



TEST REPORT

Report Number: 13911916-E3V2

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

Model : A2595 (Parent Model, Full Test)
A2782, A2783, A2784, A2785 (Variant Models)

FCC ID : BCG-E4082A (Parent Model)
BCG-E8064A, BCG-E4083A, BCG-8076A (Variant Models)

IC : 579C-E4082A (Parent Model)
579C-E8064A, 579C-E4083A, 579C-8076A
(Variant Models)

EUT Description : SMARTPHONE

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C
ISED RSS-247 ISSUE 2
ISED RSS-GEN ISSUE 5 + A1 + A2

Date Of Issue:
February 07, 2022

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REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	1/25/2022	Initial Issue	Chin Pang
V2	2/7/2022	Address TCB's question on cover page and page 9. Add 6dB plots in section 9.3.2	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: A2595 (Parent Model)
A2782, A2783, A2784, A2785 (Variant Models)

BRAND: APPLE

FCC ID: BCG-E4082A (Parent Model)
BCG-E8064A, BCG-E4083A, BCG-E8076A (Variant Models)

IC: 579C-E4082A (Parent Model)
579C-E8064A, 579C-E4083A, 579C-E8076A (Variant Models)

SERIAL NUMBER: DT23CMFDH2

SAMPLE RECEIPT DATE: SEPTEMBER 03, 2021

DATE TESTED: SEPTEMBER 03, 2021 – JANUARY 25, 2022

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	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.

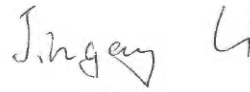
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Approved & Released For
UL Verification Services Inc. By:



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

Prepared By:



Jingang Li
Test Engineer
Consumer Technology Division
UL Verification Services Inc.

2. TEST SUMMARY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for the validity of results after the integration of the data provided by the customer

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

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013, KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, KDB662911, RSS-GEN Issue 5 +A1 +A2, and RSS-247 Issue 2.

4. FACILITIES AND ACCREDITATION

UL LLC 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.

Location	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	US0104	22541	550739
☒	Building 4: 47658 Kato Rd, Fremont, CA 94538, USA	US0104	2324B	550739

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}
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%.

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The Apple iPhone is a smartphone with multimedia functions (music, application support, and video), cellular GSM, GPRS, EGPRS, UMTS, LTE, 5G FR1, IEEE 802.11a/b/g/n/ac/ax, Bluetooth, GPS and NFC. All models support at least one UICC based SIM. The second SIM is an UICC based e-SIM (electronic SIM) in some models. China model has 1 p-SIM only. The device supports a built-in inductive charging receiver. The rechargeable battery is not user accessible.

Testing was performed on the parent model and is used to support the application for the parent and variants identified in this report based on the test plan submitted and approved via KDB inquiry by the FCC and by ISED-Canada.

The Model and FCC IDs / ISED covered by this report includes:

Parent Model: A2595, FCC ID: BCG-E4082A, IC: 579C-E4082A

Variant Models: A2782, FCC ID: BCG-E8064A, IC: 579C-E8064A
 A2783; FCC ID: BCG-E4083A, IC: 579C-E4083A
 A2784 & A2785, FCC ID: BCG-E8076A, IC: 579C-8076A

6.2. MAXIMUM OUTPUT POWER

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

Antenna	Configuration	Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
ANT 2	High Power	2404 - 2476	HDR4	14.14	25.94
	Low Power			8.28	6.73
	High Power		HDR8	16.54	45.08
	Low Power			9.53	8.97
ANT 3	High Power	2404 - 2476	HDR4	14.13	25.88
	Low Power			7.83	6.07
	High Power		HDR8	16.50	44.67
	Low Power			9.38	8.67
BF, ANT 2+ ANT 3	High Power	2404 - 2476	HDR4	17.24	52.97
	Low Power			10.97	12.50
	High Power		HDR8	19.52	89.54
	Low Power			12.69	18.58

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

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

Frequency Range (GHz)	ANT 2 (dBi)	ANT 3 (dBi)
2.4	2.6	-0.3

6.4. SOFTWARE AND FIRMWARE

The EUT firmware version installed for testing is 19.5.418.4462

6.5. WORST-CASE CONFIGURATION AND MODE

The EUT was investigated in three orthogonal orientations X, Y and Z on ANT 2, ANT 3 and 2TX beamforming. It was determined that X(Flatbed) orientation was the worst-case orientation for ANT 2, ANT 3 and Beamforming 2TX. Radiated band edge, harmonic, and spurious emissions from 1GHz to 18GHz were performed with the EUT set to transmit at highest power on Low/Middle/High channels.

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

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

There are two vendors of the WiFi/Bluetooth radio modules: variant 1 and variant 2. The Wi-Fi/Bluetooth radio modules have the same mechanical outline (e.g., the same package dimension and pin-out layout), use the same on-board antenna matching circuit, have an identical antenna structure, and are built and tested to conform to the same specifications and to operate within the same tolerances.

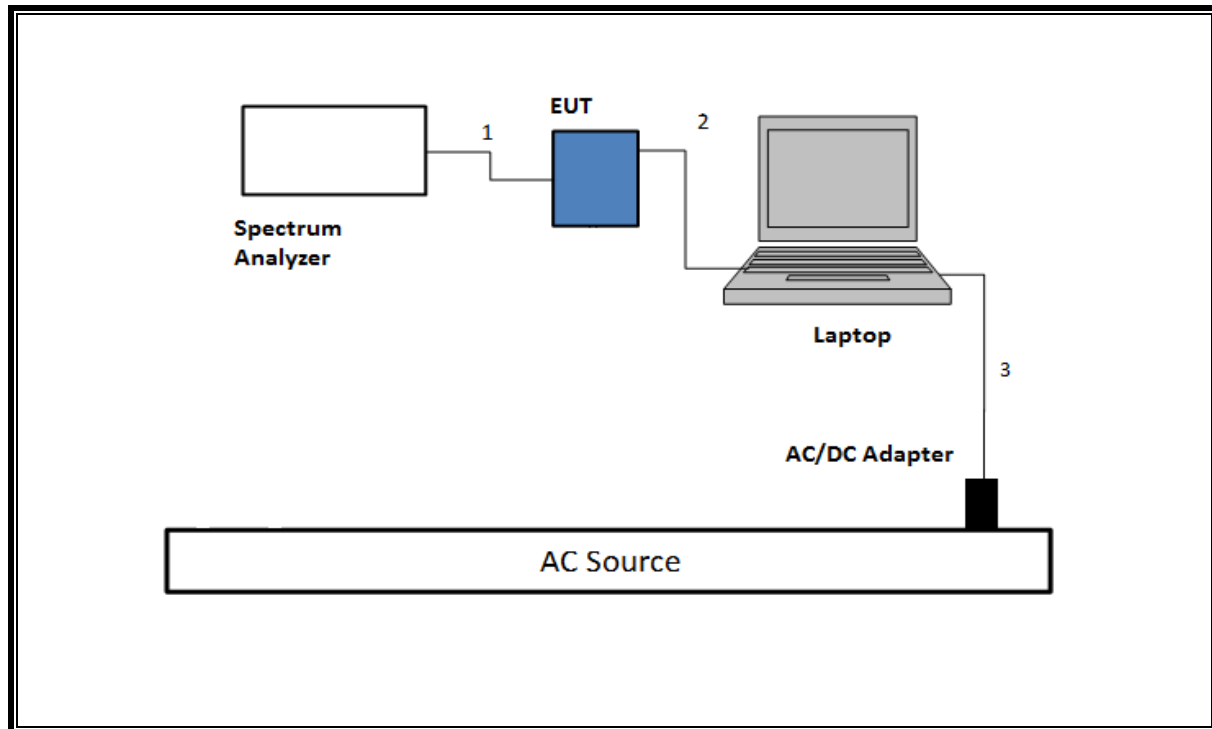
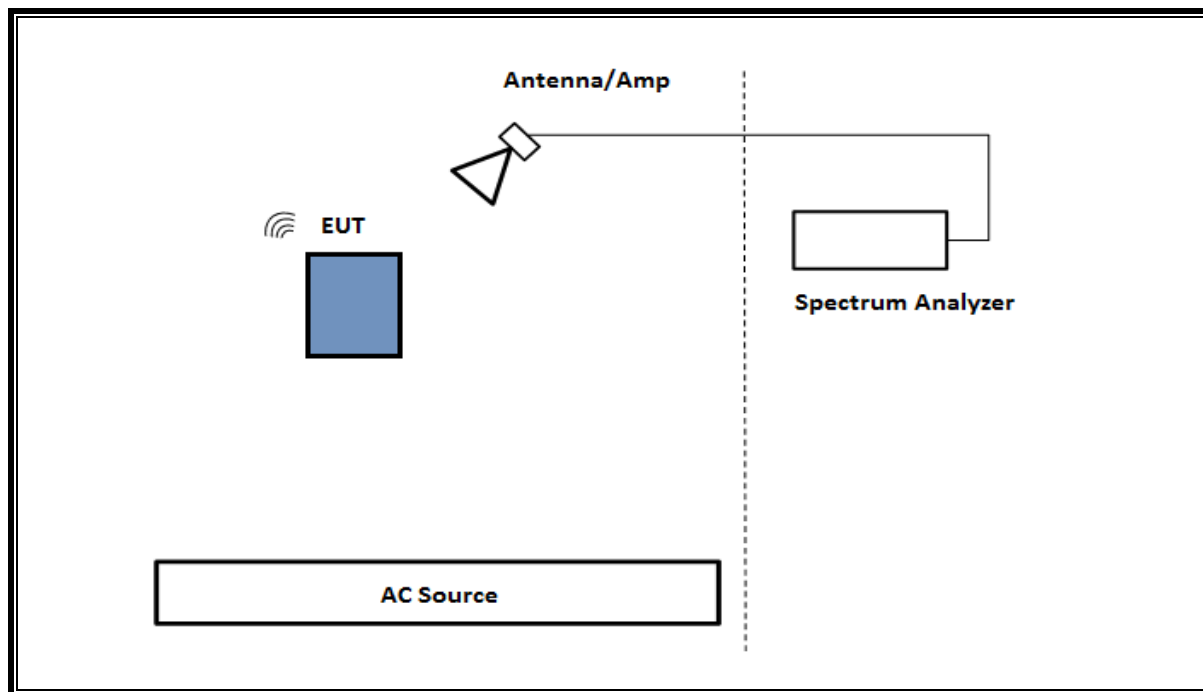
Baseline testing was performed on the two variants to determine the worst case on all conducted power and radiated emissions.

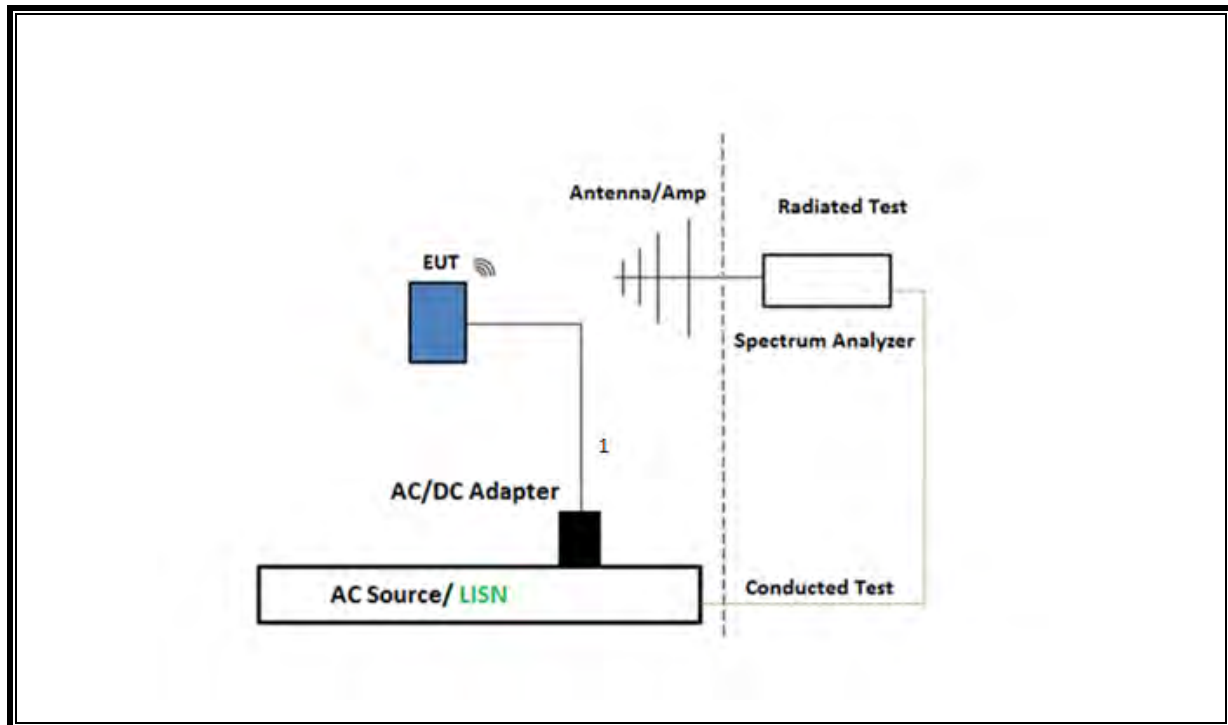
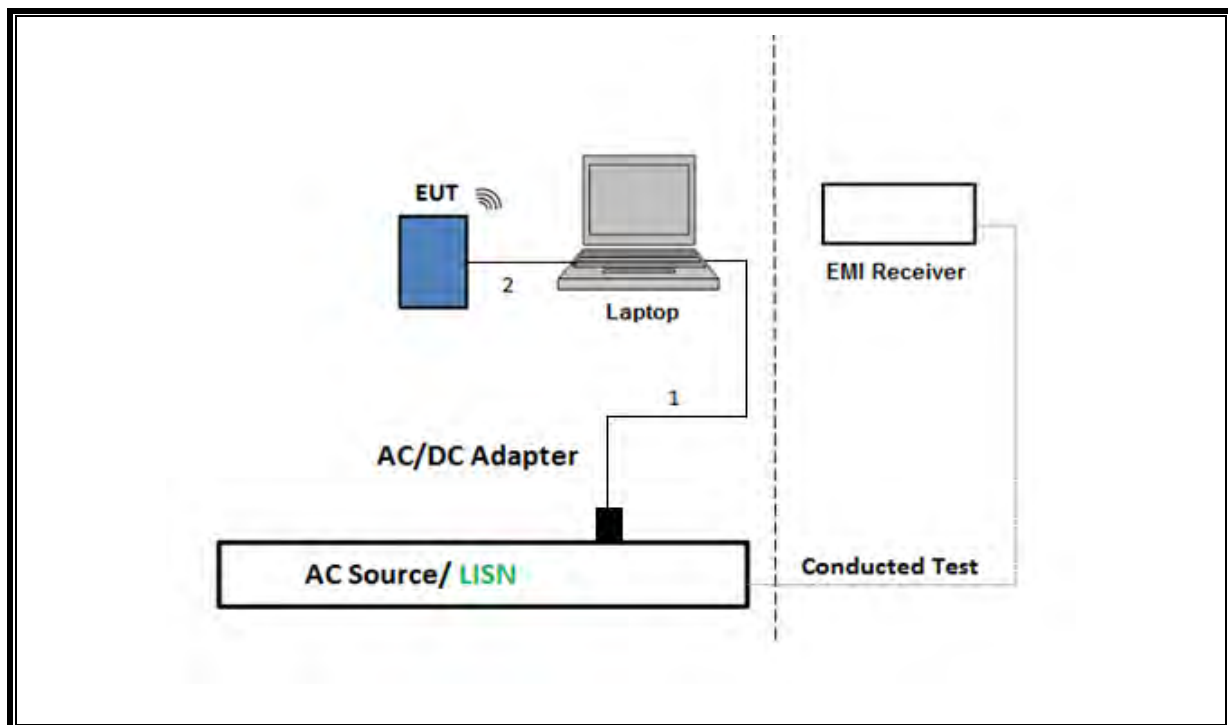
6.6. DESCRIPTION OF TEST SETUP

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
I/O CABLES (RF CONDUCTED TEST)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Antenna	1	SMA	Un-shielded	0.2	To spectrum Analyzer
2	USB	1	USB	Shielded	1.0	N/A
3	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	Un-shielded	1	N/A

TEST SETUP

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

SETUP DIAGRAM FOR CONDUCTED TESTS**SETUP DIAGRAM FOR RADIATED TESTS Above 1 GHz**

SETUP DIAGRAM FOR Below 1GHz and AC LINE CONDUCTED TEST**TEST SETUP- AC LINE CONDUCTED: LAPTOP CONFIGURATION**

7. MEASUREMENT METHOD

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

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

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

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

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

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

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

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

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

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

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

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

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

NOTE: All conducted antenna port tests for Beamforming applied the same test procedures as HDR normal modes.

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
*Spectrum Analyzer, PXA 3Hz to 44GHz	Keysight	N9030A	T1466	01/25/2022	01/25/2021
Amplifier, 1 to 18GHz	AMPLICAL	AMP1G18-35	138301	03/30/2022	03/30/2021
Antenna, Horn 1-18GHz	ETS Lindgren	3117	T712	03/22/2022	03/22/2021
Antenna, Horn 1-18GHz	ETS Lindgren	3117	PRE0078107	03/01/2022	03/01/2021
Amplifier, 1 to 8GHz 35dB	Amplical	AMF-4D-01000800-30-29P	T1169	03/30/2022	03/30/2021
Spectrum Analyzer, PXA 3Hz to 44GHz	Keysight	N9030A	T907	01/27/2022	01/27/2021
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences	JB3	204045	03/03/2022	03/03/2021
Amplifier 10KHz to 1GHz 32dB	Sonoma	310N	79145	07/21/2022	07/21/2021
Antenna Horn 18 to 26.5GHz	ARA	MWH-1826/B	81140	04/22/2022	04/22/2021
Pre-Amp 18-26GHz	Agilent Technology	8449B	T404	04/19/2022	04/19/2021
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T1454	01/27/2022	01/27/2021
Power Sensor	Keysight	N1921A	T1225	01/28/2022	01/28/2021
Power Meter, P-series single channel	Keysight	N1911A	T1268	01/27/2022	01/27/2021
*Antenna, Active Loop 9KHz to 30MHz	ETS-Lindgren	6502	T757	11/12/2021	11/12/2020
*Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T342	01/25/2022	01/25/2021
Antenna, Horn 1-18GHz	ETS Lindgren	3117	206805	06/22/2022	06/22/2021
Antenna, Horn 1-18GHz	ETS Lindgren	3117	206805	02/03/2022	02/03/2021
Amplifier, 1 to 18GHz, 35dB	AMPLICAL	AMP1G18-35	T1571	08/19/2022	08/19/2021
EMI Test Receiver	Rohde & Schwarz	ESW44	Pre0179522	02/19/2022	02/19/2021
Amplifier, 1 to 18GHz, 35dB	AMPLICAL	AMP1G18-35	T1569	03/31/2022	03/31/2021

AC Line Conducted					
Description	Manufacturer	Model	ID Num	Cal Due	Last Cal
EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESR	T1436	02/19/2022	02/19/2021
*Power Cable, Line Conducted Emissions	UL	PR1	T861	10/27/2021	10/27/2020
*LISN for Conducted Emissions CISPR-16	FISCHER CUSTOM COMMUNICATIONS	FCC-LISN-50/250-25-2-01	PRE0186446	01/20/2022	01/20/2021
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.

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
HDR4	40.0	40.0	1.000	100.00%	0.00	0.010
HDR8	40.0	40.0	1.000	100.00%	0.00	0.010
HDR4, TXBF	40.0	40.0	1.000	100.00%	0.00	0.010
HDR8, TXBF	40.0	40.0	1.000	100.00%	0.00	0.010

DUTY CYCLE PLOTS



9.2. 99% BANDWIDTH**LIMITS**

None; for reporting purposes only.

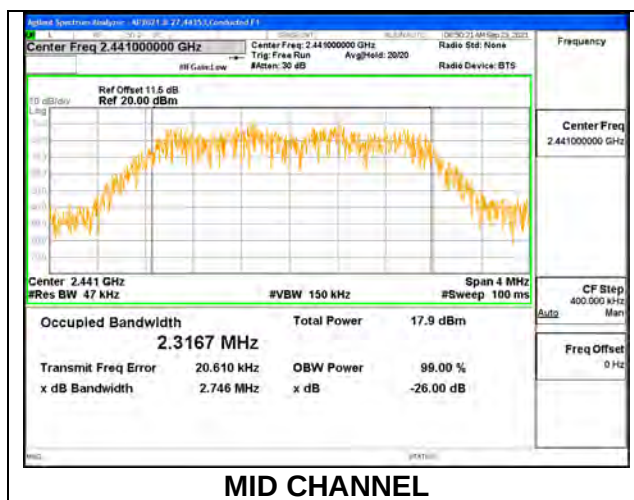
RESULTS

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

9.2.1. HIGH POWER HDR (HDR4)

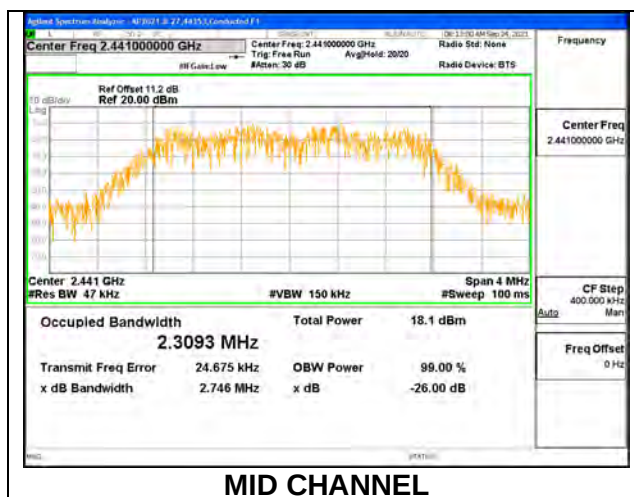
ANT 2

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2404	2.337
Middle	2441	2.317
High	2476	2.334



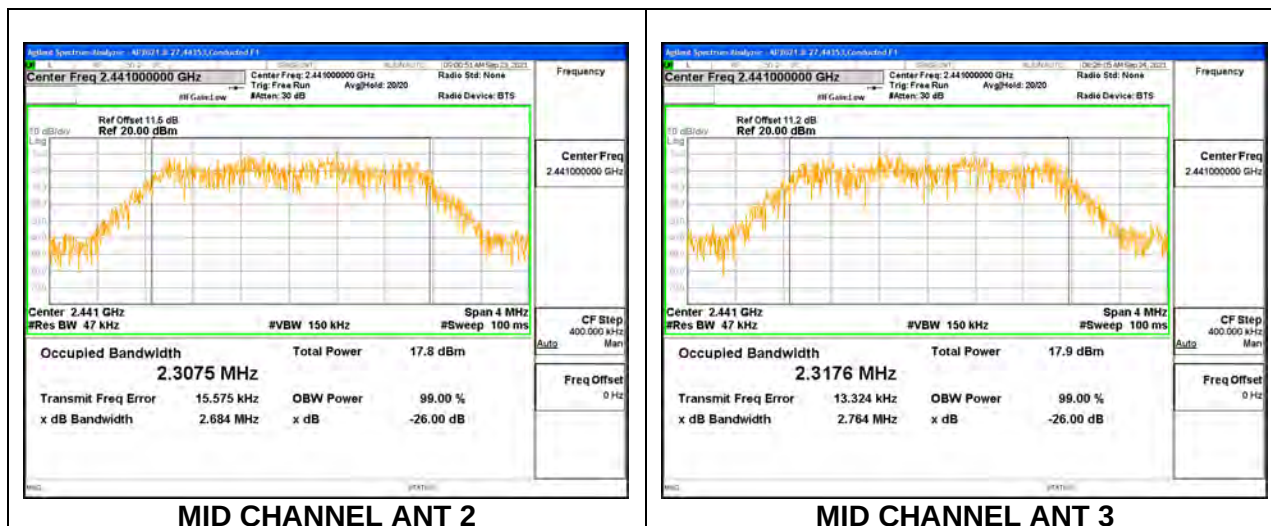
ANT 3

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2404	2.321
Middle	2441	2.309
High	2476	2.305



9.2.2. HIGH POWER HDR TXBF (HDR4)

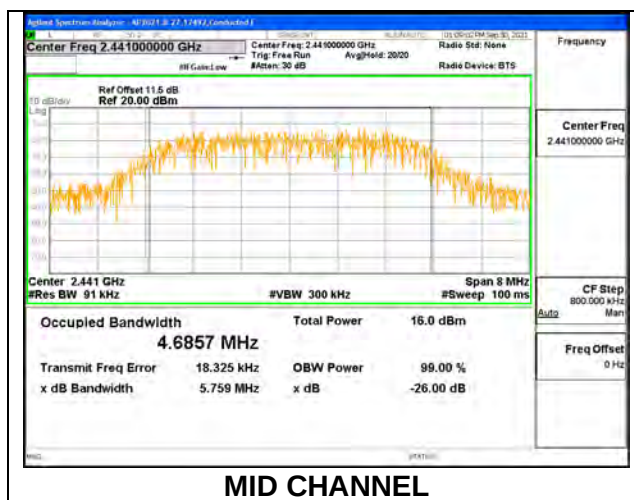
Channel	Frequency (MHz)	99% Bandwidth ANT 2 (MHz)	99% Bandwidth ANT 3 (MHz)
Low	2404	2.316	2.325
Middle	2441	2.308	2.318
High	2476	2.336	2.325



9.2.3. HIGH POWER HDR (HDR8)

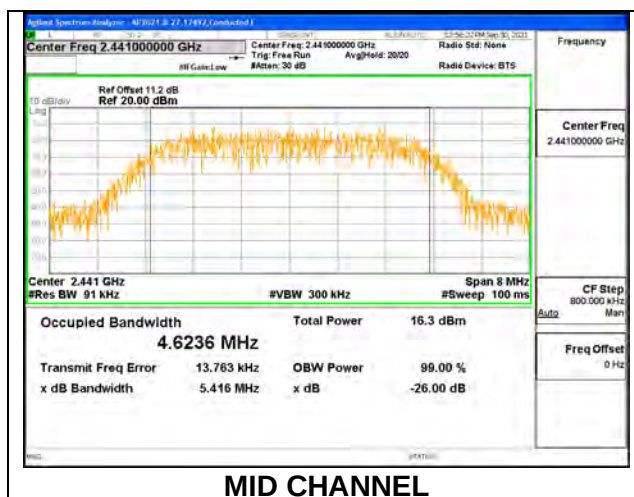
ANT 2

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2404	4.625
Middle	2441	4.686
High	2476	4.683



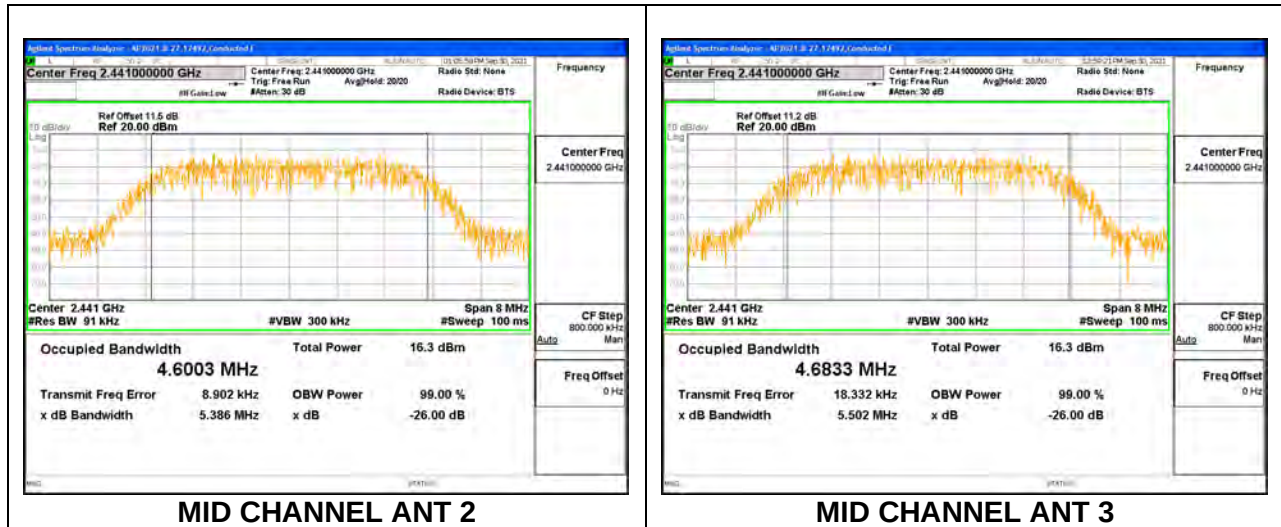
ANT 3

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2404	4.622
Middle	2441	4.624
High	2476	4.672



9.2.4. HIGH POWER HDR TXBF (HDR8)

Channel	Frequency (MHz)	99% Bandwidth ANT 2 (MHz)	99% Bandwidth ANT 3 (MHz)
Low	2404	4.597	4.639
Middle	2441	4.600	4.683
High	2476	4.709	4.708



9.3. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

RSS-247 5.2 (a)

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

RESULTS

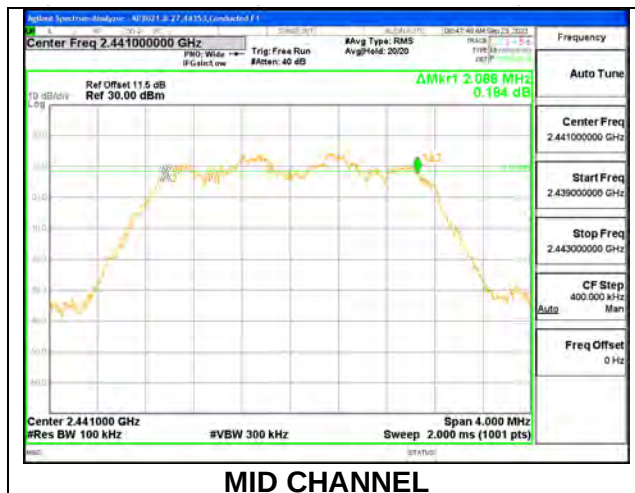
The 6dB bandwidth was measured for the narrowest bandwidth mode, HDR4, to demonstrate compliance with the minimum required bandwidth of 500 kHz. Other modes were not tested as their bandwidth is greater than the HDR4 mode, as demonstrated by the 99% bandwidth measurements performed on all modes.

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

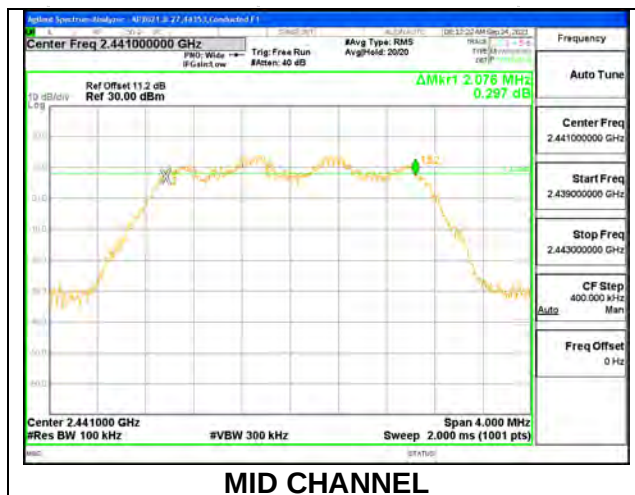
Only High Power modes result is reported, it covers all Low Power modes.

9.3.1. HIGH POWER HDR (HDR4)**ANT 2**

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2404	2.084	0.5
Middle	2441	2.088	0.5
High	2476	2.088	0.5

**ANT 3**

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2404	2.092	0.5
Middle	2441	2.076	0.5
High	2476	2.080	0.5



9.3.2. HIGH POWER HDR4 TXBF (1Mbps)

Channel	Frequency (MHz)	6 dB Bandwidth ANT 2 (MHz)	6 dB Bandwidth ANT 3 (MHz)	Minimum Limit (MHz)
Low	2404	2.076	2.092	0.5
Mid	2441	2.080	2.088	0.5
High	2476	2.080	2.092	0.5



MID CHANNEL ANT 2



MID CHANNEL ANT 3

9.4. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3)

RSS-247 5.4 (d)

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

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

For 1 TX:

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

For 2 TX:

Tx chains are correlated for power and PSD due to the device supporting Beamforming mode. The directional gains are as follows:

Band (GHz)	ANT 2 Gain (dBi)	ANT 3 Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.4	2.60	-0.30	4.28

RESULTS

9.4.1. HIGH POWER HDR (HDR4)**ANT 2**

Tested By:	44366
Date:	10/28/2021

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2404	14.07	30	-15.93
Middle	2441	14.14	30	-15.86
High	2476	14.10	30	-15.90

ANT 3

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2404	14.13	30	-15.87
Middle	2441	14.11	30	-15.89
High	2476	14.10	30	-15.90

9.4.2. HIGH POWER HDR TXBF (HDR4)

Tested By:	44366
Date:	10/28/2021

Channel	Frequency (MHz)	Peak Power Reading ANT 2 (dBm)	Peak Power Reading ANT 3 (dBm)	Total Corr'd Power (dBm)	Limit (dBm)	Margin (dB)
Low	2404	14.12	14.08	17.11	30.00	-12.89
Middle	2441	14.23	14.22	17.24	30.00	-12.76
High	2476	14.10	14.04	17.08	30.00	-12.92

9.4.3. HIGH POWER HDR (HDR8)**ANT 2**

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2404	16.54	30	-13.46
Middle	2441	16.48	30	-13.52
High	2476	16.33	30	-13.67

ANT 3

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2404	16.50	30	-13.50
Middle	2441	16.35	30	-13.65
High	2476	16.48	30	-13.52

9.4.4. HIGH POWER HDR TXBF (HDR8)

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Peak Power Reading ANT 2 (dBm)	Peak Power Reading ANT 3 (dBm)	Total Corr'd Power (dBm)	Limit (dBm)	Margin (dB)
Low	2404	16.52	16.50	19.52	30.00	-10.48
Middle	2441	16.32	16.29	19.32	30.00	-10.68
High	2476	16.30	16.31	19.32	30.00	-10.68

9.4.5. LOW POWER HDR (HDR4)**ANT 2**

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2404	8.15	30	-21.85
Middle	2441	8.28	30	-21.72
High	2476	8.18	30	-21.82

ANT 3

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2404	7.79	30	-22.21
Middle	2441	7.83	30	-22.17
High	2476	7.77	30	-22.23

9.4.6. LOW POWER HDR TXBF (HDR4)

Tested By:	44366
Date:	10/28/2021

Channel	Frequency (MHz)	Peak Power Reading ANT 2 (dBm)	Peak Power Reading ANT 3 (dBm)	Total Corr'd Power (dBm)	Limit (dBm)	Margin (dB)
Low	2404	8.14	7.65	10.91	30.00	-19.09
Middle	2441	8.21	7.70	10.97	30.00	-19.03
High	2476	8.15	7.62	10.90	30.00	-19.10

9.4.7. LOW POWER HDR (HDR8)**ANT 2**

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2404	9.52	30	-20.48
Middle	2441	9.53	30	-20.47
High	2476	9.47	30	-20.53

ANT 3

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2404	9.33	30	-20.67
Middle	2441	9.35	30	-20.65
High	2476	9.38	30	-20.62

9.4.8. LOW POWER HDR TXBF (HDR8)

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Peak Power Reading ANT 2 (dBm)	Peak Power Reading ANT 3 (dBm)	Total Corr'd Power (dBm)	Limit (dBm)	Margin (dB)
Low	2404	9.94	9.39	12.68	30.00	-17.32
Middle	2441	9.95	9.40	12.69	30.00	-17.31
High	2476	9.90	9.42	12.68	30.00	-17.32

9.5. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

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

RESULTS

9.5.1. HIGH POWER HDR (HDR4)**ANT 2**

Tested By:	44366
Date:	10/28/2021

Channel	Frequency (MHz)	Average power (dBm)
Low	2404	12.35
Middle	2441	12.44
High	2476	12.40

ANT 3

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Average power (dBm)
Low	2404	12.33
Middle	2441	12.30
High	2476	12.32

9.5.2. HIGH POWER HDR TXBF (HDR4)

Tested By:	44366
Date:	10/28/2021

Channel	Frequency (MHz)	Average Power ANT 2 (dBm)	Average Power ANT 3 (dBm)	Total Power (dBm)
Low	2404	12.32	12.38	15.36
Middle	2441	12.43	12.42	15.44
High	2476	12.29	12.25	15.28

9.5.3. HIGH POWER HDR (HDR8)**ANT 2**

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Average power (dBm)
Low	2404	12.94
Middle	2441	12.80
High	2476	12.76

ANT 3

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Average power (dBm)
Low	2404	12.89
Middle	2441	12.75
High	2476	12.88

9.5.4. HIGH POWER HDR TXBF (HDR8)

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Average Power ANT 2 (dBm)	Average Power ANT 3 (dBm)	Total Power (dBm)
Low	2404	12.93	12.90	15.93
Middle	2441	12.79	12.77	15.79
High	2476	12.73	12.82	15.79

9.5.5. LOW POWER HDR (HDR4)**ANT 2**

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Average power (dBm)
Low	2404	6.34
Middle	2441	6.49
High	2476	6.37

ANT 3

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Average power (dBm)
Low	2404	5.93
Middle	2441	5.99
High	2476	5.87

9.5.6. LOW POWER HDR TXBF (HDR4)

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Average Power ANT 2 (dBm)	Average Power ANT 3 (dBm)	Total Power (dBm)
Low	2404	6.32	5.83	9.09
Middle	2441	6.47	5.95	9.23
High	2476	6.38	5.80	9.11

9.5.7. LOW POWER HDR (HDR8)**ANT 2**

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Average power (dBm)
Low	2404	6.42
Middle	2441	6.43
High	2476	6.37

ANT 3

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Average power (dBm)
Low	2404	5.82
Middle	2441	5.83
High	2476	5.91

9.5.8. LOW POWER HDR TXBF (HDR8)

Tested By:	44353
Date:	1/25/2022

Channel	Frequency (MHz)	Average Power ANT 2 (dBm)	Average Power ANT 3 (dBm)	Total Power (dBm)
Low	2404	6.42	5.84	9.15
Middle	2441	6.44	5.82	9.15
High	2476	6.38	5.89	9.15

9.6. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

RSS-247 (5.2) (b)

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

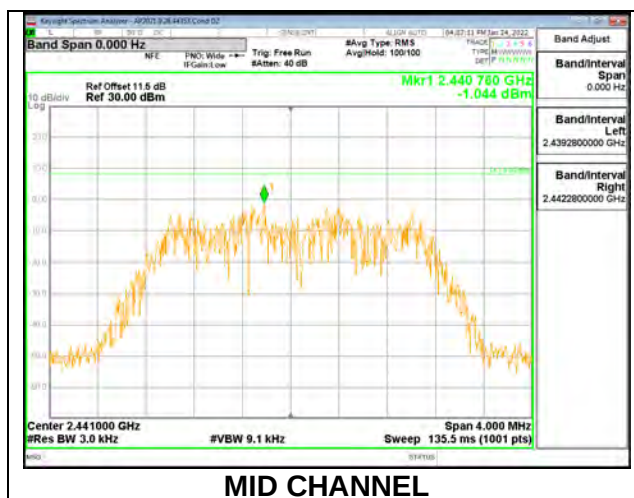
RESULTS

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

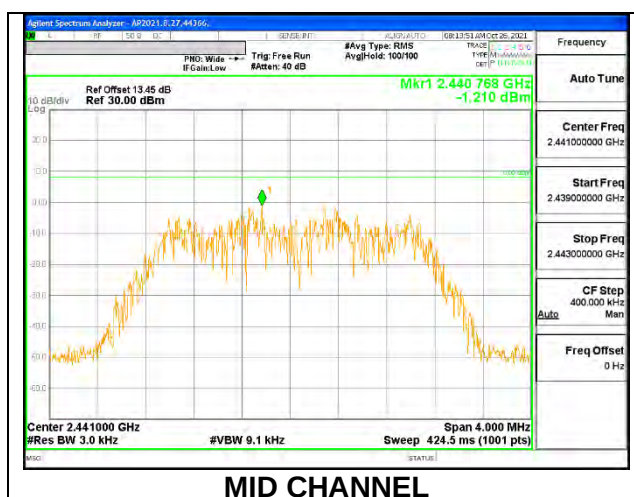
9.6.1. HIGH POWER HDR (HDR4)

ANT 2

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2404	-1.256	8	-9.26
Middle	2441	-1.044	8	-9.04
High	2476	-1.187	8	-9.19

ANT 3

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2404	-1.145	8	-9.15
Middle	2441	-1.210	8	-9.21
High	2476	-1.164	8	-9.16

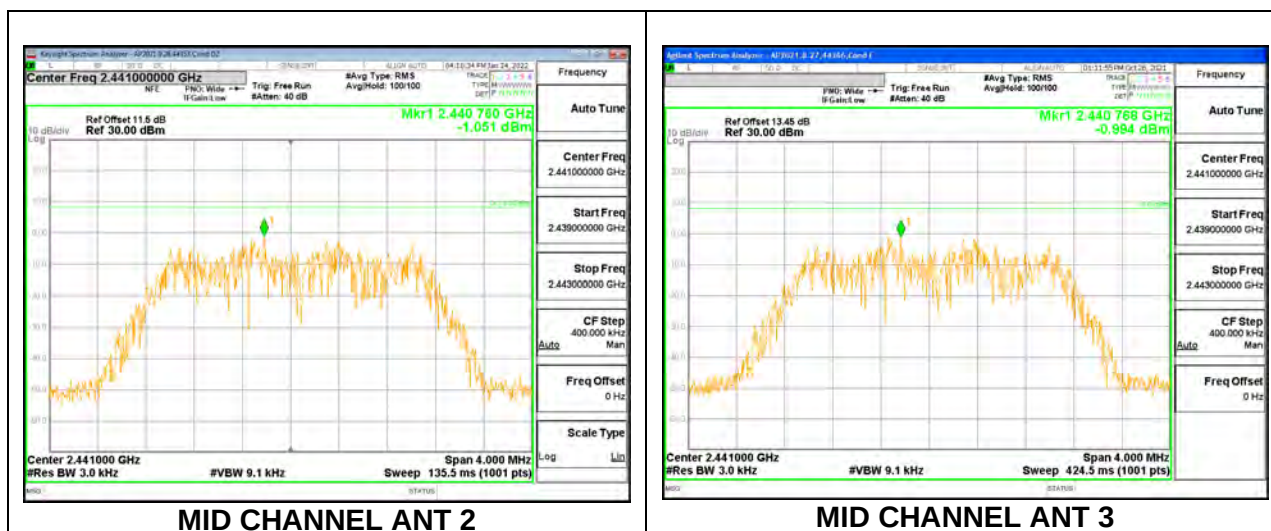


9.6.2. HIGH POWER HDR TXBF (HDR4)

Note: Test procedures and setting are same as HDR normal mode.

PSD Results

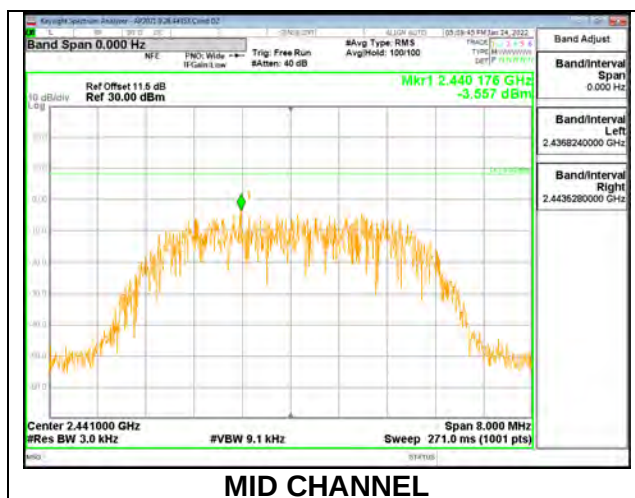
Channel	Frequency (MHz)	ANT 2 Meas (dBm/ 3kHz)	ANT 3 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low	2404	-1.251	-1.055	1.86	8.0	-6.1
Mid	2441	-1.051	-0.994	1.99	8.0	-6.0
High	2476	-1.152	-1.050	1.91	8.0	-6.1



9.6.3. HIGH POWER HDR (HDR8)

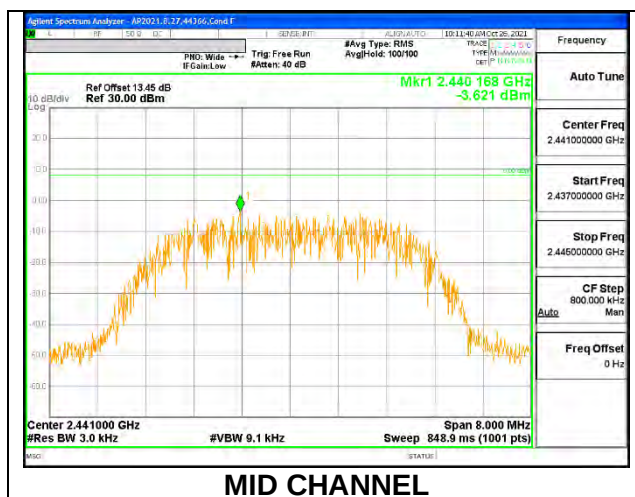
ANT 2

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2404	-3.580	8	-11.58
Middle	2441	-3.557	8	-11.56
High	2476	-3.530	8	-11.53



ANT 3

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2404	-3.695	8	-11.70
Middle	2441	-3.621	8	-11.62
High	2476	-3.658	8	-11.66

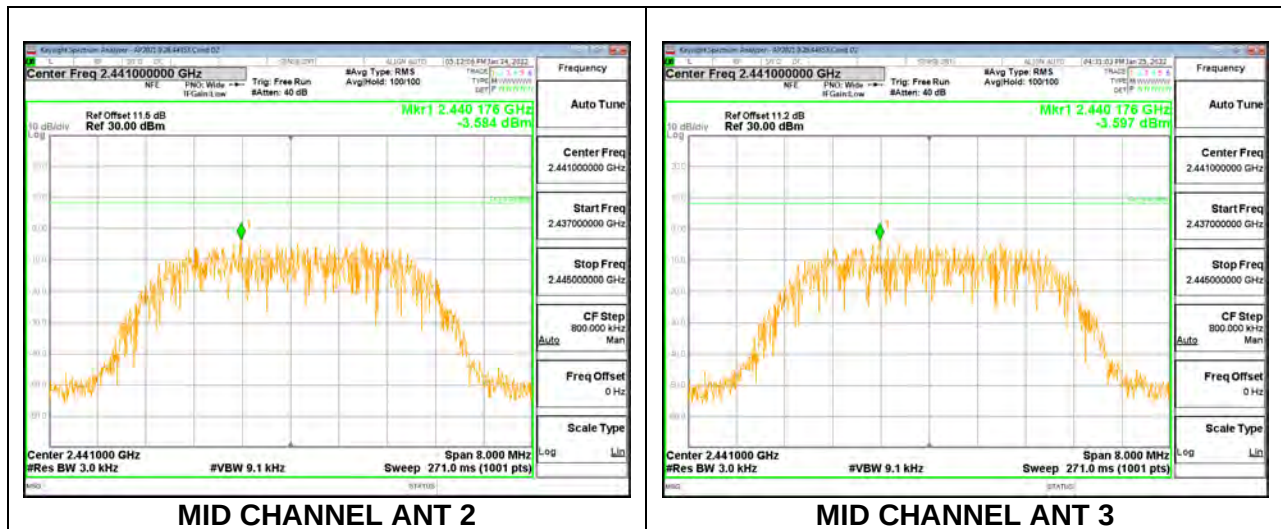


9.6.4. HIGH POWER HDR TXBF (HDR8)

Note: Test procedures and setting are same as HDR normal mode.

PSD Results

Channel	Frequency (MHz)	ANT 2 Meas (dBm/ 3kHz)	ANT 3 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low	2404	-3.596	-3.799	-0.69	8.0	-8.7
Mid	2441	-3.584	-3.597	-0.58	8.0	-8.6
High	2476	-2.752	-3.572	-0.13	8.0	-8.1



9.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

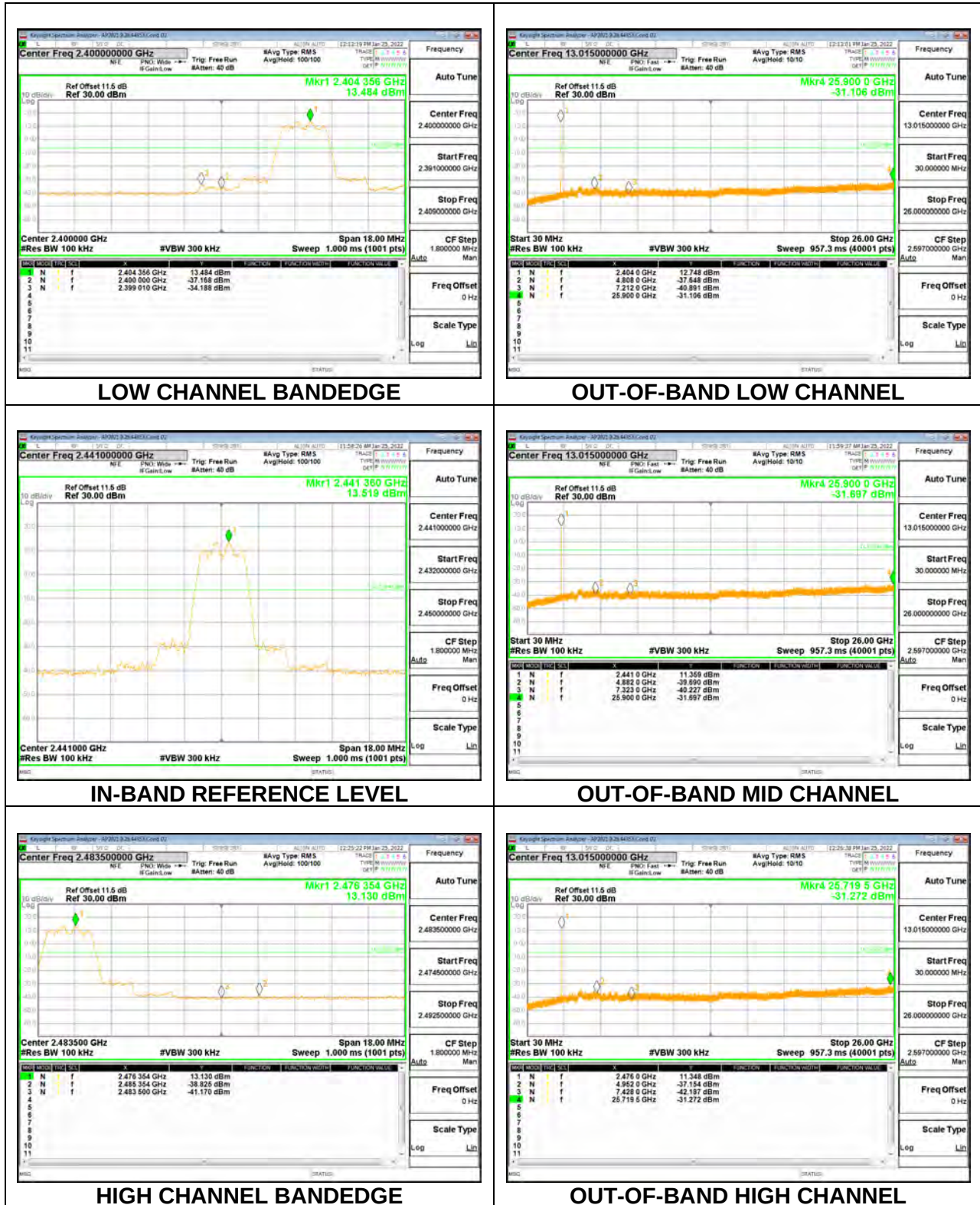
RSS-247 5.5

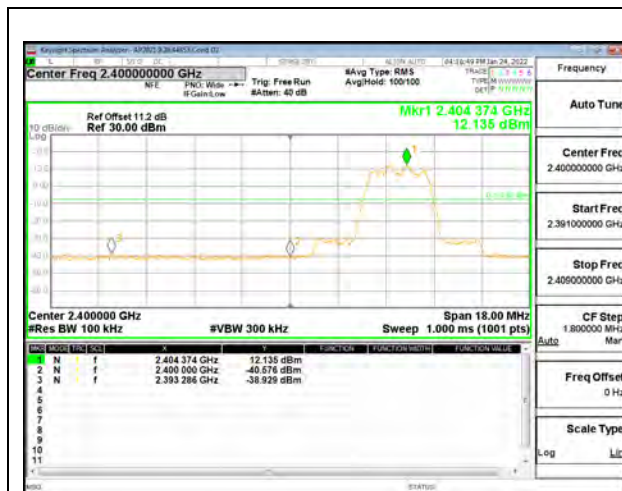
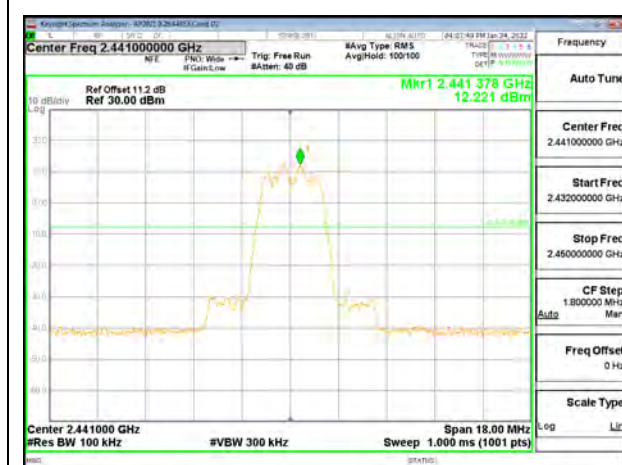
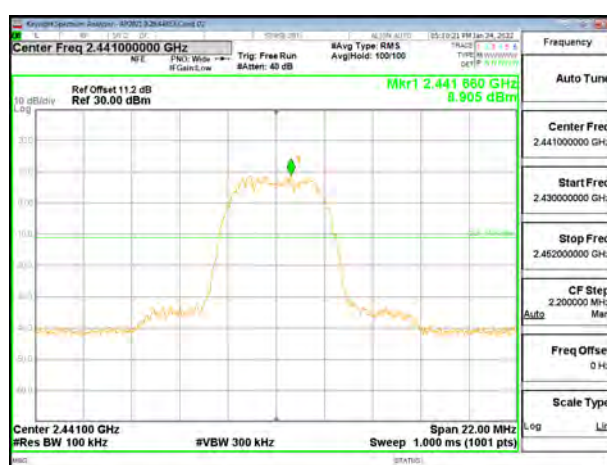
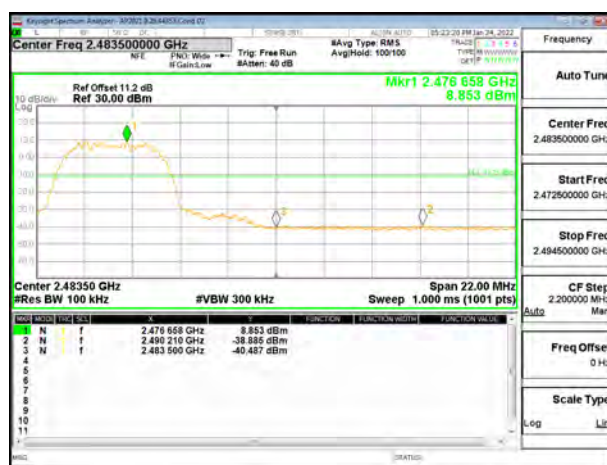
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

RESULTS

9.7.1. HIGH POWER HDR (HDR4)

ANT 2



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

9.7.2. HIGH POWER HDR TXBF (HDR4)

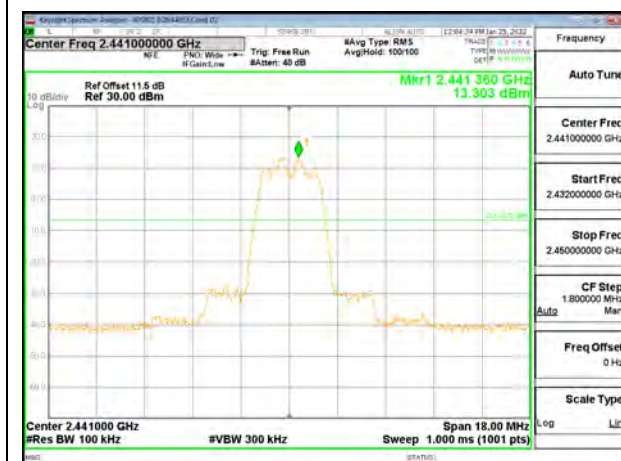
ANT 2



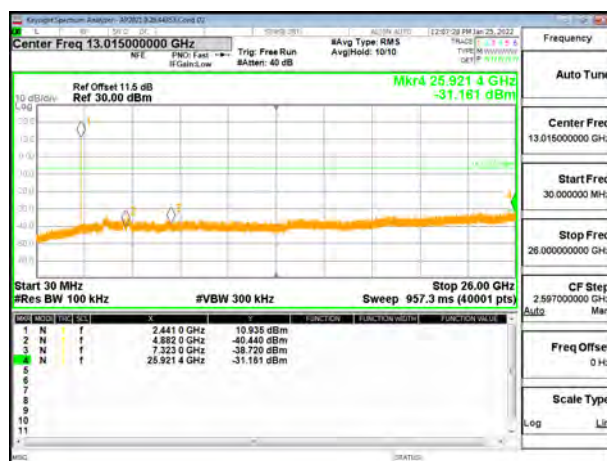
LOW CHANNEL BANDEDGE ANT 2



OUT-OF-BAND LOW CHANNEL ANT 2



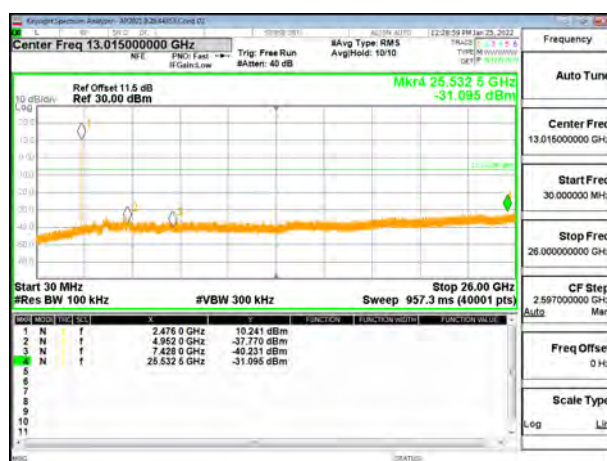
IN-BAND REFERENCE LEVEL ANT 2



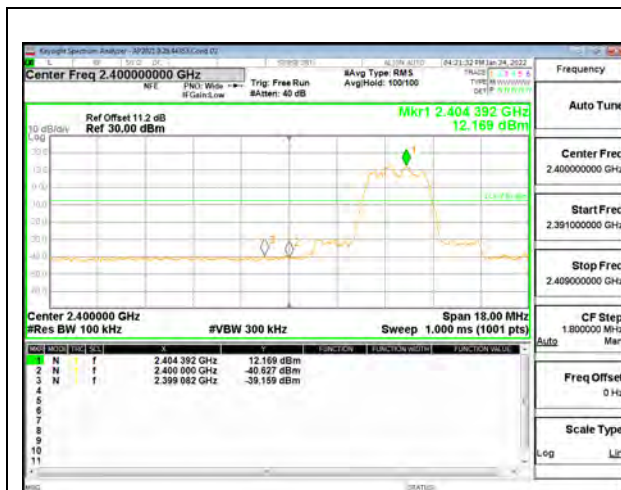
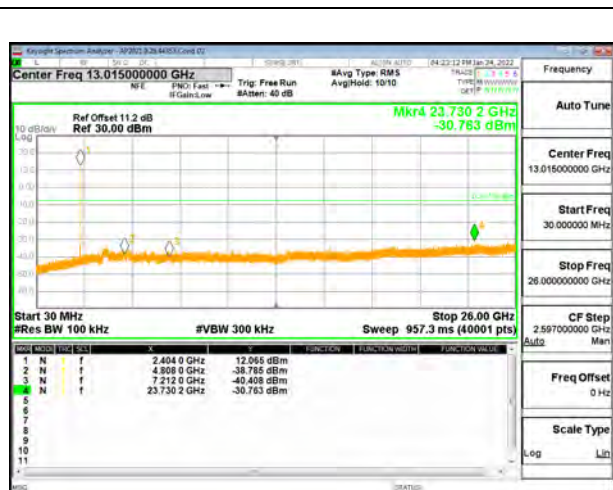
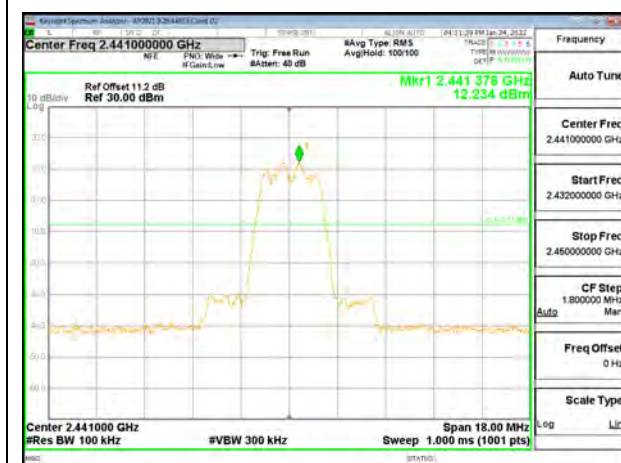
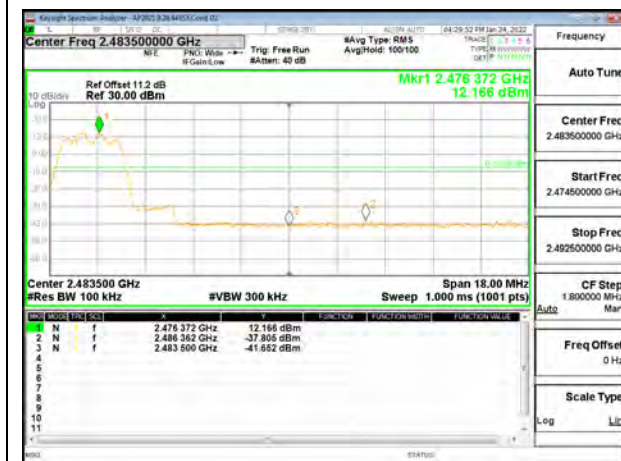
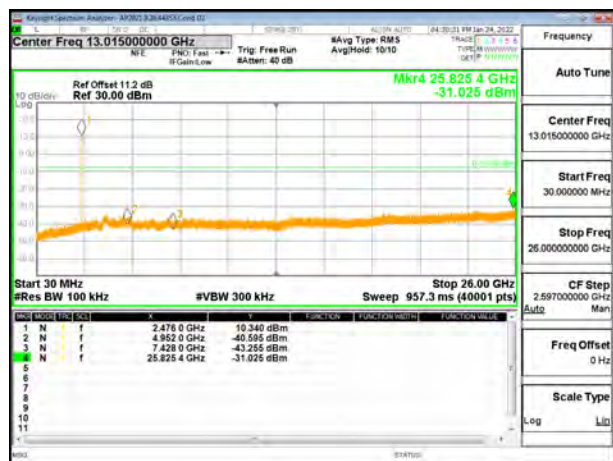
OUT-OF-BAND MID CHANNEL ANT 2



HIGH CHANNEL BANDEDGE ANT 2

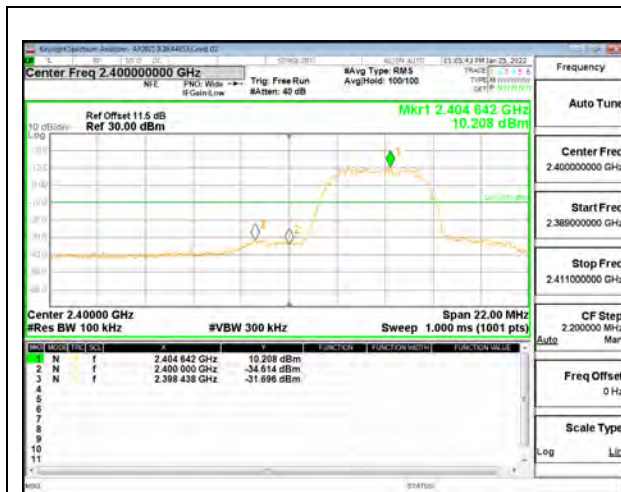


OUT-OF-BAND HIGH CHANNEL ANT 2

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

9.7.3. HIGH POWER HDR (HDR8)

ANT 2



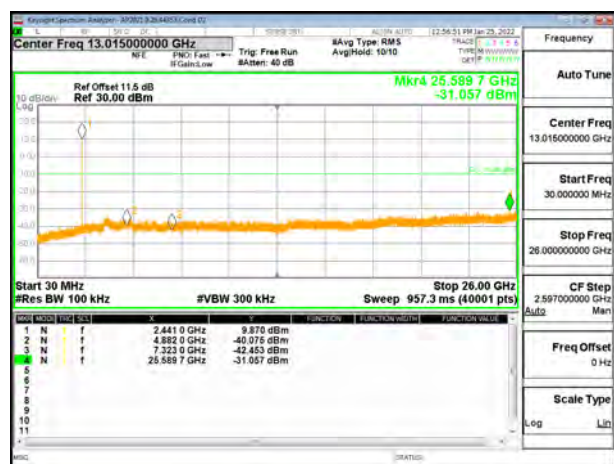
LOW CHANNEL BANDEDGE



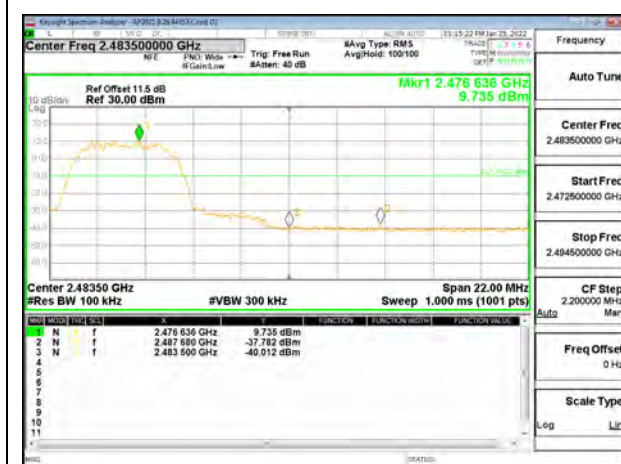
OUT-OF-BAND LOW CHANNEL



IN-BAND REFERENCE LEVEL



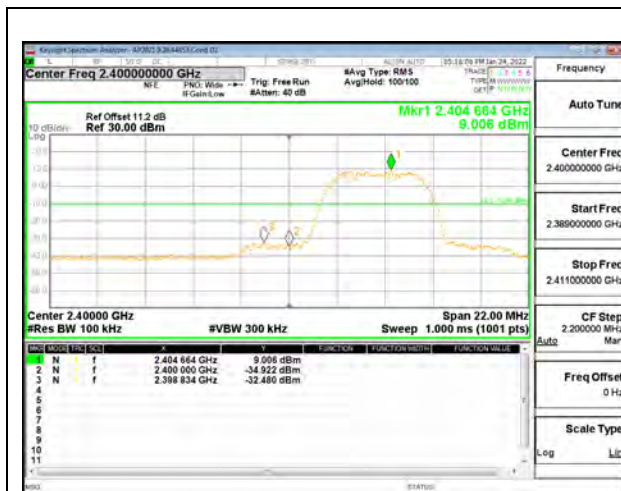
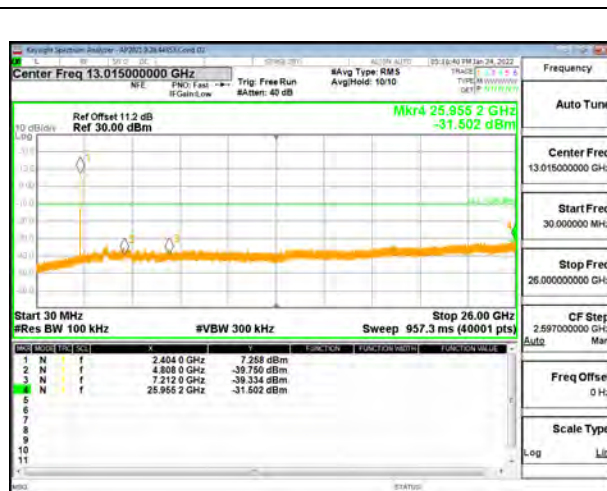
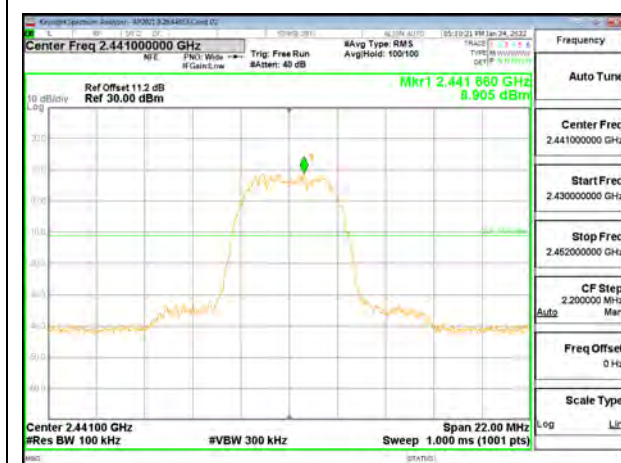
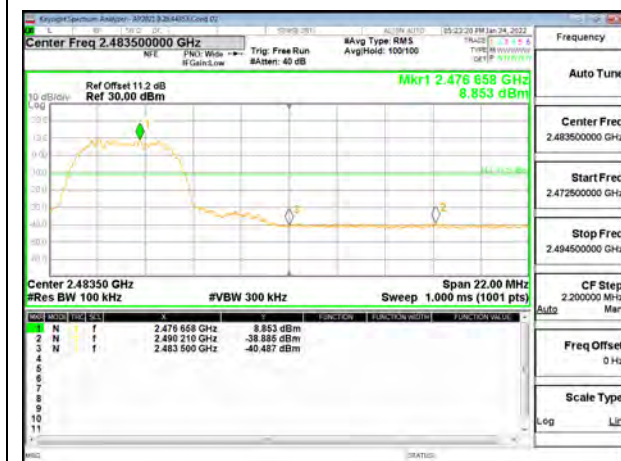
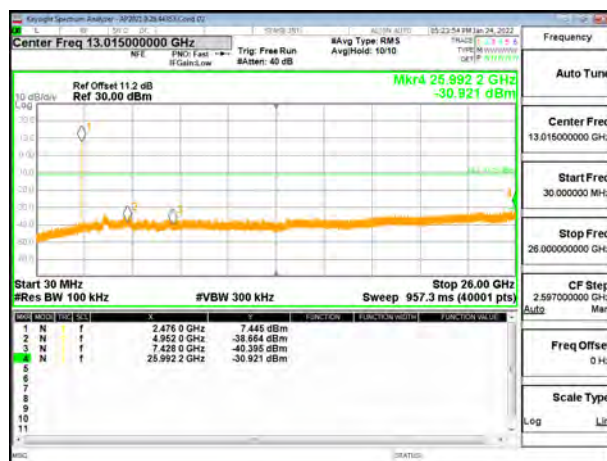
OUT-OF-BAND MID CHANNEL



HIGH CHANNEL BANDEDGE

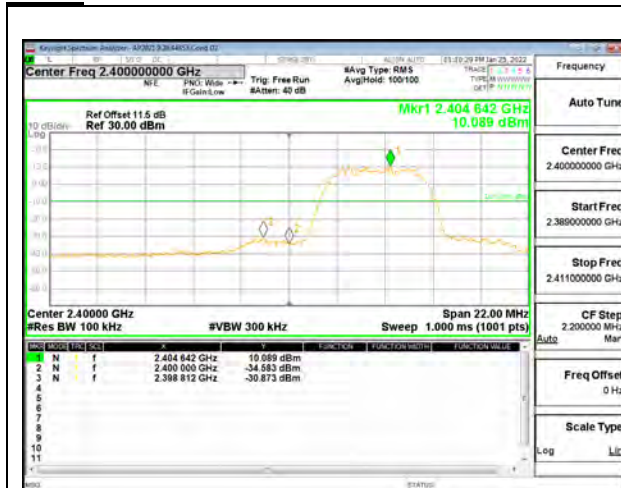


OUT-OF-BAND HIGH CHANNEL

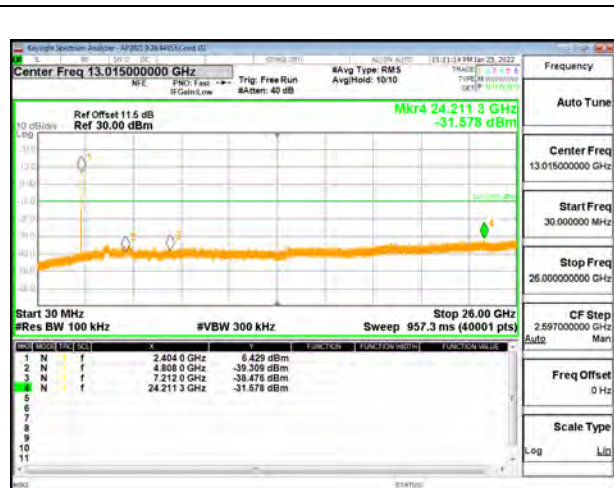
ANT 3**LOW CHANNEL BANDEDGE****OUT-OF-BAND LOW CHANNEL****IN-BAND REFERENCE LEVEL****OUT-OF-BAND MID CHANNEL****HIGH CHANNEL BANDEDGE****OUT-OF-BAND HIGH CHANNEL**

9.7.4. HIGH POWER HDR TXBF (HDR8)

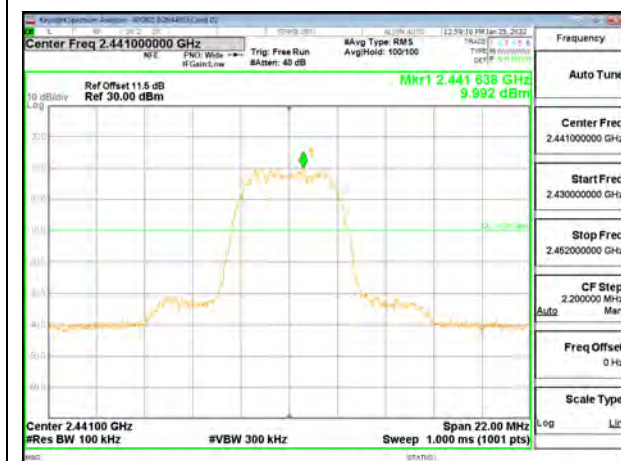
ANT 2



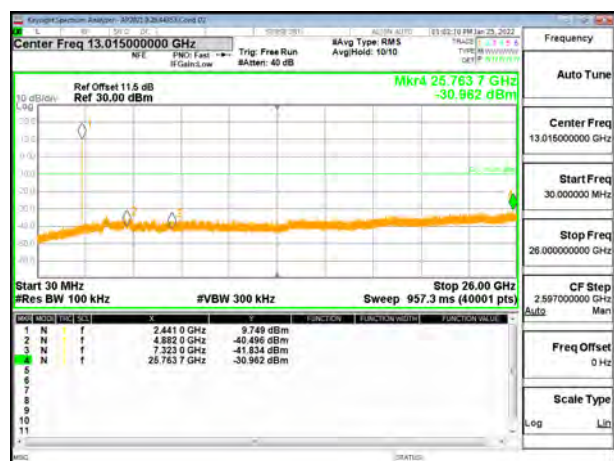
LOW CHANNEL BANDEDGE ANT 2



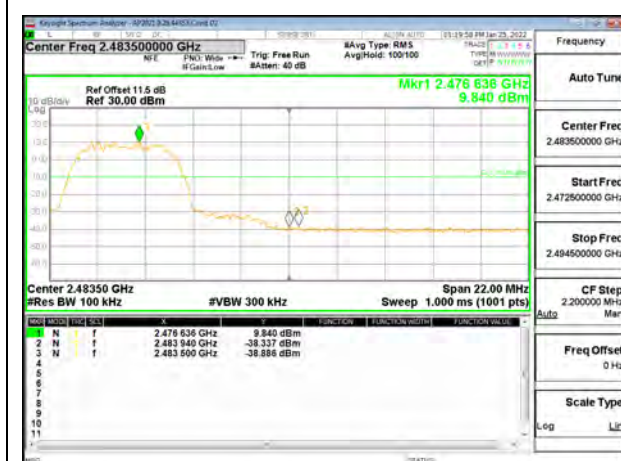
OUT-OF-BAND LOW CHANNEL ANT 2



IN-BAND REFERENCE LEVEL ANT 2



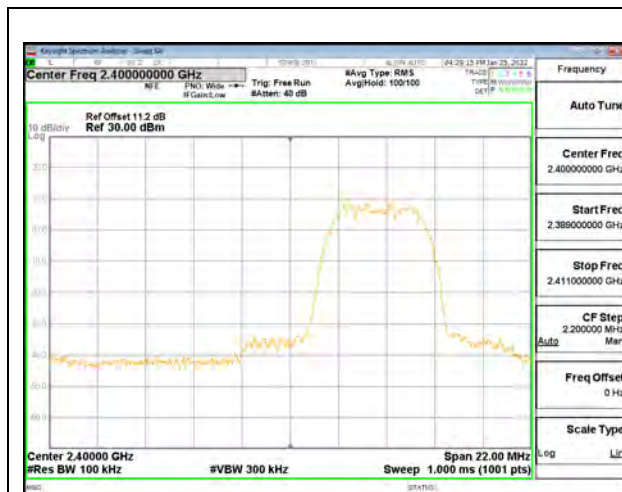
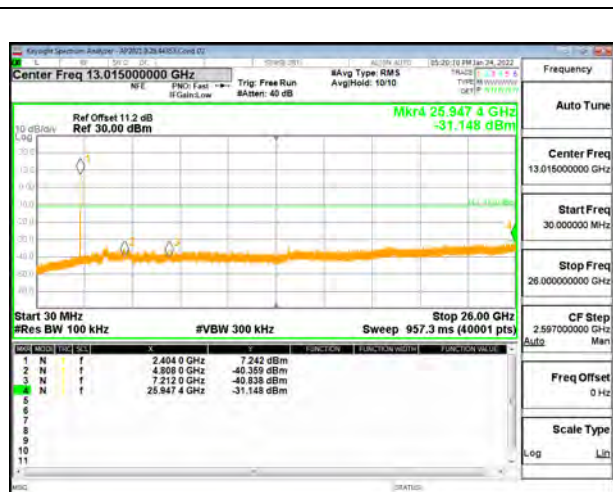
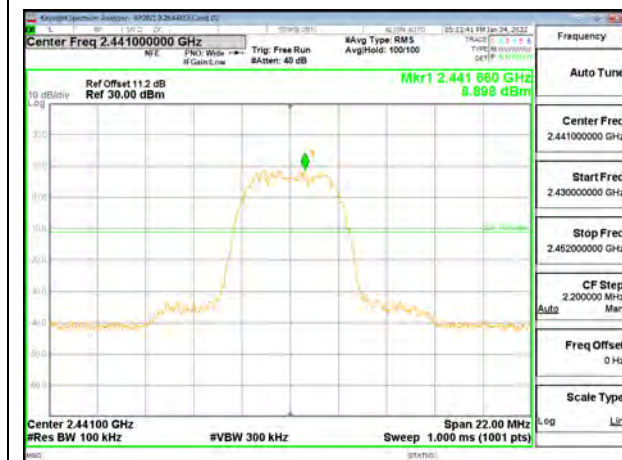
OUT-OF-BAND MID CHANNEL ANT 2



HIGH CHANNEL BANDEDGE ANT 2

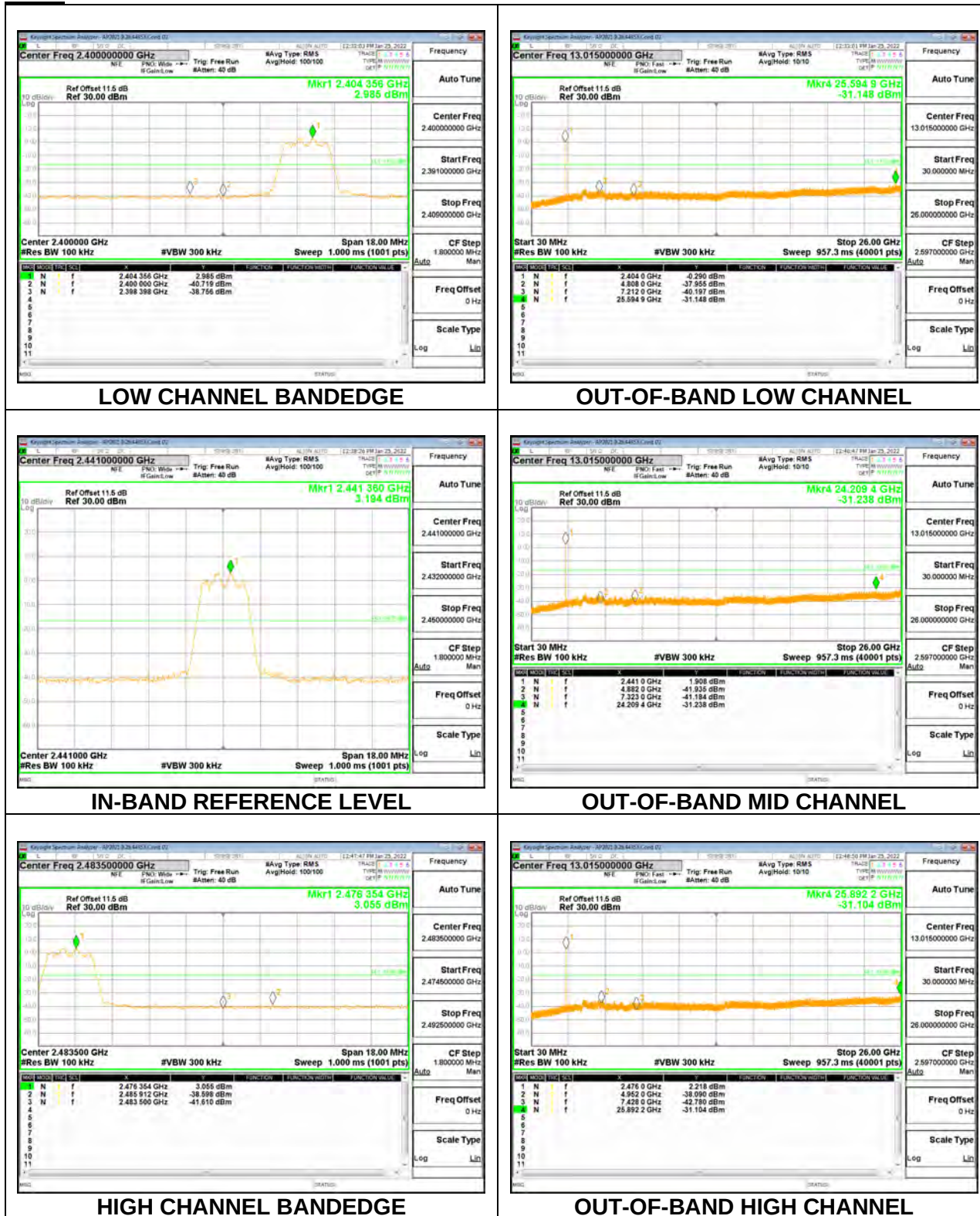


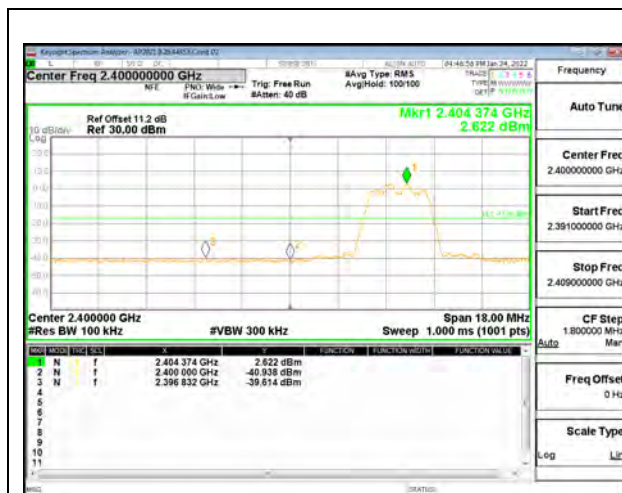
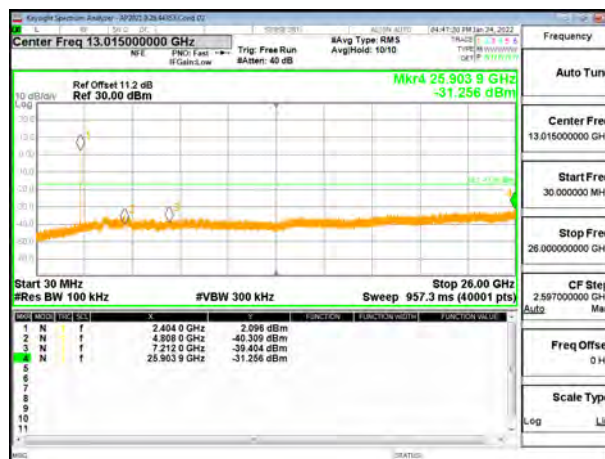
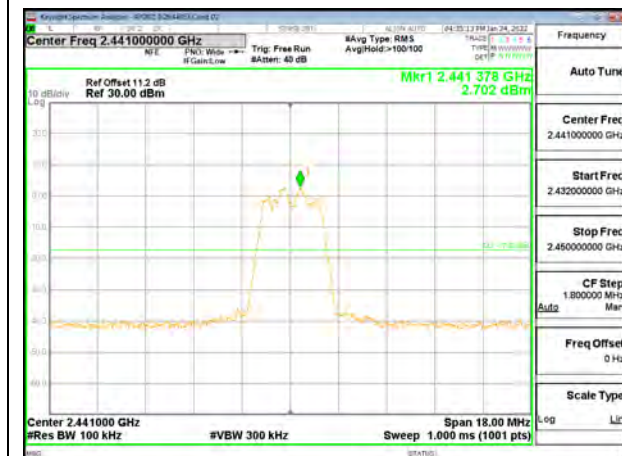
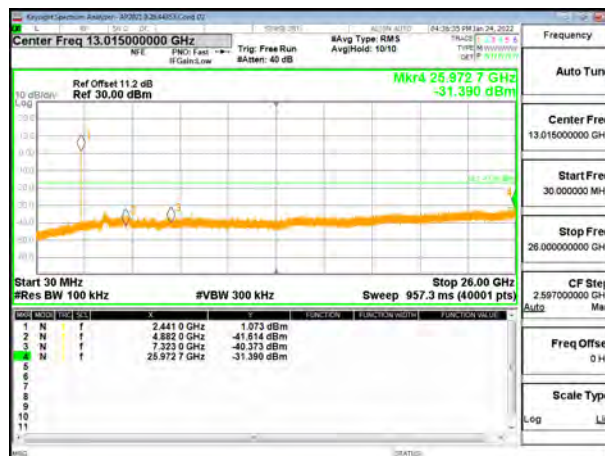
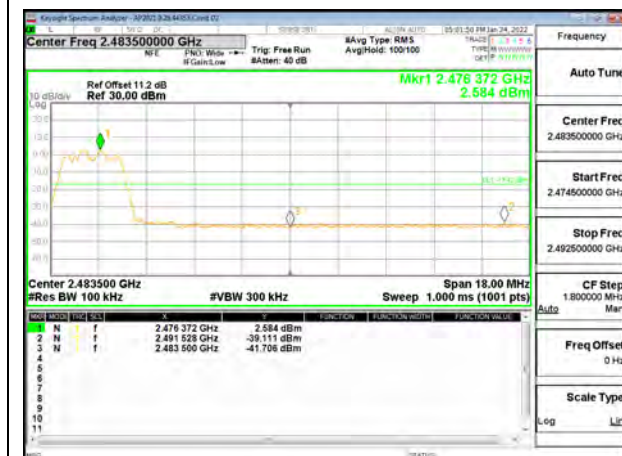
OUT-OF-BAND HIGH CHANNEL ANT 2

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

9.7.5. LOW POWER HDR (HDR4)

ANT 2



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

9.7.6. LOW POWER HDR TXBF (HDR4)

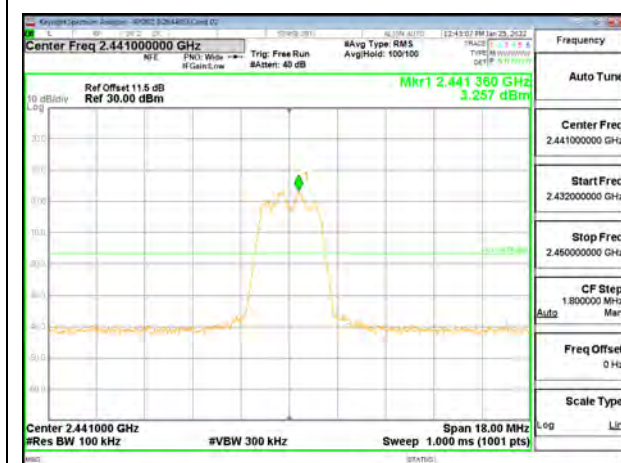
ANT 2



LOW CHANNEL BANDEDGE ANT 2



OUT-OF-BAND LOW CHANNEL ANT 2



IN-BAND REFERENCE LEVEL ANT 2



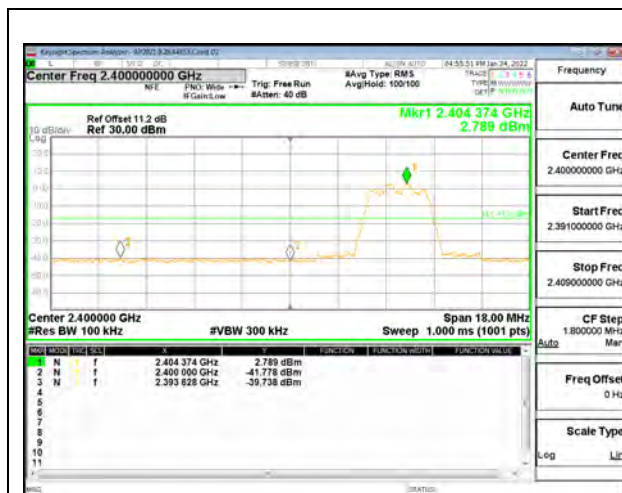
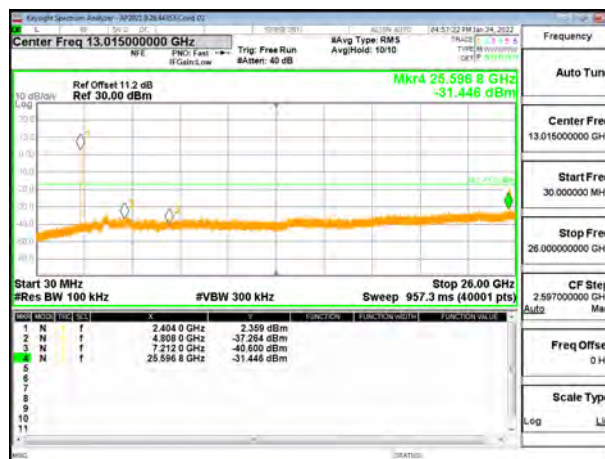
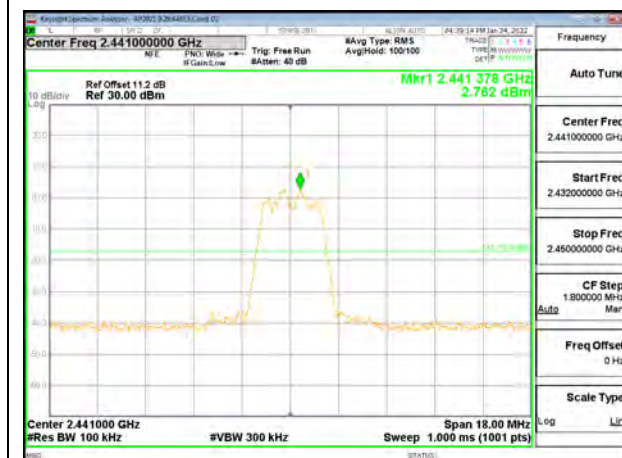
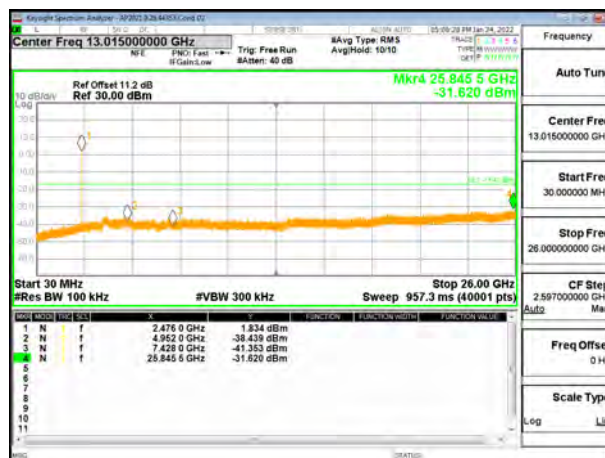
OUT-OF-BAND MID CHANNEL ANT 2



HIGH CHANNEL BANDEDGE ANT 2

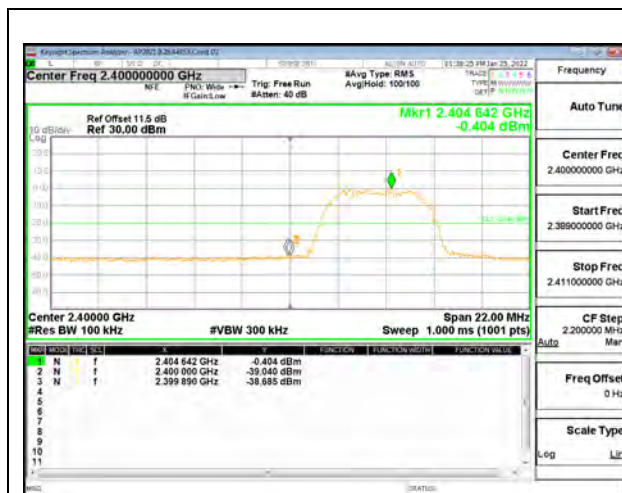


OUT-OF-BAND HIGH CHANNEL ANT 2

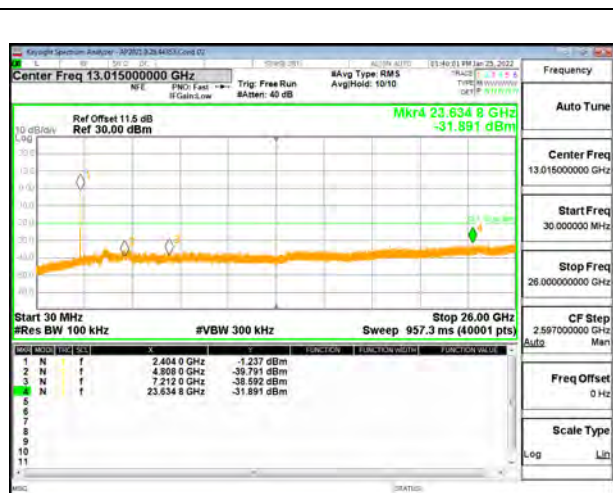
ANT 3**LOW CHANNEL BANDEDGE ANT 3****OUT-OF-BAND LOW CHANNEL ANT 3****IN-BAND REFERENCE LEVEL ANT 3****OUT-OF-BAND MID CHANNEL ANT 3****HIGH CHANNEL BANDEDGE ANT 3****OUT-OF-BAND HIGH CHANNEL ANT 3**

9.7.7. LOW POWER HDR (HDR8)

ANT 2



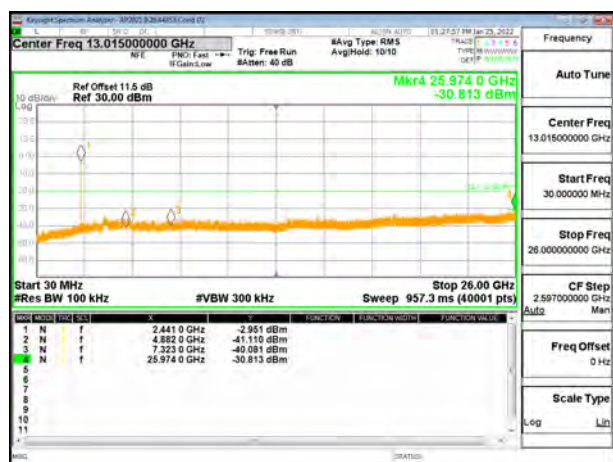
LOW CHANNEL BANDEDGE



OUT-OF-BAND LOW CHANNEL



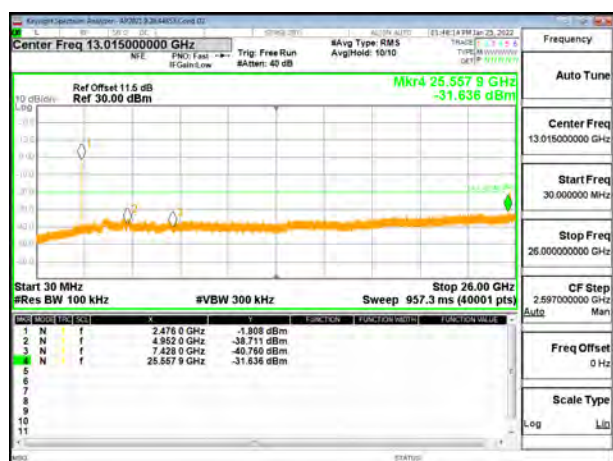
IN-BAND REFERENCE LEVEL



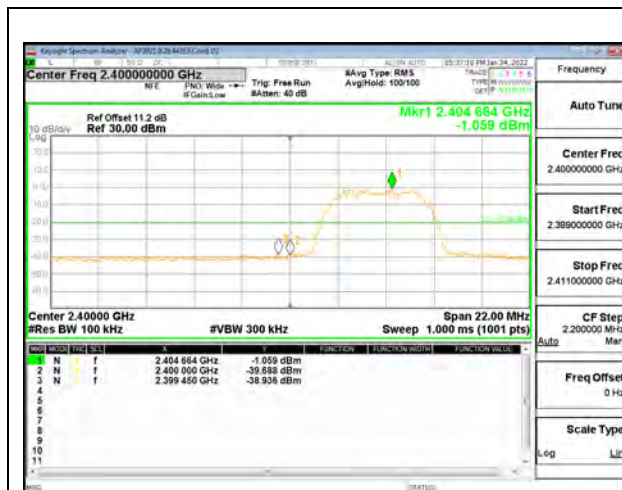
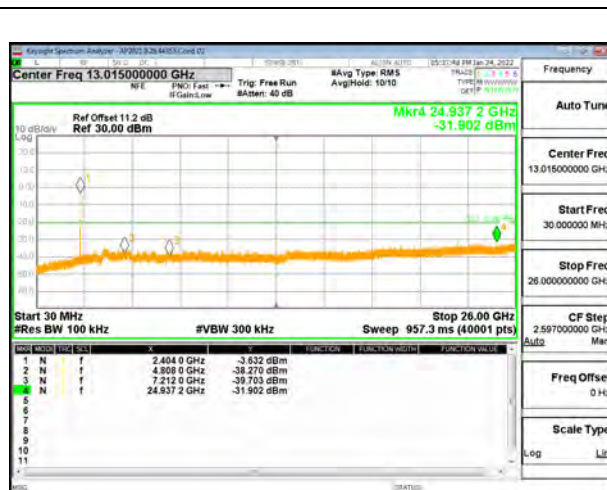
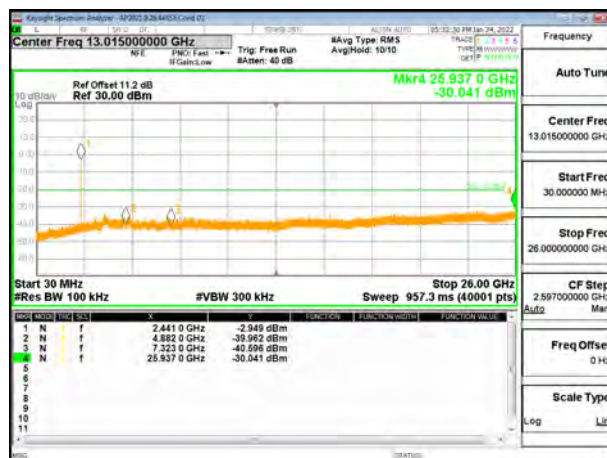
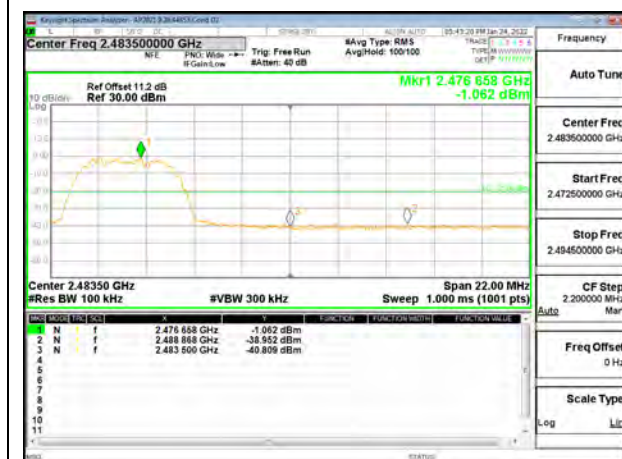
OUT-OF-BAND MID CHANNEL



HIGH CHANNEL BANDEDGE

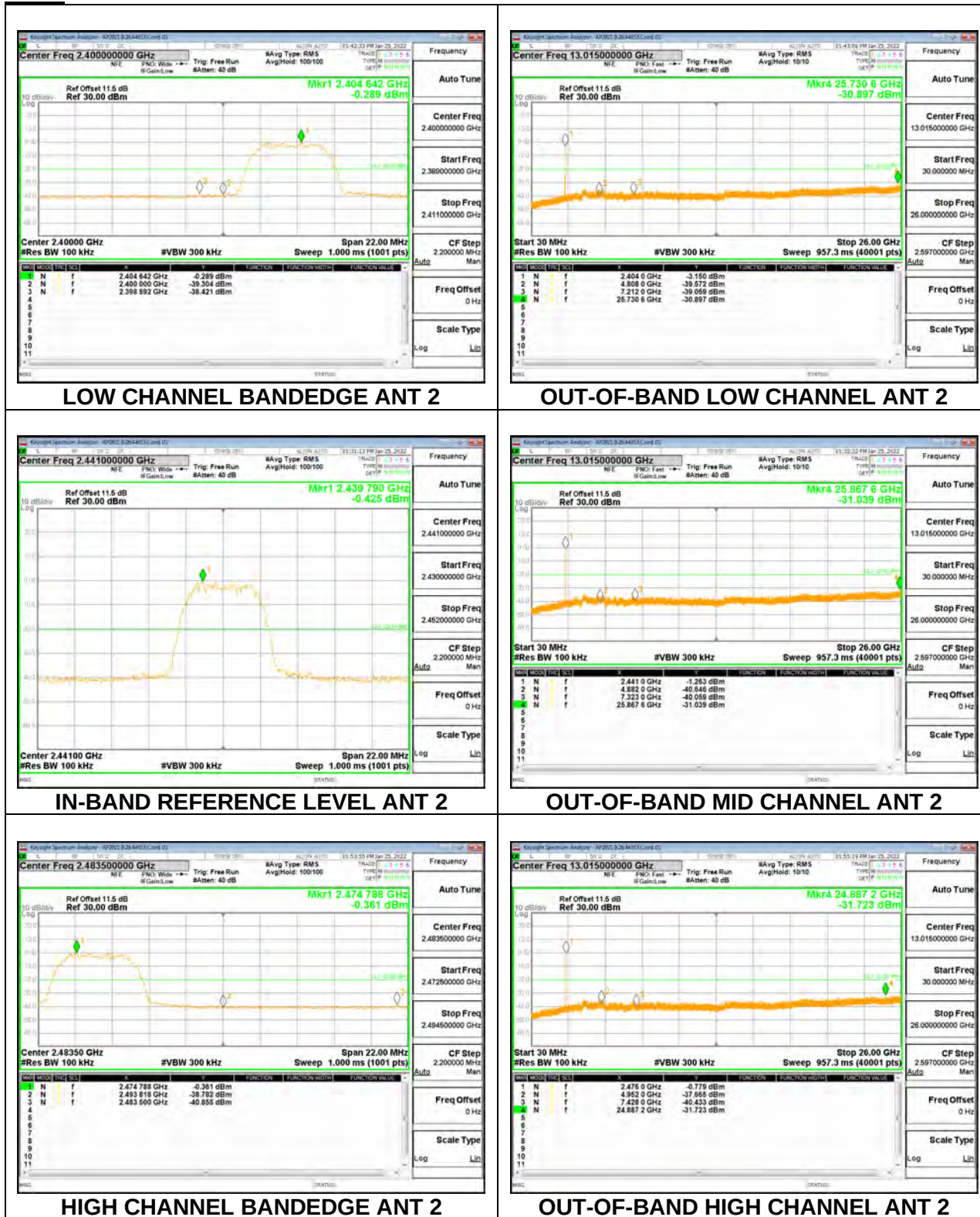


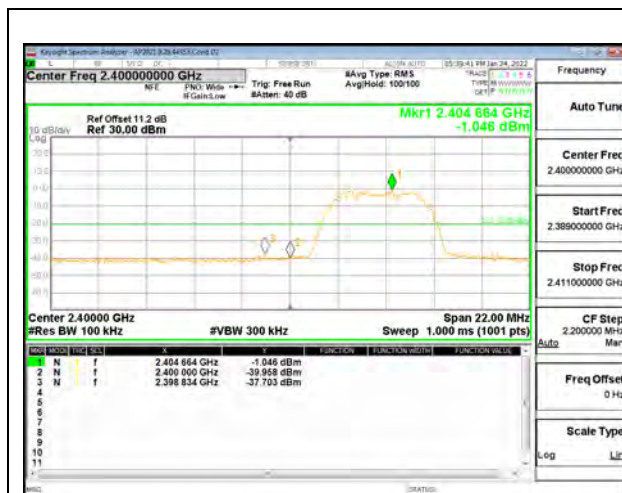
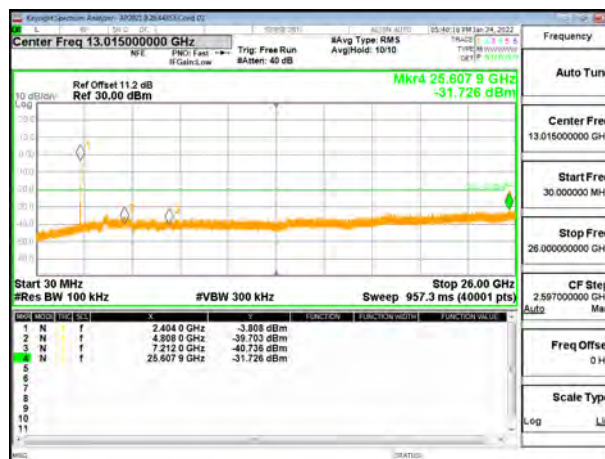
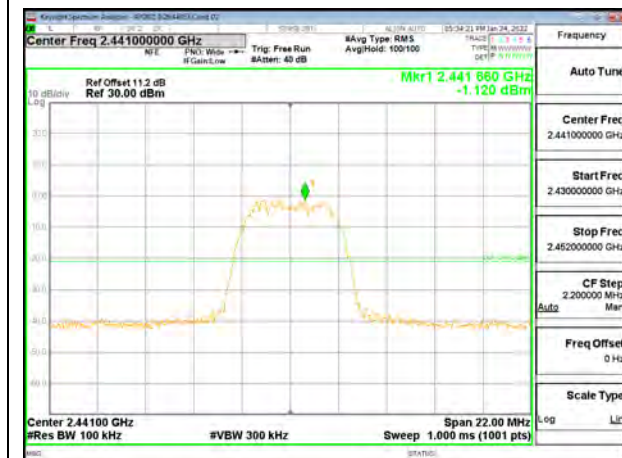
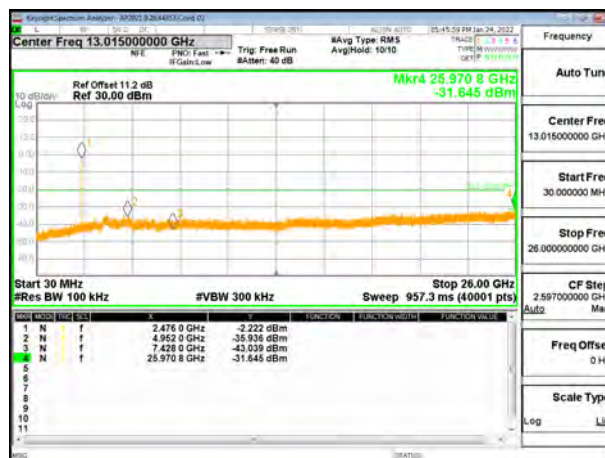
OUT-OF-BAND HIGH CHANNEL

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

9.7.8. LOW POWER HDR TXBF (HDR8)

ANT 2



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

10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

RSS-GEN, Section 8.9 and 8.10.

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

TEST PROCEDURE

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

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

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

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

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

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

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

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.

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

RESULTS:

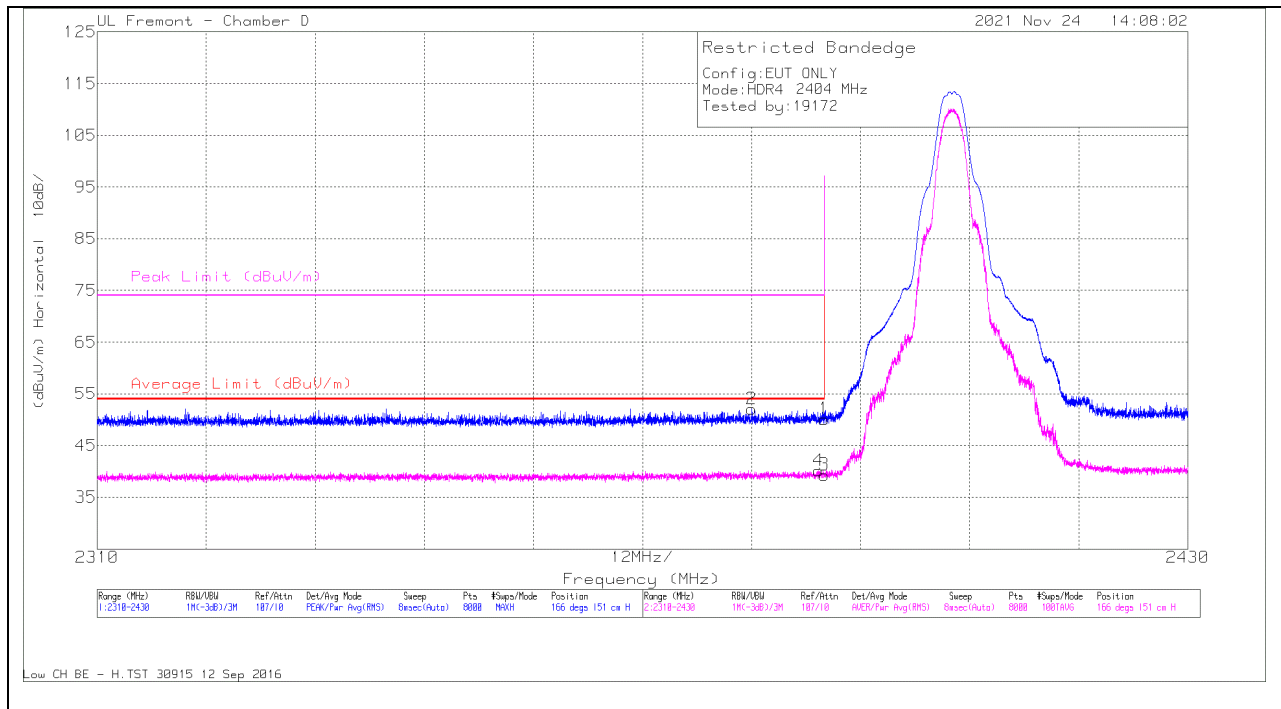
10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. HIGH POWER HDR (HDR4)

ANT 2

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



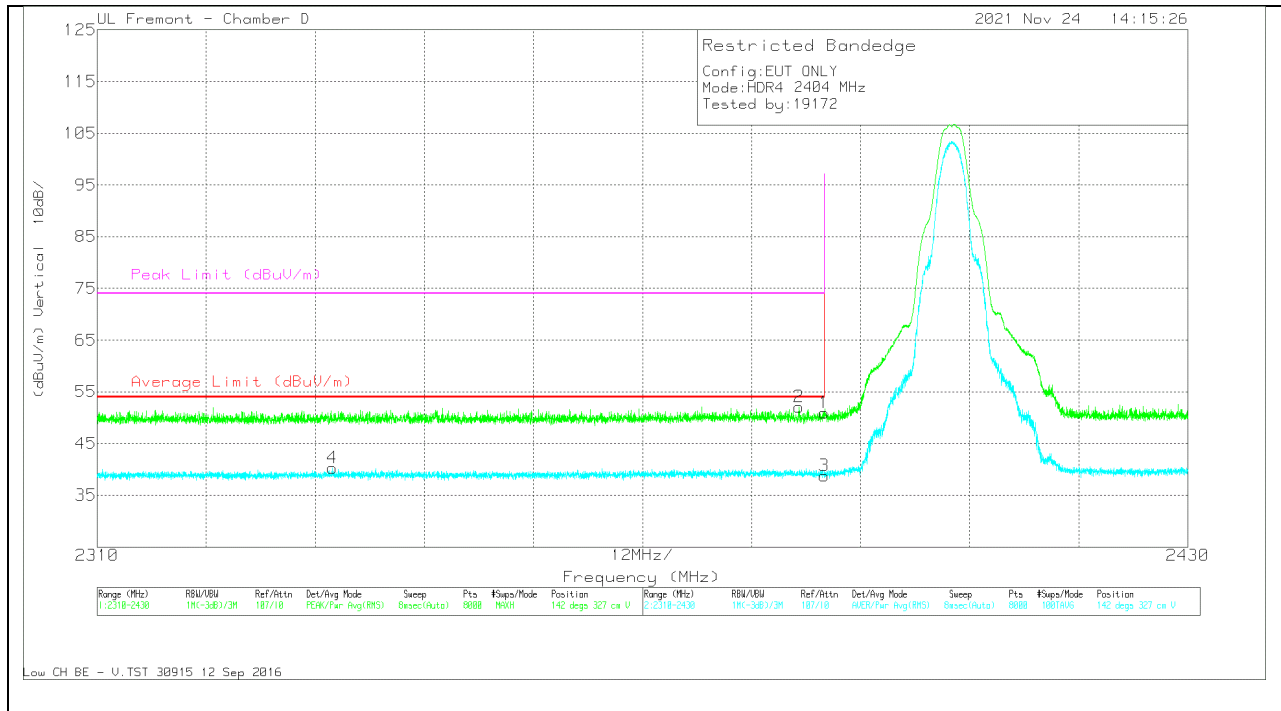
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl /Filt/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.72	Pk	32.1	-20.7	50.12	-	-	74	-23.88	166	151	H
2	* 2382.02	40.81	Pk	32.1	-20.8	52.11	-	-	74	-21.89	166	151	H
3	* 2390	27.92	RMS	32.1	-20.7	39.32	54	-14.68	-	-	166	151	H
4	* 2389.33	28.76	RMS	32.1	-20.7	40.16	54	-13.84	-	-	166	151	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

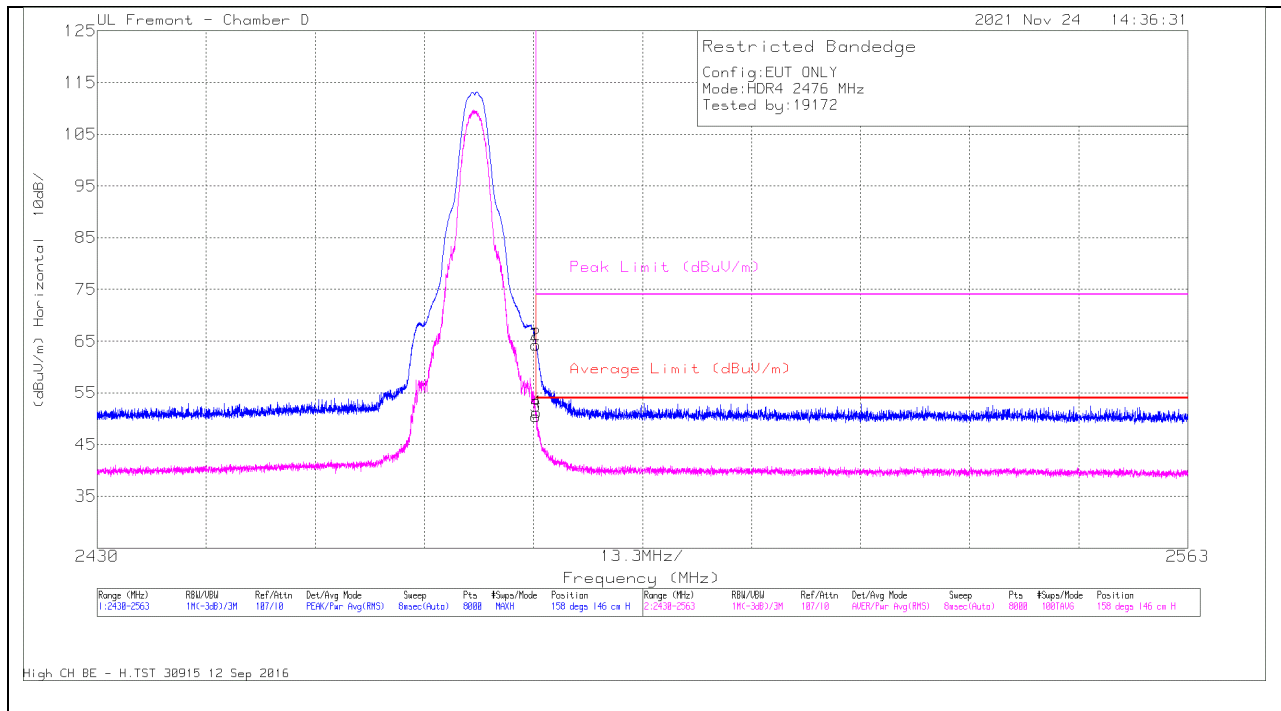


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr/ Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	39.57	Pk	32.1	-20.7	50.97	-	-	74	-23.03	142	327	V
2	* 2387.25	40.79	Pk	32.1	-20.8	52.09	-	-	74	-21.91	142	327	V
3	* 2390	27.32	RMS	32.1	-20.7	38.72	54	-15.28	-	-	142	327	V
4	* 2335.8	29.22	RMS	31.9	-20.9	40.22	54	-13.78	-	-	142	327	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

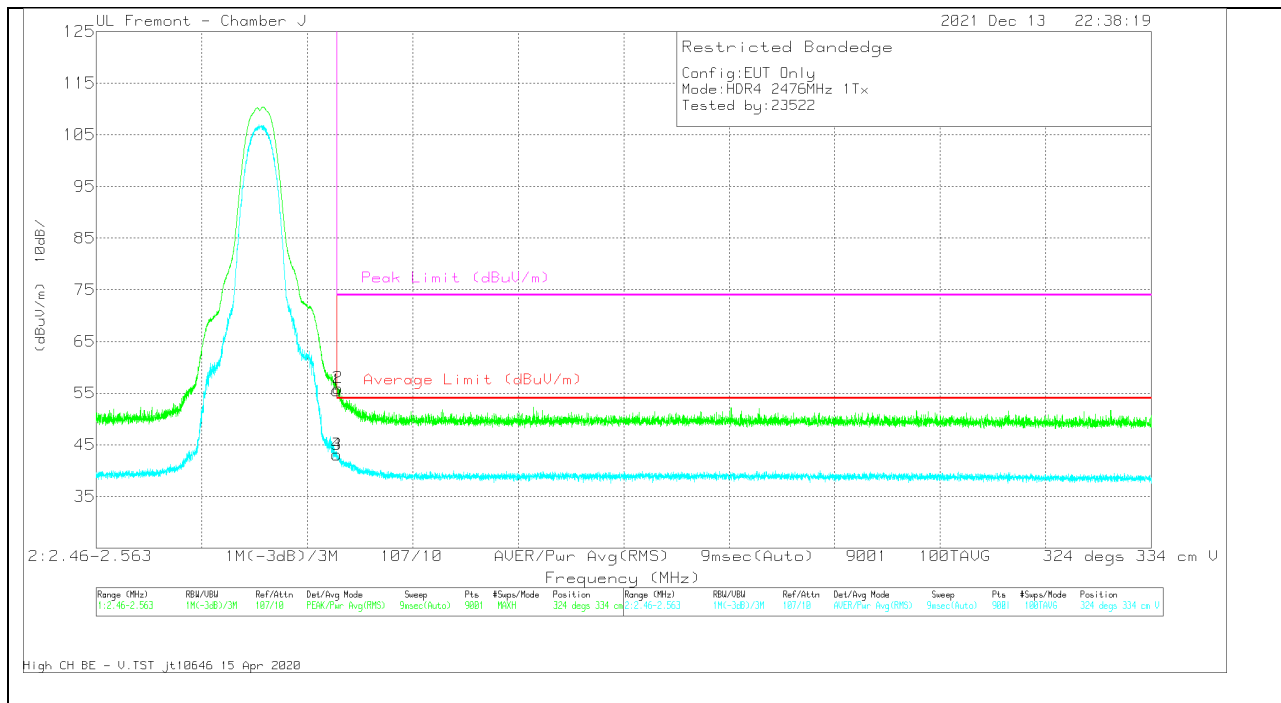
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cb/Filt/ Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	52.26	Pk	32.7	-20.7	64.26	-	-	74	-9.74	158	146	H
2	* 2483.522	52.22	Pk	32.7	-20.7	64.22	-	-	74	-9.78	158	146	H
3	* 2483.5	38.39	RMS	32.7	-20.7	50.39	54	-3.61	-	-	158	146	H
4	* 2483.539	39.24	RMS	32.7	-20.7	51.24	54	-2.76	-	-	158	146	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

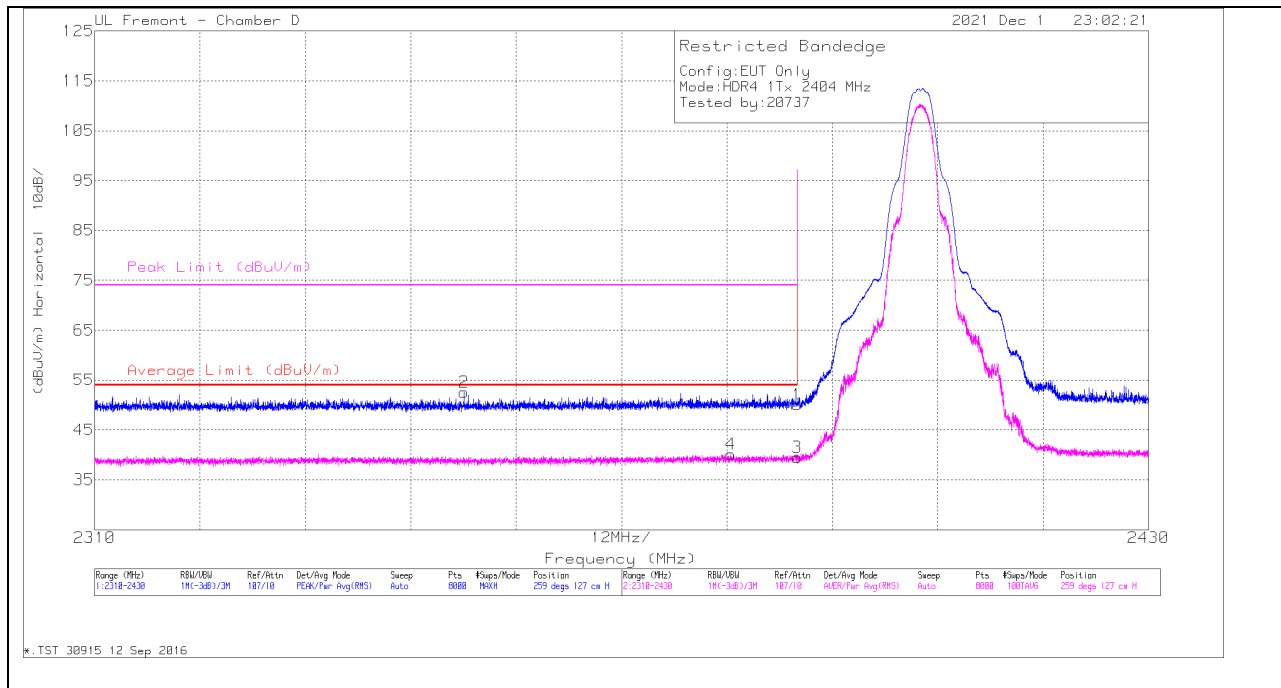


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 206806 (dB/m)	Amp/Cb/ Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	50.21	Pk	32.4	-27.1	55.51	-	-	74	-18.49	324	334	V
2	* 2483.609	50.68	Pk	32.4	-27.1	55.98	-	-	74	-18.02	324	334	V
3	* 2483.5	37.8	RMS	32.4	-27.1	43.1	54	-10.9	-	-	324	334	V
4	* 2483.506	37.79	RMS	32.4	-27.1	43.09	54	-10.91	-	-	324	334	V

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

Pk - Peak detector

RMS - RMS detection

ANT 3**BANDEDGE (LOW CHANNEL)****HORIZONTAL RESULT**

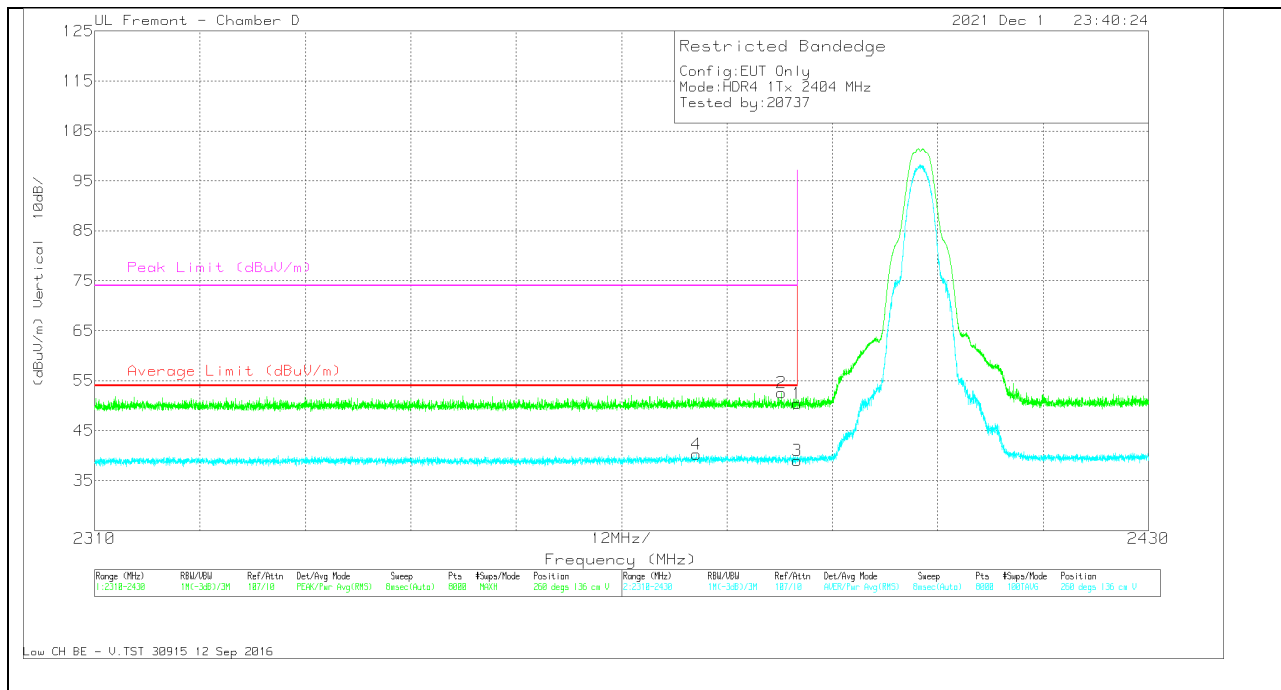
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Ftr /Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.66	Pk	32.1	-20.7	50.06	-	-	74	-23.94	259	127	H
2	* 2352.051	41.68	Pk	31.8	-20.9	52.58	-	-	74	-21.42	259	127	H
3	* 2390	28.11	RMS	32.1	-20.7	39.51	54	-14.49	-	-	259	127	H
4	* 2382.43	28.85	RMS	32.1	-20.8	40.15	54	-13.85	-	-	259	127	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

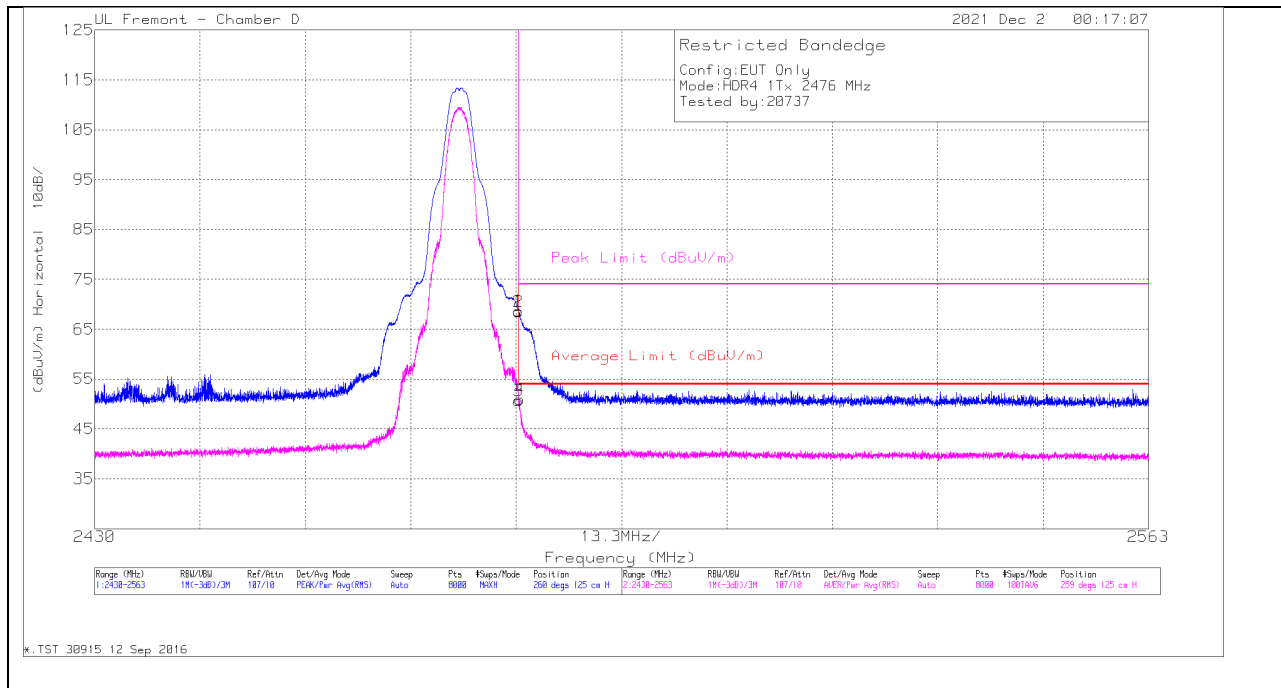


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt/ Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	39.03	Pk	32.1	-20.7	50.43	-	-	74	-23.57	260	136	V
2	* 2388.22	41.15	Pk	32.1	-20.7	52.55	-	-	74	-21.45	260	136	V
3	* 2390	27.65	RMS	32.1	-20.7	39.05	54	-14.95	-	-	260	136	V
4	* 2378.499	28.99	RMS	32.1	-20.8	40.29	54	-13.71	-	-	260	136	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

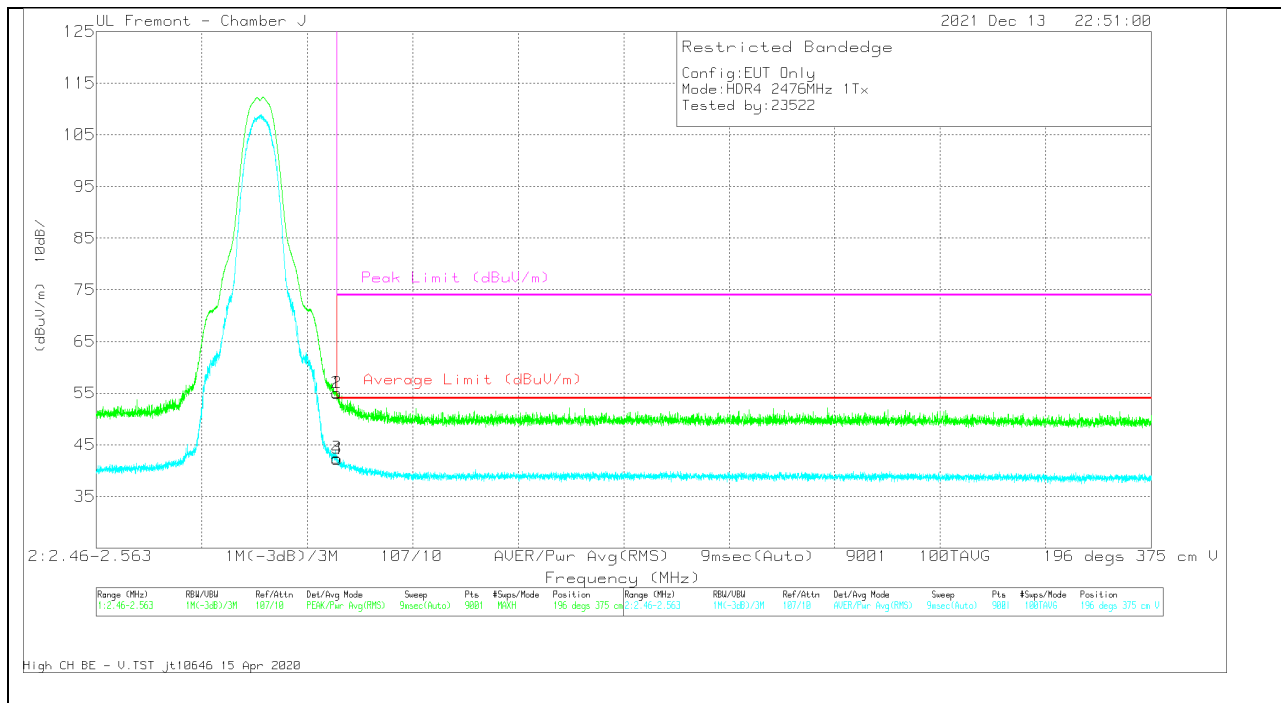
Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	56.63	Pk	32.7	-20.7	68.63	-	-	74	-5.37	260	125	H
3	* 2483.5	38.74	RMS	32.7	-20.7	50.74	54	-3.26	-	-	259	125	H
2	* 2483.506	56.56	Pk	32.7	-20.7	68.56	-	-	74	-5.44	260	125	H
4	* 2483.622	38.98	RMS	32.7	-20.7	50.98	54	-3.02	-	-	259	125	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL RESULT

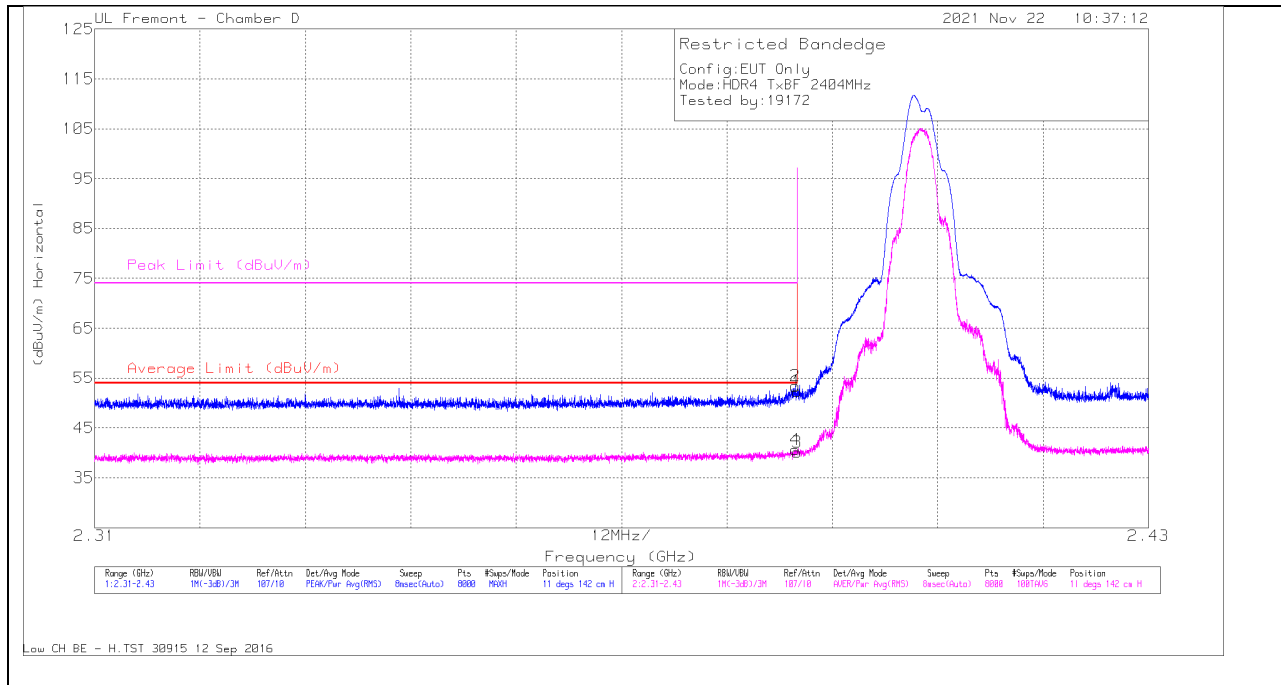


Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	AF 206806 (dB/m)	Amp/Cbl/Filtr/ Pad (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	49.72	Pk	32.4	-27.1	55.02	-	-	74	-18.98	196	375	V
2	* 2483.506	49.77	Pk	32.4	-27.1	55.07	-	-	74	-18.93	196	375	V
3	* 2483.5	37.13	RMS	32.4	-27.1	42.43	54	-11.57	-	-	196	375	V
4	* 2483.517	36.94	RMS	32.4	-27.1	42.24	54	-11.76	-	-	196	375	V

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

Pk - Peak detector

RMS - RMS detection

10.2.2. HIGH POWER HDR TXBF (HDR4)**BANDEDGE (LOW CHANNEL)****HORIZONTAL RESULT**

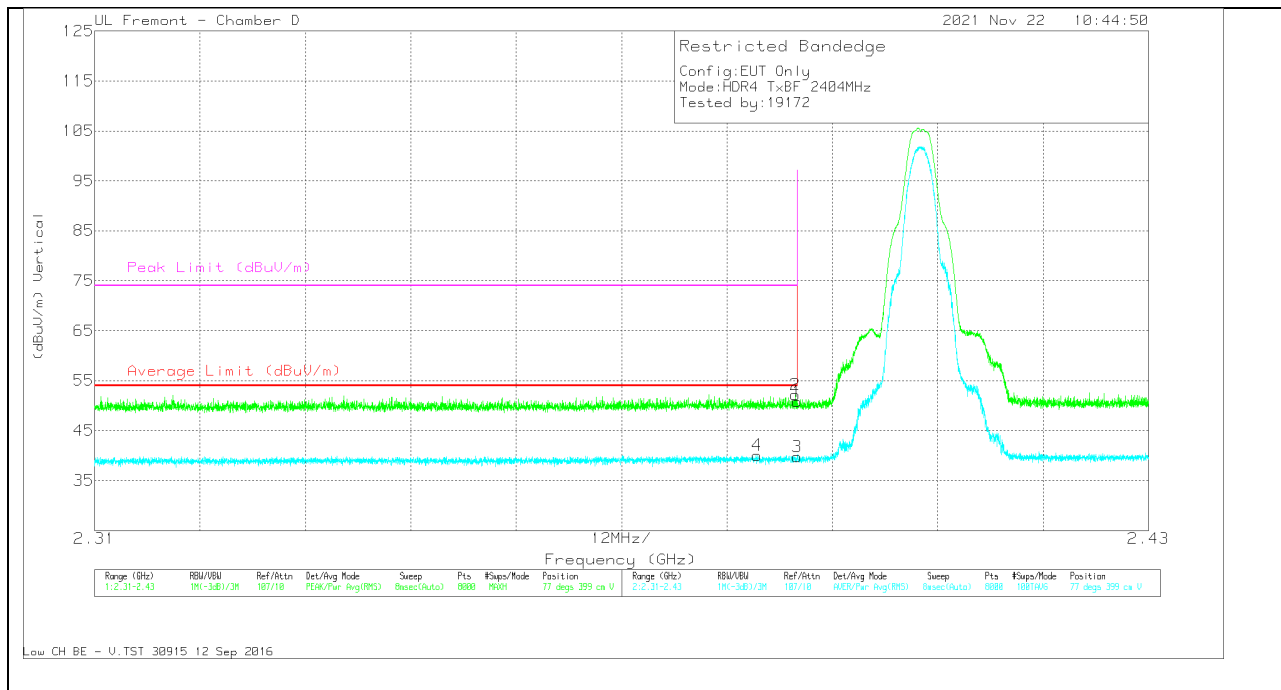
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.89	Pk	32.1	-20.7	52.29	-	-	74	-21.71	11	142	H
2	* 2.38978	41.99	Pk	32.1	-20.7	53.39	-	-	74	-20.61	11	142	H
3	* 2.39	28.77	RMS	32.1	-20.7	40.17	54	-13.83	-	-	11	142	H
4	* 2.38981	29.25	RMS	32.1	-20.7	40.65	54	-13.35	-	-	11	142	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

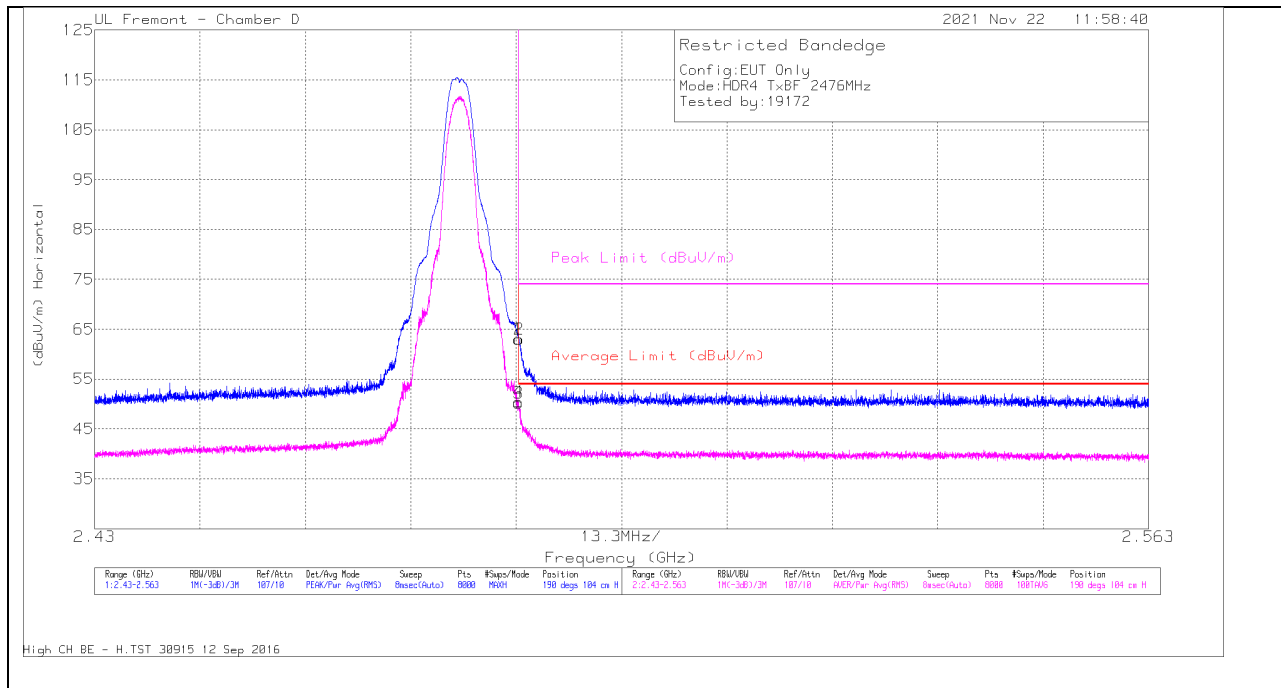


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Ampl/Cbll/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.4	Pk	32.1	-20.7	50.8	-	-	74	-23.2	77	399	V
2	* 2.3898	40.82	Pk	32.1	-20.7	52.22	-	-	74	-21.78	77	399	V
3	* 2.39	28.39	RMS	32.1	-20.7	39.79	54	-14.21	-	-	77	399	V
4	* 2.38542	28.77	RMS	32.1	-20.8	40.07	54	-13.93	-	-	77	399	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

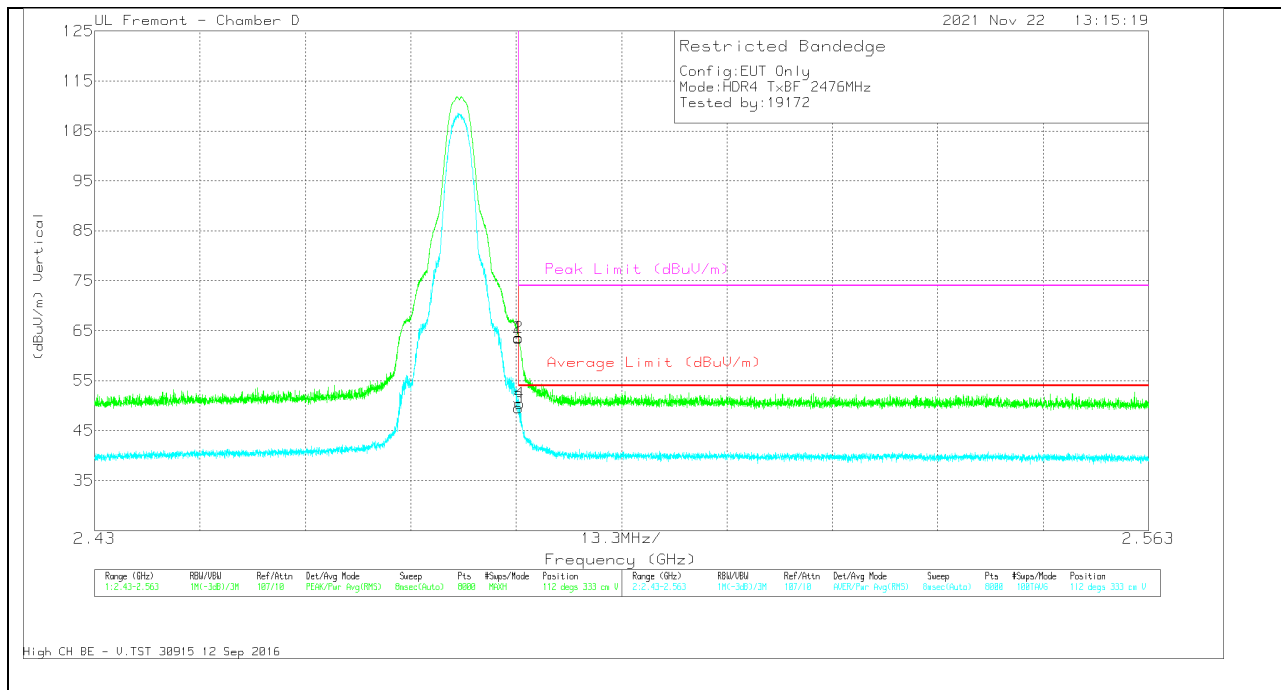
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbll/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	50.97	Pk	32.7	-20.7	62.97	-	-	74	-11.03	190	104	H
2	* 2.48354	51.01	Pk	32.7	-20.7	63.01	-	-	74	-10.99	190	104	H
3	* 2.4835	38.17	RMS	32.7	-20.7	50.17	54	-3.83	-	-	190	104	H
4	* 2.48351	38.38	RMS	32.7	-20.7	50.38	54	-3.62	-	-	190	104	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

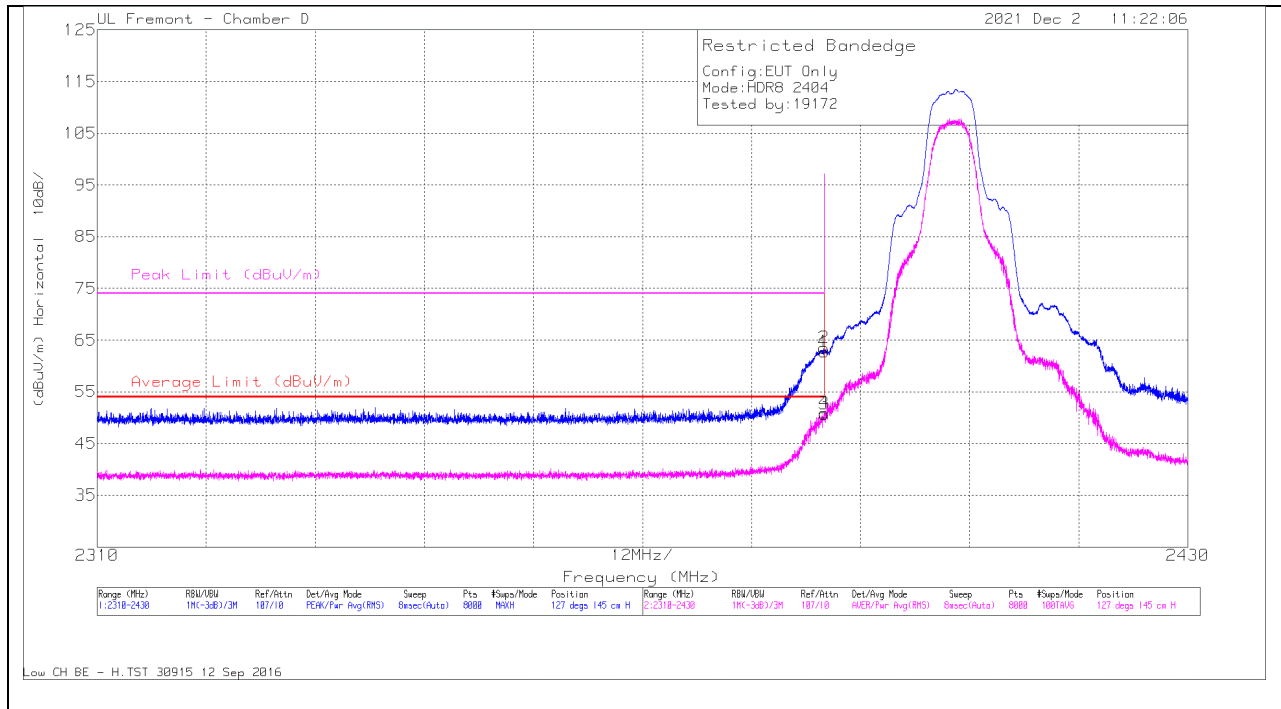


Marker	Frequency (GHz)	Meter Reading (dBUV)	Det	AF T712 (dB/m)	Amp/CbI/Filt/Pa d (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	51.51	Pk	32.7	-20.7	63.51	-	-	74	-10.49	112	333	V
2	* 2.48352	51.61	Pk	32.7	-20.7	63.61	-	-	74	-10.39	112	333	V
3	* 2.4835	37.54	RMS	32.7	-20.7	49.54	54	-4.46	-	-	112	333	V
4	* 2.48364	38.44	RMS	32.7	-20.7	50.44	54	-3.56	-	-	112	333	V

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

Pk - Peak detector

RMS - RMS detection

10.2.3. HIGH POWER HDR (HDR8)**ANT 2****BANDEDGE (LOW CHANNEL)****HORIZONTAL RESULT**

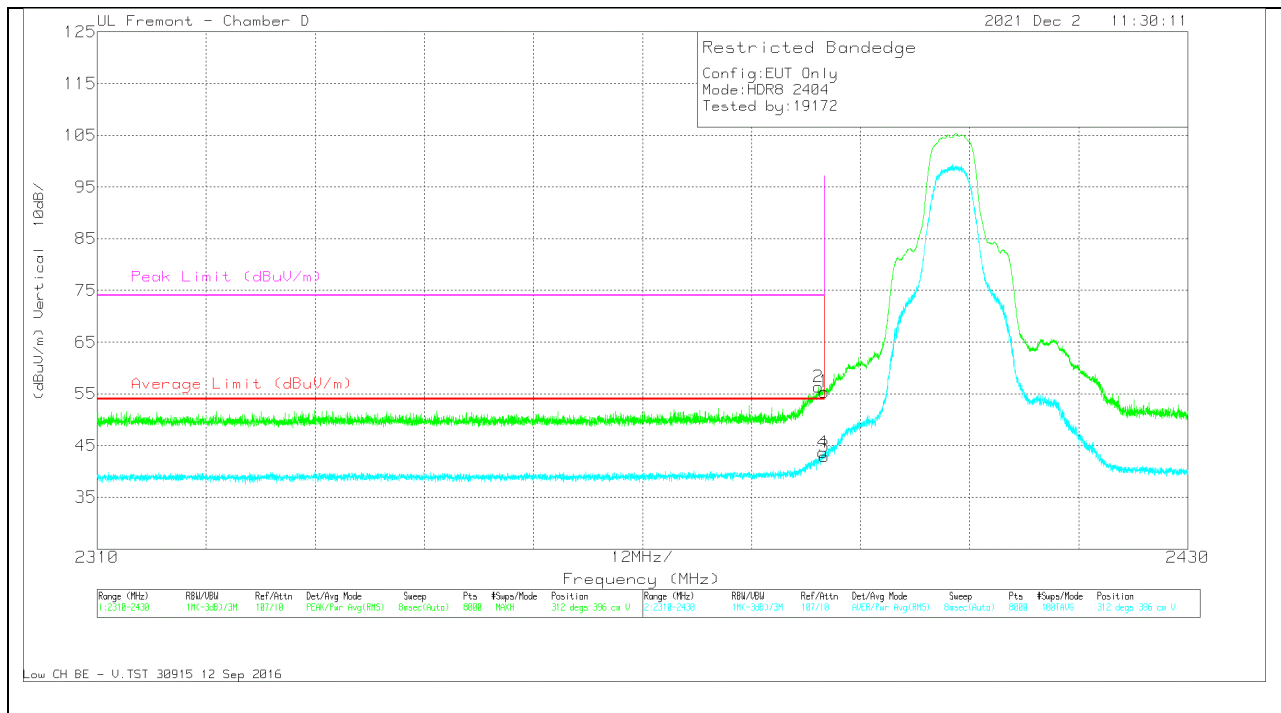
Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	AF T712 (dB/m)	Amp/CbI/Filt/Pa d (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	51.29	PK	32.1	-20.7	62.69	-	-	74	-11.31	127	145	H
2	* 2389.961	52.05	PK	32.1	-20.7	63.45	-	-	74	-10.55	127	145	H
3	* 2390	39.35	RMS	32.1	-20.7	50.75	54	-3.25	-	-	127	145	H
4	* 2389.991	39.49	RMS	32.1	-20.7	50.89	54	-3.11	-	-	127	145	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL RESULT

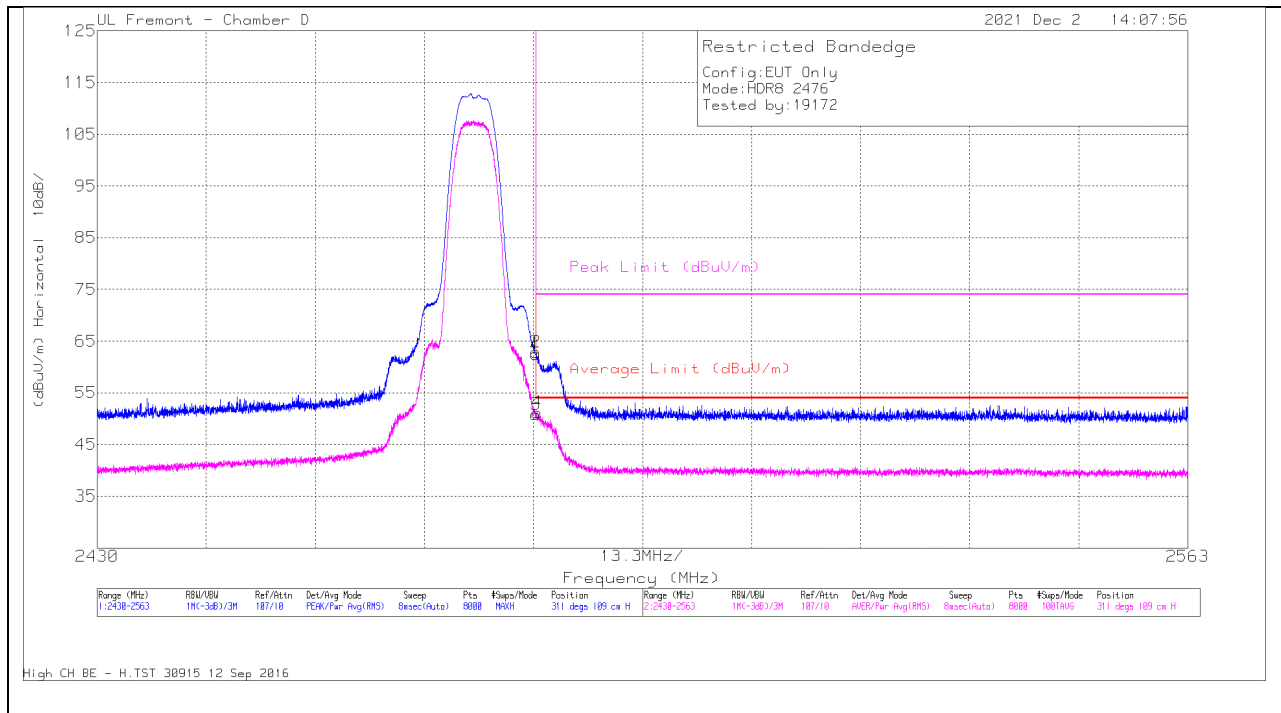


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	43.99	Pk	32.1	-20.7	55.39	-	-	74	-18.61	312	396	V
2	* 2389.346	44.92	Pk	32.1	-20.7	56.32	-	-	74	-17.68	312	396	V
3	* 2390	31.47	RMS	32.1	-20.7	42.87	54	-11.13	-	-	312	396	V
4	* 2389.826	32.24	RMS	32.1	-20.7	43.64	54	-10.36	-	-	312	396	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

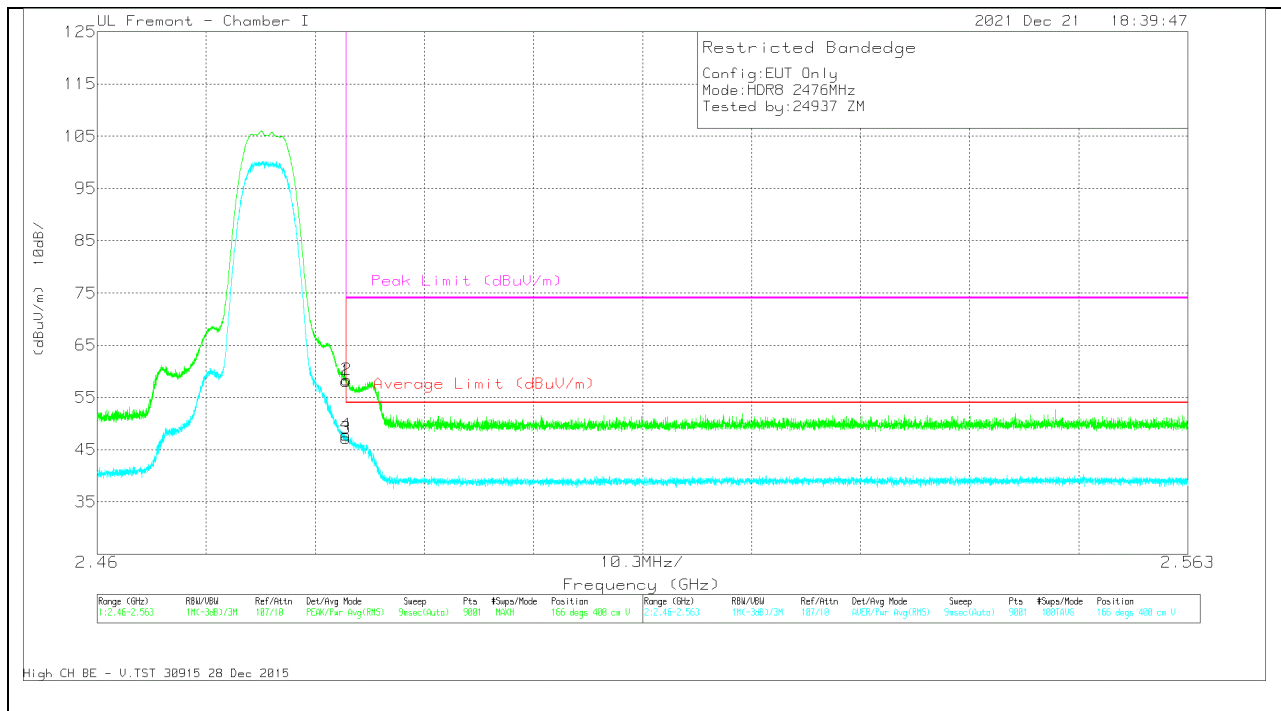
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dBm)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	50.55	Pk	32.7	-20.7	62.55	-	-	74	-11.45	311	109	H
2	* 2483.506	50.82	Pk	32.7	-20.7	62.82	-	-	74	-11.18	311	109	H
3	* 2483.5	38.8	RMS	32.7	-20.7	50.8	54	-3.2	-	-	311	109	H
4	* 2483.622	39.17	RMS	32.7	-20.7	51.17	54	-2.83	-	-	311	109	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

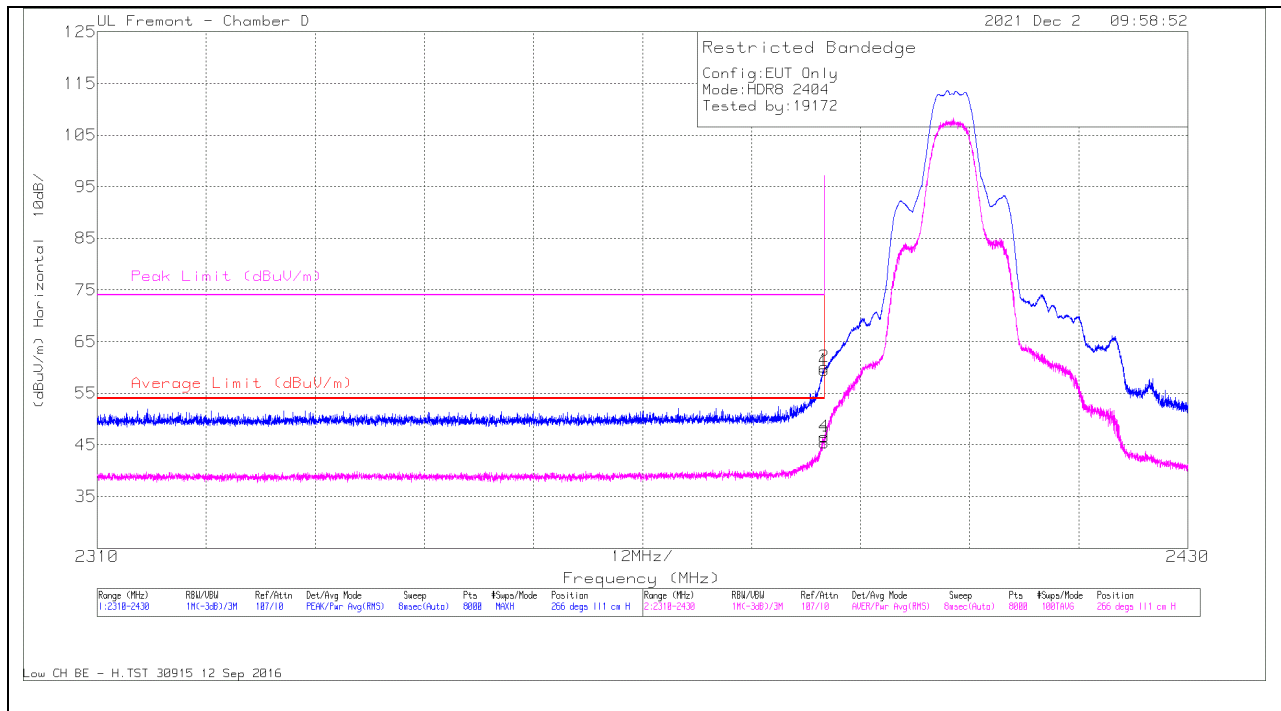


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 206805 (dB/m)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	45.19	Pk	32.1	-19.2	58.09	-	-	74	-15.91	166	400	V
2	* 2.483575	45.47	Pk	32.1	-19.2	58.37	-	-	74	-15.63	166	400	V
3	* 2.4835	34.26	RMS	32.1	-19.2	47.16	54	-6.84	-	-	166	400	V
4	* 2.483517	34.92	RMS	32.1	-19.2	47.82	54	-6.18	-	-	166	400	V

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

Pk - Peak detector

RMS - RMS detection

ANT 3**BANDEDGE (LOW CHANNEL)****HORIZONTAL RESULT**

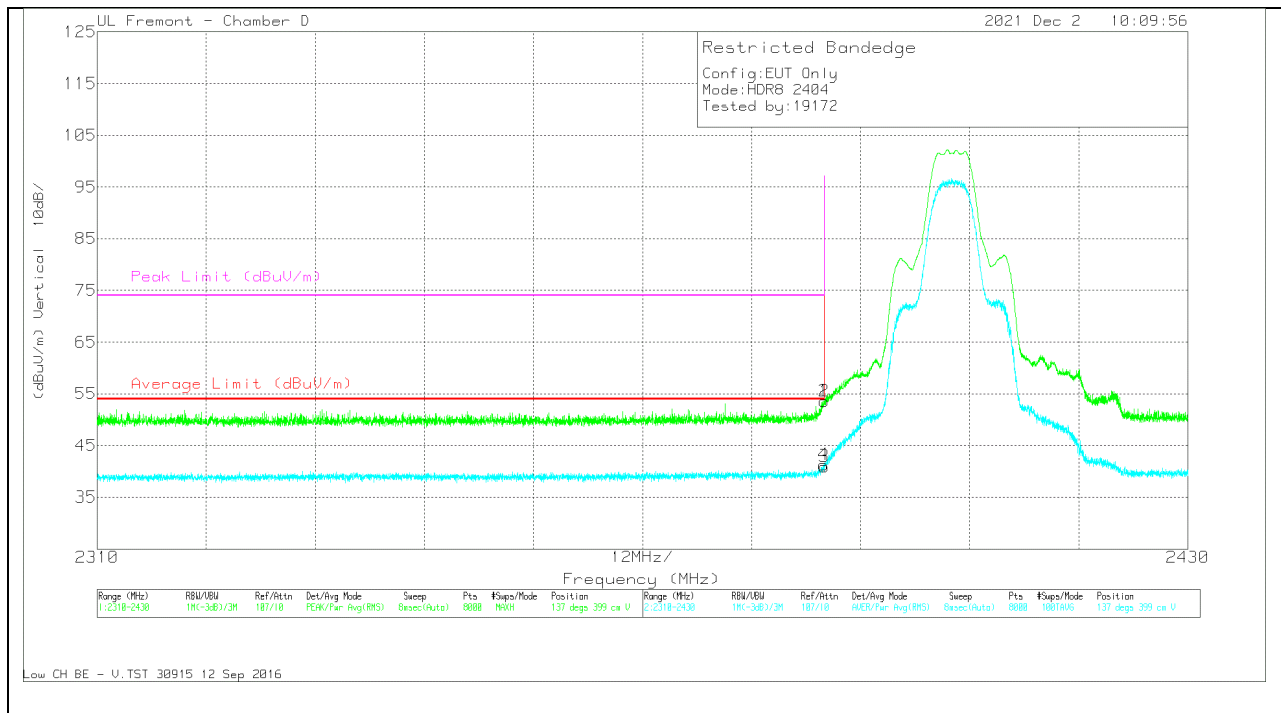
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/CbI/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	48.04	PK	32.1	-20.7	59.44	-	-	74	-14.56	266	111	H
2	* 2389.976	48.68	PK	32.1	-20.7	60.08	-	-	74	-13.92	266	111	H
3	* 2390	34.06	RMS	32.1	-20.7	45.46	54	-8.54	-	-	266	111	H
4	* 2389.976	35.13	RMS	32.1	-20.7	46.53	54	-7.47	-	-	266	111	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL RESULT

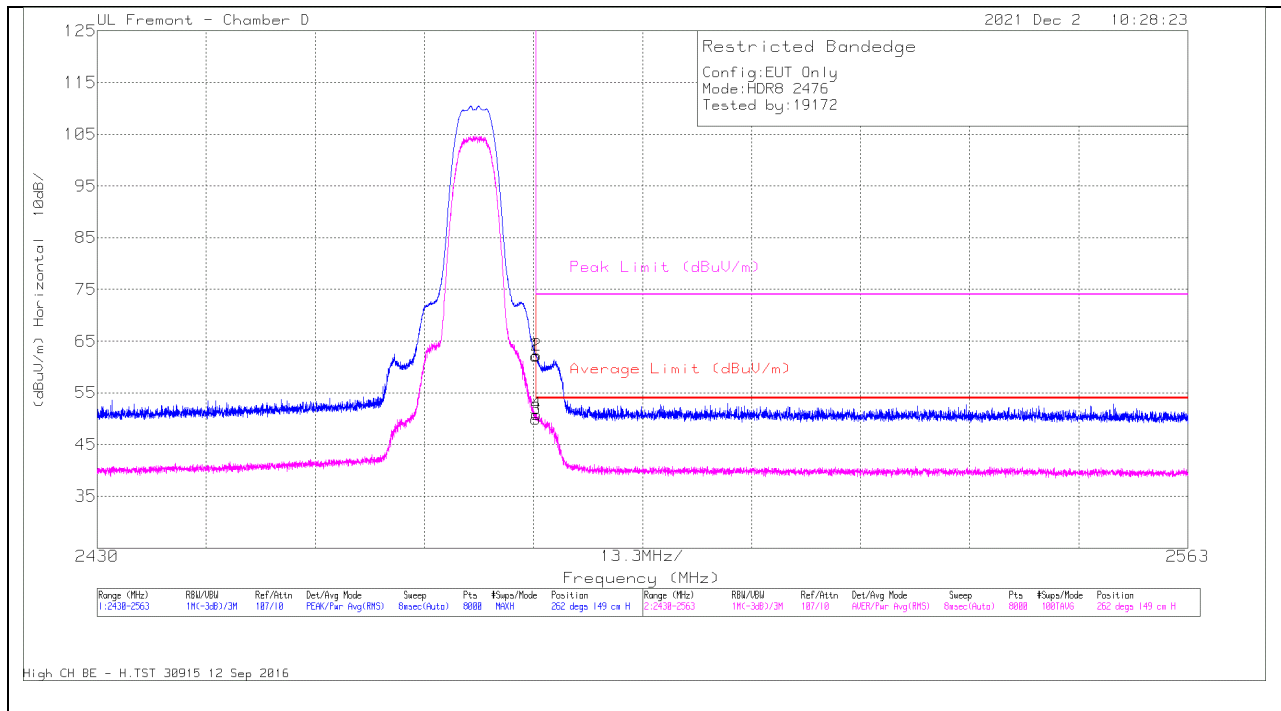


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	42.2	Pk	32.1	-20.7	53.6	-	-	74	-20.4	137	399	V
2	* 2389.991	42.16	Pk	32.1	-20.7	53.56	-	-	74	-20.44	137	399	V
3	* 2390	29.55	RMS	32.1	-20.7	40.95	54	-13.05	-	-	137	399	V
4	* 2389.916	29.85	RMS	32.1	-20.7	41.25	54	-12.75	-	-	137	399	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

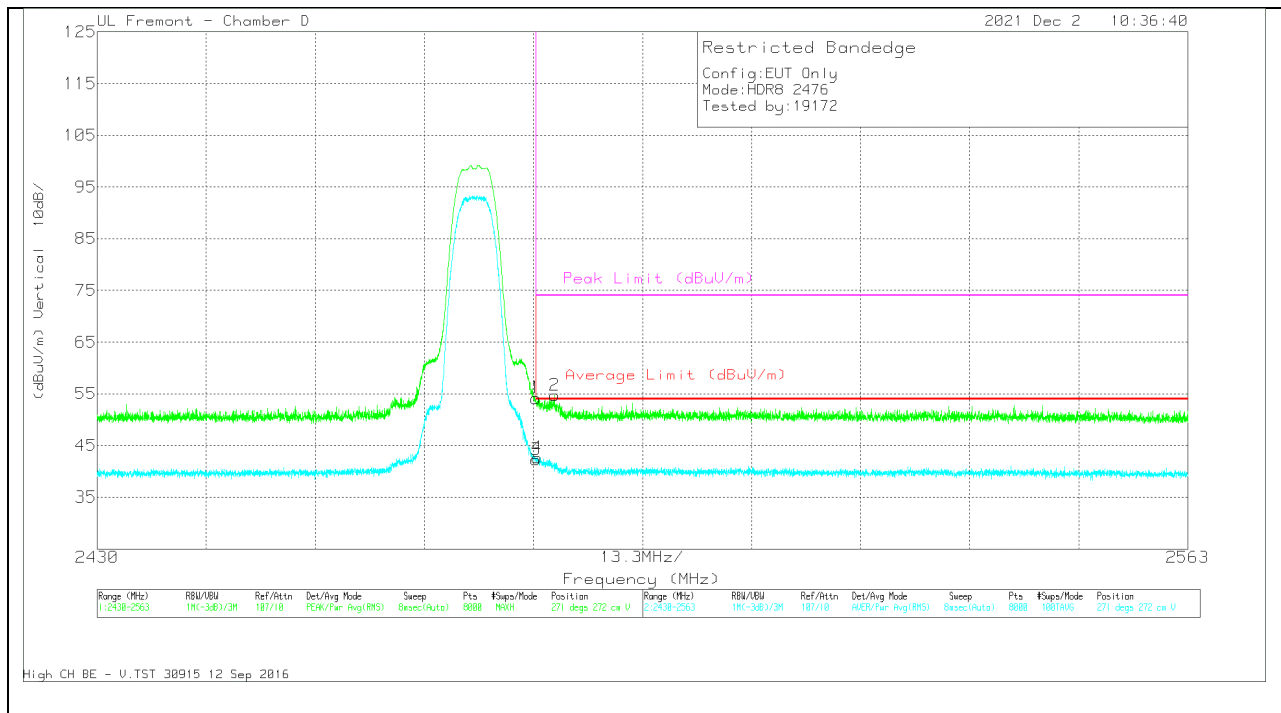
Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	AF T712 (dBm)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	50.08	Pk	32.7	-20.7	62.08	-	-	74	-11.92	262	149	H
2	* 2483.605	50.19	Pk	32.7	-20.7	62.19	-	-	74	-11.81	262	149	H
3	* 2483.5	37.97	RMS	32.7	-20.7	49.97	54	-4.03	-	-	262	149	H
4	* 2483.605	38.87	RMS	32.7	-20.7	50.87	54	-3.13	-	-	262	149	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

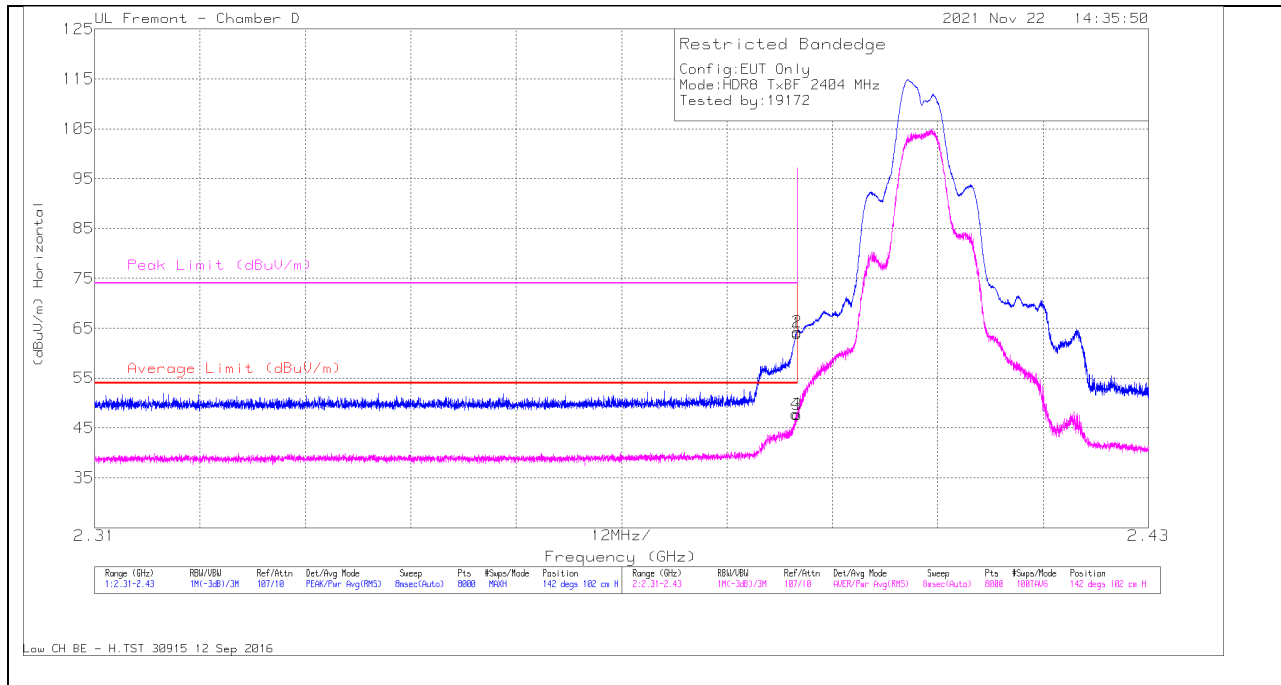


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/CbI/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	42.14	Pk	32.7	-20.7	54.14	-	-	74	-19.86	271	272	V
2	* 2485.75	42.66	Pk	32.7	-20.7	54.66	-	-	74	-19.34	271	272	V
3	* 2483.5	30.31	RMS	32.7	-20.7	42.31	54	-11.69	-	-	271	272	V
4	* 2483.639	30.7	RMS	32.7	-20.7	42.7	54	-11.3	-	-	271	272	V

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

Pk - Peak detector

RMS - RMS detection

10.2.4. HIGH POWER HDR TXBF (HDR8)**BANDEDGE (LOW CHANNEL)****HORIZONTAL RESULT**

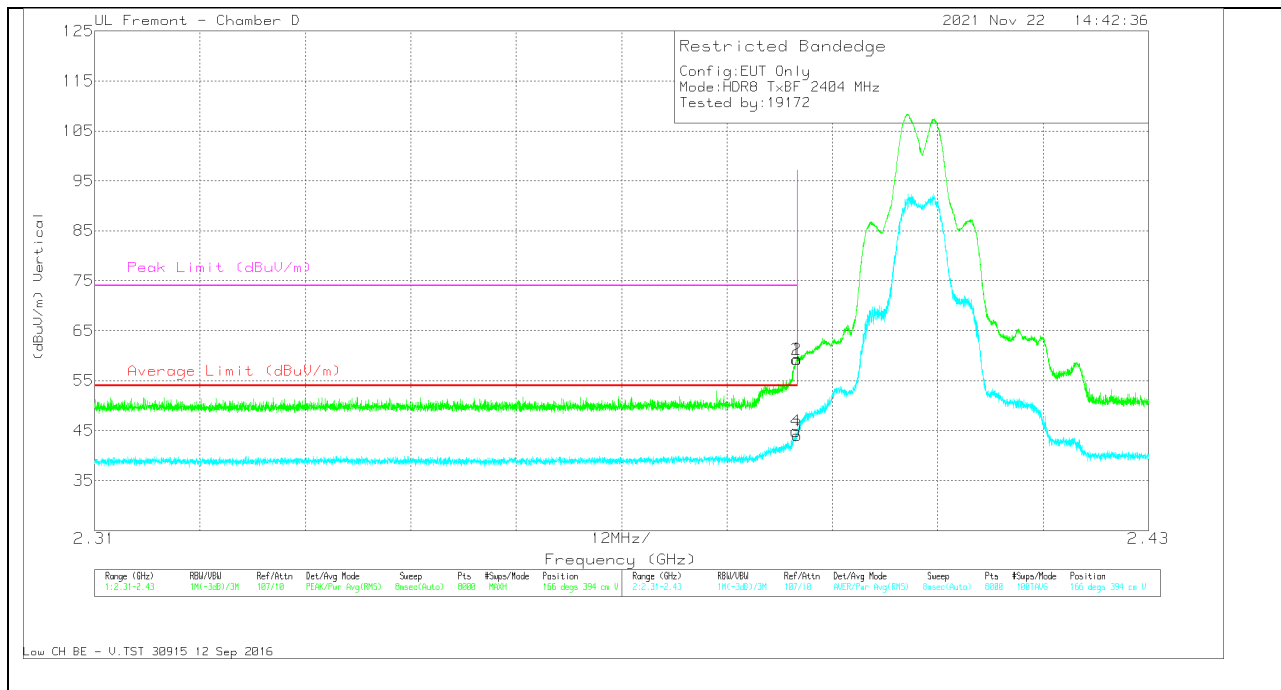
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbll/Ftr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	52.54	Pk	32.1	-20.7	63.94	-	-	74	-10.06	142	102	H
2	* 2.38998	52.8	Pk	32.1	-20.7	64.2	-	-	74	-9.8	142	102	H
3	* 2.39	36.31	RMS	32.1	-20.7	47.71	54	-6.29	-	-	142	102	H
4	* 2.38986	36.37	RMS	32.1	-20.7	47.77	54	-6.23	-	-	142	102	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

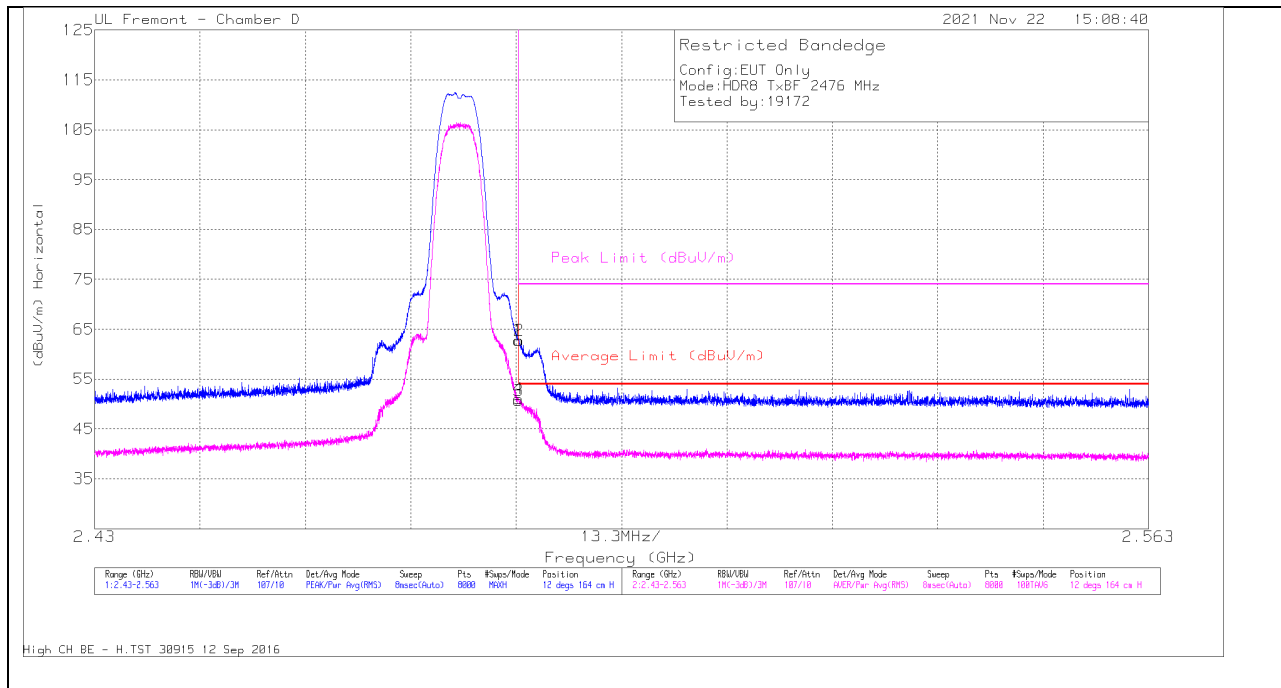


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	47.89	Pk	32.1	-20.7	59.29	-	-	74	-14.71	166	394	V
2	* 2.38993	47.86	Pk	32.1	-20.7	59.26	-	-	74	-14.74	166	394	V
3	* 2.39	32.64	RMS	32.1	-20.7	44.04	54	-9.96	-	-	166	394	V
4	* 2.38989	33.45	RMS	32.1	-20.7	44.85	54	-9.15	-	-	166	394	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

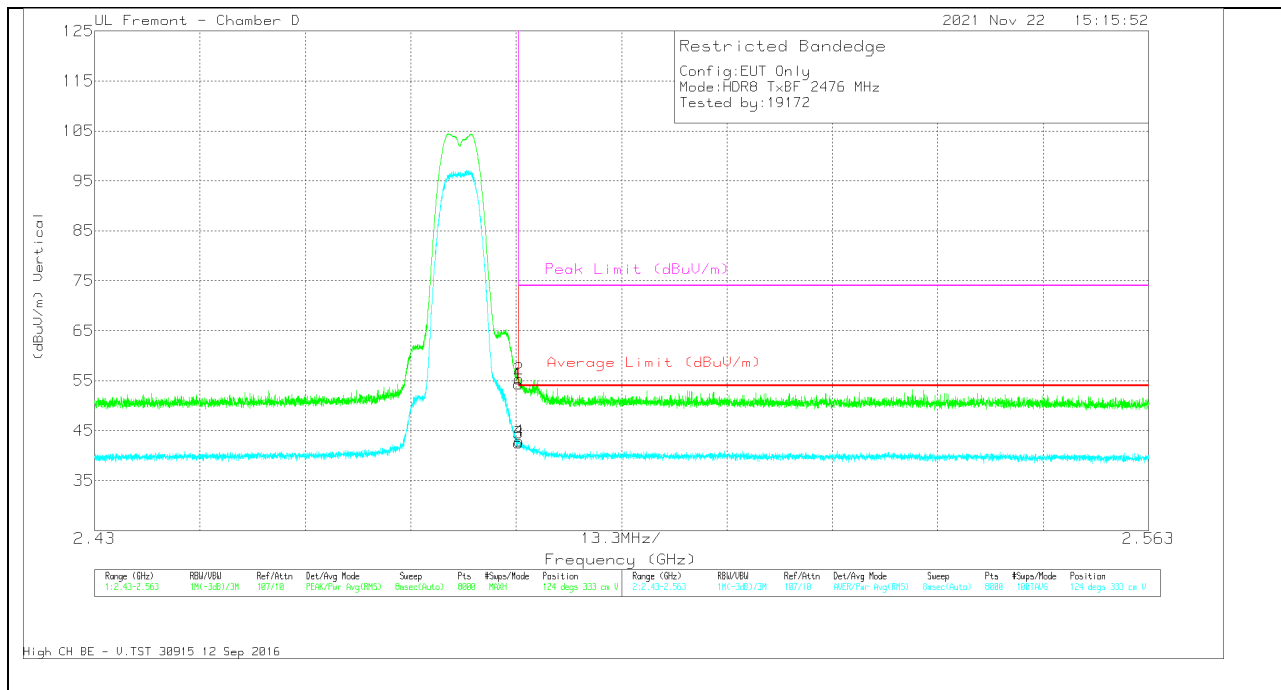
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbll/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	50.7	Pk	32.7	-20.7	62.7	-	-	74	-11.3	12	164	H
2	* 2.48357	50.78	Pk	32.7	-20.7	62.78	-	-	74	-11.22	12	164	H
3	* 2.4835	38.68	RMS	32.7	-20.7	50.68	54	-3.32	-	-	12	164	H
4	* 2.48352	39.03	RMS	32.7	-20.7	51.03	54	-2.97	-	-	12	164	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

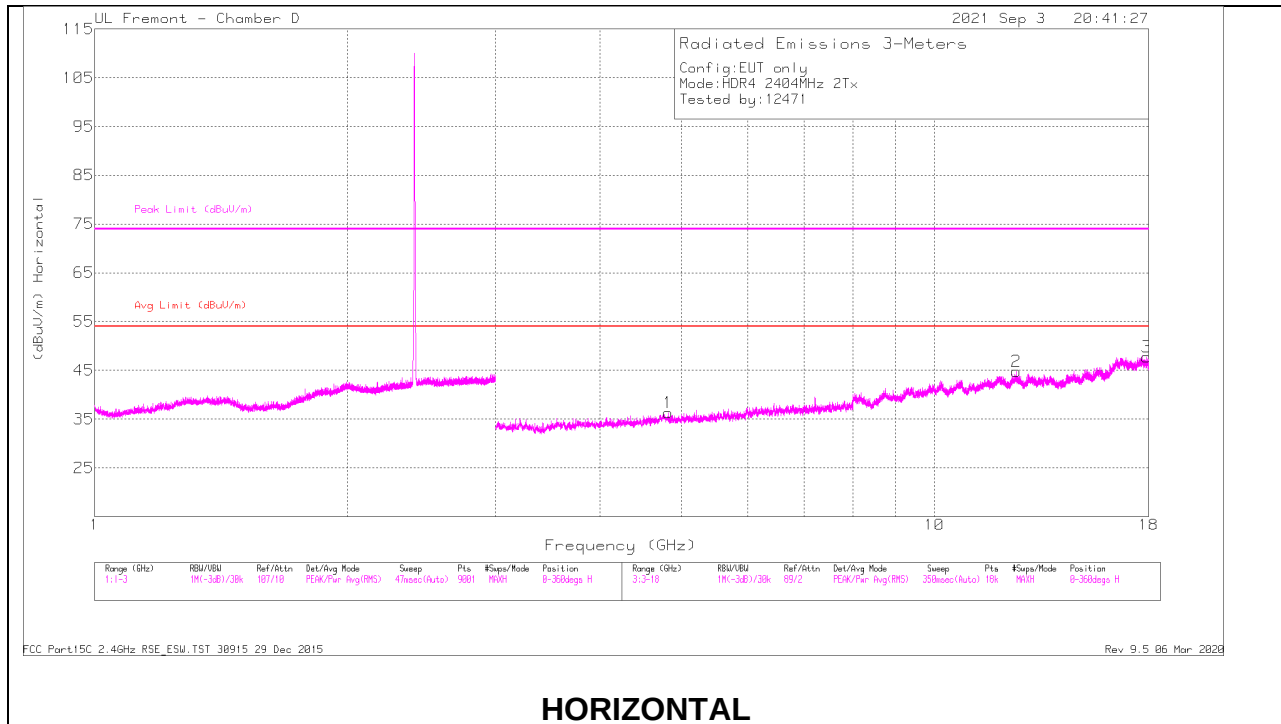
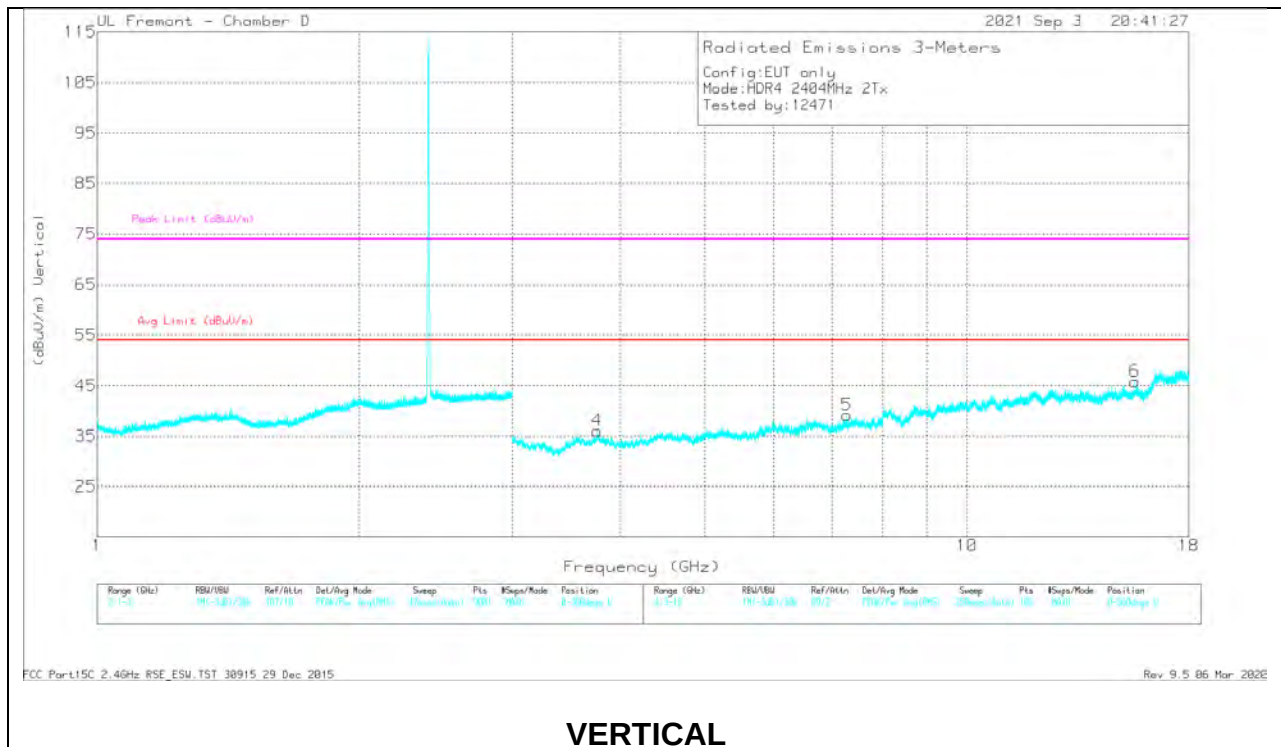


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Ampl/Cbll/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	42.28	Pk	32.7	-20.7	54.28	-	-	74	-19.72	124	333	V
2	* 2.48359	43.29	Pk	32.7	-20.7	55.29	-	-	74	-18.71	124	333	V
3	* 2.4835	30.51	RMS	32.7	-20.7	42.51	54	-11.49	-	-	124	333	V
4	* 2.48361	30.91	RMS	32.7	-20.7	42.91	54	-11.09	-	-	124	333	V

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

Pk - Peak detector

RMS - RMS detection

10.2.5. HARMONICS AND SPURIOUS EMISSIONS**LOW CHANNEL RESULTS****HORIZONTAL****VERTICAL**

RADIATED EMISSIONS

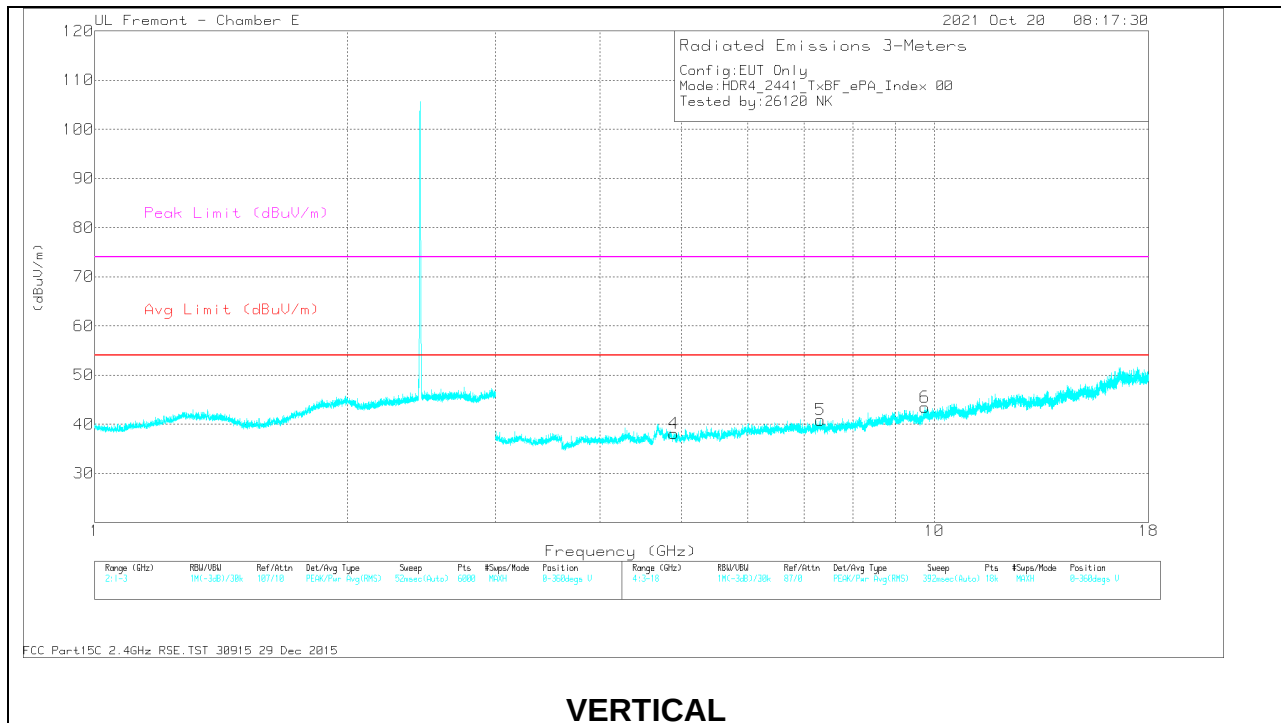
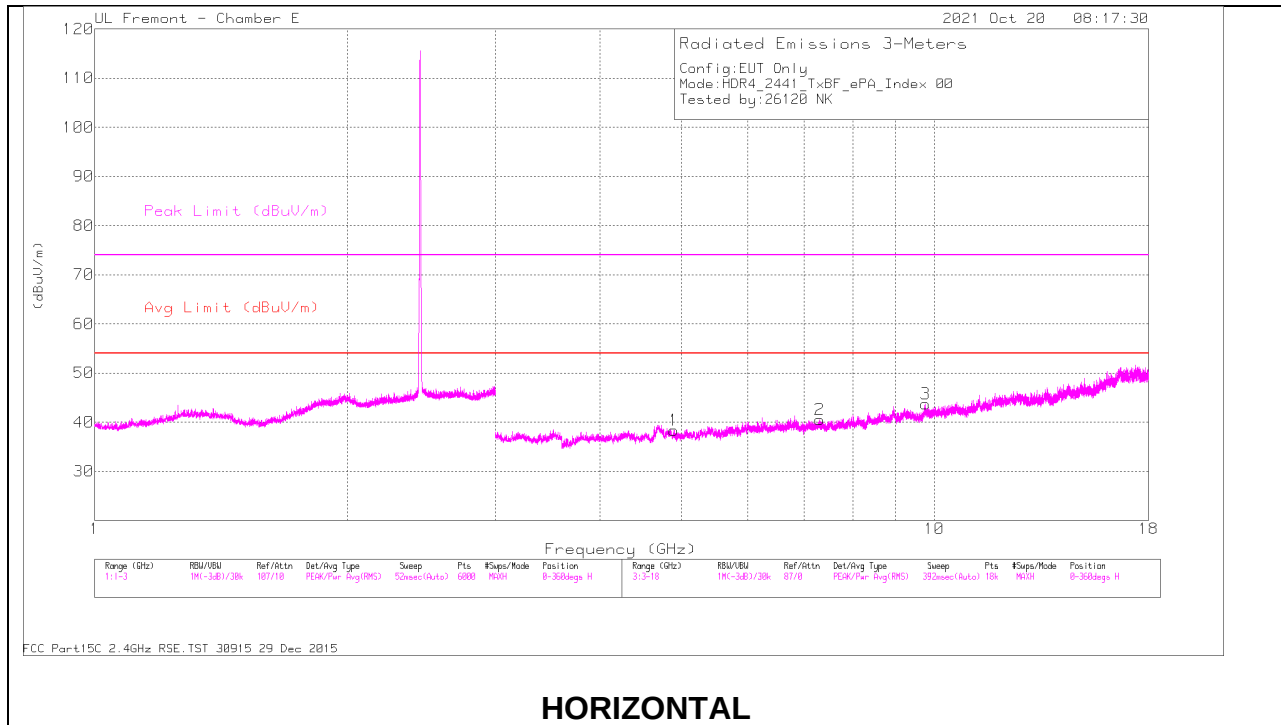
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.82439	36.37	PK2	34.1	-27	43.47	-	-	74	-30.53	0	101	H
	* 4.82617	26.29	MAv1	34.1	-27	33.39	54	-20.61	-	-	0	101	H
2	* 12.52075	33.21	PK2	39	-20.9	51.31	-	-	74	-22.69	0	200	H
	* 12.52331	23.91	MAv1	39	-21	41.91	54	-12.09	-	-	0	200	H
3	* 17.91665	30.7	PK2	41.3	-17.4	54.6	-	-	74	-19.4	0	101	H
	* 17.91604	21.17	MAv1	41.3	-17.4	45.07	54	-8.93	-	-	0	101	H
4	* 3.75917	36.68	PK2	33.4	-27.6	42.48	-	-	74	-31.52	0	200	V
	* 3.76204	26.35	MAv1	33.4	-27.5	32.25	54	-21.75	-	-	0	200	V
5	* 7.27744	34.23	PK2	35.6	-24.2	45.63	-	-	74	-28.37	0	101	V
	* 7.27616	23.26	MAv1	35.6	-24.2	34.66	54	-19.34	-	-	0	101	V
6	* 15.62029	32.37	PK2	40.4	-20.6	52.17	-	-	74	-21.83	0	200	V
	* 15.6192	22.77	MAv1	40.4	-20.6	42.57	54	-11.43	-	-	0	200	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL RESULTS



RADIATED EMISSIONS

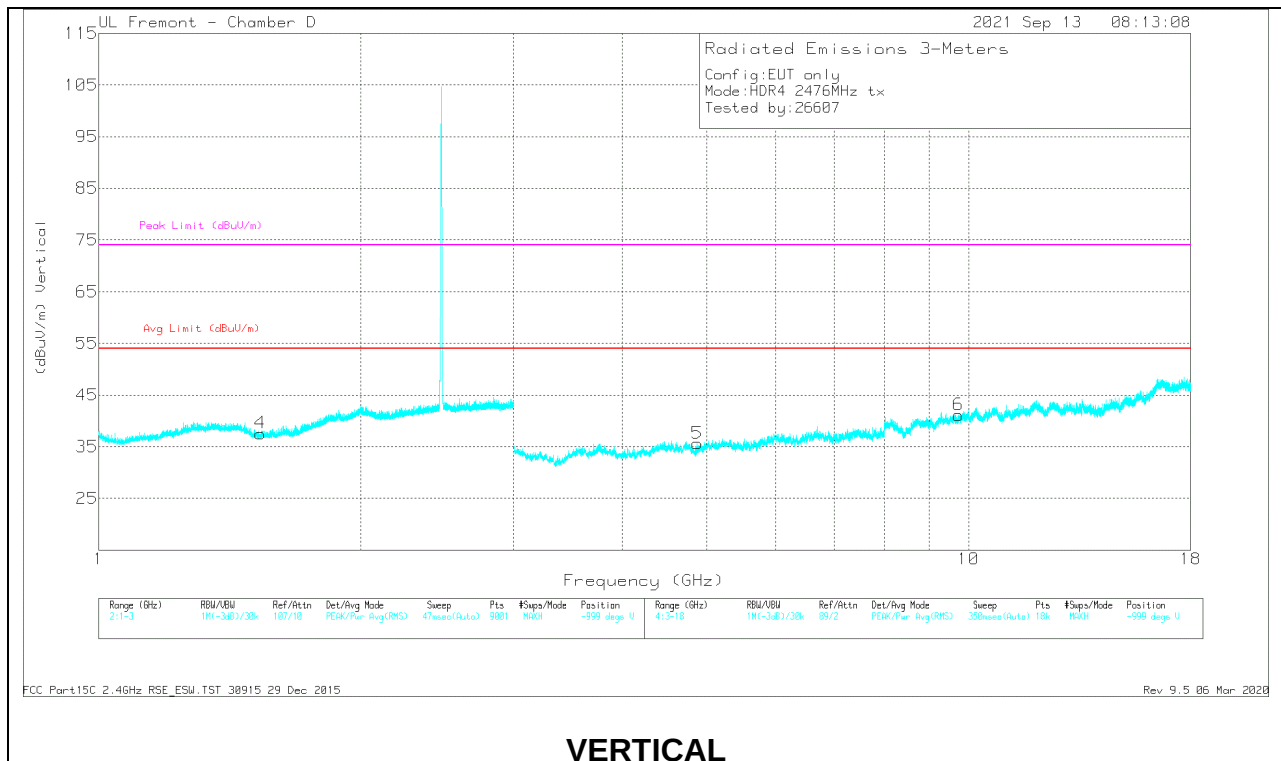
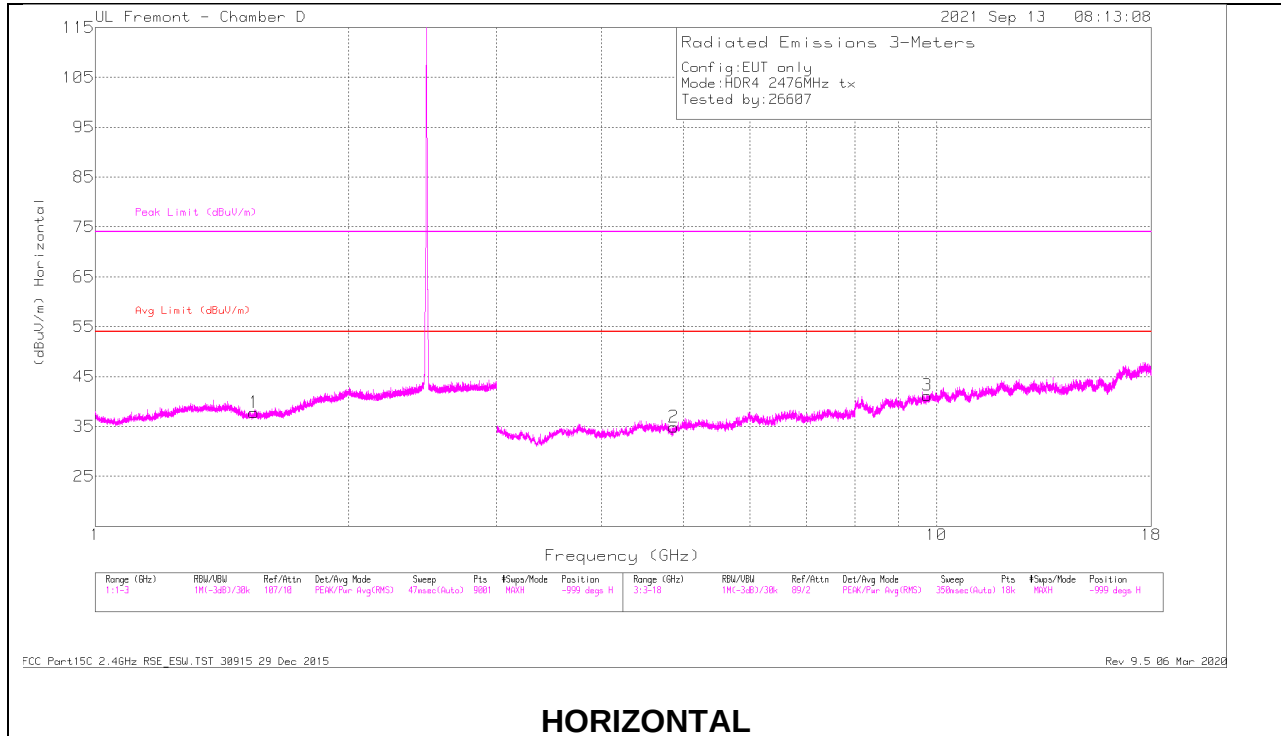
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF PRE007 8107 (dB/m)	Ampl/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.89853	40.86	PK2	34.3	-29.8	45.36	-	-	74	-28.64	319	178	H
	*4.89849	30.84	MAV1	34.3	-29.8	35.34	54	-18.66					
2	* 7.31127	37.47	PK2	35.5	-26.4	46.57	-	-	74	-27.43	88	272	H
	7.311265	28.79	MAV1	35.5	-26.4	37.89	54	-16.11					
4	* 4.89796	40.63	PK2	34.3	-29.8	45.13	-	-	74	-28.87	319	355	V
	*4.89788	30.85	MAV1	34.3	-29.8	35.35	54	-18.65					
5	* 7.3219	38.18	PK2	35.8	-26.5	47.48	-	-	74	-26.52	212	123	V
	*7.3222	29.75	MAV1	35.8	-26.5	39.05	54	-14.95					
6	9.75241	36.09	PK2	36.9	-23.6	49.39	-	-	-	-	4	237	V
	9.5245	26.88	MAV1	36.9	-23.6	40.18							
3	9.76479	36.76	PK2	36.9	-23.7	49.96	-	-	-	-	353	373	H
	9.76482	27.89	MAV1	36.9	-23.7	41.09							

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

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL RESULTS



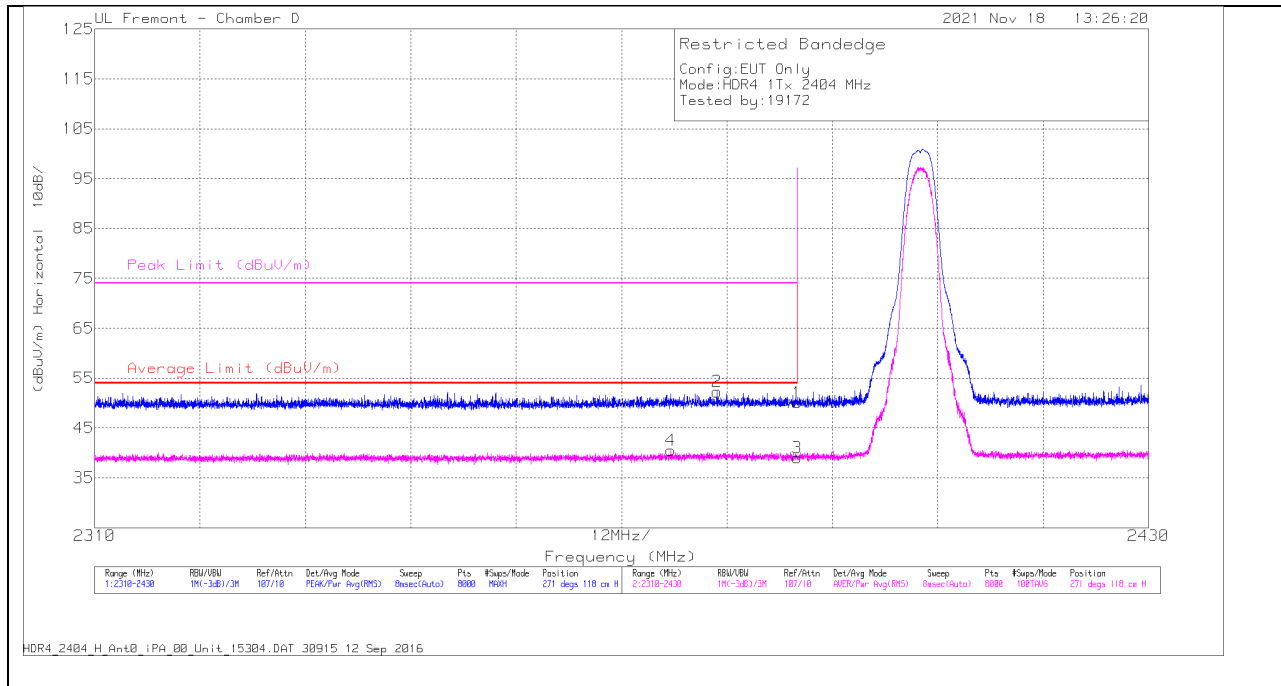
RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.54495	38.31	PK2	28	-21.5	44.81	-	-	74	-29.19	142	112	H
	* 1.54261	28.76	MAV1	28	-21.5	35.26	54	-18.74	-	-	142	112	H
4	* 1.53252	38.54	PK2	27.9	-21.5	44.94	-	-	74	-29.06	261	162	V
	* 1.53281	28.91	MAV1	27.9	-21.5	35.31	54	-18.69	-	-	261	162	V
2	* 4.87679	36.51	PK2	34	-27.8	42.71	-	-	74	-31.29	3	349	H
	* 4.87436	26.84	MAV1	34	-27.8	33.04	54	-20.96	-	-	3	349	H
5	* 4.8759	36.32	PK2	34	-27.8	42.52	-	-	74	-31.48	131	146	V
	* 4.87394	26.76	MAV1	34	-27.8	32.96	54	-21.04	-	-	131	146	V
6	9.72714	23.02	MAV1	36.9	-21.5	38.42	-	-	-	-	212	254	V
	9.73	32.95	PK2	36.9	-21.6	48.25	-	-	-	-	212	254	V
3	9.75321	33.02	PK2	37	-21.6	48.42	-	-	-	-	261	190	H
	9.75321	23.05	MAV1	37	-21.6	38.45	-	-	-	-	261	190	H

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

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

10.2.6. LOW POWER HDR (HDR4)**ANT 2****BANDEDGE (LOW CHANNEL)****HORIZONTAL RESULT**

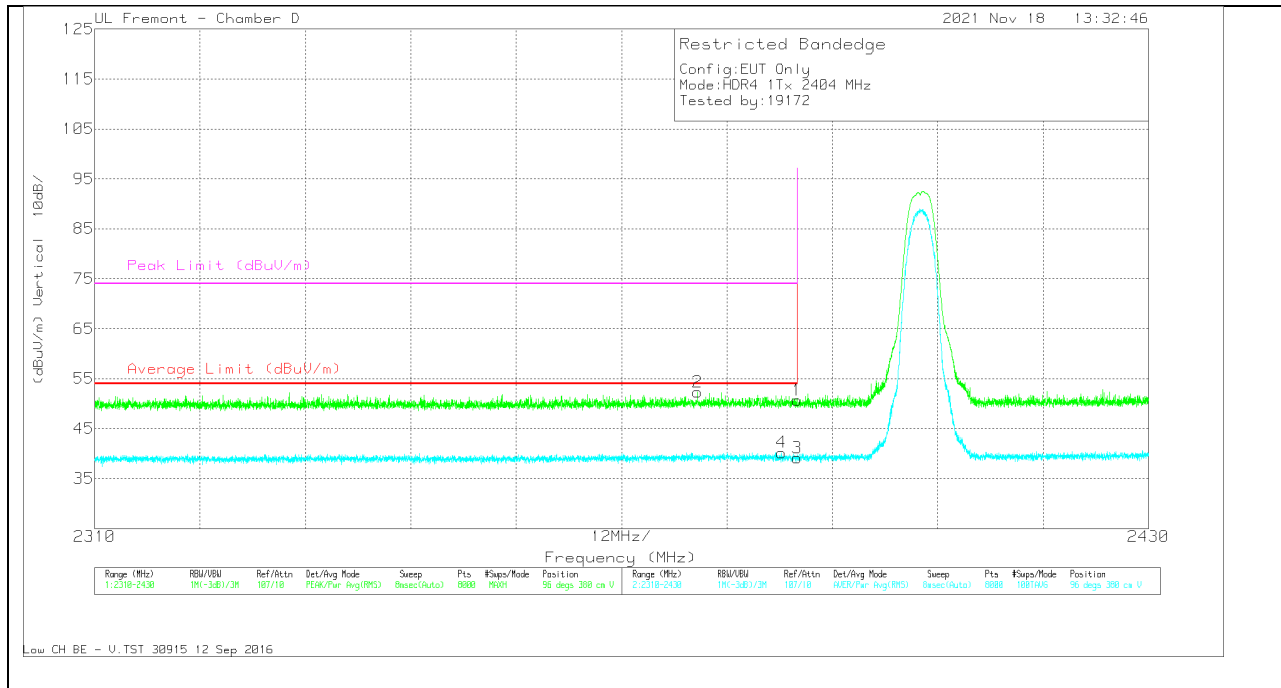
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr/ Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.67	Pk	32.1	-20.7	50.07	-	-	74	-23.93	271	118	H
2	* 2380.8695	40.96	Pk	32.1	-20.8	52.26	-	-	74	-21.74	271	118	H
3	* 2390	27.58	RMS	32.1	-20.7	38.98	54	-15.02	-	-	271	118	H
4	* 2375.5587	29.17	RMS	32	-20.7	40.47	54	-13.53	-	-	271	118	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

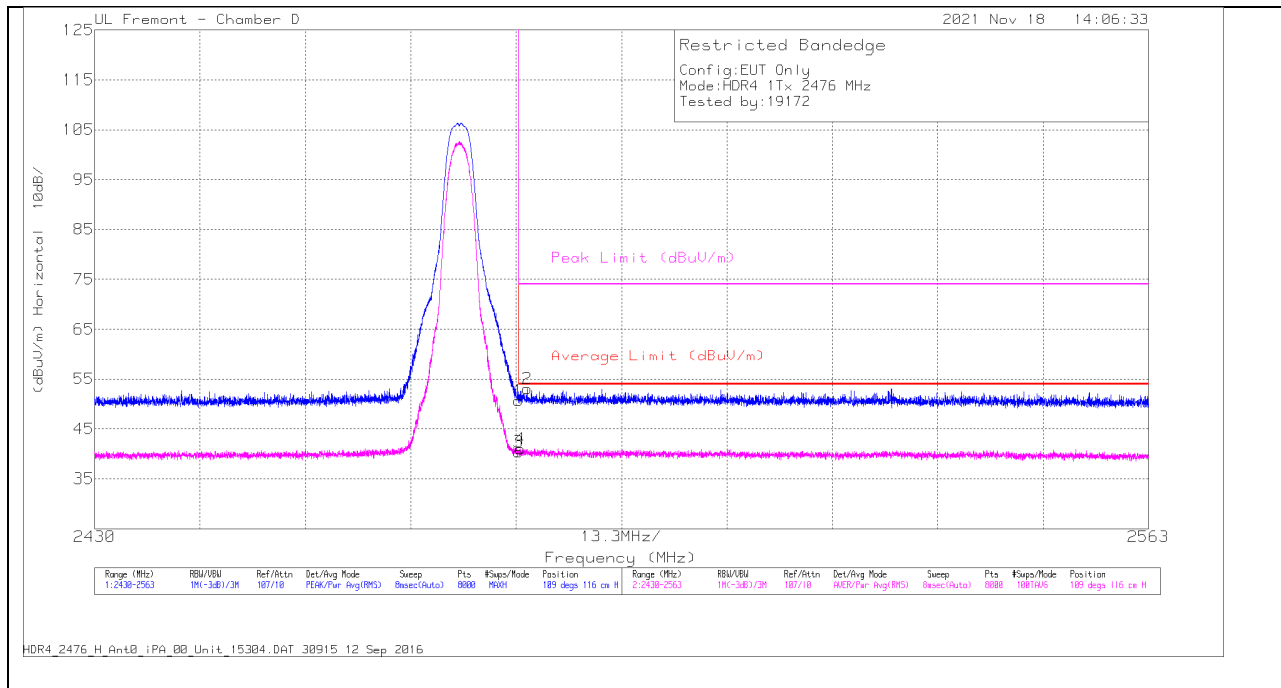


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	39.26	Pk	32.1	-20.7	50.66	-	-	74	-23.34	96	380	V
2	* 2378.64	40.98	Pk	32.1	-20.8	52.28	-	-	74	-21.72	96	380	V
3	* 2390	27.69	RMS	32.1	-20.7	39.09	54	-14.91	-	-	96	380	V
4	* 2388.19	28.8	RMS	32.1	-20.7	40.2	54	-13.8	-	-	96	380	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

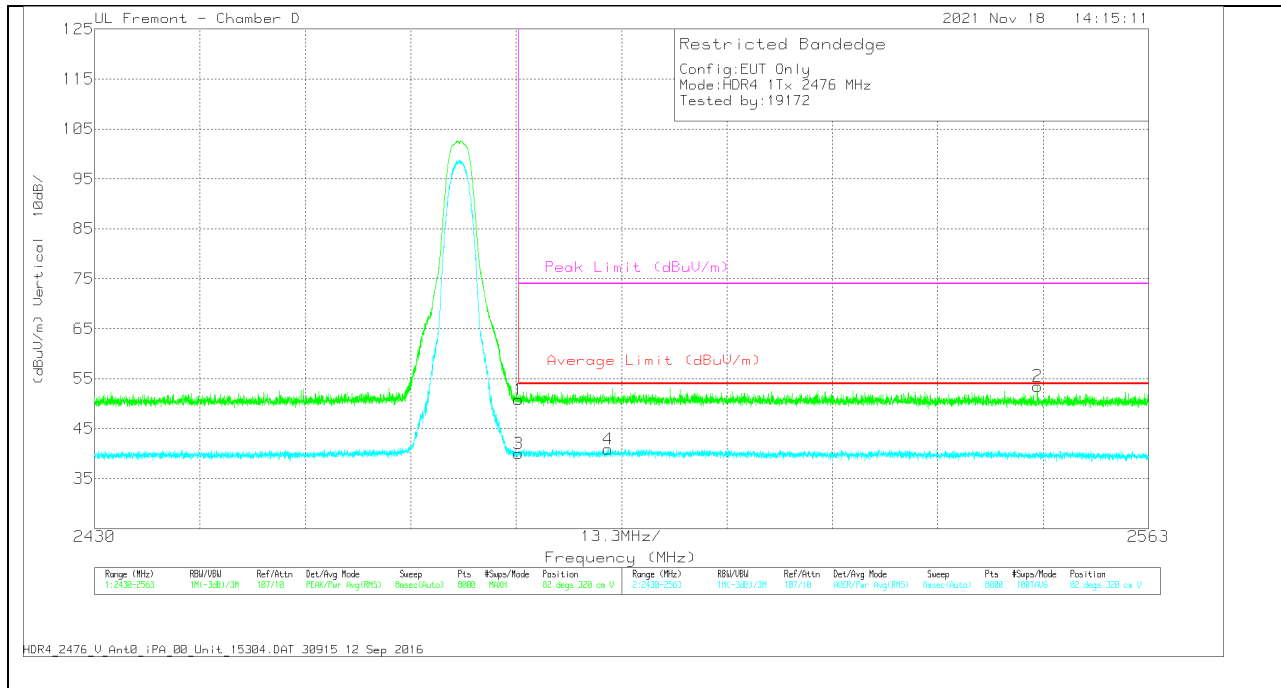
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	38.67	Pk	32.7	-20.7	50.67	-	-	74	-23.33	109	116	H
2	* 2484.6197	41.06	Pk	32.7	-20.7	53.06	-	-	74	-20.94	109	116	H
3	* 2483.5	28.43	RMS	32.7	-20.7	40.43	54	-13.57	-	-	109	116	H
4	* 2483.7052	29.06	RMS	32.7	-20.7	41.06	54	-12.94	-	-	109	116	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL RESULT

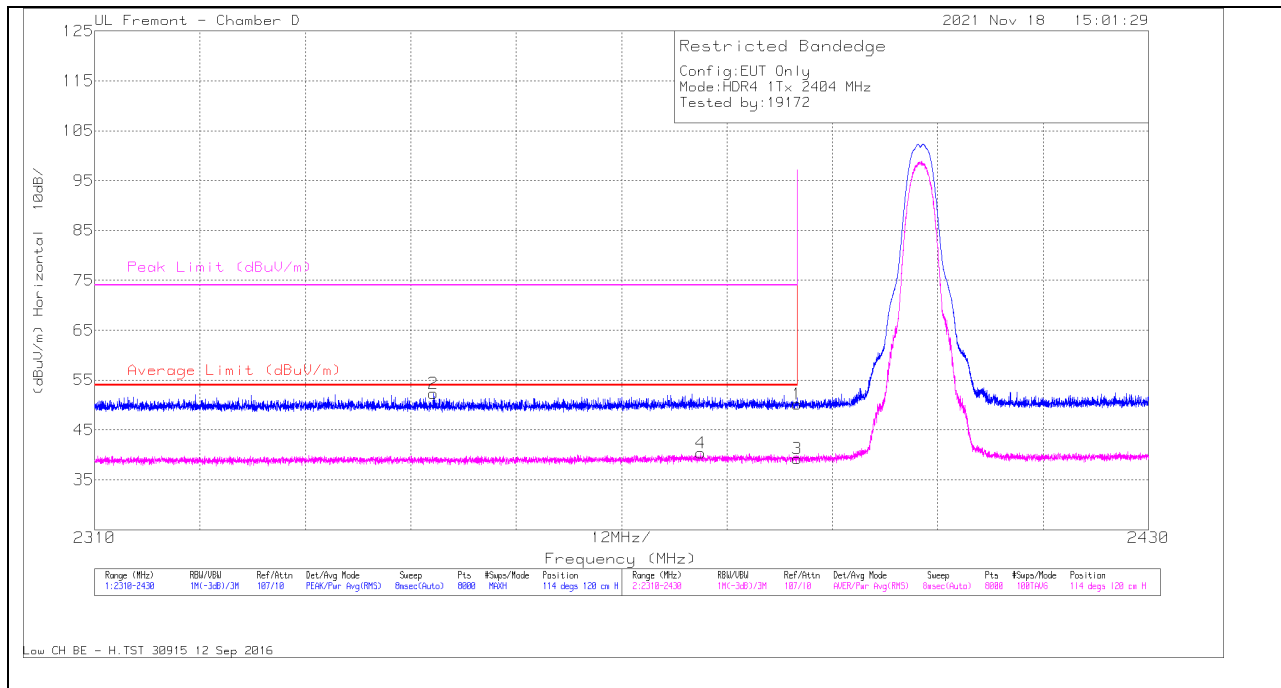


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	38.81	Pk	32.7	-20.7	50.81	-	-	74	-23.19	82	320	V
3	* 2483.5	27.97	RMS	32.7	-20.7	39.97	54	-14.03	-	-	82	320	V
4	* 2494.7788	28.79	RMS	32.8	-20.7	40.89	54	-13.11	-	-	82	320	V
2	2548.9828	41.71	Pk	32.3	-20.5	53.51	-	-	74	-20.49	82	320	V

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

Pk - Peak detector

RMS - RMS detection

ANT 3**BANDEDGE (LOW CHANNEL)****HORIZONTAL RESULT**

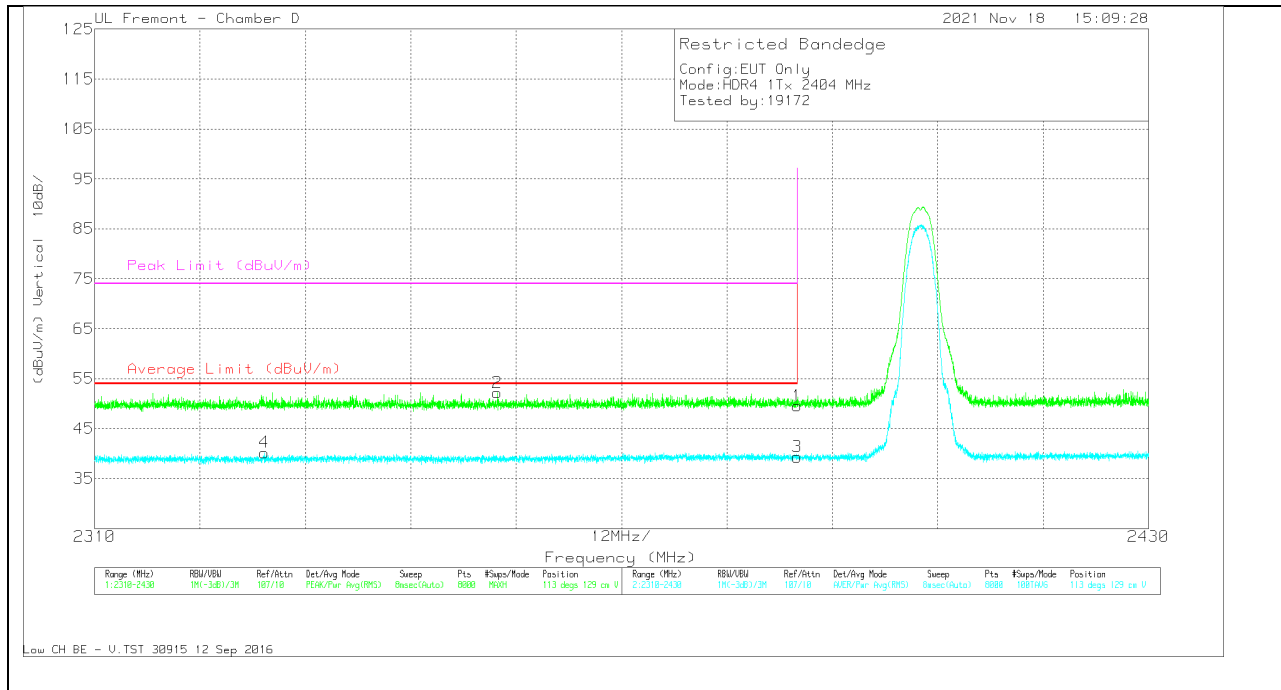
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dBm)	Amp/Cbl/Filt/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.81	Pk	32.1	-20.7	50.21	-	-	74	-23.79	114	120	H
2	* 2348.5701	41.23	Pk	31.9	-20.8	52.33	-	-	74	-21.67	114	120	H
3	* 2390	27.83	RMS	32.1	-20.7	39.23	54	-14.77	-	-	114	120	H
4	* 2378.9942	29.06	RMS	32.1	-20.8	40.36	54	-13.64	-	-	114	120	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

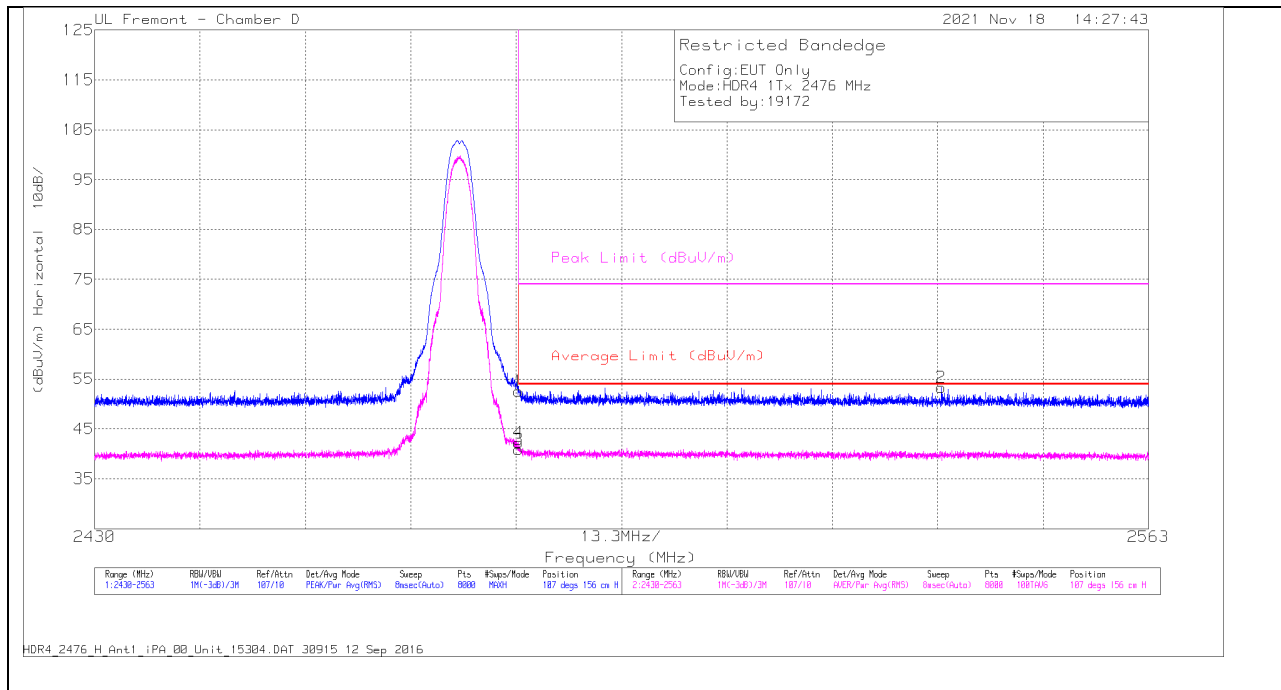


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cb1Filt/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.12	Pk	32.1	-20.7	49.52	-	-	74	-24.48	113	129	V
2	* 2355.8611	41.16	Pk	31.8	-20.8	52.16	-	-	74	-21.84	113	129	V
3	* 2390	27.93	RMS	32.1	-20.7	39.33	54	-14.67	-	-	113	129	V
4	* 2329.2926	29.3	RMS	31.8	-20.9	40.2	54	-13.8	-	-	113	129	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

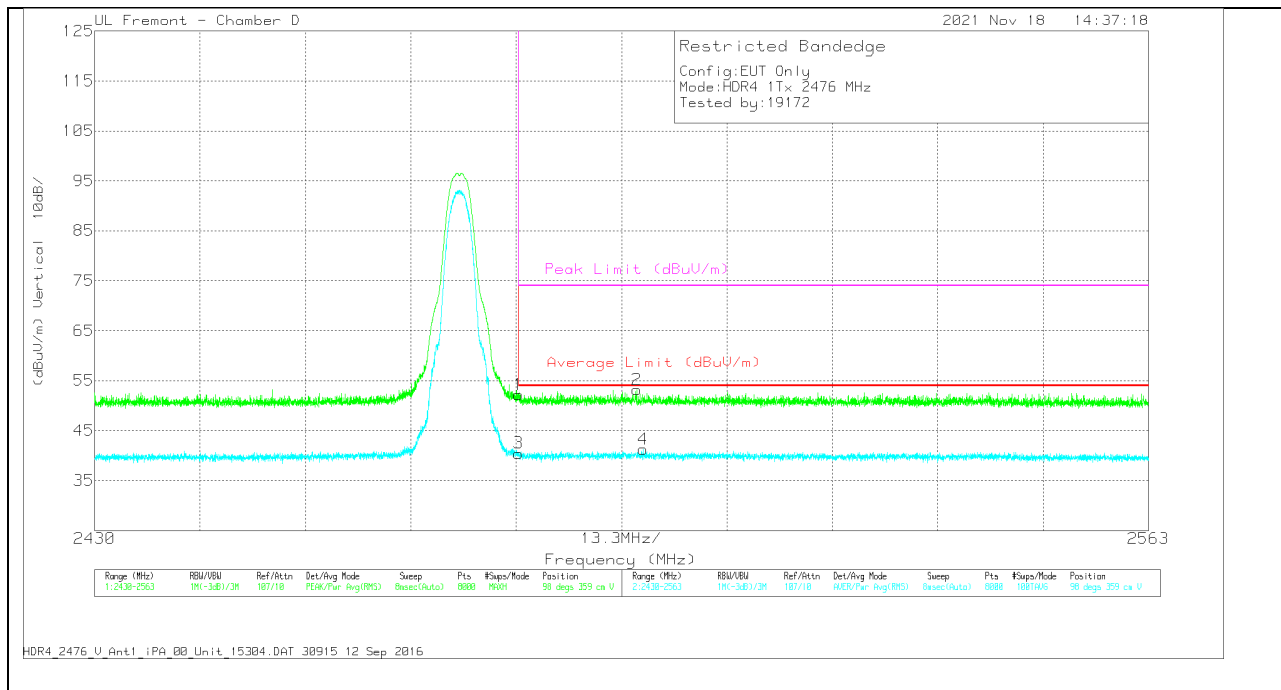
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	40.53	Pk	32.7	-20.7	52.53	-	-	74	-21.47	107	156	H
3	* 2483.5	28.93	RMS	32.7	-20.7	40.93	54	-13.07	-	-	107	156	H
4	* 2483.5223	30.22	RMS	32.7	-20.7	42.22	54	-11.78	-	-	107	156	H
2	2536.8617	41.56	Pk	32.4	-20.6	53.36	-	-	74	-20.64	107	156	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

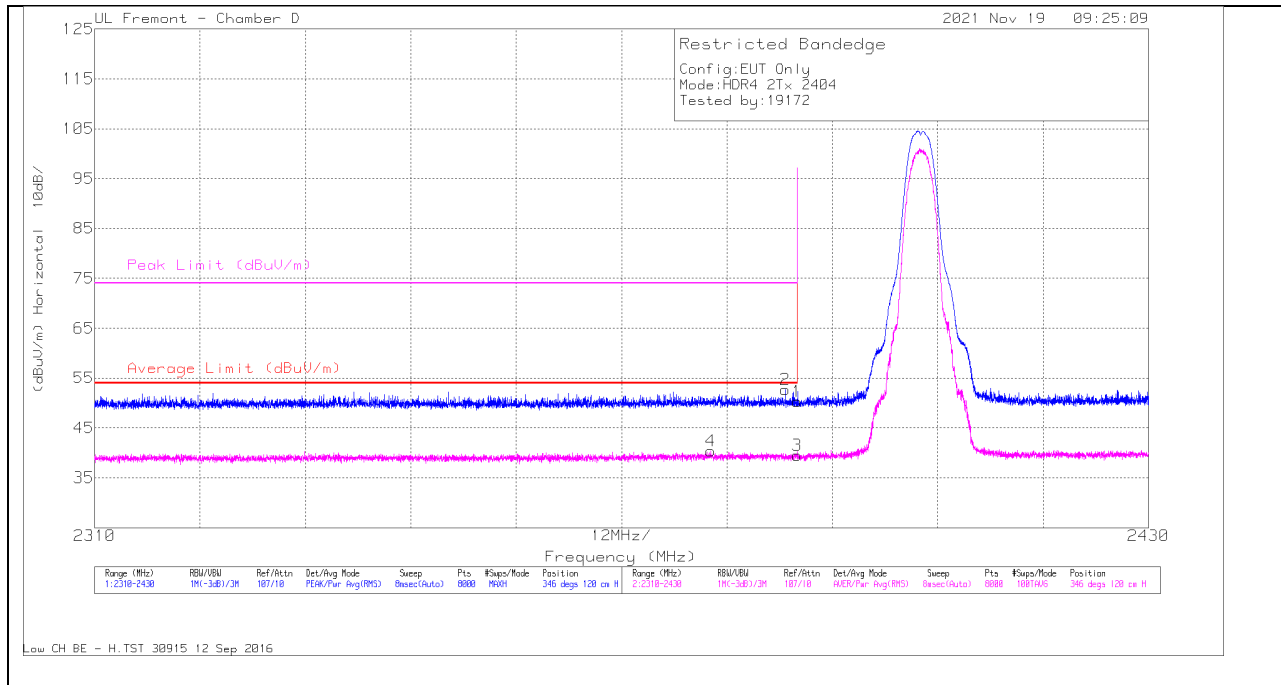


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbll/Filt/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	40.14	Pk	32.7	-20.7	52.14	-	-	74	-21.86	98	359	V
2	* 2498.4035	41.01	Pk	32.8	-20.6	53.21	-	-	74	-20.79	98	359	V
3	* 2483.5	28.45	RMS	32.7	-20.7	40.45	54	-13.55	-	-	98	359	V
4	* 2499.2016	29.11	RMS	32.8	-20.7	41.21	54	-12.79	-	-	98	359	V

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

Pk - Peak detector

RMS - RMS detection

10.2.7. LOW POWER HDR TXBF (HDR4)**BANDEDGE (LOW CHANNEL)****HORIZONTAL RESULT**

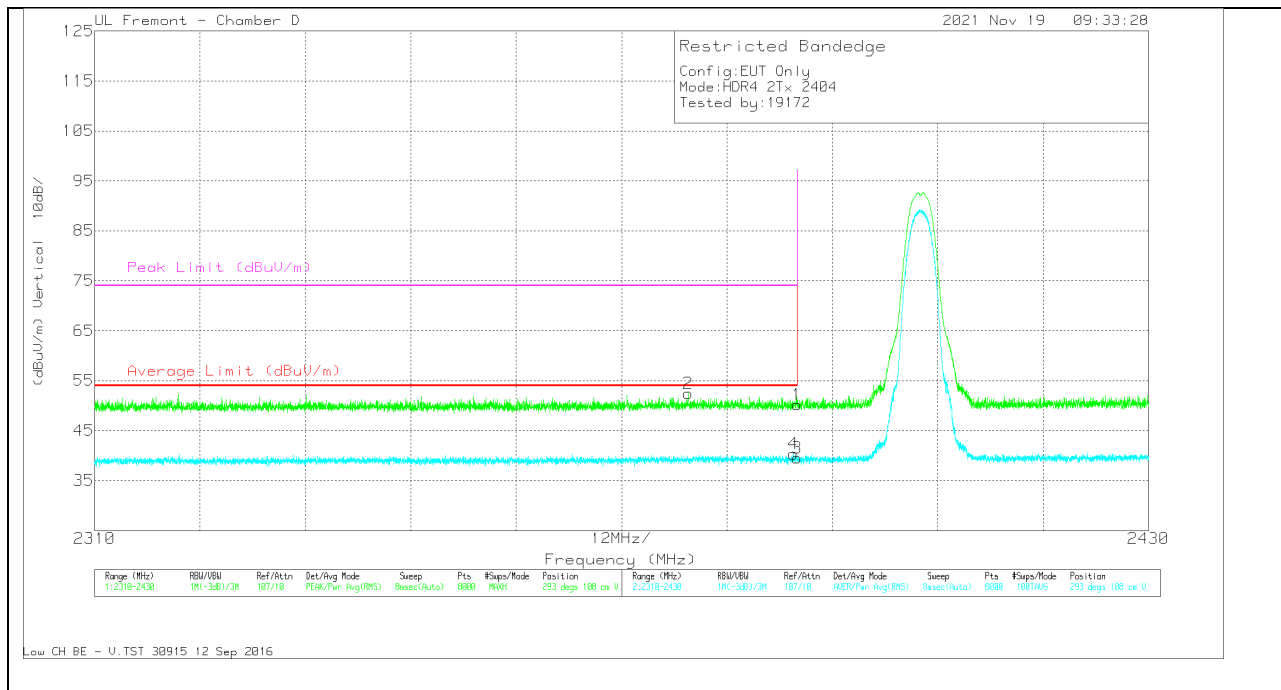
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.91	Pk	32.1	-20.7	50.31	-	-	74	-23.69	346	120	H
2	* 2388.6555	41.34	Pk	32.1	-20.7	52.74	-	-	74	-21.26	346	120	H
3	* 2390	28.14	RMS	32.1	-20.7	39.54	54	-14.46	-	-	346	120	H
4	* 2380.1644	29.08	RMS	32.1	-20.8	40.38	54	-13.62	-	-	346	120	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

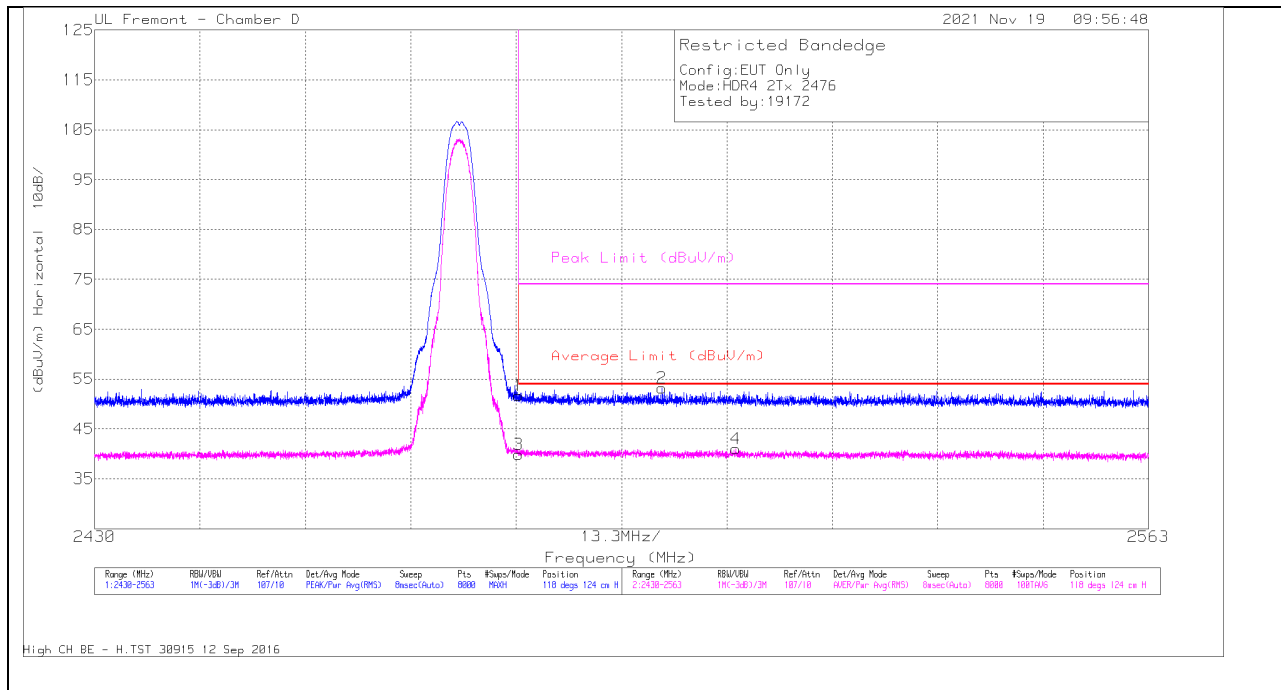


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cb1Filt/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.81	Pk	32.1	-20.7	50.21	-	-	74	-23.79	293	108	V
2	* 2377.569	40.99	Pk	32.1	-20.7	52.39	-	-	74	-21.61	293	108	V
3	* 2390	28.08	RMS	32.1	-20.7	39.48	54	-14.52	-	-	293	108	V
4	* 2389.5406	28.93	RMS	32.1	-20.7	40.33	54	-13.67	-	-	293	108	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

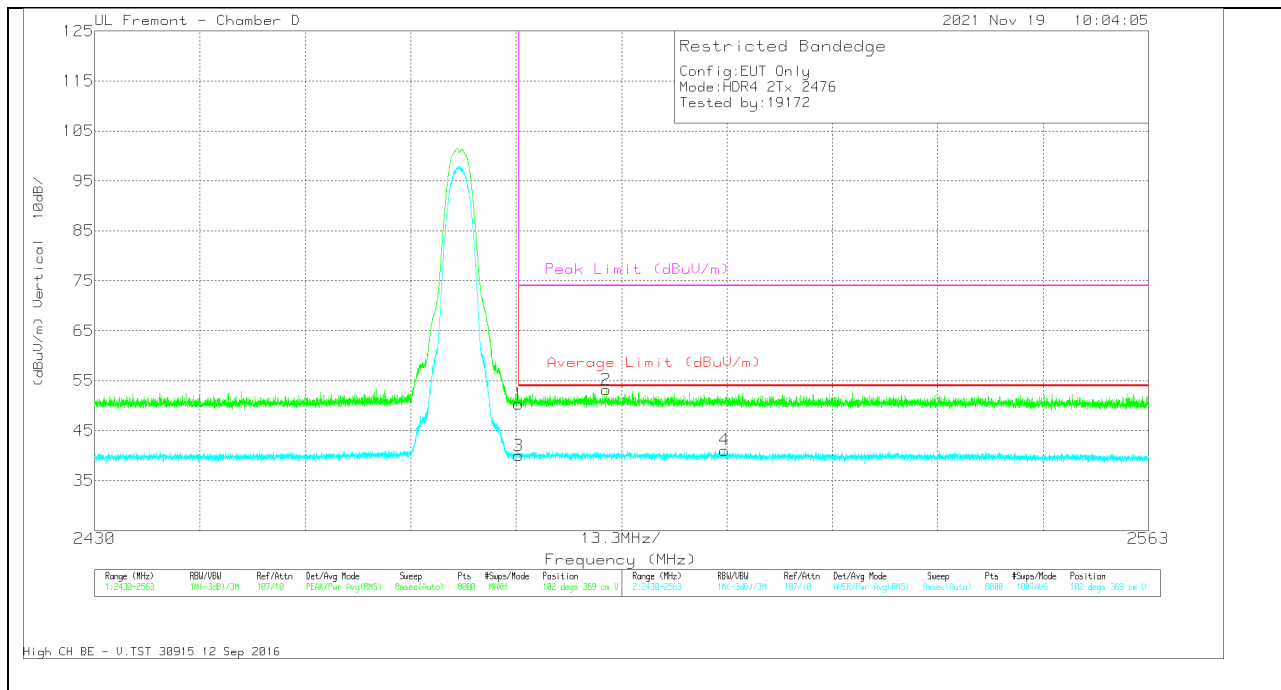
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dBm)	Amp/Cb/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	39.64	Pk	32.7	-20.7	51.64	-	-	74	-22.36	118	124	H
3	* 2483.5	27.84	RMS	32.7	-20.7	39.84	54	-14.16	-	-	118	124	H
2	2501.5792	41.25	Pk	32.7	-20.7	53.25	-	-	74	-20.75	118	124	H
4	2510.9236	28.92	RMS	32.7	-20.6	41.02	54	-12.98	-	-	118	124	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL RESULT

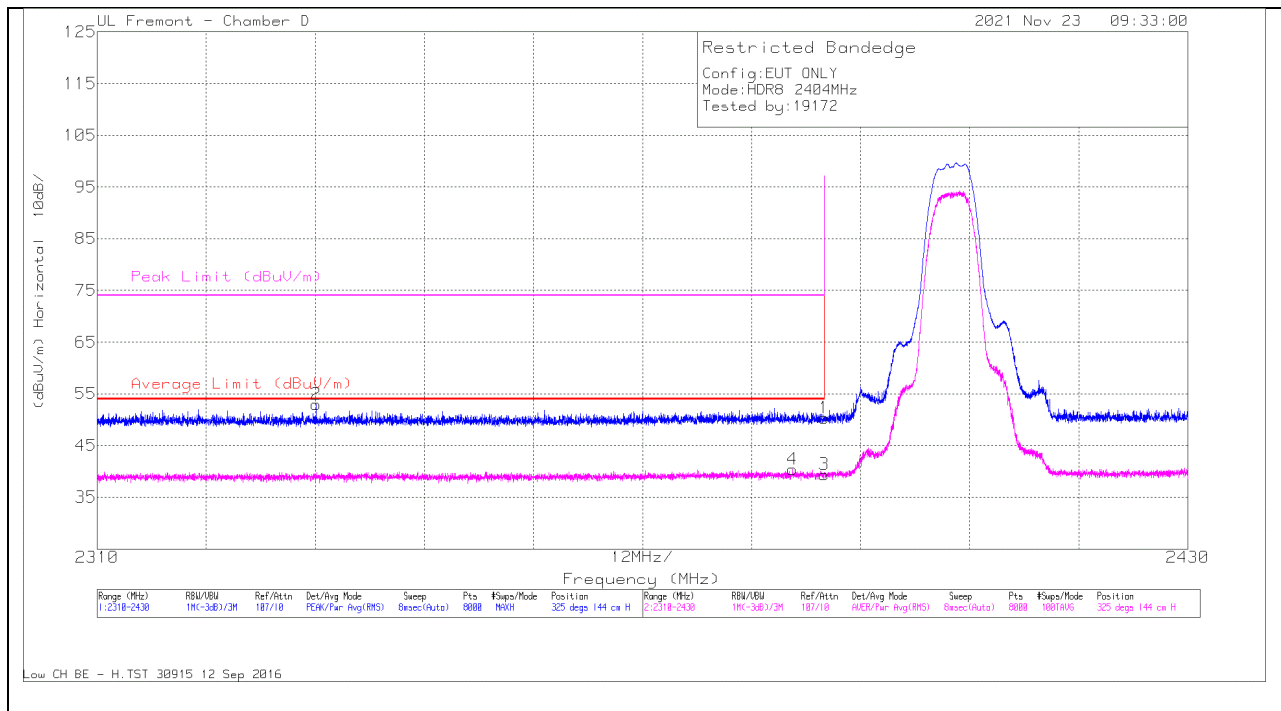


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dBm)	Amp/Cb1Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	38.29	PK	32.7	-20.7	50.29	-	-	74	-23.71	102	369	V
2	* 2494.546	41.14	PK	32.8	-20.7	53.24	-	-	74	-20.76	102	369	V
3	* 2483.5	27.98	RMS	32.7	-20.7	39.98	54	-14.02	-	-	102	369	V
4	2509.4604	28.88	RMS	32.7	-20.5	41.08	54	-12.92	-	-	102	369	V

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

PK - Peak detector

RMS - RMS detection

10.2.8. LOW POWER HDR (HDR8)**ANT 2****BANDEDGE (LOW CHANNEL)****HORIZONTAL RESULT**

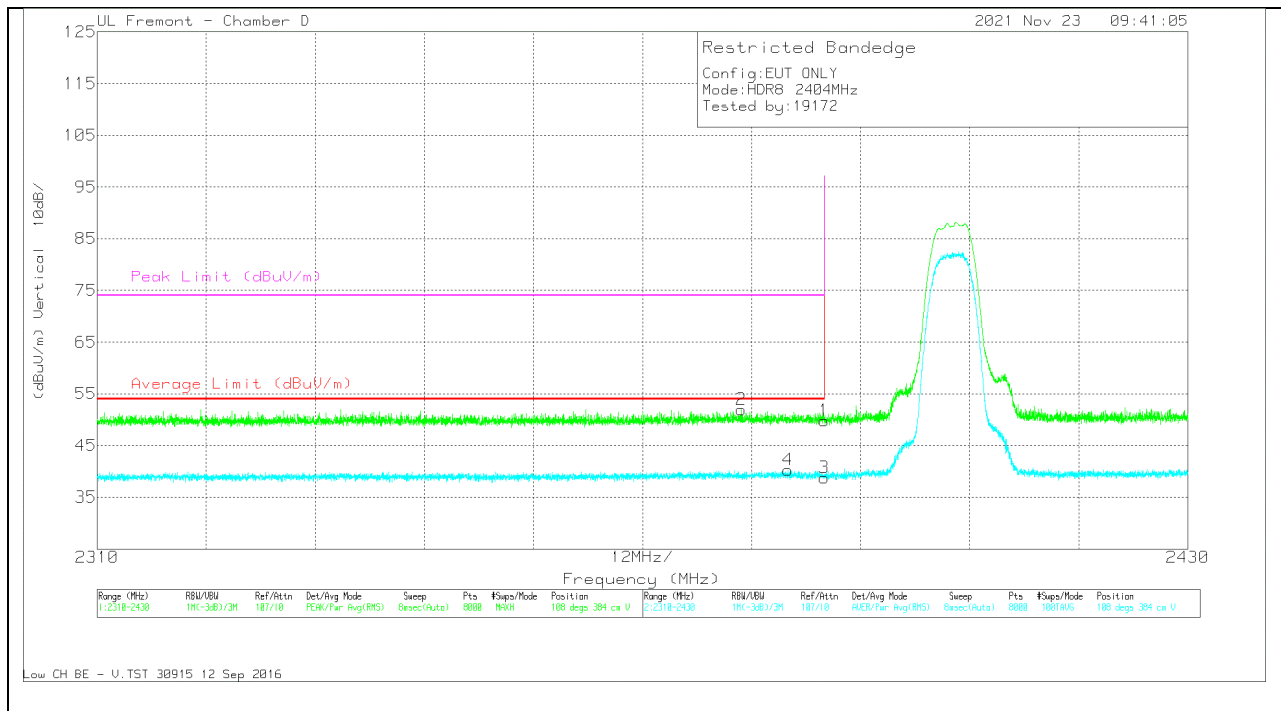
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dBm)	Amp/Cb1/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.94	PK	32.1	-20.7	50.34	-	-	74	-23.66	325	144	H
2	* 2334.108	41.93	PK	31.9	-20.9	52.93	-	-	74	-21.07	325	144	H
3	* 2390	27.99	RMS	32.1	-20.7	39.39	54	-14.61	-	-	325	144	H
4	* 2386.525	29.12	RMS	32.1	-20.8	40.42	54	-13.58	-	-	325	144	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL RESULT

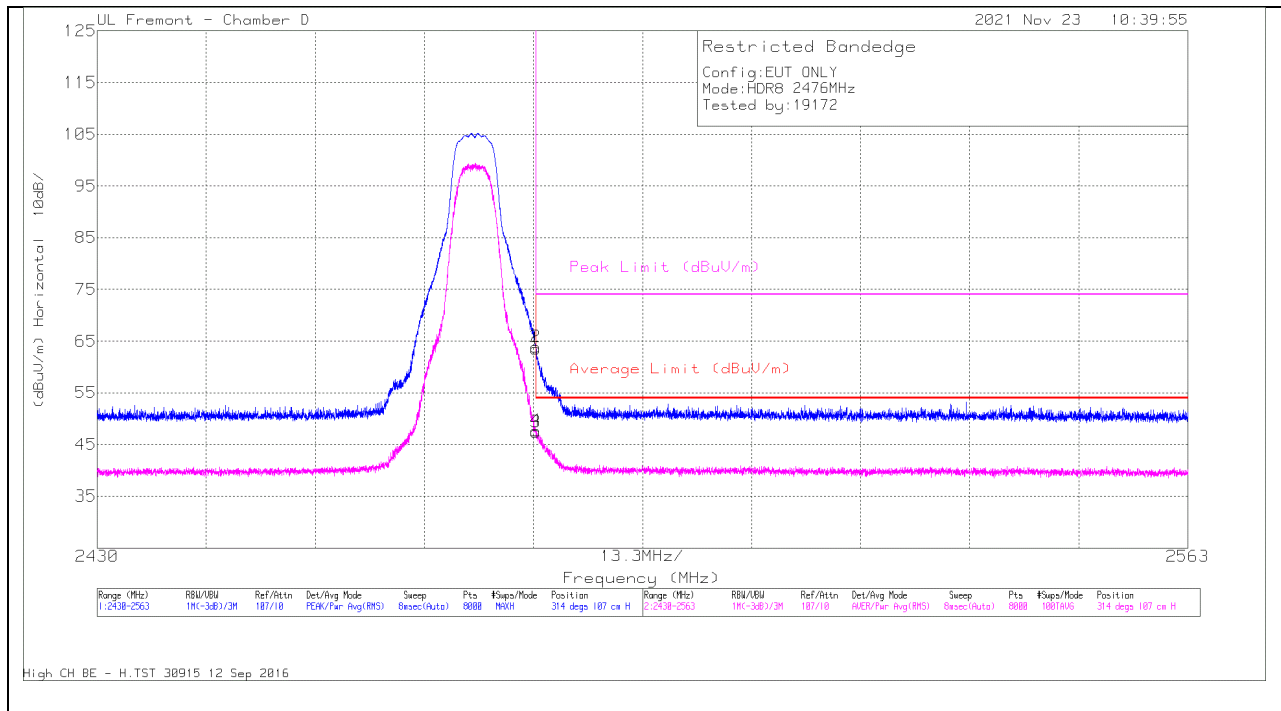


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dBm)	Amp/CbI/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.42	Pk	32.1	-20.7	49.82	-	-	74	-24.18	108	384	V
2	* 2380.899	40.69	Pk	32.1	-20.8	51.99	-	-	74	-22.01	108	384	V
3	* 2390	27.37	RMS	32.1	-20.7	38.77	54	-15.23	-	-	108	384	V
4	* 2385.97	28.91	RMS	32.1	-20.8	40.21	54	-13.79	-	-	108	384	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

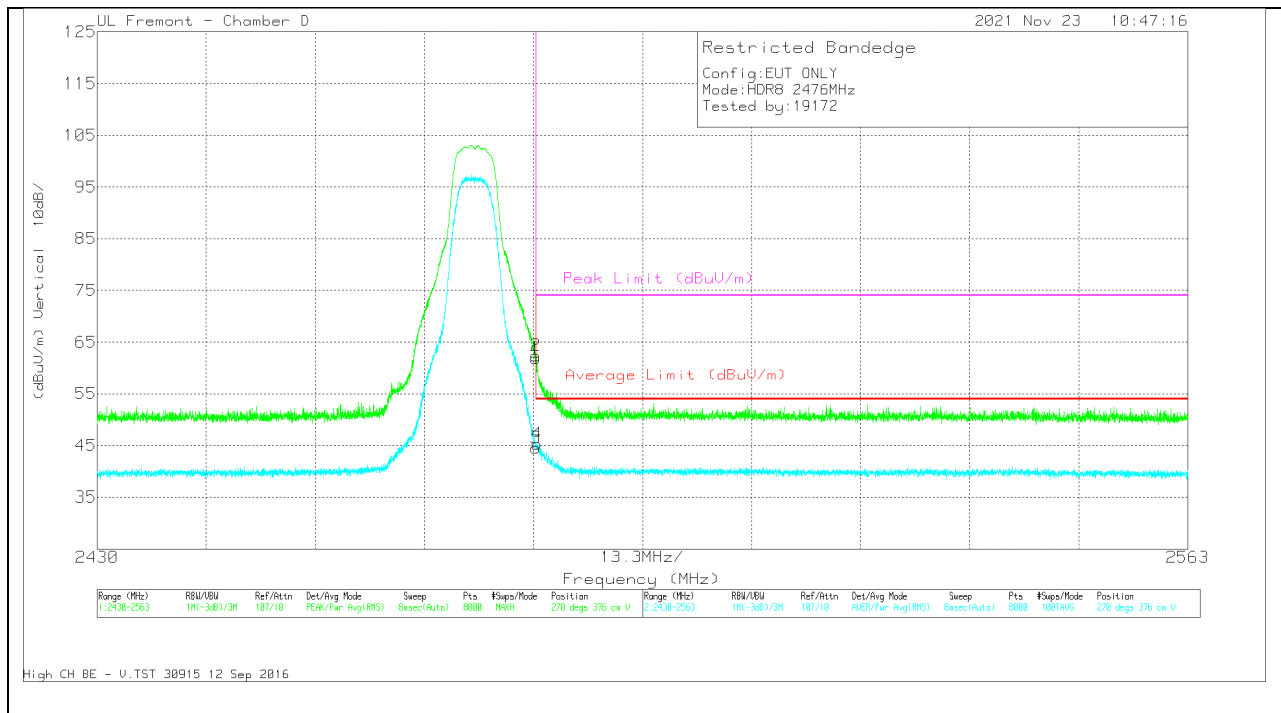
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dBm)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	51.44	Pk	32.7	-20.7	63.44	-	-	74	-10.56	314	107	H
2	* 2483.506	51.9	Pk	32.7	-20.7	63.9	-	-	74	-10.1	314	107	H
3	* 2483.5	35.43	RMS	32.7	-20.7	47.43	54	-6.57	-	-	314	107	H
4	* 2483.506	35.67	RMS	32.7	-20.7	47.67	54	-6.33	-	-	314	107	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

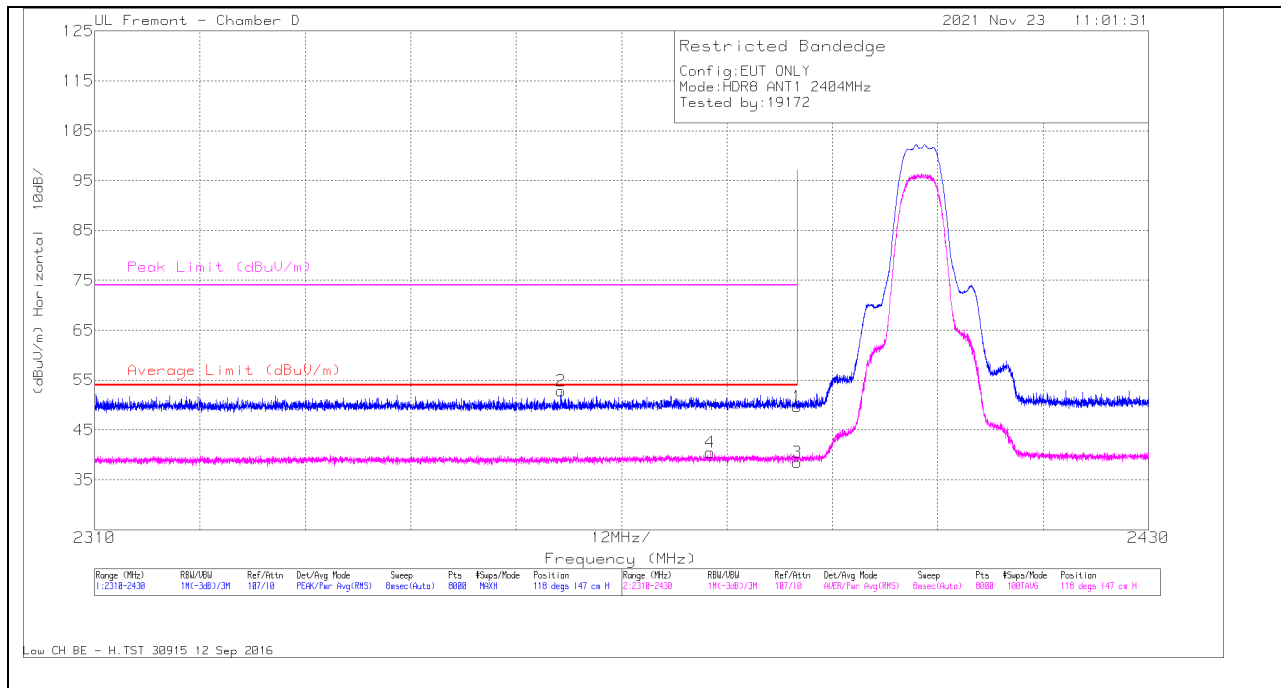


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	49.92	Pk	32.7	-20.7	61.92	-	-	74	-12.08	270	376	V
2	* 2483.506	50.34	Pk	32.7	-20.7	62.34	-	-	74	-11.66	270	376	V
3	* 2483.5	32.5	RMS	32.7	-20.7	44.5	54	-9.5	-	-	270	376	V
4	* 2483.639	33.27	RMS	32.7	-20.7	45.27	54	-8.73	-	-	270	376	V

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

Pk - Peak detector

RMS - RMS detection

ANT 3**BANDEDGE (LOW CHANNEL)****HORIZONTAL RESULT**

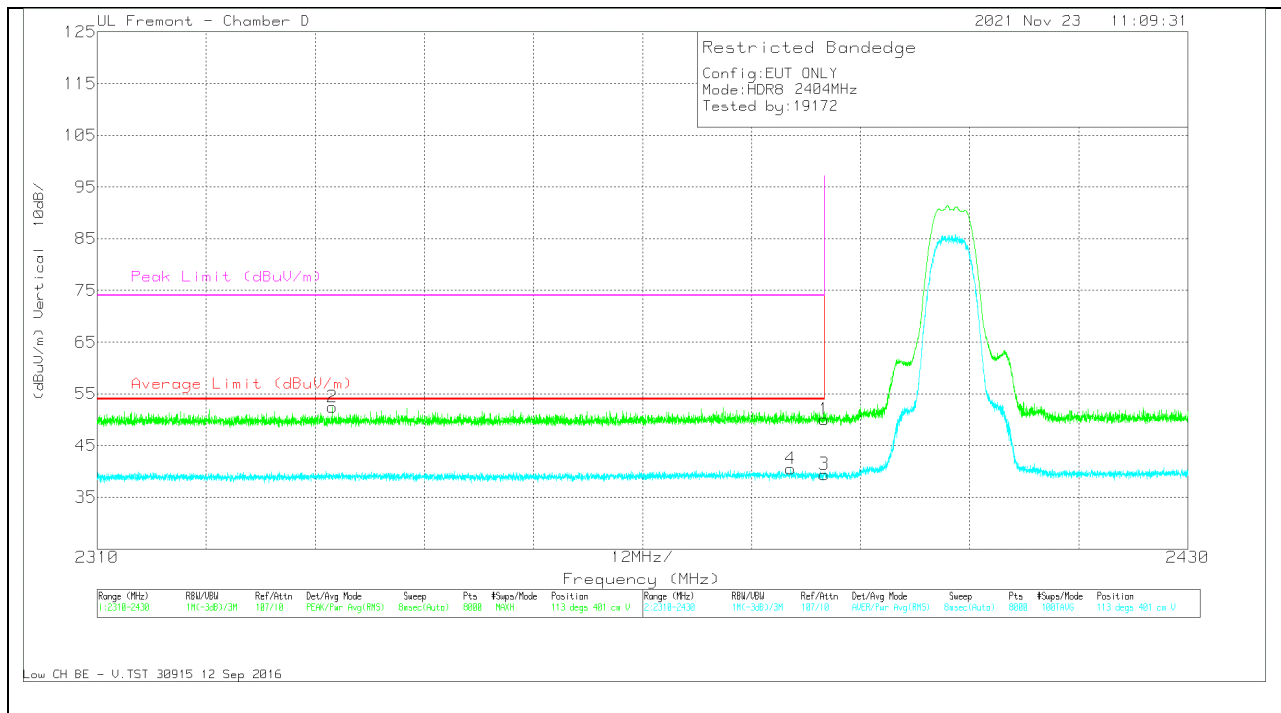
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dBm)	Ampl/Cbll/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.31	PK	32.1	-20.7	49.71	-	-	74	-24.29	118	147	H
2	* 2363.137	41.7	PK	31.9	-20.8	52.8	-	-	74	-21.2	118	147	H
3	* 2390	27.15	RMS	32.1	-20.7	38.55	54	-15.45	-	-	118	147	H
4	* 2380.089	29.17	RMS	32.1	-20.8	40.47	54	-13.53	-	-	118	147	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL RESULT

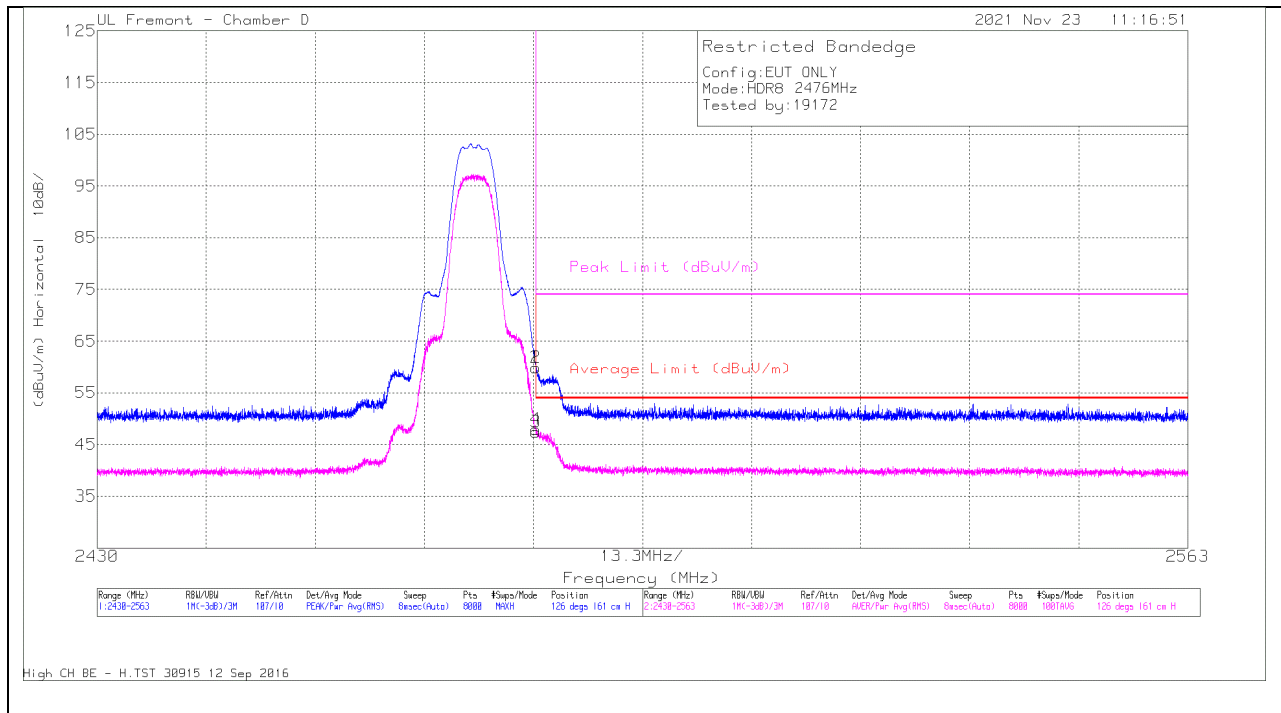


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dBm)	Amp/CbI/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.63	Pk	32.1	-20.7	50.03	-	-	74	-23.97	113	401	V
2	* 2335.893	41.5	PK	31.9	-20.9	52.5	-	-	74	-21.5	113	401	V
3	* 2390	28.04	RMS	32.1	-20.7	39.44	54	-14.56	-	-	113	401	V
4	* 2386.27	29.18	RMS	32.1	-20.8	40.48	54	-13.52	-	-	113	401	V

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

PK - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

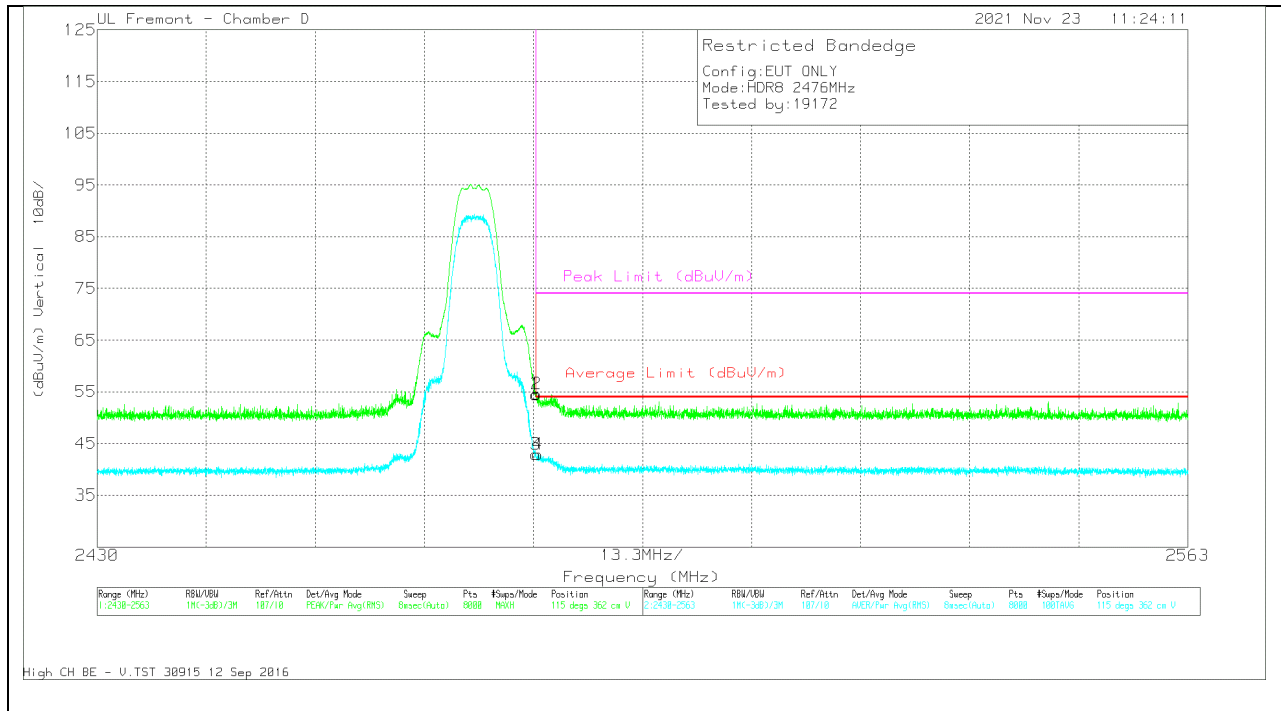
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dBm)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	47.83	Pk	32.7	-20.7	59.83	-	-	74	-14.17	126	161	H
2	* 2483.522	47.88	Pk	32.7	-20.7	59.88	-	-	74	-14.12	126	161	H
3	* 2483.5	35.4	RMS	32.7	-20.7	47.4	54	-6.6	-	-	126	161	H
4	* 2483.522	35.96	RMS	32.7	-20.7	47.96	54	-6.04	-	-	126	161	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

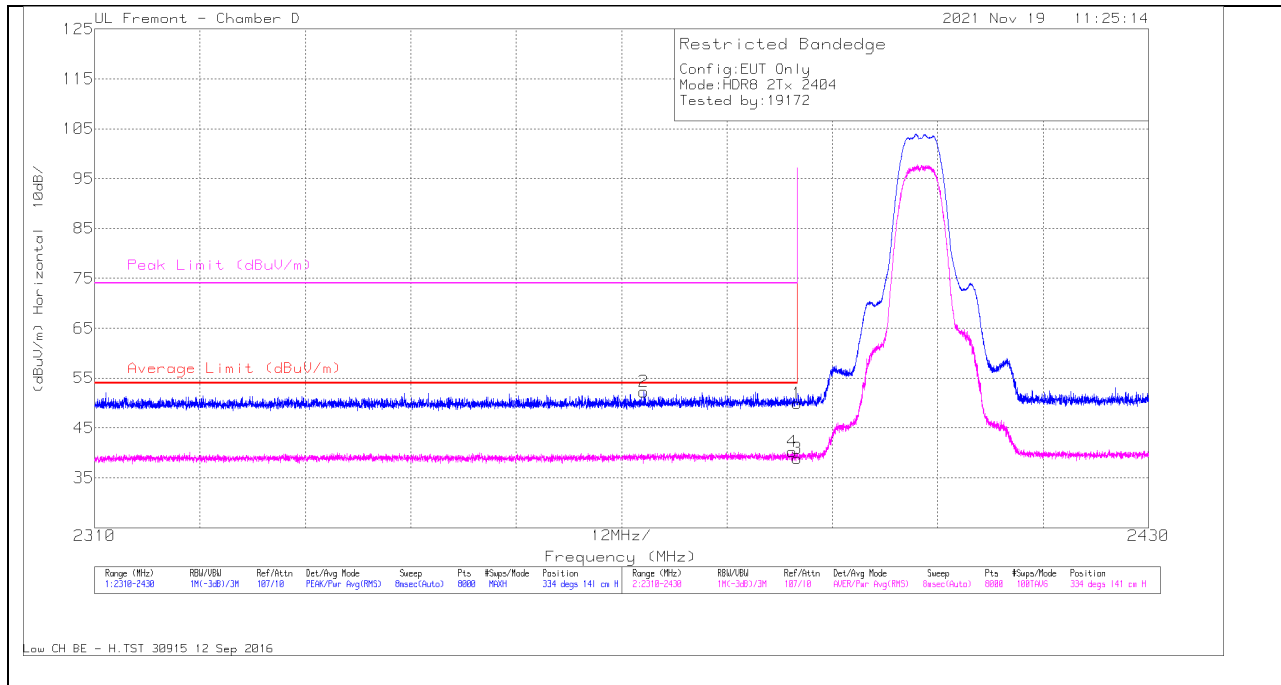


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	42.48	Pk	32.7	-20.7	54.48	-	-	74	-19.52	115	362	V
2	* 2483.572	42.62	Pk	32.7	-20.7	54.62	-	-	74	-19.38	115	362	V
3	* 2483.5	30.89	RMS	32.7	-20.7	42.89	54	-11.11	-	-	115	362	V
4	* 2483.705	30.85	RMS	32.7	-20.7	42.85	54	-11.15	-	-	115	362	V

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

Pk - Peak detector

RMS - RMS detection

10.2.9. LOW POWER HDR TXBF (HDR8)**BANDEDGE (LOW CHANNEL)****HORIZONTAL RESULT**

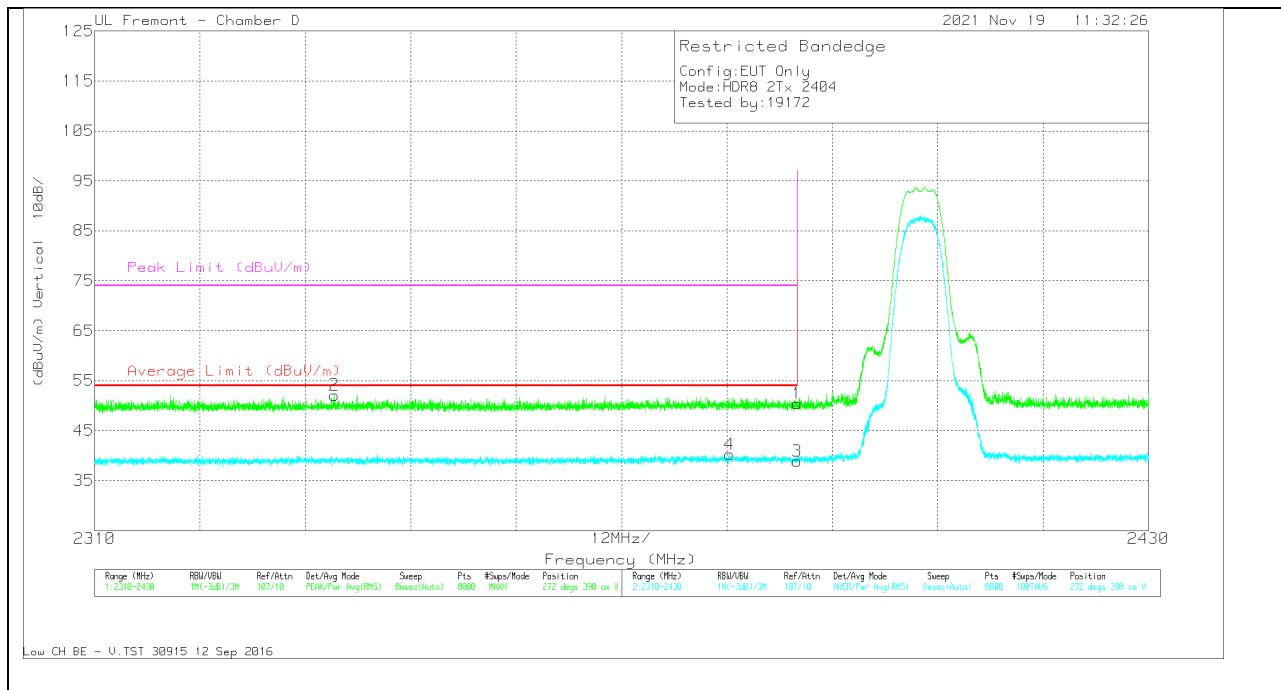
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	38.48	Pk	32.1	-20.7	49.88	-	-	74	-24.12	334	141	H
2	* 2372.5133	41.06	Pk	32	-20.8	52.26	-	-	74	-21.74	334	141	H
3	* 2390	27.53	RMS	32.1	-20.7	38.93	54	-15.07	-	-	334	141	H
4	* 2389.4356	28.87	RMS	32.1	-20.7	40.27	54	-13.73	-	-	334	141	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

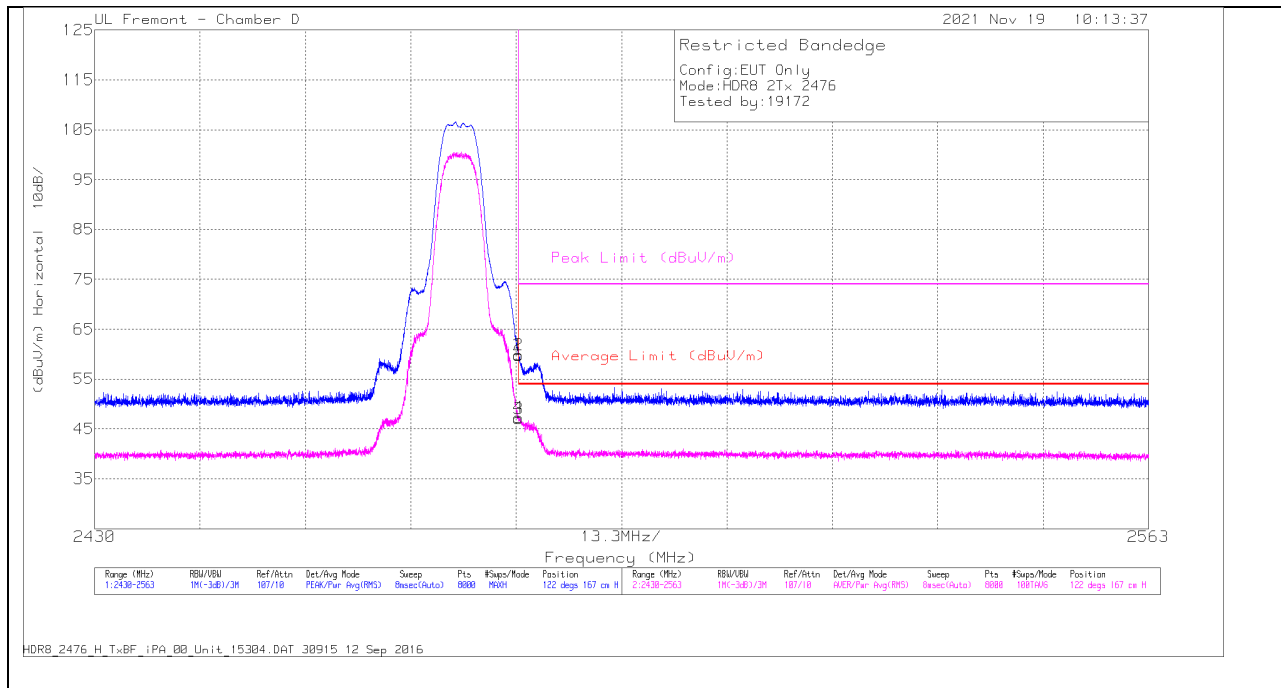


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cb1/Filt/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	39.06	Pk	32.1	-20.7	50.46	-	-	74	-23.54	272	398	V
2	* 2337.2686	41.13	Pk	31.9	-20.9	52.13	-	-	74	-21.87	272	398	V
3	* 2390	27.52	RMS	32.1	-20.7	38.92	54	-15.08	-	-	272	398	V
4	* 2382.3246	28.99	RMS	32.1	-20.8	40.29	54	-13.71	-	-	272	398	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

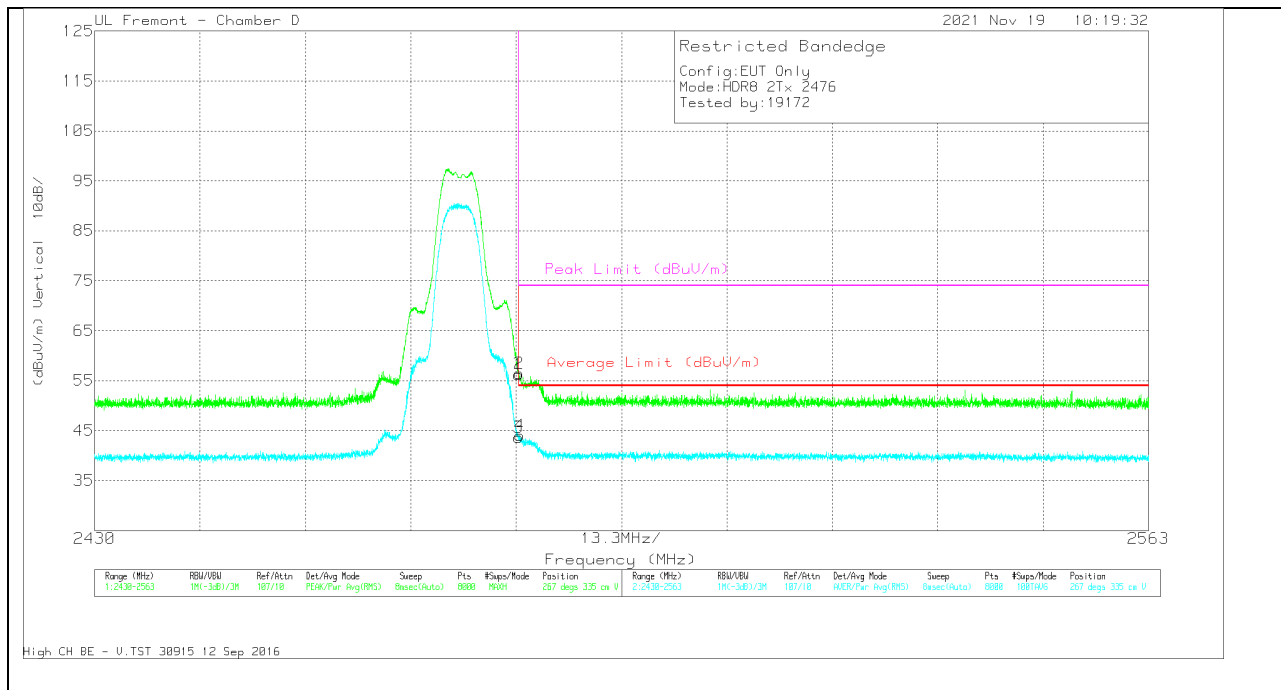
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filt/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	47.72	Pk	32.7	-20.7	59.72	-	-	74	-14.28	122	167	H
2	* 2483.5057	47.81	Pk	32.7	-20.7	59.81	-	-	74	-14.19	122	167	H
3	* 2483.5	35.04	RMS	32.7	-20.7	47.04	54	-6.96	-	-	122	167	H
4	* 2483.5057	35.27	RMS	32.7	-20.7	47.27	54	-6.73	-	-	122	167	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cb1Filt/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	44.22	Pk	32.7	-20.7	56.22	-	-	74	-17.78	267	335	V
2	* 2483.5722	44.42	Pk	32.7	-20.7	56.42	-	-	74	-17.58	267	335	V
3	* 2483.5	31.62	RMS	32.7	-20.7	43.62	54	-10.38	-	-	267	335	V
4	* 2483.6387	32.06	RMS	32.7	-20.7	44.06	54	-9.94	-	-	267	335	V

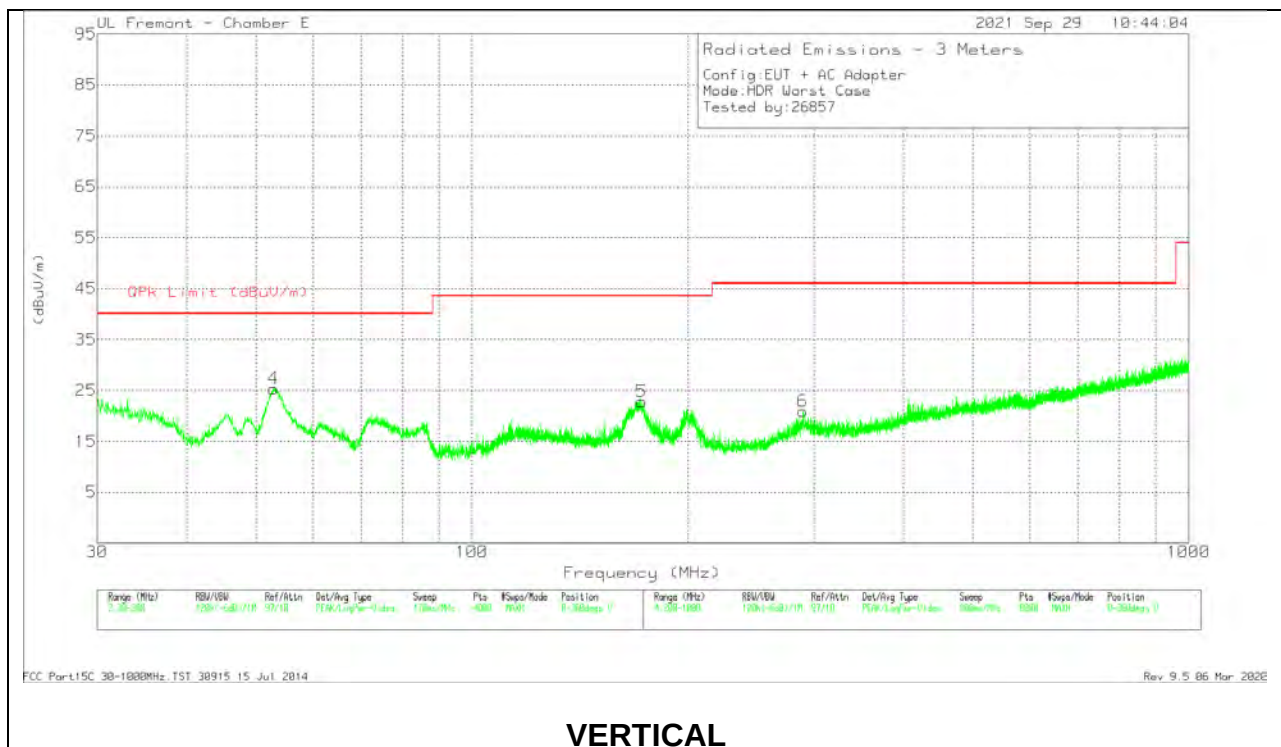
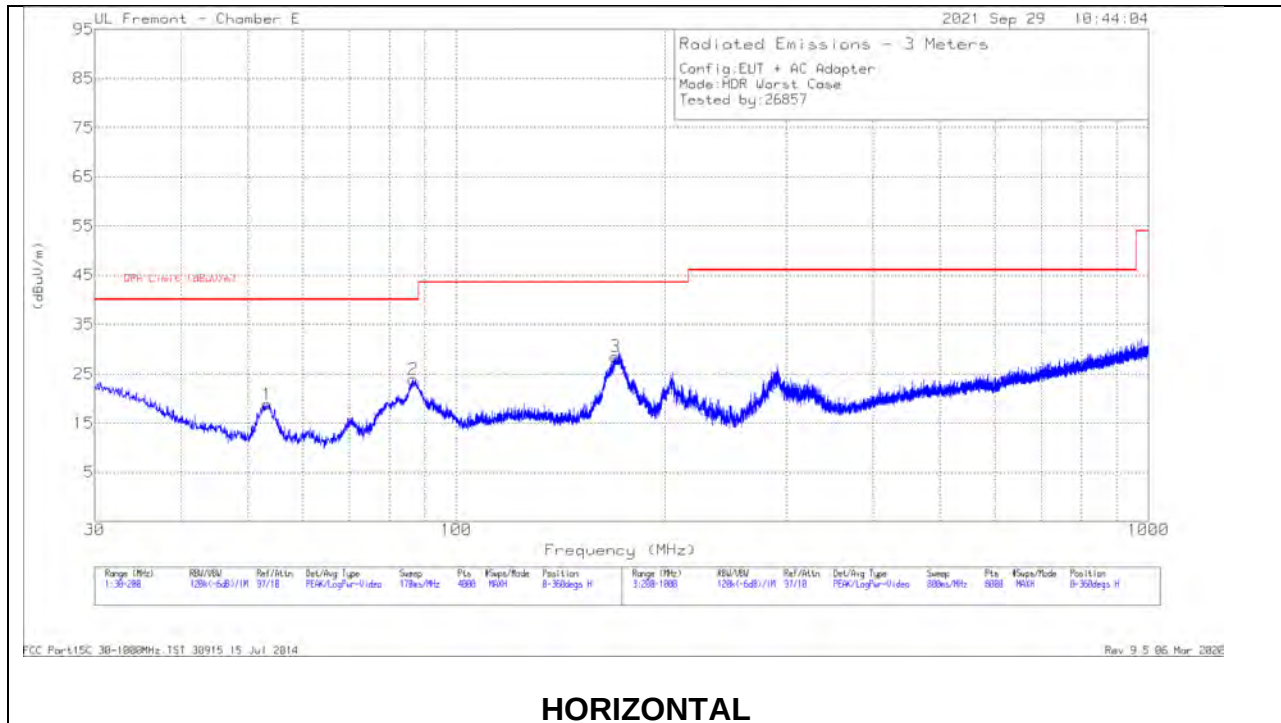
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

10.3. WORST CASE BELOW 1 GHz

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

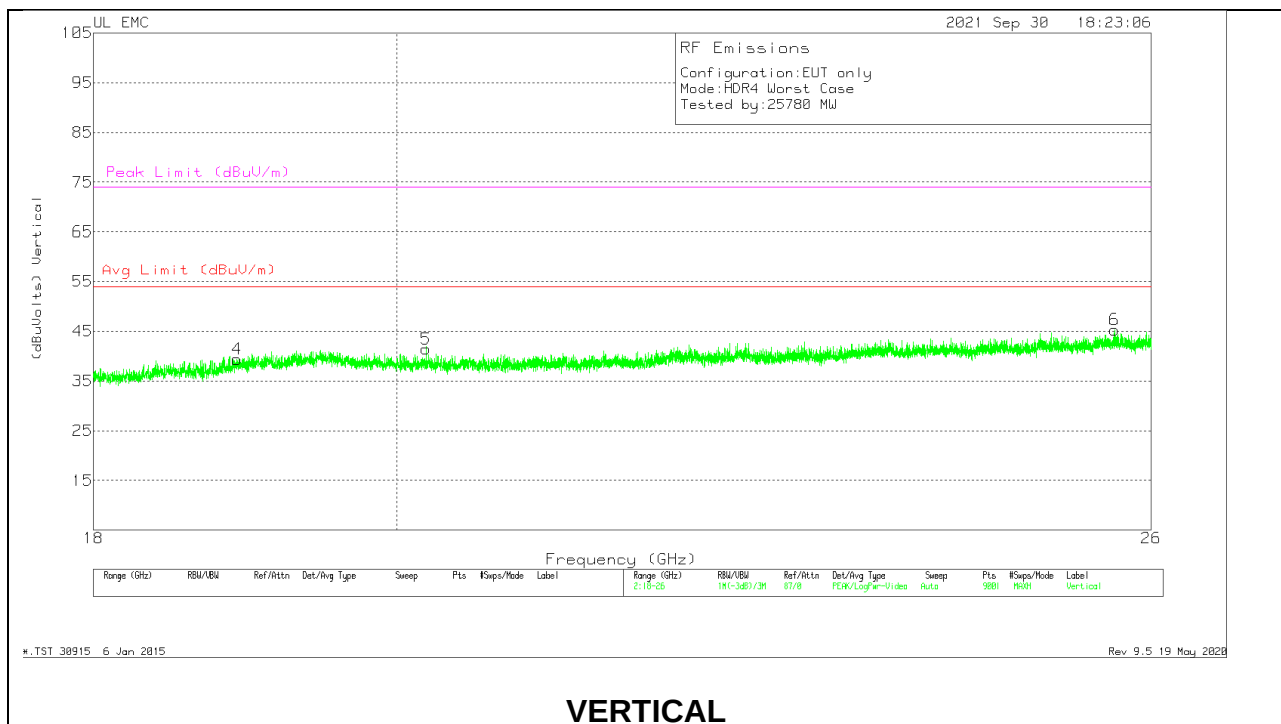
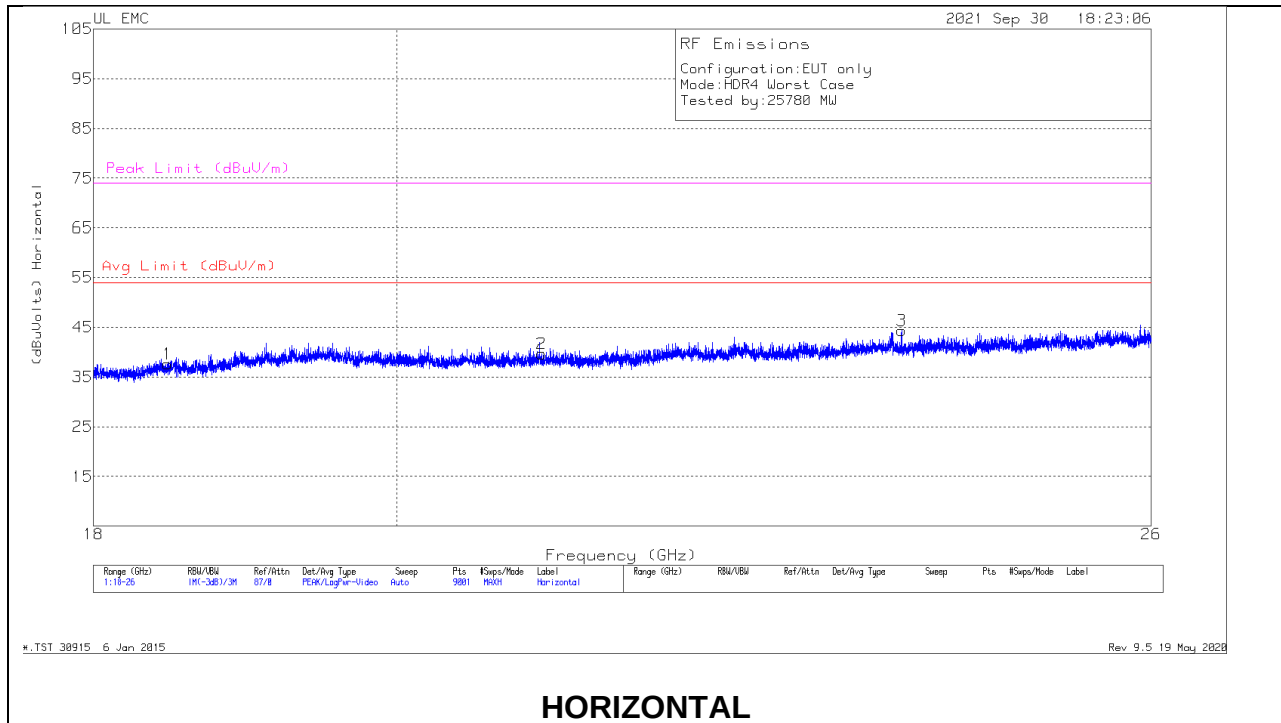


Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	AF 204045 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBUV/m)	QPk Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 169.9462	41.1	Pk	17.5	-30.1	28.5	43.52	-15.02	0-360	99	H
5	* 172.4544	35.5	Pk	17.4	-30.1	22.8	43.52	-20.72	0-360	100	V
4	52.8922	43.34	Pk	13.2	-31.2	25.34	40	-14.66	0-360	100	V
1	53.3385	36.85	Pk	13.2	-31.2	18.85	40	-21.15	0-360	401	H
2	86.5821	41.48	Pk	13.3	-30.9	23.88	40	-16.12	0-360	401	H
6	289.2116	31.02	Pk	19.1	-29.2	20.92	46.02	-25.1	0-360	201	V

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

Pk - Peak detector

10.4. WORST CASE 18-26 GHz**SPURIOUS EMISSIONS 18-26 GHz (WORST-CASE CONFIGURATION)**

18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 81140	Ampl/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	18.46933	35.1	Pk	32.4	-20.4	-9.5	37.6	54	-16.4	74	-36.4
2	21.03467	35.86	Pk	33.1	-19.8	-9.5	39.66	54	-14.34	74	-34.34
3	23.83822	38.43	Pk	33.7	-18.3	-9.5	44.33	54	-9.67	74	-29.67
4	18.92	35.77	Pk	32.5	-19.4	-9.5	39.37	54	-14.63	74	-34.63
5	20.20622	37.76	Pk	32.6	-19.4	-9.5	41.46	54	-12.54	74	-32.54
6	25.67022	38.69	Pk	34.1	-18	-9.5	45.29	54	-8.71	74	-28.71

Pk - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

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

*Decreases with the logarithm of the frequency.

TEST PROCEDURE

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

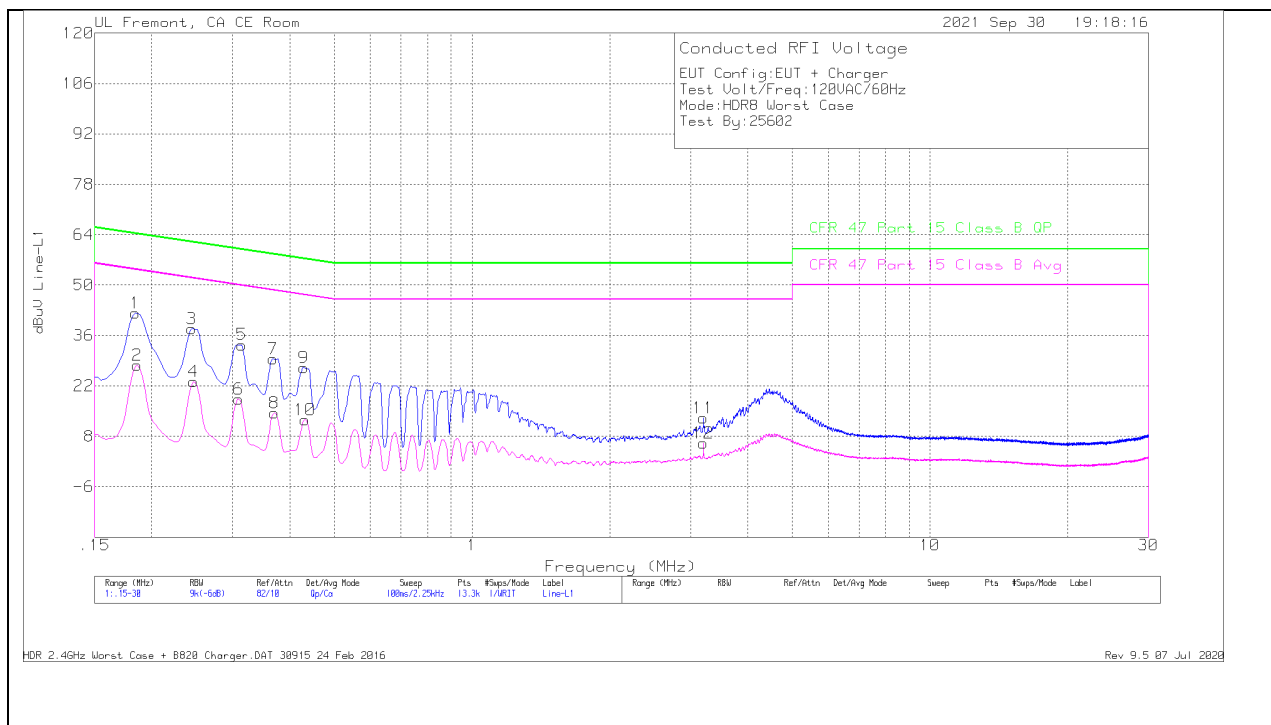
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

11.1. AC Power Line With AC/DC Adapter

LINE 1 RESULTS



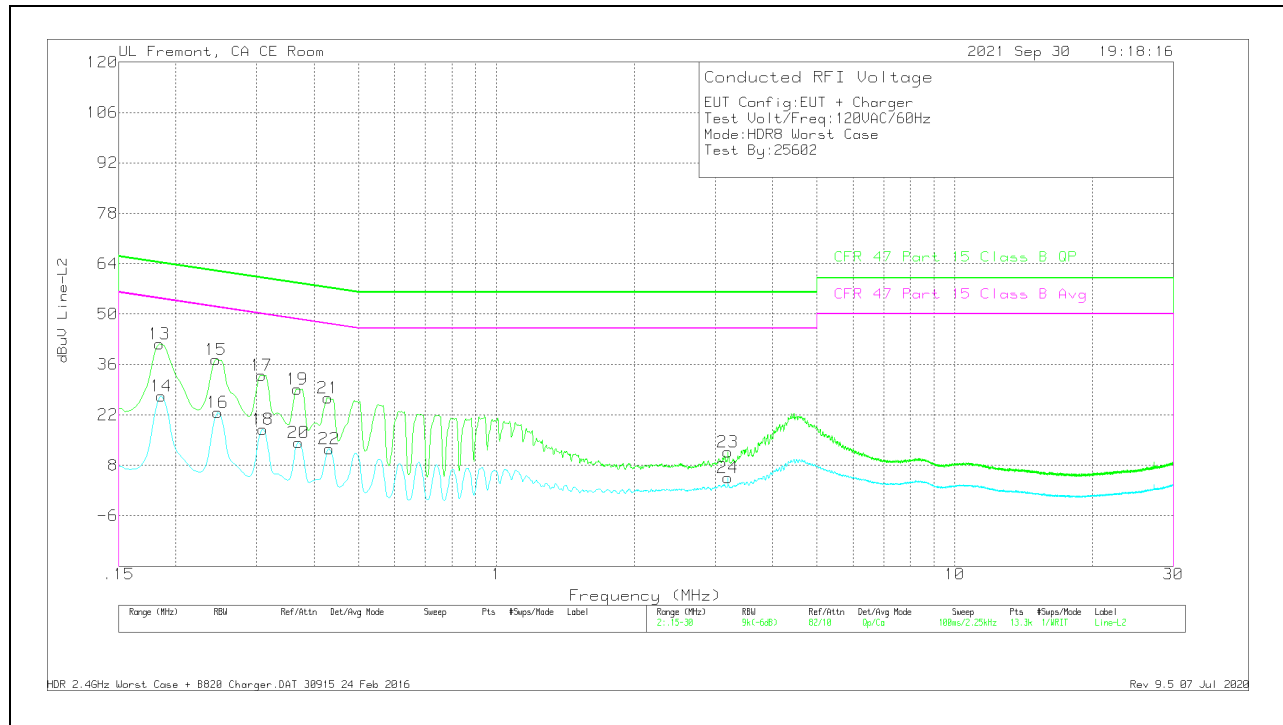
Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	PRE018644 6 L1	LC Cables C1&C3 dB	TekBox Limiter TBFL1 Model 207	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)M argin (dB)
2	.186	18.41	Ca	0	0	9.4	27.81	-	-	54.21	-26.4
4	.24675	13.87	Ca	0	0	9.3	23.17	-	-	51.87	-28.7
6	.30975	9.1	Ca	0	0	9.3	18.4	-	-	49.98	-31.58
8	.3705	5.19	Ca	0	0	9.3	14.49	-	-	48.49	-34
10	.43125	3.33	Ca	0	0	9.3	12.63	-	-	47.23	-34.6
12	3.19875	-3.29	Ca	0	.1	9.3	6.11	-	-	46	-39.89
1	.18375	32.76	Qp	0	0	9.4	42.16	64.31	-22.15	-	-
3	.2445	28.51	Qp	0	0	9.3	37.81	61.94	-24.13	-	-
5	.31425	24.12	Qp	0	0	9.3	33.42	59.86	-26.44	-	-
7	.36825	20.15	Qp	0	0	9.3	29.45	58.54	-29.09	-	-
9	.429	17.78	Qp	0	0	9.3	27.08	57.27	-30.19	-	-
11	3.19875	3.66	Qp	0	.1	9.3	13.06	56	-42.94	-	-

Qp - Quasi-Peak detector

Ca - CISPR average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz

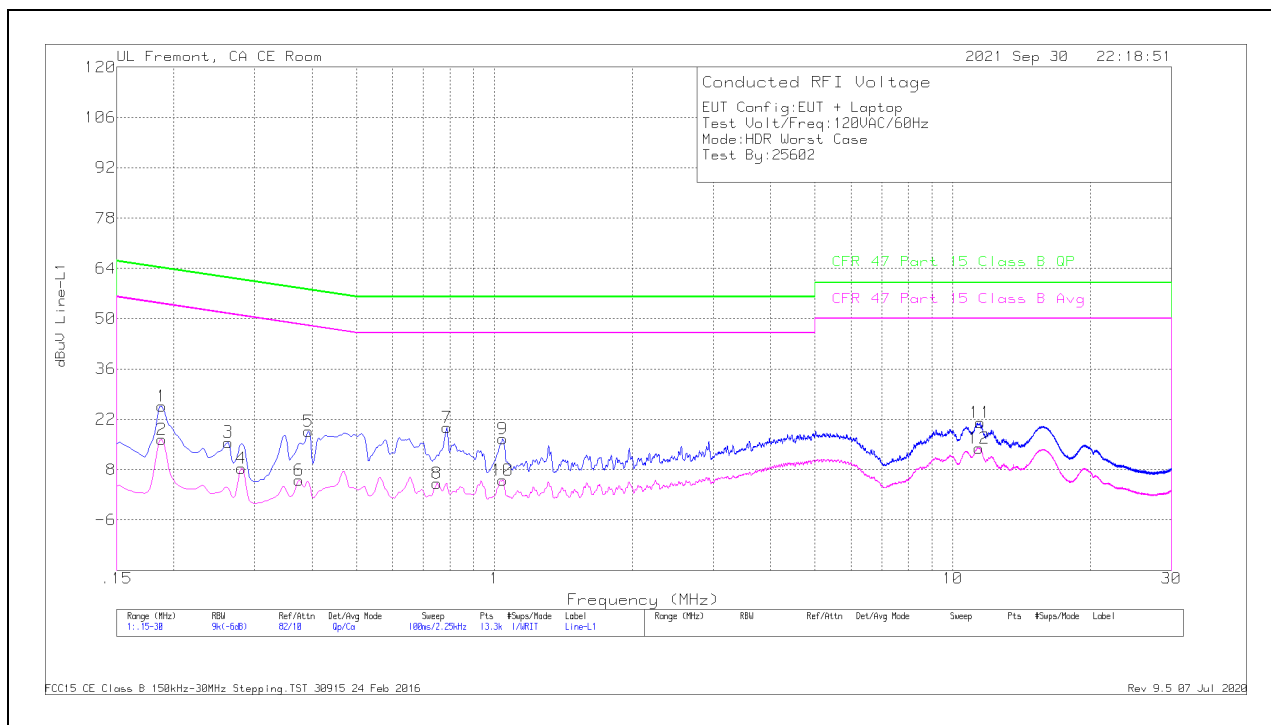
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	PRE018644 6 L2	LC Cables C2&C3 dB	TekBox Limiter TBFL1 Model 207	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)M argin (dB)
14	.186	17.88	Ca	0	0	9.4	27.28	-	-	54.21	-26.93
16	.24675	13.32	Ca	0	0	9.3	22.62	-	-	51.87	-29.25
18	.30975	8.66	Ca	0	0	9.3	17.96	-	-	49.98	-32.02
20	.3705	5	Ca	0	0	9.3	14.3	-	-	48.49	-34.19
22	.43125	3.19	Ca	0	0	9.3	12.49	-	-	47.23	-34.74
24	3.19875	-4.85	Ca	0	.1	9.3	4.55	-	-	46	-41.45
13	.18375	32.25	Qp	0	0	9.4	41.65	64.31	-22.66	-	-
15	.2445	28.08	Qp	0	0	9.3	37.38	61.94	-24.56	-	-
17	.3075	23.72	Qp	0	0	9.3	33.02	60.04	-27.02	-	-
19	.36825	19.89	Qp	0	0	9.3	29.19	58.54	-29.35	-	-
21	.429	17.47	Qp	0	0	9.3	26.77	57.27	-30.5	-	-
23	3.19875	2.31	Qp	0	.1	9.3	11.71	56	-44.29	-	-

Qp - Quasi-Peak detector

Ca - CISPR average detection

11.2. AC Power Line With Laptop

LINE 1 RESULTS



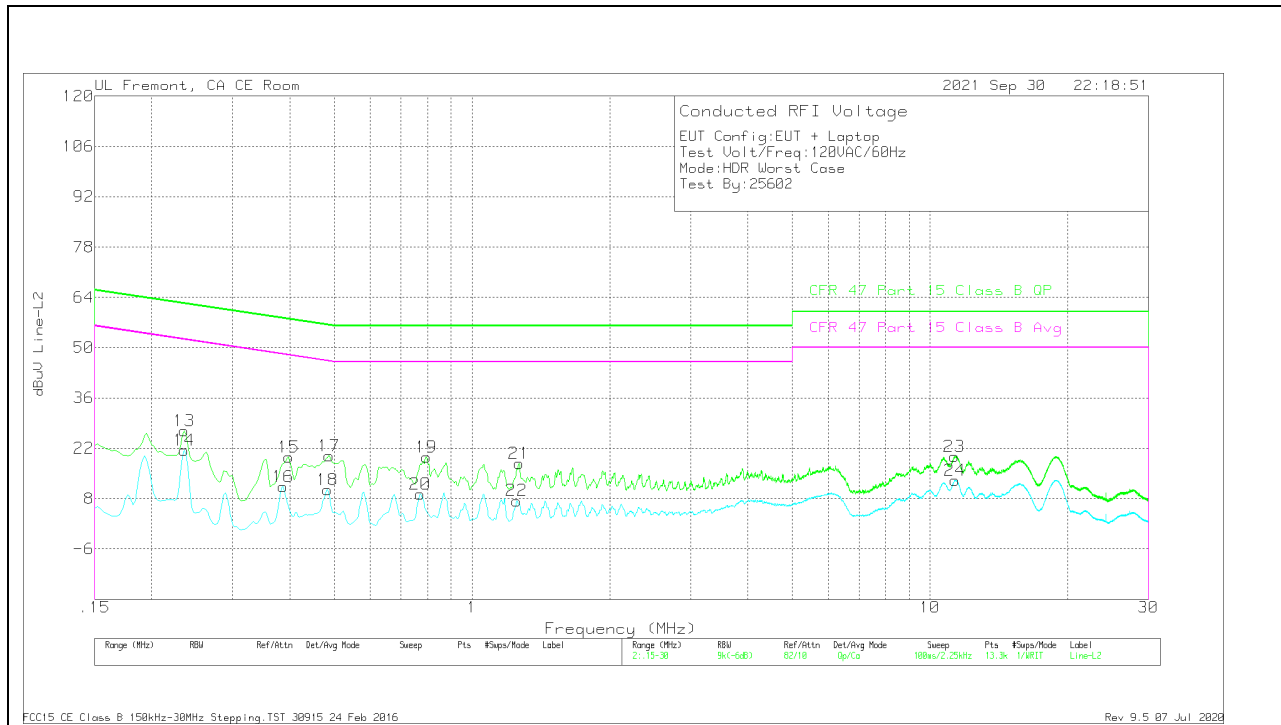
Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	PRE018644 6 L1	LC Cables C1&C3 dB	TekBox Limiter TBFL1 Model 207	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)Margin (dB)
2	.18825	7.06	Ca	0	0	9.4	16.46	-	-	54.11	-37.65
4	.2805	-8.6	Ca	0	0	9.3	8.44	-	-	50.8	-42.36
6	.375	-4.28	Ca	0	0	9.3	5.02	-	-	48.39	-43.37
8	.7485	-5.09	Ca	0	0	9.3	4.21	-	-	46	-41.79
10	1.04325	-4.31	Ca	0	.1	9.3	5.09	-	-	46	-40.91
12	11.42025	4.35	Ca	.1	.2	9.3	13.95	-	-	50	-36.05
1	.18825	16.3	Qp	0	0	9.4	25.7	64.11	-38.41	-	-
3	.2625	6.32	Qp	0	0	9.3	15.62	61.35	-45.73	-	-
5	.393	9.41	Qp	0	0	9.3	18.71	58	-39.29	-	-
7	.78675	10.3	Qp	0	.1	9.3	19.7	56	-36.3	-	-
9	1.04325	7.23	Qp	0	.1	9.3	16.63	56	-39.37	-	-
11	11.4765	11.47	Qp	.1	.2	9.3	21.07	60	-38.93	-	-

Qp - Quasi-Peak detector

Ca - CISPR average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	PRE018644 6 L2	LC Cables C2&C3 dB	TekBox Limiter TBFL1 Model 207	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)M argin (dB)
14	.2355	12.19	Ca	0	0	9.3	21.49	-	-	52.25	-30.76
16	.38625	2.11	Ca	0	0	9.3	11.41	-	-	48.14	-36.73
18	.483	1.17	Ca	0	0	9.3	10.47	-	-	46.29	-35.82
20	.771	.01	Ca	0	0	9.3	9.31	-	-	46	-36.69
22	1.2525	-1.98	Ca	0	.1	9.3	7.42	-	-	46	-38.58
24	11.346	3.57	Ca	0	.2	9.3	13.07	-	-	50	-36.93
13	.2355	17.54	Qp	0	0	9.3	26.84	62.25	-35.41	-	-
15	.3975	10.19	Qp	0	0	9.3	19.49	57.91	-38.42	-	-
17	.4875	10.58	Qp	0	0	9.3	19.88	56.21	-36.33	-	-
19	.79575	10.18	Qp	0	0	9.3	19.48	56	-36.52	-	-
21	1.26825	8.42	Qp	0	.1	9.3	17.82	56	-38.18	-	-
23	11.31	10.23	Qp	0	.2	9.3	19.73	60	-40.27	-	-

Qp - Quasi-Peak detector

Ca - CISPR average detection

12. SETUP PHOTOS

Please refer to 13911916-EP1V1 for setup photos

END OF TEST REPORT