UNIFIED COMPLIANCE LABORATORY

427 West 12800 South
Draper, UT 84020

Test Report

Certification

FCC ID	SWX-WAVEML6
ISED ID	6545A-WAVEML6
Equipment Under Test	Wave-MLO6
Test Report Serial Number	TR10568_02
Date of Test(s)	15 May – 11 July 2025
Report Issue Date	3 December 2023

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

NVLAP TESTING ilac-MRA

NVLAP LAB CODE 600241-0

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.

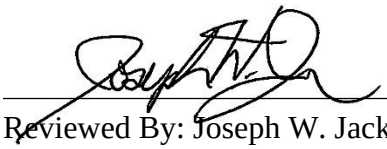
Applicant	Ubiquiti Inc.
Manufacturer	Ubiquiti Inc.
Brand Name	UBIQUITI
Model Number	Wave-MLO6
FCC ID	SWX-WAVEML6
ISED ID	6545A-WAVEML6

On this 3rd 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

Written By: Clay Allred



Reviewed By: Joseph W. Jackson

Revision History		
Revision	**Description**	**Date**
01	Original Report Release	3 December 2025
02	Section 5.7 Modification	9 December 2025

Table of Contents

1 Client Information

1.1 Applicant

Company	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.
Contact Name	Alex Macon
Title	Compliance

1.2 Manufacturer

Company	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.
Contact Name	Alex Macon
Title	Compliance

2 Equipment Under Test (EUT)

2.1 Identification of EUT

Brand Name		UBIQUITI
Model Number		Wave-MLO6
Serial Number		2FE39D
Dimensions (cm)		24.9 x 8.2 x 4.8
Antenna 1:	**Manufacturer:**	UBIQUITI
	Model:	UISP-Dish
	Gain:	30 dBi
	Type:	Dish
Antenna 2:	**Manufacturer:**	UBIQUITI
	Model:	UISP-Horn
	Gain:	19.5 dBi
	Type:	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 supports 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.

Antenna Type	Model Number	Antenna Gain (dBi)
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(NANT/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 NANT ≤ 4;

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

UISP-Horn:
Array Gain = 10 log(NANT/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 NANT ≤ 4;

For PSD measurements when Nss=1: Array Gain = 10 log(NANT/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-5	be (EHT 20)	5955, 5975, 6015, 6055, 6115, 6135, 6155, 6175, 6195, 6215, 6235, 6255,6275, 6295, 6315, 6335, 6355, 6375, 6395, 6415	TP15
	be (EHT 40)	5965, 6005, 6045, 6085, 6125, 6165 6205, 6245, 6285, 6325, 6385, 6405	TP15
	be (EHT 80)	5985, 6065, 6145, 6225, 6305 6385	TP14
	be (EHT160)	6025, 6185, 6325	TP15
	be (EHT 320)	6265	TP14

2.3 EUT and Support Equipment

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

Brand Name Model Number Serial Number	Description	Name of Interface Ports / Interface Cables
BN: UBIQUITI MN: Wave-MLO6 SN: 2FE39D	Wireless Point-to-Point	See Section 2.4
BN: UBIQUITI MN: U-POE-at SN: N/A	PoE Power Adapter	Shielded or Un-shielded Cat 5e cable (Note 2)
BN: Dell MN: XPS 13 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.

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

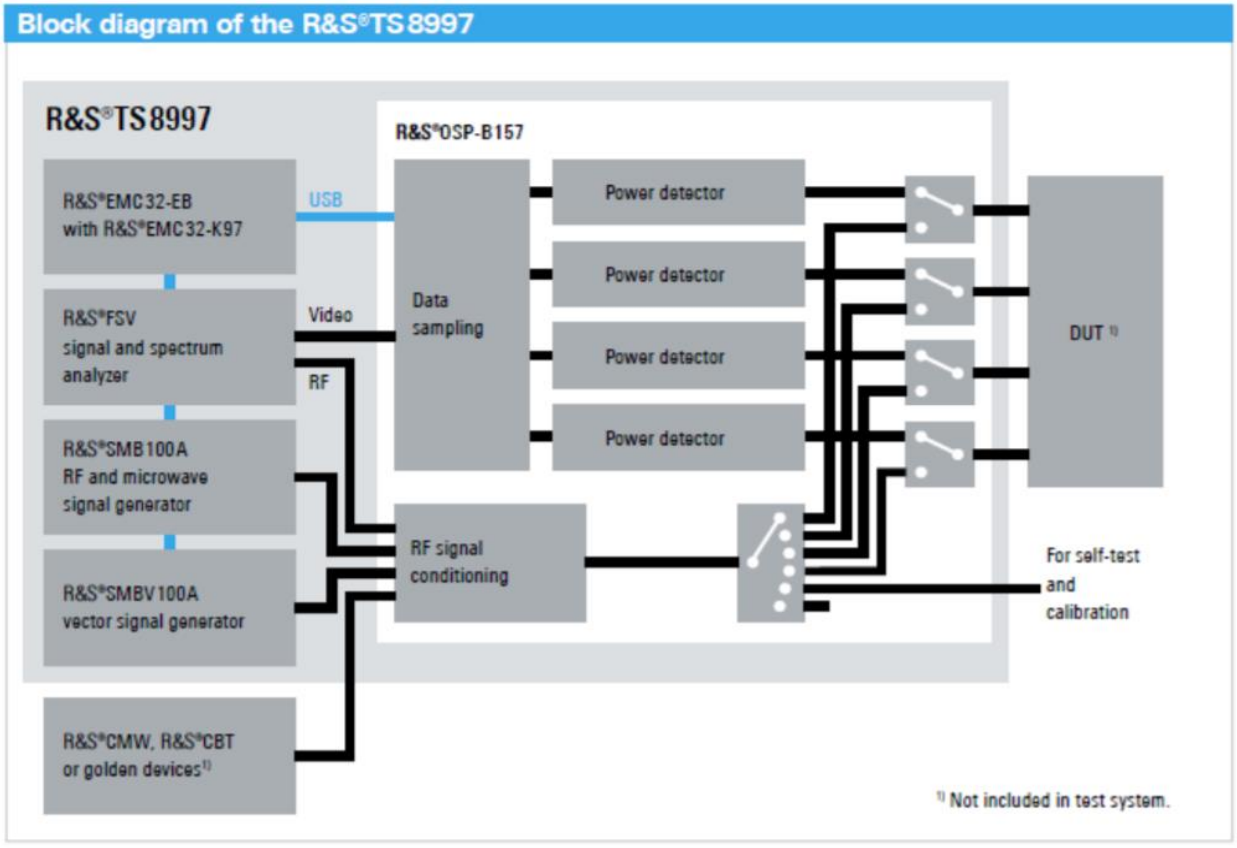


Diagram 1: Test Configuration Block Diagram

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

Title	47 CFR FCC Part 15, Subpart E, Section 15.407 Limits and methods of measurement of radio interference characteristics of Unlicensed National Information Infrastructure Devices
Purpose of Test	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	5955 to 6415	Compliant
15.407(a)	RSS-248 §4.5	Peak Output Power[1]	5955 to 6415	Compliant
15.407(b)	RSS-248 §4.6	Antenna Conducted Spurious Emissions[1]	0.009 to 40000	N/A Note[2]
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[1]	5955 to 6415	Compliant
15.407(d)	RSS-248 §4.7	Contention Based Protocol	5955 to 6415	Compliant

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.

Note [1]: 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.
Note [2]: Radiated Spurious was performed per 15.209 with the antenna unterminated.

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	AFJ	AFJ FFT3010	UCL-3107	N/A	N/A

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

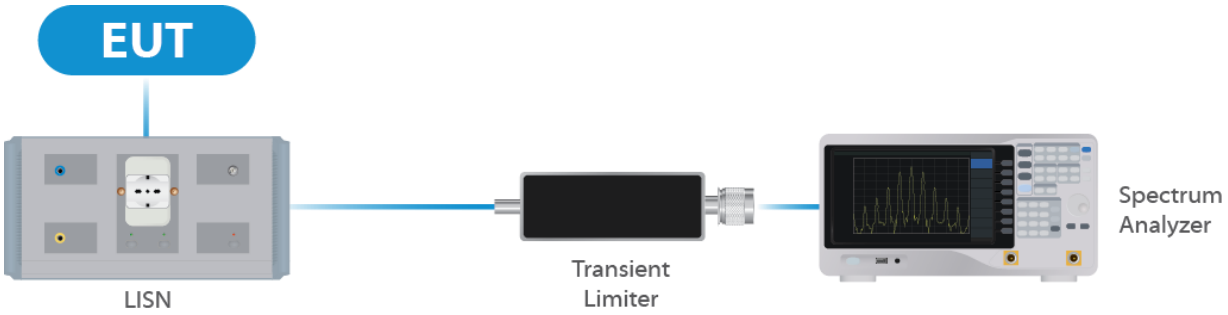


Figure 1: Conducted Emissions Test

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

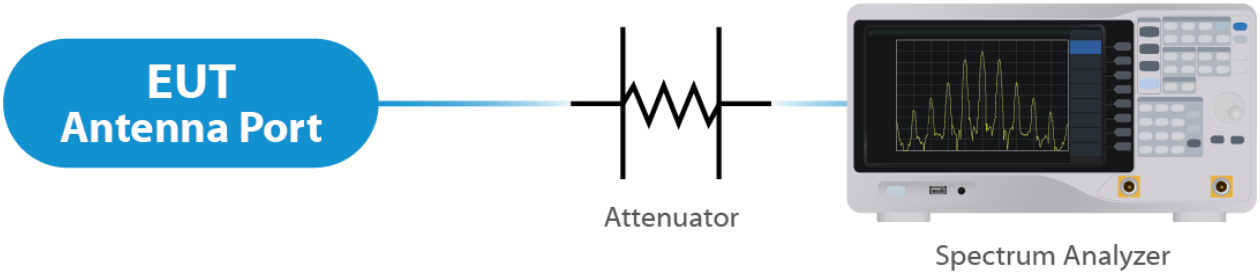


Figure 2: Direct Connect at the Antenna Port Test

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 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

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	9/29/2026

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

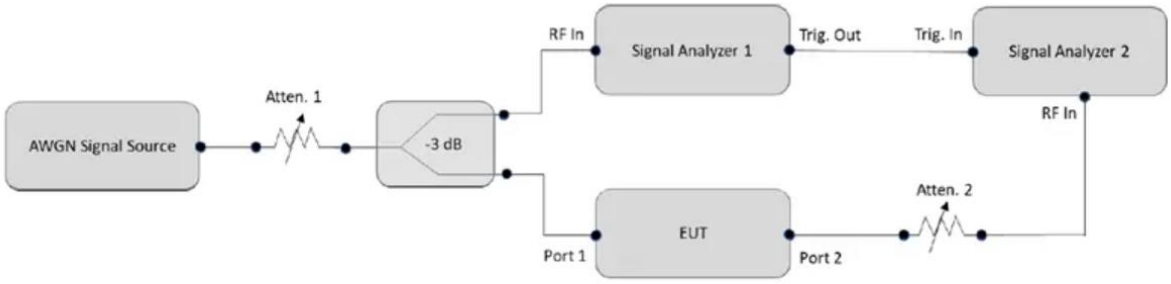


Figure 1. CBP conducted test setup diagram. Source: KDB 987594 D02 V01r01

Figure 3: Contention Base Protocol Test

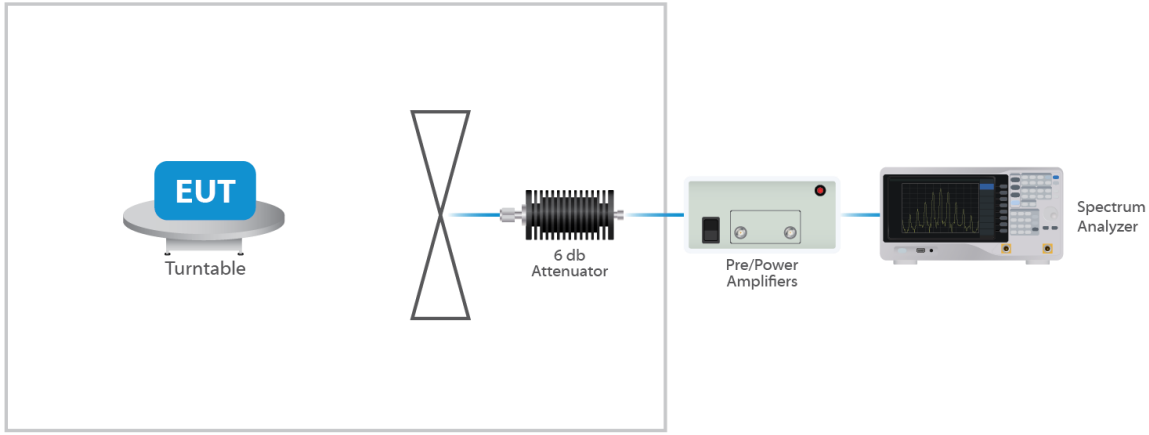


Figure 4: Radiated Emissions Test

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 (± 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
Direct Connect Tests	**K Factor**	**Value**
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.

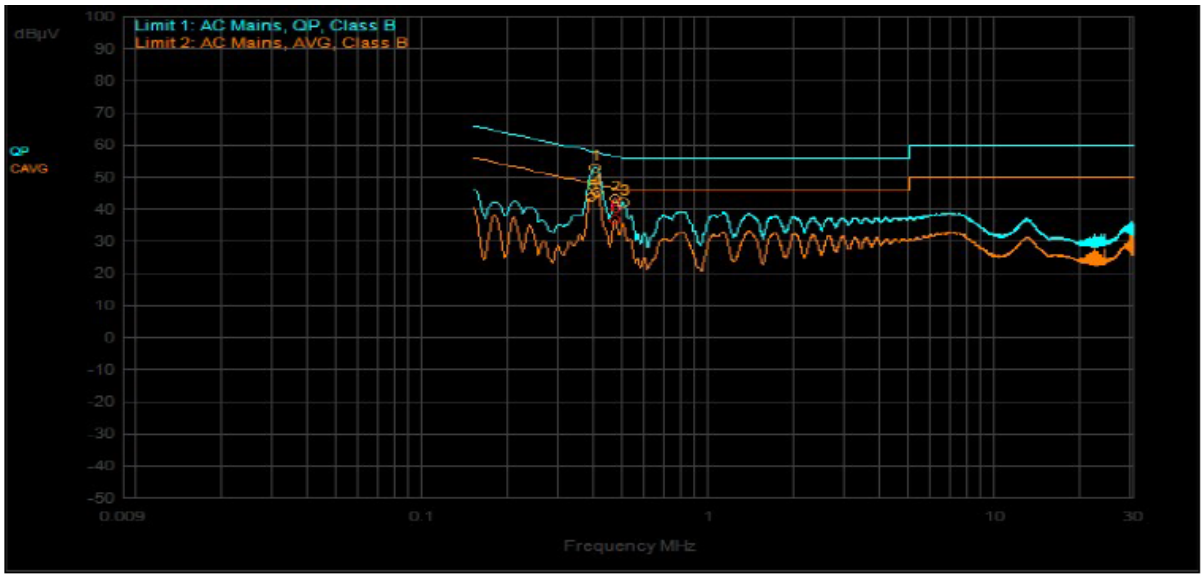
See Section 2.2 for directional gain calculation.

Results

The EUT complied with the specification

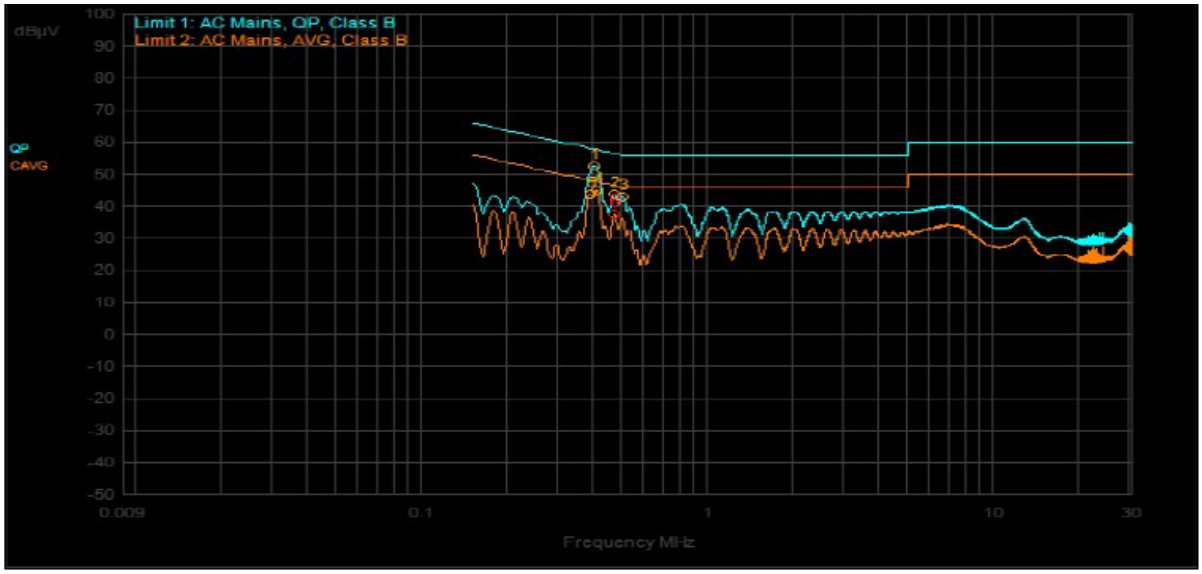
5.2 §15.207 Conducted Emissions at Mains Ports Data

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)
20	5955	19.25	22.05
20	6195	19.25	22.35
20	6415	19.25	22.55
40	5965	38.25	42.50
40	6205	38.25	43.00
40	6405	38.00	43.50
80	5985	78.00	85.50
80	6225	77.50	85.00
80	6385	77.50	86.00
160	6025	158.00	174.00
160	6185	158.00	172.00
160	6325	157.00	172.00
320	6265	317.50	317.50

Dish Antenna

Nominal BW (MHz)	Frequency (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)
20	5955	19.03	22.35
20	6195	19.18	22.80
20	6415	19.18	23.10
40	5965	38.00	42.50
40	6205	38.25	43.50
40	6405	38.25	42.25
80	5985	77.50	88.50
80	6225	78.00	89.00
80	6385	78.00	86.00
160	6025	158.00	175.00
160	6185	158.00	172.00
160	6325	157.00	175.00
320	6265	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 for directional gain calculation.

The maximum average RF conducted output power measured for this device was 16.40 dBm or 43.65 mW. The limit is 36 dBm EIRP, or 4 watt EIRP. The antenna has a gain of 19.5 dBi for the horn antenna and 30 dBi for the Dish antenna.

5.4.1 Ouput Power Per Chain

Modulation (BW)	Frequency (MHz)	Horn Antenna			Dish Antenna		
		Chain0 (dBm)	Chain1 (dBm)	Total Output Power* (dBm)	Chain0 (dBm)	Chain1 (dBm)	Total Output Power* (dBm)
EHT 20	5955	12.56	12.76	15.67	1.68	2.11	4.91
EHT 20	6195	13.31	13.38	16.36	2.82	2.26	5.28
EHT 20	6415	13.35	13.16	16.27	2.28	1.65	4.98
EHT 40	5965	13.2	13.11	16.16	2.37	2.96	5.69
EHT 40	6205	13.53	13.24	16.40	2.45	2.4	5.43
EHT 40	6405	13.61	13.05	16.35	2.72	1.96	5.37
EHT 80	5985	12.69	12.88	15.80	2.13	2.74	5.46
EHT 80	6225	12.72	12.52	15.63	2.45	2.57	5.52
EHT 80	6385	13.32	12.86	16.11	2.88	2.67	5.79
EHT 160	6025	13.1	13.41	16.27	1.55	1.62	4.60
EHT 160	6185	12.59	12.52	15.57	1.82	1.97	4.91
EHT 160	6325	13.23	13.04	16.14	2.22	2.5	5.37
EHT 320	6265	12.88	13.26	16.09	2.86	2.11	5.51

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	5955	Mcs0_Nss4	15	15.67	19.5	35.17	36	-0.83
EHT 20	6195	Mcs0_Nss4	15	16.36	19.5	35.86	36	-0.14
EHT 20	6415	Mcs0_Nss4	14	16.27	19.5	35.77	36	-0.23
EHT 40	5965	Mcs0_Nss4	15	16.16	19.5	35.66	36	-0.34
EHT 40	6205	Mcs0_Nss4	15	16.40	19.5	35.90	36	-0.1
EHT 40	6405	Mcs0_Nss4	14	16.35	19.5	35.85	36	-0.15
EHT 80	5985	Mcs0_Nss4	14	15.80	19.5	35.30	36	-0.7
EHT 80	6225	Mcs0_Nss4	14	15.63	19.5	35.13	36	-0.87
EHT 80	6385	Mcs0_Nss4	14	16.11	19.5	35.61	36	-0.39
EHT 160	6025	Mcs0_Nss4	15	16.27	19.5	35.77	36	-0.23
EHT 160	6185	Mcs0_Nss4	14	15.57	19.5	35.07	36	-0.93
EHT 160	6325	Mcs0_Nss4	14	16.14	19.5	35.64	36	-0.36
EHT 320	6265	Mcs0_Nss4	14	16.09	19.5	35.59	36	-0.41

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	5955	Mcs0_Nss1	11	12.18	22.51	31.68	36	-4.32
EHT 20	6195	Mcs0_Nss1	11	12.51	22.51	32.01	36	-3.99
EHT 20	6415	Mcs0_Nss1	11	13.41	22.51	32.91	36	-3.09
EHT 40	5965	Mcs0_Nss1	13	14.62	22.51	34.12	36	-1.88
EHT 40	6205	Mcs0_Nss1	15	16.40	22.51	35.90	36	-0.1
EHT 40	6405	Mcs0_Nss1	14	16.35	22.51	35.85	36	-0.15
EHT 80	5985	Mcs0_Nss1	14	15.80	22.51	35.30	36	-0.7
EHT 80	6225	Mcs0_Nss1	14	15.63	22.51	35.13	36	-0.87

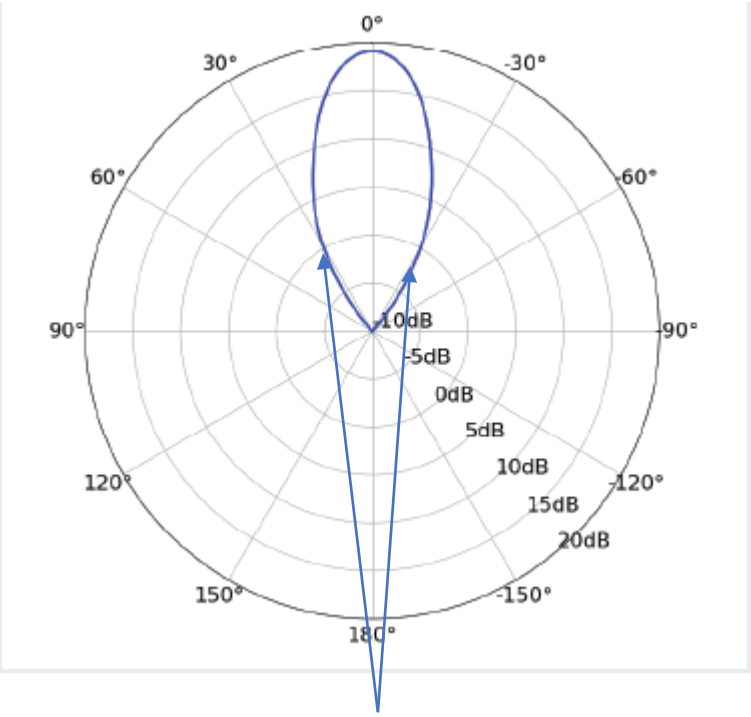
Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Total Summed Output Power* (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dBm)
EHT 80	6385	Mcs0_Nss1	14	16.11	22.51	35.61	36	-0.39
EHT 160	6025	Mcs0_Nss1	15	16.27	22.51	35.77	36	-0.23
EHT 160	6185	Mcs0_Nss1	14	15.57	22.51	35.07	36	-0.93
EHT 160	6325	Mcs0_Nss1	14	16.14	22.51	35.64	36	-0.36
EHT 320	6265	Mcs0_Nss1	14	16.09	22.51	35.59	36	-0.41

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	5955	Mcs0_Nss4	4	4.91	30	34.91	36	-1.09
EHT 20	6195	Mcs0_Nss4	4	5.28	30	35.28	36	-0.72
EHT 20	6415	Mcs0_Nss4	3	4.98	30	34.98	36	-1.02
EHT 40	5965	Mcs0_Nss4	4	5.69	30	35.69	36	-0.31
EHT 40	6205	Mcs0_Nss4	4	5.43	30	35.43	36	-0.57
EHT 40	6405	Mcs0_Nss4	3	5.37	30	35.37	36	-0.63
EHT 80	5985	Mcs0_Nss4	3	5.46	30	35.46	36	-0.54
EHT 80	6225	Mcs0_Nss4	4	5.52	30	35.52	36	-0.48
EHT 80	6385	Mcs0_Nss4	4	5.79	30	35.79	36	-0.21
EHT 160	6025	Mcs0_Nss4	4	4.60	30	34.60	36	-1.4
EHT 160	6185	Mcs0_Nss4	4	4.91	30	34.91	36	-1.09
EHT 160	6325	Mcs0_Nss4	4	5.37	30	35.37	36	-0.63
EHT 320	6265	Mcs0_Nss4	4	5.51	30	35.51	36	-0.49

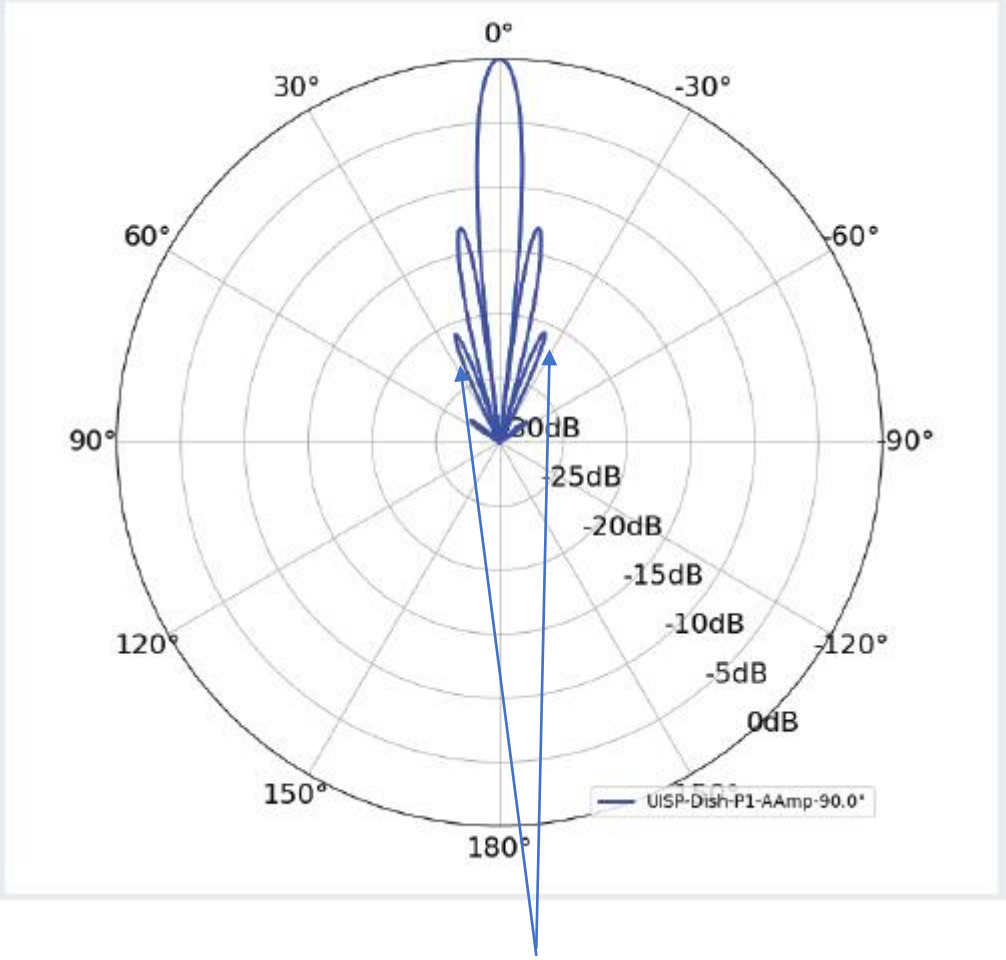
Nss=1 – Dish Antenna

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Total Summed Output Power* (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dBm)
EHT 20	5955	Mcs0_Nss1	1	1.83	33.01	31.83	36	-4.17
EHT 20	6195	Mcs0_Nss1	1	2.21	33.01	32.21	36	-3.79
EHT 20	6415	Mcs0_Nss1	1	2.84	33.01	32.84	36	-3.16
EHT 40	5965	Mcs0_Nss1	3	4.74	33.01	34.74	36	-1.26
EHT 40	6205	Mcs0_Nss1	4	5.43	33.01	35.43	36	-0.57
EHT 40	6405	Mcs0_Nss1	3	5.37	33.01	35.37	36	-0.63
EHT 80	5985	Mcs0_Nss1	3	5.46	33.01	35.46	36	-0.54
EHT 80	6225	Mcs0_Nss1	4	5.52	33.01	35.52	36	-0.48
EHT 80	6385	Mcs0_Nss1	4	5.79	33.01	35.79	36	-0.21
EHT 160	6025	Mcs0_Nss1	4	4.60	33.01	34.60	36	-1.4
EHT 160	6185	Mcs0_Nss1	4	4.91	33.01	34.91	36	-1.09
EHT 160	6325	Mcs0_Nss1	4	5.37	33.01	35.37	36	-0.63
EHT 320	6265	Mcs0_Nss1	4	5.51	33.01	35.51	36	-0.49



No emissions above 30 degrees

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



No emissions above 30 degrees

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

Result

In the configuration tested, the maximum average RF outpower was less than 4 watt EIRP; therefore, the EUT compiled 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)
17.8839003 GHz	Pk	66.77	74	-7.23	8	1.500	Vertical	1 MHz	1.333
17.8839003 GHz	Av	47.089	54	-6.911	8	1.500	Vertical	1 MHz	1.333
17.8563237 GHz	Pk	64.755	74	-9.245	3	1.500	Horizontal	1 MHz	1.508
17.8563237 GHz	Av	48.891	54	-5.109	3	1.500	Horizontal	1 MHz	1.508
12.393 GHz	Pk	55.235	74	-18.765	186	3.307	Vertical	1 MHz	11.487
12.393 GHz	Av	41.666	54	-12.334	186	3.307	Vertical	1 MHz	11.487

Table 5: Transmitting on the Lowest Frequency 5955 MHz

Frequency	Det	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW (Hz)	Correction (dB)
18.5878924 GHz	Pk	57.008	74	-16.992	3	1.500	Vertical	1 MHz	1.062
18.5878924 GHz	Av	40.776	54	-13.224	3	1.500	Vertical	1 MHz	1.062
18.5801136 GHz	Pk	68.646	74	-5.354	3	1.500	Horizontal	1 MHz	1.041
18.5801136 GHz	Av	53.498	54	-0.502	3	1.500	Horizontal	1 MHz	1.041
12.38 GHz	Pk	55.862	74	-18.138	97	1.5	Vertical	1 MHz	11.611
12.38 GHz	Av	42.577	54	-11.423	97	1.5	Vertical	1 MHz	11.611
12.385 GHz	Pk	55.079	74	-18.921	226	3.802	Horizontal	1 MHz	11.563
12.385 GHz	Av	42.091	54	-11.909	226	3.802	Horizontal	1 MHz	11.563

Table 6: Transmitting on the Middle Frequency 6195 MHz

Frequency	Det	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW (Hz)	Correction (dB)
19.2462508 GHz	Pk	66.045	74	-7.955	30	1.500	Vertical	1 MHz	0.178
25.6513643 GHz	Pk	52.968	74	-21.032	128	1.500	Vertical	1 MHz	3.218
32.0744166 GHz	Pk	54.515	74	-19.485	296	1.500	Vertical	1 MHz	1.607
19.2462508 GHz	Av	52.194	54	-1.806	30	1.500	Vertical	1 MHz	0.178
25.6513643 GHz	Av	38.448	54	-15.552	128	1.500	Vertical	1 MHz	3.218
32.0744166 GHz	Av	39.4	54	-14.6	296	1.500	Vertical	1 MHz	1.607
19.2569803 GHz	Pk	49.616	74	-24.384	59	1.500	Horizontal	1 MHz	0.155
25.6609636 GHz	Pk	53.492	74	-20.508	131	1.500	Horizontal	1 MHz	3.044
38.4767199 GHz	Pk	56.505	74	-17.495	217	1.500	Horizontal	1 MHz	4.561

Frequency	Det	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW (Hz)	Correction (dB)
19.2569803 GHz	Av	35.996	54	-18.004	59	1.500	Horizontal	1 MHz	0.155
25.6609636 GHz	Av	38.507	54	-15.493	131	1.500	Horizontal	1 MHz	3.044
38.4767199 GHz	Av	39.994	54	-14.006	217	1.500	Horizontal	1 MHz	4.561
19.2569803 GHz	Av	35.996	54	-18.004	59	1.500	Horizontal	1 MHz	0.155

Table 7: Transmitting on the Highest Frequency 6415 MHz

Dish Antenna

Frequency	Det	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW (Hz)	Correction (dB)
11.08 GHz	Pk	55.85	74	-18.15	106	3.307	Horizontal	1 MHz	10.697
11.08 GHz	Av	42.248	54	-11.752	106	3.307	Horizontal	1 MHz	10.697
17.8659713 GHz	Pk	60.206	74	-13.794	355	1.500	Vertical	1 MHz	1.447
17.8659713 GHz	Av	46.258	54	-7.742	355	1.500	Vertical	1 MHz	1.447
17.867415 GHz	Pk	66.958	74	-7.042	25	1.500	Horizontal	1 MHz	1.438
17.867415 GHz	Av	53.016	54	-0.984	25	1.500	Horizontal	1 MHz	1.438

Table 8: Transmitting on the Lowest Frequency 5955 MHz

Frequency	Det	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW (Hz)	Correction (dB)
18.5804224 GHz	Pk	66.282	74	-7.718	20	1.500	Vertical	1 MHz	1.042
18.5804224 GHz	Av	51.229	54	-2.771	20	1.500	Vertical	1 MHz	1.042
18.5788025 GHz	Pk	66.698	74	-7.302	20	1.500	Horizontal	1 MHz	1.037
18.5788025 GHz	Av	51.88	54	-2.12	20	1.500	Horizontal	1 MHz	1.037

Table 9: Transmitting on the Middle Frequency 6195 MHz

Frequency	Det	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW (Hz)	Correction (dB)
19.2471188 GHz	1	64.359	74	-9.641	10	1.500	Vertical	1 MHz	0.176
25.6634706 GHz	1	54.633	74	-19.367	205	1.500	Vertical	1 MHz	2.999
19.2471188 GHz	1	50.447	54	-3.553	10	1.500	Horizontal	1 MHz	0.176
25.6634706 GHz	1	40.56	54	-13.44	205	1.500	Horizontal	1 MHz	2.999
19.2443437 GHz	2	65.207	74	-8.793	17	1.500	Horizontal	1 MHz	0.181
25.6475003 GHz	2	57.635	74	-16.365	199	1.500	Horizontal	1 MHz	3.289
38.4775097 GHz	2	56.526	74	-17.474	161	1.500	Horizontal	1 MHz	4.56
19.2443437 GHz	2	51.8	54	-2.2	17	1.500	Horizontal	1 MHz	0.181
25.6475003 GHz	2	42.586	54	-11.414	199	1.500	Horizontal	1 MHz	3.289
38.4775097 GHz	2	40.685	54	-13.315	161	1.500	Horizontal	1 MHz	4.56
32.0758584 GHz	1	55.531	74	-18.469	206	1.500	Vertical	1 MHz	1.607
32.0758584 GHz	1	41.212	54	-12.788	206	1.500	Vertical	1 MHz	1.607

Table 10: Transmitting on the Highest Frequency 6415 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 for 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	5955	Mcs0_Nss4	15	3.18	19.5	3.5	-0.32
EHT 20	6195	Mcs0_Nss4	15	3.38	19.5	3.5	-0.12
EHT 20	6415	Mcs0_Nss4	14	2.50	19.5	3.5	-1
EHT 40	5965	Mcs0_Nss4	15	1.17	19.5	3.5	-2.33
EHT 40	6205	Mcs0_Nss4	15	0.23	19.5	3.5	-3.27
EHT 40	6405	Mcs0_Nss4	14	-0.33	19.5	3.5	-3.83
EHT 80	5985	Mcs0_Nss4	14	-2.44	19.5	3.5	-5.94
EHT 80	6225	Mcs0_Nss4	14	-3.70	19.5	3.5	-7.2
EHT 80	6385	Mcs0_Nss4	14	-3.68	19.5	3.5	-7.18
EHT 160	6025	Mcs0_Nss4	15	-4.90	19.5	3.5	-8.4
EHT 160	6185	Mcs0_Nss4	14	-6.21	19.5	3.5	-9.71
EHT 160	6325	Mcs0_Nss4	14	-6.24	19.5	3.5	-9.74
EHT 320	6265	Mcs0_Nss4	14	-8.97	19.5	3.5	-12.47

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	5955	Mcs0_Nss1	11	-0.30	22.51	-0.49	0.19
EHT 20	6195	Mcs0_Nss1	11	-0.42	22.51	-0.49	0.07
EHT 20	6415	Mcs0_Nss1	11	-0.39	22.51	-0.49	0.1
EHT 40	5965	Mcs0_Nss1	13	-0.38	22.51	-0.49	0.11
EHT 40	6205	Mcs0_Nss1	15	0.23	22.51	-0.49	0.72
EHT 40	6405	Mcs0_Nss1	14	-0.33	22.51	-0.49	0.16
EHT 80	5985	Mcs0_Nss1	14	-2.44	22.51	-0.49	-1.95
EHT 80	6225	Mcs0_Nss1	14	-3.70	22.51	-0.49	-3.21
EHT 80	6385	Mcs0_Nss1	14	-3.68	22.51	-0.49	-3.19
EHT 160	6025	Mcs0_Nss1	15	-4.90	22.51	-0.49	-4.41
EHT 160	6185	Mcs0_Nss1	14	-6.21	22.51	-0.49	-5.72
EHT 160	6325	Mcs0_Nss1	14	-6.24	22.51	-0.49	-5.75
EHT 320	6265	Mcs0_Nss1	14	-8.97	22.51	-0.49	-8.48

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	5955	Mcs0_Nss4	4	-7.49	30	-7	-0.49
EHT 20	6195	Mcs0_Nss4	4	-7.71	30	-7	-0.71
EHT 20	6415	Mcs0_Nss4	3	-8.72	30	-7	-1.72
EHT 40	5965	Mcs0_Nss4	4	-9.28	30	-7	-2.28
EHT 40	6205	Mcs0_Nss4	4	-10.72	30	-7	-3.72
EHT 40	6405	Mcs0_Nss4	3	-11.23	30	-7	-4.23
EHT 80	5985	Mcs0_Nss4	3	-12.75	30	-7	-5.75
EHT 80	6225	Mcs0_Nss4	4	-13.74	30	-7	-6.74

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Total Sum PSD EIRP (dBm)	Antenna Gain (dBi)	Limit (dBm)	Margin (dBm)
EHT 80	6385	Mcs0_Nss4	4	-14.05	30	-7	-7.05
EHT 160	6025	Mcs0_Nss4	4	-16.62	30	-7	-9.62
EHT 160	6185	Mcs0_Nss4	4	-16.99	30	-7	-9.99
EHT 160	6325	Mcs0_Nss4	4	-17.03	30	-7	-10.03
EHT 320	6265	Mcs0_Nss4	4	-19.53	30	-7	-12.53

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	5955	Mcs0_Nss1	1	-10.67	33.01	-10.01	-0.66
EHT 20	6195	Mcs0_Nss1	1	-10.80	33.01	-10.01	-0.79
EHT 20	6415	Mcs0_Nss1	1	-10.81	33.01	-10.01	-0.8
EHT 40	5965	Mcs0_Nss1	3	-10.23	33.01	-10.01	-0.22
EHT 40	6205	Mcs0_Nss1	4	-10.72	33.01	-10.01	-0.71
EHT 40	6405	Mcs0_Nss1	3	-11.23	33.01	-10.01	-1.22
EHT 80	5985	Mcs0_Nss1	3	-12.75	33.01	-10.01	-2.74
EHT 80	6225	Mcs0_Nss1	4	-13.74	33.01	-10.01	-3.73
EHT 80	6385	Mcs0_Nss1	4	-14.05	33.01	-10.01	-4.04
EHT 160	6025	Mcs0_Nss1	4	-16.62	33.01	-10.01	-6.61
EHT 160	6185	Mcs0_Nss1	4	-16.99	33.01	-10.01	-6.98
EHT 160	6325	Mcs0_Nss1	4	-17.03	33.01	-10.01	-7.02
EHT 320	6265	Mcs0_Nss1	4	-19.53	33.01	-10.01	-9.52

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.

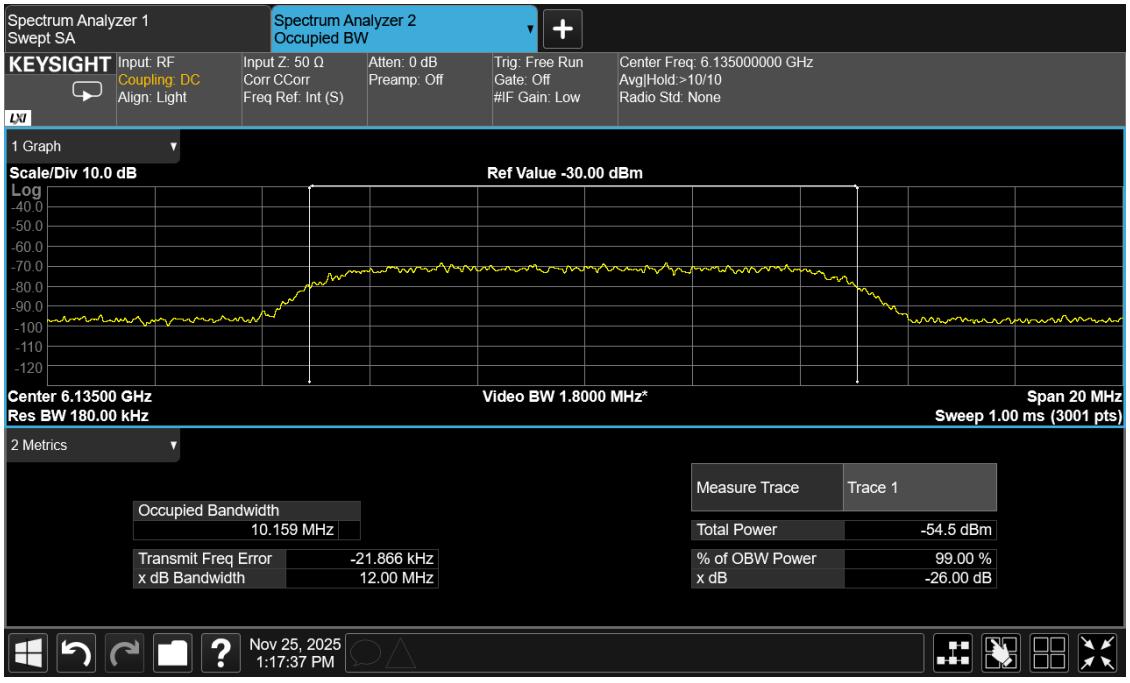
Initially the test setup was connected directly to the signal source with all splitters (splitters terminated with a 50-ohm loads on unused ports) and cables in place to verify the AWGN signal is 10MHz wide at a signal level of less than or equal to -62 dBm and for conducted measurements the threshold 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.

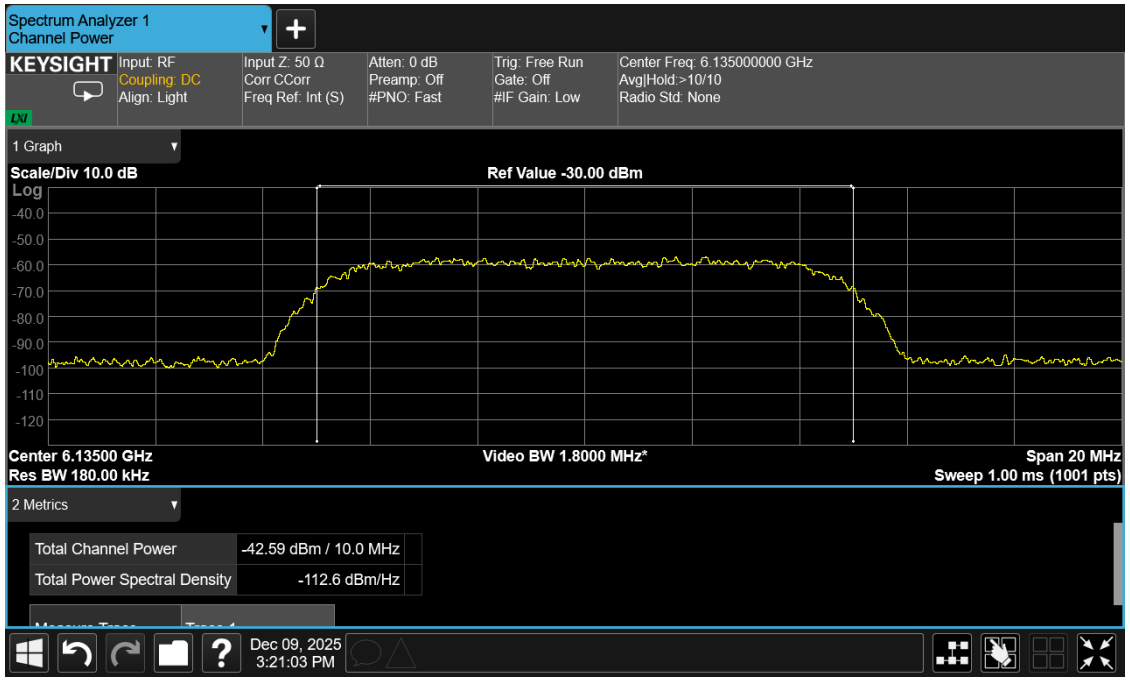
Starting at the levels established above, the AWGN signal was introduced to the DUT and increased to determine a threshold level at where the DUT will terminate with at least a 90% detection rate. The level at the DUT, which the 90% detection rate was achieved was recorded as the “Sensitivity Level”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

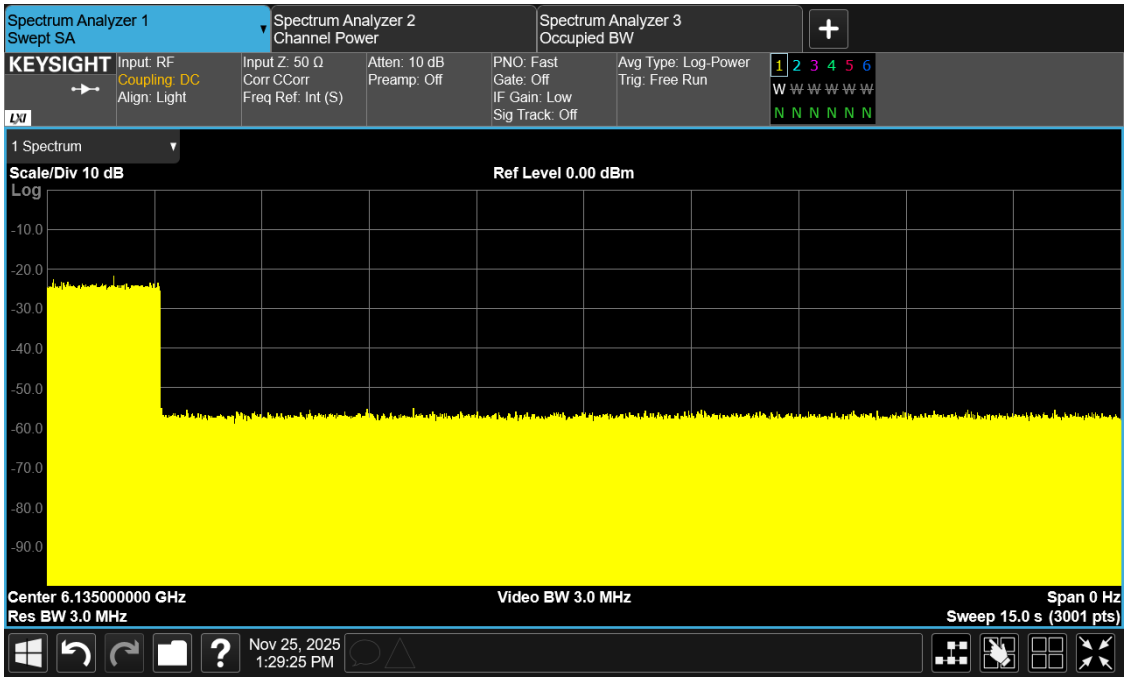
Testing shall be repeated at each applicable channel and bandwidth as noted in Table 1 of KDB 987594 D02.



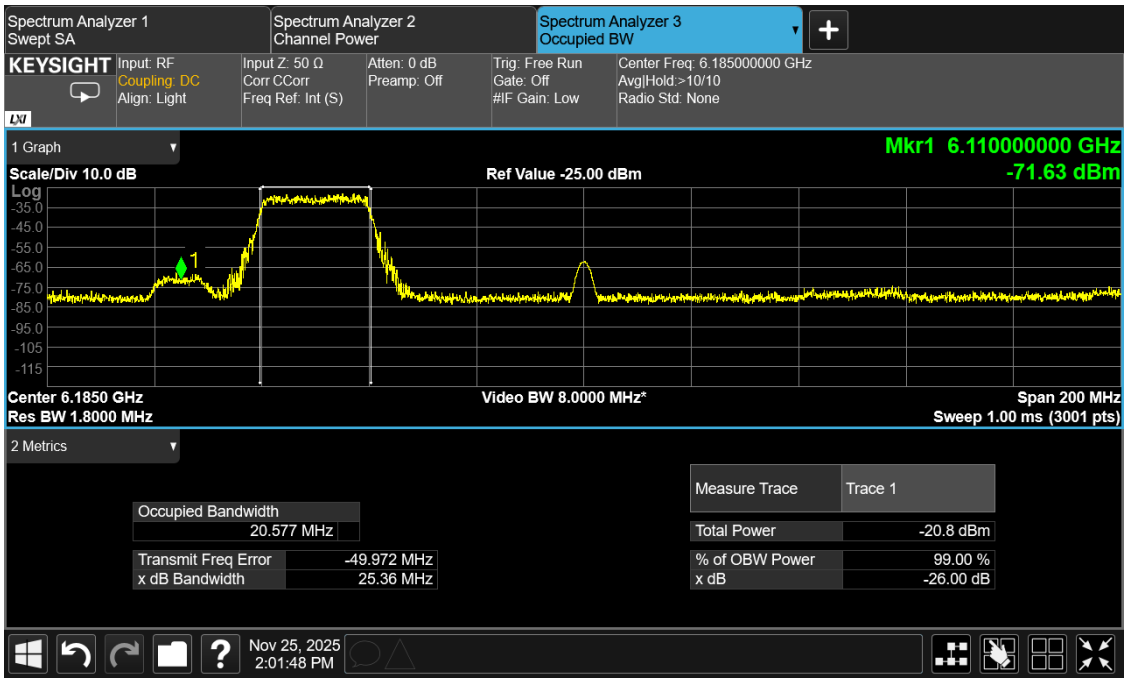
Plot 3: AWGN Signal BW Details



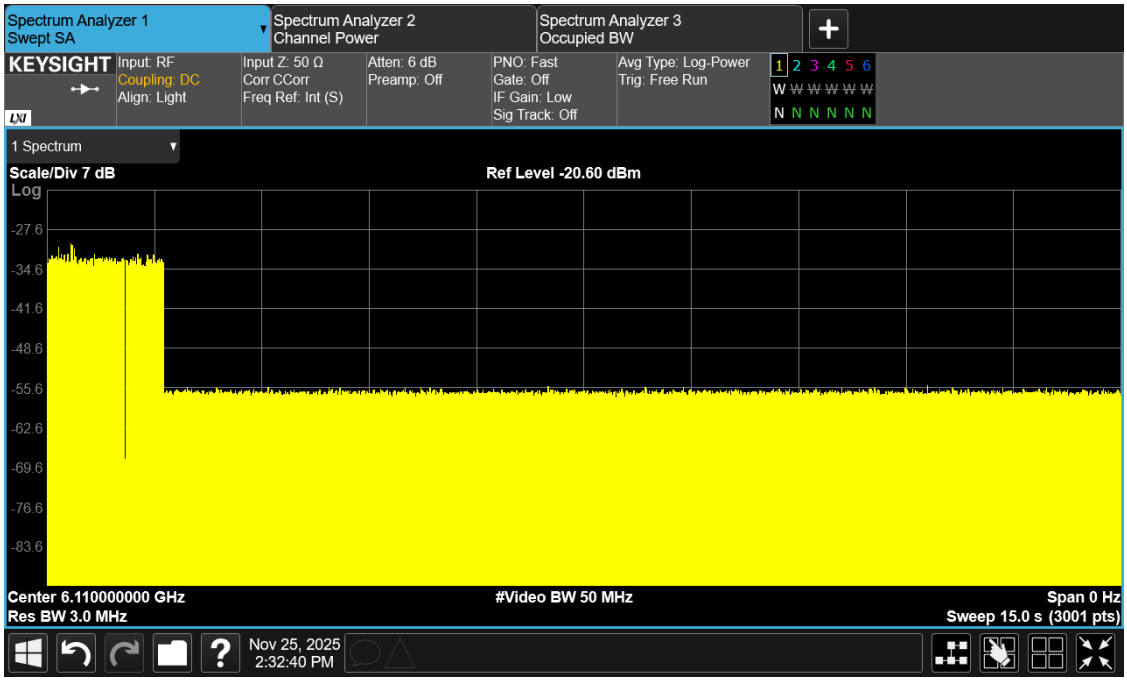
Plot 4: AWGN Signal Level Details



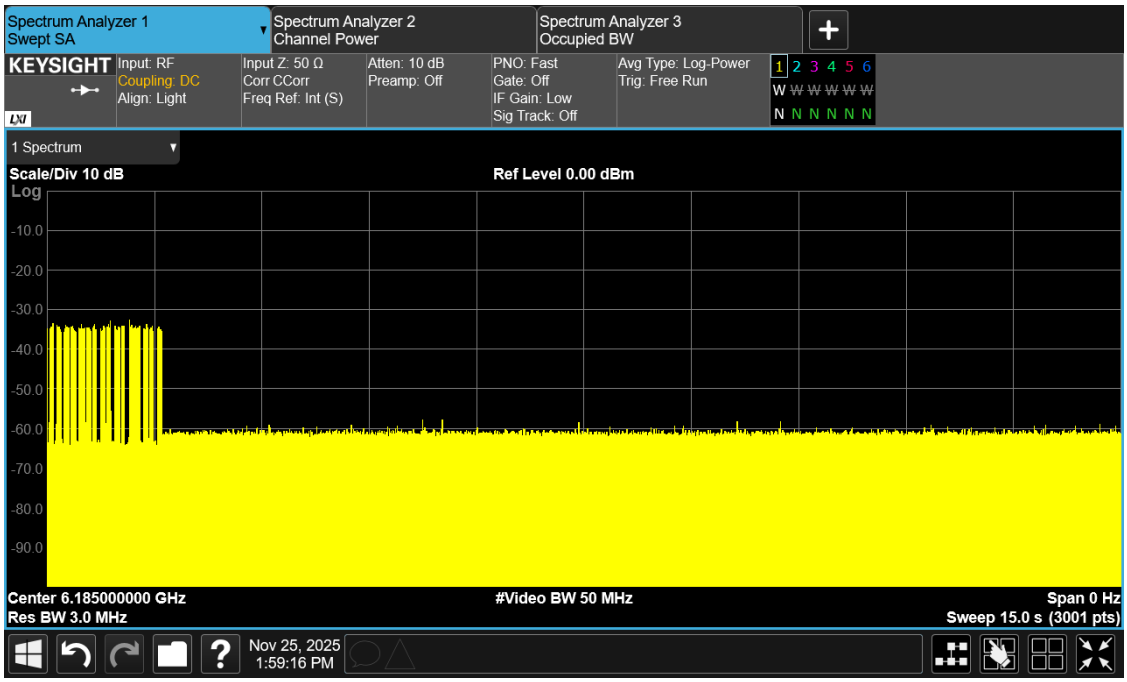
Plot 5: AWGN Signal Detection Details 20 MHz BW, 6135



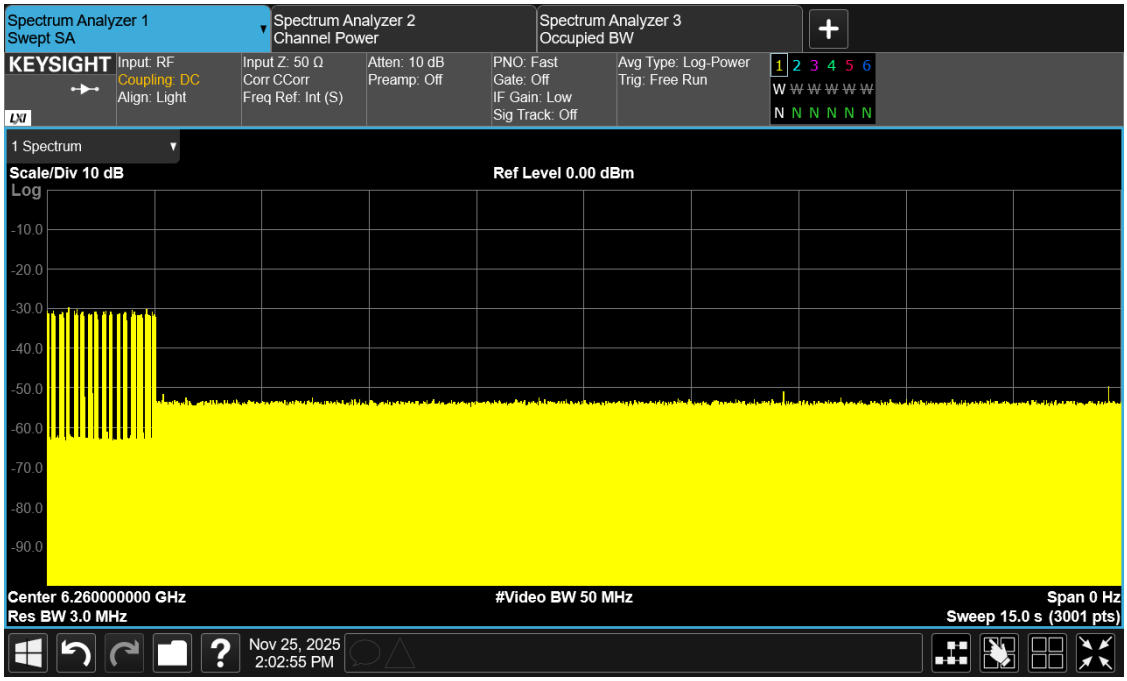
Plot 6: EUT 160MHz Transmission and Bandwidth Reduction



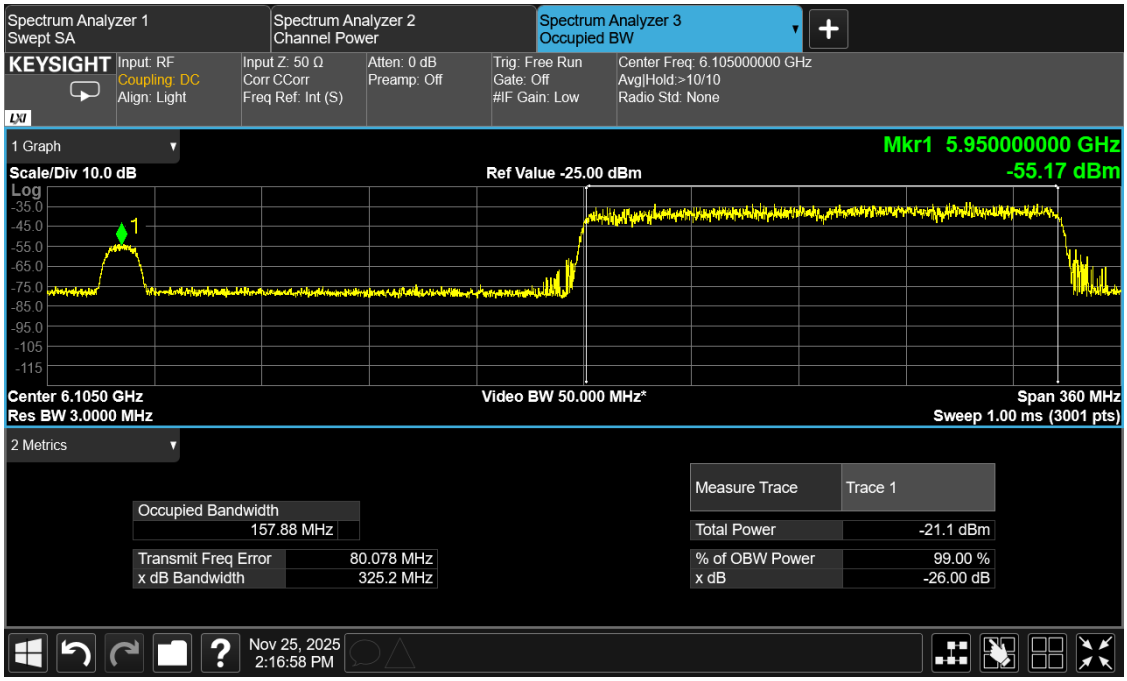
Plot 7: AWGN Signal Detection Details 160 MHz BW, 6185 – 6110



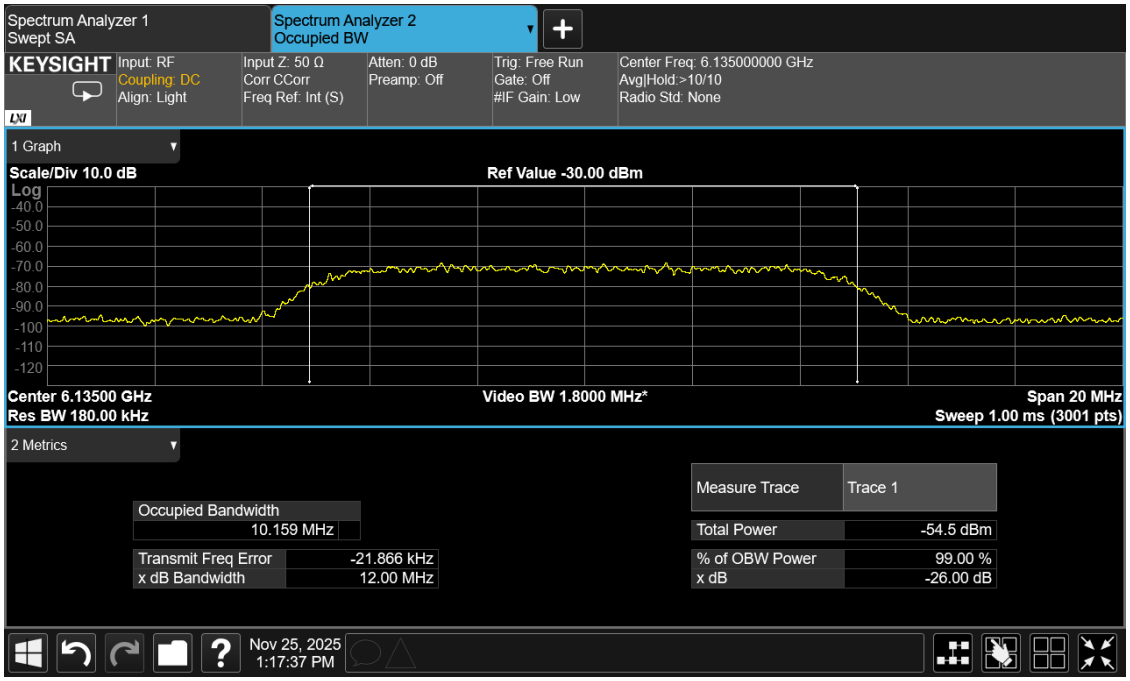
Plot 8: AWGN Signal Detection Details 160 MHz BW, 6185



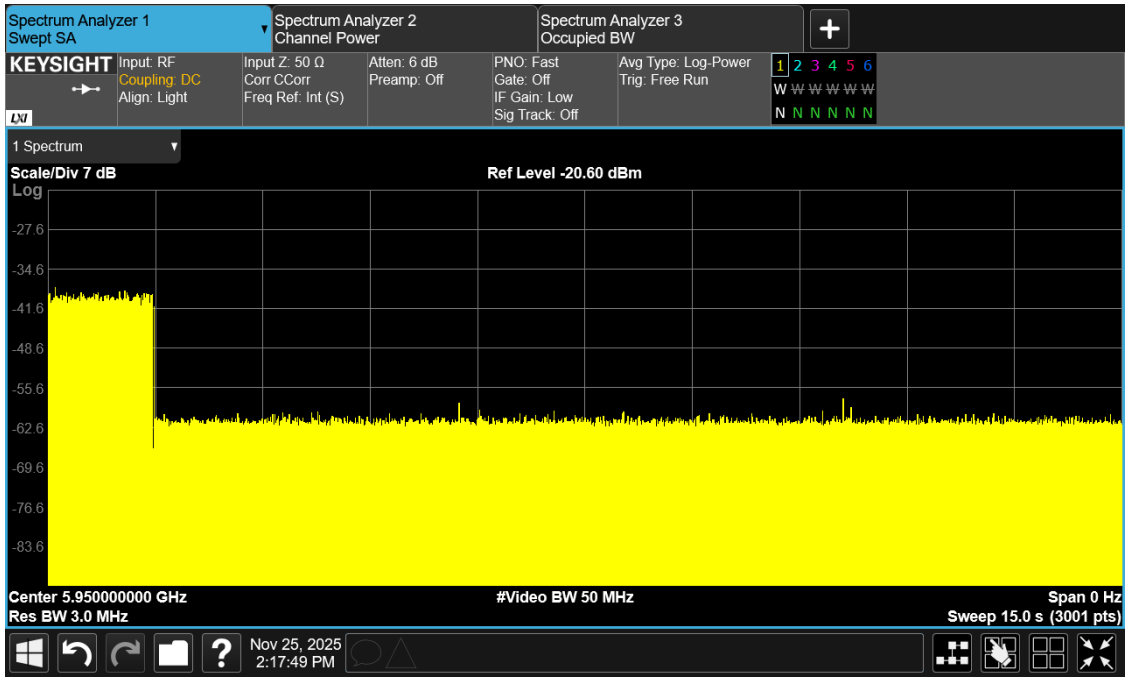
Plot 9: AWGN Signal Detection Details 160 MHz BW, 6185 – 6260



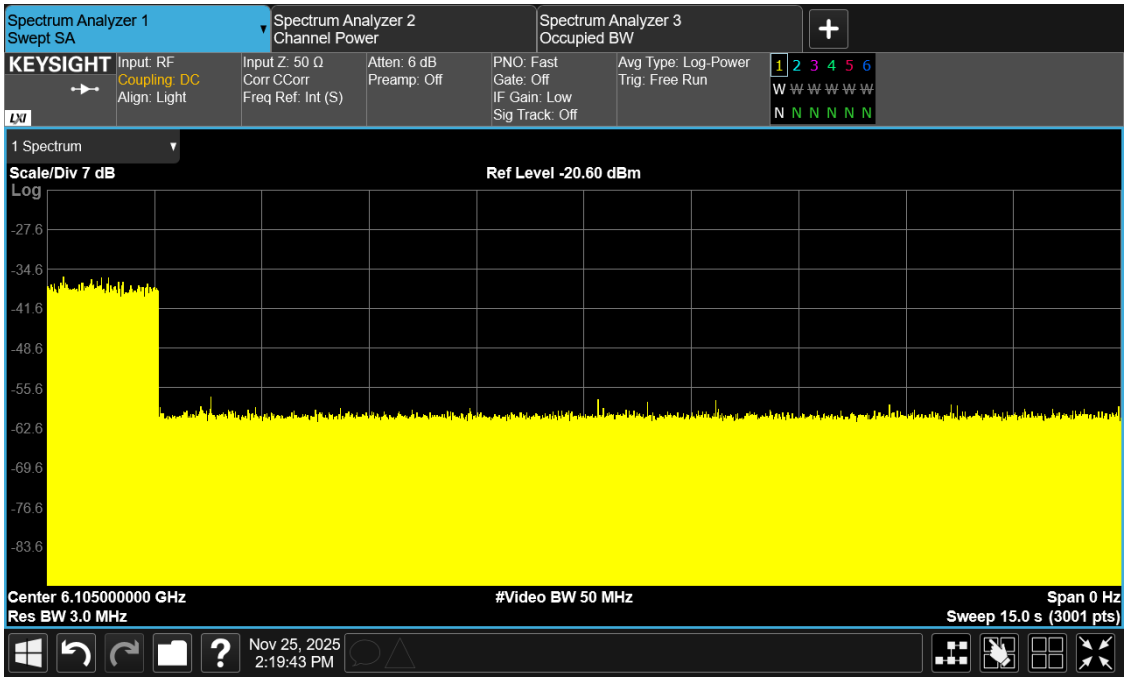
Plot 10: EUT 320MHz Transmission and Bandwidth Reduction



Plot 11: AWGN Signal Detection Details 320 MHz BW, 6265 – 6110



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



Plot 13: AWGN Signal Detection Details 320 MHz BW, 6265 – 6410

Contention Based Protocol 987594 D02 U-NNI 6 GHz EMC Measurement									
Band	BW_{EUT} (MHz)	F_{c1}	F_{c2}	Reduce Tx AWGN Power (dBm)	Stop Tx AWGN Power (dBm)	Adjusted Power (dBm)	Limit (dBm)	Margin (dB)	Detection >90%
UNII-5 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
UN1I-7 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

DUT FW
2.3.1

F_{c1} *EUT transmission center frequency*
F_{c2} *Incumbent signal center frequency*
Signal Power Level *Starts at TL-20dBm and increased until EUT trasmission stops*

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 --