TEST REPORT

Report Number: 14523772-E6V2

Applicant	:	APPLE INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A
Model	:	A3105 (Full Test Model) A3106, A3108 (Variant Model)
Brand	:	APPLE
FCC ID	:	BCG-E8440A (Full Test Model) BCG-E8441A, BCG-E8442A (Variant Model)
IC	:	579C-E8440A (Full Test Model) 579C-E8441A, 579C-E8442A (Variant Model)
EUT Description	:	SMARTPHONE
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART E ISED RSS-247 ISSUE 2 ISED RSS-GEN ISSUE 5 + A1 + A2

Date Of Issue:
August 30, 2023

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

ACCREDITED
CERT #0751.05

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	8/24/2023	Initial Issue	Chin Pang
V2	8/30/2023	Address TCB questions section 11	Chris Xiong

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TABLE OF CONTENTS

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1. ATTESTATION OF TEST RESULTS

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

EUT DESCRIPTION: SMARTPHONE

MODEL: A3105 (Full Test Model)
A3106, A3108 (Variant Model)

BRAND: APPLE

SERIAL NUMBER: JKX4322779(CONDUCTED)
N2YYXMXHWQ (RADIATED)

SAMPLE RECEIPT DATE: MARCH 23, 2023

DATE TESTED: MAY 31, 2023 – AUGUST 23, 2023

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart E	Complies
ISED RSS-247 Issue 2	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 can demonstrate 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 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.

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Approved & Released For
UL Verification Services Inc. By:

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Prepared By:

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2. TEST RESULT SUMMARY

FCC Clause	ISED Clause	Requirement	Result	Comment
See Comment		Duty Cycle	Reporting purposes only	Per ANSI C63.10, Section 12.2.
See Comment	RSS-GEN 6.7	26dB BW/99% OBW	Reporting purposes only	Per ANSI C63.10 Sections 6.9.2 and 6.9.3
15.407 (e)	RSS-247 6.2.4.1	6 dB BW	complies	None.
15.407 (a) (1-4), (h) (1)	RSS-247 6.2	Output Power	complies	None.
15.407 (a) (1-3, 5)	RSS-247 6.2	PSD	complies	None.
15.209, 15.205, 15.407 (b)	RSS-GEN 8.9, 8.10, RSS-247 6.2	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 15.407
- FCC CFR 47 Part 15
- FCC KDB 662911 D01 v02r01
- FCC KDB 789033 D02 v02r01
- ANSI C63.10-2013
- RSS-GEN Issue 5 + A1 +A2
- RSS-247 Issue 2.
- KDB 414788 D01 Radiated Test Site v01r01

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			

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5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

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

5.2. DECISION RULES

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

5.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	U_{LAB}
Conducted Antenna Port Emission Measurement	1.94 dB
Power Spectral Density	2.466bdB
Time Domain Measurements Using SA	3.39 dB
RF Power Measurement Direct Method Using Power Meter	0.450 dB(Peak), 1.3 dB (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
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.29 dB

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

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5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

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

MAINS CONDUCTED EMISSIONS

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

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6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The Apple iPhone is a smartphone with cellular GSM, GPRS, EGPRS, UMTS, LTE, 5GNR1, IEEE 802.11a/b/g/n/ac/ax, Bluetooth (BT), Ultra-Wideband (UWB), GPS, NFC, NB UNII, 802.15.4, 802.15.4ab-NB and MSS technologies. The rechargeable battery is not user accessible.

The Model and FCC/IC ID covered by this report includes:

Full Test Model: A3105, FCC ID: BCG-E8440A, IC ID: 579C-E8440A

Variant Model: A3106, FCC ID: BCG-E8441A, IC ID: 579C-E8441A
A3108, FCC ID: BCG-E8442A, IC ID: 579C-E8442A

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

5.8 GHz BAND (FCC+IC)

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.8GHz Band 1TX, high power			
5728.75 – 5846.25	802.15.4ab	20.47	111.43
5.8GHz Band 1TX Low Power			
5728.75 – 5846.25	802.15.4ab	16.34	43.05

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna(s) gain and type, as provided by the manufacturer' are as follows:
The radio utilizes Cable loss is 2.85 dB.

Frequency Range	ANT 6 (Core 0)	ANT 5 (Core 1)
5728.75 – 5846.25	-2.0	-4.0

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 23_10_686.

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6.5. WORST-CASE CONFIGURATION AND MODE

The fundamentals of the EUT was investigated in three orthogonal orientations X, Y and Z on Ant 6 (ANT 0) and Ant 5 (ANT 1). It was determined that Z (Portrait) orientation was the worst-case orientation for Ant 6 and ANT 5.

There are 3 index on this 802.15.4ab technology with data rate on index 1, 250Kbps, index 2, 500Kbps and index 3, 1000Kbps. All data rate was investigated, and the worst case was determined based on the highest power on PSD and Index 3, 1000Kbps determined to be the worst case.

For radiated harmonics spurious below 1GHz, 1-18GHz L/M/H channels, 18-40GHz, and power line conducted emissions were performed with the EUT set at the worst-case scenario.

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. There were no emissions found below 30MHz within 20dB of the limit.

Note: Note: In the Radiated Plots and emissions data, ANT0=ANT6 and ANT1=ANT5.

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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
10dB Fixed Attenuator, 2 Watts Up to 26.5 GHz		Pasternack Enterprises	PE7024-10	236358		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.

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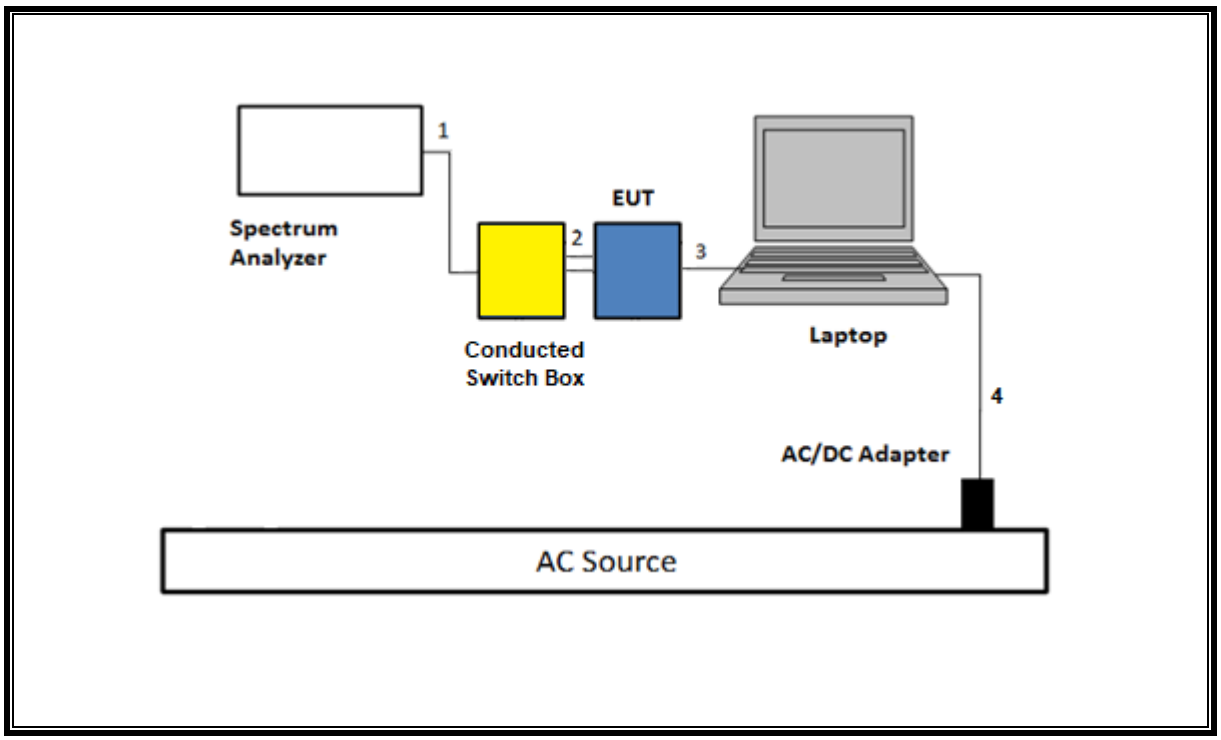
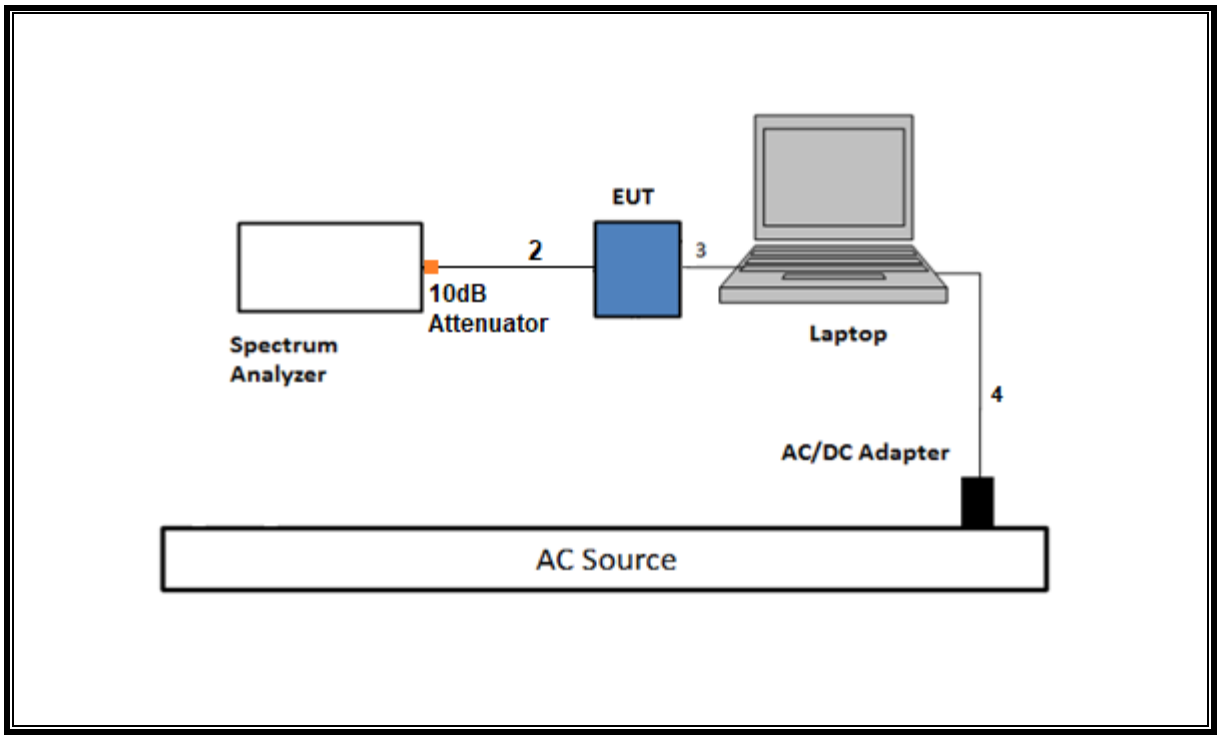
SETUP DIAGRAM FOR CONDUCTED TESTS





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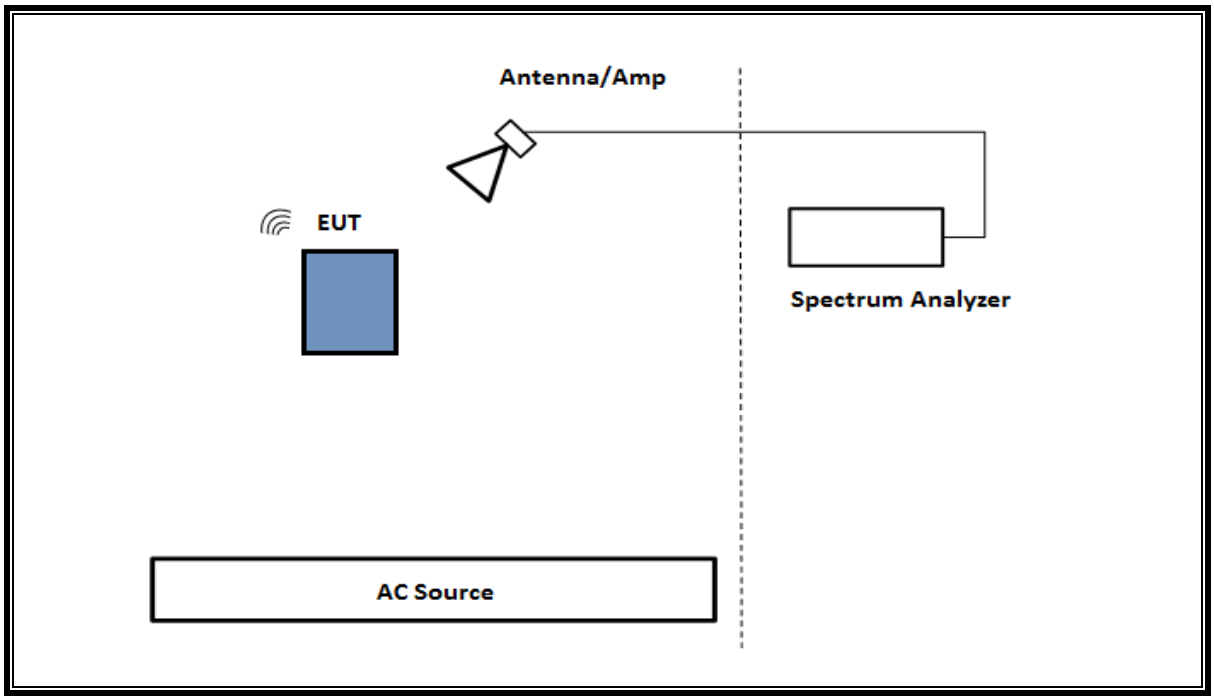
SETUP DIAGRAM FOR RADIATED TESTS Above 1 GHz



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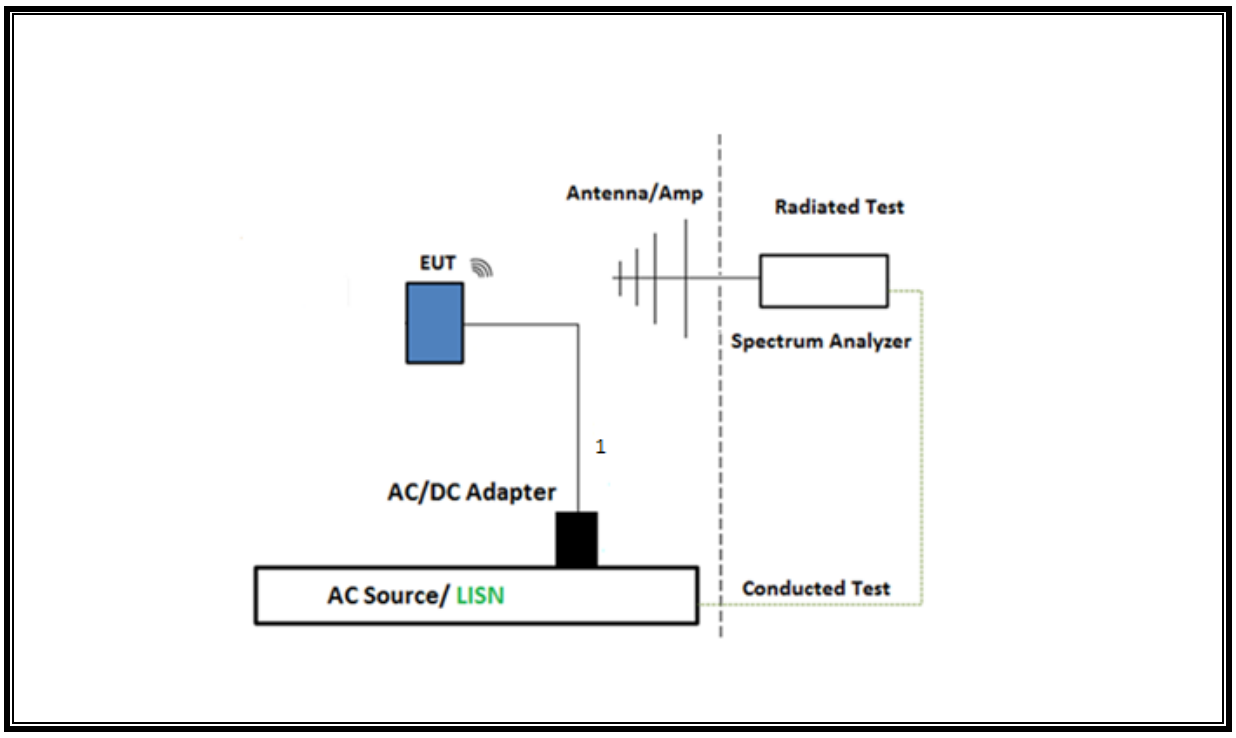
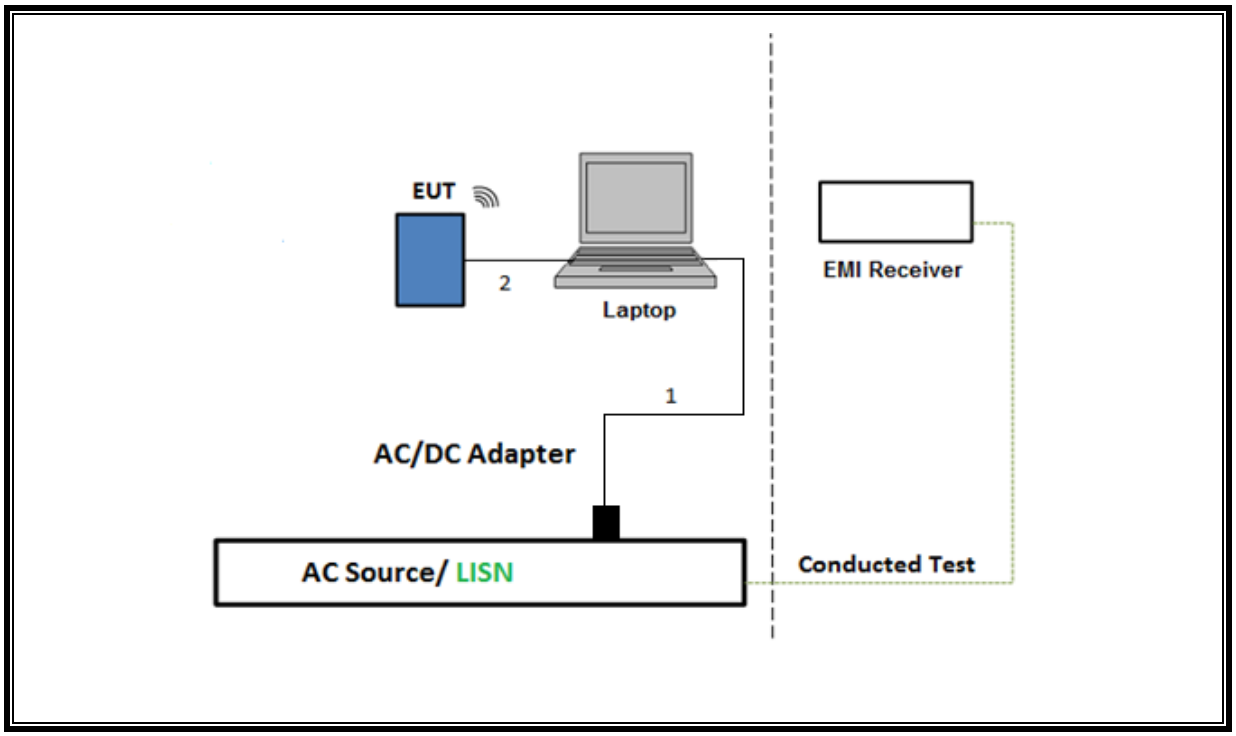
SETUP DIAGRAM FOR Below 1GHz and AC LINE CONDUCTED TEST



TEST SETUP- AC LINE CONDUCTED: LAPTOP CONFIGURATION



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7. MEASUREMENT METHOD

On Time and Duty Cycle: KDB 789033 D02 v02r01, Section B.

6 dB Emission BW: KDB 789033 D02 v02r01, Section C.2

26 dB Emission BW: KDB 789033 D02 v02r01, Section C.1

99% Occupied BW: KDB 789033 D02 v02r01, Section D.

Conducted Output Power: KDB 789033 D02 v02r01

Power Spectral Density: KDB 789033 D02 v02r01, Section F

Unwanted emissions in restricted bands: KDB 789033 D02 v02r01, Sections G.3, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v02r01, Sections G.3, G.4, and G.5.

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

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

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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	Antenna, Horn 1-18GHz	3117	226671	01/09/2024	01/09/2023
RF Filter Box, 1-18GHz, 17 Ports	UL-FR1	RATS 2	226779	03/05/2024	03/05/2023
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	226078	02/29/2024	02/29/2023
Antenna, Horn 1-18GHz	ETS-Lindgren (Cedar Park, Texas)	3117	226673	01/09/2024	01/09/2023
RF Filter Box, 1-18GHz, 12 Port.	UL-FR1	Frankenstein	231249	02/29/2024	02/29/2023
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	170063	02/29/2024	02/29/2023
Antenna, Horn 1-18GHz	ETS-Lindgren (Cedar Park, Texas)	3117	230300	01/12/2024	01/12/2023
Filter Box, 1-18GHz 12 Port	UL-FR1	Frankenstein	216812	09/17/2023	09/17/2022
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	230548	02/29/2024	02/29/2023
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences Corp.	JB3	85151	04/30/2024	04/30/2023
*Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	204041	08/24/2023	08/24/2022
Antenna. Horn 18 to 26.5GHz	A.R.A.	MWH-1826/B	172363	01/31/2024	01/31/2023
Amplifier Assembly, 18-26.5GHz, 60dB Gain	AMPLICAL	AMP18G26.5-60	171583	02/29/2024	02/29/2023
Spectrum Analyzer, PSA, 3Hz to 26.5GHz	Keysight Technologies Inc	E4440A	81311	02/29/2024	02/29/2023
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	80397	02/28/2024	02/28/2023
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	85214	02/28/2024	02/28/2023
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A-544	87738	02/28/2024	02/28/2023
*Conducted Switch Box	N/A	CSB	221008	06/21/2023	06/21/2022
Conducted Switch Box	N/A	CSB	208281	04/30/2024	04/30/2023
10dB Fixed Attenuator, 2 Watts Up to 26.5 GHz	Pasternack Enterprises	PE7024-10	236358	Verified/Characterized before use	
10dB Fixed Attenuator, 2 Watts Up to 26.5 GHz	Pasternack Enterprises	PE7024-10	236355	Verified/Characterized before use	
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	90756	01/31/2024	01/31/2023
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	90389	01/31/2024	01/31/2023
*Antenna, Passive Loop 100KHz to 30MHz	ETS-Lindgren	EM-6872	170015	07/28/2023	07/28/2022
*Antenna, Passive Loop 30Hz to 1MHz	Electro-Metrics	EM-6871	170013	07/28/2023	07/28/2022
Link File, RF Amplifier Assembly, 26-40GHz, 65dB Gain	AMPLICAL	AMP26G40-65	221834	02/29/2024	02/29/2023
Antenna, Horn 26.5 to 40GHz	A.R.A	MWH-2640/B	172369	10/21/2023	10/21/2022
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	191428	02/29/2024	02/29/2023
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	81887	03/31/2024	03/31/2023
RF Filter Box, 1-18GHz, 17 Ports	UL-FR1	RATS 2	225474	03/31/2024	03/31/2023
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	201502	02/29/2024	02/29/2023
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	200897	03/31/2024	03/31/2023
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	226079	05/01/2024	05/01/2023
RF Filter Box, 1-18GHz	UL-FR1	NA	168535	02/01/2024	02/01/2023

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AC Line Conducted					
Description	**Manufacturer**	**Model**	**ID Num**	**Cal Due**	**Last Cal**
EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESR	93091	02/29/2024	02/29/2023
LISN for Conducted Emissions CISPR-16	FISCHER CUSTOM COMMUNICATIONS	FCC-LISN-50/250-25-2-01-480V	175765	01/31/2024	01/31/2023
**Transient Limiter	TE	TBFL1	207996	08/15/2023	07/15/2022
UL AUTOMATION SOFTWARE					
Radiated Software	UL	UL EMC	Ver 9.5, May 1 , 2023		
Conducted Software	UL	UL EMC	2020.8.16		
AC Line Conducted Software	UL	UL EMC	Ver 9.5, Mar 3, 2023		

*Testing is completed before equipment expiration date.
**Cal Due date should be 07/15/2023 and according to internal quality system, it was extended to 08/15/2023.

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9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
802.15.4ab						
5726.25MHz	1.143	2.000	0.572	57.15%	2.43	0.875

DUTY CYCLE PLOTS

DUTY CYCLE 802.15.4ab

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9.2. 99% AND 26 dB 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.

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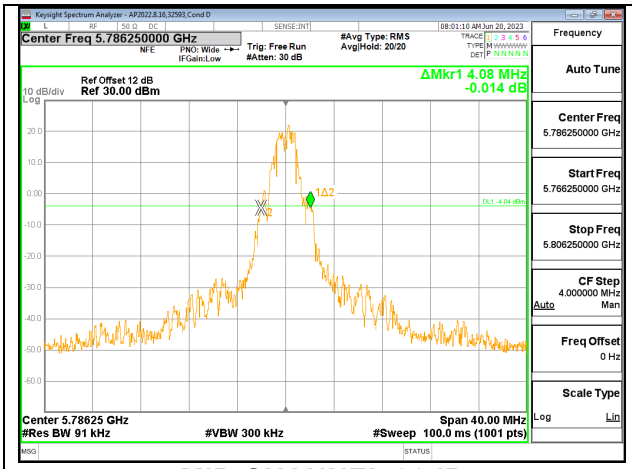
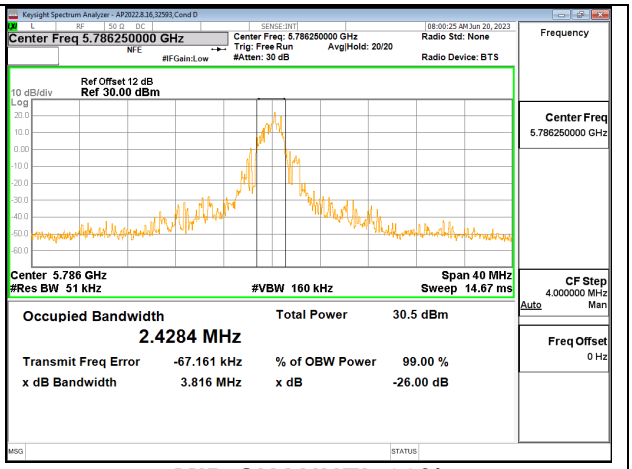
1TX Antenna 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5728.75	3.960	2.5217
Mid	5786.25	4.080	2.4284
High	5846.25	4.080	2.5508



MID CHANNEL 26dB



MID CHANNEL 99%

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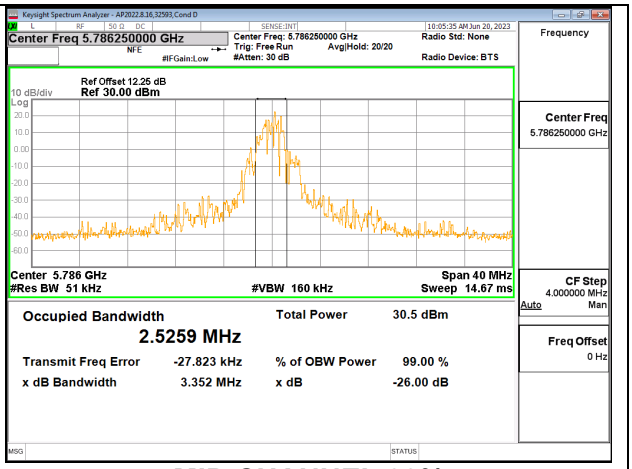
1TX Antenna 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5728.75	4.080	2.5370
Mid	5786.25	4.080	2.5259
High	5846.25	4.200	2.5471

MID CHANNEL 26dB



MID CHANNEL 99%

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9.3. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

RSS-247 6.2.4.1

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.

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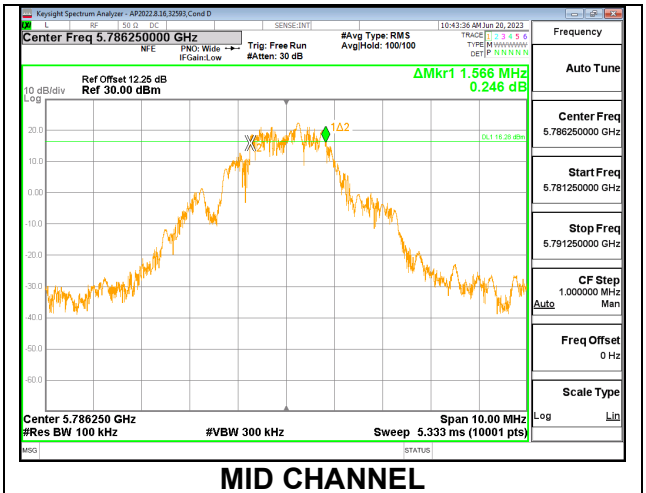
1TX Antenna 6 MODE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5728.75	1.627	0.5
Mid	5786.25	1.565	0.5
High	5846.25	1.628	0.5

MID CHANNEL

1TX Antenna 5 MODE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5728.75	1.632	0.5
Mid	5786.25	1.566	0.5
High	5846.25	1.621	0.5



MID CHANNEL

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9.4. OUTPUT POWER AND PSD

LIMITS

FCC §15.407

Band 5.725-5.85 GHz

The maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

RSS-247

Band 5.725-5.85 GHz

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

TEST PROCEDURE

The measurement method used for output power is KDB 789033 D02 v02r01, Section E.3 a. Method PM.
The measurement method used for power spectral density is KDB 789033 D02 v02r01, Section F.
Only Mid channel plot is reported to show setting parameter complies with testing method/procedure.

DIRECTIONAL ANTENNA GAIN

For 1TX, there is only one transmitter output therefore the directional gain is equal to the antenna gain.

Band	ANT 6	ANT 5
	(dBi)	(dBi)
5.8	-2.0	-4.0

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9.4.1. HIGH POWER

1TX Antenna 6 MODE (FCC+IC)

Test Engineer:	28502
Test Date:	7/20/2023

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/500KHz)
Low	5728.75	-2.0	30.00	30.00
Mid	5786.25	-2.0	30.00	30.00
High	5846.25	-2.0	30.00	30.00

Duty Cycle CF (dB)	2.43	**Included in Calculations of Corr'd PSD**

Output Power Results

Channel	Frequency (MHz)	Antenna 6 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5728.75	18.04	20.47	30.00	-9.53
Mid	5786.25	18.03	20.46	30.00	-9.54
High	5846.25	18.02	20.45	30.00	-9.55

PSD Results

Channel	Frequency (MHz)	Antenna 6 Meas PSD (dBm/500KHz)	Total Corr'd PSD (dBm/500KHz)	PSD Limit (dBm/500KHz)	PSD Margin (dB)
Low	5728.75	14.650	17.080	30.00	-12.92
Mid	5786.25	14.774	17.204	30.00	-12.80
High	5846.25	14.843	17.273	30.00	-12.73

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1TX Antenna 5 MODE (FCC+IC)

Test Engineer:	28502
Test Date:	7/20/2023

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/500KHz)
Low	5728.75	-4.0	30.00	30.00
Mid	5786.25	-4.0	30.00	30.00
High	5846.25	-4.0	30.00	30.00

Duty Cycle CF (dB)	2.43	**Included in Calculations of Corr'd PSD**

Output Power Results

Channel	Frequency (MHz)	Antenna 5 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5728.75	18.01	20.44	30.00	-9.56
Mid	5786.25	17.97	20.40	30.00	-9.60
High	5846.25	17.98	20.41	30.00	-9.59

PSD Results

Channel	Frequency (MHz)	Antenna 5 Meas PSD (dBm/500KHz)	Total Corr'd PSD (dBm/500KHz)	PSD Limit (dBm/500KHz)	PSD Margin (dB)
Low	5728.75	14.836	17.266	30.00	-12.73
Mid	5786.25	14.711	17.141	30.00	-12.86
High	5846.25	14.953	17.383	30.00	-12.62

MID CHANNEL

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9.4.2. LOW POWER

1TX Antenna 6 MODE (FCC+IC)

Test Engineer:	28502
Test Date:	7/20/2023

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/500KHz)
Low	5728.75	-2.0	30.00	30.00
Mid	5786.25	-2.0	30.00	30.00
High	5846.25	-2.0	30.00	30.00

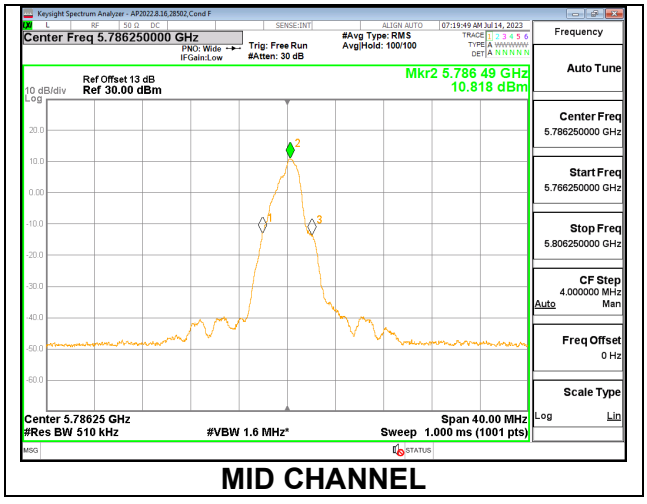
Duty Cycle CF (dB)	2.43	**Included in Calculations of Corr'd PSD**

Output Power Results

Channel	Frequency (MHz)	Antenna 6 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5728.75	13.91	16.34	30.00	-13.66
Mid	5786.25	13.88	16.31	30.00	-13.69
High	5846.25	13.89	16.32	30.00	-13.68

PSD Results

Channel	Frequency (MHz)	Antenna 6 Meas PSD (dBm/500KHz)	Total Corr'd PSD (dBm/500KHz)	PSD Limit (dBm/500KHz)	PSD Margin (dB)
Low	5728.75	10.700	13.130	30.00	-16.87
Mid	5786.25	10.818	13.248	30.00	-16.75
High	5846.25	11.054	13.484	30.00	-16.52



MID CHANNEL

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1TX Antenna 5 MODE (FCC+IC)

Test Engineer:	28502
Test Date:	7/20/2023

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/500KHz)
Low	5728.75	-4.0	30.00	30.00
Mid	5786.25	-4.0	30.00	30.00
High	5846.25	-4.0	30.00	30.00

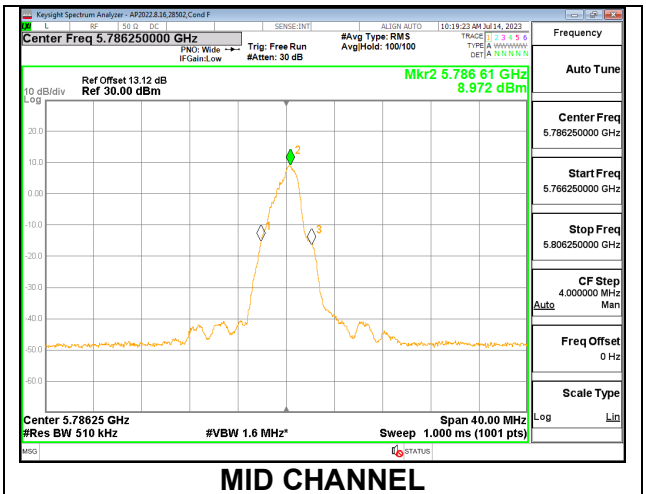
Duty Cycle CF (dB)	2.43	**Included in Calculations of Corr'd PSD**

Output Power Results

Channel	Frequency (MHz)	Antenna 5 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5728.75	11.72	14.15	30.00	-15.85
Mid	5786.25	11.81	14.24	30.00	-15.76
High	5846.25	11.82	14.25	30.00	-15.75

PSD Results

Channel	Frequency (MHz)	Antenna 5 Meas PSD (dBm/500KHz)	Total Corr'd PSD (dBm/500KHz)	PSD Limit (dBm/500KHz)	PSD Margin (dB)
Low	5728.75	8.684	11.114	30.00	-18.89
Mid	5786.25	8.972	11.402	30.00	-18.60
High	5846.25	8.913	11.343	30.00	-18.66



MID CHANNEL

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10. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209 -Restricted bands
FCC §15.407(b)(1-3) -Un-Restricted bands
RSS 247 Issue 2 Sections
6.2.4.2 (for 5725-5850 MHz band)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
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 30 MHz to 1GHz and 18GHz to 40 GHz is investigated with the transmitter set to transmit at the channel with highest output power as worst-case scenario. 1GHz to 18GHz was set to the lowest, middle, and highest channels in the 5 GHz bands.

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.

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

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.

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.

RESULTS

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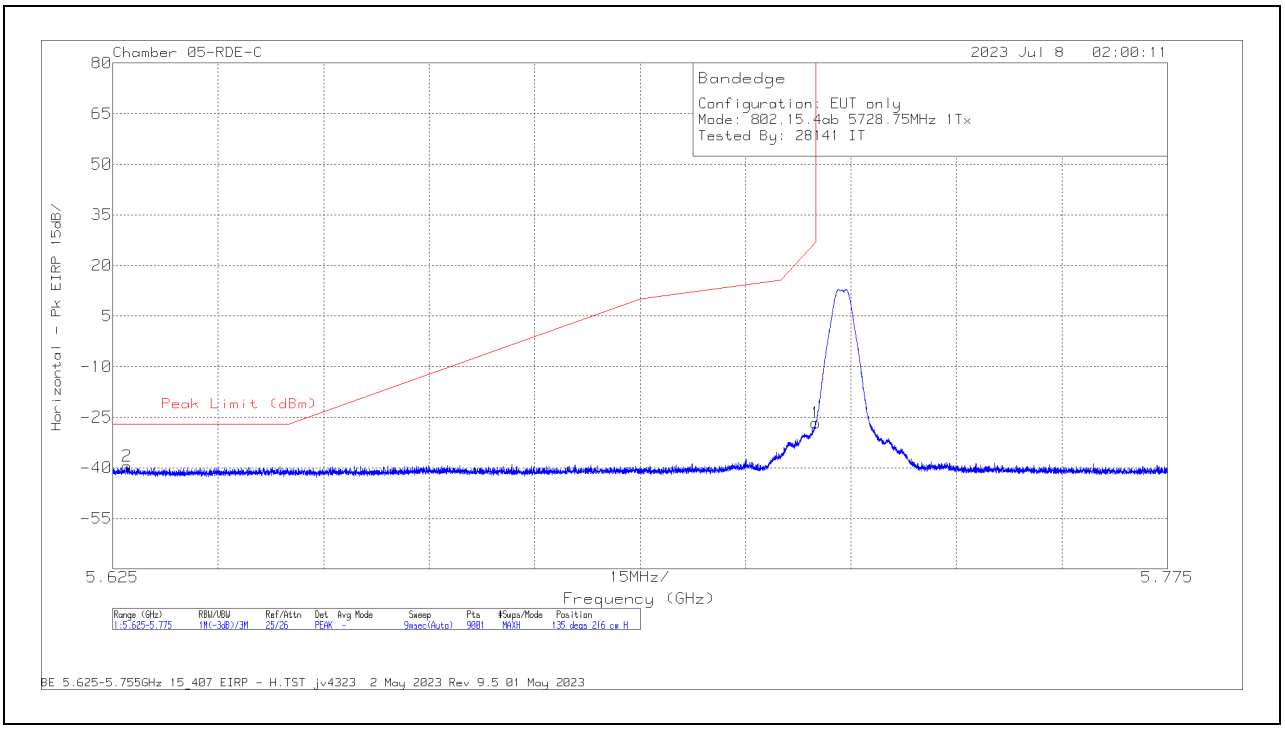
10.1. TRANSMITTER ABOVE 1 GHz

10.1.1. ANT 6, 1000Kbps, HIGH POWER BAND EDGE IN THE 5.8 GHz BAND

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	81887 ACF (dB) 3mH	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.627017	-47.87	Pk	34.7	11.8	0	-38.15	-39.52	-27	-12.52	135	216	H
1	5.725	-35	Pk	34.8	11.8	0	-38.2	-26.6	27	-53.6	135	216	H

Pk - Peak detector

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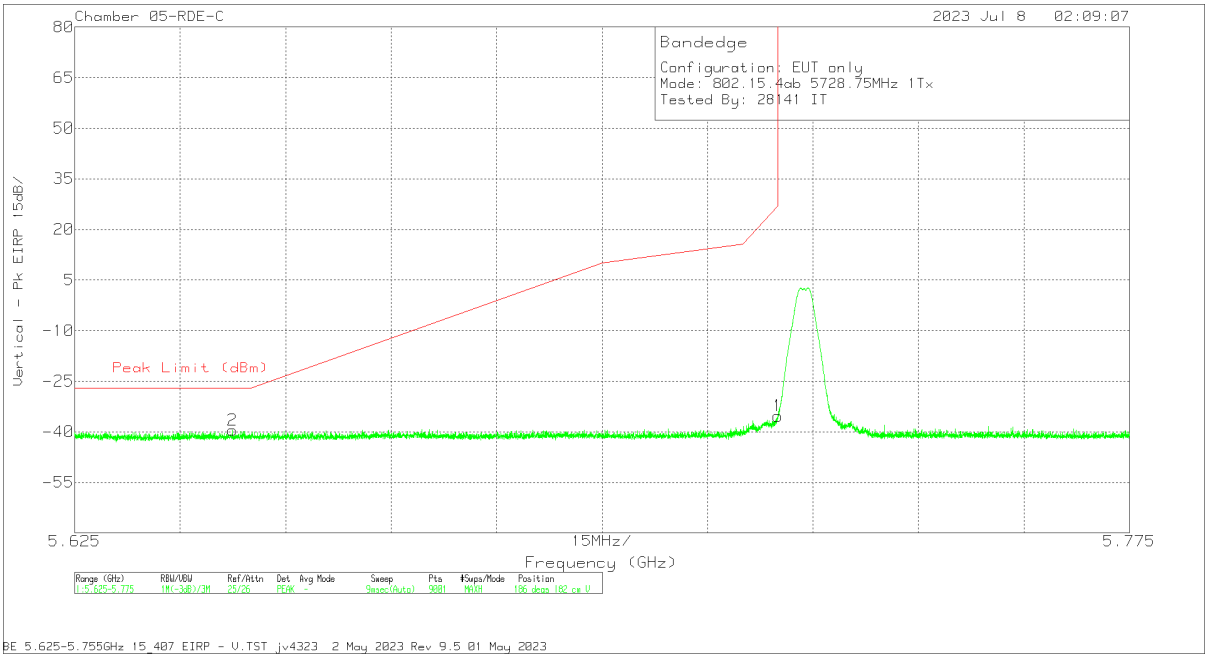
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	81887 ACF (dB) 3mH	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.64745	-47.8	Pk	34.7	11.8	0	-38.26	-39.56	-27	-12.56	186	182	V
1	5.725	-43.7	Pk	34.8	11.8	0	-38.2	-35.3	27	-62.3	186	182	V

Pk - Peak detector

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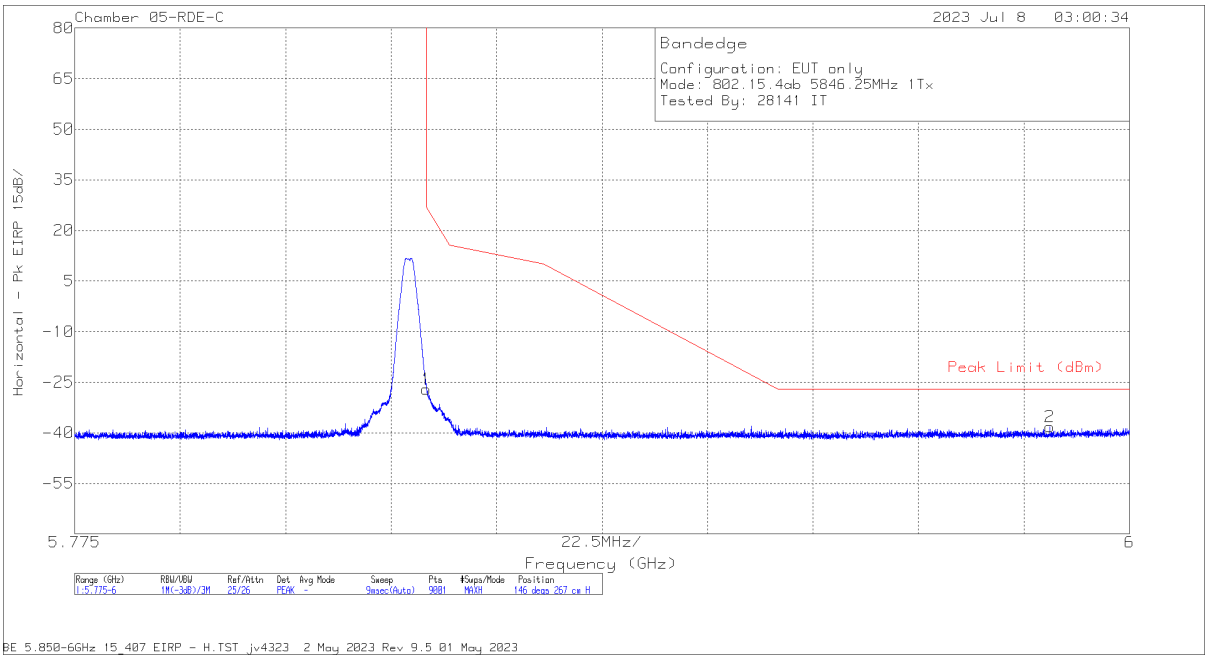
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	81887 ACF (dB) 3mH	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-35.98	Pk	34.9	11.8	0	-37.82	-27.1	27	-54.1	146	267	H
2	5.983025	-47.76	Pk	35.2	11.8	0	-37.49	-38.25	-27	-11.25	146	267	H

Pk - Peak detector

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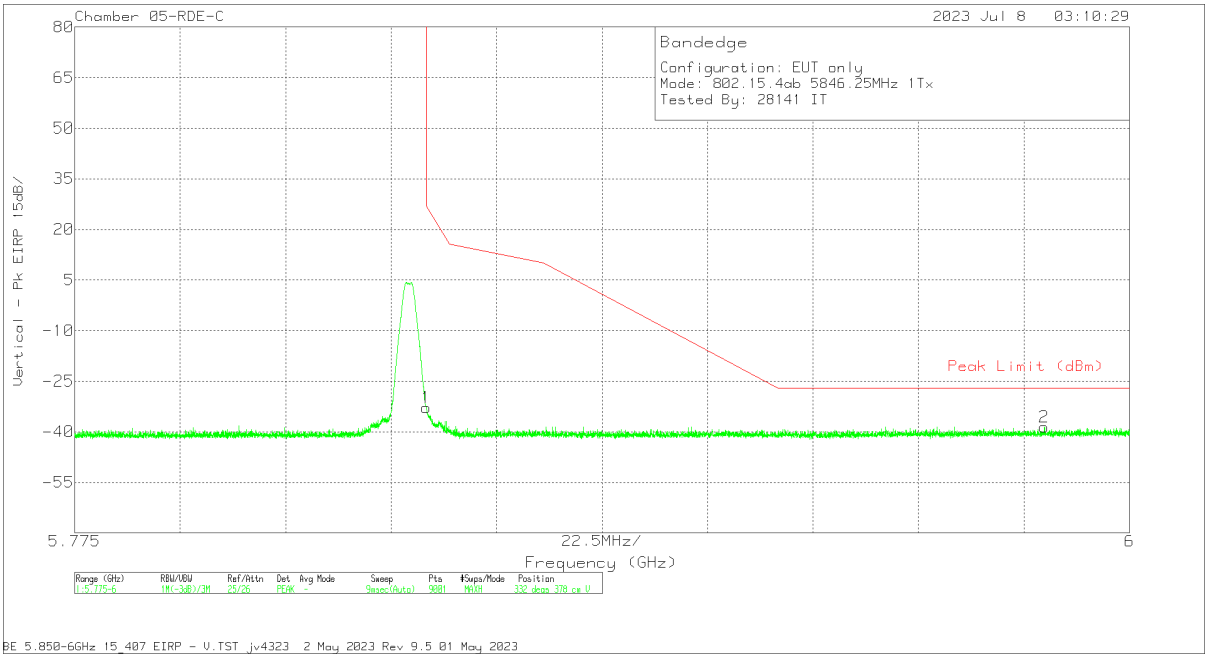
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	81887 ACF (dB) 3mH	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-41.69	Pk	34.9	11.8	0	-37.82	-32.81	27	-59.81	332	378	V
2	5.981875	-48.03	Pk	35.2	11.8	0	-37.49	-38.52	-27	-11.52	332	378	V

Pk - Peak detector

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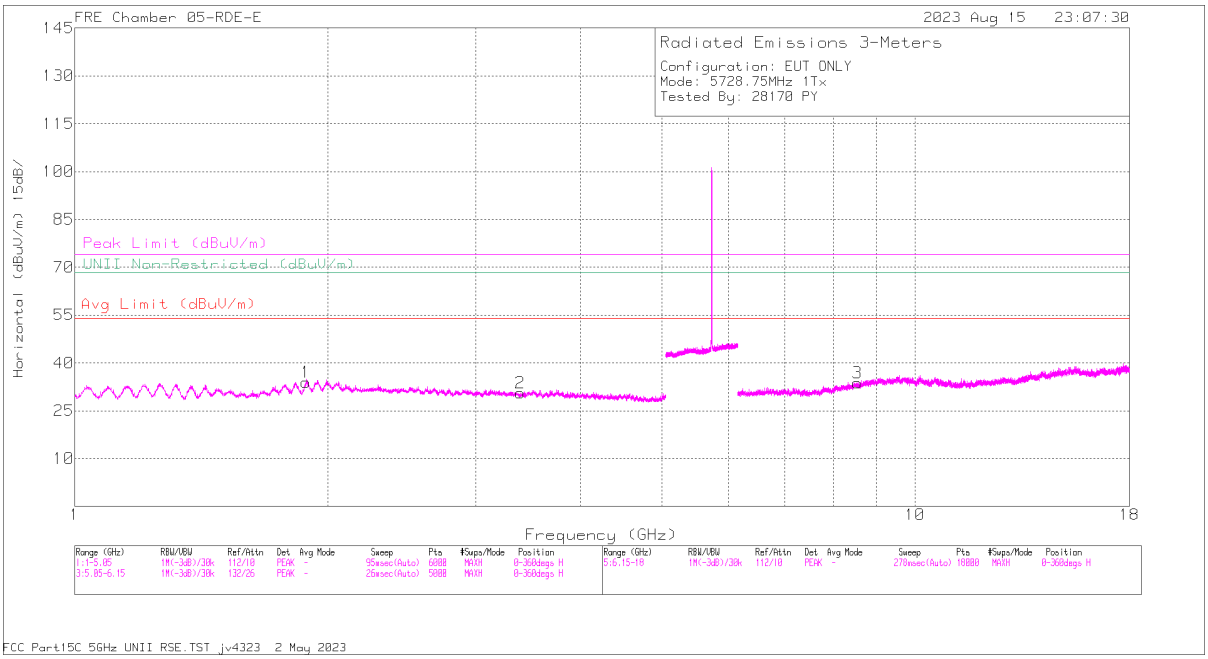
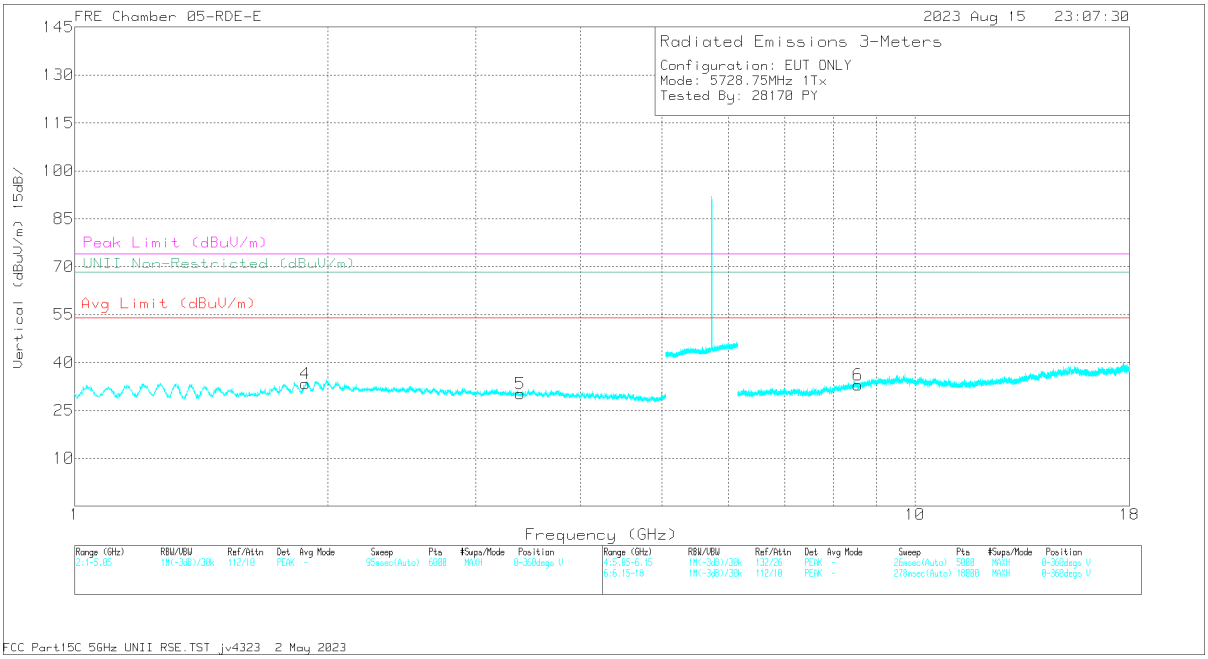
10.1.2. ANT 6, 1000Kbps, HIGH POWER HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226671 ACF (dB) 3mH	Gain/Loss (dB)	Corrected Reading (dBuV/m)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.880415	62.58	PK-U	31.2	-50.18	43.6	68.2	-24.6	360	101	V
1	1.884671	62.67	PK-U	31.2	-50.3	43.57	68.2	-24.63	360	199	H
2	3.389907	54.78	PK-U	32.7	-47.37	40.11	68.2	-28.09	360	199	H
5	3.391835	54.86	PK-U	32.7	-47.37	40.19	68.2	-28.01	360	199	V
	8.536336	52.83	PK-U	35.8	-45.07	43.56	68.2	-24.64	360	199	H
6	8.550275	52.42	PK-U	35.8	-44.92	43.3	68.2	-24.9	360	101	V

PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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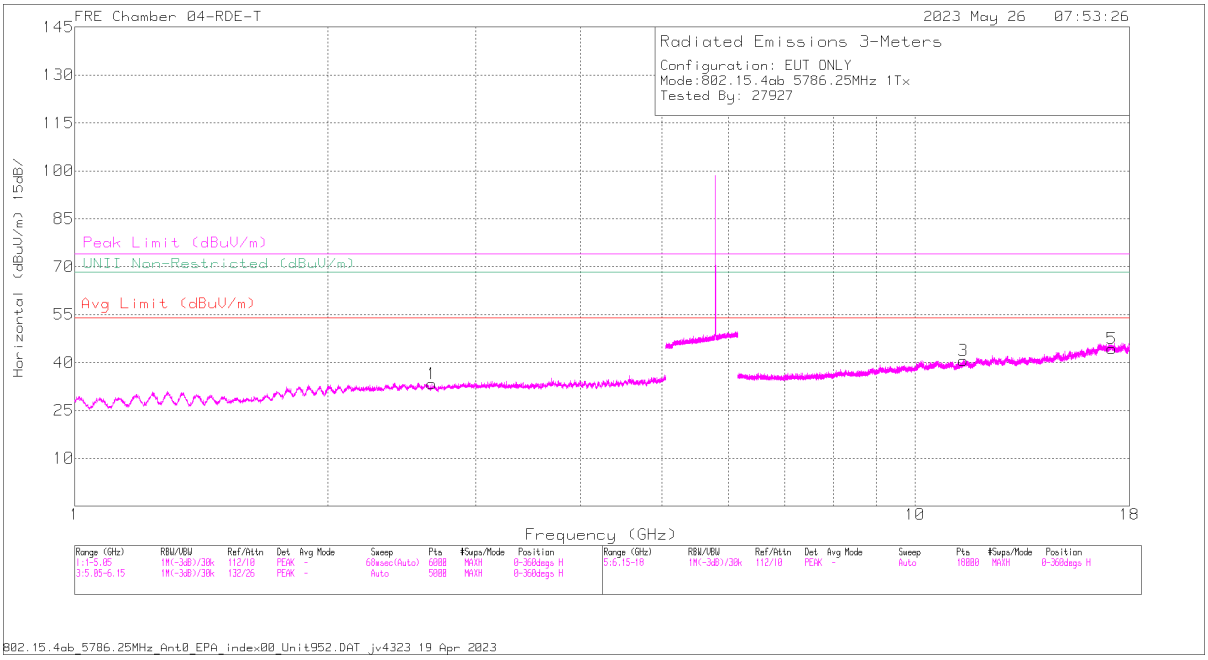
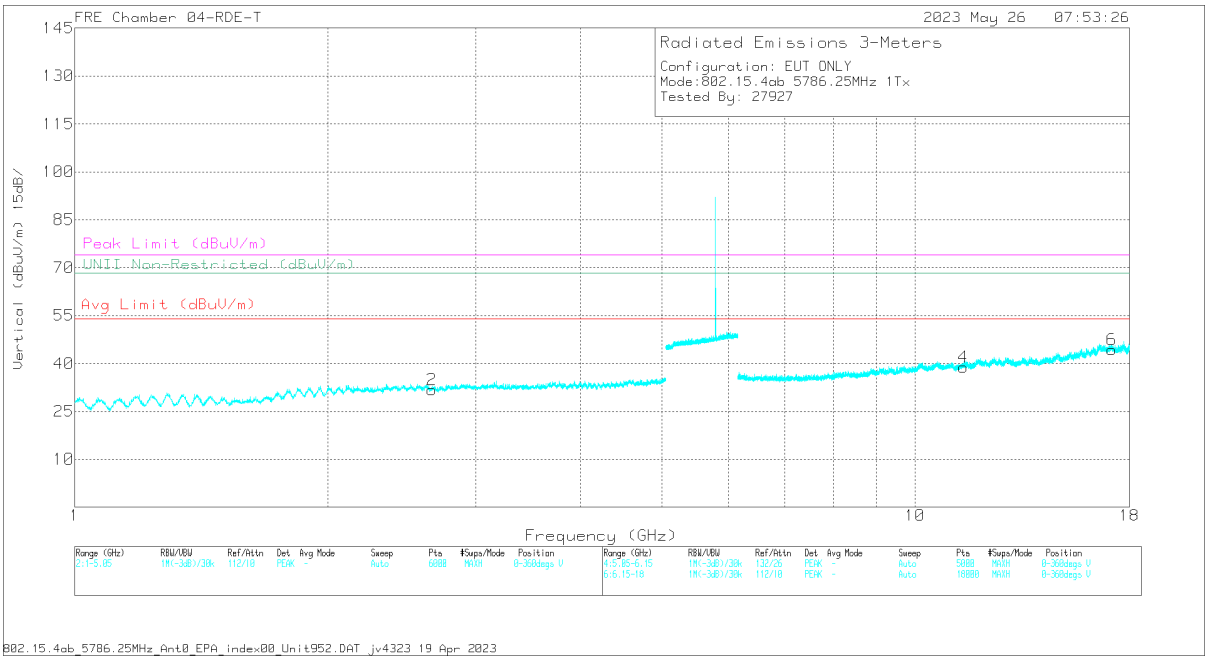
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.658919	35.71	PK-U	32.2	0	-47.24	20.67	-	-	74	-53.33	-	-	222	199	H
	* 2.658806	23.74	ADR	32.2	2.43	-47.24	11.13	54	-42.87	-	-	-	-	222	199	H
2	* 2.661622	35.7	PK-U	32.2	0	-47.22	20.68	-	-	74	-53.32	-	-	222	199	V
	* 2.659959	23.85	ADR	32.2	2.43	-47.21	11.27	54	-42.73	-	-	-	-	222	199	V
3	* 11.420529	38.98	PK-U	38	0	-41.66	35.32	-	-	74	-38.68	-	-	222	199	H
	* 11.423905	26.84	ADR	38	2.43	-41.54	25.73	54	-28.27	-	-	-	-	222	199	H
4	* 11.421493	39.05	PK-U	38	0	-41.63	35.42	-	-	74	-38.58	-	-	222	199	V
	* 11.422504	26.7	ADR	38	2.43	-41.6	25.53	54	-28.47	-	-	-	-	222	199	V
5	17.148487	41.51	PK-U	42	0	-41.02	42.49	-	-	-	-	68.2	-25.71	222	199	H
6	17.150951	40.31	PK-U	42	0	-41.06	41.25	-	-	-	-	68.2	-26.95	222	199	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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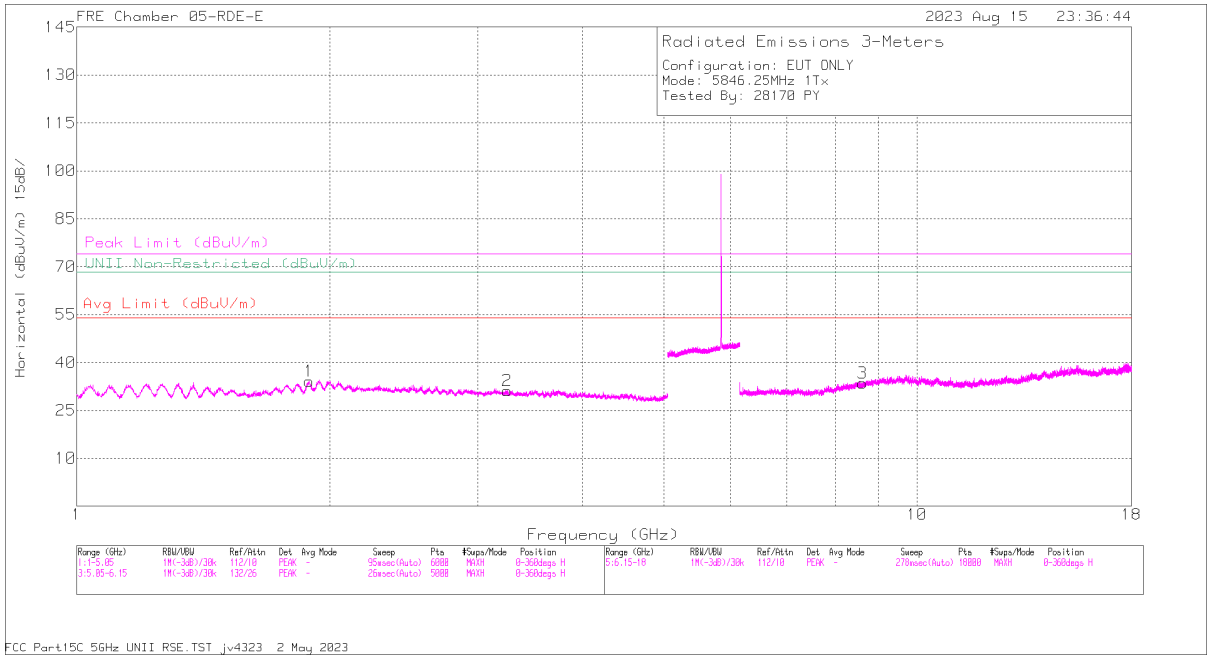
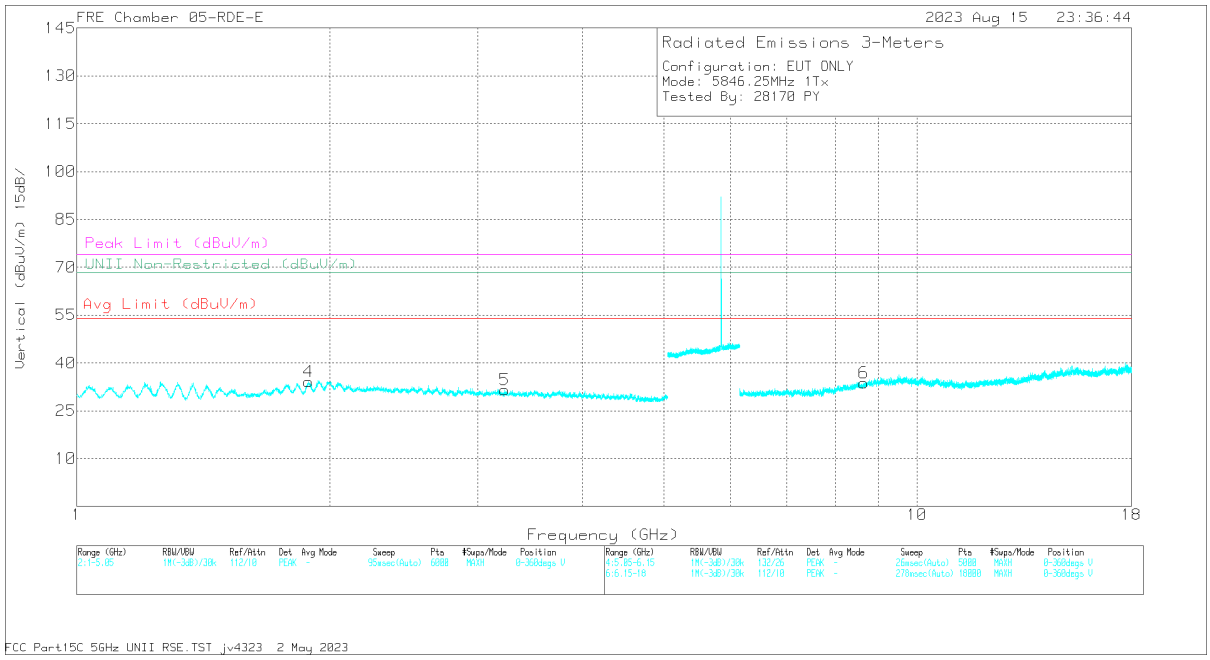
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226671 ACF (dB) 3mH	Gain/Loss (dB)	Corrected Reading (dBuV/m)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
	1.886885	63.51	PK-U	31.2	-50.27	44.44	68.2	-23.76	360	200	V
1	1.889269	63.8	PK-U	31.3	-50.32	44.78	68.2	-23.42	360	200	H
5	3.232662	55.8	PK-U	32.8	-47.73	40.87	68.2	-27.33	360	200	V
2	3.250182	55.42	PK-U	32.8	-47.63	40.59	68.2	-27.61	360	200	H
3	8.621296	52.19	PK-U	35.8	-44.74	43.25	68.2	-24.95	360	200	H
6	8.64746	52.67	PK-U	35.8	-44.85	43.62	68.2	-24.58	360	101	V

PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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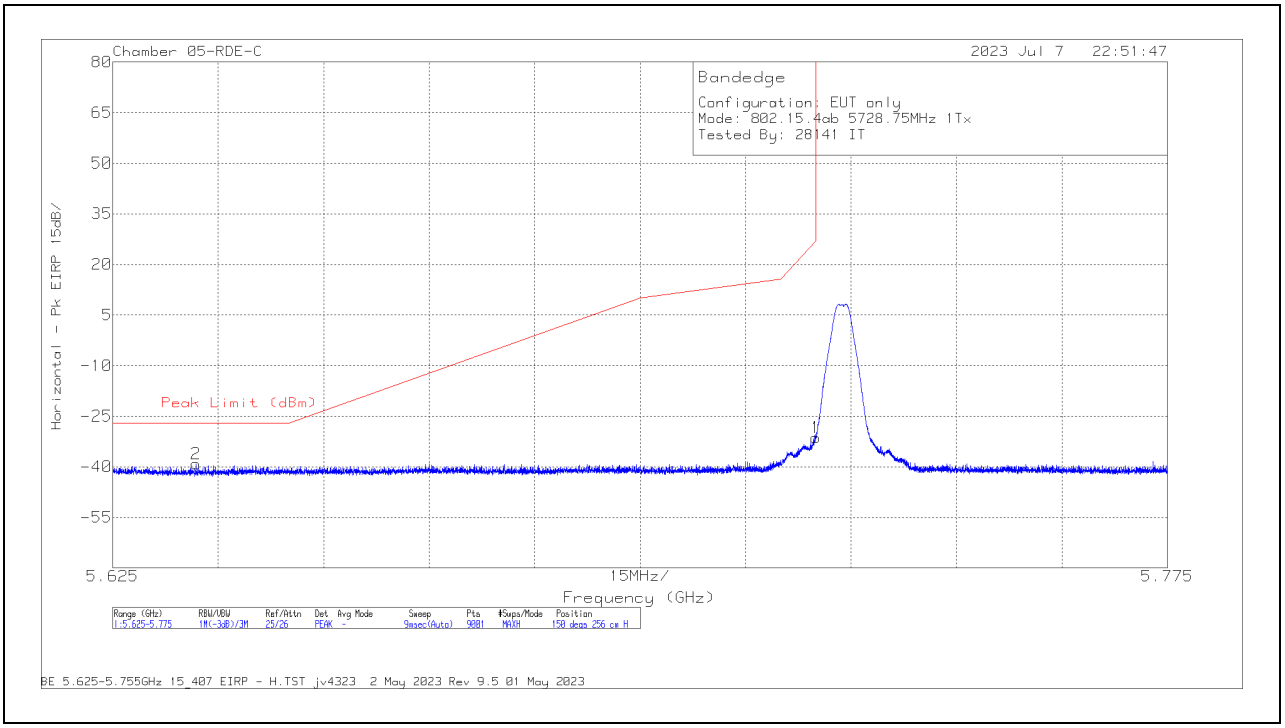
10.1.3. ANT 6, 1000Kbps, LOW POWER BAND EDGE IN THE 5.8 GHz BAND

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	81887 ACF (dB) 3mH	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.636834	-47.4	Pk	34.7	11.8	0	-38.28	-39.18	-27	-12.18	150	256	H
1	5.725	-39.71	Pk	34.8	11.8	0	-38.2	-31.31	27	-58.31	150	256	H

Pk - Peak detector

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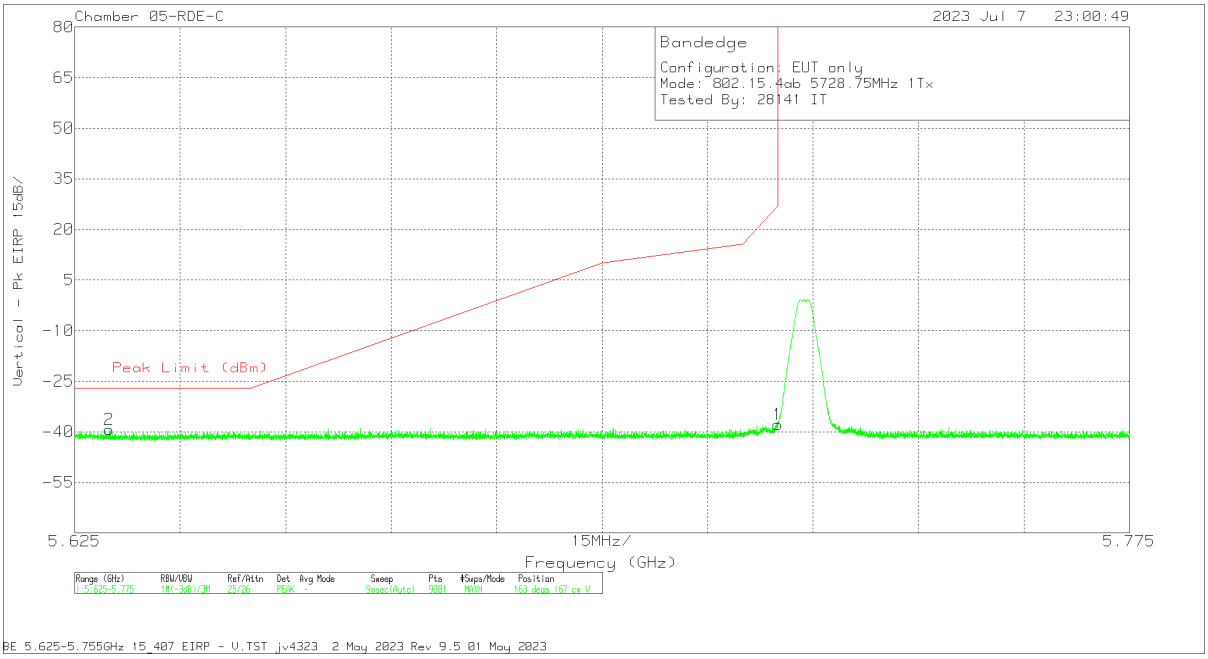
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	81887 ACF (dB) 3mH	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.629917	-47.37	Pk	34.7	11.8	0	-38.35	-39.22	-27	-12.22	163	167	V
1	5.725	-46.28	Pk	34.8	11.8	0	-38.2	-37.88	27	-64.88	163	167	V

Pk - Peak detector

UL VERIFICATION SERVICES INC.
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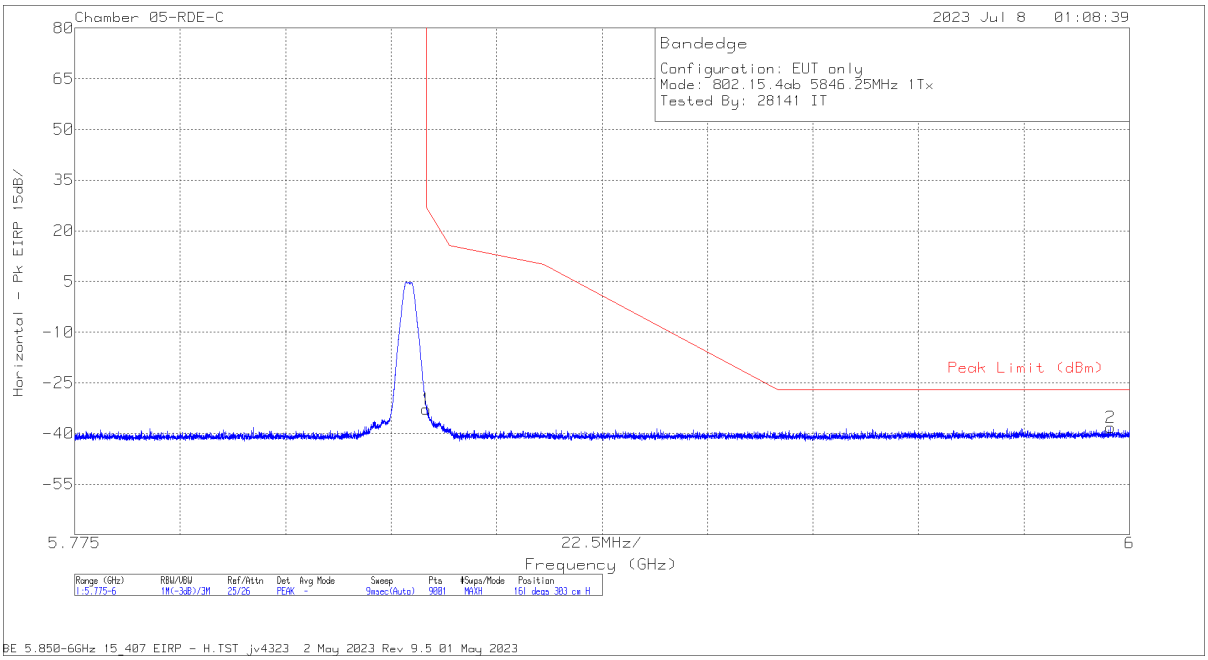
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	81887 ACF (dB) 3mH	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-41.74	Pk	34.9	11.8	0	-37.82	-32.86	27	-59.86	161	303	H
2	5.99595	-47.94	Pk	35.2	11.8	0	-37.29	-38.23	-27	-11.23	161	303	H

Pk - Peak detector

UL VERIFICATION SERVICES INC.
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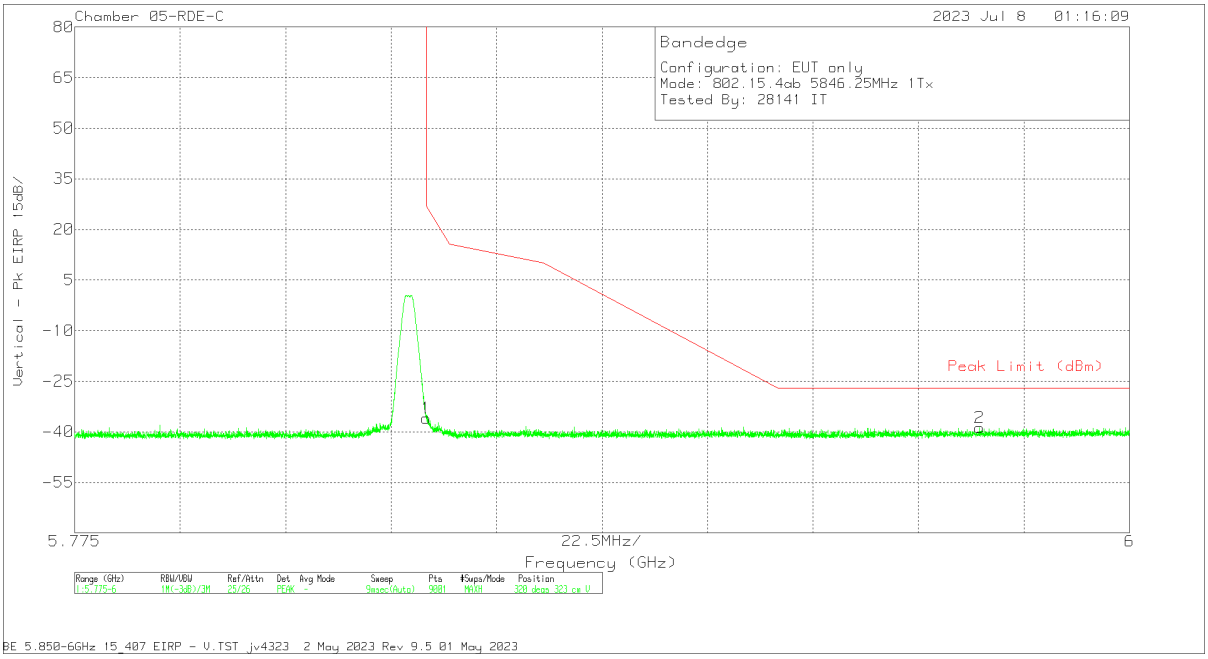
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	81887 ACF (dB) 3mH	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-44.87	Pk	34.9	11.8	0	-37.82	-35.99	27	-62.99	320	323	V
2	5.9681	-48.24	Pk	35.2	11.8	0	-37.5	-38.74	-27	-11.74	320	323	V

Pk - Peak detector

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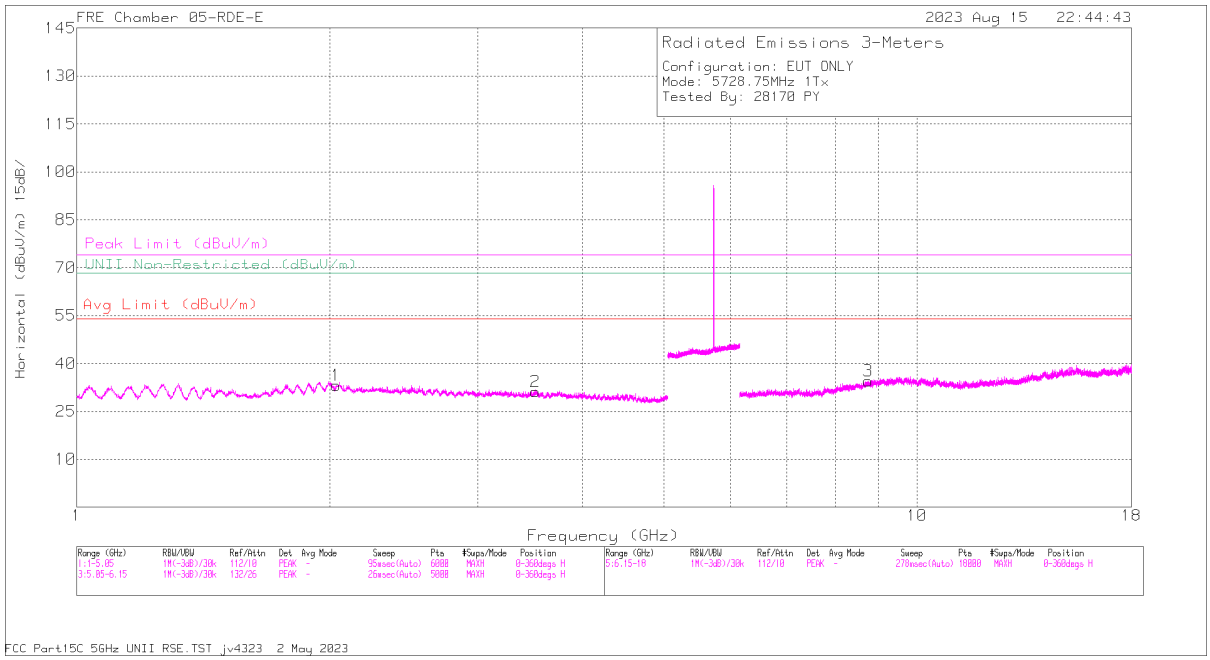
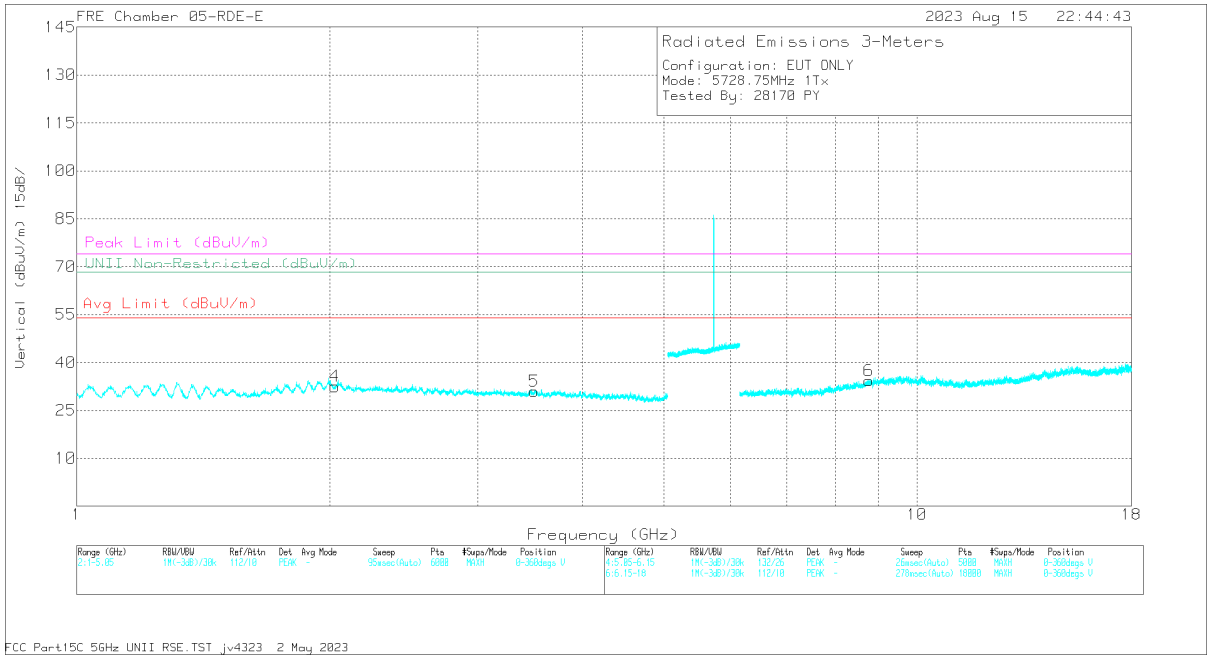
10.1.4. ANT 6, 1000Kbps, LOW POWER HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226671 ACF (dB) 3mH	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.512446	55.4	PK-U	32.9	0	-47.14	41.16	-	-	74	-32.84	-	-	360	199	H
	* 3.51318	43.3	ADR	32.9	2.43	-47.12	31.51	54	-22.49	-	-	-	-	360	199	H
5	* 3.504333	55.48	PK-U	32.9	0	-47.15	41.23	-	-	74	-32.77	-	-	189	199	V
	* 3.505786	43.1	ADR	32.9	2.43	-47.15	31.28	54	-22.72	-	-	-	-	189	199	V
4	2.029911	61.23	PK-U	31.6	0	-50.24	42.59	-	-	-	-	68.2	-25.61	360	101	V
1	2.035231	61.71	PK-U	31.6	0	-50.26	43.05	-	-	-	-	68.2	-25.15	360	101	H
	8.744471	52.67	PK-U	35.8	0	-44.68	43.79	-	-	-	-	68.2	-24.41	360	199	H
	8.759141	52.36	PK-U	35.8	0	-44.62	43.54	-	-	-	-	68.2	-24.66	360	199	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL VERIFICATION SERVICES INC.
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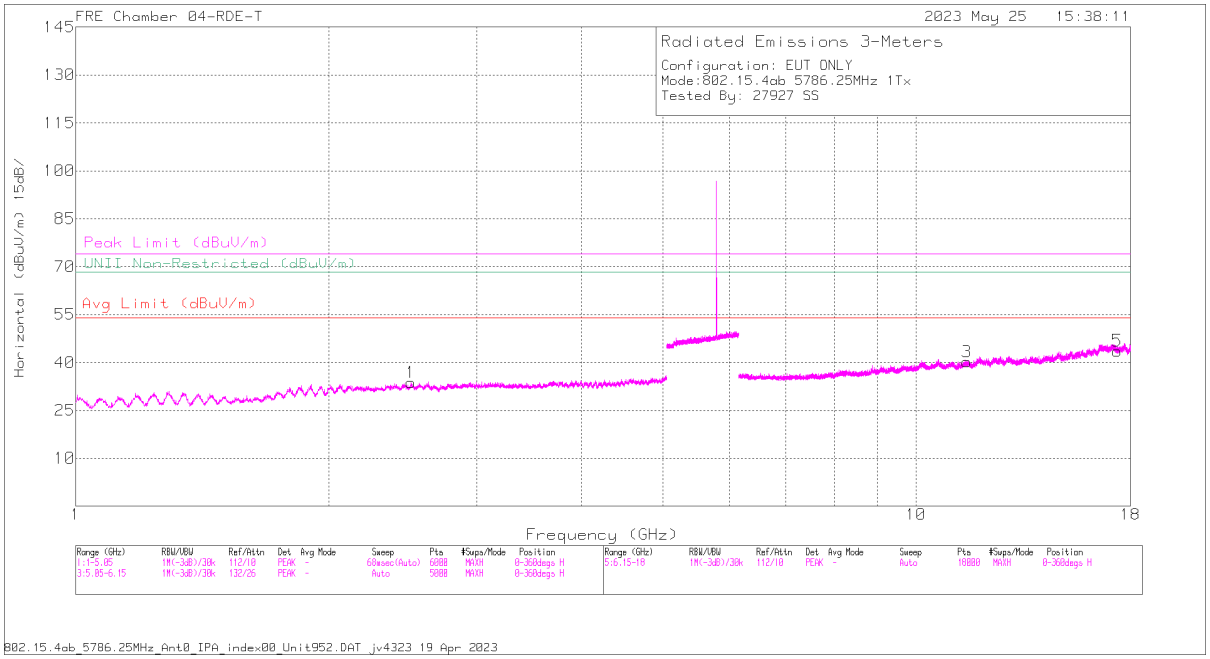
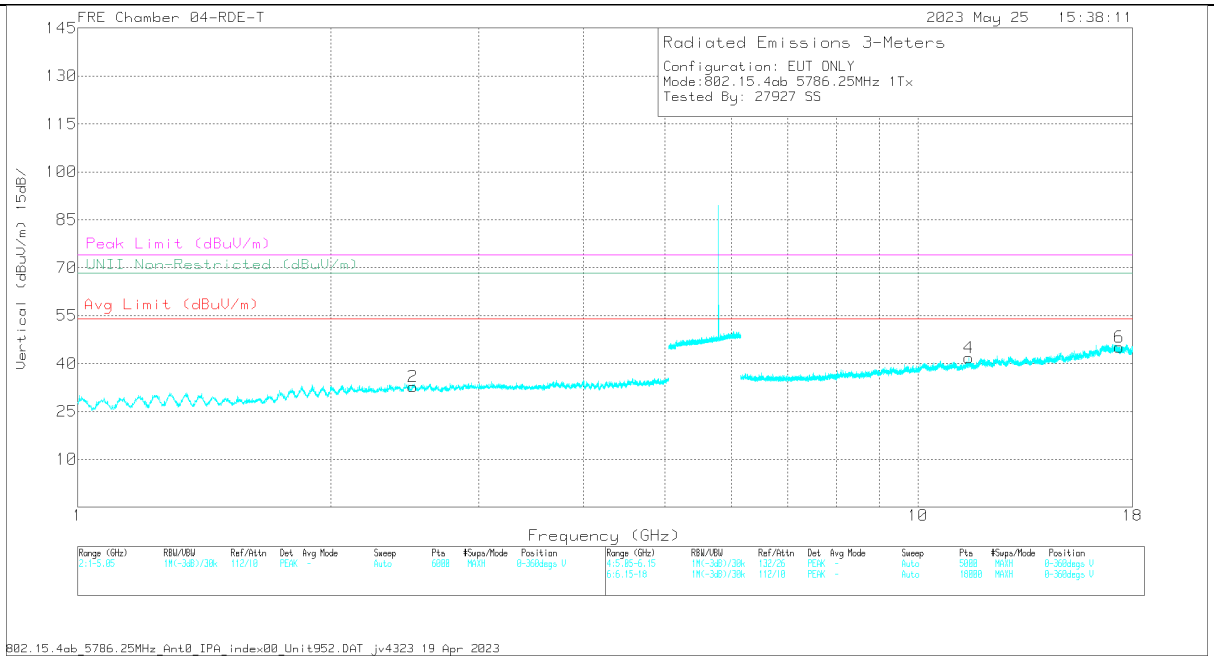
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 11.494111	51.86	PK-U	38.1	0	-40.95	49.01	-	-	74	-24.99	-	-	356	148	H
	* 11.494111	42.99	ADR	38.1	2.43	-40.95	42.57	54	-11.43							
4	* 11.495124	52.85	PK-U	38.1	0	-40.99	49.96	-	-	74	-24.04	-	-	105	220	V
	* 11.495124	44.57	ADR	38.1	2.43	-40.99	44.11	54	-9.89							
1	2.506446	57.69	Pk	32.3	0	-47.47	42.52	-	-	-	-	68.2	-25.68	51	142	H
2	2.506593	57.84	Pk	32.3	0	-47.47	42.67	-	-	-	-	68.2	-25.53	239	182	V
6	17.359633	52.74	Pk	41.9	0	-41.28	53.36	-	-	-	-	68.2	-14.84	199	205	V
5	17.361554	52.39	Pk	41.9	0	-41.27	53.02	-	-	-	-	68.2	-15.18	229	111	H

PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL VERIFICATION SERVICES INC.
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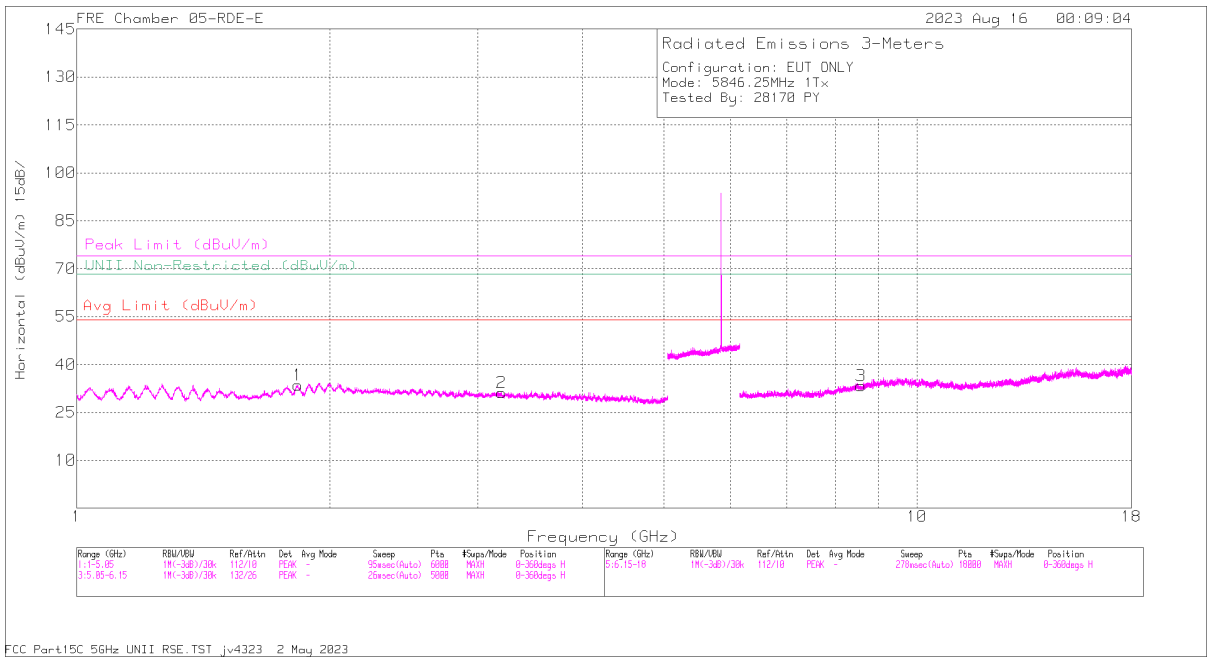
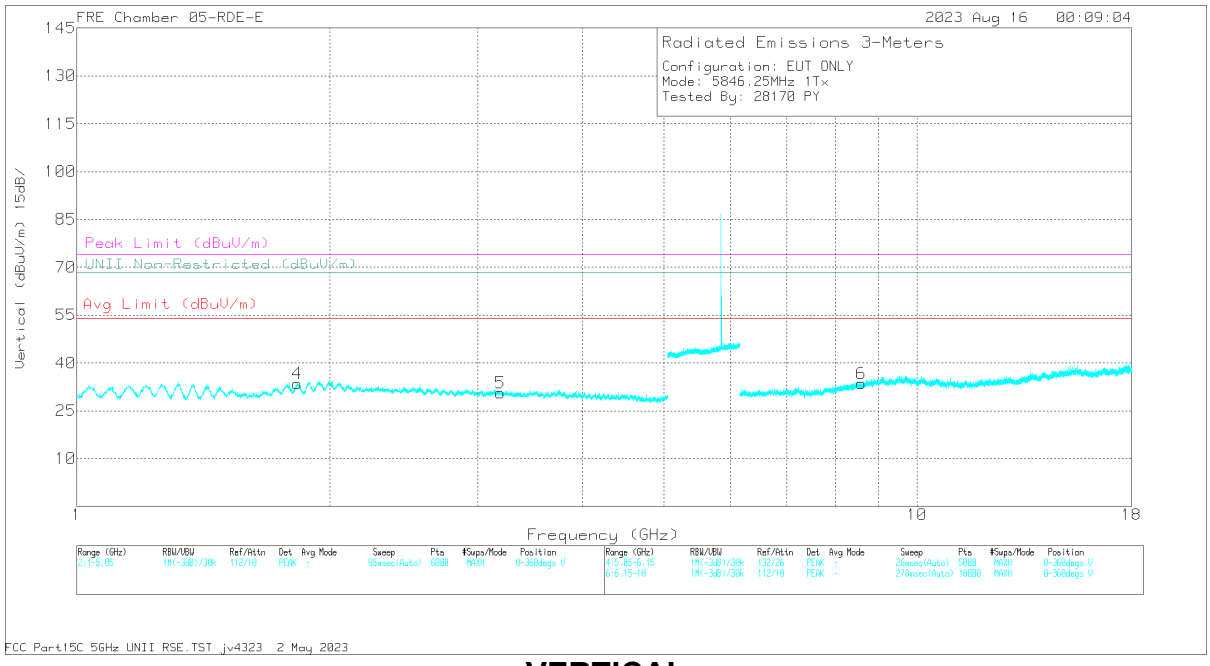
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226671 ACF (dB) 3mH	Gain/Loss (dB)	Corrected Reading (dBuV/m)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
	1.83219	63.08	PK-U	30.7	-49.97	43.81	68.2	-24.39	360	199	V
	1.834145	62.66	PK-U	30.8	-49.99	43.47	68.2	-24.73	360	199	H
5	3.195391	55.71	PK-U	32.9	-47.72	40.89	68.2	-27.31	360	199	V
	3.203532	55.95	PK-U	32.9	-47.85	41	68.2	-27.2	360	101	H
6	8.577178	52.36	PK-U	35.8	-44.9	43.26	68.2	-24.94	360	200	V
3	8.579633	52.41	PK-U	35.8	-44.94	43.27	68.2	-24.93	360	101	H

PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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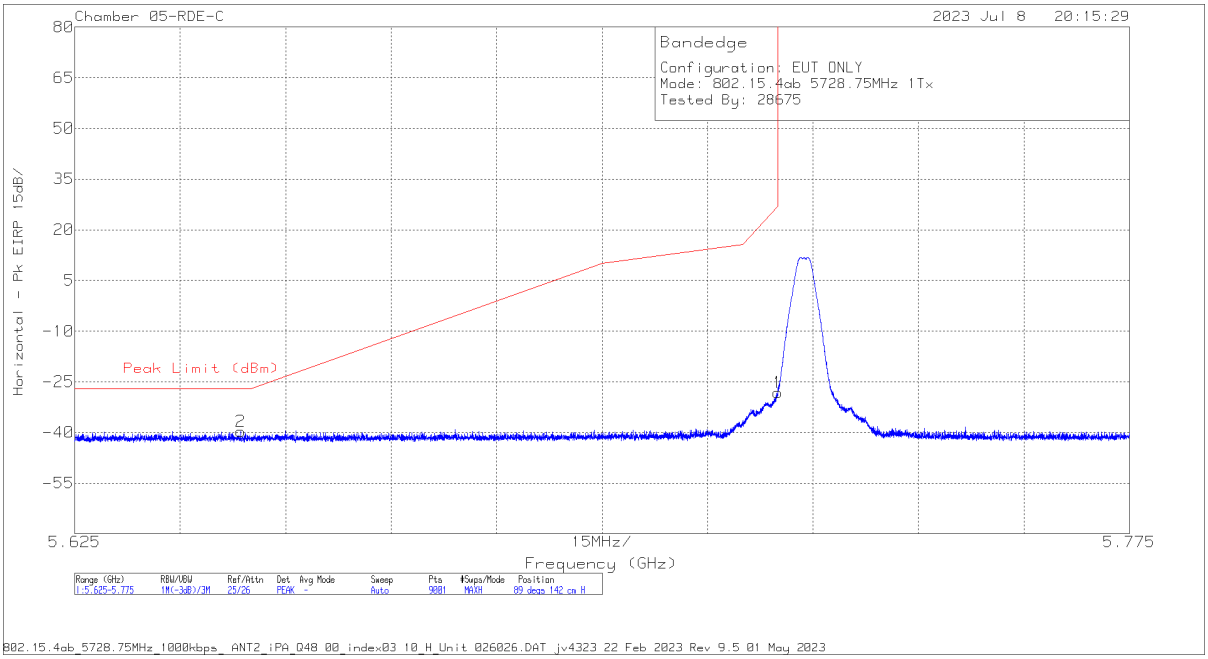
10.1.5. ANT 5, 1000Kbps, HIGH POWER BAND EDGE IN THE 5.8 GHz BAND

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dB/m)	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.648584	-46.98	Pk	34.4	11.8	0	-47.19	-47.97	-27	-20.97	89	142	H
1	5.725	-35.69	Pk	34.5	11.8	0	-47.35	-36.74	27	-63.74	89	142	H

Pk - Peak detector

UL VERIFICATION SERVICES INC.
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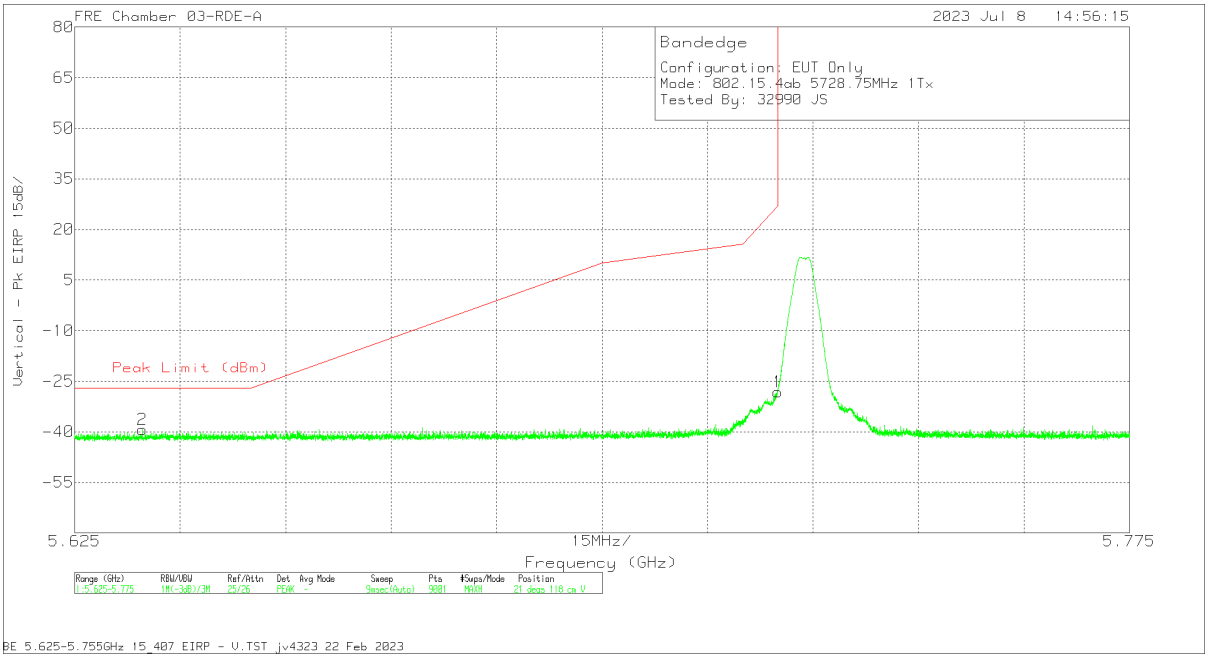
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	200897 ACF (dB) 3mH	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.634617	-47.56	Pk	34.4	11.8	0	-37.95	-39.31	-27	-12.31	21	118	V
1	5.725	-36.6	Pk	34.5	11.8	0	-37.78	-28.08	27	-55.08	21	118	V

Pk - Peak detector

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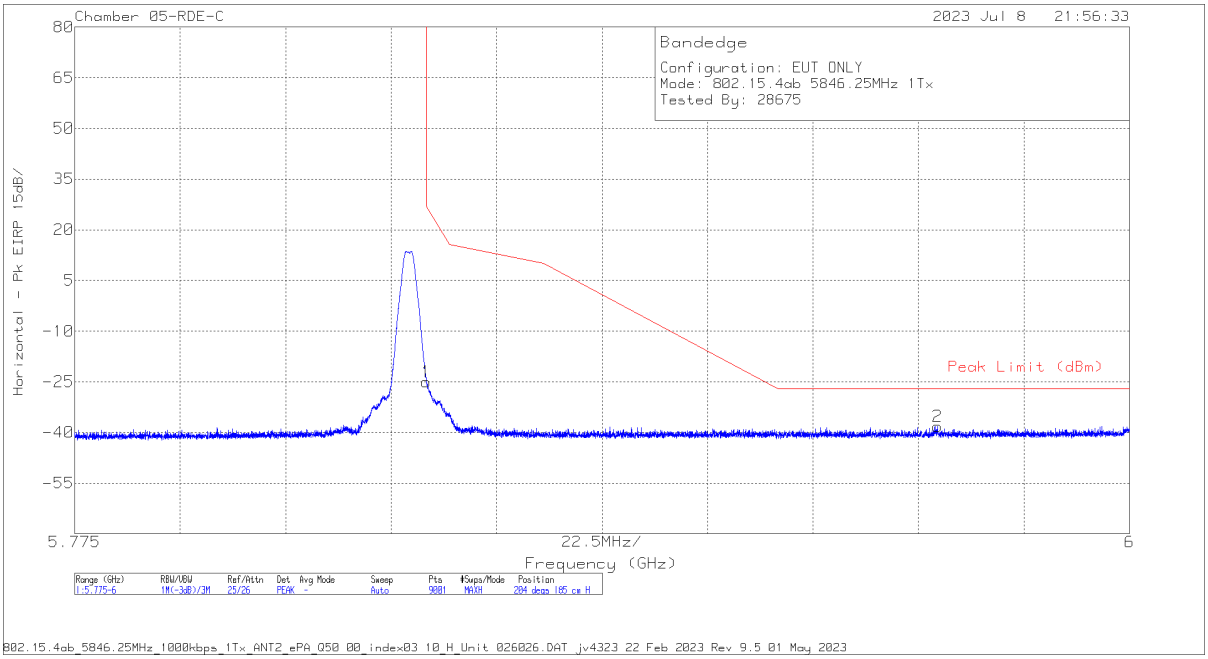
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dB/m)	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-32.95	Pk	34.7	11.8	0	-46.87	-33.32	27	-60.32	204	185	H
2	5.959125	-46.61	Pk	34.9	11.8	0	-46.84	-46.75	-27	-19.75	204	185	H

Pk - Peak detector

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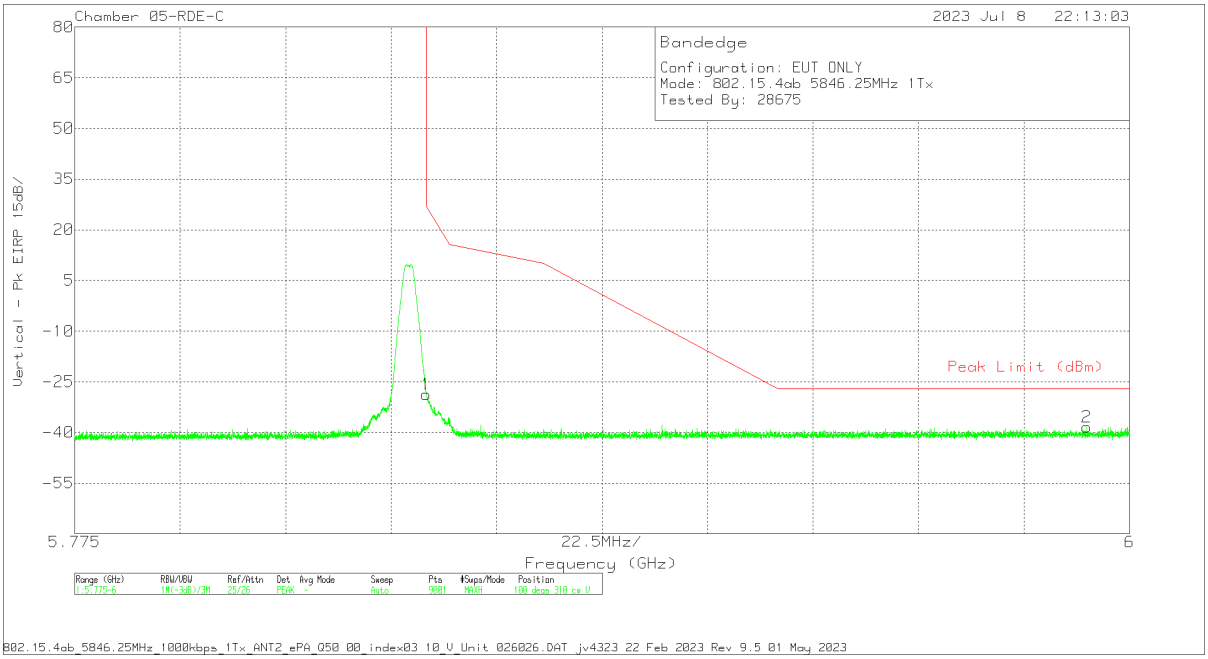
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dB/m)	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-36.71	Pk	34.7	11.8	0	-46.87	-37.08	27	-64.08	100	310	V
2	5.99095	-47.09	Pk	35	11.8	0	-46.67	-46.96	-27	-19.96	100	310	V

Pk - Peak detector

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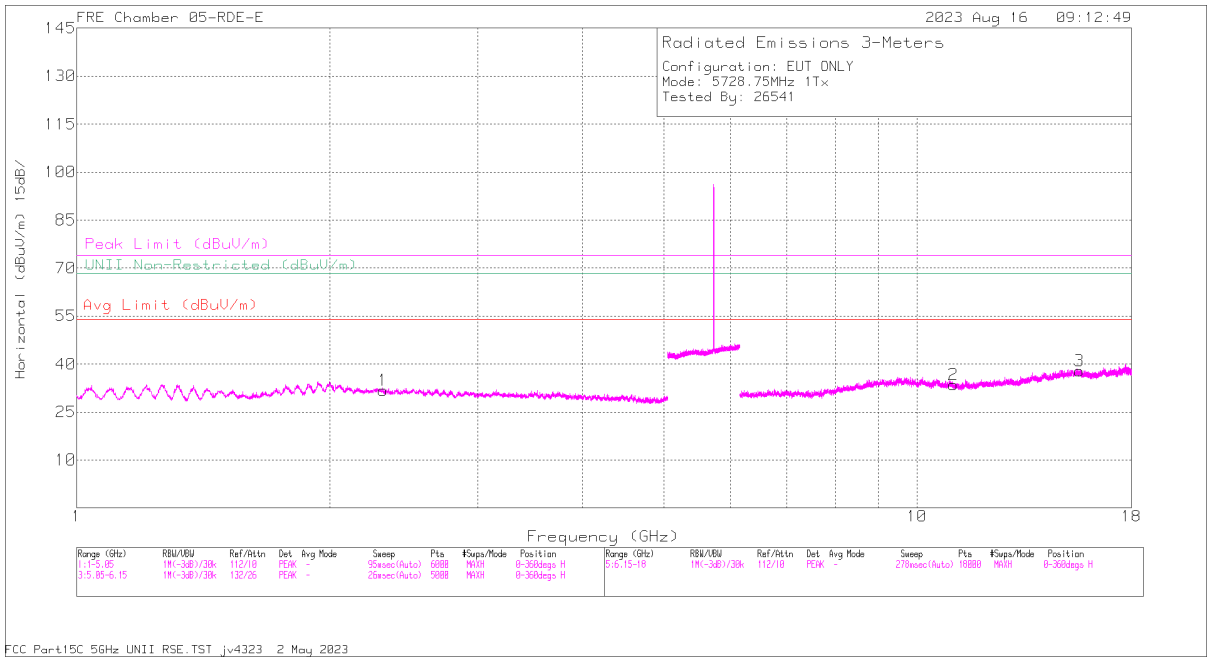
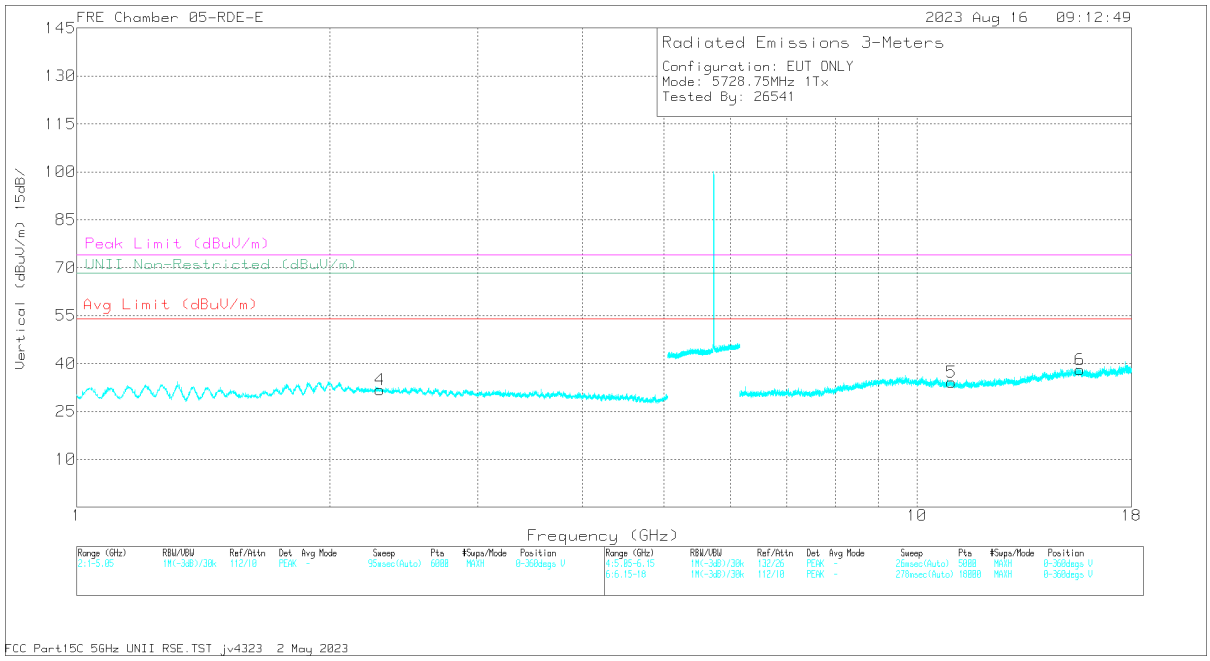
10.1.6. ANT 5, 1000Kbps, HIGH POWER HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226671 ACF (dB) 3mH	DCCF (dB)	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	* 2.315994	60.81	PK-U	31.8	0	-50.24	42.37	-	-	74	-31.63	360	145	H
	* 2.315465	48.57	ADR	31.8	2.43	-50.25	32.55	54	-21.45	-	-	360	145	H
4	* 2.297149	60.82	PK-U	31.7	0	-50.32	42.2	-	-	74	-31.8	181	141	V
	* 2.290087	49.03	ADR	31.7	2.43	-50.36	32.8	54	-21.2	-	-	181	141	V
2	* 11.047371	50.16	PK-U	37.9	0	-44.18	43.88	-	-	74	-30.12	284	143	H
	* 11.047518	38.07	ADR	37.9	2.43	-44.19	34.21	54	-19.79	-	-	284	143	H
3	* 15.611983	51.02	PK-U	40.4	0	-43.17	48.25	-	-	74	-25.75	284	143	H
	* 15.611986	39.09	ADR	40.4	2.43	-43.17	38.75	54	-15.25	-	-	284	143	H
5	* 10.986796	50.65	PK-U	37.9	0	-44.48	44.07	-	-	74	-29.93	284	143	V
	* 10.987867	38.6	ADR	37.9	2.43	-44.45	34.48	54	-19.52	-	-	284	143	V
6	* 15.631192	51.46	PK-U	40.4	0	-43.76	48.1	-	-	74	-25.9	284	143	V
	* 15.629453	39.4	ADR	40.4	2.43	-43.69	38.54	54	-15.46	-	-	284	143	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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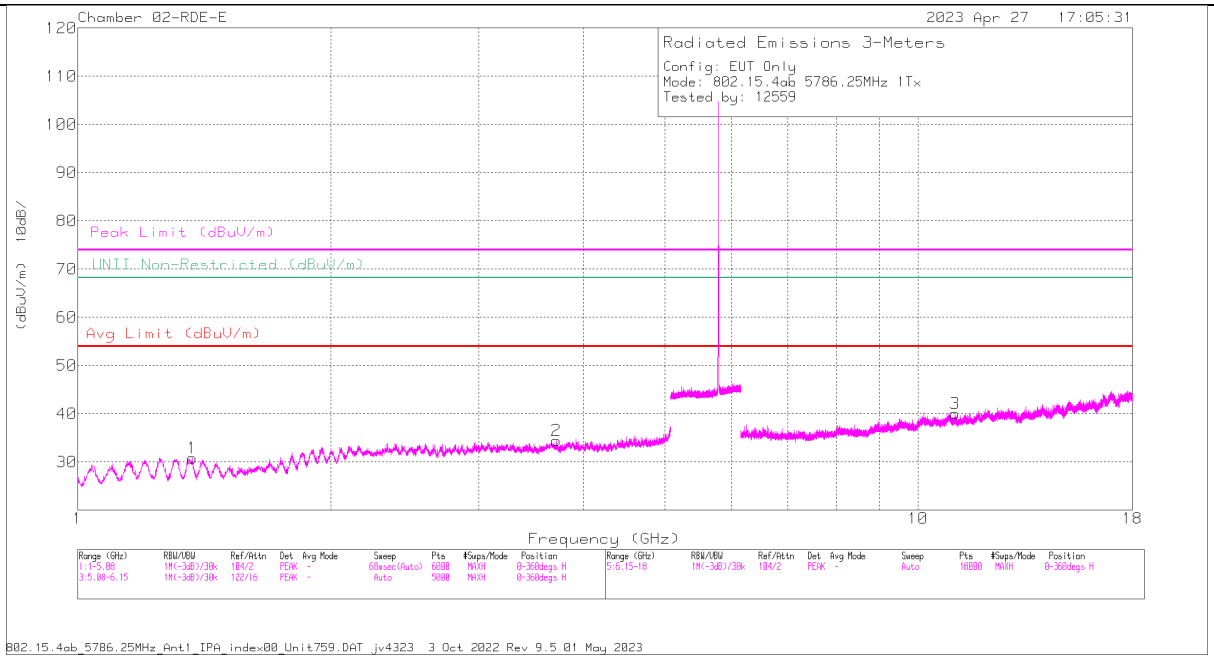
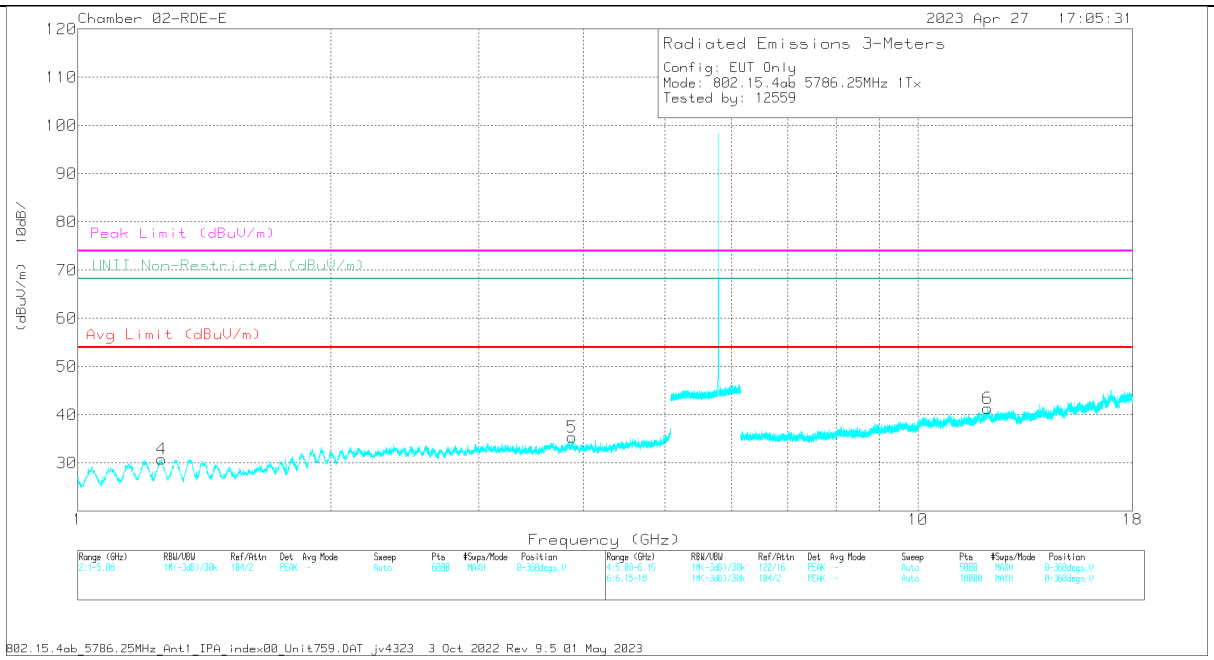
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
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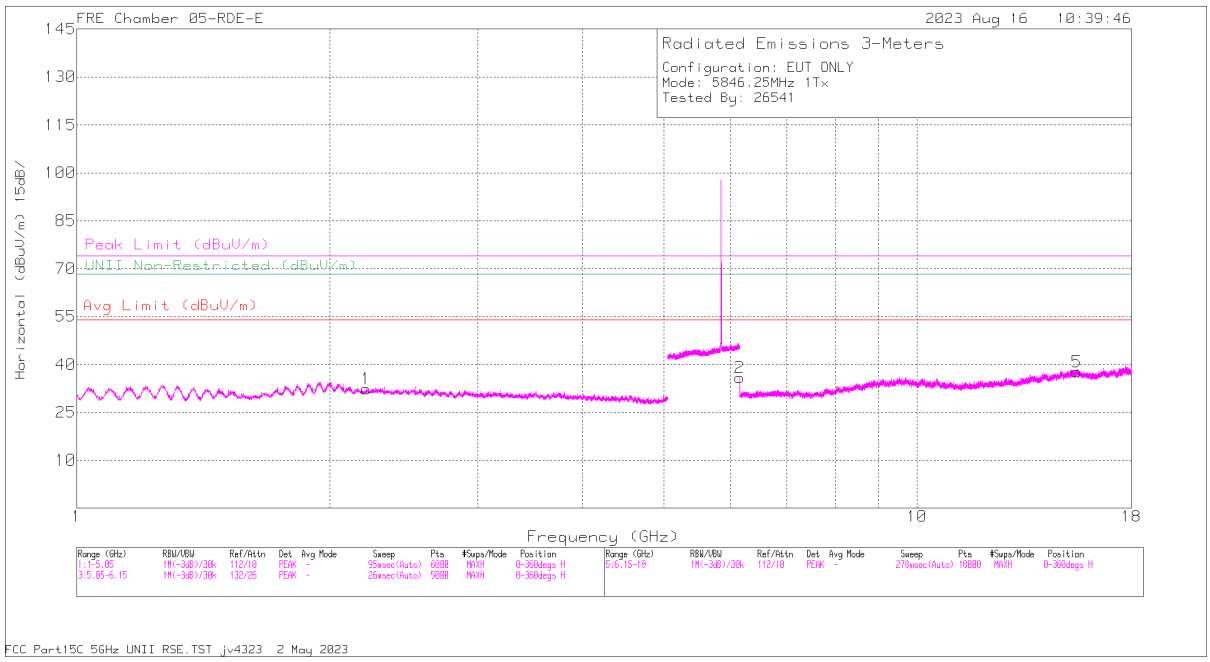
RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206807 ACF (dB) 3mH	DCCF (dB)	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	* 1.369279	60.27	PK-U	28.9	0	-49.36	39.81	-	-	74	-34.19	360	200	H
	* 1.36835	48.9	ADR	28.9	2.43	-49.37	30.86	54	-23.14	-	-	360	200	H
2	* 3.716028	56.12	PK-U	33.3	0	-45.7	43.72	-	-	74	-30.28	360	101	H
	* 3.713118	44.43	ADR	33.3	2.43	-45.73	34.43	54	-19.57	-	-	360	101	H
4	* 1.257393	61.72	PK-U	29	0	-49.5	41.22	-	-	74	-32.78	360	200	V
	* 1.257153	49.69	ADR	29	2.43	-49.49	31.63	54	-22.37	-	-	360	200	V
5	* 3.874565	57.04	PK-U	33.5	0	-45.74	44.8	-	-	74	-29.2	360	101	V
	* 3.877389	44.82	ADR	33.5	2.43	-45.76	34.99	54	-19.01	-	-	360	101	V
3	* 11.061523	53.4	PK-U	37.9	0	-42.44	48.86	-	-	74	-25.14	360	101	H
	* 11.062078	42.01	ADR	37.9	2.43	-42.44	39.9	54	-14.1	-	-	360	101	H
6	* 12.097876	54.76	PK-U	38.9	0	-42.93	50.73	-	-	74	-23.27	360	199	V
	* 12.100904	43.15	ADR	38.9	2.43	-42.84	41.64	54	-12.36	-	-	360	199	V

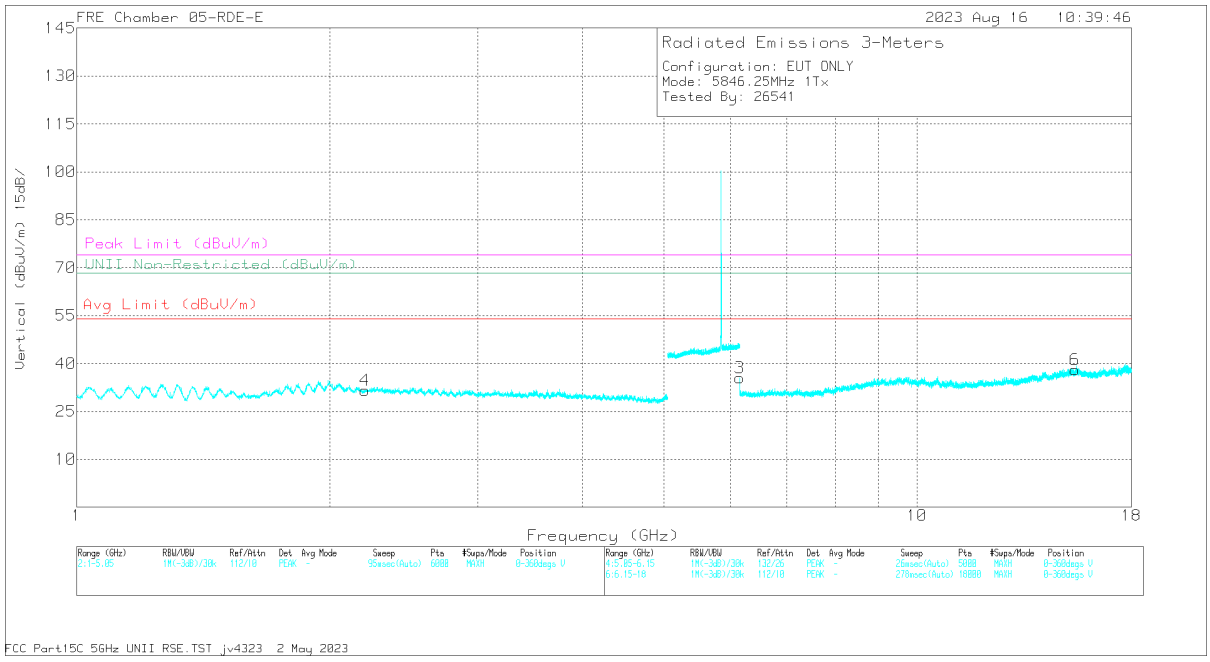
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226671 ACF (dB) 3mH	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.209503	60.72	PK-U	31.6	0	-50.5	41.82	-	-	74	-32.18	-	-	333	241	H
	* 2.211967	49.27	ADR	31.6	2.43	-50.53	32.77	54	-21.23	-	-	-	-	333	241	H
4	* 2.204477	60.9	PK-U	31.5	0	-50.56	41.84	-	-	74	-32.16	-	-	325	248	V
	* 2.20263	49.18	ADR	31.5	2.43	-50.53	32.58	54	-21.42	-	-	-	-	325	248	V
5	* 15.492352	51	PK-U	40.2	0	-43.17	48.03	-	-	74	-25.97	-	-	225	112	H
	* 15.491178	38.96	ADR	40.2	2.43	-43.13	38.46	54	-15.54	-	-	-	-	225	112	H
6	* 15.42652	51.15	PK-U	40.1	0	-43.61	47.64	-	-	74	-26.36	-	-	59	182	V
	* 15.426479	39.81	ADR	40.1	2.43	-43.61	38.73	54	-15.27	-	-	-	-	59	182	V
2	6.153092	52.24	PK-U	35.4	0	-45.53	42.11	-	-	-	-	68.2	-26.09	68	248	H
3	6.154081	51.41	PK-U	35.4	0	-45.54	41.27	-	-	-	-	68.2	-26.93	156	155	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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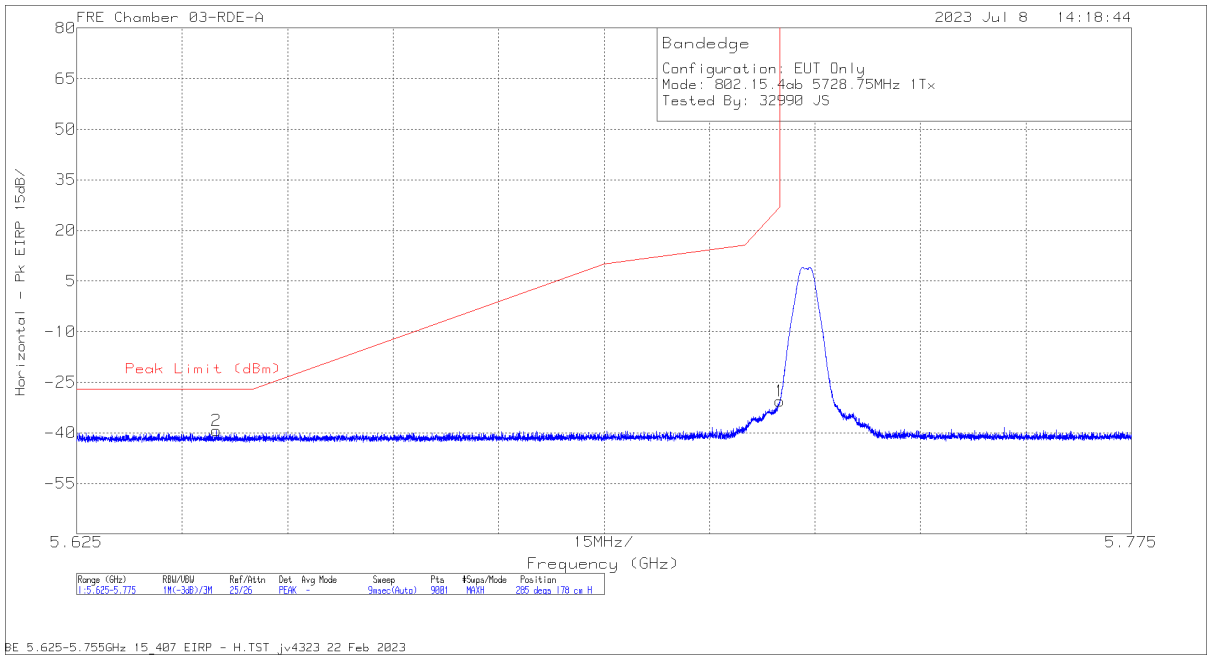
10.1.7. ANT 5, 1000Kbps, LOW POWER BAND EDGE IN THE 5.8 GHz BAND

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	200897 ACF (dB) 3mH	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.644884	-47.65	Pk	34.4	11.8	0	-37.92	-39.37	-27	-12.37	285	178	H
1	5.725	-39.11	Pk	34.5	11.8	0	-37.78	-30.59	27	-57.59	285	178	H

Pk - Peak detector

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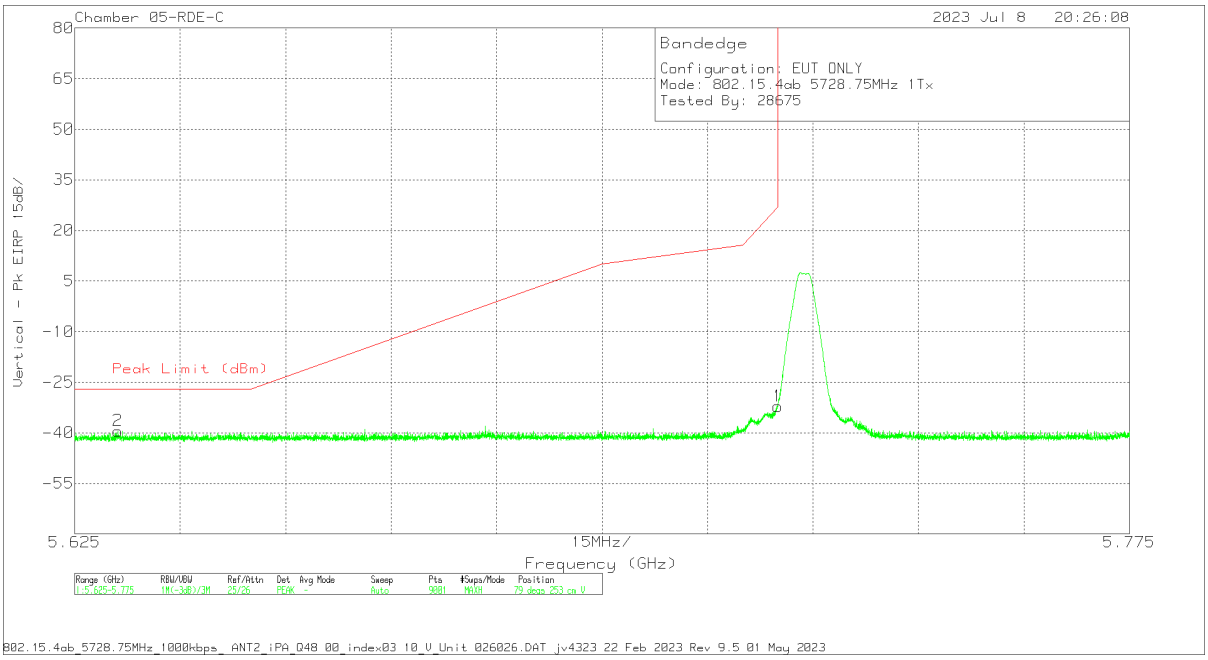
VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dB/m)	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.63115	-46.77	Pk	34.4	11.8	0	-47.21	-47.78	-27	-20.78	79	253	V
1	5.725	-39.65	Pk	34.5	11.8	0	-47.35	-40.7	27	-67.7	79	253	V

Pk - Peak detector

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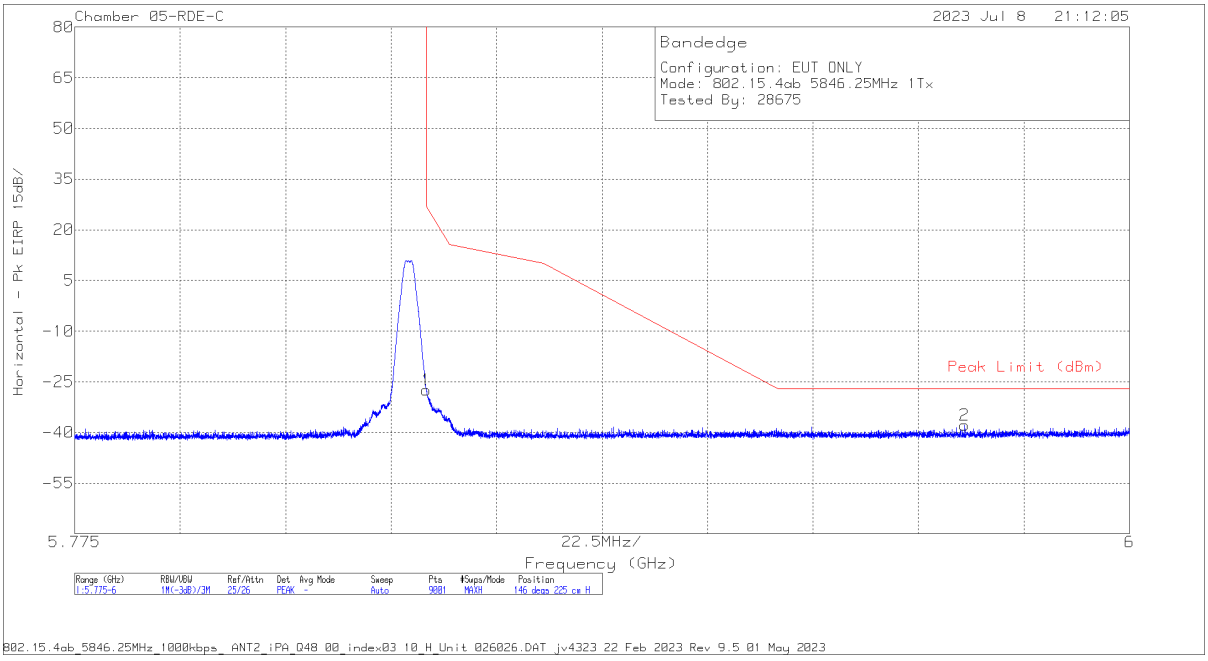
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dB/m)	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-35.47	Pk	34.7	11.8	0	-46.87	-35.84	27	-62.84	146	225	H
2	5.964875	-46.47	Pk	35	11.8	0	-46.81	-46.48	-27	-19.48	146	225	H

Pk - Peak detector

UL VERIFICATION SERVICES INC.
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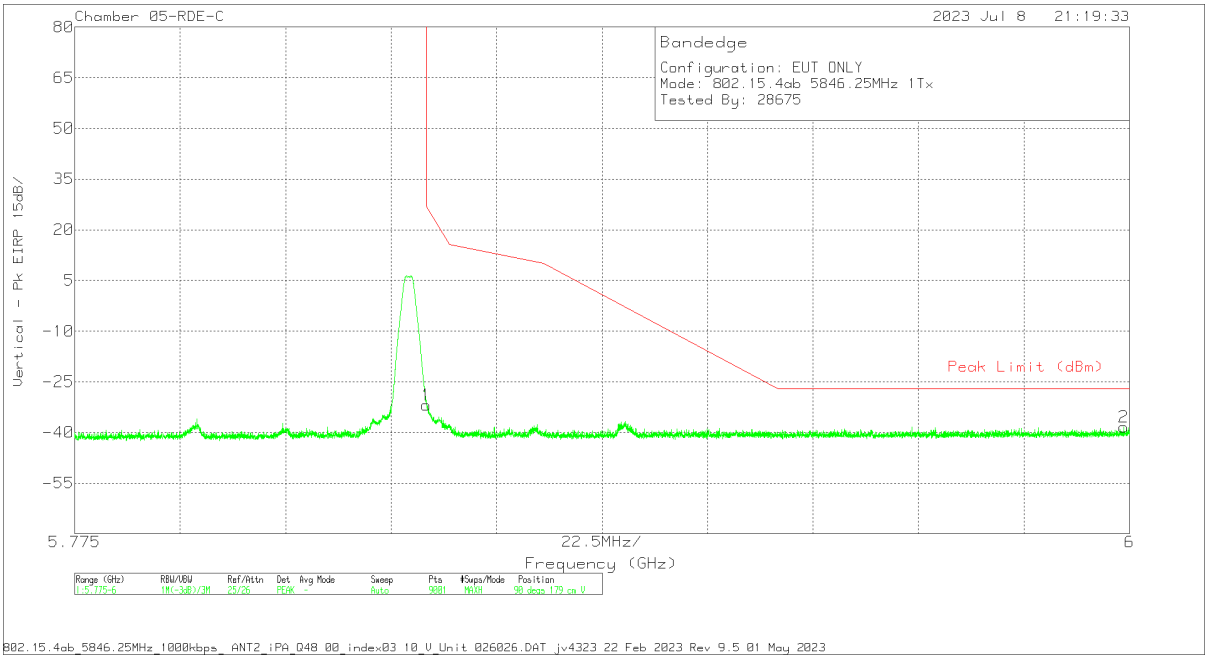
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dB/m)	Conversion Factor (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-39.81	Pk	34.7	11.8	0	-46.87	-40.18	27	-67.18	90	179	V
2	5.99885	-47.04	Pk	35	11.8	0	-46.68	-46.92	-27	-19.92	90	179	V

Pk - Peak detector

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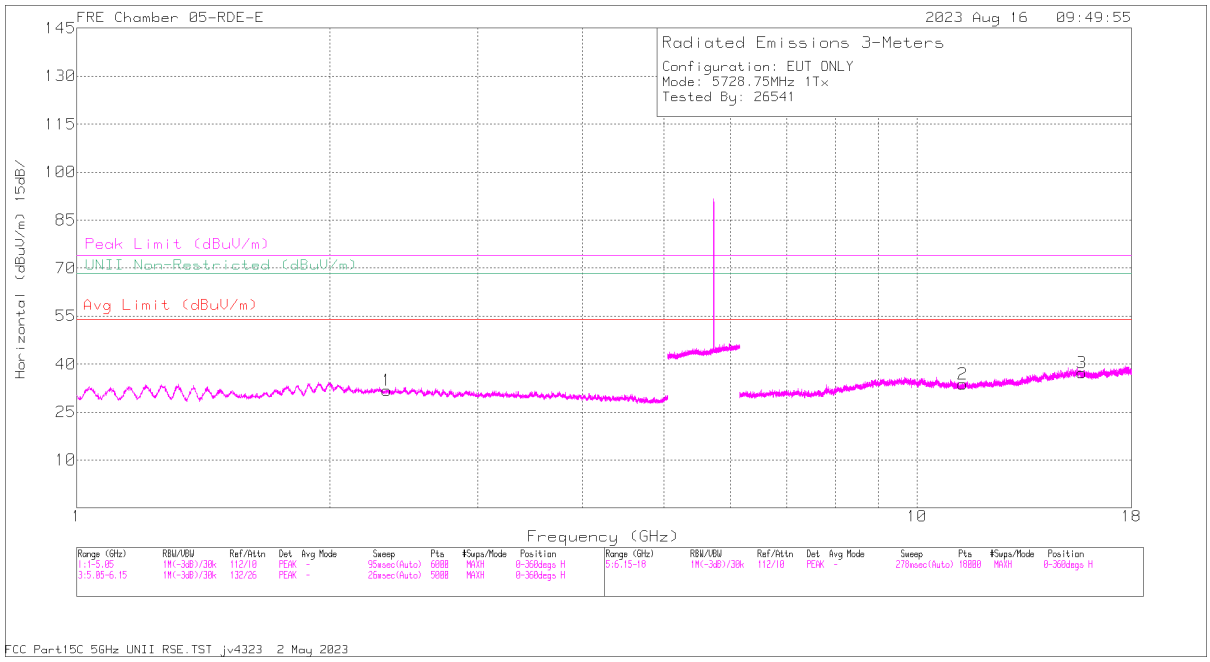
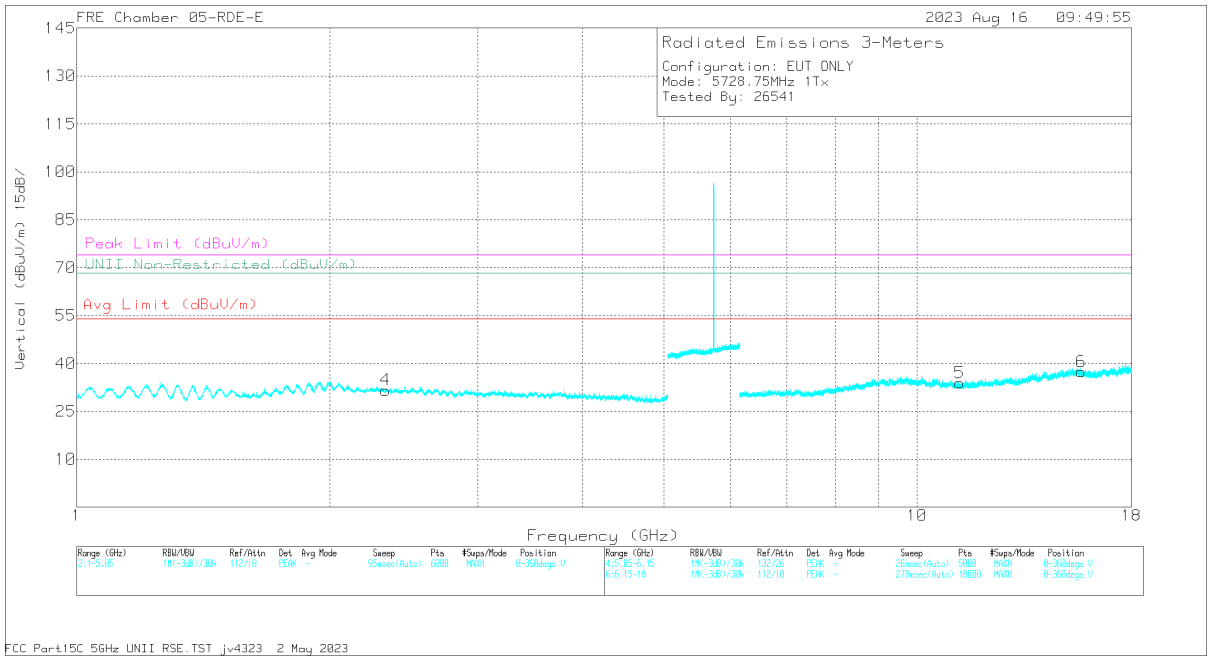
10.1.8. ANT 5, 1000Kbps, LOW POWER HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226671 ACF (dB) 3mH	DCCF (dB)	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	* 2.340011	60.41	PK-U	31.8	0	-50.28	41.93	-	-	74	-32.07	309	190	H
	* 2.340292	48.49	ADR	31.8	2.43	-50.28	32.44	54	-21.56	-	-	309	190	H
4	* 2.328795	60.56	PK-U	31.8	0	-50.21	42.15	-	-	74	-31.85	325	182	V
	* 2.328771	48.34	ADR	31.8	2.43	-50.21	32.36	54	-21.64	-	-	325	182	V
2	* 11.330118	49.6	PK-U	37.9	0	-44.14	43.36	-	-	74	-30.64	325	182	H
	* 11.332504	38.12	ADR	37.9	2.43	-44.17	34.28	54	-19.72	-	-	325	182	H
3	* 15.708738	51.51	PK-U	40.5	0	-43.95	48.06	-	-	74	-25.94	325	182	H
	* 15.707855	39.16	ADR	40.5	2.43	-43.98	38.11	54	-15.89	-	-	325	182	H
5	* 11.246398	49.91	PK-U	38	0	-44.07	43.84	-	-	74	-30.16	281	213	V
	* 11.245694	37.96	ADR	38	2.43	-44.07	34.32	54	-19.68	-	-	281	213	V
6	* 15.683496	50.58	PK-U	40.4	0	-43.63	47.35	-	-	74	-26.65	207	133	V
	* 15.683147	38.8	ADR	40.4	2.43	-43.63	38	54	-16	-	-	207	133	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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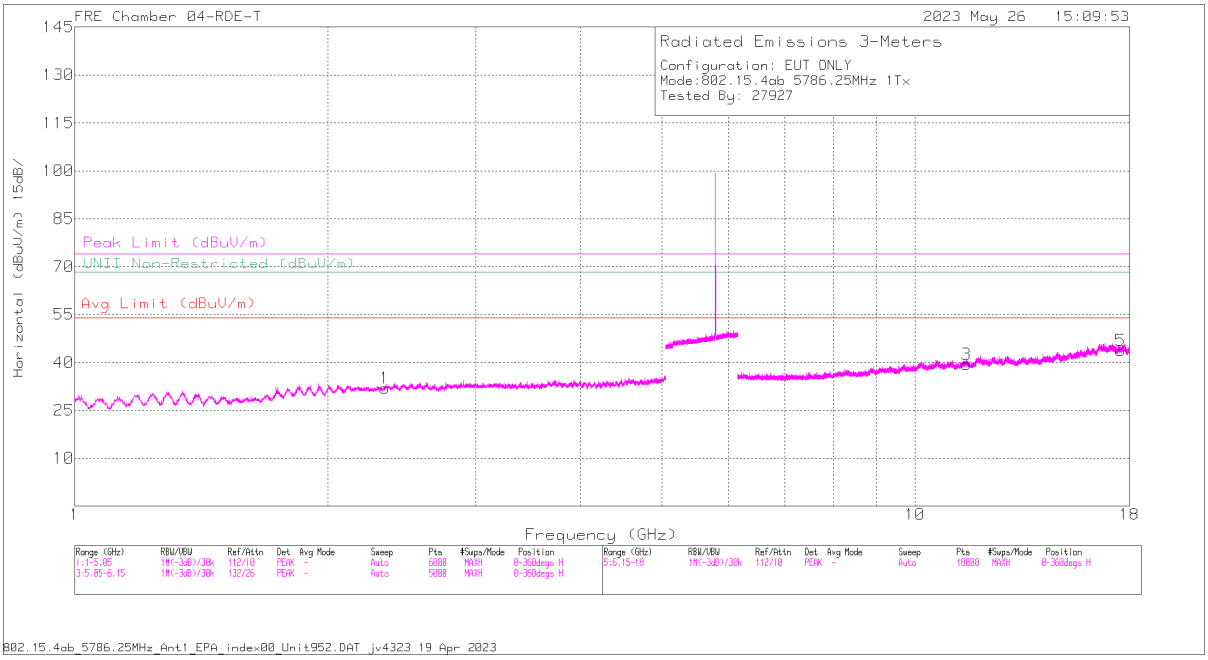
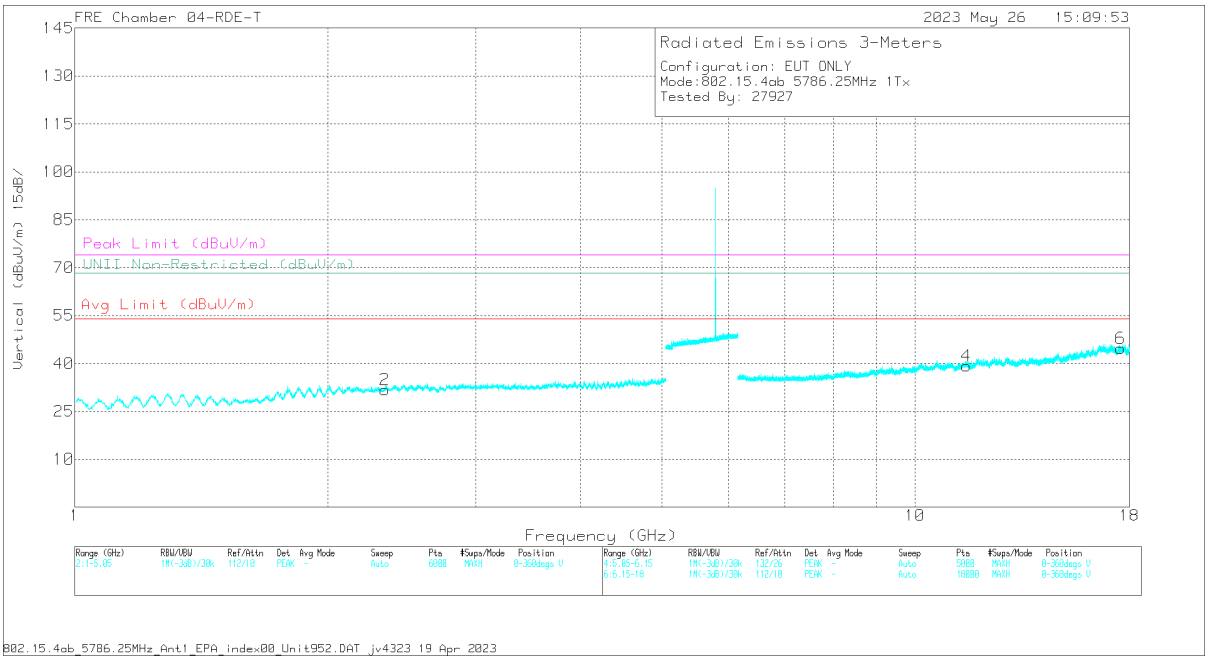
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.33712	35.84	PK-U	31.9	0	-47.64	20.1	-	-	74	-53.9	-	-	187	101	H
	* 2.33615	23.54	ADR	31.9	2.43	-47.64	10.23	54	-43.77	-	-	-	-	187	101	H
2	* 2.34000	35.43	PK-U	31.9	0	-47.7	19.63	-	-	74	-54.37	-	-	187	101	V
	* 2.33645	23.55	ADR	31.9	2.43	-47.64	10.24	54	-43.76	-	-	-	-	187	101	V
3	* 11.52466	38.98	PK-U	38.1	0	-41.48	35.6	-	-	74	-38.4	-	-	187	101	H
	* 11.52181	27.03	ADR	38.1	2.43	-41.48	26.08	54	-27.92	-	-	-	-	187	101	H
4	* 11.52241	38.9	PK-U	38.1	0	-41.48	35.52	-	-	74	-38.48	-	-	187	199	V
	* 11.52197	26.96	ADR	38.1	2.43	-41.48	26.01	54	-27.99	-	-	-	-	187	199	V
5	17.56752	40.64	PK-U	41.9	0	-41.06	41.48	-	-	-	-	68.2	-26.72	187	199	H
6	17.56872	39.63	PK-U	41.9	0	-41.06	40.47	-	-	-	-	68.2	-27.73	187	199	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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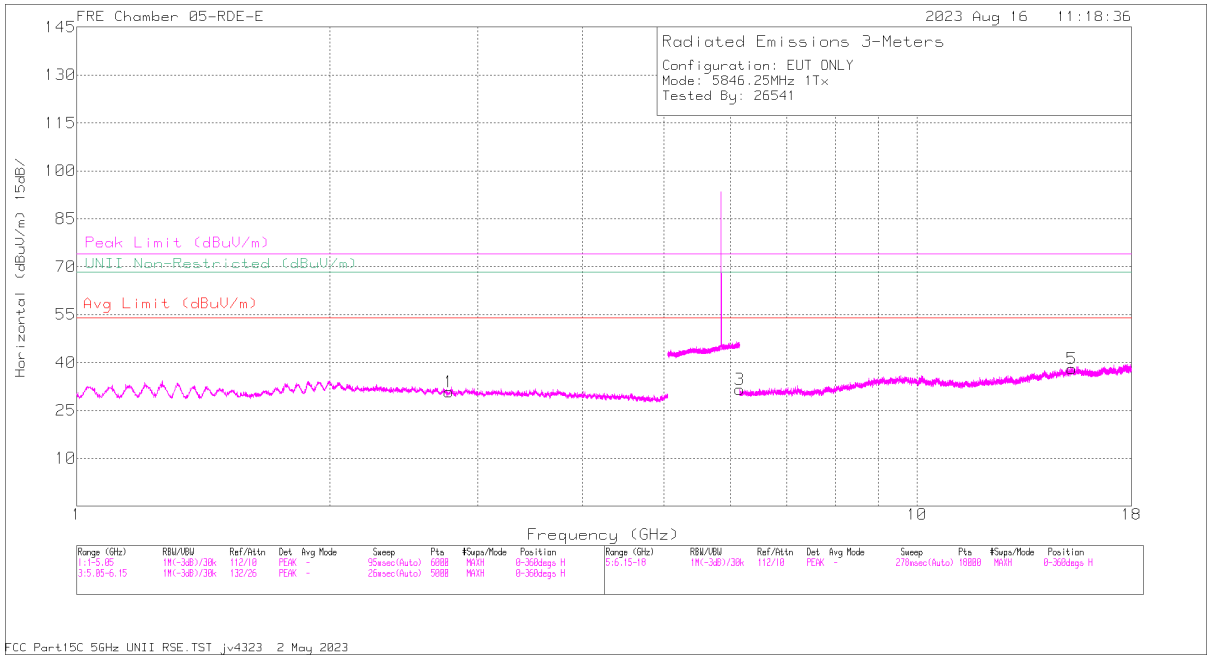
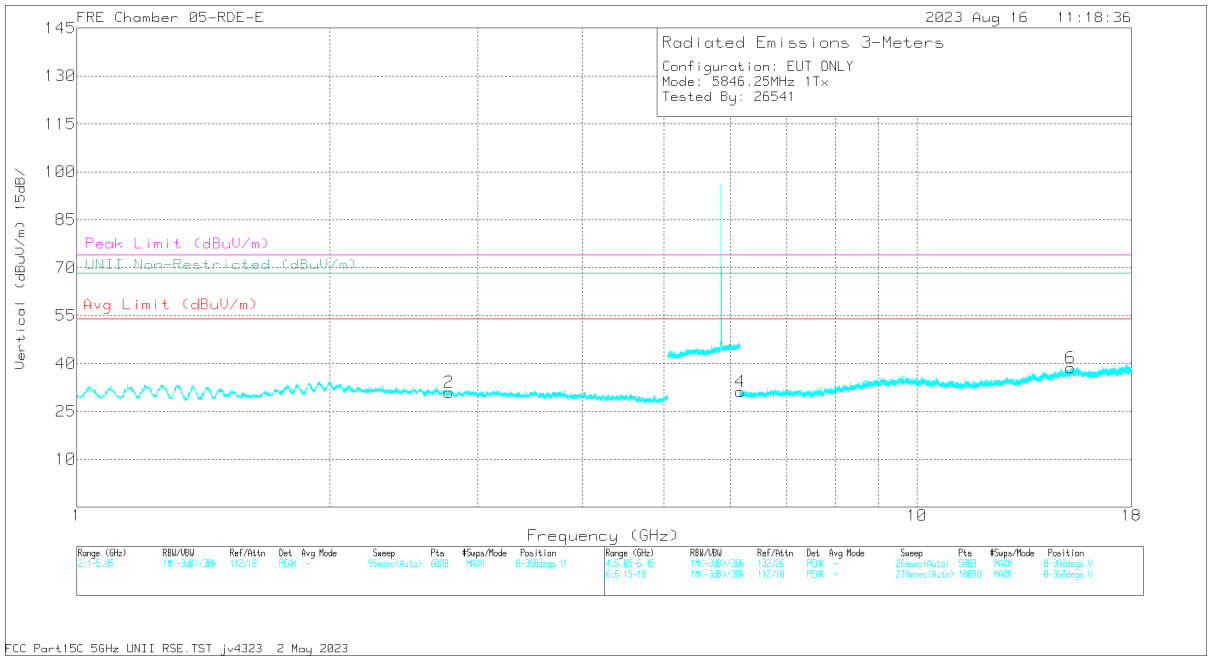
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226671 ACF (dB) 3mH	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.774002	57.81	PK-U	32.4	0	-49.12	41.09	-	-	74	-32.91	-	-	277	209	H
	* 2.774809	46	ADR	32.4	2.43	-49.14	31.69	54	-22.31	-	-	-	-	277	209	H
2	* 2.773365	57.8	PK-U	32.4	0	-49.12	41.08	-	-	74	-32.92	-	-	189	240	V
	* 2.771651	45.86	ADR	32.4	2.43	-49.15	31.54	54	-22.46	-	-	-	-	189	240	V
5	* 15.492295	52.23	PK-U	40.2	0	-43.17	49.26	-	-	74	-24.74	-	-	12	209	H
	* 15.490398	39.72	ADR	40.2	2.43	-43.11	39.24	54	-14.76	-	-	-	-	12	209	H
3	6.15358	51.2	PK-U	35.4	0	-45.54	41.06	-	-	-	-	68.2	-27.14	69	209	H
	6.176823	51.17	PK-U	35.4	0	-45.5	41.07	-	-	-	-	68.2	-27.13	199	172	V
	15.349914	51.87	PK-U	40	0	-43.89	47.98	-	-	-	-	68.2	-20.22	189	240	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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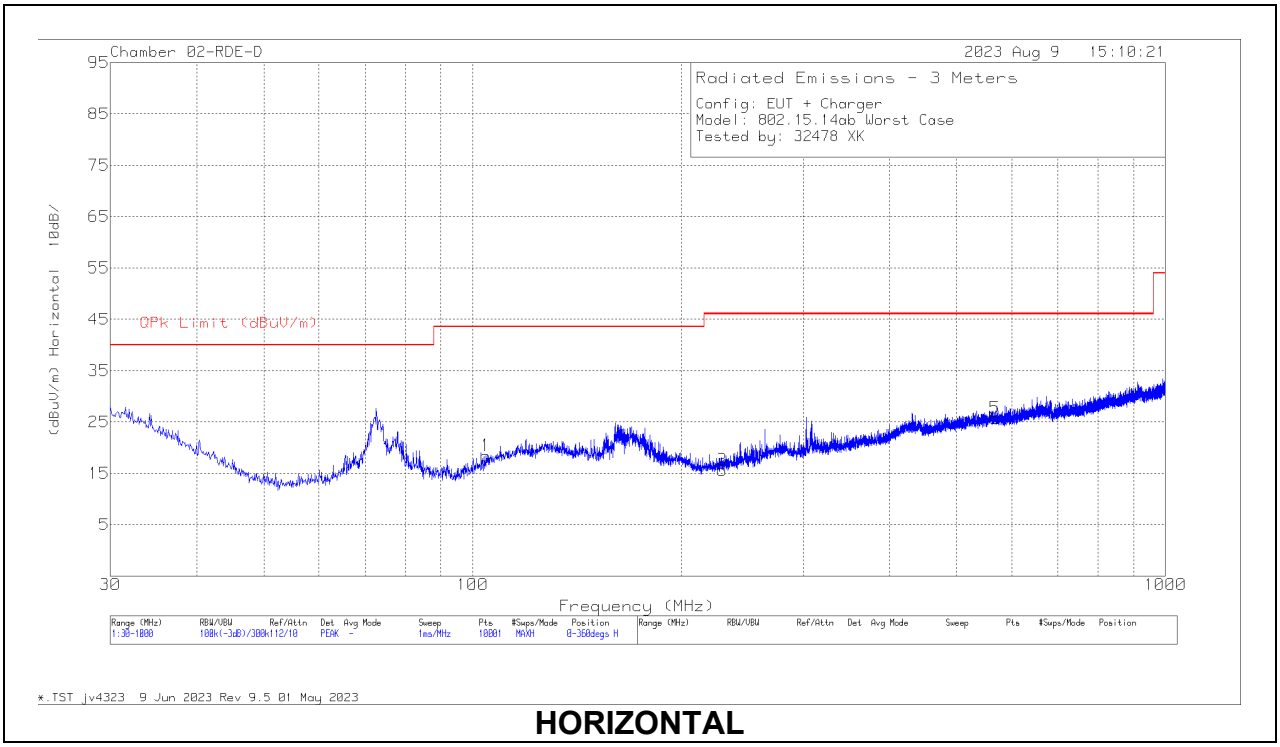
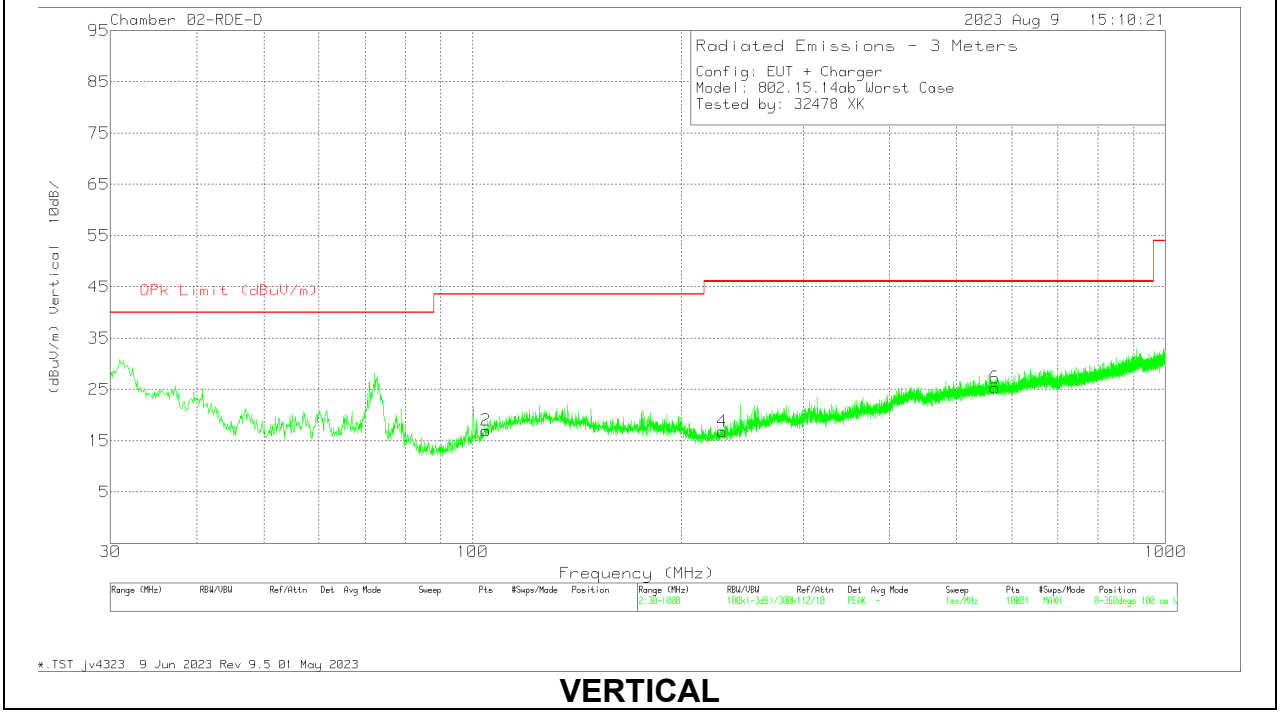
10.2. WORST CASE BELOW 1 GHz



HORIZONTAL



VERTICAL

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Below 1GHz DATA

Radiated Emissions

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	85151 ACF (dB) 10m H	Cbl/Amp (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	104.769	22.22	Qp	17.2	-30.1	9.32	43.52	-34.2	359	138	H
1	229.628	20.7	Qp	16.9	-29.6	8	46.02	-38.02	155	386	H
3	566.851	20.02	Qp	24.2	-28	16.22	46.02	-29.8	323	259	H
4	104.805	21.25	Qp	17.2	-30.1	8.35	43.52	-35.17	187	334	V
5	229.157	21.98	Qp	16.8	-29.7	9.08	46.02	-36.94	82	169	V
6	567.139	20.09	Qp	24.2	-28	16.29	46.02	-29.73	356	322	V

Qp - Quasi-Peak detector

UL VERIFICATION SERVICES INC.
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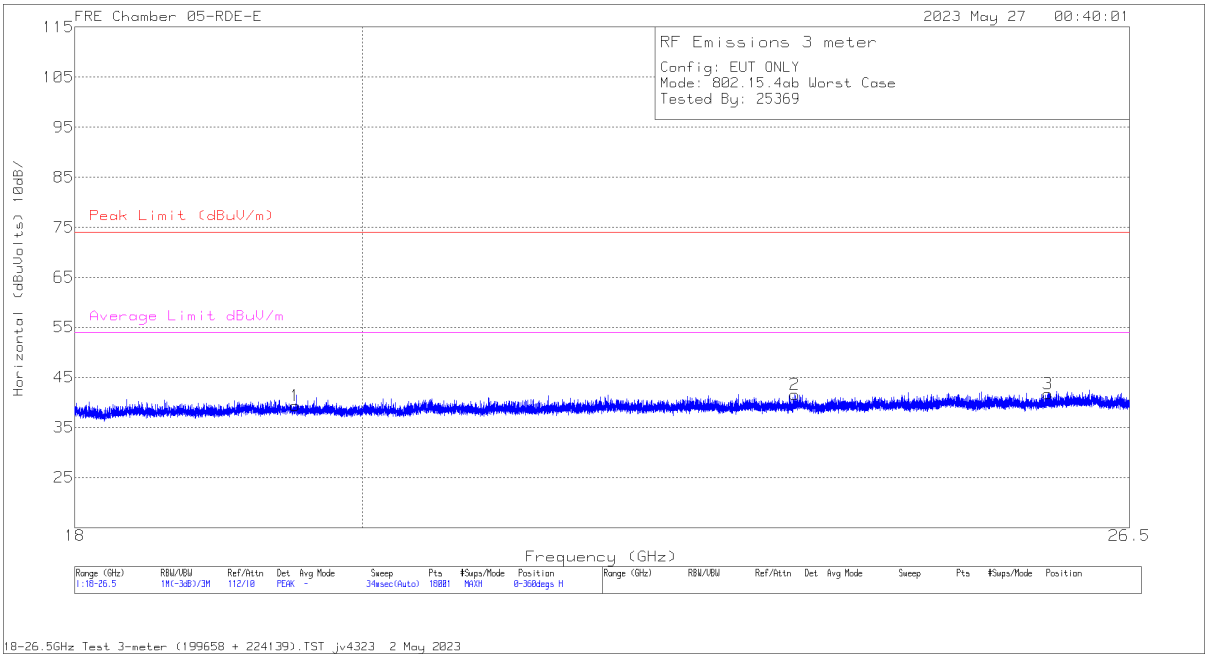
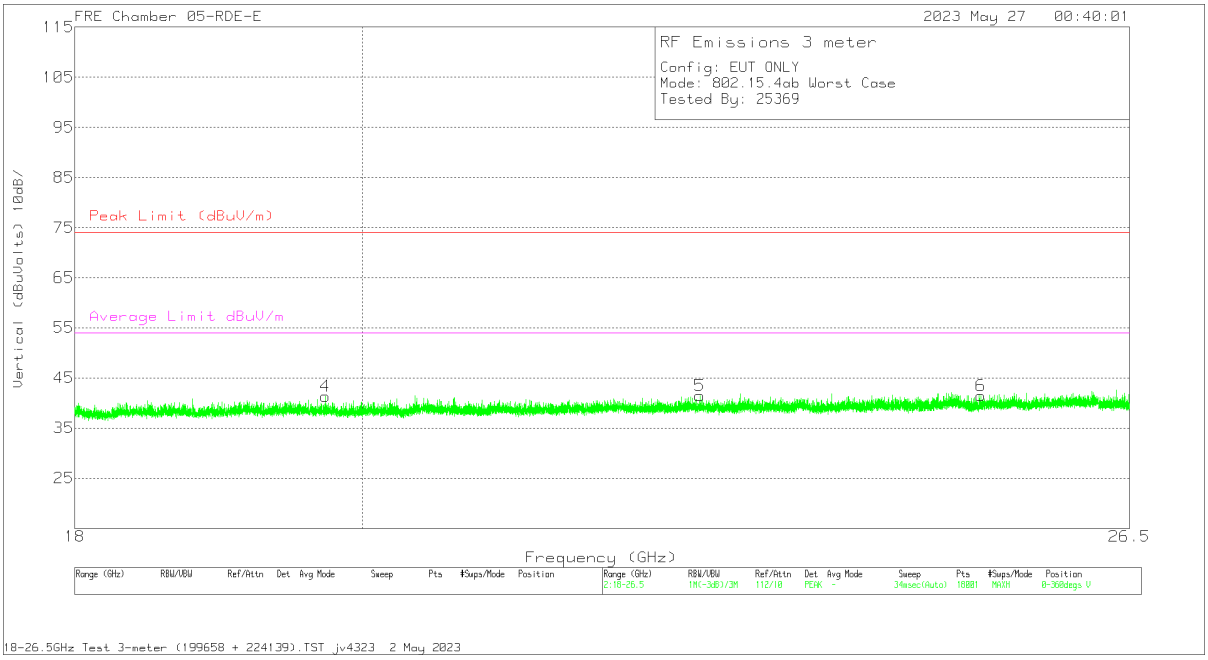
10.3. WORST CASE 18-26 GHz



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
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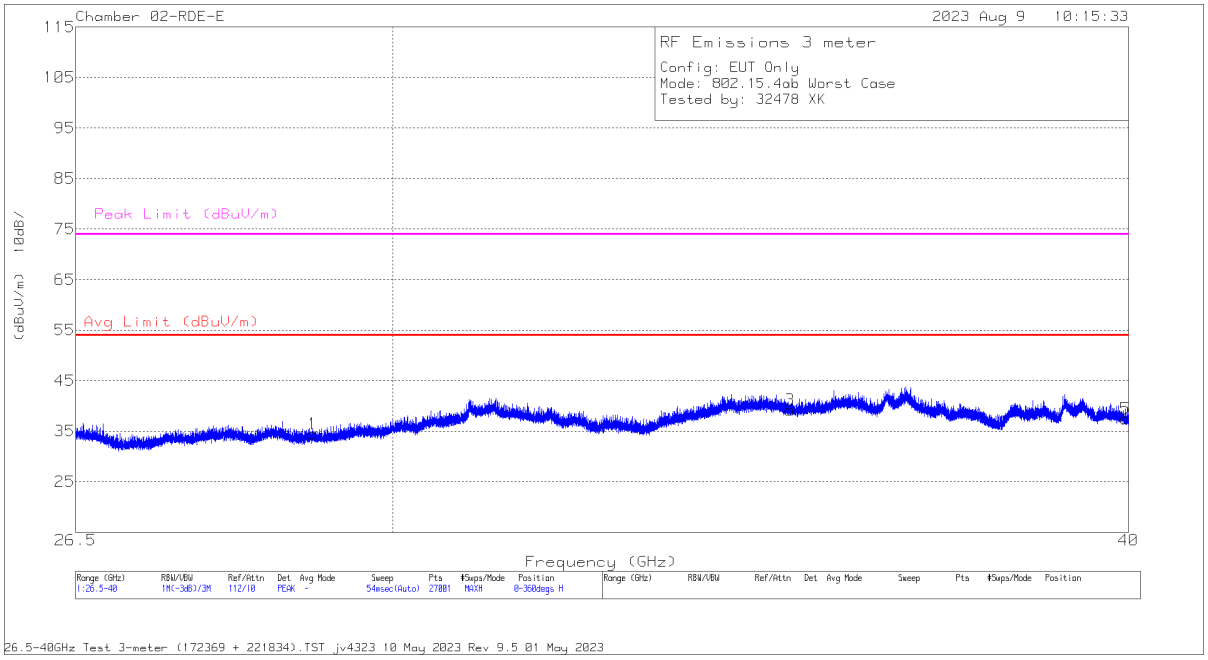
18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Horn ACF (dB/m)	amp/cbl (dB)	CBL/ SWITCH	DCCF (dB)	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	PK Margin (dB)	Average Limit dBuV/m	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	19.514888	55.45	Pk	32.4	-61.9	13.4	0	39.35	74	-34.65	54	-14.65	0-360	101	H
4	19.73211	57.42	Pk	32.5	-62	13.4	0	41.32	74	-32.68	54	-12.68	0-360	200	V
5	22.63722	55.82	Pk	33.1	-61.9	14.4	0	41.42	74	-32.58	54	-12.58	0-360	101	V
2	23.439525	55.84	Pk	33.4	-62.3	14.6	0	41.54	74	-32.46	54	-12.46	0-360	199	H
6	25.094663	54.03	Pk	33.6	-61.3	15.1	0	41.43	74	-32.57	54	-12.57	0-360	101	V
3	25.72083	53.57	Pk	33.7	-61	15.4	0	41.67	74	-32.33	54	-12.33	0-360	199	H

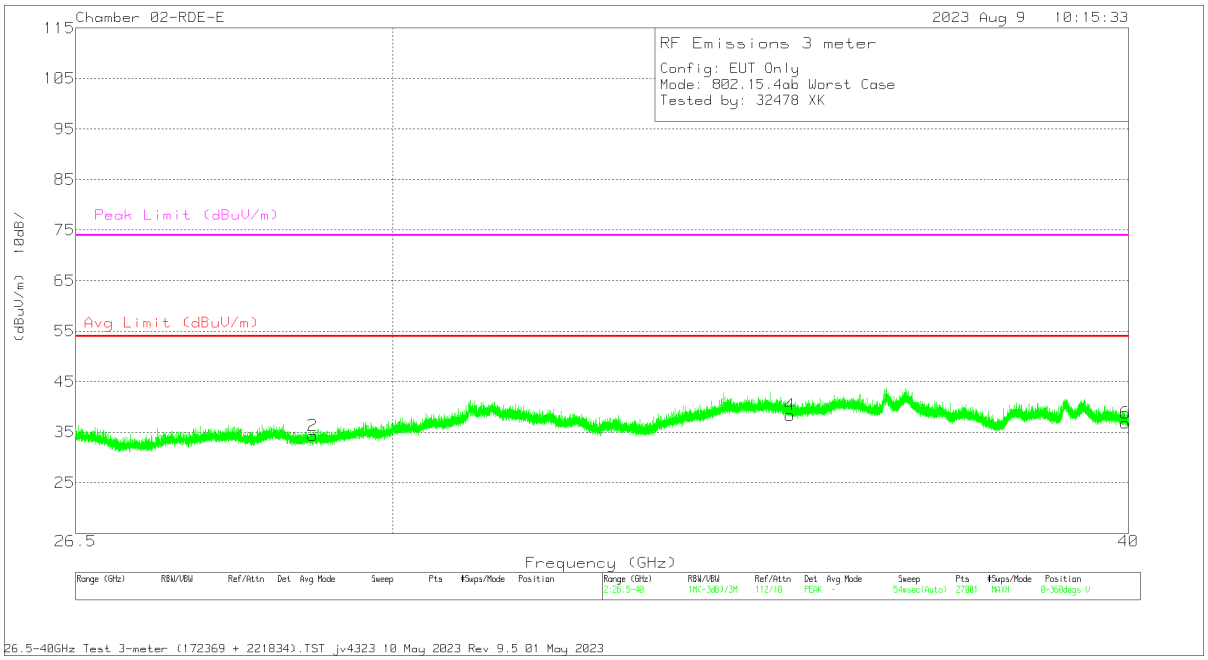
Pk - Peak detector

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

10.4. WORST CASE 26-40 GHz



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
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26 – 40GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	172369 3m AF (dB/m)	221834 amp/cbl (dB)	Cables (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Avg Limit (dBuV/m)	Avg Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 39.948	41.47	Pk	38.3	-66.9	24.6	37.47	74	-36.53	54	-16.53	0-360	200	H
6	* 39.948	40.86	Pk	38.3	-66.9	24.6	36.86	74	-37.14	54	-17.14	0-360	200	V
1	29.074	40.3	Pk	35.8	-62.4	20.7	34.4	74	-39.6	54	-19.6	0-360	101	H
2	29.074	40.18	Pk	35.8	-62.4	20.7	34.28	74	-39.72	54	-19.72	0-360	101	V
3	35.041	42.83	Pk	37.1	-63.6	22.9	39.23	74	-34.77	54	-14.77	0-360	200	H
4	35.041	41.97	Pk	37.1	-63.6	22.9	38.37	74	-35.63	54	-15.63	0-360	101	V

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

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11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

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

*Decreases with the logarithm of the frequency.

TEST PROCEDURE

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

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

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

RESULTS

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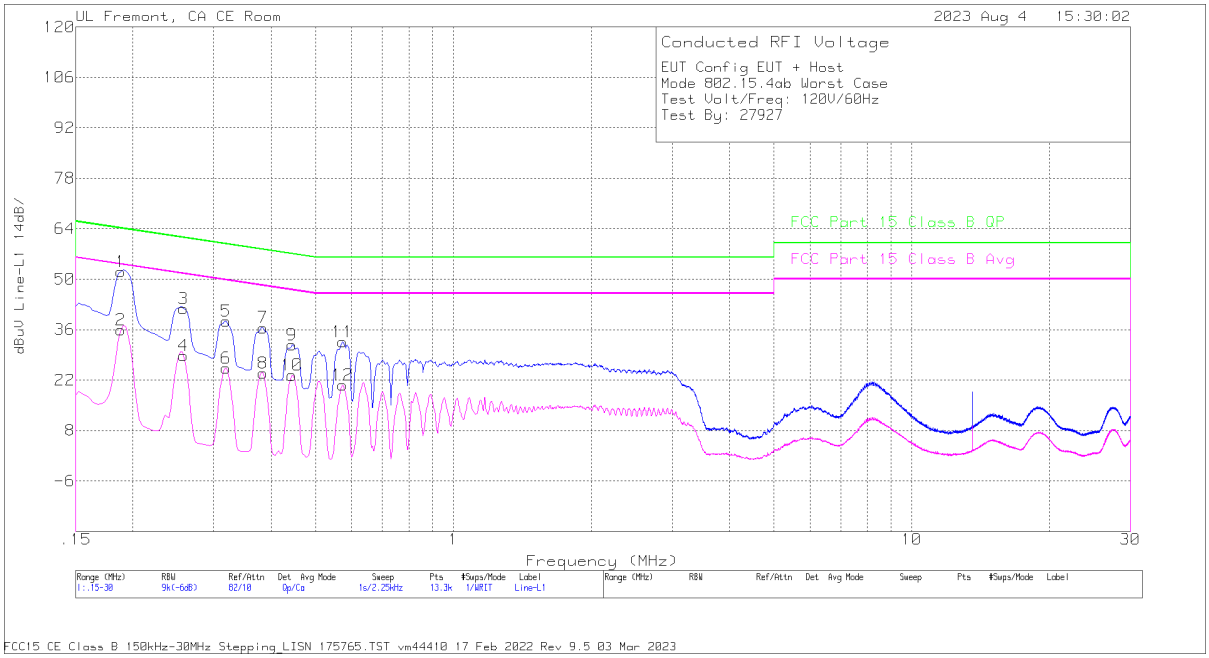
11.1. AC Power Line WITH LAPTOP

LINE 1 RESULTS



Trace Markers

Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	L1_LISN.csv (dB)	C1&C3 cable path loss (dB)	207996 Limiter with short cabl (dB)	Corrected Reading (dBuV)	FCC Part 15 Class B QP (dBuV)	QP Margin (dB)	FCC Part 15 Class B Avg (dBuV)	Av(CISPR)Margin (dB)
2	.1883	26.55	Ca	0	0	9.4	35.95	-	-	54.11	-18.16
4	.258	19.56	Ca	0	0	9.3	28.86	-	-	51.5	-22.64
6	.3188	16.06	Ca	0	0	9.3	25.36	-	-	49.74	-24.38
8	.384	14.46	Ca	0	.1	9.3	23.86	-	-	48.19	-24.33
10	.4448	13.92	Ca	0	.1	9.3	23.32	-	-	46.97	-23.65
12	.573	11.27	Ca	0	.1	9.3	20.67	-	-	46	-25.33
1	.1883	42.72	Qp	0	0	9.4	52.12	64.11	-11.99	-	-
3	.258	32.51	Qp	0	0	9.3	41.81	61.5	-19.69	-	-
5	.3188	29.1	Qp	0	0	9.3	38.4	59.74	-21.34	-	-
7	.384	27.13	Qp	0	.1	9.3	36.53	58.19	-21.66	-	-
9	.4448	22.27	Qp	0	.1	9.3	31.67	56.97	-25.3	-	-
11	.573	23.29	Qp	0	.1	9.3	32.69	56	-23.31	-	-

Qp - Quasi-Peak detector
Ca - CISPR average detection

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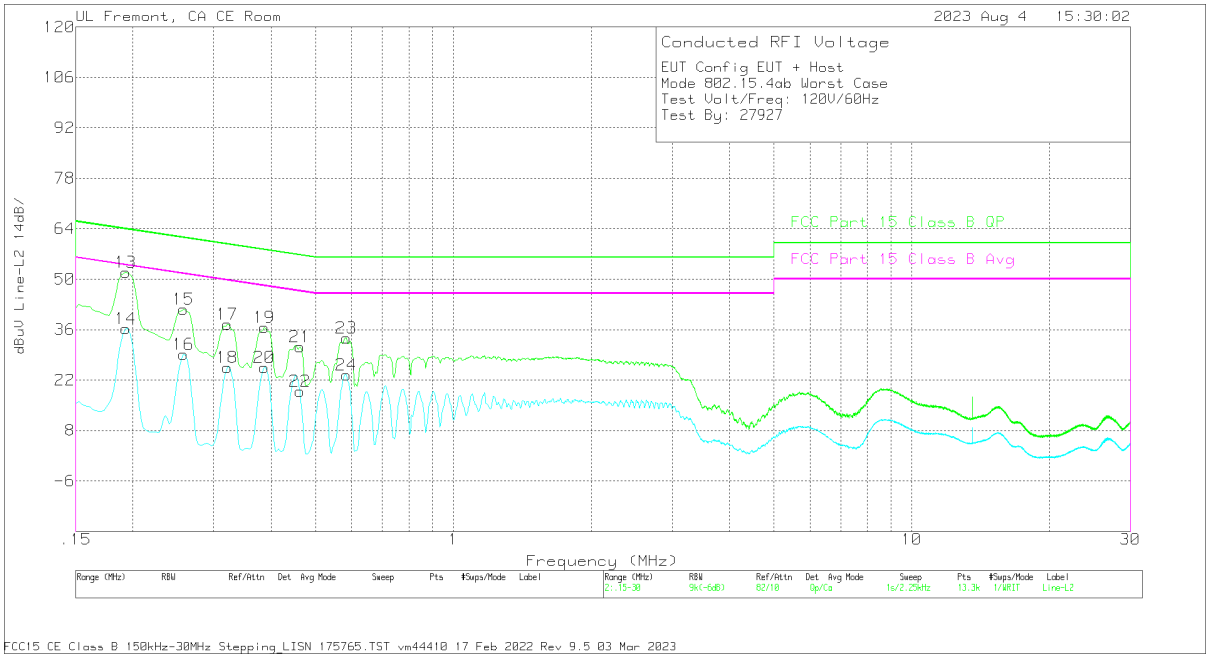
LINE 2 RESULTS



Trace Markers

Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	L2_LISN (dB)	C2&C3 cable path loss (dB)	207996 Limiter with short cabl (dB)	Corrected Reading (dBuV)	FCC Part 15 Class B QP (dBuV)	QP Margin (dB)	FCC Part 15 Class B Avg (dBuV)	Av(CISPR)Margin (dB)
14	.1928	26.94	Ca	0	0	9.4	36.34	-	-	53.92	-17.58
16	.258	19.87	Ca	0	0	9.3	29.17	-	-	51.5	-22.33
18	.321	16.15	Ca	0	0	9.3	25.45	-	-	49.68	-24.23
20	.3863	16.12	Ca	0	.1	9.3	25.52	-	-	48.14	-22.62
22	.4628	9.41	Ca	0	.1	9.3	18.81	-	-	46.64	-27.83
24	.5843	14.03	Ca	0	.1	9.3	23.43	-	-	46	-22.57
13	.1928	42.49	Qp	0	0	9.4	51.89	63.92	-12.03	-	-
15	.258	32.36	Qp	0	0	9.3	41.66	61.5	-19.84	-	-
17	.321	28.13	Qp	0	0	9.3	37.43	59.68	-22.25	-	-
19	.3863	27.14	Qp	0	.1	9.3	36.54	58.14	-21.6	-	-
21	.4628	21.88	Qp	0	.1	9.3	31.28	56.64	-25.36	-	-
23	.5843	24.19	Qp	0	.1	9.3	33.59	56	-22.41	-	-

Qp - Quasi-Peak detector
Ca - CISPR average detection

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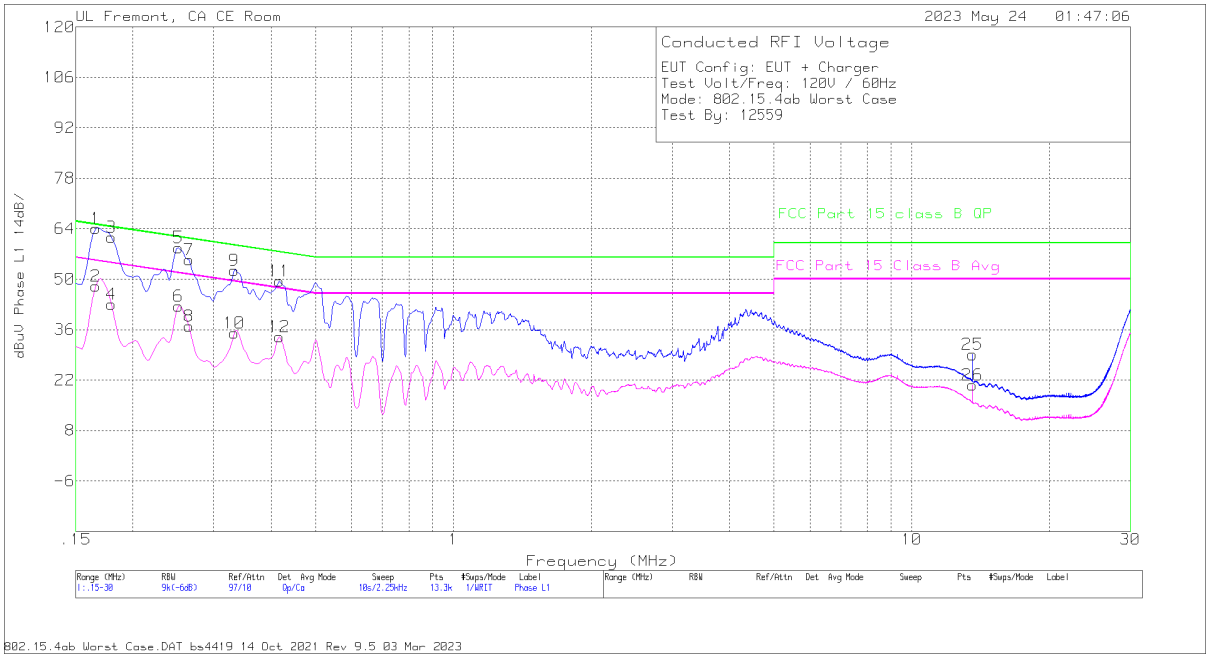
11.2. AC Power Line WITH AC/DC Adapter

LINE 1 RESULTS



Trace Markers

Range 1: Phase L1 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	C1&C3 cable path loss (dB)	PRE0186447 LISN L1 (dB)	207996 Limiter with short cabl (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	.1658	28.73	Ca	0	0	9.4	10	48.13	55.17	-7.04	-	-
4	.1793	23.7	Ca	0	0	9.4	10	43.1	54.52	-11.42	-	-
6	.2513	23.27	Ca	0	0	9.3	10	42.57	51.72	-9.15	-	-
8	.2648	17.6	Ca	0	0	9.3	10	36.9	51.28	-14.38	-	-
10	.3323	15.72	Ca	0	0	9.3	10	35.02	49.39	-14.37	-	-
12	.4178	14.61	Ca	.1	0	9.3	10	34.01	47.49	-13.48	-	-
26	13.56	.97	Ca	.2	.1	9.3	10	20.57	50	-29.43	-	-
1	.1658	44.71	Qp	0	0	9.4	10	64.11	-	-	65.17	-1.06
3	.1793	42.31	Qp	0	0	9.4	10	61.71	-	-	64.52	-2.81
5	.2513	39.47	Qp	0	0	9.3	10	58.77	-	-	61.72	-2.95
7	.2648	36.14	Qp	0	0	9.3	10	55.44	-	-	61.28	-5.84
9	.3323	33.06	Qp	0	0	9.3	10	52.36	-	-	59.39	-7.03
11	.4178	30.11	Qp	.1	0	9.3	10	49.51	-	-	57.49	-7.98
25	13.56	9.46	Qp	.2	.1	9.3	10	29.06	-	-	60	-30.94

Qp - Quasi-Peak detector
Ca - CISPR average detection

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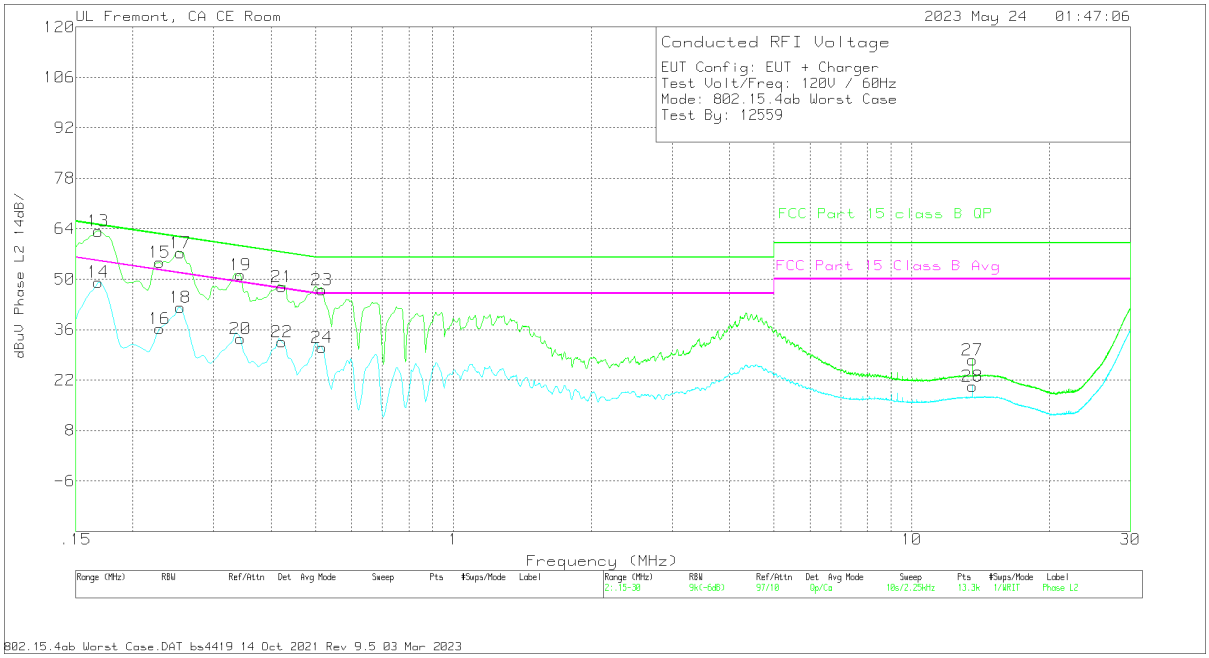
LINE 2 RESULTS



Trace Markers

Range 2: Phase L2 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	C2&C3 cable path loss (dB)	PRE0186447 LISN L2 (dB)	207996 Limiter with short cabl (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	.168	29.81	Ca	0	0	9.4	10	49.21	55.06	-5.85	-	-
16	.2288	16.89	Ca	0	0	9.3	10	36.19	52.49	-16.3	-	-
18	.2535	22.91	Ca	0	0	9.3	10	42.21	51.64	-9.43	-	-
20	.3435	14.22	Ca	0	0	9.3	10	33.52	49.12	-15.6	-	-
22	.4223	13.16	Ca	.1	0	9.3	10	32.56	47.4	-14.84	-	-
24	.5168	11.73	Ca	.1	0	9.3	10	31.13	46	-14.87	-	-
28	13.5623	.66	Ca	.2	.1	9.3	10	20.26	50	-29.74	-	-
13	.168	43.9	Qp	0	0	9.4	10	63.3	-	-	65.06	-1.76
15	.2288	35.41	Qp	0	0	9.3	10	54.71	-	-	62.49	-7.78
17	.2535	38.06	Qp	0	0	9.3	10	57.36	-	-	61.64	-4.28
19	.3435	31.98	Qp	0	0	9.3	10	51.28	-	-	59.12	-7.84
21	.4223	28.44	Qp	.1	0	9.3	10	47.84	-	-	57.4	-9.56
23	.5168	27.65	Qp	.1	0	9.3	10	47.05	-	-	56	-8.95
27	13.5623	7.93	Qp	.2	.1	9.3	10	27.53	-	-	60	-32.47

Qp - Quasi-Peak detector
Ca - CISPR average detection

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12. SETUP PHOTOS

Please refer to E14523772-EP1V1 FCC IC for setup photos

END OF TEST REPORT

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