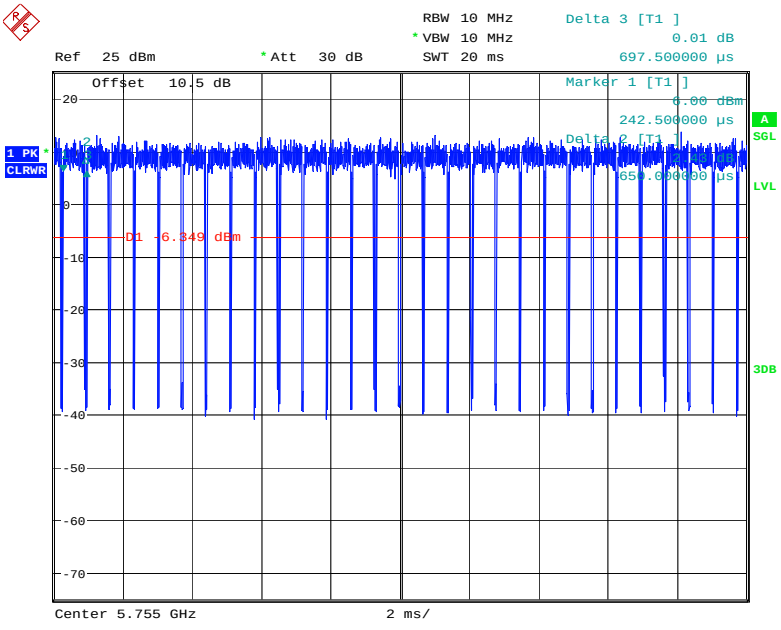
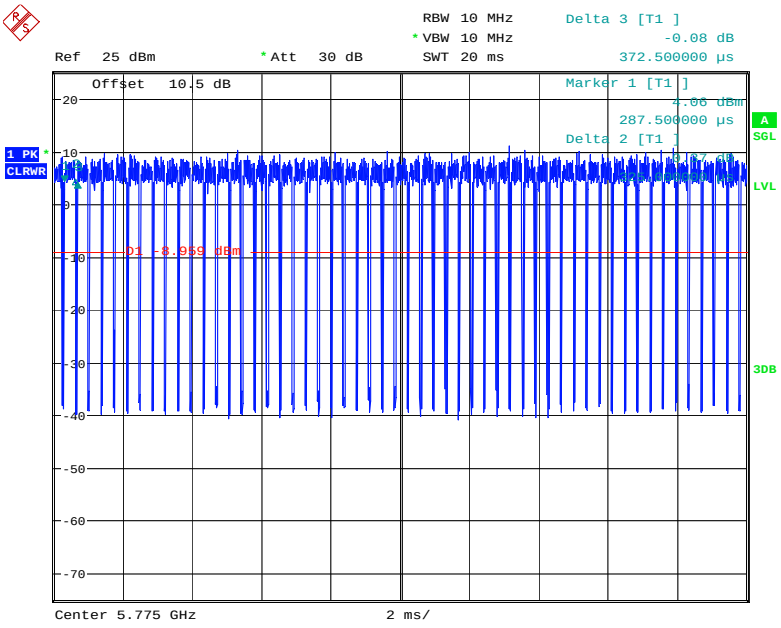
## 802.11ac40 mode




Date: 23.OCT.2022 16:54:51

**802.11ac80 Mode**




## Equipment Modifications

No modification was made to the EUT tested.

## Support Equipment List and Details

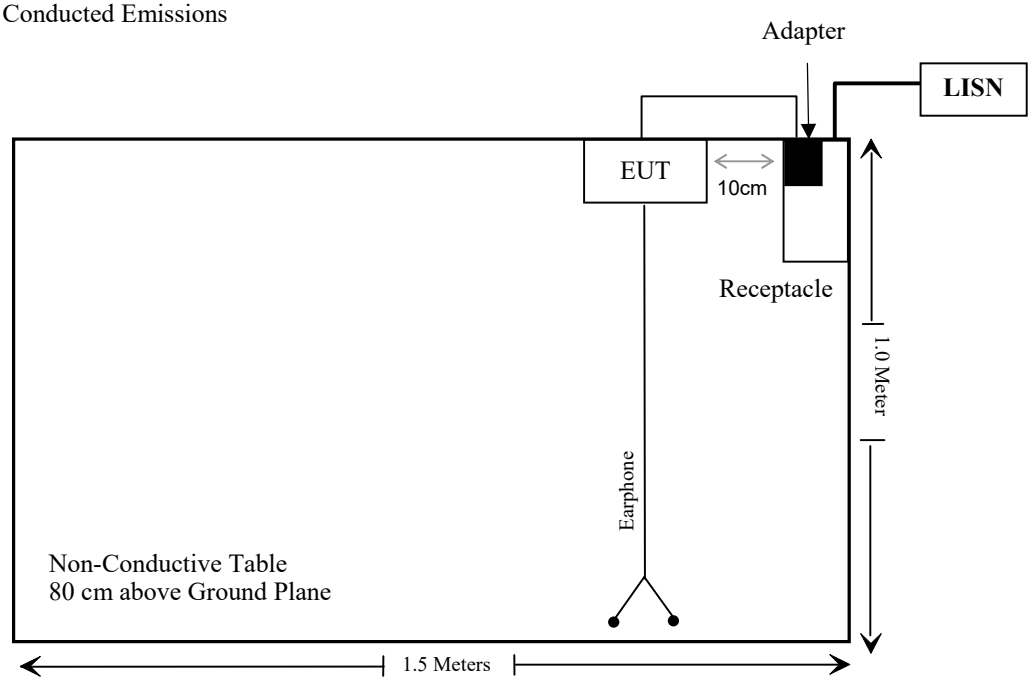
| Manufacturer | Description | Model | Serial Number |
|---|---|---|---|
| / | / | / | / |

## External I/O Cable

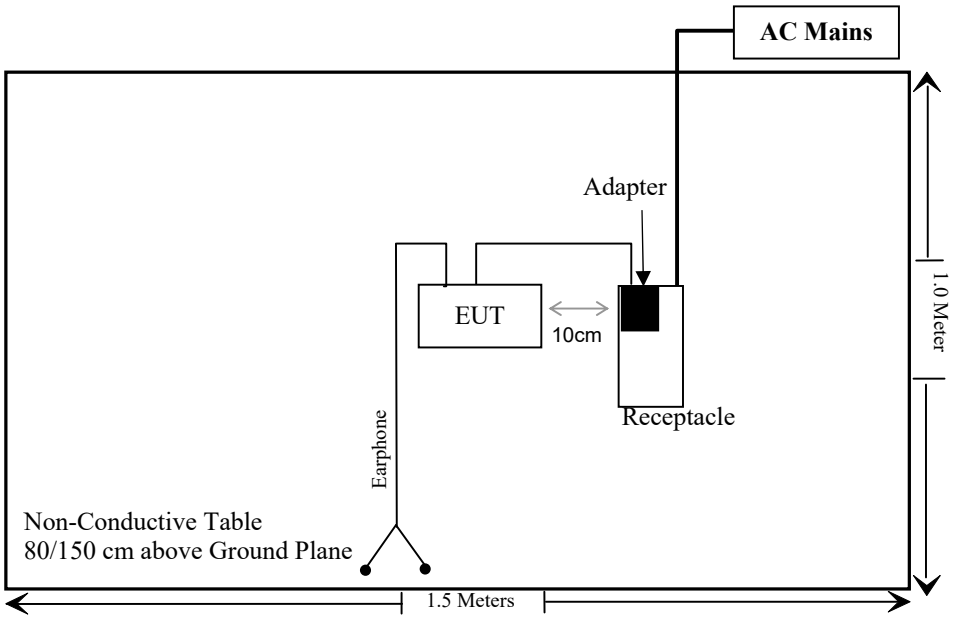
| Cable Description | Length (m) | From Port | To |
|---|---|---|---|
| Un-shielding Detachable USB Cable | 1.0 | EUT | Adapter |

## Block Diagram of Test Setup

For Conducted Emissions




For Radiated Emissions:



# SUMMARY OF TEST RESULTS

| FCC Rules | Description of Test | Result |
|---|---|---|
| §1.1307 (b) (1) & §2.1093 | RF Exposure | Compliant |
| §15.203 | Antenna Requirement | Compliant |
| §15.407(b)(9)& §15.207(a) | Conducted Emissions | Compliant |
| §15.205& §15.209 &§15.407(b) | Undesirable Emission& Restricted Bands | Compliant |
| §15.407(a) (e) | 26 dB Emission Bandwidth & 6dB Bandwidth | Compliant |
| §15.407(a) | Conducted Transmitter Output Power | Compliant |
| §15.407 (a) | Power Spectral Density | Compliant |
| §15.407 (h) | Transmit Power Control (TPC) | Not Applicable |
| §15.407 (h) | Dynamic Frequency Selection (DFS) | Compliant |

Not Applicable: the EUT has no TPC function which was declarded by the applicant.

# TEST EQUIPMENT LIST

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|---|---|---|---|---|---|
| Conducted Emissions Test | | | | | |
| Rohde& Schwarz | EMI Test Receiver | ESCI | 100784 | 2021/12/13 | 2022/12/12 |
| Rohde & Schwarz | L.I.S.N. | ENV216 | 101314 | 2021/12/13 | 2022/12/12 |
| Anritsu Corp | 50 Coaxial Switch | MP59B | 6100237248 | 2021/12/13 | 2022/12/12 |
| Unknown | RF Coaxial Cable | No.17 | N0350 | 2021/12/14 | 2022/12/13 |
| Conducted Emission Test Software: e3 19821b (V9) | | | | | |
| Radiated Emissions Test | | | | | |
| Rohde& Schwarz | Test Receiver | ESR | 102725 | 2021/12/13 | 2022/12/12 |
| Rohde&Schwarz | Spectrum Analyzer | FSV40 | 101949 | 2021/12/13 | 2022/12/12 |
| SONOMA INSTRUMENT | Amplifier | 310 N | 186131 | 2021/11/09 | 2022/11/08 |
| A.H. Systems, inc. | Preamplifier | PAM-0118P | 135 | 2021/11/09 | 2022/11/08 |
| Quinstar | Amplifier | QLW-18405536-J0 | 15964001002 | 2021/11/11 | 2022/11/10 |
| Schwarzbeck | Bilog Antenna | VULB9163 | 9163-323 | 2021/07/06 | 2024/07/05 |
| Schwarzbeck | Horn Antenna | BBHA9120D | 9120D-1067 | 2020/01/05 | 2023/01/04 |
| Schwarzbeck | HORN ANTENNA | BBHA9170 | 9170-359 | 2020/01/05 | 2023/01/04 |
| Radiated Emission Test Software: e3 19821b (V9) | | | | | |
| Unknown | RF Coaxial Cable | No.10 | N050 | 2021/12/14 | 2022/12/13 |
| Unknown | RF Coaxial Cable | No.11 | N1000 | 2021/12/14 | 2022/12/13 |
| Unknown | RF Coaxial Cable | No.12 | N040 | 2021/12/14 | 2022/12/13 |
| Unknown | RF Coaxial Cable | No.13 | N300 | 2021/12/14 | 2022/12/13 |
| Unknown | RF Coaxial Cable | No.14 | N800 | 2021/12/14 | 2022/12/13 |
| Unknown | RF Coaxial Cable | No.15 | N600 | 2021/12/14 | 2022/12/13 |
| Unknown | RF Coaxial Cable | No.16 | N650 | 2021/12/14 | 2022/12/13 |
| CD | Band Reject Filter | BRM-5.15/5.35g-45 | 075 | 2021/12/14 | 2022/12/13 |
| CD | Band Reject Filter | BRM-5.725/5.875G-45 | 065 | 2021/12/14 | 2022/12/13 |

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|---|---|---|---|---|---|
| RF Conducted Test | | | | | |
| SPECTRUM ANALYZER | Rohde & Schwarz | FSU26 | 200982 | 2022/07/06 | 2023/07/05 |
| WEINSCHEL | 10dB Attenuator | 5324 | AU 3842 | 2021/12/14 | 2022/12/13 |
| Rohde & Schwarz | Open Switch and Control Unit | OSP120 + OSP-B157 | 101244 + 100866 | 2021/12/13 | 2022/12/12 |
| Unknown | RF Cable | Unknown | 1 | Each time | / |

*** Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

# FCC §1.1307 (b) (1) & §2.1093 – RF EXPOSURE

## Applicable Standard

According to FCC §2.1093 and §1.1307(b) (1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

### Measurement Result

Please refer to SAR test report: SZNS220829-39091E-SA.

# FCC §15.203 – ANTENNA REQUIREMENT

## Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

a. Antenna must be permanently attached to the unit.
b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.407 (a), if the transmitting antennas of directional gain greater than 6dBi are used, the transmit power and power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

## Antenna Connector Construction

The EUT has one internal antenna arrangement for 5G Wi-Fi which were permanently attached. Please refer to the EUT photos.

| Type | Antenna Gain | Impedance | Frequency Range |
|---|---|---|---|
| FPC | 1.4dBi | 50 Ω | 5150-5850MHz |

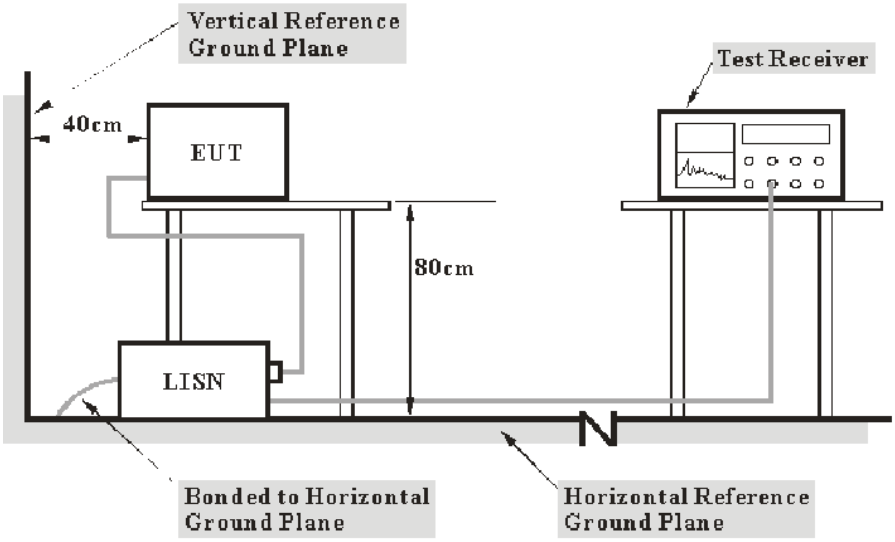
**Result:** Compliant.

# FCC §15.407 (b) (6) §15.207 (a) – CONDUCTED EMISSIONS

## Applicable Standard

FCC §15.207, §15.407(b) (6)

## EUT Setup




Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

## EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

| Frequency Range | IF B/W |
|---|---|
| 150 kHz – 30 MHz | 9 kHz |

## Test Procedure

During the conducted emission test, the adapter was connected to the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and Average detection mode.

## Transd Factor & Margin Calculation

The Transd factor is calculated by adding LISN VDF (Voltage Division Factor) and Cable Loss. The basic equation is as follows:

Factor = LISN VDF + Cable Loss

The "**Over limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over limit of -7 dB means the emission is 7 dB below the limit. The equation for calculation is as follows:

Over Limit = Level – Limit
Level = Read Level + Factor

## Test Data

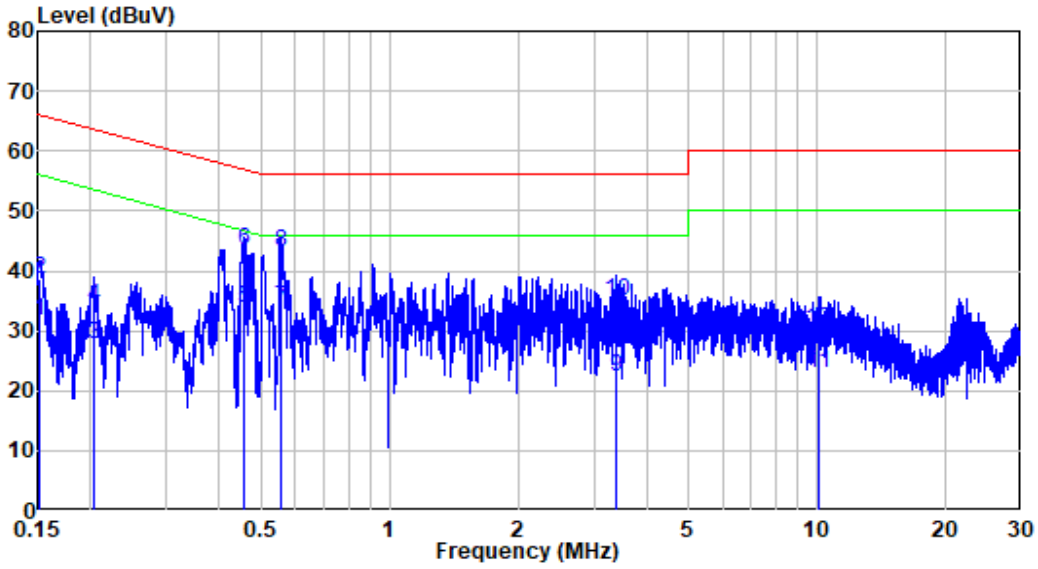
### Environmental Conditions

| | |
|---|---|
| **Temperature:** | 23 ℃ |
| **Relative Humidity:** | 42% |
| **ATM Pressure:** | 101.0 kPa |

*The testing was performed by Jason Liu On 2022-10-20.*

*EUT operation mode: Transmitting (worst case is 802.11a, 5180MHz)*

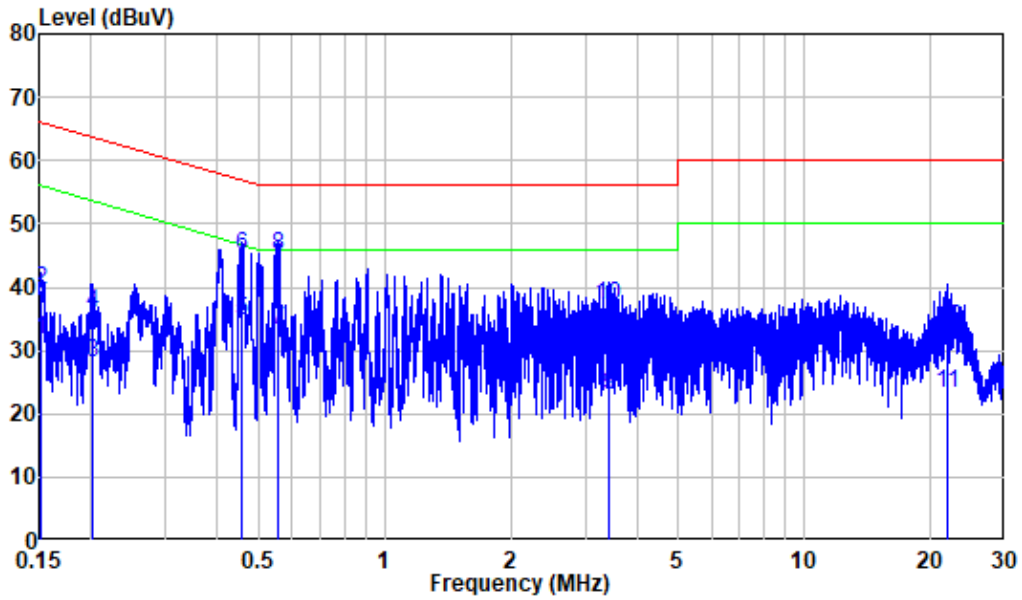
**AC 120V/60 Hz, Line:**




Site : Shielding Room
Condition: Line
Job No. : SZNS220829-39091E-RF
Mode : 5G WIFI
Power : AC 120V 60Hz

| | Freq | Factor | Read Level | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dB | dBuV | dBuV | dBuV | dB | |
| 1 | 0.151 | 9.80 | 21.78 | 31.58 | 55.92 | -24.34 | Average |
| 2 | 0.151 | 9.80 | 28.89 | 38.69 | 65.92 | -27.23 | QP |
| 3 | 0.203 | 9.80 | 18.06 | 27.86 | 53.50 | -25.64 | Average |
| 4 | 0.203 | 9.80 | 24.44 | 34.24 | 63.50 | -29.26 | QP |
| 5 | 0.458 | 9.80 | 23.94 | 33.74 | 46.73 | -12.99 | Average |
| 6 | 0.458 | 9.80 | 33.57 | 43.37 | 56.73 | -13.36 | QP |
| 7 | 0.557 | 9.81 | 23.86 | 33.67 | 46.00 | -12.33 | Average |
| 8 | 0.557 | 9.81 | 33.44 | 43.25 | 56.00 | -12.75 | QP |
| 9 | 3.390 | 9.83 | 12.56 | 22.39 | 46.00 | -23.61 | Average |
| 10 | 3.390 | 9.83 | 25.22 | 35.05 | 56.00 | -20.95 | QP |
| 11 | 10.025 | 9.90 | 13.16 | 23.06 | 50.00 | -26.94 | Average |
| 12 | 10.025 | 9.90 | 20.30 | 30.20 | 60.00 | -29.80 | QP |

**AC 120V/60 Hz, Neutral:**




Site : Shielding Room
Condition: Neutral
Job No. : SZNS220829-39091E-RF
Mode : 5G WIFI
Power : AC 120V 60Hz

| | Freq | Factor | Read Level | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dB | dBuV | dBuV | dBuV | dB | |
| 1 | 0.151 | 9.80 | 21.79 | 31.59 | 55.93 | -24.34 | Average |
| 2 | 0.151 | 9.80 | 29.74 | 39.54 | 65.93 | -26.39 | QP |
| 3 | 0.200 | 9.80 | 18.41 | 28.21 | 53.60 | -25.39 | Average |
| 4 | 0.200 | 9.80 | 26.09 | 35.89 | 63.60 | -27.71 | QP |
| 5 | 0.456 | 9.80 | 24.88 | 34.68 | 46.77 | -12.09 | Average |
| 6 | 0.456 | 9.80 | 35.14 | 44.94 | 56.77 | -11.83 | QP |
| 7 | 0.559 | 9.81 | 23.42 | 33.23 | 46.00 | -12.77 | Average |
| 8 | 0.559 | 9.81 | 35.06 | 44.87 | 56.00 | -11.13 | QP |
| 9 | 3.404 | 9.83 | 13.23 | 23.06 | 46.00 | -22.94 | Average |
| 10 | 3.404 | 9.83 | 27.43 | 37.26 | 56.00 | -18.74 | QP |
| 11 | 21.903 | 10.12 | 13.15 | 23.27 | 50.00 | -26.73 | Average |
| 12 | 21.903 | 10.12 | 23.30 | 33.42 | 60.00 | -26.58 | QP |

# §15.205 & §15.209 & §15.407(B)– UNDESIRABLE EMISSION

## Applicable Standard

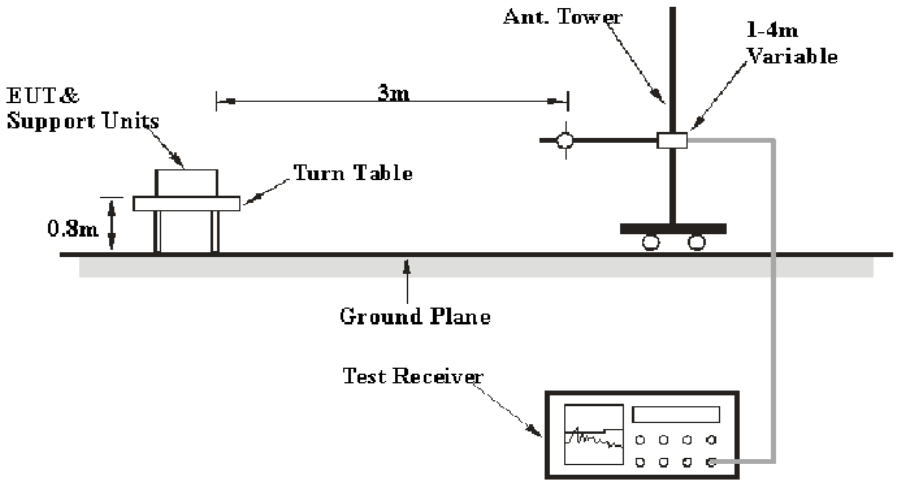
FCC §15.407 (b); §15.209; §15.205;

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4) For transmitters operating in the 5.725-5.85 GHz band:
(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

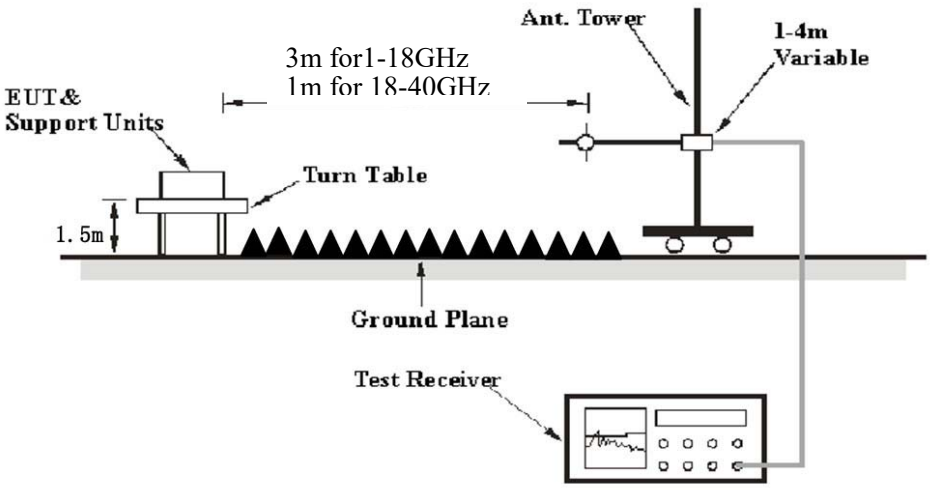
Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

## EUT Setup

**Below 1 GHz:**



**Above 1 GHz:**




The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC 15.209 and FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

## EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

| Frequency Range | RBW | Video B/W | IF B/W | Measurement |
|---|---|---|---|---|
| 30 MHz – 1000 MHz | 100 kHz | 300 kHz | 120 kHz | QP |
| Above 1 GHz | 1 MHz | 3 MHz | / | PK |
| | 1MHz | 10 Hz Note 1 | / | Average |
| | 1MHz | ＞1/T Note 2 | / | Average |

Note 1: when duty cycle is no less than 98%
Note 2: when duty cycle is less than 98%

## Test Procedure

**Radiated Spurious Emission**

During the radiated emission test, the adapter was connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all the installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1GHz, peak and Average detection modes for frequencies above 1GHz.

According to ANSI C63.10-2013,9.4: For field strength measurements made at other than the distance at which the applicable limit is specified,extrapolate the measured field strength to the field strength at the distance specified by the limit using an inverse distance correction factor (20 dB/decade of distance). In some cases, a different distance correction factor may be required;

$$E_{\mathrm{SpecLimit}} = E_{\mathrm{Meas}} + 20\log\left(\frac{d_{\mathrm{Meas}}}{d_{\mathrm{SpecLimit}}}\right)$$

where

| | |
|---|---|
| $E_{\mathrm{SpecLimit}}$ | is the field strength of the emission at the distance specified by the limit, in dBμV/m |
| $E_{\mathrm{Meas}}$ | is the field strength of the emission at the measurement distance, in dBμV/m |
| $d_{\mathrm{Meas}}$ | is the measurement distance, in m |
| $d_{\mathrm{SpecLimit}}$ | is the distance specified by the limit, in m |

So the extrapolation factor of 1m is 20*log(1/3)= -9.5 dB, for 18-40GHz range, the limit of 1m distance was added by 9.5dB from limit of 3m to compared with the result measurement at 1m distance.

## Factor & Margin Calculation

The Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

Factor = Antenna Factor + Cable Loss - Amplifier Gain

The "**Over Limit/Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit/margin of -7dB means the emission is 7dB below the limit. The equation for calculation is as follows:

Over Limit/Margin = Level / Corrected Amplitude – Limit
Level / Corrected Amplitude = Read Level + Factor

## Test Data

### Environmental Conditions

| | |
|---|---|
| **Temperature:** | 25~25.5℃ |
| **Relative Humidity:** | 52~60% |
| **ATM Pressure:** | 101.0~101.2 kPa |

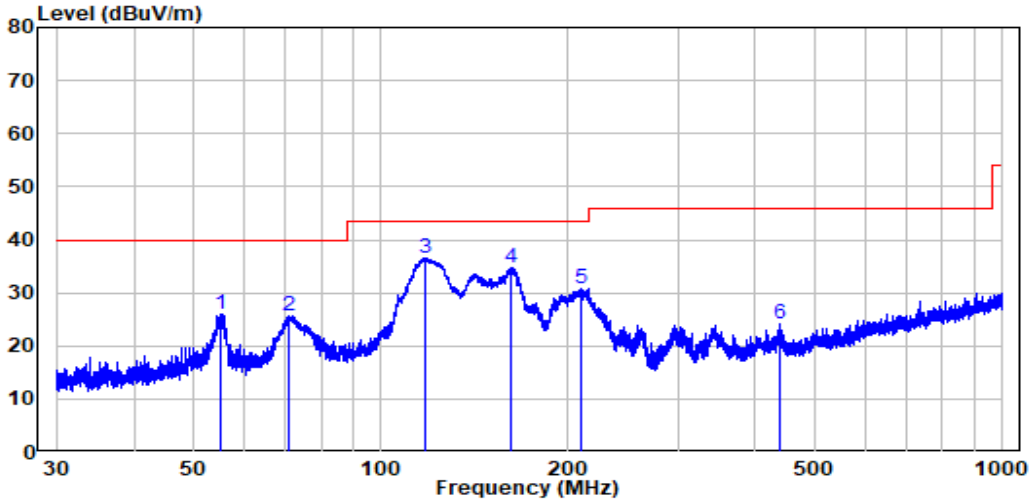
*The testing was performed by Level Li on 2022-10-20 for below 1GHz, 2022-10-23 for above 1GHz.*

*EUT operation mode: Transmitting (Pre-scan in the X,Y and Z axes of orientation, the worst case X-axes of orientation was recorded)*

**30 MHz – 1 GHz:** *(worst case is 802.11a, 5180MHz)*

*Note: When the test result of peak was less than the limit of QP more than 6dB, just peak value were recorded.*

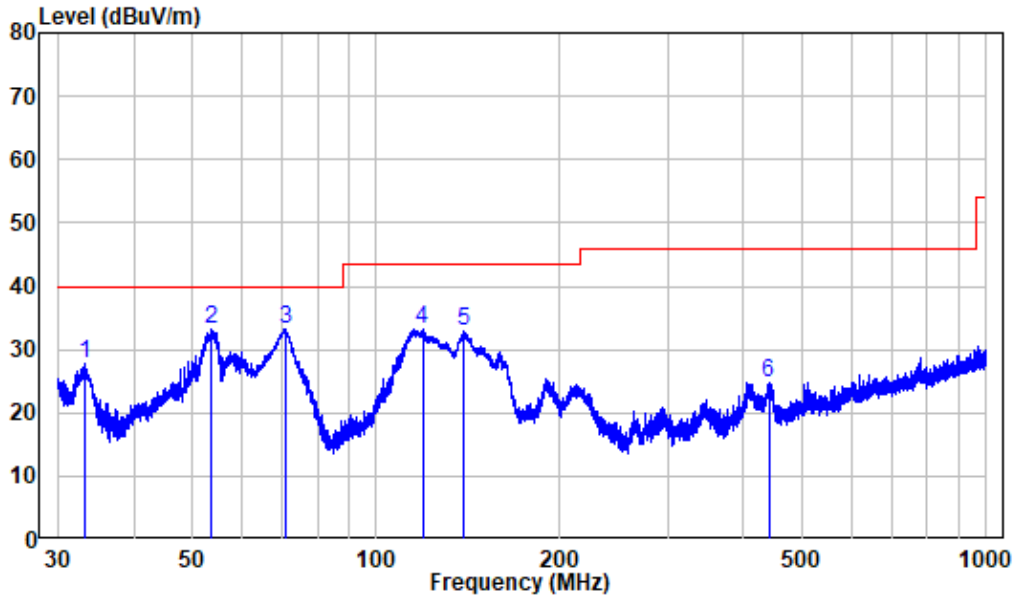
Horizontal




Site : chamber
Condition: 3m HORIZONTAL
Job No. : SZNS220829-39091E-RF
Test Mode: 5G WIFI

| | Freq | Factor | Read Level | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dB/m | dBuV | dBuV/m | dBuV/m | dB | |
| 1 | 55.269 | -10.26 | 36.23 | 25.97 | 40.00 | -14.03 | Peak |
| 2 | 71.236 | -15.30 | 40.85 | 25.55 | 40.00 | -14.45 | Peak |
| 3 | 117.515 | -13.07 | 49.72 | 36.65 | 43.50 | -6.85 | Peak |
| 4 | 161.970 | -14.29 | 49.10 | 34.81 | 43.50 | -8.69 | Peak |
| 5 | 209.956 | -11.86 | 42.63 | 30.77 | 43.50 | -12.73 | Peak |
| 6 | 436.737 | -5.69 | 29.70 | 24.01 | 46.00 | -21.99 | Peak |

Vertical




Site : chamber
Condition: 3m VERTICAL
Job No. : SZNS220829-39091E-RF
Test Mode: 5G WIFI

| | Freq | Factor | Read Level | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dB/m | dBuV | dBuV/m | dBuV/m | dB | |
| 1 | 33.342 | -11.96 | 39.69 | 27.73 | 40.00 | -12.27 | Peak |
| 2 | 53.646 | -10.28 | 43.58 | 33.30 | 40.00 | -6.70 | Peak |
| 3 | 70.894 | -15.15 | 48.31 | 33.16 | 40.00 | -6.84 | Peak |
| 4 | 119.018 | -13.34 | 46.50 | 33.16 | 43.50 | -10.34 | Peak |
| 5 | 139.056 | -15.40 | 48.30 | 32.90 | 43.50 | -10.60 | Peak |
| 6 | 439.811 | -5.64 | 30.31 | 24.67 | 46.00 | -21.33 | Peak |

**Above 1GHz:**

**5150-5250 MHz:**

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11A** | | | | | | | | | |
| 5180MHz | | | | | | | | | |
| 4500 | 55.9 | PK | 332 | 1.4 | H | -4.72 | 51.18 | 74 | -22.82 |
| 4500 | 43.36 | AV | 332 | 1.4 | H | -4.72 | 38.64 | 54 | -15.36 |
| 4500 | 55.79 | PK | 98 | 1.5 | V | -4.72 | 51.07 | 74 | -22.93 |
| 4500 | 43.23 | AV | 98 | 1.5 | V | -4.72 | 38.51 | 54 | -15.49 |
| 5150 | 55.91 | PK | 321 | 2.1 | H | -2.73 | 53.18 | 74 | -20.82 |
| 5150 | 43.1 | AV | 321 | 2.1 | H | -2.73 | 40.37 | 54 | -13.63 |
| 5150 | 55.78 | PK | 271 | 2.2 | V | -2.73 | 53.05 | 74 | -20.95 |
| 5150 | 42.99 | AV | 271 | 2.2 | V | -2.73 | 40.26 | 54 | -13.74 |
| 10360 | 42.97 | PK | 339 | 1.3 | H | 8.12 | 51.09 | 68.2 | -17.11 |
| 10360 | 43.44 | PK | 115 | 2.2 | V | 8.12 | 51.56 | 68.2 | -16.64 |
| 5200MHz | | | | | | | | | |
| 10400 | 42.57 | PK | 29 | 1.4 | H | 8.24 | 50.81 | 68.2 | -17.39 |
| 10400 | 43.3 | PK | 144 | 2.2 | V | 8.24 | 51.54 | 68.2 | -16.66 |
| 5240MHz | | | | | | | | | |
| 5350 | 54.26 | PK | 78 | 1.2 | H | -2.33 | 51.93 | 74 | -22.07 |
| 5350 | 40.11 | AV | 78 | 1.2 | H | -2.33 | 37.78 | 54 | -16.22 |
| 5350 | 54.1 | PK | 267 | 1.6 | V | -2.33 | 51.77 | 74 | -22.23 |
| 5350 | 39.99 | AV | 267 | 1.6 | V | -2.33 | 37.66 | 54 | -16.34 |
| 5460 | 51.92 | PK | 46 | 2.4 | H | -2.26 | 49.66 | 74 | -24.34 |
| 5460 | 38.99 | AV | 46 | 2.4 | H | -2.26 | 36.73 | 54 | -17.27 |
| 5460 | 51.8 | PK | 254 | 2 | V | -2.26 | 49.54 | 74 | -24.46 |
| 5460 | 38.85 | AV | 254 | 2 | V | -2.26 | 36.59 | 54 | -17.41 |
| 10480 | 43.13 | PK | 66 | 2.3 | H | 8.56 | 51.69 | 68.2 | -16.51 |
| 10480 | 43.62 | PK | 304 | 2.1 | V | 8.56 | 52.18 | 68.2 | -16.02 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11N20** | | | | | | | | | |
| 5180MHz | | | | | | | | | |
| 4500 | 55.1 | PK | 66 | 1.4 | H | -4.72 | 50.38 | 74 | -23.62 |
| 4500 | 43.23 | AV | 66 | 1.4 | H | -4.72 | 38.51 | 54 | -15.49 |
| 4500 | 54.96 | PK | 121 | 1.1 | V | -4.72 | 50.24 | 74 | -23.76 |
| 4500 | 43.09 | AV | 121 | 1.1 | V | -4.72 | 38.37 | 54 | -15.63 |
| 5150 | 59.94 | PK | 28 | 1.7 | H | -2.73 | 57.21 | 74 | -16.79 |
| 5150 | 43.31 | AV | 28 | 1.7 | H | -2.73 | 40.58 | 54 | -13.42 |
| 5150 | 57.98 | PK | 205 | 2.3 | V | -2.73 | 55.25 | 74 | -18.75 |
| 5150 | 43.06 | AV | 205 | 2.3 | V | -2.73 | 40.33 | 54 | -13.67 |
| 10360 | 43.13 | PK | 285 | 1.8 | H | 8.12 | 51.25 | 68.2 | -16.95 |
| 10360 | 43.66 | PK | 164 | 1.3 | V | 8.12 | 51.78 | 68.2 | -16.42 |
| 5200MHz | | | | | | | | | |
| 10400 | 42.85 | PK | 112 | 1.9 | H | 8.24 | 51.09 | 68.2 | -17.11 |
| 10400 | 43.52 | PK | 112 | 2.1 | V | 8.24 | 51.76 | 68.2 | -16.44 |
| 5240MHz | | | | | | | | | |
| 5350 | 54.32 | PK | 149 | 2 | H | -2.33 | 51.99 | 74 | -22.01 |
| 5350 | 39.94 | AV | 149 | 2 | H | -2.33 | 37.61 | 54 | -16.39 |
| 5350 | 54.16 | PK | 164 | 2.2 | V | -2.33 | 51.83 | 74 | -22.17 |
| 5350 | 39.82 | AV | 164 | 2.2 | V | -2.33 | 37.49 | 54 | -16.51 |
| 5460 | 52.16 | PK | 221 | 1.1 | H | -2.26 | 49.9 | 74 | -24.1 |
| 5460 | 38.88 | AV | 221 | 1.1 | H | -2.26 | 36.62 | 54 | -17.38 |
| 5460 | 52.02 | PK | 11 | 2.4 | V | -2.26 | 49.76 | 74 | -24.24 |
| 5460 | 38.75 | AV | 11 | 2.4 | V | -2.26 | 36.49 | 54 | -17.51 |
| 10480 | 43.32 | PK | 280 | 2.5 | H | 8.56 | 51.88 | 68.2 | -16.32 |
| 10480 | 43.83 | PK | 250 | 2.1 | V | 8.56 | 52.39 | 68.2 | -15.81 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11N40** | | | | | | | | | |
| 5190MHz | | | | | | | | | |
| 4500 | 55.41 | PK | 251 | 2.5 | H | -4.72 | 50.69 | 74 | -23.31 |
| 4500 | 43.72 | AV | 251 | 2.5 | H | -4.72 | 39 | 54 | -15 |
| 4500 | 55.26 | PK | 358 | 1.3 | V | -4.72 | 50.54 | 74 | -23.46 |
| 4500 | 43.6 | AV | 358 | 1.3 | V | -4.72 | 38.88 | 54 | -15.12 |
| 5150 | 67.09 | PK | 120 | 2.1 | H | -2.73 | 64.36 | 74 | -9.64 |
| 5150 | 43.45 | AV | 120 | 2.1 | H | -2.73 | 40.72 | 54 | -13.28 |
| 5150 | 64.59 | PK | 261 | 2.2 | V | -2.73 | 61.86 | 74 | -12.14 |
| 5150 | 43.34 | AV | 261 | 2.2 | V | -2.73 | 40.61 | 54 | -13.39 |
| 10380 | 42.74 | PK | 72 | 2.1 | H | 8.18 | 50.92 | 68.2 | -17.28 |
| 10380 | 43.19 | PK | 95 | 2.4 | V | 8.18 | 51.37 | 68.2 | -16.83 |
| 5230MHz | | | | | | | | | |
| 5350 | 54.6 | PK | 214 | 1.8 | H | -2.33 | 52.27 | 74 | -21.73 |
| 5350 | 40.22 | AV | 214 | 1.8 | H | -2.33 | 37.89 | 54 | -16.11 |
| 5350 | 54.45 | PK | 112 | 1.4 | V | -2.33 | 52.12 | 74 | -21.88 |
| 5350 | 40.07 | AV | 112 | 1.4 | V | -2.33 | 37.74 | 54 | -16.26 |
| 5460 | 51.65 | PK | 124 | 1.1 | H | -2.26 | 49.39 | 74 | -24.61 |
| 5460 | 39.17 | AV | 124 | 1.1 | H | -2.26 | 36.91 | 54 | -17.09 |
| 5460 | 51.53 | PK | 352 | 1.3 | V | -2.26 | 49.27 | 74 | -24.73 |
| 5460 | 39.06 | AV | 352 | 1.3 | V | -2.26 | 36.8 | 54 | -17.2 |
| 10460 | 42.88 | PK | 269 | 1.9 | H | 8.47 | 51.35 | 68.2 | -16.85 |
| 10460 | 43.56 | PK | 162 | 1.1 | V | 8.47 | 52.03 | 68.2 | -16.17 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11AC20** | | | | | | | | | |
| 5180MHz | | | | | | | | | |
| 4500 | 55.32 | PK | 338 | 1 | H | -4.72 | 50.6 | 74 | -23.4 |
| 4500 | 43.25 | AV | 338 | 1 | H | -4.72 | 38.53 | 54 | -15.47 |
| 4500 | 55.19 | PK | 110 | 2.2 | V | -4.72 | 50.47 | 74 | -23.53 |
| 4500 | 43.11 | AV | 110 | 2.2 | V | -4.72 | 38.39 | 54 | -15.61 |
| 5150 | 56.72 | PK | 61 | 2.3 | H | -2.73 | 53.99 | 74 | -20.01 |
| 5150 | 42.96 | AV | 61 | 2.3 | H | -2.73 | 40.23 | 54 | -13.77 |
| 5150 | 56.4 | PK | 44 | 1.6 | V | -2.73 | 53.67 | 74 | -20.33 |
| 5150 | 42.78 | AV | 44 | 1.6 | V | -2.73 | 40.05 | 54 | -13.95 |
| 10360 | 42.87 | PK | 58 | 2 | H | 8.12 | 50.99 | 68.2 | -17.21 |
| 10360 | 43.43 | PK | 109 | 1.3 | V | 8.12 | 51.55 | 68.2 | -16.65 |
| 5200MHz | | | | | | | | | |
| 10400 | 43.07 | PK | 140 | 2 | H | 8.24 | 51.31 | 68.2 | -16.89 |
| 10400 | 43.52 | PK | 38 | 2.2 | V | 8.24 | 51.76 | 68.2 | -16.44 |
| 5240MHz | | | | | | | | | |
| 5350 | 54.54 | PK | 208 | 1.5 | H | -2.33 | 52.21 | 74 | -21.79 |
| 5350 | 40.05 | AV | 208 | 1.5 | H | -2.33 | 37.72 | 54 | -16.28 |
| 5350 | 54.36 | PK | 339 | 1.7 | V | -2.33 | 52.03 | 74 | -21.97 |
| 5350 | 39.93 | AV | 339 | 1.7 | V | -2.33 | 37.6 | 54 | -16.4 |
| 5460 | 51.79 | PK | 240 | 2.2 | H | -2.26 | 49.53 | 74 | -24.47 |
| 5460 | 39.08 | AV | 240 | 2.2 | H | -2.26 | 36.82 | 54 | -17.18 |
| 5460 | 51.67 | PK | 186 | 2 | V | -2.26 | 49.41 | 74 | -24.59 |
| 5460 | 38.96 | AV | 186 | 2 | V | -2.26 | 36.7 | 54 | -17.3 |
| 10480 | 43.25 | PK | 190 | 1.5 | H | 8.56 | 51.81 | 68.2 | -16.39 |
| 10480 | 43.67 | PK | 92 | 1.2 | V | 8.56 | 52.23 | 68.2 | -15.97 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11AC40** | | | | | | | | | |
| 5190MHz | | | | | | | | | |
| 4500 | 55.83 | PK | 67 | 2.2 | H | -4.72 | 51.11 | 74 | -22.89 |
| 4500 | 43.71 | AV | 67 | 2.2 | H | -4.72 | 38.99 | 54 | -15.01 |
| 4500 | 55.65 | PK | 81 | 1.2 | V | -4.72 | 50.93 | 74 | -23.07 |
| 4500 | 43.59 | AV | 81 | 1.2 | V | -4.72 | 38.87 | 54 | -15.13 |
| 5150 | 63.58 | PK | 330 | 2.3 | H | -2.73 | 60.85 | 74 | -13.15 |
| 5150 | 43.52 | AV | 330 | 2.3 | H | -2.73 | 40.79 | 54 | -13.21 |
| 5150 | 61.4 | PK | 184 | 2.2 | V | -2.73 | 58.67 | 74 | -15.33 |
| 5150 | 43.38 | AV | 184 | 2.2 | V | -2.73 | 40.65 | 54 | -13.35 |
| 10380 | 42.77 | PK | 272 | 1.4 | H | 8.18 | 50.95 | 68.2 | -17.25 |
| 10380 | 43.18 | PK | 60 | 1.6 | V | 8.18 | 51.36 | 68.2 | -16.84 |
| 5230MHz | | | | | | | | | |
| 5350 | 54.92 | PK | 322 | 1.7 | H | -2.33 | 52.59 | 74 | -21.41 |
| 5350 | 40.73 | AV | 322 | 1.7 | H | -2.33 | 38.4 | 54 | -15.6 |
| 5350 | 54.79 | PK | 7 | 1.6 | V | -2.33 | 52.46 | 74 | -21.54 |
| 5350 | 40.6 | AV | 7 | 1.6 | V | -2.33 | 38.27 | 54 | -15.73 |
| 5460 | 52.18 | PK | 298 | 2.2 | H | -2.26 | 49.92 | 74 | -24.08 |
| 5460 | 39.36 | AV | 298 | 2.2 | H | -2.26 | 37.1 | 54 | -16.9 |
| 5460 | 52.07 | PK | 61 | 1.2 | V | -2.26 | 49.81 | 74 | -24.19 |
| 5460 | 39.25 | AV | 61 | 1.2 | V | -2.26 | 36.99 | 54 | -17.01 |
| 10460 | 43.54 | PK | 329 | 1.9 | H | 8.47 | 52.01 | 68.2 | -16.19 |
| 10460 | 43.93 | PK | 234 | 1.3 | V | 8.47 | 52.4 | 68.2 | -15.8 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11AC80** | | | | | | | | | |
| 5210MHz | | | | | | | | | |
| 4500 | 55.48 | PK | 99 | 2.4 | H | -4.72 | 50.76 | 74 | -23.24 |
| 4500 | 43.89 | AV | 99 | 2.4 | H | -4.72 | 39.17 | 54 | -14.83 |
| 4500 | 55.35 | PK | 238 | 2 | V | -4.72 | 50.63 | 74 | -23.37 |
| 4500 | 43.76 | AV | 238 | 2 | V | -4.72 | 39.04 | 54 | -14.96 |
| 5150 | 64.87 | PK | 327 | 1.4 | H | -2.73 | 62.14 | 74 | -11.86 |
| 5150 | 46.78 | AV | 327 | 1.4 | H | -2.73 | 44.05 | 54 | -9.95 |
| 5150 | 59.96 | PK | 108 | 1.9 | V | -2.73 | 57.23 | 74 | -16.77 |
| 5150 | 44.4 | AV | 108 | 1.9 | V | -2.73 | 41.67 | 54 | -12.33 |
| 5350 | 54.86 | PK | 8 | 1.5 | H | -2.33 | 52.53 | 74 | -21.47 |
| 5350 | 41.19 | AV | 8 | 1.5 | H | -2.33 | 38.86 | 54 | -15.14 |
| 5350 | 54.71 | PK | 22 | 2.1 | V | -2.33 | 52.38 | 74 | -21.62 |
| 5350 | 41.03 | AV | 22 | 2.1 | V | -2.33 | 38.7 | 54 | -15.3 |
| 5460 | 51.92 | PK | 42 | 1.7 | H | -2.26 | 49.66 | 74 | -24.34 |
| 5460 | 40.11 | AV | 42 | 1.7 | H | -2.26 | 37.85 | 54 | -16.15 |
| 5460 | 51.79 | PK | 233 | 2.2 | V | -2.26 | 49.53 | 74 | -24.47 |
| 5460 | 39.97 | AV | 233 | 2.2 | V | -2.26 | 37.71 | 54 | -16.29 |
| 10420 | 42.93 | PK | 66 | 1.2 | H | 8.32 | 51.25 | 68.2 | -16.95 |
| 10420 | 43.32 | PK | 27 | 1.6 | V | 8.32 | 51.64 | 68.2 | -16.56 |

**5250 MHz – 5350 MHz:**

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11A** | | | | | | | | | |
| 5260MHz | | | | | | | | | |
| 4500 | 55.36 | PK | 134 | 2.3 | H | -4.72 | 50.64 | 74 | -23.36 |
| 4500 | 43.41 | AV | 134 | 2.3 | H | -4.72 | 38.69 | 54 | -15.31 |
| 4500 | 55.24 | PK | 47 | 1.1 | V | -4.72 | 50.52 | 74 | -23.48 |
| 4500 | 43.28 | AV | 47 | 1.1 | V | -4.72 | 38.56 | 54 | -15.44 |
| 5150 | 55.75 | PK | 92 | 1.2 | H | -2.73 | 53.02 | 74 | -20.98 |
| 5150 | 43.09 | AV | 92 | 1.2 | H | -2.73 | 40.36 | 54 | -13.64 |
| 5150 | 45.62 | PK | 245 | 1 | V | -2.73 | 42.89 | 74 | -31.11 |
| 5150 | 42.96 | AV | 245 | 1 | V | -2.73 | 40.23 | 54 | -13.77 |
| 10520 | 43.73 | PK | 346 | 1.8 | H | 8.65 | 52.38 | 68.2 | -15.82 |
| 10520 | 44.09 | PK | 348 | 2.3 | V | 8.65 | 52.74 | 68.2 | -15.46 |
| 5280MHz | | | | | | | | | |
| 10560 | 44.01 | PK | 176 | 1.1 | H | 8.69 | 52.7 | 68.2 | -15.5 |
| 10560 | 44.5 | PK | 207 | 2.1 | V | 8.69 | 53.19 | 68.2 | -15.01 |
| 5320MHz | | | | | | | | | |
| 5350 | 58.68 | PK | 346 | 2.2 | H | -2.33 | 56.35 | 74 | -17.65 |
| 5350 | 42.19 | AV | 346 | 2.2 | H | -2.33 | 39.86 | 54 | -14.14 |
| 5350 | 55.43 | PK | 73 | 2 | V | -2.33 | 53.1 | 74 | -20.9 |
| 5350 | 41.62 | AV | 73 | 2 | V | -2.33 | 39.29 | 54 | -14.71 |
| 5460 | 52.58 | PK | 190 | 1.6 | H | -2.26 | 50.32 | 74 | -23.68 |
| 5460 | 39.17 | AV | 190 | 1.6 | H | -2.26 | 36.91 | 54 | -17.09 |
| 5460 | 52.43 | PK | 120 | 1.3 | V | -2.26 | 50.17 | 74 | -23.83 |
| 5460 | 39.06 | AV | 120 | 1.3 | V | -2.26 | 36.8 | 54 | -17.2 |
| 10640 | 44.44 | PK | 245 | 1.2 | H | 8.92 | 53.36 | 74 | -20.64 |
| 10640 | 31.49 | AV | 245 | 1.2 | H | 8.92 | 40.41 | 54 | -13.59 |
| 10640 | 44.71 | PK | 103 | 2.1 | V | 8.92 | 53.63 | 74 | -20.37 |
| 10640 | 31.82 | AV | 103 | 2.1 | V | 8.92 | 40.74 | 54 | -13.26 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11N20** | | | | | | | | | |
| 5260MHz | | | | | | | | | |
| 4500 | 55.12 | PK | 337 | 1.4 | H | -4.72 | 50.4 | 74 | -23.6 |
| 4500 | 43.51 | AV | 337 | 1.4 | H | -4.72 | 38.79 | 54 | -15.21 |
| 4500 | 55 | PK | 332 | 2.1 | V | -4.72 | 50.28 | 74 | -23.72 |
| 4500 | 43.38 | AV | 332 | 2.1 | V | -4.72 | 38.66 | 54 | -15.34 |
| 5150 | 56.62 | PK | 38 | 1.2 | H | -2.73 | 53.89 | 74 | -20.11 |
| 5150 | 43.3 | AV | 38 | 1.2 | H | -2.73 | 40.57 | 54 | -13.43 |
| 5150 | 56.41 | PK | 111 | 1.7 | V | -2.73 | 53.68 | 74 | -20.32 |
| 5150 | 43.19 | AV | 111 | 1.7 | V | -2.73 | 40.46 | 54 | -13.54 |
| 10520 | 43.14 | PK | 277 | 1.7 | H | 8.65 | 51.79 | 68.2 | -16.41 |
| 10520 | 43.91 | PK | 218 | 1.4 | V | 8.65 | 52.56 | 68.2 | -15.64 |
| 5280MHz | | | | | | | | | |
| 10560 | 43.9 | PK | 232 | 2 | H | 8.69 | 52.59 | 68.2 | -15.61 |
| 10560 | 44.25 | PK | 41 | 1.4 | V | 8.69 | 52.94 | 68.2 | -15.26 |
| 5320MHz | | | | | | | | | |
| 5350 | 60.59 | PK | 146 | 1.8 | H | -2.33 | 58.26 | 74 | -15.74 |
| 5350 | 42.36 | AV | 146 | 1.8 | H | -2.33 | 40.03 | 54 | -13.97 |
| 5350 | 59.55 | PK | 347 | 1.2 | V | -2.33 | 57.22 | 74 | -16.78 |
| 5350 | 41.71 | AV | 347 | 1.2 | V | -2.33 | 39.38 | 54 | -14.62 |
| 5460 | 52.57 | PK | 349 | 1.1 | H | -2.26 | 50.31 | 74 | -23.69 |
| 5460 | 39.31 | AV | 349 | 1.1 | H | -2.26 | 37.05 | 54 | -16.95 |
| 5460 | 52.45 | PK | 201 | 1.8 | V | -2.26 | 50.19 | 74 | -23.81 |
| 5460 | 39.19 | AV | 201 | 1.8 | V | -2.26 | 36.93 | 54 | -17.07 |
| 10640 | 44.41 | PK | 143 | 1.8 | H | 8.92 | 53.33 | 74 | -20.67 |
| 10640 | 31.35 | AV | 143 | 1.8 | H | 8.92 | 40.27 | 54 | -13.73 |
| 10640 | 45.04 | PK | 312 | 1.5 | V | 8.92 | 53.96 | 74 | -20.04 |
| 10640 | 31.89 | AV | 312 | 1.5 | V | 8.92 | 40.81 | 54 | -13.19 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11N40** | | | | | | | | | |
| 5270MHz | | | | | | | | | |
| 4500 | 55.7 | PK | 72 | 1.4 | H | -4.72 | 50.98 | 74 | -23.02 |
| 4500 | 43.79 | AV | 72 | 1.4 | H | -4.72 | 39.07 | 54 | -14.93 |
| 4500 | 55.55 | PK | 277 | 1.6 | V | -4.72 | 50.83 | 74 | -23.17 |
| 4500 | 43.68 | AV | 277 | 1.6 | V | -4.72 | 38.96 | 54 | -15.04 |
| 5150 | 57.32 | PK | 285 | 1.4 | H | -2.73 | 54.59 | 74 | -19.41 |
| 5150 | 43.77 | AV | 285 | 1.4 | H | -2.73 | 41.04 | 54 | -12.96 |
| 5150 | 56.68 | PK | 185 | 1.5 | V | -2.73 | 53.95 | 74 | -20.05 |
| 5150 | 43.65 | AV | 185 | 1.5 | V | -2.73 | 40.92 | 54 | -13.08 |
| 10540 | 43.2 | PK | 132 | 1.6 | H | 8.65 | 51.85 | 68.2 | -16.35 |
| 10540 | 43.73 | PK | 163 | 1.2 | V | 8.65 | 52.38 | 68.2 | -15.82 |
| 5310MHz | | | | | | | | | |
| 5350 | 65.25 | PK | 151 | 2.2 | H | -2.33 | 62.92 | 74 | -11.08 |
| 5350 | 44.16 | AV | 151 | 2.2 | H | -2.33 | 41.83 | 54 | -12.17 |
| 5350 | 62.99 | PK | 118 | 2.4 | V | -2.33 | 60.66 | 74 | -13.34 |
| 5350 | 43.71 | AV | 118 | 2.4 | V | -2.33 | 41.38 | 54 | -12.62 |
| 5460 | 53.11 | PK | 255 | 2.1 | H | -2.26 | 50.85 | 74 | -23.15 |
| 5460 | 39.6 | AV | 255 | 2.1 | H | -2.26 | 37.34 | 54 | -16.66 |
| 5460 | 52.95 | PK | 26 | 1.5 | V | -2.26 | 50.69 | 74 | -23.31 |
| 5460 | 39.47 | AV | 26 | 1.5 | V | -2.26 | 37.21 | 54 | -16.79 |
| 10620 | 44.11 | PK | 197 | 1.6 | H | 8.89 | 53.00 | 74 | -21.00 |
| 10620 | 31.25 | AV | 197 | 1.6 | H | 8.89 | 40.14 | 54 | -13.86 |
| 10620 | 44.42 | PK | 205 | 1.5 | V | 8.89 | 53.31 | 74 | -20.69 |
| 10620 | 31.66 | AV | 205 | 1.5 | V | 8.89 | 40.55 | 54 | -13.45 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11AC20** | | | | | | | | | |
| 5260MHz | | | | | | | | | |
| 4500 | 55.41 | PK | 359 | 1.9 | H | -4.72 | 50.69 | 74 | -23.31 |
| 4500 | 40.93 | AV | 359 | 1.9 | H | -4.72 | 36.21 | 54 | -17.79 |
| 4500 | 55.26 | PK | 308 | 1.3 | V | -4.72 | 50.54 | 74 | -23.46 |
| 4500 | 40.78 | AV | 308 | 1.3 | V | -4.72 | 36.06 | 54 | -17.94 |
| 5150 | 57.36 | PK | 265 | 2.1 | H | -2.73 | 54.63 | 74 | -19.37 |
| 5150 | 43.38 | AV | 265 | 2.1 | H | -2.73 | 40.65 | 54 | -13.35 |
| 5150 | 56.91 | PK | 134 | 2.1 | V | -2.73 | 54.18 | 74 | -19.82 |
| 5150 | 43.25 | AV | 134 | 2.1 | V | -2.73 | 40.52 | 54 | -13.48 |
| 10520 | 43.56 | PK | 293 | 1.8 | H | 8.65 | 52.21 | 68.2 | -15.99 |
| 10520 | 44.09 | PK | 258 | 2 | V | 8.65 | 52.74 | 68.2 | -15.46 |
| 5280MHz | | | | | | | | | |
| 10560 | 44.36 | PK | 111 | 1.7 | H | 8.69 | 53.05 | 68.2 | -15.15 |
| 10560 | 44.81 | PK | 47 | 1.8 | V | 8.69 | 53.5 | 68.2 | -14.7 |
| 5320MHz | | | | | | | | | |
| 5350 | 60.65 | PK | 164 | 2 | H | -2.33 | 58.32 | 74 | -15.68 |
| 5350 | 42.52 | AV | 164 | 2 | H | -2.33 | 40.19 | 54 | -13.81 |
| 5350 | 60.01 | PK | 64 | 1.6 | V | -2.33 | 57.68 | 74 | -16.32 |
| 5350 | 42.33 | AV | 64 | 1.6 | V | -2.33 | 40 | 54 | -14 |
| 5460 | 52.66 | PK | 241 | 1.5 | H | -2.26 | 50.4 | 74 | -23.6 |
| 5460 | 39.41 | AV | 241 | 1.5 | H | -2.26 | 37.15 | 54 | -16.85 |
| 5460 | 52.53 | PK | 265 | 1.9 | V | -2.26 | 50.27 | 74 | -23.73 |
| 5460 | 39.27 | AV | 265 | 1.9 | V | -2.26 | 37.01 | 54 | -16.99 |
| 10640 | 44.41 | PK | 221 | 1.9 | H | 8.92 | 53.33 | 74 | -20.67 |
| 10640 | 31.65 | AV | 221 | 1.9 | H | 8.92 | 40.57 | 54 | -13.43 |
| 10640 | 44.83 | PK | 182 | 1.8 | V | 8.92 | 53.75 | 74 | -20.25 |
| 10640 | 31.94 | AV | 182 | 1.8 | V | 8.92 | 40.86 | 54 | -13.14 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11AC40** | | | | | | | | | |
| 5270MHz | | | | | | | | | |
| 4500 | 55.32 | PK | 123 | 1.8 | H | -4.72 | 50.6 | 74 | -23.4 |
| 4500 | 44.14 | AV | 123 | 1.8 | H | -4.72 | 39.42 | 54 | -14.58 |
| 4500 | 55.18 | PK | 142 | 1.4 | V | -4.72 | 50.46 | 74 | -23.54 |
| 4500 | 43.99 | AV | 142 | 1.4 | V | -4.72 | 39.27 | 54 | -14.73 |
| 5150 | 57.07 | PK | 180 | 1.5 | H | -2.73 | 54.34 | 74 | -19.66 |
| 5150 | 43.86 | AV | 180 | 1.5 | H | -2.73 | 41.13 | 54 | -12.87 |
| 5150 | 56.52 | PK | 99 | 1.6 | V | -2.73 | 53.79 | 74 | -20.21 |
| 5150 | 43.71 | AV | 99 | 1.6 | V | -2.73 | 40.98 | 54 | -13.02 |
| 10540 | 43.65 | PK | 5 | 2.2 | H | 8.65 | 52.3 | 68.2 | -15.9 |
| 10540 | 43.88 | PK | 343 | 2.4 | V | 8.65 | 52.53 | 68.2 | -15.67 |
| 5310MHz | | | | | | | | | |
| 5350 | 66.15 | PK | 290 | 1.6 | H | -2.33 | 63.82 | 74 | -10.18 |
| 5350 | 44.33 | AV | 290 | 1.6 | H | -2.33 | 42 | 54 | -12 |
| 5350 | 63.62 | PK | 141 | 1.9 | V | -2.33 | 61.29 | 74 | -12.71 |
| 5350 | 43.94 | AV | 141 | 1.9 | V | -2.33 | 41.61 | 54 | -12.39 |
| 5460 | 53.26 | PK | 349 | 2.1 | H | -2.26 | 51 | 74 | -23 |
| 5460 | 39.77 | AV | 349 | 2.1 | H | -2.26 | 37.51 | 54 | -16.49 |
| 5460 | 53.13 | PK | 359 | 2.3 | V | -2.26 | 50.87 | 74 | -23.13 |
| 5460 | 39.65 | AV | 359 | 2.3 | V | -2.26 | 37.39 | 54 | -16.61 |
| 10620 | 44.43 | PK | 129 | 1.7 | H | 8.89 | 53.32 | 74 | -20.68 |
| 10620 | 31.52 | AV | 129 | 1.7 | H | 8.89 | 40.41 | 54 | -13.59 |
| 10620 | 44.77 | PK | 239 | 1.1 | V | 8.89 | 53.66 | 74 | -20.34 |
| 10620 | 31.85 | AV | 239 | 1.1 | V | 8.89 | 40.74 | 54 | -13.26 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11AC80** | | | | | | | | | |
| 5290MHz | | | | | | | | | |
| 4500 | 55.46 | PK | 295 | 1.1 | H | -4.72 | 50.74 | 74 | -23.26 |
| 4500 | 44.15 | AV | 295 | 1.1 | H | -4.72 | 39.43 | 54 | -14.57 |
| 4500 | 55.32 | PK | 300 | 2.4 | V | -4.72 | 50.6 | 74 | -23.4 |
| 4500 | 44 | AV | 300 | 2.4 | V | -4.72 | 39.28 | 54 | -14.72 |
| 5150 | 57.37 | PK | 166 | 2.5 | H | -2.73 | 54.64 | 74 | -19.36 |
| 5150 | 44.51 | AV | 166 | 2.5 | H | -2.73 | 41.78 | 54 | -12.22 |
| 5150 | 57.11 | PK | 250 | 1.1 | V | -2.73 | 54.38 | 74 | -19.62 |
| 5150 | 44.4 | AV | 250 | 1.1 | V | -2.73 | 41.67 | 54 | -12.33 |
| 5350 | 65.26 | PK | 78 | 1.1 | H | -2.33 | 62.93 | 74 | -11.07 |
| 5350 | 47.85 | AV | 78 | 1.1 | H | -2.33 | 45.52 | 54 | -8.48 |
| 5350 | 63.32 | PK | 318 | 1.1 | V | -2.33 | 60.99 | 74 | -13.01 |
| 5350 | 47.04 | AV | 318 | 1.1 | V | -2.33 | 44.71 | 54 | -9.29 |
| 5460 | 53.48 | PK | 300 | 1.8 | H | -2.26 | 51.22 | 74 | -22.78 |
| 5460 | 40.59 | AV | 300 | 1.8 | H | -2.26 | 38.33 | 54 | -15.67 |
| 5460 | 53.37 | PK | 158 | 1.8 | V | -2.26 | 51.11 | 74 | -22.89 |
| 5460 | 40.46 | AV | 158 | 1.8 | V | -2.26 | 38.2 | 54 | -15.8 |
| 10580 | 44.37 | PK | 55 | 2 | H | 8.77 | 53.14 | 68.2 | -15.06 |
| 10580 | 44.88 | PK | 321 | 2.5 | V | 8.77 | 53.65 | 68.2 | -14.55 |

**5725 MHz – 5850 MHz:**

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11A** | | | | | | | | | |
| 5745MHz | | | | | | | | | |
| 5650 | 50.62 | PK | 288 | 2.1 | H | -1.95 | 48.67 | 68.2 | -19.53 |
| 5700 | 52.79 | PK | 64 | 2.1 | H | -2.02 | 50.77 | 105.2 | -54.43 |
| 5720 | 65.05 | PK | 297 | 1.6 | H | -1.97 | 63.08 | 110.8 | -47.72 |
| 5725 | 70.94 | PK | 232 | 1.2 | H | -1.96 | 68.98 | 122.2 | -53.22 |
| 5650 | 50.87 | PK | 136 | 1.8 | V | -1.95 | 48.92 | 68.2 | -19.28 |
| 5700 | 53.07 | PK | 128 | 1.3 | V | -2.02 | 51.05 | 105.2 | -54.15 |
| 5720 | 63.93 | PK | 171 | 1.6 | V | -1.97 | 61.96 | 110.8 | -48.84 |
| 5725 | 68.95 | PK | 16 | 2.3 | V | -1.96 | 66.99 | 122.2 | -55.21 |
| 11490 | 48.3 | PK | 65 | 2.1 | H | 6.63 | 54.93 | 74 | -19.07 |
| 11490 | 34.03 | AV | 65 | 2.1 | H | 6.63 | 40.66 | 54 | -13.34 |
| 11490 | 48.31 | PK | 218 | 1.3 | V | 6.63 | 54.94 | 74 | -19.06 |
| 11490 | 34.36 | AV | 218 | 1.3 | V | 6.63 | 40.99 | 54 | -13.01 |
| 5785MHz | | | | | | | | | |
| 11570 | 48.27 | PK | 113 | 2.1 | H | 6.59 | 54.86 | 74 | -19.14 |
| 11570 | 34.29 | AV | 113 | 2.1 | H | 6.59 | 40.88 | 54 | -13.12 |
| 11570 | 48.19 | PK | 175 | 1.3 | V | 6.59 | 54.78 | 74 | -19.22 |
| 11570 | 34.36 | AV | 175 | 1.3 | V | 6.59 | 40.95 | 54 | -13.05 |
| 5825MHz | | | | | | | | | |
| 5850 | 61.3 | PK | 251 | 1.8 | H | -1.81 | 59.49 | 122.2 | -62.71 |
| 5855 | 55.08 | PK | 245 | 1.5 | H | -1.82 | 53.26 | 110.8 | -57.54 |
| 5875 | 54.49 | PK | 253 | 2.1 | H | -1.84 | 52.65 | 105.2 | -52.55 |
| 5925 | 53.7 | PK | 118 | 1.1 | H | -1.82 | 51.88 | 68.2 | -16.32 |
| 5850 | 60.37 | PK | 56 | 2.3 | V | -1.81 | 58.56 | 122.2 | -63.64 |
| 5855 | 55.06 | PK | 300 | 2.5 | V | -1.82 | 53.24 | 110.8 | -57.56 |
| 5875 | 54.58 | PK | 344 | 2.3 | V | -1.84 | 52.74 | 105.2 | -52.46 |
| 5925 | 53.75 | PK | 16 | 1.6 | V | -1.82 | 51.93 | 68.2 | -16.27 |
| 11650 | 46.71 | PK | 215 | 2.1 | H | 6.77 | 53.48 | 74 | -20.52 |
| 11650 | 32.87 | AV | 215 | 2.1 | H | 6.77 | 39.64 | 54 | -14.36 |
| 11650 | 46.61 | PK | 212 | 1.6 | V | 6.77 | 53.38 | 74 | -20.62 |
| 11650 | 32.74 | AV | 212 | 1.6 | V | 6.77 | 39.51 | 54 | -14.49 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11N20** | | | | | | | | | |
| 5745MHz | | | | | | | | | |
| 5650 | 50.81 | PK | 185 | 1 | H | -1.95 | 48.86 | 68.2 | -19.34 |
| 5700 | 52.68 | PK | 225 | 2.5 | H | -2.02 | 50.66 | 105.2 | -54.54 |
| 5720 | 63.83 | PK | 77 | 1.8 | H | -1.97 | 61.86 | 110.8 | -48.94 |
| 5725 | 68.62 | PK | 335 | 2 | H | -1.96 | 66.66 | 122.2 | -55.54 |
| 5650 | 50.98 | PK | 270 | 1.7 | V | -1.95 | 49.03 | 68.2 | -19.17 |
| 5700 | 51.81 | PK | 200 | 1.9 | V | -2.02 | 49.79 | 105.2 | -55.41 |
| 5720 | 63.06 | PK | 190 | 1.6 | V | -1.97 | 61.09 | 110.8 | -49.71 |
| 5725 | 66.65 | PK | 142 | 1.4 | V | -1.96 | 64.69 | 122.2 | -57.51 |
| 11490 | 46.67 | PK | 226 | 2 | H | 6.63 | 53.3 | 74 | -20.7 |
| 11490 | 32.87 | AV | 226 | 2 | H | 6.63 | 39.5 | 54 | -14.5 |
| 11490 | 46.5 | PK | 245 | 1.6 | V | 6.63 | 53.13 | 74 | -20.87 |
| 11490 | 33.05 | AV | 245 | 1.6 | V | 6.63 | 39.68 | 54 | -14.32 |
| 5785MHz | | | | | | | | | |
| 11570 | 46.7 | PK | 288 | 1.9 | H | 6.59 | 53.29 | 74 | -20.71 |
| 11570 | 33.15 | AV | 288 | 1.9 | H | 6.59 | 39.74 | 54 | -14.26 |
| 11570 | 46.82 | PK | 31 | 1.9 | V | 6.59 | 53.41 | 74 | -20.59 |
| 11570 | 32.94 | AV | 31 | 1.9 | V | 6.59 | 39.53 | 54 | -14.47 |
| 5825MHz | | | | | | | | | |
| 5850 | 59.99 | PK | 70 | 1.6 | H | -1.81 | 58.18 | 122.2 | -64.02 |
| 5855 | 55.01 | PK | 160 | 2 | H | -1.82 | 53.19 | 110.8 | -57.61 |
| 5875 | 54.84 | PK | 204 | 1.5 | H | -1.84 | 53 | 105.2 | -52.2 |
| 5925 | 53.11 | PK | 72 | 2.2 | H | -1.82 | 51.29 | 68.2 | -16.91 |
| 5850 | 59.35 | PK | 4 | 1.3 | V | -1.81 | 57.54 | 122.2 | -64.66 |
| 5855 | 55.16 | PK | 143 | 1.9 | V | -1.82 | 53.34 | 110.8 | -57.46 |
| 5875 | 54.21 | PK | 290 | 1.6 | V | -1.84 | 52.37 | 105.2 | -52.83 |
| 5925 | 53.84 | PK | 202 | 2 | V | -1.82 | 52.02 | 68.2 | -16.18 |
| 11650 | 44.93 | PK | 265 | 2 | H | 6.77 | 51.7 | 74 | -22.3 |
| 11650 | 31.9 | AV | 265 | 2 | H | 6.77 | 38.67 | 54 | -15.33 |
| 11650 | 45.22 | PK | 316 | 1.1 | V | 6.77 | 51.99 | 74 | -22.01 |
| 11650 | 31.42 | AV | 316 | 1.1 | V | 6.77 | 38.19 | 54 | -15.81 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11N40** | | | | | | | | | |
| 5755MHz | | | | | | | | | |
| 5650 | 51.69 | PK | 141 | 2 | H | -1.95 | 49.74 | 68.2 | -18.46 |
| 5700 | 56.74 | PK | 44 | 2.3 | H | -2.02 | 54.72 | 105.2 | -50.48 |
| 5720 | 65.93 | PK | 101 | 1.3 | H | -1.97 | 63.96 | 110.8 | -46.84 |
| 5725 | 69.07 | PK | 144 | 1.9 | H | -1.96 | 67.11 | 122.2 | -55.09 |
| 5650 | 51.64 | PK | 60 | 1.9 | V | -1.95 | 49.69 | 68.2 | -18.51 |
| 5700 | 56.98 | PK | 183 | 1.1 | V | -2.02 | 54.96 | 105.2 | -50.24 |
| 5720 | 64.99 | PK | 2 | 1.5 | V | -1.97 | 63.02 | 110.8 | -47.78 |
| 5725 | 67.73 | PK | 260 | 2.4 | V | -1.96 | 65.77 | 122.2 | -56.43 |
| 11510 | 46.66 | PK | 240 | 1.8 | H | 6.59 | 53.25 | 74 | -20.75 |
| 11510 | 33.13 | AV | 240 | 1.8 | H | 6.59 | 39.72 | 54 | -14.28 |
| 11510 | 46.62 | PK | 285 | 1.7 | V | 6.59 | 53.21 | 74 | -20.79 |
| 11510 | 33.14 | AV | 285 | 1.7 | V | 6.59 | 39.73 | 54 | -14.27 |
| 5795MHz | | | | | | | | | |
| 5850 | 54.74 | PK | 82 | 1.3 | H | -1.81 | 52.93 | 122.2 | -69.27 |
| 5855 | 54.11 | PK | 284 | 2.4 | H | -1.82 | 52.29 | 110.8 | -58.51 |
| 5875 | 53.06 | PK | 102 | 2.3 | H | -1.84 | 51.22 | 105.2 | -53.98 |
| 5925 | 53.31 | PK | 128 | 1.8 | H | -1.82 | 51.49 | 68.2 | -16.71 |
| 5850 | 54.03 | PK | 295 | 2.4 | V | -1.81 | 52.22 | 122.2 | -69.98 |
| 5855 | 54.8 | PK | 76 | 1.6 | V | -1.82 | 52.98 | 110.8 | -57.82 |
| 5875 | 53.19 | PK | 36 | 1.2 | V | -1.84 | 51.35 | 105.2 | -53.85 |
| 5925 | 53.07 | PK | 125 | 1.1 | V | -1.82 | 51.25 | 68.2 | -16.95 |
| 11590 | 46.59 | PK | 83 | 1.2 | H | 6.57 | 53.16 | 74 | -20.84 |
| 11590 | 33.41 | AV | 83 | 1.2 | H | 6.57 | 39.98 | 54 | -14.02 |
| 11590 | 46.54 | PK | 276 | 2.4 | V | 6.57 | 53.11 | 74 | -20.89 |
| 11590 | 33.28 | AV | 276 | 2.4 | V | 6.57 | 39.85 | 54 | -14.15 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11AC20** | | | | | | | | | |
| 5745MHz | | | | | | | | | |
| 5650 | 50.6 | PK | 262 | 1.3 | H | -1.95 | 48.65 | 68.2 | -19.55 |
| 5700 | 53.02 | PK | 105 | 1.2 | H | -2.02 | 51 | 105.2 | -54.2 |
| 5720 | 61.95 | PK | 99 | 1.7 | H | -1.97 | 59.98 | 110.8 | -50.82 |
| 5725 | 64.95 | PK | 3 | 1.2 | H | -1.96 | 62.99 | 122.2 | -59.21 |
| 5650 | 50.69 | PK | 356 | 2 | V | -1.95 | 48.74 | 68.2 | -19.46 |
| 5700 | 52.88 | PK | 281 | 1.2 | V | -2.02 | 50.86 | 105.2 | -54.34 |
| 5720 | 60.65 | PK | 179 | 2.2 | V | -1.97 | 58.68 | 110.8 | -52.12 |
| 5725 | 64.06 | PK | 54 | 1.2 | V | -1.96 | 62.1 | 122.2 | -60.1 |
| 11490 | 46.41 | PK | 291 | 2.5 | H | 6.63 | 53.04 | 74 | -20.96 |
| 11490 | 33.3 | AV | 291 | 2.5 | H | 6.63 | 39.93 | 54 | -14.07 |
| 11490 | 46.56 | PK | 334 | 1.1 | V | 6.63 | 53.19 | 74 | -20.81 |
| 11490 | 33.08 | AV | 334 | 1.1 | V | 6.63 | 39.71 | 54 | -14.29 |
| 5785MHz | | | | | | | | | |
| 11570 | 46.81 | PK | 62 | 1.6 | H | 6.59 | 53.4 | 74 | -20.6 |
| 11570 | 33.41 | AV | 62 | 1.6 | H | 6.59 | 40 | 54 | -14 |
| 11570 | 46.73 | PK | 69 | 2.3 | V | 6.59 | 53.32 | 74 | -20.68 |
| 11570 | 33.16 | AV | 69 | 2.3 | V | 6.59 | 39.75 | 54 | -14.25 |
| 5825MHz | | | | | | | | | |
| 5850 | 59.17 | PK | 255 | 1.4 | H | -1.81 | 57.36 | 122.2 | -64.84 |
| 5855 | 53.96 | PK | 53 | 1.1 | H | -1.82 | 52.14 | 110.8 | -58.66 |
| 5875 | 53.12 | PK | 132 | 1.4 | H | -1.84 | 51.28 | 105.2 | -53.92 |
| 5925 | 53.89 | PK | 190 | 1.9 | H | -1.82 | 52.07 | 68.2 | -16.13 |
| 5850 | 58.33 | PK | 148 | 1.7 | V | -1.81 | 56.52 | 122.2 | -65.68 |
| 5855 | 54.16 | PK | 47 | 1.5 | V | -1.82 | 52.34 | 110.8 | -58.46 |
| 5875 | 53.26 | PK | 26 | 1.6 | V | -1.84 | 51.42 | 105.2 | -53.78 |
| 5925 | 53.31 | PK | 109 | 2.4 | V | -1.82 | 51.49 | 68.2 | -16.71 |
| 11650 | 45.31 | PK | 270 | 1.7 | H | 6.77 | 52.08 | 74 | -21.92 |
| 11650 | 31.45 | AV | 270 | 1.7 | H | 6.77 | 38.22 | 54 | -15.78 |
| 11650 | 45.18 | PK | 140 | 2.2 | V | 6.77 | 51.95 | 74 | -22.05 |
| 11650 | 31.49 | AV | 140 | 2.2 | V | 6.77 | 38.26 | 54 | -15.74 |

| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11AC40** | | | | | | | | | |
| 5755MHz | | | | | | | | | |
| 5650 | 51.72 | PK | 164 | 1.1 | H | -1.95 | 49.77 | 68.2 | -18.43 |
| 5700 | 57.72 | PK | 130 | 2.1 | H | -2.02 | 55.7 | 105.2 | -49.5 |
| 5720 | 66.05 | PK | 143 | 2.4 | H | -1.97 | 64.08 | 110.8 | -46.72 |
| 5725 | 69.96 | PK | 144 | 2.3 | H | -1.96 | 68 | 122.2 | -54.2 |
| 5650 | 51.97 | PK | 153 | 2.4 | V | -1.95 | 50.02 | 68.2 | -18.18 |
| 5700 | 57.1 | PK | 343 | 1.2 | V | -2.02 | 55.08 | 105.2 | -50.12 |
| 5720 | 64.78 | PK | 151 | 2.4 | V | -1.97 | 62.81 | 110.8 | -47.99 |
| 5725 | 67.94 | PK | 289 | 1.6 | V | -1.96 | 65.98 | 122.2 | -56.22 |
| 11510 | 46.54 | PK | 320 | 1.6 | H | 6.59 | 53.13 | 74 | -20.87 |
| 11510 | 33.02 | AV | 320 | 1.6 | H | 6.59 | 39.61 | 54 | -14.39 |
| 11510 | 46.47 | PK | 166 | 2.1 | V | 6.59 | 53.06 | 74 | -20.94 |
| 11510 | 33.09 | AV | 166 | 2.1 | V | 6.59 | 39.68 | 54 | -14.32 |
| 5795MHz | | | | | | | | | |
| 5850 | 54.23 | PK | 3 | 1.8 | H | -1.81 | 52.42 | 122.2 | -69.78 |
| 5855 | 54.62 | PK | 119 | 1.1 | H | -1.82 | 52.8 | 110.8 | -58 |
| 5875 | 53.33 | PK | 203 | 2 | H | -1.84 | 51.49 | 105.2 | -53.71 |
| 5925 | 53.38 | PK | 296 | 1.6 | H | -1.82 | 51.56 | 68.2 | -16.64 |
| 5850 | 54.65 | PK | 354 | 1.3 | V | -1.81 | 52.84 | 122.2 | -69.36 |
| 5855 | 53.98 | PK | 185 | 1.3 | V | -1.82 | 52.16 | 110.8 | -58.64 |
| 5875 | 53.29 | PK | 357 | 1.4 | V | -1.84 | 51.45 | 105.2 | -53.75 |
| 5925 | 53.4 | PK | 13 | 1.3 | V | -1.82 | 51.58 | 68.2 | -16.62 |
| 11590 | 46.59 | PK | 228 | 1.7 | H | 6.57 | 53.16 | 74 | -20.84 |
| 11590 | 33.12 | AV | 228 | 1.7 | H | 6.57 | 39.69 | 54 | -14.31 |
| 11590 | 46.5 | PK | 337 | 1.3 | V | 6.57 | 53.07 | 74 | -20.93 |
| 11590 | 33.25 | AV | 337 | 1.3 | V | 6.57 | 39.82 | 54 | -14.18 |

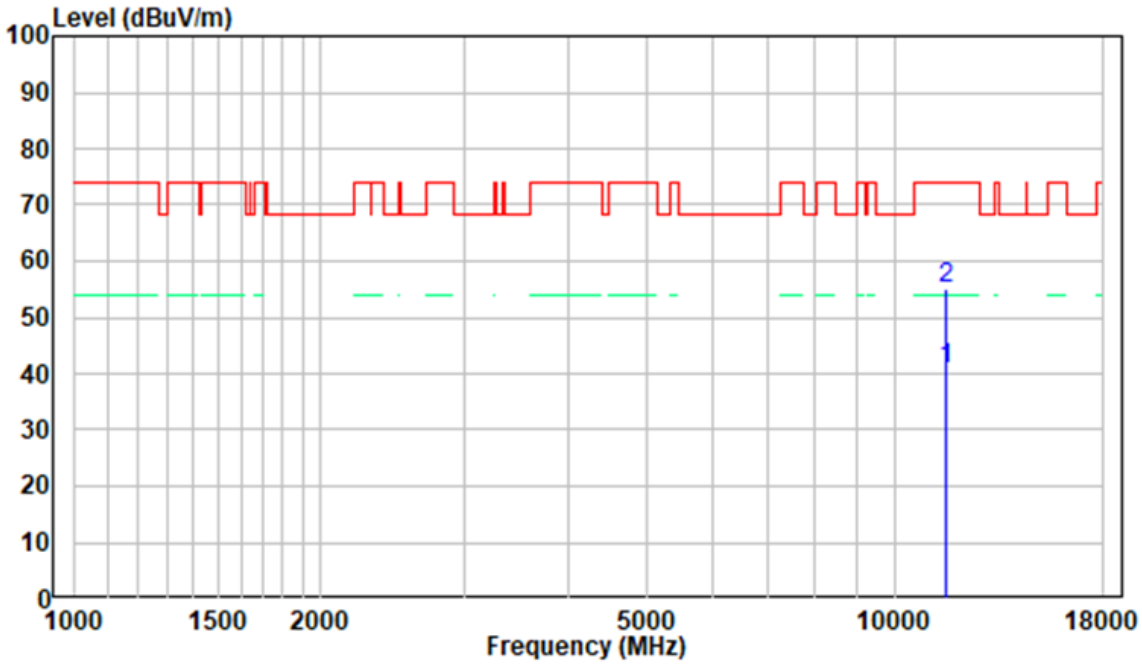
| Frequency (MHz) | Receiver | | Turntable Angle Degree | Rx Antenna | | Factor (dB/m) | Absolute Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|
| | Reading (dBμV) | PK/Ave | | Height (m) | Polar (H/V) | | | | |
| **802.11AC80** | | | | | | | | | |
| 5775MHz | | | | | | | | | |
| 5650 | 51.71 | PK | 259 | 1.5 | H | -1.95 | 49.76 | 68.2 | -18.44 |
| 5700 | 57.86 | PK | 349 | 1 | H | -2.02 | 55.84 | 105.2 | -49.36 |
| 5720 | 60.92 | PK | 180 | 1.7 | H | -1.97 | 58.95 | 110.8 | -51.85 |
| 5725 | 64.83 | PK | 256 | 1.2 | H | -1.96 | 62.87 | 122.2 | -59.33 |
| 5650 | 51.6 | PK | 101 | 2.4 | V | -1.95 | 49.65 | 68.2 | -18.55 |
| 5700 | 56.99 | PK | 53 | 2.2 | V | -2.02 | 54.97 | 105.2 | -50.23 |
| 5720 | 60.65 | PK | 229 | 1.2 | V | -1.97 | 58.68 | 110.8 | -52.12 |
| 5725 | 64.05 | PK | 158 | 1.4 | V | -1.96 | 62.09 | 122.2 | -60.11 |
| 5850 | 59.13 | PK | 79 | 1.6 | H | -1.81 | 57.32 | 122.2 | -64.88 |
| 5855 | 58.79 | PK | 307 | 2.2 | H | -1.82 | 56.97 | 110.8 | -53.83 |
| 5875 | 53.08 | PK | 196 | 1 | H | -1.84 | 51.24 | 105.2 | -53.96 |
| 5925 | 53.48 | PK | 148 | 2.5 | H | -1.82 | 51.66 | 68.2 | -16.54 |
| 5850 | 59.86 | PK | 16 | 1.3 | V | -1.81 | 58.05 | 122.2 | -64.15 |
| 5855 | 58.4 | PK | 169 | 1.4 | V | -1.82 | 56.58 | 110.8 | -54.22 |
| 5875 | 53.05 | PK | 354 | 1.7 | V | -1.84 | 51.21 | 105.2 | -53.99 |
| 5925 | 53.85 | PK | 269 | 1.3 | V | -1.82 | 52.03 | 68.2 | -16.17 |
| 11550 | 46.55 | PK | 341 | 2 | H | 6.61 | 53.16 | 74 | -20.84 |
| 11550 | 33.23 | AV | 341 | 2 | H | 6.61 | 39.84 | 54 | -14.16 |
| 11550 | 46.89 | PK | 112 | 1.8 | V | 6.61 | 53.5 | 74 | -20.5 |
| 11550 | 32.9 | AV | 112 | 1.8 | V | 6.61 | 39.51 | 54 | -14.49 |

**Note:**
Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Corrected. Amplitude - Limit
The other spurious emission which is in the noise floor level was not recorded.
The test result of peak was less than the limit of average, so just peak value were recorded.

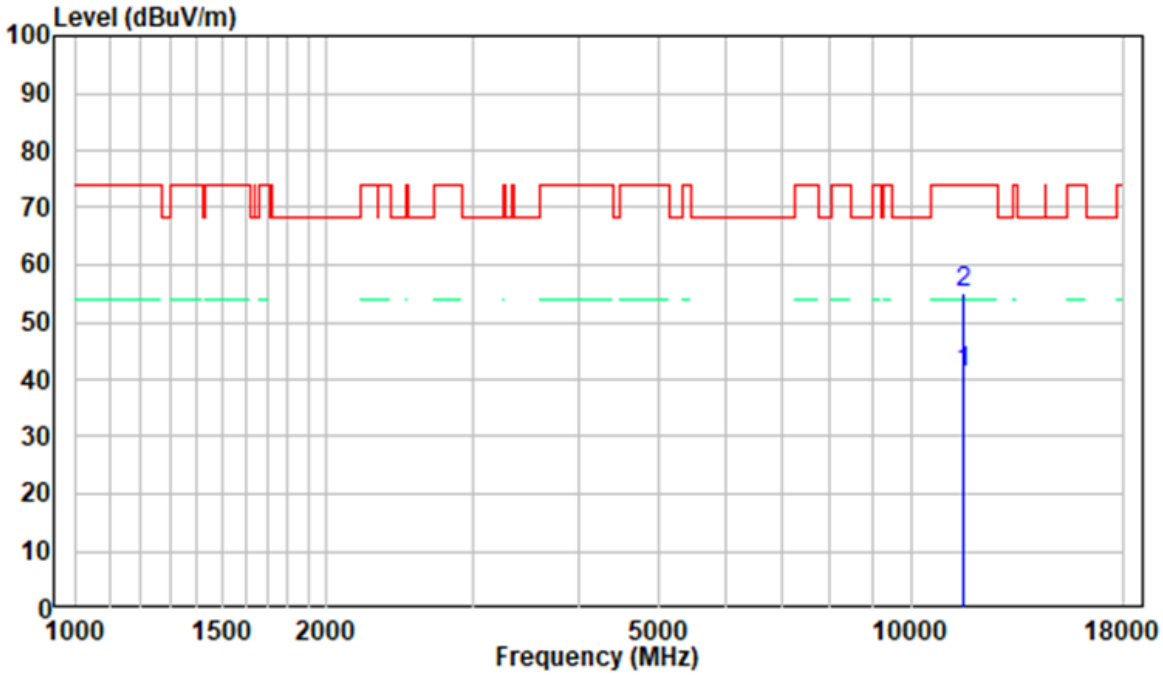
**1 GHz - 18 GHz:** (Pre-Scan plots)

802.11 a, 5745MHz

Horizontal



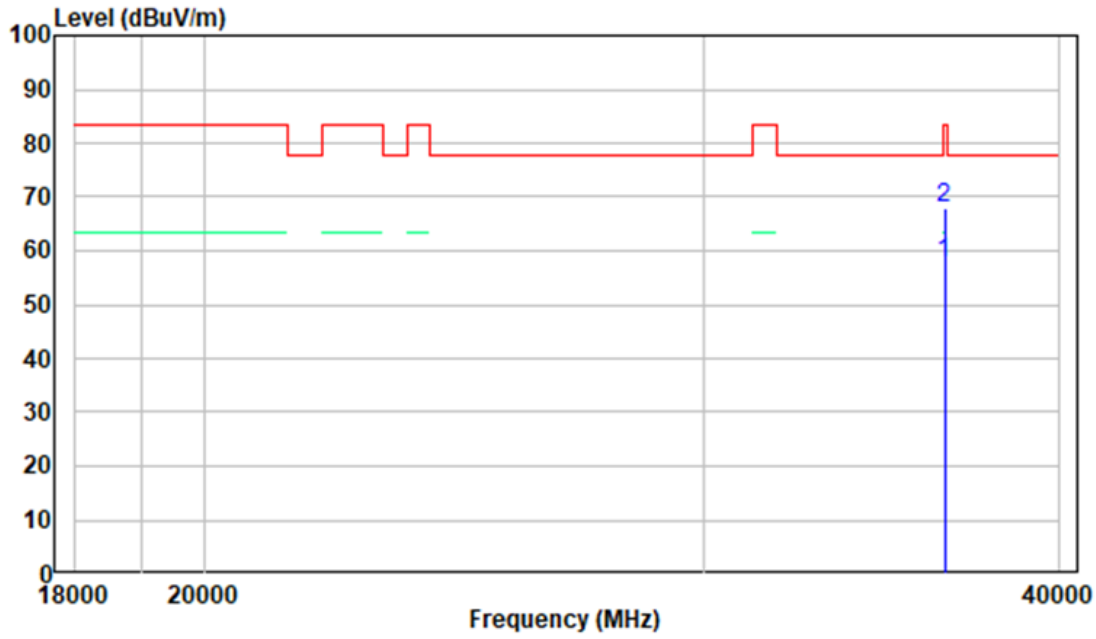

Vertical



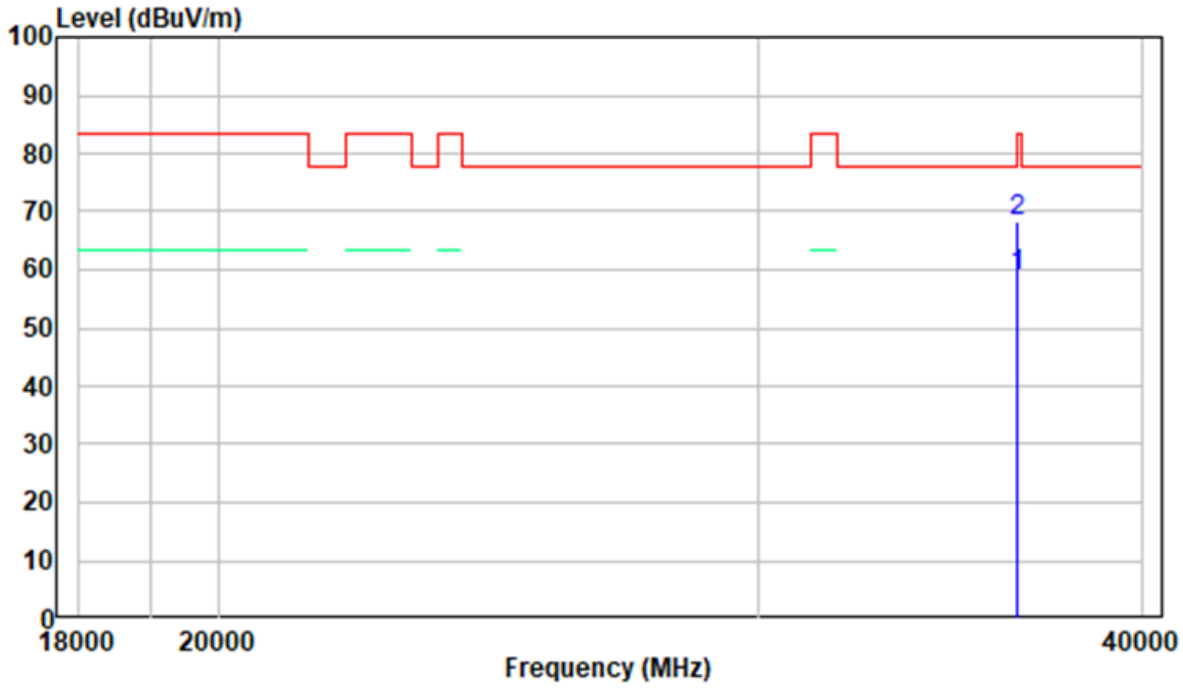
**18-40GHz:** (Pre-Scan plots)

802.11 a, 5745MHz

Horizontal




Vertical



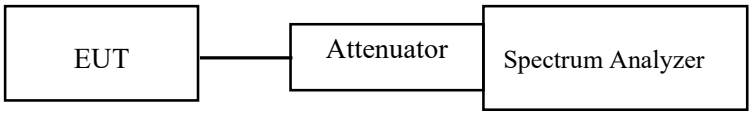
# FCC §15.407(a),(e) –EMISSION BANDWIDTH& 99% OCCUPIED BANDWIDTH

## Applicable Standard

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.

## Test Procedure

a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) 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%.
f) for the 99% occupied bandwidth, use the OBW function of spectrum analyzer.




## Test Data

### Environmental Conditions

| | |
|---|---|
| **Temperature:** | 25.2 ℃ |
| **Relative Humidity:** | 52 % |
| **ATM Pressure:** | 101.3 kPa |

*The testing was performed by Roger Ling on 2022-10-23.*

*EUT operation mode: Transmitting*

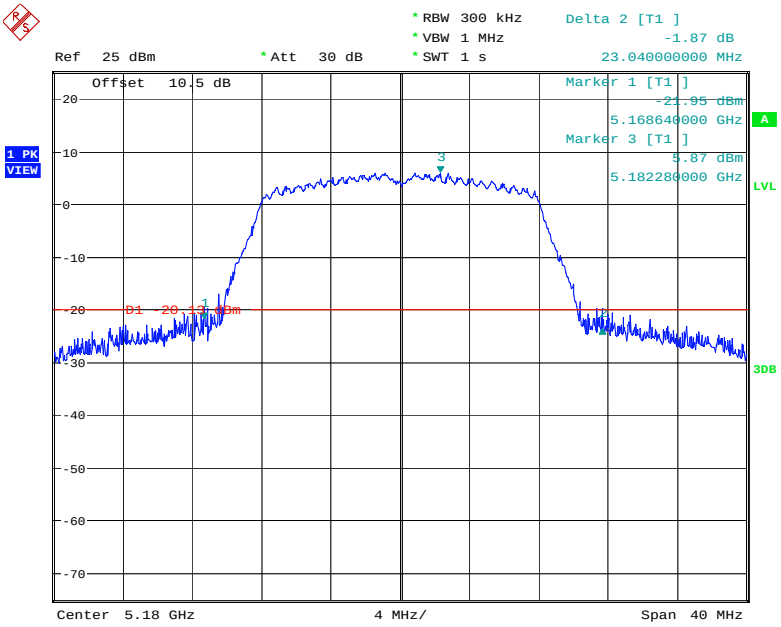
**Test Result:** Pass; please refer to the following tables and plots.

**5150 MHz - 5250 MHz:**

| Frequency (MHz) | 26 dB Bandwidth (MHz) | 99% Bandwidth (MHz) | Remark |
|---|---|---|---|
| 802.11a | | | No transmitted signal in the 99% bandwidth extends into the U-NII-2A band |
| 5180 | 23.04 | 17.04 | |
| 5200 | 20.44 | 17.04 | |
| 5240 | 20.92 | 17.08 | |
| 802.11n20 | | | |
| 5180 | 21.92 | 17.92 | |
| 5200 | 22.24 | 17.88 | |
| 5240 | 20.80 | 17.96 | |
| 802.11n40 | | | |
| 5190 | 41.84 | 36.40 | |
| 5230 | 45.44 | 36.40 | |
| 802.11ac20 | | | |
| 5180 | 22.24 | 17.96 | |
| 5200 | 20.80 | 17.96 | |
| 5240 | 21.32 | 17.96 | |
| 802.11ac40 | | | |
| 5190 | 41.36 | 36.32 | |
| 5230 | 43.60 | 36.40 | |
| 11ac80 | | | |
| 5210 | 87.36 | 75.68 | |

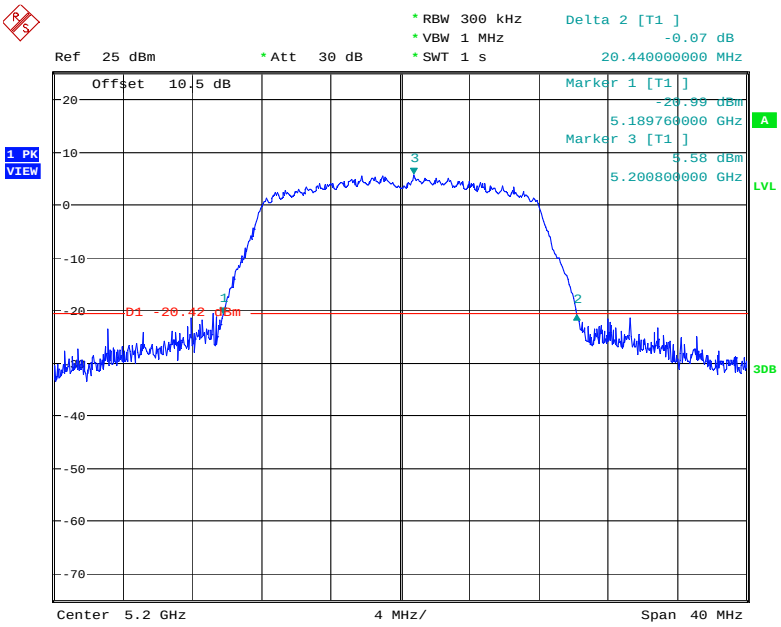
## 26 dB Emission Bandwidth

### 802.11a mode, 5180 MHz



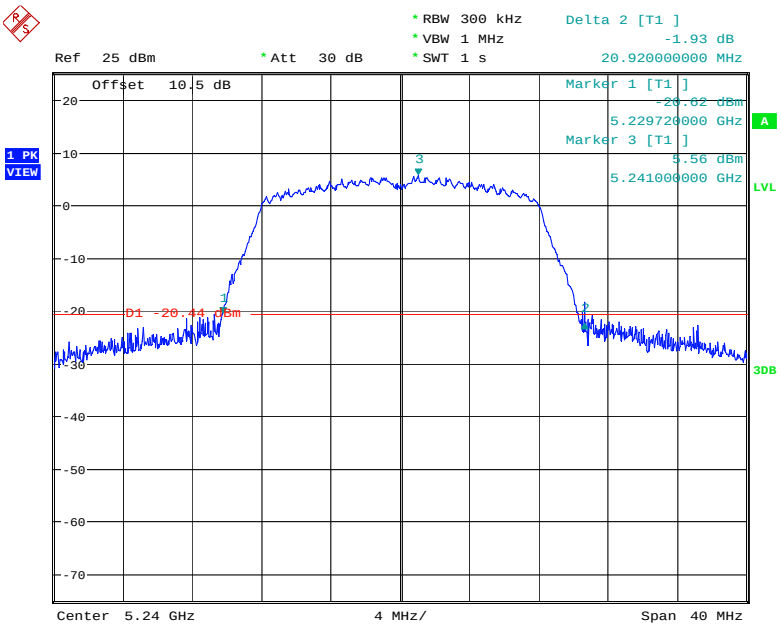

Date: 23.OCT.2022 14:28:57

### 802.11a mode, 5200 MHz



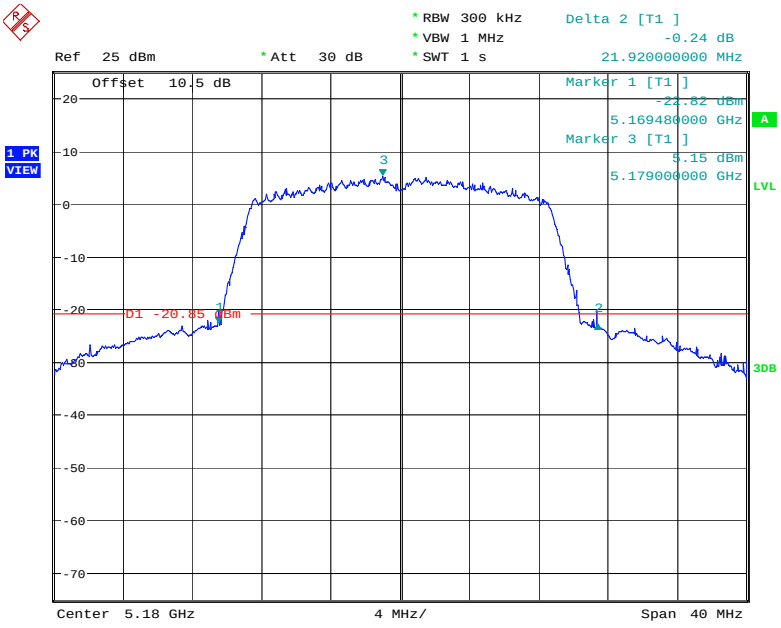

Date: 23.OCT.2022 14:35:57

## 802.11a mode, 5240 MHz



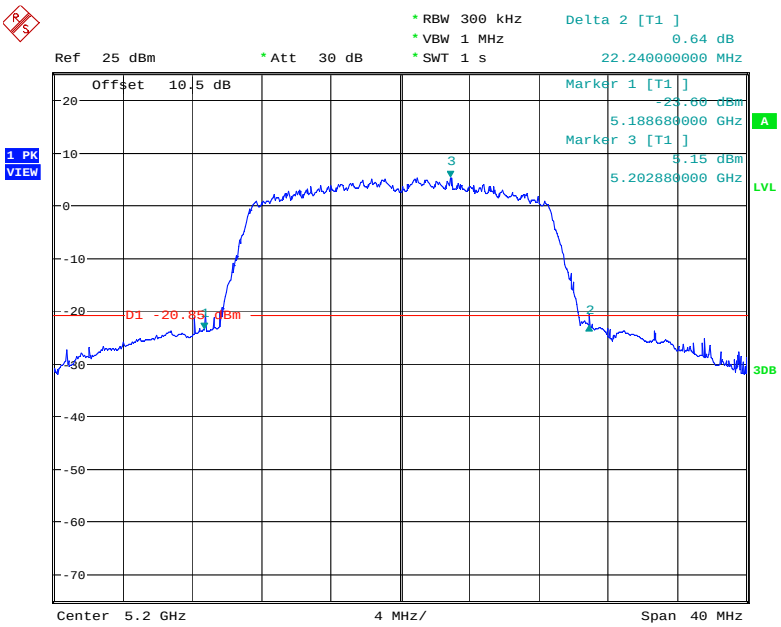

Date: 23.OCT.2022 14:41:13

## 802.11n20 mode,5180 MHz



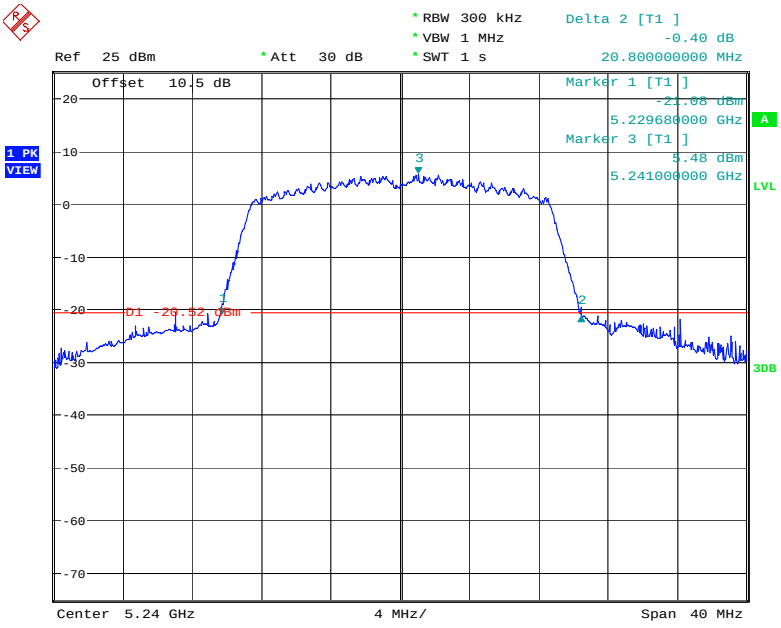

Date: 23.OCT.2022 17:21:17

## 802.11n20 mode, 5200 MHz



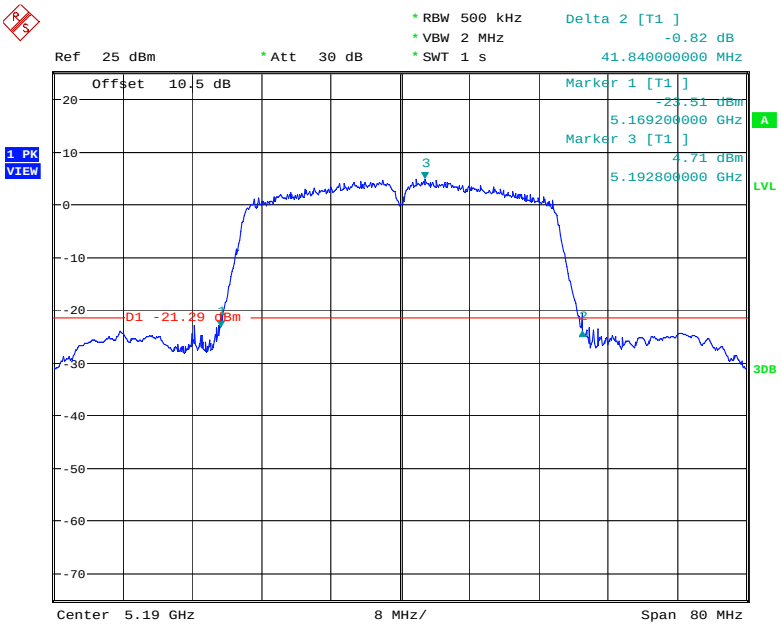

Date: 23.OCT.2022 17:23:56

## 802.11n20 mode, 5240 MHz



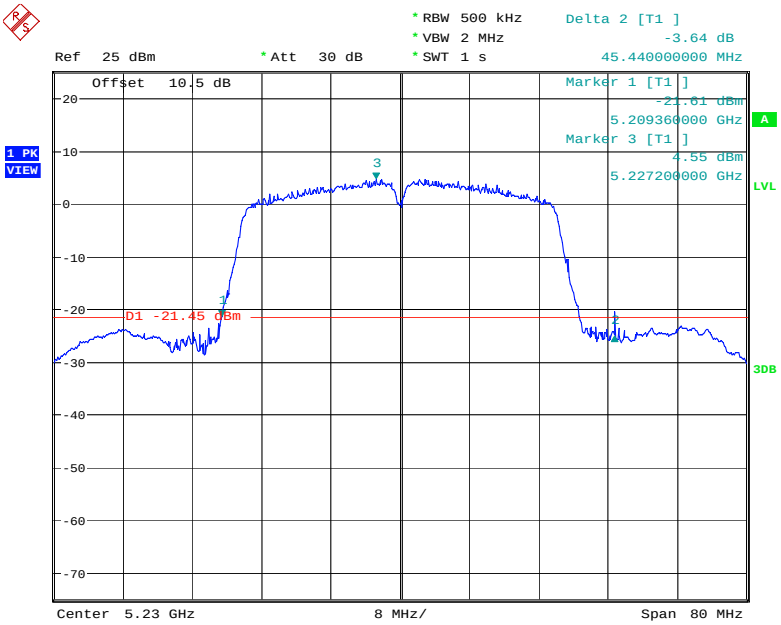

Date: 23.OCT.2022 17:28:07

## 802.11n40 mode, 5190 MHz



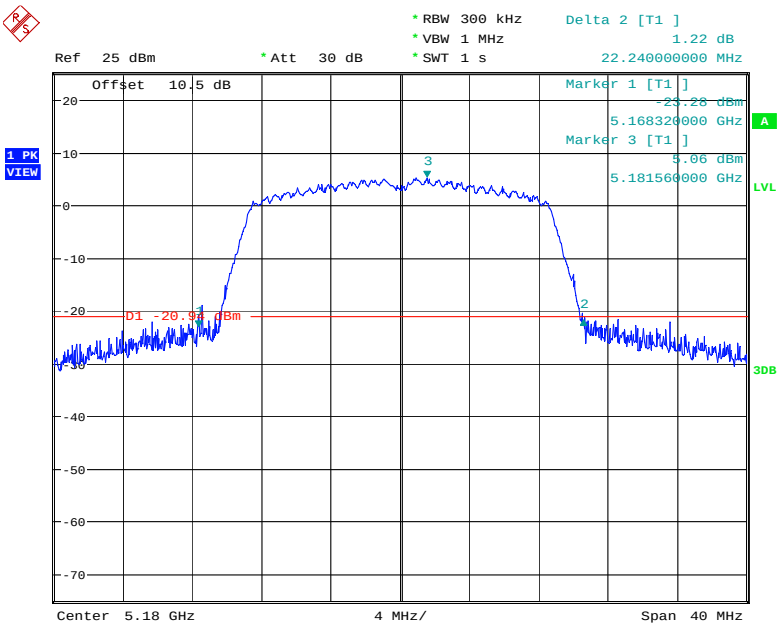

Date: 23.OCT.2022 17:51:05

## 802.11n40 mode, 5230 MHz



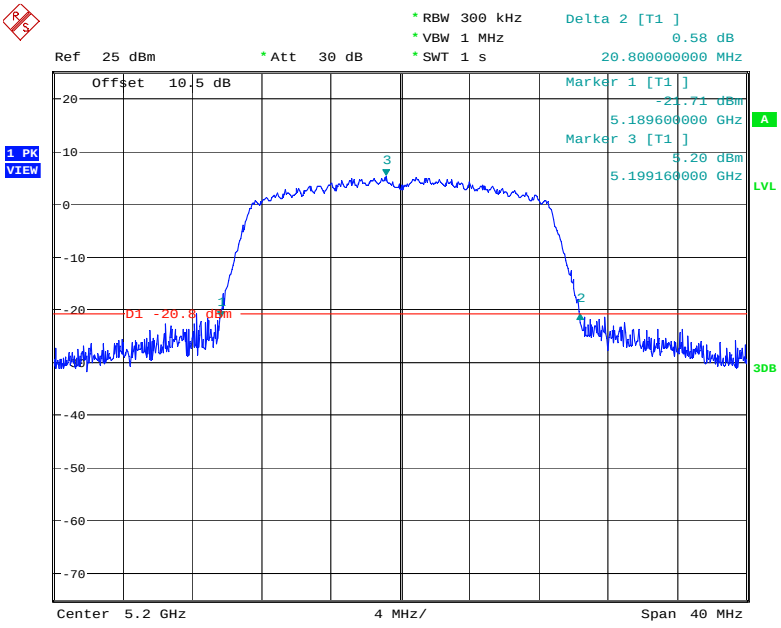

Date: 23.OCT.2022 17:54:11

## 802.11ac20 mode, 5180 MHz



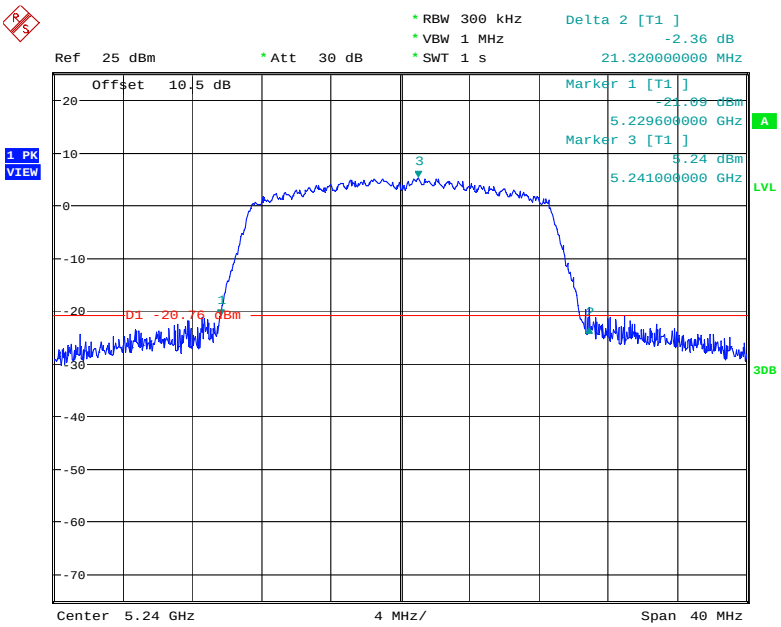

Date: 23.OCT.2022 15:45:31

## 802.11ac20 mode, 5200 MHz



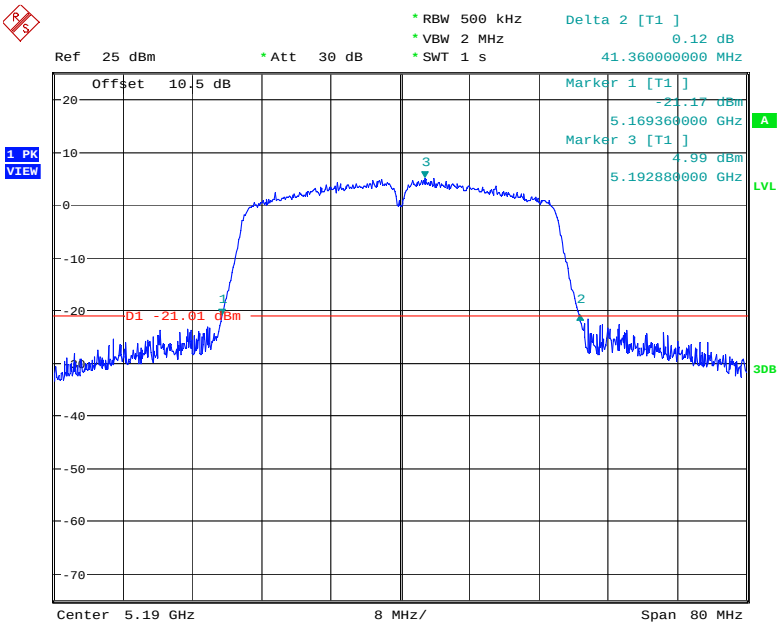

Date: 23.OCT.2022 15:50:22

## 802.11ac20 mode, 5240 MHz



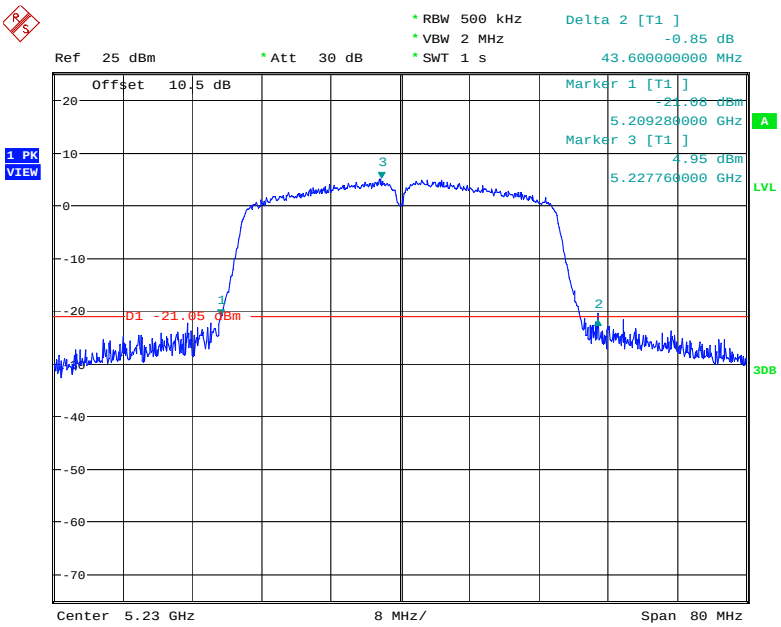

Date: 23.OCT.2022 15:55:31

## 802.11ac40 mode, 5190 MHz



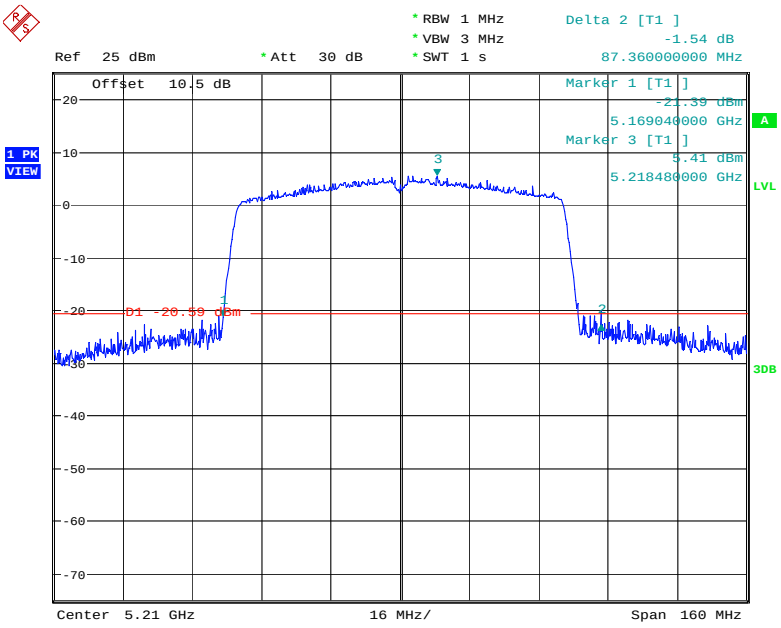

Date: 23.OCT.2022 16:36:37

## 802.11ac40 mode, 5230 MHz




Date: 23.OCT.2022 16:43:08

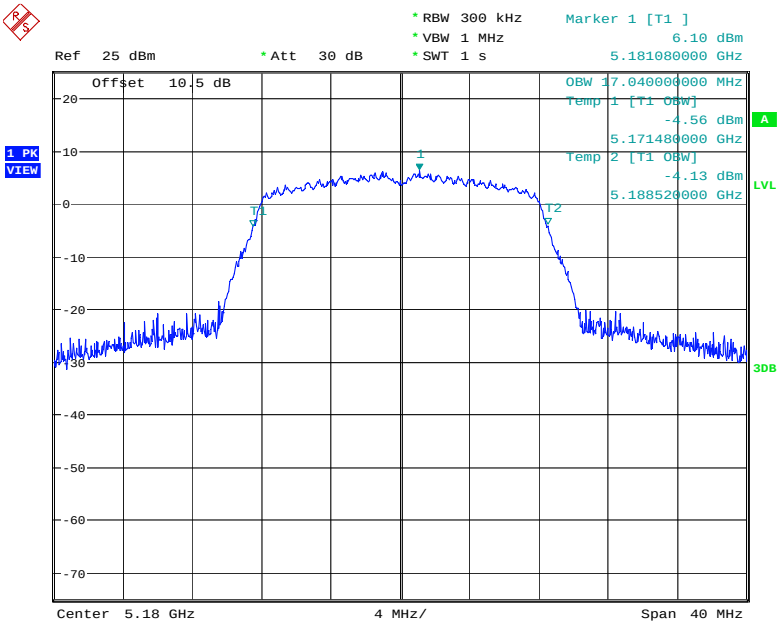
## 802.11ac80 mode, 5210 MHz




Date: 23.OCT.2022 17:06:40

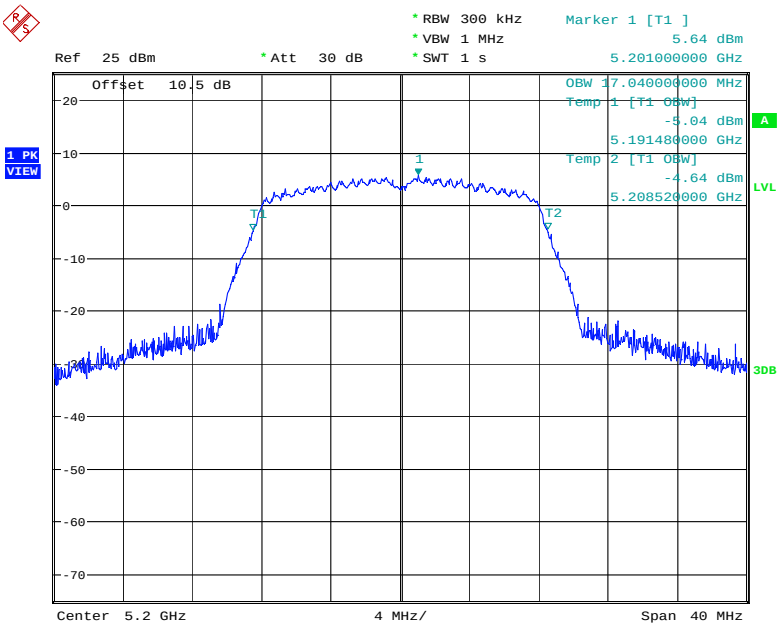
## 99% Occupied Bandwidth

### 802.11a mode, 5180 MHz



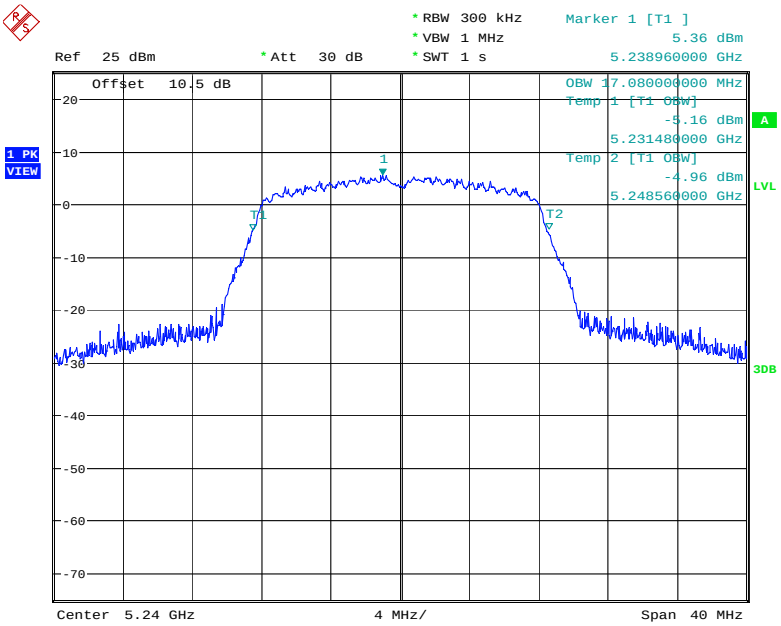

Date: 23.OCT.2022 14:27:12

### 802.11a mode, 5200 MHz



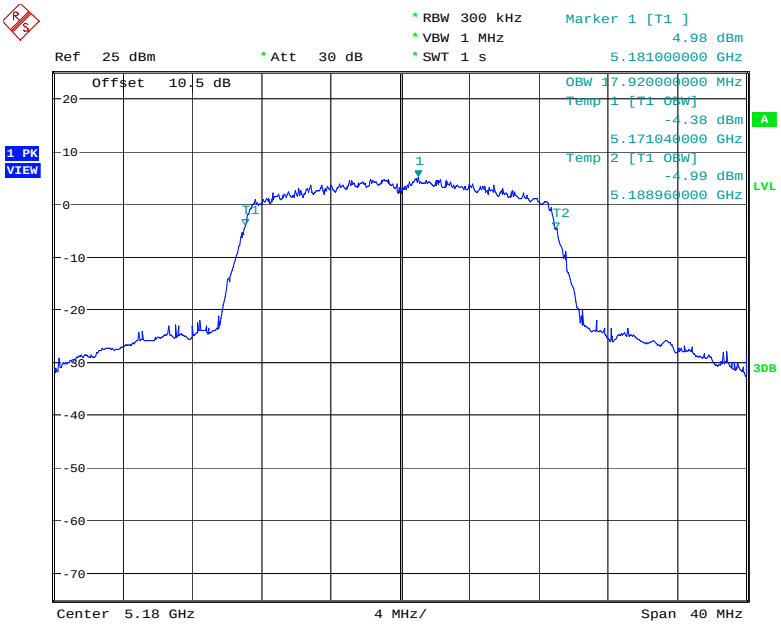

Date: 23.OCT.2022 14:33:48

## 802.11a mode, 5240 MHz



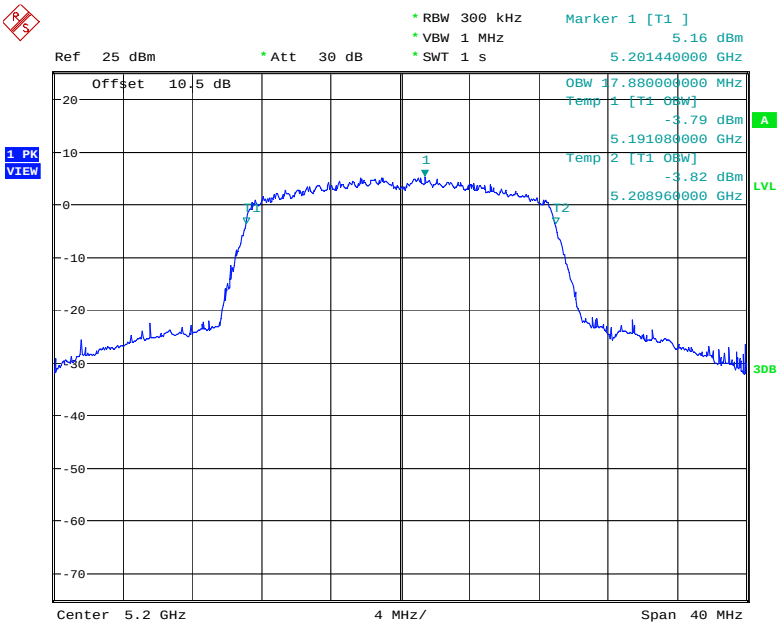

Date: 23.OCT.2022 14:39:28

## 802.11n20 mode,5180 MHz



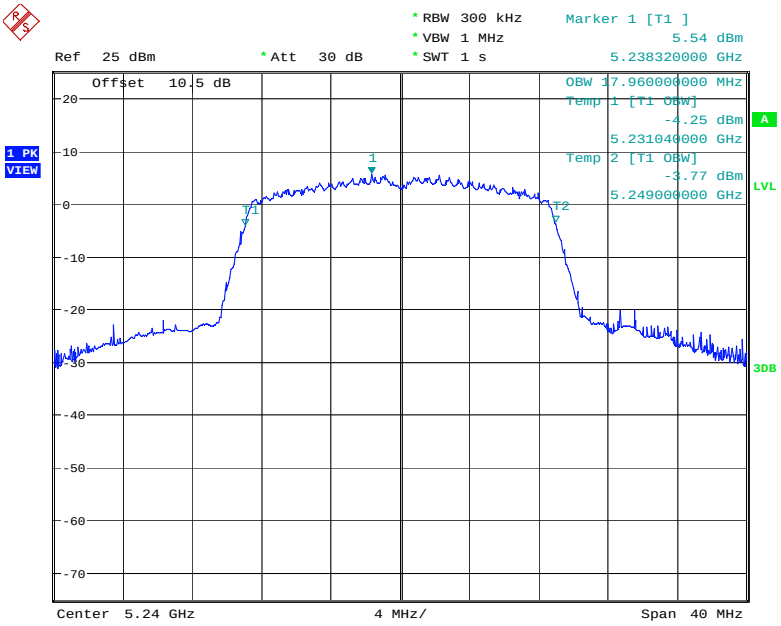

Date: 23.OCT.2022 17:20:45

## 802.11n20 mode, 5200 MHz



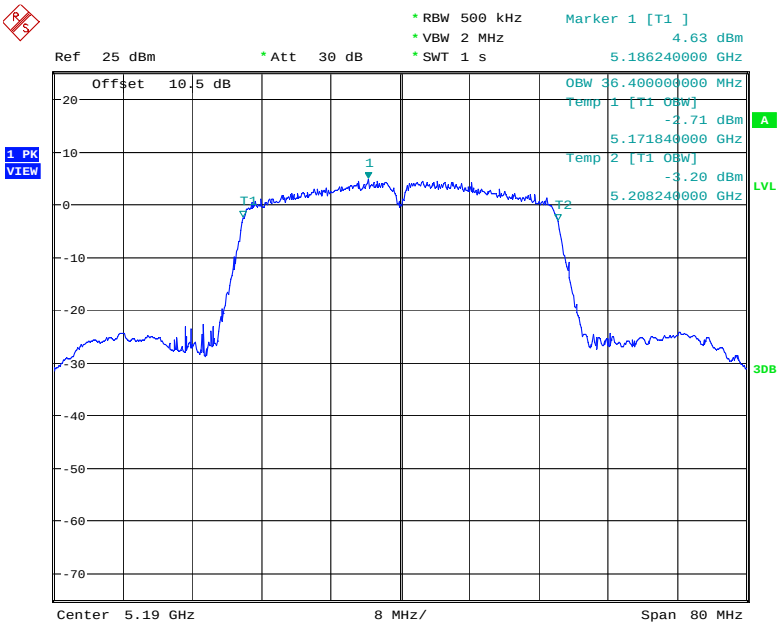

Date: 23.OCT.2022 17:23:24

## 802.11n20 mode, 5240 MHz



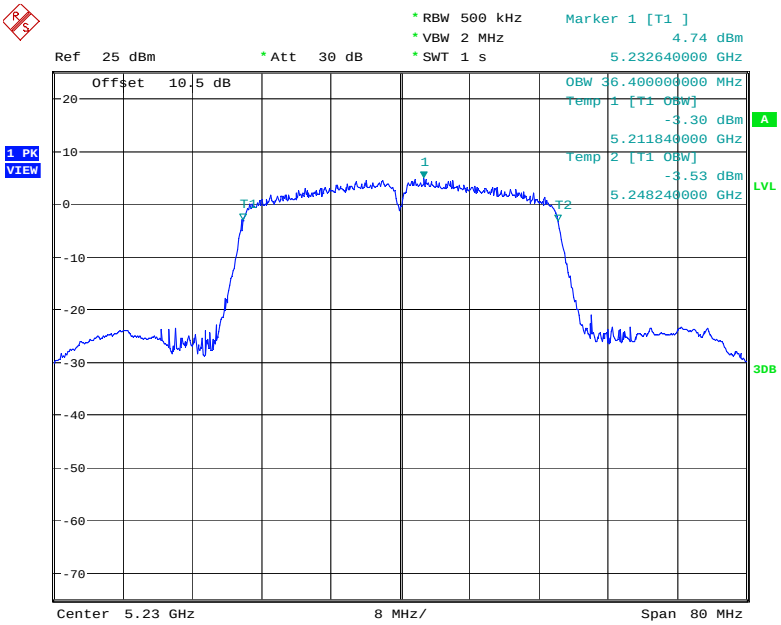

Date: 23.OCT.2022 17:26:58

## 802.11n40 mode, 5190 MHz



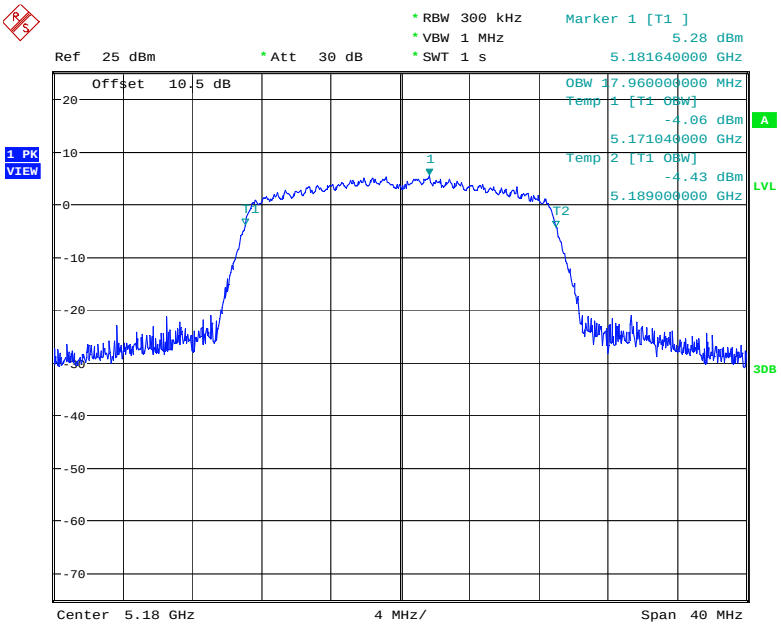

Date: 23.OCT.2022 17:49:43

## 802.11n40 mode, 5230 MHz



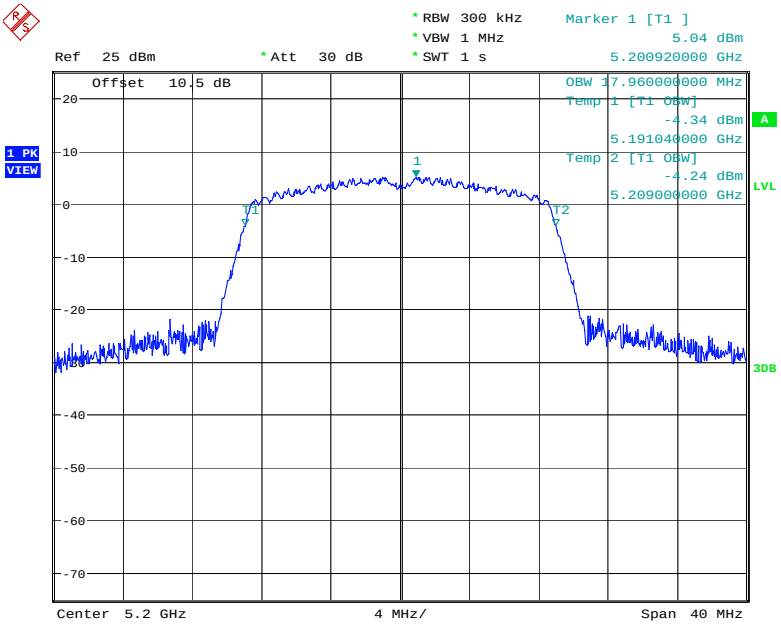

Date: 23.OCT.2022 17:53:14

## 802.11ac20 mode, 5180 MHz



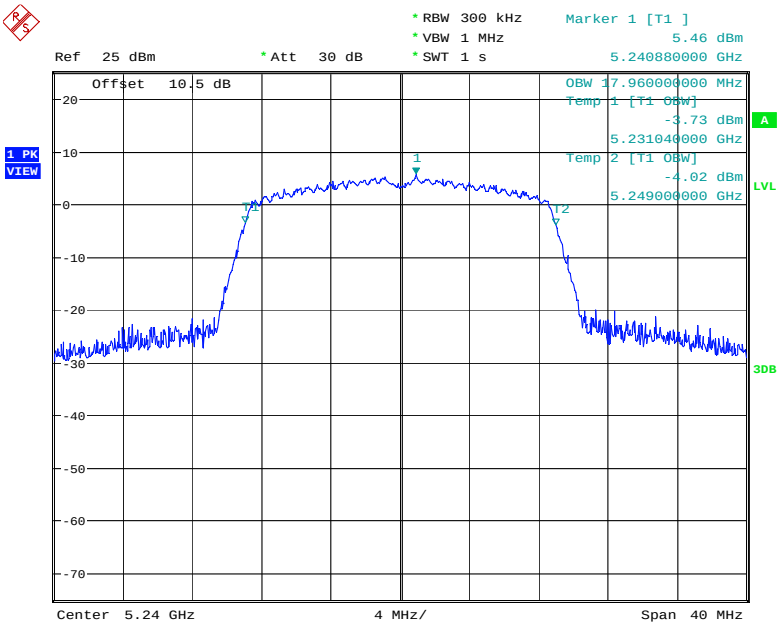

Date: 23.OCT.2022 15:42:34

## 802.11ac20 mode, 5200 MHz



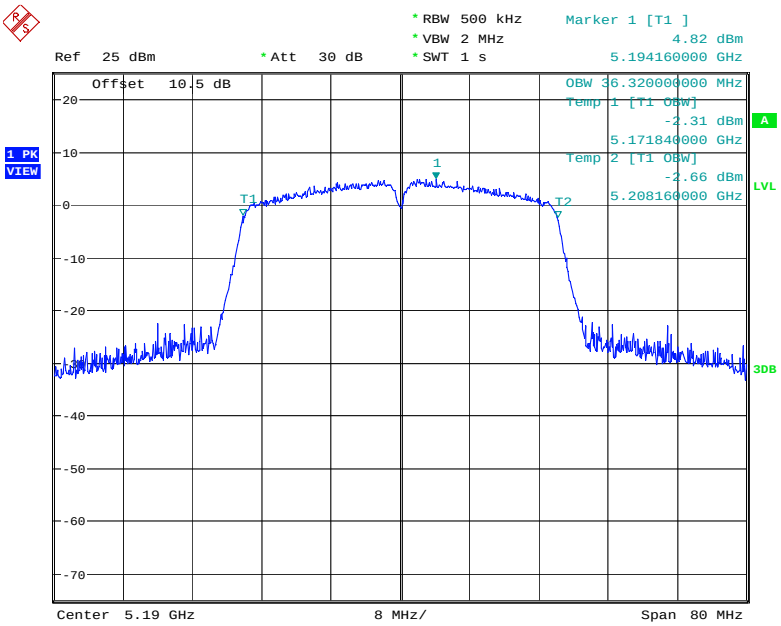

Date: 23.OCT.2022 15:48:49

## 802.11ac20 mode, 5240 MHz



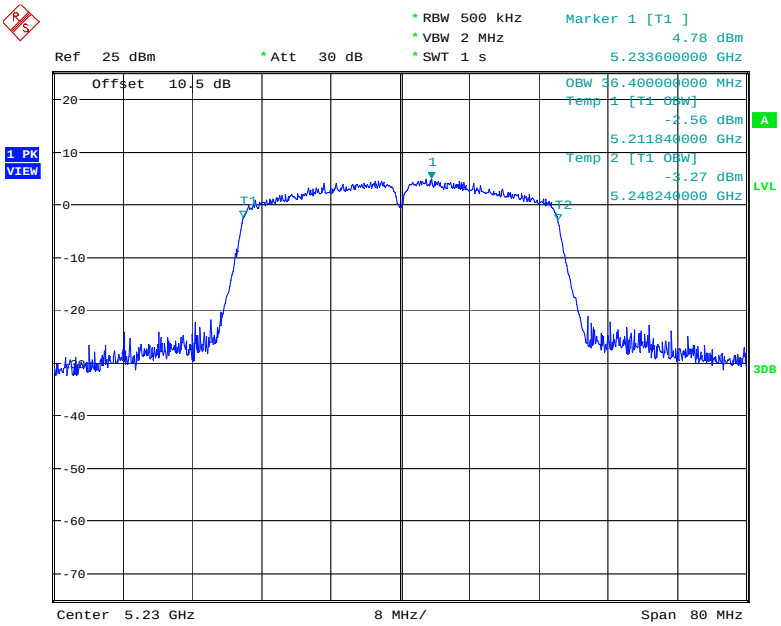

Date: 23.OCT.2022 15:53:46

## 802.11ac40 mode, 5190 MHz



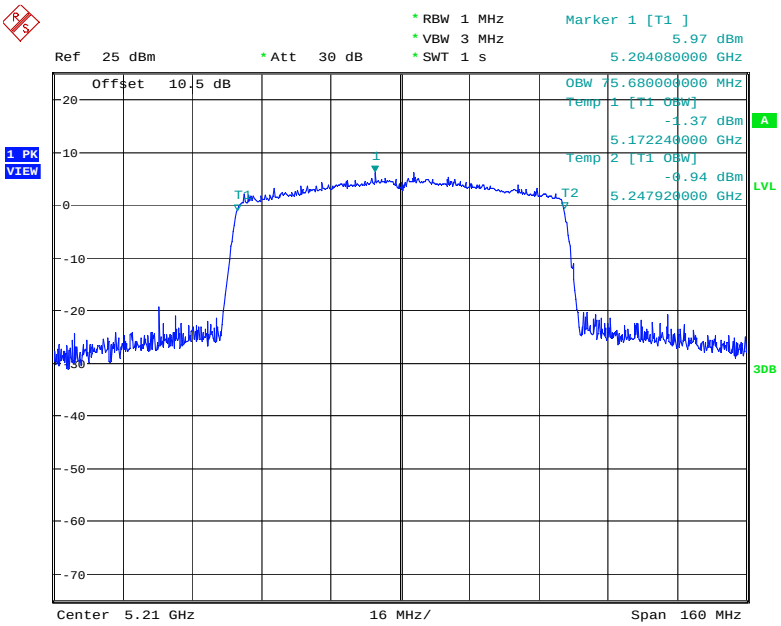

Date: 23.OCT.2022 16:34:40

## 802.11ac40 mode, 5230 MHz




Date: 23.OCT.2022 16:40:48

## 802.11ac80 mode, 5210 MHz



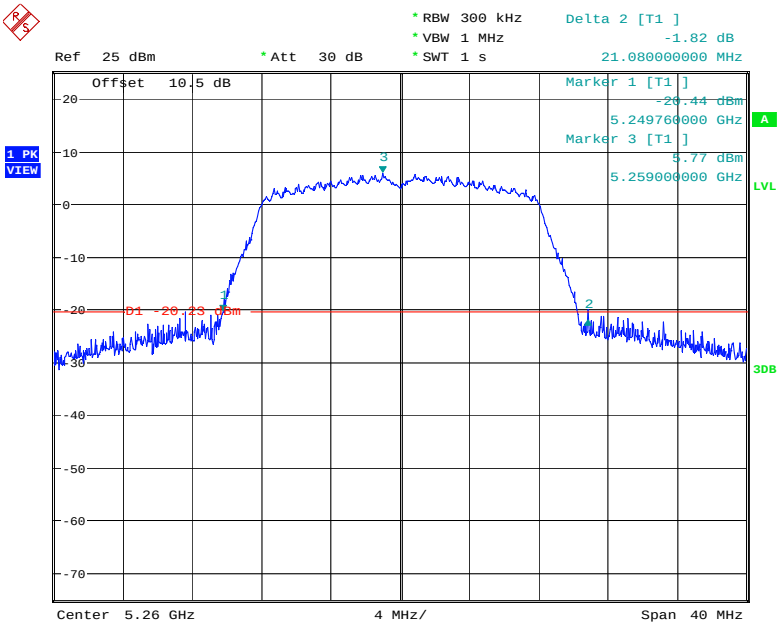

Date: 23.OCT.2022 17:05:31

**5250 MHz - 5350 MHz:**

| Frequency (MHz) | 26 dB Bandwidth (MHz) | 99% Bandwidth (MHz) |
|---|---|---|
| 802.11a | | |
| 5260 | 21.08 | 17.08 |
| 5280 | 22.24 | 17.04 |
| 5320 | 21.32 | 17.04 |
| 802.11n20 | | |
| 5260 | 20.68 | 17.92 |
| 5280 | 21.80 | 17.92 |
| 5320 | 21.20 | 18.00 |
| 802.11n40 | | |
| 5270 | 41.28 | 36.40 |
| 5310 | 41.20 | 36.40 |
| 802.11ac20 | | |
| 5260 | 20.88 | 17.96 |
| 5280 | 24.80 | 17.96 |
| 5320 | 24.80 | 17.96 |
| 802.11ac40 | | |
| 5270 | 41.52 | 36.32 |
| 5310 | 41.44 | 36.40 |
| 802.11ac80 | | |
| 5290 | 87.36 | 75.52 |

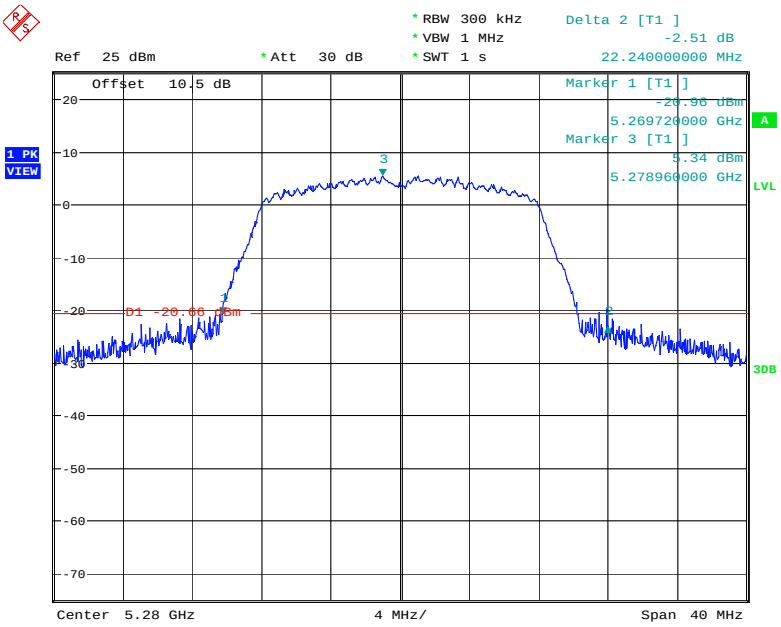
## 26 dB Emissions

### 802.11a mode, 5260MHz



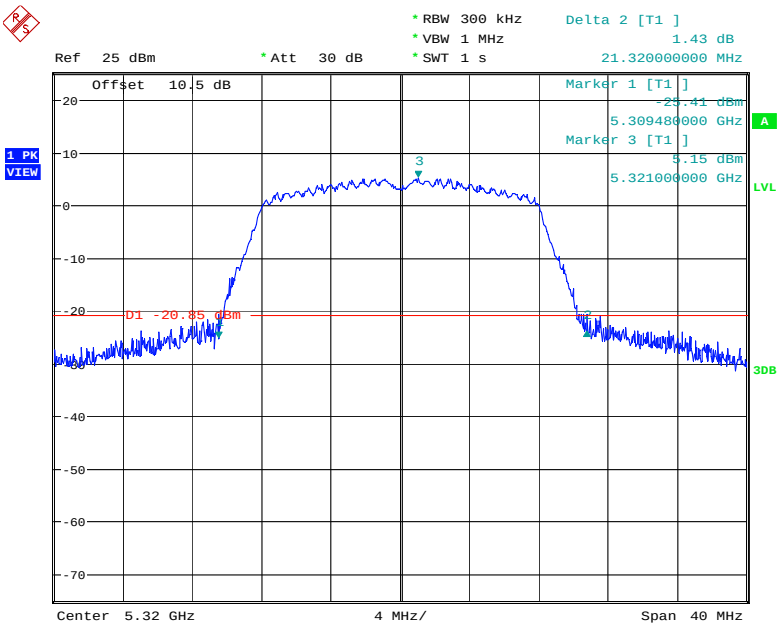

Date: 23.OCT.2022 15:01:45

### 802.11a mode, 5280MHz



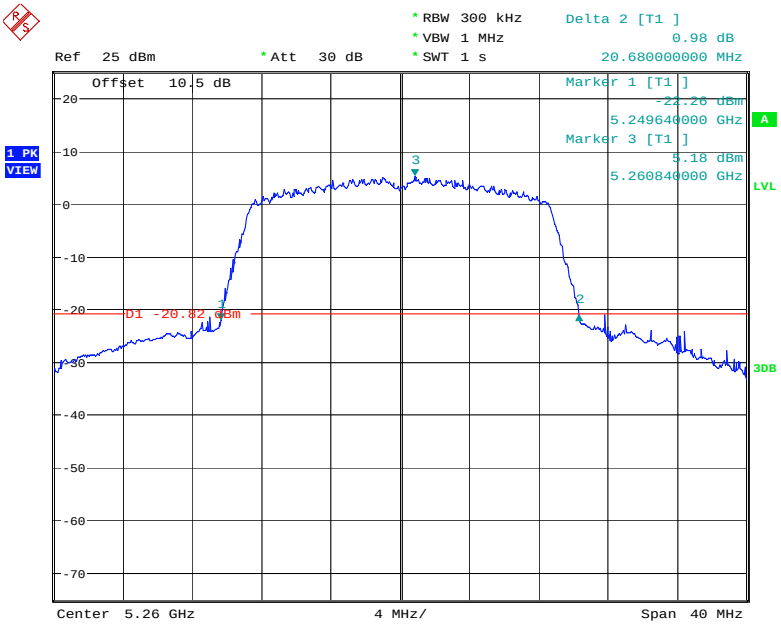

Date: 23.OCT.2022 15:08:09

## 802.11a mode, 5320MHz



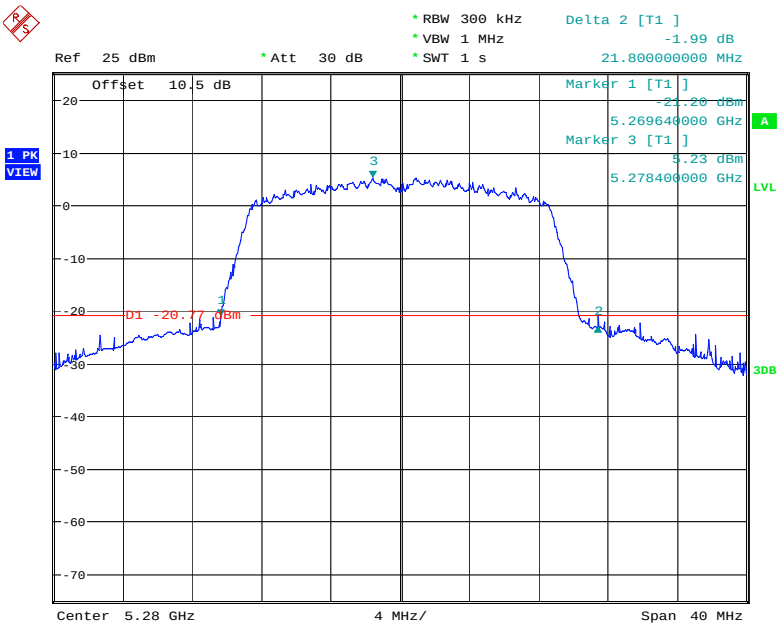

Date: 23.OCT.2022 15:19:06

## 802.11n20 mode,5260 MHz



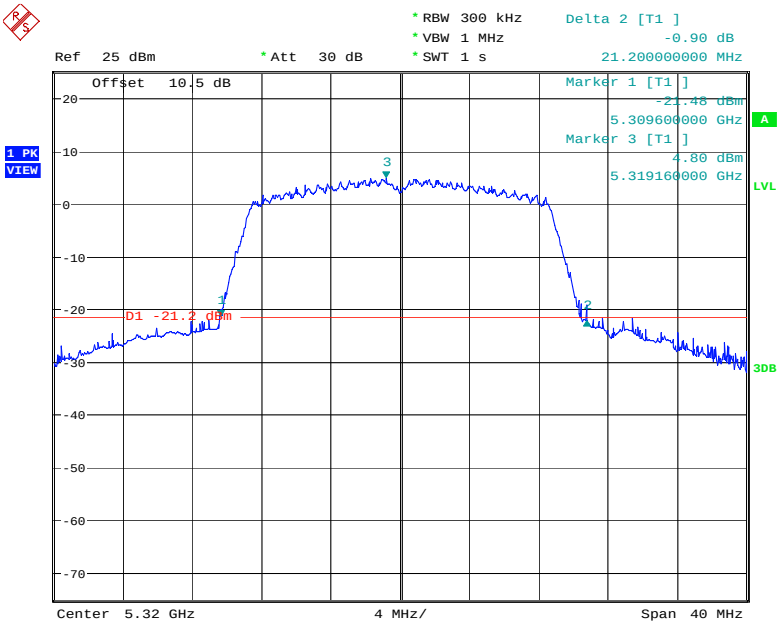

Date: 23.OCT.2022 17:31:02

## 802.11n20 mode, 5280MHz



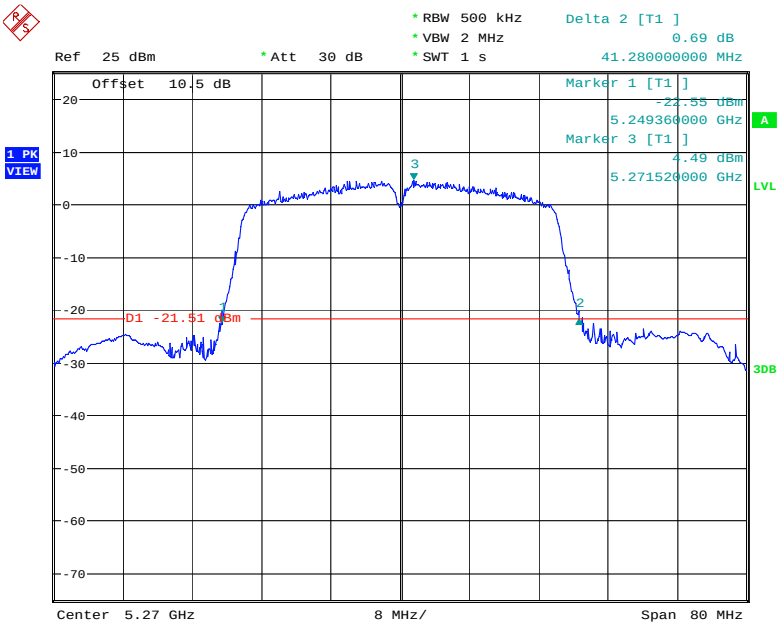

Date: 23.OCT.2022 17:33:54

## 802.11n20 mode, 5320MHz



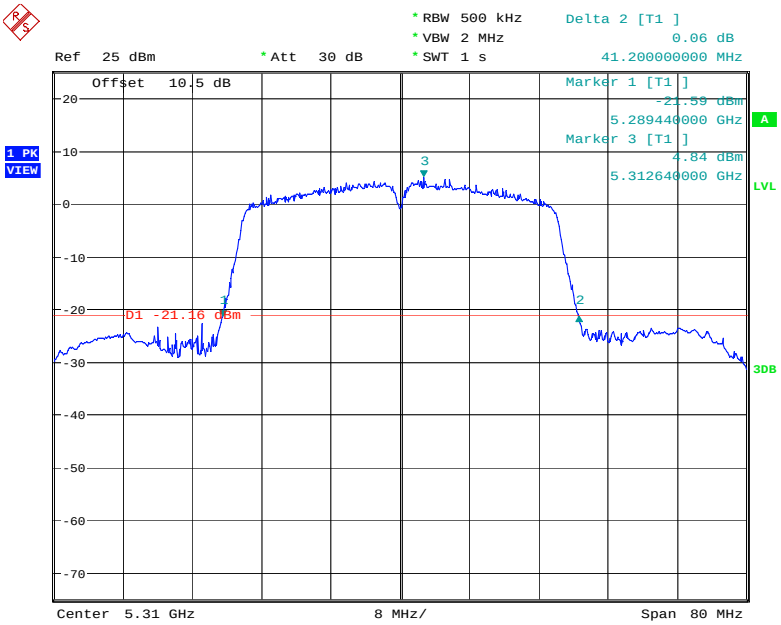

Date: 23.OCT.2022 17:38:09

## 802.11n40 mode, 5270 MHz



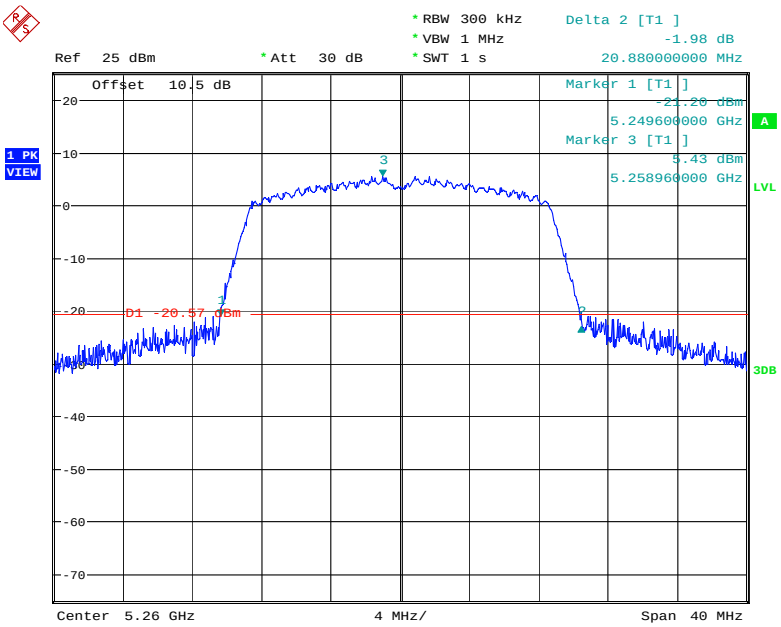

Date: 23.OCT.2022 17:57:37

## 802.11n40 mode, 5310 MHz



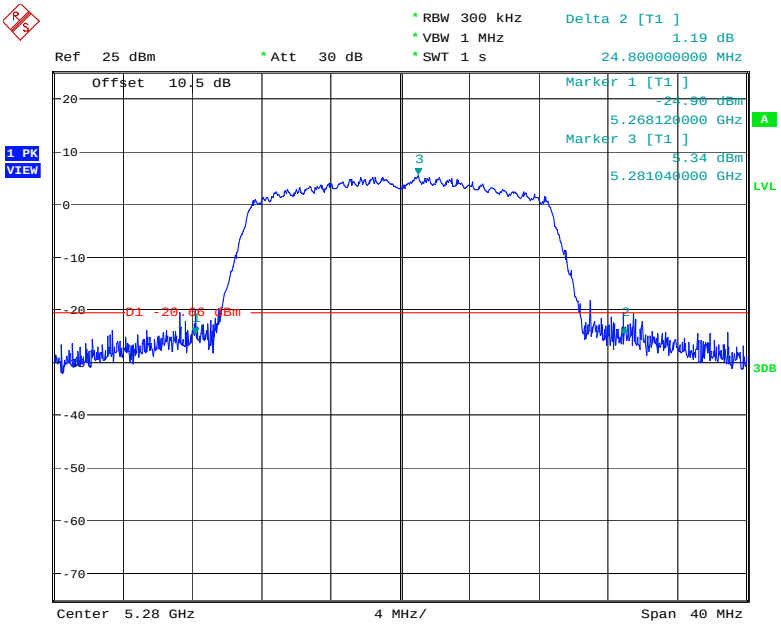

Date: 23.OCT.2022 18:02:11

## 802.11ac20 mode, 5260MHz



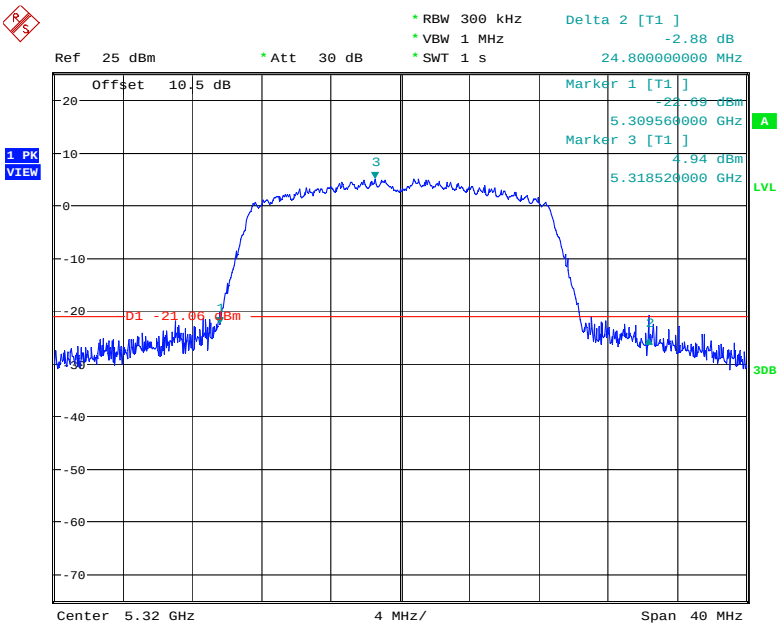

Date: 23.OCT.2022 16:02:28

## 802.11ac20 mode,5280MHz



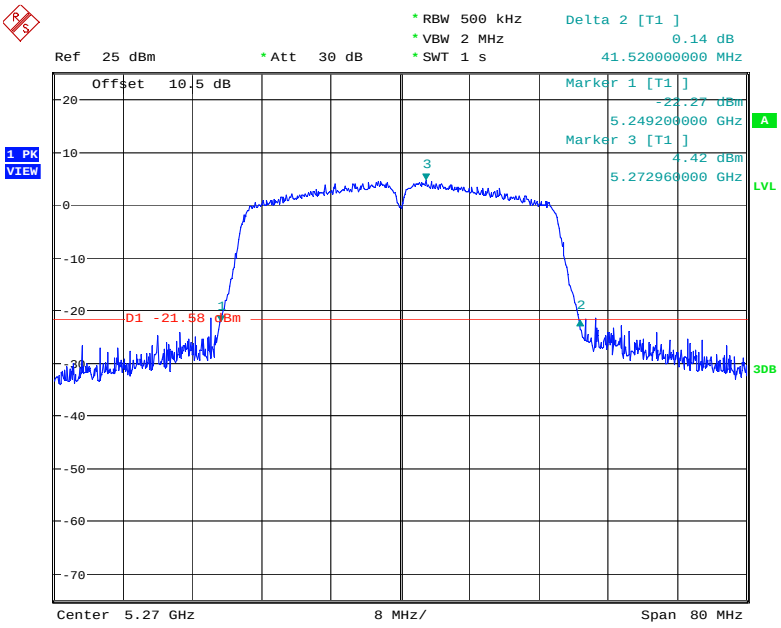

Date: 23.OCT.2022 16:08:34

## 802.11ac20 mode, 5320 MHz



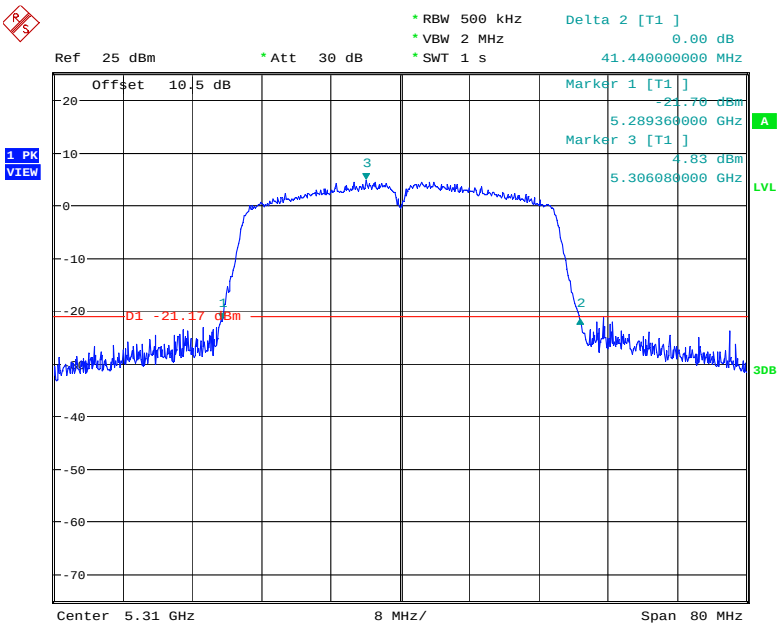

Date: 23.OCT.2022 16:15:07

## 802.11ac40 mode, 5270MHz



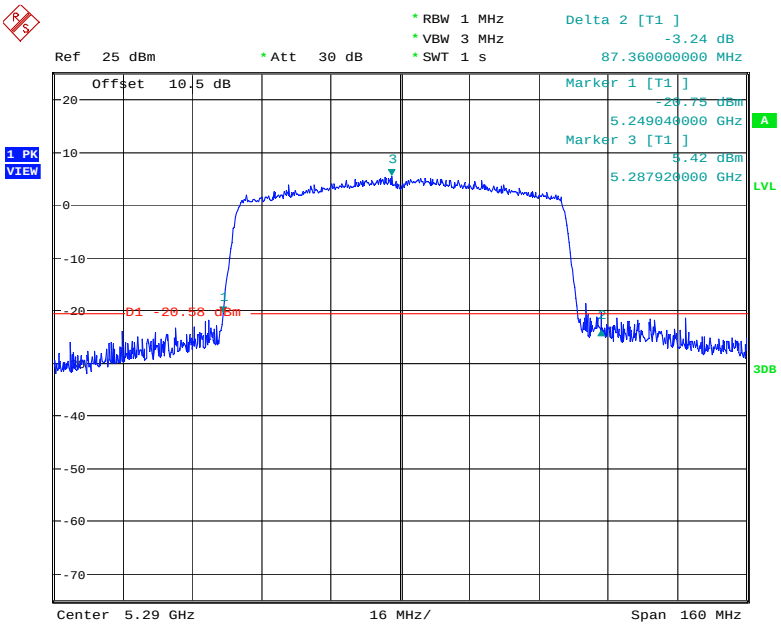

Date: 23.OCT.2022 16:47:24

## 802.11ac40 mode, 5310MHz




Date: 23.OCT.2022 16:53:11

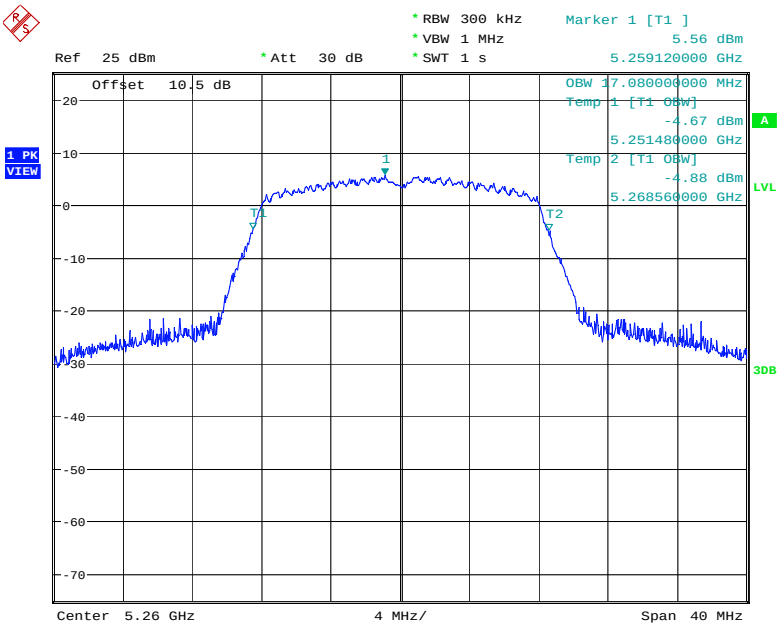
## 802.11ac80 mode, 5290MHz




Date: 23.OCT.2022 17:13:08

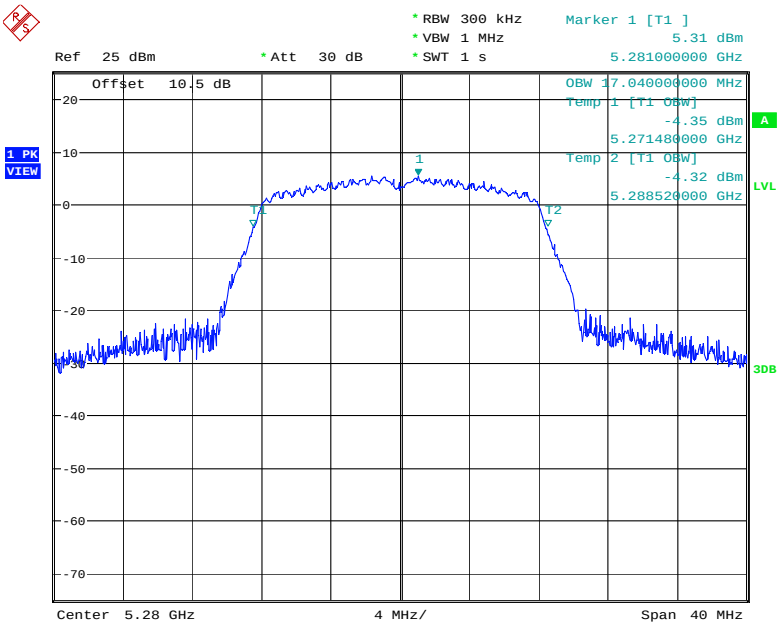
## 99% Occupied Bandwidth

### 802.11a mode, 5260MHz



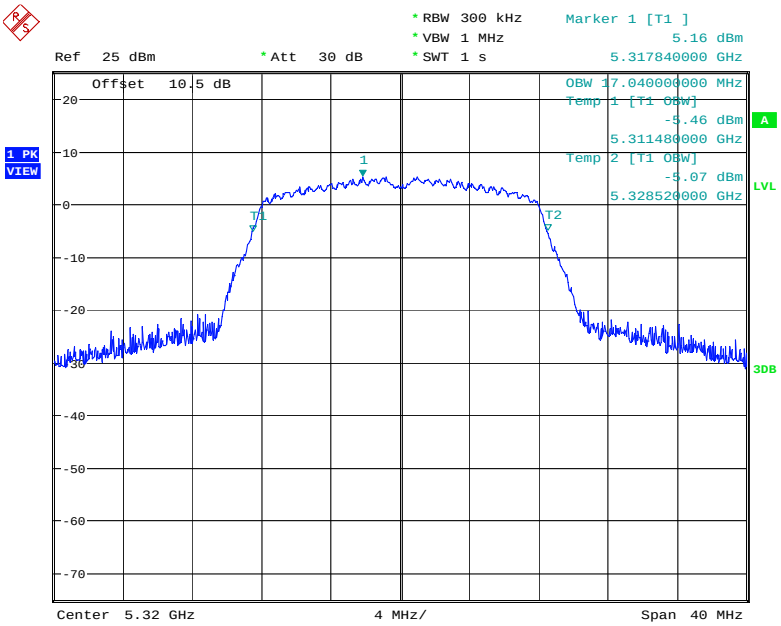

Date: 23.OCT.2022 15:00:36

### 802.11a mode, 5280MHz



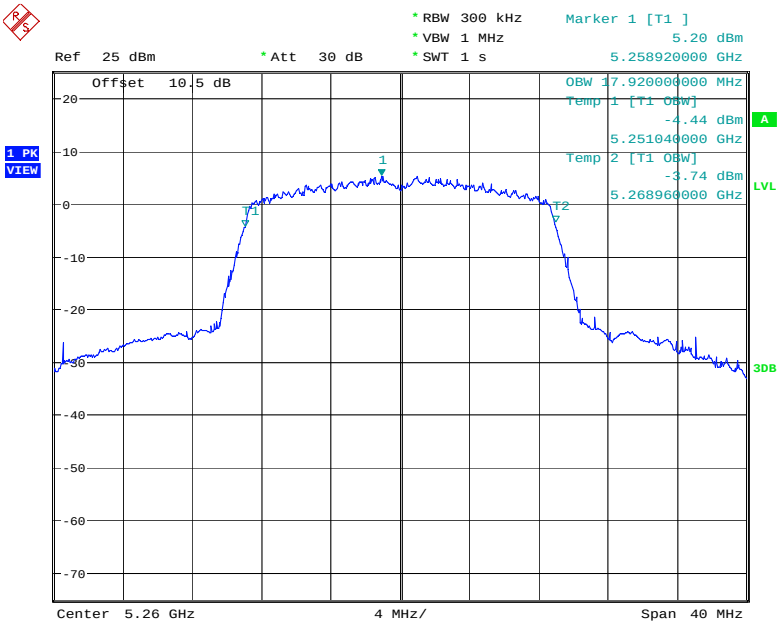

Date: 23.OCT.2022 15:05:48

## 802.11a mode, 5320MHz



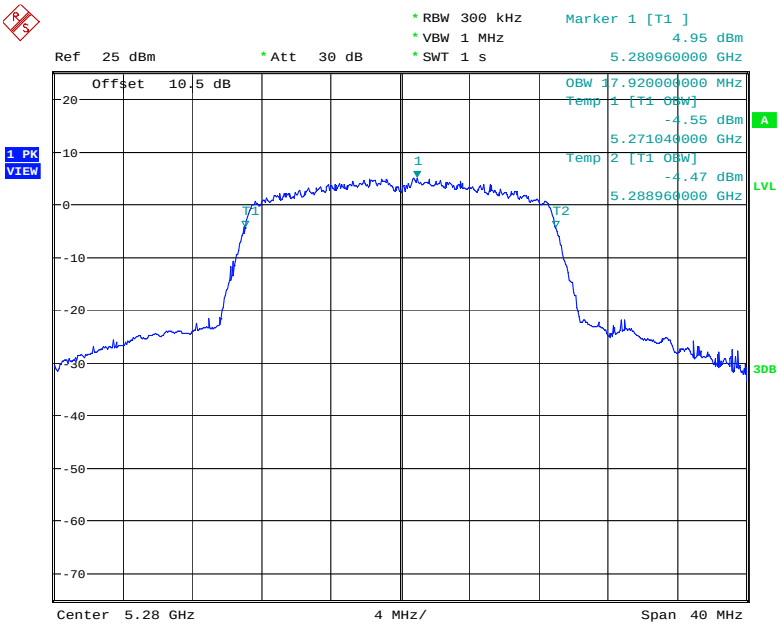

Date: 23.OCT.2022 15:17:22

## 802.11n20 mode,5260 MHz



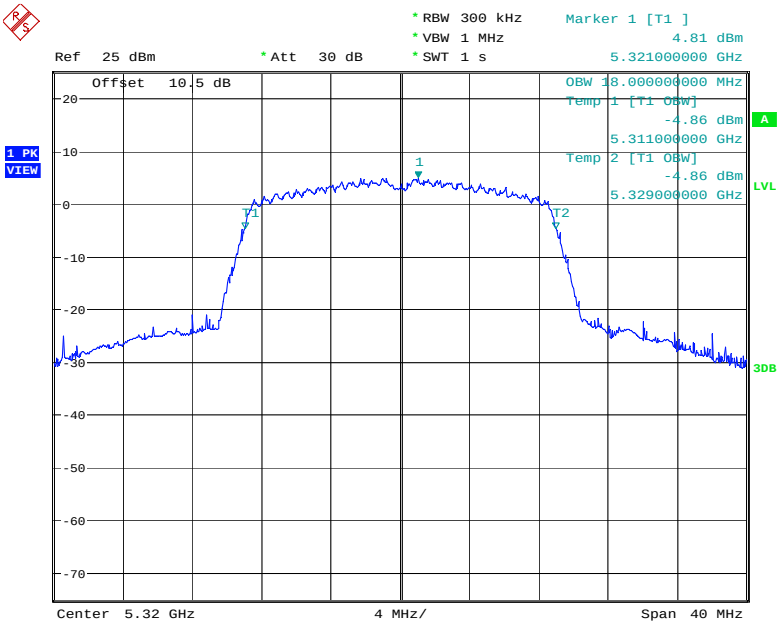

Date: 23.OCT.2022 17:30:16

## 802.11n20 mode, 5280MHz



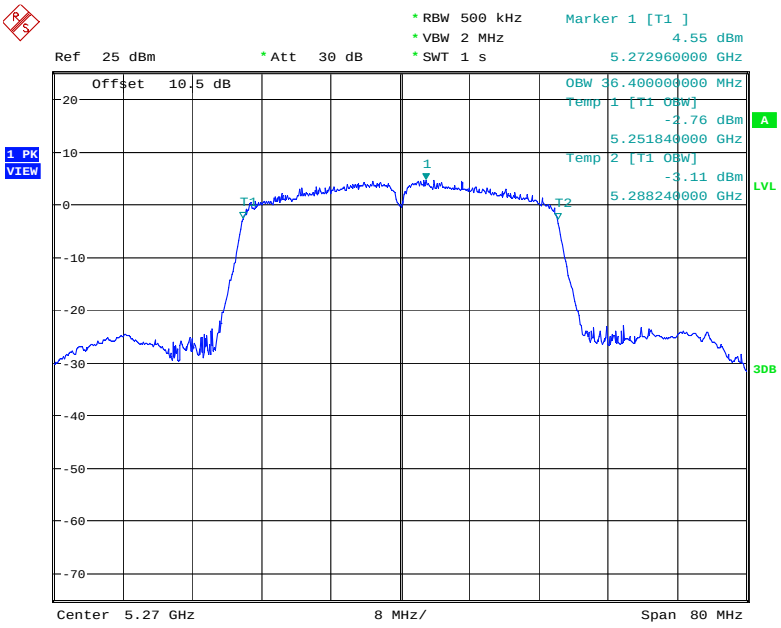

Date: 23.OCT.2022 17:32:58

## 802.11n20 mode, 5320MHz

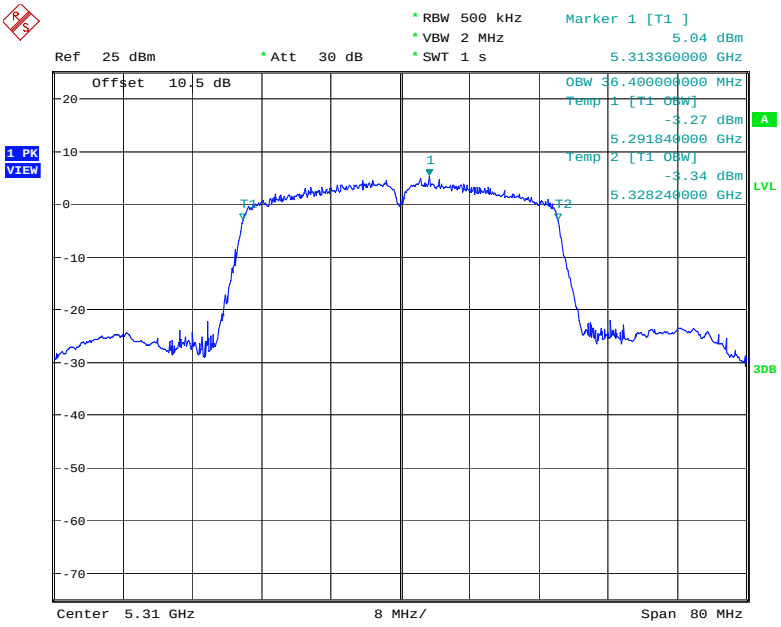



Date: 23.OCT.2022 17:37:11

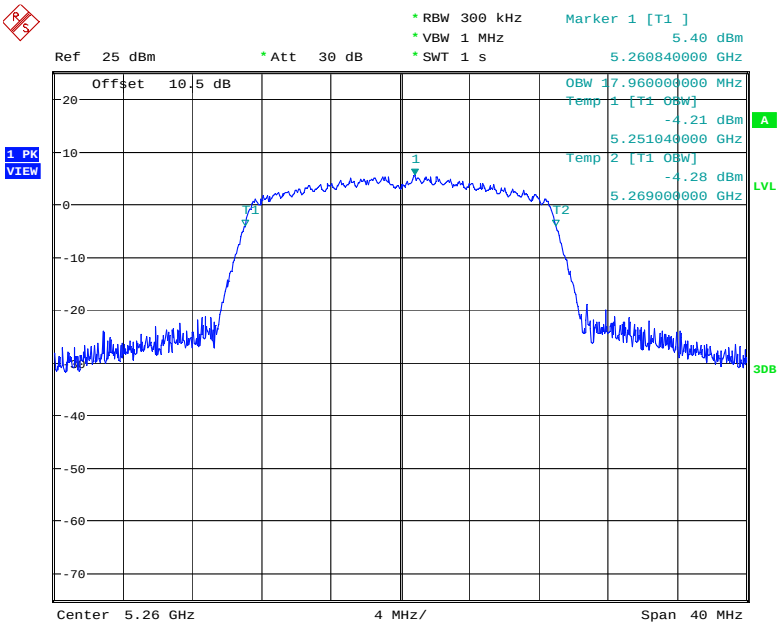
## 802.11n40 mode, 5270 MHz




## 802.11n40 mode, 5310 MHz

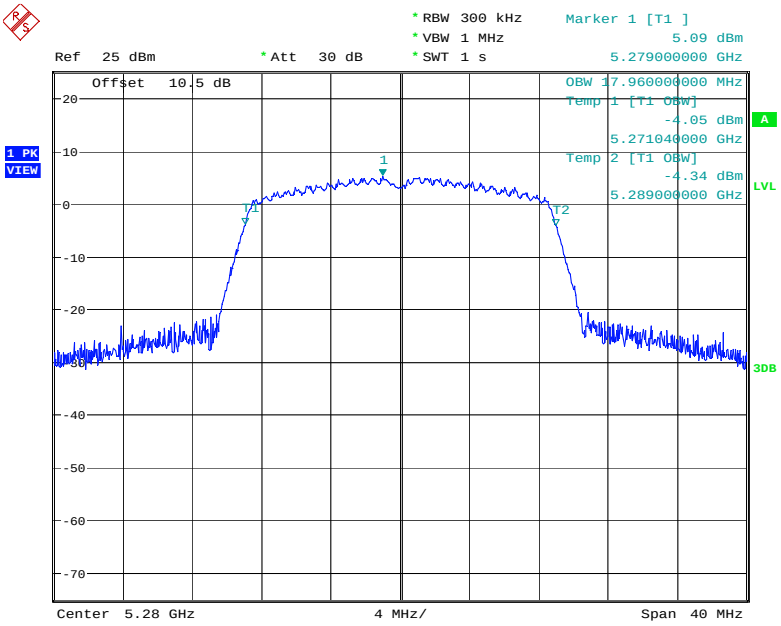


## 802.11ac20 mode, 5260MHz



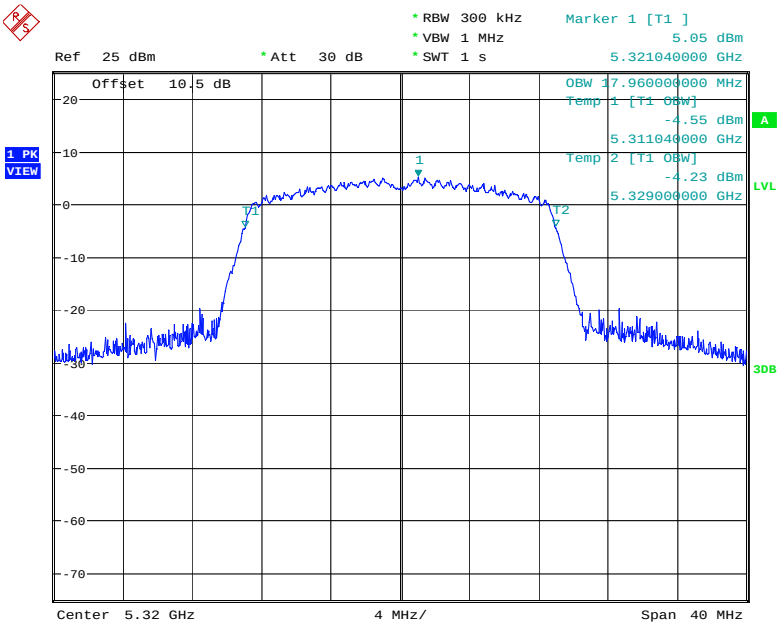

Date: 23.OCT.2022 15:59:43

## 802.11ac20 mode,5280MHz



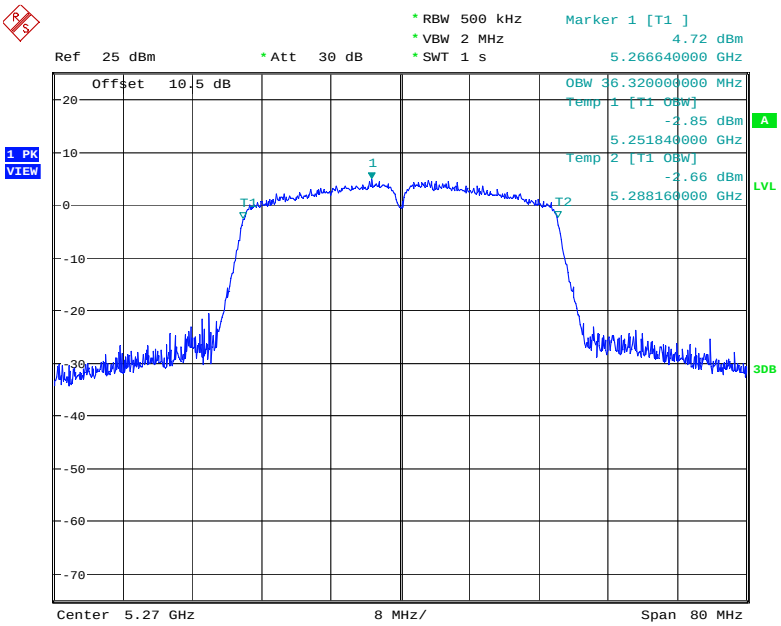

Date: 23.OCT.2022 16:06:48

## 802.11ac20 mode, 5320 MHz



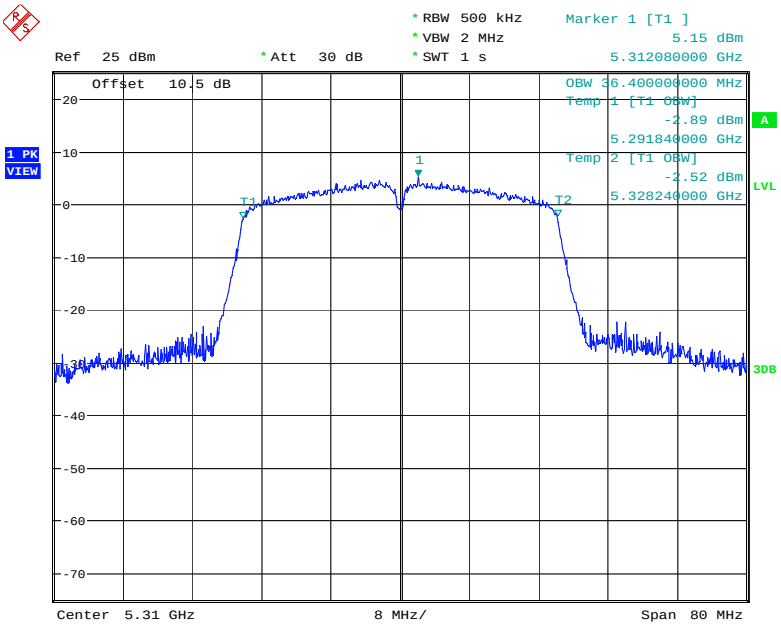

Date: 23.OCT.2022 16:13:22

## 802.11ac40 mode, 5270MHz



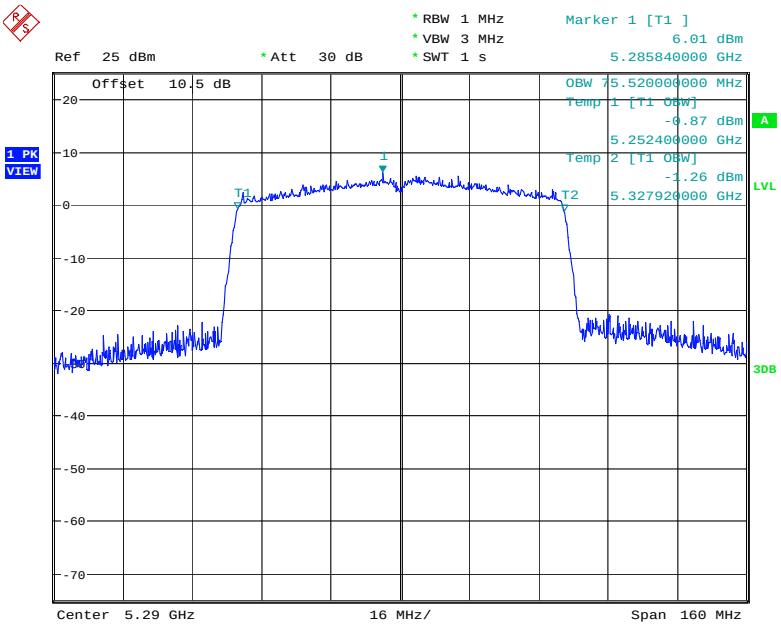

Date: 23.OCT.2022 16:46:02

## 802.11ac40 mode, 5310MHz




Date: 23.OCT.2022 16:50:39

## 802.11ac80 mode, 5290MHz



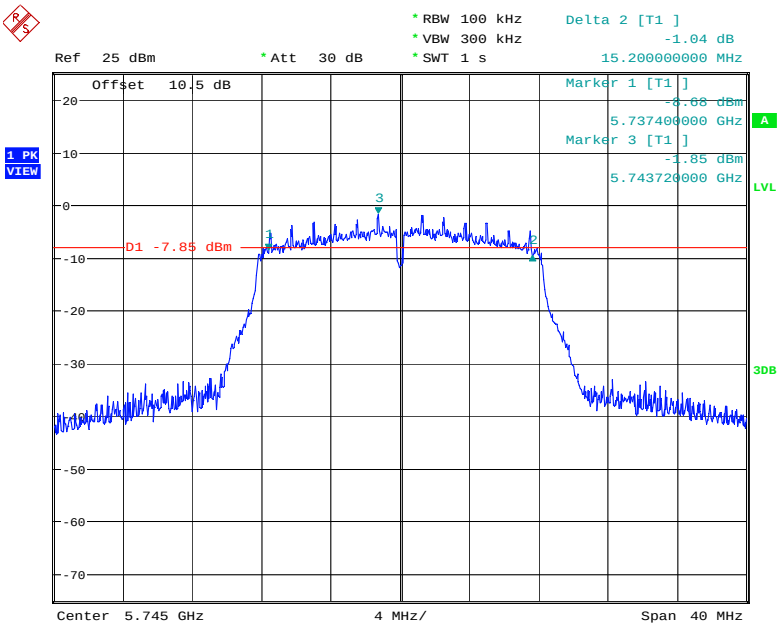

Date: 23.OCT.2022 17:10:24

**5725 MHz – 5850 MHz:**

| Frequency (MHz) | 6 dB Bandwidth (MHz) | 99% Bandwidth (MHz) | 6dB Bandwidth Limit (MHz) | Remark |
|---|---|---|---|---|
| 802.11a | | | | No transmitted signal in the 99% bandwidth extends into the U-NII-2A band |
| 5745 | 15.20 | 17.04 | 0.5 | |
| 5785 | 15.40 | 17.04 | 0.5 | |
| 5825 | 15.20 | 17.00 | 0.5 | |
| 802.11n20 | | | | |
| 5745 | 15.20 | 17.96 | 0.5 | |
| 5785 | 15.20 | 17.88 | 0.5 | |
| 5825 | 15.20 | 17.92 | 0.5 | |
| 802.11n40 | | | | |
| 5755 | 35.36 | 36.40 | 0.5 | |
| 5795 | 35.36 | 36.48 | 0.5 | |
| 802.11ac20 | | | | |
| 5745 | 15.52 | 17.92 | 0.5 | |
| 5785 | 15.72 | 17.92 | 0.5 | |
| 5825 | 15.40 | 17.96 | 0.5 | |
| 802.11ac40 | | | | |
| 5755 | 35.36 | 36.32 | 0.5 | |
| 5795 | 35.28 | 36.32 | 0.5 | |
| 11ac80 | | | | |
| 5775 | 75.36 | 75.52 | 0.5 | |

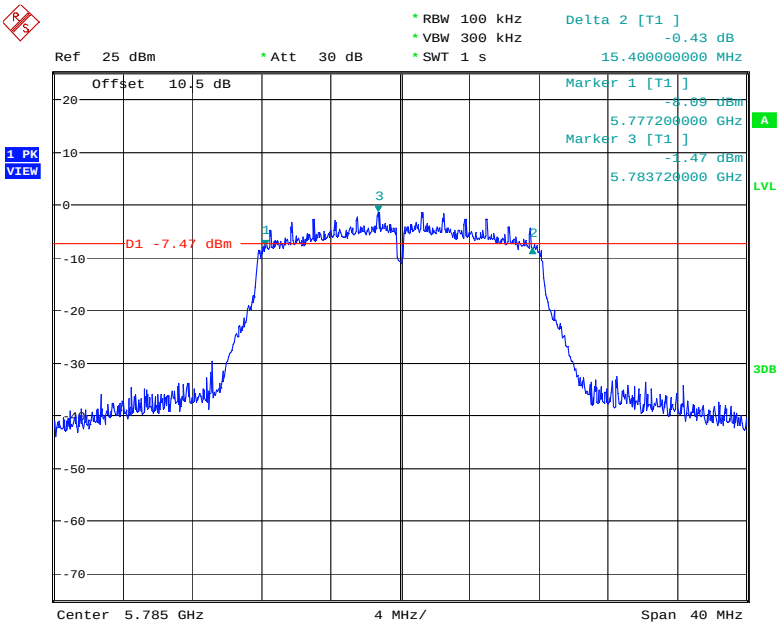
**6 dB Bandwidth**

**802.11a mode, 5745MHz**



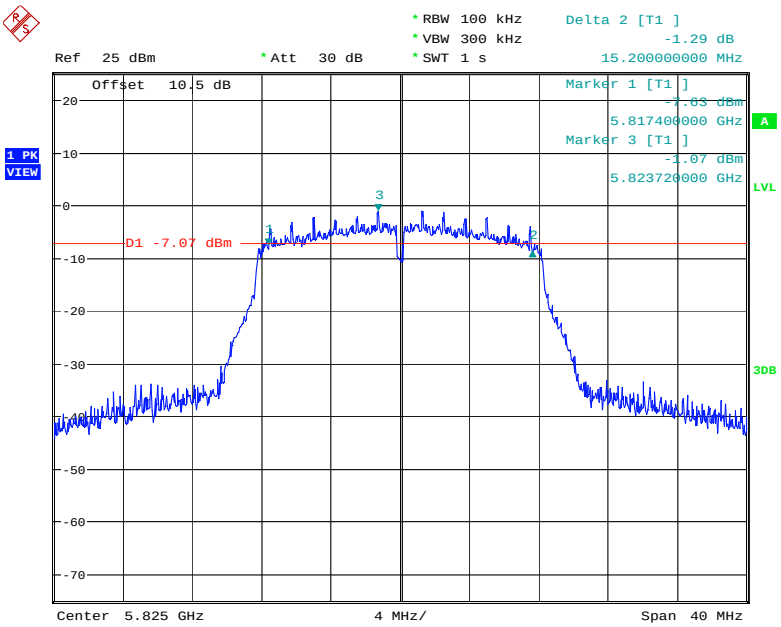

Date: 23.OCT.2022 15:29:45

**802.11a mode, 5785MHz**



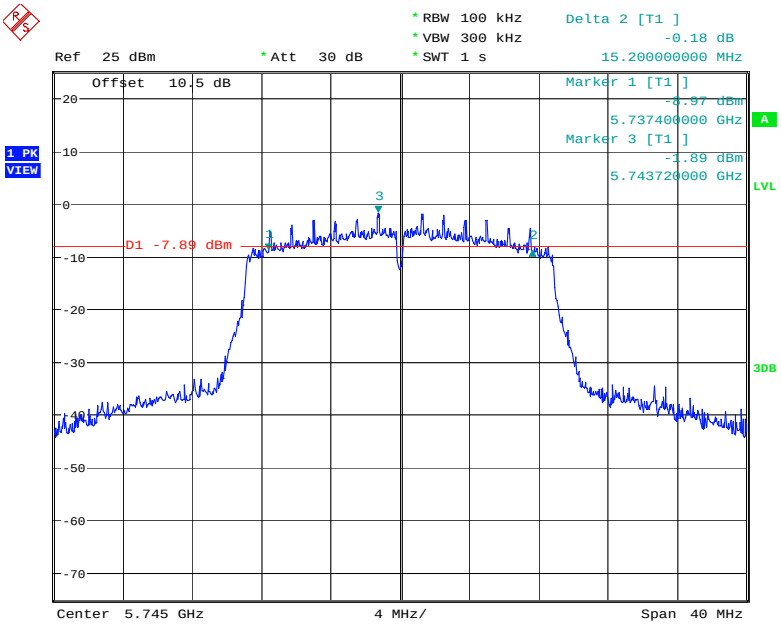

Date: 23.OCT.2022 15:34:36

## 802.11a mode,5825MHz



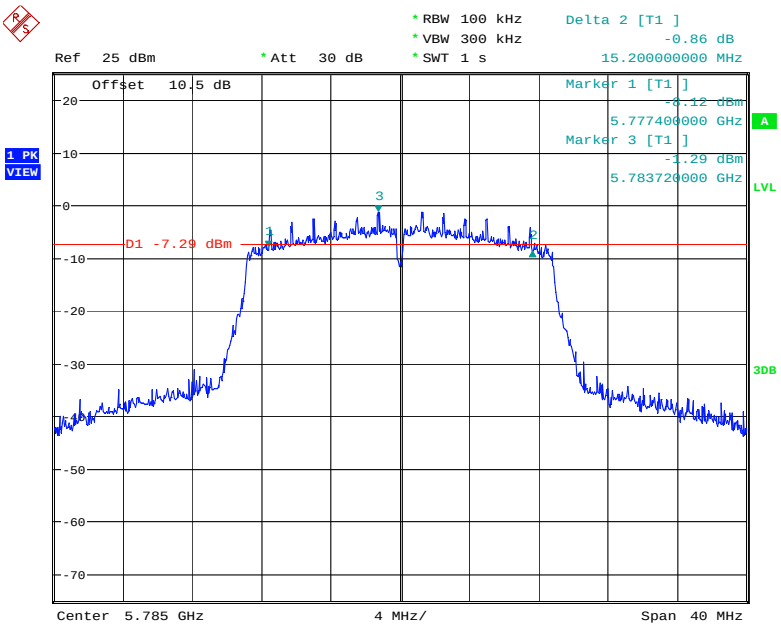

Date: 23.OCT.2022 15:38:22

## 802.11n20 mode,5745MHz



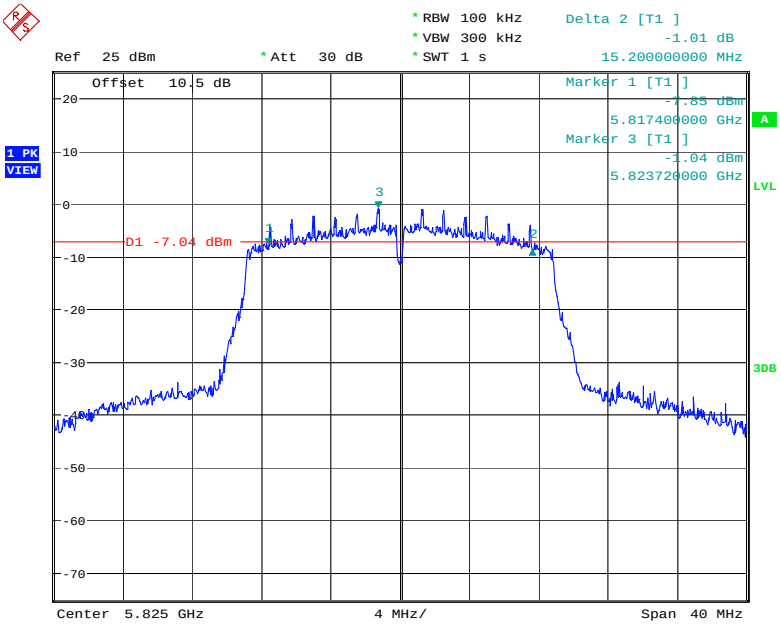

Date: 23.OCT.2022 17:41:36

## 802.11n20 mode, 5785MHz



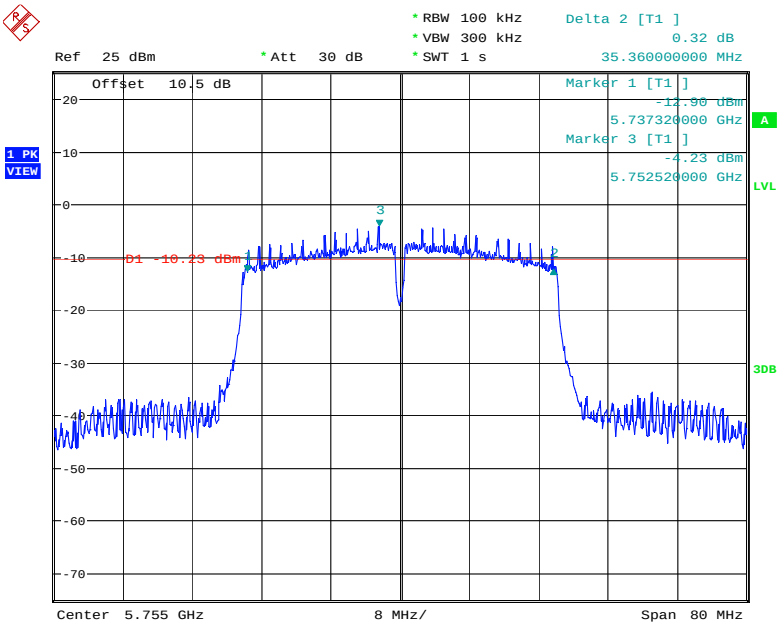

Date: 23.OCT.2022 17:44:26

## 802.11n20 mode,5825Hz



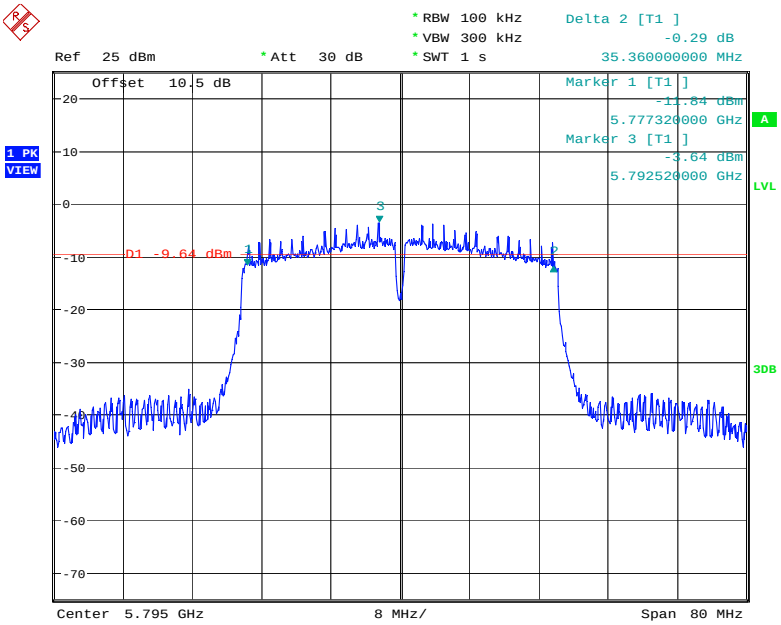

Date: 23.OCT.2022 17:47:15

## 802.11n40 mode, 5755MHz



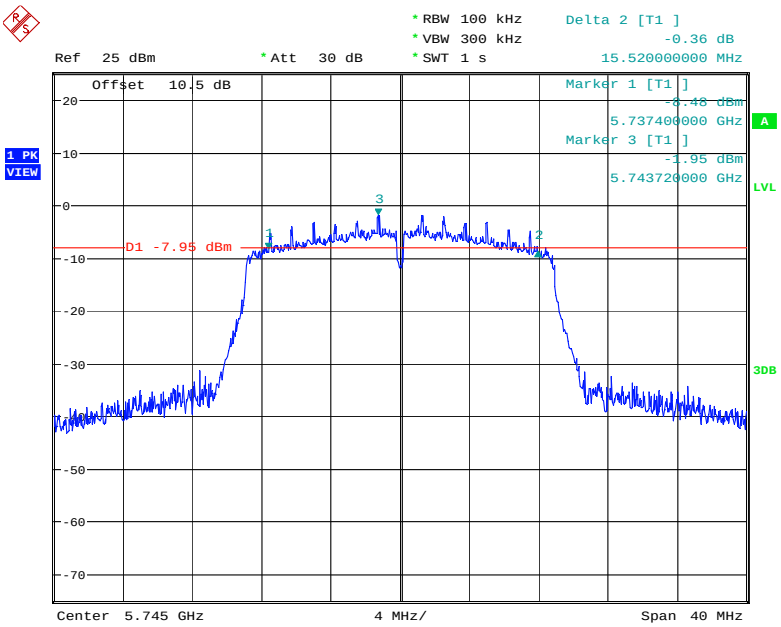

Date: 23.OCT.2022 18:04:58

## 802.11n40 mode, 5795MHz



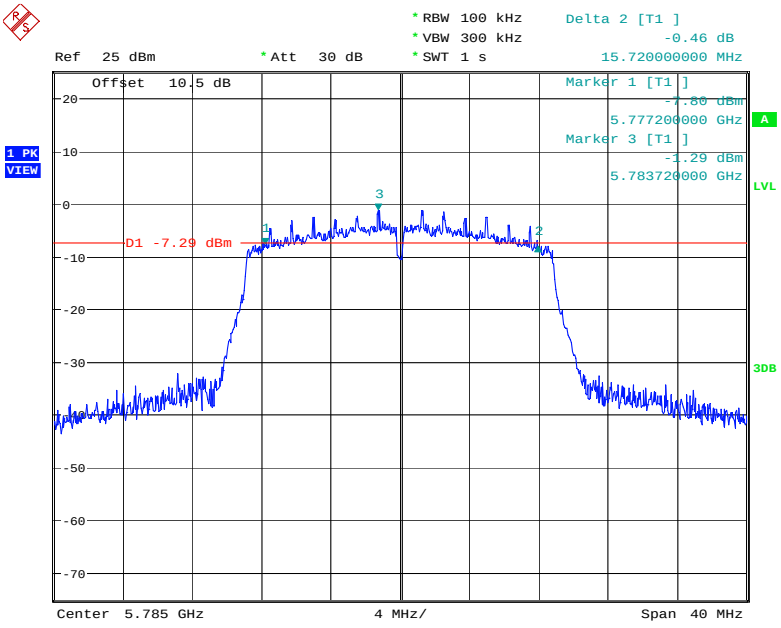

Date: 23.OCT.2022 18:07:26

## 802.11ac20 mode, 5745MHz



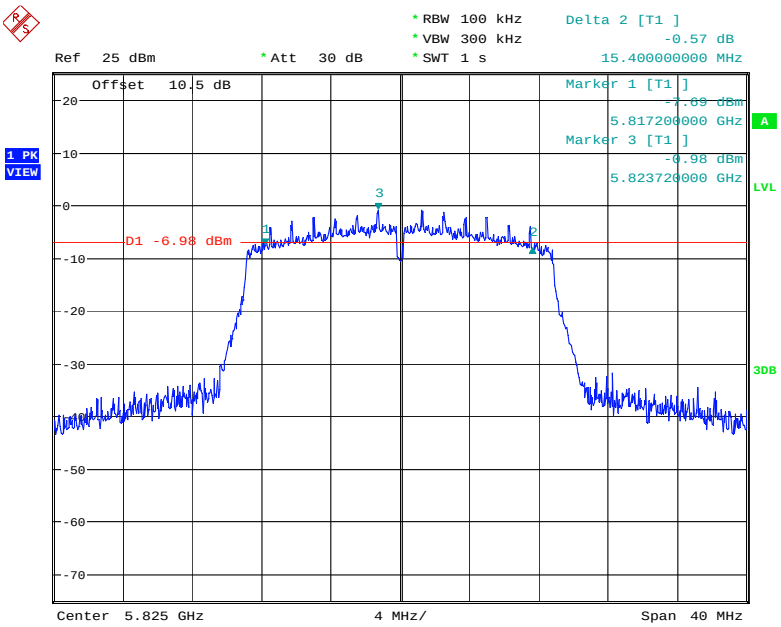

Date: 23.OCT.2022 16:19:54

## 802.11ac20 mode, 5785MHz



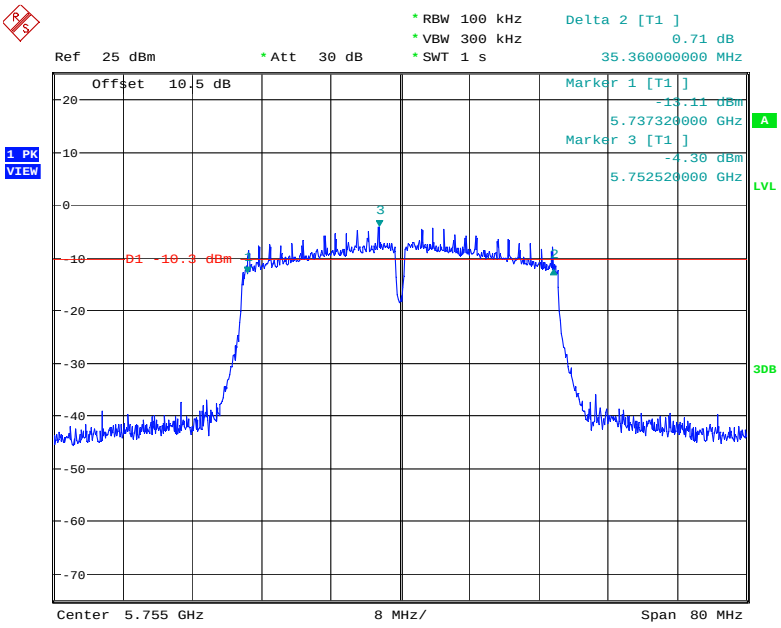

Date: 23.OCT.2022 16:25:26

## 802.11ac20 mode, 5825 MHz



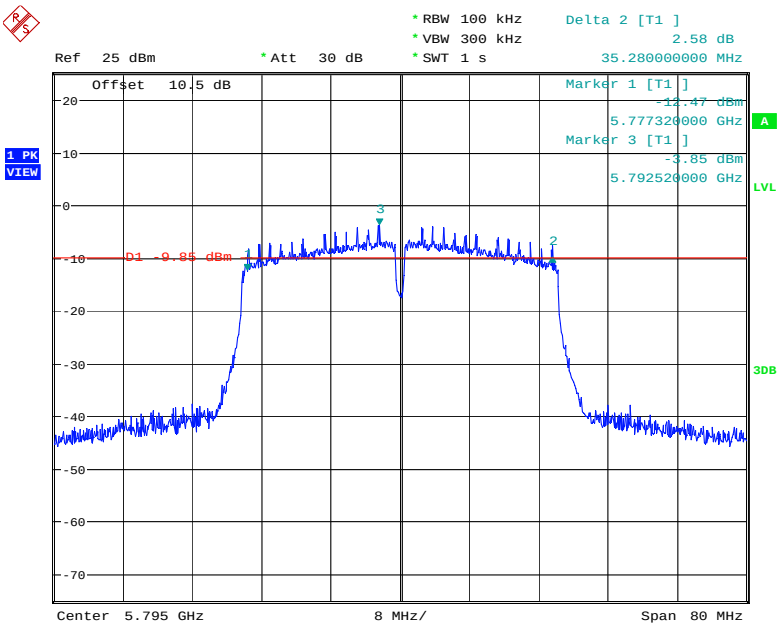

Date: 23.OCT.2022 16:30:12

## 802.11ac40 mode, 5755MHz



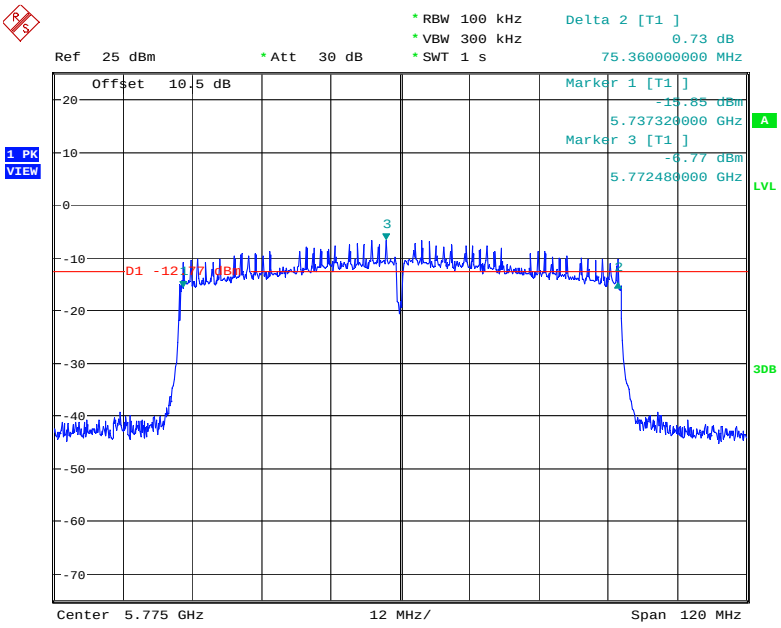

Date: 23.OCT.2022 16:57:42

## 802.11ac40 mode, 5795MHz




Date: 23.OCT.2022 17:02:24

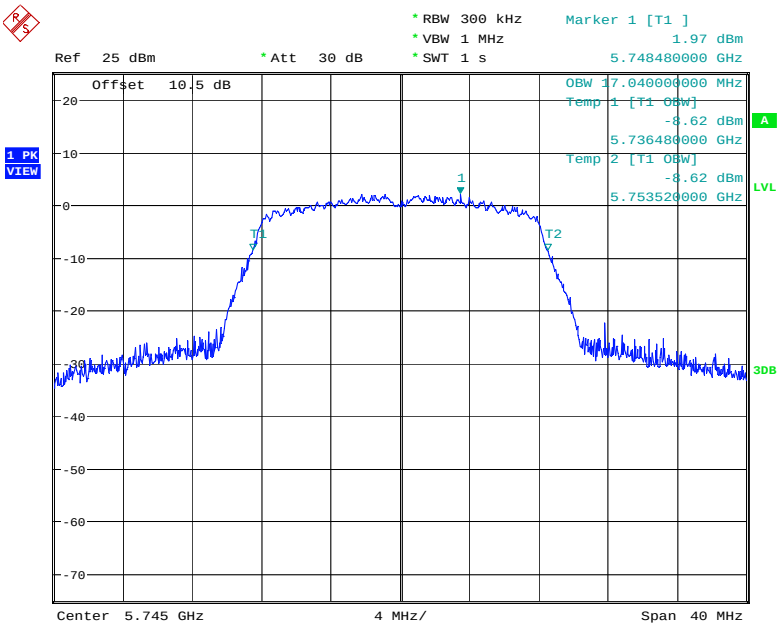
## 802.11ac80 mode, 5775MHz




Date: 23.OCT.2022 17:17:49

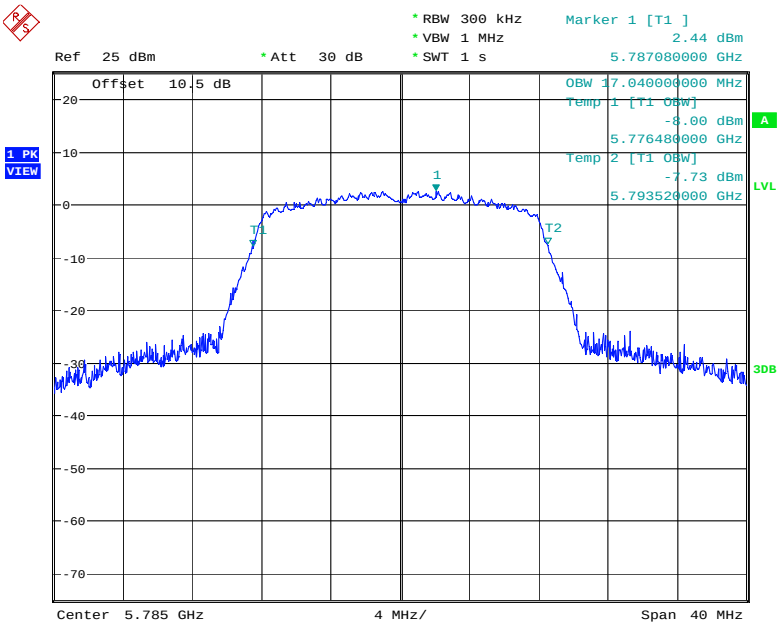
**99% Occupied Bandwidth**

**802.11a mode, 5745MHz**



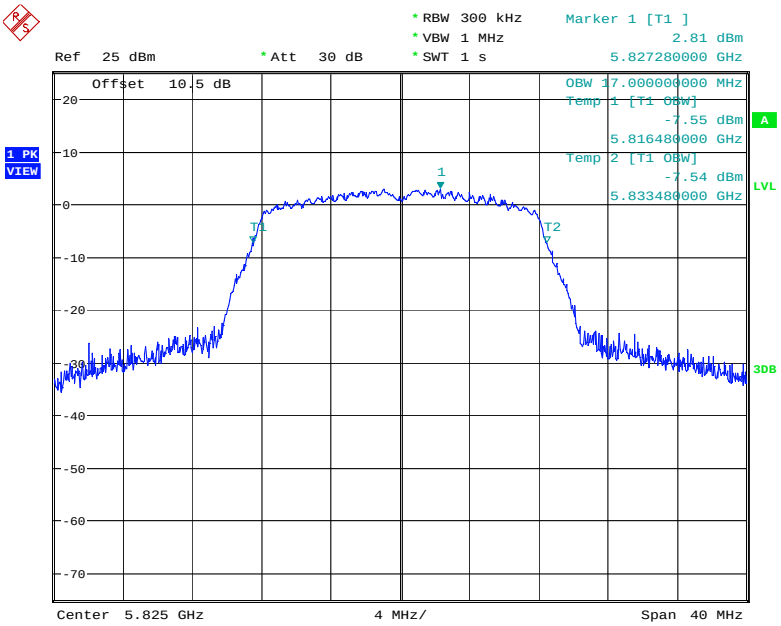

Date: 23.OCT.2022 15:28:36

**802.11a mode, 5785MHz**



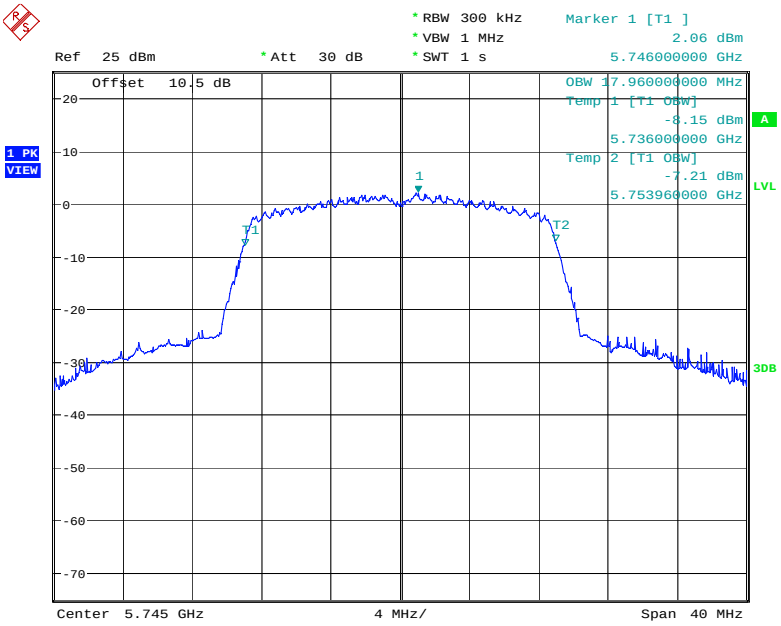

Date: 23.OCT.2022 15:33:16

## 802.11a mode,5825MHz



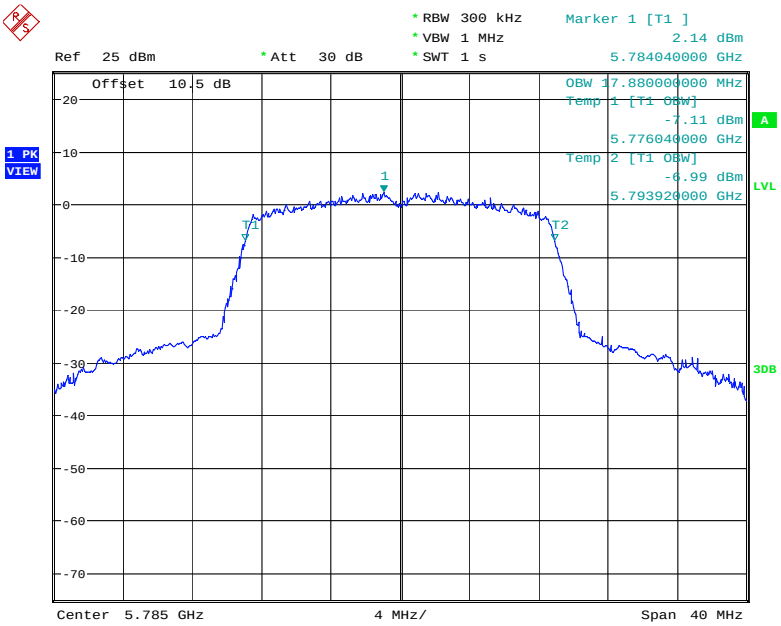

Date: 23.OCT.2022 15:37:14

## 802.11n20 mode,5745MHz



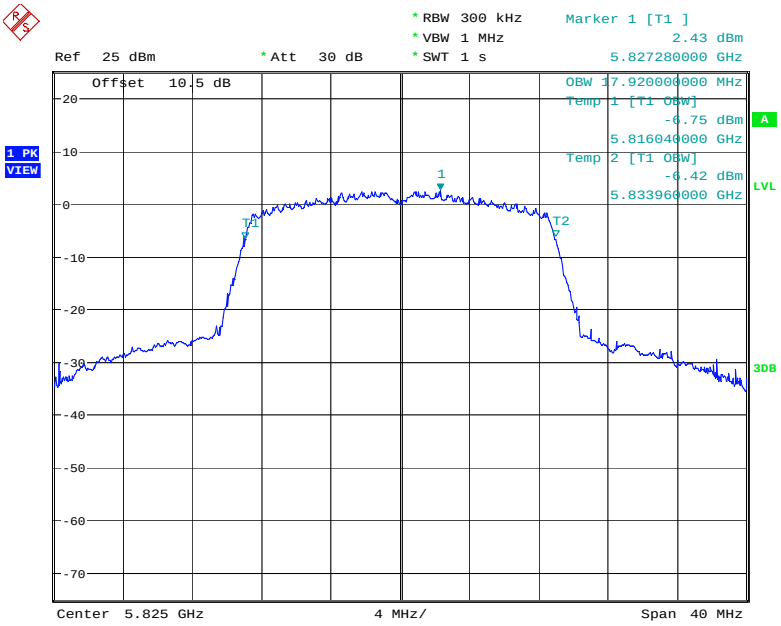

Date: 23.OCT.2022 17:41:04

## 802.11n20 mode, 5785MHz



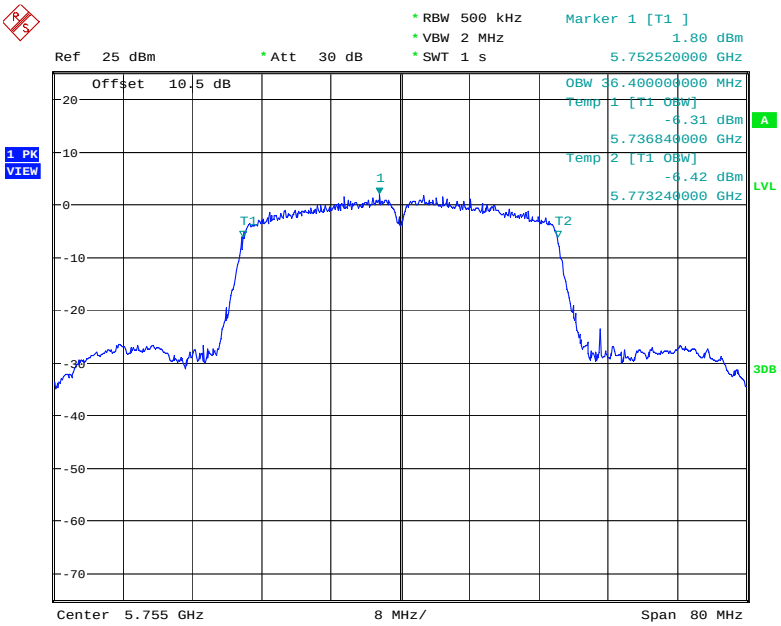

Date: 23.OCT.2022 17:43:18

## 802.11n20 mode,5825Hz



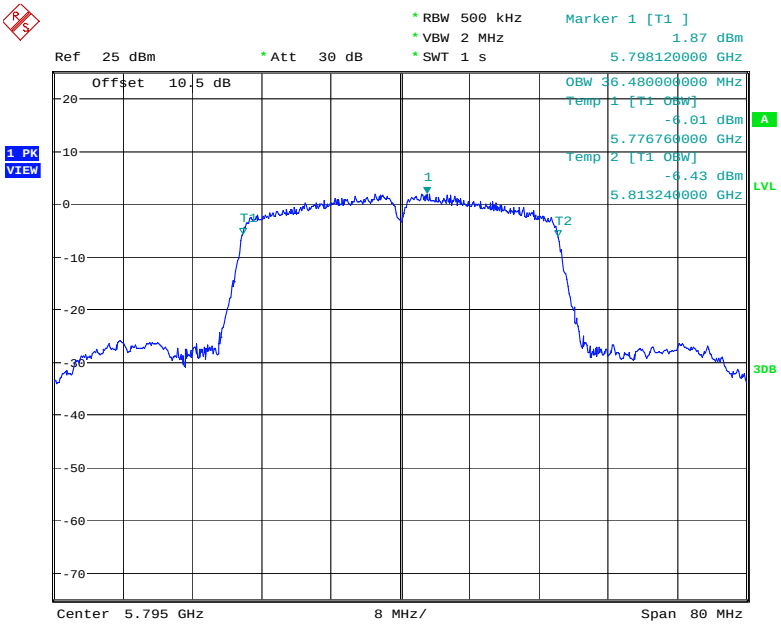

Date: 23.OCT.2022 17:46:30

## 802.11n40 mode, 5755MHz



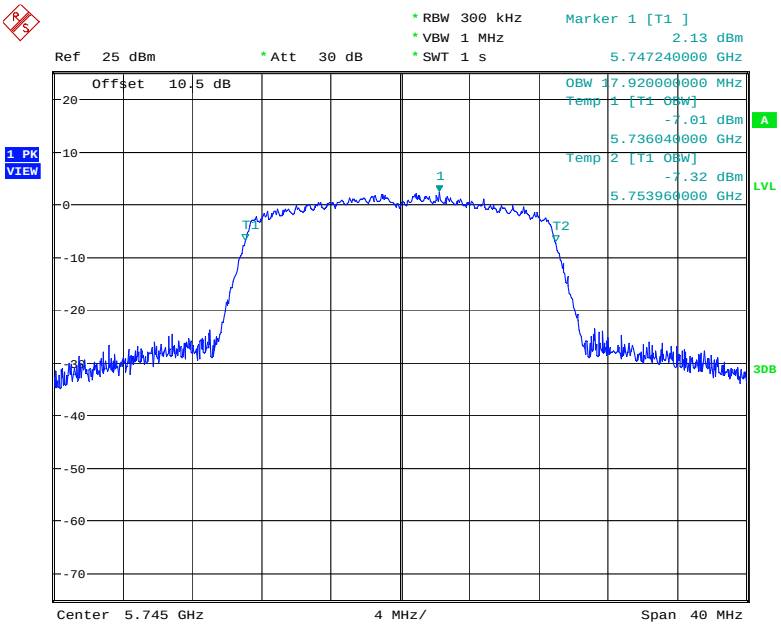

Date: 23.OCT.2022 18:04:26

## 802.11n40 mode, 5795MHz



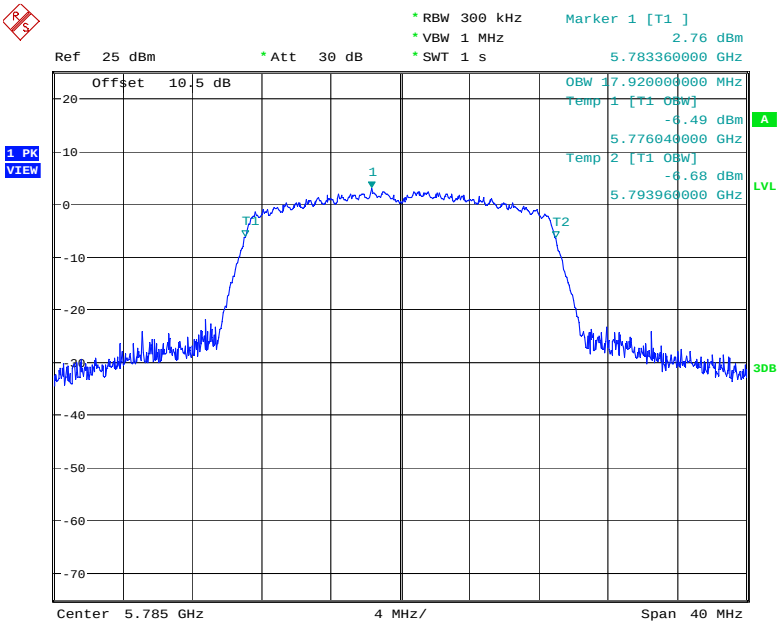

Date: 23.OCT.2022 18:06:29

## 802.11ac20 mode, 5745MHz



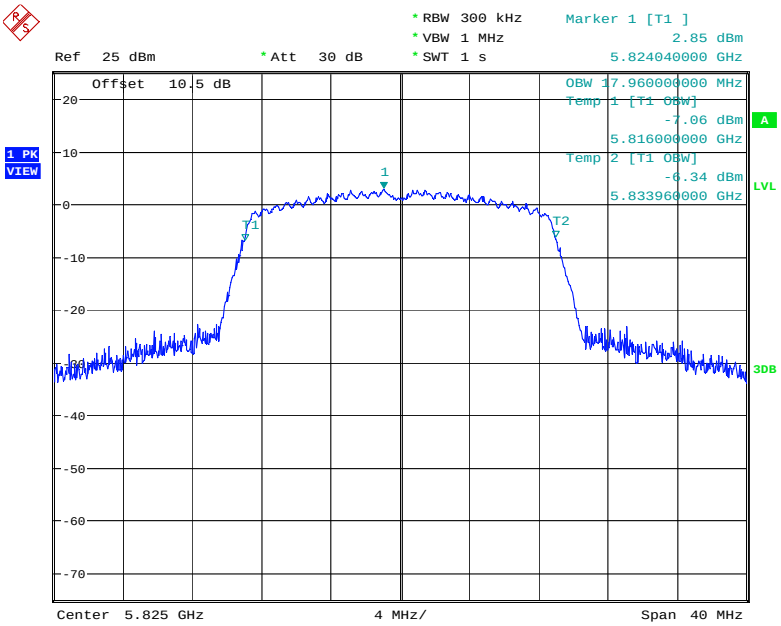

Date: 23.OCT.2022 16:18:09

## 802.11ac20 mode, 5785MHz



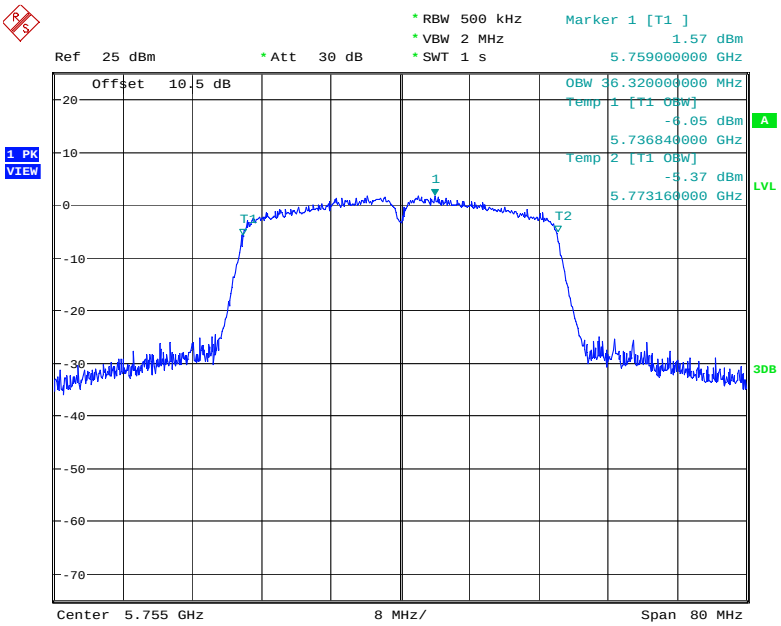

Date: 23.OCT.2022 16:23:28

## 802.11ac20 mode, 5825 MHz



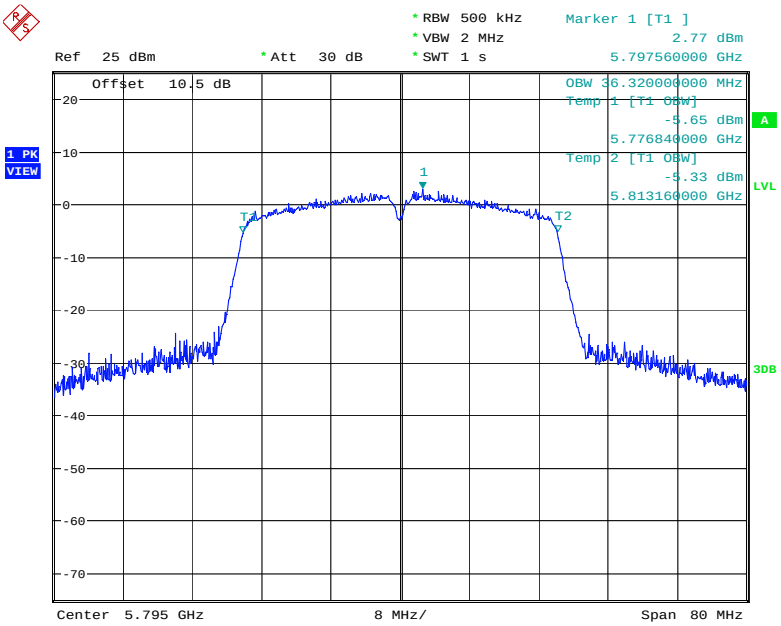

Date: 23.OCT.2022 16:29:04

## 802.11ac40 mode, 5755MHz



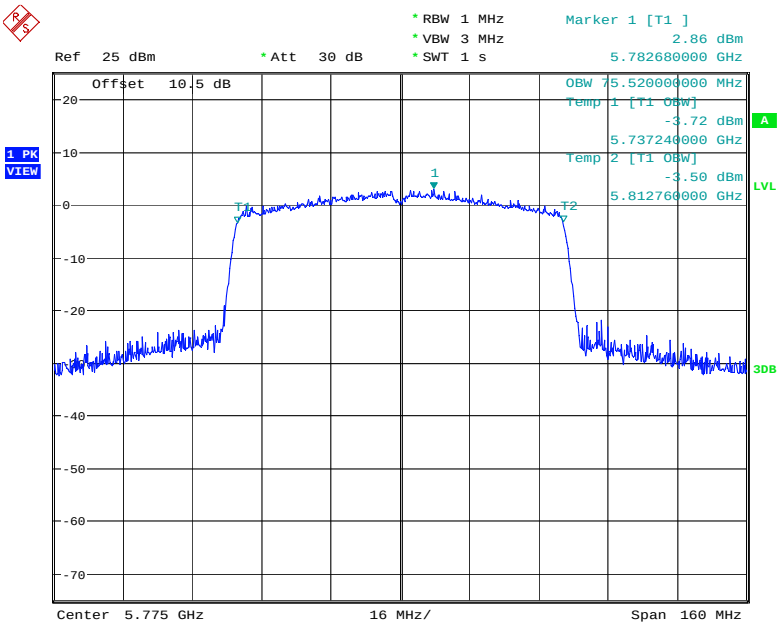

Date: 23.OCT.2022 16:56:45

## 802.11ac40 mode, 5795MHz




Date: 23.OCT.2022 17:01:04

## 802.11ac80 mode, 5775MHz




Date: 23.OCT.2022 17:17:16

# FCC §15.407(a) – CONDUCTED TRANSMITTER OUTPUT POWER

## Applicable Standard

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, 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.

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, 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 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, 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.

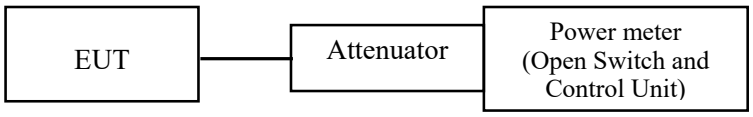
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional 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.

## Test Procedure

c. Place the EUT on a bench and set it in transmitting mode.

d. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.

e. Add a correction factor to the display.




Note: the Open Switch and Control Unit has a built-in power sensor.

## Test Data

### Environmental Conditions

| | |
|---|---|
| **Temperature:** | 25.2 ℃ |
| **Relative Humidity:** | 52 % |
| **ATM Pressure:** | 101.3 kPa |

*The testing was performed by Roger Ling on 2022-10-23.*

*EUT operation mode: Transmitting*

**Test Result:** Pass

Please refer to the following tables.

**5150 MHz – 5250 MHz**

| Frequency (MHz) | Conducted Average Output Power (dBm) | Duty Cycle Factor | Result (dBm) | Limit (dBm) |
|---|---|---|---|---|
| 802.11a | | | | |
| 5180 | 12.42 | 0.15 | 12.57 | 24 |
| 5200 | 11.94 | 0.15 | 12.09 | 24 |
| 5240 | 12.02 | 0.15 | 12.17 | 24 |
| 802.11n20 | | | | |
| 5180 | 11.84 | 0.16 | 12.00 | 24 |
| 5200 | 11.78 | 0.16 | 11.94 | 24 |
| 5240 | 11.83 | 0.16 | 11.99 | 24 |
| 802.11n40 | | | | |
| 5190 | 11.89 | 0.32 | 12.21 | 24 |
| 5230 | 11.71 | 0.32 | 12.03 | 24 |
| 802.11ac20 | | | | |
| 5180 | 11.93 | 0.16 | 12.09 | 24 |
| 5200 | 11.84 | 0.16 | 12.00 | 24 |
| 5240 | 11.96 | 0.16 | 12.12 | 24 |
| 802.11ac40 | | | | |
| 5190 | 11.94 | 0.32 | 12.26 | 24 |
| 5230 | 11.53 | 0.32 | 11.85 | 24 |
| 802.11ac80 | | | | |
| 5210 | 11.99 | 0.50 | 12.49 | 24 |

Note: the duty cycle factor has added into result.

**5250 MHz – 5350 MHz**

| Frequency (MHz) | Conducted Average Output Power (dBm) | Duty Cycle Factor | Result (dBm) | Limit (dBm) |
|---|---|---|---|---|
| 802.11a | | | | |
| 5260 | 12.17 | 0.15 | 12.32 | 24 |
| 5280 | 11.94 | 0.15 | 12.09 | 24 |
| 5320 | 11.64 | 0.15 | 11.79 | 24 |
| 802.11n20 | | | | |
| 5260 | 11.93 | 0.16 | 12.09 | 24 |
| 5280 | 11.95 | 0.16 | 12.11 | 24 |
| 5320 | 11.65 | 0.16 | 11.81 | 24 |
| 802.11n40 | | | | |
| 5270 | 11.81 | 0.32 | 12.13 | 24 |
| 5310 | 11.71 | 0.32 | 12.03 | 24 |
| 802.11ac20 | | | | |
| 5260 | 11.94 | 0.16 | 12.10 | 24 |
| 5280 | 11.65 | 0.16 | 11.81 | 24 |
| 5320 | 11.64 | 0.16 | 11.80 | 24 |
| 802.11ac40 | | | | |
| 5270 | 11.6 | 0.32 | 11.92 | 24 |
| 5310 | 11.53 | 0.32 | 11.85 | 24 |
| 802.11ac80 | | | | |
| 5290 | 11.7 | 0.50 | 12.20 | 24 |

Note: the duty cycle factor has added into result.

**5725 MHz – 5850 MHz:**

| Frequency (MHz) | Conducted Average Output Power (dBm) | Duty Cycle Factor | Result (dBm) | Limit (dBm) |
|---|---|---|---|---|
| 802.11a | | | | |
| 5745 | 8.77 | 0.15 | 8.92 | 30 |
| 5785 | 9.2 | 0.15 | 9.35 | 30 |
| 5825 | 9.59 | 0.15 | 9.74 | 30 |
| 802.11n20 | | | | |
| 5745 | 8.72 | 0.16 | 8.88 | 30 |
| 5785 | 9.29 | 0.16 | 9.45 | 30 |
| 5825 | 9.45 | 0.16 | 9.61 | 30 |
| 802.11n40 | | | | |
| 5755 | 8.93 | 0.32 | 9.25 | 30 |
| 5795 | 9.46 | 0.32 | 9.78 | 30 |
| 802.11ac20 | | | | |
| 5745 | 8.7 | 0.16 | 8.86 | 30 |
| 5785 | 9.26 | 0.16 | 9.42 | 30 |
| 5825 | 9.59 | 0.16 | 9.75 | 30 |
| 802.11ac40 | | | | |
| 5755 | 8.8 | 0.32 | 9.12 | 30 |
| 5795 | 9.32 | 0.32 | 9.64 | 30 |
| 802.11ac80 | | | | |
| 5775 | 9.06 | 0.50 | 9.56 | 30 |

Note: the duty cycle factor has added into result.

# FCC §15.407(a) - POWER SPECTRAL DENSITY

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, 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.

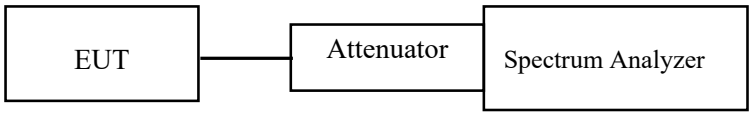
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 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, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional 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.

## 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 $\geqslant$ 1/T, where T is defined in section II.B.l.a).
b) Set VBW $\geqslant$ 3 RBW.
c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10 log (500 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 (1MHz/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.



## Test Data

### Environmental Conditions

| | |
|---|---|
| **Temperature:** | 25.2 ℃ |
| **Relative Humidity:** | 52 % |
| **ATM Pressure:** | 101.3 kPa |

*The testing was performed by Roger Ling on 2022-10-23.*

*EUT operation mode: Transmitting*

**Test Result:** Pass

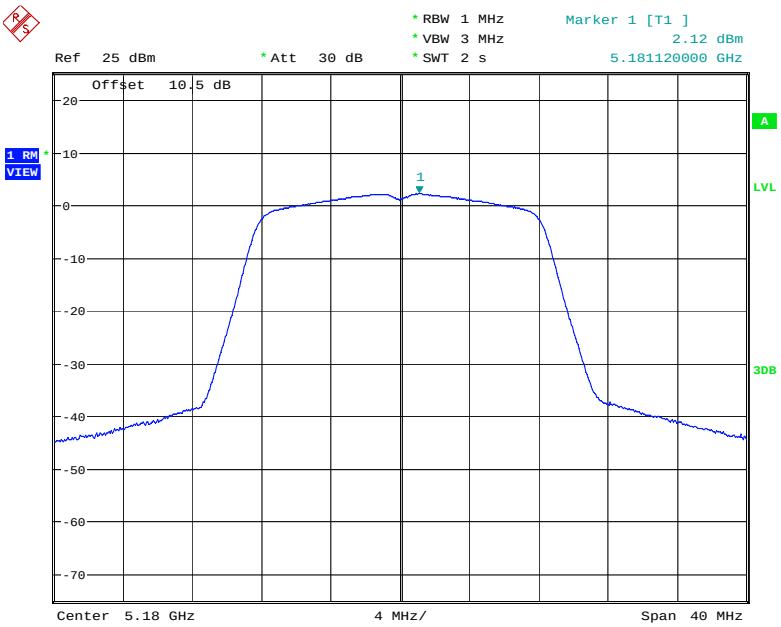
Please refer to the following tables and plots.

**5150 MHz – 5250 MHz:**

| Frequency (MHz) | Reading (dBm/MHz) | Duty Cycle Factor | Power Spectral Density (dBm/MHz) | Limit (dBm/MHz) |
|---|---|---|---|---|
| 802.11a | | | | |
| 5180 | 2.12 | 0.15 | 2.27 | 11 |
| 5200 | 1.44 | 0.15 | 1.59 | 11 |
| 5240 | 1.56 | 0.15 | 1.71 | 11 |
| 802.11n20 | | | | |
| 5180 | 1.37 | 0.16 | 1.53 | 11 |
| 5200 | 1.34 | 0.16 | 1.50 | 11 |
| 5240 | 1.45 | 0.16 | 1.61 | 11 |
| 802.11n40 | | | | |
| 5190 | -1.73 | 0.32 | -1.41 | 11 |
| 5230 | -1.56 | 0.32 | -1.24 | 11 |
| 802.11ac20 | | | | |
| 5180 | 1.22 | 0.16 | 1.38 | 11 |
| 5200 | 1.24 | 0.16 | 1.40 | 11 |
| 5240 | 1.36 | 0.16 | 1.52 | 11 |
| 802.11ac40 | | | | |
| 5190 | -1.72 | 0.32 | -1.40 | 11 |
| 5230 | -1.70 | 0.32 | -1.38 | 11 |
| 802.11ac80 | | | | |
| 5210 | -5.09 | 0.50 | -4.59 | 11 |

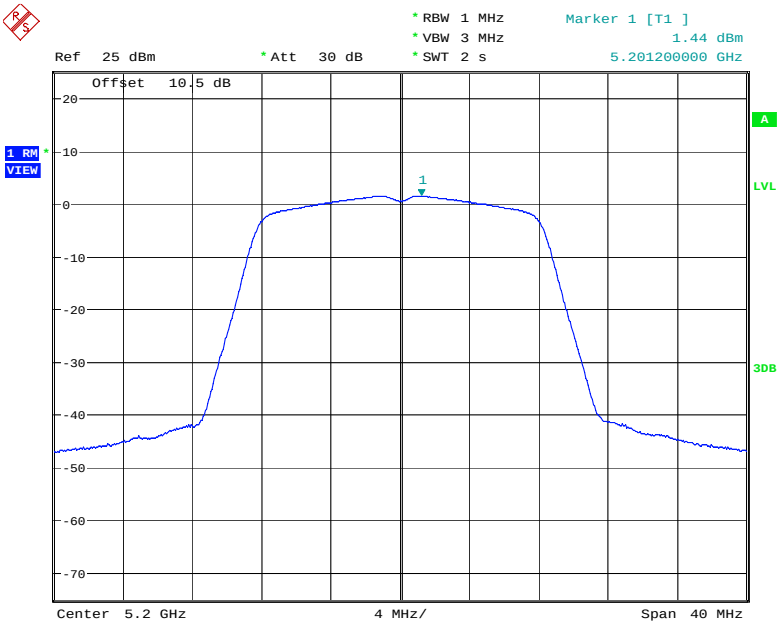
*Note:*
*1) Power Spectral Density = Reading + Duty Cycle Factor.*
*2) Duty Cycle Factor =10 log (1 / D), D=Duty Cycle*

## 802.11a mode, Power Spectral Density, 5180 MHz



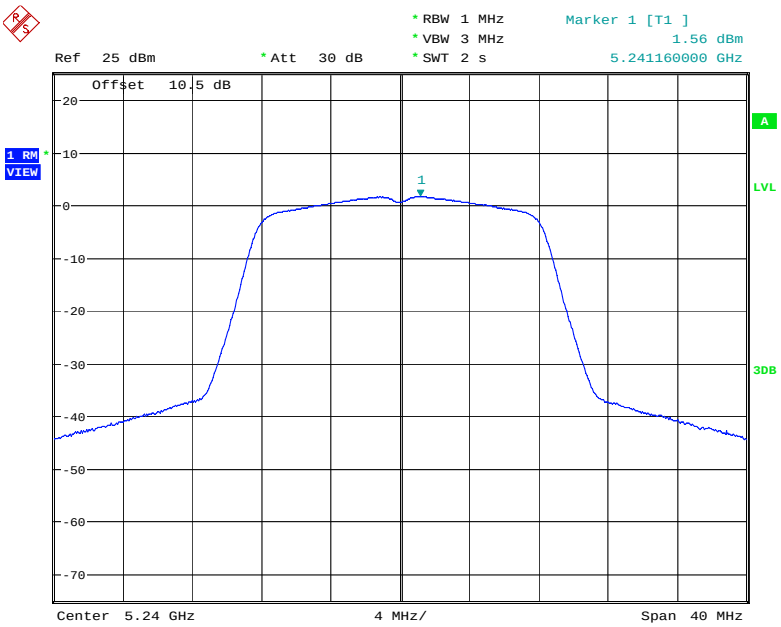

Date: 23.OCT.2022 14:29:19

## 802.11a mode, Power Spectral Density, 5200 MHz



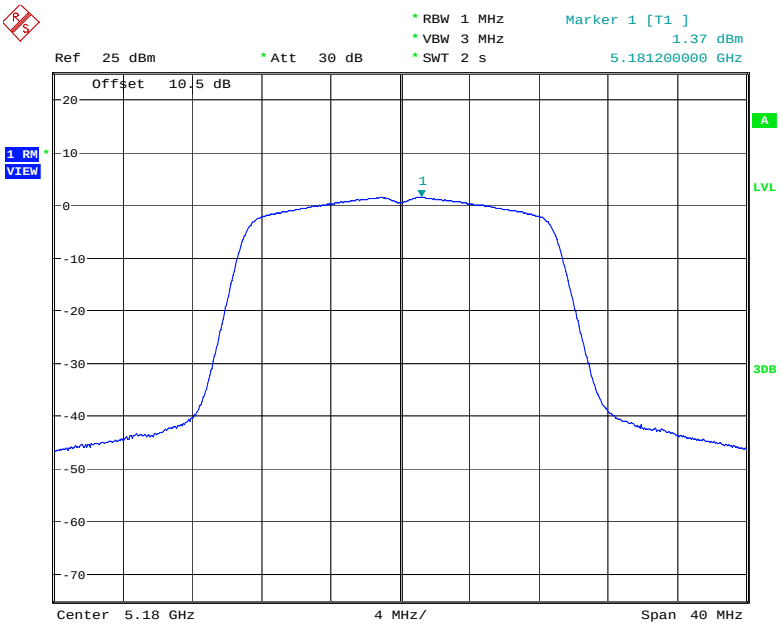

Date: 23.OCT.2022 14:36:20

## 802.11a mode, Power Spectral Density, 5240 MHz



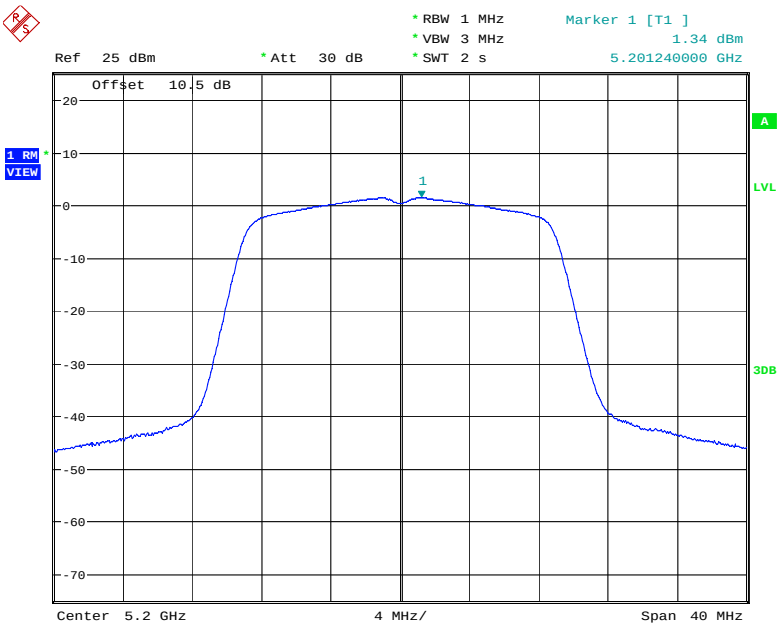

Date: 23.OCT.2022 14:41:36

## 802.11n20 mode, Power Spectral Density, 5180 MHz



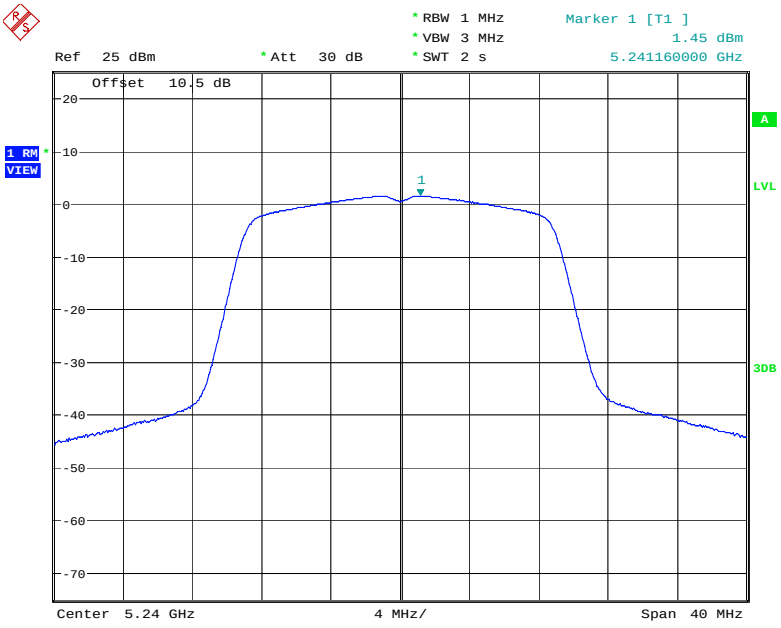

Date: 23.OCT.2022 17:21:40

## 802.11n20 mode, Power Spectral Density, 5200 MHz



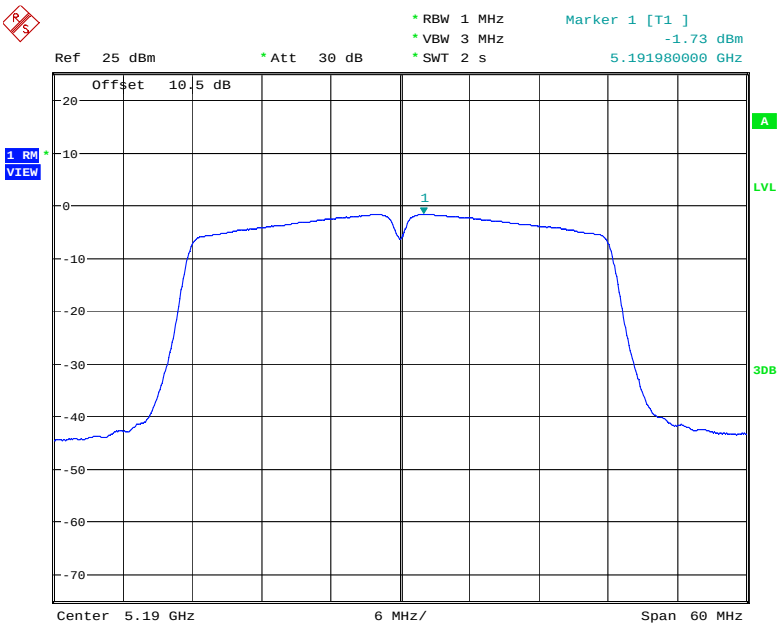

Date: 23.OCT.2022 17:24:19

## 802.11n20 mode, Power Spectral Density, 5240 MHz



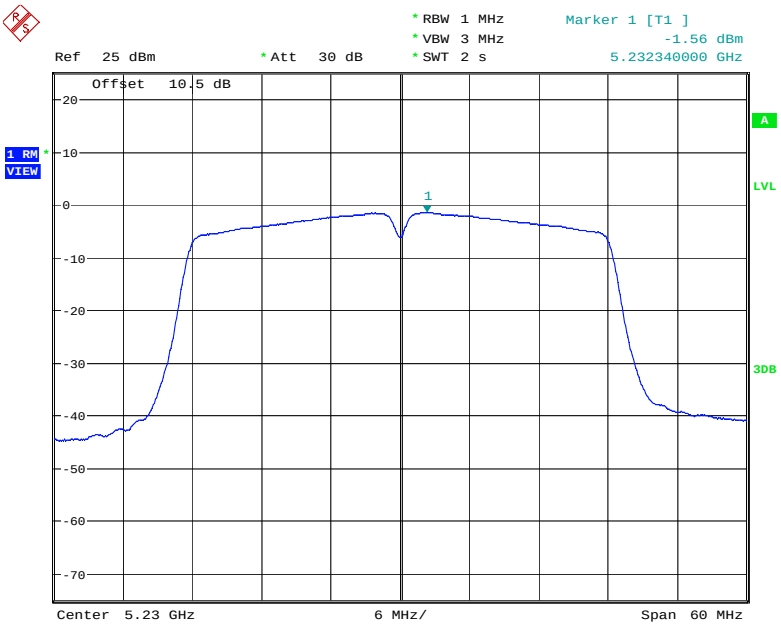

Date: 23.OCT.2022 17:28:29

## 802.11n40 mode, Power Spectral Density, 5190 MHz



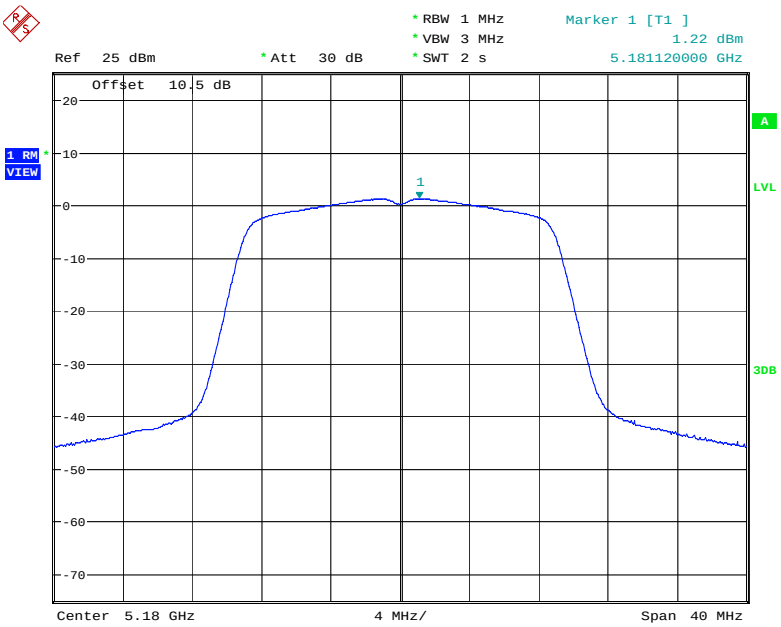

Date: 23.OCT.2022 17:51:27

## 802.11n40 mode, Power Spectral Density, 5230 MHz



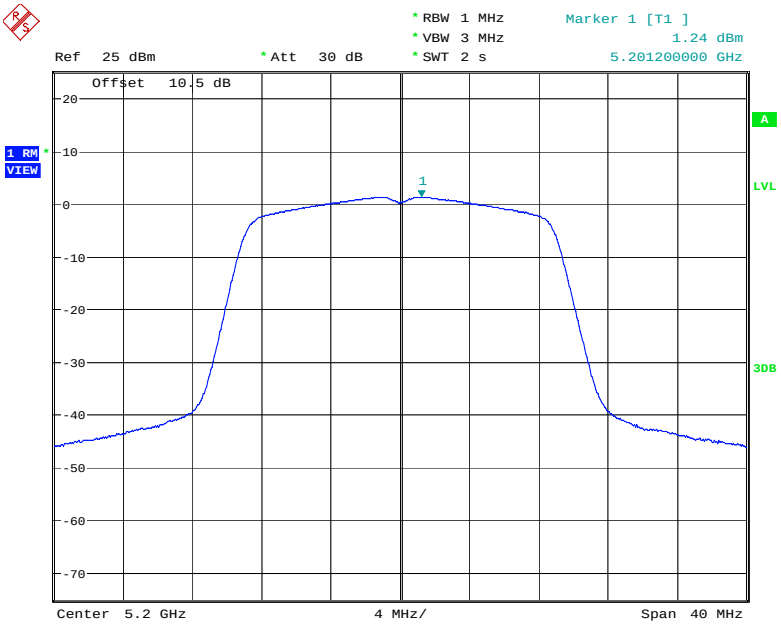

Date: 23.OCT.2022 17:54:33

## 802.11ac20 mode, Power Spectral Density, 5180 MHz



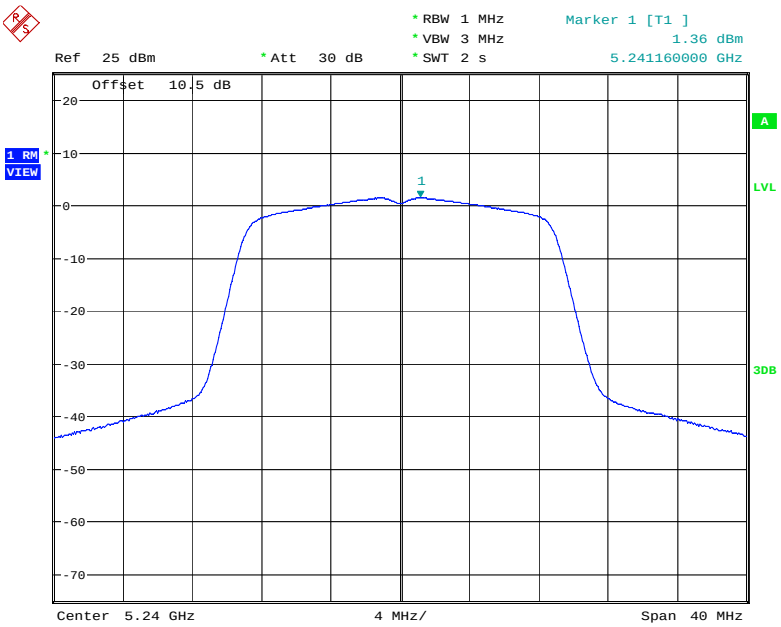

Date: 23.OCT.2022 15:45:53

## 802. 11ac20 mode, Power Spectral Density, 5200 MHz



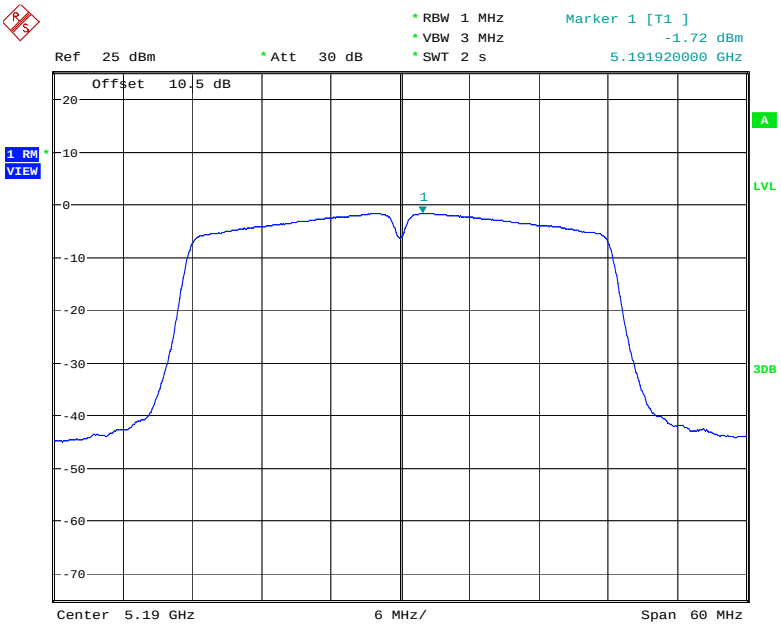

Date: 23.OCT.2022 15:50:45

## 802. 11ac20 mode, Power Spectral Density, 5240 MHz



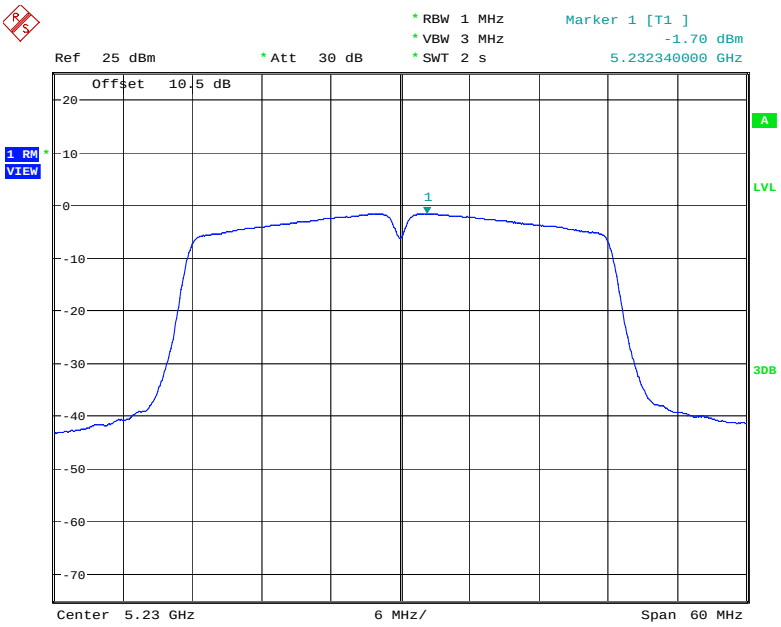

Date: 23.OCT.2022 15:55:53

## 802. 11ac40 mode, Power Spectral Density, 5190 MHz



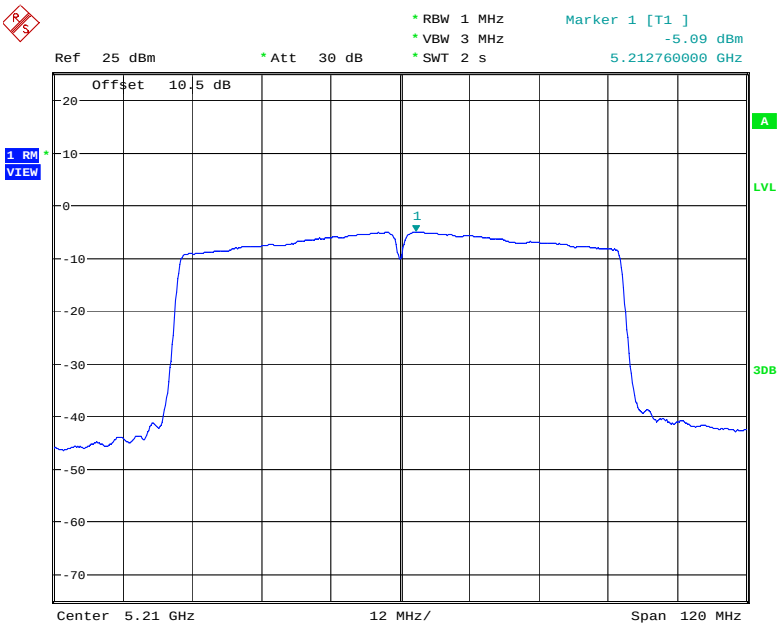

Date: 23.OCT.2022 16:37:00

## 802. 11ac40 mode, Power Spectral Density, 5230 MHz




Date: 23.OCT.2022 16:43:32

## 802. 11ac80 mode, Power Spectral Density, 5210 MHz



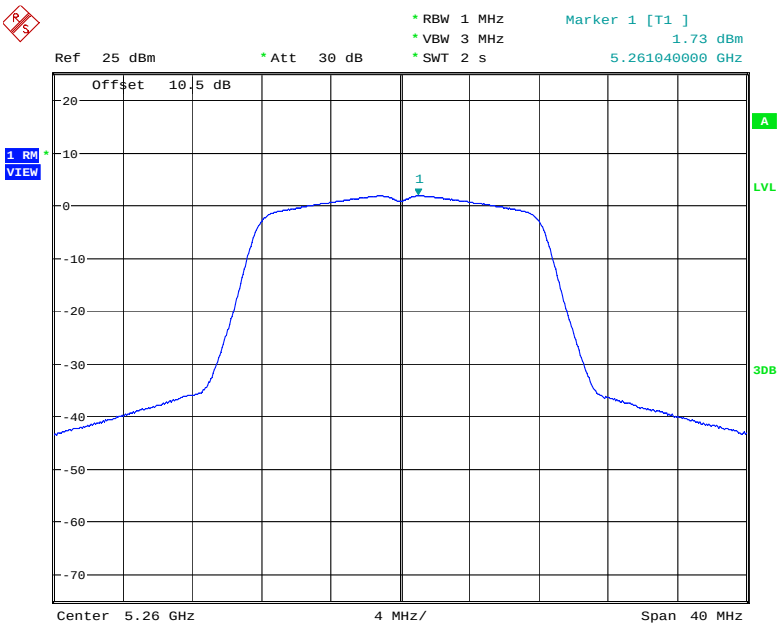

Date: 23.OCT.2022 17:07:02

**5250 MHz – 5350 MHz:**

| Frequency (MHz) | Reading (dBm/MHz) | Duty Cycle Factor | Power Spectral Density (dBm/MHz) | Limit (dBm/MHz) |
|---|---|---|---|---|
| 802.11a | | | | |
| 5260 | 1.73 | 0.15 | 1.88 | 11 |
| 5280 | 1.51 | 0.15 | 1.66 | 11 |
| 5320 | 1.32 | 0.15 | 1.47 | 11 |
| 802.11n20 | | | | |
| 5260 | 1.33 | 0.16 | 1.49 | 11 |
| 5280 | 1.34 | 0.16 | 1.50 | 11 |
| 5320 | 1.06 | 0.16 | 1.22 | 11 |
| 802.11n40 | | | | |
| 5270 | -1.77 | 0.32 | -1.45 | 11 |
| 5310 | -1.91 | 0.32 | -1.59 | 11 |
| 802.11ac20 | | | | |
| 5260 | 1.33 | 0.16 | 1.49 | 11 |
| 5280 | 1.26 | 0.16 | 1.42 | 11 |
| 5320 | 0.99 | 0.16 | 1.15 | 11 |
| 802.11ac40 | | | | |
| 5270 | -1.95 | 0.32 | -1.63 | 11 |
| 5310 | -2.06 | 0.32 | -1.74 | 11 |
| 802.11ac80 | | | | |
| 5290 | -5.34 | 0.50 | -4.84 | 11 |

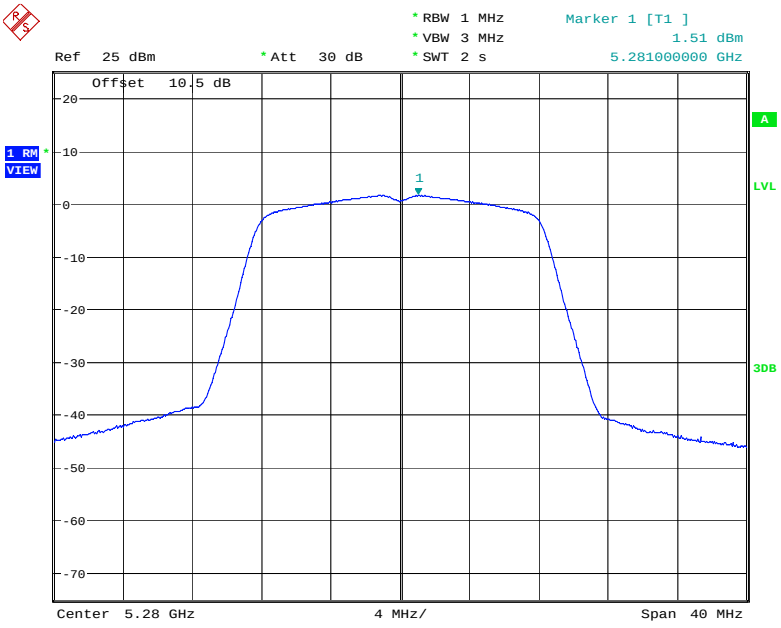
*Note:*
*1) Power Spectral Density = Reading + Duty Cycle Factor.*
*2) Duty Cycle Factor =10 log (1 / D), D=Duty Cycle*

## 802.11a mode, Power Spectral Density, 5260MHz



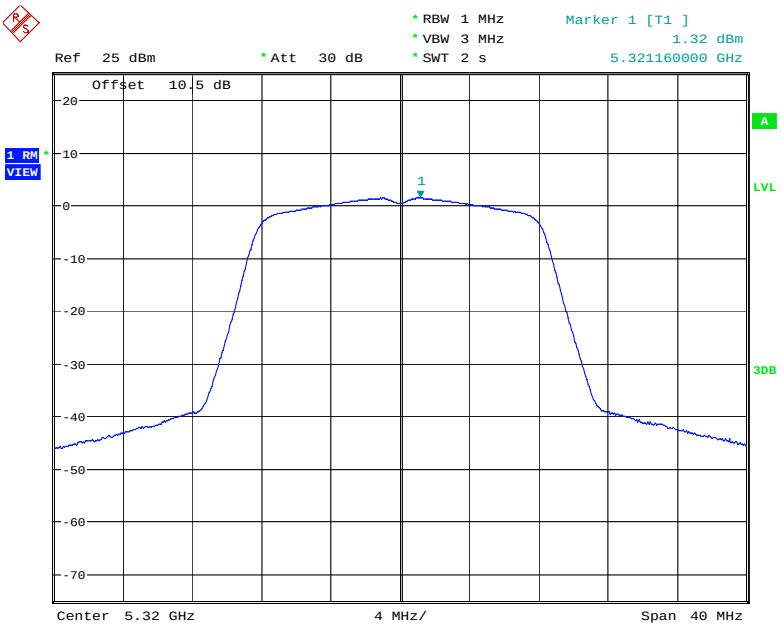

Date: 23.OCT.2022 15:02:08

## 802.11a mode, Power Spectral Density, 5280MHz



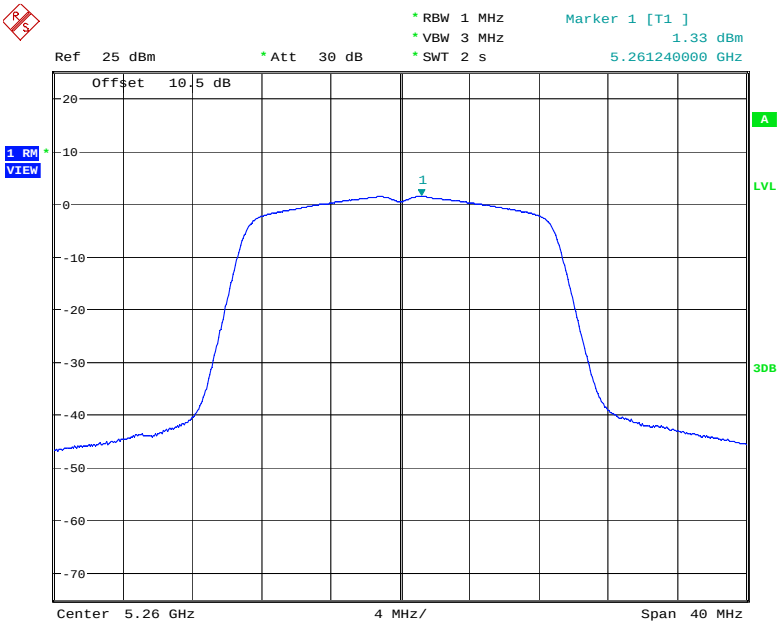

Date: 23.OCT.2022 15:08:31

## 802.11a mode, Power Spectral Density, 5320 MHz



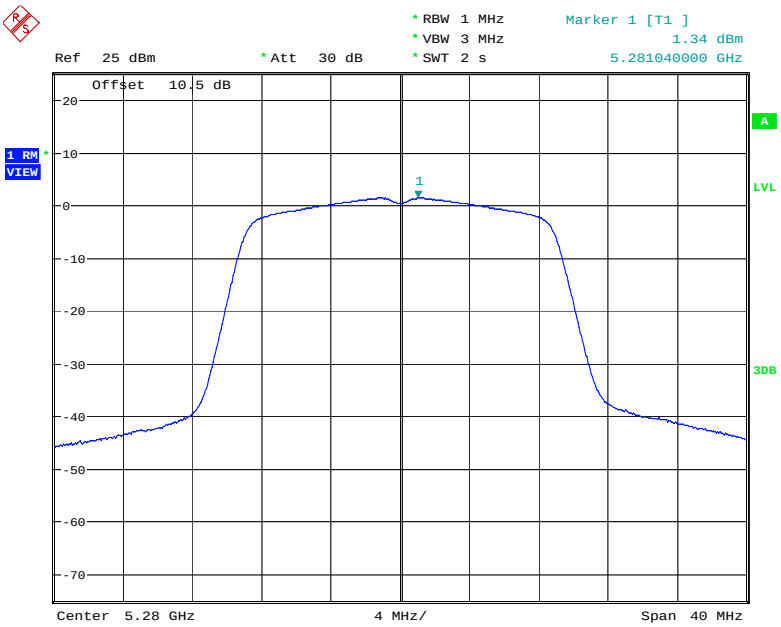

Date: 23.OCT.2022 15:19:30

## 802.11n20 mode, Power Spectral Density, 5260 MHz



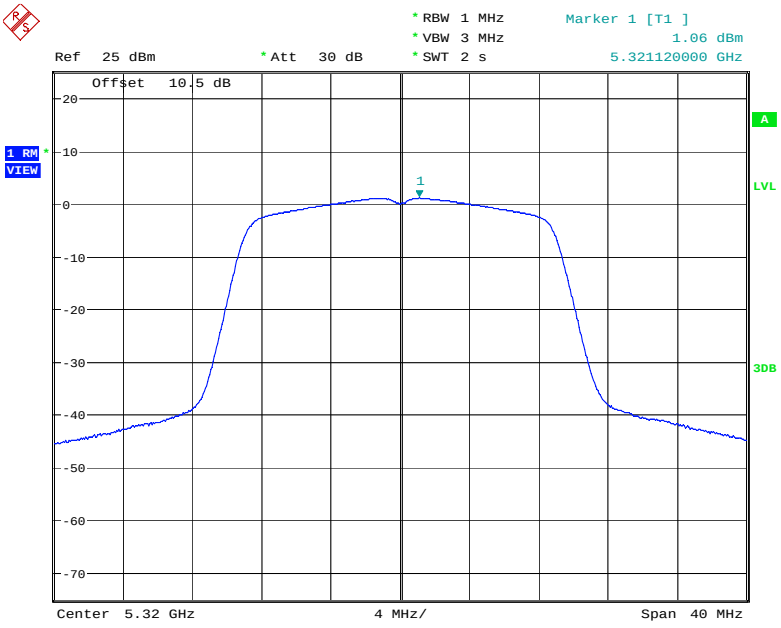

Date: 23.OCT.2022 17:31:24

## 802.11n20 mode, Power Spectral Density, 5280MHz



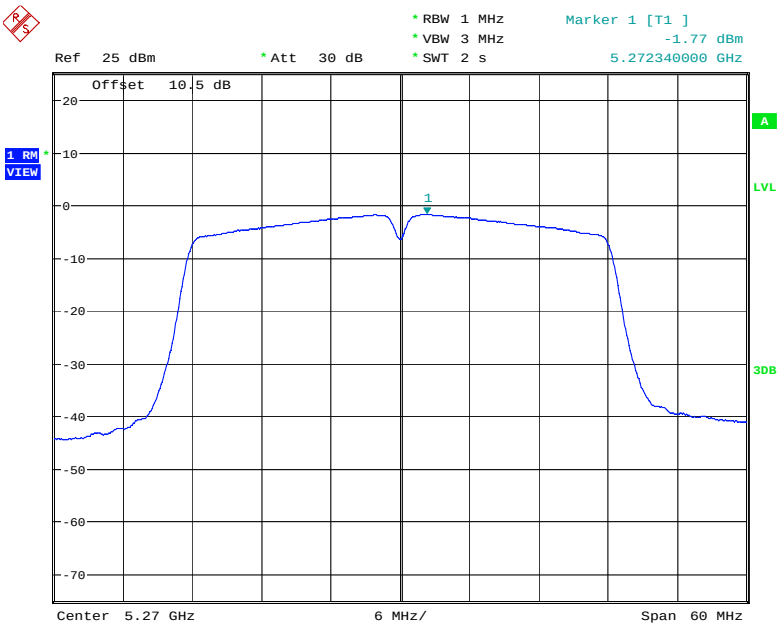

Date: 23.OCT.2022 17:34:18

## 802.11n20 mode, Power Spectral Density, 5320MHz



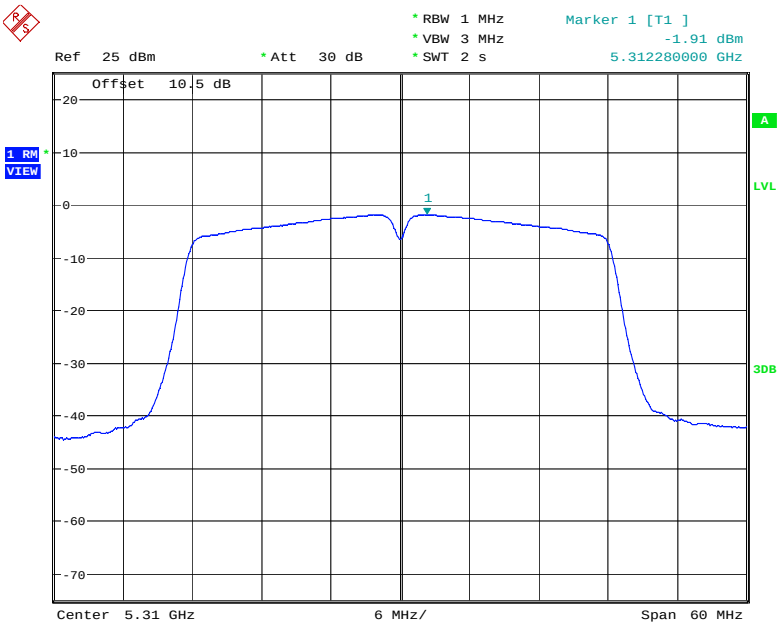

Date: 23.OCT.2022 17:38:32

## 802.11n40 mode, Power Spectral Density, 5270MHz



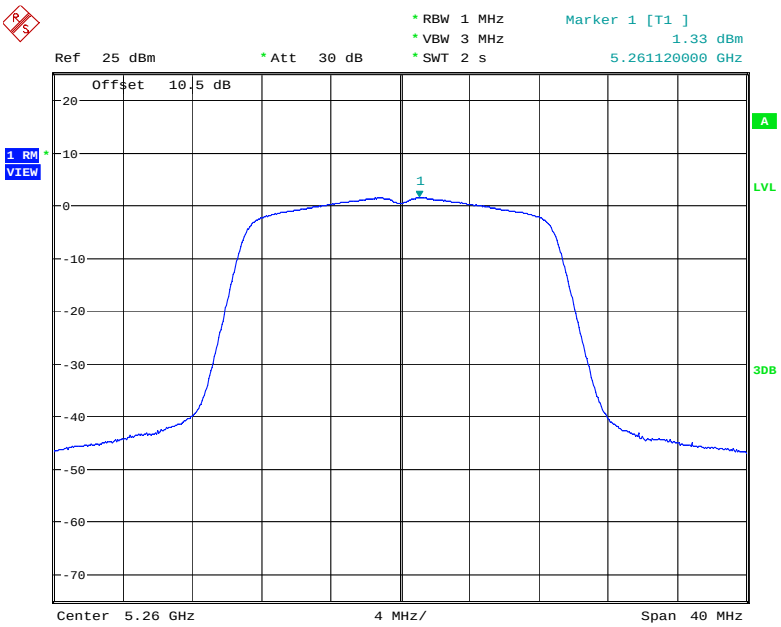

Date: 23.OCT.2022 17:58:00

## 802.11n40 mode, Power Spectral Density, 5310MHz



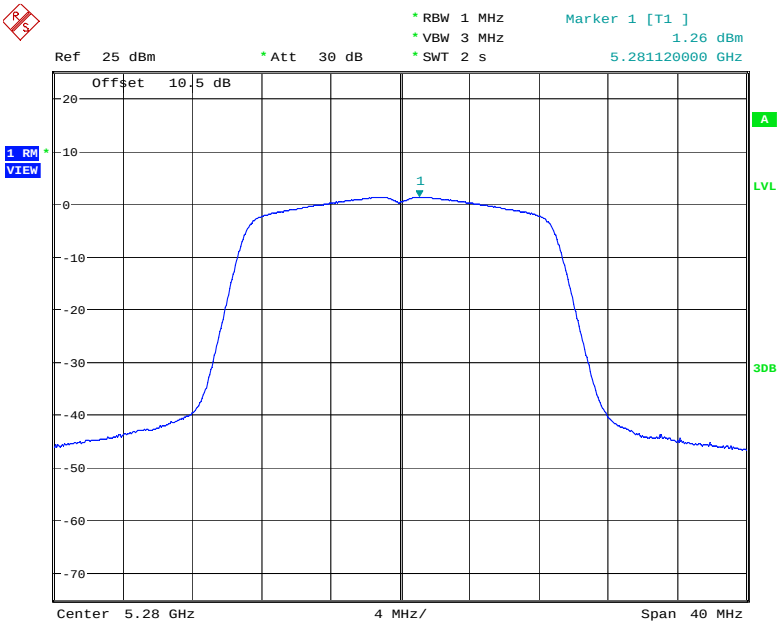

Date: 23.OCT.2022 18:02:33

## 802.11ac20 mode, Power Spectral Density, 5260 MHz



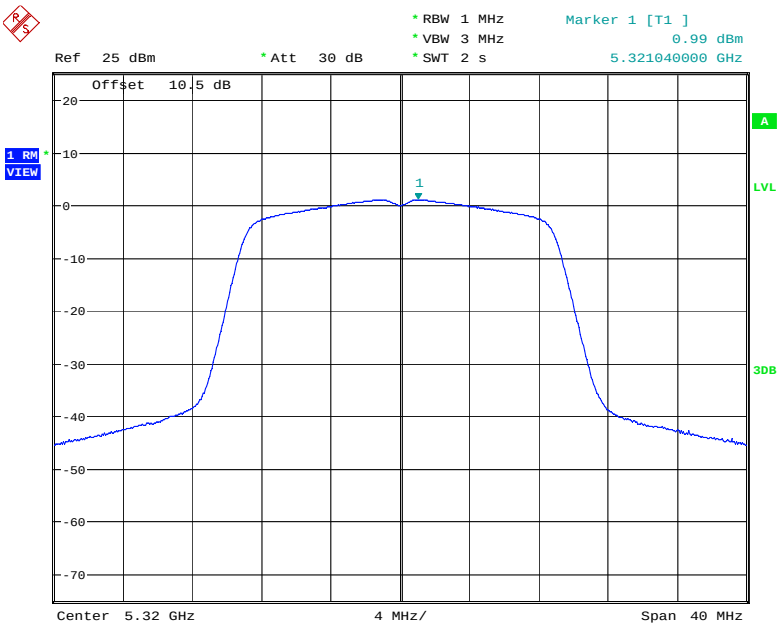

Date: 23.OCT.2022 16:02:51

## 802. 11ac20 mode, Power Spectral Density, 5280MHz



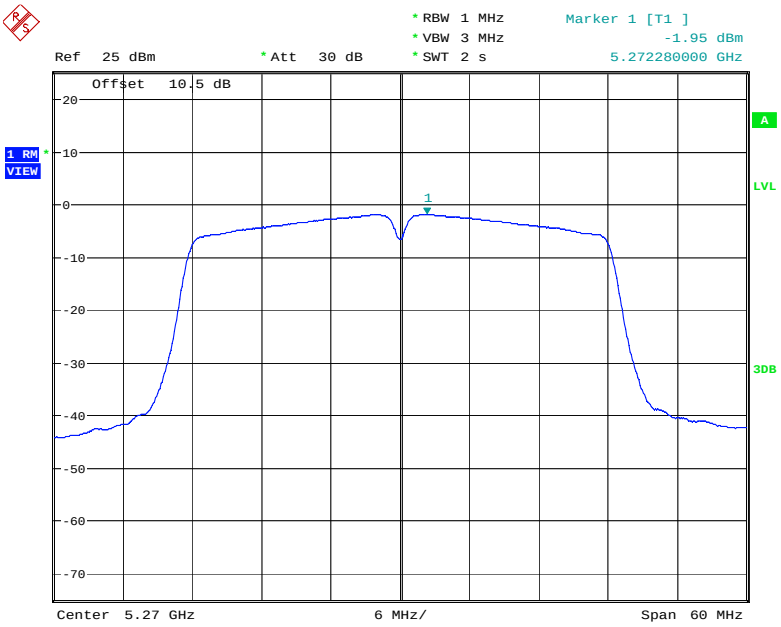

Date: 23.OCT.2022 16:08:56

## 802. 11ac20 mode, Power Spectral Density, 5320MHz



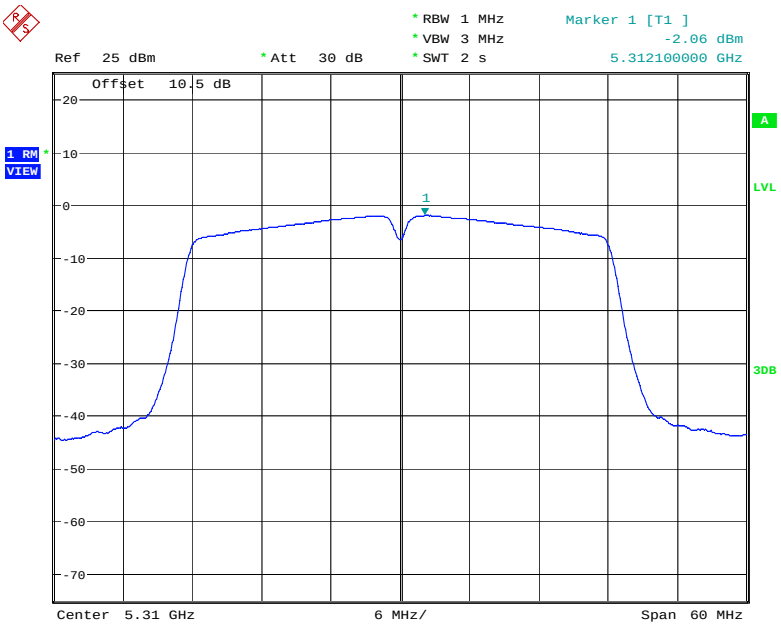

Date: 23.OCT.2022 16:15:30

## 802. 11ac40 mode, Power Spectral Density, 5270MHz



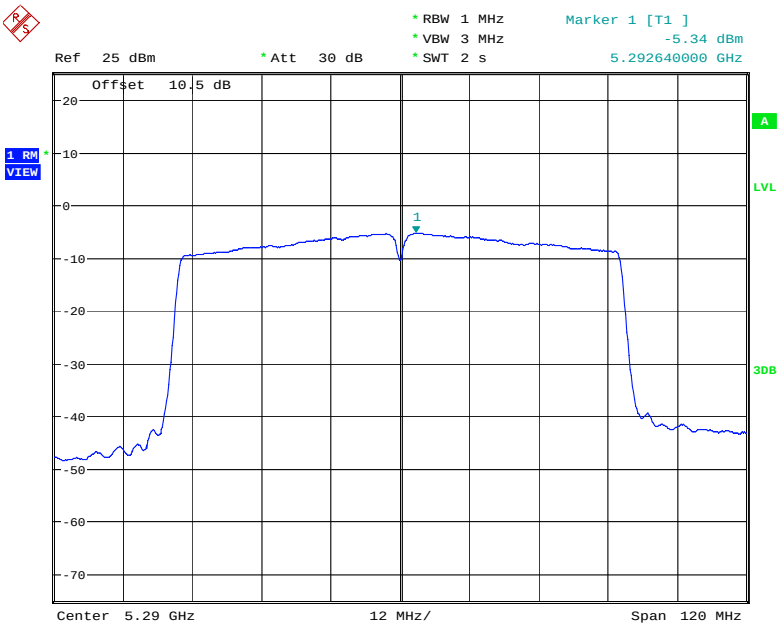

Date: 23.OCT.2022 16:47:46

## 802. 11ac40 mode, Power Spectral Density, 5310 MHz




Date: 23.OCT.2022 16:53:34

## 802. 11ac80 mode, Power Spectral Density, 5290 MHz



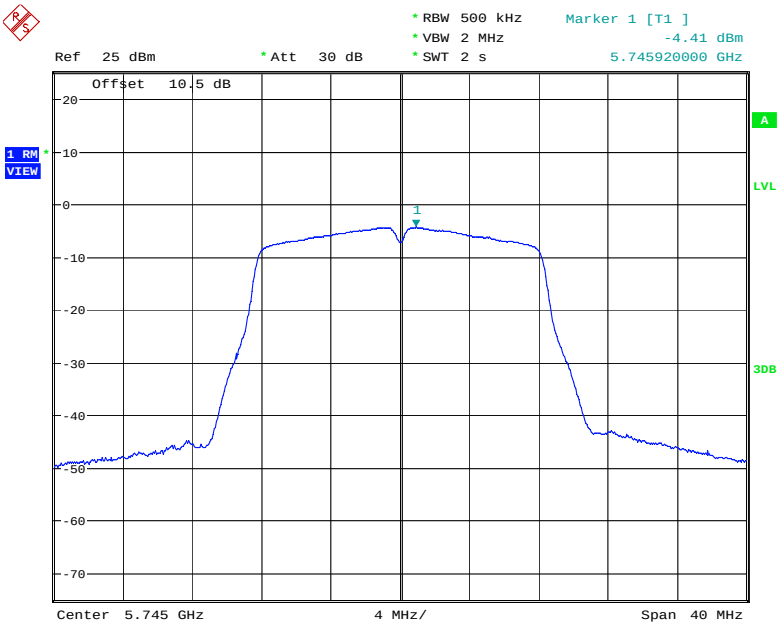

Date: 23.OCT.2022 17:13:31

**5725 MHz – 5850MHz:**

| Frequency (MHz) | Reading (dBm/MHz) | Duty Cycle Factor | Power Spectral Density (dBm/500kHz) | Limit (dBm/500kHz) |
|---|---|---|---|---|
| 802.11a | | | | |
| 5745 | -4.41 | 0.15 | -4.26 | 30 |
| 5785 | -4.09 | 0.15 | -3.94 | 30 |
| 5825 | -3.73 | 0.15 | -3.58 | 30 |
| 802.11n20 | | | | |
| 5745 | -4.9 | 0.16 | -4.74 | 30 |
| 5785 | -4.27 | 0.16 | -4.11 | 30 |
| 5825 | -4.07 | 0.16 | -3.91 | 30 |
| 802.11n40 | | | | |
| 5755 | -7.75 | 0.32 | -7.43 | 30 |
| 5795 | -7.18 | 0.32 | -6.86 | 30 |
| 802.11ac20 | | | | |
| 5745 | -4.95 | 0.16 | -4.79 | 30 |
| 5785 | -4.33 | 0.16 | -4.17 | 30 |
| 5825 | -4.02 | 0.16 | -3.86 | 30 |
| 802.11ac40 | | | | |
| 5755 | -7.83 | 0.32 | -7.51 | 30 |
| 5795 | -7.34 | 0.32 | -7.02 | 30 |
| 802.11ac80 | | | | |
| 5775 | -10.72 | 0.50 | -10.22 | 30 |

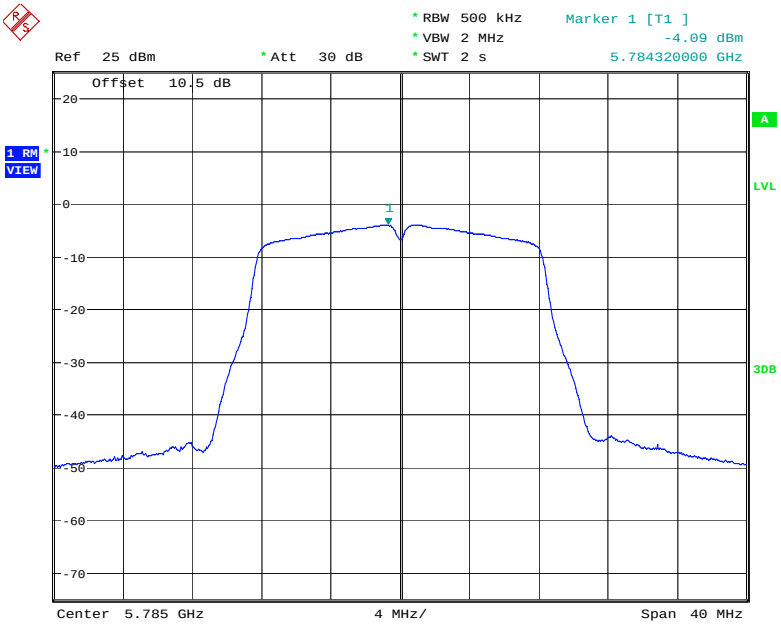
*Note:*
*1) Power Spectral Density = Reading + Duty Cycle Factor.*
*2) Duty Cycle Factor =10 log (1 / D), D=Duty Cycle*

## 802.11a mode, Power Spectral Density, 5745MHz



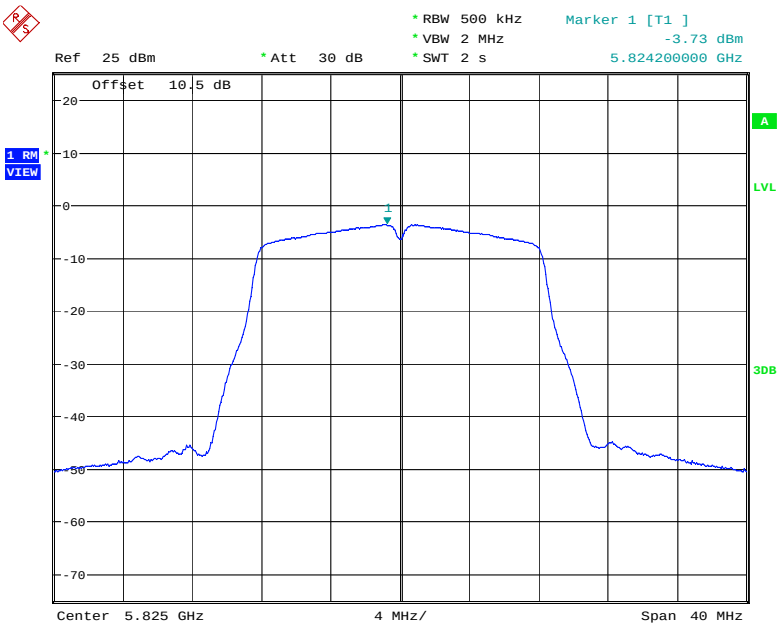

Date: 23.OCT.2022 15:30:08

## 802.11a mode, Power Spectral Density, 5785MHz



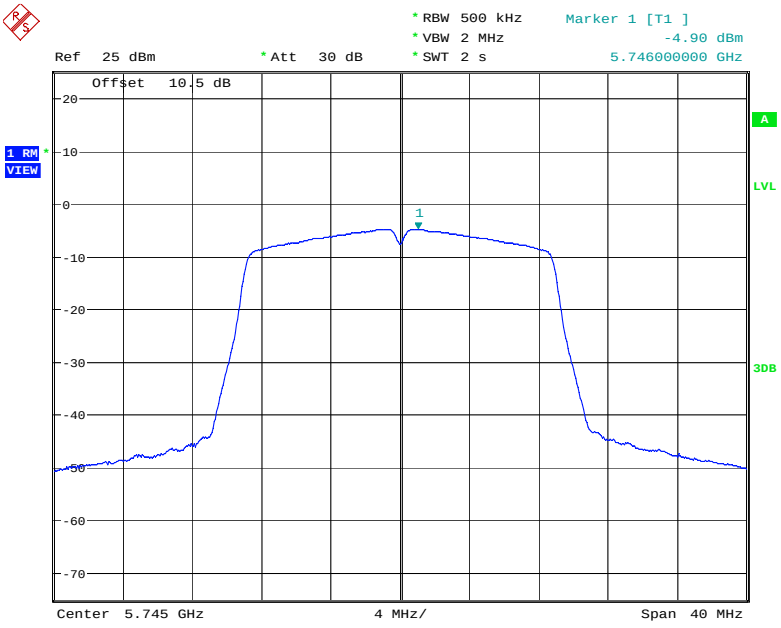

Date: 23.OCT.2022 15:34:59

## 802.11a mode, Power Spectral Density, 5825MHz



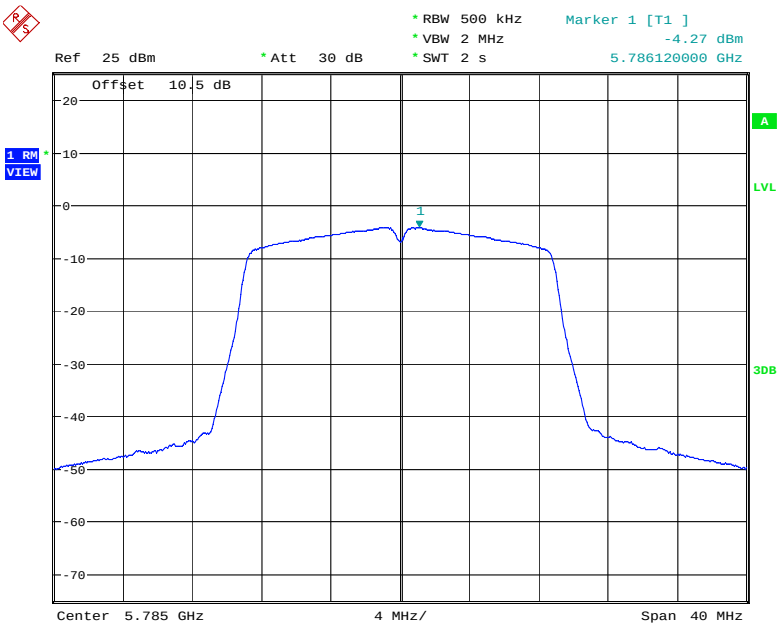

Date: 23.OCT.2022 15:38:45

## 802.11n20 mode, Power Spectral Density, 5745MHz

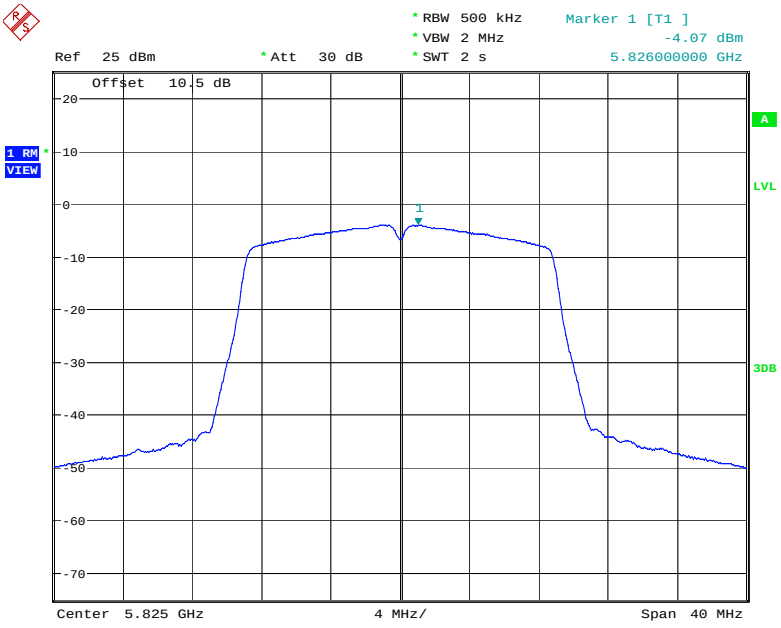



Date: 23.OCT.2022 17:41:59

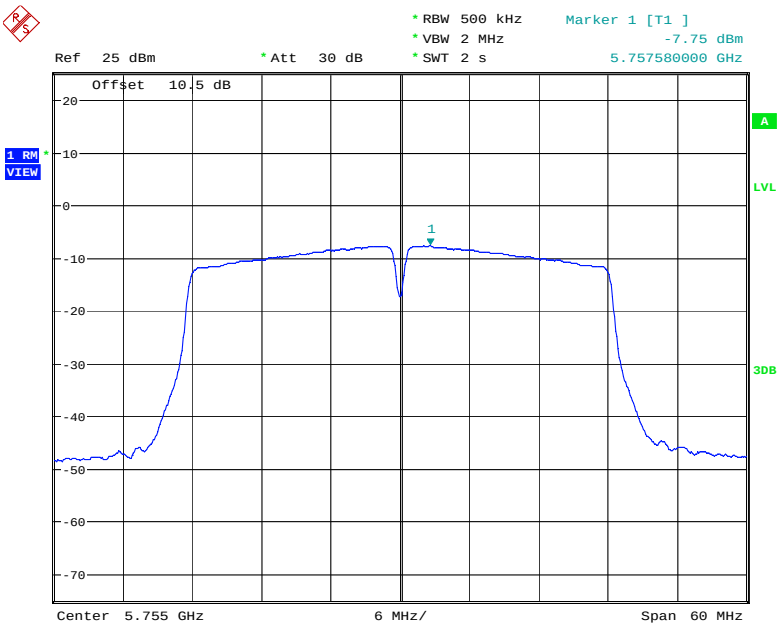
## 802.11n20 mode, Power Spectral Density, 5785MHz




## 802.11n20 mode, Power Spectral Density, 5825MHz

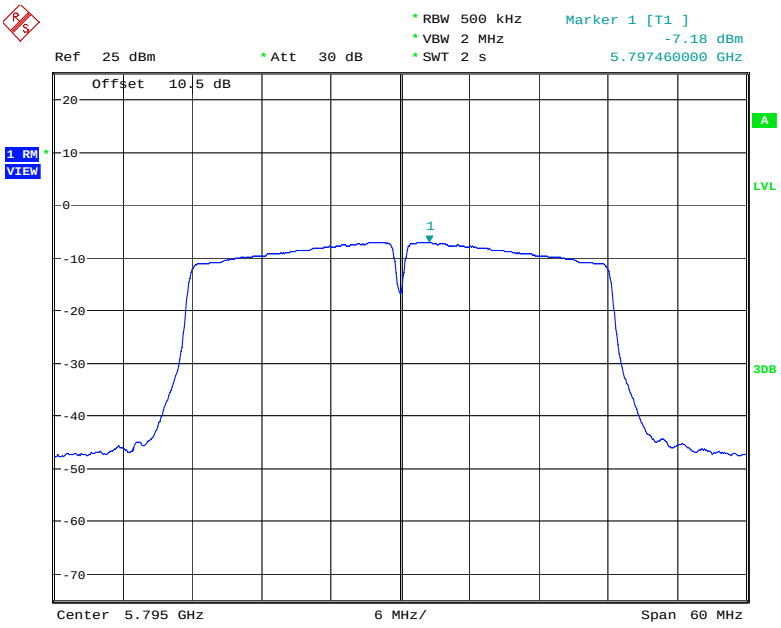


## 802.11n40 mode, Power Spectral Density, 5755MHz



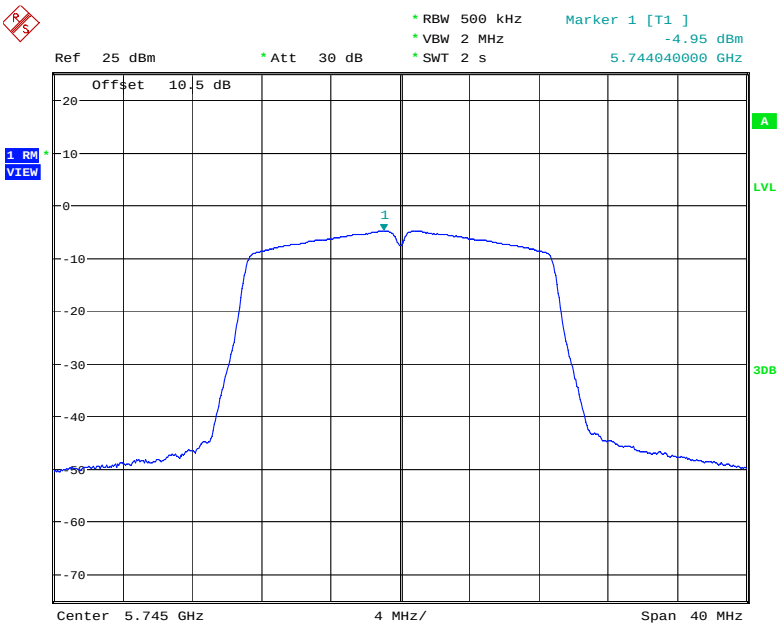

Date: 23.OCT.2022 18:05:21

## 802.11n40 mode, Power Spectral Density, 5795MHz



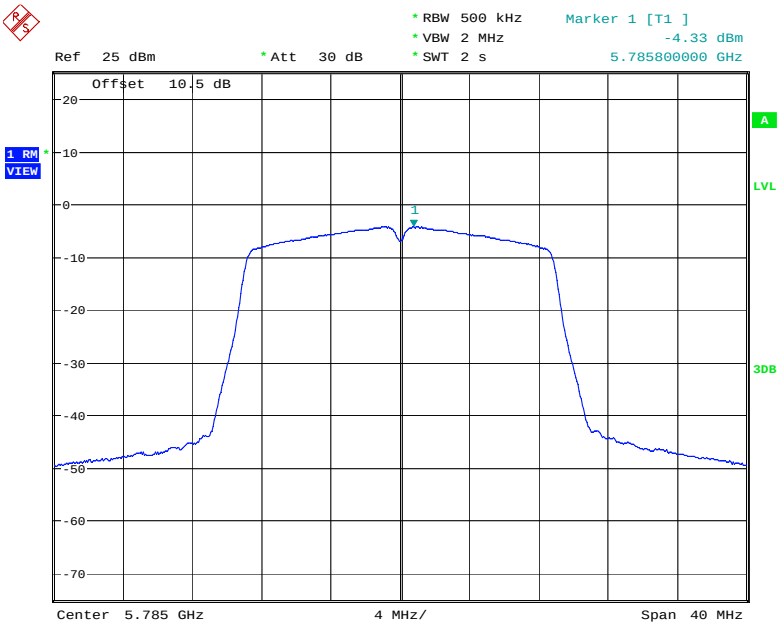

Date: 23.OCT.2022 18:07:49

## 802.11ac20 mode, Power Spectral Density, 5745 MHz



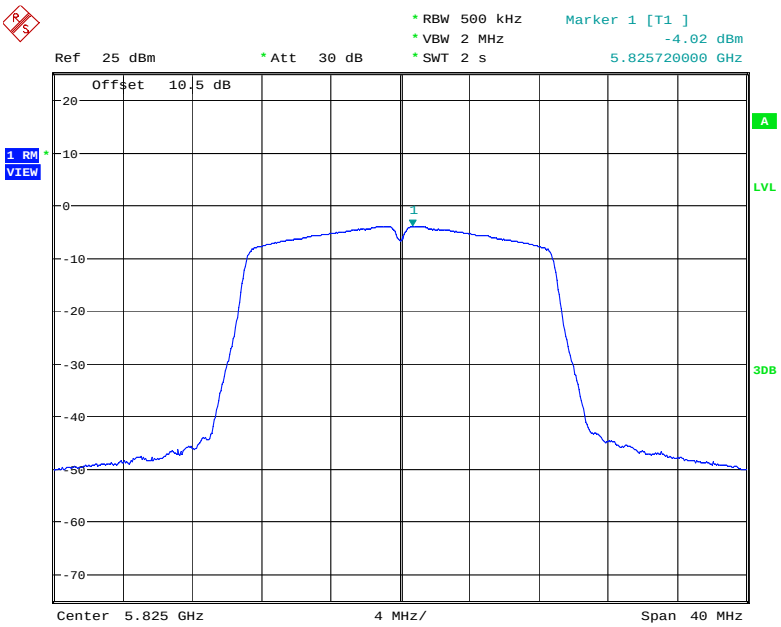

Date: 23.OCT.2022 16:20:17

## 802. 11ac20 mode, Power Spectral Density, 5785MHz



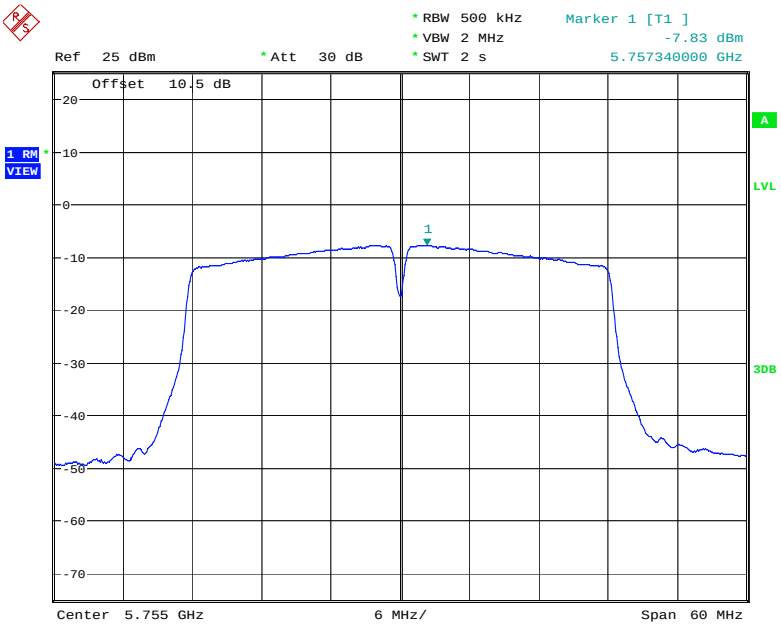

Date: 23.OCT.2022 16:25:48

## 802. 11ac20 mode, Power Spectral Density, 5825MHz



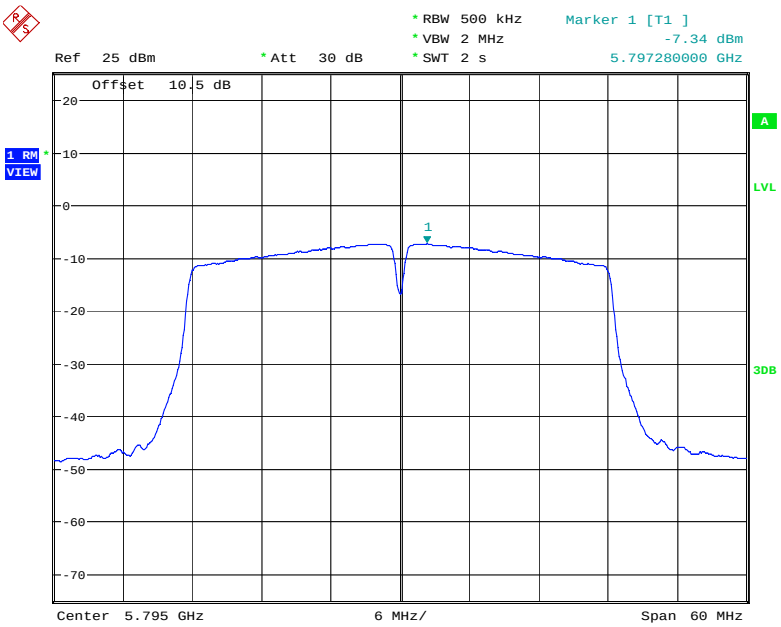

Date: 23.OCT.2022 16:30:36

## 802. 11ac40 mode, Power Spectral Density, 5755MHz



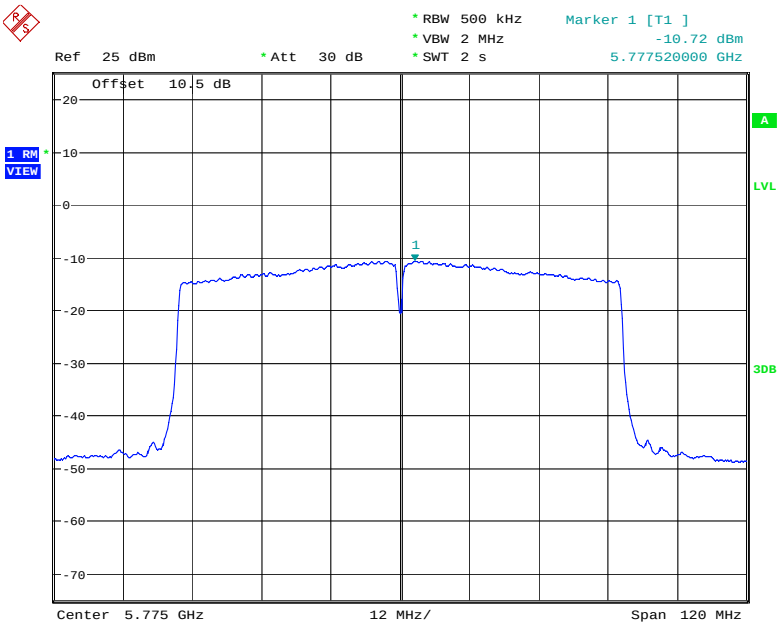

Date: 23.OCT.2022 16:58:05

## 802. 11ac40 mode, Power Spectral Density,5795MHz




Date: 23.OCT.2022 17:02:47

## 802. 11ac80 mode, Power Spectral Density, 5775 MHz

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