UNIFIED COMPLIANCE LABORATORY

427 West 12800 South
Draper, UT 84020

Test Report

Certification

FCC ID	SWX-WAVELR
ISED ID	6545A-WAVELR
Equipment Under Test	Wave-LR
Test Report Serial Number	TR7238_01
Date of Test(s)	14, 28 February; 1, 16, 25 March 2022, 6 June 2022
Report Issue Date	15 June 15, 2022

Test Specification	Applicant
47 CFR FCC Part 15, Subpart E RSS-247 Issue 2	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. 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.

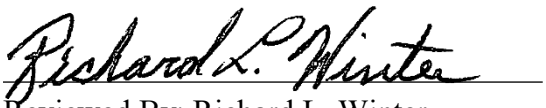
Applicant	Ubiquiti Inc.
Manufacturer	Ubiquiti Inc.
Brand Name	airFiber
Model Number	Wave-LR
FCC ID	SWX-WAVEALR
ISED ID	6545A-WAVELR

On this 15th day of June 2022, 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.

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: Richard L. Winter

Revision History		
Revision	**Description**	**Date**
01	Original Report Release	15 June 2022

Table of Contents

1 Client Information

1.1 Applicant

Company	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.
Contact Name	Mark Feil
Title	Compliance Manager

1.2 Manufacturer

Company	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.
Contact Name	Mark Feil
Title	Compliance Manager

2 Equipment Under Test (EUT)

2.1 Identification of EUT

Brand Name	airFiber
Model Number	Wave-LR
Serial Number	245A4C2F9F38
Dimensions (cm)	42.4 x 42.4 x 6.6

2.2 Description of EUT

The Wave-LR is a 60 GHz point-to-multipoint customer premise equipment that features wave technology with a 1.5+ Gbps throughput rate. The Wave-LR is also equipped with a 5 GHz WiFi 6 backup radio to sustain connectivity during a 60 GHz link disruption caused by inclement weather conditions. A Bluetooth LE transceiver is included for device management. The Wave-LR is an outdoor device and has an Ethernet port which is used for data transfer and to provide power using an Ubiquiti U-POE-at 48-volt PoE power adapter.

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

Band	WiFi Mode	Modulation Bandwidth	Modulation Type	Frequency (MHz)
UNII-3	ax	20 MHz	HE	5740, 5750, 5760, 5770, 5780, 5790, 5800, 5810, 5820, 5830, 5835
	ax	40 MHz	HE	5750, 5770, 5790, 5810, 5825
	ax	80 MHz	HE	5770, 5790, 5805

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.

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: airFiber MN: Wave-LR (Note 1) SN: 245A4C2F9F38	Wireless Access Point	See Section 2.4
BN: Ubiquiti MN: U-POE-at SN: N/A	PoE Power Adapter	Shielded or Un-shielded cat 5e cable
BN: Dell MN: XPS 13 SN: N/A	Laptop Computer	Shielded or Un-shielded cat 5e cable

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
AC (PoE Injector)	1	3 conductor power cord/80cm
LAN (PoE Injector)	1	Shielded or Un-shielded cat 5e cable/1 meter
Data	1	Shielded or Un-shielded cat 5e cable/1 meter

2.5 Operating Environment

Power Supply	120 Volts ac to 48 Volt PoE Power
AC Mains Frequency	60 Hz
Temperature	21.9 – 22.2 °C
Humidity	16.6 – 23.5 %
Barometric Pressure	1021 mBar

2.6 Operating Modes

The Wave-LR was tested using test software to enable a constant transmission. The measurements within this report are corrected to reference a 100% duty cycle. All emission modes of 802.11 ax were investigated. All measurements are reported with the worst-case mode (802.11ax) unless otherwise stated.

2.7 EUT Exercise Software

EUT firmware version 1.0 was used to operate the transmitter using a constant transmit mode, while Wave-Nano BSP image v3 (spfll.4-csul) was used for all modes.

2.8 Block Diagram of Test Configuration

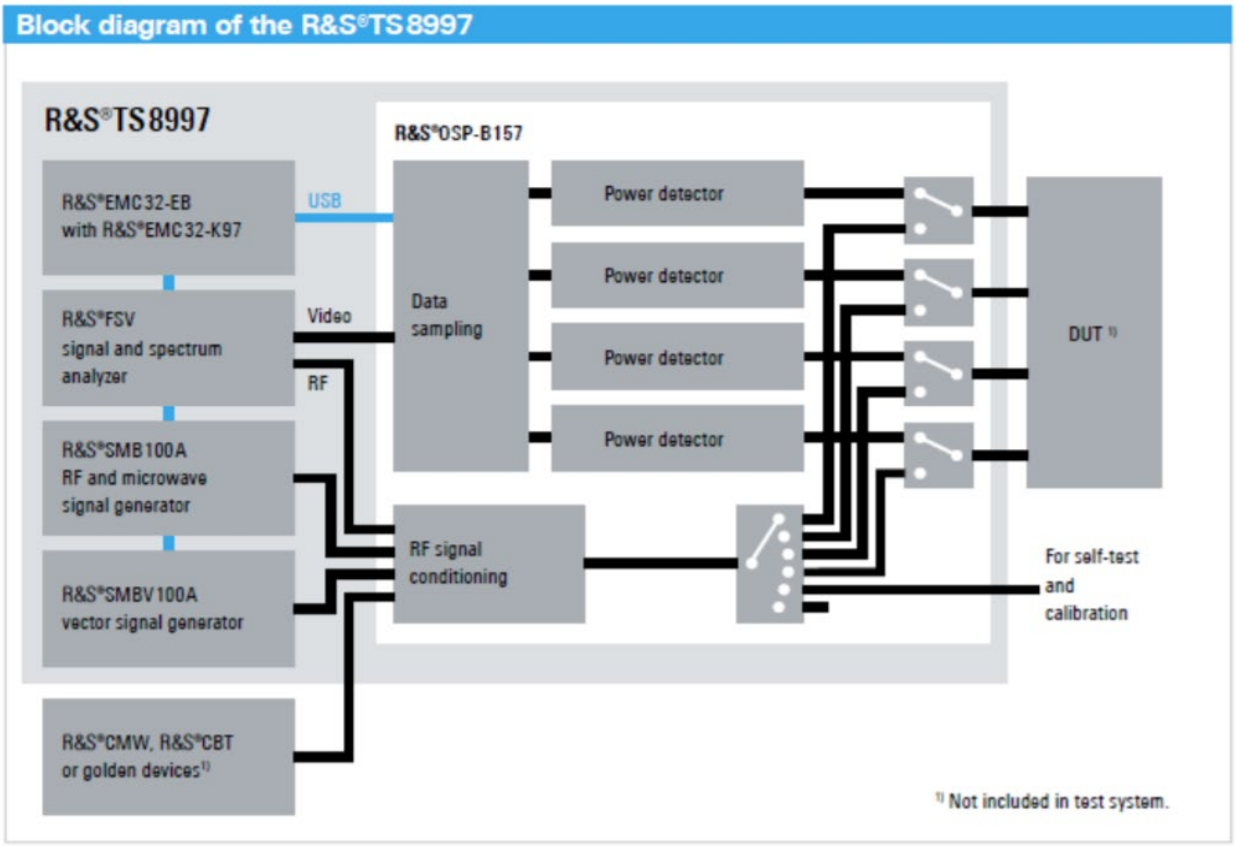


Diagram 1: Test Configuration Block Diagram

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
15.407(a)	N/A	Antenna requirements	Structural Requirement	Compliant
15.407(b)	RSS-Gen	Conducted Disturbance at Mains Port	0.15 to 30	Compliant
15.407(c)	RSS-247 §6.2.2, §6.2.3	Bandwidth Requirement	5740 to 5835	Compliant
15.407(e)	RSS-247 §6.2.2, §6.2.3	Peak Output Power	5740 to 5835	Compliant
15.407(f)	RSS-247 §6.2.2, §6.2.3	Antenna Conducted Spurious Emissions	0.009 to 40000	N/A
15.407(g)	RSS-247 §6.2.2, §6.2.3	Radiated Spurious Emissions	30 to 40000	Compliant
15.407(h)	RSS-247 §6.2.2, §6.2.3	Peak Power Spectral Density	5740 to 5835	Compliant
The testing was performed according to the procedures in ANSI C63.10-2013, KDB 789033 and 47 CFR Part 15. Where applicable, KDB 662911 was followed to sum required measurements.				

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 2022. 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 2022. Unified Compliance Laboratory has been assigned 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	12/8/2021	12/8/2022
LISN	AFJ	LS16C/10	UCL-6749	12/6/2021	12/6/2023
Cat6 ISN	Teseq	ISN T8-Cat6	UCL-2971	1/30/2022	1/30/2023
ISN	Teseq	ISN T800	UCL-2974	6/4/2021	6/4/2022
LISN	Com-Power	LIN-120C	UCL-2612	1/6/2022	1/6/2023
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

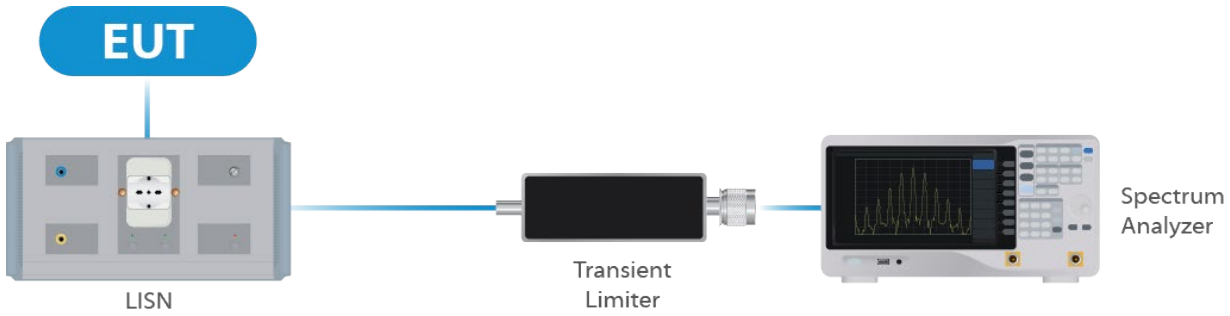


Figure 1: Conducted Emissions Test

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	1/03/2022	1/03/2023
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	1/03/2022	1/03/2023
Switch Extension	R&S	OSP-150W	UCL-2870	1/03/2022	1/03/2023

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

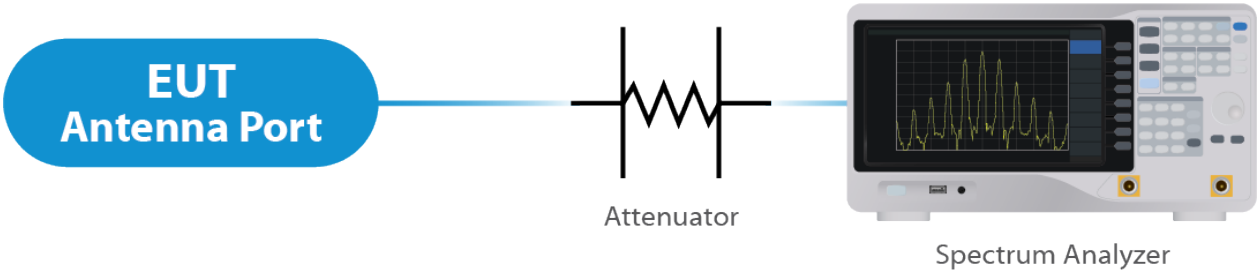


Figure 2: Direct Connect at the Antenna Port Test

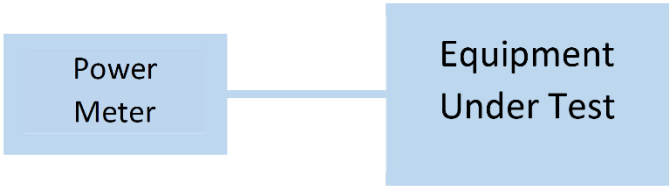


Figure 3: Output Power Measurement

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	6/21/2021	6/21/2022
Pre-Amplifier 9 kHz – 1 GHz	Sonoma Instruments	310N	UCL-2889	10/7/2021	10/7/2022
Broadband Antenna	Scwarzbeck	VULB 9163	UCL-3062	8/28/2020	8/27/2022
Broadband Antenna	Scwarzbeck	VULB 9163	UCL-3071	5/19/2020	5/19/2022
Double Ridge Horn Antenna	Scwarzbeck	BBHA 9120D	UCL-3065	7/8/2021	7/8/2022
Log Periodic	Scwarzbeck	STLP 9129	UCL-3068	11/16/2020	11/16/2022
15 - 40 GHz Horn Antenna	ETS	3116C	UCL-7020	6/4/2022	6/4/2024
1 – 18 GHz Amplifier	Com-Power	PAM 118A	UCL-3833	10/7/2021	10/7/2022
Test Software	UCL	Revision 1	UCL-3108	N/A	N/A

Table 3: List of equipment used for Radiated Emissions

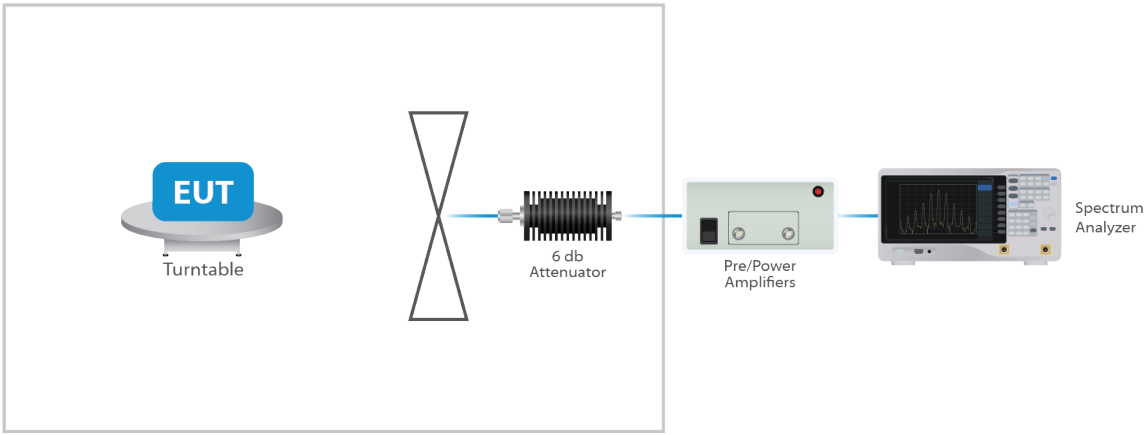


Figure 4: Radiated Emissions Test

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 (± 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

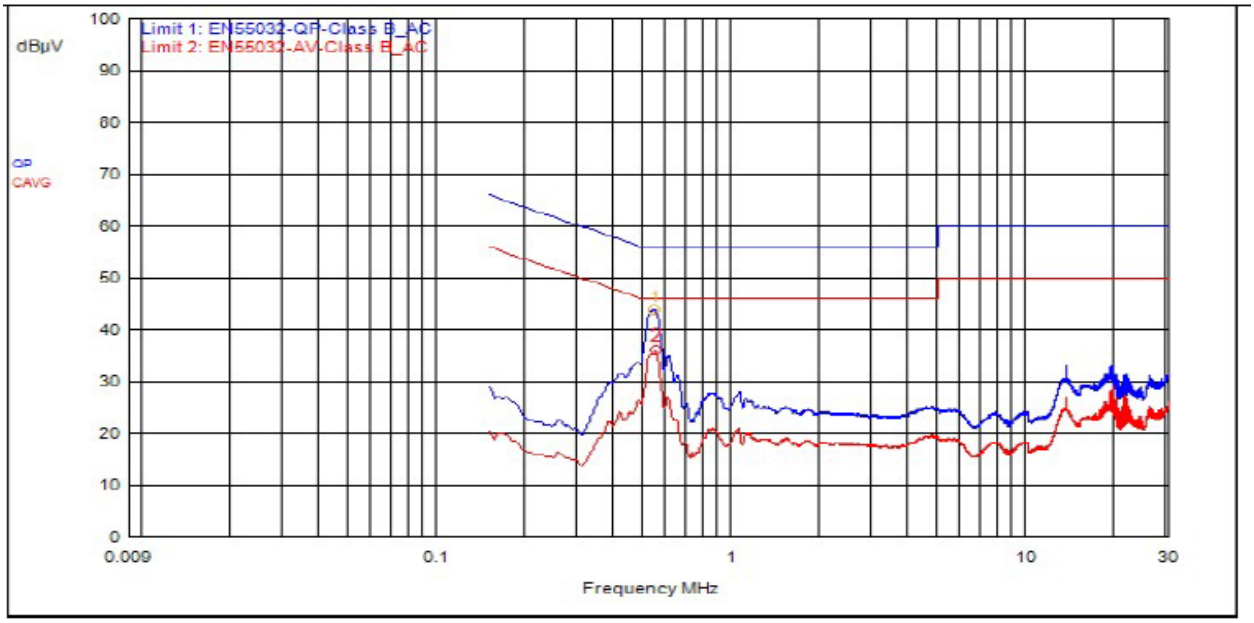
The EUT uses an integral disk antenna structure. The maximum gain of the antenna is 12 dBi. This is an 802.11 device and utilizes CDD as described in KDB 662911 D01. The antenna is not user replaceable.

Results

The EUT complied with the specification

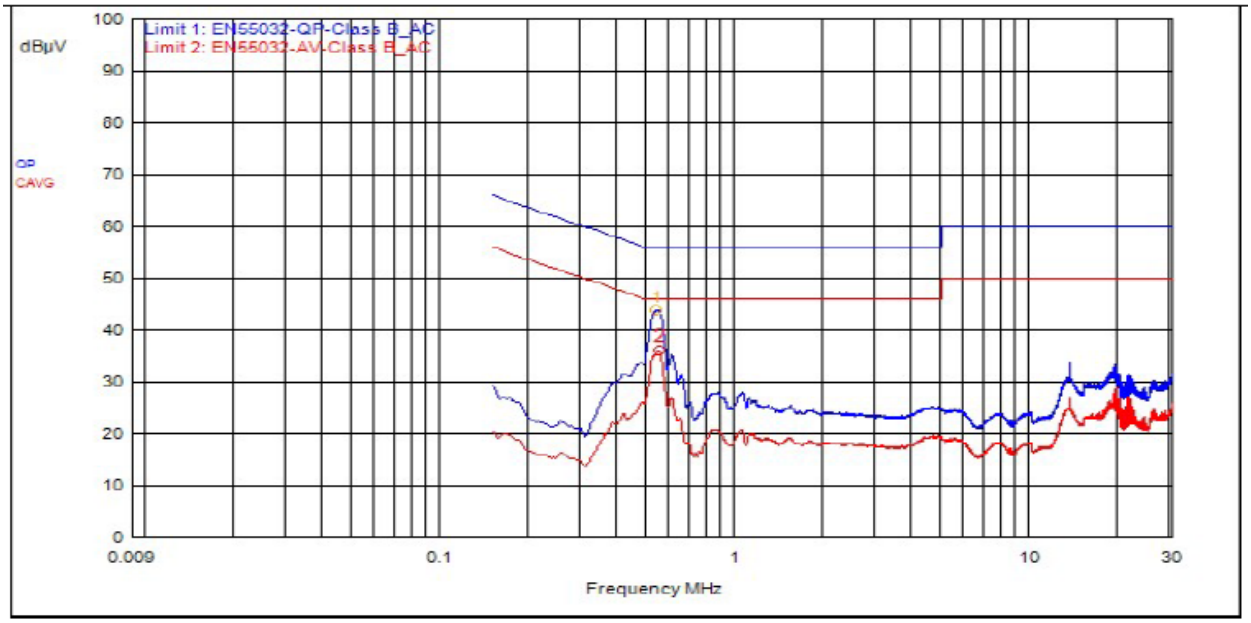
5.2 Conducted Emissions at Mains Ports Data

5.2.1 Line



ID	Frequency	Probe	Cable	Atten.	Detector	Meter Read	Meas Level	Limit 1	Limit 1 Dist.	Limit 2	Limit 2 Dist.
1	543,000kHz	9.5	0.1		QPeak	34.2	43.9	56.0	-12.1		
2	546,000kHz	9.5	0.1		C_AVG	26.3	36.0			46.0	-10.0

5.2.2 Neutral



ID	Frequency	Probe	Cable	Atten.	Detector	Meter Read	Meas Level	Limit 1	Limit 1 Dist.	Limit 2	Limit 2 Dist.
1	537,000kHz	9.5	0.1		QPeak	34.2	43.9	56.0	-12.1		
2	546,000kHz	9.5	0.1		C_AVG	26.5	36.2			46.0	-9.8

Result

The EUT complied with the specification limit.

5.3 §15.403(i) 26 dB Emissions Bandwidth

All chains were measured under the guidance of KDB 789033 Section II.C. and KDB 66291 D01. Please see associated annex for details on instrument settings.

Nominal BW (MHz)	Frequency (MHz)	99% Bandwidth (MHz)	Emissions 26 dB Bandwidth (MHz)
20	5740	18.8	20.6
20	5790	18.8	20.7
20	5835	18.8	20.7
40	5750	37.5	39.9
40	5790	37.5	39.8
40	5825	37.5	39.9
80	5770	76.5	82.5
80	5790	76.5	82.0
80	5805	77.0	82.5

Result

All chains were tested and the highest bandwidth per chain is reported above.

The 26 dB bandwidths are reported for information purposes. Please see Annex for all bandwidth measurements.

5.4 §15.407(a)(2) Maximum Average Output Power

All chains were measured and summed under the guidance of KDB 789033 Section II. E.2. and KDB 66291 D01. Please see associated annex for details on instrument settings.
The maximum average RF conducted output power measured for this device was 18.98 dBm or 79.07 mW. The limit is 30 dBm, or 1 Watt when using an antenna with 21 dBi (Fixed point to point) or less gain. The integral antenna has a gain of 21 dBi.

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured EIRP	Measured PSD
HE 20	5740	Mcs0	35	18.66	39.86	2.18
HE 20	5790	Mcs0	33	18.06	39.26	1.58
HE 20	5835	Mcs0	34	18.17	39.37	1.27
HE 40	5750	Mcs0	35	18.98	40.18	-0.10
HE 40	5790	Mcs0	33	18.44	39.64	-0.76
HE 40	5825	Mcs0	34	18.50	39.70	-1.04
HE 80	5770	Mcs0	35	18.89	40.09	-2.87
HE 80	5790	Mcs0	33	18.23	39.43	-3.50
HE 80	5805	Mcs0	34	18.68	39.88	-2.92

Result

In the configuration tested, the maximum summed average RF output power was less than 1 watt; therefore, the EUT compiled with the requirements of the specification (see spectrum analyzer plots for "Gated EIRP" in attached Annex).

5.5 §15.407(b) Spurious Emissions

5.5.1 Conducted Spurious Emissions

The frequency ranges from the lowest frequency generated or used in the device to the tenth harmonic of the highest fundamental frequency was investigated to measure any antenna-conducted emissions. The graphs show the measurement data from spurious emissions noted across the frequency range when transmitting at the lowest frequency, middle frequency and upper frequency. Shown within the annex are plots with the EUT turned to the upper and lower channels with the antenna gain of 23 dBi accounted for. These demonstrate compliance with the provisions of this section at the band edges.

All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Result

Conducted spurious emissions were attenuated below the limit; therefore, the EUT complies with the specification.

5.5.2 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 TP60.

Correction Factor = Antenna Factor + Cable Loss - Pre-Amplifier Gain, 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	Level (dBµV/m)	Limit (dBµV/m)	Margin	Azimuth (°)	Height	Pol.	Correction (dB)
35.483 MHz	30.648	40	-9.352	255	1.038	Vertical	-14.486
58.092 MHz	23.539	40	-16.461	150	1.985	Vertical	-12.898
287.98 MHz	33.097	47	-13.903	349	0.999	Vertical	-11.568
671.99 MHz	40.174	47	-6.826	98	2.441	Vertical	-4.319
318.82 MHz	30.182	47	-16.818	35	2.459	Horizontal	-11.184
671.98 MHz	43.86	47	-3.14	23	1.201	Horizontal	-4.319

Table 4: Radiated Spurious 30-100MHz (Worst Case)

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)	Detector
4.5601 GHz	54.576	74	-19.424	59	1.634	Vertical	-13.033	Peak
4.8001 GHz	55.564	74	-18.436	60	2.137	Vertical	-11.774	Peak
11.48 GHz	57.273	74	-16.727	283	2.141	Vertical	3.27	Peak
16.27 GHz	46.247	74	-27.753	147	3.148	Vertical	4.362	Peak
1.4402 GHz	51.887	74	-22.113	226	2.139	Horizontal	-19.521	Peak
4.8001 GHz	48.334	74	-25.666	93	1.634	Horizontal	-11.774	Peak
11.473 GHz	51.958	74	-22.042	247	2.641	Horizontal	3.39	Peak
14.938 GHz	50.254	74	-23.746	330	1.5	Horizontal	6.08	Peak
4.8 GHz	45.41	74	-28.59	35	3.808	Vertical	-11.772	Peak
5.7831 GHz	68.628	74	-5.372	59	2.138	Vertical	-11.141	Peak
11.571 GHz	48.458	74	-25.542	294	1.841	Vertical	3.092	Peak
11.572 GHz	51.935	74	-22.065	264	1.634	Vertical	3.11	Peak
1.44 GHz	51.221	74	-22.779	228	2.14	Horizontal	-19.523	Peak
5.7972 GHz	63.477	74	-10.523	40	1.5	Horizontal	-10.987	Peak
11.582 GHz	53.951	74	-20.049	63	1.638	Horizontal	3.053	Peak
4.7999 GHz	45.473	74	-28.527	41	3.804	Vertical	-11.771	Peak
6.0324 GHz	54.111	74	-19.889	65	1.5	Vertical	-10.266	Peak
11.664 GHz	53.718	74	-20.282	247	1.634	Vertical	2.793	Peak
16.466 GHz	49.719	74	-24.281	19	2.138	Vertical	6.944	Peak
1.4399 GHz	44.26	74	-29.74	83	2.822	Horizontal	-19.523	Peak
4.8003 GHz	57.109	74	-16.891	313	2.333	Horizontal	-11.777	Peak
11.669 GHz	49.794	74	-24.206	321	1.636	Horizontal	2.78	Peak
16.471 GHz	44.26	74	-29.74	83	2.822	Horizontal	6.921	Peak
Average								
4.5601 GHz	38.458	54	-15.542	59	1.634	Vertical	-13.033	Average
4.8001 GHz	42.532	54	-11.468	60	2.137	Vertical	-11.774	Average
11.48 GHz	41.567	54	-12.433	283	2.141	Vertical	3.27	Average
16.27 GHz	33.458	54	-20.542	147	3.148	Vertical	4.362	Average
1.4402 GHz	49.267	54	-4.733	226	2.139	Horizontal	-19.521	Average
4.8001 GHz	35.211	54	-18.789	93	1.634	Horizontal	-11.774	Average
11.473 GHz	36.568	54	-17.432	247	2.641	Horizontal	3.39	Average
14.938 GHz	37.577	54	-16.423	330	1.5	Horizontal	6.08	Average
4.8 GHz	32.455	54	-21.545	35	3.808	Vertical	-11.772	Average
5.7831 GHz	47.224	54	-6.776	59	2.138	Vertical	-11.141	Average
11.571 GHz	35.518	54	-18.482	294	1.841	Vertical	3.092	Average
11.572 GHz	36.382	54	-17.618	264	1.634	Vertical	3.11	Average
1.44 GHz	49.471	54	-4.529	228	2.14	Horizontal	-19.523	Average
5.7972 GHz	42.964	54	-11.036	40	1.5	Horizontal	-10.987	Average
11.582 GHz	36.577	54	-17.423	63	1.638	Horizontal	3.053	Average
4.7999 GHz	32.598	54	-21.402	41	3.804	Vertical	-11.771	Average
6.0324 GHz	35.107	54	-18.893	65	1.5	Vertical	-10.266	Average

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)	Detector
11.664 GHz	36.706	54	-17.294	247	1.634	Vertical	2.793	Average
16.466 GHz	37.008	54	-16.992	19	2.138	Vertical	6.944	Average
1.4399 GHz	37.993	54	-16.007	195	3.808	Horizontal	-19.523	Average
4.8003 GHz	30.991	54	-23.009	83	2.822	Horizontal	-11.777	Average
11.669 GHz	39.356	54	-14.644	313	2.333	Horizontal	2.78	Average
16.471 GHz	36.888	54	-17.112	321	1.636	Horizontal	6.921	Average

Table 5: Radiated Spurious 1-17GHz (Worst Case)

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)	Detector
17.22 GHz	70.956	74	-3.044	140	1.5	Vertical	1.505	Peak
33.043 GHz	57.29	74	-16.71	332	1.5	Vertical	7.787	Peak
38.899 GHz	58.635	74	-15.365	33	1.5	Vertical	6.676	Peak
17.219 GHz	68.774	74	-5.226	244	1.5	Horizontal	1.507	Peak
33.385 GHz	57.054	74	-16.946	298	1.5	Horizontal	8.107	Peak
39.981 GHz	57.824	74	-16.176	145	1.5	Horizontal	7.544	Peak
17.362 GHz	68.664	74	-5.336	235	1.5	Vertical	1.338	Peak
31.528 GHz	55.389	74	-18.611	170	1.5	Vertical	7.267	Peak
35.981 GHz	56.868	74	-17.132	134	1.5	Vertical	5.571	Peak
17.377 GHz	69.866	74	-4.134	241	1.5	Horizontal	1.323	Peak
34.236 GHz	56.343	74	-17.657	120	1.5	Horizontal	7.375	Peak
38.71 GHz	56.578	74	-17.422	181	1.5	Horizontal	6.269	Peak
Average								
17.22 GHz	52.848	54	-1.152	140	1.5	Vertical	1.505	Average
33.043 GHz	41.591	54	-12.409	332	1.5	Vertical	7.787	Average
38.899 GHz	41.55	54	-12.45	33	1.5	Vertical	6.676	Average
17.219 GHz	50.235	54	-3.765	244	1.5	Horizontal	1.507	Average
33.385 GHz	41.069	54	-12.931	298	1.5	Horizontal	8.107	Average
39.981 GHz	40.489	54	-13.511	145	1.5	Horizontal	7.544	Average
17.362 GHz	68.664	74	-5.336	235	1.5	Vertical	1.338	Average
31.528 GHz	55.389	74	-18.611	170	1.5	Vertical	7.267	Average
35.981 GHz	56.868	74	-17.132	134	1.5	Vertical	5.571	Average
17.377 GHz	53.11	54	-0.89	241	1.5	Horizontal	1.323	Average
34.236 GHz	41.118	54	-12.882	120	1.5	Horizontal	7.375	Average
38.71 GHz	40.408	54	-13.592	181	1.5	Horizontal	6.269	Average

Table 6: Radiated Spurious 17-40GHz (Worst Case)

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 66291 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 17 dBm in any 1 MHz band during any time interval of continuous transmission.
As per KDB 662911, when the EUT is using spatial-multiplexing in HT to HE modes, there is not additional array gain to accommodate.
Results of this testing are summarized.

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Measured PSD
HE 20	5740	Mcs0	35	2.18
HE 20	5790	Mcs0	33	1.58
HE 20	5835	Mcs0	34	1.27
HE 40	5750	Mcs0	35	-0.10
HE 40	5790	Mcs0	33	-0.76
HE 40	5825	Mcs0	34	-1.04
HE 80	5770	Mcs0	35	-2.87
HE 80	5790	Mcs0	33	-3.50
HE 80	5805	Mcs0	34	-2.92

Result

The maximum summed average power spectral density was less than the limit of 17dBm; therefore, the EUT complies with the specification.

-- End of Test Report --