



427 West 12800 South
Draper, UT 84020

Test Report Certification

FCC ID	SWX-UAW
ISED ID	6545A-UAW
Equipment Under Test	U-AirWire
Test Report Serial Number	TR10702_02
Date of Tests	12, 30 December 2025; 2-5 January 2026
Report Issue Date	3 February 2026

Test Specification	Applicant
47 CFR FCC Part 15, Subpart E RSS-247, Issue 4 (July 2025)	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.



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. 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	U-AirWire
FCC ID	SWX-UAW
ISED ID	6545A-UAW

On this 3rd day of February 2026, 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: Kimberly DeBole



Reviewed By: Joseph W. Jackson

Revision History		
Revision	Description	Date
01	Original Report Release	3 February 2026
02	Amended Standard Reference in Section 3.3.1 and Amended the PSD Data and Limit in Section 5.6	19 February 2027

Table of Contents

1	Client Information.....	5
1.1	Applicant.....	5
1.2	Manufacturer.....	5
2	Equipment Under Test (EUT).....	6
2.1	Identification of EUT	6
2.2	Description of EUT	6
2.3	EUT and Support Equipment	7
2.4	Interface Ports on EUT	7
2.5	Operating Environment.....	7
2.6	Operating Modes.....	7
2.7	EUT Exercise Software.....	8
2.8	Block Diagram of Test Configuration	8
2.9	Modification Incorporated/Special Accessories on EUT.....	8
2.10	Deviation, Opinions Additional Information or Interpretations from Test Standard.....	8
3	Test Specification, Method and Procedures.....	9
3.1	Test Specification.....	9
3.2	Methods & Procedures.....	9
3.3	FCC Part 15, Subpart E.....	9
3.4	Results.....	9
3.5	Test Location	10
4	Test Equipment	11
4.1	Conducted Emissions at Mains Ports.....	11
4.2	Direct Connect at the Antenna Port Tests.....	11
4.3	Radiated Emissions	12
4.4	Equipment Calibration	13
4.5	Measurement Uncertainty	13
5	Test Results.....	14
5.1	§15.203 Antenna Requirements.....	14
5.2	§15.207 Conducted Emissions at Mains Ports Data	15
5.3	§15.407(a) 26 dB Emissions Bandwidth.....	17
5.4	§15.407(a)(3) Maximum Average Output Power	18
5.5	§15.407(b)(7) Spurious Emissions.....	19
5.6	§15.407(a) Maximum Power Spectral Density	21

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	U-AirWire
Serial Number	25E
Dimensions (cm)	11.7 x 11.7 x 4.3

2.2 Description of EUT

The U-AirWire is a wireless USB adapter which supports WiFi 7. The U-AirWire transmits in the 2.4 GHz, 5 GHz and 6 GHz WiFi frequency bands. The U-AirWire has a rotatable directional 2x2 mountable antenna for optimal wireless performance. The U-AirWire also has a Bluetooth transmitter for system management. The U-AirWire has one main UCB-C port for data and power, which powers the U-AirWire, and a second USB-C auxiliary power port.

This device does not support channel puncturing.

For CDD transmission, direction gain is calculated as follows.

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 $\text{Nss}=1$: Array Gain = $10 \log(\text{NANT}/\text{NSS})$ dB + Antenna Gain (dBi). Or $3.01 \text{ dB} + 11 \text{ dBi} = 14.01 \text{ dBi}$.

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	WiFi Mode	Modulation Bandwidth	Modulation Type	Frequency (MHz)
UNII-3	a	20 MHz	OFDM	5745, 5775, 5825
	be	20 MHz	EHT	5745, 5775, 5825
	be	40 MHz	EHT	5755, 5775, 5795
	be	80 MHz	EHT	5775

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: U-AirWire SN: 25E	Wireless WiFi USB Adapter	See Section 2.4
BN: UBIQUITI MN: GP-M015-QC SN: N/A	USB-C Power Supply	USB-C/1 Meter
BN: Dell MN: XPS 13 SN: N/A	Laptop Personal Computer (For Testing Only)	USB-C/2 meters (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
USB-C Data/Power	1	USB-C/1 Meter
USB-C Auxiliary/Power	1	USB-C/2 Meters

2.5 Operating Environment

Power Supply	120 Vac to USB-C Power
AC Mains Frequency	60 Hz
Temperature	21.3 - 23.7 °C
Humidity	22.8 - 30.6 %
Barometric Pressure	1013 mBar

2.6 Operating Modes

The U-AirWire was tested using test software in order to enable to constant transmission. The measurements within this report are corrected to reference a 100% duty cycle. All emission modes of 802.11be 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

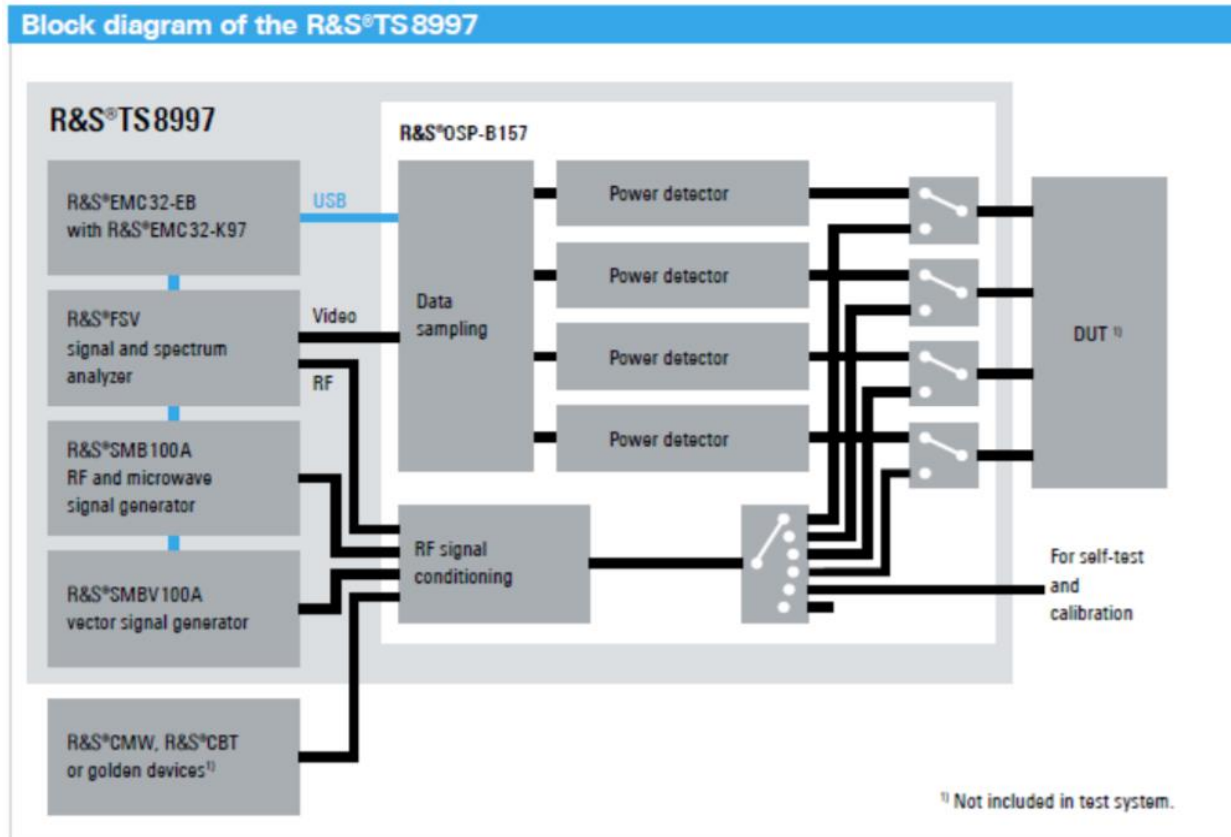


Diagram 1: Test Configuration Block Diagram

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

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-247 §6.2.2	Bandwidth Requirement	5725 to 5850	Compliant
15.407(a)	RSS-247 §6.2.2, §6.2.3	Peak Output Power	5725 to 5850	Compliant
15.407(b)	RSS-247 §6.2.2, §6.2.3	Antenna Conducted Spurious Emissions	0.009 to 40000	N/A Note ¹
15.209	RSS-247 §6.2.2, §6.2.3	Radiated Spurious Emissions	0.009 to 40000	Compliant
15.407(a)	RSS-247 §6.2.2, §6.2.3	Peak Power Spectral Density	5725 to 5850	Compliant
The testing was performed according to the procedures in ANSI C63.10-2020/Cor 1-2021, KDB 789033 and 47 CFR Part 15. Where applicable, KDB 662911 was followed to sum required measurements. Note ¹: 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-2500	11/18/2025	11/18/2026
LISN	AFJ	LS16C/10	UCL-2512	8/12/2025	8/12/2026
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

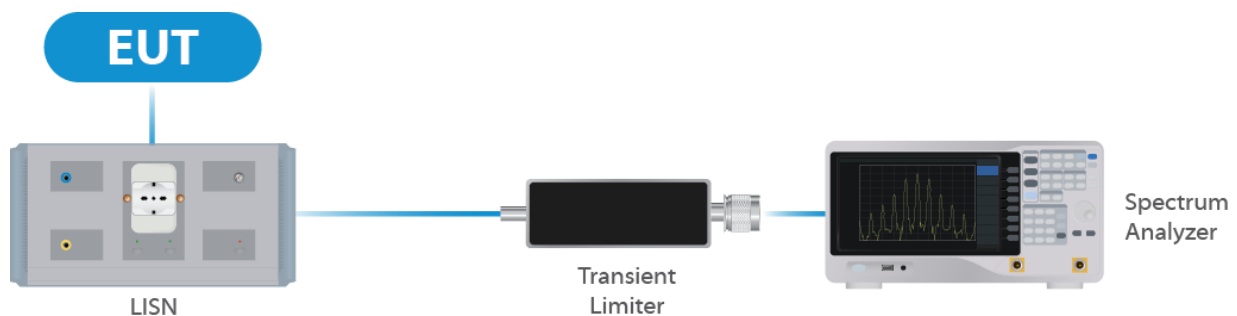


Figure 1: Conducted Emissions Test

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	4/16/2026
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	4/16/2026
Switch Extension	R&S	OSP-150W	UCL-2870	4/28/2025	4/16/2026
Test Software	R&S	EMC32	UCL-9442	--	--

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

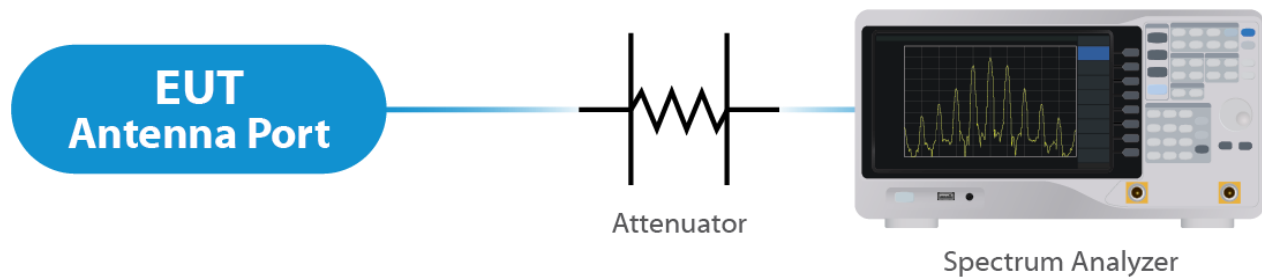


Figure 2: Direct Connect at the Antenna Port Test

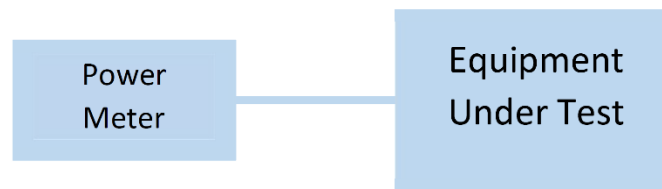


Figure 3: Output Power Measurement

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	12/18/2025	12/18/2026
Pre-Amplifier 9 kHz – 1 GHz	Sonoma Instruments	310N	UCL-2889	7/22/2025	7/22/2026
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

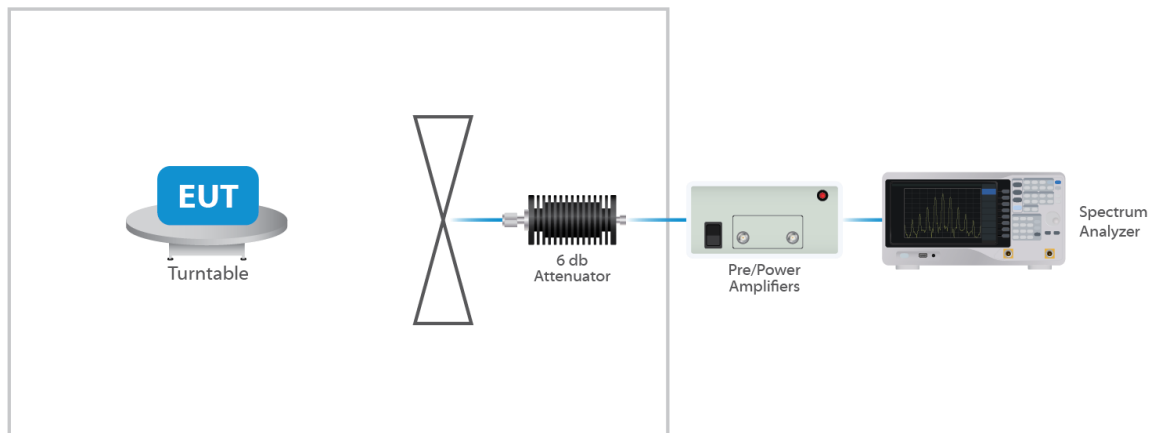


Figure 4: Radiated Emissions Test

4.4 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.

4.5 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
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 an integral antenna. Per the manufacturer, the Maximum gain of the antenna per chain is 11 dBi. This is an 802.11 device and utilizes CDD as described in KDB 662911 D01. The antenna is not user replaceable.

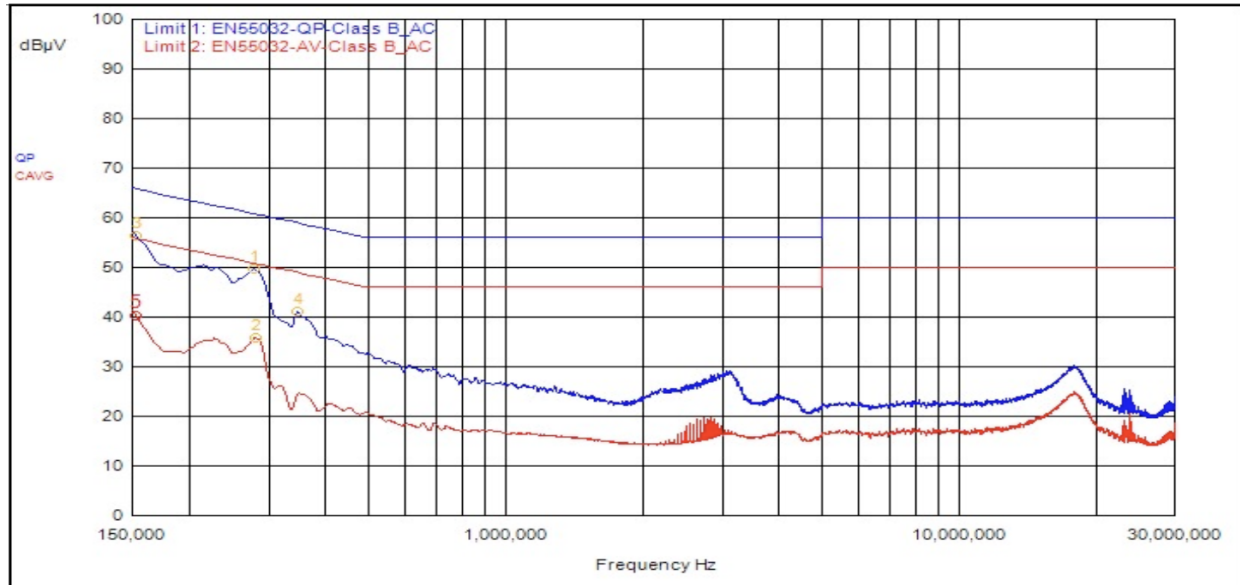
See Section 2.2 for directional gain calculation.

Results

The EUT complied with the specification

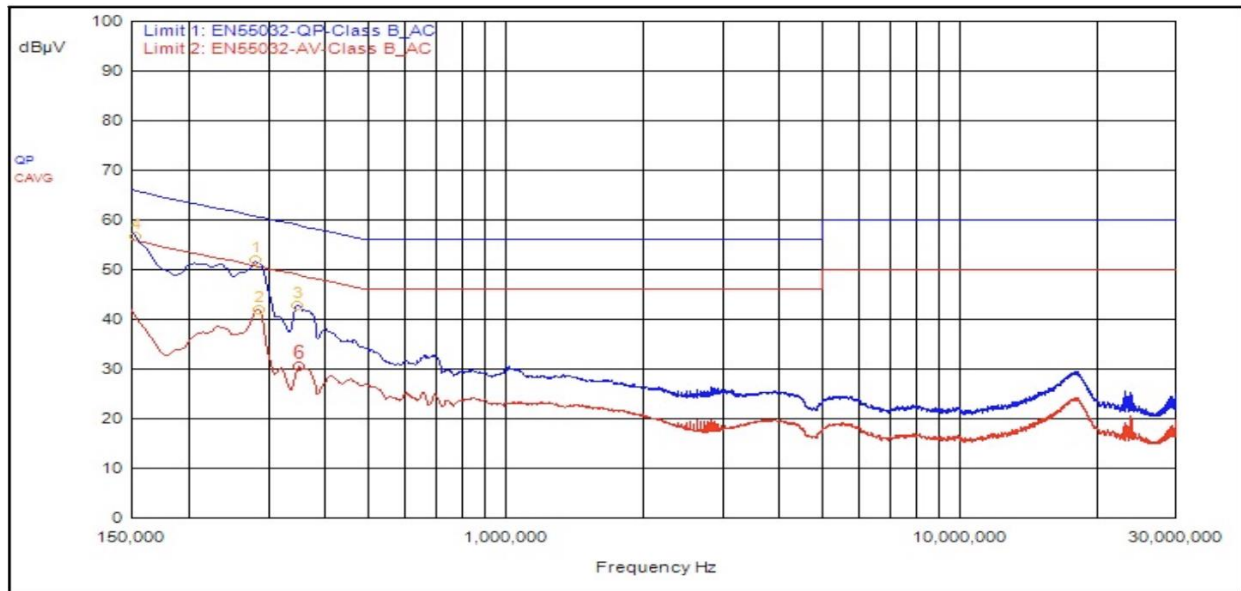
5.2 §15.207 Conducted Emissions at Mains Ports Data

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
3	153,000kHz	9.49			QPeak	46.94	56.43	65.84	-9.41			
1	279,000kHz	9.48			QPeak	40.23	49.71	60.85	-11.13			
4	348,000kHz	9.48			QPeak	31.52	41.00	59.01	-18.01			
2	282,000kHz	9.48			C_AVG	26.42	35.90			50.76	-14.86	
5	153,000kHz	9.49			C_AVG	30.72	40.21			55.84	-15.63	

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	282,000kHz	9.63			QPeak	42.18	51.81	60.76	-8.95			
4	153,000kHz	9.62			QPeak	47.18	56.80	65.84	-9.04			
3	348,000kHz	9.63			QPeak	33.03	42.66	59.01	-16.35			
2	285,000kHz	9.63			C_AVG	32.19	41.82			50.67	-8.85	
5	150,000kHz	9.62			C_AVG	32.45	42.07			56.00	-13.93	
6	351,000kHz	9.63			C_AVG	20.86	30.49			48.94	-18.45	

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.

Nominal BW (MHz)	Frequency (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)
OFDM20	5745	16.55	35.50
OFDM20	5775	17.38	36.25
OFDM20	5825	26.22	43.75
EHT20	5745	19.20	23.97
EHT20	5775	19.18	19.33
EHT20	5825	32.00	54.00
EHT40	5755	38.50	45.50
EHT40	5775	38.25	60.50
EHT40	5795	46.50	93.00
EHT80	5775	78.50	129.00

Result

All chains were tested and the highest bandwidth per chain is reported above. Please see Annex for all bandwidth measurements.

5.4 §15.407(a)(3) 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 24.75 dBm or 298.54 mW. The limit is 30 dBm, or 1 Watt when using antennas with 6 dBi or less gain. The antenna has a gain of 11 dBi.

Nss>1

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Total Summed Output Power* (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dBm)
OFDM 20	5745	Mcs0_Nss2	23	24.57	11	35.57	36	-0.43
OFDM 20	5775	Mcs0_Nss2	24	24.75	11	35.75	36	-0.25
OFDM 20	5825	Mcs0_Nss2	23	22.95	11	33.95	36	-2.05
EHT 20	5755	Mcs0_Nss2	23	24.42	11	35.42	36	-0.58
EHT 20	5745	Mcs0_Nss2	24	24.57	11	35.57	36	-0.43
EHT 20	5775	Mcs0_Nss2	24	23.89	11	34.89	36	-0.21
EHT 40	5755	Mcs0_Nss2	23	24.08	11	35.08	36	-0.92
EHT 40	5775	Mcs0_Nss2	25	24.58	11	35.58	36	-0.42
EHT 40	5795	Mcs0_Nss2	24	24.17	11	35.17	36	-0.83
EHT 80	5775	Mcs0_Nss2	23	23.64	11	34.64	36	-1.36

Result

In the configuration tested, the maximum summed average RF output power was less than 1 watt; 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 TP29.

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.

Frequency	SR #	Level (dBμV/m)	Limit (dBμV/m)	Margin	Azimuth (°)	Height	Pol.	Correction (dB)
62.855 MHz	QP	27.167	30	-2.833	277	3.22	Vertical	-14.008
148.26 MHz	QP	12.233	30	-17.767	229	2.93	Vertical	-17.343
149.42 MHz	QP	24.983	30	-5.017	261	1.02	Vertical	-17.339
156.84 MHz	QP	23.679	30	-6.321	351	1.02	Vertical	-17.018
179.27 MHz	QP	23.584	30	-6.416	21	1.11	Vertical	-15.915
63.051 MHz	QP	20.574	30	-9.426	22	4	Horizontal	-14.072
149.12 MHz	QP	25.729	30	-4.271	346	3.46	Horizontal	-17.34
156.18 MHz	QP	25.068	30	-4.932	335	3.95	Horizontal	-17.02

Table 4: Radiated Emissions within 30-1000MHz

Frequency	SR #	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
9.3199717 GHz	Peak	53.931	74	-20.069	109	1.718	Vertical	9.202
11.6569713 GHz	Peak	57.208	74	-16.792	193	1.714	Vertical	12.086
9.3199717 GHz	AVG	48.349	54	-5.651	109	1.718	Vertical	9.202
11.6569713 GHz	AVG	42.301	54	-11.699	193	1.714	Vertical	12.086
11.651699 GHz	Peak	57.732	74	-16.268	115	1.714	Horizontal	12.109
11.651699 GHz	AVG	43.184	54	-10.816	115	1.714	Horizontal	12.109

Table 5: 1-17GHz RE Transmitting on the High Frequency 5825 MHz

Frequency	SR #	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
17.4693616 GHz	Peak	67.09	74	-6.91	10	Vertical	1.397
23.2888977 GHz	Peak	60.097	74	-13.903	359	Vertical	2.154
34.9029423 GHz	Peak	57.927	74	-16.073	237	Vertical	5.975
39.4533581 GHz	Peak	59.548	74	-14.452	212	Vertical	6.719
17.4693616 GHz	AVG	52.501	54	-1.499	10	Vertical	1.397
23.2888977 GHz	AVG	45.16	54	-8.84	359	Vertical	2.154
34.9029423 GHz	AVG	41.943	54	-12.057	237	Vertical	5.975
39.4533581 GHz	AVG	43.966	54	-10.034	212	Vertical	6.719
17.4706868 GHz	Peak	57.29	74	-16.71	36	Horizontal	1.395
23.3055297 GHz	Peak	54.937	74	-19.063	335	Horizontal	2.169
17.4706868 GHz	AVG	43.261	54	-10.739	36	Horizontal	1.395
23.3055297 GHz	AVG	40.411	54	-13.589	335	Horizontal	2.169

Table 6: 17-40GHz RE Transmitting on the Highest Frequency 5825 MHz

5.6 §15.407(a) 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 30 dBm in any 500 kHz band during any time interval of continuous transmission.

See Section 2.2 for directional gain calculation.

Results of this testing are summarized.

Nss>1

Modulation (BW)	Freq. (MHz)	Data Rate	TP Setting	Total Sum PSD EIRP (dBm)	Antenna Gain (dBi)	Limit (dBm)	Margin (dBm)
OFDM 20	5745	Mcs0_Nss2	23	9.89	11	25	-4.11
OFDM 20	5775	Mcs0_Nss2	24	9.42	11	25	-4.58
OFDM 20	5825	Mcs0_Nss2	23	8.03	11	25	-5.97
HE 20	5745	Mcs0_Nss2	23	8.96	11	25	-5.04
HE 20	5775	Mcs0_Nss2	24	8.54	11	25	-5.46
HE 20	5825	Mcs0_Nss2	24	8.21	11	25	-5.79
HE 40	5755	Mcs0_Nss2	23	5.82	11	25	-8.18
HE 40	5775	Mcs0_Nss2	25	5.63	11	25	-8.37
HE 40	5795	Mcs0_Nss2	24	5.34	11	25	-8.66
HE 80	5775	Mcs0_Nss2	23	2.32	11	25	-11.68

Result

The maximum summed average power spectral density was less than the limit of 30 dBm; therefore, the EUT complies with the specification.

-- End of Test Report --