

TEST REPORT

Report Number: 14982436-E5V2

Applicant : APPLE, INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A

Model : A3083 (Parent Model)
A3292, A3293, A3294 (Variant Models)

Brand : APPLE

FCC ID : BCG-E8666A (Parent Model)
BCG-E8667A, BCG-E8668A, BCG-E8683A (Variant Models)

IC : 579C-E8666A (Parent Model)
579C-E8667A, 579C-E8668A, 579C-E8683A (Variant Models)

EUT Description : SMARTPHONE

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:

2024/07/12

Prepared by:

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REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2024/06/29	Initial Issue	Tony Li
V2	2024/07/12	Address TCB's questions, removed section 10 KDB 558074 D0115.247	Chin Pang

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	5
2. TEST SUMMARY	7
3. TEST METHODOLOGY	7
4. FACILITIES AND ACCREDITATION	7
5. DECISION RULES AND MEASUREMENT UNCERTAINTY	8
5.1. METROLOGICAL TRACEABILITY	8
5.2. DECISION RULES.....	8
5.3. MEASUREMENT UNCERTAINTY.....	8
5.4. SAMPLE CALCULATION	9
6. EQUIPMENT UNDER TEST	10
6.1. EUT DESCRIPTION	10
6.2. MAXIMUM OUTPUT POWER.....	10
6.3. DESCRIPTION OF AVAILABLE ANTENNAS	10
6.4. SOFTWARE AND FIRMWARE.....	10
6.5. WORST-CASE CONFIGURATION AND MODE.....	11
6.6. DESCRIPTION OF TEST SETUP.....	12
7. MEASUREMENT METHOD.....	15
8. TEST AND MEASUREMENT EQUIPMENT	16
9. ANTENNA PORT TEST RESULTS	18
9.1. ON TIME AND DUTY CYCLE.....	18
9.2. 99% BANDWIDTH.....	19
9.2.1. HIGH POWER	20
9.3. 6 dB BANDWIDTH.....	21
9.3.1. HIGH POWER	22
9.4. OUTPUT POWER.....	23
9.4.1. HIGH POWER	24
9.4.2. LOW POWER	25
9.5. AVERAGE POWER.....	26
9.5.1. HIGH POWER	27
9.5.2. LOW POWER	28
9.6. POWER SPECTRAL DENSITY	29
9.6.1. HIGH POWER	30
9.7. CONDUCTED SPURIOUS EMISSIONS.....	31

9.7.1.	HIGH POWER	32
9.7.2.	LOW POWER	34
10.	RADIATED TEST RESULTS	36
10.1.	TRANSMITTER ABOVE 1 GHz.....	38
10.1.1.	ANT4, 802.15.4 HIGH POWER BANDEDGE	38
10.1.2.	ANT4, 802.15.4 LOW POWER BANDEDGE	42
10.1.3.	ANT4, 802.15.4 HIGH POWER, HARMONICS AND SPURIOUS EMISSIONS.....	46
10.1.4.	ANT4, 802.15.4 LOW POWER, HARMONICS AND SPURIOUS EMISSIONS.....	52
10.1.5.	ANT3, 802.15.4 HIGH POWER BANDEDGE	58
10.1.6.	ANT3, 802.15.4 LOW POWER BANDEDGE	62
10.1.7.	ANT3, 802.15.4 HIGH POWER, HARMONICS AND SPURIOUS EMISSIONS, 66	
10.1.8.	ANT3, 802.15.4 LOW POWER, HARMONICS AND SPURIOUS EMISSIONS.....	72
10.2.	WORST CASE BELOW 1 GHZ	78
10.3.	WORST CASE 18-26 GHZ.....	80
11.	AC POWER LINE CONDUCTED EMISSIONS	82
11.1.	AC Power Line With AC/DC Adapter	83
11.2.	AC Power Line with Laptop	85
12.	SETUP PHOTOS	87

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: APPLE INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A

EUT DESCRIPTION: SMARTPHONE

MODEL: A3083 (Parent Model)
A3292, A3293, A3294 (Variant Models)

BRAND: APPLE

SERIAL NUMBER: C07GYF0008T0000FDV, C07H4F0015B0000FDT,
XRTHQFC23H.

SAMPLE RECEIPT DATE: 2023/12/19.

DATE TESTED: 2023/12/20 – 2024/07/05.

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 considered 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 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. This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, any agency of the Federal Government, or any agency of the U.S. government.

Approved & Released For
UL Verification Services Inc. By:



Frank Ibrahim
Staff Engineer
Consumer Technology Division
UL Verification Services Inc.

Prepared By:



Tony Li
Lead Test Engineer
Consumer Technology Division
UL Verification Services Inc.

2. TEST SUMMARY

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.

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 DTS Meas Guidance v05r02
 RSS-247 Issue 3
 KDB 414788 D01 Radiated Test Site v01r01
 RSS-GEN Issue 5 + A1 + A2.

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 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}
Conducted Antenna Port Emission Measurement	1.94
Power Spectral Density	2.466
Time Domain Measurements Using SA	3.39
RF Power Measurement Direct Method Using Power Meter	0.450 (Peak), 1.3 (Ave)
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.2%
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)

$36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$

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.

$36.5 \text{ dBuV} + 0 \text{ dB} + 10.1 \text{ dB} + 0 \text{ dB} = 46.6 \text{ dBuV}$

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The Apple iPhone is a smartphone with cellular GSM, GPRS, EGPRS, WCDMA, LTE, 5G NR1, 5G NR2, IEEE 802.11a/b/g/n/ac/ax/be, Bluetooth (BT), Ultra-Wideband (UWB), Global Positioning System (GPS), Near-Field Communication (NFC), Narrow-Band (NB) UNII, 802.15.4, 802.15.4ab-Narrow Band (NB), Wireless Power Transfer (WPT) and Mobile Satellite Service (MSS) technologies. The rechargeable battery is not user accessible. This device is not user-serviceable and requires special tools to disassemble.

6.2. MAXIMUM OUTPUT POWER

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

Antenna	Configuration	Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
ANT 4	High Power	2405 - 2475	802.15.4	21.87	153.82
	Low Power			10.88	12.25
ANT 3	High Power	2405 - 2475	802.15.4	21.86	153.46
	Low Power			10.24	10.57

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna(s) type is IFA type.

The antenna(s) gains, as provided by the manufacturer, are as follows:

Frequency Range (GHz)	ANT 4 (dBi)	ANT 3 (dBi)
2.4	0.0	-2.1

SMA Cable used for RF conducted testing has a loss as follows:

Loss used for Antenna 4 is 2.1 dB

Loss used for Antenna 3 is 2.15 dB

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 version installed during testing was 22.1.76.242.

6.5. WORST-CASE CONFIGURATION AND MODE

The EUT was investigated in three orthogonal orientations X, Y and Z on ANT 4, and ANT 3. It was determined that X (Flatbed) was the worst-case orientation for ANT 4 and ANT 3.

Radiated band edge, harmonic, and spurious emissions from 1GHz to 18GHz were performed with the EUT was set to transmit at highest power on Low/Middle/High channels.

Radiated emissions below 1GHz, 18-26GHz and power line conducted emissions were performed with the EUT transmits at the channel with the highest output power as worst-case scenario. There were no emissions found below 30MHz within 20dB of the limit.

For below 1GHz tests were performed with EUT connected to AC power adapter as the worst case; and for above 1GHz, the worst-case configuration reported was tested with EUT only. For AC line conducted emission, test was investigated with AC power adapter and with laptop.

For simultaneous transmission of multiple channels in the 2.4GHz and 5GHz bands. No noticeable emission was found.

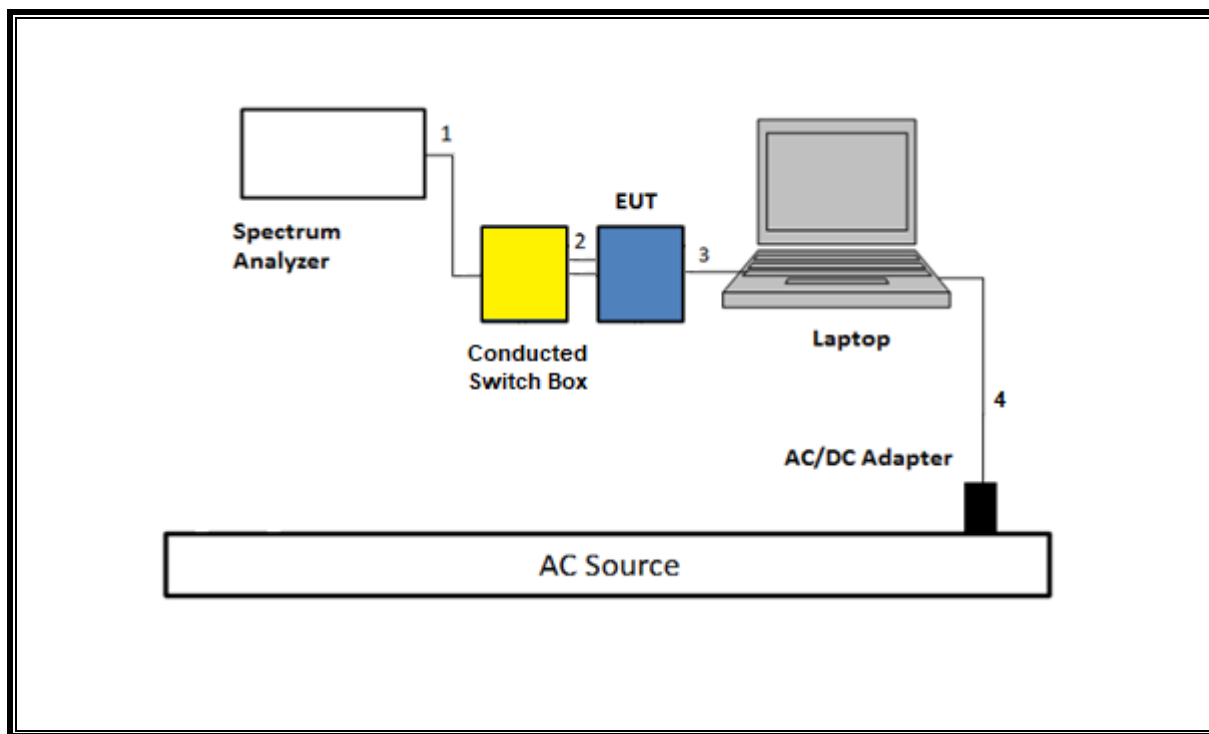
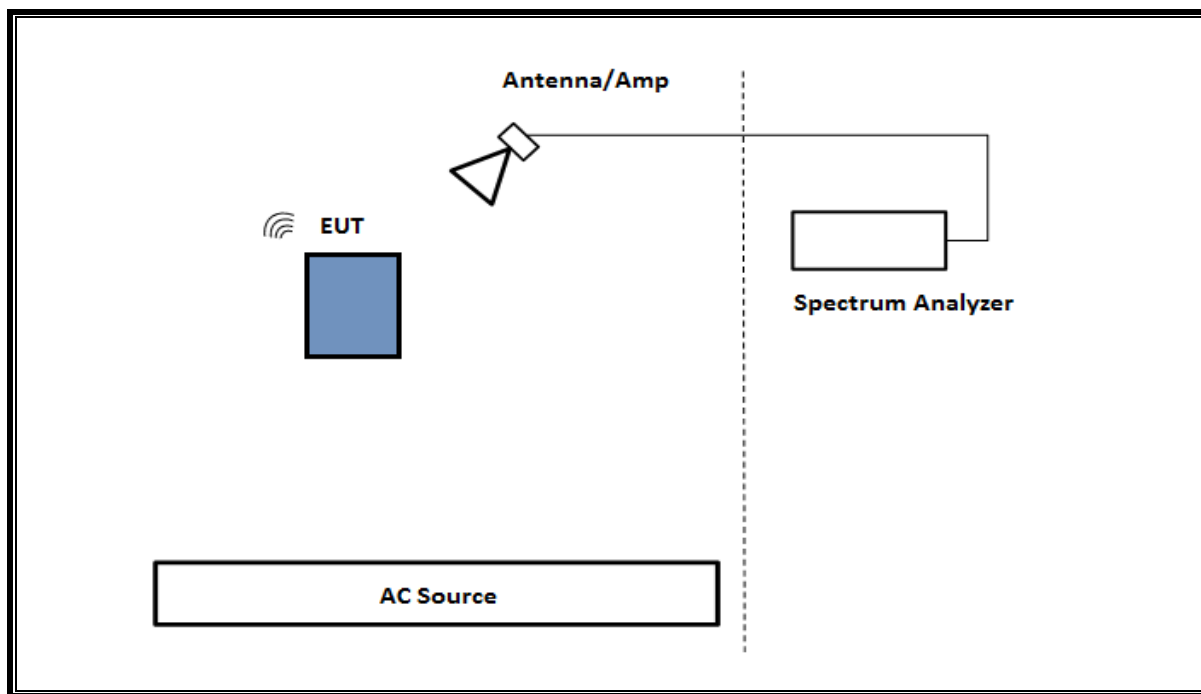
Note: In the Radiated Plots and emissions data, ANT0=ANT4 and ANT1=ANT 3.

6.6. DESCRIPTION OF TEST SETUP

SUPPORT TEST EQUIPMENT						
Description		Manufacturer	Model	Serial Number	FCC ID/ DoC	
Laptop		Apple	Macbook Pro	C02VD7SAHV22	BCGA1708	
Laptop AC/DC adapter		Liteon Technology	A1424	NSW25679	DoC	
EUT AC/DC adapter		Apple	A1720	C3D8417A7R93KVPA8	DoC	
Conducted Switch Box		UL	n/a	208281	N/A	
I/O CABLES (RF CONDUCTED TEST)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	SMA	1	SMA	Shielded	0.75	To spectrum Analyzer
2	Antenna	2	SMA	Un-shielded	0.2	To Conducted Switch Box
3	USB-C	1	USB-C	Shielded	1.0	N/A
4	AC	1	AC	Un-shielded	2	N/A
I/O CABLES (RF RADIATED AND AC LINE CONDUCTED TEST)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	1	AC	Un-shielded	2	N/A
2	USB	1	USB	Shielded	1	N/A

TEST SETUP

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

SETUP DIAGRAM FOR CONDUCTED TESTS**SETUP DIAGRAM FOR RADIATED TESTS Above 1 GHz (1-18 GHz, 18-26 GHz)**

The diagram illustrates a Radiated Emission Test Setup. It features a dashed vertical line separating the test area into two sections: 'Radiated Test' on the left and 'Conducted Test' on the right. In the 'Radiated Test' section, an 'EUT' (Equipment Under Test) is shown emitting radio waves, represented by concentric arcs. The EUT is connected to an 'AC/DC Adapter' via a cable labeled '1'. The 'AC/DC Adapter' is connected to an 'AC Source/ LISN' (Line Impedance Stabilization Network). In the 'Conducted Test' section, a 'Spectrum Analyzer' is connected to the 'AC Source/ LISN' via a dashed green line. An 'Antenna/Amp' is positioned between the two sections, receiving signals from the EUT and transmitting them to the Spectrum Analyzer.

The diagram illustrates a conducted EMI test setup. On the left, an AC Source/LISN is connected to an AC/DC Adapter via a black cable labeled '1'. The AC/DC Adapter is connected to a Laptop. The Laptop is connected to an EUT (Equipment Under Test) via a cable labeled '2'. The EUT is also connected to an EMI Receiver via a dashed green line. A vertical dashed line separates the test setup from the EMI Receiver. The EMI Receiver is connected to the AC Source/LISN via a dashed green line labeled 'Conducted Test'.

7. MEASUREMENT METHOD

On Time and Duty Cycle: KDB 558074 D01 v05r02, Section 6.

6 dB BW: ANSI C63.10 Subclause -11.8.1 RBW $\geq$ DTS BW

Occupied BW (99%): ANSI C63.10-2013 Section 6.9.3

Output Power: ANSI C63.10 Subclause -11.9.1.3 Method PKPM1 Peak-reading power meter.

Output Power: ANSI C63.10 Subclause -11.9.2.3.2 Measurement using gated average power meter.

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

Radiated emissions restricted frequency bands: ANSI C63.10 Subclause -11.12.1 & Clause 13

Conducted emissions in restricted frequency bands: ANSI C63.10 Subclause -11.12.2.

Band-edge: ANSI C63.10 Subclause -11.13.3.2 & Clause 13: Integration method -Peak detection.

Band-edge: ANSI C63.10 Subclause -11.13.3.3 & Clause 13: Integration method -Trace averaging with continuous transmission at full power.

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2.

Radiated emissions non-restricted frequency bands ANSI C63.10 Subclause -11.11 & Clause 13

Radiated Spurious Emissions Below 30MHz: ANSI C63.10-2013 Section 6.4 & 13

8. TEST AND MEASUREMENT EQUIPMENT

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

Description	Manufacturer	Model	ID Num	Cal Due	Last Cal
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	200784	2025/01/31	2024/01/31
EMI Test Receiver	Rohde & Schwarz	ESW44	201500	2025/02/28	2024/02/28
RF Filter Box, 1-18GHz, 17 Port.	UL-FR1	RATS 2	226781	2025/04/30	2024/04/30
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	41112	2024/10/31	2023/10/31
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	201501	2024/11/30	2023/11/30
RF Filter Box, 1-18GHz, 12 Port.	UL-FR1	Frankenstein	216812	2025/01/30	2024/01/30
*Antenna, Horn 1-18GHz	ETS-Lindgren	3117	79834	2024/06/30	2023/06/30
*RF Filter Box, 1-18GHz	Miteq	UL-FR1	217521	2024/08/31	2023/08/31
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	230548	2025/02/28	2024/02/28
Antenna, Passive Loop 30Hz - 1MHz	ELECTRO-METRICS	EM-6871	170014	2024/08/31	2023/08/31
Antenna, Passive Loop 100kHz to 30MHz	ELECTRO-METRICS	EM-6872	170016	2024/08/31	2023/08/31
Antenna, BroadBand Hybrid, 30MHz to 3GHz	Sunol Sciences Corp.	JB3	224379	2024/10/31	2023/10/31
Link File, @3m, 9kHz-1000MHz Hybrid Path Loss	UL-FR1	Port 0 Factors	211062	2025/03/31	2024/03/31
Antenna, Horn 18 to 26.5GHz	A.R.A.	MWH-1826/B	81139	2024/08/31	2023/08/31
RF Amplifier Assembly, 18-26.5GHz, 60dB Gain	AMPLICAL	AMP18G26.5-60	215705	2024/11/30	2023/11/30
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	90731	2025/01/31	2024/01/31
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	80120	2025/01/31	2024/01/31
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	90719	2025/01/31	2024/01/31
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	90389	2025/01/31	2024/01/31
10dB Fixed Attenuator	Pasternack Enterprises	PE7087-10	178557	Verified Before Use	
10dB Fixed Attenuator	Pasternack Enterprises	PE7087-10	178558	Verified Before Use	
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	80397	2025/01/31	2024/01/31
Spectrum Analyzer, PXA, 3Hz to 50GHz w/Ext. Mixer	Keysight Technologies Inc	N9030A	80400	2025/02/02	2024/02/02
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	125178	2025/01/31	2024/01/31
*Conducted Switch Box	N/A	CSB	208281	2024/04/30	2023/04/30
Conducted Switch Box	N/A	CSB	208281	2025/05/08	2024/05/08

AC Line Conducted					
Description	Manufacturer	Model	ID Num	Cal Due	Last Cal
EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESR	93091	2025/02/28	2024/02/28
LISN for Conducted Emissions CISPR-16	FISCHER CUSTOM COMMUNICATIONS	FCC-LISN- 50/250-25-2-01- 480V	175765	2025/01/31	2024/01/31
Transient Limiter	TE	TBFL1	207996	2024/08/31	2023/08/31
UL AUTOMATION SOFTWARE					
Radiated Software	UL	UL EMC	Ver 9.5, May 1 , 2023		
Conducted Software	UL	UL EMC	2023.2.23		
AC Line Conducted Software	UL	UL EMC	Ver 9.5, Mar 3, 2023		

*Testing was completed before equipment calibration date

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

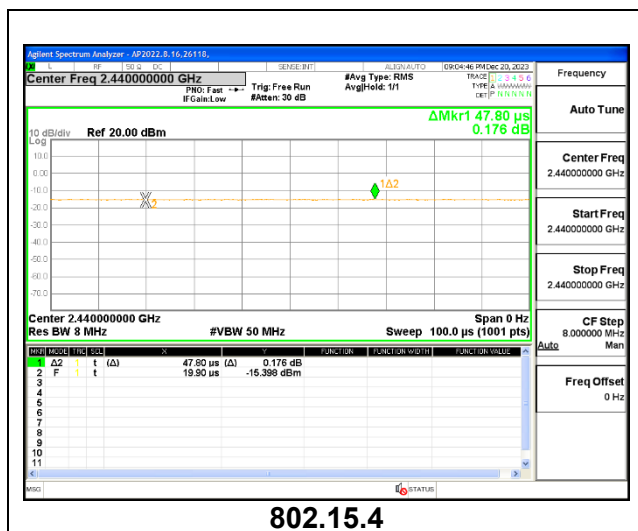
PROCEDURE

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						
802.15.4, 2440MHz	0.48	0.48	1.000	100.00%	0.00	0.010

DUTY CYCLE PLOT



9.2. 99% BANDWIDTH**LIMITS**

None; for reporting purposes only.

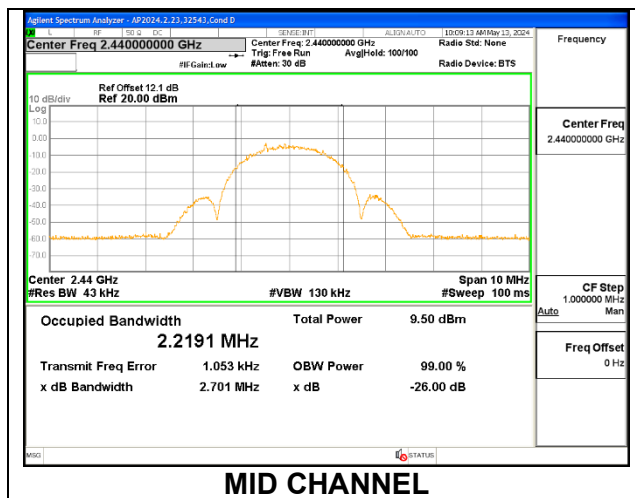
RESULTS

Only High-Power modes result is reported, it covers all Low Power modes. Only Mid channel plot is reported to show setting parameter complies with testing method/procedure.

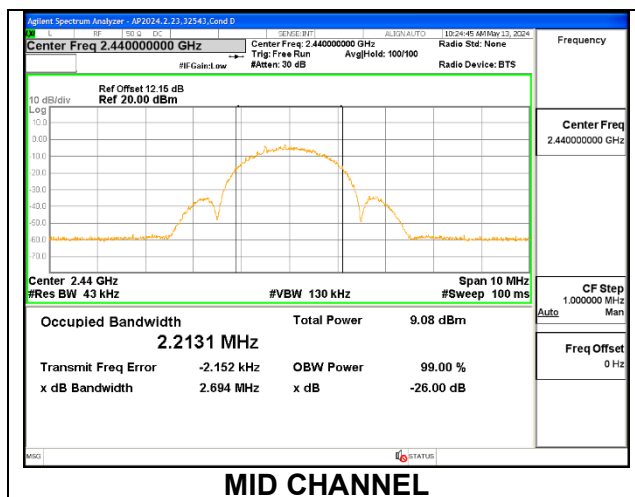
9.2.1. HIGH POWER

ANT 4

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2405	2.2098
Middle	2440	2.2191
High	2475	2.2178

ANT 3

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2405	2.2026
Middle	2440	2.2131
High	2475	2.2214



9.3. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

RSS-247 5.2 (a)

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

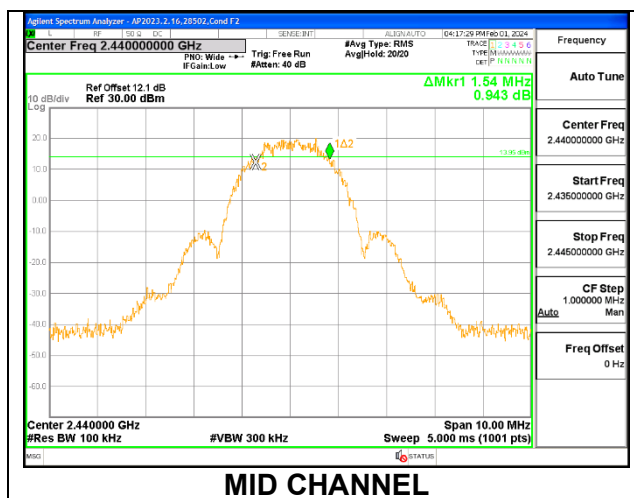
RESULTS

Only High-Power modes result is reported, it covers all Low Power modes. Only Mid channel plot is reported to show setting parameter complies with testing method/procedure.

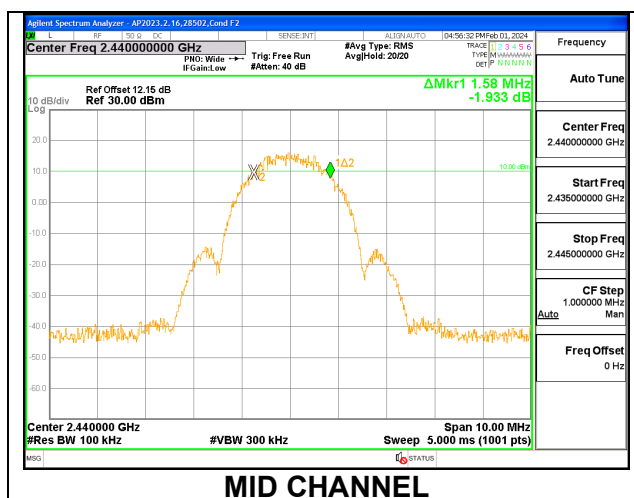
9.3.1. HIGH POWER

ANT 4

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2405	1.500	0.5
Middle	2440	1.540	0.5
High	2475	1.430	0.5

ANT 3

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2405	1.510	0.5
Middle	2440	1.580	0.5
High	2475	1.480	0.5



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

Measurements were performed using a wideband RF 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 peak power sensor. Peak output power was read directly from the power meter.

DIRECTIONAL ANTENNA GAIN

For 1 TX:

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

RESULTS

9.4.1. **HIGH POWER****ANT 4**

Tested By:	44366
Date:	5/30/2024

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2405	21.87	30	-8.13
Middle	2440	21.79	30	-8.21
High	2475	21.72	30	-8.28

ANT 3

Tested By:	44366
Date:	5/30/2024

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2405	21.62	30	-8.38
Middle	2440	21.86	30	-8.14
High	2475	21.57	30	-8.43

9.4.2. **LOW POWER****ANT 4**

Tested By:	44366
Date:	5/30/2024

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2405	10.76	30	-19.24
Middle	2440	10.88	30	-19.12
High	2475	10.75	30	-19.25

ANT 3

Tested By:	44366
Date:	5/30/2024

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2405	10.24	30	-19.76
Middle	2440	10.20	30	-19.80
High	2475	10.17	30	-19.83

9.5. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements were performed using a wideband RF 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 average power sensor. Gated average output power was read directly from the power meter.

RESULTS

9.5.1. HIGH POWER**ANT 4**

Tested By:	44366
Date:	5/30/2024

Channel	Frequency	AV power
	(MHz)	(dBm)
Low	2405	20.96
Middle	2440	20.88
High	2475	20.82

ANT 3

Tested By:	44366
Date:	5/30/2024

Channel	Frequency	AV power
	(MHz)	(dBm)
Low	2405	20.72
Middle	2440	20.95
High	2475	20.67

9.5.2. **LOW POWER****ANT 4**

Tested By:	44366
Date:	5/30/2024

Channel	Frequency (MHz)	AV power (dBm)
Low	2405	9.81
Middle	2440	9.93
High	2475	9.80

ANT 3

Tested By:	44366
Date:	5/30/2024

Channel	Frequency (MHz)	AV power (dBm)
Low	2405	9.30
Middle	2440	9.25
High	2475	9.24

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

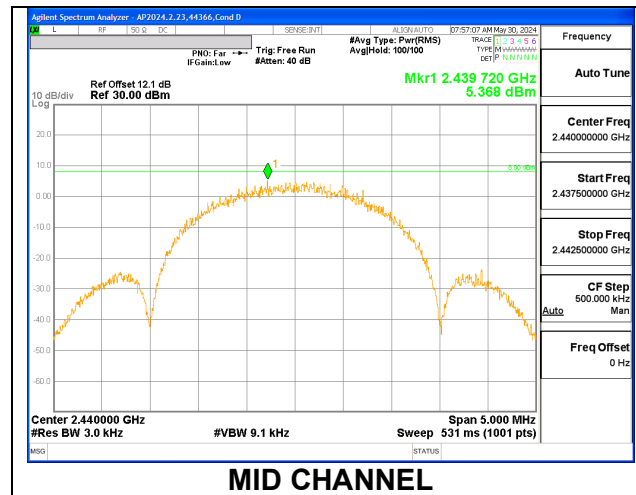
Only Mid channel plot is reported to show setting parameter complies with testing method/procedure.

Only High-Power modes result is reported, it covers all Low Power modes.

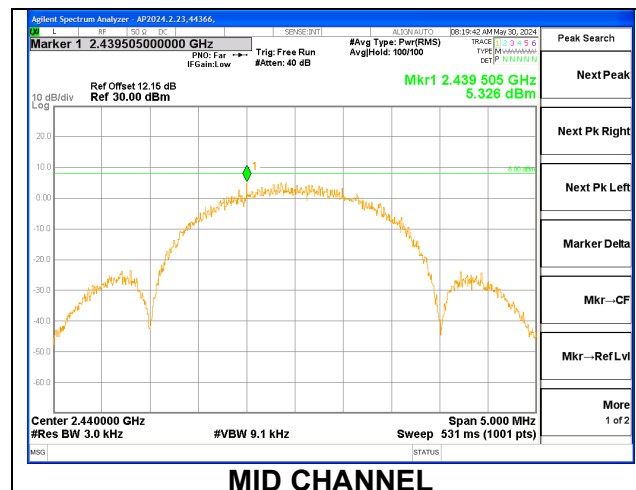
9.6.1. HIGH POWER

ANT 4

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2405	5.247	8	-2.75
Middle	2440	5.368	8	-2.63
High	2475	5.096	8	-2.90

**ANT 3**

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2405	5.491	8	-2.51
Middle	2440	5.326	8	-2.67
High	2475	5.288	8	-2.71



9.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

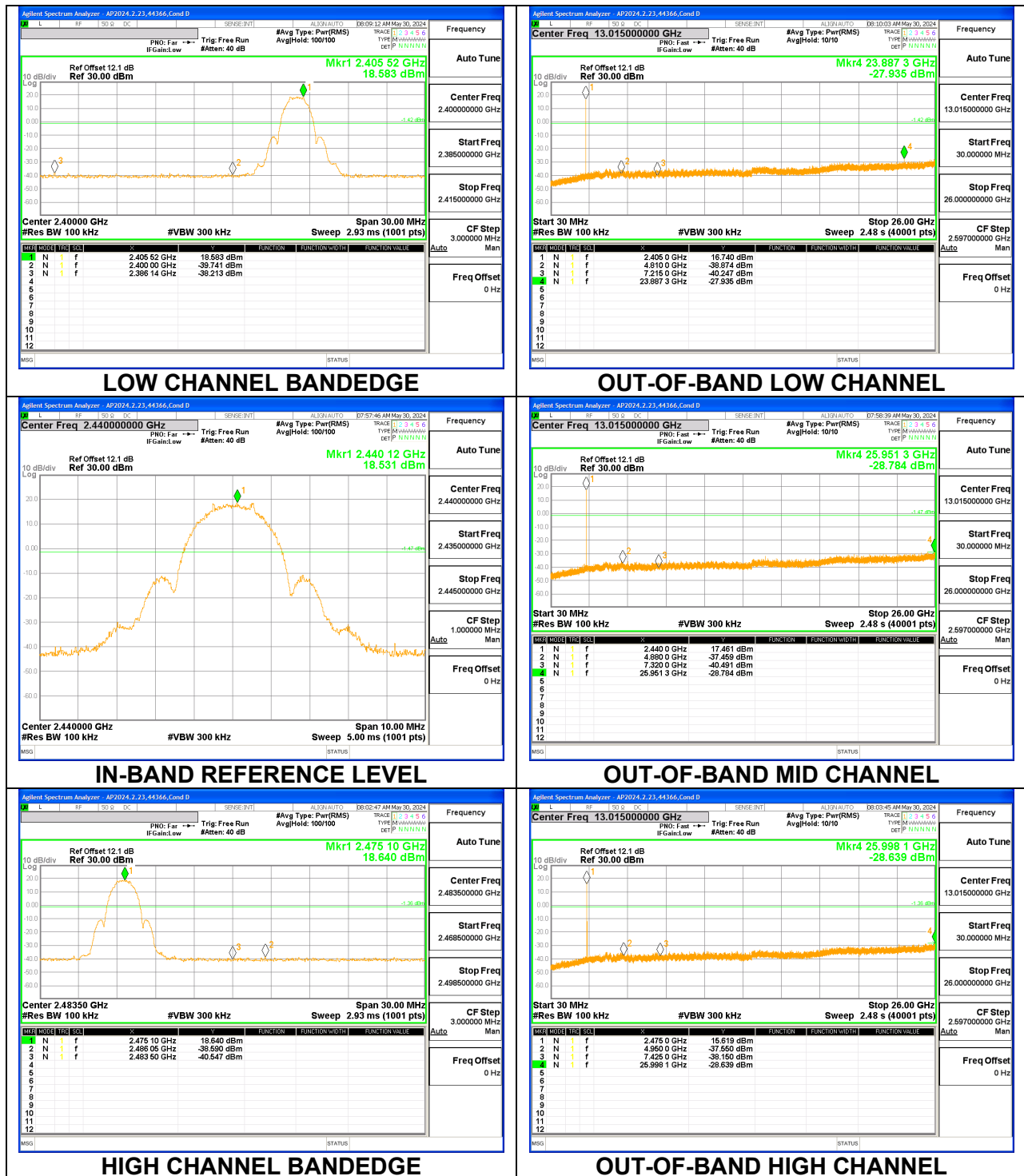
RSS-247 5.5

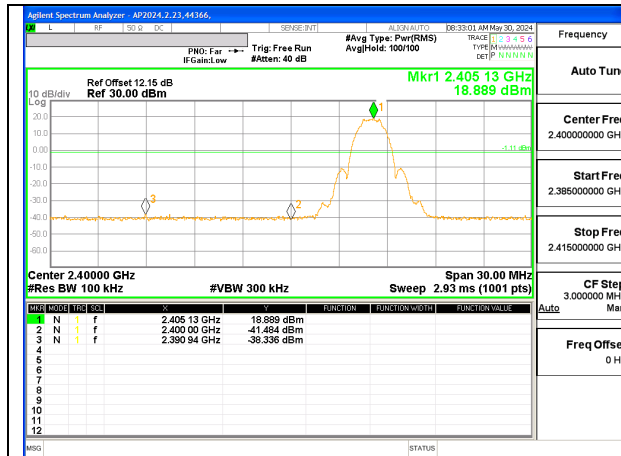
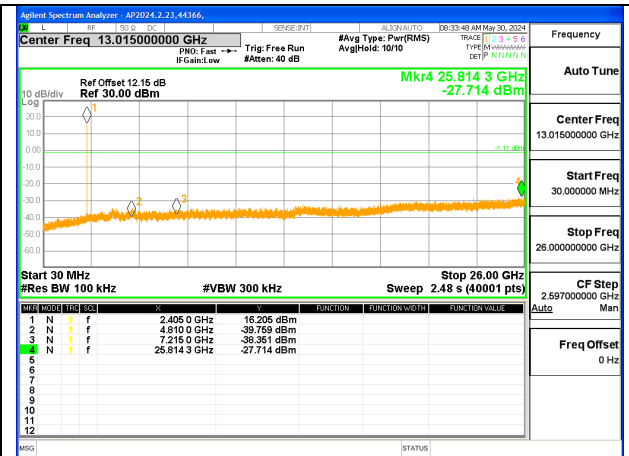
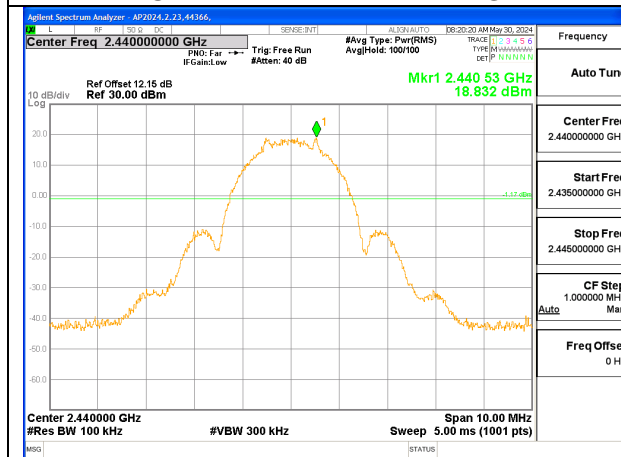
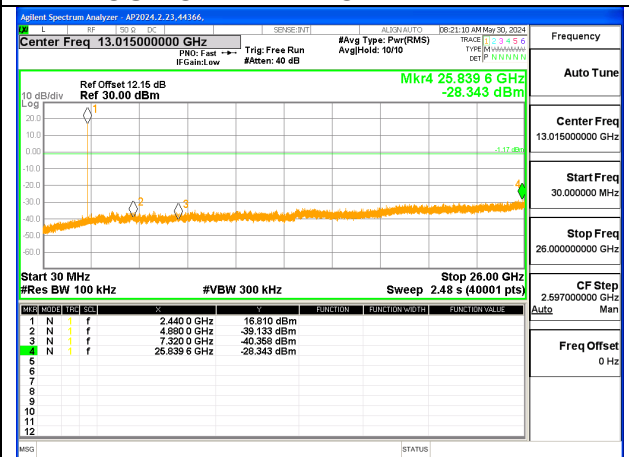
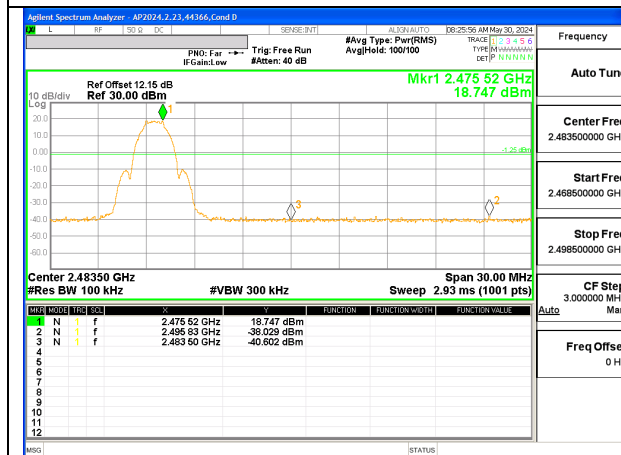
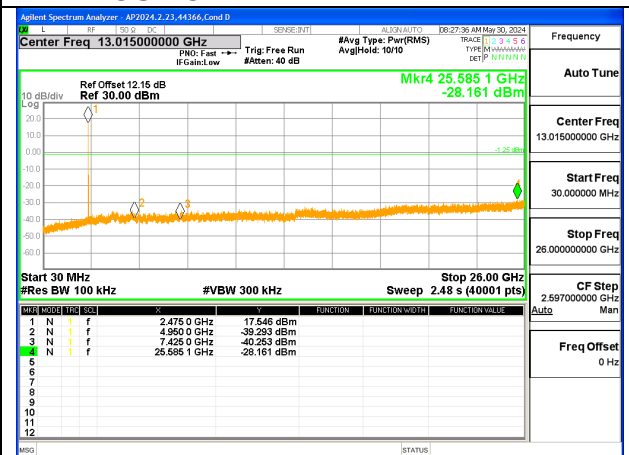
Output power was measured based on the use of a peak measurement; therefore, the required attenuation is 20 dBc.

RESULTS

9.7.1. HIGH POWER

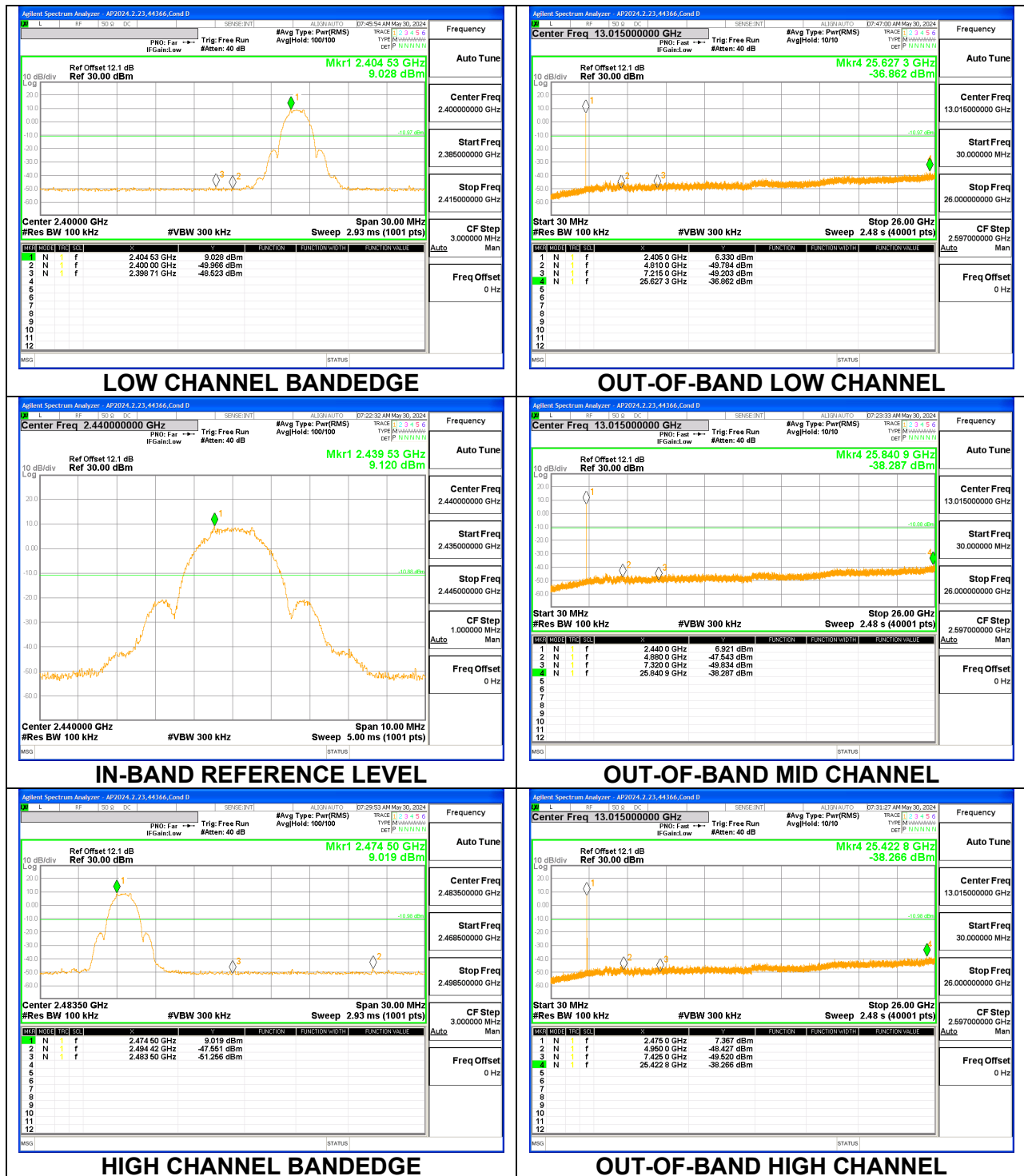
ANT 4

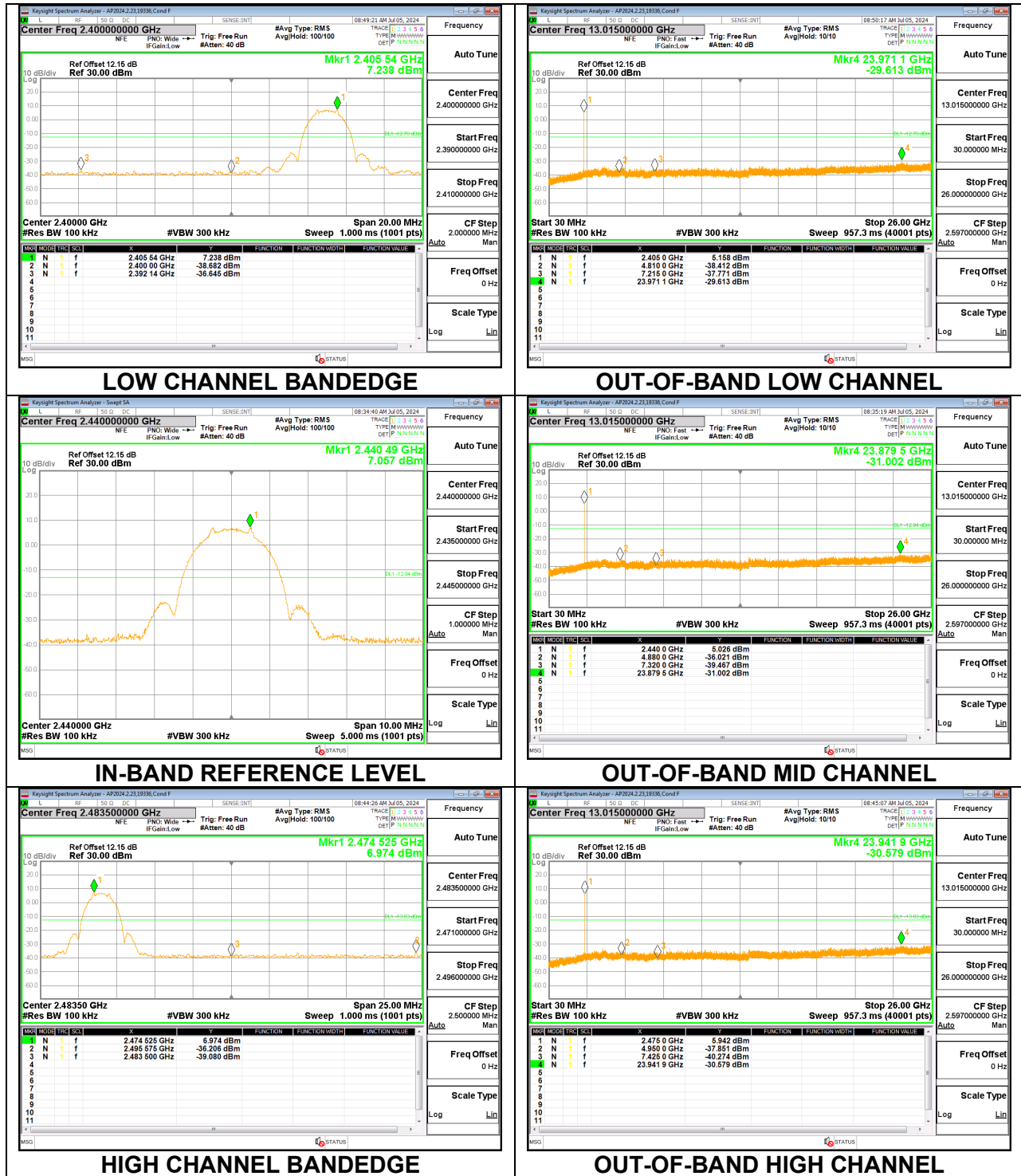


ANT 3**LOW CHANNEL BANDEDGE****OUT-OF-BAND LOW CHANNEL****IN-BAND REFERENCE LEVEL****OUT-OF-BAND MID CHANNEL****HIGH CHANNEL BANDEDGE****OUT-OF-BAND HIGH CHANNEL**

9.7.2. LOW POWER

ANT 4



ANT 3

10. RADIATED TEST RESULTS

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 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 quasi-peak.

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.

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.

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 report 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 it has to 15.209(a) limit.

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

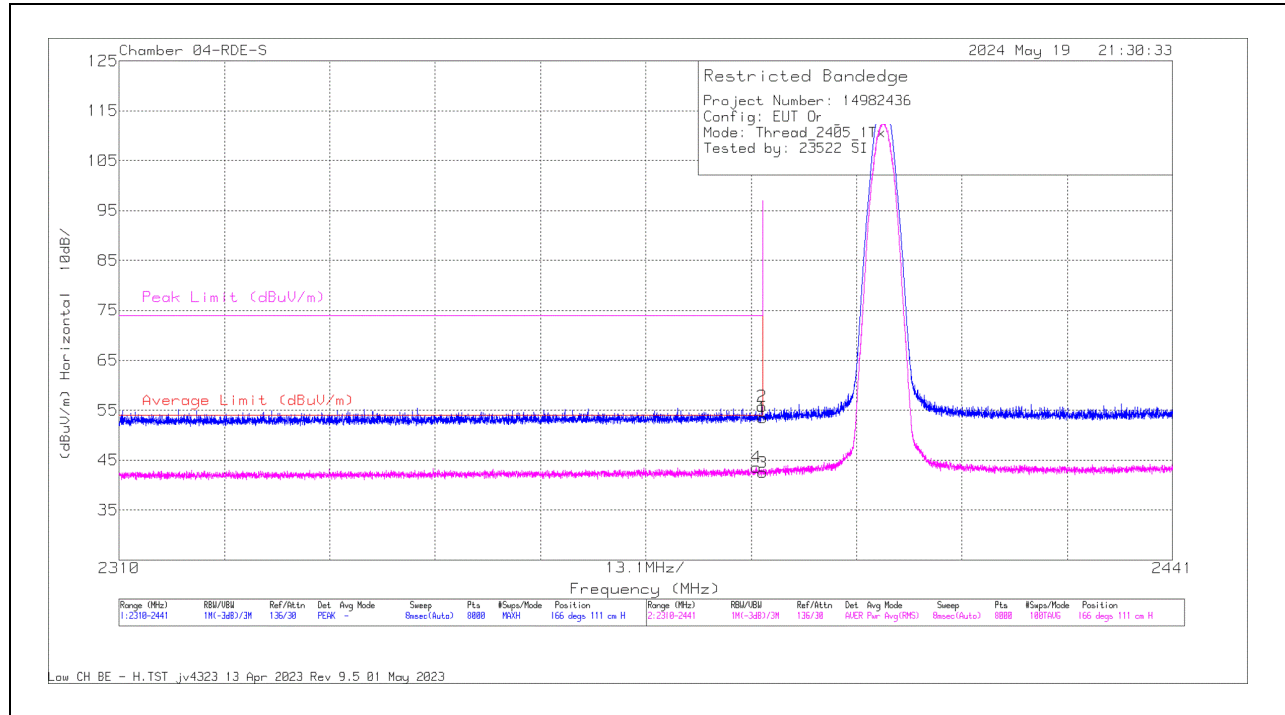
OFS and chamber correlation testing had been performed and chamber measured test result is the worst-case test result.

10.1. TRANSMITTER ABOVE 1 GHz

10.1.1. ANT4, 802.15.4 HIGH POWER BANDEDGE

Low Channel

HORIZONTAL RESULT

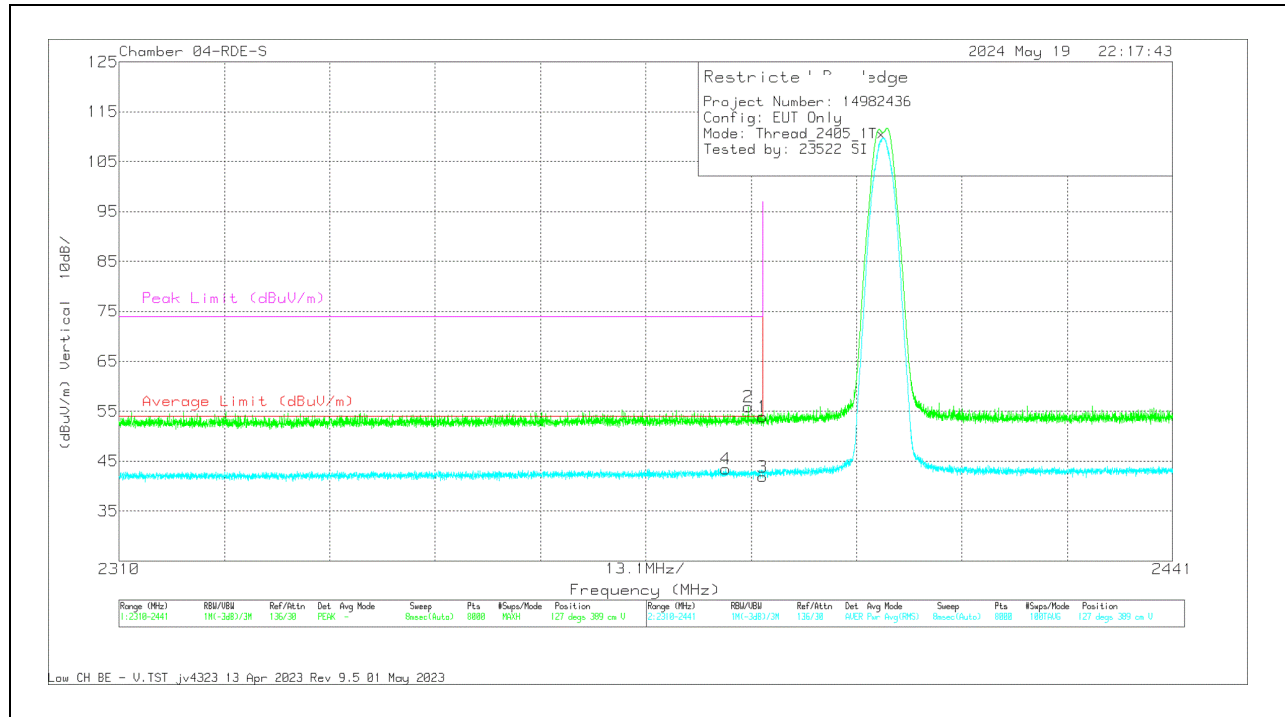


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2389.232	51.21	RMS	32.3	-39.95	43.56	54	-10.44	-	-	166	111	H
2	2389.936	63.47	Pk	32.3	-39.95	55.82	-	-	74	-18.18	166	111	H
1	2390	61.16	Pk	32.3	-39.95	53.51	-	-	74	-20.49	166	111	H
3	2390	50.17	RMS	32.3	-39.95	42.52	54	-11.48	-	-	166	111	H

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



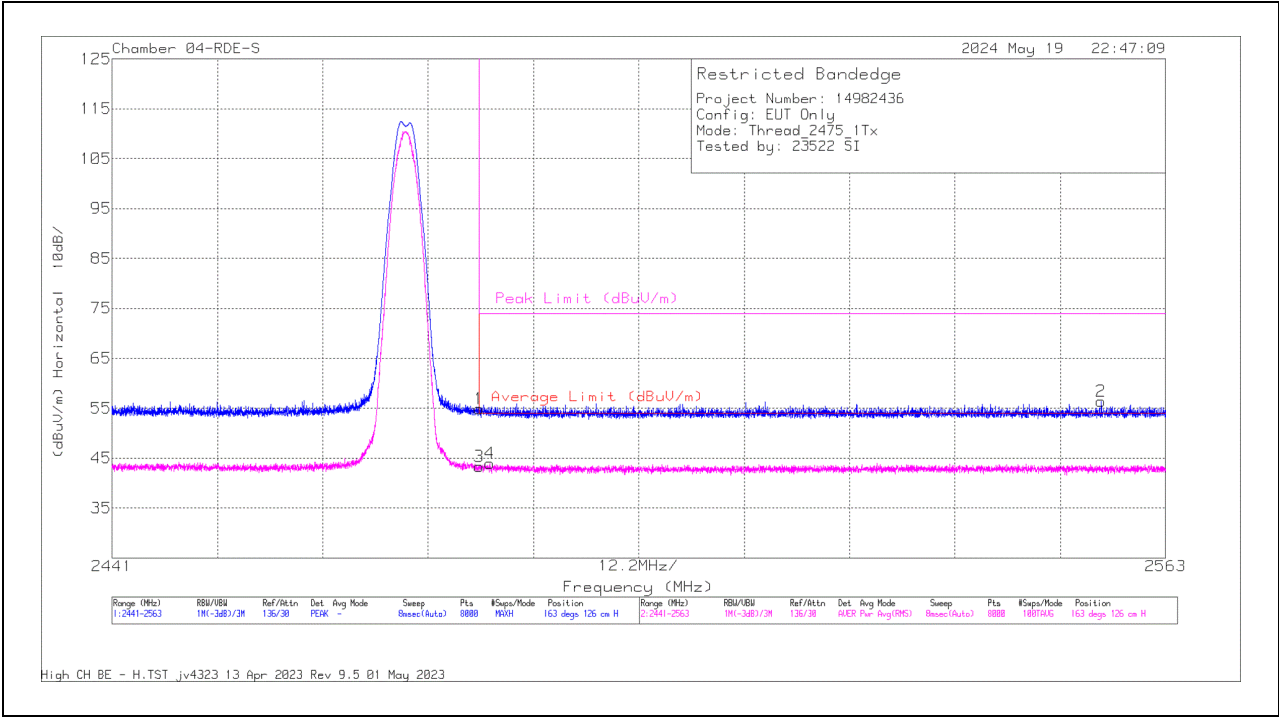
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2385.482	51.14	RMS	32.3	-39.97	43.47	54	-10.53	-	-	127	389	V
2	2388.266	63.54	Pk	32.3	-39.95	55.89	-	-	74	-18.11	127	389	V
1	2390	61.59	Pk	32.3	-39.95	53.94	-	-	74	-20.06	127	389	V
3	2390	49.53	RMS	32.3	-39.95	41.88	54	-12.12	-	-	127	389	V

Pk - Peak detector

RMS - RMS detection

High CHANNEL

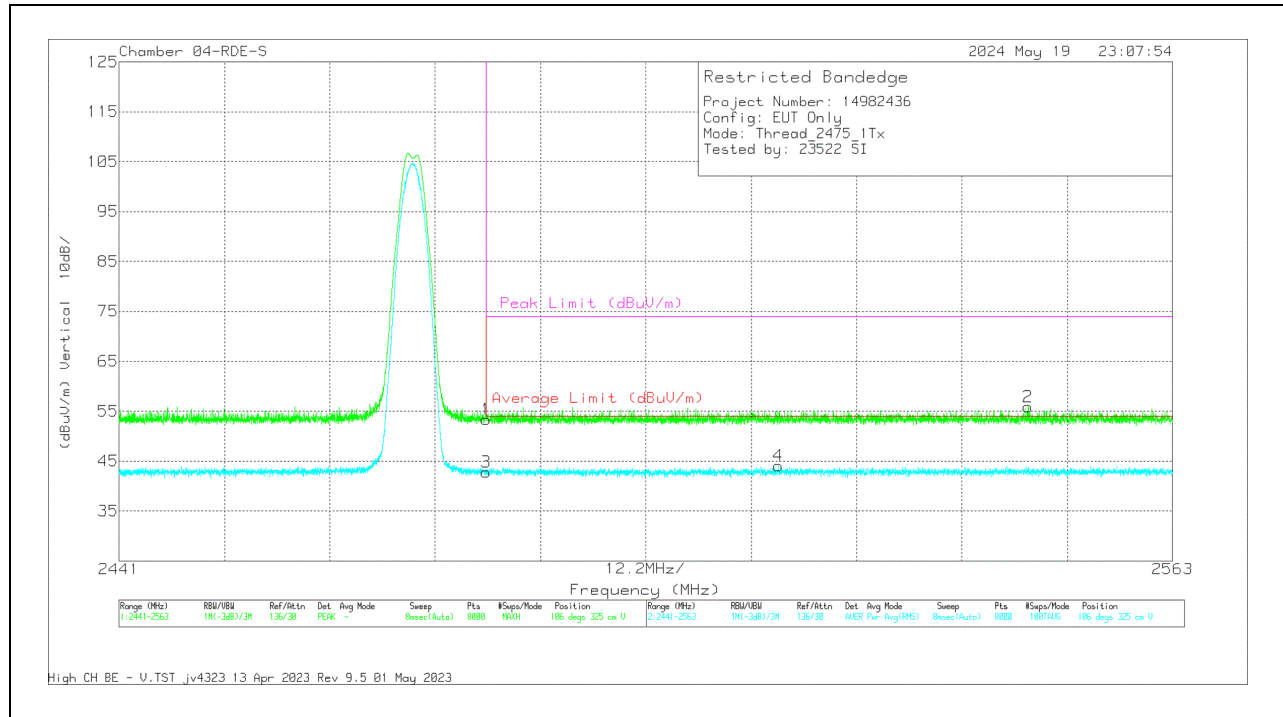
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2483.5	62.16	Pk	32.4	-39.69	54.87	-	-	74	-19.13	163	126	H
3	2483.5	50.61	RMS	32.4	-39.69	43.32	54	-10.68	-	-	163	126	H
4	2484.712	51.19	RMS	32.4	-39.68	43.91	54	-10.09	-	-	163	126	H
2	2555.558	63.55	Pk	32.4	-39.58	56.37	-	-	74	-17.63	163	126	H

Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2483.5	60.66	Pk	32.4	-39.69	53.37	-	-	74	-20.63	106	325	V
3	2483.5	50.09	RMS	32.4	-39.69	42.8	54	-11.2	-	-	106	325	V
4	2517.382	51.28	RMS	32.4	-39.62	44.06	54	-9.94	-	-	106	325	V
2	2546.285	63.11	Pk	32.4	-39.59	55.92	-	-	74	-18.08	106	325	V

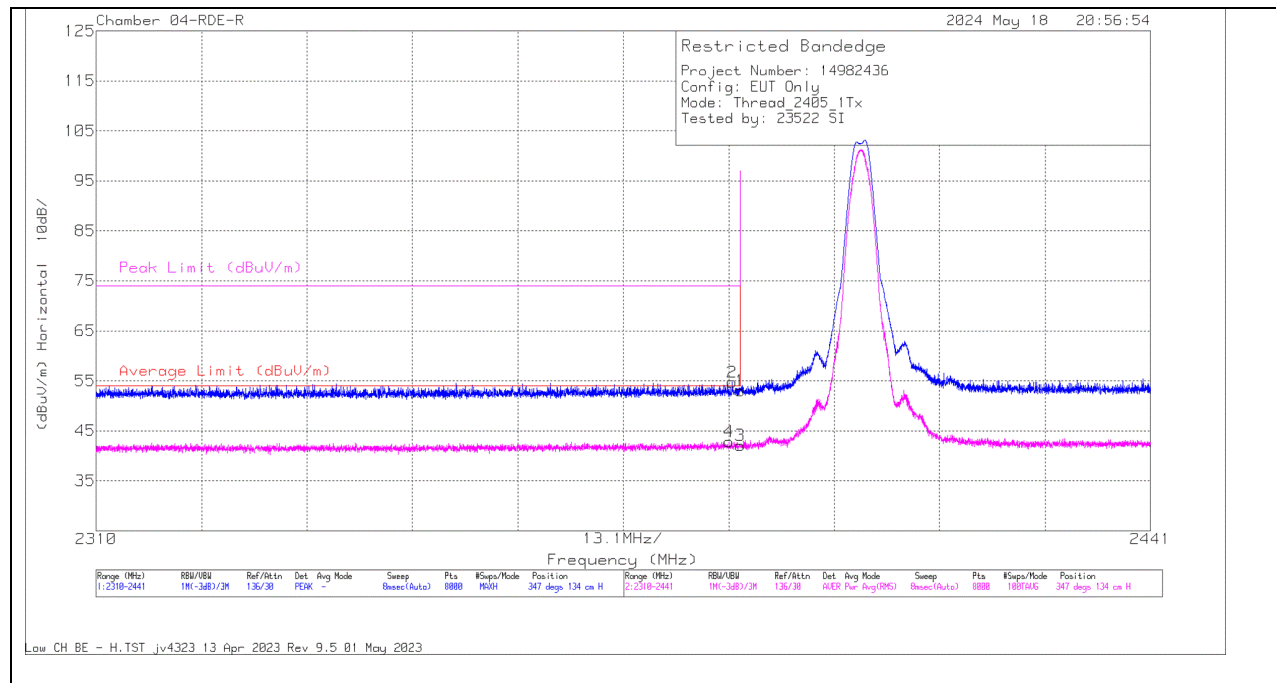
Pk - Peak detector

RMS - RMS detection

10.1.2. ANT4, 802.15.4 LOW POWER BANDEDGE

LOW CHANNEL

HORIZONTAL RESULT

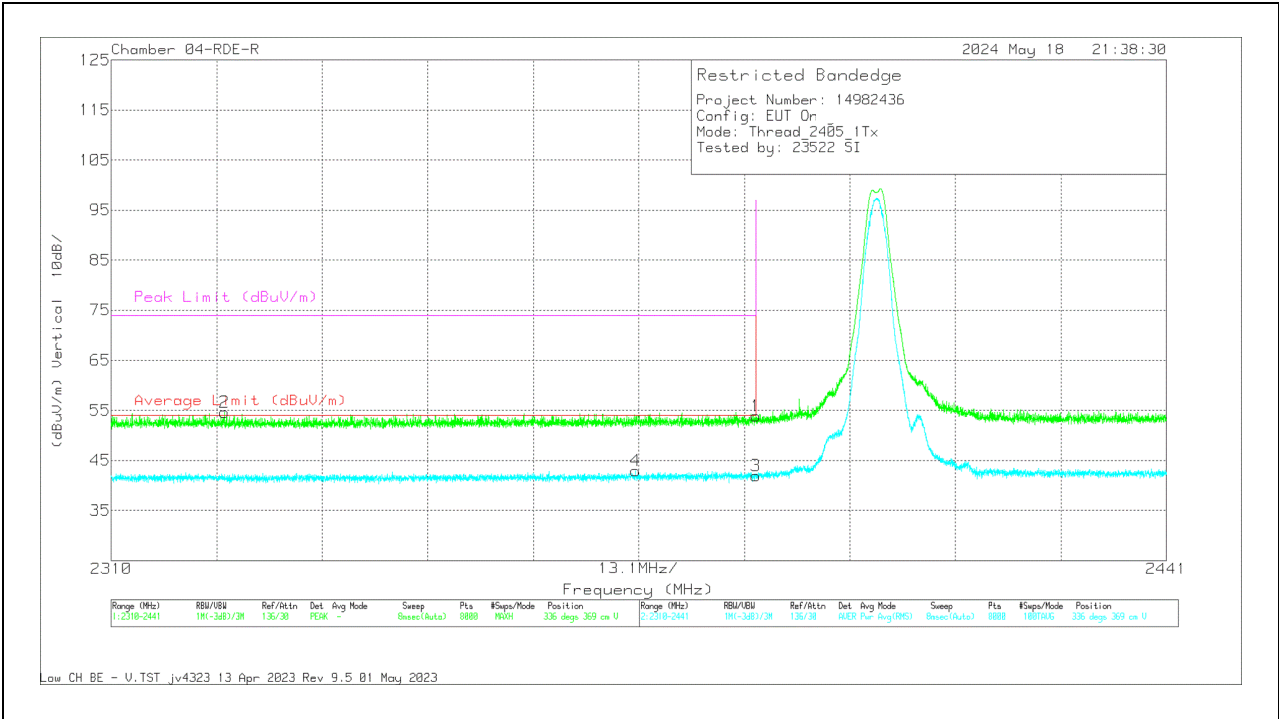


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	41112 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	mit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2388.626	51.26	RMS	32	-40.43	42.83	54	-11.17	-	-	347	134	H
2	2389.052	63.14	Pk	32	-40.43	54.71	-	-	74	-19.29	347	134	H
1	2390	61.5	Pk	32	-40.44	53.06	-	-	74	-20.94	347	134	H
3	2390	50.54	RMS	32	-40.44	42.1	54	-11.9	-	-	347	134	H

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

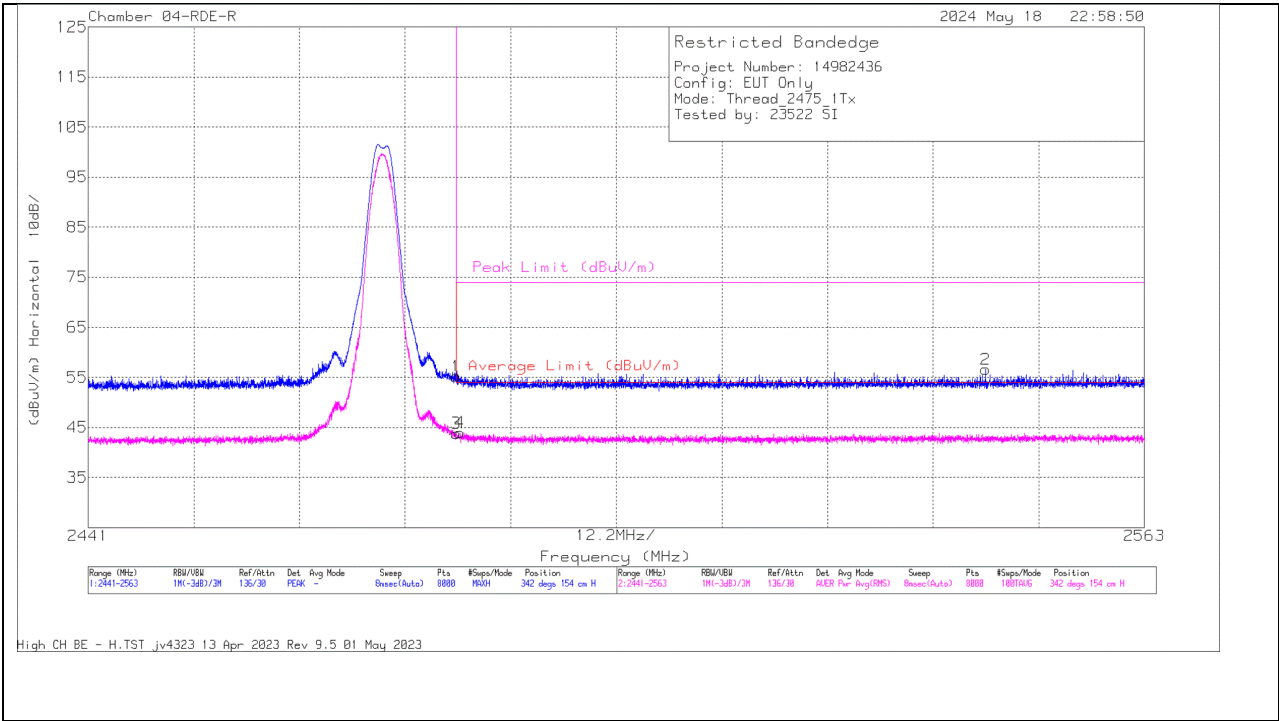


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	41112 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2324.035	63.48	Pk	31.8	-40.6	54.68	-	-	74	-19.32	336	369	V
4	2375.099	51.49	RMS	31.9	-40.48	42.91	54	-11.09	-	-	336	369	V
1	2390	62.34	Pk	32	-40.44	53.9	-	-	74	-20.1	336	369	V
3	2390	50.37	RMS	32	-40.44	41.93	54	-12.07	-	-	336	369	V

Pk - Peak detector
RMS - RMS detection

HIGH CHANNEL

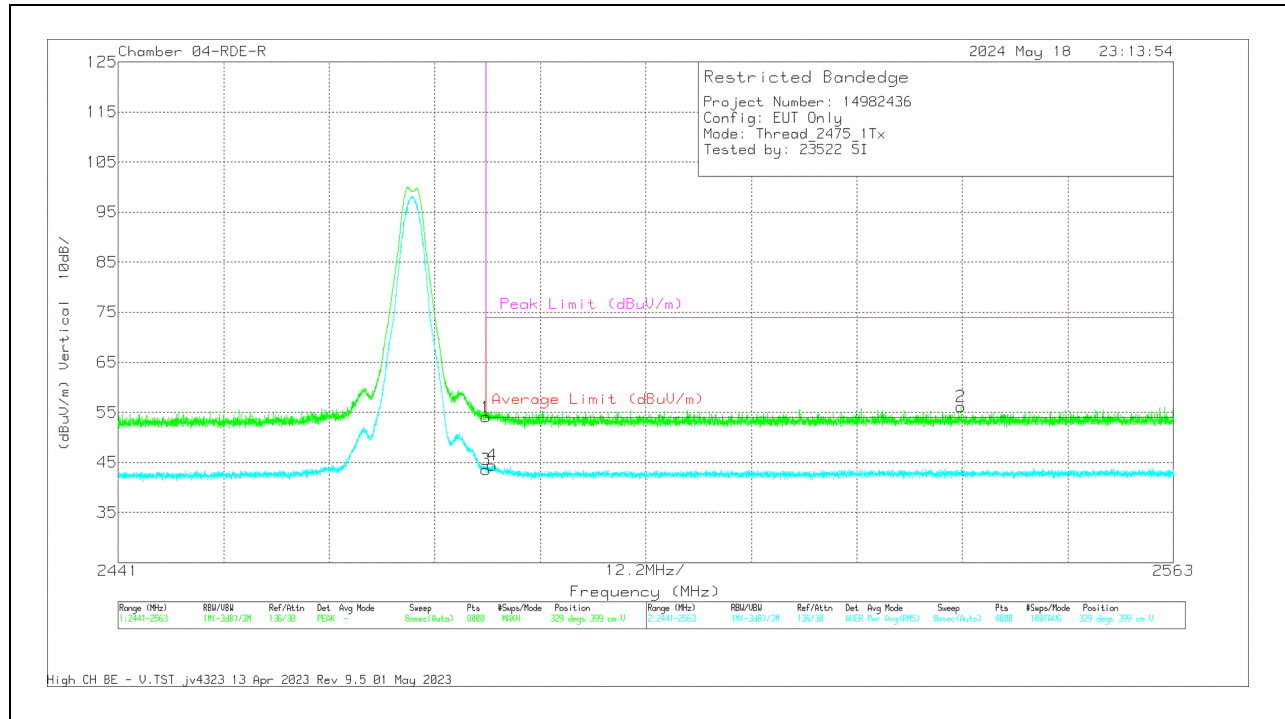
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	41112 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2483.5	63.03	Pk	32.3	-40.12	55.21	-	-	74	-18.79	342	154	H
3	2483.5	51.64	RMS	32.3	-40.12	43.82	54	-10.18	-	-	342	154	H
4	2483.95	51.75	RMS	32.3	-40.12	43.93	54	-10.07	-	-	342	154	H
2	2544.668	64.12	Pk	32.4	-39.93	56.59	-	-	74	-17.41	342	154	H

Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT

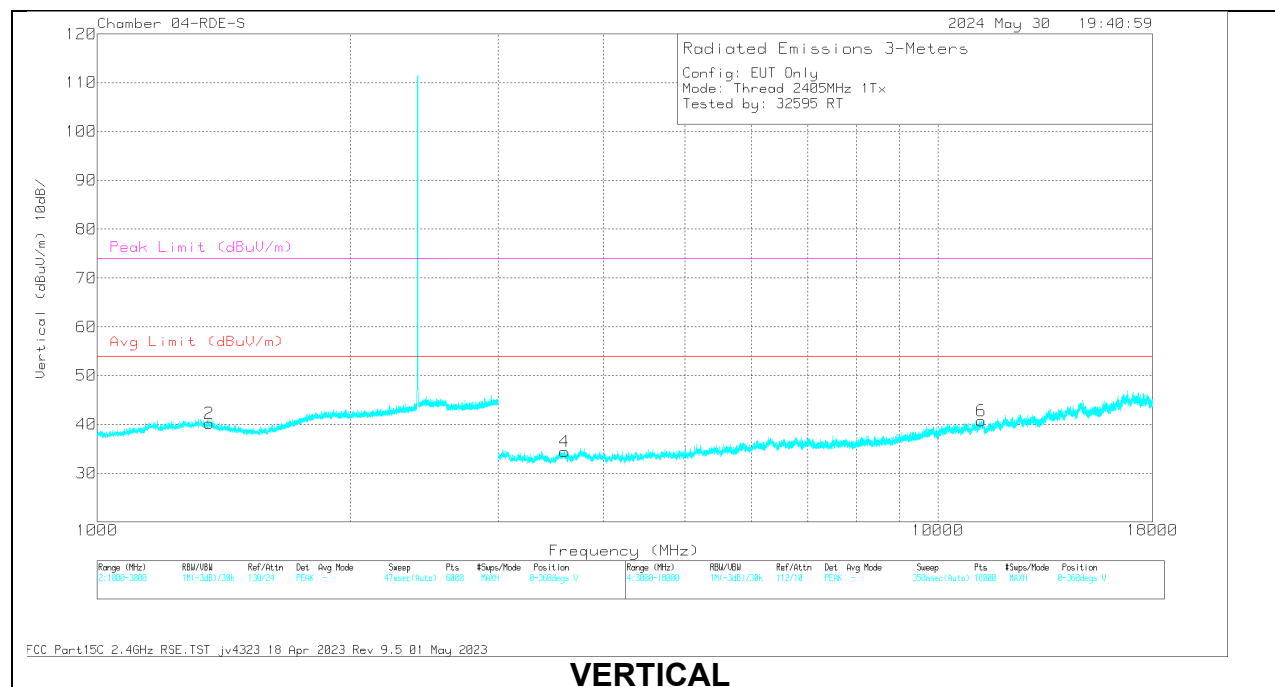
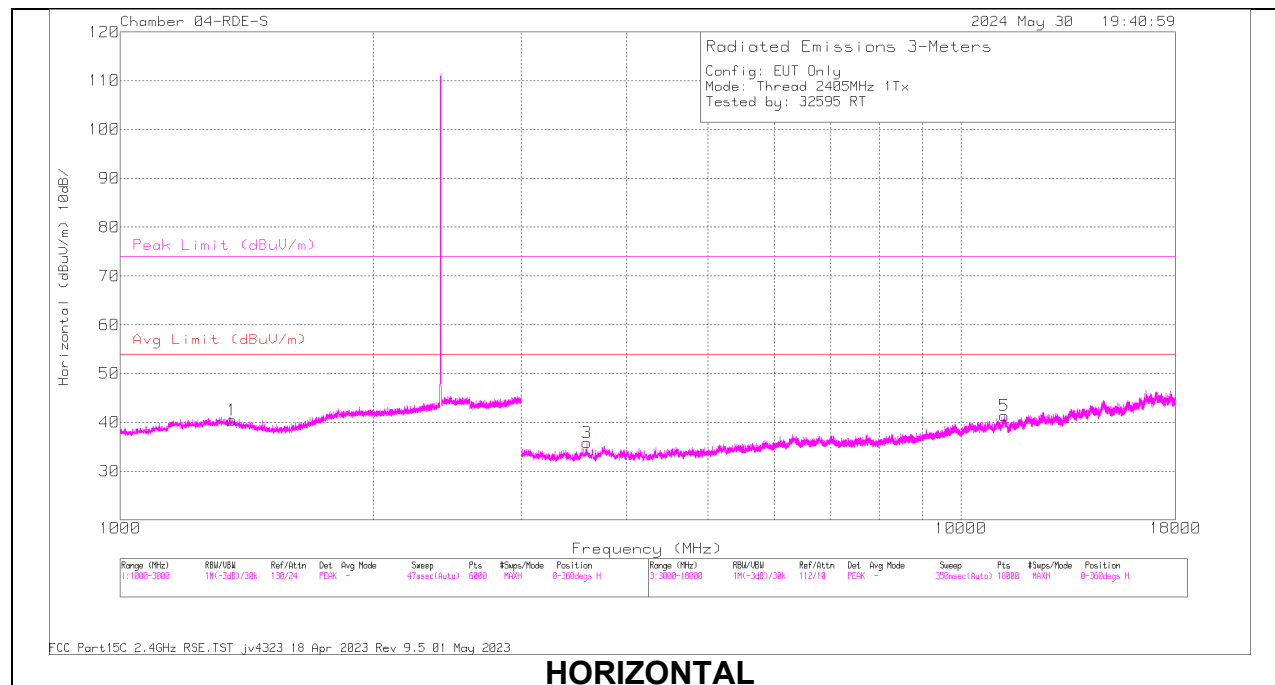


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	41112 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2483.5	61.9	Pk	32.3	-40.12	54.08	-	-	74	-19.92	329	399	V
3	2483.5	51.42	RMS	32.3	-40.12	43.6	54	-10.4	-	-	329	399	V
4	2484.27	52.26	RMS	32.3	-40.12	44.44	54	-9.56	-	-	329	399	V
2	2538.43	63.73	Pk	32.4	-39.96	56.17	-	-	74	-17.83	329	399	V

Pk - Peak detector
RMS - RMS detection

10.1.3. ANT4, 802.15.4 HIGH POWER, HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

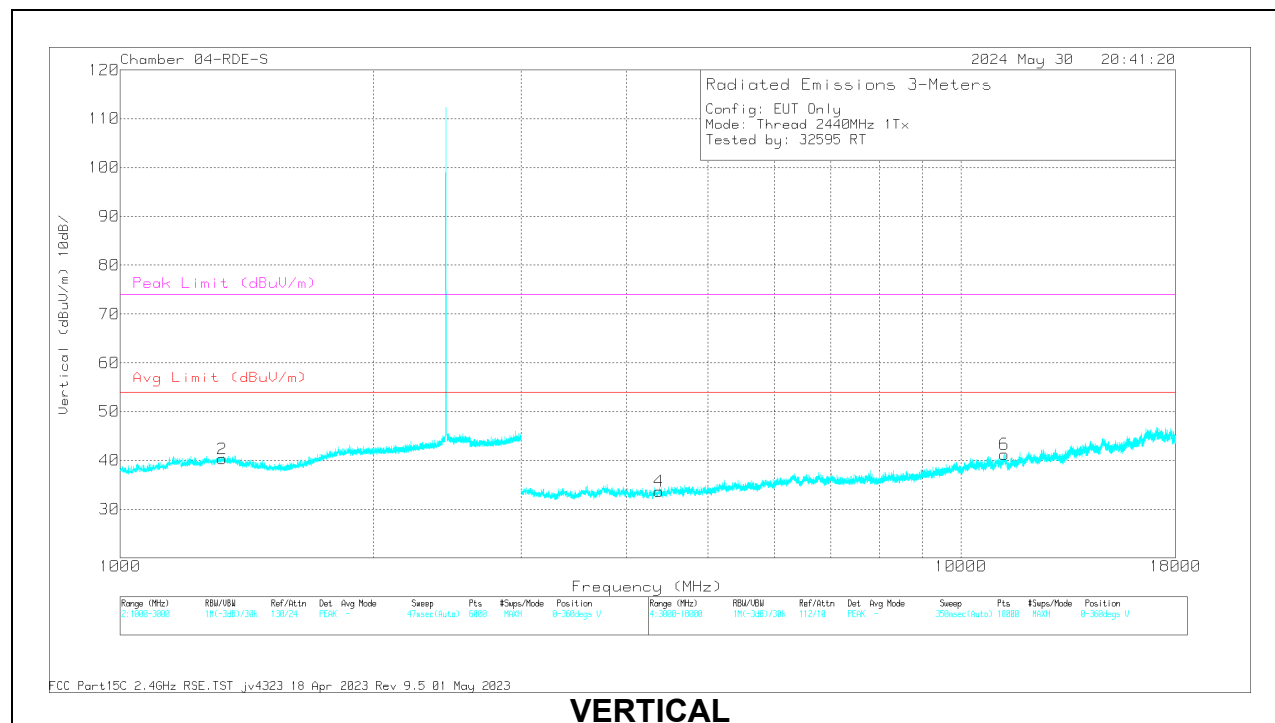
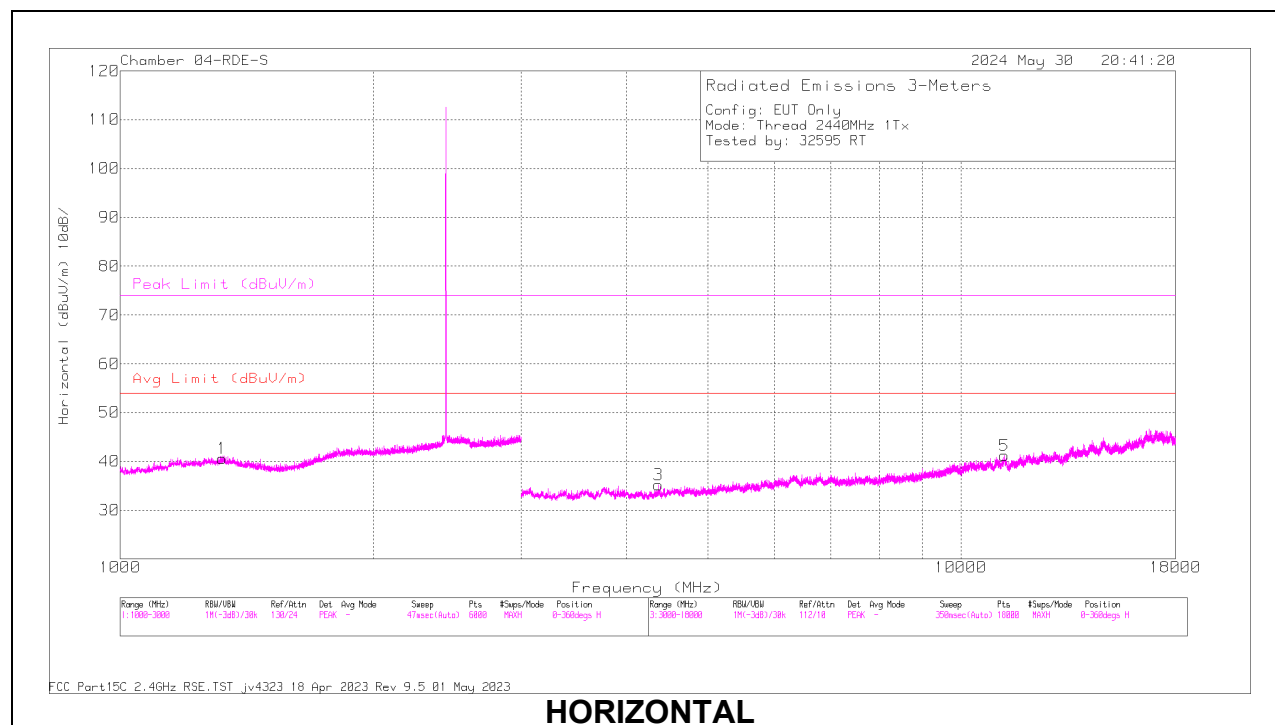
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1361.24	61.55	PK2	28.8	-40.05	50.3	-	-	74	-23.7	205	262	H
	* 1359.882	49.66	MAv1	28.8	-40.05	38.41	54	-15.59	-	-	205	262	H
2	* 1358.536	61.5	PK2	28.8	-40.05	50.25	-	-	74	-23.75	45	341	V
	* 1357.873	49.74	MAv1	28.8	-40.06	38.48	54	-15.52	-	-	45	341	V
3	* 3590.359	57.05	PK2	32.9	-45.82	44.13	-	-	74	-29.87	229	158	H
	* 3591.099	45.73	MAv1	32.9	-45.81	32.82	54	-21.18	-	-	229	158	H
5	* 11261.575	54.89	PK2	37.9	-41.46	51.33	-	-	74	-22.67	267	105	H
	* 11261.345	42.78	MAv1	37.9	-41.45	39.23	54	-14.77	-	-	267	105	H
4	* 3595.035	56.98	PK2	32.9	-45.74	44.14	-	-	74	-29.86	344	339	V
	* 3596.647	45.64	MAv1	32.9	-45.71	32.83	54	-21.17	-	-	344	339	V
6	* 11263.552	55.42	PK2	37.9	-41.44	51.88	-	-	74	-22.12	231	128	V
	* 11263.555	43.03	MAv1	37.9	-41.44	39.49	54	-14.51	-	-	231	128	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL RESULTS



RADIATED EMISSIONS

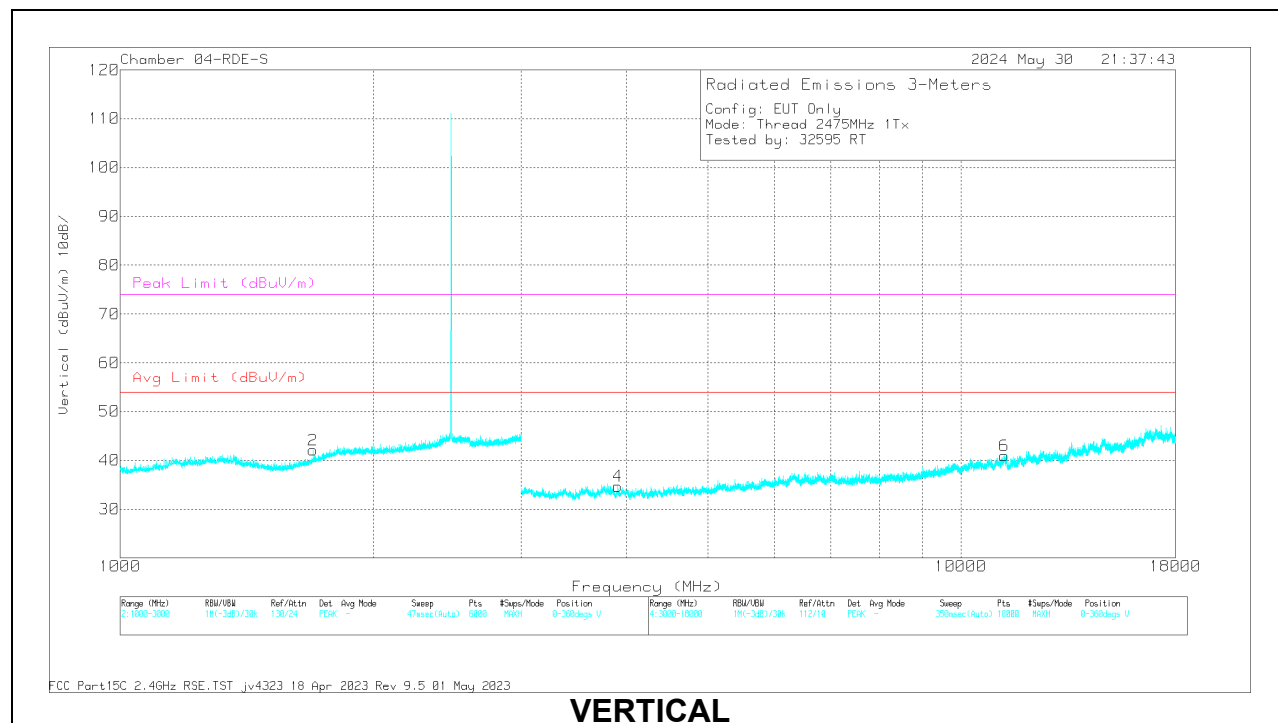
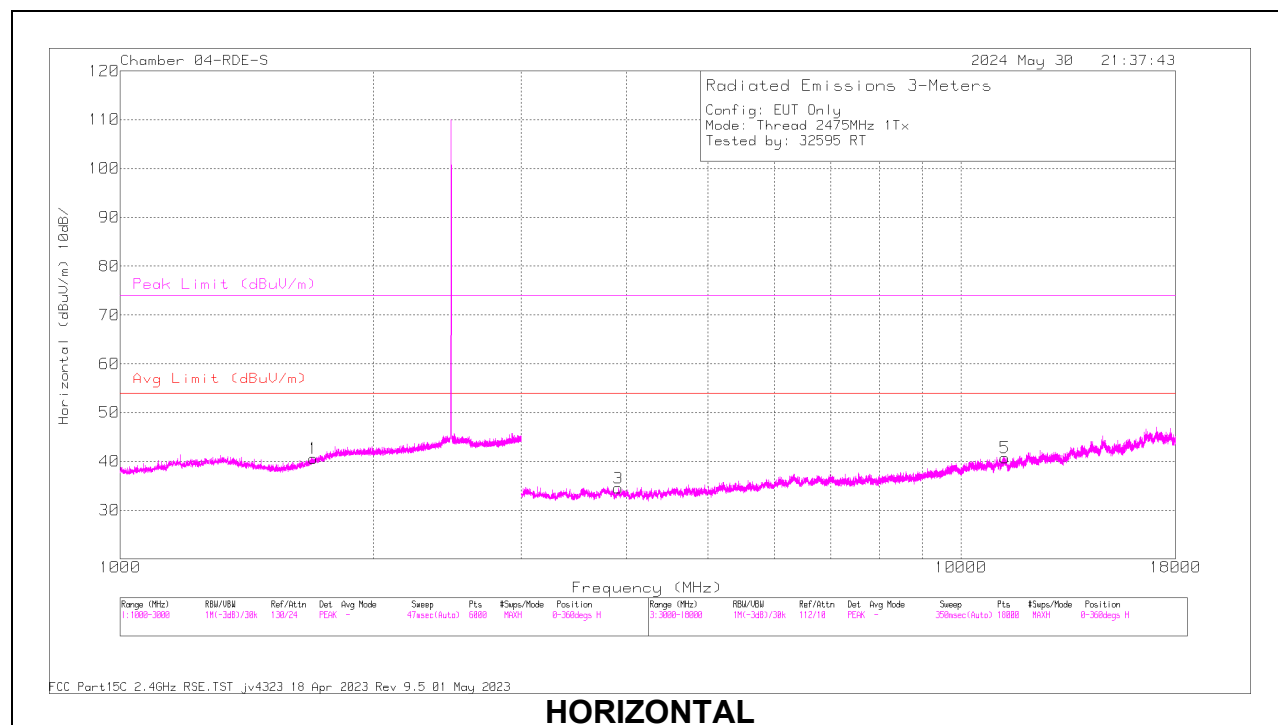
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1323.907	61.54	PK2	28.8	-40.09	50.25	-	-	74	-23.75	166	151	H
	* 1321.144	50.1	MAv1	28.9	-40.09	38.91	54	-15.09	-	-	166	151	H
2	* 1321.307	61.79	PK2	28.9	-40.09	50.6	-	-	74	-23.4	290	282	V
	* 1321.105	49.94	MAv1	28.9	-40.09	38.75	54	-15.25	-	-	290	282	V
3	* 4367.689	57.62	PK2	33.5	-47.06	44.06	-	-	74	-29.94	140	395	H
	* 4367.513	46.1	MAv1	33.5	-47.06	32.54	54	-21.46	-	-	140	395	H
5	* 11258.231	55.16	PK2	37.9	-41.49	51.57	-	-	74	-22.43	249	154	H
	* 11261.066	42.95	MAv1	37.9	-41.45	39.4	54	-14.6	-	-	249	154	H
4	* 4370.176	57.67	PK2	33.5	-47	44.17	-	-	74	-29.83	297	192	V
	* 4370.504	46.13	MAv1	33.5	-46.99	32.64	54	-21.36	-	-	297	192	V
6	* 11263.155	55.18	PK2	37.9	-41.43	51.65	-	-	74	-22.35	191	340	V
	* 11262.954	43.39	MAv1	37.9	-41.43	39.86	54	-14.14	-	-	191	340	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1695.53	61.11	PK2	29.2	-39.95	50.36	-	-	74	-23.64	105	254	H
	* 1697.37	49.63	MAv1	29.2	-39.94	38.89	54	-15.11	-	-	105	254	H
2	* 1697.044	61.3	PK2	29.2	-39.94	50.56	-	-	74	-23.44	223	349	V
	* 1697.23	49.61	MAv1	29.2	-39.94	38.87	54	-15.13	-	-	223	349	V
3	* 3915.003	56.94	PK2	33.5	-46.54	43.9	-	-	74	-30.1	61	193	H
	* 3912.292	45.53	MAv1	33.5	-46.55	32.48	54	-21.52	-	-	61	193	H
5	* 11276.979	54.6	PK2	37.9	-41.64	50.86	-	-	74	-23.14	191	258	H
	* 11277.346	42.79	MAv1	37.9	-41.64	39.05	54	-14.95	-	-	191	258	H
4	* 3907.811	57.02	PK2	33.5	-46.55	43.97	-	-	74	-30.03	222	193	V
	* 3911.077	45.69	MAv1	33.5	-46.56	32.63	54	-21.37	-	-	222	193	V
6	* 11273.133	54.45	PK2	37.9	-41.56	50.79	-	-	74	-23.21	334	151	V
	* 11272.121	42.95	MAv1	37.9	-41.5	39.35	54	-14.65	-	-	334	151	V

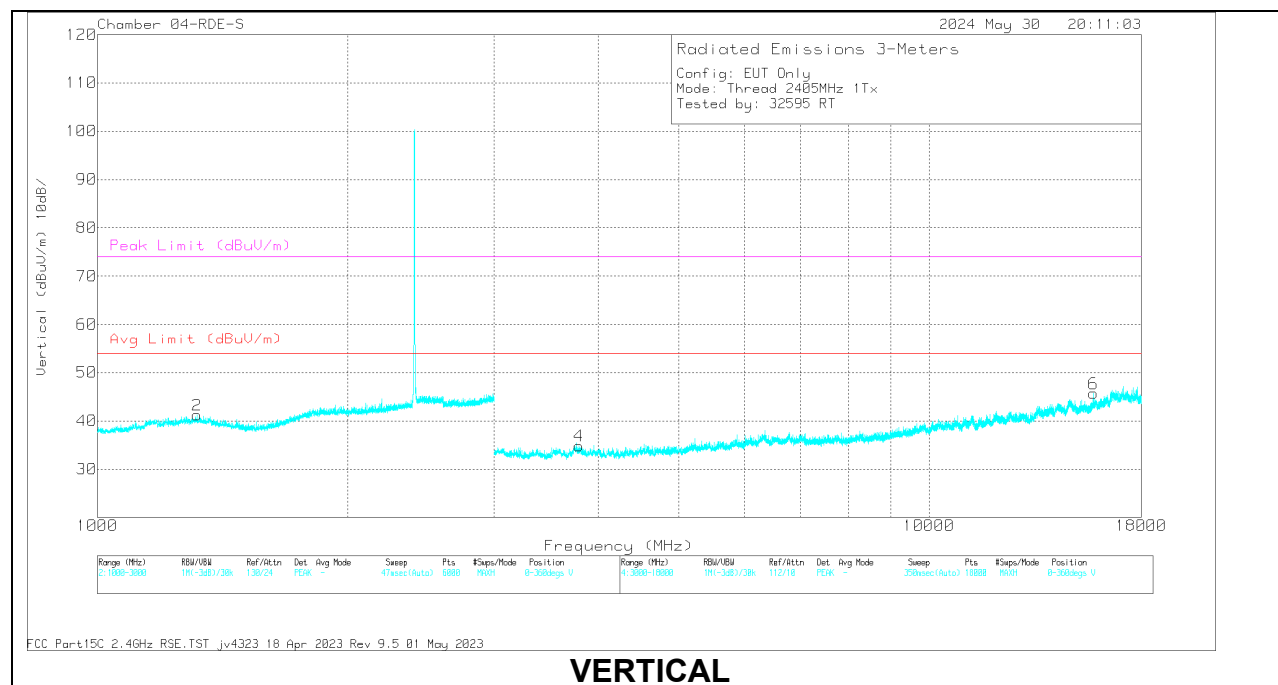
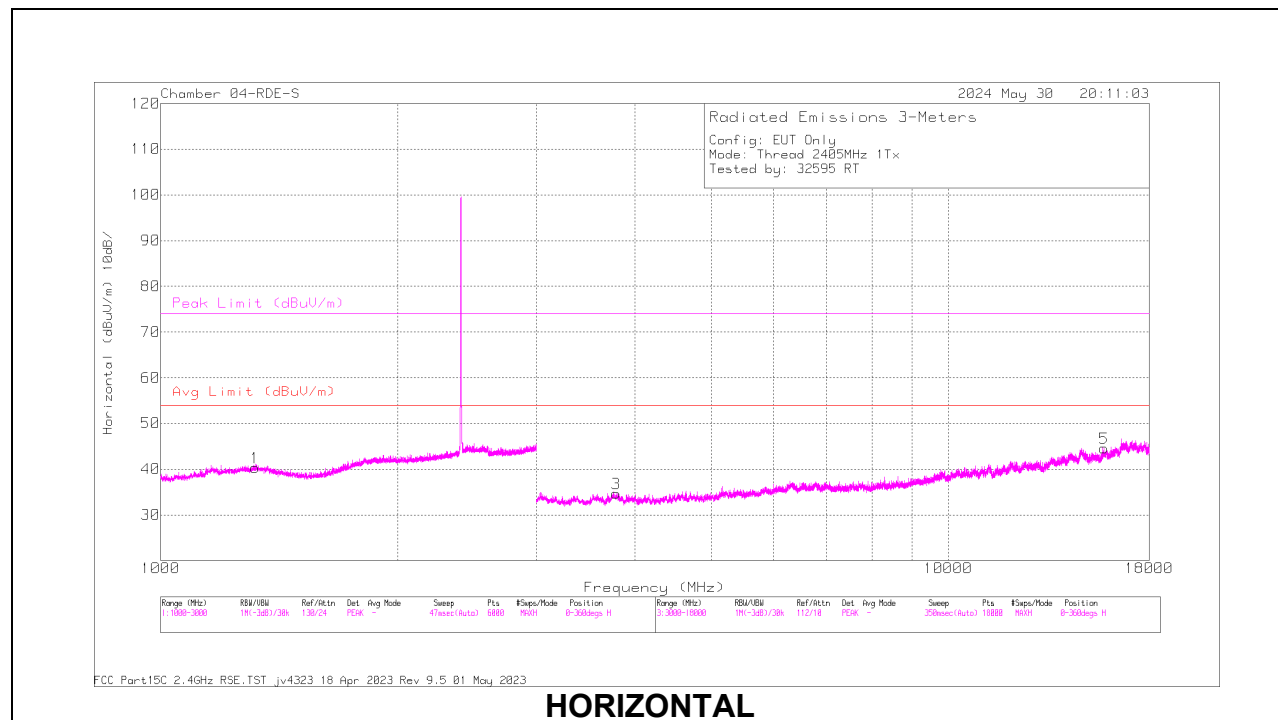
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.1.4. ANT4, 802.15.4 LOW POWER, HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

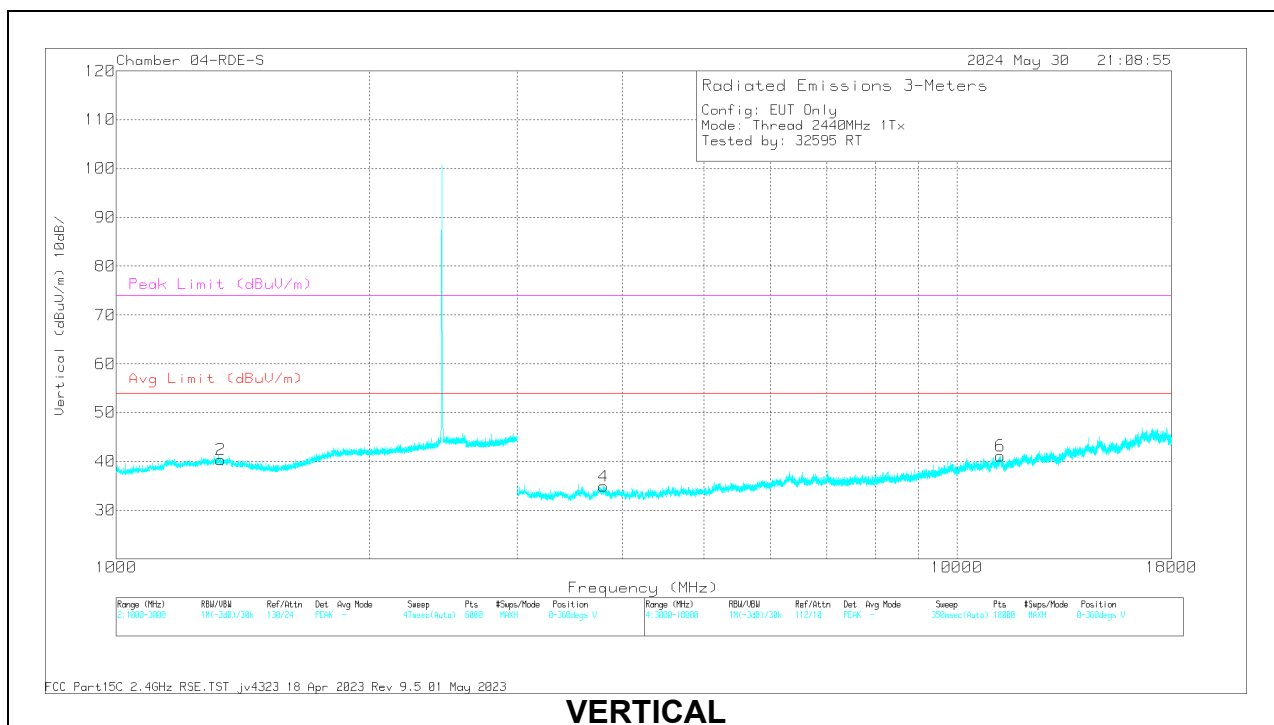
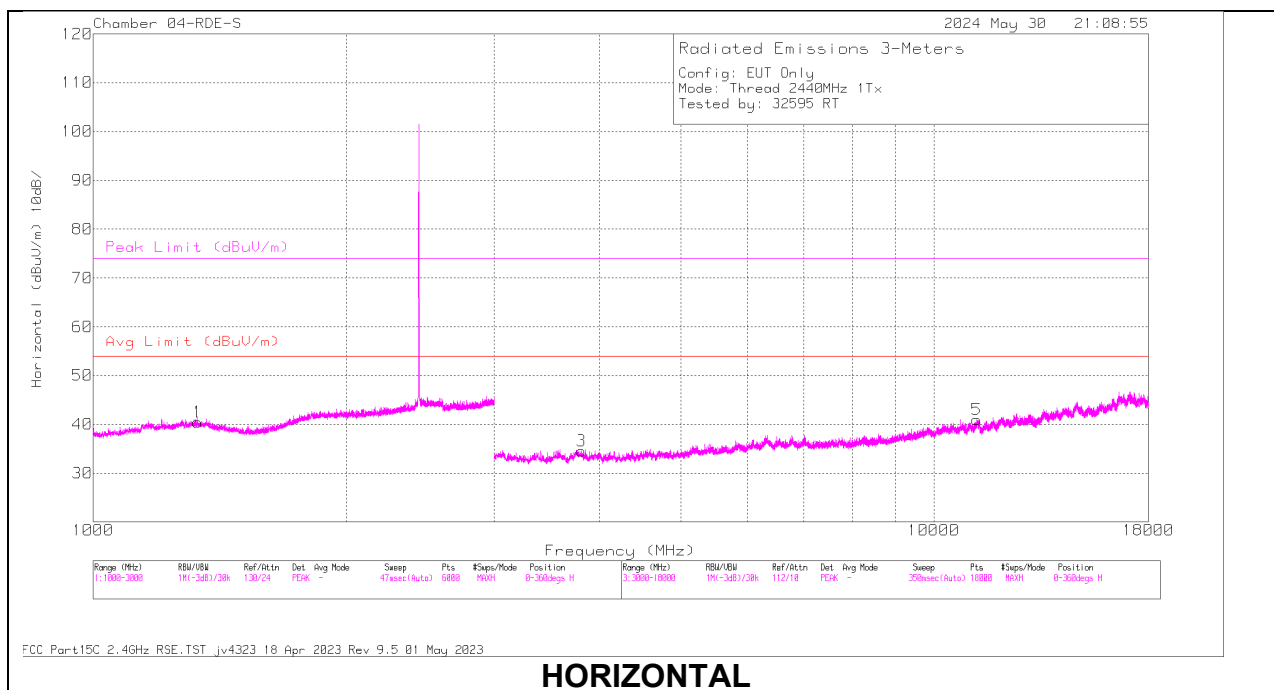
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1316.687	61.22	PK2	28.9	-40.1	50.02	-	-	74	-23.98	311	182	H
	* 1316.416	49.85	MAv1	28.9	-40.1	38.65	54	-15.35	-	-	311	182	H
2	* 1315.951	61.31	PK2	28.9	-40.1	50.11	-	-	74	-23.89	104	117	V
	* 1317.696	49.74	MAv1	28.9	-40.11	38.53	54	-15.47	-	-	104	117	V
3	* 3788.261	57.28	PK2	33.4	-46.31	44.37	-	-	74	-29.63	231	142	H
	* 3791.052	45.9	MAv1	33.4	-46.27	33.03	54	-20.97	-	-	231	142	H
5	* 15764.297	52.03	PK2	40.4	-39.65	52.78	-	-	74	-21.22	188	362	H
	* 15760.932	40.57	MAv1	40.4	-39.78	41.19	54	-12.81	-	-	188	362	H
4	* 3790.736	57.44	PK2	33.4	-46.27	44.57	-	-	74	-29.43	114	387	V
	* 3790.919	45.89	MAv1	33.4	-46.27	33.02	54	-20.98	-	-	114	387	V
6	* 15762.769	52.78	PK2	40.4	-39.65	53.53	-	-	74	-20.47	340	158	V
	* 15763.882	41.1	MAv1	40.4	-39.65	41.85	54	-12.15	-	-	340	158	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL RESULTS



RADIATED EMISSIONS

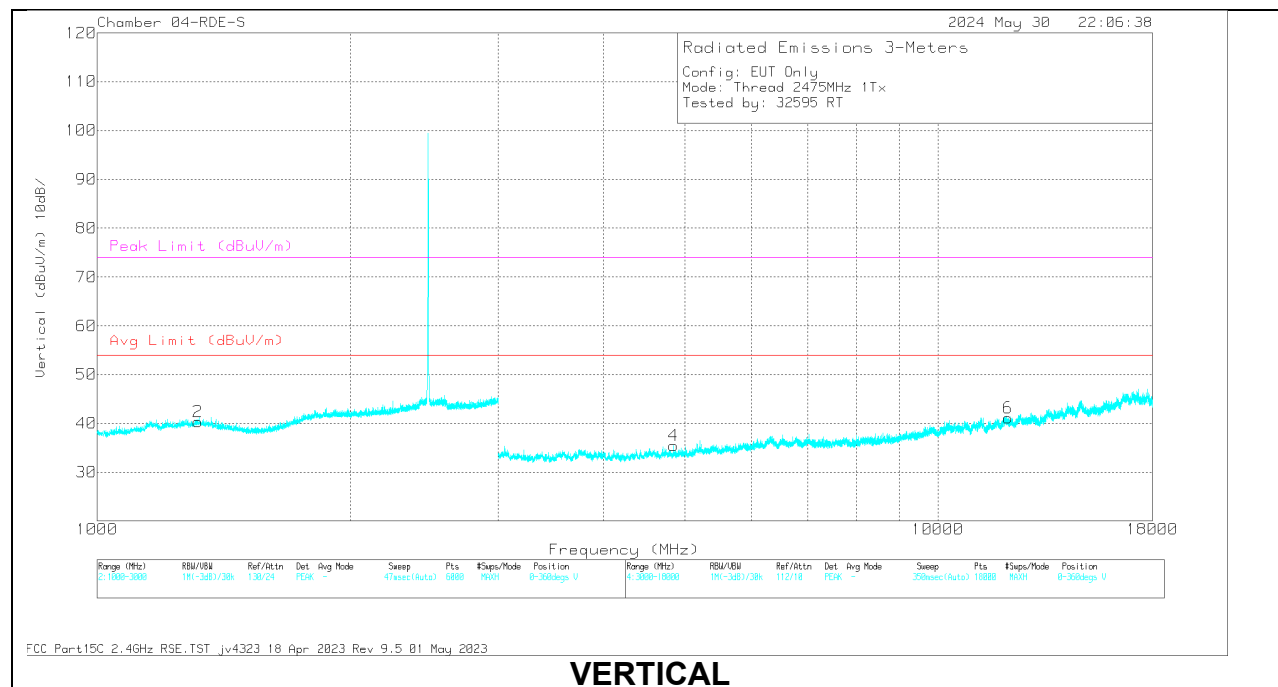
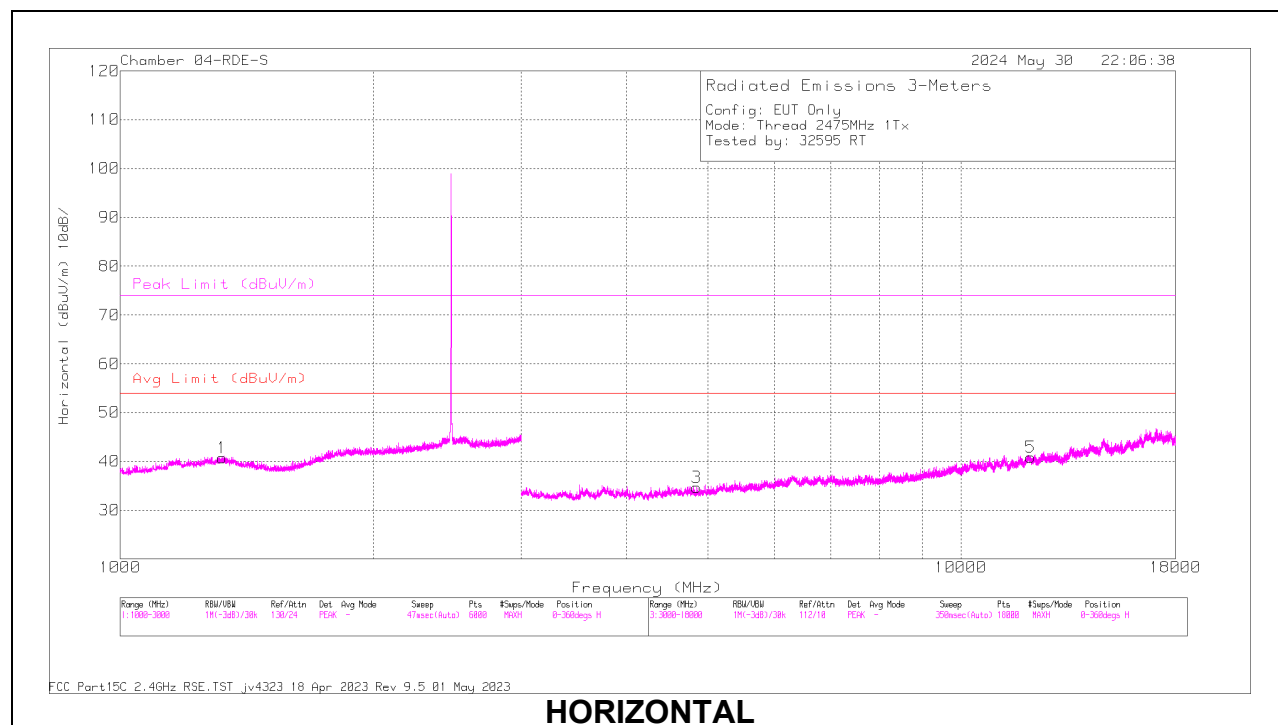
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1331.245	61.24	PK2	28.8	-40.06	49.98	-	-	74	-24.02	58	251	H
	* 1332.492	49.86	MAv1	28.8	-40.06	38.6	54	-15.4	-	-	58	251	H
2	* 1330.758	61.4	PK2	28.8	-40.06	50.14	-	-	74	-23.86	359	107	V
	* 1332.851	49.75	MAv1	28.8	-40.06	38.49	54	-15.51	-	-	359	107	V
3	* 3808.074	56.79	PK2	33.5	-46.21	44.08	-	-	74	-29.92	262	145	H
	* 3808.213	45.34	MAv1	33.5	-46.21	32.63	54	-21.37	-	-	262	145	H
5	* 11253.85	54.44	PK2	37.9	-41.6	50.74	-	-	74	-23.26	218	160	H
	* 11252.339	43.01	MAv1	37.9	-41.66	39.25	54	-14.75	-	-	218	160	H
4	* 3801.501	57.44	PK2	33.5	-46.26	44.68	-	-	74	-29.32	222	380	V
	* 3802.079	45.63	MAv1	33.5	-46.26	32.87	54	-21.13	-	-	222	380	V
6	* 11267.542	54.48	PK2	37.9	-41.47	50.91	-	-	74	-23.09	194	153	V
	* 11268.742	43.14	MAv1	37.9	-41.48	39.56	54	-14.44	-	-	194	153	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1320.331	61.25	PK2	28.9	-40.1	50.05	-	-	74	-23.95	211	116	H
	* 1320.502	49.84	MAv1	28.9	-40.1	38.64	54	-15.36	-	-	211	116	H
2	* 1320.509	61.88	PK2	28.9	-40.1	50.68	-	-	74	-23.32	89	178	V
	* 1318.579	50.21	MAv1	28.9	-40.1	39.01	54	-14.99	-	-	89	178	V
3	* 4846.328	57.66	PK2	33.9	-47.17	44.39	-	-	74	-29.61	292	325	H
	* 4847.585	45.79	MAv1	33.9	-47.18	32.51	54	-21.49	-	-	292	325	H
5	* 12099.449	54.14	PK2	38.6	-41.3	51.44	-	-	74	-22.56	337	394	H
	* 12098.964	42.2	MAv1	38.6	-41.29	39.51	54	-14.49	-	-	337	394	H
4	* 4848.102	57.39	PK2	33.9	-47.19	44.1	-	-	74	-29.9	126	318	V
	* 4849.951	45.85	MAv1	33.9	-47.18	32.57	54	-21.43	-	-	126	318	V
6	* 12118.107	53.96	PK2	38.7	-41.5	51.16	-	-	74	-22.84	350	377	V
	* 12116.033	42.18	MAv1	38.7	-41.51	39.37	54	-14.63	-	-	350	377	V

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

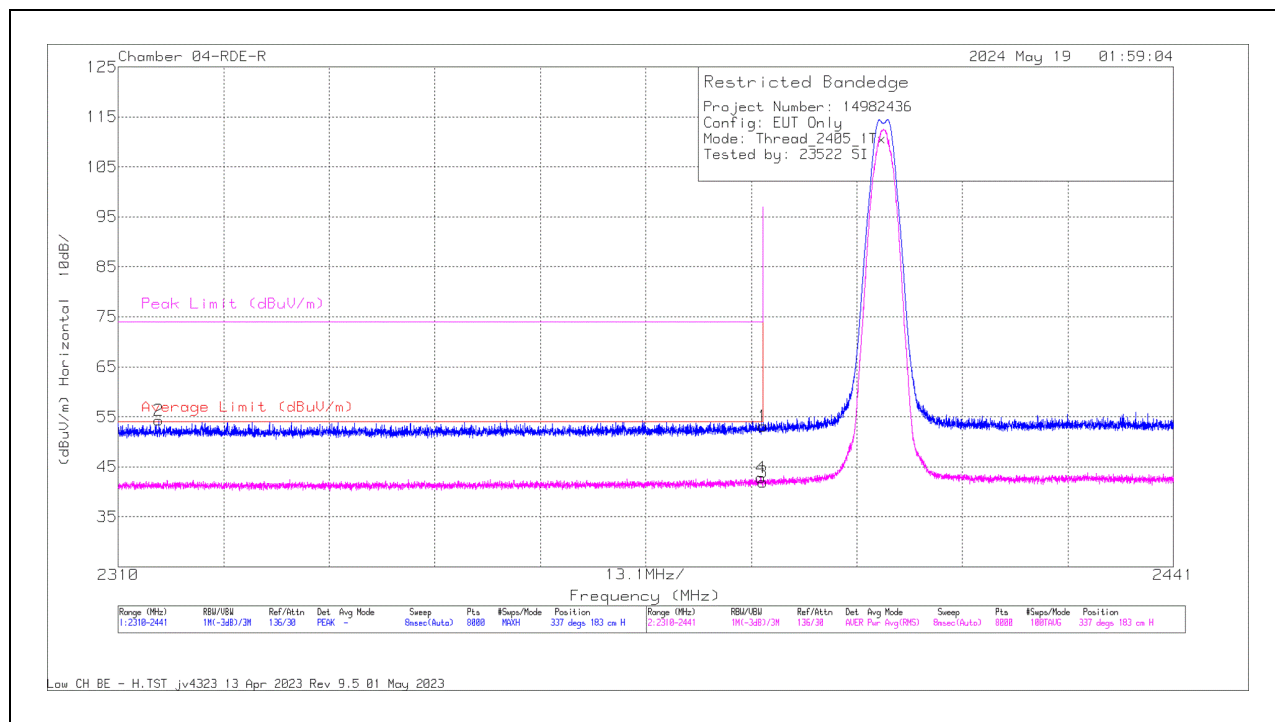
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.1.5. ANT3, 802.15.4 HIGH POWER BANDEGE

Low Channel

HORIZONTAL RESULT

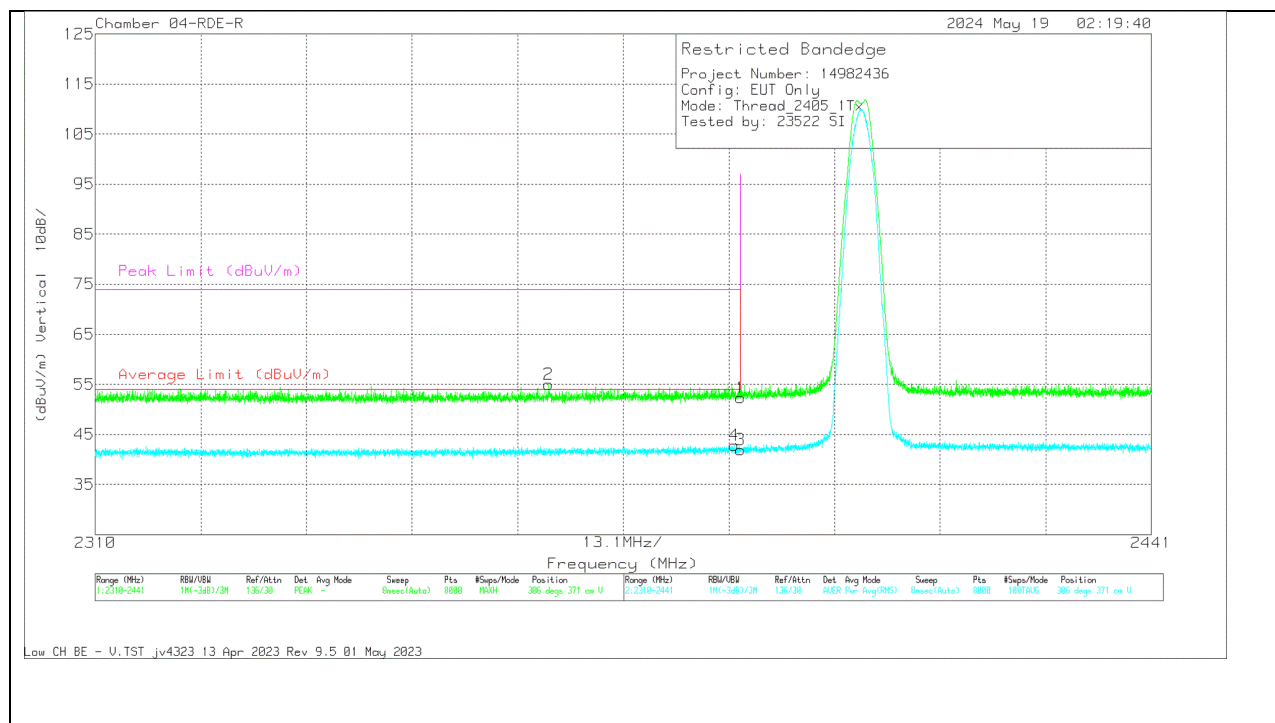


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	41112 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2315.028	63.2	Pk	31.7	-40.58	54.32	-	-	74	-19.68	337	183	H
4	2389.789	51.29	RMS	32	-40.44	42.85	54	-11.15	-	-	337	183	H
1	2390	61.55	Pk	32	-40.44	53.11	-	-	74	-20.89	337	183	H
3	2390	50.39	RMS	32	-40.44	41.95	54	-12.05	-	-	337	183	H

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

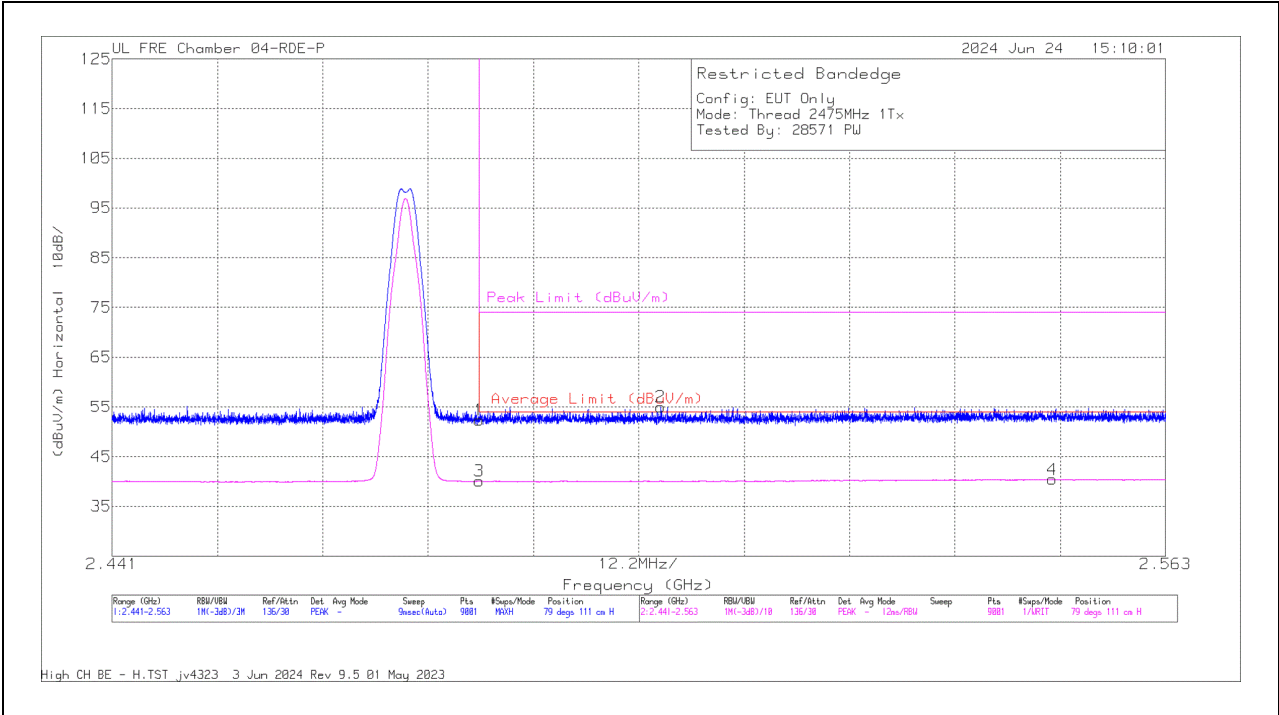


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	41112 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2366.255	63.67	Pk	31.9	-40.56	55.01	-	-	74	-18.99	306	371	V
4	2389.281	51.31	RMS	32	-40.43	42.88	54	-11.12	-	-	306	371	V
1	2390	60.76	Pk	32	-40.44	52.32	-	-	74	-21.68	306	371	V
3	2390	50.37	RMS	32	-40.44	41.93	54	-12.07	-	-	306	371	V

Pk - Peak detector
RMS - RMS detection

High CHANNEL

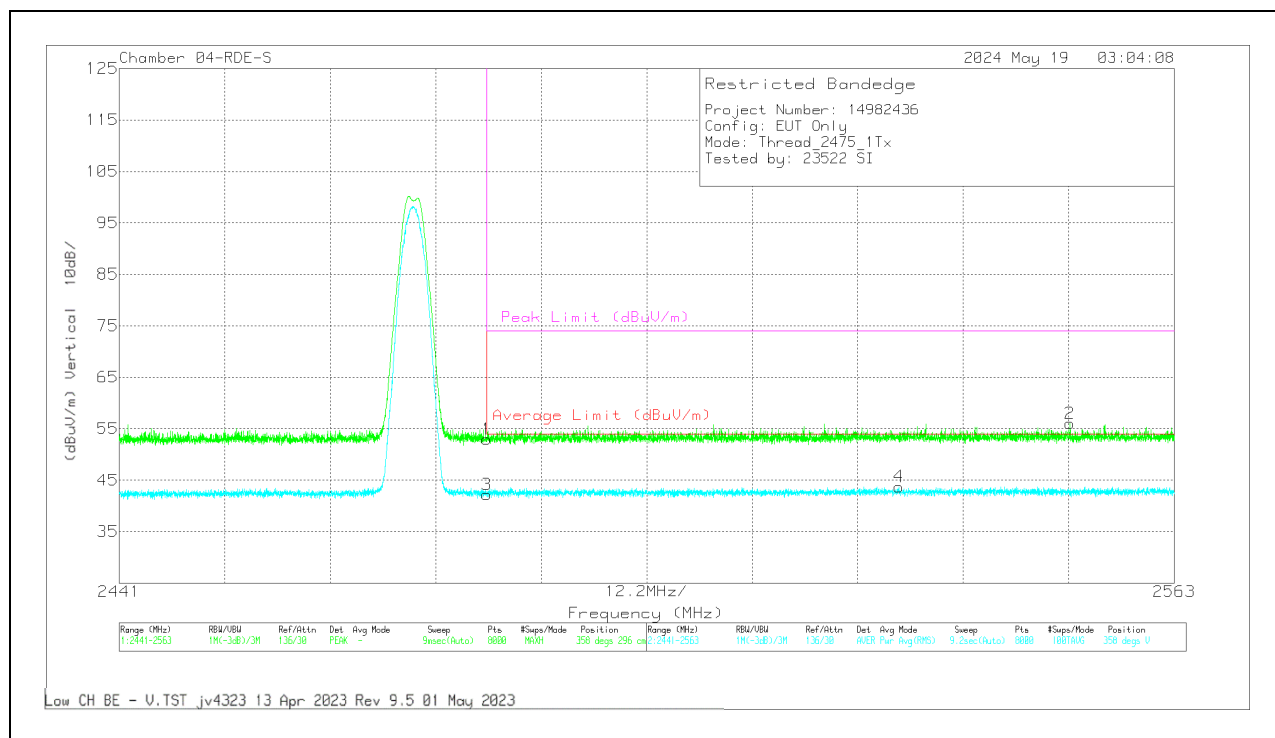
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	41112 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2483.5	62.02	Pk	32.3	-40.12	54.2	-	-	74	-19.8	162	119	H
3	2483.5	50.55	RMS	32.3	-40.12	42.73	54	-11.27	-	-	162	119	H
4	2483.736	51.86	RMS	32.3	-40.12	44.04	54	-9.96	-	-	162	119	H
2	2530.422	63.18	Pk	32.4	-39.88	55.7	-	-	74	-18.3	162	119	H

Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	41112 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2483.5	60.79	Pk	32.3	-39.69	53.4	-	-	74	-20.6	358	296	V
3	2483.5	50.03	RMS	32.3	-39.69	42.64	54	-11.36	-	-	358	296	V
4	2531.139	51.22	RMS	32.4	-39.64	43.98	54	-10.02	-	-	358	296	V
2	2550.936	63.49	Pk	32.4	-39.59	56.3	-	-	74	-17.7	358	296	V

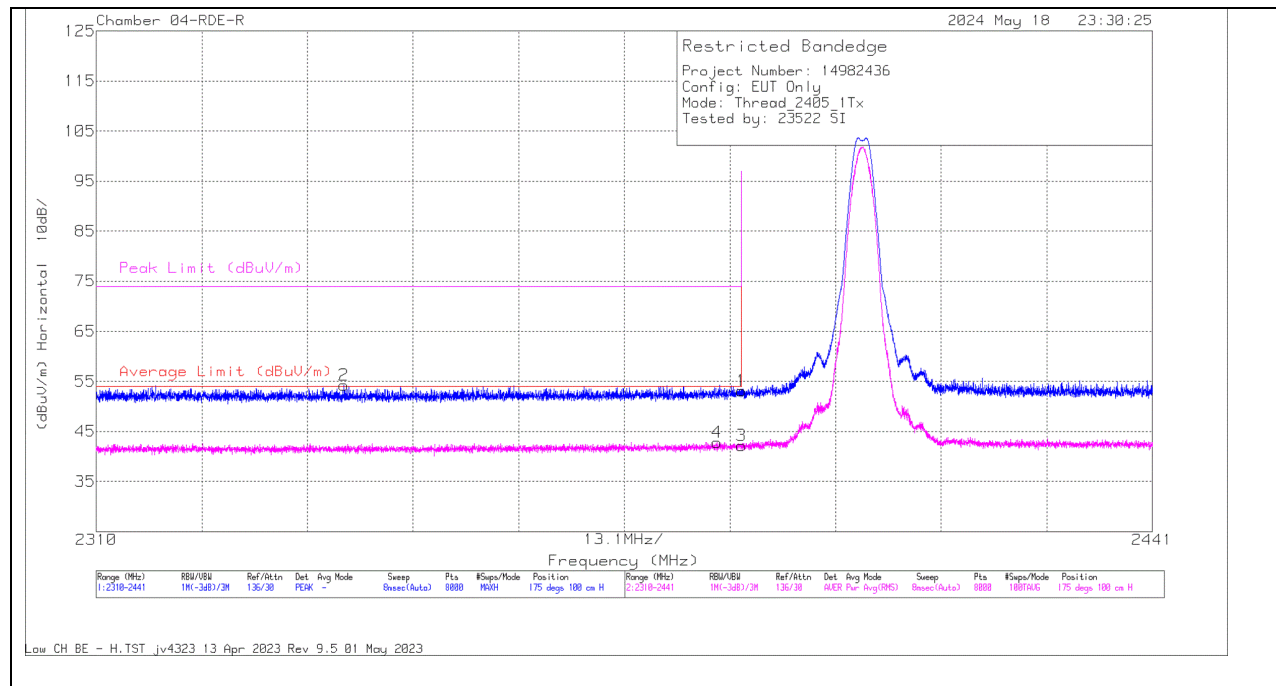
Pk - Peak detector

RMS - RMS detection

10.1.6. ANT3, 802.15.4 LOW POWER BANDEDGE

LOW CHANNEL

HORIZONTAL RESULT

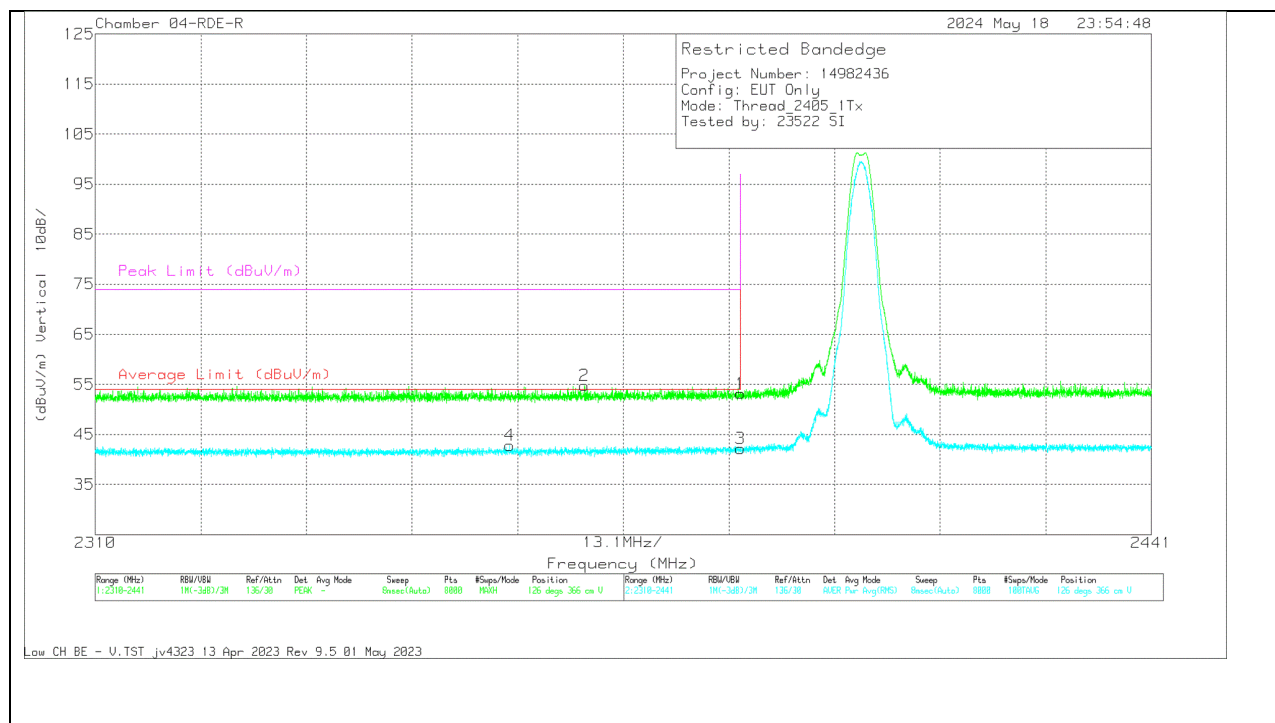


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	41112 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2340.74	63.03	Pk	31.8	-40.58	54.25	-	-	74	-19.75	175	100	H
4	2386.988	51.29	RMS	32	-40.42	42.87	54	-11.13	-	-	175	100	H
1	2390	61.54	Pk	32	-40.44	53.1	-	-	74	-20.9	175	100	H
3	2390	50.61	RMS	32	-40.44	42.17	54	-11.83	-	-	175	100	H

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

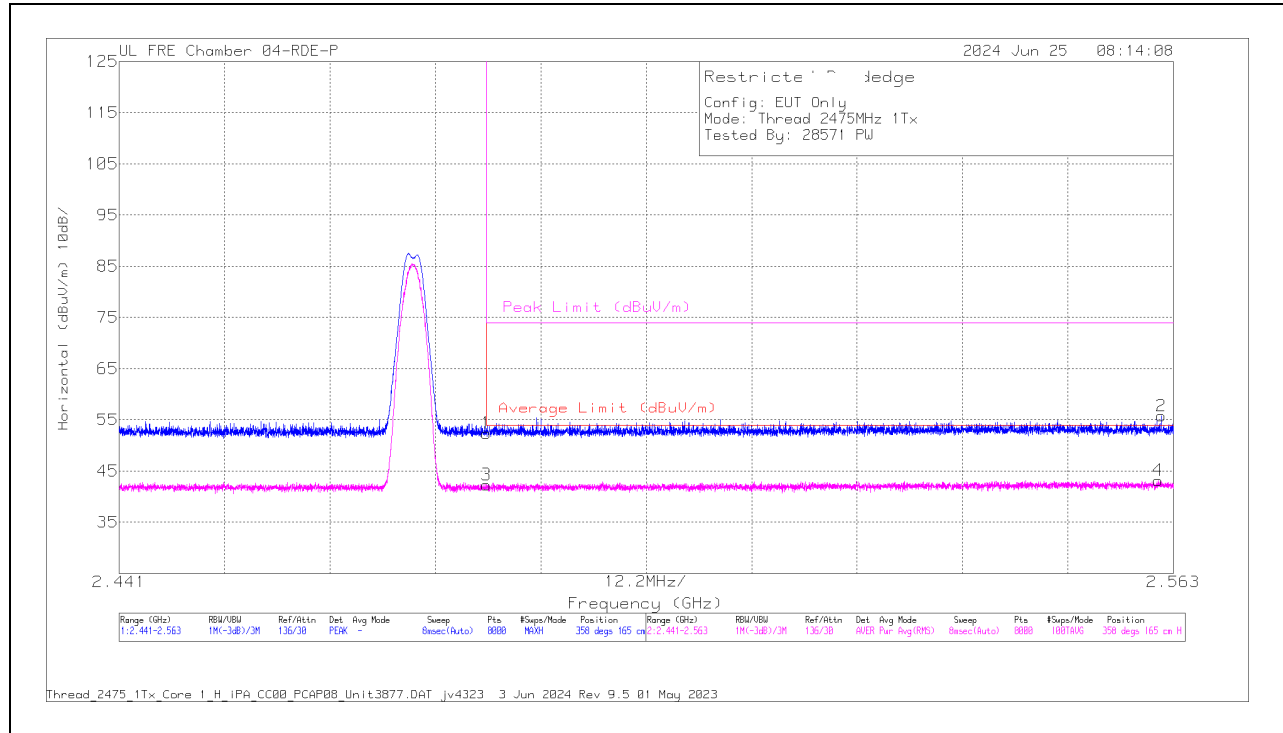


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	41112 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2361.391	51.57	RMS	31.8	-40.54	42.83	54	-11.17	-	-	126	366	V
2	2370.693	63.4	Pk	31.9	-40.54	54.76	-	-	74	-19.24	126	366	V
1	2390	61.63	Pk	32	-40.44	53.19	-	-	74	-20.81	126	366	V
3	2390	50.67	RMS	32	-40.44	42.23	54	-11.77	-	-	126	366	V

Pk - Peak detector
RMS - RMS detection

HIGH CHANNEL

HORIZONTAL RESULT

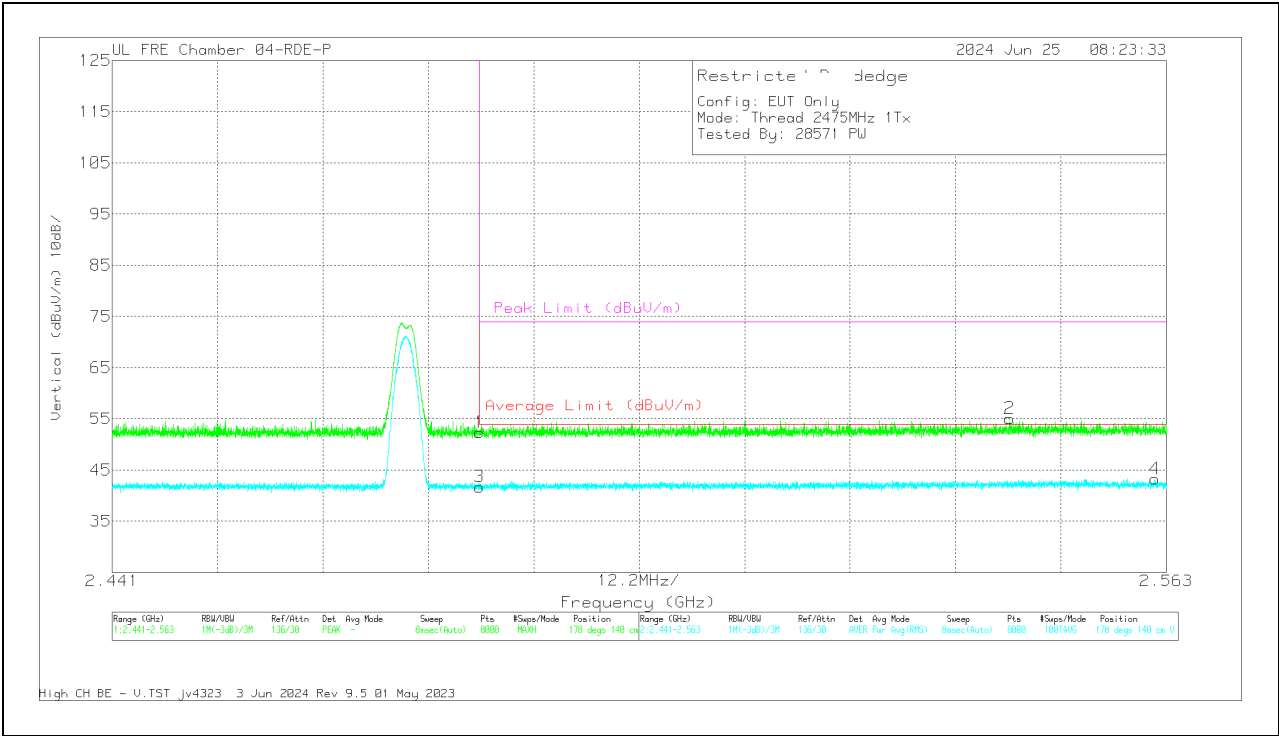


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	79834 3m ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.4835	61	Pk	32.2	-40.83	52.37	-	-	74	-21.63	358	165	H
3	2.4835	50.92	RMS	32.2	-40.83	42.29	54	-11.71	-	-	358	165	H
4	2.561232	51.41	RMS	32.4	-40.64	43.17	54	-10.83	-	-	358	165	H
2	2.561598	64.01	Pk	32.4	-40.64	55.77	-	-	74	-18.23	358	165	H

Pk - Peak detector

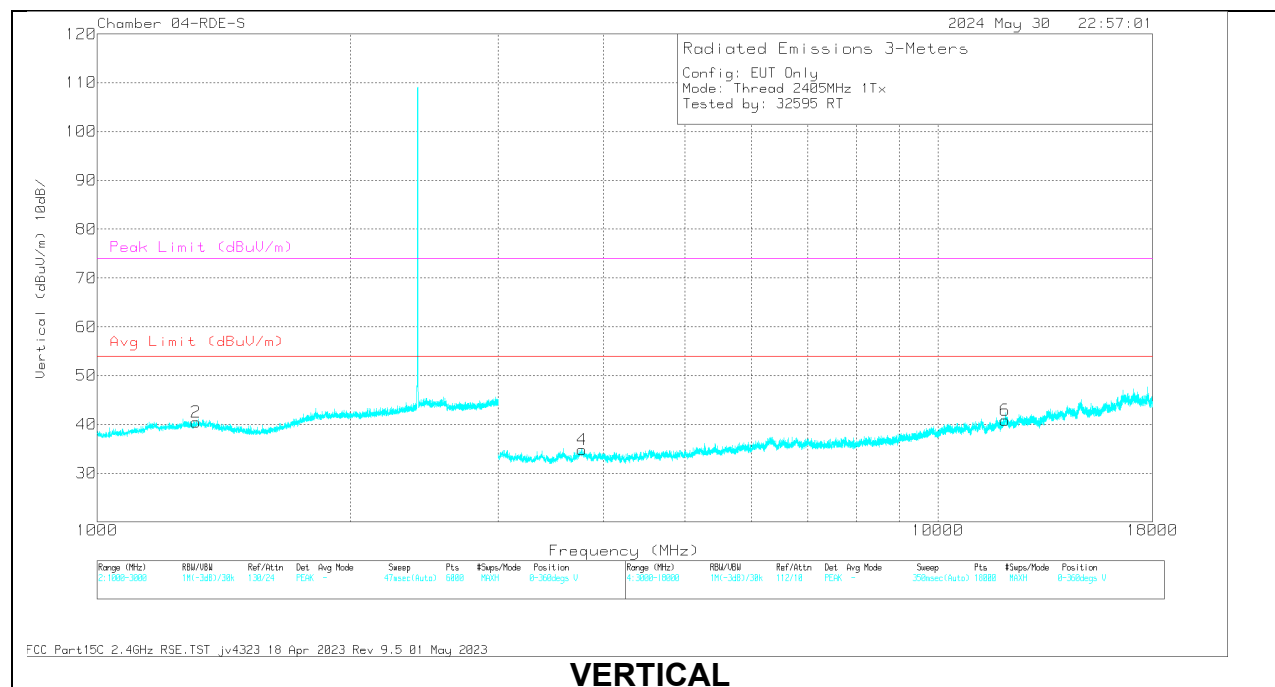
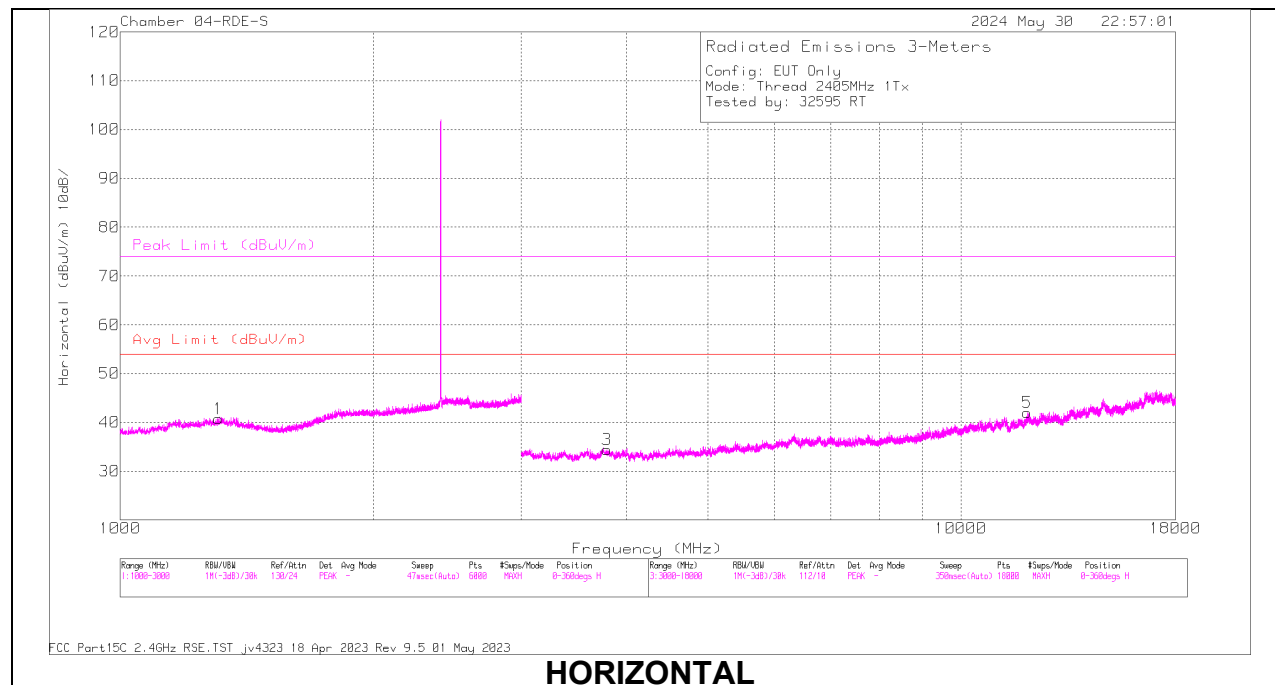
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	79834 3m ACF (dB/m)	Gain/Loss (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	60.98	Pk	32.2	-40.83	52.35	-	-	74	-21.65	178	140	V
3	2.4835	50.35	RMS	32.2	-40.83	41.72	54	-12.28	-	-	178	140	V
2	2.544866	63.36	Pk	32.4	-40.68	55.08	-	-	74	-18.92	178	140	V
4	2.561659	51.52	RMS	32.4	-40.64	43.28	54	-10.72	-	-	178	140	V

Pk - Peak detector
RMS - RMS detection

10.1.7. ANT3, 802.15.4 HIGH POWER, HARMONICS AND SPURIOUS EMISSIONS,**LOW CHANNEL RESULTS**

RADIATED EMISSIONS

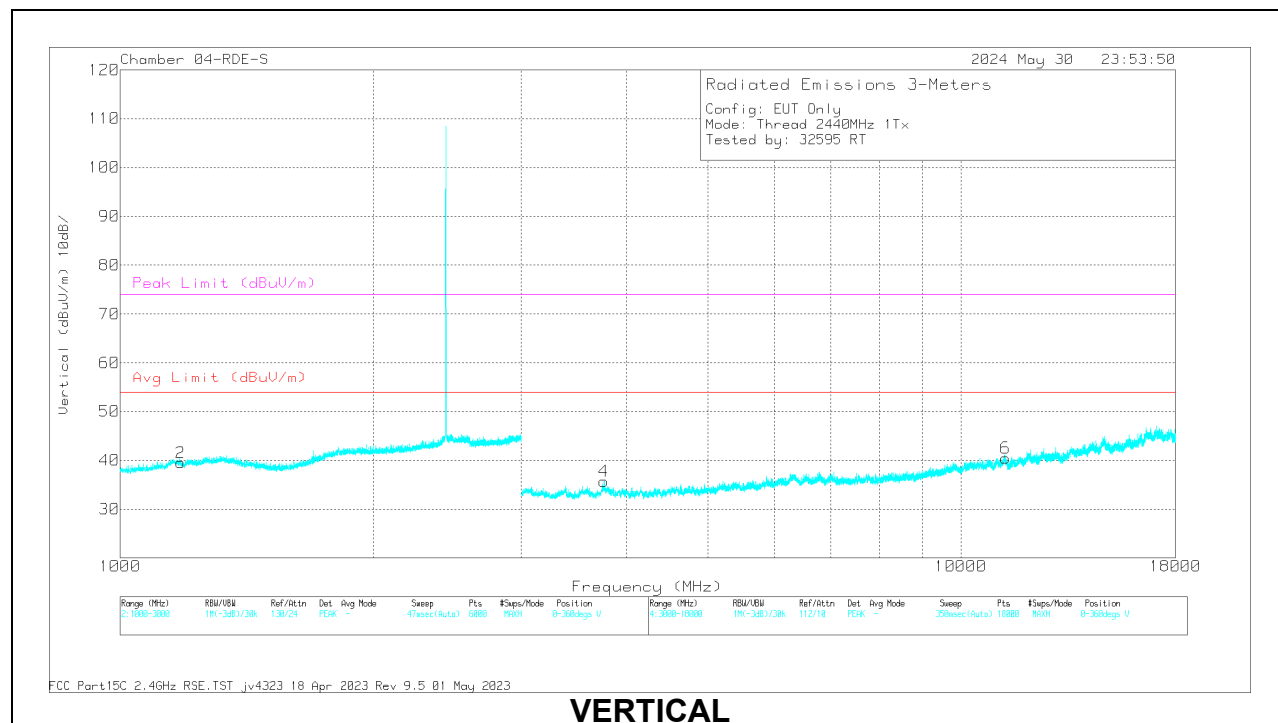
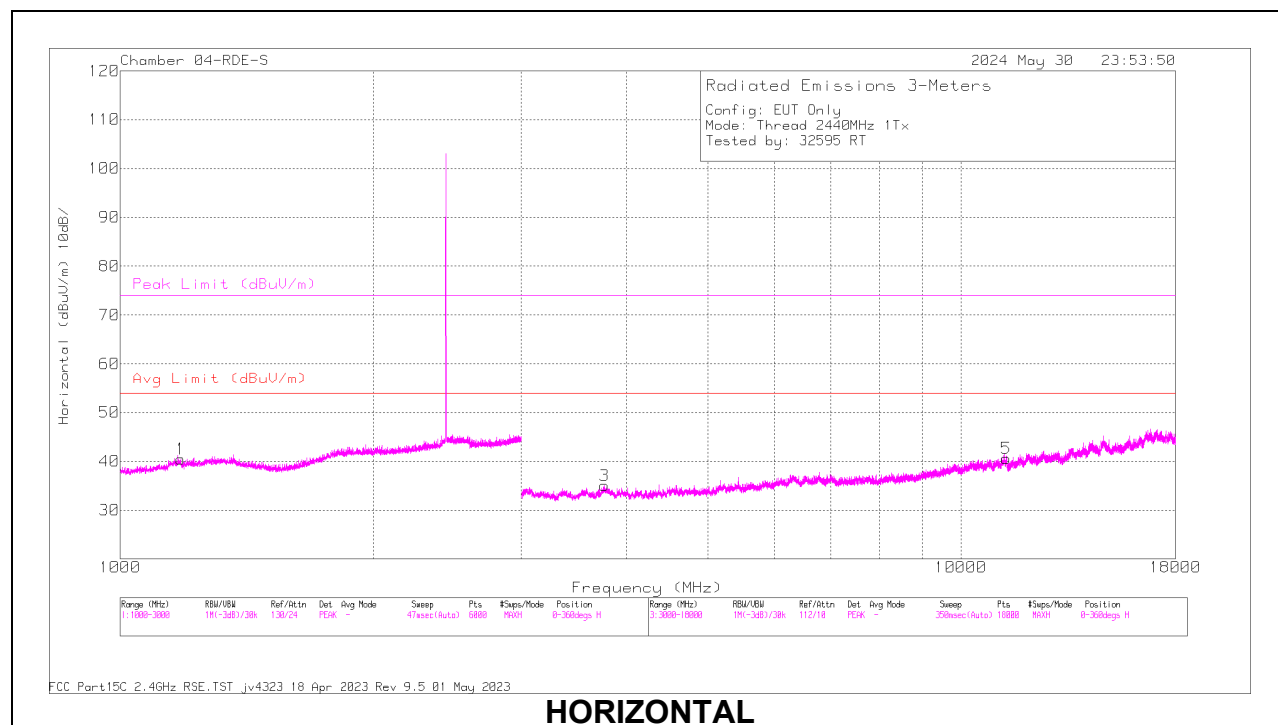
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1309.517	61.26	PK2	28.9	-40.07	50.09	-	-	74	-23.91	318	178	H
	* 1310.759	49.91	MAv1	28.9	-40.09	38.72	54	-15.28	-	-	318	178	H
2	* 1309.267	62.13	PK2	28.9	-40.08	50.95	-	-	74	-23.05	66	114	V
	* 1311.634	49.74	MAv1	28.9	-40.08	38.56	54	-15.44	-	-	66	114	V
3	* 3792.676	57.35	PK2	33.4	-46.25	44.5	-	-	74	-29.5	156	163	H
	* 3789.173	45.73	MAv1	33.4	-46.3	32.83	54	-21.17	-	-	156	163	H
5	* 11994.434	52.94	PK2	38.5	-41.24	50.2	-	-	74	-23.8	51	209	H
	* 11991.017	41.47	MAv1	38.5	-41.27	38.7	54	-15.3	-	-	51	209	H
4	* 3771.015	57.31	PK2	33.4	-46.41	44.3	-	-	74	-29.7	323	263	V
	* 3772.319	45.76	MAv1	33.4	-46.4	32.76	54	-21.24	-	-	323	263	V
6	* 12016.276	52.91	PK2	38.5	-41.12	50.29	-	-	74	-23.71	93	305	V
	* 12013.506	41.49	MAv1	38.5	-41.14	38.85	54	-15.15	-	-	93	305	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL RESULTS



RADIATED EMISSIONS

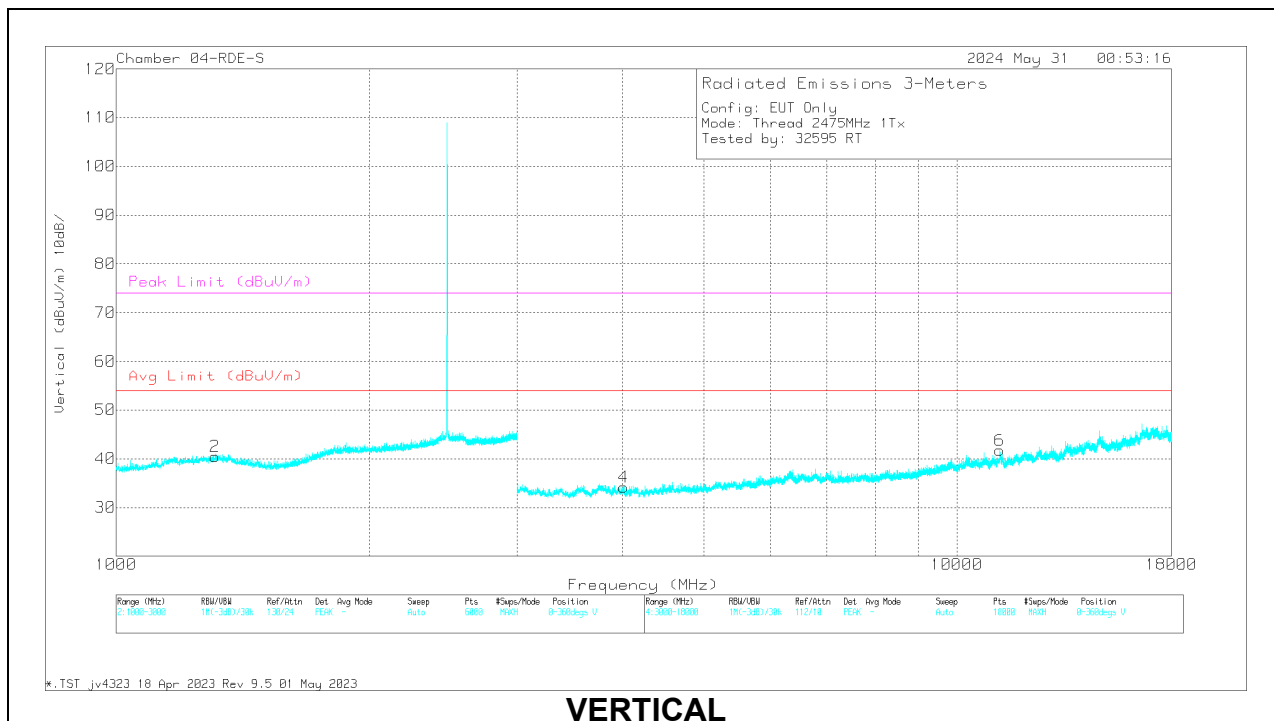
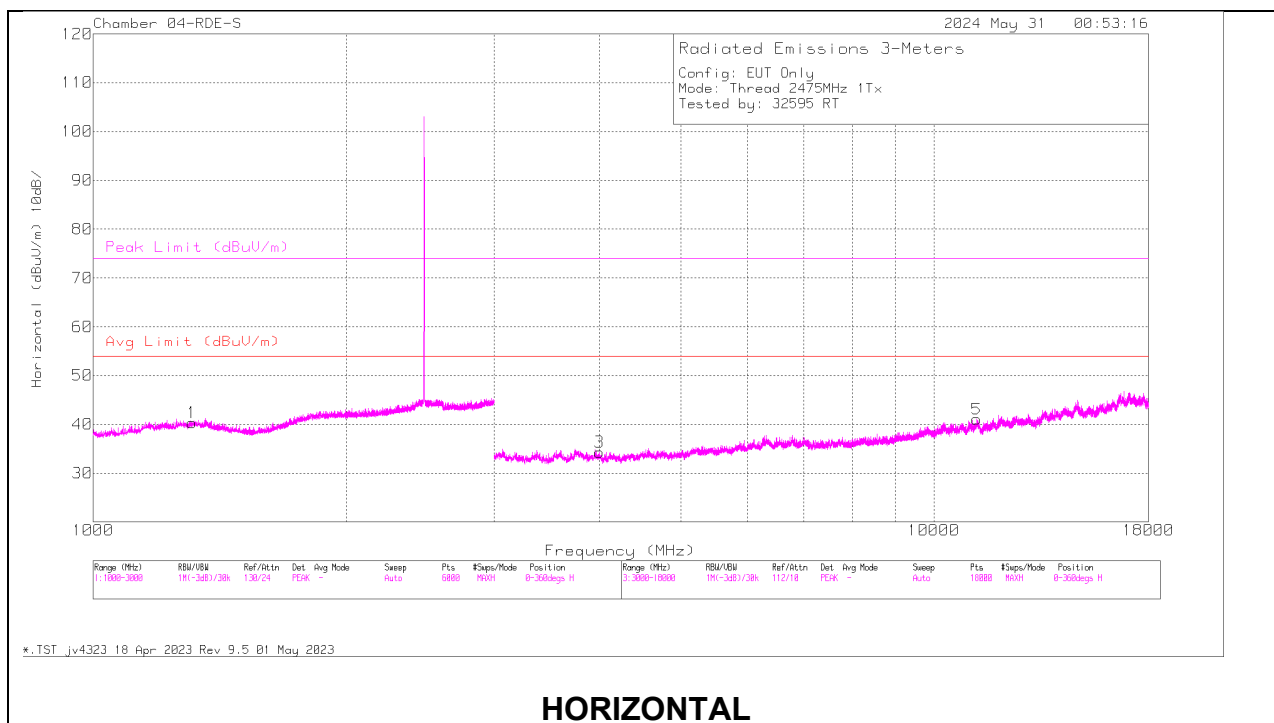
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1178.581	61.79	PK2	28.6	-40.2	50.19	-	-	74	-23.81	176	361	H
	* 1179.632	49.63	MAv1	28.7	-40.19	38.14	54	-15.86	-	-	176	361	H
2	* 1181.615	61.12	PK2	28.7	-40.18	49.64	-	-	74	-24.36	311	113	V
	* 1181.42	49.57	MAv1	28.7	-40.19	38.08	54	-15.92	-	-	311	113	V
3	* 3765.156	57.79	PK2	33.4	-46.45	44.74	-	-	74	-29.26	69	221	H
	* 3763.905	46.08	MAv1	33.4	-46.46	33.02	54	-20.98	-	-	69	221	H
5	* 11314.464	54.2	PK2	37.8	-41.59	50.41	-	-	74	-23.59	199	231	H
	* 11314.745	42.67	MAv1	37.8	-41.59	38.88	54	-15.12	-	-	199	231	H
4	* 3760.311	57.86	PK2	33.4	-46.47	44.79	-	-	74	-29.21	18	313	V
	* 3760.951	46.59	MAv1	33.4	-46.46	33.53	54	-20.47	-	-	18	313	V
6	* 11304.468	54.23	PK2	37.8	-41.93	50.1	-	-	74	-23.9	174	147	V
	* 11306.505	42.7	MAv1	37.8	-41.83	38.67	54	-15.33	-	-	174	147	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL RESULTS



DATA:

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1312.614	61.29	PK2	28.9	-40.09	50.1	-	-	74	-23.9	169	295	H
	* 1310.025	49.7	MAv1	28.9	-40.07	38.53	54	-15.47	-	-	169	295	H
2	* 1309.504	61.24	PK2	28.9	-40.07	50.07	-	-	74	-23.93	44	159	V
	* 1311.208	49.67	MAv1	28.9	-40.09	38.48	54	-15.52	-	-	44	159	V
3	* 4001.717	57.2	PK2	33.4	-46.34	44.26	-	-	74	-29.74	274	393	H
	* 4000.49	45.31	MAv1	33.4	-46.34	32.37	54	-21.63	-	-	274	393	H
5	* 11250.442	55.03	PK2	37.9	-41.73	51.2	-	-	74	-22.8	90	113	H
	* 11250.02	43.09	MAv1	37.9	-41.75	39.24	54	-14.76	-	-	90	113	H
4	* 4012.224	57.1	PK2	33.4	-46.34	44.16	-	-	74	-29.84	230	32	V
	* 4010.996	45.43	MAv1	33.4	-46.38	32.45	54	-21.55	-	-	230	32	V
6	* 11246.314	54.55	PK2	37.9	-41.94	50.51	-	-	74	-23.49	357	286	V
	* 11243.505	43.33	MAv1	37.9	-42.05	39.18	54	-14.82	-	-	357	286	V

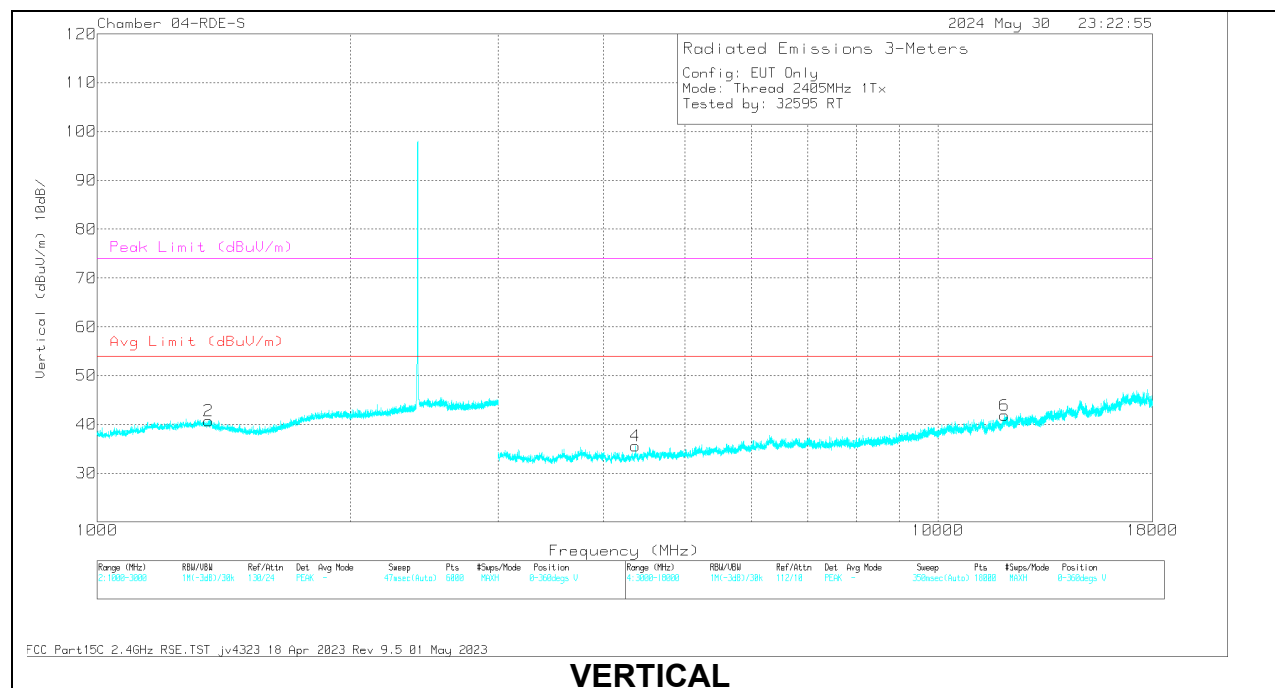
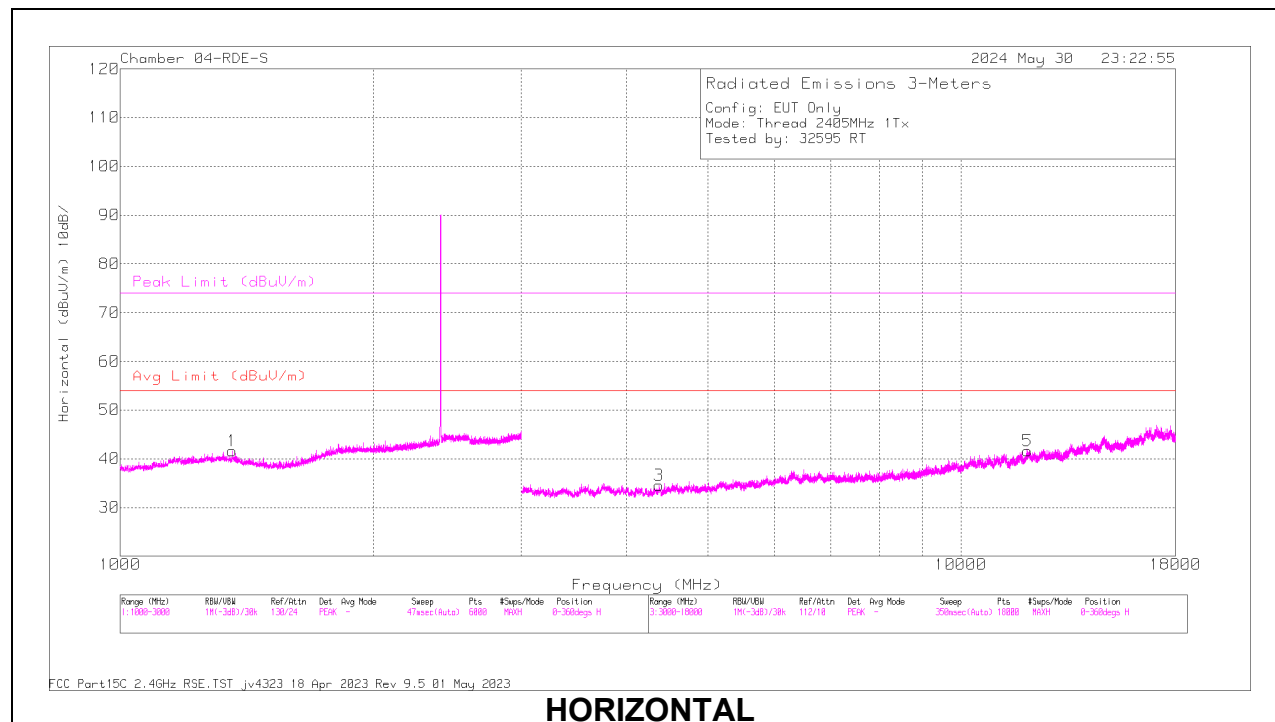
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.1.8. ANT3, 802.15.4 LOW POWER, HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

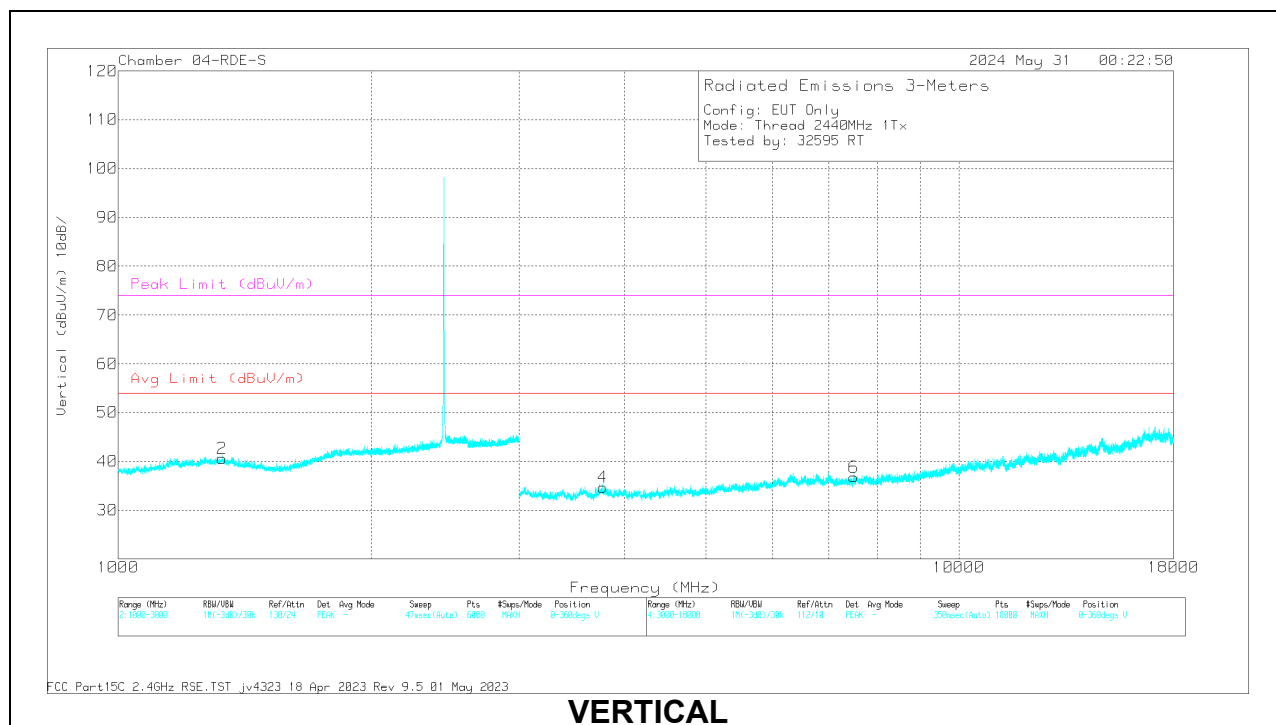
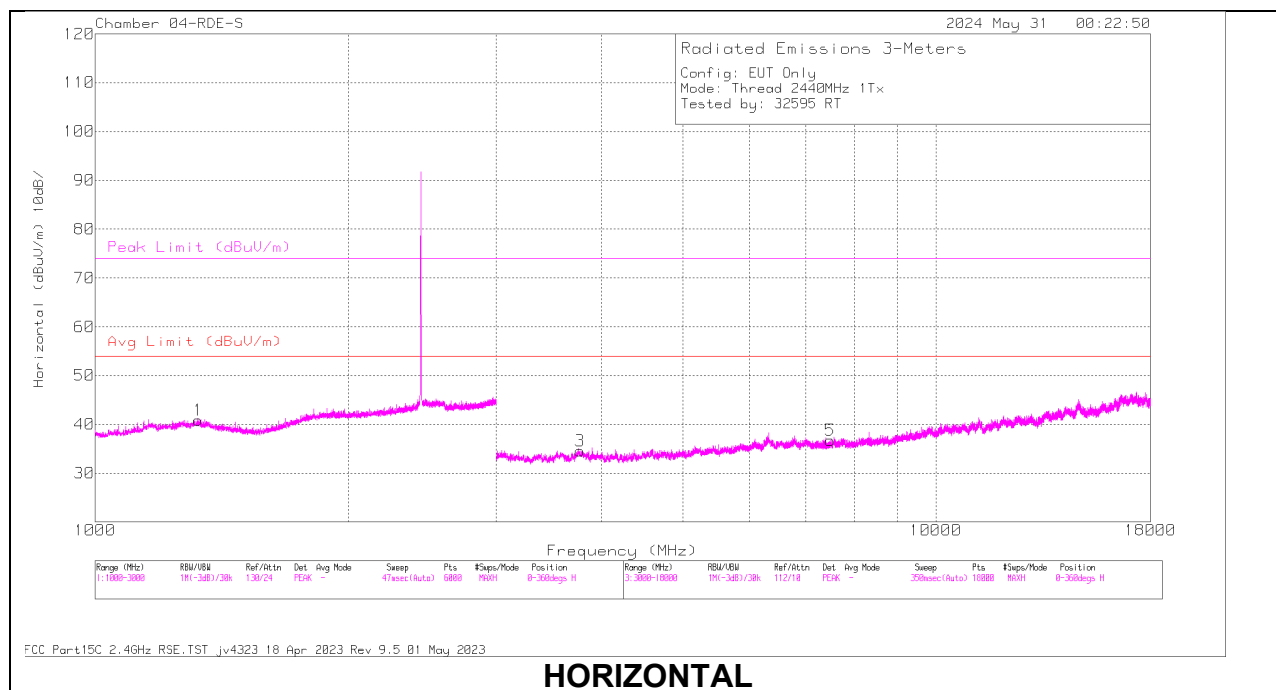
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1358.103	61.03	PK2	28.8	-40.06	49.77	-	-	74	-24.23	199	168	H
	* 1358.941	49.69	MAv1	28.8	-40.05	38.44	54	-15.56	-	-	199	168	H
2	* 1357.778	61.42	PK2	28.8	-40.06	50.16	-	-	74	-23.84	31	130	V
	* 1356.135	49.69	MAv1	28.8	-40.06	38.43	54	-15.57	-	-	31	130	V
3	* 4370.302	58.02	PK2	33.5	-47	44.52	-	-	74	-29.48	4	376	H
	* 4370.835	45.94	MAv1	33.5	-46.98	32.46	54	-21.54	-	-	4	376	H
5	* 12010.2	53	PK2	38.5	-41.2	50.3	-	-	74	-23.7	358	242	H
	* 12008.202	41.36	MAv1	38.5	-41.26	38.6	54	-15.4	-	-	358	242	H
4	* 4365.644	57.62	PK2	33.5	-47.06	44.06	-	-	74	-29.94	201	124	V
	* 4365.644	46.22	MAv1	33.5	-47.06	32.66	54	-21.34	-	-	201	124	V
6	* 11992.691	52.93	PK2	38.5	-41.28	50.15	-	-	74	-23.85	334	172	V
	* 11993.732	41.57	MAv1	38.5	-41.24	38.83	54	-15.17	-	-	334	172	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL RESULTS



RADIATED EMISSIONS

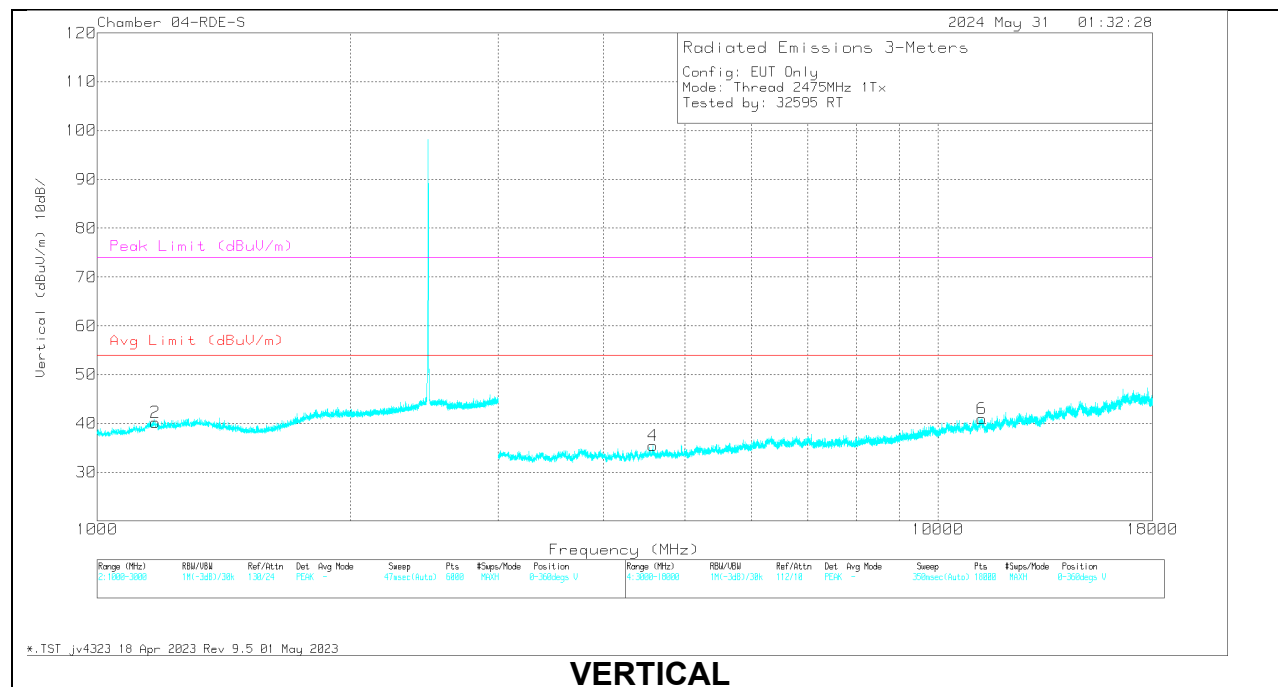
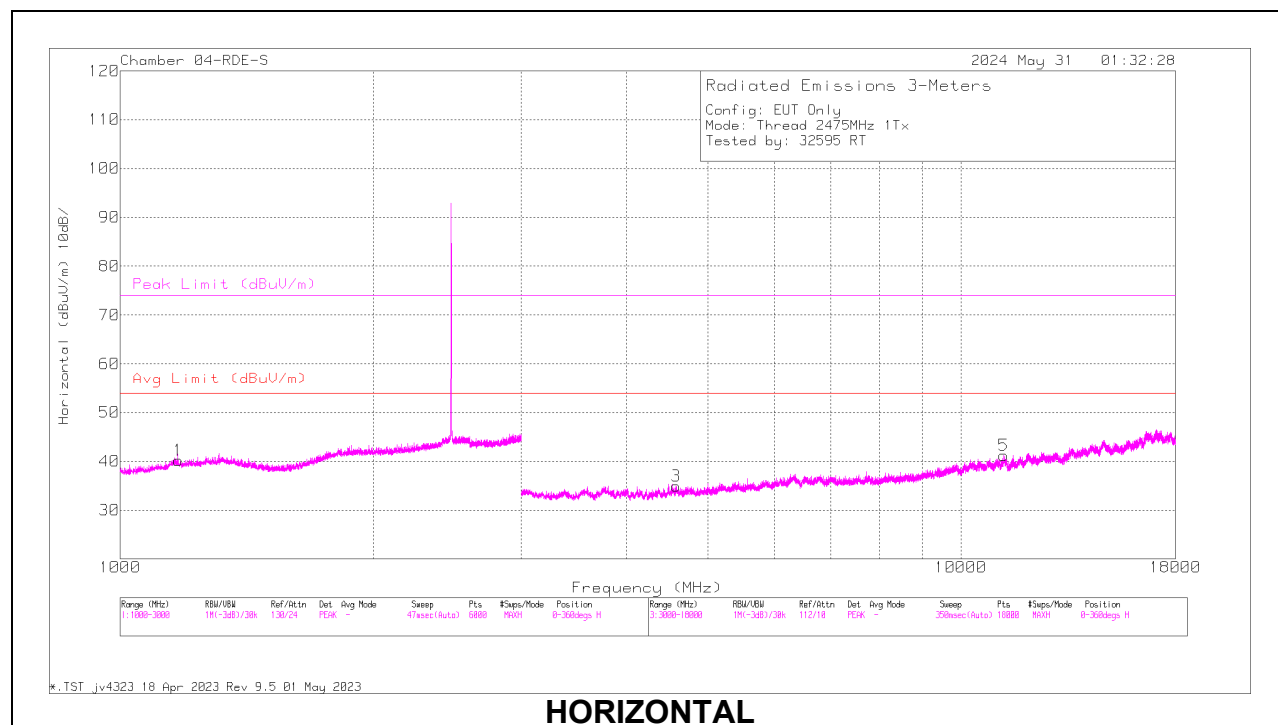
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1326.925	61.67	PK2	28.8	-40.07	50.4	-	-	74	-23.6	135	198	H
	* 1324.675	50.27	MAv1	28.8	-40.09	38.98	54	-15.02	-	-	135	198	H
2	* 1327.079	61.98	PK2	28.8	-40.07	50.71	-	-	74	-23.29	96	278	V
	* 1329.06	49.72	MAv1	28.8	-40.06	38.46	54	-15.54	-	-	96	278	V
3	* 3773.884	57.36	PK2	33.4	-46.39	44.37	-	-	74	-29.63	129	120	H
	* 3773.068	45.91	MAv1	33.4	-46.38	32.93	54	-21.07	-	-	129	120	H
5	* 7488.303	55.43	PK2	35.7	-44.6	46.53	-	-	74	-27.47	54	214	H
	* 7488.109	43.78	MAv1	35.7	-44.61	34.87	54	-19.13	-	-	54	214	H
4	* 3770.644	57.59	PK2	33.4	-46.41	44.58	-	-	74	-29.42	126	127	V
	* 3769.581	45.96	MAv1	33.4	-46.42	32.94	54	-21.06	-	-	126	127	V
6	* 7493.268	55.62	PK2	35.7	-44.48	46.84	-	-	74	-27.16	293	135	V
	* 7495.61	44.06	MAv1	35.7	-44.5	35.26	54	-18.74	-	-	293	135	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	200784 ACF 3m (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1174.259	61.23	PK2	28.6	-40.19	49.64	-	-	74	-24.36	101	112	H
	* 1175.013	49.72	MAv1	28.6	-40.19	38.13	54	-15.87	-	-	101	112	H
2	* 1171.928	61.79	PK2	28.6	-40.17	50.22	-	-	74	-23.78	129	278	V
	* 1174.388	49.78	MAv1	28.6	-40.19	38.19	54	-15.81	-	-	129	278	V
3	* 4585.084	57.66	PK2	34	-47.26	44.4	-	-	74	-29.6	105	196	H
	* 4587.407	46.33	MAv1	34	-47.26	33.07	54	-20.93	-	-	105	196	H
5	* 11251.545	54.36	PK2	37.9	-41.68	50.58	-	-	74	-23.42	49	127	H
	* 11251.74	43.12	MAv1	37.9	-41.68	39.34	54	-14.66	-	-	49	127	H
4	* 4583.564	57.95	PK2	34	-47.25	44.7	-	-	74	-29.3	333	125	V
	* 4583.589	46.19	MAv1	34	-47.25	32.94	54	-21.06	-	-	333	125	V
6	* 11278.091	54.86	PK2	37.9	-41.64	51.12	-	-	74	-22.88	276	300	V
	* 11276.875	42.84	MAv1	37.9	-41.64	39.1	54	-14.9	-	-	276	300	V

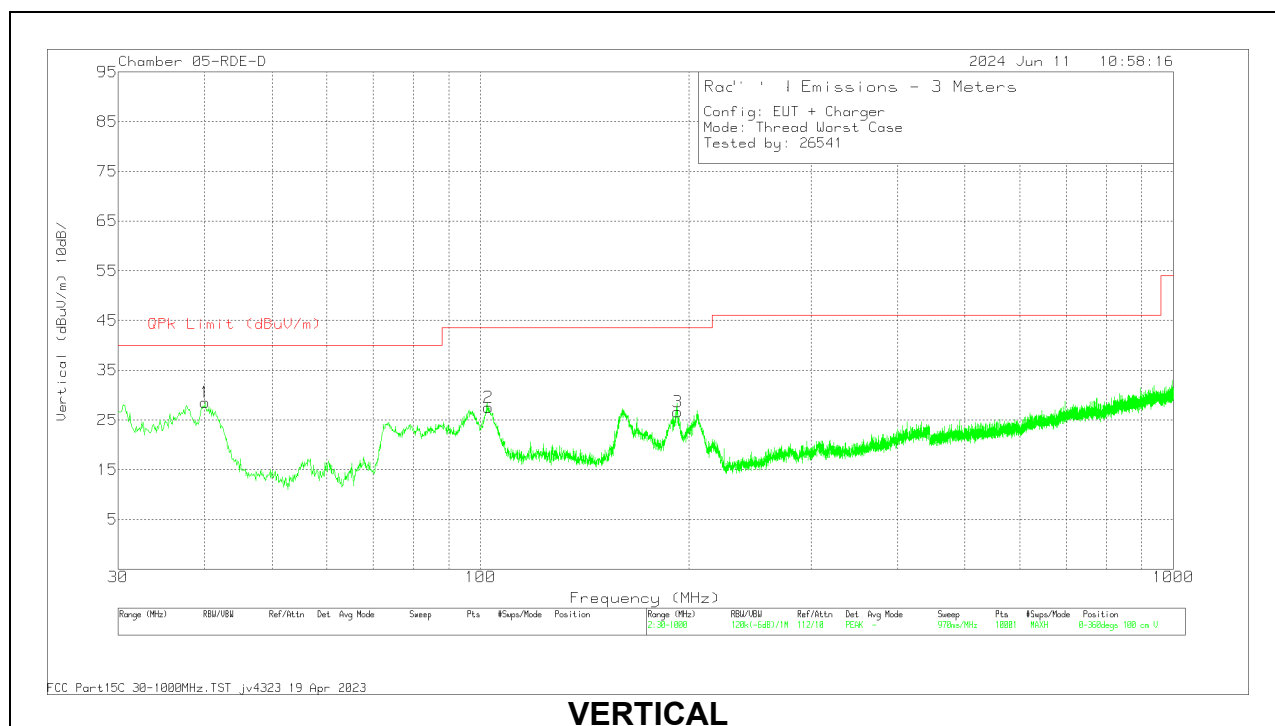
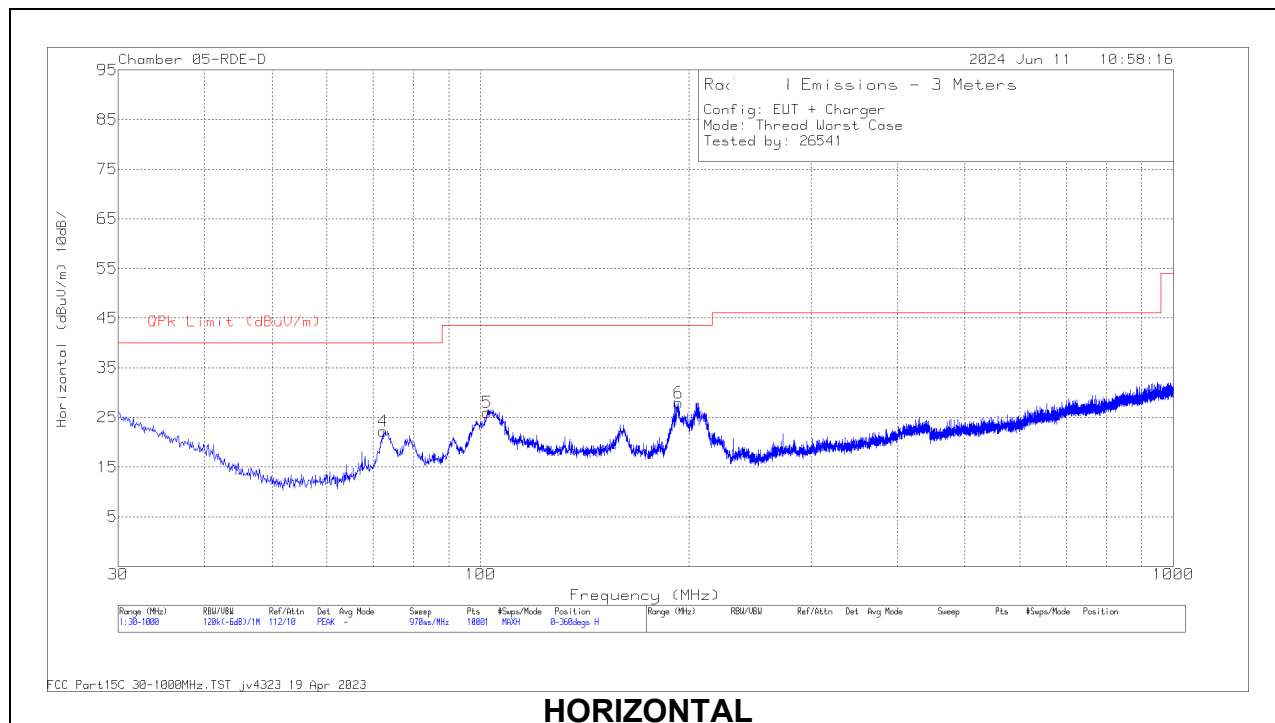
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.2. WORST CASE BELOW 1 GHZ

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



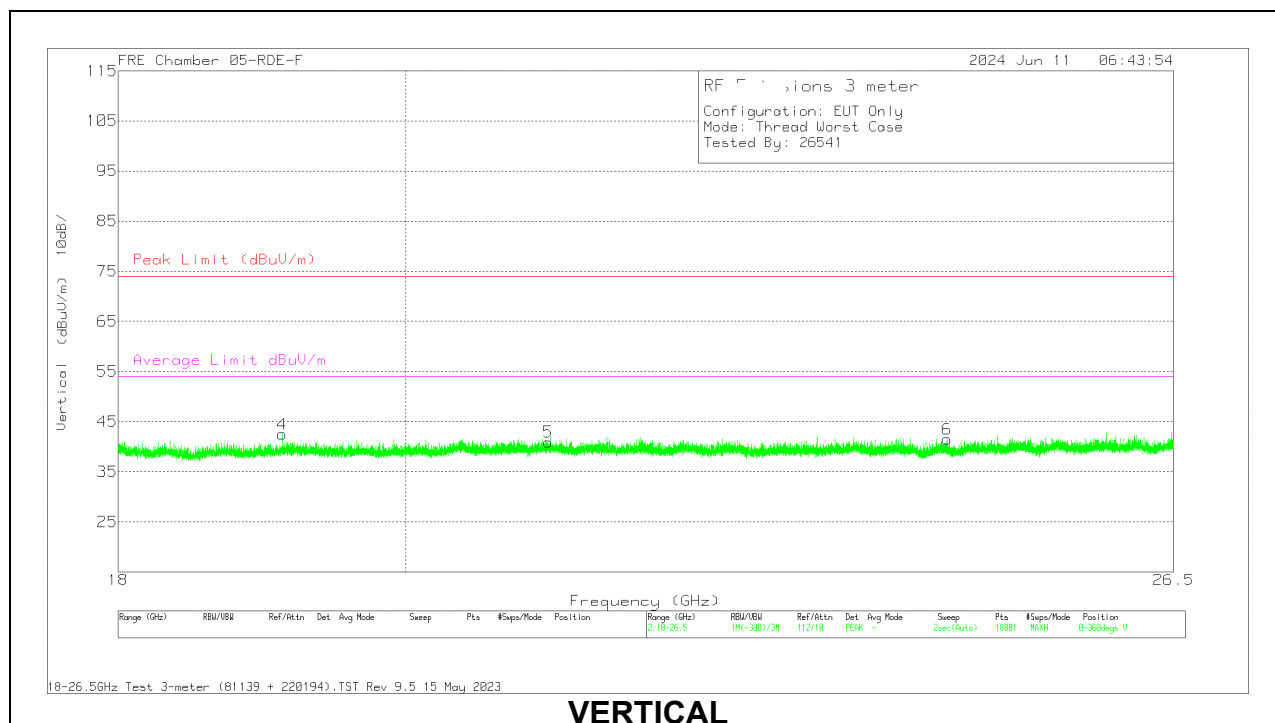
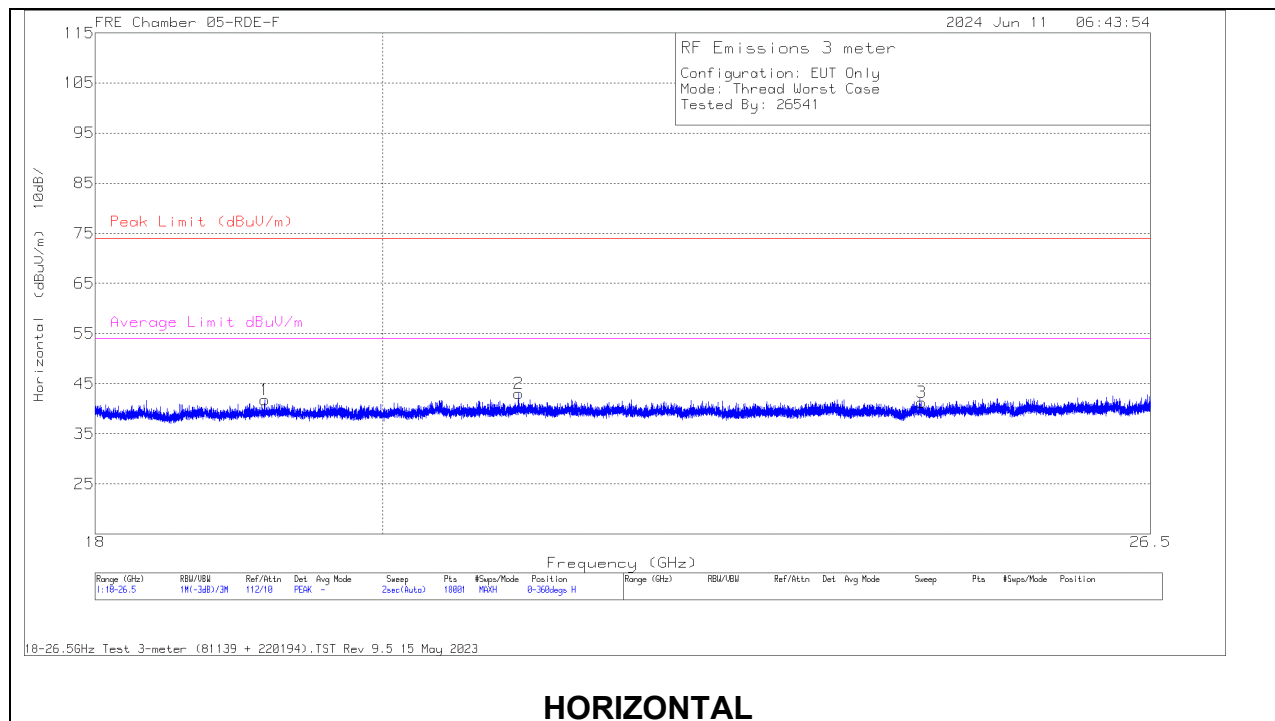
Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	224379 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	40.088	41	Pk	19.5	-32	28.5	40	-11.5	0-360	100	V
4	72.292	39.93	Pk	14	-31.7	22.23	40	-17.77	0-360	199	H
5	102.168	40.46	Pk	17.1	-31.5	26.06	43.52	-17.46	0-360	299	H
2	102.653	41.85	Pk	17.2	-31.5	27.55	43.52	-15.97	0-360	100	V
3	192.475	39.92	Pk	17.7	-31	26.62	43.52	-16.9	0-360	100	V
6	193.154	41.15	Pk	17.8	-31	27.95	43.52	-15.57	0-360	199	H

Pk - Peak detector

10.3. WORST CASE 18-26 GHZ

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



DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	81139 ACF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Average Limit dBuV/m	Margin (dB)	Azimuth (Degr)	Height (cm)	Polarity
19.155081	58.12	Pk	33	-61.9	12.8	42.02	74	-31.98	54	-11.98	259	129	H
21.024115	55.23	Pk	33.6	-60.5	13.4	41.73	74	-32.27	54	-12.27	13	334	H
24.373677	55.53	Pk	34	-62.5	14.5	41.53	74	-32.47	54	-12.47	161	222	H
19.119515	57.25	Pk	32.9	-61.8	12.9	41.25	74	-32.75	54	-12.75	344	139	V
21.073127	55.84	Pk	33.5	-60.6	13.4	42.14	74	-31.86	54	-11.86	17	133	V
24.390177	56.16	Pk	34	-62.5	14.5	42.16	74	-31.84	54	-11.84	128	113	V

Pk - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	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.

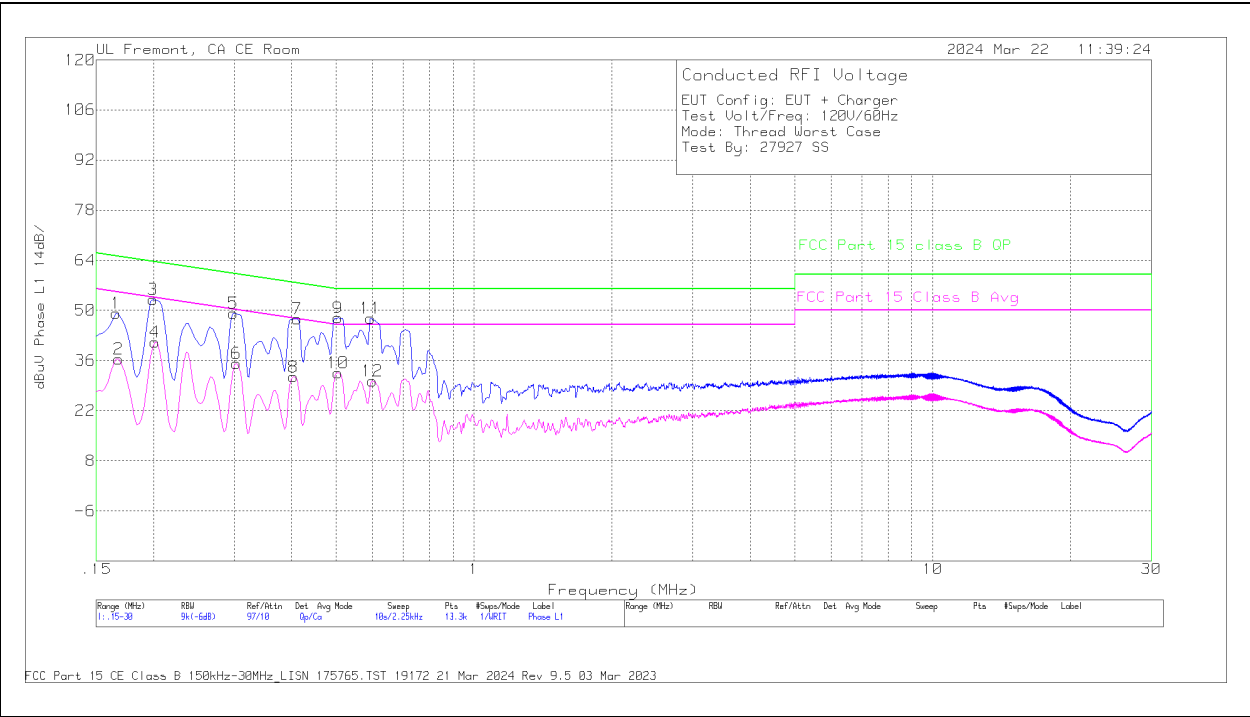
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

11.1. AC Power Line With AC/DC Adapter

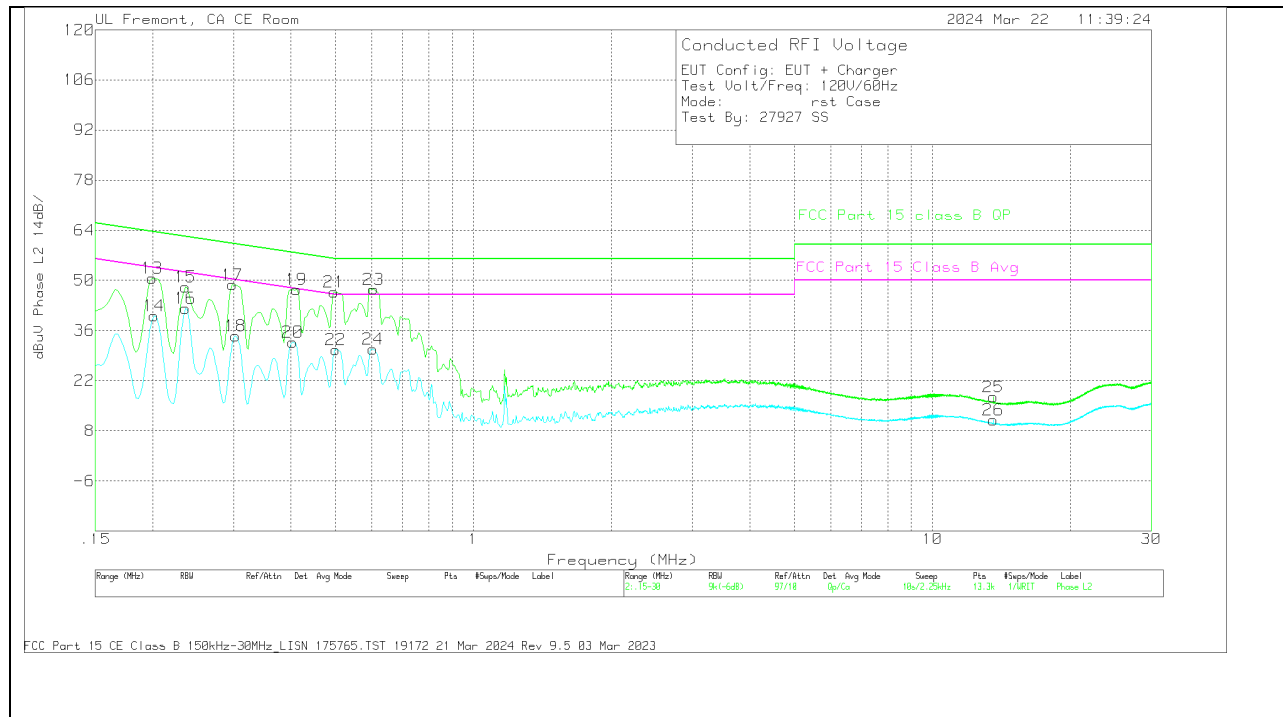
LINE 1 RESULTS



Range 1: Phase L1 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Cbl (dB)	LISN (dB)	Trns Limiter (dB)	10 dB Pad	Corrected Reading dBuV	FCC Part 15 Class B Avg dBuV	Margin (dB)	FCC Part 15 class B QP dBuV	Margin (dB)
2	.168	16.87	Ca	0	.1	9.5	10	36.47	55.06	-18.59	-	-
4	.2018	21.67	Ca	.1	0	9.4	10	41.17	53.54	-12.37	-	-
6	.303	15.65	Ca	.1	0	9.4	10	35.15	50.16	-15.01	-	-
8	.4043	12.02	Ca	0	0	9.4	10	31.42	47.77	-16.35	-	-
10	.5055	13.2	Ca	0	0	9.3	10	32.5	46	-13.5	-	-
12	.6	10.86	Ca	0	0	9.4	10	30.26	46	-15.74	-	-
1	.1658	29.55	Qp	0	.1	9.5	10	49.15	-	-	65.17	-16.02
3	.1995	33.44	Qp	.1	.1	9.4	10	53.04	-	-	63.63	-10.59
5	.2985	29.76	Qp	.1	0	9.4	10	49.26	-	-	60.28	-11.02
7	.411	28.22	Qp	0	0	9.4	10	47.62	-	-	57.63	-10.01
9	.5055	28.6	Qp	0	0	9.3	10	47.9	-	-	56	-8.1
11	.5955	28.4	Qp	0	0	9.4	10	47.8	-	-	56	-8.2

Qp - Quasi-Peak detector
Ca - CISPR average detection

LINE 2 RESULTS



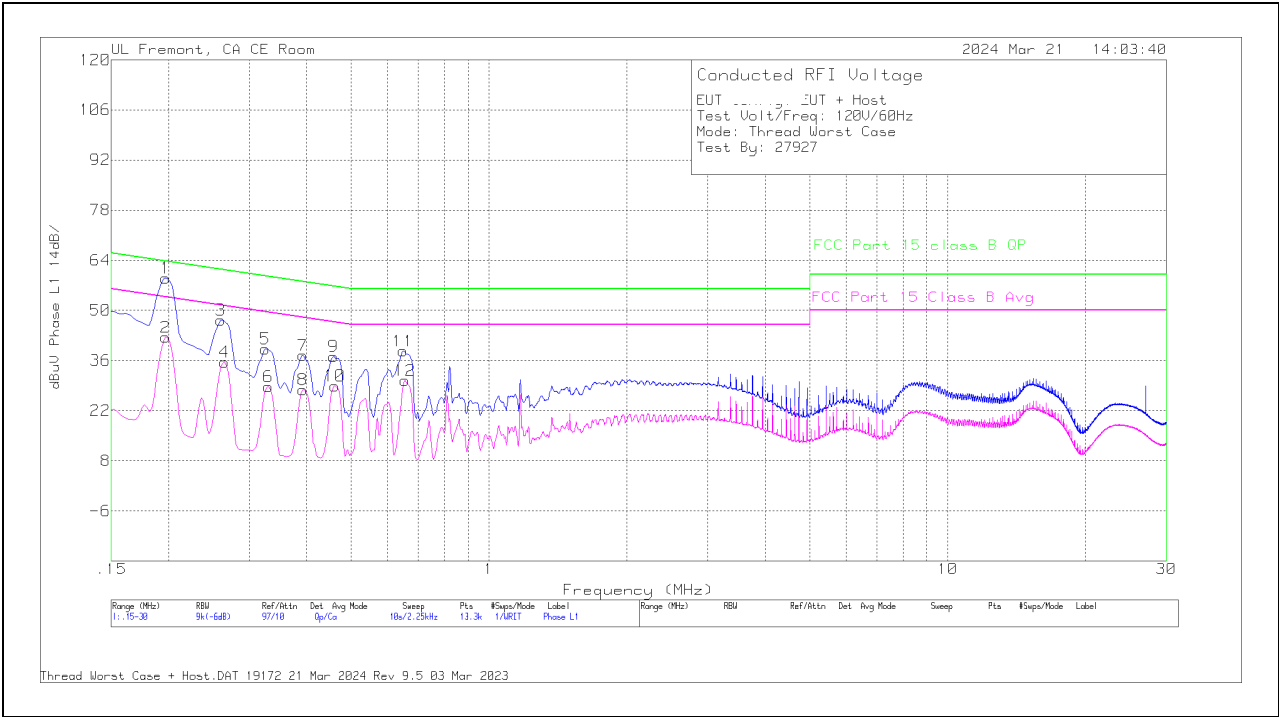
Range 2: Phase L2 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Cbl (dB)	LISN (dB)	Trns Limiter (dB)	10 dB Pad	Corrected Reading dBuV	FCC Part 15 Class B Avg dBuV	Margin (dB)	FCC Part 15 class B QP dBuV	Margin (dB)
14	.2018	20.53	Ca	.1	0	9.4	10	40.03	53.54	-13.51	-	-
16	.2355	22.82	Ca	0	0	9.4	10	42.22	52.25	-10.03	-	-
18	.303	14.93	Ca	.1	0	9.4	10	34.43	50.16	-15.73	-	-
20	.4043	13.17	Ca	.1	0	9.4	10	32.67	47.77	-15.1	-	-
22	.501	11.39	Ca	0	0	9.3	10	30.69	46	-15.31	-	-
24	.6034	11.25	Ca	.1	0	9.4	10	30.75	46	-15.25	-	-
26	13.56	-8.73	Ca	.2	.1	9.5	10	11.07	50	-38.93	-	-
13	.1995	31.09	Qp	.1	0	9.4	10	50.59	-	-	63.63	-13.04
15	.2355	28.72	Qp	0	0	9.4	10	48.12	-	-	62.25	-14.13
17	.2985	29.27	Qp	.1	0	9.4	10	48.77	-	-	60.28	-11.51
19	.411	27.91	Qp	.1	0	9.4	10	47.41	-	-	57.63	-10.22
21	.4965	27.39	Qp	0	0	9.3	10	46.69	-	-	56.06	-9.37
23	.6068	28.04	Qp	.1	0	9.4	10	47.54	-	-	56	-8.46
25	13.56	-2.39	Qp	.2	.1	9.5	10	17.41	-	-	60	-42.59

Qp - Quasi-Peak detector

Ca - CISPR average detection

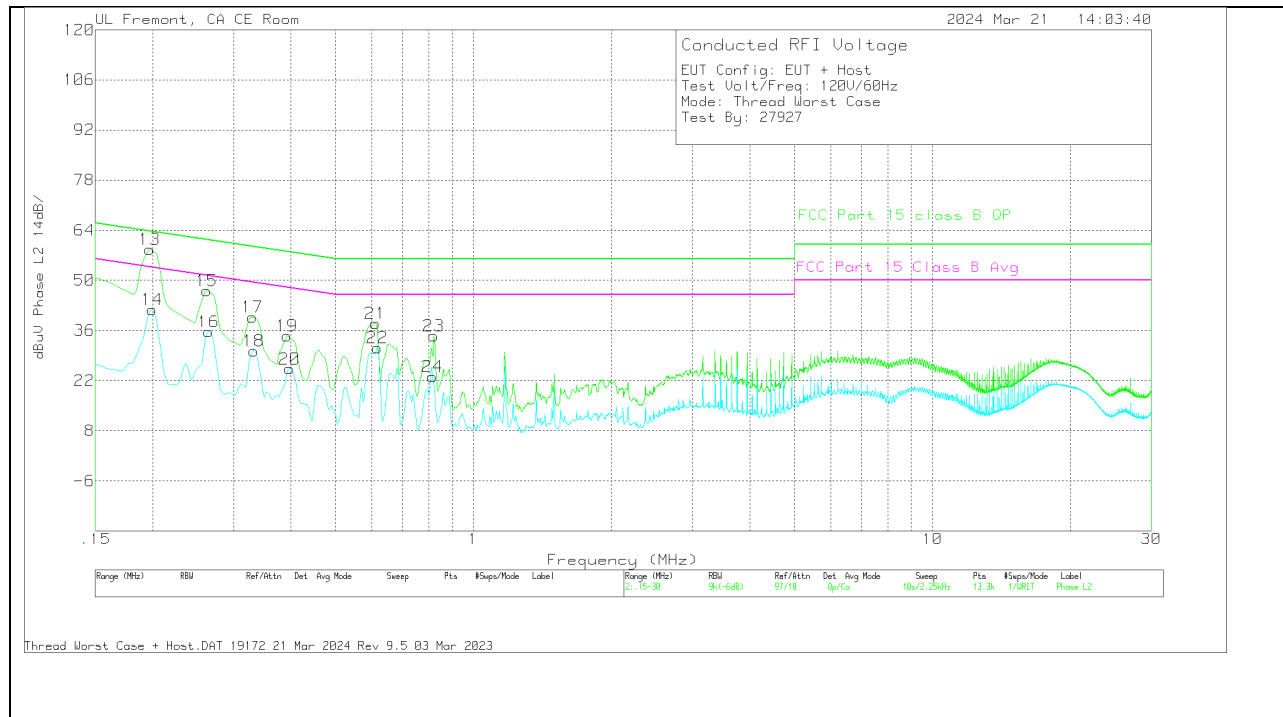
11.2. AC Power Line with Laptop

LINE 1 RESULTS



Range 1: Phase L1 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Cbl (dB)	LISN (dB)	Trns Limiter (dB)	10 dB Pad	Corrected Reading dBuV	FCC Part 15 Class B Avg dBuV	Margin (dB)	FCC Part 15 class B QP dBuV	Margin (dB)
2	.1973	22.87	Ca	.1	.1	9.4	10	42.47	53.73	-11.26	-	-
4	.2648	16.1	Ca	0	0	9.4	10	35.5	51.28	-15.78	-	-
6	.33	9.26	Ca	0	0	9.4	10	28.66	49.45	-20.79	-	-
8	.393	8.49	Ca	0	0	9.4	10	27.89	48	-20.11	-	-
10	.4605	9.55	Ca	.1	0	9.3	10	28.95	46.68	-17.73	-	-
12	.6563	10.88	Ca	.1	0	9.4	10	30.38	46	-15.62	-	-
1	.1973	39.38	Qp	.1	.1	9.4	10	58.98	-	-	63.73	-4.75
3	.2603	27.9	Qp	0	0	9.4	10	47.3	-	-	61.42	-14.12
5	.3255	19.82	Qp	0	0	9.4	10	39.22	-	-	59.57	-20.35
7	.393	17.99	Qp	0	0	9.4	10	37.39	-	-	58	-20.61
9	.4583	17.69	Qp	.1	0	9.3	10	37.09	-	-	56.72	-19.63
11	.6495	19.11	Qp	.1	0	9.4	10	38.61	-	-	56	-17.39

LINE 2 RESULTS



Range 2: Phase L2 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Cbl (dB)	LISN (dB)	Trns Limiter (dB)	10 dB Pad	Corrected Reading dBuV	FCC Part 15 Class B Avg dBuV	Margin (dB)	FCC Part 15 class B QP dBuV	Margin (dB)
14	.1995	22.35	Ca	.1	0	9.4	10	41.85	53.63	-11.78	-	-
16	.2648	16.24	Ca	0	0	9.4	10	35.64	51.28	-15.64	-	-
18	.3323	10.84	Ca	.1	0	9.4	10	30.34	49.39	-19.05	-	-
20	.3975	5.79	Ca	.1	0	9.4	10	25.29	47.91	-22.62	-	-
22	.618	11.7	Ca	.1	0	9.4	10	31.2	46	-14.8	-	-
24	.8138	3.83	Ca	0	0	9.3	10	23.13	46	-22.87	-	-
13	.1973	39.21	Qp	.1	0	9.4	10	58.71	-	-	63.73	-5.02
15	.2625	27.73	Qp	0	0	9.4	10	47.13	-	-	61.35	-14.22
17	.33	20.19	Qp	.1	0	9.4	10	39.69	-	-	59.45	-19.76
19	.393	14.95	Qp	.1	0	9.4	10	34.45	-	-	58	-23.55
21	.6113	18.44	Qp	.1	0	9.4	10	37.94	-	-	56	-18.06
23	.8205	15.19	Qp	0	0	9.3	10	34.49	-	-	56	-21.51

Qp - Quasi-Peak detector
Ca - CISPR average detection

12. SETUP PHOTOS

Please refer to setup photos 14982436-EP1V!

END OF TEST REPORT