



427 West 12800 South  
Draper, UT 84020

## Test Report Certification

|                                  |                       |
|----------------------------------|-----------------------|
| <b>FCC ID</b>                    | SWX-WAVEML6           |
| <b>ISED ID</b>                   | 6545A-WAVEML6         |
| <b>Equipment Under Test</b>      | Wave-MLO6             |
| <b>Test Report Serial Number</b> | TR10569_02            |
| <b>Date of Test(s)</b>           | 15 May – 11 July 2025 |
| <b>Report Issue Date</b>         | 3 December 2025       |

| <b>Test Specification</b>                                        | <b>Applicant</b>                                                  |
|------------------------------------------------------------------|-------------------------------------------------------------------|
| 47 CFR FCC Part 15, Subpart E<br>RSS-248, Issue 3 (October 2024) | Ubiquiti Inc.<br>685 Third Avenue<br>New York, NY 10017<br>U.S.A. |



NVLAP LAB CODE 600241-0

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## Certification of Engineering Report

This report has been prepared by Unified Compliance Laboratory (UCL) to document compliance of the device described below with the requirement of Federal Communication Commissions (FCC) Part 15, Subpart E and RSS-248, Issue 3 (October 2024). This report may be reproduced in full. Partial reproduction of this report may only be made with the written consent of the laboratory. The results in this report apply only to the sample tested with the specifications provided by the manufacturer.

|                     |               |
|---------------------|---------------|
| <b>Applicant</b>    | Ubiquiti Inc. |
| <b>Manufacturer</b> | Ubiquiti Inc. |
| <b>Brand Name</b>   | UBIQUITI      |
| <b>Model Number</b> | Wave-MLO6     |
| <b>FCC ID</b>       | SWX-WAVEML6   |
| <b>ISED ID</b>      | 6545A-WAVEML6 |

On this 3<sup>rd</sup> day of December 2025, I individually and for Unified Compliance Laboratory certify that the statements made in this engineering report are true, complete and correct to the best of my knowledge and are made in good faith. Unified Compliance laboratory is not responsible for incorrect information provided by the manufacturer.

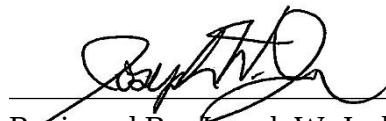
Although NVLAP has accredited the Unified Compliance Laboratory testing facilities, this report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. federal government.

Unified Compliance Laboratory



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Written By: Clay Allred



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Reviewed By: Joseph W. Jackson

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| <b>Revision History</b> |                         |                 |
|-------------------------|-------------------------|-----------------|
| <b>Revision</b>         | <b>Description</b>      | <b>Date</b>     |
| 01                      | Original Report Release | 3 December 2025 |
| 02                      | Section 5.7 Modify      | 9 December 2025 |

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# 1 Client Information

## 1.1 Applicant

|                     |                                                                   |
|---------------------|-------------------------------------------------------------------|
| <b>Company</b>      | Ubiquiti Inc.<br>685 Third Avenue<br>New York, NY 10017<br>U.S.A. |
| <b>Contact Name</b> | Alex Macon                                                        |
| <b>Title</b>        | Compliance                                                        |

## 1.2 Manufacturer

|                     |                                                                   |
|---------------------|-------------------------------------------------------------------|
| <b>Company</b>      | Ubiquiti Inc.<br>685 Third Avenue<br>New York, NY 10017<br>U.S.A. |
| <b>Contact Name</b> | Alex Macon                                                        |
| <b>Title</b>        | Compliance                                                        |

## 2 Equipment Under Test (EUT)

### 2.1 Identification of EUT

|                        |                      |                  |
|------------------------|----------------------|------------------|
| <b>Brand Name</b>      |                      | UBIQUITI         |
| <b>Model Number</b>    |                      | Wave-MLO6        |
| <b>Serial Number</b>   |                      | 2FE39D           |
| <b>Dimensions (cm)</b> |                      | 24.9 x 8.2 x 4.8 |
| <b>Antenna 1:</b>      | <b>Manufacturer:</b> | UBIQUITI         |
|                        | <b>Model:</b>        | UISP-Dish        |
|                        | <b>Gain:</b>         | 30 dBi           |
|                        | <b>Type:</b>         | Dish             |
| <b>Antenna 2:</b>      | <b>Manufacturer:</b> | UBIQUITI         |
|                        | <b>Model:</b>        | UISP-Horn        |
|                        | <b>Gain:</b>         | 19.5 dBi         |
|                        | <b>Type:</b>         | Horn             |

### 2.2 Description of EUT

The Wave-MLO6 is a 5 GHz and 6 GHz point-to-point customer premise equipment which features wave technology with a high throughput rate. The 5 GHz radio supports U-NII-1, U-NII-2 and U-NII-3 bands. The 6 GHz radio support U-NII-5 and U-NII-7 bands. The Wave-MLO6 has Bluetooth LE transceiver for system management. The Wave-MLO6 is an outdoor device and has an Ethernet port which is used for data transfer and is powered using a Model U-POE++ 48-volt PoE power adapter.

This device does not support channel puncturing.

The following is list of the antennas that the Wave-MLO6 can use. However, testing was performed considering only the Max and Min antenna gain antennas.

| <b>Antenna Type</b> | <b>Model Number</b> | <b>Antenna Gain (dBi)</b> |
|---------------------|---------------------|---------------------------|
| Dish                | UISP Dish           | 30                        |
|                     | UISP Dish Mini      | 26                        |
| Horn                | UISP Horn           | 19                        |

For CDD transmission, direction gain is calculated as follows.

#### UISP- Dish:

Array Gain =  $10 \log(\text{NANT}/\text{NSS})$  dB

NANT = number of transmit antennas and NSS = number of spatial streams. NSS = 1 considered worst case. For power measurements on IEEE 802.11 devices, Array Gain = 0 dB for  $\text{NANT} \leq 4$ ;

For PSD measurements when Nss=1: Array Gain =  $10 \log(\text{NANT}/\text{NSS})$  dB + Antenna Gain (dBi). Or 3.01 dB + 30 dBi = 33.01 dBi.

#### UISP-Horn:

Array Gain =  $10 \log(\text{NANT}/\text{NSS})$  dB

NANT = number of transmit antennas and NSS = number of spatial streams. NSS = 1 considered worst case. For power measurements on IEEE 802.11 devices, Array Gain = 0 dB for  $\text{NANT} \leq 4$ ;

For PSD measurements when Nss=1: Array Gain =  $10 \log(\text{NANT}/\text{NSS})$  dB + Antenna Gain (dBi). Or 3.01 dB + 19.5 dBi = 22.51 dBi.

This report covers the circuitry of the device subject to FCC Part 15, Subpart E. The circuitry of the device subject to FCC Part 15 Subpart B was found to be compliant and is covered under a separate Unified Compliance Laboratory test report.

The table below show the channels used within the different modulation bandwidths.

| Band   | Modulation Bandwidth | Frequency (MHz) | Maximum Power Setting |
|--------|----------------------|-----------------|-----------------------|
| UNII-7 | be (HE20)            | 6535            | 13                    |
|        |                      | 6695            | 14                    |
|        |                      | 6875            | 14                    |
|        | be (HE40)            | 6525            | 14                    |
|        |                      | 6685            | 14                    |
|        |                      | 6885            | 14                    |
|        | be (HE80)            | 6545            | 14                    |
|        |                      | 6705            | 14                    |
|        |                      | 6865            | 14                    |
|        | be (HE160)           | 6505            | 13                    |
|        |                      | 6665            | 13                    |
|        |                      | 6825            | 13                    |
|        | be (HE320)           | 6585            | 13                    |

## 2.3 EUT and Support Equipment

The EUT and support equipment used during the test are listed below.

| Brand Name<br>Model Number<br>Serial Number | Description             | Name of Interface Ports /<br>Interface Cables |
|---------------------------------------------|-------------------------|-----------------------------------------------|
| BN: UBIQUITI<br>MN: Wave-MLO6<br>SN: 2FE39D | Wireless Point-to-Point | See Section 2.4                               |

|                                         |                          |                                               |
|-----------------------------------------|--------------------------|-----------------------------------------------|
| BN: UBIQUITI<br>MN: U-POE-at<br>SN: N/A | PoE Power Adapter        | Shielded or Un-shielded Cat 5e cable (Note 2) |
| BN: Dell<br>MN: XPS 13<br>SN: N/A       | Laptop Personal Computer | Shielded or Un-shielded Cat 5e cable (Note 2) |

Notes: (1) EUT

(2) Interface port connected to EUT (See Section 2.4)

The support equipment listed above was not modified in order to achieve compliance with this standard.

## 2.4 Interface Ports on EUT

| Name of Ports             | No. of Ports Fitted to EUT | Cable Description/Length                  |
|---------------------------|----------------------------|-------------------------------------------|
| PoE Input                 | 1                          | 7m Shielded Cat 5E                        |
| PoE Output (PoE Injector) | 1                          | 7m Shielded Cat 5E to Wave-MLO6 PoE Input |
| LAN (PoE Injector)        | 1                          | unshielded Cat 5E to Laptop PC            |
| AC (PoE Injector)         | 1                          | 3 Conductor power cord to AC mains/80cm   |

## 2.5 Operating Environment

|                     |                |
|---------------------|----------------|
| Power Supply        | 120 VAC        |
| AC Mains Frequency  | 60 Hz          |
| Temperature         | 18.1 – 24.2 °C |
| Humidity            | 24 – 36 %      |
| Barometric Pressure | 1020 mBar      |

## 2.6 Operating Modes

The Wave-MLO6 was tested using test software in order to enable a constant transmission. The measurements within this report are corrected to reference a 100% duty cycle. All emission modes of 802.11 be were investigated. All measurements are reported with the worst-case mode (802.11be maximum conducted output power and maximum power spectral density) unless otherwise stated.

## 2.7 EUT Exercise Software

EUT firmware version 1.0 was used to operate the transmitter using a constant transmit mode.

## 2.8 Block Diagram of Test Configuration

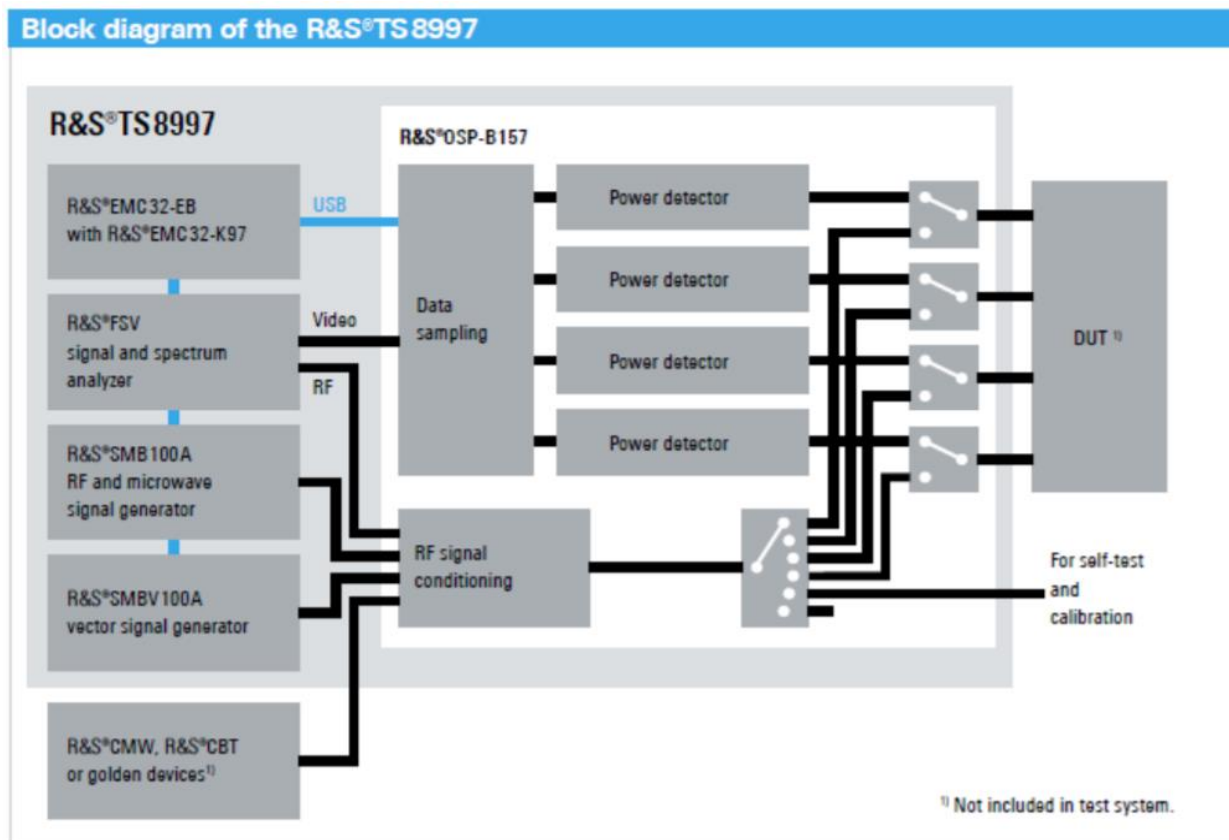


Diagram 1: Test Configuration Block Diagram

## 2.9 Modification Incorporated/Special Accessories on EUT

There were no modifications made to the EUT during testing to comply with the specification.

## 2.10 Deviation, Opinions Additional Information or Interpretations from Test Standard

There were no deviations, opinions, additional information or interpretations from the test specification.

## 3 Test Specification, Method and Procedures

### 3.1 Test Specification

|                        |                                                                                                                                                                                       |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title</b>           | 47 CFR FCC Part 15, Subpart E, Section 15.407<br>Limits and methods of measurement of radio interference characteristics of<br>Unlicensed National Information Infrastructure Devices |
| <b>Purpose of Test</b> | The tests were performed to demonstrate initial compliance                                                                                                                            |

### 3.2 Methods & Procedures

#### 3.2.1 47 CFR FCC Part 15 Section 15.407

See test standard for details.

### 3.3 FCC Part 15, Subpart E

#### 3.3.1 Summary of Tests

| FCC Section                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ISED Section | Environmental Phenomena                           | Frequency Range (MHZ)  | Result                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------|------------------------|--------------------------|
| 15.203                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | N/A          | Antenna requirements                              | Structural Requirement | Compliant                |
| 15.207                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | RSS-Gen      | Conducted Disturbance at Mains Port               | 0.15 to 30             | Compliant                |
| 15.407(a)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | RSS-248 §4.4 | Bandwidth Requirement                             | 6535 to 6865           | Compliant                |
| 15.407(a)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | RSS-248 §4.5 | Peak Output Power <sup>1</sup>                    | 6535 to 6865           | Compliant                |
| 15.407(b)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | RSS-248 §4.6 | Antenna Conducted Spurious Emissions <sup>1</sup> | 0.009 to 40000         | N/A<br>Note <sup>2</sup> |
| 15.209                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | RSS-248 §4.6 | Radiated Spurious Emissions                       | 0.009 to 40000         | Compliant                |
| 15.407(a)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | RSS-248 §4.5 | Peak Power Spectral Density <sup>1</sup>          | 6535 to 6865           | Compliant                |
| 15.407(d)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | RSS-248 §4.7 | Contention Based Protocol                         | 6535 to 6885           | Compliant                |
| <p>The testing was performed according to the procedures in ANSI C63.10-2013, KDB 789033, KDB 987594 and 47 CFR Part 15. Where applicable, KDB 662911 was followed to sum required measurements.</p> <p>Note <sup>1</sup>: Various RU modes were considered for RF Power, PSD, and Spurious Emissions, and the "single client" RU mode is the worst case - the results herein are "single client" RU mode.</p> <p>Note <sup>2</sup>: Radiated Spurious was performed per 15.209 with the antenna unterminated.</p> |              |                                                   |                        |                          |

### 3.4 Results

In the configuration tested, the EUT complied with the requirements of the specification.

### **3.5 Test Location**

Testing was performed at the Unified Compliance Laboratory 3-Meter and 10-Meter chambers located at 427 West 12800 South, Draper, UT 84020. Unified Compliance Laboratory is accredited by National Voluntary Laboratory Accreditation Program (NVLAP); NVLAP Code 600241-0 which is effective until 30 June 2026. This site has also been registered with Innovations, Science and Economic Development (ISED) department as was accepted under Appendix B, Phase 1 procedures of the APEC Tel MRA for Canadian recognition. ISED No.: 25346, effective until 30 June 2026.

Unified Compliance Laboratory has been assigned Registration Number 376708 by the FCC, MRA Designation Number US5037 and Conformity Assessment Number US0223 by ISED.

## 4 Test Equipment

### 4.1 Conducted Emissions at Mains Ports

| Type of Equipment | Manufacturer        | Model Number | Asset Number | Date of Last Calibration | Due Date of Calibration |
|-------------------|---------------------|--------------|--------------|--------------------------|-------------------------|
| EMI Receiver      | AFJ                 | FFT3010      | UCL-6754     | 2/27/2025                | 2/27/2026               |
| LISN              | AFJ                 | LS16C/10     | UCL-6749     | 3/3/2025                 | 3/3/2026                |
| ISN               | Teseq               | ISN T800     | UCL-2971     | 3/31/2025                | 3/31/2026               |
| AC Power Source   | Laplace Instruments | AC1000A      | UCL-2857     | N/A                      | N/A                     |
| Test Software     | UCL                 | Revision 1   | UCL-3107     | N/A                      | N/A                     |

Table 1: List of equipment used for Conducted Emissions Testing at Mains Port

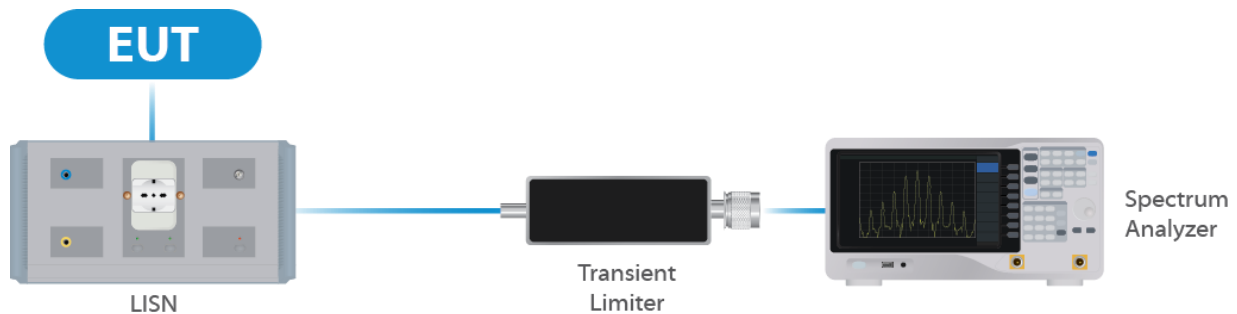


Figure 1: Conducted Emissions Test

### 4.2 Direct Connect at the Antenna Port Tests

| Type of Equipment       | Manufacturer | Model Number | Asset Number | Date of Last Calibration | Due Date of Calibration |
|-------------------------|--------------|--------------|--------------|--------------------------|-------------------------|
| Spectrum Analyzer       | R&S          | FSV40        | UCL-2861     | 1/16/2025                | 1/16/2026               |
| Signal Generator        | R&S          | SMB100A      | UCL-2864     | N/A                      | N/A                     |
| Vector Signal Generator | R&S          | SMBV100A     | UCL-2873     | N/A                      | N/A                     |
| Switch Extension        | R&S          | OSP-B157WX   | UCL-2867     | 4/28/2025                | 1/16/2026               |
| Switch Extension        | R&S          | OSP-150W     | UCL-2870     | 4/28/2025                | 1/16/2026               |
| Test Software           | R&S          | EMC32        | UCL-9442     | --                       | --                      |

Table 2: List of equipment used for Direct Connect at the Antenna Port

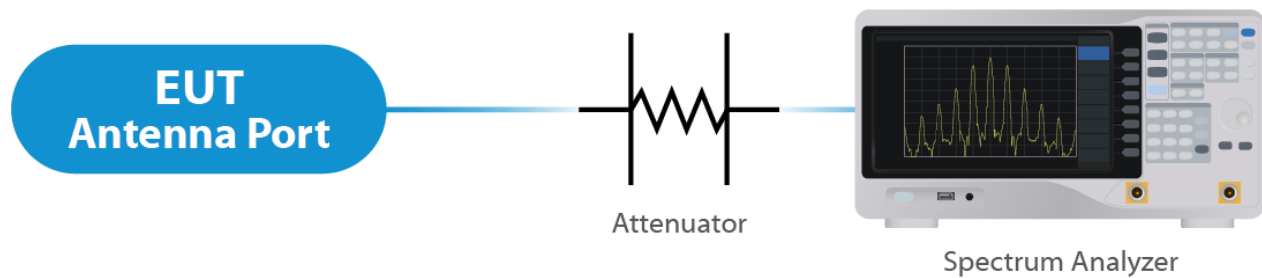


Figure 2: Direct Connect at the Antenna Port Test

### 4.3 Radiated Emissions

| Type of Equipment              | Manufacturer       | Model Number | Asset Number        | Date of Last Calibration | Due Date of Calibration |
|--------------------------------|--------------------|--------------|---------------------|--------------------------|-------------------------|
| EMI Receiver                   | Keysight           | N9038A       | UCL-2778            | 12/27/2024               | 12/27/2025              |
| Pre-Amplifier<br>9 kHz – 1 GHz | Sonoma Instruments | 310N         | UCL-2889            | 1/19/2024                | 1/19/2026               |
| Broadband Antenna              | ETS-Lindgren       | 3142E        | UCL-9782            | 2/6/2025                 | 2/6/2026                |
| Double Ridge Horn Antenna      | Scwarzbeck         | BBHA 9120D   | UCL-3065            | 4/2/2025                 | 4/2/2027                |
| Log Periodic                   | Scwarzbeck         | STLP 9129    | UCL-3068            | 2/11/2025                | 2/4/2027                |
| 10 - 40 GHz Horn Antenna       | ETS-Lindgren       | 3116C        | UCL-7209            | 6/6/2024                 | 6/6/2026                |
| 1 – 18 GHz Amplifier           | Com-Power          | PAM 118A     | UCL-3833            | 7/22/2025                | 7/22/2026               |
| Test Software                  | Nexio              | BatEMC       | UCL-5253 & UCL-5249 | N/A                      | N/A                     |

Table 3: List of equipment used for Radiated Emissions

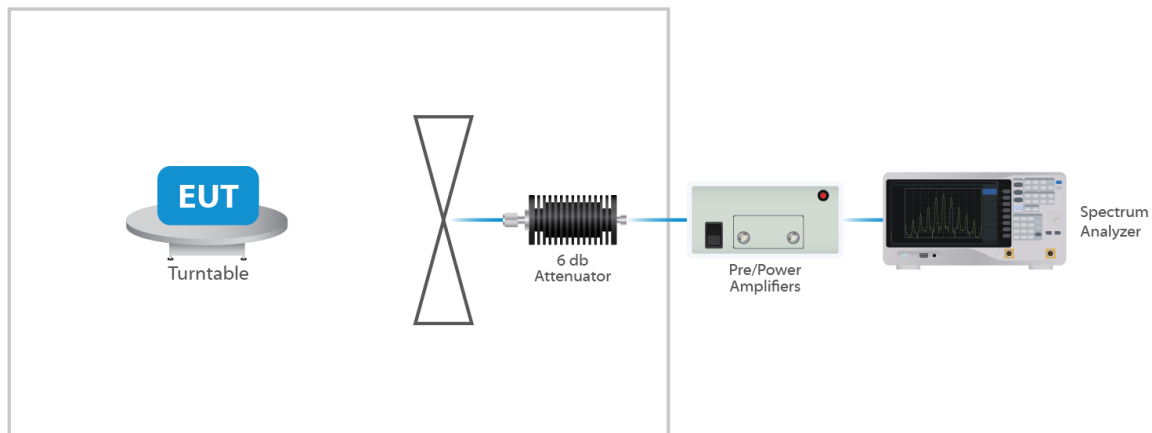


Figure 3: Radiated Emissions Test

## 4.4 Contention Base Protocol Tests

| Type of Equipment | Manufacturer | Model Number | Asset Number | Date of Last Calibration | Due Date of Calibration |
|-------------------|--------------|--------------|--------------|--------------------------|-------------------------|
| Spectrum Analyzer | Keysight     | N9010B EXA   | UCL-7069     | 5/20/2025                | 5/20/2026               |
| Signal Generator  | Keysight     | MXG-B        | UCL-6291     | 6/28/2024                | 6/28/2026               |
| MIMO Test Set     | Keysight     | X8750A       | UCL-7372     | 10/20/2025               | 9/26/2026               |

Table 4: List of equipment used for Direct Connect at the Antenna Port

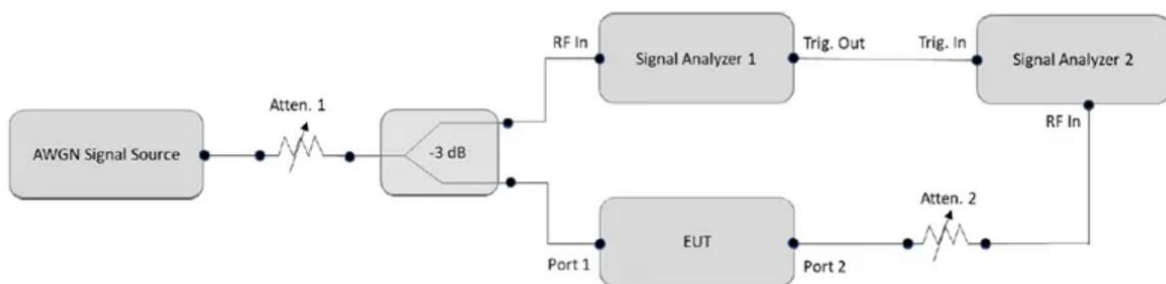


Figure 1. CBP conducted test setup diagram. Source: KDB 987594 D02 V01r01

Figure 4: Contention Base Protocol Test

## 4.5 Equipment Calibration

All applicable equipment is calibrated using either an independent calibration laboratory or Unified Compliance Laboratory personnel at intervals defined in ANSI C63.4:2014 following outlined calibration procedures. All measurement instrumentation is traceable to the National Institute of Standards and Technology (NIST). Supporting documentation relative to traceability is on file and is available for examination upon request.

## 4.6 Measurement Uncertainty

| Test                                  | Uncertainty ( $\pm$ dB) | Confidence (%) |
|---------------------------------------|-------------------------|----------------|
| Conducted Emissions                   | 1.44                    | 95             |
| Radiated Emissions (9 kHz to 30 MHz)  | 2.50                    | 95             |
| Radiated Emissions (30 MHz to 1 GHz)  | 4.38                    | 95             |
| Radiated Emissions (1 GHz to 18 GHz)  | 4.37                    | 95             |
| Radiated Emissions (18 GHz to 40 GHz) | 3.93                    | 95             |
| <b>Direct Connect Tests</b>           | <b>K Factor</b>         | <b>Value</b>   |
| Emissions Bandwidth                   | 2                       | 2.0%           |
| Output Power                          | 2                       | 1.0 dB         |
| Peak Power Spectral Density           | 2                       | 1.3 dB         |
| Band Edge                             | 2                       | 0.8 dB         |
| Transmitter Spurious Emissions        | 2                       | 1.8 dB         |

## 5 Test Results

### 5.1 §15.203 Antenna Requirements

The EUT uses a Dish and a Horn. Per the manufacturer, the Maximum gain of the antenna per chain is 30dBi and 19.5dBi dBi. This is an 802.11 device and utilizes CDD as described in KDB 662911 D01. The antenna is user replaceable.

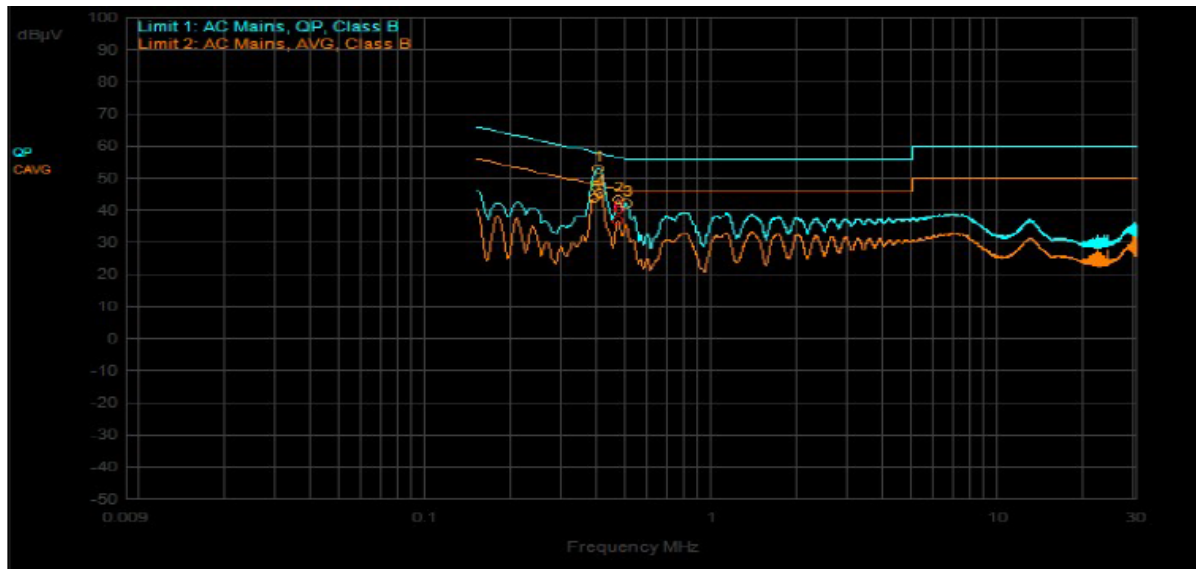
See Section 2.2 for directional gain calculation.

#### Results

The EUT complied with the specification

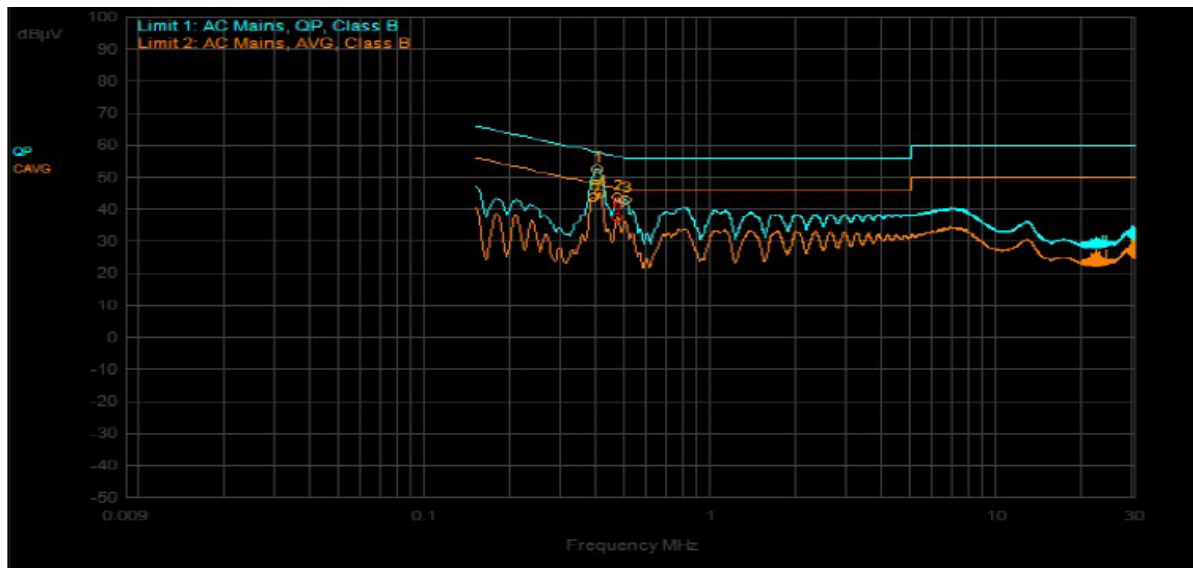
## 5.2 §15.207 Conducted Emissions at Mains Ports Data

### 5.2.1 Line



| ID | Frequency  | Probe | Cable | Atten. | Detector | Meter Read | Meas Level | Limit 1 | Limit 1 Dist. | Limit 2 | Limit 2 Dist. | P/F |
|----|------------|-------|-------|--------|----------|------------|------------|---------|---------------|---------|---------------|-----|
| MU | MHz        | dB    | dB    | dB     | Type     | dBµV       | dBµV       | dBµV    | dB            | dBµV    | dB            | P/F |
| 1  | 399,000kHz | 12.38 | 0.00  |        | QPeak    | 40.58      | 52.96      | 57.87   | -4.92         |         |               |     |
| 2  | 465,000kHz | 12.36 | 0.00  |        | QPeak    | 30.89      | 43.25      | 56.60   | -13.36        |         |               |     |
| 3  | 498,000kHz | 12.35 | 0.00  |        | QPeak    | 29.69      | 42.04      | 56.03   | -13.99        |         |               |     |
| 4  | 402,000kHz | 12.38 | 0.00  |        | C_AVG    | 33.16      | 45.54      |         |               | 47.81   | -2.27         |     |
| 5  | 384,000kHz | 12.38 | 0.00  |        | C_AVG    | 31.37      | 43.75      |         |               | 48.19   | -4.44         |     |
| 6  | 465,000kHz | 12.36 | 0.00  |        | C_AVG    | 24.35      | 36.71      |         |               | 46.60   | -9.90         |     |

## 5.2.2 Neutral



| ID | Frequency  | Probe | Cable | Atten. | Detector | Meter Read | Meas Level | Limit 1 | Limit 1 Dist. | Limit 2 | Limit 2 Dist. | P/F |
|----|------------|-------|-------|--------|----------|------------|------------|---------|---------------|---------|---------------|-----|
| MU | MHz        | dB    | dB    | dB     | Type     | dBµV       | dBµV       | dBµV    | dB            | dBµV    | dB            | P/F |
| 1  | 396,000kHz | 12.37 | 0.00  |        | QPeak    | 40.21      | 52.58      | 57.94   | -5.36         |         |               |     |
| 2  | 468,000kHz | 12.37 | 0.00  |        | QPeak    | 31.47      | 43.84      | 56.55   | -12.71        |         |               |     |
| 3  | 498,000kHz | 12.37 | 0.00  |        | QPeak    | 30.52      | 42.89      | 56.03   | -13.15        |         |               |     |
| 4  | 405,000kHz | 12.37 | 0.00  |        | C_AVG    | 32.64      | 45.01      |         |               | 47.75   | -2.74         |     |
| 5  | 384,000kHz | 12.37 | 0.00  |        | C_AVG    | 31.52      | 43.89      |         |               | 48.19   | -4.31         |     |
| 6  | 468,000kHz | 12.37 | 0.00  |        | C_AVG    | 24.99      | 37.36      |         |               | 46.55   | -9.19         |     |

## Result

The EUT complied with the specification limit.

### 5.3 §15.407(a) 26 dB Emissions Bandwidth

All chains were measured under the guidance of KDB 789033 Section II.C. and KDB 662911 D01.

Please see associated annex for details on instrument settings.

#### Horn Antenna

| Nominal BW (MHz) | Frequency (MHz) | 99% Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------------|-----------------|---------------------|-----------------------|
| EHT 20           | 6535            | 19.18               | 23.22                 |
| EHT 20           | 6695            | 19.33               | 23.52                 |
| EHT 20           | 6875            | 19.18               | 22.77                 |
| EHT 40           | 6525            | 38.25               | 43.50                 |
| EHT 40           | 6685            | 38.25               | 44.00                 |
| EHT 40           | 6885            | 38.25               | 44.25                 |
| EHT 80           | 6545            | 77.50               | 86.00                 |
| EHT 80           | 6705            | 78.00               | 90.00                 |
| EHT 80           | 6865            | 78.00               | 87.50                 |
| EHT 160          | 6505            | 158.00              | 168.00                |
| EHT 160          | 6665            | 157.00              | 168.00                |
| EHT 160          | 6825            | 157.00              | 165.00                |
| EHT 320          | 6585            | 317.50              | 317.50                |

#### Dish Antenna

| Nominal BW (MHz) | Frequency (MHz) | 99% Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------------|-----------------|---------------------|-----------------------|
| EHT 20           | 6535            | 19.18               | 22.62                 |
| EHT 20           | 6695            | 19.18               | 22.62                 |
| EHT 20           | 6875            | 19.18               | 23.22                 |
| EHT 40           | 6525            | 38.25               | 44.00                 |
| EHT 40           | 6685            | 38.50               | 42.75                 |
| EHT 40           | 6885            | 38.25               | 43.00                 |
| EHT 80           | 6545            | 78.00               | 89.00                 |
| EHT 80           | 6705            | 78.00               | 88.00                 |
| EHT 80           | 6865            | 77.50               | 84.50                 |
| EHT 160          | 6505            | 158.00              | 168.00                |
| EHT 160          | 6665            | 157.00              | 170.00                |
| EHT 160          | 6825            | 158.00              | 166.00                |
| EHT 320          | 6585            | 317.50              | 317.50                |

#### Result

All chains were tested and the highest bandwidth per chain is reported above. For the 320 MHz emissions bandwidth the 99% bandwidth was used. Please see Annex for all bandwidth measurements.

## 5.4 §15.407(a)(4) Maximum Average Output Power

All chains were measured and summed under the guidance of KDB 789033 Section II. E.2. and KDB 662911 D01. Please see associated annex for details on instrument settings.

See Section 2.2 of this report for the directional gain calculation.

For use with the Horn Antenna The maximum average RF conducted output power measured for this device was 16.48 dBm or 44.5 mW. The limit is 36 dBm EIRP, or 4 Watt EIRP. The antenna has a gain of 19.5 dBi.

For use with the Horn Antenna The maximum average RF conducted output power measured for this device was 5.96 dBm or 3.9 mW. The limit is 36 dBm EIRP, or 4 Watt EIRP. The antenna has a gain of 30.0 dBi.

### Output Power Per Chain

| Modulation<br>(BW) | Frequency<br>(MHz) | Horn Antenna    |                 |                                 | Dish Antenna    |                 |                                 |
|--------------------|--------------------|-----------------|-----------------|---------------------------------|-----------------|-----------------|---------------------------------|
|                    |                    | Chain0<br>(dBm) | Chain1<br>(dBm) | Total Output<br>Power*<br>(dBm) | Chain0<br>(dBm) | Chain1<br>(dBm) | Total Output<br>Power*<br>(dBm) |
| EHT 20             | 6595               | 12.81           | 12.74           | 15.79                           | 2.76            | 2.54            | 5.66                            |
| EHT 20             | 6715               | 12.77           | 13.75           | 16.30                           | 1.77            | 2.81            | 5.33                            |
| EHT 20             | 6855               | 13.25           | 13.46           | 16.37                           | 1.34            | 2.49            | 4.96                            |
| EHT 40             | 6605               | 13.44           | 13.27           | 16.37                           | 2.34            | 2.42            | 5.39                            |
| EHT 40             | 6725               | 12.93           | 13.57           | 16.27                           | 1.87            | 2.71            | 5.32                            |
| EHT 40             | 6845               | 13.5            | 13.3            | 16.42                           | 1.98            | 2.57            | 5.29                            |
| EHT 80             | 6625               | 13.48           | 13.45           | 16.48                           | 2.77            | 2.46            | 5.63                            |
| EHT 80             | 6705               | 12.86           | 13.66           | 16.29                           | 2.66            | 3.21            | 5.96                            |
| EHT 80             | 6865               | 13.46           | 13.42           | 16.45                           | 1.81            | 2.42            | 5.13                            |
| EHT 160            | 6665               | 12.73           | 12.61           | 15.68                           | 1.97            | 1.94            | 4.96                            |
| EHT 160            | 6825               | 12.36           | 12.85           | 15.63                           | 2.05            | 2.28            | 5.18                            |
| EHT 320            | 6745               | 12.98           | 12.91           | 15.96                           | 3.16            | 2.55            | 5.87                            |
| EHT 20             | 6595               | 12.64           | 13.1            | 15.88                           | 2               | 3.17            | 5.64                            |

**Nss>1 Horn Antenna**

| Modulation (BW) | Frequency (MHz) | Data Rate | TP Setting | Total Summed Output Power* (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
|-----------------|-----------------|-----------|------------|----------------------------------|--------------------|------------|-------------|--------------|
| EHT 20          | 6595            | Mcs0_Nss4 | 13         | 15.79                            | 19.5               | 35.29      | 36          | -0.71        |
| EHT 20          | 6715            | Mcs0_Nss4 | 14         | 16.30                            | 19.5               | 35.80      | 36          | -0.2         |
| EHT 20          | 6855            | Mcs0_Nss4 | 14         | 16.37                            | 19.5               | 35.87      | 36          | -0.13        |
| EHT 40          | 6605            | Mcs0_Nss4 | 14         | 16.37                            | 19.5               | 35.87      | 36          | -0.13        |
| EHT 40          | 6725            | Mcs0_Nss4 | 14         | 16.27                            | 19.5               | 35.77      | 36          | -0.23        |
| EHT 40          | 6845            | Mcs0_Nss4 | 14         | 16.42                            | 19.5               | 35.92      | 36          | -0.08        |
| EHT 80          | 6625            | Mcs0_Nss4 | 14         | 16.48                            | 19.5               | 35.98      | 36          | -0.02        |
| EHT 80          | 6705            | Mcs0_Nss4 | 14         | 16.29                            | 19.5               | 35.79      | 36          | -0.21        |
| EHT 80          | 6865            | Mcs0_Nss4 | 14         | 16.45                            | 19.5               | 35.95      | 36          | -0.05        |
| EHT 160         | 6665            | Mcs0_Nss4 | 13         | 15.68                            | 19.5               | 35.18      | 36          | -0.82        |
| EHT 160         | 6825            | Mcs0_Nss4 | 13         | 15.63                            | 19.5               | 35.13      | 36          | -0.87        |
| EHT 320         | 6745            | Mcs0_Nss4 | 13         | 15.96                            | 19.5               | 35.46      | 36          | -0.54        |
| EHT 20          | 6595            | Mcs0_Nss4 | 13         | 15.88                            | 19.5               | 35.38      | 36          | -0.62        |

**Nss=1 – Horn Antenna**

| Modulation (BW) | Frequency (MHz) | Data Rate | TP Setting | Total Summed Output Power* (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
|-----------------|-----------------|-----------|------------|----------------------------------|--------------------|------------|-------------|--------------|
| EHT 20          | 6595            | Mcs0_Nss1 | 11         | 13.79                            | 22.51              | 33.29      | 36          | -2.71        |
| EHT 20          | 6715            | Mcs0_Nss1 | 11         | 13.40                            | 22.51              | 32.90      | 36          | -3.1         |
| EHT 20          | 6855            | Mcs0_Nss1 | 11         | 13.40                            | 22.51              | 32.90      | 36          | -3.1         |
| EHT 40          | 6605            | Mcs0_Nss1 | 14         | 16.37                            | 22.51              | 35.87      | 36          | -0.13        |
| EHT 40          | 6725            | Mcs0_Nss1 | 14         | 16.27                            | 22.51              | 35.77      | 36          | -0.23        |
| EHT 40          | 6845            | Mcs0_Nss1 | 14         | 16.42                            | 22.51              | 35.92      | 36          | -0.08        |
| EHT 80          | 6625            | Mcs0_Nss1 | 14         | 16.48                            | 22.51              | 35.98      | 36          | -0.02        |
| EHT 80          | 6705            | Mcs0_Nss1 | 14         | 16.29                            | 22.51              | 35.79      | 36          | -0.21        |

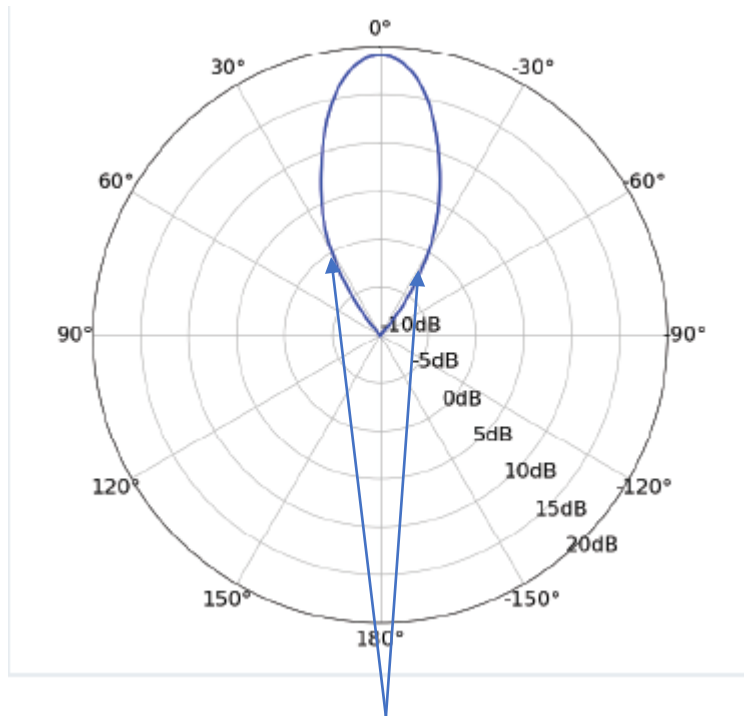
| Modulation (BW) | Frequency (MHz) | Data Rate | TP Setting | Total Summed Output Power* (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
|-----------------|-----------------|-----------|------------|----------------------------------|--------------------|------------|-------------|--------------|
| EHT 80          | 6865            | Mcs0_Nss1 | 14         | 16.45                            | 22.51              | 35.95      | 36          | -0.05        |
| EHT 160         | 6665            | Mcs0_Nss1 | 13         | 15.68                            | 22.51              | 35.18      | 36          | -0.82        |
| EHT 160         | 6825            | Mcs0_Nss1 | 13         | 15.63                            | 22.51              | 35.13      | 36          | -0.87        |
| EHT 320         | 6745            | Mcs0_Nss1 | 13         | 15.96                            | 22.51              | 35.46      | 36          | -0.54        |
| EHT 20          | 6595            | Mcs0_Nss1 | 13         | 15.88                            | 22.51              | 35.38      | 36          | -0.62        |

**Nss>1 Dish Antenna**

| Modulation (BW) | Frequency (MHz) | Data Rate | TP Setting | Total Summed Output Power* (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
|-----------------|-----------------|-----------|------------|----------------------------------|--------------------|------------|-------------|--------------|
| EHT 20          | 6595            | Mcs0_Nss4 | 3          | 5.66                             | 30                 | 35.66      | 36          | -0.34        |
| EHT 20          | 6715            | Mcs0_Nss4 | 3          | 5.33                             | 30                 | 35.33      | 36          | -0.67        |
| EHT 20          | 6855            | Mcs0_Nss4 | 3          | 4.96                             | 30                 | 34.96      | 36          | -1.04        |
| EHT 40          | 6605            | Mcs0_Nss4 | 3          | 5.39                             | 30                 | 35.39      | 36          | -0.61        |
| EHT 40          | 6725            | Mcs0_Nss4 | 3          | 5.32                             | 30                 | 35.32      | 36          | -0.68        |
| EHT 40          | 6845            | Mcs0_Nss4 | 3          | 5.29                             | 30                 | 35.29      | 36          | -0.71        |
| EHT 80          | 6625            | Mcs0_Nss4 | 3          | 5.63                             | 30                 | 35.63      | 36          | -0.37        |
| EHT 80          | 6705            | Mcs0_Nss4 | 3          | 5.96                             | 30                 | 35.96      | 36          | -0.04        |
| EHT 80          | 6865            | Mcs0_Nss4 | 3          | 5.13                             | 30                 | 35.13      | 36          | -0.87        |
| EHT 160         | 6665            | Mcs0_Nss4 | 3          | 4.96                             | 30                 | 34.96      | 36          | -1.04        |
| EHT 160         | 6825            | Mcs0_Nss4 | 3          | 5.18                             | 30                 | 35.18      | 36          | -0.82        |
| EHT 320         | 6745            | Mcs0_Nss4 | 3          | 5.87                             | 30                 | 35.87      | 36          | -0.13        |
| EHT 20          | 6595            | Mcs0_Nss4 | 4          | 5.64                             | 30                 | 35.64      | 36          | -0.36        |

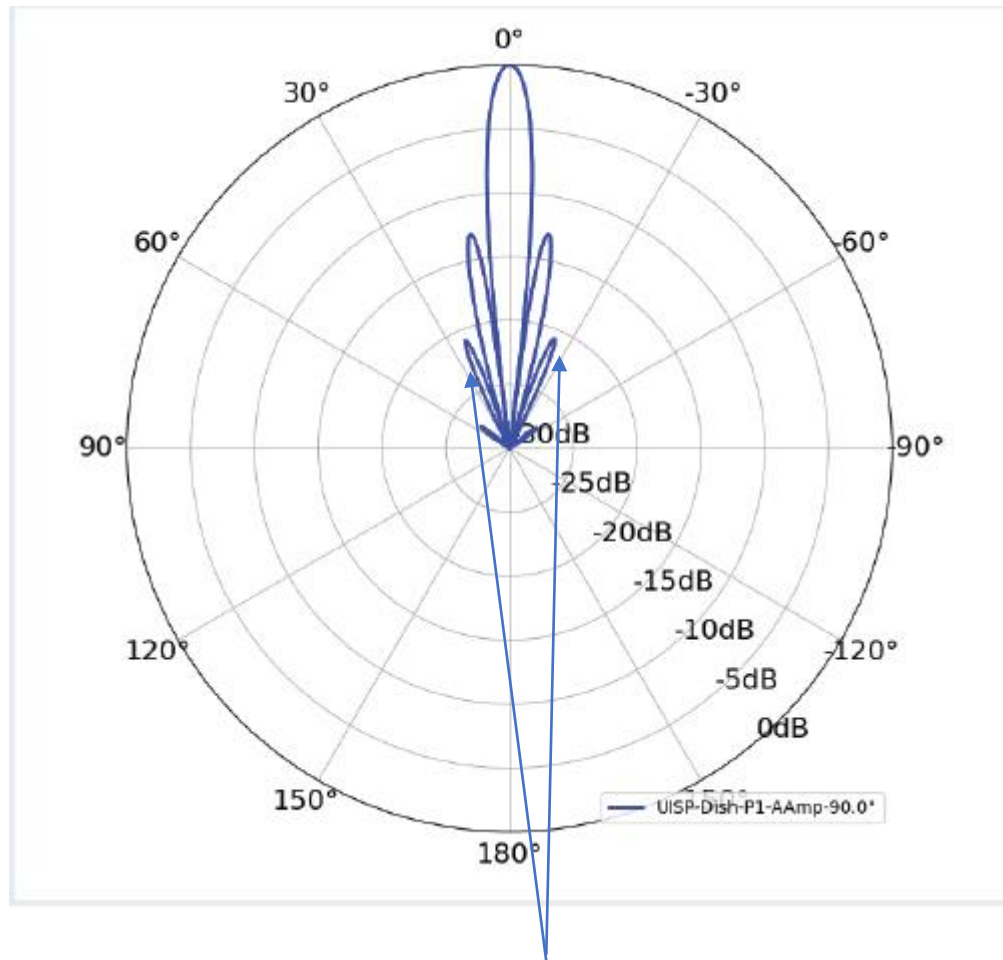
**Nss=1 – Dish Antenna**

| Modulation (BW) | Frequency (MHz) | Data Rate | TP Setting | Total Summed Output Power* (dBm) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Margin (dBm) |
|-----------------|-----------------|-----------|------------|----------------------------------|--------------------|------------|-------------|--------------|
| EHT 20          | 6595            | Mcs0_Nss1 | 1          | 3.54                             | 33.01              | 33.54      | 36          | -2.46        |
| EHT 20          | 6715            | Mcs0_Nss1 | 1          | 3.12                             | 33.01              | 33.12      | 36          | -2.88        |
| EHT 20          | 6855            | Mcs0_Nss1 | 1          | 2.79                             | 33.01              | 32.79      | 36          | -3.21        |
| EHT 40          | 6605            | Mcs0_Nss1 | 3          | 5.39                             | 33.01              | 35.39      | 36          | -0.61        |
| EHT 40          | 6725            | Mcs0_Nss1 | 3          | 5.32                             | 33.01              | 35.32      | 36          | -0.68        |
| EHT 40          | 6845            | Mcs0_Nss1 | 3          | 5.29                             | 33.01              | 35.29      | 36          | -0.71        |
| EHT 80          | 6625            | Mcs0_Nss1 | 3          | 5.63                             | 33.01              | 35.63      | 36          | -0.37        |
| EHT 80          | 6705            | Mcs0_Nss1 | 3          | 5.96                             | 33.01              | 35.96      | 36          | -0.04        |
| EHT 80          | 6865            | Mcs0_Nss1 | 3          | 5.13                             | 33.01              | 35.13      | 36          | -0.87        |
| EHT 160         | 6665            | Mcs0_Nss1 | 3          | 4.96                             | 33.01              | 34.96      | 36          | -1.04        |
| EHT 160         | 6825            | Mcs0_Nss1 | 3          | 5.18                             | 33.01              | 35.18      | 36          | -0.82        |
| EHT 320         | 6745            | Mcs0_Nss1 | 3          | 5.87                             | 33.01              | 35.87      | 36          | -0.13        |
| EHT 20          | 6595            | Mcs0_Nss1 | 4          | 5.64                             | 33.01              | 35.64      | 36          | -0.36        |



No emissions above 30 degrees

**Plot 1: Elevation Plot Greater Than 30-Degrees From Horizon (Horn Antenna)**



**No emissions above 30 degrees**

**Plot 2: Elevation Plot Greater Than 30-Degrees From Horizon (Dish Antenna)**

### Result

In the configuration tested, the maximum average RF output power was less than 4 watt EIRP; therefore, the EUT complied with the requirements of the specification (see spectrum analyzer plots in attached Annex).

\* Gated EIRP shown in the Annex is the conducted measurement.

## 5.5 §15.407(b)(7) Spurious Emissions

### 5.5.1 Radiated Spurious Emissions in the Restricted Bands of § 15.205

The EUT uses various power settings based on the channel in use. In order to reduce test time, the radiated spurious emissions at the lowest, middle, and highest channel were measured at the maximum power of TP18.

Correction Factor = Antenna Factor (dBi) + Cable Loss (dB) - Pre-Amplifier Gain (dB), and is added to the Receiver reading.

#### Result

All emissions in the restricted bands of § 15.205 met the limits specified in § 15.209; therefore, the EUT complies with the specification. See Annex for Conducted Band edge plots.

#### Horn Antenna

| Frequency  | Det | Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Azimuth (°) | Height (m) | Pol.       | RBW (Hz) | Correction (dB) |
|------------|-----|----------------|----------------|-------------|-------------|------------|------------|----------|-----------------|
| 19.61 GHz  | PK  | 67.443         | 74             | -6.557      | 359         | 1.500      | Vertical   | 1 MHz    | -1.569          |
| 32.661 GHz | PK  | 60.461         | 74             | -13.539     | 179         | 1.500      | Vertical   | 1 MHz    | 0.597           |
| 19.61 GHz  | AV  | 53.977         | 54             | -0.023      | 359         | 1.500      | Vertical   | 1 MHz    | -1.569          |
| 32.661 GHz | AV  | 45.676         | 54             | -8.324      | 179         | 1.500      | Vertical   | 1 MHz    | 0.597           |
| 19.599 GHz | PK  | 63.545         | 74             | -10.455     | 356         | 1.500      | Horizontal | 1 MHz    | -1.538          |
| 32.678 GHz | PK  | 59.43          | 74             | -14.57      | 132         | 1.500      | Horizontal | 1 MHz    | 0.512           |
| 19.599 GHz | AV  | 50.546         | 54             | -3.454      | 356         | 1.500      | Horizontal | 1 MHz    | -1.538          |
| 32.678 GHz | AV  | 45.141         | 54             | -8.859      | 132         | 1.500      | Horizontal | 1 MHz    | 0.512           |

Table 5: Transmitting on the Lowest Frequency 6535 MHz

| Frequency      | Det | Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Azimuth (°) | Height (m) | Pol.       | RBW (Hz) | Correction (dB) |
|----------------|-----|----------------|----------------|-------------|-------------|------------|------------|----------|-----------------|
| 20.0860418 GHz | 1   | 61.006         | 74             | -12.994     | 11          | 1.500      | Vertical   | 1 MHz    | 0.474           |
| 33.4792813 GHz | 1   | 58.383         | 74             | -15.617     | 229         | 1.500      | Vertical   | 1 MHz    | 4.915           |
| 20.0860418 GHz | 1   | 44.328         | 54             | -9.672      | 11          | 1.500      | Vertical   | 1 MHz    | 0.474           |
| 33.4792813 GHz | 1   | 43.962         | 54             | -10.038     | 229         | 1.500      | Vertical   | 1 MHz    | 4.915           |
| 20.0918927 GHz | 2   | 68.982         | 74             | -5.018      | 18          | 1.500      | Horizontal | 1 MHz    | 0.475           |
| 20.0918927 GHz | 2   | 52.046         | 54             | -1.954      | 18          | 1.500      | Horizontal | 1 MHz    | 0.475           |

Table 6: Transmitting on the Middle Frequency 6695 MHz

| Frequency      | Det | Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Azimuth (°) | Height (m) | Pol.       | RBW (Hz) | Correction (dB) |
|----------------|-----|----------------|----------------|-------------|-------------|------------|------------|----------|-----------------|
| 20.6239173 GHz | PK  | 66.492         | 74             | -7.508      | 30          | 1.500      | Vertical   | 1 MHz    | 0.228           |
| 34.3879688 GHz | PK  | 58.369         | 74             | -15.631     | 219         | 1.500      | Vertical   | 1 MHz    | 4.009           |
| 20.6239173 GHz | AV  | 52.072         | 54             | -1.928      | 30          | 1.500      | Vertical   | 1 MHz    | 0.228           |
| 34.3879688 GHz | AV  | 44.186         | 54             | -9.814      | 219         | 1.500      | Vertical   | 1 MHz    | 4.009           |
| 20.6129988 GHz | PK  | 52.886         | 74             | -21.114     | 36          | 1.500      | Horizontal | 1 MHz    | 0.161           |
| 34.3789629 GHz | PK  | 56.442         | 74             | -17.558     | 255         | 1.500      | Horizontal | 1 MHz    | 3.994           |
| 20.6129988 GHz | AV  | 39.244         | 54             | -14.756     | 36          | 1.500      | Horizontal | 1 MHz    | 0.161           |
| 34.3789629 GHz | AV  | 41.92          | 54             | -12.08      | 255         | 1.500      | Horizontal | 1 MHz    | 3.994           |

Table 7: Transmitting on the Highest Frequency 6875 MHz

**Dish Antenna**

| Frequency      | Det | Level<br>(dBµV/m) | Limit<br>(dBµV/m) | Margin<br>(dB) | Azimuth<br>(°) | Height<br>(m) | Pol.       | RBW<br>(Hz) | Correction<br>(dB) |
|----------------|-----|-------------------|-------------------|----------------|----------------|---------------|------------|-------------|--------------------|
| 19.5990517 GHz | PK  | 61.792            | 74                | -12.208        | 36             | 1.500         | Vertical   | 1 MHz       | 0.262              |
| 32.6665154 GHz | PK  | 60.619            | 74                | -13.381        | 255            | 1.500         | Vertical   | 1 MHz       | 2.234              |
| 19.5990517 GHz | AV  | 48.257            | 54                | -5.743         | 36             | 1.500         | Vertical   | 1 MHz       | 0.262              |
| 32.6665154 GHz | AV  | 46.006            | 54                | -7.994         | 255            | 1.500         | Vertical   | 1 MHz       | 2.234              |
| 19.603514 GHz  | PK  | 62.842            | 74                | -11.158        | 30             | 1.500         | Horizontal | 1 MHz       | 0.255              |
| 32.6573092 GHz | PK  | 57.91             | 74                | -16.09         | 250            | 1.500         | Horizontal | 1 MHz       | 2.284              |
| 19.603514 GHz  | AV  | 49.471            | 54                | -4.529         | 30             | 1.500         | Horizontal | 1 MHz       | 0.255              |
| 32.6573092 GHz | AV  | 43.487            | 54                | -10.513        | 250            | 1.500         | Horizontal | 1 MHz       | 2.284              |

**Table 8: Transmitting on the Lowest Frequency 6535 MHz**

| Frequency      | Det | Level<br>(dBµV/m) | Limit<br>(dBµV/m) | Margin<br>(dB) | Azimuth<br>(°) | Height<br>(m) | Pol.       | RBW<br>(Hz) | Correction<br>(dB) |
|----------------|-----|-------------------|-------------------|----------------|----------------|---------------|------------|-------------|--------------------|
| 20.0860418 GHz | PK  | 61.006            | 74                | -12.994        | 11             | 1.500         | Vertical   | 1 MHz       | 0.474              |
| 33.4792813 GHz | PK  | 58.383            | 74                | -15.617        | 229            | 1.500         | Vertical   | 1 MHz       | 4.915              |
| 20.0860418 GHz | AV  | 44.328            | 54                | -9.672         | 11             | 1.500         | Vertical   | 1 MHz       | 0.474              |
| 33.4792813 GHz | AV  | 43.962            | 54                | -10.038        | 229            | 1.500         | Vertical   | 1 MHz       | 4.915              |
| 20.0918927 GHz | PK  | 68.982            | 74                | -5.018         | 18             | 1.500         | Horizontal | 1 MHz       | 0.475              |
| 20.0918927 GHz | AV  | 52.046            | 54                | -1.954         | 18             | 1.500         | Horizontal | 1 MHz       | 0.475              |

**Table 9: Transmitting on the Middle Frequency 6695 MHz**

| Frequency      | Det | Level<br>(dBµV/m) | Limit<br>(dBµV/m) | Margin<br>(dB) | Azimuth<br>(°) | Height<br>(m) | Pol.       | RBW<br>(Hz) | Correction<br>(dB) |
|----------------|-----|-------------------|-------------------|----------------|----------------|---------------|------------|-------------|--------------------|
| 20.6239173 GHz | PK  | 66.492            | 74                | -7.508         | 30             | 1.500         | Vertical   | 1 MHz       | 0.228              |
| 34.3879688 GHz | PK  | 58.369            | 74                | -15.631        | 219            | 1.500         | Vertical   | 1 MHz       | 4.009              |
| 20.6239173 GHz | AV  | 52.072            | 54                | -1.928         | 30             | 1.500         | Vertical   | 1 MHz       | 0.228              |
| 34.3879688 GHz | AV  | 44.186            | 54                | -9.814         | 219            | 1.500         | Vertical   | 1 MHz       | 4.009              |
| 20.6129988 GHz | PK  | 52.886            | 74                | -21.114        | 36             | 1.500         | Horizontal | 1 MHz       | 0.161              |
| 34.3789629 GHz | PK  | 56.442            | 74                | -17.558        | 255            | 1.500         | Horizontal | 1 MHz       | 3.994              |
| 20.6129988 GHz | AV  | 39.244            | 54                | -14.756        | 36             | 1.500         | Horizontal | 1 MHz       | 0.161              |
| 34.3789629 GHz | AV  | 41.92             | 54                | -12.08         | 255            | 1.500         | Horizontal | 1 MHz       | 3.994              |

**Table 10: Transmitting on the Highest Frequency 6875 MHz**

## 5.6 §15.407(a)(4) Maximum Power Spectral Density

All chains were measured and summed under the guidance of KDB 789033 Section II. F. and KDB 662911 D01. Please see associated annex for details on instrument settings.

The maximum average power spectral density conducted from the intentional radiator of the antenna shall not be greater than 23 dBm EIRP in any 1 MHz band during any time interval of continuous transmission.

See Section 2.2 of this report for the directional gain calculation.

Results of this testing are summarized.

### Nss>1 Horn Antenna

| Modulation (BW) | Frequency (MHz) | Data Rate | TP Setting | Total Sum PSD EIRP (dBm) | Antenna Gain (dBi) | Limit (dBm) | Margin (dBm) |
|-----------------|-----------------|-----------|------------|--------------------------|--------------------|-------------|--------------|
| EHT 20          | 6535            | Mcs0_Nss4 | 13         | 2.22                     | 19.5               | 3.5         | -1.28        |
| EHT 20          | 6695            | Mcs0_Nss4 | 14         | 3.07                     | 19.5               | 3.5         | -0.43        |
| EHT 20          | 6875            | Mcs0_Nss4 | 14         | 2.89                     | 19.5               | 3.5         | -0.61        |
| EHT 40          | 6525            | Mcs0_Nss4 | 14         | -0.05                    | 19.5               | 3.5         | -3.55        |
| EHT 40          | 6685            | Mcs0_Nss4 | 14         | -0.23                    | 19.5               | 3.5         | -3.73        |
| EHT 40          | 6885            | Mcs0_Nss4 | 14         | -0.20                    | 19.5               | 3.5         | -3.7         |
| EHT 80          | 6545            | Mcs0_Nss4 | 14         | -2.85                    | 19.5               | 3.5         | -6.35        |
| EHT 80          | 6705            | Mcs0_Nss4 | 14         | -3.02                    | 19.5               | 3.5         | -6.52        |
| EHT 80          | 6865            | Mcs0_Nss4 | 14         | -3.04                    | 19.5               | 3.5         | -6.54        |
| EHT 160         | 6505            | Mcs0_Nss4 | 13         | -6.12                    | 19.5               | 3.5         | -9.62        |
| EHT 160         | 6665            | Mcs0_Nss4 | 13         | -6.67                    | 19.5               | 3.5         | -10.17       |
| EHT 160         | 6825            | Mcs0_Nss4 | 13         | -5.53                    | 19.5               | 3.5         | -9.03        |
| EHT 320         | 6585            | Mcs0_Nss4 | 13         | -8.94                    | 19.5               | 3.5         | -12.44       |

**Nss=1 – Horn Antenna**

| Modulation (BW) | Frequency (MHz) | Data Rate | TP Setting | Total Sum PSD EIRP (dBm) | Antenna Gain (dBi) | Limit (dBm) | Margin (dBm) |
|-----------------|-----------------|-----------|------------|--------------------------|--------------------|-------------|--------------|
| EHT 20          | 6535            | Mcs0_Nss1 | 11         | 0.33                     | 22.51              | 0.49        | -0.16        |
| EHT 20          | 6695            | Mcs0_Nss1 | 11         | 0.11                     | 22.51              | 0.49        | -0.38        |
| EHT 20          | 6875            | Mcs0_Nss1 | 11         | -0.04                    | 22.51              | 0.49        | -0.53        |
| EHT 40          | 6525            | Mcs0_Nss1 | 14         | -0.05                    | 22.51              | 0.49        | -0.54        |
| EHT 40          | 6685            | Mcs0_Nss1 | 14         | -0.23                    | 22.51              | 0.49        | -0.72        |
| EHT 40          | 6885            | Mcs0_Nss1 | 14         | -0.20                    | 22.51              | 0.49        | -0.69        |
| EHT 80          | 6545            | Mcs0_Nss1 | 14         | -2.85                    | 22.51              | 0.49        | -3.34        |
| EHT 80          | 6705            | Mcs0_Nss1 | 14         | -3.02                    | 22.51              | 0.49        | -3.51        |
| EHT 80          | 6865            | Mcs0_Nss1 | 14         | -3.04                    | 22.51              | 0.49        | -3.53        |
| EHT 160         | 6505            | Mcs0_Nss1 | 13         | -6.12                    | 22.51              | 0.49        | -6.61        |
| EHT 160         | 6665            | Mcs0_Nss1 | 13         | -6.67                    | 22.51              | 0.49        | -7.16        |
| EHT 160         | 6825            | Mcs0_Nss1 | 13         | -5.53                    | 22.51              | 0.49        | -6.02        |
| EHT 320         | 6585            | Mcs0_Nss1 | 13         | -8.94                    | 22.51              | 0.49        | -9.43        |

**Nss>1 Dish Antenna**

| Modulation (BW) | Frequency (MHz) | Data Rate | TP Setting | Total Sum PSD EIRP (dBm) | Antenna Gain (dBi) | Limit (dBm) | Margin (dBm) |
|-----------------|-----------------|-----------|------------|--------------------------|--------------------|-------------|--------------|
| EHT 20          | 6535            | Mcs0_Nss4 | 3          | -7.93                    | 30                 | -7          | -0.93        |
| EHT 20          | 6695            | Mcs0_Nss4 | 3          | -7.88                    | 30                 | -7          | -0.88        |
| EHT 20          | 6875            | Mcs0_Nss4 | 3          | -8.60                    | 30                 | -7          | -1.6         |
| EHT 40          | 6525            | Mcs0_Nss4 | 3          | -11.09                   | 30                 | -7          | -4.09        |
| EHT 40          | 6685            | Mcs0_Nss4 | 3          | -11.16                   | 30                 | -7          | -4.16        |
| EHT 40          | 6885            | Mcs0_Nss4 | 3          | -11.41                   | 30                 | -7          | -4.41        |
| EHT 80          | 6545            | Mcs0_Nss4 | 3          | -13.66                   | 30                 | -7          | -6.66        |
| EHT 80          | 6705            | Mcs0_Nss4 | 3          | -13.42                   | 30                 | -7          | -6.42        |

| Modulation (BW) | Frequency (MHz) | Data Rate | TP Setting | Total Sum PSD EIRP (dBm) | Antenna Gain (dBi) | Limit (dBm) | Margin (dBm) |
|-----------------|-----------------|-----------|------------|--------------------------|--------------------|-------------|--------------|
| EHT 80          | 6865            | Mcs0_Nss4 | 3          | -14.15                   | 30                 | -7          | -7.15        |
| EHT 160         | 6505            | Mcs0_Nss4 | 3          | -16.64                   | 30                 | -7          | -9.64        |
| EHT 160         | 6665            | Mcs0_Nss4 | 3          | -17.14                   | 30                 | -7          | -10.14       |
| EHT 160         | 6825            | Mcs0_Nss4 | 3          | -15.60                   | 30                 | -7          | -8.6         |
| EHT 320         | 6585            | Mcs0_Nss4 | 4          | -19.09                   | 30                 | -7          | -12.09       |

#### Nss=1 – Dish Antenna

| Modulation (BW) | Frequency (MHz) | Data Rate | TP Setting | Total Sum PSD EIRP (dBm) | Antenna Gain (dBi) | Limit (dBm) | Margin (dBm) |
|-----------------|-----------------|-----------|------------|--------------------------|--------------------|-------------|--------------|
| EHT 20          | 6535            | Mcs0_Nss1 | 1          | -10.08                   | 33.01              | -10.01      | -0.07        |
| EHT 20          | 6695            | Mcs0_Nss1 | 1          | -10.10                   | 33.01              | -10.01      | -0.09        |
| EHT 20          | 6875            | Mcs0_Nss1 | 1          | -10.75                   | 33.01              | -10.01      | -0.74        |
| EHT 40          | 6525            | Mcs0_Nss1 | 3          | -11.09                   | 33.01              | -10.01      | -1.08        |
| EHT 40          | 6685            | Mcs0_Nss1 | 3          | -11.16                   | 33.01              | -10.01      | -1.15        |
| EHT 40          | 6885            | Mcs0_Nss1 | 3          | -11.41                   | 33.01              | -10.01      | -1.4         |
| EHT 80          | 6545            | Mcs0_Nss1 | 3          | -13.66                   | 33.01              | -10.01      | -3.65        |
| EHT 80          | 6705            | Mcs0_Nss1 | 3          | -13.42                   | 33.01              | -10.01      | -3.41        |
| EHT 80          | 6865            | Mcs0_Nss1 | 3          | -14.15                   | 33.01              | -10.01      | -4.14        |
| EHT 160         | 6505            | Mcs0_Nss1 | 3          | -16.64                   | 33.01              | -10.01      | -6.63        |
| EHT 160         | 6665            | Mcs0_Nss1 | 3          | -17.14                   | 33.01              | -10.01      | -7.13        |
| EHT 160         | 6825            | Mcs0_Nss1 | 3          | -15.60                   | 33.01              | -10.01      | -5.59        |
| EHT 320         | 6585            | Mcs0_Nss1 | 4          | -19.09                   | 33.01              | -10.01      | -9.08        |

#### Result

The maximum average power spectral density was less than the limit of 23 dBm EIRP; therefore, the EUT complies with the specification.

## **5.7 §15.407(d) Contention Based Protocol**

This product was tested and found to be compliant with the requirements of Contention-based Protocol as specified in FCC Part 15.407 and KDB 987594 D02.

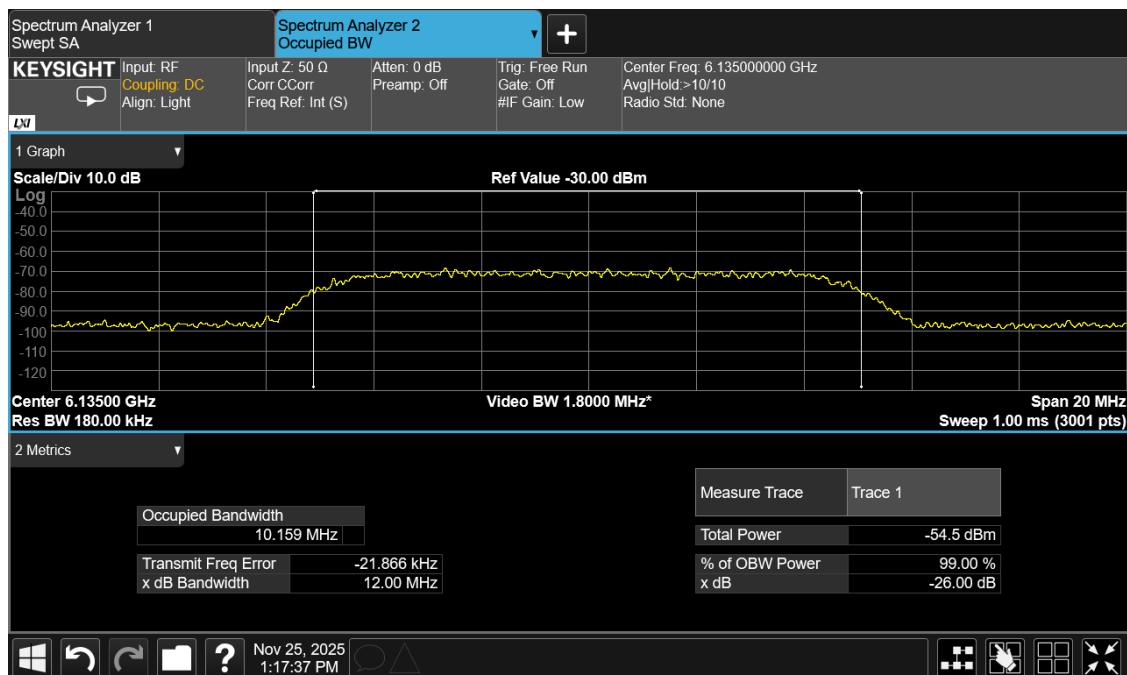
Initially the test setup was connected directly to the signal source with all splitters (splitters terminated with a 50-ohm loads on unused ports) and cables in place to verify the AWGN signal is 10MHz wide at a signal level of less than or equal to -62 dBm and for conducted measurements the threshold was adjusted for an antenna gain of 19.5 dBi. The level at the signal generator required to achieve the required signal level at the DUT was recorded for use during testing.

The DUT was connected as shown in figure 4 above and set to transmit at a constant duty cycle at each frequency and bandwidth noted in the table below and verified to be communicating with the companion device as intended.

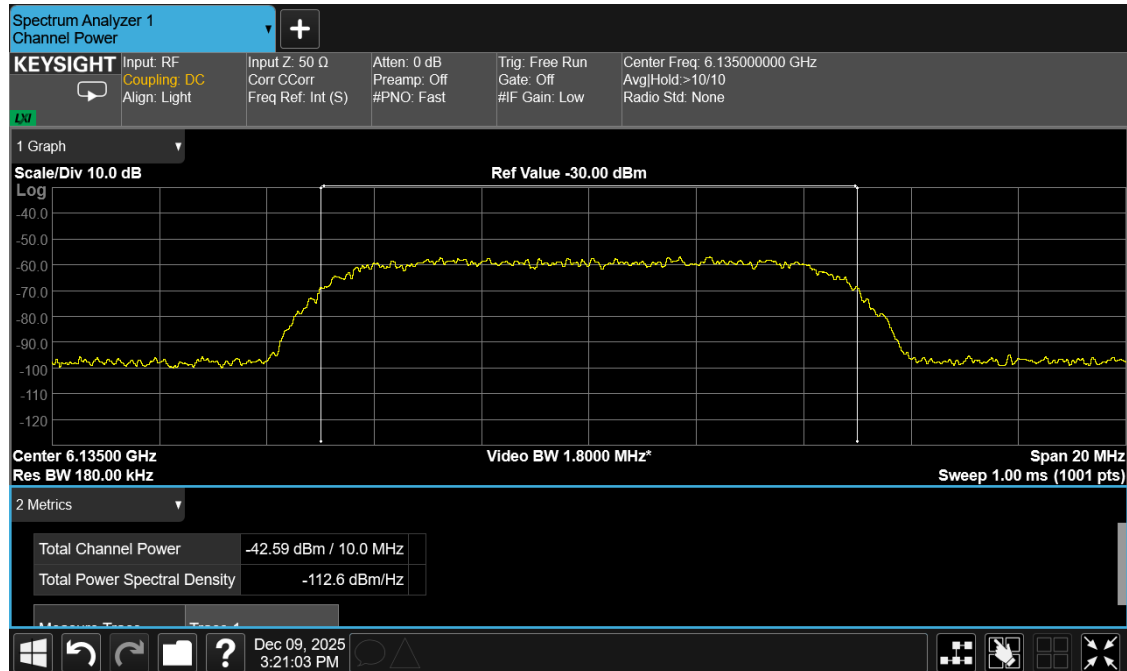
Starting at the levels established above, the AWGN signal was introduced to the DUT and increased to determine a threshold level at where the DUT will terminate with at least a 90% detection rate. The level at the DUT, which the 90% detection rate was achieved was recorded as the “Sensitivity Level” below.

Any measurement below the sensitivity level will result in the Tx minimal and any further measurement below the sensitivity level will result in Tx on.

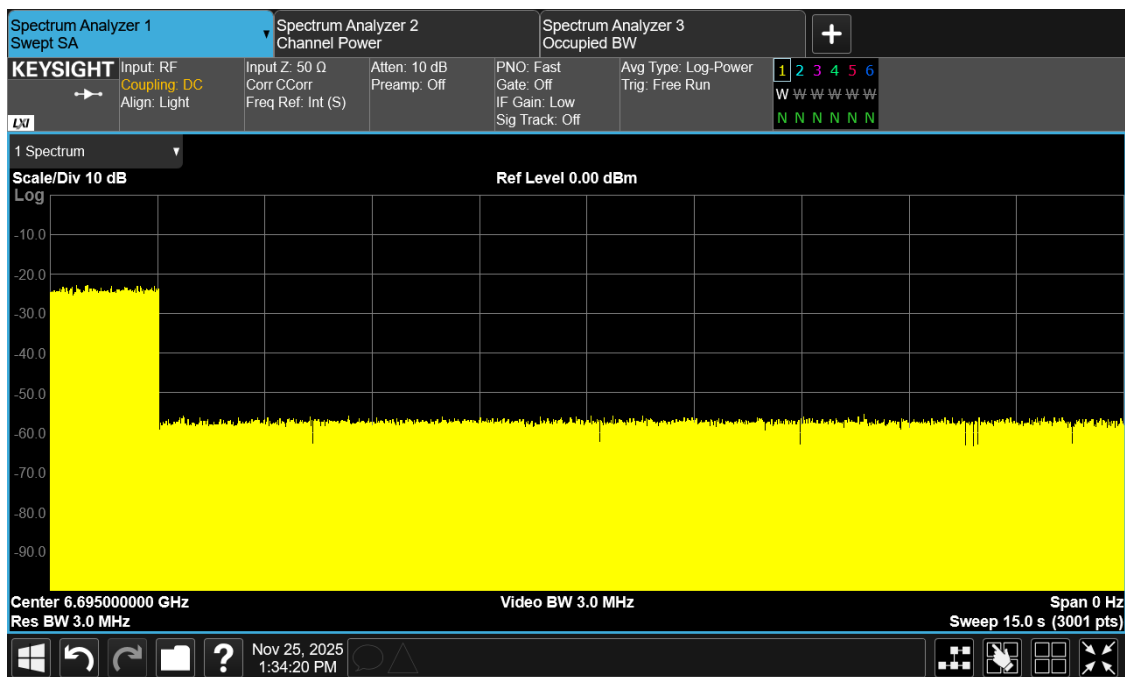
Testing shall be repeated at each applicable channel and bandwidth as noted in Table 1 of KDB 987594 D02.



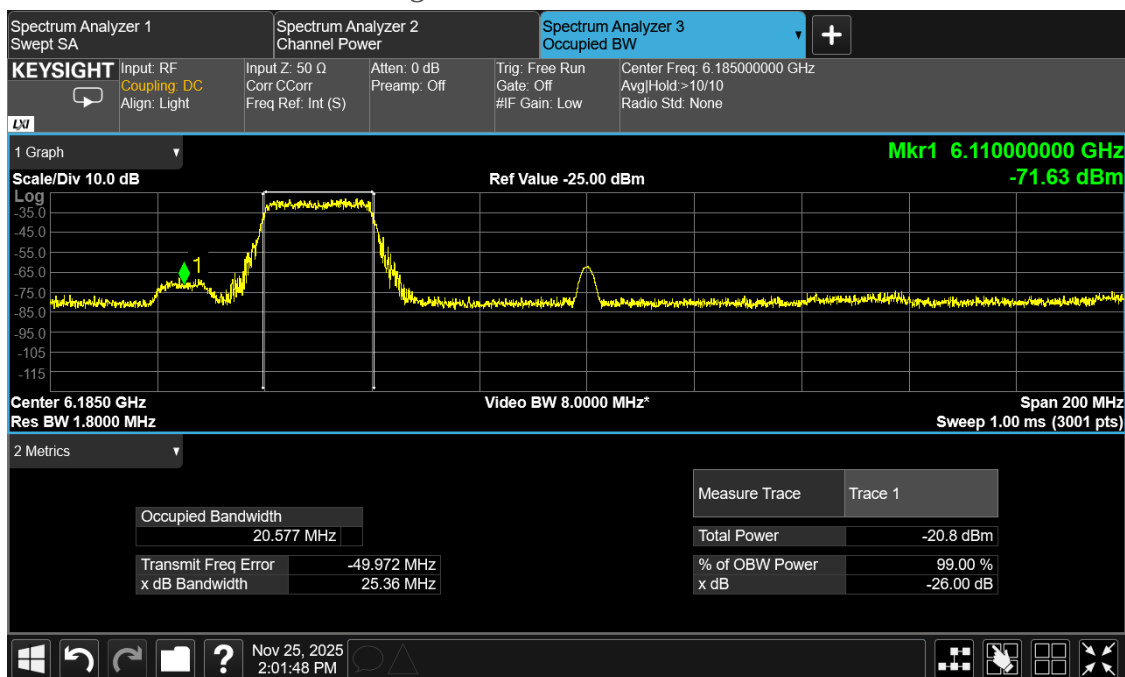
Plot 3: AWGN Signal BW Details



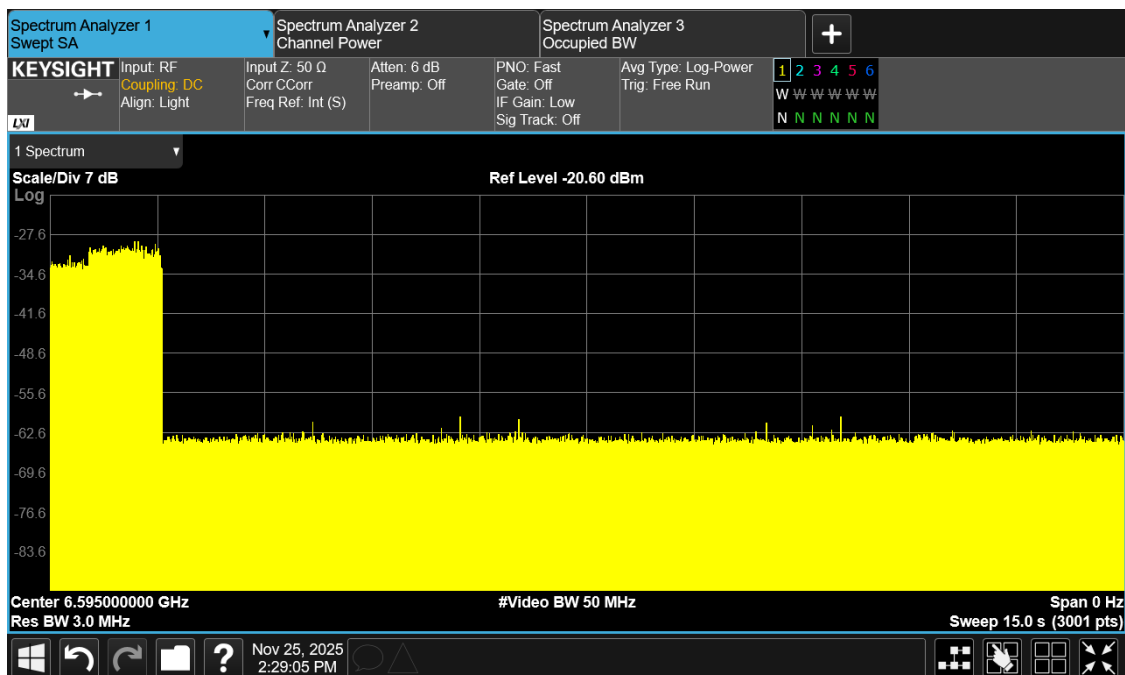
Plot 4: AWGN Signal Level Details



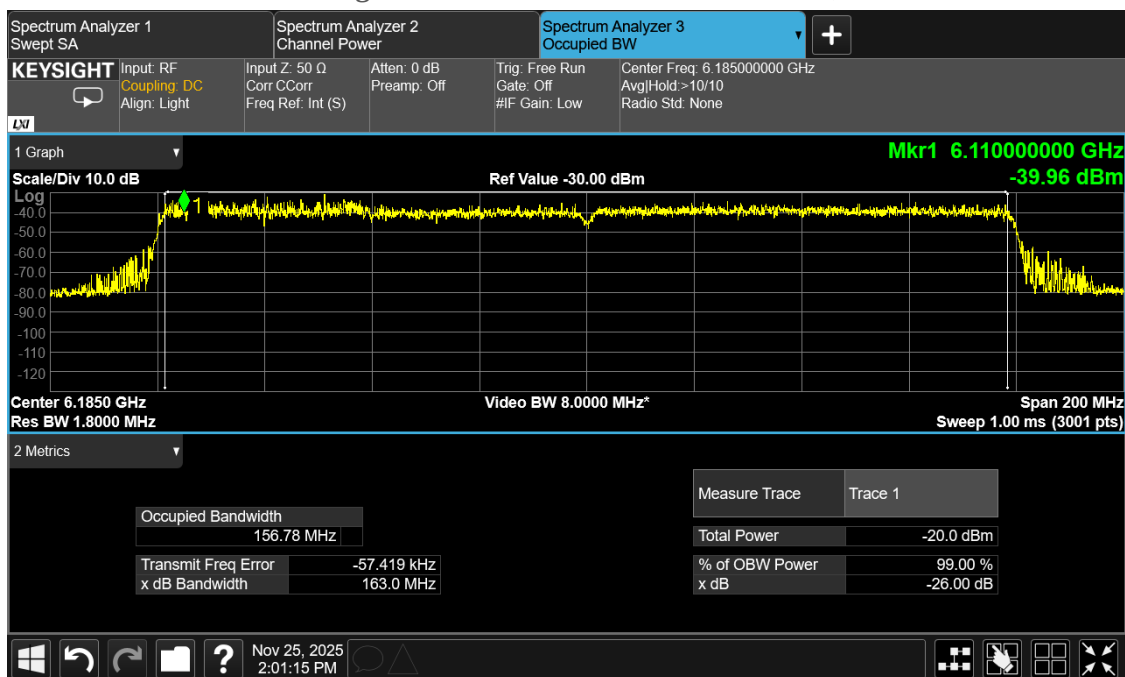
Plot 5: AWGN Signal Detection Details 20 MHz BW, 6695



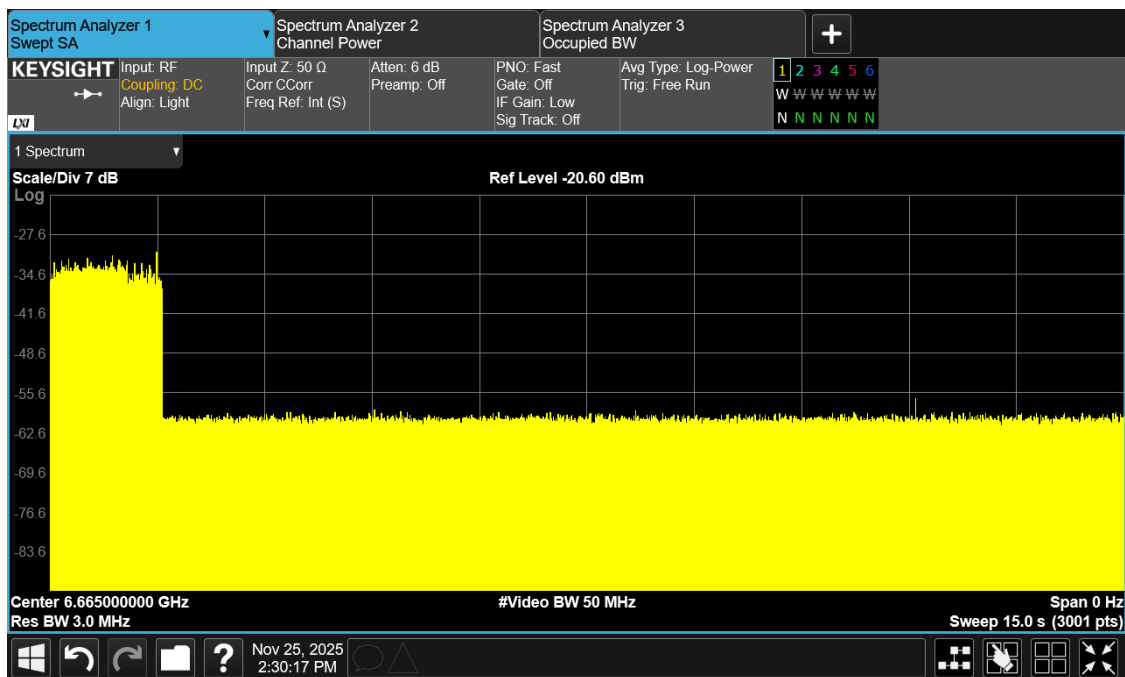
Plot 6: EUT 160MHz Transmission and Bandwidth Reduction



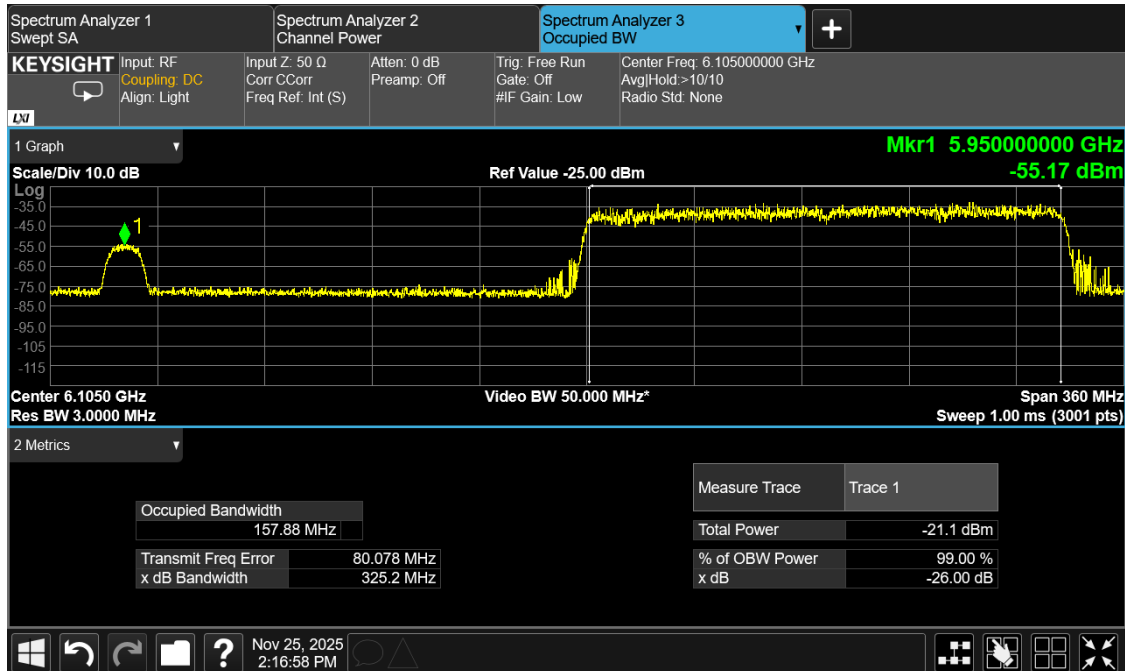
**Plot 7: AWGN Signal Detection Details 160 MHz BW, 6665 – 6595**



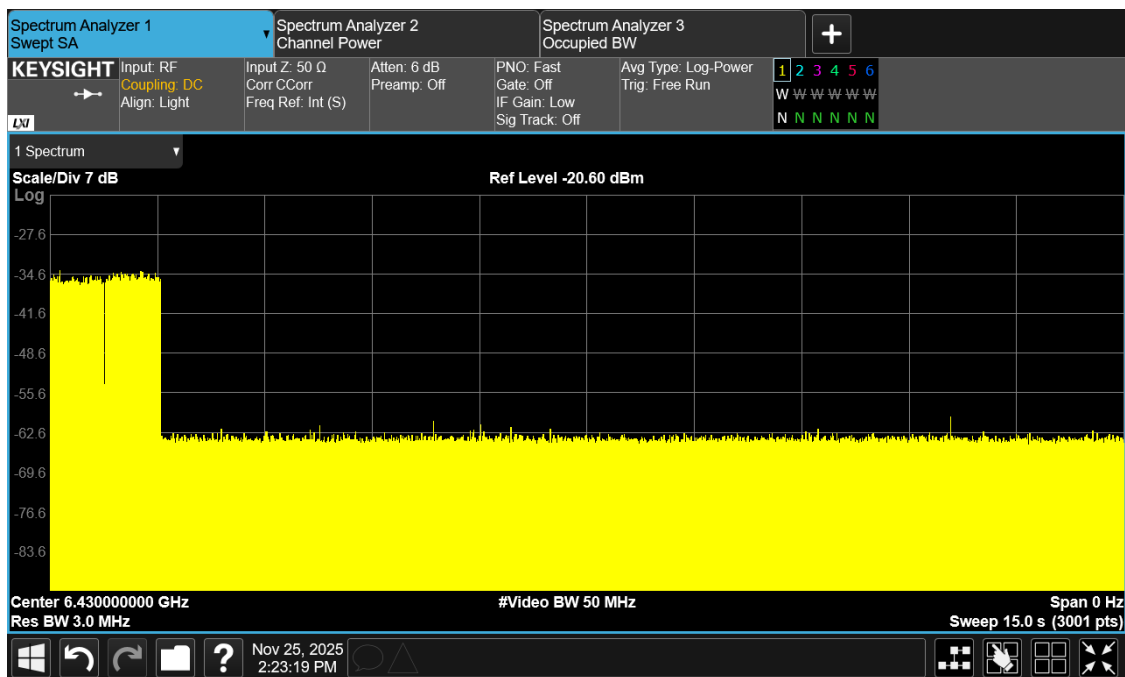
**Plot 8: AWGN Signal Detection Details 160 MHz BW, 6185**



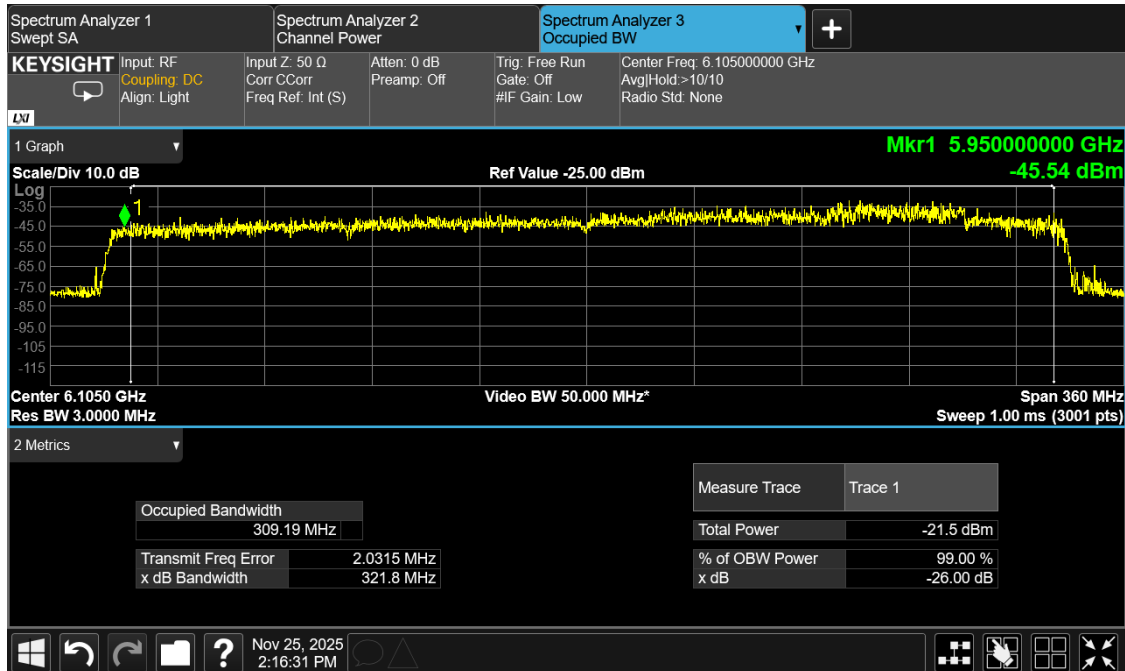
Plot 9: AWGN Signal Detection Details 160 MHz BW, 6665 – 665



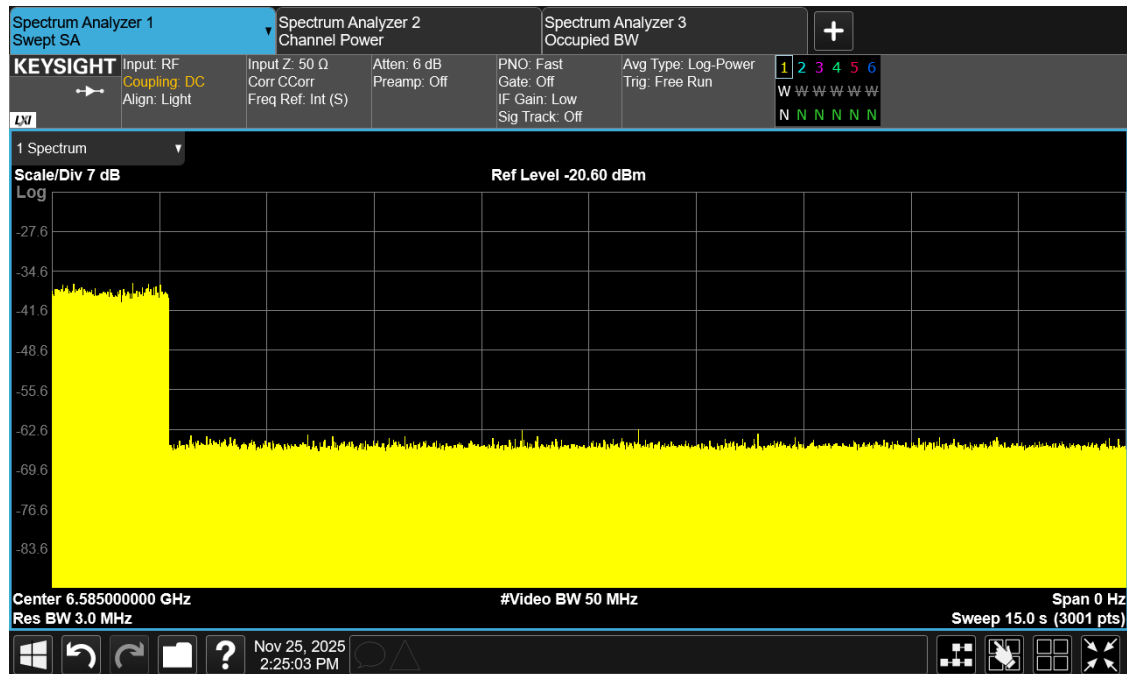
Plot 10: EUT 320MHz Transmission and Bandwidth Reduction



Plot 11: AWGN Signal Detection Details 320 MHz BW, 6585 – 6430



Plot 12: AWGN Signal Detection Details 320 MHz BW, 6265



**Plot 13: AWGN Signal Detection Details 320 MHz BW, 6565 – 6585**

## Contention Based Protocol 987594 D02 U-NNI 6 GHz EMC Measurement

| Band                       | BW <sub>EUT</sub><br>(MHz) | F <sub>c1</sub> | F <sub>c2</sub> | Reduce Tx<br>AWGN Power<br>(dBm) | Stop Tx<br>AWGN Power<br>(dBm) | Adjusted Power<br>(dBm) | Limit (dBm) | Margin (dB) | Detection<br>>90% |
|----------------------------|----------------------------|-----------------|-----------------|----------------------------------|--------------------------------|-------------------------|-------------|-------------|-------------------|
| UNII-5<br>5.925 - 6.425GHz | 20                         | 6135            | 6135            | -33                              | -30                            | -64.32                  | -42.5       | -21.82      | Pass              |
|                            | 160                        | 6185            | 6110            | -25                              | -23                            | -57.32                  | -42.5       | -14.82      | Pass              |
|                            |                            |                 | 6185            | -31                              | -30                            | -64.32                  | -42.5       | -21.82      | Pass              |
|                            |                            |                 | 6260            | -22                              | -19                            | -53.32                  | -42.5       | -10.82      | Pass              |
|                            | 320                        | 6105            | 5950            | -33                              | -30                            | -64.32                  | -42.5       | -21.82      | Pass              |
|                            |                            |                 | 6105            | -30                              | -28                            | -62.32                  | -42.5       | -19.82      | Pass              |
|                            |                            |                 | 6260            | -33                              | -31                            | -65.32                  | -42.5       | -22.82      | Pass              |
| UNII-7<br>6.525 - 6.875GHz | 20                         | 6695            | 6695            | -30                              | -27                            | -61.32                  | -42.5       | -18.82      | Pass              |
|                            | 160                        | 6665            | 6595            | -28                              | -25                            | -59.32                  | -42.5       | -16.82      | Pass              |
|                            |                            |                 | 6665            | -23                              | -21                            | -55.32                  | -42.5       | -12.82      | Pass              |
|                            |                            |                 | 6740            | -28                              | -24                            | -58.32                  | -42.5       | -15.82      | Pass              |
|                            | 320                        | 6585            | 6430            | -33                              | -31                            | -65.32                  | -42.5       | -22.82      | Pass              |
|                            |                            |                 | 6585            | -30                              | -28                            | -62.32                  | -42.5       | -19.82      | Pass              |
|                            |                            |                 | 6740            | -26                              | -23                            | -57.32                  | -42.5       | -14.82      | Pass              |

|                          |       |
|--------------------------|-------|
| Min. Antenna Gain (dBi)  | 19.5  |
| Max Threshold Level (TL) | -42.5 |

|          |                 |
|----------|-----------------|
| Ports    | Path Loss (dBm) |
| CH0, CH1 | -34.32          |

|            |
|------------|
| AWGN Clock |
| 22 MHz     |

*F<sub>c1</sub>* EUT transmission center frequency  
*F<sub>c2</sub>* Incumbent signal center frequency  
*Signal Power Level* Starts at TL-20dBm and increased until EUT trasmission stops

|        |
|--------|
| DUT FW |
| 2.3.1  |

|                |                                                |           |
|----------------|------------------------------------------------|-----------|
| Date of Tests: | 25-Nov-25                                      | Cal Due:  |
| Equipment:     | UCL-7069 Keysight EXA N9010B                   | 3-May-26  |
|                | UCL-6291 Keysight MXG N5182B                   | 28-Jun-26 |
|                | UCL-6695 Keysight Frequency Extender N5182BX07 | 3-May-26  |

Table 10: Trial Table

Detection Level = Injected AWGN Power (dBm) – Antenna Gain (dBi) + Path Loss (dB)

## Result

The EUT complies with the specification.

**-- End of Test Report --**