



427 West 12800 South
Draper, UT 84020

Test Report Certification

FCC ID	SWX-UTRLR
ISED ID	6545A-UTRLR
Equipment Under Test	UTR-LR
Test Report Serial Number	TR11005_01
Date of Test(s)	16 - 19, 22 - 23 June 2026
Report Issue Date	31 July 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	UTR-LR
FCC ID	SWX-UTRLR
ISED ID	6545A-UTRLR

On this 31st day of July 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: Joseph W Jackson
Reviewed By: Kimberly DeBole

Revision History		
Revision	Description	Date
01	Original Report Release	31 July 2026

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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 Officer

1.2 Manufacturer

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

2 Equipment Under Test (EUT)

2.1 Identification of EUT

Brand Name	UBIQUITI
Model Number	UTR-LR
Serial Number	E6D95A
Dimensions (cm)	6.5 x 9.6 x 1.9

2.2 Description of EUT

The UniFi Travel Router Long-Range (UTR-LR) is a compact travel router and VPN functionality for secure connections on the go. The UTR-LR has 2x2 2.4 GHz and 2x2 5GHz dual-band wireless transmitters. The UTR-LR has a Bluetooth transmitter for management control. The UTR is an indoor device and is powered from a USB-C 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 $3.01 \text{ dB} + 10 \text{ dBi} = 13.01 \text{ dBi}$.

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.

Band	WiFi Mode	Modulation Bandwidth	Modulation Type	Frequency (MHz)
UNII-1	a	20 MHz	OFDM	5180, 5200, 5210, 5240
	ac	20 MHz	VHT	5180, 5200, 5210, 5240
	ac	40 MHz	VHT	5190, 5230
	ac	80 MHz	VHT	5210

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: UTR-LR (Note 1) SN: E6D95A	Wireless Router	See Section 2.4
BN: UBIQUITI MN: E005-1I050100VU SN: N/A	USB Power Adapter	2 Conductor power cord to AC mains/80cm
BN: Dell MN: XPS 13 SN: N/A	Laptop Personal Computer	Unshielded Cat 5e cable/3 meters

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 Power	1	2 conductor power to AC mains/80cm
USB-C Passthrough	1	USB-C cable/3 meters
Ethernet	2	Unshielded Cat 5e cable/3 meters

2.5 Operating Environment

Power Supply	120 Volts AC Main to USB-C
AC Mains Frequency	60 Hz
Temperature	22.4 - 25.2 °C
Humidity	21.8 - 27.4 %
Barometric Pressure	1011 mBar

2.6 Operating Modes

The UTR-LR 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/ac were investigated. All measurements are reported with the worst-case mode (802.11ac 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

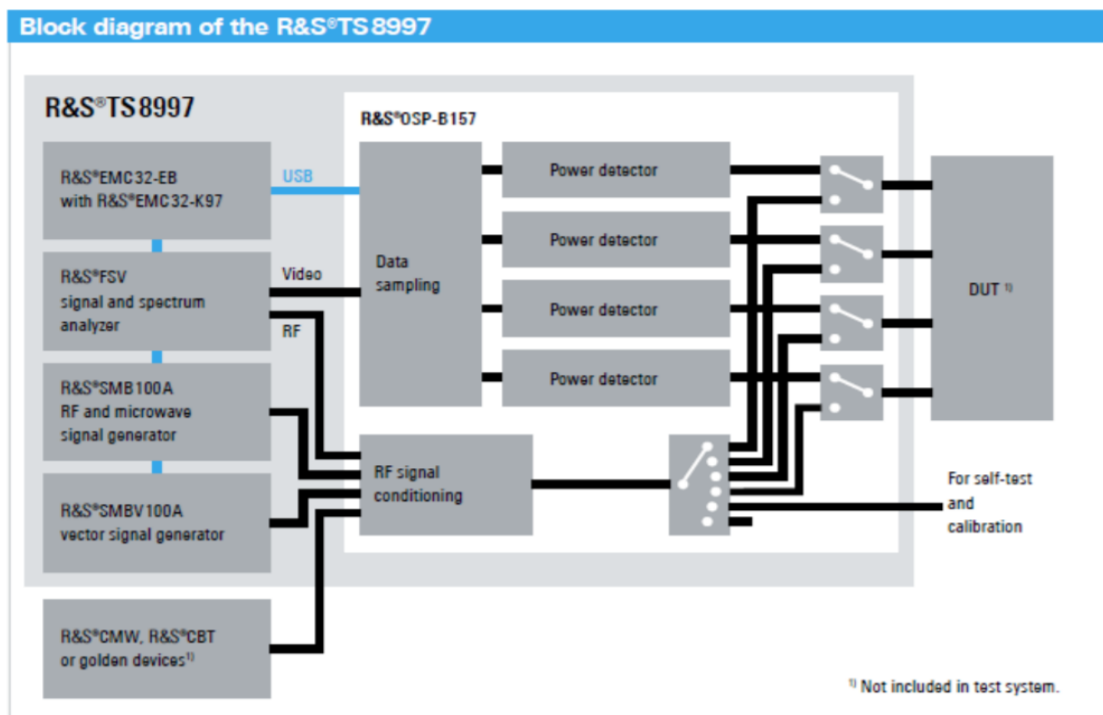


Diagram 1: Test Configuration Block Diagram

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	5180 to 5210	Compliant
15.407(a)	RSS-247 §6.2.2, §6.2.3	Peak Output Power	5180 to 5210	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	5180 to 5210	Compliant
The testing was performed according to the procedures in ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024, KDB 558074 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 2027. 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 2027.

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	3/4/2026	3/4/2027
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

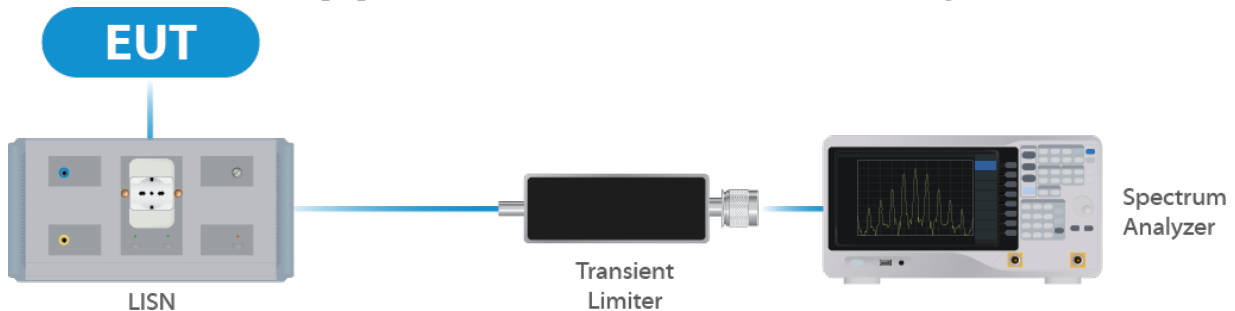


Figure 1: Conducted Emissions Test

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	3/18/2026	3/18/2027
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	4/7/2026	4/7/2027
Switch Extension	R&S	OSP-150W	UCL-2870	4/6/2026	4/6/2027
Test Software	R&S	EMC32	UCL-9442	--	--

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

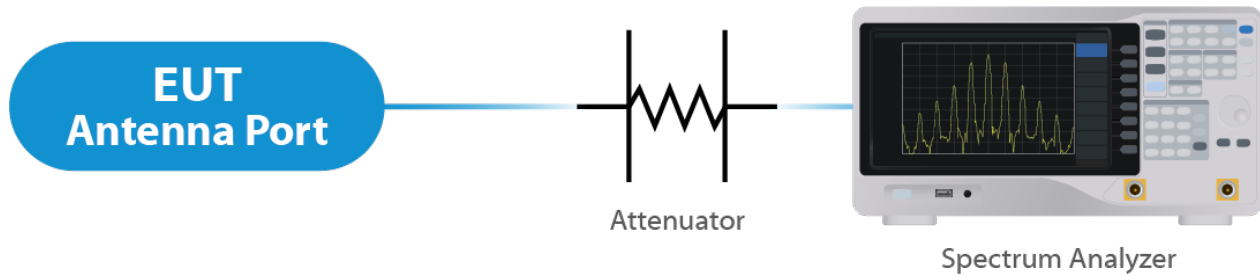


Figure 2: Direct Connect at the Antenna Port Test

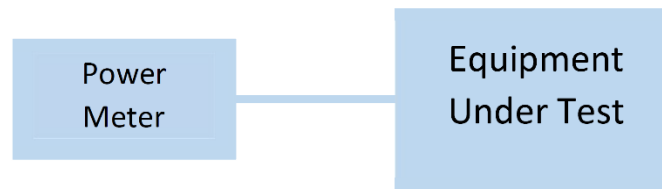


Figure 3: Output Power Measurement

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
Tri Log Antenna	Scwarzbeck	VULB 9163	UCL-3062	12/16/2025	12/16/2027
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
15 - 40 GHz Horn Antenna	Scwarzbeck	BBHA 9170	UCL-2487	4/7/2025	4/7/2027
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

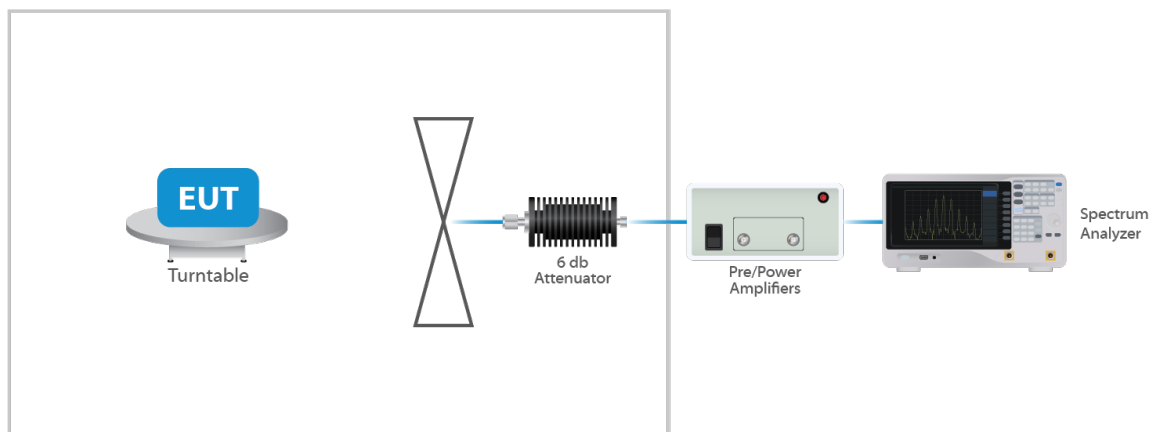


Figure 4: Radiated Emissions Test

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 internal antenna. As per the manufacturer, the Maximum gain of the antenna is 10 dBi. The antenna is not user replaceable.

This is an 802.11 device and utilizes CDD as described in KDB 662911 D01.

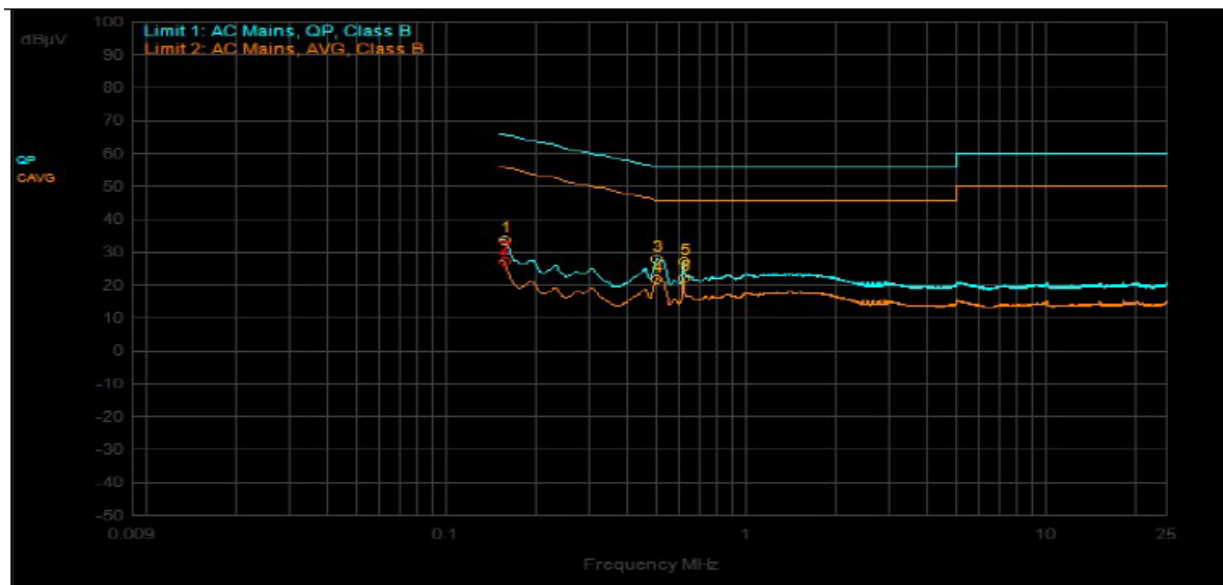
See Section 2.2 for directional gain calculation.

Results

The EUT complied with the specification

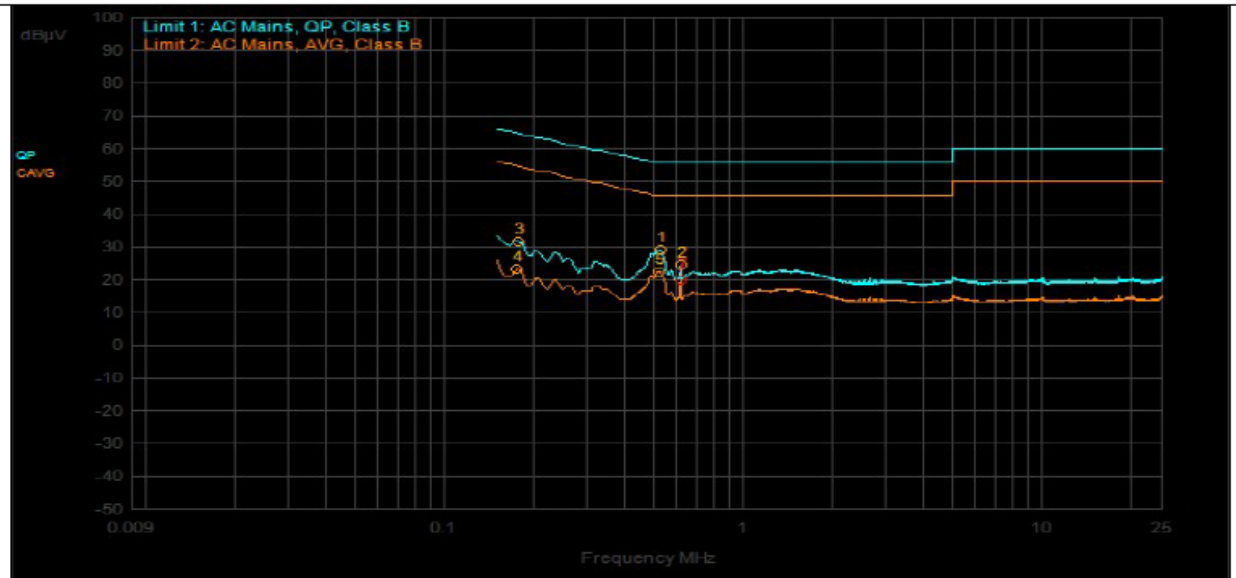
5.2 §15.207 Conducted Emissions at Mains Ports Data

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	501,000kHz	9.59	0.00		QPeak	18.30	27.89	56.00	-28.11			
5	615,000kHz	9.61	0.00		QPeak	17.30	26.91	56.00	-29.09			
1	156,000kHz	9.52	0.00		QPeak	24.17	33.69	65.67	-31.99			
2	156,000kHz	9.52	0.00		C_AVG	17.49	27.01			55.67	-28.66	
4	498,000kHz	9.59	0.00		C_AVG	12.22	21.81			46.03	-24.23	
8	615,000kHz	9.61	0.00		C_AVG	12.55	22.16			46.00	-23.84	

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	525,000kHz	9.52	0.00		QPeak	19.47	28.99	56.00	-27.01			
2	615,000kHz	9.50	0.00		QPeak	15.04	24.54	56.00	-31.46			
3	177,000kHz	9.51	0.00		QPeak	22.06	31.57	64.63	-33.05			
4	174,000kHz	9.51	0.00		C_AVG	13.81	23.32			54.77	-31.45	
5	522,000kHz	9.52	0.00		C_AVG	13.04	22.56			46.00	-23.44	
7	615,000kHz	9.50	0.00		C_AVG	10.33	19.83			46.00	-26.17	

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)	Emissions 26 dB Bandwidth (MHz)
OFDM 20	5180	16.9	22.2
OFDM 20	5210	18.3	33.2
OFDM 20	5240	18.9	35.0
VHT 20	5180	18.3	25.0
VHT 20	5210	20.0	36.0
VHT 20	5240	19.5	39.0
VHT 40	5190	37.0	43.5
VHT 40	5230	36.8	48.50
VHT 80	5210	76.3	83.5

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) 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.

The maximum average RF conducted output power measured for this device was 21.67 dBm or 146.89 mW. The limit is 30 dBm, or 1 Watt when using an antenna with 23 dBi (Fixed point to point) or 6 dBi (indoor/outdoor access point) or less gain. The antenna has a gain of 10 dBi.

See Section 2.2 for directional gain calculation.

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	5180	Mcs0_Nss2	32	17.62	10	27.62	36	-8.38
OFDM 20	5210	Mcs0_Nss2	40	21.28	10	31.28	36	-4.72
OFDM 20	5240	Mcs0_Nss2	40	21.67	10	31.67	36	-4.33
VHT 20	5180	Mcs0_Nss2	33	18.09	10	28.09	36	-7.91
VHT 20	5210	Mcs0_Nss2	40	21.30	10	31.30	36	-4.70
VHT 20	5240	Mcs0_Nss2	40	21.62	10	31.62	36	-4.38
VHT 40	5190	Mcs0_Nss2	24	13.80	10	23.80	36	-12.20
VHT 40	5230	Mcs0_Nss2	35	19.36	10	29.36	36	-6.64
VHT 80	5210	Mcs0_Nss2	25	13.92	10	23.92	36	-12.08

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	5180	Mcs0_Nss1	32	17.62	10	27.62	36	-8.38
OFDM 20	5210	Mcs0_Nss1	32	17.28	10	27.28	36	-8.72
OFDM 20	5240	Mcs0_Nss1	32	17.67	10	27.67	36	-8.33
VHT 20	5180	Mcs0_Nss1	33	18.09	10	28.09	36	-7.91
VHT 20	5210	Mcs0_Nss1	32	17.30	10	27.30	36	-8.7
VHT 20	5240	Mcs0_Nss1	32	17.62	10	27.62	36	-8.38
VHT 40	5190	Mcs0_Nss1	24	13.80	10	23.80	36	-12.2
VHT 40	5230	Mcs0_Nss1	35	19.36	10	29.36	36	-6.64
VHT 80	5210	Mcs0_Nss1	25	13.92	10	23.92	36	-12.08

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Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Total Summed Output Power* (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dBm)
OFDM 20	5180	Mcs0_Nss2	20	11.66	10	21.66	23	-1.34
OFDM 20	5210	Mcs0_Nss2	23	12.85	10	22.85	23	-0.15
OFDM 20	5240	Mcs0_Nss2	20	11.73	10	21.73	23	-1.27
VHT 20	5180	Mcs0_Nss2	21	12.13	10	22.13	23	-0.87
VHT 20	5210	Mcs0_Nss2	22	12.34	10	22.34	23	-0.66
VHT 20	5240	Mcs0_Nss2	21	12.24	10	22.24	23	-0.76
VHT 40	5190	Mcs0_Nss2	22	12.83	10	22.83	23	-0.17
VHT 40	5230	Mcs0_Nss2	21	12.47	10	22.47	23	-0.53
VHT 80	5210	Mcs0_Nss2	22	12.48	10	22.48	23	-0.52

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 §15.209 Spurious Emissions

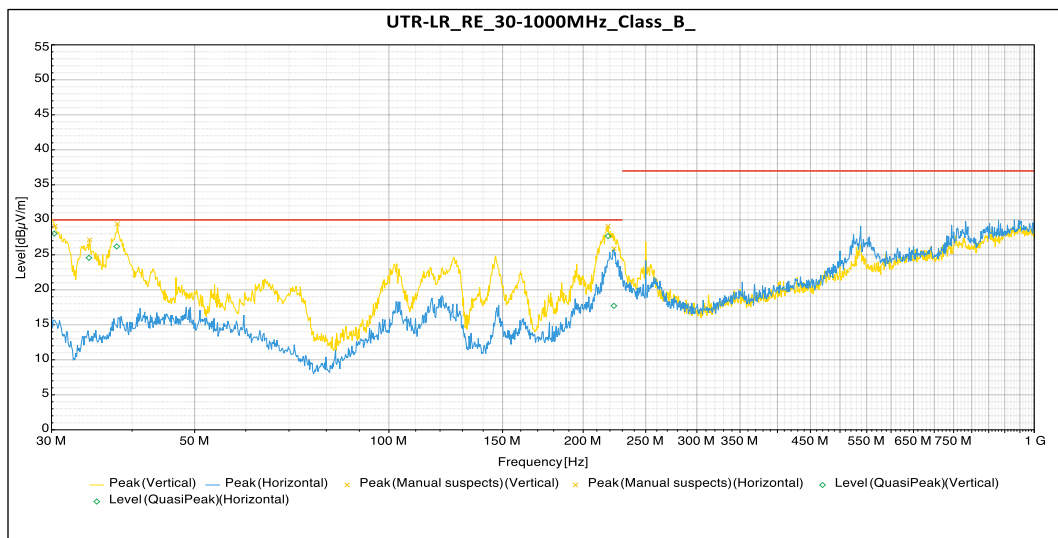
5.5.1 Radiated Spurious Emissions in the Restricted Bands of § 15.205

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 TP45, as this setting was found to be worst case for spurious emissions. Power was subsequently reduced during in-band and band edge testing. The band edge at the restricted band ending at 5180 MHz was measured using radiated measurement or conducted at the antenna port methods. All emissions modes were tested, and the worst-case measurement are shown below. For frequencies above 1 GHz, a measurement of 3 meters was used. For frequencies below 1 GHz, a measurement distance of 10 meters was used.

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

Result

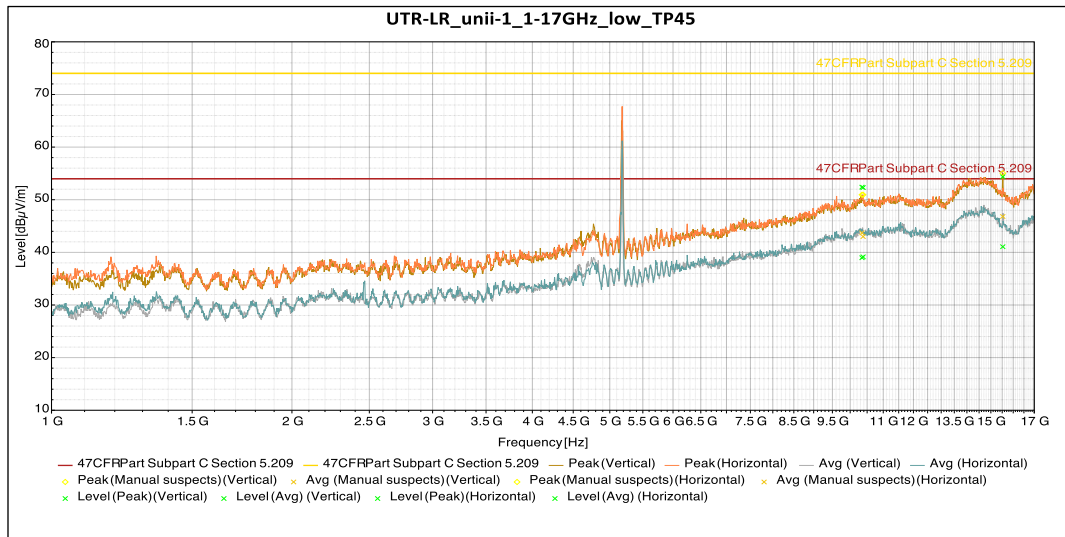
All emissions in the restricted bands of § 15.205 met the limits specified in § 15.209; therefore, the EUT complies with the specification. All emissions met the limits specified in § 15.407(b). Representative band edge plots are included in this report.



QuasiPeak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin	Azimuth (°)	Height	Pol.	Correction (dB)
30.29 MHz	28.04	30.0	-1.96	115	1.05	Vertical	-17.22
34.30 MHz	24.57	30.0	-5.43	185	1.48	Vertical	-16.13
37.87 MHz	26.20	30.00	-3.80	218	1.02	Vertical	-14.13
218.64 MHz	27.67	30.0	-2.33	167	1.13	Vertical	-14.10
223.14 MHz	17.71	30.0	-12.29	290	2.97	Horizontal	-13.78

Table 4: Radiated Emissions 30 – 1000 MHz



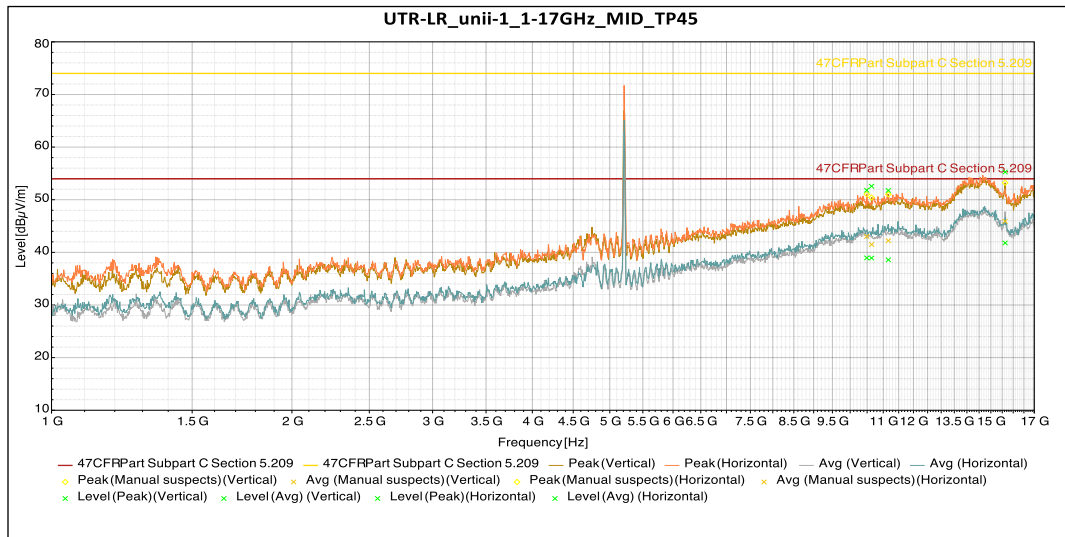
Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
10.35 GHz	52.39	74.0	-21.61	274	3.798	Vertical	6.66
15.53 GHz	54.36	74.0	-19.64	158	1.5	Vertical	9.30
10.34 GHz	52.31	74.0	-21.69	259	4	Horizontal	6.73

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
10.35 GHz	38.98	54.0	-15.02	274	3.798	Vertical	6.66
15.53 GHz	41.07	54.0	-12.93	159	1.5	Vertical	9.30
10.34 GHz	39.315	54.0	-14.85	259	4	Horizontal	6.73

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



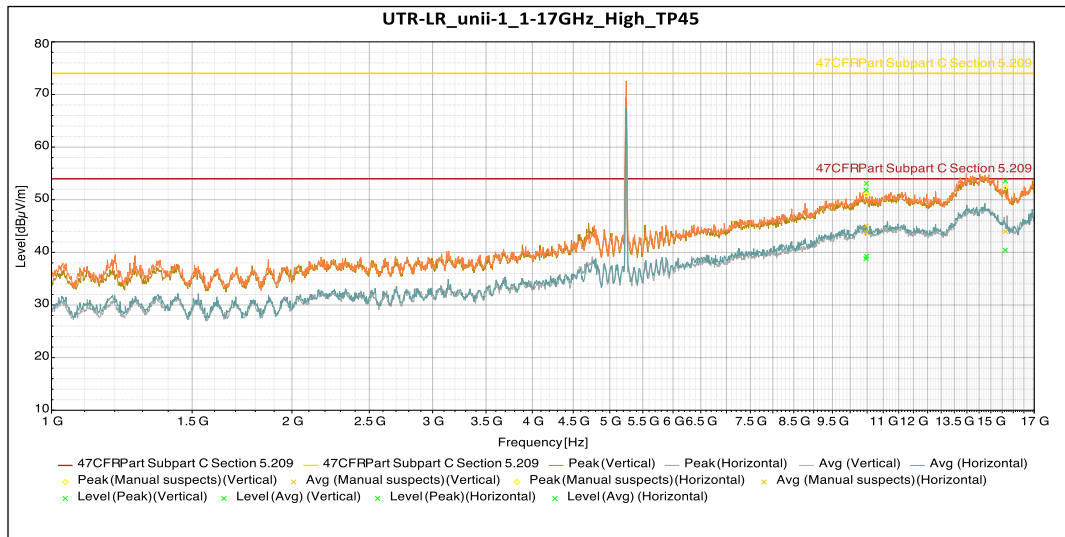
Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
10.64 GHz	52.57	74.0	-21.43	351	3.798	Vertical	7.27
11.16 GHz	51.76	74.0	-22.24	241	3.311	Vertical	7.24
15.63 GHz	55.27	74.0	-18.73	297	2.82	Vertical	9.12
10.49 GHz	51.80	74.0	-22.20	120	3.311	Horizontal	6.90

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
10.64 GHz	38.92	54.0	-15.08	351	3.798	Vertical	7.27
11.16 GHz	38.59	54.0	-15.41	241	3.311	Vertical	7.24
15.63 GHz	41.79	54.0	-12.21	297	2.82	Vertical	9.12
10.49 GHz	38.96	54.0	-15.04	120	3.311	Horizontal	6.90

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



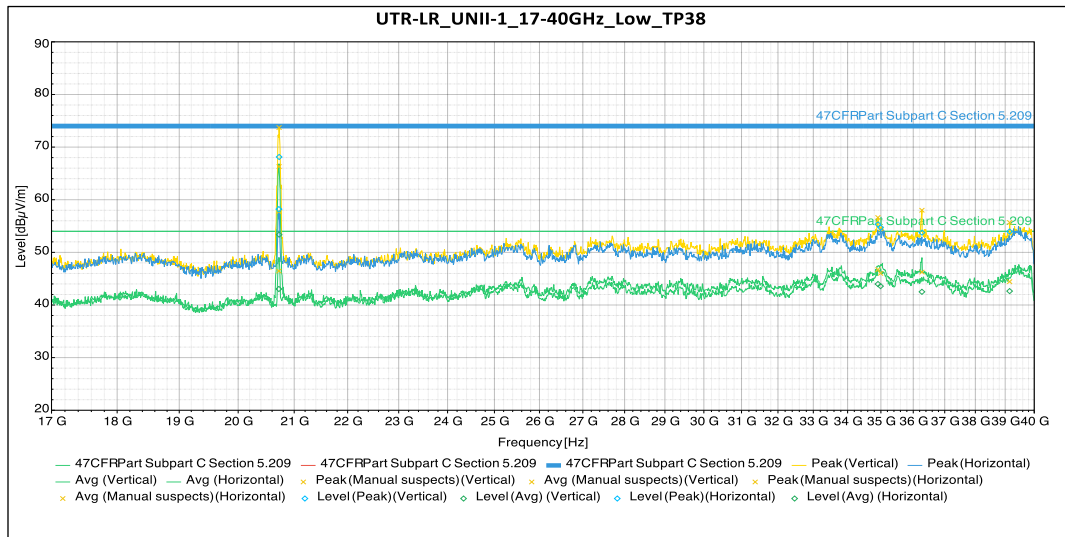
Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
10.48 GHz	53.10	74.0	-20.90	279	2.329	Vertical	6.88
15.64 GHz	53.57	74.0	-20.43	177	3.652	Vertical	9.16
10.47 GHz	51.82	74.0	-22.18	144	3.798	Horizontal	6.80

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
10.48 GHz	39.25	54.0	-14.75	279	2.329	Vertical	6.88
15.64 GHz	40.41	54.0	-13.59	177	3.652	Vertical	9.16
10.47 GHz	38.79	54.0	-15.21	144	3.798	Horizontal	6.80

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



Peak

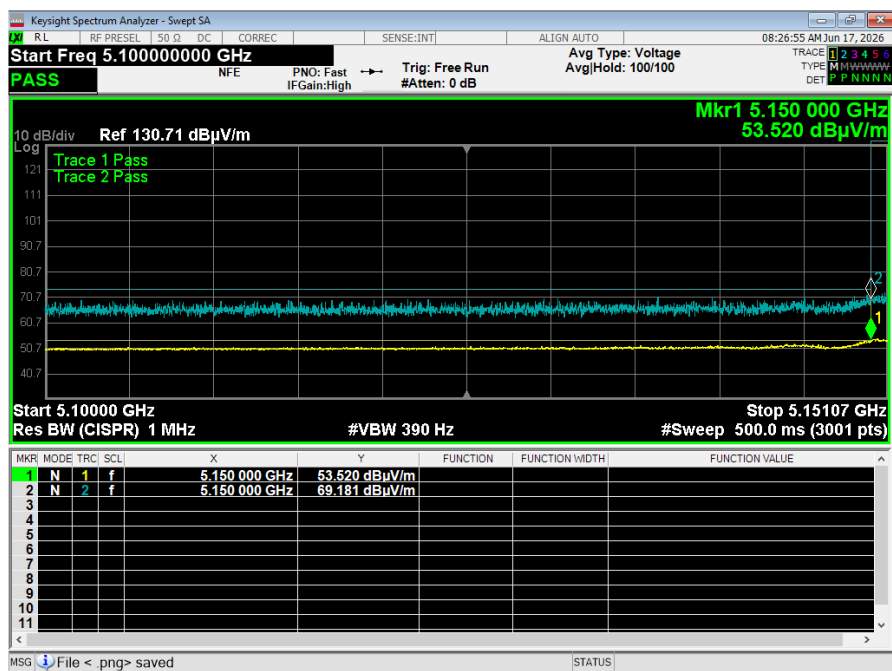
Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
20.73GHz	68.12	74.0	-5.88	289	Vertical	-0.41
34.91 GHz	55.32	74.0	-18.68	152	Vertical	5.57
36.27 GHz	53.75	74.0	-20.25	181	Vertical	5.18
39.15 GHz	53.97	74.0	-20.03	327	Vertical	3.46
20.72 GHz	58.21	74.0	-15.79	283	Horizontal	-0.46
34.99 GHz	54.73	74.0	-19.27	119	Horizontal	5.75

Avg

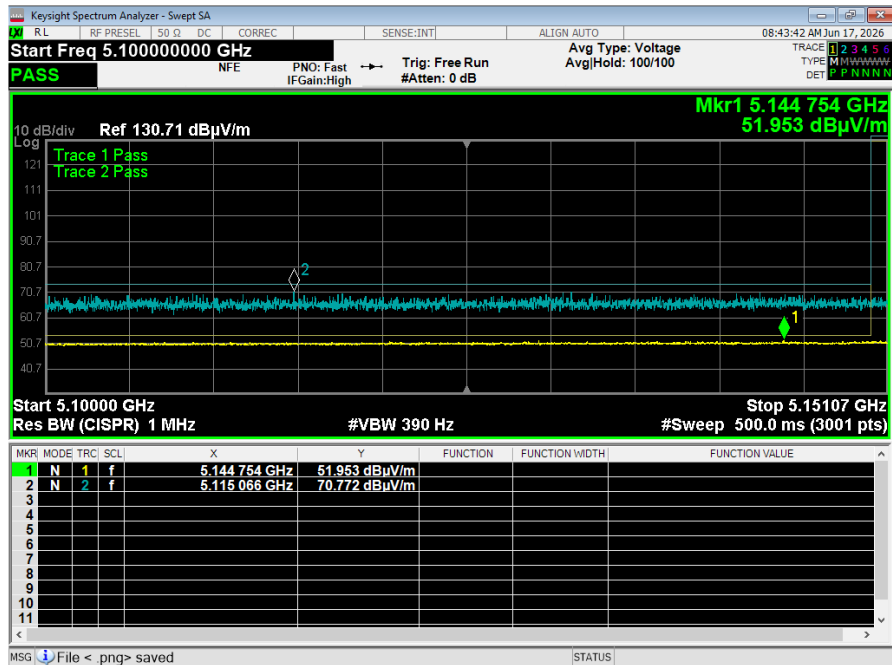
Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
20.73GHz	53.36	54.0	-0.64	289	Vertical	-0.41
34.91 GHz	43.98	54.0	-10.02	152	Vertical	5.57
36.27 GHz	42.50	54.0	-11.50	181	Vertical	5.18
39.15 GHz	42.64	54.0	-11.36	327	Vertical	3.46
20.72 GHz	43.04	54.0	-10.96	283	Horizontal	-0.46
34.99 GHz	43.58	54.0	-10.42	119	Horizontal	5.75

Table 8: Radiated Emissions 17 – 26 GHz at the Lowest Frequency (worse case)

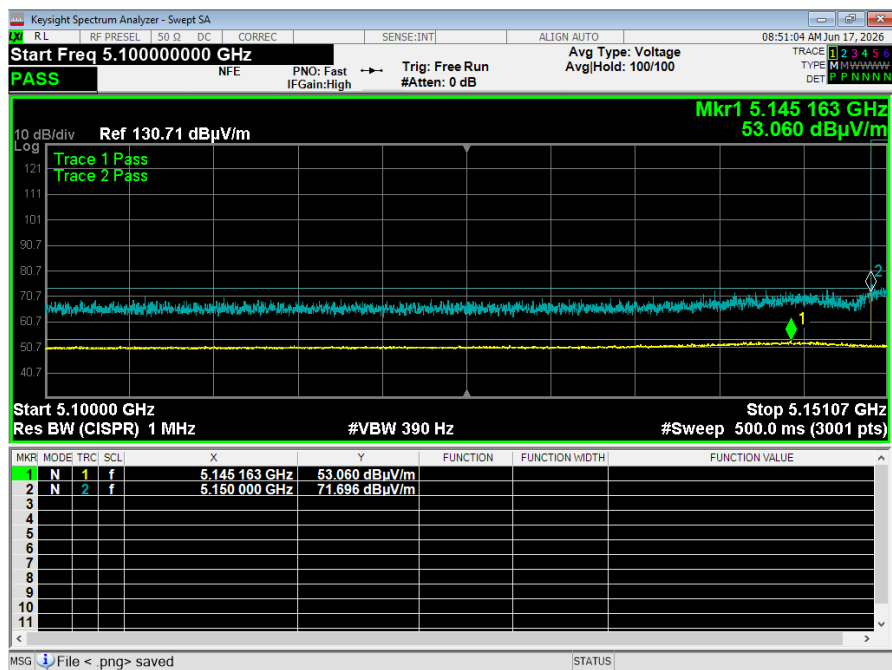
5.5.2 Band Edge



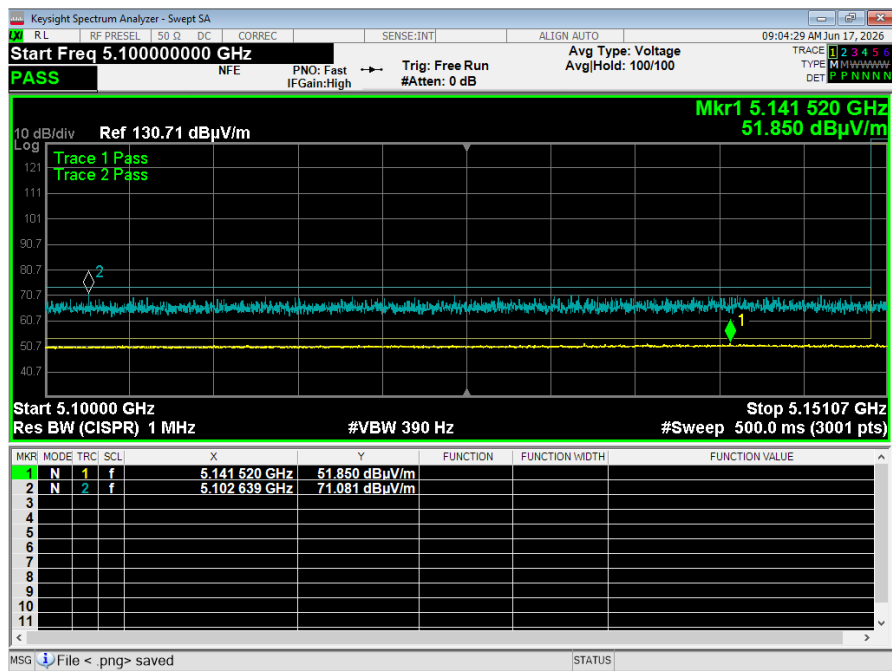
Graph 1: Band Edge Low a Mode 20 MHz



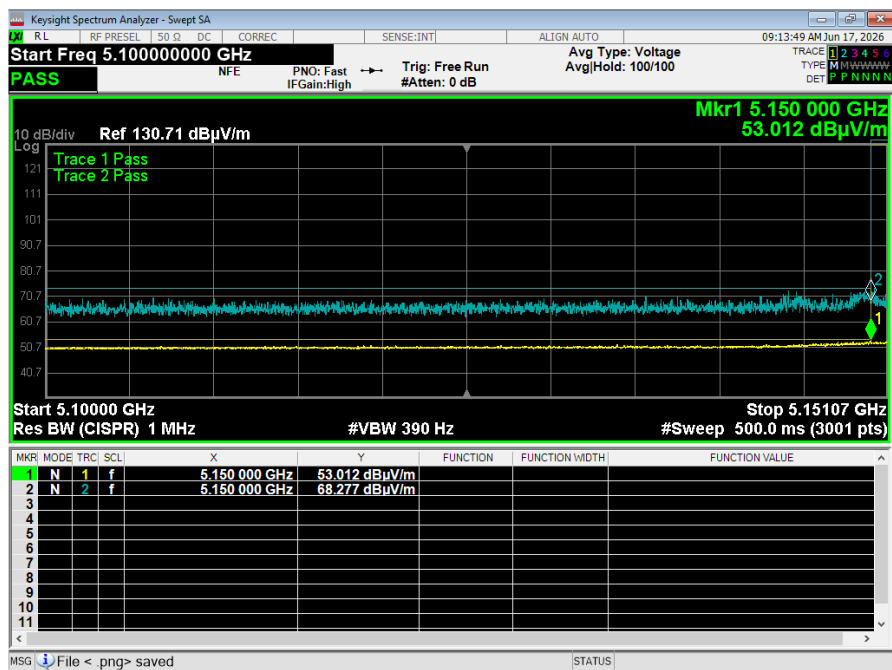
Graph 2: Band Edge High a Mode 20 MHz



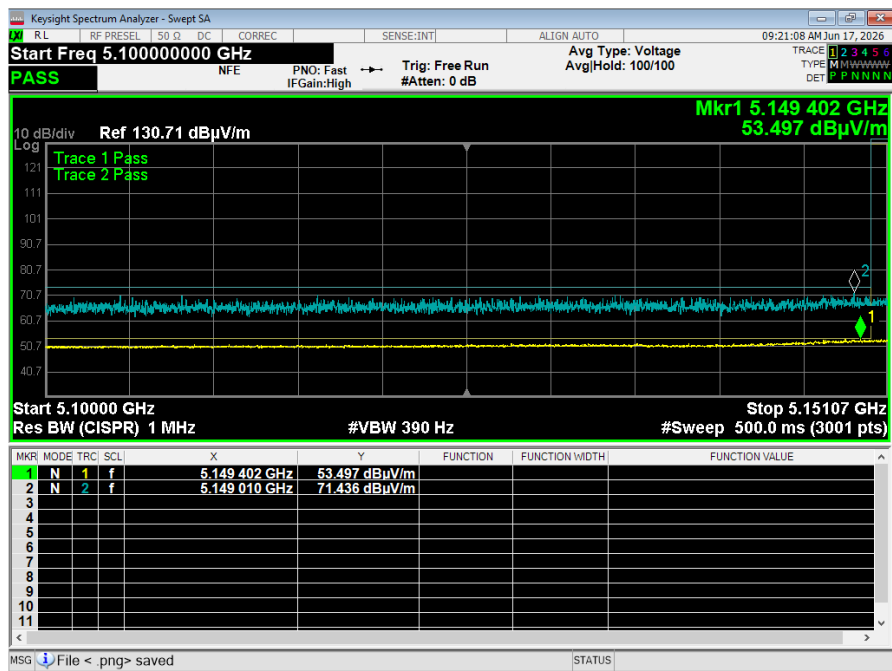
Graph 3: Band Edge Low ac Mode 20 MHz



Graph 4: Band Edge High ac Mode 20 MHz



Graph 5: Band Edge Low ac Mode 40 MHz



Graph 6: Band Edge High ac Mode 40 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 17 dBm 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

Modulation (BW)	Freq. (MHz)	Data Rate	TP Setting	Total Sum PSD EIRP (dBm)	Antenna Gain (dBi)	Limit (dBm)	Margin (dBm)
OFDM 20	5180	Mcs0_Nss2	32	5.67	10	13	-7.33
OFDM 20	5210	Mcs0_Nss2	40	9.20	10	13	-3.8
OFDM 20	5240	Mcs0_Nss2	40	9.56	10	13	-3.44
VHT 20	5180	Mcs0_Nss2	33	5.55	10	13	-7.45
VHT 20	5210	Mcs0_Nss2	40	8.83	10	13	-4.17
VHT 20	5240	Mcs0_Nss2	40	8.93	10	13	-4.07
VHT 40	5190	Mcs0_Nss2	21	5.18	10	13	-7.82
VHT 40	5230	Mcs0_Nss2	35	3.89	10	13	-9.11
VHT 80	5210	Mcs0_Nss2	25	-4.95	10	13	-17.95

Nss=1

Modulation (BW)	Freq. (MHz)	Data Rate	TP Setting	Total Sum PSD EIRP (dBm)	Antenna Gain (dBi)	Limit (dBm)	Margin (dBm)
OFDM 20	5180	Mcs0_Nss1	32	5.97	10	5.99	-0.02
OFDM 20	5210	Mcs0_Nss1	32	5.20	10	5.99	-0.79
OFDM 20	5240	Mcs0_Nss1	32	5.56	10	5.99	-0.43
VHT 20	5180	Mcs0_Nss1	33	5.55	10	5.99	-0.44
VHT 20	5210	Mcs0_Nss1	32	4.83	10	5.99	-1.16
VHT 20	5240	Mcs0_Nss1	32	4.93	10	5.99	-1.06
VHT 40	5190	Mcs0_Nss1	24	5.18	10	5.99	-0.81
VHT 40	5230	Mcs0_Nss1	35	3.89	10	5.99	-2.1
VHT 80	5210	Mcs0_Nss1	25	-4.95	10	5.99	-10.94

Result

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

-- End of Test Report --