



427 West 12800 South
Draper, UT 84020

Test Report Certification

FCC ID	SWX-WAVEAPG2
IC ID	6545A-WAVEAPG2
Equipment Under Test	Wave-AP-Gen2
Test Report Serial Number	TR9942_01
Date of Test(s)	24 March – 28 March 2025
Report Issue Date	23 April 2025

Test Specification	Applicant
47 CFR FCC Part 15, Subpart C	Ubiquiti Inc. 685 Third Avenue, 27 th Floor New York, NY 10019 U.S.A.



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 C. This report may be reproduced in full. Partial reproduction of this report may only be made with the written consent of the laboratory. The results in this report apply only to the sample tested with the specifications provided by the manufacturer.

Applicant	Ubiquiti Inc.
Manufacturer	Ubiquiti Inc.
Brand Name	UBIQUITI
Model Number	Wave-AP-Gen2
FCC ID	SWX-WAVEAPG2
IC ID	6545A-WAVEAPG2

On this 23rd day of April 2025, I individually and for Unified Compliance Laboratory certify that the statements made in this engineering report are true, complete, and correct to the best of my knowledge and are made in good faith. Unified Compliance laboratory is not responsible for incorrect information provided by the manufacturer.

Although NVLAP has accredited the Unified Compliance Laboratory testing facilities, this report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. federal government.

Unified Compliance Laboratory



Written By: Clay Allred



Reviewed By: Richard L. Winter

Revision History		
Revision	Description	Date
01	Original Report Release	23 April 2025

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1 Client Information

1.1 Applicant

Company	Ubiquiti Inc. 685 Third Avenue, 27 th Floor New York, NY 10017 U.S.A.
Contact Name	Alex Macon
Title	Compliance

1.2 Manufacturer

Company	Ubiquiti Inc. 685 Third Avenue, 27 th Floor New York, NY 10017 U.S.A.
Contact Name	Alex Macon
Title	Compliance

2 Equipment Under Test (EUT)

2.1 Identification of EUT

Brand Name	UBIQUITI
Model Number	Wave-AP-Gen2
Serial Number	2FD400
Dimensions (cm)	15.8 x 28.7 x 10.0

2.2 Description of EUT

The Wave-AP-Gen2 is a fixed point to multiple-point transceiver, intended for outdoor use, operating in the 57 GHz to 71 GHz range. The Wave-AP-Gen2 has a 5150 GHz to 5850 GHz transceiver operating in the UNII-1, UNII-2 and UNII-3 bands. A Bluetooth LE transceiver is included for set-up and device management. An Ethernet port is used for transfer and to provide power using an Ubiquiti UPOE-at power supply.

This report covers the circuitry of the device subject to FCC Part 15, Subpart C. 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: Wave-AP-Gen2 (Note 1) SN: 2FD400	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 Volts PoE
AC Mains Frequency	60 Hz
Temperature	21.3 - 24.6 °C
Humidity	19.4 - 26.8 %
Barometric Pressure	1021 mBar

2.6 Operating Modes

The Wave-AP-Gen2 was connected to a personal computer laptop and tested using test software in order to enable to constant duty cycle greater or equal to 98% of the WiFi transceiver

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

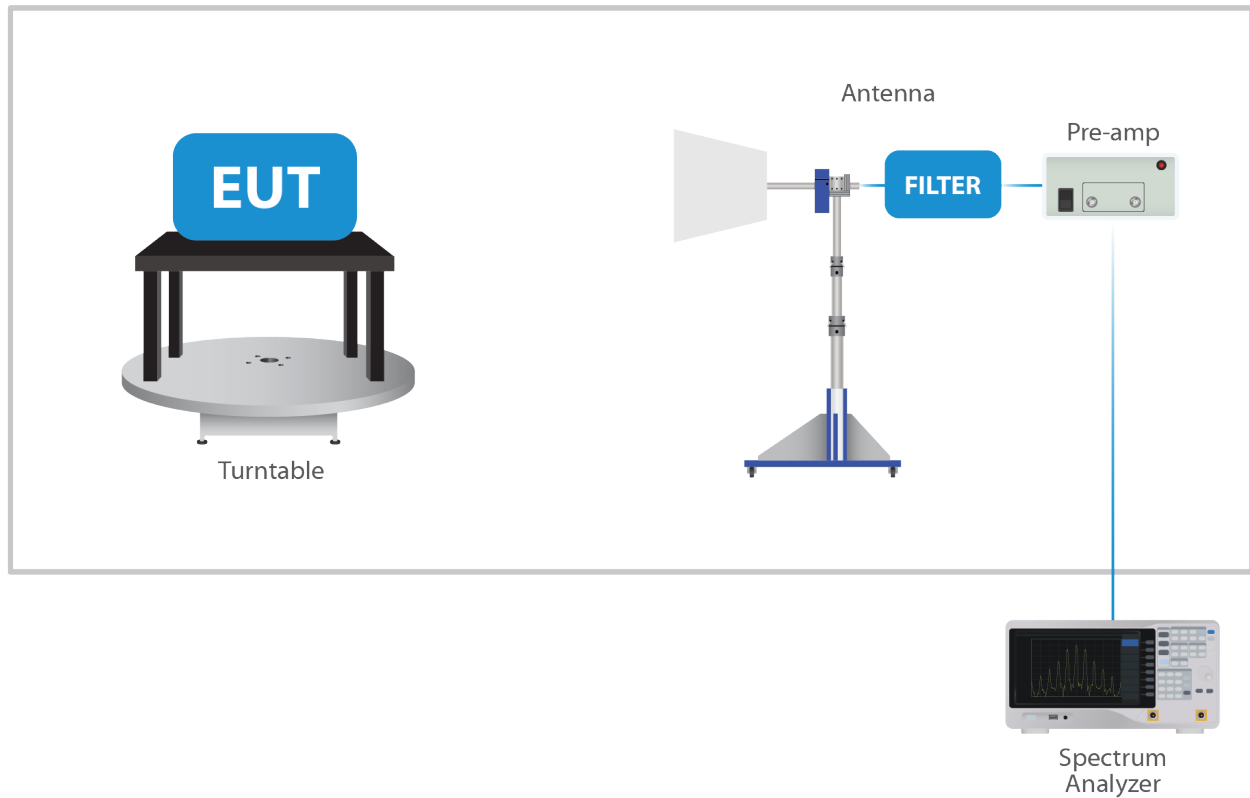


Diagram 1: Test Configuration Block Diagram

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 C 15.203, 15.207 and 15.255 Limits and methods of measurement of radio interference characteristics of radio frequency 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 15.203

See test standard for details.

3.2.2 47 CFR FCC Part 15 Section 15.207

See test standard for details.

3.2.3 47 CFR FCC Part 15 Section 15.255

See test standard for details.

3.3 FCC Part 15, Subpart C

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
15.255 (e)	RSS-210 § J.4	Bandwidth Requirement	57000 - 71000	Compliant
15.255 (c)	RSS-210 § J.4	Peak Output Power	57000 - 71000	Compliant
15.255 (d)	RSS-210 § J.3	Antenna Conducted Spurious Emissions	0.009 to 40000	N/A
15.255 (d)	RSS-210 § J.3	Radiated Spurious Emissions	0.009 to 200000	Compliant
15.255 (c)	RSS-210 § J.4	Peak Power Spectral Density	57000 - 71000	Compliant
15.255 (f)	RSS-210 § J.6	Frequency Stability	57000 - 71000	Compliant
The testing was performed according to the procedures in ANSI C63.10-2013, KDB 558074 and 47 CFR Part 15.				

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 2025. This site has also been registered with Innovations, Science and Economic Development (ISED) department and was accepted under Appendix B, Phase 1 procedures of the APEC Tel MRA for Canadian recognition. ISED No.: 25346, effective until 30 June 2025.

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	8/27/2024	8/27/2025
LISN	AFJ	LS16C/10	UCL-2512	7/08/2024	7/08/2025
ISN	Teseq	ISN T800	UCL-2974	7/09/2024	7/09/2025
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

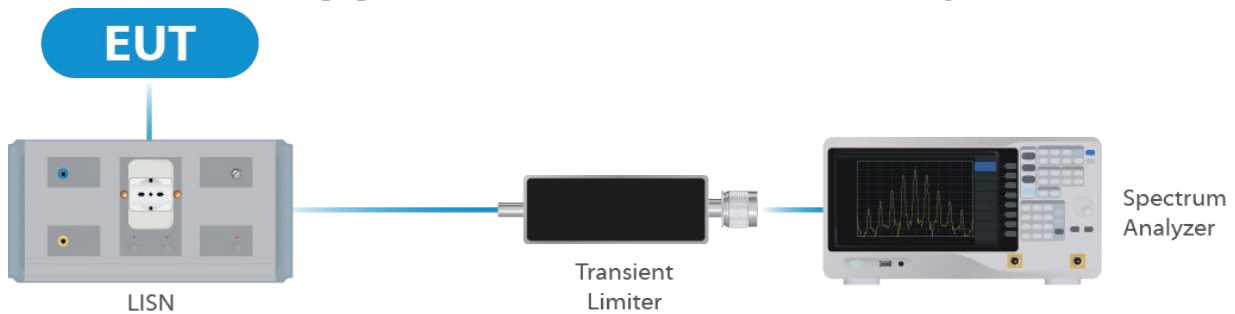


Figure 1: Conducted Emissions Test

4.2 Radiated Emissions

Type of Equipment	Manufacturer	Model Number	Asset Number	Date of Last Calibration	Due Date of Calibration
EMI Receiver	Keysight	N9038A	UCL-2778	12/27/2024	12/27/2025
Pre-Amplifier 9 kHz – 1 GHz	Sonoma Instruments	310N	UCL-2889	1/19/2024	1/19/2026
Broadband Antenna	ETS-Lindgren	3142E	UCL-9782	2/6/2025	2/6/2026
Double Ridge Horn Antenna	Scwarzbeck	BBHA 9120D	UCL-3065	4/2/2025	4/2/2027
Log Periodic	ETS-Lindgren	3142E	UCL-9782	2/6/2025	2/6/2026
10 - 40 GHz Horn Antenna	ETS-Lindgren	3116C	UCL-7209	6/6/2024	6/6/2026
Pre-Amplifier 9 kHz – 1 GHz	Sonoma Instruments	310N	UCL-4793	7/2/2024	7/2/2025
Pre-Amplifier 1 – 18 GHz	Com-Power	PAM 118A	UCL-3833	7/2/2024	7/2/2025

Type of Equipment	Manufacturer	Model Number	Asset Number	Date of Last Calibration	Due Date of Calibration
Pre-Amplifier 1 – 18 GHz	The EMC Shop	PA18G	UCL-5896	7/2/2024	7/2/2025
Pre-Amplifier 15 – 40 GHz	L3 Harris	LNA-40-18004000-40-15P	UCL-4465	7/2/2024	7/2/2025
Test Software	UCL	Revision 1	UCL-3108	N/A	N/A
Conical Horn Antenna	VDI	WR15CH	UCL-5774	N/A	N/A
Conical Horn Antenna	VDI	WR12CH	UCL-4869	N/A	N/A
Conical Horn Antenna	VDI	WR19CH	UCL-4873	N/A	N/A
Conical Horn Antenna	VDI	WR5.1CH	UCL-4880	N/A	N/A
Conical Horn Antenna	VDI	WR8.0CH	UCL-4886	N/A	N/A
Spectrum Analyzer Extension Module	VDI	SAX 705	UCL-4887	N/A	N/A
Spectrum Analyzer Extension Module	VDI	SAX 706	UCL-4883	N/A	N/A
USB Switch	Keysight	U1816C	UCL-4957	N/A	N/A
Spectrum Analyzer	Keysight	N9041B	UCL-4964	12/3/2024	12/3/2025

Table 2: List of equipment used for Radiated Emissions

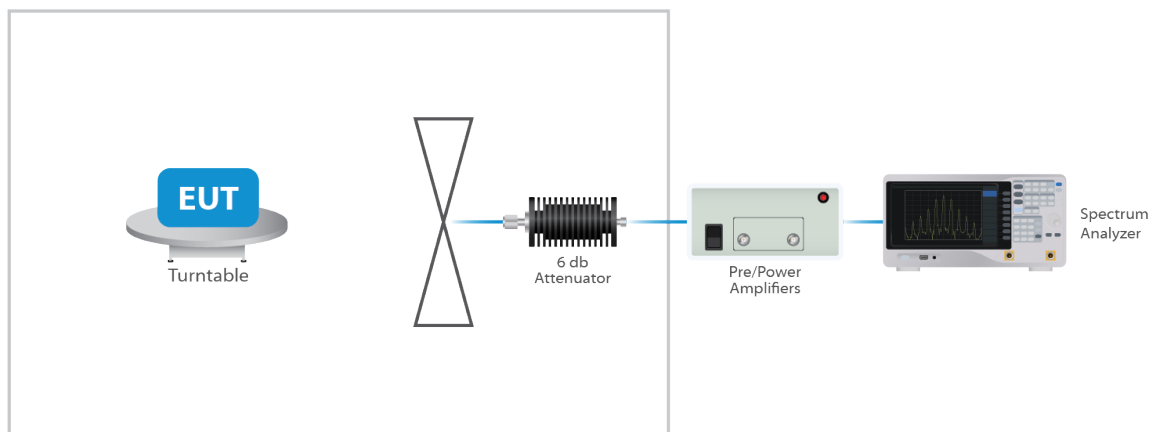


Figure 2: Radiated Emissions Test

4.3 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.

4.4 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

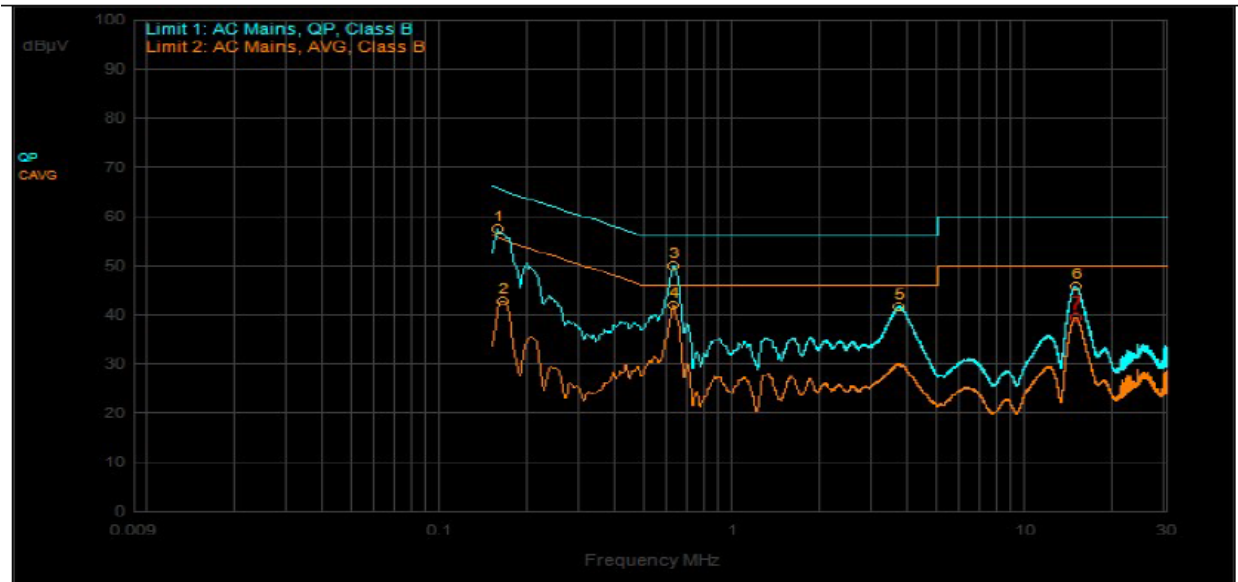
5.1 §15.203 Antenna Requirements

The EUT uses an internal patch antenna (Model # 113-01058). As per the manufacturer, the maximum gain of the antenna per chain is 20 dBi. This is an 802.11 device and utilizes CDD as described in KDB 662911 D01. The antenna is not user replaceable.

Results

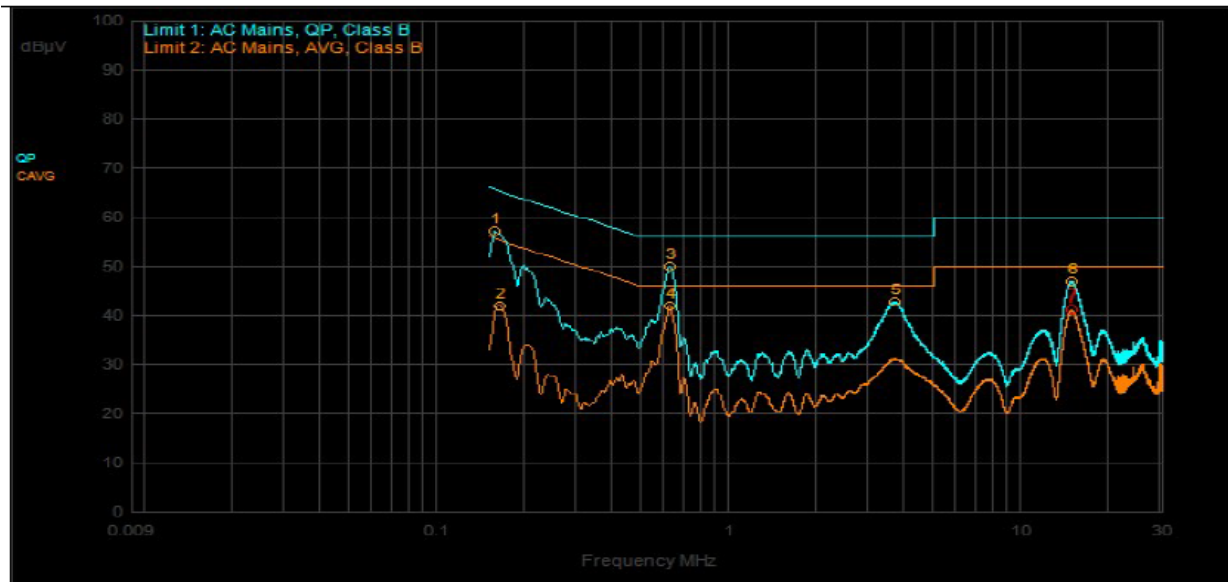
The EUT complied with the specification

5.2 Conducted Emissions at Mains Ports Data



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	621,000kHz	12.37	0.00		QPeak	37.52	49.89	56.00	-6.11			
1	156,000kHz	12.38	0.00		QPeak	45.05	57.43	65.67	-8.24			
6	14.613	12.46	0.08		QPeak	33.27	45.81	60.00	-14.19			
5	3.660	11.92	0.00		QPeak	29.64	41.56	56.00	-14.44			
2	162,000kHz	12.38	0.00		C_AVG	30.51	42.89			55.36	-12.47	
4	621,000kHz	12.37	0.00		C_AVG	29.45	41.82			46.00	-4.18	
7	14.580	12.45	0.08		C_AVG	26.89	39.42			50.00	-10.58	

Graph 1: Conducted Emissions Plot - 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
3	618,000kHz	12.37	0.00		QPeak	37.60	49.97	56.00	-6.03			
1	156,000kHz	12.40	0.00		QPeak	44.91	57.31	65.67	-8.36			
6	14.589	12.50	0.08		QPeak	34.36	46.94	60.00	-13.06			
5	3.630	11.97	0.00		QPeak	30.82	42.79	56.00	-13.21			
2	162,000kHz	12.39	0.00		C_AVG	29.57	41.96			55.36	-13.40	
4	618,000kHz	12.37	0.00		C_AVG	29.57	41.94			46.00	-4.06	
7	14.643	12.50	0.08		C_AVG	28.42	41.00			50.00	-9.00	

Graph 2: Conducted Emissions Plot – Line 1

Result

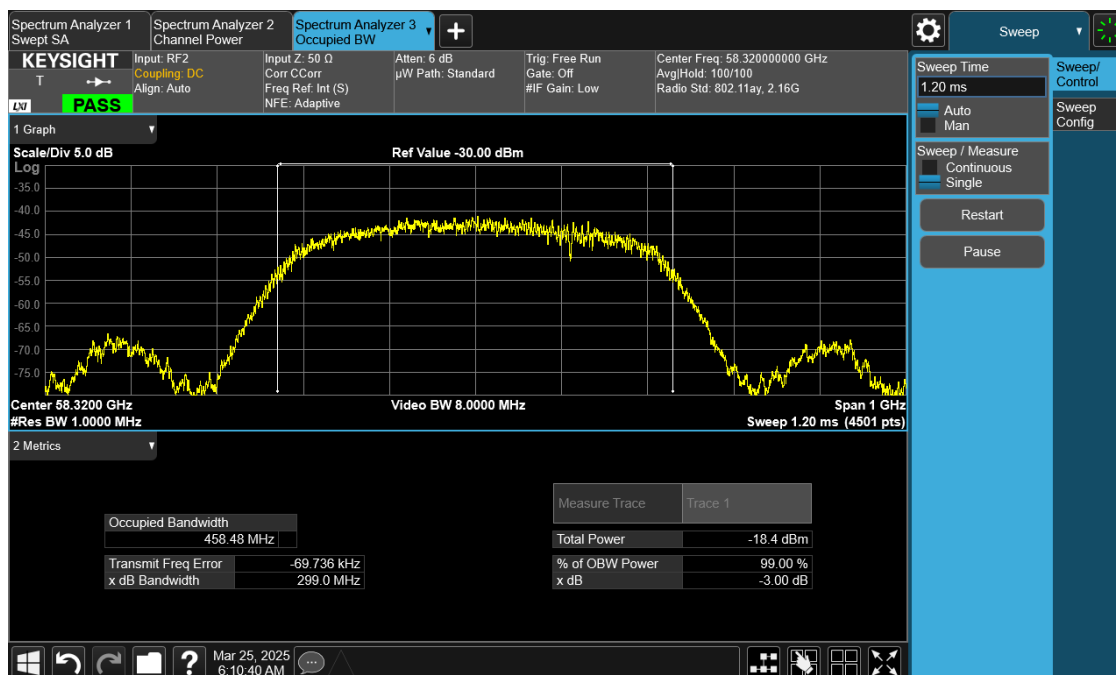
The EUT complied with the specification limit.

5.3 Emissions Bandwidth

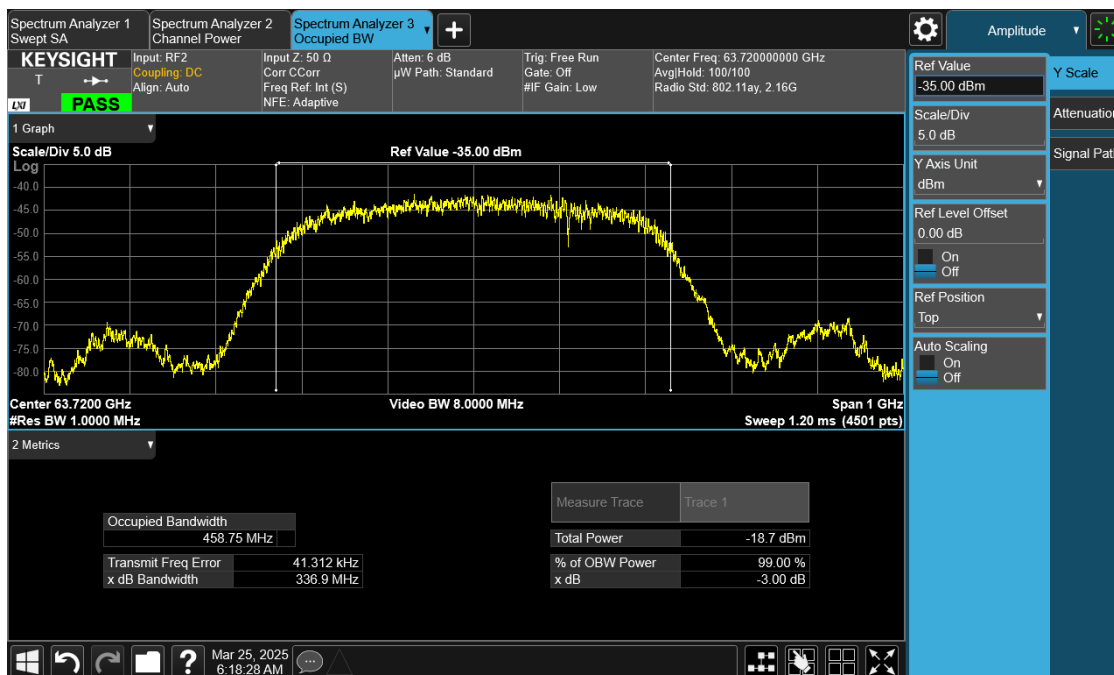
Channel Width (MHz)	Frequency (MHz)	Emissions 99% Bandwidth (MHz)
540	58320	458.48
	63720	458.75
	70200	464.35
1080	58320	929.49
	63720	921
	70200	926.25
2160	58320	1857.4
	63720	1837
	69120	1780.5

Result

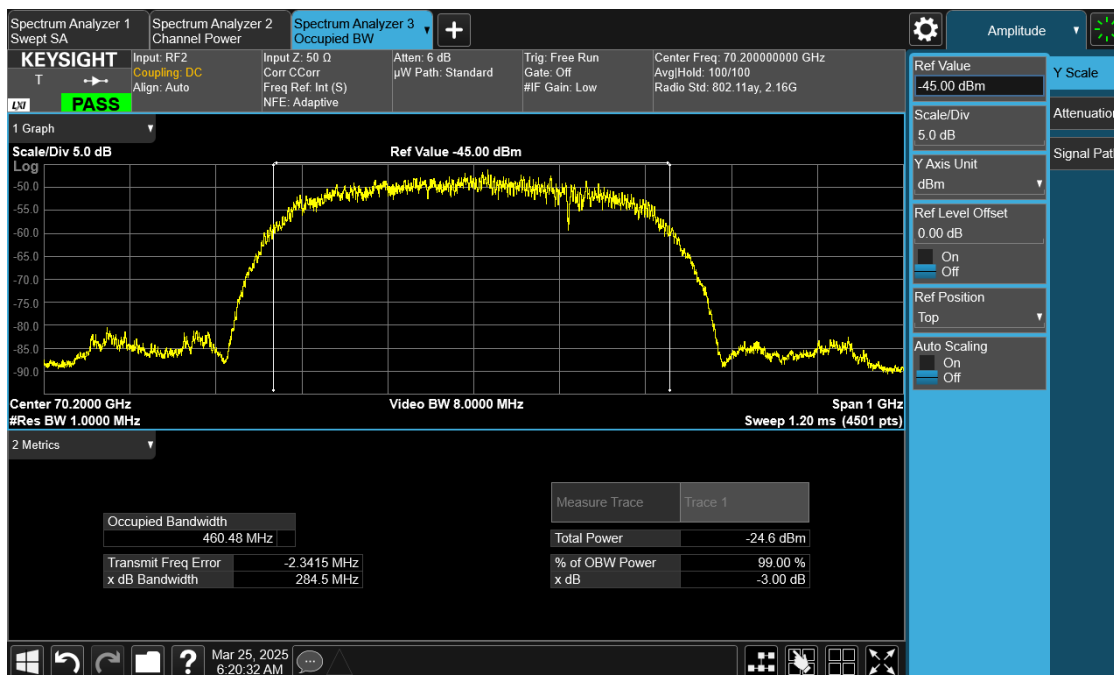
In the configuration tested, the 99% bandwidth was greater than 500 kHz; therefore, the EUT complied with the requirements of the specification (see spectrum analyzer plot below).



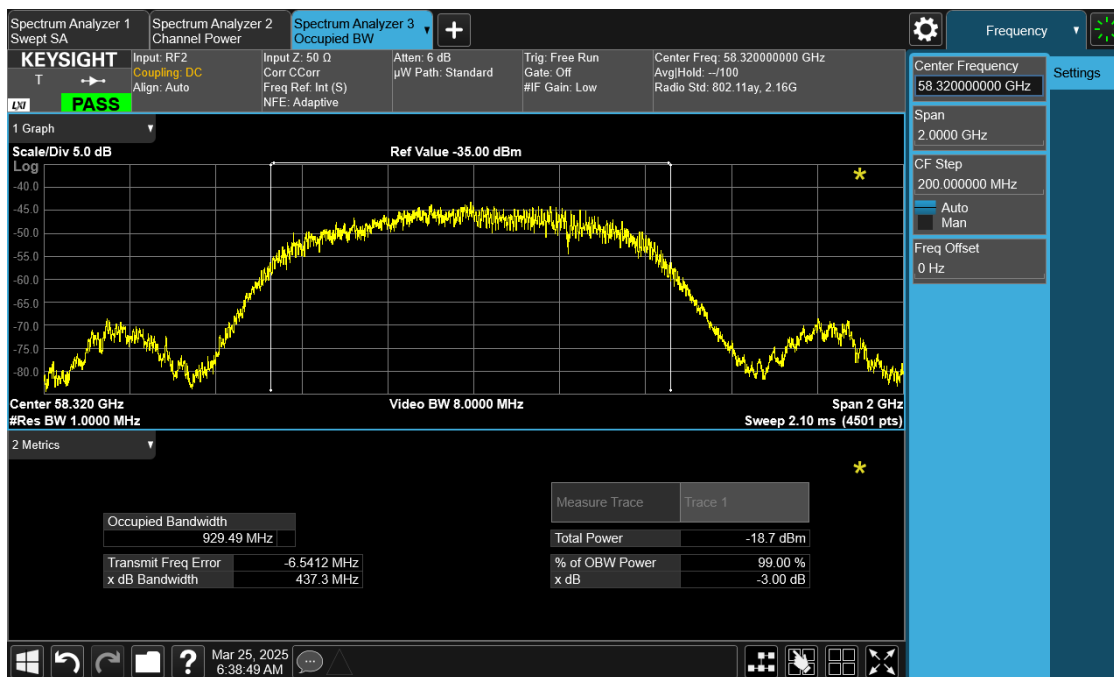
Graph 3: 58.32GHz, 540MHz 99% Bandwidth



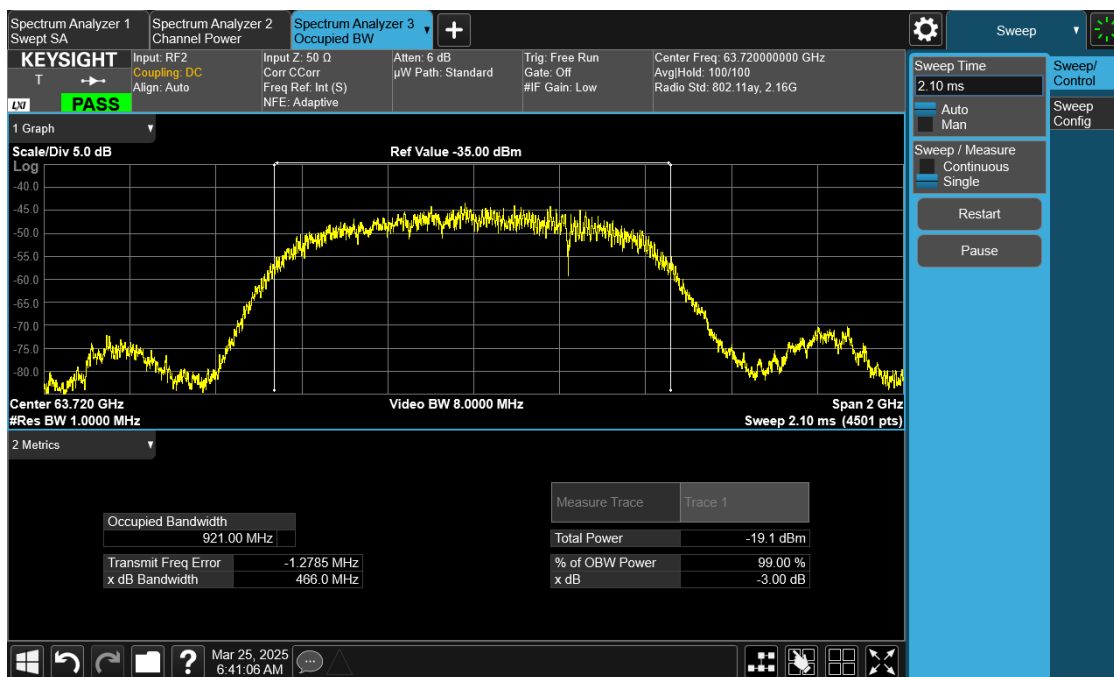
Graph 4: 63.72GHz, 540MHz 99% Bandwidth



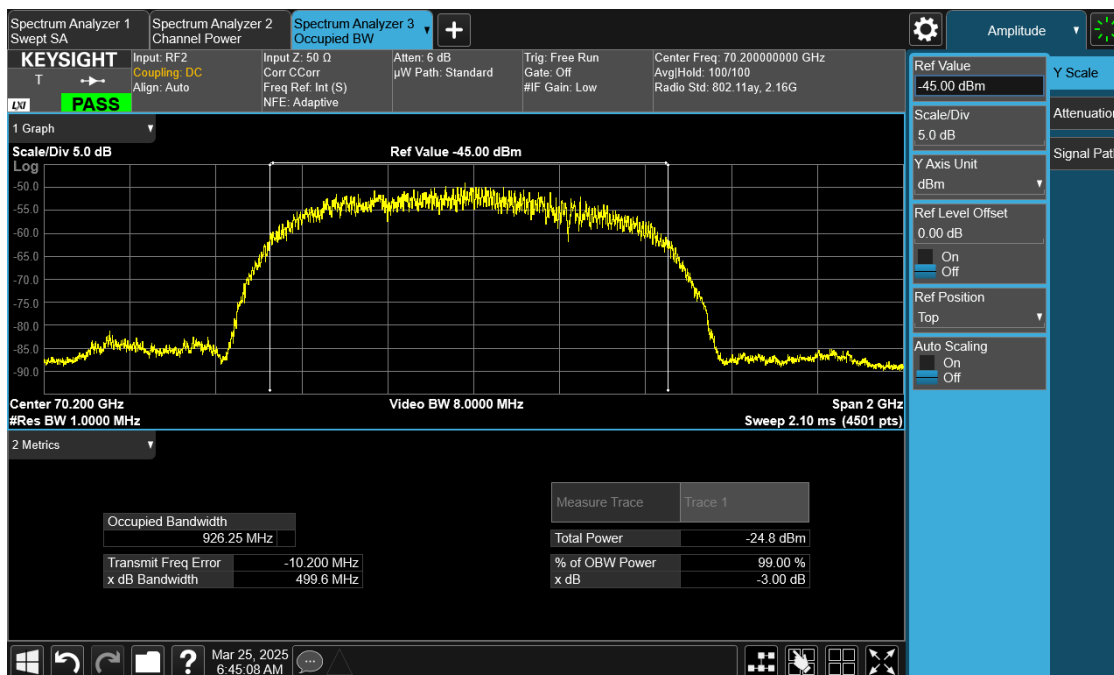
Graph 5: 70.2GHz, 540MHz 99% Bandwidth



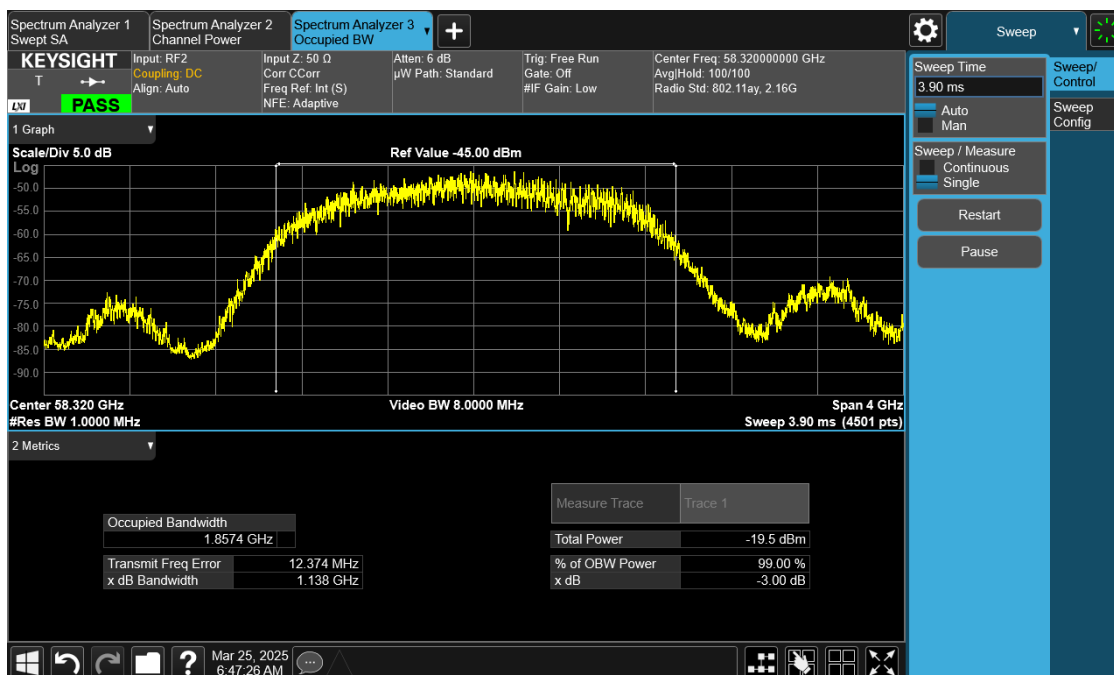
Graph 6: 58.32GHz, 1080MHz 99% Bandwidth



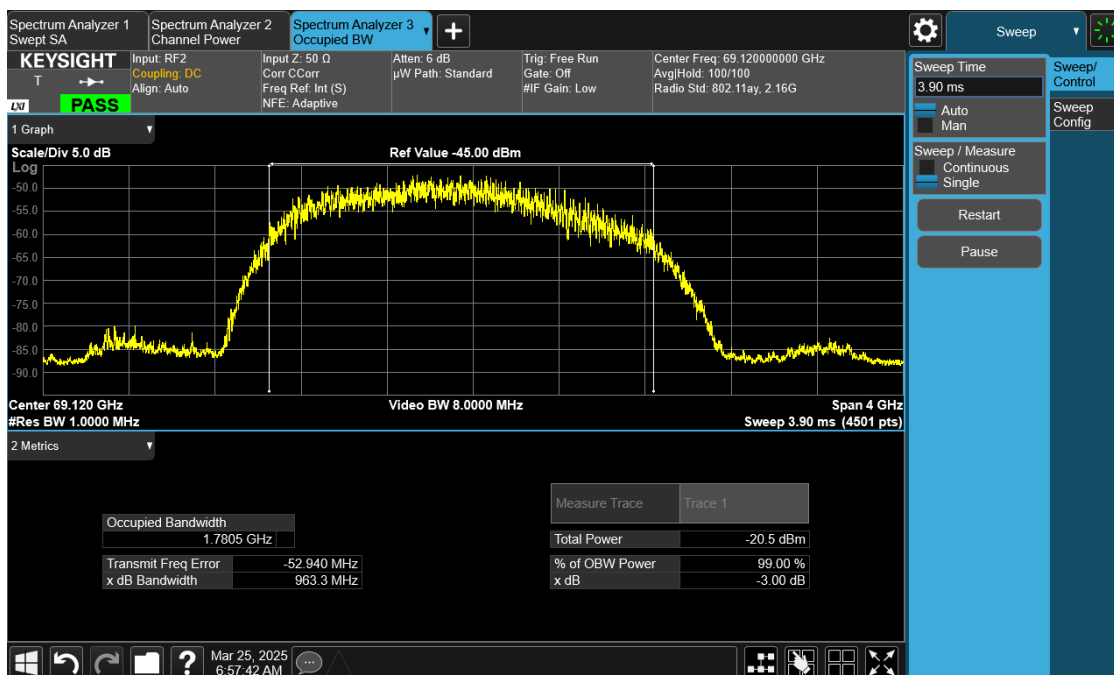
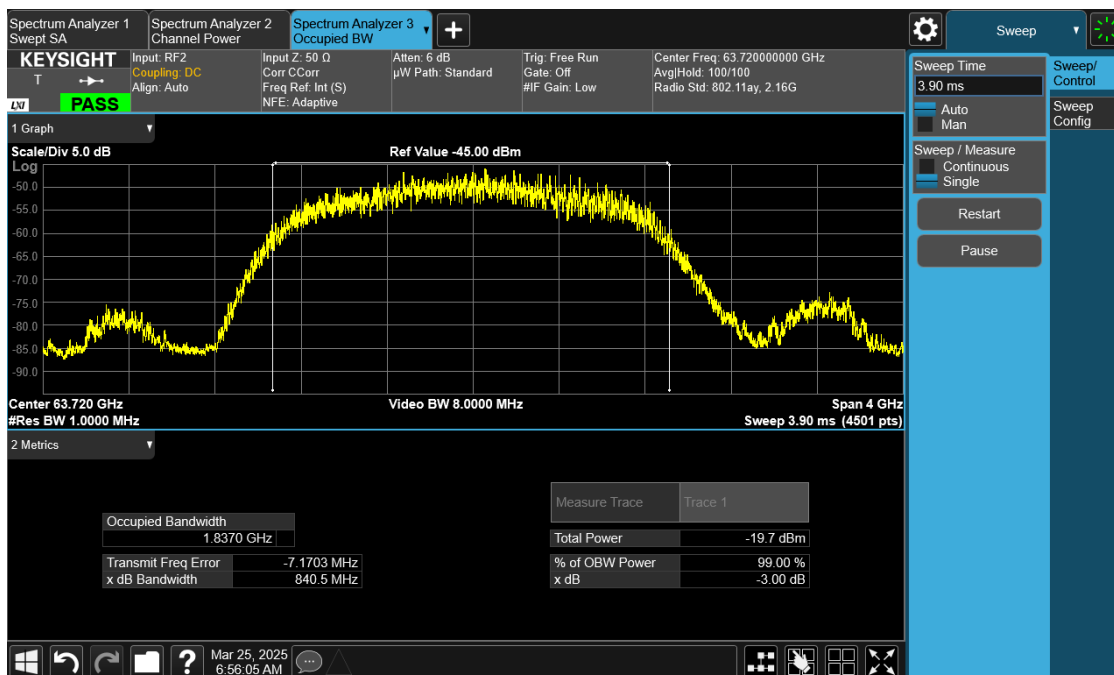
Graph 7: 63.72GHz, 1080MHz 99% Bandwidth



Graph 8: 70.2GHz, 1080MHz 99% Bandwidth



Graph 9: 58.32GHz, 2160MHz 99% Bandwidth



5.4 §15.255(c)(1)(i) Maximum Average Output Power

All chains were measured and summed under the guidance of KDB 558074 Section 8.3.2.3. and KDB 662911 D01.

The maximum average RF EIRP measured for this device was 38.9 dBm or 7.76 Watts. The limit is 40 dBm or 10 Watt when using antennas with 6 dBi or less gain. The antenna has a gain of 20 dBi.

Peak

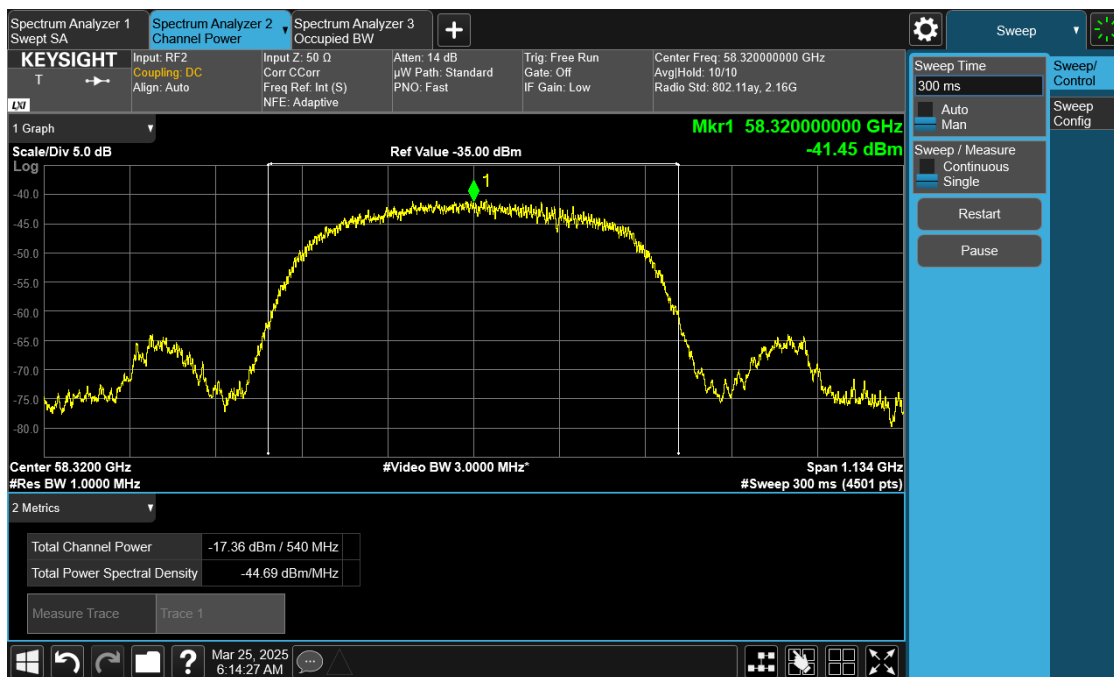
Nom. BW (MHz)	Freq. (MHz)	Air Path Loss (dB)	Total Correction (dB)	Peak SA Reading (dBm)	Conducted Peak (dBm)	Peak Conducted Limit (dB)	EIRP Peak (dBm)	Peak EIRP Limit (dB)	Delta (dB)
540	58320	77.3	56.1	-18.4	17.7	27	37.7	43	-5.3
	63720	78.1	56.5	-18.7	17.8	27	37.8	43	-5.2
	70200	79.0	57.1	-27.5	9.6	27	29.6	43	-13.4
1060	58320	77.3	56.1	-18.7	17.4	27	37.4	43	-5.6
	63720	78.1	56.5	-19.1	17.4	27	37.4	43	-5.6
	70200	78.9	57.0	-24.8	12.2	27	32.2	43	-10.8
2160	58320	77.3	56.1	-19.5	16.6	27	36.6	43	-6.4
	63720	78.1	56.5	-19.7	16.8	27	36.8	43	-6.2
	69120	78.8	57.0	-20.5	16.5	27	36.5	43	-6.5

Average

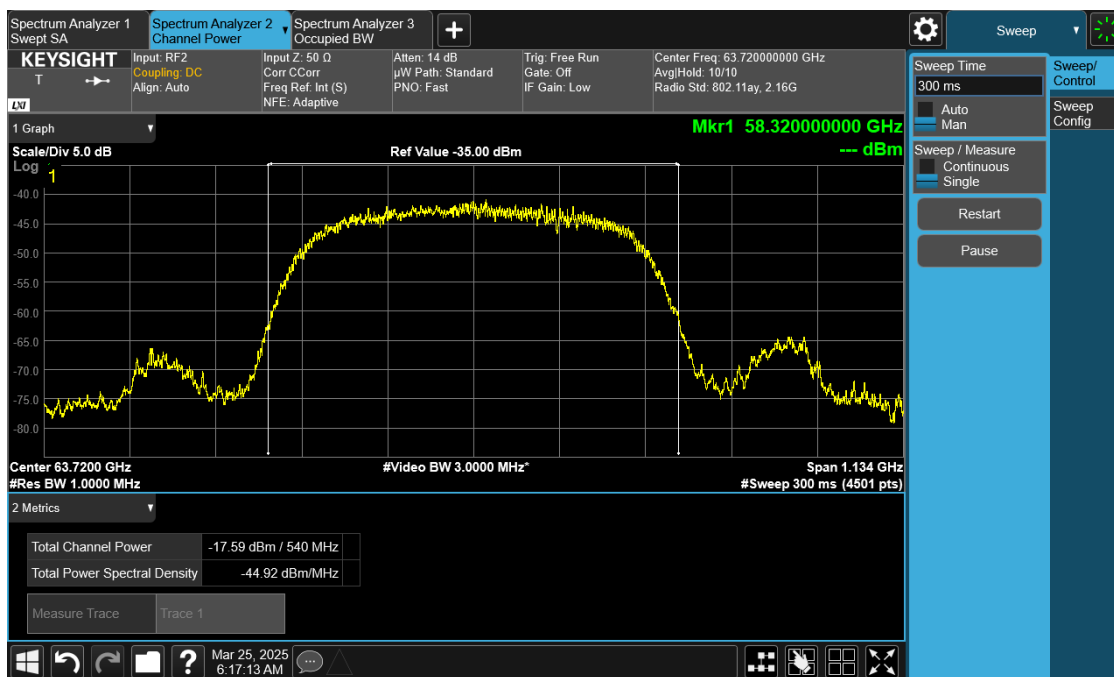
Nom. BW (MHz)	Freq. (MHz)	Air Path Loss (dB)	Total Correction (dB)	Avg SA Reading (dBm)	Avg. EIRP (dBm)	Avg. EIRP Limit (dB)	Delta (dB)
540	58320	77.3	56.1	-17.4	38.7	40	-1.3
	63720	78.1	56.5	-17.6	38.9	40	-1.1
	70200	79.0	57.1	-23.4	33.7	40	-6.3
1060	58320	77.3	56.1	-17.2	38.9	40	-1.1
	63720	78.1	56.5	-17.8	38.7	40	-1.3
	70200	78.9	57.0	-22.0	35.0	40	-5.0
2160	58320	77.3	56.1	-17.7	38.4	40	-1.6
	63720	78.1	56.5	-18.1	38.3	40	-1.7
	69120	78.8	57.0	-18.4	38.6	40	-1.4

Result

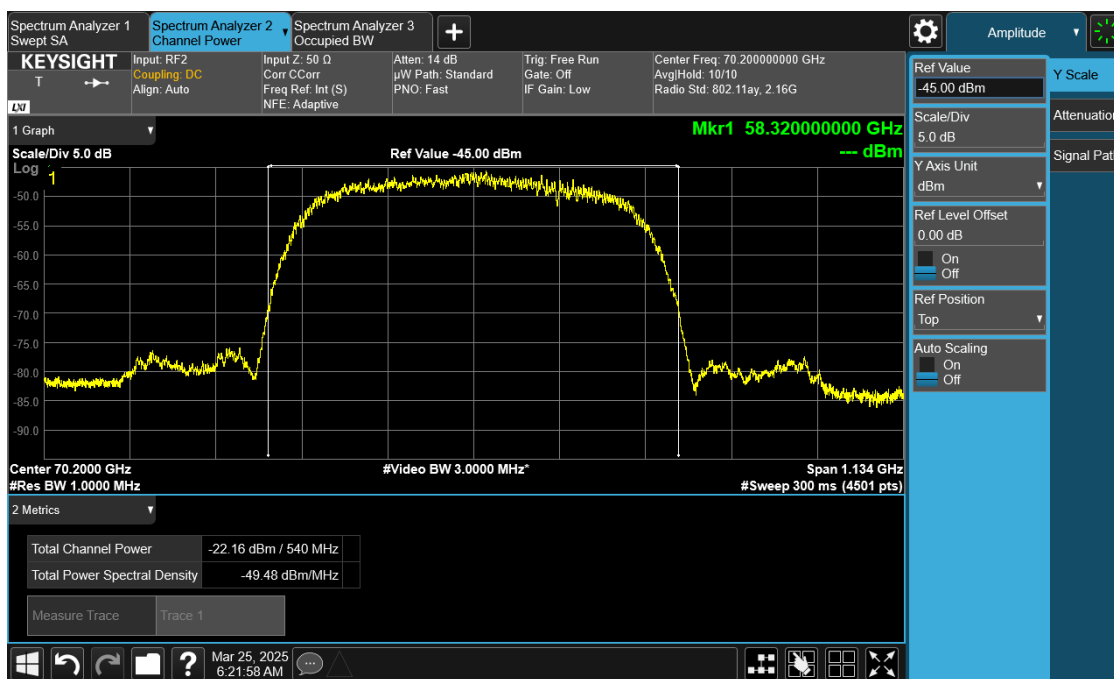
In the configuration tested, the maximum average RF EIRP was less than 40 dBm; therefore, the EUT complied with the requirements of the specification. (see spectrum analyzer plot below).



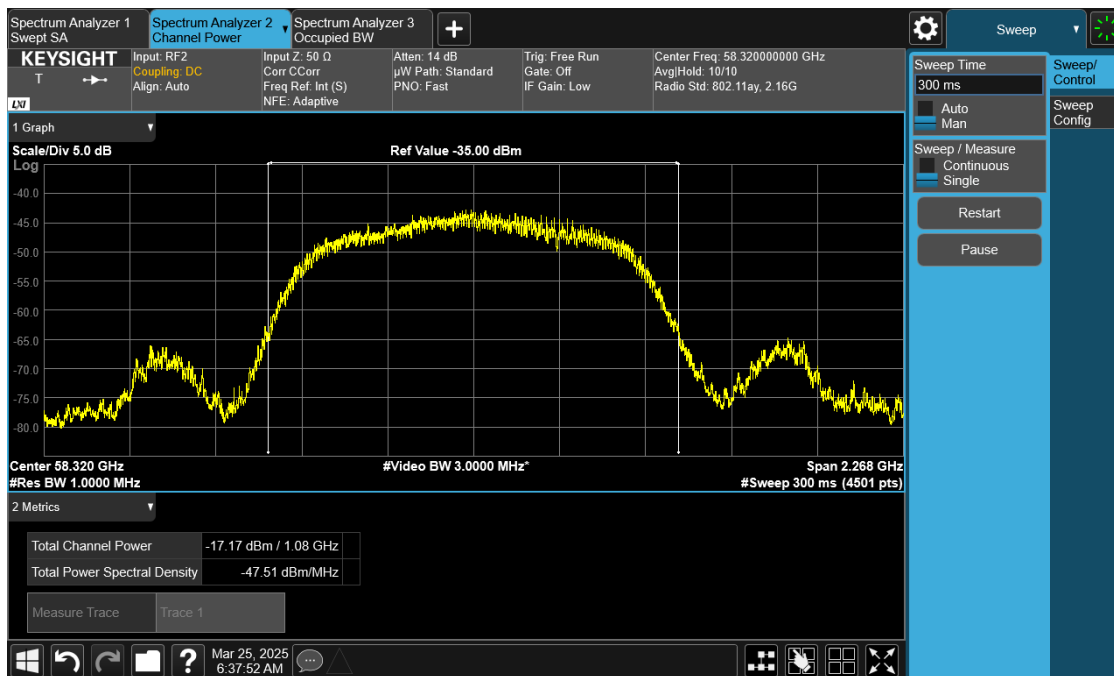
Graph 12: 58.32GHz, 540MHz BW, Average Power



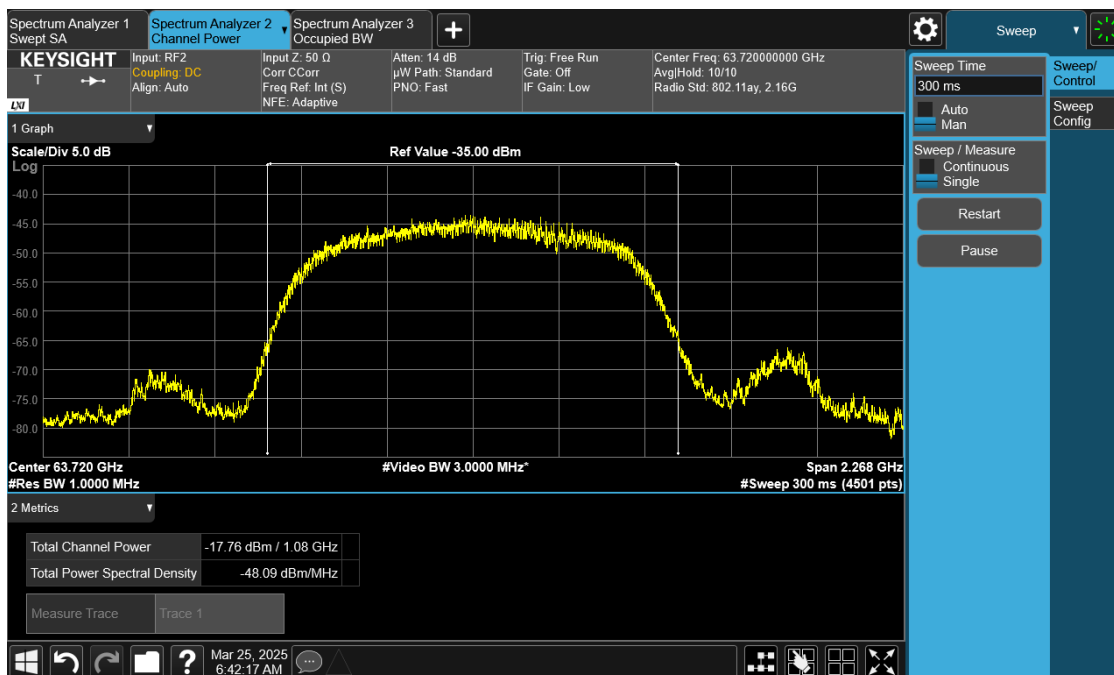
Graph 13: 63.72GHz, 540MHz BW, Average Power



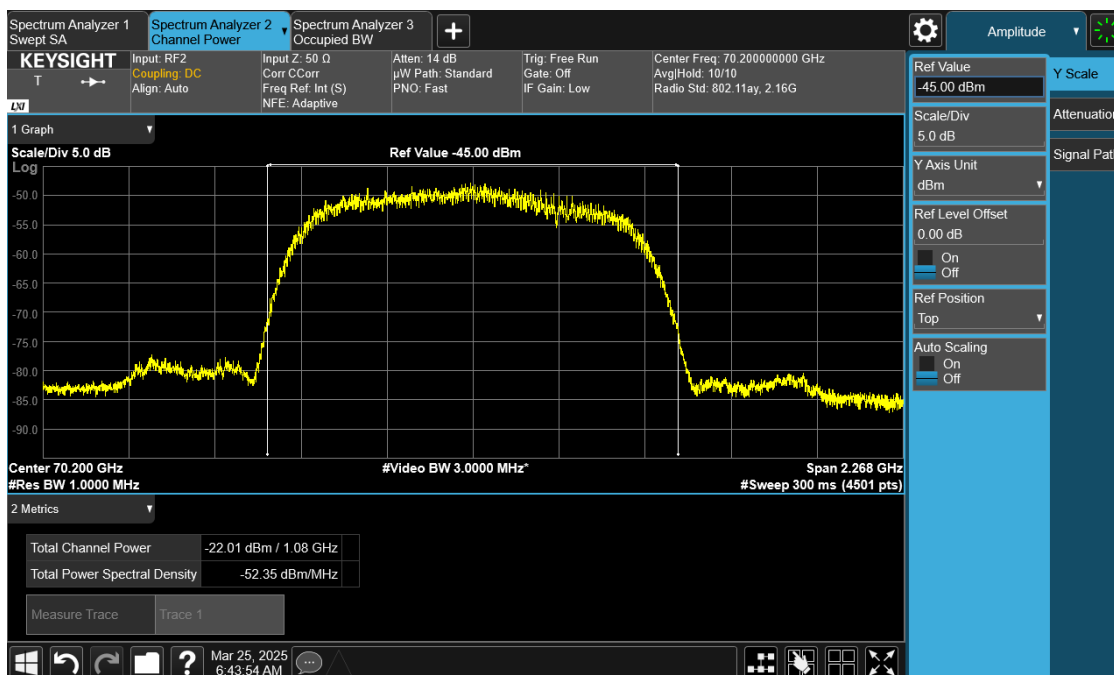
Graph 14: 70.2GHz, 540MHz BW, Average Power



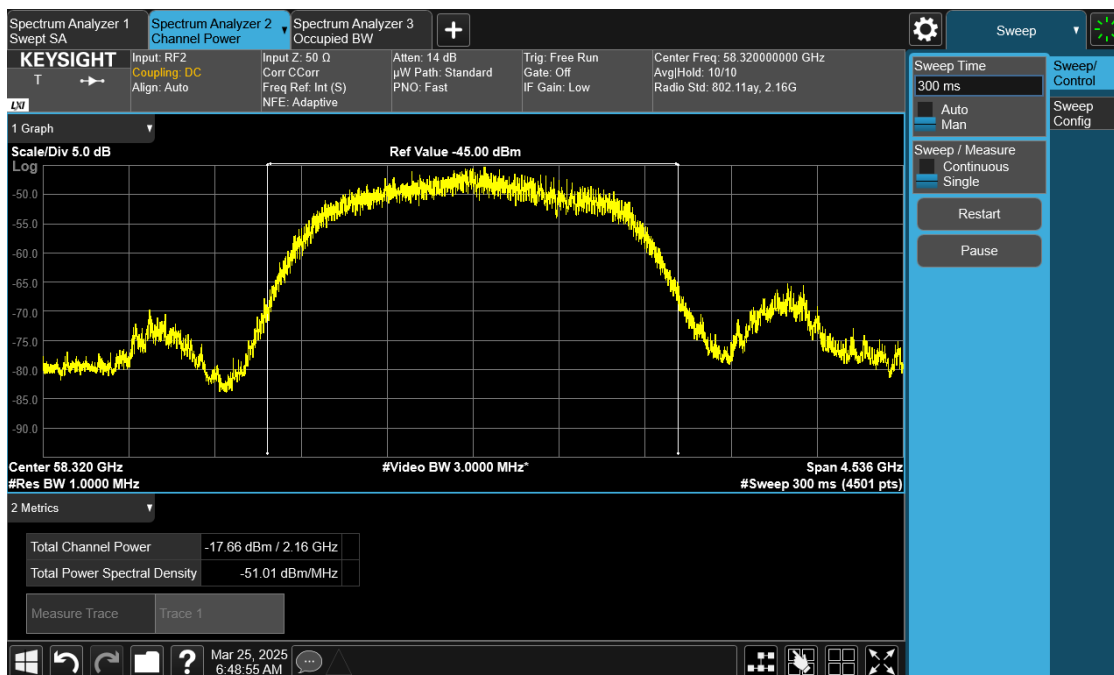
Graph 15: 58.32GHz, 1080MHz BW, Average Power



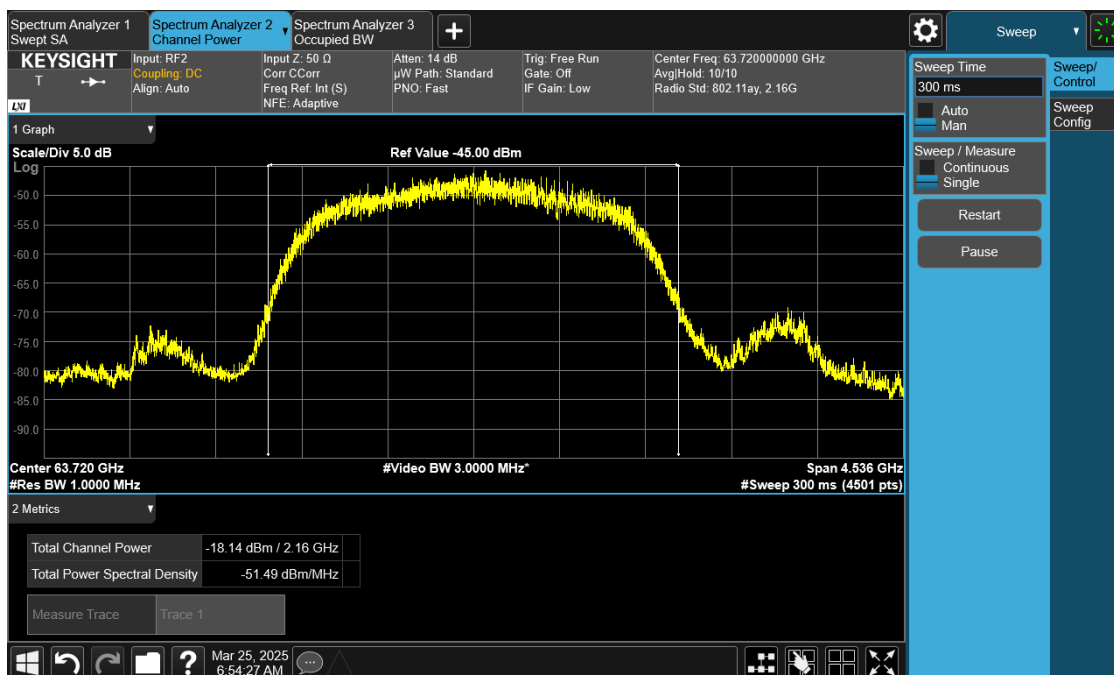
Graph 16: 63.72GHz, 1080MHz BW, Average Power



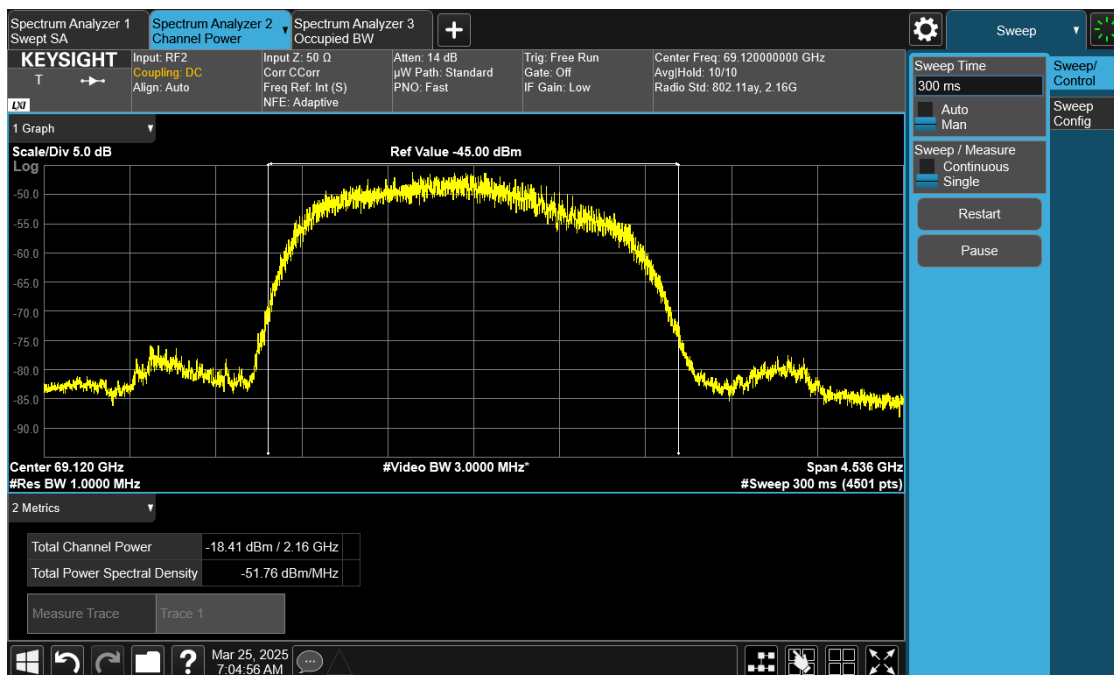
Graph 17: 70.2GHz, 1080MHz BW, Average Power



Graph 18: 58.32GHz, 2160MHz, BW Average Power



Graph 19: 63.72GHz, 2160MHz, BW Average Power



Graph 20: 69.12GHz, 2160MHz BW, Average Power

5.5 §15.255(d) Spurious Emissions

5.5.1 Radiated Spurious Emissions in the Restricted Bands of §15.205

The frequency range from the lowest frequency generated or used in the device to the tenth harmonic of the highest fundamental emissions was investigated to measure any radiated emissions in the restricted bands. The following tables show measurements of any emissions that fell into the restricted bands of §15.205. The tables show the worst-case emissions measured from the EUT. For frequencies between 18.0 and 40 GHz, a measurement distance of 3 meters was used. The noise floor was a minimum of 6 dB below the limits. The emissions in the restricted bands must meet the limits specified in §15.209. Tabular data for each of the spurious emissions is shown below for each of the units. The BLE radio and 60 GHz radio are active during all plots. The limit above 40 GHz is 90pW/cm². The measurement distance above 40 GHz was 3 meters.

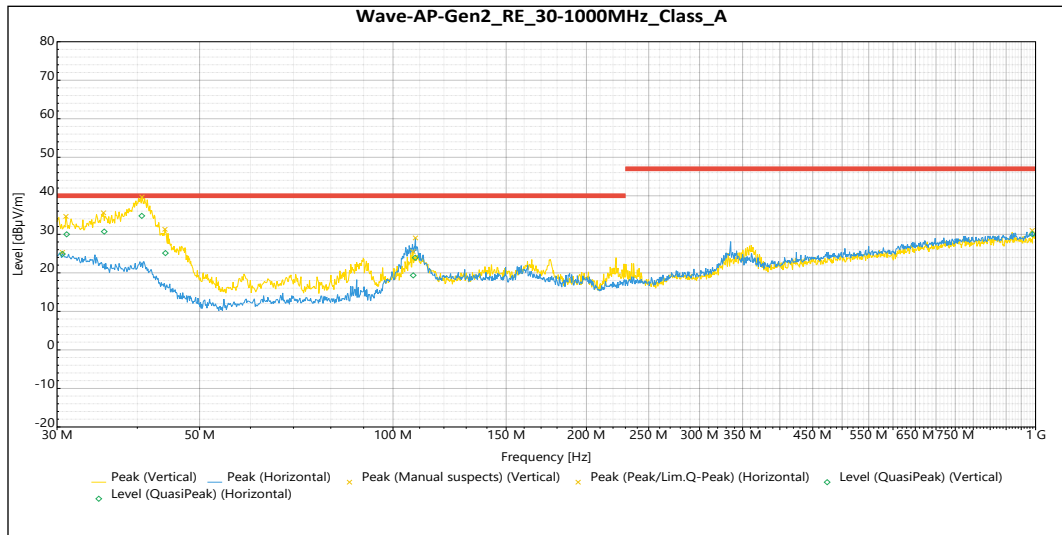
The EUT uses various power settings based on the channel in use. In order to reduce test time, the radiated spurious emissions at the lowest, middle, and highest channel were measured at the maximum power of HEX F.

DUT Test Parameters.

Channel (MHz)		Mode	TP Setting	BW
Low	58320	MCS0 / 802.11ad	F (Max)	540 MHz
Mid	63720	MCS0 / 802.11ad	F (Max)	540 MHz
High	70200	MCS0 / 802.11ad	F (Max)	540 MHz

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

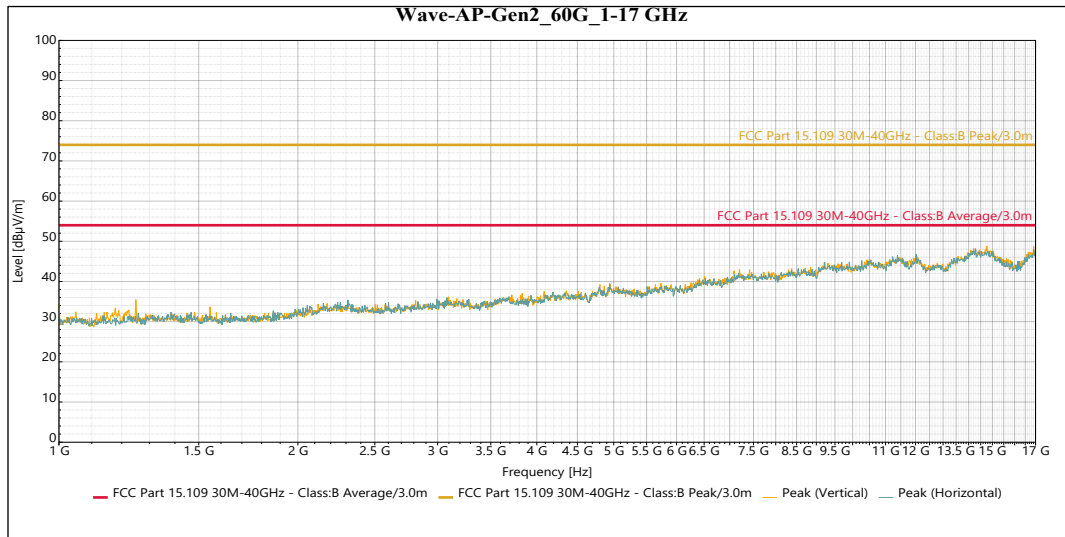
Results



QuasiPeak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin	Azimuth (°)	Height	Pol.	Correction (dB)
31.05 MHz	30.01	40	-9.99	271	1.03	Vertical	-4.31
35.53 MHz	30.72	40	-9.28	212	1.03	Vertical	-6.93
40.65 MHz	34.80	40	-5.20	310	2.83	Vertical	-10.67
44.24 MHz	25.13	40	-14.87	222	3.86	Vertical	-13.26
107.51 MHz	19.35	40	-20.45	289	2.17	Vertical	-11.50
30.58 MHz	24.90	40	-15.10	134	3.17	Horizontal	-3.96
108.28 MHz	23.93	40	-16.08	328	4	Horizontal	-11.34
988.42 MHz	30.06	47	-16.94	319	4.01	Horizontal	0.70

Table 3: Radiated Emissions 30 – 1000 MHz


Peak

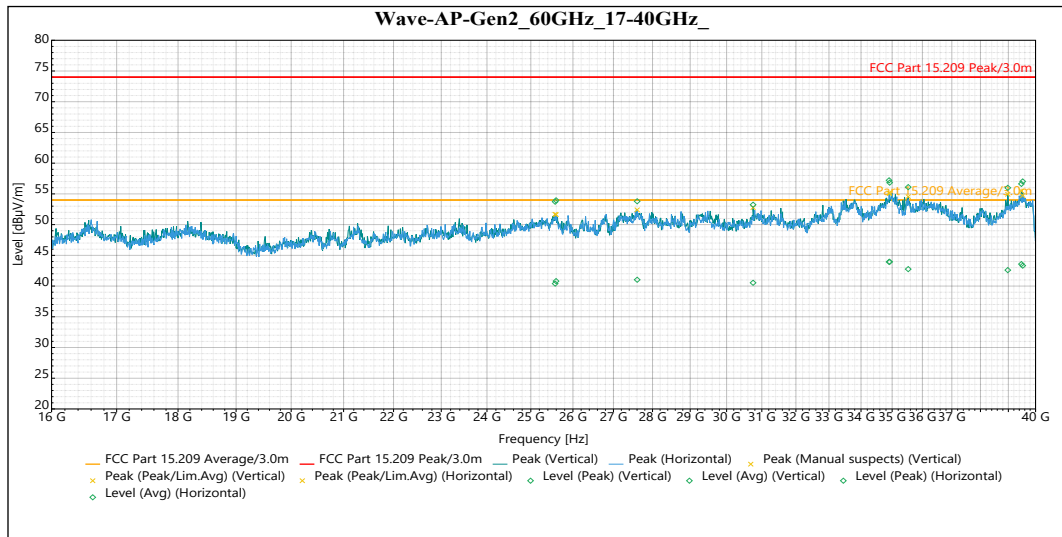
Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
-	-	-	-	-	-	-	-

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
-	-	-	-	-	-	-	-

***No Emissions of significance**

Table 4: Radiated Emissions 1 – 17 GHz at the Lowest Frequency (worse case)



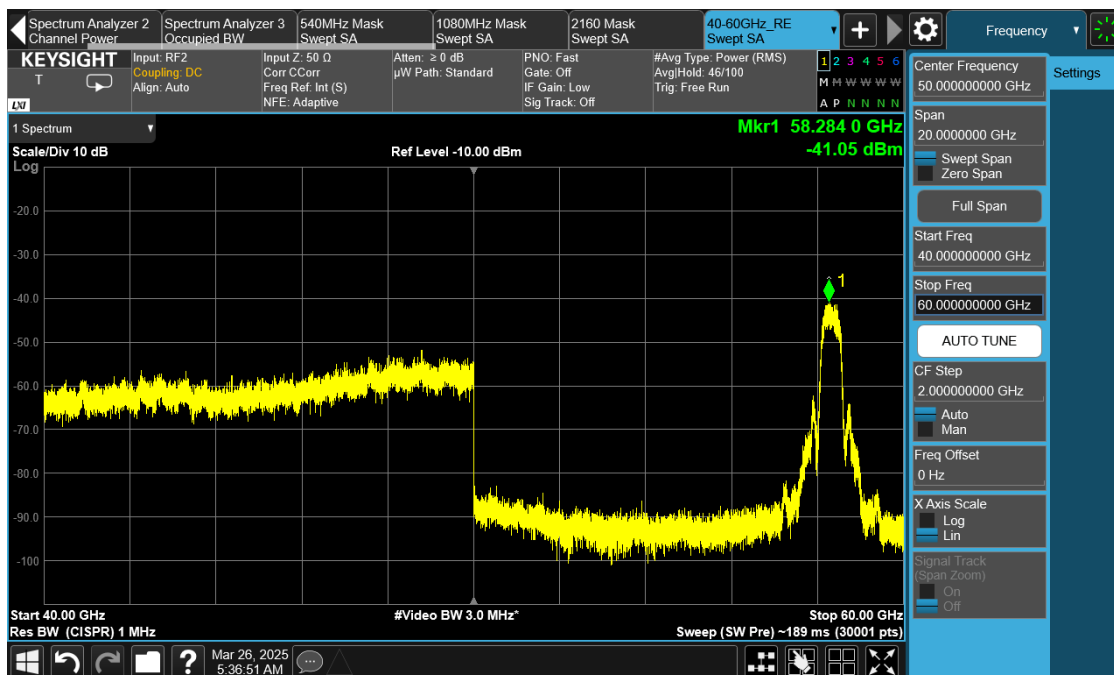
Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
25.573 GHz	53.723	74	-20.277	94	Vertical	2.619
30.749 GHz	53.236	74	-20.764	125	Vertical	0.876
34.919 GHz	56.829	74	-17.171	103	Vertical	4.996
35.528 GHz	56.101	74	-17.899	319	Vertical	4.068
38.98 GHz	55.985	74	-18.015	245	Vertical	2.647
39.478 GHz	56.626	74	-17.374	199	Vertical	3.414
25.595 GHz	53.957	74	-20.043	183	Horizontal	2.815
27.603 GHz	53.798	74	-20.202	272	Horizontal	2.172
34.901 GHz	57.209	74	-16.791	10	Horizontal	4.966
39.525 GHz	57.028	74	-16.972	64	Horizontal	3.328

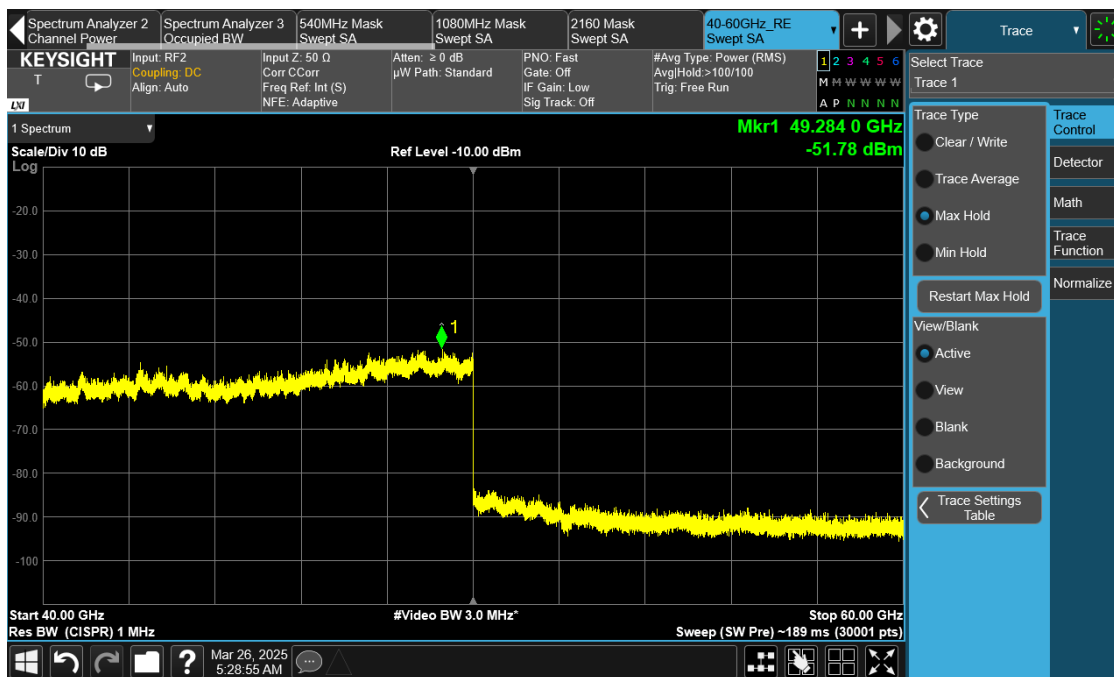
Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
25.573 GHz	40.4	54	-13.6	94	Vertical	2.619
30.749 GHz	40.531	54	-13.469	125	Vertical	0.876
34.919 GHz	43.941	54	-10.059	103	Vertical	4.996
35.528 GHz	42.756	54	-11.244	319	Vertical	4.068
38.98 GHz	42.595	54	-11.405	245	Vertical	2.647
39.478 GHz	43.576	54	-10.424	199	Vertical	3.414
25.595 GHz	40.806	54	-13.194	183	Horizontal	2.815
27.603 GHz	41.024	54	-12.976	272	Horizontal	2.172
34.901 GHz	43.931	54	-10.069	10	Horizontal	4.966
39.525 GHz	43.319	54	-10.681	64	Horizontal	3.328

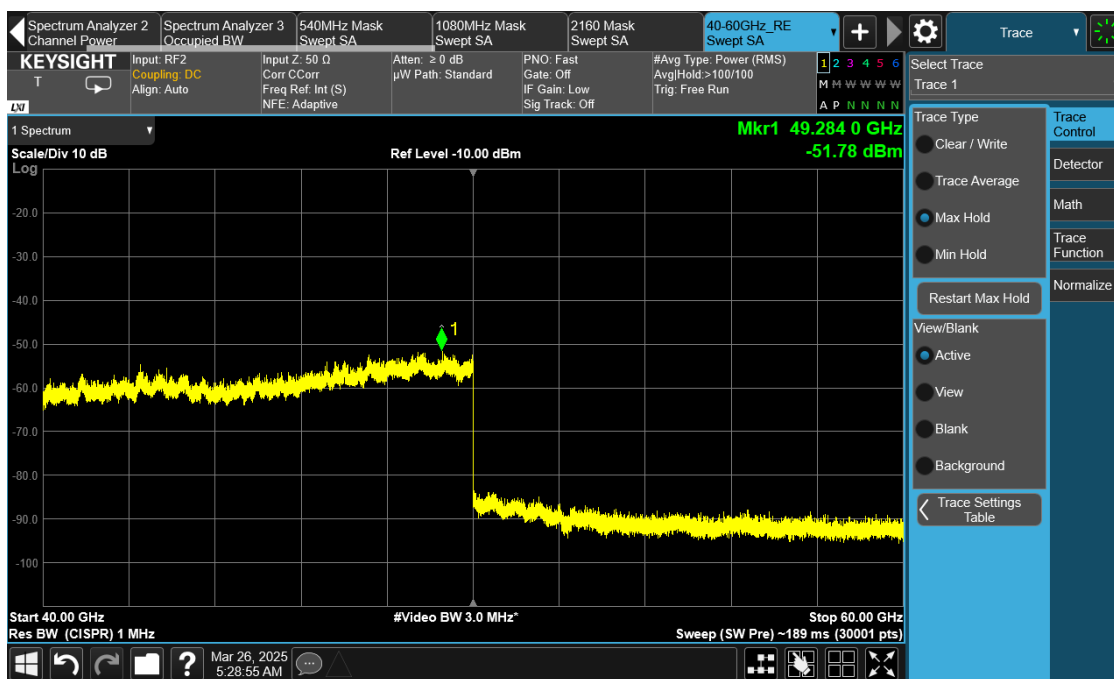
Table 5: Radiated Emissions 17 – 40 GHz at the Lowest Frequency (worse case)



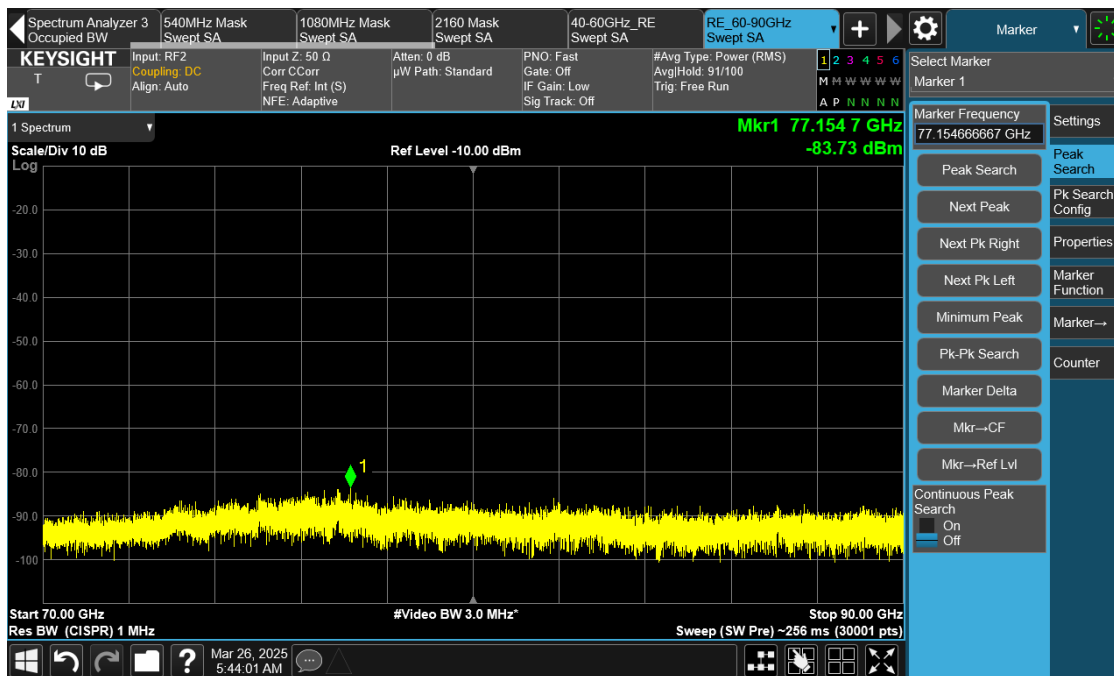
Graph 21: 58.32GHz, 40-60GHz Radiated Spurious



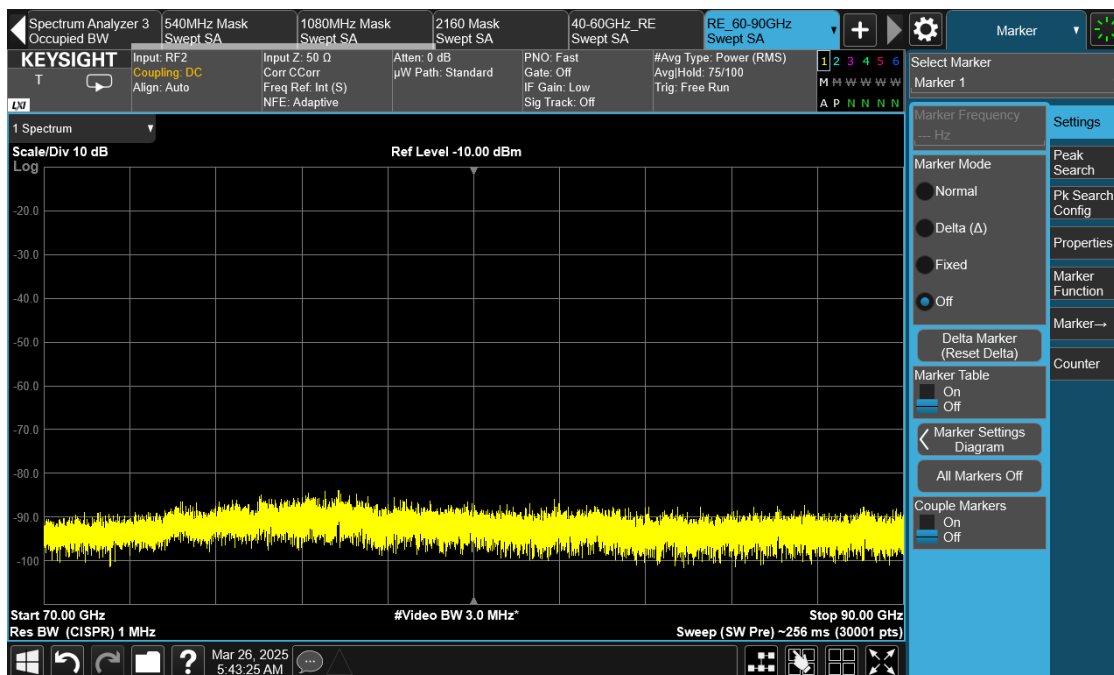
Graph 22: 63.72GHz, 40-60GHz Radiated Spurious



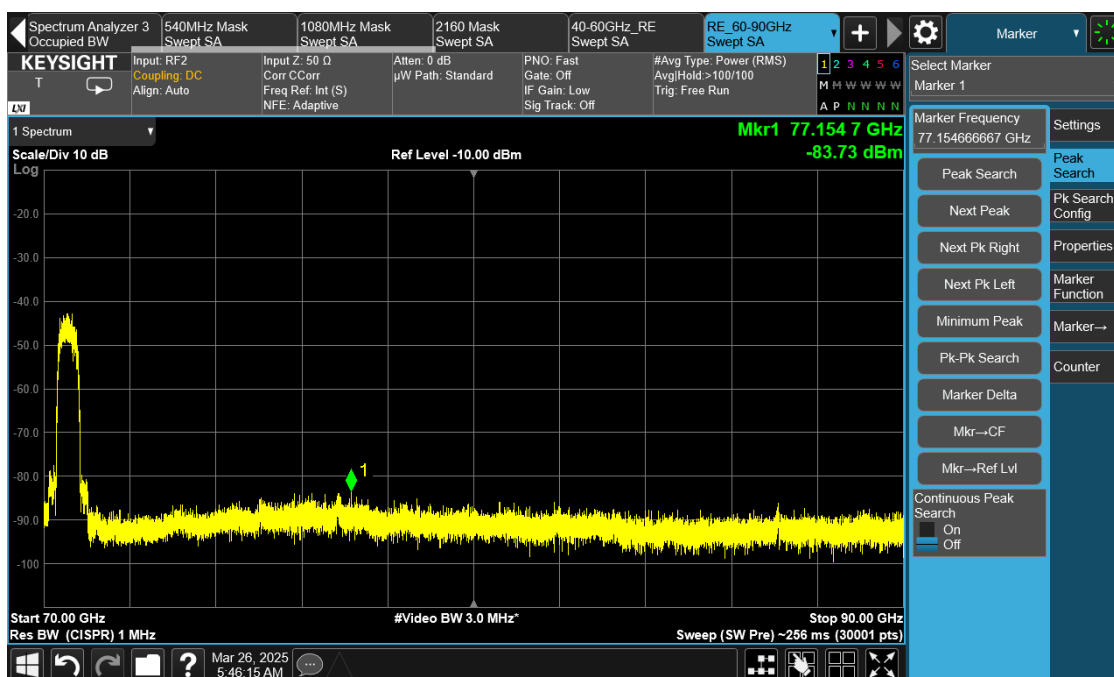
Graph 23: 70.2GHz, 40-60GHz Radiated Spurious



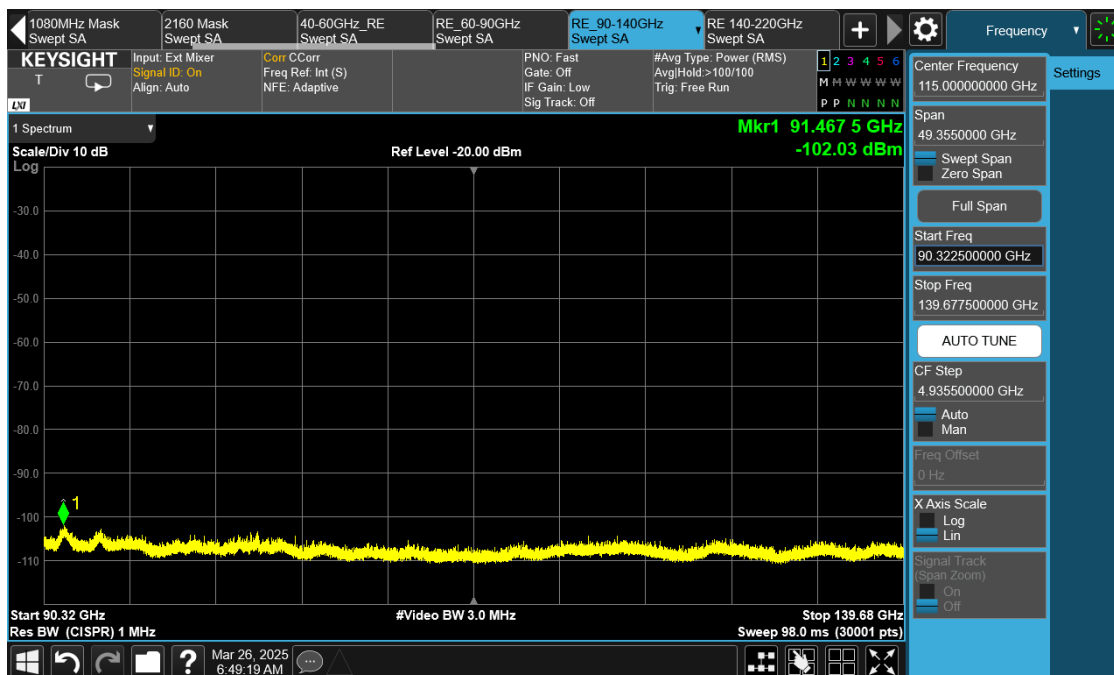
Graph 24: 58.32GHz, 70-90GHz Radiated Spurious



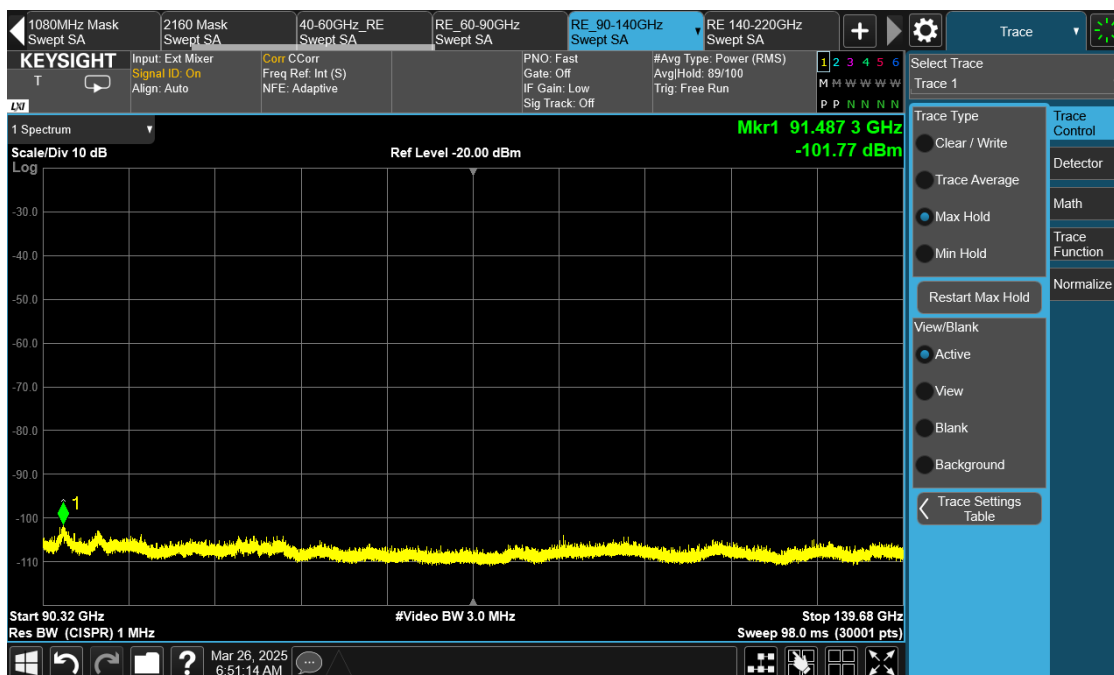
Graph 25: 63.72GHz, 70-90GHz Radiated Spurious



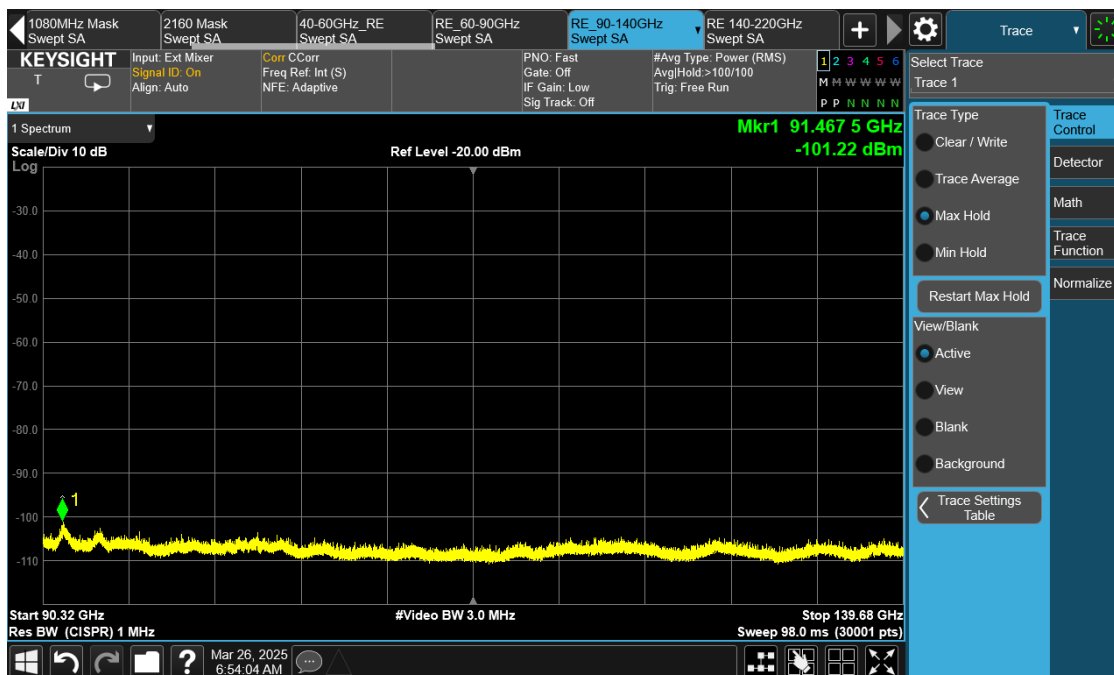
Graph 26: 70.2GHz, 70-90GHz Radiated Spurious



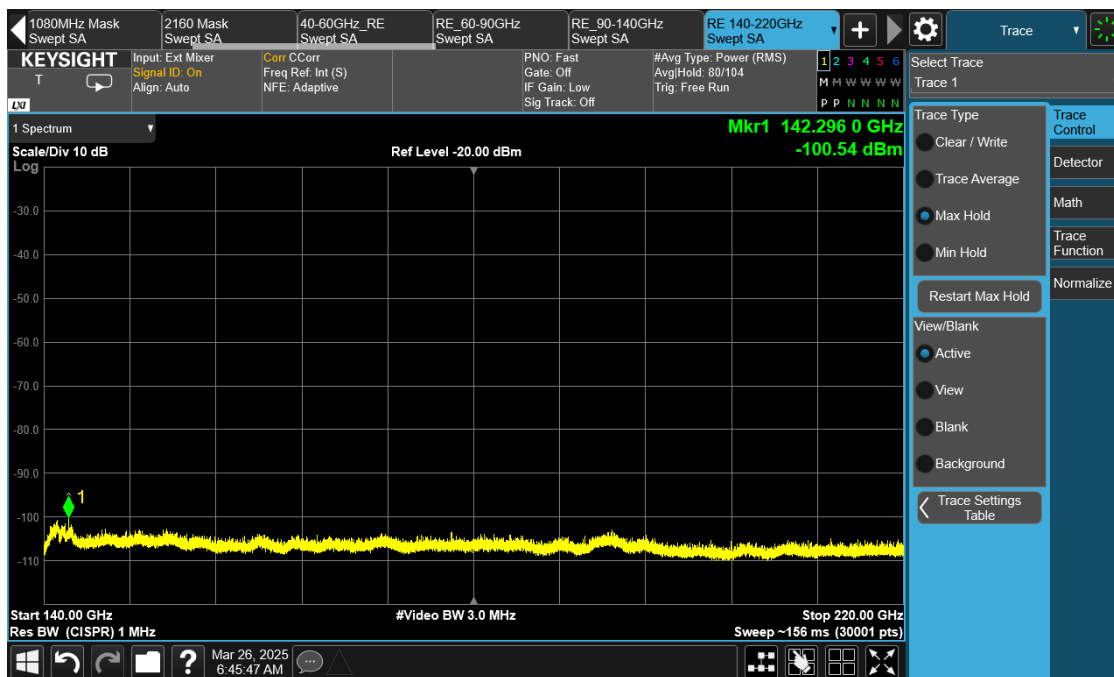
Graph 27: 58.32GHz, 90-140GHz Radiated Spurious



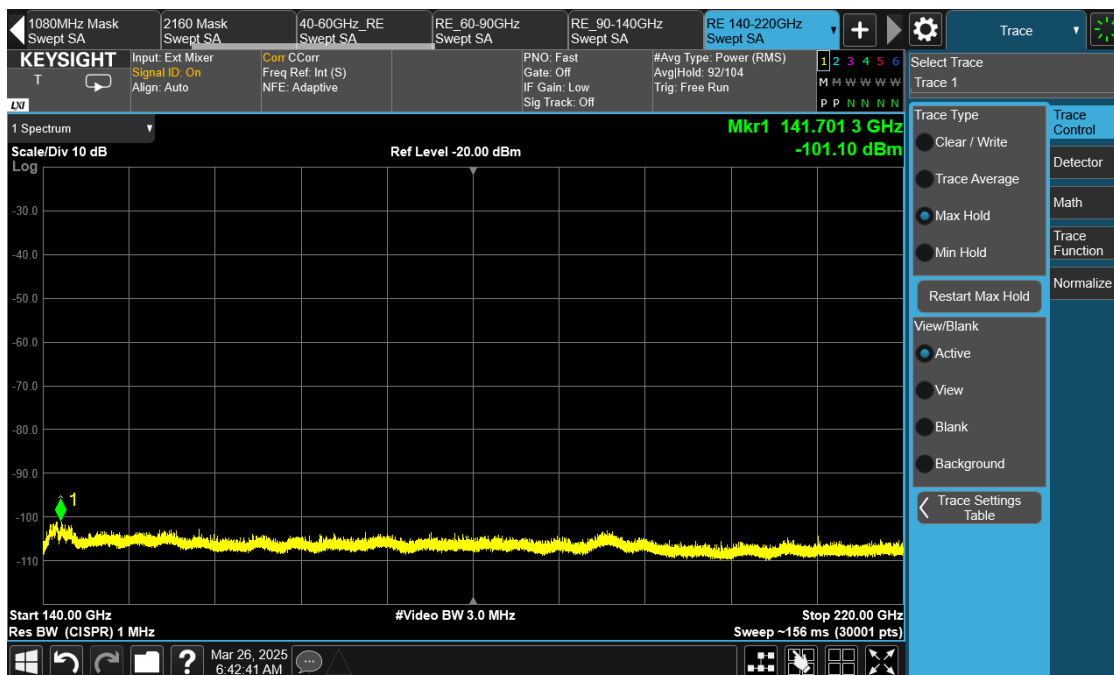
Graph 28: 63.72GHz, 90-140GHz Radiated Spurious



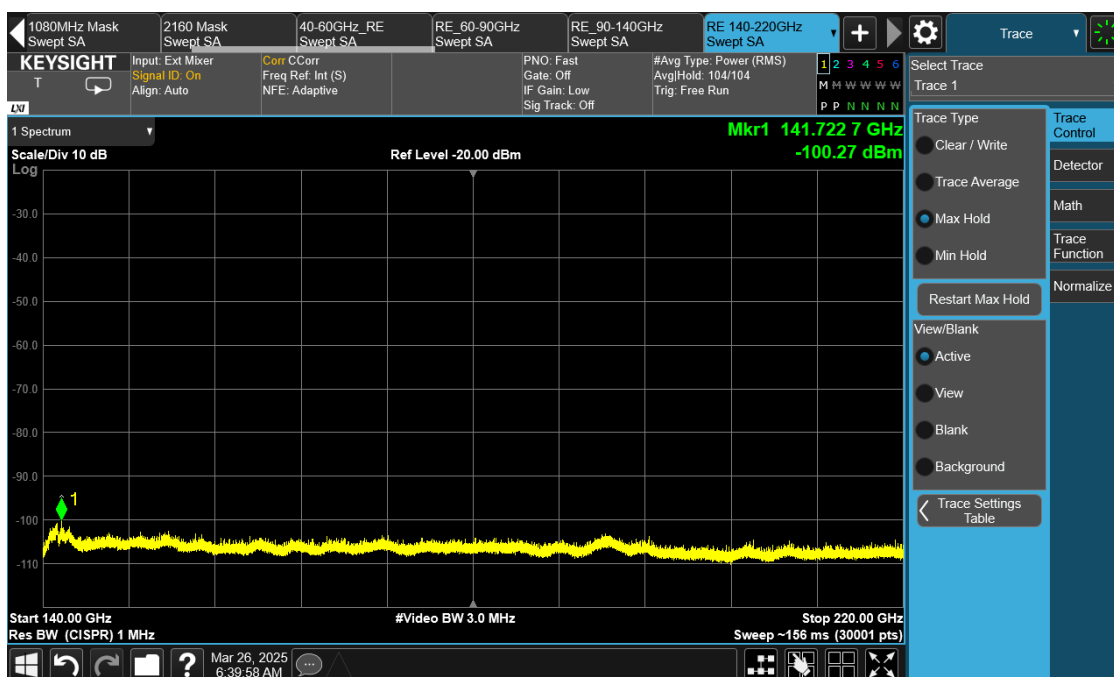
Graph 29: 70.2GHz, 90-140GHz Radiated Spurious



Graph 30: 58.32GHz, 140-220GHz Radiated Spurious



Graph 31: 63.72GHz, 140-220GHz Radiated Spurious



Graph 32: 70.2GHz, 140-220GHz Radiated Spurious

All emissions in the restricted bands of §15.205 met the limits specified in §15.209. All emissions met the limits set out in 15.255(d) therefore, the EUT complies with the specification.

5.6 §15.255(f) Frequency Stability

5.6.1 Frequency stability

Fundamental emissions must be contained within the frequency bands specified during all conditions of operation. Equipment is presumed to operate over the temperature range -20 to $+50$ degrees Celsius with an input voltage variation of 85% to 115% of rated input voltage, unless justification is presented to demonstrate otherwise.

The device was placed in a temperature chamber with an receive antenna placed on the outside of the chamber in order to measure the low and High fundamental frequency. Measurements were taken at the intervals and temperatures noted below, and the resultant frequency error is recorded below.

Temp	Low Channe; Frequency Error (MHz)				High Channel Frequency Error (MHz)				Result
	Start-up	2 min	5 min	10 min	Start-up	2 min	5 min	10 min	
25	15.76				-8.05				N/A
-20	20.49	20.76	21.06	21.93	0.63	0.74	0.52	0.5	Pass
-10	15.71	16.06	16.09	16.45	-1.4	-1.7	-1.81	-1.85	Pass
0	19.01	17.92	17.97	17.05	-1.4	-1.48	-1.41	-1.42	Pass
10	18.32	17.8	17.94	17.94	-0.84	-0.96	-1.47	-0.6	Pass
20	16.4	16.75	16.99	22.35	-8.53	-10.43	-7.23	-3.98	Pass
30	19.99	17.92	18.2	17.98	-6.4	-20.19	-24.74	-24.77	Pass
40	18.58	15.49	13.21	12.23	-23.3	-23.74	-24.66	-24.64	Pass
50	15.57	13.62	13.49	12.49	-2.19	-12.56	-23.18	-23.03	Pass

Result

All emissions were contained within the specified frequency band of 51-71GHz. All emissions met the limits set out in 15.255(f) therefore, the EUT complies with the specification.

-- End of Test Report --