



427 West 12800 South
 Draper, UT 84020

Test Report Certification

FCC ID	SWX-U6MESHP
ISED ID	6545A-U6MESHP
Equipment Under Test	U6-Mesh-Pro
Test Report Serial Number	TR8701_01
Date of Test(s)	5, 11, 14, 21 and 28 December 2023
Report Issue Date	3 January 2024

Test Specification	Applicant
47 CFR FCC Part 15, Subpart E	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.

Applicant	Ubiquiti Inc.
Manufacturer	Ubiquiti Inc.
Brand Name	UBIQUITI
Model Number	U6-Mesh-Pro
FCC ID	SWX-U6MESHP
ISED ID	6545A-U6MESHP

On this 3rd day of January 2024, 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: Joseph W. Jackson



Reviewed By: Richard L. Winter

Revision History		
Revision	Description	Date
01	Original Report Release	3 January 2024

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.....	6
2.4	Interface Ports on EUT	7
2.5	Operating Environment.....	7
2.6	Operating Modes.....	7
2.7	EUT Exercise Software.....	7
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	Conducted Emissions at Mains Ports Data	14
5.3	§15.403(i) 26 dB Emissions Bandwidth	16
5.4	§15.407(a)(3) Maximum Average Output Power	17
5.5	§15.407(b)(7) Spurious Emissions.....	18
5.6	§15.407(a) Maximum Power Spectral Density.....	24

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	U6-Mesh-Pro
Serial Number	1FA1CC
Dimensions (cm)	34.3 x 18.1 x 6.0

2.2 Description of EUT

The U6-Mesh-Pro is a four-stream Wi-Fi 6 access point that delivers up to 2.4 Gbps aggregate radio rate with 2X2 5 GHz (DL/UL MU-MIMO) and 2.4 GHz (DL/UL MU-MIMO) radios.

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
	ax	20 MHz	HE	5745, 5775, 5825
	ax	40 MHz	HE	5755, 5775, 5795
	ax	80 MHz	HE	5775

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: UBIQUITI MN: U6-Mesh-Pro (Note 1) SN: 1FA1CC	WiFi Access Point	See Section 2.4
BN: UBIQUITI MN: UPOE-at (Note 1) SN: N/A	PoE Power Adapter	Shielded or Un-Shielded Cat 5e cable (Note 2)
BN: Dell MN: XPS 13 SN: N/A	Laptop PC	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
Data	1	Shielded Cat 5e cable/8meters
AC (PoE Injector)	1	3 conductor power cord/80cm
LAN (PoE Injector)	1	Un-shielded Cat 5e cable/1 meter

2.5 Operating Environment

Power Supply	120 Volts AC to 48 Volts PoE
AC Mains Frequency	60 Hz
Temperature	21.5 – 23.4 °C
Humidity	17.0 – 24.6 %
Barometric Pressure	1009 mBar

2.6 Operating Modes

The U6-Mesh-Pro 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 a/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.

2.8 Block Diagram of Test Configuration

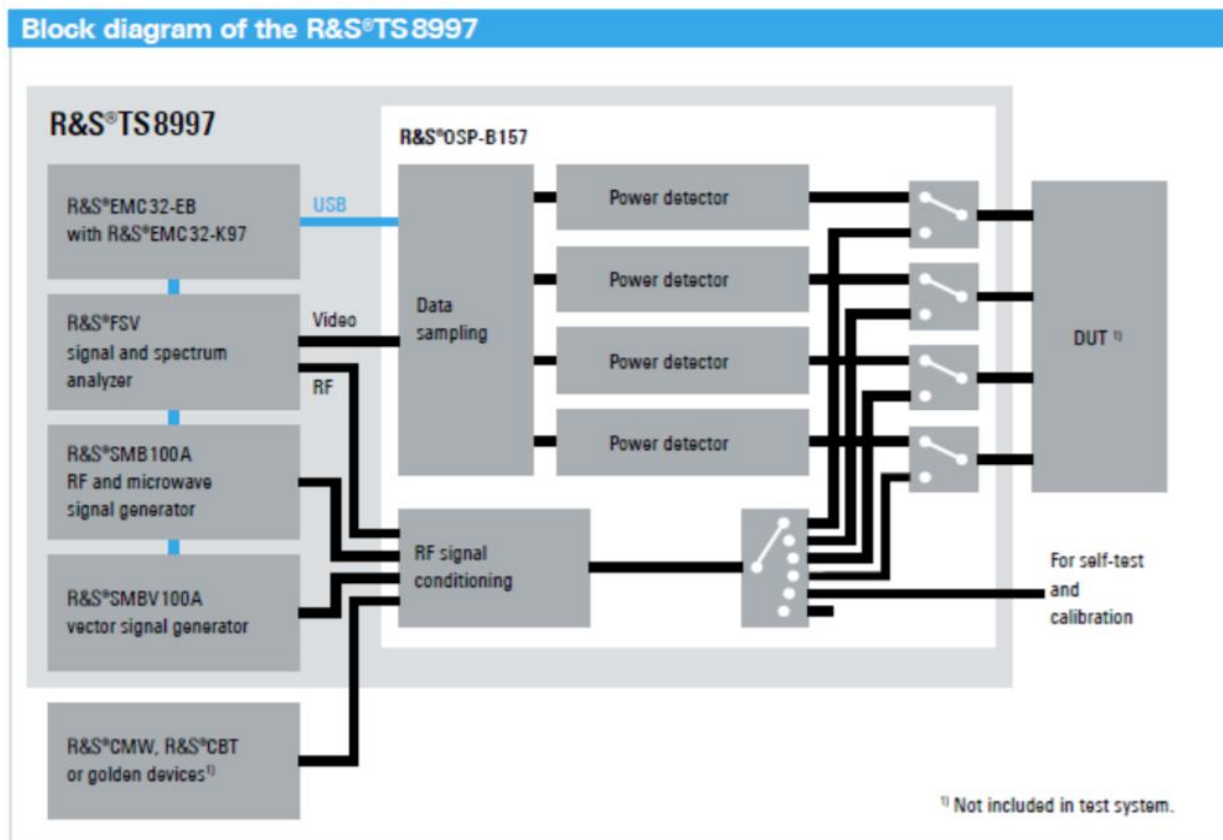


Diagram 1: Test Configuration Block Diagram

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	5725 to 5850	Compliant
15.407(e)	RSS-247 §6.2.2, §6.2.3	Peak Output Power	5725 to 5850	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	0.009 to 40000	Compliant
15.407(h)	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 C63.10-2013, 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 2024. 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 2024.

Unified Compliance Laboratory has been assigned Designation Number US5037 by the FCC 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	7/13/2023	7/13/2024
LISN	AFJ	LS16C/10	UCL-2512	5/26/2023	5/26/2024
ISN	Teseq	ISN T800	UCL-2974	6/27/2022	6/27/2024
LISN	Com-Power	LIN-120C	UCL-2612	1/24/2023	1/24/2024
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

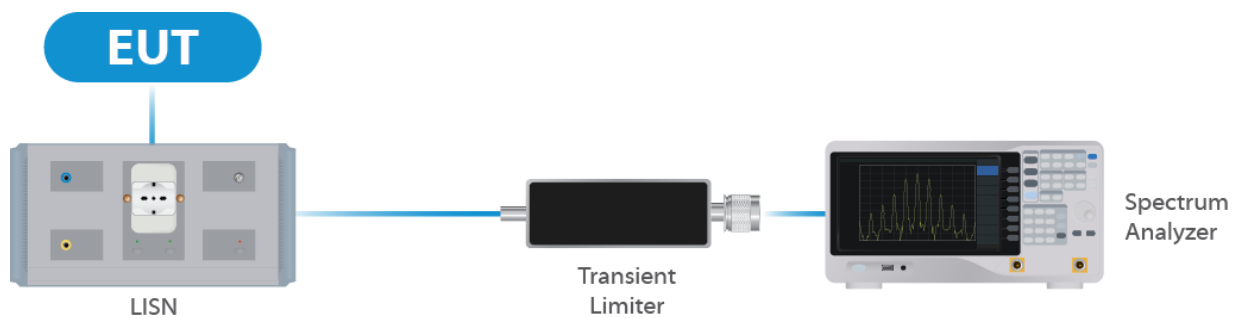


Figure 1: Conducted Emissions Test

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	11/27/2023	11/27/2024
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	2/22/2023	2/22/2024
Switch Extension	R&S	OSP-150W	UCL-2870	2/22/2023	2/22/2024

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

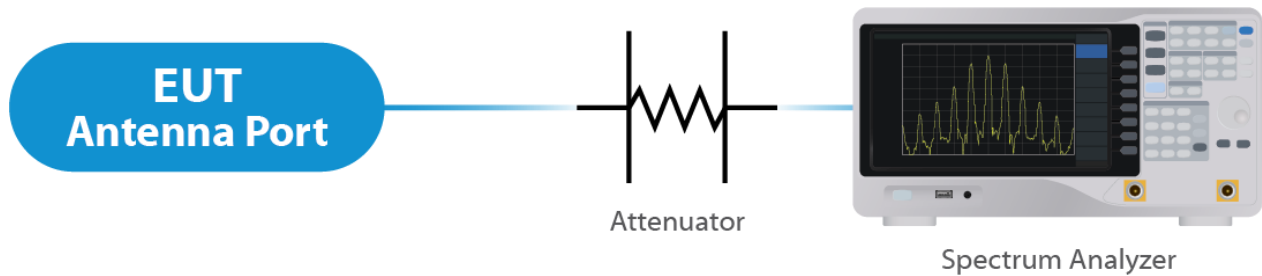


Figure 2: Direct Connect at the Antenna Port Test



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	1/27/2023	1/27/2024
Pre-Amplifier 9 kHz – 1 GHz	Sonoma Instruments	310N	UCL-2889	10/7/2021	10/7/2023
Broadband Antenna	Scwarzbeck	VULB 9163	UCL-3062	2/22/2023	2/22/2025
Broadband Antenna	Scwarzbeck	VULB 9163	UCL-3071	1/11/2023	1/11/2025
Double Ridge Horn Antenna	Scwarzbeck	BBHA 9120D	UCL-3065	9/22/2022	9/22/2024
Log Periodic	Scwarzbeck	STLP 9129	UCL-3068	1/27/2023	1/27/2025
15 - 40 GHz Horn Antenna	Scwarzbeck	BBHA 9170	UCL-2487	6/09/2022	6/09/2024
1 – 18 GHz Amplifier	Com-Power	PAM 118A	UCL-3833	12/9/2022	12/9/2023
Test Software	UCL	Revision 1	UCL-3108	N/A	N/A

Table 3: List of equipment used for Radiated Emissions

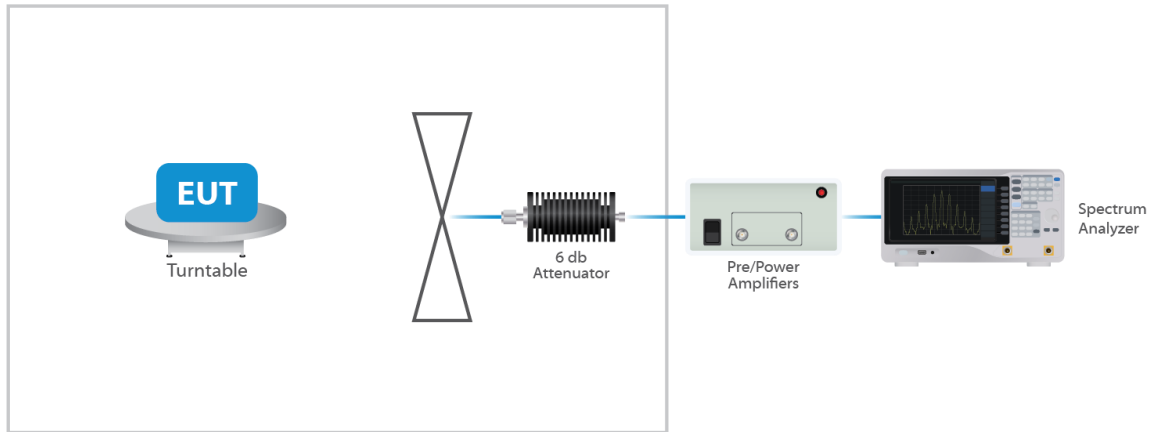


Figure 4: Radiated Emissions Test

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 (\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 folding antenna structure. Per the manufacturer, the maximum gain of the antenna per chain is 8 dBi. This is an 802.11 device and utilizes CDD as described in KDB 662911 D01. The antenna is not user replaceable.

For power measurements on IEEE 802.11 devices, Array Gain = 0 dB for NANT ≤ 4;

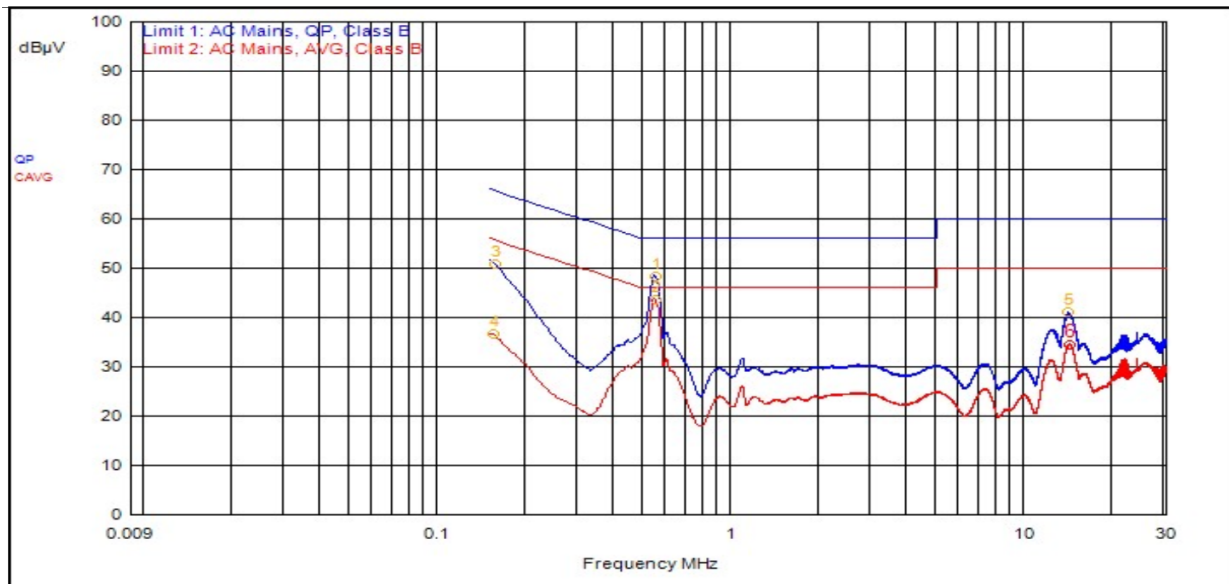
For PSD measurements when Nss=1: Array Gain = 10 log(NANT/NSS) dB = 3.01dB

Results

The EUT complied with the specification

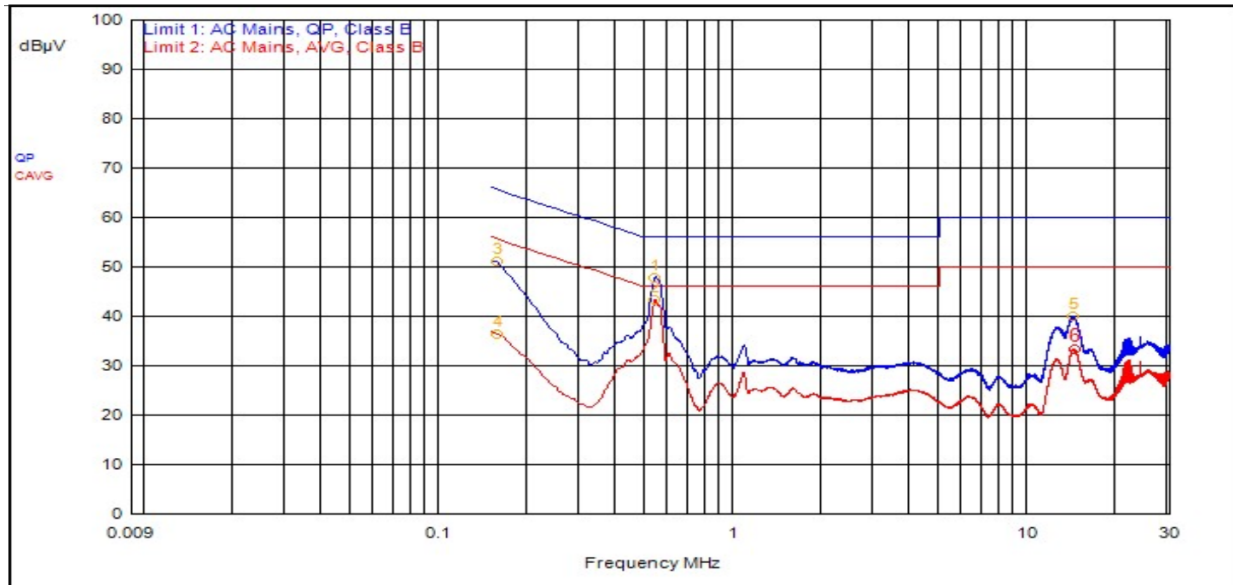
5.2 Conducted Emissions at Mains Ports Data

5.2.1 Line



ID	Frequency	Probe	Cable	Atten.	Detector	Meter Read	Meas Level	Limit 1	Limit 1 Dist.	Limit 2	Limit 2 Dist.	P/F
MU	MHz	dB	dB	dB	Type	dBµV	dBµV	dBµV	dB	dBµV	dB	P/F
1	546,000kHz	12.42	0.00		QPeak	36.02	48.44	56.00	-7.56			
3	156,000kHz	12.38	0.00		QPeak	38.48	50.86	65.67	-14.81			
5	13.953	12.46	0.20		QPeak	28.35	41.01	60.00	-18.99			
2	546,000kHz	12.42	0.00		C_AVG	31.09	43.51			46.00	-2.49	
4	153,000kHz	12.37	0.00		C_AVG	24.17	36.54			55.84	-19.30	
6	14.064	12.46	0.20		C_AVG	21.88	34.54			50.00	-15.46	

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	537,000kHz	12.42	0.00		QPeak	35.48	47.90	56.00	-8.10			
3	156,000kHz	12.38	0.00		QPeak	38.65	51.03	65.67	-14.64			
5	14.085	12.46	0.20		QPeak	27.26	39.92	60.00	-20.08			
2	537,000kHz	12.42	0.00		C_AVG	30.99	43.41			46.00	-2.59	
4	156,000kHz	12.38	0.00		C_AVG	24.10	36.48			55.67	-19.20	
6	14.190	12.47	0.20		C_AVG	20.75	33.42			50.00	-16.58	

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)	26 dB Bandwidth (MHz)
20	5745	16.4	20.4
20	5775	21.6	33.5
20	5825	20.6	33.8
20	5745	19.3	20.7
20	5775	19.3	33.2
20	5825	19.5	32.6
40	5755	38.0	39.8
40	5775	38.0	44.0
40	5795	38.5	56.7
80	5775	78.0	81.5

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)(3) 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 27.81 dBm or 604 mW. The limit is 30 dBm, or 1 Watt when using antennas with 6 dBi or less gain. The antenna has a gain of 8 dBi however, the measured conducted output power is below an adjusted 28.0 dBm or 0.63 watts limit.

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power *	Measured EIRP	Measured PSD
OFDM 20	5745	Mcs0	50	26.44	34.44	10
OFDM 20	5775	Mcs0	52	27.81	35.81	16
OFDM 20	5825	Mcs0	52	27.80	35.80	11.03
HE 20	5745	Mcs0	50	26.04	34.04	9.21
HE 20	5775	Mcs0	52	27.71	35.71	10.65
HE 20	5825	Mcs0	52	27.71	35.71	10.30
HE 40	5755	Mcs0	50	26.49	34.49	6.92
HE 40	5775	Mcs0	52	27.60	35.60	7.77
HE 40	5795	Mcs0	52	27.56	35.56	7.87
HE 80	5775	Mcs0	48	25.42	33.42	3.31

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 in attached Annex).

* Gated EIRP shown in the Annex is the conducted measurement

5.5 §15.407(b)(7) 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 8 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.

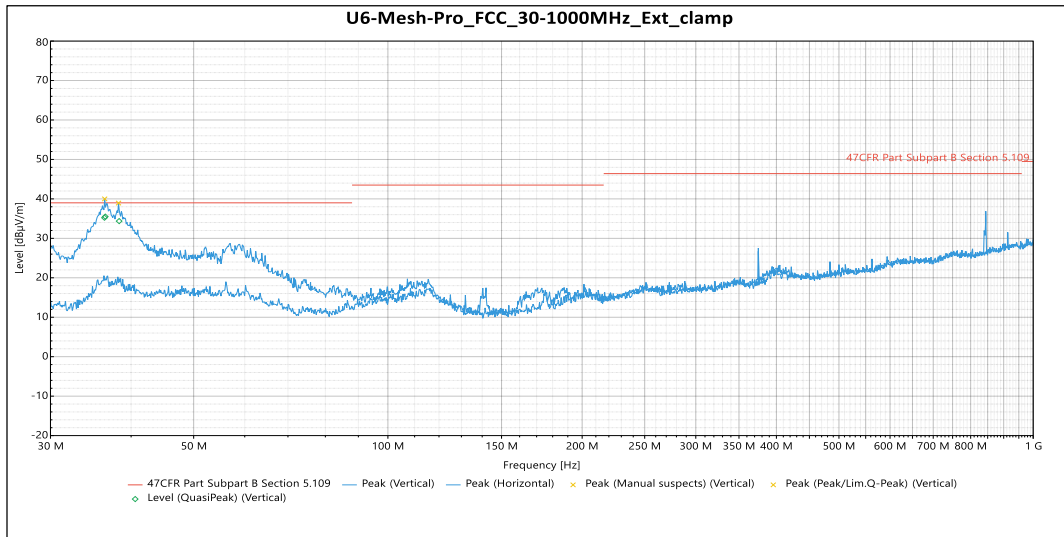
5.5.2 Radiated Spurious Emissions in the Restricted Bands of § 15.205

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 TP55.

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

Result

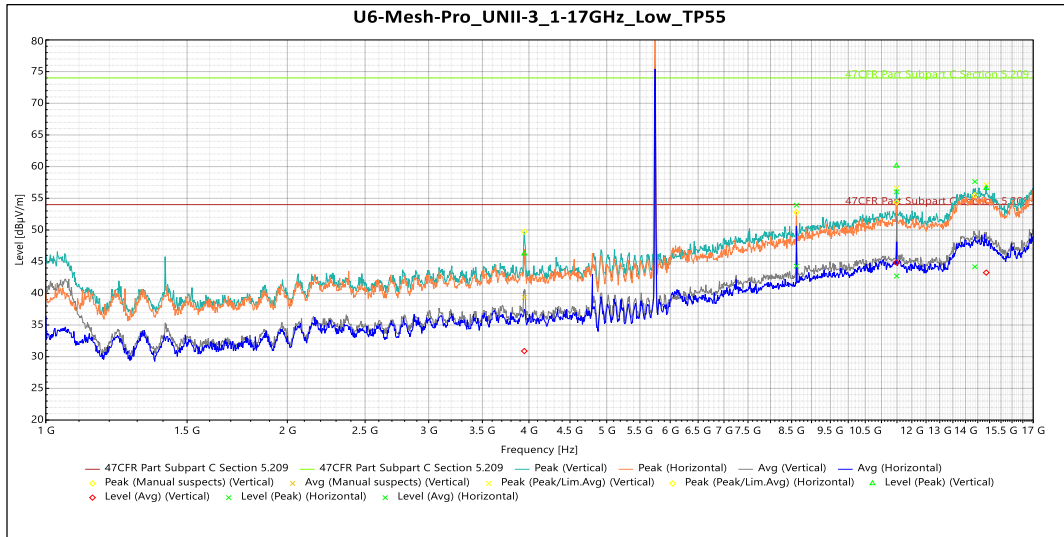
All emissions in the restricted bands of § 15.205 met the limits specified in § 15.209; therefore, the EUT complies with the specification. See Annex for Conducted Band edge plots.



QuasiPeak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin	Azimuth (°)	Height	Pol.	Correction (dB)
36.374 MHz	35.221	39	-3.779	71	1.842	Vertical	-14.833
36.48 MHz	35.51	39	-3.49	63	1.156	Vertical	-14.823
38.328 MHz	34.369	39	-4.631	8	0.998	Vertical	-14.439

Table 4: Radiated Emissions 30 – 1000 MHz

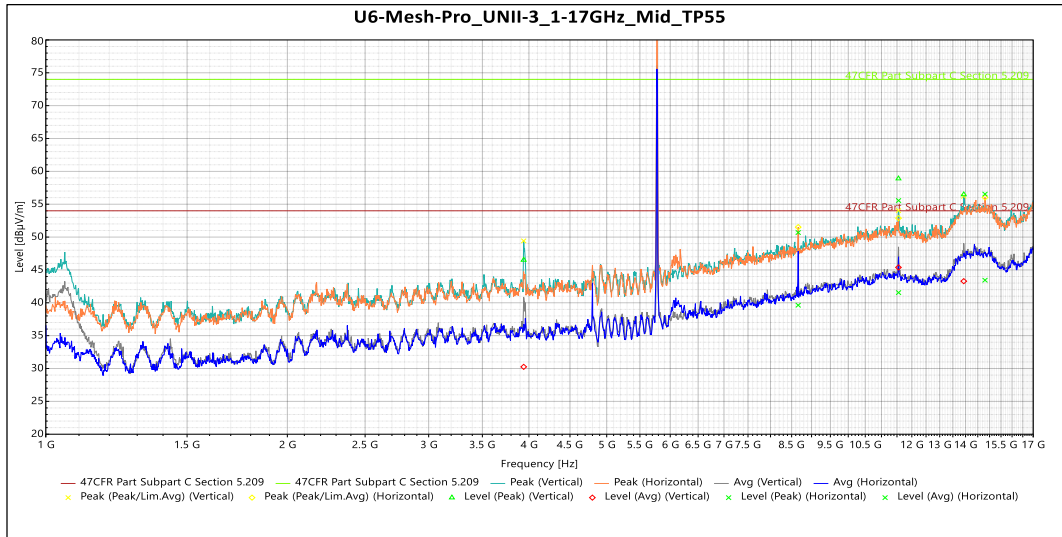

Peak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
3.9471 GHz	46.25	74	-27.75	189	3.802	Vertical	-7.183
11.482 GHz	60.133	74	-13.867	182	3.311	Vertical	7.997
14.857 GHz	56.604	74	-17.396	77	2.816	Vertical	11.508
8.6178 GHz	53.917	74	-20.083	300	1.838	Horizontal	2.964
11.49 GHz	56.014	74	-17.986	135	1.638	Horizontal	8.03
14.381 GHz	57.633	74	-16.367	301	1.643	Horizontal	11.99

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
3.9471 GHz	30.892	54	-23.108	189	3.802	Vertical	-7.183
11.482 GHz	44.851	54	-9.149	182	3.311	Vertical	7.997
14.857 GHz	43.268	54	-10.732	77	2.816	Vertical	11.508
8.6178 GHz	44.298	54	-9.702	300	1.838	Horizontal	2.964
11.49 GHz	42.719	54	-11.281	135	1.638	Horizontal	8.03
14.381 GHz	44.199	54	-9.801	301	1.643	Horizontal	11.99

Table 5: Radiated Emissions 1 – 17 GHz on the Lowest Frequency

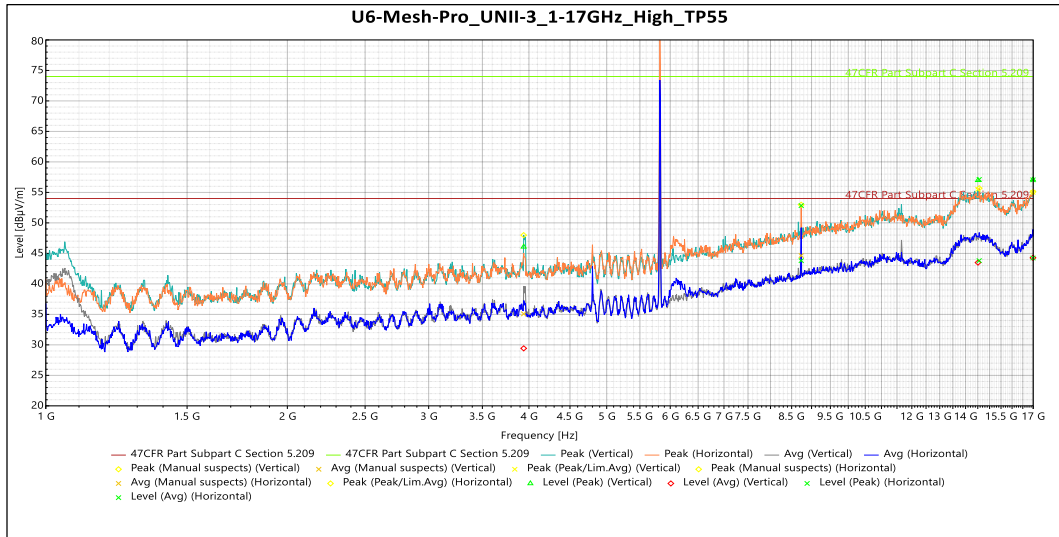

Peak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
3.9406 GHz	46.522	74	-27.478	192	3.802	Vertical	-7.18
11.549 GHz	58.899	74	-15.101	180	3.798	Vertical	8.108
13.929 GHz	56.484	74	-17.516	282	3.311	Vertical	11.001
8.6623 GHz	50.689	74	-23.311	309	3.307	Horizontal	3.191
11.552 GHz	55.556	74	-18.444	119	3.307	Horizontal	8.105
14.804 GHz	56.538	74	-17.462	125	3.311	Horizontal	11.677

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
3.9406 GHz	30.245	54	-23.755	192	3.802	Vertical	-7.18
11.549 GHz	45.375	54	-8.625	180	3.798	Vertical	8.108
13.929 GHz	43.293	54	-10.707	282	3.311	Vertical	11.001
8.6623 GHz	39.632	54	-14.368	309	3.307	Horizontal	3.191
11.552 GHz	41.547	54	-12.453	119	3.307	Horizontal	8.105
14.804 GHz	43.442	54	-10.558	125	3.311	Horizontal	11.677

Table 6: Radiated Emissions 1 – 17 GHz on the Middle Frequency



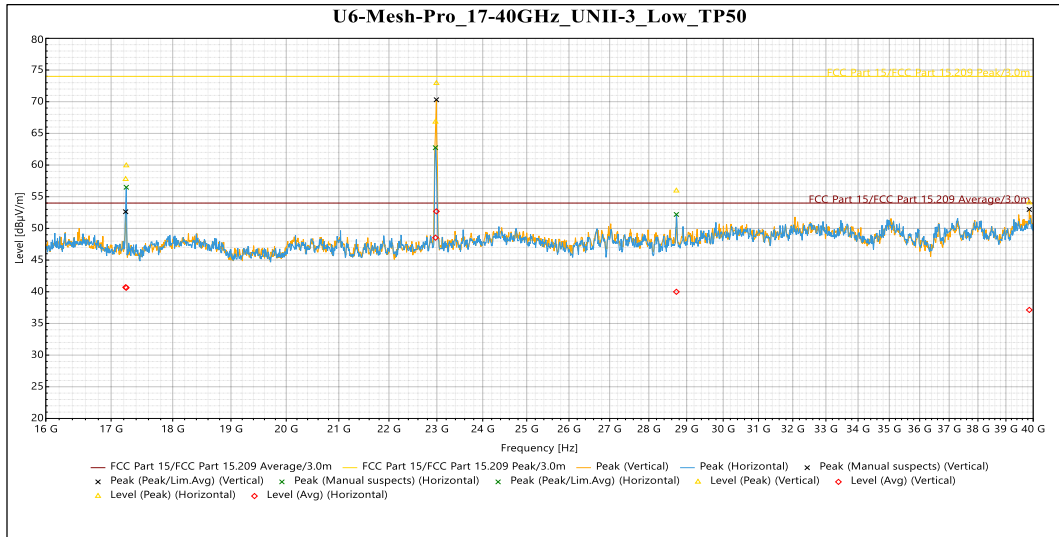
Peak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
3.9404 GHz	46.084	74	-27.916	190	3.802	Vertical	-7.18
14.509 GHz	56.992	74	-17.008	247	2.82	Vertical	11.703
16.988 GHz	57.081	74	-16.919	175	3.802	Vertical	13.522
8.7372 GHz	52.829	74	-21.171	299	1.5	Horizontal	3.497
14.56 GHz	57.123	74	-16.877	153	1.638	Horizontal	11.778
16.991 GHz	57.064	74	-16.936	231	4	Horizontal	13.514

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
3.9404 GHz	29.432	54	-24.568	190	3.802	Vertical	-7.18
14.509 GHz	43.489	54	-10.511	247	2.82	Vertical	11.703
16.988 GHz	44.272	54	-9.728	175	3.802	Vertical	13.522
8.7372 GHz	43.81	54	-10.19	299	1.5	Horizontal	3.497
14.56 GHz	43.812	54	-10.188	153	1.638	Horizontal	11.778
16.991 GHz	44.244	54	-9.756	231	4	Horizontal	13.514

Table 7: Radiated Emissions 1 – 17 GHz on the Highest Frequency


Peak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
17.231 GHz	57.774	74	-16.226	46	Vertical	-0.102
22.99 GHz	72.909	74	-1.091	298	Vertical	0.465
39.856 GHz	54.071	74	-19.929	218	Vertical	3.258
17.241 GHz	59.921	74	-14.079	11	Horizontal	-0.259
22.971 GHz	66.819	74	-7.181	4	Horizontal	0.348
28.725 GHz	55.939	74	-18.061	3	Horizontal	1.089

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
17.231 GHz	40.712	54	-13.288	46	Vertical	-0.102
22.99 GHz	52.685	54	-1.315	298	Vertical	0.465
39.856 GHz	37.128	54	-16.872	218	Vertical	3.258
17.241 GHz	40.632	54	-13.368	11	Horizontal	-0.259
22.971 GHz	48.531	54	-5.469	4	Horizontal	0.348
28.725 GHz	39.985	54	-14.015	3	Horizontal	1.089

Table 8: Radiated Emissions 17 – 40 GHz on the Lowest Frequency (worse 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 30 dBm in any 500 kHz band during any time interval of continuous transmission. Results of this testing are summarized.

As per KDB 662911, When the EUT is using spatial-multiplexing in HE modes, there is not additional array gain to accommodate. When the EUT uses Nss=1 data rates, the antenna gain is 8 dBi + Array gain of 3.01 dB which is a total of 11.01 dBi

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured EIRP	Measured PSD
OFDM 20	5745	Mcs0	50	26.44	34.44	10
OFDM 20	5775	Mcs0	52	27.81	35.81	16
OFDM 20	5825	Mcs0	52	27.80	35.80	11.03
HE 20	5745	Mcs0	50	26.04	34.04	9.21
HE 20	5775	Mcs0	52	27.71	35.71	10.65
HE 20	5825	Mcs0	52	27.71	35.71	10.30
HE 40	5755	Mcs0	50	26.49	34.49	6.92
HE 40	5775	Mcs0	52	27.60	35.60	7.77
HE 40	5795	Mcs0	52	27.56	35.56	7.87
HE 80	5775	Mcs0	48	25.42	33.42	3.31

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 --