TEST REPORT

Report Number: 15514292-E1V3

Applicant	:	LEVITON MANUFACTURING CO., INC. 10385 SW AVERY TUALATIN, OR 97062-2210 USA
Model(s)	:	ODS15-IDx, ODSMT-MDx
Brand	:	Leviton
FCC ID	:	2ASLN-C2342
IC	:	25037-C2342
EUT Description	:	SMART WALLBOX SENSOR
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART C ISED RSS-247 ISSUE 3 ISED RSS-GEN ISSUE 5 + A1 + A2

Date Of Issue:
2025-05-07

Prepared by:
UL Verification Services Inc.
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ACCREDITED
CERT #0751.05

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2025-03-19	Initial Issue	--
V2	2025-04-14	Updated model numbers, EUT description, Section 6.1, 6.5	Tina Chu
V3	2025-05-07	Updated model numbers, EUT name	Tina Chu

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: LEVITON MANUFACTURING CO., INC.
10385 SW AVERY
TUALATIN, OR 97062-2210
USA

EUT DESCRIPTION: SMART WALLBOX SENSOR

MODEL(s): ODS15-IDx, ODSMT-MDx

BRAND: Leviton

SERIAL NUMBER: ODS15-IDx: 1MR (Radiated)
ODSMT-MDx: 2MR (Radiated)
ODSMT-MDx: 2MC (Conducted)

SAMPLE RECEIPT DATE: 2024-10-22 and 2024-11-21

DATE TESTED: 2024-10-24 TO 2024-11-25

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	Complies
ISED RSS-247 Issue 3	Complies
ISED RSS-GEN Issue 5 + A1 + A2	Complies

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document.

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2. TEST RESULTS SUMMARY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for correctly integrating customer-provided data with measurements performed by UL Verification Services Inc.

Below is a list of the data provided by the customer:
1) Antenna gain and type (see section 6.3)
2) Cable loss (see section 6.3)

FCC Clause	ISED Clause	Requirement	Result	Comment
See Comment		Duty Cycle	Reporting purposes only	ANSI C63.10 Section 11.6.
-	RSS-GEN 6.7	99% OBW	Reporting purposes only	ANSI C63.10 Section 6.9.3.
15.247 (a) (2)	RSS-247 5.2 (a)	6dB BW	Complies	None.
15.247 (b) (3)	RSS-247 5.4 (d)	Output Power	Complies	None.
See Comment		Average power	Reporting purposes only	Per ANSI C63.10, Section 11.9.2.3.2.
15.247 (e)	RSS-247 5.2 (b)	PSD	Complies	None.
15.247 (d)	RSS-247 5.5	Conducted Spurious Emissions	Complies	None.
15.209, 15.205	RSS-GEN 8.9, 8.10	Radiated Emissions	Complies	None.
15.207	RSS-Gen 8.8	AC Mains Conducted Emissions	Complies	None.

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3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013, KDB 558074 D01 15.247 Meas Guidance, KDB 414788 D01 Radiated Test Site, RSS-GEN Issue 5 + A1 + A2, and RSS-247 Issue 3.

4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, Certificate Number 0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
☒	Building 1: 47173 Benicia Street, Fremont, CA 94538, USA	US0104	2324A	550739
☐	Building 2: 47266 Benicia Street, Fremont, CA 94538, USA			
☒	Building 4: 47658 Kato Rd, Fremont, CA 94538, USA			

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5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U_{Lab}
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.22%
RF Power Measurement Direct Method Using Power Meter	1.3 dB (PK) / 0.45 dB (AV)
Unwanted Emissions, Conducted	1.94 dB
Power Spectral Density	2.466 dB
Worst Case Conducted Disturbance, 9kHz to 0.15 MHz	3.78 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.40 dB
Worst Case Radiated Disturbance, 9kHz to 30 MHz	2.87 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	6.01 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.73 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.51 dB
Time Domain Measurements	3.39%
Temperature	0.57˚C
Relative Humidity	3.39%
DC Supply Voltages	0.57%

Uncertainty figures are valid to a confidence level of 95%.

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5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:
Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:
Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.
36.5 dBuV + 0 dB +10.1 dB+ 0 dB = 46.6 dBuV

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6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is a Smart Wallbox Sensor that supports BLE (1Mbps only) technology.

This report covers two models: ODS15-IDx, ODSMT-MDx. Both models use the same PCB/ copper. The difference between two boards is microphone circuit components is not assembled in ODS15-IDx, the rest of all components remain the same.

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402 - 2480	BLE	6.52	4.49

6.3. DESCRIPTION OF AVAILABLE ANTENNAS AND CABLE LOSS

The antenna(s) gain, type and cable loss, as provided by the manufacturer' are as follows:

The radio utilizes a PCB trace antenna, with a maximum gain of 1.6 dBi.
Cable loss: 0.5dB

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 0RC2344-D01.

The test utility software used during testing was RealTerm version 2.0.0.70

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6.5. WORST-CASE CONFIGURATION AND MODE

Both models: ODS15-IDx, ODSMT-MDx, radiated bandedge and radiated emissions 1GHz to 18GHz were fully tested for these two models. Testing was performed with the EUT set to transmit at the highest power on low, middle and high channels.

Model: ODSMT-MDx was chosen as a worse-case unit, radiated emissions below 1GHz, above 18GHz, and power line conducted emissions were performed on this model. EUT was set to transmit at the channel with highest output power as worst-case scenario.

Model: ODSMT-MDx was tested for all conducted tests and is representative of model ODS15-IDx.

The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that Y orientation (Landscape orientation) was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Y orientation (Landscape orientation).

BLE only supports 1Mbps data rate.

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6.6. DESCRIPTION OF TEST SETUP

SUPPORT TEST EQUIPMENT						
Description		**Manufacturer**	**Model**	**Serial Number**		**FCC ID/ DoC**
Laptop		Toshiba	PSCMLU-09G0KU	8F022903P		PPD-QCNFA335
Isolation Transformer		Hammond Manufacturing	167G120	N/A		DoC
I/O CABLES (CONDUCTED TEST)						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	Antenna Port	1	SMA	Unshielded	0.15	EUT to Analyzer
2	FTDI cable	1	Type A USB	Unshielded	2	EUT to Laptop (maintenance cable)
3	AC	1	2-wires	Unshielded	0.6	Isolation Transformer to EUT
4	AC	1	3-prong	Unshielded	1	AC Main to Isolation Transformer
I/O CABLES (RADIATED EMISSIONS/ AC LINE CONDUCTED)						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	AC	1	3-prong	Unshielded	2.5	AC Main to EUT (floating ground)

TEST SETUP

The EUT is powered by AC. Test software exercised the radio card. The laptop was used for setup and removed during radiated emissions/AC powerline emissions testing.

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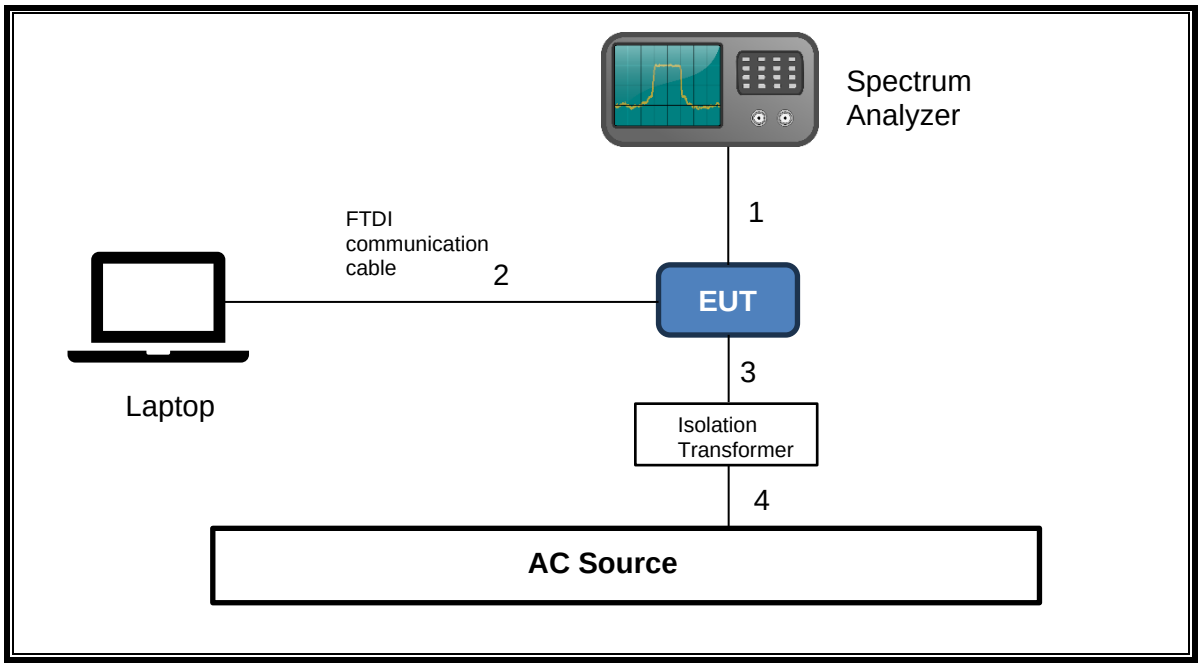
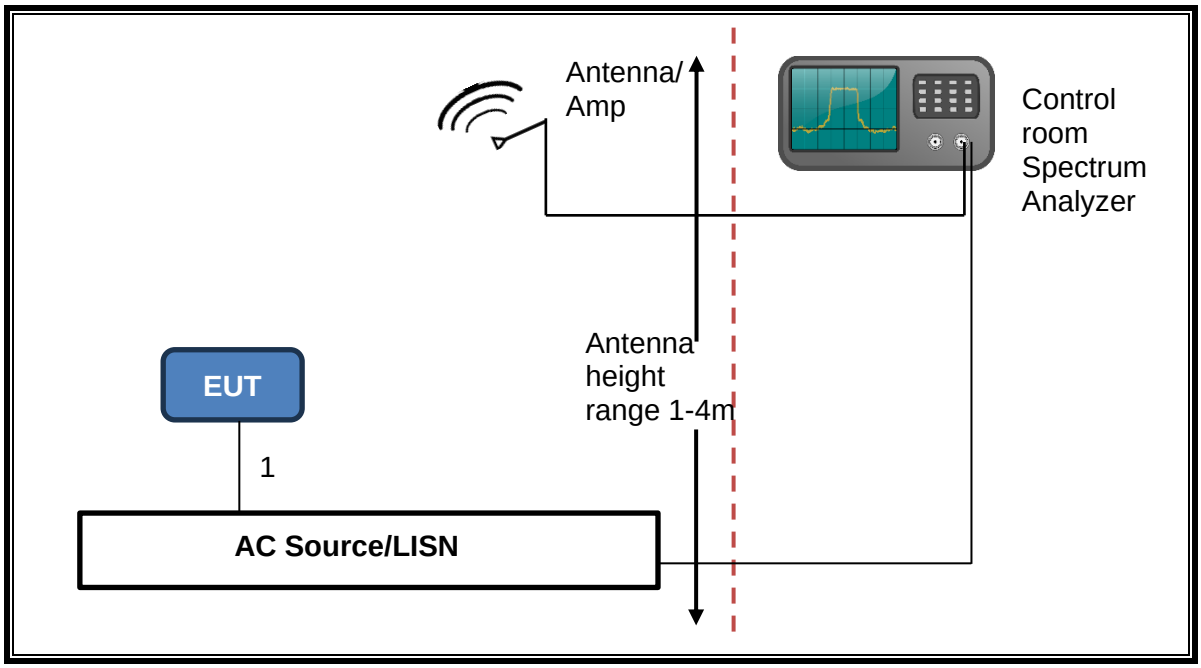
SETUP DIAGRAMS

CONDUCTED TEST



RADIATED EMISSIONS/AC POWERLINE EMISSIONS



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7. MEASUREMENT METHOD

Test Item	Test Method
On Time and Duty Cycle	ANSI C63.10 Section 11.6
6 dB BW	ANSI C63.10 Subclause -11.8.1 RBW ≥ DTS BW
99% BW	ANSI C63.10-2013, Subclause 6.9.3.
Output Power	ANSI C63.10 Section 11.9.1.3 Method PKPM1 Peak-reading power meter ANSI C63.10 Section 11.9.2.3.2Method AVGPM-G (Measurement using a gated RF average-reading power meter)
PSD	ANSI C63.10 Section 11.10.2. Method PKPSD (peak PSD)
Radiated emissions non-restricted frequency bands	ANSI C63.10 Subclause -11.11
Radiated emissions restricted frequency bands	ANSI C63.10 Subclause -11.12.1 and KDB558074 Section 11, Question 3 (a)
Conducted emissions in restricted frequency bands	ANSI C63.10 Section -11.12.2
Band-edge	ANSI C63.10 Subclause -11.13.3.2: Integration method - Peak detection
Band-edge	ANSI C63.10 Subclause -11.13.3.4: Integration method - Trace averaging across ON and OFF times DC correction
Radiated Spurious Emissions Below 30MHz	ANSI C63.10-2013 Subclause 6.4
AC Power Line Conducted Emissions	ANSI C63.10-2013, Subclause 6.2

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8. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST					
Description	**Manufacturer**	**Model**	**ID Num**	**Cal Due**	**Last Cal**
Antenna, Passive Loop 30Hz - 1MHz	ELECTRO METRICS	EM-6871	219909	2026-05-31	2024-05-16
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO METRICS	EM-6872	219911	2024-12-31	2023-12-05
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences Corp.	JB3	203089	2026-04-30	2024-04-09
Amplifier,9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	170647	2025-04-31	2024-04-25
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	80707	2026-06-30	2024-06-07
RF Filter Box, 1-18GHz	UL-FR1	SAC 8 port rf box 1	171875	2025-03-31	2024-03-23
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	245268	2025-02-28	2024-02-15
Antenna, Horn 18 to 26.5GHz	A.R.A.	MWH-1826/B	199659	2024-12-31	2022-12-06
Amplifier 18-26.5GHz, +5Vdc, -54dBm P1dB	AMPLICAL	AMP18G26.5-60	234683	2025-05-31	2024-05-13
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	85201	2025-02-29	2023-02-02
10dB Fixed Attenuator, up to 26GHz	Pasternack Enterprises	PE7087-10	236189	Verified/characterized before use	
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	90733	2025-01-31	2024-01-25
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	90391	2025-06-30	2024-06-17
AC LINE CONDUCTED					
LISN	Fischer Custom Communications, Inc	FCC-LISN-50/250-25-2-01-480V	175765	2025-01-31	2024-01-26
EMI TEST RECEIVER	Rohde & Schwarz	ESR	171646	2025-02-28	2024-02-27
Transient Limiter	TE	TBFL1	207996	2025-09-30	2024-09-01
UL TEST SOFTWARE LIST					
Radiated Software	UL	UL EMC	Ver 2023-05-01, 2024-08-15		
Antenna Port Software	UL	UL RF	Ver 2022-08-16		
AC Line Conducted Software	UL	UL EMC	Rev 9.5 2023-03-03		

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9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

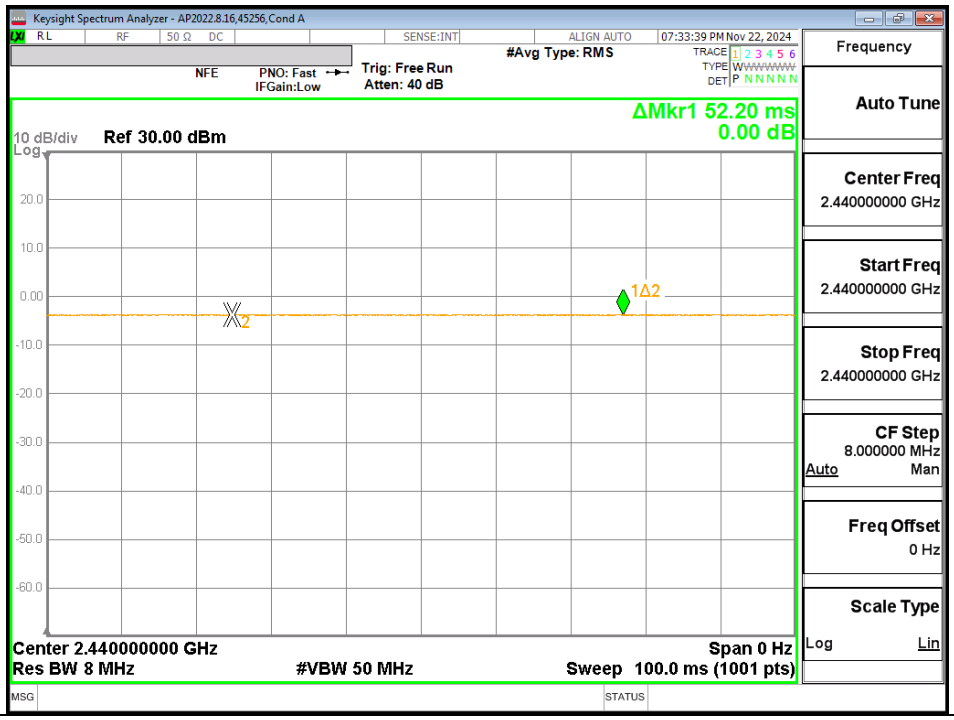
PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
BLE	1.000	1.000	1.000	100.00%	0.00	0.010

Note: For testing purposes, the EUT is transmitting continuously
For DCCF used for radiated harmonic average measurements, DCCF is based on manufacturer's declared operational duty cycle of 28%
DCCF = 20*log(0.28) = -11.06 dB



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DUTY CYCLE BLE

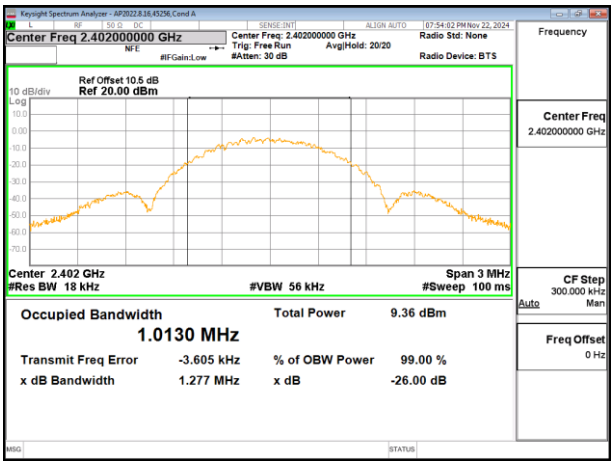
9.2. 99% BANDWIDTH

LIMITS

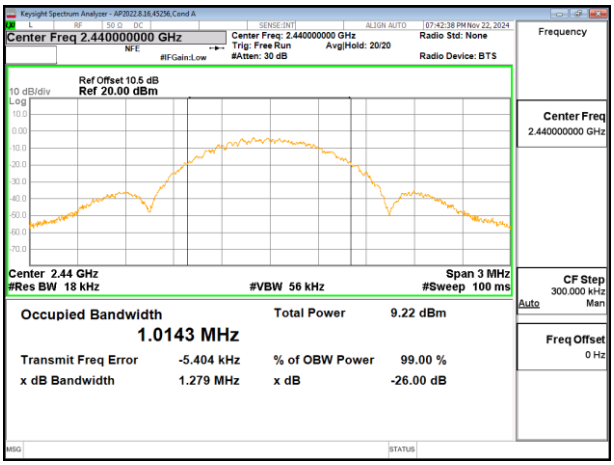
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0130
Middle	2440	1.0143
High	2480	1.0151



LOW CHANNEL



MID CHANNEL

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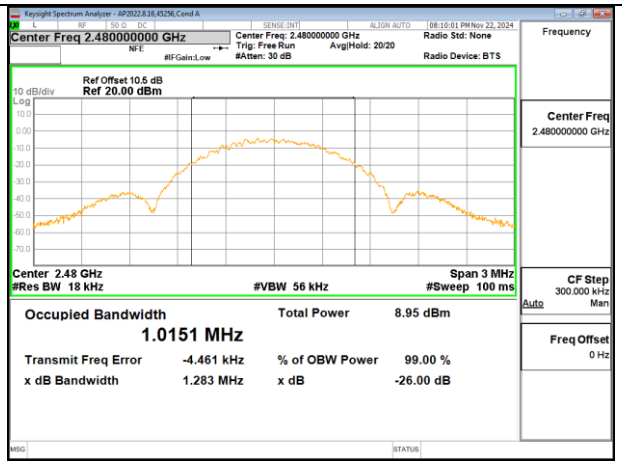

HIGH CHANNEL

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9.3. 6 dB BANDWIDTH

LIMITS

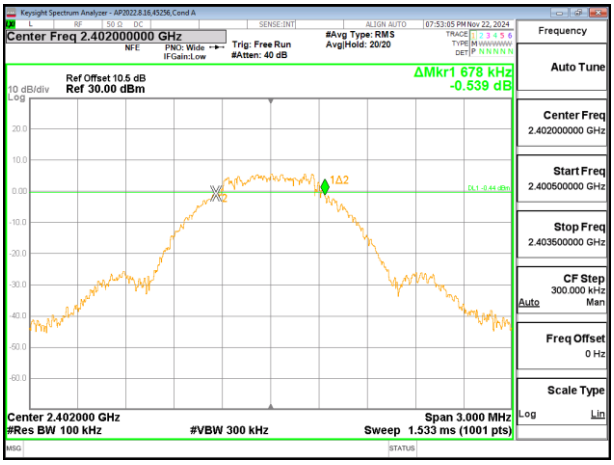
FCC §15.247 (a) (2)

RSS-247 5.2 (a)

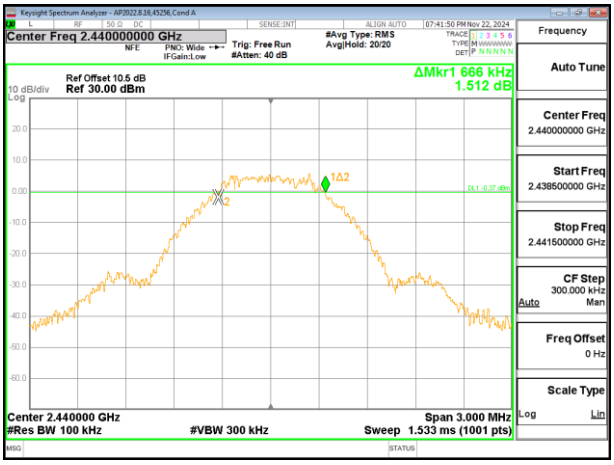
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

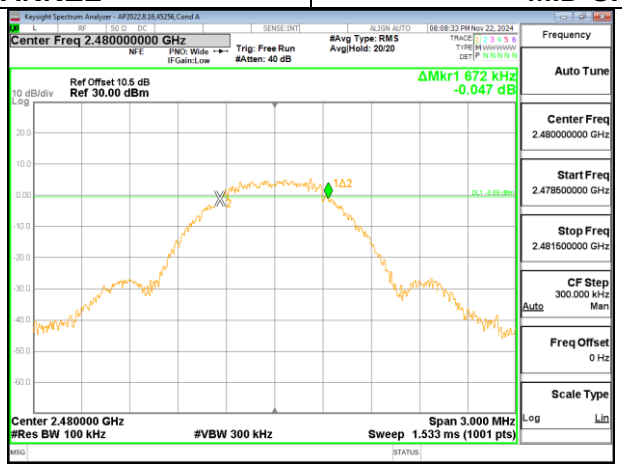
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.6780	0.5
Middle	2440	0.6660	0.5
High	2480	0.6720	0.5



LOW CHANNEL



MID CHANNEL



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9.4. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3)

RSS-247 5.4 (d)

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The power output was measured on the EUT antenna port using SMA cable with 10dB attenuator connected to a power meter via wideband power sensor. Peak output power was read directly from power meter.

RESULTS

Tested By:	45256 JB
Date:	2024-11-22

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	6.520	30	-23.480
Middle	2440	6.310	30	-23.690
High	2480	6.200	30	-23.800

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9.5. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The power output was measured on the EUT antenna port using SMA cable with 10dB attenuator connected to a power meter via wideband power sensor. Gated average output power was read directly from power meter.

RESULTS

Tested By:	45256 JB
Date:	2024-11-22

Channel	Frequency (MHz)	AV power (dBm)
Low	2402	6.4
Middle	2440	6.19
High	2480	6.08

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9.6. POWER SPECTRAL DENSITY

LIMITS

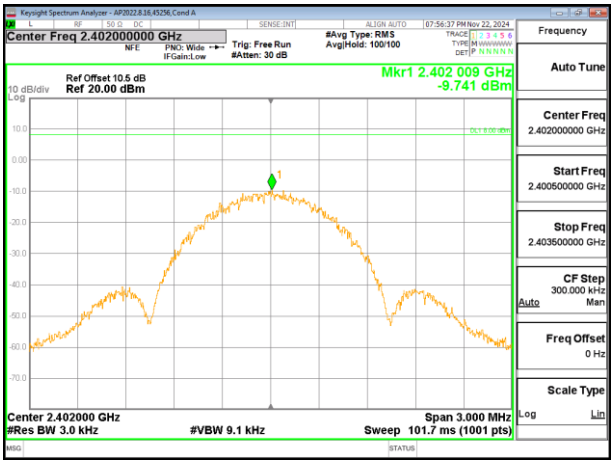
FCC §15.247 (e)

RSS-247 (5.2) (b)

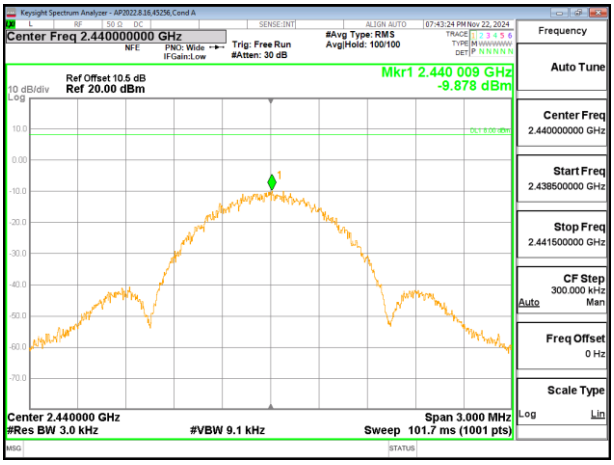
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

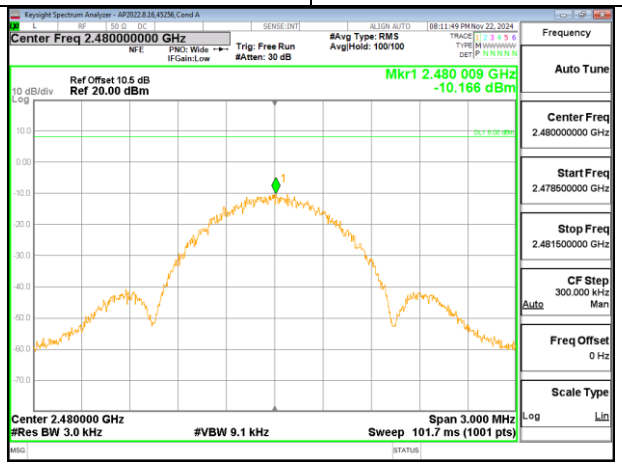
Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2402	-9.74	8	-17.74
Middle	2440	-9.88	8	-17.88
High	2480	-10.17	8	-18.17



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

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9.7. CONDUCTED SPURIOUS EMISSIONS

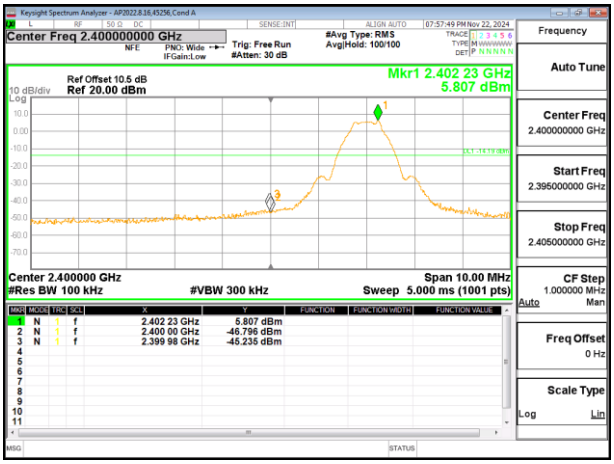
LIMITS

FCC §15.247 (d)

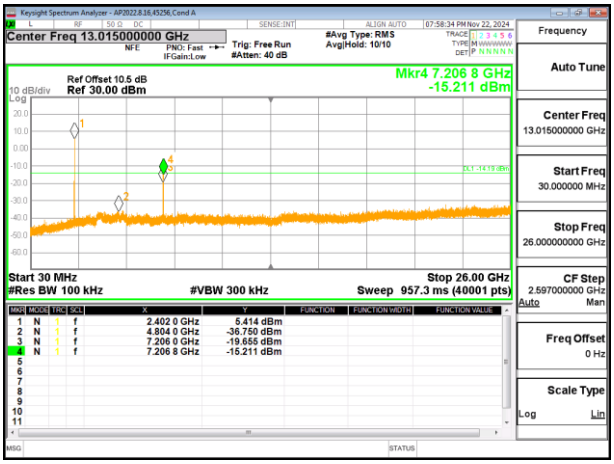
RSS-247 5.5

Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dBc.

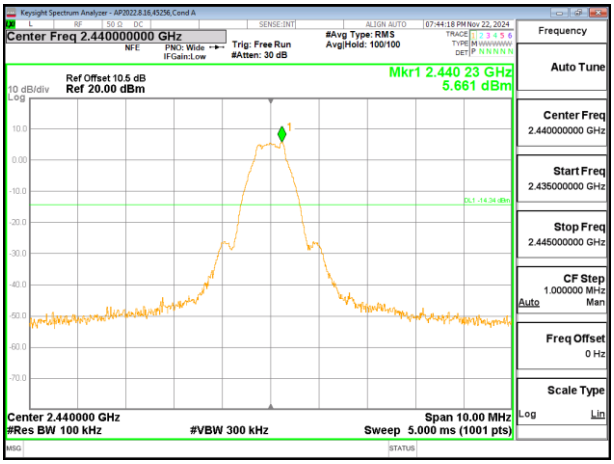
RESULTS



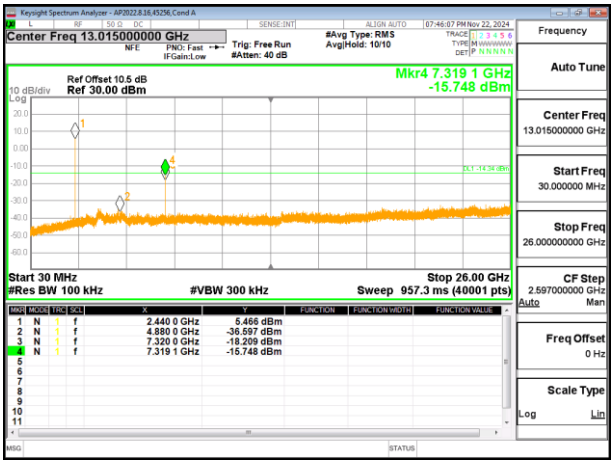
LOW CHANNEL BANDEDGE



OUT-OF-BAND LOW CHANNEL



IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL

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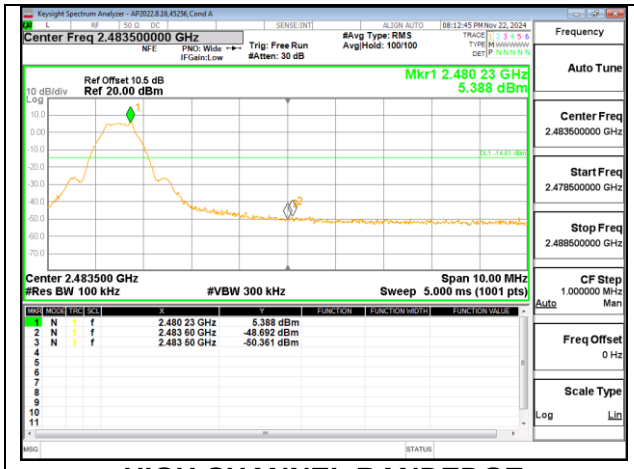
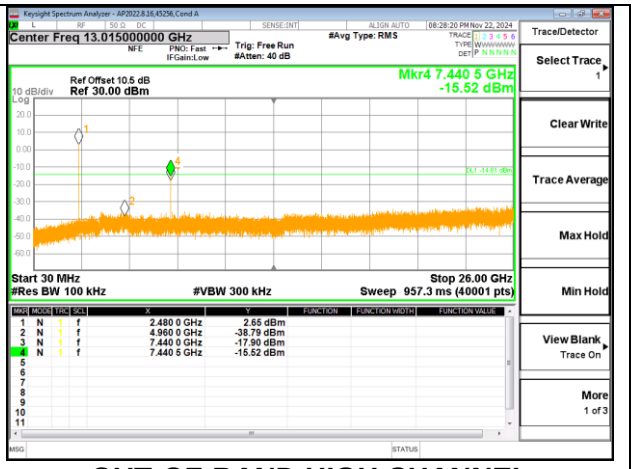


HIGH CHANNEL BANDEDGE



OUT-OF-BAND HIGH CHANNEL

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10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

RSS-GEN, Section 8.9 and 8.10.

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 30MHz, the resolution bandwidth 9kHz to 150kHz is set to 300Hz, video bandwidth is set to 1kHz. 150kHz to 30MHz, the resolution bandwidth is set to 10kHz, video bandwidth is set to 30kHz.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements in the 30-1000MHz range, 9kHz for peak and/or quasi-peak detection measurements in the 0.15-30MHz range and 200Hz for peak and/or quasi-peak detection measurements in the 9 to 150kHz range. Peak detection is used unless otherwise noted as quasi-peak or average (9-90kHz and 110-490kHz).

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 kHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band. Below 1GHz and above 18GHz emissions, the channel with the highest output power was tested.

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The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel), parallel and perpendicular are the worst orientations, therefore testing was performed on these two orientations only. Blue color trace on plots: Parallel orientation (face on). Green color trace on plots: Perpendicular orientation (face off).

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification

OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

NOTE: The limits in CFR 47, Part 15, Subpart C, paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table), using the free space impedance of 377 Ohms. For example the measurement at frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to Y – 51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

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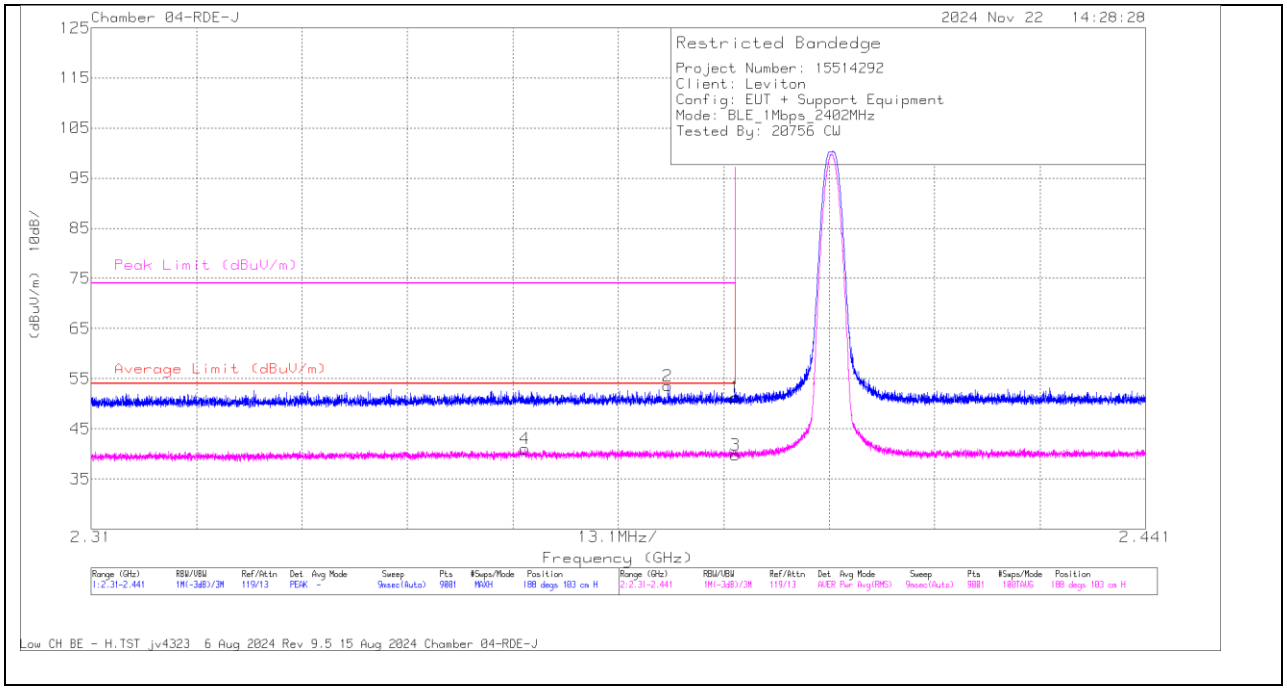
10.2. TRANSMITTER ABOVE 1 GHz –Model: ODS15-IDx

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	55.76	Pk	32.2	-36.72	51.24	-	-	74	-22.76	188	103	H
2	* 2.381645	58.15	Pk	32.2	-36.76	53.59	-	-	74	-20.41	188	103	H
3	* 2.39	44.3	RMS	32.2	-36.72	39.78	54	-14.22	-	-	188	103	H
4	* 2.36393	45.7	RMS	32.1	-36.78	41.02	54	-12.98	-	-	188	103	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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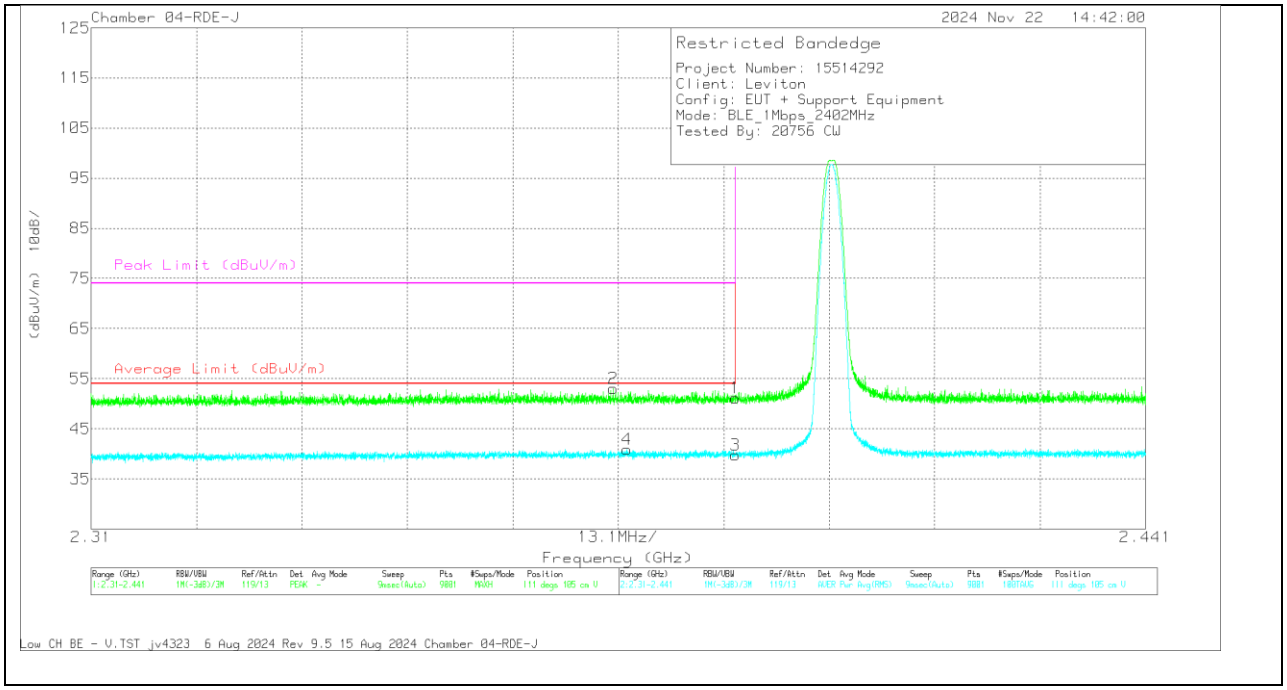
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	55.66	Pk	32.2	-36.72	51.14	-	-	74	-22.86	111	105	V
2	* 2.374847	57.57	Pk	32.2	-36.74	53.03	-	-	74	-20.97	111	105	V
3	* 2.39	44.25	RMS	32.2	-36.72	39.73	54	-14.27	-	-	111	105	V
4	* 2.376579	45.48	RMS	32.2	-36.74	40.94	54	-13.06	-	-	111	105	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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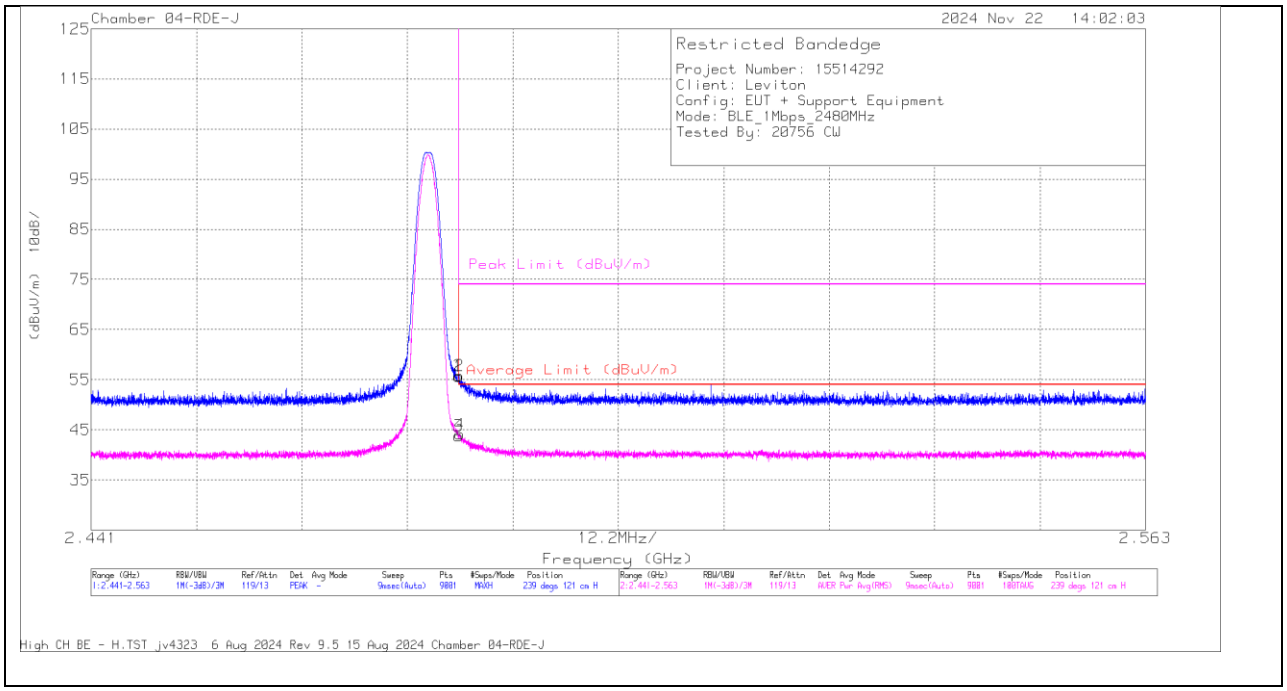
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	59.83	Pk	32.4	-36.58	55.65	-	-	74	-18.35	239	121	H
2	* 2.483607	60	Pk	32.4	-36.58	55.82	-	-	74	-18.18	239	121	H
3	* 2.4835	47.96	RMS	32.4	-36.58	43.78	54	-10.22	-	-	239	121	H
4	* 2.483688	48.26	RMS	32.4	-36.58	44.08	54	-9.92	-	-	239	121	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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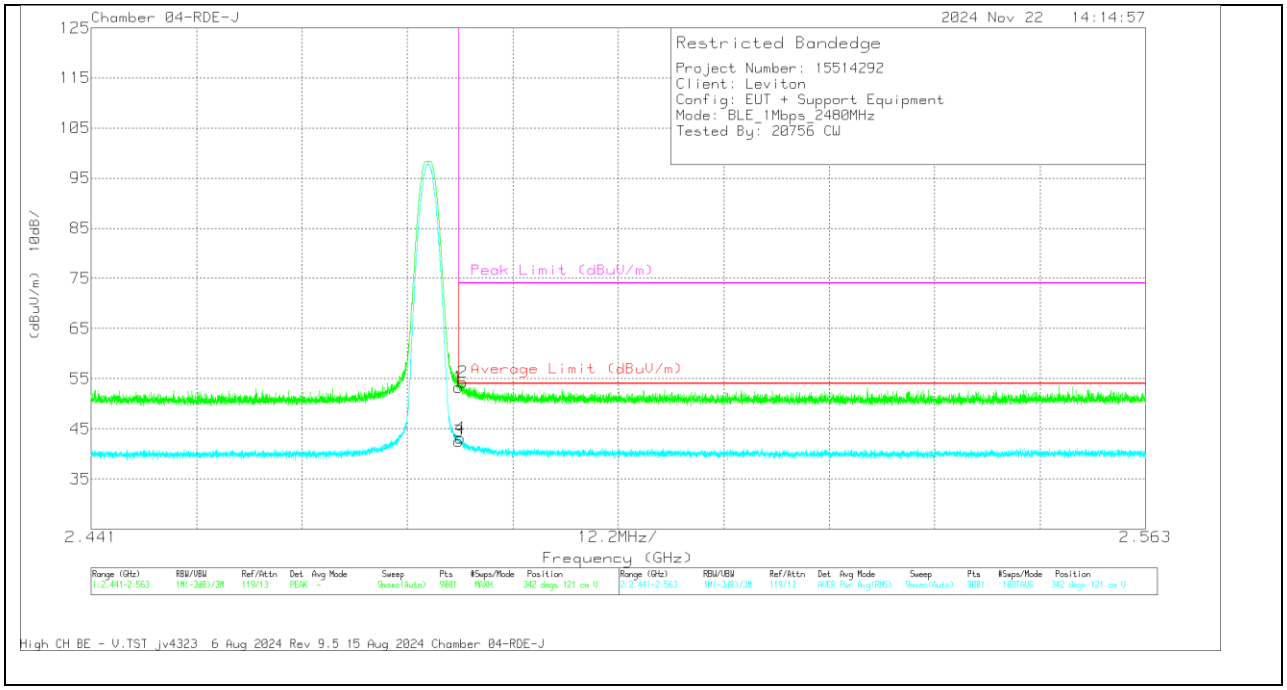
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	57.49	Pk	32.4	-36.58	53.31	-	-	74	-20.69	342	121	V
2	* 2.484	58.45	Pk	32.4	-36.58	54.27	-	-	74	-19.73	342	121	V
3	* 2.4835	46.7	RMS	32.4	-36.58	42.52	54	-11.48	-	-	342	121	V
4	* 2.483729	47.29	RMS	32.4	-36.58	43.11	54	-10.89	-	-	342	121	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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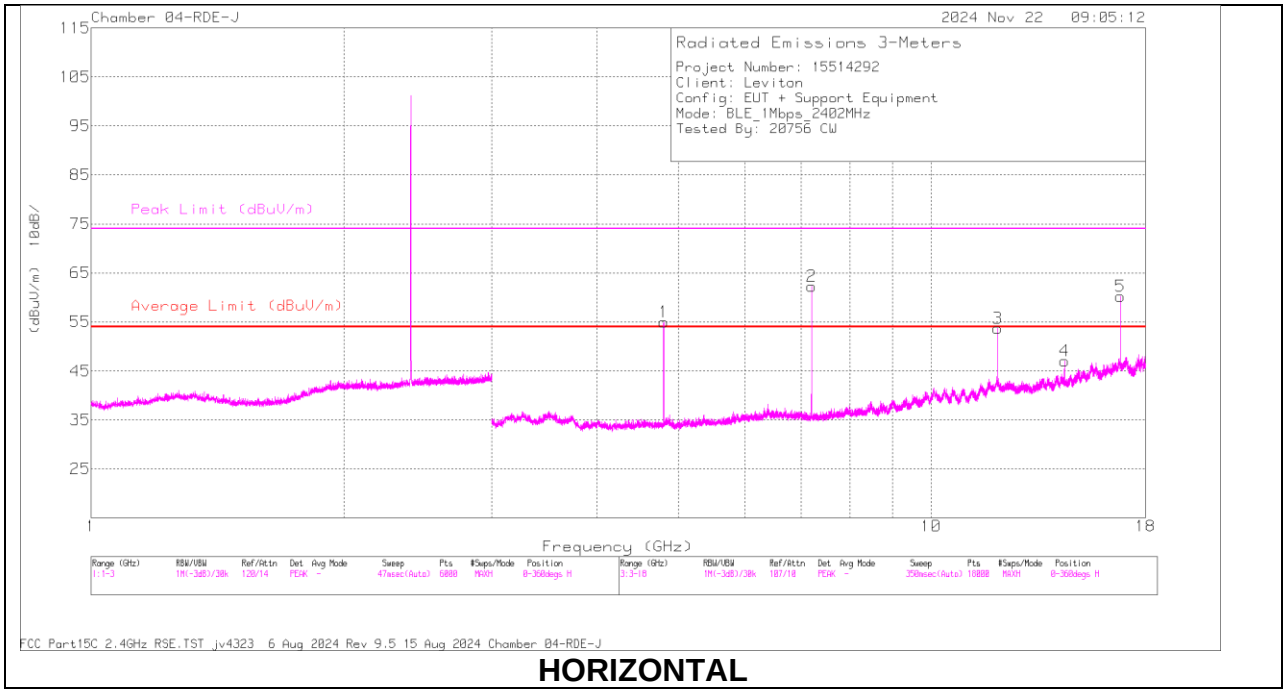
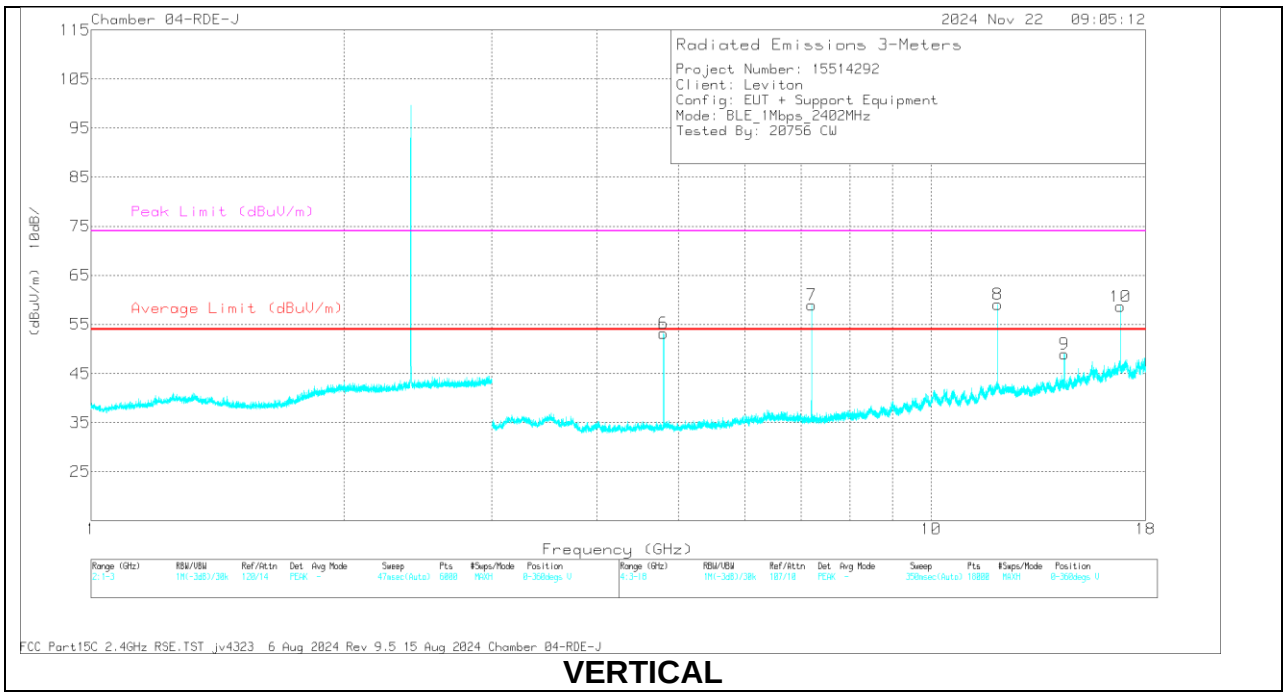
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.804268	65.79	Pk	34.3	-45.06	55.03	-	-	74	-18.97	0-360	101	H
3	* 12.011338	53.07	Pk	39.8	-39.15	53.72	-	-	74	-20.28	0-360	200	H
6	* 4.803434	63.92	Pk	34.3	-45.06	53.16	-	-	74	-20.84	0-360	101	V
8	* 12.008838	58.53	Pk	39.8	-39.23	59.1	-	-	74	-14.9	0-360	101	V
2	7.206069	68.97	Pk	35.5	-42.19	62.28	-	-	-	-	0-360	101	H
7	7.206069	65.61	Pk	35.5	-42.19	58.92	-	-	-	-	0-360	101	V
9	14.410639	48.49	Pk	39.8	-39.28	49.01	-	-	-	-	0-360	101	V
4	14.413139	46.54	Pk	39.8	-39.31	47.03	-	-	-	-	0-360	101	H
5	16.81244	56.38	Pk	42.3	-38.41	60.27	-	-	-	-	0-360	200	H
10	16.81494	54.78	Pk	42.3	-38.44	58.64	-	-	-	-	0-360	101	V

Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.804357	68.76	PK2	34.3	-45.06	0	58	-	-	74	-16	53	150	H
	* 4.804357	68.76	Av	34.3	-45.06	-11.06	46.94	54	-7.06	-	-	53	150	H
2	7.2053	70.91	PK2	35.5	-42.18	0	64.23	-	-	-	-	51	103	H
3	* 12.010945	60.53	PK2	39.8	-39.17	0	61.16	-	-	74	-12.84	342	204	H
	* 12.010945	60.53	Av	39.8	-39.17	-11.06	50.1	54	-3.9	-	-	342	204	H
6	* 4.804545	67.54	PK2	34.3	-45.05	0	56.79	-	-	74	-17.21	146	113	V
	* 4.804545	67.54	Av	34.3	-45.05	-11.06	45.73	54	-8.27	-	-	146	113	V
7	7.206561	69.15	PK2	35.5	-42.21	0	62.44	-	-	-	-	316	104	V
8	* 12.01108	62.82	PK2	39.8	-39.17	0	63.45	-	-	74	-10.55	87	101	V
	* 12.01108	62.82	Av	39.8	-39.17	-11.06	52.39	54	-1.61	-	-	87	101	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
AV = Peak reading + Duty Cycle Correction Factor (KDB558074 Section 11, Question 3 (a))
Duty Cycle Correction Factor = -11.06 dB. (28%)

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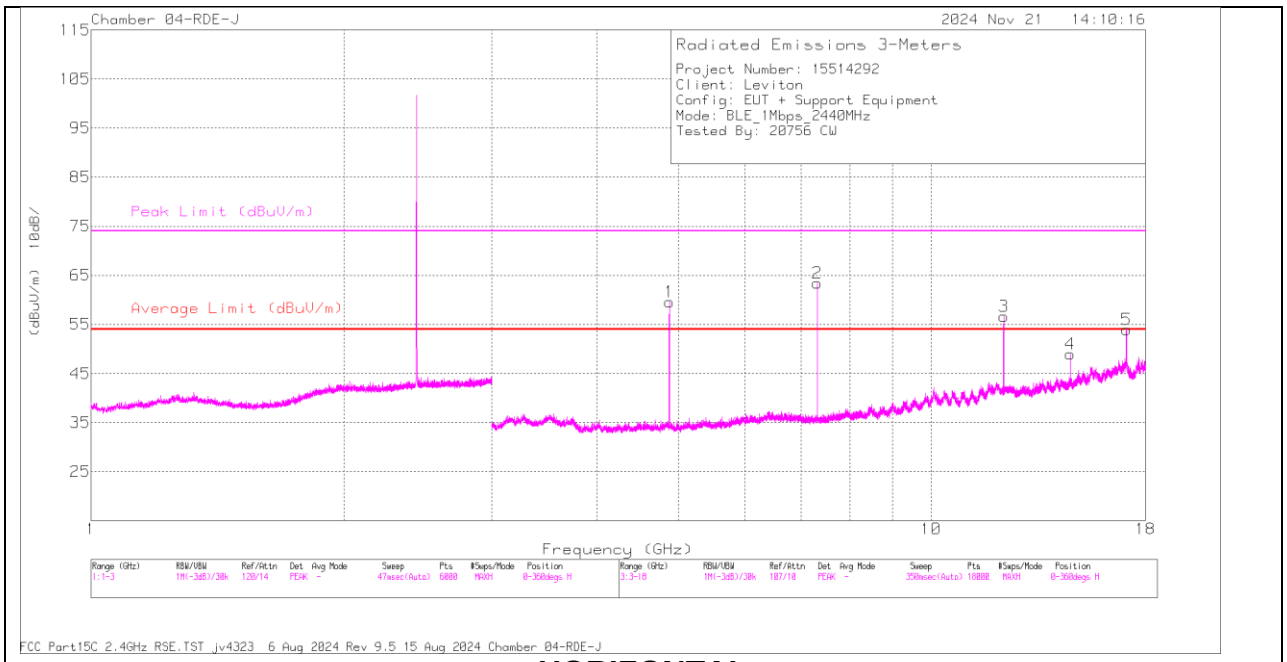
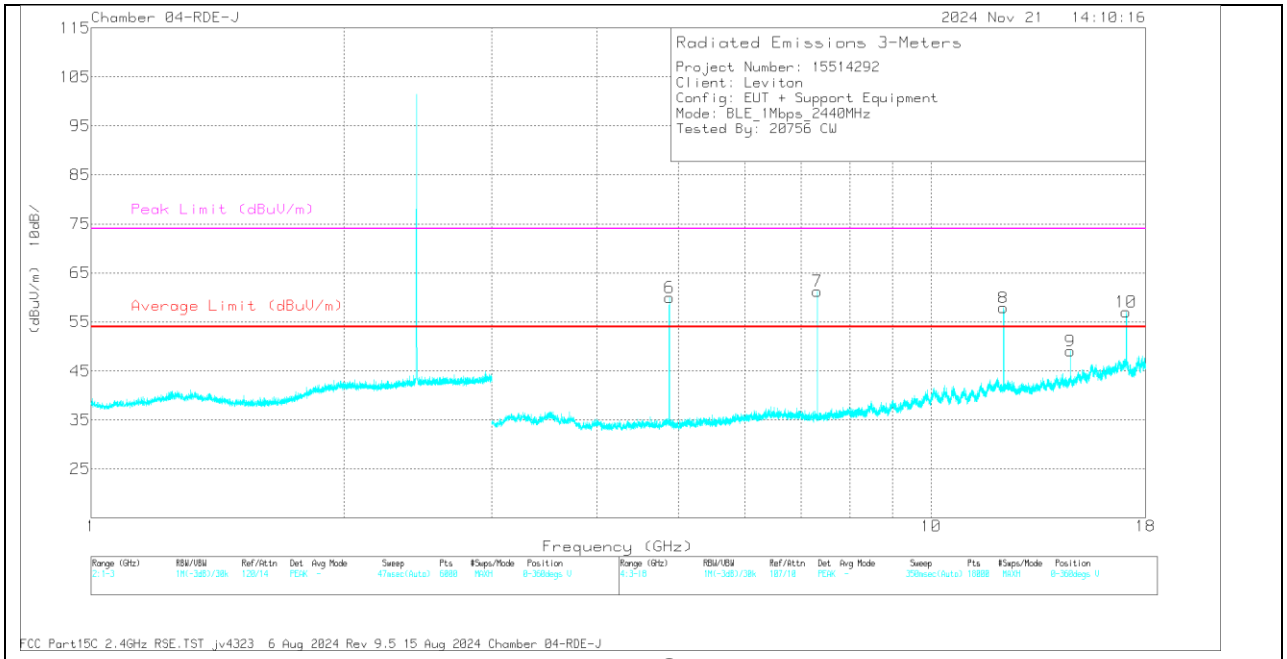
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.880105	69.9	Pk	34.3	-44.57	59.63	-	-	74	-14.37	0-360	101	H
2	* 7.319409	70.18	Pk	35.5	-42.23	63.45	-	-	74	-10.55	0-360	101	H
3	* 12.201349	56.67	Pk	39.6	-39.65	56.62	-	-	74	-17.38	0-360	200	H
6	* 4.880105	70.29	Pk	34.3	-44.57	60.02	-	-	74	-13.98	0-360	101	V
7	* 7.320242	67.97	Pk	35.5	-42.23	61.24	-	-	74	-12.76	0-360	101	V
8	* 12.198848	57.96	Pk	39.6	-39.69	57.87	-	-	74	-16.13	0-360	101	V
9	14.638152	48.07	Pk	39.8	-38.83	49.04	-	-	-	-	0-360	101	V
4	14.641485	48.03	Pk	39.8	-38.9	48.93	-	-	-	-	0-360	101	H
10	17.078288	51.97	Pk	41.8	-36.74	57.03	-	-	-	-	0-360	101	V
5	17.081622	48.75	Pk	41.8	-36.54	54.01	-	-	-	-	0-360	101	H

Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.880447	72.25	PK2	34.3	-44.57	0	61.98	-	-	74	-12.02	5	115	H
	* 4.880447	72.25	Av	34.3	-44.57	-11.06	50.92	54	-3.08	-	-	5	115	H
2	* 7.31924	71.46	PK2	35.5	-42.23	0	64.73	-	-	74	-9.27	13	104	H
	* 7.31924	71.46	Av	35.5	-42.23	-11.06	53.67	54	-0.33	-	-	13	104	H
3	* 12.201025	61.61	PK2	39.6	-39.63	0	61.58	-	-	74	-12.42	356	233	H
	* 12.201025	61.61	Av	39.6	-39.63	-11.06	50.52	54	-3.48	-	-	356	233	H
6	* 4.880474	73.59	PK2	34.3	-44.57	0	63.32	-	-	74	-10.68	148	106	V
	* 4.880474	73.59	Av	34.3	-44.57	-11.06	52.26	54	-1.74	-	-	148	106	V
7	* 7.319293	70.26	PK2	35.5	-42.23	0	63.53	-	-	74	-10.47	331	101	V
	* 7.319293	70.26	Av	35.5	-42.23	-11.06	52.47	54	-1.53	-	-	331	101	V
8	* 12.198692	62.55	PK2	39.6	-39.68	0	62.47	-	-	74	-11.53	53	102	V
	* 12.198692	62.55	Av	39.6	-39.68	-11.06	51.41	54	-2.59	-	-	53	102	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
AV = Peak reading + Duty Cycle Correction Factor (KDB558074 Section 11, Question 3 (a))
Duty Cycle Correction Factor = -11.06 dB. (28%)

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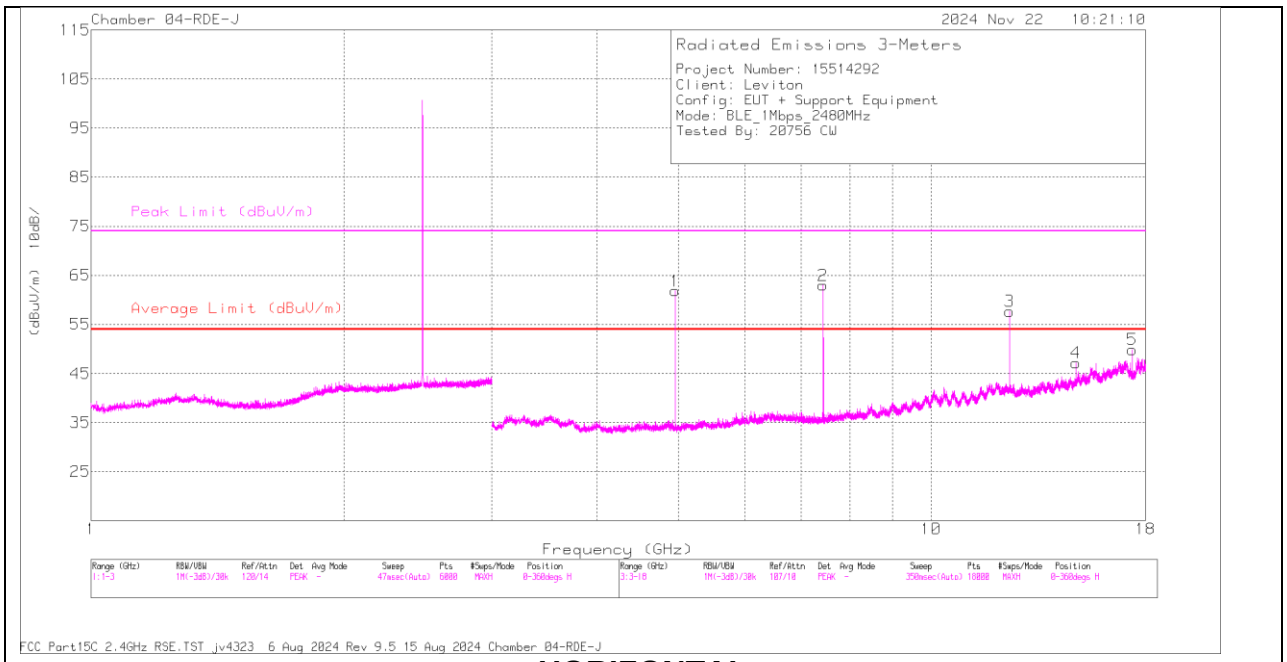
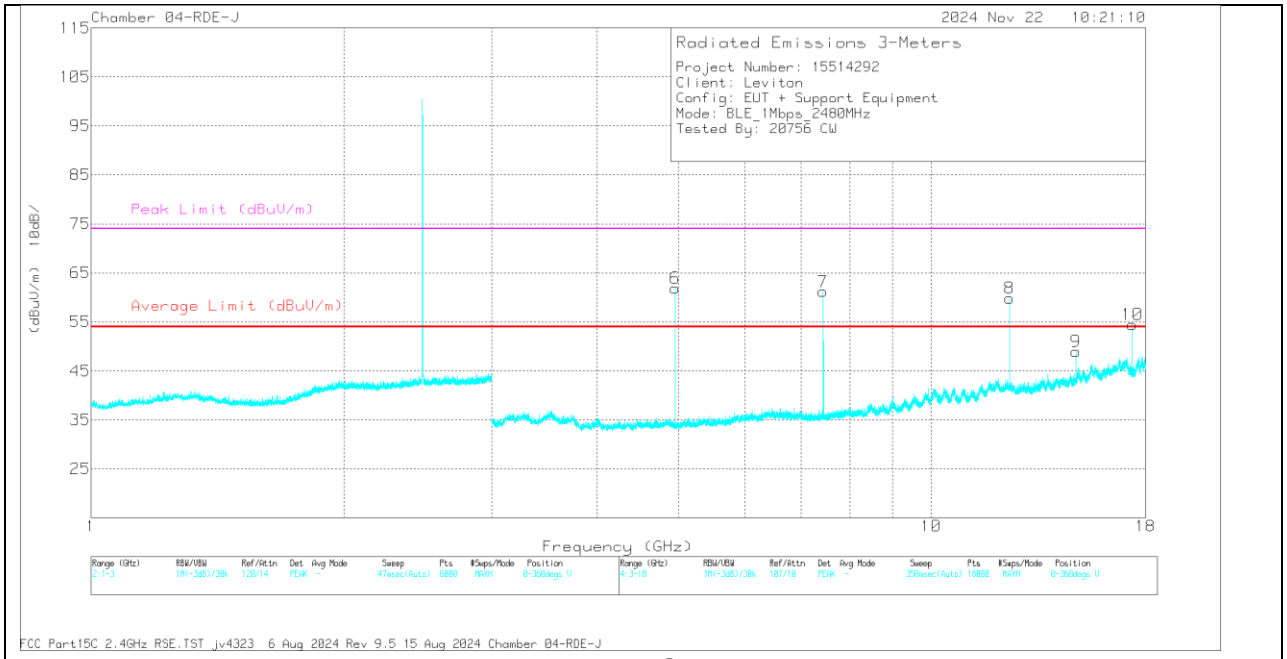
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.96011	72.39	Pk	34.2	-44.76	61.83	-	-	74	-12.17	0-360	101	H
2	* 7.440249	69.54	Pk	35.5	-42.06	62.98	-	-	74	-11.02	0-360	101	H
3	* 12.39886	57.92	Pk	39.3	-39.58	57.64	-	-	74	-16.36	0-360	101	H
6	* 4.96011	72.51	Pk	34.2	-44.76	61.95	-	-	74	-12.05	0-360	101	V
7	* 7.440249	67.75	Pk	35.5	-42.06	61.19	-	-	74	-12.81	0-360	101	V
8	* 12.40136	60.11	Pk	39.3	-39.59	59.82	-	-	74	-14.18	0-360	101	V
4	14.878999	46.6	Pk	40.1	-39.57	47.13	-	-	-	-	0-360	101	H
9	14.881499	48.42	Pk	40.1	-39.55	48.97	-	-	-	-	0-360	101	V
5	17.358721	48.11	Pk	41	-39.2	49.91	-	-	-	-	0-360	199	H
10	17.361638	52.61	Pk	41	-39.13	54.48	-	-	-	-	0-360	101	V

Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.960502	74.72	PK2	34.2	-44.74	0	64.18	-	-	74	-9.82	48	125	H
	* 4.960502	74.72	Av	34.2	-44.74	-11.06	53.12	54	-0.88	-	-	48	125	H
2	* 7.439185	70.41	PK2	35.5	-42.04	0	63.87	-	-	74	-10.13	65	103	H
	* 7.439185	70.41	Av	35.5	-42.04	-11.06	52.81	54	-1.19	-	-	65	103	H
3	* 12.398709	62.34	PK2	39.3	-39.58	0	62.06	-	-	74	-11.94	23	105	H
	* 12.398709	62.34	Av	39.3	-39.58	-11.06	51	54	-3	-	-	23	105	H
6	* 4.959512	74.05	PK2	34.2	-44.74	0	63.51	-	-	74	-10.49	146	101	V
	* 4.959512	74.05	Av	34.2	-44.74	-11.06	52.45	54	-1.55	-	-	146	101	V
7	* 7.439241	70.54	PK2	35.5	-42.04	0	64	-	-	74	-10	333	103	V
	* 7.439241	70.54	Av	35.5	-42.04	-11.06	52.94	54	-1.06	-	-	333	103	V
8	* 12.401074	64.36	PK2	39.3	-39.59	0	64.07	-	-	74	-9.93	60	101	V
	* 12.401074	64.36	Av	39.3	-39.59	-11.06	53.01	54	-0.99	-	-	60	101	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
AV = Peak reading + Duty Cycle Correction Factor (KDB558074 Section 11, Question 3 (a))
Duty Cycle Correction Factor = -11.06 dB. (28%)

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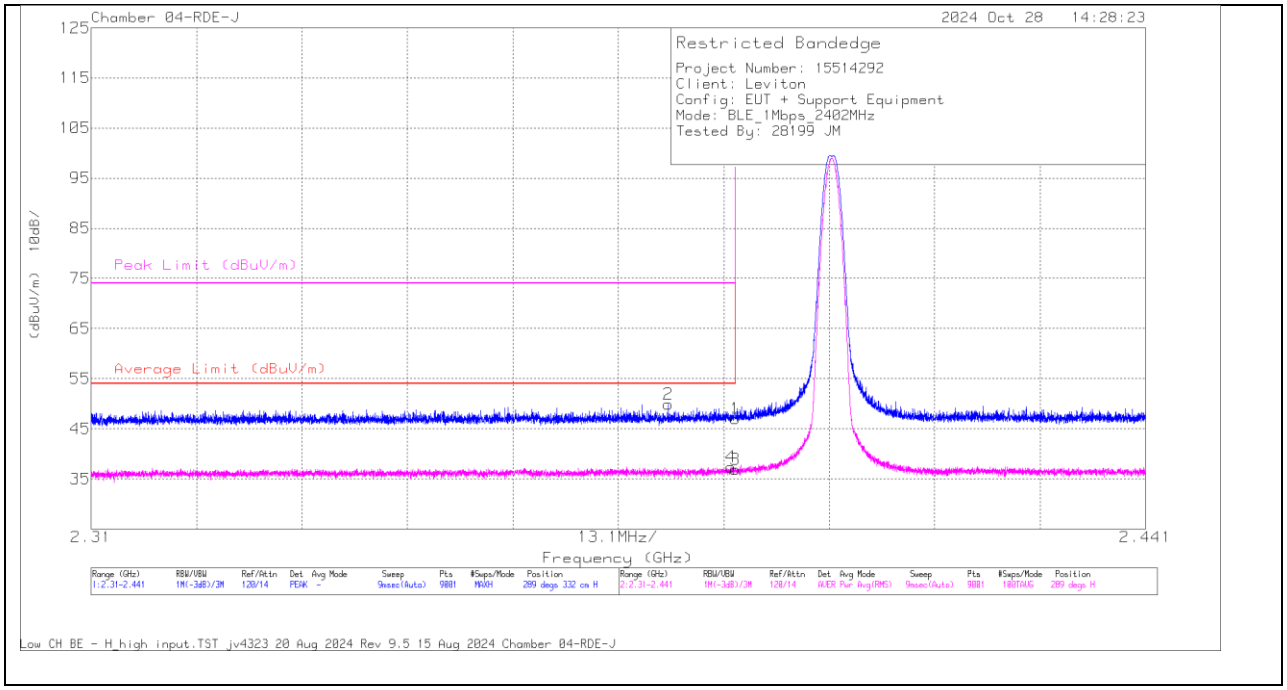
10.3. TRANSMITTER ABOVE 1 GHz – Model: ODSMT-MDx

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.73	Pk	32.2	-27.89	47.04	-	-	74	-26.96	289	332	H
2	* 2.381732	45.75	Pk	32.2	-28.03	49.92	-	-	74	-24.08	289	332	H
3	* 2.39	32.6	RMS	32.2	-27.89	36.91	54	-17.09	-	-	289	332	H
4	* 2.389505	33.14	RMS	32.2	-27.91	37.43	54	-16.57	-	-	289	332	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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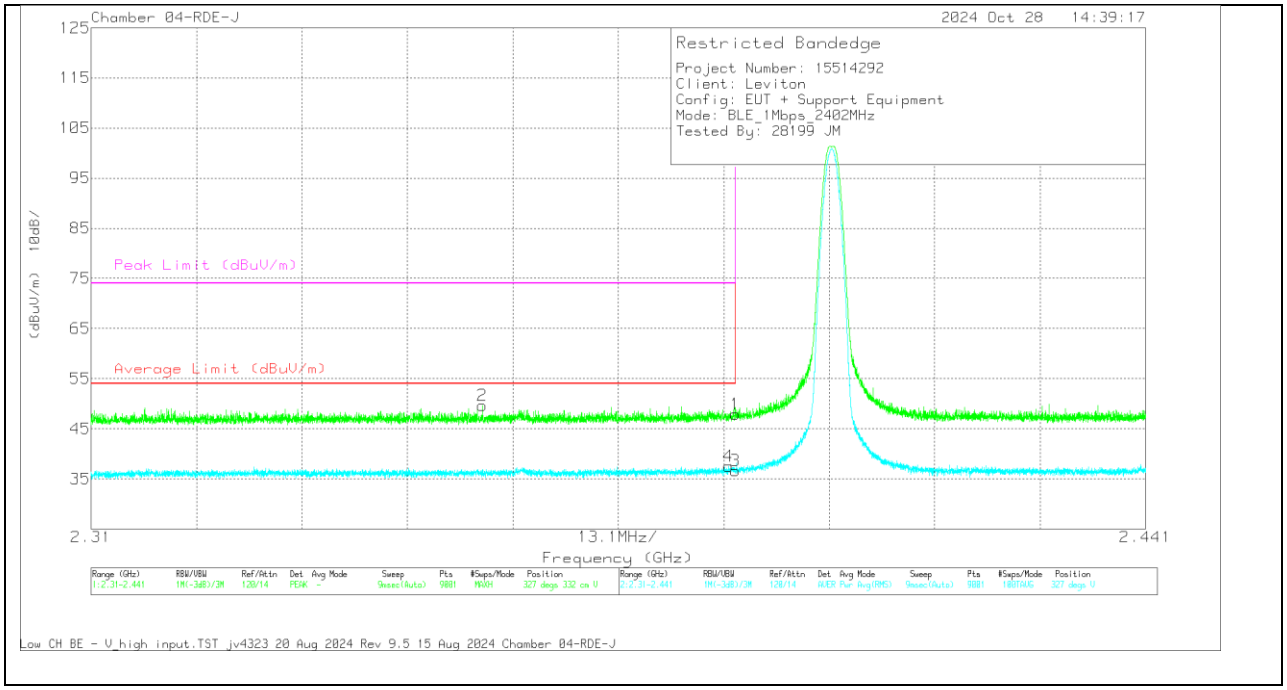
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	43.57	Pk	32.2	-27.89	47.88	-	-	74	-26.12	327	332	V
2	* 2.358617	45.57	Pk	32.1	-28.05	49.62	-	-	74	-24.38	327	332	V
3	* 2.39	32.3	RMS	32.2	-27.89	36.61	54	-17.39	-	-	327	332	V
4	* 2.389199	33.2	RMS	32.2	-27.92	37.48	54	-16.52	-	-	327	332	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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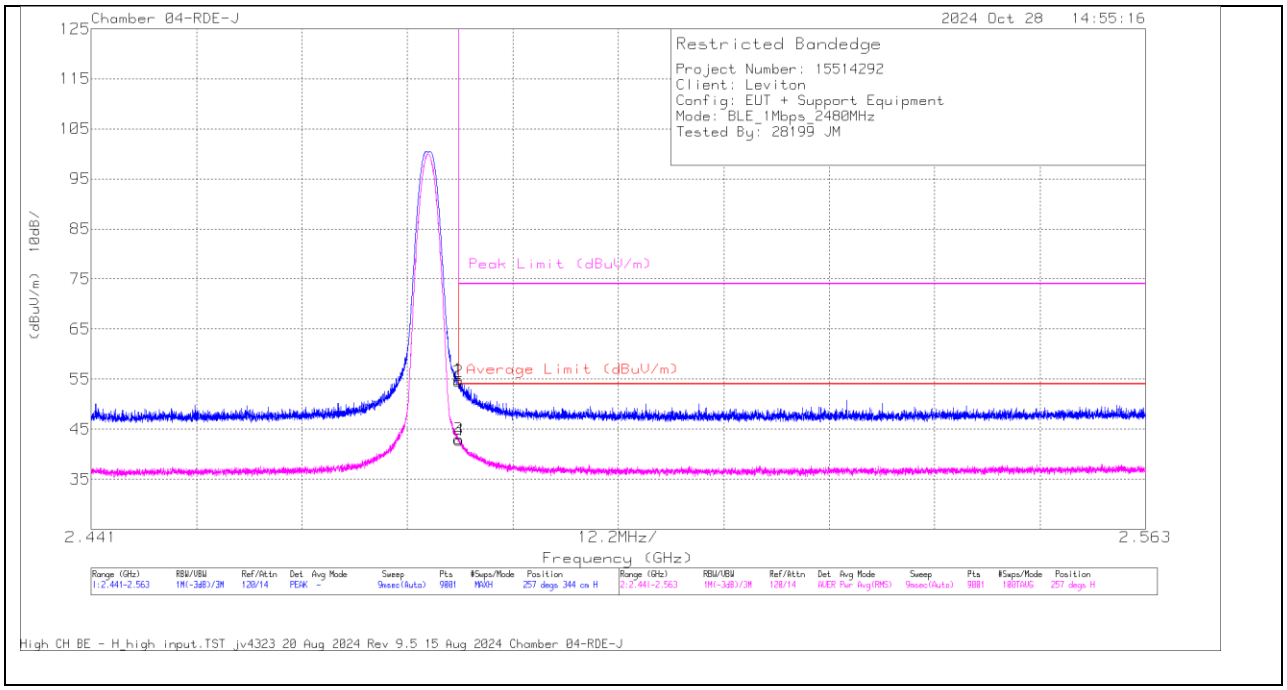
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	50.23	Pk	32.4	-27.76	54.87	-	-	74	-19.13	257	344	H
2	* 2.483512	49.88	Pk	32.4	-27.76	54.52	-	-	74	-19.48	257	344	H
3	* 2.4835	38.38	RMS	32.4	-27.76	43.02	54	-10.98	-	-	257	344	H
4	* 2.483579	38.09	RMS	32.4	-27.76	42.73	54	-11.27	-	-	257	344	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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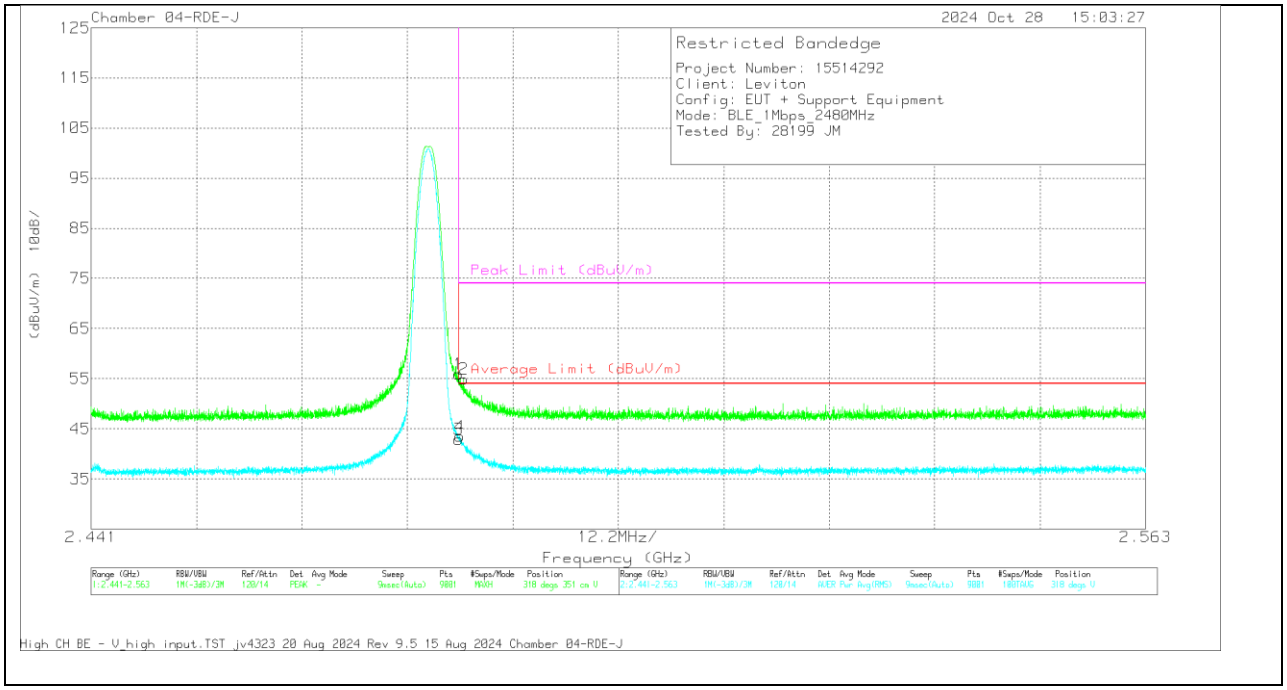
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	51.28	Pk	32.4	-27.76	55.92	-	-	74	-18.08	318	351	V
2	* 2.484081	50.32	Pk	32.4	-27.76	54.96	-	-	74	-19.04	318	351	V
3	* 2.4835	38.29	RMS	32.4	-27.76	42.93	54	-11.07	-	-	318	351	V
4	* 2.483647	38.82	RMS	32.4	-27.76	43.46	54	-10.54	-	-	318	351	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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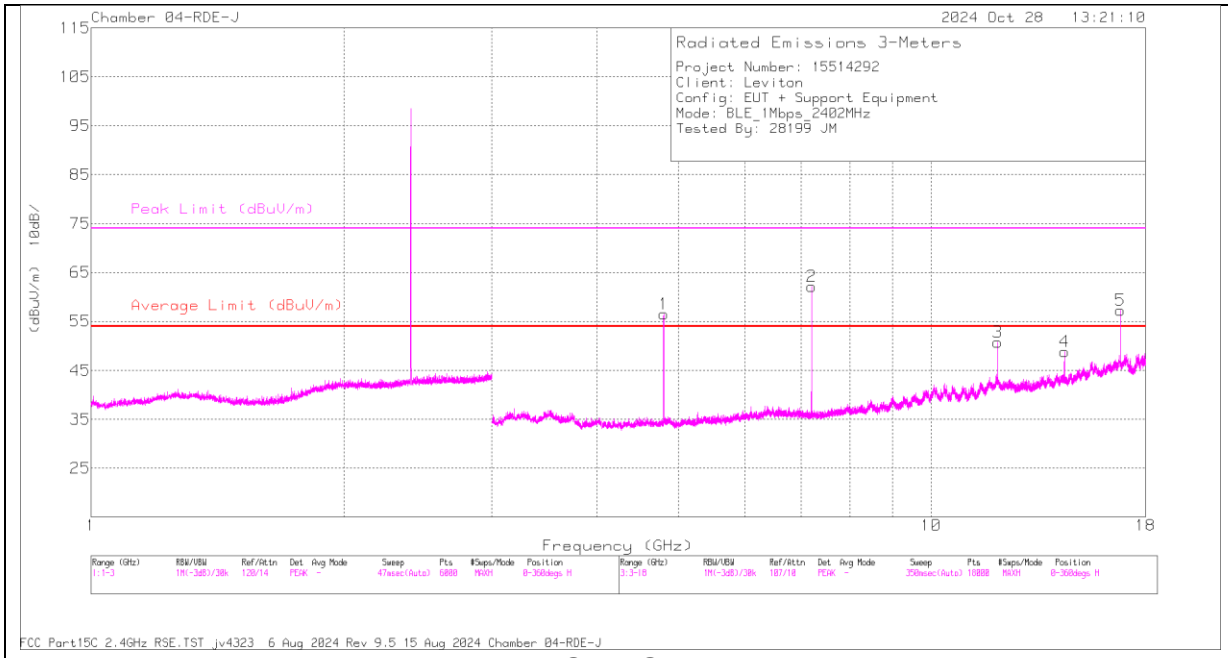
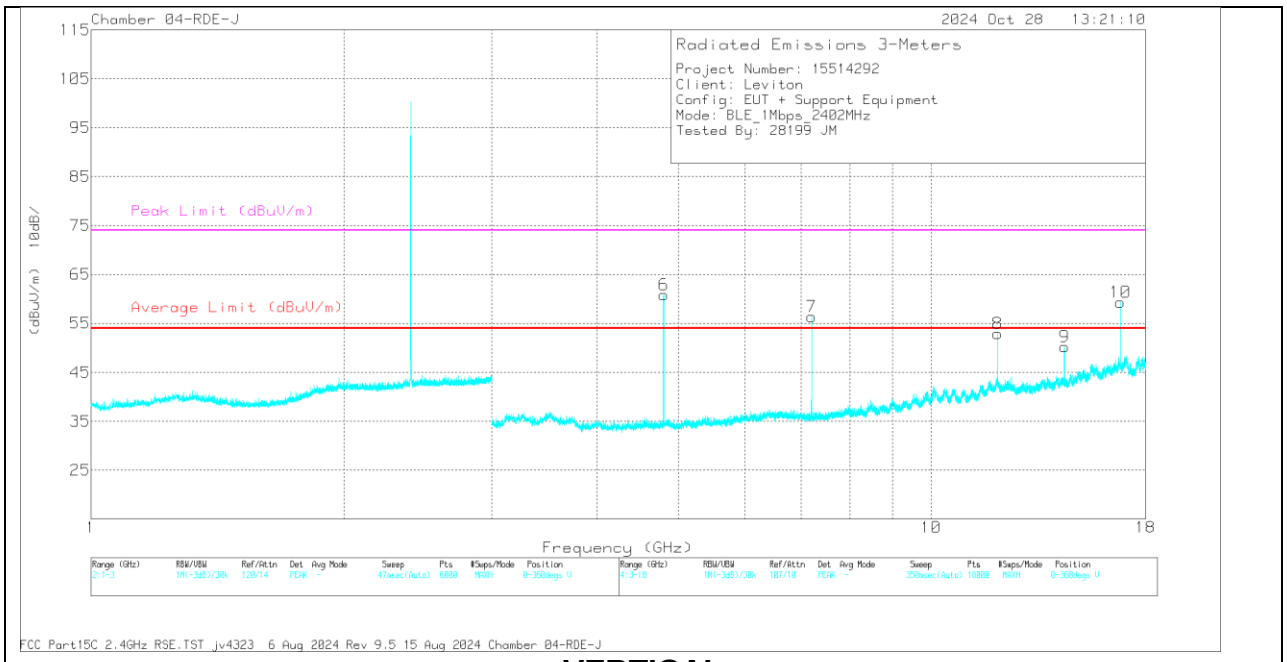
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.804268	67.24	Pk	34.3	-45.06	56.48	-	-	74	-17.52	0-360	200	H
3	* 12.011338	50.11	Pk	39.8	-39.15	50.76	-	-	74	-23.24	0-360	101	H
6	* 4.804268	71.59	Pk	34.3	-45.06	60.83	-	-	74	-13.17	0-360	200	V
8	* 12.011338	52.27	Pk	39.8	-39.15	52.92	-	-	74	-21.08	0-360	200	V
7	7.205235	63.11	Pk	35.5	-42.17	56.44	-	-	-	-	0-360	200	V
2	7.206069	68.81	Pk	35.5	-42.19	62.12	-	-	-	-	0-360	200	H
4	14.413139	48.38	Pk	39.8	-39.31	48.87	-	-	-	-	0-360	200	H
9	14.413139	49.8	Pk	39.8	-39.31	50.29	-	-	-	-	0-360	101	V
10	16.813274	55.52	Pk	42.3	-38.44	59.38	-	-	-	-	0-360	200	V
5	16.815774	53.46	Pk	42.3	-38.46	57.3	-	-	-	-	0-360	200	H

Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.804459	71.31	PK2	34.3	-45.06	0	60.55	-	-	74	-13.45	93	222	H
	* 4.804459	71.31	AV	34.3	-45.06	-11.06	49.49	54	-4.51	-	-	93	222	H
2	7.205255	71.58	PK2	35.5	-42.18	0	64.9	-	-	-	-	84	209	H
3	* 12.00865	58.25	PK2	39.8	-39.25	0	58.8	-	-	74	-15.2	116	178	H
	* 12.00865	58.25	AV	39.8	-39.25	-11.06	47.74	54	-6.26	-	-	116	178	H
6	* 4.804275	74	PK2	34.3	-45.06	0	63.24	-	-	74	-10.76	303	225	V
	* 4.804275	74	AV	34.3	-45.06	-11.06	52.18	54	-1.82	-	-	303	225	V
7	7.206612	66.2	PK2	35.5	-42.21	0	59.49	-	-	-	-	152	212	V
8	* 12.010805	59.5	PK2	39.8	-39.18	0	60.12	-	-	74	-13.88	87	167	V
	* 12.010805	59.5	AV	39.8	-39.18	-11.06	49.06	54	-4.94	-	-	87	167	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
AV = Peak reading + Duty Cycle Correction Factor (KDB558074 Section 11, Question 3 (a))
Duty Cycle Correction Factor = -11.06 dB. (28%)

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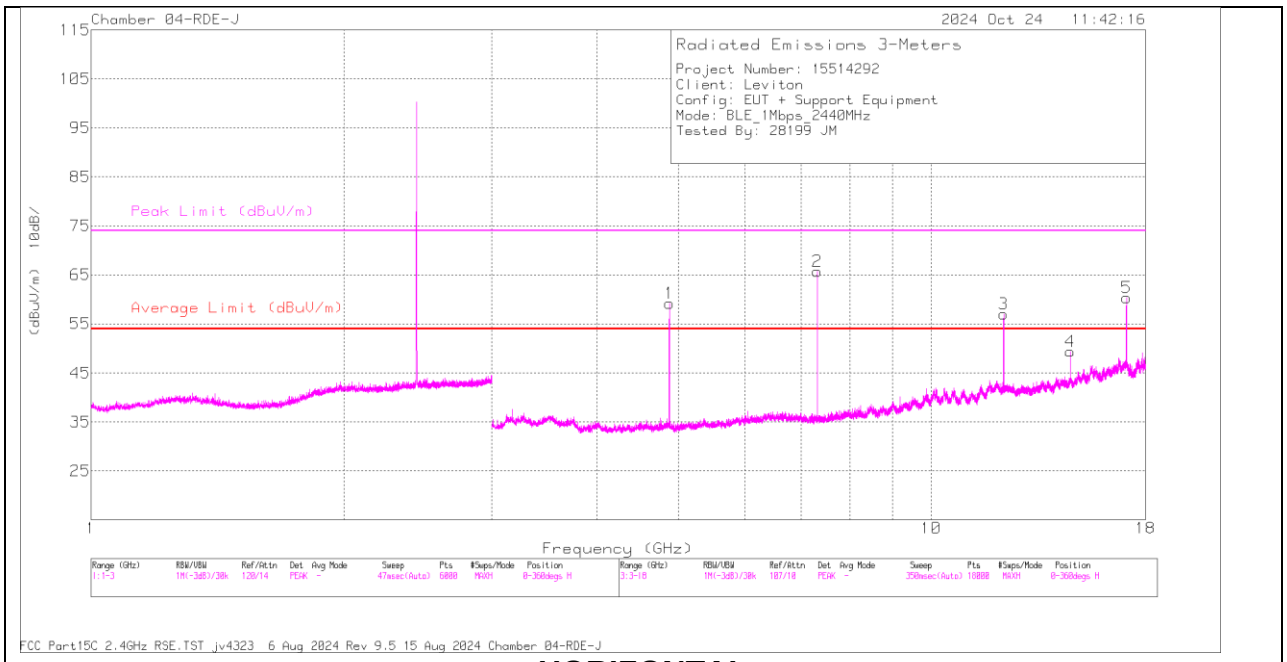
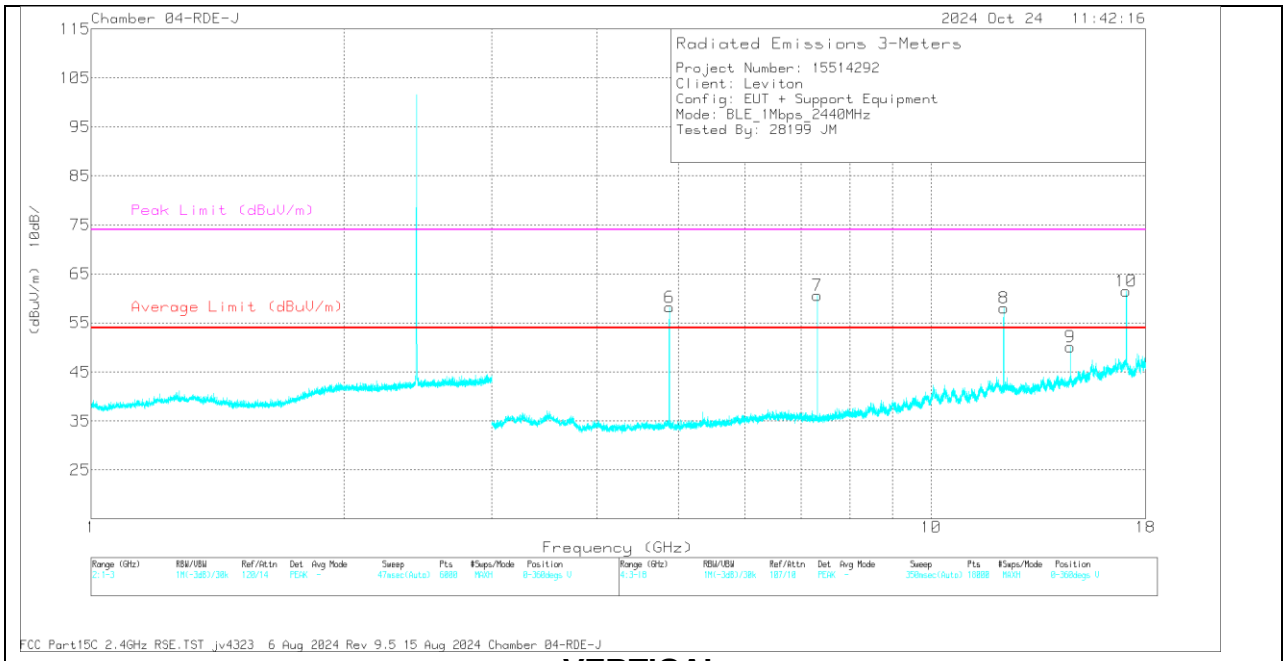
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.880105	69.51	Pk	34.3	-44.57	59.24	-	-	74	-14.76	0-360	101	H
2	* 7.320242	72.5	Pk	35.5	-42.23	65.77	-	-	74	-8.23	0-360	200	H
3	* 12.200515	57.04	Pk	39.6	-39.65	56.99	-	-	74	-17.01	0-360	200	H
4	14.641485	48.51	Pk	39.8	-38.9	49.41	-	-	-	-	0-360	101	H
5	17.082455	55.1	Pk	41.8	-36.53	60.37	-	-	-	-	0-360	200	H
6	* 4.880105	68.51	Pk	34.3	-44.57	58.24	-	-	74	-15.76	0-360	200	V
7	* 7.320242	67.32	Pk	35.5	-42.23	60.59	-	-	74	-13.41	0-360	200	V
8	* 12.201349	58.08	Pk	39.6	-39.65	58.03	-	-	74	-15.97	0-360	200	V
9	14.641485	49.19	Pk	39.8	-38.9	50.09	-	-	-	-	0-360	200	V
10	17.078288	56.42	Pk	41.8	-36.74	61.48	-	-	-	-	0-360	101	V

Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.879463	71.52	PK2	34.3	-44.58	0	61.24	-	-	74	-12.76	303	108	H
	* 4.879463	71.52	AV	34.3	-44.58	-11.06	50.18	54	-3.82	-	-	303	108	H
2	* 7.319232	71.03	PK2	35.5	-42.23	0	64.3	-	-	74	-9.7	101	226	H
	* 7.319232	71.03	AV	35.5	-42.23	-11.06	53.24	54	-0.76			101	226	H
3	* 12.201095	58.92	PK2	39.6	-39.63	0	58.89	-	-	74	-15.11	50	207	H
	* 12.201095	58.92	AV 2	39.6	-39.63	-11.06	47.83	54	-6.17	-	-	50	207	H
6	* 4.879538	71.87	PK2	34.3	-44.57	0	61.6	-	-	74	-12.4	342	215	V
	* 4.879538	71.87	AV	34.3	-44.57	-11.06	50.54	54	-3.46	-	-	342	215	V
7	* 7.319193	67.46	PK2	35.5	-42.23	0	60.73	-	-	74	-13.27	157	211	V
	* 7.319193	67.46	AV	35.5	-42.23	-11.06	49.67	54	-4.33	-	-	157	211	V
8	* 12.198706	60.9	PK2	39.6	-39.68	0	60.82	-	-	74	-13.18	87	184	V
	* 12.198706	60.9	AV	39.6	-39.68	-11.06	49.76	54	-4.24	-	-	87	184	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
AV = Peak reading + Duty Cycle Correction Factor (KDB558074 Section 11, Question 3 (a))
Duty Cycle Correction Factor = -11.06 dB. (28%)

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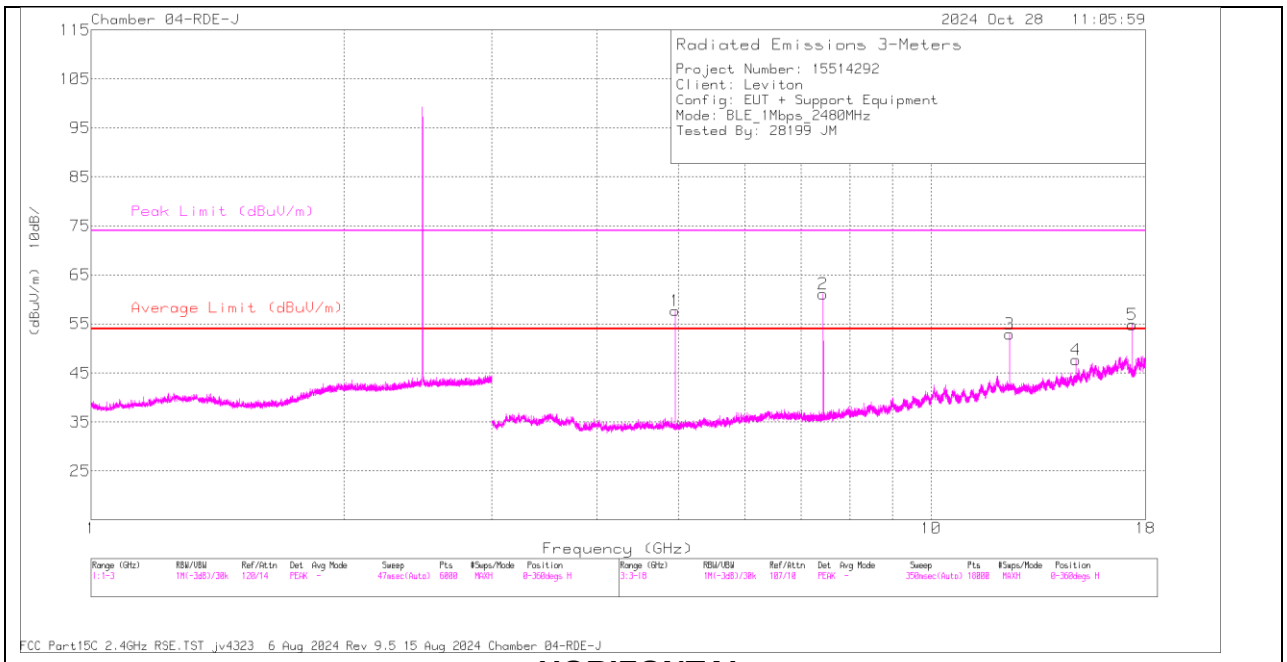
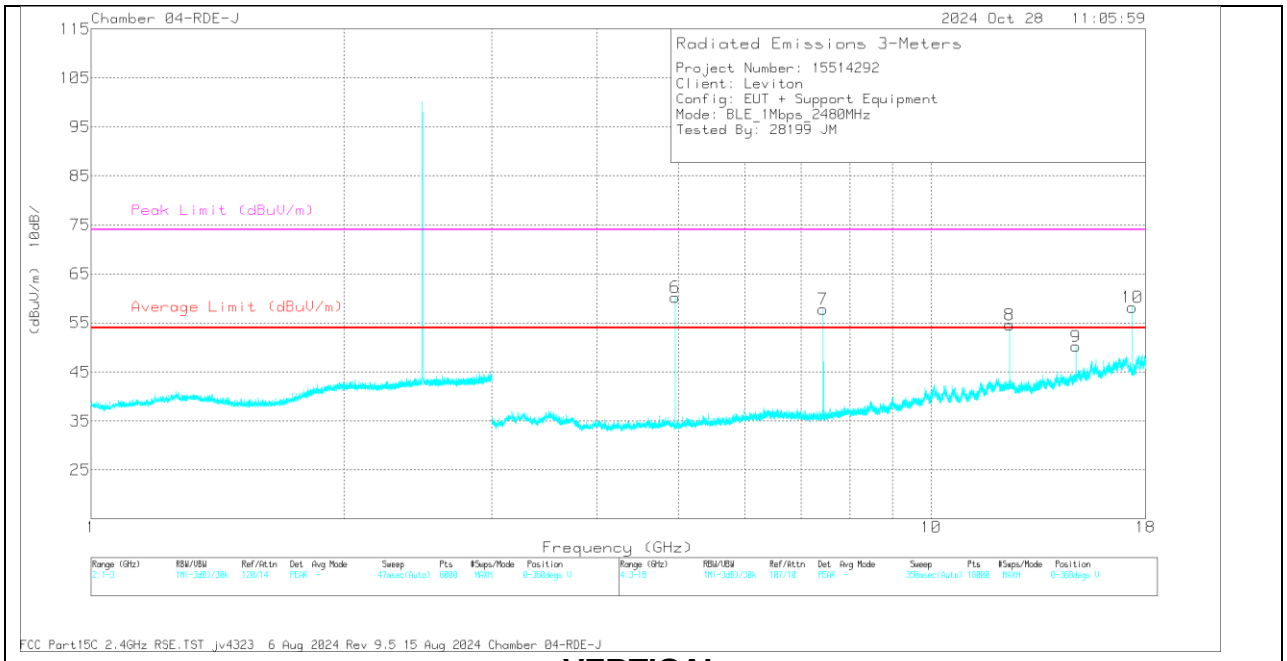
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.96011	68.29	Pk	34.2	-44.76	57.73	-	-	74	-16.27	0-360	200	H
2	* 7.440249	67.65	Pk	35.5	-42.06	61.09	-	-	74	-12.91	0-360	200	H
3	* 12.400526	53.21	Pk	39.3	-39.58	52.93	-	-	74	-21.07	0-360	200	H
4	14.881499	47.17	Pk	40.1	-39.55	47.72	-	-	-	-	0-360	200	H
5	17.358304	53.08	Pk	41	-39.21	54.87	-	-	-	-	0-360	200	H
6	* 4.959693	70.74	Pk	34.2	-44.75	60.19	-	-	74	-13.81	0-360	200	V
7	* 7.440249	64.33	Pk	35.5	-42.06	57.77	-	-	74	-16.23	0-360	101	V
8	* 12.400526	54.89	Pk	39.3	-39.58	54.61	-	-	74	-19.39	0-360	200	V
9	14.881499	49.64	Pk	40.1	-39.55	50.19	-	-	-	-	0-360	101	V
10	17.358304	56.36	Pk	41	-39.21	58.15	-	-	-	-	0-360	101	V

Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Gain/Loss (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.960444	71.03	PK2	34.2	-44.74	0	60.49	-	-	74	-13.51	92	215	H
	* 4.960444	71.03	AV	34.2	-44.74	-11.06	49.43	54	-4.57	-	-	92	215	H
2	* 7.439322	70.79	PK2	35.5	-42.05	0	64.24	-	-	74	-9.76	112	185	H
	* 7.439322	70.79	AV	35.5	-42.05	-11.06	53.18	54	-.82	-	-	112	185	H
3	* 12.398856	60.32	PK2	39.3	-39.58	0	60.04	-	-	74	-13.96	111	190	H
	* 12.398856	60.32	AV	39.3	-39.58	-11.06	48.98	54	-5.02	-	-	111	190	H
6	* 4.959746	73.86	PK2	34.2	-44.75	-0	63.31	-	-	74	-10.69	309	224	V
	* 4.959746	73.86	AV	34.2	-44.75	-11.06	52.25	54	-1.75	-	-	309	224	V
7	* 7.439207	67.15	PK2	35.5	-42.04	0	60.61	-	-	74	-13.39	151	102	V
	* 7.439207	67.15	AV	35.5	-42.04	-11.06	49.55	54	-4.45	-	-	151	102	V
8	* 12.398903	61.66	PK2	39.3	-39.58	0	61.38	-	-	74	-12.62	92	189	V
	* 12.398903	61.66	AV	39.3	-39.58	-11.06	50.32	54	-3.68	-	-	92	189	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
AV = Peak reading + Duty Cycle Correction Factor (KDB558074 Section 11, Question 3 (a))
Duty Cycle Correction Factor = -11.06 dB. (28%)

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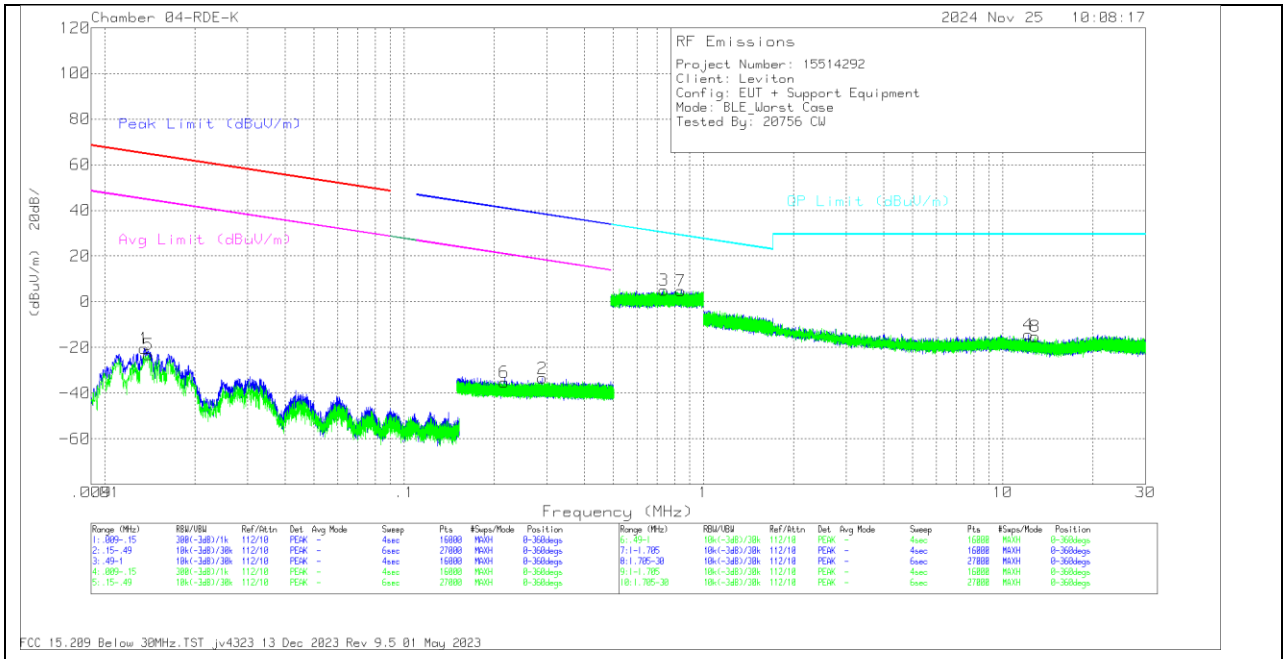
10.4. WORST CASE BELOW 30MHz –Model: ODSMT-MDx

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION)



ANTENNA- TWO ORIENTATIONS FACE ON/FACE OFF

Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB/m)	Dist Corr 300m (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Antenna orientation
1	.0136	30.14	Pk	59.9	-30.5	-80	-20.46	64.94	-85.4	44.94	-65.4	-	-	-	-	0-360	Face on
5	.014	27.53	Pk	59.9	-30.6	-80	-23.17	64.67	-87.84	44.67	-67.84	-	-	-	-	0-360	Face off
2	.2903	22.2	Pk	56.2	-31.9	-80	-33.5	-	-	-	-	38.35	-71.85	18.35	-51.85	0-360	Face on
6	.2159	20.68	Pk	56.3	-32.3	-80	-35.32	-	-	-	-	40.93	-76.25	20.93	-56.25	0-360	Face off

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr 30m 40Log(dB)	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Antenna orientation
3	.7396	20.52	Pk	56.4	-31.9	-40	5.02	30.23	-25.21	0-360	Face on
7	.84	20.24	Pk	56.5	-31.9	-40	4.84	29.13	-24.29	0-360	Face off
4	12.1955	22.89	Pk	34.6	-31.8	-40	-14.31	29.5	-43.81	0-360	Face on
8	12.8641	21.93	Pk	34.4	-31.6	-40	-15.27	29.5	-44.77	0-360	Face off

Pk - Peak detector

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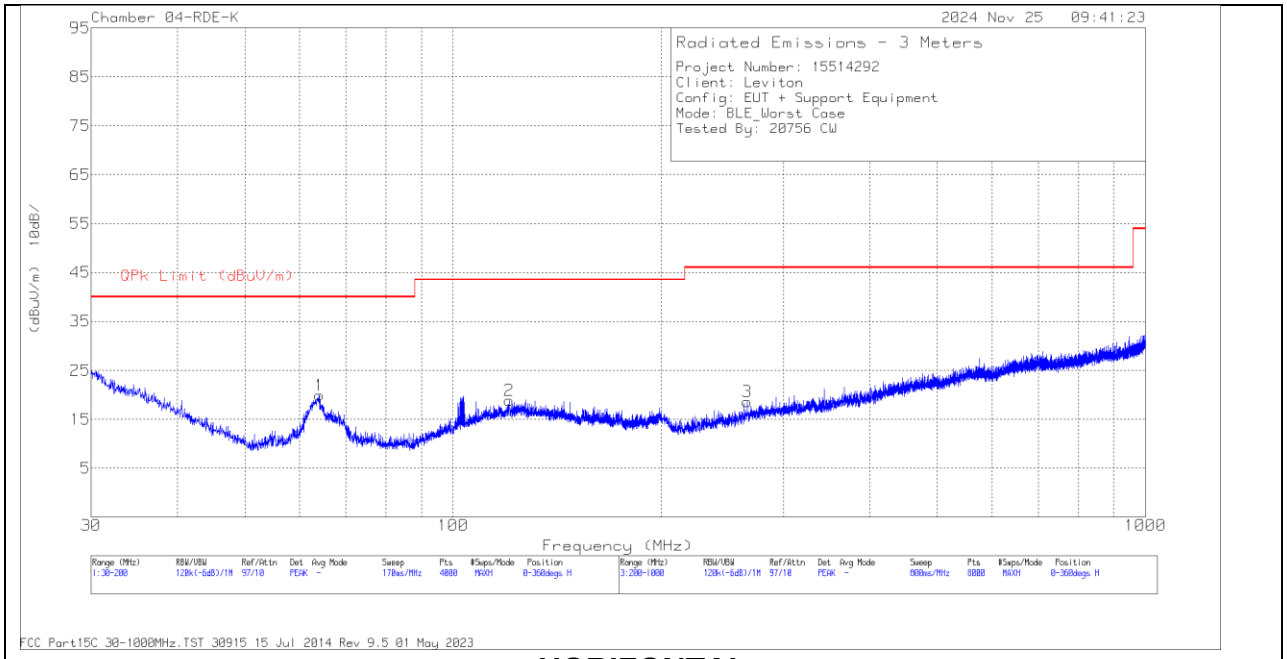
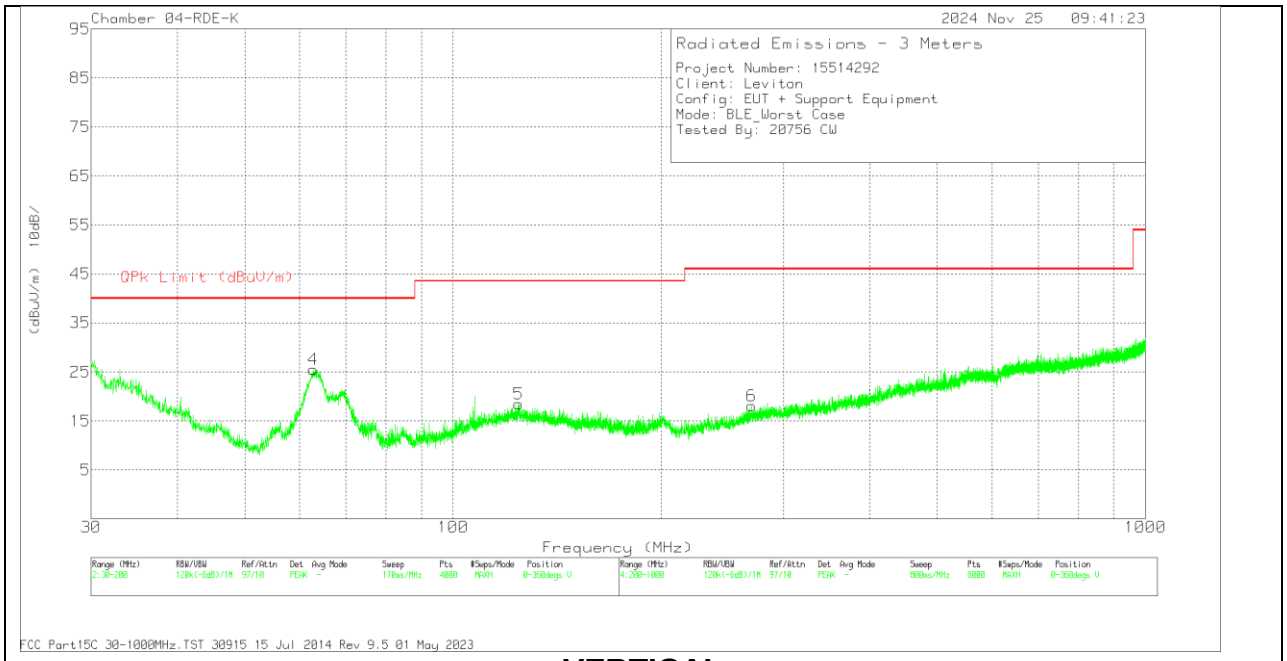
10.5. WORST CASE BELOW 1 GHz –Model: ODSMT-MDx

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)



HORIZONTAL



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Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	203089 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 120.591	29.32	Pk	19.9	-30.4	18.82	43.52	-24.7	0-360	399	H
5	* 124.374	28.69	Pk	20	-30.2	18.49	43.52	-25.03	0-360	100	V
3	* 265.909	29.4	Pk	18.7	-29.5	18.6	46.02	-27.42	0-360	100	H
6	* 270.009	28.65	Pk	18.9	-29.5	18.05	46.02	-27.97	0-360	299	V
4	62.9301	42.55	Pk	13.7	-31	25.25	40	-14.75	193	138	V
	62.9301	38.11	Qp	13.7	-31	20.81	40	-19.19	193	138	V
1	64.0938	36.94	Pk	13.8	-30.8	19.94	40	-20.06	0-360	299	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
Qp - Quasi-Peak detector

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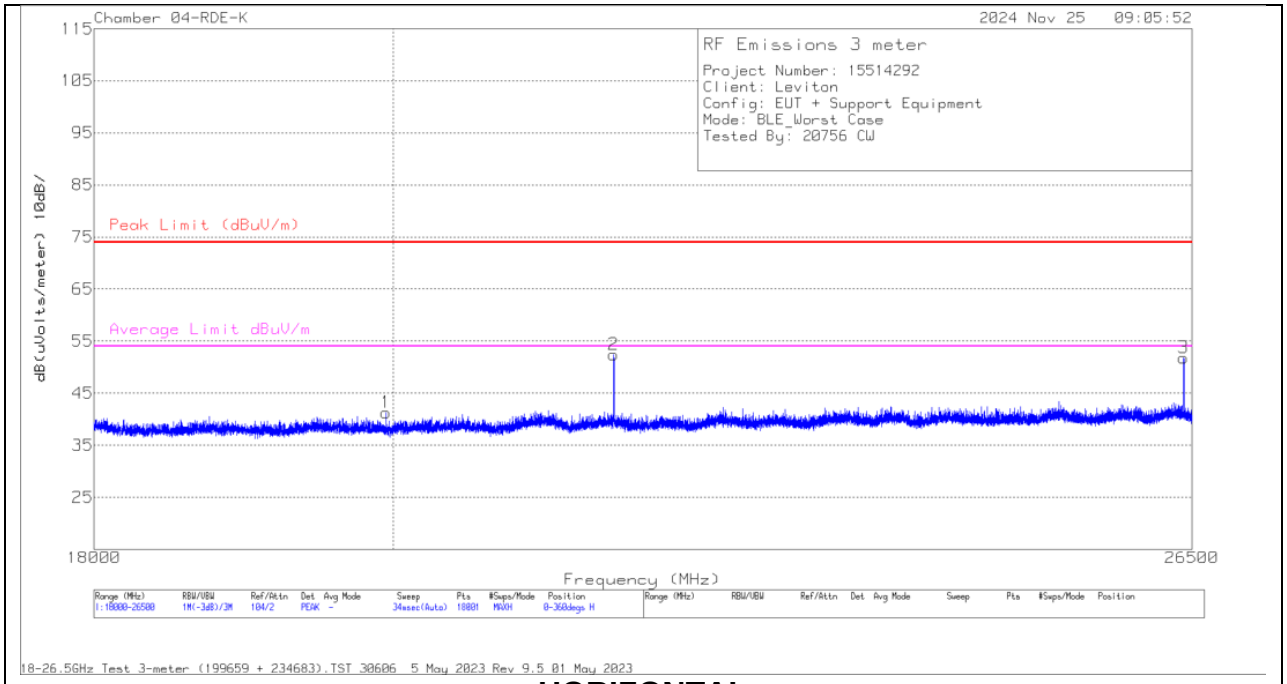
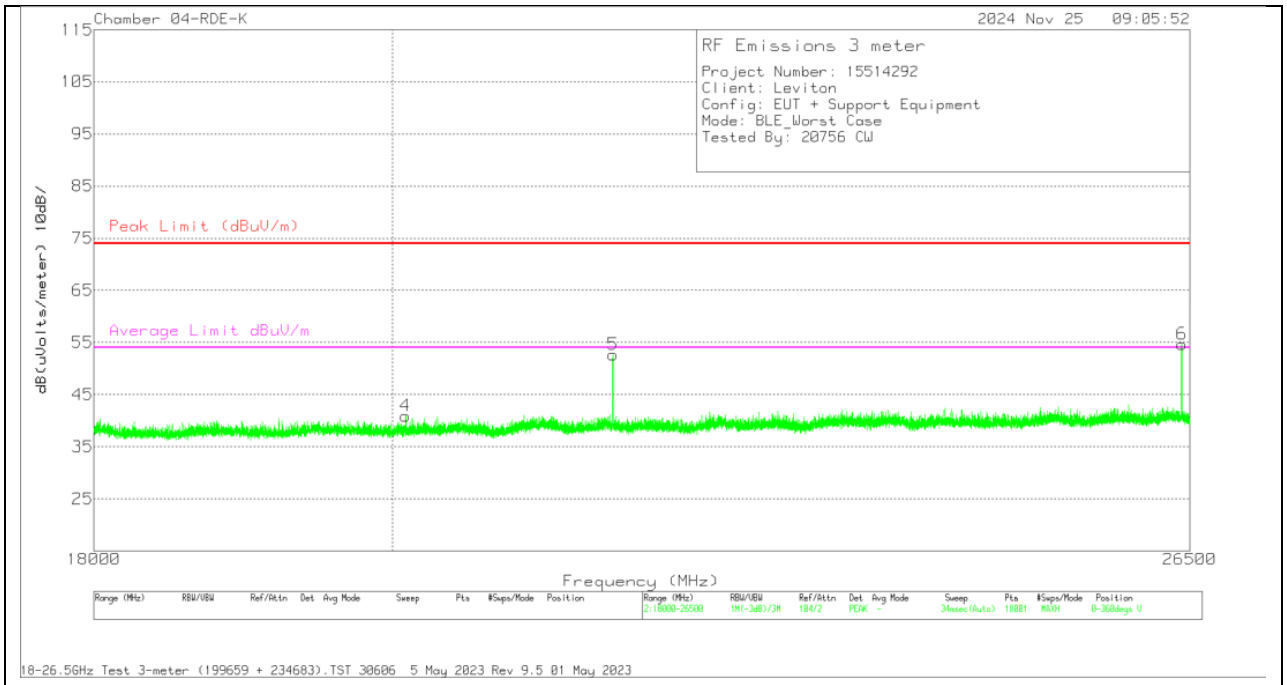
10.6. WORST CASE 18-26 GHz –Model: ODSMT-MDx

SPURIOUS EMISSIONS 18-26 GHz (WORST-CASE CONFIGURATION)



HORIZONTAL



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18 – 26GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Horn ACF (dB/m)	Amp/Cbl (dB)	Cable (dB)	Corrected Reading (dBuVolts/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 19950.277	51.58	Pk	32.7	-62	19	41.28	74	-32.72	0-360	200	H
4	* 20094.305	51.02	Pk	32.7	-61.9	19.1	40.92	74	-33.08	0-360	200	V
2	21615.804	61.41	Pk	33.1	-61.8	19.7	52.41	74	-21.59	0-360	200	H
5	21620.054	61.66	Pk	33.1	-61.8	19.7	52.66	74	-21.34	0-360	101	V
3	26419.246	56.96	Pk	34.5	-61.6	21.9	51.76	74	-22.24	0-360	101	H
6	26424.913	59.89	Pk	34.5	-61.6	21.9	54.69	74	-19.31	0-360	101	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector

NOTE: According to ANSI C63.10 Section 6.6.4.3 NOTE 1— Where limits are specified by regulations for both average and peak detection, if the maximized peak measured value complies with the average limit, then it is unnecessary to perform an average measurement.

Marker 1, 4 are noise floor only.

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11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dBµV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

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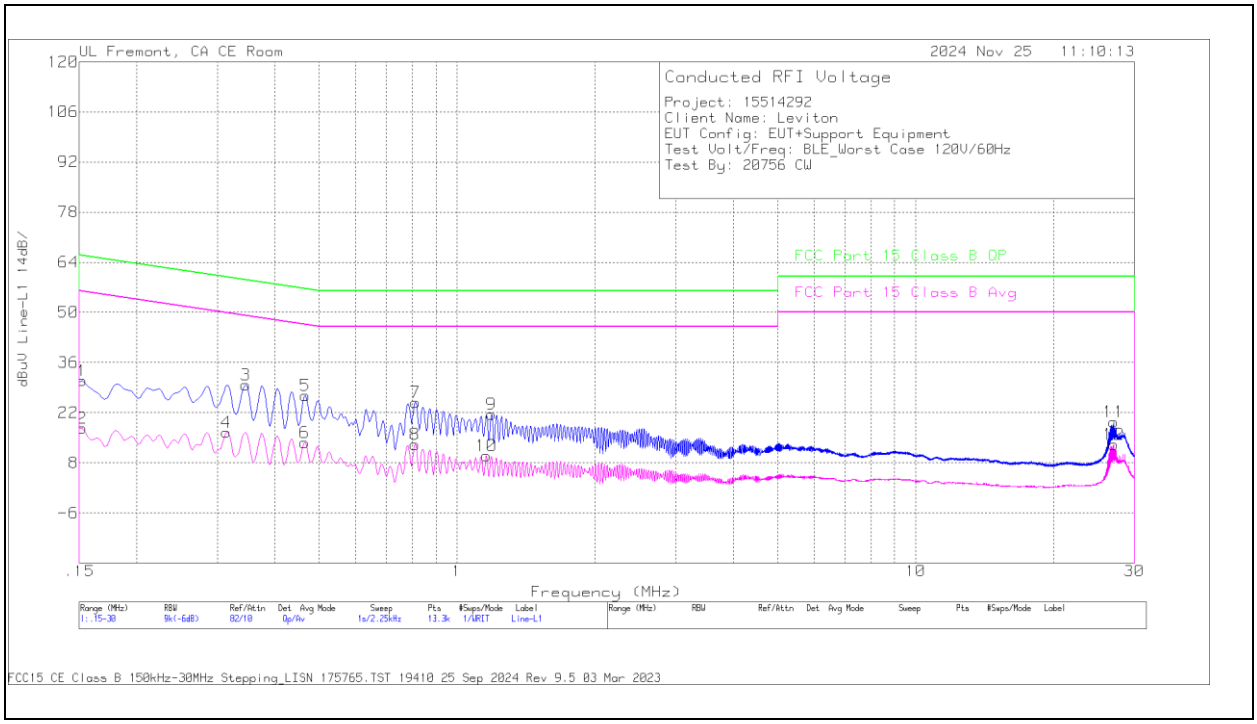
LINE 1 RESULTS



Trace Markers

Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 1 C3_C1_Limiter no Pad_UL (dB)	Corrected Reading dBuV	FCC Part 15C Limit QP (dBuV)	QP Margin (dB)	FCC Part 15C Avg Limit (dBuV)	Av Margin (dB)
2	.1523	8.11	Av	.1	9.4	17.61	-	-	55.88	-38.27
4	.3143	7.12	Av	0	9.4	16.52	-	-	49.86	-33.34
6	.465	4.38	Av	0	9.3	13.68	-	-	46.6	-32.92
8	.8104	3.71	Av	0	9.4	13.11	-	-	46	-32.89
10	1.158	.62	Av	0	9.4	10.02	-	-	46	-35.98
12	27.024	3.33	Av	.2	9.6	13.13	-	-	50	-36.87
1	.1523	21.4	Qp	.1	9.4	30.9	65.88	-34.98	-	-
3	.3458	20.36	Qp	0	9.4	29.76	59.06	-29.3	-	-
5	.4673	17.34	Qp	0	9.4	26.74	56.56	-29.82	-	-
7	.8115	15.51	Qp	0	9.4	24.91	56	-31.09	-	-
9	1.1895	12.17	Qp	0	9.4	21.57	56	-34.43	-	-
11	27.024	9.64	Qp	.2	9.6	19.44	60	-40.56	-	-

Qp - Quasi-Peak detector
Av - Average detection

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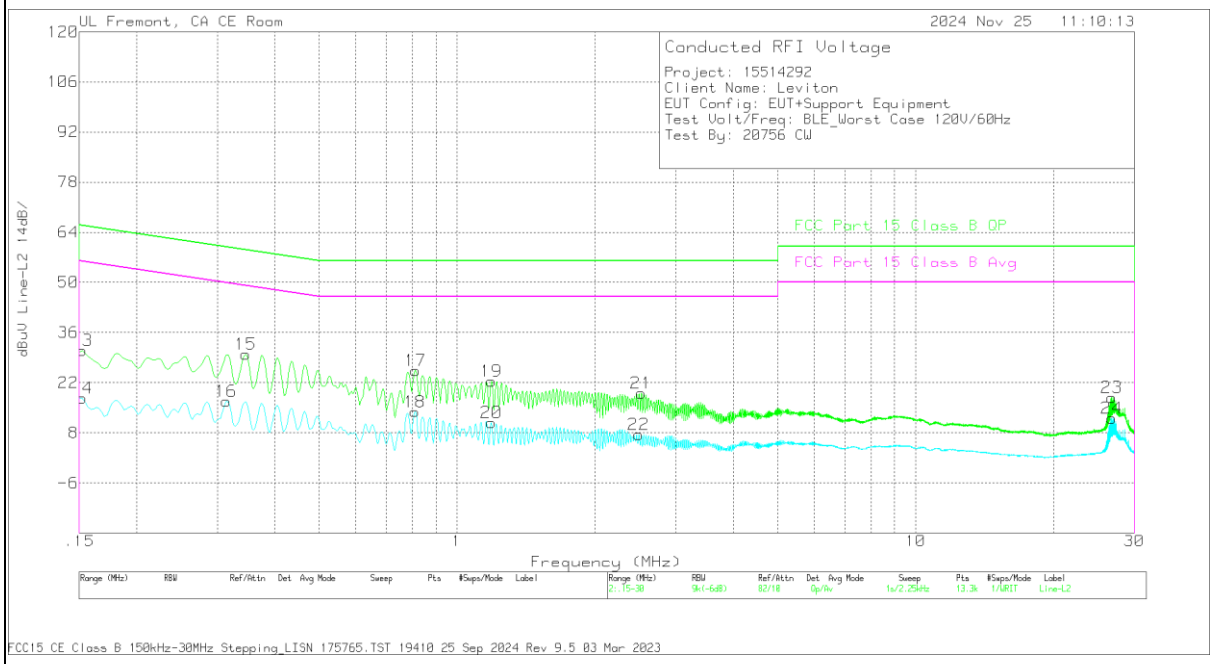
LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 1 C3_C1_Limiter no Pad_UL (dB)	Corrected Reading dBuV	FCC Part 15C Limit QP (dBuV)	QP Margin (dB)	FCC Part 15C Avg Limit (dBuV)	Av Margin (dB)
14	.1523	8.14	Av	.1	9.4	17.64	-	-	55.88	-38.24
16	.3143	7.43	Av	0	9.3	16.73	-	-	49.86	-33.13
18	.8093	4.59	Av	0	9.3	13.89	-	-	46	-32.11
20	1.1873	1.52	Av	0	9.3	10.82	-	-	46	-35.18
22	2.4923	-1.96	Av	0	9.4	7.44	-	-	46	-38.56
24	26.7698	2.27	Av	.2	9.6	12.07	-	-	50	-37.93
13	.1523	21.42	Qp	.1	9.4	30.92	65.88	-34.96	-	-
15	.3458	20.64	Qp	0	9.3	29.94	59.06	-29.12	-	-
17	.8115	16.08	Qp	0	9.3	25.38	56	-30.62	-	-
19	1.1895	13.11	Qp	0	9.3	22.41	56	-33.59	-	-
21	2.5238	9.72	Qp	0	9.4	19.12	56	-36.88	-	-
23	26.7698	8.04	Qp	.2	9.6	17.84	60	-42.16	-	-

Qp - Quasi-Peak detector
Av - Average detection

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12. SETUP PHOTOS

Please refer to 15514292-EP1 for setup photos

END OF TEST REPORT

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