TEST REPORT

Report Number: 14982485-E7V2

Applicant	:	APPLE INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.
Model	:	A3286 (Parent Model) A3287, A3288 (Variant Models)
Brand	:	APPLE
FCC ID	:	BCG-E8689A (Parent Model) BCG-E8690A, BCG-8691A (Variant Models)
EUT Description	:	SMARTPHONE
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART E

Date Of Issue:
2024/07/26

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

REPORT REVISION HISTORY

Rev.		Issue Date		Revisions		Revised By
V1		2024/07/23		Initial Review		---
V2		2024/07/25		Address TCB Comments		Chris Xiong

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1. ATTESTATION OF TEST RESULTS

Applicant Name and Address	APPLE INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.
Model	A3286 (Parent Model) A3287, A3288 (Variant Models)
Brand	APPLE
FCC ID	BCG-E8689A (Parent Model) BCG-E8690A, BCG-E8691A (Variant Models)
EUT Description	SMARTPHONE
Serial Number	C07H5T000VA0000FGU, C07H5P000WF0000FGX, CGYGG69DNF
Sample Receipt Date	2024/01/22
Date Tested	2024/01/26 to 2024/07/24
Applicable Standards	47 CFR Part 15 Subpart E
Test Results	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 By:	Prepared & Reviewed By:
	
Francisco de Anda Staff Engineer UL Verification Services, Inc.	Chris Xiong Senior Test Engineer UL Verification Services, Inc.

2. TEST RESULT SUMMARY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for correctly integrating customer-provided data with measurements performed by UL Verification Services Inc.

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

1. Antenna gain and type (see section 6.2)
2. Cable loss (see section 6.2)

FCC Clause	Requirement	Result	Comment
See Comment	Duty Cycle	Reporting purposes only	Per ANSI C63.10, Section 12.2.
See Comment	26dB BW/99% OBW	Reporting purposes only	Per ANSI C63.10 Sections 6.9.2 and 6.9.3
15.407 (e)	6 dB BW	Complies	None.
15.407 (a) (1 & 3)	Output Power	Complies	None.
15.407 (a) (1 & 3)	PSD	Complies	None.
15.209, 15.205, 15.407 (b)	Radiated Emissions	Complies	None.
15.207	AC Mains Conducted Emissions	Complies	None.

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3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with:

- FCC 47 CFR Part 2
- FCC 47 CFR Part 15
- FCC KDB 662911 D01 v02r01
- FCC KDB 789033 D02 v02r01
- FCC KDB 644545 D03 v01
- ANSI C63.10-2013
- KDB 414788 D01 Radiated Test Site v01r01

4. FACILITIES AND ACCREDITATION

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

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

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5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

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

5.2. DECISION RULES

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

5.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	U_{LAB}
Conducted Antenna Port Emission Measurement	1.94
Power Spectral Density	2.466
Time Domain Measurements Using SA	3.39
RF Power Measurement Direct Method Using Power Meter	0.45 (Peak) 1.30 (Average)
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.20%
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.78 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.40 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	2.87 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	6.01 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.73 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.51 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.29 dB

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

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5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

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

MAINS CONDUCTED EMISSIONS

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

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6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The Apple iPhone is a smartphone with cellular GSM, GPRS, EGPRS, WCDMA, LTE, 5GNR1, IEEE 802.11a/b/g/n/ac/ax/be, Bluetooth (BT), Ultra-Wideband (UWB), Global Positioning System (GPS), Near-Field Communication (NFC), Narrow-Band (NB) UNII, 802.15.4, 802.15.4ab-Narrow Band (NB), Wireless Power Transfer (WPT) and Mobile Satellite Service (MSS) technologies. The rechargeable battery is not user accessible. This device is not user-serviceable and requires special tools to disassemble.

6.2. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna Type is IFA.

The antennas' gains, as provided by the manufacturer, are as follows:

Frequency Range (MHz)	Antenna 6 (dBi)	Antenna 5 (dBi)	Uncorrelated Chains (dBi)	Correlated Chains (dBi)
5150 - 5250 UNII-1	-0.50	-5.00	-2.19	0.55
5725 - 5825 UNII-3	0.50	-2.30	-0.68	2.22

Frequency Range (MHz)	Cable Loss	
	Antenna 6 (dB)	Antenna 5 (dB)
5150 - 5250 UNII-1	3.20	2.98
5725 - 5825 UNII-3	3.20	2.98

The cable (SMA) loss was used for RF antenna port tests that had been offset to the test equipment during testing.

6.3. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 22.1.76.241.

6.4. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

5.2 GHz BAND

Frequency Range (MHz)	Mode	Antenna	Configuration	Output Power (dBm)	Output Power (mW)
5162 - 5245 (UNII-1)	BDR	ANT 6	High Power	9.88	9.73
			Low Power	6.40	4.37
		ANT 5	High Power	9.84	9.64
			Low Power	4.86	3.06
		ANT 6 + ANT 5 TXBF	High Power	9.84	9.64
			Low Power	8.67	7.36
	HDR 4	ANT 6	High Power	11.34	13.61
			Low Power	-0.17	0.96
		ANT 5	High Power	11.29	13.46
			Low Power	-1.77	0.67
		ANT 6 + ANT 5 TXBF	High Power	11.40	13.80
			Low Power	2.16	1.64
	HDR 8	ANT 6	High Power	13.87	24.38
			Low Power	-0.11	0.97
		ANT 5	High Power	13.87	24.38
			Low Power	-1.70	0.68
		ANT 6 + ANT 5 TXBF	High Power	13.84	24.21
			Low Power	2.12	1.63

5.8 GHz BAND

Frequency Range (MHz)	Mode	Antenna	Configuration	Output Power (dBm)	Output Power (mW)
5733 - 5844 (UNII-3)	BDR	ANT 6	High Power	14.32	27.04
			Low Power	6.82	4.81
		ANT 5	High Power	14.35	27.23
			Low Power	5.35	3.43
		ANT 6 + ANT 5 TXBF	High Power	17.31	53.83
			Low Power	9.11	8.15
	HDR 4	ANT 6	High Power	14.33	27.10
			Low Power	0.40	1.10
		ANT 5	High Power	14.34	27.16
			Low Power	-1.18	0.76
		ANT 6 + ANT 5 TXBF	High Power	17.32	53.95
			Low Power	2.67	1.85
	HDR 8	ANT 6	High Power	14.38	27.42
			Low Power	0.34	1.08
		ANT 5	High Power	14.29	26.85
			Low Power	-1.23	0.75
		ANT 6 + ANT 5 TXBF	High Power	17.33	54.08
			Low Power	2.62	1.83

6.5. WORST-CASE CONFIGURATION AND MODE

The EUT was investigated in three orthogonal orientations X (Flatbed), Y (Landscape) and Z (Portrait) on ANT 6, ANT 5 and 2TX. It was determined that Y (Landscape) was the worst-case orientation for both ANT 6, ANT 5 and 2TX beamforming.

2TX Beamforming modes was used to perform on radiated harmonic spurious final test to cover all SISO modes. Max power was tuned to maximum based on among all the modes. For testing purposes, radiated harmonics spurious below 1GHz, 1-18GHz L/M/H channels, 18-40GHz, and power line conducted emissions were performed with the EUT set at the 2TX Beamforming mode with power setting to the maximum level among FCC/ISED SISO modes as worst-case scenario.

Below 1GHz tests were performed with EUT connected to AC power adapter as the worst case; and for above 1GHz, the worst-case configuration reported was tested with EUT only. For AC line conducted emission, tests were investigated with AC power adapter and with laptop. There were no emissions found below 30MHz within 20dB of the limit.

For simultaneous transmission of multiple channels in the Wi-Fi 2.4GHz and NB UNII 5GHz bands, no noticeable emission was found.

According to manufacturer inquiry approved by FCC, the models: A3286 (FCC ID: BCG-E8689A), A3287 (FCC ID: BCG-E8690A) and A3288 (FCC ID: BCG-E8691A) reused the data from the reference model, A3081 (FCC ID: BCG -E8688A) except for the following tests. They were tested because of the antenna gain increase on ANT 6.

1. Radiated Tests:
   - 2TX Beamforming radiated harmonic spurious for Below 1 GHz, 1-18GHz and 18-40GHz
   - ANT 6 and 2TX Beamforming band-edge

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6.6. DESCRIPTION OF TEST SETUP

SUPPORT TEST EQUIPMENT				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID/ DoC**
Laptop	Apple	MacBook Pro	C02CWHQ4ML7H	BCGA2251
Laptop AC/DC adapter	Apple	A1718	C4H021107C2PM0WAW	DoC
EUT AC/DC adapter	Apple	A2305	HHY23570SL11PW9A1	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	Antenna	2	SMA	Un-shielded	0.2	To Conducted Switch Box
3	USB-C	1	USB-C	Shielded	1.0	N/A
4	AC	1	AC	Un-shielded	2	N/A

I/O CABLES (RF RADIATED AND AC LINE CONDUCTED TEST)						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	AC	1	AC	Un-shielded	2	N/A
2	USB	1	USB	Shielded	1	N/A

TEST SETUP

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

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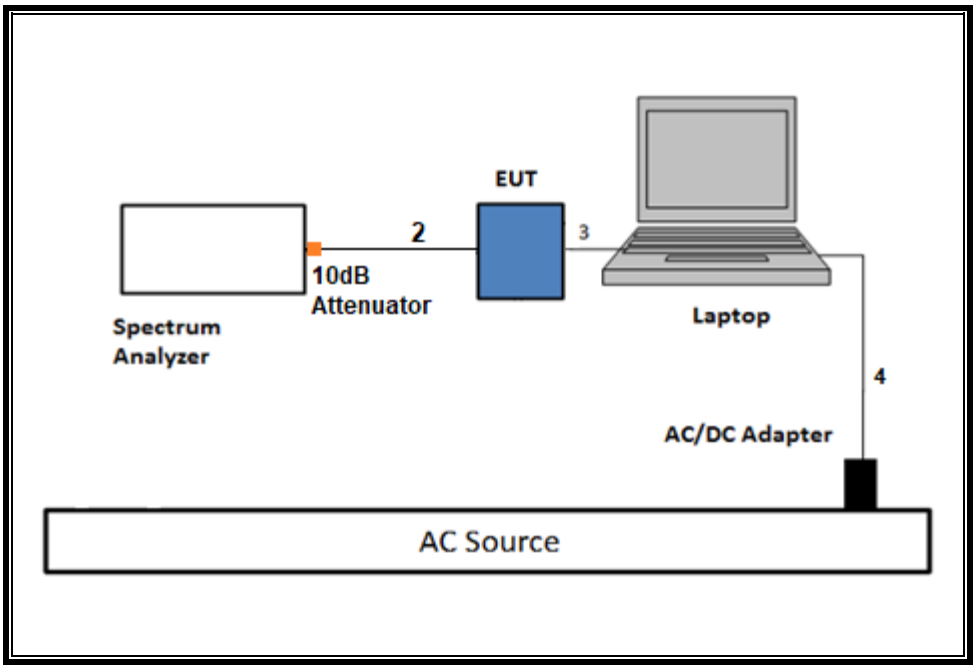
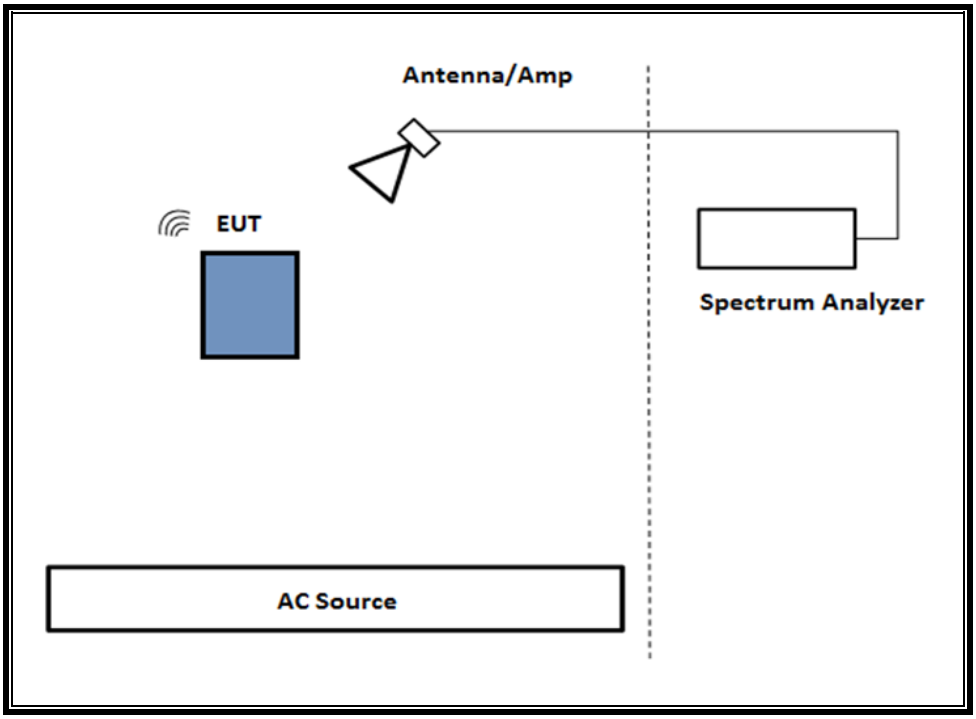
SETUP DIAGRAM FOR CONDUCTED TESTS



SETUP DIAGRAM FOR RADIATED TESTS ABOVE 1 GHz (1 GHz – 40 GHz)



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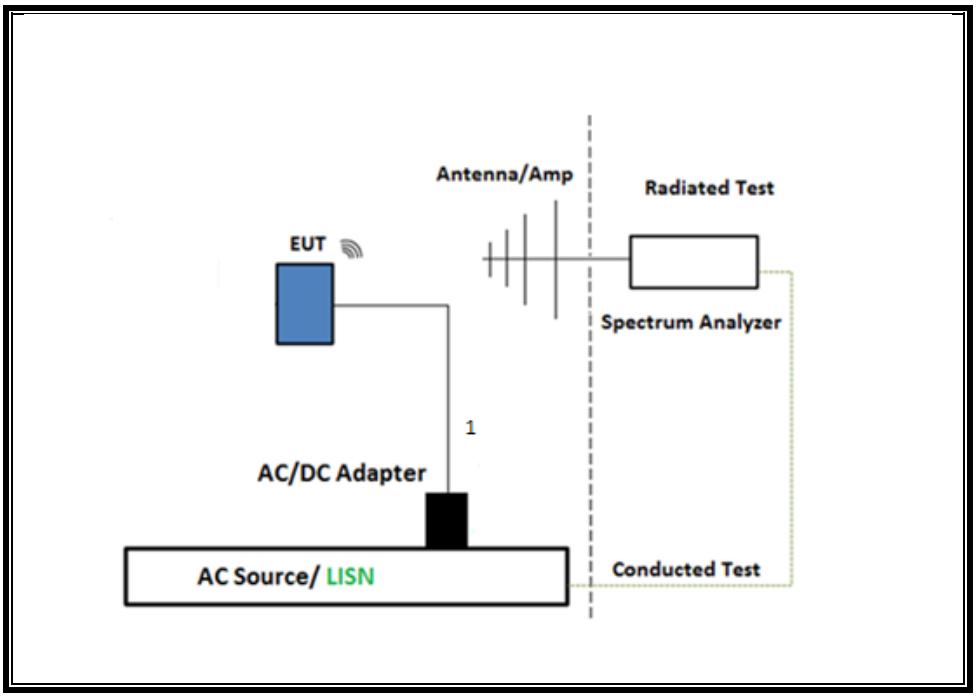
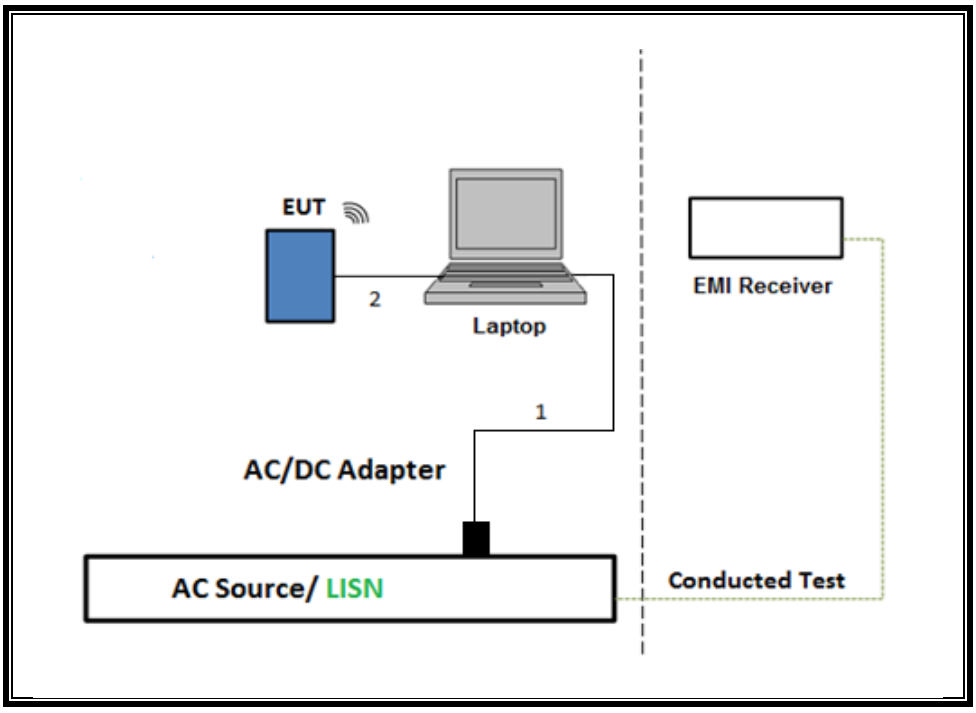
SETUP DIAGRAM FOR BELOW 1GHz and AC LINE CONDUCTED TEST



TEST SETUP- AC LINE CONDUCTED: LAPTOP CONFIGURATION



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7. 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**
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	125178	2025/01/31
Spectrum Analyzer, PXA, 3Hz to 50GHz w/Ext. Mixer	Keysight Technologies Inc	N9030A	80400	2025/02/28
10dB Fixed Attenuator, 2 Watts Up to 26.5 GHz	Pasternack Enterprises	PE7024-10	236353	2024/08/31
10dB Fixed Attenuator, Up to 26GHz	Pasternack Enterprises	PE7087-10	236285	2024/08/31
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
EMI TEST RECEIVER, with B8 option	Rohde & Schwarz	ESW44	169937	2025/02/28
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	200896	2025/04/24
RF Filter Box, 1-18GHz	UL-FR1	NA	PRE0183530	2025/01/31
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	235266	2025/02/28
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	206806	2025/02/25
RF Filter Box, 1-18GHz	UL-FR1	NA	173233	2025/03/31
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179372	2025/02/28
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	226673	2025/02/28
RF Filter Box, 1-18GHz, 12 Port.	UL-FR1	Frankenstein	231874	2024/08/30
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences Corp.	JB1	80813	2025/06/30
Amplifier 9 KHz - 1 GHz	SONOMA INSTRUMENT	310N	230311	2025/05/31
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	170063	2024/11/30
Antenna, Horn 26.5 to 40GHz	A.R.A.	MWH-2640/B	172369	2025/11/30
Link File, RF Amplifier Assembly, 26-40GHz, 65dB Gain	AMPLICAL	AMP26G40-65	221834	2025/03/31
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	235670	2025/02/28
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	223084	2024/10/31
RF Filter Box, 1-18GHz, 17 Ports	UL-FR1	RATS 2	225079	2025/04/30
Antenna, Broadband Hybrid, 30MHz to 3GHz	Sunol Sciences Corp.	JB3	232075	2025/03/31
Link File, @3m, 9kHz-1000MHz Hybrid Path Loss	UL-FR1	Port 0 Factors	211062	2025/03/31
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	226078	2025/02/28
Antenna, Horn 18 to 26.5GHz	A.R.A.	MWH-1826/B	81139	2024/08/31
Link File, RF Amplifier Assembly, 18-26.5GHz, 60dB Gain	AMPLICAL	AMP18G26.5-60	220194	2024/07/31
*Antenna, Passive Loop 100KHz - 30MHz	ELECTRO-METRICS	EM-6872	170015	2024/07/31
*Antenna, Passive Loop 30Hz - 1MHz	ELECTRO-METRICS	EM-6871	170013	2024/07/31
Amplifier 9 KHz - 1 GHz	SONOMA INSTRUMENT	310N	224490	2025/04/23

AC LINE CONDUCTED				
Description	**Manufacturer**	**Model**	**ID Number**	**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	2024.2.23
AC Line Conducted Software	UL	UL EMC	Ver 9.5, Mar 3, 2023

*Testing was completed before equipment expiration date.

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8. MEASUREMENT METHODS

TEST ITEM	TEST METHOD
On Time and Duty Cycle	KDB 789033 D02 v02r01, Section B
6 dB Emission BW	KDB 789033 D02 v02r01, Section C.2
26 dB Emission BW	KDB 789033 D02 v02r01, Section C.1
99% Occupied BW	KDB 789033 D02 v02r01, Section D
Conducted Output Power	KDB 789033 D02 v02r01
Power Spectral Density	KDB 789033 D02 v02r01, Section F
Unwanted Emissions in Restricted Bands	KDB 789033 D02 v02r01, Sections G.3, G.4, G.5, and G.6
Unwanted Emissions in Non-Restricted Bands	KDB 789033 D02 v02r01, Sections G.3, G.4, and G.5
AC Power Line Conducted Emissions	ANSI C63.10-2013, Section 6.2
Radiated Spurious Emissions Below 30MHz	ANSI C63.10-2013 Section 6.4

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9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

ANSI C63.10, Section 12.2: 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/T Minimum VBW (kHz)
BDR	4.935	4.935	1.000	100.0%	0.00	0.010
HDR4	5.475	5.475	1.000	100.0%	0.00	0.010
HDR8	5.475	5.475	1.000	100.0%	0.00	0.010

Note: DCCF is the same for both SISO MODE and TXBF MODE

DUTY CYCLE PLOT

DUTY CYCLE, BDR

9.2. 26 dB AND 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The RBW is set to ≥ 1% of the 26 dB bandwidth. The VBW is set to ≥ 3xRBW. The sweep time is coupled.

RESULTS

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

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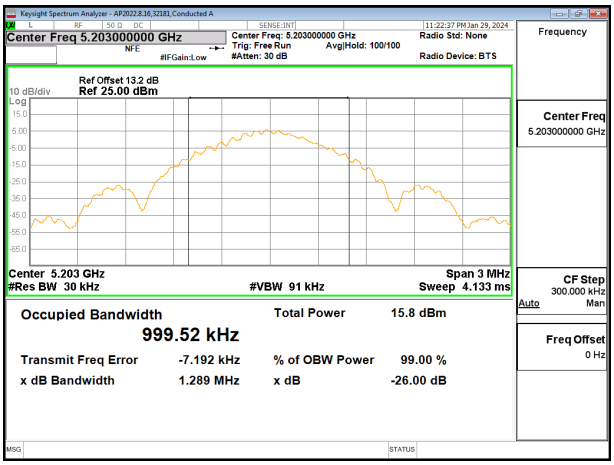
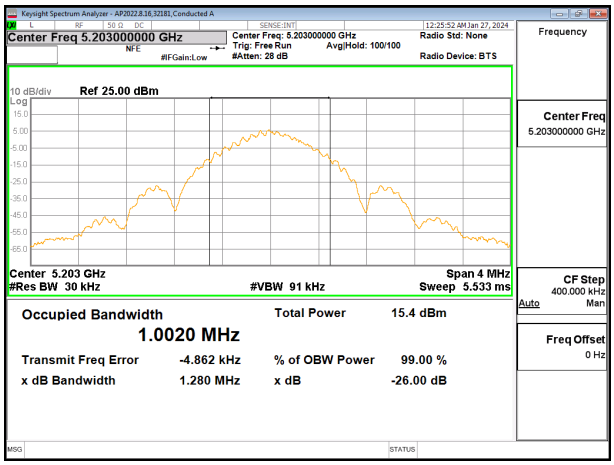
9.2.1. HIGH POWER SISO MODE

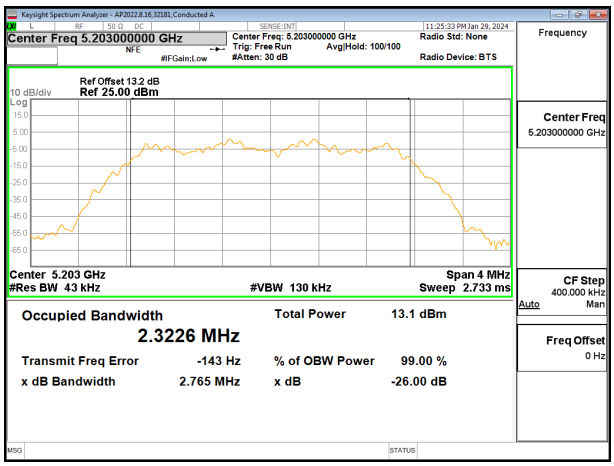
(SISO)	Frequency (MHz)	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
		Ant 6	Ant 5	Ant 6	Ant 5
BDR (UNII-1)	5162	1.279	1.282	1.0015	1.0037
	5203	1.289	1.280	0.9995	1.0020
	5245	1.281	1.281	0.9963	1.0030
HDR 4 (UNII-1)	5162	2.748	2.573	2.3216	2.3207
	5203	2.765	2.770	2.3226	2.3226
	5245	2.741	2.742	2.3211	2.3265
HDR 8 (UNII-1)	5162	5.758	5.752	4.8151	4.8128
	5203	5.754	5.749	4.8030	4.8056
	5245	5.761	5.759	4.8099	4.8152
BDR (UNII-3)	5733	1.283	1.280	0.9993	0.9907
	5788	1.288	1.275	1.0121	0.9980
	5844	1.286	1.280	1.0008	0.9970
HDR 4 (UNII-3)	5733	2.790	2.770	2.3321	2.3289
	5788	2.772	2.755	2.3267	2.3274
	5844	2.775	2.757	2.3274	2.3278
HDR 8 (UNII-3)	5733	5.773	5.770	4.8307	4.8257
	5788	5.768	5.776	4.8218	4.8213
	5844	5.781	5.777	4.8335	4.8317



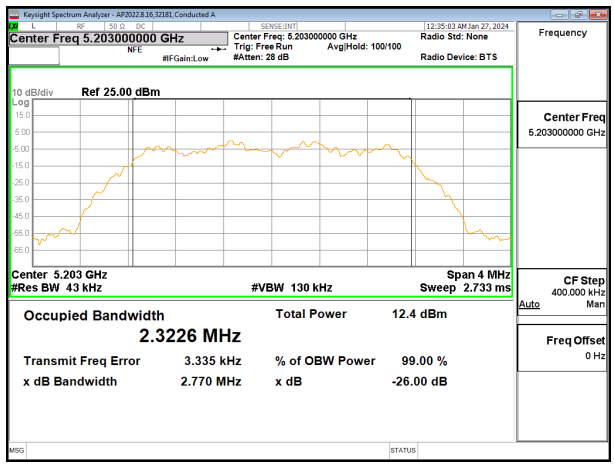
MID CHANNEL (UNII-1 BDR) – ANT 6



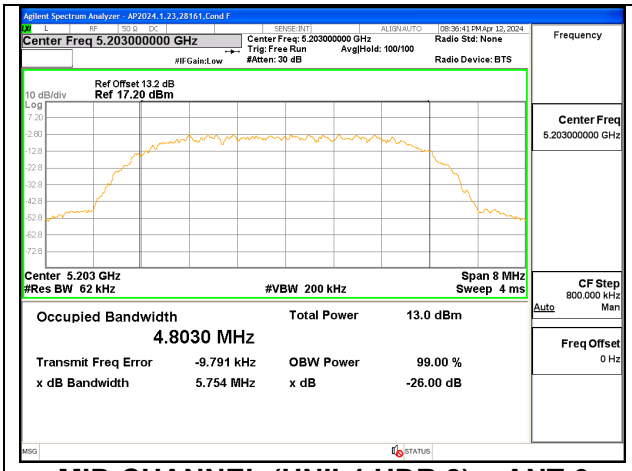
MID CHANNEL (UNII-1 BDR) – ANT 5



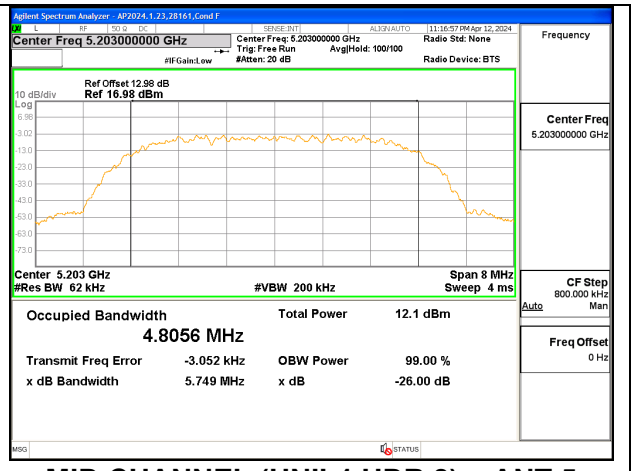
MID CHANNEL (UNII-1 HDR 4) – ANT 6



MID CHANNEL (UNII-1 HDR 4) – ANT 5



MID CHANNEL (UNII-1 HDR 8) – ANT 6



MID CHANNEL (UNII-1 HDR 8) – ANT 5

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9.2.2. HIGH POWER TXBF MODE

(MIMO BF)	Frequency (MHz)	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)		
		Ant 6	Ant 5	Ant 6	Ant 5	Min BW
BDR (UNII-1)	5162	1.284	1.284	0.9958	0.9971	0.9958
	5203	1.285	1.275	0.9976	1.0056	0.9976
	5245	1.284	1.274	0.9978	0.9969	0.9969
HDR 4 (UNII-1)	5162	2.731	2.733	2.3180	2.3194	2.3180
	5203	2.754	2.758	2.3189	2.3180	2.3180
	5245	2.761	2.750	2.3202	2.3214	2.3202
HDR 8 (UNII-1)	5162	5.736	5.760	4.8030	4.8151	4.8030
	5203	5.759	5.755	4.8023	4.8082	4.8023
	5245	5.758	5.749	4.8087	4.8096	4.8087
BDR (UNII-3)	5733	1.274	1.280	1.0041	0.9918	--
	5788	1.273	1.280	1.0032	1.0015	--
	5844	1.274	1.268	1.0049	0.9928	--
HDR 4 (UNII-3)	5733	2.809	2.773	2.3333	2.3261	--
	5788	2.814	2.781	2.3354	2.3265	--
	5844	2.817	2.776	2.3339	2.3296	--
HDR 8 (UNII-3)	5733	5.766	5.758	4.8269	4.8211	--
	5788	5.770	5.770	4.8352	4.8284	--
	5844	5.759	5.774	4.8170	4.8323	--

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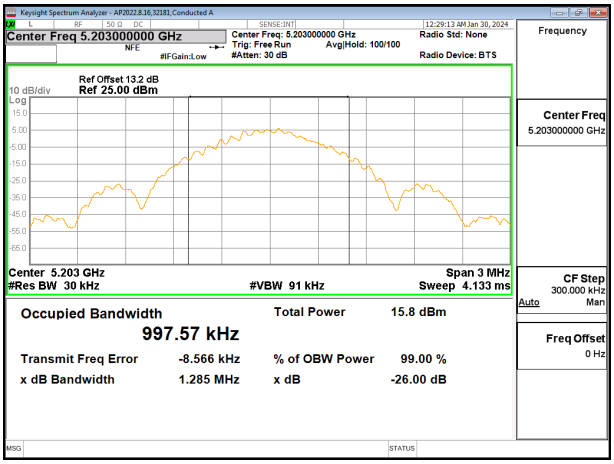
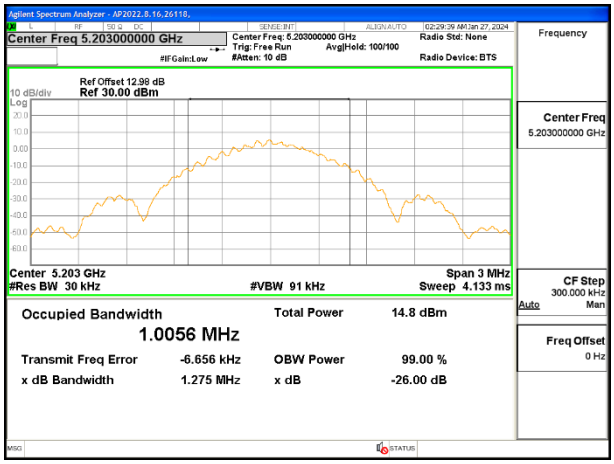
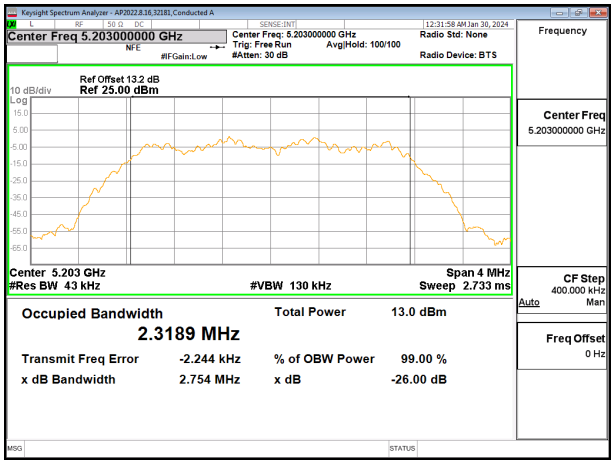


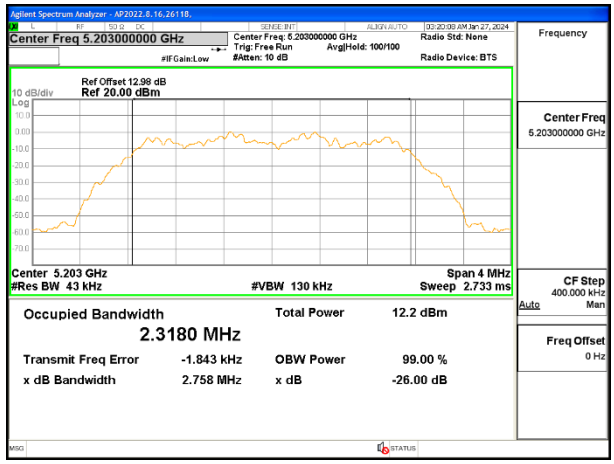
MID CHANNEL (UNII-1 BDR) – ANT 6



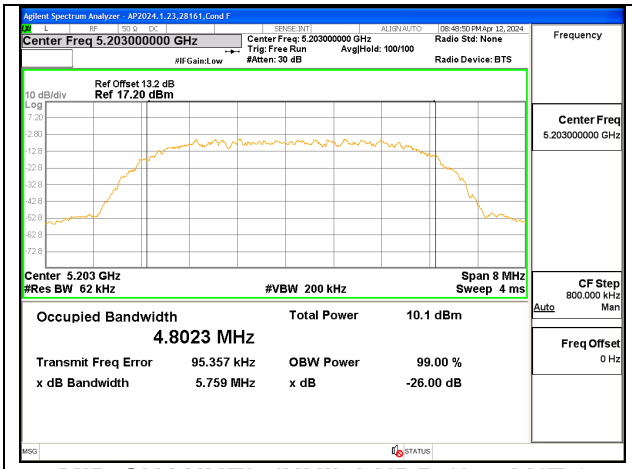
MID CHANNEL (UNII-1 BDR) – ANT 5



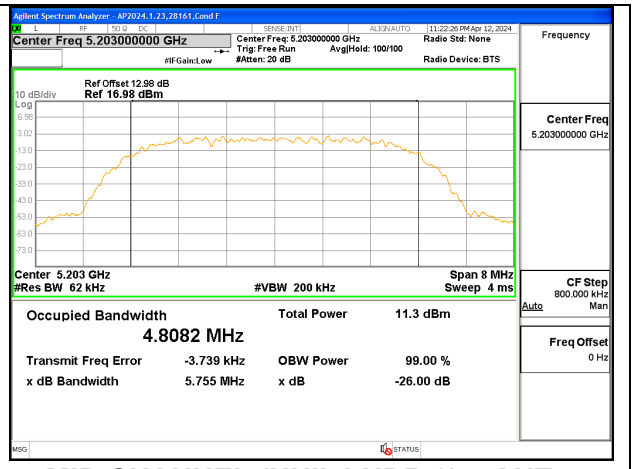
MID CHANNEL (UNII-1 HDR 4) – ANT 6



MID CHANNEL (UNII-1 HDR 4) – ANT 5



MID CHANNEL (UNII-1 HDR 8) – ANT 6



MID CHANNEL (UNII-1 HDR 8) – ANT 5

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9.3. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

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

RESULTS

Only High Power BDR mode result is reported. It covers all Low Power modes. Only Mid Channel plot is reported to show setting parameter compliance with testing method/procedure.

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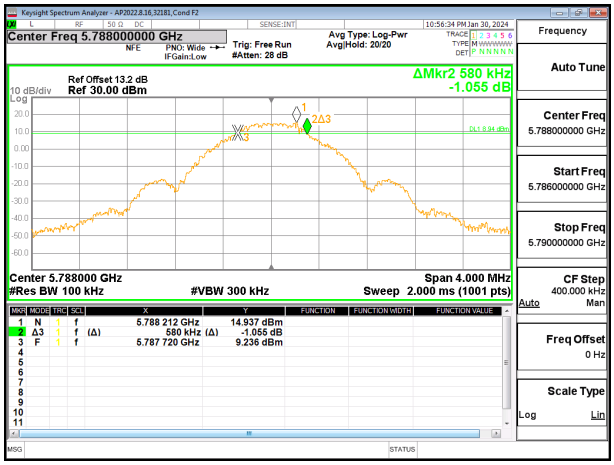
9.3.1. HIGH POWER BDR SISO MODE IN THE UNII-3 BAND

(SISO)	Frequency (MHz)	6 dB Bandwidth (MHz)	
		Ant 6	Ant 5
BDR (UNII-3)	5733	0.540	0.565
	5788	0.580	0.530
	5844	0.564	0.560



MID CHANNEL – ANT 6

MID CHANNEL – ANT 5

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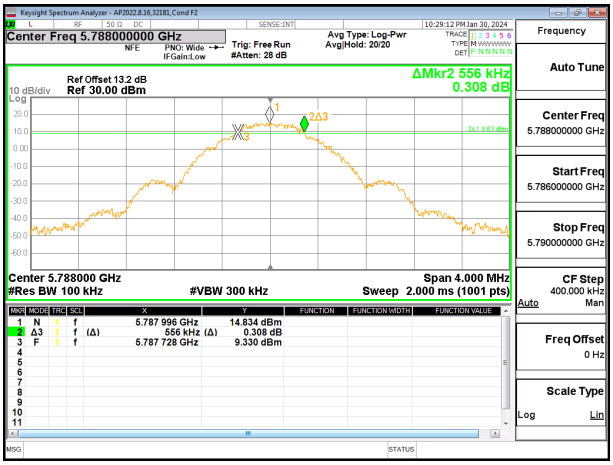
9.3.2. HIGH POWER BDR TXBF MODE IN THE UNII-3 BAND

(MIMO BF)	Frequency (MHz)	6 dB Bandwidth (MHz)	
		Ant 6	Ant 5
BDR (UNII-3)	5733	0.552	0.575
	5788	0.556	0.565
	5844	0.568	0.575



MID CHANNEL – ANT 6

MID CHANNEL – ANT 5

9.4. OUTPUT POWER AND PSD

LIMITS

FCC §15.407

Band 5.15–5.25 GHz

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Band 5.725-5.85 GHz

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

TEST PROCEDURE

The measurement method used for output power is KDB 789033 D02 v02r01, Section E.3.b (Method PM-G).

The measurement method used for power spectral density is KDB 789033 D02 v02r01, Section F.

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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 correlated for PSD due to the device supporting TXBF in all MIMO modes. The directional gains are as follows:

Band (GHz)	ANT 6 Gain (dBi)	ANT 5 Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)	Correlated Chains Directional Gain (dBi)
UNII-1, 5.2 GHz	-0.50	-5.00	-2.19	0.55
UNII-3, 5.8 GHz	0.50	-2.30	-0.68	2.22

DIRECTIONAL GAIN CALCULATION:

ANSI C63.10-2013 section 14.4.3

Uncorrelated Directional Gain $= 10 * \mathrm{LOG}\left[\frac{10^{\frac{\mathrm{ANT6}}{10}} + 10^{\frac{\mathrm{ANT5}}{10}}}{2}\right]$

Correlated Directional Gain $= 10 * \mathrm{LOG}\left[\frac{\left(10^{\frac{\mathrm{ANT6}}{20}} + 10^{\frac{\mathrm{ANT5}}{20}}\right)^2}{2}\right]$

Sample Calculation:

ANT 6 = -0.50
ANT 5 = -5.00

Uncorrelated Directional Gain $= 10 * \mathrm{LOG}\left[\frac{10^{\frac{-0.50}{10}} + 10^{\frac{-5.00}{10}}}{2}\right] = -2.19\ \mathrm{dBi}$

Correlated Directional Gain $= 10 * \mathrm{LOG}\left[\frac{\left(10^{\frac{-0.50}{20}} + 10^{\frac{-5.00}{20}}\right)^2}{2}\right] = 0.55\ \mathrm{dBi}$

RESULTS:

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9.4.1. UNII-1 BAND SISO MODE

UNII-1 (SISO) (5162 - 5245MHz)	
DCCF (dB)	0.00
ANT 6 (dBi)	-0.50
ANT 5 (dBi)	-5.00

UNII-1 (SISO)	Power Config.	Freq (MHz)	Ch.	Minimum Bandwidth (MHz)		Power Limit (dBm)		Output Power (Gated) (dBm)		Total Corrected Power (dBm)		PSD Limit (dBm/MHz)		PSD (dBm/MHz)		Total Corrected PSD (dBm/MHz)	
				ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5
BDR (FCC)	High	5162	Low	--		24	24	9.85	9.80	9.85	9.80	11	11	9.571	9.329	9.571	9.329
		5203	Mid					9.83	9.82	9.83	9.82			9.105	9.424	9.105	9.424
		5245	High					9.88	9.84	9.88	9.84			9.340	9.295	9.340	9.295
BDR (FCC)	Low	5162	Low					6.34	4.85	6.34	4.85			5.955	4.006	5.955	4.006
		5203	Mid					6.39	4.80	6.39	4.80			5.871	4.529	5.871	4.529
		5245	High					6.40	4.86	6.40	4.86			5.611	4.143	5.611	4.143
HDR 4 (FCC)	High	5162	Low					11.34	11.29	11.34	11.29			9.686	9.485	9.686	9.485
		5203	Mid					11.30	11.27	11.30	11.27			9.398	9.259	9.398	9.259
		5245	High					11.31	11.25	11.31	11.25			9.466	9.071	9.466	9.071
HDR 4 (FCC)	Low	5162	Low					-0.17	-1.77	-0.17	-1.77			-1.687	-3.191	-1.687	-3.191
		5203	Mid					-0.24	-1.80	-0.24	-1.80			-2.437	-3.744	-2.437	-3.744
		5245	High					-0.20	-1.79	-0.20	-1.79			-2.257	-3.703	-2.257	-3.703
HDR 8 (FCC)	High	5162	Low					13.81	13.83	13.81	13.83			7.865	8.140	7.865	8.140
		5203	Mid					13.87	13.75	13.87	13.75			7.402	7.852	7.402	7.852
		5245	High					13.74	13.87	13.74	13.87			7.961	8.276	7.961	8.276
HDR 8 (FCC)	Low	5162	Low					-0.11	-1.71	-0.11	-1.71			-4.295	-6.515	-4.295	-6.515
		5203	Mid					-0.24	-1.70	-0.24	-1.70			-4.936	-6.403	-4.936	-6.403
		5245	High					-0.28	-1.77	-0.28	-1.77			-5.564	-6.767	-5.564	-6.767

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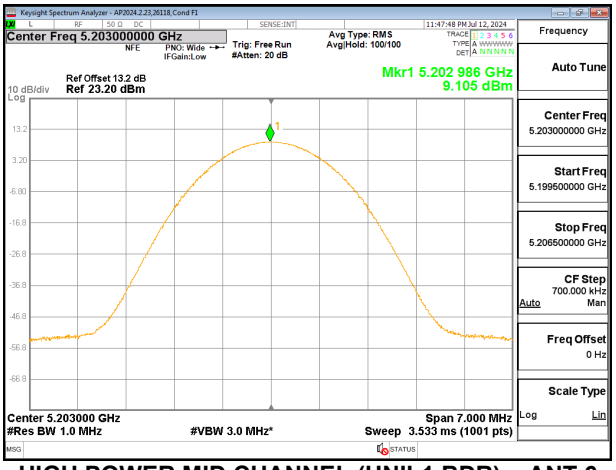
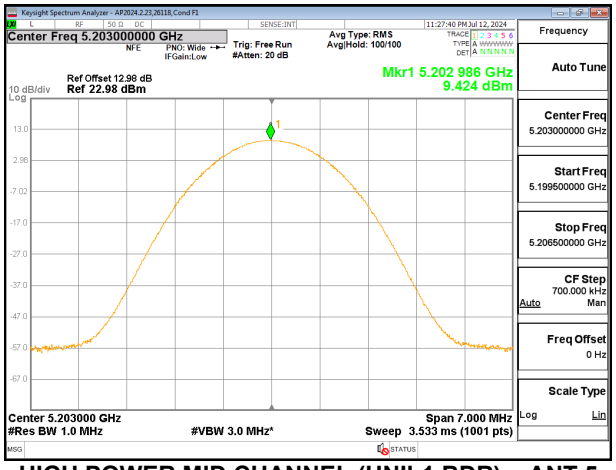
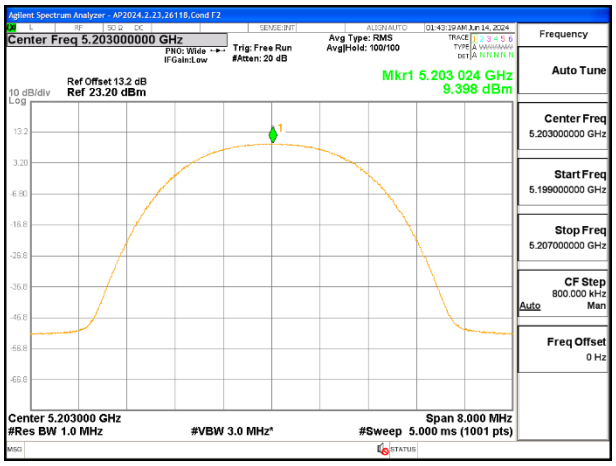


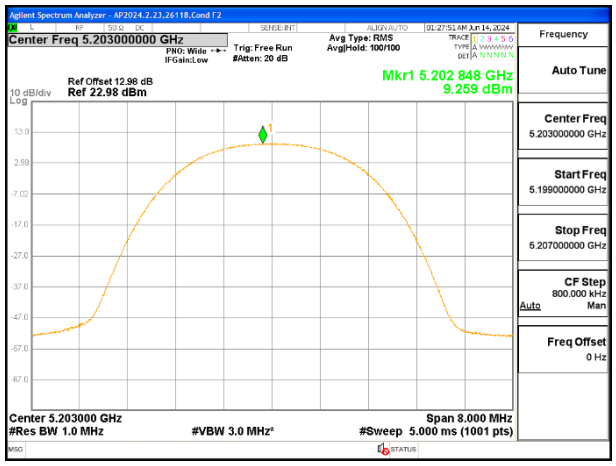
HIGH POWER MID CHANNEL (UNII-1 BDR) – ANT 6



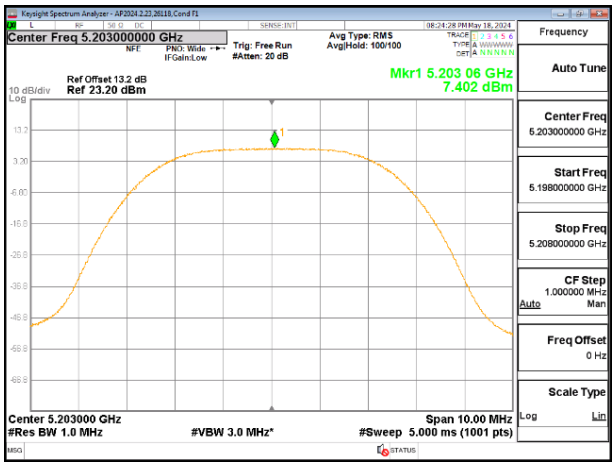
HIGH POWER MID CHANNEL (UNII-1 BDR) – ANT 5



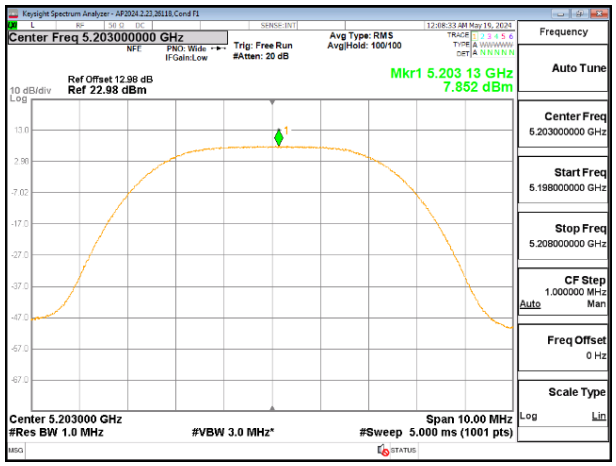
HIGH POWER MID CHANNEL (UNII-1 HDR 4) – ANT 6



HIGH POWER MID CHANNEL (UNII-1 HDR 4) – ANT 5



HIGH POWER MID CHANNEL (UNII-1 HDR 8) – ANT 6



HIGH POWER MID CHANNEL (UNII-1 HDR 8) – ANT 5

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9.4.2. UNII-1 BAND MIMO TXBF MODE

UNII-1 (MIMO BF) (5162 - 5245MHz)	
DCCF (dB)	0.00
Un-Correlated Gain (dBi)	-2.19
Correlated Gain (dBi)	0.55

UNII-1 (MIMO BF)	Power Config.	Freq (MHz)	Ch.	Min BW (MHz)	Power Limit (dBm)	Output Power (Gated) (dBm)		Total MIMO Corrected Power (dBm)	PSD Limit (dBm/MHz)	PSD (dBm/MHz)		Total MIMO Corrected PSD (dBm/MHz)
						ANT 6	ANT 5			ANT 6	ANT 5	
BDR (FCC)	High	5162	Low	--	24.00	6.79	6.80	9.81	11.00	5.979	5.730	8.867
		5203	Mid			6.81	6.85	9.84		5.707	5.847	8.788
		5245	High			6.75	6.77	9.77		5.614	5.717	8.676
BDR (FCC)	Low	5162	Low			6.32	4.77	8.62		5.865	4.388	8.199
		5203	Mid			6.37	4.82	8.67		5.816	4.458	8.200
		5245	High			6.25	4.79	8.59		5.975	4.336	8.243
HDR 4 (FCC)	High	5162	Low			8.38	8.39	11.40		6.823	6.601	9.724
		5203	Mid			8.21	8.28	11.26		6.482	6.454	9.478
		5245	High			8.40	8.37	11.40		6.704	6.562	9.644
HDR 4 (FCC)	Low	5162	Low			-0.19	-1.77	2.10		-1.789	-3.222	0.564
		5203	Mid			-0.15	-1.69	2.16		-2.458	-3.826	-0.078
		5245	High			-0.24	-1.65	2.12		-2.409	-3.756	-0.020
HDR 8 (FCC)	High	5162	Low			10.74	10.73	13.75		5.621	5.975	8.812
		5203	Mid			10.82	10.83	13.84		5.884	6.023	8.964
		5245	High			10.71	10.81	13.77		5.753	6.063	8.921
HDR 8 (FCC)	Low	5162	Low			-0.15	-1.78	2.12		-4.503	-6.439	-2.354
		5203	Mid			-0.28	-1.71	2.07		-5.053	-6.481	-2.698
		5245	High			-0.24	-1.67	2.11		-4.911	-6.769	-2.731

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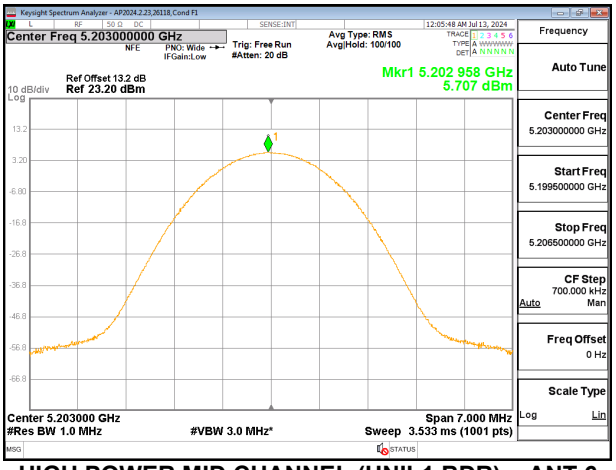
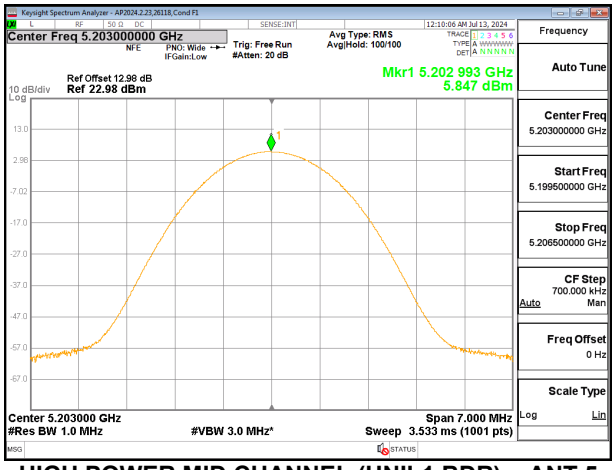
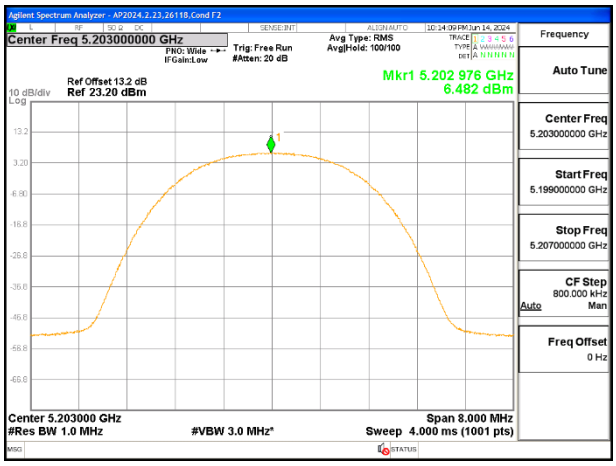


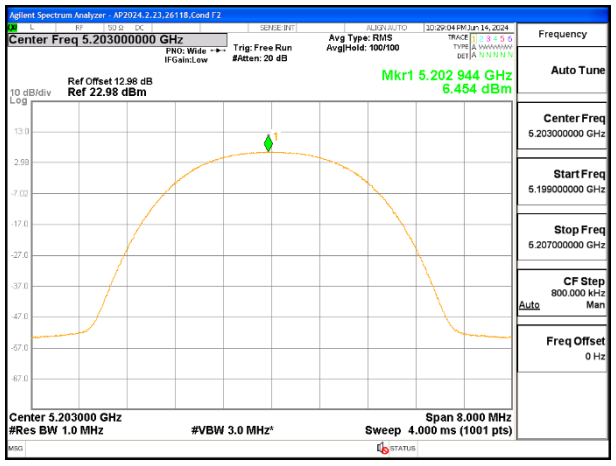
HIGH POWER MID CHANNEL (UNII-1 BDR) – ANT 6



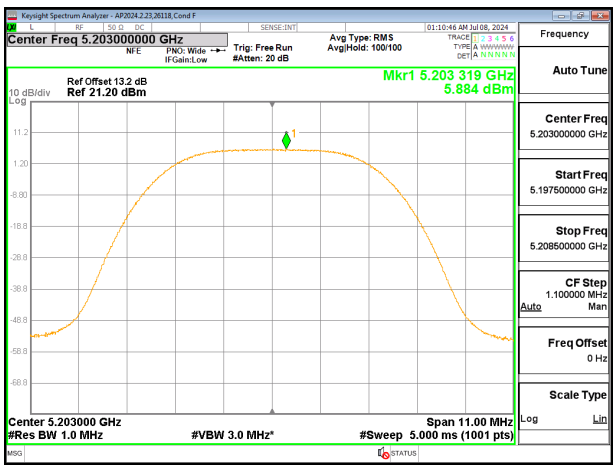
HIGH POWER MID CHANNEL (UNII-1 BDR) – ANT 5



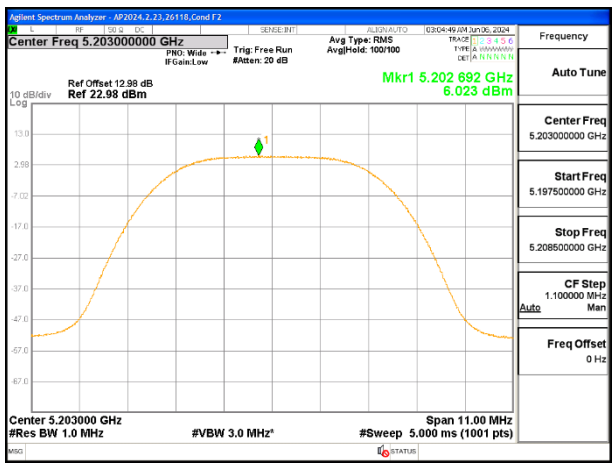
HIGH POWER MID CHANNEL (UNII-1 HDR 4) – ANT 6



HIGH POWER MID CHANNEL (UNII-1 HDR 4) – ANT 5



HIGH POWER MID CHANNEL (UNII-1 HDR 8) – ANT 6



HIGH POWER MID CHANNEL (UNII-1 HDR 8) – ANT 5

9.4.3. UNII-3 BAND SISO MODE

UNII-3 (SISO) (5733 - 5844MHz)	
DCCF (dB)	0.00
ANT 6 (dBi)	0.50
ANT 5 (dBi)	-2.30

UNII-3 (SISO)	Power Config.	Freq (MHz)	Ch.	Power Limit (dBm)		Output Power (Gated) (dBm)		Total Corrected Power (dBm)		PSD Limit (dBm/500kHz)		PSD (dBm/MHz)		Total Corrected PSD (dBm/500kHz)	
				ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5
BDR	High	5733	Low	30	30	14.27	14.35	14.27	14.35	30	30	13.802	14.122	13.802	14.122
		5788	Mid			14.32	14.25	14.32	14.25			13.427	13.320	13.427	13.320
		5844	High			14.23	14.28	14.23	14.28			13.692	13.947	13.692	13.947
	Low	5733	Low			6.82	5.35	6.82	5.35			6.159	3.970	6.159	3.970
		5788	Mid			6.80	5.23	6.80	5.23			6.074	3.987	6.074	3.987
		5844	High			6.74	5.27	6.74	5.27			6.102	3.768	6.102	3.768
HDR 4	High	5733	Low			14.33	14.34	14.33	14.34			10.644	10.860	10.644	10.860
		5788	Mid			14.29	14.29	14.29	14.29			10.457	10.489	10.457	10.489
		5844	High			14.32	14.31	14.32	14.31			9.577	10.021	9.577	10.021
	Low	5733	Low			0.40	-1.30	0.40	-1.30			-3.692	-5.031	-3.692	-5.031
		5788	Mid			0.30	-1.18	0.30	-1.18			-4.134	-4.586	-4.134	-4.586
		5844	High			0.34	-1.21	0.34	-1.21			-3.913	-5.413	-3.913	-5.413
HDR 8	High	5733	Low			14.34	14.23	14.34	14.23			6.085	5.743	6.085	5.743
		5788	Mid			14.38	14.29	14.38	14.29			6.520	5.856	6.520	5.856
		5844	High			14.24	14.28	14.24	14.28			6.037	5.646	6.037	5.646
	Low	5733	Low			0.34	-1.27	0.34	-1.27			-6.809	-8.658	-6.809	-8.658
		5788	Mid			0.29	-1.23	0.29	-1.23			-6.735	-8.731	-6.735	-8.731
		5844	High			0.24	-1.26	0.24	-1.26			-7.032	-8.764	-7.032	-8.764

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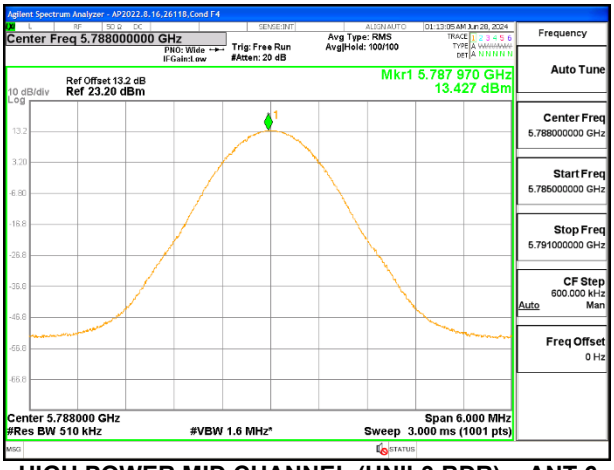
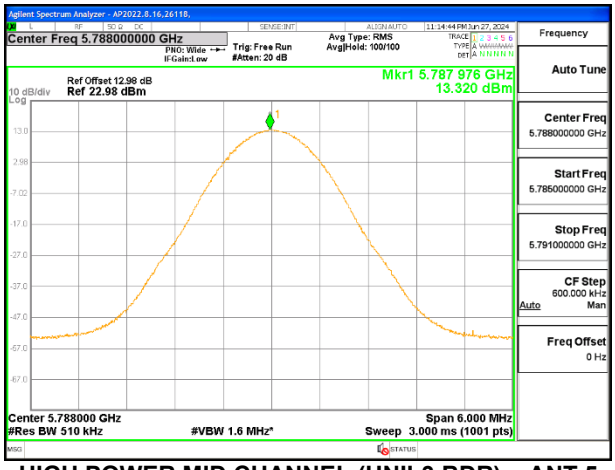
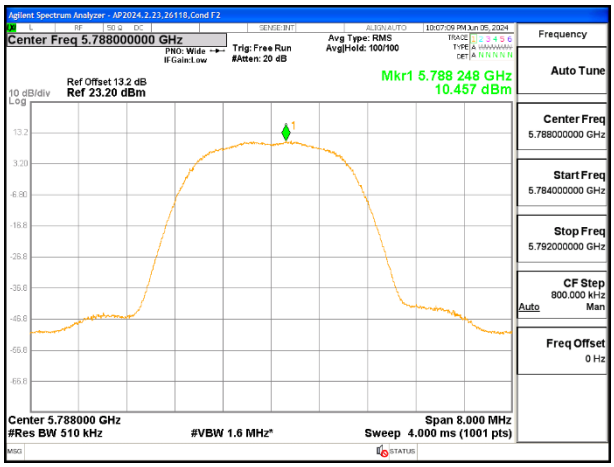


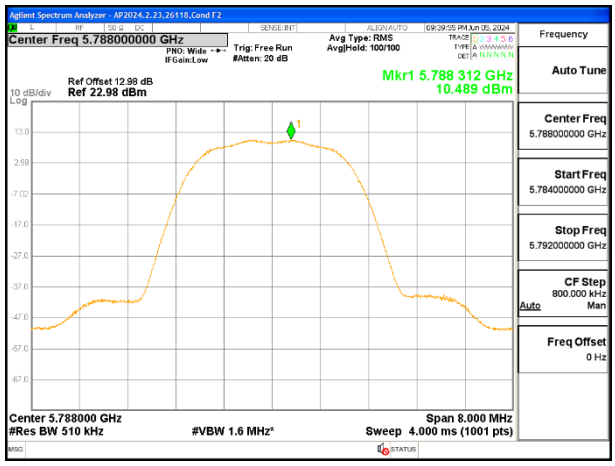
HIGH POWER MID CHANNEL (UNII-3 BDR) – ANT 6



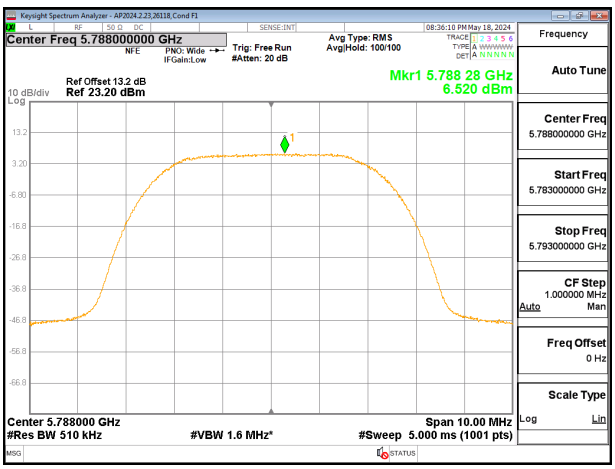
HIGH POWER MID CHANNEL (UNII-3 BDR) – ANT 5



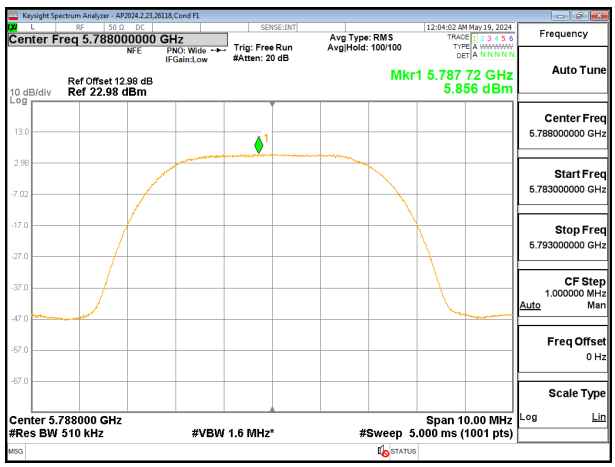
HIGH POWER MID CHANNEL (UNII-3 HDR 4) – ANT 6



HIGH POWER MID CHANNEL (UNII-3 HDR 4) – ANT 5



HIGH POWER MID CHANNEL (UNII-3 HDR 8) – ANT 6



HIGH POWER MID CHANNEL (UNII-3 HDR 8) – ANT 5

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9.4.4. UNII-3 BAND MIMO TXBF MODE

UNII-3 (MIMO BF) (5733 - 5844MHz)	
DCCF (dB)	0.00
Un-Correlated Gain (dBi)	-0.68
Correlated Gain (dBi)	2.22

UNII-3 (MIMO BF)	Power Config.	Freq (MHz)	Ch.	Power Limit (dBm)	Output Power (Gated) (dBm)		Total MIMO Corrected Power (dBm)	PSD Limit (dBm/500kHz)	PSD (dBm/MHz)		Total MIMO Corrected PSD (dBm/500kHz)
					ANT 6	ANT 5			ANT 6	ANT 5	
BDR	High	5733	Low	30	14.23	14.22	17.24	30	13.730	13.669	16.710
		5788	Mid		14.21	14.24	17.24		13.506	13.703	16.616
		5844	High		14.29	14.31	17.31		14.176	14.169	17.183
	Low	5733	Low		6.76	5.32	9.11		6.002	4.503	8.327
		5788	Mid		6.73	5.28	9.08		5.981	4.668	8.384
		5844	High		6.71	5.30	9.07		6.062	4.469	8.348
HDR 4	High	5733	Low		14.30	14.32	17.32		10.417	10.549	13.494
		5788	Mid		14.21	14.26	17.25		10.200	10.001	13.112
		5844	High		14.29	14.28	17.30		10.029	9.669	12.863
	Low	5733	Low		0.38	-1.22	2.66		-3.766	-4.375	-1.050
		5788	Mid		0.41	-1.24	2.67		-3.236	-5.500	-1.212
		5844	High		0.31	-1.29	2.59		-4.013	-5.507	-1.686
HDR 8	High	5733	Low		14.25	14.30	17.29		6.051	6.286	9.180
		5788	Mid		14.29	14.26	17.29		6.287	6.191	9.250
		5844	High		14.36	14.28	17.33		6.344	6.268	9.316
	Low	5733	Low		0.33	-1.26	2.62		-6.859	-8.787	-4.707
		5788	Mid		0.26	-1.29	2.56		-6.995	-8.853	-4.815
		5844	High		0.24	-1.27	2.56		-7.161	-8.941	-4.950

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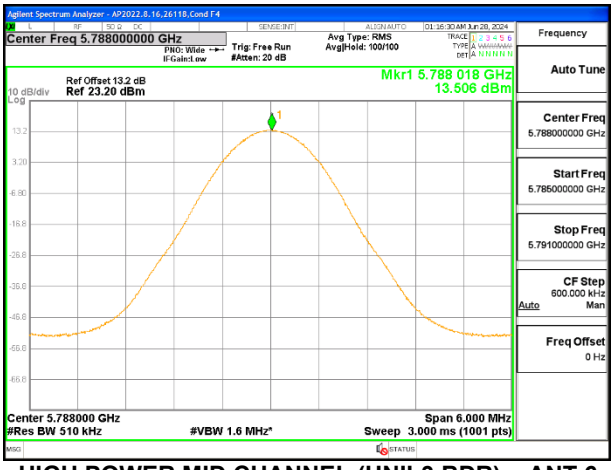
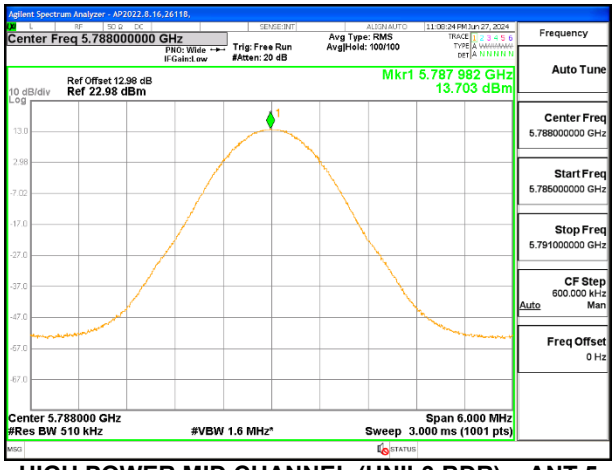
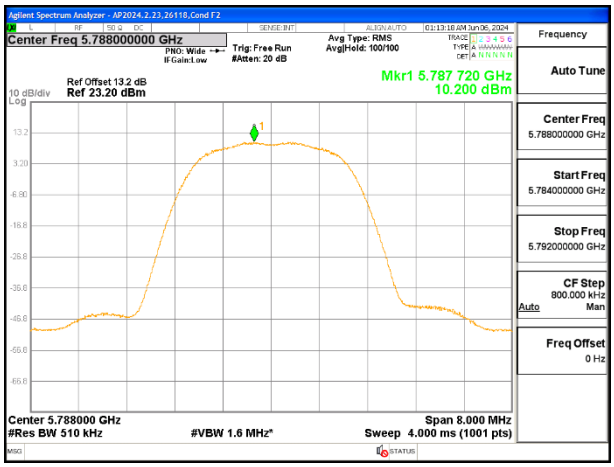


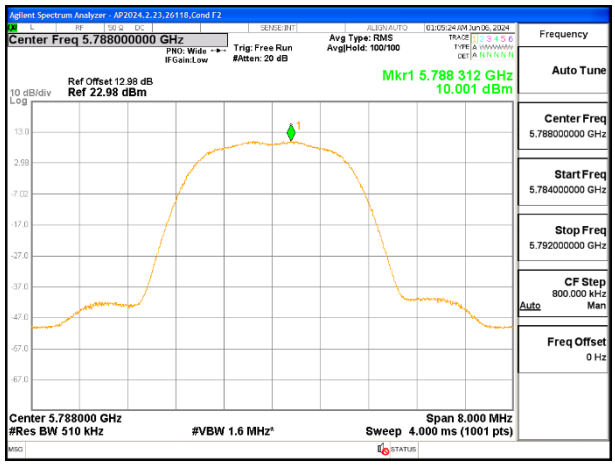
HIGH POWER MID CHANNEL (UNII-3 BDR) – ANT 6



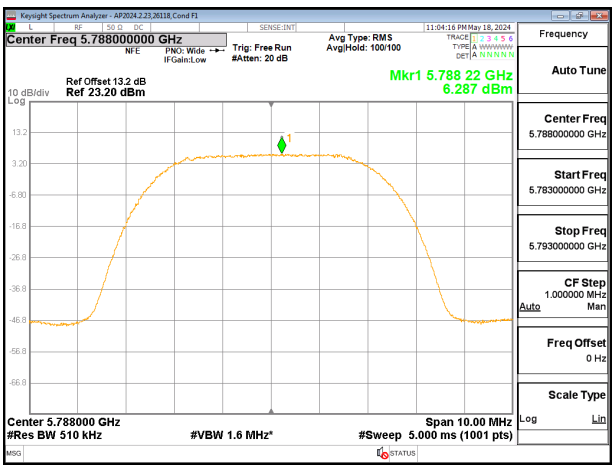
HIGH POWER MID CHANNEL (UNII-3 BDR) – ANT 5



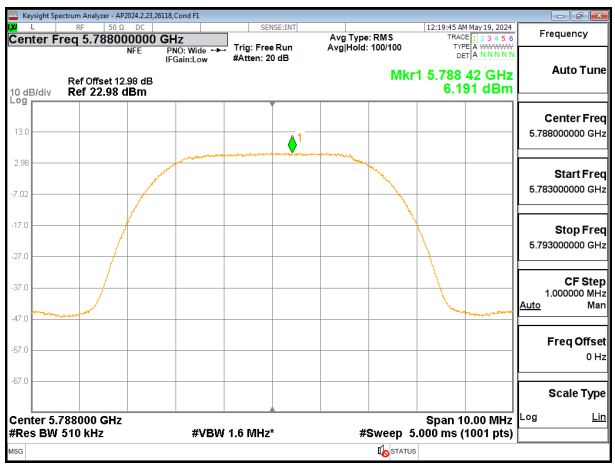
HIGH POWER MID CHANNEL (UNII-3 HDR 4) – ANT 6



HIGH POWER MID CHANNEL (UNII-3 HDR 4) – ANT 5



HIGH POWER MID CHANNEL (UNII-3 HDR 8) – ANT 6



HIGH POWER MID CHANNEL (UNII-3 HDR 8) – ANT 5

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10. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209 - Restricted Bands
FCC §15.407(b)(1-3) - Un-Restricted Bands

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz and 1.5 meters 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 in the 30-1000MHz range, 9kHz for peak and/or quasi-peak detection measurements in the 0.15-30MHz range and 200Hz for peak and/or quasi-peak detection measurements in the 9 to 150kHz range. Peak detection is used unless otherwise noted as quasi-peak or average (9-90kHz and 110-490kHz).

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

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

The spectrum from 30 MHz to 1GHz and 18GHz to 40 GHz is investigated with the transmitter set to transmit at the channel with highest output power as worst-case scenario. 1GHz to 18GHz was set to the lowest, middle, and highest channels in the 5 GHz bands.

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

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Note: The limits in 47 CFR, 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.

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

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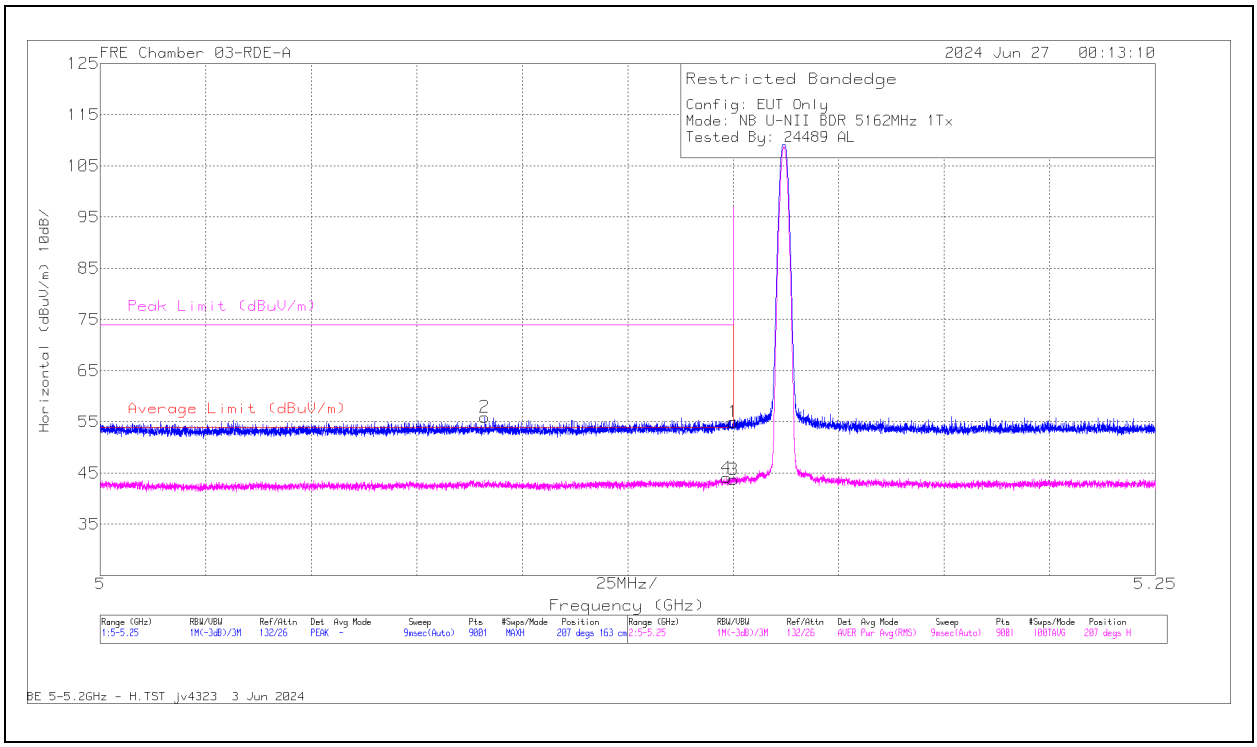
10.1. TRANSMITTER ABOVE 1 GHz

10.1.1. BDR HIGH POWER, UNII-1 BAND, BANDEDGE

ANT 6, SISO MODE

LOW CHANNEL, 5162 MHz

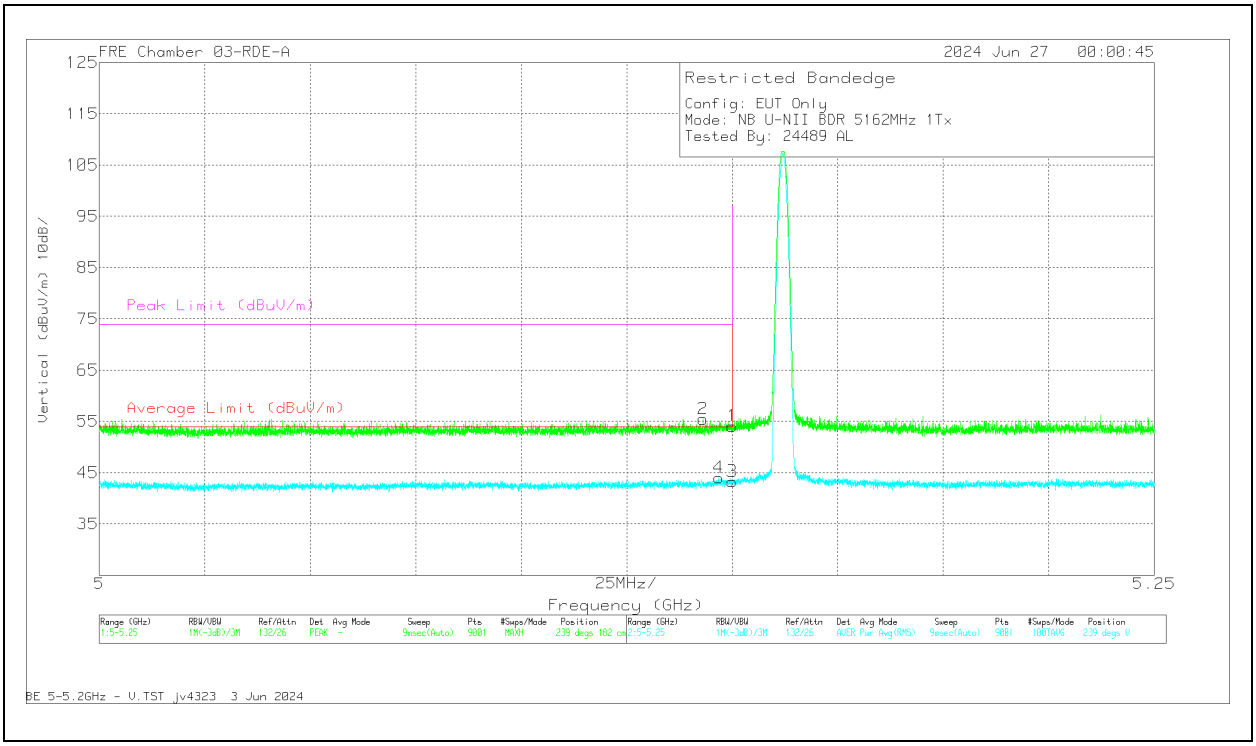
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	59.08	Pk	34.2	-38.28	55	-	-	74	-19	207	163	H
2	* 5.09114	60.12	Pk	34.1	-38.3	55.92	-	-	74	-18.08	207	163	H
3	* 5.15	47.82	RMS	34.2	-38.28	43.74	54	-10.26	-	-	207	163	H
4	* 5.14847	48.16	RMS	34.2	-38.26	44.1	54	-9.9	-	-	207	163	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



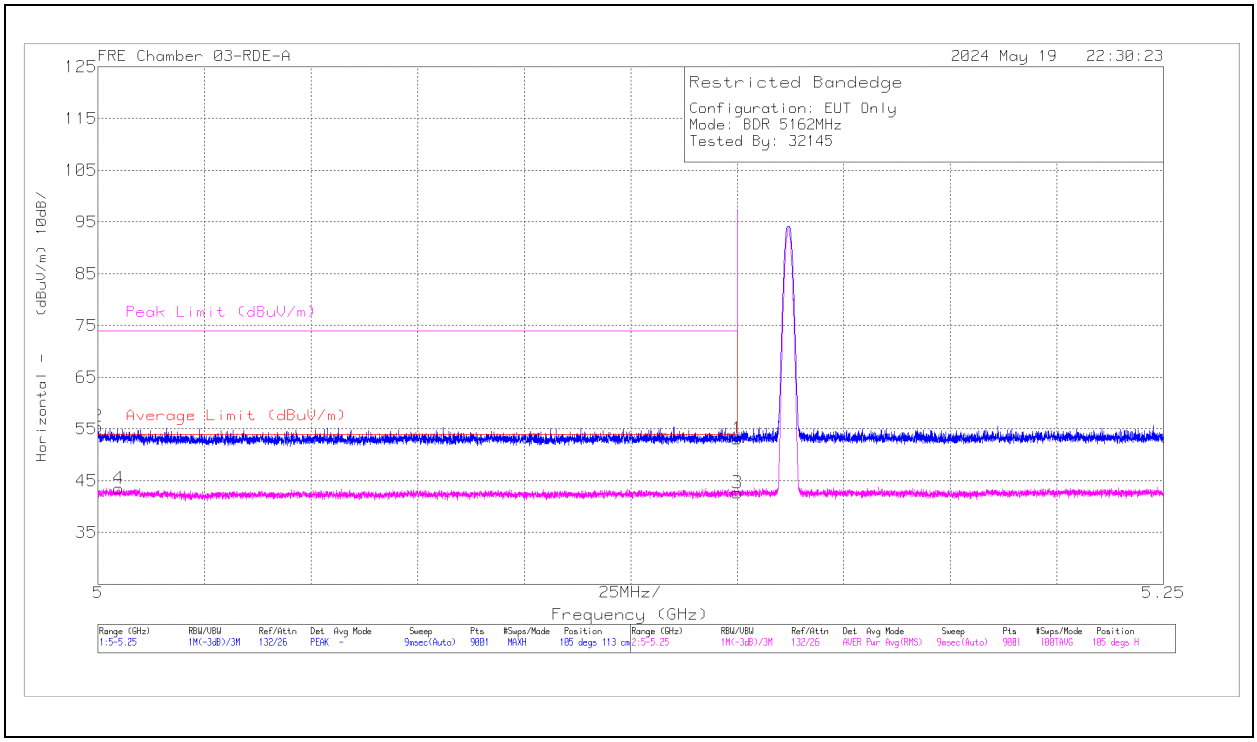
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	58.19	Pk	34.2	-38.28	54.11	-	-	74	-19.89	239	182	V
2	* 5.143057	59.63	Pk	34.2	-38.35	55.48	-	-	74	-18.52	239	182	V
3	* 5.15	47.34	RMS	34.2	-38.28	43.26	54	-10.74	-	-	239	182	V
4	* 5.146751	48.07	RMS	34.2	-38.25	44.02	54	-9.98	-	-	239	182	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 5, SISO MODE

LOW CHANNEL, 5162 MHz

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.23	Pk	34.2	-38.28	53.15	-	-	74	-20.85	105	113	H
2	* 5.000028	59.76	Pk	34	-38.3	55.46	-	-	74	-18.54	105	113	H
3	* 5.15	46.75	RMS	34.2	-38.28	42.67	54	-11.33	-	-	105	113	H
4	* 5.004944	47.86	RMS	34	-38.33	43.53	54	-10.47	-	-	105	113	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

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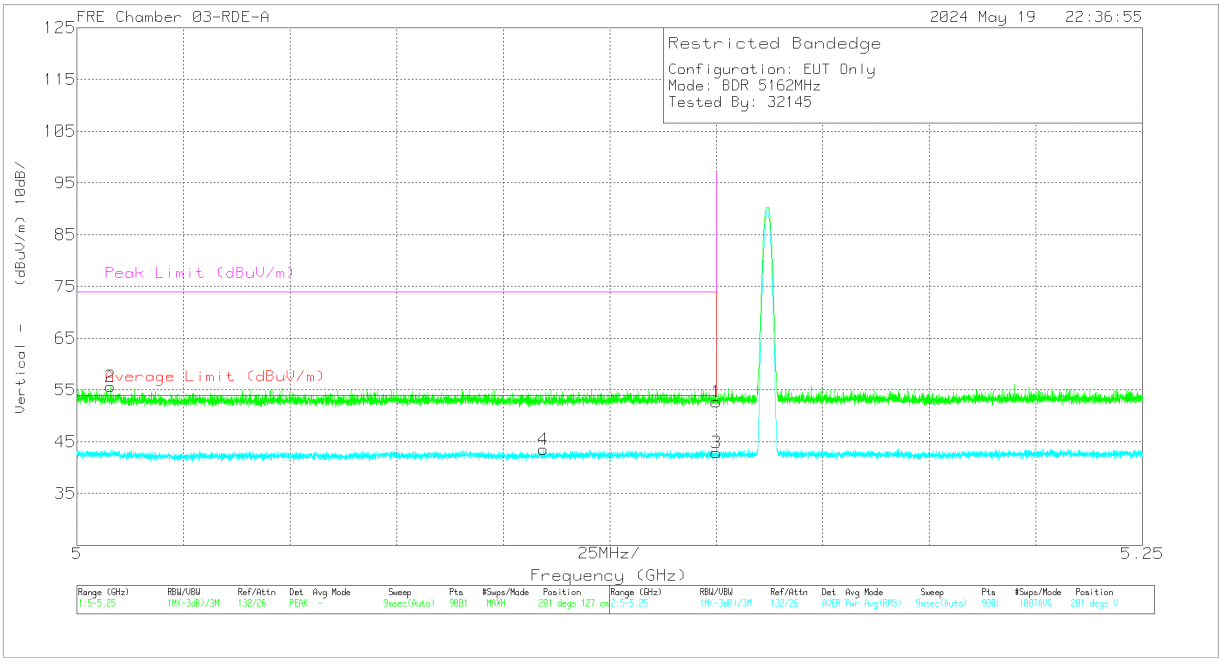
VERTICAL RESULT



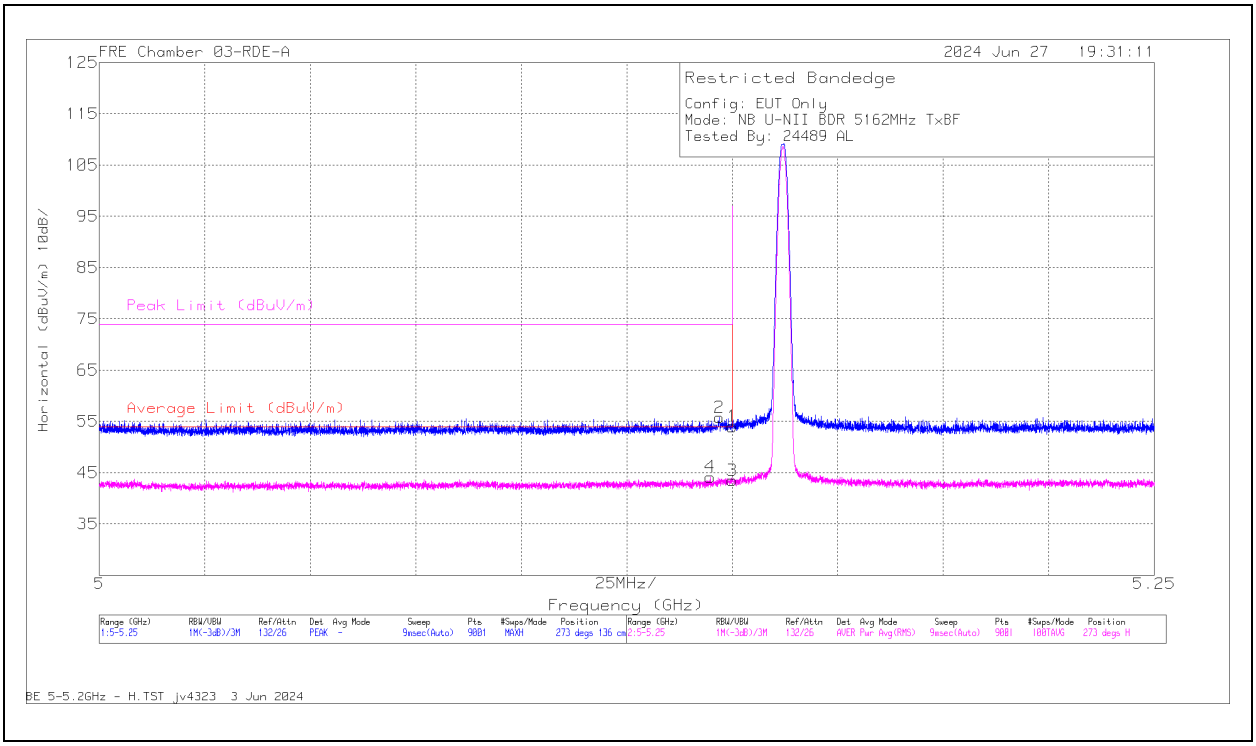
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	56.77	Pk	34.2	-38.28	52.69	-	-	74	-21.31	201	127	V
2	* 5.007889	60.04	Pk	34	-38.39	55.65	-	-	74	-18.35	201	127	V
3	* 5.15	46.95	RMS	34.2	-38.28	42.87	54	-11.13	-	-	201	127	V
4	* 5.109418	47.69	RMS	34.1	-38.29	43.5	54	-10.5	-	-	201	127	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 6 + ANT 5, MIMO TXBF MODE

LOW CHANNEL, 5162 MHz

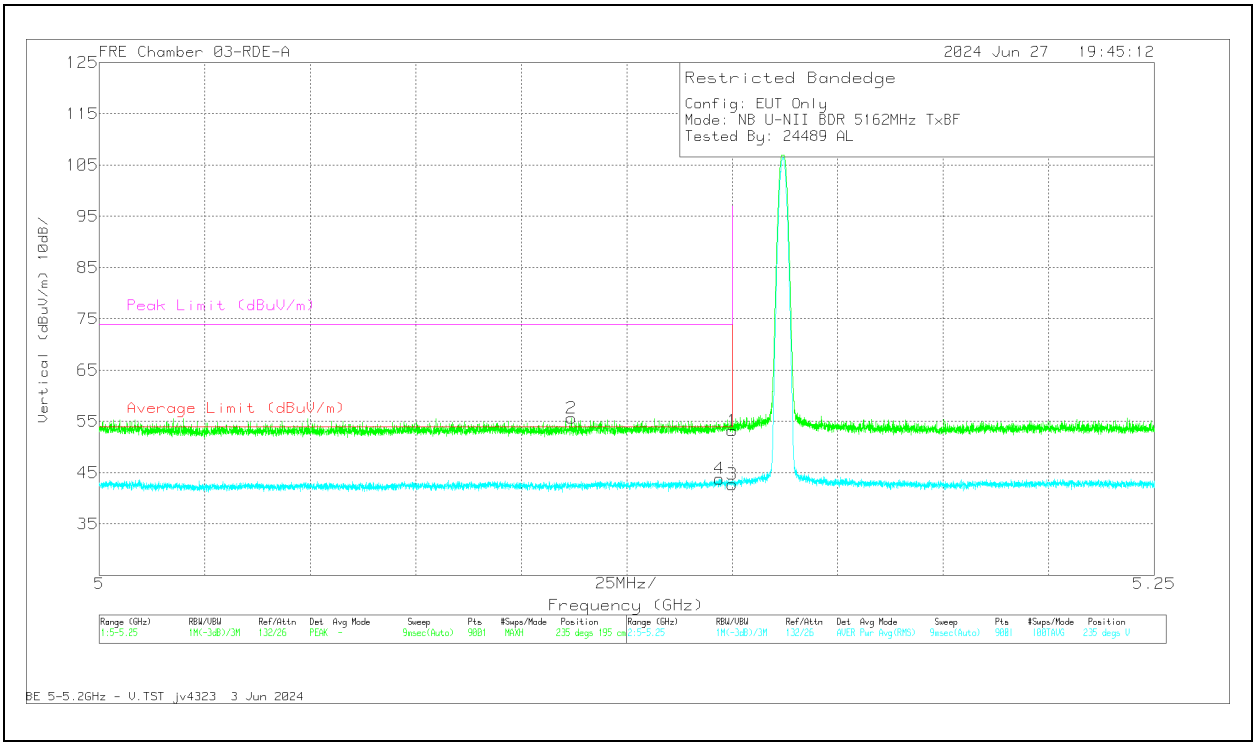
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	58.1	Pk	34.2	-38.28	54.02	-	-	74	-19.98	273	136	H
2	* 5.14691	59.79	Pk	34.2	-38.25	55.74	-	-	74	-18.26	273	136	H
3	* 5.15	47.55	RMS	34.2	-38.28	43.47	54	-10.53	-	-	273	136	H
4	* 5.14477	48.25	RMS	34.2	-38.3	44.15	54	-9.85	-	-	273	136	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT

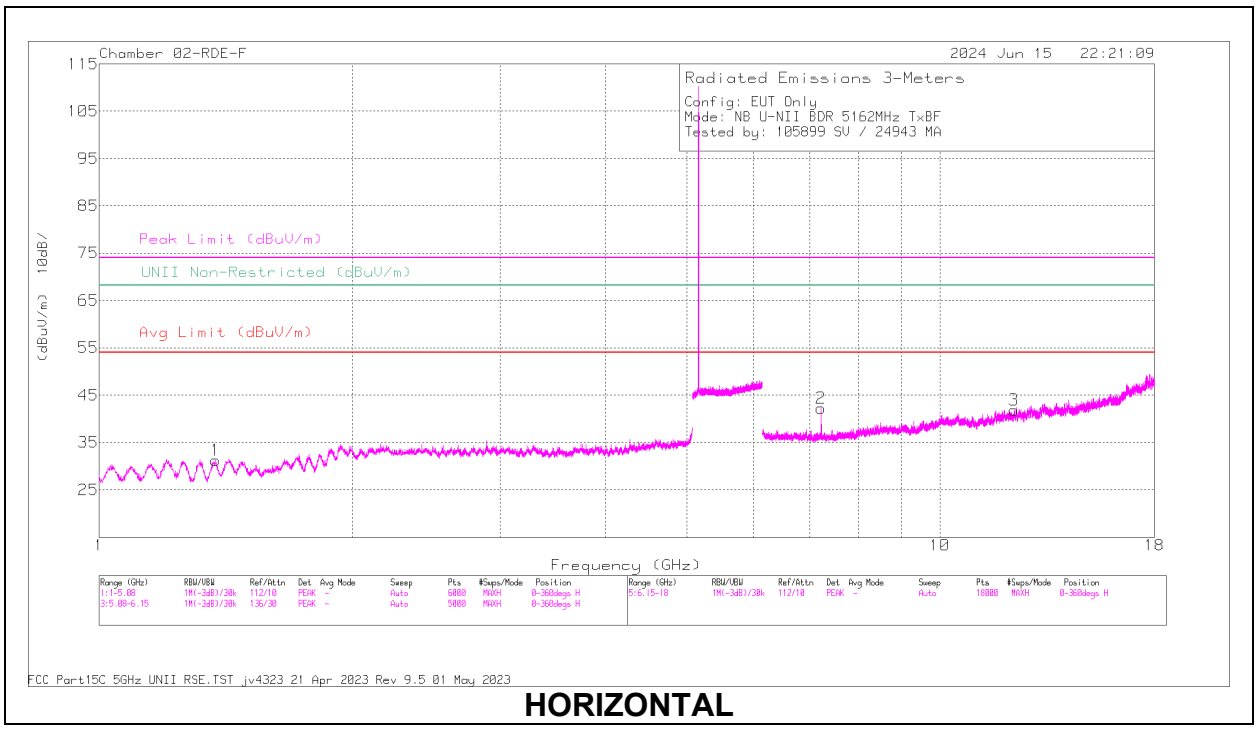


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.27	Pk	34.2	-38.28	53.19	-	-	74	-20.81	235	195	V
2	* 5.11189	59.88	Pk	34.1	-38.36	55.62	-	-	74	-18.38	235	195	V
3	* 5.15	46.81	RMS	34.2	-38.28	42.73	54	-11.27	-	-	235	195	V
4	* 5.14689	47.86	RMS	34.2	-38.25	43.81	54	-10.19	-	-	235	195	V

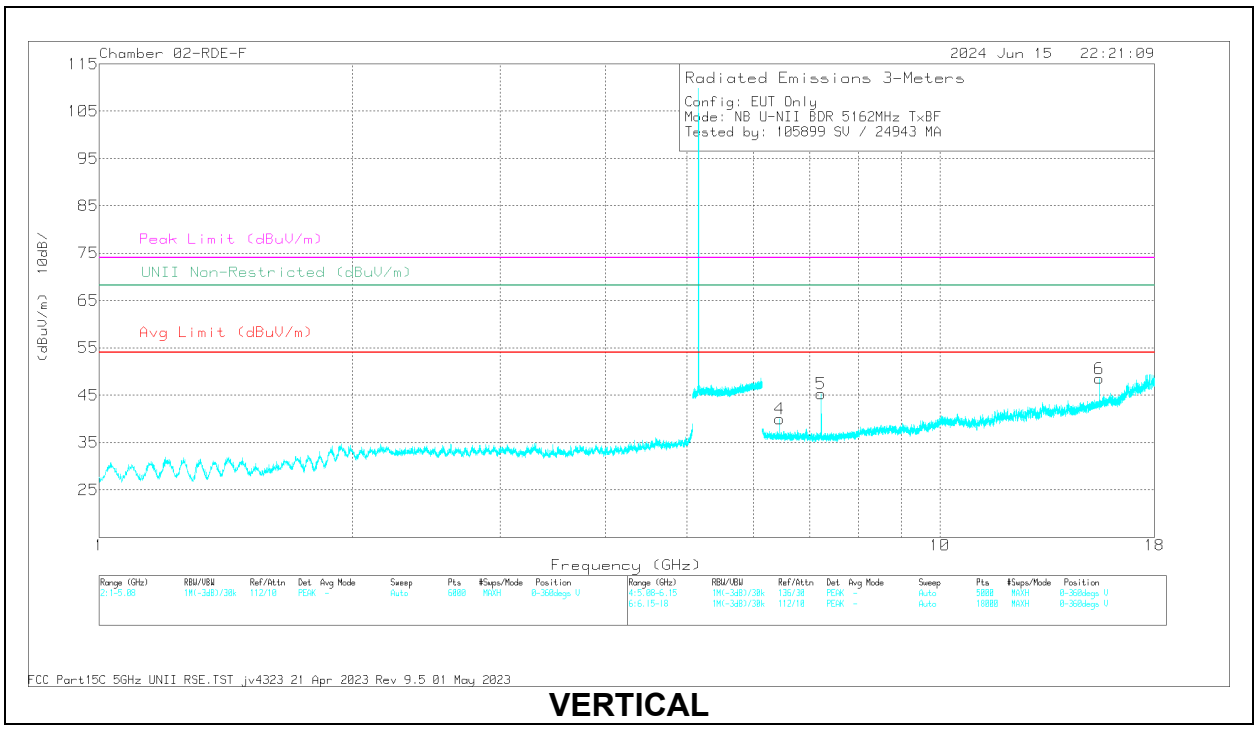
* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

10.1.2. BDR HIGH POWER, UNII-1 BAND, MIMO TXBF MODE, HARMONIC AND SPURIOUS

LOW CHANNEL, 5162 MHz



HORIZONTAL



VERTICAL

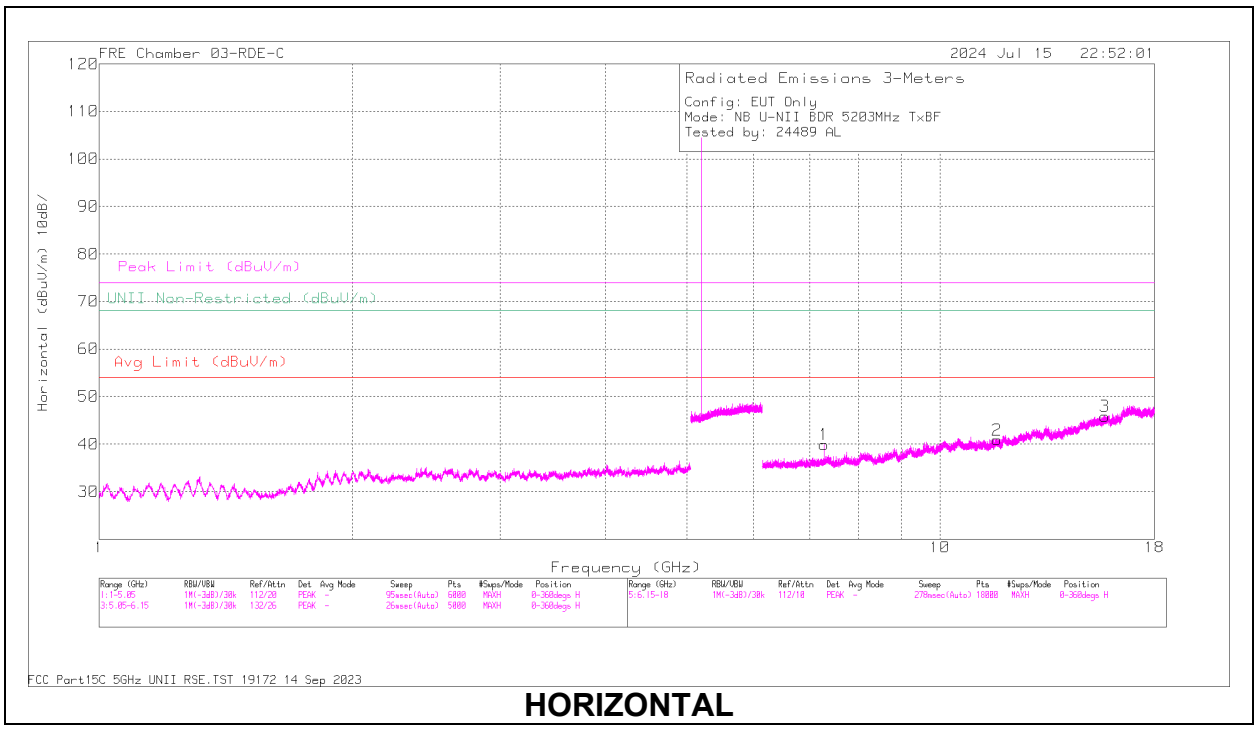
RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.37562	60.2	PK-U	28.4	-47.5	41.1	-	-	74	-32.9	-	-	360	101	H
	* 1.37362	48.69	ADR	28.4	-47.5	29.59	54	-24.41	-	-	-	-	360	101	H
3	* 12.2549	54.72	PK-U	38.7	-41.4	52.02	-	-	74	-21.98	-	-	207	274	H
	* 12.2505	42.59	ADR	38.7	-41.5	39.79	54	-14.21	-	-	-	-	207	274	H
6	* 15.4863	57.45	PK-U	40.4	-41.8	56.05	-	-	74	-17.95	-	-	336	122	V
	* 15.4859	49.8	ADR	40.4	-41.8	48.4	54	-5.6	-	-	-	-	336	122	V
4	6.452544	57.27	PK-U	35.7	-44.3	48.67	-	-	-	-	68.2	-19.53	11	106	V
	6.452557	48.45	ADR	35.7	-44.3	39.85	-	-	-	-	-	-	11	106	V
2	7.226429	59.47	PK-U	35.6	-44.1	50.97	-	-	-	-	68.2	-17.23	28	118	V
5	7.226512	56	PK-U	35.6	-44.1	47.5	-	-	-	-	68.2	-20.7	360	101	H
	7.226703	53.13	ADR	35.6	-44.1	44.63	-	-	-	-	-	-	28	118	V
	7.226841	45.14	ADR	35.6	-44.1	36.64	-	-	-	-	-	-	360	101	H

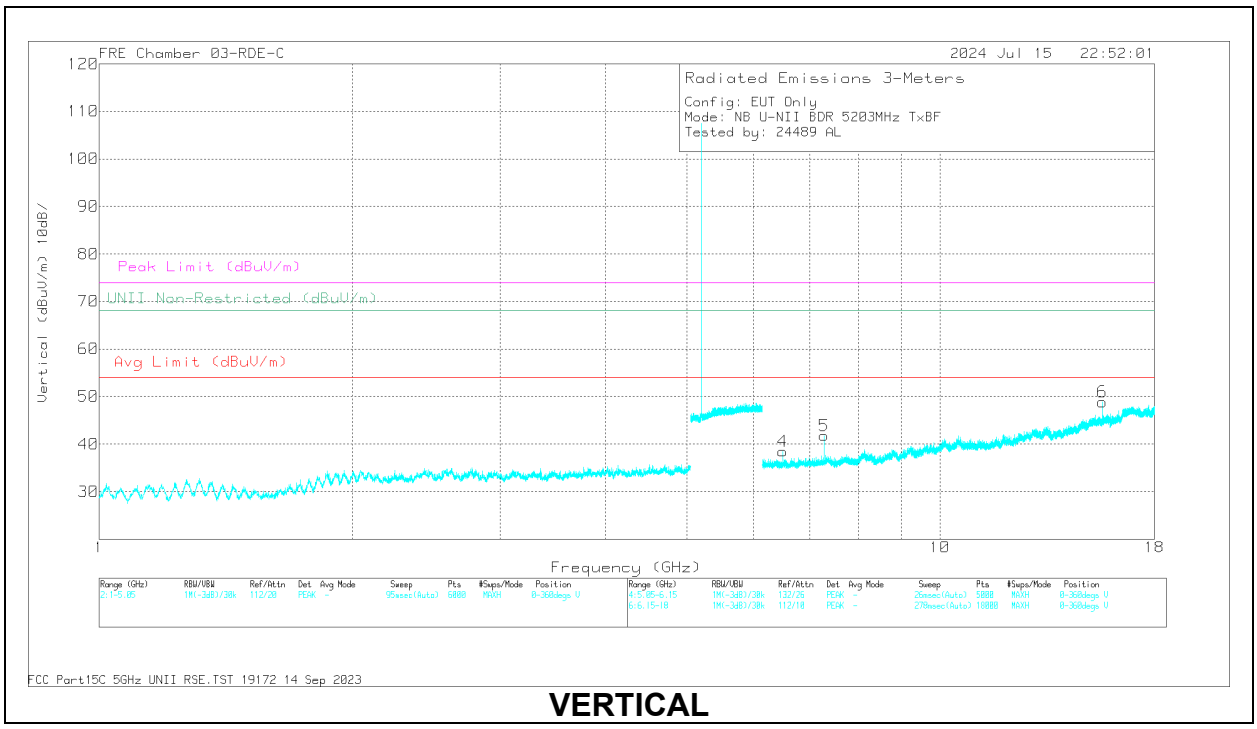
* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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

MID CHANNEL, 5203 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 7.284268	58.77	PK-U	35.7	-45.57	48.9	-	-	74	-25.1	-	-	77	107	H
	* 7.284207	50.1	ADR	35.7	-45.58	40.22	54	-13.78	-	-	-	-	77	107	H
2	* 11.69796	55.06	PK-U	38.1	-43.1	50.06	-	-	74	-23.94	-	-	102	101	H
	* 11.69866	44.02	ADR	38.1	-43.1	39.02	54	-14.98	-	-	-	-	102	101	H
3	* 15.71730	58.69	PK-U	40.3	-43.6	55.39	-	-	74	-18.61	-	-	102	200	H
	* 15.71924	46.12	ADR	40.3	-43.6	42.82	54	-11.18	-	-	-	-	102	200	H
5	* 7.284369	59.11	PK-U	35.7	-45.56	49.25	-	-	74	-24.75	-	-	153	109	V
	* 7.284188	50.98	ADR	35.7	-45.58	41.1	54	-12.9	-	-	-	-	153	109	V
6	* 15.60868	59.37	PK-U	40.2	-43.5	56.07	-	-	74	-17.93	-	-	102	122	V
	* 15.60887	50.77	ADR	40.2	-43.5	47.47	54	-6.53	-	-	-	-	102	122	V
4	6.503334	57.1	PK-U	35.5	-45.1	47.5	-	-	-	-	68.2	-20.7	147	138	V
	6.503751	47.57	ADR	35.5	-45.1	37.97	-	-	-	-	-	-	147	138	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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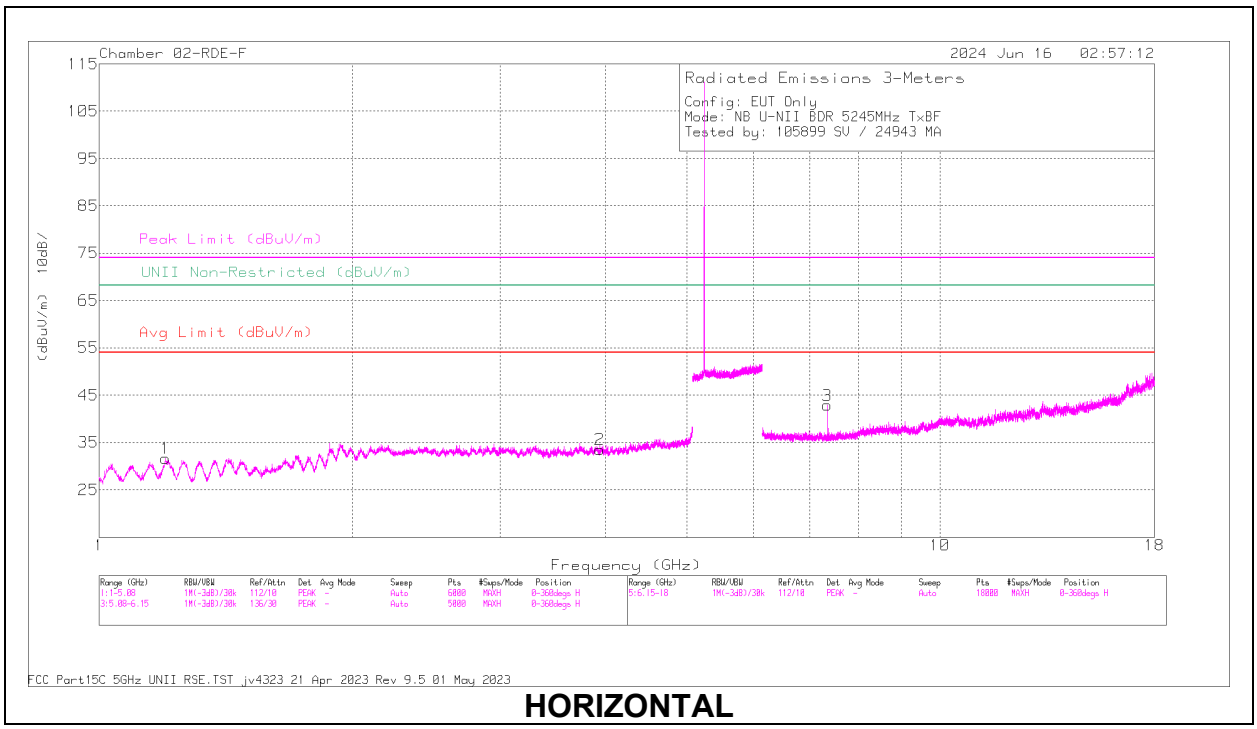
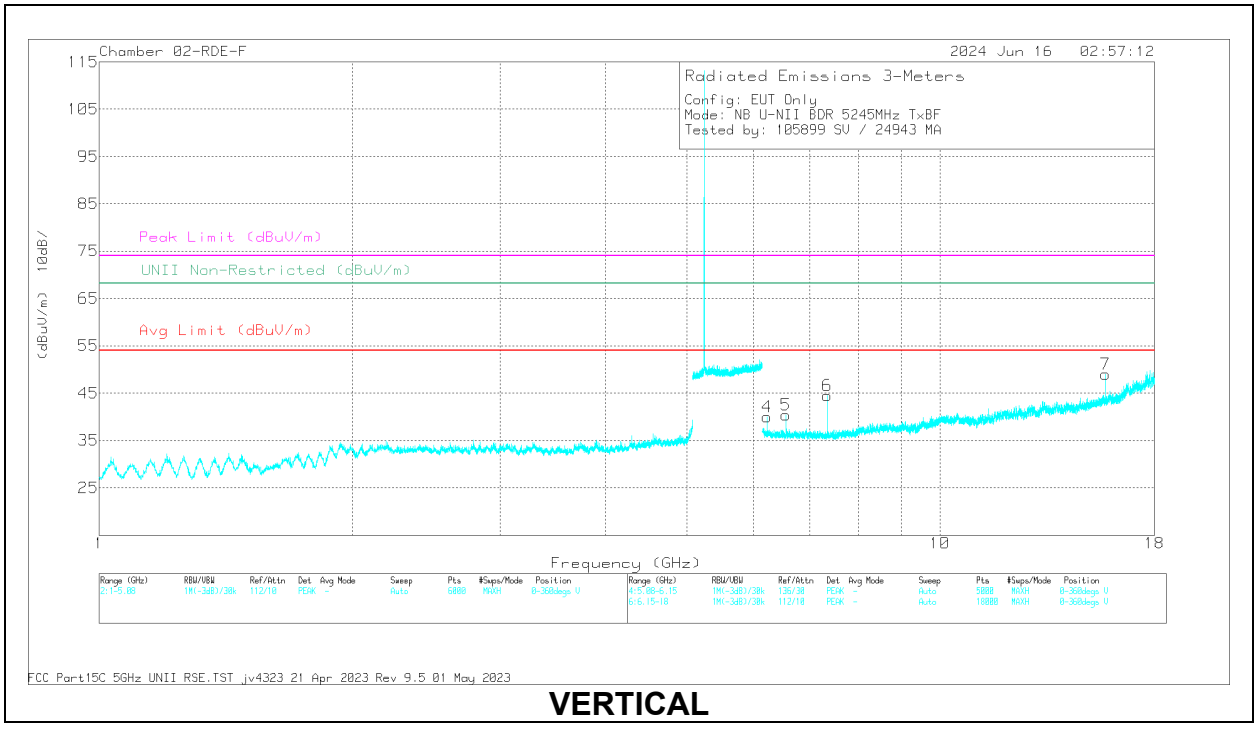
HIGH CHANNEL, 5245 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.200297	60.71	PK-U	28.3	-47.8	0	41.21	-	-	74	-32.79	-	-	360	200
	* 1.200591	49.21	ADR	28.3	-47.8	0	29.71	54	-24.29	-	-	-	-	360	200
2	* 3.935573	56.04	PK-U	33.4	-46	0	43.44	-	-	74	-30.56	-	-	360	200
	* 3.936828	44.61	ADR	33.4	-46	0	32.01	54	-21.99	-	-	-	-	360	200
3	* 7.343058	58.81	PK-U	35.6	-44.4	0	50.01	-	-	74	-23.99	-	-	311	101
	* 7.342899	51.05	ADR	35.6	-44.4	0	42.25	54	-11.75	-	-	-	-	311	101
7	* 15.73525	58.11	PK-U	40.7	-42.2	0	56.61	-	-	74	-17.39	-	-	333	116
	* 15.73496	50.4	ADR	40.7	-42.2	0	48.9	54	-5.1	-	-	-	-	333	116
6	* 7.342771	58.65	PK-U	35.6	-44.4	0	49.85	-	-	74	-24.15	-	-	266	108
	* 7.343057	51.44	ADR	35.6	-44.4	0	42.64	54	-11.36	-	-	-	-	266	108
4	6.228118	57.95	PK-U	35.6	-44.3	0	49.25	-	-	-	-	68.2	-18.95	15	101
	6.228352	48.75	ADR	35.6	-44.3	0	40.05	-	-	-	-	-	-	15	101
5	6.555956	58.29	PK-U	35.7	-44.2	0	49.79	-	-	-	-	68.2	-18.41	10	101
	6.556238	49.3	ADR	35.7	-44.2	0	40.8	-	-	-	-	-	-	10	101

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

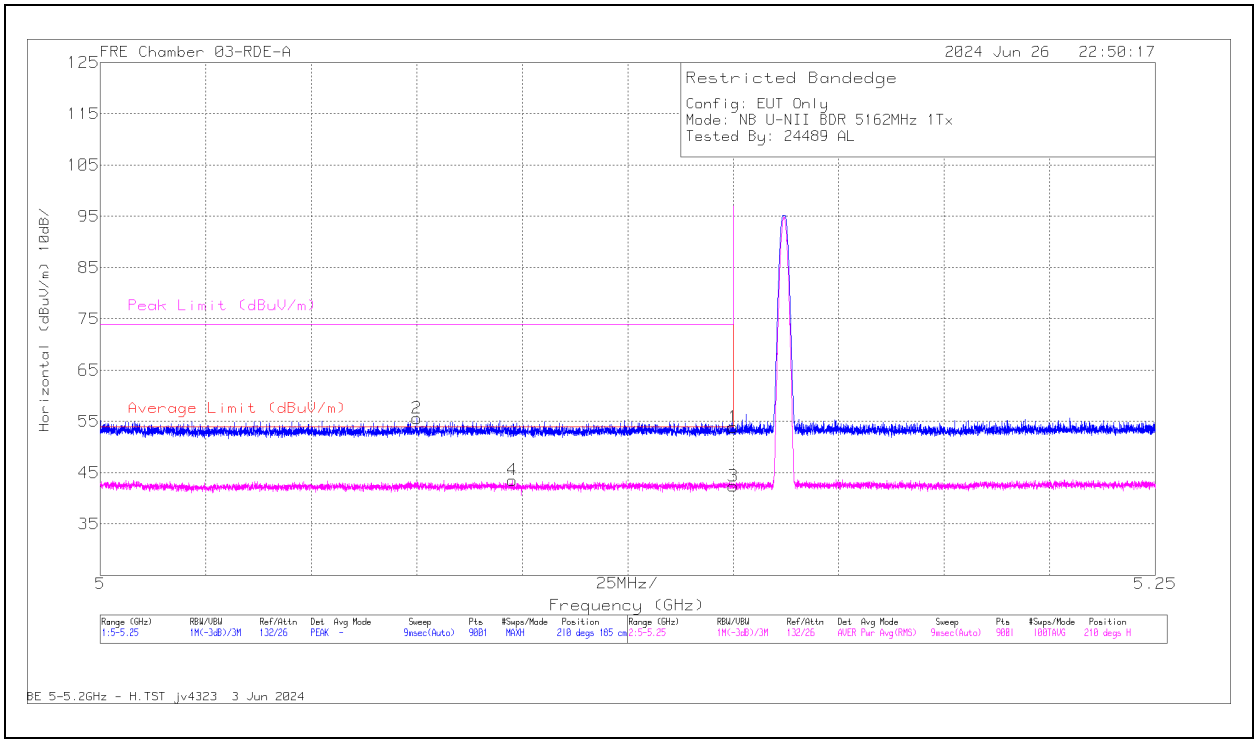
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

10.1.3. BDR LOW POWER, UNII-1 BAND, BANDEDGE

ANT 6, SISO MODE

LOW CHANNEL, 5162 MHz

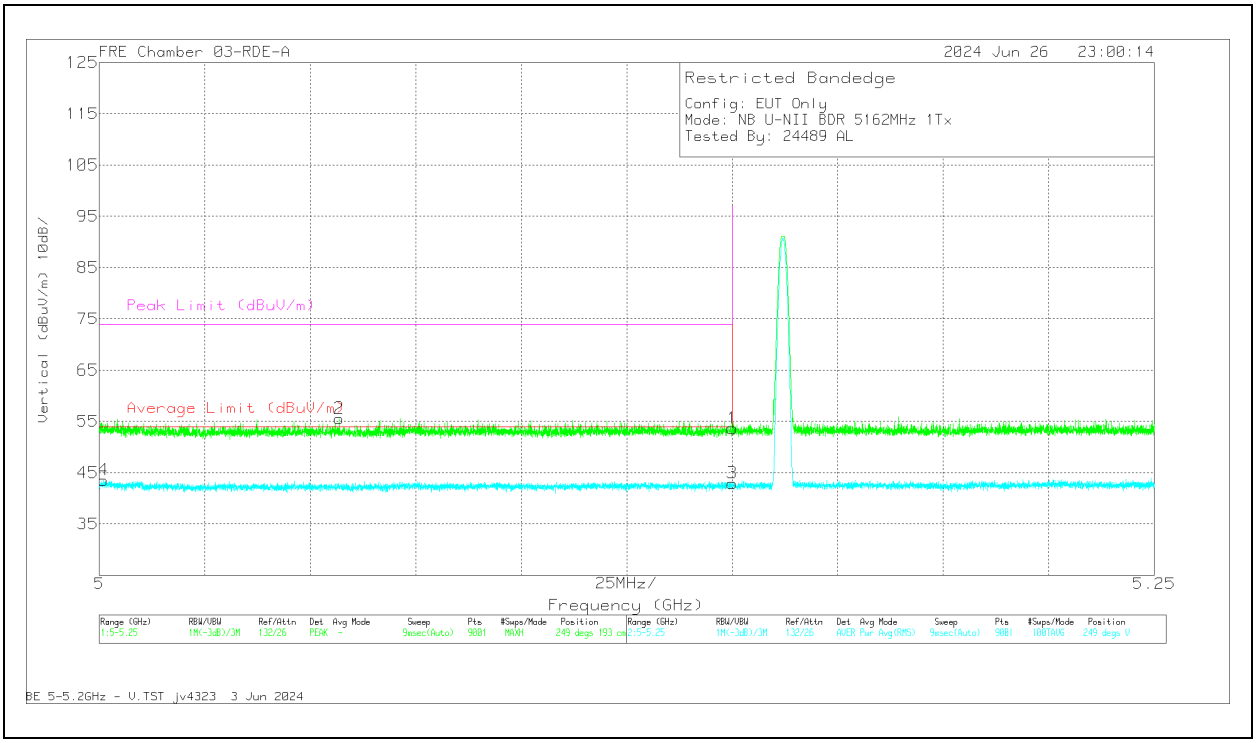
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.97	Pk	34.2	-38.28	53.89	-	-	74	-20.11	210	185	H
2	* 5.07505	59.8	Pk	34.1	-38.29	55.61	-	-	74	-18.39	210	185	H
3	* 5.15	46.47	RMS	34.2	-38.28	42.39	54	-11.61	-	-	210	185	H
4	* 5.09764	47.87	RMS	34.1	-38.41	43.56	54	-10.44	-	-	210	185	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



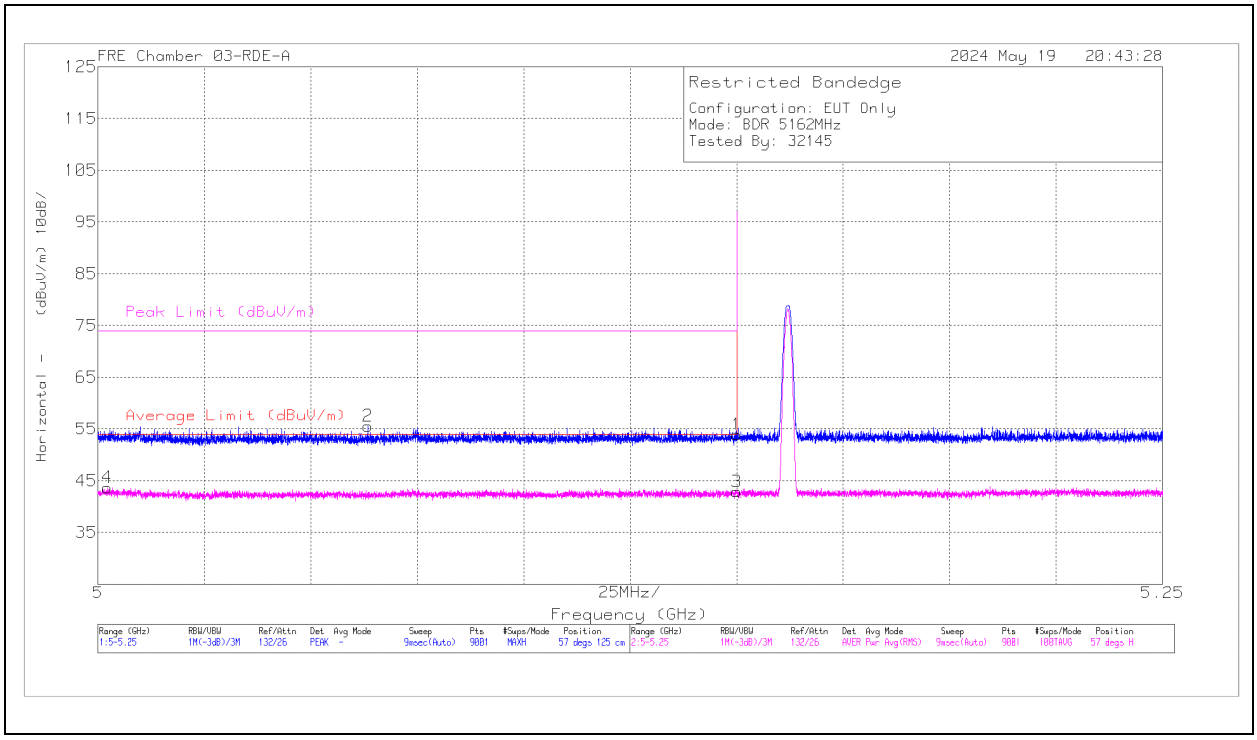
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.72	Pk	34.2	-38.28	53.64	-	-	74	-20.36	249	193	V
2	* 5.05683	59.88	Pk	34	-38.32	55.56	-	-	74	-18.44	249	193	V
3	* 5.15	47.02	RMS	34.2	-38.28	42.94	54	-11.06	-	-	249	193	V
4	* 5.00097	47.81	RMS	34	-38.26	43.55	54	-10.45	-	-	249	193	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 5, SISO MODE

LOW CHANNEL, 5162 MHz

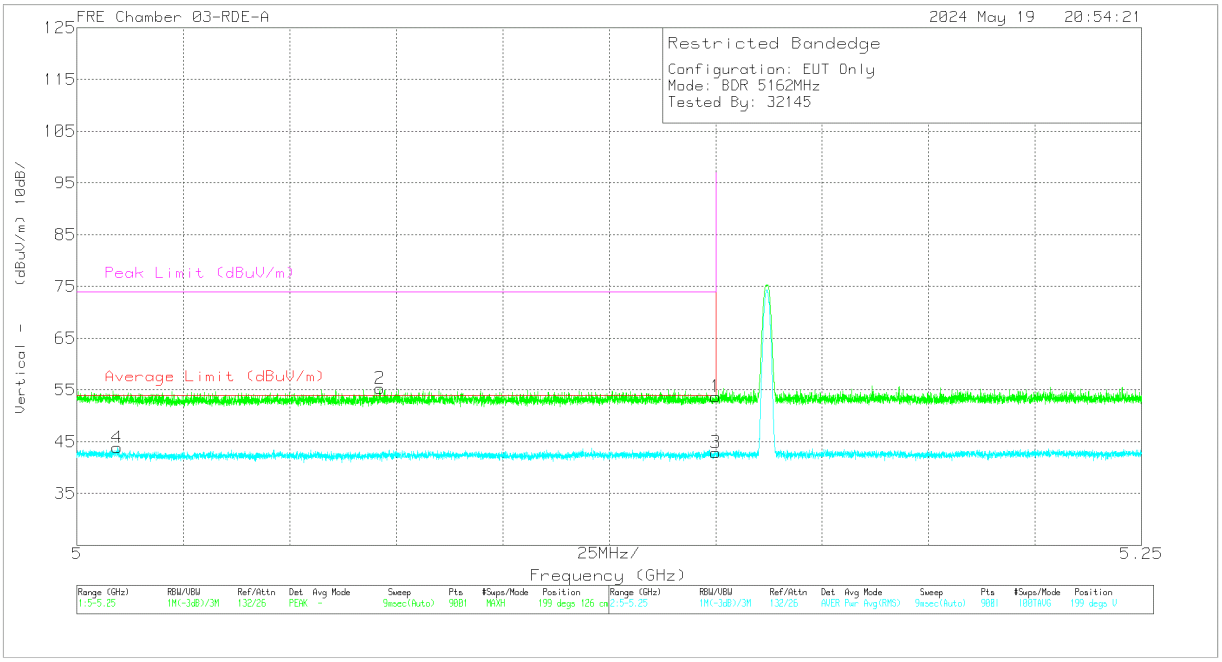
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.99	Pk	34.2	-38.28	53.91	-	-	74	-20.09	57	125	H
2	* 5.06341	59.74	Pk	34.1	-38.31	55.53	-	-	74	-18.47	57	125	H
3	* 5.15	46.94	RMS	34.2	-38.28	42.86	54	-11.14	-	-	57	125	H
4	* 5.00219	47.89	RMS	34	-38.22	43.67	54	-10.33	-	-	57	125	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



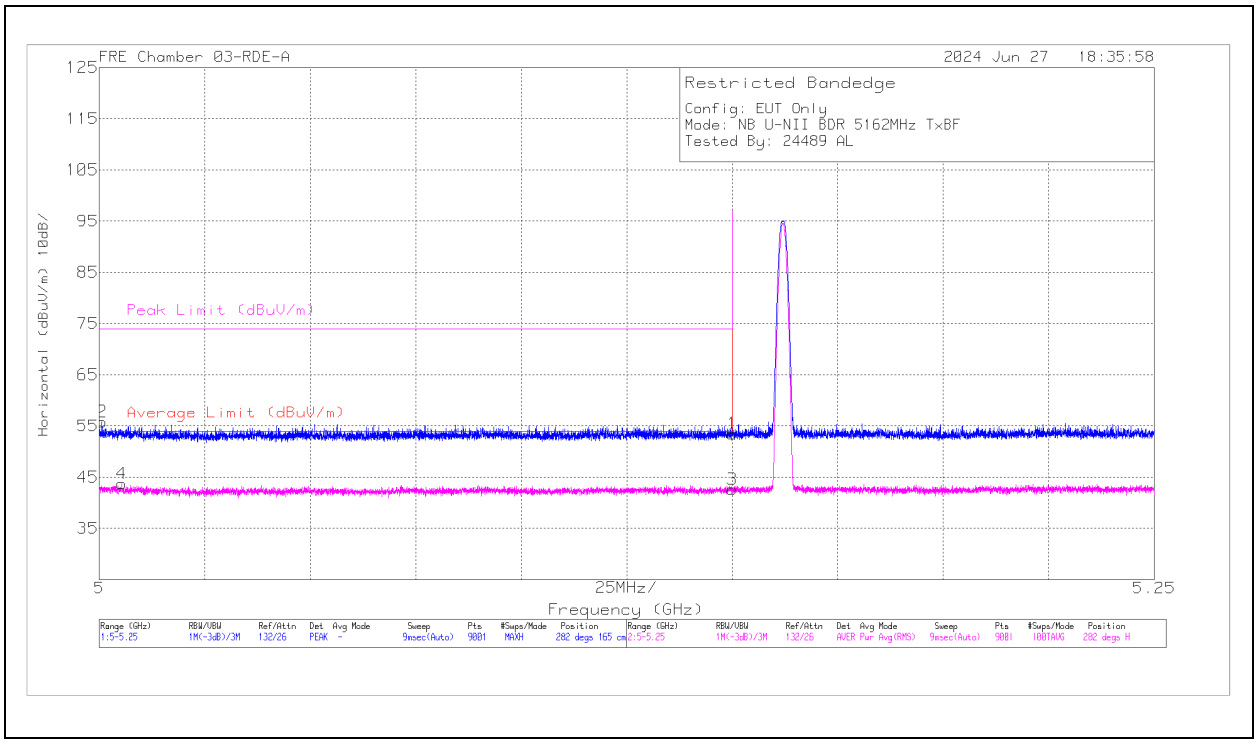
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.8	Pk	34.2	-38.28	53.72	-	-	74	-20.28	199	126	V
2	* 5.07113	59.57	Pk	34.1	-38.38	55.29	-	-	74	-18.71	199	126	V
3	* 5.15	46.99	RMS	34.2	-38.28	42.91	54	-11.09	-	-	199	126	V
4	* 5.00944	48.2	RMS	34	-38.35	43.85	54	-10.15	-	-	199	126	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 6 + ANT 5, MIMO TXBF MODE

LOW CHANNEL, 5162 MHz

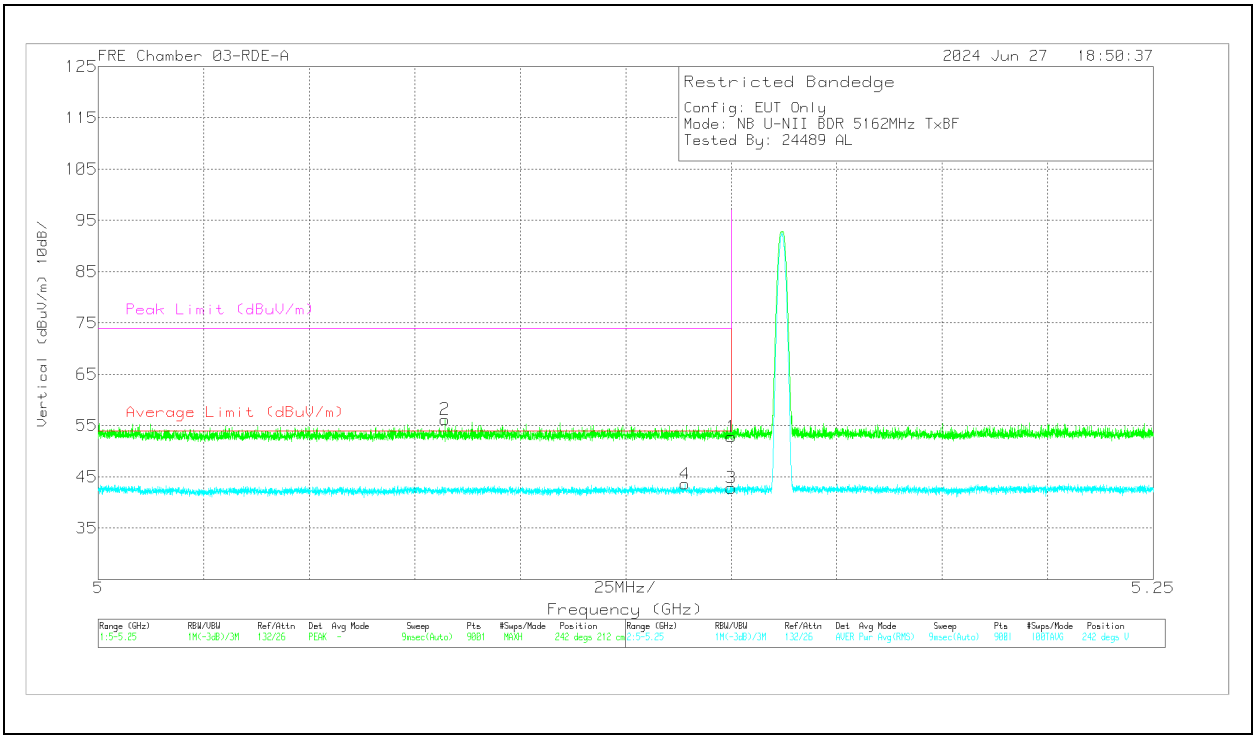
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.57	Pk	34.2	-38.28	53.49	-	-	74	-20.51	282	165	H
2	* 5.00063	60.05	Pk	34	-38.27	55.78	-	-	74	-18.22	282	165	H
3	* 5.15	46.7	RMS	34.2	-38.28	42.62	54	-11.38	-	-	282	165	H
4	* 5.00533	48.06	RMS	34	-38.34	43.72	54	-10.28	-	-	282	165	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT

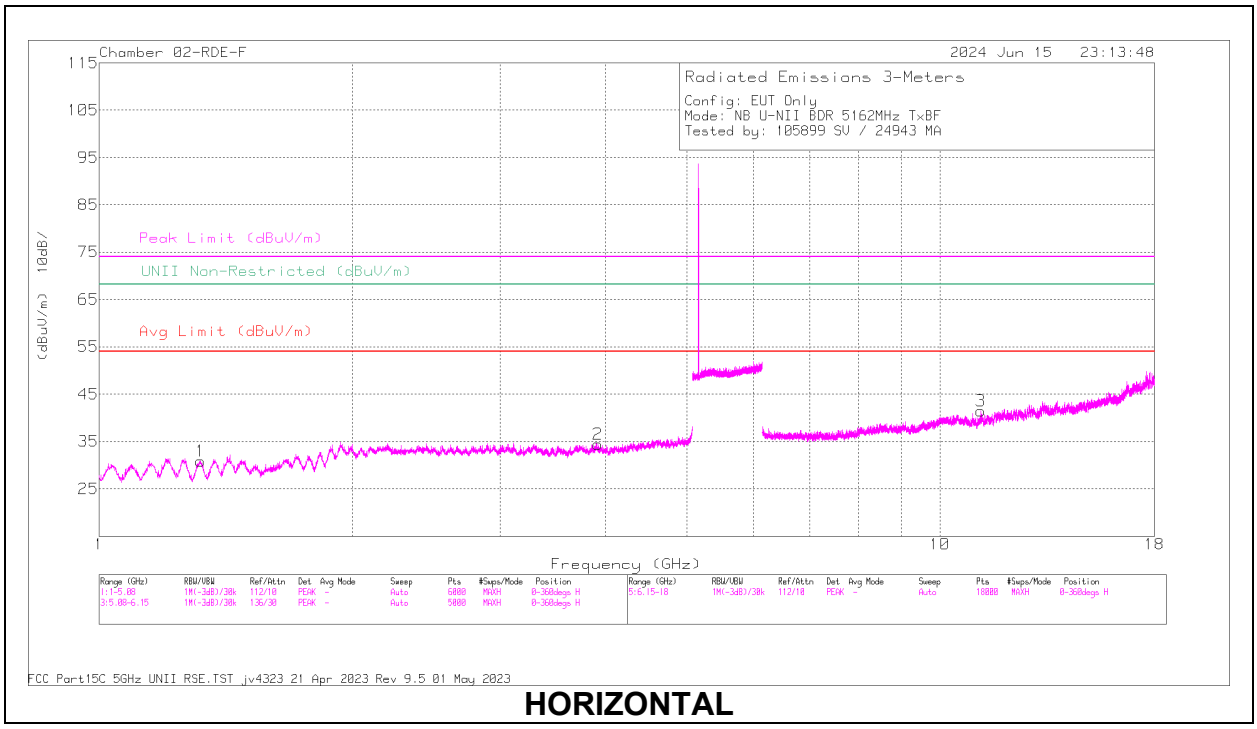


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	56.89	Pk	34.2	-38.28	52.81	-	-	74	-21.19	242	212	V
2	* 5.08216	60.42	Pk	34.1	-38.34	56.18	-	-	74	-17.82	242	212	V
3	* 5.15	46.92	RMS	34.2	-38.28	42.84	54	-11.16	-	-	242	212	V
4	* 5.13908	47.71	RMS	34.2	-38.3	43.61	54	-10.39	-	-	242	212	V

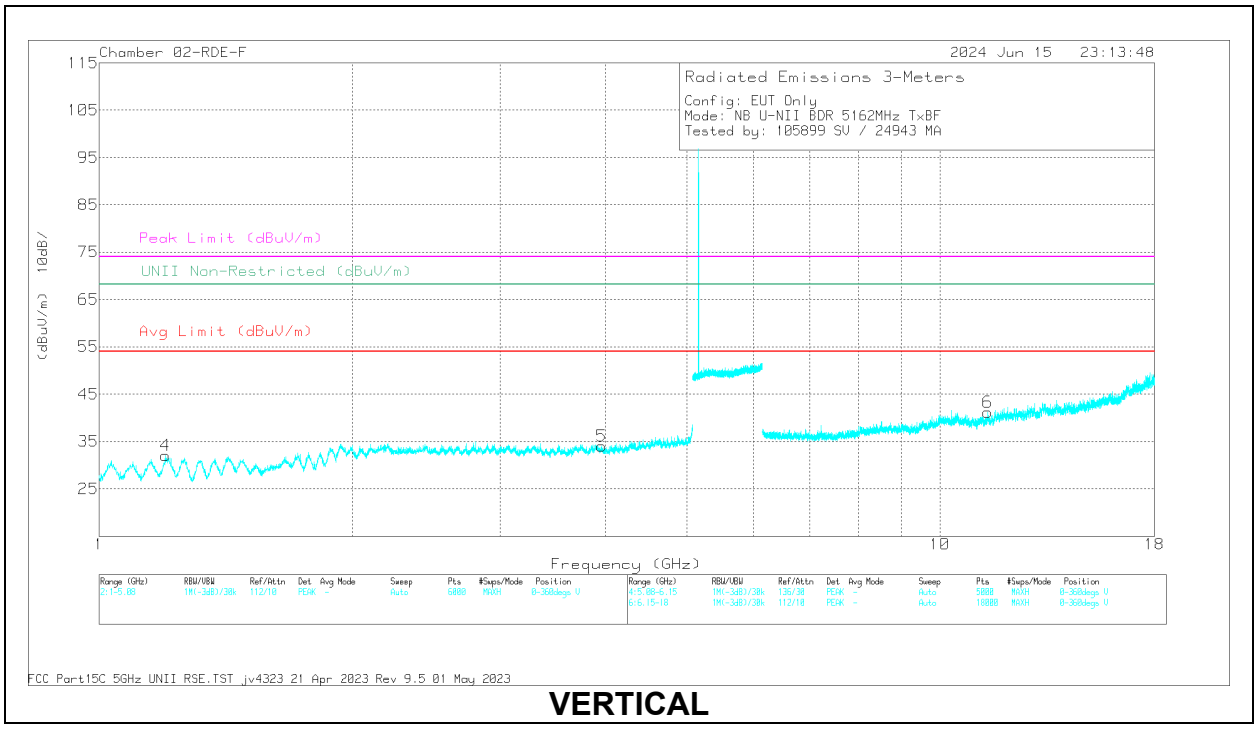
* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

10.1.4. BDR LOW POWER, UNII-1 BAND, MIMO TXBF MODE, HARMONIC AND SPURIOUS

LOW CHANNEL, 5162 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.318758	60.16	PK-U	28.5	-47.5	41.16	-	-	74	-32.84	0	200	H
	* 1.319582	48.61	ADR	28.5	-47.5	29.61	54	-24.39	-	-	0	200	H
2	* 3.921481	56.74	PK-U	33.4	-46.1	44.04	-	-	74	-29.96	0	200	H
	* 3.918477	45.03	ADR	33.4	-46.1	32.33	54	-21.67	-	-	0	200	H
4	* 1.199436	60.37	PK-U	28.3	-47.7	40.97	-	-	74	-33.03	0	101	V
	* 1.199855	48.77	ADR	28.3	-47.8	29.27	54	-24.73	-	-	0	101	V
5	* 3.956412	56.66	PK-U	33.4	-46.1	43.96	-	-	74	-30.04	0	101	V
	* 3.959547	44.82	ADR	33.4	-46.1	32.12	54	-21.88	-	-	0	101	V
3	* 11.182349	54.93	PK-U	37.8	-42.7	50.03	-	-	74	-23.97	0	101	H
	* 11.183628	43.4	ADR	37.8	-42.7	38.5	54	-15.5	-	-	0	101	H
6	* 11.394638	54.78	PK-U	37.8	-42.4	50.18	-	-	74	-23.82	0	200	V
	* 11.394097	43.21	ADR	37.8	-42.4	38.61	54	-15.39	-	-	0	200	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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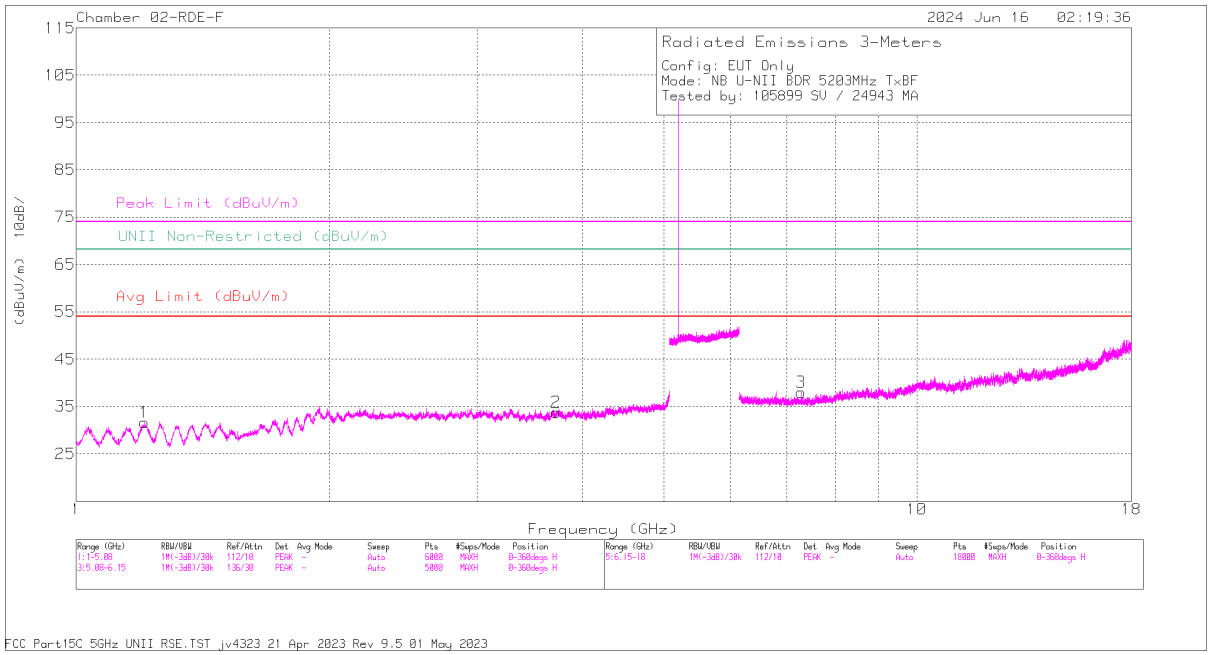
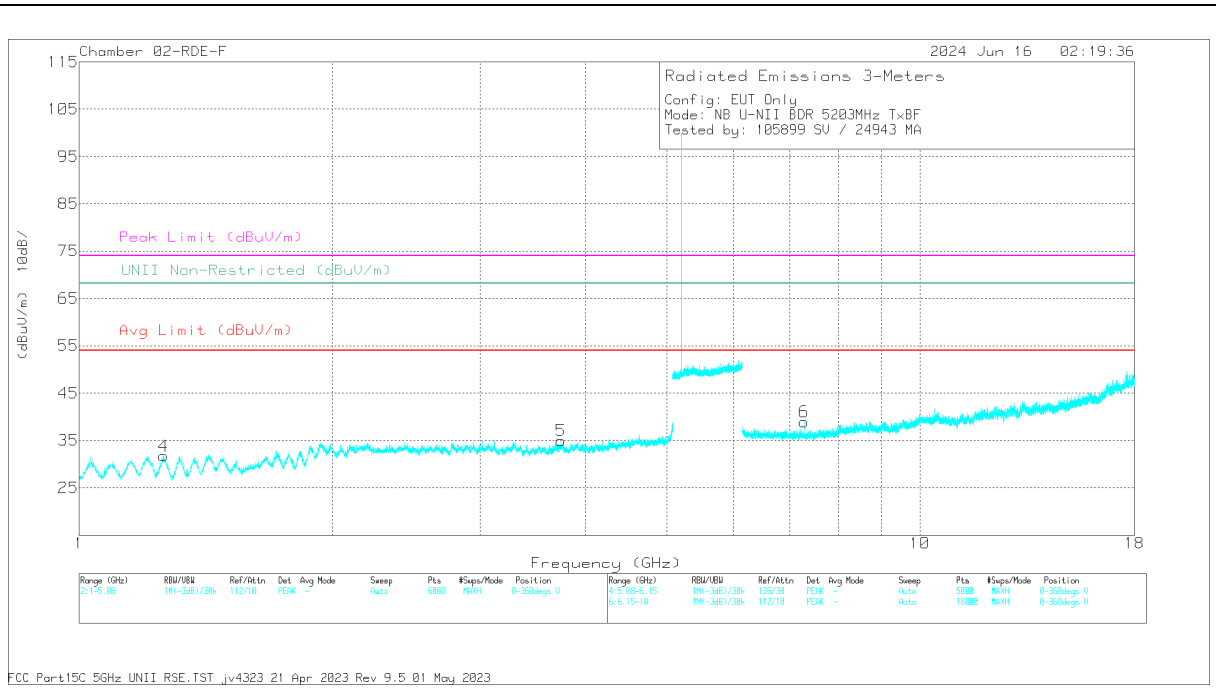
MID CHANNEL, 5203 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.20671	60.75	PK-U	28.3	-47.8	41.25	-	-	74	-32.75	360	200	H
	* 1.20496	49.19	ADR	28.3	-47.8	29.69	54	-24.31	-	-	360	200	H
2	* 3.72060	56.74	PK-U	33.3	-46.1	43.94	-	-	74	-30.06	360	101	H
	* 3.71930	44.93	ADR	33.3	-46.1	32.13	54	-21.87	-	-	360	101	H
4	* 1.26198	60.24	PK-U	28.5	-47.4	41.34	-	-	74	-32.66	360	200	V
	* 1.25949	48.87	ADR	28.5	-47.5	29.87	54	-24.13	-	-	360	200	V
5	* 3.74162	57.3	PK-U	33.3	-46.2	44.4	-	-	74	-29.6	360	200	V
	* 3.73908	45.65	ADR	33.3	-46.2	32.75	54	-21.25	-	-	360	200	V
3	* 7.28464	54.86	PK-U	35.6	-44.3	46.16	-	-	74	-27.84	360	101	H
	* 7.28456	43.69	ADR	35.6	-44.3	34.99	54	-19.01	-	-	360	101	H
6	* 7.28421	56.65	PK-U	35.6	-44.2	48.05	-	-	74	-25.95	360	101	V
	* 7.28403	46.43	ADR	35.6	-44.2	37.83	54	-16.17	-	-	360	101	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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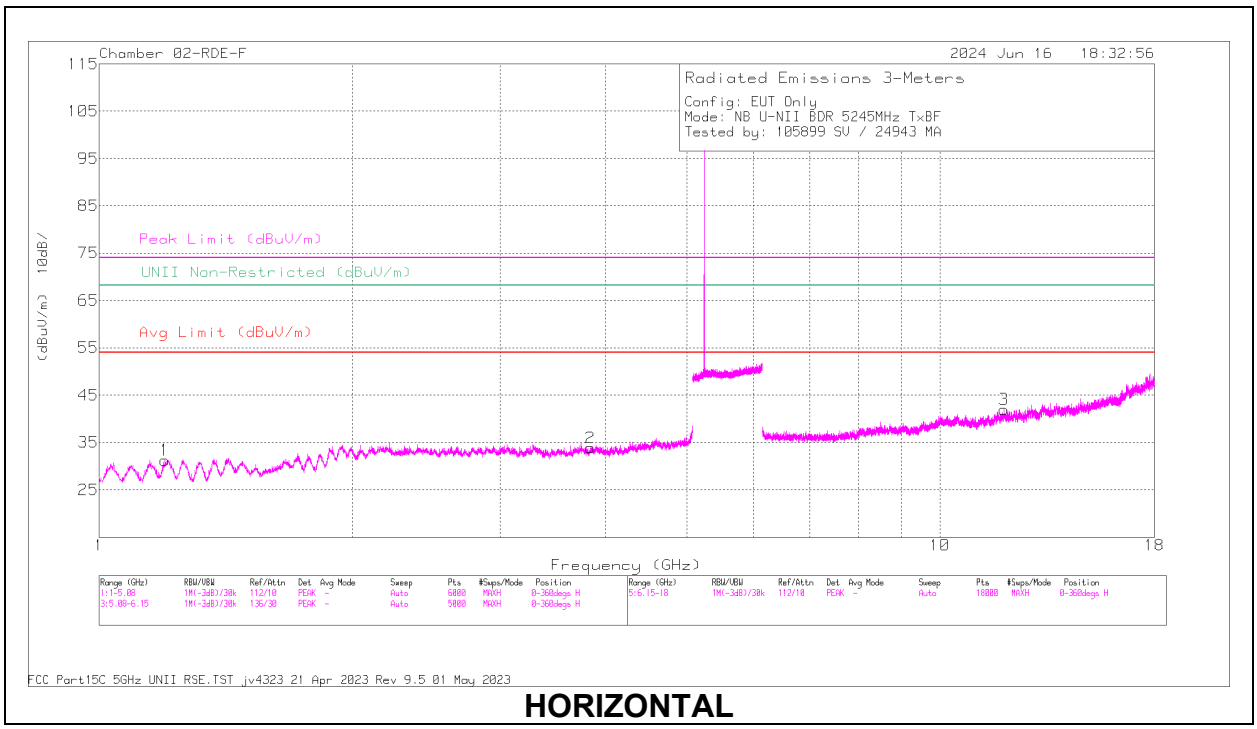
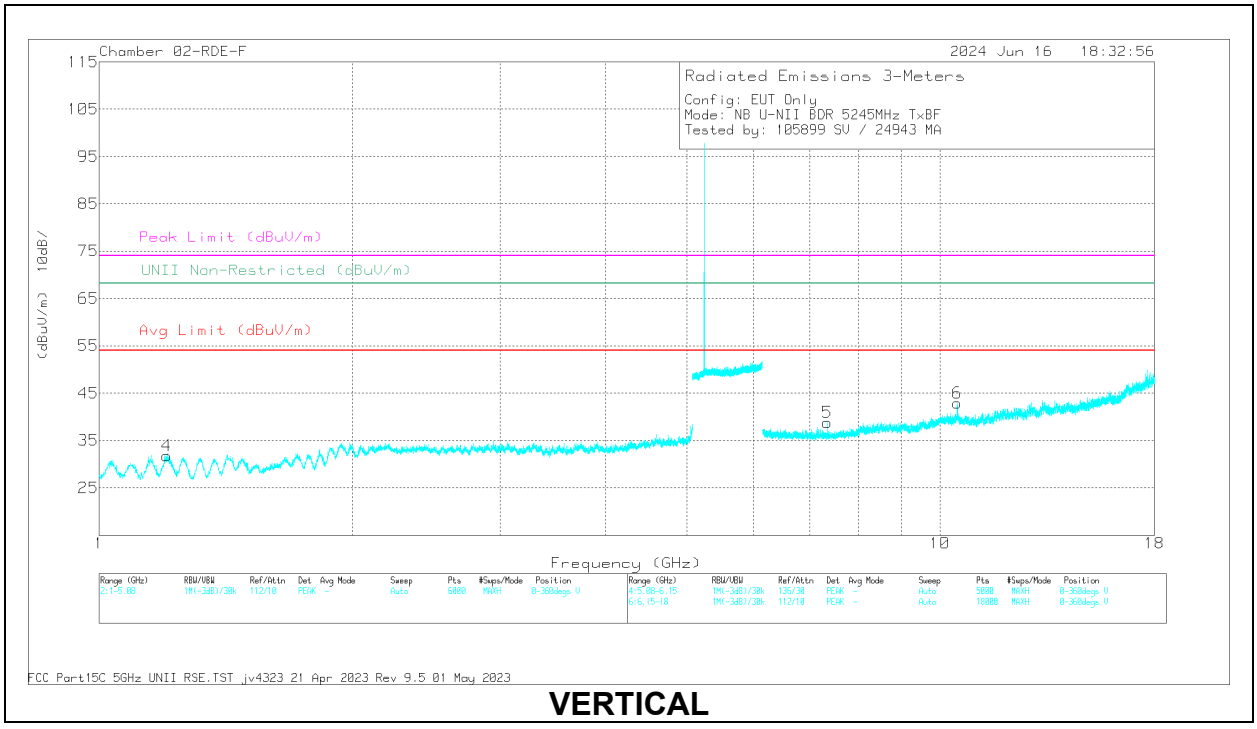
HIGH CHANNEL, 5245 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.197813	60.89	PK-U	28.3	-47.8	41.39	-	-	74	-32.61	-	-	360	200	H
	* 1.19918	49.03	ADR	28.3	-47.7	29.63	54	-24.37	-	-	-	-	360	200	H
2	* 3.836543	56.33	PK-U	33.4	-46.3	43.43	-	-	74	-30.57	-	-	360	101	H
	* 3.83934	44.89	ADR	33.4	-46.3	31.99	54	-22.01	-	-	-	-	360	101	H
4	* 1.202734	61.72	PK-U	28.3	-47.8	42.22	-	-	74	-31.78	-	-	360	200	V
	* 1.204385	49.61	ADR	28.3	-47.8	30.11	54	-23.89	-	-	-	-	360	200	V
3	* 11.92290	54.05	PK-U	38.7	-41.8	50.95	-	-	74	-23.05	-	-	360	101	H
	* 11.92275	42.52	ADR	38.7	-41.8	39.42	54	-14.58	-	-	-	-	360	101	H
5	* 7.34353	56.58	PK-U	35.6	-44.4	47.78	-	-	74	-26.22	-	-	24	129	V
	* 7.342983	47.03	ADR	35.6	-44.4	38.23	54	-15.77	-	-	-	-	24	129	V
6	10.489477	57.16	PK-U	37.9	-43.5	51.56	-	-	-	-	68.2	-16.64	2	112	V
	10.490068	47.58	ADR	37.9	-43.6	41.88	-	-	-	-	-	-	2	112	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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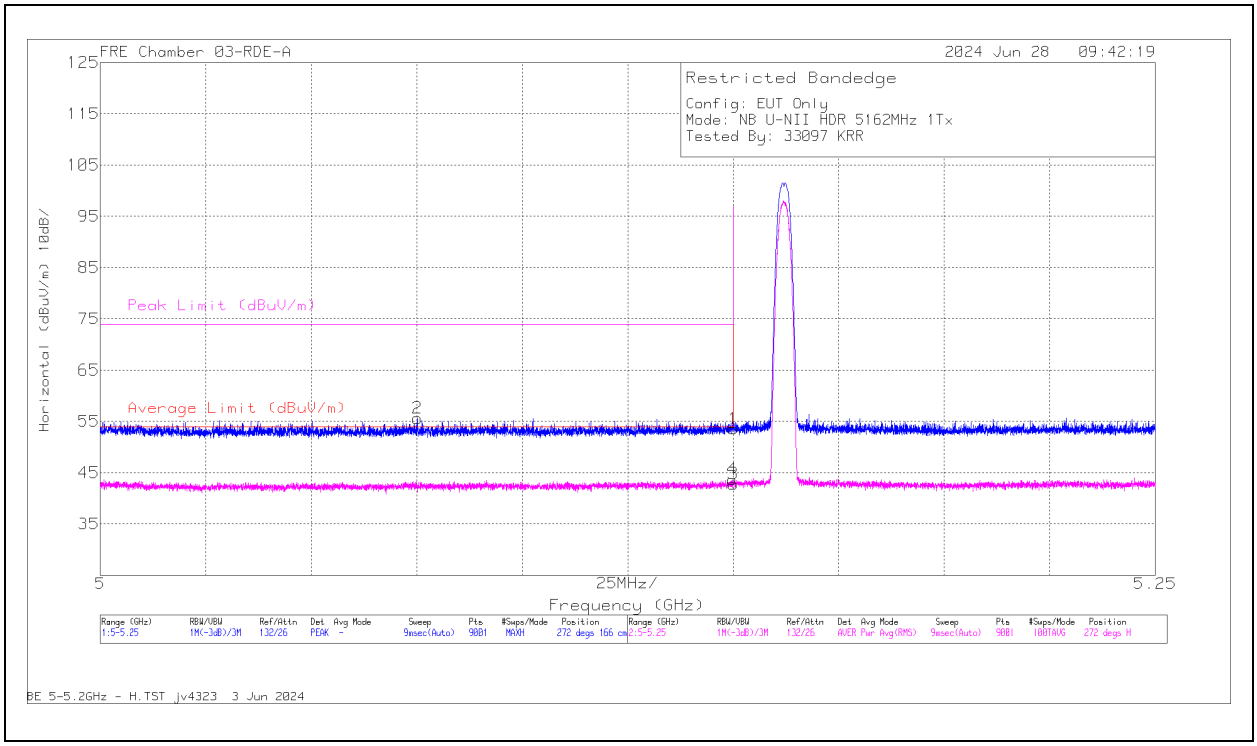
10.1.5. HDR 4 HIGH POWER, UNII-1 BAND, BANDEDGE

ANT 6, SISO MODE

LOW CHANNEL, 5162 MHz

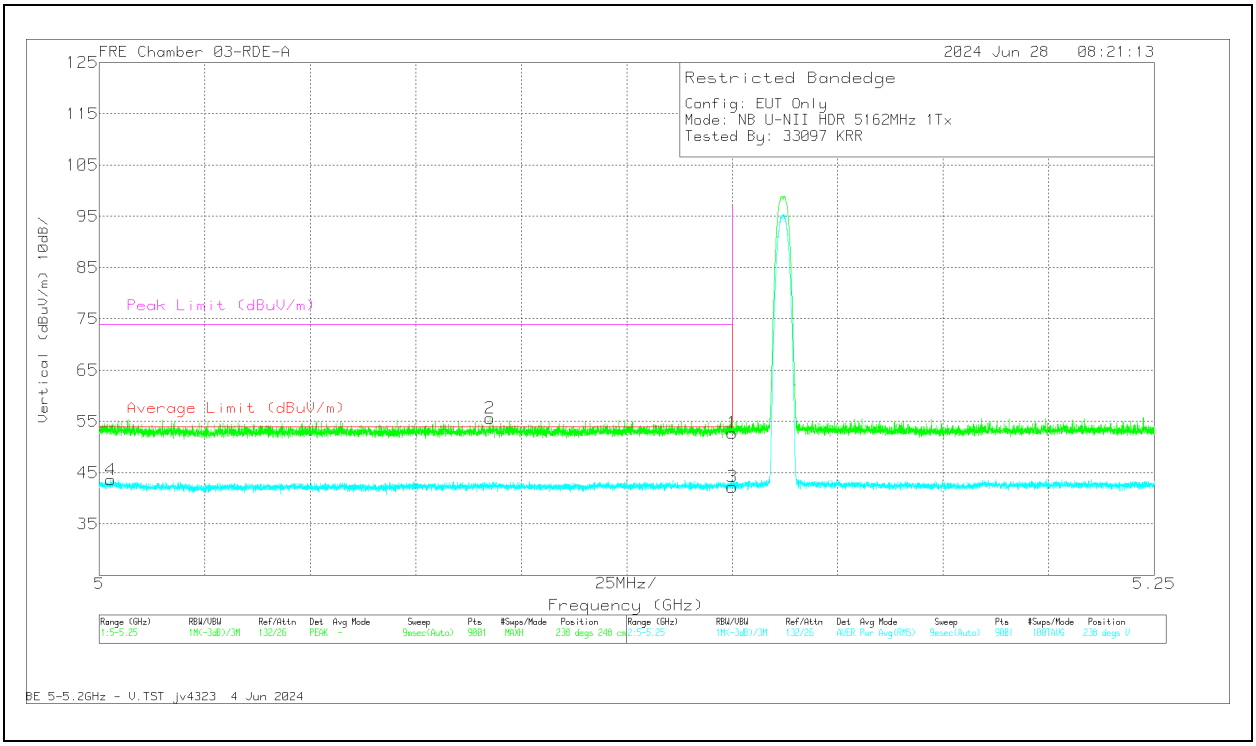
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.64	Pk	34.2	-38.28	53.56	-	-	74	-20.44	272	166	H
2	* 5.07519	59.81	Pk	34.1	-38.3	55.61	-	-	74	-18.39	272	166	H
3	* 5.15	46.89	RMS	34.2	-38.28	42.81	54	-11.19	-	-	272	166	H
4	* 5.14980	47.75	RMS	34.2	-38.28	43.67	54	-10.33	-	-	272	166	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



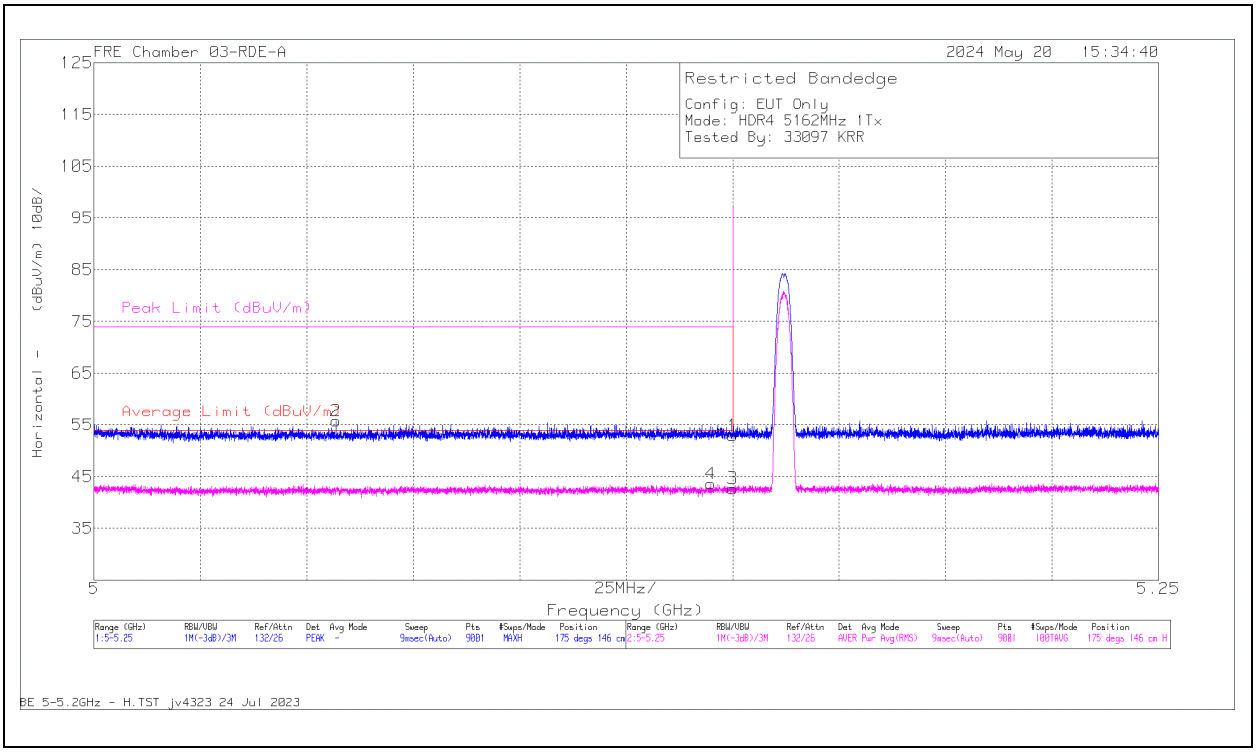
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	56.81	Pk	34.2	-38.28	52.73	-	-	74	-21.27	238	248	V
2	* 5.09258	59.78	Pk	34.1	-38.28	55.6	-	-	74	-18.4	238	248	V
3	* 5.15	46.31	RMS	34.2	-38.28	42.23	54	-11.77	-	-	238	248	V
4	* 5.00272	47.83	RMS	34	-38.23	43.6	54	-10.4	-	-	238	248	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 5, SISO MODE

LOW CHANNEL, 5162 MHz

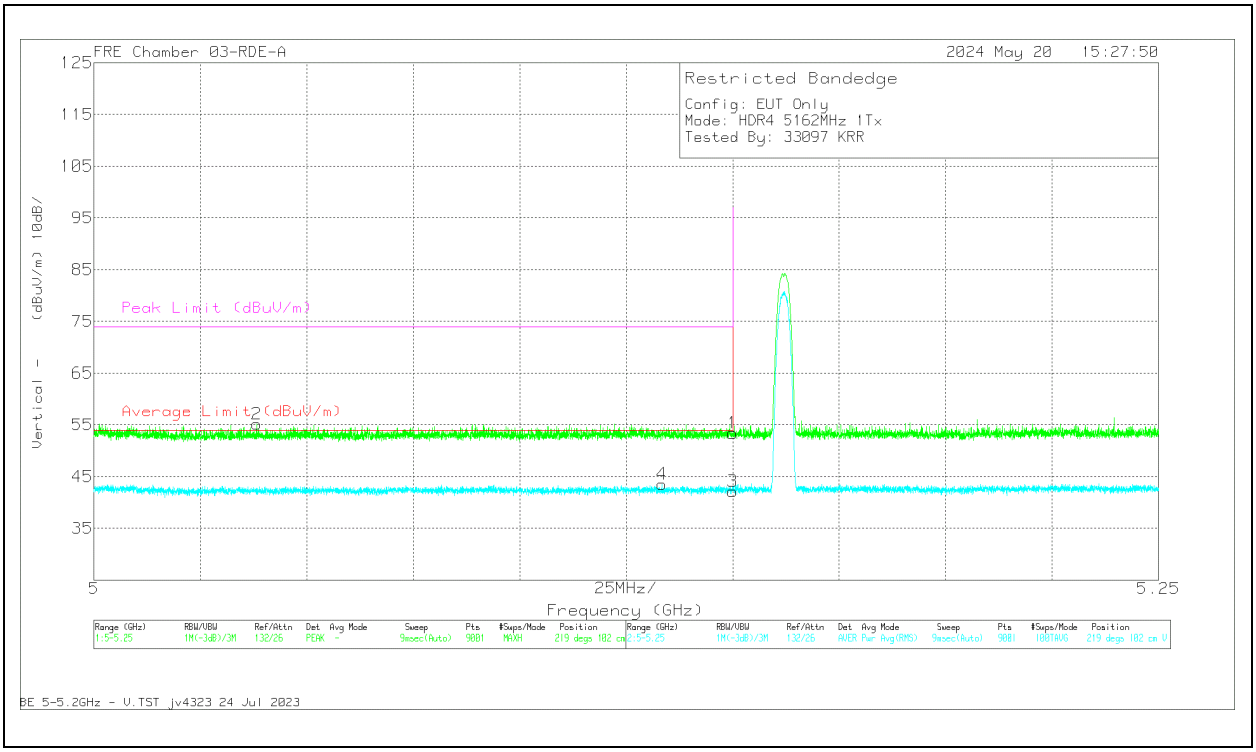
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.03	Pk	34.2	-38.28	52.95	-	-	74	-21.05	175	146	H
2	* 5.05686	60.07	Pk	34	-38.32	55.75	-	-	74	-18.25	175	146	H
3	* 5.15	46.75	RMS	34.2	-38.28	42.67	54	-11.33	-	-	175	146	H
4	* 5.14480	47.72	RMS	34.2	-38.3	43.62	54	-10.38	-	-	175	146	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



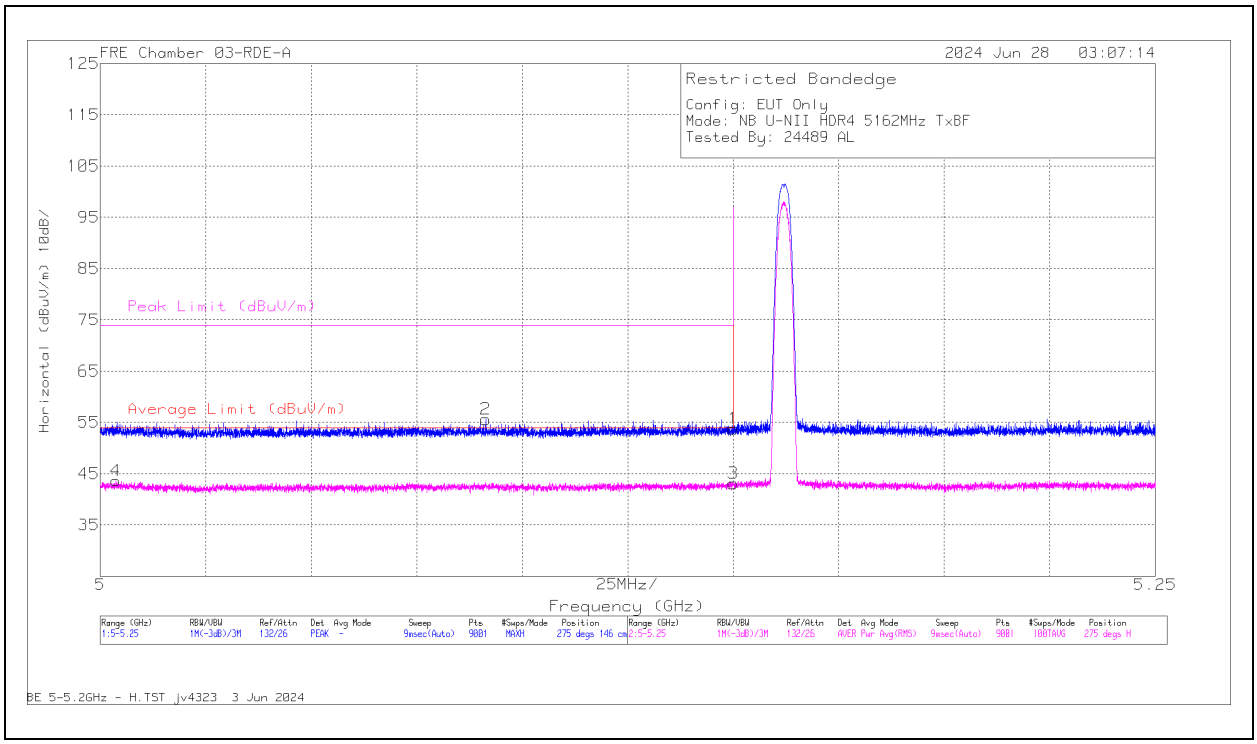
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	22667 3 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.47	Pk	34.2	-38.28	53.39	-	-	74	-20.61	219	102	V
2	* 5.038195	59.44	Pk	34	-38.28	55.16	-	-	74	-18.84	219	102	V
3	* 5.15	46.22	RMS	34.2	-38.28	42.14	54	-11.86	-	-	219	102	V
4	* 5.133418	47.71	RMS	34.2	-38.39	43.52	54	-10.48	-	-	219	102	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 6 + ANT 5, MIMO TXBF MODE

LOW CHANNEL, 5162 MHz

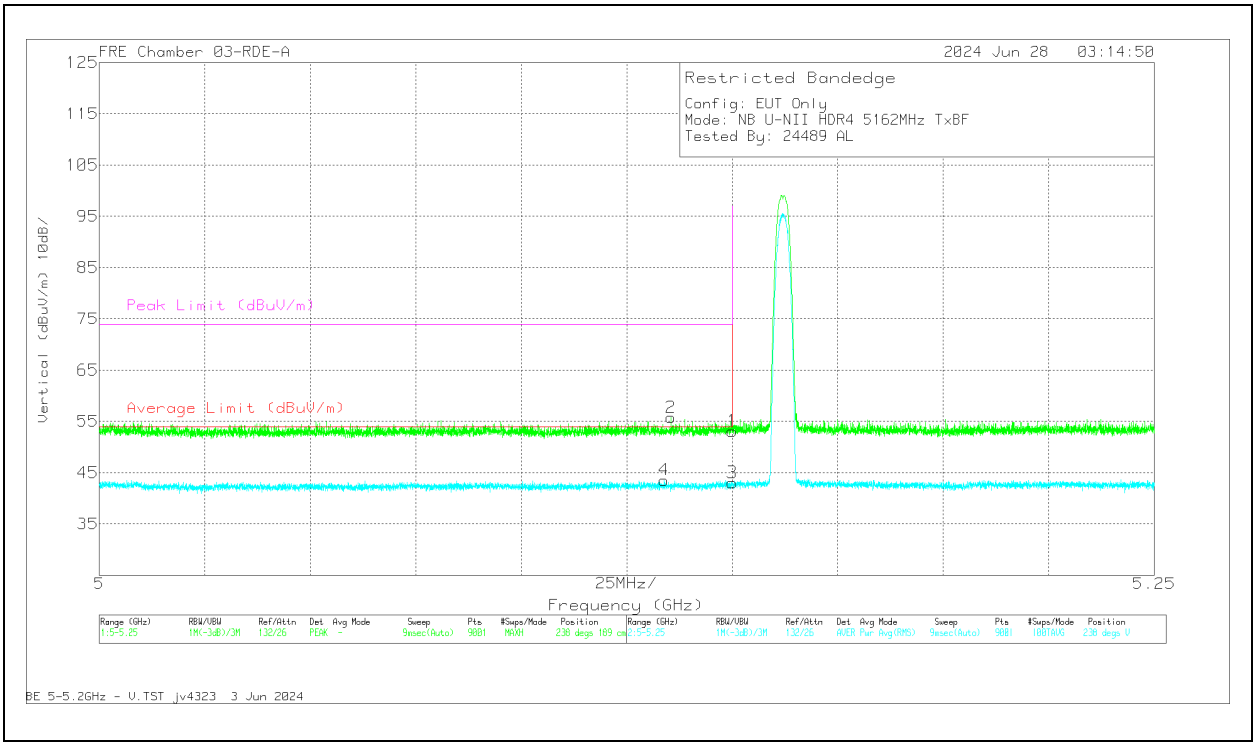
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.84	Pk	34.2	-38.28	53.76	-	-	74	-20.24	275	146	H
2	* 5.09133	59.81	Pk	34.1	-38.3	55.61	-	-	74	-18.39	275	146	H
3	* 5.15	47.16	RMS	34.2	-38.28	43.08	54	-10.92	-	-	275	146	H
4	* 5.00372	47.88	RMS	34	-38.27	43.61	54	-10.39	-	-	275	146	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT

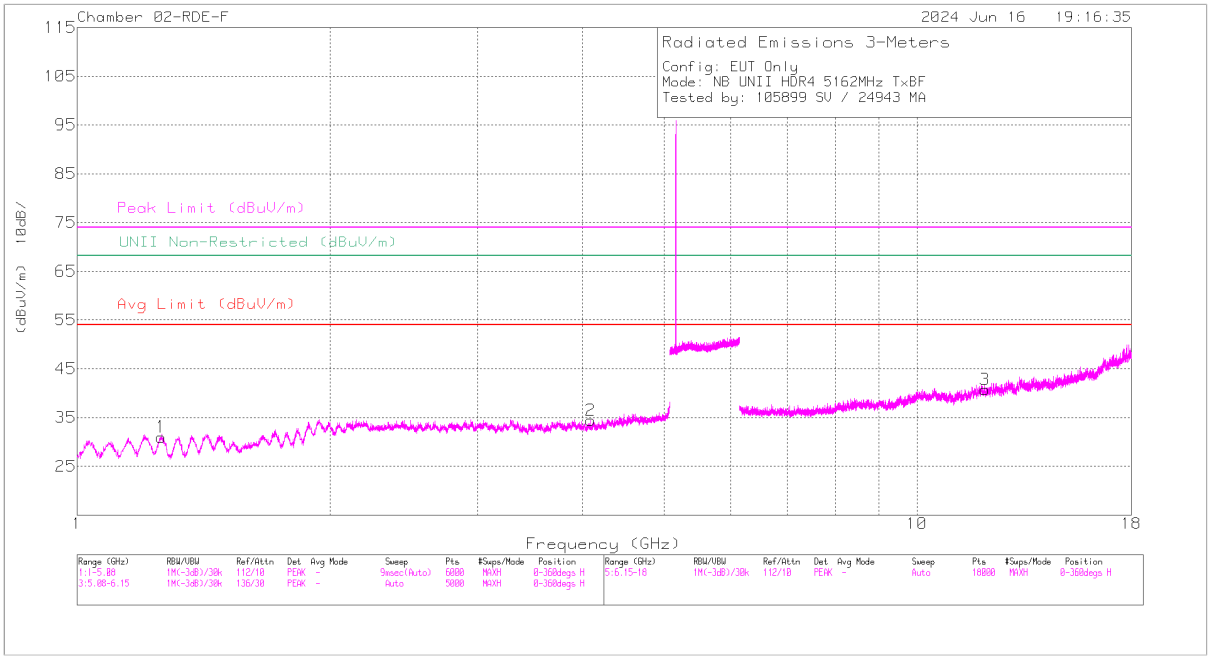


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.21	Pk	34.2	-38.28	53.13	-	-	74	-20.87	238	189	V
2	* 5.13544	59.9	Pk	34.2	-38.33	55.77	-	-	74	-18.23	238	189	V
3	* 5.15	47.11	RMS	34.2	-38.28	43.03	54	-10.97	-	-	238	189	V
4	* 5.13389	47.74	RMS	34.2	-38.38	43.56	54	-10.44	-	-	238	189	V

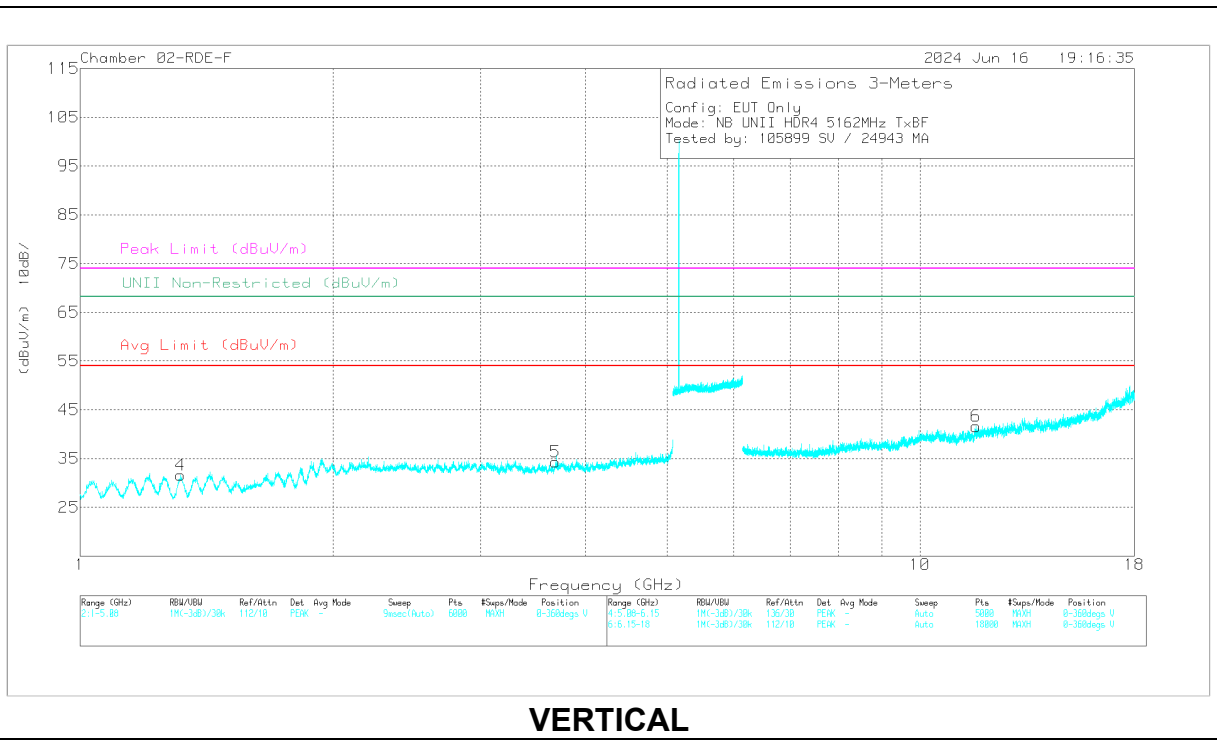
* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

10.1.6. HDR 4 HIGH POWER, UNII-1 BAND, MIMO TXBF MODE, HARMONIC AND SPURIOUS

LOW CHANNEL, 5162 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.257052	60.38	PK-U	28.5	-47.5	41.38	-	-	74	-32.62	0	200	H
	* 1.259307	48.62	ADR	28.5	-47.5	29.62	54	-24.38	-	-	0	200	H
2	* 4.085096	56.62	PK-U	33.3	-46.4	43.52	-	-	74	-30.48	0	200	H
	* 4.084396	44.99	ADR	33.3	-46.4	31.89	54	-22.11	-	-	0	200	H
4	* 1.31692	60.26	PK-U	28.5	-47.5	41.26	-	-	74	-32.74	0	101	V
	* 1.318808	49.01	ADR	28.5	-47.5	30.01	54	-23.99	-	-	0	101	V
5	* 3.683631	56.97	PK-U	33.2	-46.1	44.07	-	-	74	-29.93	0	101	V
	* 3.681933	45.19	ADR	33.2	-46.1	32.29	54	-21.71	-	-	0	101	V
3	* 12.05355	54.85	PK-U	38.8	-41.9	51.75	-	-	74	-22.25	0	101	H
	* 12.05366	42.91	ADR	38.8	-41.9	39.81	54	-14.19	-	-	0	101	H
6	* 11.65942	54.23	PK-U	38.3	-42.4	50.13	-	-	74	-23.87	0	101	V
	* 11.65964	42.9	ADR	38.3	-42.4	38.8	54	-15.2	-	-	0	101	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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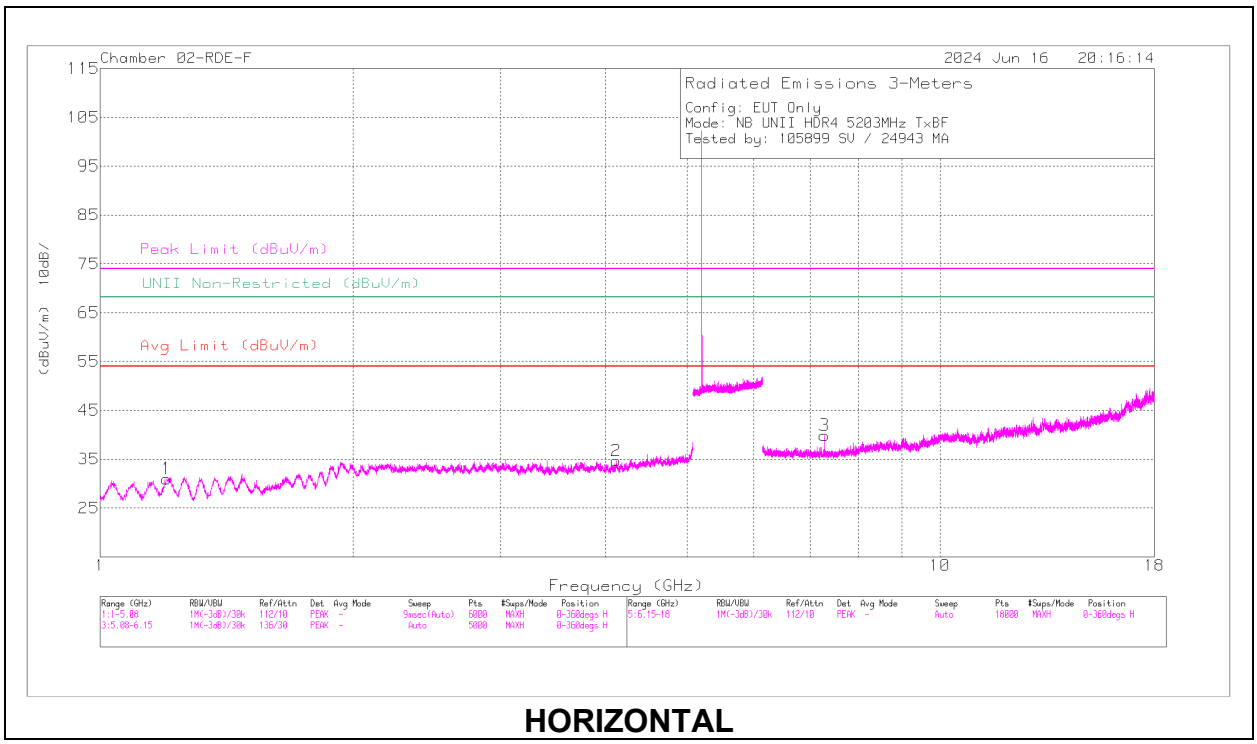
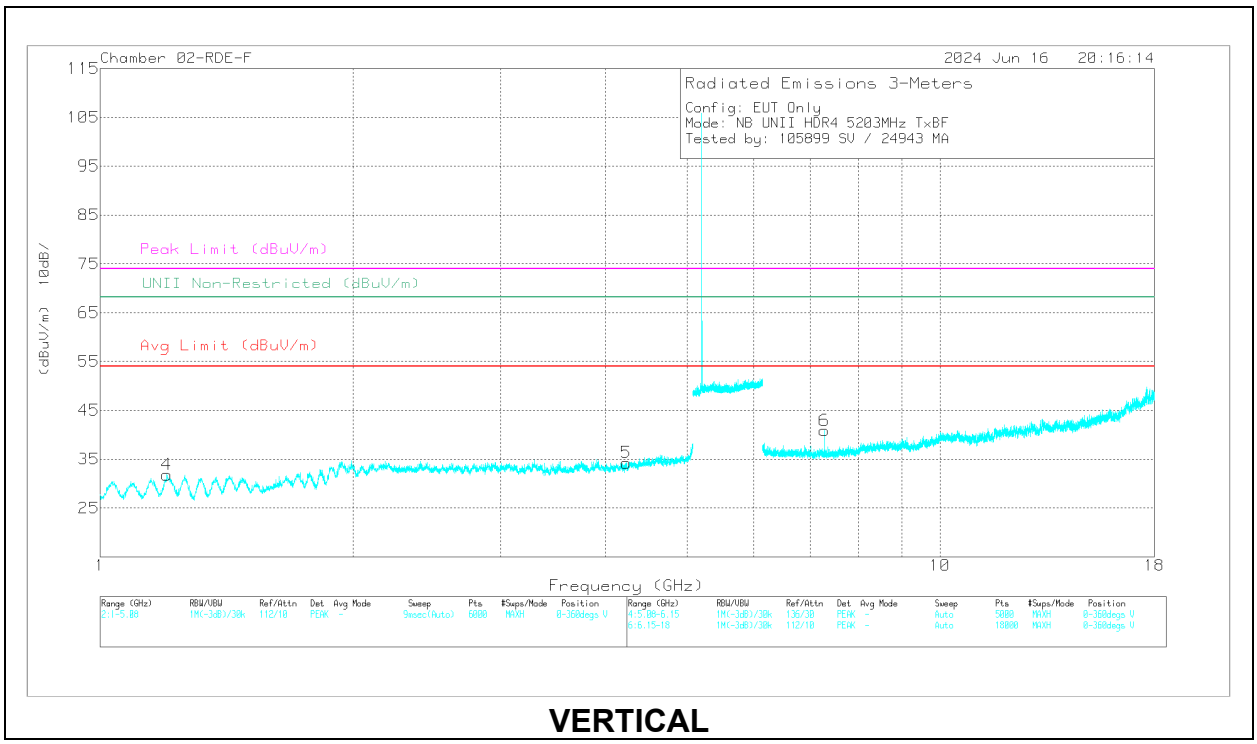
MID CHANNEL, 5203 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.201224	61.09	PK-U	28.3	-47.8	41.59	-	-	74	-32.41	0	200	H
	* 1.199197	49.32	ADR	28.3	-47.7	29.92	54	-24.08	-	-	0	200	H
2	* 4.113799	57.16	PK-U	33.4	-46.5	44.06	-	-	74	-29.94	0	200	H
	* 4.116508	45.75	ADR	33.4	-46.5	32.65	54	-21.35	-	-	0	200	H
4	* 1.202056	61.18	PK-U	28.3	-47.8	41.68	-	-	74	-32.32	0	200	V
	* 1.198813	49.36	ADR	28.3	-47.7	29.96	54	-24.04	-	-	0	200	V
5	* 4.231423	56.99	PK-U	33.5	-46.2	44.29	-	-	74	-29.71	0	200	V
	* 4.229953	45.19	ADR	33.5	-46.2	32.49	54	-21.51	-	-	0	200	V
3	* 7.284562	55.31	PK-U	35.6	-44.3	46.61	-	-	74	-27.39	0	101	H
	* 7.286048	43.56	ADR	35.6	-44.3	34.86	54	-19.14	-	-	0	101	H
6	* 7.284392	58.14	PK-U	35.6	-44.2	49.54	-	-	74	-24.46	22	102	V
	* 7.284083	48.64	ADR	35.6	-44.2	40.04	54	-13.96	-	-	22	102	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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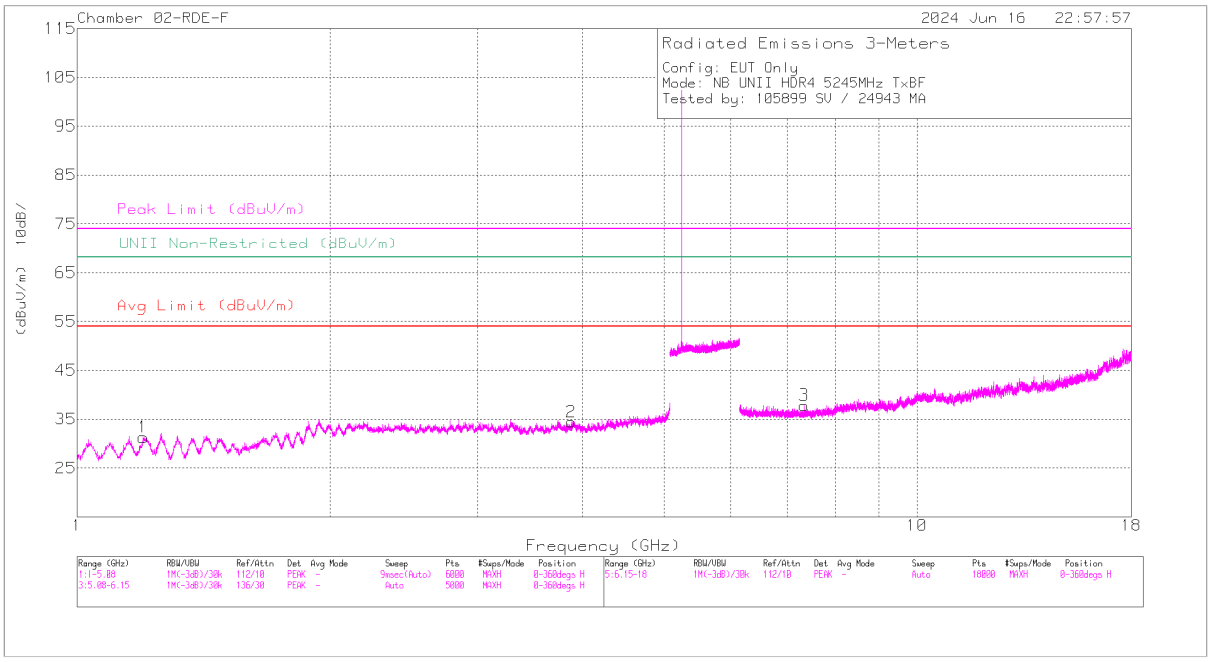
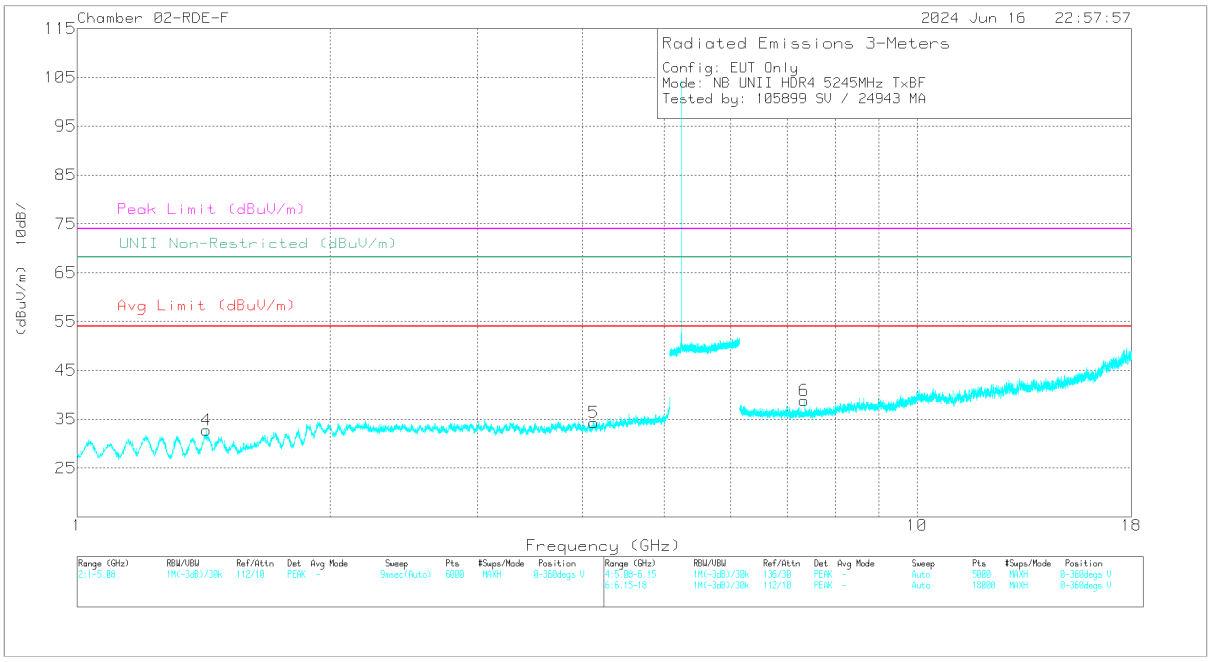
HIGH CHANNEL, 5245 MHz



HORIZONTAL



VERTICAL

RADIATEAD EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.199127	60.58	PK-U	28.3	-47.7	41.18	-	-	74	-32.82	0	200	H
	* 1.200456	48.98	ADR	28.3	-47.8	29.48	54	-24.52	-	-	0	200	H
2	* 3.879272	56.33	PK-U	33.4	-46.4	43.33	-	-	74	-30.67	0	101	H
	* 3.876653	45.06	ADR	33.4	-46.4	32.06	54	-21.94	-	-	0	101	H
5	* 4.122933	57.8	PK-U	33.4	-46.5	44.7	-	-	74	-29.3	0	200	V
	* 4.121364	45.57	ADR	33.4	-46.5	32.47	54	-21.53	-	-	0	200	V
3	* 7.341707	55.96	PK-U	35.6	-44.3	47.26	-	-	74	-26.74	0	101	H
	* 7.343019	44	ADR	35.6	-44.4	35.2	54	-18.8	-	-	0	101	H
6	* 7.3425	57.18	PK-U	35.6	-44.3	48.48	-	-	74	-25.52	0	101	V
	* 7.342922	46.46	ADR	35.6	-44.4	37.66	54	-16.34	-	-	0	101	V
4	* 1.426125	60.86	PK-U	28.4	-47.4	41.86	-	-	74	-32.14	360	100	V
	* 1.426142	49.35	ADR	28.4	-47.4	30.35	54	-23.65	-	-	360	100	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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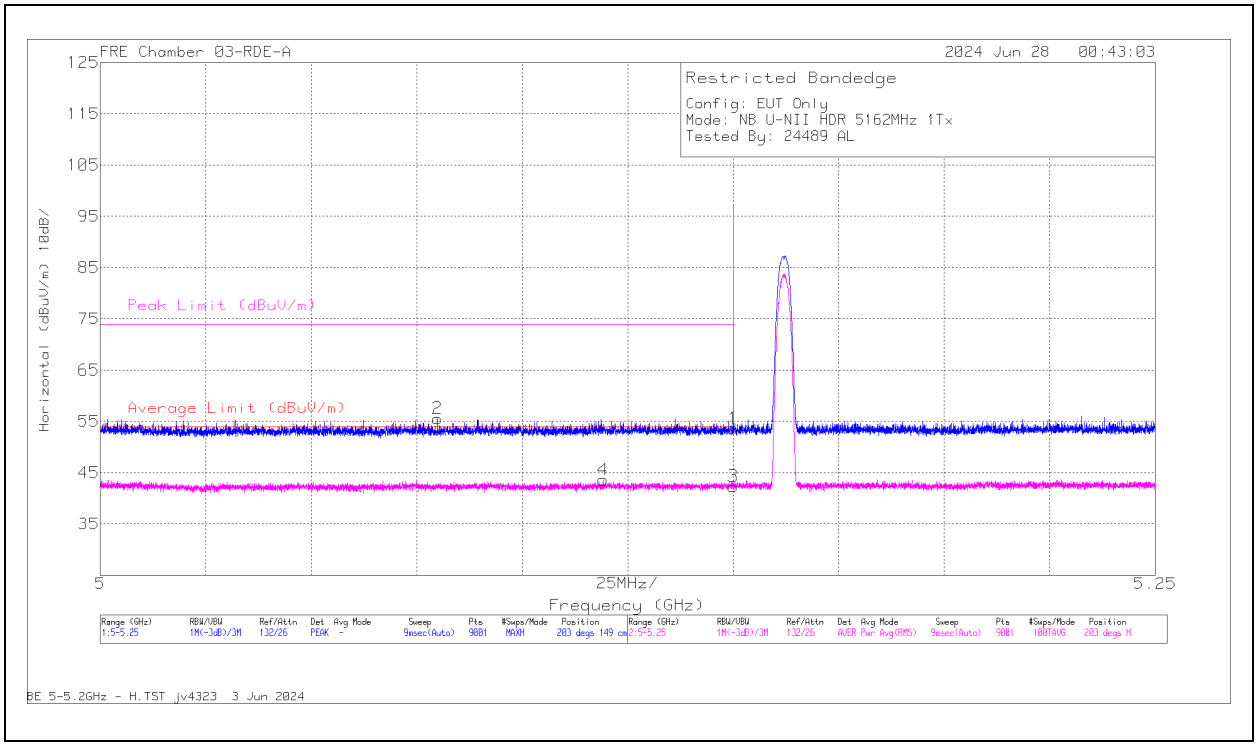
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

10.1.7. HDR 4 LOW POWER, UNII-1 BAND, BANDEDGE

ANT 6, SISO MODE

LOW CHANNEL, 5162 MHz

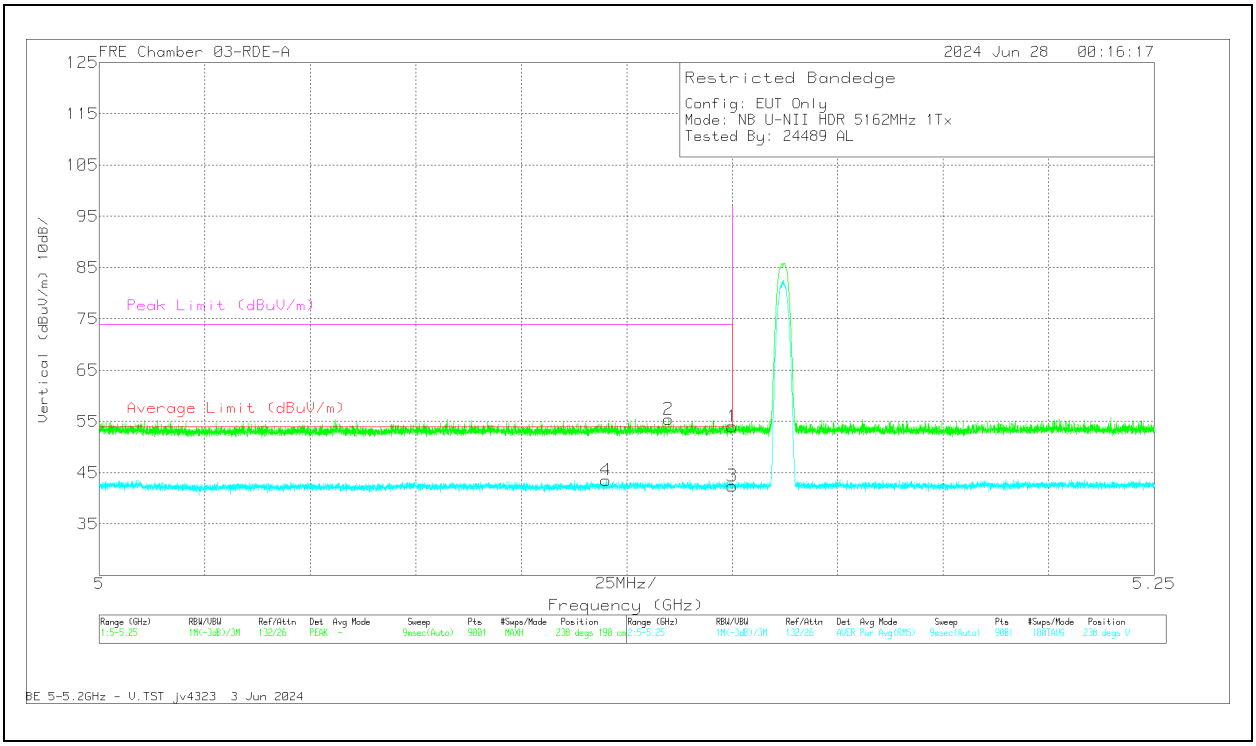
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.77	Pk	34.2	-38.28	53.69	-	-	74	-20.31	203	149	H
2	* 5.07991	59.85	Pk	34.1	-38.38	55.57	-	-	74	-18.43	203	149	H
3	* 5.15	46.38	RMS	34.2	-38.28	42.3	54	-11.7	-	-	203	149	H
4	* 5.11916	47.7	RMS	34.2	-38.32	43.58	54	-10.42	-	-	203	149	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



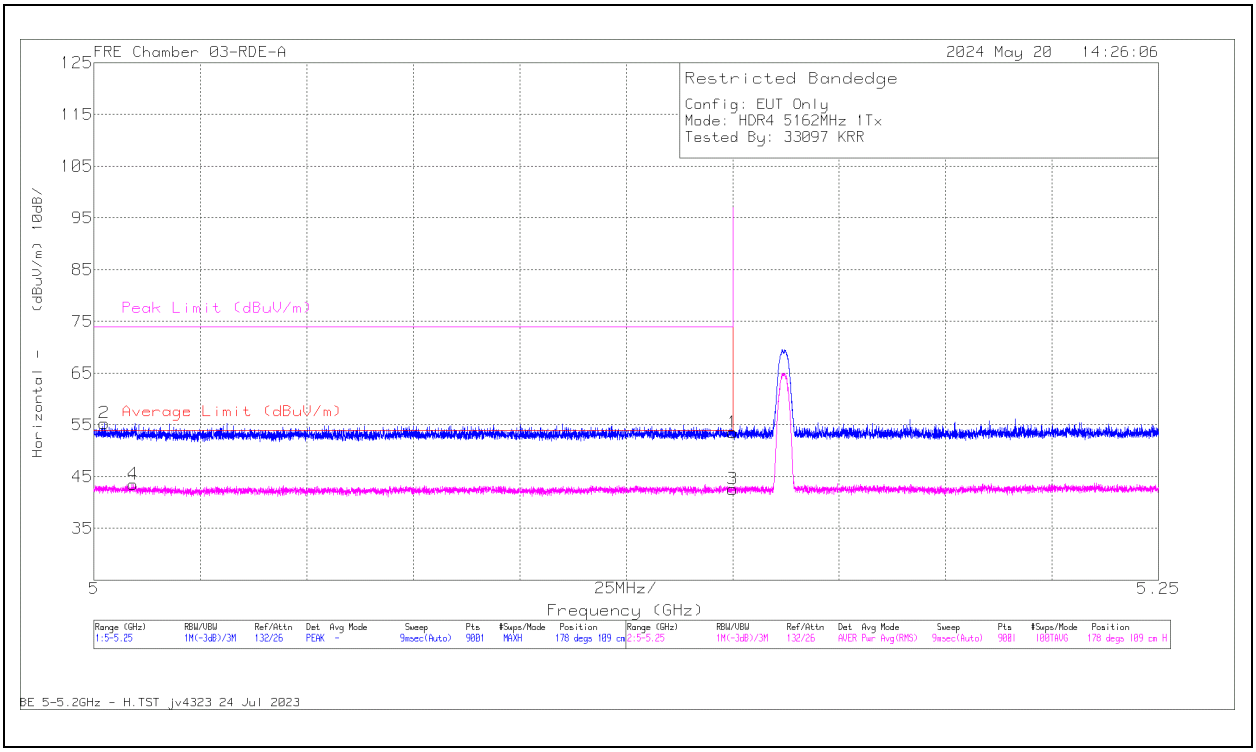
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	58.09	Pk	34.2	-38.28	54.01	-	-	74	-19.99	238	190	V
2	* 5.13491	59.57	Pk	34.2	-38.34	55.43	-	-	74	-18.57	238	190	V
3	* 5.15	46.51	RMS	34.2	-38.28	42.43	54	-11.57	-	-	238	190	V
4	* 5.12008	47.69	RMS	34.2	-38.33	43.56	54	-10.44	-	-	238	190	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 5, SISO MODE

LOW CHANNEL, 5162 MHz

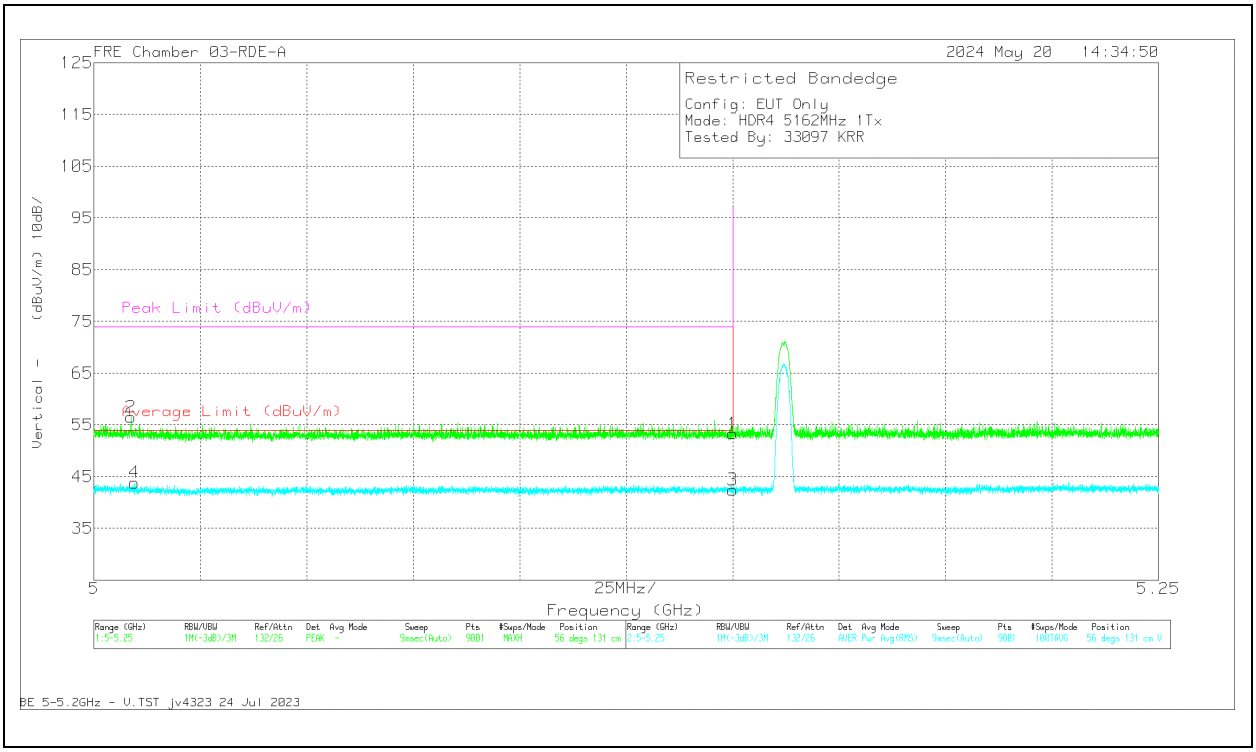
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.63	Pk	34.2	-38.28	53.55	-	-	74	-20.45	178	109	H
2	* 5.002444	59.56	Pk	34	-38.22	55.34	-	-	74	-18.66	178	109	H
3	* 5.15	46.67	RMS	34.2	-38.28	42.59	54	-11.41	-	-	178	109	H
4	* 5.009167	47.88	RMS	34	-38.35	43.53	54	-10.47	-	-	178	109	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



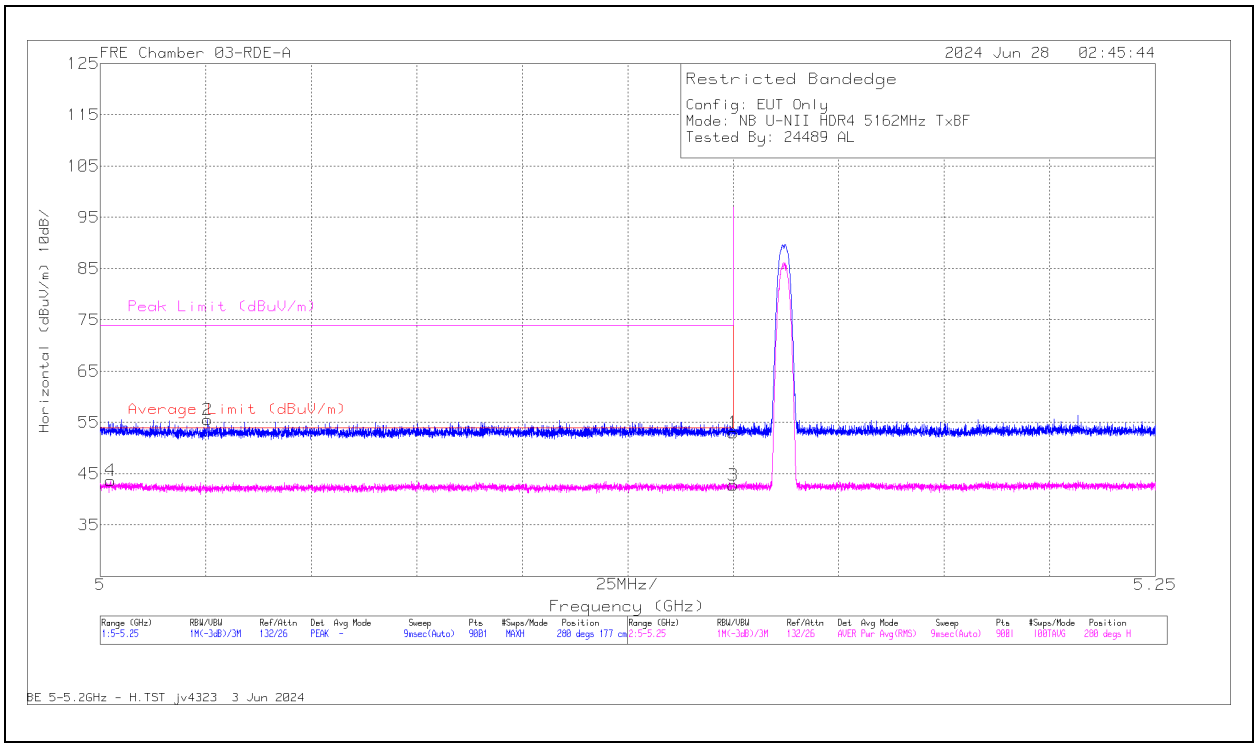
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.37	Pk	34.2	-38.28	53.29	-	-	74	-20.71	56	131	V
2	* 5.008695	60.87	Pk	34	-38.37	56.5	-	-	74	-17.5	56	131	V
3	* 5.15	46.48	RMS	34.2	-38.28	42.4	54	-11.6	-	-	56	131	V
4	* 5.0095	48.15	RMS	34	-38.34	43.81	54	-10.19	-	-	56	131	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 6 + ANT 5, MIMO TXBF MODE

LOW CHANNEL, 5162 MHz

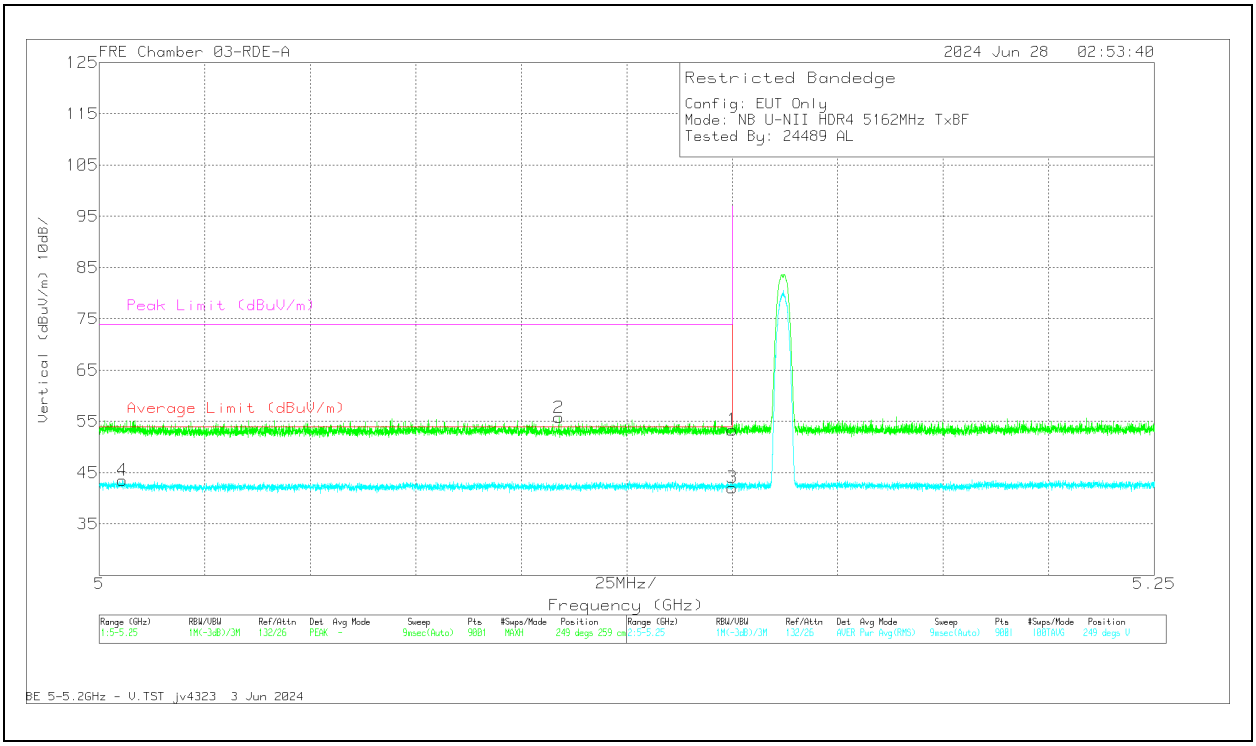
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.05	Pk	34.2	-38.28	52.97	-	-	74	-21.03	280	177	H
2	* 5.025472	59.84	Pk	34	-38.33	55.51	-	-	74	-18.49	280	177	H
3	* 5.15	46.83	RMS	34.2	-38.28	42.75	54	-11.25	-	-	280	177	H
4	* 5.002444	47.88	RMS	34	-38.22	43.66	54	-10.34	-	-	280	177	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT

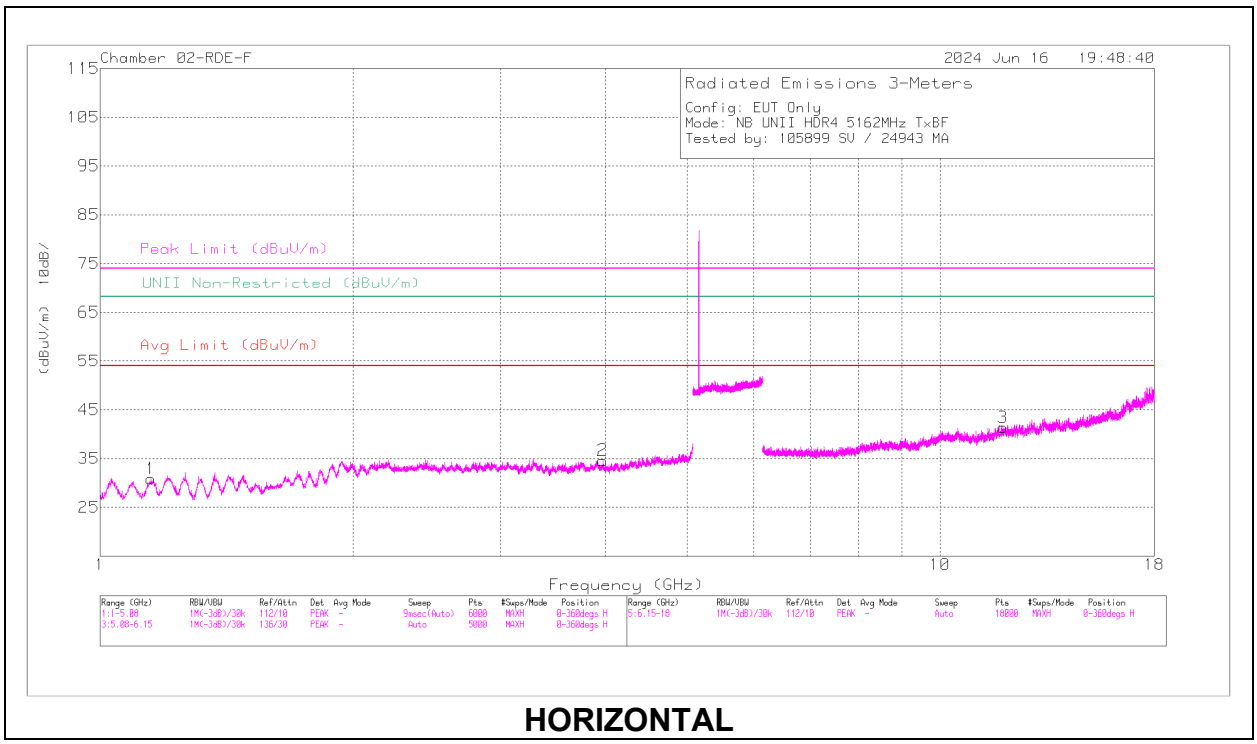


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.42	Pk	34.2	-38.28	53.34	-	-	74	-20.66	249	259	V
2	* 5.108918	59.94	Pk	34.1	-38.29	55.75	-	-	74	-18.25	249	259	V
3	* 5.15	46.16	RMS	34.2	-38.28	42.08	54	-11.92	-	-	249	259	V
4	* 5.005528	47.86	RMS	34	-38.35	43.51	54	-10.49	-	-	249	259	V

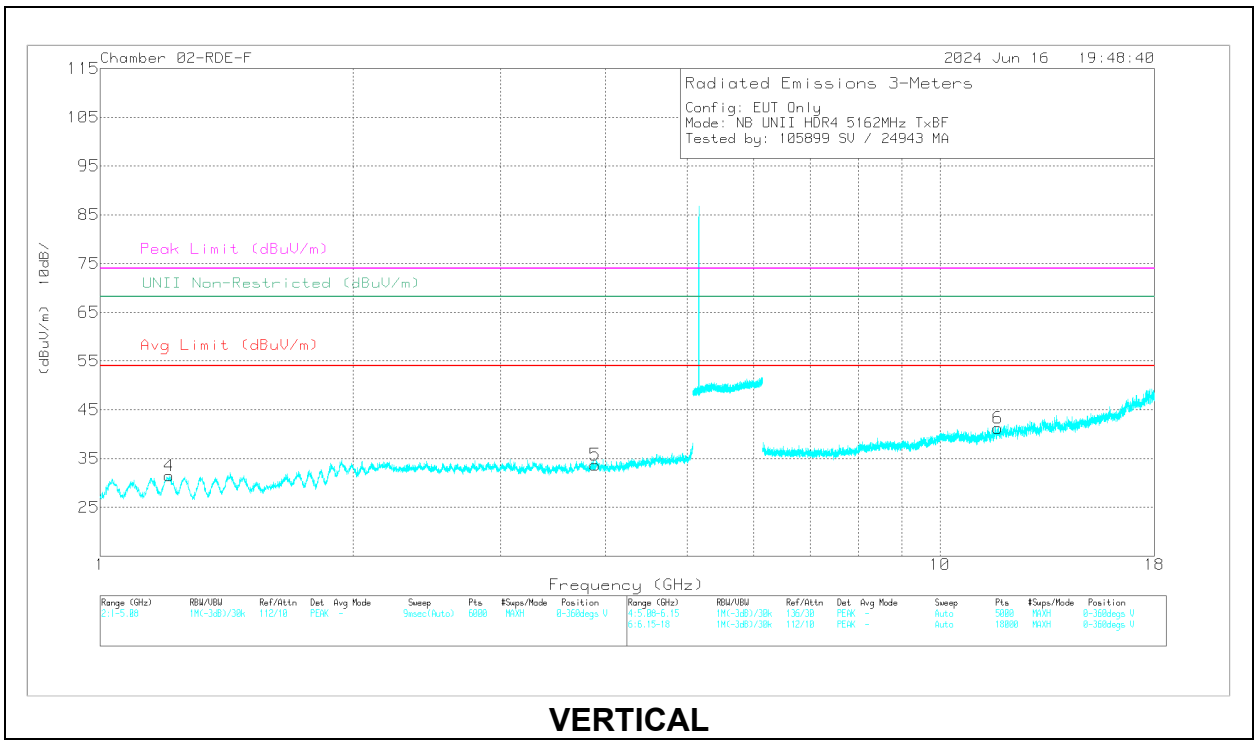
* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

10.1.8. HDR 4 LOW POWER, UNII-1 BAND, MIMO TXBF MODE, HARMONIC AND SPURIOUS

LOW CHANNEL, 5162 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.148855	60.98	PK-U	27.9	-47.9	40.98	-	-	74	-33.02	0	200	H
	* 1.149392	49.12	ADR	27.9	-47.9	29.12	54	-24.88	-	-	0	200	H
2	* 3.965679	56.3	PK-U	33.4	-46.1	43.6	-	-	74	-30.4	0	200	H
	* 3.965158	44.93	ADR	33.4	-46.1	32.23	54	-21.77	-	-	0	200	H
4	* 1.207097	60.91	PK-U	28.3	-47.8	41.41	-	-	74	-32.59	0	101	V
	* 1.209594	49.27	ADR	28.4	-47.8	29.87	54	-24.13	-	-	0	101	V
5	* 3.885646	57.55	PK-U	33.4	-46.4	44.55	-	-	74	-29.45	0	101	V
	* 3.887344	45.22	ADR	33.4	-46.4	32.22	54	-21.78	-	-	0	101	V
3	* 11.89052	53.85	PK-U	38.7	-42.6	49.95	-	-	74	-24.05	0	101	H
	* 11.89167	42.5	ADR	38.7	-42.5	38.7	54	-15.3	-	-	0	101	H
6	* 11.72645	54.38	PK-U	38.4	-42.3	50.48	-	-	74	-23.52	0	101	V
	* 11.72766	43.08	ADR	38.4	-42.3	39.18	54	-14.82	-	-	0	101	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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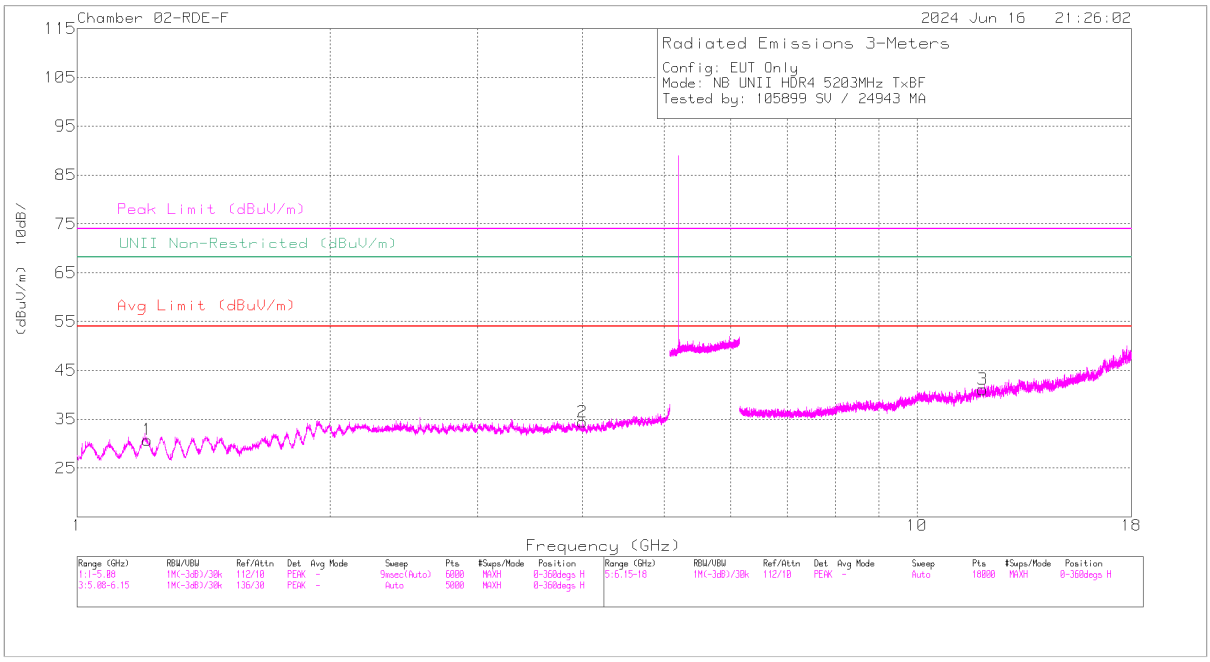
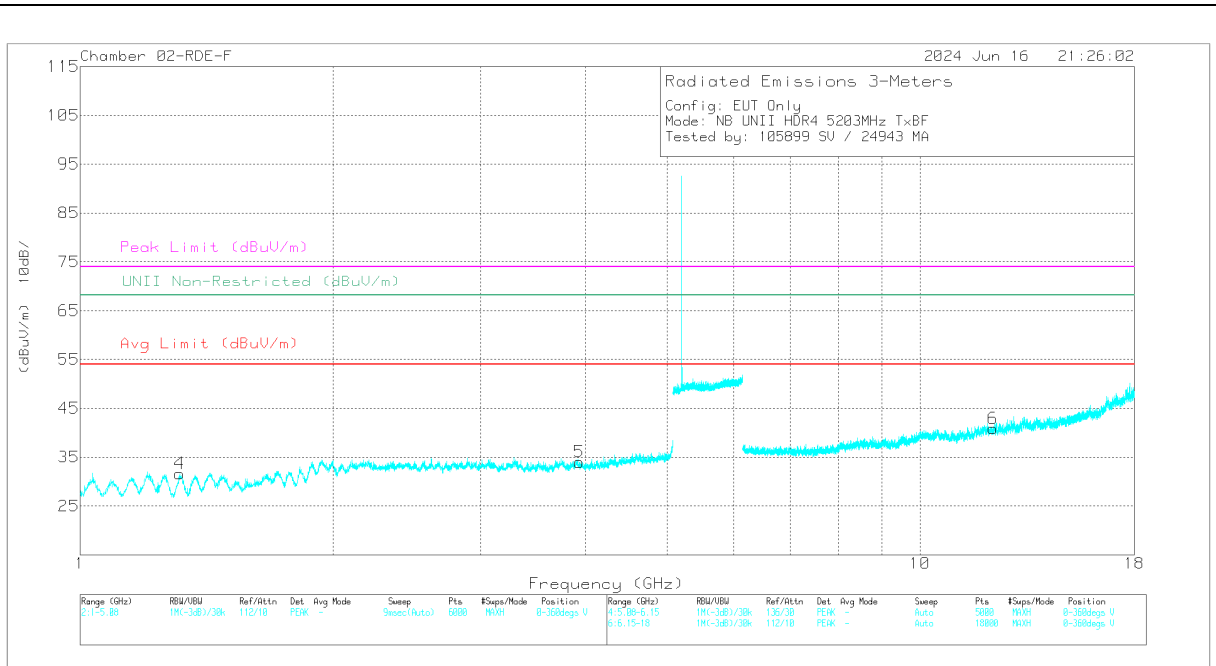
MID CHANNEL, 5203 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.211729	60.36	PK-U	28.4	-47.7	41.06	-	-	74	-32.94	2	101	H
	* 1.21168	48.95	ADR	28.4	-47.7	29.65	54	-24.35	-	-	2	101	H
2	* 3.997942	56.05	PK-U	33.4	-45.9	43.55	-	-	74	-30.45	2	200	H
	* 3.999233	44.4	ADR	33.4	-45.9	31.9	54	-22.1	-	-	2	200	H
4	* 1.315174	60.69	PK-U	28.5	-47.5	41.69	-	-	74	-32.31	2	101	V
	* 1.313433	48.7	ADR	28.5	-47.6	29.6	54	-24.4	-	-	2	101	V
5	* 3.929623	56.05	PK-U	33.4	-46	43.45	-	-	74	-30.55	2	200	V
	* 3.929445	44.66	ADR	33.4	-46	32.06	54	-21.94	-	-	2	200	V
3	* 11.97677	54.94	PK-U	38.8	-42.5	51.24	-	-	74	-22.76	2	101	H
	* 11.97749	43.07	ADR	38.8	-42.5	39.37	54	-14.63	-	-	2	101	H
6	* 12.21196	54.01	PK-U	38.7	-42.3	50.41	-	-	74	-23.59	2	200	V
	* 12.21324	42.42	ADR	38.7	-42.3	38.82	54	-15.18	-	-	2	200	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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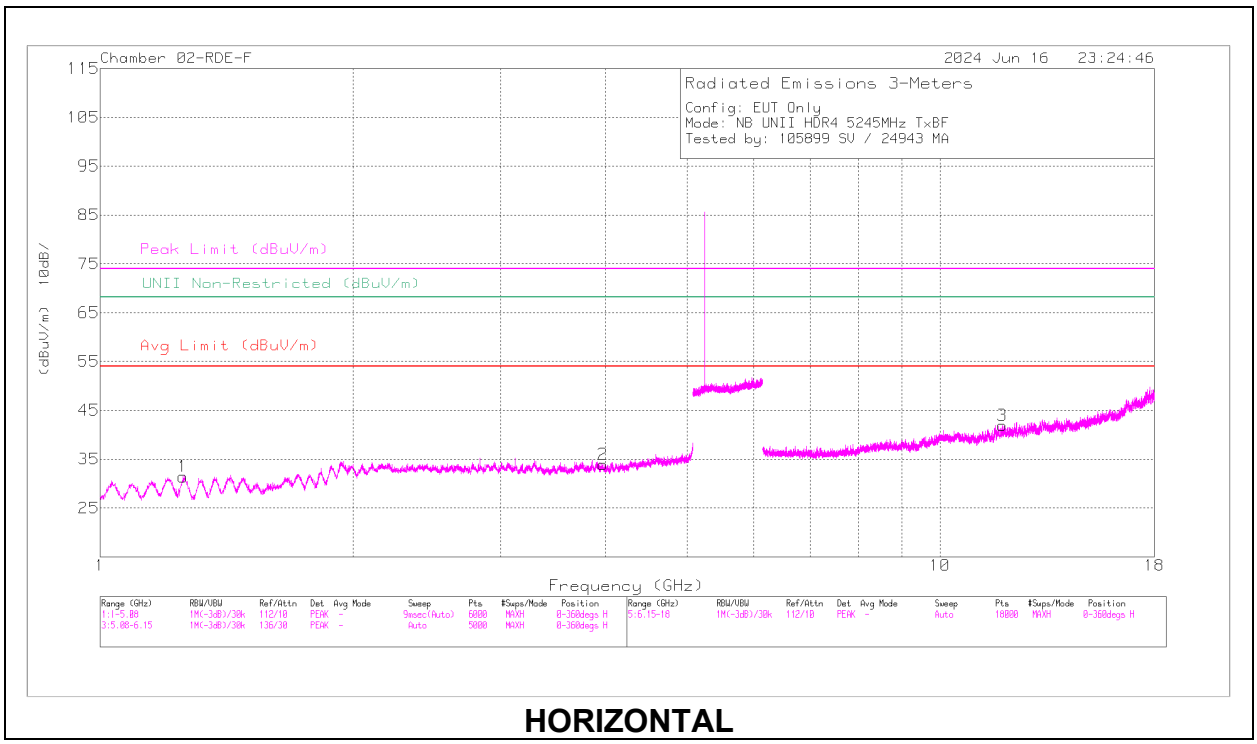
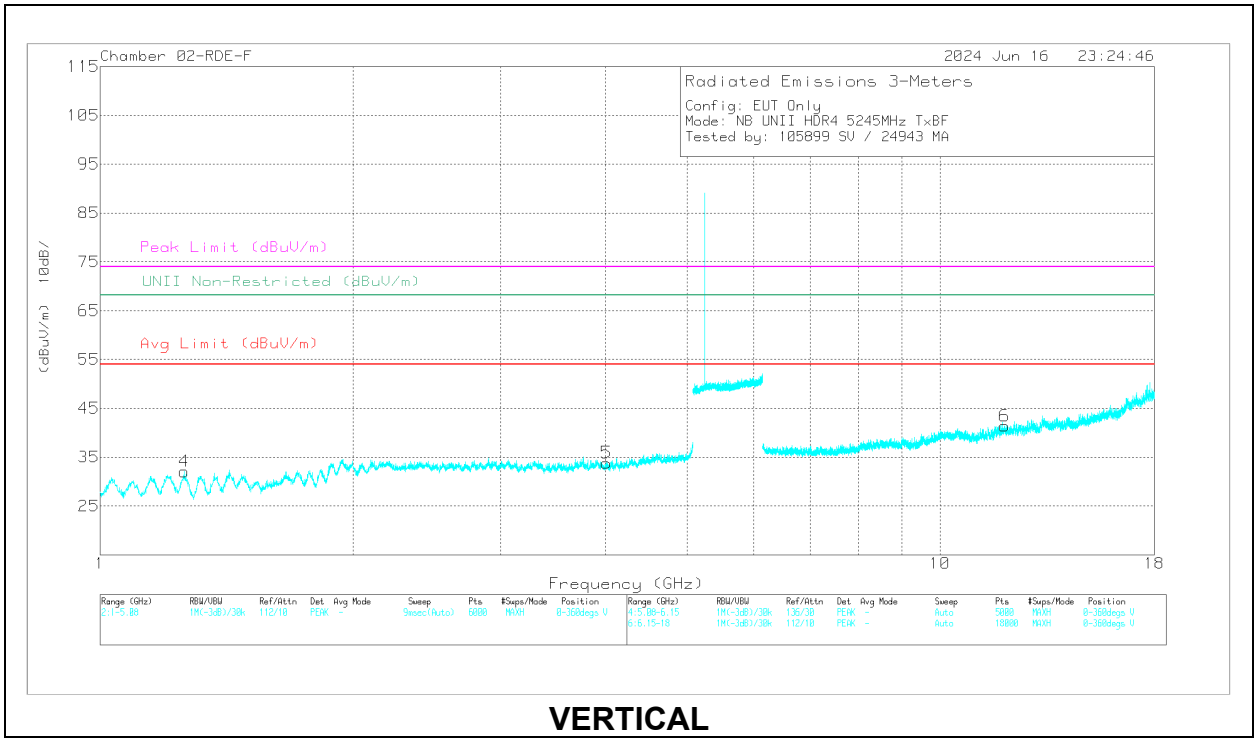
HIGH CHANNEL, 5245 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.255653	60.28	PK-U	28.5	-47.5	41.28	-	-	74	-32.72	1	101	H
	* 1.254763	48.42	ADR	28.5	-47.5	29.42	54	-24.58	-	-	1	101	H
2	* 3.971741	56.72	PK-U	33.4	-46	44.12	-	-	74	-29.88	1	200	H
	* 3.970193	44.62	ADR	33.4	-46.1	31.92	54	-22.08	-	-	1	200	H
4	* 1.258938	60.5	PK-U	28.5	-47.5	41.5	-	-	74	-32.5	1	101	V
	* 1.260242	48.89	ADR	28.5	-47.4	29.99	54	-24.01	-	-	1	101	V
5	* 4.008165	56.21	PK-U	33.4	-46.1	43.51	-	-	74	-30.49	1	200	V
	* 4.007705	44.93	ADR	33.4	-46.1	32.23	54	-21.77	-	-	1	200	V
3	* 11.86503	54.11	PK-U	38.6	-42.2	50.51	-	-	74	-23.49	1	200	H
	* 11.86784	42.53	ADR	38.6	-42.2	38.93	54	-15.07	-	-	1	200	H
6	* 11.93690	54.2	PK-U	38.7	-41.5	51.4	-	-	74	-22.6	1	101	V
	* 11.93436	42.34	ADR	38.7	-41.5	39.54	54	-14.46	-	-	1	101	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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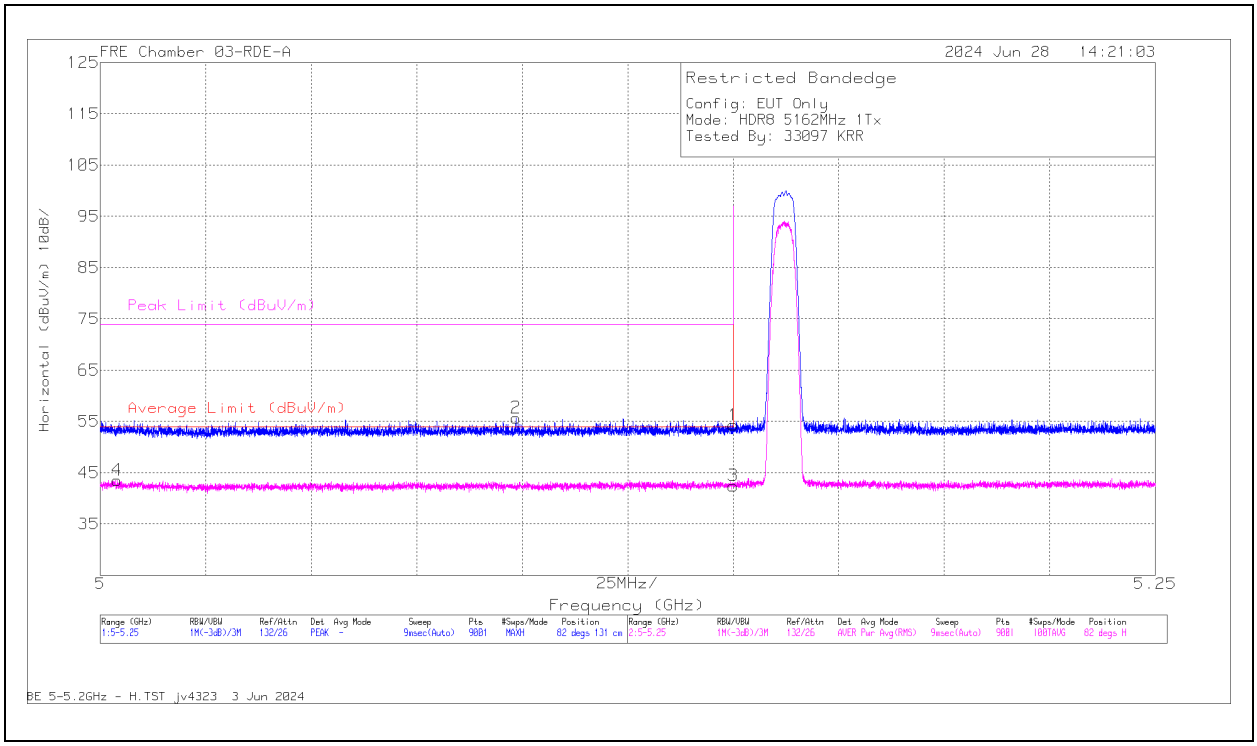
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

10.1.9. HDR 8 HIGH POWER, UNII-1 BAND, BANDEDGE

ANT 6, SISO MODE

LOW CHANNEL, 5162 MHz

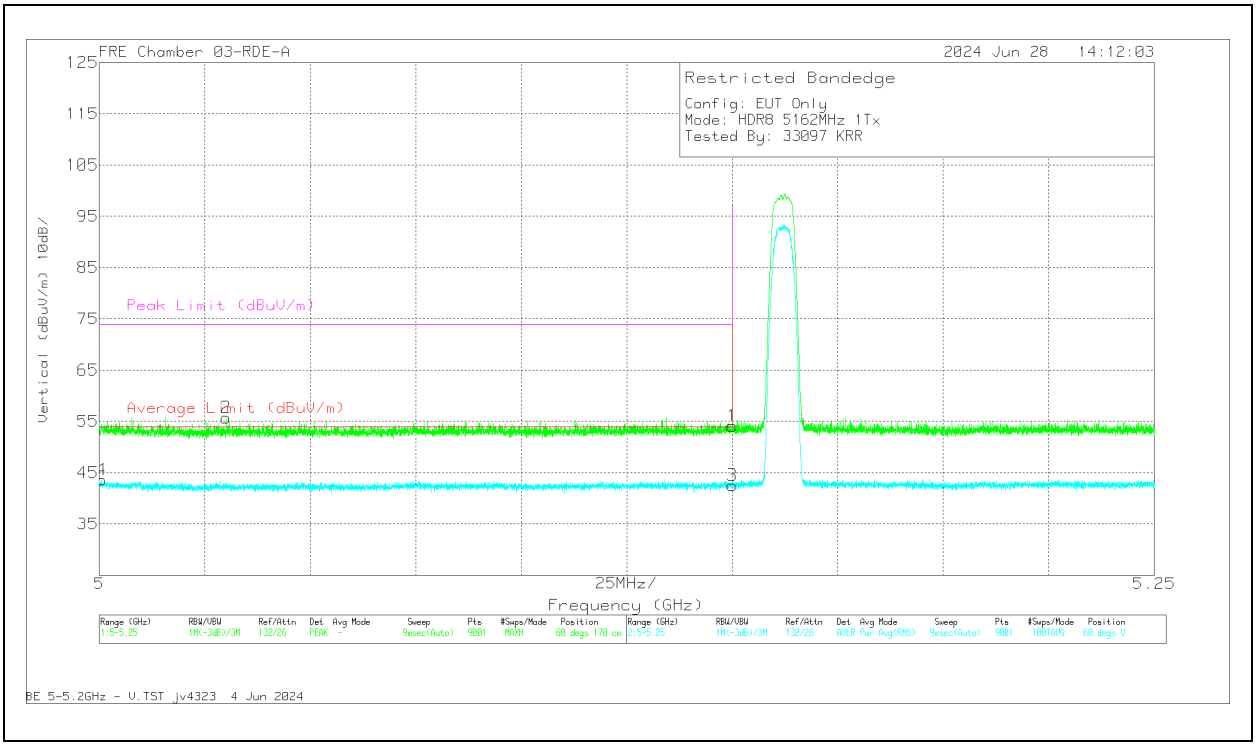
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	58.37	Pk	34.2	-38.28	54.29	-	-	74	-19.71	82	131	H
2	* 5.098584	59.98	Pk	34.1	-38.39	55.69	-	-	74	-18.31	82	131	H
3	* 5.15	46.53	RMS	34.2	-38.28	42.45	54	-11.55	-	-	82	131	H
4	* 5.004028	47.82	RMS	34	-38.28	43.54	54	-10.46	-	-	82	131	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



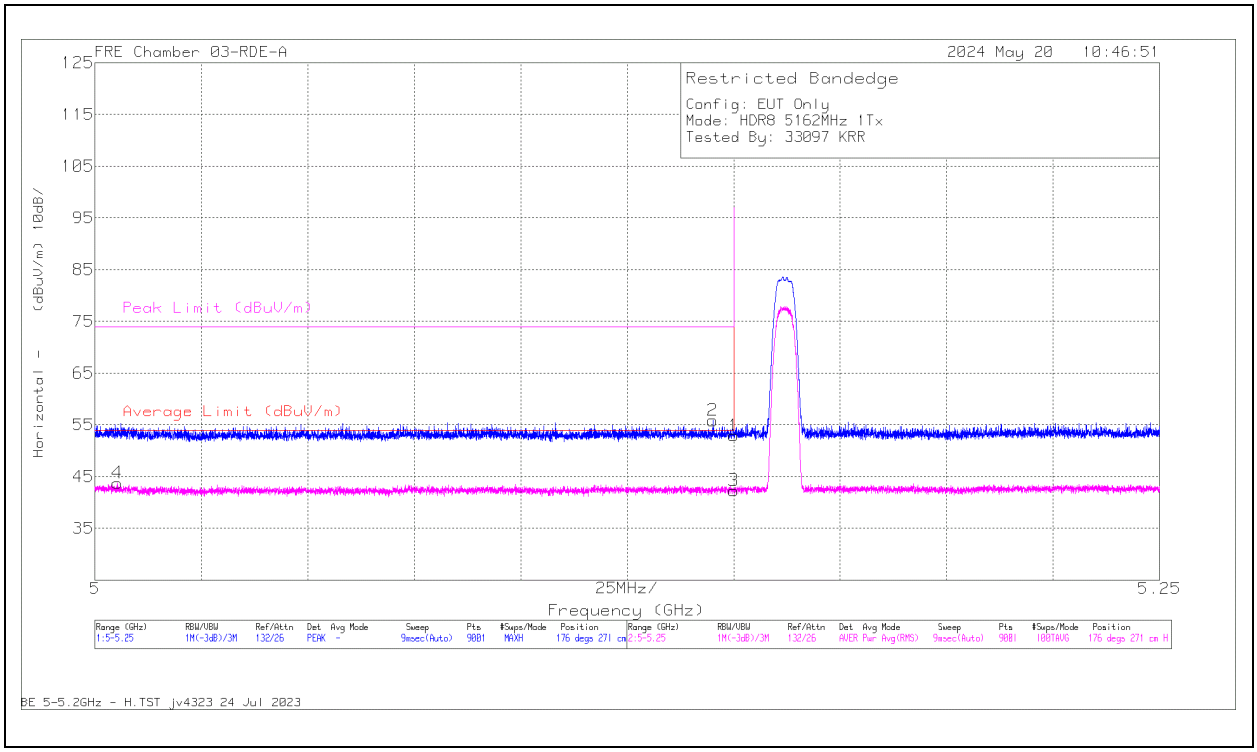
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	58.21	Pk	34.2	-38.28	54.13	-	-	74	-19.87	60	170	V
2	* 5.030056	59.99	Pk	34	-38.26	55.73	-	-	74	-18.27	60	170	V
3	* 5.15	46.6	RMS	34.2	-38.28	42.52	54	-11.48	-	-	60	170	V
4	* 5.000556	47.88	RMS	34	-38.28	43.6	54	-10.4	-	-	60	170	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 5, SISO MODE

LOW CHANNEL, 5162 MHz

HORIZONTAL RESULT

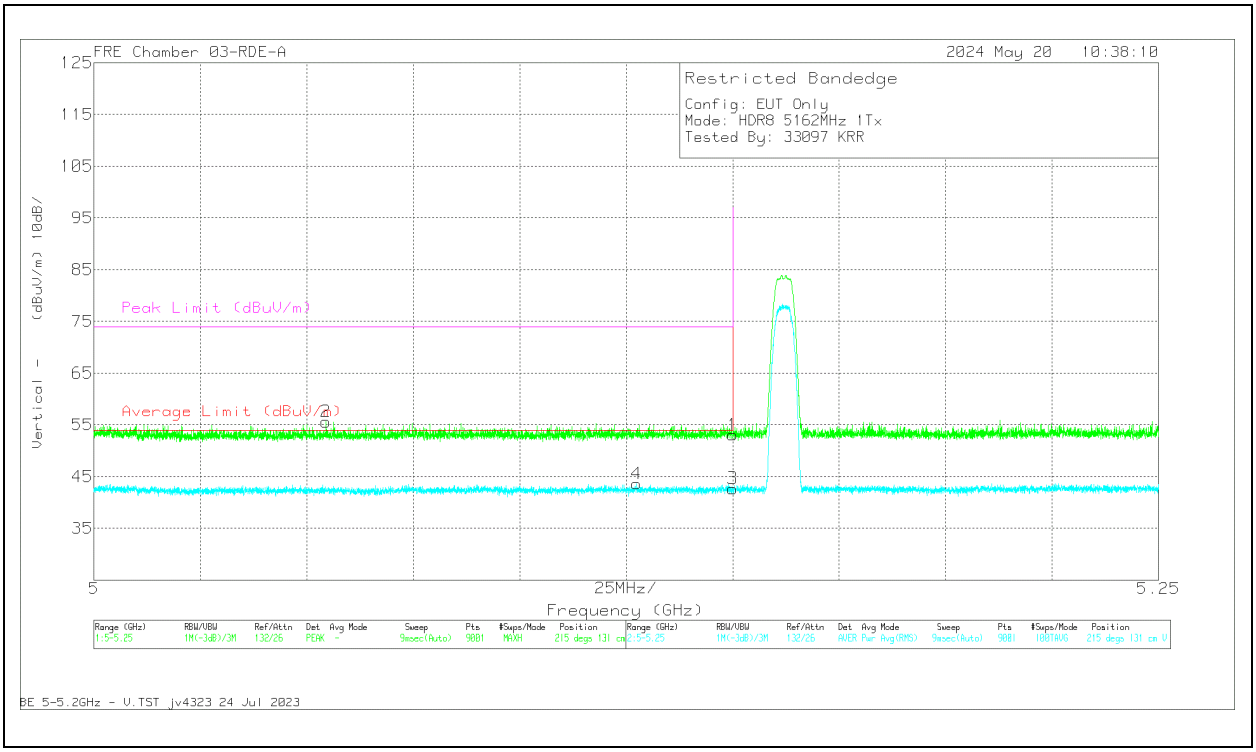


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.01	Pk	34.2	-38.28	52.93	-	-	74	-21.07	176	271	H
2	* 5.145084	59.95	Pk	34.2	-38.29	55.86	-	-	74	-18.14	176	271	H
3	* 5.15	46.37	RMS	34.2	-38.28	42.29	54	-11.71	-	-	176	271	H
4	* 5.005278	48.11	RMS	34	-38.34	43.77	54	-10.23	-	-	176	271	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

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

VERTICAL RESULT



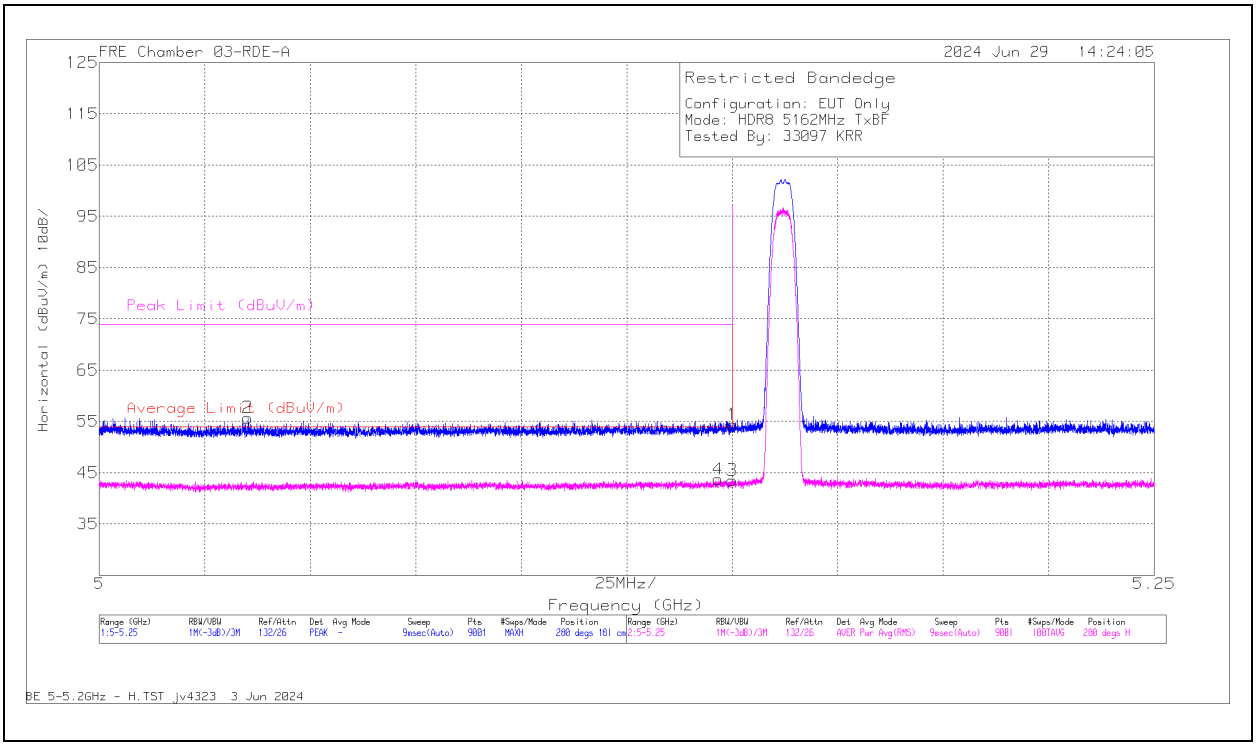
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.14	Pk	34.2	-38.28	53.06	-	-	74	-20.94	215	131	V
2	* 5.054445	59.98	Pk	34	-38.38	55.6	-	-	74	-18.4	215	131	V
3	* 5.15	46.75	RMS	34.2	-38.28	42.67	54	-11.33	-	-	215	131	V
4	* 5.12739	47.73	RMS	34.2	-38.34	43.59	54	-10.41	-	-	215	131	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 6 + ANT 5, MIMO TXBF MODE

LOW CHANNEL, 5162 MHz

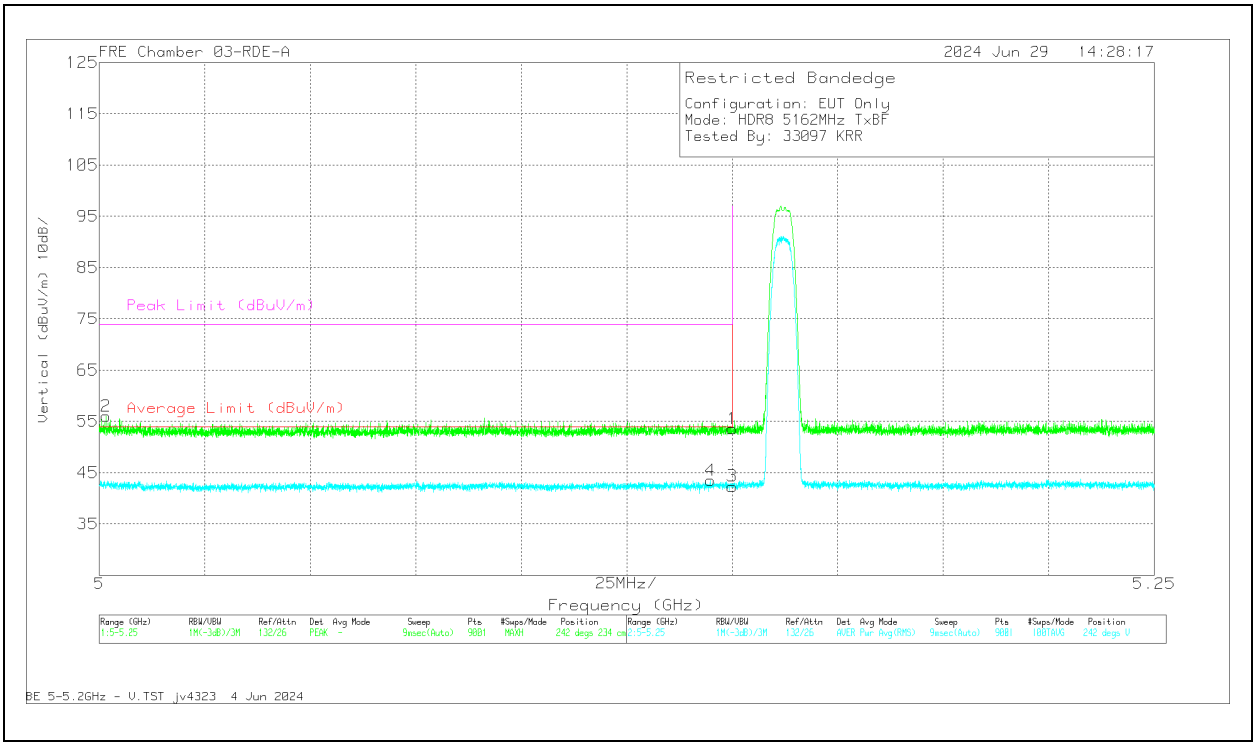
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	58.49	Pk	34.2	-38.28	54.41	-	-	74	-19.59	280	181	H
2	* 5.035195	60.01	Pk	34	-38.3	55.71	-	-	74	-18.29	280	181	H
3	* 5.15	47.6	RMS	34.2	-38.28	43.52	54	-10.48	-	-	280	181	H
4	* 5.146612	47.77	RMS	34.2	-38.26	43.71	54	-10.29	-	-	280	181	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT

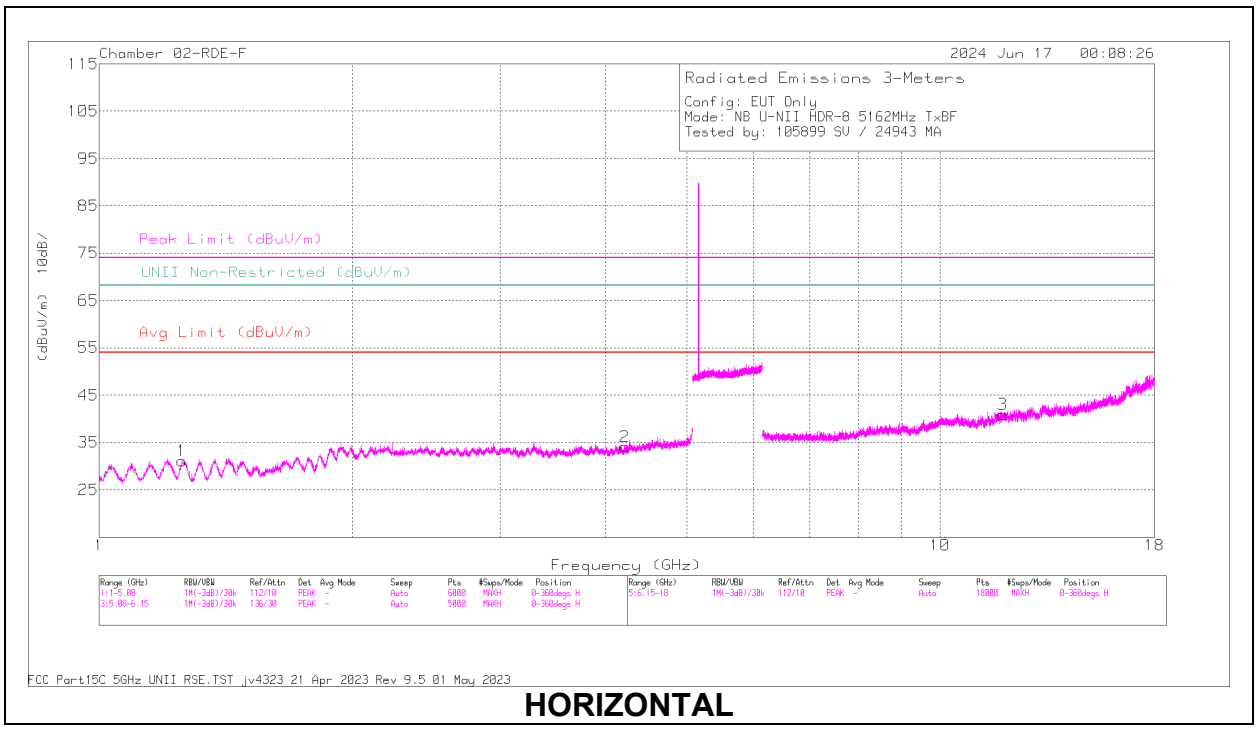


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.63	Pk	34.2	-38.28	53.55	-	-	74	-20.45	242	234	V
2	* 5.001639	60.23	Pk	34	-38.23	56	-	-	74	-18	242	234	V
3	* 5.15	46.41	RMS	34.2	-38.28	42.33	54	-11.67	-	-	242	234	V
4	* 5.144862	47.6	RMS	34.2	-38.3	43.5	54	-10.5	-	-	242	234	V

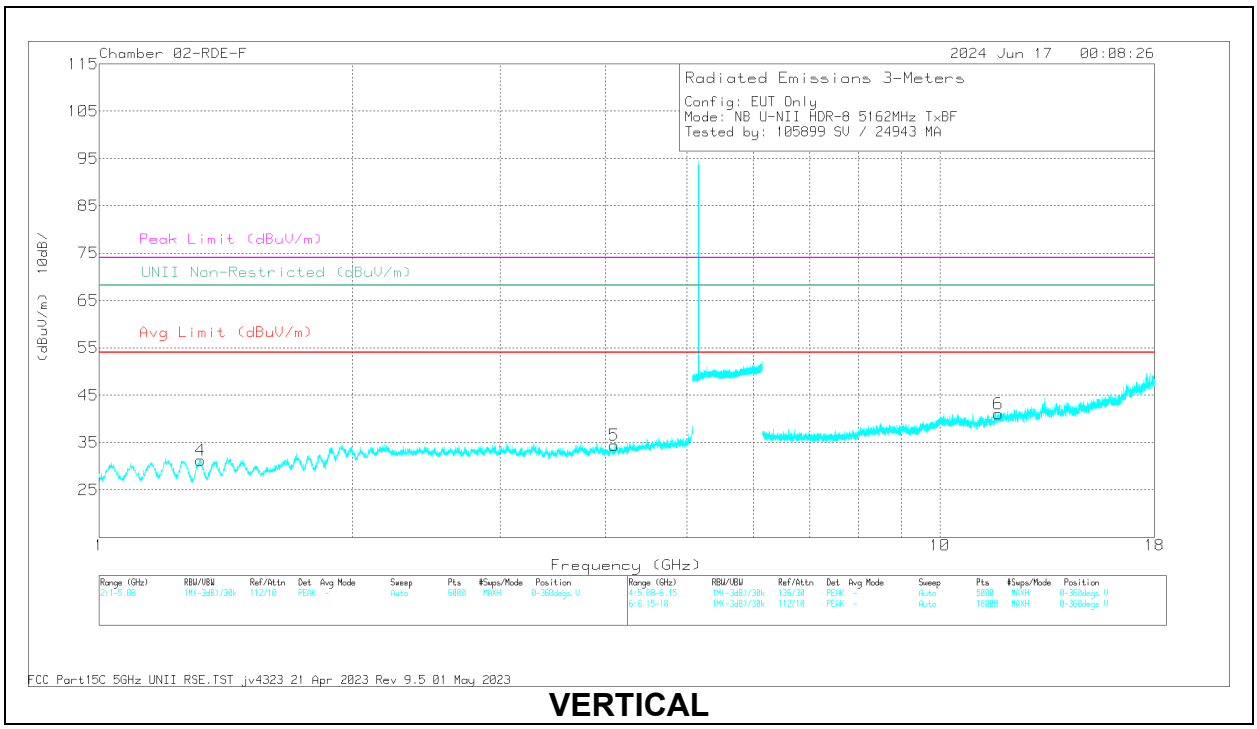
* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

10.1.10. HDR 8 HIGH POWER, UNII-1 BAND, MIMO TXBF MODE, HARMONIC AND SPURIOUS

LOW CHANNEL, 5162 MHz



HORIZONTAL



VERTICAL

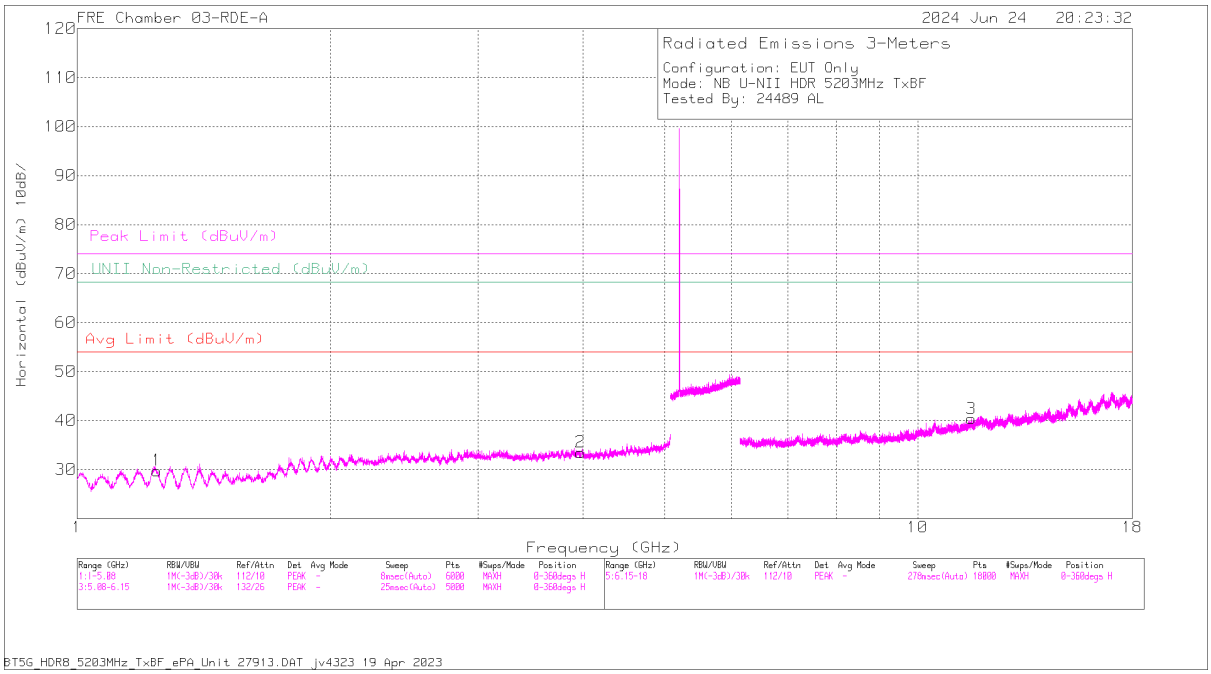
RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.2548	60.07	PK-U	28.5	-47.5	41.07	-	-	74	-32.93	0	200	H
	* 1.254358	48.57	ADR	28.5	-47.5	29.57	54	-24.43	-	-	0	200	H
2	* 4.222081	56.9	PK-U	33.4	-46	44.3	-	-	74	-29.7	0	200	H
	* 4.223268	45.13	ADR	33.4	-46.1	32.43	54	-21.57	-	-	0	200	H
4	* 1.318544	60.09	PK-U	28.5	-47.5	41.09	-	-	74	-32.91	0	101	V
	* 1.320087	48.58	ADR	28.5	-47.5	29.58	54	-24.42	-	-	0	101	V
5	* 4.098117	56.48	PK-U	33.4	-46.5	43.38	-	-	74	-30.62	0	200	V
	* 4.095448	44.97	ADR	33.4	-46.5	31.87	54	-22.13	-	-	0	200	V
3	* 11.88094	53.81	PK-U	38.6	-42.2	50.21	-	-	74	-23.79	0	101	H
	* 11.88143	42.4	ADR	38.6	-42.2	38.8	54	-15.2	-	-	0	101	H
6	* 11.72983	55.21	PK-U	38.4	-42.3	51.31	-	-	74	-22.69	0	101	V
	* 11.73290	42.99	ADR	38.4	-42.3	39.09	54	-14.91	-	-	0	101	V

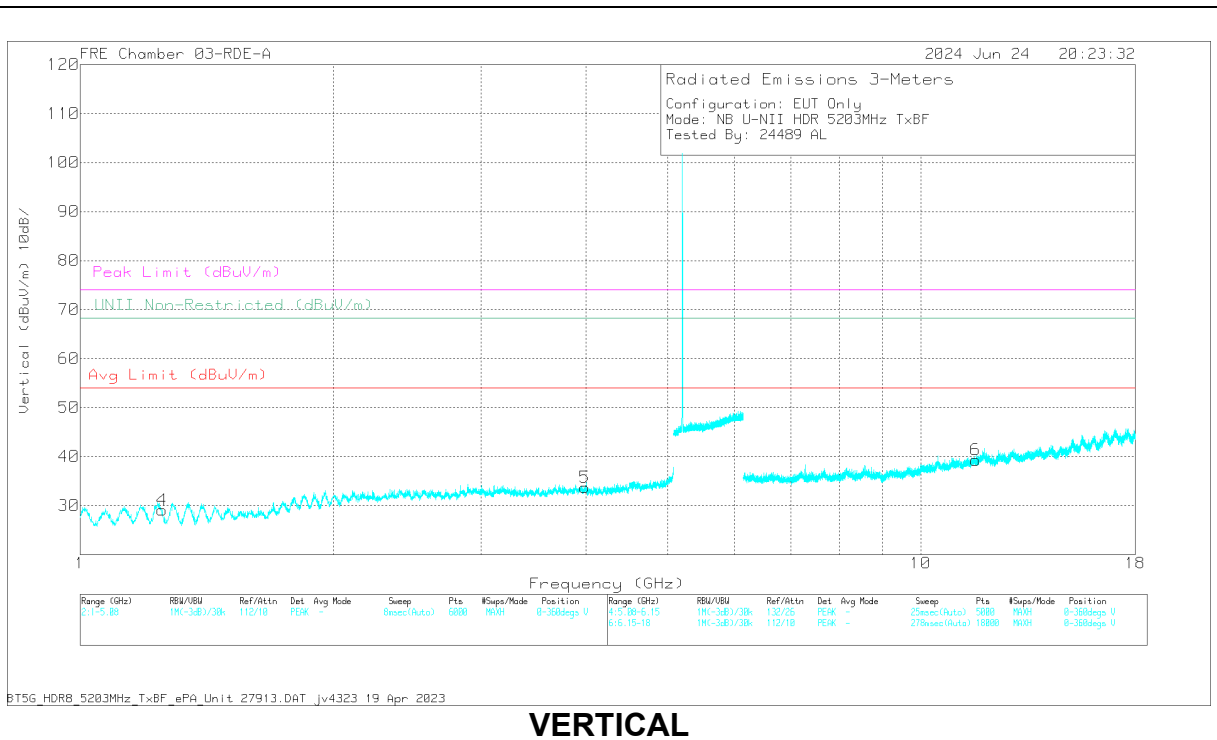
* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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

MID CHANNEL, 5203 MHz



HORIZONTAL



VERTICAL

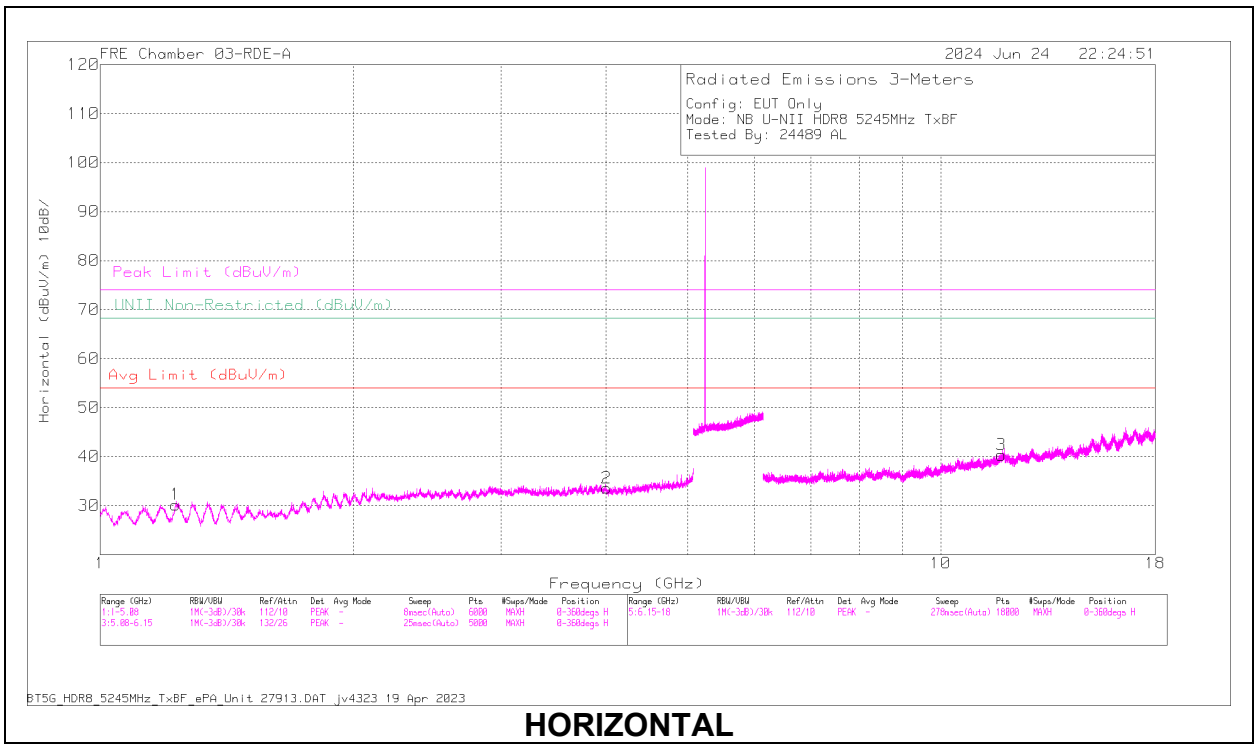
RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.242894	62.02	PK-U	28.5	-50.07	40.45	-	-	74	-33.55	360	100	H
	* 1.242786	50.07	ADR	28.5	-50.07	28.5	54	-25.5	-	-	360	100	H
2	* 3.970911	57.01	PK-U	33.5	-47.21	43.3	-	-	74	-30.7	360	198	H
	* 3.97294	45.45	ADR	33.5	-47.13	31.82	54	-22.18	-	-	360	198	H
4	* 1.250545	60.58	PK-U	28.5	-50	39.08	-	-	74	-34.92	360	101	V
	* 1.250095	49.31	ADR	28.5	-50.01	27.8	54	-26.2	-	-	360	101	V
5	* 3.981222	57.7	PK-U	33.5	-47.13	44.07	-	-	74	-29.93	360	199	V
	* 3.982699	45.97	ADR	33.5	-47.12	32.35	54	-21.65	-	-	360	199	V
3	* 11.58059	54.59	PK-U	38.3	-43.34	49.55	-	-	74	-24.45	360	199	H
	* 11.57755	42.68	ADR	38.3	-43.33	37.65	54	-16.35	-	-	360	199	H
6	* 11.62350	54.48	PK-U	38.3	-43.34	49.44	-	-	74	-24.56	360	199	V
	* 11.62655	42.74	ADR	38.3	-43.37	37.67	54	-16.33	-	-	360	199	V

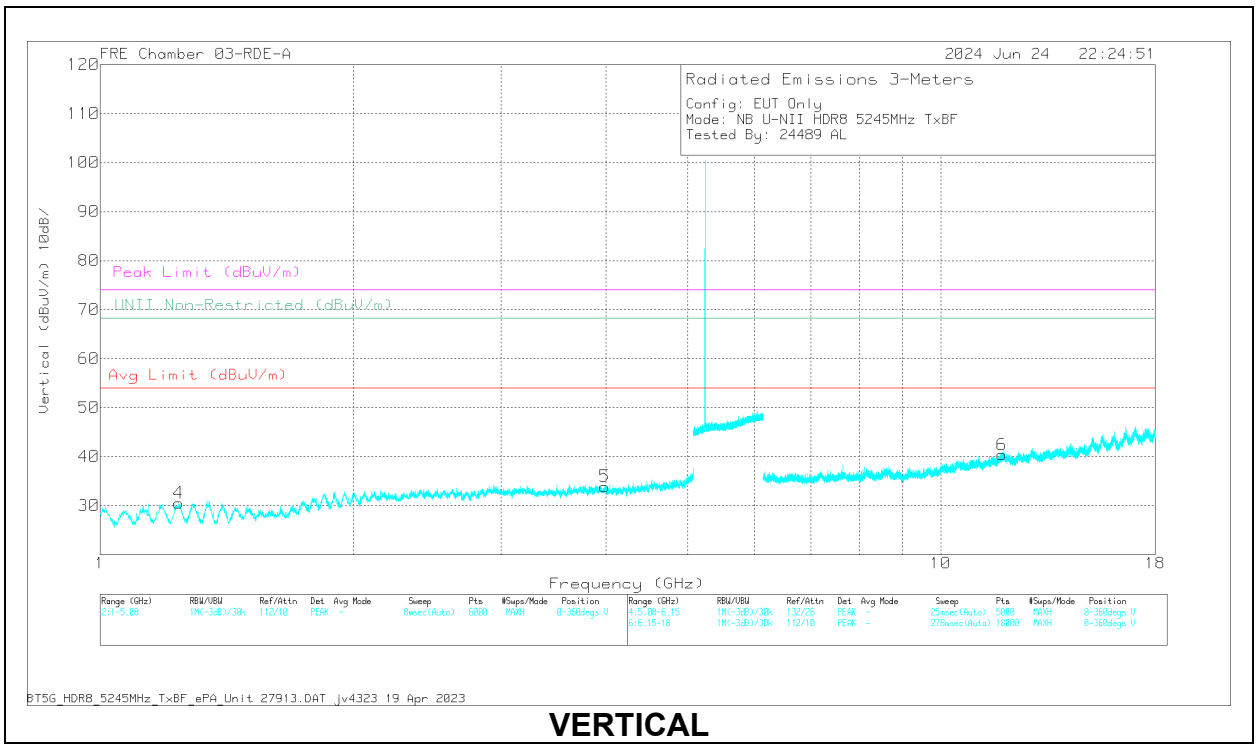
* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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

HIGH CHANNEL, 5245 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.229314	61.46	PK-U	28.5	-50.09	39.87	-	-	74	-34.13	0	198	H
	* 1.230376	50.1	ADR	28.5	-50.08	28.52	54	-25.48	-	-	0	198	H
2	* 4.002367	57.09	PK-U	33.4	-46.99	43.5	-	-	74	-30.5	0	101	H
	* 4.002645	45.57	ADR	33.4	-46.97	32	54	-22	-	-	0	101	H
4	* 1.239907	62.46	PK-U	28.5	-50.09	40.87	-	-	74	-33.13	0	199	V
	* 1.239335	50.49	ADR	28.5	-50.07	28.92	54	-25.08	-	-	0	199	V
6	* 3.983739	57.54	PK-U	33.5	-47.1	43.94	-	-	74	-30.06	0	199	V
	* 3.982885	45.87	ADR	33.5	-47.11	32.26	54	-21.74	-	-	0	199	V
3	* 11.81002	54.16	PK-U	38.6	-43.3	49.46	-	-	74	-24.54	0	101	H
	* 11.80850	42.42	ADR	38.6	-43.29	37.73	54	-16.27	-	-	0	101	H
6	* 11.82981	53.72	PK-U	38.6	-43.23	49.09	-	-	74	-24.91	0	199	V
	* 11.83182	42.38	ADR	38.6	-43.24	37.74	54	-16.26	-	-	0	199	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

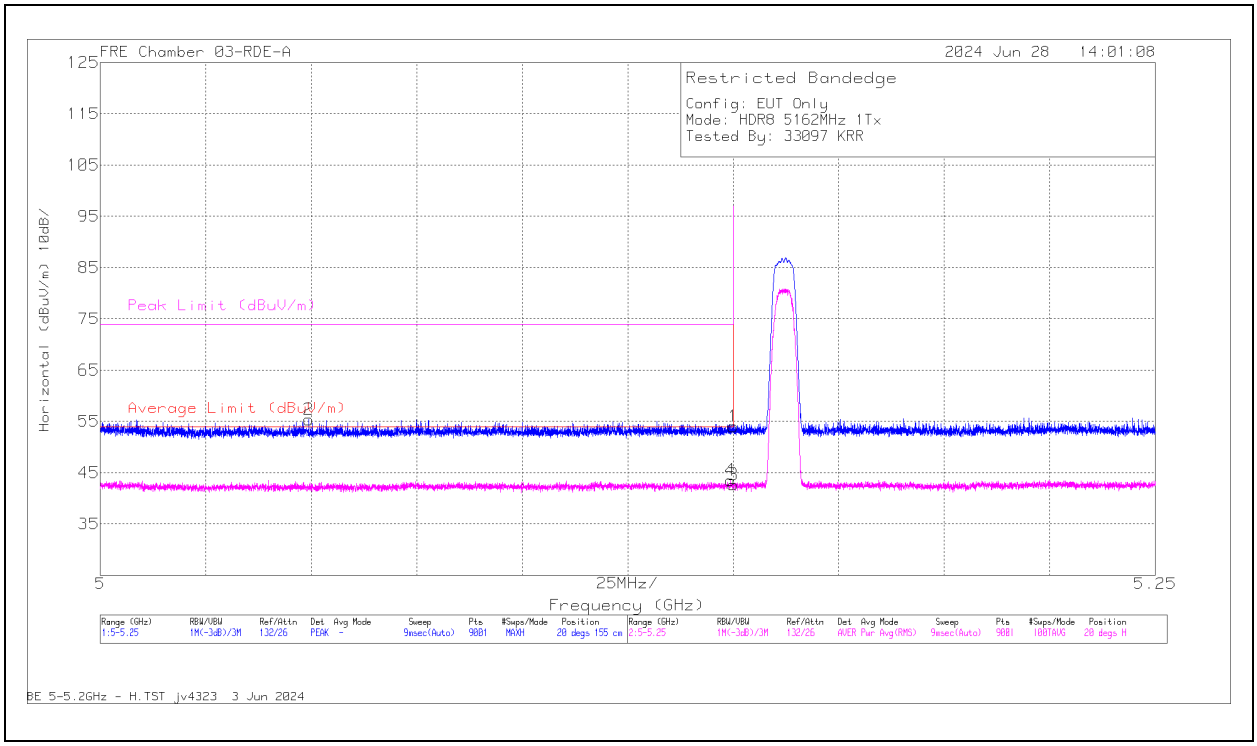
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

10.1.11. HDR 8 LOW POWER, UNII-1 BAND, BANDEDGE

ANT 6, SISO MODE

LOW CHANNEL, 5162 MHz

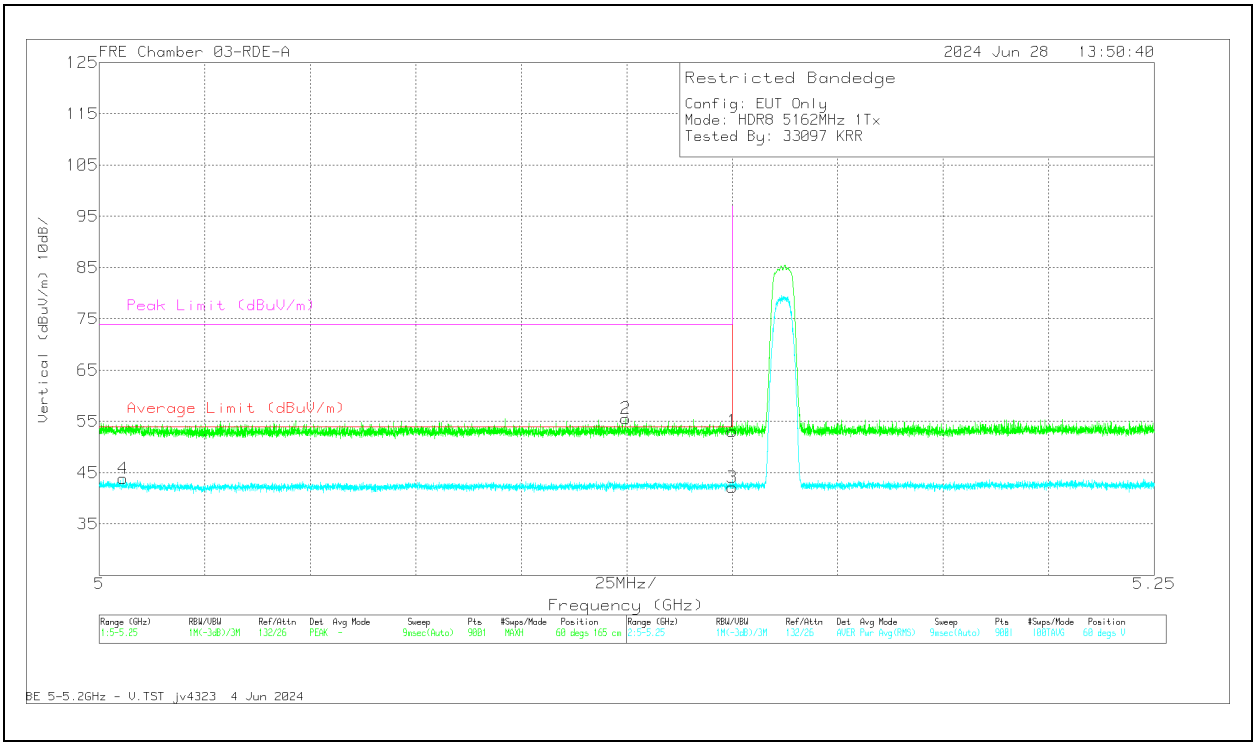
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	58.1	Pk	34.2	-38.28	54.02	-	-	74	-19.98	20	155	H
2	* 5.049389	59.65	Pk	34	-38.28	55.37	-	-	74	-18.63	20	155	H
3	* 5.15	46.73	RMS	34.2	-38.28	42.65	54	-11.35	-	-	20	155	H
4	* 5.149362	47.59	RMS	34.2	-38.27	43.52	54	-10.48	-	-	20	155	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



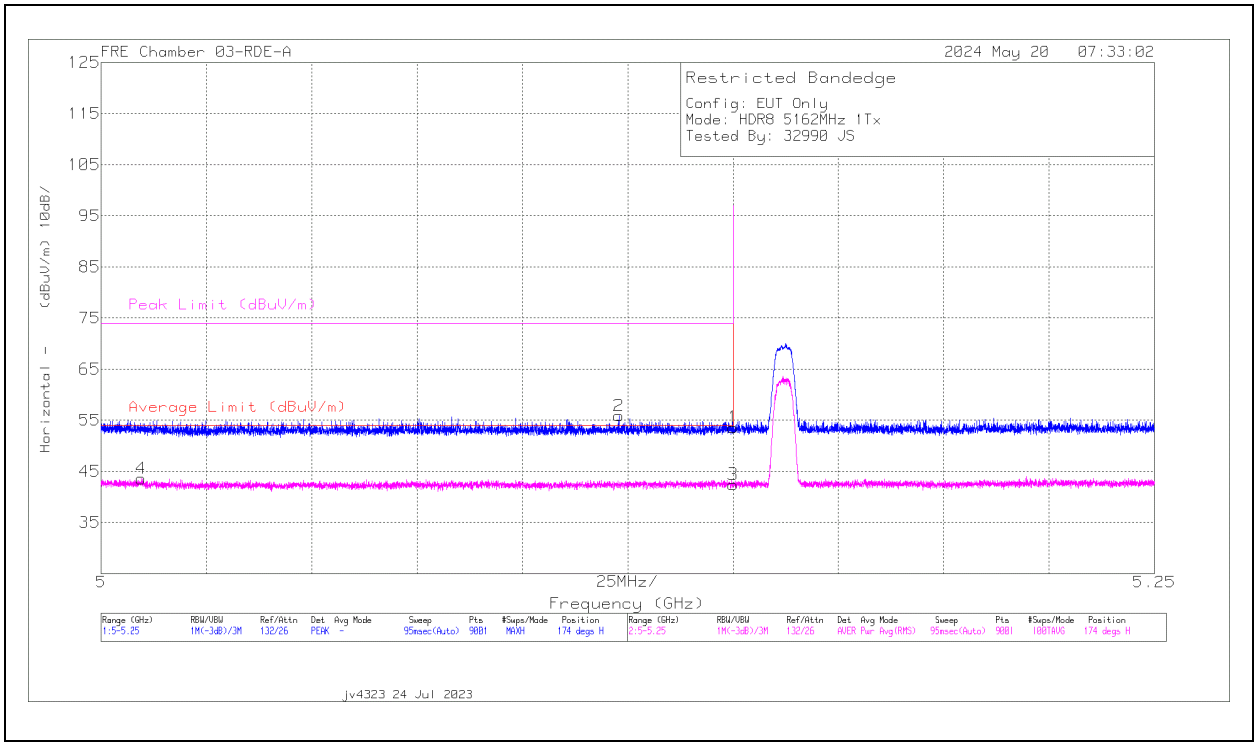
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.17	Pk	34.2	-38.28	53.09	-	-	74	-20.91	60	165	V
2	* 5.124723	59.74	Pk	34.2	-38.41	55.53	-	-	74	-18.47	60	165	V
3	* 5.15	46.23	RMS	34.2	-38.28	42.15	54	-11.85	-	-	60	165	V
4	* 5.005639	48.23	RMS	34	-38.36	43.87	54	-10.13	-	-	60	165	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 5, SISO MODE

LOW CHANNEL, 5162 MHz

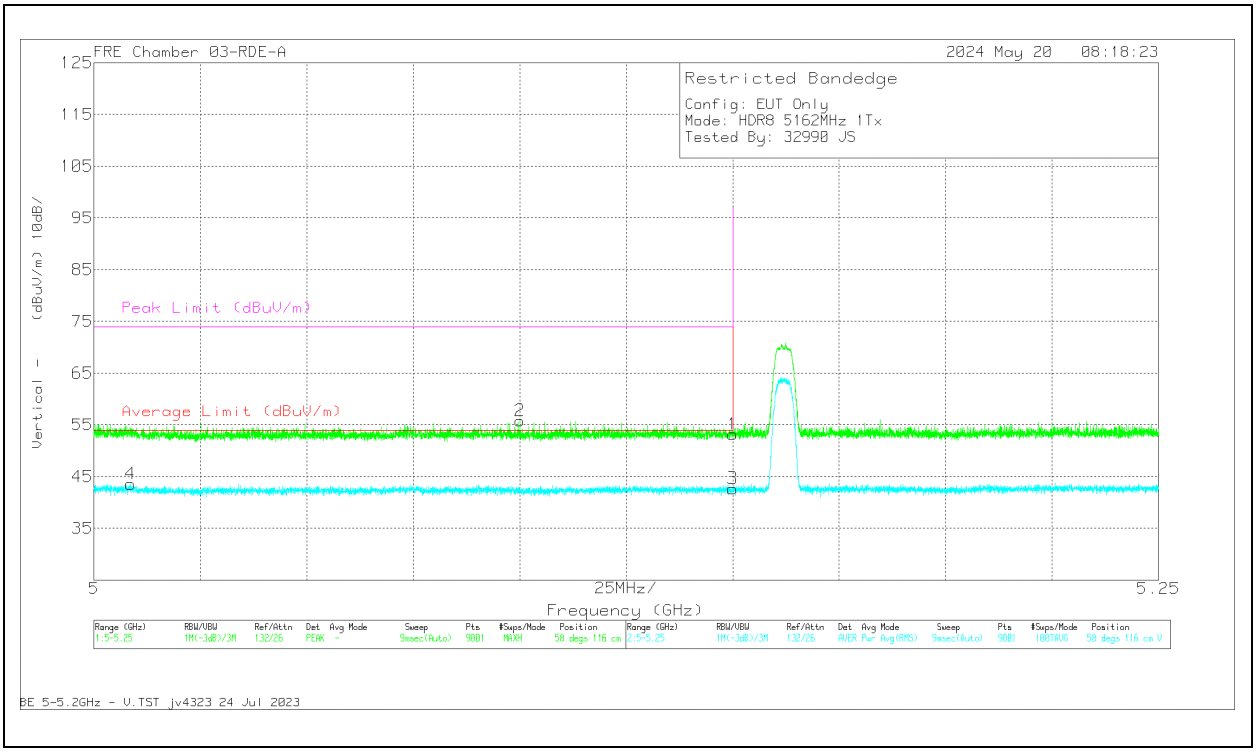
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.7	Pk	34.2	-38.28	53.62	-	-	74	-20.38	174	135	H
2	* 5.12289	60.08	Pk	34.2	-38.41	55.87	-	-	74	-18.13	174	135	H
3	* 5.15	46.49	RMS	34.2	-38.28	42.41	54	-11.59	-	-	174	135	H
4	* 5.009556	47.92	RMS	34	-38.34	43.58	54	-10.42	-	-	174	135	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



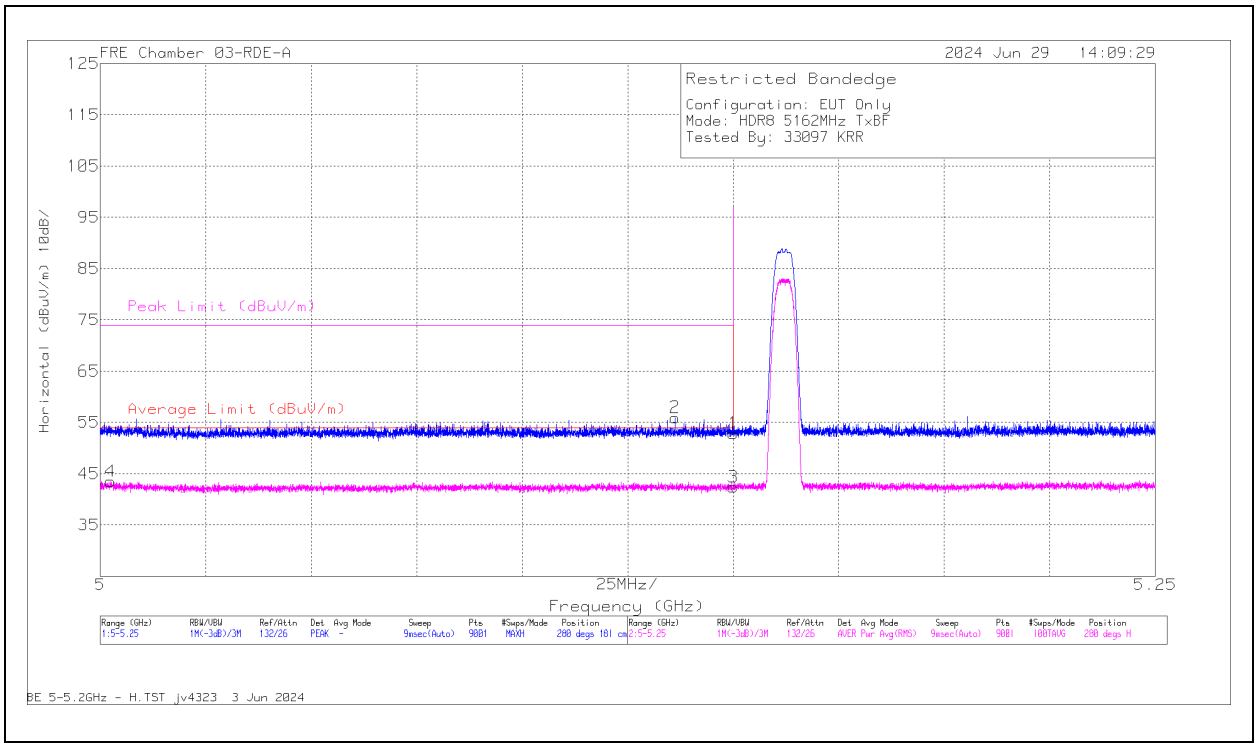
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	57.27	Pk	34.2	-38.28	53.19	-	-	74	-20.81	58	116	V
2	* 5.100029	60.03	Pk	34.1	-38.35	55.78	-	-	74	-18.22	58	116	V
3	* 5.15	46.75	RMS	34.2	-38.28	42.67	54	-11.33	-	-	58	116	V
4	* 5.008611	47.95	RMS	34	-38.37	43.58	54	-10.42	-	-	58	116	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

ANT 6 + ANT 5, MIMO TXBF MODE

LOW CHANNEL, 5162 MHz

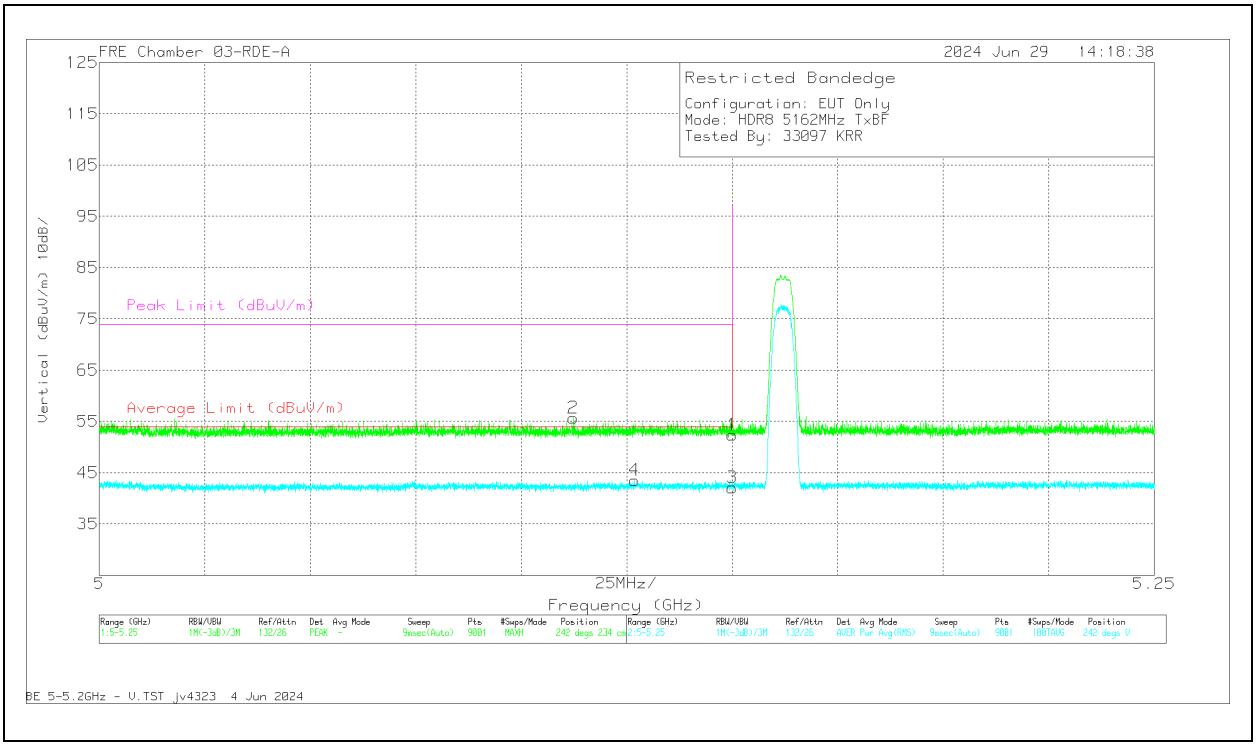
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	56.95	Pk	34.2	-38.28	52.87	-	-	74	-21.13	280	181	H
2	* 5.136251	60.03	Pk	34.2	-38.3	55.93	-	-	74	-18.07	280	181	H
3	* 5.15	46.44	RMS	34.2	-38.28	42.36	54	-11.64	-	-	280	181	H
4	* 5.002444	47.72	RMS	34	-38.22	43.5	54	-10.5	-	-	280	181	H

* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT

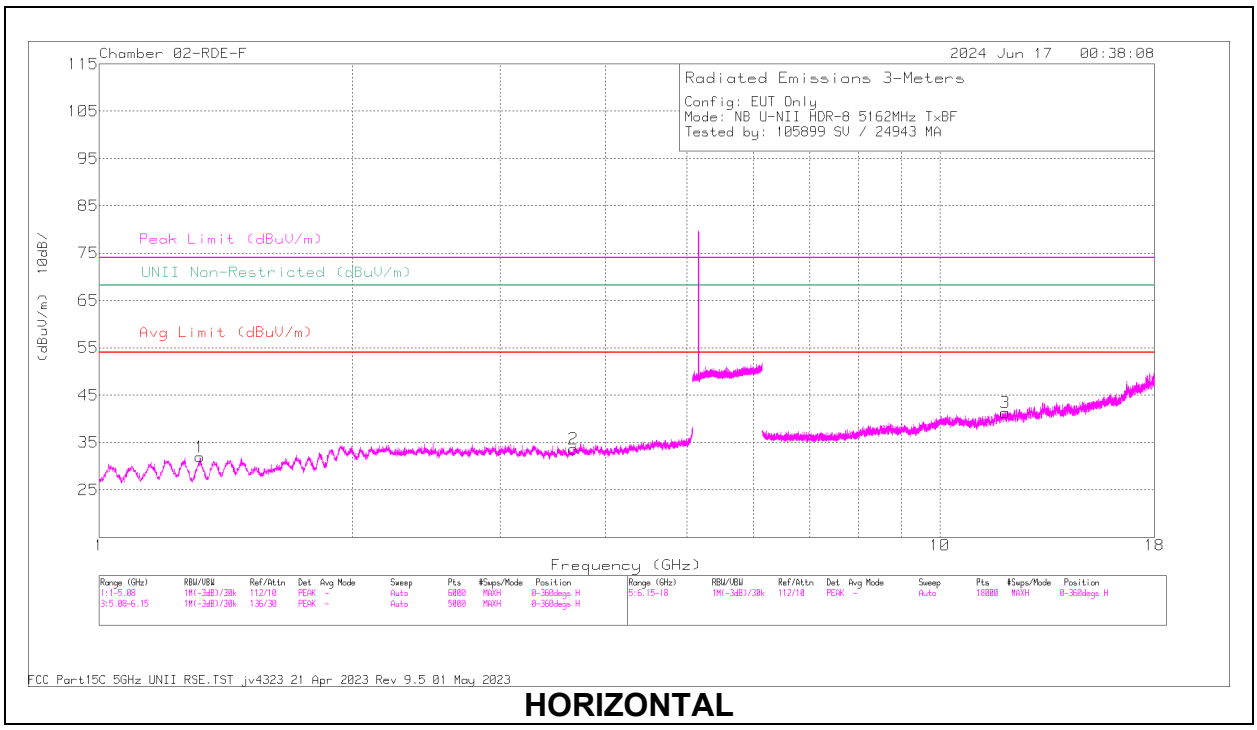


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	56.43	Pk	34.2	-38.28	52.35	-	-	74	-21.65	242	234	V
2	* 5.112334	59.96	Pk	34.1	-38.37	55.69	-	-	74	-18.31	242	234	V
3	* 5.15	46.17	RMS	34.2	-38.28	42.09	54	-11.91	-	-	242	234	V
4	* 5.126862	47.69	RMS	34.2	-38.35	43.54	54	-10.46	-	-	242	234	V

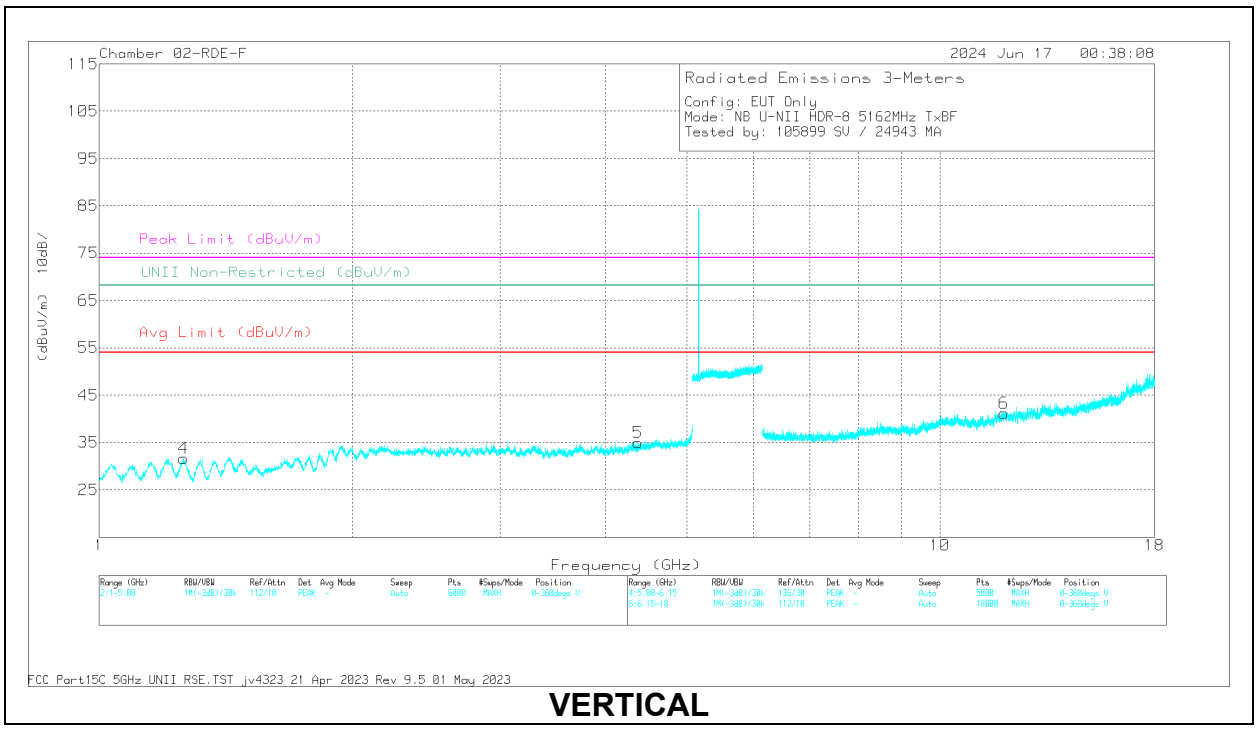
* - indicates frequency in 47 CFR Pt 15 Restricted Band
Pk - Peak detector
RMS - RMS detection

10.1.12. HDR 8 LOW POWER, UNII-1 BAND, MIMO TXBF MODE, HARMONIC AND SPURIOUS

LOW CHANNEL, 5162 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206806 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.316815	60.45	PK-U	28.5	-47.5	41.45	-	-	74	-32.55	0	101	H
	* 1.317915	48.68	ADR	28.5	-47.5	29.68	54	-24.32	-	-	0	101	H
2	* 3.664525	56.88	PK-U	33.2	-45.9	44.18	-	-	74	-29.82	0	200	H
	* 3.667149	44.78	ADR	33.2	-46	31.98	54	-22.02	-	-	0	200	H
4	* 1.259349	60.42	PK-U	28.5	-47.5	41.42	-	-	74	-32.58	0	101	V
	* 1.258997	48.99	ADR	28.5	-47.5	29.99	54	-24.01	-	-	0	101	V
5	* 4.377637	56.96	PK-U	33.7	-46.5	44.16	-	-	74	-29.84	0	200	V
	* 4.378251	45.55	ADR	33.7	-46.5	32.75	54	-21.25	-	-	0	200	V
3	* 11.95894	54.48	PK-U	38.7	-42.4	50.78	-	-	74	-23.22	0	101	H
	* 11.95878	43.22	ADR	38.7	-42.4	39.52	54	-14.48	-	-	0	101	H
6	* 11.93074	53.59	PK-U	38.7	-41.6	50.69	-	-	74	-23.31	0	200	V
	* 11.92909	42.34	ADR	38.7	-41.6	39.44	54	-14.56	-	-	0	200	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL VERIFICATION SERVICES INC.
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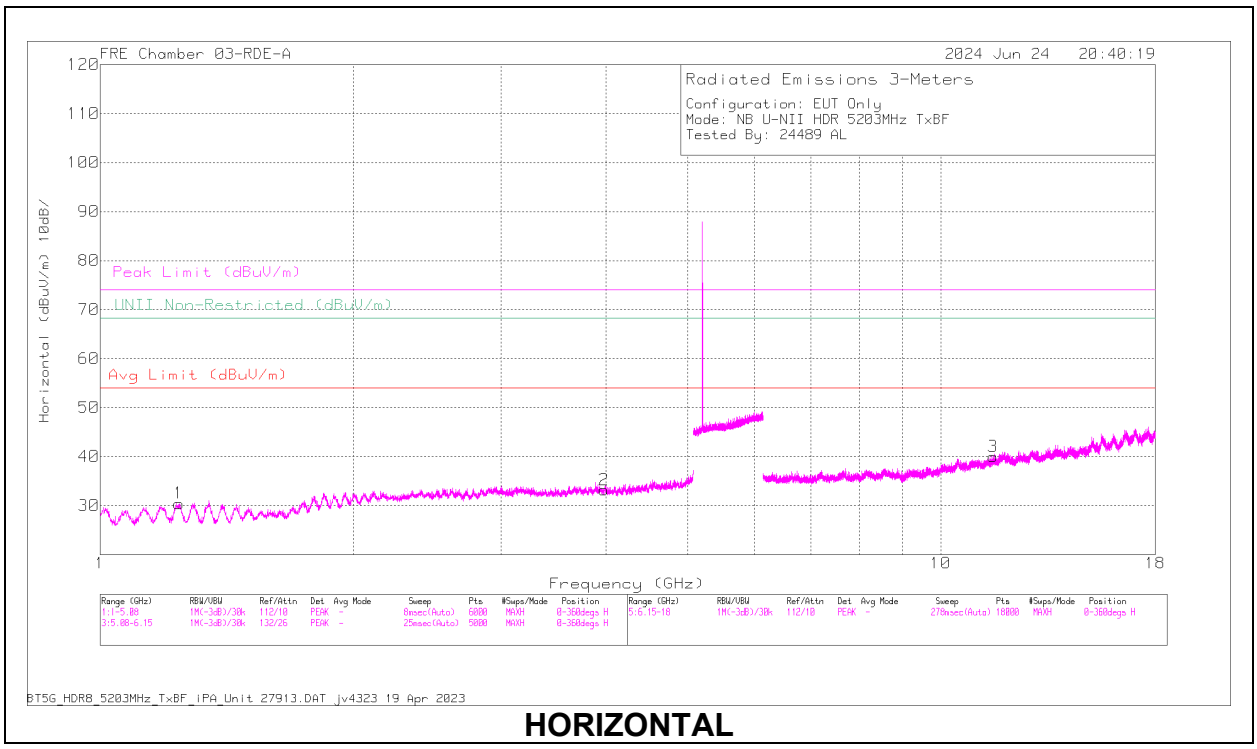
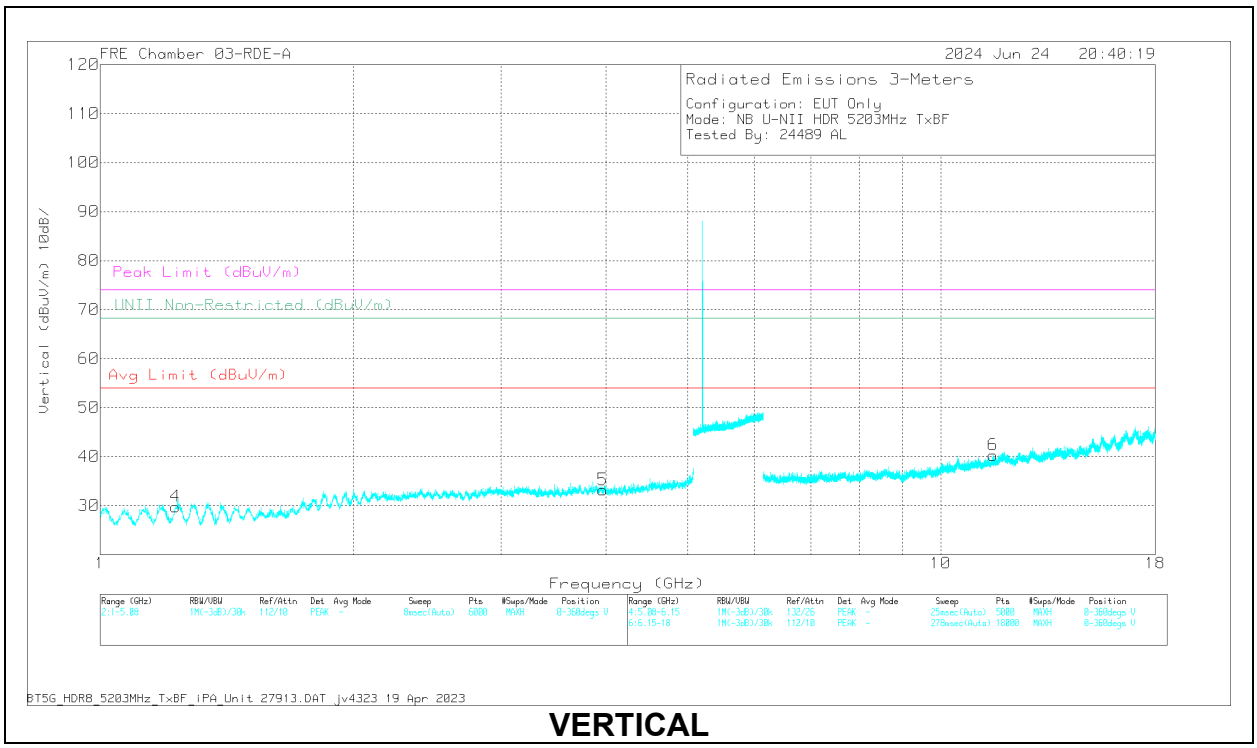
MID CHANNEL, 5203 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.240116	61.9	PK-U	28.5	-50.09	40.31	-	-	74	-33.69	0	199	H
	* 1.239127	50.59	ADR	28.5	-50.06	29.03	54	-24.97	-	-	0	199	H
2	* 3.973768	57.61	PK-U	33.5	-47.11	44	-	-	74	-30	0	199	H
	* 3.975995	45.63	ADR	33.5	-47.1	32.03	54	-21.97	-	-	0	199	H
4	* 1.231389	61.64	PK-U	28.5	-50.09	40.05	-	-	74	-33.95	0	199	V
	* 1.231714	50.04	ADR	28.5	-50.09	28.45	54	-25.55	-	-	0	199	V
5	* 3.961488	57.61	PK-U	33.5	-47.14	43.97	-	-	74	-30.03	0	199	V
	* 3.961131	45.66	ADR	33.5	-47.14	32.02	54	-21.98	-	-	0	199	V
3	* 11.54058	54.64	PK-U	38.2	-43.6	49.24	-	-	74	-24.76	0	199	H
	* 11.54049	42.87	ADR	38.2	-43.59	37.48	54	-16.52	-	-	0	199	H
6	* 11.54638	54.38	PK-U	38.2	-43.54	49.04	-	-	74	-24.96	0	199	V
	* 11.54621	43.13	ADR	38.2	-43.54	37.79	54	-16.21	-	-	0	199	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL VERIFICATION SERVICES INC.
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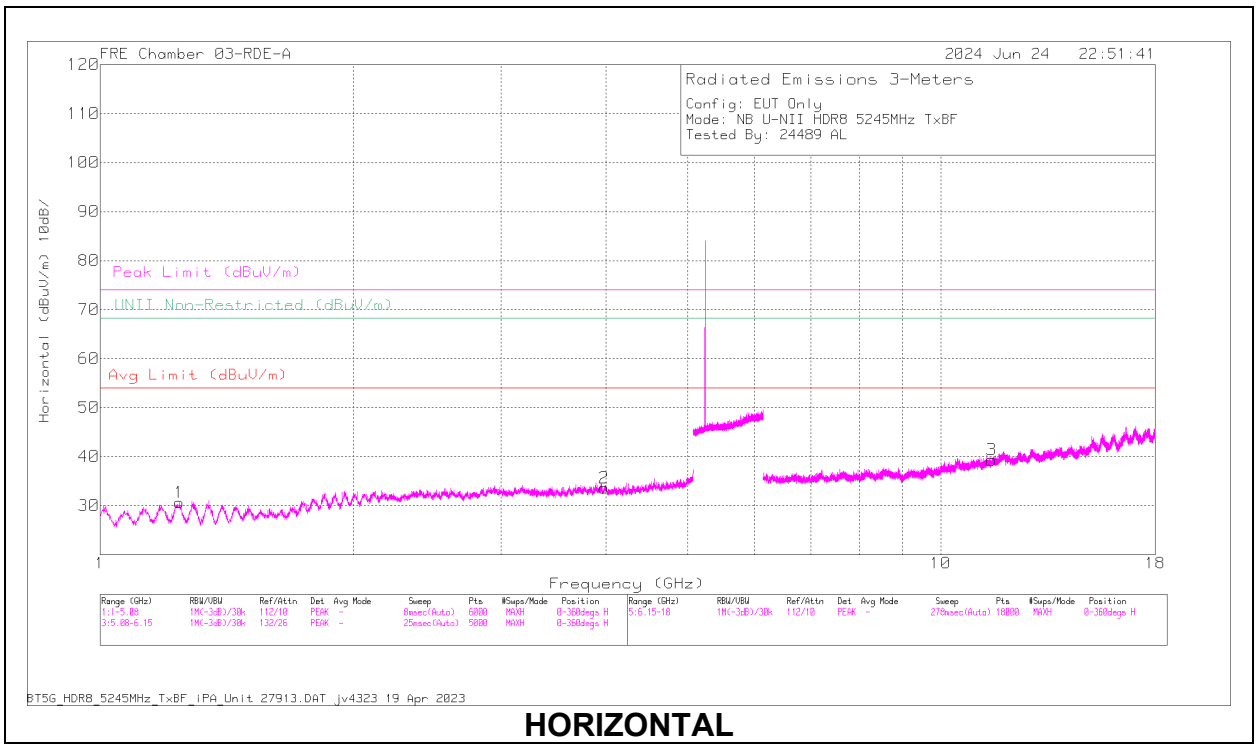
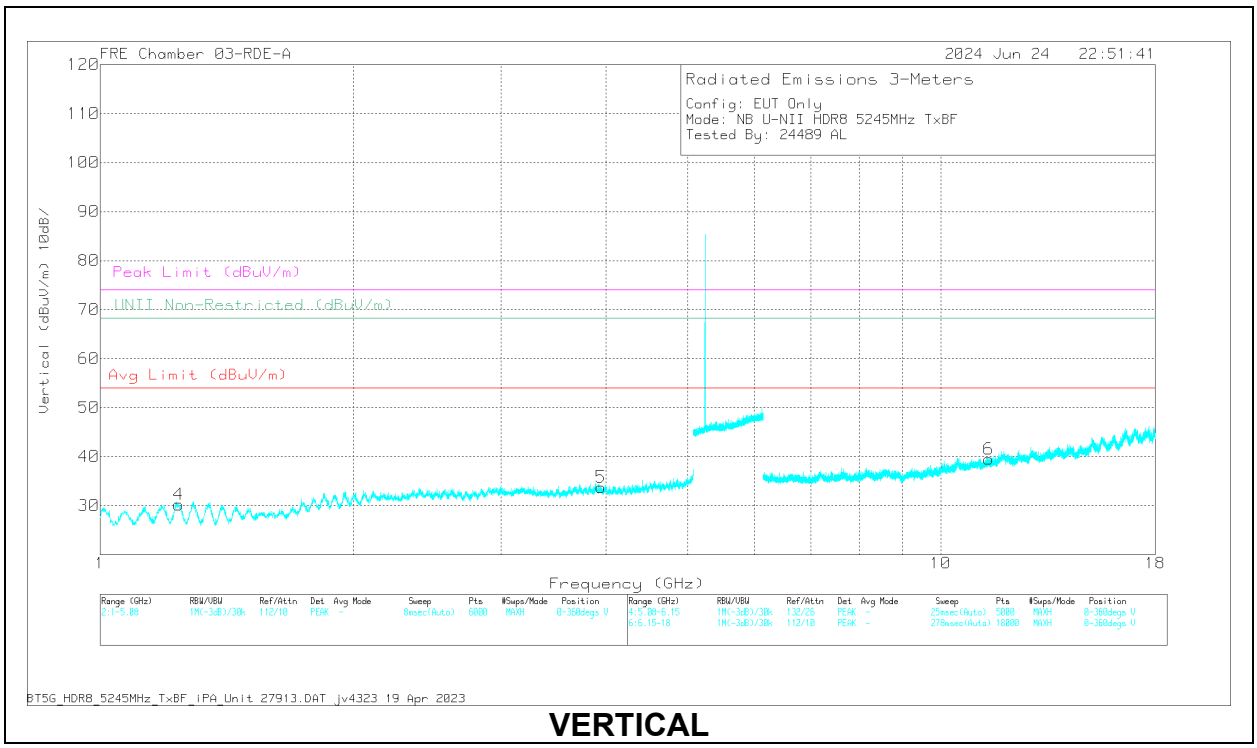
HIGH CHANNEL, 5245 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.242948	62.11	PK-U	28.5	-50.07	40.54	-	-	74	-33.46	1	198	H
	* 1.24017	50.47	ADR	28.5	-50.09	28.88	54	-25.12	-	-	1	198	H
2	* 3.975296	57.12	PK-U	33.5	-47.09	43.53	-	-	74	-30.47	1	101	H
	* 3.973447	45.56	ADR	33.5	-47.12	31.94	54	-22.06	-	-	1	101	H
4	* 1.238122	62.03	PK-U	28.5	-50.06	40.47	-	-	74	-33.53	1	101	V
	* 1.24178	50.42	ADR	28.5	-50.05	28.87	54	-25.13	-	-	1	101	V
5	* 3.942663	57.5	PK-U	33.5	-47.22	43.78	-	-	74	-30.22	1	198	V
	* 3.941075	46.03	ADR	33.5	-47.26	32.27	54	-21.73	-	-	1	198	V
3	* 11.49174	54.71	PK-U	38.2	-43.55	49.36	-	-	74	-24.64	1	101	H
	* 11.49435	43.18	ADR	38.2	-43.52	37.86	54	-16.14	-	-	1	101	H
6	* 11.39823	54.74	PK-U	38.1	-43.77	49.07	-	-	74	-24.93	1	101	V
	* 11.40069	43.04	ADR	38.1	-43.76	37.38	54	-16.62	-	-	1	101	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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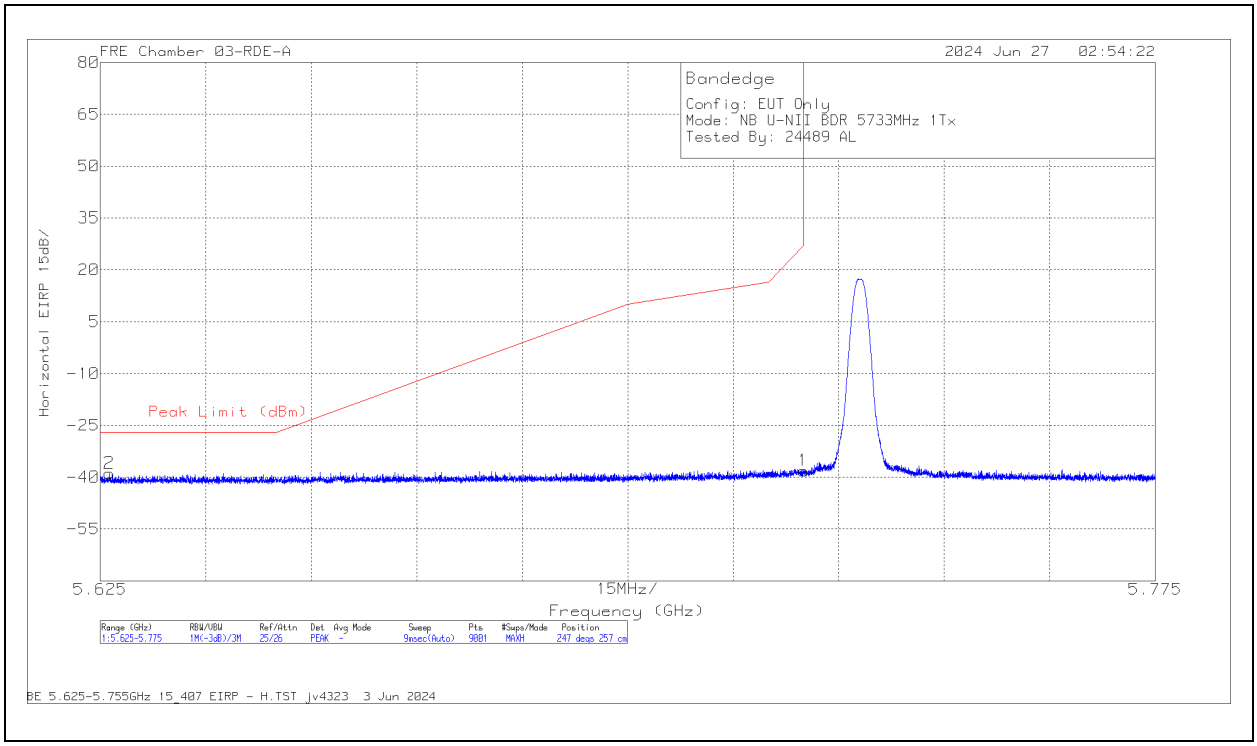
10.1.13. BDR HIGH POWER, UNII-3 BAND, BANDEDGE

ANT 6, SISO MODE

LOW CHANNEL, 5733 MHz

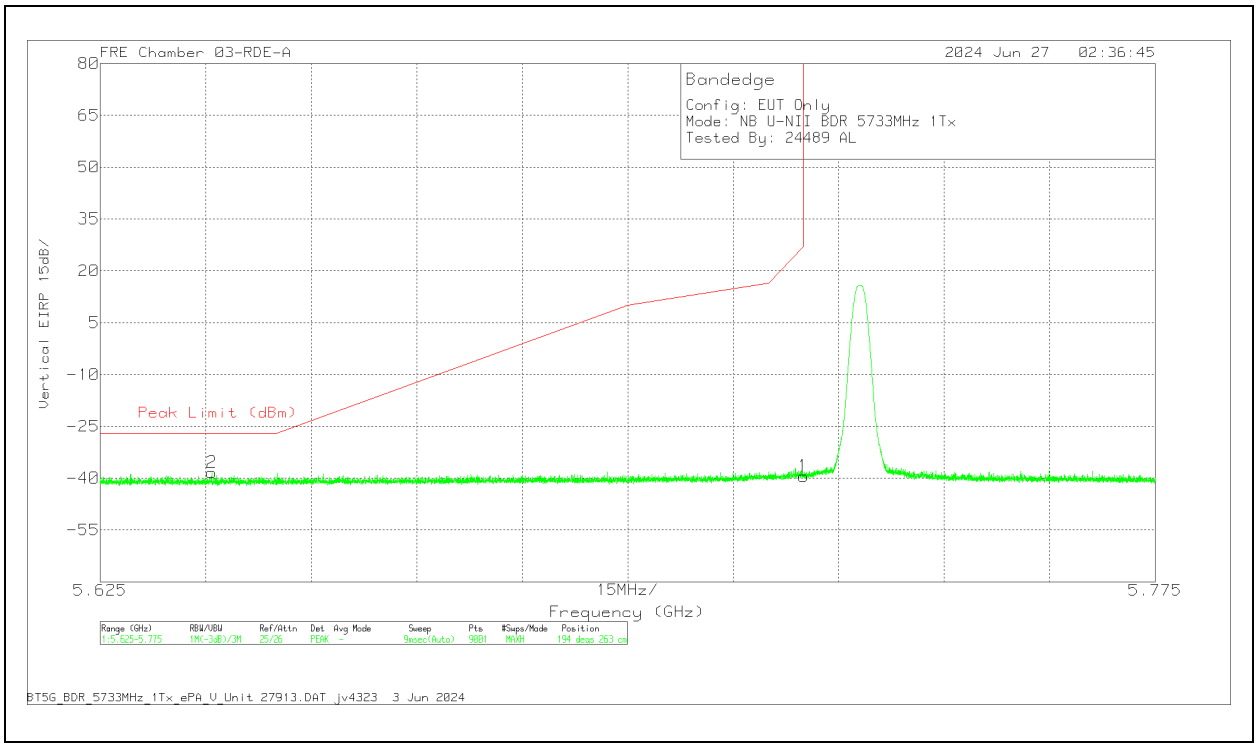
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.626283	-47.67	Pk	34.4	11.8	-37.39	-38.86	-27	-11.86	247	257	H
1	5.725	-47.38	Pk	34.6	11.8	-37.13	-38.11	27	-65.11	247	257	H

Pk - Peak detector

VERTICAL RESULT

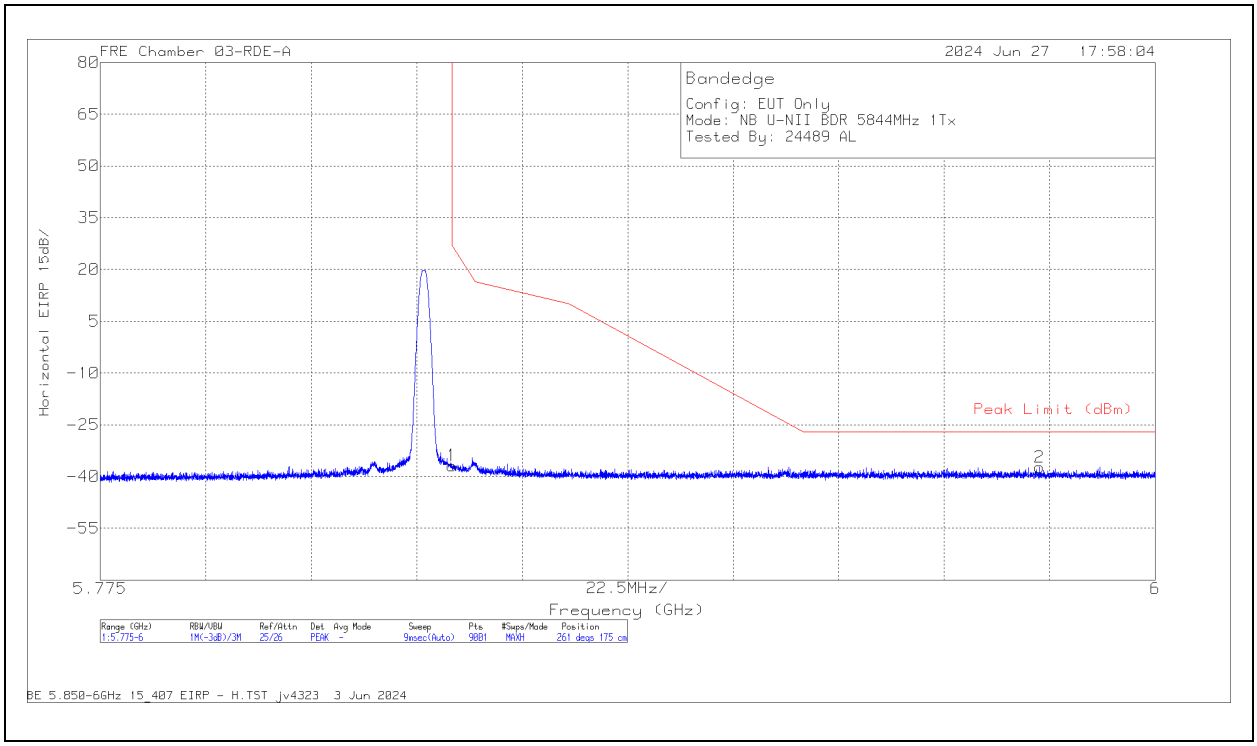


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.64085	-47.22	Pk	34.4	11.8	-37.34	-38.36	-27	-11.36	194	263	V
1	5.725	-48.66	Pk	34.6	11.8	-37.13	-39.39	27	-66.39	194	263	V

Pk - Peak detector

HIGH CHANNEL, 5844 MHz

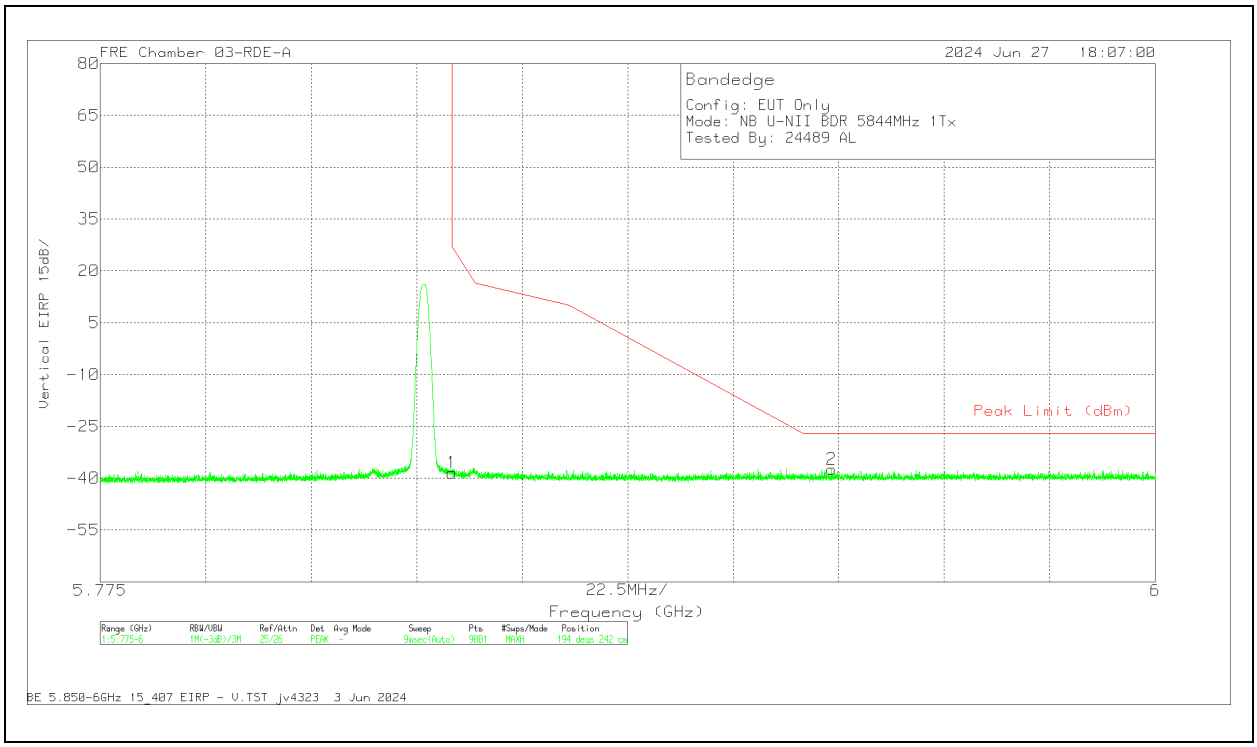
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-46.82	Pk	35	11.8	-36.87	-36.89	27	-63.89	261	175	H
2	5.975325	-47.82	Pk	35.3	11.8	-36.61	-37.33	-27	-10.33	261	175	H

Pk - Peak detector

VERTICAL RESULT



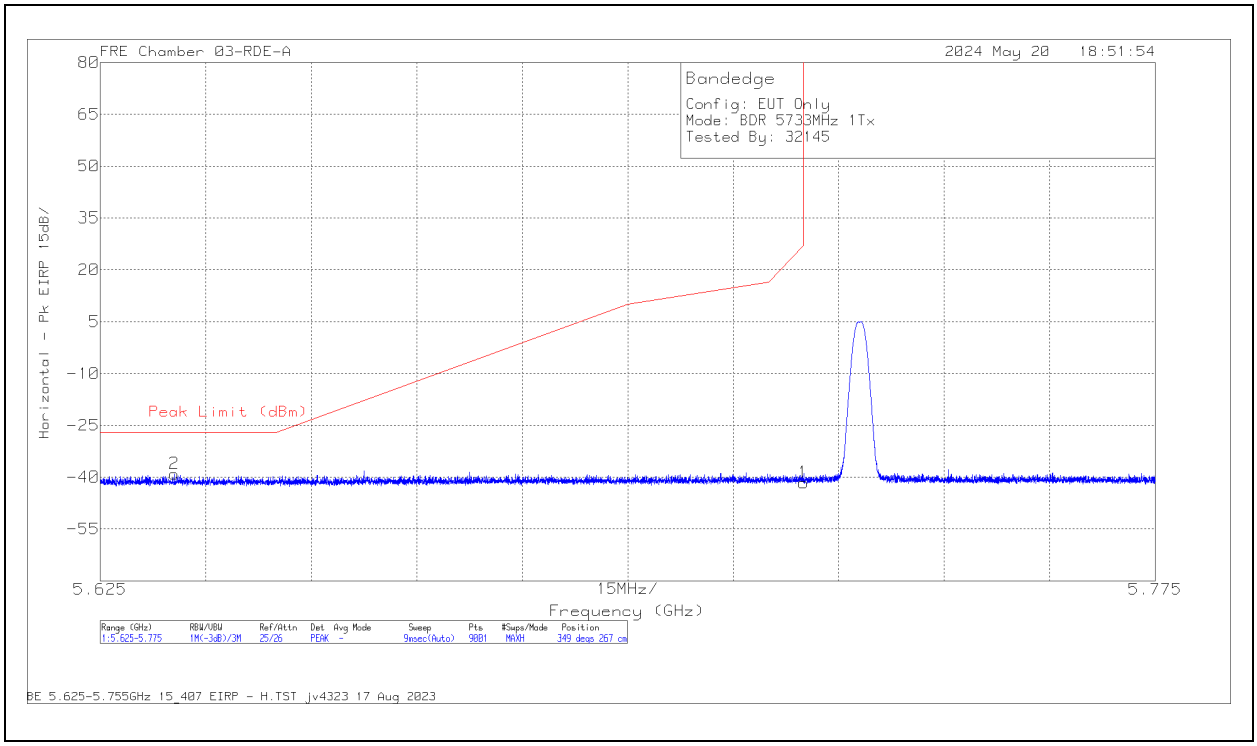
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-48.36	Pk	35	11.8	-36.87	-38.43	27	-65.43	194	242	V
2	5.93095	-47.75	Pk	35.2	11.8	-36.7	-37.45	-27	-10.45	194	242	V

Pk - Peak detector

ANT 5, SISO MODE

LOW CHANNEL, 5733 MHz

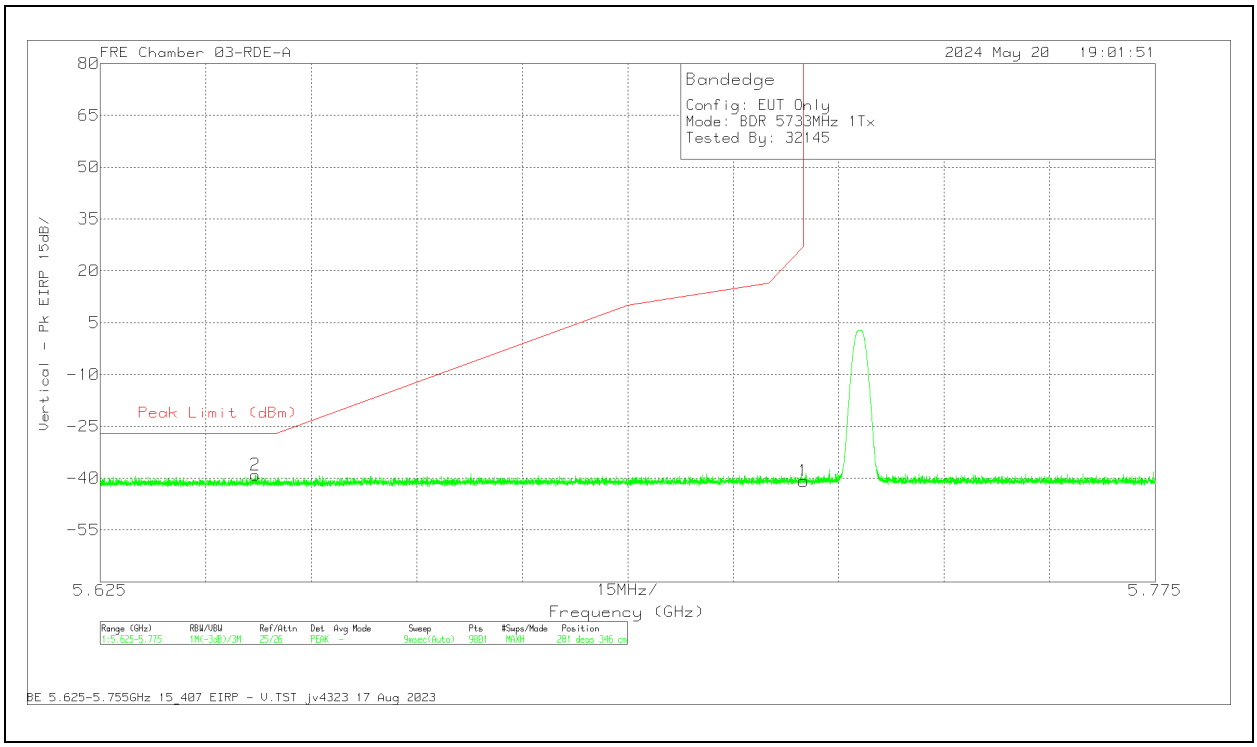
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.635517	-47.89	Pk	34.4	11.8	-37.33	-39.02	-27	-12.02	349	267	H
1	5.725	-50.84	Pk	34.6	11.8	-37.13	-41.57	27	-68.57	349	267	H

Pk - Peak detector

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.647084	-47.94	Pk	34.4	11.8	-37.34	-39.08	-27	-12.08	281	346	V
1	5.725	-50.07	Pk	34.6	11.8	-37.13	-40.8	27	-67.8	281	346	V

Pk - Peak detector

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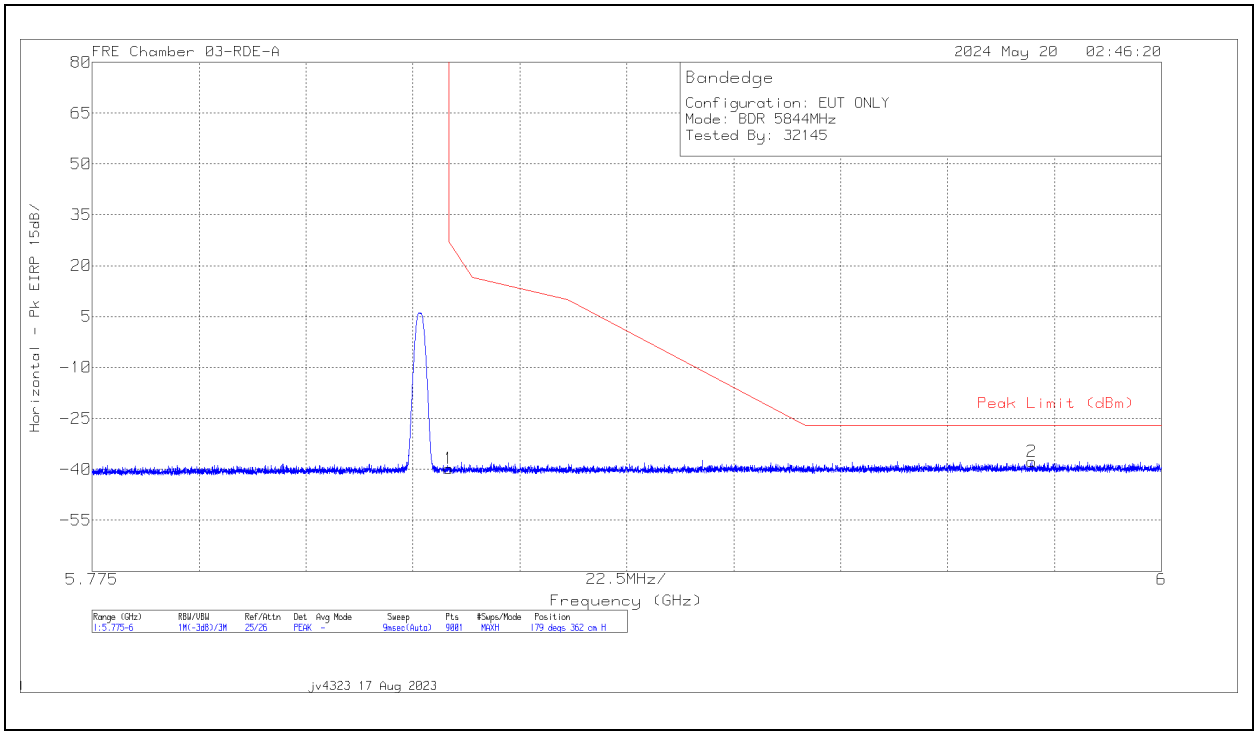
HIGH CHANNEL, 5844 MHz

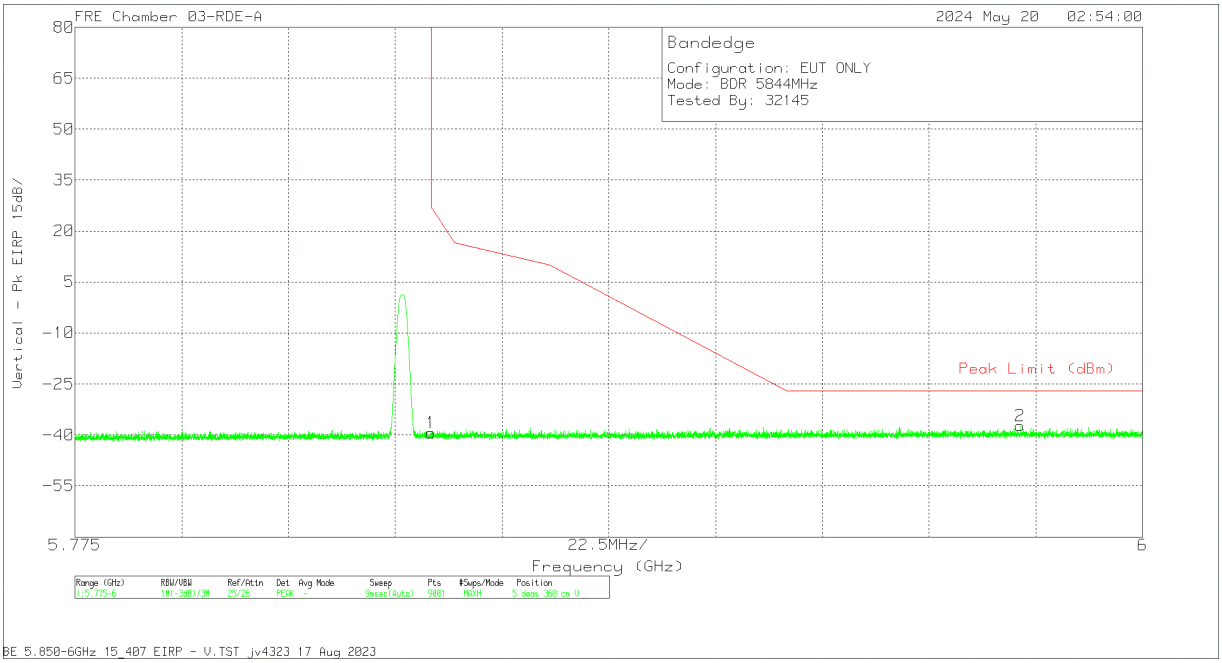
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-49.7	Pk	35	11.8	-36.87	-39.77	27	-66.77	179	362	H
2	5.97275	-48.16	Pk	35.3	11.8	-36.62	-37.68	-27	-10.68	179	362	H

Pk - Peak detector

VERTICAL RESULT



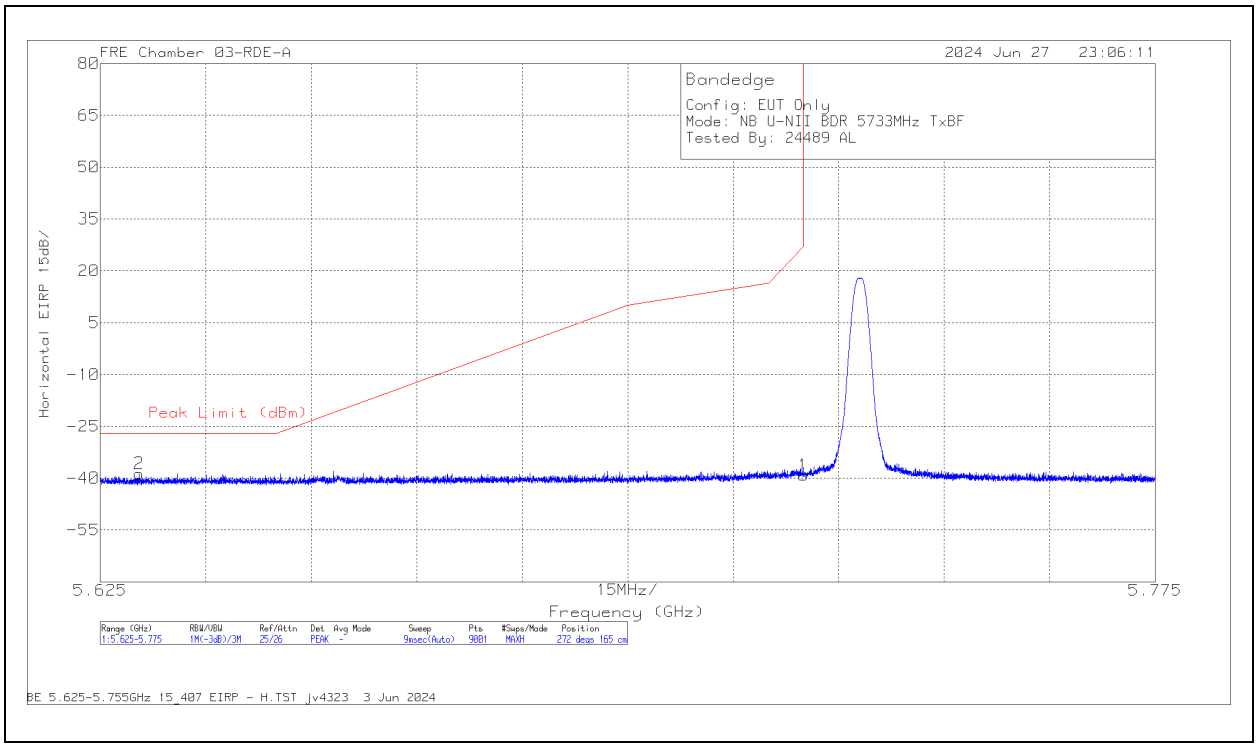
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-49.33	Pk	35	11.8	-36.87	-39.4	27	-66.4	5	360	V
2	5.974225	-47.73	Pk	35.3	11.8	-36.62	-37.25	-27	-10.25	5	360	V

Pk - Peak detector

ANT 6 + ANT 5, MIMO TXBF MODE

LOW CHANNEL, 5733 MHz

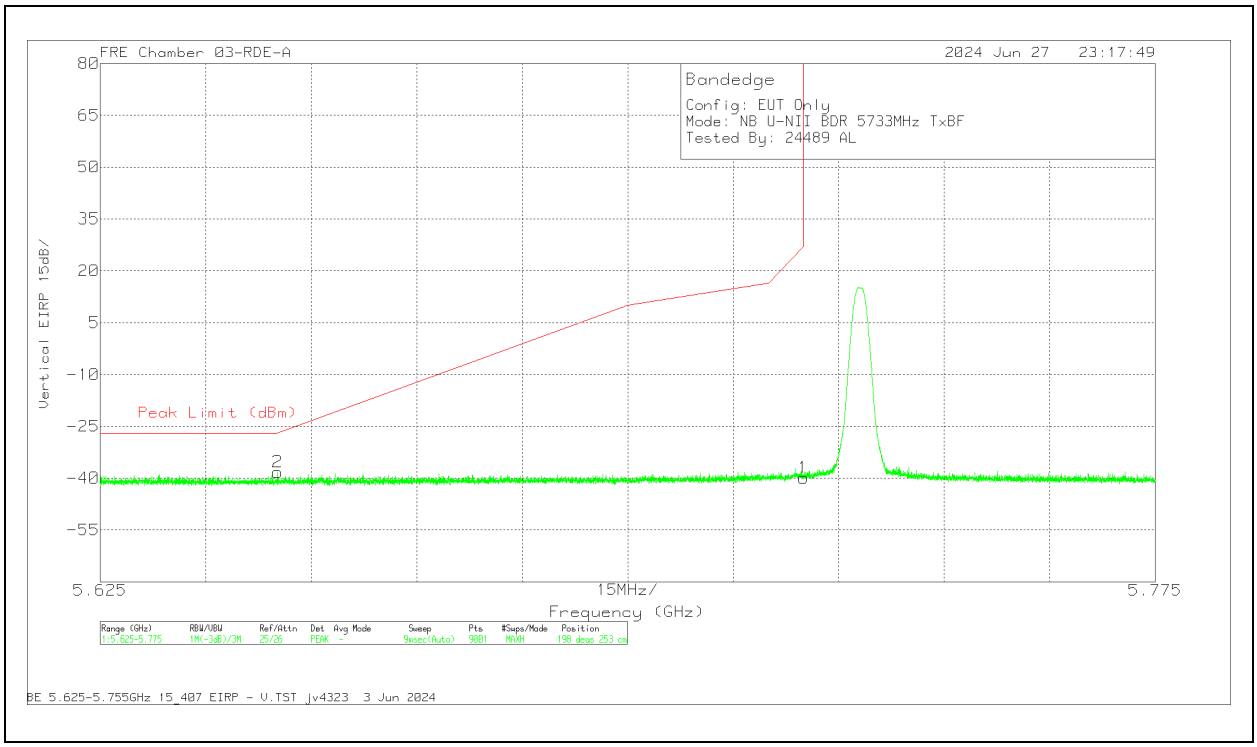
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.6305	-47.53	Pk	34.4	11.8	-37.39	-38.72	-27	-11.72	272	165	H
1	5.725	-48.36	Pk	34.6	11.8	-37.13	-39.09	27	-66.09	272	165	H

Pk - Peak detector

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.650217	-47.21	Pk	34.4	11.8	-37.25	-38.26	-26.84	-11.42	198	253	V
1	5.725	-49.15	Pk	34.6	11.8	-37.13	-39.88	27	-66.88	198	253	V

Pk - Peak detector

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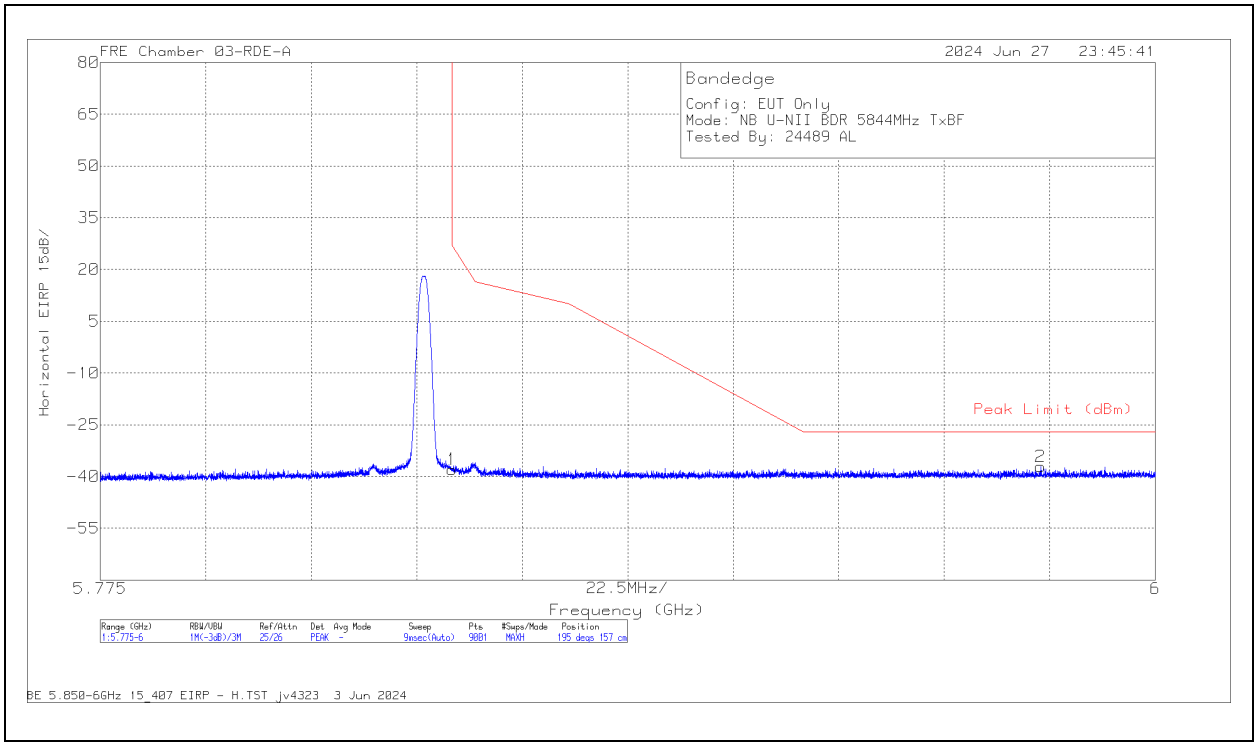
HIGH CHANNEL, 5844 MHz

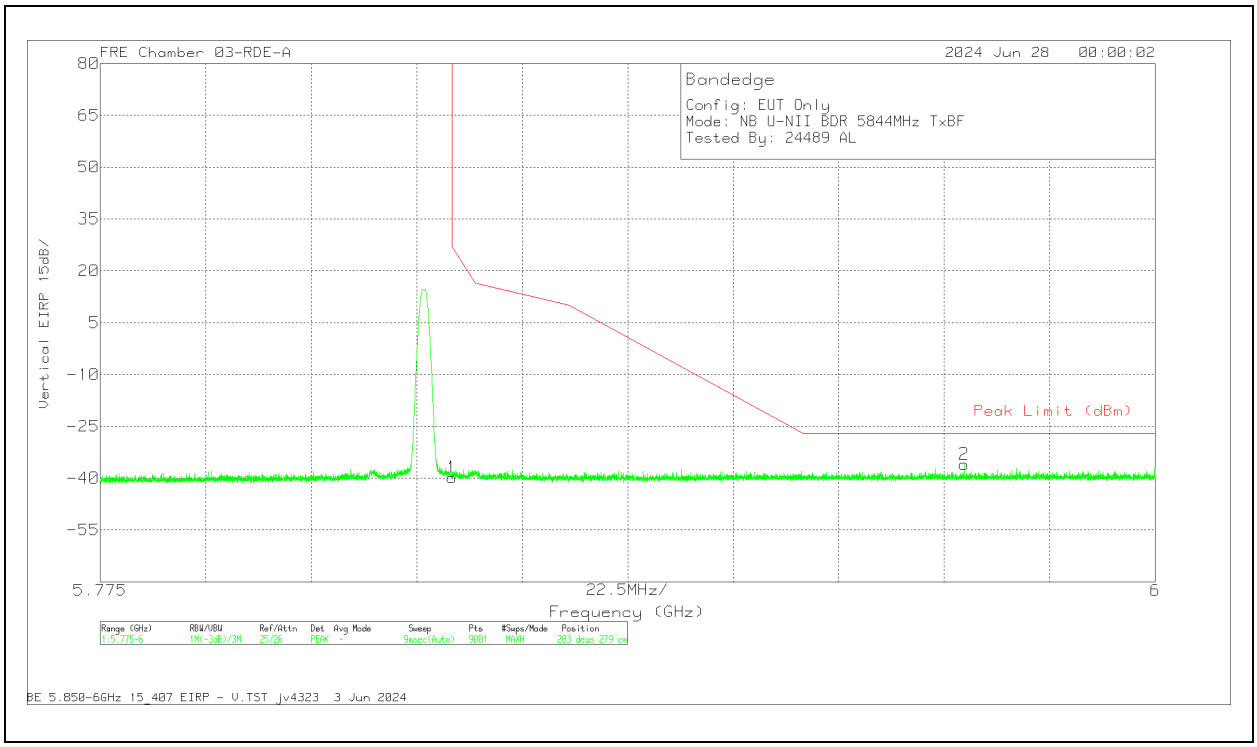
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-47.92	Pk	35	11.8	-36.87	-37.99	27	-64.99	195	157	H
2	5.975525	-47.62	Pk	35.3	11.8	-36.61	-37.13	-27	-10.13	195	157	H

Pk - Peak detector

VERTICAL RESULT

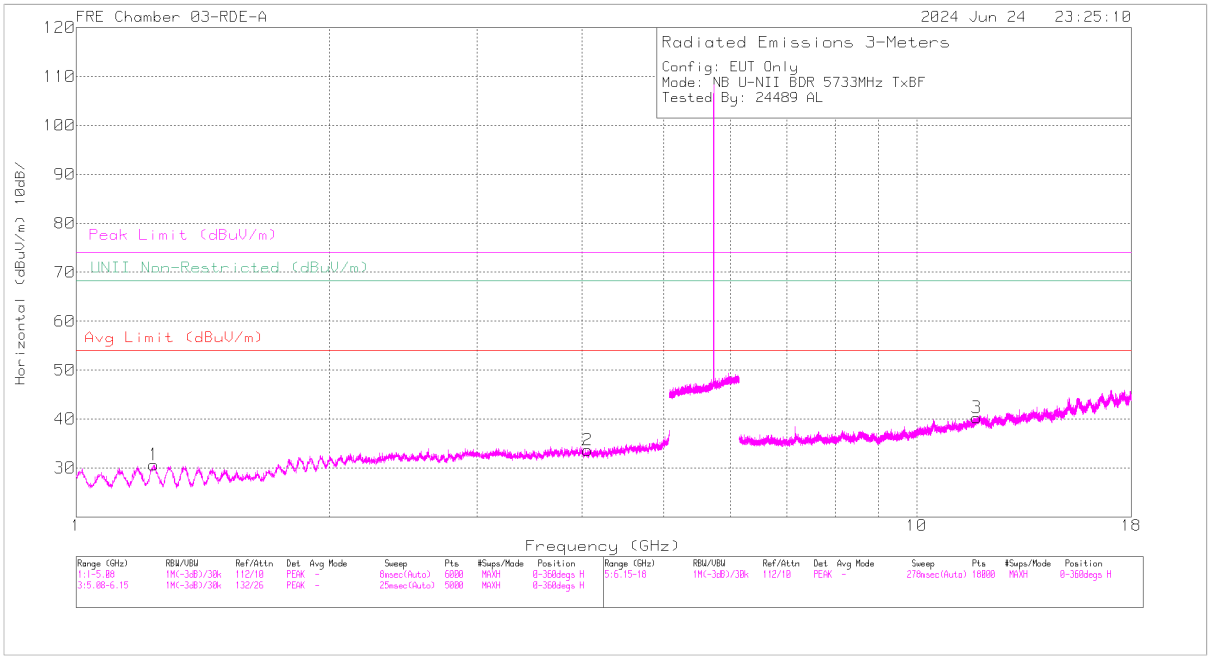


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	226673 ACF (dB/m)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading EIRP (dBm)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-49.74	Pk	35	11.8	-36.87	-39.81	27	-66.81	203	279	V
2	5.9592	-46.43	Pk	35.3	11.8	-36.65	-35.98	-27	-8.98	203	279	V

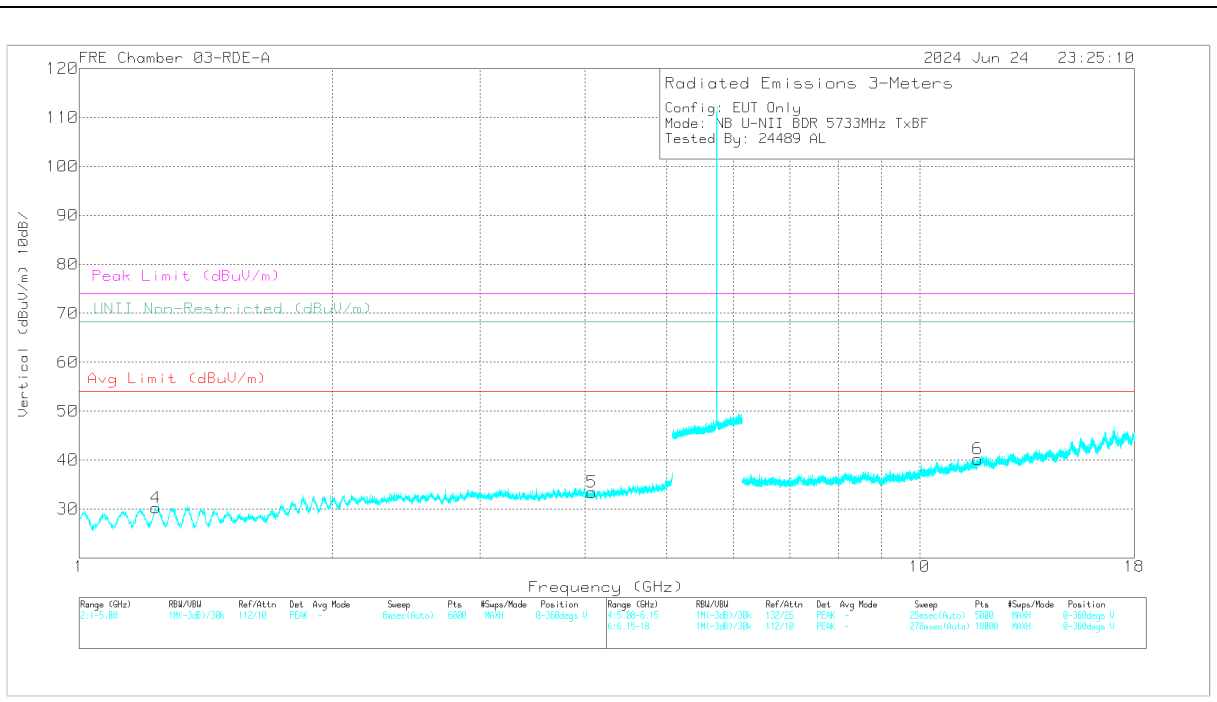
Pk - Peak detector

10.1.14. BDR HIGH POWER, UNII-3 BAND, MIMO TXBF MODE, HARMONIC AND SPURIOUS

LOW CHANNEL, 5733 MHz



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.236976	62.21	PK-U	28.5	-50.1	40.61	-	-	74	-33.39	1	198	H
	* 1.238456	50.53	ADR	28.5	-50.06	28.97	54	-25.03	-	-	1	198	H
2	* 4.059422	56.8	PK-U	33.4	-46.86	43.34	-	-	74	-30.66	1	101	H
	* 4.060402	45.38	ADR	33.4	-46.83	31.95	54	-22.05	-	-	1	101	H
4	* 1.23425	62	PK-U	28.5	-50.08	40.42	-	-	74	-33.58	1	199	V
	* 1.23228	50.34	ADR	28.5	-50.08	28.76	54	-25.24	-	-	1	199	V
5	* 4.074078	57.46	PK-U	33.4	-46.88	43.98	-	-	74	-30.02	1	199	V
	* 4.077149	45.29	ADR	33.4	-46.91	31.78	54	-22.22	-	-	1	199	V
3	* 11.78906	54.52	PK-U	38.6	-43.1	50.02	-	-	74	-23.98	1	101	H
	* 11.79134	42.52	ADR	38.6	-43.15	37.97	54	-16.03	-	-	1	101	H
6	* 11.72835	54.83	PK-U	38.5	-43.06	50.27	-	-	74	-23.73	1	101	V
	* 11.72838	42.92	ADR	38.5	-43.06	38.36	54	-15.64	-	-	1	101	V

* - indicates frequency in 47 CFR Pt 15 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

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