

TEST REPORT

Report Number: 14982436-E28V2

Applicant : APPLE INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A.

Model : A3083 (Parent Model)
A3292, A3293, A3294 (Variant Models)

Brand : APPLE

FCC ID : BCG-E8666A (Parent Model)
BCG-E8667A, BCG-E8668A, BCG-E8683A (Variant Models)

EUT Description : SMARTPHONE

Test Standard(s) : FCC 47 CFR PART 15 SUBPART E

Date Of Issue:
2024/08/14

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538 U.S.A.
TEL: (510) 319-4000
FAX: (510) 661-0888



REPORT REVISION HISTORY

| Rev. | Issue Date | Revisions | Revised By |
|------|------------|---------------------------------------------------------|------------|
| V1 | 2024/07/19 | Initial Review | Tony Li |
| V2 | 2024/08/14 | Addressed TCB Questions on Section 2, 6 and 9.2 and 9.3 | Tony Li |

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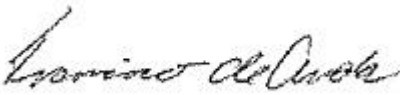

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1. ATTESTATION OF TEST RESULTS

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Applicant Name and Address | APPLE INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A. |
| Model | A3083 (Parent Model) A3292, A3293, A3294 (Variant Models) |
| Brand | APPLE |
| FCC ID | BCG-E8666A (Parent Model) BCG-E8667A, BCG-E8668A, BCG-E8683A (Variant Models) |
| EUT Description | SMARTPHONE |
| Serial Number | C07H5M0000B0000FDP, C07H5J0002E0000FDT |
| Sample Receipt Date | 2024/06/12 |
| Date Tested | 2024/02/26 to 2024/08/13 |
| Applicable Standards | CFR 47 Part 15 Subpart E |
| Test Results | COMPLIES |
| <p>UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.</p> <p>The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.</p> <p>This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, any agency of the Federal Government, or any agency of the U.S. government.</p> | |
| Approved & Released By: | Prepared & Reviewed By: |
|  |  |
| Francisco de Anda Staff Engineer UL Verification Services, Inc. | Tony Li Lead Test Engineer UL Verification Services, Inc. |

2. TEST RESULT SUMMARY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for correctly integrating customer-provided data with measurements performed by UL Verification Services Inc.

Below is a list of the data provided by the customer:

1. Antenna gain and type (see section 6.3)
2. Cable loss (see section 6.3)

| Requirement Description | Requirement Clause Number (FCC) | Result | Comment |
|--------------------------------------------------------|-----------------------------------------------|-------------------------|---------------------------|
| Duty Cycle | --- | Reporting purposes only | ANSI C63.10 Section 12.2 |
| 99% BW | §15.407 (a) (11) KDB 987594 D03 v02 Q18 | Compliant | ANSI C63.10 Section 6.9.3 |
| 26dB BW | | | ANSI C63.10 Section 6.9.3 |
| Output Power EIRP | §15.407 (a) (9) | Compliant | Dual Client |
| PSD EIRP | §15.407 (a) (9) | Compliant | Dual Client |
| Emissions outside 5.925-7.125 GHz band | §15.407 (b) (6) | Compliant | None |
| Emissions within 5.925-7.125 GHz Band (Emissions Mask) | §15.407 (b) (7) | Compliant | None |
| Unwanted emissions in restricted bands | §15.205 | Compliant | None |

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with:

- FCC CFR 47 Part 2
- FCC CFR 47 Part 15
- FCC KDB 662911 D01 v02r01
- FCC KDB 789033 D02 v02r01
- FCC KDB 987594 D01 General Requirements v02r02
- FCC KDB 987594 D02 EMC Measurement v02r01
- ANSI C63.10-2013

4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, certification #0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

| | Address | ISED CABID | ISED Company Number | FCC Registration |
|-------------------------------------|----------------------------------------------------------|------------|---------------------|------------------|
| <input type="checkbox"/> | Building 1: 47173 Benicia Street, Fremont, CA 94538, USA | US0104 | 2324A | 550739 |
| <input checked="" type="checkbox"/> | Building 2: 47266 Benicia Street, Fremont, CA 94538, USA | | | |
| <input type="checkbox"/> | Building 3: 843 Auburn Court, Fremont, CA 94538 USA | | | |
| <input type="checkbox"/> | Building 4: 47658 Kato Rd, Fremont, CA 94538 USA | | | |
| <input type="checkbox"/> | Building 5: 47670 Kato Rd, Fremont, CA 94538 USA | | | |

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| PARAMETER | U_{Lab} |
|------------------------------------------------------|-----------------------------------|
| Conducted Antenna Port Emission Measurement | 1.940 dB |
| Power Spectral Density | 2.466 dB |
| Time Domain Measurements Using SA | 3.39 % |
| RF Power Measurement Direct Method Using Power Meter | 0.450 dB (Peak) 1.300 dB (Ave) |
| Radio Frequency (Spectrum Analyzer) | 141.16 Hz |
| Occupied Bandwidth | 1.22% |
| Worst Case Conducted Disturbance, 9KHz to 0.15 MHz | 3.78 db |
| Worst Case Conducted Disturbance, 0.15 to 30 MHz | 3.40 db |
| Worst Case Radiated Disturbance, 9KHz to 30 MHz | 2.87 db |
| Worst Case Radiated Disturbance, 30 to 1000 MHz | 6.01 db |
| Worst Case Radiated Disturbance, 1000 to 18000 MHz | 4.73 db |
| Worst Case Radiated Disturbance, 18000 to 26000 MHz | 4.51 db |
| Worst Case Radiated Disturbance, 26000 to 40000 MHz | 5.29 db |

Uncertainty figures are valid to a confidence level of 95%.

5.4. SAMPLE CALCULATION

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:

Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.

36.5 dBuV + 0 dB + 10.1 dB + 0 dB = 46.6 dBuV

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The Apple iPhone is a smartphone with cellular GSM, GPRS, EGPRS, WCDMA, LTE, 5G NR1, 5G NR2, IEEE 802.11a/b/g/n/ac/ax/be, Bluetooth (BT), Ultra-Wideband (UWB), Global Positioning System (GPS), Near-Field Communication (NFC), Narrow-Band (NB) UNII, 802.15.4, 802.15.4ab-Narrow Band (NB), WPT and Mobile Satellite Service (MSS) technologies. The rechargeable battery is not user accessible. This device is not user-serviceable and requires special tools to disassemble.

This report covers 6E 802.11 ax/be Wifi radio.

6.1.1. EUT DEVICE CLASS

| Dual Client (6CD) | U-NII Bands of Operation | | | |
|-----------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| | 5 | 6 | 7 | 8 |
| Very Low Power Client (VLP) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum EIRP output power as follows:

6.2.1. VLP

UNII-5 BAND

| Frequency Range (MHz) | Mode | Output Power EIRP (dBm) | Output Power EIRP (mW) |
|-------------------------|---------------------|-------------------------|------------------------|
| UNII-5 Band, 1TX | | | |
| 6115-6415 | 802.11be EHT20 | 4.57 | 2.86 |
| 6125-6405 | 802.11be EHT40 | 7.58 | 5.73 |
| 6145-6385 | 802.11be EHT80 | 10.62 | 11.53 |
| 6185-6345 | 802.11be EHT160 | 12.85 | 19.28 |
| UNII-5 Band, 2TX | | | |
| 6115-6415 | 802.11be EHT20 CDD | 1.82 | 1.52 |
| 6115-6415 | 802.11be EHT20 SDM | 4.64 | 2.91 |
| 6125-6405 | 802.11be EHT40 CDD | 4.86 | 3.06 |
| 6125-6405 | 802.11be EHT40 SDM | 7.65 | 5.82 |
| 6145-6385 | 802.11be EHT80 CDD | 7.89 | 6.15 |
| 6145-6385 | 802.11be EHT80 SDM | 10.64 | 11.59 |
| 6185-6345 | 802.11be EHT160 CDD | 10.12 | 10.28 |
| 6185-6345 | 802.11be EHT160 SDM | 12.88 | 19.41 |

UNII-7 BAND

| Frequency Range (MHz) | Mode | Output Power EIRP (dBm) | Output Power EIRP (mW) |
|------------------------|---------------------|-------------------------|------------------------|
| UNII-7 Band 1TX | | | |
| 6535-6855 | 802.11be EHT20 | 4.49 | 2.81 |
| 6565-6845 | 802.11be EHT40 | 7.47 | 5.58 |
| 6625-6785 | 802.11be EHT80 | 10.46 | 11.12 |
| 6665 | 802.11be EHT160 | 12.70 | 18.62 |
| UNII-7 Band 2TX | | | |
| 6535-6855 | 802.11be EHT20 CDD | 2.13 | 1.63 |
| 6535-6855 | 802.11be EHT20 SDM | 4.61 | 2.89 |
| 6565-6845 | 802.11be EHT40 CDD | 5.11 | 3.24 |
| 6565-6845 | 802.11be EHT40 SDM | 7.63 | 5.79 |
| 6625-6785 | 802.11be EHT80 CDD | 8.12 | 6.49 |
| 6625-6785 | 802.11be EHT80 SDM | 10.63 | 11.56 |
| 6665 | 802.11be EHT160 CDD | 10.32 | 10.76 |
| 6665 | 802.11be EHT160 SDM | 12.87 | 19.36 |

6.3. DESCRIPTION OF AVAILABLE ANTENNAS AND CABLE LOSS

The antenna(s) gain and type, cable loss as provided by the manufacturer' are as follows:

Type: IFA

| Band | Frequency Range Sub-band (MHz) | Antenna 6 (dBi) | Antenna 5 (dBi) | Uncorrelated Chains (dBi) | Correlated Chains (dBi) |
|--------|-------------------------------------|-----------------|-----------------|---------------------------|-------------------------|
| UNII-5 | Sub-band 1 (5955 - 6095) (Disabled) | 0.10 | -1.10 | -0.46 | 2.53 |
| | Sub-band 2 (6115 - 6255) | 0.90 | -2.40 | -0.44 | 2.42 |
| | Sub-band 3 (6275 - 6415) | 1.60 | -2.90 | -0.09 | 2.65 |
| UNII-7 | 6535-6855 | 2.00 | -4.40 | -0.11 | 2.39 |

Cable type: SMA

| Cable Loss | | |
|-----------------------|----------------|----------------|
| Frequency Range (MHz) | Antenna 6 (dB) | Antenna 5 (dB) |
| 5925-6105 | 2.93 | 3.20 |
| 6105-6265 | 2.93 | 3.20 |
| 6265-6425 | 2.98 | 3.40 |
| 6525-6875 | 3.08 | 3.60 |
| 6875-7125 | 3.08 | 3.50 |

The cables were used for RF antenna port tests that had been offset to the test equipment during testing.

Note: ANT1 and ANT2 indicated in the test result sections are representative of ANT6 and ANT5, respectively.

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 27_20_111_38.

6.5. WORST-CASE CONFIGURATION AND MODE

This report is to document the very low power client mode only. The standard power client and indoor low power client mode are documented in a separate 6CD report.

For RF conducted tests, VLP has been tested with SISO, 2TX CDD, and SDM MIMO modes and was tested on all antenna ports after investigation.

The 802.11a mode 20MHz covered by the 802.11be mode since both have the same power.

Radiated tests was covered by standard power and indoor low power client modes as they have the higher tune up.

For conducted testing - all tests perform on both SU (highest output power) and Partial RU tones (highest PSD reading).

Low data rate was used to test on antenna port conducted since it has the highest maximum power.

The modulation and bandwidth of 802.11ax and 802.11be modes are similar at 20 MHz (40 MHz, 80 MHz, 160 MHz), and the target power of 802.11ax mode is equal to or lower than that of 802.11be mode, and the data rate of 802.11be mode is higher than 802.11ax mode, so 802.11be mode was tested to represent worst-case reporting.

For mask and bandwidth measurements partial RU allocations are tested with the RUs allocated at the lower and upper positions within the channel for the low mid and high channels in each band. Additionally, the center channel is also tested with the RU allocated in the center of the channel to verify that the low / high RU allocations are worst case.

After the investigation, it was found that the worst case of power and PSD modes for full testing as table shown below, in addition we also spot-checked Full RU and the rest of Partial RU modes on radiated bandedge, conducted emissions mask, and radiated spurious emissions.

6.5.1. VLP

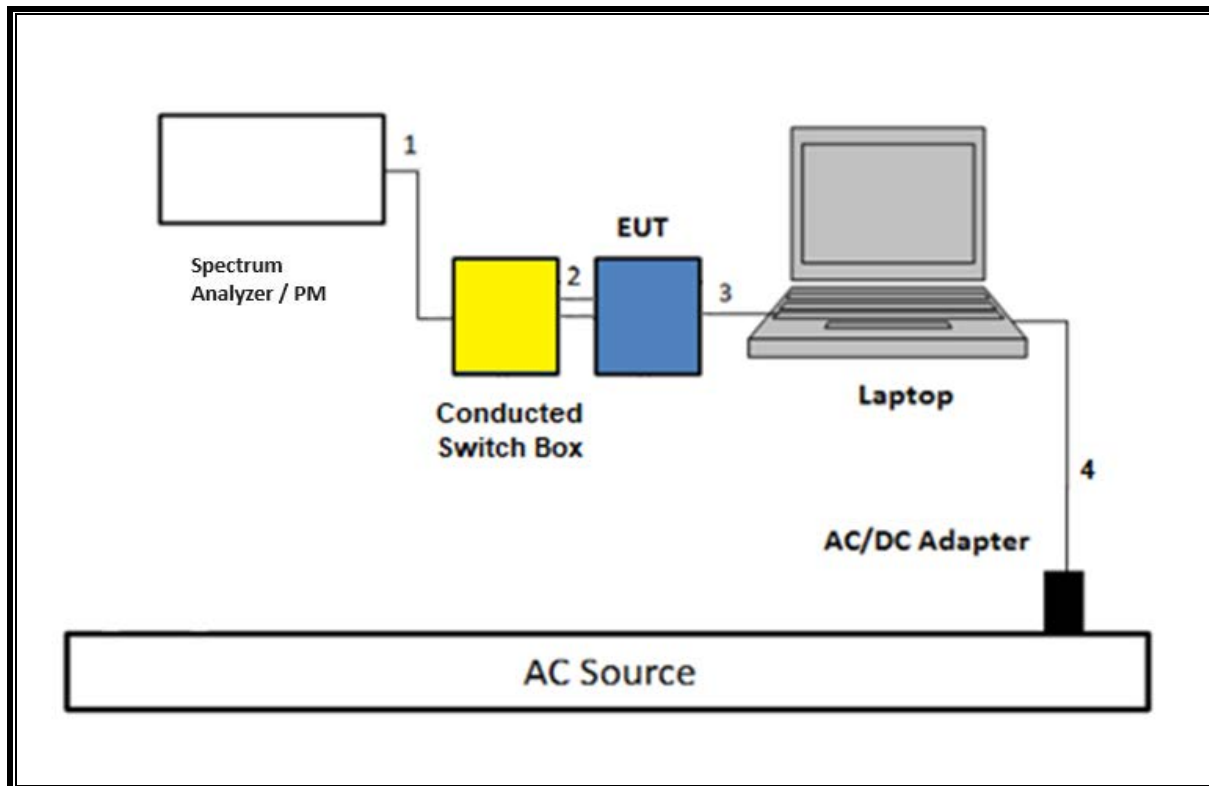
| WiFi 7 - 802.11be | | | | | | | | | | | | | | | | | | | | |
|-------------------|-------------|--------------------------------------|--------------------------------------------------------------|-------------------------------|-----|-----------------------------------|-----|-----------------------------------|-----|--------------------------|-----|-------------------------------|-----|-----------------------------------|-----|-----------------------------------|-----|--------------------------|-----|-------|
| BW (MHz) | Tone (T) | RU Index | RU Index from Chipset support | Worst Case Tone (UNII-5) SISO | | Worst Case Tone (UNII-5) MIMO CDD | | Worst Case Tone (UNII-5) MIMO SDM | | Worst Case Tone (UNII-6) | | Worst Case Tone (UNII-7) SISO | | Worst Case Tone (UNII-7) MIMO CDD | | Worst Case Tone (UNII-7) MIMO SDM | | Worst Case Tone (UNII-8) | | |
| | | | | Power | PSD | Power | PSD | Power | PSD | Power | PSD | Power | PSD | Power | PSD | Power | PSD | Power | PSD | Power |
| 20 | 26 | 0~8 | 0~8 | | | | | | | | | | | | | | | | | |
| | 52 | 37~40 | 37~40 | | | | | | | | | | | | | | | | | |
| | 52+26 | 70~81 | 70, 71, 72 | | | | | | | | | | | | | | | | | |
| | 106 | 53~54 | 53~54 | | | | | | | | | | X | | | | | X | | |
| | 106+26 | 82~89 | 82, 83 | | X | | | | X | | | | | | | | | | | |
| | 242 | 61 | 61 | | | | | | | | | | | | | | | | | |
| | SU | -- | -- | -- | X | | X | | X | | | | X | | X | | X | | | |
| 40 | 26 | 0~17 | 0~17 | | | | | | | | | | | | | | | | | |
| | 52 | 37~44 | 37~44 | | | | | | | | | | | | | | | | | |
| | 52+26 | 70~81 | 70, 72, 73, 74, 75 | | | | | | | | | | | | | | | | | |
| | 106 | 53~56 | 53~56 | | X | | | | X | | | | X | | | | X | | | |
| | 106+26 | 82~89 | 82, 83, 84, 85 | | | | | | | | | | | | | | | | | |
| | 242 | 61~61 | 61~62 | | | | X | | | | | | | | X | | | | | |
| | 484 | 65 | 65 | | | | | | | | | | | | | | | | | |
| SU | -- | -- | -- | X | | X | | X | | | | X | | X | | X | | | | |
| 80 | 26 | 0~36 | 0~36 | | | | | | | | | | | | | | | | | |
| | 52 | 37~52 | 37~52 | | | | | | | | | | | | | | | | | |
| | 52+26 | 70~81 | 71,72,73,74,77,78,79,80 | | | | | | | | | | X | | | | X | | | |
| | 106 | 53~60 | 53~60 | | | | | | | | | | | | | | | | | |
| | 106+26 | 82~89 | 82, 85, 86, 89 | | X | | | | X | | | | | | | | | | | |
| | 242 | 61~64 | 61~64 | | | | | | | | | | | | | | | | | |
| | 484 | 65~66 | 65~66 | | | | | | | | | | | | | | | | | |
| 484+242 | 90,91,92,93 | 90,91,92,93 | | | | X | | | | | | | | X | | | | | | |
| 996 | 67 | 67 | | | | | | | | | | | | | | | | | | |
| SU | -- | -- | -- | X | | X | | X | | | | X | | X | | X | | | | |
| 160 | 26 | 0~536 | 0~536 | | | | | | | | | | | | | | | | | |
| | 52 | 37~552 | 37~552 | | | | | | | | | | | | | | | | | |
| | 52+26 | 70~581 | sb0: 71,72,73,74,77,78,79,80 sb1: 71,72,73,74,77,78,79,80 | | | | | | | | | | | | | | | | | |
| | 106 | 53~560 | 53~560 | | X | | | | X | | | | X | | | | X | | | |
| | 106+26 | 82~89 | 82, 85, 86, 89 | | | | | | | | | | | | | | | | | |
| | 242 | 61~564 | 61~564 | | | | X | | | | | | | | X | | | | | |
| | 484 | 65~566 | 65~566 | | | | | | | | | | | | | | | | | |
| | 484+242 | sb0: 90,91,92,93 sb1: 90,91,92,93 | sb0: 90,91,92,93 sb1: 90,91,92,93 | | | | | | | | | | | | | | | | | |
| | 996 | 67~567 | 67~567 | | | | | | | | | | | | | | | | | |
| | 996+484 | sb0: 94,95 sb1: 94,95 | sb0: 94,95 sb1: 94,95 | | | | | | | | | | | | | | | | | |
| | 996+484+242 | sb0: 96,97,98,99 sb1: 96,97,98,99 | sb0: 96,97,98,99 sb1: 96,97,98,99 | | | | | | | | | | | | | | | | | |
| | 996x2 | 568 | 568 | | | | | | | | | | | | | | | | | |
| | SU | -- | -- | -- | X | | X | | X | | | | X | | X | | X | | | |

6.6. DESCRIPTION OF TEST SETUP

| SUPPORT TEST EQUIPMENT | | | | | | |
|--------------------------------|---------|----------------------|----------------|-------------------|------------------|-------------------------|
| Description | | Manufacturer | Model | Serial Number | FCC ID/ DoC | |
| Laptop | | Apple | Macbook Pro | C02VD7SAHV22 | BCGA1708 | |
| Laptop AC/DC adapter | | Liteon Technology | A1424 | NSW25679 | DoC | |
| EUT AC/DC adapter | | Apple | A1720 | C3D8417A7R93KVPA8 | DoC | |
| Conducted Switch Box | | UL | n/a | 208281 | N/A | |
| I/O CABLES (RF CONDUCTED TEST) | | | | | | |
| Cable No. | Port | # of Identical Ports | Connector Type | Cable Type | Cable Length (m) | Remarks |
| 1 | SMA | 1 | SMA | Shielded | 0.75 | To spectrum Analyzer |
| 2 | Antenna | 2 | SMA | Shielded | 0.2 | To Conducted Switch Box |
| 3 | USB-C | 1 | USB-C | Shielded | 1.0 | N/A |
| 4 | DC | 1 | DC | Shielded | 2 | From AC/DC Adapter |

TEST SETUP

The EUT setup is shown as below. Test software exercised the radio card.

SETUP DIAGRAM FOR CONDUCTED TESTS**7. MEASUREMENT METHOD**

On Time and Duty Cycle: KDB 789033 D02 v02r01, Section B.

26 dB Emission BW: KDB 789033 D02 v02r01, Section C.

99% Occupied Bandwidth: KDB 789033 D02 v02r01, Section II-D

Conducted Output Power: KDB 789033 D02 v02r01, Section II E.3.b (Method PM-G).

Power Spectral Density (PSD): KDB 789033 D02 v02r01, Section F

Spurious emissions within 5.925-7.125 GHz Band (Emissions Mask): KDB 987594 D02 EMC Measurement Section II-J

8. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

| TEST EQUIPMENT LIST | | | | |
|----------------------------------------------------|---------------------------|-----------|--------|---------------------|
| Description | Manufacturer | Model | ID Num | Cal Due |
| Power Meter, P-series single channel | Keysight Technologies Inc | N1911A | 90731 | 2025/01/31 |
| Power Sensor, P - series, 50MHz to 18GHz, Wideband | Keysight Technologies Inc | N1921A | 80120 | 2025/01/31 |
| Power Meter, P-series single channel | Keysight Technologies Inc | N1911A | 90719 | 2025/01/31 |
| Power Sensor, P - series, 50MHz to 18GHz, Wideband | Keysight Technologies Inc | N1921A | 90389 | 2025/01/31 |
| Spectrum Analyzer, PXA, 3Hz to 44GHz | Keysight Technologies Inc | N9030A | 80397 | 2025/01/31 |
| Spectrum Analyzer, PXA, 3Hz to 50GHz w/Ext. Mixer | Keysight Technologies Inc | N9030A | 80400 | 2025/02/02 |
| Spectrum Analyzer, PXA, 3Hz to 44GHz | Keysight Technologies Inc | N9030A | 125178 | 2025/01/31 |
| PXA Signal Analyzer 2Hz to 44GHz | Keysight Technologies Inc | N9030B | 231739 | 2025/01/31 |
| Conducted Switch Box | N/A | CSB | 208281 | 2025/05/30 |
| 10dB Fixed Attenuator | Pasternack Enterprises | PE7087-10 | 178557 | Verified Before Use |
| 10dB Fixed Attenuator | Pasternack Enterprises | PE7087-10 | 178558 | Verified Before Use |

| UL AUTOMATION SOFTWARE | | | |
|------------------------|----|--------|-----------|
| Conducted Software | UL | UL EMC | 2023.2.23 |

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

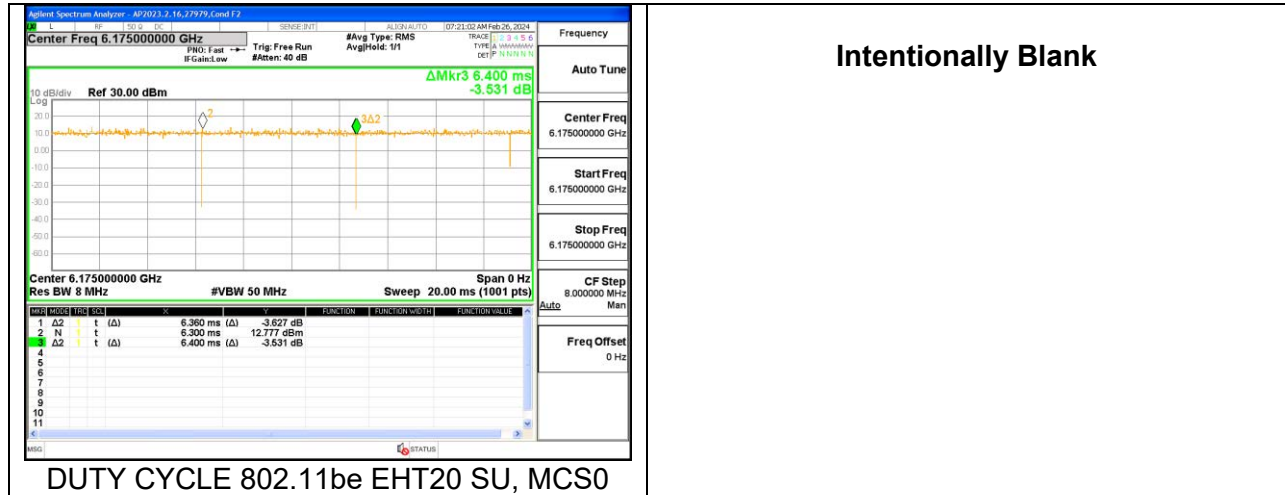
| Mode | Tone (T) | Data Rate (Mbps) | ON Time B (msec) | Period (msec) | Duty Cycle x (linear) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | 1/B Minimum VBW (kHz) |
|--------|---------------|------------------|------------------|---------------|-----------------------|----------------|-----------------------------------|-----------------------|
| EHT20 | SU | MCS0 | 6.360 | 6.400 | 0.9938 | 99.38% | 0.00 | 0.010 |
| | 106T | MCS0 | 3.518 | 3.539 | 0.9939 | 99.39% | 0.00 | 0.010 |
| | MRU106 + 26T | MCS0 | 3.540 | 3.580 | 0.9888 | 98.88% | 0.00 | 0.010 |
| EHT40 | SU | MCS0 | 3.041 | 3.093 | 0.9832 | 98.32% | 0.00 | 0.010 |
| | 106T | MCS0 | 3.510 | 3.576 | 0.9816 | 98.16% | 0.00 | 0.010 |
| | 242T | MCS0 | 3.043 | 3.081 | 0.9877 | 98.77% | 0.00 | 0.010 |
| EHT80 | SU | MCS0 | 1.956 | 2.020 | 0.9683 | 96.83% | 0.14 | 0.511 |
| | MRU52 + 26T | MCS0 | 3.777 | 3.816 | 0.9898 | 98.98% | 0.00 | 0.010 |
| | MRU106 + 26T | MCS0 | 3.544 | 3.585 | 0.9886 | 98.86% | 0.00 | 0.010 |
| | MRU484 + 242T | MCS0 | 2.697 | 2.720 | 0.9915 | 99.15% | 0.00 | 0.010 |
| EHT160 | SU | MCS0 | 1.011 | 1.071 | 0.9440 | 94.40% | 0.25 | 0.989 |
| | 106T | MCS0 | 3.495 | 3.557 | 0.9826 | 98.26% | 0.00 | 0.010 |
| | 242T | MCS0 | 3.043 | 3.082 | 0.9873 | 98.73% | 0.00 | 0.010 |

| Mode | Tone (T) | Data Rate (Mbps) | ON Time B (msec) | Period (msec) | Duty Cycle x (linear) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | 1/B Minimum VBW (kHz) |
|------------|--------------|------------------|------------------|---------------|-----------------------|----------------|-----------------------------------|-----------------------|
| EHT20 SDM | SU | MCS0 | 1.583 | 1.603 | 0.9879 | 98.79% | 0.00 | 0.010 |
| | 106T | MCS0 | 3.518 | 3.539 | 0.9939 | 99.39% | 0.00 | 0.010 |
| | MRU106 + 26T | MCS0 | 3.550 | 3.580 | 0.9916 | 99.16% | 0.00 | 0.010 |
| EHT40 SDM | SU | MCS0 | 1.564 | 1.584 | 0.9872 | 98.72% | 0.00 | 0.010 |
| | 106T | MCS0 | 3.509 | 3.556 | 0.9868 | 98.68% | 0.00 | 0.010 |
| EHT80 SDM | SU | MCS0 | 0.738 | 0.790 | 0.9336 | 93.36% | 0.30 | 1.356 |
| | MRU52+26T | MCS0 | 3.770 | 3.811 | 0.9892 | 98.92% | 0.00 | 0.010 |
| | MRU106+26T | MCS0 | 3.547 | 3.585 | 0.9894 | 98.94% | 0.00 | 0.010 |
| EHT160 SDM | SU | MCS0 | 0.515 | 0.577 | 0.8917 | 89.17% | 0.50 | 1.944 |
| | 106T | MCS0 | 3.493 | 3.557 | 0.9820 | 98.20% | 0.00 | 0.010 |

Note: There are same duty cycle factor on 1TX and 2TX.

The plot in this section is for reference settings only.

DUTY CYCLE PLOTS



9.2. VLP 26 dB AND 99% BANDWIDTH

LIMITS

§15.407 (a) (11)

The maximum bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 MHz. KDB 987594 D03 U-NII 6 GHz QA v02, modified by FCC TCB Workshop Presentation Review of TCB PAG Submissions - October 2023, allows the maximum bandwidths to be defined by either the 26dB bandwidth or the 99% bandwidth for a 320 MHz nominal channel bandwidth and by the 26dB bandwidth for all other nominal channel bandwidths. The KDB requires that the test report show the 99% and 26 dB bandwidth for all the nominal channel bandwidths used by the device.

PROCEDURE

ANSI C63.10: 2013 §6.9

| Band | Tones | 20MHz (RBW/VBW) | 40MHz (RBW/VBW) | 80MHz (RBW/VBW) | 160MHz (RBW/VBW) |
|--------|------------|--------------------|--------------------|--------------------------------------------------------|---------------------|
| UNII-5 | Partial RU | 300kHz/910kHz | 510kHz/1.6MHz | 510kHz/1.6MHz (SISO/SDM) 1MHz/3MHz (MIMO CDD) | 510kHz/1.6MHz |
| | SU | 300kHz/910kHz | 510kHz/1.6MHz | 1MHz/3MHz | 2MHz/6MHz |
| UNII-7 | Partial RU | 300kHz/910kHz | 510kHz/1.6MHz | 510kHz/1.6MHz (SISO/SDM) 1MHz/3MHz (MIMO CDD) | 510kHz/1.6MHz |
| | SU | 300kHz/910kHz | 510kHz/1.6MHz | 1MHz/3MHz | 2MHz/6MHz |

RESULTS

| | | | |
|------------|-------|--------------|----------|
| ID: | 32543 | Date: | 7/9/2024 |
|------------|-------|--------------|----------|

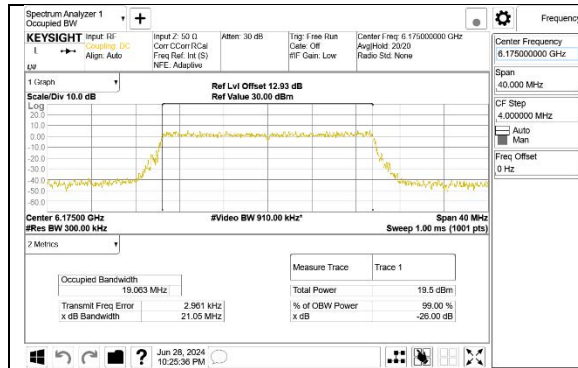
For mask and bandwidth measurements partial RU allocations are tested with the RUs allocated at the lower and upper positions within the channel for the low mid and high channels in each band. Additionally, the center channel is also tested with the RU allocated in the center of the channel to verify that the low / high RU allocations are worst case.

The plots in these sections are for reference settings only for different bandwidth and different antenna ports.

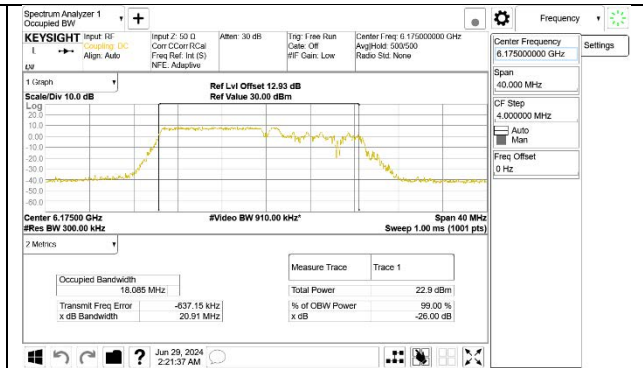
The tests performed on this device show that both 99% and 26dB bandwidths are less than 320 MHz. for all supported channel bandwidths.

9.2.1. 802.11be SISO MODE IN THE UNII-5 BAND

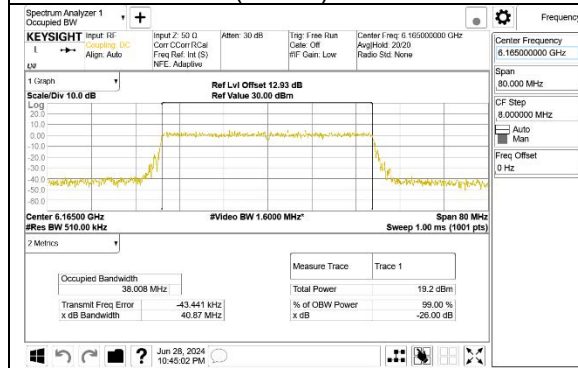
| UNII-5 (SISO) | Frequency (MHz) | Channel Number | Tone | RU Index | 26 dB Bandwidth (MHz) | | 99% Bandwidth (MHz) | |
|---------------|-----------------|----------------|------------|----------|-----------------------|---------|---------------------|----------|
| | | | | | Ant 1 | Ant 2 | Ant 1 | Ant 2 |
| 20 MHz | 6115 | 33 | SU | -- | 20.77 | 21.03 | 19.0710 | 19.0220 |
| | | | MRU106+26T | 82 | 20.49 | 20.95 | 18.0520 | 17.8170 |
| | | | | 83 | 20.00 | 20.76 | 18.2330 | 18.2010 |
| | 6175 | 45 | SU | -- | 21.05 | 21.03 | 19.0630 | 19.0630 |
| | | | MRU106+26T | 82 | 20.91 | 20.79 | 18.0850 | 18.1190 |
| | | | | 83 | 21.01 | 20.77 | 18.2310 | 18.1270 |
| | 6415 | 93 | SU | -- | 20.64 | 20.95 | 19.0130 | 19.0330 |
| | | | MRU106+26T | 82 | 20.40 | 20.38 | 18.1270 | 18.1170 |
| | | | | 83 | 21.20 | 20.76 | 18.0610 | 17.6810 |
| 40 MHz | 6125 | 35 | SU | -- | 40.70 | 40.54 | 37.9390 | 37.9310 |
| | | | 106T | 53 | 22.03 | 21.41 | 16.7120 | 18.1020 |
| | | | | -- | -- | -- | -- | -- |
| | | | | 56 | 23.52 | 23.72 | 18.1780 | 18.1990 |
| | 6165 | 43 | SU | -- | 40.87 | 40.61 | 38.0080 | 37.9350 |
| | | | 106T | 53 | 22.06 | 22.59 | 17.9600 | 18.0790 |
| | | | | 54 | 26.35 | 28.09 | 19.9410 | 20.2650 |
| | | | | 56 | 23.20 | 24.24 | 18.1980 | 18.1610 |
| | 6405 | 91 | SU | -- | 41.42 | 41.04 | 37.9380 | 37.9650 |
| | | | 106T | 53 | 21.31 | 22.38 | 17.9490 | 18.1000 |
| | | | | -- | -- | -- | -- | -- |
| | | | | 56 | 25.13 | 23.51 | 18.1290 | 17.6890 |
| 80MHz | 6145 | 39 | SU | -- | 80.94 | 81.08 | 77.5230 | 77.5250 |
| | | | MRU106+26T | 82 | 20.53 | 20.78 | 17.9650 | 18.0810 |
| | | | | -- | -- | -- | -- | -- |
| | | | | 89 | 22.30 | 24.96 | 18.1200 | 18.2860 |
| | 6305 | 71 | SU | -- | 82.57 | 82.27 | 77.5540 | 77.6140 |
| | | | MRU106+26T | 82 | 20.71 | 20.54 | 18.0620 | 18.0600 |
| | | | | 85 | 32.66 | 30.50 | 19.9660 | 19.9800 |
| | | | | 89 | 25.91 | 25.27 | 18.4620 | 18.4250 |
| | 6385 | 87 | SU | -- | 81.69 | 81.65 | 77.5340 | 77.3460 |
| | | | MRU106+26T | 82 | 20.30 | 20.22 | 18.0170 | 17.9520 |
| | | | | -- | -- | -- | -- | -- |
| | | | | 89 | 24.47 | 24.00 | 18.2120 | 17.1810 |
| 160MHz | 6185 | 47 | SU | -- | 162.60 | 162.70 | 157.1600 | 156.9300 |
| | | | 106T | 53 | 22.19 | 20.82 | 18.3260 | 18.2130 |
| | | | | S60 | 22.64 | 22.35 | 18.2380 | 18.3780 |
| | 6345 | 79 | SU | -- | 163.40 | 165.00 | 157.5200 | 157.1200 |
| | | | 106T | 53 | 24.34 | 20.67 | 18.3720 | 18.2840 |
| | | | S60 | 24.17 | 24.28 | 18.9070 | 18.5050 | |



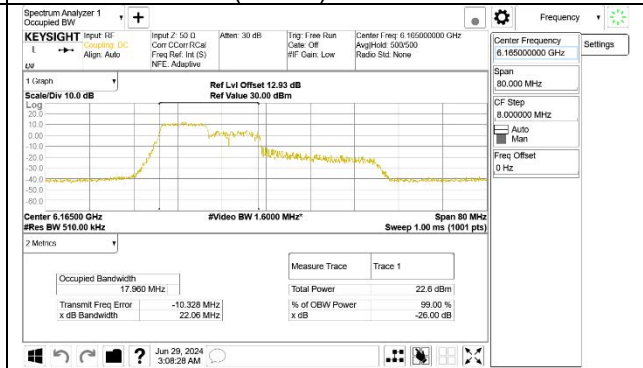
20MHz - Mid Channel – SU (UNII-5) – Ant 1



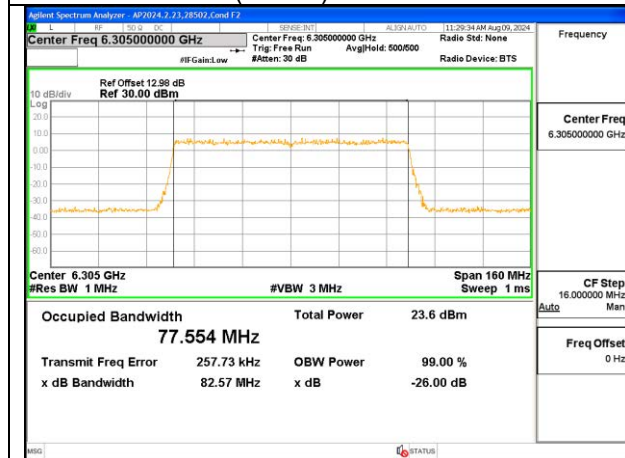
20MHz - Mid Channel – MRU106+26T-RU53 (UNII-5) – Ant 1



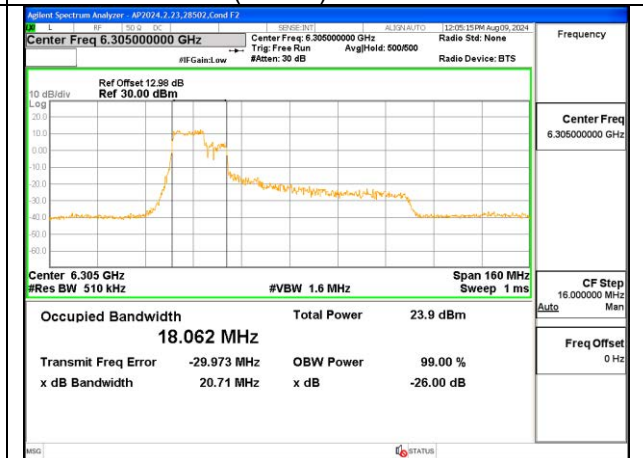
40MHz - Mid Channel – SU (UNII-5) – Ant 1



40MHz - Mid Channel – 106T-RU53 (UNII-5) – Ant 1



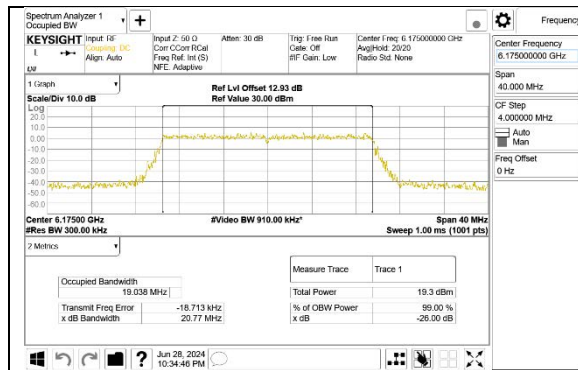
80MHz - Mid Channel – SU (UNII-5) – Ant 1



80MHz - Mid Channel – MRU106+26T-RU82 (UNII-5) – Ant 1

9.2.2. 802.11be MIMO CDD MODE IN THE UNII-5 BAND

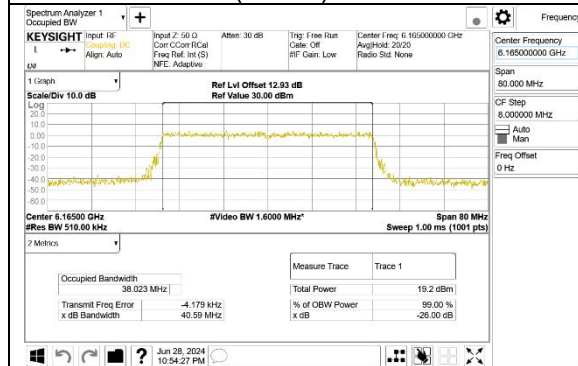
| UNII-5 (MIMO CDD) | Frequency (MHz) | Channel Number | Tone | RU Index | 26 dB Bandwidth (MHz) | | 99% Bandwidth (MHz) | |
|----------------------|--------------------|-------------------|-------------|-------------|-----------------------------|---------|---------------------------|----------|
| | | | | | Ant 1 | Ant 2 | Ant 1 | Ant 2 |
| 20 MHz | 6115 | 33 | SU | -- | 21.11 | 21.11 | 19.0390 | 19.0670 |
| | 6175 | 45 | SU | -- | 20.77 | 20.95 | 19.0380 | 19.0390 |
| | 6415 | 93 | SU | -- | 20.81 | 20.99 | 19.0020 | 19.1080 |
| 40 MHz | 6125 | 35 | SU | -- | 40.62 | 40.58 | 37.9330 | 37.8360 |
| | | | 242T | 61 | 35.22 | 29.03 | 19.7640 | 19.6070 |
| | 6165 | 43 | SU | -- | 40.59 | 40.46 | 38.0230 | 37.9710 |
| | | | 242T | 61 | 36.28 | 29.14 | 19.6890 | 19.4400 |
| | 6405 | 91 | SU | -- | 40.87 | 40.75 | 37.9450 | 38.0850 |
| | | | 242T | 61 | 29.07 | 27.73 | 19.5740 | 19.3890 |
| 80MHz | 6145 | 39 | SU | -- | 80.83 | 82.10 | 77.4030 | 77.4940 |
| | | | MRU484+242T | 90 | 79.94 | 73.72 | 58.9780 | 58.8840 |
| | | | -- | -- | -- | -- | -- | -- |
| | 6305 | 71 | SU | -- | 82.69 | 82.42 | 77.4020 | 77.4520 |
| | | | MRU484+242T | 90 | 79.78 | 73.42 | 59.4190 | 58.9490 |
| | | | -- | -- | -- | -- | -- | -- |
| | 6385 | 87 | SU | -- | 80.86 | 80.88 | 77.5350 | 77.5900 |
| | | | MRU484+242T | 90 | 78.48 | 75.89 | 58.9510 | 58.9000 |
| | | | -- | -- | -- | -- | -- | -- |
| | | | -- | -- | -- | -- | -- | -- |
| | | | -- | -- | -- | -- | -- | -- |
| | | | 93 | 73.72 | 78.60 | 58.8960 | 58.8880 | |
| 160MHz | 6185 | 47 | SU | -- | 164.00 | 163.10 | 157.2200 | 156.8300 |
| | | | 242T | 61 | 29.11 | 26.26 | 20.5750 | 19.7340 |
| | | | -- | -- | -- | -- | -- | -- |
| | 6345 | 79 | SU | -- | 162.70 | 165.00 | 157.2200 | 157.3600 |
| | | | 242T | 61 | 32.78 | 27.70 | 19.9540 | 19.8090 |
| | | | -- | -- | -- | -- | -- | -- |
| | | | S64 | 30.36 | 26.13 | 20.6650 | 20.1390 | |



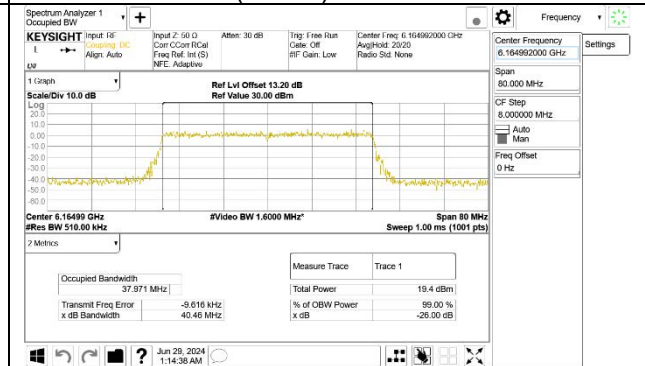
20MHz - Mid Channel – SU (UNII-5) – Ant 1



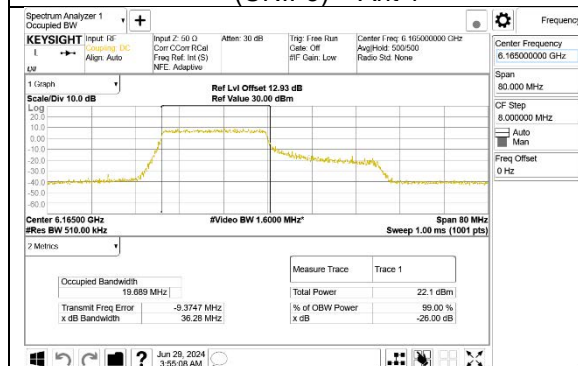
20MHz - Mid Channel – SU (UNII-5) – Ant 2



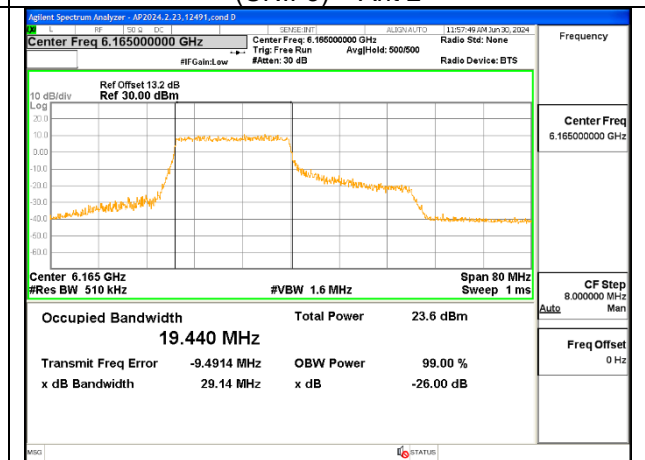
40MHz - Mid Channel – SU (UNII-5) – Ant 1



40MHz - Mid Channel – SU (UNII-5) – Ant 2



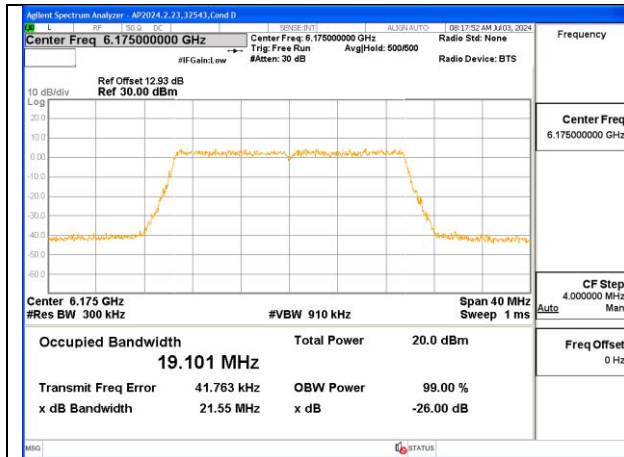
40MHz - Mid Channel – 242T-RU61 (UNII-5) – Ant 1



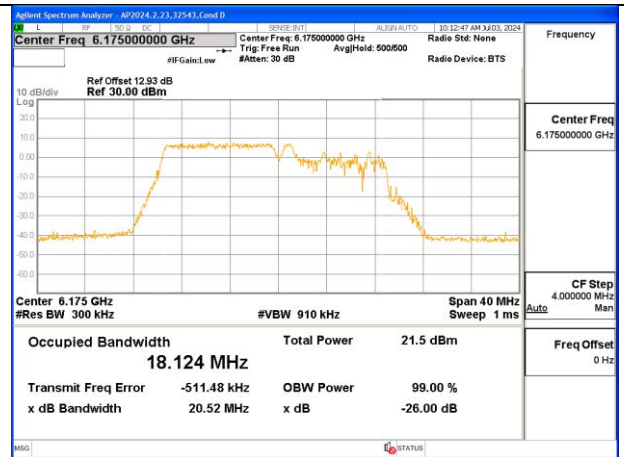
40MHz - Mid Channel – 242T-RU61 (UNII-5) – Ant 2

9.2.3. 802.11be MIMO SDM MODE IN THE UNII-5 BAND

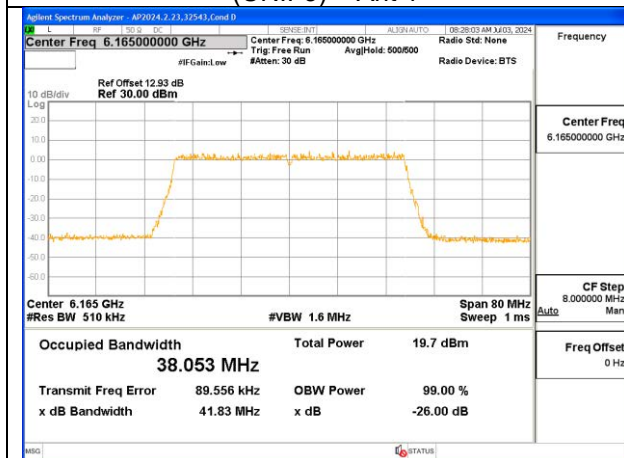
| UNII-5 (MIMO SDM) | Frequency (MHz) | Channel Number | Tone | RU Index | 26 dB Bandwidth (MHz) | | 99% Bandwidth (MHz) | |
|----------------------|--------------------|-------------------|------------|-------------|-----------------------------|---------|---------------------------|----------|
| | | | | | Ant 1 | Ant 2 | Ant 1 | Ant 2 |
| 20 MHz | 6115 | 33 | SU | -- | 21.28 | 21.19 | 19.0910 | 19.1100 |
| | | | MRU106+26T | 82 | 20.76 | 19.85 | 18.1290 | 18.0320 |
| | | | | 83 | 21.17 | 20.03 | 18.1490 | 18.1290 |
| | 6175 | 45 | SU | -- | 21.55 | 21.19 | 19.1010 | 19.1090 |
| | | | MRU106+26T | 82 | 20.52 | 19.85 | 18.1240 | 17.9060 |
| | | | | 83 | 20.52 | 20.03 | 18.1950 | 18.1060 |
| | 6415 | 93 | SU | -- | 21.20 | 21.38 | 19.1110 | 19.1250 |
| | | | MRU106+26T | 82 | 20.94 | 19.83 | 18.0600 | 18.1640 |
| | | | | 83 | 21.08 | 19.92 | 18.2020 | 18.0340 |
| 40 MHz | 6125 | 35 | SU | -- | 41.51 | 38.11 | 38.0700 | 41.7300 |
| | | | 106T | 53 | 21.64 | 19.94 | 18.1010 | 17.7250 |
| | | | | -- | -- | -- | -- | -- |
| | | | | 56 | 23.92 | 19.77 | 18.1740 | 17.8450 |
| | 6165 | 43 | SU | -- | 41.83 | 41.42 | 38.0530 | 38.0300 |
| | | | 106T | 53 | 22.10 | 20.65 | 18.0310 | 17.3730 |
| | | | | 54 | 26.25 | 25.53 | 20.0230 | 19.3360 |
| | | | | 56 | 23.25 | 19.83 | 18.1740 | 17.8970 |
| | 6405 | 91 | SU | -- | 41.46 | 41.18 | 38.0550 | 38.0960 |
| | | | 106T | 53 | 22.60 | 20.27 | 17.7340 | 17.9420 |
| | | | | -- | -- | -- | -- | -- |
| | | | | 56 | 23.81 | 20.56 | 18.2270 | 17.8770 |
| 80MHz | 6145 | 39 | SU | -- | 81.68 | 81.35 | 77.5370 | 77.6050 |
| | | | MRU106+26T | 82 | 20.23 | 19.75 | 17.9770 | 17.8520 |
| | | | | -- | -- | -- | -- | -- |
| | | | | 89 | 26.61 | 19.64 | 18.0750 | 17.7380 |
| | 6305 | 71 | SU | -- | 82.14 | 81.99 | 77.5300 | 77.3610 |
| | | | MRU106+26T | 82 | 20.49 | 19.87 | 18.8380 | 18.3660 |
| | | | | 85 | 28.79 | 24.18 | 21.4410 | 20.7520 |
| | | | | 89 | 26.93 | 20.33 | 19.3300 | 18.2780 |
| | 6385 | 87 | SU | -- | 81.84 | 81.75 | 77.5900 | 77.6890 |
| | | | MRU106+26T | 82 | 21.61 | 19.69 | 17.9930 | 17.8500 |
| | | | | -- | -- | -- | -- | -- |
| | | | | 89 | 24.60 | 19.87 | 17.9530 | 17.7830 |
| 160MHz | 6185 | 47 | SU | -- | 165.70 | 165.00 | 157.3200 | 157.4000 |
| | | | 106T | 53 | 20.65 | 20.73 | 18.2990 | 18.1390 |
| | | | | S60 | 24.34 | 20.68 | 18.8100 | 17.9980 |
| | 6345 | 79 | SU | -- | 164.40 | 165.00 | 157.1400 | 157.2800 |
| | | | 106T | 53 | 23.28 | 20.80 | 18.3660 | 18.0630 |
| | | | S60 | 24.38 | 21.54 | 17.8360 | 18.1760 | |



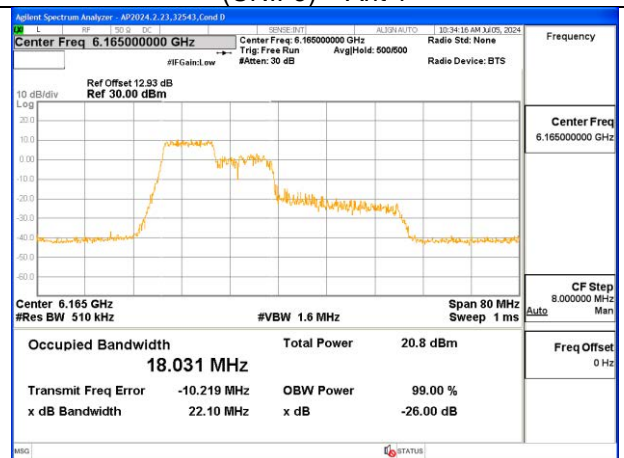
20MHz - Mid Channel – SU (UNII-5) – Ant 1



20MHz - Mid Channel – MRU106+26T-RU82 (UNII-5) – Ant 1



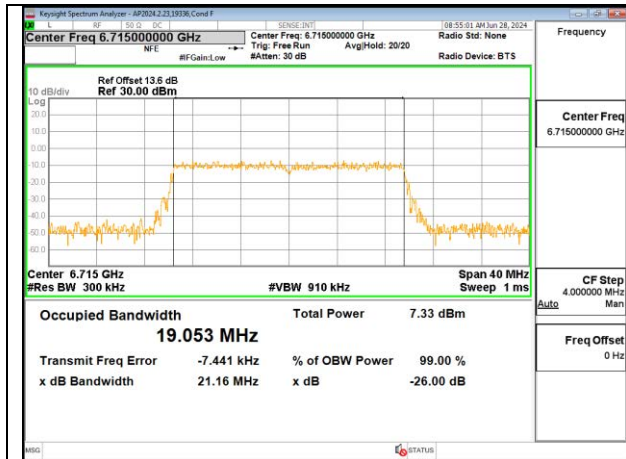
40MHz - Mid Channel – SU (UNII-5) – Ant 1



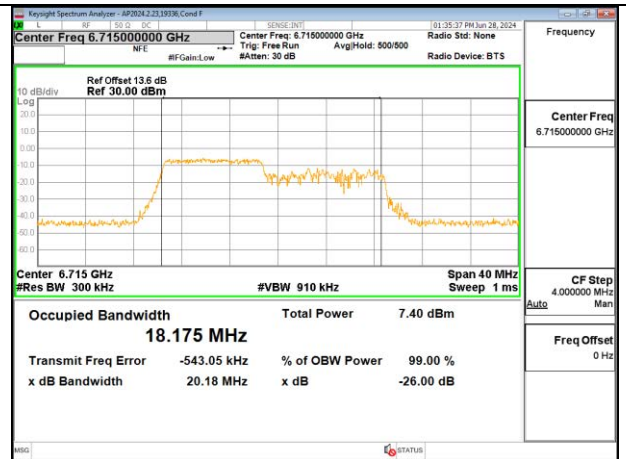
40MHz - Mid Channel – 106T-RU53 (UNII-5) – Ant 1

9.2.4. 802.11be SISO MODE IN THE UNII-7 BAND

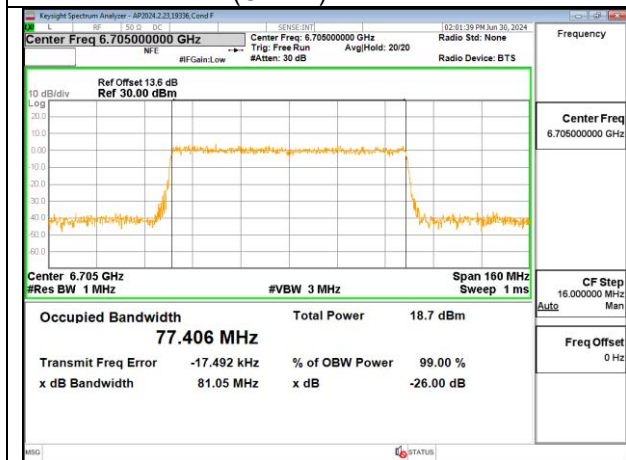
| UNII-7 (SISO) | Frequency (MHz) | Channel Number | Tone | RU Index | 26 dB Bandwidth (MHz) | | 99% Bandwidth (MHz) | | |
|---------------|-----------------|----------------|-----------|----------|-----------------------|---------|---------------------|----------|---------|
| | | | | | Ant 1 | Ant 2 | Ant 1 | Ant 2 | |
| 20MHz | 6535 | 117 | SU | -- | 20.87 | 20.93 | 19.0190 | 19.1150 | |
| | | | 106T | 53 | 20.36 | 20.46 | 18.1570 | 18.1950 | |
| | | | | 54 | 20.87 | 20.84 | 18.0030 | 18.2660 | |
| | 6715 | 149 | SU | -- | 21.31 | 21.16 | 19.0930 | 19.0530 | |
| | | | 106T | 53 | 20.59 | 20.18 | 18.2090 | 18.1750 | |
| | | | | 54 | 20.88 | 20.77 | 18.3520 | 18.2160 | |
| | 6855 | 181 | SU | -- | 21.28 | 21.08 | 19.0190 | 19.0930 | |
| | | | 106T | 53 | 20.22 | 20.87 | 18.1240 | 17.7440 | |
| | | | | 54 | 21.07 | 20.82 | 18.2020 | 18.1320 | |
| 40MHz | 6565 | 123 | SU | -- | 41.65 | 41.13 | 37.9510 | 37.9610 | |
| | | | 106T | 53 | 21.74 | 21.32 | 17.9790 | 17.9580 | |
| | | | | -- | -- | -- | -- | -- | |
| | 6685 | 147 | SU | -- | 40.49 | 40.62 | 37.8990 | 38.0010 | |
| | | | 106T | 53 | 20.84 | 21.01 | 17.9190 | 18.0080 | |
| | | | | 54 | 26.19 | 26.91 | 20.1060 | 19.9490 | |
| | 6845 | 179 | 106T | 56 | 24.07 | 24.50 | 18.2250 | 18.0450 | |
| | | | | SU | -- | 40.71 | 40.95 | 37.9800 | 38.0050 |
| | | | | 53 | 20.53 | 22.34 | 18.0840 | 18.1210 | |
| | | | 106T | -- | -- | -- | -- | -- | |
| | | | | 56 | 24.34 | 24.59 | 18.2100 | 18.1570 | |
| | | | | 80 | 22.35 | 22.29 | 17.4470 | 17.9890 | |
| 80MHz | 6625 | 135 | SU | -- | 82.11 | 81.16 | 77.4070 | 77.3150 | |
| | | | MRU52+26T | 71 | 19.02 | 18.72 | 17.2700 | 17.3930 | |
| | | | | -- | -- | -- | -- | -- | |
| | 6705 | 151 | SU | -- | 80.57 | 81.05 | 77.4600 | 77.4060 | |
| | | | MRU52+26T | 71 | 19.41 | 19.66 | 17.2470 | 17.3480 | |
| | | | | 74 | 23.20 | 26.30 | 18.2730 | 17.7570 | |
| | 6785 | 167 | MRU52+26T | 80 | 21.40 | 22.50 | 17.4020 | 18.3070 | |
| | | | | SU | -- | 81.04 | 81.26 | 77.5670 | 77.5470 |
| | | | | 71 | 19.27 | 18.77 | 17.3010 | 17.2740 | |
| 106T | | | -- | -- | -- | -- | -- | | |
| | | | 80 | 22.53 | 24.00 | 17.4750 | 18.0460 | | |
| | | | 53 | 21.37 | 20.78 | 18.0020 | 18.0030 | | |
| 160MHz | 6665 | 143 | SU | -- | 163.40 | 163.50 | 157.1800 | 156.9700 | |
| | | | 106T | 53 | 21.37 | 20.78 | 18.0020 | 18.0030 | |
| | | | | S60 | 26.63 | 26.46 | 18.8100 | 18.3570 | |



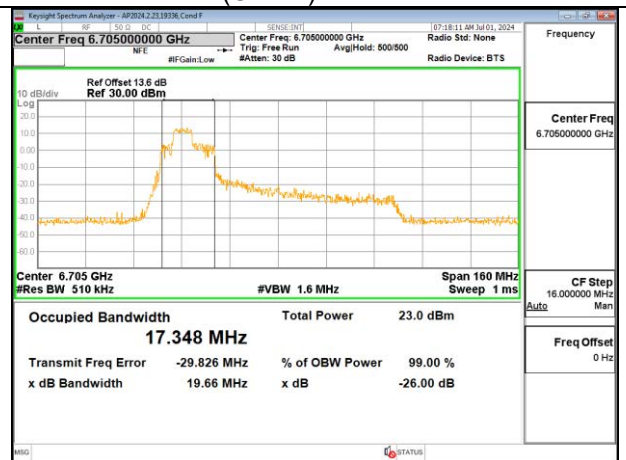
20MHz - Mid Channel – SU
(UNII-7) – Ant 2



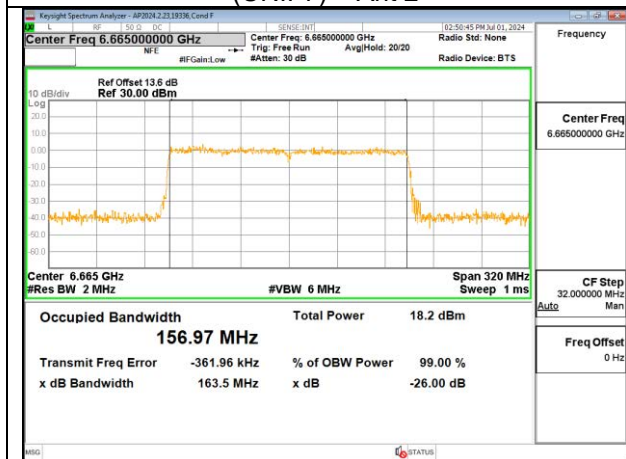
20MHz - Mid Channel – 106T-RU53
(UNII-7) – Ant 2



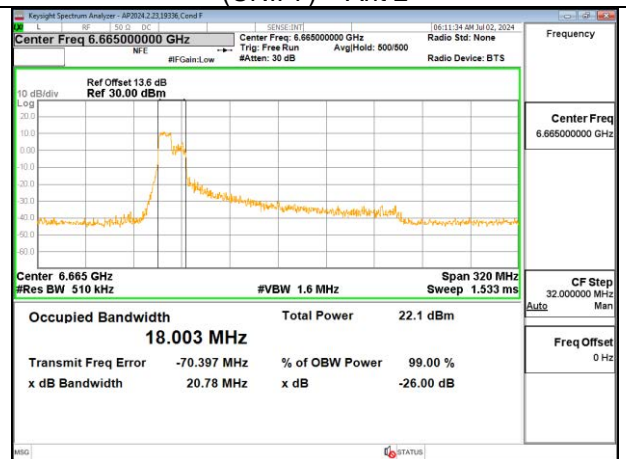
80MHz - Mid Channel – SU
(UNII-7) – Ant 2



80MHz - Mid Channel – MRU52+26T-RU71
(UNII-7) – Ant 2



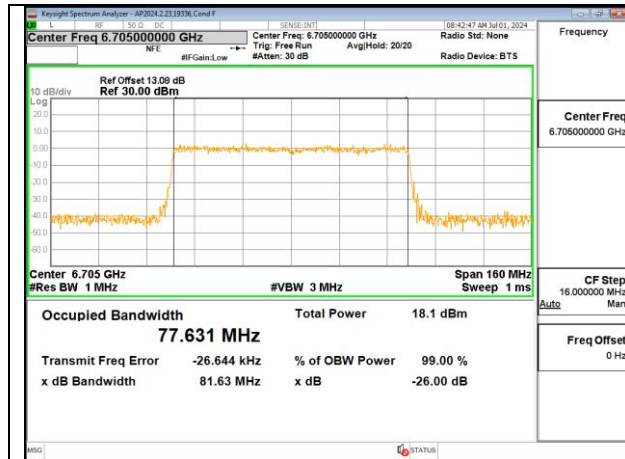
160MHz - Mid Channel – SU
(UNII-7) – Ant 2



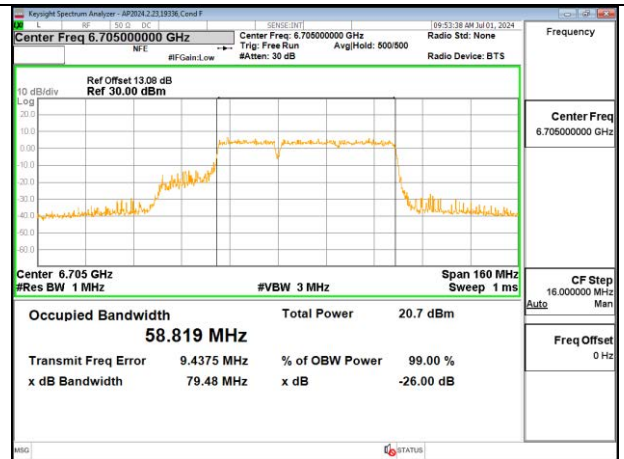
160MHz - Mid Channel – 106T-RU53
(UNII-7) – Ant 2

9.2.5. 802.11be MIMO CDD MODE IN THE UNII-7 BAND

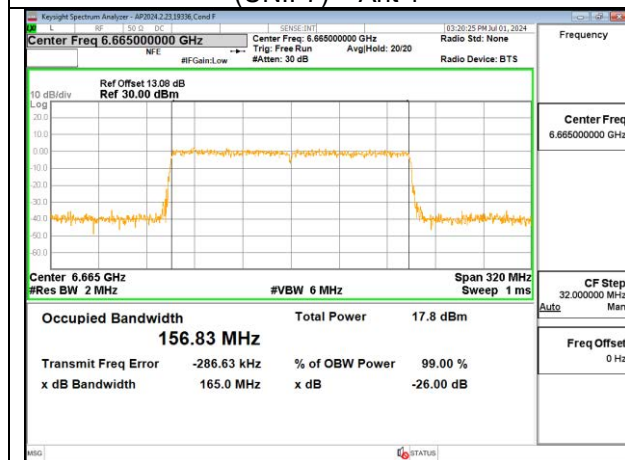
| UNII-7 (MIMO CDD) | Frequency (MHz) | Channel Number | Tone | RU Index | 26 dB Bandwidth (MHz) | | 99% Bandwidth (MHz) | | |
|----------------------|--------------------|-------------------|-----------------|-------------|-----------------------------|---------|---------------------------|----------|----------|
| | | | | | Ant 1 | Ant 2 | Ant 1 | Ant 2 | |
| 20MHz | 6535 | 117 | SU | -- | 20.87 | 21.50 | 18.9950 | 19.0250 | |
| | 6715 | 149 | SU | -- | 20.99 | 20.90 | 19.0890 | 19.1090 | |
| | 6855 | 181 | SU | -- | 20.94 | 20.90 | 19.0670 | 18.9880 | |
| 40MHz | 6565 | 123 | SU | -- | 41.04 | 40.93 | 38.0290 | 37.9380 | |
| | | | 242T | 61 | 28.61 | 27.47 | 19.6060 | 19.3190 | |
| | 6685 | 147 | SU | -- | 40.75 | 40.61 | 38.0160 | 37.9980 | |
| | | | 242T | 61 | 29.09 | 28.12 | 19.6240 | 19.4050 | |
| | 6845 | 179 | SU | -- | 41.15 | 40.51 | 37.9480 | 38.0680 | |
| | | | 242T | 61 | 28.87 | 27.74 | 19.7810 | 19.3980 | |
| 80MHz | 6625 | 135 | SU | -- | 81.67 | 80.84 | 77.5730 | 77.4210 | |
| | | | MRU 484+242T | 90 | 79.51 | 74.70 | 58.9440 | 58.8280 | |
| | | | -- | -- | -- | -- | -- | -- | |
| | 6705 | 151 | SU | -- | 81.63 | 80.67 | 77.6310 | 77.4670 | |
| | | | MRU 484+242T | 90 | 79.48 | 75.90 | 58.8190 | 58.8460 | |
| | | | 92 | 81.36 | 81.31 | 77.8360 | 77.7910 | | |
| | 6785 | 167 | SU | -- | 81.10 | 80.72 | 77.3690 | 77.5120 | |
| | | | MRU 484+242T | 90 | 79.59 | 75.82 | 58.9170 | 58.7820 | |
| | | | -- | -- | -- | -- | -- | -- | |
| | 160MHz | 6665 | 143 | SU | -- | 165.00 | 162.80 | 156.8300 | 157.1000 |
| | | | | 242T | 61 | 29.00 | 26.17 | 20.4070 | 19.6070 |
| | | | | | 62 | 38.15 | 30.73 | 20.8590 | 19.7410 |
| S64 | | | | | 30.03 | 27.84 | 20.1320 | 19.8490 | |



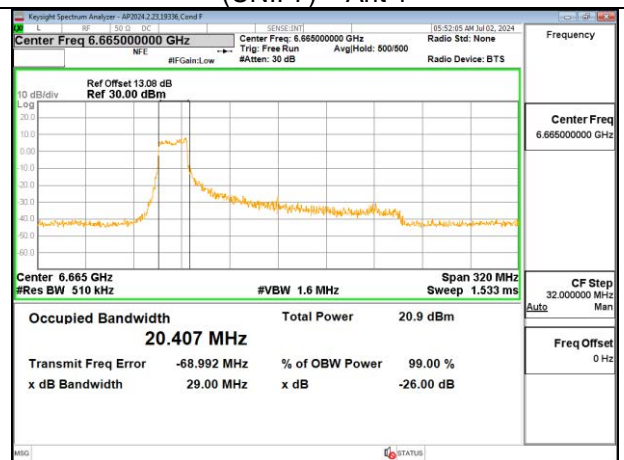
80MHz - Mid Channel – SU
(UNII-7) – Ant 1



80MHz - Mid Channel – MRU484+242T-RU90
(UNII-7) – Ant 1



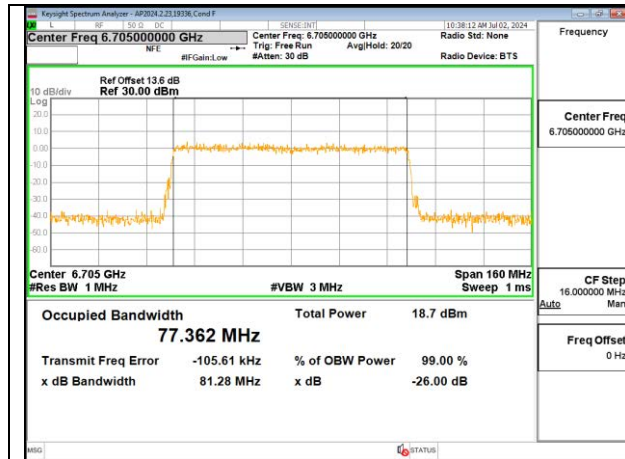
160MHz - Mid Channel – SU
(UNII-7) – Ant 1



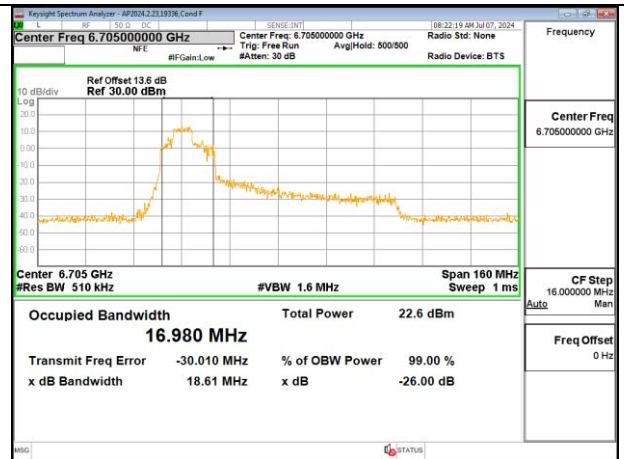
160MHz - Mid Channel – 242T-RU61
(UNII-7) – Ant 1

9.2.6. 802.11be MIMO SDM MODE IN THE UNII-7 BAND

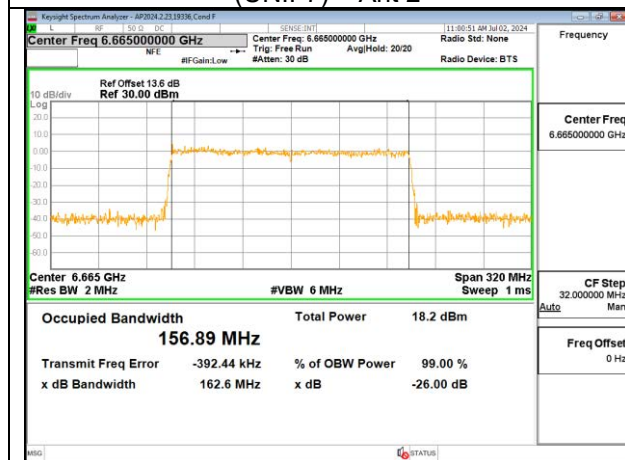
| UNII-7 (MIMO SDM) | Frequency (MHz) | Channel Number | Tone | RU Index | 26 dB Bandwidth (MHz) | | 99% Bandwidth (MHz) | |
|----------------------|--------------------|-------------------|-----------|-------------|-----------------------------|---------|---------------------------|----------|
| | | | | | Ant 1 | Ant 2 | Ant 1 | Ant 2 |
| 20MHz | 6535 | 117 | SU | -- | 20.48 | 20.47 | 19.0870 | 19.1510 |
| | | | 106T | 53 | 19.38 | 19.23 | 18.2630 | 18.1210 |
| | | | | 54 | 19.83 | 19.35 | 18.3070 | 18.0910 |
| | 6715 | 149 | SU | -- | 20.52 | 20.45 | 19.1050 | 19.1470 |
| | | | 106T | 53 | 19.31 | 19.27 | 18.1530 | 18.1190 |
| | | | | 54 | 19.50 | 19.28 | 18.3280 | 18.1030 |
| | 6855 | 181 | SU | -- | 20.67 | 20.50 | 19.1280 | 19.1230 |
| | | | 106T | 53 | 19.51 | 20.09 | 18.1450 | 18.1310 |
| | | | | 54 | 19.81 | 19.94 | 18.3630 | 18.1170 |
| 40MHz | 6565 | 123 | SU | -- | 41.78 | 41.17 | 38.1200 | 37.9750 |
| | | | 106T | 53 | 22.45 | 19.82 | 18.0780 | 17.5390 |
| | | | | -- | -- | -- | -- | -- |
| | | | | 56 | 24.33 | 20.10 | 18.3890 | 17.5740 |
| | 6685 | 147 | SU | -- | 40.60 | 40.53 | 38.0250 | 37.9250 |
| | | | 106T | 53 | 22.07 | 19.94 | 18.0820 | 17.8360 |
| | | | | 54 | 24.81 | 24.77 | 19.8360 | 19.1840 |
| | | | | 56 | 24.56 | 20.23 | 18.1690 | 17.9750 |
| | 6845 | 179 | SU | -- | 40.91 | 41.34 | 38.1010 | 38.0250 |
| | | | 106T | 53 | 21.66 | 20.09 | 18.0210 | 17.9180 |
| | | | | -- | -- | -- | -- | -- |
| | | | | 56 | 24.82 | 20.16 | 18.2230 | 17.7830 |
| 80MHz | 6625 | 135 | SU | -- | 81.10 | 81.38 | 77.4720 | 77.3700 |
| | | | MRU52+26T | 71 | 18.98 | 18.47 | 17.3290 | 17.0580 |
| | | | | -- | -- | -- | -- | -- |
| | | | | 80 | 21.09 | 20.44 | 18.2230 | 17.3520 |
| | 6705 | 151 | SU | -- | 81.14 | 81.28 | 77.3630 | 77.3620 |
| | | | MRU52+26T | 71 | 19.41 | 18.61 | 17.3840 | 16.9800 |
| | | | | 74 | 24.87 | 22.66 | 18.0370 | 17.4180 |
| | | | | 80 | 23.67 | 19.56 | 18.2670 | 17.3380 |
| | 6785 | 167 | SU | -- | 80.59 | 80.69 | 77.5580 | 77.3790 |
| | | | MRU52+26T | 71 | 19.22 | 18.69 | 17.3030 | 17.1830 |
| -- | | | | -- | -- | -- | -- | |
| 80 | | | | 21.60 | 18.86 | 17.5710 | 17.2280 | |
| 160MHz | 6665 | 143 | SU | -- | 162.50 | 162.60 | 156.8800 | 156.8900 |
| | | | 106T | 53 | 20.56 | 21.41 | 18.3200 | 18.1940 |
| | | | | S60 | 21.41 | 20.72 | 18.5230 | 18.0350 |



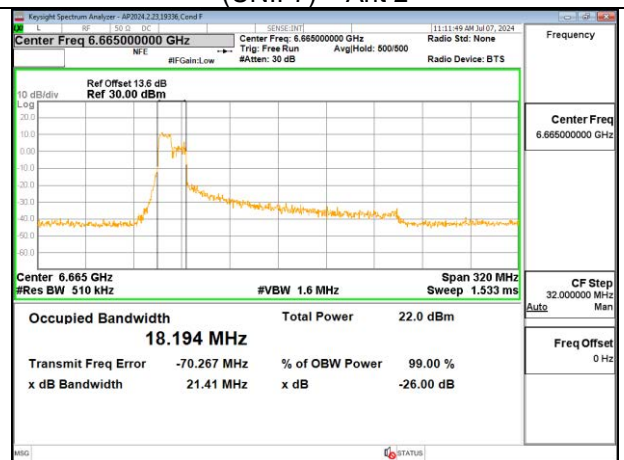
80MHz - Mid Channel – SU
(UNII-7) – Ant 2



80MHz - Mid Channel – MRU52+26T-RU71
(UNII-7) – Ant 2



160MHz - Mid Channel – SU
(UNII-7) – Ant 2



160MHz - Mid Channel – 106T-RU53
(UNII-7) – Ant 2

9.3. VLP OUTPUT POWER AND PSD

LIMITS

FCC §15.407

Bands: 5.925–6.425 GHz and 6.525–6.875 GHz

(9) For very low power devices operating in the 5.925-6.425 GHz and 6.525-6.875 GHz bands, the maximum power spectral density must not exceed -5 dBm e.i.r.p in any 1-megahertz band and the maximum e.i.r.p must not exceed 14 dBm.

TEST PROCEDURE

Conducted Output Power: KDB 789033 D02 v02r01, Section II E.3.b (Method PM-G), because the gated power measurement is used the calculation of EIRP power does not include any corrections for duty factor.

The measurement method used for power spectral density is KDB 789033 D02 v02r01, Section F

RESULTS

The plots in these sections are for reference settings only for different bandwidth and different antenna ports.

DIRECTIONAL ANTENNA GAIN

For 1 TX:

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

For 2 TX:

CDD MIMO Tx chains used uncorrelated gain for EIRP calculation and correlated gain for PSD EIRP calculation; SDM MIMO Tx chains used uncorrelated for both EIRP and PSD EIRP calculation. For the straddle channels, the higher antenna gains were chosen between two bands where straddle channels are located. The directional gains are as follows:

| Band | Frequency Range Sub-band (MHz) | Antenna 6 (dBi) | Antenna 5 (dBi) | Uncorrelated Chains (dBi) | Correlated Chains (dBi) |
|--------|-------------------------------------|-----------------|-----------------|---------------------------|-------------------------|
| UNII-5 | Sub-band 1 (5955 - 6095) (Disabled) | 0.10 | -1.10 | -0.46 | 2.53 |
| | Sub-band 2 (6115 - 6255) | 0.90 | -2.40 | -0.44 | 2.42 |
| | Sub-band 3 (6275 - 6415) | 1.60 | -2.90 | -0.09 | 2.65 |
| UNII-7 | 6535-6855 | 2.00 | -4.40 | -0.11 | 2.39 |

DIRECTIONAL GAIN CALCULATION:

ANSI C63.10-2013 section 14.4.3

Uncorrelated directional gain= $10 \cdot \text{LOG}((10^{(\text{Ant6}/10)} + 10^{(\text{Ant5}/10)})/2)$
 Correlated directional Gain= $10 \cdot \text{LOG}(((10^{(\text{Ant6}/20)} + 10^{(\text{Ant5}/20)})^2)/2)$

Sample Calculation at UNII-5 Band:

Ant6=0.10, Ant5=-1.10

Uncorrelated Antenna gain= $10 \log[(10^{(-0.10/10)} + 10^{(-1.10/10)})/2] = -0.46 \text{ dBi}$

Correlated Antenna gain= $10 \log[(10^{(-0.10/20)} + 10^{(-1.10/20)})^2/2] = 2.53 \text{ dBi}$

EIRP Calculation:**1Tx**

EIRP corr'd power = Ant6 + Antenna Gain

Sample Calculation at UNII-5 Band:

Ant6(20MHz, low channel, MRU106+26T/RU82) Power=1.46 dBm

EIRP corr'd power = 1.46 + (0.1) = 1.56 dBm

2Tx

EIRP corr'd power = $10 \cdot \text{LOG}(10^{(\text{Ant6}/10)} + 10^{(\text{Ant5}/10)})$ + uncorrelated directional gain

Sample Calculation at UNII-5 Band:

(20MHz, MIMO CDD, SU channel 45) Ant6 Power=-0.88 dBm, Ant5 Power=-0.85

EIRP corr'd power = $10 \cdot \text{LOG}(10^{(-0.88/10)} + 10^{(-0.85/10)})$ + (-0.44) = 1.71 dBm

EIRP PSD Calculation:**1Tx**

EIRP corr'd PSD = DCCF + Ant6 + Antenna Gain

Sample Calculation at UNII-5 Band:

Ant6(20MHz, low channel MRU106+26T/RU82) PSD= -6.572 dBm/1MHz

EIRP corr'd PSD = 0 + (-6.572) + (0.10) = -6.472 dBm/1MHz

2Tx (OFDMA)

EIRP corr'd PSD = $(10 \cdot \text{LOG}(10^{((\text{DCCF} + \text{Ant6})/10)} + 10^{((\text{DCCF} + \text{Ant5})/10)}))$ + correlated directional gain

Sample Calculation at UNII-5 Band:

(20MHz, low channel 242T/RU61) Ant6 PSD=-12.755 dBm/1MHz, Ant5 PSD=-12.973 dBm/1MHz

EIRP corr'd PSD = $(10 \cdot \text{LOG}(10^{((0 + (-12.755))/10)} + 10^{((0 + (-12.973))/10)}))$ + (2.53) = -7.322 dBm/1MHz

2Tx (SDM)

EIRP corr'd PSD = $(10 \cdot \text{LOG}(10^{((\text{DCCF} + \text{Ant6})/10)} + 10^{((\text{DCCF} + \text{Ant5})/10)}))$ + uncorrelated directional gain

Sample Calculation at UNII-5 Band:

Ant6(20MHz, low channel MRU106+26T/RU82) PSD=-7.941 dBm/1MHz, Ant5 PSD=-8.318 dBm/1MHz

EIRP corr'd PSD = $(10 \cdot \text{LOG}(10^{((0 + (-7.941))/10)} + 10^{((0 + (-8.318))/10)}))$ + (-0.46) = -5.575 dBm/1MHz

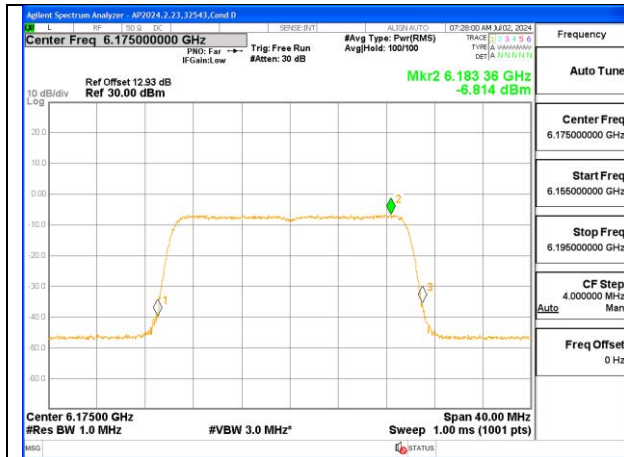
9.3.1. 802.11be SISO MODE IN THE UNII-5 BAND – VERY LOW POWER

| VLP UNII-5 (SISO) | Duty Factor (dB) | | Ant 1 Gain (dBi) | Ant 2 Gain (dBi) | Frequency (MHz) | Channel Number | Tone | RU Index | Conducted Power (Gated) (dBm) | | EIRP Power (Limit = 14dBm EIRP) | | Conducted PSD (dBm/MHz) | | EIRP PSD (Limit = -5 dBm/MHz EIRP) | |
|-------------------|------------------|------------|------------------|------------------|-----------------|----------------|------------|----------|-------------------------------|-------|---------------------------------|-------|-------------------------|--------|------------------------------------|---------|
| | SU | Partial RU | | | | | | | Ant 1 | Ant 2 | Ant 1 | Ant 2 | Ant 1 | Ant 2 | Ant 1 | Ant 2 |
| | | | | | | | | | | | | | | | | |
| 20MHz | 0 | 0 | 0.10 | -1.10 | 6115 | 33 | SU | -- | 3.71 | 3.68 | 3.81 | 2.58 | -6.853 | -6.679 | -6.753 | -7.779 |
| | | | | | | | MRU106+26T | 82 | 1.46 | 1.48 | 1.56 | 0.38 | -6.572 | -6.590 | -6.472 | -7.690 |
| | | | | | | | | 83 | 1.42 | 1.45 | 1.52 | 0.35 | -6.429 | -6.507 | -6.329 | -7.607 |
| | 0 | 0 | 0.90 | -2.40 | 6175 | 45 | SU | -- | 3.67 | 3.72 | 4.57 | 1.32 | -6.814 | -6.968 | -5.914 | -9.368 |
| | | | | | | | MRU106+26T | 82 | 1.45 | 1.42 | 2.35 | -0.98 | -6.393 | -6.382 | -5.493 | -8.782 |
| | | | | | | | | 83 | 1.43 | 1.48 | 2.33 | -0.92 | -6.584 | -6.571 | -5.684 | -8.971 |
| | 0 | 0 | 1.60 | -2.90 | 6415 | 93 | SU | -- | 2.92 | 2.83 | 4.52 | -0.07 | -7.589 | -7.568 | -5.989 | -10.468 |
| | | | | | | | MRU106+26T | 82 | 0.71 | 0.76 | 2.31 | -2.14 | -7.126 | -7.320 | -5.526 | -10.220 |
| | | | | | | | | 83 | 0.68 | 0.72 | 2.28 | -2.18 | -7.218 | -7.492 | -5.618 | -10.392 |
| 40MHz | 0 | 0 | 0.10 | -1.10 | 6125 | 35 | SU | -- | 6.71 | 6.68 | 6.81 | 5.58 | -7.075 | -6.903 | -6.975 | -8.003 |
| | | | | | | | 106T | 53 | 0.69 | 0.72 | 0.79 | -0.38 | -6.922 | -6.608 | -6.822 | -7.708 |
| | | | | | | | | 54 | 0.72 | 0.69 | 0.82 | -0.41 | -6.742 | -6.930 | -6.642 | -8.030 |
| | 0 | 0 | 0.90 | -2.40 | 6165 | 43 | SU | -- | 6.68 | 6.68 | 7.58 | 4.28 | -7.009 | -7.111 | -6.109 | -9.511 |
| | | | | | | | 106T | 53 | 0.73 | 0.72 | 1.63 | -1.68 | -7.010 | -6.810 | -6.110 | -9.210 |
| | | | | | | | | 54 | 0.74 | 0.68 | 1.64 | -1.72 | -6.848 | -6.842 | -5.948 | -9.242 |
| | 0 | 0 | 1.60 | -2.90 | 6405 | 91 | SU | -- | 5.93 | 5.91 | 7.53 | 3.01 | -7.208 | -7.348 | -5.608 | -10.248 |
| | | | | | | | 106T | 53 | -0.07 | -0.06 | 1.53 | -2.96 | -7.217 | -7.303 | -5.617 | -10.203 |
| | | | | | | | | 54 | -0.02 | -0.18 | 1.58 | -3.08 | -7.243 | -7.280 | -5.643 | -10.180 |
| 80MHz | 0.14 | 0 | 0.90 | -2.40 | 6145 | 39 | SU | -- | 9.72 | 9.73 | 10.62 | 7.33 | -7.005 | -7.015 | -5.965 | -9.275 |
| | | | | | | | MRU106+26T | 82 | 1.42 | 1.43 | 2.32 | -0.97 | -7.046 | -7.060 | -6.146 | -9.460 |
| | | | | | | | | 85 | 1.41 | 1.42 | 2.31 | -0.98 | -6.935 | -7.100 | -6.035 | -9.500 |
| | 0 | 0 | 1.60 | -2.90 | 6305 | 71 | SU | -- | 8.91 | 8.90 | 10.51 | 6.00 | -7.515 | -7.897 | -5.915 | -10.797 |
| | | | | | | | MRU106+26T | 82 | 0.71 | 0.70 | 2.31 | -2.20 | -7.603 | -7.652 | -6.003 | -10.552 |
| | | | | | | | | 85 | 0.70 | 0.72 | 2.30 | -2.18 | -7.642 | -7.613 | -6.042 | -10.513 |
| | 0 | 0 | 1.60 | -2.90 | 6385 | 87 | SU | -- | 8.95 | 8.90 | 10.55 | 6.00 | -7.655 | -7.868 | -5.915 | -10.628 |
| | | | | | | | MRU106+26T | 82 | 0.72 | 0.71 | 2.32 | -2.19 | -7.691 | -7.614 | -6.091 | -10.514 |
| | | | | | | | | 85 | 0.73 | 0.72 | 2.33 | -2.18 | -7.734 | -7.885 | -6.134 | -10.785 |
| 160MHz | 0.25 | 0 | 0.90 | -2.40 | 6185 | 47 | SU | -- | 11.95 | 11.96 | 12.85 | 9.56 | -7.578 | -7.404 | -6.428 | -9.554 |
| | | | | | | | 106T | 53 | 0.71 | 0.67 | 1.61 | -1.73 | -7.201 | -6.936 | -6.301 | -9.336 |
| | | | | | | | | S60 | 0.69 | 0.69 | 1.59 | -1.71 | -7.361 | -6.950 | -6.461 | -9.350 |
| | 0 | 0 | 1.60 | -2.90 | 6345 | 79 | SU | -- | 11.24 | 11.18 | 12.84 | 8.28 | -8.917 | -8.704 | -7.067 | -11.354 |
| | | | | | | | 106T | 53 | -0.15 | -0.12 | 1.45 | -3.02 | -7.883 | -7.523 | -6.283 | -10.423 |
| | | | | | | | | S60 | -0.01 | -0.25 | 1.59 | -3.15 | -7.889 | -7.551 | -6.289 | -10.451 |

Note:

EIRP Output Power (dBm) = Measured Conducted Power (dBm)+ Peak Antenna Gain (dBi)

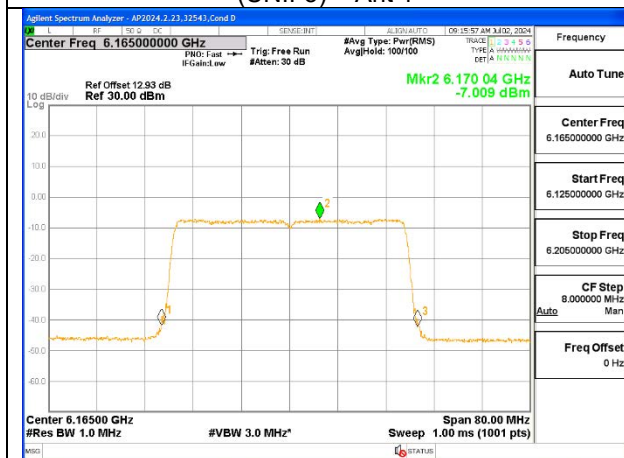
EIRP PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) + Duty Factor (dB) + Peak Antenna Gain (dBi)



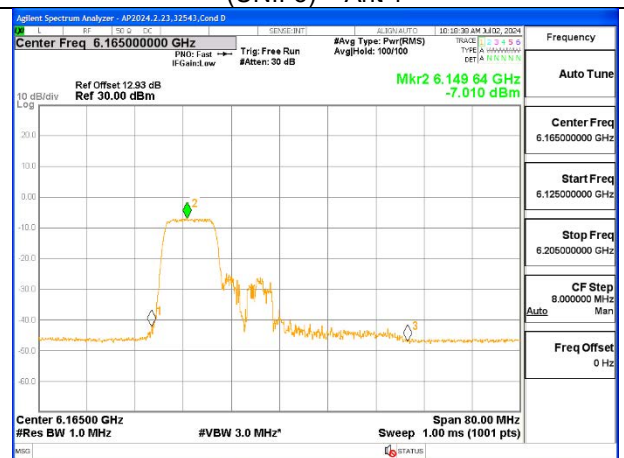
20MHz - Mid Channel – SU
(UNII-5) – Ant 1



20MHz - Mid Channel – MRU106+26T-RU82
(UNII-5) – Ant 1



40MHz - Mid Channel – SU
(UNII-5) – Ant 1



40MHz - Mid Channel – 106T-RU53
(UNII-5) – Ant 1

9.3.2. 802.11be MIMO CDD MODE IN THE UNII-5 BAND – VERY LOW POWER

| VLP CDD UNII-5 (MIMO) | Duty Factor (dB) | | Un-Correlated Antenna Gain (dBi) | Correlated Antenna Gain (dBi) | Frequency (MHz) | Channel Number | Tone | RU Index | Conducted Power (Gated) | | EIRP MIMO Power (Limit = 14dBm EIRP) | Conducted PSD (dBm/MHz) | | EIRP MIMO PSD (Limit = -5 dBm/MHz EIRP) |
|-----------------------|------------------|-------------|----------------------------------|-------------------------------|-----------------|----------------|-------------|----------|-------------------------|---------|--------------------------------------|-------------------------|---------|-----------------------------------------|
| | SU | Partial Rus | | | | | | | Ant 1 | Ant 2 | | Ant 1 | Ant 2 | |
| 20MHz | 0 | 0 | -0.46 | 2.53 | 6115 | 33 | SU | -- | -0.82 | -0.83 | 1.73 | -12.288 | -12.202 | -6.704 |
| | | | -0.44 | 2.42 | 6175 | 45 | SU | -- | -0.88 | -0.85 | 1.71 | -12.194 | -12.153 | -6.743 |
| | | | -0.09 | 2.65 | 6415 | 93 | SU | -- | -1.12 | -1.08 | 1.82 | -12.596 | -12.514 | -6.895 |
| 40MHz | 0 | 0 | -0.46 | 2.53 | 6125 | 35 | SU | -- | 2.15 | 2.18 | 4.72 | -12.564 | -12.567 | -7.025 |
| | | | | | | | 242T | 61 | -0.88 | -0.83 | 1.70 | -12.755 | -12.973 | -7.322 |
| | | | | | | | 62 | -0.85 | -0.78 | 1.74 | -12.629 | -13.035 | -7.287 | |
| | | | -0.44 | 2.42 | 6165 | 43 | SU | -- | 2.23 | 2.24 | 4.81 | -12.423 | -12.616 | -7.088 |
| | | | | | | | 242T | 61 | -0.76 | -0.84 | 1.77 | -12.857 | -12.857 | -7.427 |
| | | | | | | | 62 | -0.77 | -0.97 | 1.70 | -12.993 | -13.111 | -7.621 | |
| -0.09 | 2.65 | 6405 | 91 | SU | -- | 1.93 | 1.95 | 4.86 | -12.845 | -12.813 | -7.169 | | | |
| | | | | 242T | 61 | -1.19 | -1.06 | 1.80 | -13.585 | -13.343 | -7.802 | | | |
| | | | | 62 | -1.12 | -1.04 | 1.84 | -13.379 | -13.435 | -7.747 | | | | |
| 80MHz | 0.14 | 0 | -0.44 | 2.42 | 6145 | 39 | SU | -- | 5.23 | 5.20 | 7.79 | -11.440 | -11.787 | -6.040 |
| | | | | | | | MRU484+242T | 90 | 3.97 | 3.91 | 6.51 | -11.618 | -11.628 | -6.193 |
| | | | | | | | 92 | 3.93 | 3.92 | 6.50 | -11.652 | -11.679 | -6.235 | |
| | | | -0.09 | 2.65 | 6305 | 71 | SU | -- | 4.95 | 4.98 | 7.89 | -11.843 | -12.067 | -6.293 |
| | | | | | | | MRU484+242T | 90 | 3.73 | 3.72 | 6.65 | -11.796 | -11.712 | -6.093 |
| | | | | | | | 92 | 3.72 | 3.68 | 6.62 | -11.831 | -11.702 | -6.106 | |
| | | | -0.09 | 2.65 | 6385 | 87 | SU | -- | 4.91 | 4.97 | 7.86 | -11.987 | -12.101 | -6.243 |
| | | | | | | | MRU484+242T | 90 | 3.73 | 3.69 | 6.63 | -11.899 | -11.825 | -6.202 |
| | | | | | | | 92 | 3.74 | 3.70 | 6.64 | -11.964 | -11.880 | -6.261 | |
| 160MHz | 0.25 | 0 | -0.44 | 2.42 | 6185 | 47 | SU | -- | 7.44 | 7.43 | 10.01 | -12.216 | -12.282 | -6.569 |
| | | | | | | | 242T | 61 | -0.83 | -0.86 | 1.73 | -12.290 | -12.255 | -6.842 |
| | | | | | | | 62 | -0.77 | -0.88 | 1.75 | -12.217 | -12.358 | -6.857 | |
| | | | -0.09 | 2.65 | 6345 | 79 | SU | -- | 7.23 | 7.16 | 10.12 | -12.527 | -12.599 | -6.653 |
| | | | | | | | 242T | 61 | -1.07 | -1.05 | 1.86 | -12.441 | -12.662 | -6.890 |
| | | | | | | | 62 | -1.09 | -1.16 | 1.80 | -12.438 | -12.429 | -6.773 | |
| | | | S64 | -0.81 | -0.75 | 1.79 | -12.247 | -12.234 | -6.810 | | | | | |
| | | | S64 | -1.11 | -1.08 | 1.83 | -12.487 | -12.505 | -6.836 | | | | | |

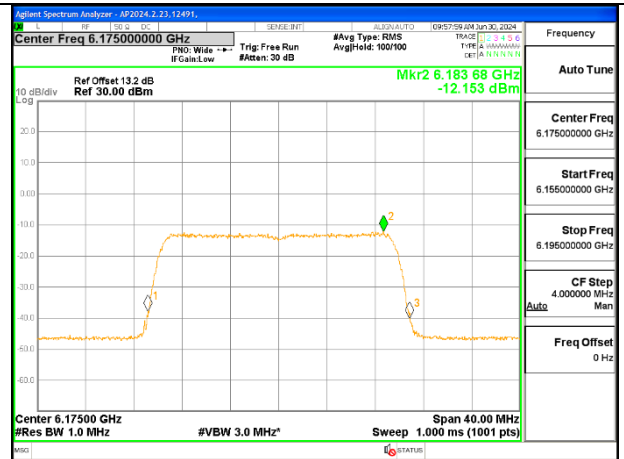
Note:

EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (Ant 1 + Ant 2) + Un-Correlated Antenna Gain (dBi)

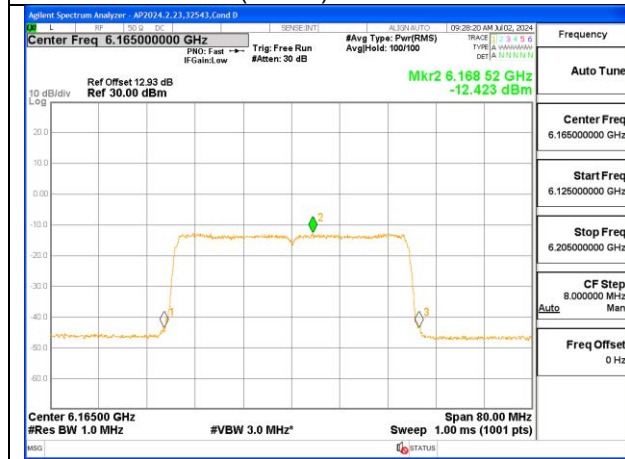
EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (Ant 1 + Ant 2) + Duty Factor (dB) + Correlated Antenna Gain (dBi)



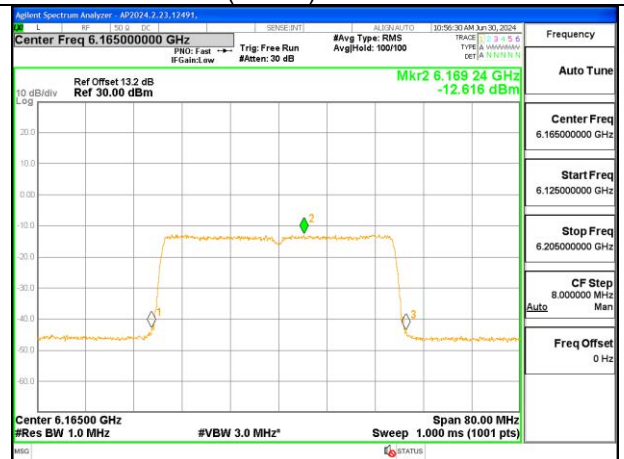
20MHz - Mid Channel – SU
(UNII-5) – Ant 1



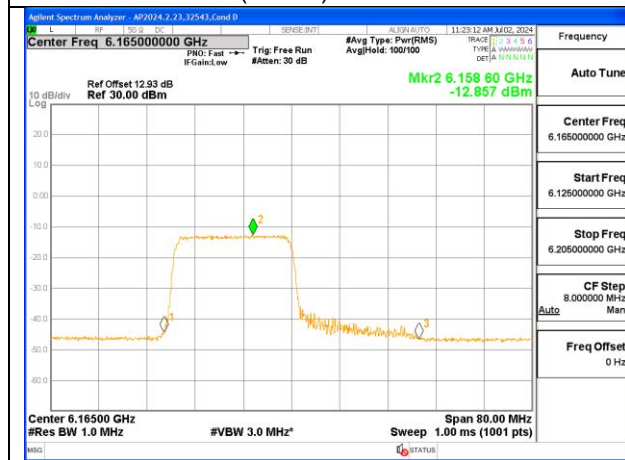
20MHz - Mid Channel – SU
(UNII-5) – Ant 2



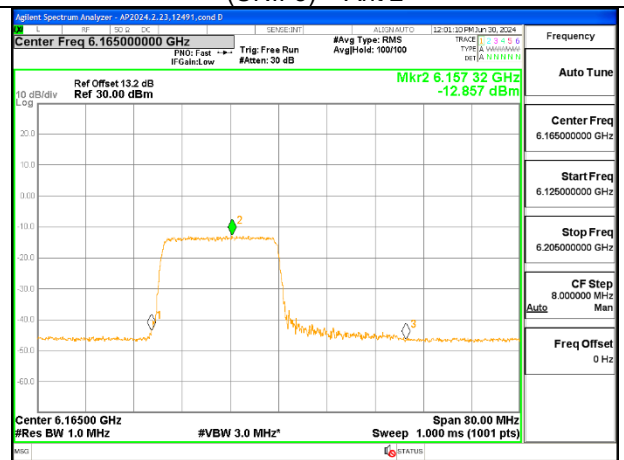
40MHz - Mid Channel – SU
(UNII-5) – Ant 1



40MHz - Mid Channel – SU
(UNII-5) – Ant 2



40MHz - Mid Channel – 242T-RU61
(UNII-5) – Ant 1



40MHz - Mid Channel – 242T-RU61
(UNII-5) – Ant 2

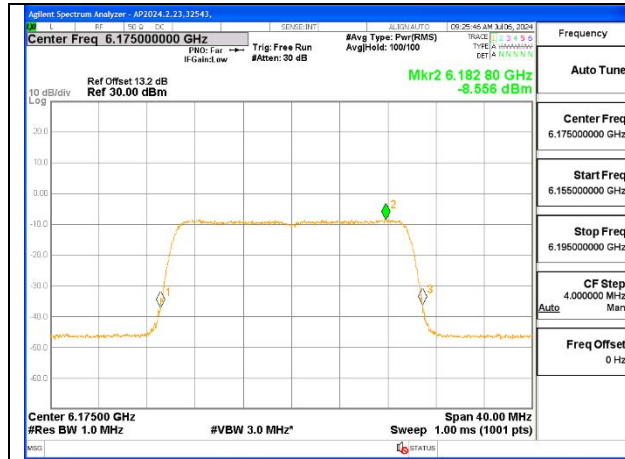
9.3.3. 802.11be MIMO SDM MODE IN THE UNII-5 BAND – VERY LOW POWER

| VLP SDM UNII-5 (MIMO) | Duty Factor (dB) | | Un-Correlated Antenna Gain (dBi) | Correlated Antenna Gain (dBi) | Frequency (MHz) | Channel Number | Tone | RU Index | Conducted Power (Gated) | | EIRP MIMO Power (Limit = 14dBm EIRP) | Conducted PSD (dBm/MHz) | | EIRP MIMO PSD (Limit = -5 dBm/MHz EIRP) | | | |
|-----------------------|------------------|-------------|----------------------------------|-------------------------------|-----------------|----------------|------------|----------|-------------------------|------------|--------------------------------------|-------------------------|---------|-----------------------------------------|--------|--------|--------|
| | SU | Partial Rus | | | | | | | Ant 1 | Ant 2 | | Ant 1 | Ant 2 | | | | |
| 20MHz | 0 | 0 | -0.46 | 2.53 | 6115 | 33 | SU | -- | 1.91 | 1.89 | 4.45 | -8.535 | -8.563 | -5.999 | | | |
| | | | | | | | MRU106+26T | 82 | -0.32 | -0.35 | 2.22 | -7.941 | -8.318 | -5.575 | | | |
| | | | | | | | | 83 | -0.32 | -0.35 | 2.22 | -7.956 | -8.357 | -5.602 | | | |
| | | | -0.44 | 2.42 | 6175 | 45 | SU | -- | 1.98 | 1.92 | 4.52 | -8.662 | -8.556 | -6.038 | | | |
| | | | | | | | MRU106+26T | 82 | -0.34 | -0.32 | 2.24 | -7.962 | -8.271 | -5.543 | | | |
| | | | | | | | | 83 | -0.35 | -0.34 | 2.23 | -7.872 | -8.260 | -5.491 | | | |
| | | | -0.09 | 2.65 | 6415 | 93 | SU | -- | 1.74 | 1.69 | 4.64 | -8.841 | -8.826 | -5.913 | | | |
| | | | | | | | MRU106+26T | 82 | -0.58 | -0.53 | 2.37 | -8.841 | -8.815 | -5.908 | | | |
| | | | | | | | | 83 | -0.55 | -0.55 | 2.37 | -8.855 | -8.853 | -5.934 | | | |
| 40MHz | 0 | 0 | -0.46 | 2.53 | 6125 | 35 | SU | -- | 4.92 | 4.91 | 7.47 | -8.590 | -8.549 | -6.019 | | | |
| | | | | | | | 106T | 53 | -1.02 | -1.12 | 1.48 | -8.579 | -8.524 | -6.001 | | | |
| | | | | | | | | 54 | -1.05 | -1.11 | 1.47 | -8.563 | -8.517 | -5.990 | | | |
| | | | -0.44 | 2.42 | 6165 | 43 | SU | -- | 4.94 | 4.98 | 7.53 | -8.622 | -8.599 | -6.040 | | | |
| | | | | | | | 106T | 53 | -1.06 | -1.07 | 1.51 | -8.591 | -8.530 | -5.990 | | | |
| | | | | | | | | 54 | -1.15 | -1.08 | 1.46 | -8.671 | -8.669 | -6.100 | | | |
| | | | -0.09 | 2.65 | 6405 | 91 | SU | -- | 4.71 | 4.74 | 7.65 | -8.996 | -8.935 | -6.045 | | | |
| | | | | | | | 106T | 53 | -1.36 | -1.32 | 1.58 | -8.998 | -8.998 | -6.078 | | | |
| | | | | | | | | 54 | -1.37 | -1.35 | 1.56 | -8.867 | -8.852 | -5.939 | | | |
| | | | 80MHz | 0.3 | 0 | -0.44 | 2.42 | 6145 | 39 | SU | -- | 7.92 | 7.94 | 10.50 | -8.600 | -8.686 | -5.772 |
| | | | | | | | | | | MRU106+26T | 82 | -0.36 | -0.32 | 2.23 | -9.104 | -8.600 | -6.274 |
| | | | | | | | | | | | 85 | -0.36 | -0.32 | 2.23 | -9.053 | -9.053 | -6.483 |
| -0.09 | 2.65 | 6305 | | | | 71 | SU | -- | 7.73 | 7.71 | 10.64 | -8.894 | -8.785 | -5.919 | | | |
| | | | | | | | MRU106+26T | 82 | -0.58 | -0.56 | 2.35 | -9.232 | -10.191 | -6.765 | | | |
| | | | | | | | | 85 | -0.51 | -0.54 | 2.40 | -9.311 | -10.375 | -6.890 | | | |
| -0.09 | 2.65 | 6385 | | | | 87 | SU | -- | 7.71 | 7.69 | 10.62 | -9.177 | -10.310 | -6.786 | | | |
| | | | | | | | MRU106+26T | 82 | -0.59 | -0.55 | 2.35 | -9.303 | -9.339 | -6.401 | | | |
| | | | | | | | | 85 | -0.53 | -0.55 | 2.38 | -9.403 | -9.400 | -6.481 | | | |
| 160MHz | 0.5 | 0 | -0.44 | 2.42 | 6185 | 47 | SU | -- | 10.22 | 10.18 | 12.77 | -9.748 | -9.528 | -6.566 | | | |
| | | | | | | | 106T | 53 | -1.08 | -1.15 | 1.46 | -8.772 | -8.891 | -6.261 | | | |
| | | | | | | | | 560 | -1.09 | -1.07 | 1.49 | -8.861 | -8.853 | -6.287 | | | |
| | | | -0.09 | 2.65 | 6345 | 79 | SU | -- | 9.94 | 9.98 | 12.88 | -9.997 | -9.907 | -6.531 | | | |
| | | | | | | | 106T | 53 | -1.33 | -1.36 | 1.58 | -9.023 | -9.016 | -6.099 | | | |
| | | | | | | | | 560 | -1.32 | -1.32 | 1.60 | -9.369 | -9.091 | -6.307 | | | |

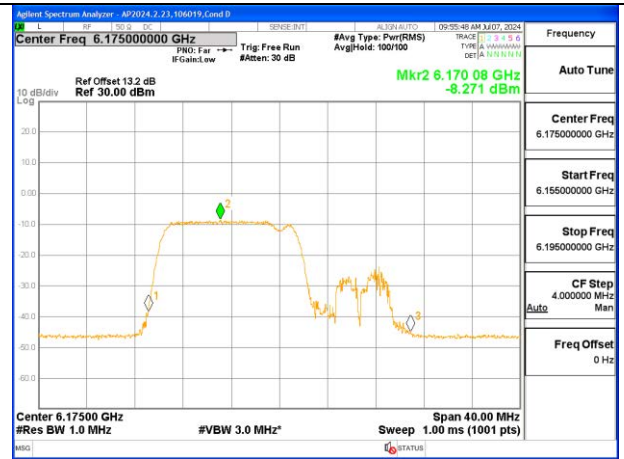
Note:

EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (Ant 1 + Ant 2) + Un-Correlated Antenna Gain (dBi)

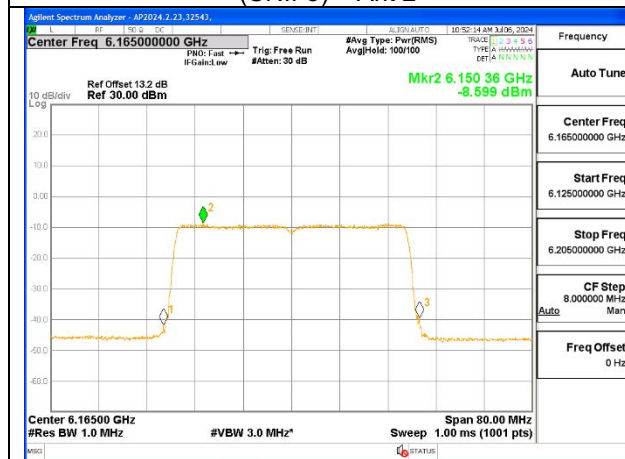
EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (Ant 1 + Ant 2) + Duty Factor (dB) + Correlated Antenna Gain (dBi)



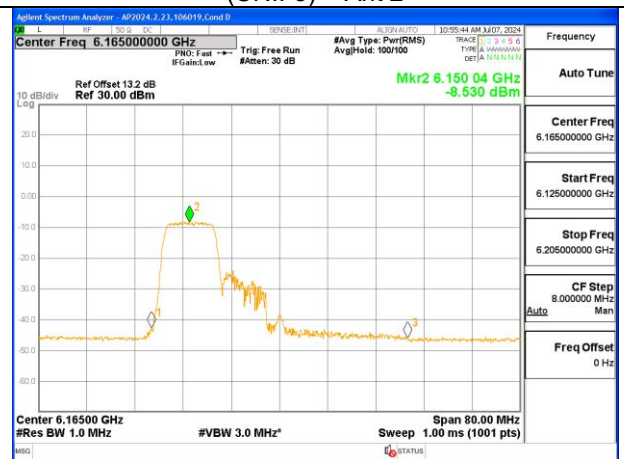
20MHz - Mid Channel – SU
(UNII-5) – Ant 2



20MHz - Mid Channel – MRU106+26T-RU82
(UNII-5) – Ant 2



40MHz - Mid Channel – SU
(UNII-5) – Ant 2



40MHz - Mid Channel – 106T-RU53
(UNII-5) – Ant 2

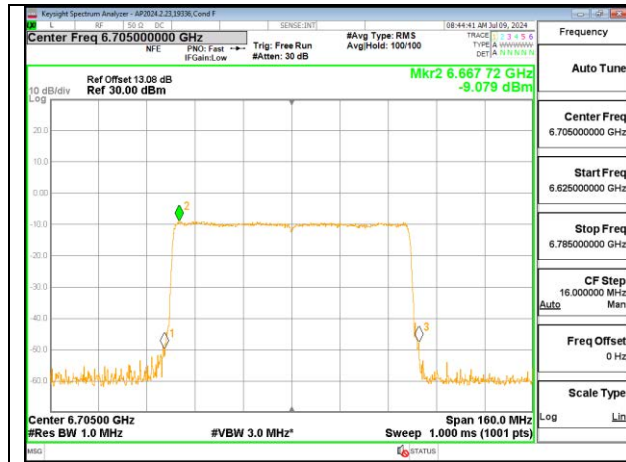
9.3.4. 802.11be SISO MODE IN THE UNII-7 BAND – VERY LOW POWER

| VLP UNII-7 (SISO) | Duty Factor (dB) | | Ant 1 Gain (dBi) | Ant 2 Gain (dBi) | Frequency (MHz) | Channel Number | Tone | RU Index | Conducted Power (Gated) (dBm) | | EIRP Power (Limit = 14dBm EIRP) | | Conducted PSD (dBm/MHz) | | EIRP PSD (Limit = -5 dBm/MHz EIRP) | | |
|-------------------|------------------|------------|------------------|------------------|-----------------|----------------|--------------|-----------|-------------------------------|--------|---------------------------------|---------|-------------------------|--------|------------------------------------|---------|---------|
| | SU | Partial RU | | | | | | | Ant 1 | Ant 2 | Ant 1 | Ant 2 | Ant 1 | Ant 2 | Ant 1 | Ant 2 | |
| | | | | | | | | | | | | | | | | | |
| 20MHz | 0 | 0 | 2.00 | -4.40 | 6535 | 117 | SU | -- | 2.47 | 2.43 | 4.47 | -1.97 | -9.068 | -9.181 | -7.068 | -13.581 | |
| | | | | | | | 106T | 53 | -0.53 | -0.51 | 1.47 | -4.91 | -8.467 | -8.731 | -6.467 | -13.131 | |
| | | | | | | | | 54 | -0.54 | -0.52 | 1.46 | -4.92 | -8.662 | -8.760 | -6.662 | -13.160 | |
| | | | | | 6695 | 149 | SU | -- | 2.49 | 2.48 | 4.49 | -1.92 | -8.985 | -9.110 | -6.985 | -13.510 | |
| | | | | | | | 106T | 53 | -0.58 | -0.58 | 1.42 | -4.98 | -8.634 | -8.640 | -6.634 | -13.040 | |
| | | | | | | | | 54 | -0.58 | -0.57 | 1.42 | -4.97 | -8.673 | -8.611 | -6.673 | -13.011 | |
| | 6855 | 181 | SU | -- | 2.46 | 2.49 | 4.46 | -1.91 | -9.083 | -9.013 | -7.083 | -13.413 | | | | | |
| | | | 106T | 53 | -0.54 | -0.55 | 1.46 | -4.95 | -8.651 | -8.505 | -6.651 | -12.905 | | | | | |
| | | | | 54 | -0.55 | -0.56 | 1.45 | -4.96 | -8.519 | -8.570 | -6.519 | -12.970 | | | | | |
| | 40MHz | 0 | 0 | 2.00 | -4.40 | 6565 | 123 | SU | -- | 5.44 | 5.45 | 7.44 | 1.05 | -8.995 | -8.940 | -6.995 | -13.340 |
| | | | | | | | | 106T | 53 | -0.57 | -0.52 | 1.43 | -4.92 | -8.904 | -8.729 | -6.904 | -13.129 |
| | | | | | | | | | 54 | -0.58 | -0.56 | 1.42 | -4.96 | -8.993 | -8.855 | -6.993 | -13.255 |
| 6685 | | | | | | 147 | SU | -- | 5.44 | 5.44 | 7.44 | 1.04 | -9.005 | -9.021 | -7.005 | -13.421 | |
| | | | | | | | 106T | 53 | -0.53 | -0.61 | 1.47 | -5.01 | -8.783 | -8.657 | -6.783 | -13.057 | |
| | | | | | | | | 54 | -0.59 | -0.56 | 1.41 | -4.96 | -8.977 | -8.844 | -6.977 | -13.244 | |
| 6845 | | 179 | SU | -- | 5.47 | 5.45 | 7.47 | 1.05 | -8.842 | -8.931 | -6.842 | -13.331 | | | | | |
| | | | 106T | 53 | -0.61 | -0.54 | 1.39 | -4.94 | -8.709 | -8.680 | -6.709 | -13.080 | | | | | |
| | | | | 54 | -0.54 | -0.53 | 1.46 | -4.93 | -8.695 | -8.773 | -6.695 | -13.173 | | | | | |
| 80MHz | | 0.14 | 0 | 2.00 | -4.40 | 6625 | 135 | SU | -- | 8.44 | 8.40 | 10.44 | 4.00 | -9.105 | -9.274 | -6.965 | -13.534 |
| | | | | | | | | MRU52+26T | 71 | -1.82 | -1.78 | 0.18 | -6.18 | -9.328 | -9.196 | -7.328 | -13.596 |
| | | | | | | | | | 74 | -1.81 | -1.81 | 0.19 | -6.21 | -8.960 | -8.964 | -6.960 | -13.364 |
| | 6705 | | | | | 151 | SU | -- | 8.45 | 8.47 | 10.45 | 4.07 | -9.079 | -8.990 | -6.939 | -13.250 | |
| | | | | | | | MRU52+26T | 71 | -1.80 | -1.83 | 0.20 | -6.23 | -9.092 | -9.023 | -7.092 | -13.423 | |
| | | | | | | | | 74 | -1.76 | -1.80 | 0.24 | -6.20 | -8.743 | -8.922 | -6.743 | -13.322 | |
| | 6785 | 167 | SU | -- | 8.46 | 8.44 | 10.46 | 4.04 | -9.024 | -8.941 | -6.884 | -13.201 | | | | | |
| | | | MRU52+26T | 71 | -1.81 | -1.80 | 0.19 | -6.20 | -8.969 | -8.933 | -6.969 | -13.333 | | | | | |
| | | | | 74 | -1.86 | -1.80 | 0.14 | -6.20 | -9.131 | -8.901 | -7.131 | -13.301 | | | | | |
| | 6845 | 179 | SU | -- | 8.46 | 8.44 | 10.46 | 4.04 | -9.024 | -8.941 | -6.884 | -13.201 | | | | | |
| | | | MRU52+26T | 71 | -1.81 | -1.80 | 0.19 | -6.20 | -8.969 | -8.933 | -6.969 | -13.333 | | | | | |
| | | | | 74 | -1.86 | -1.80 | 0.14 | -6.20 | -9.131 | -8.901 | -7.131 | -13.301 | | | | | |
| 160MHz | 0.25 | 0 | 2.00 | -4.40 | 6665 | 143 | SU | -- | 10.70 | 10.74 | 12.70 | 6.34 | -9.466 | -9.364 | -7.216 | -13.514 | |
| | | | | | | | 106T | 53 | -0.52 | -0.60 | 1.48 | -5.00 | -8.687 | -8.966 | -6.687 | -13.366 | |
| | | | | | | | | 560 | -0.57 | -0.51 | 1.43 | -4.91 | -8.837 | -8.636 | -6.837 | -13.036 | |

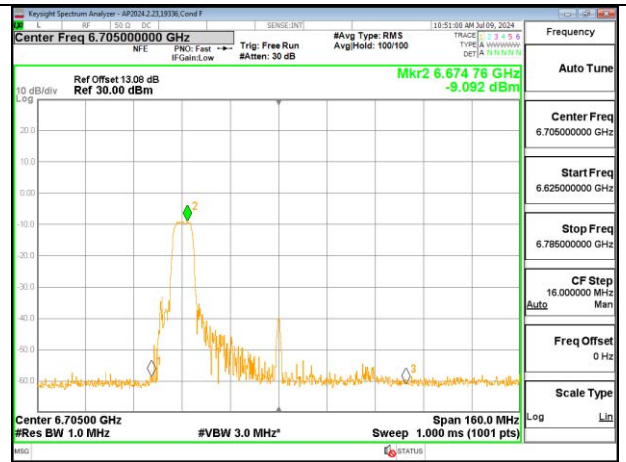
Note:

EIRP Output Power (dBm) = Measured Conducted Power (dBm)+ Peak Antenna Gain (dBi)

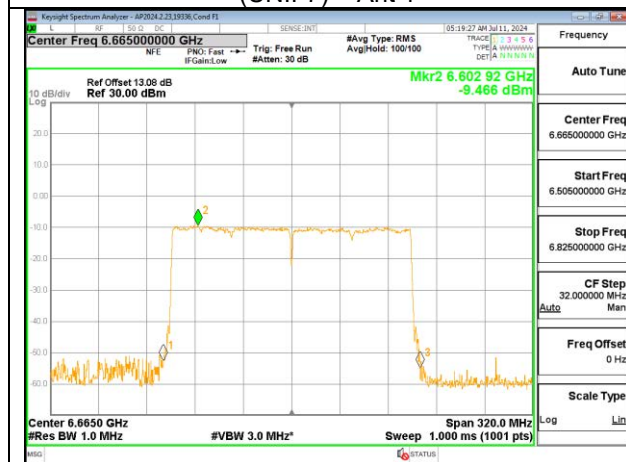
EIRP PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) + Duty Factor (dB) + Peak Antenna Gain (dBi)



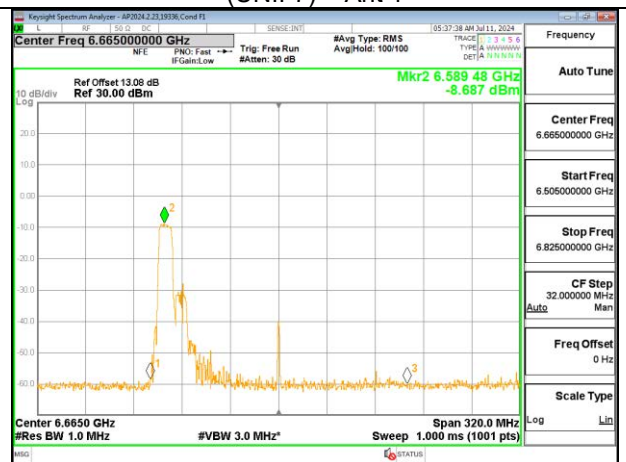
80MHz - Mid Channel – SU
(UNII-7) – Ant 1



80MHz - Mid Channel – MRU52+26T-RU71
(UNII-7) – Ant 1



160MHz - Mid Channel – SU
(UNII-7) – Ant 1



160MHz - Mid Channel – 106T-RU53
(UNII-7) – Ant 1

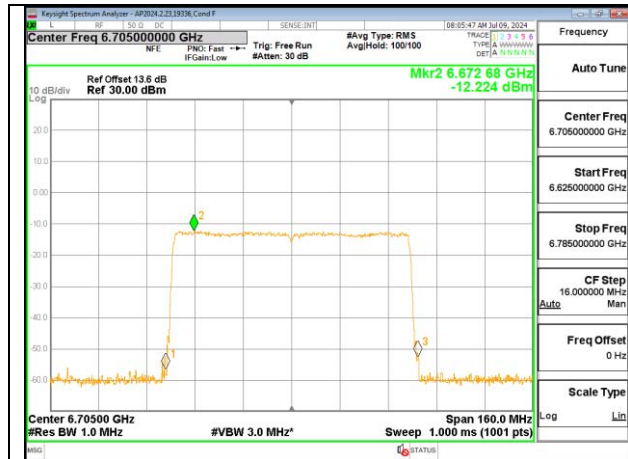
9.3.5. 802.11be MIMO CDD MODE IN THE UNII-7 BAND – VERY LOW POWER

| VLP CDD UNII-7 (MIMO) | Duty Factor (dB) | | Un-Correlated Antenna Gain (dBi) | Correlated Antenna Gain (dBi) | Frequency (MHz) | Channel Number | Tone | RU Index | Conducted Power (Gated) | | EIRP MIMO Power (Limit = 14dBm EIRP) | Conducted PSD (dBm/MHz) | | EIRP MIMO PSD (Limit = -5 dBm/MHz EIRP) | | |
|-----------------------|------------------|-------------|----------------------------------|-------------------------------|-----------------|----------------|-------------|----------|-------------------------|-------|--------------------------------------|-------------------------|---------|-----------------------------------------|---------|--------|
| | SU | Partial Rus | | | | | | | Ant 1 | Ant 2 | | Ant 1 | Ant 2 | | | |
| 20MHz | 0 | 0 | -0.11 | 2.39 | 6535 | 117 | SU | -- | -0.77 | -0.78 | 2.13 | -12.488 | -12.056 | -6.866 | | |
| | | | | | 6695 | 149 | SU | -- | -0.79 | -0.83 | 2.09 | -12.244 | -12.336 | -6.889 | | |
| | | | | | 6855 | 181 | SU | -- | -0.76 | -0.81 | 2.12 | -12.444 | -12.270 | -6.956 | | |
| 40MHz | 0 | 0 | -0.11 | 2.39 | 6565 | 123 | 242T | 61 | -0.78 | -0.77 | 2.13 | -12.690 | -12.665 | -7.277 | | |
| | | | | | | | | 62 | -0.85 | -0.85 | 2.05 | -12.400 | -12.424 | -7.012 | | |
| | | | | | | | 6685 | 147 | 242T | 61 | -0.79 | -0.76 | 2.13 | -12.715 | -12.441 | -7.176 |
| | | | | | | | | | | 62 | -0.84 | -0.86 | 2.05 | -12.371 | -12.446 | -7.008 |
| | | | | | 6845 | 179 | SU | -- | 2.24 | 2.18 | 5.11 | -12.240 | -12.056 | -6.747 | | |
| | | | | | | | | 61 | -0.83 | -0.83 | 2.07 | -12.323 | -12.319 | -6.921 | | |
| | | | | | | | 242T | 62 | -0.77 | -0.77 | 2.13 | -12.450 | -12.492 | -7.071 | | |
| | | | | | | | | SU | -- | 5.23 | 5.19 | 8.11 | -12.219 | -12.358 | -6.748 | |
| 80MHz | 0.14 | 0 | -0.11 | 2.39 | 6625 | 135 | MRU484+242T | 90 | 3.91 | 3.93 | 6.82 | -12.449 | -12.384 | -7.016 | | |
| | | | | | | | | 92 | 3.92 | 3.97 | 6.85 | -12.429 | -12.180 | -6.902 | | |
| | | | | | | | | 93 | 3.92 | 3.93 | 6.83 | -12.406 | -12.393 | -6.999 | | |
| 80MHz | 0.14 | 0 | -0.11 | 2.39 | 6705 | 151 | MRU484+242T | SU | -- | 5.20 | 5.23 | 8.12 | -12.333 | -12.224 | -6.738 | |
| | | | | | | | | 90 | 3.91 | 3.95 | 6.83 | -12.452 | -12.281 | -6.965 | | |
| | | | | | | | | 92 | 3.94 | 3.92 | 6.83 | -12.324 | -12.013 | -6.765 | | |
| | | | | | | | | 93 | 3.96 | 3.91 | 6.84 | -12.241 | -12.436 | -6.937 | | |
| | | | | | 6785 | 167 | MRU484+242T | SU | -- | 5.18 | 5.23 | 8.11 | -12.073 | -12.246 | -6.618 | |
| | | | | | | | | 90 | 3.98 | 3.94 | 6.86 | -12.123 | -12.328 | -6.824 | | |
| | | | | | | | | 92 | 3.98 | 3.95 | 6.87 | -12.142 | -12.304 | -6.822 | | |
| | | | | | | | | 93 | 3.94 | 3.95 | 6.85 | -12.332 | -12.311 | -6.921 | | |
| 160MHz | 0.25 | 0 | -0.11 | 2.39 | 6665 | 143 | 242T | SU | -- | 7.40 | 7.43 | 10.32 | -12.677 | -12.572 | -6.974 | |
| | | | | | | | | 61 | -0.81 | -0.82 | 2.09 | -12.632 | -12.700 | -7.266 | | |
| | | | | | | | | 62 | -0.77 | -0.82 | 2.11 | -12.513 | -12.523 | -7.118 | | |
| | | | | | | | | S64 | -0.77 | -0.76 | 2.14 | -12.480 | -12.456 | -7.068 | | |

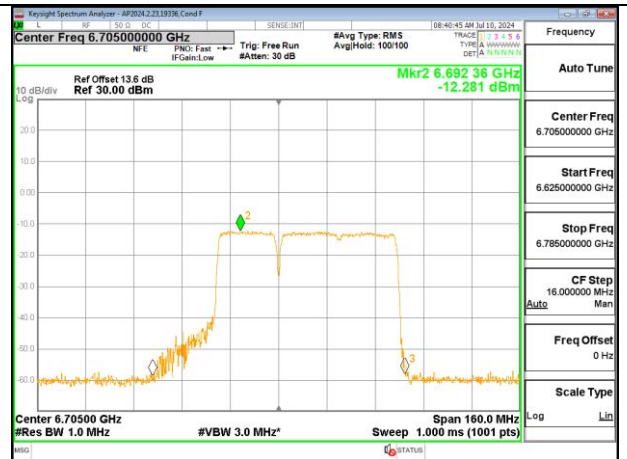
Note:

EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (Ant 1 + Ant 2) + Un-Correlated Antenna Gain (dBi)

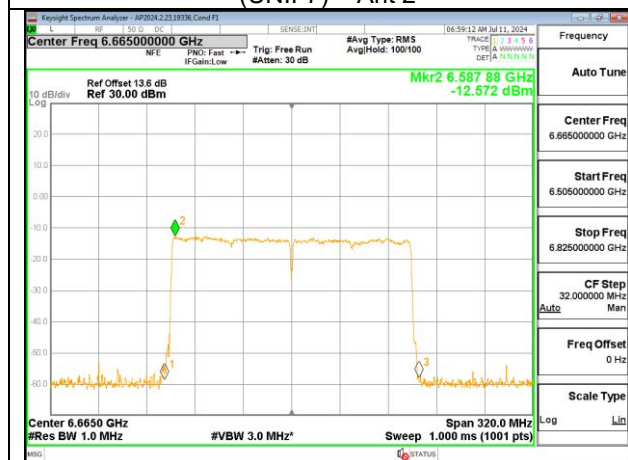
EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (Ant 1 + Ant 2) + Duty Factor (dB) + Correlated Antenna Gain (dBi)



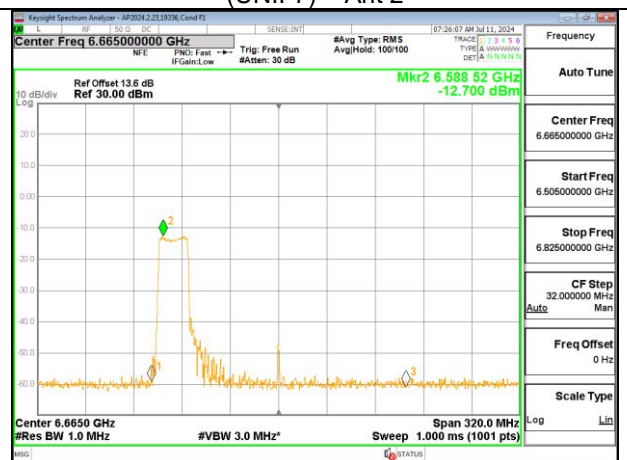
80MHz - Mid Channel – SU
(UNII-7) – Ant 2



80MHz - Mid Channel – MRU484+242T-RU90
(UNII-7) – Ant 2



160MHz - Mid Channel – SU
(UNII-7) – Ant 2



160MHz - Mid Channel – 242T-RU61
(UNII-7) – Ant 2

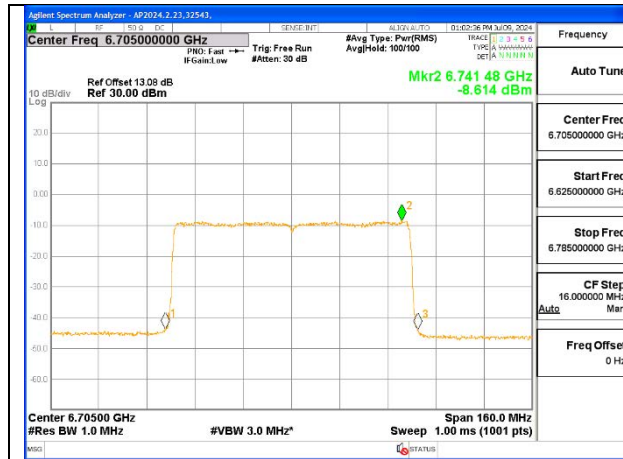
9.3.6. 802.11be MIMO SDM MODE IN THE UNII-7 BAND – VERY LOW POWER

| VLP SDM UNII-7 (MIMO) | Duty Factor (dB) | | Un-Correlated Antenna Gain (dBi) | Correlated Antenna Gain (dBi) | Frequency (MHz) | Channel Number | Tone | RU Index | Conducted Power (Gated) | | EIRP MIMO Power (Limit = 14dBm EIRP) | Conducted PSD (dBm/MHz) | | EIRP MIMO PSD (Limit = -5 dBm/MHz EIRP) | | | | | |
|-----------------------|------------------|-------------|----------------------------------|-------------------------------|-----------------|----------------|------|----------|-------------------------|-------|--------------------------------------|-------------------------|--------|-----------------------------------------|-------|-------|--------|--------|--------|
| | SU | Partial Rus | | | | | | | Ant 1 | Ant 2 | | Ant 1 | Ant 2 | | | | | | |
| 20MHz | 0 | 0 | -0.11 | 2.39 | 6535 | 117 | SU | -- | 1.71 | 1.70 | 4.61 | -9.120 | -9.031 | -6.175 | | | | | |
| | | | | | | | 106T | 53 | -1.34 | -1.27 | 1.60 | -9.279 | -9.365 | -6.421 | | | | | |
| | | | | | | | | 54 | -1.26 | -1.29 | 1.63 | -9.335 | -9.400 | -6.467 | | | | | |
| | | | | | 6715 | 153 | SU | -- | 1.69 | 1.67 | 4.58 | -8.865 | -8.875 | -5.970 | | | | | |
| | | | | | | | 106T | 53 | -1.31 | -1.27 | 1.61 | -9.201 | -9.351 | -6.375 | | | | | |
| | | | | | | | | 54 | -1.32 | -1.34 | 1.57 | -9.234 | -9.273 | -6.353 | | | | | |
| | | | | | 6855 | 179 | SU | -- | 1.68 | 1.74 | 4.61 | -9.149 | -9.108 | -6.228 | | | | | |
| | | | | | | | 106T | 53 | -1.32 | -1.32 | 1.58 | -9.173 | -9.311 | -6.341 | | | | | |
| | | | | | | | | 54 | -1.28 | -1.27 | 1.63 | -9.395 | -9.358 | -6.476 | | | | | |
| 40MHz | 0 | 0 | -0.11 | 2.39 | 6565 | 123 | SU | -- | 4.67 | 4.67 | 7.57 | -9.157 | -8.970 | -6.162 | | | | | |
| | | | | | | | 106T | 53 | -1.29 | -1.36 | 1.58 | -9.140 | -8.773 | -6.052 | | | | | |
| | | | | | | | | 54 | -1.34 | -1.33 | 1.57 | -9.019 | -8.947 | -6.083 | | | | | |
| | | | | | 6685 | 147 | SU | -- | 4.69 | 4.73 | 7.61 | -8.886 | -8.926 | -6.006 | | | | | |
| | | | | | | | 106T | 53 | -1.27 | -1.28 | 1.63 | -9.043 | -9.004 | -6.123 | | | | | |
| | | | | | | | | 54 | -1.29 | -1.33 | 1.59 | -8.851 | -8.808 | -5.929 | | | | | |
| | | | | | 6845 | 179 | SU | -- | 4.73 | 4.73 | 7.63 | -8.909 | -9.065 | -6.086 | | | | | |
| | | | | | | | 106T | 53 | -1.33 | -1.27 | 1.60 | -9.108 | -8.989 | -6.148 | | | | | |
| | | | | | | | | 54 | -1.27 | -1.26 | 1.64 | -8.831 | -9.010 | -6.019 | | | | | |
| | | | | | 80MHz | 0.3 | 0 | -0.11 | 2.39 | 6625 | 135 | SU | -- | 7.68 | 7.71 | 10.60 | -8.682 | -8.793 | -5.537 |
| | | | | | | | | | | | | MRU52+26T | 71 | -2.53 | -2.58 | 0.35 | -9.109 | -9.153 | -6.231 |
| | | | | | | | | | | | | | 74 | -2.58 | -2.51 | 0.36 | -9.109 | -8.897 | -6.101 |
| 6705 | 151 | SU | -- | 7.71 | | | | | | 7.74 | 10.63 | -8.614 | -8.896 | -5.552 | | | | | |
| | | MRU52+26T | 71 | -2.55 | | | | | | -2.57 | 0.34 | -8.930 | -8.842 | -5.985 | | | | | |
| | | | 74 | -2.59 | | | | | | -2.51 | 0.35 | -8.783 | -9.012 | -5.996 | | | | | |
| 6785 | 167 | SU | -- | 7.68 | | | | | | 7.70 | 10.59 | -8.877 | -8.758 | -5.917 | | | | | |
| | | MRU52+26T | 71 | -2.54 | | | | | | -2.55 | 0.36 | -8.877 | -9.053 | -5.821 | | | | | |
| | | | 74 | -2.52 | | | | | | -2.54 | 0.37 | -9.178 | -9.004 | -6.190 | | | | | |
| 160MHz | 0.5 | 0 | -0.11 | 2.39 | | | | | | 6665 | 143 | SU | -- | 9.98 | 9.96 | 12.87 | -8.932 | -9.267 | -5.696 |
| | | | | | | | | | | | | 106T | 53 | -1.34 | -1.32 | 1.57 | -9.292 | -9.278 | -6.385 |
| | | | | | | | | | | | | | S60 | -1.32 | -1.33 | 1.58 | -9.101 | -9.281 | -6.290 |

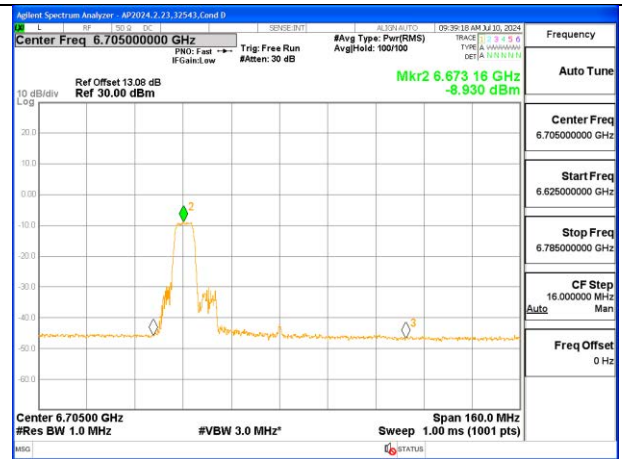
Note:

EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (Ant 1 + Ant 2) + Un-Correlated Antenna Gain (dBi)

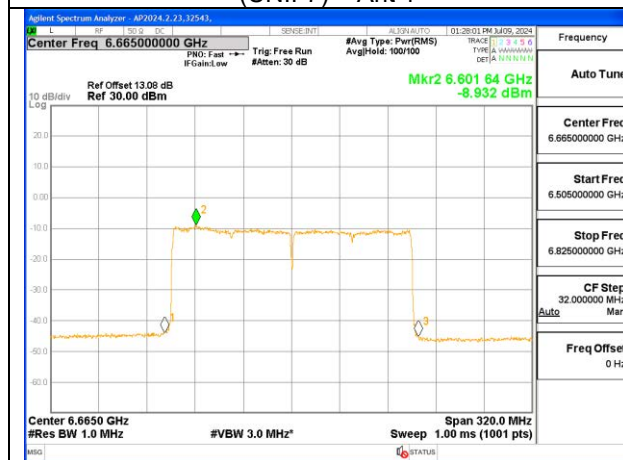
EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (Ant 1 + Ant 2) + Duty Factor (dB) + Un-Correlated Antenna Gain (dBi)



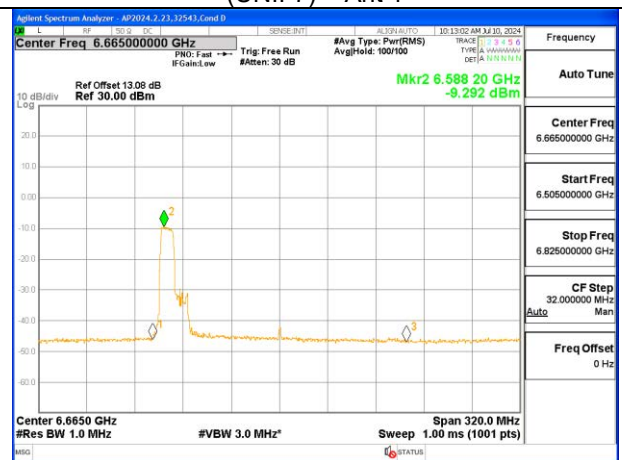
80MHz - Mid Channel – SU
(UNII-7) – Ant 1



80MHz - Mid Channel – MRU52+26T-RU71
(UNII-7) – Ant 1



160MHz - Mid Channel – SU
(UNII-7) – Ant 1



160MHz - Mid Channel – 106T-RU53
(UNII-7) – Ant 1

9.4. VLP SPURIOUS EMISSIONS IN-BAND– EMISSION MASK

LIMITS

FCC §15.407

(b)(7) For transmitters operating within the 5.925-7.125 GHz bands: power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device’s channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device’s channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

TEST PROCEDURE

Follow KCB 987594 D02 v01r01, Section II-J, RBW & VBW settings were based on 26dB bandwidth test settings. Only Partial RU for all bandwidths, the RBW & VBW settings were used equal or greater than 26dB bandwidth test settings.

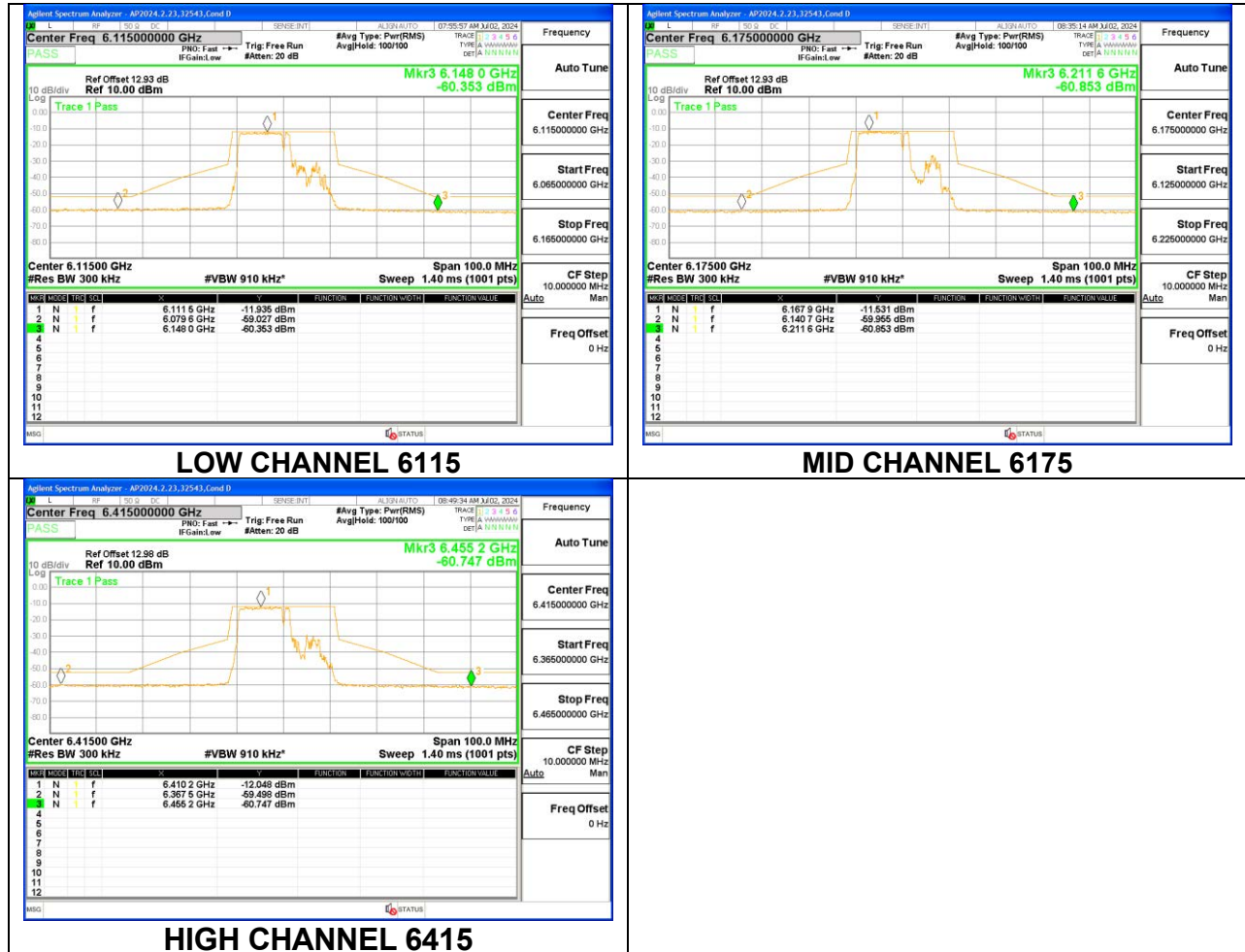
| Band | Tones | 20MHz (RBW/VBW) | 40MHz (RBW/VBW) | 80MHz (RBW/VBW) | 160MHz (RBW/VBW) |
|--------|------------|--------------------|--------------------|--------------------------------------------------------|---------------------|
| UNII-5 | Partial RU | 300kHz/910kHz | 510kHz/1.6MHz | 510kHz/1.6MHz (SISO/SDM) 1MHz/3MHz (MIMO CDD) | 510KHz/1.6MHz |
| | SU | 300kHz/910kHz | 510kHz/1.6MHz | 1MHz/3MHz | 2MHz/6MHz |
| UNII-7 | Partial RU | 300kHz/910kHz | 510kHz/1.6MHz | 510kHz/1.6MHz (SISO/SDM) 1MHz/3MHz (MIMO CDD) | 510KHz/1.6MHz |
| | SU | 300kHz/910kHz | 510kHz/1.6MHz | 1MHz/3MHz | 2MHz/6MHz |

RESULTS

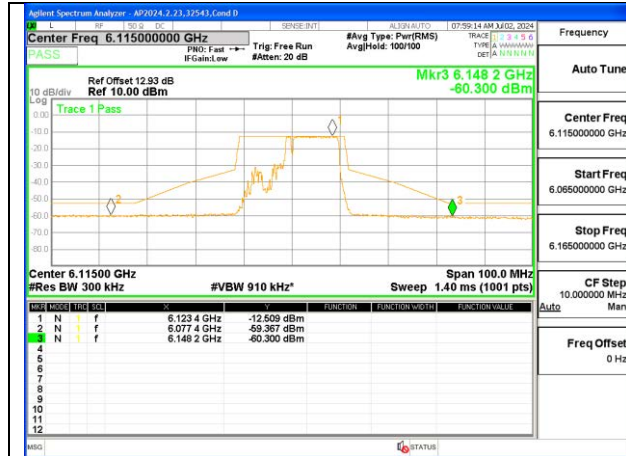
For mask and bandwidth measurements partial RU allocations are tested with the RUs allocated at the lower and upper positions within the channel for the low mid and high channels in each band. Additionally, the center channel is also tested with the RU allocated in the center of the channel to verify that the low / high RU allocations are worst case.

9.4.1. 802.11be EHT20 MODE IN THE UNII-5 BAND

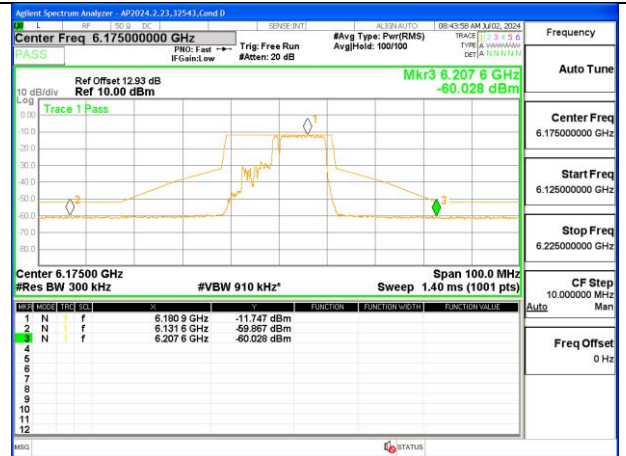
1TX Antenna 6 MODE (FCC+IC) MOBILE – MRU106+26-Tones, RU Index 82



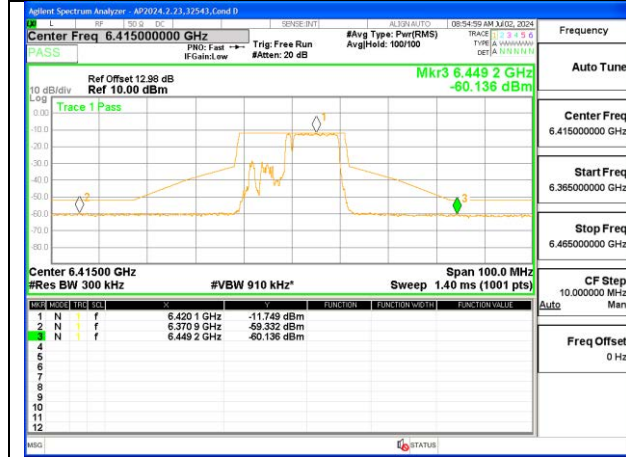
1TX Antenna 6 MODE (FCC+IC) MOBILE – MRU106+26-Tones, RU Index 83



LOW CHANNEL 6115

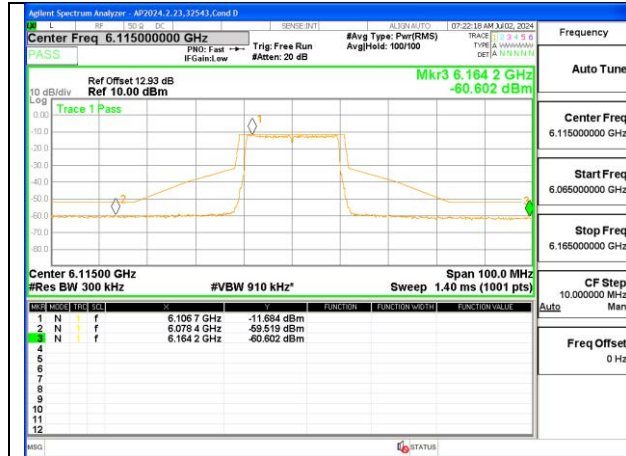


MID CHANNEL 6175

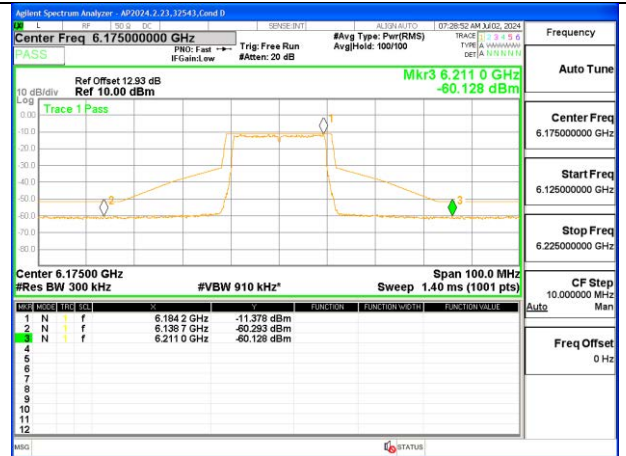


HIGH CHANNEL 6415

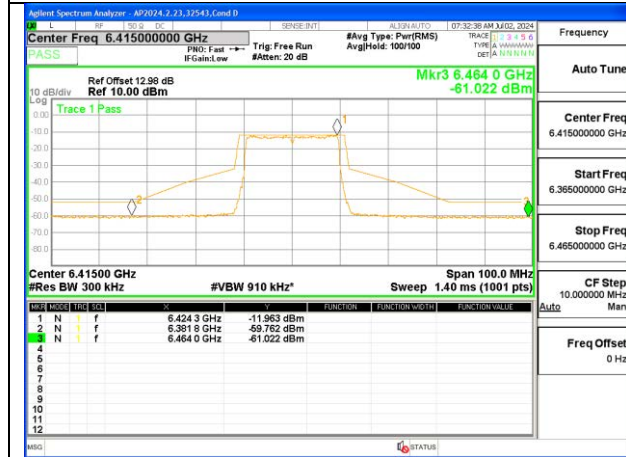
1TX Antenna 6 MODE (FCC+IC) MOBILE – SU MODE



LOW CHANNEL 6115

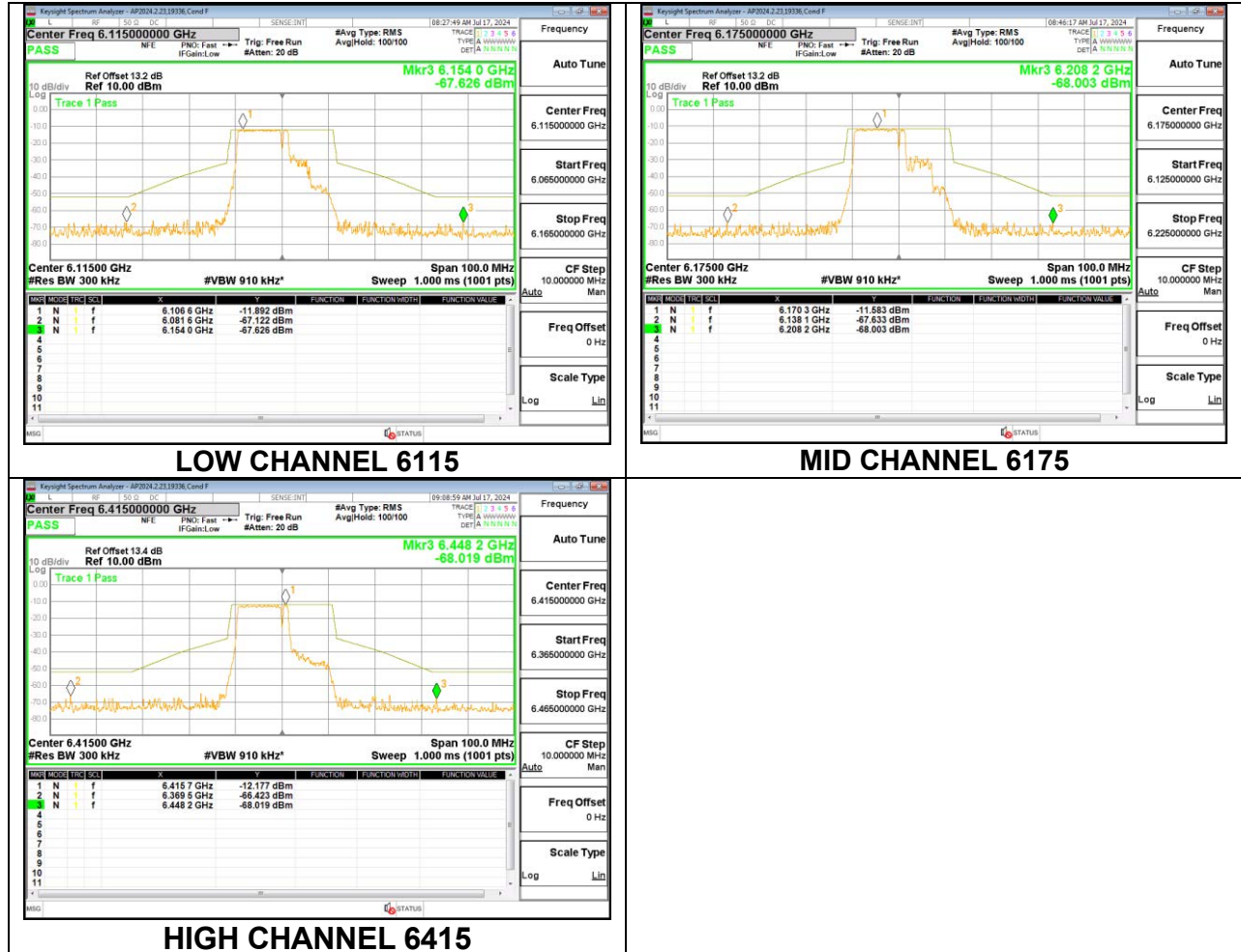


MID CHANNEL 6175

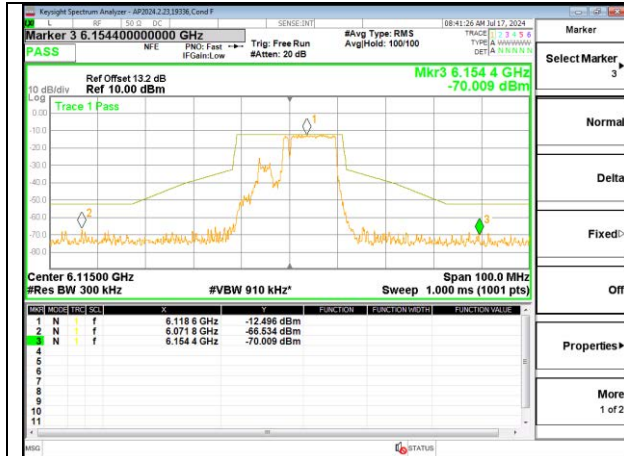


HIGH CHANNEL 6415

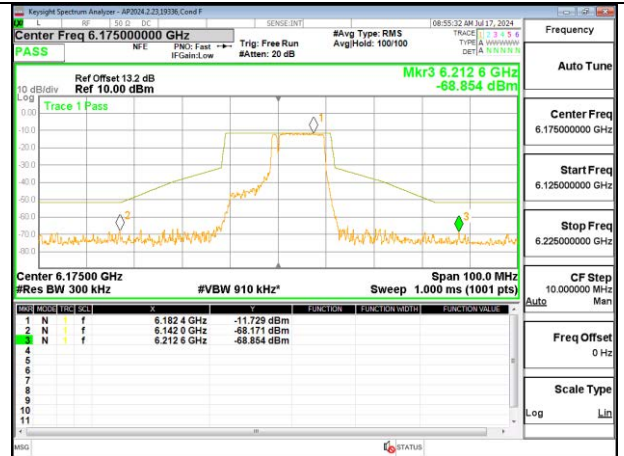
1TX Antenna 5 MODE (FCC+IC) MOBILE – MRU106+26-Tones, RU Index 82



1TX Antenna 5 MODE (FCC+IC) MOBILE – MRU106+26-Tones, RU Index 83



LOW CHANNEL 6115

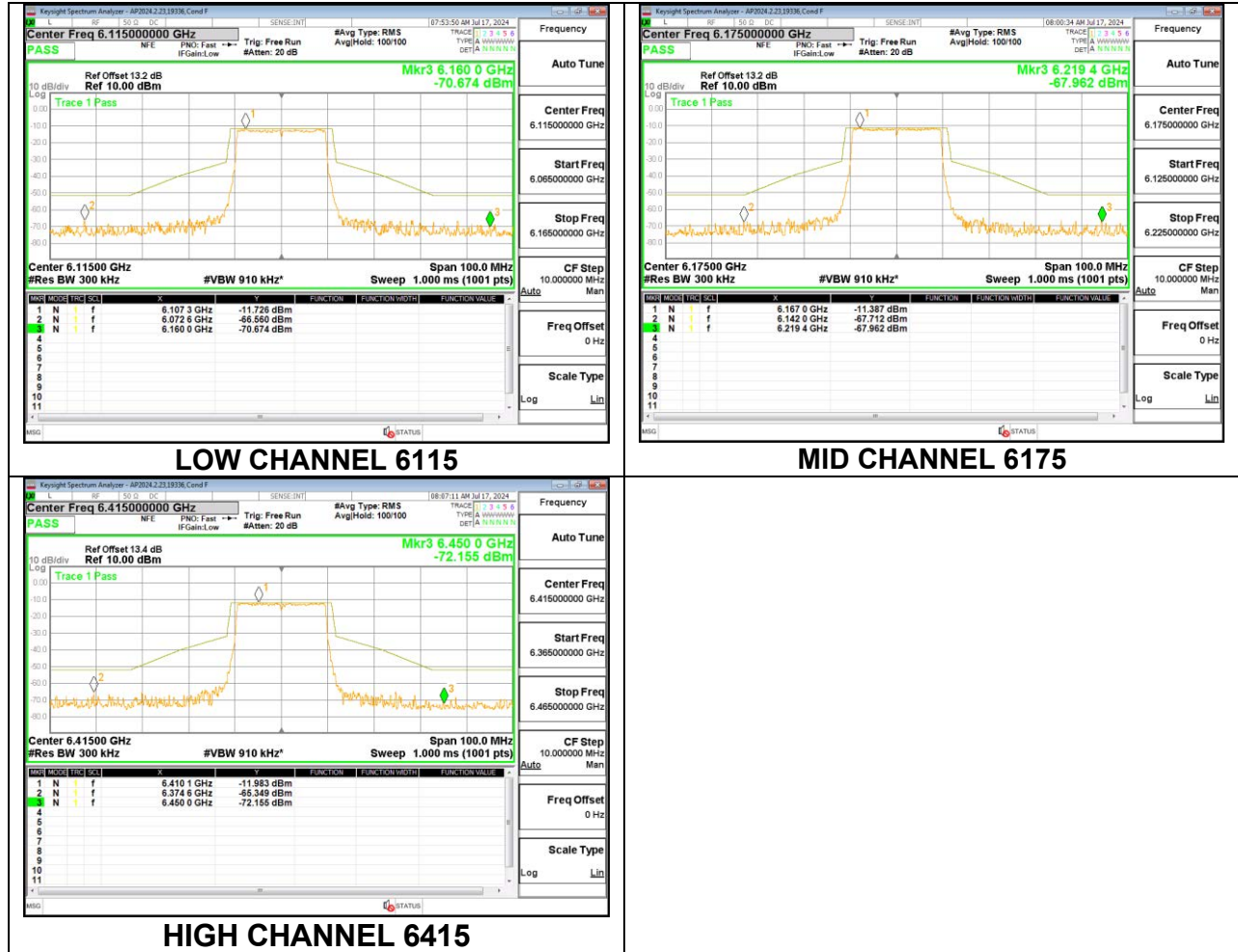


MID CHANNEL 6175

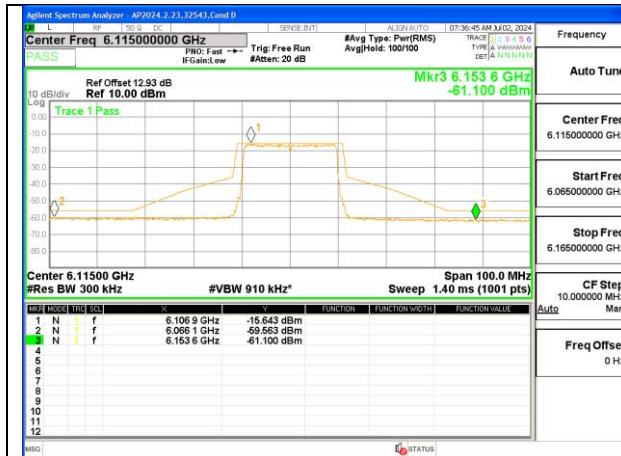


HIGH CHANNEL 6415

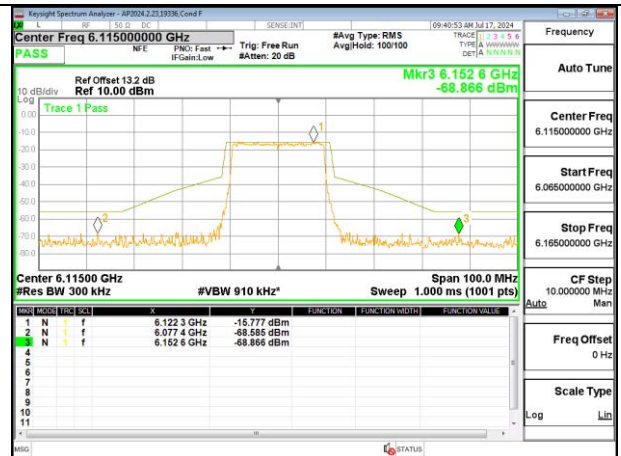
1TX Antenna 5 MODE (FCC+IC) MOBILE – SU MODE



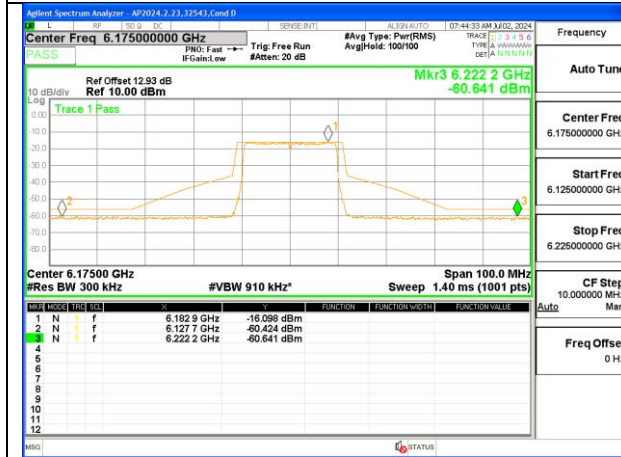
2TX Antenna 6 + Antenna 5 CDD MODE (FCC + IC) – SU MODE



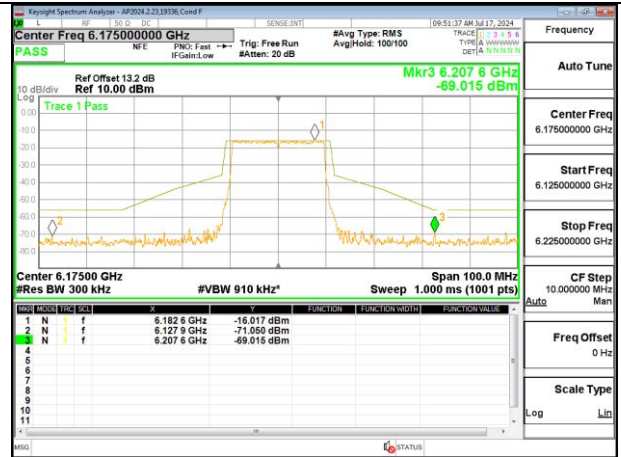
LOW CHANNEL ANT 6 6115



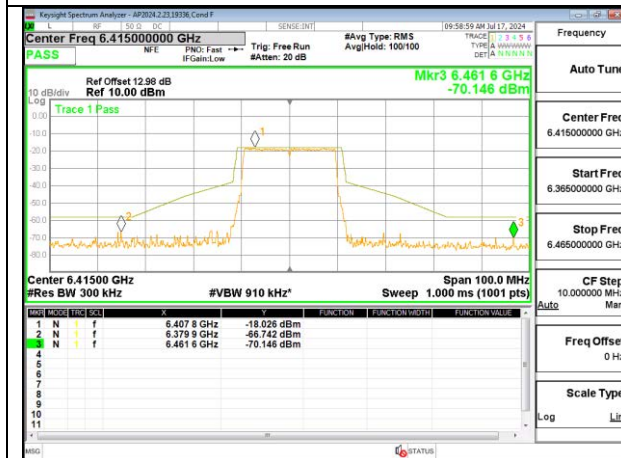
LOW CHANNEL ANT 5 6115



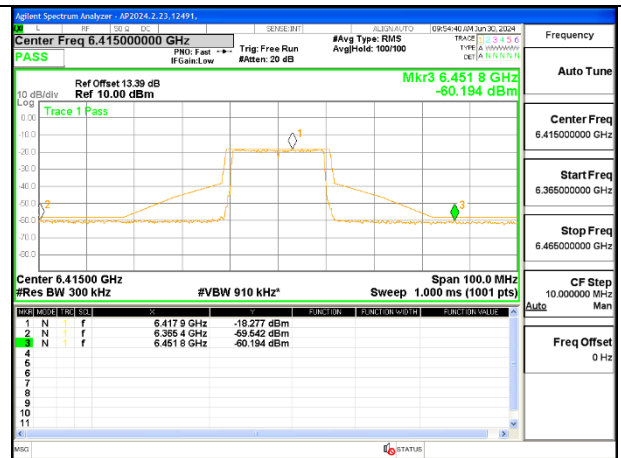
MID CHANNEL ANT 6 6175



MID CHANNEL ANT 5 6175

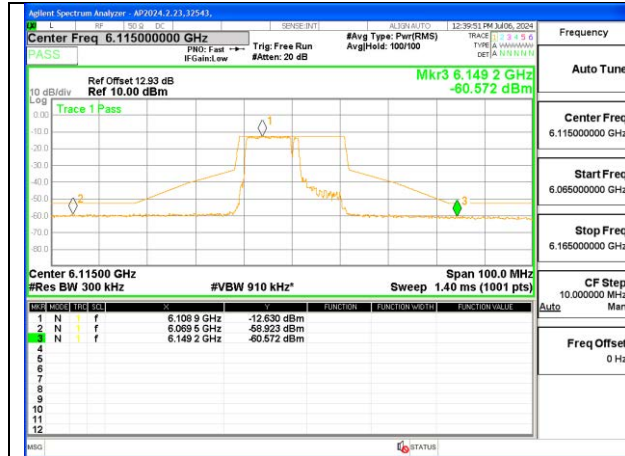


HIGH CHANNEL ANT 6 6415

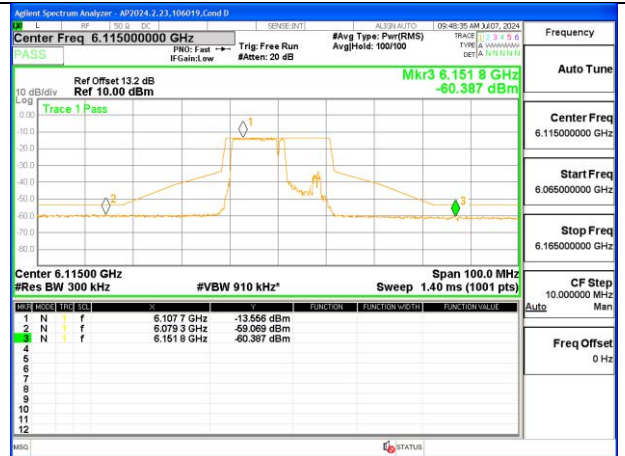


HIGH CHANNEL ANT 5 6415

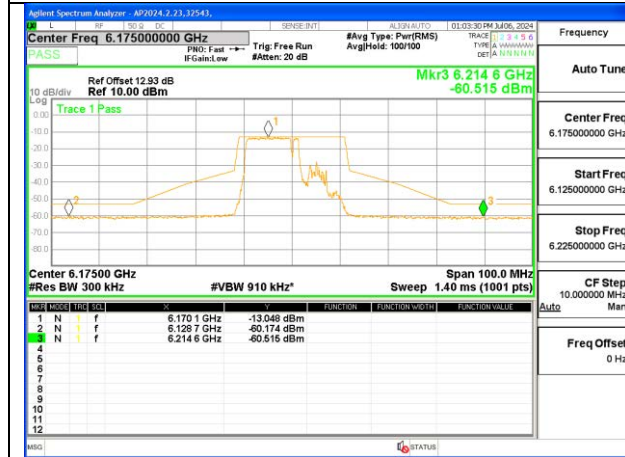
2TX Antenna 6 + Antenna 5 SDM MODE (FCC + IC) – MRU106+26-Tones, RU Index 82



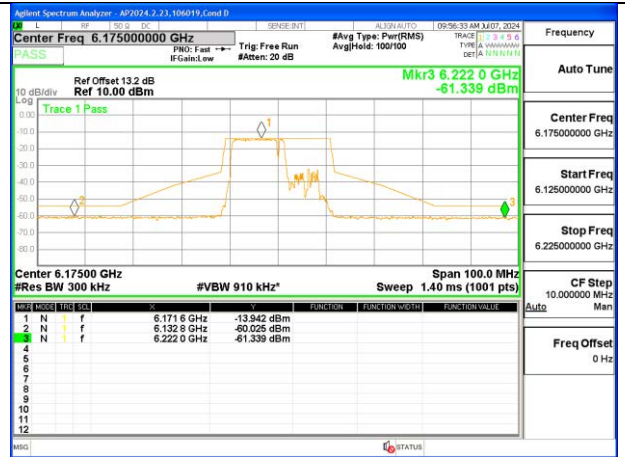
LOW CHANNEL ANT 6 6115



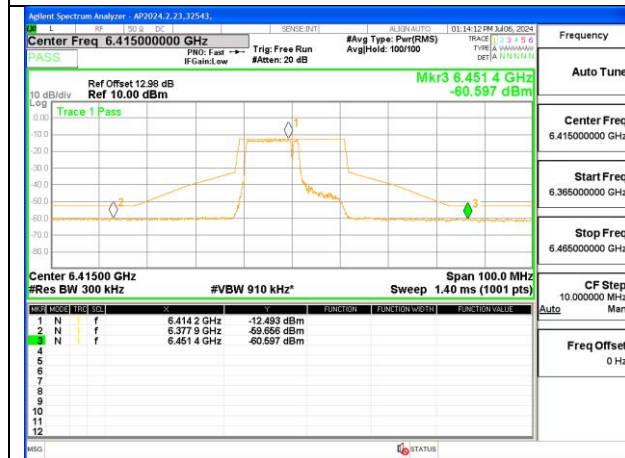
LOW CHANNEL ANT 5 6115



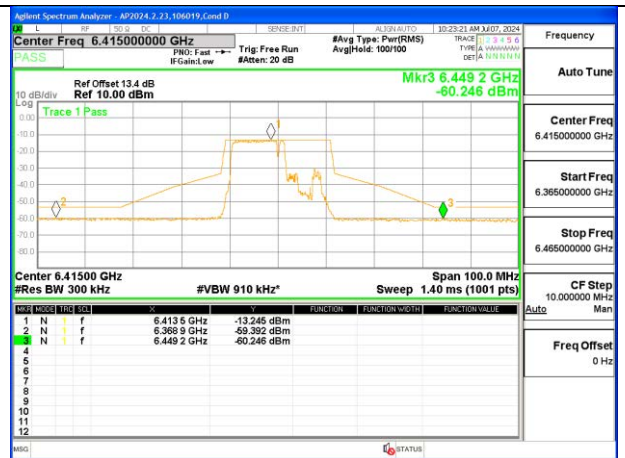
MID CHANNEL ANT 6 6175



MID CHANNEL ANT 5 6175

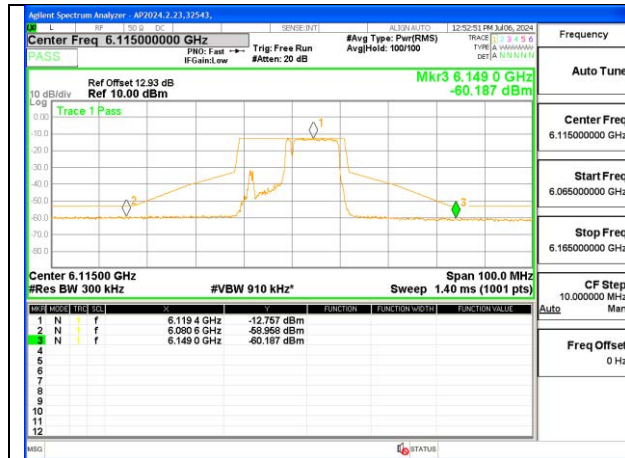


HIGH CHANNEL ANT 6 6415

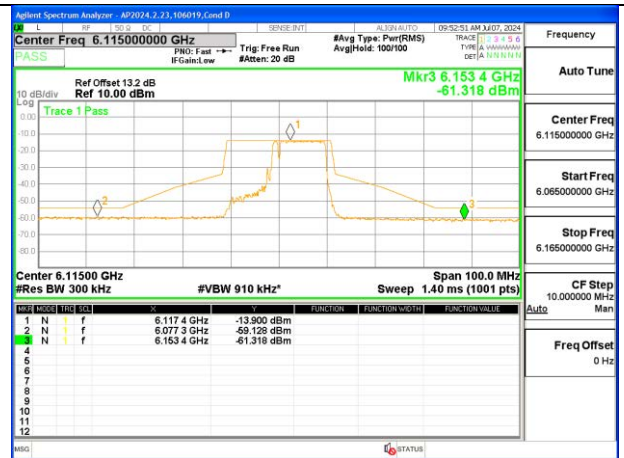


HIGH CHANNEL ANT 5 6415

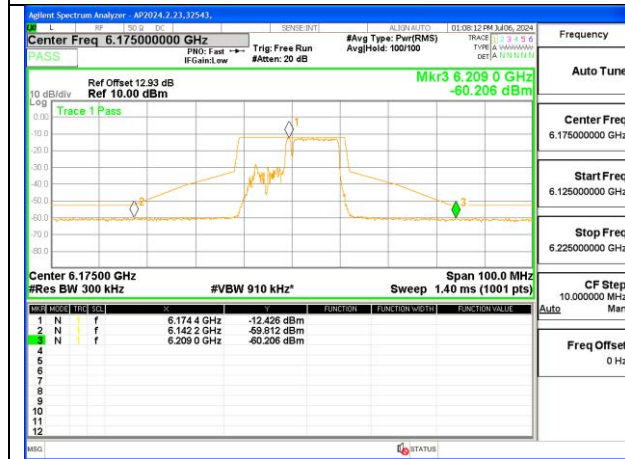
2TX Antenna 6 + Antenna 5 SDM MODE (FCC + IC) – MRU106+26-Tones, RU Index 83



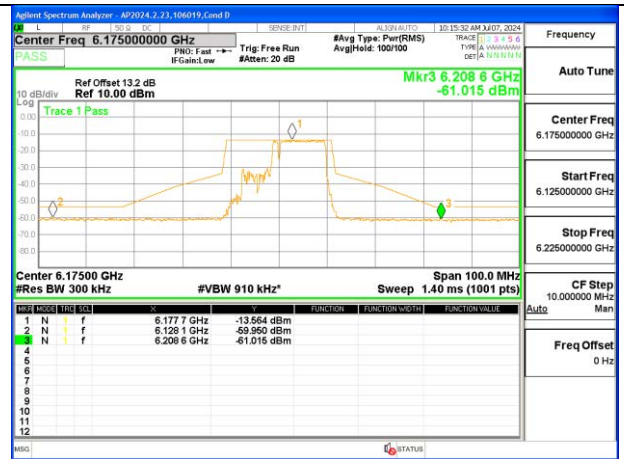
LOW CHANNEL ANT 6 6115



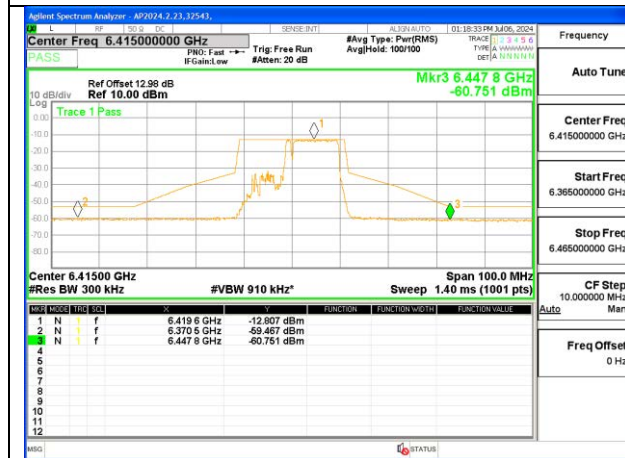
LOW CHANNEL ANT 5 6115



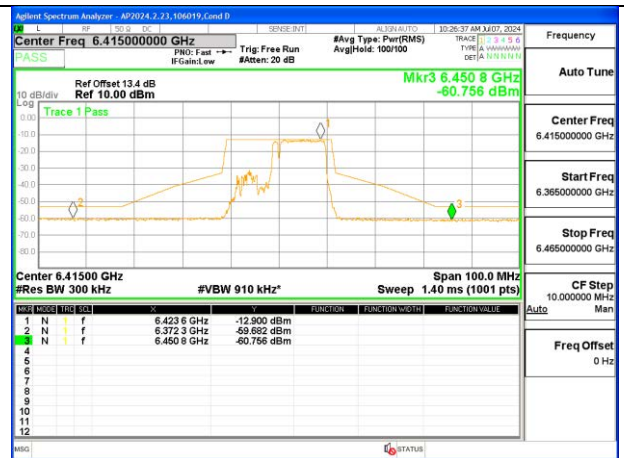
MID CHANNEL ANT 6 6175



MID CHANNEL ANT 5 6175



HIGH CHANNEL ANT 6 6415



HIGH CHANNEL ANT 5 6415