TEST REPORT

Report Number: 14523744-E6V2

Applicant	:	APPLE INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A
Model	:	A3101 (Full Test Model) A3102, A3104 (Variant Model)
Brand	:	APPLE
FCC ID	:	BCG-E8436A (Full Test Model) BCG-E8437A, BCG-E8438A (Variant Model)
IC	:	579C-E8436A (Full Test Model) 579C-E8437A, 579C-E8438A (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 14, 2023

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538 U.S.A.
TEL: (510) 319-4000
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ACCREDITED
CERT #0751.05

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	08/04/2023	Initial Issue	Francisco Guarnero
V2	08/14/2023	Address TCB's Questions sections 6, 9, 10	Chin Pang

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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: A3101 (Full Test Model)
A3102, A3104 (Variant Model)

BRAND: APPLE

SERIAL NUMBER: CP644M4C0M, QWMJYWCNGP (Radiated)
C07GV10005V00003PM (Conducted)

SAMPLE RECEIPT DATE: APRIL 04, 2023

DATE TESTED: APRIL 21, 2014 – AUGUST 08, 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 is capable of demonstrating compliance with the requirements as documented in this report.

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

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

Chin Pang
Senior Lab Engineer
Consumer Technology Division
UL Verification Services Inc.

Prepared By:

Francisco Guarnero
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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) (3), (i)	RSS-247 6.2.4.1	Output Power	Complies	None.
15.407 (a) (3)(i)	RSS-247 6.2.4.1	PSD	Complies	None.
15.209, 15.205, 15.407 (b)	RSS-GEN 8.9, 8.10, RSS-247 6.2.4.2	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 CFR 47 Part 2
- 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	1.940 dB
Power Spectral Density	2.466 dB
Time Domain Measurements Using SA	3.39 %
RF Power Measurement Direct Method Using Power Meter	0.450 dB (Peak) 1.300 dB (Ave)
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.22%
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.78 db
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.40 db
Worst Case Radiated Disturbance, 9KHz to 30 MHz	2.87 db
Worst Case Radiated Disturbance, 30 to 1000 MHz	6.01 db
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.73 db
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.51 db
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: A3101, FCC ID: BCG-E8436A, IC ID: 579C-E8436A

Variant Models: A3102, FCC ID: BCG-E8437A, IC ID: 579C-E8437A
A3104, FCC ID: BCG-E8438A, IC: ID 579C-E8438A

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

5.8 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
High Power, 5.8 GHz band			
5728.75 - 5846.25	802.15.4ab	20.41	109.90
Low Power, 5.8 GHz band			
5728.75 - 5846.25	802.15.4ab	16.16	41.30

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an IFA antenna, with a maximum gain as follows.:

Frequency Range	ANT 6 (Core 0)	ANT 5 (Core 1)
5728.75 – 5846.25	-5.20	-3.6

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 23_10_663

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6.5. WORST-CASE CONFIGURATION AND MODE

The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z on Ant 6 and Ant 5. It was determined that Y (Landscape) 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 2, 500Kbps 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.

Simultaneous transmission with the Bluetooth was investigated, and no noticeable emission was found.

For radiated bandedge and emssions spurious, 500Kbps is set as the worst-case data rates for final test

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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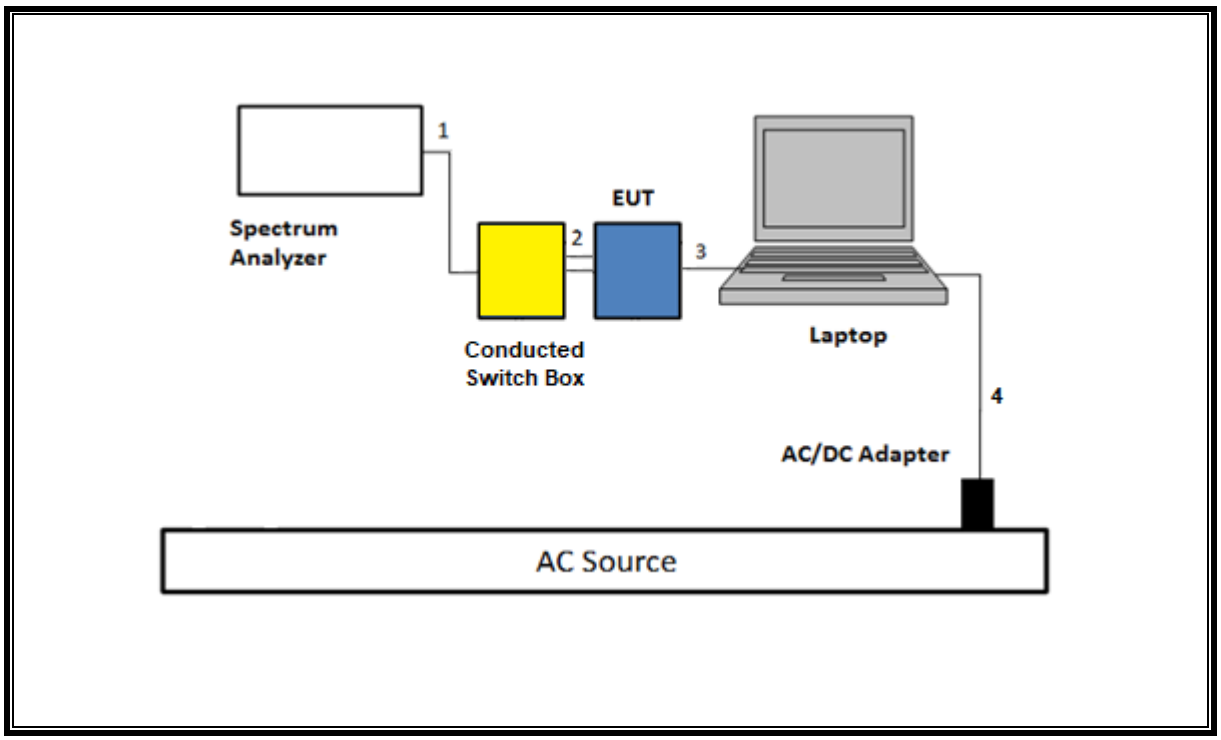
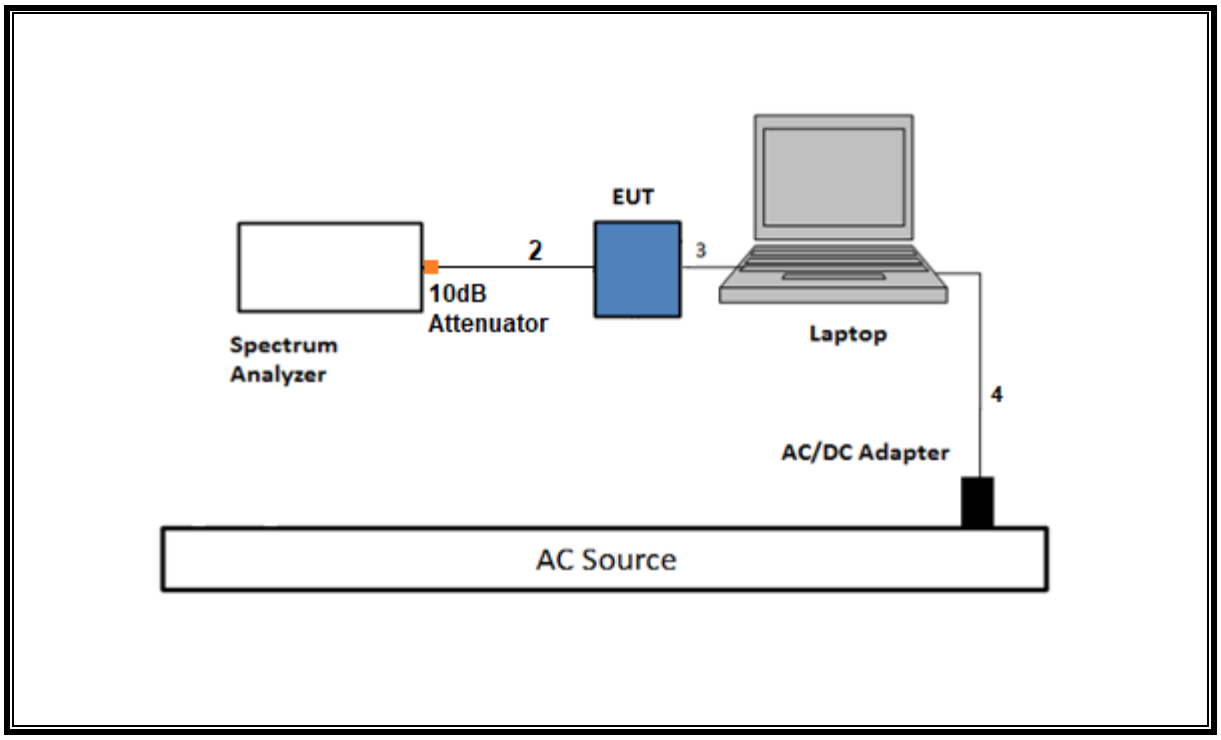
SETUP DIAGRAM FOR CONDUCTED TESTS





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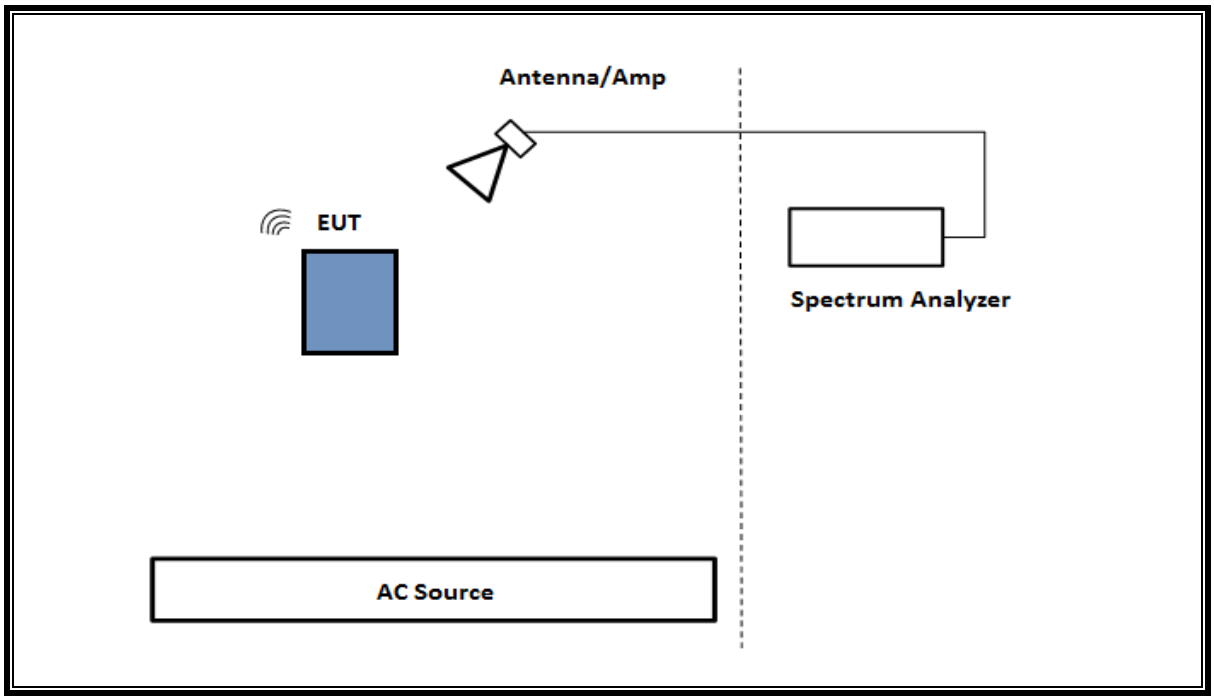
SETUP DIAGRAM FOR RADIATED TESTS Above 1 GHz



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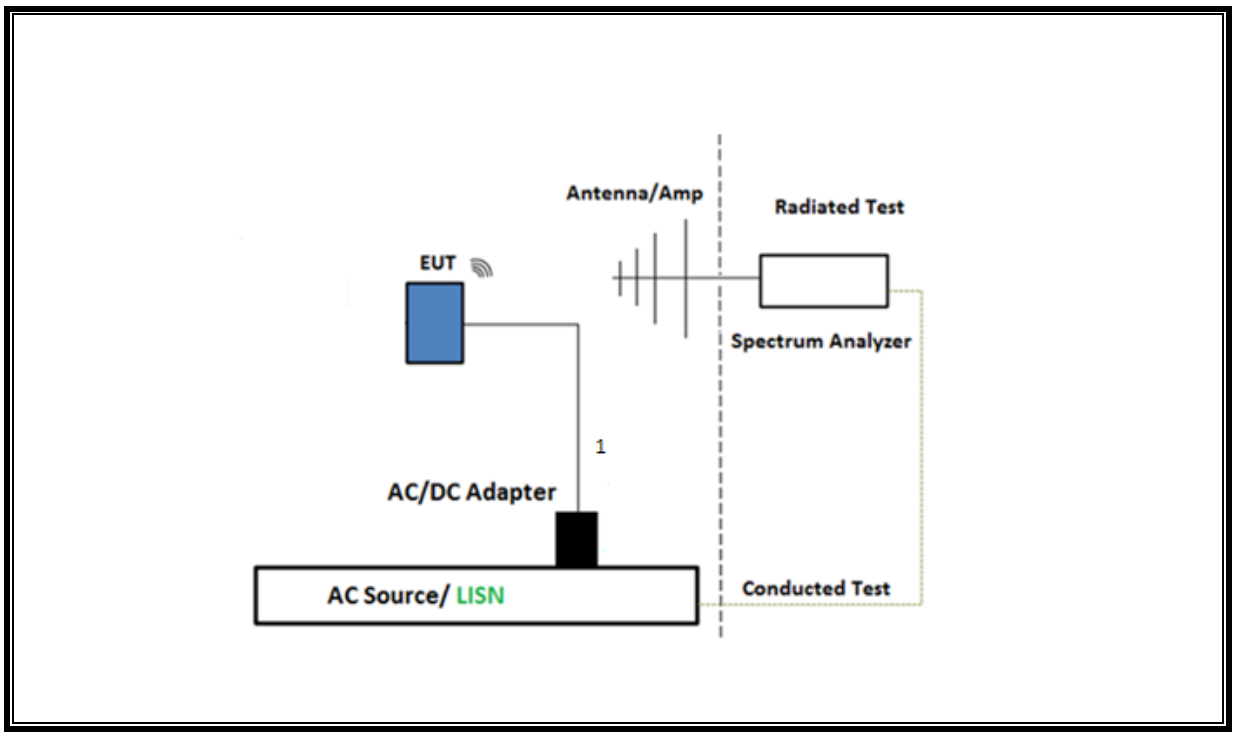
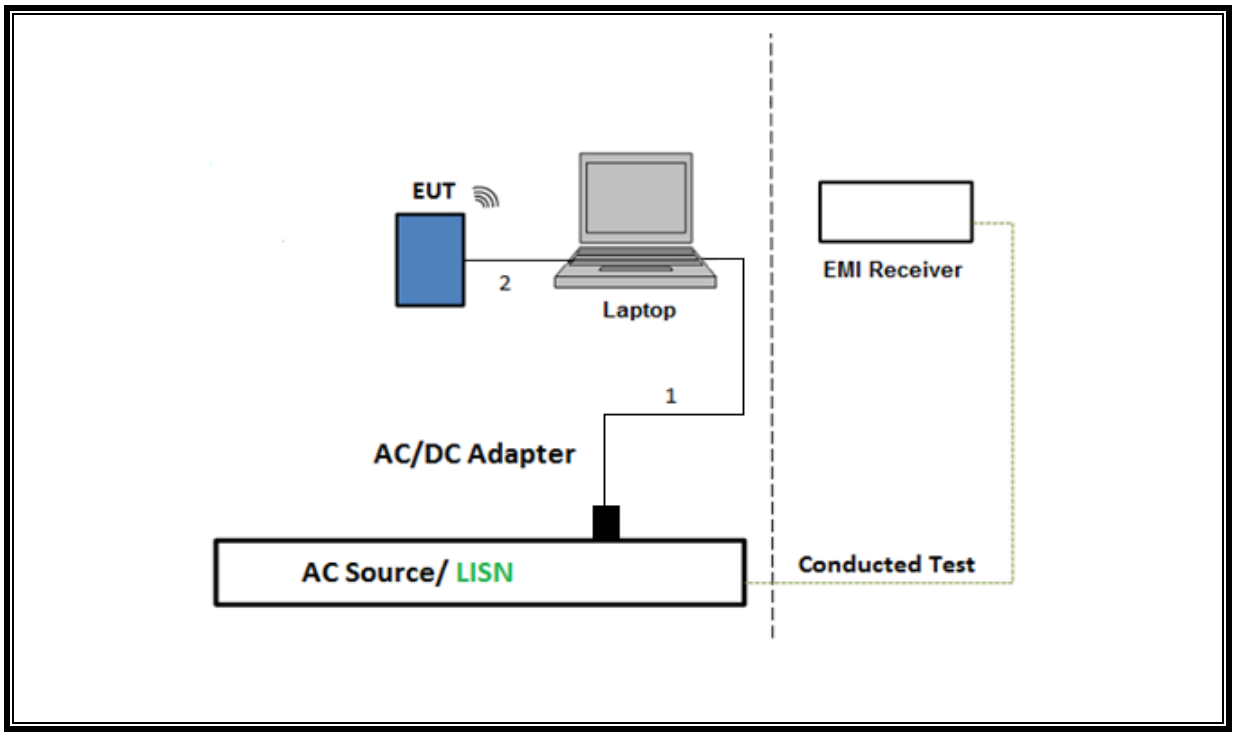
SETUP DIAGRAM FOR Below 1GHz and AC LINE CONDUCTED TEST



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:

TEST EQUIPMENT LIST					
Description	**Manufacturer**	**Model**	**ID Num**	**Cal Due**	**Last Cal**
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	206807	02/28/2024	02/28/2023
RF Filter Box, 1-18GHz, 12 Port.	UL-FR1	Frankenstein	230878	02/29/2024	02/29/2023
EMI Receiver	Rohde & Schwarz	ESW44	201500	02/29/2024	02/29/2023
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	226672	01/09/2024	01/09/2023
RF Filter Box, 1-18GHz, 12 Port.	UL-FR1	Frankenstein	231876	02/27/2024	02/27/2023
*EMI TEST RECEIVER	Rohde & Schwarz	ESW44	235670	04/30/2023	04/30/2022
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	84797	09/20/2023	09/20/2022
RF Filter Box, 1-18GHz	UL-FR1	N/A	171389	05/31/2024	05/31/2023
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	201497	02/29/2024	02/29/2023
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	226673	01/09/2024	01/09/2023
RF Filter Box, 1-18GHz, 17 Ports	UL-FR1	RATS 2	226781	04/30/2024	04/30/2023
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	169935	02/29/2024	02/29/2023
*Antenna, Horn 1-18GHz	ETS-Lindgren	3117	80404	08/08/2023	08/08/2022
RF 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, Horn 1-18GHz	ETS-Lindgren	3117	230299	01/12/2024	01/12/2023
RF Filter Box 1-18GHz 12 Port	UL-FR1	Frankenstein	217255	08/23/2023	08/23/2022
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	223461	08/29/2024	08/29/2023
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	226674	01/09/2024	01/09/2023
RF Filter Box, 1-18GHz, 17 Ports	UL-FR1	RATS 2	226780	03/29/2024	03/29/2023
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	226079	05/01/2024	05/01/2023
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences Corp.	JB3	80714	10/06/2023	10/06/2022
Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	204041	08/24/2023	08/24/2022
*Antenna, Passive Loop 30Hz to 1MHz	Electro-Metrics	EM-6871	170013	07/28/2023	07/28/2022
*Antenna, Passive Loop 100KHz - 30MHz	ELECTRO-METRICS	EM-6872	170015	07/28/2023	07/28/2022
*Antenna Horn, 18 to 26.5GHz	ARA	MWH-1826/B	172353	06/01/2023	06/01/2022
Antenna, Horn 26.5 to 40GHz	A.R.A.	MWH-2640/B	199660	12/06/2023	12/06/2022
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	201499	02/29/2024	02/29/2023
Antenna, Horn 1-18GHz	ETS Lindgren	3117	230300	01/12/2024	01/12/2023
RF Filter Box 1-18GHz	UL-FR1	SAC 12 port rf box	217521	10/09/2023	10/09/2022
EMI Test Receiver	Rohde & Schwarz	ESW44	169927	02/29/2024	02/29/2023

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Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	90756	01/31/2024	01/31/2023
Link File, RF Amplifier Assembly, 26-40GHz, 65dB Gain	AMPLICAL	AMP26G40-65	172346	02/29/2024	02/29/2023
RF Amplifier Assembly, 18-26.5GHz, 60dB Gain	AMPLICAL	AMP18G26.5-60	171583	02/29/2024	02/29/2023
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	90389	01/31/2024	01/31/2023
*Conducted Switch Box	N/A	CSB	221008	06/21/2023	06/21/2022
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	
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

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	175764	01/31/2024	01/31/2023
*Transient Limiter	TE	TBFL1	207996	07/15/2023	07/15/2022
UL AUTOMATION SOFTWARE					
Radiated Software	UL	UL EMC	Ver 9.5, Mar 6, 2020		
Conducted Software	UL	UL EMC	2020.2.26		
AC Line Conducted Software	UL	UL EMC	Ver 9.5, February 21, 2020		

*Testing is completed before equipment expiration date.

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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						
500Kbps	1.530	2.000	0.765	76.50%	1.16	0.654

DUTY CYCLE PLOTS

DUTY CYCLE 802.15.4ab

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9.2. 26 dB AND 99% BANDWIDTH

LIMITS

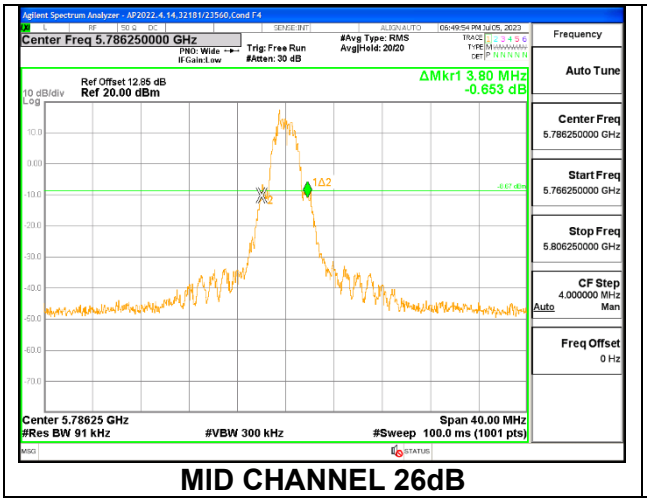
None; for reporting purposes only.

RESULTS

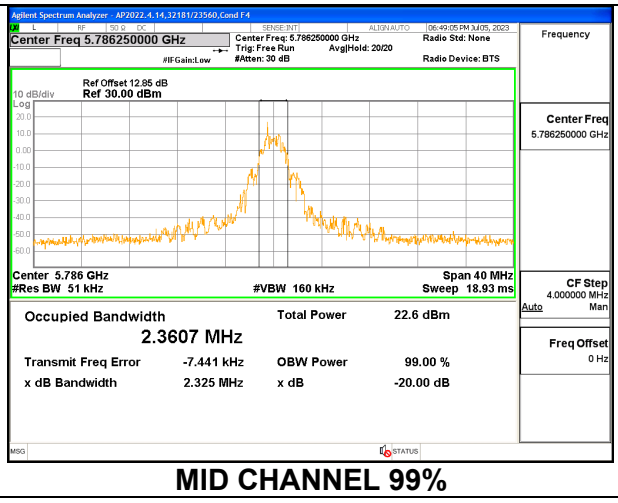
ID:	32181 / 23560	Date:	06/05/23

1TX Antenna 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5728.75	4.08	2.3671
Mid	5786.25	3.80	2.3607
High	5846.25	4.08	2.2726



MID CHANNEL 26dB



MID CHANNEL 99%

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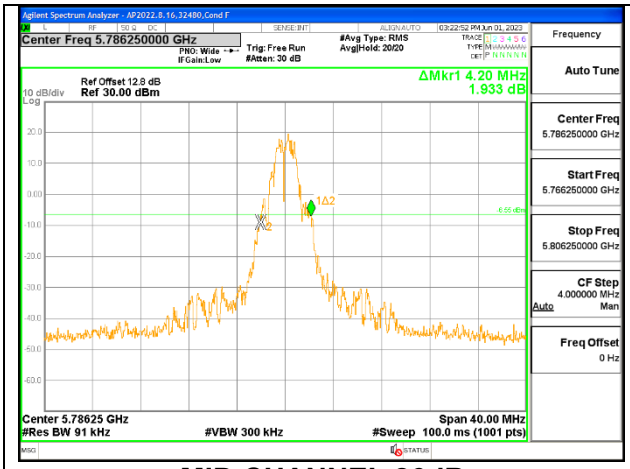
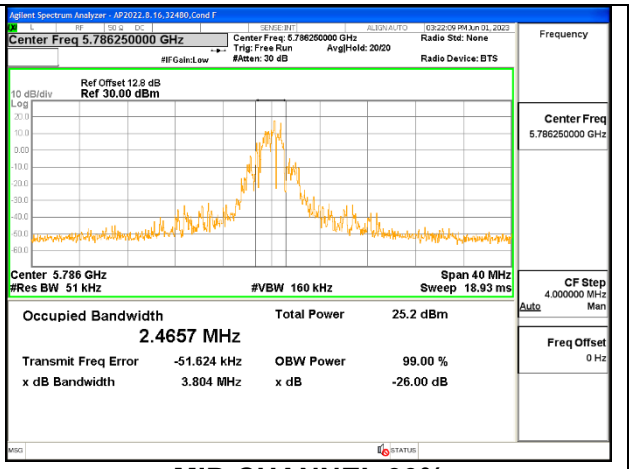
1TX Antenna 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5728.75	3.88	2.4253
Mid	5786.25	4.20	2.4657
High	5846.25	4.00	2.4874



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	1.592	0.5
Mid	5786.25	1.545	0.5
High	5846.25	1.424	0.5

MID CHANNEL

1TX Antenna 5 MODE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5728.75	1.528	0.5
Mid	5786.25	1.500	0.5
High	5846.25	1.559	0.5

MID CHANNEL

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9.4. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a)(3)(i)

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.

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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 1 TX:
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	-5.20	-3.60

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HIGH POWER

1TX Antenna 6 MODE

Test Engineer:	32181 / 23560
Test Date:	07/05/2023

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/500KHz)
Low	5728.75	-5.20	30.00	30.00
Mid	5786.25	-5.20	30.00	30.00
High	5846.25	-5.20	30.00	30.00

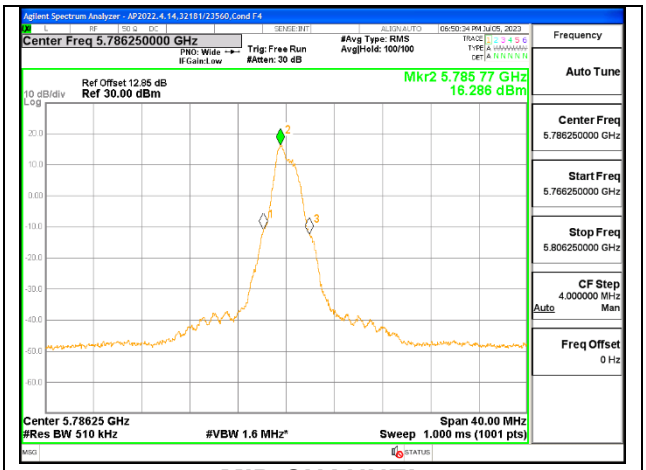
Duty Cycle CF (dB)	1.16	**Included in Calculations of Corr'd PSD**

Output Power Results

Channel	Frequency (MHz)	Antenna 6 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit 30dBm (dBm)	Power Margin (dB)
Low	5728.75	19.20	20.36	30.00	-9.64
Mid	5786.25	18.88	20.04	30.00	-9.96
High	5846.25	19.25	20.41	30.00	-9.59

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	18.250	19.410	30.00	-10.59
Mid	5786.25	16.286	17.446	30.00	-12.55
High	5846.25	18.403	19.563	30.00	-10.44



MID CHANNEL

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1TX Antenna 5 MODE

Test Engineer:	32181 / 23560
Test Date:	07/05/2023

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/500KHz)
Low	5728.75	-3.60	30.00	30.00
Mid	5786.25	-3.60	30.00	30.00
High	5846.25	-3.60	30.00	30.00

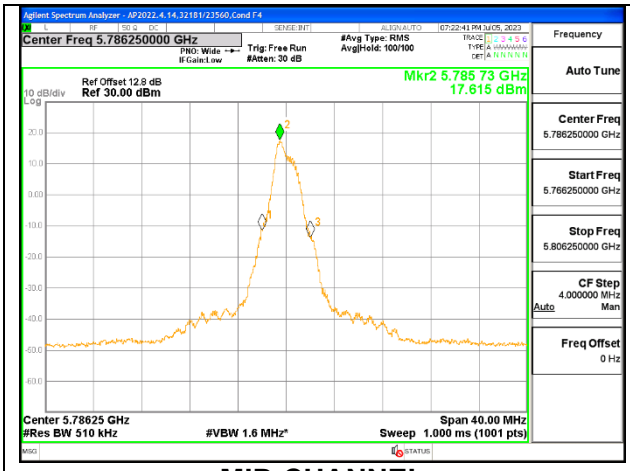
Duty Cycle CF (dB)	1.16	**Included in Calculations of Corr'd PSD**

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	19.10	20.26	30.00	-9.74
Mid	5786.25	19.05	20.21	30.00	-9.79
High	5846.25	19.20	20.36	30.00	-9.64

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	17.773	18.933	30.00	-11.07
Mid	5786.25	17.615	18.775	30.00	-11.23
High	5846.25	18.402	19.562	30.00	-10.44



MID CHANNEL

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LOW POWER

1TX Antenna 6 MODE

Test Engineer:	32181 / 23560
Test Date:	07/05/2023

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/500KHz)
Low	5728.75	-5.20	30.00	30.00
Mid	5786.25	-5.20	30.00	30.00
High	5846.25	-5.20	30.00	30.00

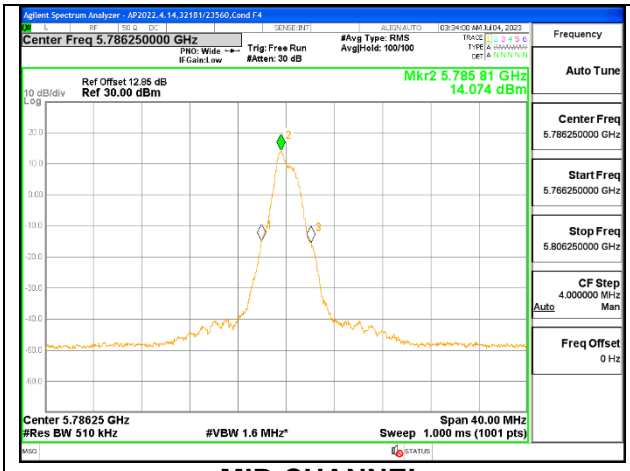
Duty Cycle CF (dB)	1.16	**Included in Calculations of Corr'd Power and PSD**

Output Power Results

Channel	Frequency (MHz)	Antenna 6 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit 30dBm (dBm)	Power Margin (dB)
Low	5728.75	15.00	16.16	30.00	-13.84
Mid	5786.25	14.90	16.06	30.00	-13.94
High	5846.25	14.95	16.11	30.00	-13.89

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	14.540	15.700	30.00	-14.30
Mid	5786.25	14.074	15.234	30.00	-14.77
High	5846.25	14.184	15.344	30.00	-14.66



MID CHANNEL

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1TX Antenna 5 MODE

Test Engineer:	32181 / 23560
Test Date:	07/05/2023

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/500KHz)
Low	5728.75	-3.60	30.00	30.00
Mid	5786.25	-3.60	30.00	30.00
High	5846.25	-3.60	30.00	30.00

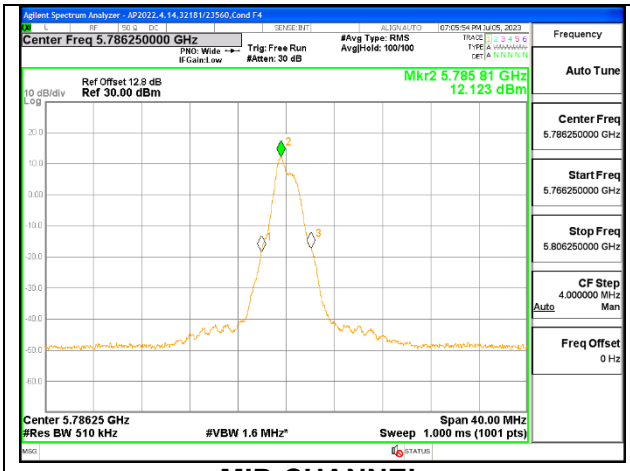
Duty Cycle CF (dB)	1.16	**Included in Calculations of Corr'd Power and PSD**

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	13.00	14.16	30.00	-15.84
Mid	5786.25	13.07	14.23	30.00	-15.77
High	5846.25	13.05	14.21	30.00	-15.79

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	11.917	13.077	30.00	-16.92
Mid	5786.25	12.123	13.283	30.00	-16.72
High	5846.25	12.113	13.273	30.00	-16.73



MID CHANNEL

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10. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209 -Restriced bands
FCC §15.407(b)(4) -Un-Restriced 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.

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.

RESULTS

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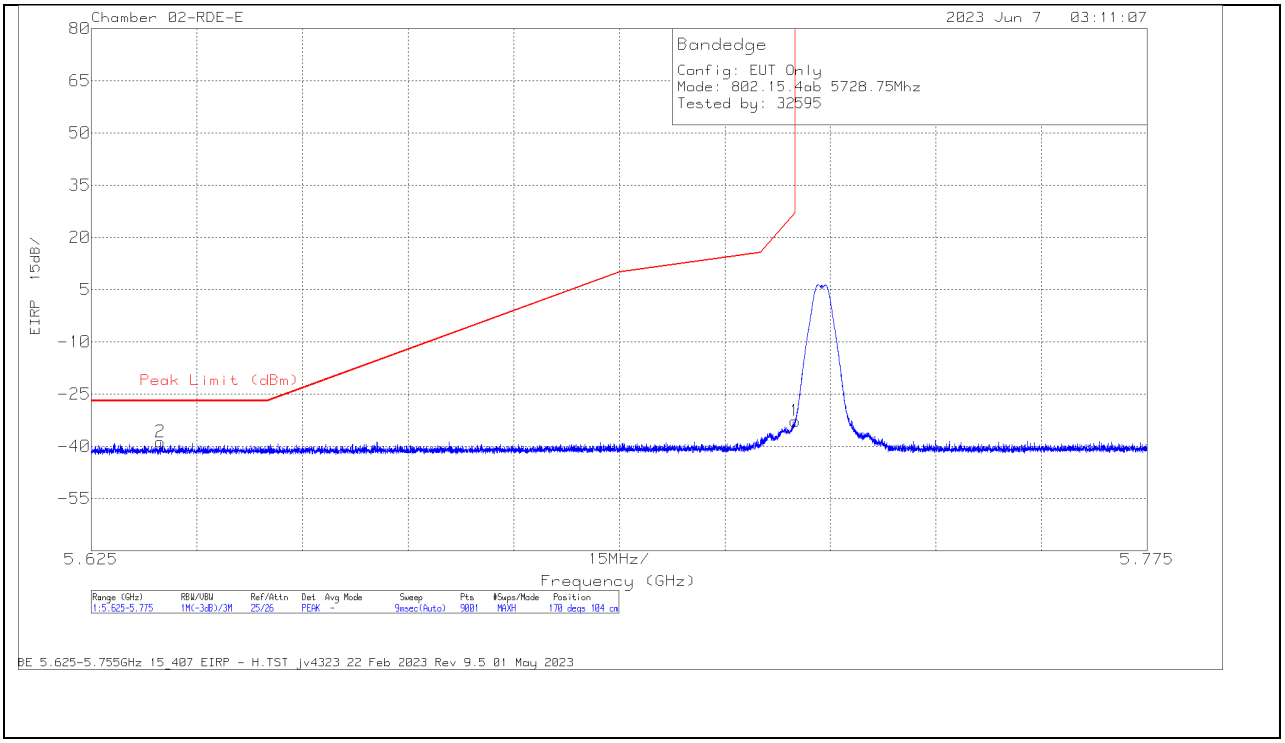
10.1. TRANSMITTER ABOVE 1 GHz

10.1.1. HIGH POWER 802.15.4ab IN THE UNII-5 BAND

ANT 6

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206807 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	5.634784	-47.96	Pk	34.5	11.8	0	-37.05	-38.71	-27	-11.71	170	104	H
1	5.725	-42.36	Pk	34.6	11.8	0	-36.76	-32.72	27	-59.72	170	104	H

Pk - Peak detector

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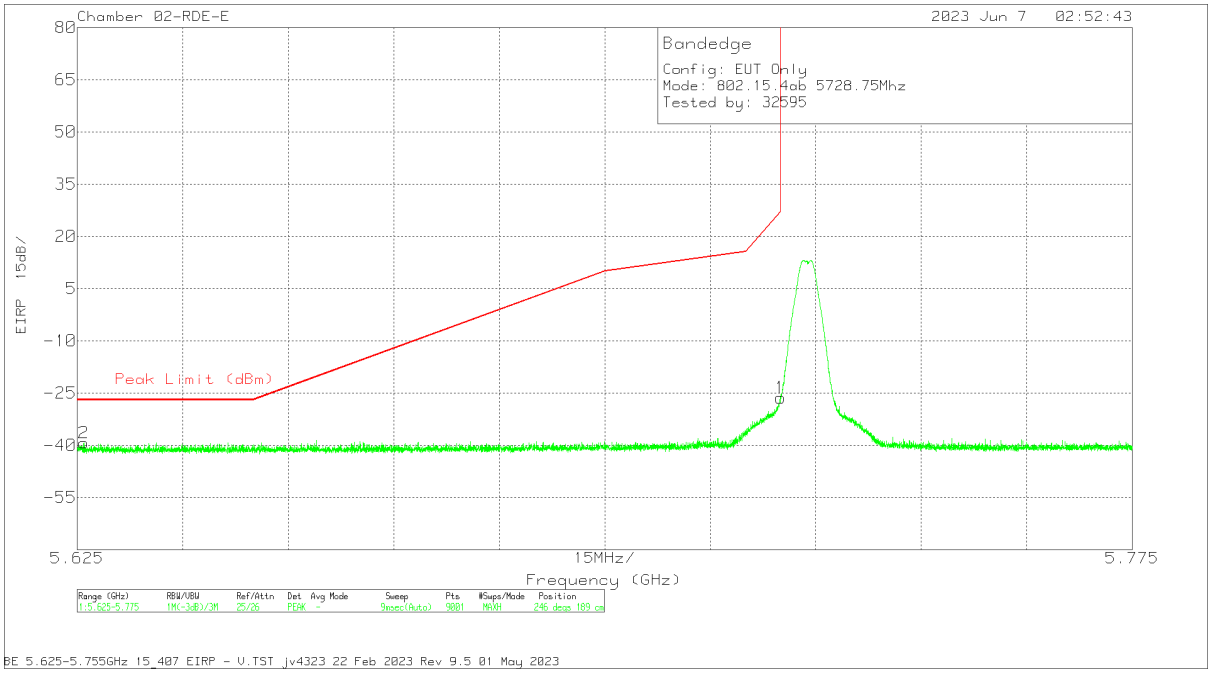
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206807 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	5.725	-35.98	Pk	34.6	11.8	0	-36.76	-26.34	27	-53.34	246	189	V
2	5.625933	-48.56	Pk	34.5	11.8	0	-37.05	-39.31	-27	-12.31	246	189	V

Pk - Peak detector

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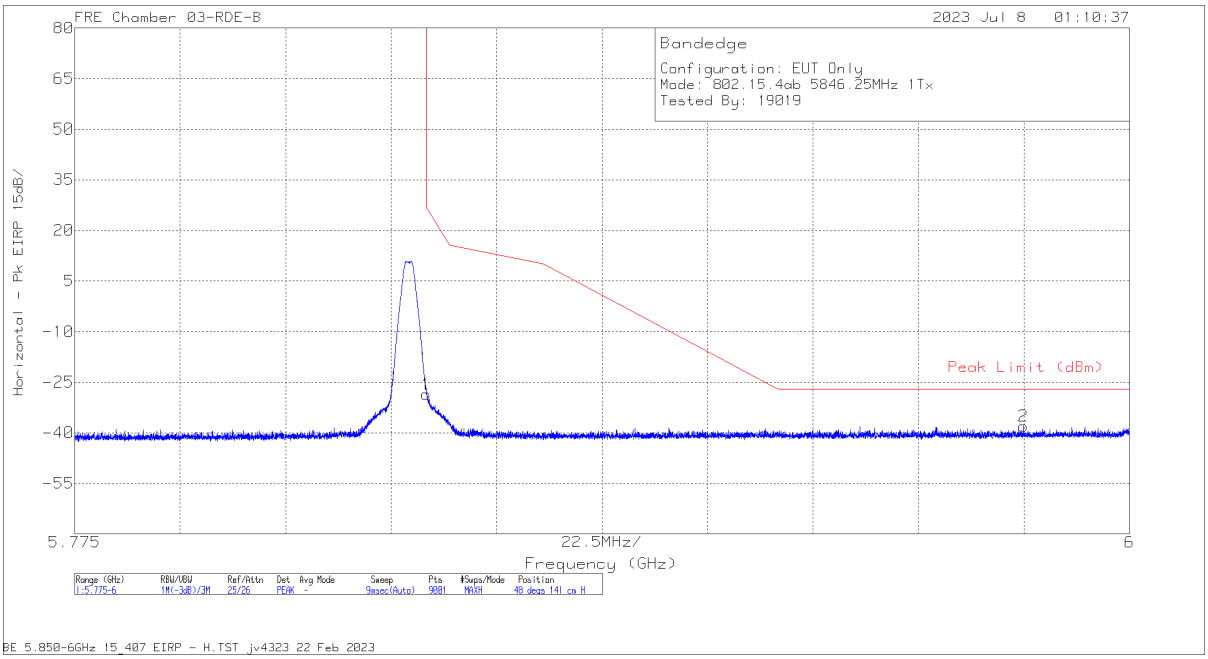
BANDEDGE (HIGH CHANNEL)

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	-36.6	Pk	34.7	11.8	0	-38.5	-28.6	27	-55.6	48	141	H
2	5.9774	-46.73	Pk	35	11.8	0	-38.1	-38.03	-27	-11.03	48	141	H

Pk - Peak detector

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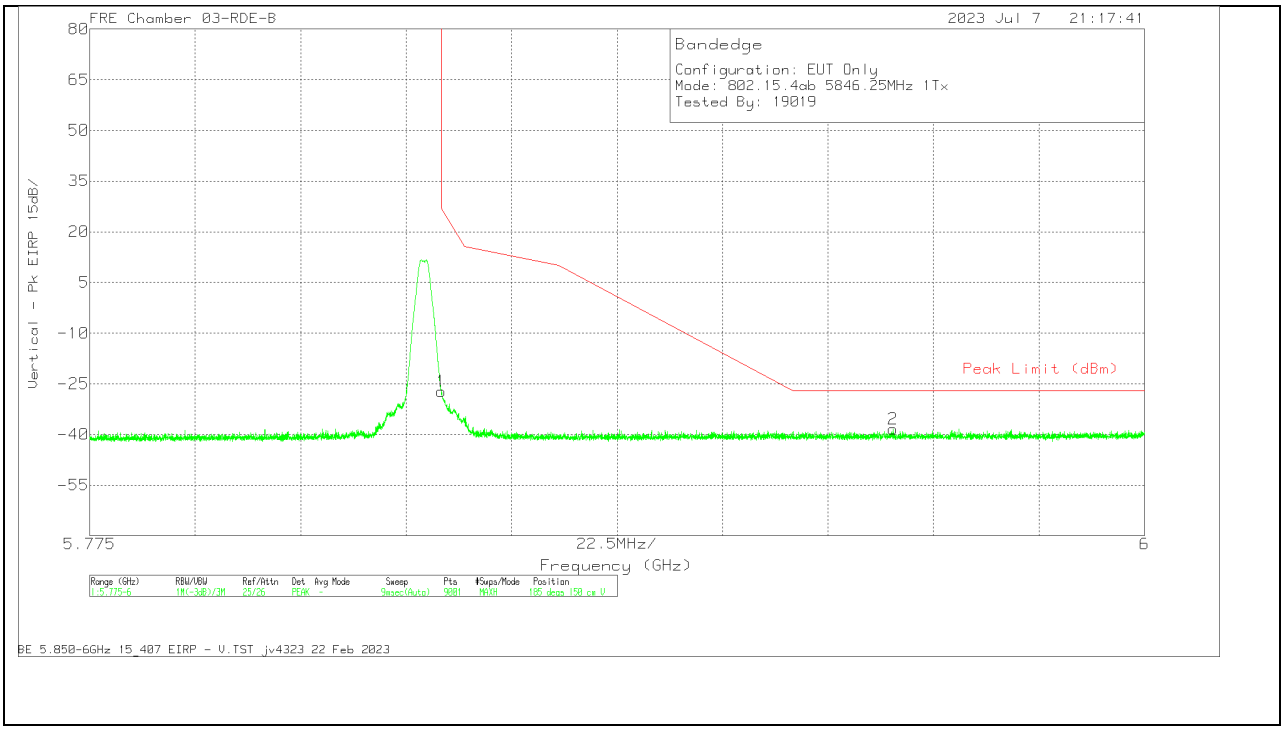
VERTICAL RESULT



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	-35.24	Pk	34.7	11.8	0	-38.5	-27.24	27	-54.24	185	150	V
2	5.9464	-46.74	Pk	34.9	11.8	0	-38.3	-38.34	-27	-11.34	185	150	V

Pk - Peak detector

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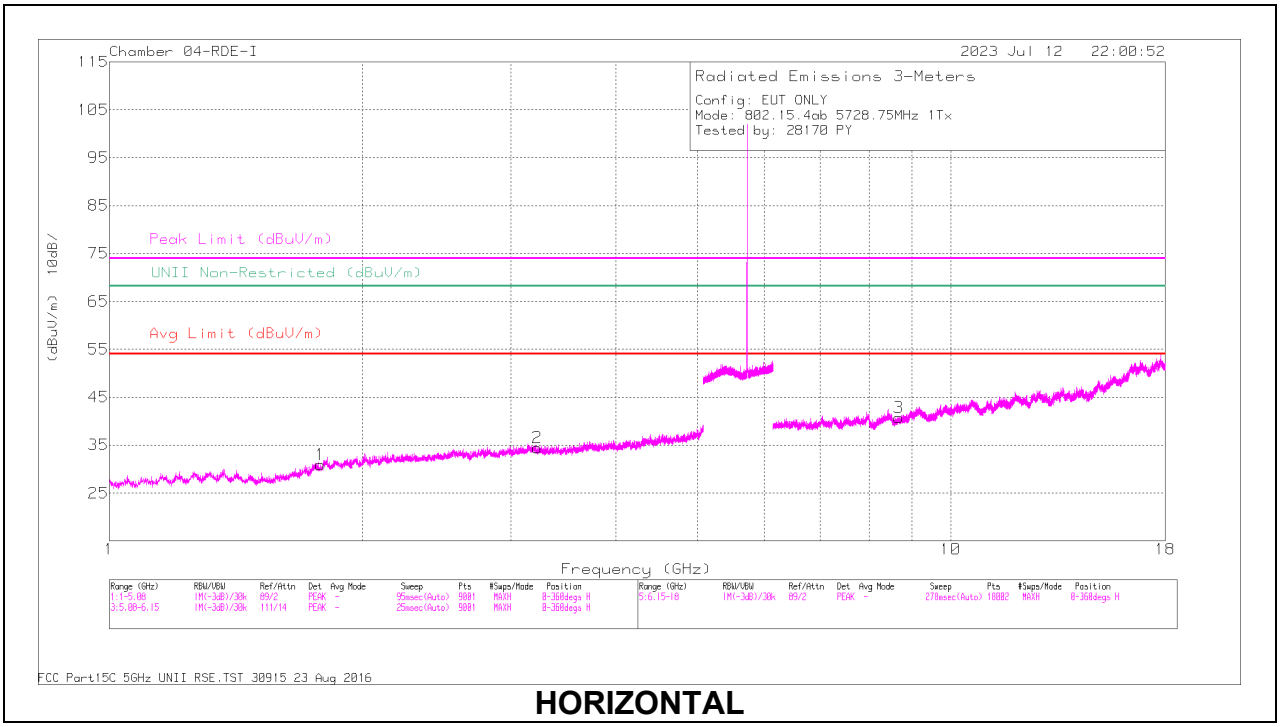
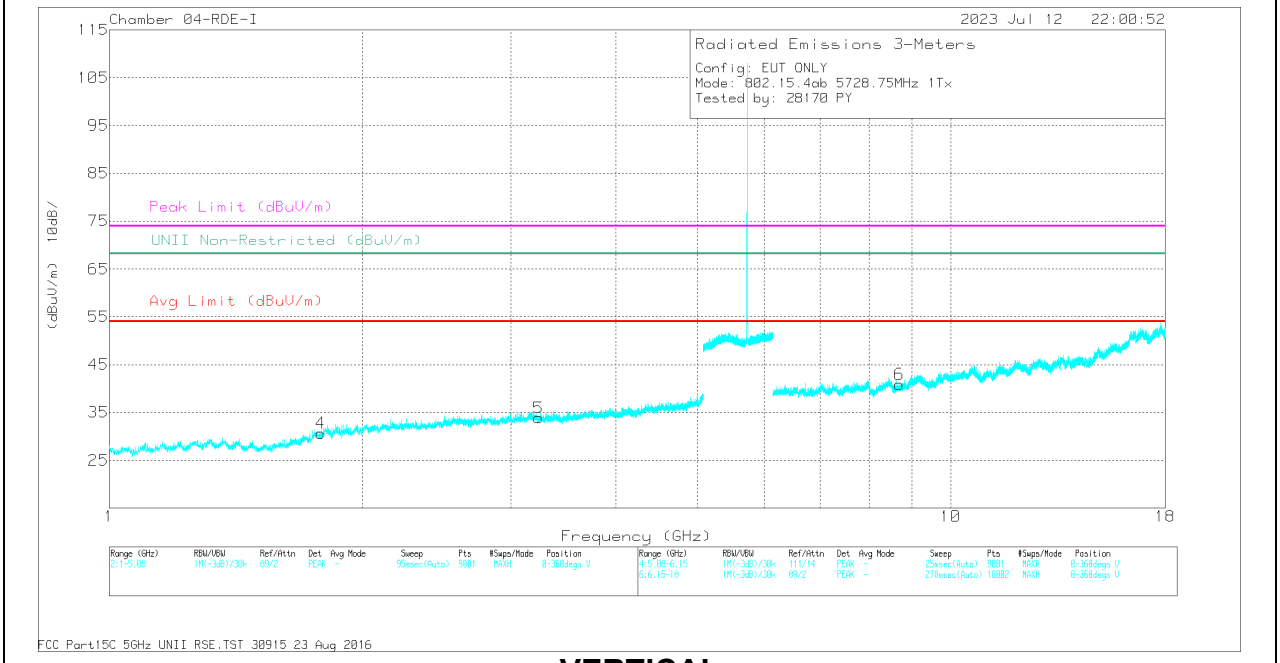
HIGH POWER HARMONICS AND SPURIOUS EMISSIONS
LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Maker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB) - 3mH	Cbl/Amp (dB)	Corrected Reading (dBuV/m)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.780011	41.81	PK-U	30.3	-31.4	40.71	68.2	-27.49	1	101	H
2	3.227797	40.01	PK-U	32.9	-28.7	44.21	68.2	-23.99	1	101	H
3	8.67472	32.77	PK-U	36	-17.6	51.17	68.2	-17.03	1	199	H
4	1.783797	41.37	PK-U	30.3	-31	40.67	68.2	-27.53	1	101	V
5	3.239287	40.24	PK-U	32.9	-28.9	44.24	68.2	-23.96	1	101	V
6	8.694054	32.99	PK-U	36	-18	50.99	68.2	-17.21	1	199	V

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

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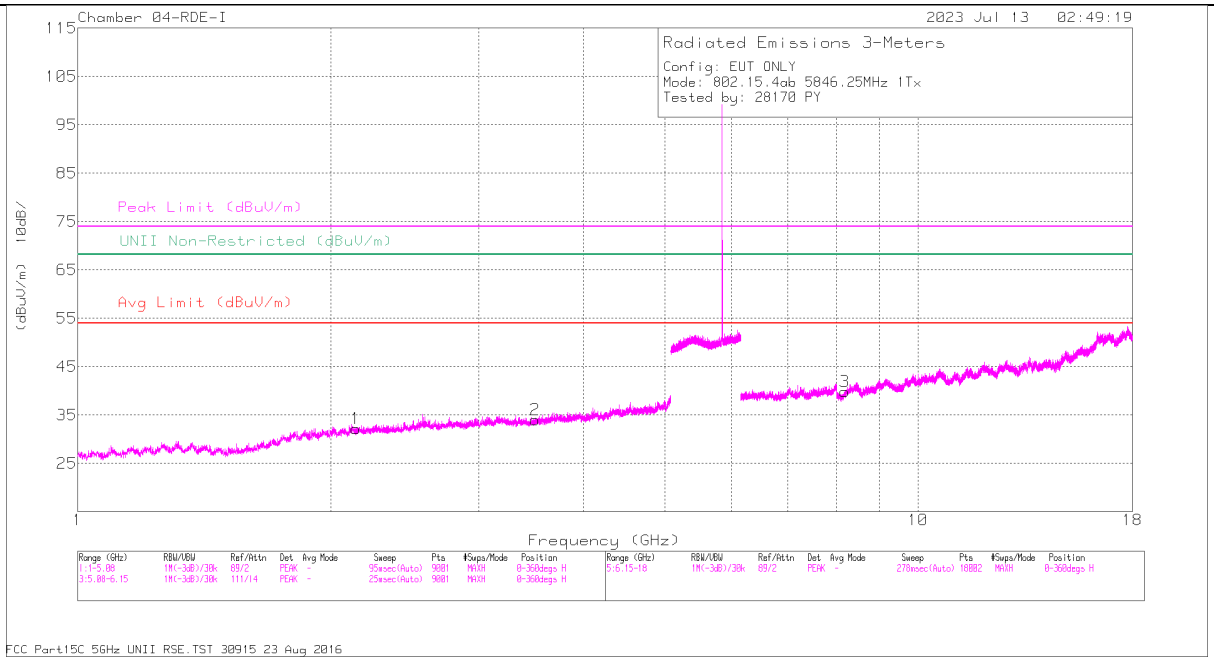
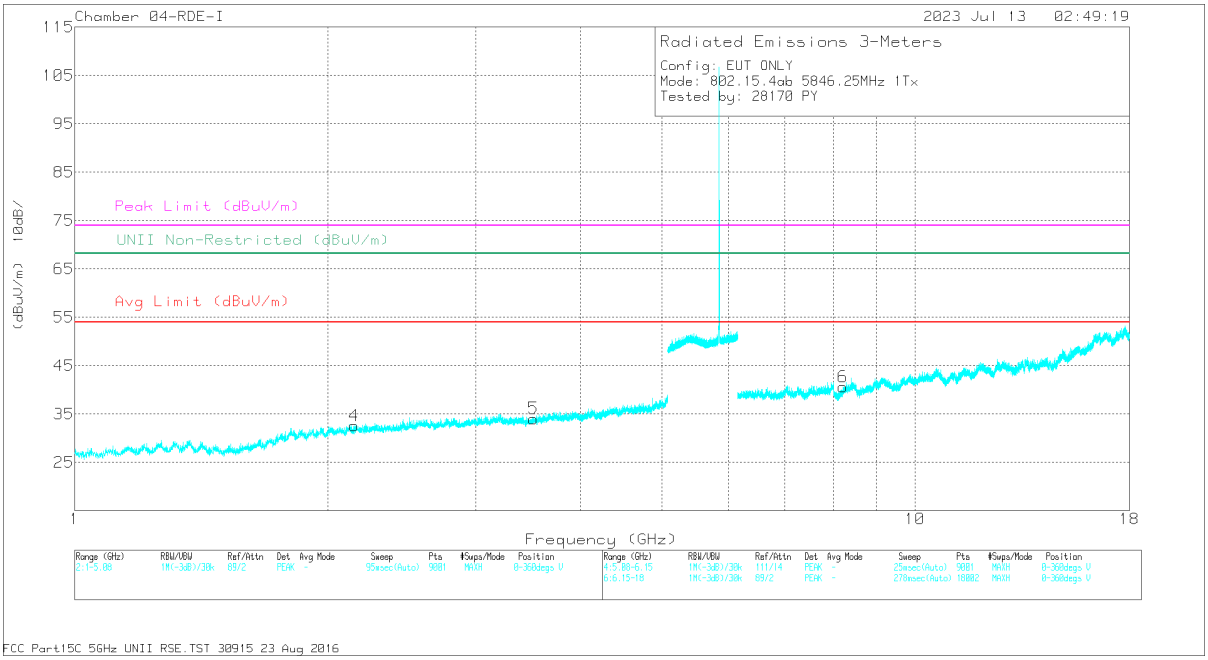
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB) - 3mH	Cbl/Amp (dB)	DCCF (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	2.143289	41.55	PK-U	31.6	-30.7	0	42.45	-	-	-	-	68.2	-25.75	360	200	H
2	* 3.507096	40.18	PK-U	32.8	-28.7	0	44.28	-	-	74	-29.72	-	-	360	200	H
	* 3.504261	28.57	ADR	32.8	-28.8	1.16	33.73	54	-20.27	-	-	-	-	360	200	H
4	2.150835	41.52	PK-U	31.6	-30.7	0	42.42	-	-	-	-	68.2	-25.78	360	101	V
5	* 3.512568	39.86	PK-U	32.8	-28.6	0	44.06	-	-	74	-29.94	-	-	360	200	V
	* 3.512884	28.51	ADR	32.8	-28.6	1.16	33.87	54	-20.13	-	-	-	-	360	200	V
3	* 8.184821	32.33	PK-U	35.8	-18.7	0	49.43	-	-	74	-24.57	-	-	360	101	H
	* 8.186183	20.83	ADR	35.8	-18.7	1.16	39.09	54	-14.91	-	-	-	-	360	101	H
6	* 8.214917	33.06	PK-U	35.9	-18.9	0	50.06	-	-	74	-23.94	-	-	360	101	V
	* 8.21539	21.28	ADR	35.9	-18.9	1.16	39.44	54	-14.56	-	-	-	-	360	101	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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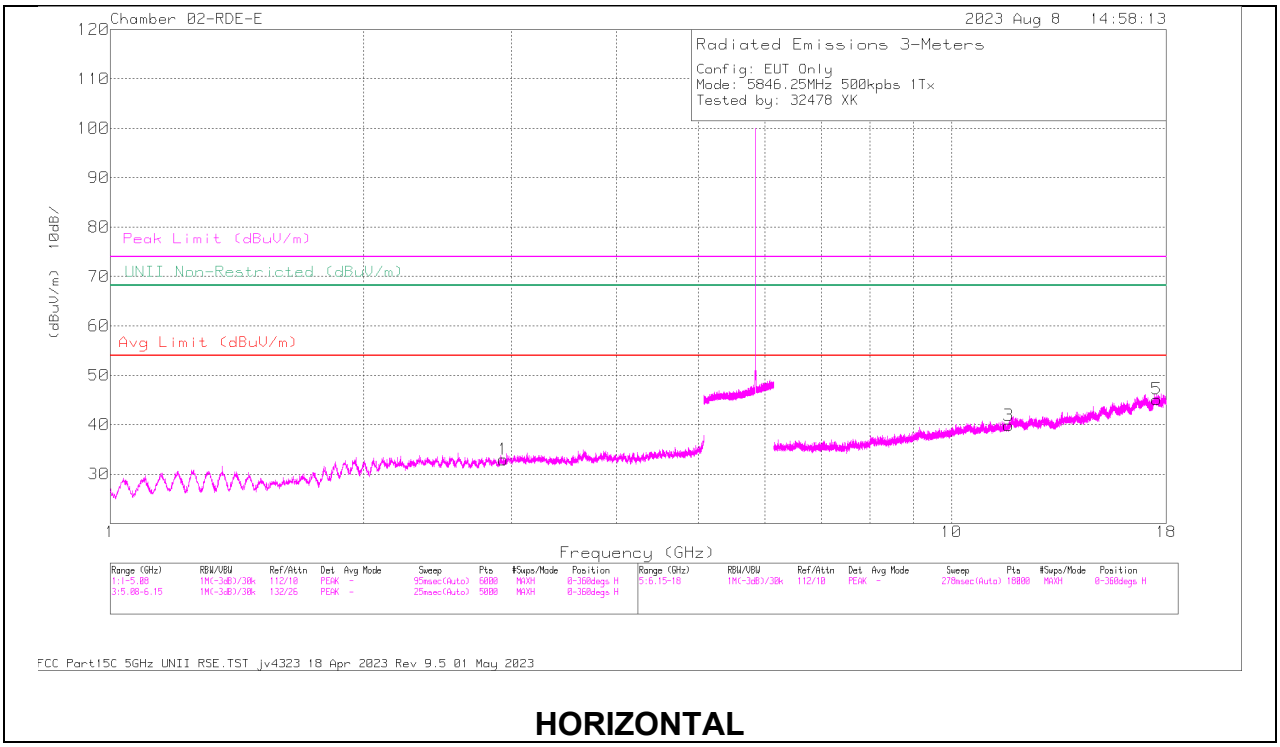
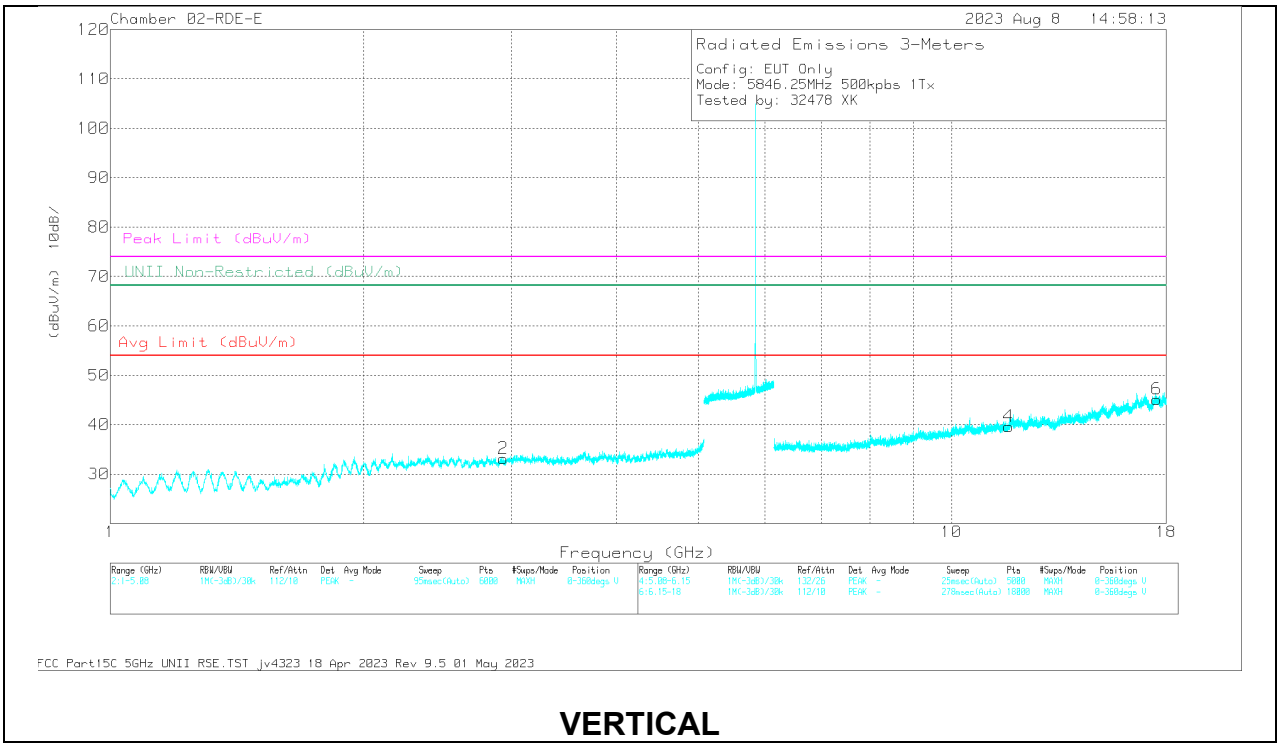
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206807 ACF (dB/m)	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	* 11.695168	54.71	PK-U	38.5	-42.93	50.28	-	-	74	-23.72	-	-	318	231	H
	* 11.696549	42.91	ADR	38.5	-42.94	38.47	54	-15.53	-	-	-	-	318	231	H
4	* 11.696392	54.46	PK-U	38.5	-42.94	50.02	-	-	74	-23.98	-	-	16	384	V
	* 11.695737	42.76	ADR	38.5	-42.94	38.32	54	-15.68	-	-	-	-	16	384	V
2	2.930977	58.59	PK-U	32.6	-48.26	42.93	-	-	-	-	68.2	-25.27	305	165	V
1	2.933207	58.49	PK-U	32.6	-48.24	42.85	-	-	-	-	68.2	-25.35	96	389	H
5	17.534016	54.17	PK-U	41.4	-40.56	55.01	-	-	-	-	68.2	-13.19	236	238	H
6	17.539173	53.71	PK-U	41.4	-40.72	54.39	-	-	-	-	68.2	-13.81	346	103	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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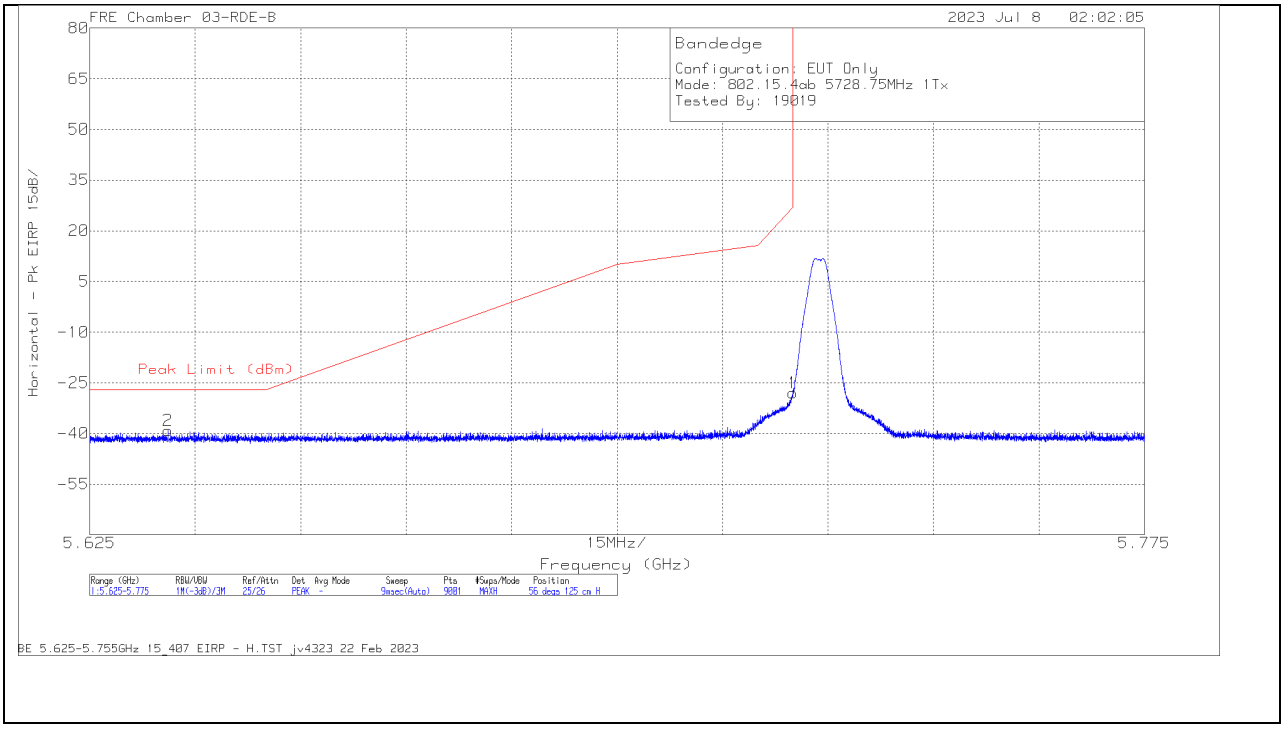
ANT 5

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	5.636117	-46.45	Pk	34.4	11.8	0	-38.8	-39.05	-27	-12.05	56	125	H
1	5.725	-35.52	Pk	34.5	11.8	0	-38.8	-28.02	27	-55.02	56	125	H

Pk - Peak detector

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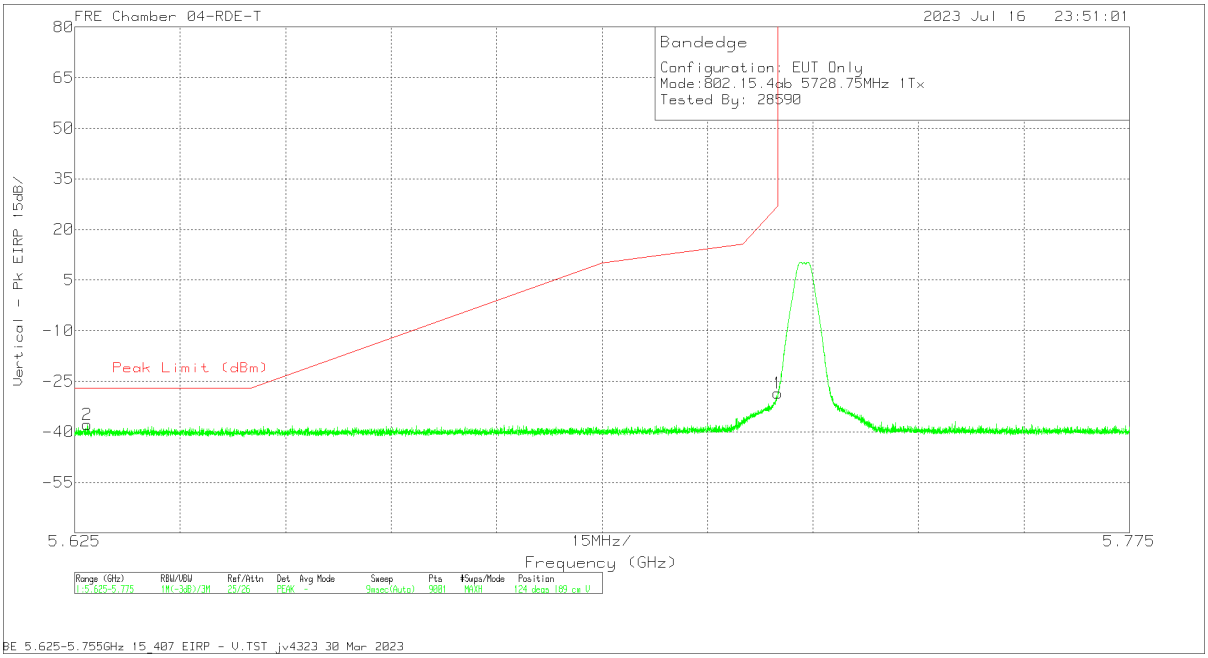
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 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	5.6268	-49.62	Pk	34.5	11.8	0	-34.53	-37.85	-27	-10.85	124	189	V
1	5.725	-40.46	Pk	34.6	11.8	0	-34.48	-28.54	27	-55.54	124	189	V

Pk - Peak detector

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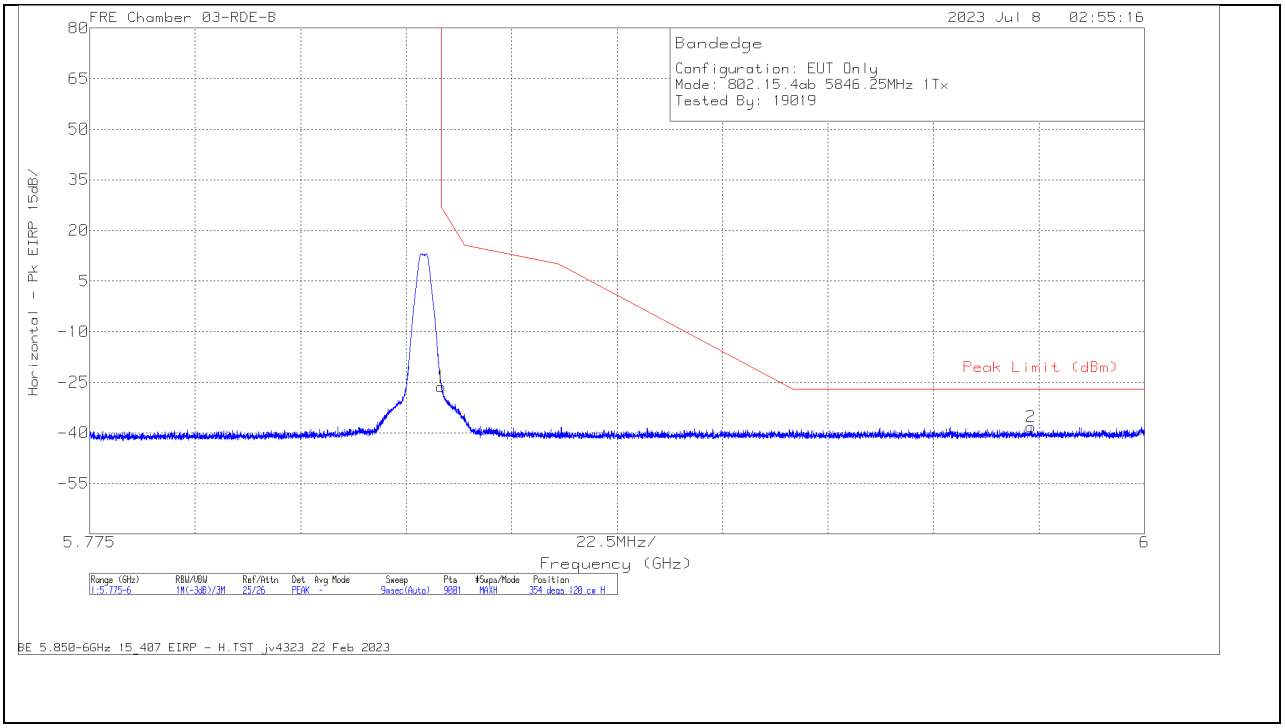
BANDEDGE (HIGH CHANNEL)

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	-34.28	Pk	34.7	11.8	0	-38.5	-26.28	27	-53.28	354	120	H
2	5.97585	-46.85	Pk	35	11.8	0	-38.1	-38.15	-27	-11.15	354	120	H

Pk - Peak detector

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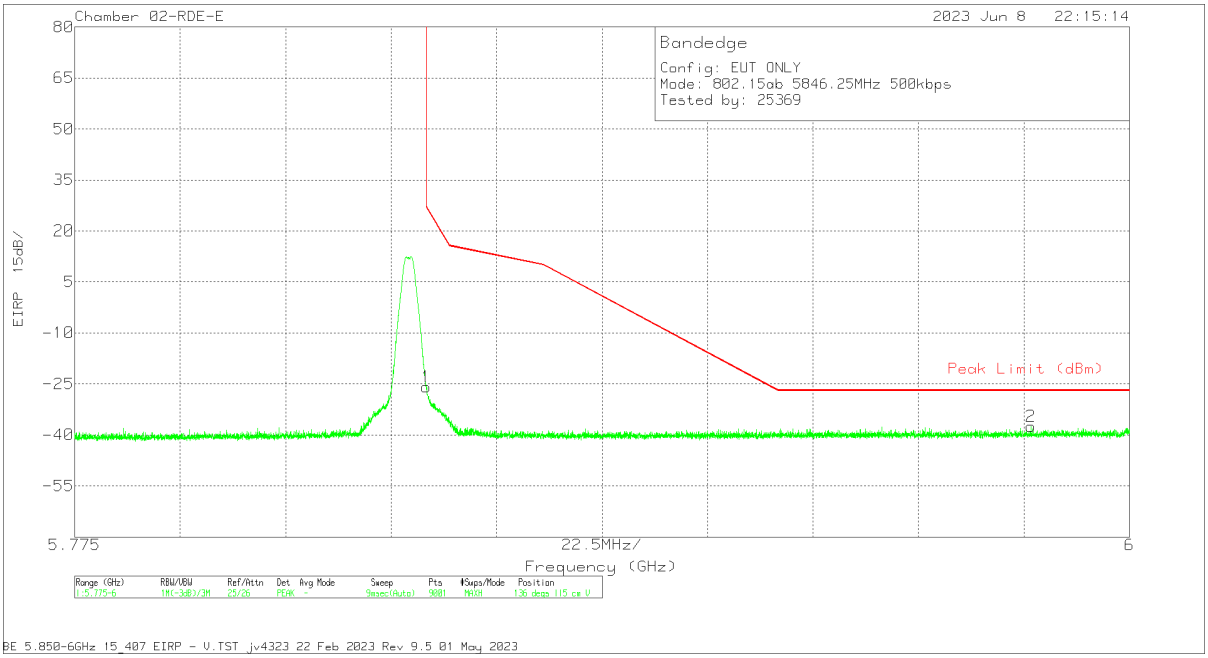
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206807 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	-36.23	Pk	34.9	11.8	0	-36.3	-25.83	27	-52.83	136	115	V
2	5.979025	-48.6	Pk	35.2	11.8	0	-35.87	-37.47	-27	-10.47	136	115	V

Pk - Peak detector

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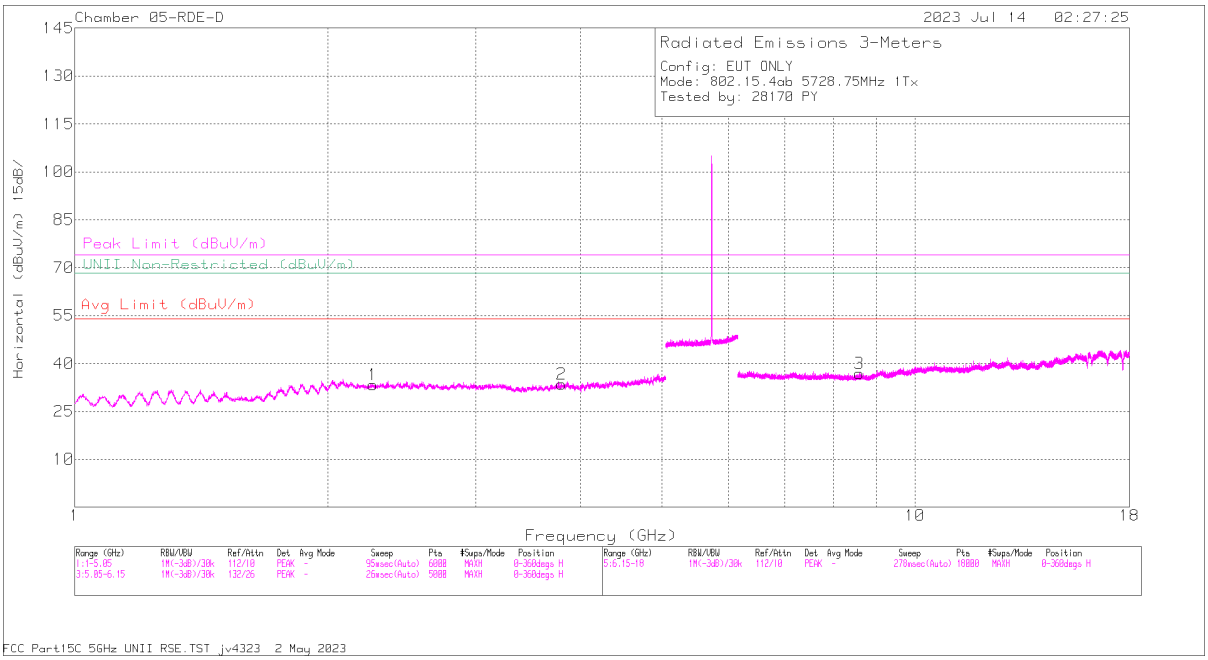
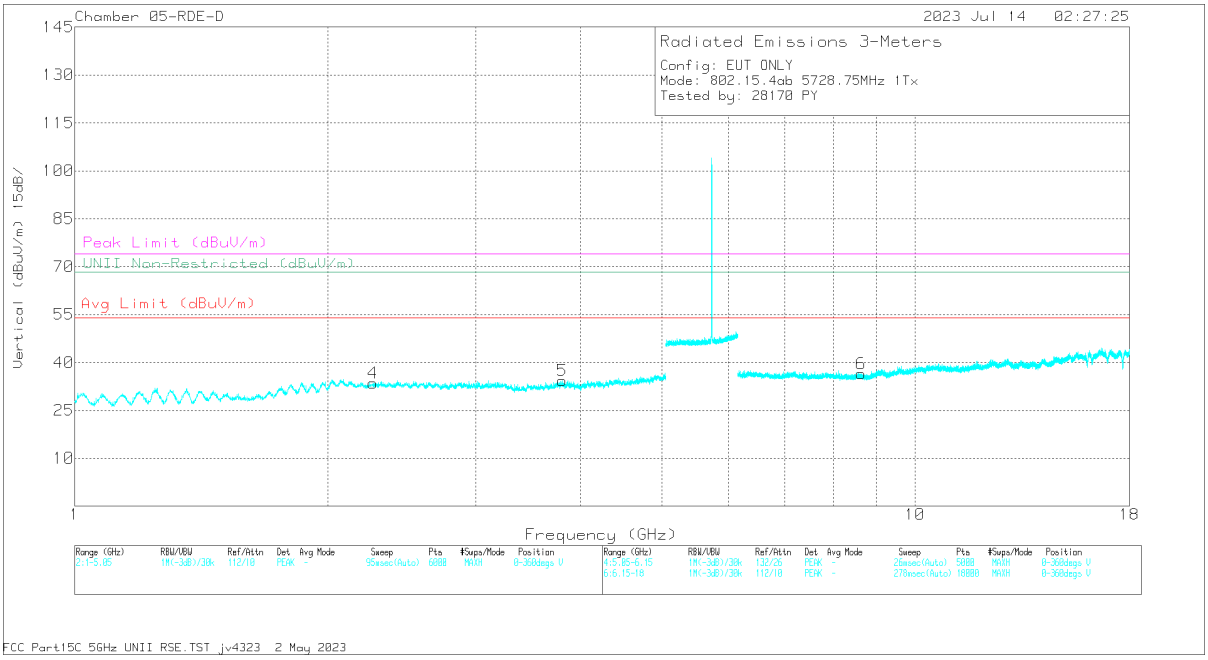
HIGH POWER HARMONICS AND SPURIOUS EMISSIONS
LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	230299 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	* 2.265287	61.52	PK-U	31.9	0	-49.64	43.78	-	-	74	-30.22	-	-	360	101	H
	* 2.263991	49.52	ADR	31.9	1.16	-49.6	32.98	54	-21.02	-	-	-	-	360	101	H
2	* 3.79718	57.76	PK-U	33.5	0	-47.27	43.99	-	-	74	-30.01	-	-	360	200	H
	* 3.796143	45.64	ADR	33.5	1.16	-47.19	33.11	54	-20.89	-	-	-	-	360	200	H
3	8.58193	55.21	PK-U	35.8	0	-44.56	46.45	-	-	-	-	68.2	-21.75	360	101	H
4	* 2.265712	61.35	PK-U	31.9	0	-49.63	43.62	-	-	74	-30.38	-	-	360	200	V
	* 2.262578	49.36	ADR	31.9	1.16	-49.67	32.75	54	-21.25	-	-	-	-	360	200	V
5	* 3.803492	57.72	PK-U	33.5	0	-47.08	44.14	-	-	74	-29.86	-	-	360	200	V
	* 3.803935	45.57	ADR	33.5	1.16	-47.14	33.09	54	-20.91	-	-	-	-	360	200	V
6	8.636299	55.19	PK-U	35.8	0	-44.55	46.44	-	-	-	-	68.2	-21.76	360	200	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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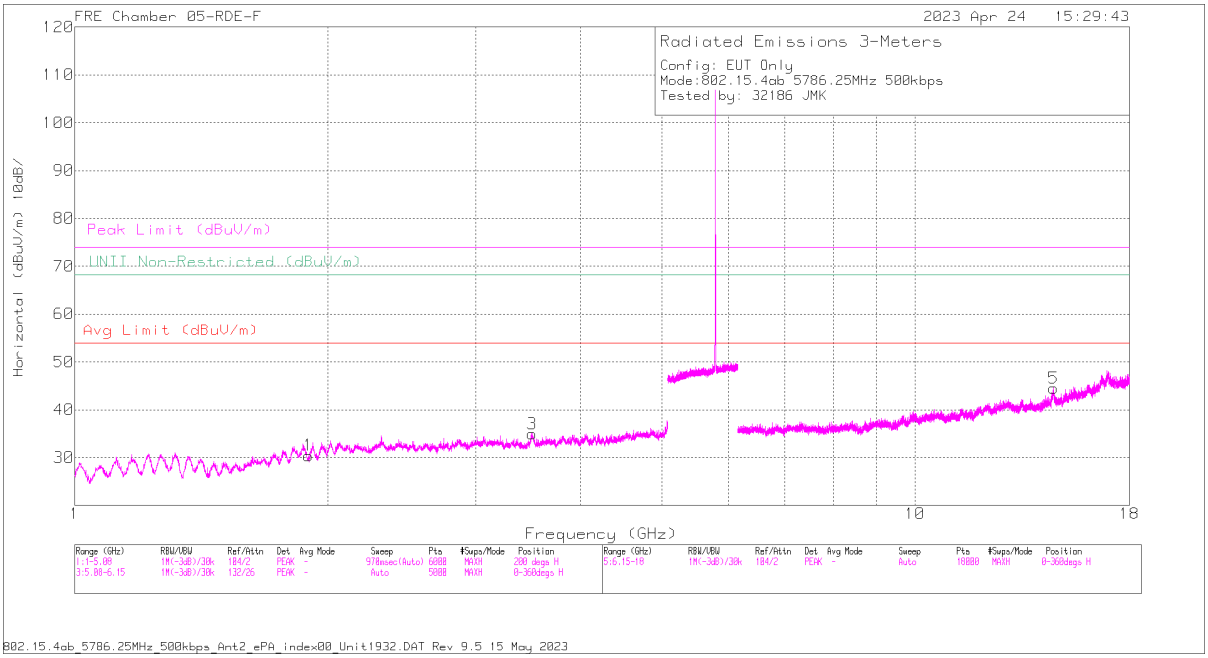
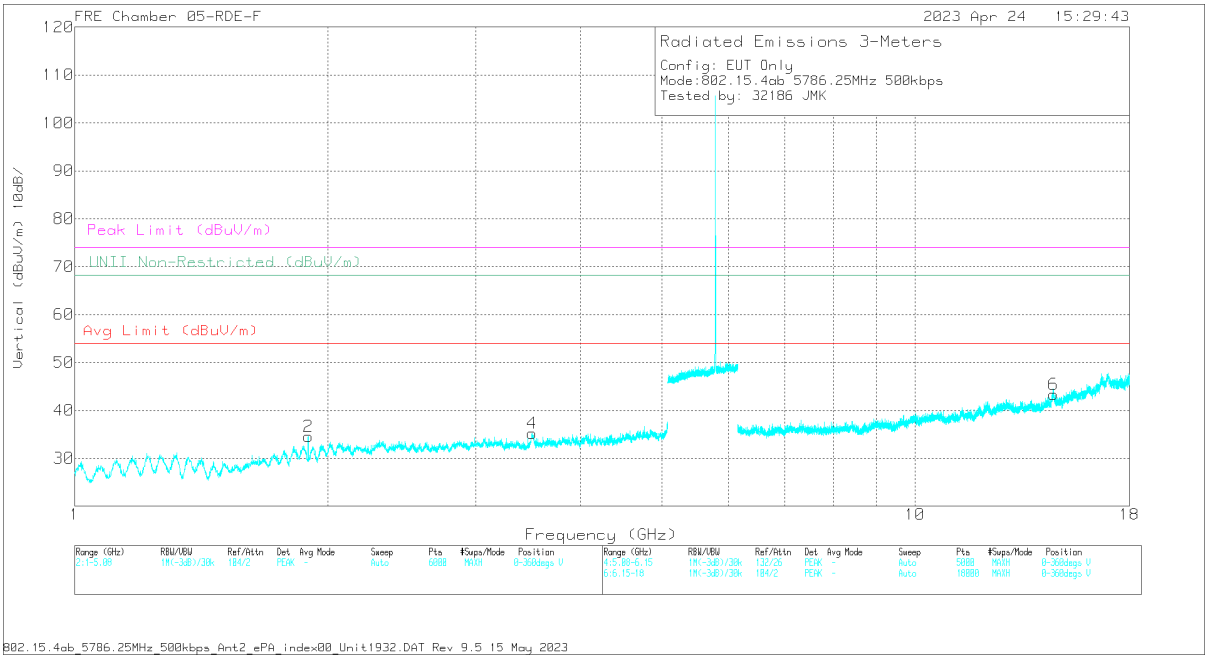
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80404_A CF(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	* 3.501872	55.41	PK-U	35	0	-30.2	60.21	-	-	74	-13.79	-	-	27	145	H
	* 3.505141	43.73	ADR	34.6	1.16	-30.94	48.55	54	-5.45	-	-	-	-	27	145	H
2	* 3.503086	56.13	PK-U	34.9	0	-31.07	59.96	-	-	74	-14.04	-	-	15	109	V
	* 3.504454	43.59	ADR	34.7	1.16	-30.75	48.70	54	-5.30	-	-	-	-	15	109	V
3	1.896282	56.27	PK-U	30.9	0	-28.73	58.44	-	-	-	-	68.2	-9.76	119	273	H
4	1.896225	59.73	PK-U	30.9	0	-28.83	61.8	-	-	-	-	68.2	-6.4	331	208	V
5	14.610985	52.4	PK-U	39.7	0	-34.73	57.37	-	-	-	-	68.2	-10.83	87	258	H
6	14.609279	52.65	PK-U	39.6	0	-34.71	57.54	-	-	-	-	68.2	-10.66	316	116	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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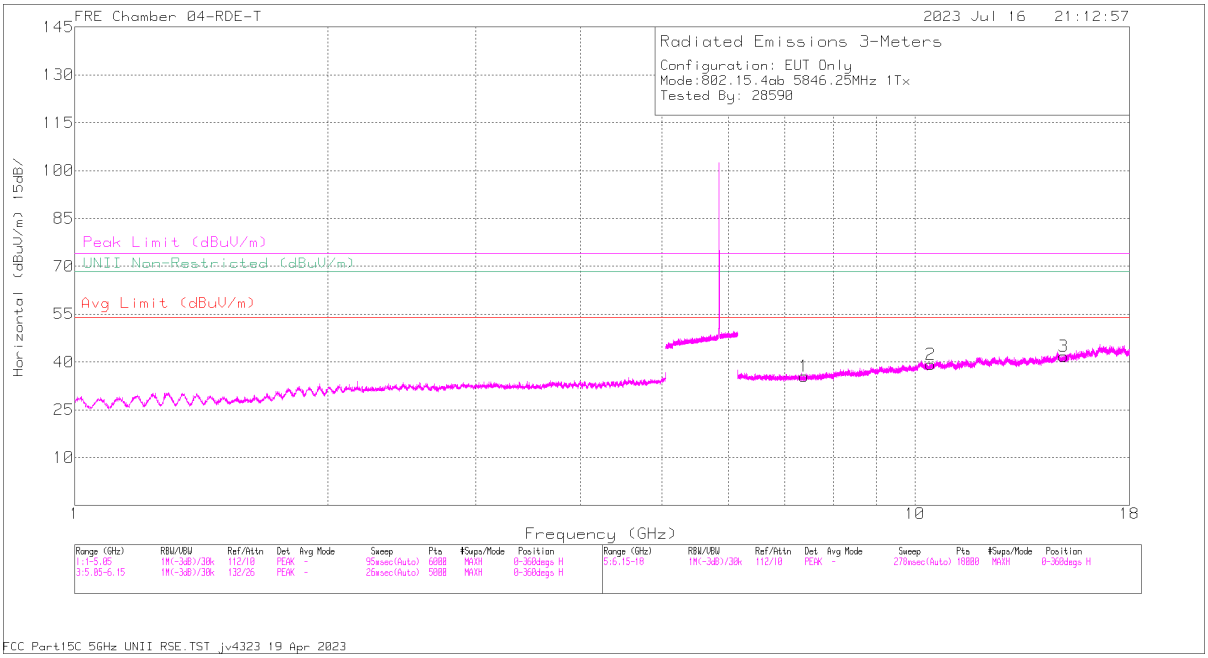
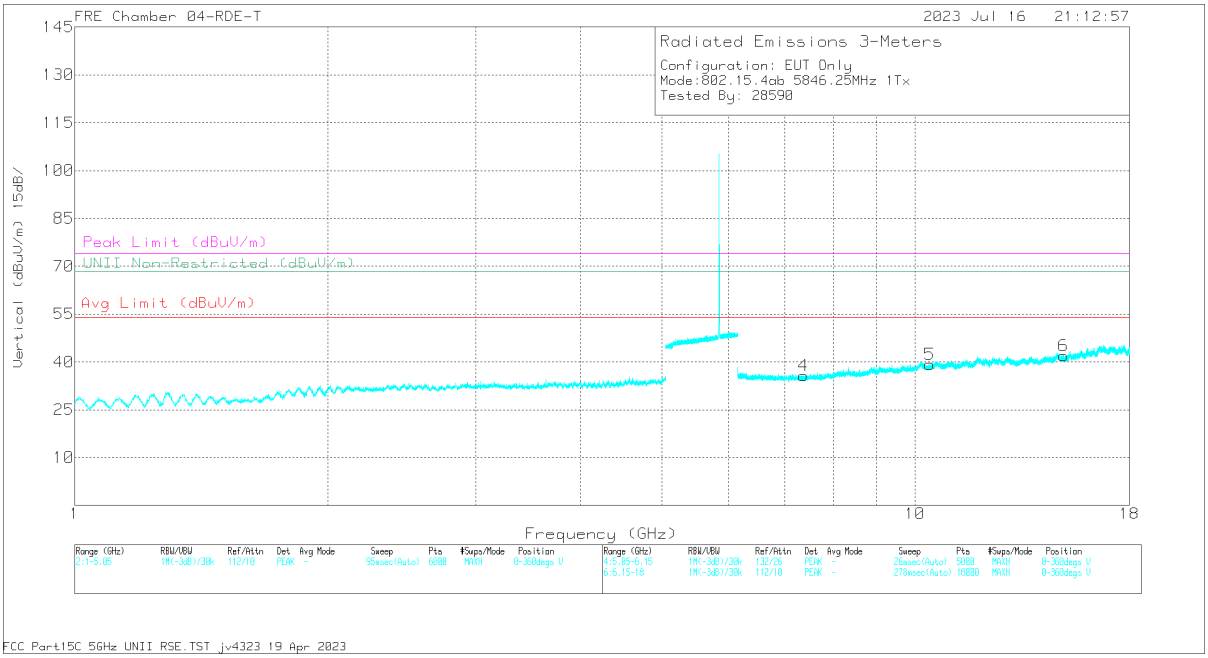
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	22667 3 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	* 7.379536	53.65	PK-U	35.7	0	-43.26	46.09	-	-	74	-27.91	-	-	0	101	H
	* 7.379584	41.7	ADR	35.7	1.16	-43.26	35.3	54	-18.70	-	-	-	-	0	101	H
2	10.442451	53.31	PK-U	37.5	0	-42.02	48.79	-	-	-	-	68.2	-19.41	0	101	H
3	15.040528	53.62	PK-U	39.8	0	-41.67	51.75	-	-	-	-	68.2	-16.45	0	101	H
4	* 7.373087	53.44	PK-U	35.7	0	-43.35	45.79	-	-	74	-28.21	-	-	0	101	V
	* 7.372689	41.39	ADR	35.7	1.16	-43.36	34.89	54	-19.11	-	-	-	-	0	101	V
5	10.415105	53.21	PK-U	37.5	0	-41.93	48.78	-	-	-	-	68.2	-19.42	0	101	V
6	15.025899	53.2	PK-U	39.8	0	-41.41	51.59	-	-	-	-	68.2	-16.61	0	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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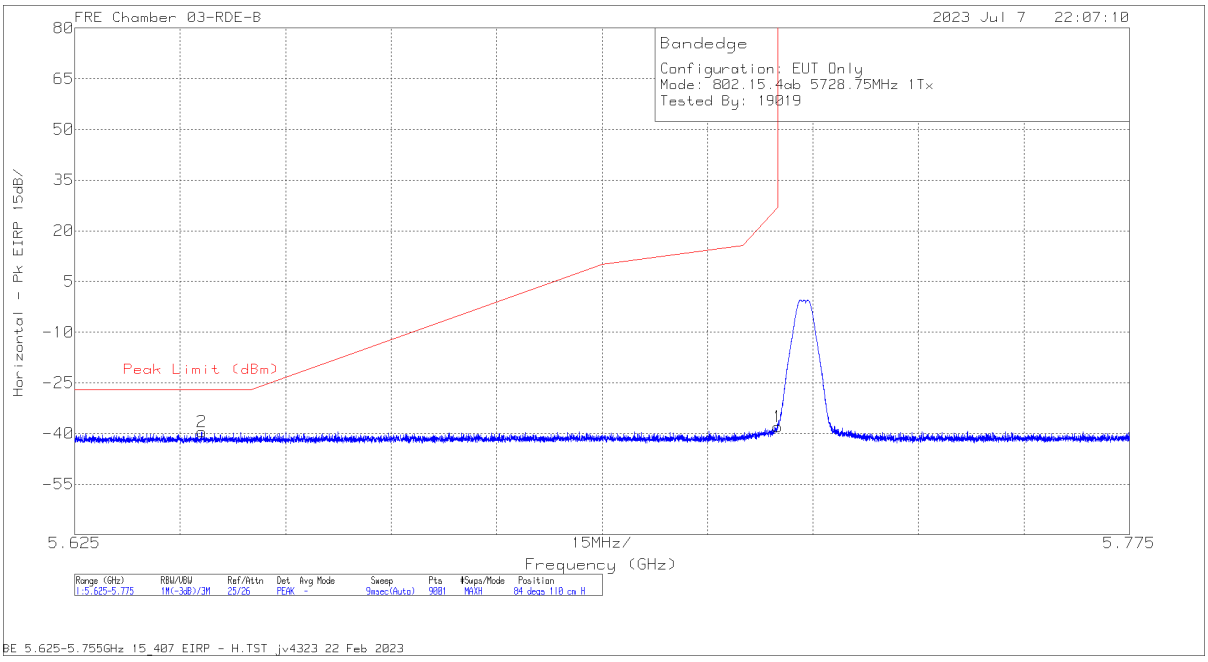
10.1.2. LOW POWER 802.15.4ab IN THE UNII-5 BAND ANT 6

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	5.64305	-46.81	Pk	34.4	11.8	0	-38.91	-39.52	-27	-12.52	84	110	H
1	5.725	-45.51	Pk	34.5	11.8	0	-38.8	-38.01	27	-65.01	84	110	H

Pk - Peak detector

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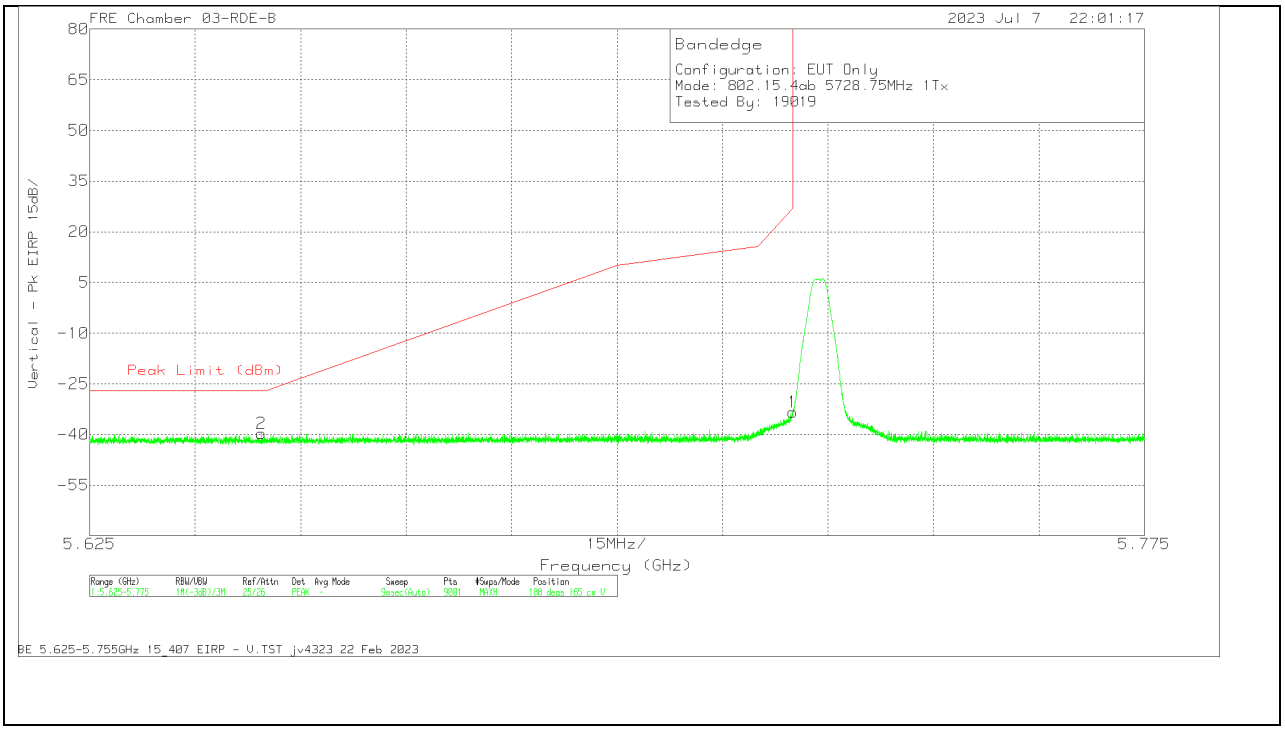
VERTICAL RESULT



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
2	5.649417	-46.92	Pk	34.4	11.8	0	-38.9	-39.62	-27	-12.62	188	165	V
1	5.725	-40.88	Pk	34.5	11.8	0	-38.8	-33.38	27	-60.38	188	165	V

Pk - Peak detector

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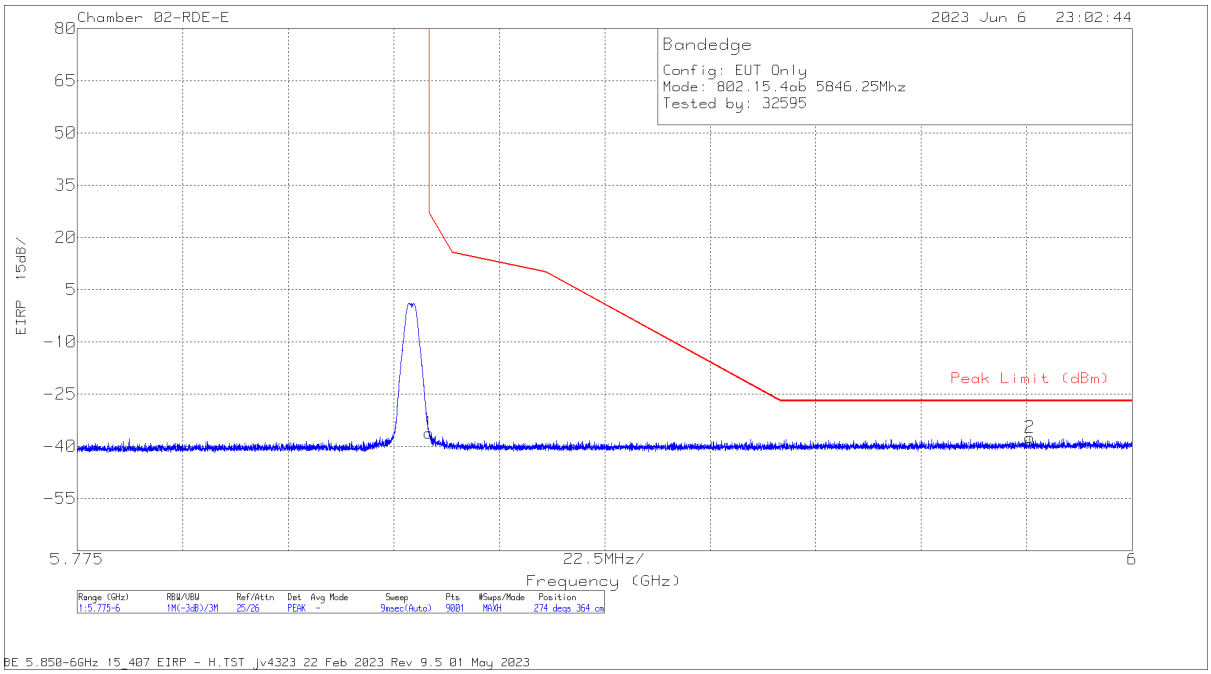
BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206807 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	-46.55	Pk	34.9	11.8	0	-36.3	-36.15	27	-63.15	274	364	H
2	5.978175	-48.57	Pk	35.2	11.8	0	-35.87	-37.44	-27	-10.44	274	364	H

Pk - Peak detector

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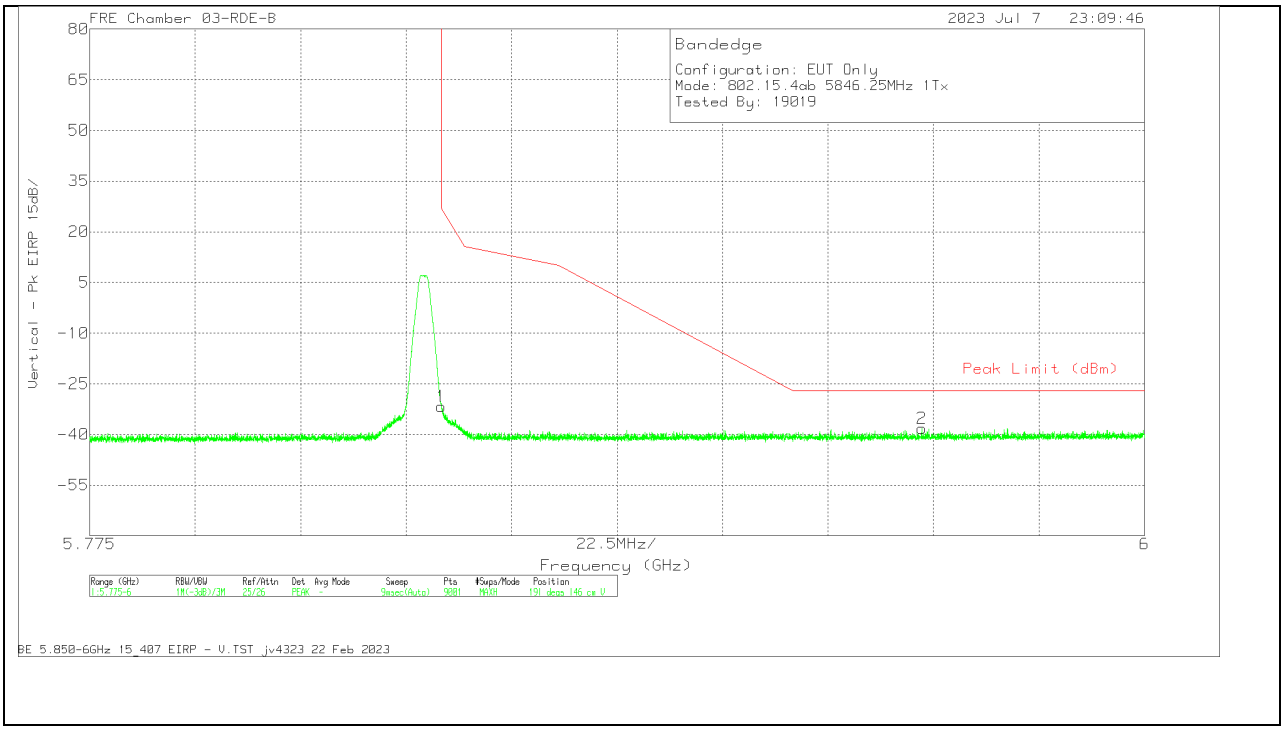
VERTICAL RESULT



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	-39.77	Pk	34.7	11.8	0	-38.5	-31.77	27	-58.77	191	146	V
2	5.952475	-46.63	Pk	34.9	11.8	0	-38.2	-38.13	-27	-11.13	191	146	V

Pk - Peak detector

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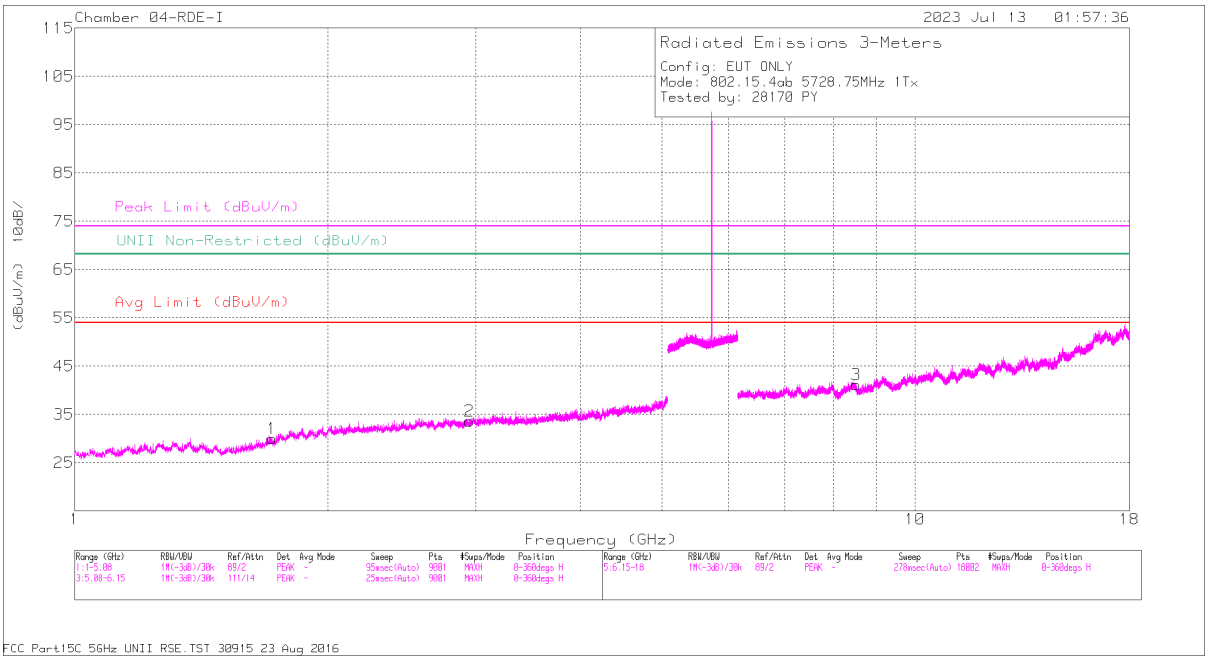
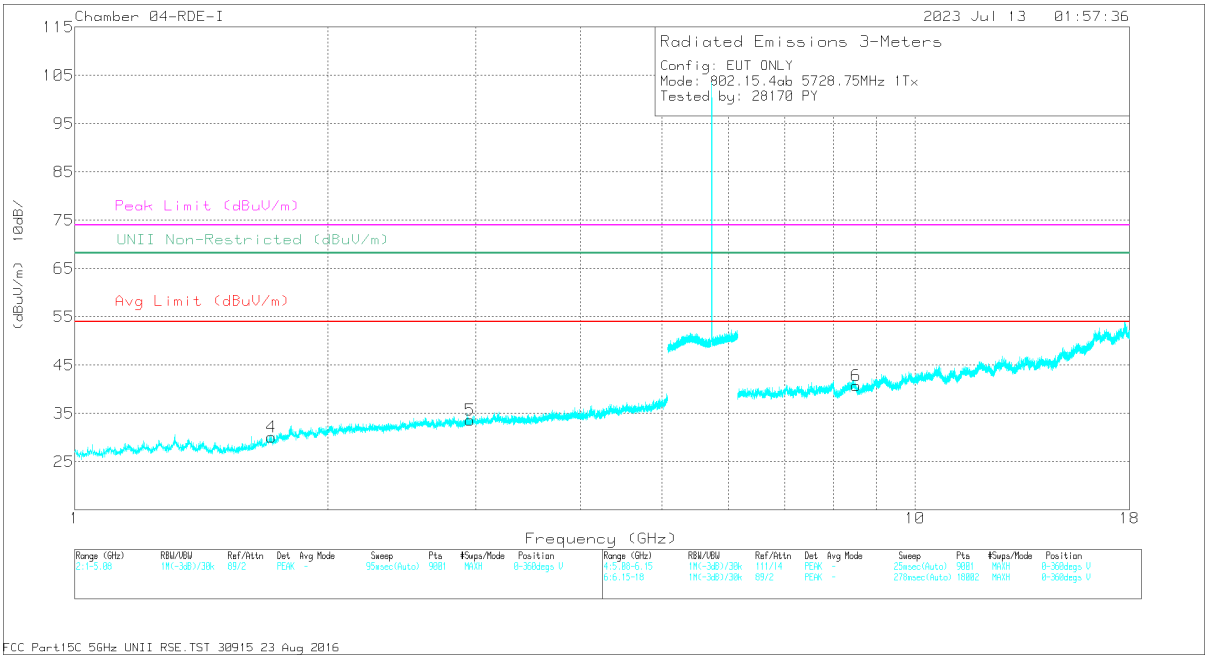
HIGH POWER HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB) - 3mH	Cbl/Amp (dB)	DCCF (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	* 1.719972	41.59	PK-U	29.5	-31.7	0	39.39	-	-	74	-34.61	-	-	0	200	H
	* 1.719296	30.16	ADR	29.5	-31.6	1.16	29.22	54	-24.78	-	-	-	-	0	200	H
2	2.950669	40.73	PK-U	32.5	-29.4	0	43.83	-	-	-	-	68.2	-24.37	0	101	H
3	8.504741	33.6	PK-U	35.8	-18.4	0	51	-	-	-	-	68.2	-17.2	0	101	H
4	1.716059	42	PK-U	29.5	-31.4	0	40.1	-	-	-	-	68.2	-28.1	0	200	V
5	2.956017	40.66	PK-U	32.6	-29.4	0	43.86	-	-	-	-	68.2	-24.34	0	101	V
6	8.511376	34.18	PK-U	35.8	-18.5	0	51.48	-	-	-	-	68.2	-16.72	0	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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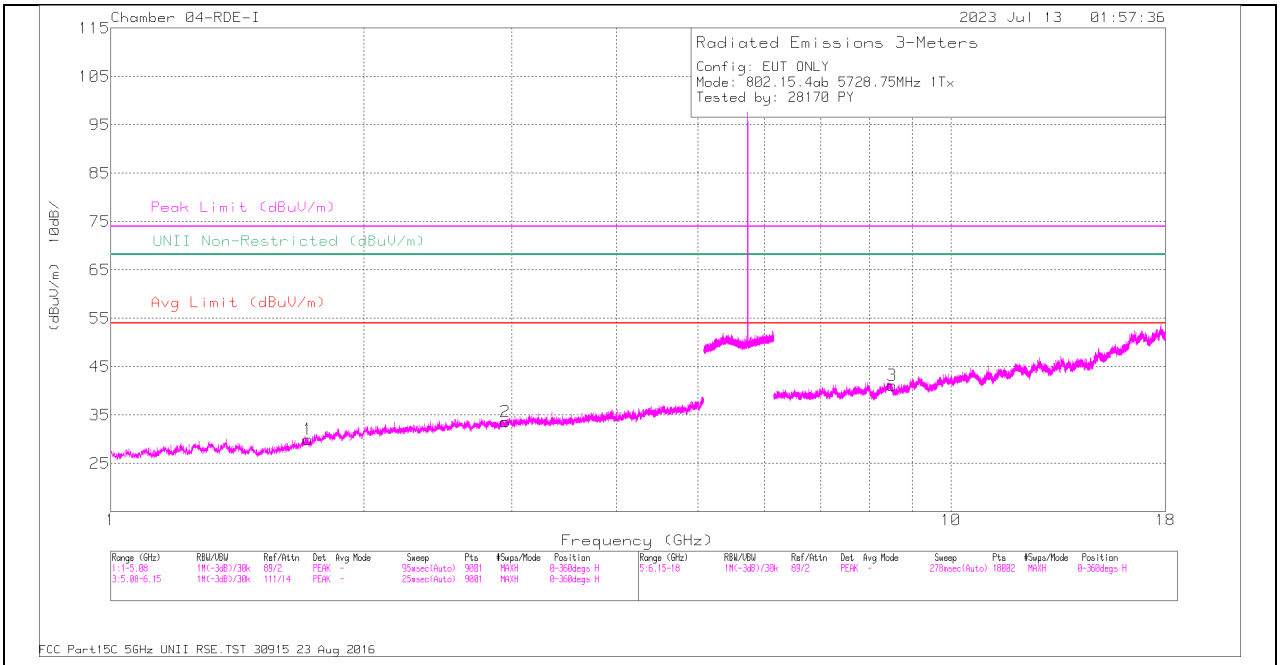
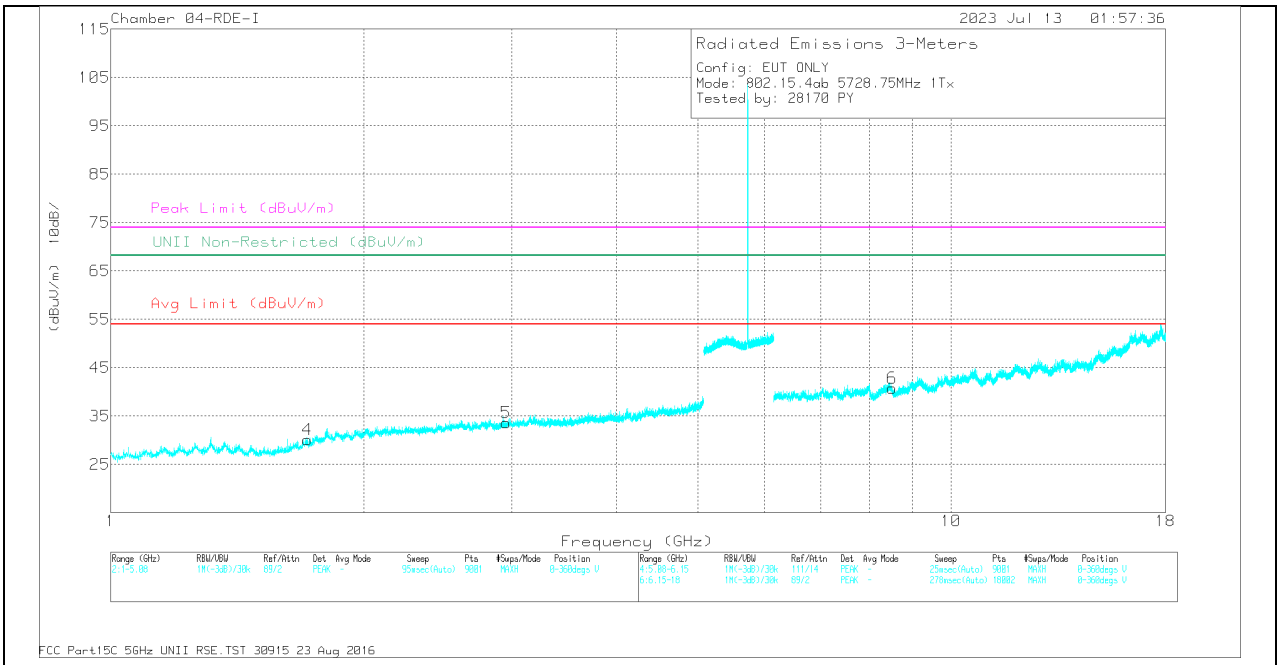
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB) - 3mH	Cbl/Amp (dB)	DCCF (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	* 1.719972	41.59	PK-U	29.5	-31.7	0	39.39	-	-	74	-34.61	-	-	0	200	H
	* 1.719296	30.16	ADR	29.5	-31.6	1.16	29.22	54	-24.78	-	-	-	-	0	200	H
2	2.950669	40.73	PK-U	32.5	-29.4	0	43.83	-	-	-	-	68.2	-24.37	0	101	H
4	1.716059	42	PK-U	29.5	-31.4	0	40.1	-	-	-	-	68.2	-28.1	0	200	V
5	2.956017	40.66	PK-U	32.6	-29.4	0	43.86	-	-	-	-	68.2	-24.34	0	101	V
3	8.504741	33.6	PK-U	35.8	-18.4	0	51	-	-	-	-	68.2	-17.2	0	101	H
6	8.511376	34.18	PK-U	35.8	-18.5	0	51.48	-	-	-	-	68.2	-16.72	0	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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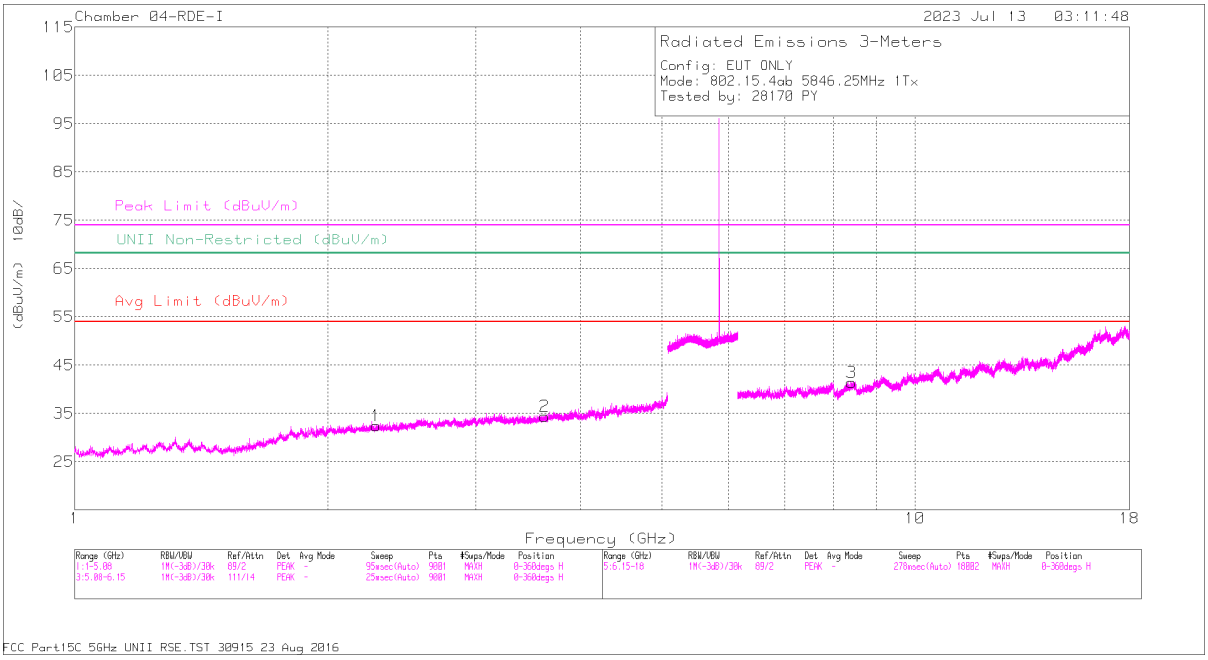
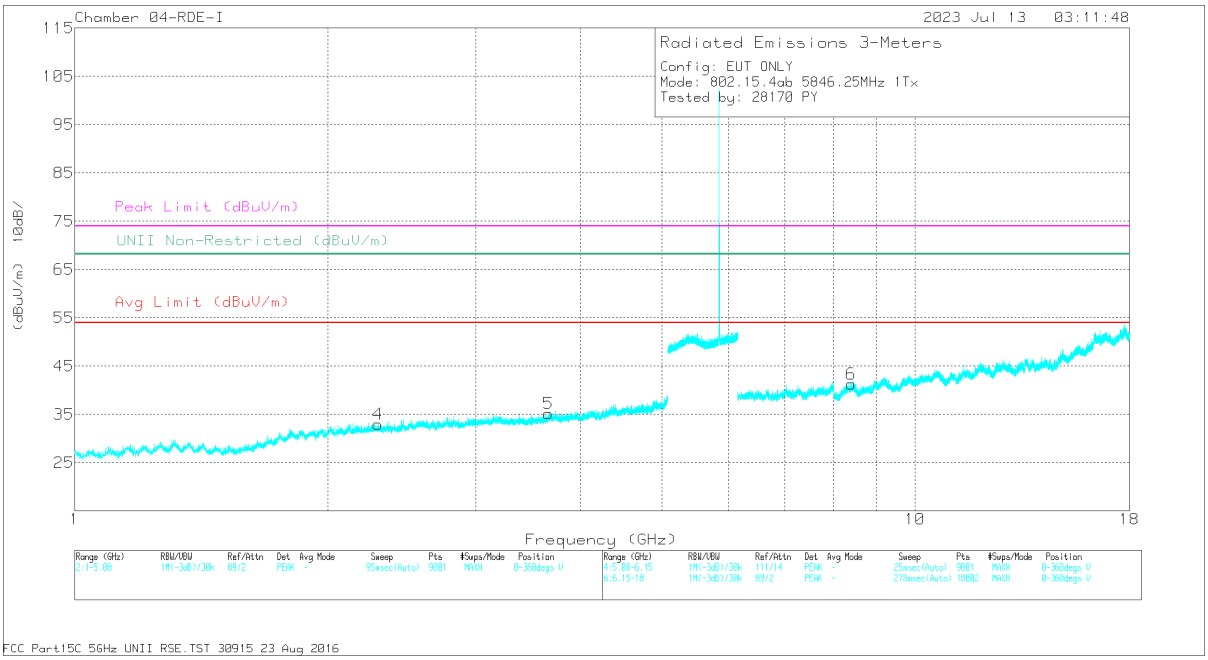
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB) - 3mH	Cbl/Amp (dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.285246	41.14	PK-U	31.7	-30.3	0	42.54	-	-	74	-31.46	0	101	H
	* 2.283821	29.46	ADR	31.7	-30.3	1.16	32.02	54	-21.98	-	-	0	101	H
2	* 3.627977	40.45	PK-U	33.1	-28.8	0	44.75	-	-	74	-29.25	0	200	H
	* 3.62567	28.68	ADR	33.1	-28.9	1.16	34.04	54	-19.96	-	-	0	200	H
3	* 8.402751	34.17	PK-U	35.9	-19.1	0	50.97	-	-	74	-23.03	0	200	H
	* 8.403336	22.43	ADR	35.9	-19.1	1.16	40.39	54	-13.61	-	-	0	200	H
4	* 2.294048	41.62	PK-U	31.7	-30.4	0	42.92	-	-	74	-31.08	0	200	V
	* 2.295831	29.57	ADR	31.7	-30.3	1.16	32.13	54	-21.87	-	-	0	200	V
5	* 3.664283	39.8	PK-U	33.2	-28.4	0	44.6			74	-29.4	0	101	V
	* 3.666077	28.27	ADR	33.2	-28.4	1.16	34.23	54	-19.77	-	-	0	101	V
6	* 8.390258	34.07	PK-U	35.9	-19.1	0	50.87			74	-23.13	0	200	V
	* 8.391108	22.55	ADR	35.9	-19.2	1.16	40.41	54	-13.59	-	-	0	200	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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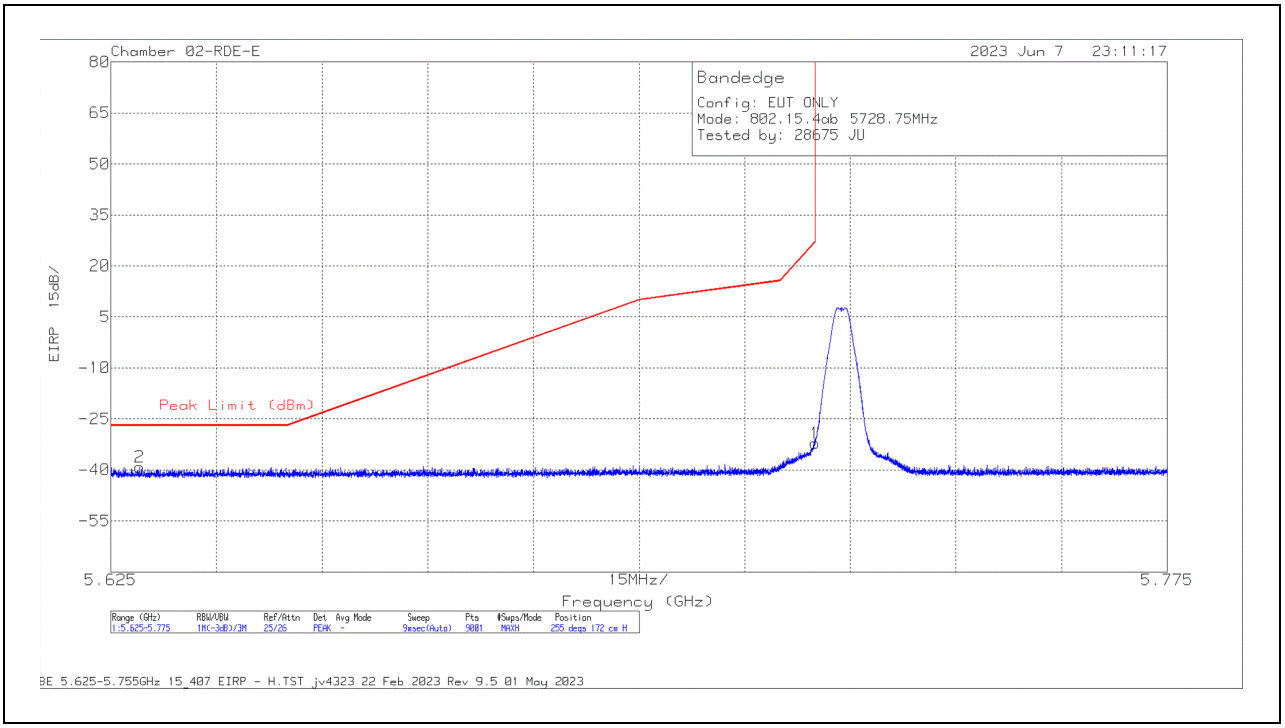
ANT 5

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206807 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	5.725	-41.82	Pk	34.6	11.8	0	-36.76	-32.18	27	-59.18	255	172	H
2	5.6291	-48.33	Pk	34.5	11.8	0	-37.09	-39.12	-27	-12.12	255	172	H

Pk - Peak detector

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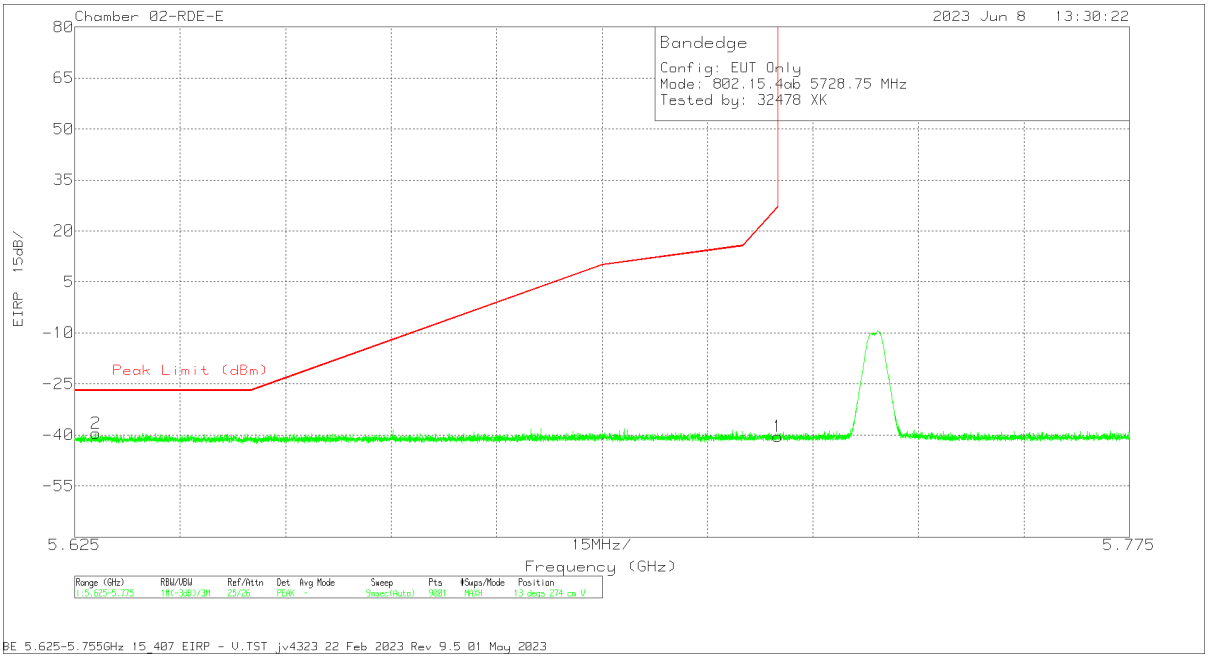
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206807 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	5.628017	-48.75	Pk	34.5	11.8	0	-37.08	-39.53	-27	-12.53	13	274	V
1	5.725	-50.02	Pk	34.6	11.8	0	-36.76	-40.38	27	-67.38	13	274	V

Pk - Peak detector

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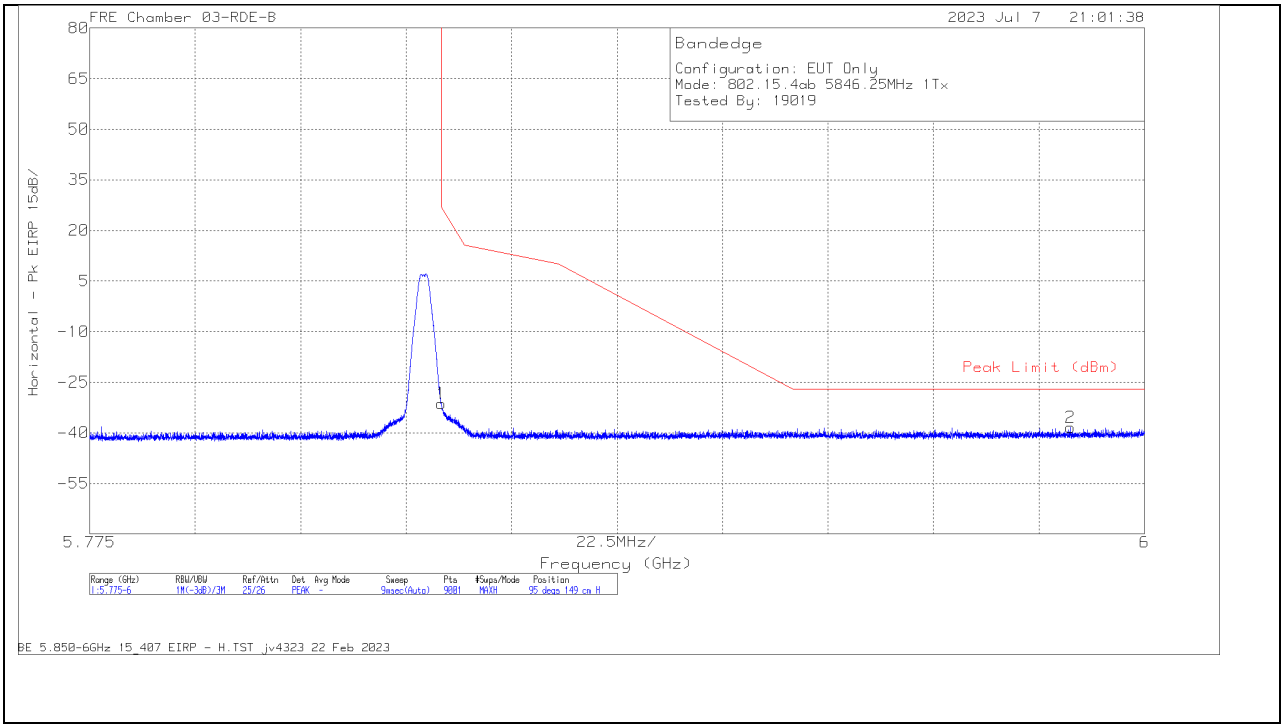
BANDEDGE (HIGH CHANNEL)

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	-39.31	Pk	34.7	11.8	0	-38.5	-31.31	27	-58.31	95	149	H
2	5.98425	-47.09	Pk	35	11.8	0	-38.1	-38.39	-27	-11.39	95	149	H

Pk - Peak detector

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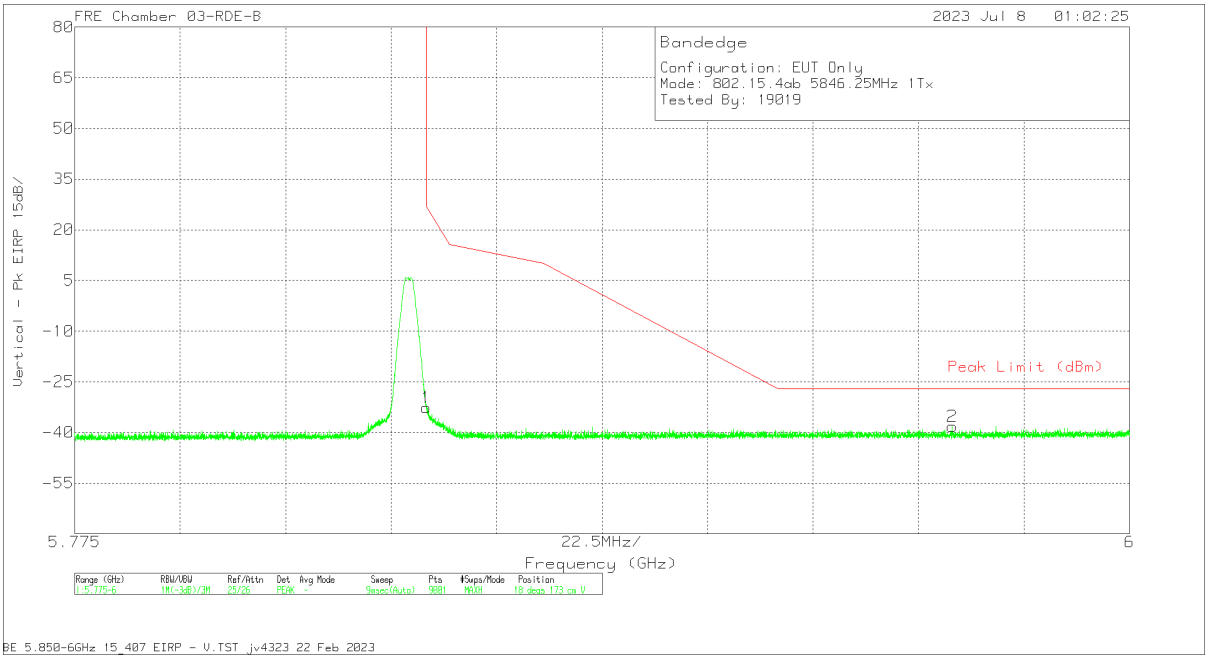
VERTICAL RESULT



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	-40.59	Pk	34.7	11.8	0	-38.5	-32.59	27	-59.59	18	173	V
2	5.962225	-46.74	Pk	35	11.8	0	-38.2	-38.14	-27	-11.14	18	173	V

Pk - Peak detector

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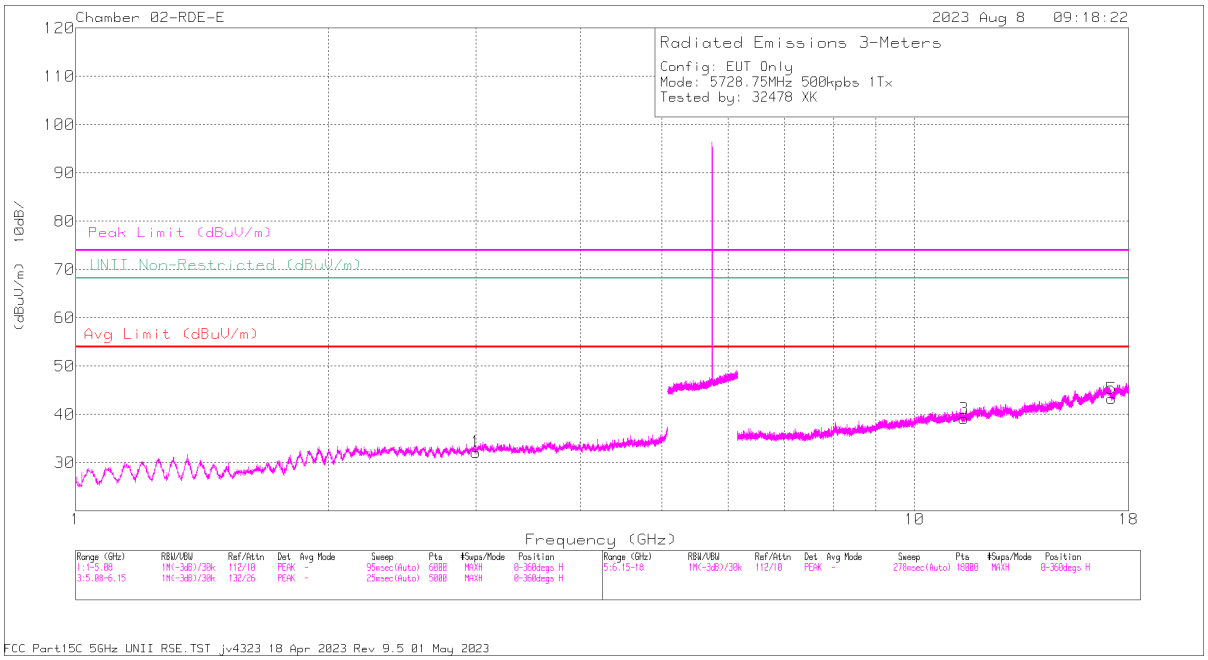
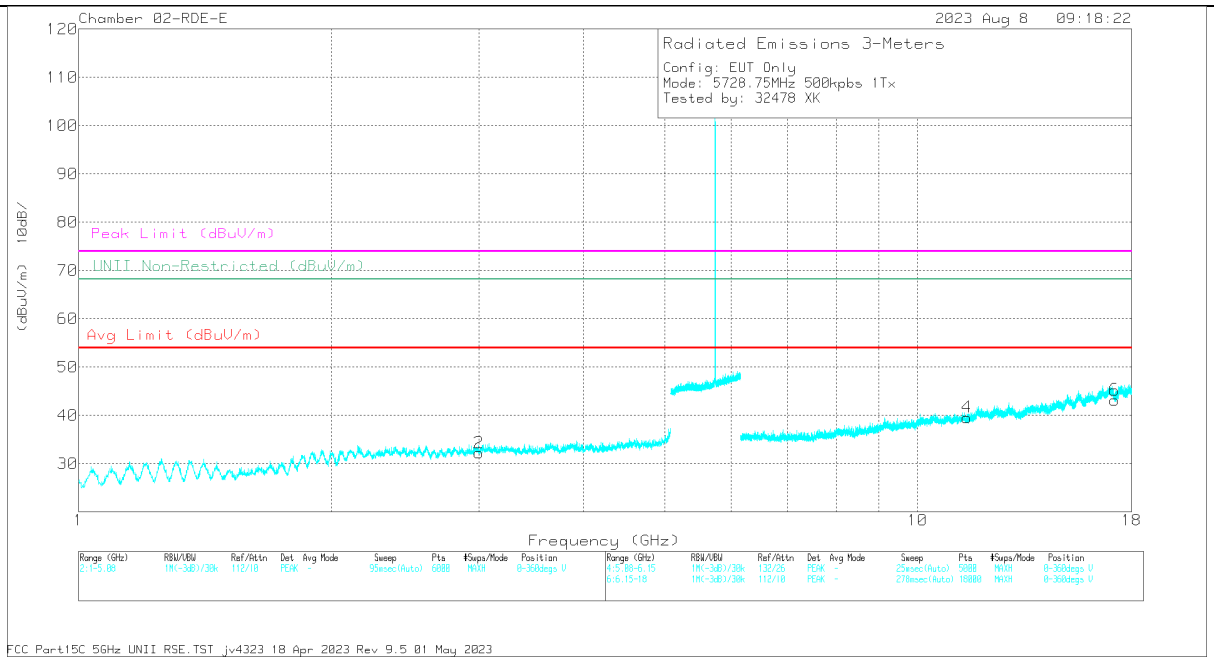
HIGH POWER HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206807 ACF (dB/m)	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	* 11.462771	54.45	PK-U	38.2	-42.39	50.26	-	-	74	-23.74	-	-	153	272	H
	* 11.461711	42.56	ADR	38.2	-42.39	38.37	54	-15.63	-	-	-	-	153	272	H
4	* 11.459145	54.16	PK-U	38.2	-42.41	49.95	-	-	74	-24.05	-	-	89	374	V
	* 11.462829	42.37	ADR	38.2	-42.39	38.18	54	-15.82	-	-	-	-	89	374	V
2	3.000959	58.28	PK-U	32.8	-47.92	43.16	-	-	-	-	68.2	-25.04	227	311	V
1	3.002423	58.24	PK-U	32.8	-47.94	43.1	-	-	-	-	68.2	-25.1	250	111	H
6	17.185208	54.39	PK-U	41.5	-41.81	54.08	-	-	-	-	68.2	-14.12	110	101	V
5	17.186795	54.47	PK-U	41.5	-41.8	54.17	-	-	-	-	68.2	-14.03	297	298	H

* - 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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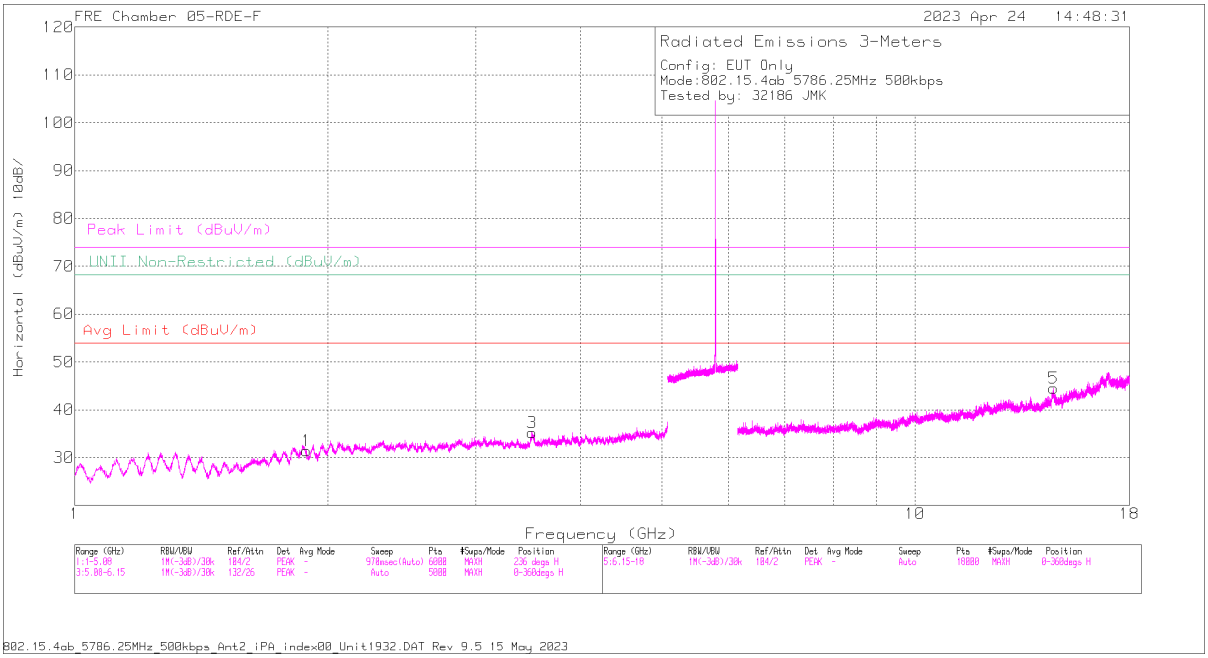
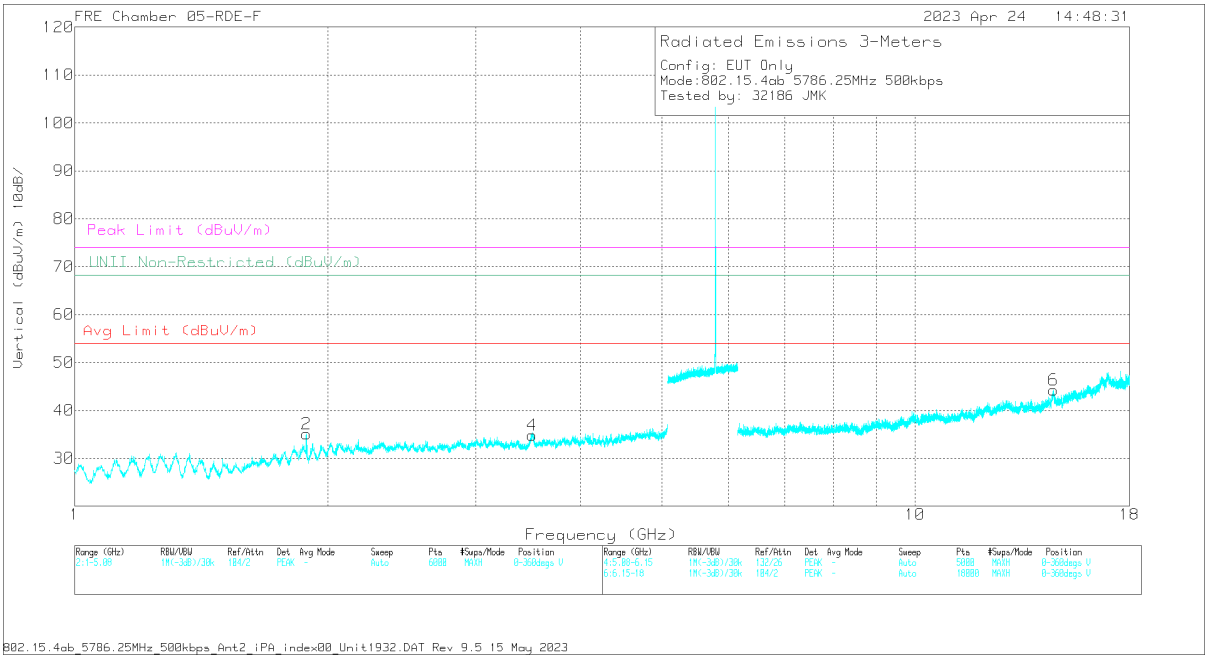
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	80404_A CF(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	1.885062	56.77	PK-U	31	0	-29.47	58.3	-	-	-	-	68.2	-9.9	48	142	H
2	1.884797	57.25	PK-U	31	0	-29.63	58.62	-	-	-	-	68.2	-9.58	248	122	V
3	* 3.501155	55.52	PK-U	35	0	-31.19	59.33	-	-	74	-14.67	-	-	354	298	H
	* 3.503184	43.55	ADR	34.9	1.16	-30.99	48.62	54	-5.38	-	-	-	-	354	298	H
4	* 3.504053	55.77	PK-U	34.8	0	-30.43	60.14	-	-	74	-13.86	-	-	16	115	V
	* 3.500443	43.66	ADR	35	1.16	-31.9	47.92	54	-6.08	-	-	-	-	16	115	V
5	14.613423	52.58	PK-U	39.7	0	-34.74	57.54	-	-	-	-	68.2	-10.66	16	100	H
6	14.610246	53.02	PK-U	39.7	0	-34.73	57.99	-	-	-	-	68.2	-10.21	242	295	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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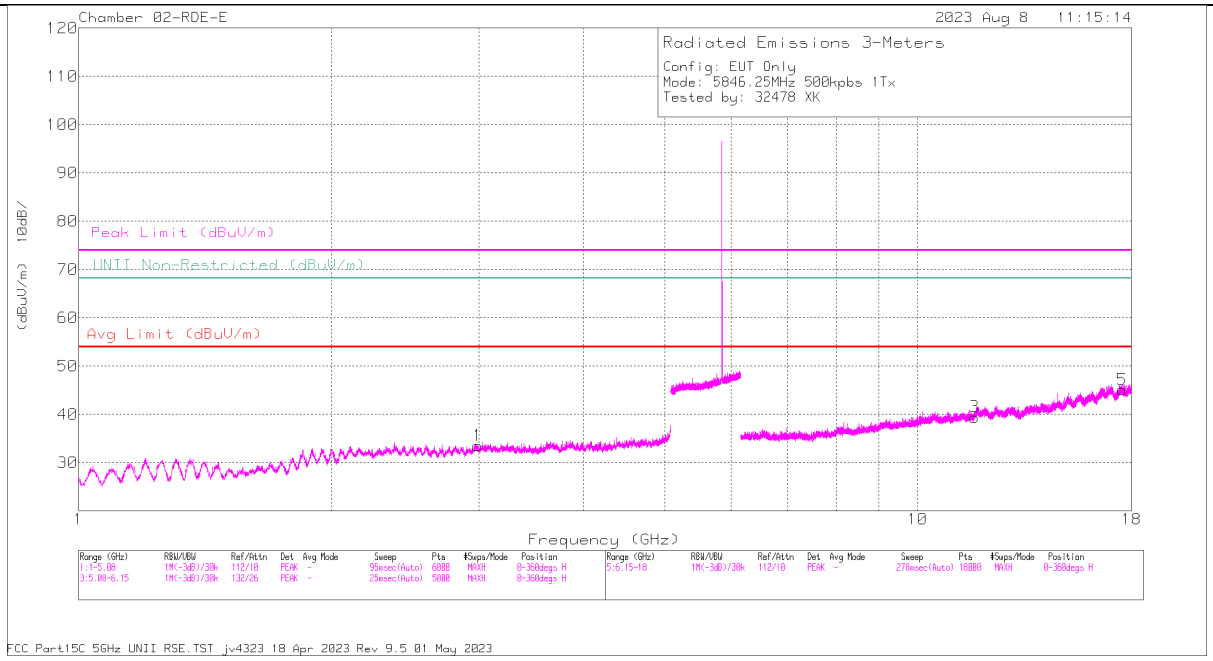
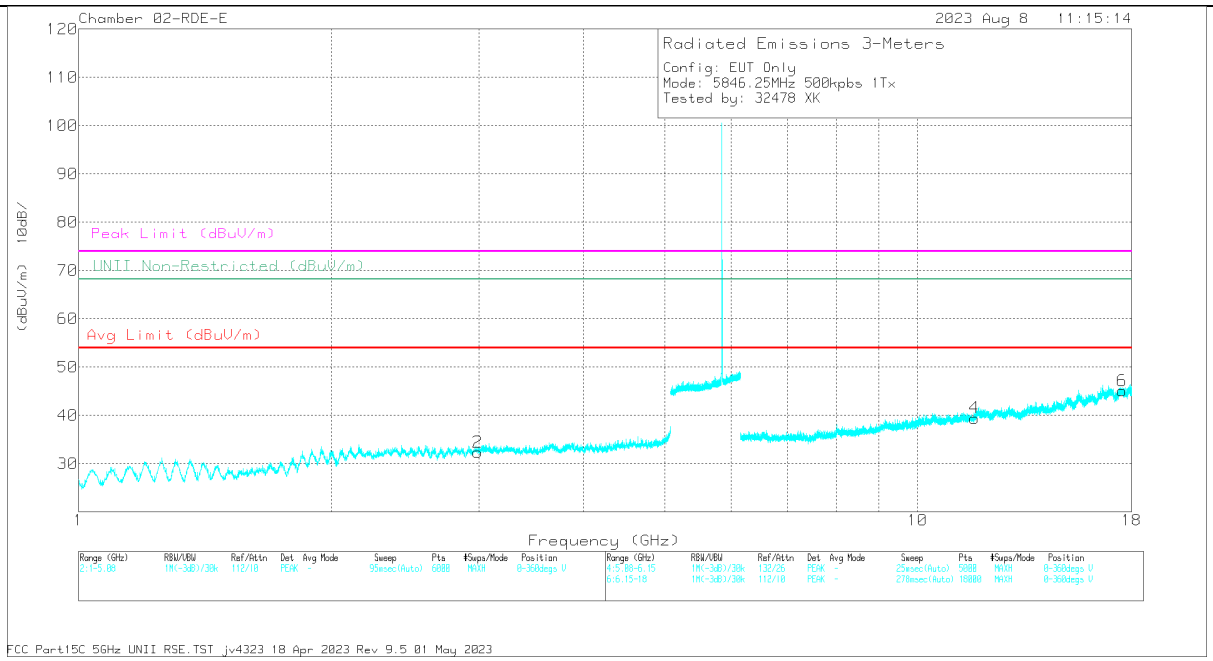
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206807 ACF (dB/m)	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	* 11.695871	54.59	PK-U	38.5	-42.94	50.15	-	-	74	-23.85	-	-	109	113	H
	* 11.694036	42.81	ADR	38.5	-42.92	38.39	54	-15.61	-	-	-	-	109	113	H
4	* 11.691427	54.46	PK-U	38.5	-42.9	50.06	-	-	74	-23.94	-	-	221	192	V
	* 11.691678	42.95	ADR	38.5	-42.91	38.54	54	-15.46	-	-	-	-	221	192	V
1	2.987966	59.29	PK-U	32.8	-47.92	44.17	-	-	-	-	68.2	-24.03	296	284	H
2	2.989089	58.68	PK-U	32.8	-47.93	43.55	-	-	-	-	68.2	-24.65	197	353	V
5	17.536299	54.2	PK-U	41.4	-40.64	54.96	-	-	-	-	68.2	-13.24	265	269	H
6	17.541892	53.82	PK-U	41.4	-40.81	54.41	-	-	-	-	68.2	-13.79	14	366	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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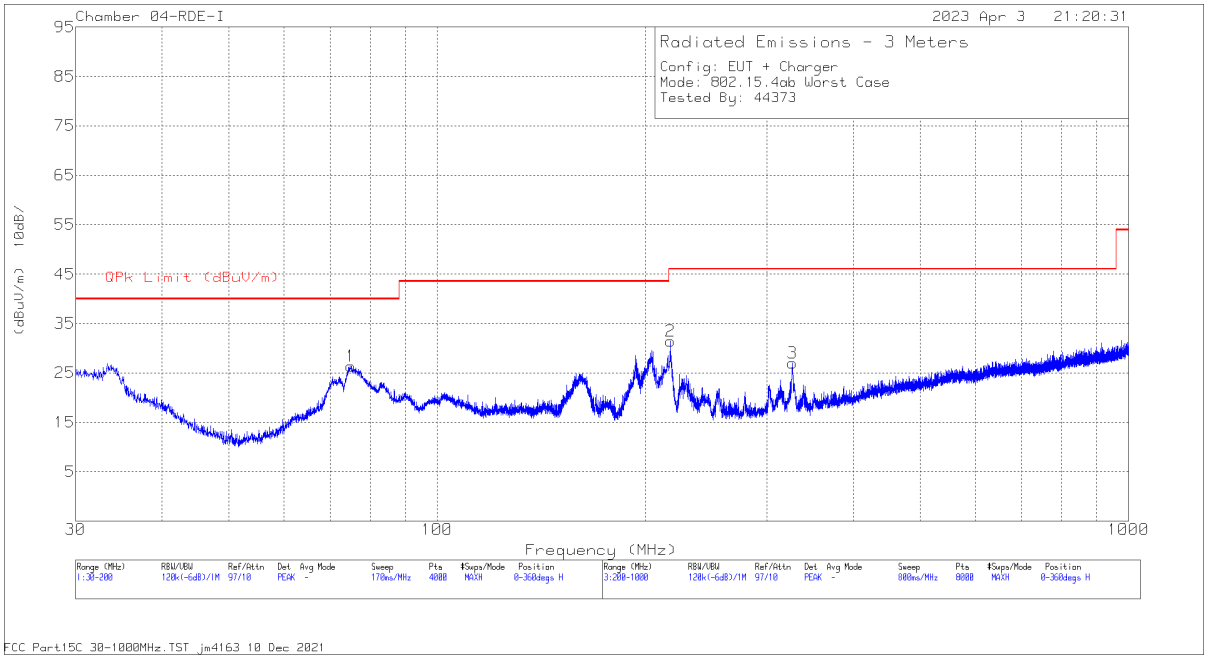
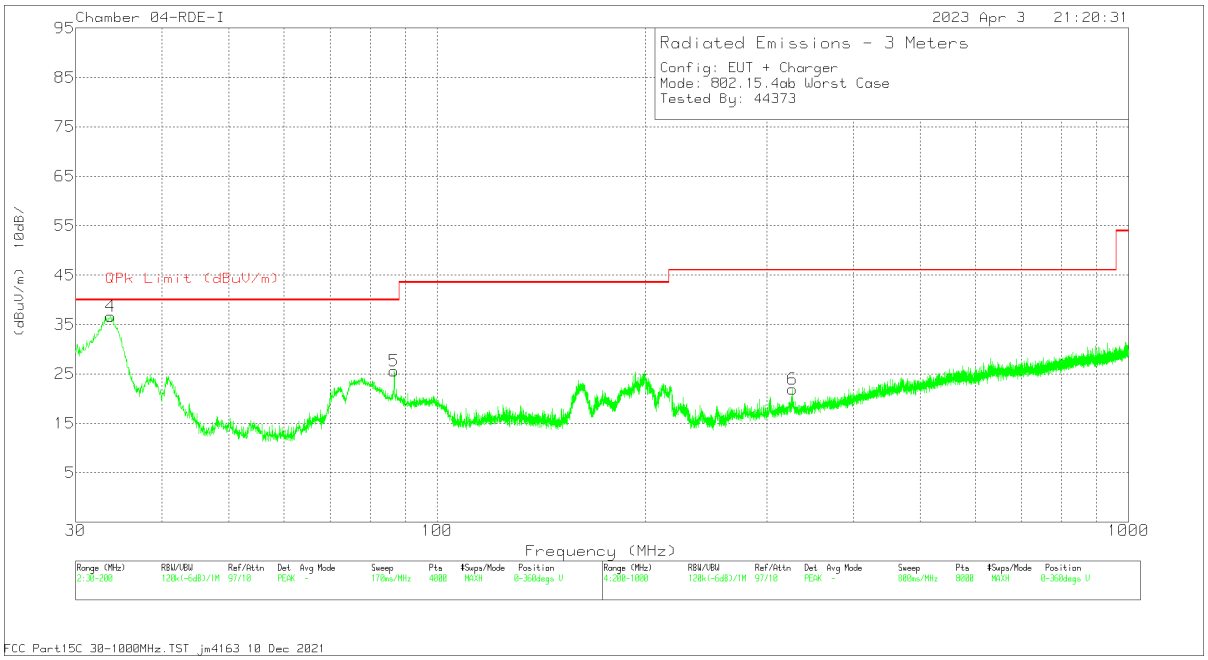
10.2. WORST CASE BELOW 1 GHz



HORIZONTAL



VERTICAL

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Below 1GHz DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80714 ACF (dB) - 10mH	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 74.9766	42.72	Pk	14.5	-30.9	26.32	40	-13.68	0-360	199	H
2	217.502	45.16	Pk	16.3	-30	31.46	46.02	-14.56	0-360	101	H
3	* 326.516	36.84	Pk	19.7	-29.5	27.04	46.02	-18.98	0-360	101	H
4	33.6985	42.6	Pk	25.1	-31.1	36.6	40	-3.4	0-360	101	V
	33.6012	38.16	Qp	25.2	-31.1	32.26	40	-7.74	334	147	V
5	86.6672	42.26	Pk	14	-30.7	25.56	40	-14.44	0-360	101	V
6	* 326.516	31.68	Pk	19.7	-29.5	21.88	46.02	-24.14	0-360	101	V

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

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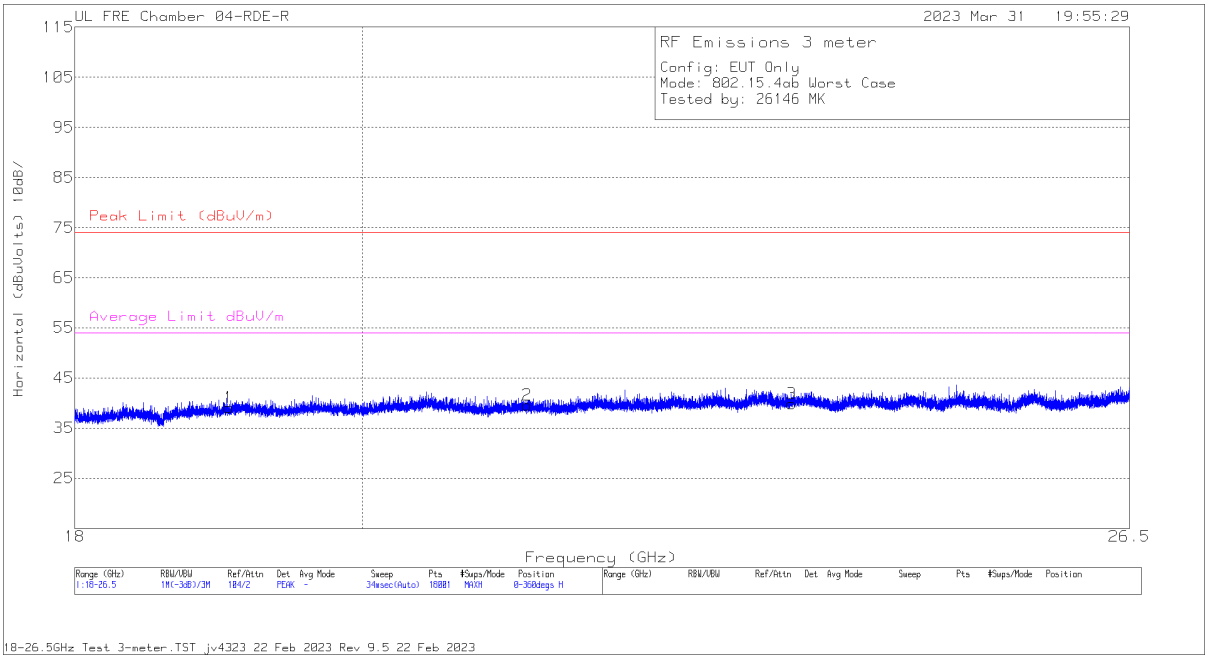
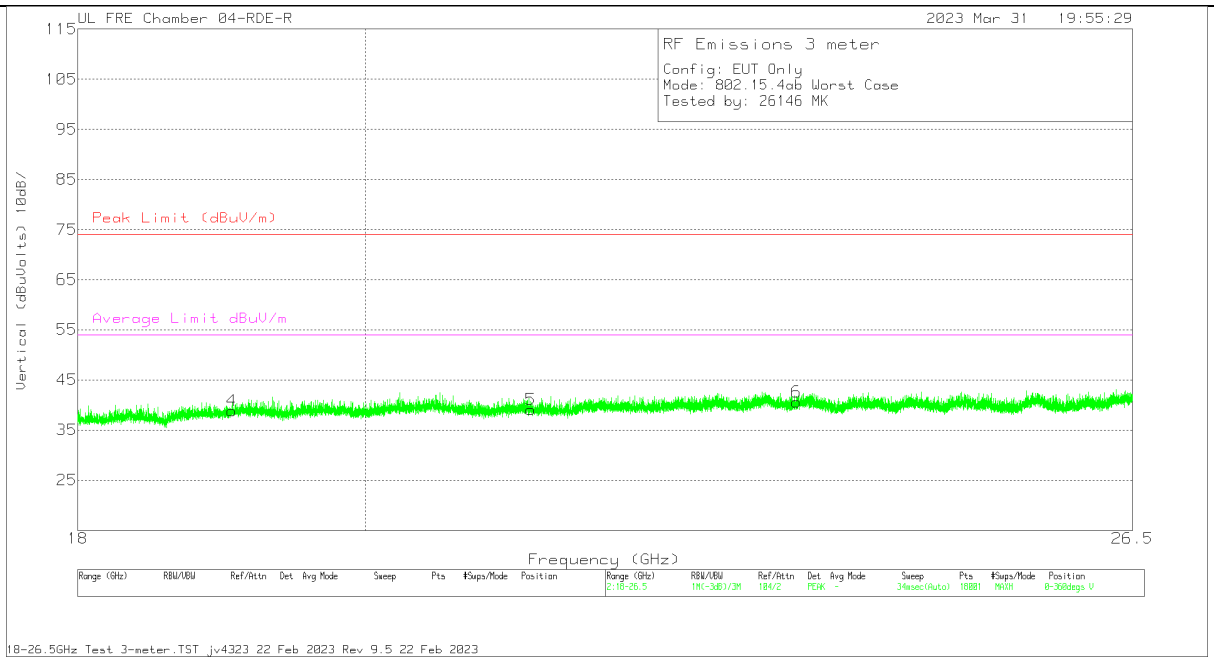
10.3. WORST CASE 18-26 GHz



HORIZONTAL



VERTICAL

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18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	172353 ACF (dB) - 3mH	171583 Amp Assembly (dB)	Cables (dB)	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	PK Margin (dB)	Average Limit dBuV/m	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 19.046444	56.3	Pk	33	-65.7	15.5	39.1	74	-34.9	54	-14.9	0-360	100	H
2	* 21.248415	54.27	Pk	33.3	-64.4	16.4	39.57	74	-34.43	54	-14.43	0-360	100	H
4	* 19.046444	56.07	Pk	33	-65.7	15.5	38.87	74	-35.13	54	-15.13	0-360	99	V
5	* 21.253137	53.79	Pk	33.3	-64.4	16.4	39.09	74	-34.91	54	-14.91	0-360	99	V
3	23.412136	54.14	Pk	34.2	-65.7	17.2	39.84	74	-34.16	54	-14.16	0-360	100	H
6	23.428664	54.88	Pk	34.2	-65.7	17.2	40.58	74	-33.42	54	-13.42	0-360	99	V

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

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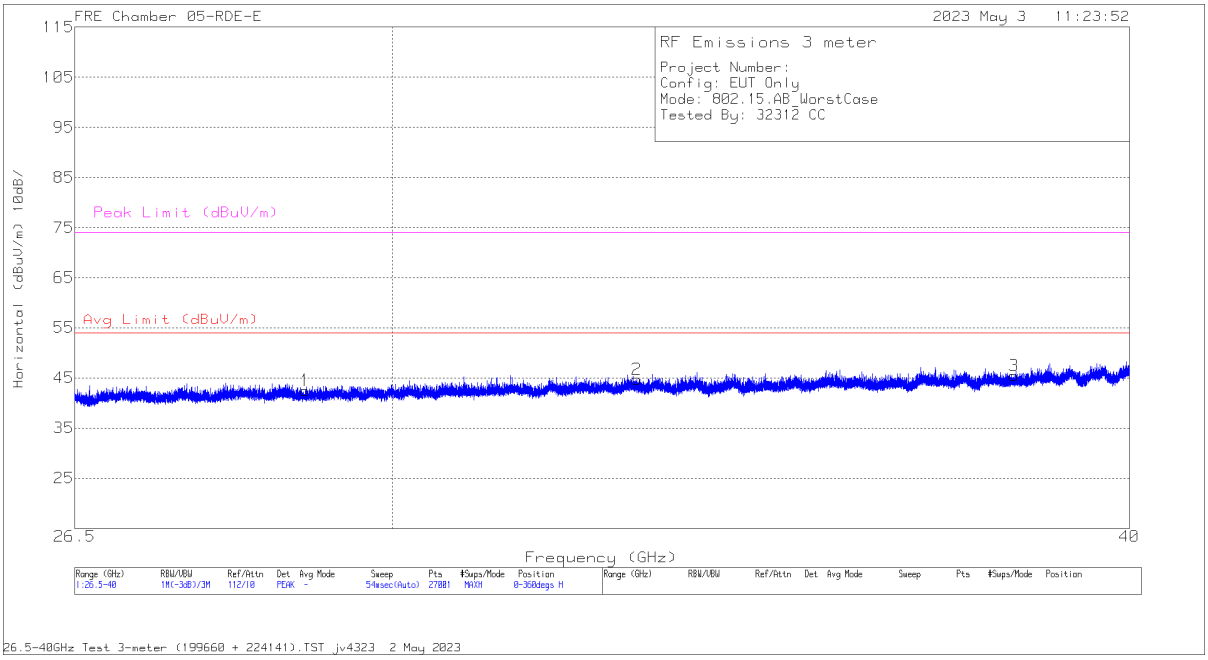
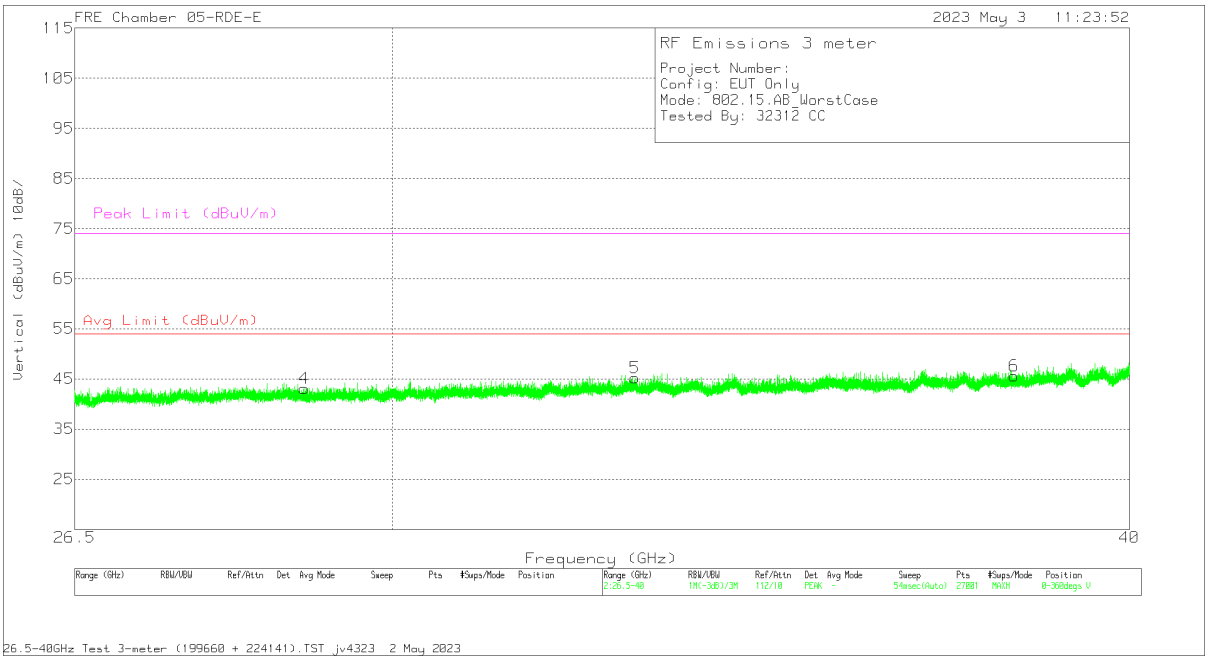
10.4. WORST CASE 26-40 GHz



HORIZONTAL



VERTICAL

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26 – 40GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Horn ACF (dB/m)	amp/cbl (dB)	CBL/SWITCH	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	28.9935	55.03	Pk	36.1	-65.2	16.6	42.53	74	-31.47	54	-11.47	0-360	200	H
2	32.9985	54.81	Pk	37.1	-64.9	17.7	44.71	74	-29.29	54	-9.29	0-360	200	H
3	38.241	54.01	Pk	38	-66	19.5	45.51	74	-28.49	54	-8.49	0-360	200	H
4	28.985	55.59	Pk	36.1	-65.2	16.6	43.09	74	-30.91	54	-10.91	0-360	200	V
5	32.9755	55.23	Pk	37.1	-64.8	17.7	45.23	74	-28.77	54	-8.77	0-360	101	V
6	38.237	54.07	Pk	38	-66	19.5	45.57	74	-28.43	54	-8.43	0-360	101	V

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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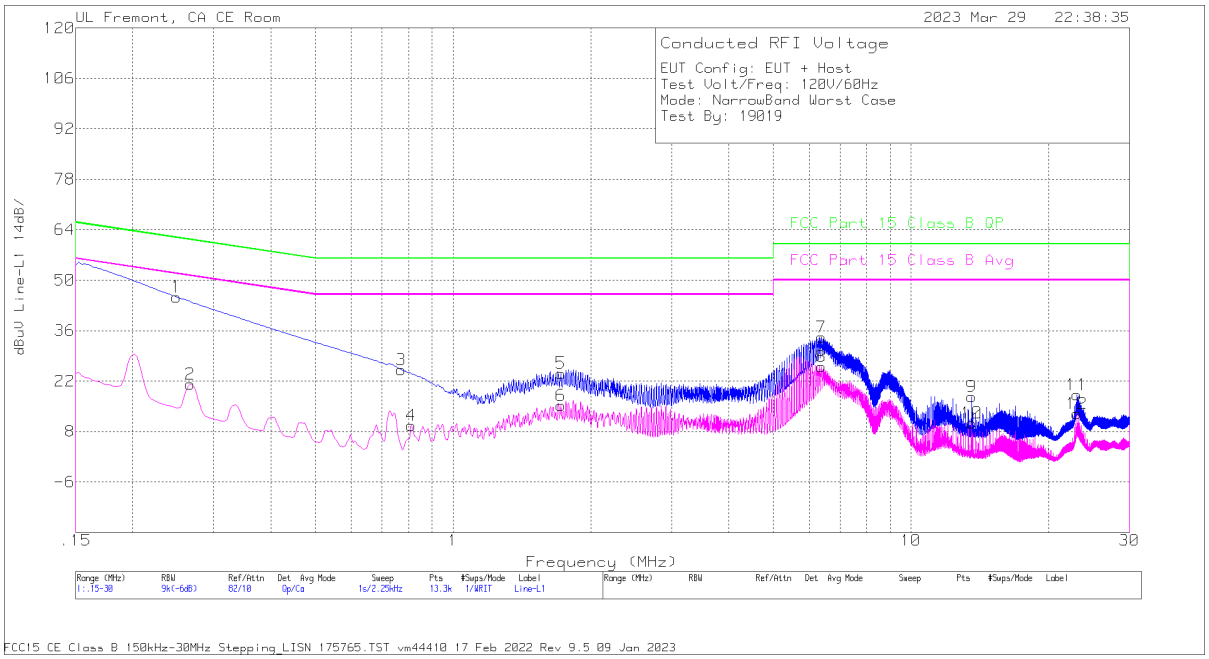
11.1.1. AC POWER LINE WITH LAPTOP

LINE 1 RESULTS



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	.267	11.8	Ca	0	0	9.3	21.1	-	-	51.21	-30.11
4	.8115	.25	Ca	0	.1	9.3	9.65	-	-	46	-36.35
6	1.7205	5.84	Ca	0	.1	9.3	15.24	-	-	46	-30.76
8	6.3758	16.56	Ca	0	.1	9.3	25.96	-	-	50	-24.04
10	13.56	.83	Ca	.1	.2	9.3	10.43	-	-	50	-39.57
12	23.0123	3.15	Ca	.2	.3	9.4	13.05	-	-	50	-36.95
1	.249	36.09	Qp	0	0	9.3	45.39	61.79	-16.4	-	-
3	.771	15.74	Qp	0	.1	9.3	25.14	56	-30.86	-	-
5	1.7205	14.78	Qp	0	.1	9.3	24.18	56	-31.82	-	-
7	6.3758	24.78	Qp	0	.1	9.3	34.18	60	-25.82	-	-
9	13.56	8.12	Qp	.1	.2	9.3	17.72	60	-42.28	-	-
11	23.0123	8.33	Qp	.2	.3	9.4	18.23	60	-41.77	-	-

Qp - Quasi-Peak detector
Ca - CISPR average detection

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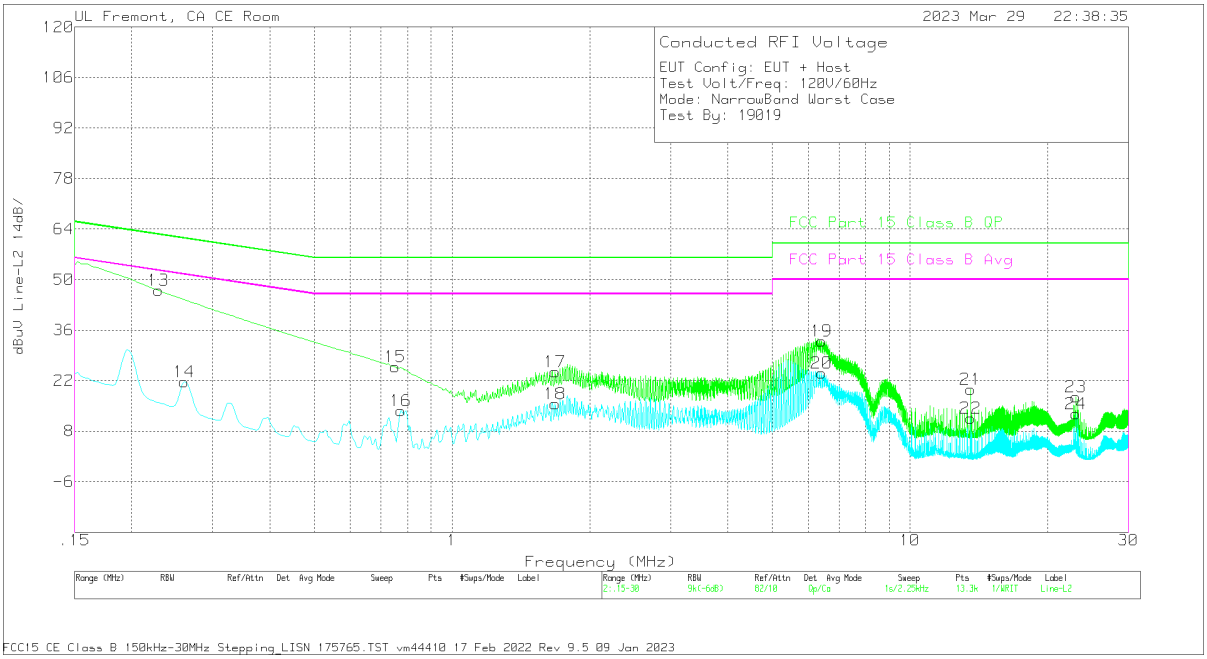
LINE 2 RESULTS



Range 2: Line-L2 .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)
14	.2603	12.29	Ca	0	0	9.3	21.59	-	-	51.42	-29.83
16	.7733	4.34	Ca	0	.1	9.3	13.74	-	-	46	-32.26
18	1.68	6.15	Ca	0	.1	9.3	15.55	-	-	46	-30.45
20	6.4208	14.66	Ca	0	.1	9.3	24.06	-	-	50	-25.94
22	13.56	1.97	Ca	.1	.2	9.3	11.57	-	-	50	-38.43
24	23.0123	2.98	Ca	.2	.3	9.4	12.88	-	-	50	-37.12
13	.2288	37.69	Qp	0	0	9.3	46.99	62.49	-15.5	-	-
15	.7508	16.4	Qp	0	.1	9.3	25.8	56	-30.2	-	-
17	1.68	15.05	Qp	0	.1	9.3	24.45	56	-31.55	-	-
19	6.4208	23.6	Qp	0	.1	9.3	33	60	-27	-	-
21	13.56	10.02	Qp	.1	.2	9.3	19.62	60	-40.38	-	-
23	23.0123	7.65	Qp	.2	.3	9.4	17.55	60	-42.45	-	-

Qp - Quasi-Peak detector
Ca - CISPR average detection

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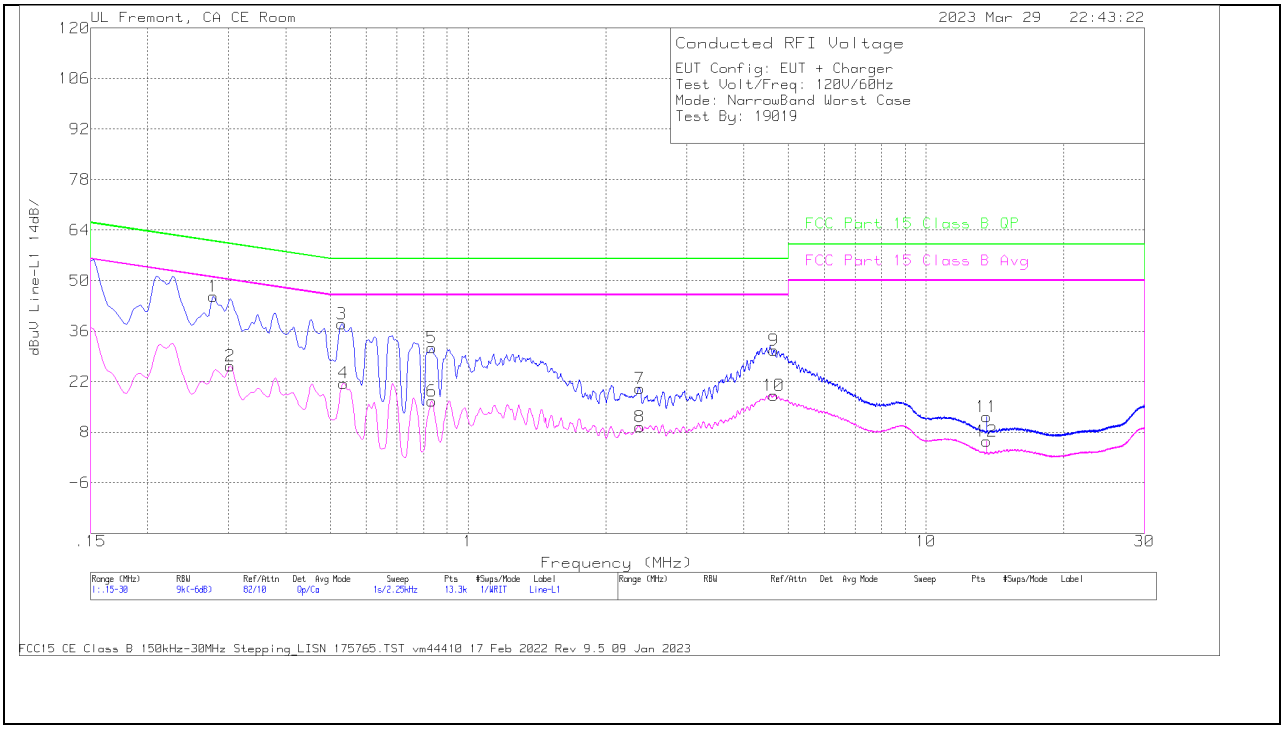
11.1.2. AC POWER LINE WITH AC/DC ADAPTER

LINE 1 RESULTS



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	.303	17.13	Ca	0	0	9.3	26.43	-	-	50.16	-23.73
4	.5348	12.18	Ca	0	.1	9.3	21.58	-	-	46	-24.42
6	.834	7.15	Ca	0	.1	9.3	16.55	-	-	46	-29.45
8	2.3708	.02	Ca	0	.1	9.3	9.42	-	-	46	-36.58
10	4.6568	8.81	Ca	0	.1	9.3	18.21	-	-	46	-27.79
12	13.56	-4.15	Ca	.1	.2	9.3	5.45	-	-	50	-44.55
1	.2783	36.39	Qp	0	0	9.3	45.69	60.87	-15.18	-	-
3	.5303	28.59	Qp	0	.1	9.3	37.99	56	-18.01	-	-
5	.834	22.07	Qp	0	.1	9.3	31.47	56	-24.53	-	-
7	2.3708	10.72	Qp	0	.1	9.3	20.12	56	-35.88	-	-
9	4.6568	21.33	Qp	0	.1	9.3	30.73	56	-25.27	-	-
11	13.56	2.75	Qp	.1	.2	9.3	12.35	60	-47.65	-	-

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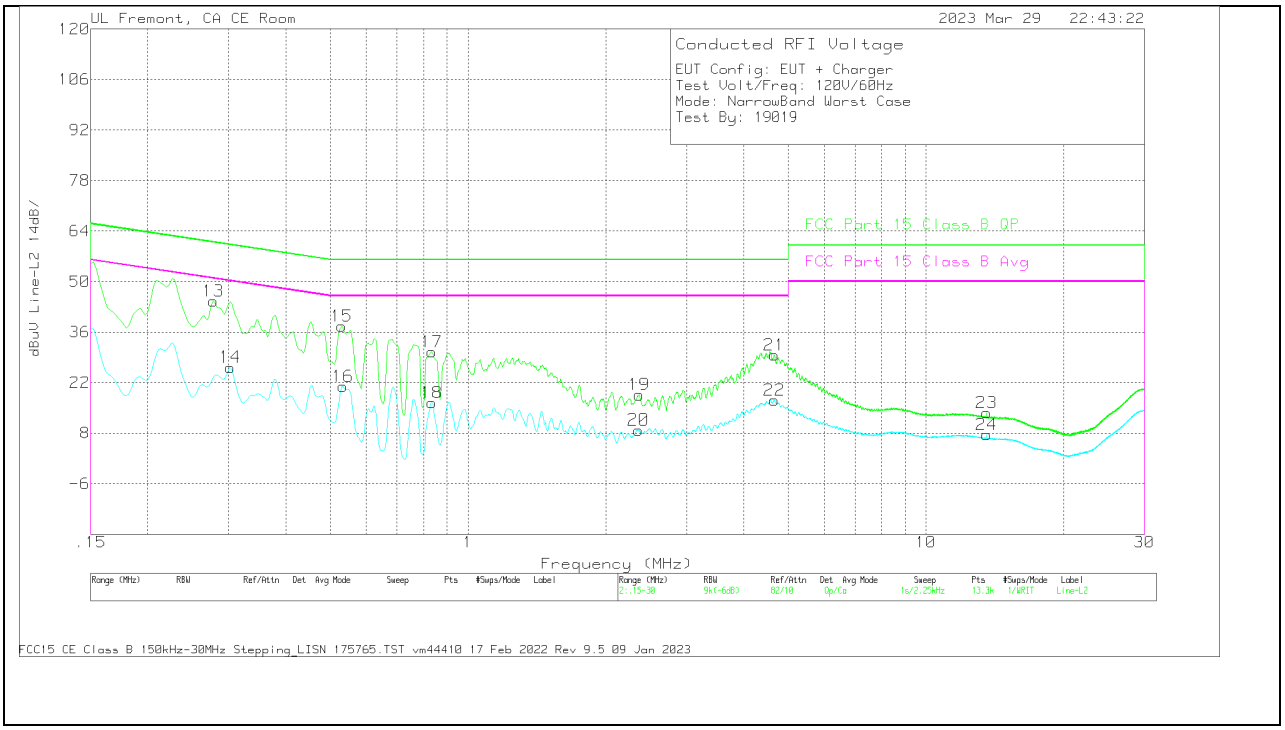
LINE 2 RESULTS



Range 2: Line-L2 .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)
14	.303	16.97	Ca	0	0	9.3	26.27	-	-	50.16	-23.89
16	.5325	11.63	Ca	0	.1	9.3	21.03	-	-	46	-24.97
18	.834	7.11	Ca	0	.1	9.3	16.51	-	-	46	-29.49
20	2.3584	-.51	Ca	0	.1	9.3	8.89	-	-	46	-37.11
22	4.6658	7.73	Ca	0	.1	9.3	17.13	-	-	46	-28.87
24	13.56	-2.04	Ca	.1	.2	9.3	7.56	-	-	50	-42.44
13	.2783	35.24	Qp	0	0	9.3	44.54	60.87	-16.33	-	-
15	.5303	28.18	Qp	0	.1	9.3	37.58	56	-18.42	-	-
17	.834	21.17	Qp	0	.1	9.3	30.57	56	-25.43	-	-
19	2.3618	9.23	Qp	0	.1	9.3	18.63	56	-37.37	-	-
21	4.6613	20.31	Qp	0	.1	9.3	29.71	56	-26.29	-	-
23	13.56	4.05	Qp	.1	.2	9.3	13.65	60	-46.35	-	-

Qp - Quasi-Peak detector
Ca - CISPR average detection

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12. SETUP PHOTOS

Please refer to 14523744-EP1V1 for setup photos

END OF TEST REPORT

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