

TEST REPORT

Report Number: 16215648-E1V3

Applicant (USA) : JUUL Labs, Inc
605 20th Street
San Francisco, CA 94107, USA

Model : JST002

Brand : JUUL

FCC ID : 2ASULS2

EUT Description : Electronic Nicotine Delivery System

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C

Date Of Issue:
2026-07-08

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538 U.S.A.
TEL: (510) 319-4000
FAX: (510) 661-0888



REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2026-04-02	Initial Issue	---
V2	2026-06-18	Updated Section 6.6, 8.3, 8.4 and 9.1.3 to address TCB's question.	Tina Chu
V3	2026-07-08	Updated Section 3 and 6.3 antenna peak gain	Tina Chu

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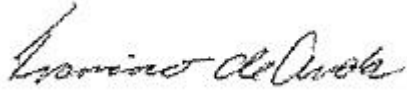
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1. ATTESTATION OF TEST RESULTS

Applicant Name and Address (USA)	JUUL Labs, Inc 605 20th Street San Francisco, CA 94107, USA
Model	JST002
Brand	JUUL
FCC ID	2ASULS2
EUT Description	Electronic Nicotine Delivery System
Serial Number	SD4DVF100874 (Conducted) ;SD4DVF200035(Radiated)
Sample Receipt Date	2025-10-14
Date Tested	2026-03-16 to 2026-03-25
Applicable Standards	FCC 47 CFR Part 15 Subpart C
Test Results	COMPLIES
UL Verification Services Inc. tested the above equipment in accordance with the requirements of the standards cited. 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 ensure 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.	

Approved & Released For
UL Verification Services Inc. By:



Francisco de Anda
Staff Engineer
Consumer Technology Division
UL Verification Services Inc.

Prepared By:



Zachary D. Sutton
Laboratory Engineer
Consumer Technology Division
UL Verification Services Inc.

Reviewed By:



Vien Tran
Senior Laboratory Engineer
Consumer Technology Division
UL Verification Services Inc.

2. TEST RESULTS SUMMARY

This report contains data provided by the customer, which can impact the validity of the 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)

Requirement Description	Requirement Clause Number (FCC)	Result
Duty Cycle	-	Reporting purposes only
99% OBW	-	Complies
6dB BW	15.247 (a) (2)	Complies
Output Power	15.247 (b) (3)	Complies
PSD	15.247 (e)	Complies
Conducted Spurious Emissions	15.247 (d)	Complies
Radiated Emissions	15.209, 15.205	Complies
AC Mains Conducted Emissions	15.207	Complies

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with;

- ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+ Errata to C63.10a-2024
- FCC 47 CFR Part 2
- FCC 47 CFR Part 15Cs
- KDB 558074 D01 15.247 Meas Guidance
- KDB 414788 D01 Radiated Test Site

4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, certification #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 3: 843 Auburn Court, Fremont, CA 94538 USA			
☒	Building 4: 47658 Kato Rd, Fremont, CA 94538 USA			
☐	Building 5: 47670 Kato Rd, Fremont, CA 94538 USA			

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 regularly, with a maximum time between calibrations of one year or the manufacturer's recommendation, whichever is less, and, where applicable, are 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}
Conducted Antenna Port Emission Measurement	1.94 dB
Power Spectral Density	2.466 dB
Time Domain Measurements Using SA	3.39 %
RF Power Measurement Direct Method Using a Power Meter	0.45 dB (Ave), 1.30 dB Peak)
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.22 %
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

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

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

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is an Electronic Nicotine Delivery System.

6.2. MAXIMUM OUTPUT POWER

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

BLE Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402 - 2480	1Mbps	5.75	3.76

6.3. DESCRIPTION OF AVAILABLE ANTENNAS AND CABLE LOSS

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

The radio utilizes a Microstrip antenna with a maximum gain of -9.6 dBi and 0.1 dB cable loss.

The cables were used for RF antenna port tests that had been offset to the test equipment during testing.

6.4. SOFTWARE AND FIRMWARE

The EUT firmware and software installed during testing were version 2.8.5_11729618

6.5. WORST-CASE CONFIGURATION AND MODE

Radiated emissions below 1GHz, above 18GHz, were performed with the EUT set to transmit at the channel with the highest output power as a worst-case scenario.

Band edge and radiated emissions between 1GHz and 18GHz were performed with the EUT set to transmit at the highest power on low, middle, and high channels.

EUT was investigated in three orthogonal orientations: X (Flatbed), Y (Landscape), and Z (Portrait). The Y (Landscape) is the worst-case orientation. Full tests on the EUT were made on Y (Landscape), orientation.

The worst configuration set for all radiated tests is with the EUT powered by an AC/DC adapter via USB-C cable.

Data rate provided by the client was BLE mode, 1Mbps.

NOTE:

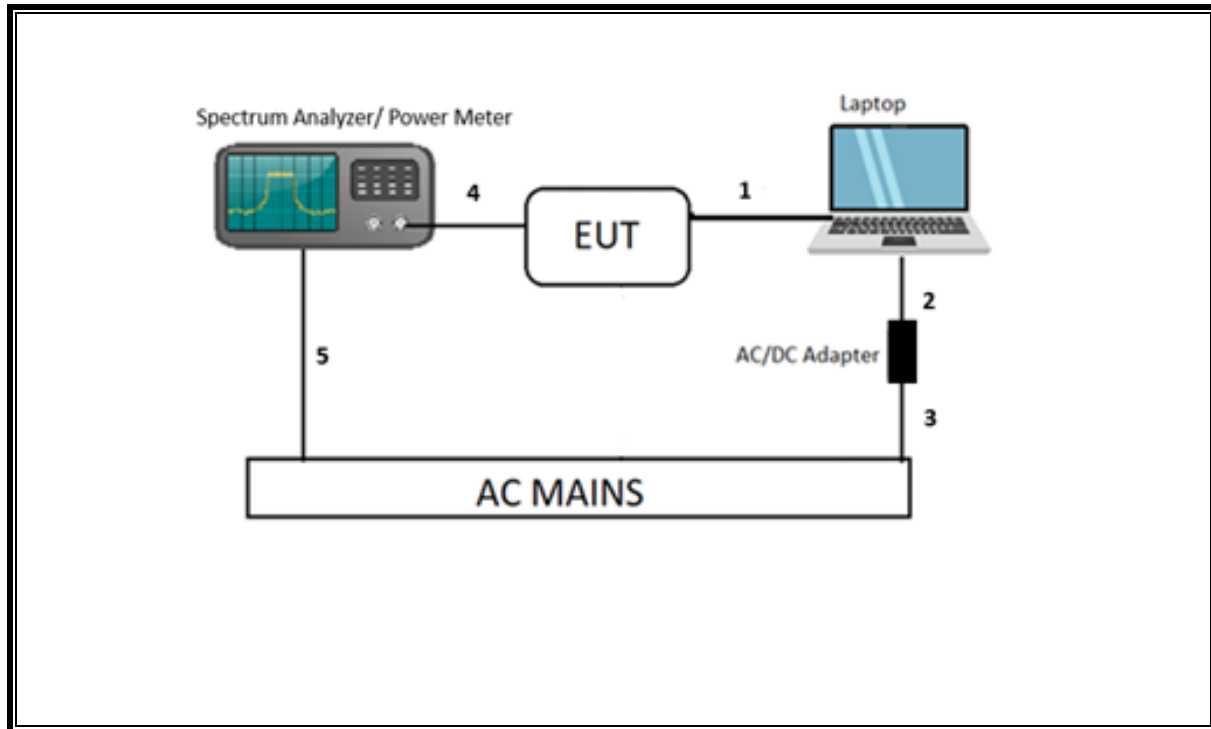
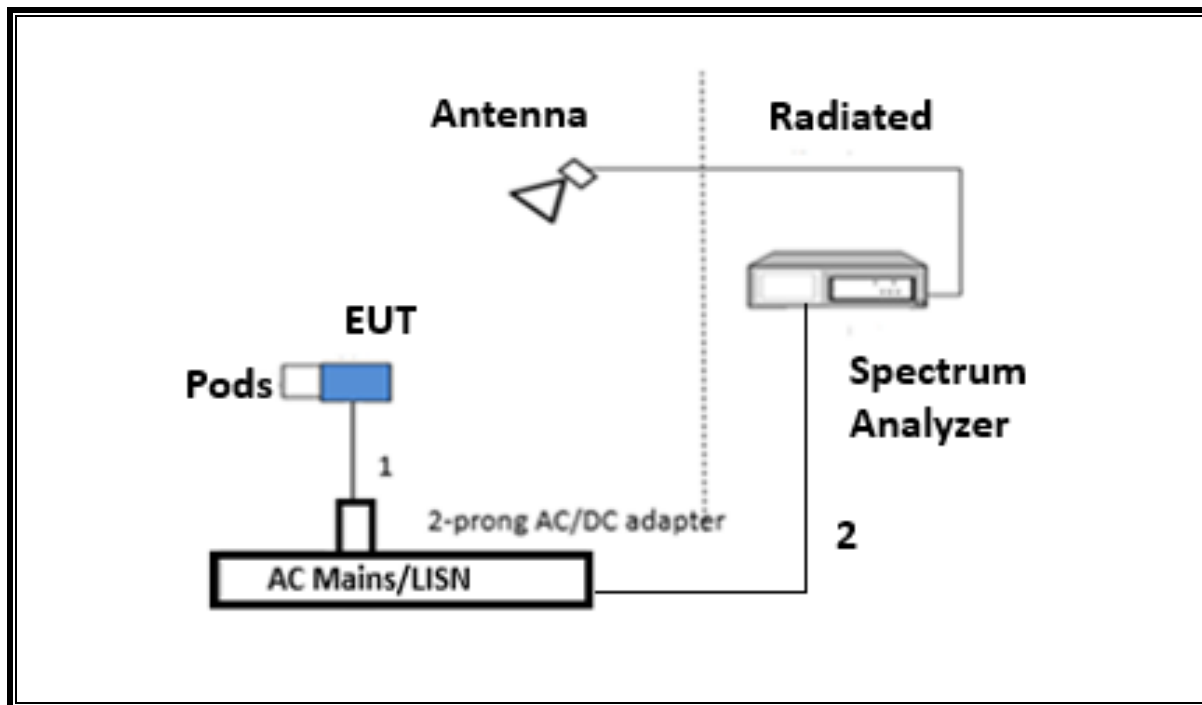
Plots included in the report are representative of the method and settings parameters used for the test.

6.6. DESCRIPTION OF TEST SETUP

SUPPORT TEST EQUIPMENT						
Description		Manufacturer	Model	Serial Number		FCC ID/ DoC
Laptop		DELL	Latitude 7520	00330800000000AA518		DoC
Laptop AC/DC adapter		Lenovo	ADLX65NCC2A	11S36200284ZZ10046BP9N		DoC
USB-C cable		JUUL Labs	P/N:115-00019	N/A		DoC
PODS		JUUL Labs	N/A	N/A		DoC
AC/DC Adapter		Apple	A2305	F16124652QWPM06B9		DoC
I/O CABLES (RF CONDUCTED TEST)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB-C	1	USB-C	Un-Shielded	0.3	Laptop to EUT
2	DC	1	DC	Shielded	1.0	AC/DC Adapter to Laptop
3	AC	1	AC	Un-Shielded	1.0	AC Mains to AC/DC Adapter
4	Antenna	1	SMA	Shielded	0.3	EUT to Spectrum Analyzer
5	AC	1	3-prong	Un-Shielded	1.8	AC Mains to Spectrum Analyzer
I/O CABLES (AC POWER LINE & RF RADIATED TEST)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB-C	1	USB-C	Un-Shielded	0.3	AC/DC adapter to EUT
2	AC	1	3-prong	Un-Shielded	1.8	AC Mains to Spectrum Analyzer

TEST SETUP

The EUT setup is shown below. Test software exercised the radio card.

SETUP DIAGRAM FOR CONDUCTED TESTS**SETUP DIAGRAM FOR RADIATED/AC POWER LINE TESTS**

7. 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
Antenna, Horn 18 to 26.5GHz	A.R.A.	MWH-1826/B	172354	2027-05-31
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	206808	2027-04-31
Amplifier, 18 to 26.5GHz, +5VDC, -54dBm P1dB	AMPLICAL	AMP18G26.5-60	2221832	2026-05-07
EMI Test Receiver	Rohde & Schwarz	ESW44	225268	2027-02-29
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	80707	2026-06-30
RF Filter Box, 1-18GHz	UL-FR1	RATS 1.0, 2 Amp, 6 Port	171875	2026-03-31
Antenna, Passive Loop 100kHz to 30MHz	ELECTRO-METRICS	EM-6872	219910	2026-08-31
Antenna, Passive Loop 30Hz - 1MHz	ELECTRO-METRICS	EM-6871	219908	2026-08-31
Antenna, Broadband Hybrid, 30MHz to 3GHz	Sunol Sciences Corp.	JB3	202329	2027-04-30
Link File, 9KHz-1GHz Port 0 Factors	UL-FR1	Port 0 Factors	213877	2027-03-31
EMI TEST RECEIVER, with B8 option	Rohde & Schwarz	ESW44	245268	2027-02-28
10dB Fixed Attenuator	Pasternack Enterprises	PE7087-10	252765	Verified
P-Series Power Meter	Keysight Technologies Inc	N1912A-CFG003	259286	2026-03-31
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	257703	2026-03-31
Spectrum Analyzer, PXA, 3Hz to 44GHz	N9030A	Keysight Technologies Inc	80396	2027-01-31
Band Reject Filter 2400-2500MHz	Micro-Tronics	BRM50702-02	224193	2026-11-30
EMI Test Receiver	Rohde & Schwarz	ESR7	276634	2026-11-30
LISN	Solar Electronics Company	Type 21847-50-TS-100-N	175765	2027-01-31
LISN	Solar Electronics Company	Type 21847-50-TS-100-N	175763	2027-01-31

AUTOMATION SOFTWARE			
Radiated Software	UL	UL EMC	Ver 9.5, 25 Aug 2025
Conducted Software	UL	UL EMC	2024-02-23
AC Line Conducted Software	UL	UL EMC	Ver 9.5, May 1, 2023

8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

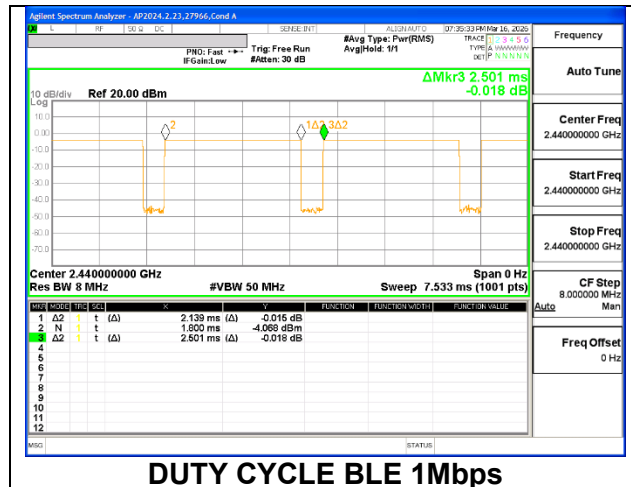
TEST PROCEDURE

ANSI C63.10, Subclause 11.6.

ON TIME AND DUTY CYCLE RESULTS

Worst-Case Mode	ON Time T (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
BLE 1Mbps	2.139	2.501	0.855	85.53	0.68	0.468

DUTY CYCLE PLOTS



8.2. 99% BANDWIDTH LIMITS

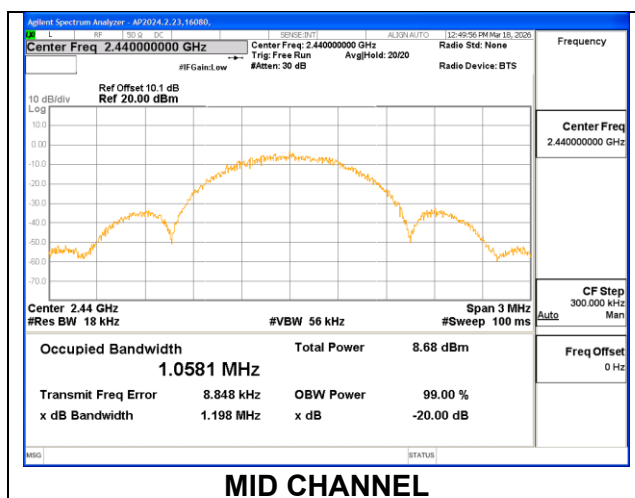
None; for reporting purposes only.

TEST PROCEDURE

ANSI C63.10, Subclause - 6.9.3

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0567
Middle	2440	1.0581
High	2480	1.0580



MID CHANNEL

8.3. 6dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

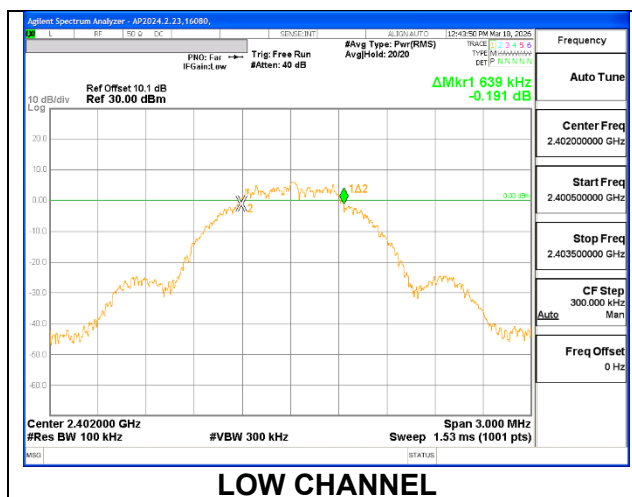
The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

ANSI C63.10 Subclause - 11.8.1 Option 1

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.639	0.5
Middle	2440	0.666	0.5
High	2480	0.696	0.5



8.4. OUTPUT POWER AND POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (b) (3) & (e)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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.

TEST PROCEDURE

Conducted Output Power:

ANSI C63.10 Subclause - 11.9.1.2 Method PKPM1 (Peak-reading power meter)

ANSI C63.10 Subclause - 11.9.2.3.2 Method AVGPM G (Measurement using an RF average-reading power meter)

Power Spectral Density: ANSI C63.10 Subclause - 11.10.2 Method PKPSD (peak PSD)

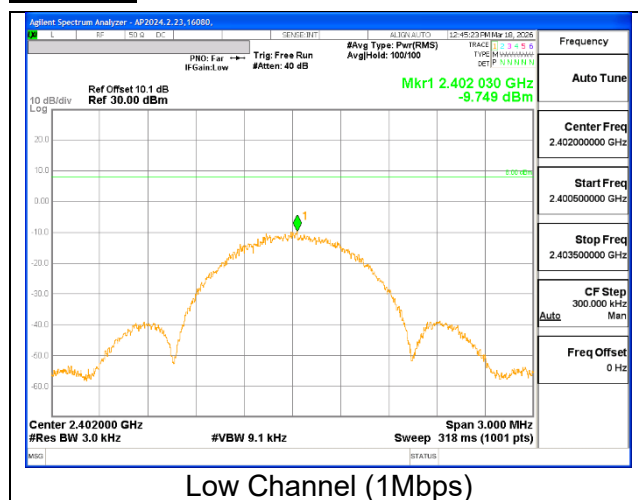
DIRECTIONAL ANTENNA GAIN

There is only one transmitter output; therefore, the directional gain is equal to the antenna gain.

RESULTS

Mode	No. of Tx	Channel	Freq (MHz)	Measured Conducted Avg Power (dBm)	Measured Conducted Peak Power (dBm)	Output Power Limit (dBm)	Output Power Margin (dB)	Measured PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	PSD Margin (dB)
BLE 1Mbps	1Tx	0	2402	5.68	5.75	30.00	-24.25	-9.749	8.00	-17.75
		19	2440	5.59	5.67	30.00	-24.33	-9.794	8.00	-17.79
		39	2480	5.48	5.56	30.00	-24.44	-9.881	8.00	-17.88

PSD Plots



8.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

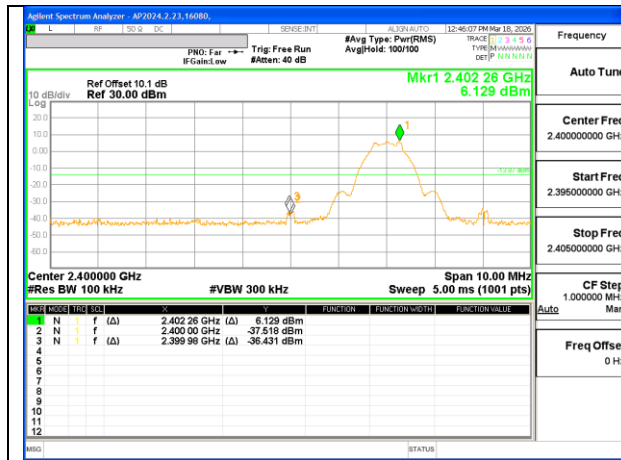
Output power was measured based on the use of the Peak measurement; therefore, the required attenuation is -20 dBc.

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

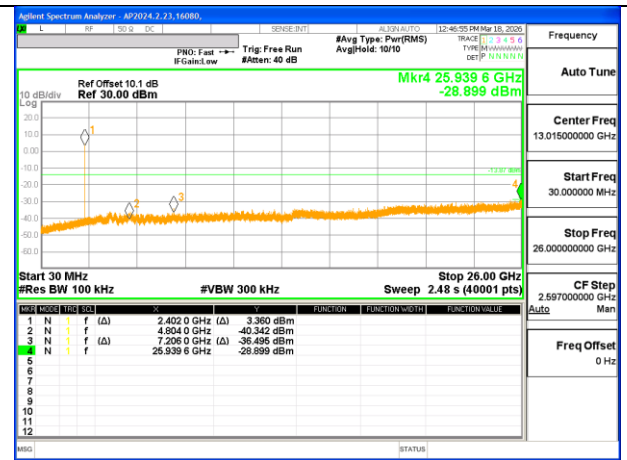
TEST PROCEDURE

ANSI C63.10 Subclause - 11.11

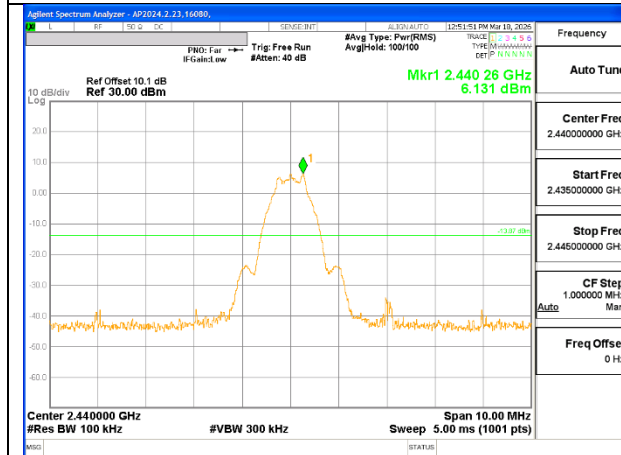
RESULTS



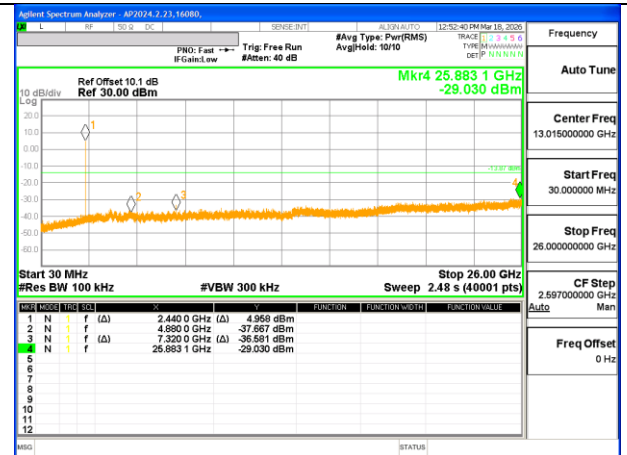
LOW CHANNEL BANDEDGE



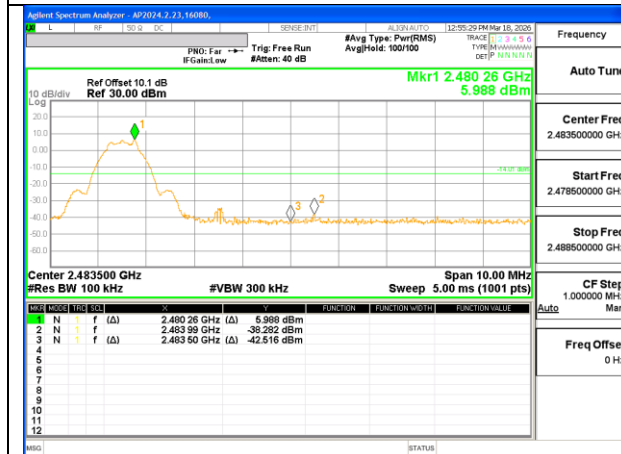
OUT-OF-BAND LOW CHANNEL



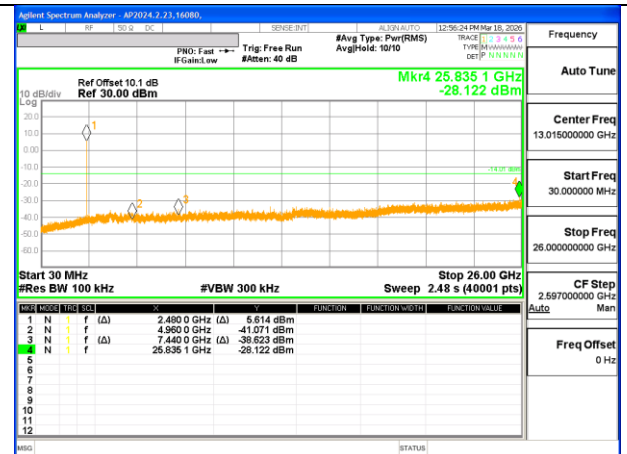
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL BANDEDGE



OUT-OF-BAND HIGH CHANNEL

9. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209

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

Radiated emissions in non-restricted frequency bands	ANSI C63.10 Subclause -11.11
Radiated emissions restricted frequency bands	ANSI C63.10 Subclause -11.12.1
Band-edge	ANSI C63.10 Subclause -11.12.2.4: Peak Measurement
Band-edge	ANSI C63.10 Subclause -11.12.2.5: Average Measurement
Radiated Spurious Emissions Below 30MHz	ANSI C63.10 Subclause 6.

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 1 GHz, the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as a quasi-peak.

For pre-scans from 1 GHz to 18 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.

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, an investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel). Parallel and perpendicular are the worst orientations; testing was performed on these two orientations only. Blue color trace on plots: Parallel orientation. Green color trace on plots: Perpendicular orientation.

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 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 the 15.209(a) limit.

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

Based 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.

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

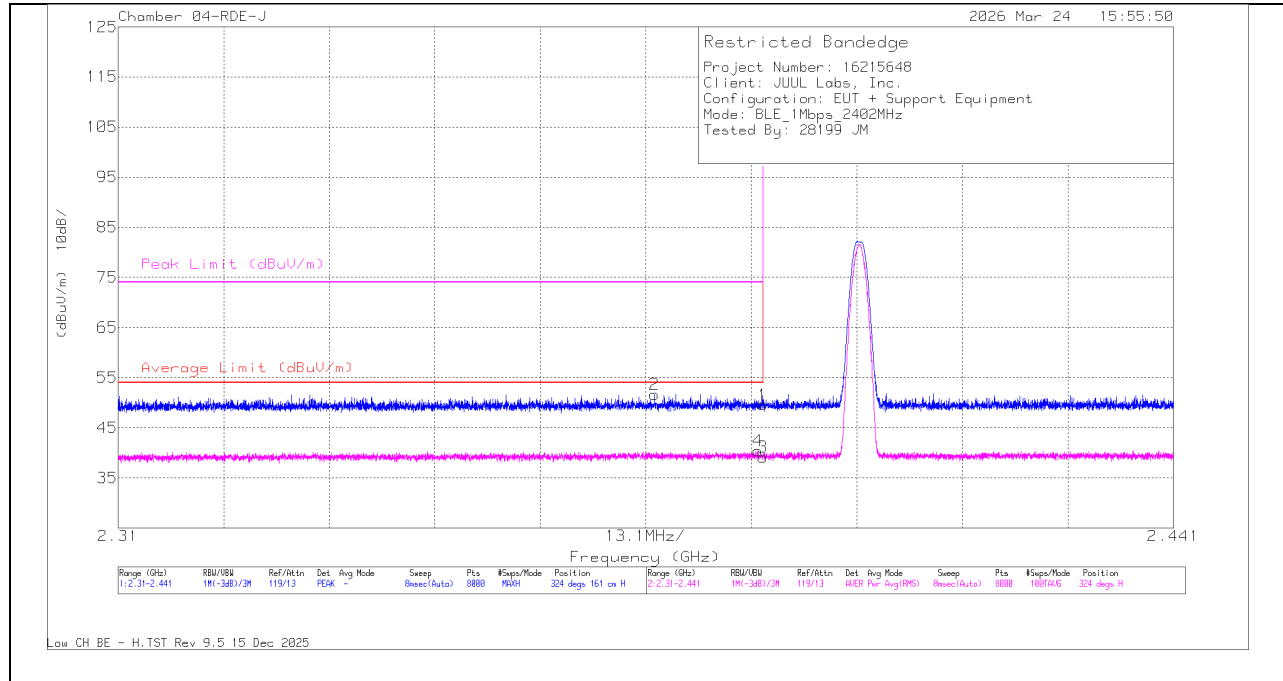
RESULTS

9.1. TRANSMITTER ABOVE 1 GHz

9.1.1. LOW BANDEGE

BANDEGE (LOW CHANNEL), 1Mbps

HORIZONTAL RESULT



Trace Markers

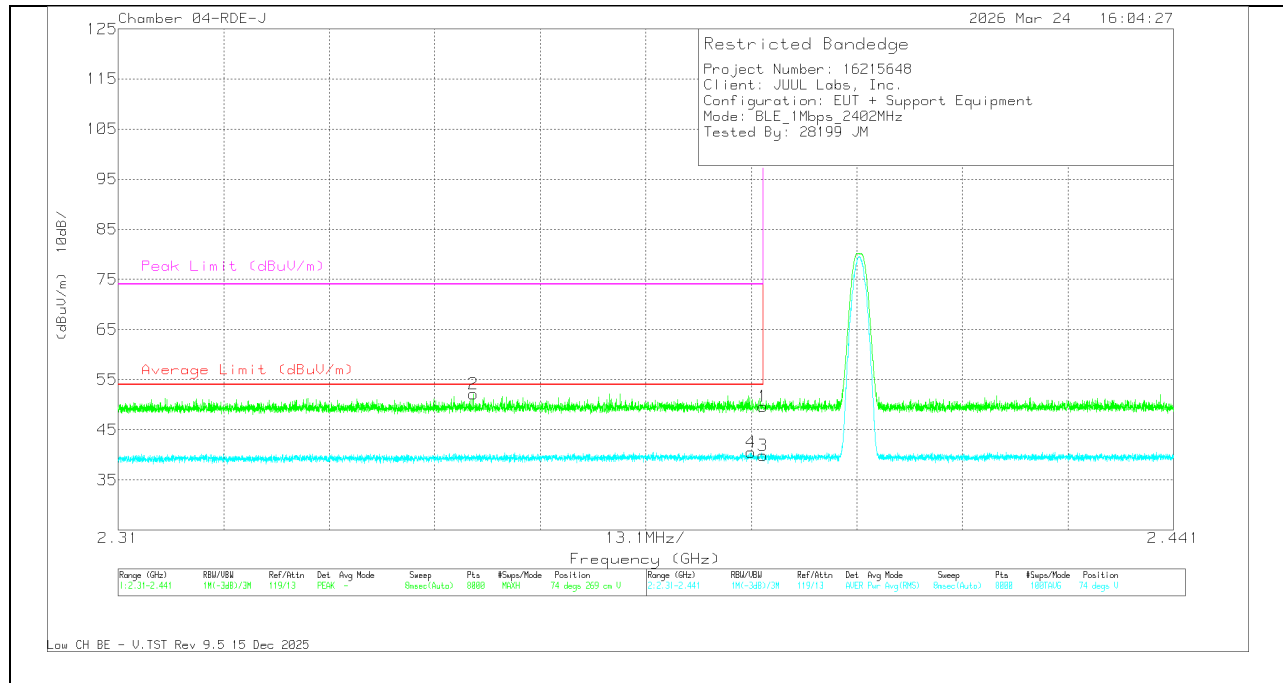
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206808 ACF (dB/m)	Amp/Cbl/Pad (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	53.89	Pk	32.2	-36.5	0	49.59	-	-	74	-24.41	324	161	H
2	* 2.376573	56	Pk	32.2	-36.5	0	51.7	-	-	74	-22.3	324	161	H
3	* 2.39	42.78	RMS	32.2	-36.5	.68	39.16	54	-14.84	-	-	324	161	H
4	* 2.389379	43.98	RMS	32.2	-36.5	.68	40.36	54	-13.64	-	-	324	161	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206808 ACF (dB/m)	Amp/Cbl/Pad (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	53.99	Pk	32.2	-36.5	0	49.69	-	-	74	-24.31	74	269	V
2	* 2.354071	56.67	Pk	32.1	-36.6	0	52.17	-	-	74	-21.83	74	269	V
3	* 2.39	43.53	RMS	32.2	-36.5	.68	39.91	54	-14.09	-	-	74	269	V
4	* 2.388593	44.13	RMS	32.2	-36.5	.68	40.51	54	-13.49	-	-	74	269	V

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

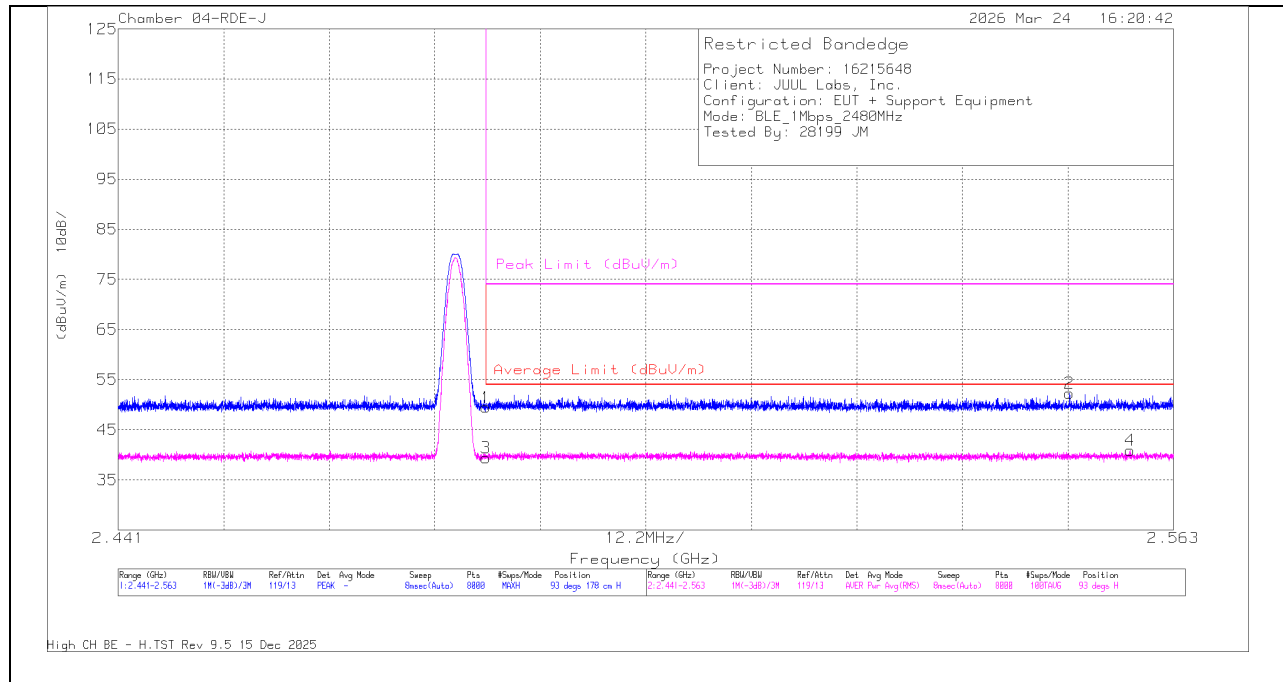
Pk - Peak detector

RMS - RMS detection

9.1.2. HIGH BANDEGE

BANDEGE (HIGH CHANNEL), 1Mbps

HORIZONTAL RESULT



Trace Markers

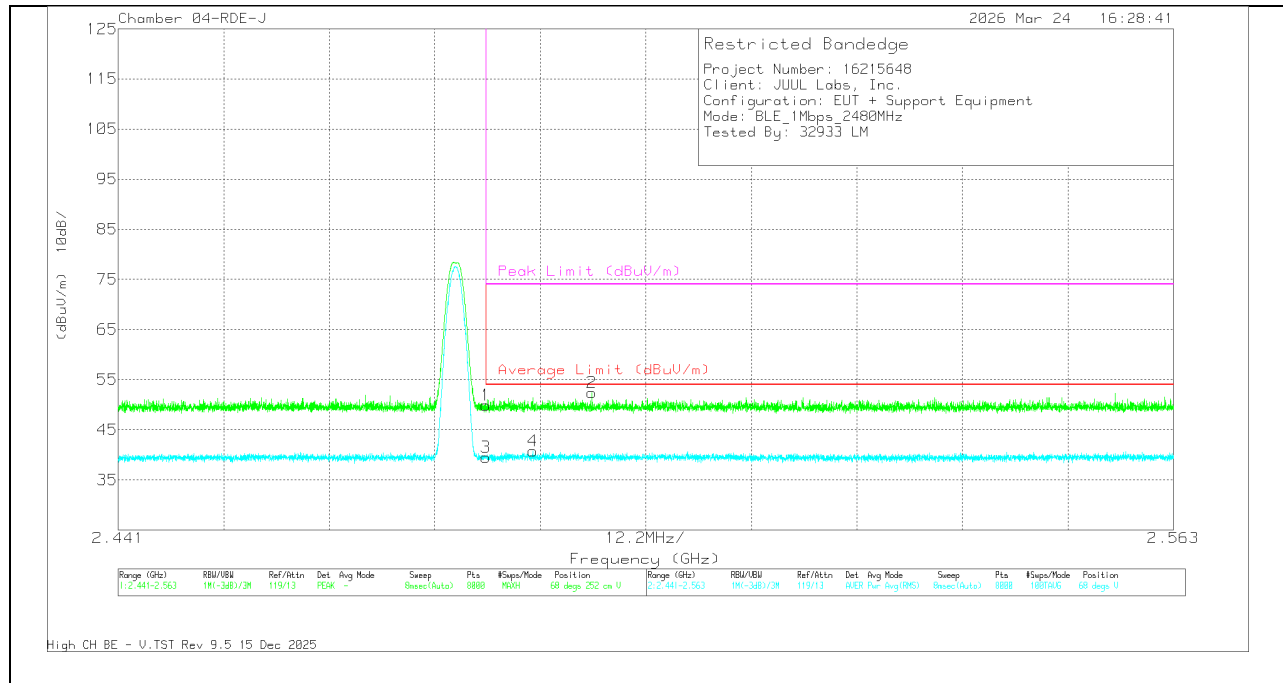
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206808 ACF (dB/m)	Amp/Cbl/Pad (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	53.46	Pk	32.4	-36.4	0	49.46	-	-	74	-24.54	93	178	H
2	2.550997	55.98	Pk	32.6	-36.3	0	52.28	-	-	74	-21.72	93	178	H
3	* 2.4835	42.71	RMS	32.4	-36.4	.68	39.39	54	-14.61	-	-	93	178	H
4	2.557983	43.89	RMS	32.6	-36.3	.68	40.87	54	-13.13	-	-	93	178	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206808 ACF (dB/m)	Amp/Cbl/Pad (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	53.94	Pk	32.4	-36.4	0	49.94	-	-	74	-24.06	68	252	V
2	* 2.49577	56.28	Pk	32.5	-36.4	0	52.38	-	-	74	-21.62	68	252	V
3	* 2.4835	42.85	RMS	32.4	-36.4	.68	39.53	54	-14.47	-	-	68	252	V
4	* 2.488922	43.85	RMS	32.5	-36.3	.68	40.73	54	-13.27	-	-	68	252	V

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

Pk - Peak detector

RMS - RMS detection

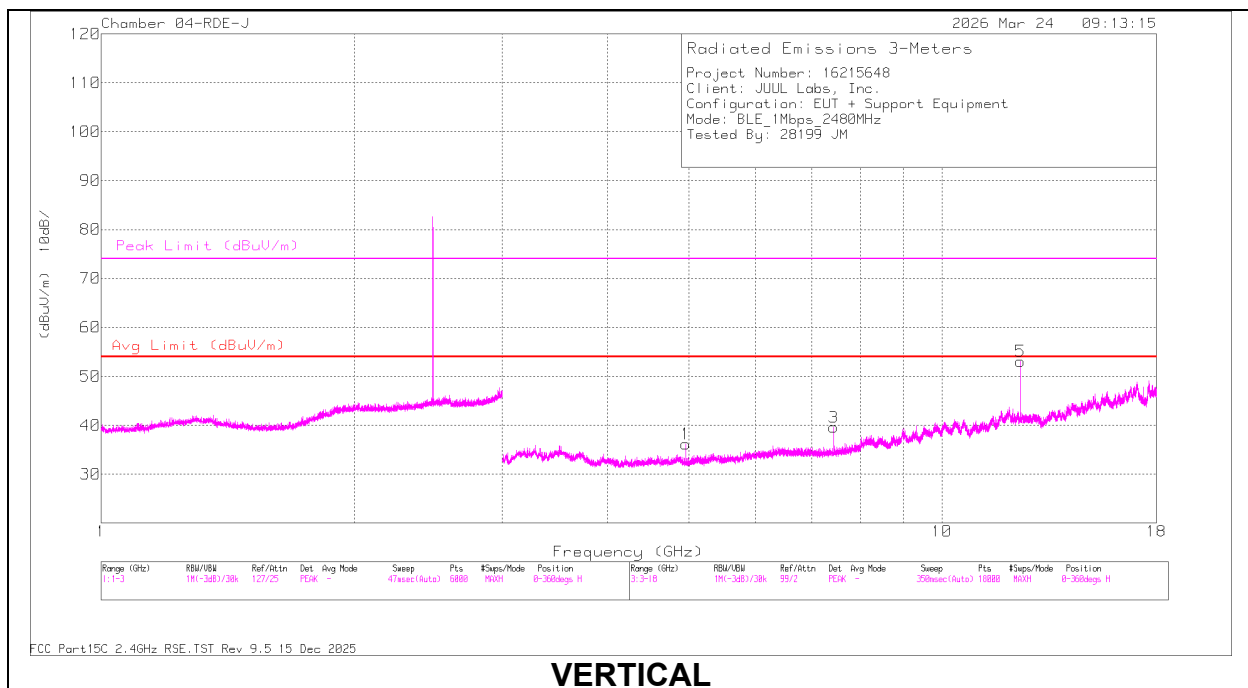
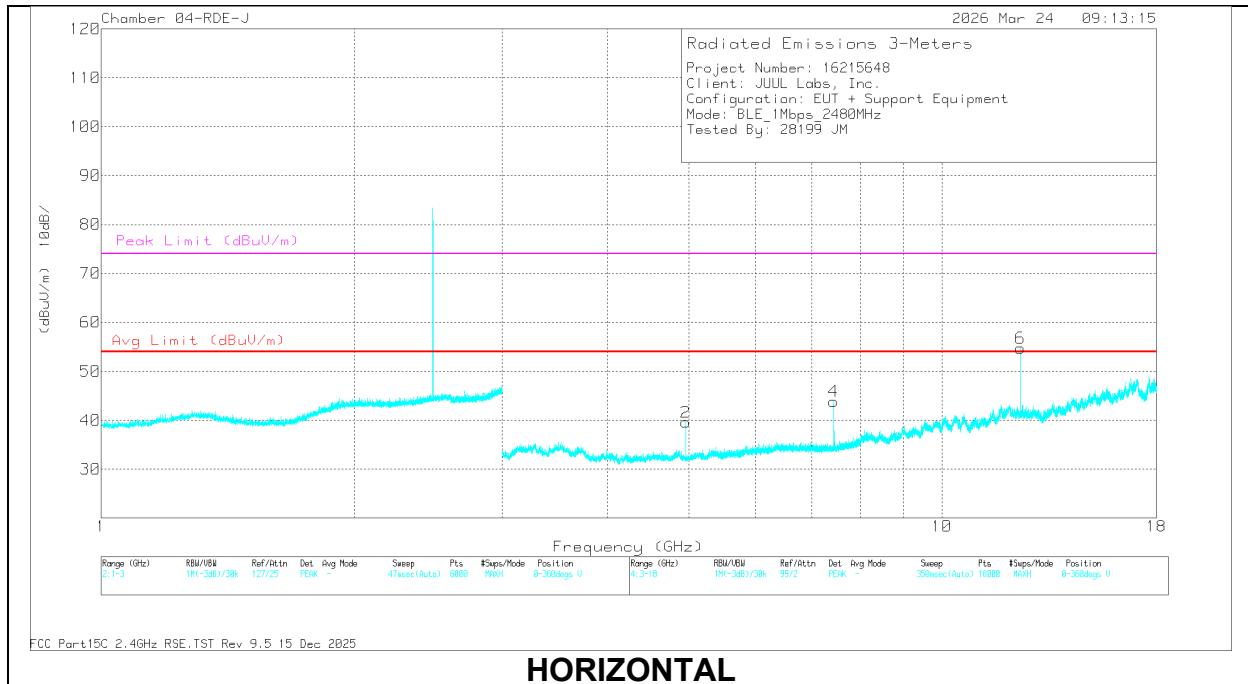
9.1.3. HARMONICS AND SPURIOUS EMISSIONS

2.4 GHz (SISO)	Channel Frequency (MHz)	Frequency (GHz)	Meter Reading (dBuV)	Det	ACF (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	DCCF (dB)	Correct Reading (dBuV/m)	Avg Limit (dBuV/m)	Avg Margin (dB)	Pk Limit (dBuV/m)	Pk Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1Mbps	2402	* 4.804135	58.34	PK2	34.3	-44.5	0	48.14	-	-	74	-25.86	10	108	H
		* 4.80425	50.71	MAv1	34.3	-44.5	0.68	41.19	54	-12.81	-	-	10	108	H
		* 4.804487	55.2	PK2	34.3	-44.5	0	45	-	-	74	-29	7	291	V
		* 4.803683	46.45	MAv1	34.3	-44.5	0.68	36.93	54	-17.07	-	-	7	291	V
		7.205319	53.78	PK2	35.5	-41.7	0	47.58	-	-	-	-	35	202	H
		7.205323	44.27	MAv1	35.5	-41.7	0.68	38.75	-	-	-	-	35	202	H
		7.206754	55.18	PK2	35.5	-41.7	0	48.98	-	-	-	-	343	103	V
		7.206518	46.83	MAv1	35.5	-41.7	0.68	41.31	-	-	-	-	343	103	V
		* 12.008867	56.45	PK2	39.8	-38.8	0	57.45	-	-	74	-16.55	332	112	H
		* 12.008684	48.78	MAv1	39.8	-38.8	0.68	50.46	54	-3.54	-	-	332	112	H
		* 12.011125	53.93	PK2	39.8	-38.7	0	55.03	-	-	74	-18.97	153	107	V
		* 12.010965	43.63	MAv1	39.8	-38.8	0.68	45.31	54	-8.69	-	-	153	107	V
	2440	* 4.879337	57.15	PK2	34.3	-43.9	0	47.55	-	-	74	-26.45	8	169	H
		* 4.880061	49.94	MAv1	34.3	-43.9	0.68	41.02	54	-12.98	-	-	8	169	H
		* 4.880409	55.03	PK2	34.3	-43.9	0	45.43	-	-	74	-28.57	350	181	V
		* 4.880066	46.01	MAv1	34.3	-43.9	0.68	37.09	54	-16.91	-	-	350	181	V
		* 7.320944	51.47	PK2	35.5	-41.6	0	45.37	-	-	74	-28.63	7	124	H
		* 7.31918	40.7	MAv1	35.5	-41.6	0.68	35.28	54	-18.72	-	-	7	124	H
		* 7.320655	55.35	PK2	35.5	-41.6	0	49.25	-	-	74	-24.75	339	104	V
		* 7.32046	47.85	MAv1	35.5	-41.6	0.68	42.43	54	-11.57	-	-	339	104	V
		* 12.198757	56.04	PK2	39.6	-38.7	0	56.94	-	-	74	-17.06	146	107	H
		* 12.198944	48.38	MAv1	39.6	-38.7	0.68	49.96	54	-4.04	-	-	146	107	H
		* 12.198666	56.45	PK2	39.6	-38.7	0	57.35	-	-	74	-16.65	329	103	V
		* 12.201142	48.37	MAv1	39.6	-38.8	0.68	49.85	54	-4.15	-	-	329	103	V
	2480	* 4.95991	55.75	PK2	34.2	-44.2	0	45.75	-	-	74	-28.25	4	394	H
		* 4.959839	46.86	MAv1	34.2	-44.2	0.68	37.54	54	-16.46	-	-	4	394	H
		* 4.960392	57.78	PK2	34.2	-44.2	0	47.78	-	-	74	-26.22	332	237	V
		* 4.95997	51.2	MAv1	34.2	-44.2	0.68	41.88	54	-12.12	-	-	332	237	V
		* 7.43919	53.15	PK2	35.5	-41.4	0	47.25	-	-	74	-26.75	129	187	H
		* 7.439363	43.87	MAv1	35.5	-41.4	0.68	38.65	54	-15.35	-	-	129	187	H
		* 7.440589	56.05	PK2	35.6	-41.4	0	50.25	-	-	74	-23.75	323	153	V
		* 7.44058	48.2	MAv1	35.6	-41.4	0.68	43.08	54	-10.92	-	-	323	153	V
		* 12.398654	59.07	PK2	39.3	-39	0	59.37	-	-	74	-14.63	331	131	H
		* 12.400903	52.12	MAv1	39.3	-39	0.68	53.1	54	-0.9	-	-	331	131	H
		* 12.40114	57.9	PK2	39.3	-39	0	58.2	-	-	74	-15.8	330	104	V
		* 12.39878	50.66	MAv1	39.3	-39	0.68	51.64	54	-2.36	-	-	330	104	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL), 1Mbps

Radiate Emissions Data

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80707 ACF (dB/m)	Amp/Cbl/Filtr (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.95991	55.75	PK2	34.2	-44.2	0	45.75	-	-	74	-28.25	4	394	H
	* 4.959839	46.86	MAv1	34.2	-44.2	.68	37.54	54	-16.46	-	-	4	394	H
2	* 4.960392	57.78	PK2	34.2	-44.2	0	47.78	-	-	74	-26.22	332	237	V
	* 4.95997	51.2	MAv1	34.2	-44.2	.68	41.88	54	-12.12	-	-	332	237	V
3	* 7.43919	53.15	PK2	35.5	-41.4	0	47.25	-	-	74	-26.75	129	187	H
	* 7.439363	43.87	MAv1	35.5	-41.4	.68	38.65	54	-15.35	-	-	129	187	H
4	* 7.440589	56.05	PK2	35.6	-41.4	0	50.25	-	-	74	-23.75	323	153	V
	* 7.44058	48.2	MAv1	35.6	-41.4	.68	43.08	54	-10.92	-	-	323	153	V
5	* 12.398654	59.07	PK2	39.3	-39	0	59.37	-	-	74	-14.63	331	131	H
	* 12.400903	52.12	MAv1	39.3	-39	.68	53.1	54	-0.9	-	-	331	131	H
6	* 12.40114	57.9	PK2	39.3	-39	0	58.2	-	-	74	-15.8	330	104	V
	* 12.39878	50.66	MAv1	39.3	-39	.68	51.64	54	-2.36	-	-	330	104	V

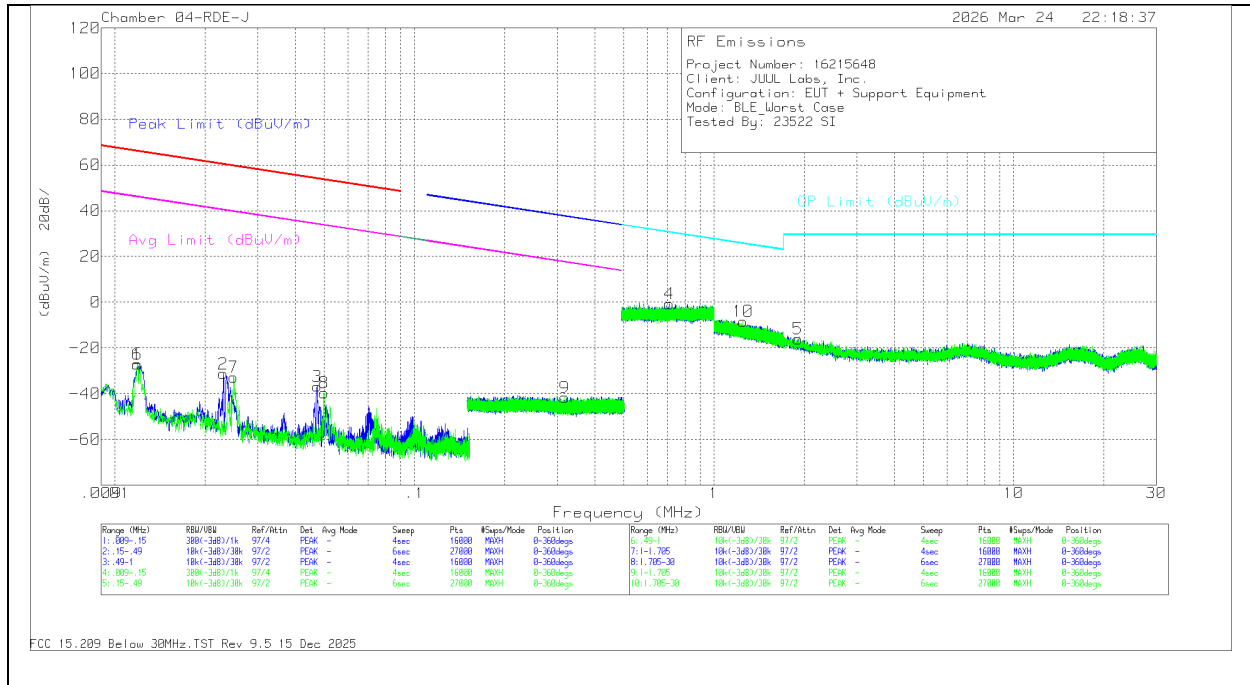
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

9.2. TRANSMITTER WORST CASE BELOW 30MHz

SPURIOUS EMISSIONS BELOW 30MHz (WORST-CASE CONFIGURATION)



Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E (dB/m)	CBL/AMP (dB)	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)
1	.0119	22.99	Pk	60.2	-30.4	-80	-27.21	66.08	-93.29	46.08	-73.29	-	-	-	-	0-360
2	.023	21.39	Pk	58.8	-31.5	-80	-31.31	60.34	-91.65	40.34	-71.65	-	-	-	-	0-360
3	.0473	17.99	Pk	57.2	-32	-80	-36.81	54.09	-90.9	34.09	-70.9	-	-	-	-	0-360
6	.0119	23.21	Pk	60.2	-30.4	-80	-26.99	66.07	-93.06	46.07	-73.06	-	-	-	-	0-360
7	.0249	20.16	Pk	58.6	-31.6	-80	-32.84	59.66	-92.5	39.66	-72.5	-	-	-	-	0-360
8	.0499	14.84	Pk	57.1	-31.7	-80	-39.76	53.62	-93.38	33.62	-73.38	-	-	-	-	0-360
9	.3182	14.28	Pk	56.2	-32.2	-80	-41.72	-	-	-	-	37.56	-79.28	17.56	-59.28	0-360

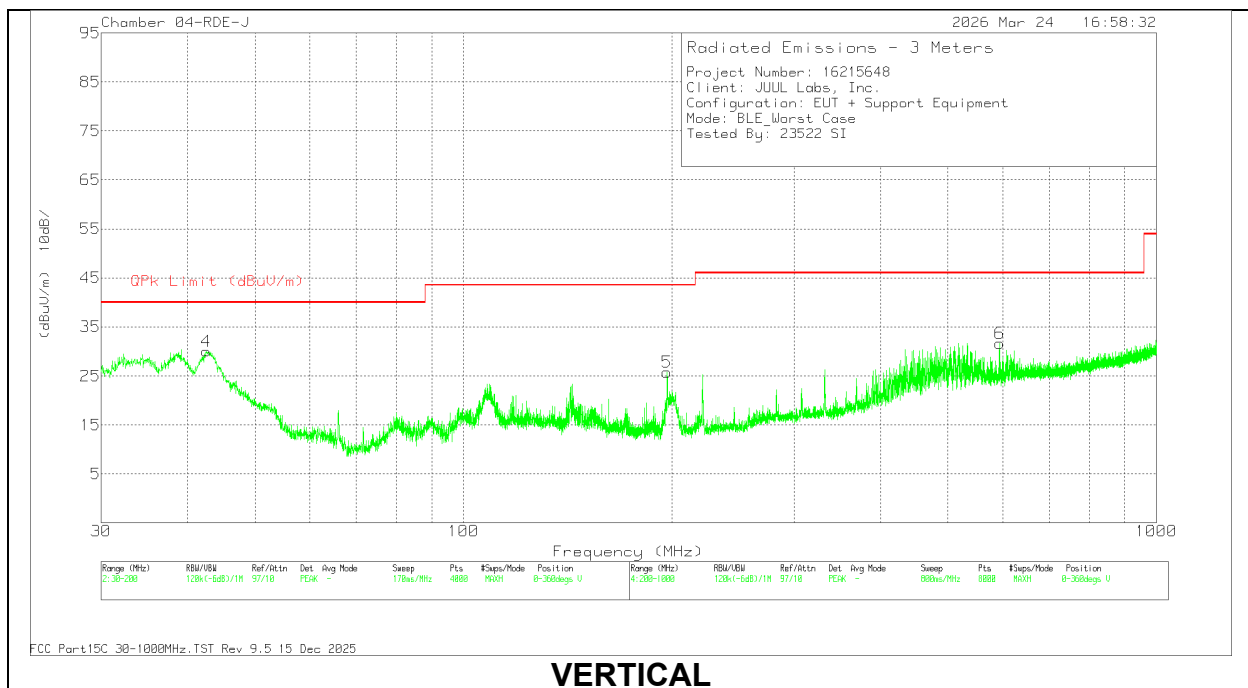
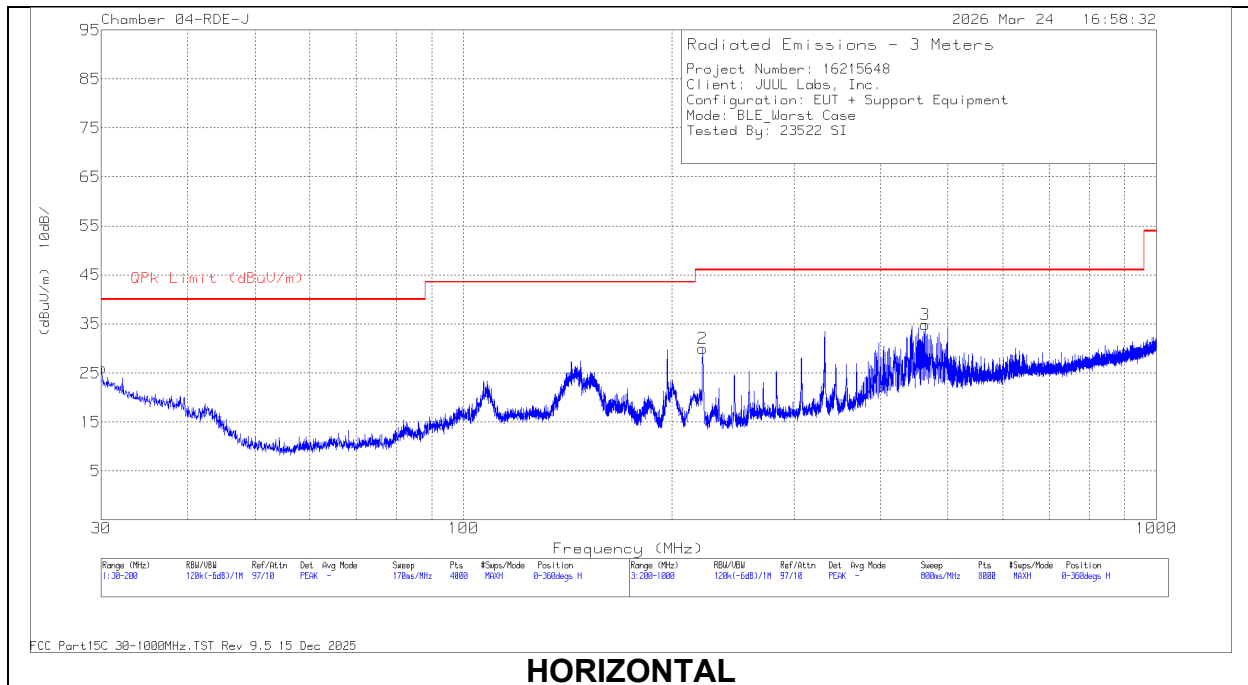
Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E (dB/m)	CBL/AMP (dB)	Dist Corr 30m (dB)	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
4	.7107	15.29	Pk	56.4	-32.4	-40	-7.1	30.58	-31.29	0-360
5	1.9073	14.08	Pk	42	-32.2	-40	-16.12	29.5	-45.62	0-360
10	1.2507	18.12	Pk	45.5	-32.1	-40	-8.48	25.68	-34.16	0-360

Pk - Peak detector

9.3. TRANSMITTER WORST CASE BELOW 1 GHz

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



Below 1GHz Data**Radiated Emissions**

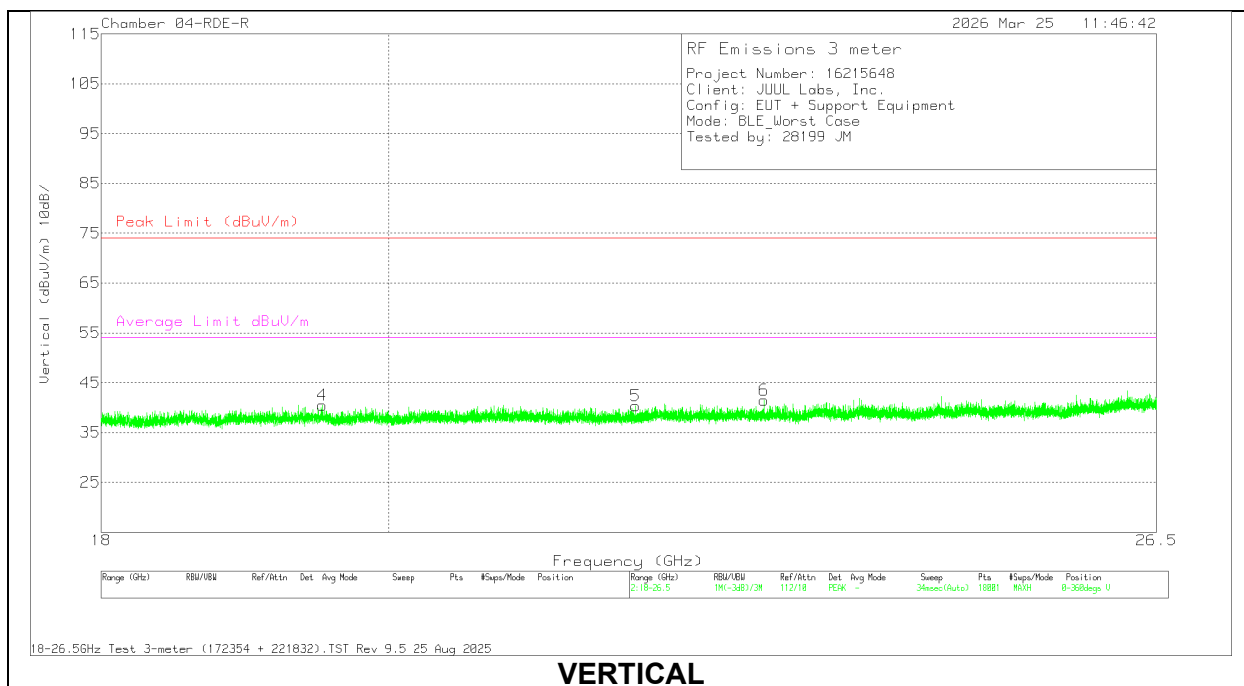
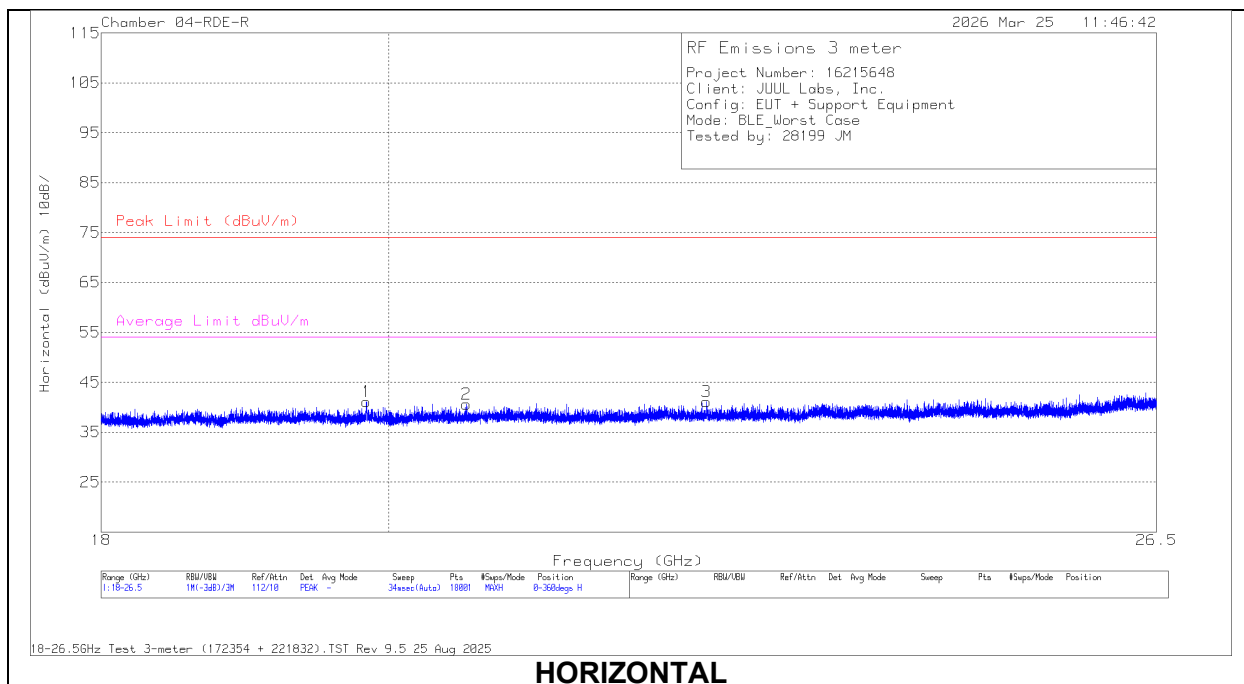
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	202329 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.0425	31.17	Pk	26.7	-31.8	26.07	40	-13.93	0-360	198	H
2	221.303	44.04	Pk	16.5	-30.5	30.04	46.02	-15.98	0-360	99	H
3	463.334	41.43	Pk	23	-29.6	34.83	46.02	-11.19	0-360	198	H
4	42.5408	43.95	Pk	17.7	-31.6	30.05	40	-9.95	0-360	100	V
	42.5893	37.32	Qp	17.7	-31.6	23.42	40	-16.58	203	120	V
5	196.771	38.26	Pk	18.1	-30.6	25.76	43.52	-17.76	0-360	100	V
6	593.551	36.97	Pk	24	-29.3	31.67	46.02	-14.35	0-360	98	V

Pk - Peak detector

Qp - Quasi-Peak detector

9.4. TRANSMITTER WORST CASE 18-26 GHz

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



18 – 26GHz Data

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	172354 3m AF (dB/m)	18-26GHz Amp (dB)	Cables (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Average Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	19.837888	54.77	Pk	32.5	-62.5	16.4	41.17	74	-32.83	-	-	0-360	99	H
2	20.576443	52.43	Pk	32.8	-61.3	16.7	40.63	74	-33.37	-	-	0-360	99	H
3	22.469581	52.87	Pk	33.2	-62.3	17.4	41.17	74	-32.83	-	-	0-360	99	H
4	19.518666	54.35	Pk	32.5	-62.7	16.3	40.45	74	-33.55	-	-	0-360	99	V
5	21.896776	52.31	Pk	33.1	-62.2	17.2	40.41	74	-33.59	-	-	0-360	99	V
6	22.950303	52.98	Pk	33.2	-62.3	17.6	41.48	74	-32.52	-	-	0-360	99	V

Pk - Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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

ANSI C63.10, Subclause 6.2

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.

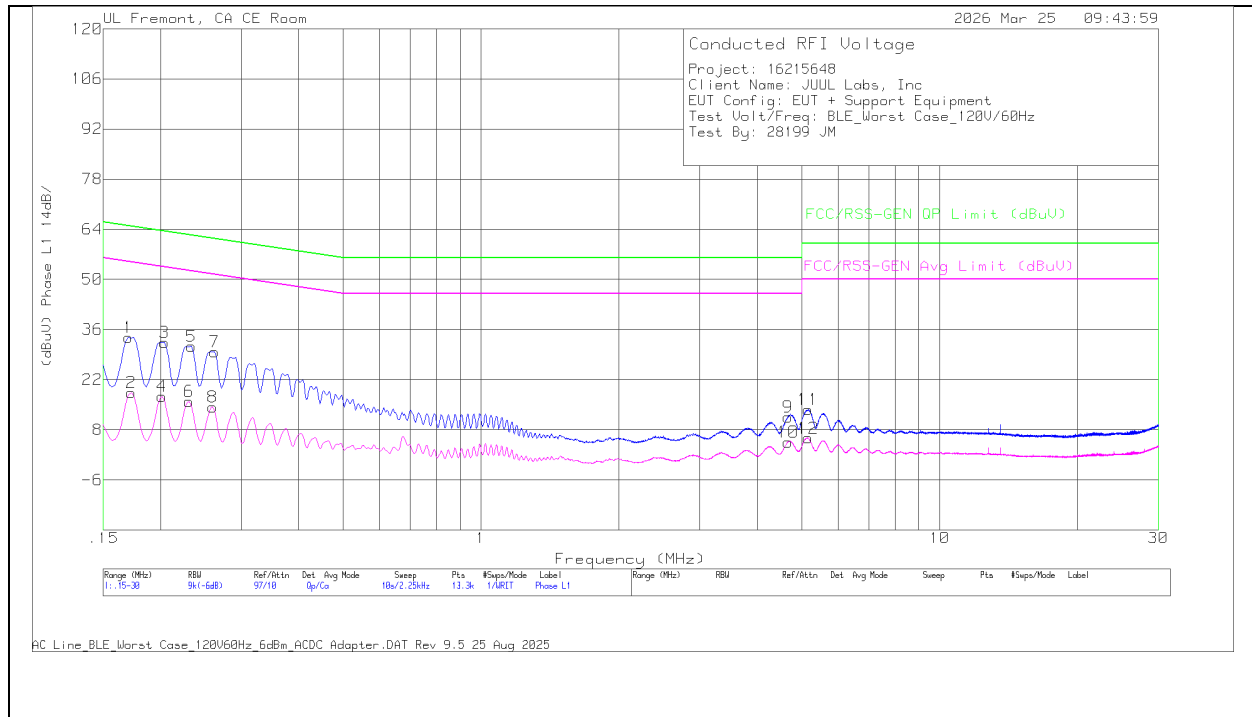
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both HOT (L1) and NEUTRAL (L2) lines.

RESULTS

10.1. AC POWER LINE WITH AC/DC ADAPTER

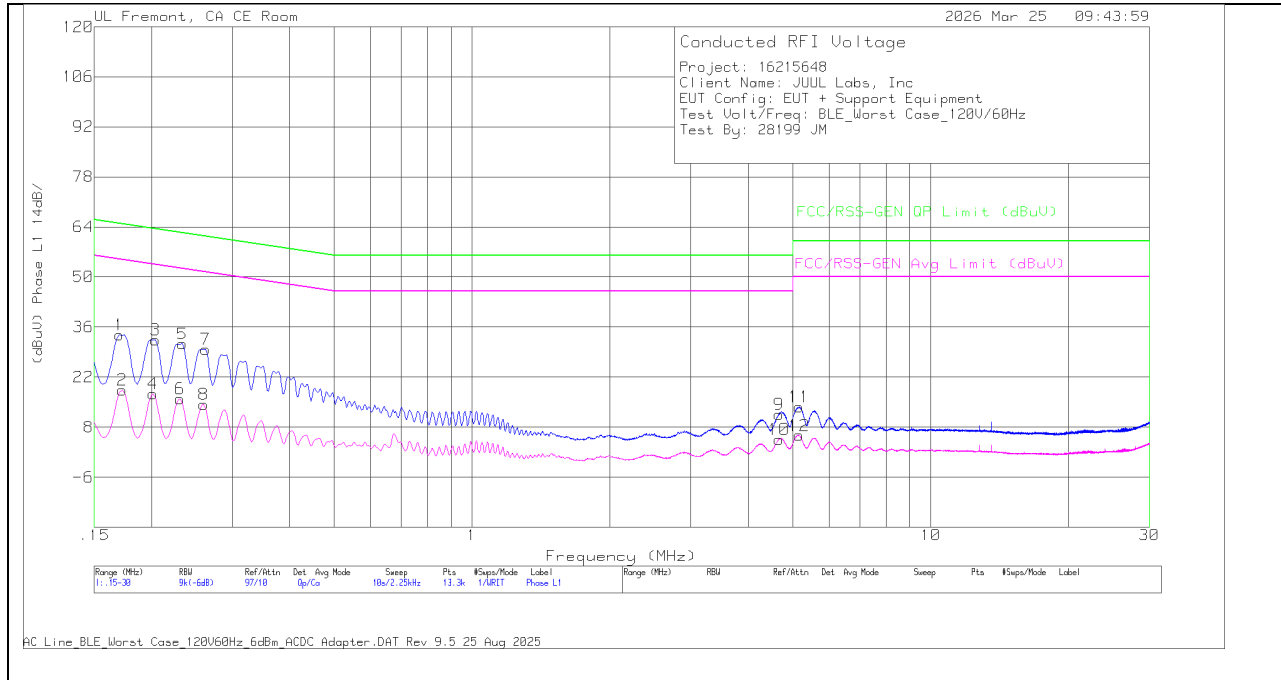
LINE 1 RESULTS



Range 1: Phase L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Cbl (dB)	LISN (dB)	10dB Atten (dB)	Corrected Reading (dBuV)	FCC/RSS-GEN Avg Limit (dBuV)	Av(CISPR) Margin (dB)	FCC/RSS-GEN QP Limit (dBuV)	QP Margin (dB)
2	.1725	8.33	Ca	0	.1	10	18.43	54.84	-36.41	-	-
4	.2018	7.29	Ca	0	0	10	17.29	53.54	-36.25	-	-
6	.231	5.86	Ca	0	0	10	15.86	52.41	-36.55	-	-
8	.2603	4.4	Ca	0	0	10	14.4	51.42	-37.02	-	-
10	4.6658	-5.55	Ca	.1	0	10	4.55	46	-41.45	-	-
12	5.1653	-4.54	Ca	.2	0	10	5.66	50	-44.34	-	-
1	.1703	23.62	Qp	0	.1	10	33.72	-	-	64.95	-31.23
3	.204	22.45	Qp	0	0	10	32.45	-	-	63.45	-31
5	.2333	21.25	Qp	0	0	10	31.25	-	-	62.33	-31.08
7	.2625	19.8	Qp	0	0	10	29.8	-	-	61.35	-31.55
9	4.6658	1.45	Qp	.1	0	10	11.55	-	-	56	-44.45
11	5.163	3.38	Qp	.2	0	10	13.58	-	-	60	-46.42

Qp - Quasi-Peak detector
Ca - CISPR average detection

LINE 2 RESULTS



Range 1: Phase L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Cbl (dB)	LISN (dB)	10dB Atten (dB)	Corrected Reading (dBuV)	FCC/RSS-GEN Avg Limit (dBuV)	Av(CISPR) Margin (dB)	FCC/RSS-GEN QP Limit (dBuV)	QP Margin (dB)
14	.1725	7.6	Ca	0	0	10	17.6	54.84	-37.24	-	-
16	.2018	6.4	Ca	0	0	10	16.4	53.54	-37.14	-	-
18	.231	5.15	Ca	0	0	10	15.15	52.41	-37.26	-	-
20	.2603	3.86	Ca	0	0	10	13.86	51.42	-37.56	-	-
22	4.7164	-5.23	Ca	.2	0	10	4.97	46	-41.03	-	-
24	5.2114	-4.67	Ca	.2	0	10	5.53	50	-44.47	-	-
13	.1748	23.2	Qp	0	0	10	33.2	-	-	64.73	-31.53
15	.204	22.02	Qp	0	0	10	32.02	-	-	63.45	-31.43
17	.2333	20.8	Qp	0	0	10	30.8	-	-	62.33	-31.53
19	.2614	19.43	Qp	0	0	10	29.43	-	-	61.39	-31.96
21	4.7243	2.55	Qp	.2	0	10	12.75	-	-	56	-43.25
23	5.2148	3.65	Qp	.2	0	10	13.85	-	-	60	-46.15

Qp - Quasi-Peak detector
Ca - CISPR average detection

11. SETUP PHOTOS

Please refer to 16215648-EP1 for setup photos.

END OF REPORT