

TEST REPORT

Report Number: 15175342-E2V3

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

Model : A3212 (PARENT MODEL)
A3408, A3409, A3410 (VARIANT MODELS)

Brand : APPLE

FCC ID : BCG-E8725A (PARENT MODEL)
BCG-E8726A, BCG-E8727A, BCG-E8728A
(VARIANT MODELS)

IC : 579C-E8725A (PARENT MODEL)
579C-E8726A, 579C-E8727A, 579C-E8728A
(VARIANT MODELS)

EUT Description : SMARTPHONE

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C
ISED RSS-247 ISSUE 3
ISED RSS-GEN ISSUE 5 + A1 + A2

Date Of Issue:
2024/11/22

Prepared by:
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REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2024/11/07	Initial Issue	Chin Pang
V2	2024/11/13	Addressed TCB Questions in section 6.2, and 10.2 and add section 12	Francisco Guarnero
V3	2024/11/22	Removed green highlight	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: SMART PHONE

MODEL: A3212 (PARENT MODEL)
A3408, A3409, A3410 (VARIANT MODELS)

BRAND: APPLE

SERIAL NUMBER: Parent Model: H56Q0XWR44, KQFN75JXKL (Conducted)
H7035YC39N (Radiated)
Variant Model Conducted: J970CHYF9P (A3408), LHXH14D1WF (A3409) KYFJV03QL6 (A3410)
Variant Model Radiated: LKQVT2W2YG (A3408), QV6H6WR6YR (A3409), R0QQVMMXH7 (A3410)

SAMPLE RECEIPT DATE: 2024/07/26, 2024/11/13

DATE TESTED: 2024/08/23 – 2024/11/20

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Complies
ISED RSS-247 Issue 3	Complies
ISED RSS-GEN Issue 5 + A1 + A2	Complies

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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

Approved & Released For
UL Verification Services Inc. By:



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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.

Below is a list of the data provided by the customer:

1. Antenna gain and type (see section 6.3)
2. Cable loss (see section 6.3)

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 C63.10:2020, KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, KDB 662911, KDB 484596 D01 V02r03, RSS-GEN Issue 5 + A1 + A2, and RSS-247 Issue 3.

4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, certification #0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
☐	Building 1: 47173 Benicia Street, Fremont, CA 94538, USA	US0104	2324A	550739
☒	Building 2: 47266 Benicia Street, Fremont, CA 94538, USA			
☒	Building 3: 843 Auburn Court, Fremont, CA 94538 USA			
☒	Building 4: 47658 Kato Rd, Fremont, CA 94538 USA			
☐	Building 5: 47670 Kato Rd, Fremont, CA 94538 USA			

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

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

5.2. DECISION RULES

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

5.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	U _{LAB}
Conducted Antenna Port Emission Measurement	1.94 dB
Power Spectral Density	2.47 dB
Time Domain Measurements Using SA	3.39 %
RF Power Measurement Direct Method Using Power Meter	1.3 dB (PK), 0.450 dB (AV),
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.22%
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.78 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.40 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	2.87 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	6.01 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.73 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.51 dB

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

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The Apple iPhone is a smartphone with GSM, GPRS, EGPRS, WCDMA, LTE, 5GNR1, IEEE 802.11a/b/g/n/ac/ax, Bluetooth (BT), Global Positioning System (GPS), Near-Field Communication (NFC), and Mobile Satellite Service (MSS) technologies. The rechargeable battery is not user accessible. This device is not user-serviceable and requires special tools to disassemble.

6.2. MAXIMUM OUTPUT POWER

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

Antenna	Configuration	Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
ANT 4	High Power	2402 - 2480	BLE 1M	20.58	114.29
	Low Power			9.08	8.09
	High Power	2404 - 2478	BLE 2M	21.06	127.64
	Low Power			9.55	9.02
ANT 3	High Power	2402 - 2480	BLE 1M	20.58	114.29
	Low Power			9.07	8.07
	High Power	2404- 2478	BLE 2M	20.99	125.60
	Low Power			9.56	9.04
BF, ANT 4 + ANT 3	High Power	2402 - 2480	BLE 1M	23.64	231.21
	Low Power			7.29	5.36
	High Power	2404- 2478	BLE 2M	24.05	254.10
	Low Power			7.81	6.04

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna(s) type is IFA type.

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

Frequency Range (GHz)	ANT 4 (dBi)	ANT 3 (dBi)
2.4	-1.9	-1.2

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

Loss used for Antenna 4 is 1.7

Loss used for Antenna 3 is 1.8

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

6.4. SOFTWARE AND FIRMWARE

The EUT firmware and software version installed during testing was 22.1.74.243

6.5. WORST-CASE CONFIGURATION AND MODE

The EUT was investigated in three orthogonal orientations X, Y and Z on ANT 4, ANT 3 and 2TX Beamforming. It was determined that X (Flatbed) was the worst-case orientation for ANT 4, and 2TX Beamforming and Z (Portrait) for ANT 3.

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

High Power Beamforming BLE 2Mbps mode is set to maximum power per chain to cover both SISO and MIMO modes to comply with radiated spurious emissions limits in the restricted bands between 1GHz and 18GHz low/mid/high channel (except the band edge).

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

For 30-1000MHz emissions spurious tests were performed with EUT connected to AC power adapter and set at X orientation as the worst case; and for above 1GHz, the worst-case configuration reported was tested with EUT only. For AC line conducted emission, test was investigated with AC power adapter and with laptop.

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

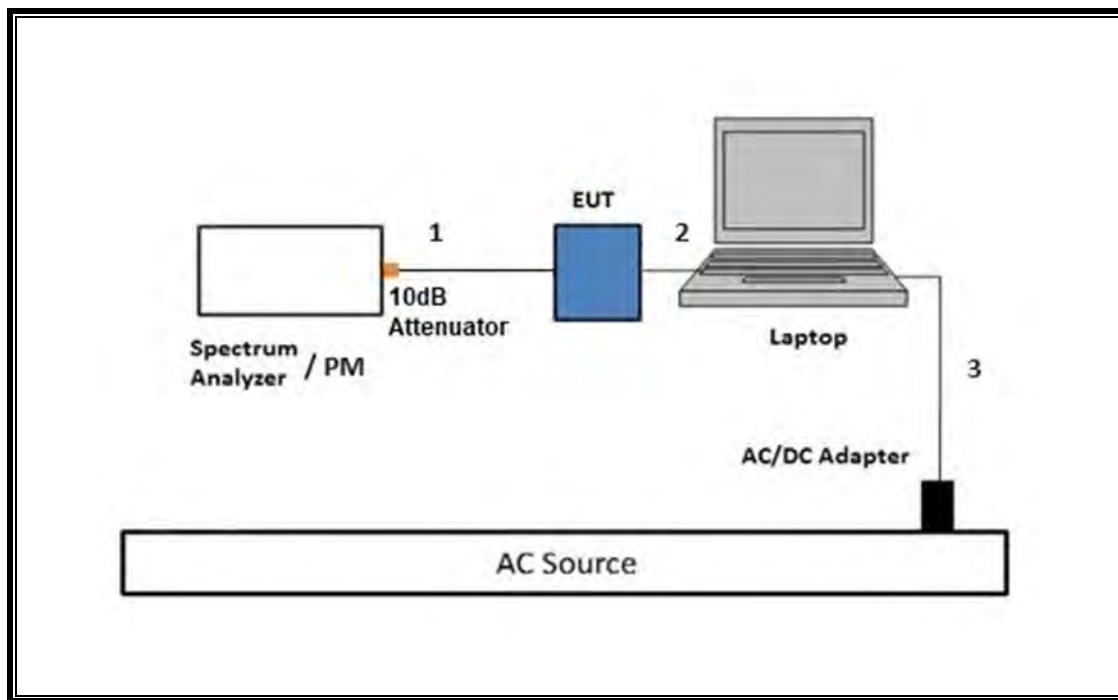
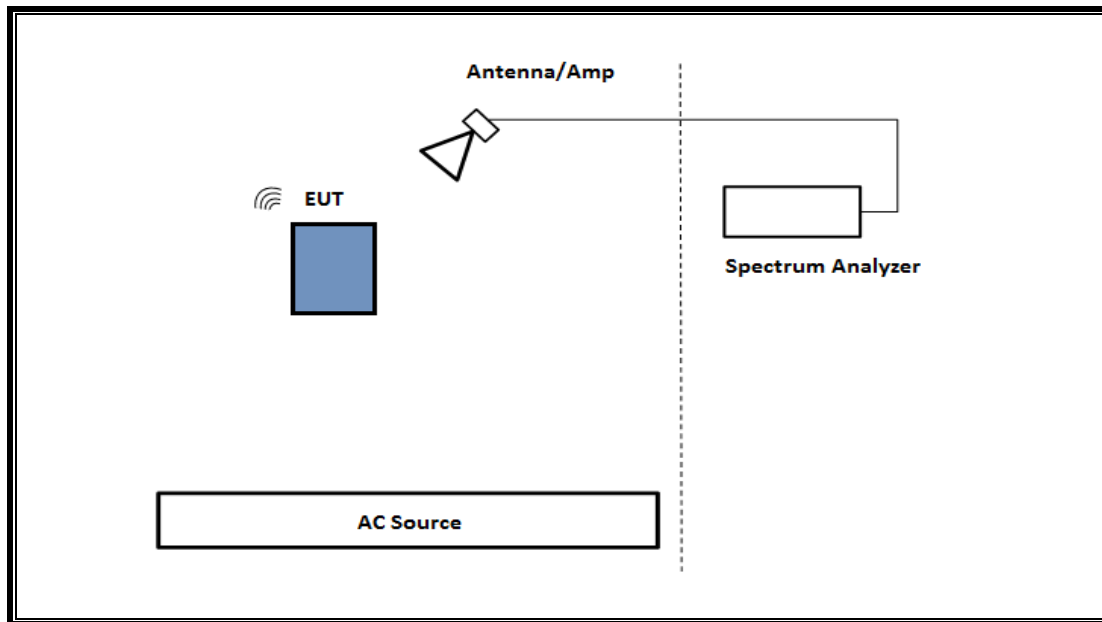
Note: ANT0 and ANT1 indicated in the Radiated test result sections are representative of ANT4 and ANT3, respectively.

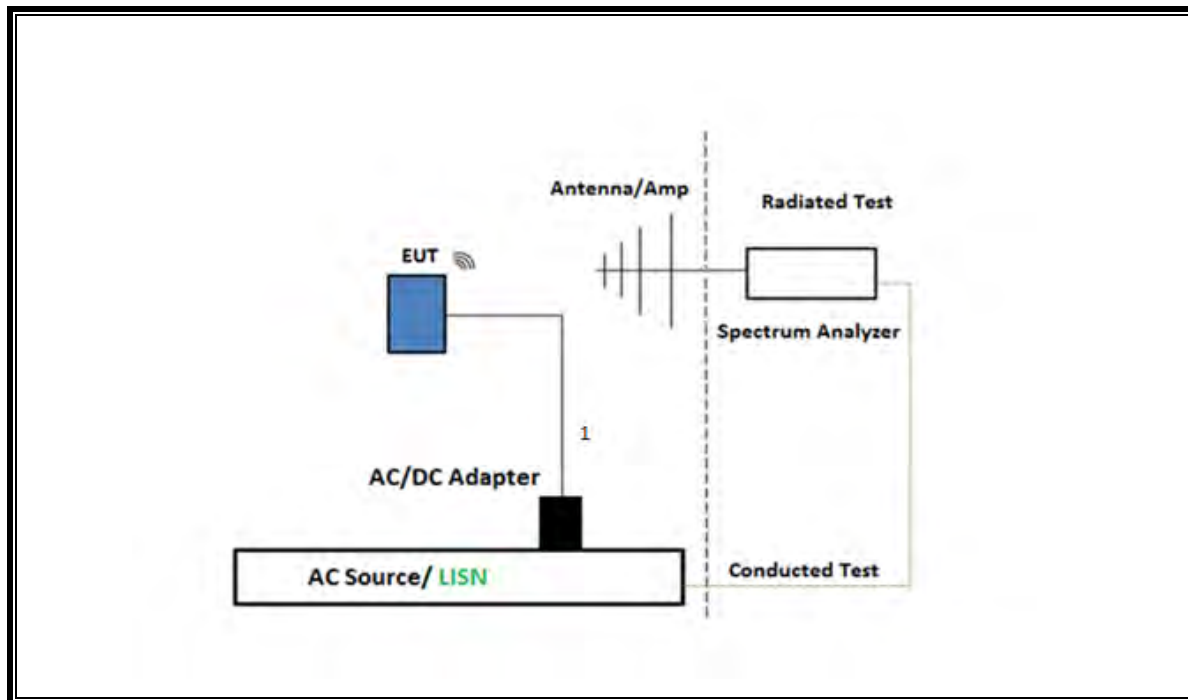
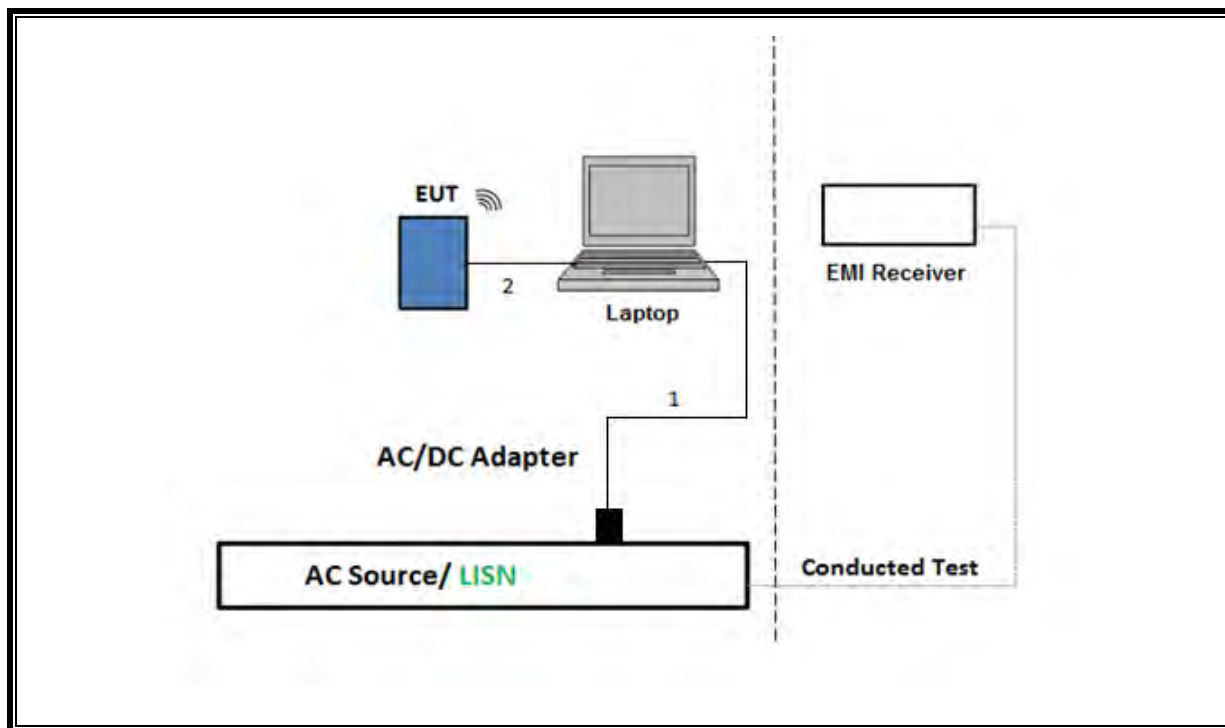
6.6. DESCRIPTION OF TEST SETUP

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	SMA	1	SMA	Shielded	0.75	To spectrum Analyzer
2	USB-C	1	USB-C	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	Shielded	1	N/A

TEST SETUP

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

SETUP DIAGRAM FOR CONDUCTED TESTS**SETUP DIAGRAM FOR RADIATED TESTS Above 1 GHz (1 to 26.5GHz)**

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 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 -11.12.2.4 & Clause 13: Peak Measurement

Band-edge: ANSI C63.10 Subclause -11.12.2.5 & Clause 13: Average Measurement

AC Power Line Conducted Emissions: ANSI C63.10, 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 Section 6.4 & 13

NOTE: All conducted antenna port tests for Beamforming applied the same test procedures as BLE 1Mbps and BLE 2Mbps 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 Number	Cal Due
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	169935	2025/02/28
Antenna, Horn 1-18GHz	ETS-Lindgren (Cedar Park, Texas)	3117	79834	2025/07/31
RF Filter Box, 1-18GHz, 17 Ports	UL-FR1	RATS 2	224478	2025/01/31
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179372	2025/02/28
Antenna, Horn 1-18GHz	ETS-Lindgren (Cedar Park, Texas)	3117	226673	2025/02/28
RF Filter Box, 1-18GHz, 12 Port.	UL-FR1	Frankenstein	231874	2025/07/31
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	170063	2024/11/30
Antenna, Broadband Hybrid, 30MHz to 3GHz	Sunol Sciences Corp.	JB3	204045	2025/04/30
Amplifier 9 KHz - 1 GHz	SONOMA INSTRUMENT	310N	230307	2025/05/30
*Antenna, Horn 18 to 26.5GHz	A.R.A.	MWH-1826/B	172354	2024/10/24
RF Amplifier Assembly, 18-26.5GHz, 60dB Gain	AMPLICAL	AMP18G26.5-60	221832	2025/03/31
Antenna, Passive Loop 30Hz to 1MHz	Electro-Metrics	EM-6871	170013	2025/07/31
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO-METRICS	EM-6872	170015	2025/07/31
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A-544	87738	2025/01/31
*10dB Fixed Attenuator, 2 Watts Up to 26.5 GHz	Pasternack Enterprises	PE7024-10	236353	2024/08/30
10dB Fixed Attenuator, 2 Watts Up to 26.5 GHz	Pasternack Enterprises	PE7024-10	236353	2025/08/31
Power Meter, P-Series single channel	Keysight Technologies Inc	N1911A	90719	2025/01/31
Power Sensor, P - Series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	90389	2025/01/31

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

*Testing was completed before equipment calibration date

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
BLE, 1Mbps	150.000	150.000	1.000	100.00%	0.00	0.010
BLE, 2Mbps	600.000	602.000	0.997	99.67%	0.00	0.010

Note: There is the same DC factor on 1TX and 2TX.

DUTY CYCLE PLOTS



9.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

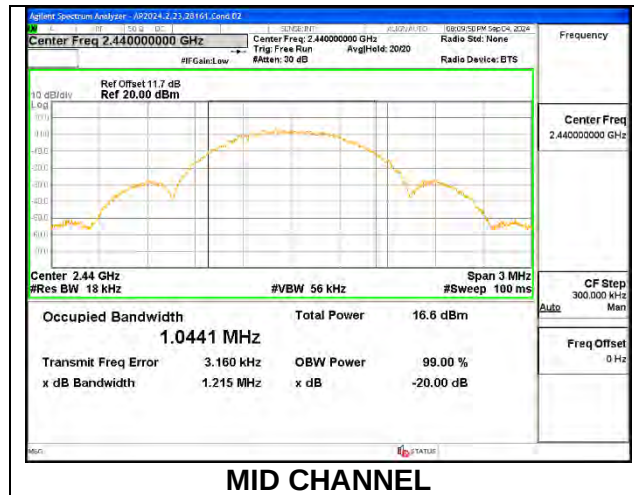
RESULTS

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 BLE (1Mbps)

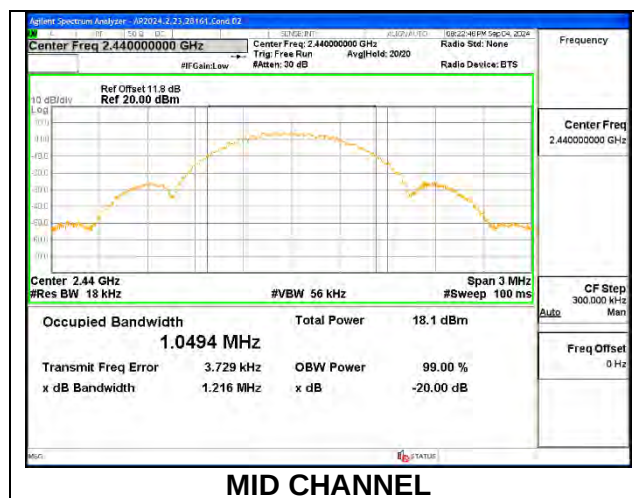
ANT 4

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0426
Middle	2440	1.0441
High	2480	1.0401



ANT 3

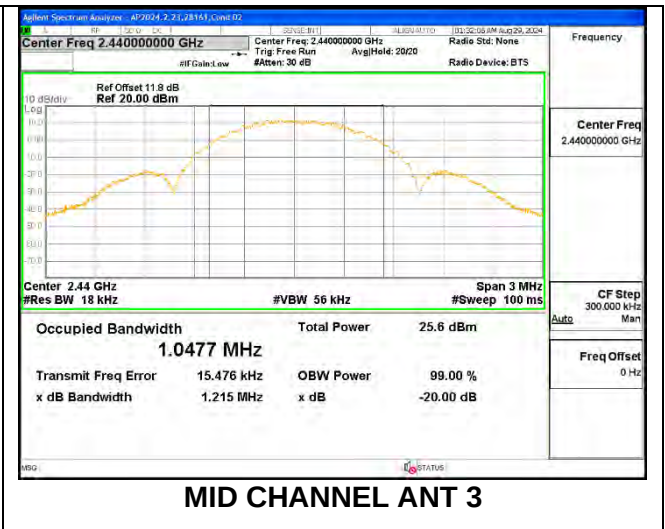
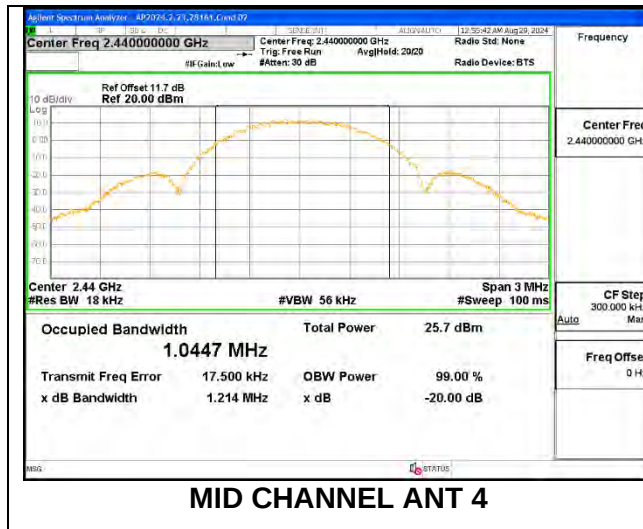
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0397
Middle	2440	1.0494
High	2480	1.0509



9.2.2. HIGH POWER BLE TXBF (1Mbps)

Channel	Frequency (MHz)	99% Bandwidth ANT 4 (MHz)	99% Bandwidth ANT 3 (MHz)
Low	2402	1.0462	1.0464
Mid	2440	1.0447	1.0477
High	2480	1.0470	1.0472

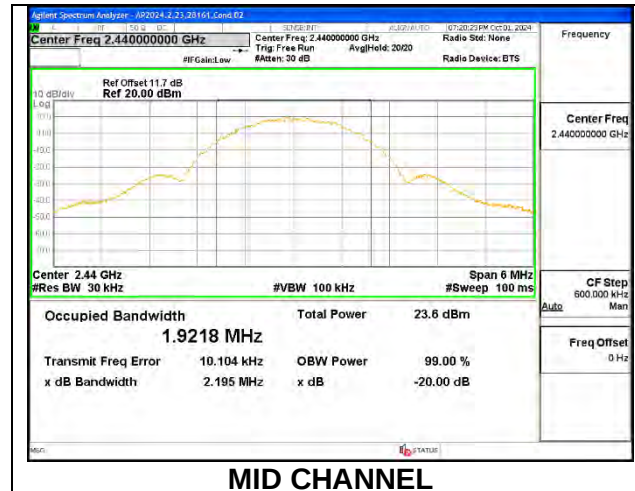
Note: Test procedures and setting are same as BLE normal mode.



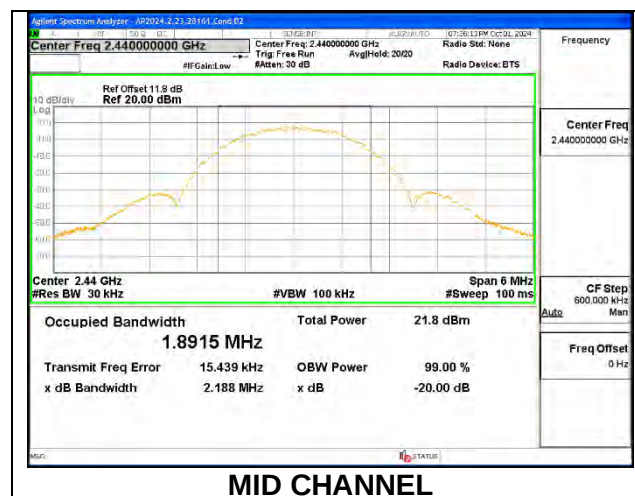
9.2.3. HIGH POWER BLE (2Mbps)

ANT 4

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2404	1.9193
Middle	2440	1.9218
High	2478	1.9175

ANT 3

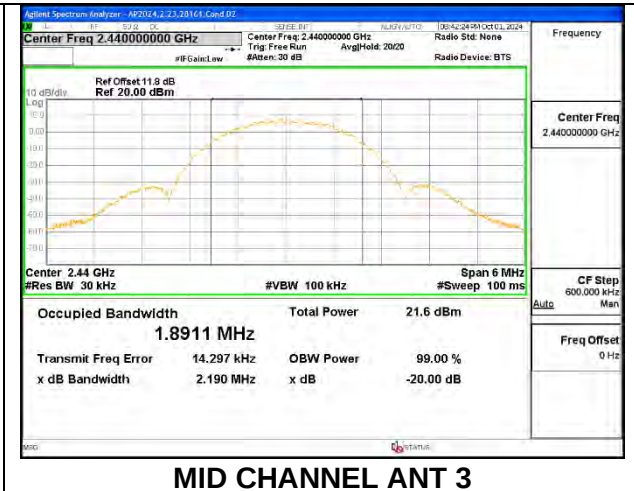
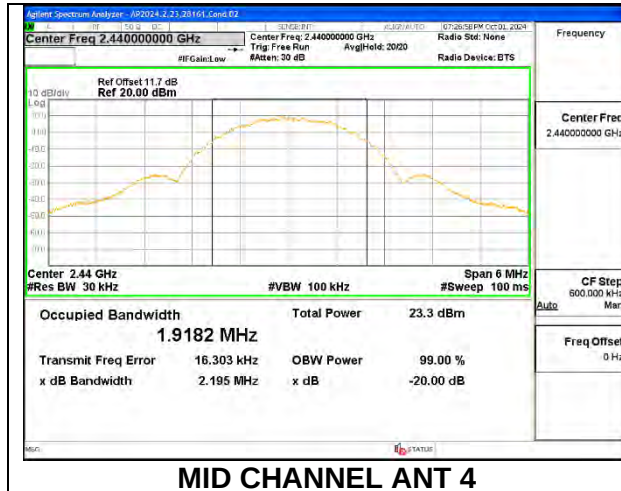
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2404	1.9000
Middle	2440	1.8915
High	2478	1.8927



9.2.4. HIGH POWER BLE TXBF (2Mbps)

Channel	Frequency (MHz)	99% Bandwidth ANT 4 (MHz)	99% Bandwidth ANT 3 (MHz)
Low	2404	1.9190	1.8959
Mid	2440	1.9182	1.8911
High	2478	1.9180	1.8909

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



9.3. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (e)

RSS-247 5.2 (a)

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

RESULTS

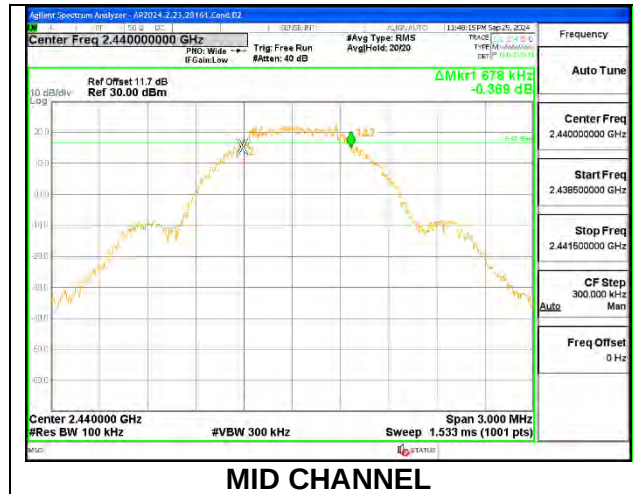
The 6dB bandwidth was measured for the narrowest bandwidth mode, High Power 1Mbps, to demonstrate compliance with the minimum required bandwidth of 500 kHz. Other modes were not tested as their bandwidth is greater than the High Power 1Mbps mode, as demonstrated by the 99% bandwidth measurements performed on all modes.

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

9.3.1. HIGH POWER BLE (1Mbps)

ANT 4

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.690	0.5
Middle	2440	0.678	0.5
High	2480	0.669	0.5



ANT 3

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.708	0.5
Middle	2440	0.705	0.5
High	2480	0.711	0.5



9.3.2. HIGH POWER BLE TXBF (1Mbps)

Channel	Frequency (MHz)	6dB Bandwidth ANT 4 (MHz)	6dB Bandwidth ANT 3 (MHz)	Minimum Limit (MHz)
Low	2402	0.696	0.684	0.5
Mid	2440	0.690	0.705	0.5
High	2480	0.717	0.714	0.5

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



MID CHANNEL ANT 4



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

Measurements were performed using a wideband RF power meter.

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

DIRECTIONAL ANTENNA GAIN

For 1 TX:

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

For 2TX:

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

Band (GHz)	ANT 4 Antenna Gain (dBi)	ANT 3 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.4	-1.90	-1.20	-1.54	1.47

DIRECTIONAL GAIN CALCULATION:

ANSI C63.10-2020 section 14.6.3

Uncorrelated directional gain= $10 \cdot \log((10^{(\text{Ant4}/10)} + 10^{(\text{Ant3}/10)})/2)$

Correlated directional Gain= $10 \cdot \log(((10^{(\text{Ant4}/20)} + 10^{(\text{Ant3}/20)})^2)/2)$

Sample Calculation:

Ant4=-1.9, Ant3=-1.2

Uncorrelated Antenna gain= $10 \log[(10^{(-1.9/10)} + 10^{(-1.2/10)})/2] = -1.54 \text{ dBi}$

Correlated Antenna gain= $10 \log[(10^{(-1.9/20)} + 10^{(-1.2/20)})^2/2] = 1.47 \text{ dBi}$

RESULTS

9.4.1. HIGH POWER BLE (1Mbps)

ANT 4

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	20.54	30	-9.46
Middle	2440	20.58	30	-9.42
High	2480	20.51	30	-9.49

ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	20.46	30	-9.54
Middle	2440	20.51	30	-9.49
High	2480	20.58	30	-9.42

9.4.2. HIGH POWER BLE TXBF (1Mbps)

ANT 4 + ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Output Power ANT 4 (dBm)	Output Power ANT 3 (dBm)	Total Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	20.62	20.64	23.64	30	-6.36
Middle	2440	20.59	20.65	23.63	30	-6.37
High	2480	20.55	20.57	23.57	30	-6.43

9.4.3. HIGH POWER BLE (2Mbps)

ANT 4

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2404	20.93	30	-9.07
Middle	2440	21.00	30	-9.00
High	2478	21.06	30	-8.94

ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit 20.89	Margin (dB)
Low	2404	20.89	30	-9.11
Middle	2440	20.95	30	-9.05
High	2478	20.99	30	-9.01

9.4.4. HIGH POWER BLE TXBF (2Mbps)

ANT 4 + ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Output Power ANT 4 (dBm)	Output Power ANT 3 (dBm)	Total Power (dBm)	Limit (dBm)	Margin (dB)
Low	2404	20.89	21.06	23.99	30	-6.01
Middle	2440	20.94	21.03	24.00	30	-6.00
High	2478	20.98	21.09	24.05	30	-5.95

9.4.5. LOW POWER BLE (1Mbps)

ANT 4

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	9.03	30	-20.97
Middle	2440	9.08	30	-20.92
High	2480	9.02	30	-20.98

ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	9.00	30	-21.00
Middle	2440	9.07	30	-20.93
High	2480	9.03	30	-20.97

9.4.6. LOW POWER BLE TXBF (1Mbps)

ANT 4 + ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Output Power ANT 4 (dBm)	Output Power ANT 3 (dBm)	Total Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	4.50	4.04	7.29	30	-22.71
Middle	2440	4.54	3.96	7.27	30	-22.73
High	2480	4.46	4.01	7.25	30	-22.75

9.4.7. LOW POWER BLE (2Mbps)

ANT 4

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2404	9.50	30	-20.50
Middle	2440	9.44	30	-20.56
High	2478	9.55	30	-20.45

ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2404	9.48	30	-20.52
Middle	2440	9.42	30	-20.58
High	2478	9.56	30	-20.44

9.4.8. LOW POWER BLE TXBF (2Mbps)

ANT 4 + ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Output Power ANT 4 (dBm)	Output Power ANT 3 (dBm)	Total Power (dBm)	Limit (dBm)	Margin (dB)
Low	2404	5.01	4.57	7.81	30	-22.19
Middle	2440	5.03	4.51	7.79	30	-22.21
High	2478	4.95	4.54	7.76	30	-22.24

9.5. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements were performed using a wideband RF power meter.

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

RESULTS

9.5.1. HIGH POWER BLE (1Mbps)**ANT 4**

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	AV power (dBm)
Low	2402	20.12
Middle	2440	20.15
High	2480	20.09

ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	AV power (dBm)
Low	2402	20.04
Middle	2440	20.08
High	2480	20.15

9.5.2. HIGH POWER BLE TXBF (1Mbps)**ANT 4 + ANT 3**

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Average Power ANT 4 (dBm)	Average Power ANT 3 (dBm)	Total Power (dBm)
Low	2402	20.21	20.23	23.23
Middle	2440	20.18	20.24	23.22
High	2480	20.13	20.16	23.16

9.5.3. HIGH POWER BLE (2Mbps)

ANT 4

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	AV power (dBm)
Low	2404	20.08
Middle	2440	20.14
High	2478	20.20

ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	AV power (dBm)
Low	2404	20.03
Middle	2440	20.07
High	2478	20.12

9.5.4. HIGH POWER BLE TXBF (2Mbps)

ANT 4 + ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Average Power ANT 4 (dBm)	Average Power ANT 3 (dBm)	Total Power (dBm)
Low	2404	20.02	20.19	23.12
Middle	2440	20.08	20.17	23.14
High	2478	20.12	20.22	23.18

9.5.5. LOW POWER BLE (1Mbps)

ANT 4

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	AV power (dBm)
Low	2402	8.61
Middle	2440	8.67
High	2480	8.59

ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	AV power (dBm)
Low	2402	8.59
Middle	2440	8.66
High	2480	8.63

9.5.6. LOW POWER BLE TXBF (1Mbps)

ANT 4 + ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	Average Power ANT 4 (dBm)	Average Power ANT 3 (dBm)	Total Power (dBm)
Low	2402	4.09	3.62	6.87
Middle	2440	4.13	3.54	6.86
High	2480	4.06	3.59	6.84

9.5.7. LOW POWER BLE (2Mbps)**ANT 4**

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	AV power (dBm)
Low	2404	8.63
Middle	2440	8.57
High	2478	8.68

ANT 3

Tested By:	28161 VT
Date:	2024-10-15

Channel	Frequency (MHz)	AV power (dBm)
Low	2404	8.62
Middle	2440	8.55
High	2478	8.71

9.5.8. LOW POWER BLE TXBF (2Mbps)**ANT 4 + ANT 3**

Tested By:	28161 VT
Date:	10/15/2024

Channel	Frequency (MHz)	Average Power ANT 4 (dBm)	Average Power ANT 3 (dBm)	Total Power (dBm)
Low	2404	4.15	3.71	6.95
Middle	2440	4.16	3.66	6.93
High	2478	4.08	3.68	6.89

9.6. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

RSS-247 (5.2) (b)

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

RESULTS

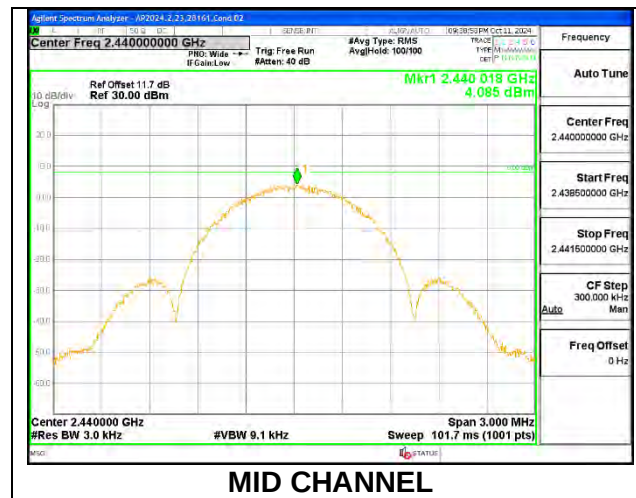
Only Mid channel plot is reported to show setting parameter complies with testing method/procedure.

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

9.6.1. HIGH POWER BLE (1Mbps)

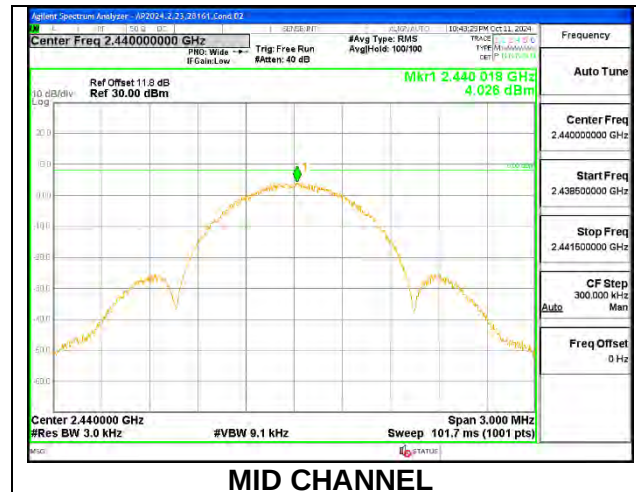
ANT 4

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2402	3.912	8	-4.09
Middle	2440	4.085	8	-3.92
High	2480	3.517	8	-4.48



ANT 3

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2402	3.780	8	-4.22
Middle	2440	4.026	8	-3.97
High	2480	3.450	8	-4.55



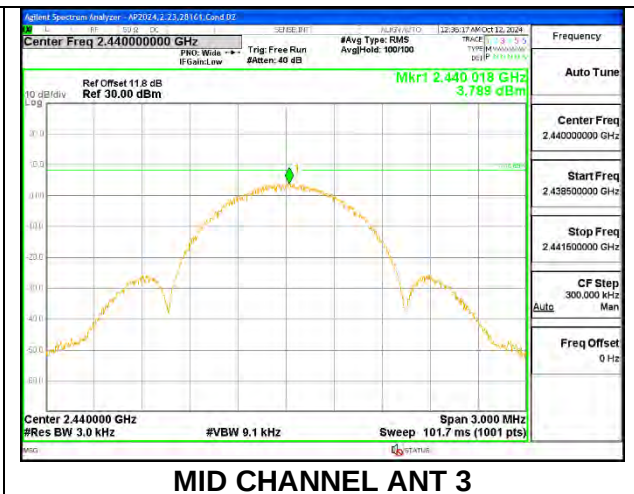
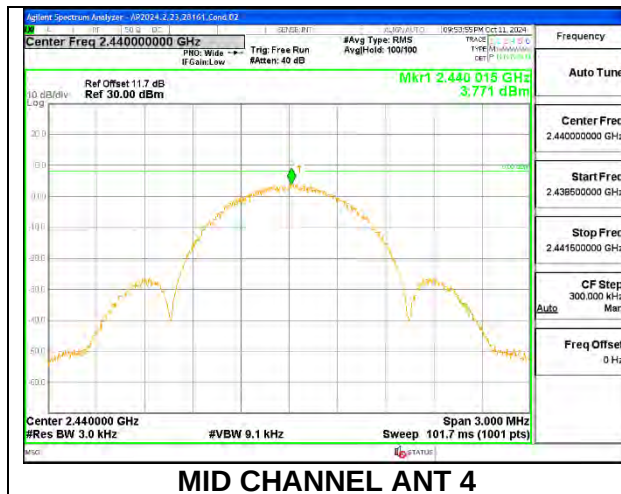
9.6.2. HIGH POWER BLE TXBF (1Mbps)

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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PSD Results

Channel	Frequency (MHz)	ANT 4 Meas (dBm/ 3kHz)	ANT 3 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low	2402	3.943	3.815	6.89	8.0	-1.1
Mid	2440	3.771	3.789	6.79	8.0	-1.2
High	2480	3.420	3.413	6.43	8.0	-1.6

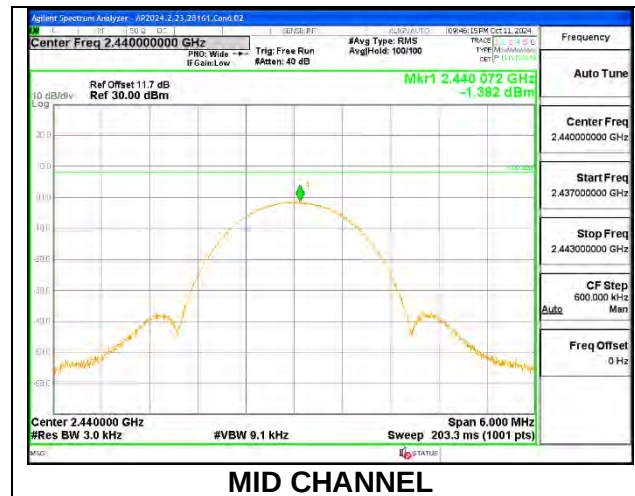
Note: Test procedures and setting are same as BLE normal mode.



9.6.3. HIGH POWER BLE (2Mbps)

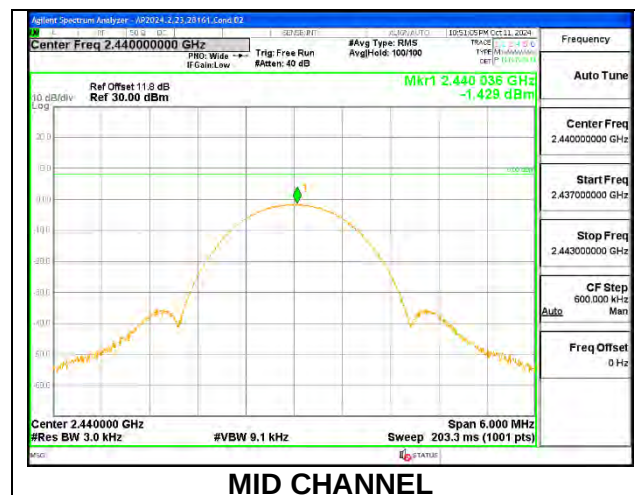
ANT 4

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2404	-1.161	8	-9.16
Middle	2440	-1.382	8	-9.38
High	2478	-1.369	8	-9.37



ANT 3

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2404	-1.273	8	-9.27
Middle	2440	-1.429	8	-9.43
High	2478	-1.589	8	-9.59



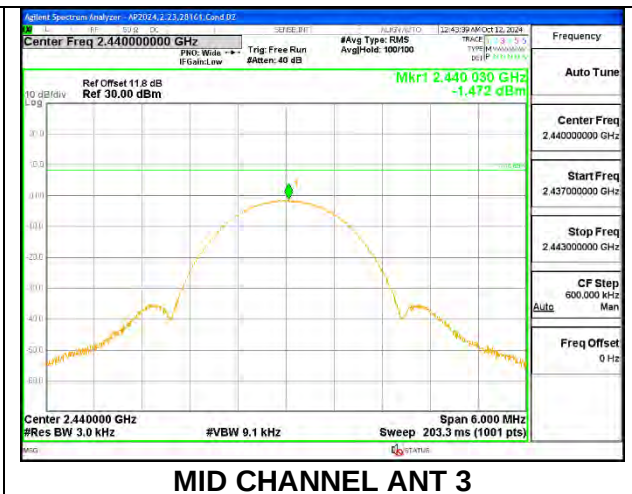
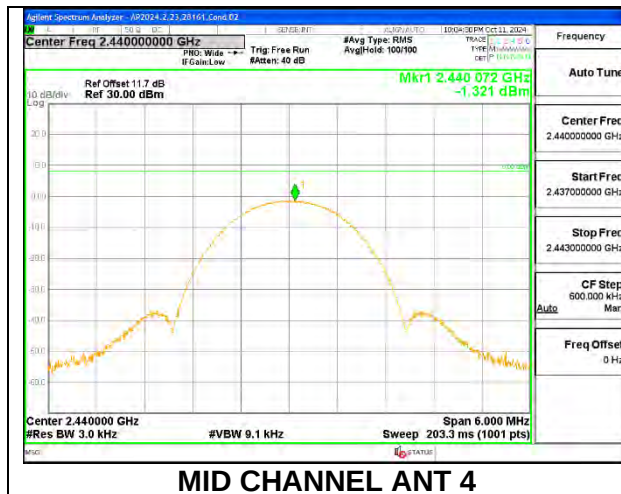
9.6.4. HIGH POWER BLE TXBF (2Mbps)

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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PSD Results

Channel	Frequency (MHz)	ANT 4 Meas (dBm/ 3kHz)	ANT 3 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low	2404	-1.225	-1.438	1.68	8.0	-6.3
Mid	2440	-1.321	-1.472	1.61	8.0	-6.4
High	2478	-1.429	-1.617	1.49	8.0	-6.5

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



9.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

RSS-247 5.5

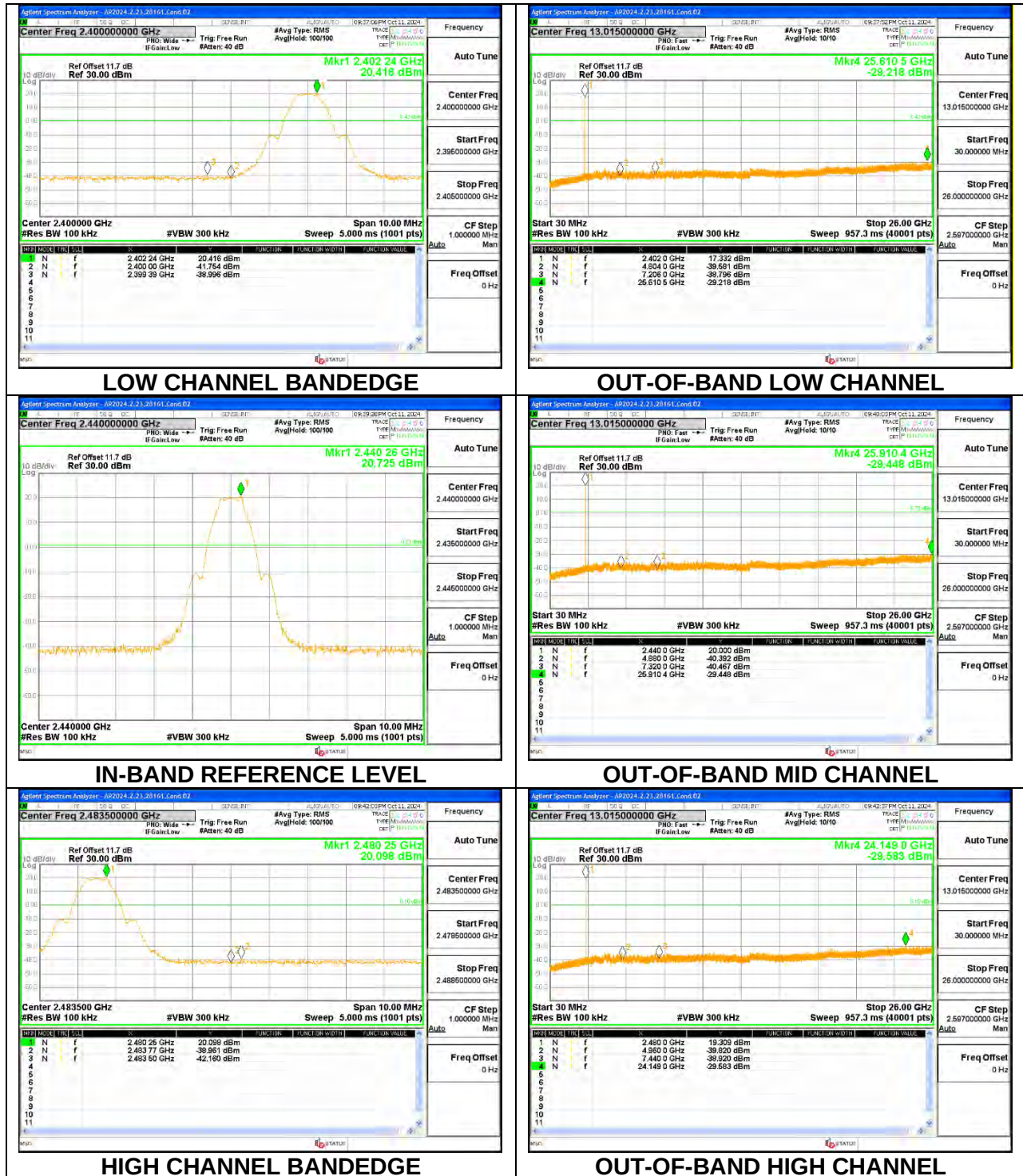
Output power was measured based on the use of a peak measurement; therefore, the required attenuation is 20 dBc.

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

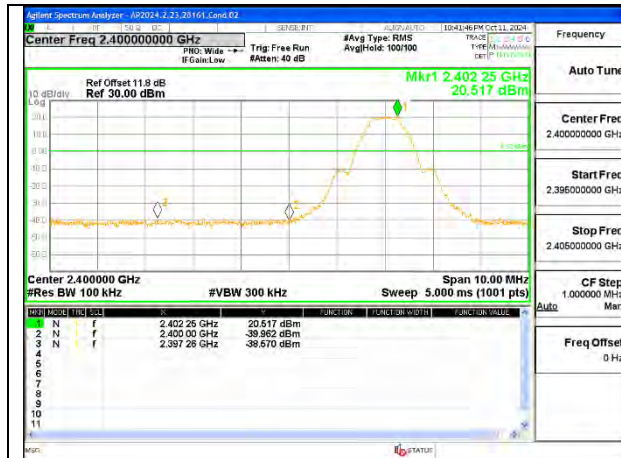
RESULTS

9.7.1. HIGH POWER BLE (1Mbps)

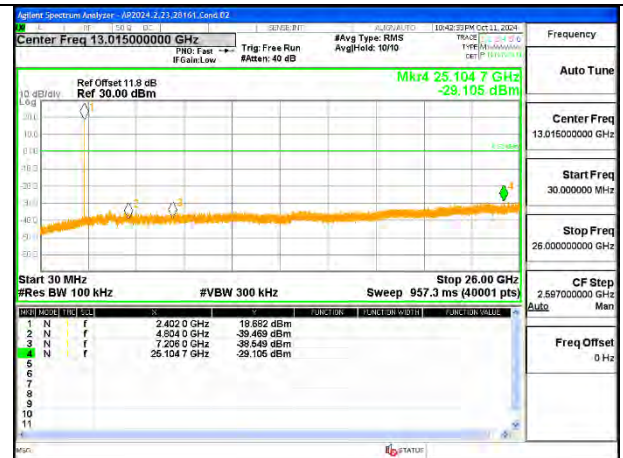
ANT 4



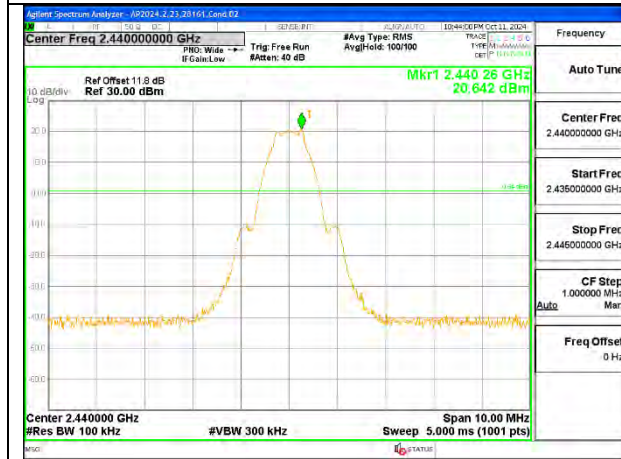
ANT 3



LOW CHANNEL BANDEDGE



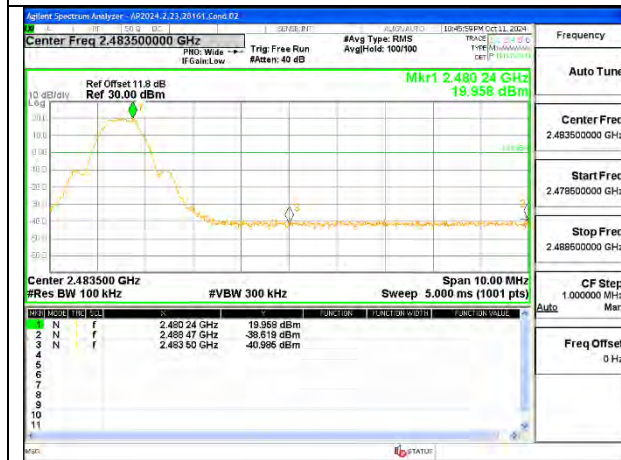
OUT-OF-BAND LOW CHANNEL



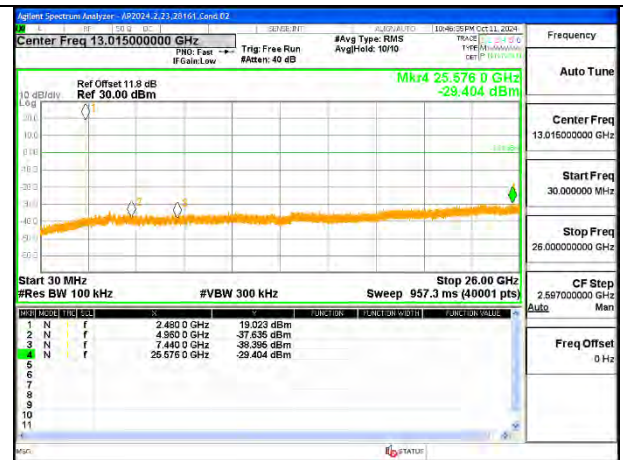
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL



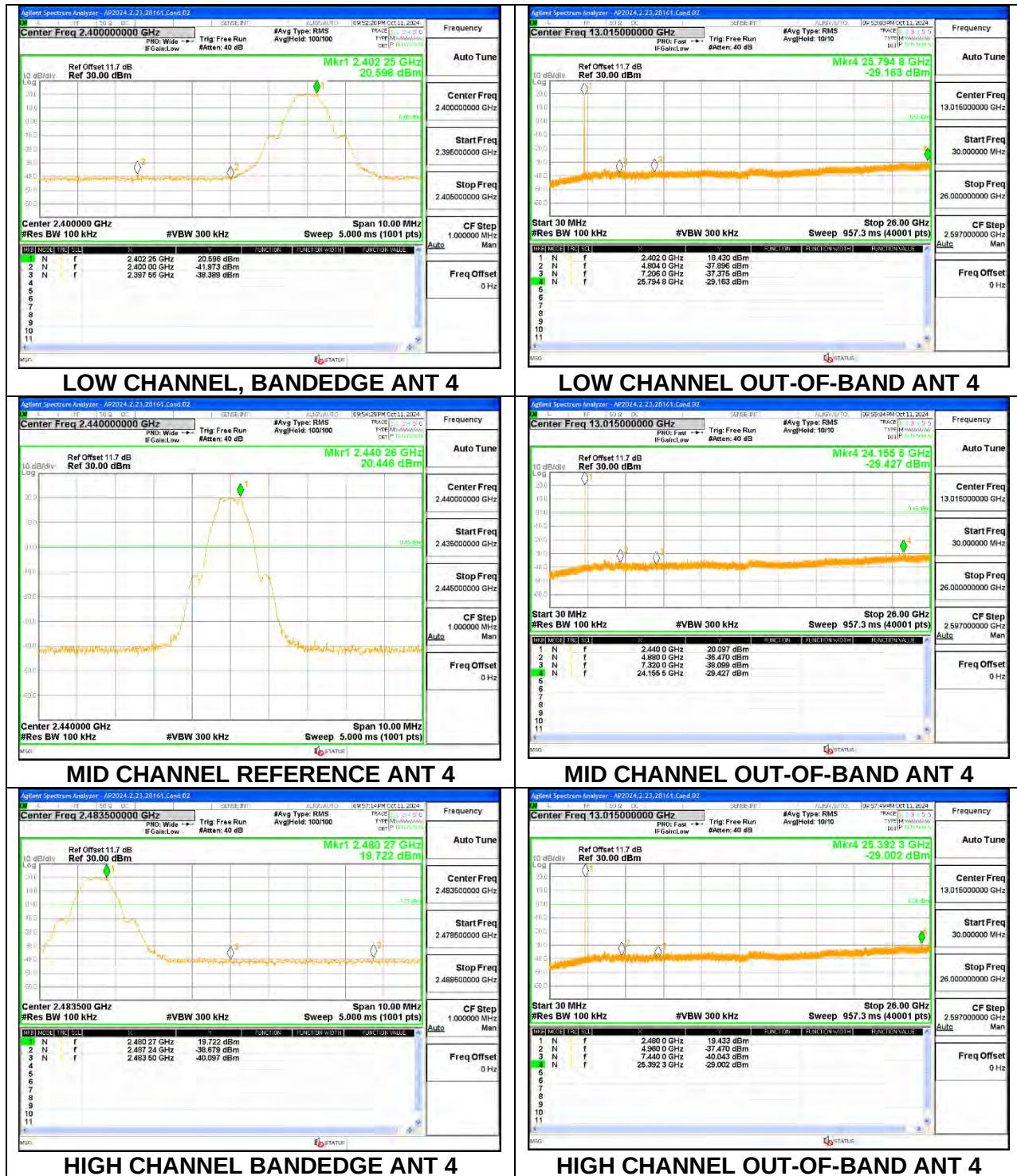
HIGH CHANNEL BANDEDGE

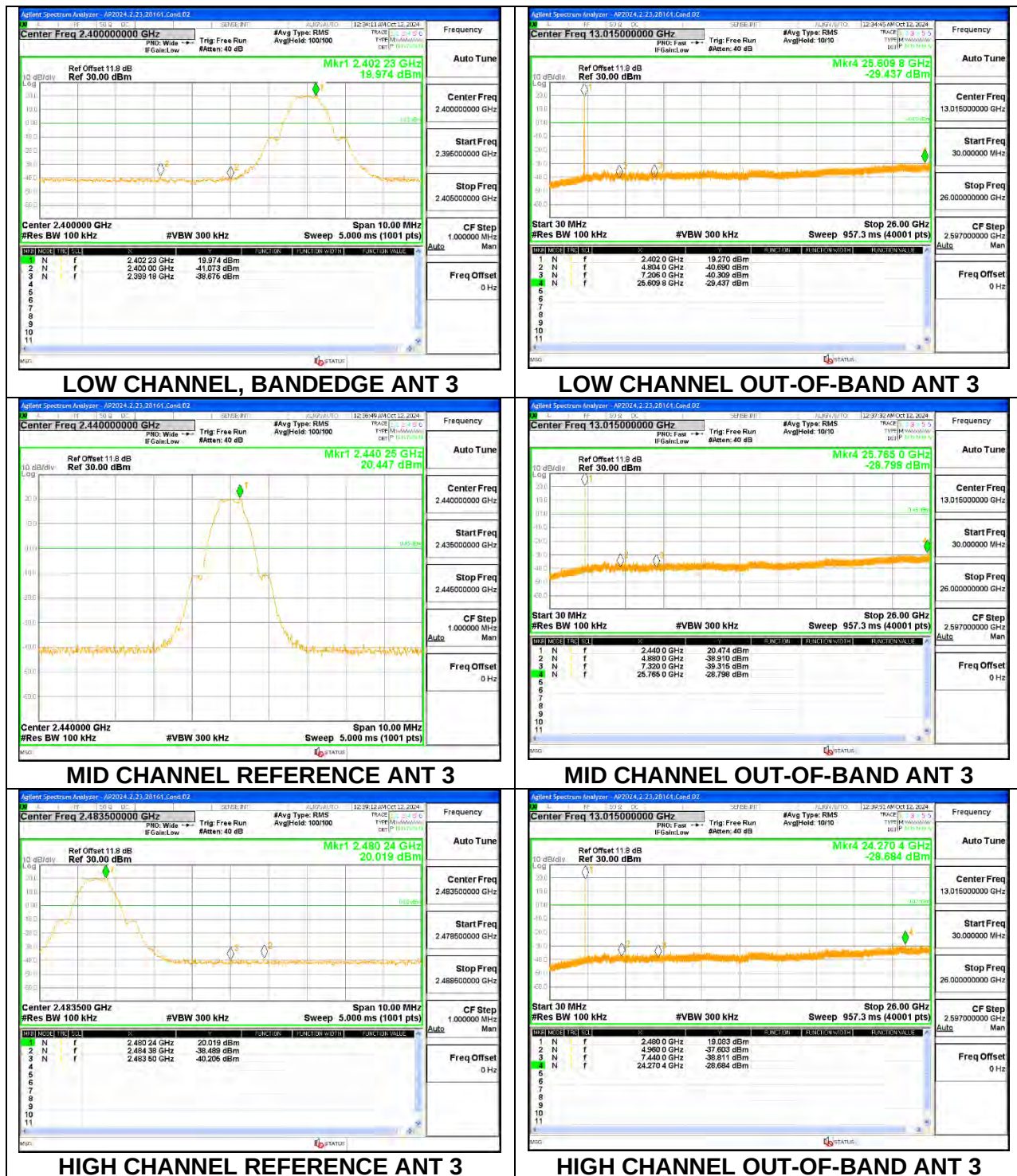


OUT-OF-BAND HIGH CHANNEL

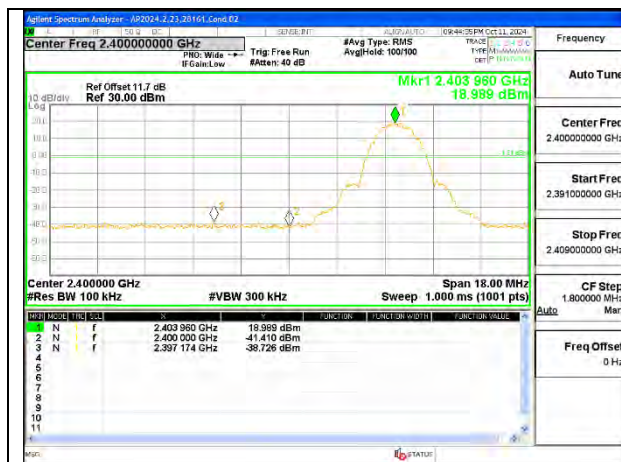
9.7.2. HIGH POWER BLE TXBF (1Mbps)

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





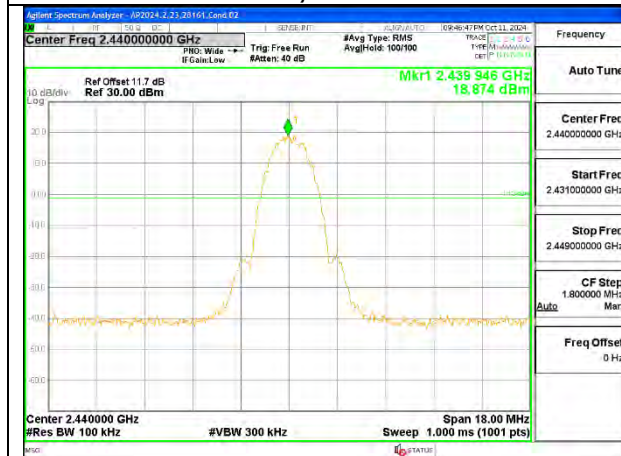
9.7.3. HIGH POWER BLE (2Mbps) ANT 4



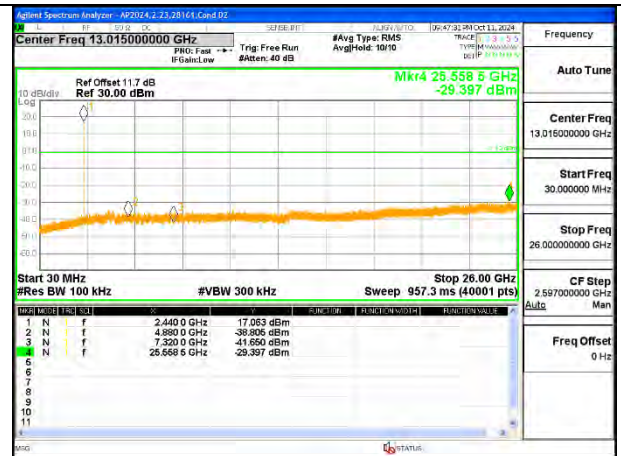
LOW CHANNEL, BANDEDGE ANT 4



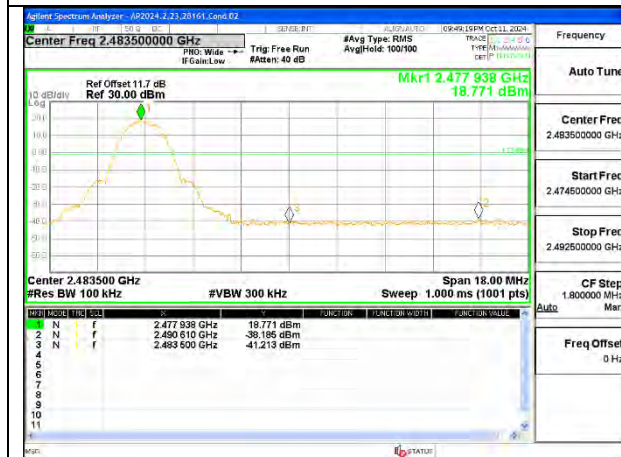
LOW CHANNEL OUT-OF-BAND ANT 4



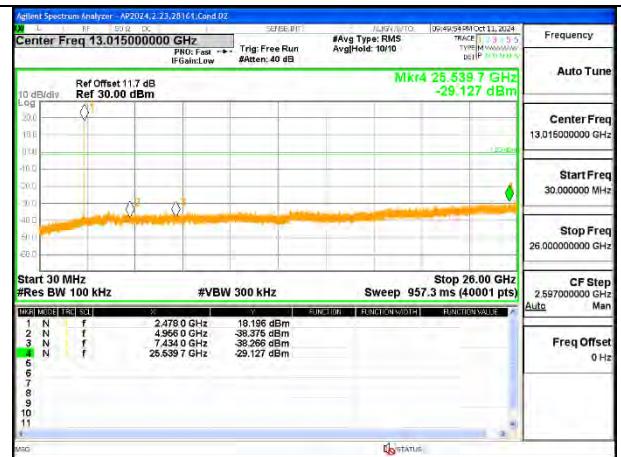
MID CHANNEL REFERENCE ANT 4



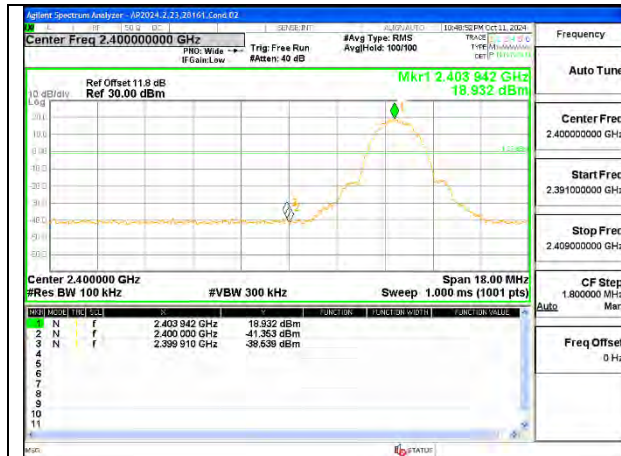
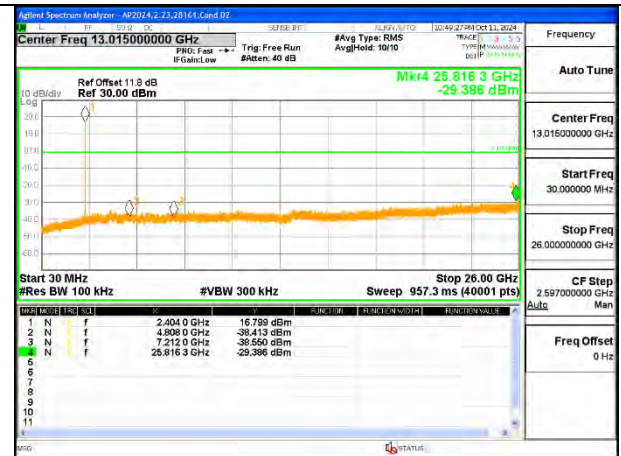
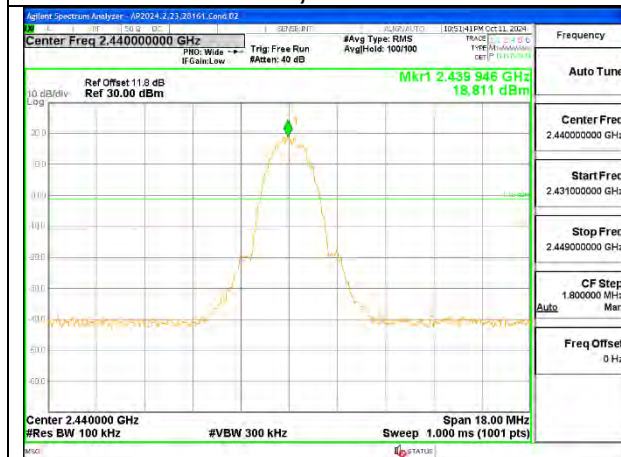
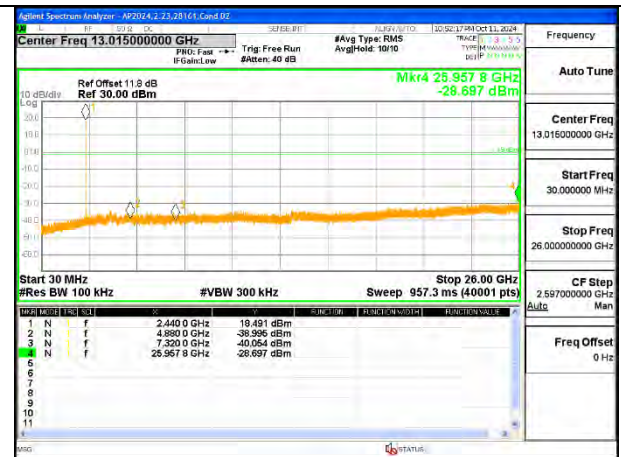
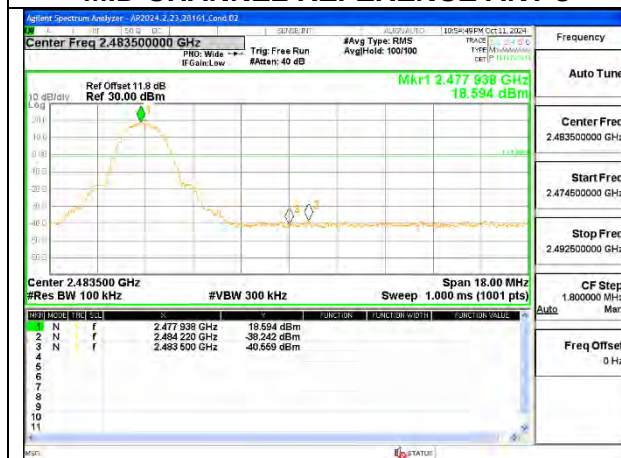
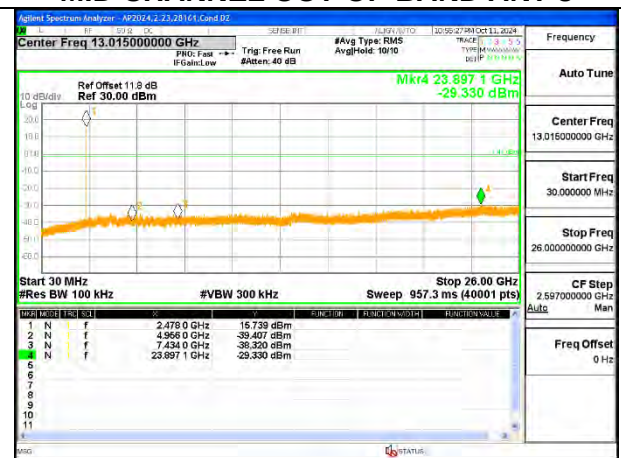
MID CHANNEL OUT-OF-BAND ANT 4



HIGH CHANNEL BANDEDGE ANT 4

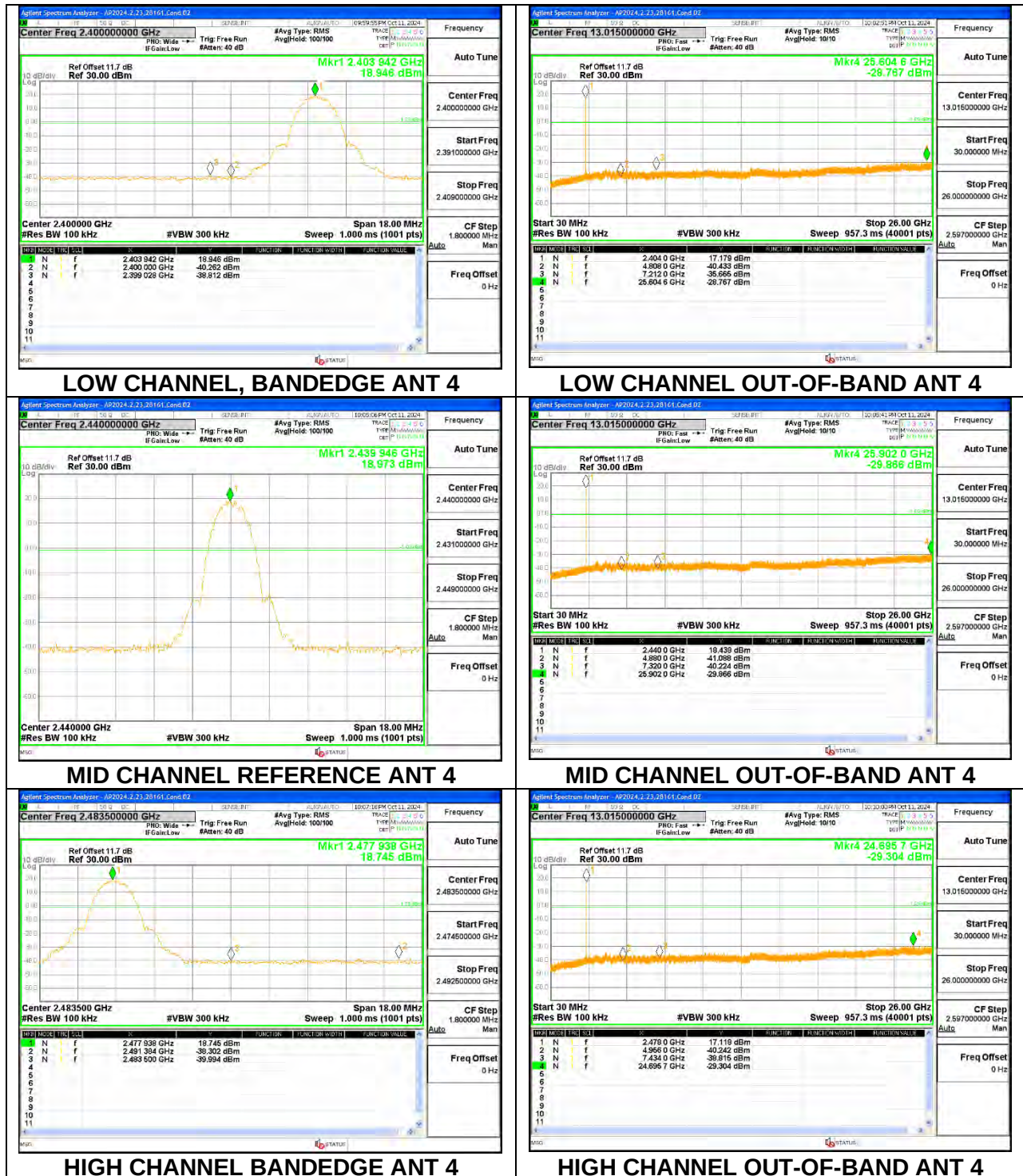


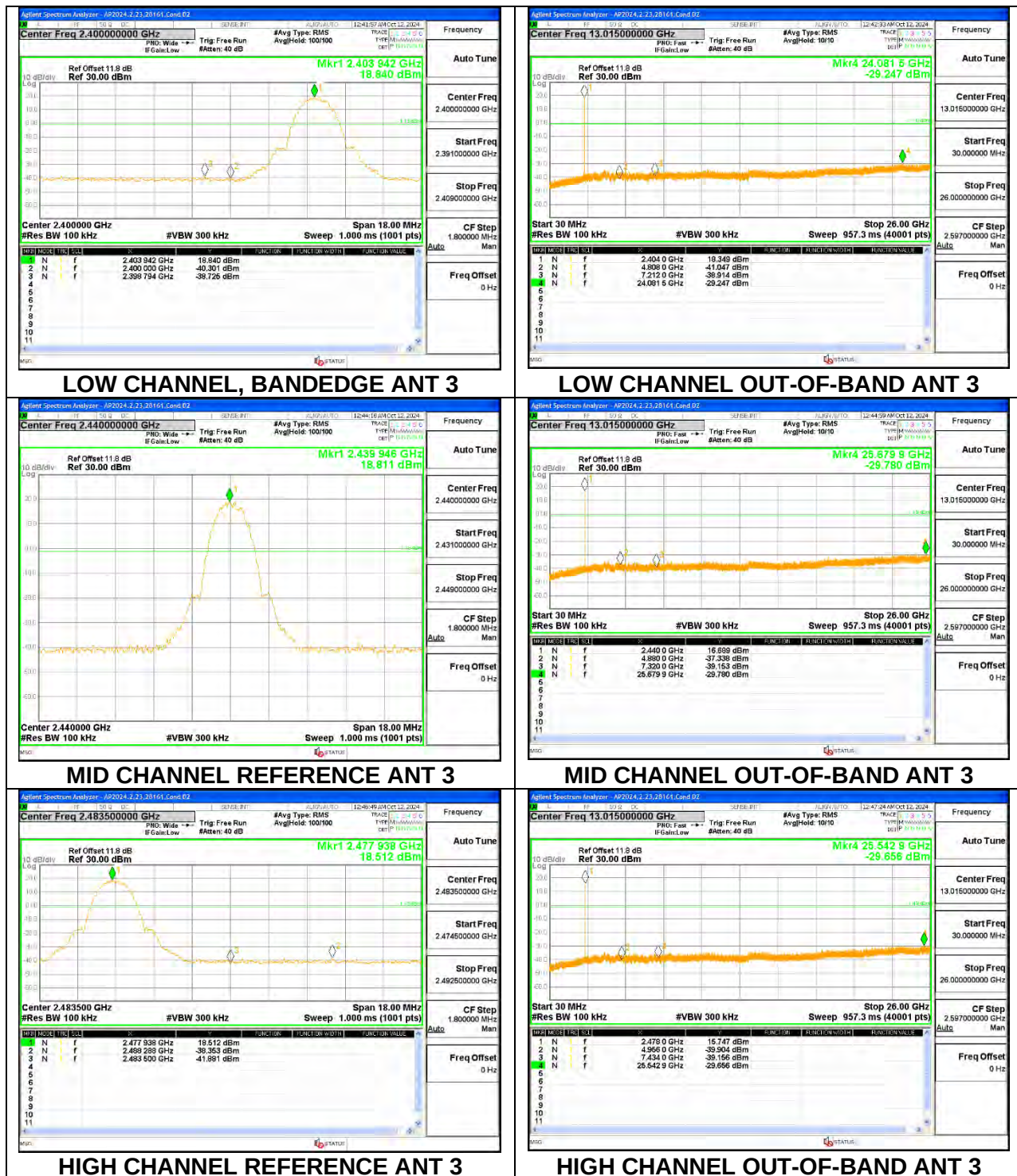
HIGH CHANNEL OUT-OF-BAND ANT 4

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

9.7.4. HIGH POWER BLE TXBF (2Mbps)

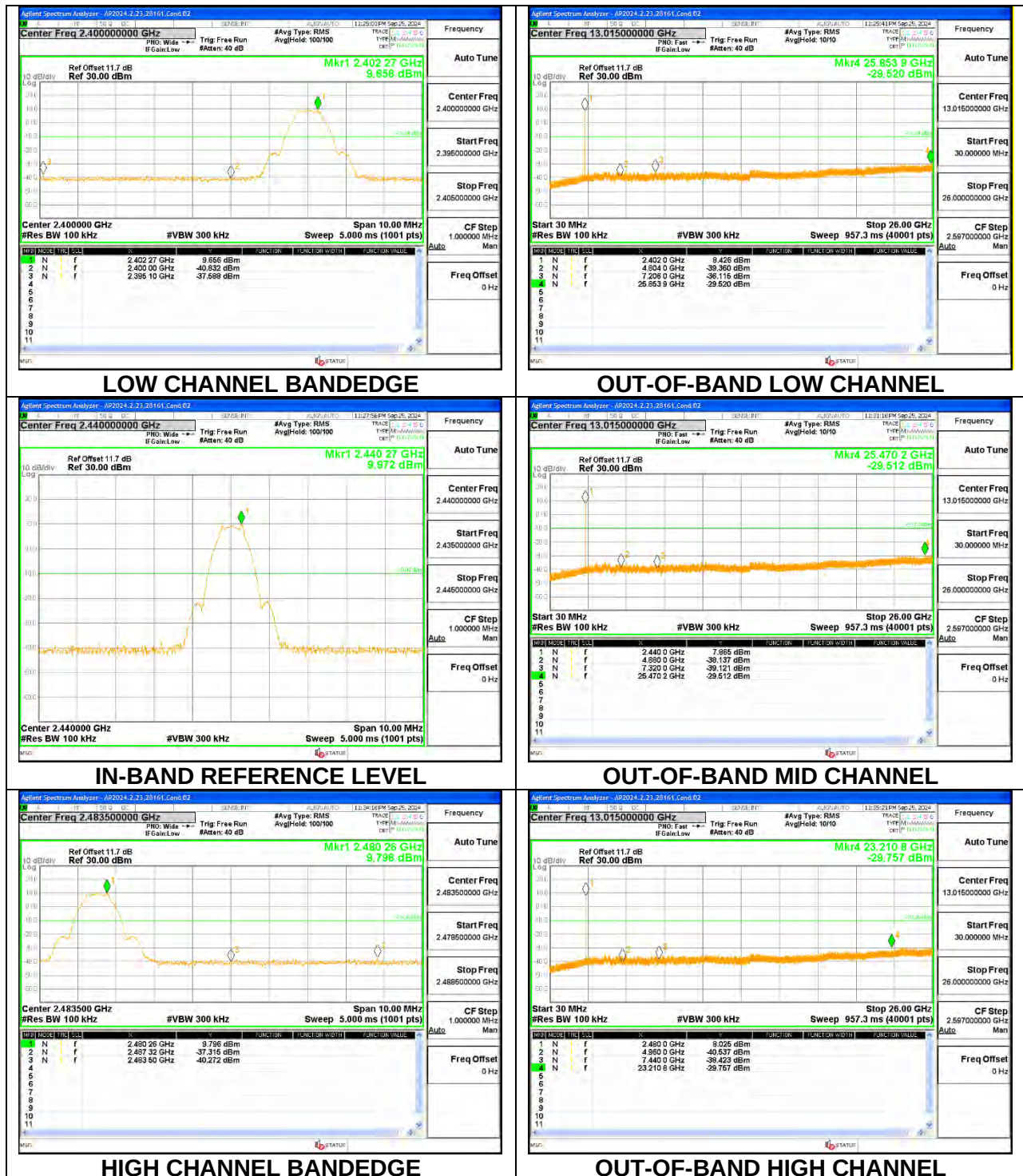
Note: Test procedures and setting are same as BLE normal mode.

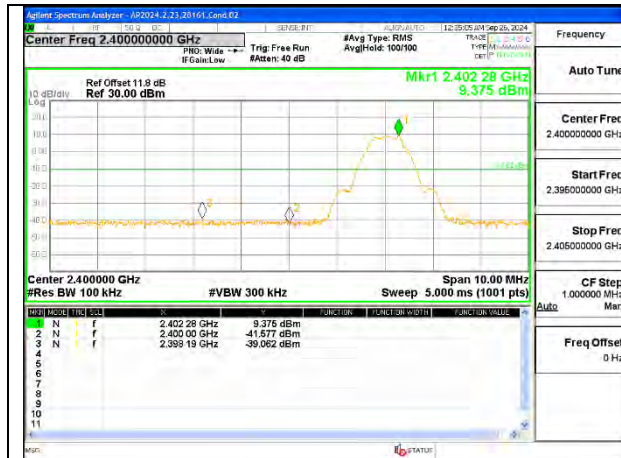
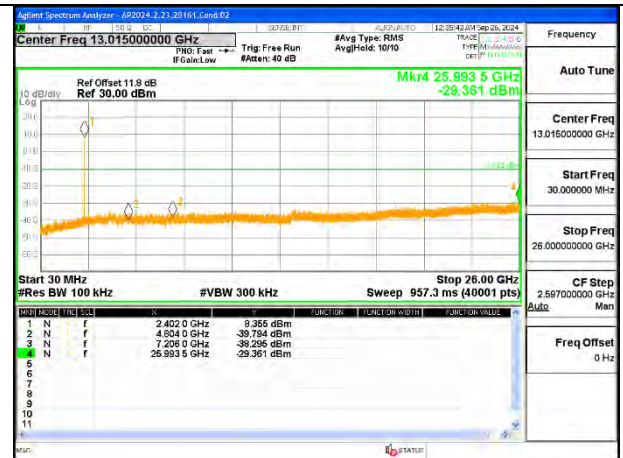
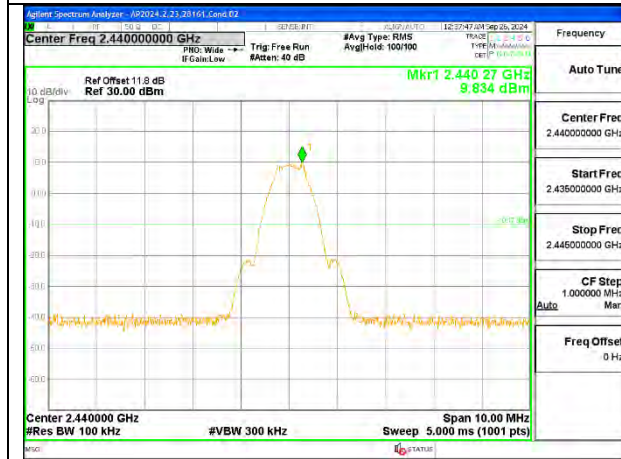
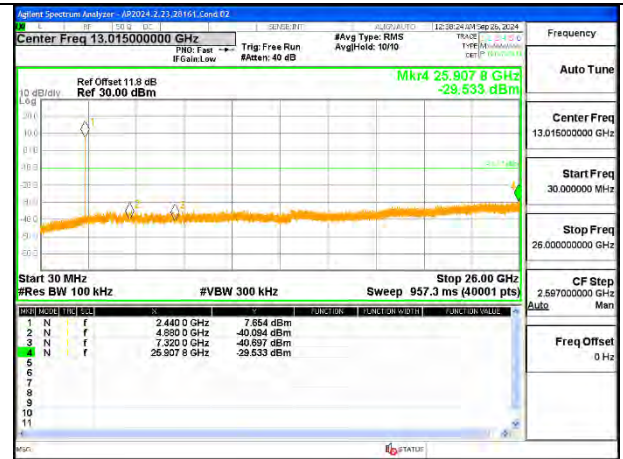
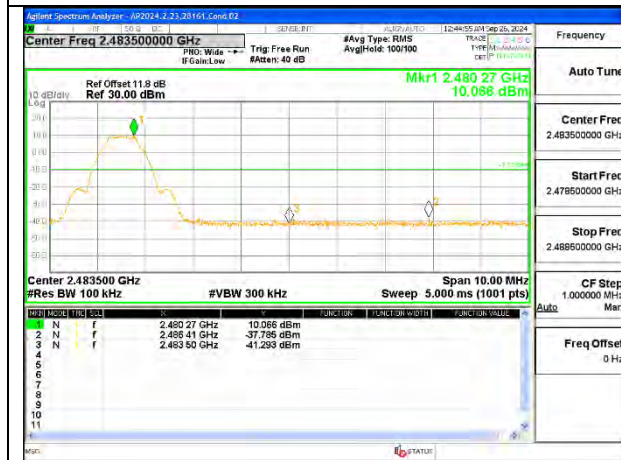
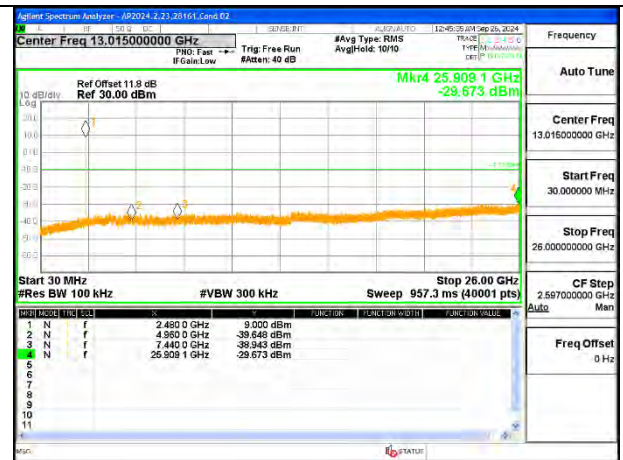




9.7.5. LOW POWER BLE (1Mbps)

ANT 4



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

9.7.6. LOW POWER BLE TXBF (1Mbps)

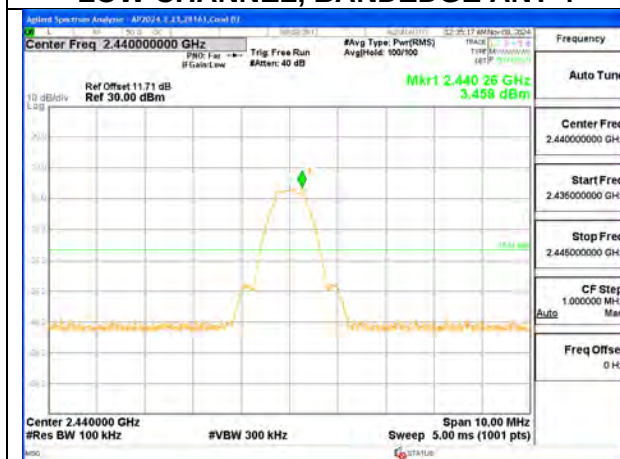
Note: Test procedures and setting are same as BLE normal mode.



LOW CHANNEL, BANDEDGE ANT 4



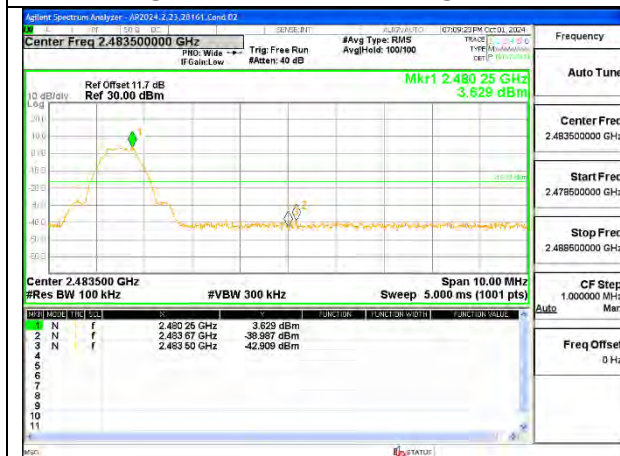
LOW CHANNEL OUT-OF-BAND ANT 4



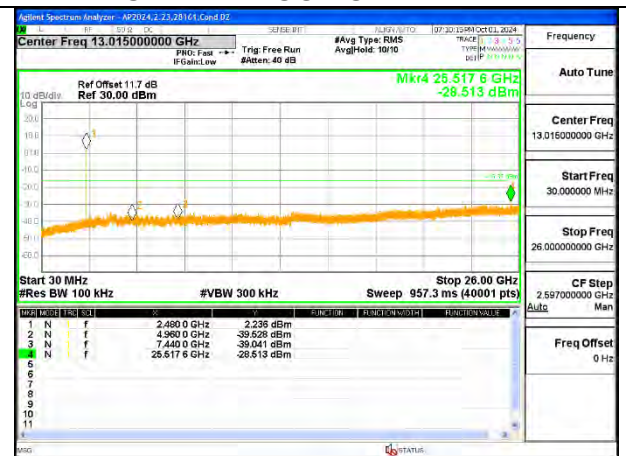
MID CHANNEL REFERENCE ANT 4



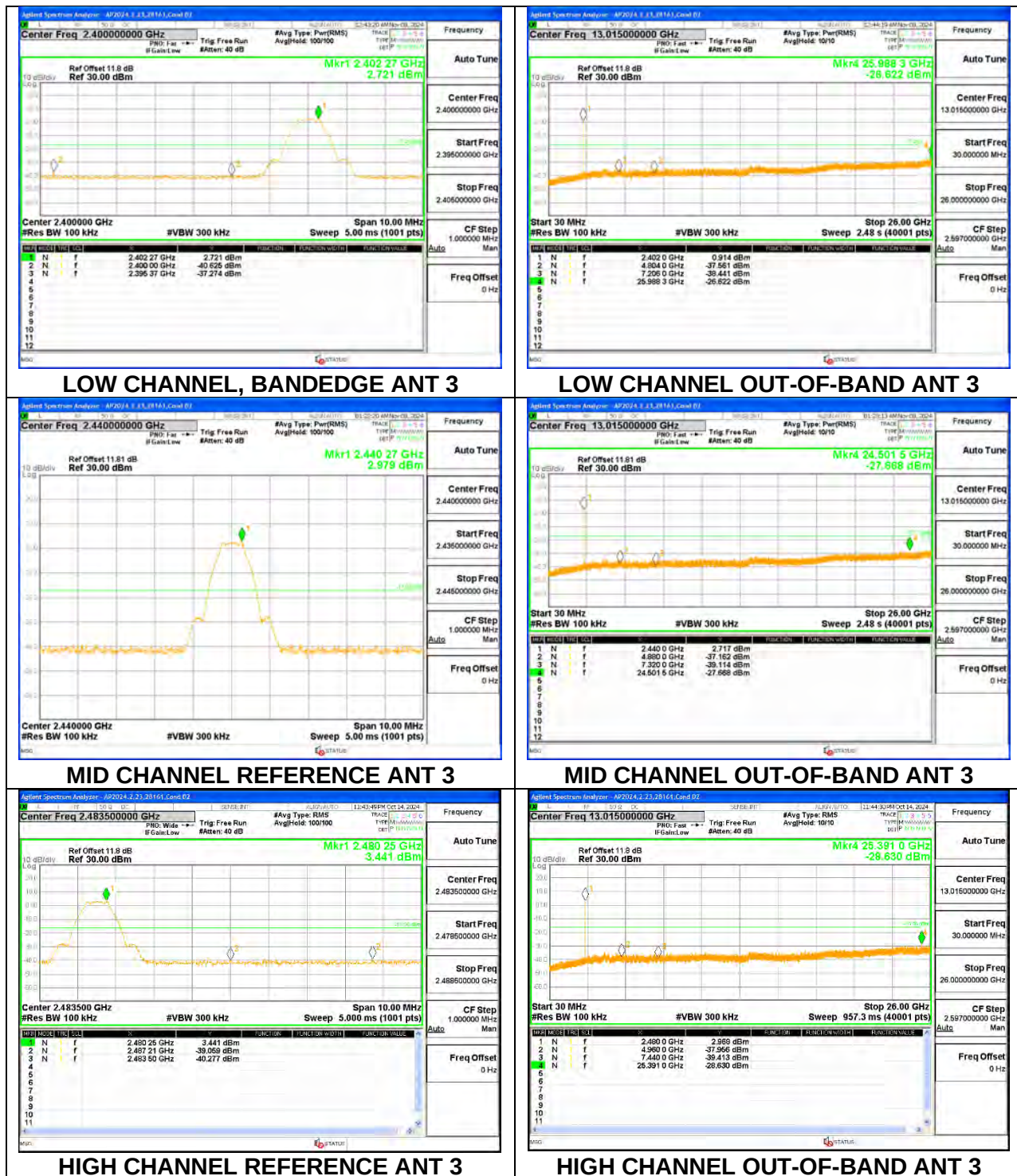
MID CHANNEL OUT-OF-BAND ANT 4



HIGH CHANNEL BANDEDGE ANT 4

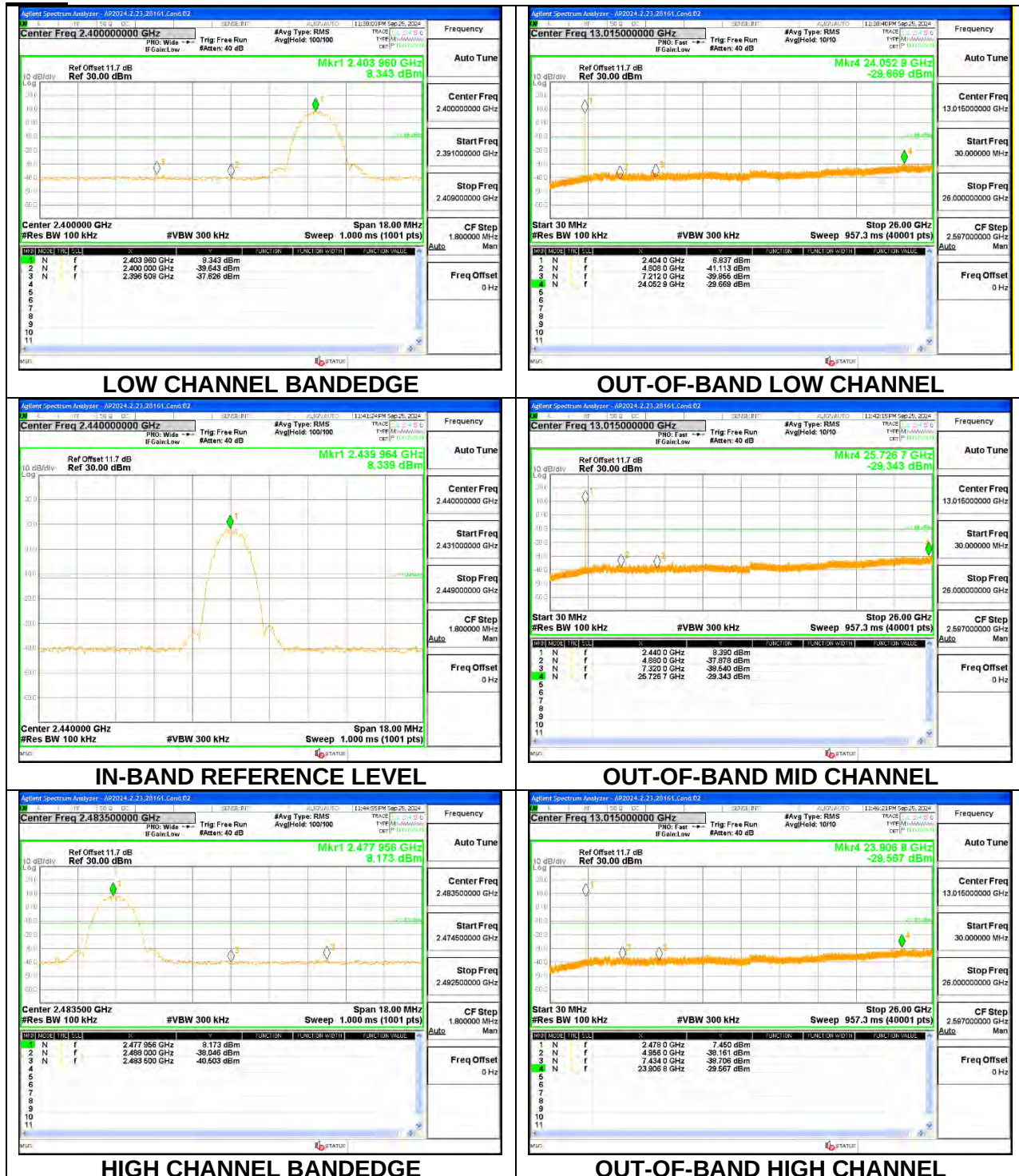


HIGH CHANNEL OUT-OF-BAND ANT 4

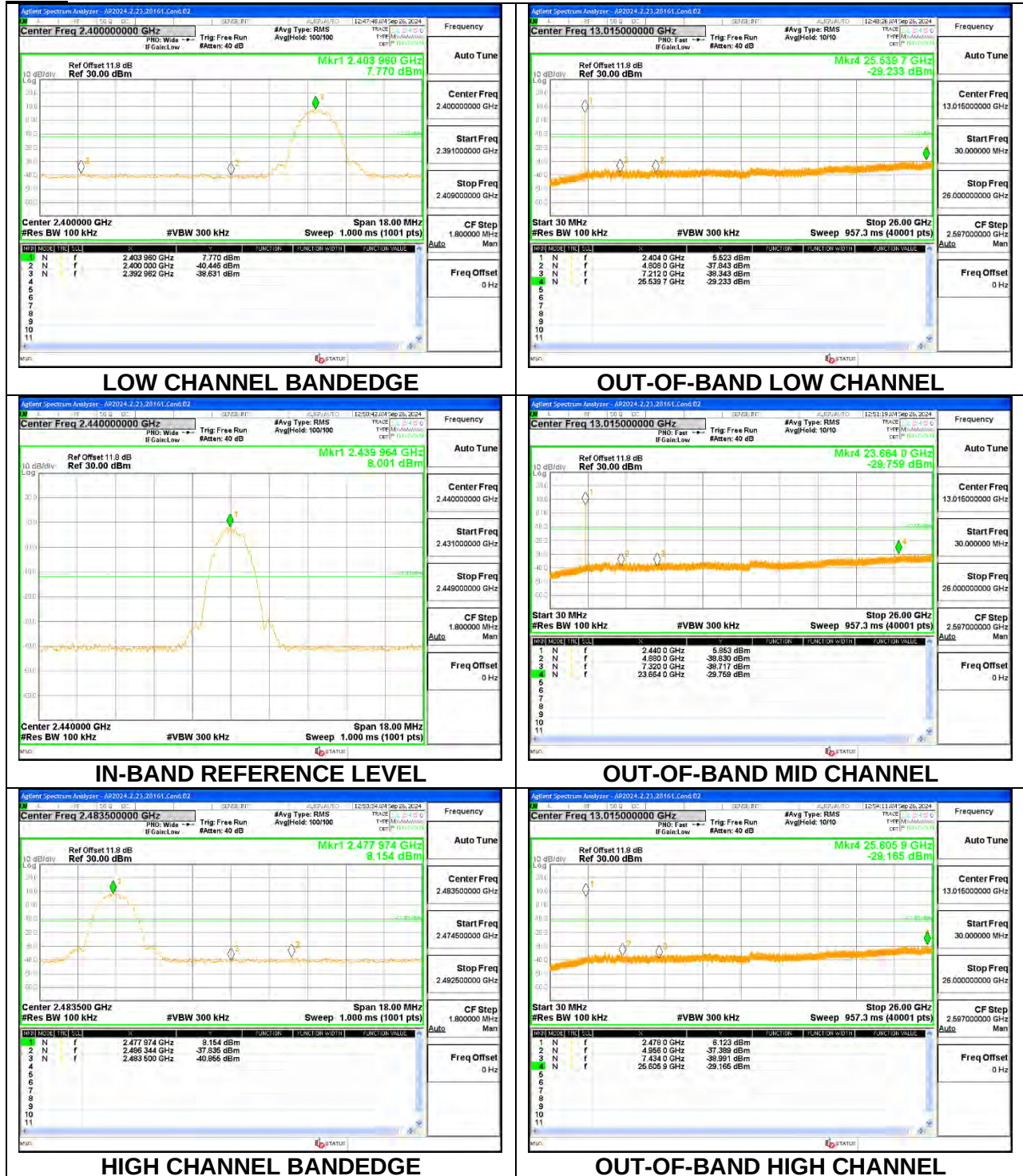


9.7.7. LOW POWER BLE (2Mbps)

ANT 4

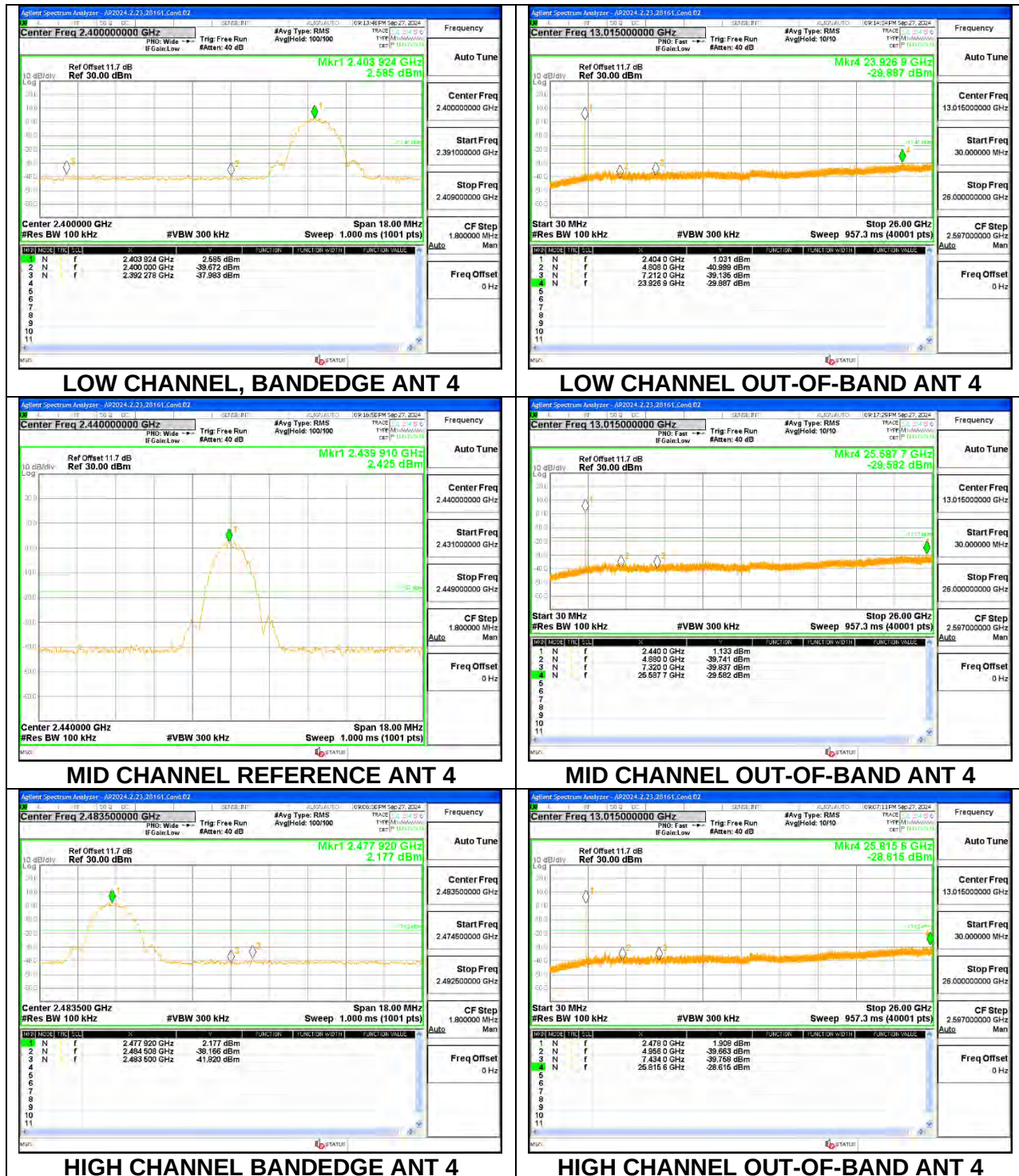


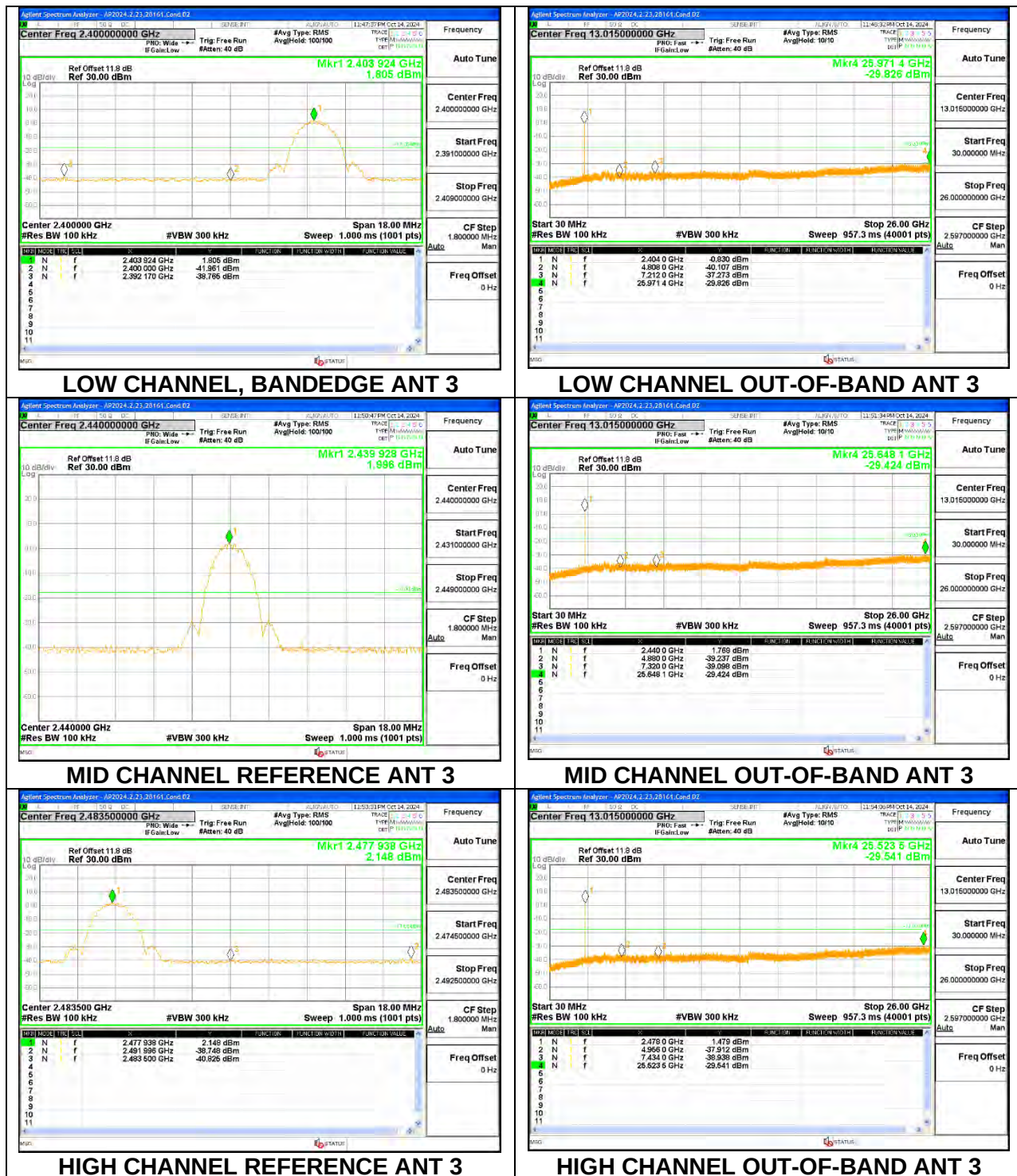
ANT 3



9.7.8. LOW POWER BLE TXBF (2Mbps)

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





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.

Note: The limits in CFR 47, Part 15, Subpart C, paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as report in the table) using free space impedance of 377 Ohms. For example, the measurement at frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to $Y - 51.5 = Z$ dBuA/m, which has the same margin, W dB to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

In addition:

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

Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

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

RESULTS

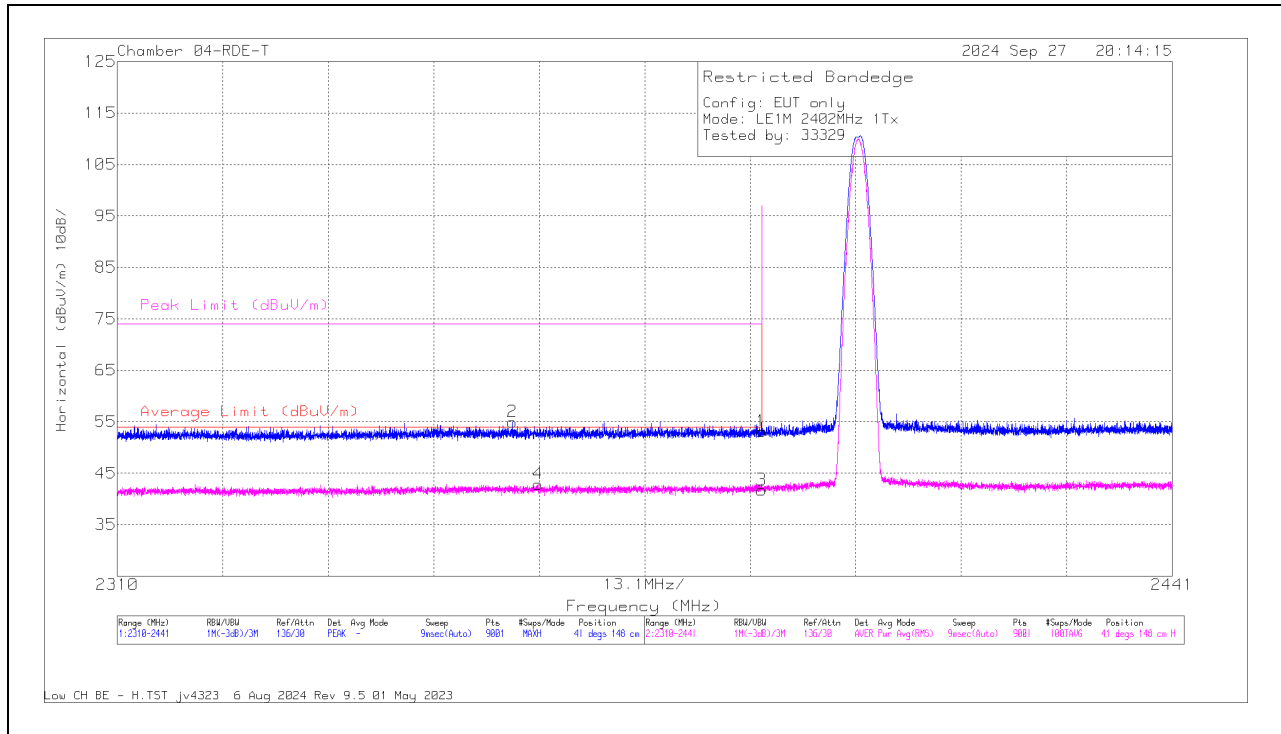
10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. HIGH POWER BLE (1Mbps)

ANT 4

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



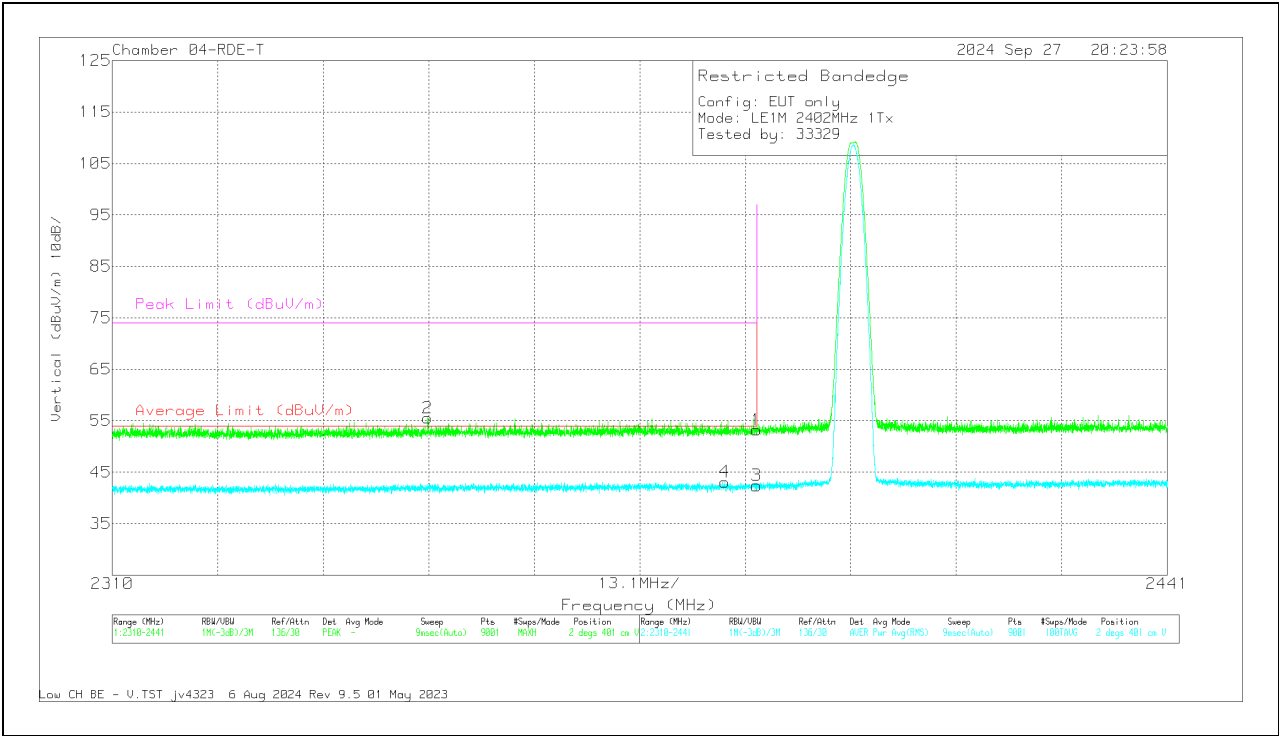
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	60.2	Pk	32	0	-39.05	53.15	-	-	74	-20.85	41	148	H
2	* 2359.083	62.22	Pk	31.8	0	-39.03	54.99	-	-	74	-19.01	41	148	H
3	* 2390	48.78	RMS	32	0	-39.05	41.73	54	-12.27	-	-	41	148	H
4	* 2362.241	50.16	RMS	31.9	0	-39.17	42.89	54	-11.11	-	-	41	148	H

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

Pk - Peak detector

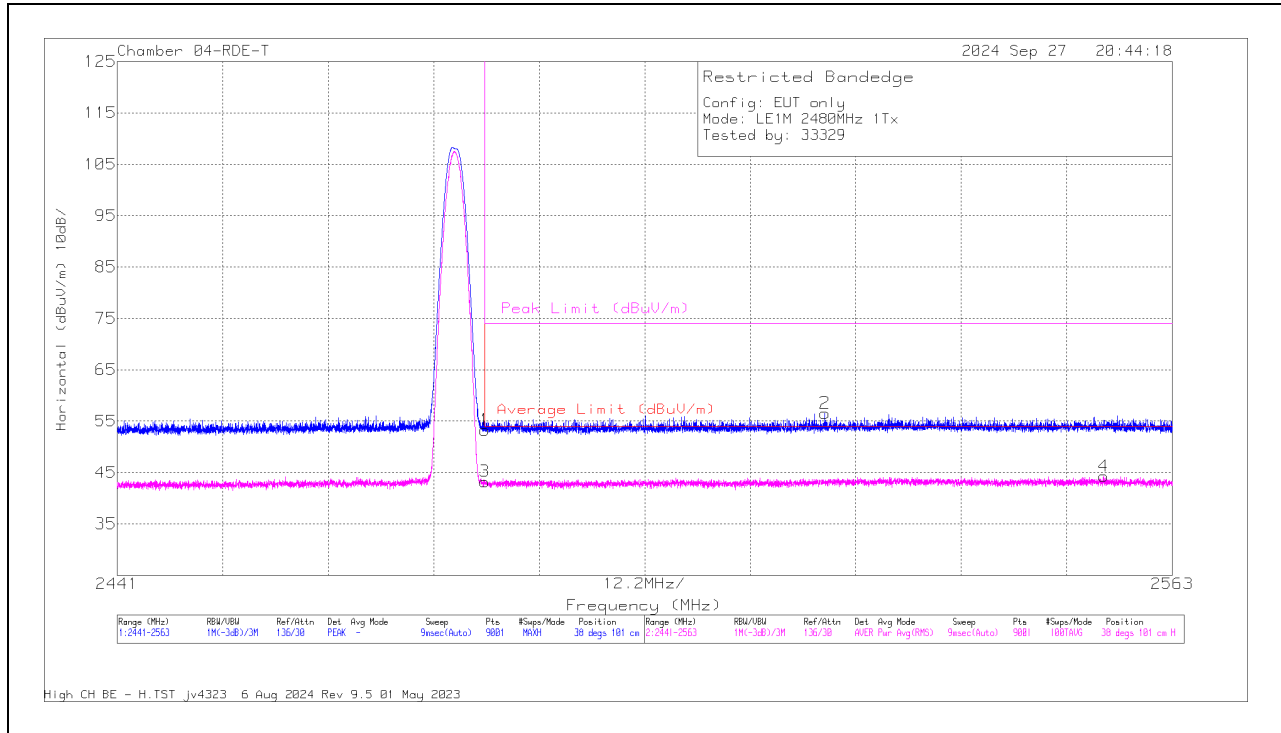
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	60.27	Pk	32	0	-39.05	53.22	-	-	74	-20.78	2	401	V
2	* 2349.185	62.86	Pk	31.8	0	-39.12	55.54	-	-	74	-18.46	2	401	V
3	* 2390	49.46	RMS	32	0	-39.05	42.41	54	-11.59	-	-	2	401	V
4	* 2386.055	50.23	RMS	32	0	-39.11	43.12	54	-10.88	-	-	2	401	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK - Peak detector
RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

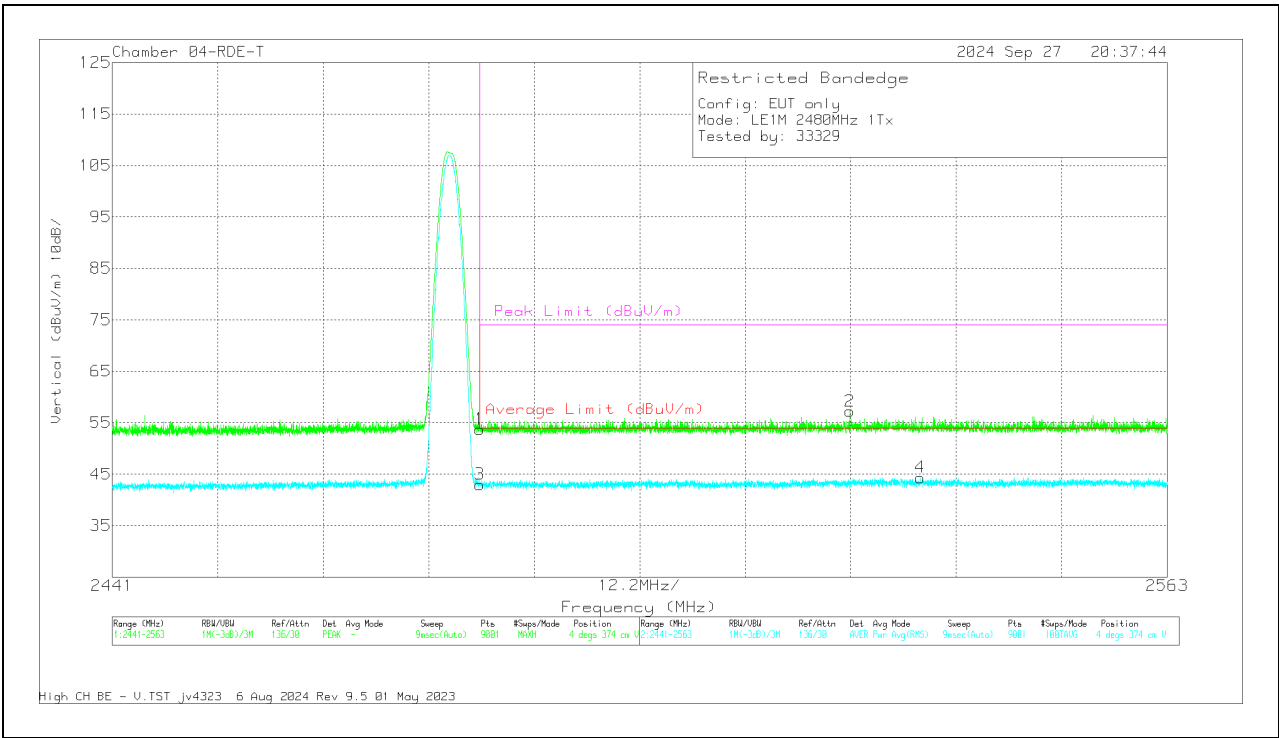
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	59.96	PK	32.2	0	-38.87	53.29	-	-	74	-20.71	38	101	H
2	2522.838	62.73	PK	32.4	0	-38.59	56.54	-	-	74	-17.46	38	101	H
3	* 2483.5	49.91	RMS	32.2	0	-38.87	43.24	54	-10.76	-	-	38	101	H
4	2555.087	50.27	RMS	32.4	0	-38.38	44.29	54	-9.71	-	-	38	101	H

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

PK - Peak detector

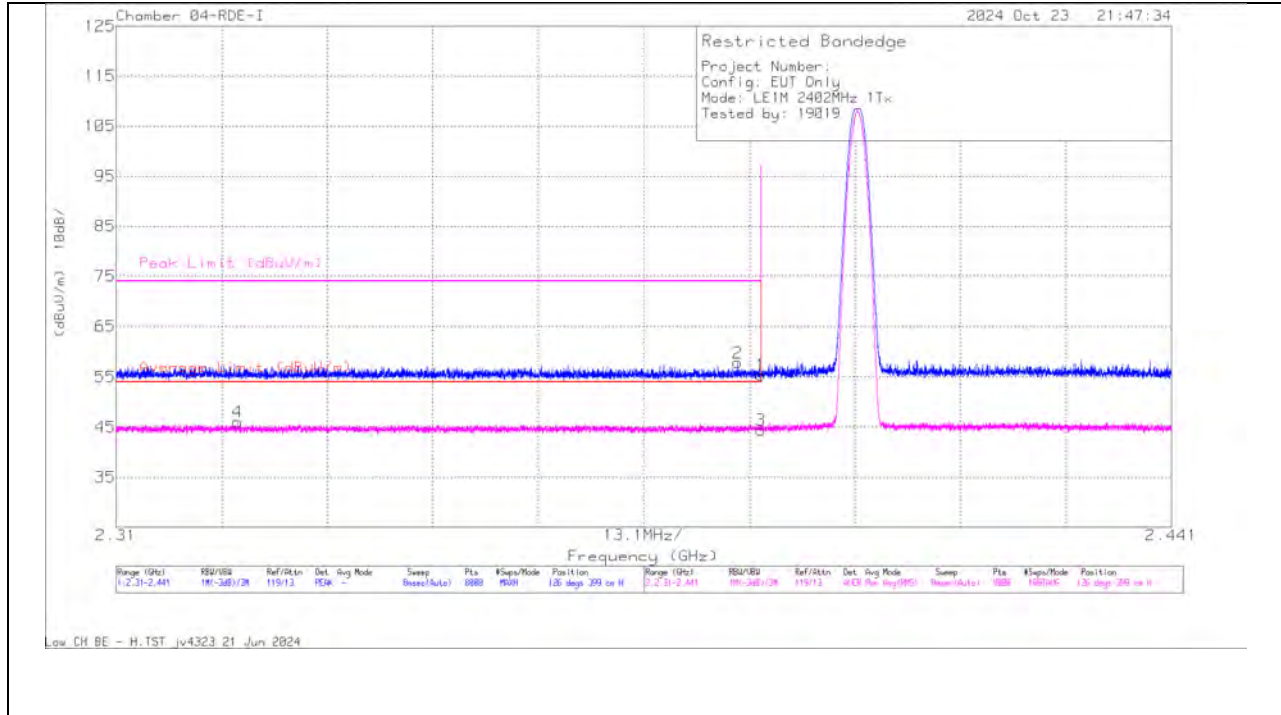
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	60.41	Pk	32.2	0	-38.87	53.74	-	-	74	-20.26	4	374	V
2	2526.281	63.33	Pk	32.4	0	-38.49	57.24	-	-	74	-16.76	4	374	V
3	* 2483.5	49.68	RMS	32.2	0	-38.87	43.01	54	-10.99	-	-	4	374	V
4	2534.428	50.49	RMS	32.4	0	-38.54	44.35	54	-9.65	-	-	4	374	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK - Peak detector
RMS - RMS detection

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

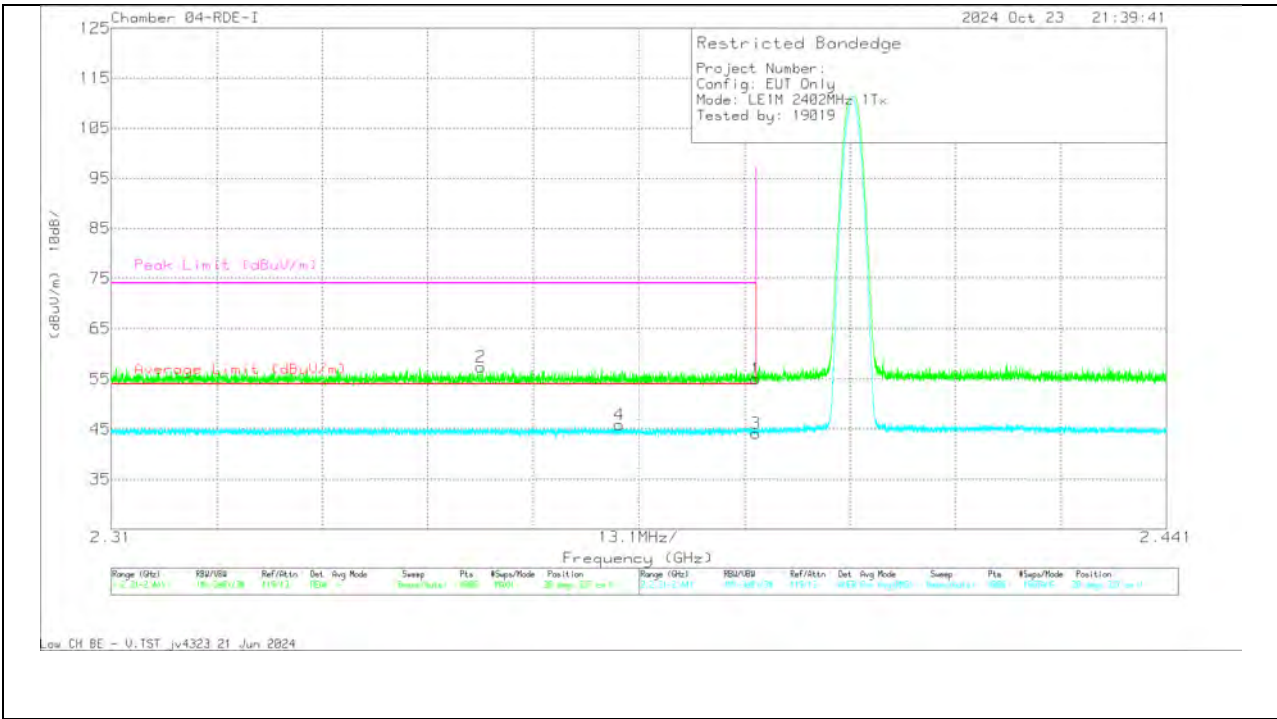
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB/m)	DCCF (dB)	CBL AMP Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	43.17	Pk	31.7	0	-19.5	55.37	-	-	74	-18.63	126	399	H
2	* 2.387152	45.65	Pk	31.7	0	-19.5	57.85	-	-	74	-16.15	126	399	H
3	* 2.39	32.15	RMS	31.7	0	-19.5	44.35	54	-9.65	-	-	126	399	H
4	* 2.325067	33.58	RMS	31.7	0	-19.3	45.98	54	-8.02	-	-	126	399	H

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

Pk - Peak detector

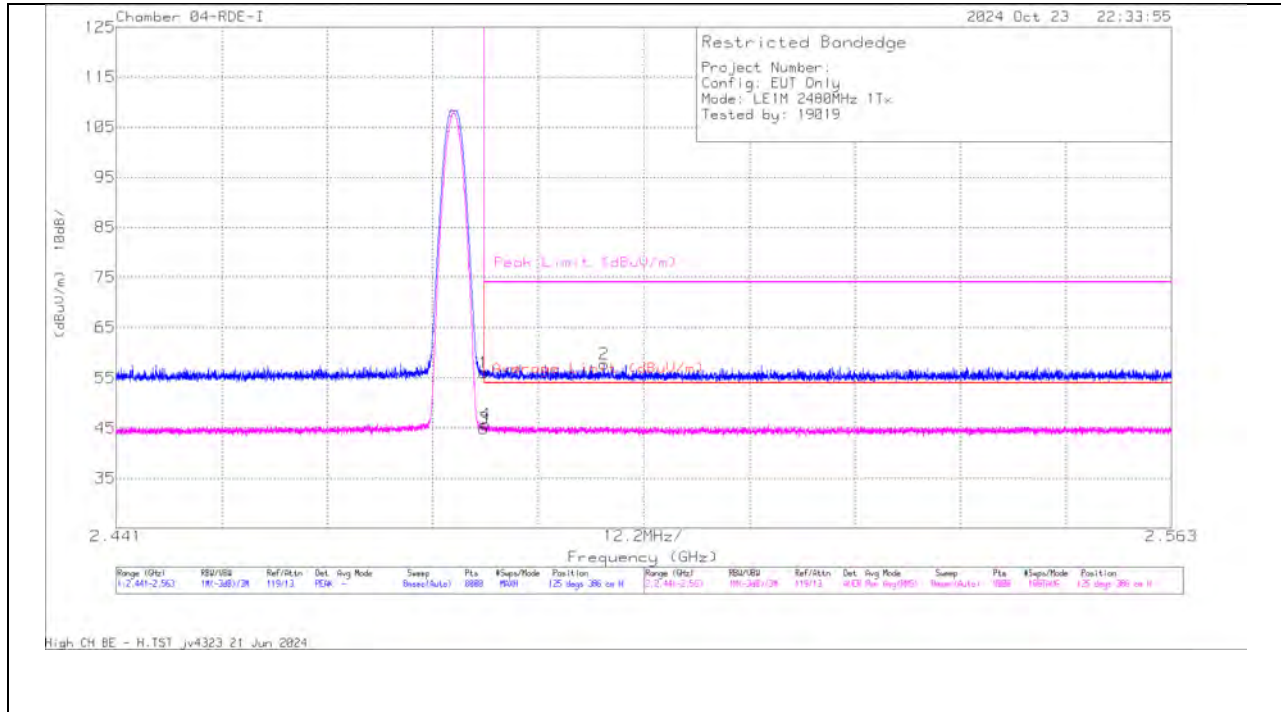
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB/m)	DCCF (dB)	CBL AMP 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	* 2.39	42.82	Pk	31.7	0	-19.5	55.02	-	-	74	-18.98	20	337	V
2	* 2.355905	45	Pk	31.8	0	-19.4	57.4	-	-	74	-16.6	20	337	V
3	* 2.39	31.96	RMS	31.7	0	-19.5	44.16	54	-9.84	-	-	20	337	V
4	* 2.373051	33.63	RMS	31.7	0	-19.4	45.93	54	-8.07	-	-	20	337	V

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

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

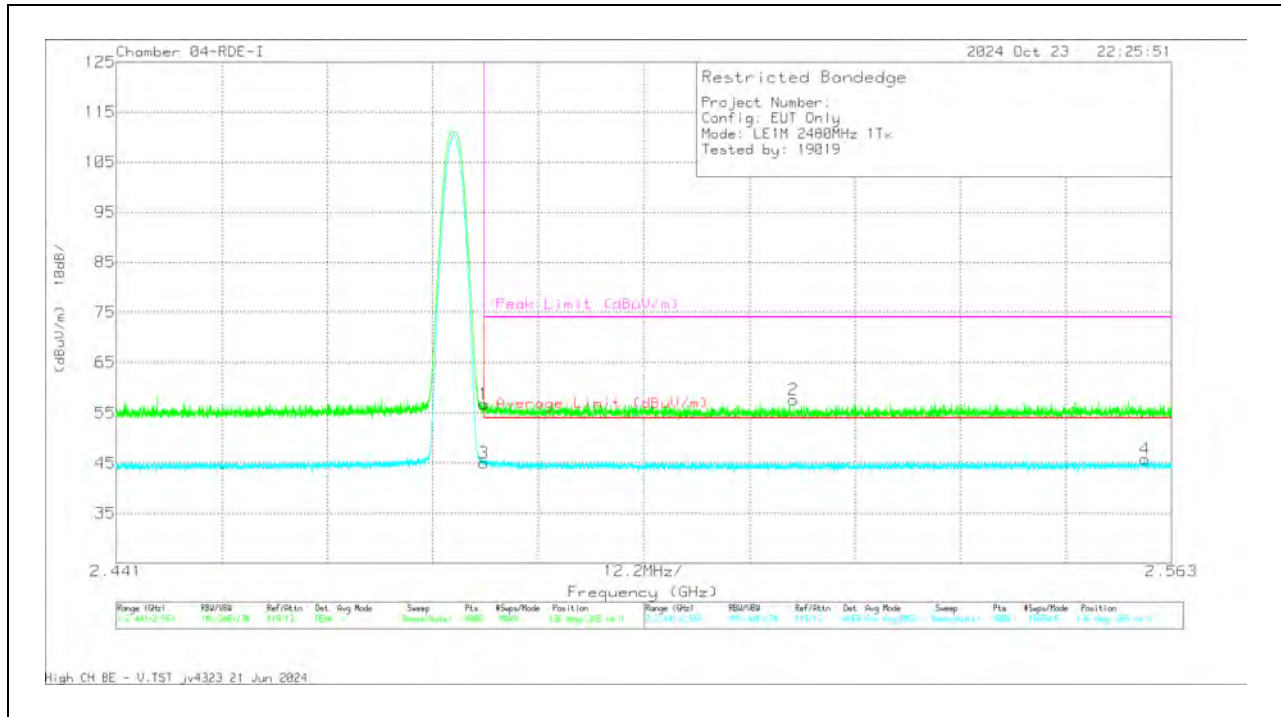
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB/m)	DCCF (dB)	CBL AMP Pad(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	43.93	Pk	32	0	-19.9	56.03	-	-	74	-17.97	125	386	H
2	* 2.497417	45.57	Pk	32.1	0	-19.9	57.77	-	-	74	-16.23	125	386	H
3	* 2.4835	32.82	RMS	32	0	-19.9	44.92	54	-9.08	-	-	125	386	H
4	* 2.483751	33.72	RMS	32	0	-19.9	45.82	54	-8.18	-	-	125	386	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	84797 ACF (dB/m)	DCCF (dB)	CBL AMP 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	* 2.4835	44.69	Pk	32	0	-19.9	56.79	-	-	74	-17.21	136	365	V
2	2.519289	45.61	Pk	32.1	0	-20	57.71	-	-	74	-16.29	136	365	V
3	* 2.4835	32.89	RMS	32	0	-19.9	44.99	54	-9.01	-	-	136	365	V
4	2.55995	33.48	RMS	32.3	0	-20	45.78	54	-8.22	-	-	136	365	V

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

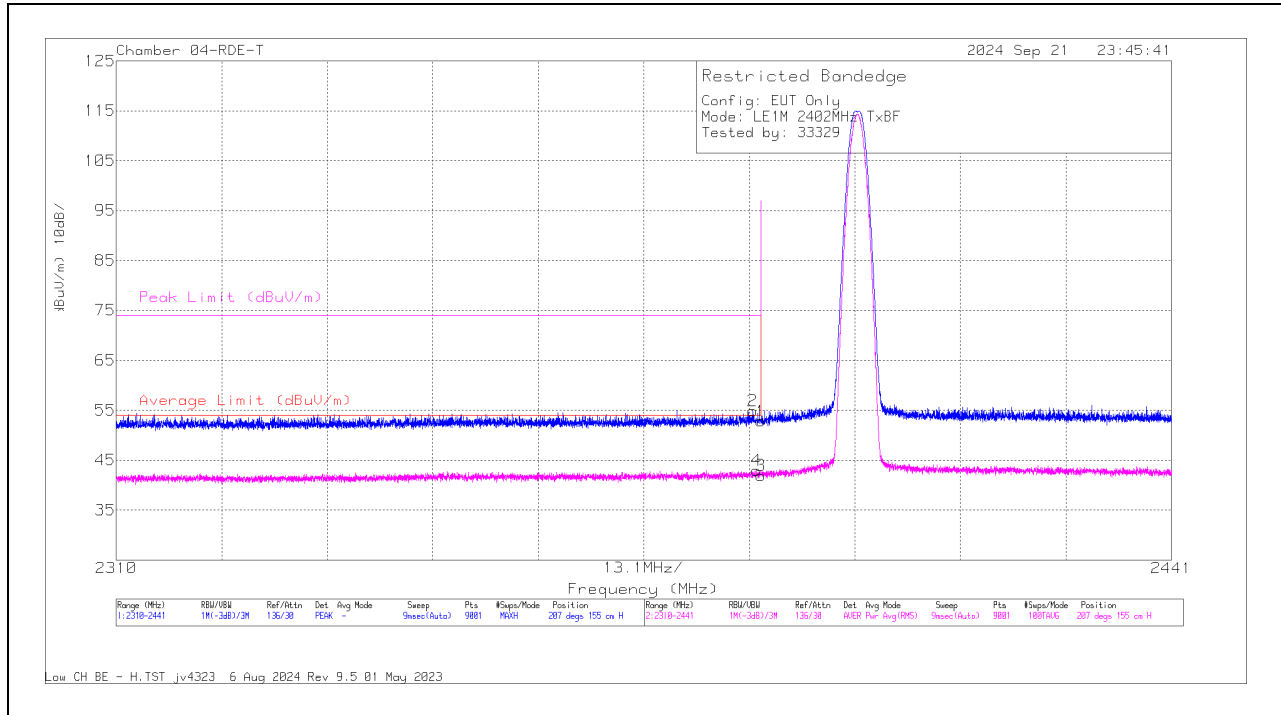
Pk - Peak detector

RMS - RMS detection

10.2.2. HIGH POWER BLE TXBF (1Mbps)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



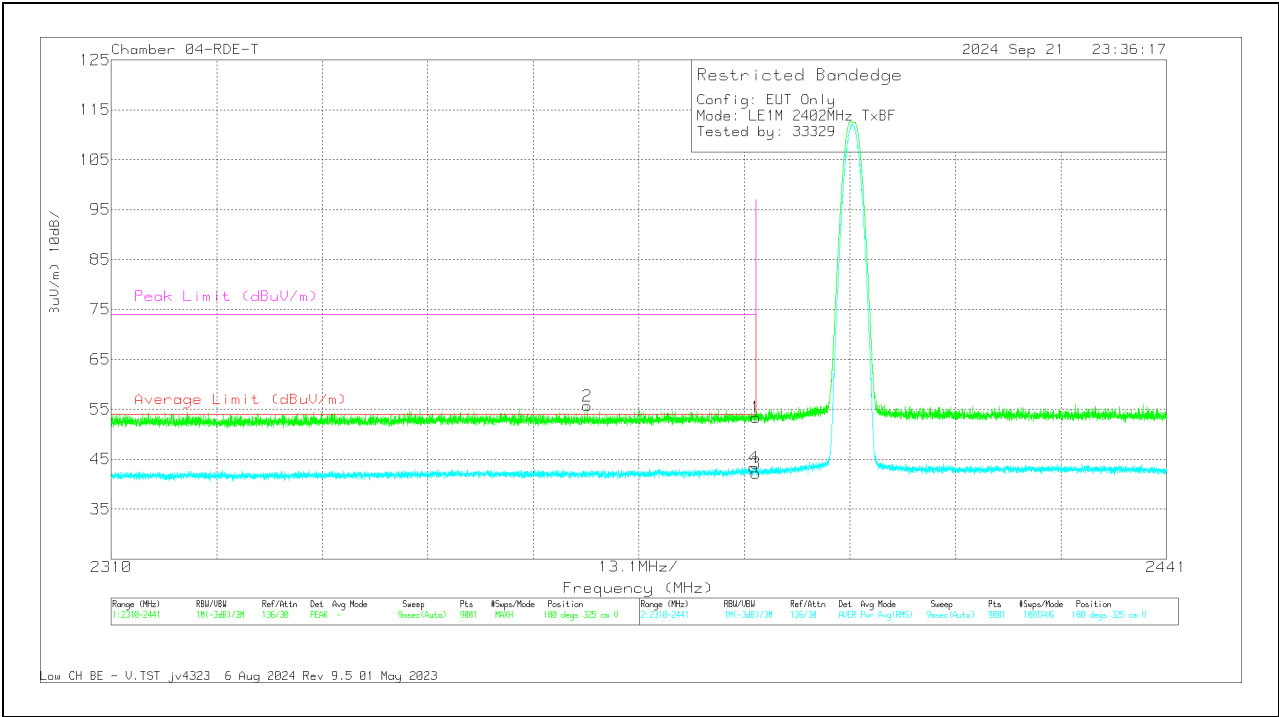
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	59.87	Pk	32	0	-39.05	52.82	-	-	74	-21.18	207	155	H
2	* 2388.995	62.02	Pk	32	0	-39.08	54.94	-	-	74	-19.06	207	155	H
3	* 2390	49.04	RMS	32	0	-39.05	41.99	54	-12.01	-	-	207	155	H
4	* 2389.476	49.98	RMS	32	0	-39.07	42.91	54	-11.09	-	-	207	155	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

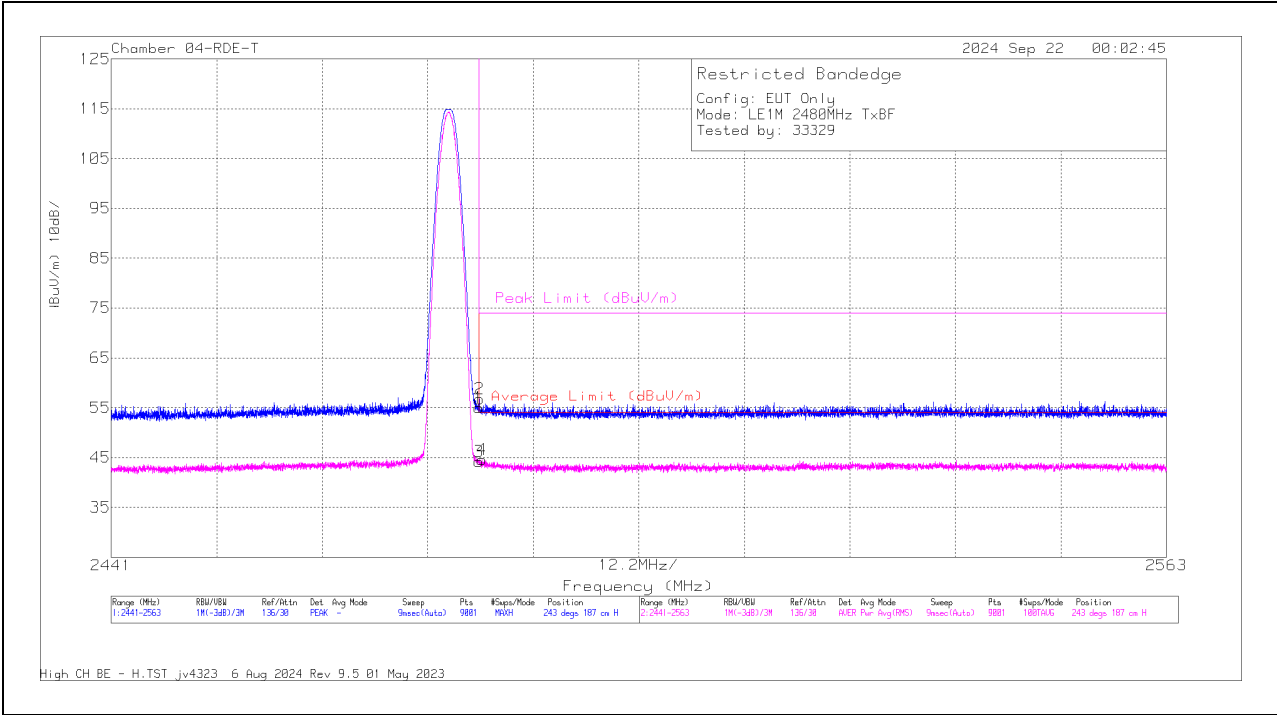


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	60.39	Pk	32	0	-39.05	53.34	-	-	74	-20.66	180	325	V
2	* 2369.097	62.91	Pk	31.9	0	-39.11	55.7	-	-	74	-18.3	180	325	V
3	* 2390	49.3	RMS	32	0	-39.05	42.25	54	-11.75	-	-	180	325	V
4	* 2389.796	50.45	RMS	32	0	-39.06	43.39	54	-10.61	-	-	180	325	V

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

BANDEDGE (HIGH CHANNEL)

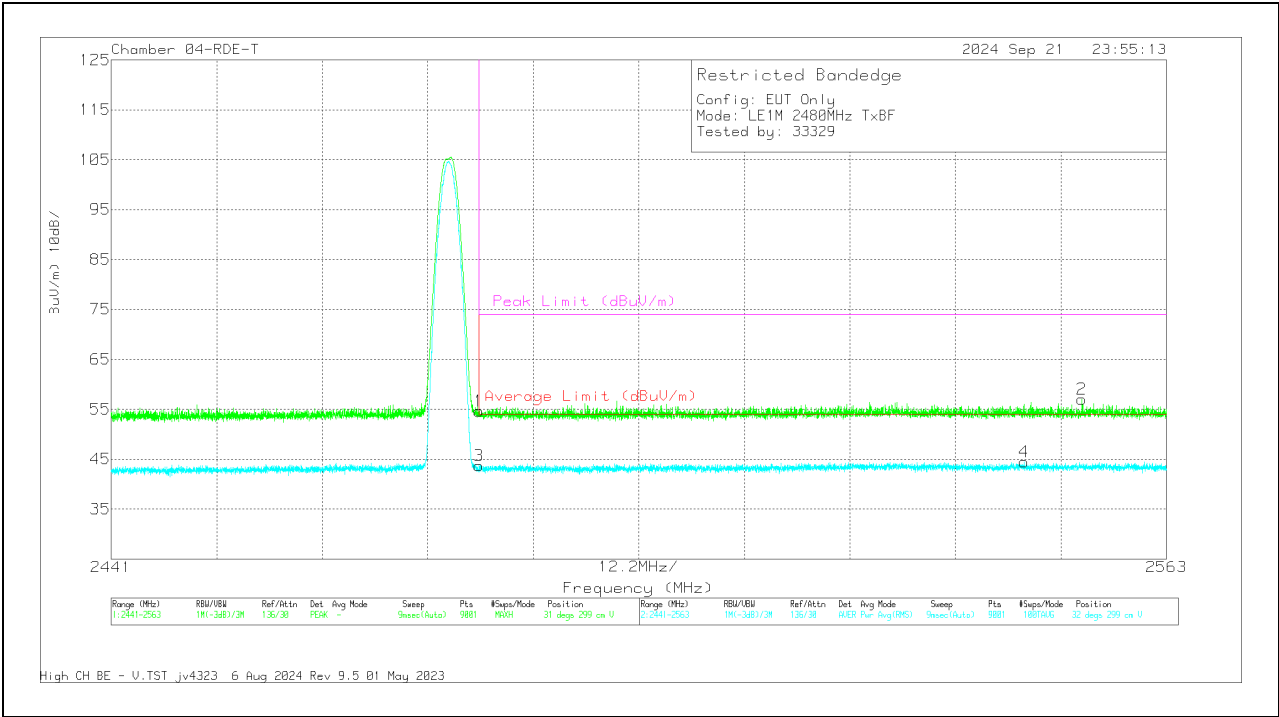
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	61.65	Pk	32.2	0	-38.87	54.98	-	-	74	-19.02	243	187	H
2	* 2483.593	63.5	Pk	32.2	0	-38.88	56.82	-	-	74	-17.18	243	187	H
3	* 2483.5	50.91	RMS	32.2	0	-38.87	44.24	54	-9.76	-	-	243	187	H
4	* 2483.905	51.28	RMS	32.2	0	-38.89	44.59	54	-9.41	-	-	243	187	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	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	61.31	Pk	32.2	0	-38.87	54.64	-	-	74	-19.36	31	299	V
2	2553.244	63.1	Pk	32.4	0	-38.44	57.06	-	-	74	-16.94	31	299	V
3	* 2483.5	50.35	RMS	32.2	0	-38.87	43.68	54	-10.32	-	-	32	299	V
4	2546.561	50.58	RMS	32.4	0	-38.56	44.42	54	-9.58	-	-	32	299	V

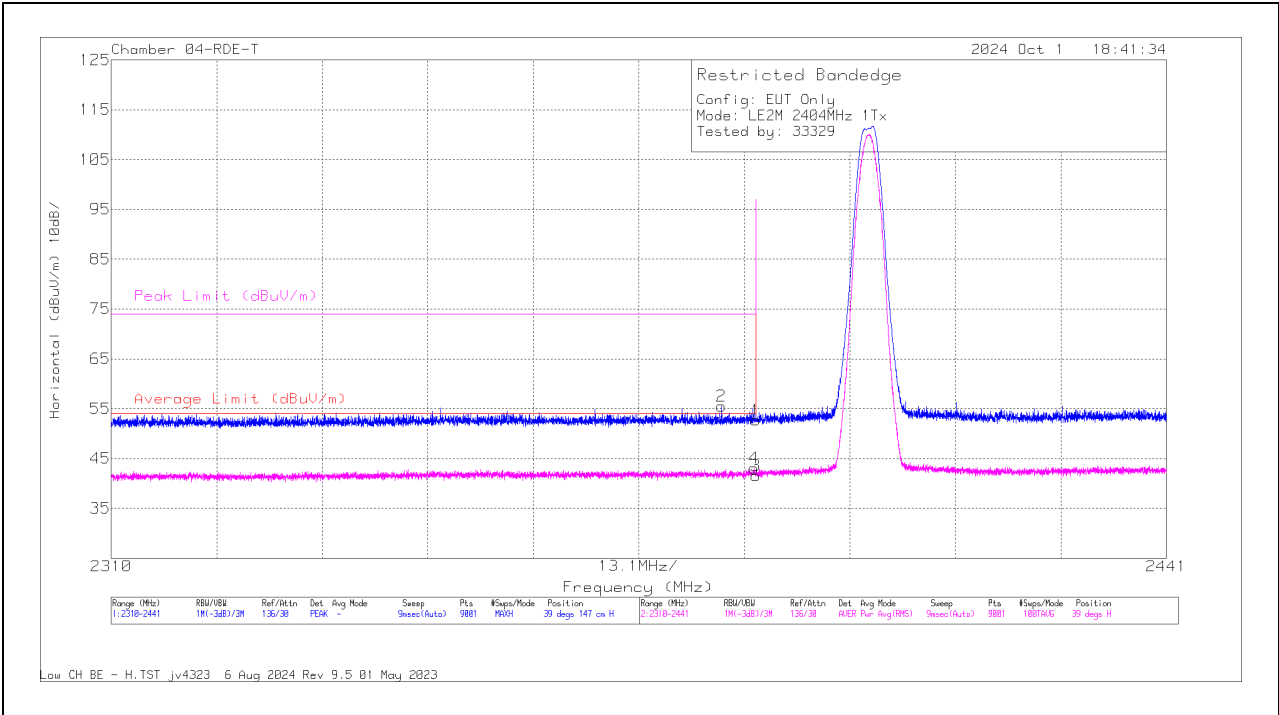
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

10.2.3. HIGH POWER BLE (2Mbps)

ANT 4

BANDEDGE (LOW CHANNEL)

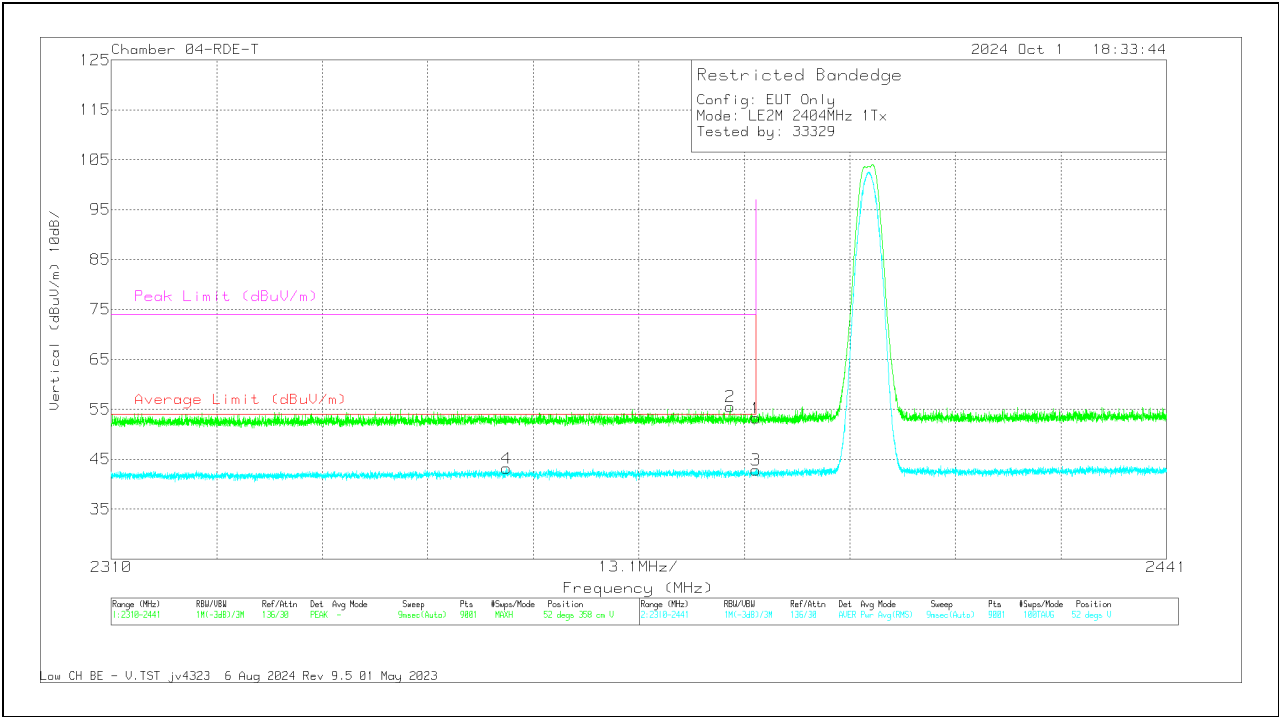
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	59.75	Pk	32	0	-39.05	52.7	-	-	74	-21.3	39	147	H
2	* 2385.793	62.6	Pk	32	0	-39.09	55.51	-	-	74	-18.49	39	147	H
3	* 2390	48.61	RMS	32	0	-39.05	41.56	54	-12.44	-	-	39	147	H
4	* 2389.811	50.1	RMS	32	0	-39.06	43.04	54	-10.96	-	-	39	147	H

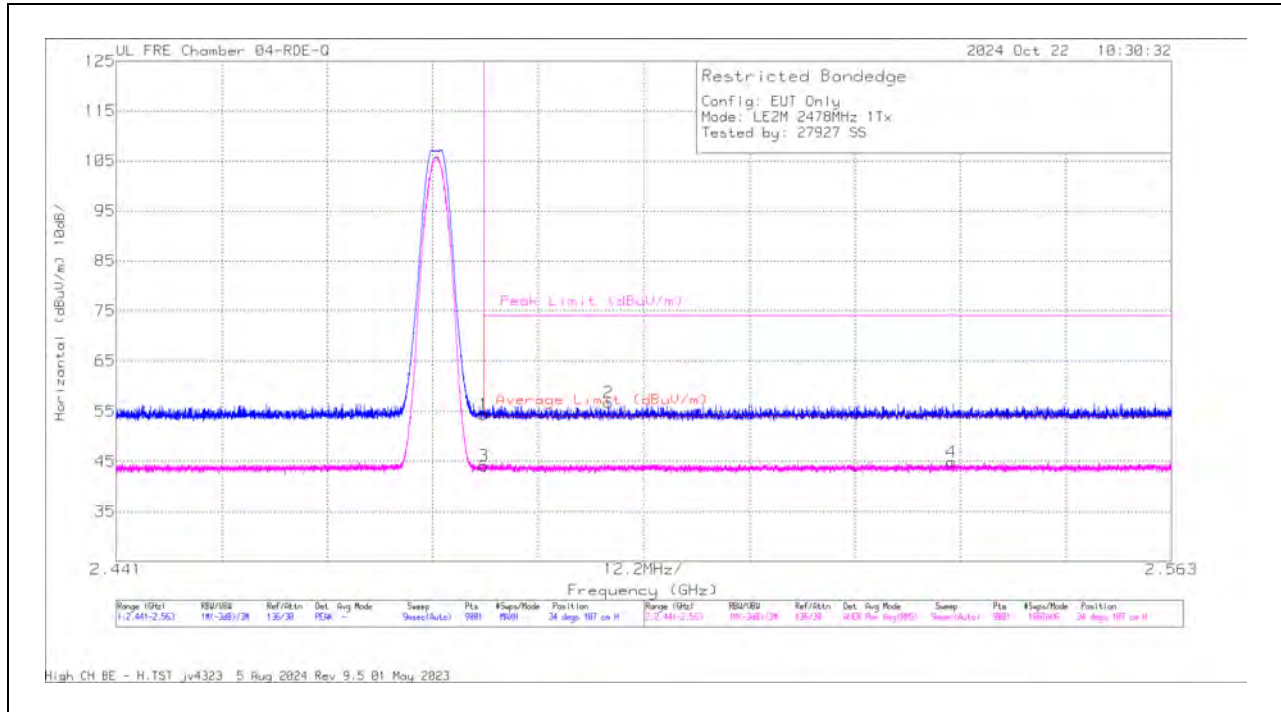
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	60.25	Pk	32	0	-39.05	53.2	-	-	74	-20.8	52	358	V
2	* 2386.812	62.65	Pk	32	0	-39.11	55.54	-	-	74	-18.46	52	358	V
3	* 2390	49.83	RMS	32	0	-39.05	42.78	54	-11.22	-	-	52	358	V
4	* 2359.083	50.38	RMS	31.8	0	-39.03	43.15	54	-10.85	-	-	52	358	V

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

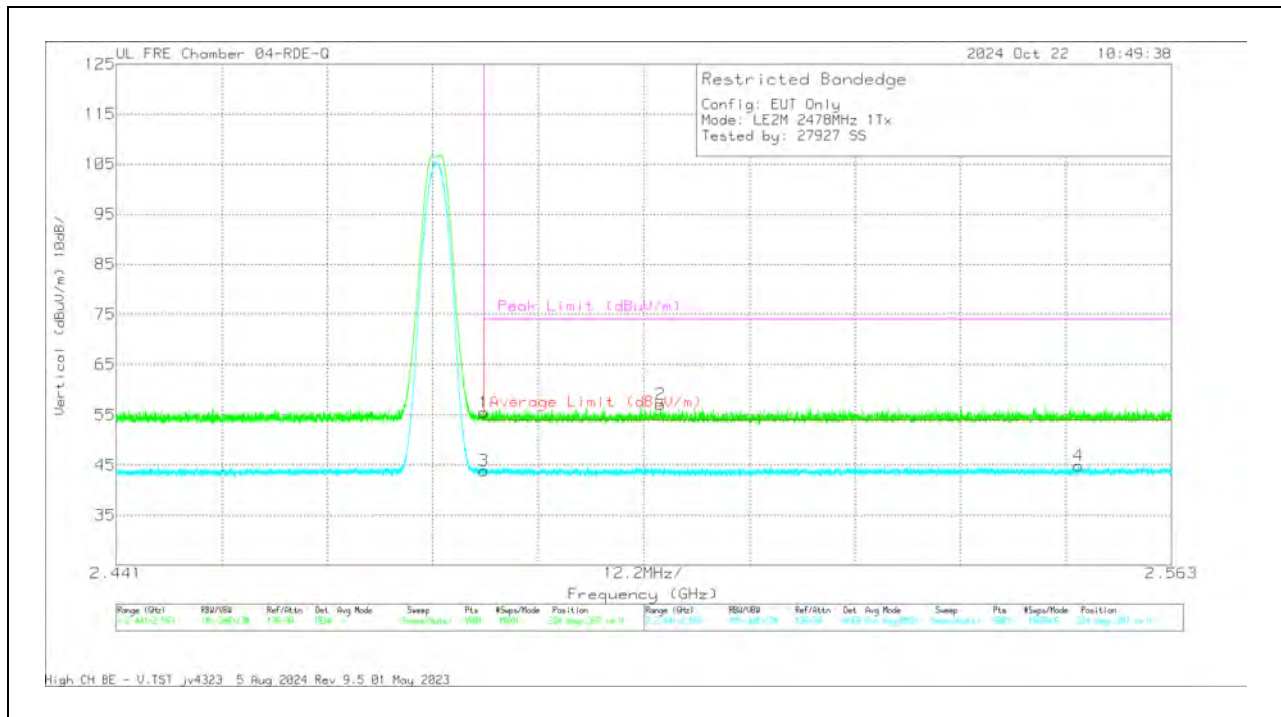
BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT****Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222741 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.4835	60.16	Pk	32.4	0	-38.18	54.38	-	-	74	-19.62	34	107	H
2	2.497922	62.58	Pk	32.4	0	-38.15	56.83	-	-	74	-17.17	34	107	H
3	2.4835	49.93	RMS	32.4	0	-38.18	44.15	54	-9.85	-	-	34	107	H
4	2.537559	50.56	RMS	32.5	0	-38.19	44.87	54	-9.13	-	-	34	107	H

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	222741 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.4835	61.35	Pk	32.4	0	-38.18	55.57	-	-	74	-18.43	334	397	V
2	2.503941	62.92	Pk	32.4	0	-38.15	57.17	-	-	74	-16.83	334	397	V
3	2.4835	49.69	RMS	32.4	0	-38.18	43.91	54	-10.09	-	-	334	397	V
4	2.552241	50.52	RMS	32.5	0	-38.11	44.91	54	-9.09	-	-	334	397	V

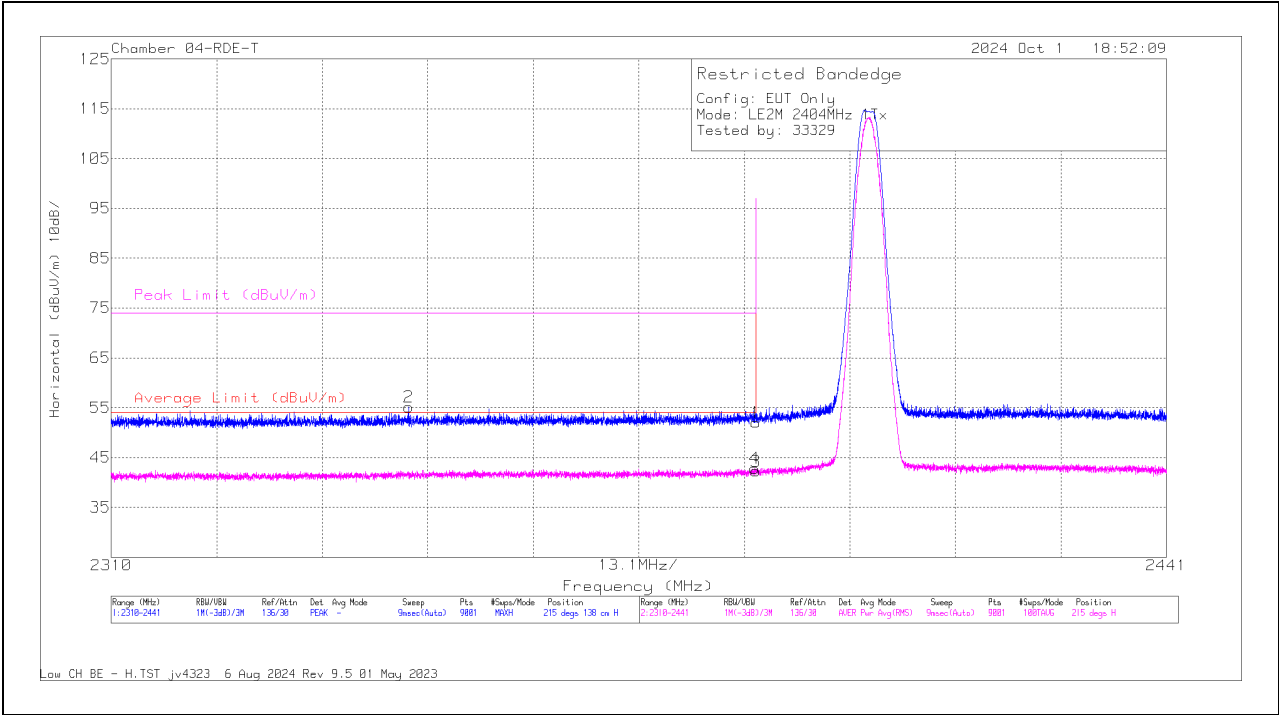
Pk - Peak detector

RMS - RMS detection

ANT 3

BANDEDGE (LOW CHANNEL)

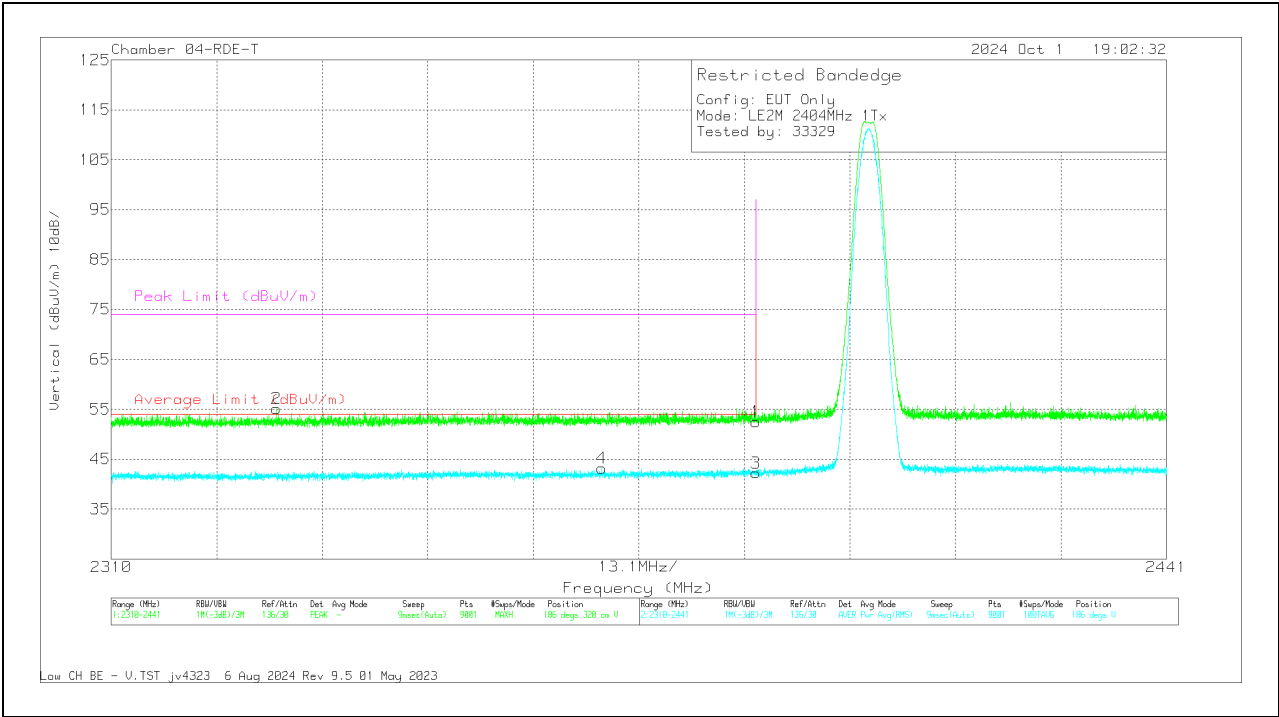
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	59.1	Pk	32	0	-39.05	52.05	-	-	74	-21.95	215	138	H
2	* 2346.914	62.43	Pk	31.8	0	-39.12	55.11	-	-	74	-18.89	215	138	H
3	* 2390	49.31	RMS	32	0	-39.05	42.26	54	-11.74	-	-	215	138	H
4	* 2389.869	49.89	RMS	32	0	-39.05	42.84	54	-11.16	-	-	215	138	H

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

VERTICAL RESULT

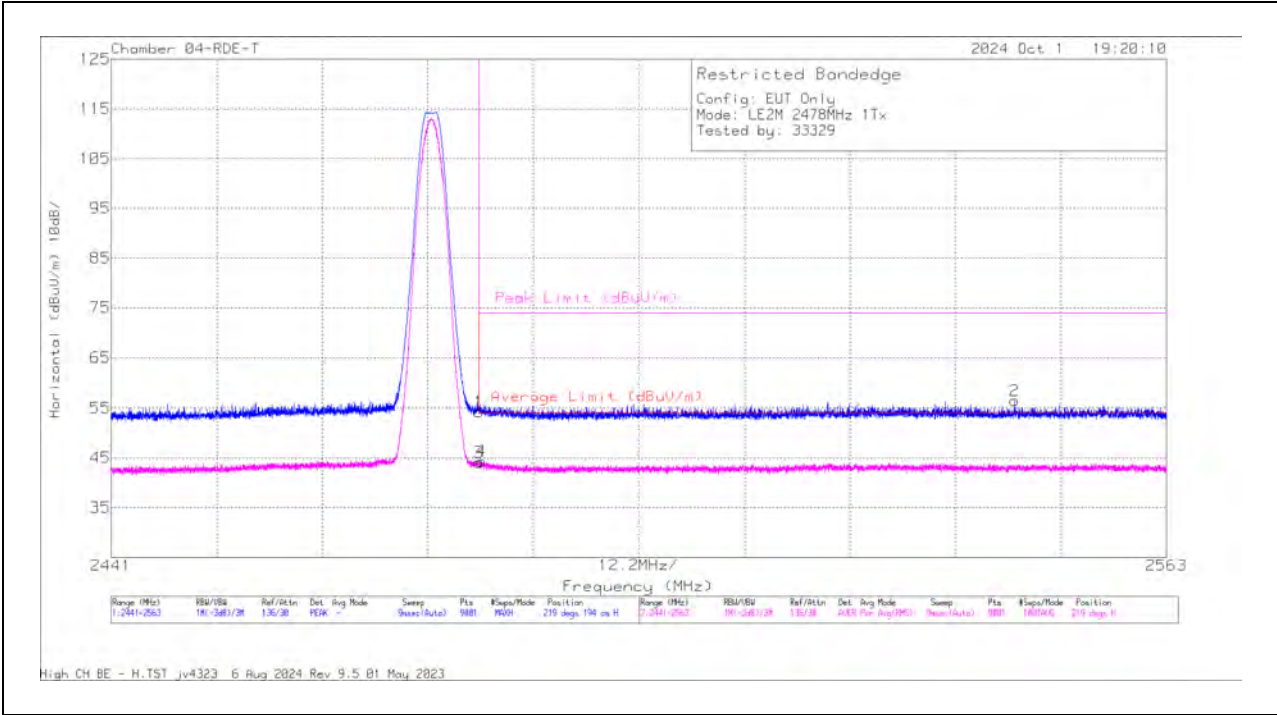


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	59.6	Pk	32	0	-39.05	52.55	-	-	74	-21.45	186	320	V
2	* 2330.539	62.58	Pk	31.7	0	-39.12	55.16	-	-	74	-18.84	186	320	V
3	* 2390	49.31	RMS	32	0	-39.05	42.26	54	-11.74	-	-	186	320	V
4	* 2370.917	50.35	RMS	31.9	0	-39.09	43.16	54	-10.84	-	-	186	320	V

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

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



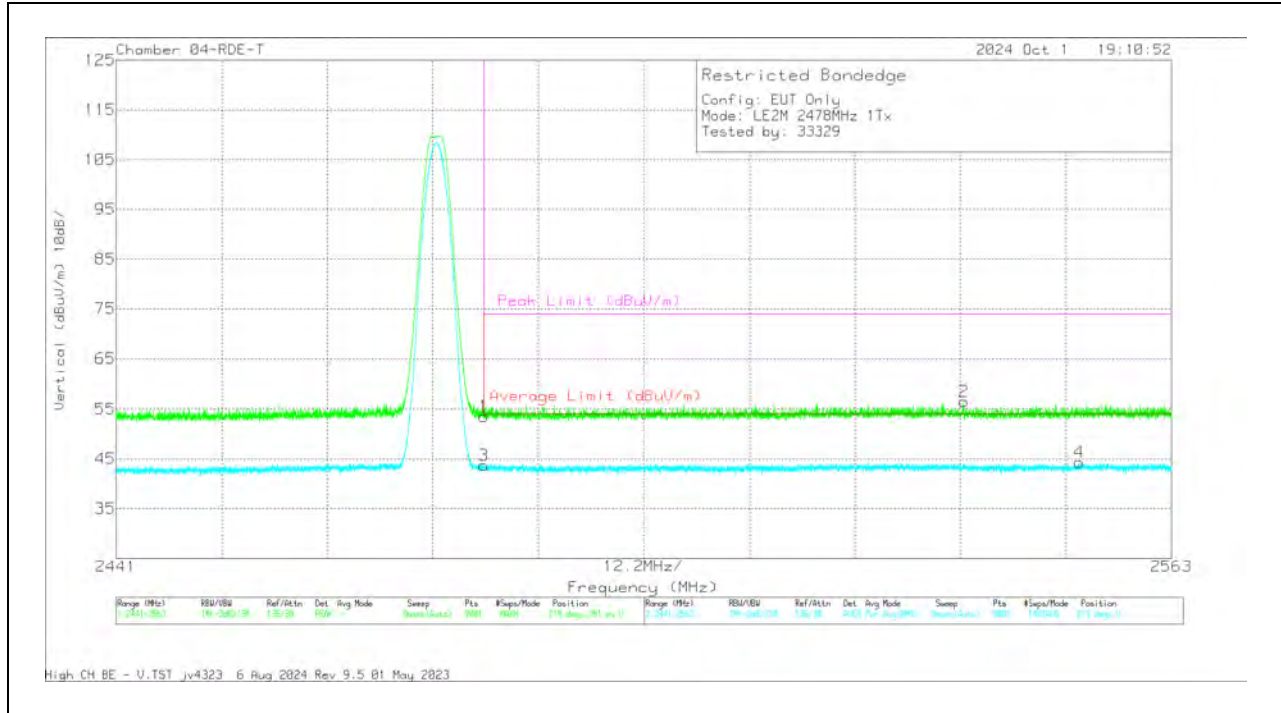
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	60.93	Pk	32.2	0	-38.87	54.26	-	-	74	-19.74	219	194	H
2	2545.435	62.63	Pk	32.4	0	-38.56	56.47	-	-	74	-17.53	219	194	H
3	* 2483.5	50.73	RMS	32.2	0	-38.87	44.06	54	-9.94	-	-	219	194	H
4	* 2483.769	51.01	RMS	32.2	0	-38.89	44.32	54	-9.68	-	-	219	194	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



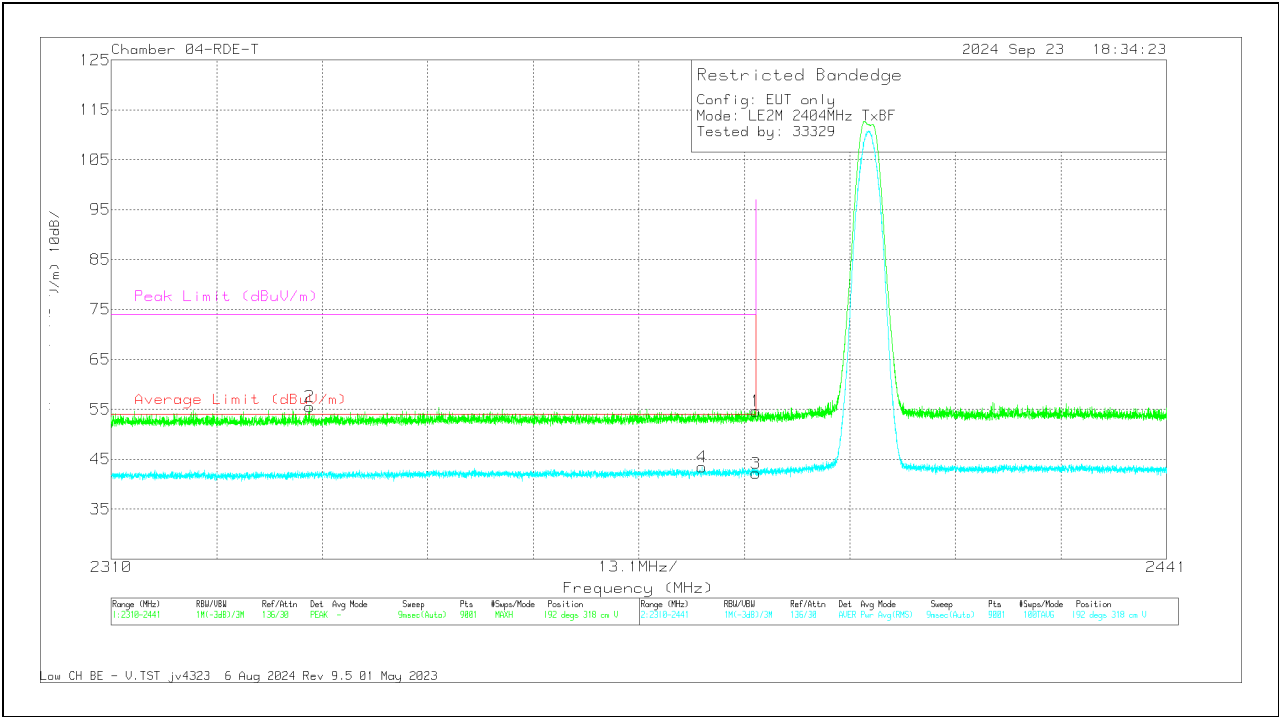
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	60.18	PK	32.2	0	-38.87	53.51	-	-	74	-20.49	219	381	V
2	2539.01	62.69	PK	32.4	0	-38.53	56.56	-	-	74	-17.44	219	381	V
3	* 2483.5	50.38	RMS	32.2	0	-38.87	43.71	54	-10.29	-	-	219	381	V
4	2552.349	50.36	RMS	32.4	0	-38.47	44.29	54	-9.71	-	-	219	381	V

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

PK - Peak detector

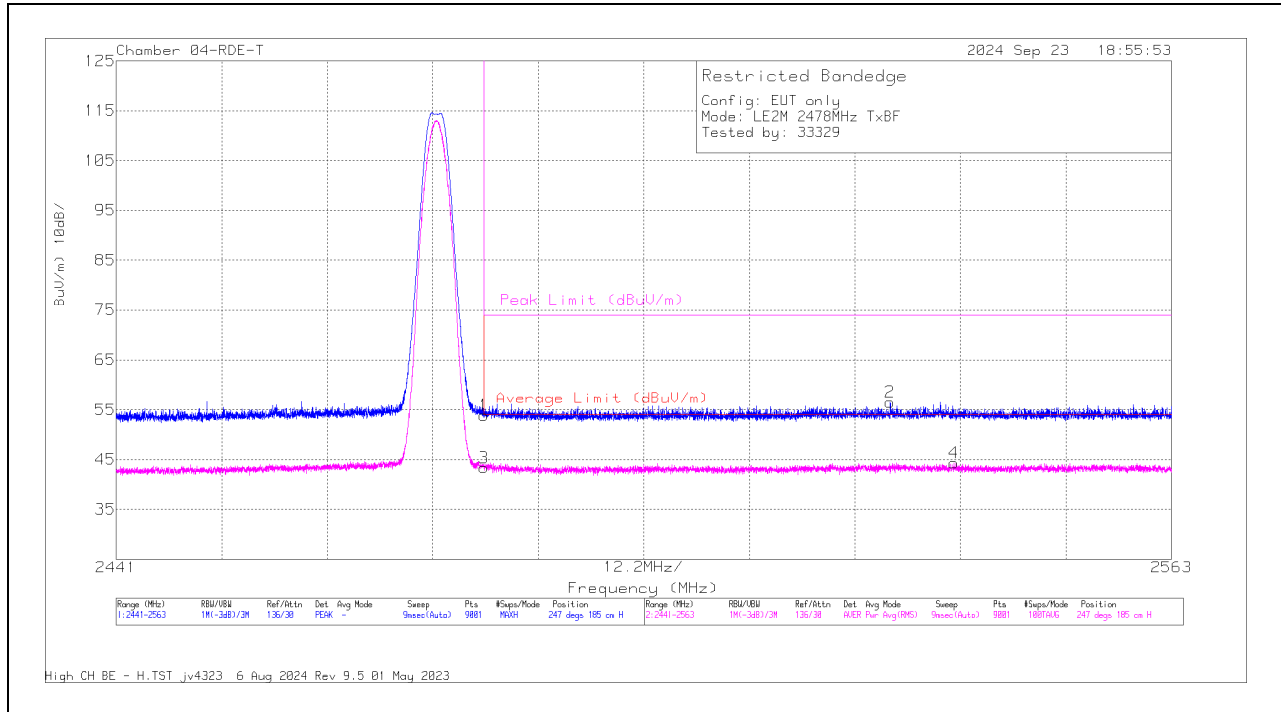
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	61.68	Pk	32	0	-39.05	54.63	-	-	74	-19.37	192	318	V
2	* 2334.643	62.76	Pk	31.7	0	-38.98	55.48	-	-	74	-18.52	192	318	V
3	* 2390	49.2	RMS	32	0	-39.05	42.15	54	-11.85	-	-	192	318	V
4	* 2383.348	50.43	RMS	32	0	-38.97	43.46	54	-10.54	-	-	192	318	V

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

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

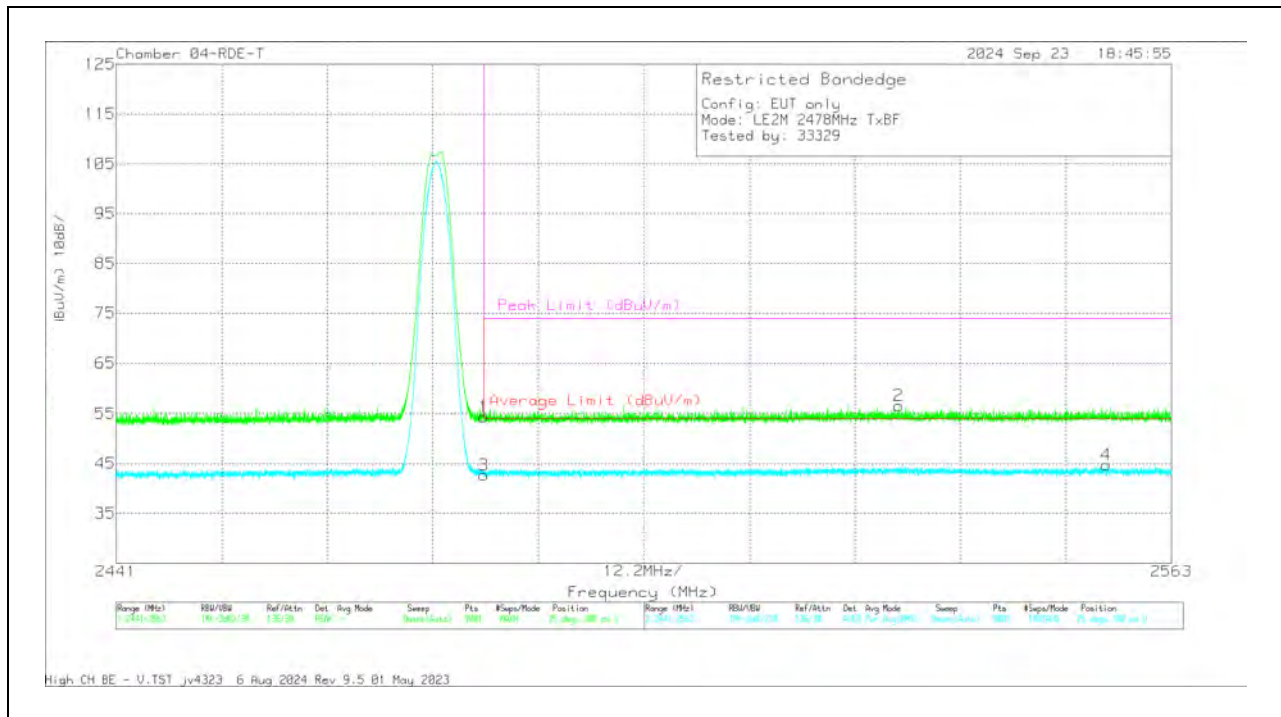
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	60.6	Pk	32.2	0	-38.87	53.93	-	-	74	-20.07	247	185	H
2	2530.497	62.55	Pk	32.4	0	-38.4	56.55	-	-	74	-17.45	247	185	H
3	* 2483.5	50.06	RMS	32.2	0	-38.87	43.39	54	-10.61	-	-	247	185	H
4	2537.858	50.44	RMS	32.4	0	-38.51	44.33	54	-9.67	-	-	247	185	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	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	61.09	Pk	32.2	0	-38.87	54.42	-	-	74	-19.58	25	300	V
2	2531.446	62.57	Pk	32.4	0	-38.36	56.61	-	-	74	-17.39	25	300	V
3	* 2483.5	49.34	RMS	32.2	0	-38.87	42.67	54	-11.33	-	-	25	300	V
4	2555.48	50.72	RMS	32.4	0	-38.37	44.75	54	-9.25	-	-	25	300	V

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

Pk - Peak detector

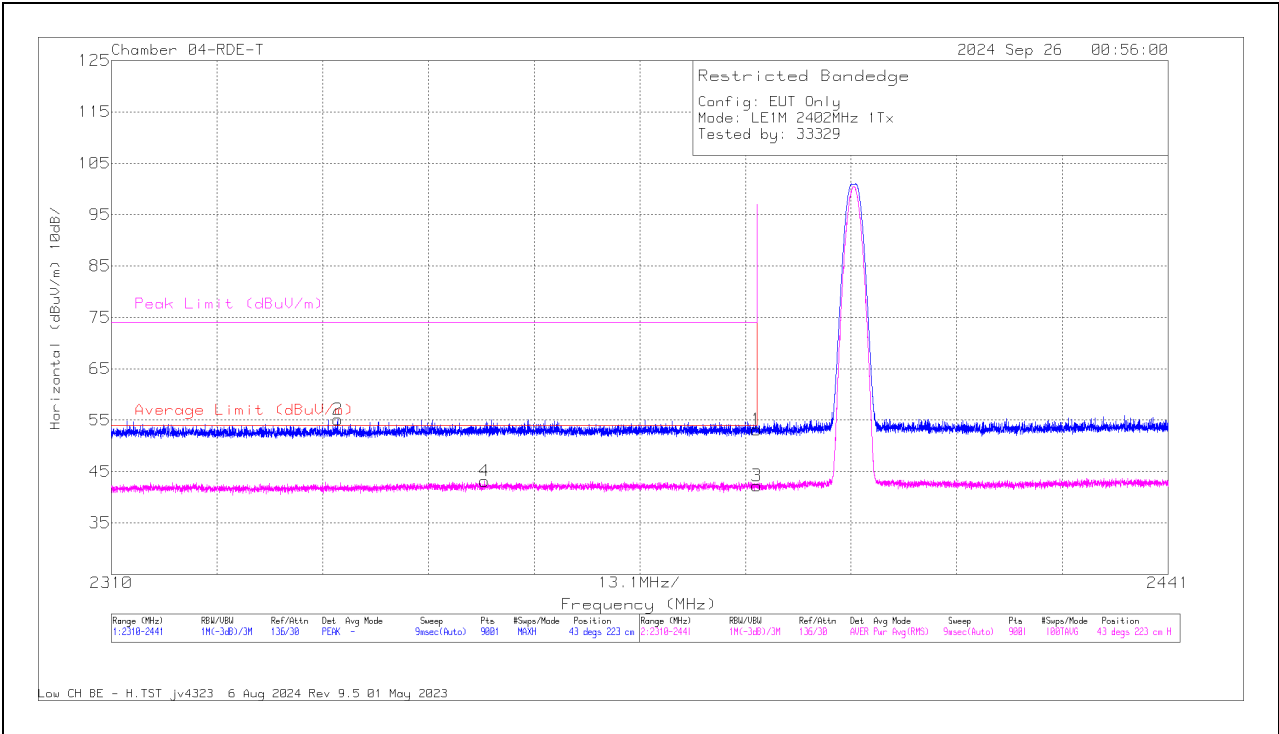
RMS - RMS detection

10.2.5. LOW POWER BLE (1Mbps)

ANT 4

BANDEDGE (LOW CHANNEL)

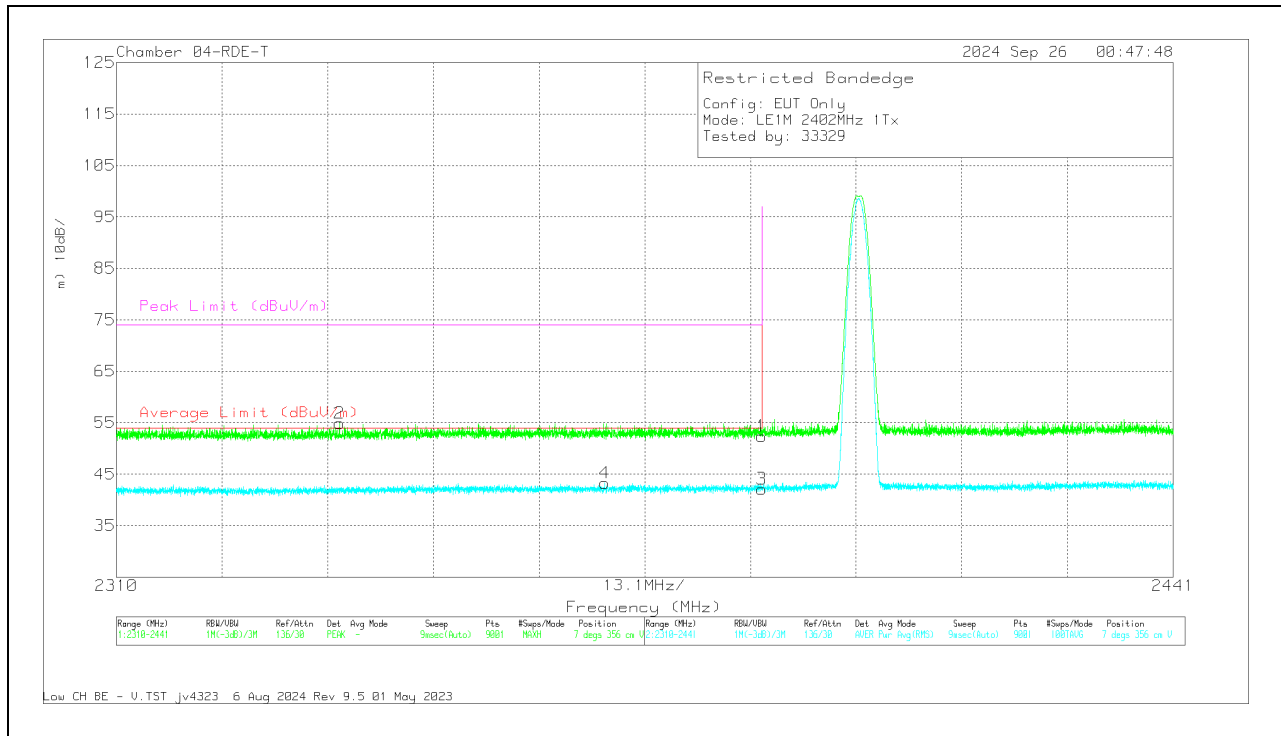
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	60.23	Pk	32	0	-39.05	53.18	-	-	74	-20.82	43	223	H
2	* 2338.093	62.45	Pk	31.8	0	-39.12	55.13	-	-	74	-18.87	43	223	H
3	* 2390	49.28	RMS	32	0	-39.05	42.23	54	-11.77	-	-	43	223	H
4	* 2356.23	50.41	RMS	31.8	0	-39.05	43.16	54	-10.84	-	-	43	223	H

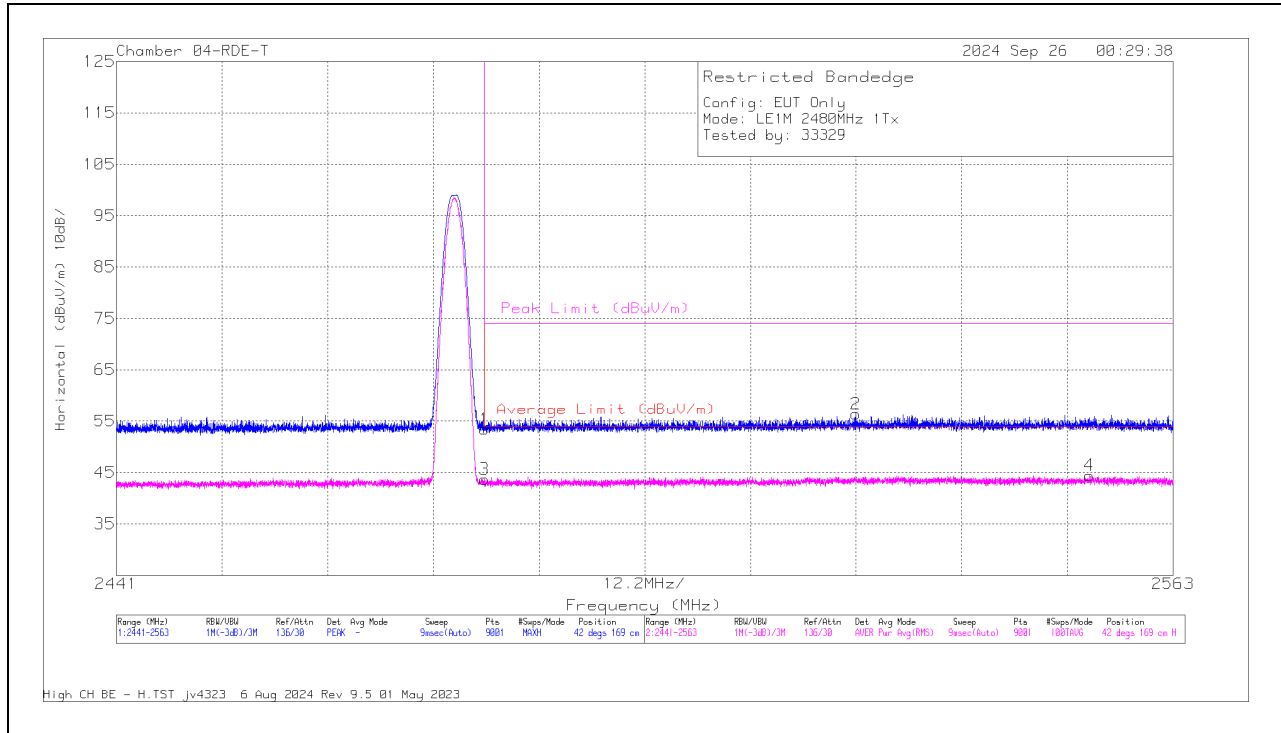
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	59.43	Pk	32	0	-39.05	52.38	-	-	74	-21.62	7	356	V
2	* 2337.656	62.16	PK	31.8	0	-39.07	54.89	-	-	74	-19.11	7	356	V
3	* 2390	49.16	RMS	32	0	-39.05	42.11	54	-11.89	-	-	7	356	V
4	* 2370.524	50.44	RMS	31.9	0	-39.06	43.28	54	-10.72	-	-	7	356	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK - Peak detector
RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

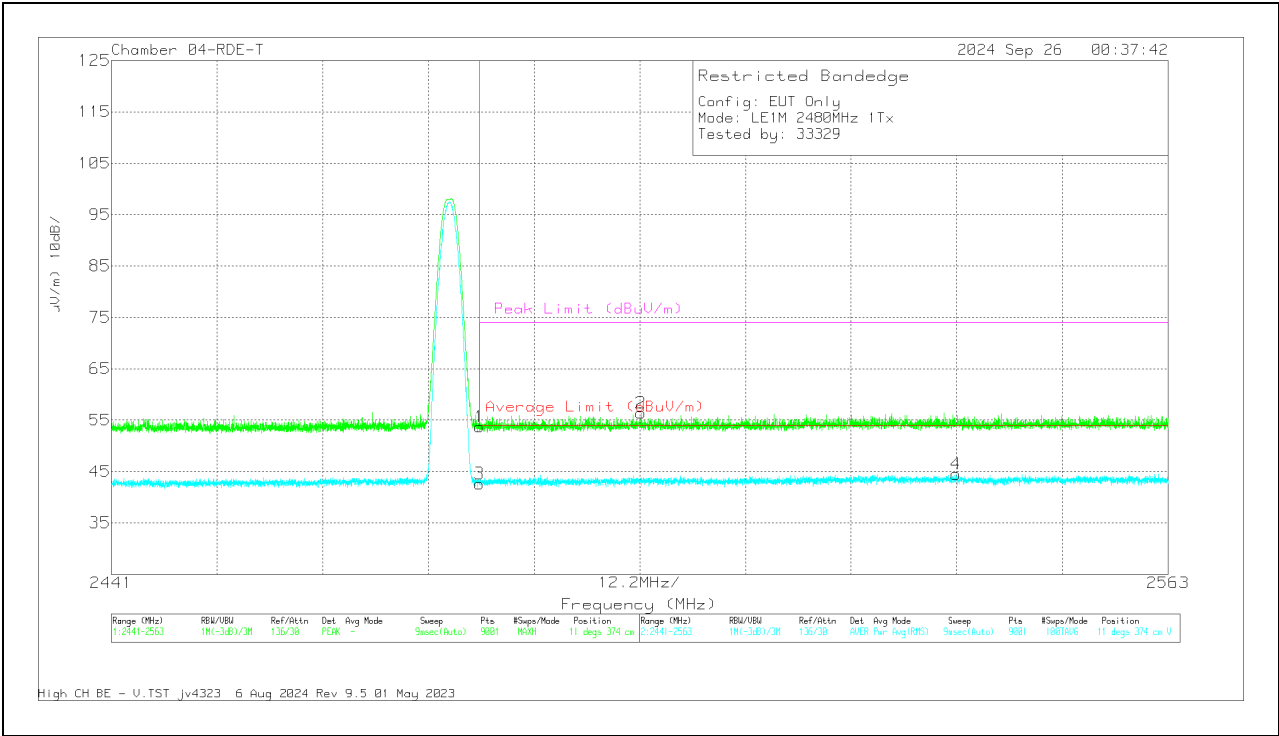
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	60.13	Pk	32.2	0	-38.87	53.46	-	-	74	-20.54	42	169	H
2	2526.349	62.45	Pk	32.4	0	-38.48	56.37	-	-	74	-17.63	42	169	H
3	* 2483.5	50.36	RMS	32.2	0	-38.87	43.69	54	-10.31	-	-	42	169	H
4	2553.311	50.47	RMS	32.4	0	-38.44	44.43	54	-9.57	-	-	42	169	H

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

PK - Peak detector

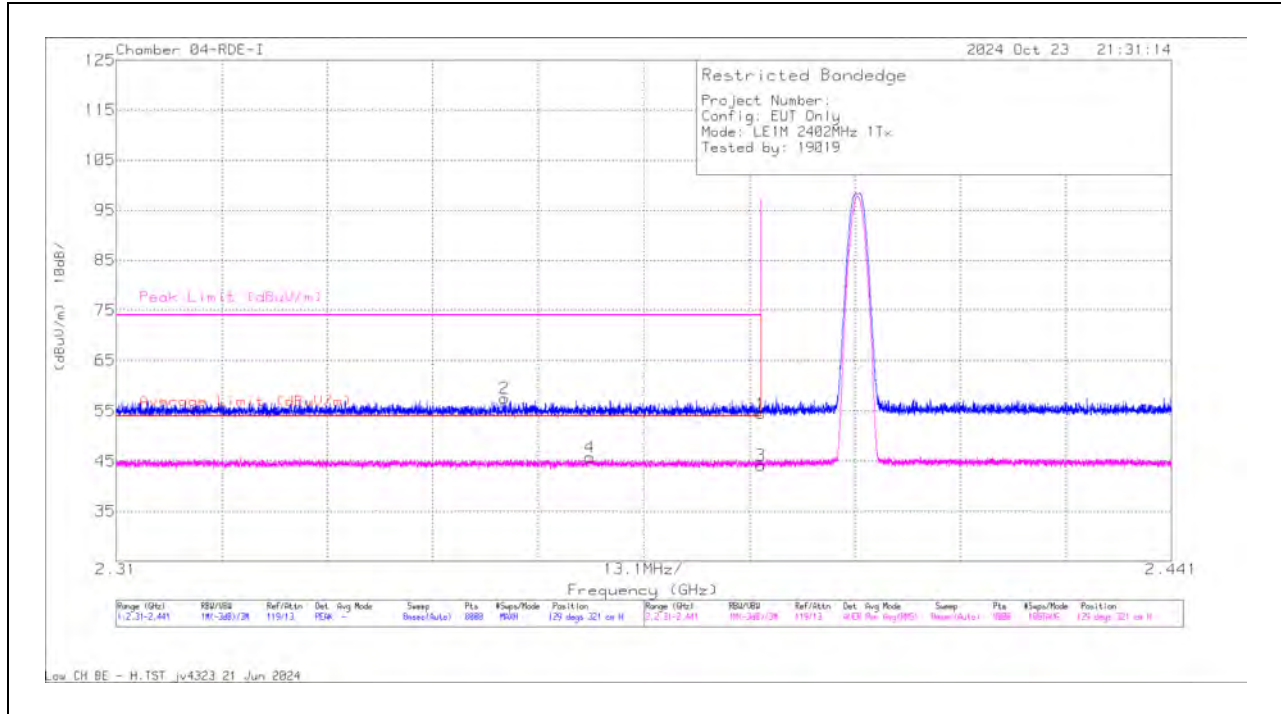
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	60.36	Pk	32.2	0	-38.87	53.69	-	-	74	-20.31	11	374	V
2	2502.138	62.66	Pk	32.4	0	-38.68	56.38	-	-	74	-17.62	11	374	V
3	* 2483.5	49.28	RMS	32.2	0	-38.87	42.61	54	-11.39	-	-	11	374	V
4	2538.508	50.62	RMS	32.4	0	-38.53	44.49	54	-9.51	-	-	11	374	V

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

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

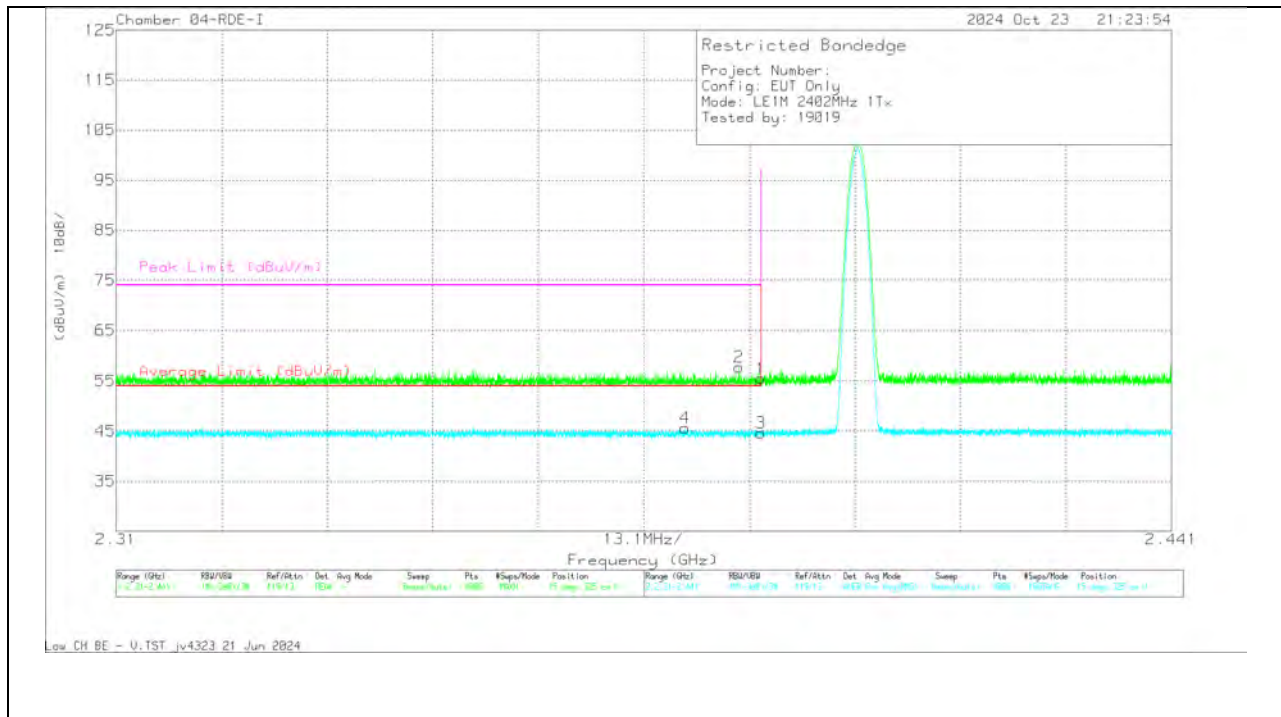
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB/m)	DCCF (dB)	CBL AMP Pad(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.27	Pk	31.7	0	-19.5	54.47	-	-	74	-19.53	129	321	H
2	* 2.358181	45.09	Pk	31.8	0	-19.4	57.49	-	-	74	-16.51	129	321	H
3	* 2.39	31.98	RMS	31.7	0	-19.5	44.18	54	-9.82	-	-	129	321	H
4	* 2.368777	33.32	RMS	31.7	0	-19.3	45.72	54	-8.28	-	-	129	321	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL RESULT

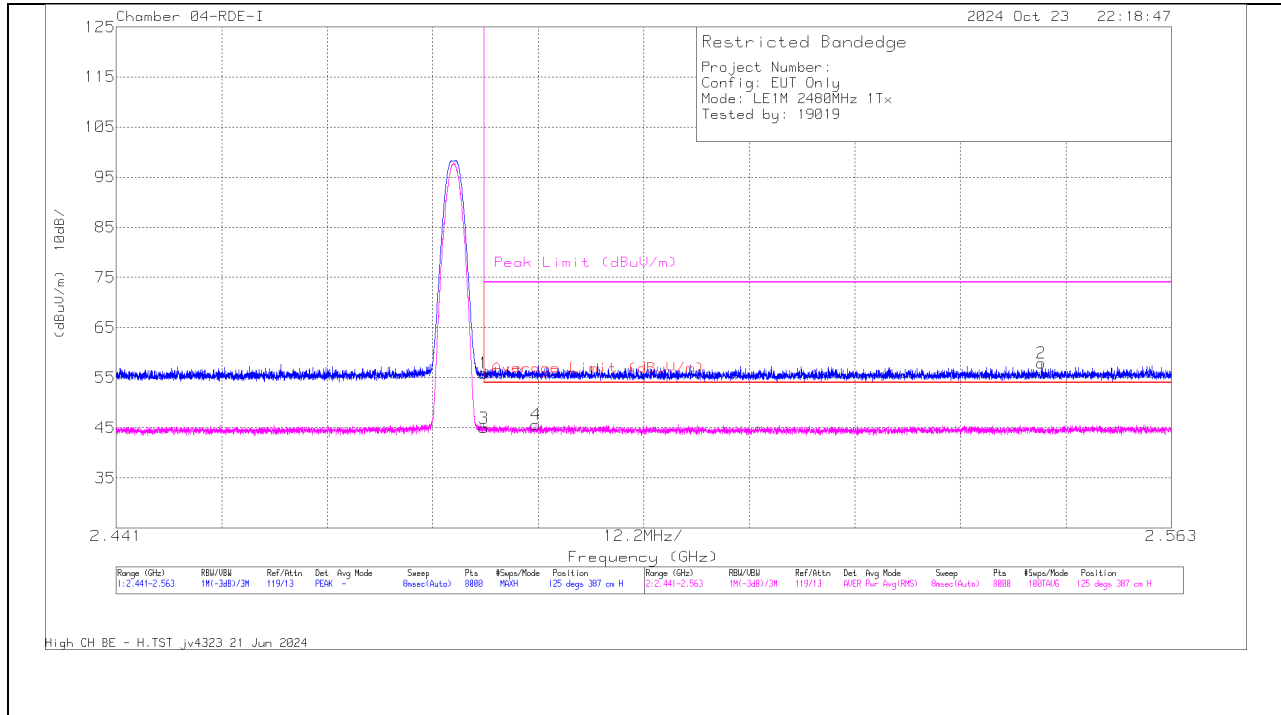


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB/m)	DCCF (dB)	CBL AMP Pad(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	43.28	Pk	31.7	0	-19.5	55.48	-	-	74	-18.52	15	325	V
2	* 2.387332	45.58	Pk	31.7	0	-19.5	57.78	-	-	74	-16.22	15	325	V
3	* 2.39	32.49	RMS	31.7	0	-19.5	44.69	54	-9.31	-	-	15	325	V
4	* 2.380634	33.37	RMS	31.7	0	-19.4	45.67	54	-8.33	-	-	15	325	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

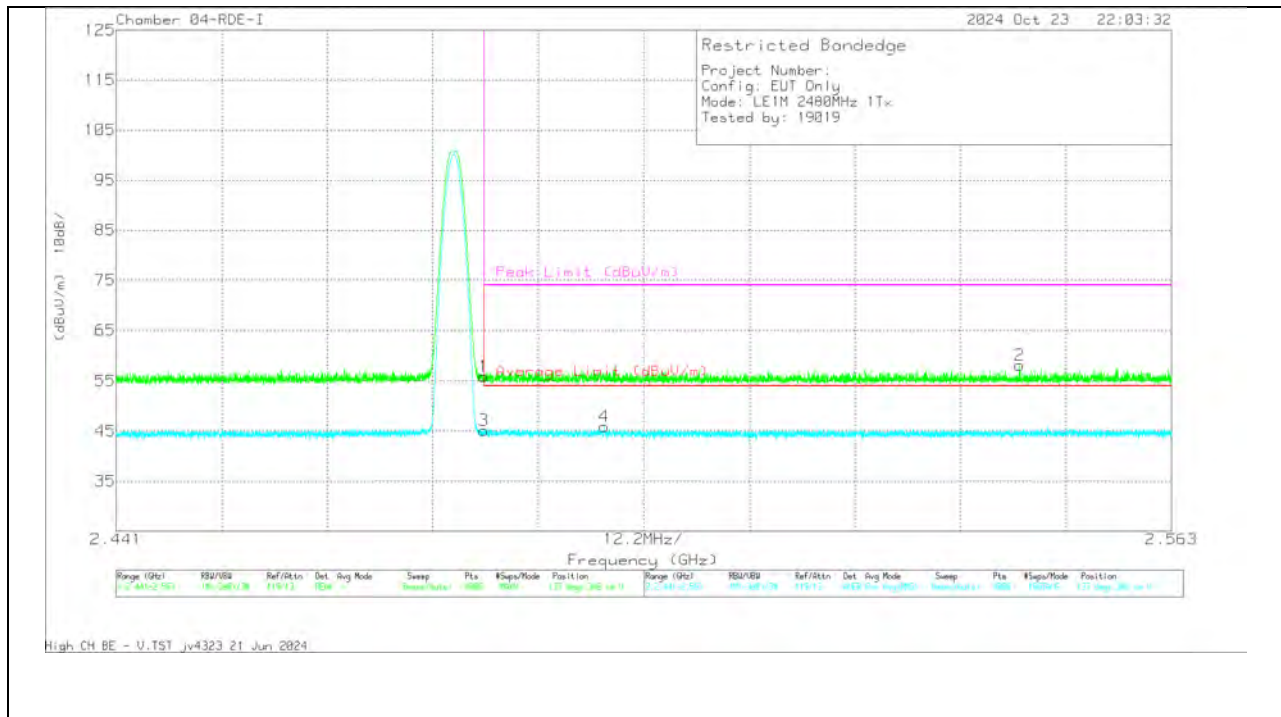
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB/m)	CBL AMP Pad(dB)	DCCF (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	43.77	Pk	32	-19.9	0	55.87	-	-	74	-18.13	125	387	H
2	2.547962	45.79	Pk	32.2	-20.1	0	57.89	-	-	74	-16.11	125	387	H
3	* 2.4835	32.85	RMS	32	-19.9	0	44.95	54	-9.05	-	-	125	387	H
4	* 2.489532	33.53	RMS	32	-19.9	0	45.63	54	-8.37	-	-	125	387	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	84797 ACF (dB/m)	DCCF (dB)	CBL AMP 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	* 2.4835	43.86	Pk	32	0	-19.9	55.96	-	-	74	-18.04	137	366	V
2	2.545476	46.03	Pk	32.2	0	-20.1	58.13	-	-	74	-15.87	137	366	V
3	* 2.4835	33.05	RMS	32	0	-19.9	45.15	54	-8.85	-	-	137	366	V
4	* 2.497402	33.65	RMS	32.1	0	-19.9	45.85	54	-8.15	-	-	137	366	V

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

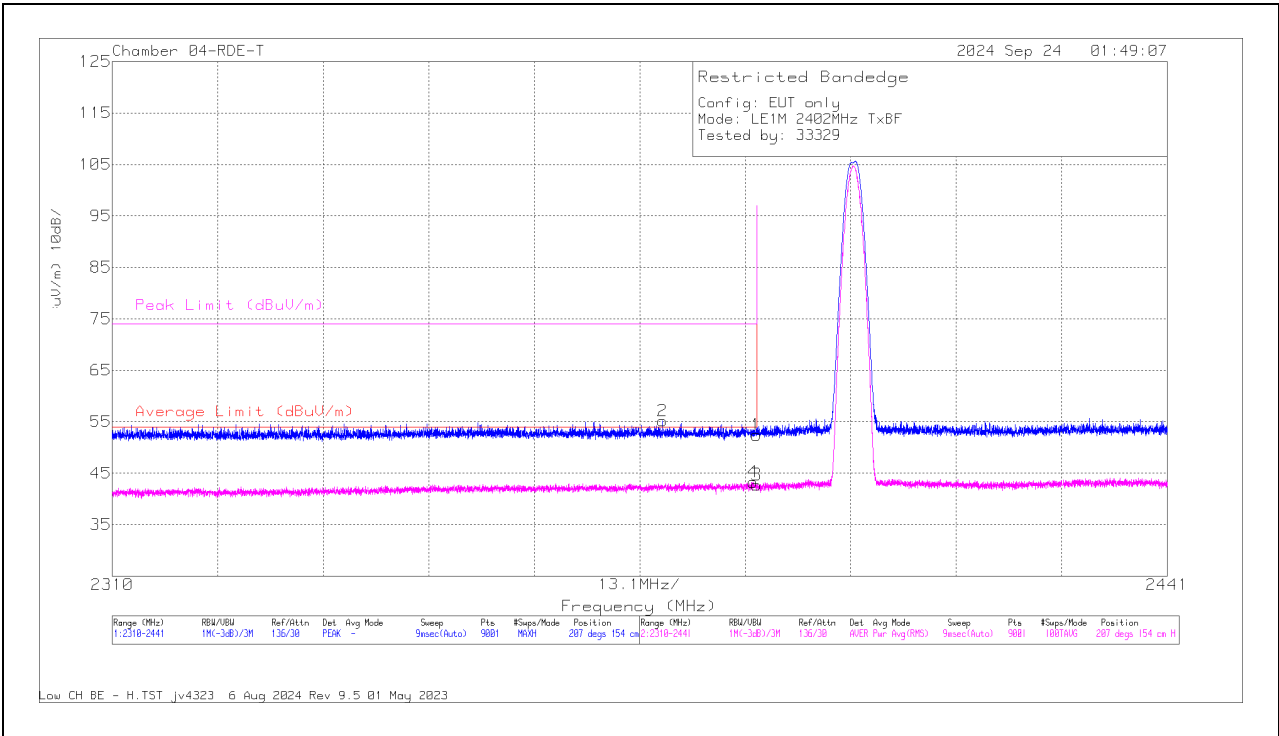
Pk - Peak detector

RMS - RMS detection

10.2.6. LOW POWER BLE TXBF (1Mbps)

BANDEDGE (LOW CHANNEL)

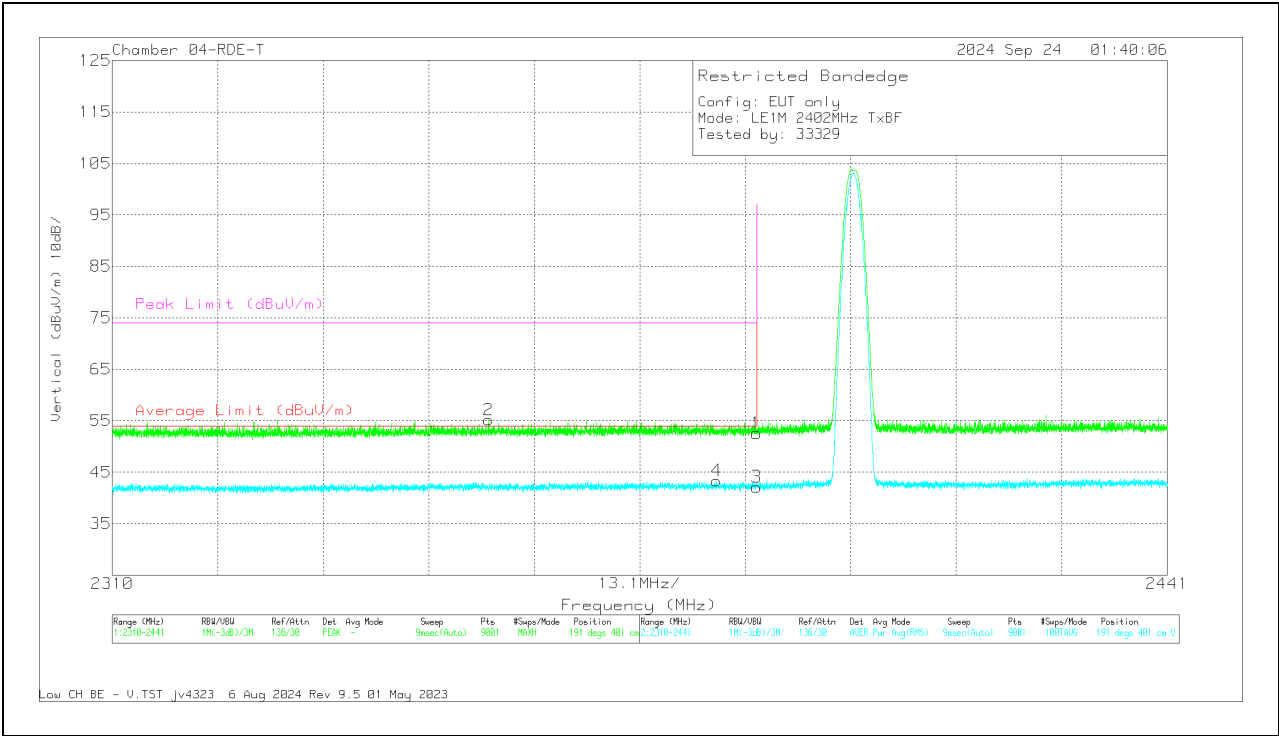
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	59.5	Pk	32	0	-39.05	52.45	-	-	74	-21.55	207	154	H
2	* 2378.34	62.14	Pk	32	0	-38.97	55.17	-	-	74	-18.83	207	154	H
3	* 2390	49.78	RMS	32	0	-39.05	42.73	54	-11.27	-	-	207	154	H
4	* 2389.563	50.34	RMS	32	0	-39.06	43.28	54	-10.72	-	-	207	154	H

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

VERTICAL RESULT

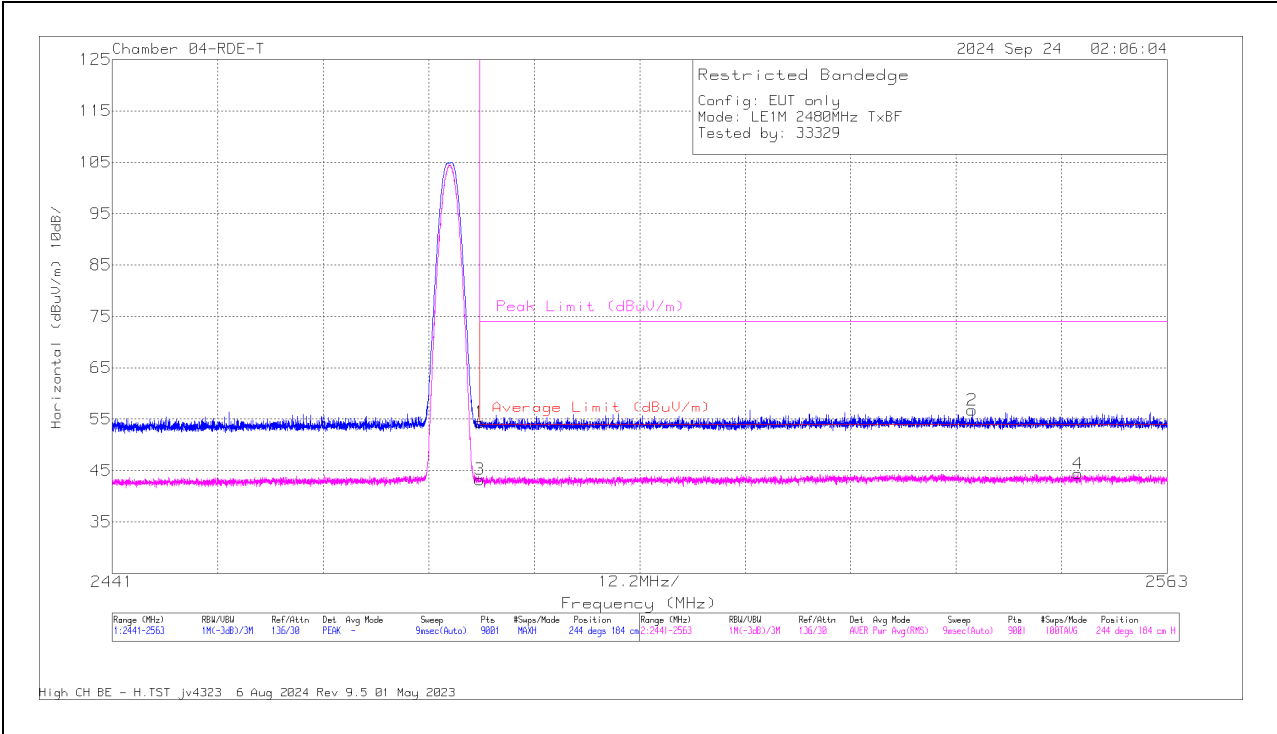


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	59.61	Pk	32	0	-39.05	52.56	-	-	74	-21.44	191	401	V
2	* 2356.71	62.42	Pk	31.8	0	-39.06	55.16	-	-	74	-18.84	191	401	V
3	* 2390	49.16	RMS	32	0	-39.05	42.11	54	-11.89	-	-	191	401	V
4	* 2385.051	50.37	RMS	32	0	-39.03	43.34	54	-10.66	-	-	191	401	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK - Peak detector
RMS - RMS detection

BANDEDGE (HIGH CHANNEL)

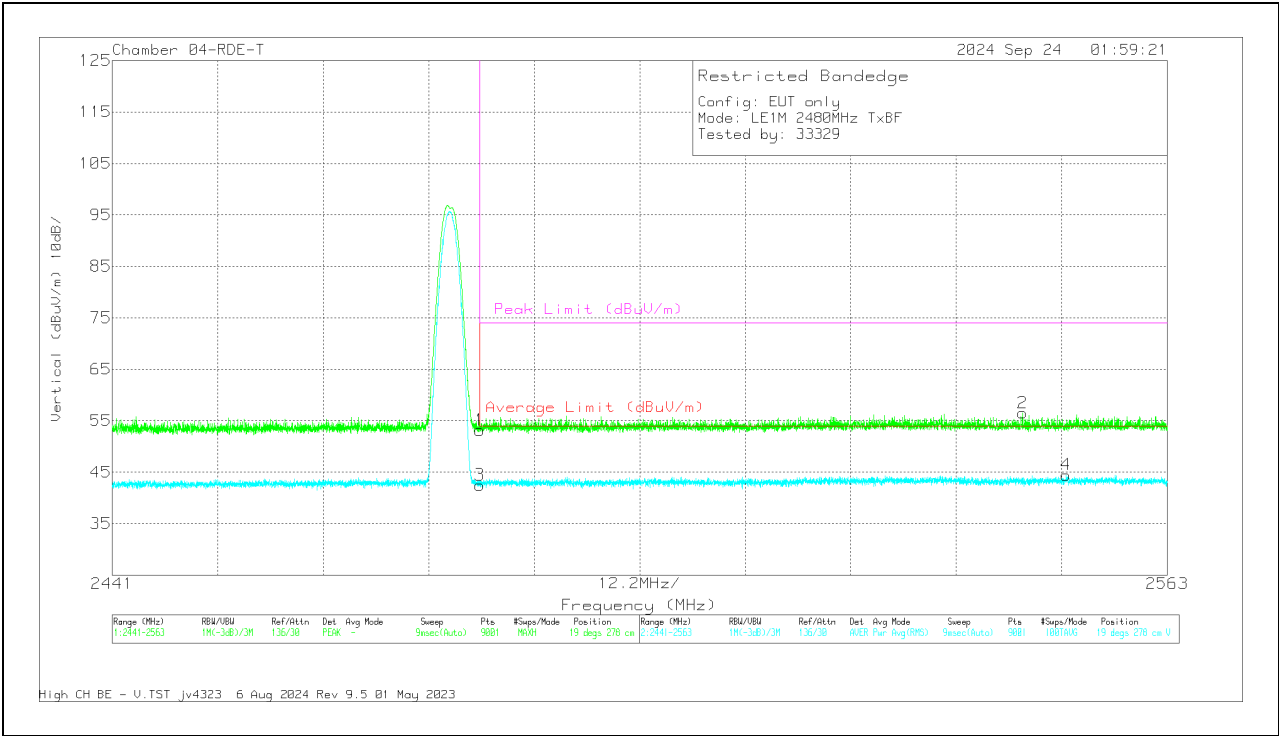
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	61.04	Pk	32.2	0	-38.87	54.37	-	-	74	-19.63	244	184	H
2	2540.433	62.97	Pk	32.4	0	-38.63	56.74	-	-	74	-17.26	244	184	H
3	* 2483.5	49.93	RMS	32.2	0	-38.87	43.26	54	-10.74	-	-	244	184	H
4	2552.661	50.46	RMS	32.4	0	-38.46	44.4	54	-9.6	-	-	244	184	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	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	59.84	Pk	32.2	0	-38.87	53.17	-	-	74	-20.83	19	278	V
2	2546.276	62.64	Pk	32.4	0	-38.54	56.5	-	-	74	-17.5	19	278	V
3	* 2483.5	49.17	RMS	32.2	0	-38.87	42.5	54	-11.5	-	-	19	278	V
4	2551.292	50.64	RMS	32.4	0	-38.57	44.47	54	-9.53	-	-	19	278	V

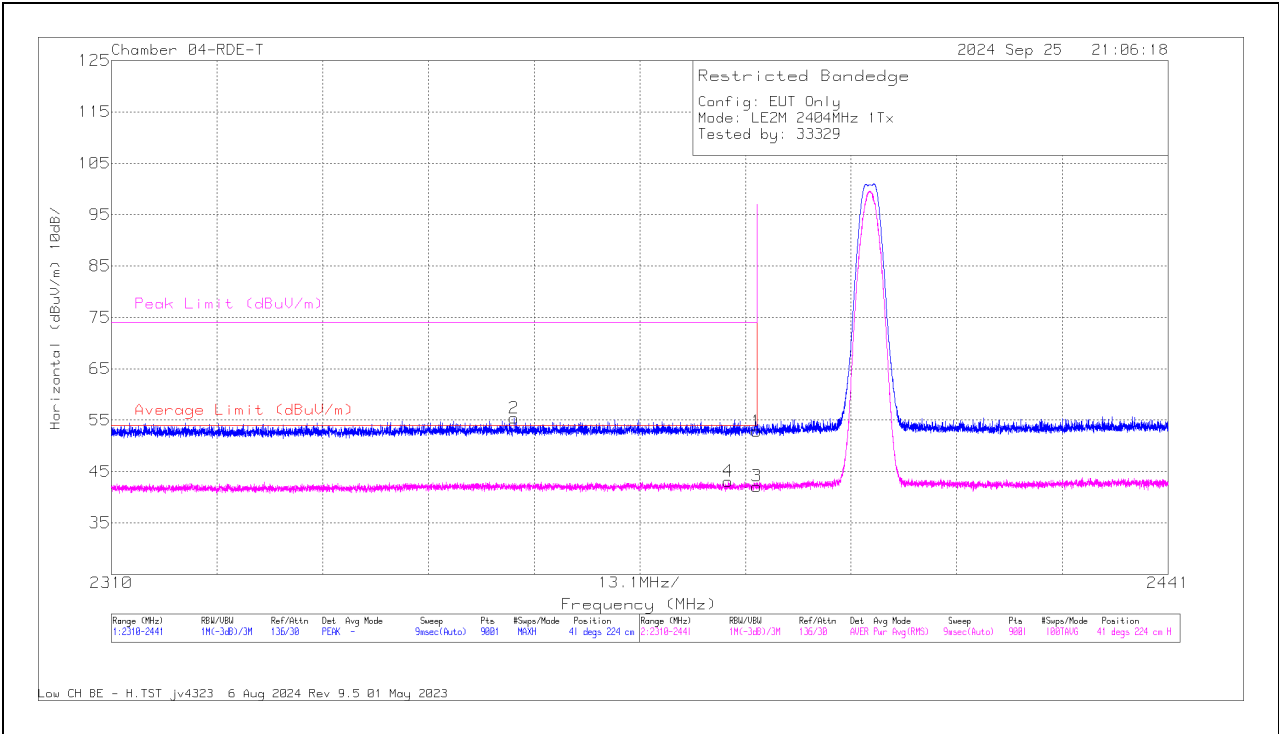
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

10.2.7. LOW POWER BLE (2Mbps)

ANT 4

BANDEDGE (LOW CHANNEL)

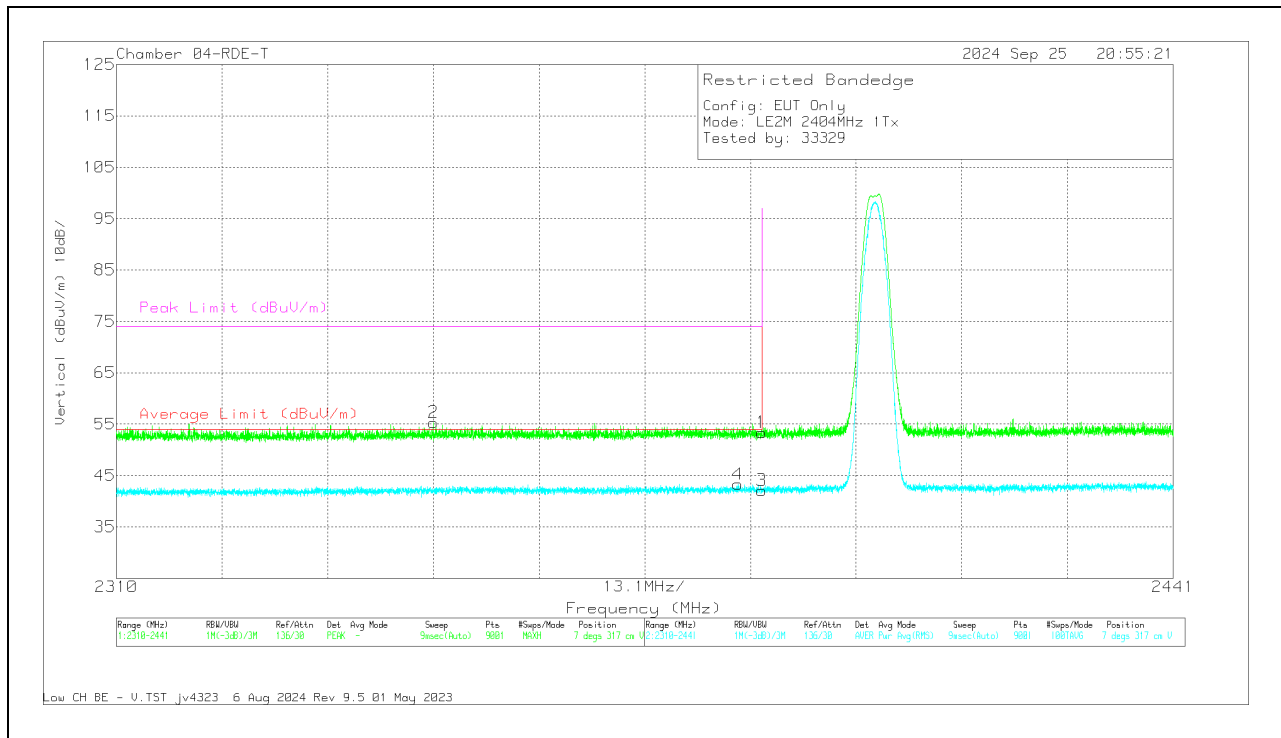
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	59.87	Pk	32	0	-39.05	52.82	-	-	74	-21.18	41	224	H
2	* 2359.913	62.7	Pk	31.8	0	-39.08	55.42	-	-	74	-18.58	41	224	H
3	* 2390	49.2	RMS	32	0	-39.05	42.15	54	-11.85	-	-	41	224	H
4	* 2386.448	50.22	RMS	32	0	-39.11	43.11	54	-10.89	-	-	41	224	H

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

VERTICAL RESULT

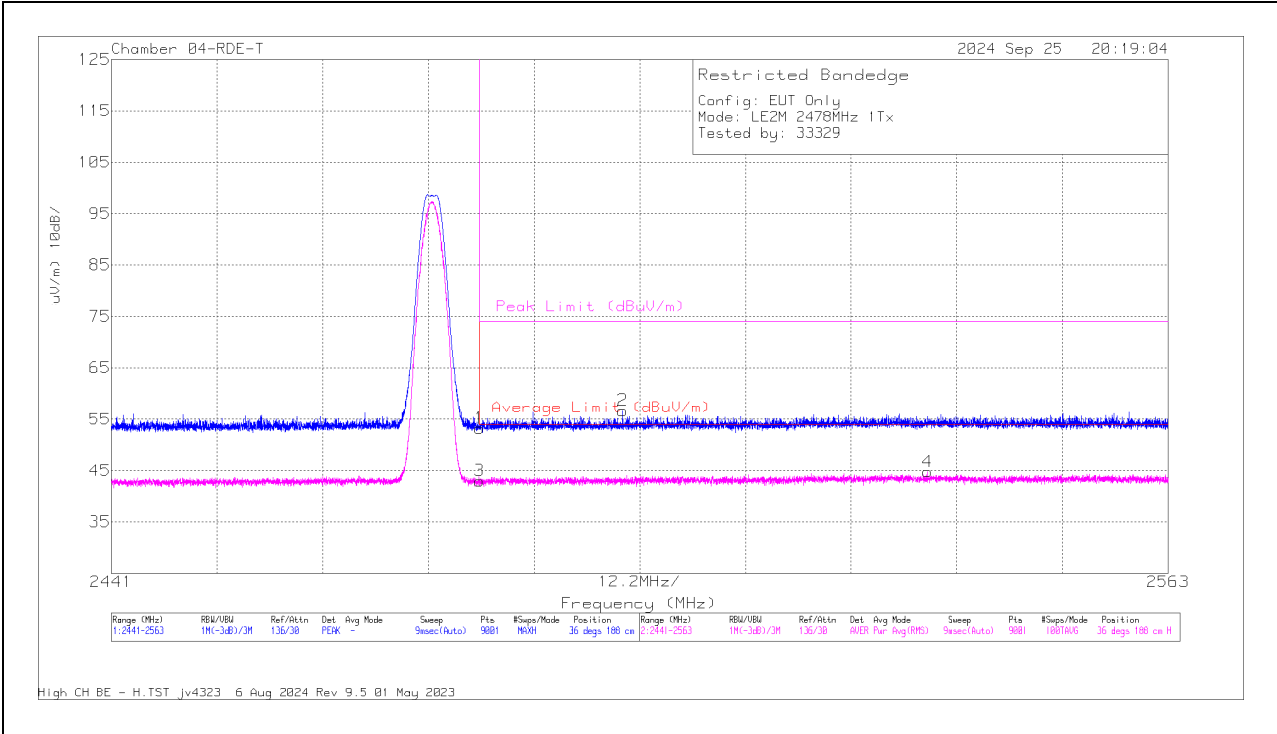


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	60.43	Pk	32	0	-39.05	53.38	-	-	74	-20.62	7	317	V
2	* 2349.316	62.63	Pk	31.8	0	-39.11	55.32	-	-	74	-18.68	7	317	V
3	* 2390	49.15	RMS	32	0	-39.05	42.1	54	-11.9	-	-	7	317	V
4	* 2387.045	50.42	RMS	32	0	-39.11	43.31	54	-10.69	-	-	7	317	V

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

BANDEDGE (HIGH CHANNEL)

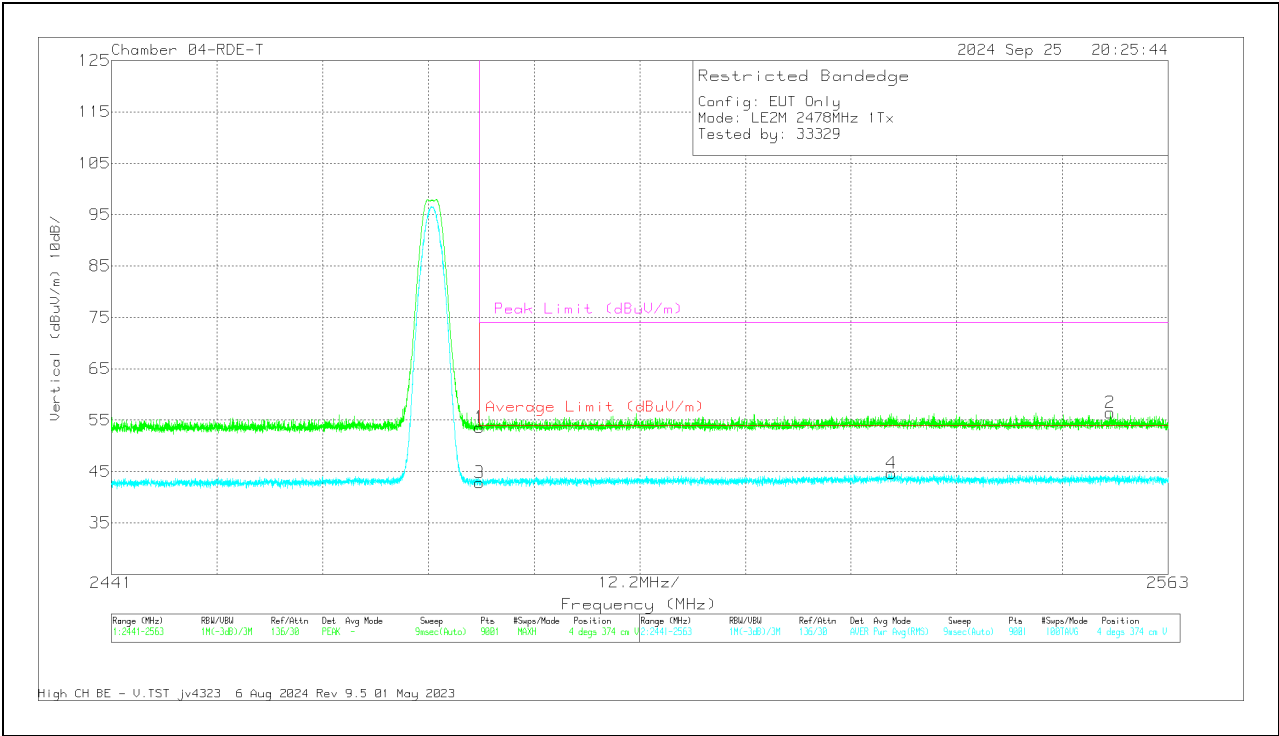
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	59.9	Pk	32.2	0	-38.87	53.23	-	-	74	-20.77	36	188	H
2	2500.023	63.04	Pk	32.3	0	-38.68	56.66	-	-	74	-17.34	36	188	H
3	* 2483.5	49.67	RMS	32.2	0	-38.87	43	54	-11	-	-	36	188	H
4	2535.241	50.83	RMS	32.4	0	-38.47	44.76	54	-9.24	-	-	36	188	H

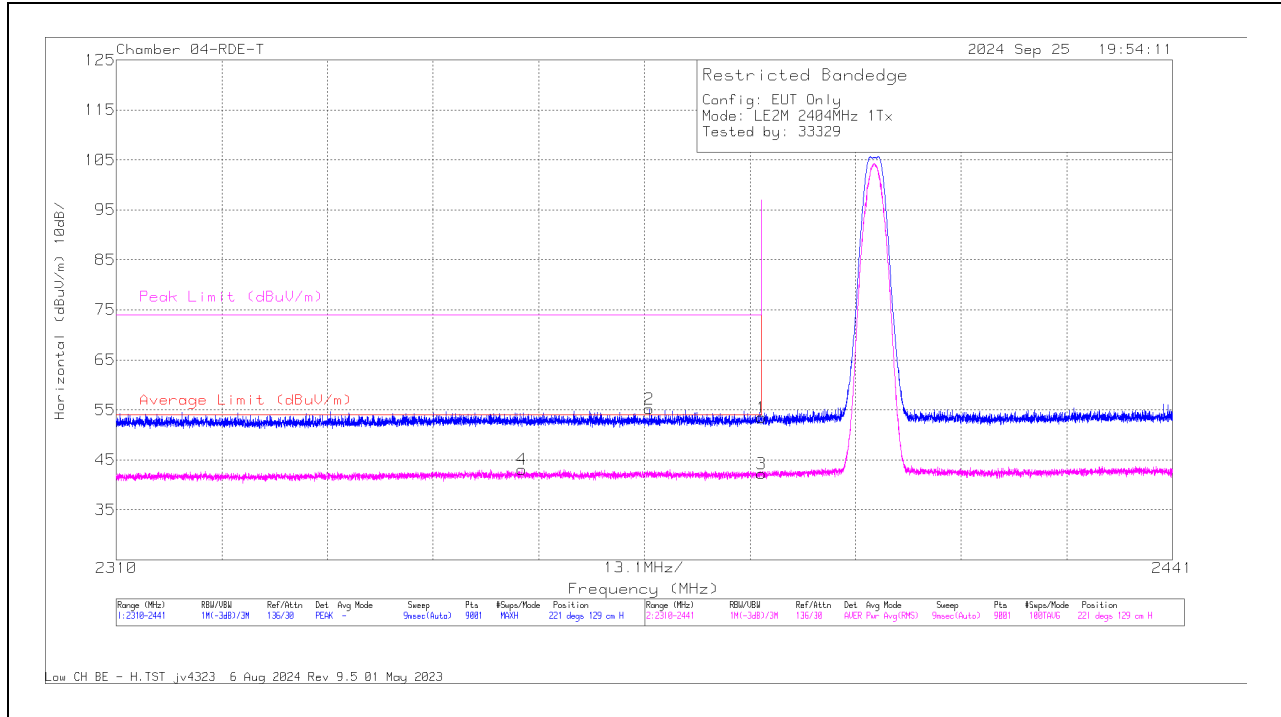
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK - Peak detector
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	60.26	Pk	32.2	0	-38.87	53.59	-	-	74	-20.41	4	374	V
2	2556.334	62.45	PK	32.4	0	-38.38	56.47	-	-	74	-17.53	4	374	V
3	* 2483.5	49.5	RMS	32.2	0	-38.87	42.83	54	-11.17	-	-	4	374	V
4	2531.053	50.59	RMS	32.4	0	-38.32	44.67	54	-9.33	-	-	4	374	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK - Peak detector
RMS - RMS detection

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

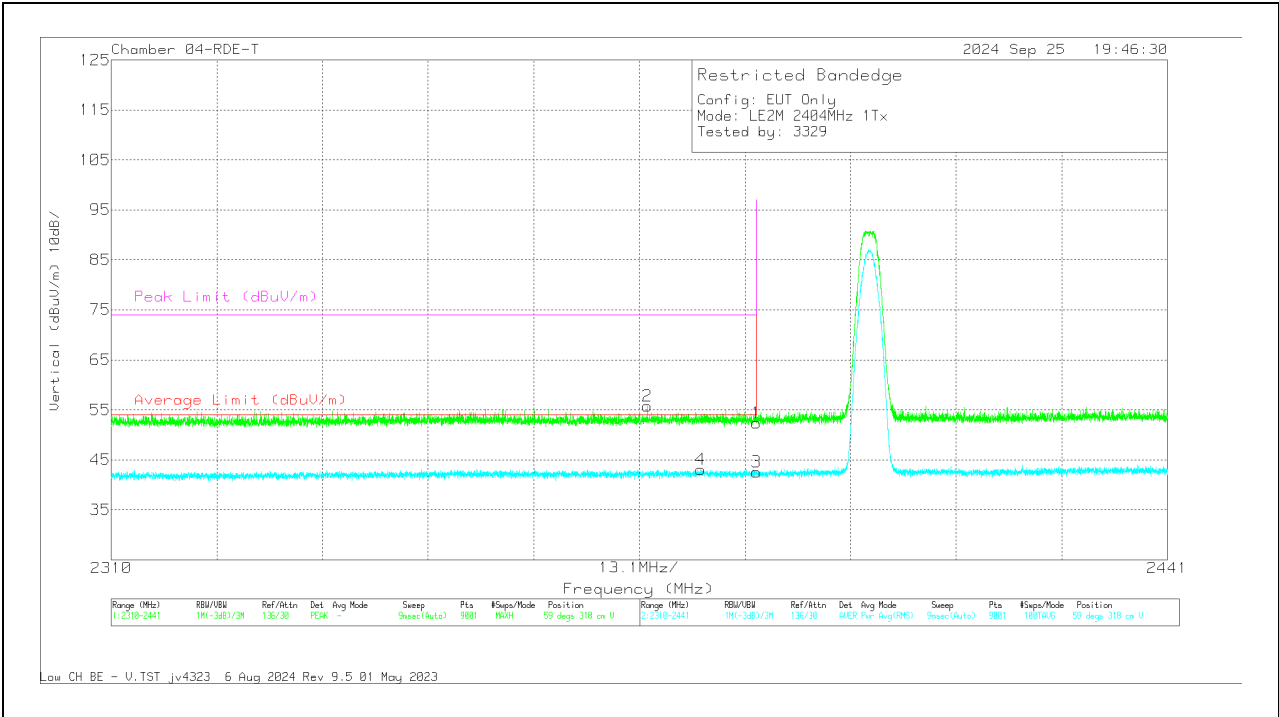
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	60.5	Pk	32	0	-39.05	53.45	-	-	74	-20.55	221	129	H
2	* 2376.128	62.27	Pk	32	0	-39.07	55.2	-	-	74	-18.8	221	129	H
3	* 2390	49.3	RMS	32	0	-39.05	42.25	54	-11.75	-	-	221	129	H
4	* 2360.32	50.42	RMS	31.8	0	-39.1	43.12	54	-10.88	-	-	221	129	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

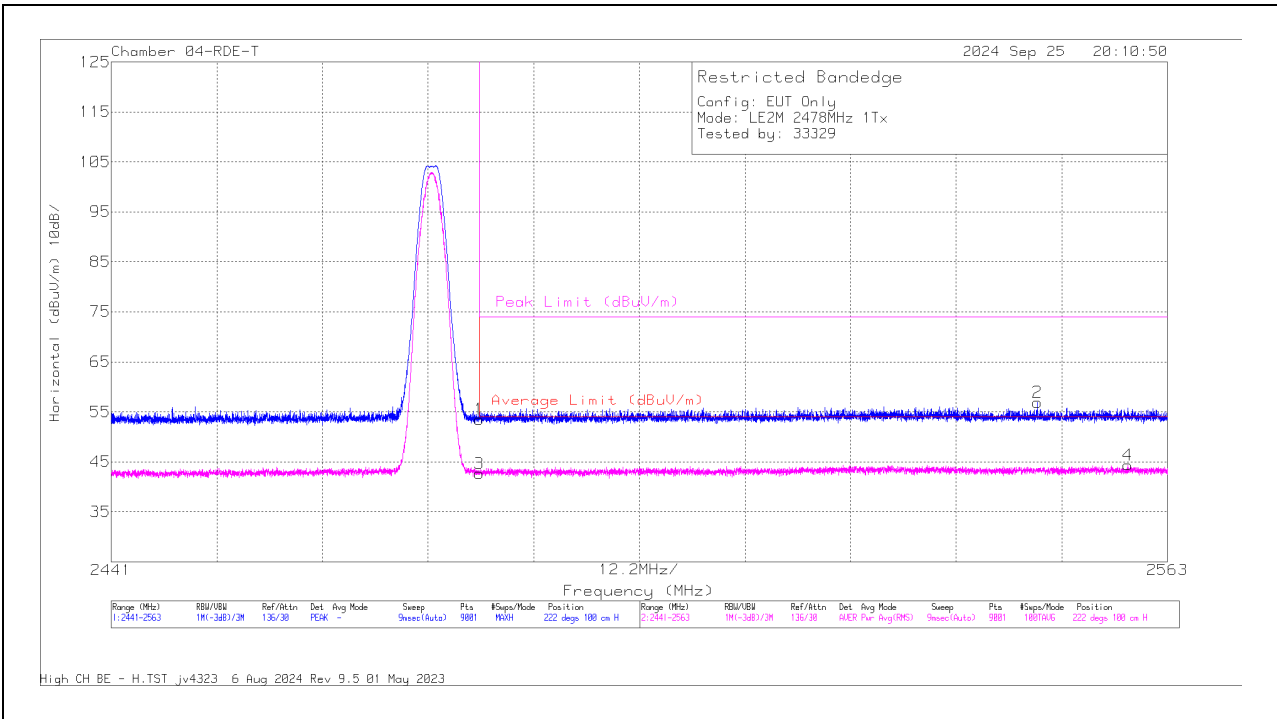


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	59.46	Pk	32	0	-39.05	52.41	-	-	74	-21.59	59	318	V
2	* 2376.492	62.8	Pk	32	0	-39.06	55.74	-	-	74	-18.26	59	318	V
3	* 2390	49.59	RMS	32	0	-39.05	42.54	54	-11.46	-	-	59	318	V
4	* 2383.144	50.09	RMS	32	0	-38.96	43.13	54	-10.87	-	-	59	318	V

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

BANDEDGE (HIGH CHANNEL)

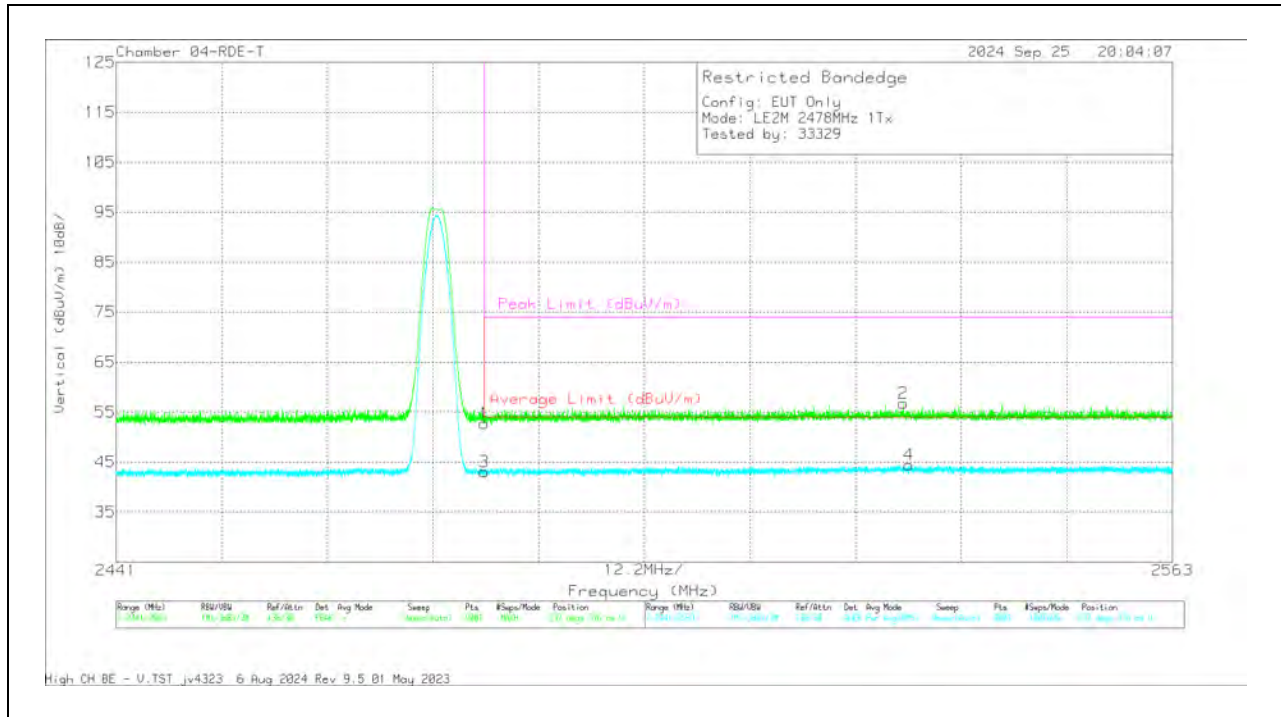
HORIZONTAL RESULT



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	60.15	PK	32.2	0	-38.87	53.48	-	-	74	-20.52	222	100	H
2	2547.97	62.98	PK	32.4	0	-38.51	56.87	-	-	74	-17.13	222	100	H
3	* 2483.5	49.32	RMS	32.2	0	-38.87	42.65	54	-11.35	-	-	222	100	H
4	2558.409	50.45	RMS	32.4	0	-38.46	44.39	54	-9.61	-	-	222	100	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	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	59.45	PK	32.2	0	-38.87	52.78	-	-	74	-21.22	237	376	V
2	2531.92	62.72	PK	32.4	0	-38.39	56.73	-	-	74	-17.27	237	376	V
3	* 2483.5	49.74	RMS	32.2	0	-38.87	43.07	54	-10.93	-	-	237	376	V
4	2532.544	50.48	RMS	32.4	0	-38.44	44.44	54	-9.56	-	-	237	376	V

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

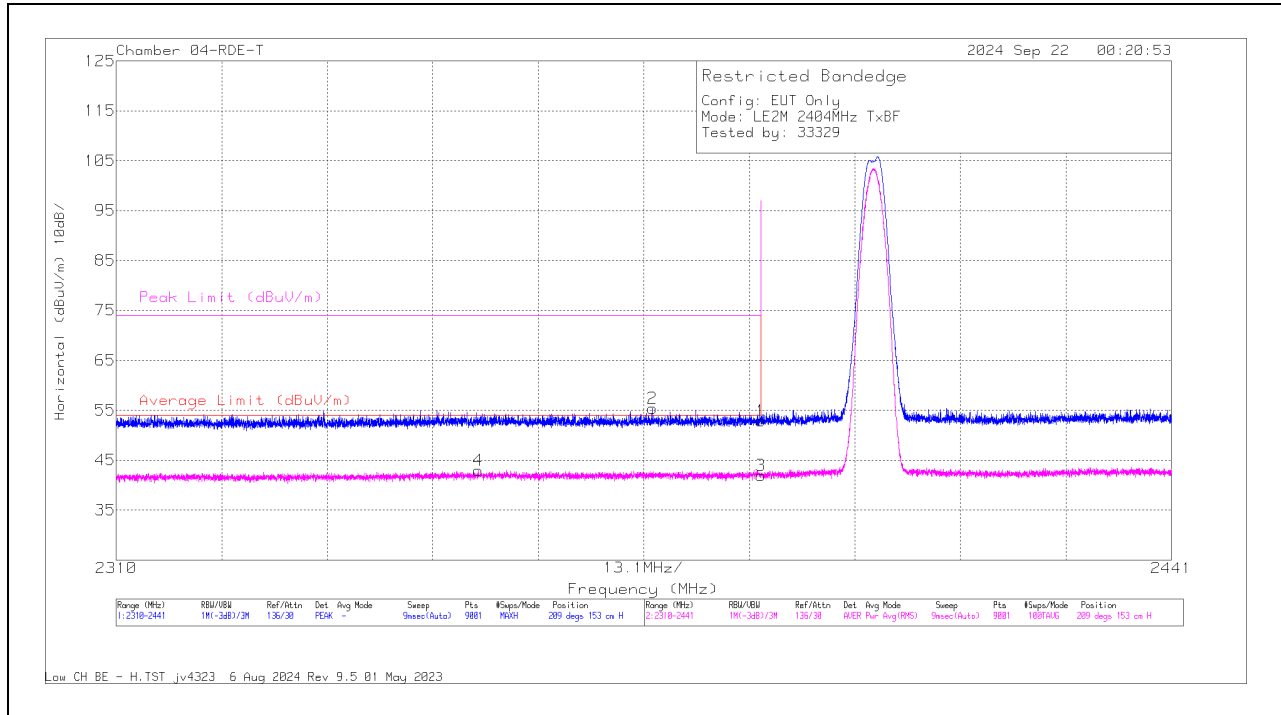
PK - Peak detector

RMS - RMS detection

10.2.8. LOW POWER BLE TXBF (2Mbps)

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



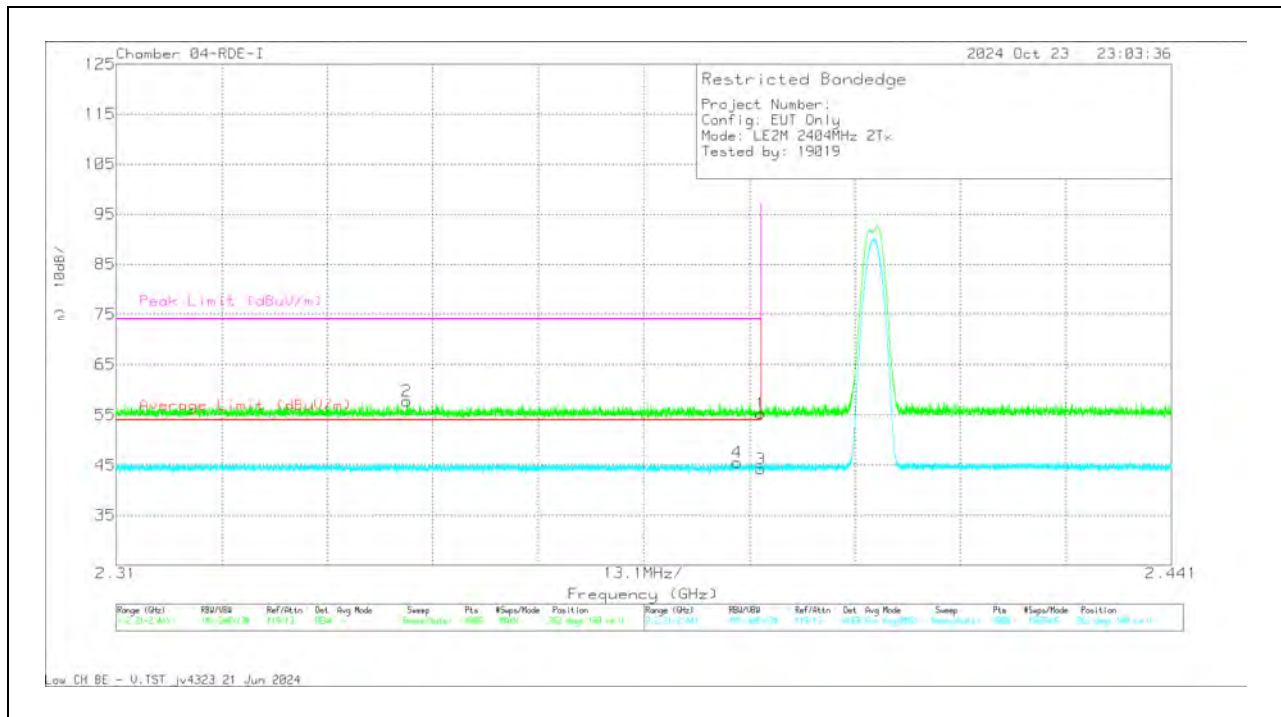
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2390	59.91	Pk	32	0	-39.05	52.86	-	-	74	-21.14	209	153	H
2	* 2376.579	62.49	Pk	32	0	-39.05	55.44	-	-	74	-18.56	209	153	H
3	* 2390	48.97	RMS	32	0	-39.05	41.92	54	-12.08	-	-	209	153	H
4	* 2354.92	50.17	RMS	31.8	0	-39.03	42.94	54	-11.06	-	-	209	153	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

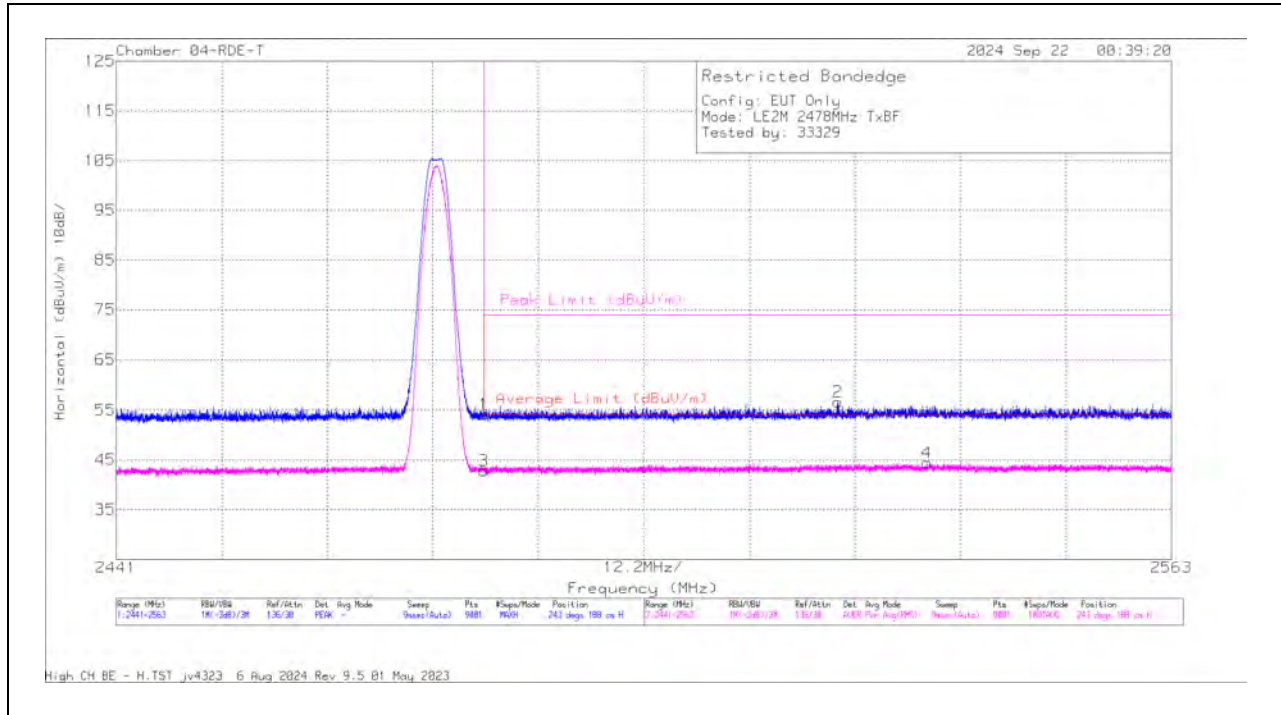


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	84797 ACF (dB/m)	DCCF (dB)	CBL AMP Pad(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	43.14	Pk	31.7	0	-19.5	55.34	-	-	74	-18.66	262	108	V
2	* 2.346111	45.24	Pk	31.8	0	-19.3	57.74	-	-	74	-16.26	262	108	V
3	* 2.39	32.01	RMS	31.7	0	-19.5	44.21	54	-9.79	-	-	262	108	V
4	* 2.387054	33.33	RMS	31.7	0	-19.5	45.53	54	-8.47	-	-	262	108	V

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

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)**HORIZONTAL RESULT**

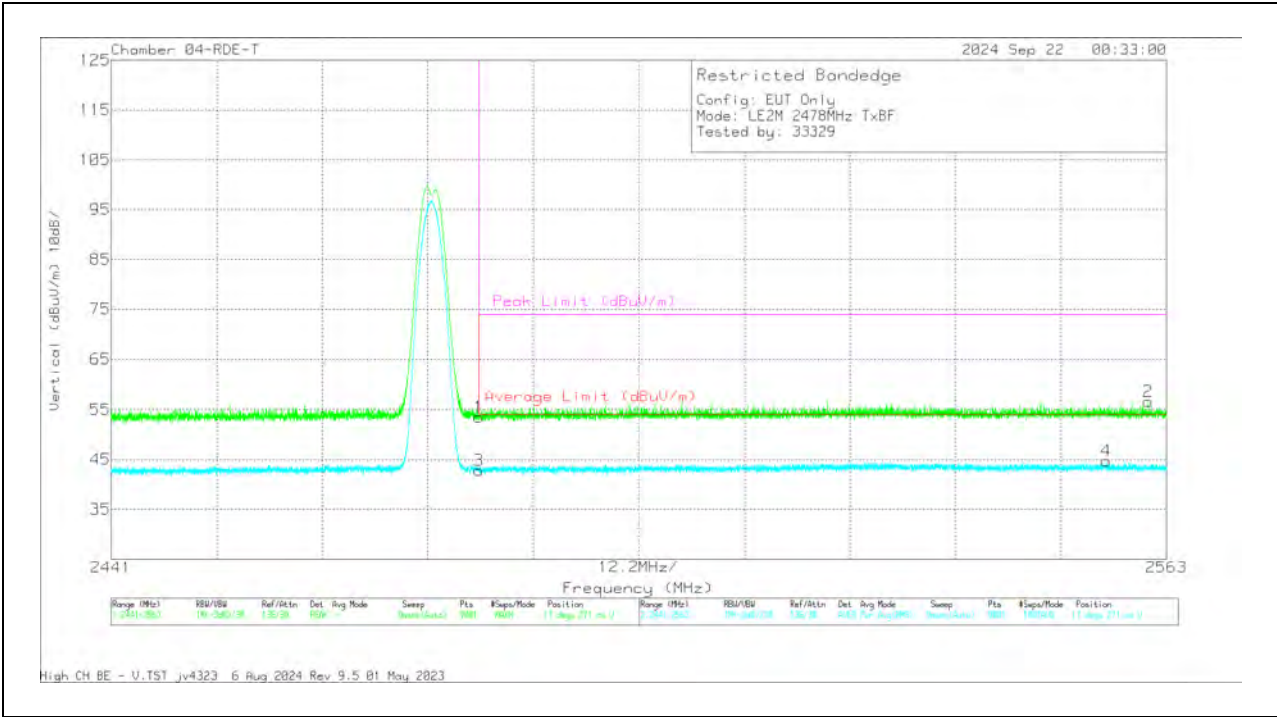
Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	60.82	PK	32.2	0	-38.87	54.15	-	-	74	-19.85	243	188	H
2	2524.424	62.73	PK	32.4	0	-38.51	56.62	-	-	74	-17.38	243	188	H
3	* 2483.5	49.49	RMS	32.2	0	-38.87	42.82	54	-11.18	-	-	243	188	H
4	2534.753	50.52	RMS	32.4	0	-38.51	44.41	54	-9.59	-	-	243	188	H

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

PK - Peak detector

RMS - RMS detection

VERTICAL RESULT

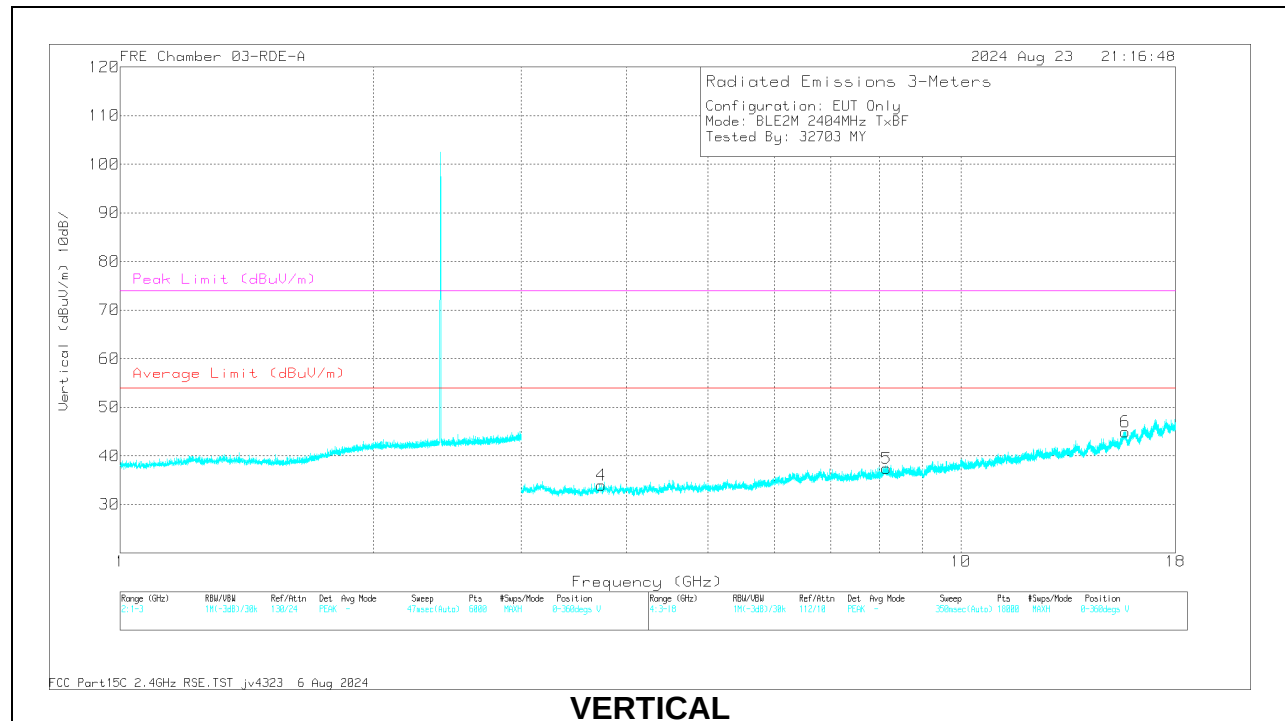
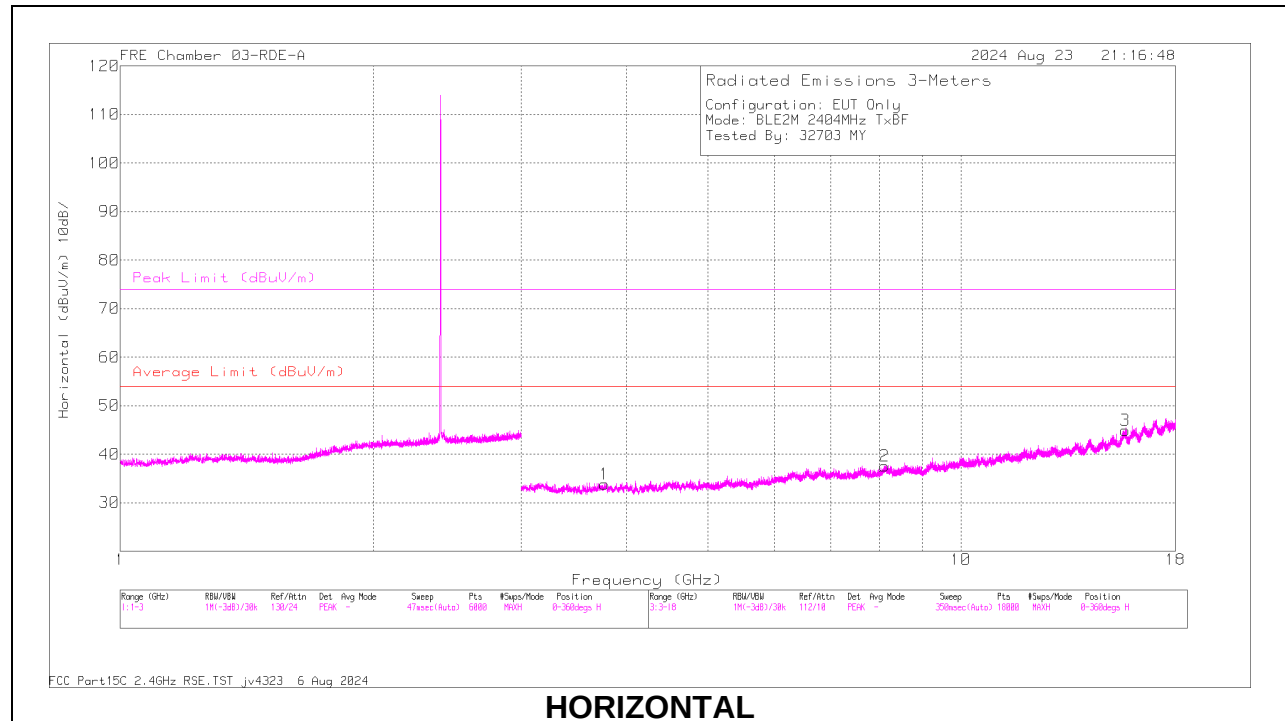


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	79834 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2483.5	60.14	Pk	32.2	0	-38.87	53.47	-	-	74	-20.53	17	271	V
2	2560.903	62.69	Pk	32.4	0	-38.43	56.66	-	-	74	-17.34	17	271	V
3	* 2483.5	49.53	RMS	32.2	0	-38.87	42.86	54	-11.14	-	-	17	271	V
4	2556.023	50.68	RMS	32.4	0	-38.35	44.73	54	-9.27	-	-	17	271	V

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

10.2.9. WORST CASE HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



Radiated Emissions

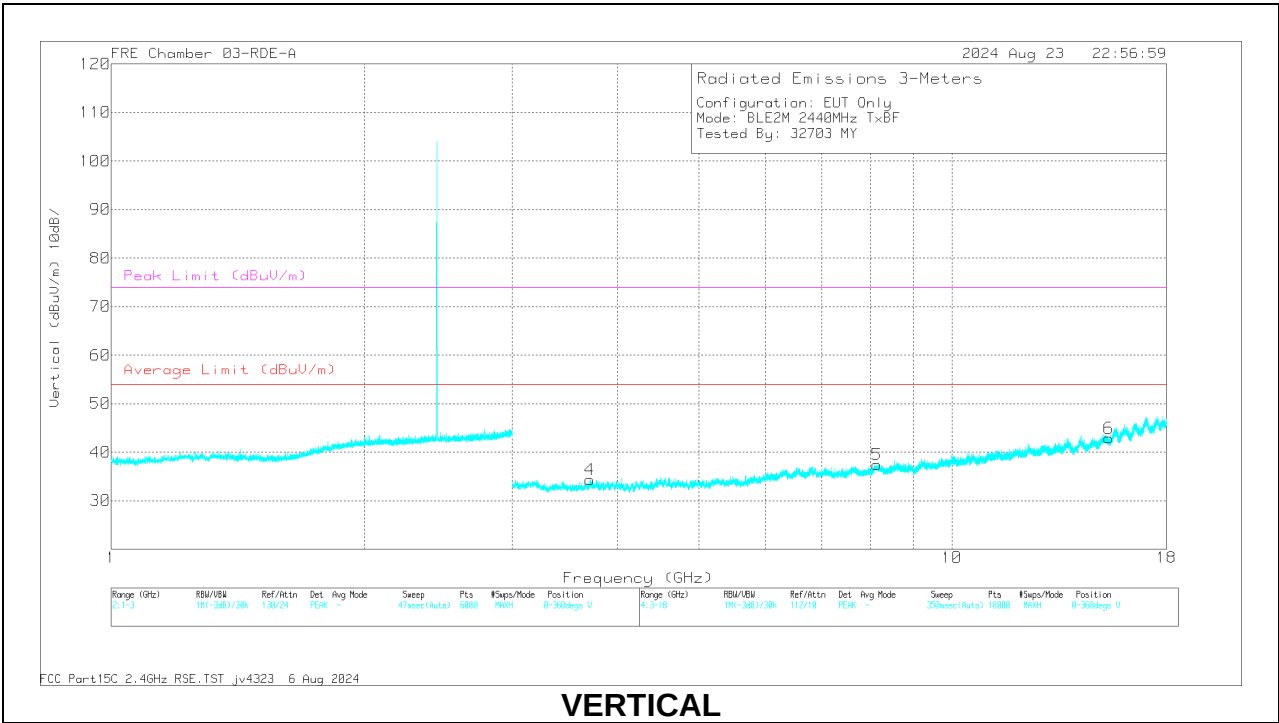
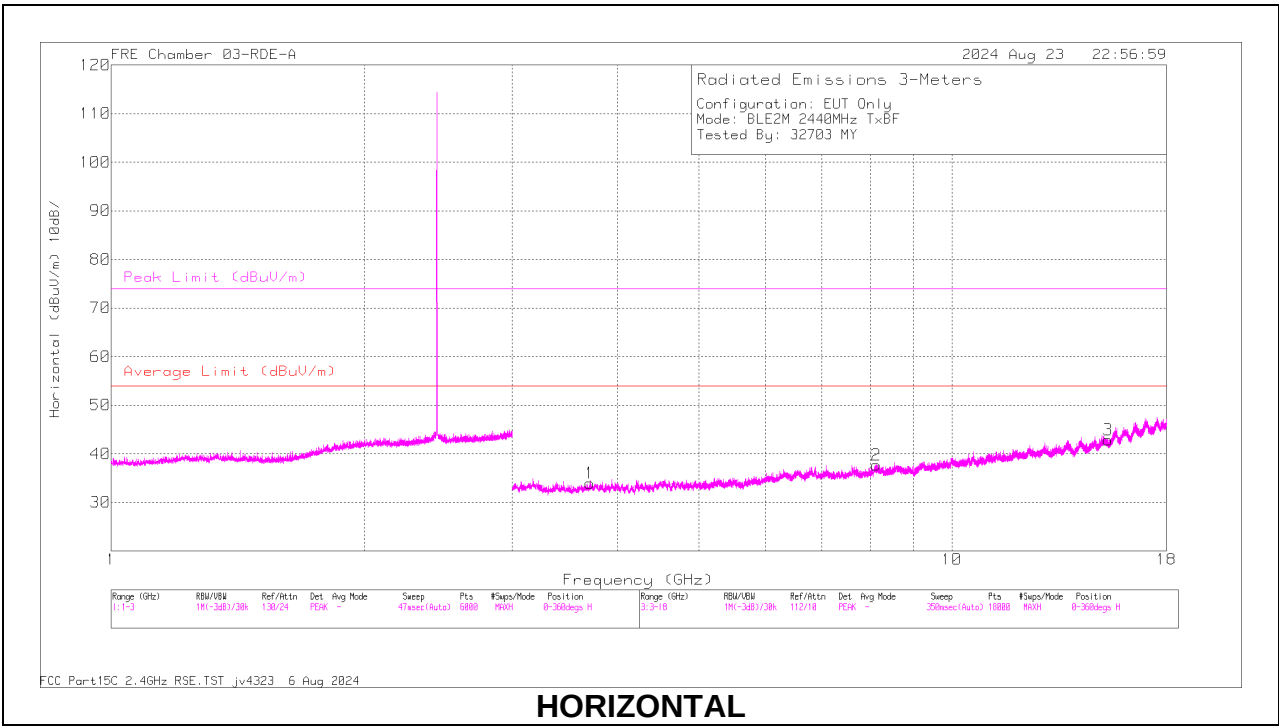
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.765212	57.4	PK2	33.4	0	-47.08	43.72			74	-30.28	2	101	H
	* 3.76494	45.88	MAv1	33.4	0	-47.1	32.18	54	-21.82	-	-	2	101	H
2	* 8.115982	55.61	PK2	36	0	-44.7	46.91			74	-27.09	2	198	H
	* 8.114131	44.19	MAv1	36	0	-44.7	35.49	54	-18.51	-	-	2	198	H
3	* 15.688479	53.65	PK2	40.6	0	-41.5	52.75			74	-21.25	2	101	H
	* 15.689347	42.25	MAv1	40.6	0	-41.5	41.35	54	-12.65	-	-	2	101	H
4	* 3.736875	57.74	PK2	33.3	0	-47.21	43.83			74	-30.17	2	101	V
	* 3.735024	46.09	MAv1	33.3	0	-47.2	32.19	54	-21.81	-	-	2	101	V
5	* 8.152857	56.02	PK2	36	0	-44.99	47.03			74	-26.97	2	101	V
	* 8.152175	44.55	MAv1	36	0	-44.92	35.63	54	-18.37	-	-	2	101	V
6	* 15.678463	53.96	PK2	40.6	0	-41.7	52.86			74	-21.14	2	199	V
	* 15.678115	42.36	MAv1	40.6	0	-41.7	41.26	54	-12.74	-	-	2	199	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

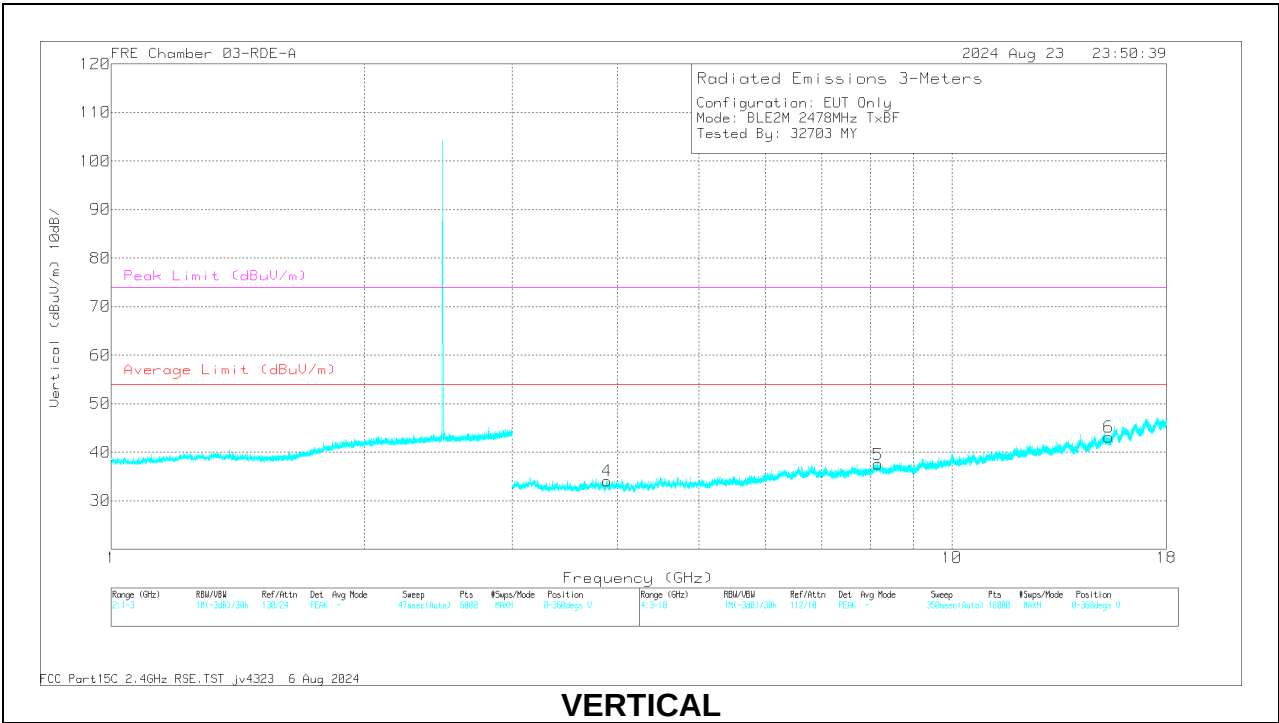
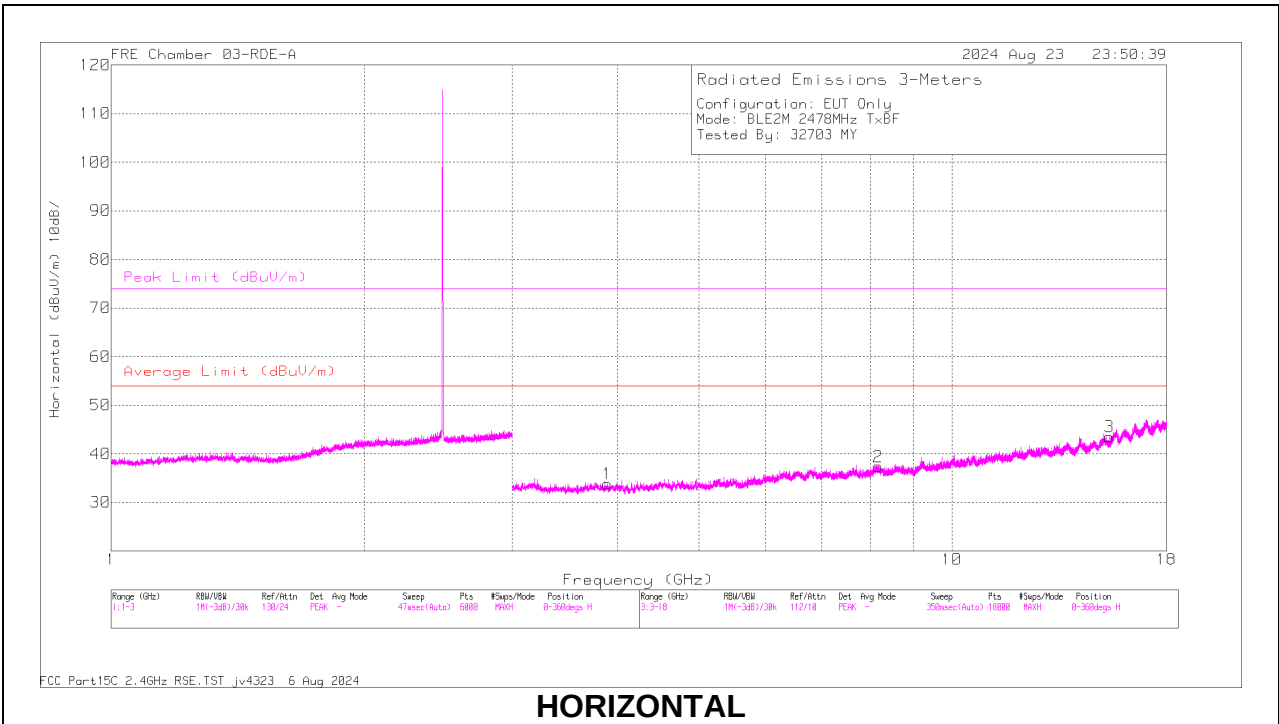
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.707274	57.6	PK2	33.2	0	-47.27	43.53			74	-30.47	360	101	H
	* 3.708963	45.93	MAv1	33.3	0	-47.2	32.03	54	-21.97	-	-	360	101	H
2	* 8.125046	56.95	PK2	36	0	-44.8	48.15			74	-25.85	360	101	H
	* 8.125811	44.18	MAv1	36	0	-44.88	35.3	54	-18.7	-	-	360	101	H
3	15.340922	54.74	PK2	40.1	0	-42.79	52.05			74	-21.95	360	200	H
	15.338573	43.59	MAv1	40.1	0	-42.7	40.99	54	-13.01	-	-	360	200	H
4	* 3.710803	57.7	PK2	33.3	0	-47.2	43.8			74	-30.2	360	200	V
	* 3.708547	46.13	MAv1	33.3	0	-47.2	32.23	54	-21.77	-	-	360	200	V
5	* 8.142498	56.09	PK2	36	0	-45.1	46.99			74	-27.01	360	200	V
	* 8.141004	44.57	MAv1	36	0	-45.1	35.47	54	-18.53	-	-	360	200	V
6	* 15.374948	55.08	PK2	40.1	0	-42.89	52.29			74	-21.71	360	101	V
	* 15.371238	43.65	MAv1	40.1	0	-42.82	40.93	54	-13.07	-	-	360	101	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL RESULTS



Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.888984	57.44	PK2	33.5	0	-47.2	43.74			74	-30.26	0	101	H
	* 3.889128	45.83	MAv1	33.5	0	-47.19	32.14	54	-21.86	-	-	0	101	H
2	* 8.168618	55.98	PK2	36	0	-44.96	47.02			74	-26.98	0	199	H
	* 8.168903	44.41	MAv1	36	0	-44.99	35.42	54	-18.58	-	-	0	199	H
3	* 15.400427	54.88	PK2	40.2	0	-42.86	52.22			74	-21.78	0	101	H
	* 15.399462	43.27	MAv1	40.2	0	-42.9	40.57	54	-13.43	-	-	0	101	H
4	* 3.890562	57.43	PK2	33.5	0	-47.16	43.77			74	-30.23	0	101	V
	* 3.887718	45.7	MAv1	33.5	0	-47.2	32	54	-22	-	-	0	101	V
5	* 8.173453	56.27	PK2	36	0	-44.95	47.32			74	-26.68	0	198	V
	* 8.171036	44.55	MAv1	36	0	-45	35.55	54	-18.45	-	-	0	198	V
6	* 15.368594	54.9	PK2	40.1	0	-42.86	52.14			74	-21.86	0	101	V
	* 15.367204	43.55	MAv1	40.1	0	-42.88	40.77	54	-13.23	-	-	0	101	V

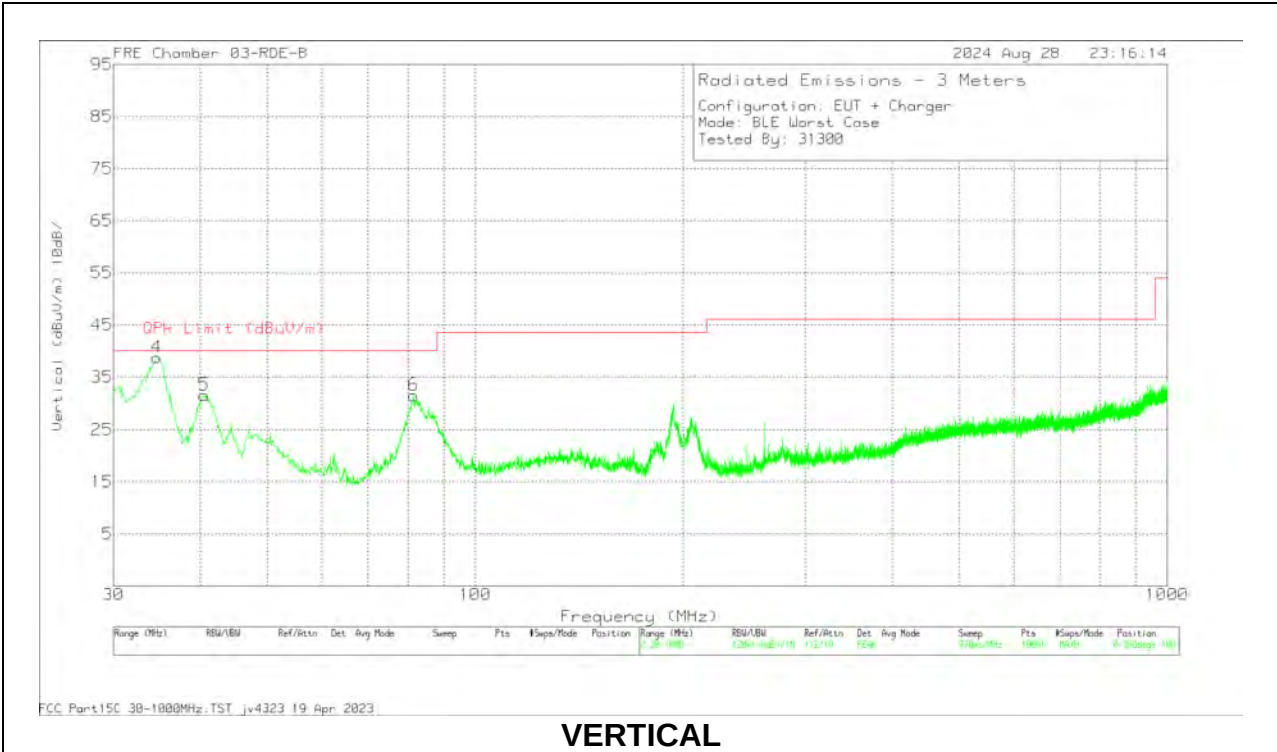
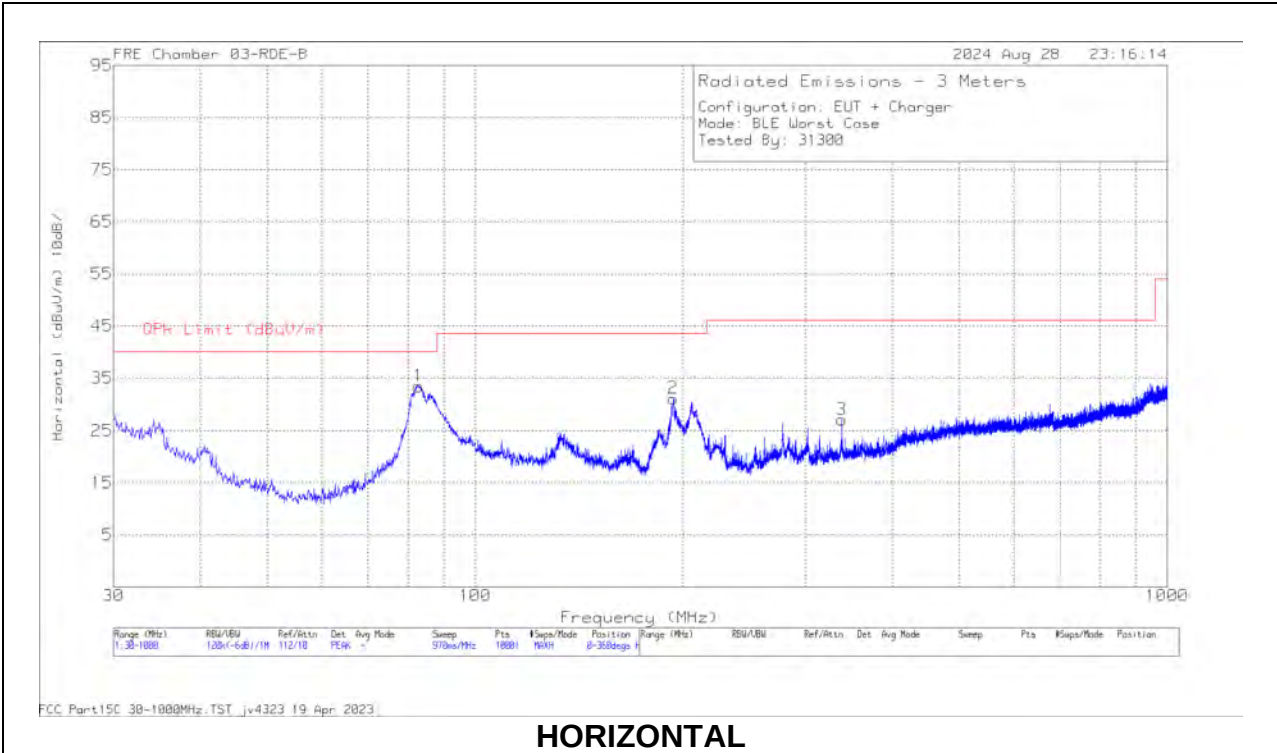
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.3. WORST CASE BELOW 1 GHz

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



Radiated Emissions

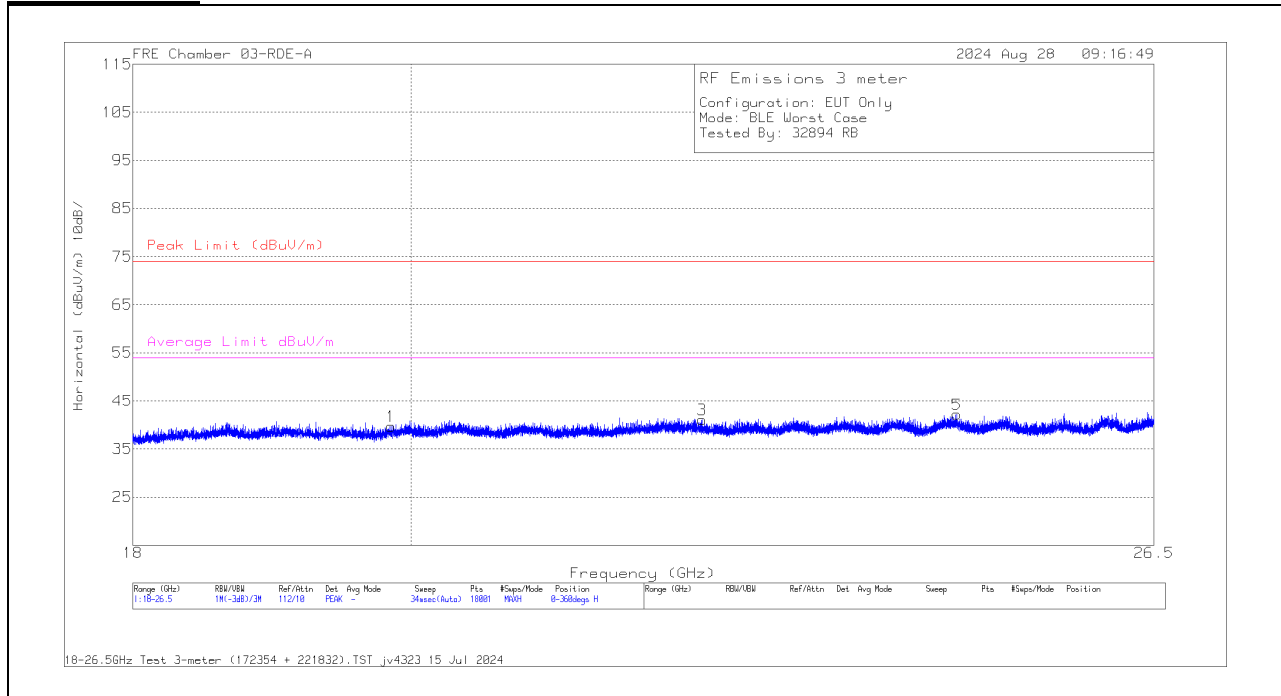
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	204045 ACF (dB/m)	CBL AMP (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	82.6546	47.09	Qp	13.4	-30.5	29.99	40	-10.01	340	225	H
2	193.568	37.97	Qp	17.8	-29.5	26.27	43.52	-17.25	49	238	H
3	338.674	33.52	Qp	19.9	-29	24.42	46.02	-21.6	345	106	H
4	34.5978	44.02	Qp	23.4	-31	36.42	40	-3.58	340	106	V
5	41.1572	41	Qp	18.7	-30.9	28.8	40	-11.2	281	100	V
6	81.9651	43.37	Qp	13.4	-30.7	26.07	40	-13.93	294	124	V

Qp - Quasi-Peak detector

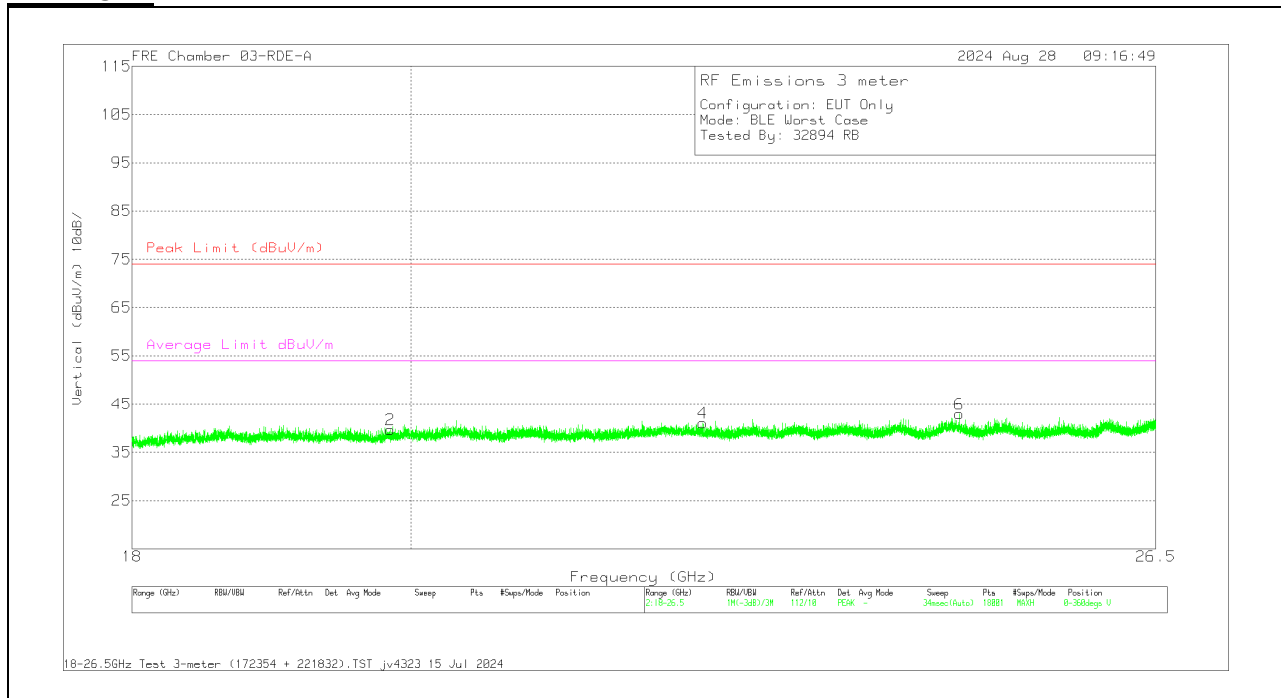
10.4. WORST CASE 18-26 GHz

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

HORIZONTAL



VERTICAL



Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	172354 3m AF (dB/m)	221832 Amp (dB)	Cbl/Switch (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Average Limit dBuV/m	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 19.85111	55.59	Pk	32.5	-62.5	14.1	39.69	74	-34.31	54	-14.31	0-360	101	H
3	* 22.329331	55.47	Pk	33.1	-62.2	14.7	41.07	74	-32.93	54	-12.93	0-360	200	H
2	* 19.845916	55.65	Pk	32.5	-62.5	14.1	39.75	74	-34.25	54	-14.25	0-360	199	V
4	* 22.333109	55.48	Pk	33.1	-62.2	14.7	41.08	74	-32.92	54	-12.92	0-360	199	V
5	24.595052	54.67	Pk	33.7	-61.8	15.6	42.17	74	-31.83	54	-11.83	0-360	200	H
6	24.604497	55.42	Pk	33.7	-61.8	15.6	42.92	74	-31.08	54	-11.08	0-360	199	V

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

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.

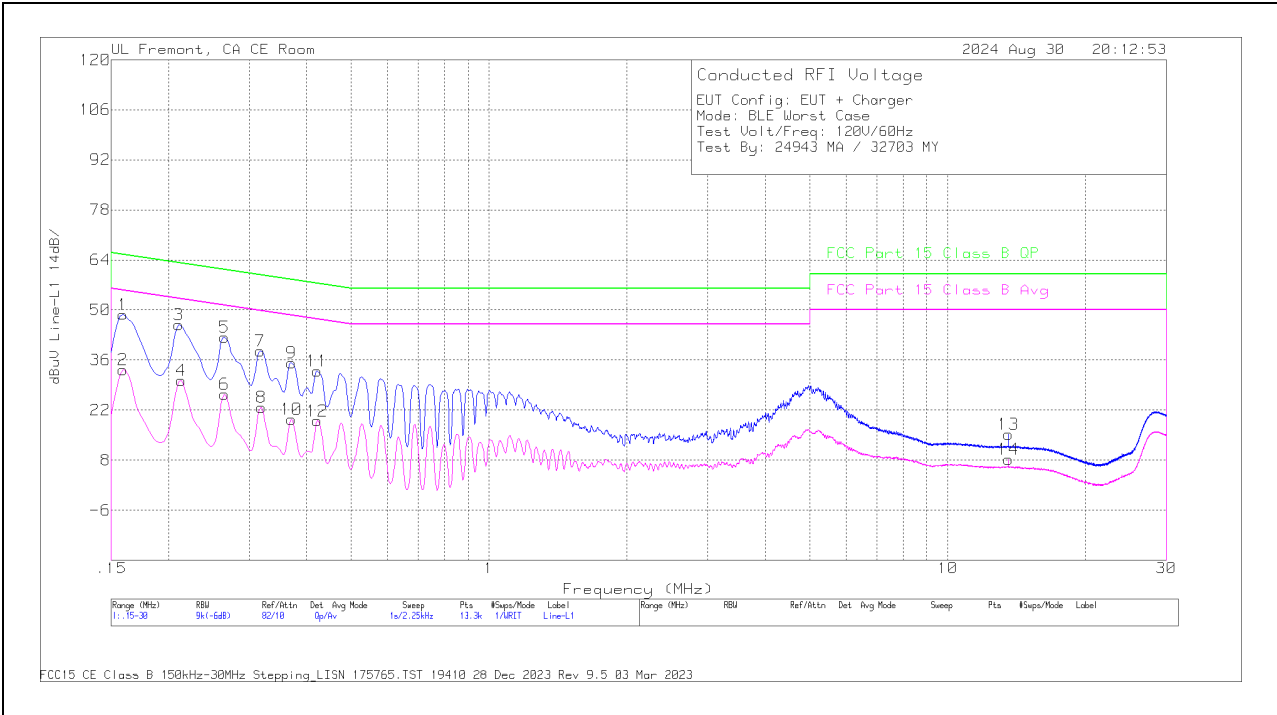
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

11.1. AC Power Line WITH AC/DC ADAPTER

LINE 1 RESULTS

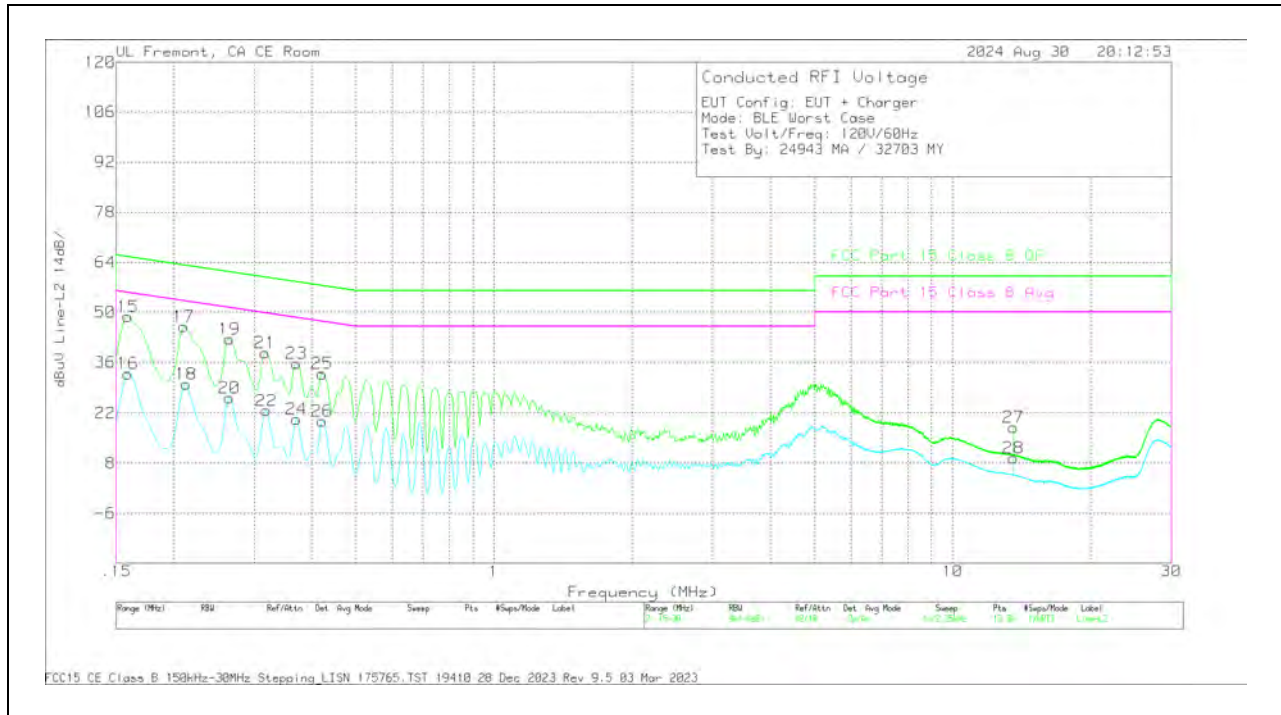


Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Cbl (dB)	Trns Limiter (dB)	Corrected Reading dBuV	FCC Part 15 Class B QP dBuV	QP Margin (dB)	FCC Part 15 Class B Avg dBuV	Av Margin (dB)
2	.159	23.61	Av	.1	0	9.5	33.21	-	-	55.52	-22.31
4	.213	20.76	Av	0	.1	9.4	30.26	-	-	53.09	-22.83
6	.2648	16.98	Av	0	0	9.4	26.38	-	-	51.28	-24.9
8	.3188	13.2	Av	0	.1	9.4	22.7	-	-	49.74	-27.04
10	.3705	10.08	Av	0	0	9.4	19.48	-	-	48.49	-29.01
12	.4223	9.58	Av	0	0	9.4	18.98	-	-	47.4	-28.42
14	13.56	-1.65	Av	.1	.3	9.5	8.25	-	-	50	-41.75
1	.159	39.16	Qp	.1	0	9.5	48.76	65.52	-16.76	-	-
3	.2108	36.42	Qp	0	.1	9.4	45.92	63.18	-17.26	-	-
5	.2648	32.91	Qp	0	0	9.4	42.31	61.28	-18.97	-	-
7	.3165	29.02	Qp	0	.1	9.4	38.52	59.8	-21.28	-	-
9	.3705	25.77	Qp	0	0	9.4	35.17	58.49	-23.32	-	-
11	.4223	23.49	Qp	0	0	9.4	32.89	57.4	-24.51	-	-
13	13.56	5.33	Qp	.1	.3	9.5	15.23	60	-44.77	-	-

Qp - Quasi-Peak detector
Av - Average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Cbl (dB)	Trns Limiter (dB)	Corrected Reading (dBuV)	FCC Part 15 Class B QP (dBuV)	QP Margin (dB)	FCC Part 15 Class B Avg (dBuV)	Av Margin (dB)
16	.159	23.31	Av	.1	0	9.5	32.91	-	-	55.52	-22.61
18	.213	20.53	Av	0	.1	9.4	30.03	-	-	53.09	-23.06
20	.2648	16.84	Av	0	0	9.4	26.24	-	-	51.28	-25.04
22	.3188	13.17	Av	0	.1	9.4	22.67	-	-	49.74	-27.07
24	.3705	10.83	Av	0	.1	9.4	20.33	-	-	48.49	-28.16
26	.4223	10.3	Av	0	.1	9.4	19.8	-	-	47.4	-27.6
28	13.56	-.39	Av	.1	.2	9.5	9.41	-	-	50	-40.59
15	.159	39.19	Qp	.1	0	9.5	48.79	65.52	-16.73	-	-
17	.2108	36.55	Qp	0	.1	9.4	46.05	63.18	-17.13	-	-
19	.2648	33.11	Qp	0	0	9.4	42.51	61.28	-18.77	-	-
21	.3165	29.24	Qp	0	.1	9.4	38.74	59.8	-21.06	-	-
23	.3705	26.16	Qp	0	.1	9.4	35.66	58.49	-22.83	-	-
25	.4223	23.37	Qp	0	.1	9.4	32.87	57.4	-24.53	-	-
27	13.56	8.16	Qp	.1	.2	9.5	17.96	60	-42.04	-	-

Qp - Quasi-Peak detector

Av - Average detection