



Regulatory Test Report

Prepared for Harman/Becker Automotive Systems

This report presents detailed information on

HERMES 3.0

Prepared by

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Engineer II

Approved by

Jason Kanakry

General Manager

Issue date: 10/12/2021

Report No: AH21042001-HAR-017-TR2 v1.2

This test result relates only to the described test object.

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Customer must not use this test report as the product certification of each accreditation body or each national organization.

The test is traceable to national standard or related international standard

Contents

- **Test Request Information**.....3
- **Test Laboratory Information**.....4
- **Statement of Conformity**.....5
- **Conducted Testing**6
- **Radiated Testing**57

• Test Request Information

Test Request #:	OUS2150001
Test Requested By:	Imad Hjije 7layers GmbH Borsigstrasse 11, 40880 Ratingen, Germany
Test item Description:	HERMES 3.0
Part Number:	M598
DUT Sample Number:	AH21042001-HAR-017 #1, AH21042001-HAR-017 #2
Hardware Version of DUT:	LTE NAFTA
Software Version of DUT:	FW1.7
Component Category of DUT:	N/A
FCC ID:	T8GHERMES3
IC:	6434A-HERMES3
Type of Test:	FCC/ISED Certification
Test Method:	CFR Title 47 FCC Part 15.407, ISED Canada RSS-247 Issue 2, ISED Canada RSS-Gen Issue 5, FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 and ANSI C63.10-2013
Deviations from standard:	None
Approved Test Plan Number:	N/A
Test Plan Revision:	N/A
Date test sample received:	04-19-2021
Date test started:	04-22-2021
Date test finished:	09-16-2021

- **Test Laboratory Information**

Location of Test Lab: The radiated and conducted emissions test sites are located at
Bureau Veritas
815 N. Opdyke Rd #100,
Auburn Hills, MI 48326,
Phone: +1-248-836-4700

Key Contact: Jason Kanakry (General Manager)
Jason.Kanakry@BureauVeritas.com
Phone: +1-248-836-4747

Laboratory Accreditations: BUREAU VERITAS CONSUMER PRODUCTS SERVICES, INC is
accredited in accordance with the recognized International Standard
ISO/IEC 17025:2017 General requirements for the competence of testing
and calibration laboratories.

ISO/IEC 17025:2017: 5678.01

FCC Test Site Number: US1278 (242530)

IC Test Site Number: US0229 (26240)

• **Statement of Conformity**

RSS-GEN	RSS 247	Part 15	Comments
6.4		15.15(b)	There are no controls accessible to the user that varies the output power to operate in violation of the regulatory requirements.
		15.19	The label is shown in the label exhibit.
		15.21	Information to the user is shown in the instruction manual exhibit.
		15.27	No special accessories are required for compliance.
3.2		15.31	The EUT was tested in accordance with the measurement standards in this section.
6.13.2		15.33	Frequency range was investigated according to this section, unless noted in specific rule section under which the equipment operates.
6.13.1		15.35	The EUT emissions were measured using the measurement detector and bandwidth specified in this section, unless noted in specific rule section under which the equipment operates.
6.8		15.203	EUT employs a non-detachable internal PCB trace antenna with 3.76dBi (UNII-1) & 4.01dBi (UNII-3) gain.
8.10		15.205 15.209	The fundamental is not in a Restricted band and the spurious and harmonic emissions in the Restricted bands comply with the general emission limits of 15.209 or RSS-Gen as applicable
8.8		15.207	N/A. EUT is vehicle battery powered only.

CFR Title 47 FCC Part 15.407, ISED Canada RSS-247 Issue 2

- **Conducted Testing**

Test Summary

This test report supports an application for certification of a transmitter operating pursuant to:
CFR Title 47 FCC Part 15.407, ISED Canada RSS-247 Issue 2, ISED Canada RSS-Gen Issue 5, FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 and ANSI C63.10-2013

The product is the HERMES 3.0 and it is a transmitter that operates in

UNII-1: 5.15GHz – 5.25GHz

UNII-3: 5.725GHz – 5.85GHz

Details	Description
Frequency Range (MHz)	UNII-1 (5.15GHz – 5.25GHz) UNII-3 (5.725GHz – 5.85GHz)
Tested Modes	802.11a 802.11n(HT20, HT40) 802.11ac (VHT20, VHT40, VHT80).
Tested Channels	UNII-1 (36-48) UNII-3 (149-165)
DUT Antenna Type	Non-detachable internal PCB trace
DUT Antenna Gain	3.76dBi (UNII-1) 4.01dBi (UNII-3)

We found that the product met the above requirements with modification.

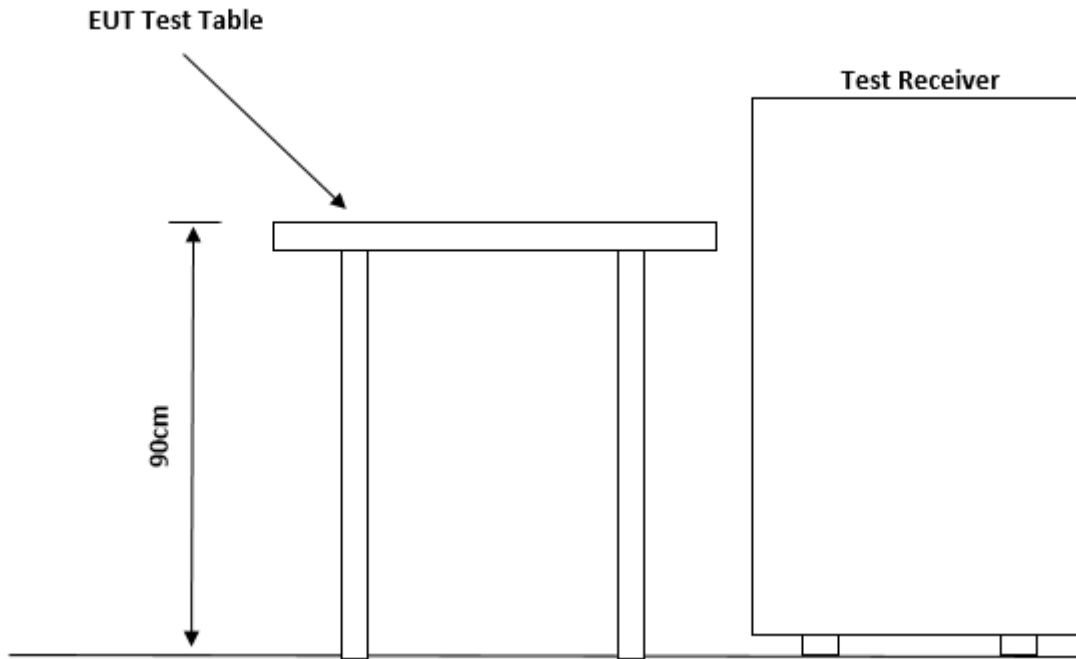
Test samples were received in good condition.

Test Item	Sample #	Result	Tested By
FCC 15.407 UNII-1	AH21042001-HAR-017 #1	Meets Requirements	Aravind Buddana
FCC 15.407 UNII-3	AH21042001-HAR-017 #1	Meets Requirements	Aravind Buddana

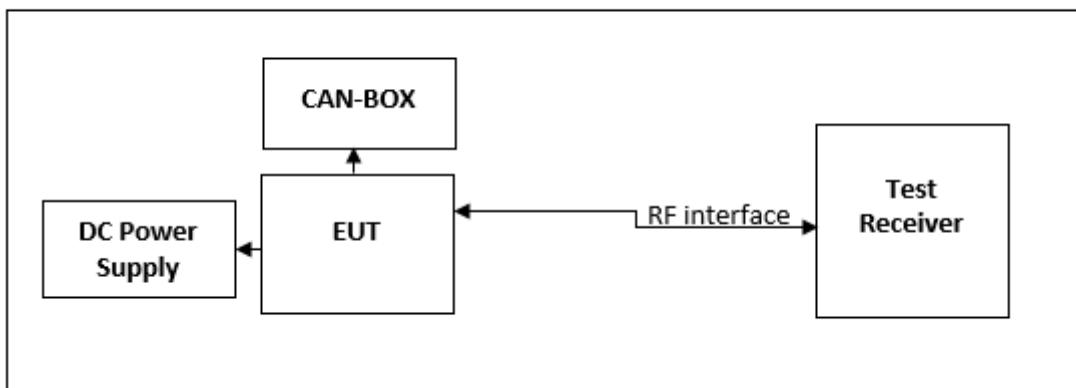
Test Setup

Conducted Test Site Description

The site is accommodated to test tabletop and floor standing test equipment.



TEST SETUP DIAGRAM



Test Equipment Used

ID #	Equipment	Manufacturer	Model #	Serial #	Cal Due
BVD0226	Spectrum Analyzer 10Hz-44GHz	Rohde & Schwarz	FSV3044	101018	1/14/2022
BVD0227	8 port switch unit for Wireless Test system	Rohde & Schwarz	OSP150	101100	N/A
BVD0228	8 port switch unit for Wireless Test system	Rohde & Schwarz	OSP220	101632	N/A
BVD0224	Signal Generator 100kHz-40GHz	Rohde & Schwarz	SMB100A	181741	11/19/2021
BVD0225	Signal Generator 100k-6GHz with GPS simulator	Rohde & Schwarz	SMW200A	107664	11/18/2021
BVD0250	Wireless Connectivity Tester 70M-6GHz	Rohde & Schwarz	CMW270	102113	11/18/2021
BVD0343	DC Regulated Power Supply	Circuit Specialists, INC	CSI3020X	595215	N/A
BVD0321	Fixed Attenuator 2W 20dB - 40GHz	Mini-Circuits	BW-K20-2W44+	2103	N/A
BVD0477	10db Attenuator -18GHz	Mouser	BW-S10W2+	2043	N/A
BVD0229	Temp and Humidity Meter	Fluke	971	12001009	3/26/2022

Customer Supplied Equipment

ID #	Equipment	Manufacturer	Model	Serial #	Version No.
N/A	Cable Harness	Harman	N/A	N/A	N/A
N/A	CAN-BOX	Harman	N/A	J0035176	N/A
N/A	USB to DUT Harness	Harman	N/A	N/As	N/A

Equipment List (Software)

ID #	Equipment	Manufacturer	Model	Version No.	
N/A	EMC Test Software	Rodhe & Schwarz	EMC32	11.20.00	N/A

FCC 15.407 UNII-1

DUT Information

Model:	HERMES 3.0
Manufacturer:	Harman/Becker Automotive Systems
Serial Number:	AH21042001-HAR-017 #1

Mode	Channel	Frequency
802.11a 802.11n(HT20) 802.11ac(VHT20)	36	5180
802.11n(HT40) 802.11ac(VHT40)	38	5190
802.11a 802.11n(HT20) 802.11ac(VHT20)	40	5200
802.11ac(VHT80)	42	5210
802.11n(HT40) 802.11ac(VHT40)	46	5230
802.11a 802.11n(HT20) 802.11ac(VHT20)	48	5240

Notes

- Channels and modes above were tested.
- Output power measurements were performed at the lowest and highest data rate of each supported 802.11 mode.

Antenna Gain	3.76dBi
Number of transmit chains	1
Equipment Type	Unlicensed National Information Infrastructure Device

Power settings

802.11a		802.11n (HT20)		802.11ac (VHT20)	
Channel	Power Setting	Channel	Power Setting	Channel	Power Setting
36	15	36	15	36	15
40	15	40	15	40	15
48	15	48	15	48	15

802.11n (HT40)		802.11ac (VHT40)	
Channel	Power Setting	Channel	Power Setting
38	15	38	15
46	15	46	15

802.11ac (VHT80)	
Channel	Power Setting
42	15

Test Results Summary

Test	Frequency (MHz)	802.11a	802.11n(HT20)	802.11ac (VHT20)
RF Output Power	5180/5200/5240	PASS	PASS	PASS
Power Spectral Density	5180/5200/5240	PASS	PASS	PASS
DTS Bandwidth (6dB)	5180/5200/5240	PASS	PASS	PASS
Occupied Channel Bandwidth 99%	5180/5200/5240	PASS	PASS	PASS
Emission Bandwidth 26 dB	5180/5200/5240	PASS	PASS	PASS
		802.11n(HT40)		802.11ac(VHT40)
RF Output Power	5190/5230	PASS		PASS
Power Spectral Density	5190/5230	PASS		PASS
DTS Bandwidth (6dB)	5190/5230	PASS		PASS
Occupied Channel Bandwidth 99%	5190/5230	PASS		PASS
Emission Bandwidth 26 dB	5190/5230	PASS		PASS
		802.11ac(VHT80)		
RF Output Power	5210	PASS		
Power Spectral Density	5210	PASS		
DTS Bandwidth (6dB)	5210	PASS		
Occupied Channel Bandwidth 99%	5210	PASS		
Emission Bandwidth 26 dB	5210	PASS		

RF output power and Duty Cycle

FCC

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.E and ANSI C63.10-2013

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.

Expanded Combined Uncertainty of absolute Level Measurement (K=2) < 1 dB

Device has both client and access point modes and has identical RF characteristics and settings for both Limits are as follows:

15.407(a)(1)(i): 1W (30dBm) for outdoor access points with antenna gains less than 6dBi.

15.407(a)(1)(iv): 250mW (23.9dBm) for client devices with antenna gains less than 6dBi.

Since client devices are subject to more stringent limits, unit was tested against the limits for a client device.

802.11a

Data Rate	Gated RMS (dBm) 5180 MHz	Gated RMS (dBm) 5200 MHz	Gated RMS (dBm) 5240 MHz	Limit (dBm)	Duty Cycle (%)
6 Mbps	8.197	8.788	9.339	23.9	98.620
54 Mbps	8.339	8.761	9.526	23.9	89.773

802.11n (HT20)

Data Rate	Gated RMS (dBm) 5180 MHz	Gated RMS (dBm) 5200 MHz	Gated RMS (dBm) 5240 MHz	Limit (dBm)	Duty Cycle (%)
MCS0	8.083	8.743	9.287	23.9	98.506
MCS7	8.211	8.831	9.489	23.9	88.891

802.11ac (VHT20)

Data Rate	Gated RMS (dBm) 5180 MHz	Gated RMS (dBm) 5200 MHz	Gated RMS (dBm) 5240 MHz	Limit (dBm)	Duty Cycle (%)
MCS0	8.345	8.829	9.549	23.9	98.527
MCS8	7.736	8.367	8.993	23.9	87.561

802.11n (HT40)

Data Rate	Gated RMS (dBm) 5190 MHz	Gated RMS (dBm) 5230 MHz	Limit (dBm)	Duty Cycle (%)
MCS0	8.228	9.030	23.9	97.059
MCS7	8.303	9.163	23.9	82.070

802.11ac (VHT40)

Data Rate	Gated RMS (dBm) 5190 MHz	Gated RMS (dBm) 5230 MHz	Limit (dBm)	Duty Cycle (%)
MCS0	8.385	9.180	23.9	97.082
MCS9	7.931	8.670	23.9	80.042

802.11ac (VHT80)

Data Rate	Gated RMS (dBm) 5210 MHz	Limit (dBm)	Duty Cycle (%)
MCS0	8.763	23.9	94.170
MCS9	7.991	23.9	72.370

RSS-247

Per RSS-247 Issue 2 Section 6.2.1.1, limit for OEM devices installed in vehicles: Maximum EIRP shall not exceed 30mW or $1.76+10*\log B$, dBm, whichever is less (where B is 99% OBW in MHz).

In addition devices must be capable of reducing power by a least 3dB below the maximum permitted EIRP of 30mW, which is 11.77dBm.

For modulations with less than 20MHz 99% OBW; 802.11a, 802.11n (HT20) and 802.11ac (VHT20), worst case 99% OBW of 16MHz is assumed with resulting conservative limit of 13.8dBm.

For modulations with more than 20MHz 99% OBW; 802.11n (HT40), 802.11ac (VHT40) and 802.11ac (VHT80), the limit is 30mW (14.77dBm)

802.11a

Data Rate	Gated RMS with TPC (dBm) 5180MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
6 Mbps	5.424	3.76	9.184	11.77	11.75
54 Mbps	5.301	3.76	9.061	11.77	11.75
Data Rate	Gated RMS (dBm) 5200MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
6 Mbps	5.799	3.76	9.559	11.77	11.75
54 Mbps	5.668	3.76	9.428	11.77	11.75
Data Rate	Gated RMS (dBm) 5240MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
6 Mbps	6.291	3.76	10.051	11.77	11.75
54 Mbps	6.190	3.76	9.95	11.77	11.75

802.11n (HT20)

Data Rate	Gated RMS (dBm) 5180MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
MCS0	5.346	3.76	9.106	11.77	11.75
MCS7	5.321	3.76	9.081	11.77	11.75
Data Rate	Gated RMS (dBm) 5200MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
MCS0	5.783	3.76	9.543	11.77	11.75
MCS7	5.675	3.76	9.435	11.77	11.75
Data Rate	Gated RMS (dBm) 5240MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
MCS0	6.344	3.76	10.104	11.77	11.75
MCS7	6.239	3.76	9.999	11.77	11.75

802.11ac (VHT20)

Data Rate	Gated RMS (dBm) 5180MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
MCS0	5.386	3.76	9.146	11.77	11.75
MCS8	5.247	3.76	9.007	11.77	11.75
Data Rate	Gated RMS (dBm) 5200MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
MCS0	5.794	3.76	9.554	11.77	11.75
MCS8	5.659	3.76	9.419	11.77	11.75
Data Rate	Gated RMS (dBm) 5240MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
MCS0	6.282	3.76	10.042	11.77	11.75
MCS8	6.199	3.76	9.959	11.77	11.75

802.11n (HT40)

Data Rate	Gated RMS (dBm) 5190MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
MCS0	4.169	3.76	7.929	11.77	11.75
MCS7	3.928	3.76	7.688	11.77	11.75
Data Rate	Gated RMS (dBm) 5230MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
MCS0	4.866	3.76	8.626	11.77	11.75
MCS7	4.833	3.76	8.593	11.77	11.75

802.11ac (VHT40)

Data Rate	Gated RMS (dBm) 5190MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
MCS0	4.081	3.76	7.841	11.77	11.75
MCS9	4.004	3.76	7.764	11.77	11.75
Data Rate	Gated RMS (dBm) 5230MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
MCS0	4.637	3.76	8.397	11.77	11.75
MCS9	4.832	3.76	8.592	11.77	11.75

802.11ac (VHT80)

Data Rate	Gated RMS (dBm) 5210MHz	Antenna Gain(dBi)	EIRP (dBm)	Limit (dBm)	Power Setting with TPC
MCS0	2.666	3.76	6.426	11.77	11.75
MCS9	2.474	3.76	6.234	11.77	11.75

Power Spectral Density

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.F and ANSI C63.10-2013

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 1.3 dB

FCC

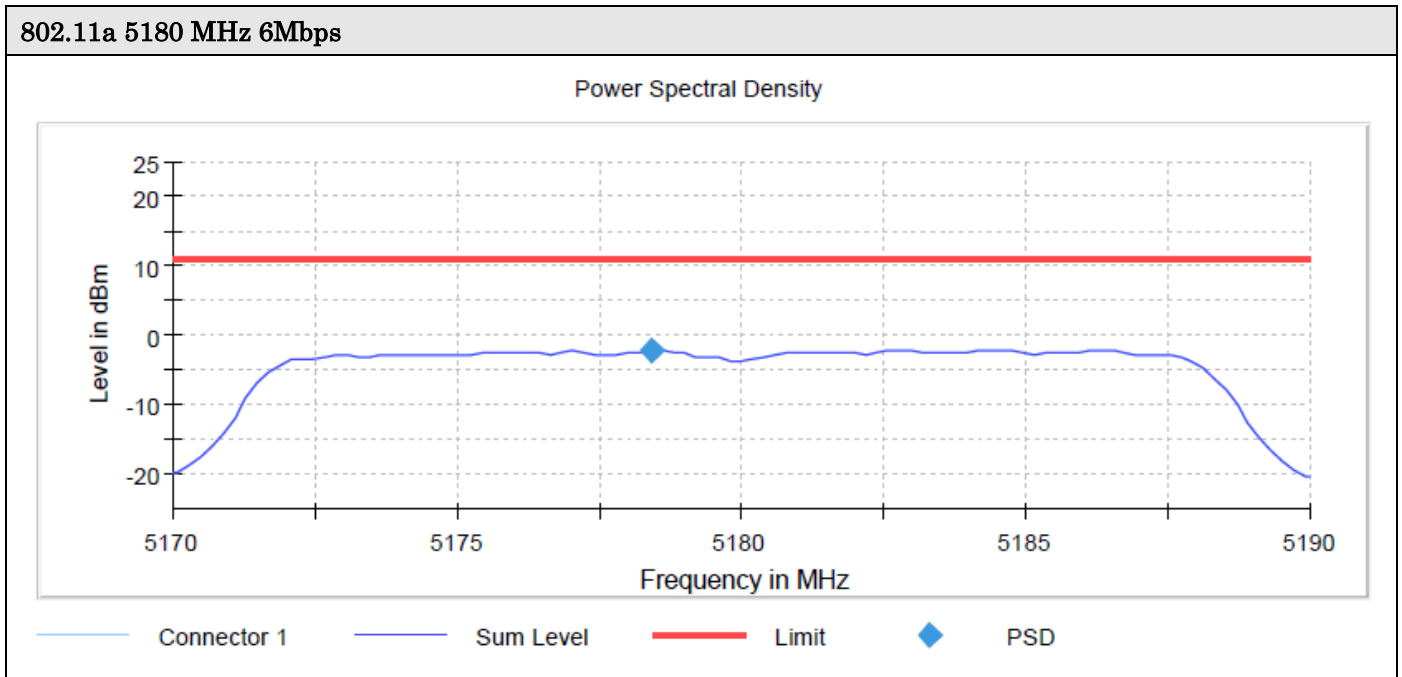
Device has both client and access point modes and has identical RF characteristics and settings for both Limits are as follows:

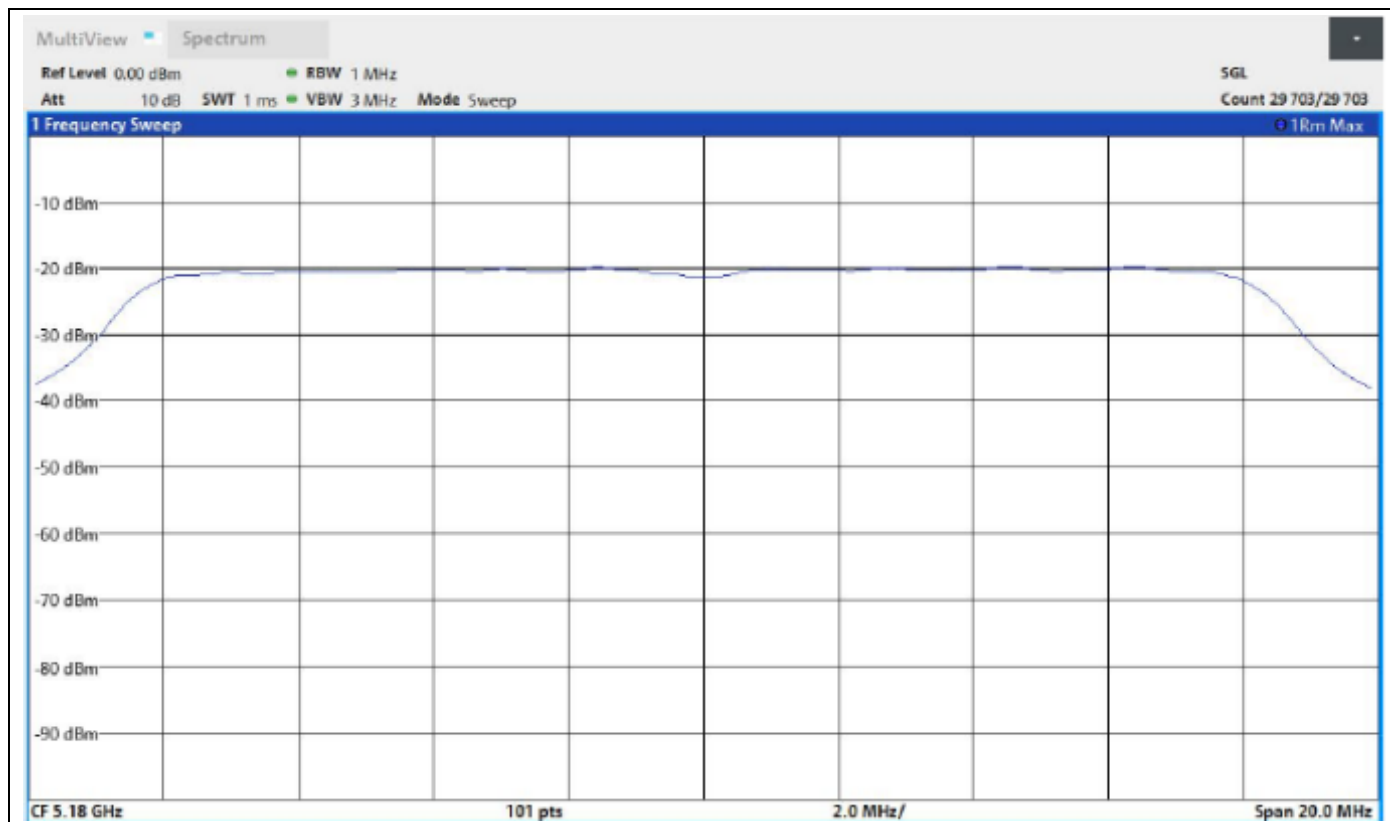
15.407(a)(1)(i): 17dBm for outdoor access points with antenna gains less than 6dBi.

15.407(a)(1)(iv): 11dBm for client devices with antenna gains less than 6dBi.

Since client devices are subject to more stringent limits, unit was tested against the limits for a client device.

Mode	Data Rate	PSD (dBm) 5180 MHz	PSD (dBm) 5200 MHz	PSD (dBm) 5240 MHz	Limit (dBm)
802.11a	6Mbps	-2.036	-1.441	-0.577	11.0
	54Mbps	-1.522	-0.616	-0.216	11.0

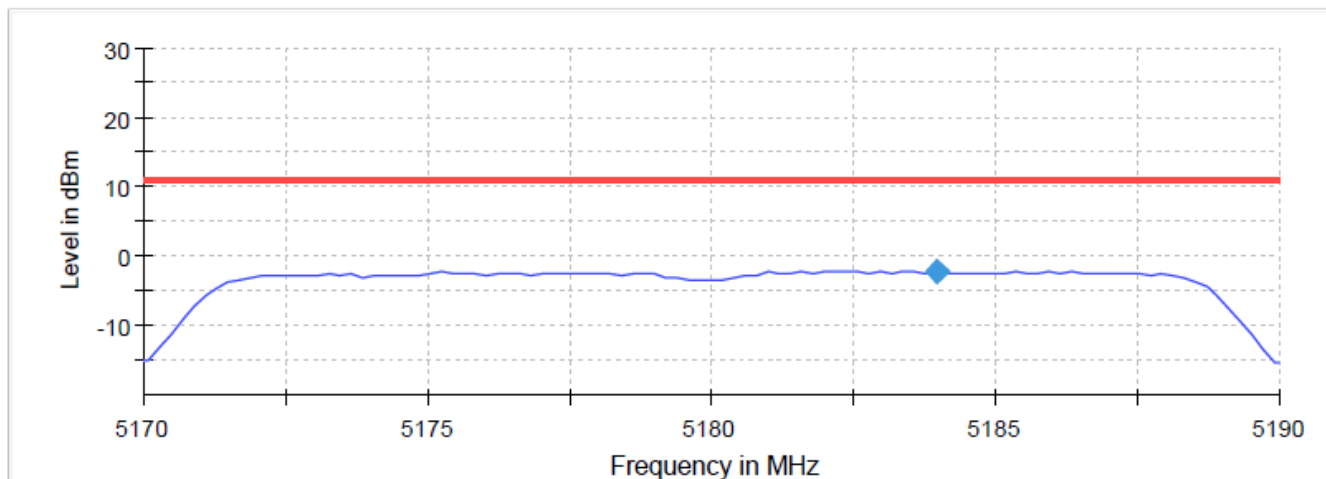




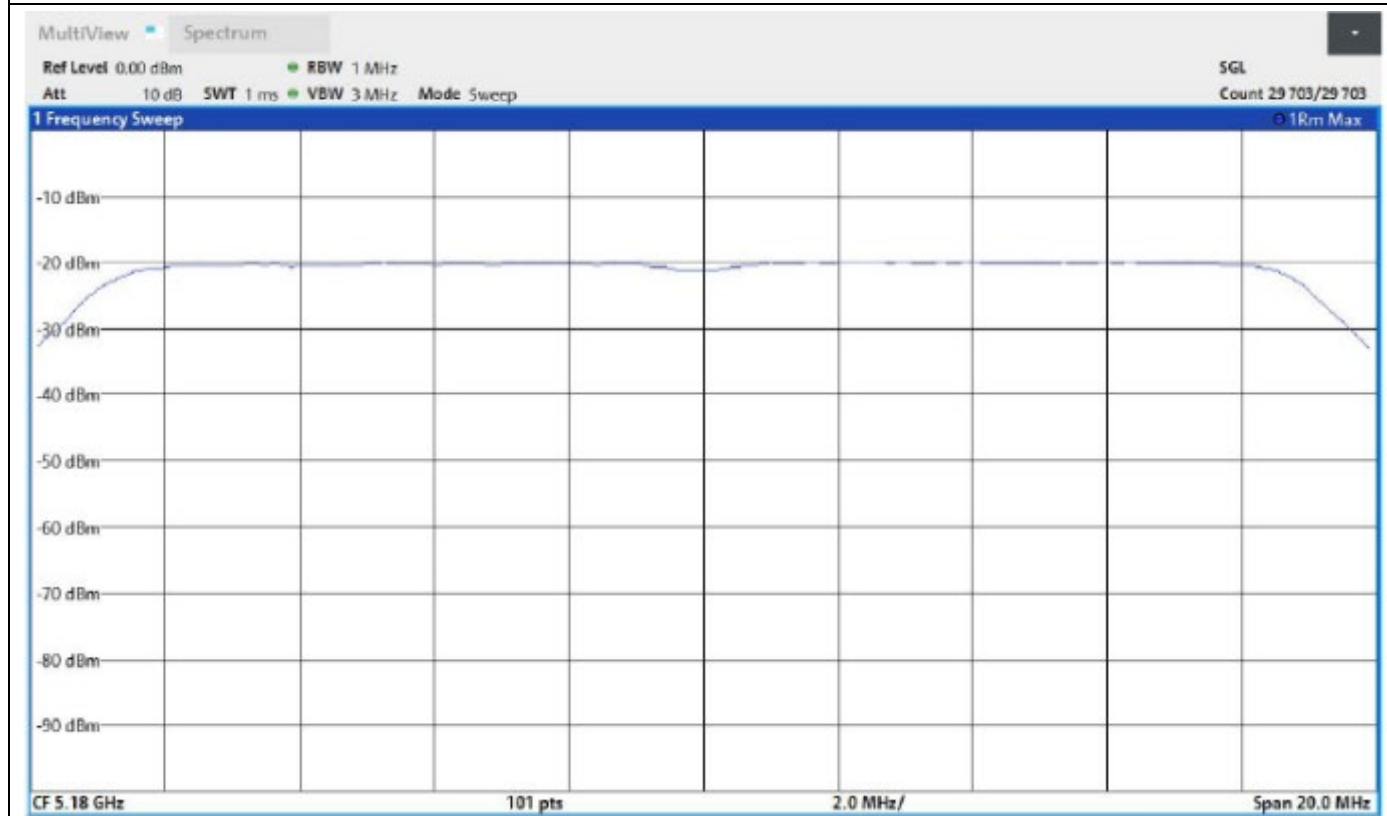
Mode	Data Rate	PSD (dBm) 5180 MHz	PSD (dBm) 5200 MHz	PSD (dBm) 5240 MHz	Limit (dBm)
802.11n (HT20)	MCS0	-2.145	-1.307	-0.535	11.0
	MCS7	-0.951	-0.461	0.287	11.0

802.11n (HT20) 5180 MHz MCS0

Power Spectral Density



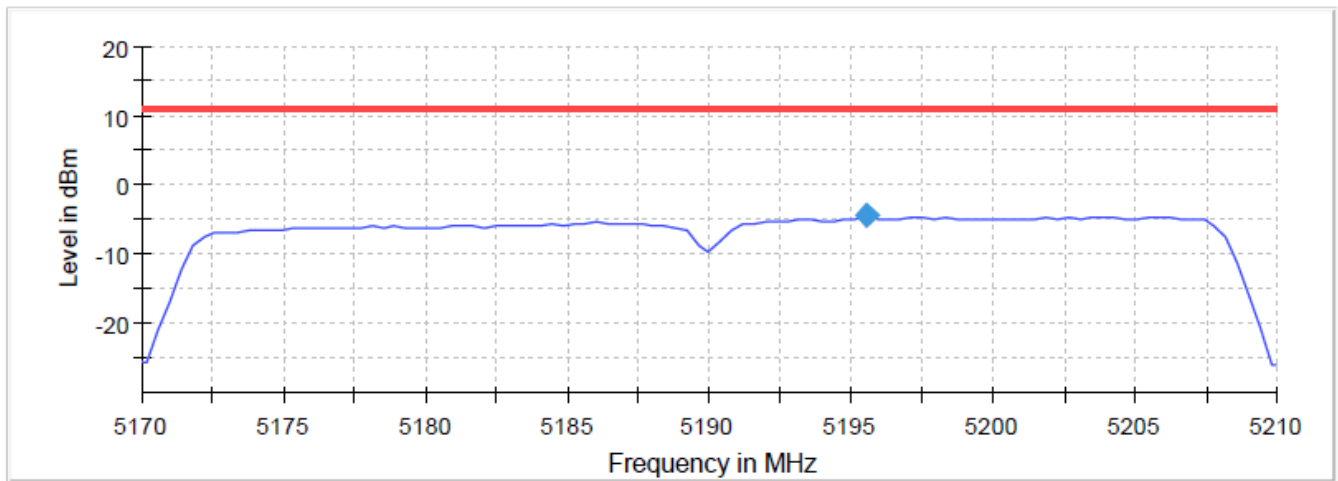
Connector 1 Sum Level Limit PSD



Mode	Data Rate	PSD (dBm) 5190 MHz	PSD (dBm) 5230 MHz	Limit (dBm)
802.11n (HT40)	MCS0	-4.489	-3.771	11.0
	MCS7	-3.312	-2.866	11.0

802.11n (HT40) 5190 MHz MCS0

Power Spectral Density



Connector 1 Sum Level Limit PSD

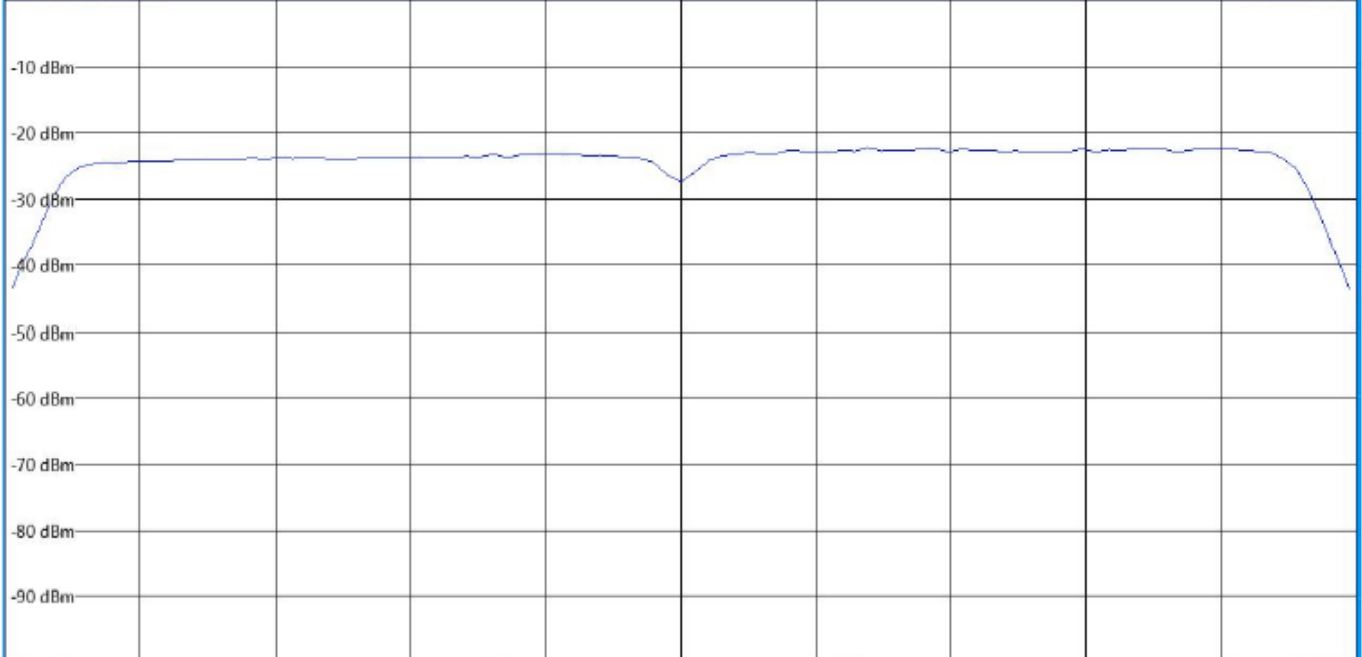
MultiView Spectrum

Ref Level 0.00 dBm Att 10 dB RBW 1 MHz VBW 3 MHz Mode Sweep

SGL Count 29 703/29 703

1 Frequency Sweep

1Rm Max



CF 5.19 GHz

101 pts

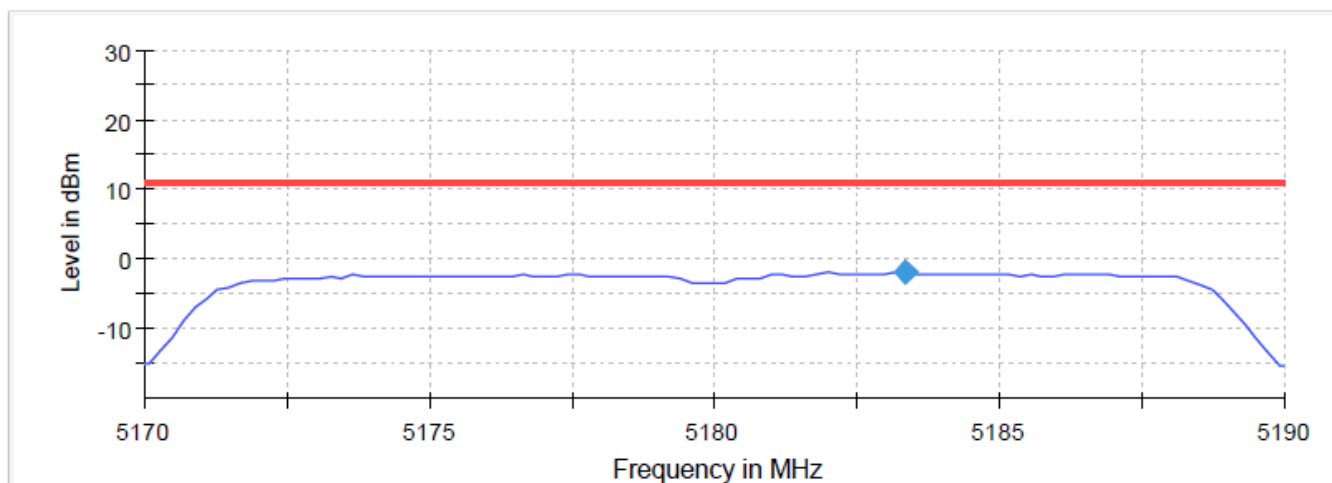
4.0 MHz/

Span 40.0 MHz

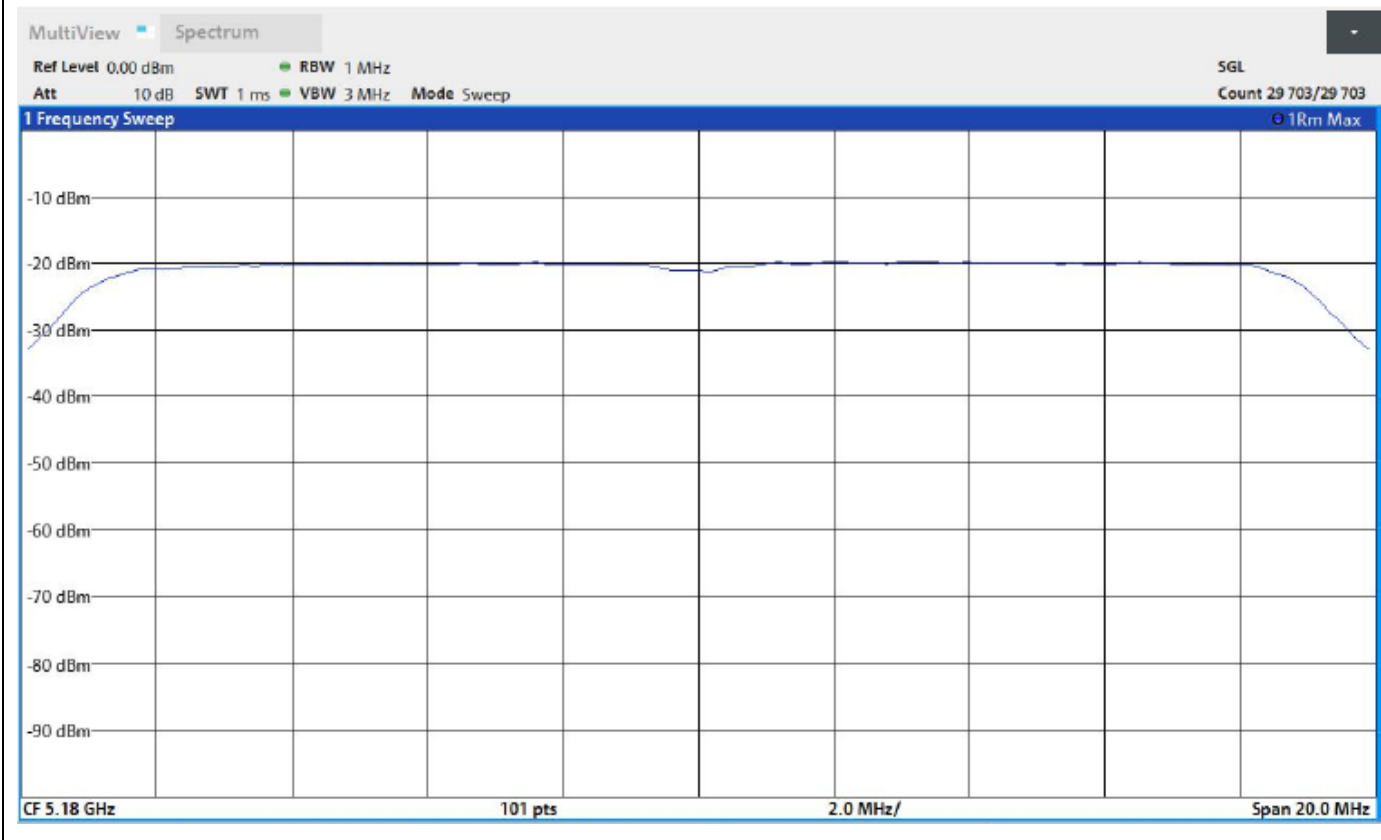
Mode	Data Rate	PSD (dBm) 5180 MHz	PSD (dBm) 5200 MHz	PSD (dBm) 5240 MHz	Limit (dBm)
802.11ac (VHT20)	MCS0	-1.871	-1.230	-0.446	11.0
	MCS8	-1.391	-0.796	-0.275	11.0

802.11ac (VHT20) 5180 MHz MCS0

Power Spectral Density



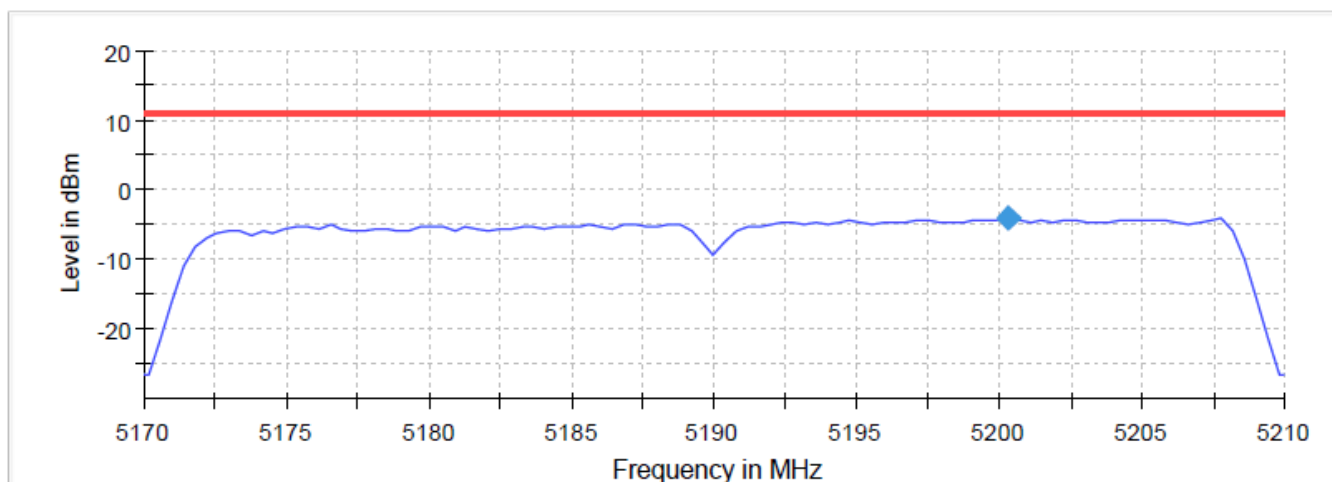
Connector 1 Sum Level Limit PSD



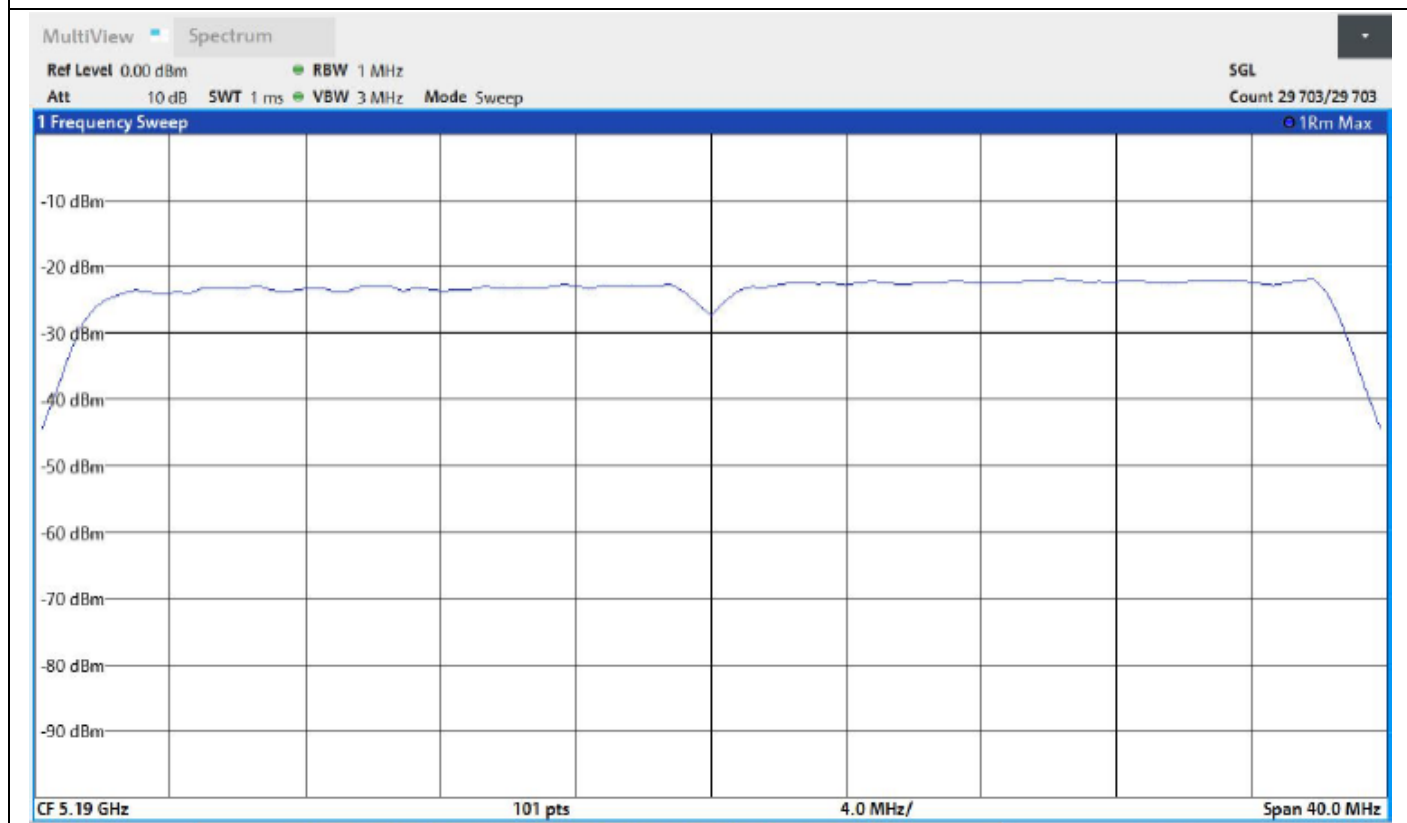
Mode	Data Rate	PSD (dBm) 5190 MHz	PSD (dBm) 5230 MHz	Limit (dBm)
802.11ac (VHT40)	MCS0	-3.663	-3.605	11.0
	MCS9	-4.015	-3.451	11.0

802.11ac (VHT40) 5190 MHz MCS0

Power Spectral Density



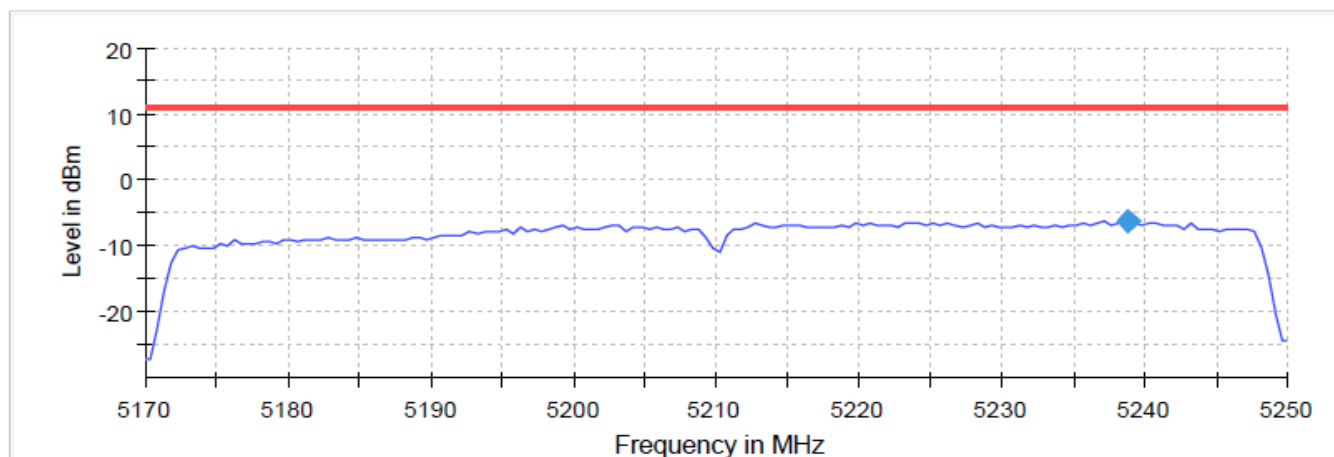
Connector 1 Sum Level Limit PSD



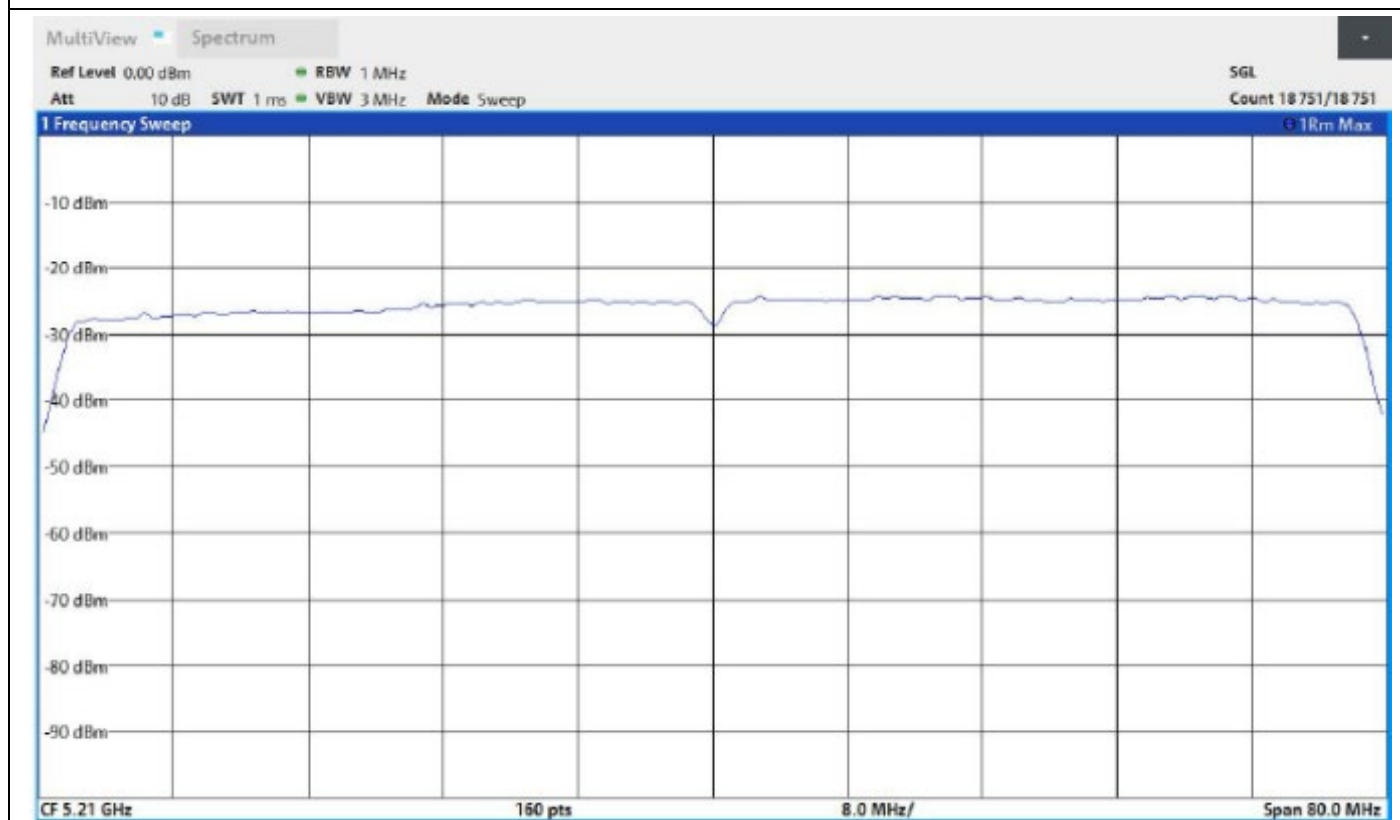
Mode	Data Rate	PSD (dBm) 5210 MHz	Limit (dBm)
802.11ac (VHT80)	MCS0	-6.349	11.0
	MCS9	-5.693	11.0

802.11ac (VHT80) 5210 MHz MCS0

Power Spectral Density



Connector 1 Sum Level Limit PSD



RSS-247

802.11a

Data Rate	PSD(dBm) 5180MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
6 Mbps	-2.036	3.76	1.724	10.0
54 Mbps	-1.522	3.76	2.238	10.0
Data Rate	PSD(dBm) 5200MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
6 Mbps	-1.441	3.76	2.319	10.0
54 Mbps	-0.616	3.76	3.144	10.0
Data Rate	PSD(dBm) 5240MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
6 Mbps	-0.577	3.76	3.183	10.0
54 Mbps	-0.216	3.76	3.544	10.0

802.11n (HT20)

Data Rate	PSD(dBm) 5180MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
MCS0	-2.145	3.76	1.615	10.0
MCS7	-0.951	3.76	2.809	10.0
Data Rate	PSD(dBm) 5200MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
MCS0	-1.307	3.76	2.453	10.0
MCS7	-0.461	3.76	3.299	10.0
Data Rate	PSD(dBm) 5240MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
MCS0	-0.535	3.76	3.225	10.0
MCS7	0.287	3.76	4.047	10.0

802.11n (HT40)

Data Rate	PSD(dBm) 5190MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
MCS0	-4.489	3.76	-0.729	10.0
MCS7	-3.312	3.76	0.448	10.0
Data Rate	PSD(dBm) 5230MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
MCS0	-3.771	3.76	-0.011	10.0
MCS7	-2.866	3.76	0.894	10.0

802.11ac (VHT20)

Data Rate	PSD(dBm) 5180MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
MCS0	-1.871	3.76	1.889	10.0
MCS8	-1.391	3.76	2.369	10.0
Data Rate	PSD(dBm) 5200MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
MCS0	-1.230	3.76	2.53	10.0
MCS8	-0.796	3.76	2.964	10.0
Data Rate	PSD(dBm) 5240MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
MCS0	-0.446	3.76	3.314	10.0
MCS8	-0.275	3.76	3.485	10.0

802.11ac (VHT40)

Data Rate	PSD(dBm) 5190MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
MCS0	-3.663	3.76	0.097	10.0
MCS9	-4.015	3.76	-0.255	10.0
Data Rate	PSD(dBm) 5230MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
MCS0	-3.605	3.76	0.155	10.0
MCS9	-3.451	3.76	0.309	10.0

802.11ac (VHT80)

Data Rate	PSD(dBm) 5190MHz	Antenna Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)
MCS0	-6.349	3.76	-2.589	10.0
MCS9	-5.693	3.76	-1.933	10.0

DTS Bandwidth 6dB

FCC and RSS-247

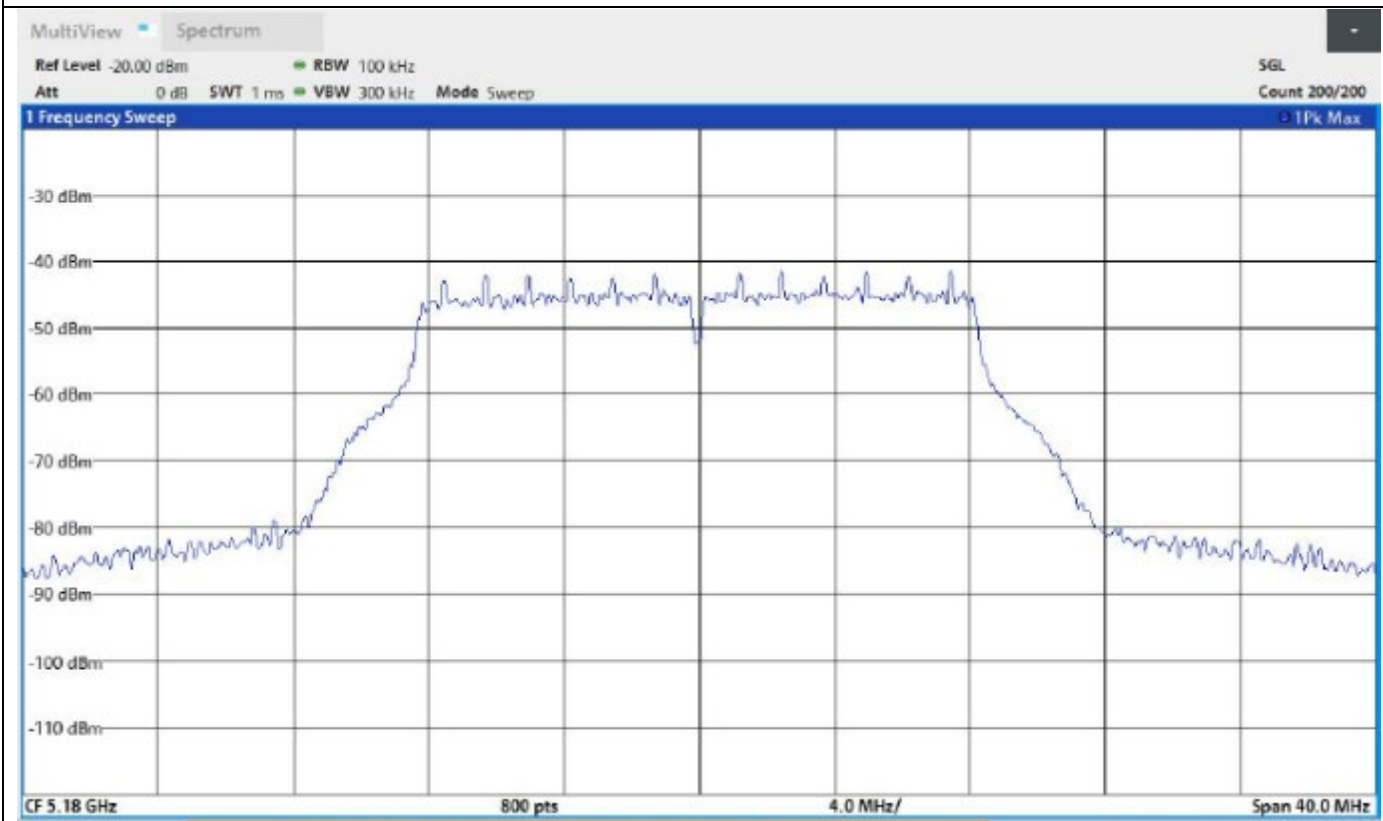
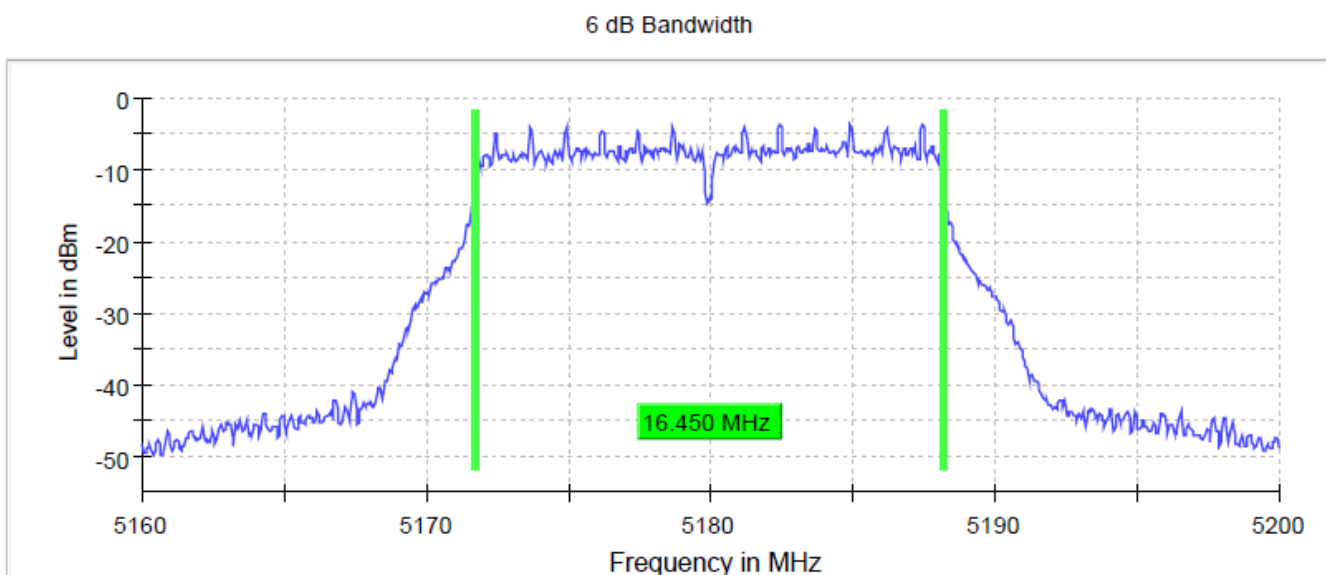
Test according to FCC title 47 part 15 §15.407(a),€, KDB 789033 D02 General U-NII Test Procedures

New Rules v02r01 D and ANSI C63.10-2013

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 2%

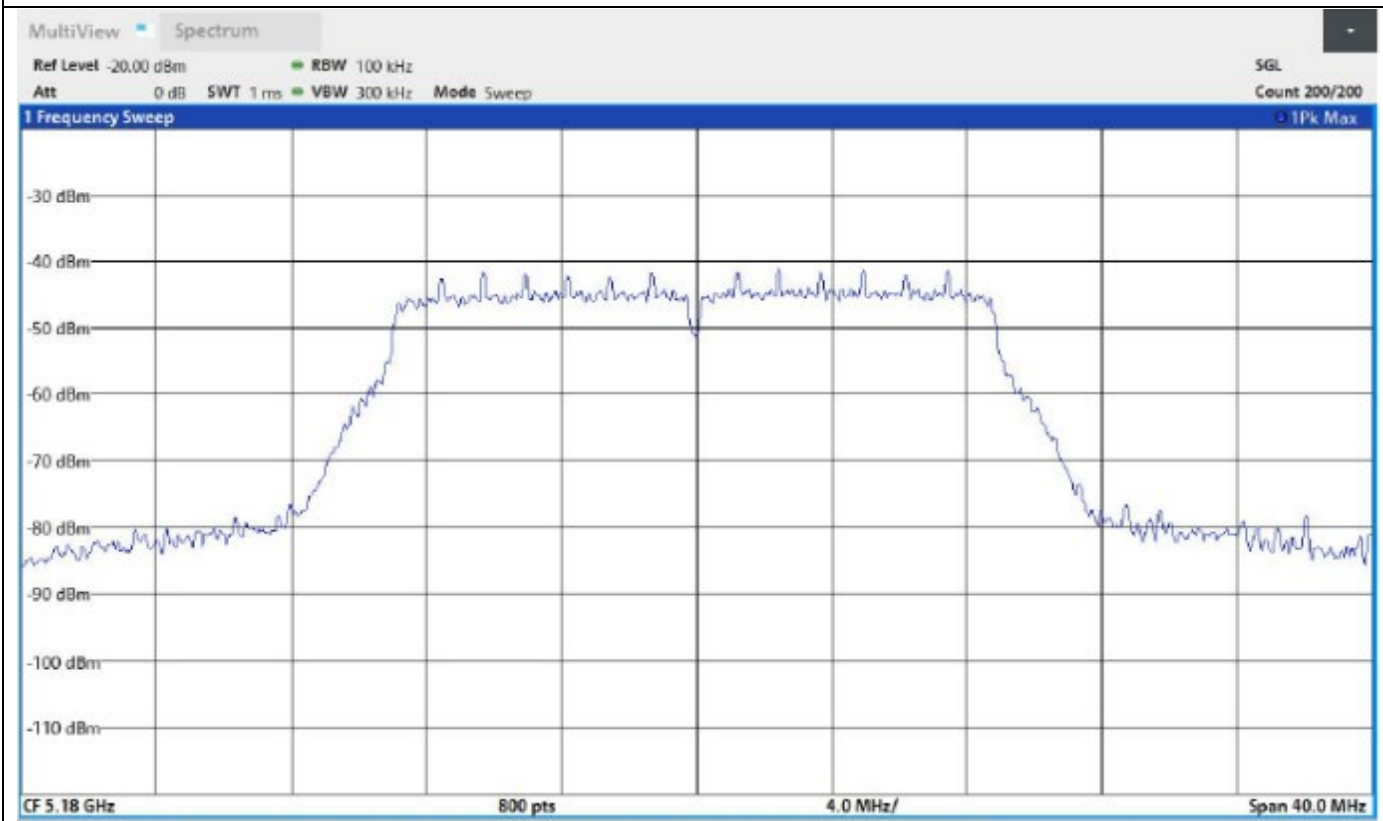
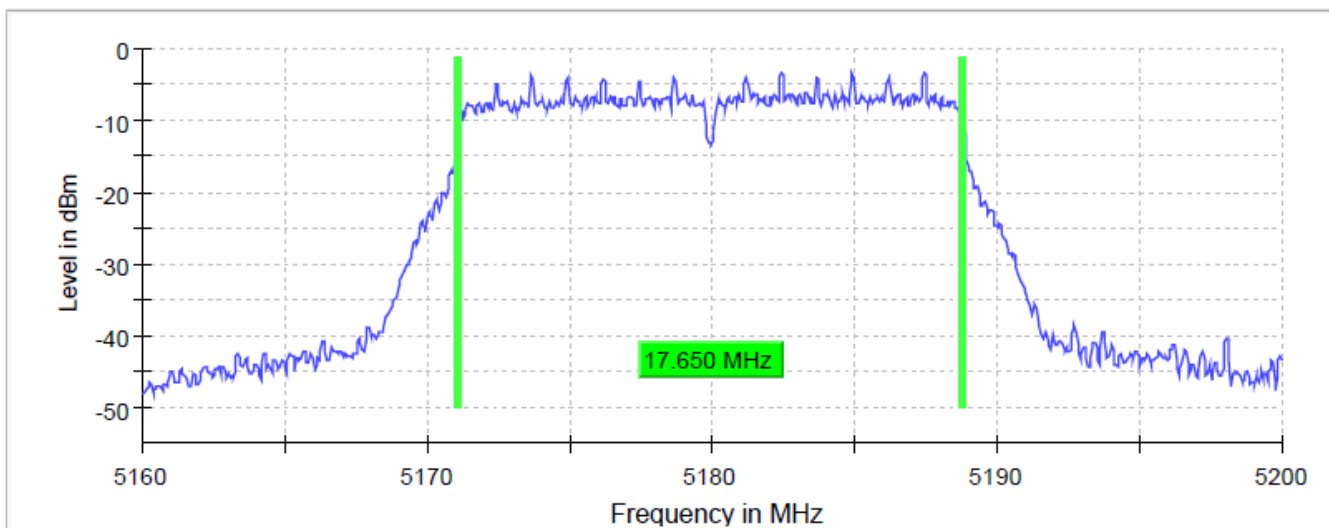
Data Rate	DUT Frequency (MHz)	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Minimum Limit (MHz)
802.11a 6Mbps	5180.000000	16.450000	5171.725000	5188.175000	0.5
802.11n (HT20) MCS0	5180.000000	17.650000	5171.125000	5188.775000	0.5
802.11ac (VHT20) MCS0	5180.000000	17.700000	5171.075000	5188.775000	0.5
802.11n (HT40) MCS0	5190.000000	36.400000	5171.775000	5208.175000	0.5
802.11ac (VHT40) MCS0	5190.000000	36.450000	5171.775000	5208.225000	0.5
802.11ac (VHT80) MCS0	5210.000000	75.800000	5172.375000	5248.175000	0.5
802.11a 6Mbps	5200.000000	16.450000	5191.725000	5208.175000	0.5
802.11n (HT20) MCS0	5200.000000	17.650000	5191.125000	5208.775000	0.5
802.11ac (VHT20) MCS0	5200.000000	17.650000	5191.125000	5208.775000	0.5
802.11n (HT40) MCS0	5230.000000	36.400000	5211.775000	5248.175000	0.5
802.11ac (VHT40) MCS0	5230.000000	36.400000	5211.775000	5248.175000	0.5
802.11a 6Mbps	5240.000000	16.450000	5231.725000	5248.175000	0.5
802.11n (HT20) MCS0	5240.000000	17.700000	5231.075000	5248.775000	0.5
802.11ac (VHT20) MCS0	5240.000000	17.650000	5231.125000	5248.775000	0.5

802.11a 5180MHz 6Mbps

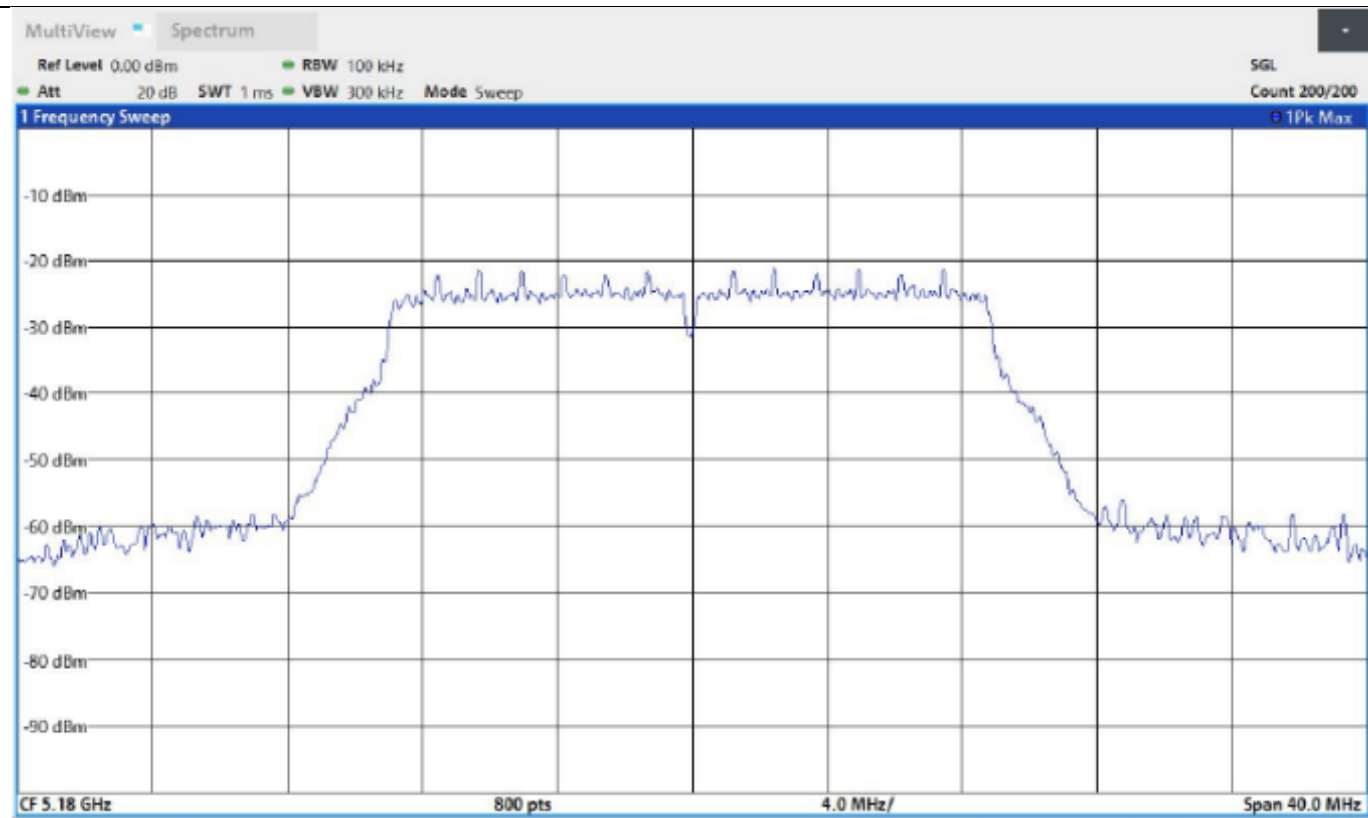
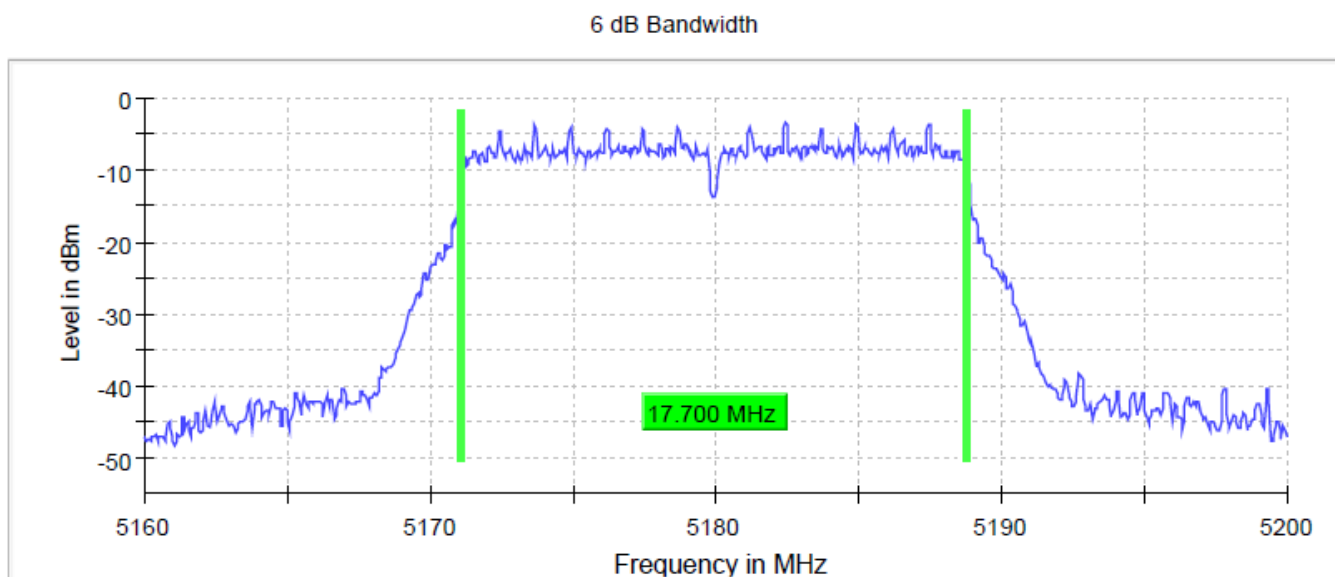


802.11n 5180MHz MCS0

6 dB Bandwidth



802.11ac 5180MHz MCS0



Occupied Channel Bandwidth

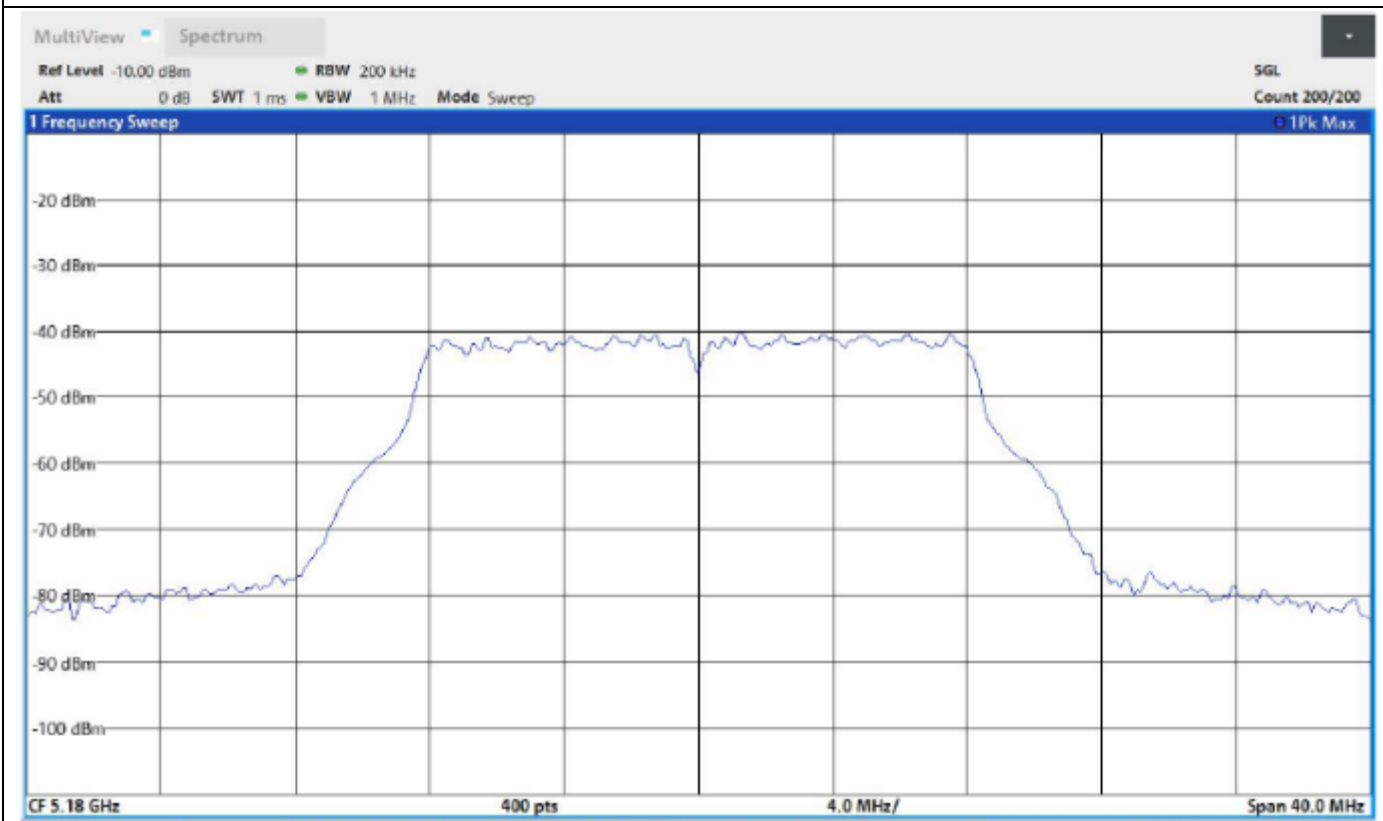
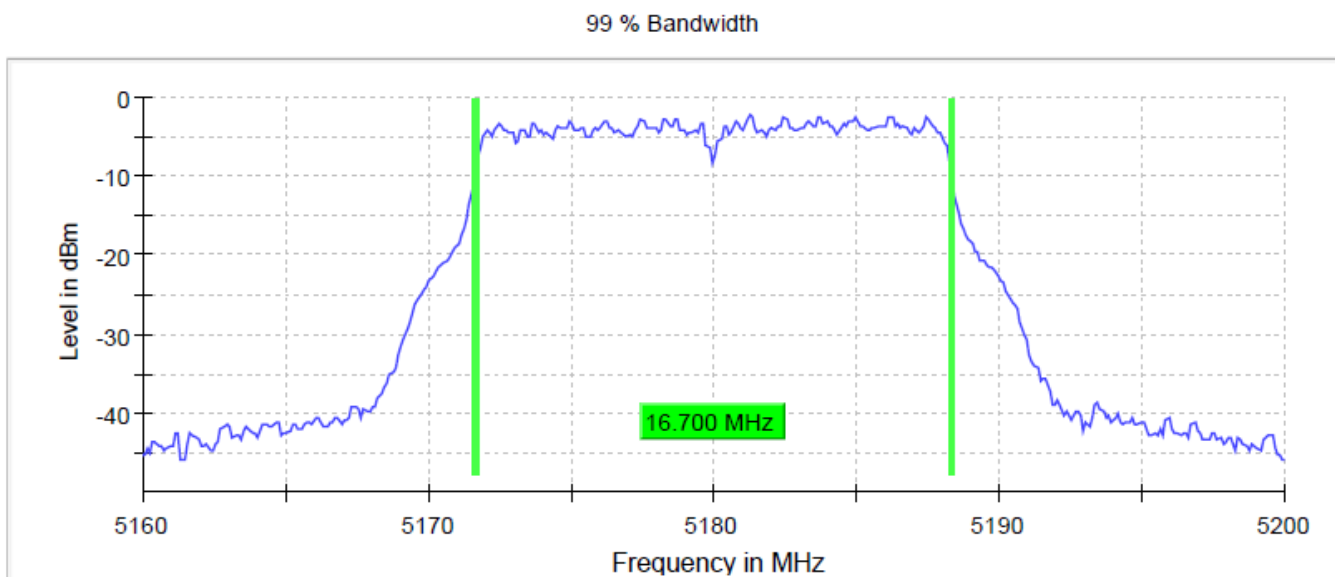
Test according to FCC title 47 part 15 §15.407(a),€ , KDB 789033 D02 General U-NII Test Procedures

New Rules v02r01 D and ANSI C63.10-2013

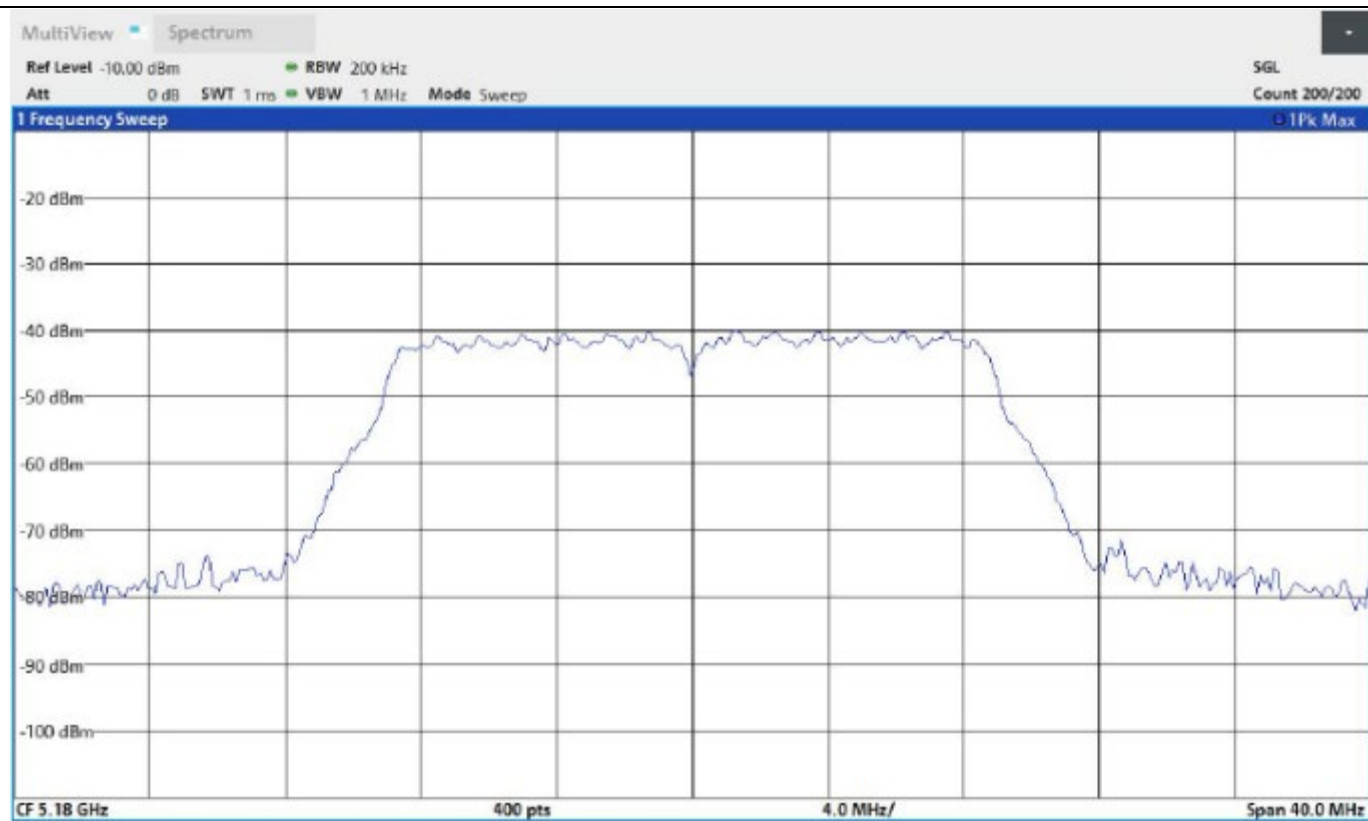
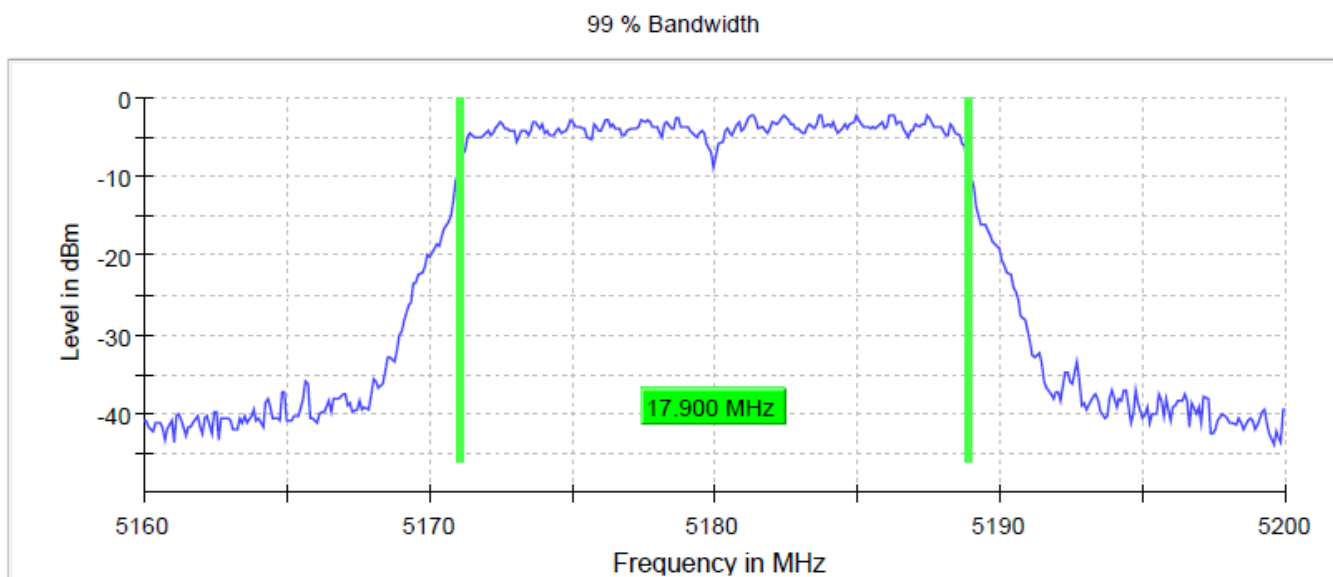
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 2%

Data Rate	DUT Frequency (MHz)	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Band Limit (MHz)
802.11a 6Mbps	5180.000000	16.700000	5171.650000	5188.350000	5150-5250
802.11n (HT20) MCS0	5180.000000	17.900000	5171.050000	5188.950000	5150-5250
802.11ac (VHT20) MCS0	5180.000000	17.900000	5171.050000	5188.950000	5150-5250
802.11n (HT40) MCS0	5190.000000	36.500000	5171.875000	5208.375000	5150-5250
802.11ac (VHT40) MCS0	5190.000000	36.750000	5171.625000	5208.375000	5150-5250
802.11ac (VHT80) MCS0	5210.000000	76.000000	5172.250000	5248.250000	5150-5250
802.11a 6Mbps	5200.000000	16.700000	5191.650000	5208.350000	5150-5250
802.11n (HT20) MCS0	5200.000000	17.900000	5191.050000	5208.950000	5150-5250
802.11ac (VHT20) MCS0	5200.000000	17.900000	5191.050000	5208.950000	5150-5250
802.11n (HT40) MCS0	5230.000000	36.750000	5211.625000	5248.375000	5150-5250
802.11ac (VHT40) MCS0	5230.000000	36.750000	5211.625000	5248.375000	5150-5250
802.11a 6Mbps	5240.000000	16.700000	5231.650000	5248.350000	5150-5250
802.11n (HT20) MCS0	5240.000000	17.900000	5231.050000	5248.950000	5150-5250
802.11ac (VHT20) MCS0	5240.000000	17.900000	5231.050000	5248.950000	5150-5250

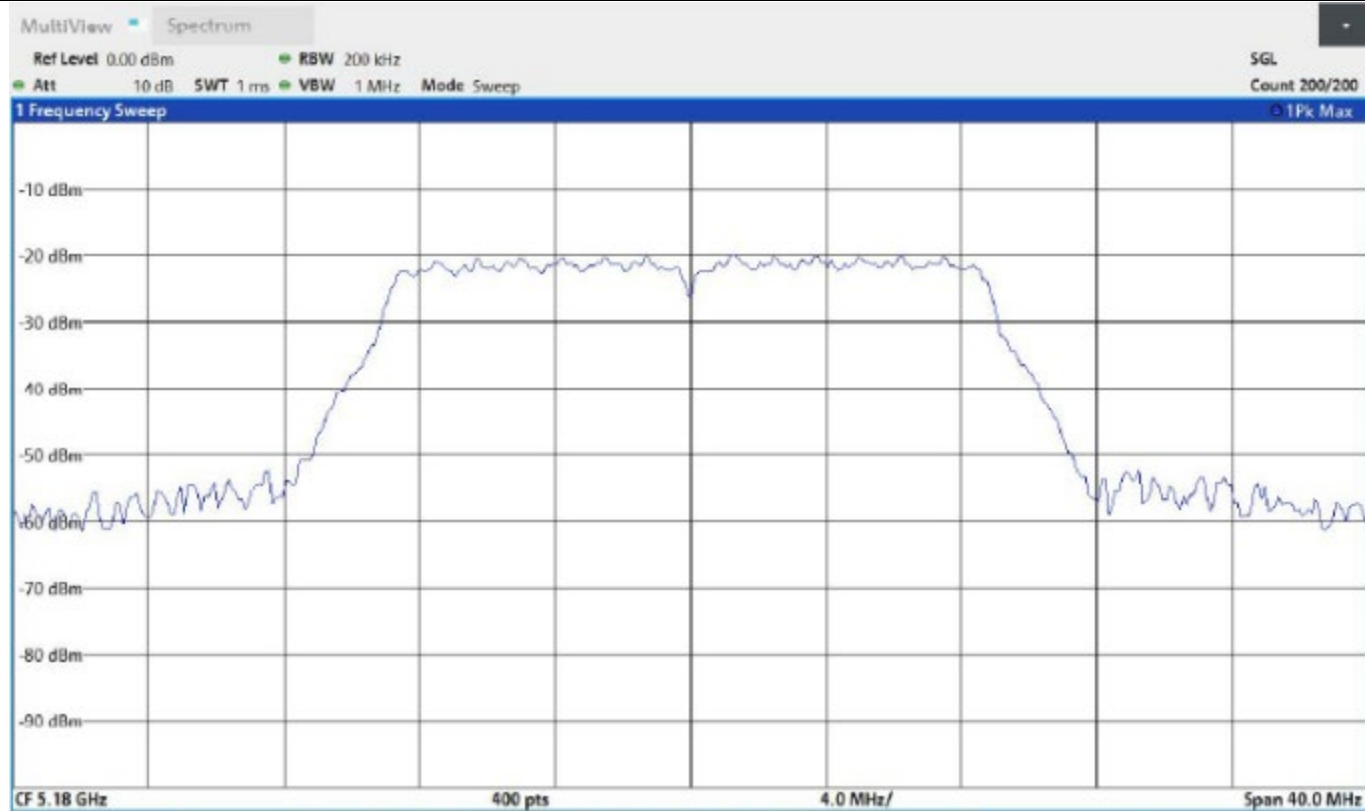
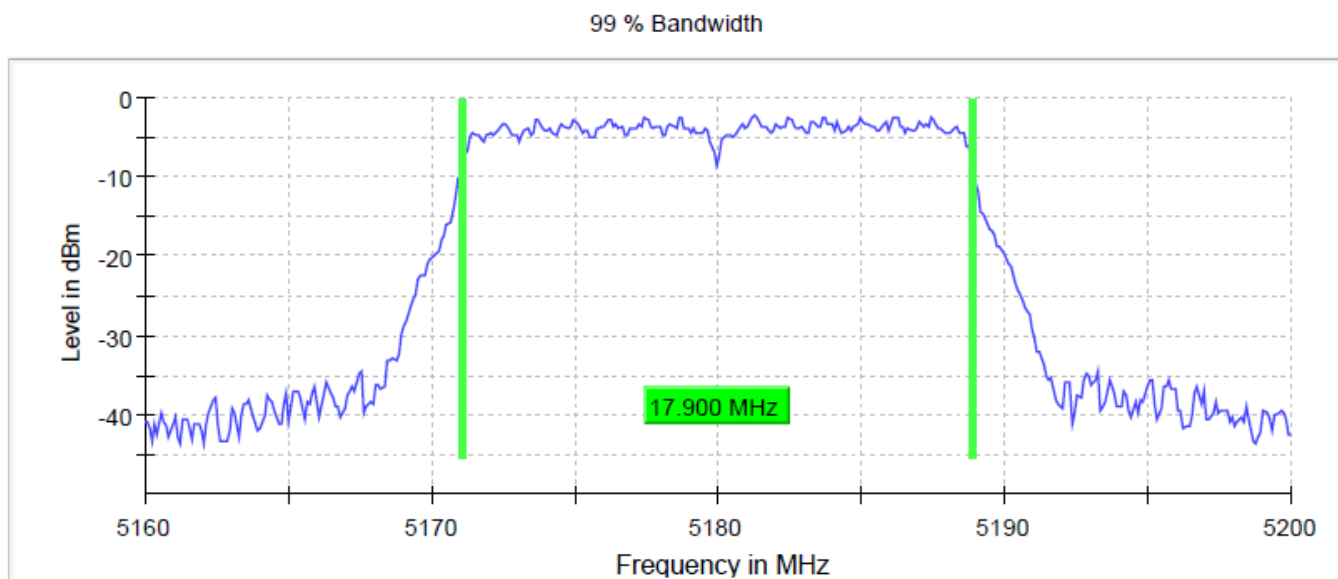
802.11a 5180MHz 6Mbps



802.11n (HT20) 5180MHz MCS0



802.11ac (VHT20) 5180MHz MCS0



Emission Bandwidth 26 dB

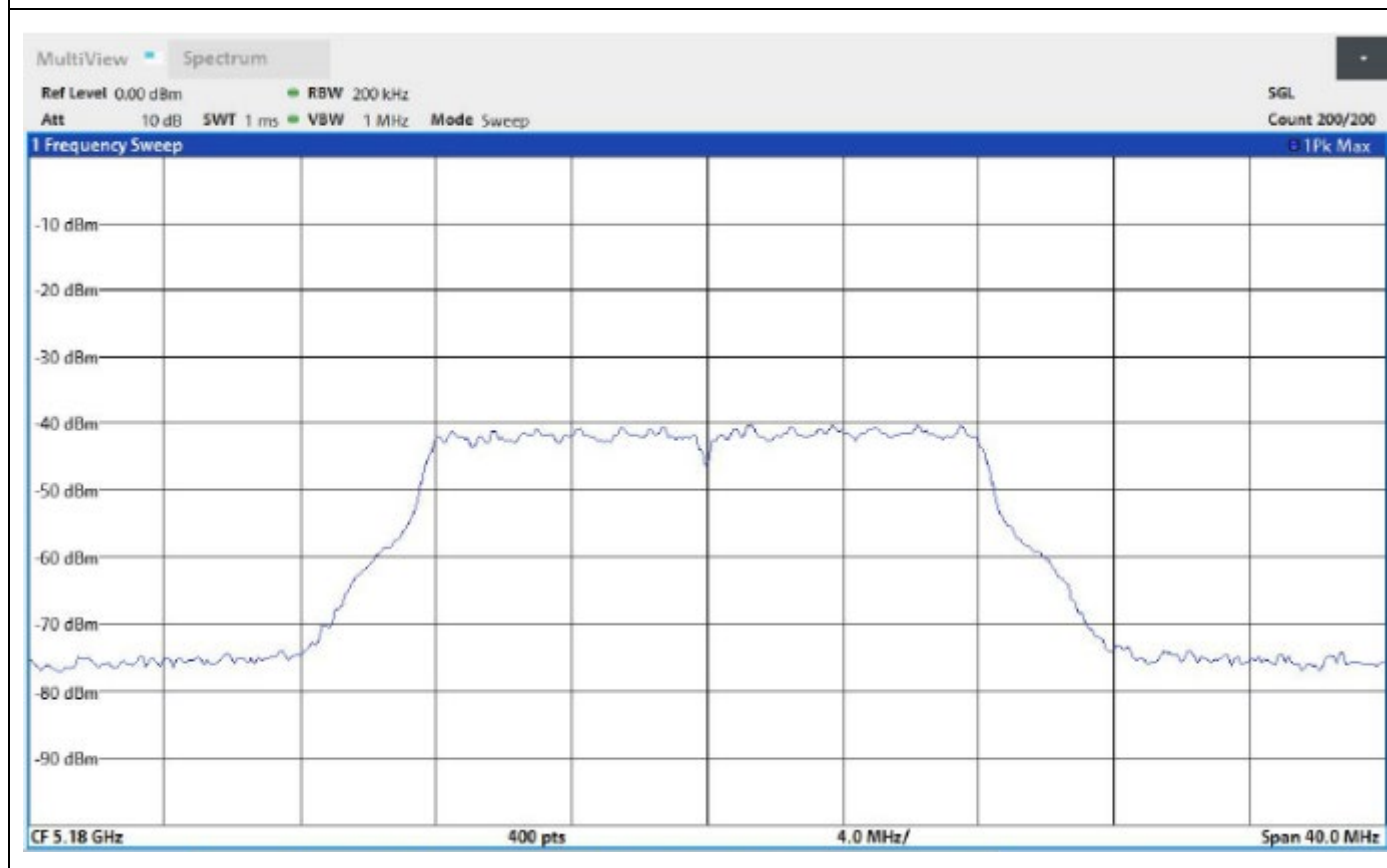
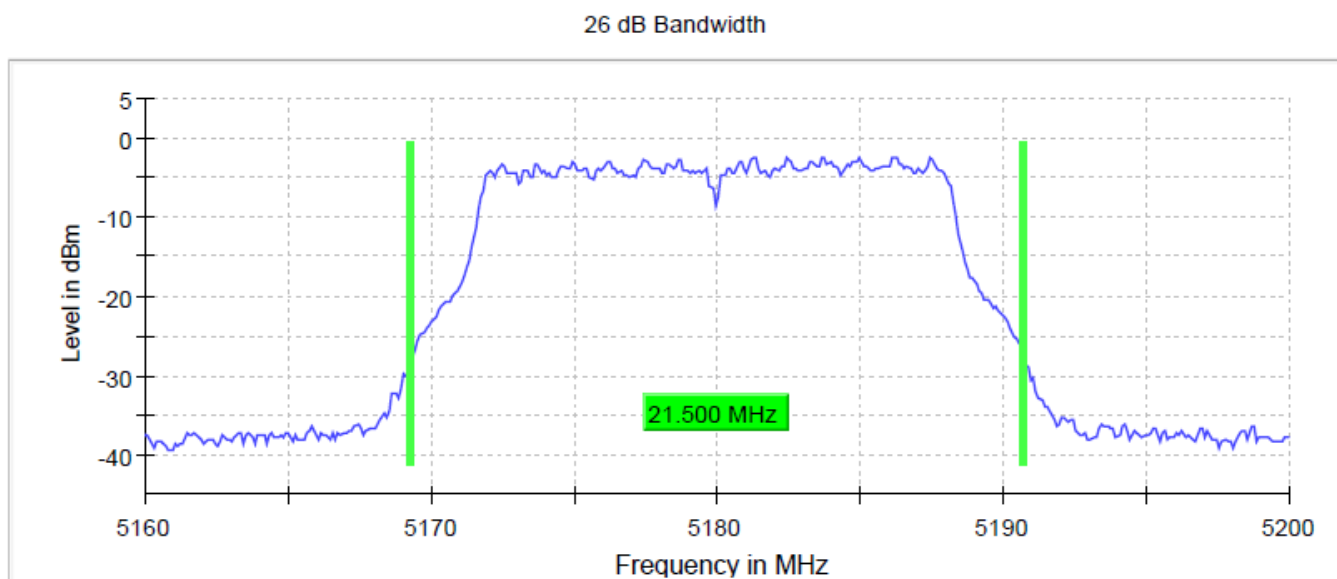
Test according to FCC title 47 part 15 §15.407(a),€, KDB 789033 D02 General U-NII Test Procedures

New Rules v02r01 D and ANSI C63.10-2013

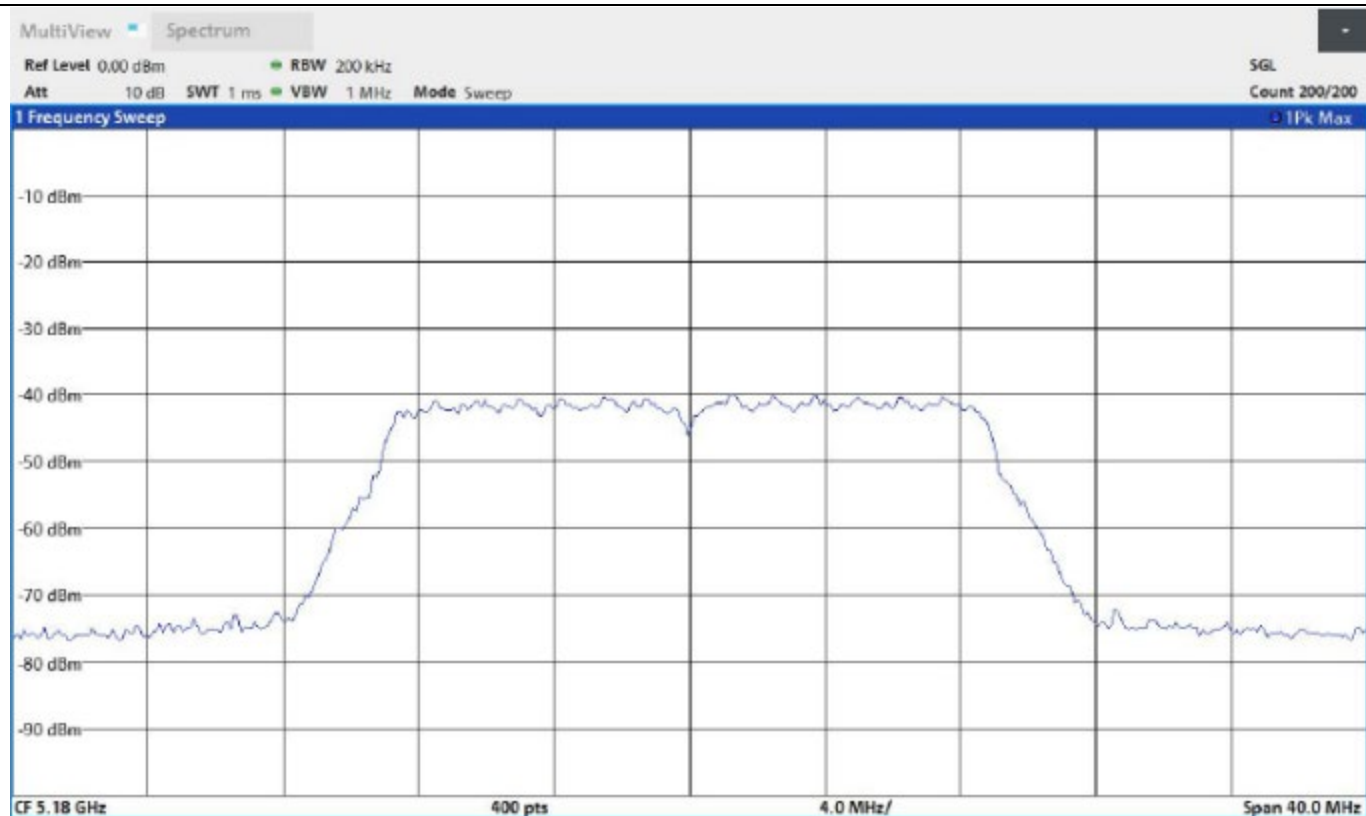
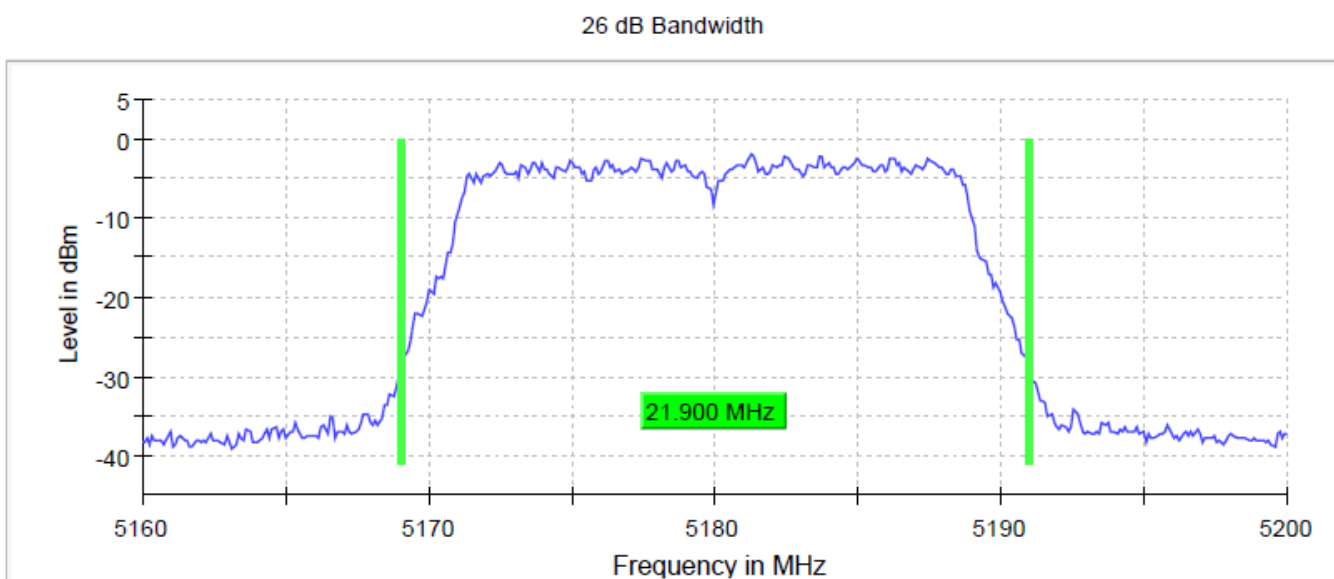
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 2%

Data Rate	DUT Frequency (MHz)	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
802.11a 6Mbps	5180.000000	21.500000	5169.250000	5190.750000
802.11n (HT20) MCS0	5180.000000	21.900000	5169.050000	5190.950000
802.11ac (VHT20) MCS0	5180.000000	21.800000	5169.150000	5190.950000
802.11n (HT40) MCS0	5190.000000	40.225140	5169.887430	5210.112570
802.11ac (VHT40) MCS0	5190.000000	40.225140	5169.887430	5210.112570
802.11ac (VHT80) MCS0	5210.000000	83.000000	5168.750000	5251.750000
802.11a 6Mbps	5200.000000	21.400000	5189.350000	5210.750000
802.11n (HT20) MCS0	5200.000000	21.900000	5189.050000	5210.950000
802.11ac (VHT20) MCS0	5200.000000	21.800000	5189.050000	5210.850000
802.11n (HT40) MCS0	5230.000000	40.225140	5209.887430	5250.112570
802.11ac (VHT40) MCS0	5230.000000	40.075047	5210.037523	5250.112570
802.11a 6Mbps	5240.000000	21.600000	5229.250000	5250.850000
802.11n (HT20) MCS0	5240.000000	21.900000	5229.050000	5250.950000
802.11ac (VHT20) MCS0	5240.000000	21.800000	5229.050000	5250.850000

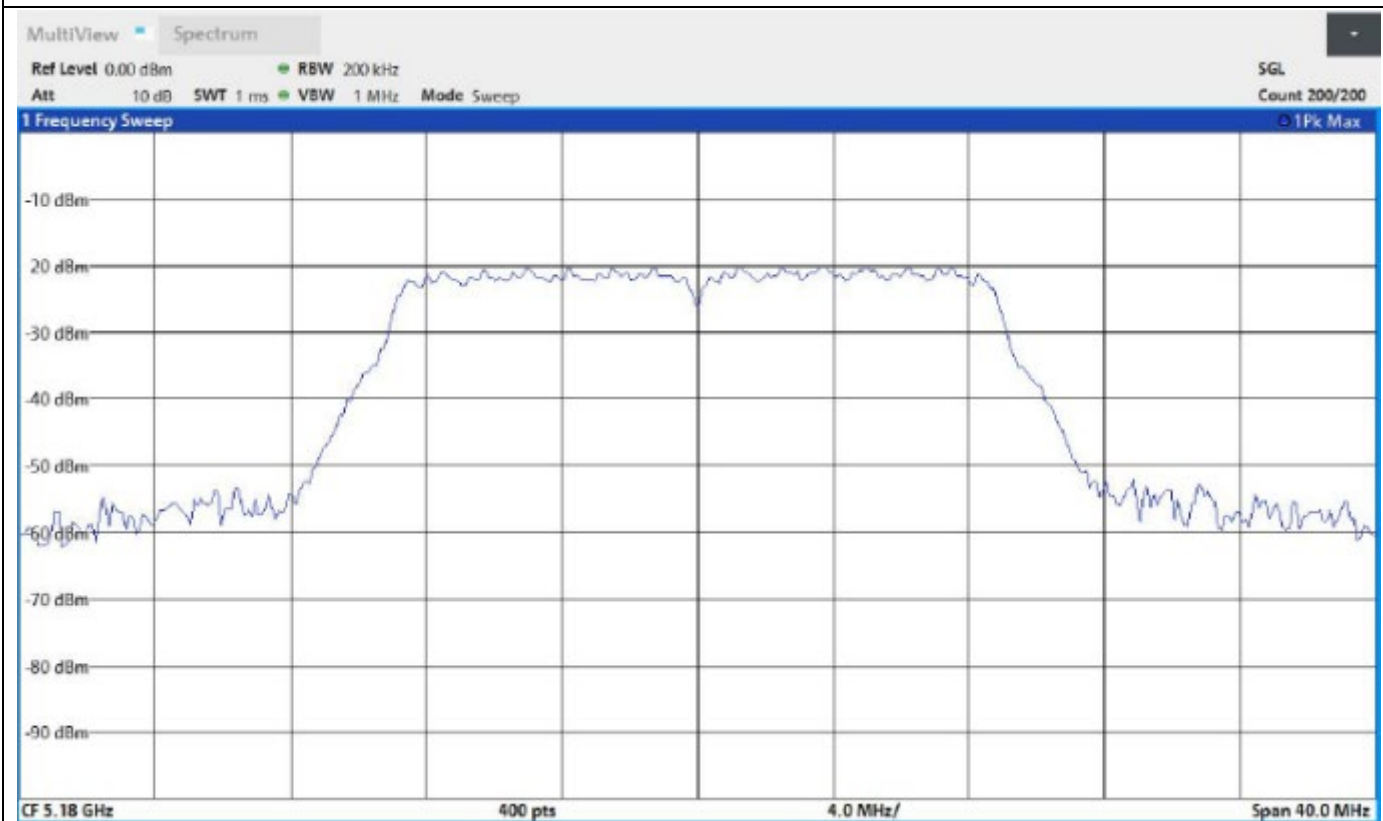
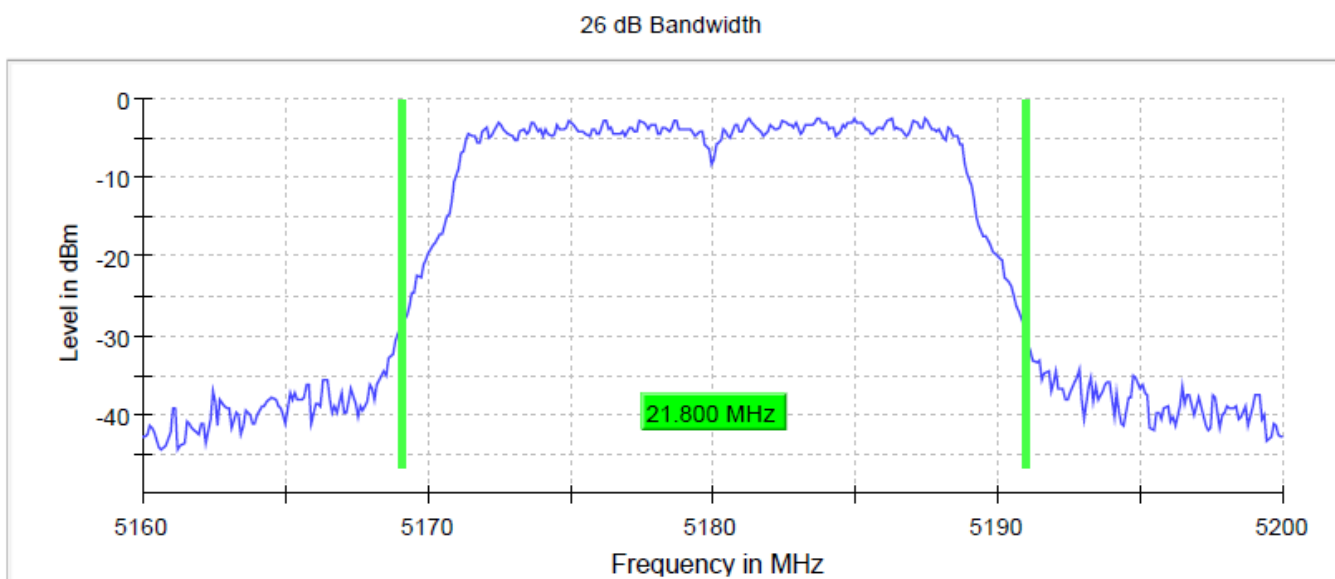
802.11a 5180MHz 6Mbps



802.11n (HT20) 5180MHz MCS0



802.11ac (VHT20) 5180MHz MCS0



FCC 15.407 UNII-3

DUT Information:

Model:	HERMES 3.0
Manufacturer:	Harman/Becker Automotive Systems
Serial Number:	AH21042001-HAR-017 #1

UNII-3		
Mode	Channel	Frequency
802.11a 802.11n(HT20) 802.11ac(VHT20)	149	5745
802.11n(HT40) 802.11ac(VHT40)	151	5755
802.11ac(VHT80)	155	5775
802.11a 802.11n(HT20) 802.11ac(VHT20)	157	5785
802.11n(HT40) 802.11ac(VHT40)	159	5795
802.11a 802.11n(HT20) 802.11ac(VHT20)	165	5825

Notes

- Channels and modes above were tested.
- Output power measurements were performed at the lowest and highest data rate of each supported 802.11 mode.

Antenna Gain	4.01 dBi
Number of transmit chains	1
Equipment Type	Unlicensed National Information Infrastructure Device

Test Equipment Used

ID #	Equipment	Manufacturer	Model #	Serial #	Cal Due
BVD0226	Spectrum Analyzer 10Hz-44GHz	Rohde & Schwarz	FSV3044	101018	1/14/2022
BVD0227	8 port switch unit for Wireless Test system	Rohde & Schwarz	OSP150	101100	N/A
BVD0228	8 port switch unit for Wireless Test system	Rohde & Schwarz	OSP220	101632	N/A
BVD0224	Signal Generator 100kHz-40GHz	Rohde & Schwarz	SMB100A	181741	11/19/2021
BVD0225	Signal Generator 100k-6GHz with GPS simulator	Rohde & Schwarz	SMW200A	107664	11/18/2021
BVD0250	Wireless Connectivity Tester 70M-6GHz	Rohde & Schwarz	CMW270	102113	11/18/2021
BVD0343	DC Regulated Power Supply	Circuit Specialists, INC	CSI3020X	595215	N/A
BVD0321	Fixed Attenuator 2W 20dB - 40GHz	Mini-Circuits	BW-K20-2W44+	2103	N/A
BVD0477	10db Attenuator -18GHz	Mouser	BW-S10W2+	2043	N/A
BVD0229	Temp and Humidity Meter	Fluke	971	12001009	3/26/2022

Power Settings

802.11a		802.11n (HT20)		802.11ac (VHT20)	
Channel	Power Setting	Channel	Power Setting	Channel	Power Setting
149	15	149	15	149	15
157	15	157	15	157	15
165	15	165	15	165	15

802.11n (HT40)		802.11ac (VHT40)	
Channel	Power Setting	Channel	Power Setting
151	15	151	15
159	15	159	15

802.11ac (VHT80)	
Channel	Power Setting
155	15

Test Results Summary

Test	Frequency (MHz)	802.11a	802.11n(HT20)	802.11ac (VHT20)
RF Output Power	5745/5785/5825	PASS	PASS	PASS
Power Spectral Density	5745/5785/5825	PASS	PASS	PASS
DTS Bandwidth (6dB)	5745/5785/5825	PASS	PASS	PASS
Occupied Channel Bandwidth 99%	5745/5785/5825	PASS	PASS	PASS
		802.11n(HT40)		802.11ac(VHT40)
RF Output Power	5755/5795	PASS		PASS
Power Spectral Density	5755/5795	PASS		PASS
DTS Bandwidth (6dB)	5755/5795	PASS		PASS
Occupied Channel Bandwidth 99%	5755/5795	PASS		PASS
		802.11ac(VHT80)		
RF Output Power	5775	PASS		
Power Spectral Density	5775	PASS		
DTS Bandwidth (6dB)	5775	PASS		
Occupied Channel Bandwidth 99%	5775	PASS		

RF output power and Duty-Cycle

FCC and RSS-247

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 I.I.E and ANSI C63.10-2013

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Combined Uncertainty of absolute Level Measurement (K=2) < 1 dB

802.11a

Data Rate	Gated RMS (dBm)	Gated RMS (dBm)	Gated RMS (dBm)	Limit (dBm)	Duty Cycle (%)
	5745 MHz	5785 MHz	5825 MHz		
6 Mbps	7.839	8.475	8.822	30	98.620
54 Mbps	7.823	8.378	8.619	30	89.809

802.11n (HT20)

Data Rate	Gated RMS (dBm)	Gated RMS (dBm)	Gated RMS (dBm)	Limit (dBm)	Duty Cycle (%)
	5745 MHz	5785 MHz	5825 MHz		
MCS0	7.881	8.506	8.675	30	98.525
MCS7	7.835	8.346	8.704	30	88.953

802.11ac (VHT20)

Data Rate	Gated RMS (dBm)	Gated RMS (dBm)	Gated RMS (dBm)	Limit (dBm)	Duty Cycle (%)
	5745 MHz	5785 MHz	5825 MHz		
MCS0	7.928	8.544	8.703	30	98.534
MCS8	7.255	7.885	8.134	30	87.625

802.11n (HT40)

Data Rate	Gated RMS (dBm)		Limit (dBm)	Duty Cycle (%)
	5755 MHz	5795 MHz		
MCS0	7.510	8.037	30	97.073
MCS7	7.383	7.916	30	82.124

802.11ac (VHT40)

Data Rate	Gated RMS (dBm) 5755 MHz	Gated RMS (dBm) 5795 MHz	Limit (dBm)	Duty Cycle (%)
MCS0	7.421	8.059	30	97.090
MCS9	6.754	7.443	30	80.128

802.11ac (VHT80)

Data Rate	Gated RMS (dBm) 5775 MHz	Limit (dBm)	Duty Cycle (%)
MCS0	7.928	30	94.200
MCS9	7.465	30	72.479

Power Spectral Density

FCC and RSS-247

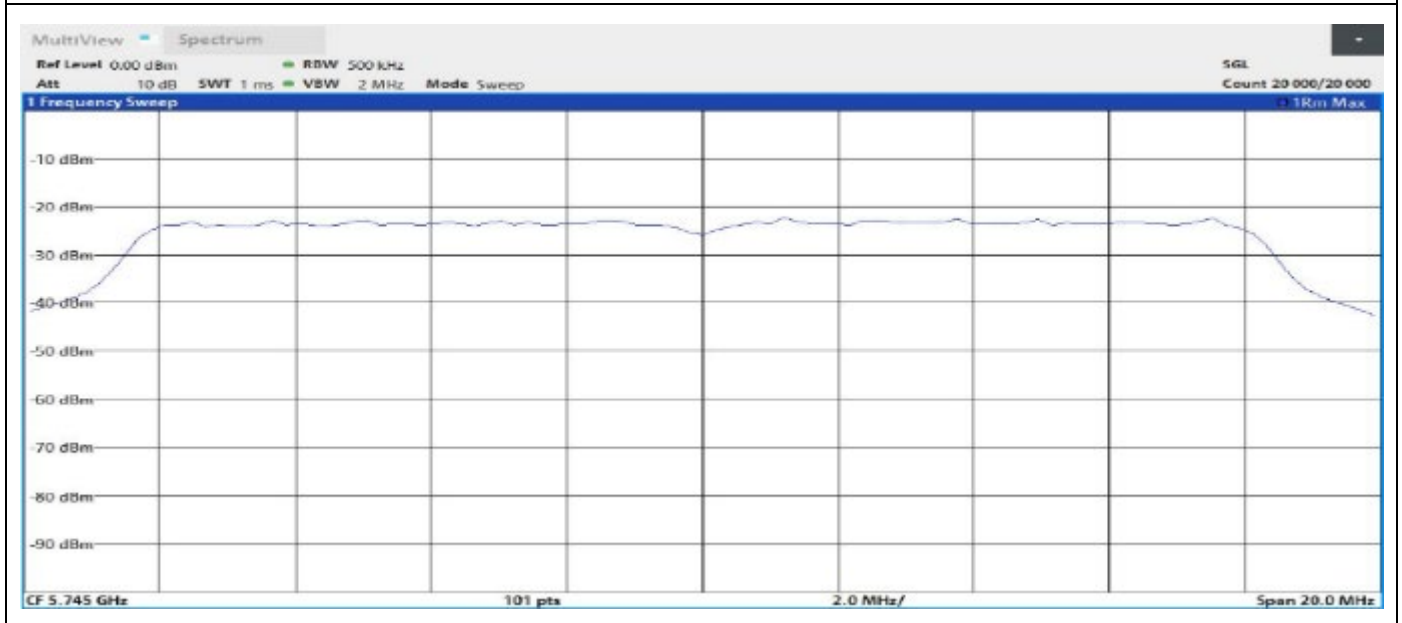
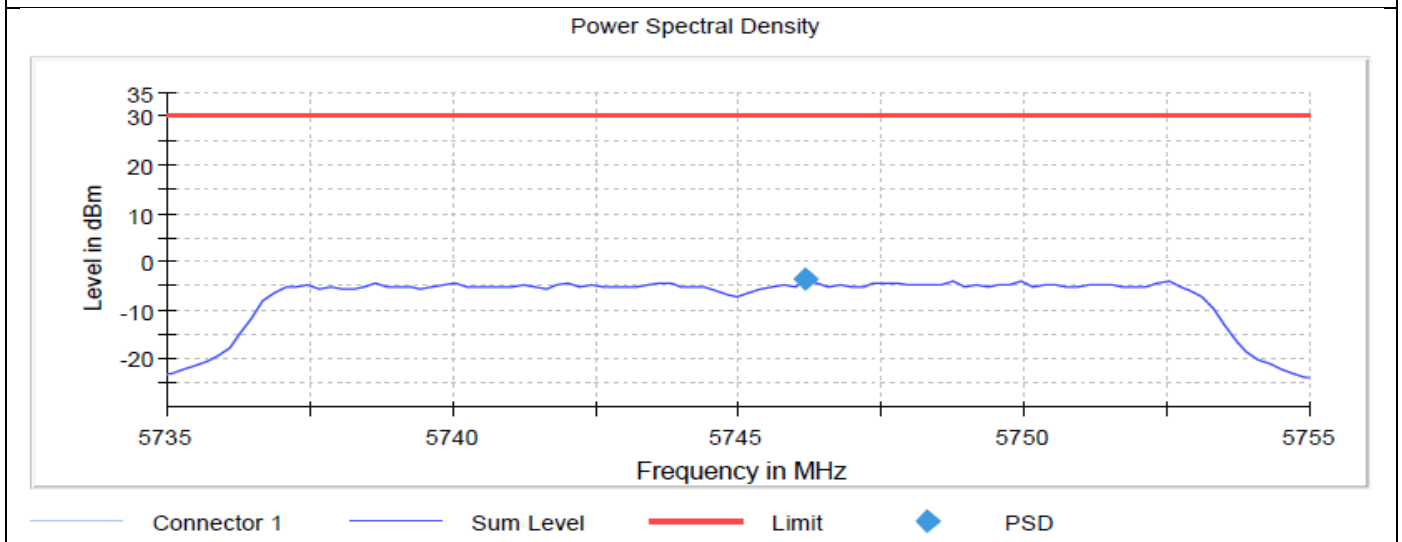
Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.F and ANSI C63.10-2013

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 1.3 dB

802.11a 6Mbps

Data Rate	PSD (dBm) 5745 MHz	PSD (dBm) 5785 MHz	PSD (dBm) 5825 MHz	Limit (dBm)
6Mbps	-3.727	-3.215	-3.232	30.0
54Mbps	-3.720	-3.148	-3.199	30.0

802.11a 5745 MHz 6Mbps



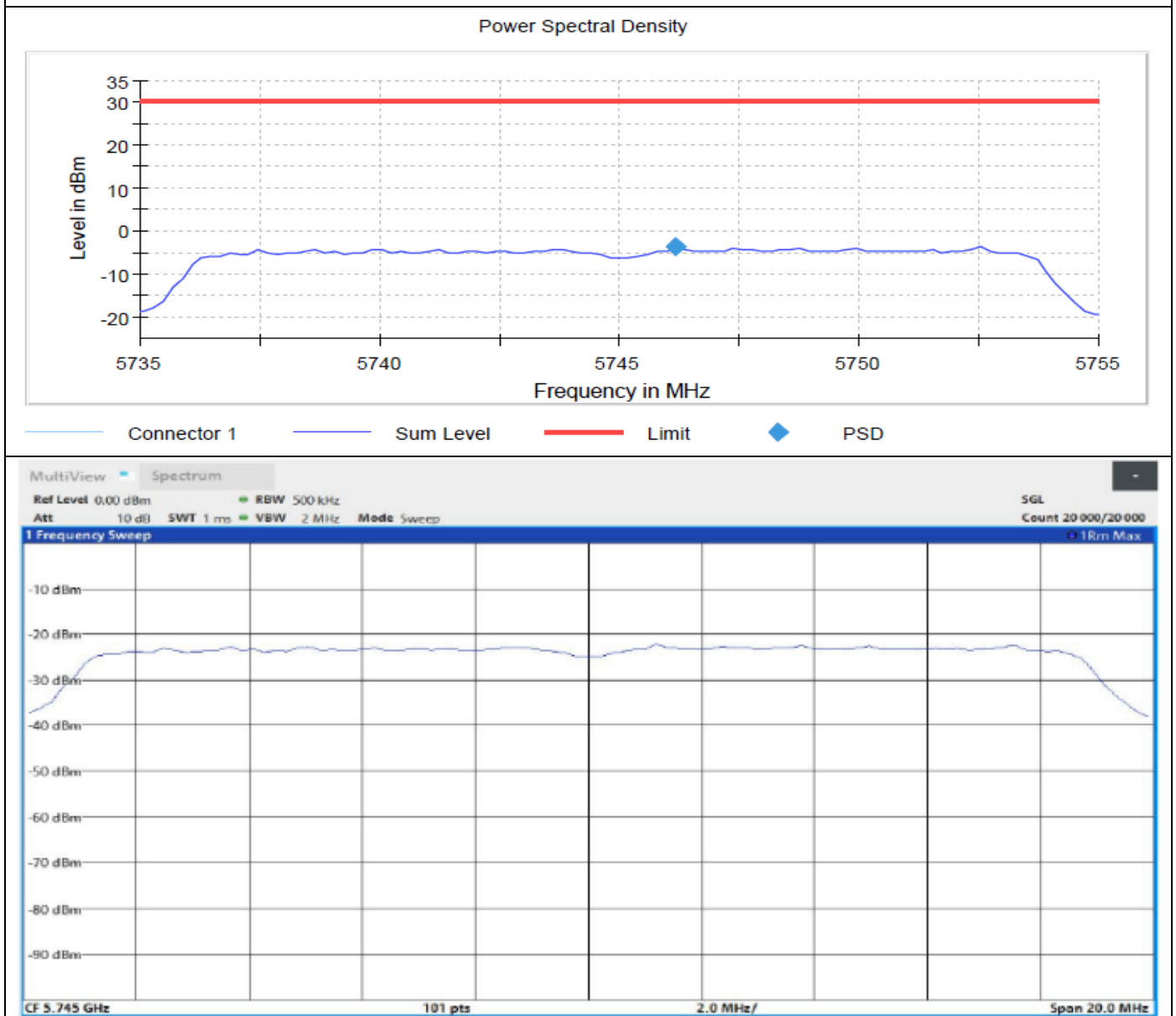
802.11n (HT20)

Data Rate	PSD (dBm) 5745 MHz	PSD (dBm) 5785 MHz	PSD (dBm) 5825 MHz	Limit (dBm)
MCS0	-3.575	-3.250	-3.327	30.0
MCS7	-3.172	-2.926	-2.514	30.0

802.11n (HT40)

Data Rate	PSD (dBm) 5755 MHz	PSD (dBm) 5795 MHz	Limit (dBm)
MCS0	-6.567	-6.068	30.0
MCS7	-5.764	-5.342	30.0

802.11n (HT20) 5745 MHz MCS0



802.11ac (VHT20)

Data Rate	PSD (dBm) 5745 MHz	PSD (dBm) 5785 MHz	PSD (dBm) 5825 MHz	Limit (dBm)
MCS0	-3.586	-3.246	-3.313	30.0
MCS8	-3.773	-3.444	-3.366	30.0

802.11ac (VHT40)

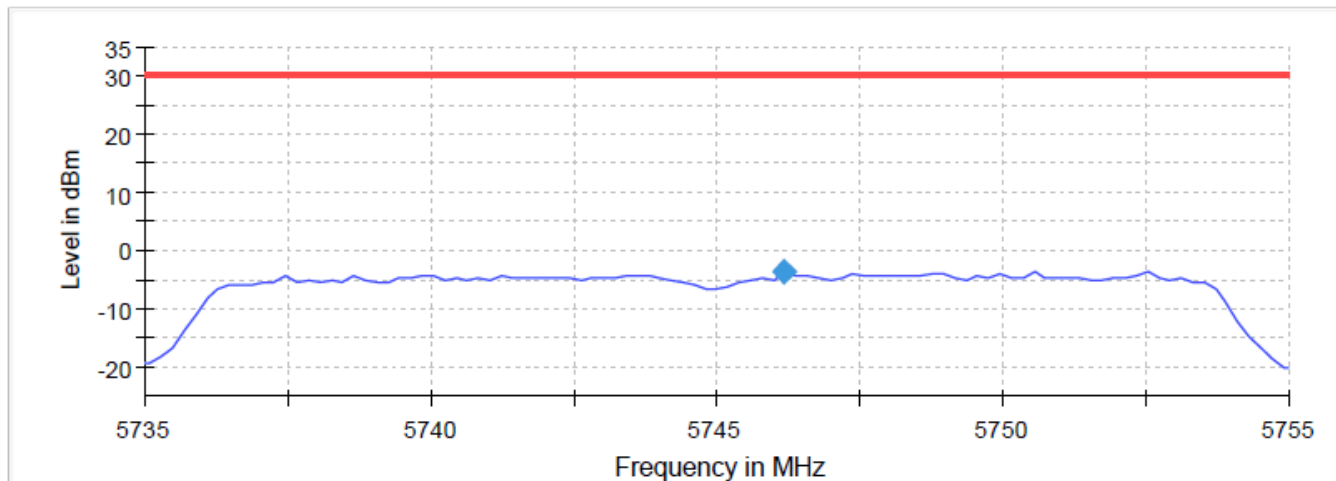
Data Rate	PSD (dBm) 5755 MHz	PSD (dBm) 5795 MHz	Limit (dBm)
MCS0	-6.770	-5.949	30.0
MCS9	-6.177	-5.580	30.0

802.11ac (VHT80)

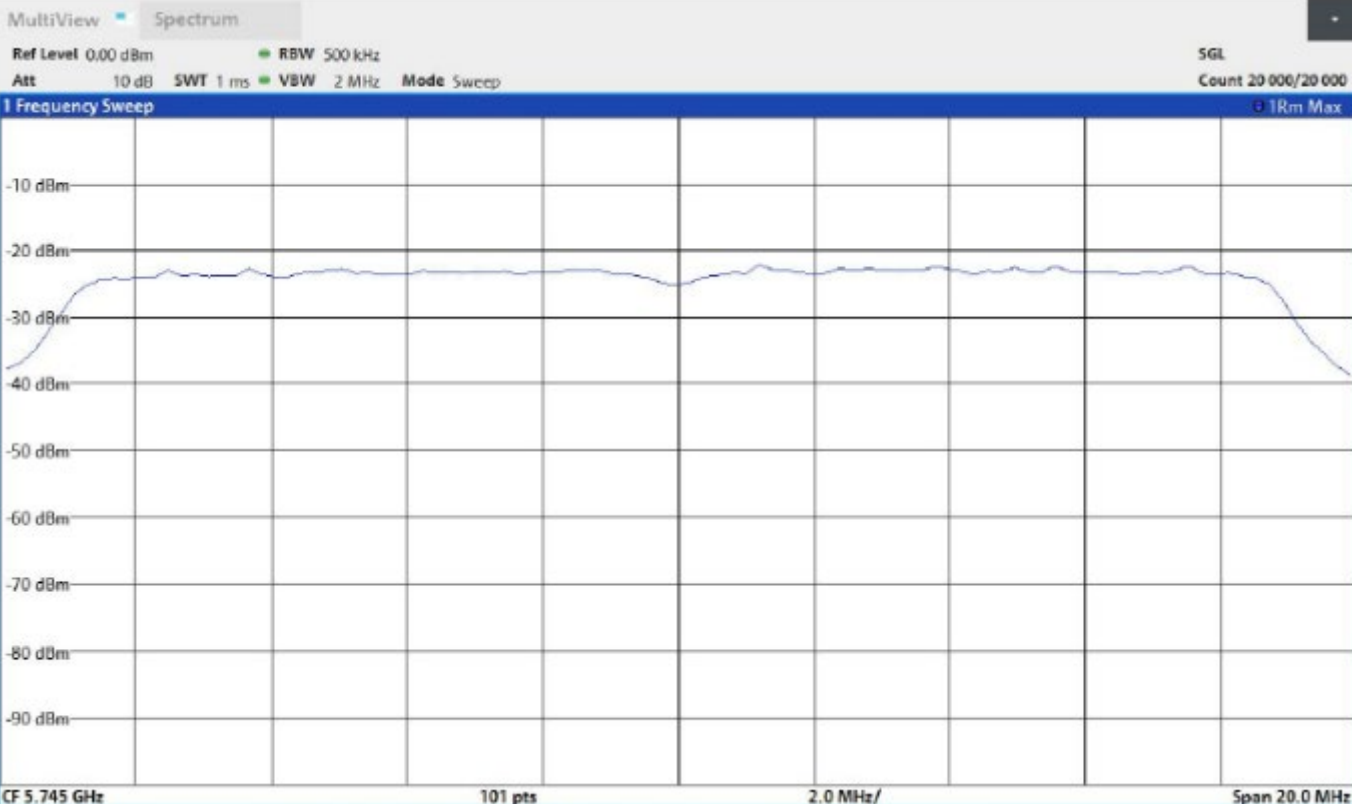
Data Rate	PSD (dBm) 5775 MHz	Limit (dBm)
MCS0	-7.723	30.0
MCS9	-6.791	30.0

802.11a (VHT20) 5745 MHz MCS0

Power Spectral Density



Connector 1 Sum Level Limit PSD



DTS Bandwidth 6dB

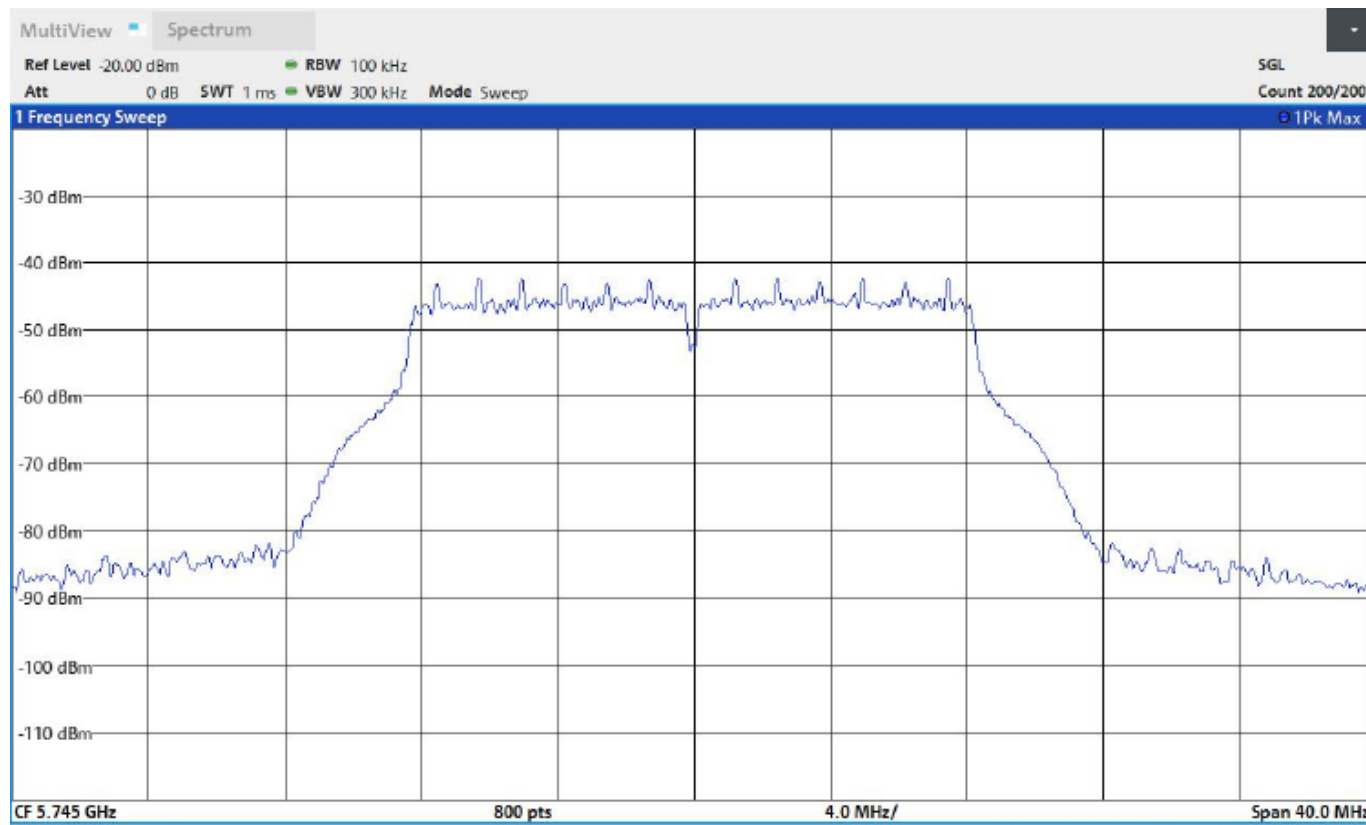
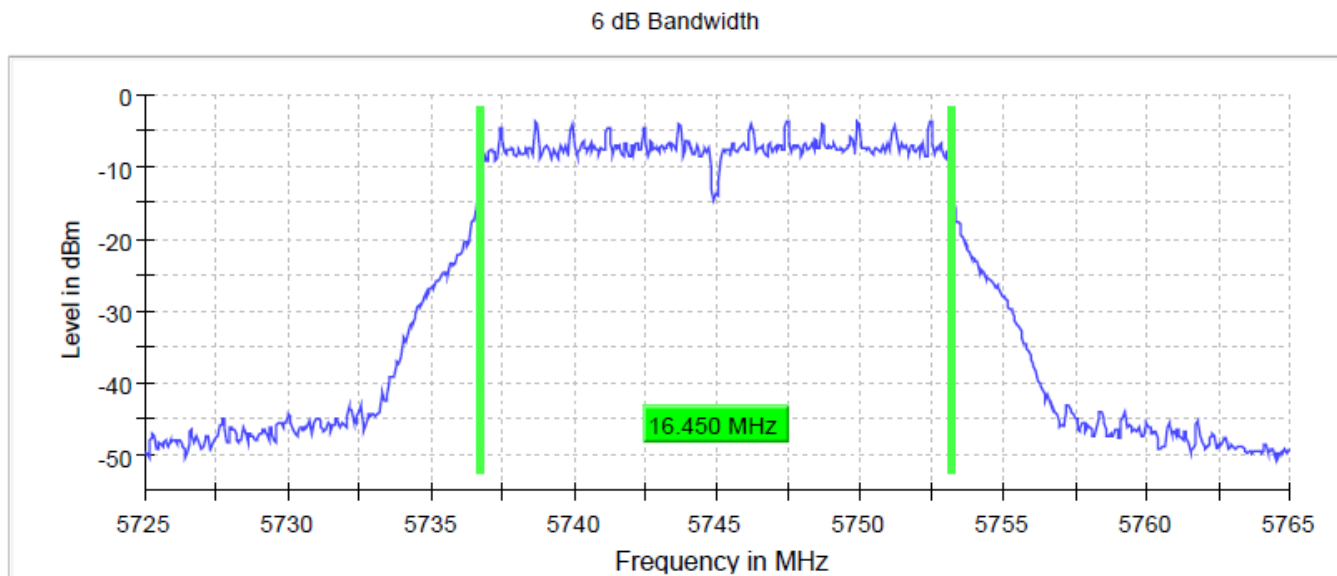
FCC and RSS-247

Test according to FCC title 47 part 15 §15.407(a),€, KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 D and ANSI C63.10-2013

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 2%

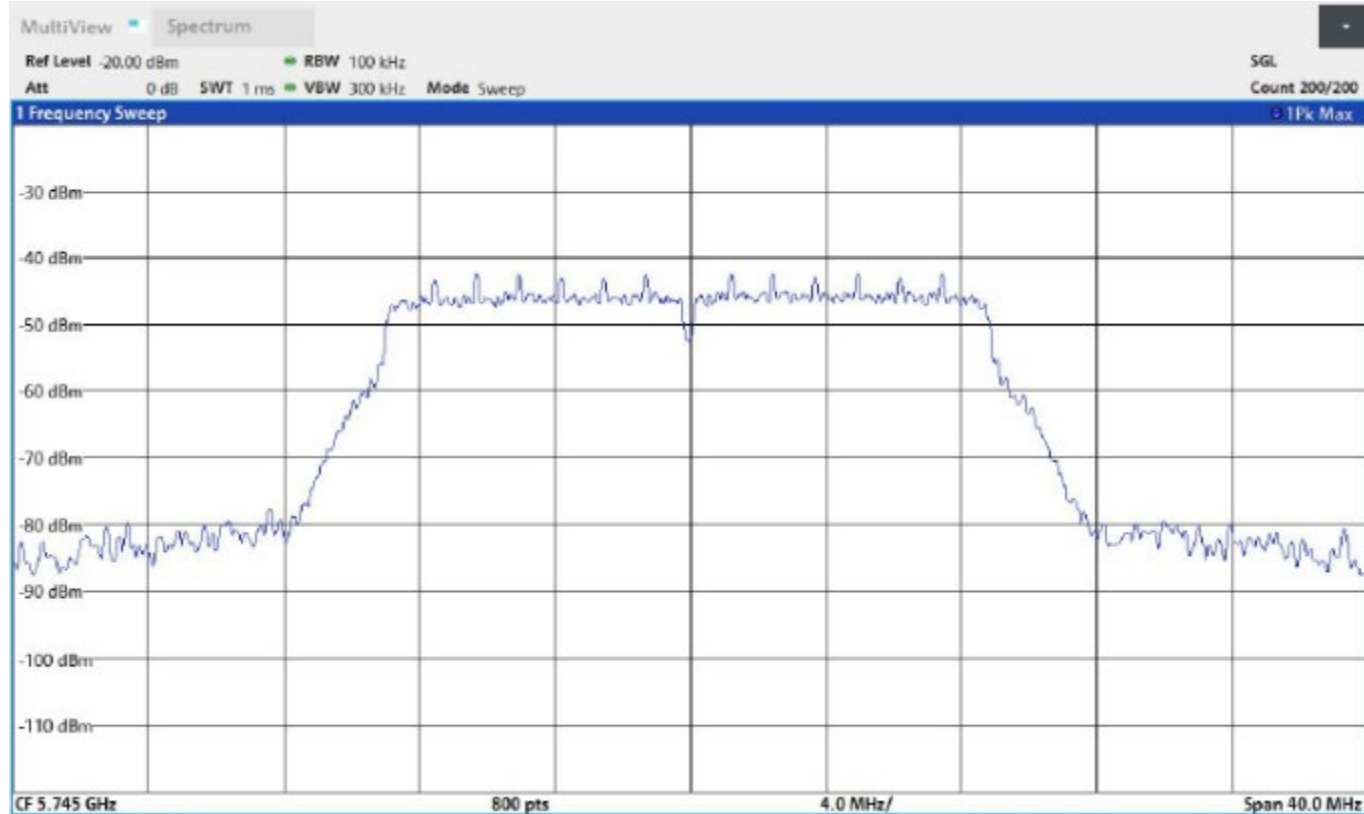
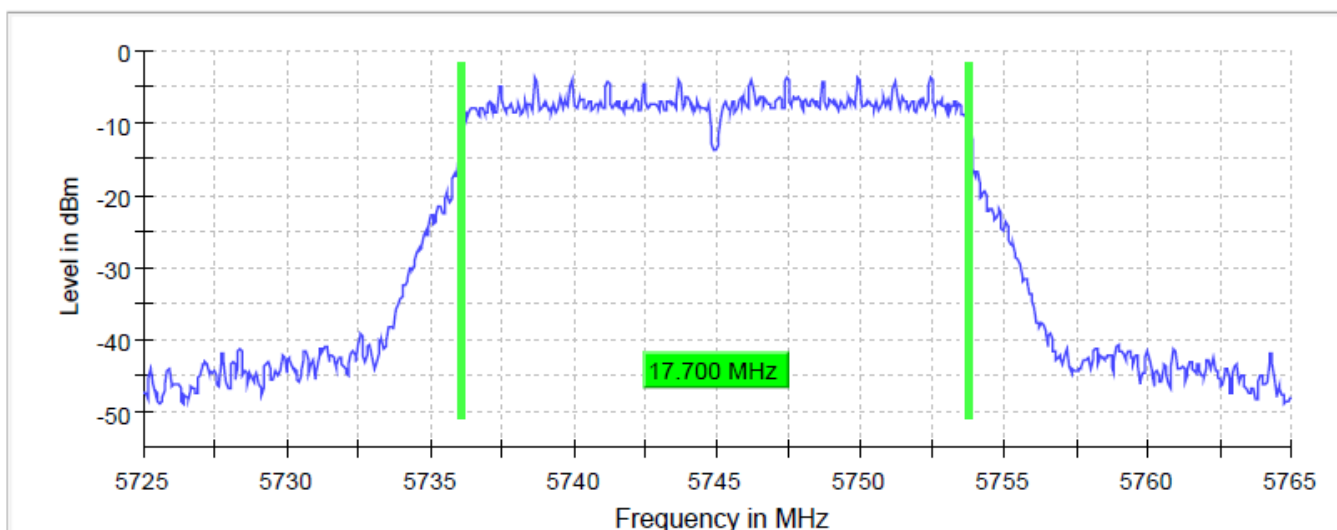
Data Rate	DUT Frequency (MHz)	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Minimum Band Limit (MHz)
802.11a 6Mbps	5745.000000	16.450000	5736.725000	5753.175000	0.500000
802.11n (HT20) MCS0	5745.000000	17.700000	5736.075000	5753.775000	0.500000
802.11ac (VHT20) MCS0	5745.000000	17.850000	5736.025000	5753.875000	0.500000
802.11n (HT40) MCS0	5755.000000	36.400000	5736.775000	5773.175000	0.500000
802.11ac (VHT40) MCS0	5755.000000	36.600000	5736.675000	5773.275000	0.500000
802.11ac (VHT80) MCS0	5775.000000	76.450000	5736.775000	5813.225000	0.500000
802.11a 6Mbps	5785.000000	16.450000	5776.725000	5793.175000	0.500000
802.11n (HT20) MCS0	5785.000000	17.700000	5776.075000	5793.775000	0.500000
802.11ac (VHT20) MCS0	5785.000000	17.850000	5776.025000	5793.875000	0.500000
802.11n (HT40) MCS0	5795.000000	36.400000	5776.775000	5813.175000	0.500000
802.11ac (VHT40) MCS0	5795.000000	36.600000	5776.675000	5813.275000	0.500000
802.11a 6Mbps	5825.000000	16.450000	5816.725000	5833.175000	0.500000
802.11n (HT20) MCS0	5825.000000	17.700000	5816.075000	5833.775000	0.500000
802.11ac (VHT20) MCS0	5825.000000	17.850000	5816.025000	5833.875000	0.500000

802.11a 5745MHz 6Mbps

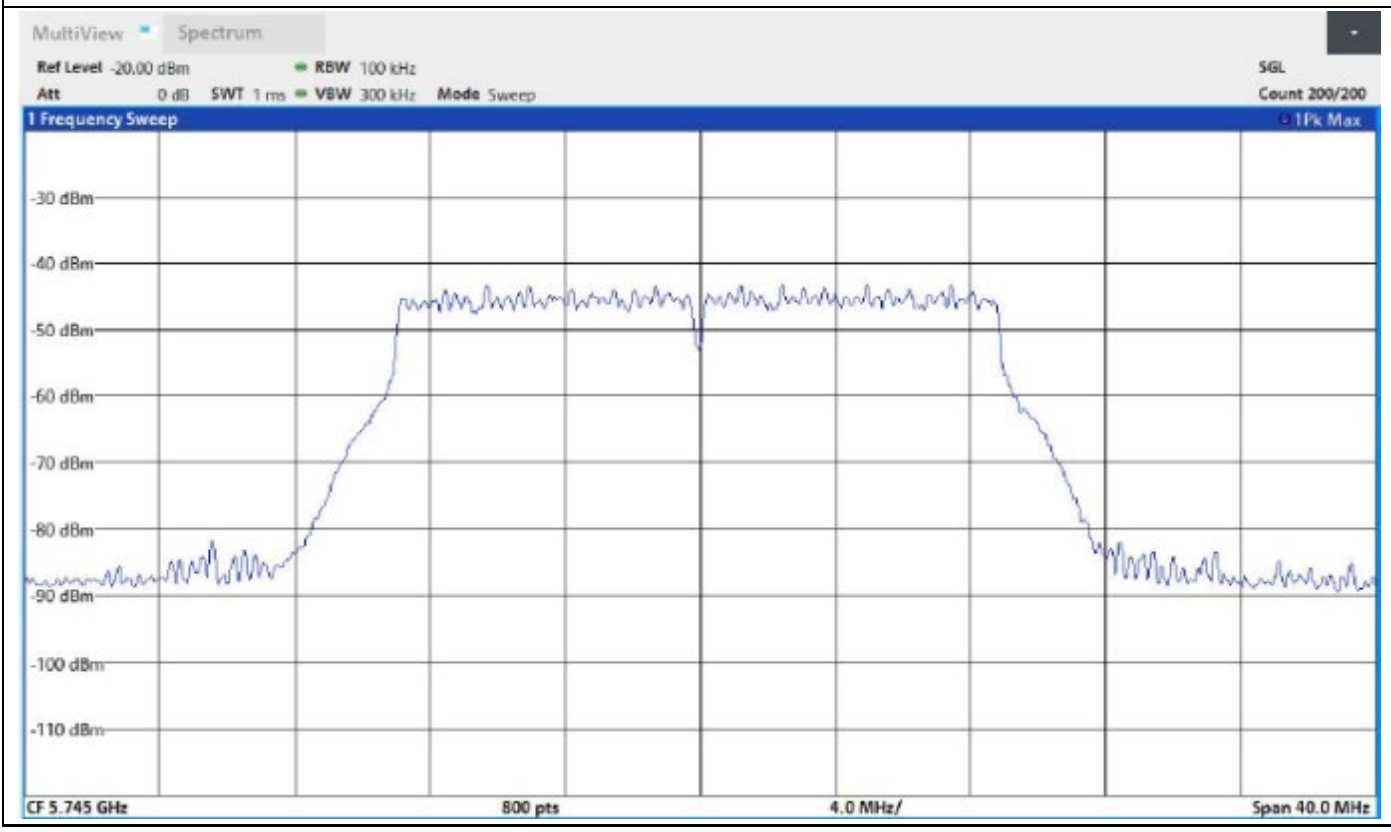
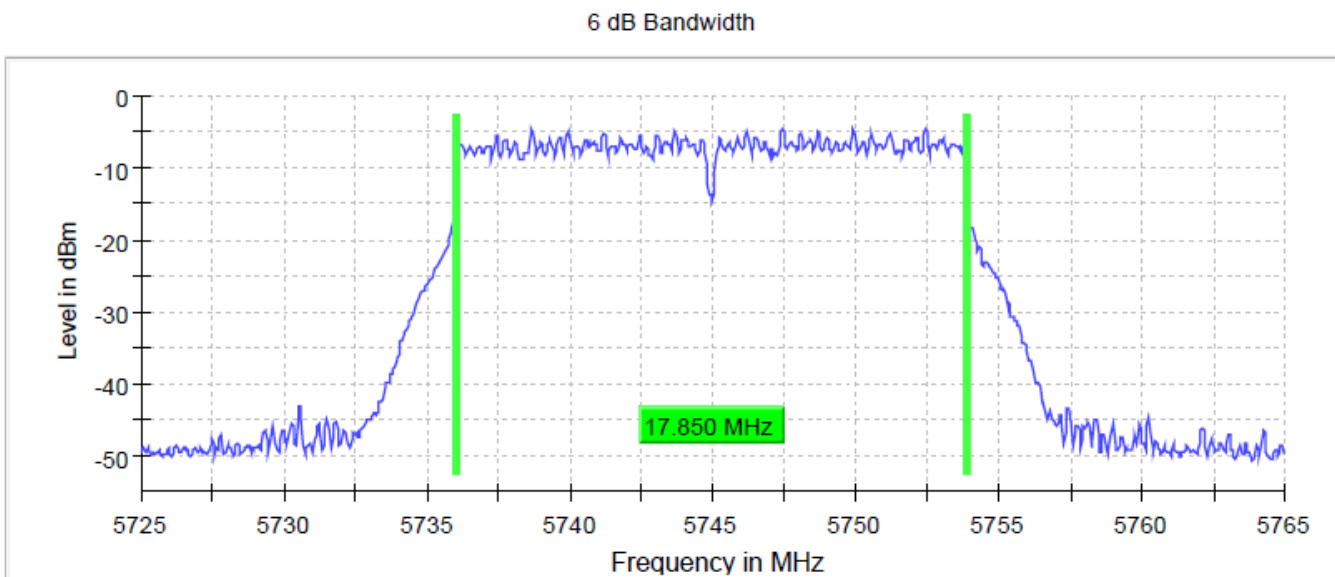


802.11n (HT20) 5745MHz MCS0

6 dB Bandwidth



802.11ac (VHT20) 5745MHz MCS0



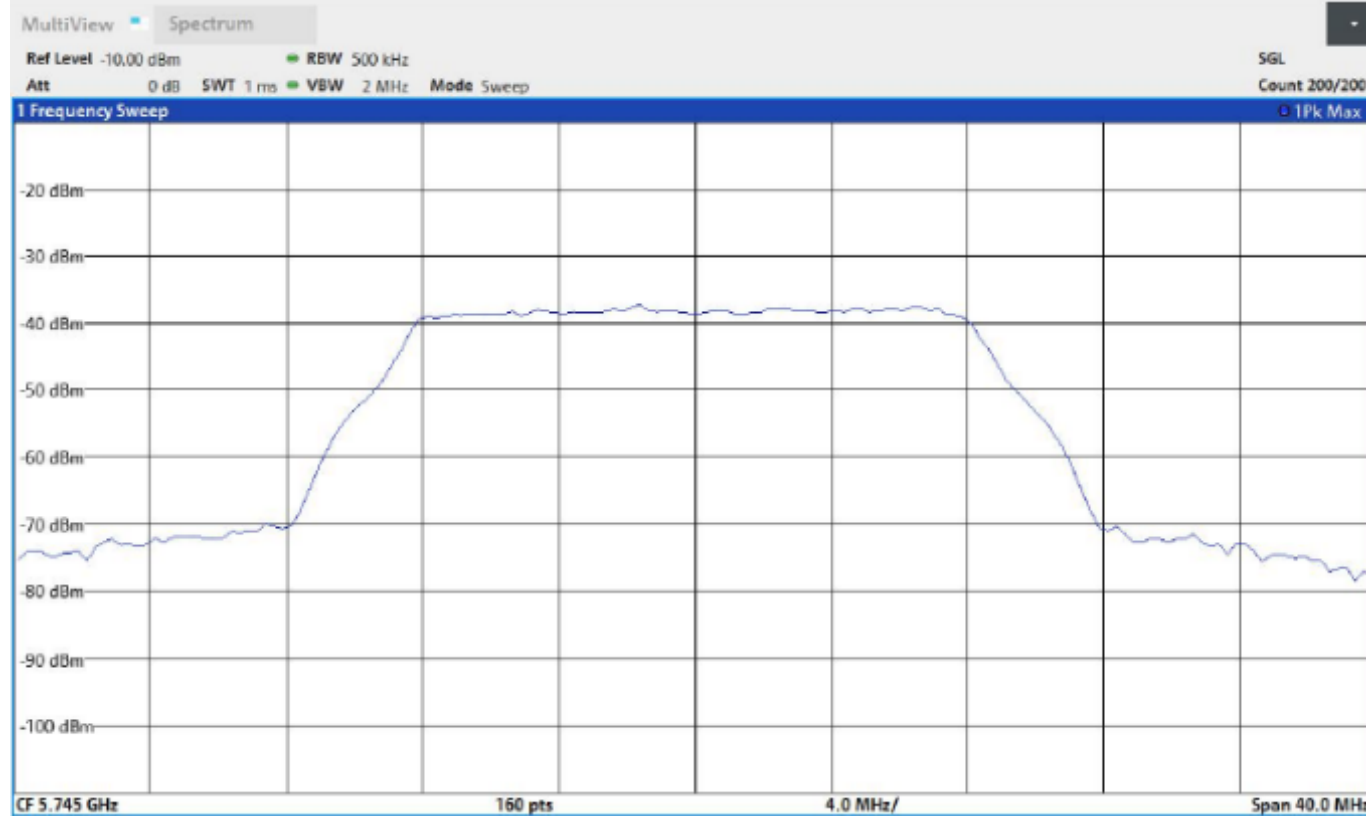
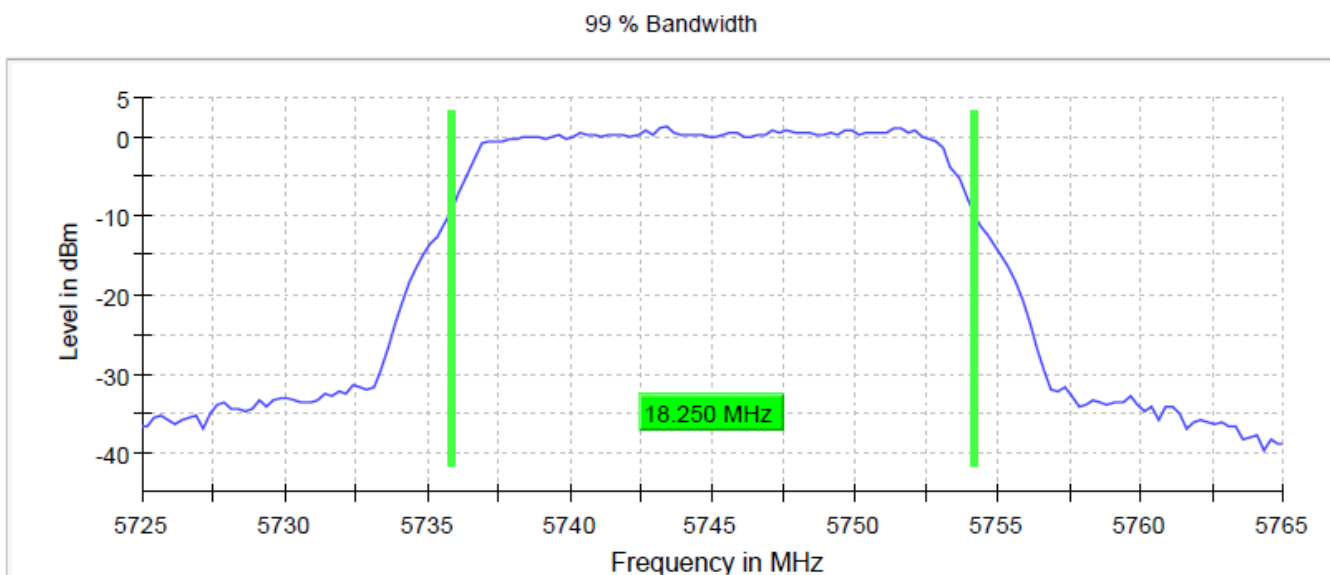
Occupied Channel Bandwidth

Test according to FCC title 47 part 15 §15.407(a),€, KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 D and ANSI C63.10-2013

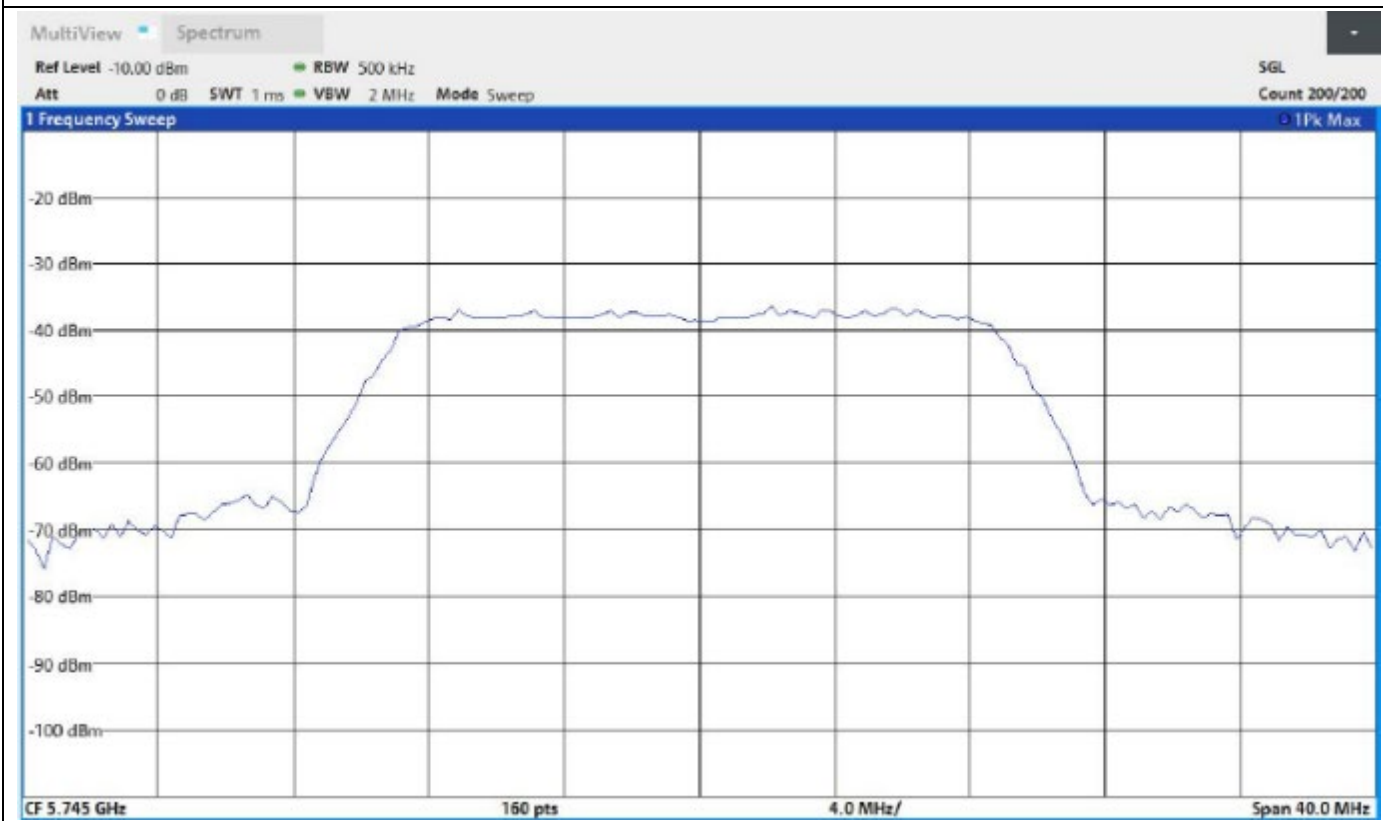
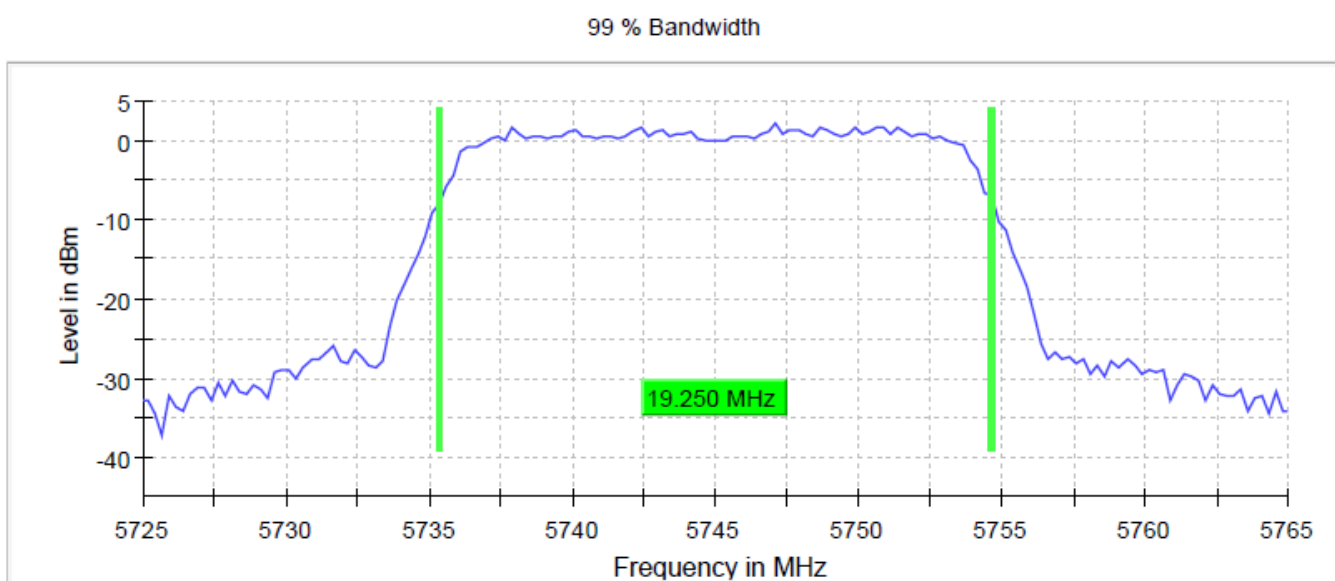
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 2%

Data Rate	DUT Frequency (MHz)	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Band Limit (MHz)
802.11a 6Mbps	5745.000000	18.250000	5735.875000	5754.125000	5725-5850
802.11n (HT20) MCS0	5745.000000	19.250000	5735.375000	5754.625000	5725-5850
802.11ac (VHT20) MCS0	5745.000000	18.500000	5735.875000	5754.375000	5725-5850
802.11n (HT40) MCS0	5755.000000	37.500000	5736.250000	5773.750000	5725-5850
802.11ac (VHT40) MCS0	5755.000000	37.000000	5736.750000	5773.750000	5725-5850
802.11ac (VHT80) MCS0	5775.000000	77.000000	5736.500000	5813.500000	5725-5850
802.11a 6Mbps	5785.000000	18.000000	5775.875000	5793.875000	5725-5850
802.11n (HT20) MCS0	5785.000000	19.000000	5775.375000	5794.375000	5725-5850
802.11ac (VHT20) MCS0	5785.000000	18.250000	5775.875000	5794.125000	5725-5850
802.11n (HT40) MCS0	5795.000000	37.500000	5776.250000	5813.750000	5725-5850
802.11ac (VHT40) MCS0	5795.000000	37.500000	5776.250000	5813.750000	5725-5850
802.11a 6Mbps	5825.000000	18.000000	5815.875000	5833.875000	5725-5850
802.11n (HT20) MCS0	5825.000000	19.250000	5815.375000	5834.625000	5725-5850
802.11ac (VHT20) MCS0	5825.000000	18.500000	5815.875000	5834.375000	5725-5850

802.11a 5745MHz 6Mbps

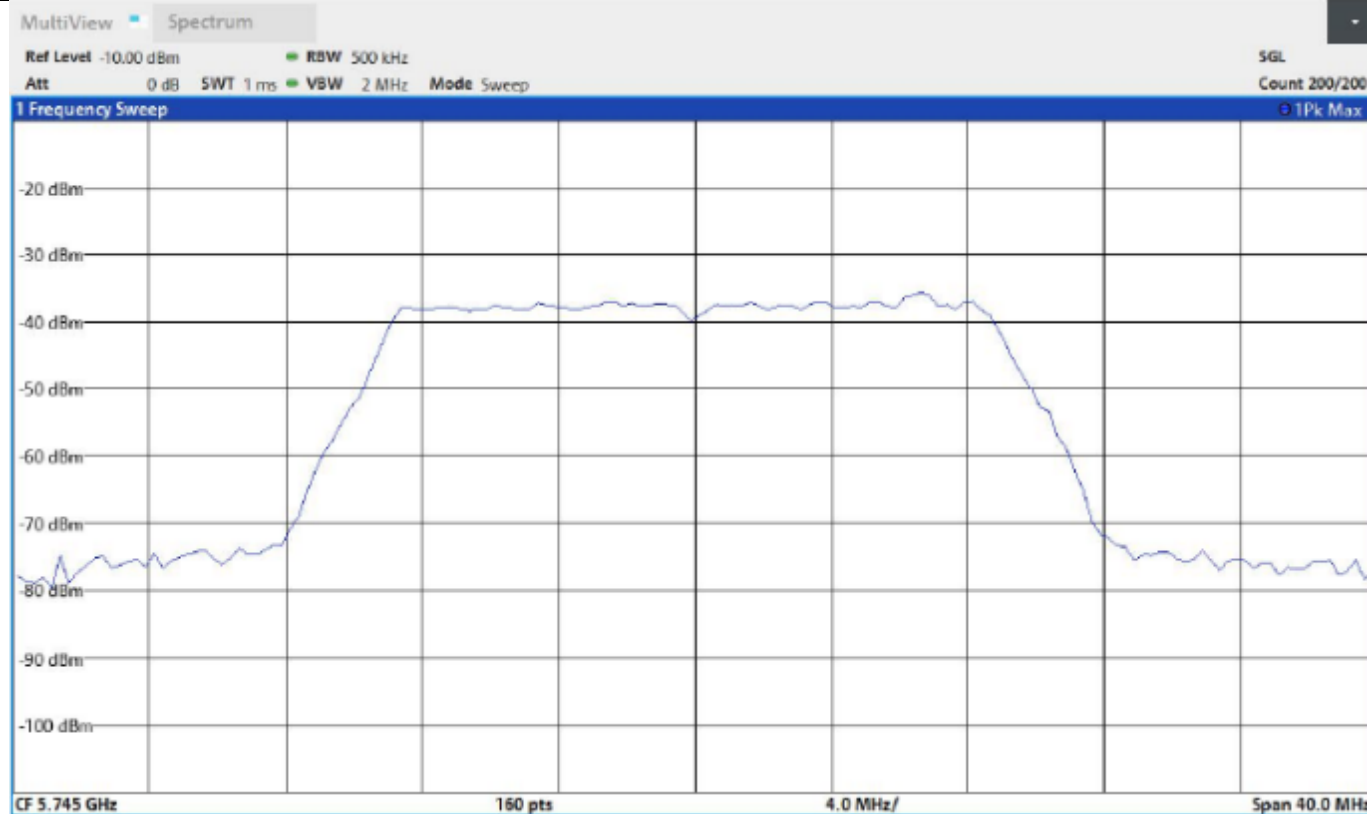
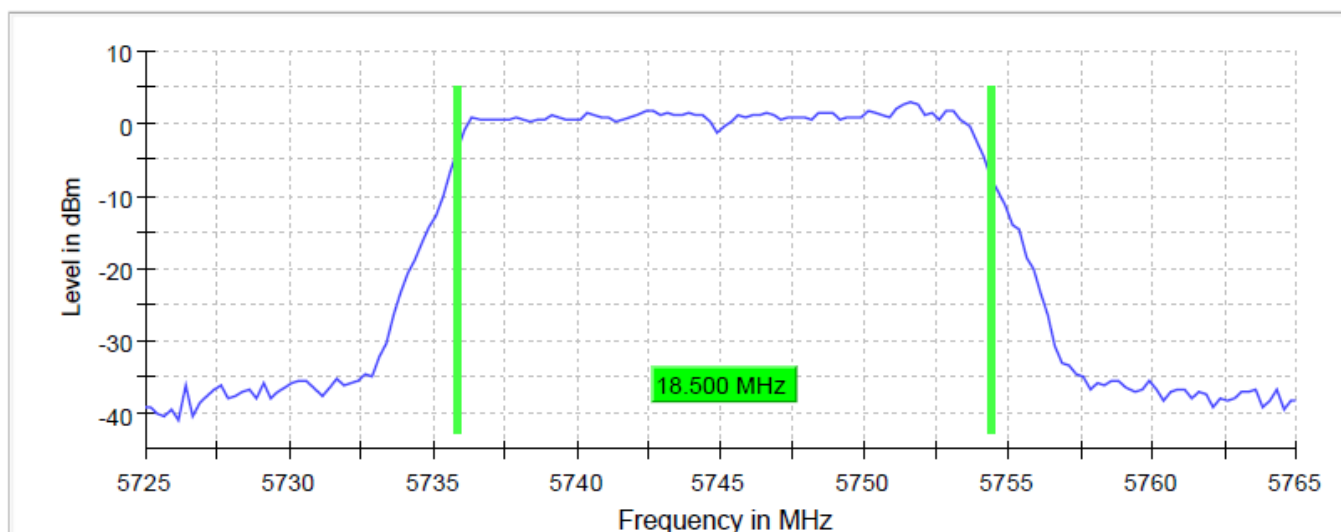


802.11n (HT20) 5745MHz MCS0



802.11ac (VHT20) 5745MHz MCS0

99 % Bandwidth



• Radiated Testing

Start: 6/15/2021	End: 9/16/2021	Temperature: 24°C	Initials: RP
		Humidity: 48%	

DUT S/N	AH21042001-HAR-017#2		DUT Operating Mode	WLAN 5GHz	
Comment					
Antenna	Frequency Range	Polarization	Result Over/Under Limit		Notes
Loop	9kHz-30MHz	Parallel	<input type="checkbox"/> Over	<input checked="" type="checkbox"/> Under	√
		Perpendicular	<input type="checkbox"/> Over	<input checked="" type="checkbox"/> Under	√
		Ground-Parallel	<input type="checkbox"/> Over	<input checked="" type="checkbox"/> Under	√
Log Periodic	30MHz-1GHz	Horizontal	<input type="checkbox"/> Over	<input checked="" type="checkbox"/> Under	√
		Vertical	<input type="checkbox"/> Over	<input checked="" type="checkbox"/> Under	√
Horn	1GHz-18GHz	Horizontal	<input type="checkbox"/> Over	<input checked="" type="checkbox"/> Under	√
		Vertical	<input type="checkbox"/> Over	<input checked="" type="checkbox"/> Under	√
Horn	18GHz-40GHz	Horizontal	<input type="checkbox"/> Over	<input checked="" type="checkbox"/> Under	√
		Vertical	<input type="checkbox"/> Over	<input checked="" type="checkbox"/> Under	√

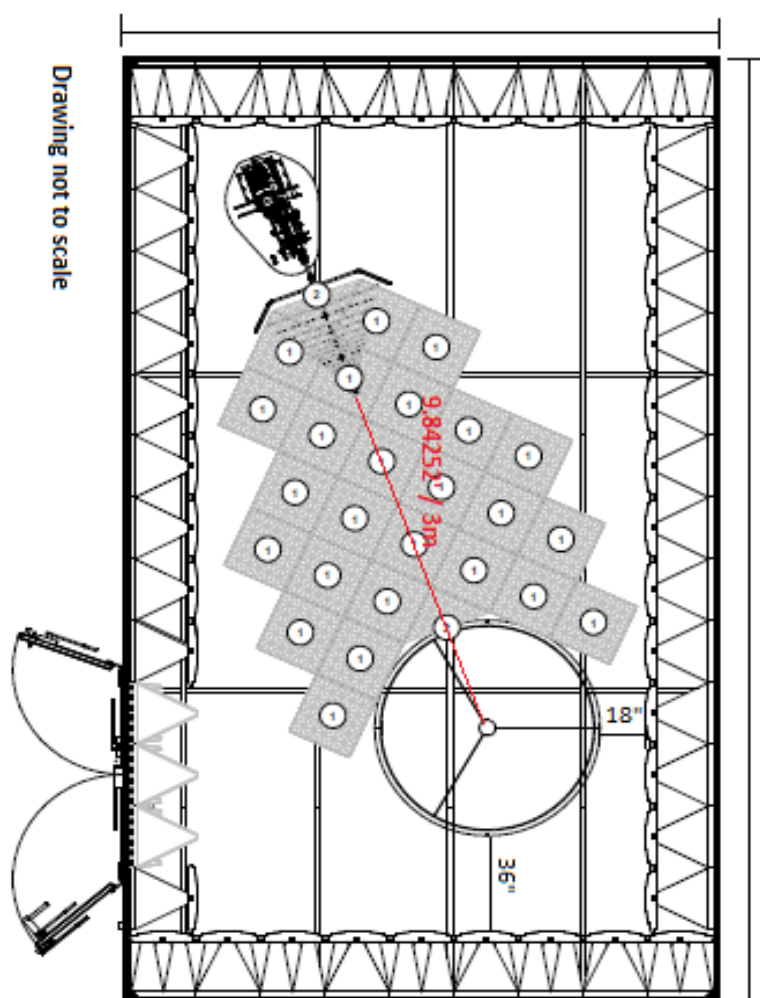
Notes: √ meets the requirements of the acceptance criteria.

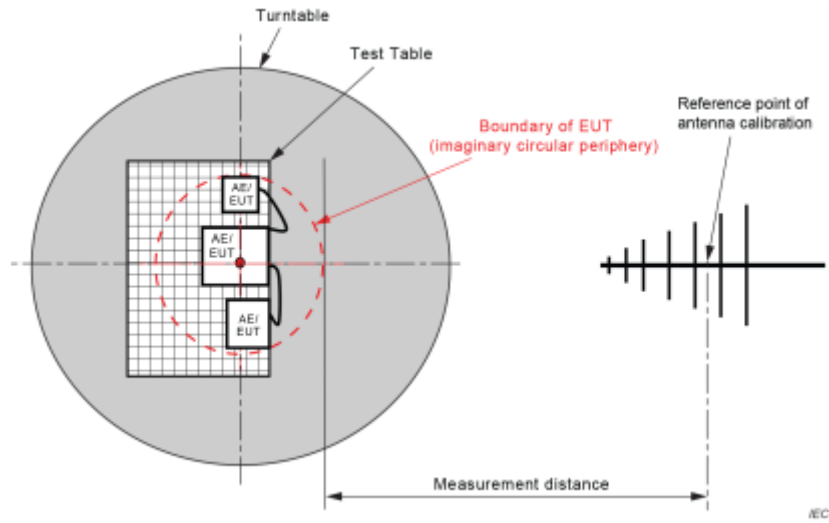
Test Setup

Semi-Anechoic Chamber Test Site-3 meter

Chamber Location	815 N Opdyke Rd Auburn Hills, Michigan 48326
Chamber Manufacturer:	ETS-Lindgren
Chamber Type	Semi-Anechoic
Model	FACT™ 3-2.0 Plus
Chamber Dimensions (L x W x H)	18'x18'x30'
Quiet Zone Diameter	2.0 meters
Quiet Zone Test Heights	1 & 2 meters (front only)
Test Distance	3.0 meters
Test Frequency Range	1-40 GHz
Measured Performance	4.87 dB Site sVSWR
Test Completion	December 18 th , 2019

Chamber Dimensions





Test Equipment Used

ID #	Equipment	Manufacturer	Model	Serial #	Cal Due
BVD0011	Loop Antenna 9kHz-30MHz	Rohde & Schwarz	FMZB1519B	145	3/23/2022
BVD0021	UltraLog Antenna 30-6000 MHz	Rohde & Schwarz	HL562E	101113	7/23/2022
BVD0069	Bore Sight Tower	ETS	2171B	226732	N/A
BVD0111	3 Meter Anechoic Chamber	ETS	N/A	N/A	10/16/2022
BVD0118	Antenna Mast Position Controller	ETS	7006-001	00214778/00 214648	N/A
BVD0165	Multimeter	Fluke	287	46320228	2/26/2022
BVD0184	Preamplifier 29dB 1-18GHz	Rohde & Schwarz	TS-PR18	101646	4/26/2022
BVD0185	Preamplifier 45dB 18-40GHz	Rohde & Schwarz	TS-PR1840	100064	3/2/2022
BVD0190	Preamplifier 25dB 30MHz-8GHz	Rohde & Schwarz	TS-PR8	102351	3/5/2022
BVD0218	Receiver 2Hz-44GHz	Rohde & Schwarz	ESW44	101870	9/25/2021
BVD0247	Turn Table	ETS	920250	N/A	N/A
BVD0258	Optima 12V Blue top Marine battery	Optima	D34M	N/A	N/A
BVD0267	Double Ridge Waveguide 800MHz-18GHz	Rohde & Schwarz	HF907	102832	9/9/2022
BVD0307	Optima 12V Blue top Marine battery	Optima	D34M	N/A	N/A
BVD0320	18-40GHz Horn Antenna	L3 Narda ATM	PNR 180-442-KF	136164-01	3/8/2022
BVD0323	Foam Test Table For 3 Meter Chamber	ETS-Lindgren	LDT-1.5	N/A	N/A
BVD0394	Double Shielded N-Type Cable 6.9 Meter	Rohde & Schwarz	N-Type	N/A	12/29/2022
BVD0398	Double Shielded N-Type Cable 2 Meter	Rohde & Schwarz	N-Type	N/A	12/29/2022
BVD0407	Double Shielded N-Type Cable 410mm (For PreAmp)	Rohde & Schwarz	N-Type	N/A	8/5/2022
BVD0481	Band Reject Filter 40dB from 5150 to 5880MHz	Micro-Tronics	BRM50716	G336	N/A
N/A	Support Laptop	Lenovo	E560	LW10USAU H01ABUD	N/A

Equipment List (Software)

Equipment	Manufacturer	Model	Version No.
EMC Test Software	Nexio	BAT-EMC	3.21.0.12

Customer Supplied Equipment

ID #	Equipment	Manufacturer	Model	Serial #	Version No.
N/A	Harness	Harman	1.7m	N/A	N/A

Radiated Emissions

Radiated emissions were maximized by rotating the EUT and its external antenna around Horizontal and vertical Polarizations.

Test Plots

Uncertainty

Radiated Emissions (30MHz to 18GHz)

Test Engineer: Ryan Phillips

The test is to measure the radiated emissions of the EUT. Some error sources that can contribute to the total uncertainty:

- Uncertainty of the receiver
- Uncertainty of the antenna
- Uncertainty of cables
- Uncertainty due to the mismatches
- NSA Calibration
- Etc., details see the below table

30MHz to 1GHZ

Source of Uncertainty	Value(dB)	Probability Distribution	Division	Sensitivity Coefficient	Expanded Uncertainty
Receiver Reading	0.12	Rectangular	1.732	1	0.069284
Cable Insertion Loss	0.21	Normal	2	1	0.105
Filter Insertion Loss	0.25	Normal	2	1	0.125
Antenna Factor	0.65	Normal	2	1	0.325
Receiver CW accuracy	0.5	Rectangular	1.732	1	0.2886836
Pulse Amplitude Response	1.5	Rectangular	1.732	1	0.8660508 1
PRF Response	1.5	Rectangular	1.732	1	0.8660508 1
Mismatch Filter – Receiver	0.25	U-Shape	2.449	1	0.1768033
NSA Calibration	4.0	Triangular	1.414	1	1.633332
ETS Foam Table (LDT-1.5)	1.8	Rectangular	1.732	1	1.039261
Combined Standard Uncertainty (square root of the sum of the squares)					2.113781
Expanded Uncertainty (K=2)					4.227562

The total derived measurement uncertainty is +/- 4.228 dB

1GHz to 40GHz

Source of Uncertainty	Value (dB)	Probability Distribution	Division	Sensitivity Coefficient	Expanded Uncertainty
Receiver Reading	0.12	Rectangular	1.732	1	0.069284
Cable Insertion Loss	0.21	Normal	2	1	0.105000
Filter Insertion Loss	0.25	Normal	2	1	0.125000
Antenna Factor	0.65	Normal	2	1	0.325000
Receiver CW accuracy	0.5	Rectangular	1.732	1	0.2886836
Pulse Amplitude Response	1.5	Rectangular	1.732	1	0.866051
PRF Response	1.5	Rectangular	1.732	1	0.866051
Mismatch Filter – Receiver	0.25	U-Shape	1.414	1	0.176803
VSWR Calibration	2.0	Triangular	2.449	1	0.816659
ETS Foam Table (LDT-1.5)	1.8	Rectangular	1.732	1	1.039261
Combined Standard Uncertainty (square root of the sum of the squares)					1.869213
Expanded Uncertainty (K=2)					3.738426

The total derived measurement uncertainty is +/- 3.738 dB.

Remarks:

1. Raw Peak Level (dBuV/m) = Level Peak Reading – Correction Factor
2. Correction Factor (dB) = Antenna Factor + Cable Loss – Preamplifier Gain
3. Margin = Level – Limit

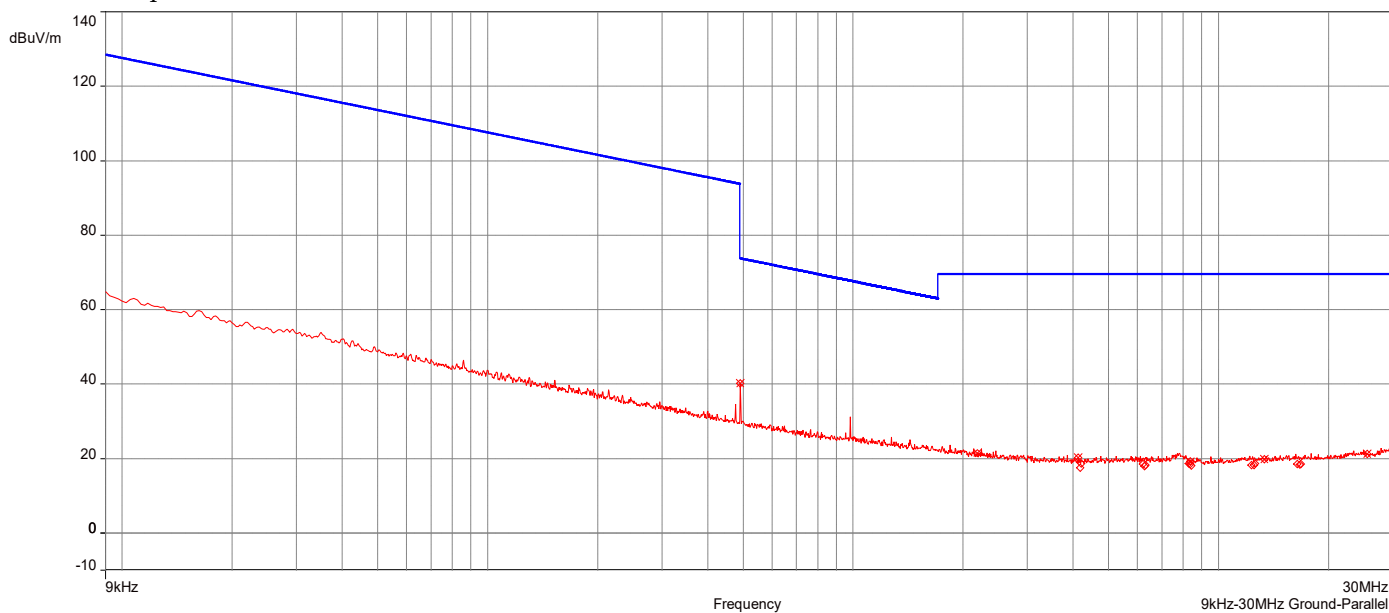
UNII-1

AH21042001-HAR-017#002_802.11a UNII-1 CH40_9kHz-30MHz_Ground-Parallel

6/15/2021 11:42:16 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Judgement
1.	491.25kHz	40.19	18.88	73.78	-33.59	1.00	29.90	Passed
2.	2.18825MHz	21.54	19.10	69.54	-48.00	1.00	119.90	Passed
3.	25.55175MHz	21.28	20.69	69.54	-48.26	1.00	239.90	Passed
4.	4.126MHz	20.25	19.21	69.54	-49.29	1.00	209.90	Passed
5.	13.36075MHz	19.75	19.61	69.54	-49.79	1.00	0.10	Passed
6.	8.37675MHz	19.30	19.14	69.54	-50.24	1.00	209.90	Passed

Overall Graphs:

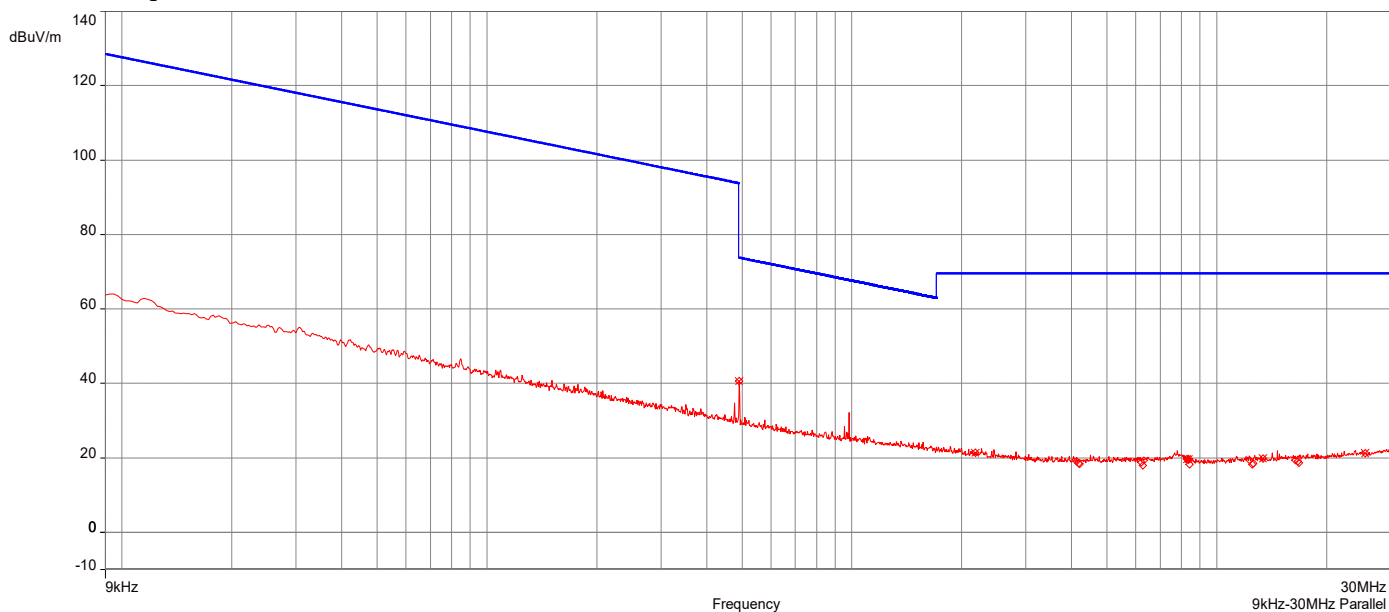


AH21042001-HAR-017#002_802.11a UNII-1 CH40_9kHz-30MHz_Parallel

6/15/2021 12:56:27 PM

No	Frequency (MHz)	Level Q-Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Judgement
1.	491.25kHz	40.57	18.88	73.78	-33.20	1.00	59.90	Passed
2.	2.17725MHz	21.38	19.10	69.54	-48.16	1.00	239.90	Passed
3.	25.5325MHz	21.23	20.69	69.54	-48.32	1.00	149.90	Passed
4.	13.37225MHz	19.78	19.61	69.54	-49.76	1.00	239.90	Passed
5.	8.292MHz	19.65	19.14	69.54	-49.89	1.00	329.90	Passed
6.	8.3775MHz	19.61	19.14	69.54	-49.94	1.00	0.10	Passed

Overall Graphs:

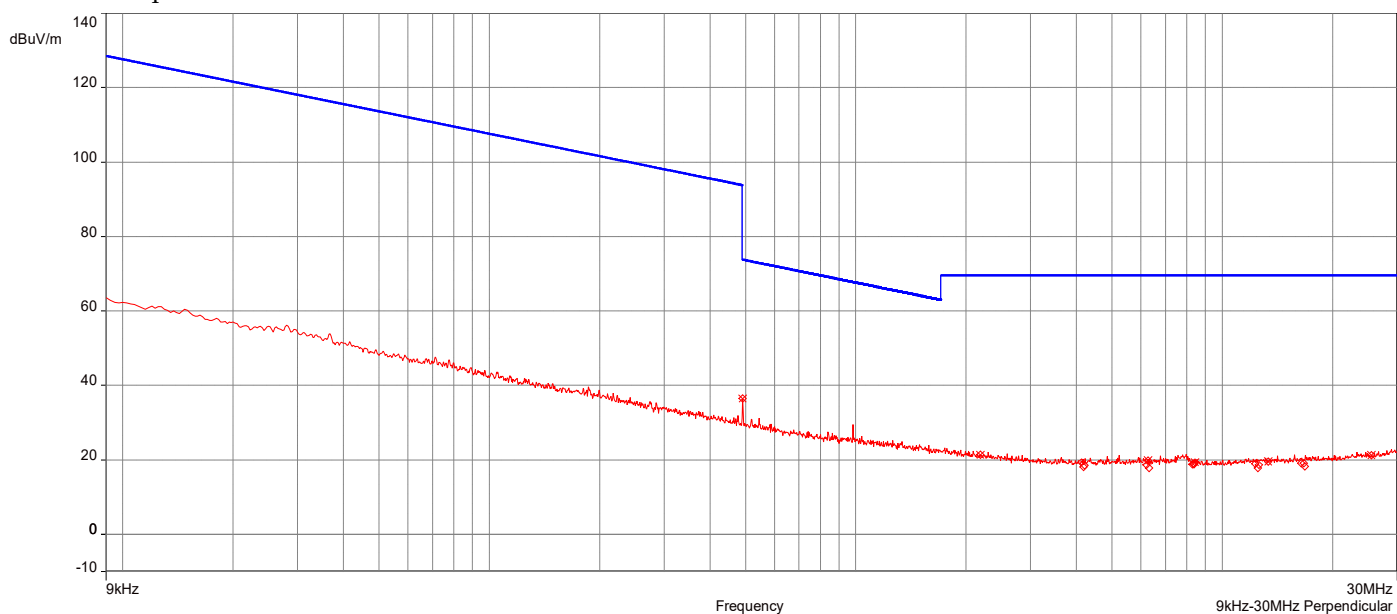


AH21042001-HAR-017#002_802.11a UNII-1 CH40_9kHz-30MHz_Perpendicular

6/15/2021 12:47:24 PM

No	Frequency (MHz)	Level Q-Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Judgement
1.	491.25kHz	36.50	18.88	73.78	-37.28	1.00	120.10	Passed
2.	2.18925MHz	21.33	19.10	69.54	-48.21	1.00	30.10	Passed
3.	25.554MHz	21.30	20.69	69.54	-48.25	1.00	150.00	Passed
4.	6.26775MHz	19.78	19.23	69.54	-49.76	1.00	300.10	Passed
5.	13.366MHz	19.48	19.61	69.54	-50.06	1.00	30.10	Passed
6.	8.41425MHz	19.37	19.14	69.54	-50.17	1.00	180.20	Passed

Overall Graphs:

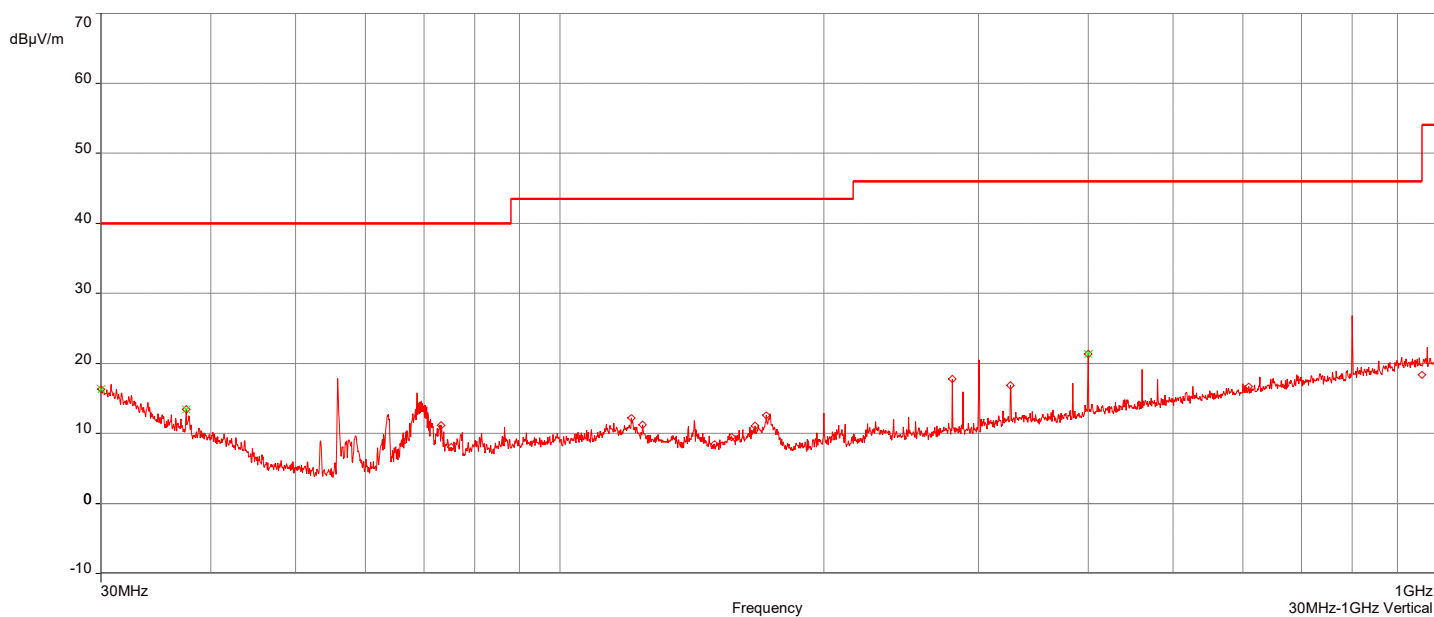


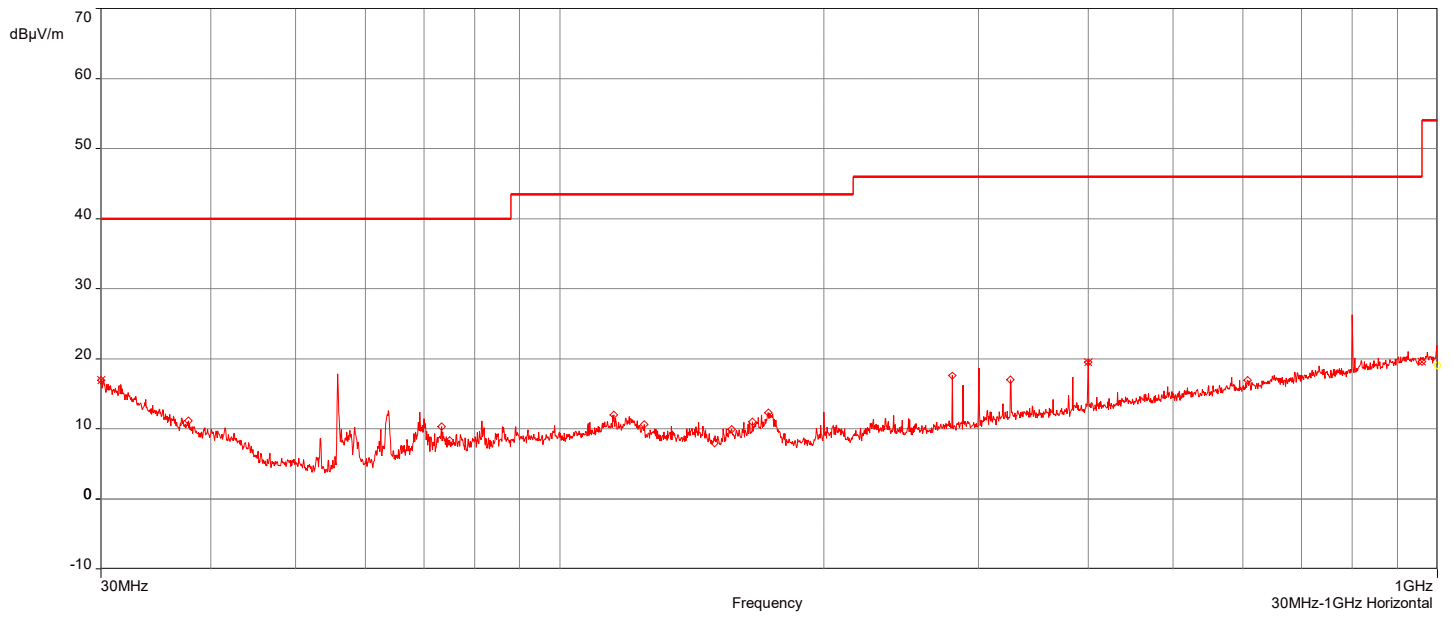
AH21042001-HAR-017#002_802.11a UNII-1 CH36_30MHz-1GHz

6/17/2021 6:30:29 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	30MHz	16.95	-8.56	29.50	-12.55	2.00	239.90	Horizontal	Passed
2.	30MHz	16.35	-8.56	29.50	-13.15	4.00	29.90	Vertical	Passed
3.	399.93MHz	21.35	-13.20	46.00	-24.65	3.00	239.90	Vertical	Passed
4.	960MHz	19.56	-4.95	46.00	-26.44	4.00	29.90	Horizontal	Passed
5.	399.9MHz	19.54	-13.20	46.00	-26.46	4.00	209.90	Horizontal	Passed
6.	37.5MHz	13.42	-11.83	40.00	-26.58	3.50	150.20	Vertical	Passed

Overall Graphs:



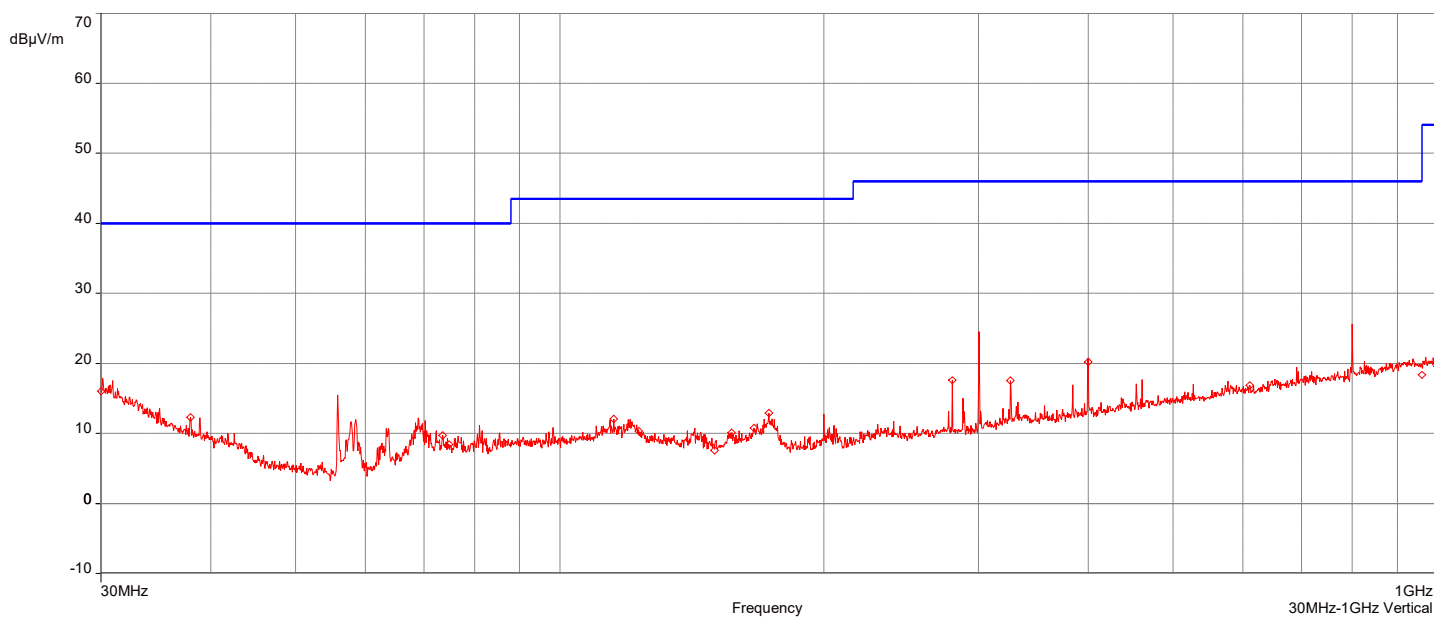


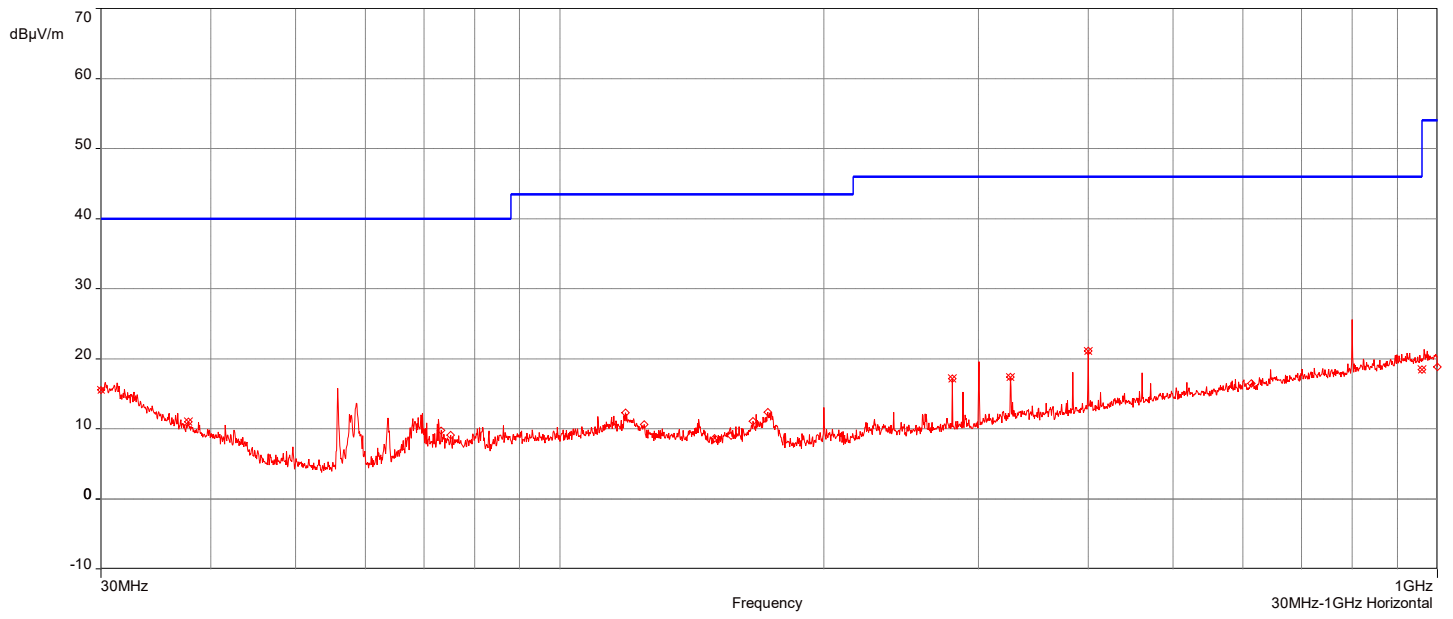
AH21042001-HAR-017#002_802.11a UNII-1 CH40_30MHz-1GHz

6/17/2021 7:16:26 AM

No	Frequency (MHz)	Level Q-Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	30MHz	15.58	-8.56	29.50	-13.92	2.00	29.90	Horizontal	Passed
2.	399.93MHz	21.13	-13.20	46.00	-24.87	1.00	299.90	Horizontal	Passed
3.	960MHz	18.42	-4.95	46.00	-27.58	1.00	179.90	Horizontal	Passed
4.	326.4MHz	17.41	-14.71	46.00	-28.59	1.00	119.90	Horizontal	Passed
5.	280.02MHz	17.17	-16.01	46.00	-28.83	1.50	30.10	Horizontal	Passed
6.	37.74MHz	10.97	-11.95	40.00	-29.03	3.50	0.10	Horizontal	Passed

Overall Graphs:



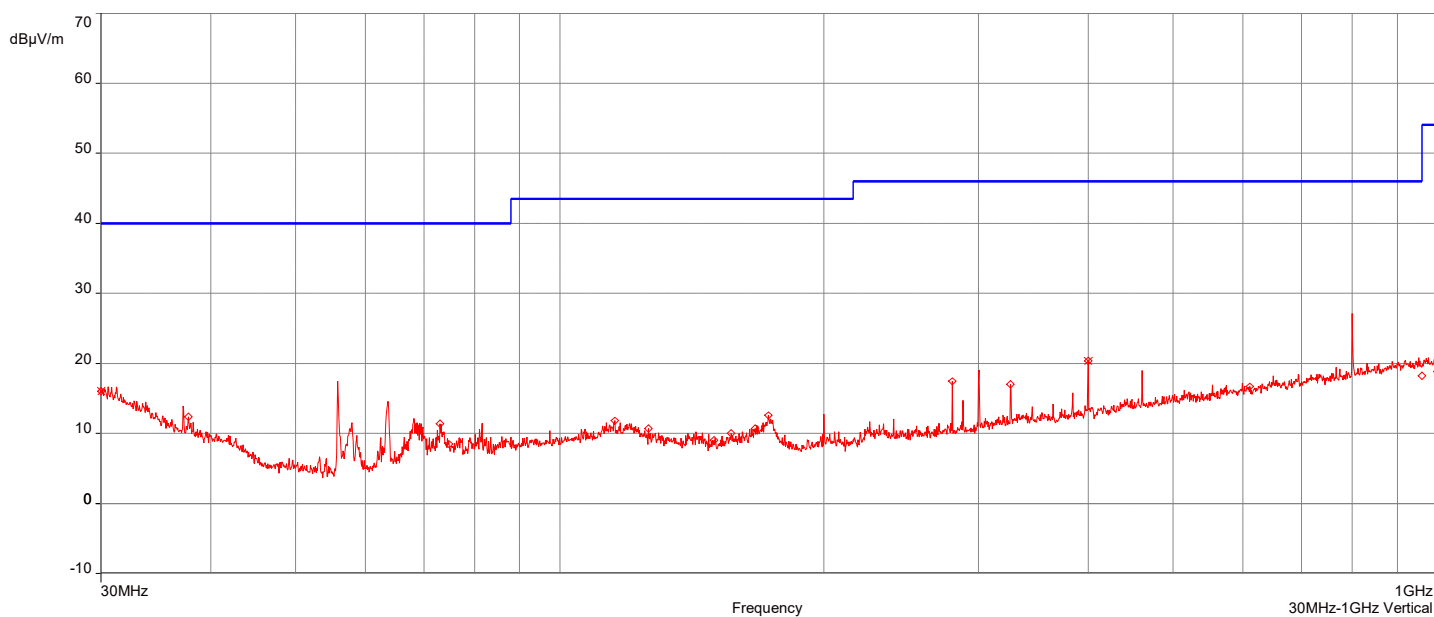


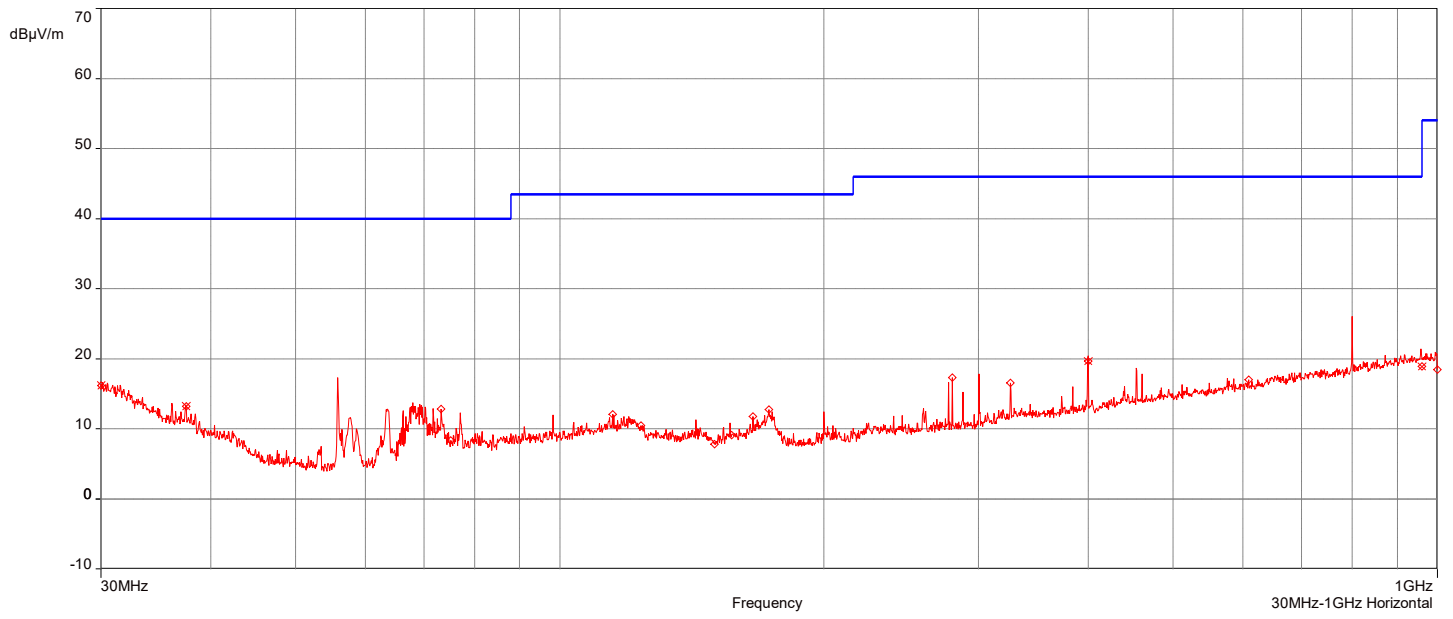
AH21042001-HAR-017#002_802.11a UNII-1 CH48_30MHz-1GHz

6/17/2021 8:06:43 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	30MHz	16.19	-8.56	29.50	-13.31	1.00	299.90	Horizontal	Passed
2.	30MHz	16.03	-8.56	29.50	-13.47	3.50	270.10	Vertical	Passed
3.	399.99MHz	20.33	-13.19	46.00	-25.67	3.00	239.90	Vertical	Passed
4.	399.9MHz	19.69	-13.20	46.00	-26.31	3.00	239.90	Horizontal	Passed
5.	37.5MHz	13.16	-11.83	40.00	-26.84	4.00	119.90	Horizontal	Passed
6.	960MHz	18.90	-4.95	46.00	-27.10	3.00	299.90	Horizontal	Passed

Overall Graphs:





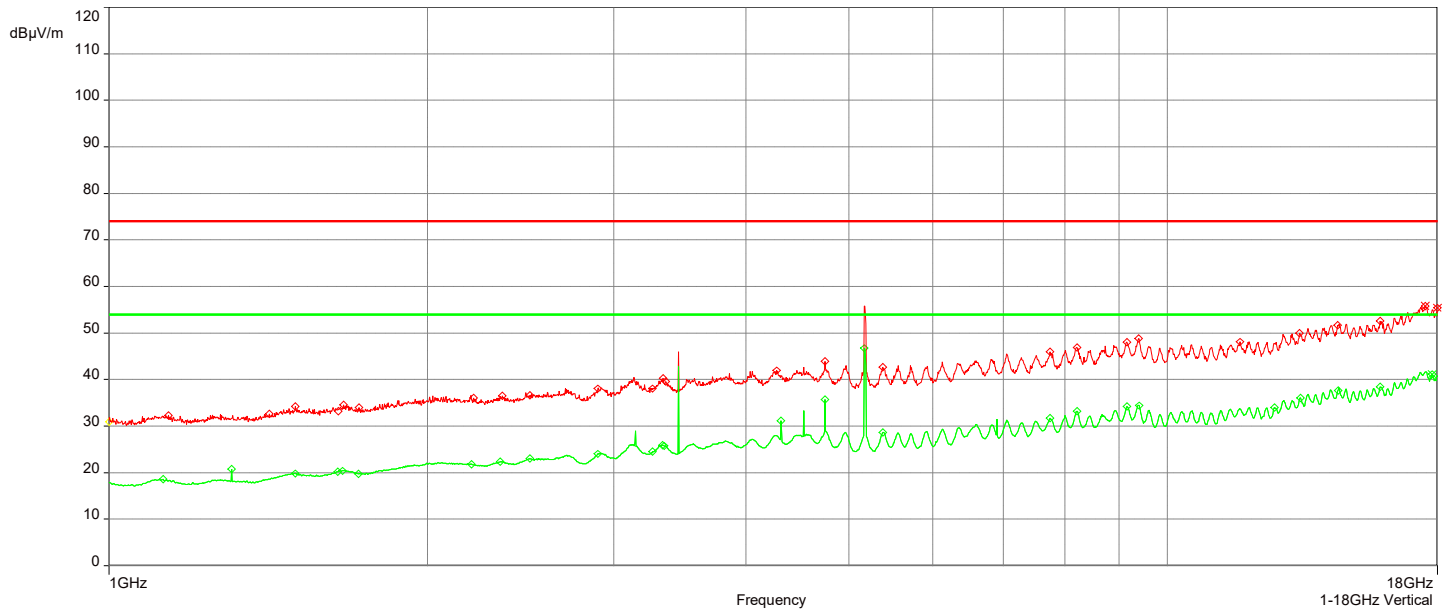
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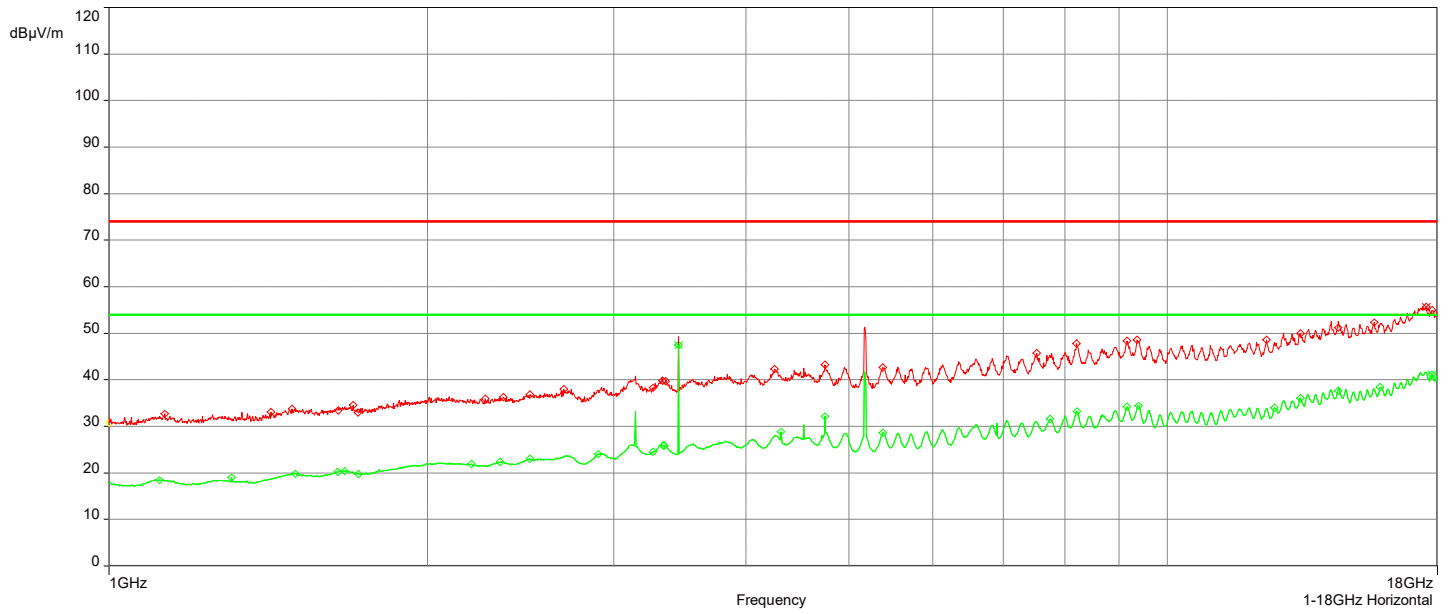
6/22/2021 11:25:21 AM

No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.53525GHz	55.83	18.87	74.00	-18.17	2.50	210.10	Vertical	Passed
2.	17.57775GHz	55.72	18.86	74.00	-18.28	1.50	0.20	Horizontal	Passed
3.	17.9995GHz	55.44	19.19	74.00	-18.56	2.50	90.00	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.45325GHz	47.49	0.65	54.00	-6.51	4.00	29.90	Horizontal	Passed
2.	17.7965GHz	41.14	18.88	54.00	-12.86	3.00	269.90	Horizontal	Passed
3.	17.798GHz	41.15	18.88	54.00	-12.85	3.00	0.10	Vertical	Passed

Overall Graphs:





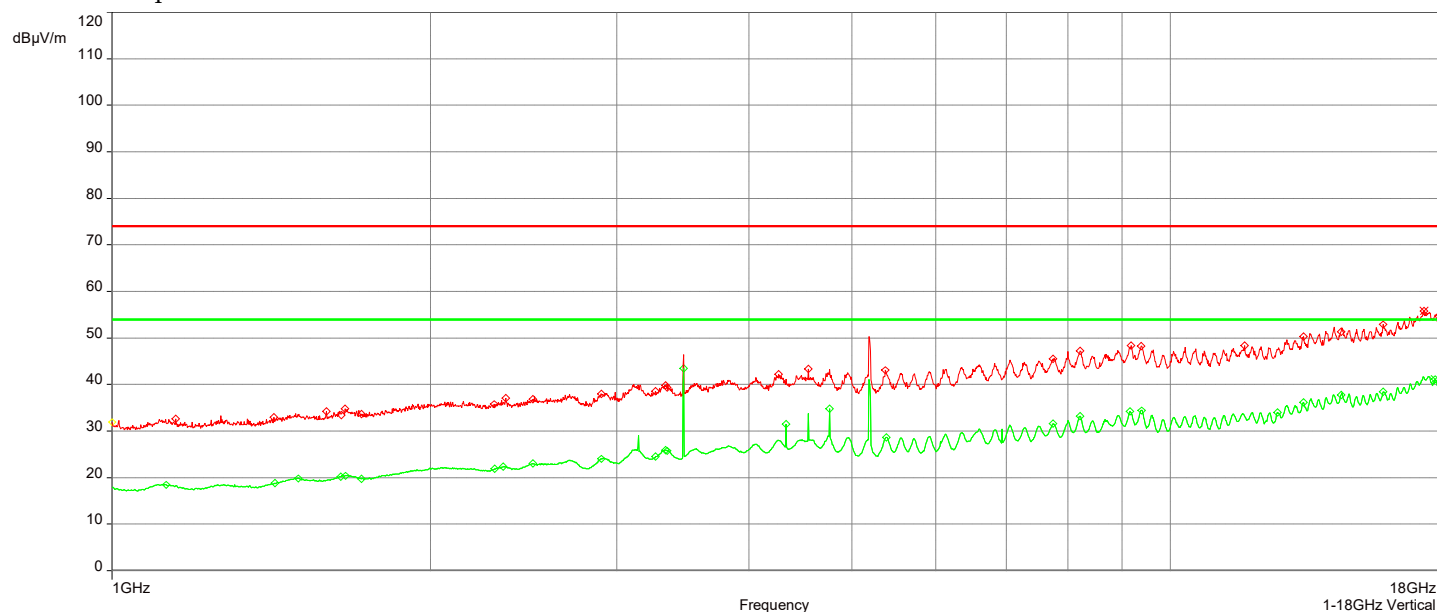
AH21042001-HAR-017#002_802.11a UNII-1 CH40_1-18GHz

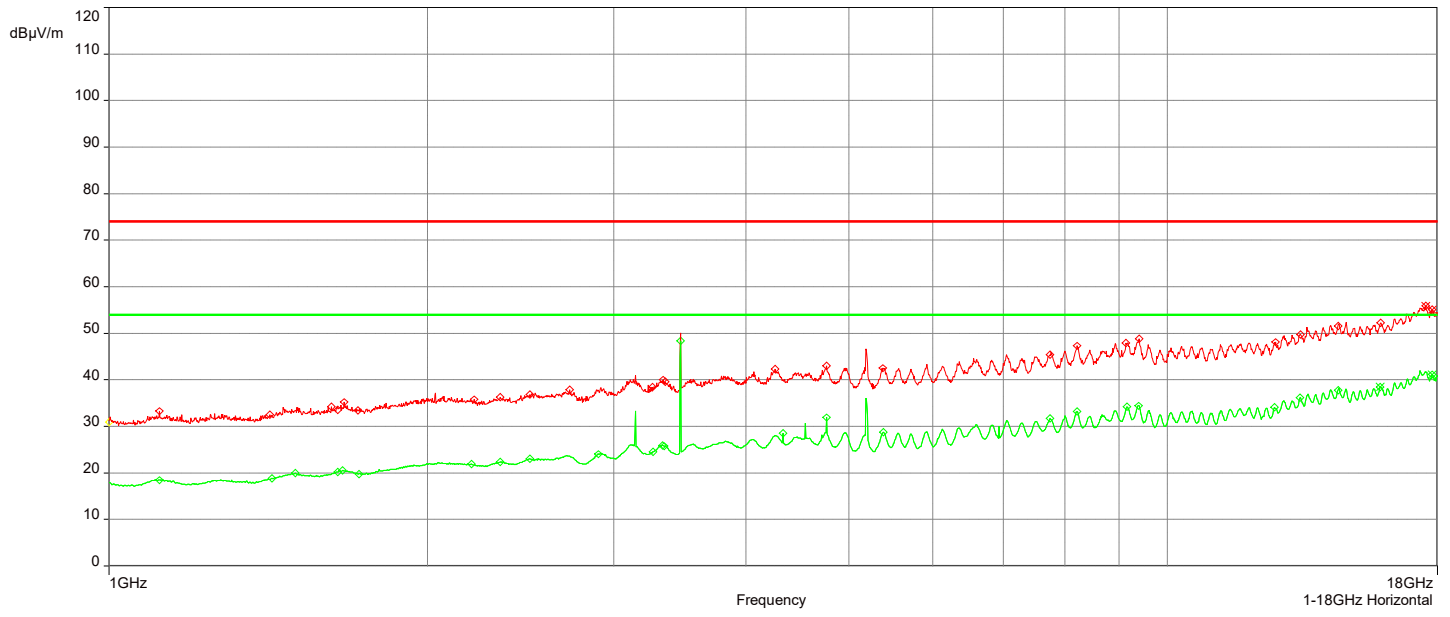
6/22/2021 1:37:50 PM

No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.55425GHz	55.94	18.89	74.00	-18.06	3.50	90.00	Horizontal	Passed
2.	17.36875GHz	55.82	18.56	74.00	-18.18	1.00	149.90	Vertical	Passed
3.	17.788GHz	55.14	18.88	74.00	-18.86	3.50	90.00	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	15.89675GHz	38.44	15.16	54.00	-15.56	4.00	329.90	Horizontal	Passed
2.	17.79675GHz	41.19	18.88	54.00	-12.81	4.00	209.90	Horizontal	Passed
3.	17.798GHz	41.20	18.88	54.00	-12.80	3.00	329.90	Vertical	Passed

Overall Graphs:





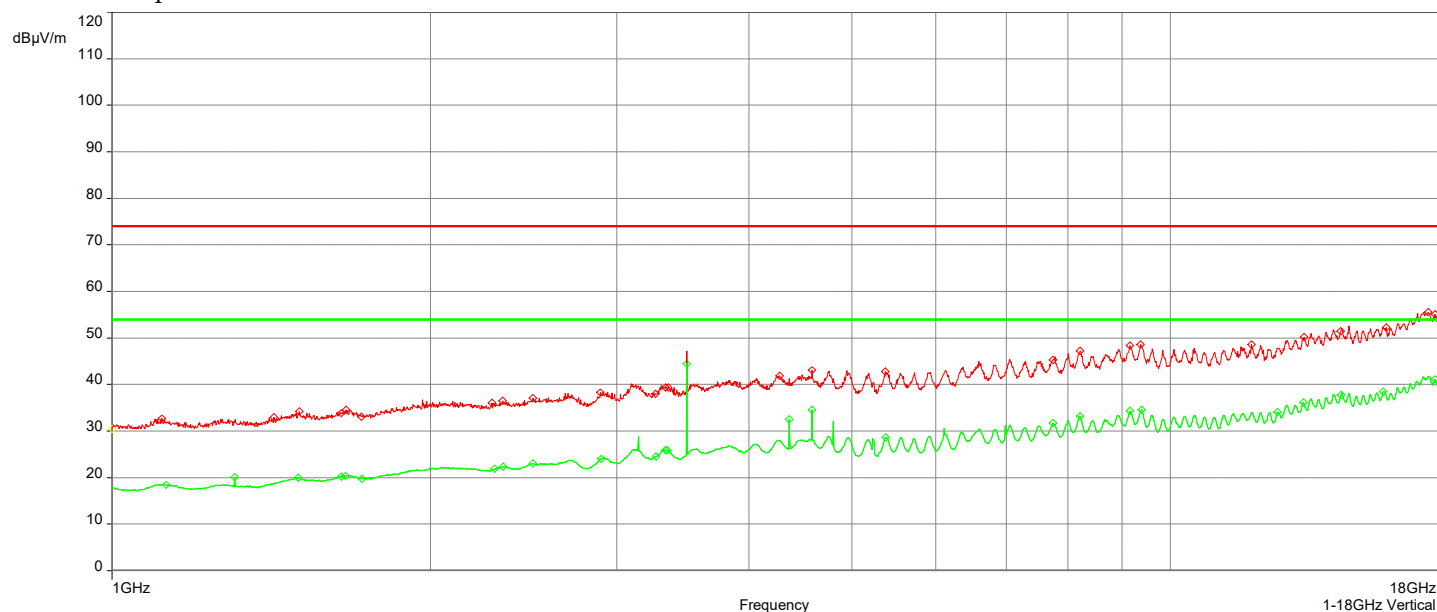
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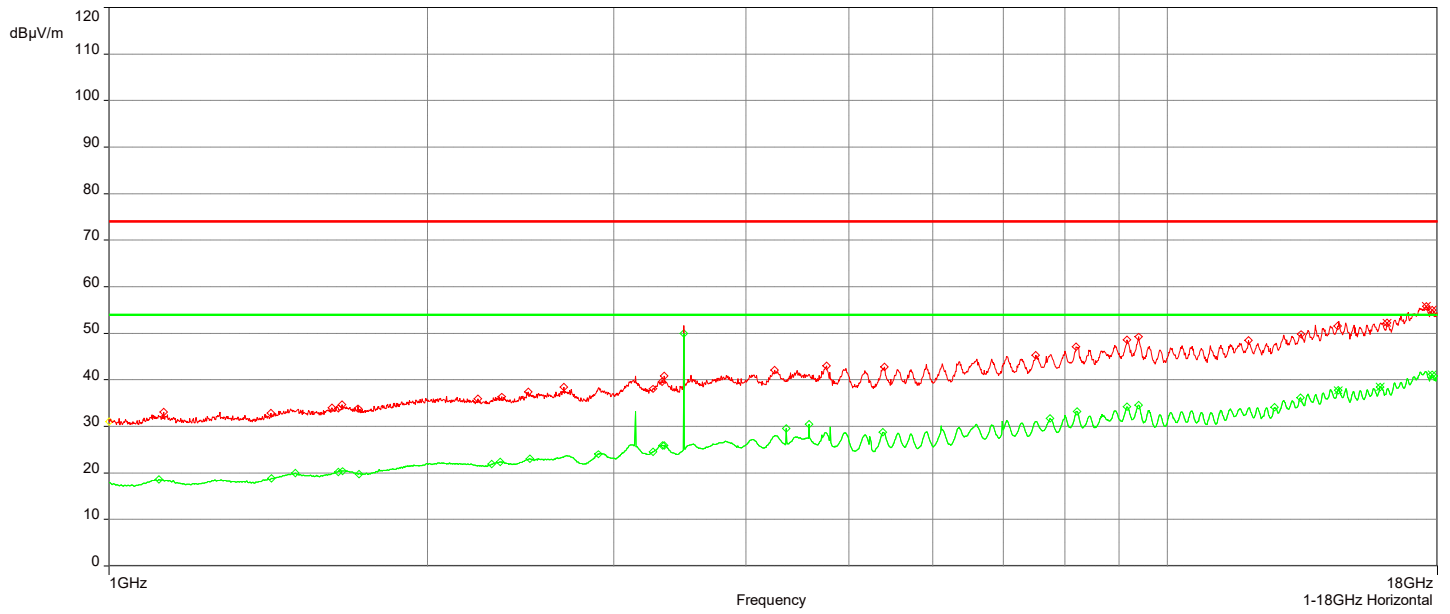
6/23/2021 6:55:54 AM

No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	16.134GHz	52.26	15.28	74.00	-21.74	2.50	149.90	Horizontal	Passed
2.	17.577GHz	55.74	18.86	74.00	-18.26	1.00	30.10	Horizontal	Passed
3.	17.79975GHz	54.99	18.89	74.00	-19.01	4.00	240.10	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	14.499GHz	37.76	14.74	54.00	-16.24	3.00	150.10	Horizontal	Passed
2.	15.898GHz	38.47	15.16	54.00	-15.53	4.00	60.10	Horizontal	Passed
3.	17.79775GHz	41.22	18.88	54.00	-12.78	3.00	90.00	Horizontal	Passed

Overall Graphs:





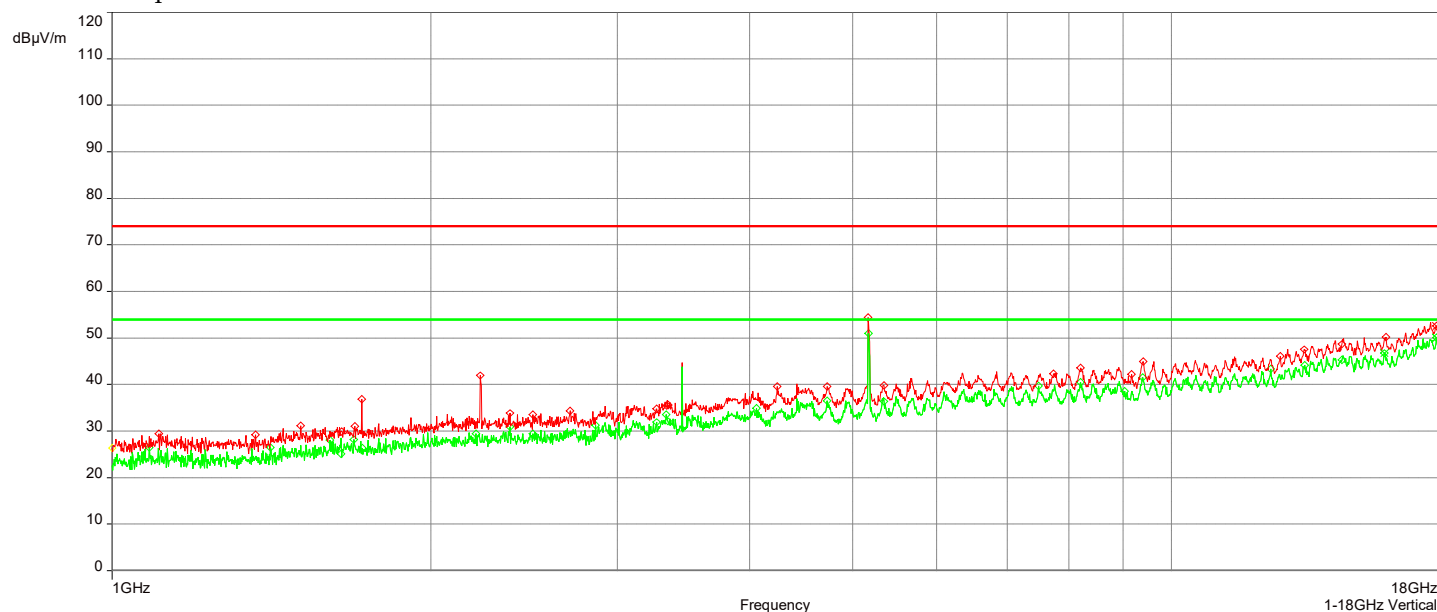
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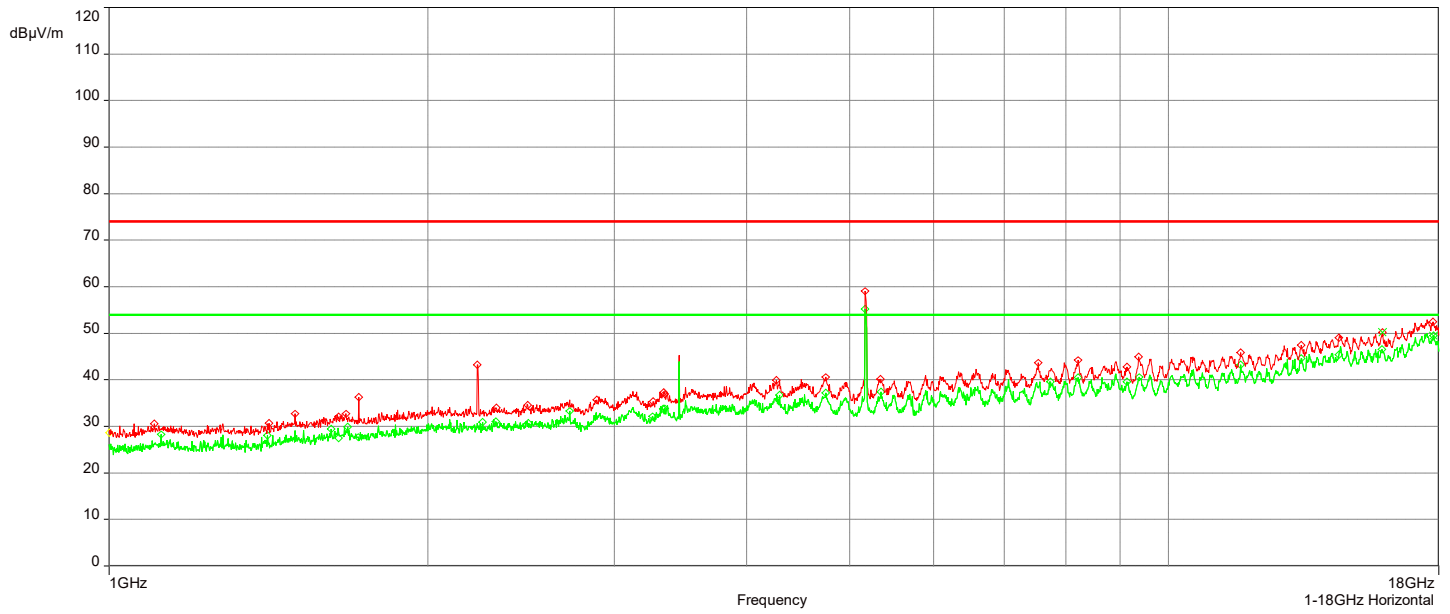
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	14.489397GHz	49.06	14.73	74.00	-24.94	1.97	89.90	Horizontal	Passed
2.	15.921939GHz	50.20	15.2	74.00	-23.80	2.02	299.90	Horizontal	Passed
3.	17.796994GHz	52.61	18.88	74.00	-21.39	1.12	119.90	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	15.898438GHz	46.79	15.16	54.00	-7.21	3.39	329.90	Vertical	Passed
2.	17.783994GHz	50.07	18.88	54.00	-3.93	1.14	209.90	Vertical	Passed
3.	17.797994GHz	49.48	18.88	54.00	-4.52	1.45	59.90	Horizontal	Passed

Overall Graphs:





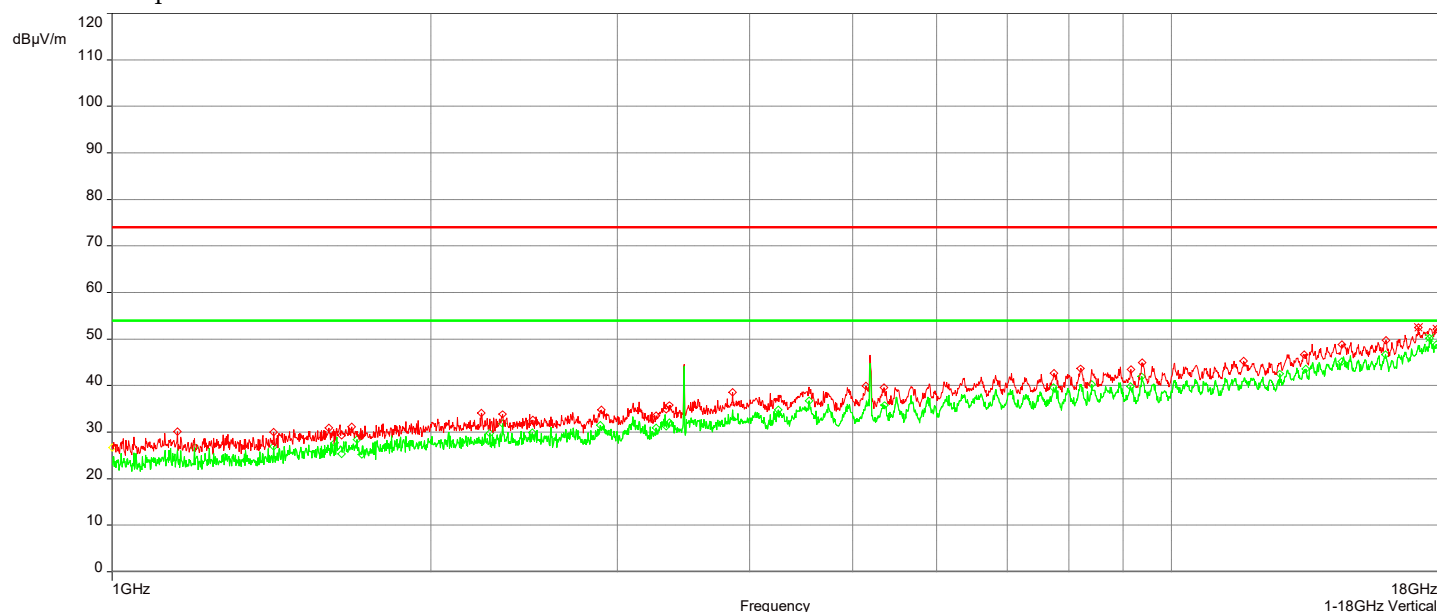
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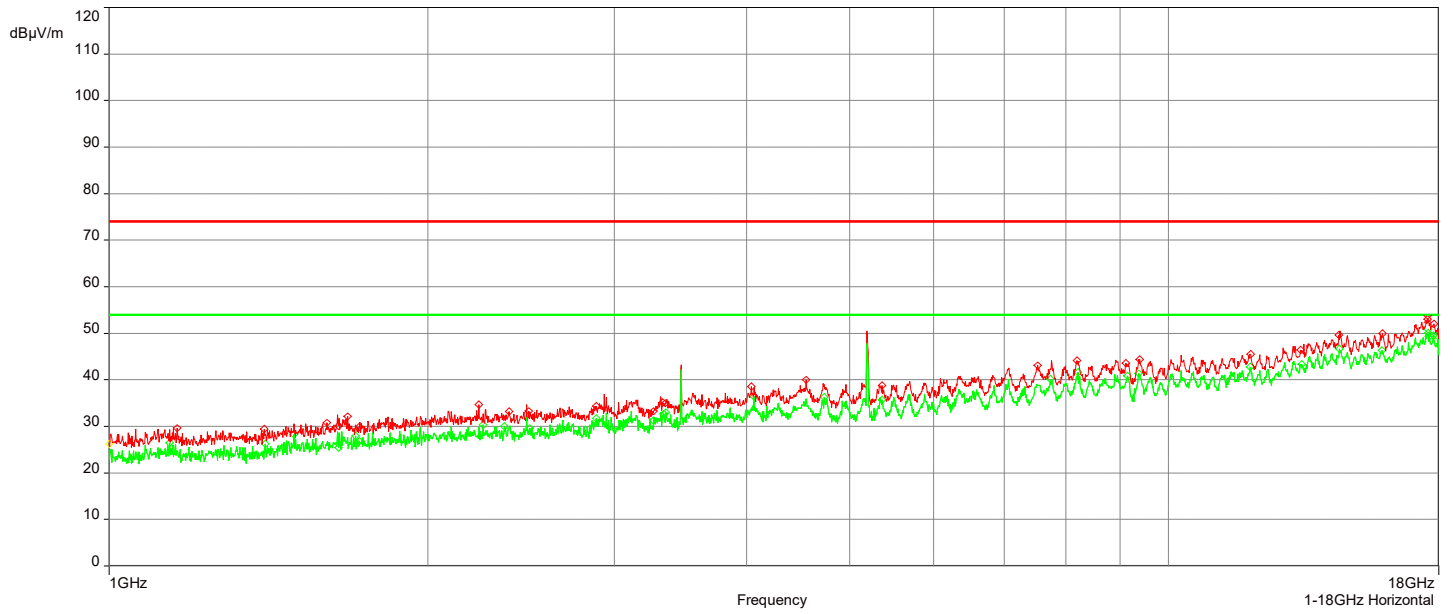
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No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	17.577488GHz	53.09	18.86	74.00	-20.91	1.60	210.10	Horizontal	Passed
2.	17.115974GHz	52.49	17.59	74.00	-21.51	2.63	270.10	Vertical	Passed
3.	17.810994GHz	52.13	18.89	74.00	-21.87	1.00	329.90	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.786994GHz	49.56	18.88	54.00	-4.44	2.42	210.10	Horizontal	Passed
2.	17.586488GHz	50.09	18.85	54.00	-3.91	3.13	270.10	Horizontal	Passed
3.	17.524486GHz	50.24	18.84	54.00	-3.76	3.90	329.90	Vertical	Passed

Overall Graphs:





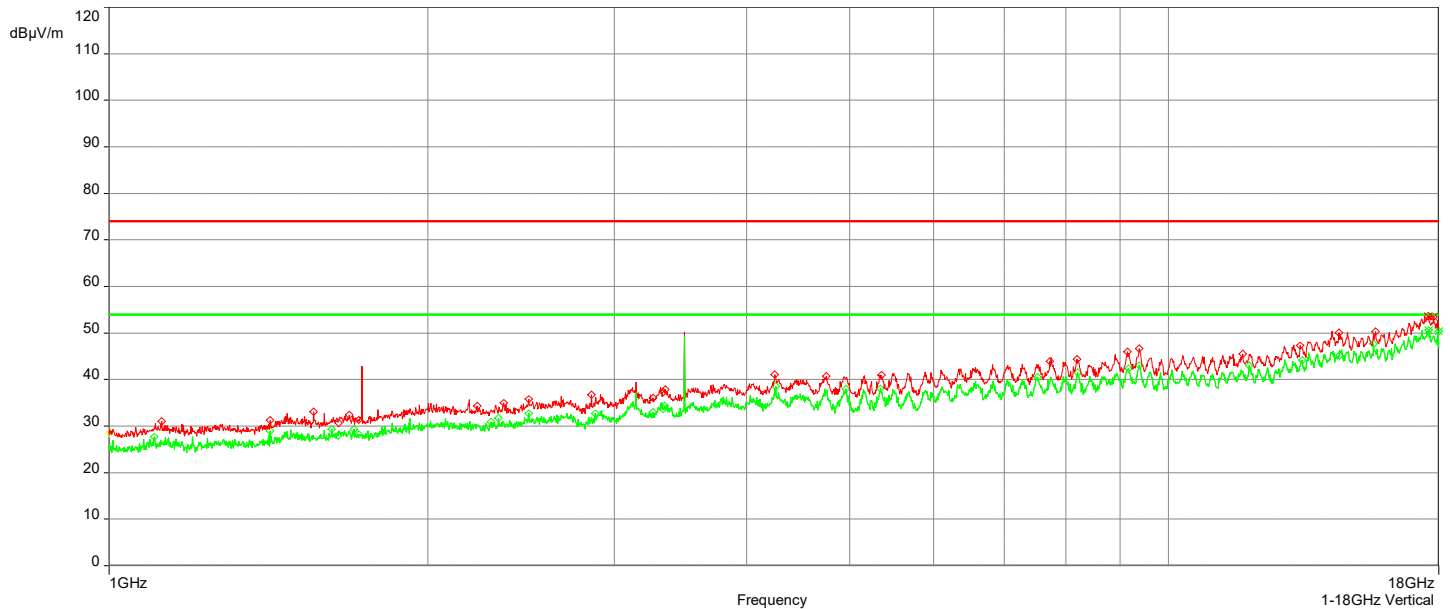
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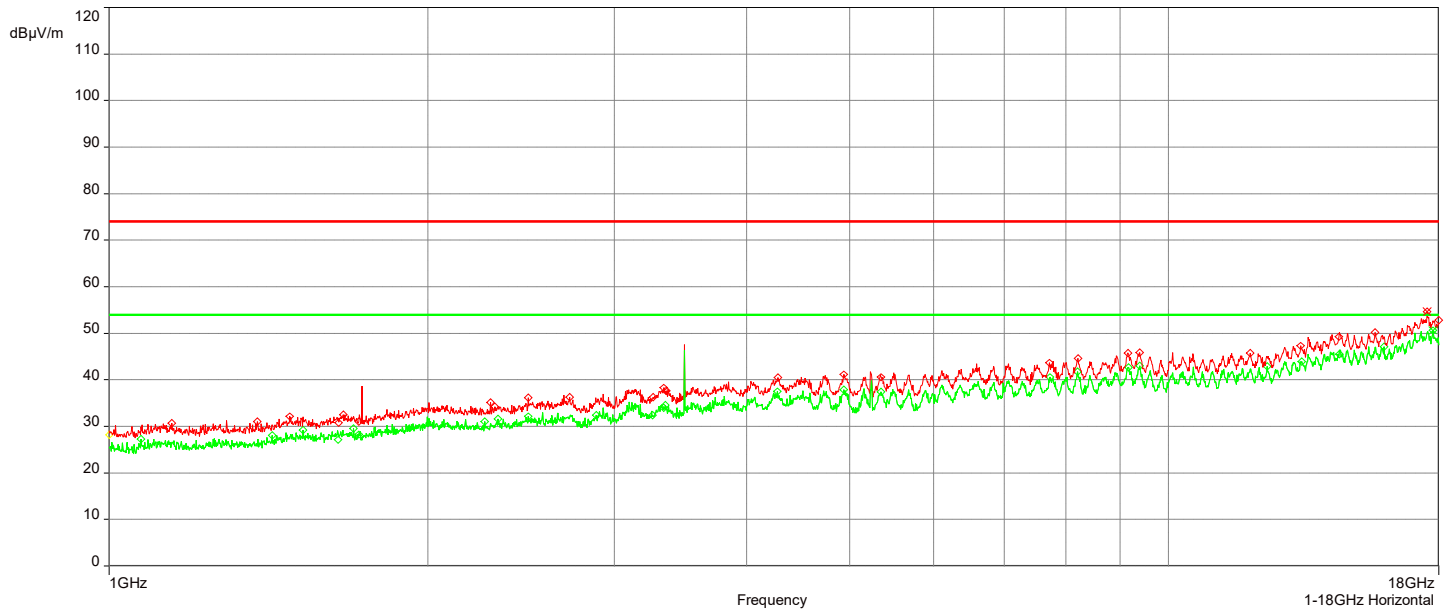
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No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	17.551487GHz	54.70	18.89	74.00	-19.30	2.95	239.90	Horizontal	Passed
2.	17.579988GHz	53.57	18.86	74.00	-20.43	2.51	119.90	Vertical	Passed
3.	17.790994GHz	53.51	18.88	74.00	-20.49	3.85	29.90	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.9915GHz	50.41	19.17	54.00	-3.59	1.98	179.90	Vertical	Passed
2.	17.611989GHz	50.66	18.89	54.00	-3.34	1.00	329.90	Vertical	Passed
3.	17.773993GHz	50.69	18.87	54.00	-3.31	3.61	209.90	Horizontal	Passed

Overall Graphs:





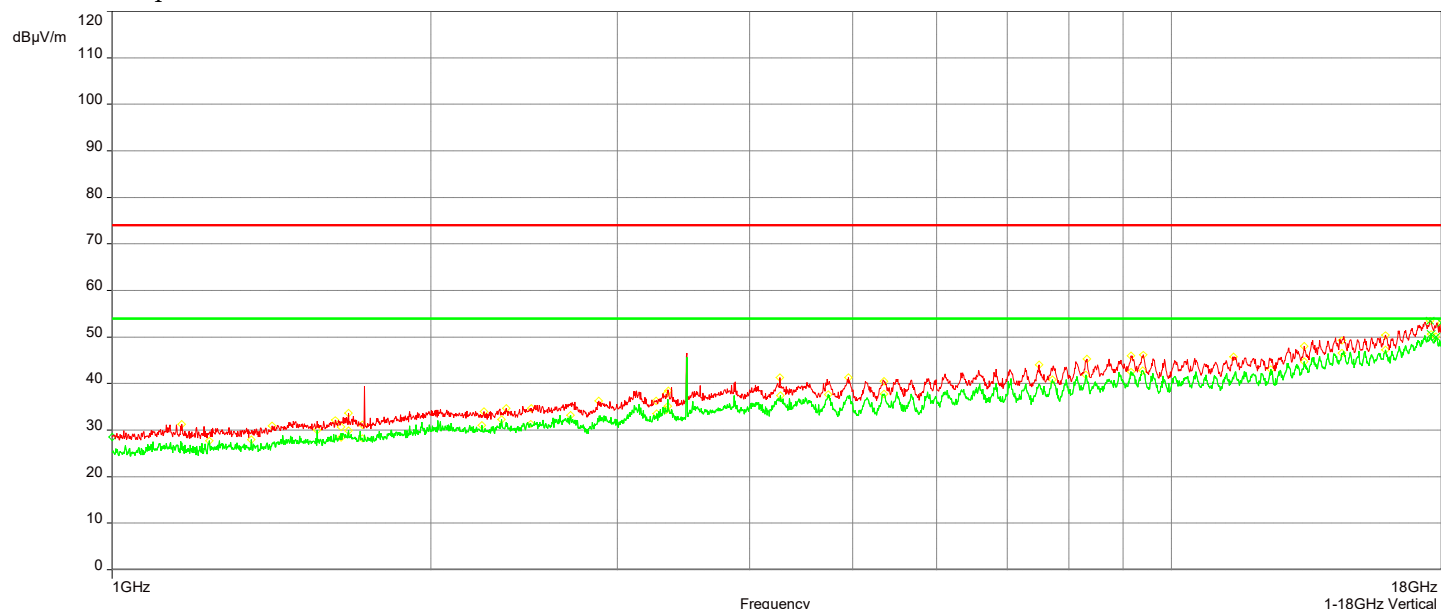
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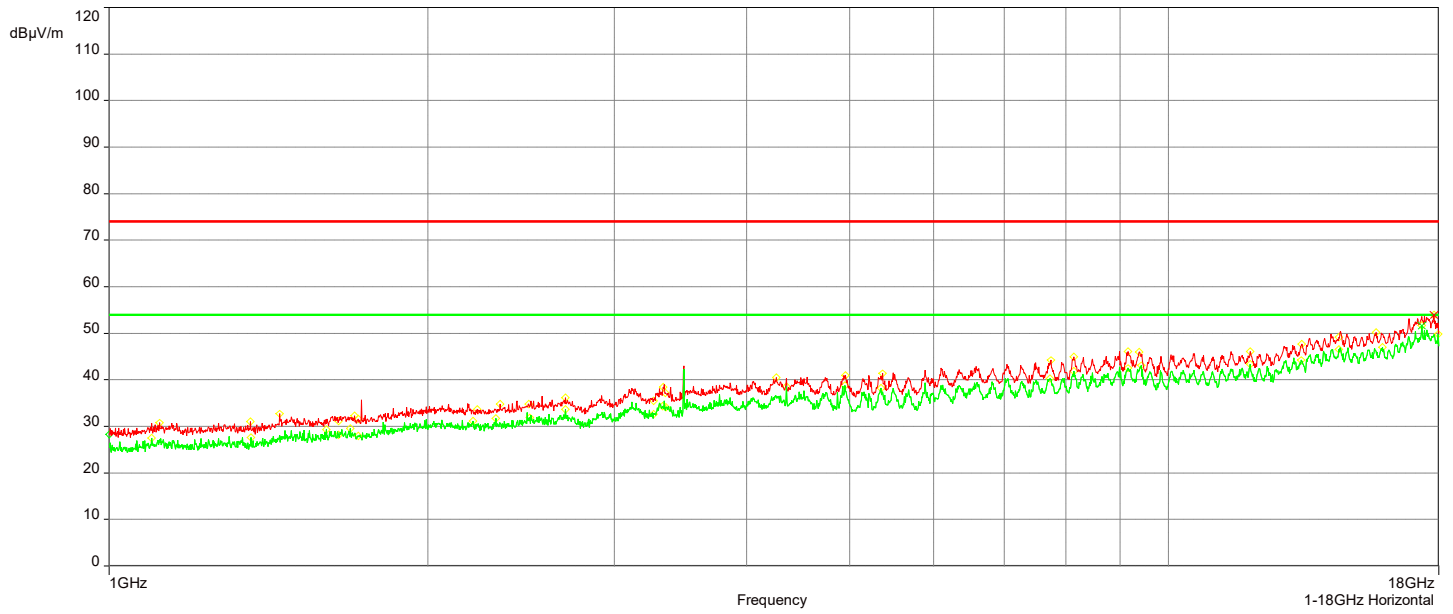
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No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.804494GHz	53.98	18.89	74.00	-20.02	3.67	157.40	Horizontal	Passed
2.	17.553987GHz	53.56	18.89	74.00	-20.44	2.81	0	Vertical	Passed
3.	17.985GHz	53.06	19.15	74.00	-20.94	1.50	0	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.778493GHz	50.13	18.87	54.00	-3.87	1.00	112.40	Vertical	Passed
2.	17.584988GHz	50.67	18.86	54.00	-3.33	2.65	134.90	Vertical	Passed
3.	17.346981GHz	51.69	18.46	54.00	-2.31	2.15	22.40	Horizontal	Passed

Overall Graphs:





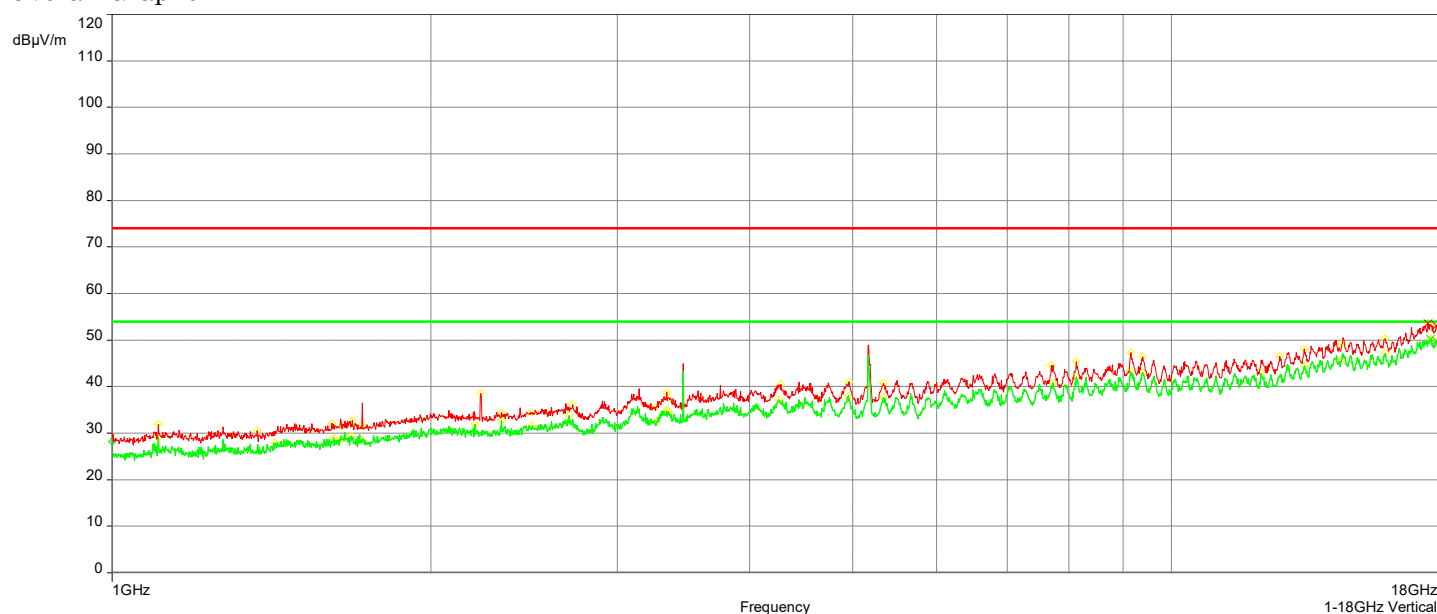
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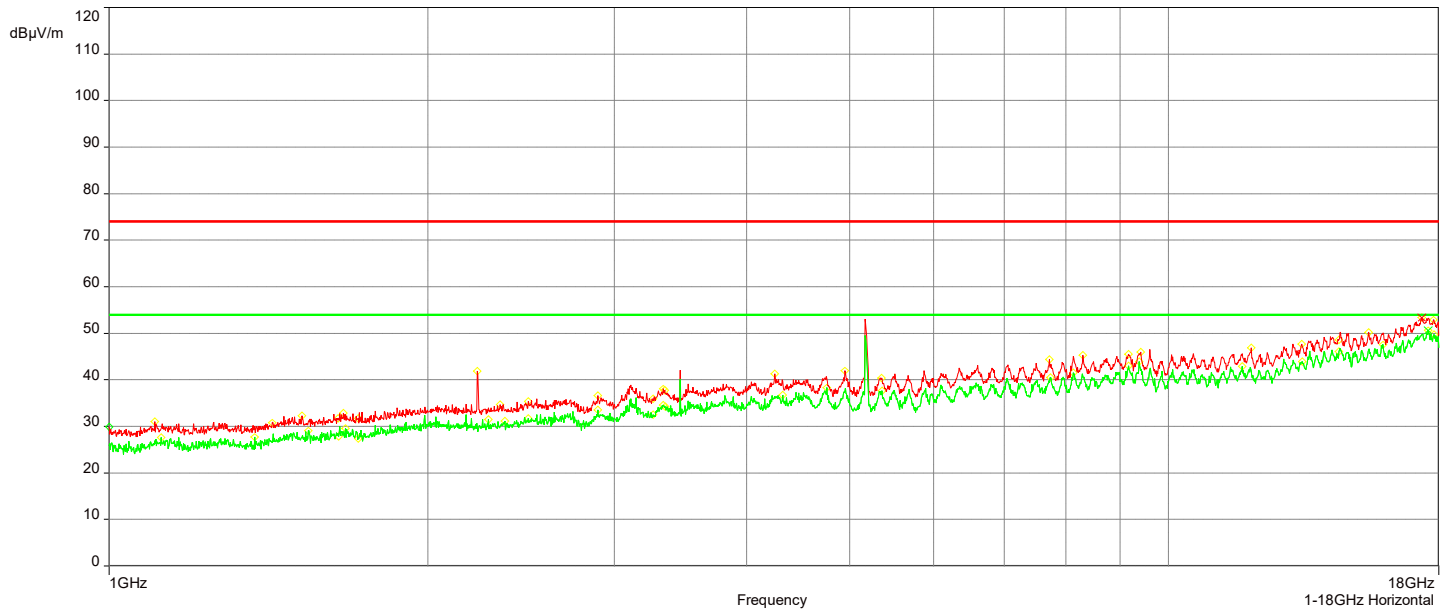
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.460484GHz	53.63	18.81	74.00	-20.37	1.64	315.10	Vertical	Passed
2.	17.790994GHz	53.20	18.88	74.00	-20.80	1.00	180.00	Vertical	Passed
3.	17.346481GHz	53.42	18.46	74.00	-20.58	3.37	337.40	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.575488GHz	50.31	18.87	54.00	-3.69	1.65	0.10	Vertical	Passed
2.	17.786494GHz	49.81	18.88	54.00	-4.19	3.73	247.60	Vertical	Passed
3.	17.585988GHz	50.69	18.85	54.00	-3.31	1.52	157.70	Horizontal	Passed

Overall Graphs:





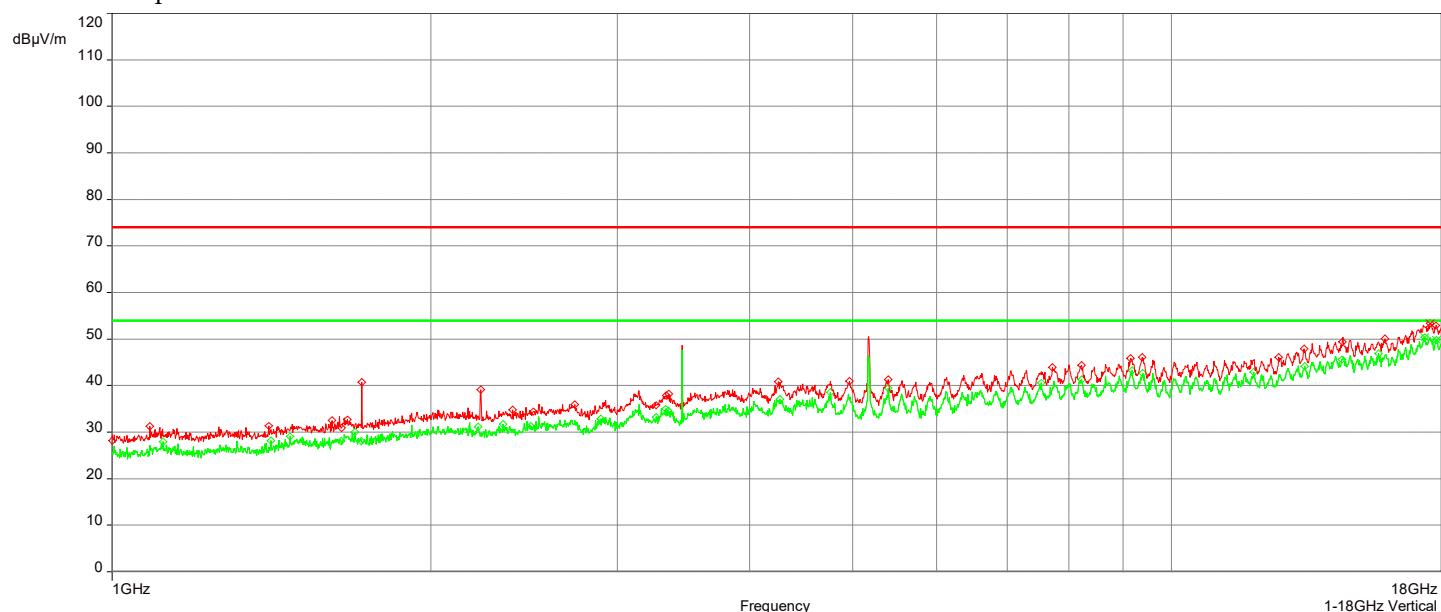
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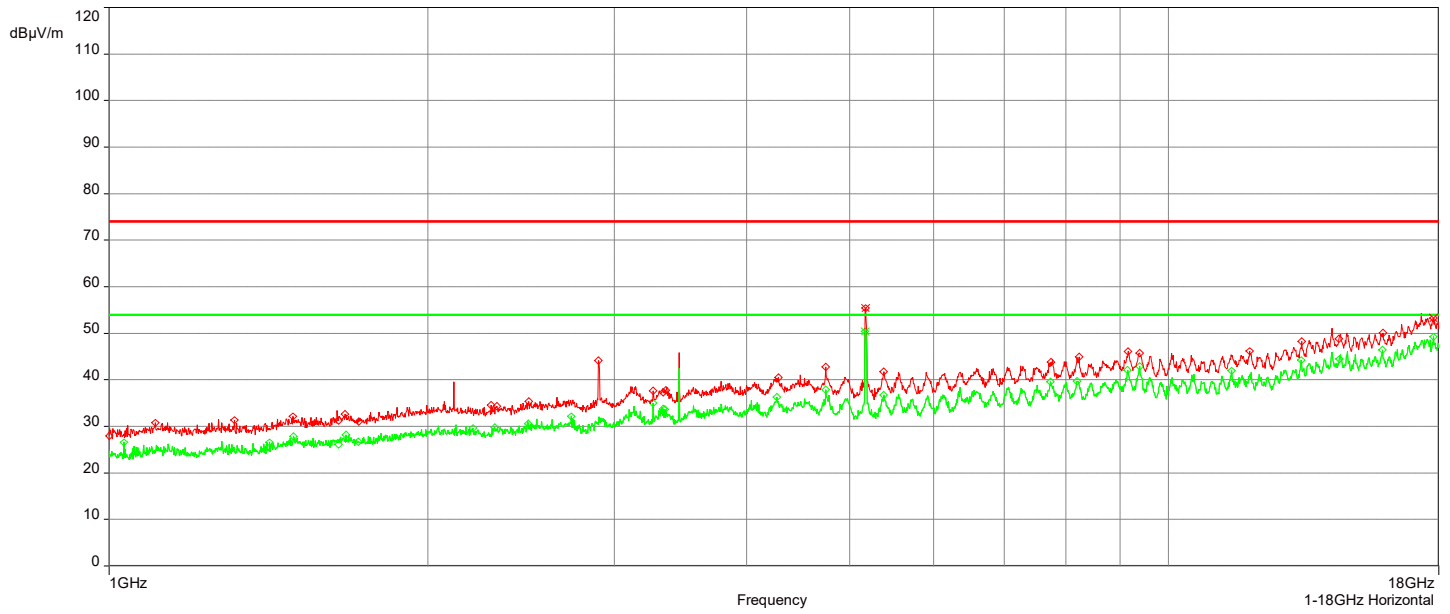
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1775535GHz	55.46	3.97	74.00	-18.54	1.46	179.90	Horizontal	Passed
2.	17.541987GHz	53.42	18.88	74.00	-20.58	3.67	239.90	Vertical	Passed
3.	17.785945GHz	53.32	18.88	74.00	-20.68	1.11	29.90	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.791494GHz	49.90	18.88	54.00	-4.10	2.72	239.90	Vertical	Passed
2.	17.346981GHz	50.41	18.46	54.00	-3.59	2.22	299.90	Vertical	Passed
3.	5.1721442GHz	50.43	3.97	54.00	-3.57	1.30	209.90	Horizontal	Passed

Overall Graphs:





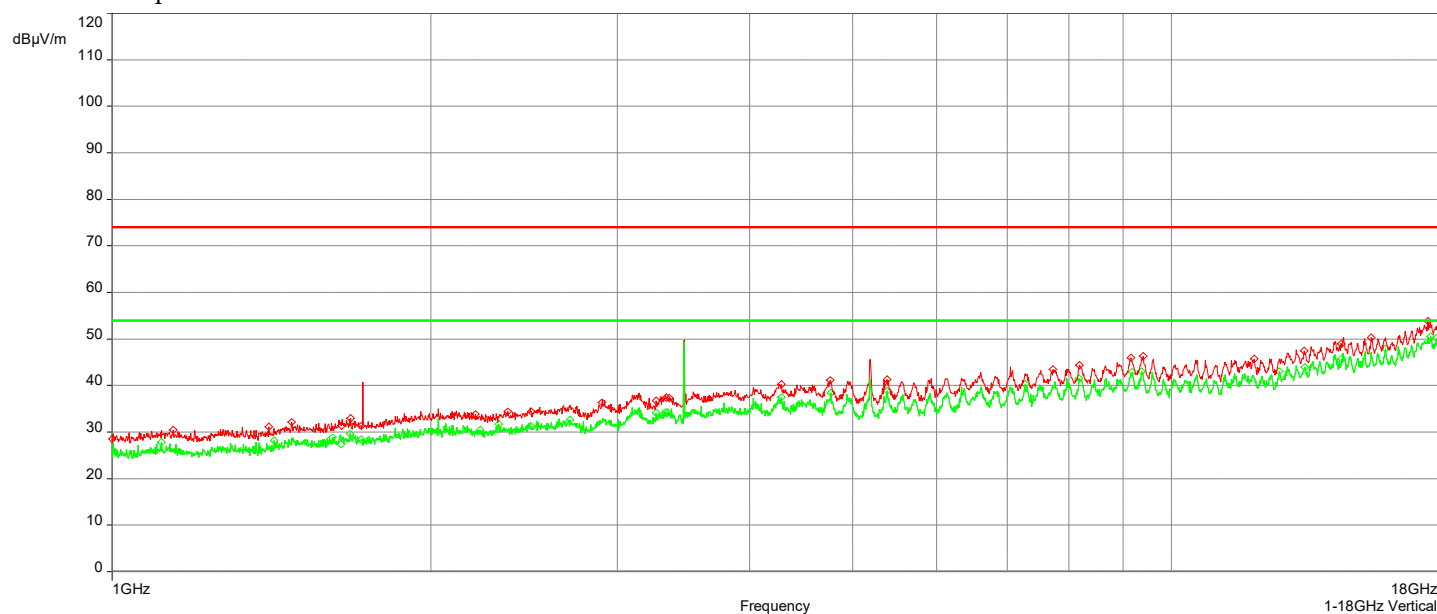
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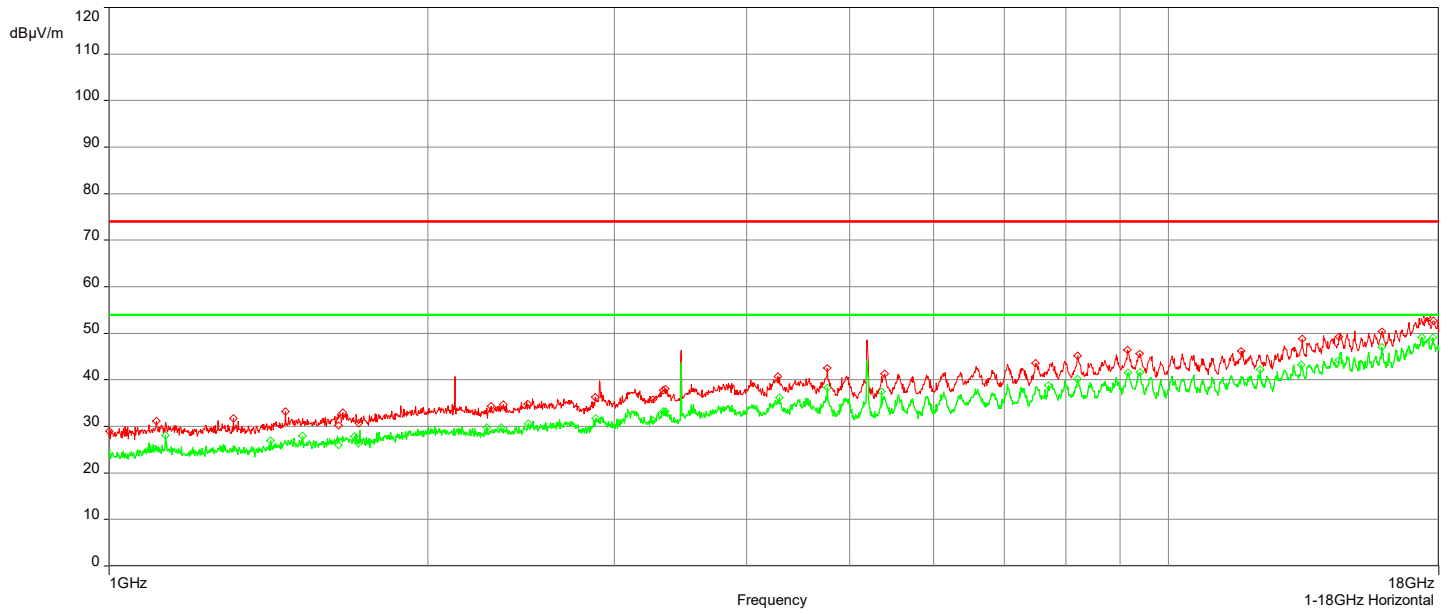
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No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.559525GHz	53.47	18.89	74.00	-20.53	1.30	180.10	Horizontal	Passed
2.	17.980999GHz	53.56	19.13	74.00	-20.44	3.98	210.10	Vertical	Passed
3.	17.462484GHz	53.85	18.81	74.00	-20.15	1.91	300.10	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.564487GHz	50.51	18.88	54.00	-3.49	3.59	30.20	Vertical	Passed
2.	17.795494GHz	50.18	18.88	54.00	-3.82	3.95	240.10	Vertical	Passed
3.	17.357834GHz	49.14	18.51	54.00	-4.86	4.00	120.20	Horizontal	Passed

Overall Graphs:





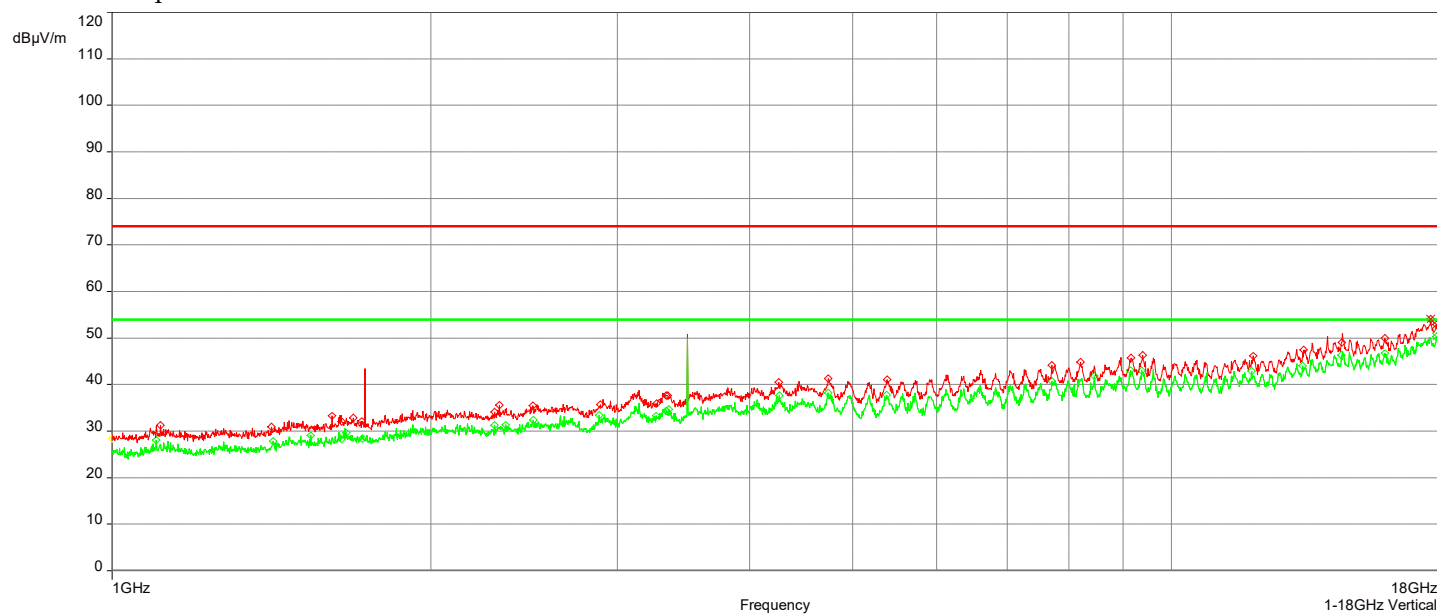
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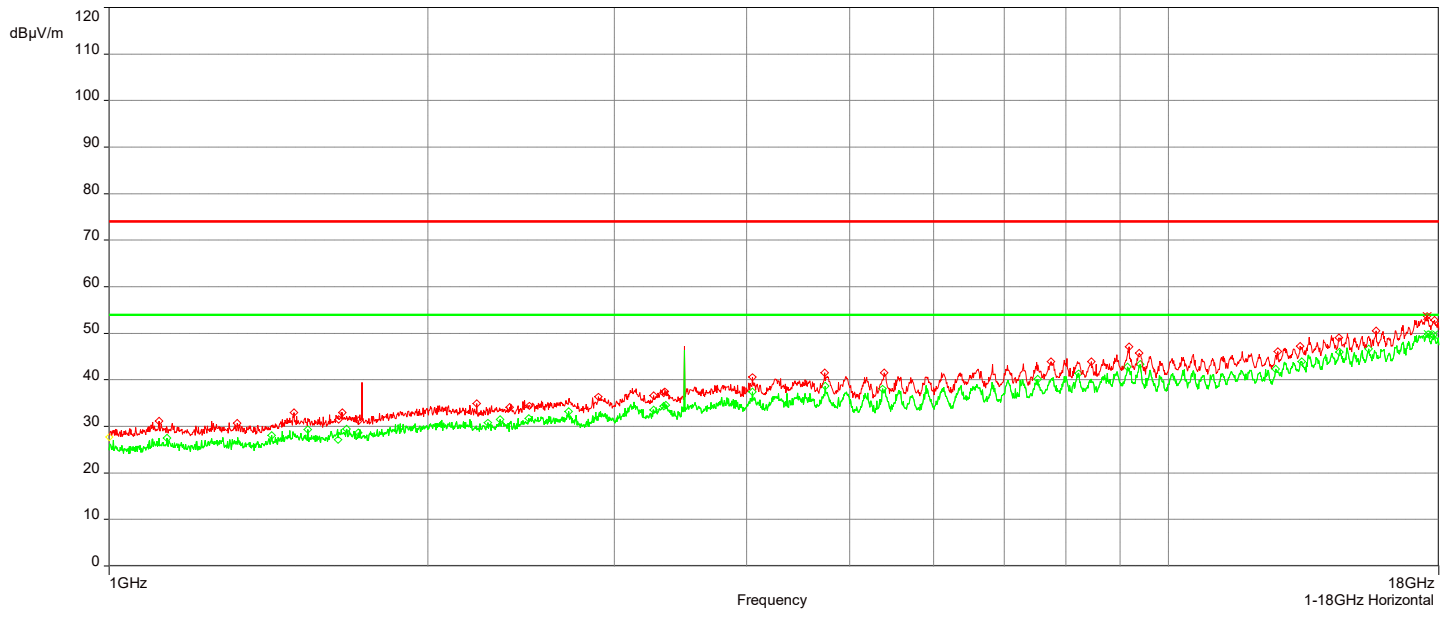
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No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.798494GHz	52.90	18.88	74.00	-21.10	1.97	59.90	Vertical	Passed
2.	17.552487GHz	53.73	18.89	74.00	-20.27	2.87	149.90	Horizontal	Passed
3.	17.563487GHz	54.12	18.88	74.00	-19.88	3.32	59.90	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.799494GHz	50.30	18.88	54.00	-3.70	3.31	29.90	Vertical	Passed
2.	17.586488GHz	49.81	18.85	54.00	-4.19	3.23	29.90	Horizontal	Passed
3.	17.798494GHz	49.59	18.88	54.00	-4.41	2.70	149.90	Horizontal	Passed

Overall Graphs:





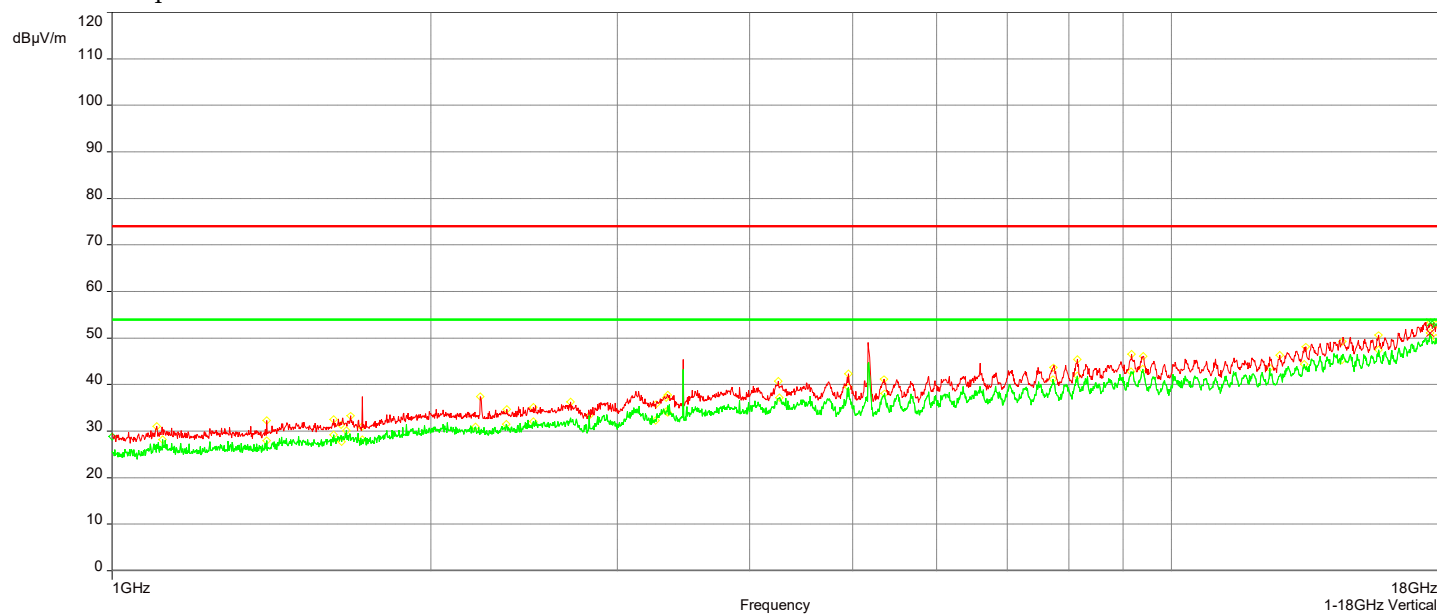
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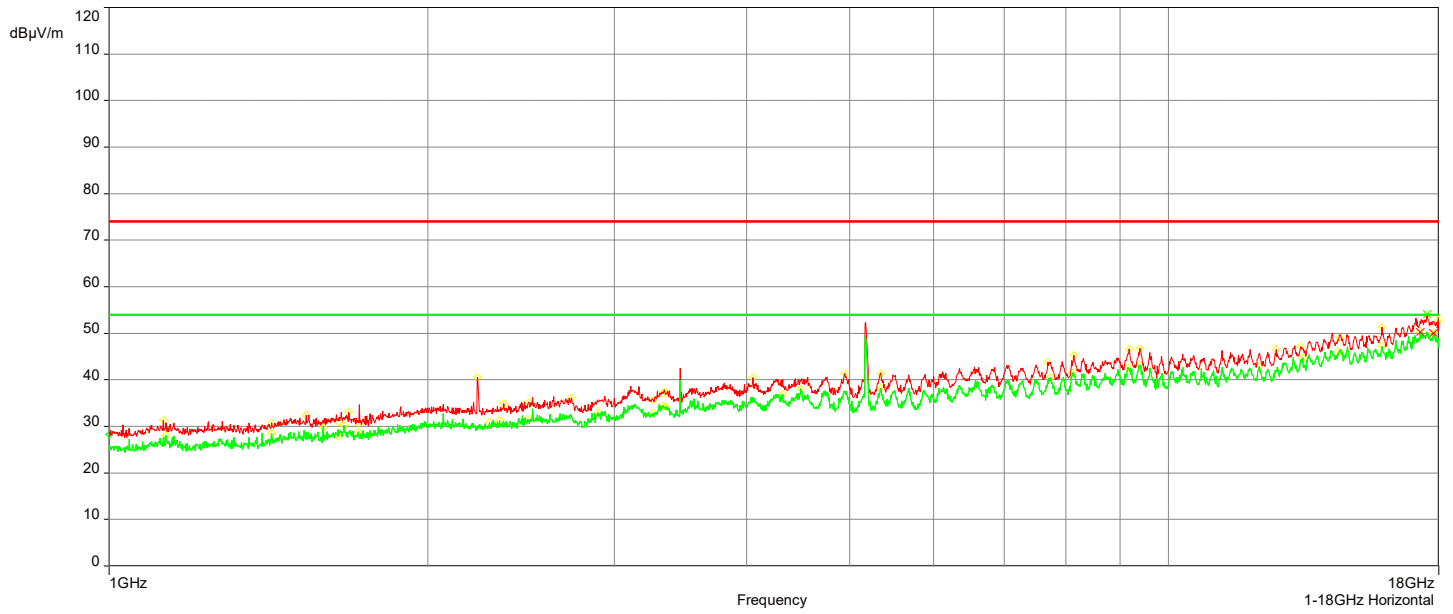
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.541987GHz	54.07	18.88	74.00	-19.93	3.92	247.40	Horizontal	Passed
2.	17.561987GHz	53.39	18.88	74.00	-20.61	3.97	22.40	Vertical	Passed
3.	17.778493GHz	52.91	18.87	74.00	-21.09	3.02	112.40	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.802994GHz	50.09	18.89	54.00	-3.91	2.17	112.40	Horizontal	Passed
2.	17.295479GHz	50.36	18.25	54.00	-3.64	1.18	67.40	Horizontal	Passed
3.	17.544487GHz	51.12	18.88	54.00	-2.88	1.02	44.90	Vertical	Passed

Overall Graphs:





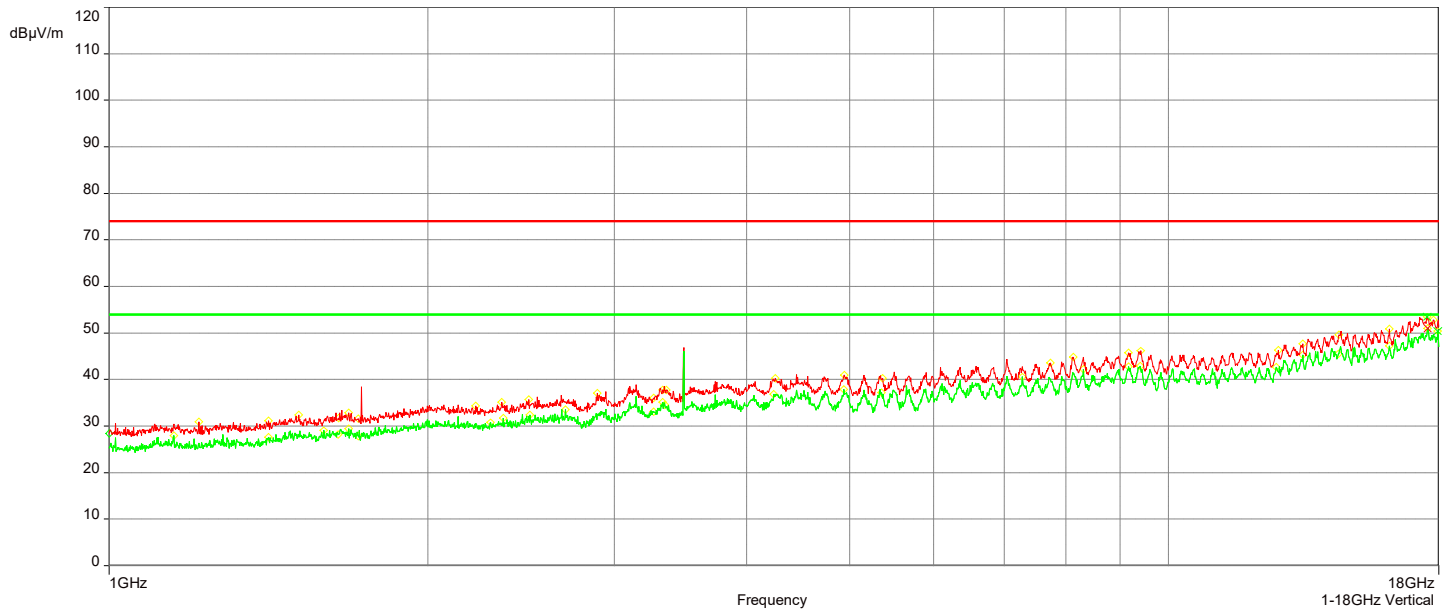
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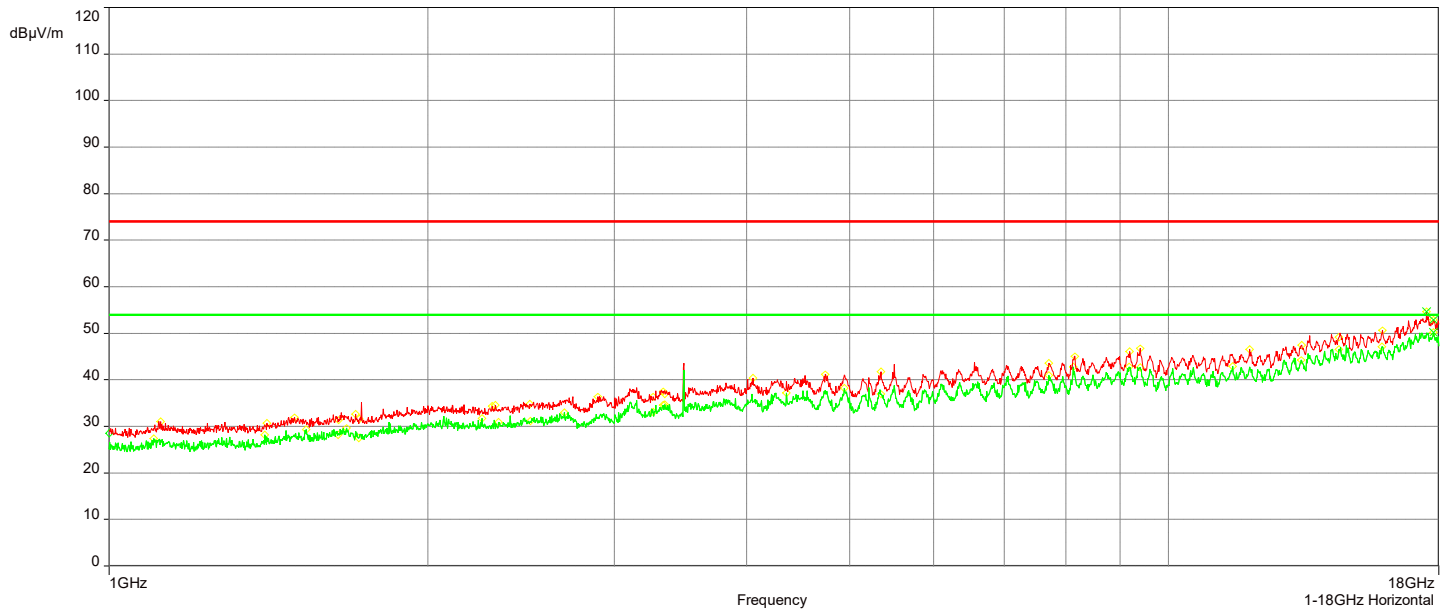
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	17.788994GHz	52.90	18.88	74.00	-21.10	3.57	90.20	Horizontal	Passed
2.	17.549487GHz	53.53	18.90	74.00	-20.47	2.15	90.20	Vertical	Passed
3.	17.525986GHz	54.66	18.85	74.00	-19.34	4.00	90.20	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.561487GHz	51.02	18.88	54.00	-2.98	3.41		Vertical	Passed
2.	17.959499GHz	50.40	19.07	54.00	-3.60	4.00	22.60	Vertical	Passed
3.	17.793494GHz	50.20	18.88	54.00	-3.80	4.00	45.20	Horizontal	Passed

Overall Graphs:





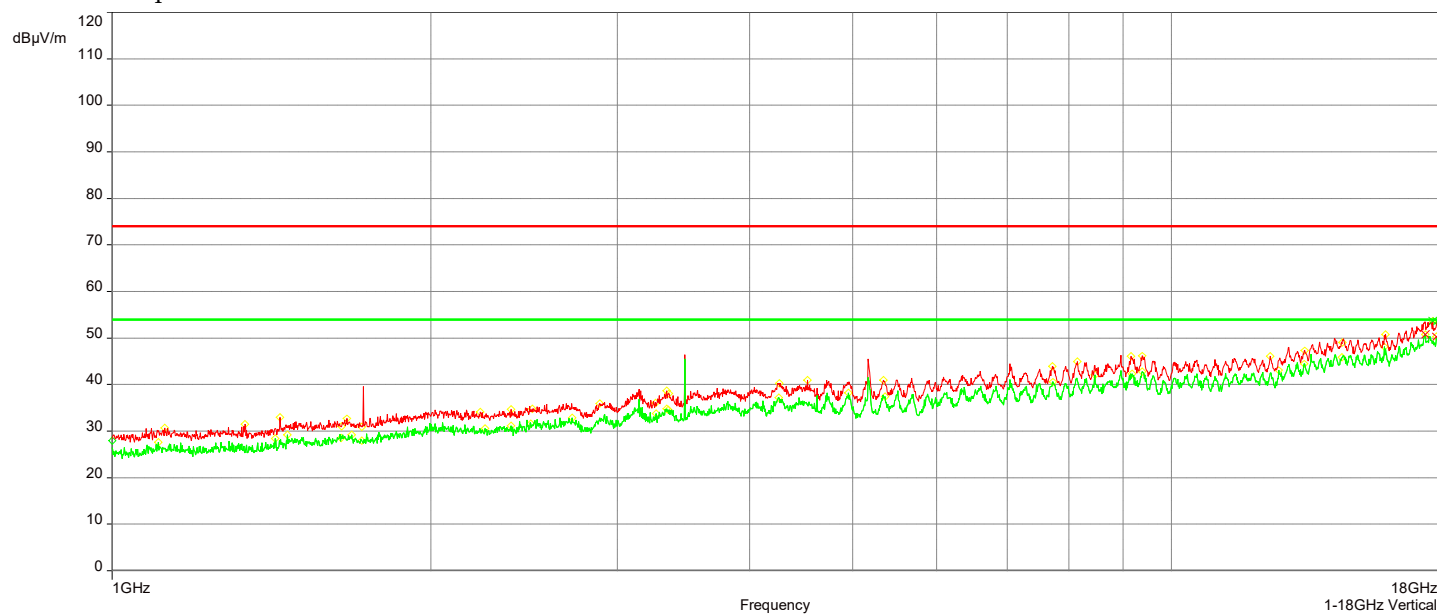
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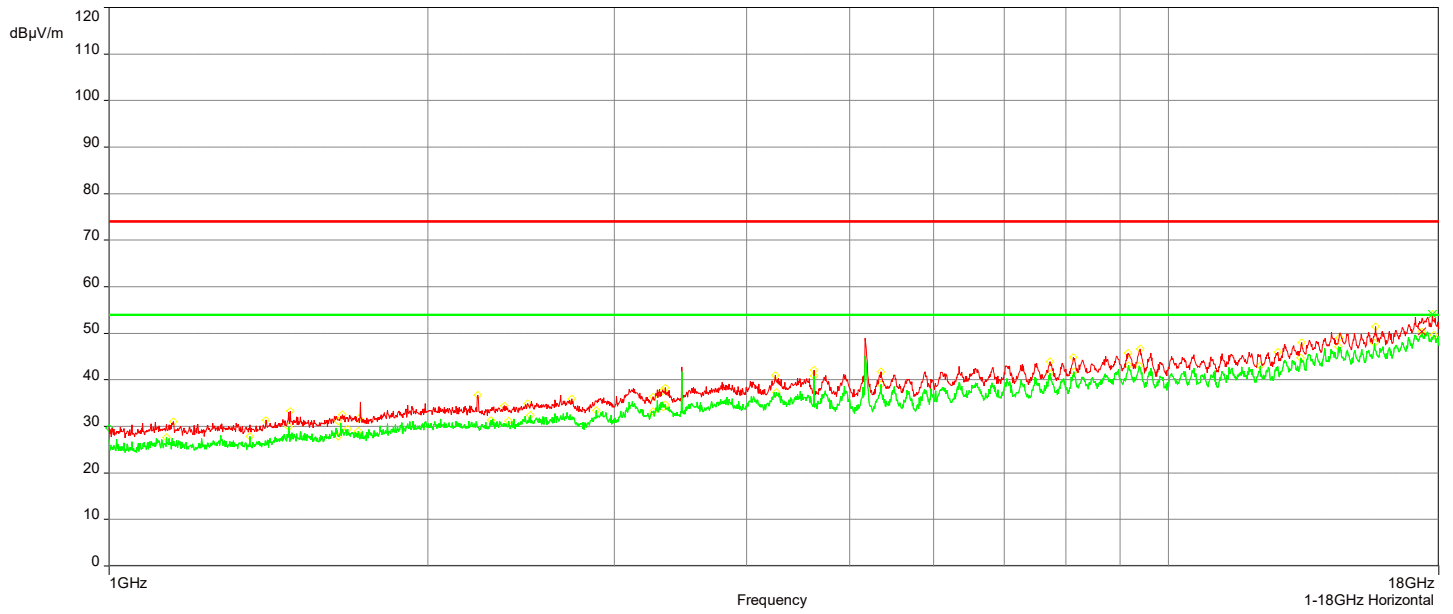
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No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.743992GHz	54.06	18.86	74.00	-19.94	3.01	22.40	Horizontal	Passed
2.	17.64849GHz	53.68	19.01	74.00	-20.32	3.87	0.00	Vertical	Passed
3.	17.805994GHz	53.63	18.89	74.00	-20.37	1.67	269.90	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.801494GHz	50.33	18.89	54.00	-3.67	1.19	292.40	Vertical	Passed
2.	17.340481GHz	50.40	18.43	54.00	-3.60	2.47	292.40	Horizontal	Passed
3.	17.363981GHz	50.81	18.54	54.00	-3.19	3.39	202.40	Vertical	Passed

Overall Graphs:





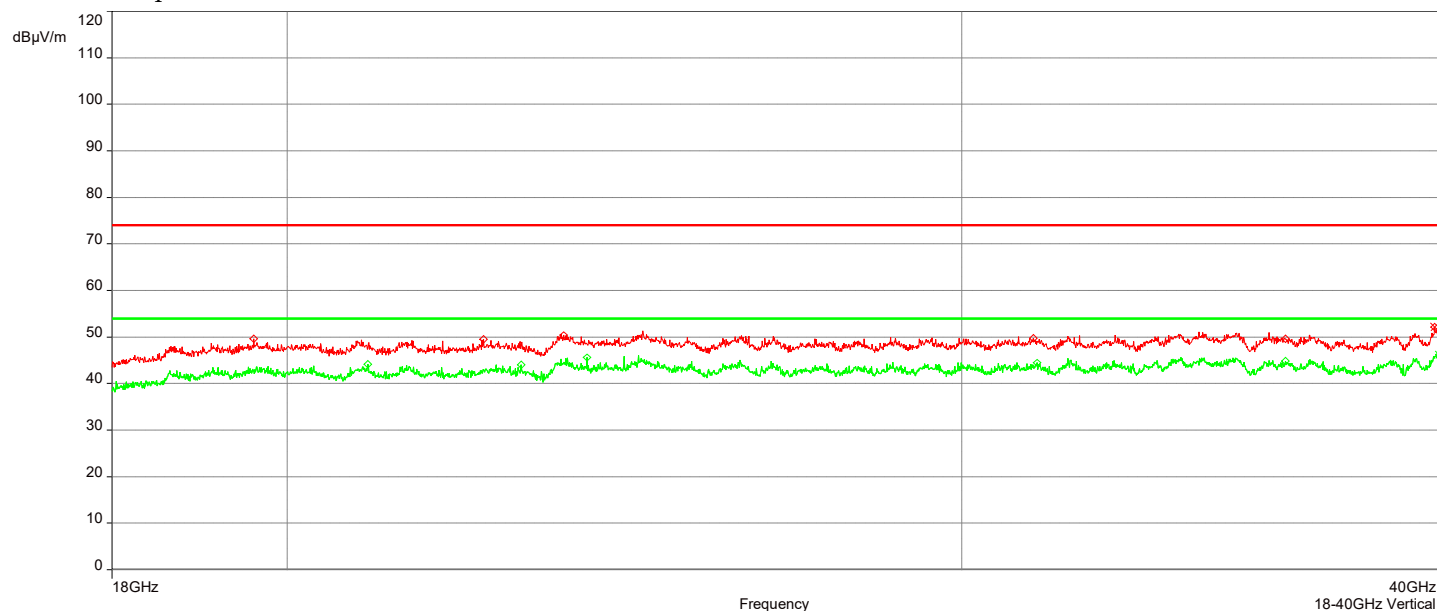
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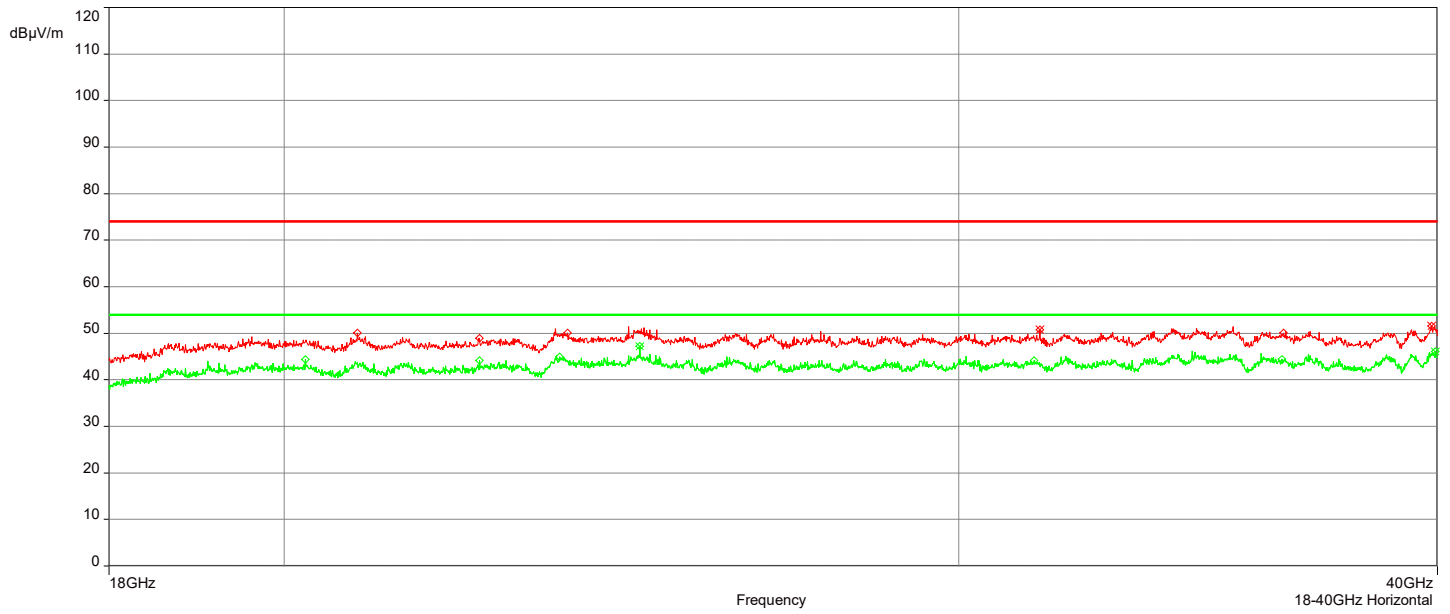
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No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	39.864994GHz	52.18	6.36	74.00	-21.82	1.96	269.90	Vertical	Passed
2.	39.859994GHz	51.57	6.24	74.00	-22.43	1.63	119.90	Horizontal	Passed
3.	31.496613GHz	50.73	6.72	74.00	-23.27	3.95	59.90	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	39.943997GHz	46.08	6.13	54.00	-7.92	1.49	299.90	Horizontal	Passed
2.	39.972999GHz	46.21	6.22	54.00	-7.79	3.42	89.90	Vertical	Passed
3.	24.765308GHz	47.18	4.46	54.00	-6.82	2.39	269.90	Horizontal	Passed

Overall Graphs:





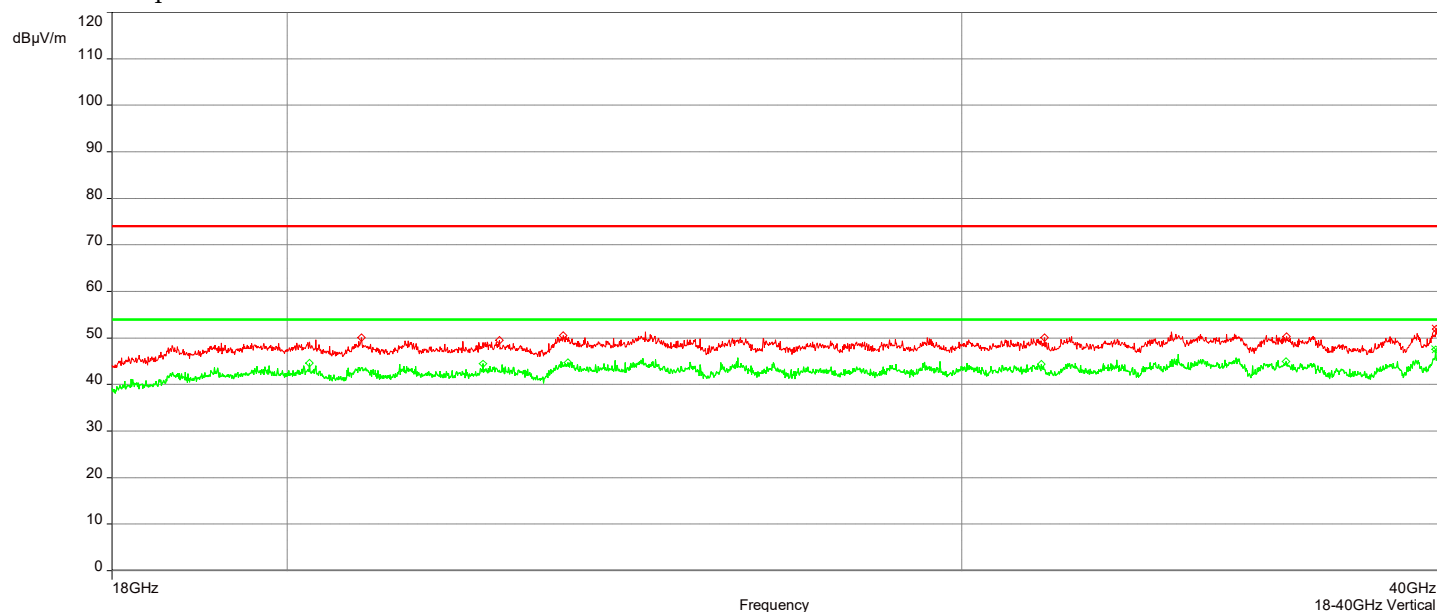
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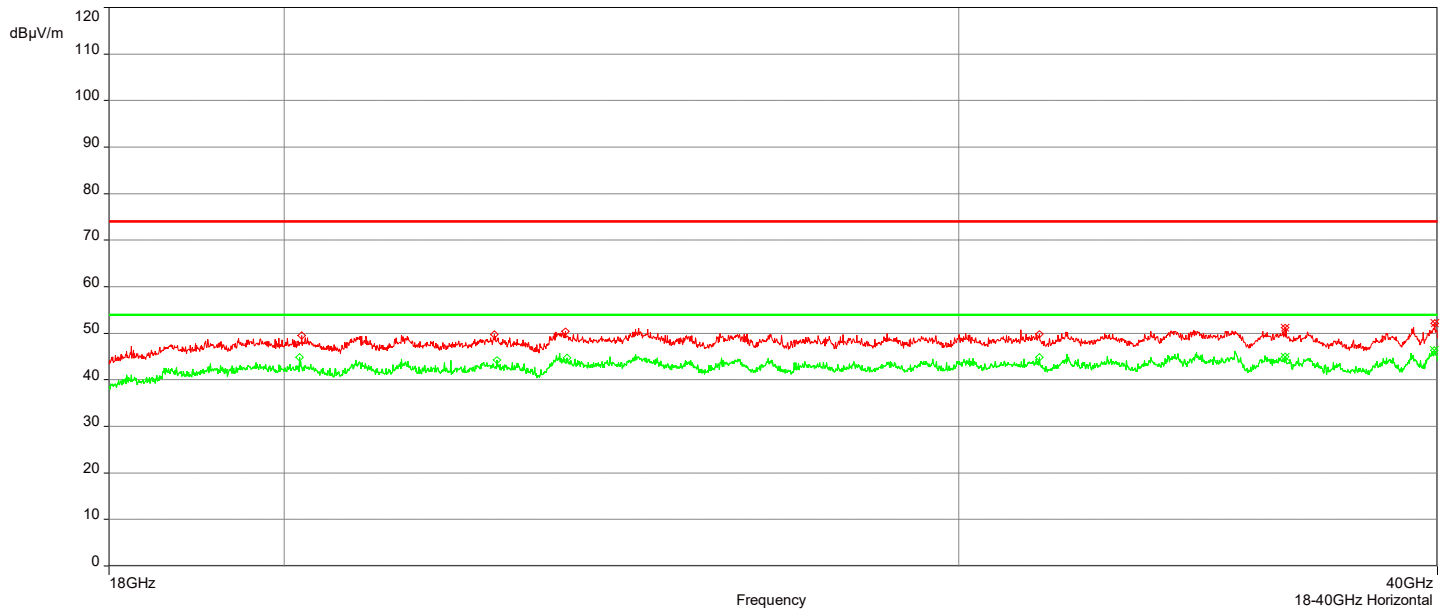
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No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	36.497841GHz	51.25	3.45	74.00	-22.75	2.43	30.10	Horizontal	Passed
2.	39.892995GHz	51.90	6.44	74.00	-22.10	1.97	60.20	Vertical	Passed
3.	39.939997GHz	52.18	6.15	74.00	-21.82	4.00	300.10	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	39.890995GHz	47.59	6.44	54.00	-6.41	2.87	329.90	Vertical	Passed
2.	39.926997GHz	46.33	6.20	54.00	-7.67	1.42	150.20	Horizontal	Passed
3.	36.497841GHz	44.99	3.45	54.00	-9.01	2.43	30.10	Horizontal	Passed

Overall Graphs:





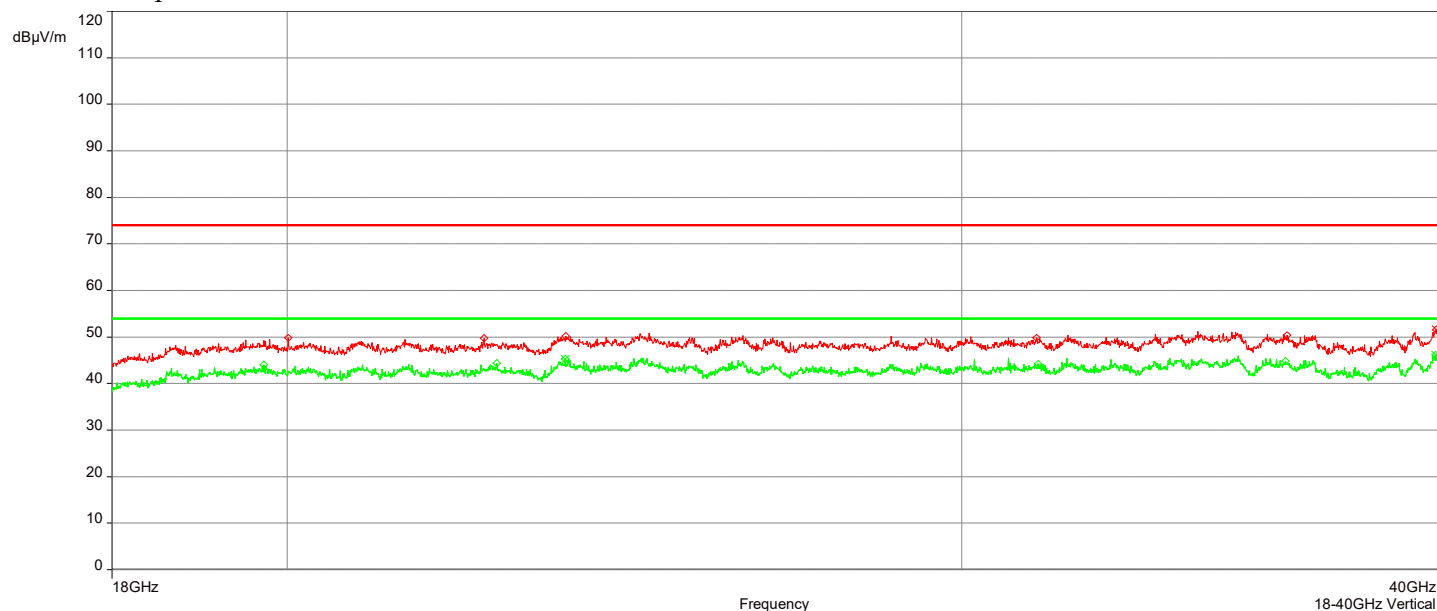
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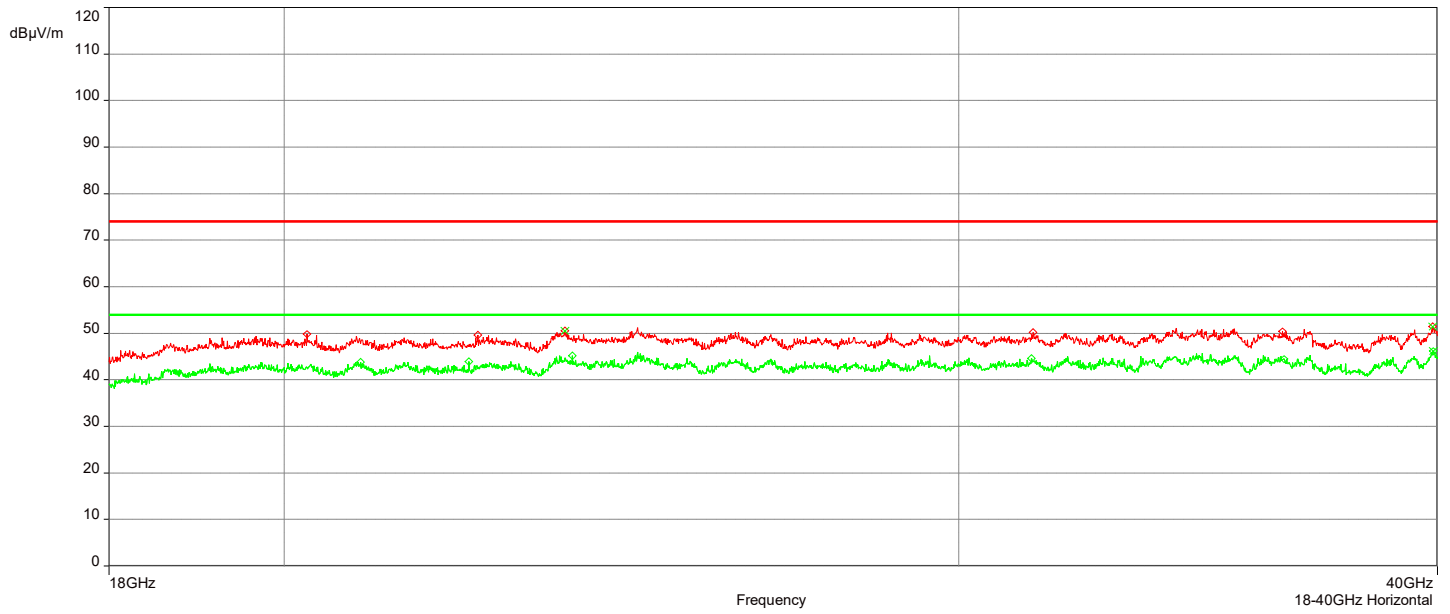
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	23.676258GHz	50.55	3.42	74.00	-23.45	1.99	209.90	Horizontal	Passed
2.	39.889995GHz	51.46	6.29	74.00	-22.54	1.18	89.90	Horizontal	Passed
3.	39.893995GHz	51.55	6.44	74.00	-22.45	3.17		Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	39.901996GHz	46.26	6.31	54.00	-7.74	3.26	149.90	Horizontal	Passed
2.	39.881995GHz	46.16	6.41	54.00	-7.84	3.69	179.90	Vertical	Passed
3.	23.638256GHz	45.32	3.50	54.00	-8.68	3.94	89.90	Vertical	Passed

Overall Graphs:





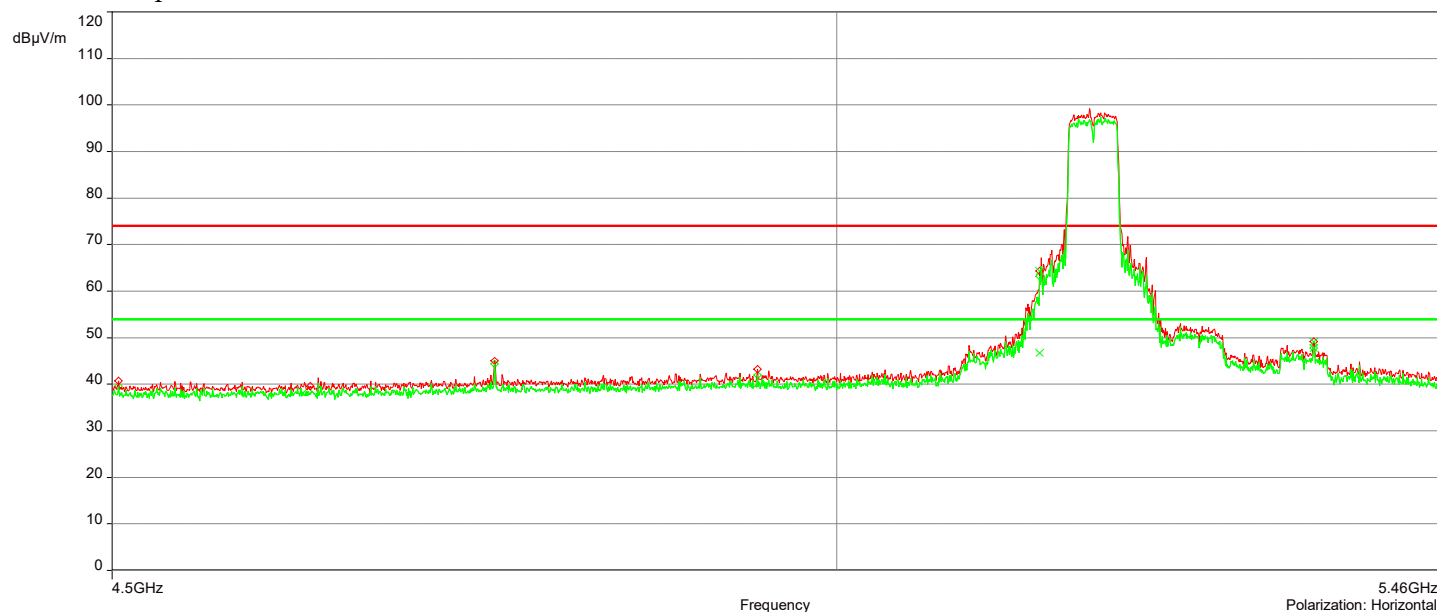
AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-1 (HT40) 802.11n_Ch-38

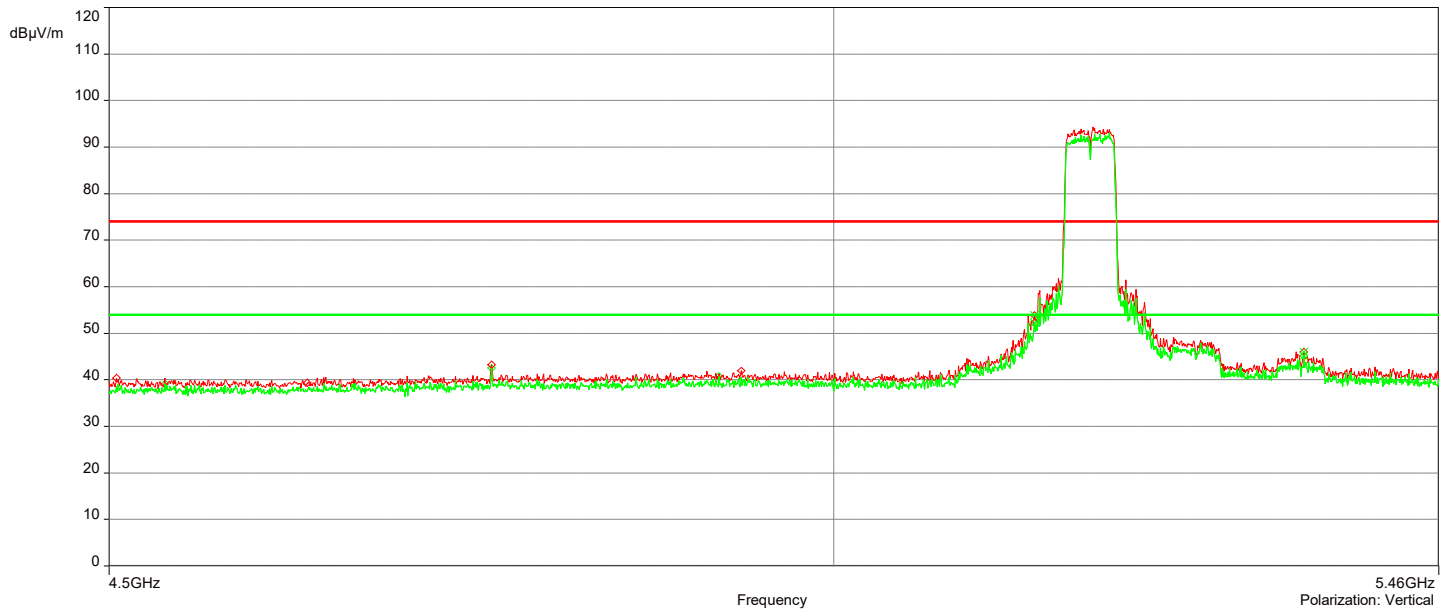
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No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1483242GHz	53.81	3.97	74.00	-20.19	2.69	337.40	Vertical	Passed
2.	5.3538669GHz	45.95	4.47	74.00	-28.05	3.97	247.40	Vertical	Passed
3.	5.1497649GHz	64.38	3.97	74.00	-9.62	1.02	247.40	Horizontal	Passed
4.	5.3591496GHz	49.22	4.49	74.00	-24.78	1.02	247.40	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1483242GHz	52.29	3.97	54.00	-1.71	2.69	337.40	Vertical	Passed
2.	5.3538669GHz	45.23	4.47	54.00	-8.77	3.97	247.40	Vertical	Passed
3.	5.1497649GHz	46.78	3.97	54.00	-7.22	1.02	247.40	Horizontal	Passed
4.	5.3591496GHz	47.76	4.49	54.00	-6.24	1.02	247.40	Horizontal	Passed

Overall Graphs:





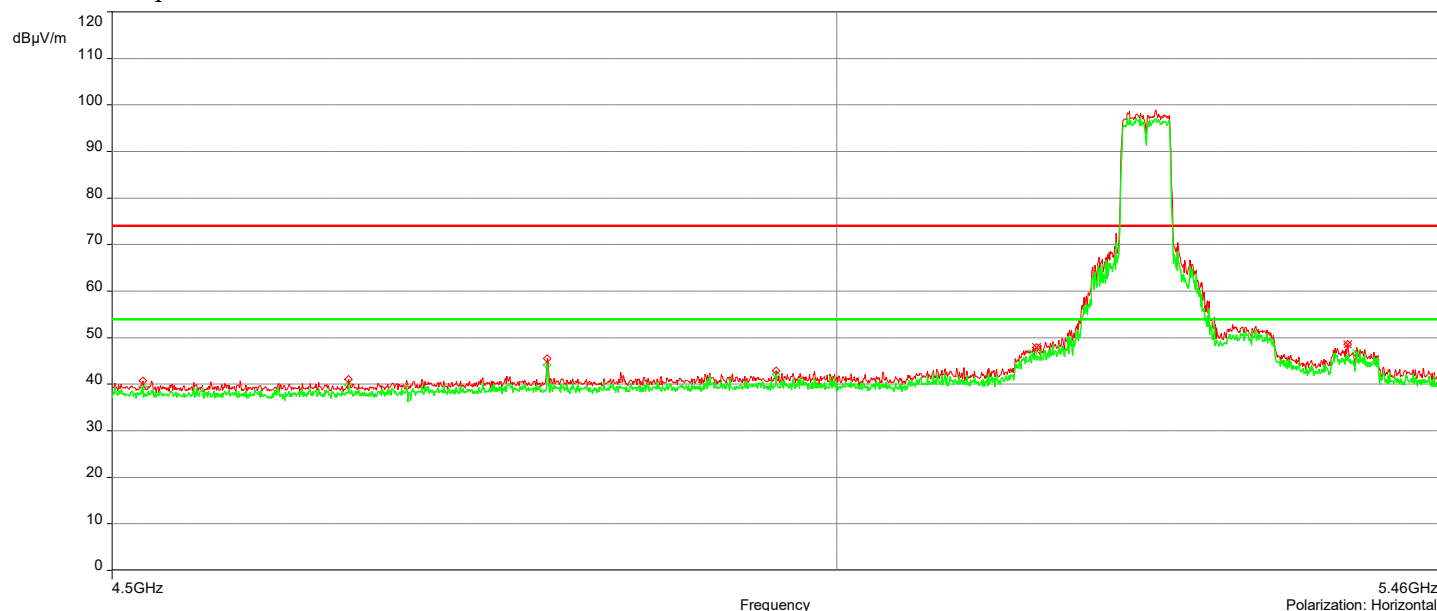
AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-1 (HT40) 802.11n_Ch-46

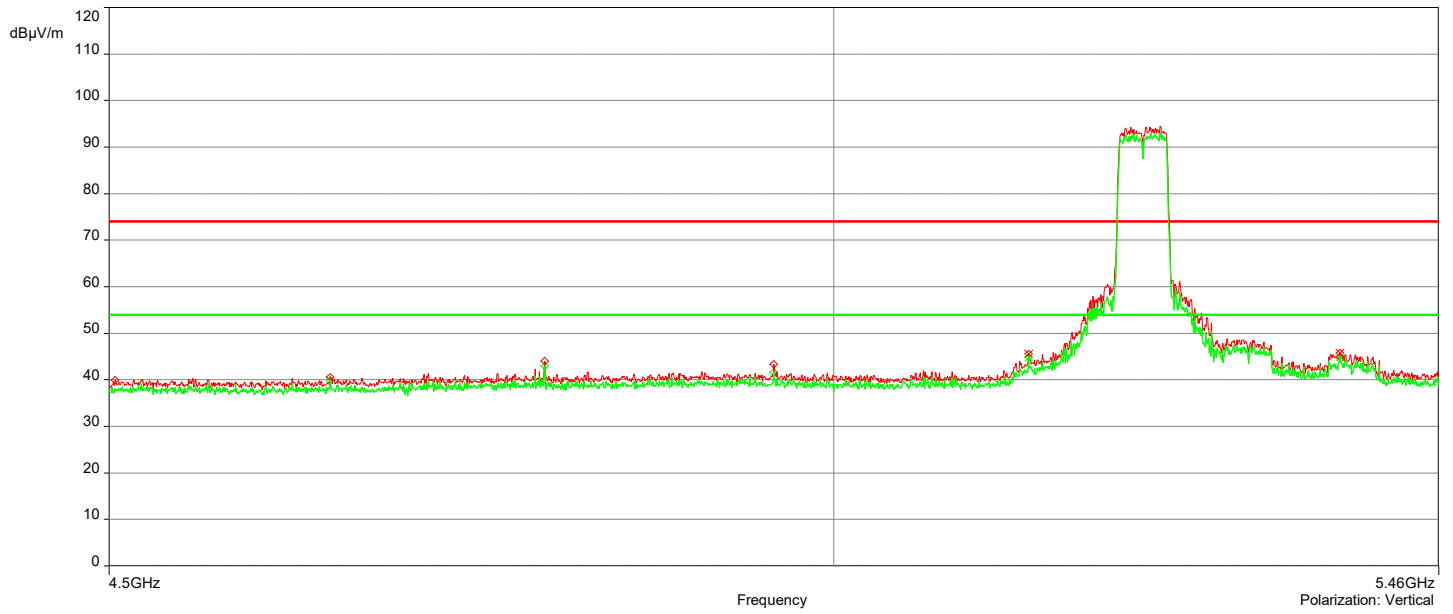
9/2/2021 8:56:52 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.144002GHz	45.65	3.96	74.00	-28.35	3.97	292.40	Vertical	Passed
2.	5.3822011GHz	45.80	4.58	74.00	-28.20	3.97	67.40	Vertical	Passed
3.	5.1473637GHz	47.92	3.97	74.00	-26.08	1.36	202.40	Horizontal	Passed
4.	5.386043GHz	48.58	4.59	74.00	-25.42	1.02	247.40	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.144002GHz	44.89	3.96	54.00	-9.11	3.97	292.40	Vertical	Passed
2.	5.3822011GHz	45.00	4.58	54.00	-9.00	3.97	67.40	Vertical	Passed
3.	5.1449625GHz	46.66	3.96	54.00	-7.34	1.48	202.40	Horizontal	Passed
4.	5.3927664GHz	46.69	4.62	54.00	-7.31	1.02	247.40	Horizontal	Passed

Overall Graphs:





AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-1 (VHT20) 802.11ac_Ch-36

9/2/2021 12:38:50 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.1003001GHz	49.99	3.86	74.00	-24.01	2.79	337.40	Vertical	Passed
2.	5.3990095GHz	47.19	4.64	74.00	-26.81	4.00	292.60	Vertical	Passed
3.	5.145923GHz	54.68	3.96	74.00	-19.32	1.12	247.60	Horizontal	Passed
4.	5.3961281GHz	47.70	4.63	74.00	-26.30	1.00	202.50	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBuV/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1003001GHz	47.91	3.86	54.00	-6.09	2.79	337.40	Vertical	Passed
2.	5.3990095GHz	46.54	4.64	54.00	-7.46	4.00	292.60	Vertical	Passed
3.	5.1497649GHz	52.94	3.97	54.00	-1.06	3.28	180.20	Horizontal	Passed
4.	5.3966083GHz	46.29	4.63	54.00	-7.71	1.00	202.50	Horizontal	Passed

Overall Graphs:





AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-1 (VHT20) 802.11ac_Ch-48

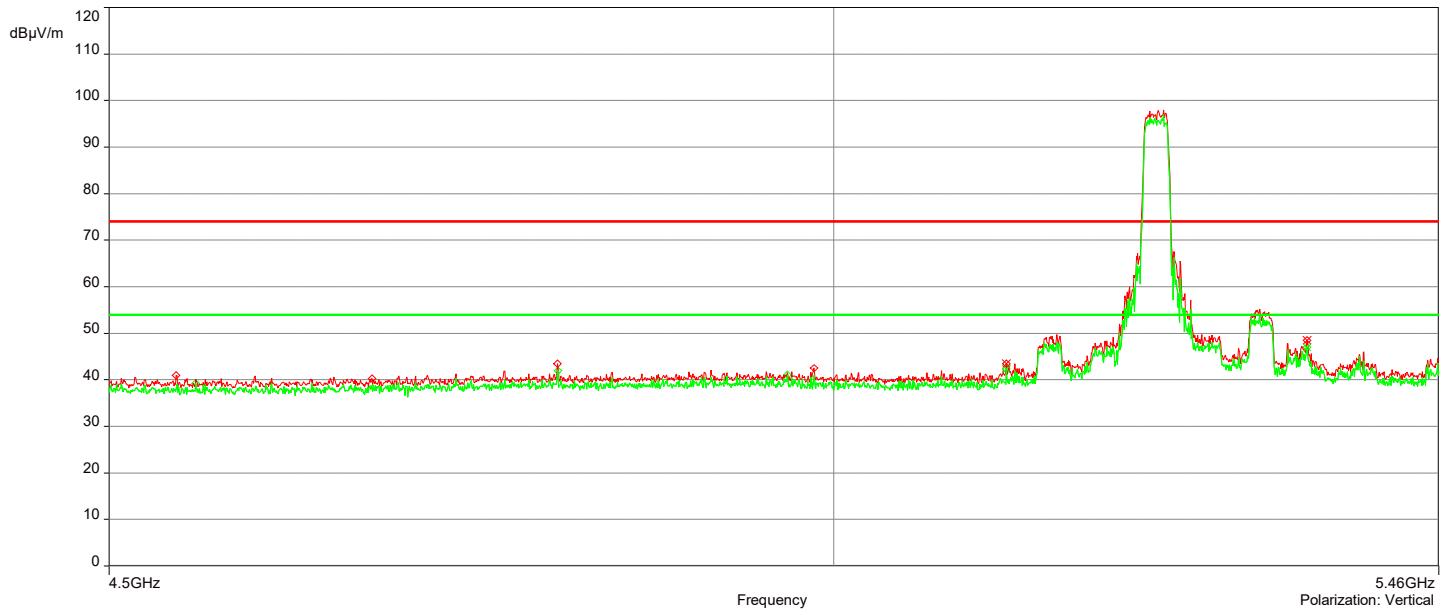
9/2/2021 1:01:53 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.1271936GHz	43.51	3.92	74.00	-30.49	2.69	337.40	Vertical	Passed
2.	5.3562681GHz	48.46	4.48	74.00	-25.54	4.00	269.90	Vertical	Passed
3.	5.1252726GHz	46.32	3.92	74.00	-27.68	1.49	224.90	Horizontal	Passed
4.	5.3533867GHz	49.66	4.47	74.00	-24.34	1.26	247.40	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBuV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1271936GHz	42.28	3.92	54.00	-11.72	2.69	337.40	Vertical	Passed
2.	5.3562681GHz	46.97	4.48	54.00	-7.03	4.00	269.90	Vertical	Passed
3.	5.1252726GHz	44.77	3.92	54.00	-9.23	1.49	224.90	Horizontal	Passed
4.	5.3567484GHz	49.01	4.48	54.00	-4.99	1.59	247.40	Horizontal	Passed

Overall Graphs:





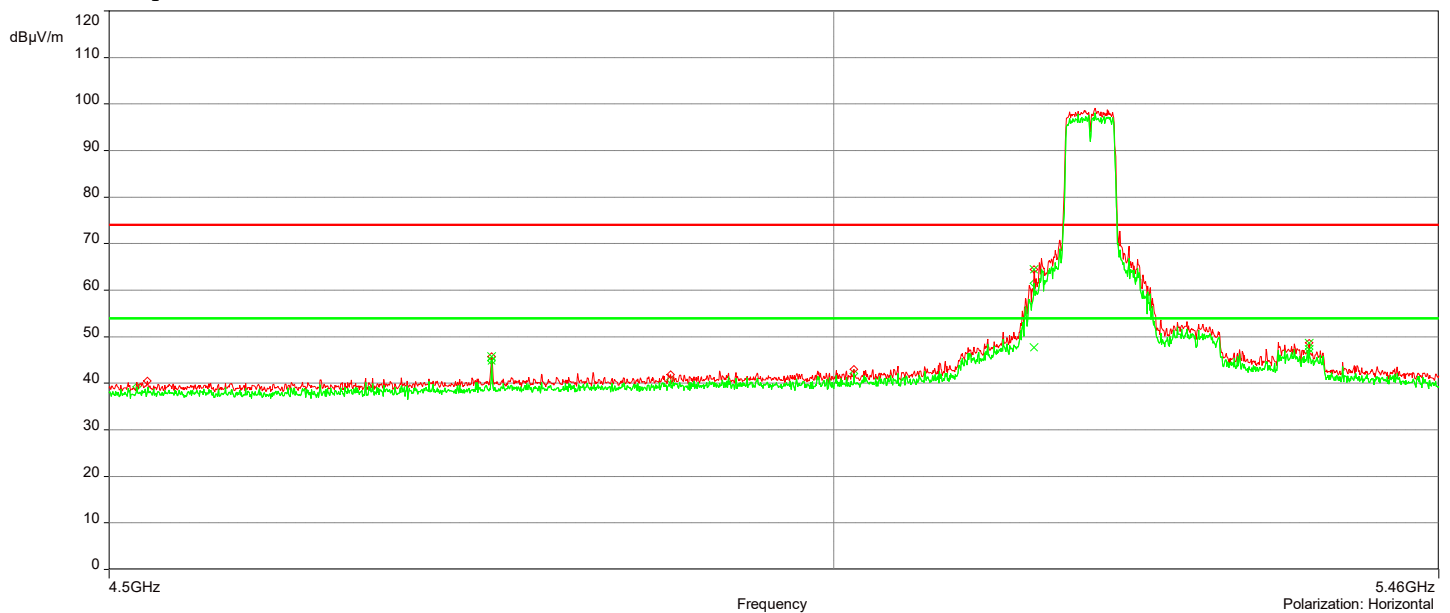
AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-1 (VHT40) 802.11ac_Ch-38

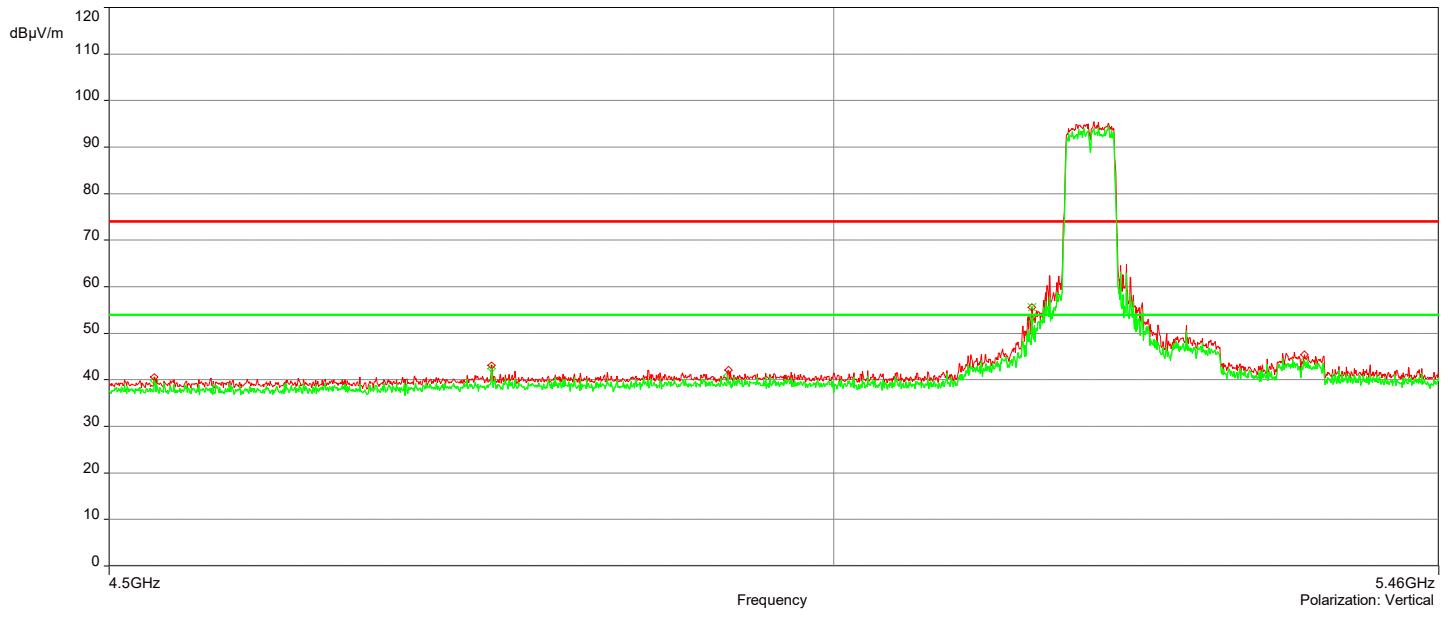
9/2/2021 1:23:03 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.1464032GHz	55.51	3.96	74.00	-18.49	3.97	270.10	Vertical	Passed
2.	4.7574087GHz	45.77	3.85	74.00	-28.23	1.24	225.20	Horizontal	Passed
3.	5.1478439GHz	64.44	3.97	74.00	-9.56	1.00	247.60	Horizontal	Passed
4.	5.3581891GHz	48.70	4.49	74.00	-25.30	1.26	202.60	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBuV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1464032GHz	53.22	3.96	54.00	-0.78	3.97	270.10	Vertical	Passed
2.	4.7574087GHz	44.88	3.85	54.00	-9.12	1.24	225.20	Horizontal	Passed
3.	5.1478439GHz	47.70	3.97	54.00	-6.30	1.00	247.60	Horizontal	Passed
4.	5.3581891GHz	47.34	4.49	54.00	-6.66	1.26	202.60	Horizontal	Passed

Overall Graphs:





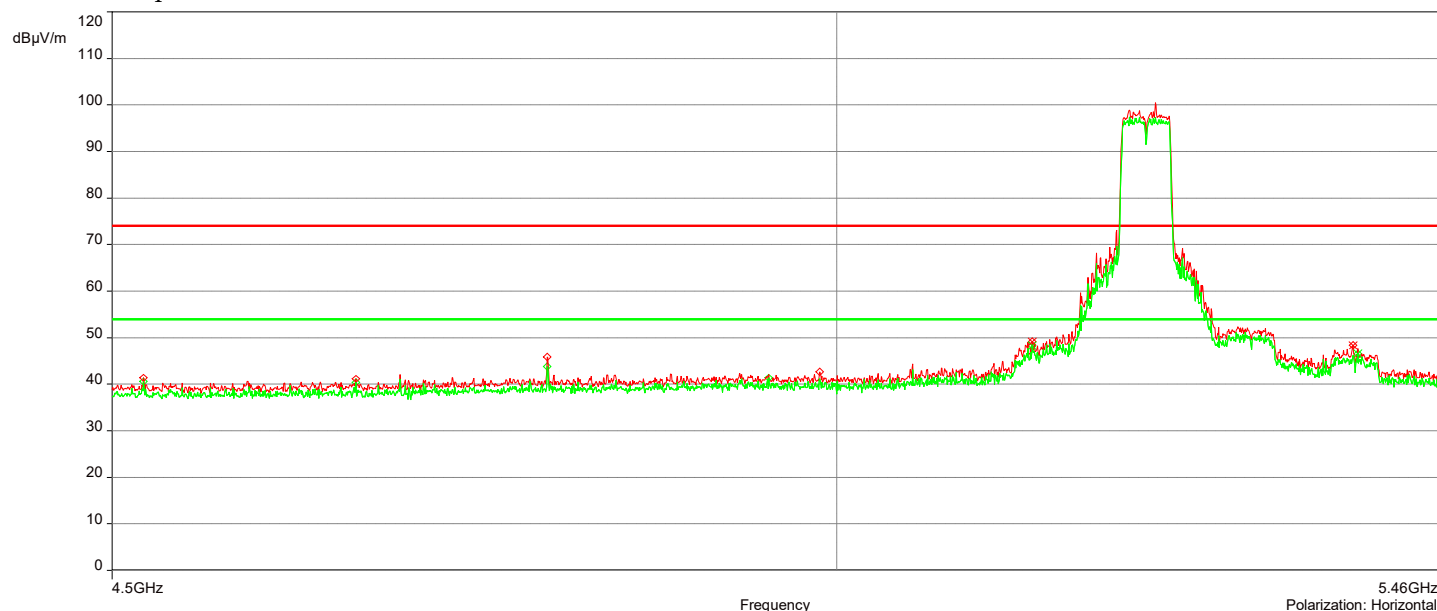
AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-1 (VHT40) 802.11ac_Ch-46

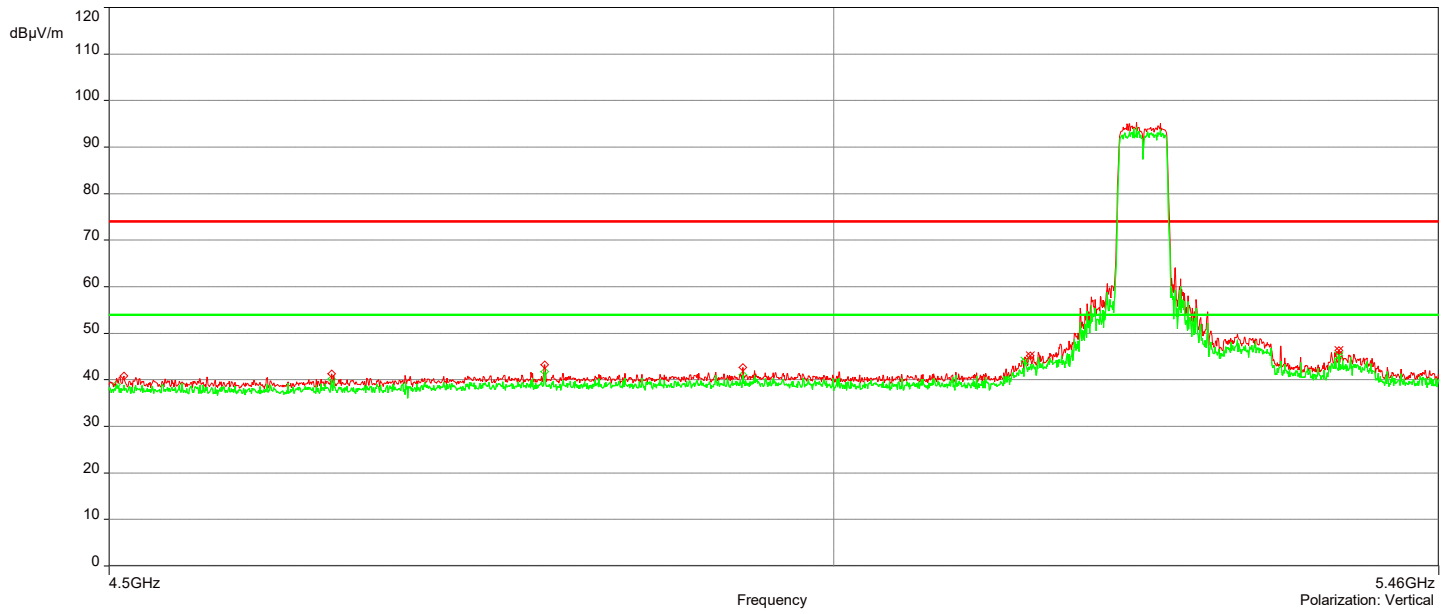
9/2/2021 1:47:08 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.1449625GHz	45.17	3.96	74.00	-28.83	2.79	337.40	Vertical	Passed
2.	5.3812406GHz	46.34	4.57	74.00	-27.66	2.93	270.10	Vertical	Passed
3.	5.1444822GHz	49.22	3.96	74.00	-24.78	1.15	202.60	Horizontal	Passed
4.	5.3898849GHz	48.32	4.61	74.00	-25.68	1.00	247.60	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1411206GHz	44.05	3.95	54.00	-9.95	2.43	337.40	Vertical	Passed
2.	5.3812406GHz	45.17	4.57	54.00	-8.83	2.93	270.10	Vertical	Passed
3.	5.1444822GHz	48.26	3.96	54.00	-5.74	1.15	202.60	Horizontal	Passed
4.	5.3937269GHz	46.60	4.62	54.00	-7.40	1.00	247.60	Horizontal	Passed

Overall Graphs:





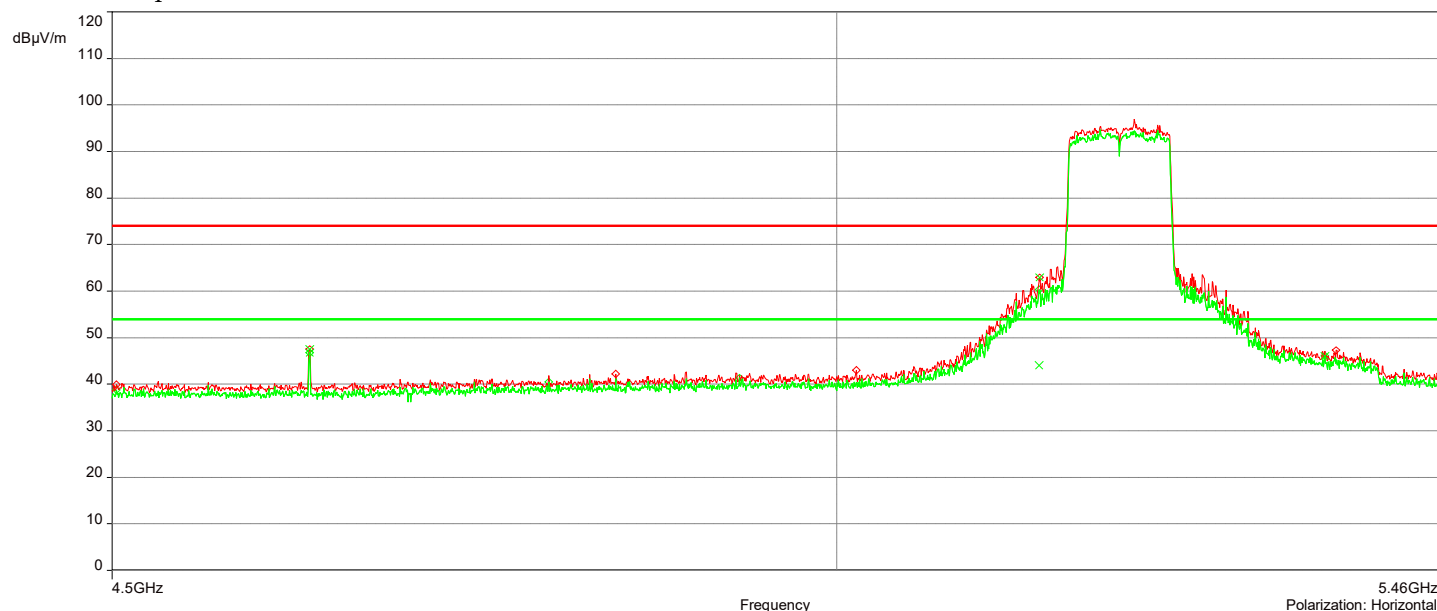
AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-1 (VHT80) 802.11ac_Ch-42

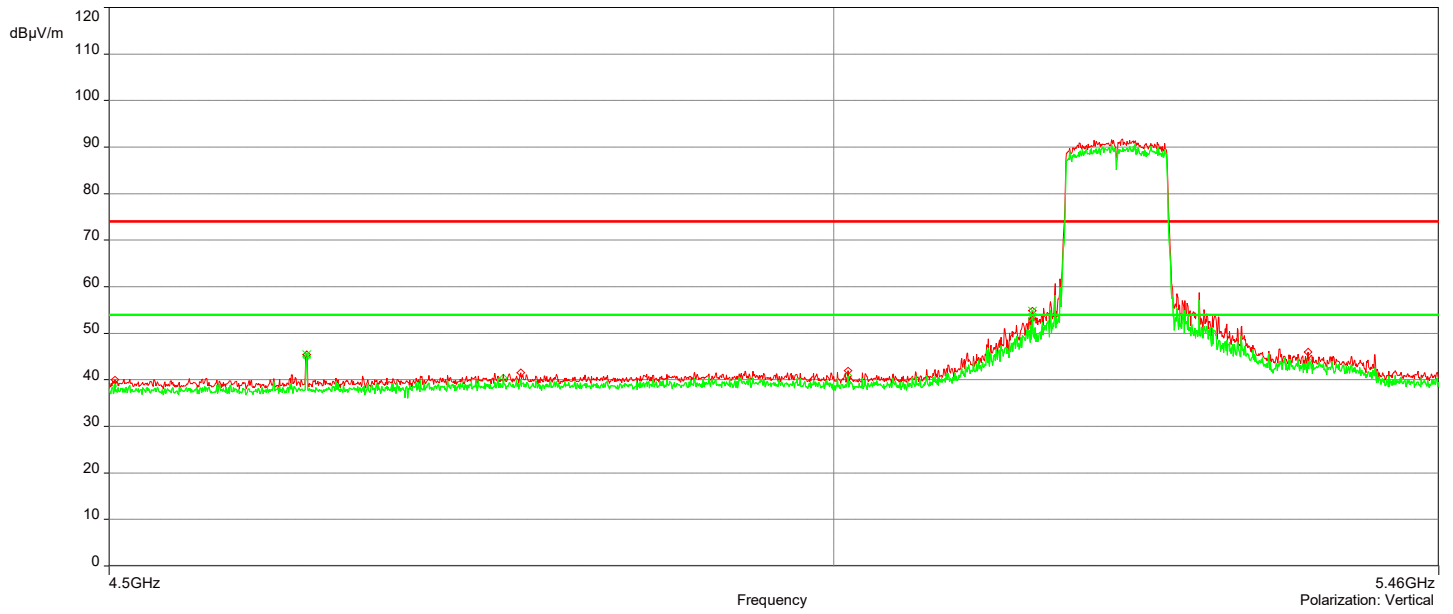
9/2/2021 2:11:23 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	4.6311056GHz	45.40	3.11	74.00	-28.60	3.97	292.40	Vertical	Passed
2.	5.1468834GHz	54.91	3.96	74.00	-19.09	3.12	224.90	Vertical	Passed
3.	4.6311056GHz	47.63	3.11	74.00	-26.37	1.02	247.40	Horizontal	Passed
4.	5.1497649GHz	62.94	3.97	74.00	-11.06	1.25	157.40	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1468834GHz	53.29	3.96	54.00	-0.71	3.12	224.90	Vertical	Passed
2.	4.6311056GHz	46.74	3.11	54.00	-7.26	1.02	247.40	Horizontal	Passed
3.	5.1492846GHz	44.03	3.97	54.00	-9.97	1.00	180.10	Horizontal	Passed
4.	5.3677939GHz	46.14	4.52	54.00	-7.86	1.50	247.40	Horizontal	Passed

Overall Graphs:



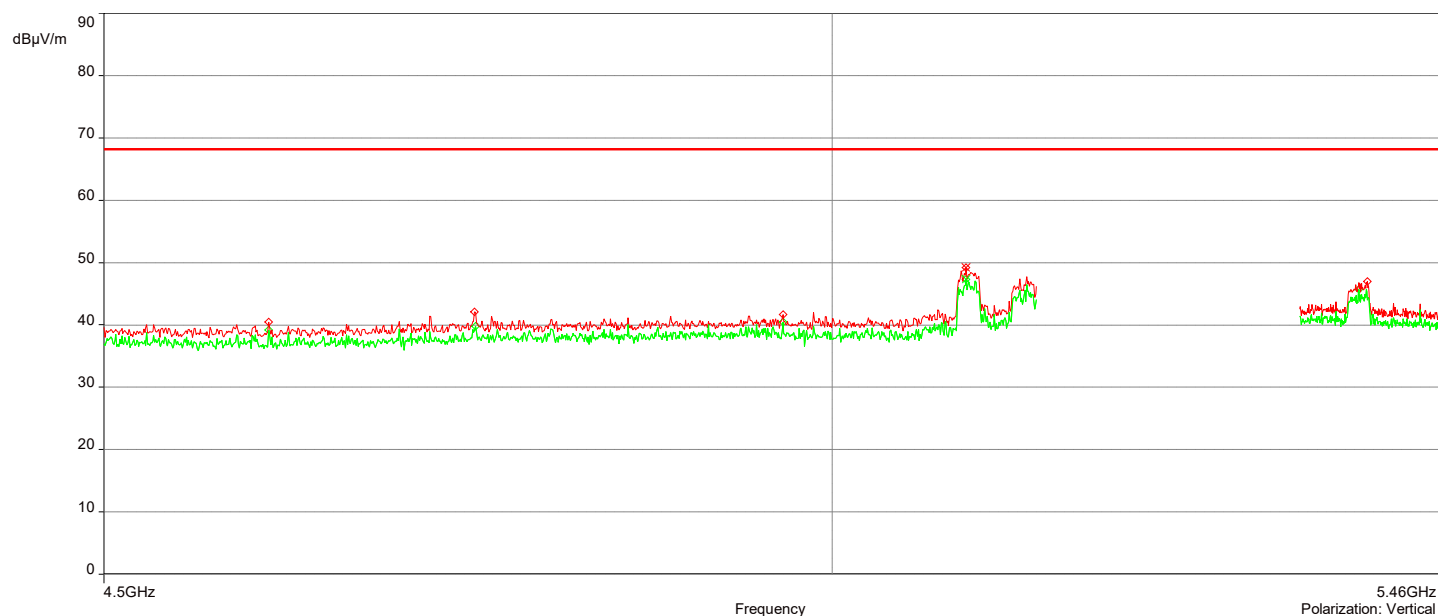
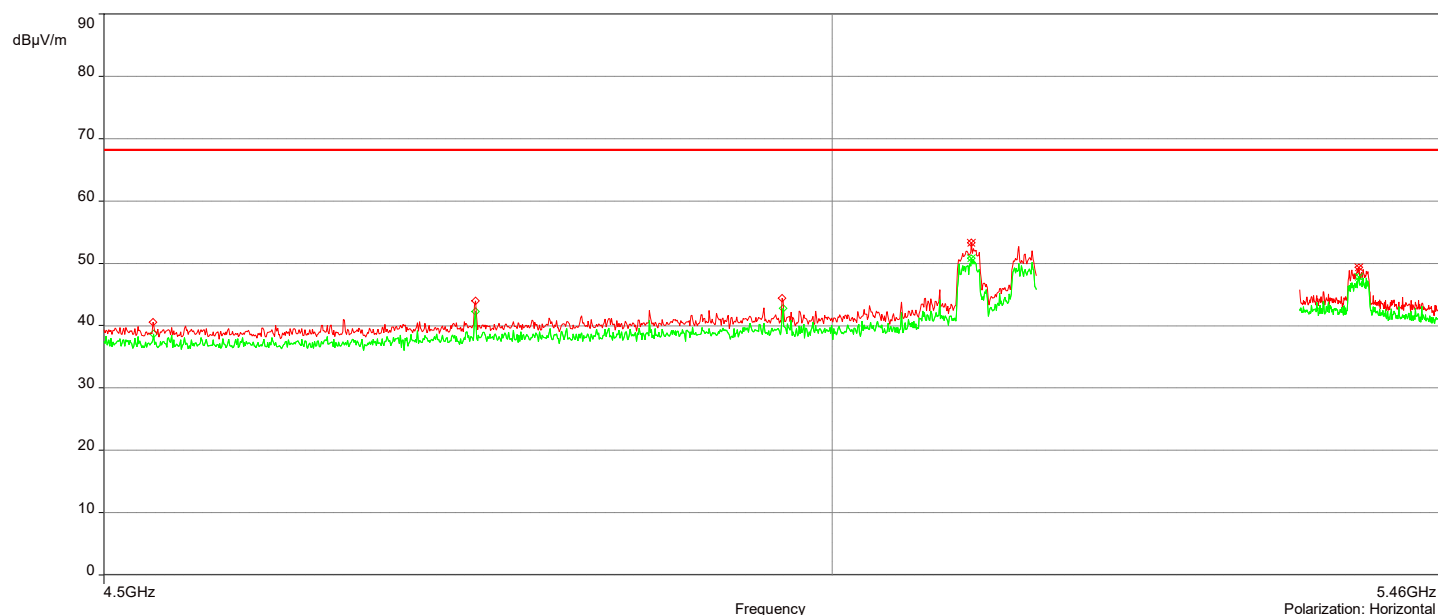


AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 802.11a_Ch-36

9/2/2021 6:28:17 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.0979479GHz	49.18	3.86	68.23	-19.05	4.00	269.90	Vertical	Passed
2.	5.1018519GHz	53.27	3.86	68.23	-14.96	1.37	247.40	Horizontal	Passed
3.	5.3958058GHz	49.41	4.63	68.23	-18.82	1.41	247.40	Horizontal	Passed

Overall Graphs:

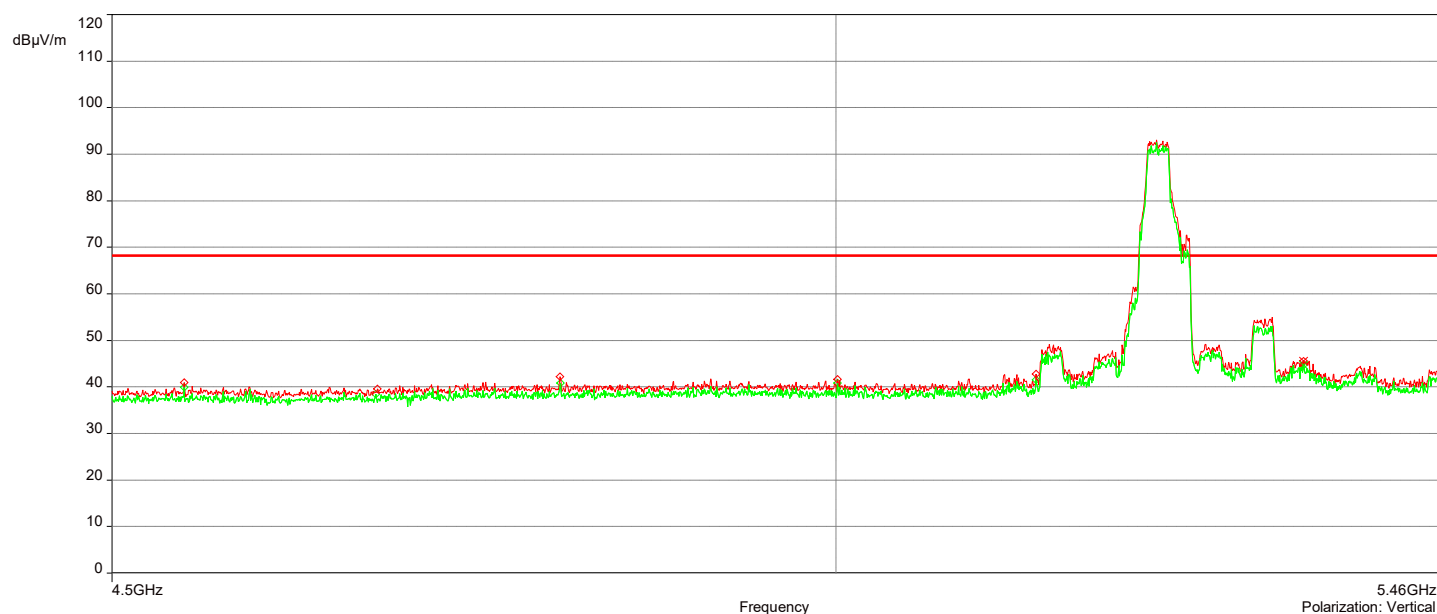
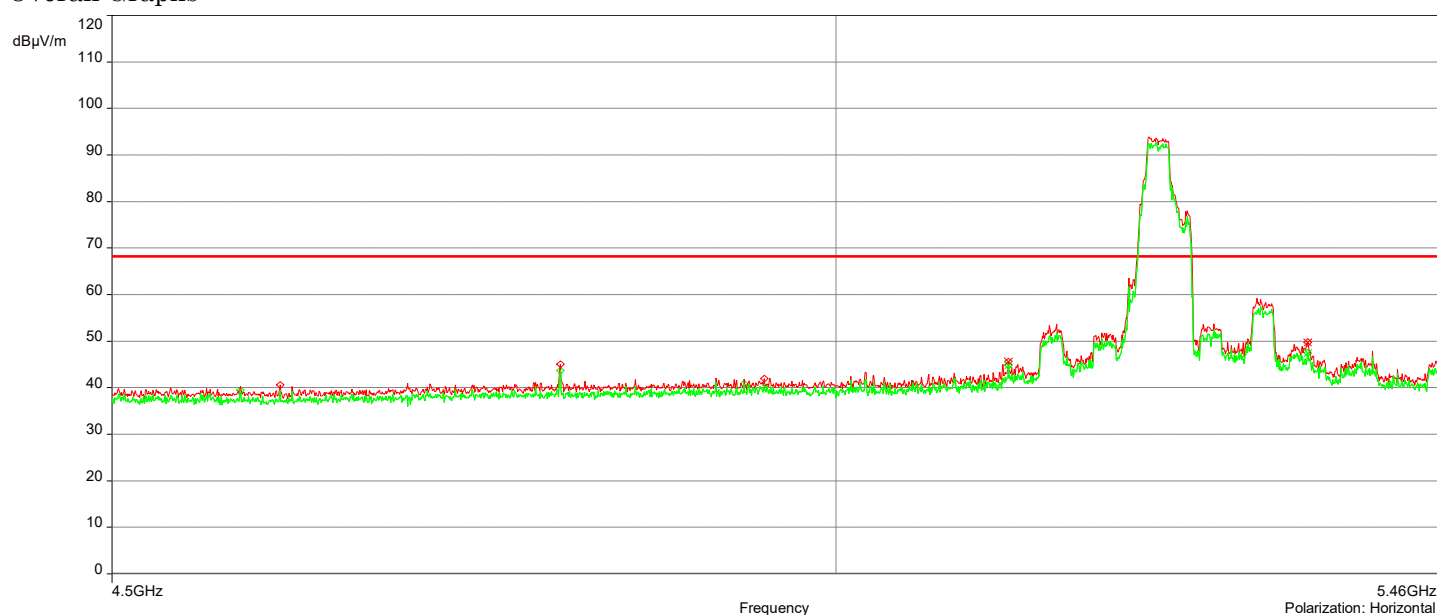


AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 802.11a_Ch-48

9/2/2021 7:10:49 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.3524262GHz	45.69	4.47	68.23	-22.54	3.21	270.10	Vertical	Passed
2.	5.1271936GHz	45.58	3.92	68.23	-22.65	1.00	202.70	Horizontal	Passed
3.	5.3557879GHz	49.71	4.48	68.23	-18.52	1.00	247.60	Horizontal	Passed

Overall Graphs:

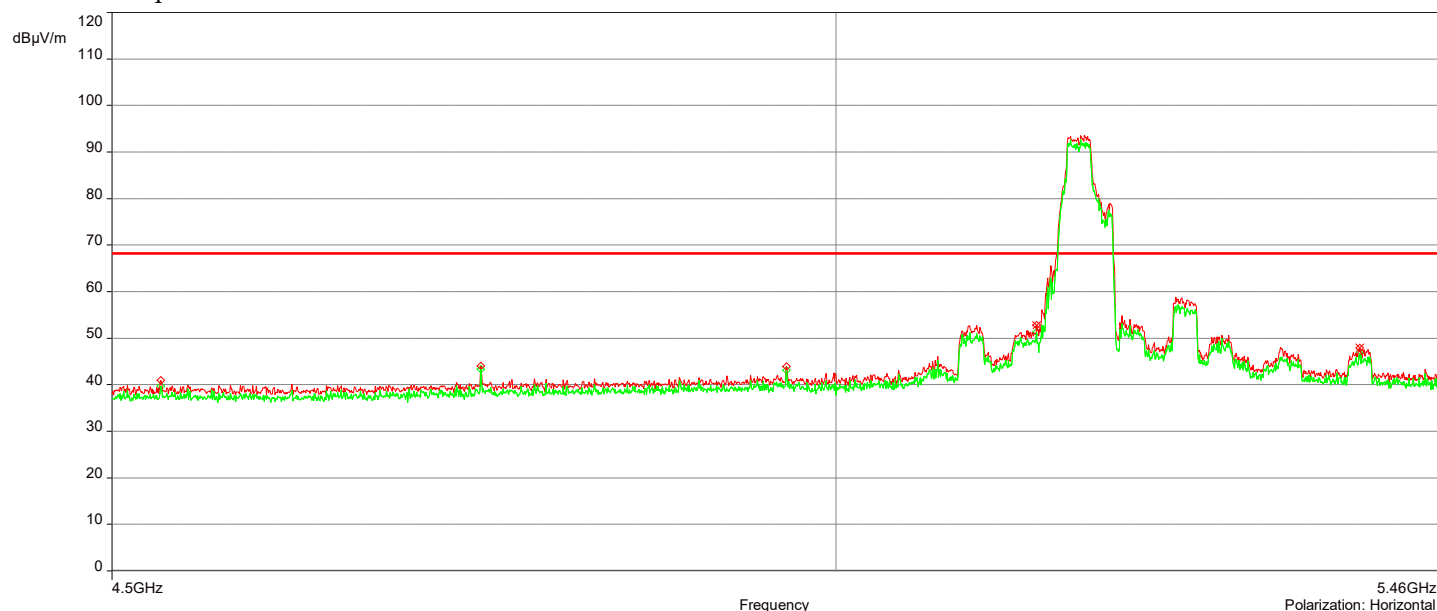


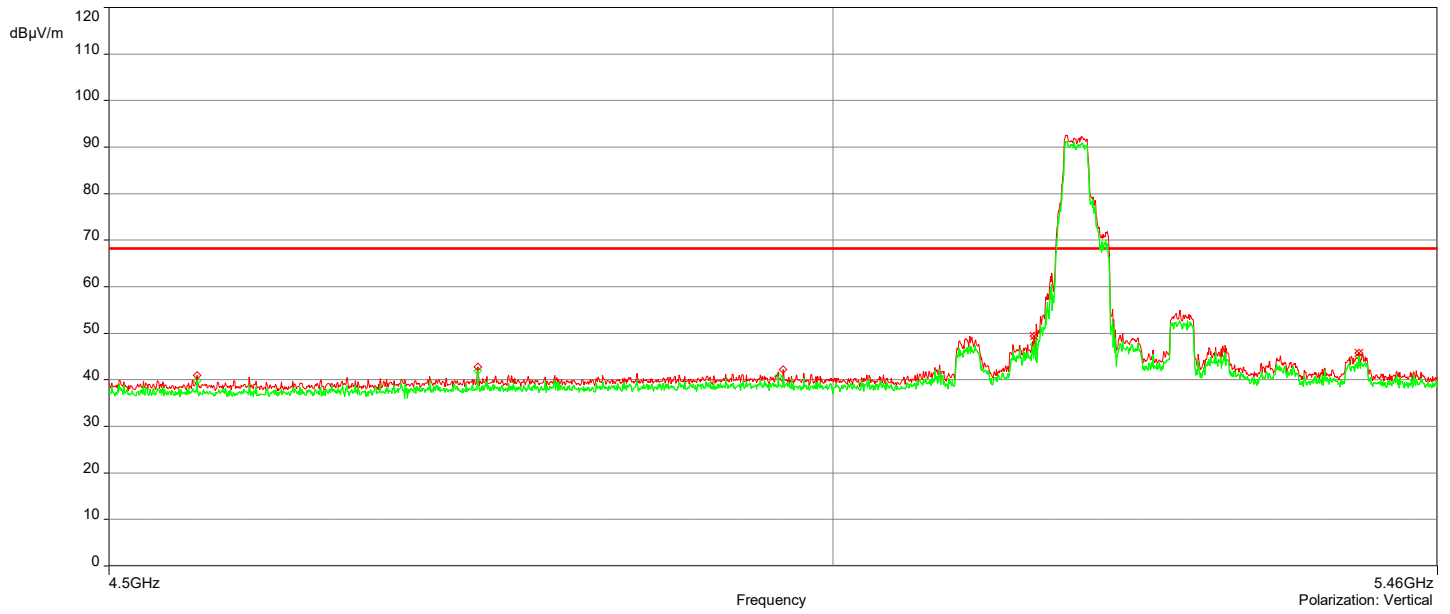
AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 (HT20) 802.11n_Ch-36

9/2/2021 7:42:43 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1488044GHz	49.43	3.97	68.23	-18.80	3.04	314.90	Vertical	Passed
2.	5.398049GHz	45.78	4.64	68.23	-22.45	3.52	269.90	Vertical	Passed
3.	5.1483242GHz	52.83	3.97	68.23	-15.40	3.59	269.90	Horizontal	Passed
4.	5.3961281GHz	47.95	4.63	68.23	-20.28	1.02	247.40	Horizontal	Passed

Overall Graphs:



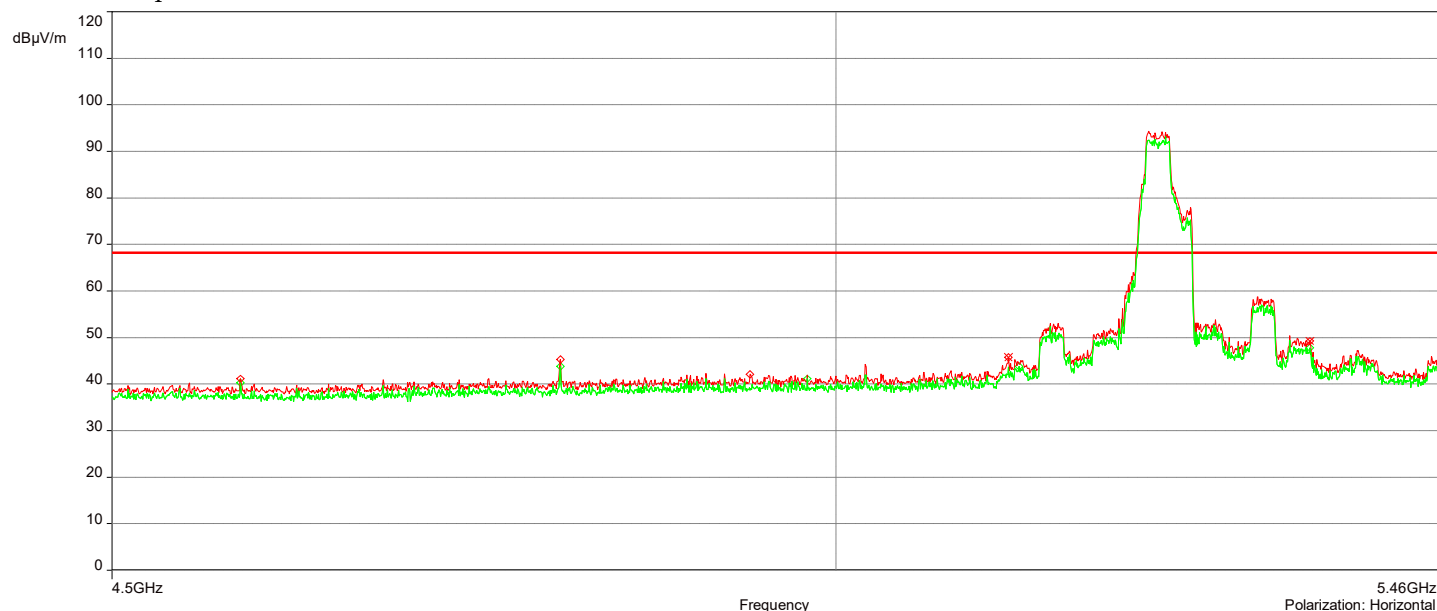


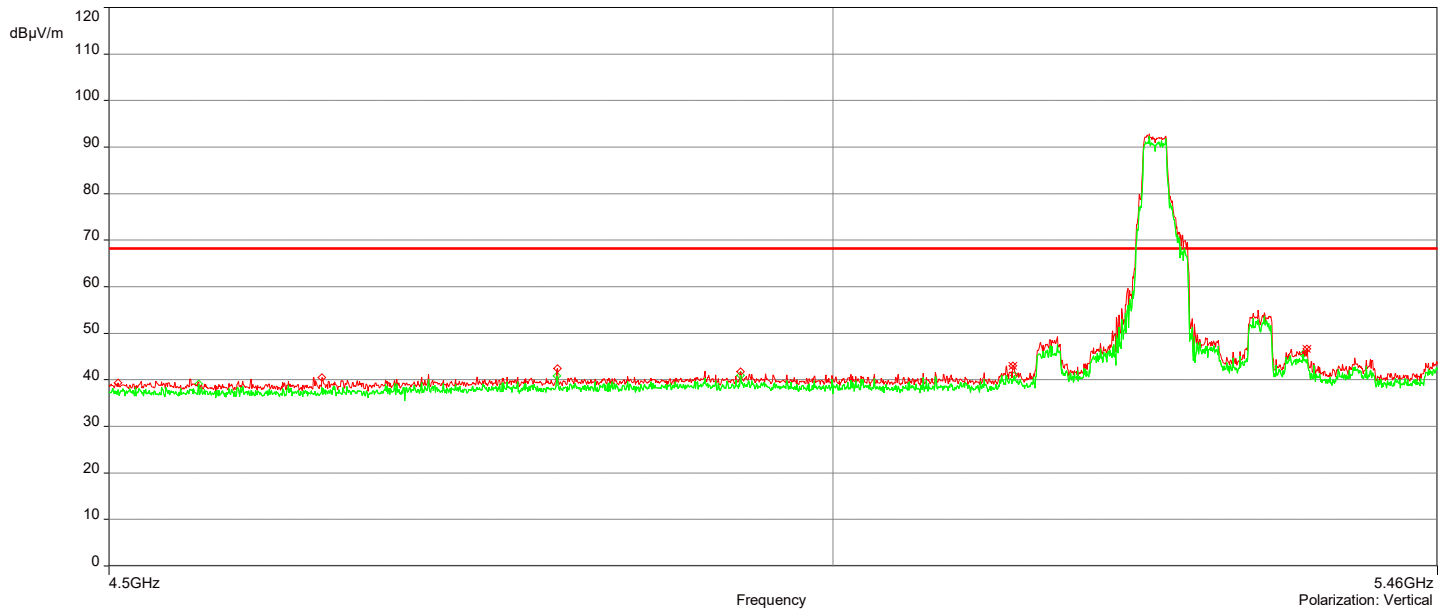
AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 (HT20) 802.11n_Ch-48

9/2/2021 8:07:50 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1329565GHz	43.06	3.93	68.23	-25.17	1.50	337.40	Vertical	Passed
2.	5.3572286GHz	46.66	4.48	68.23	-21.57	4.00	247.60	Vertical	Passed
3.	5.1271936GHz	45.75	3.92	68.23	-22.48	1.00	247.60	Horizontal	Passed
4.	5.3572286GHz	49.29	4.48	68.23	-18.94	1.00	247.60	Horizontal	Passed

Overall Graphs:



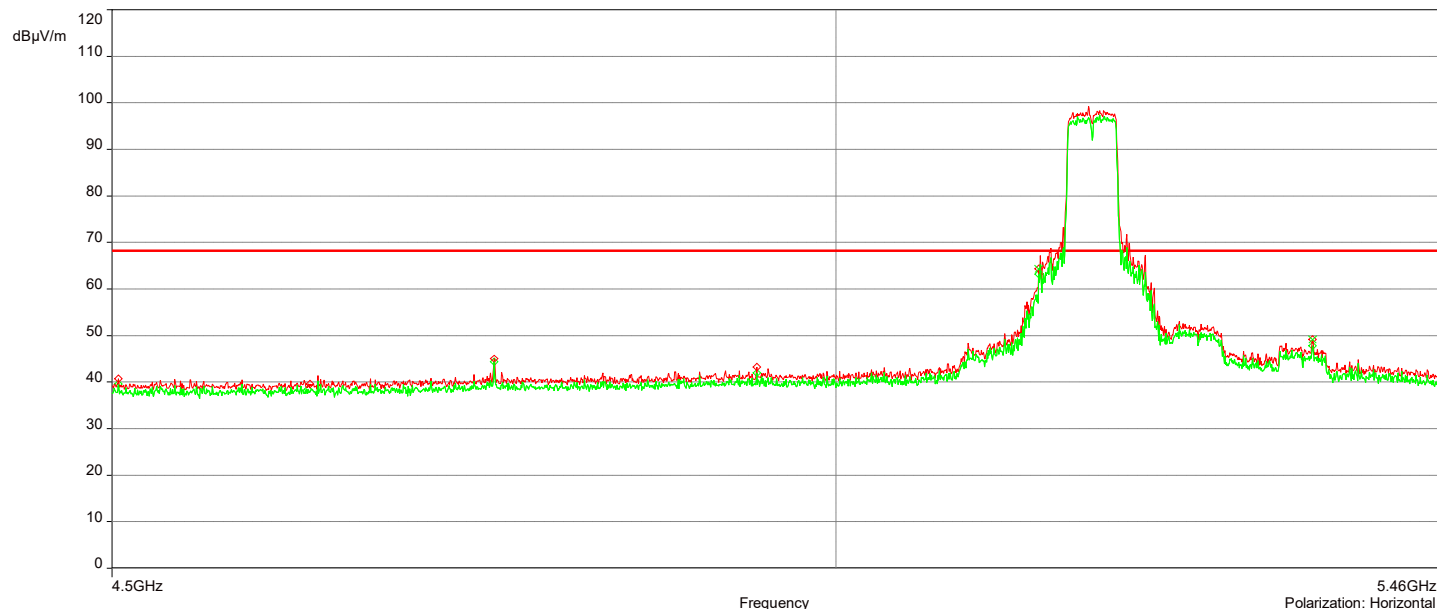


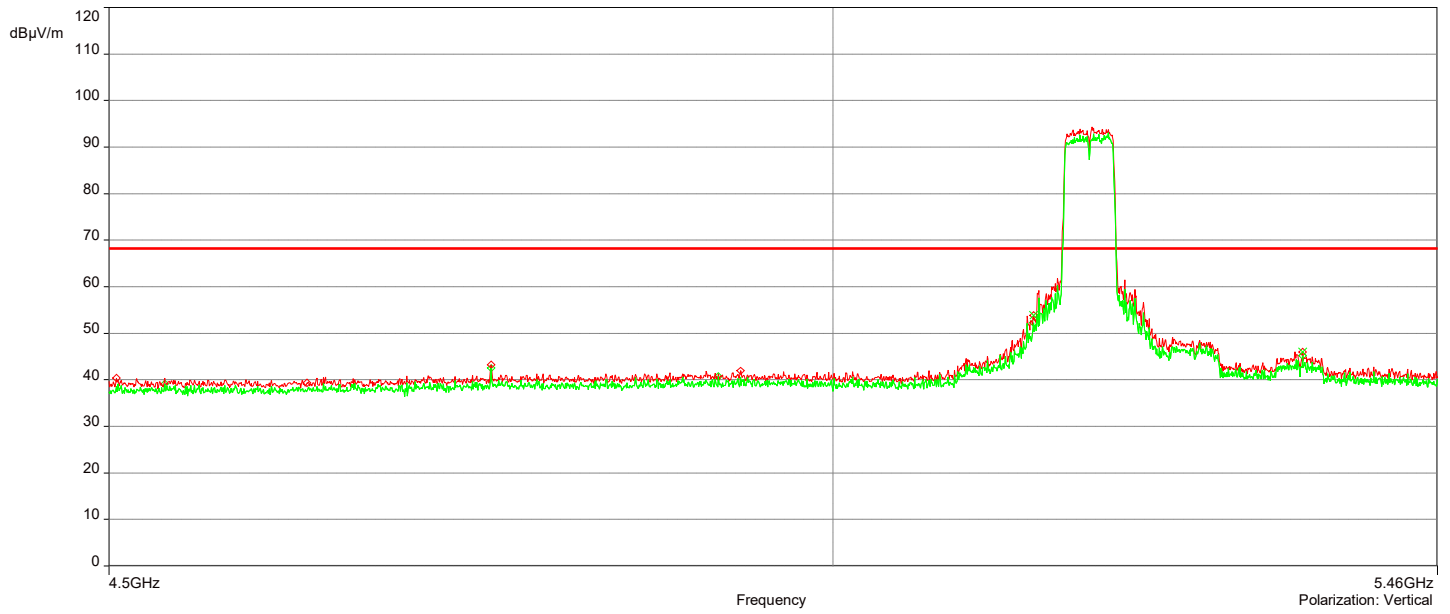
AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 (HT40) 802.11n_Ch-38

9/2/2021 8:30:39 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1483242GHz	53.81	3.97	68.23	-14.42	2.69	337.40	Vertical	Passed
2.	5.3538669GHz	45.95	4.47	68.23	-22.28	3.97	247.40	Vertical	Passed
3.	5.1497649GHz	64.38	3.97	68.23	-3.85	1.02	247.40	Horizontal	Passed
4.	5.3591496GHz	49.22	4.49	68.23	-19.01	1.02	247.40	Horizontal	Passed

Overall Graphs:



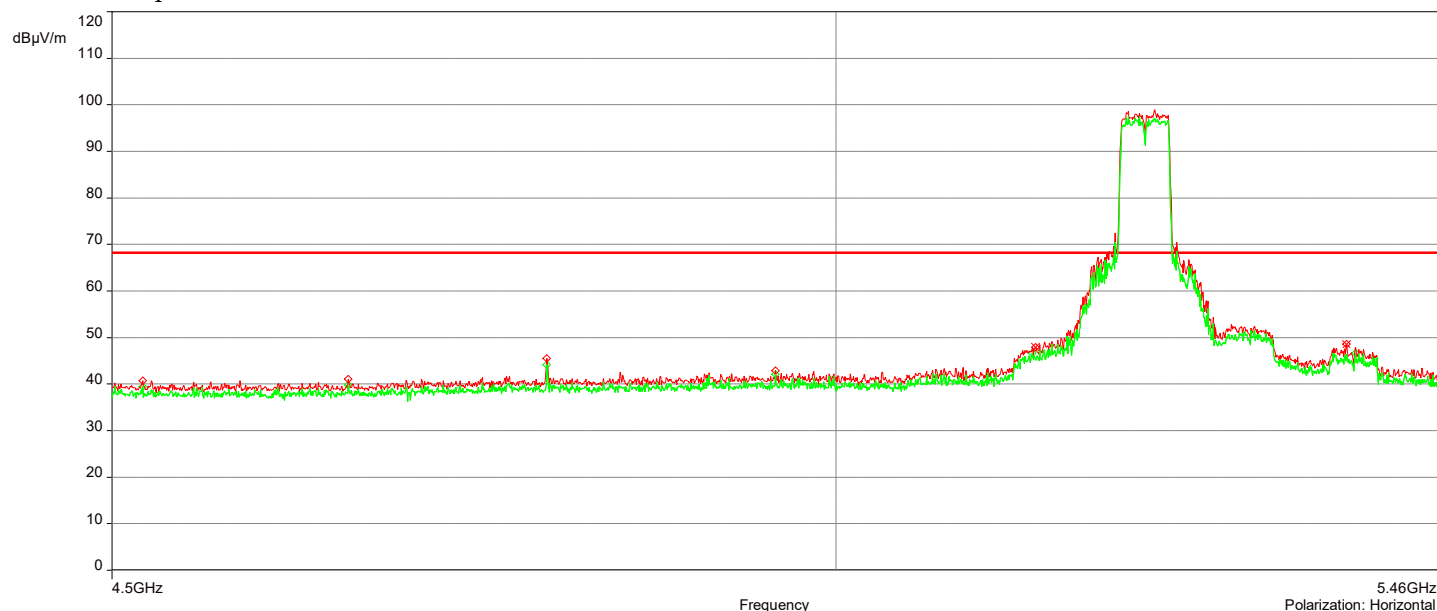


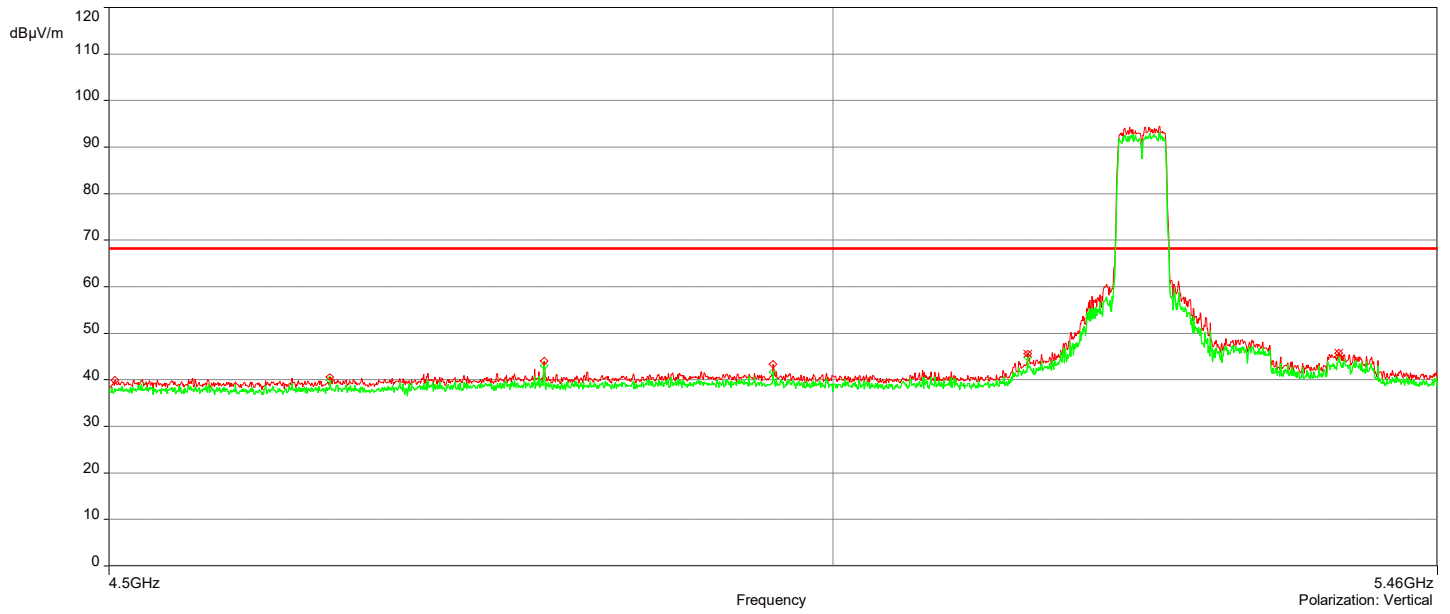
AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 (HT40) 802.11n_Ch-46

9/2/2021 8:56:52 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.144002GHz	45.65	3.96	68.23	-22.58	3.97	292.40	Vertical	Passed
2.	5.3822011GHz	45.80	4.58	68.23	-22.43	3.97	67.40	Vertical	Passed
3.	5.1473637GHz	47.92	3.97	68.23	-20.31	1.36	202.40	Horizontal	Passed
4.	5.386043GHz	48.58	4.59	68.23	-19.65	1.02	247.40	Horizontal	Passed

Overall Graphs:



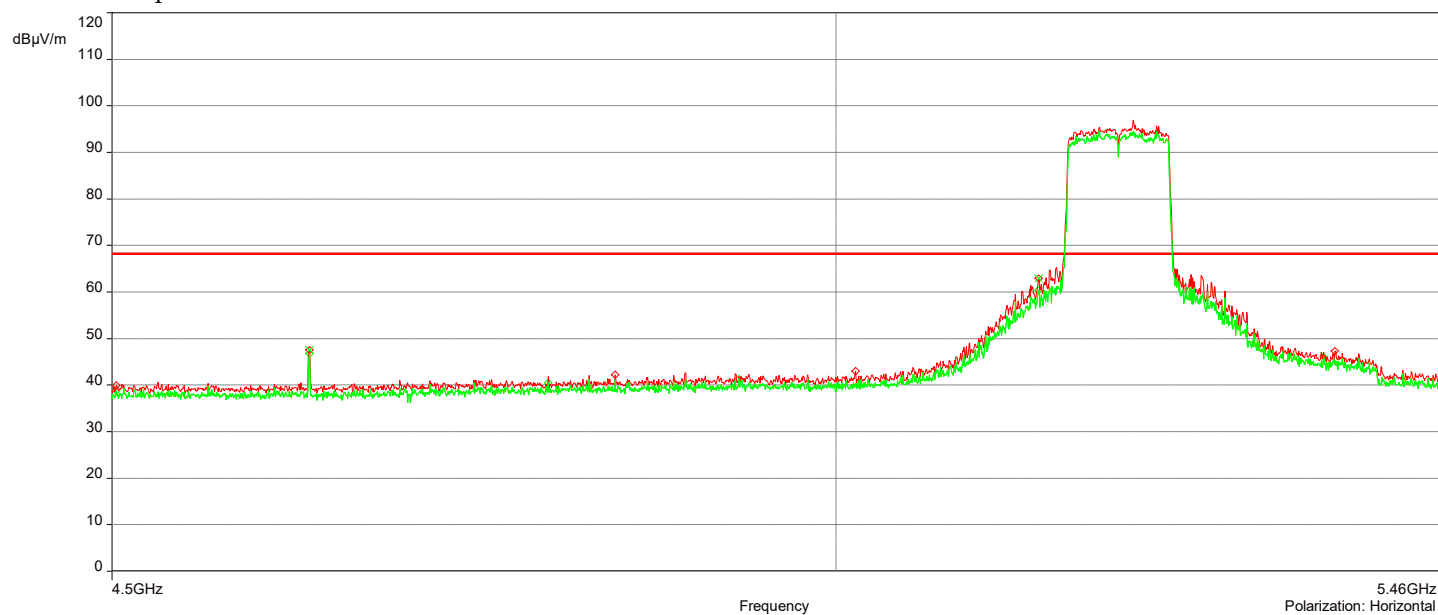


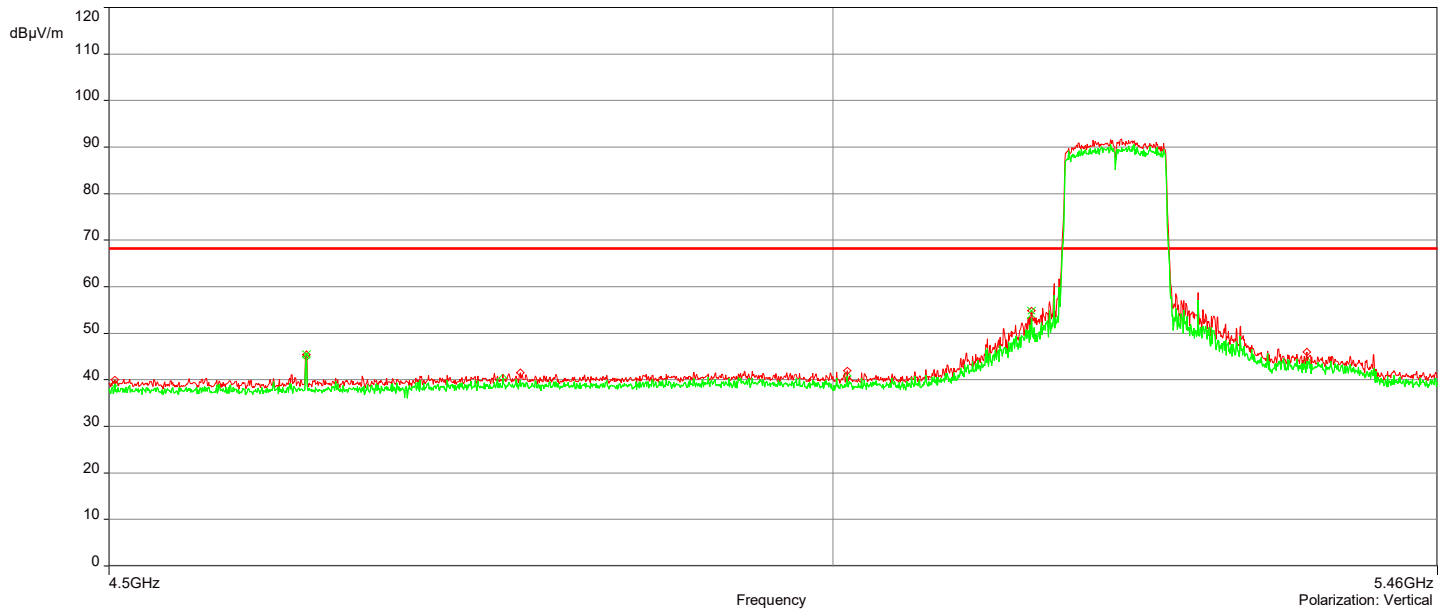
AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 (VHT80) 802.11ac_Ch-42

9/2/2021 2:11:23 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	4.6311056GHz	45.40	3.11	68.23	-22.83	3.97	292.40	Vertical	Passed
2.	5.1468834GHz	54.91	3.96	68.23	-13.32	3.12	224.90	Vertical	Passed
3.	4.6311056GHz	47.63	3.11	68.23	-20.60	1.02	247.40	Horizontal	Passed
4.	5.1497649GHz	62.94	3.97	68.23	-5.29	1.25	157.40	Horizontal	Passed

Overall Graphs:



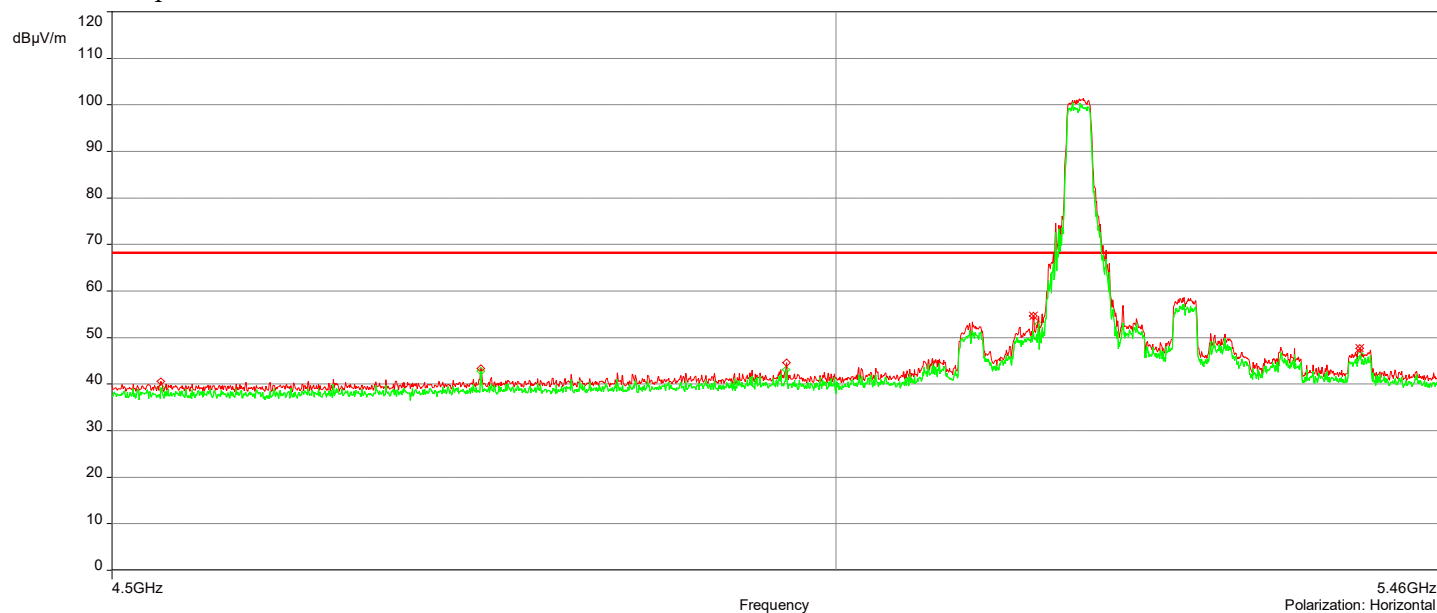


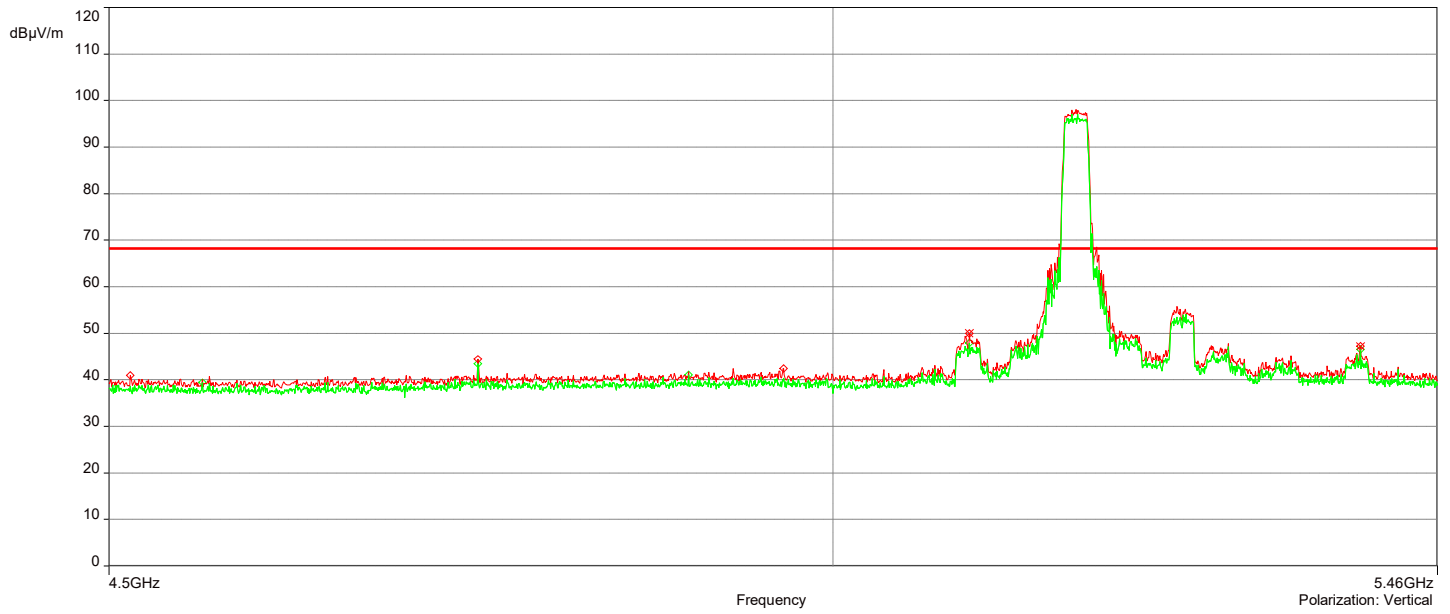
AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 (VHT20) 802.11ac_Ch-36

9/2/2021 12:38:50 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1003001GHz	49.99	3.86	68.23	-18.24	2.79	337.40	Vertical	Passed
2.	5.3990095GHz	47.19	4.64	68.23	-21.04	4.00	292.60	Vertical	Passed
3.	5.145923GHz	54.68	3.96	68.23	-13.55	1.12	247.60	Horizontal	Passed
4.	5.3961281GHz	47.70	4.63	68.23	-20.53	1.00	202.50	Horizontal	Passed

Overall Graphs:



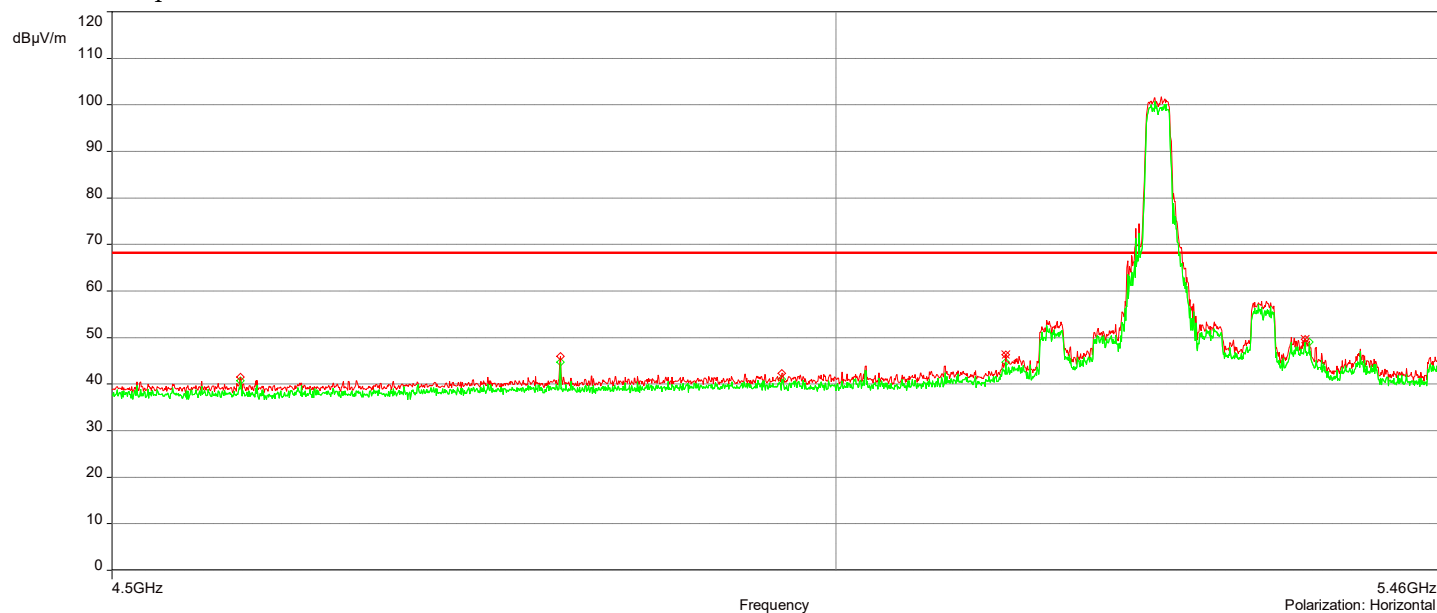


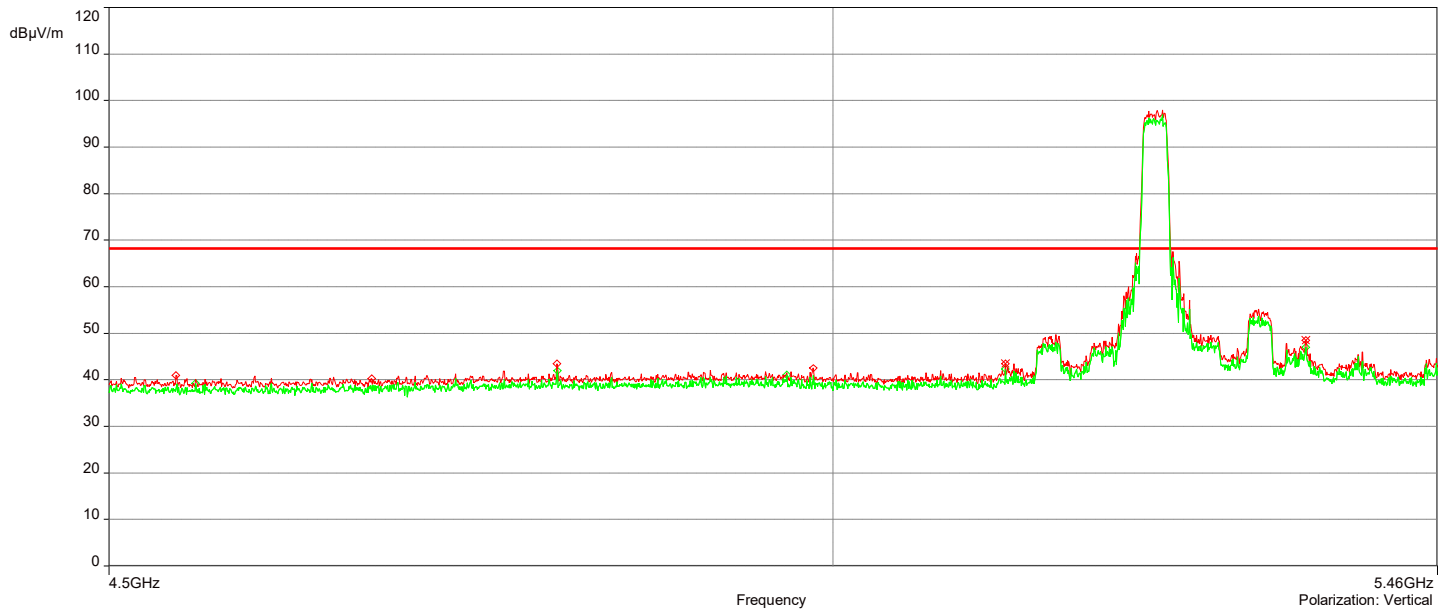
AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 (VHT20) 802.11ac_Ch-48

9/2/2021 1:01:53 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.1271936GHz	43.51	3.92	68.23	-24.72	2.69	337.40	Vertical	Passed
2.	5.3562681GHz	48.46	4.48	68.23	-19.77	4.00	269.90	Vertical	Passed
3.	5.1252726GHz	46.32	3.92	68.23	-21.91	1.49	224.90	Horizontal	Passed
4.	5.3533867GHz	49.66	4.47	68.23	-18.57	1.26	247.40	Horizontal	Passed

Overall Graphs:



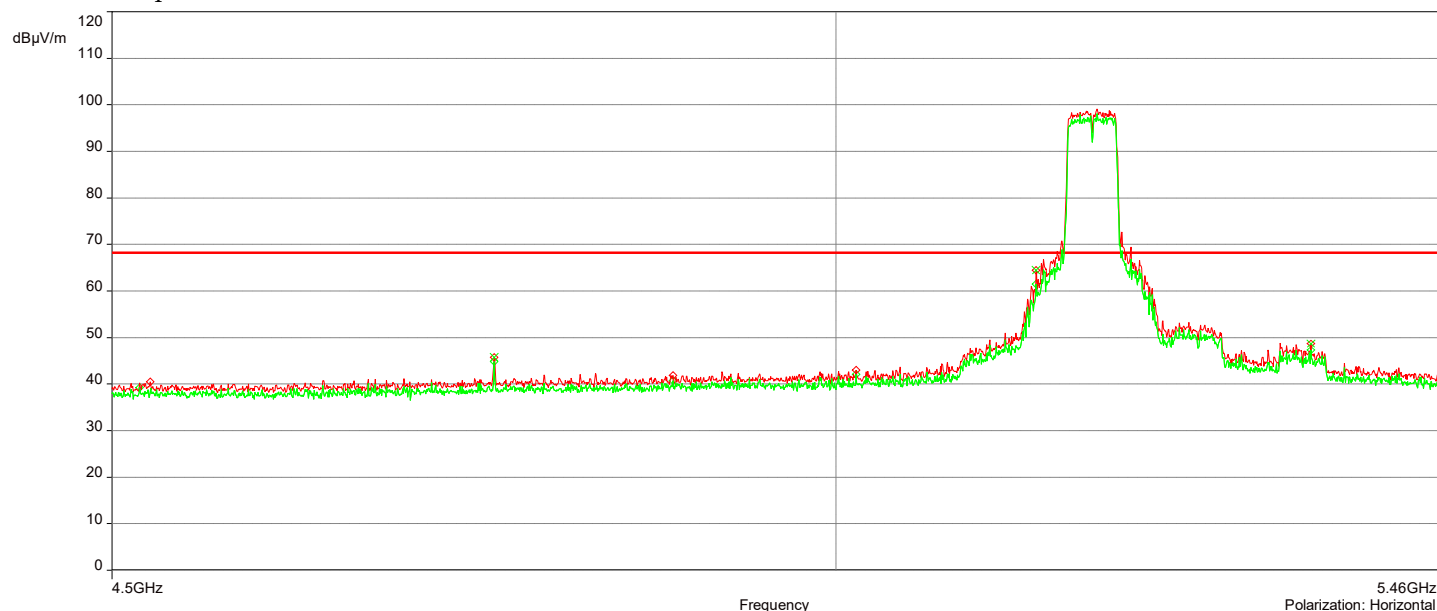


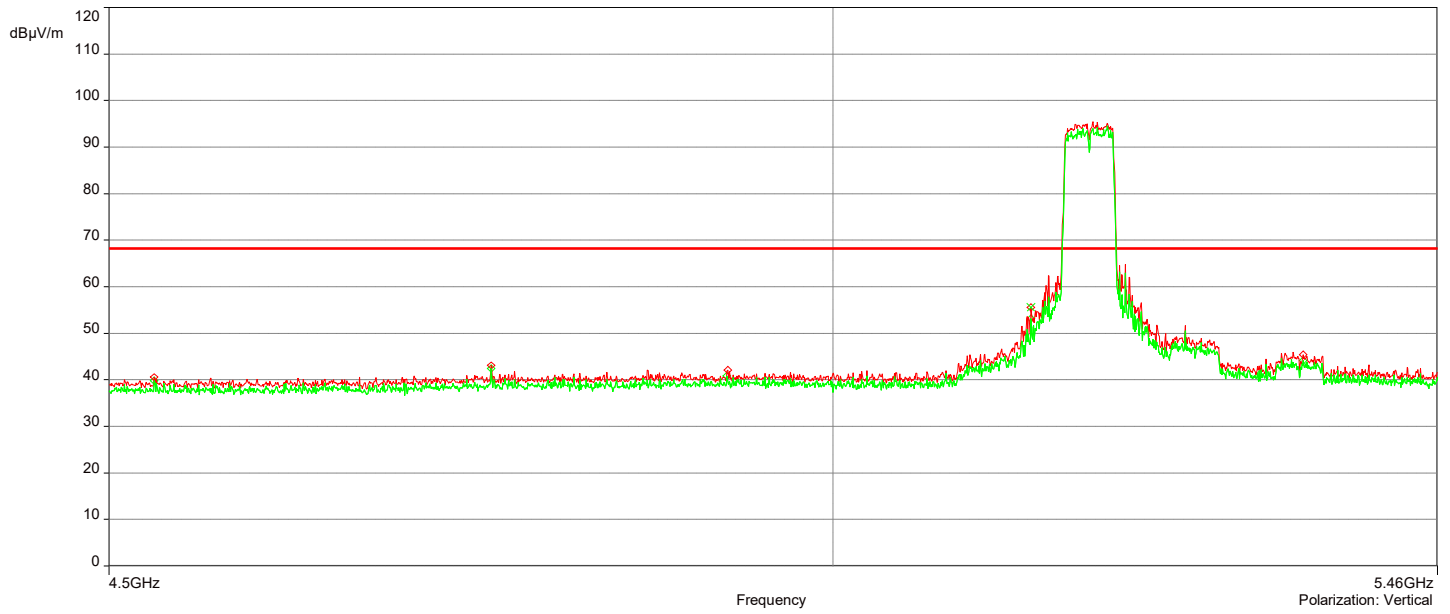
AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 (VHT40) 802.11ac_Ch-38

9/2/2021 1:23:03 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.1464032GHz	55.51	3.96	68.23	-12.72	3.97	270.10	Vertical	Passed
2.	4.7574087GHz	45.77	3.85	68.23	-22.46	1.24	225.20	Horizontal	Passed
3.	5.1478439GHz	64.44	3.97	68.23	-3.79	1.00	247.60	Horizontal	Passed
4.	5.3581891GHz	48.70	4.49	68.23	-19.53	1.26	202.60	Horizontal	Passed

Overall Graphs:



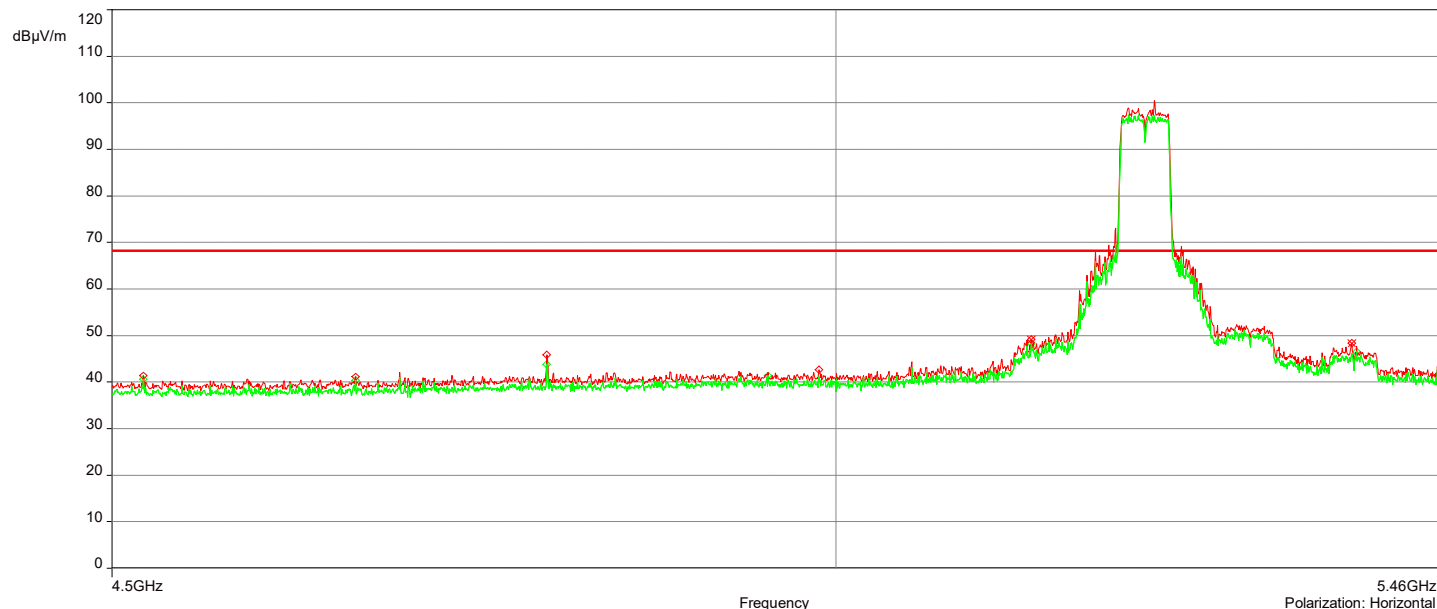


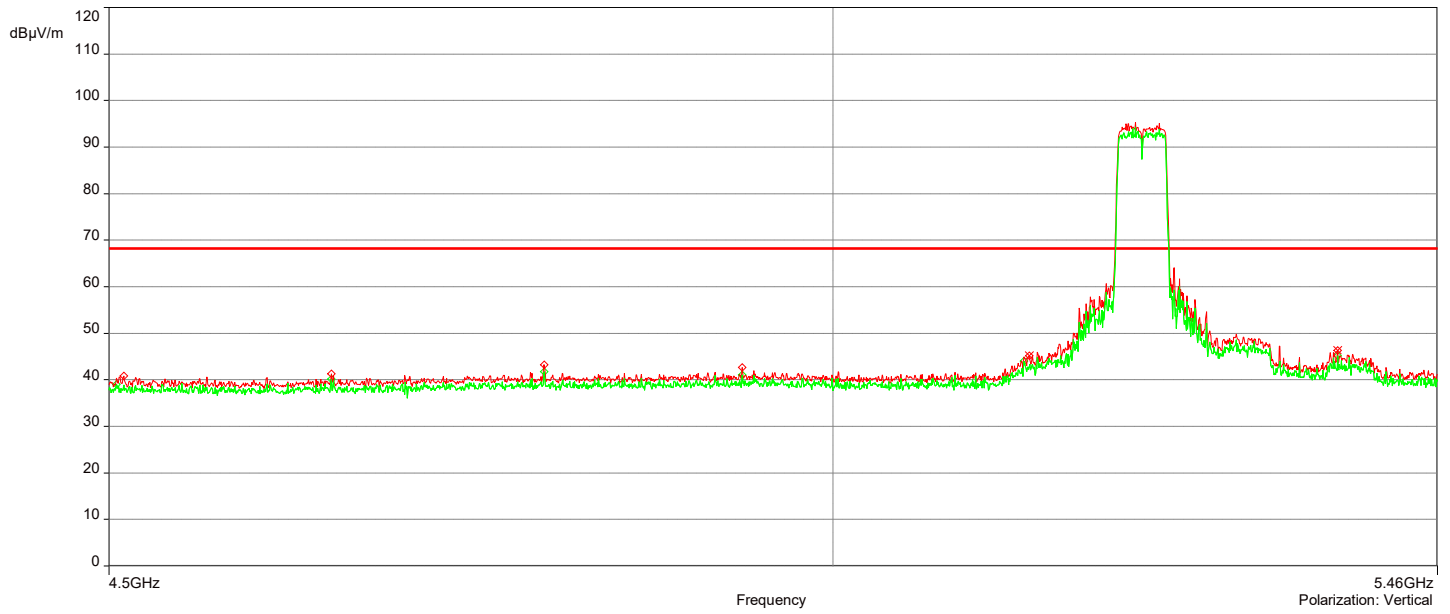
AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 (VHT40) 802.11ac_Ch-46

9/2/2021 1:47:08 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.1449625GHz	45.17	3.96	68.23	-23.06	2.79	337.40	Vertical	Passed
2.	5.3812406GHz	46.34	4.57	68.23	-21.89	2.93	270.10	Vertical	Passed
3.	5.1444822GHz	49.22	3.96	68.23	-19.01	1.15	202.60	Horizontal	Passed
4.	5.3898849GHz	48.32	4.61	68.23	-19.91	1.00	247.60	Horizontal	Passed

Overall Graphs:



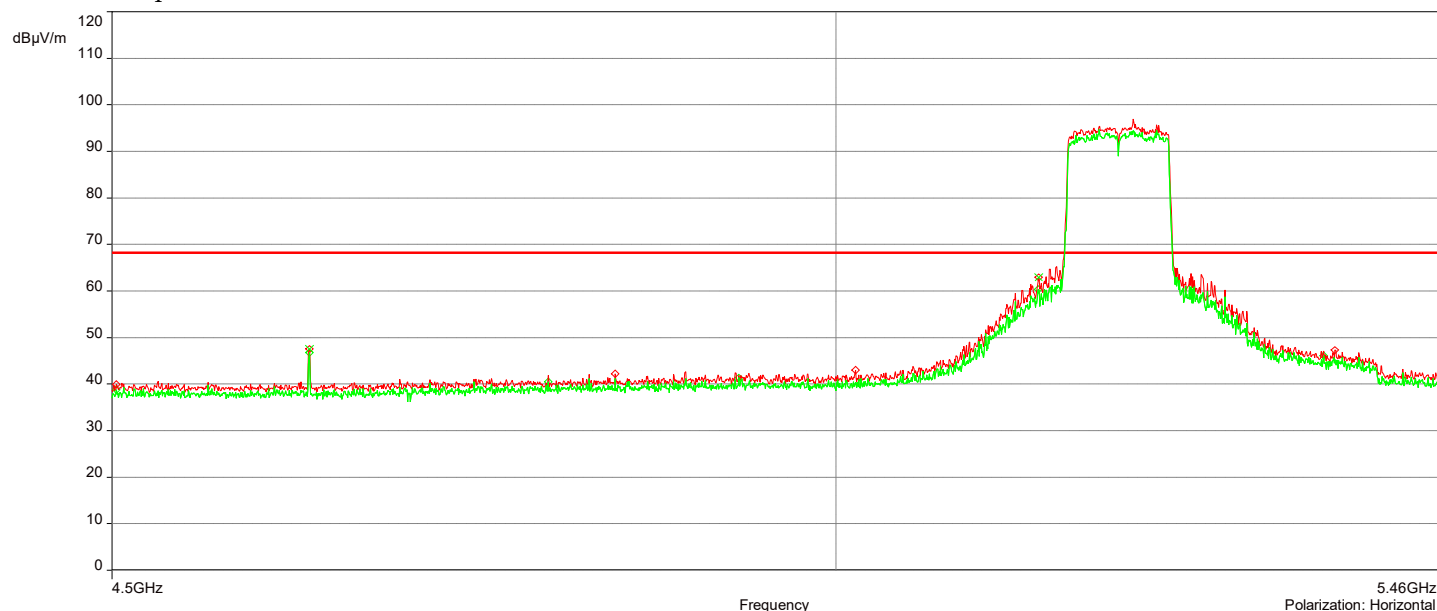


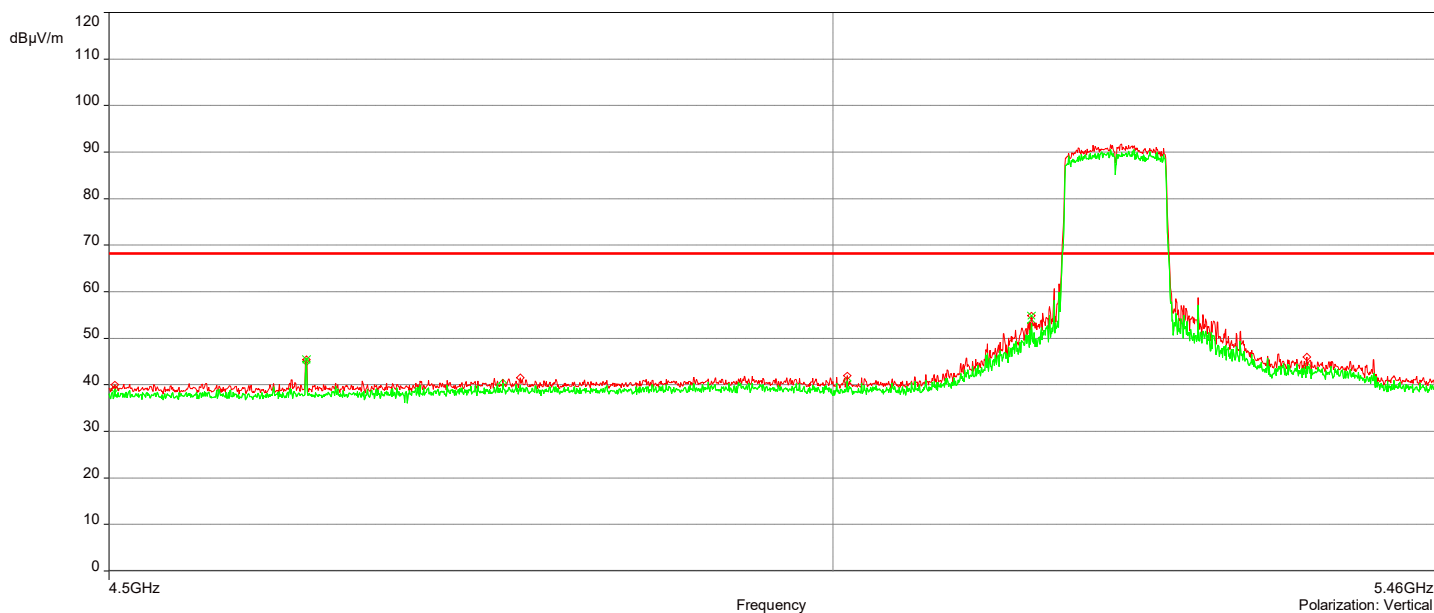
AH21042001-HAR-017#002_Unrestricted Bandedge_5G UNII-1 (VHT80) 802.11ac_Ch-42

9/2/2021 2:11:23 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	4.6311056GHz	45.40	3.11	68.23	-22.83	3.97	292.40	Vertical	Passed
2.	5.1468834GHz	54.91	3.96	68.23	-13.32	3.12	224.90	Vertical	Passed
3.	4.6311056GHz	47.63	3.11	68.23	-20.60	1.02	247.40	Horizontal	Passed
4.	5.1497649GHz	62.94	3.97	68.23	-5.29	1.25	157.40	Horizontal	Passed

Overall Graphs:





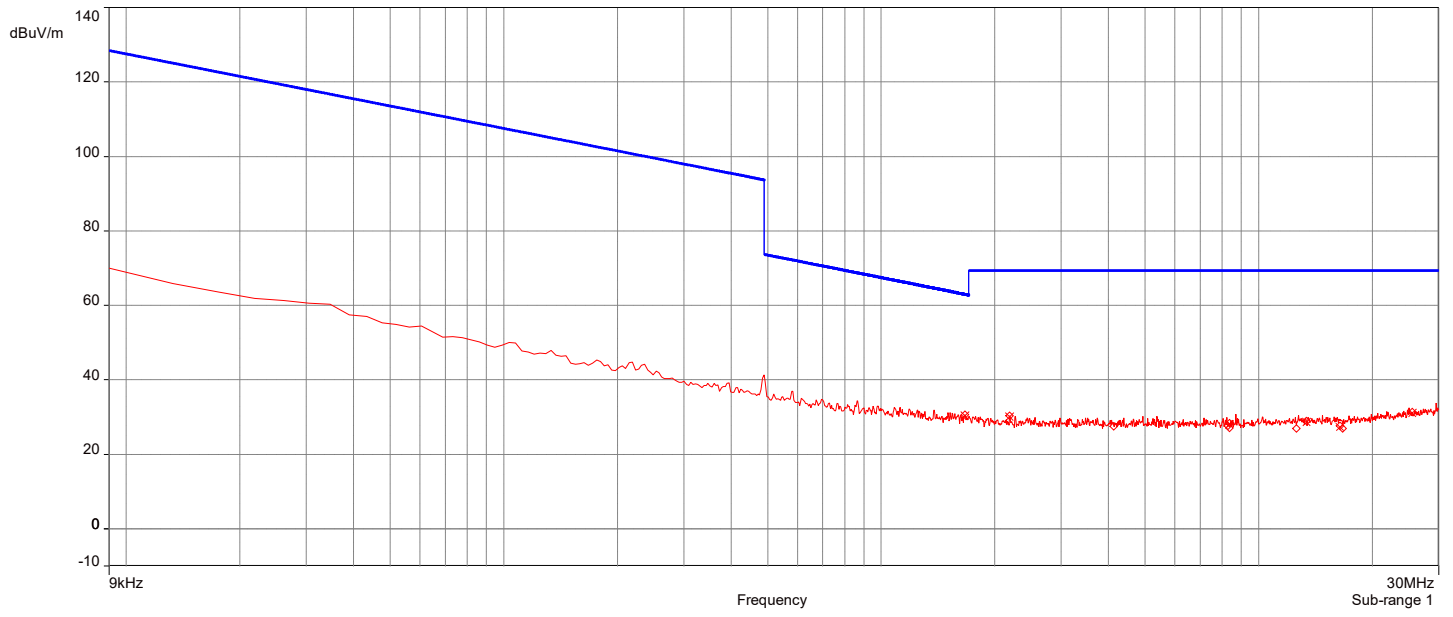
5G UNII-3

AH21042001-HAR-017#002_802.11a UNII-3 CH157_9kHz-30MHz_Ground-Parallel

8/24/2021 10:29:43 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Judgement
1.	1.667311MHz	30.70	19.13	63.16	-32.47	1.00	214.40	Passed
2.	2.190086MHz	30.30	19.10	69.54	-39.24	1.00	185.60	Passed
3.	8.364829MHz	28.39	19.14	69.54	-41.15	1.00	65.50	Passed
4.	13.395467MHz	28.99	19.62	69.54	-40.55	1.00	301.30	Passed
5.	16.420706MHz	27.64	19.70	69.54	-41.90	1.00	358.90	Passed
6.	25.500707MHz	31.30	20.69	69.54	-38.25	1.00	241.80	Passed

Overall Graphs:

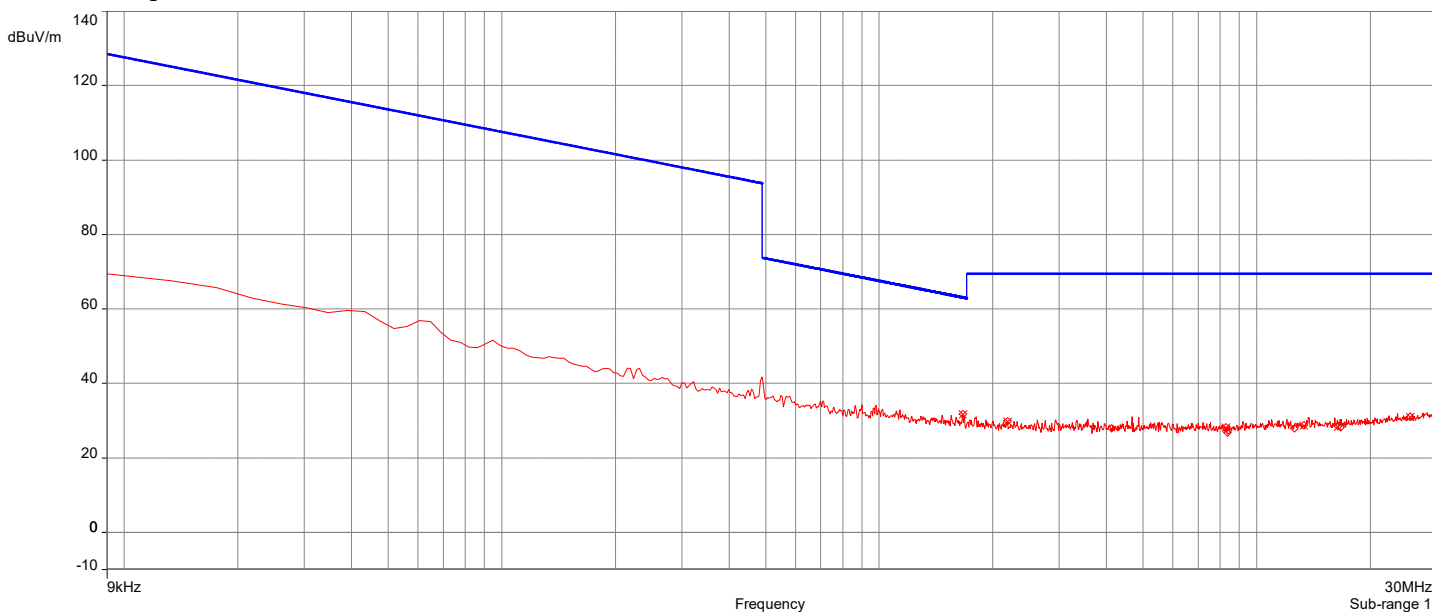


AH21042001-HAR-017#002_802.11a UNII-3 CH157_9kHz-30MHz_Parallel

8/24/2021 10:26:47 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Judgement
1.	1.667311MHz	31.73	19.13	63.16	-31.44	1.00	47.00	Passed
2.	2.185801MHz	30.00	19.10	69.54	-39.54	1.00	328.40	Passed
3.	8.291984MHz	28.20	19.14	69.54	-41.34	1.00	94.70	Passed
4.	13.365472MHz	28.81	19.61	69.54	-40.73	1.00	163.60	Passed
5.	16.420706MHz	28.55	19.70	69.54	-40.99	1.00	239.10	Passed
6.	25.543558MHz	31.10	20.69	69.54	-38.44	1.00	47.00	Passed

Overall Graphs:

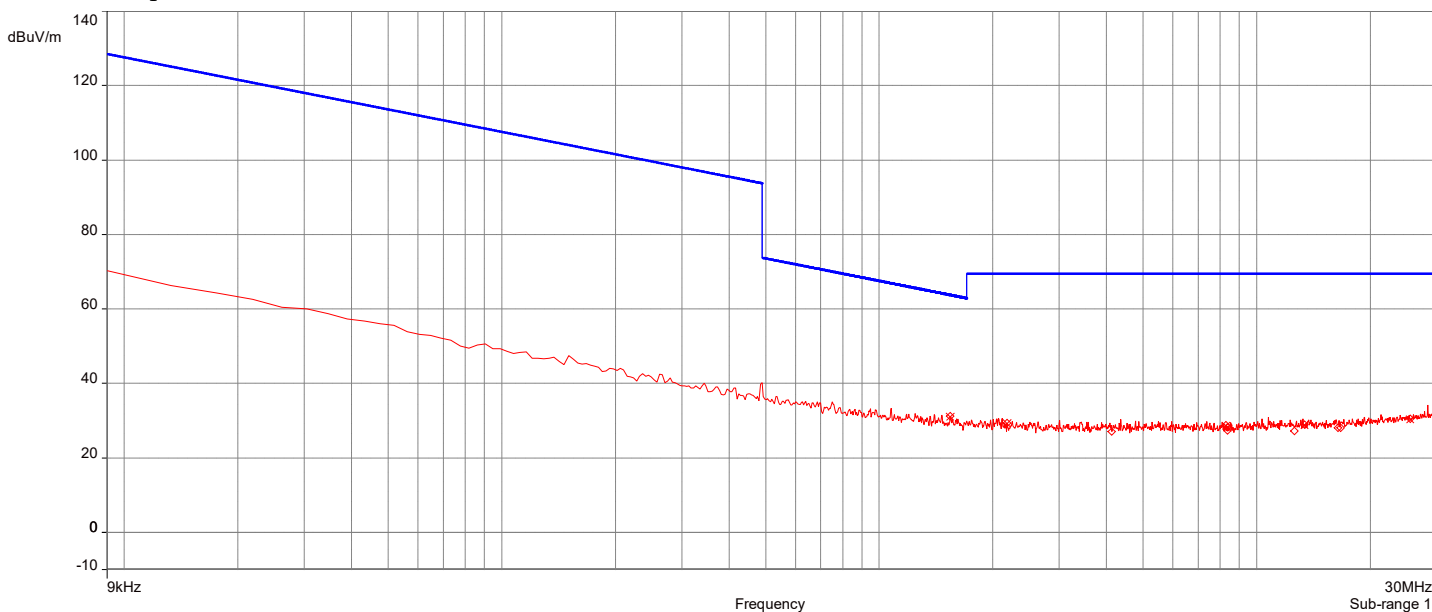


AH21042001-HAR-017#002_802.11a UNII-3 CH157_9kHz-30MHz_Perpendicular

8/24/2021 12:59:15 PM

No	Frequency (MHz)	Level Q-Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Judgement
1.	1.543045MHz	31.29	19.14	63.84	-32.55	1.00	58.30	Passed
2.	2.177231MHz	29.39	19.10	69.54	-40.16	1.00	106.30	Passed
3.	8.291984MHz	28.80	19.14	69.54	-40.74	1.00	0.10	Passed
4.	8.38197MHz	28.24	19.14	69.54	-41.30	1.00	227.10	Passed
5.	13.386897MHz	28.96	19.62	69.54	-40.59	1.00	256.40	Passed
6.	25.526417MHz	30.46	20.69	69.54	-39.08	1.00	256.40	Passed

Overall Graphs:

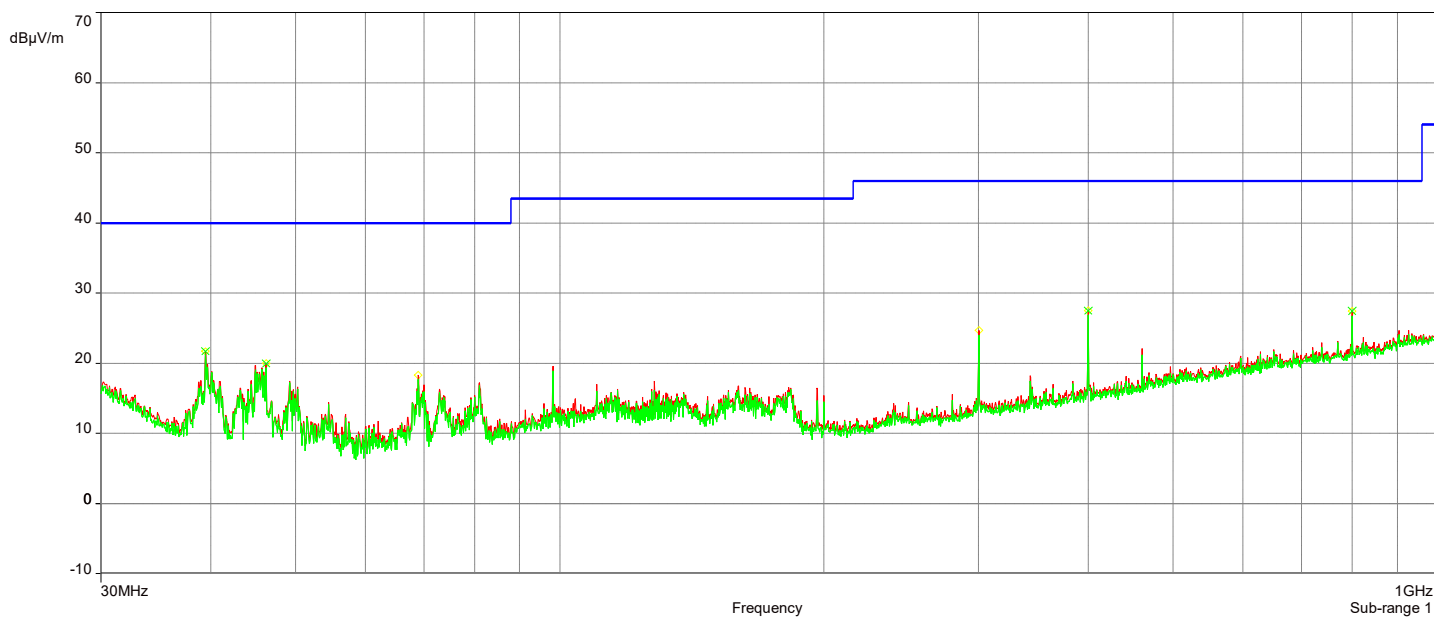


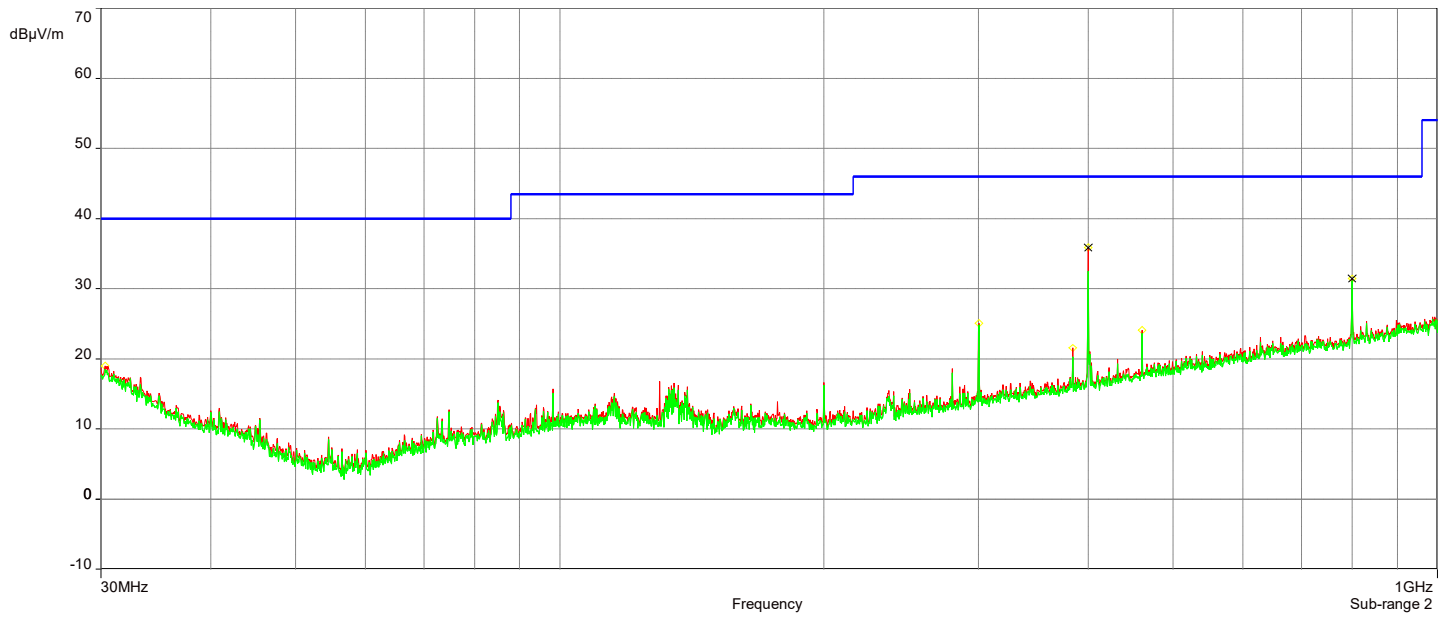
AH21042001-HAR-017#002_802.11a UNII-3 CH149_30MHz-1GHz

8/23/2021 7:45:33 PM

No	Frequency (MHz)	Level Q-Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	39.472322MHz	21.74	-12.24	40.00	-18.26	1.00	357.70	Vertical	Passed
2.	46.262721MHz	19.95	-16.27	40.00	-20.05	1.00	255.70	Vertical	Passed
3.	399.99118MHz	27.49	-9.42	46.00	-18.51	3.50	351.50	Vertical	Passed
4.	799.82587MHz	27.40	-2.19	46.00	-18.60	1.00	172.30	Vertical	Passed
5.	399.99118MHz	35.89	-8.42	46.00	-10.11	1.50	0.10	Horizontal	Passed
6.	799.99706MHz	31.49	-0.99	46.00	-14.51	1.50	323.50	Horizontal	Passed

Overall Graphs:



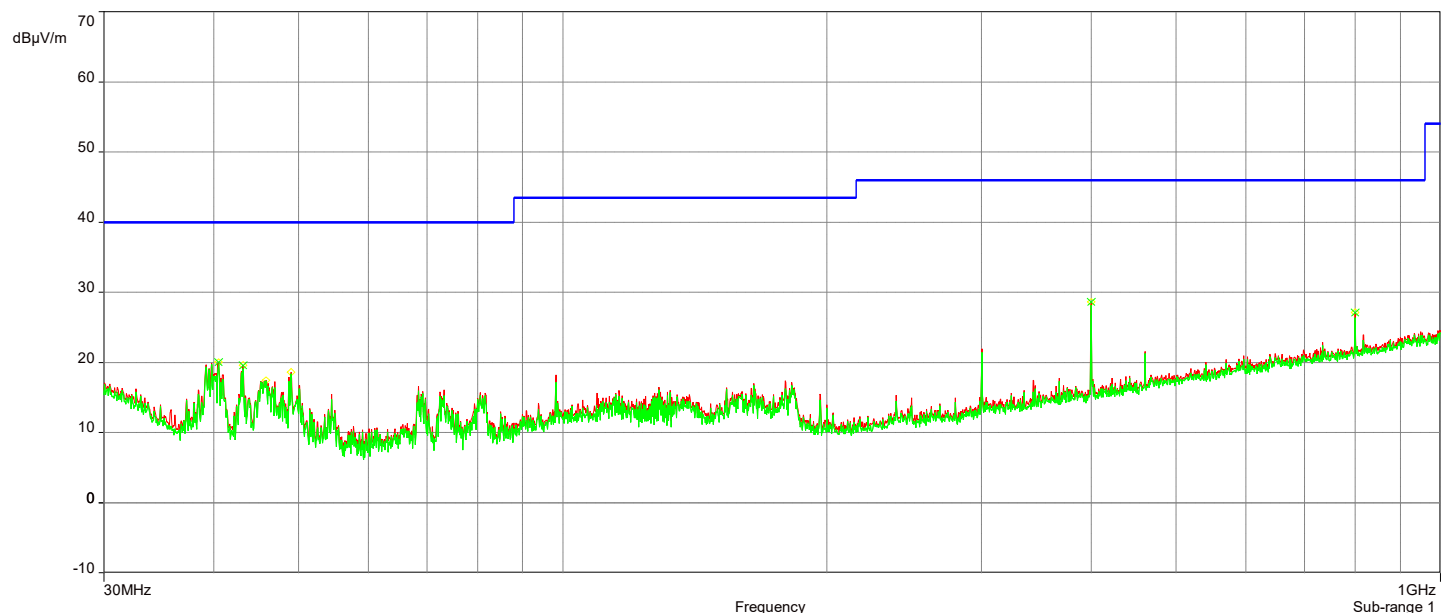


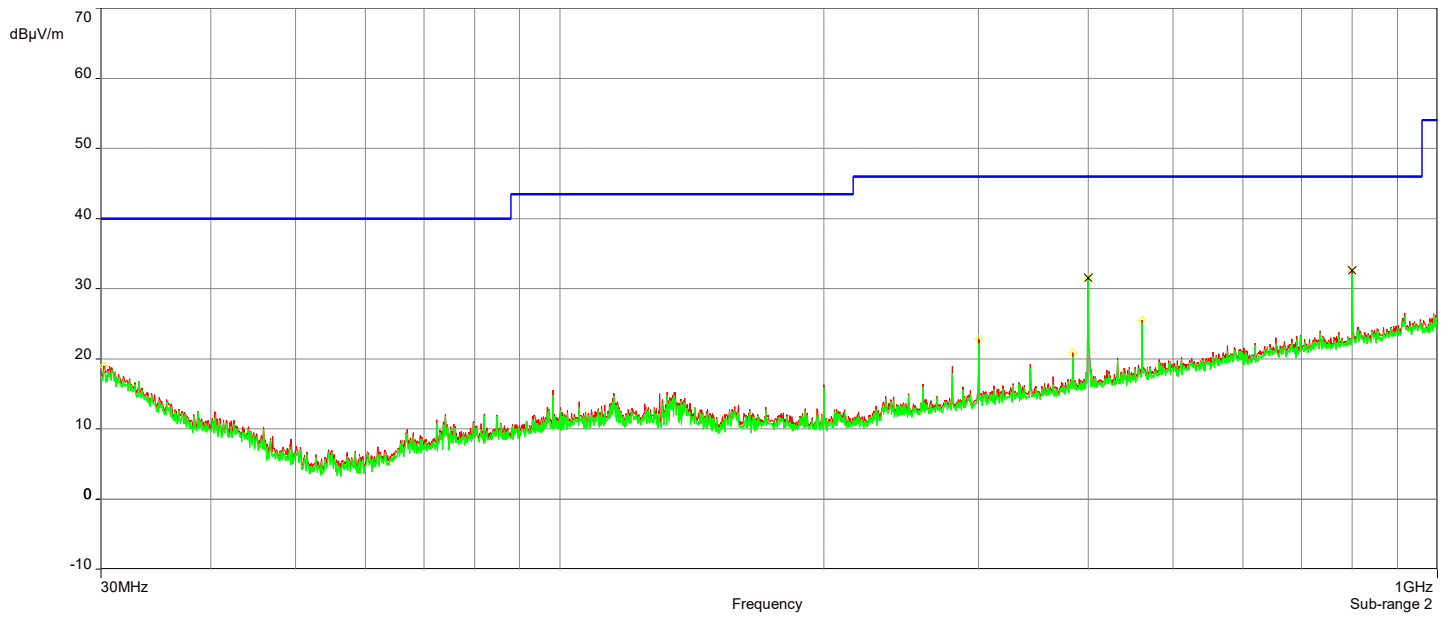
AH21042001-HAR-017#002_802.11a UNII-3 CH157_30MHz-1GHz

8/23/2021 8:01:33 PM

No	Frequency (MHz)	Level Q-Peak Reading (dB μ V/m)	Correc tion Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarizatio n	Judgem ent
1.	40.499441MHz	20.08	-12.85	40.00	-19.92	1.00	1.30	Vertical	Passed
2.	43.238426MHz	19.59	-14.38	40.00	-20.41	1.00	182.90	Vertical	Passed
3.	399.81999MHz	28.63	-9.42	46.00	-17.37	3.50	1.60	Vertical	Passed
4.	799.76881MHz	27.11	-2.19	46.00	-18.89	1.00	170.20	Vertical	Passed
5.	400.04824MHz	31.52	-8.42	46.00	-14.48	1.50	358.90	Horizontal	Passed
6.	799.88293MHz	32.56	-0.99	46.00	-13.44	1.00	193.60	Horizontal	Passed

Overall Graphs:



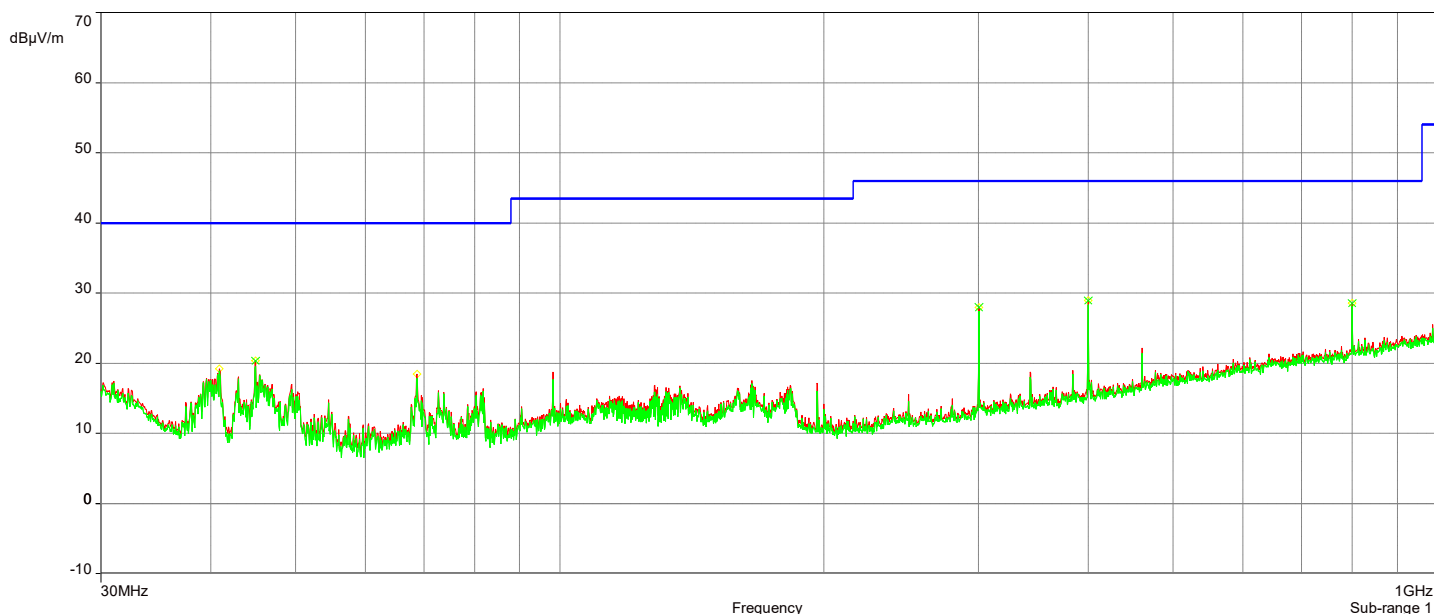


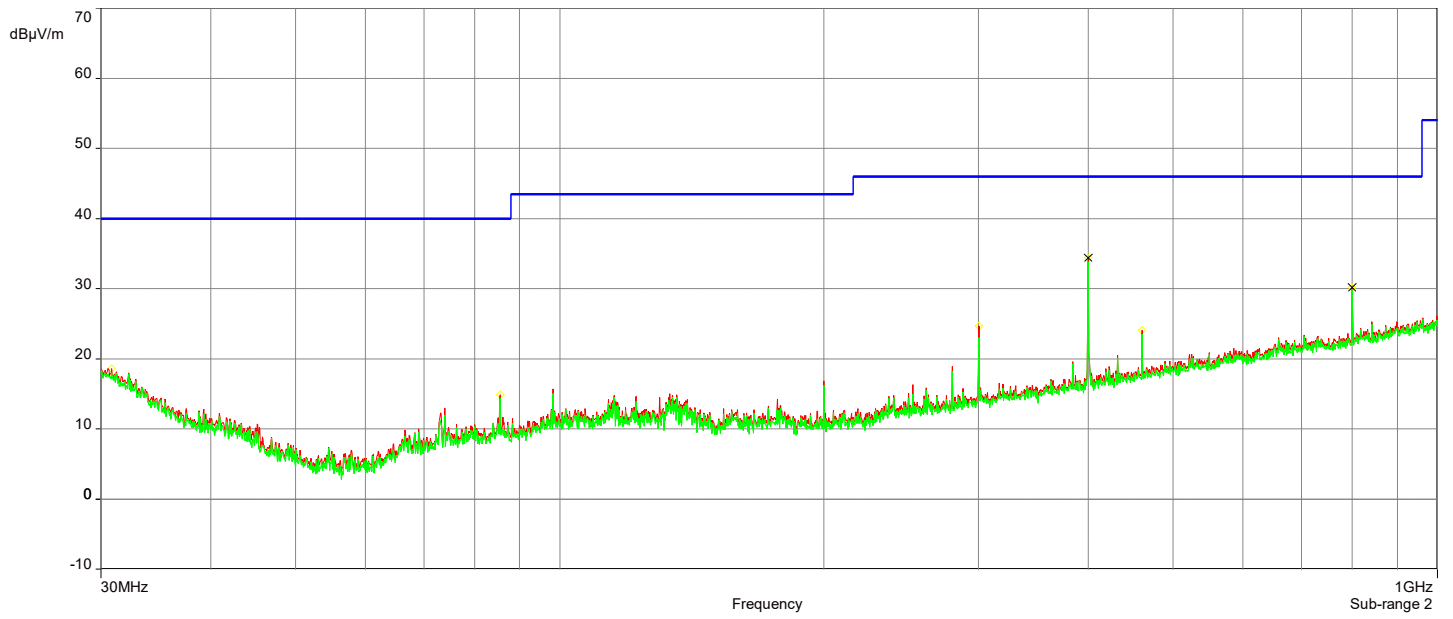
AH21042001-HAR-017#002_802.11a UNII-3 CH165_30MHz-1GHz

8/23/2021 8:18:12 PM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	45.007353MHz	20.33	-15.53	40.00	-19.67	1.00	162.70	Vertical	Passed
2.	300.24649MHz	27.94	-11.94	46.00	-18.06	3.00	14.50	Vertical	Passed
3.	399.93411MHz	28.96	-9.42	46.00	-17.04	4.00	358.90	Vertical	Passed
4.	799.94MHz	28.56	-2.19	46.00	-17.44	1.00	175.10	Vertical	Passed
5.	399.87705MHz	34.42	-8.42	46.00	-11.58	1.00	354.80	Horizontal	Passed
6.	799.82587MHz	30.12	-0.99	46.00	-15.88	2.00	318.10	Horizontal	Passed

Overall Graphs:





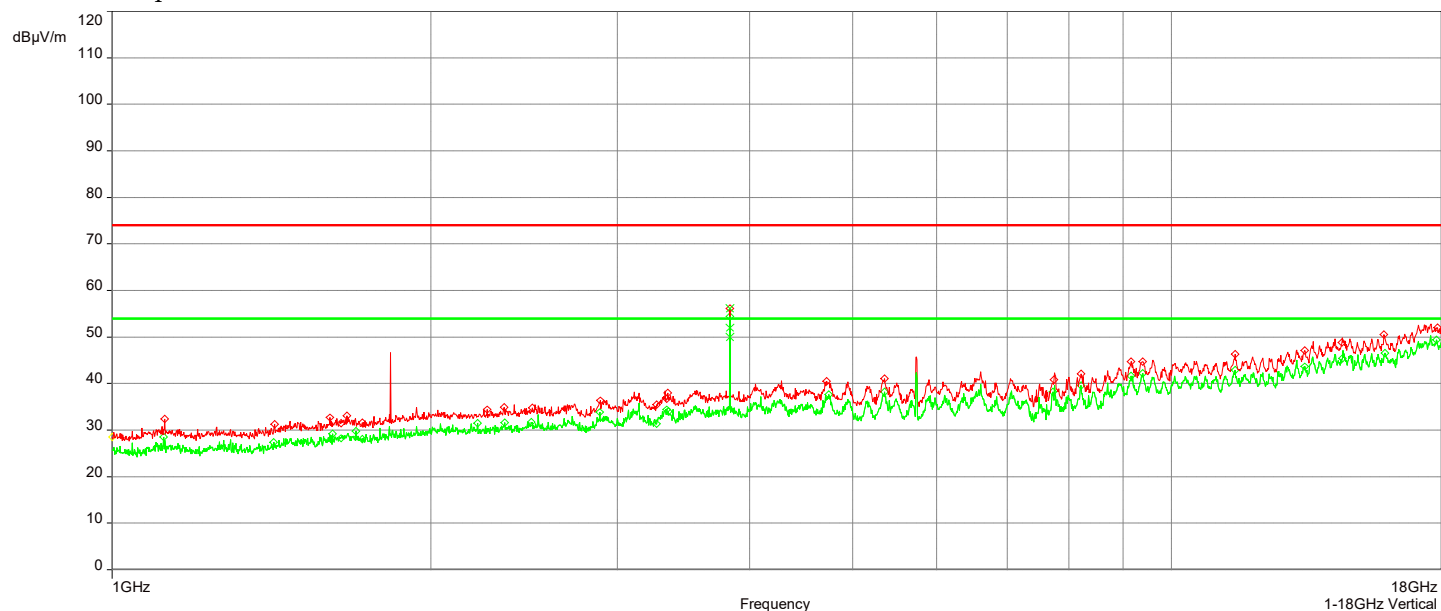
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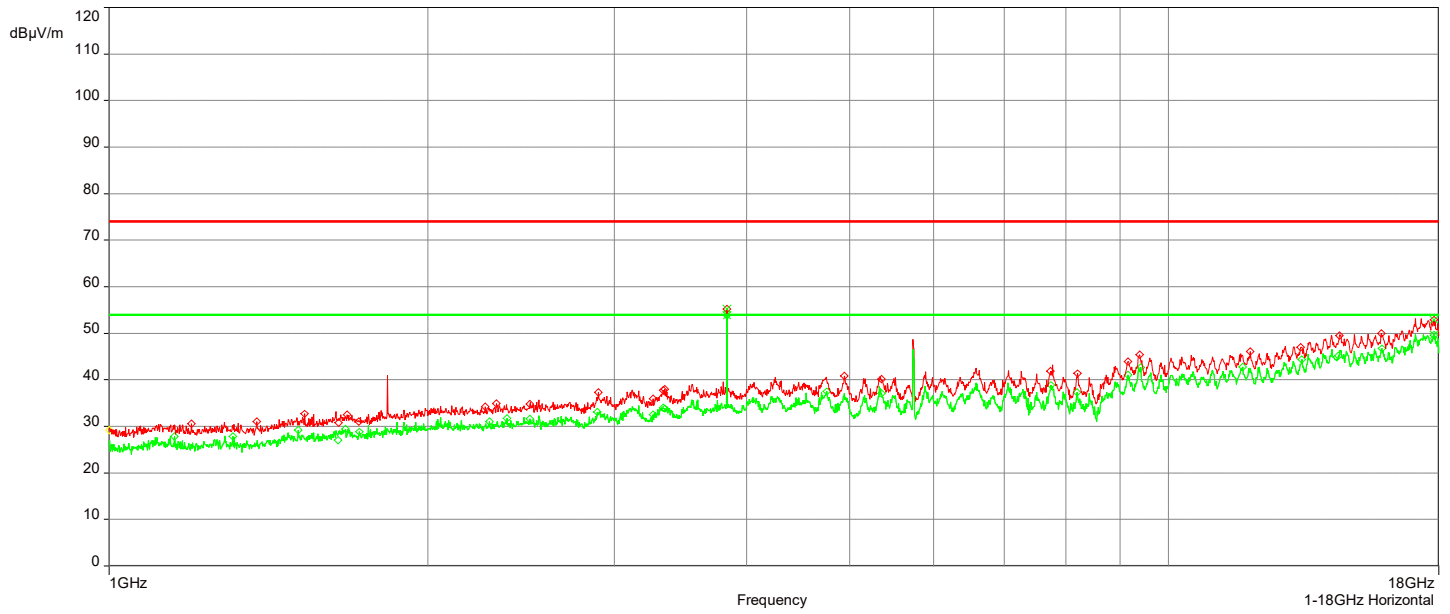
6/30/2021 12:48:45 PM

No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	3.8300832GHz	56.14	1.95	74.00	-17.86	3.31	299.9	Vertical	Passed
2.	3.8300832GHz	55.18	1.95	74.00	-18.82	1.27	239.9	Horizontal	Passed
3.	17.819995GHz	52.88	18.89	74.00	-21.12	2.72	0	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8300832GHz	49.94	1.95	54.00	-4.06	3.31	299.9	Vertical	Passed
2.	3.8300832GHz	53.85	1.95	54.00	-0.15	1.27	239.9	Horizontal	Passed
3.	17.819995GHz	49.59	18.89	54.00	-4.41	2.72	0	Horizontal	Passed

Overall Graphs:





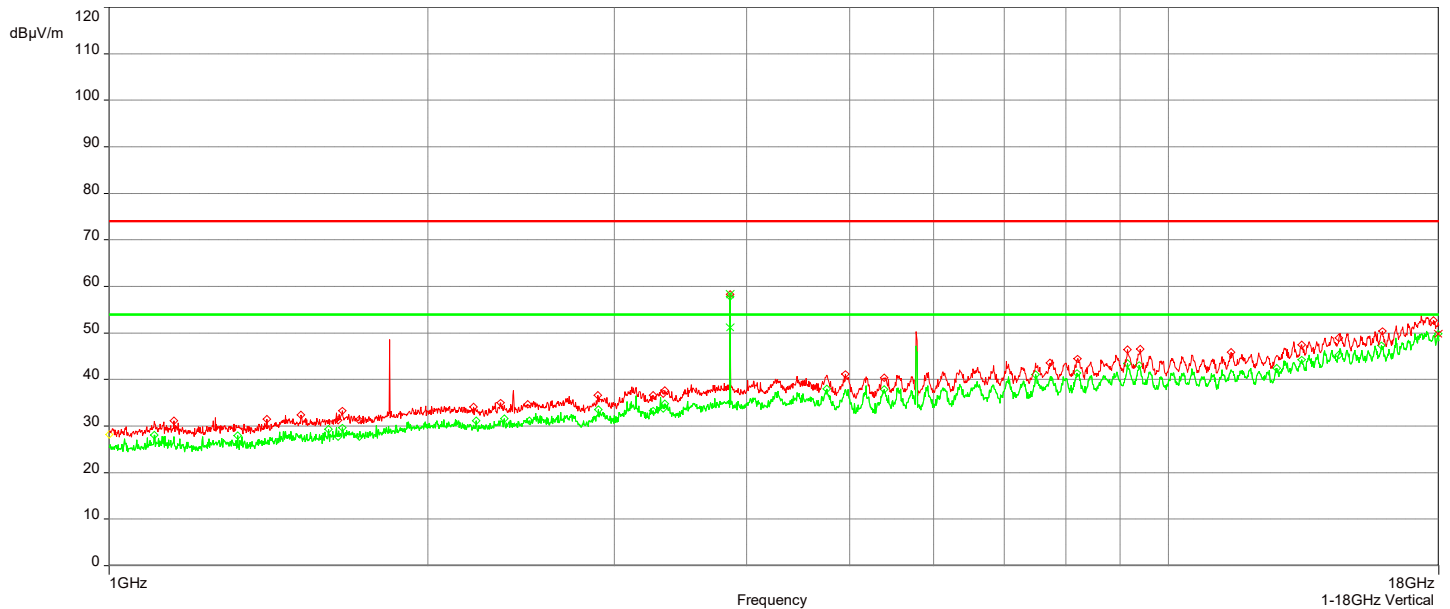
AH21042001-HAR-017#002_802.11a UNII-3 CH157_1-18GHz

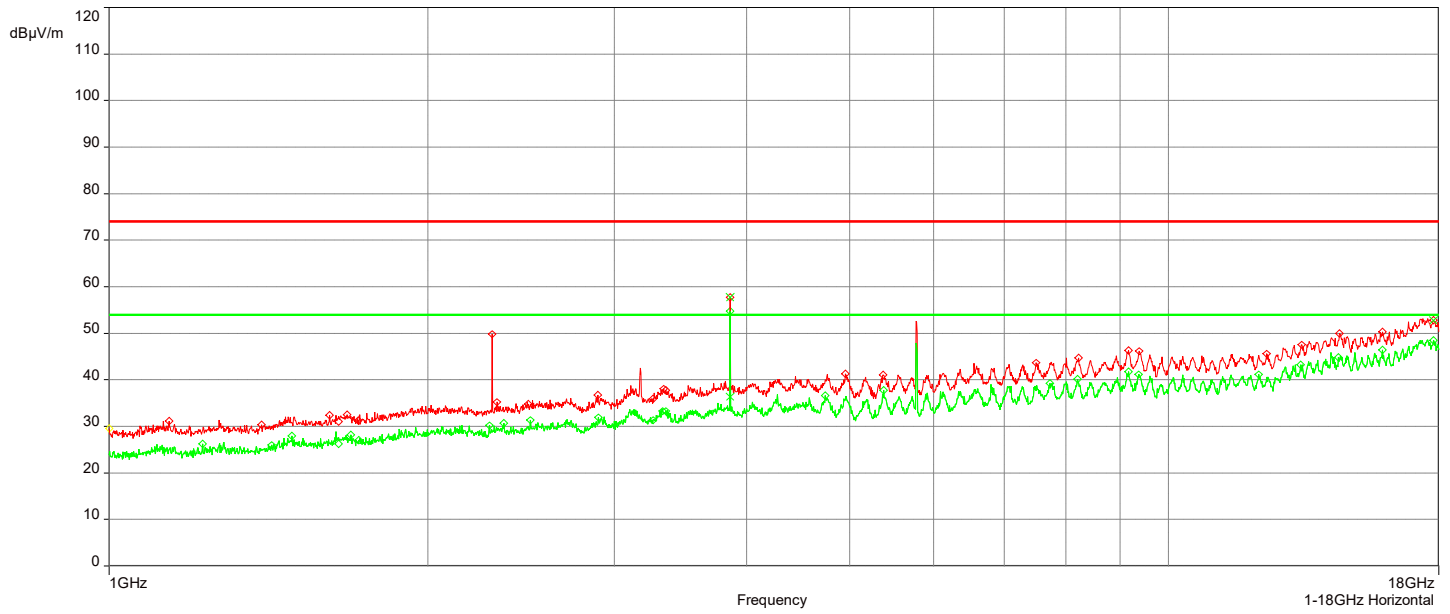
6/30/2021 8:07:55 AM

No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	3.856584GHz	58.30	2.06	74.00	-15.70	3.48	270.1	Vertical	Passed
2.	3.8561298GHz	57.74	2.06	74.00	-16.26	1.37	240.1	Horizontal	Passed
3.	17.789036GHz	52.78	18.88	74.00	-21.22	3.45	90.2	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.856584GHz	51.20	2.06	54.00	-2.80	3.48	270.10	Vertical	Passed
2.	17.984GHz	49.89	19.14	54.00	-4.11	3.66	60.00	Vertical	Passed
3.	3.8561298GHz	36.38	2.06	54.00	-17.62	1.37	240.10	Horizontal	Passed

Overall Graphs:





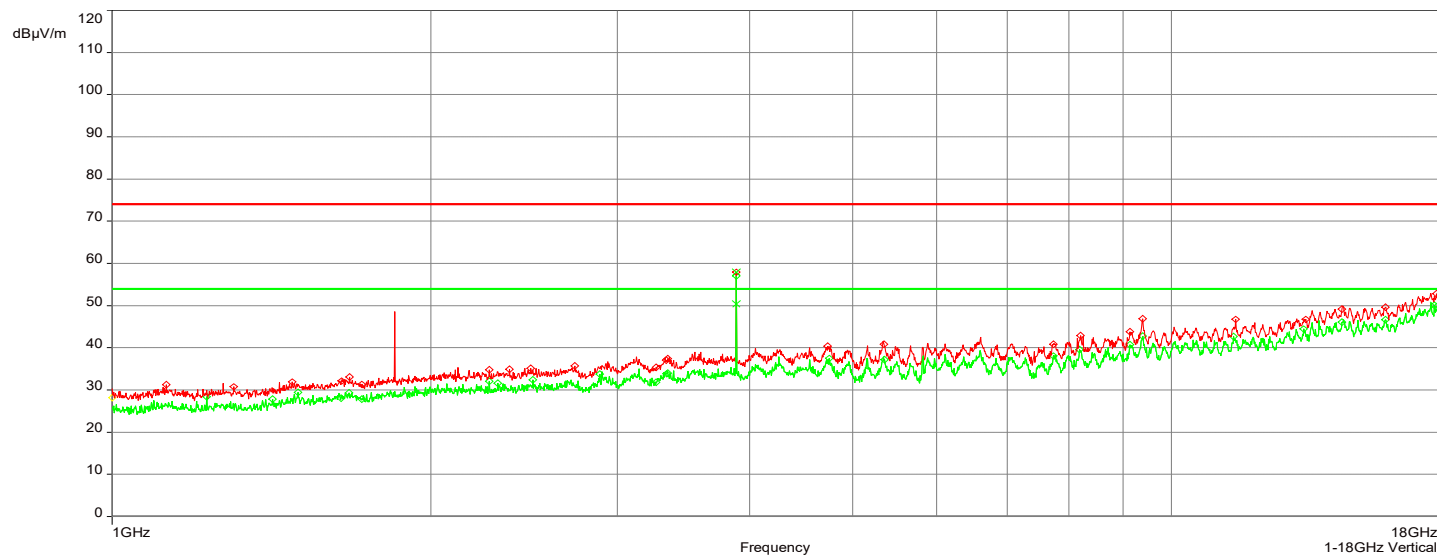
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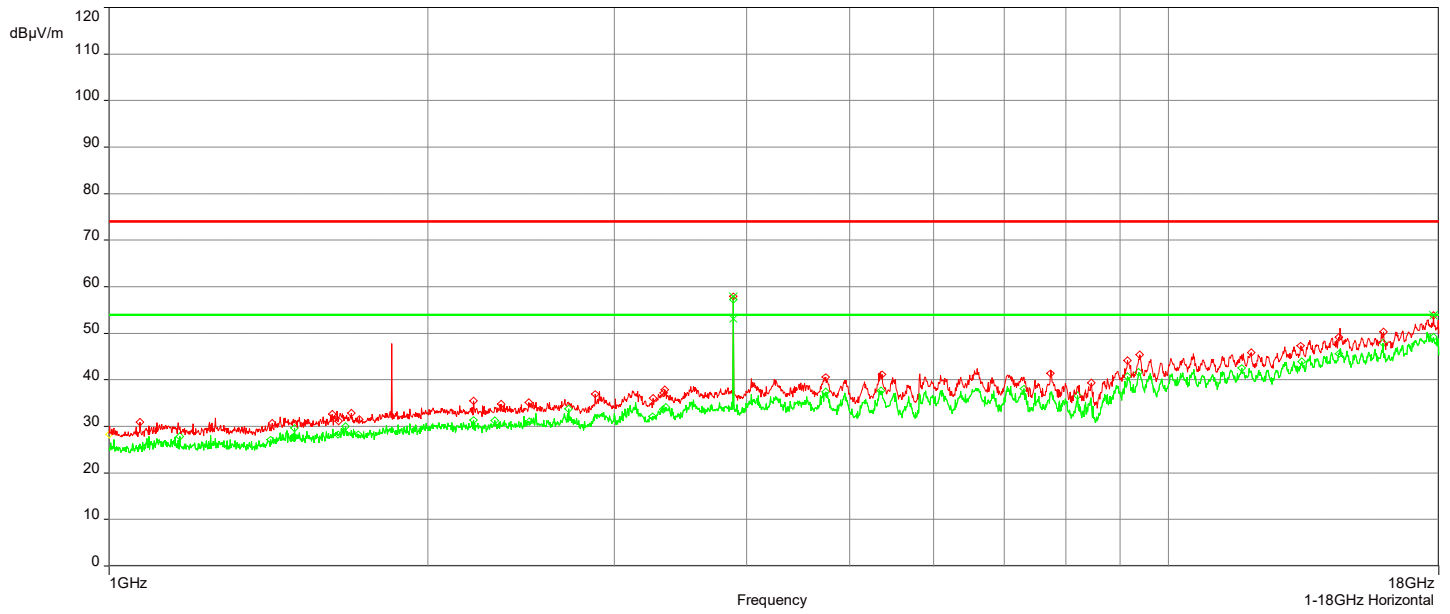
6/30/2021 1:09:47 PM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	3.8830848GHz	57.98	2.05	74.00	-16.02	3.66	269.9	Vertical	Passed
2.	3.8830848GHz	57.93	2.05	74.00	-16.07	1.81	240.1	Horizontal	Passed
3.	17.795994GHz	53.87	18.88	74.00	-20.13	2.55	120.00	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8830848GHz	50.42	2.05	54.00	-3.58	3.66	269.9	Vertical	Passed
2.	17.720492GHz	50.08	18.90	54.00	-3.92	3.74	150.10	Vertical	Passed
3.	3.8830848GHz	53.14	2.05	54.00	-0.86	1.81	240.1	Horizontal	Passed

Overall Graphs:





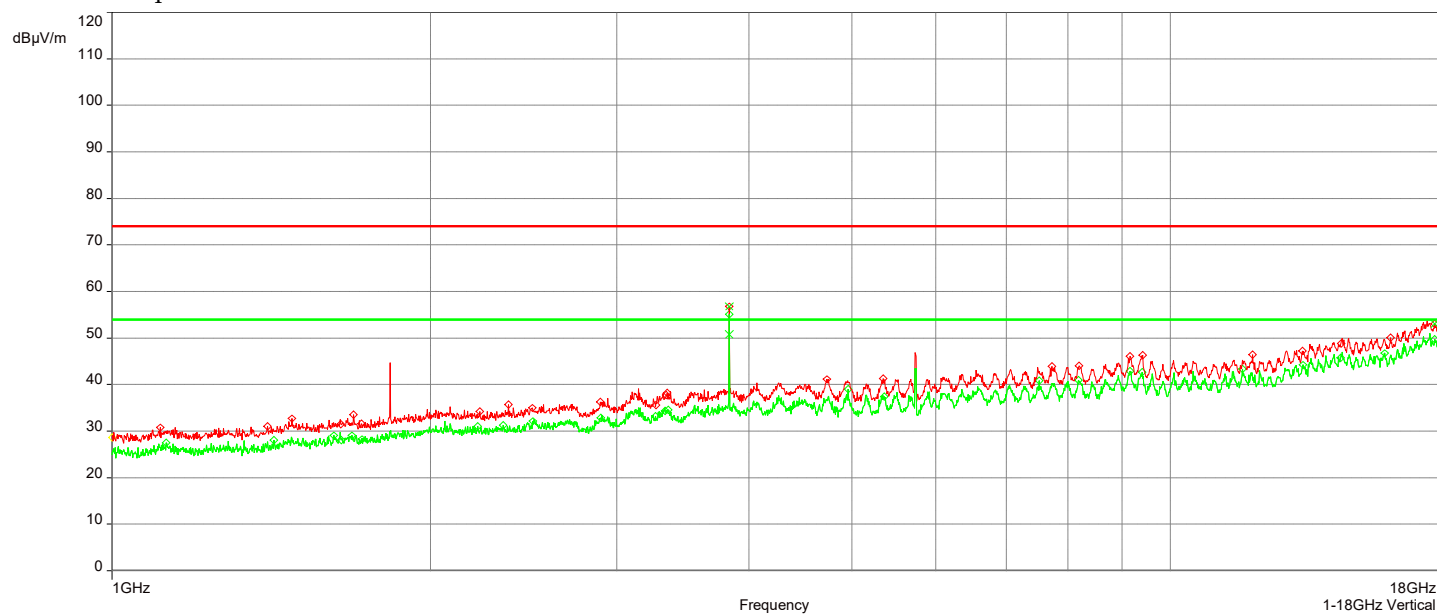
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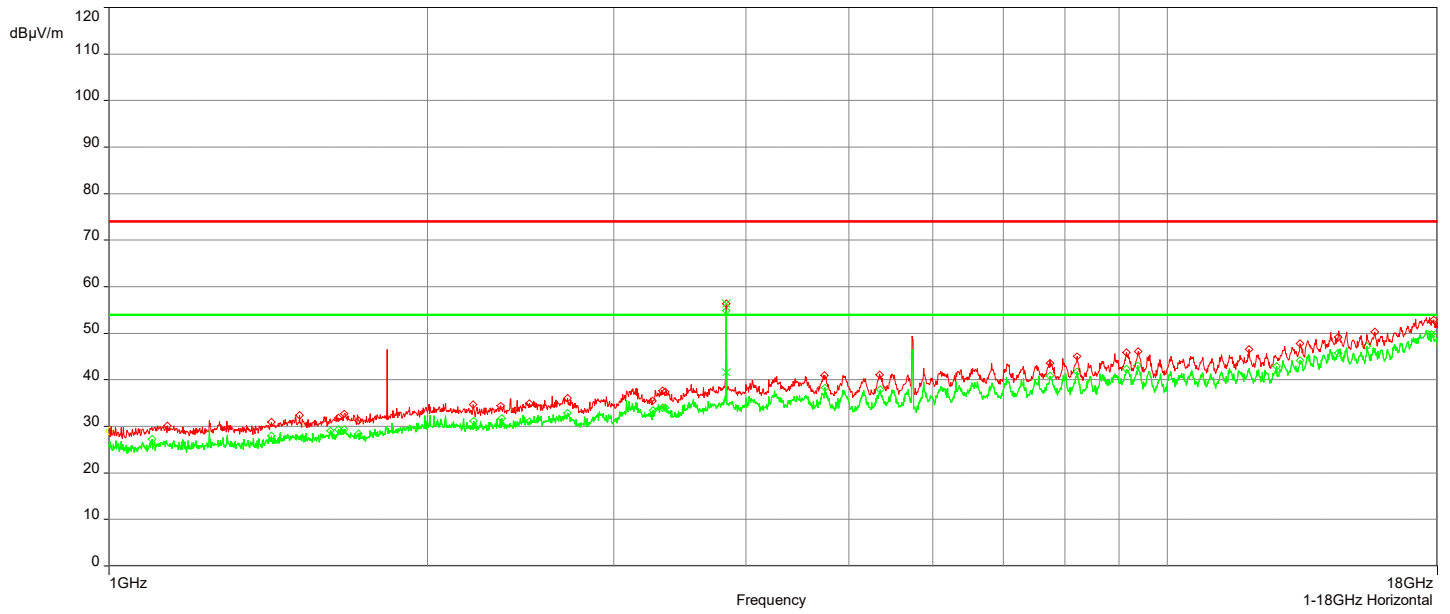
7/1/2021 12:27:04 PM

No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.782494GHz	53.02	18.87	74.00	-20.98	1.90	90.10	Vertical	Passed
2.	3.8300832GHz	56.40	1.95	74.00	-17.60	1.34	240.10	Horizontal	Passed
3.	3.8300832GHz	56.83	1.95	74.00	-17.17	3.05	299.9	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8300832GHz	50.78	1.95	54.00	-3.22	3.05	299.9	Vertical	Passed
2.	3.8300832GHz	41.61	1.95	54.00	-12.39	1.34	240.1	Horizontal	Passed
3.	17.779994GHz	49.82	18.87	54.00	-4.18	3.74	240.1	Horizontal	Passed

Overall Graphs:





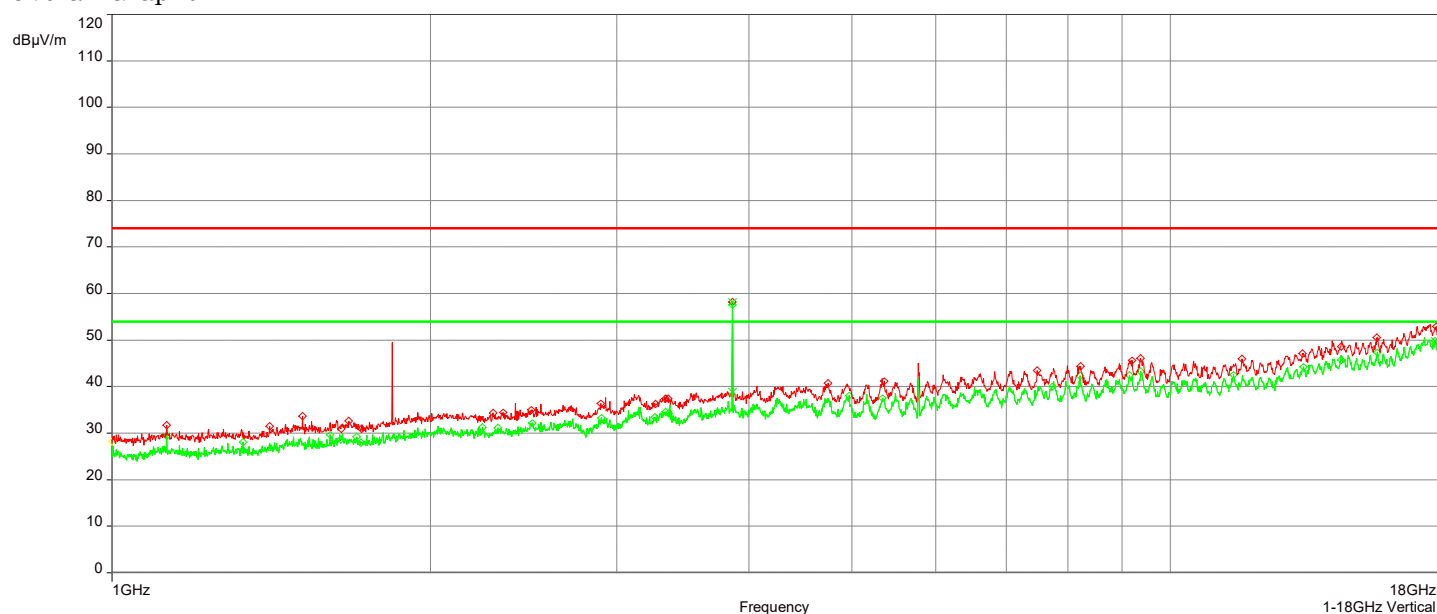
AH21042001-HAR-017#002_802.11n UNII-3 (HT20) CH157_1-18GHz

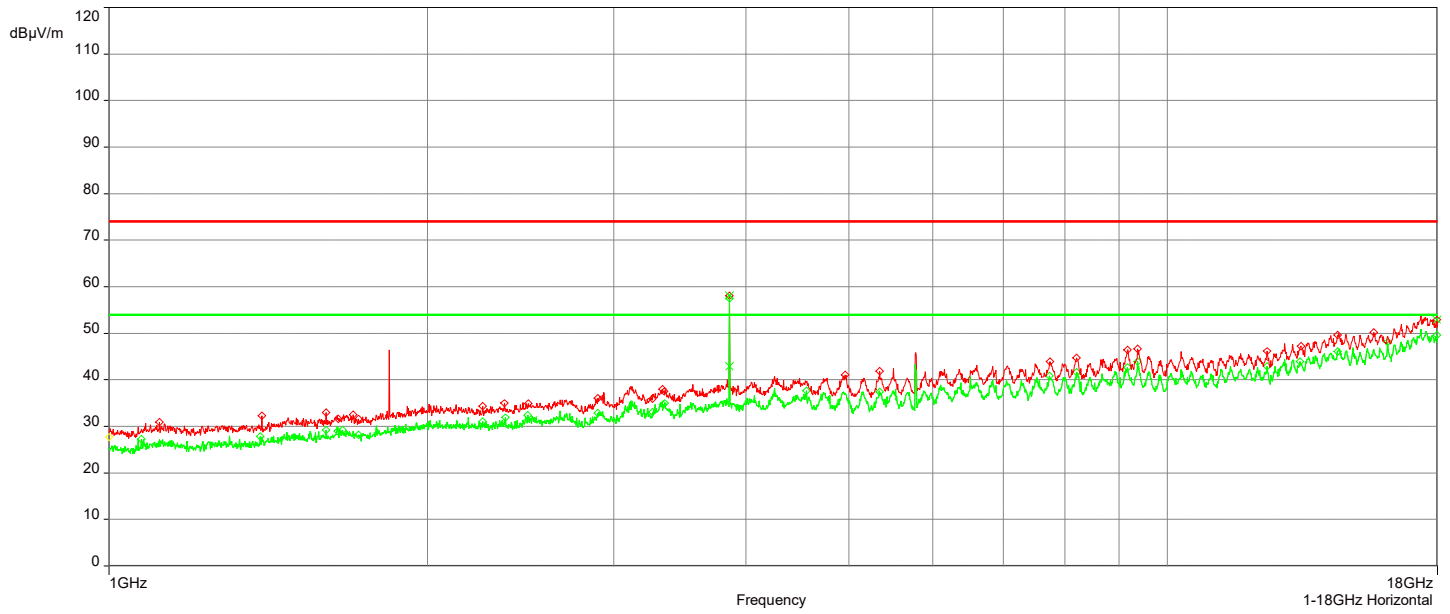
7/1/2021 12:55:25 PM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.856584GHz	58.24	2.06	74.00	-15.76	3.50	240.1	Vertical	Passed
2.	3.856584GHz	58.04	2.06	74.00	-15.96	1.28	240.1	Horizontal	Passed
3.	17.982499GHz	52.99	19.14	74.00	-21.01	3.02	179.90	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.856584GHz	38.90	2.06	54.00	-15.10	3.50	240.1	Vertical	Passed
2.	17.786994GHz	49.80	18.88	54.00	-4.20	2.79	179.90	Vertical	Passed
3.	3.856584GHz	42.93	2.06	54.00	-11.07	1.28	240.1	Horizontal	Passed

Overall Graphs:





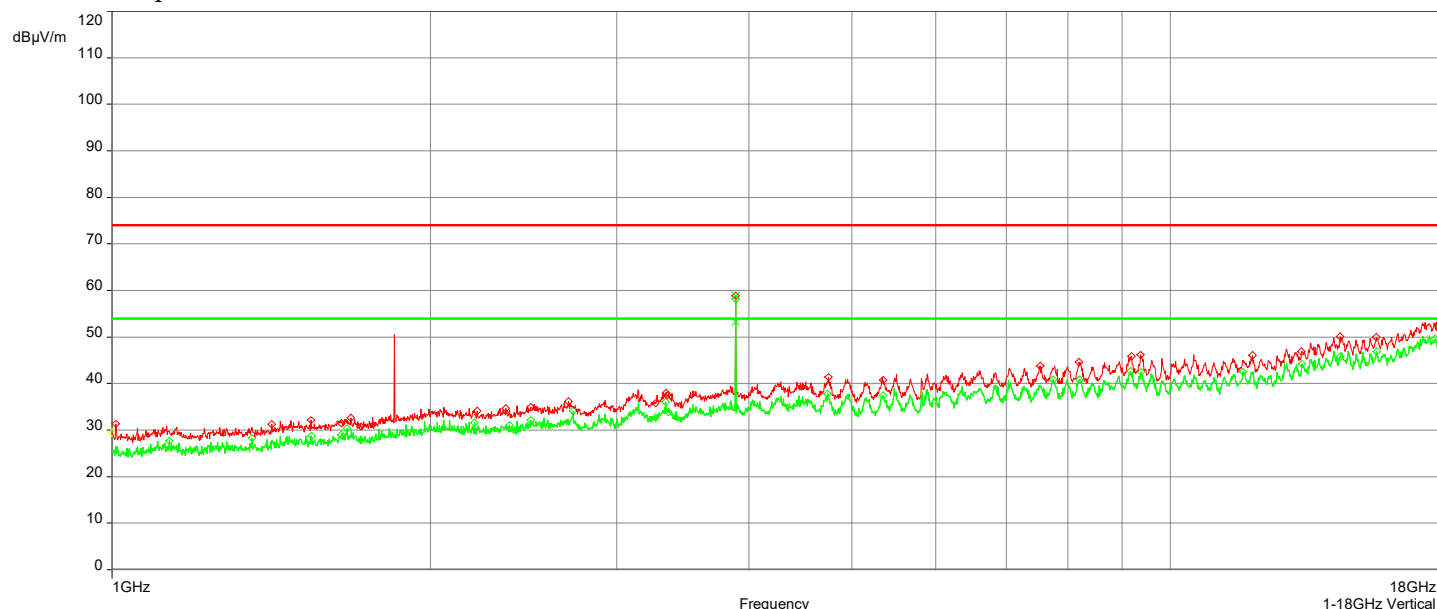
AH21042001-HAR-017#002_802.11n UNII-3 (HT20) CH165_1-18GHz

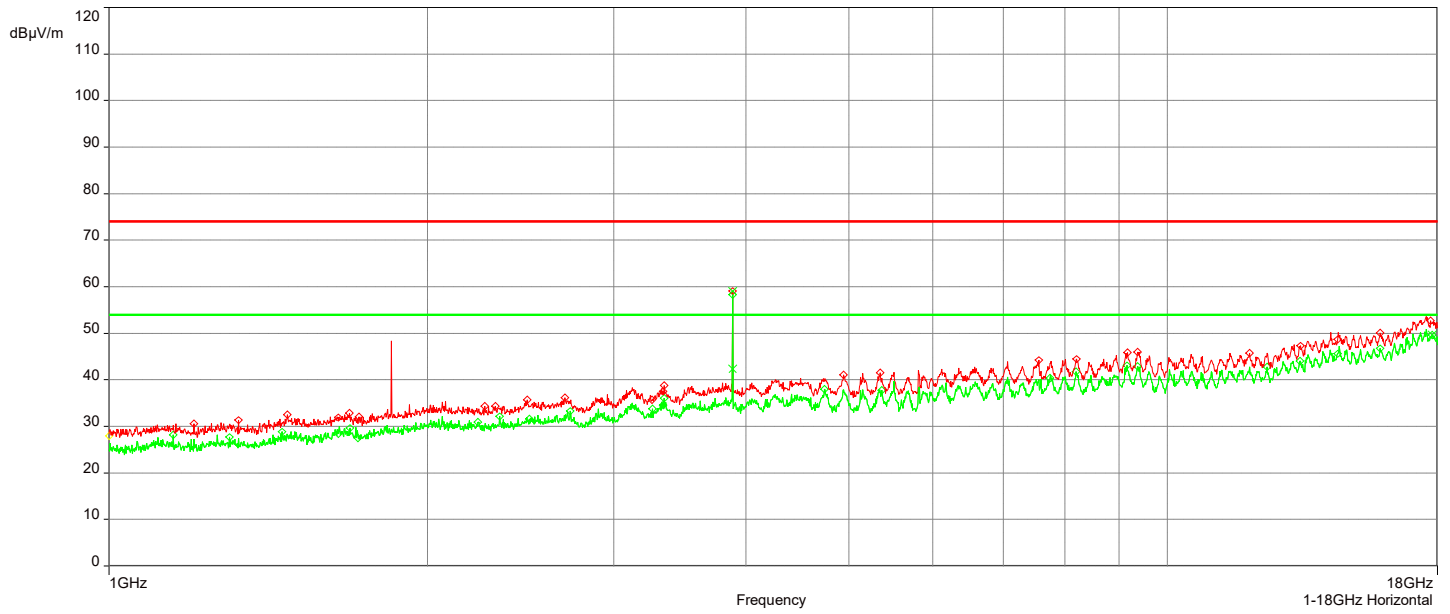
7/1/2021 1:12:51 PM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8830848GHz	58.84	2.05	74.00	-15.16	3.75	269.9	Vertical	Passed
2.	17.970499GHz	53.06	19.1	74.00	-20.94	2.26	329.90	Vertical	Passed
3.	3.8830848GHz	59.05	2.05	74.00	-14.95	1.05	240.1	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8830848GHz	53.28	2.05	54.00	-0.72	3.75	269.9	Vertical	Passed
2.	3.8830848GHz	42.37	2.05	54.00	-11.63	1.05	240.1	Horizontal	Passed
3.	17.790994GHz	49.67	18.88	54.00	-4.33	1.92	150.10	Horizontal	Passed

Overall Graphs:





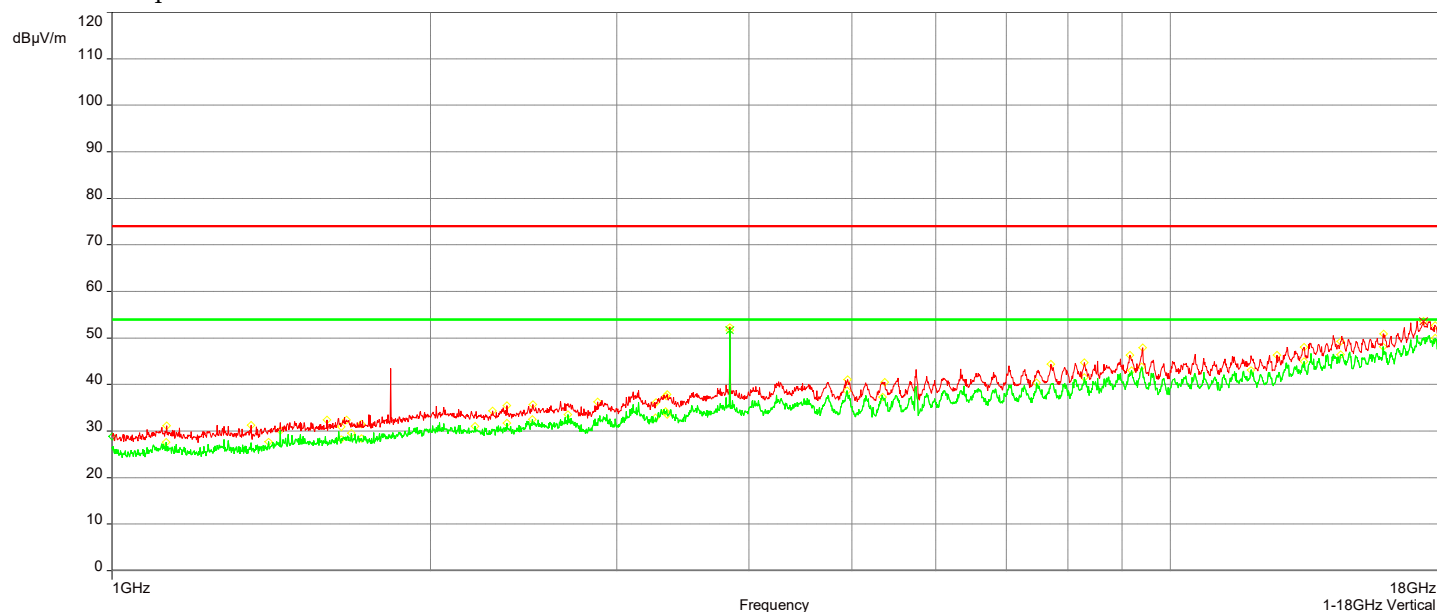
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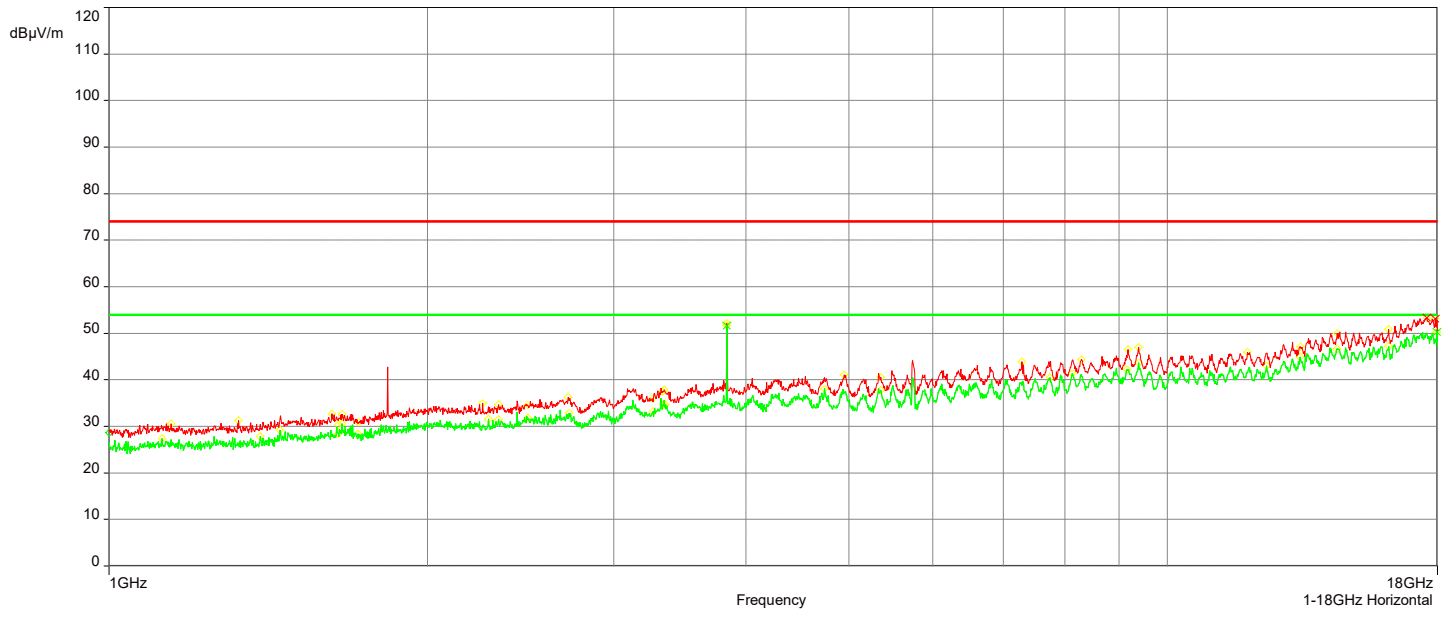
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No	Frequency (MHz)	Level Peak Reading (dBµV/m)	Correction Factor (dB)	Limit dBµV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.345981GHz	53.63	18.45	74.00	-20.37	1.88	225.10	Vertical	Passed
2.	17.581988GHz	53.43	18.86	74.00	-20.57	3.59	247.60	Horizontal	Passed
3.	17.914997GHz	53.19	19.00	74.00	-20.81	3.41	292.60	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBµV/m)	Correction Factor (dB)	Limit dBµV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.974499GHz	50.34	19.11	54.00	-3.66	3.15	135.00	Horizontal	Passed
2.	3.8365834GHz	51.65	1.98	54.00	-2.35	4.00	292.60	Vertical	Passed
3.	3.8365834GHz	51.70	1.98	54.00	-2.30	1.02	270.10	Horizontal	Passed

Overall Graphs:





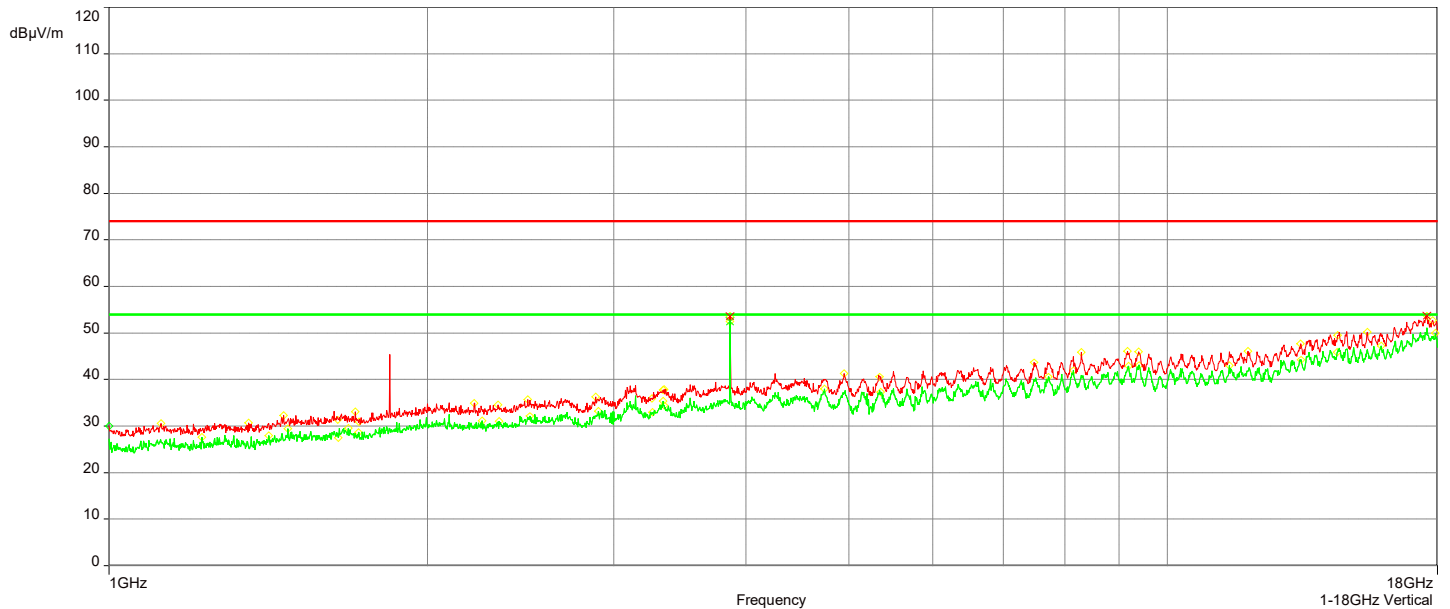
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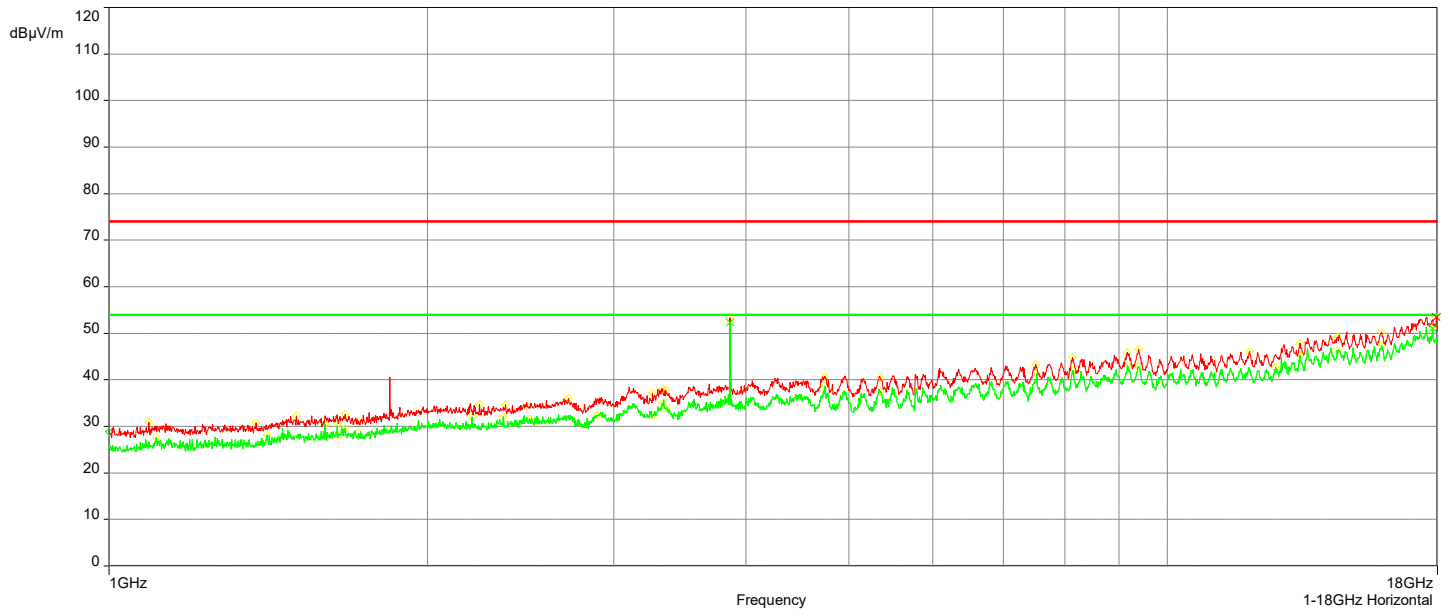
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8630842GHz	53.63	2.06	74.00	-20.37	3.92	269.90	Vertical	Passed
2.	17.597488GHz	53.69	18.84	74.00	-20.31	2.01	67.40	Vertical	Passed
3.	17.967499GHz	53.46	19.09	74.00	-20.54	4.00	202.40	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8630842GHz	52.46	2.06	54.00	-1.54	3.92	269.90	Vertical	Passed
2.	3.8630842GHz	52.41	2.06	54.00	-1.59	1.51	247.40	Horizontal	Passed
3.	17.809494GHz	51.12	18.89	54.00	-2.88	1.20	67.40	Horizontal	Passed

Overall Graphs:





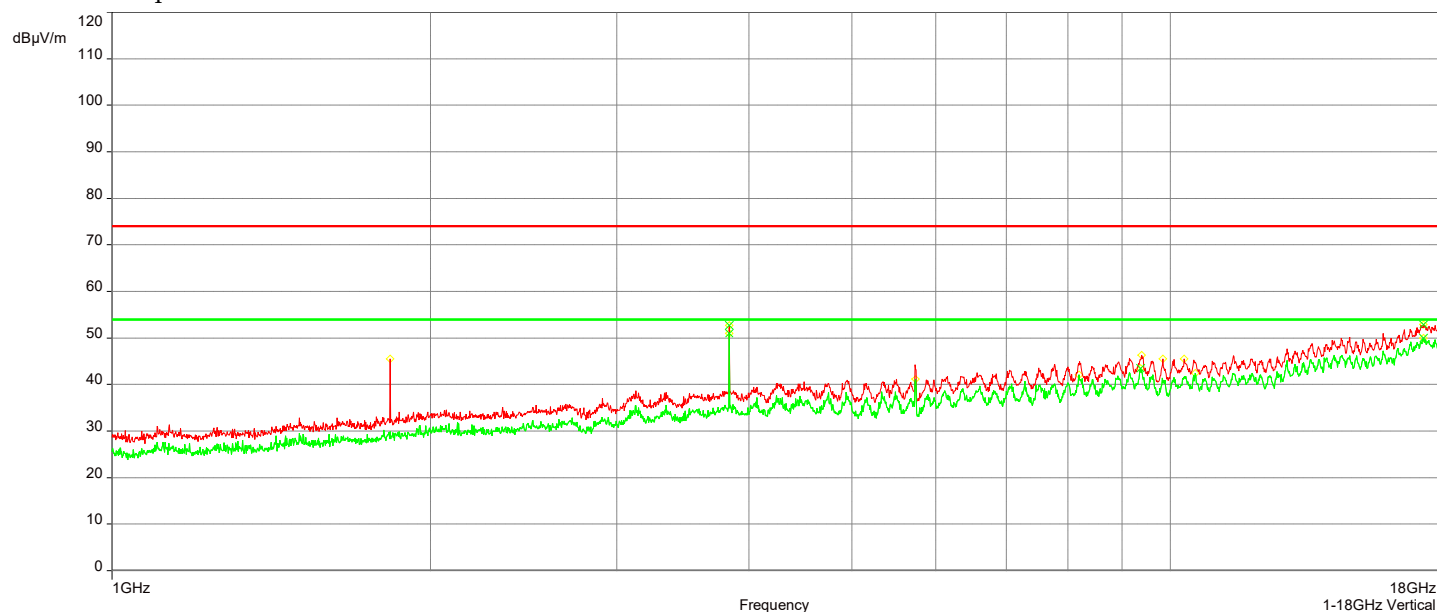
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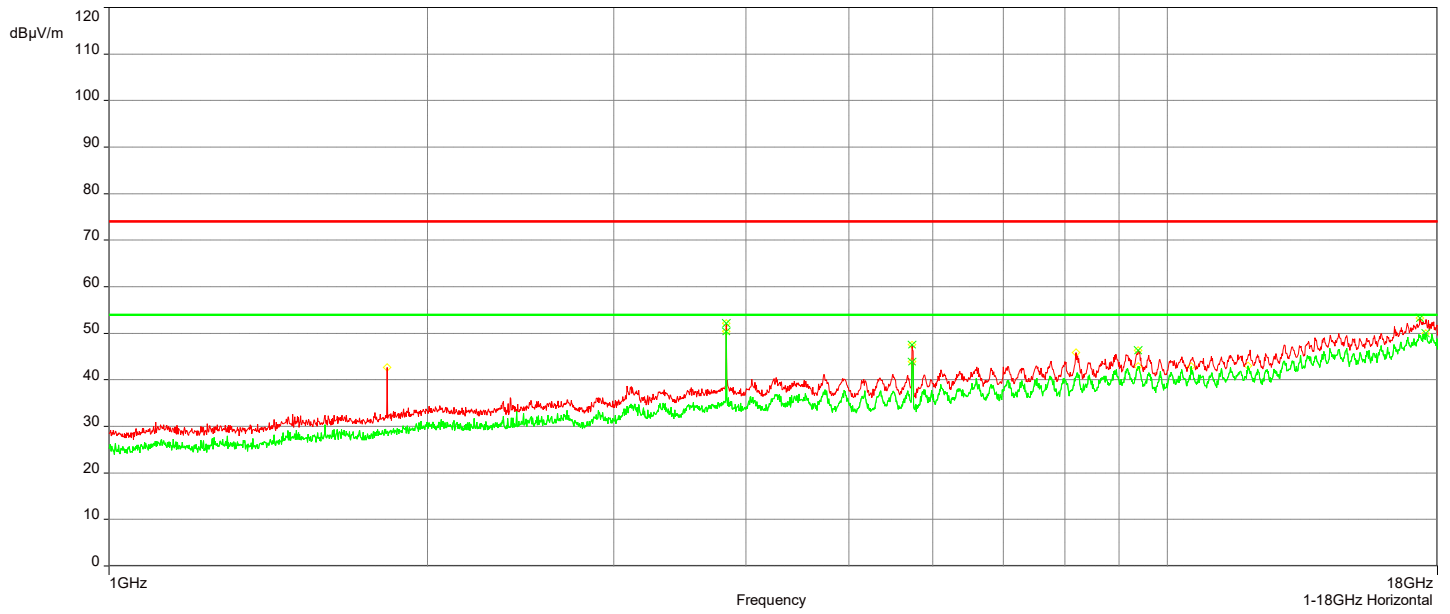
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No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.32798GHz	53.24	18.38	74.00	-20.76	2.33	330.10	Horizontal	Passed
2.	17.345481GHz	52.93	18.45	74.00	-21.07	2.32	210.20	Vertical	Passed
3.	3.8300832GHz	52.68	1.95	74.00	-21.32	3.97	300.10	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8300832GHz	51.02	1.95	54.00	-2.98	3.97	300.10	Vertical	Passed
2.	3.8300832GHz	50.45	1.95	54.00	-3.55	1.02	240.00	Horizontal	Passed
3.	17.346481GHz	50.02	18.46	54.00	-3.98	3.71	30.20	Vertical	Passed

Overall Graphs:





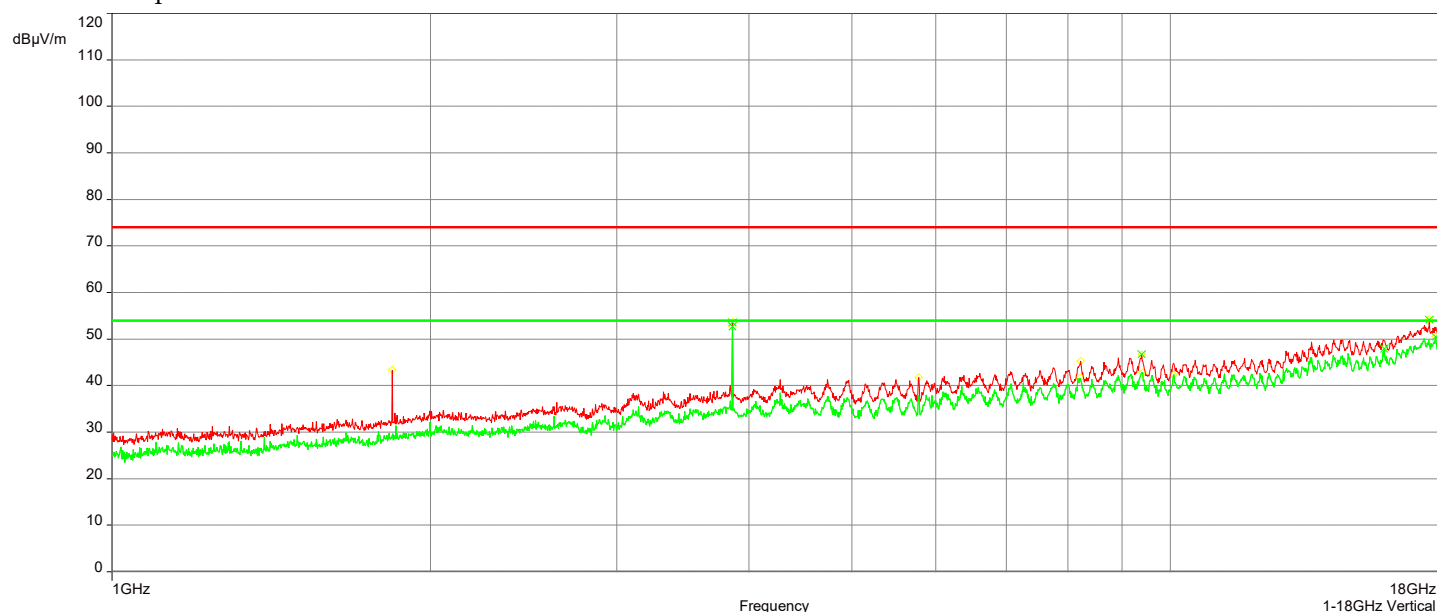
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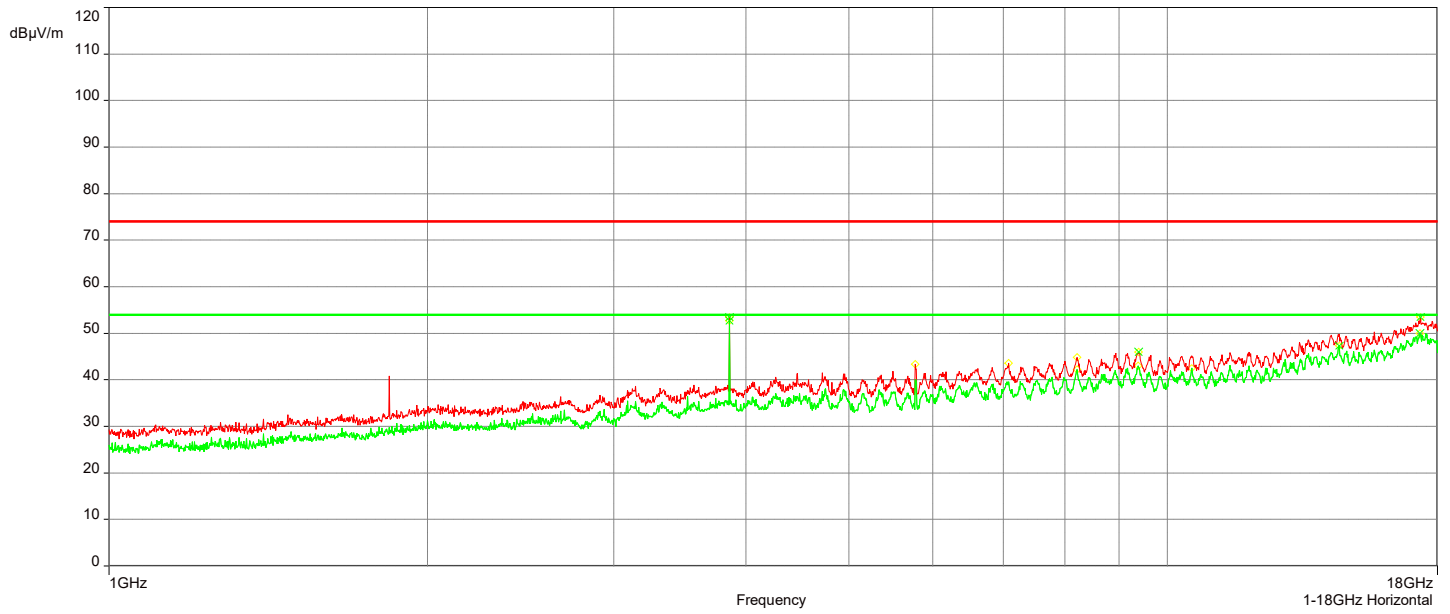
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No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.575988G Hz	54.16	18.87	74.00	-19.84	3.97	29.90	Vertical	Passed
2.	3.856584GHz	53.58	2.06	74.00	-20.42	3.15	299.90	Vertical	Passed
3.	3.856584GHz	53.47	2.06	74.00	-20.53	1.00	239.90	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.856584GHz	52.68	2.06	54.00	-1.32	1.00	239.90	Horizontal	Passed
2.	3.856584GHz	52.67	2.06	54.00	-1.33	3.15	299.90	Vertical	Passed
3.	17.821995G Hz	50.57	18.89	54.00	-3.43	4.00	299.90	Vertical	Passed

Overall Graphs:





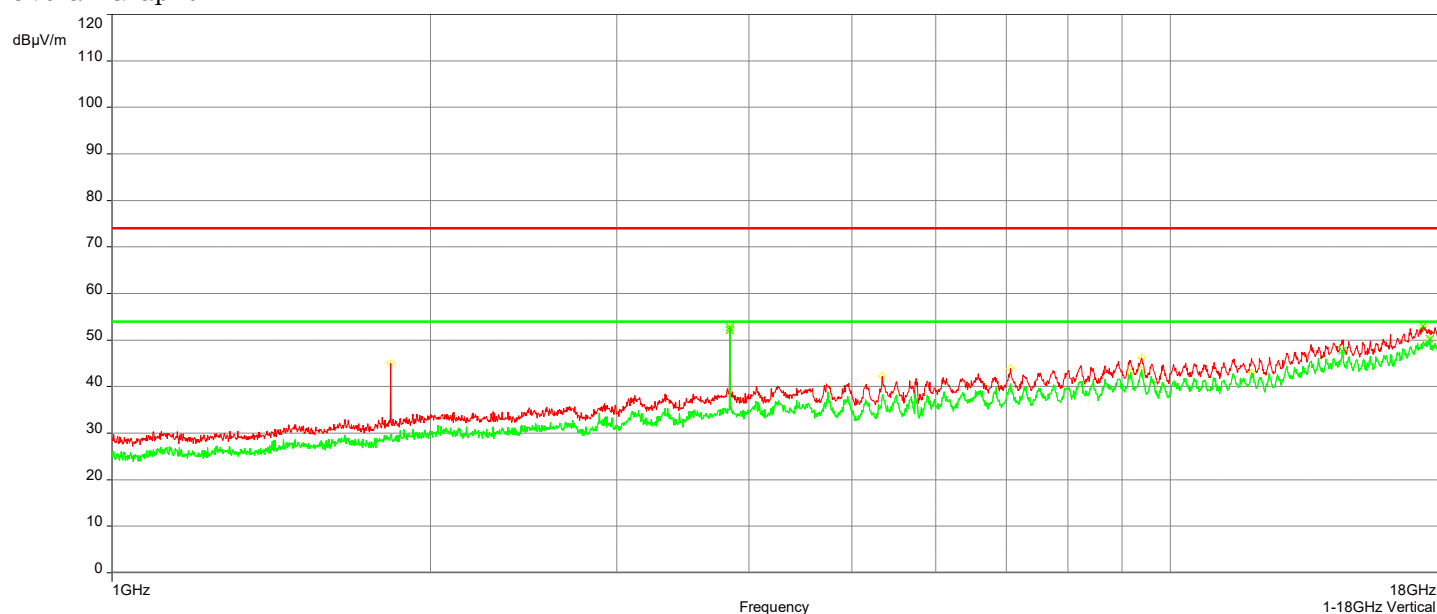
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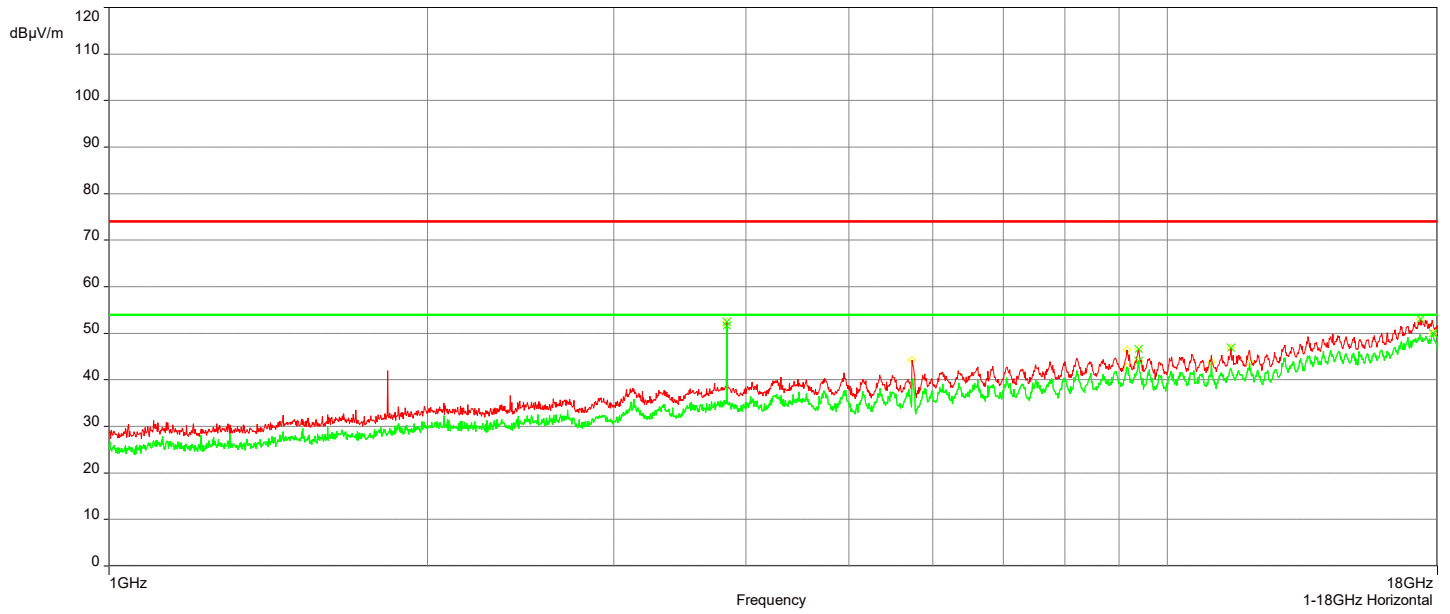
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.32098GHz	53.09	18.35	74.00	-20.91	4.00	30.20	Vertical	Passed
2.	17.339481GHz	53.07	18.43	74.00	-20.93	2.02	270.10	Horizontal	Passed
3.	3.8365834GHz	52.65	1.98	74.00	-21.35	3.39	300.10	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8365834GHz	52.11	1.98	54.00	-1.89	3.39	300.10	Vertical	Passed
2.	3.8365834GHz	51.68	1.98	54.00	-2.32	1.51	240.10	Horizontal	Passed
3.	17.591988GHz	50.36	18.85	54.00	-3.64	3.01	90.10	Vertical	Passed

Overall Graphs:





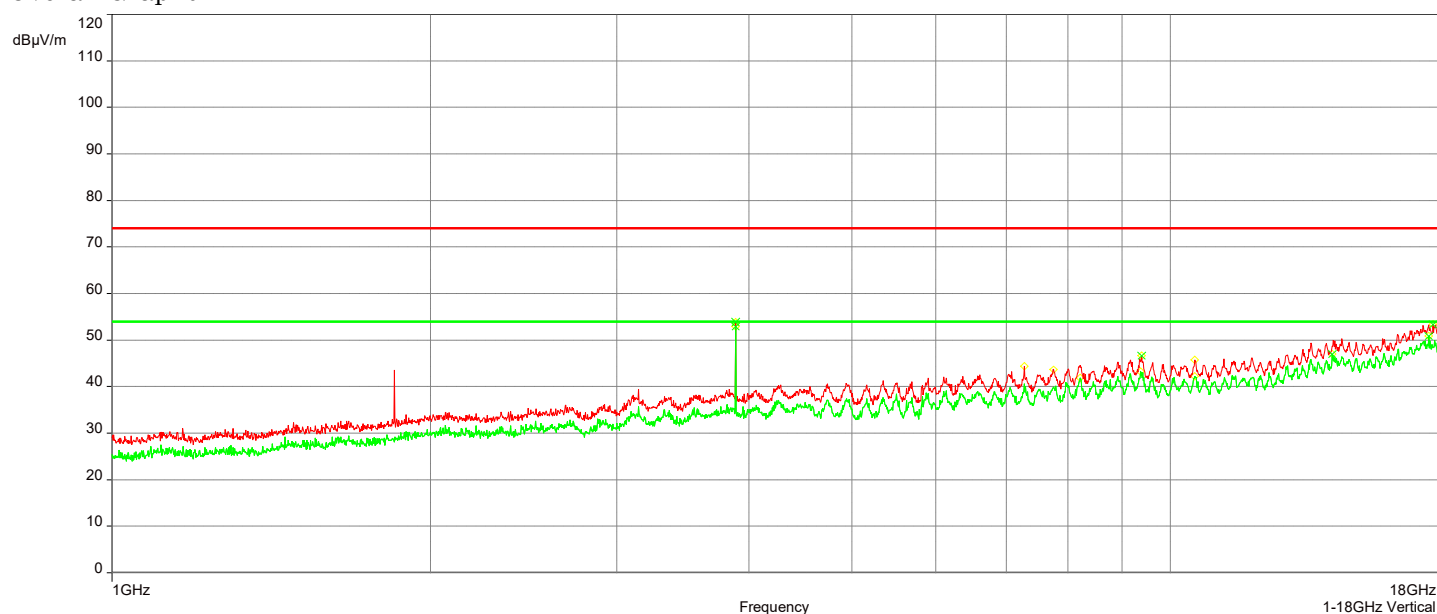
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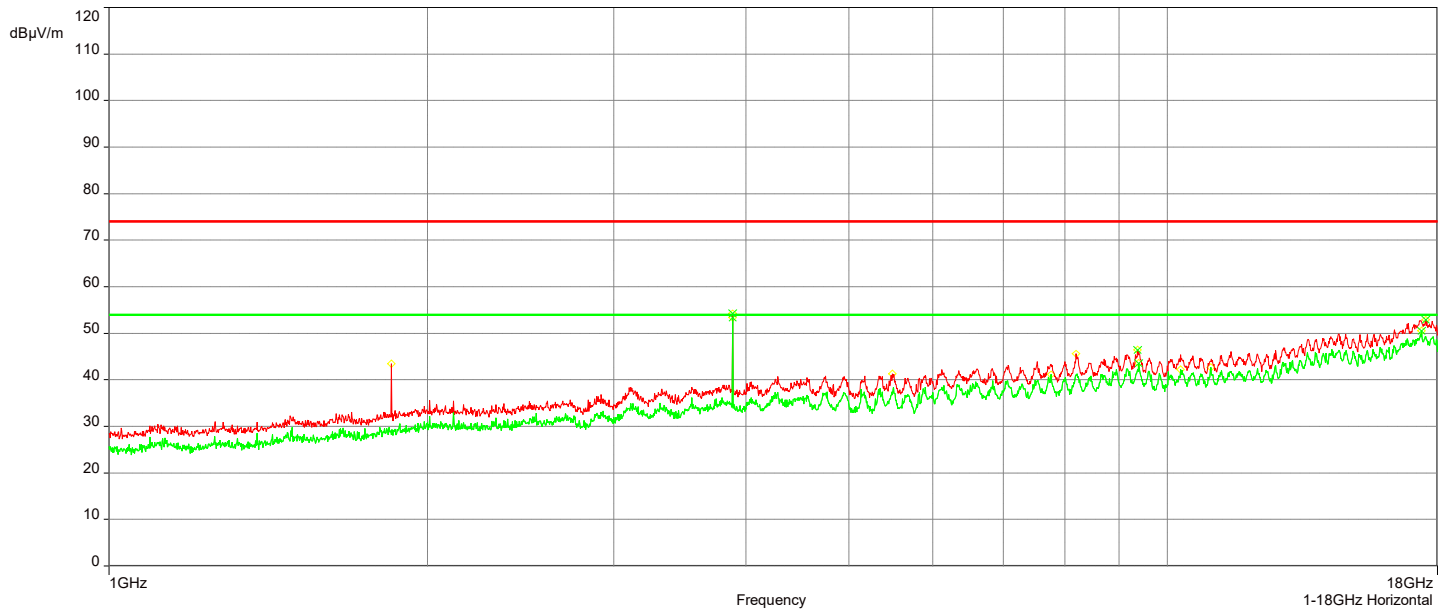
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No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8830848GHz	54.30	2.05	74.00	-19.70	1.02	269.90	Horizontal	Passed
2.	3.8830848GHz	53.81	2.05	74.00	-20.19	3.33	299.90	Vertical	Passed
3.	17.719492GHz	53.42	18.90	74.00	-20.58	1.65	209.90	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8830848GHz	53.41	2.05	54.00	-0.59	1.02	269.90	Horizontal	Passed
2.	3.8830848GHz	52.89	2.05	54.00	-1.11	3.33	299.90	Vertical	Passed
3.	17.547987GHz	50.87	18.89	54.00	-3.13	2.49	0.00	Vertical	Passed

Overall Graphs:





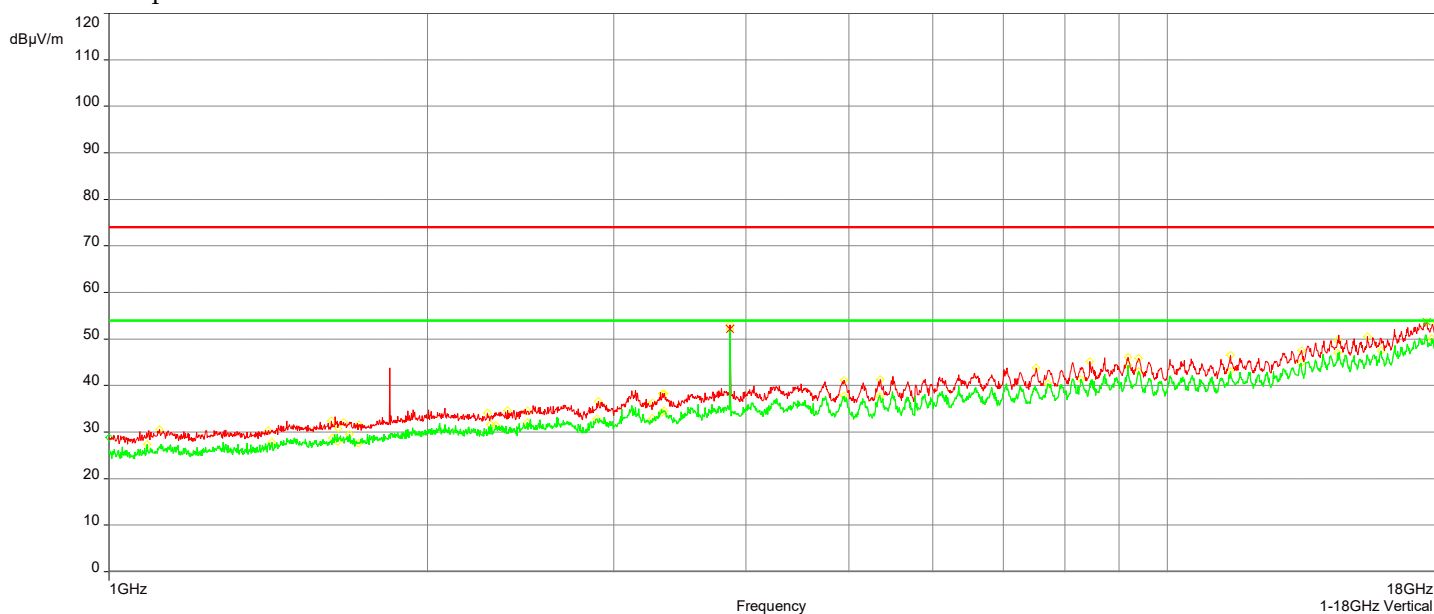
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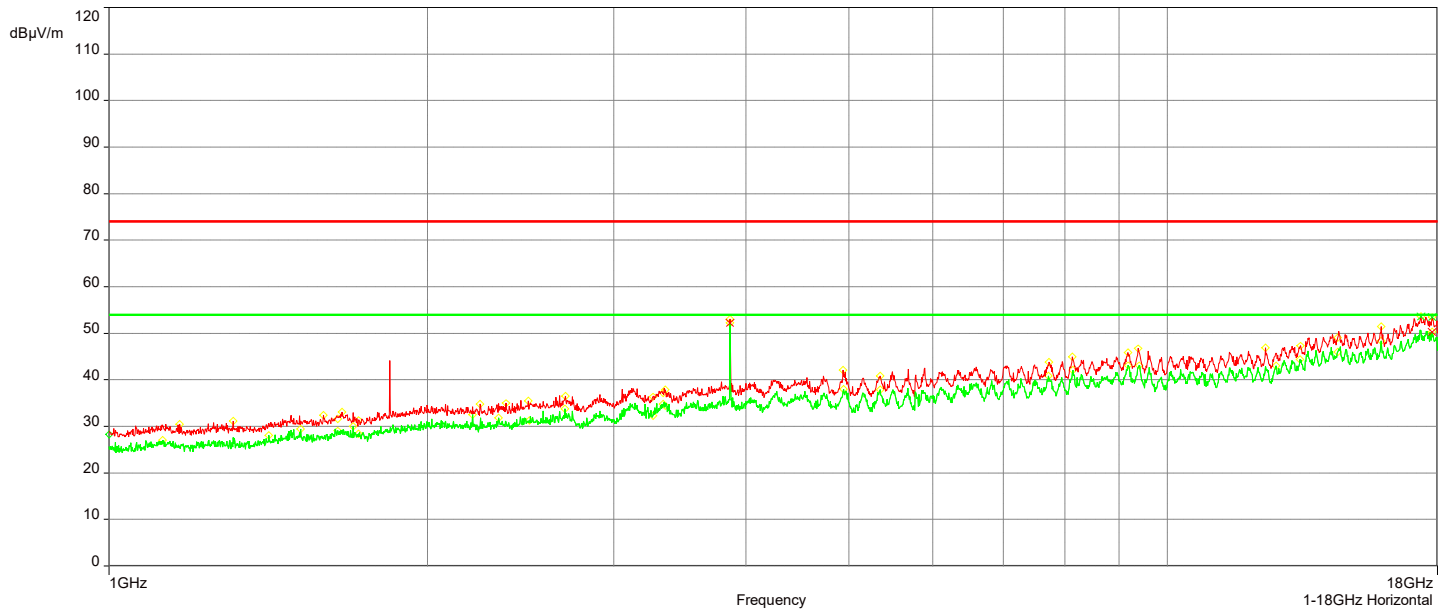
9/15/2021 11:18:42 AM

No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.786994GHz	53.50	18.88	74.00	-20.50	3.61	202.60	Horizontal	Passed
2.	17.369481GHz	53.66	18.56	74.00	-20.34	2.99	135.20	Horizontal	Passed
3.	17.586488GHz	53.73	18.85	74.00	-20.27	2.49	337.40	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8630842GHz	52.30	2.06	54.00	-1.70	1.00	247.60	Horizontal	Passed
2.	3.8630842GHz	52.18	2.06	54.00	-1.82	3.77	270.10	Vertical	Passed
3.	17.791994GHz	50.36	18.88	54.00	-3.64	2.99	270.10	Horizontal	Passed

Overall Graphs:





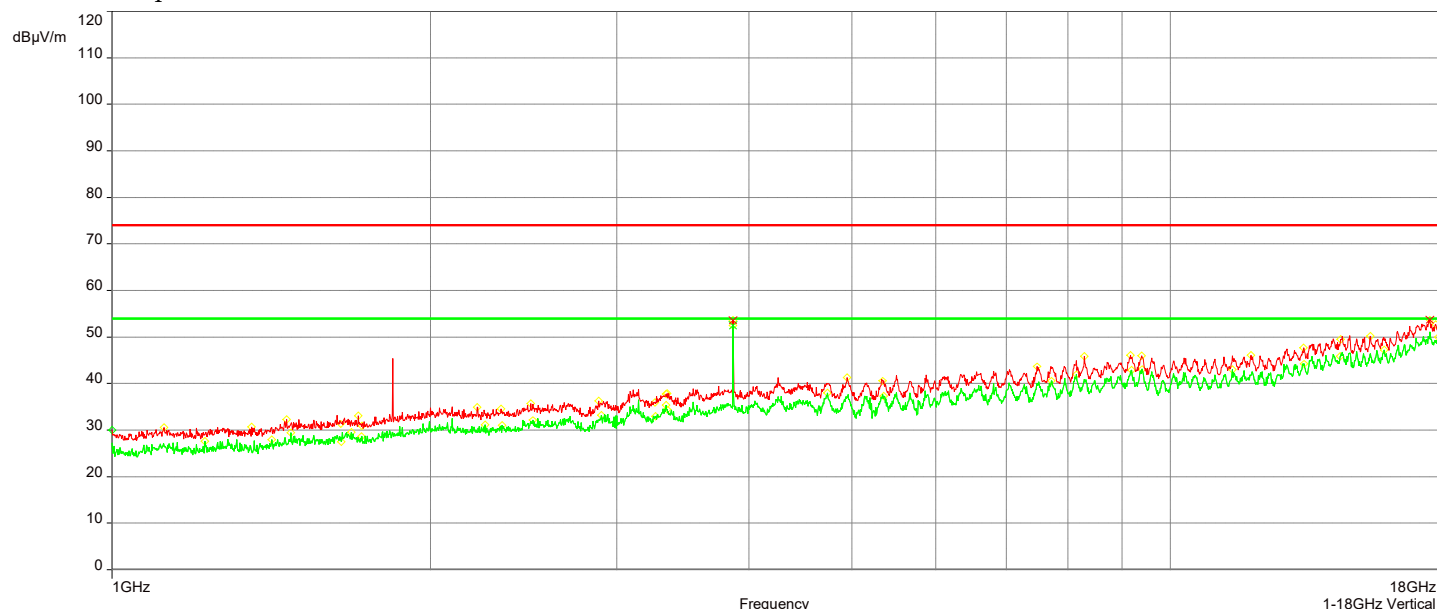
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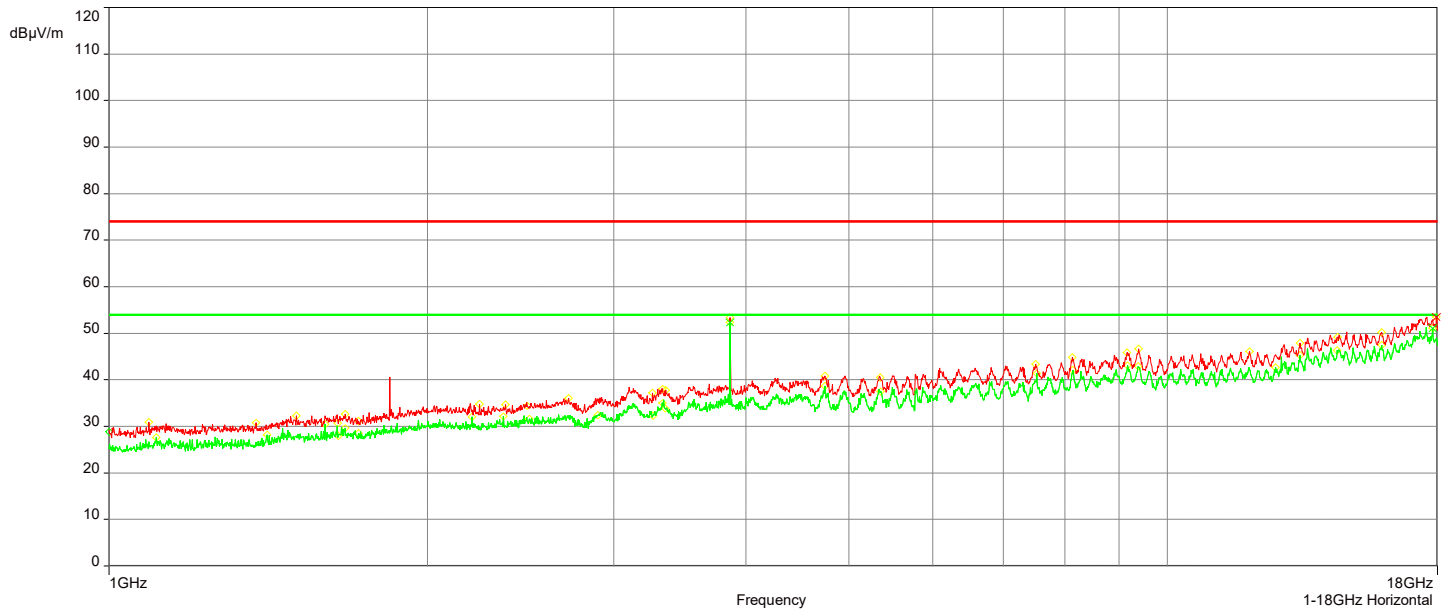
9/16/2021 7:09:31 AM

No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.597488GHz	53.69	18.84	74.00	-20.31	2.01	67.40	Vertical	Passed
2.	3.8630842GHz	53.63	2.06	74.00	-20.37	3.92	269.90	Vertical	Passed
3.	17.967499GHz	53.46	19.09	74.00	-20.54	4.00	202.40	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	3.8630842GHz	52.46	2.06	54.00	-1.54	3.92	269.90	Vertical	Passed
2.	3.8630842GHz	52.41	2.06	54.00	-1.59	1.51	247.40	Horizontal	Passed
3.	17.809494GHz	51.12	18.89	54.00	-2.88	1.20	67.40	Horizontal	Passed

Overall Graphs:





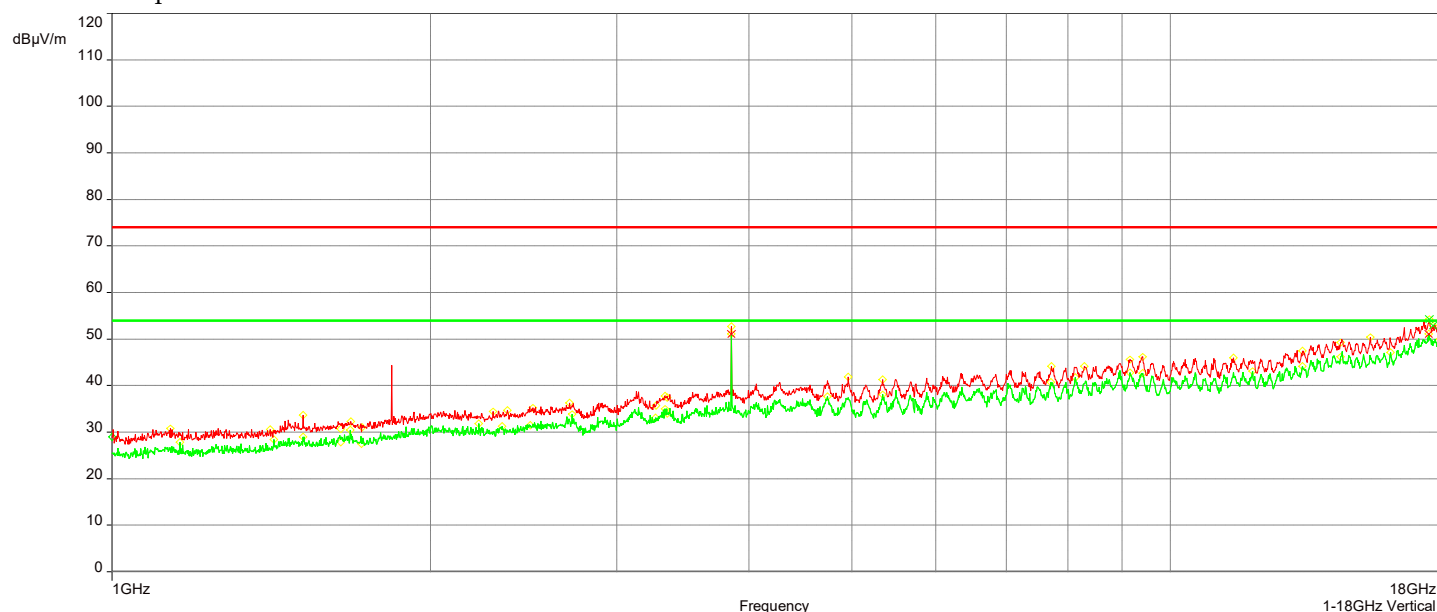
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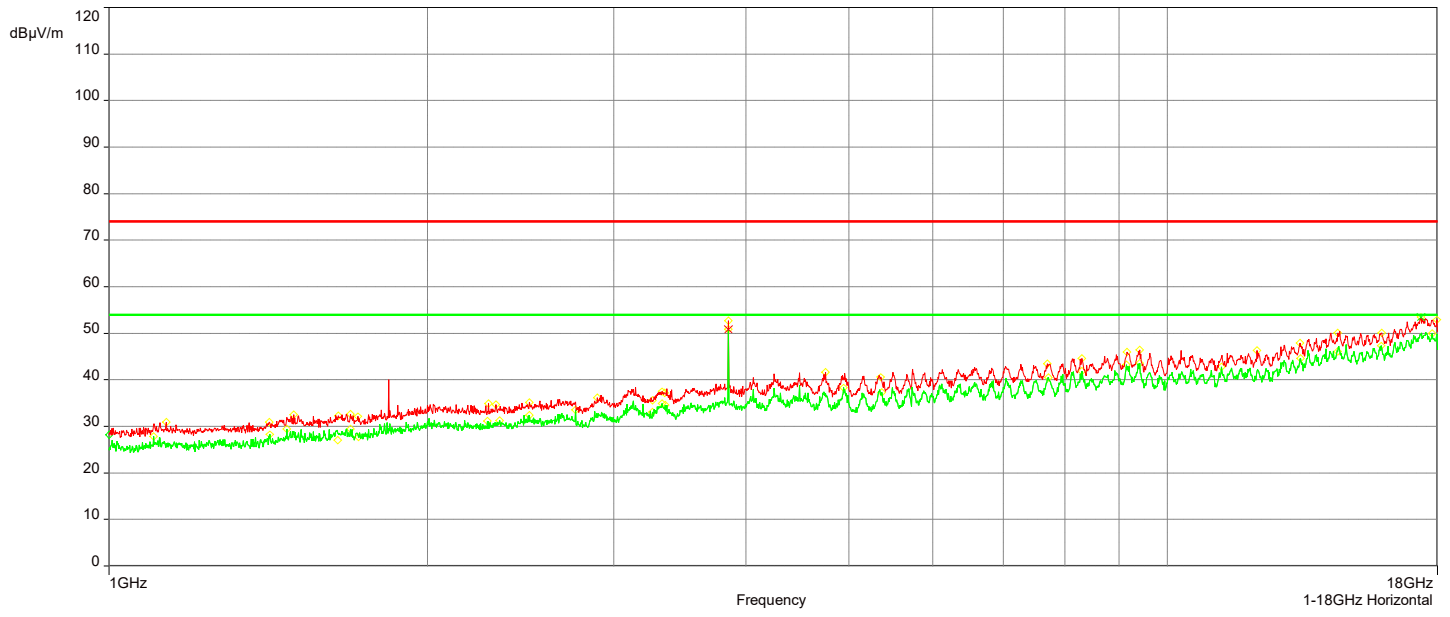
9/15/2021 1:31:23 PM

No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.705991GHz	52.95	18.93	74.00	-21.05	1.00	112.40	Vertical	Passed
2.	17.360981GHz	53.54	18.52	74.00	-20.46	3.90	247.40	Horizontal	Passed
3.	17.573487GHz	54.35	18.87	74.00	-19.65	2.66	202.40	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.542987GHz	51.15	18.88	54.00	-2.85	2.64	224.90	Vertical	Passed
2.	3.8500838GHz	51.12	2.06	54.00	-2.88	3.69	269.90	Vertical	Passed
3.	3.8500838GHz	50.92	2.06	54.00	-3.08	1.19	247.40	Horizontal	Passed

Overall Graphs:





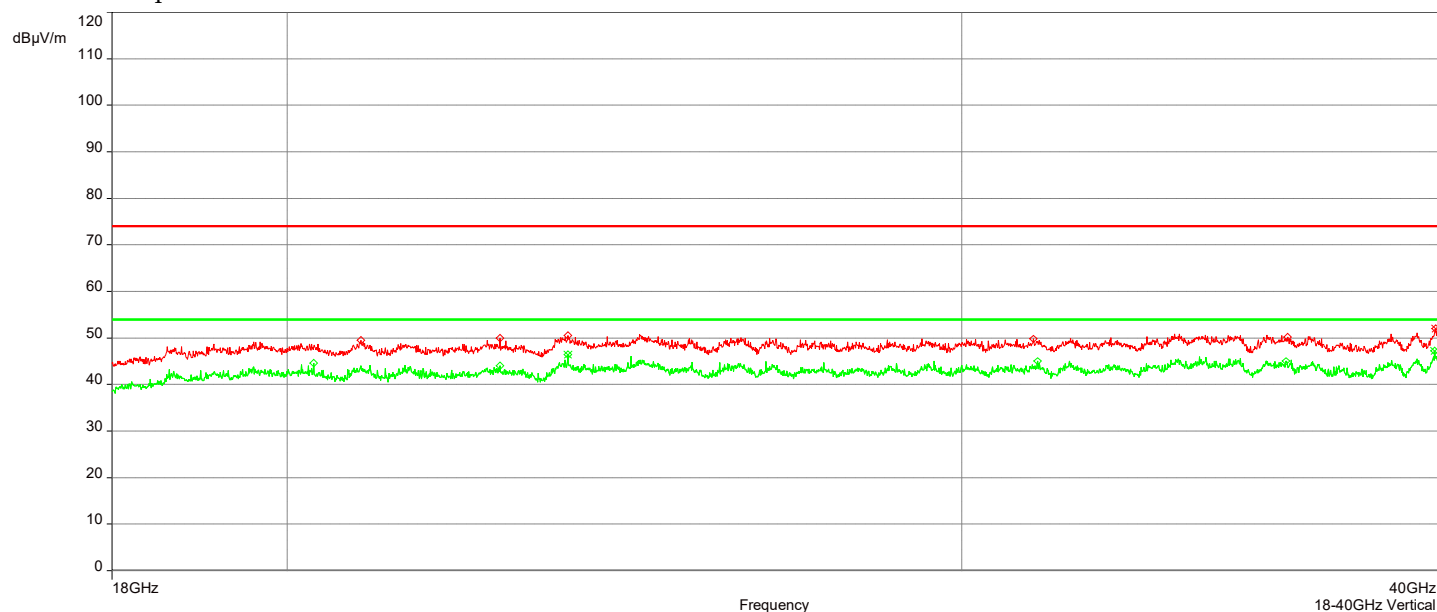
AH21042001-HAR-017#002_802.11a UNII-3 CH149_18-40GHz

6/29/2021 12:03:03 PM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	39.940997GHz	51.32	6.14	74.00	-22.68	2.79	29.90	Horizontal	Passed
2.	24.753307GHz	51.76	4.50	74.00	-22.24	2.66	299.90	Horizontal	Passed
3.	39.890995GHz	52.02	6.44	74.00	-21.98	1.54	59.90	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	39.860994GHz	47.26	6.35	54.00	-6.74	1.45	179.90	Vertical	Passed
2.	23.677258GHz	46.45	3.41	54.00	-7.55	3.09	59.90	Vertical	Passed
3.	23.72826GHz	46.44	3.28	54.00	-7.56	3.10	239.90	Horizontal	Passed

Overall Graphs:



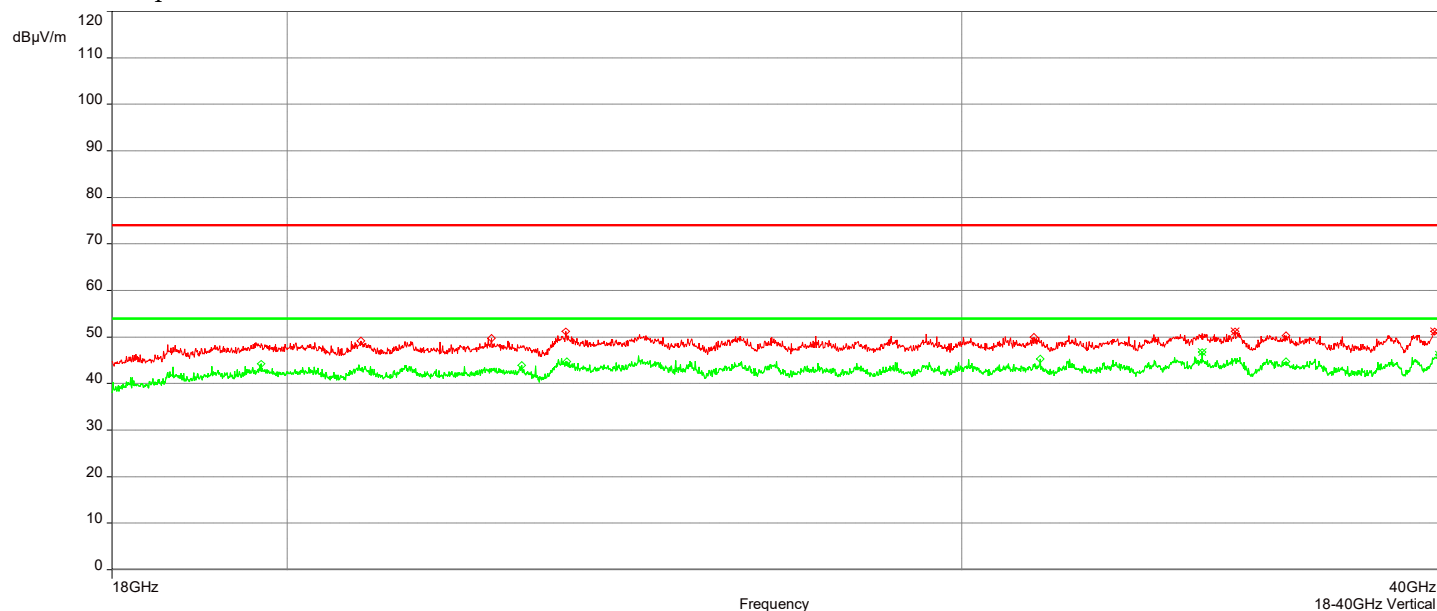
AH21042001-HAR-017#002_802.11a UNII-3 CH157_18-40GHz

6/29/2021 1:24:18 PM

No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	35.359789GHz	51.28	4.51	74.00	-22.72	1.43	300.10	Vertical	Passed
2.	39.862994GHz	51.28	6.36	74.00	-22.72	2.44	270.10	Vertical	Passed
3.	39.935997GHz	52.09	6.16	74.00	-21.91	2.35	270.10	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	34.662757GHz	46.79	4.59	54.00	-7.21	3.04	329.90	Vertical	Passed
2.	39.971999GHz	46.24	6.22	54.00	-7.76	3.25	30.00	Vertical	Passed
3.	24.704305GHz	46.21	4.36	54.00	-7.79	2.60	300.10	Horizontal	Passed

Overall Graphs:



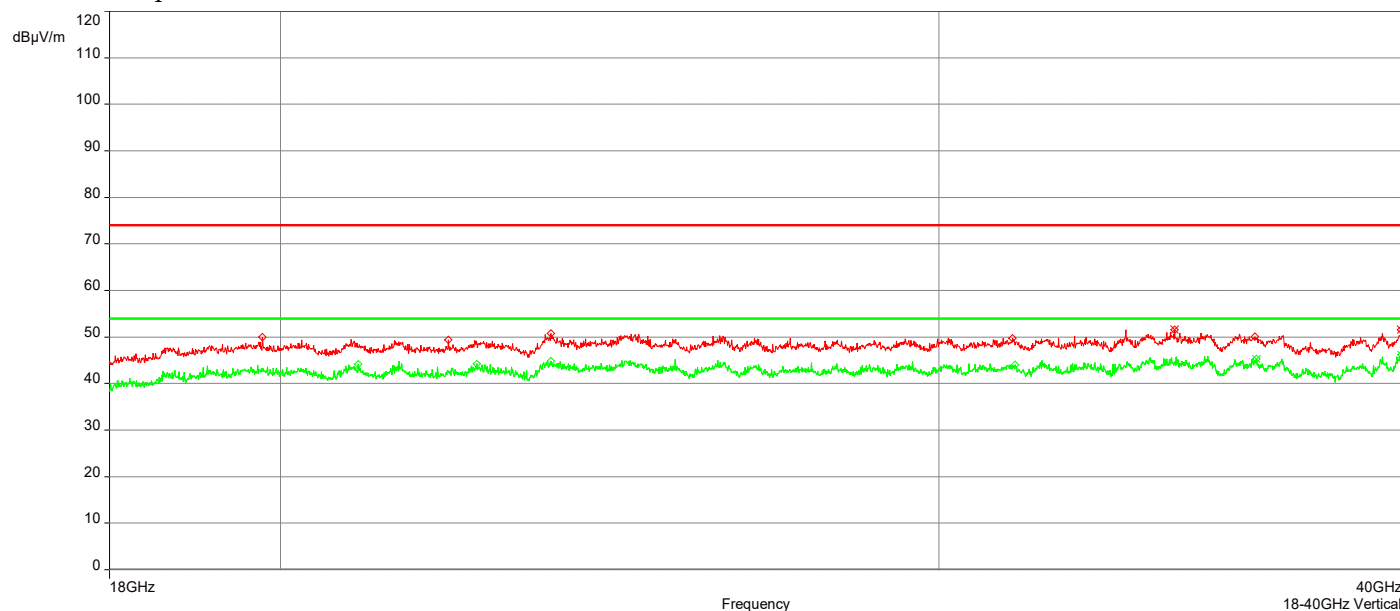
AH21042001-HAR-017#002_802.11a UNII-3 CH165_18-40GHz

6/29/2021 1:43:38 PM

No	Frequency (MHz)	Level Peak Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	34.645757GHz	51.97	4.56	74.00	-22.03	3.35	299.90	Horizontal	Passed
2.	34.687759GHz	51.61	4.58	74.00	-22.39	2.42	299.90	Vertical	Passed
3.	39.874994GHz	51.58	6.39	74.00	-22.42	3.48	119.90	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dB μ V/m)	Correction Factor (dB)	Limit dB μ V/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	39.915996GHz	46.62	6.25	54.00	-7.38	3.18	299.90	Horizontal	Passed
2.	39.880995GHz	46.17	6.41	54.00	-7.83	3.29	299.90	Vertical	Passed
3.	36.47384GHz	45.26	3.52	54.00	-8.74	1.21	0.20	Vertical	Passed

Overall Graphs:

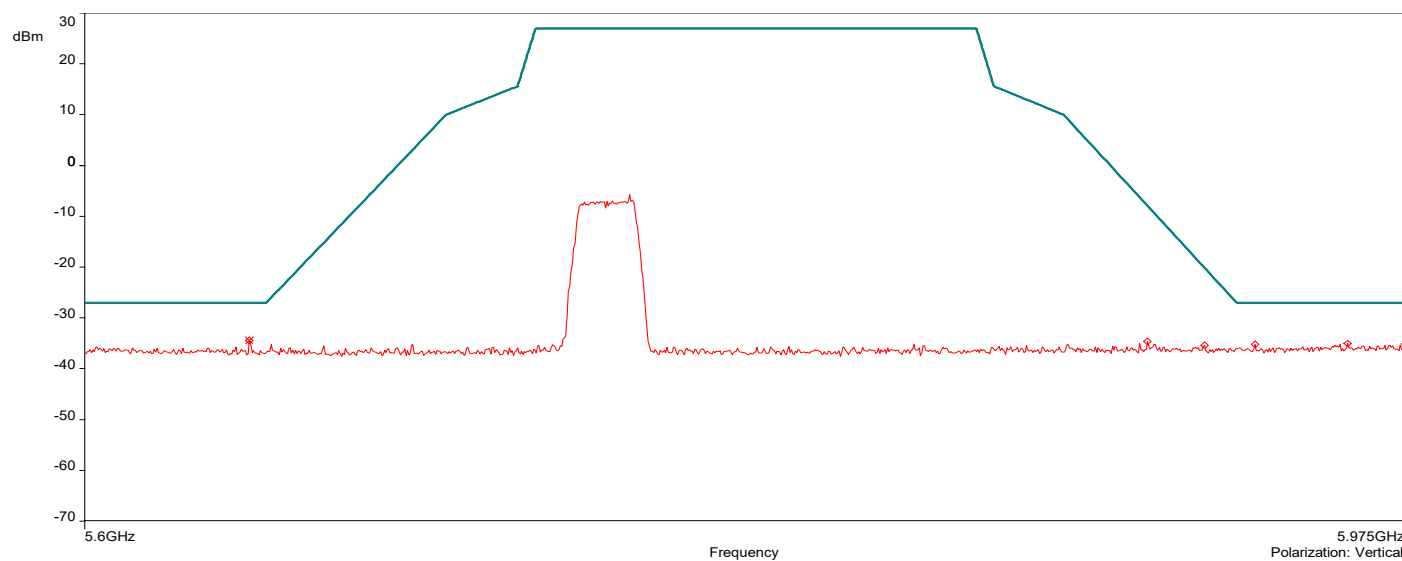
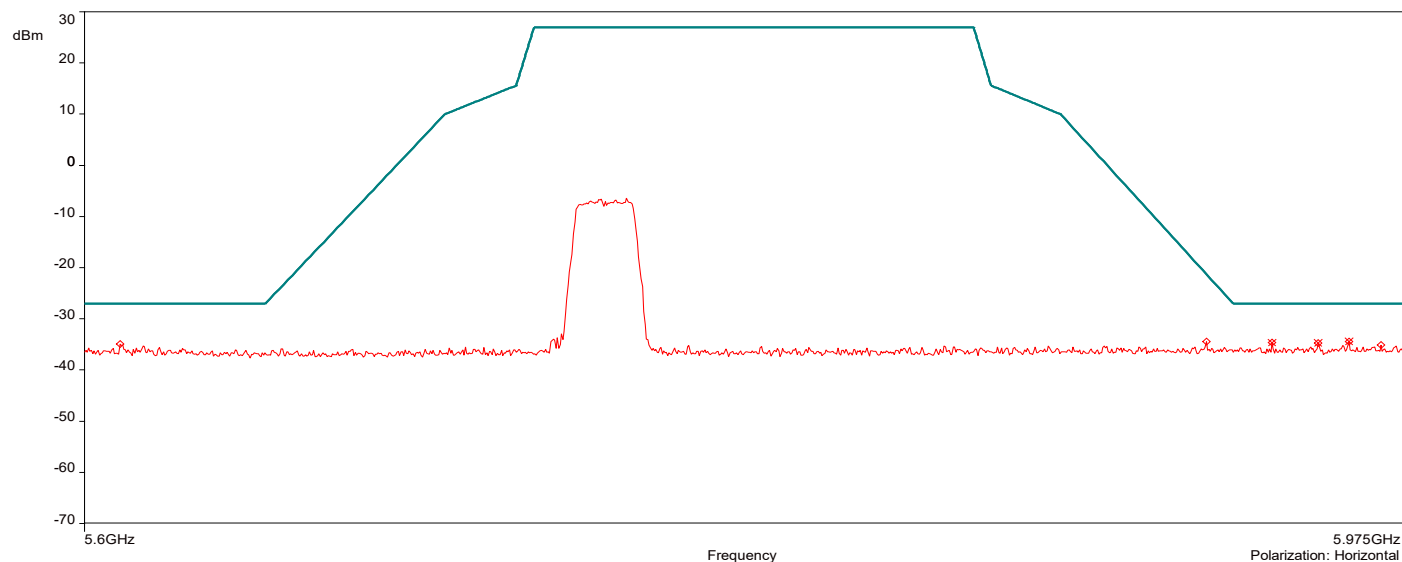


AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-3_802.11a_Ch 149

9/1/2021 3:58:20 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBm	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.936375GHz	-34.59	4.89	-27.00	-7.59	1.00	307.30	Horizontal	Passed
2.	5.949875GHz	-34.75	4.92	-27.00	-7.75	2.00	12.30	Horizontal	Passed
3.	5.958875GHz	-34.42	4.96	-27.00	-7.42	2.00	257.00	Horizontal	Passed
4.	5.645375GHz	-34.44	4.50	-27.00	-7.44	2.00	243.50	Vertical	Passed

Overall Graphs:

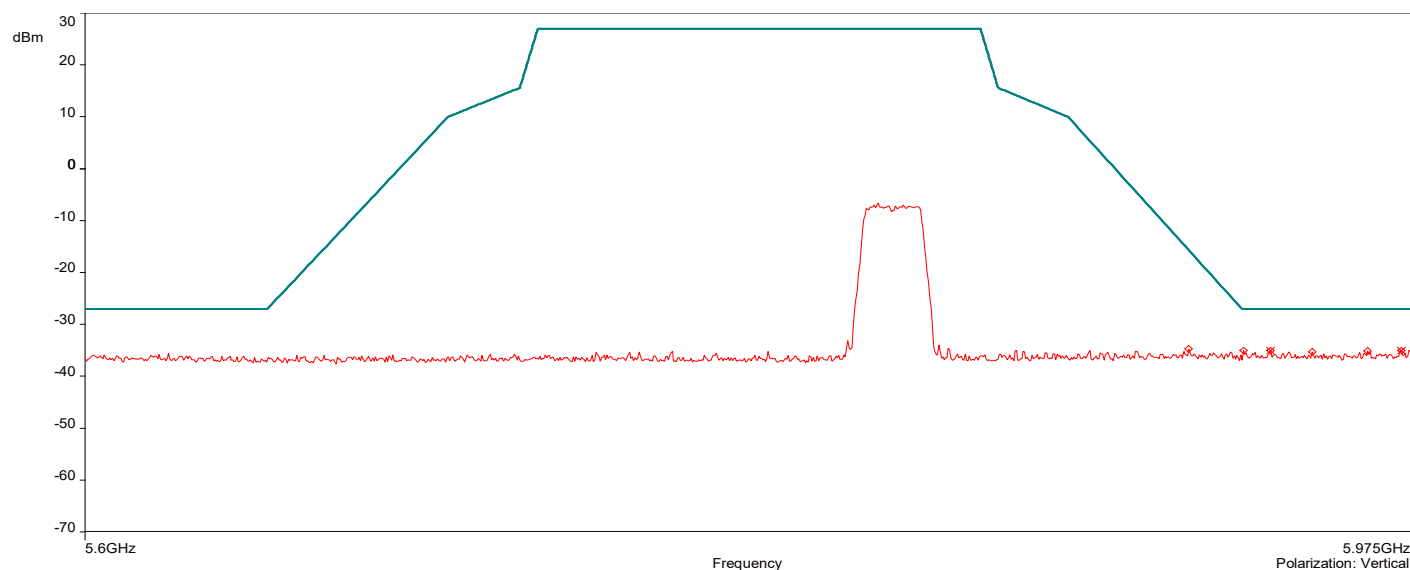
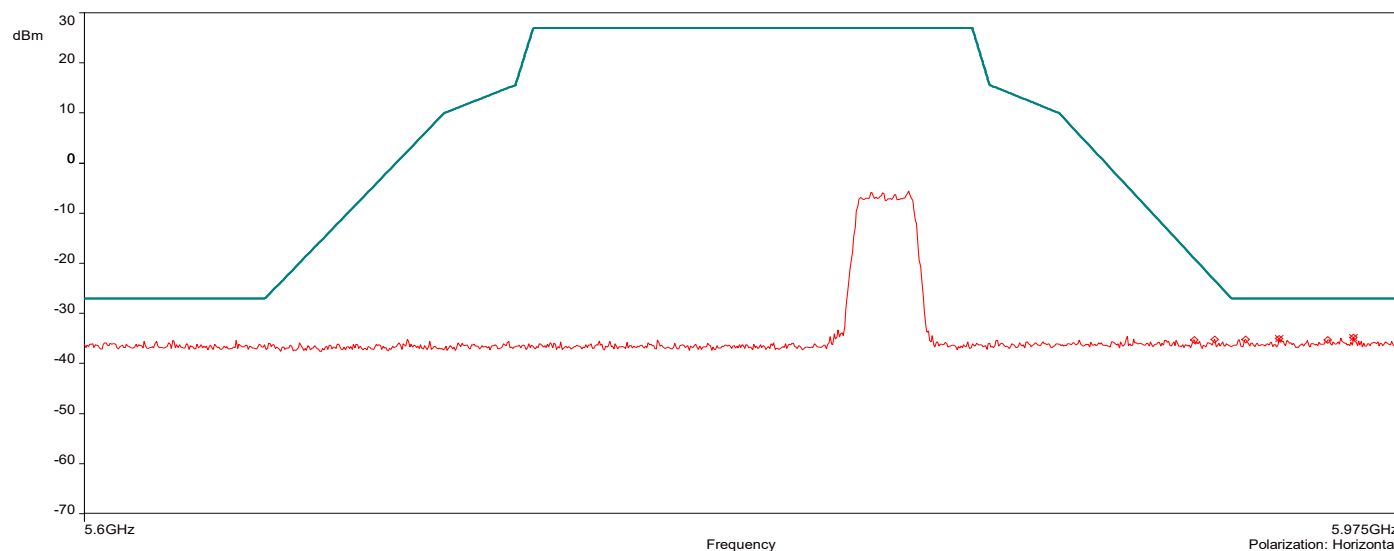


AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-3_802.11a_Ch 165

9/1/2021 4:20:41 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBm	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.939GHz	-34.97	4.89	-27.00	-7.97	3.00	331.80	Horizontal	Passed
2.	5.96075GHz	-34.82	4.97	-27.00	-7.82	3.00	30.50	Horizontal	Passed
3.	5.933375GHz	-35.00	4.88	-27.00	-8.00	2.00	4.20	Vertical	Passed
4.	5.97125GHz	-35.01	5.02	-27.00	-8.01	2.50	314.90	Vertical	Passed

Overall Graphs:

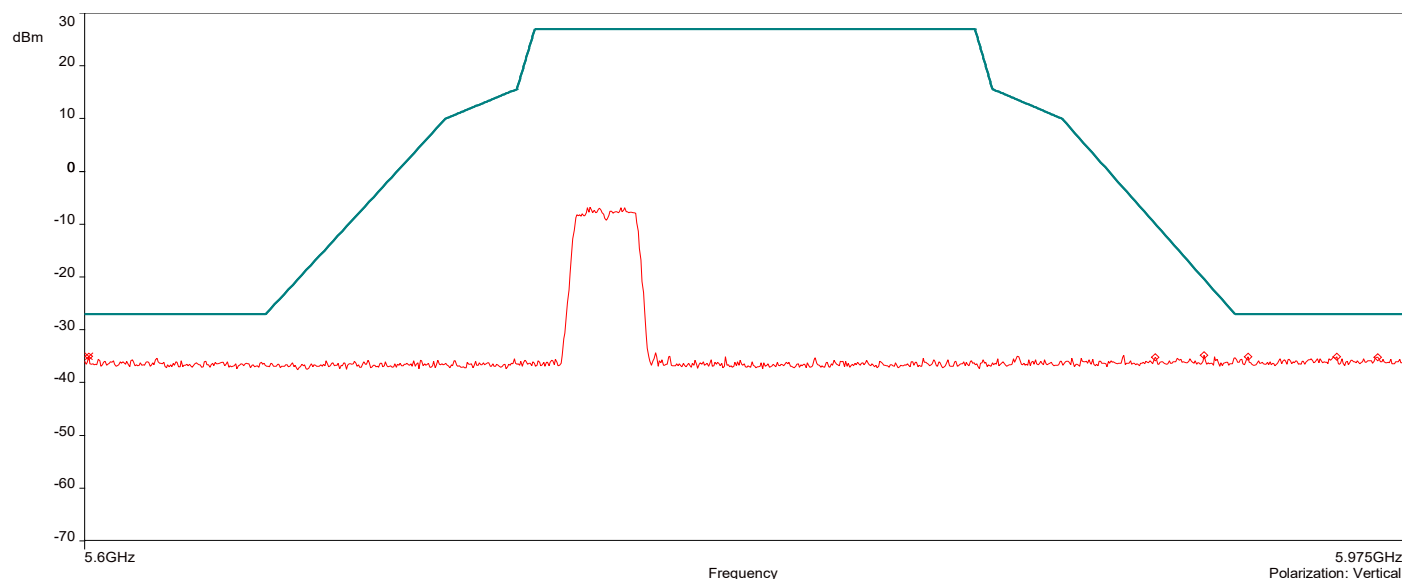
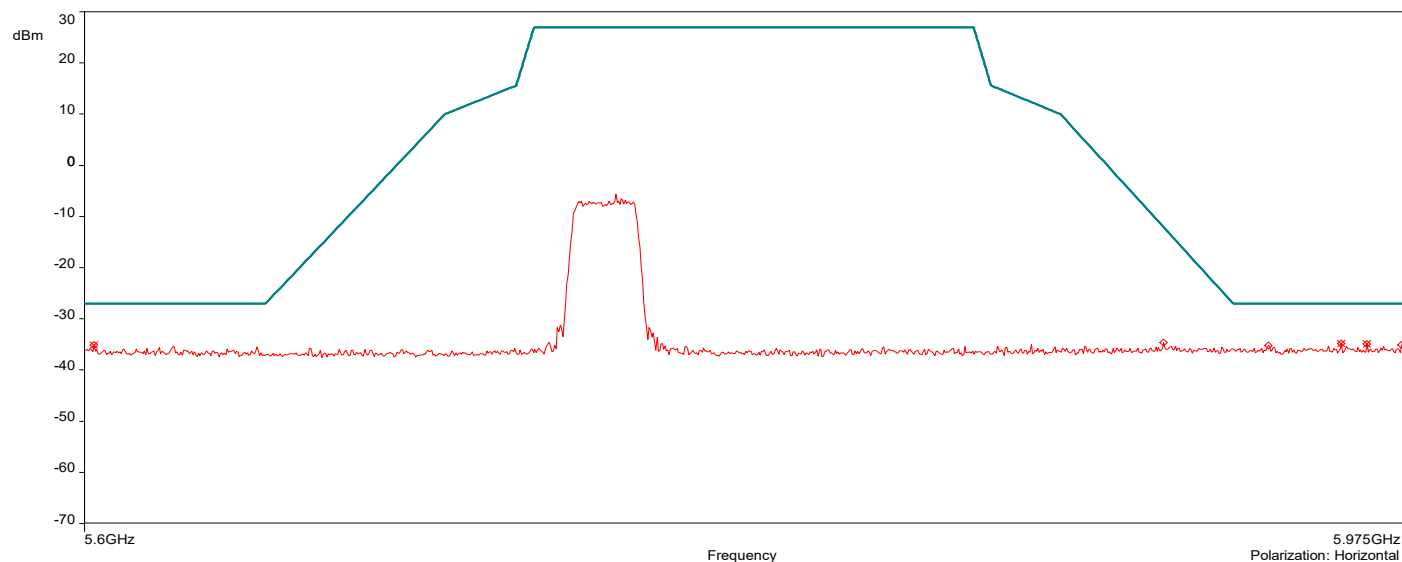


AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-3 (HT20)_802.11n_Ch 149

9/2/2021 9:27:13 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBm	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.602625GHz	-35.09	4.63	-27.00	-8.09	3.50	346.30	Horizontal	Passed
2.	5.956625GHz	-34.84	4.95	-27.00	-7.84	4.00	358.90	Horizontal	Passed
3.	5.964125GHz	-34.88	4.99	-27.00	-7.88	3.50	117.30	Horizontal	Passed
4.	5.601125GHz	-35.05	4.64	-27.00	-8.05	1.50	323.20	Vertical	Passed

Overall Graphs:

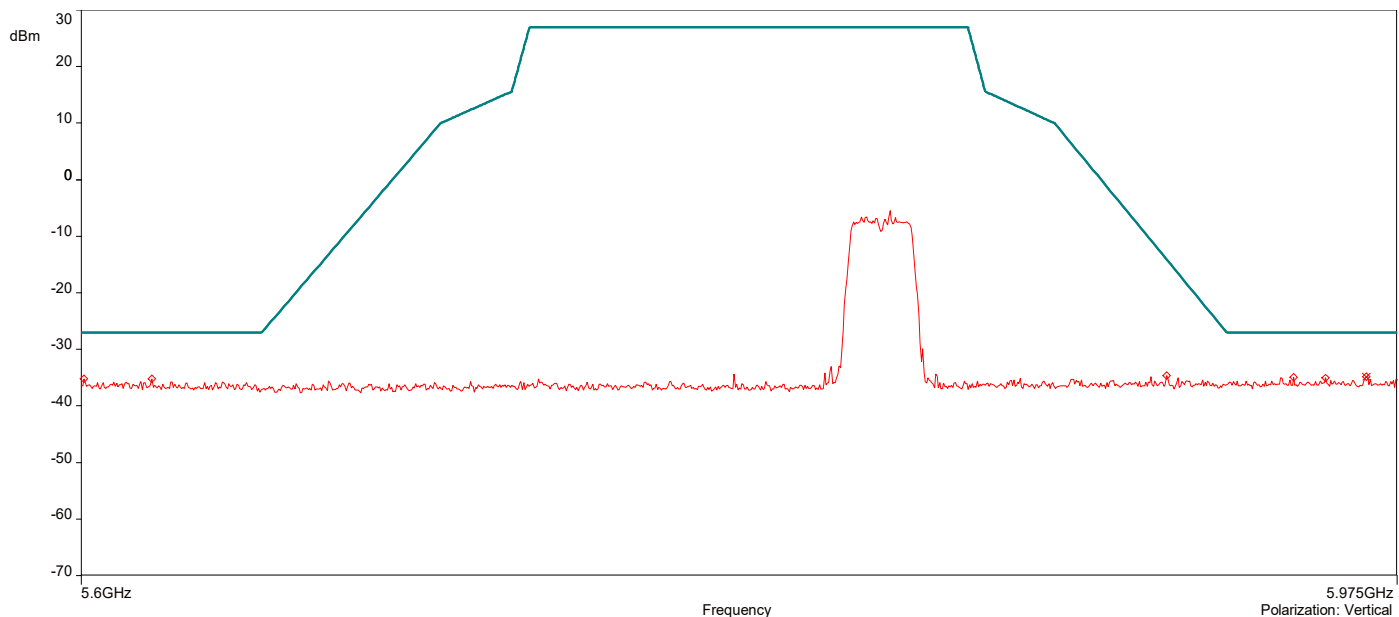
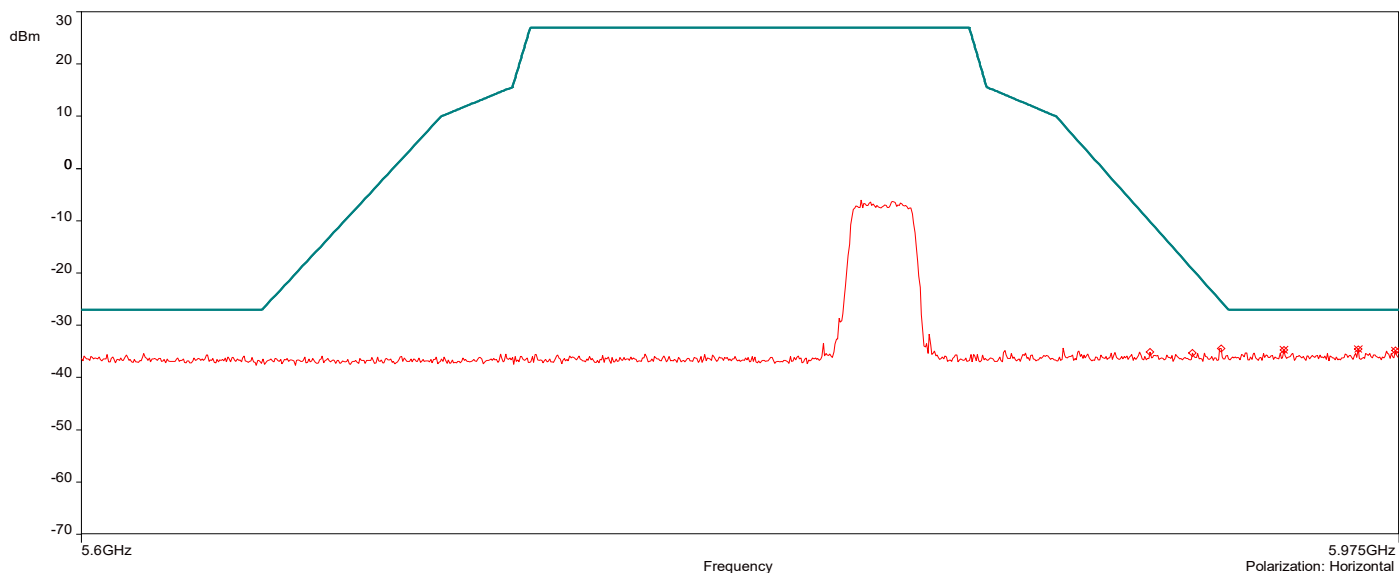


AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-3 (HT20)_802.11n_Ch 165

9/2/2021 9:44:42 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBm	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.94125GHz	-34.72	4.90	-27.00	-7.72	2.00	237.80	Horizontal	Passed
2.	5.963GHz	-34.58	4.98	-27.00	-7.58	3.00	25.60	Horizontal	Passed
3.	5.973875GHz	-34.82	5.03	-27.00	-7.82	2.00	118.00	Horizontal	Passed
4.	5.966GHz	-34.80	4.99	-27.00	-7.80	4.00	234.00	Vertical	Passed

Overall Graphs:

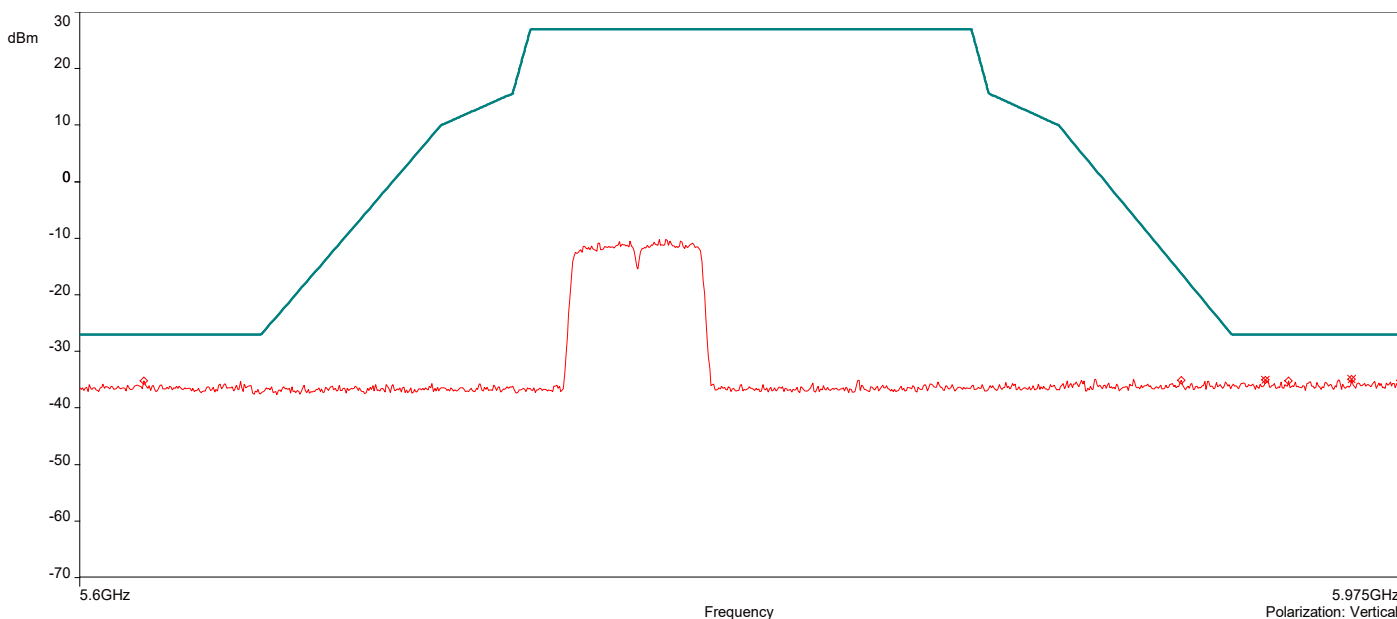
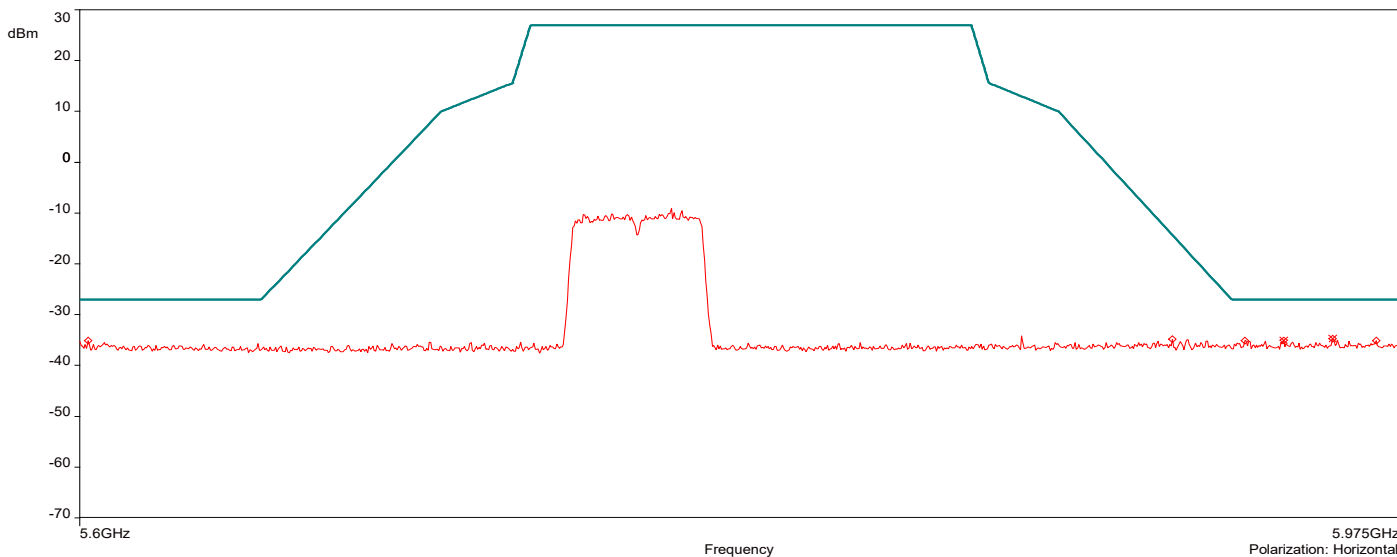


AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-3 (HT40)_802.11n_Ch 151

9/2/2021 10:02:37 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBm	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.940125GHz	-35.05	4.90	-27.00	-8.05	1.50	0.10	Horizontal	Passed
2.	5.954375GHz	-34.75	4.94	-27.00	-7.75	2.50	227.70	Horizontal	Passed
3.	5.934875GHz	-35.05	4.88	-27.00	-8.05	1.50	264.20	Vertical	Passed
4.	5.96GHz	-34.88	4.97	-27.00	-7.88	3.00	319.20	Vertical	Passed

Overall Graphs:

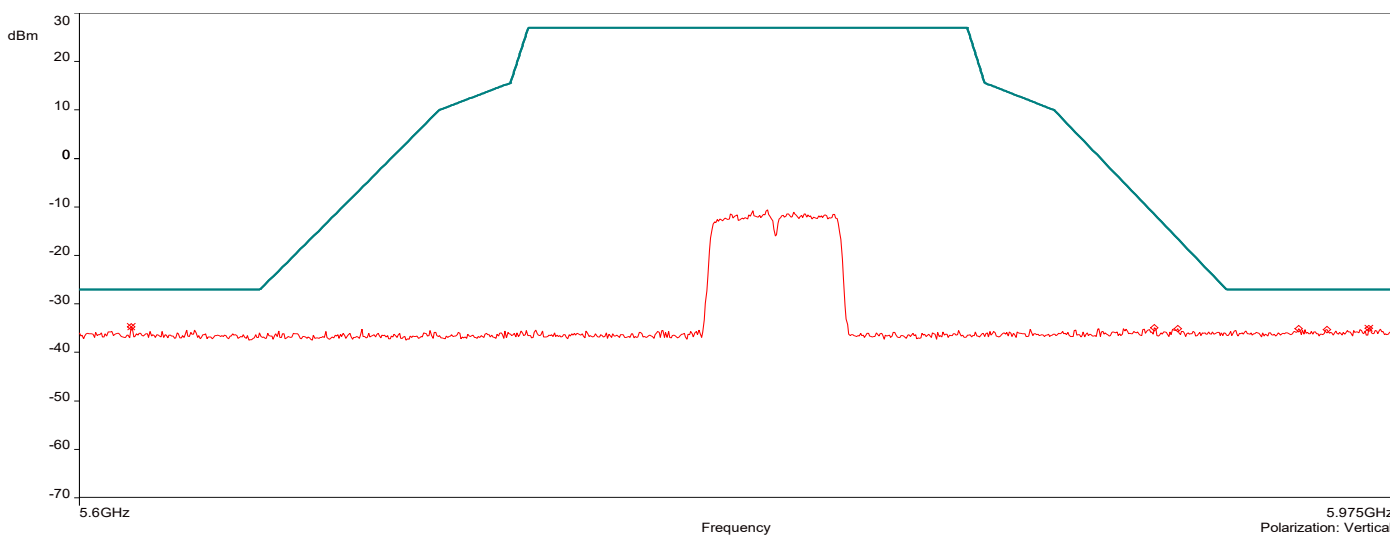
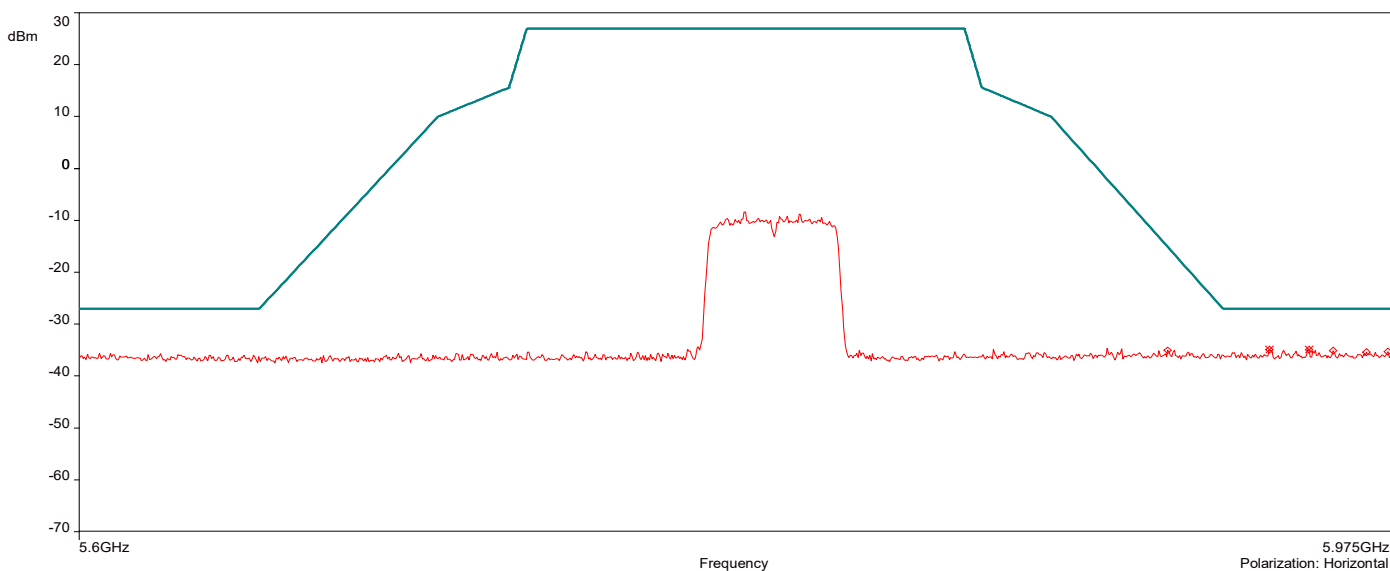


AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-3 (HT40)_802.11n_Ch 159

9/2/2021 2:26:21 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBm	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.938625GHz	-34.92	4.89	-27.00	-7.92	2.44	337.60	Horizontal	Passed
2.	5.95025GHz	-34.91	4.93	-27.00	-7.91	2.64	90.20	Horizontal	Passed
3.	5.61425GHz	-34.73	4.60	-27.00	-7.73	1.22	67.50	Vertical	Passed
4.	5.96675GHz	-34.98	5.00	-27.00	-7.98	3.97	315.10	Vertical	Passed

Overall Graphs:

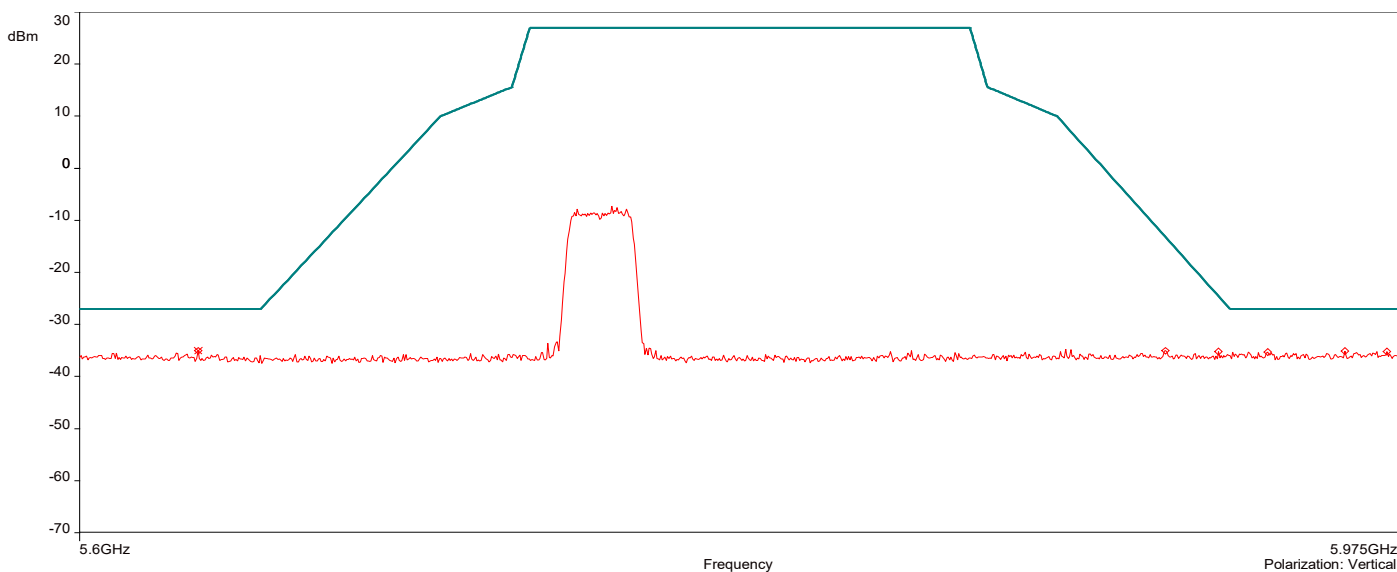
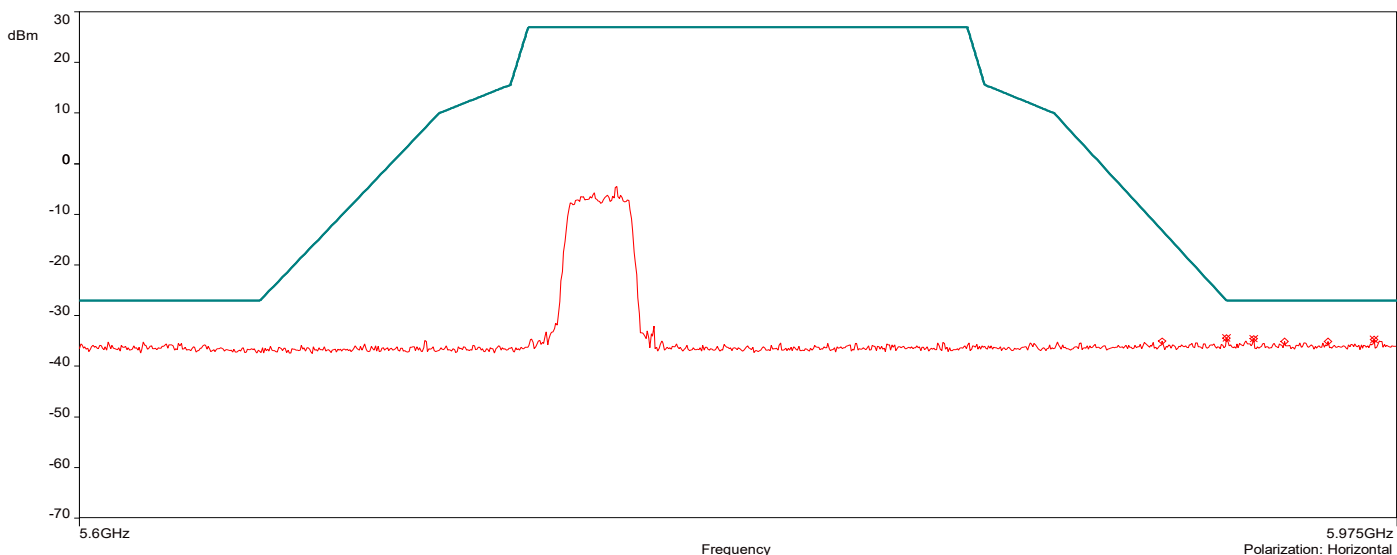


AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-3 (VHT20)_802.11ac_Ch 149

9/2/2021 10:42:30 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBm	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.925125GHz	-34.45	4.85	-27.00	-7.45	2.99	44.90	Horizontal	Passed
2.	5.933GHz	-34.50	4.88	-27.00	-7.50	1.70	224.90	Horizontal	Passed
3.	5.96825GHz	-34.68	5.00	-27.00	-7.68	3.51	337.40	Horizontal	Passed
4.	5.632625GHz	-35.05	4.54	-27.00	-8.05	3.30	157.40	Vertical	Passed

Overall Graphs:

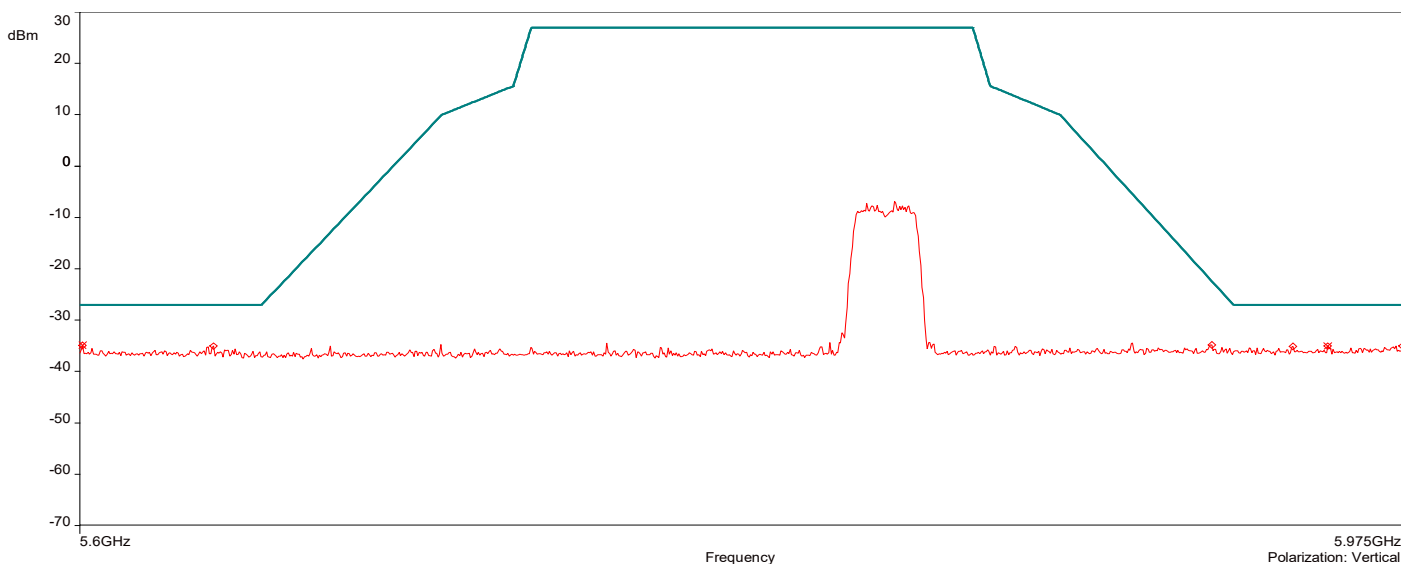
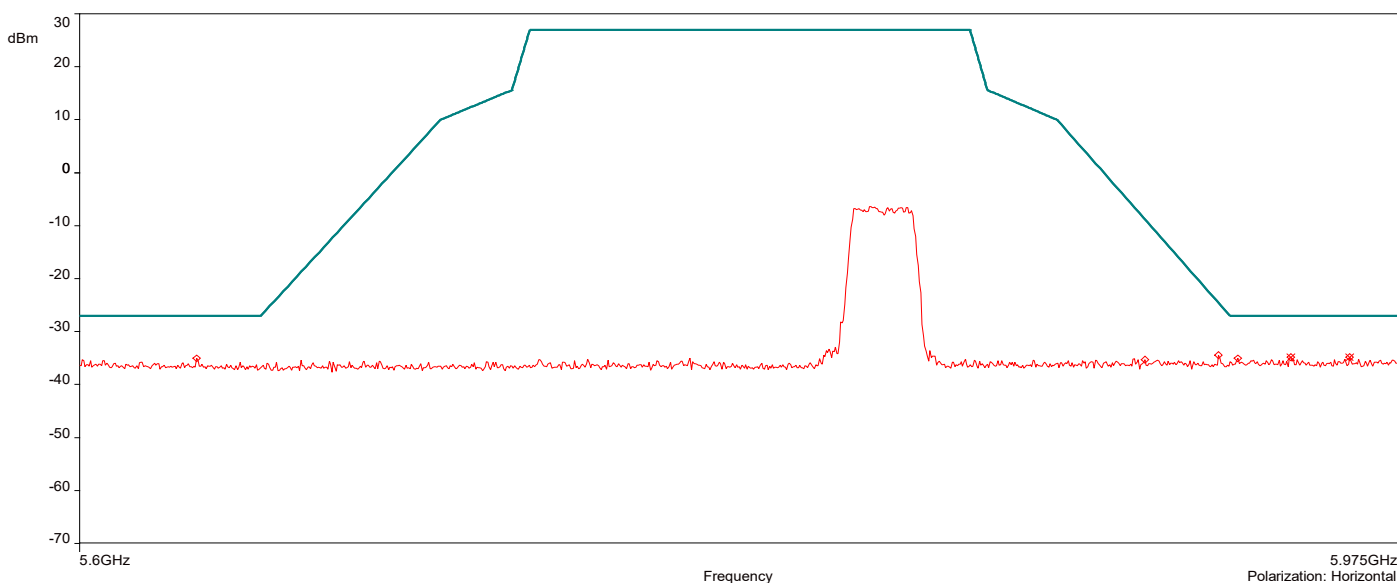


AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-3 (VHT20)_802.11ac_Ch 165

9/2/2021 11:03:13 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBm	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	5.94275GHz	-34.83	4.90	-27.00	-7.83	3.50	45.10	Horizontal	Passed
2.	5.96GHz	-34.83	4.97	-27.00	-7.83	3.28	225.10	Horizontal	Passed
3.	5.60075GHz	-34.93	4.64	-27.00	-7.93	2.24	67.60	Vertical	Passed
4.	5.9525GHz	-34.97	4.94	-27.00	-7.97	1.02	112.50	Vertical	Passed

Overall Graphs:

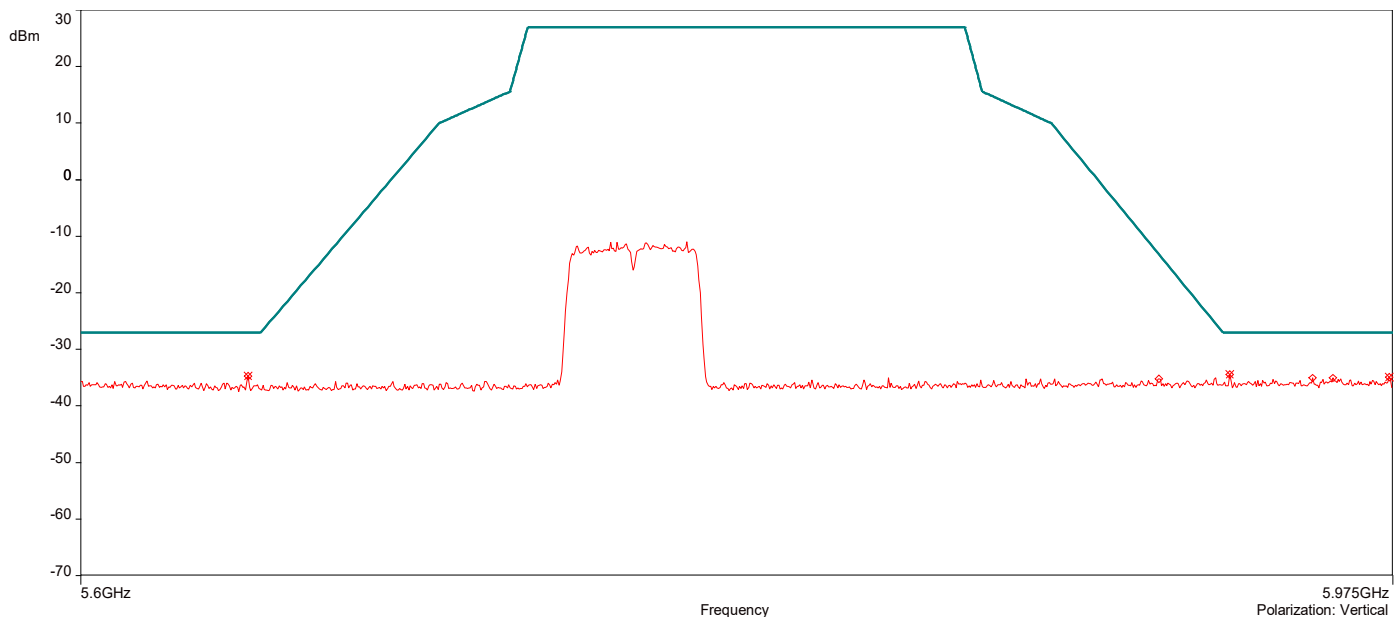
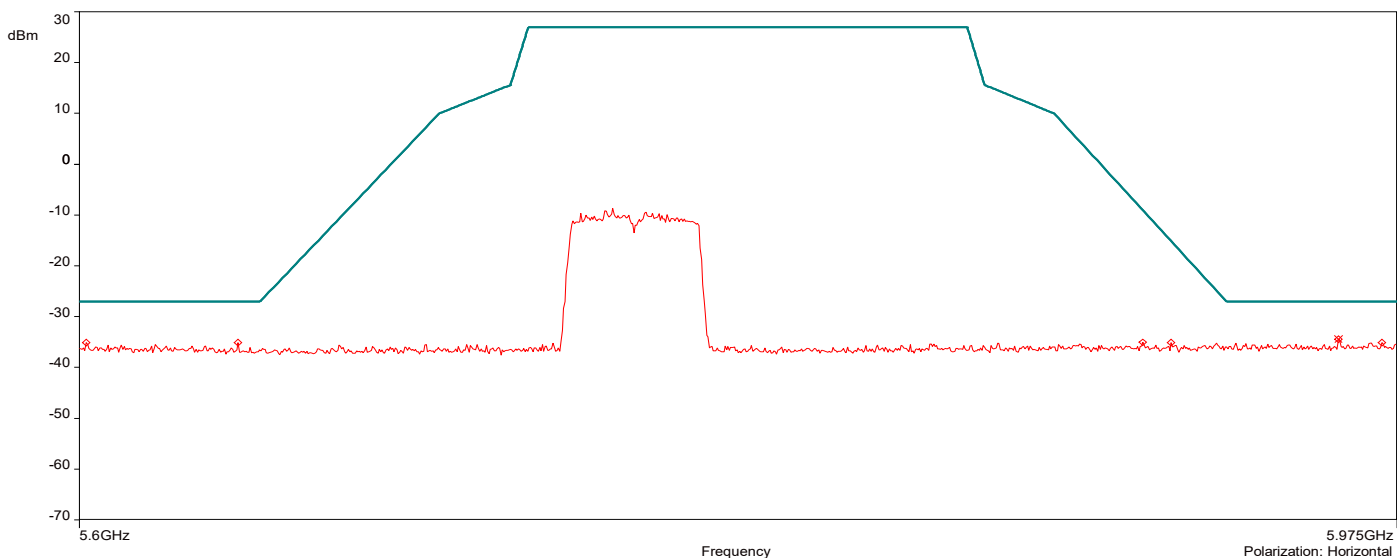


AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-3 (VHT40)_802.11ac_Ch 151

9/2/2021 11:24:17 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBm	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.95775GHz	-34.41	4.96	-27.00	-7.41	2.75	179.90	Horizontal	Passed
2.	5.6465GHz	-34.71	4.49	-27.00	-7.71	3.31	112.40	Vertical	Passed
3.	5.927GHz	-34.43	4.86	-27.00	-7.43	2.45	179.90	Vertical	Passed
4.	5.973875GHz	-34.94	5.03	-27.00	-7.94	2.03	269.90	Vertical	Passed

Overall Graphs:

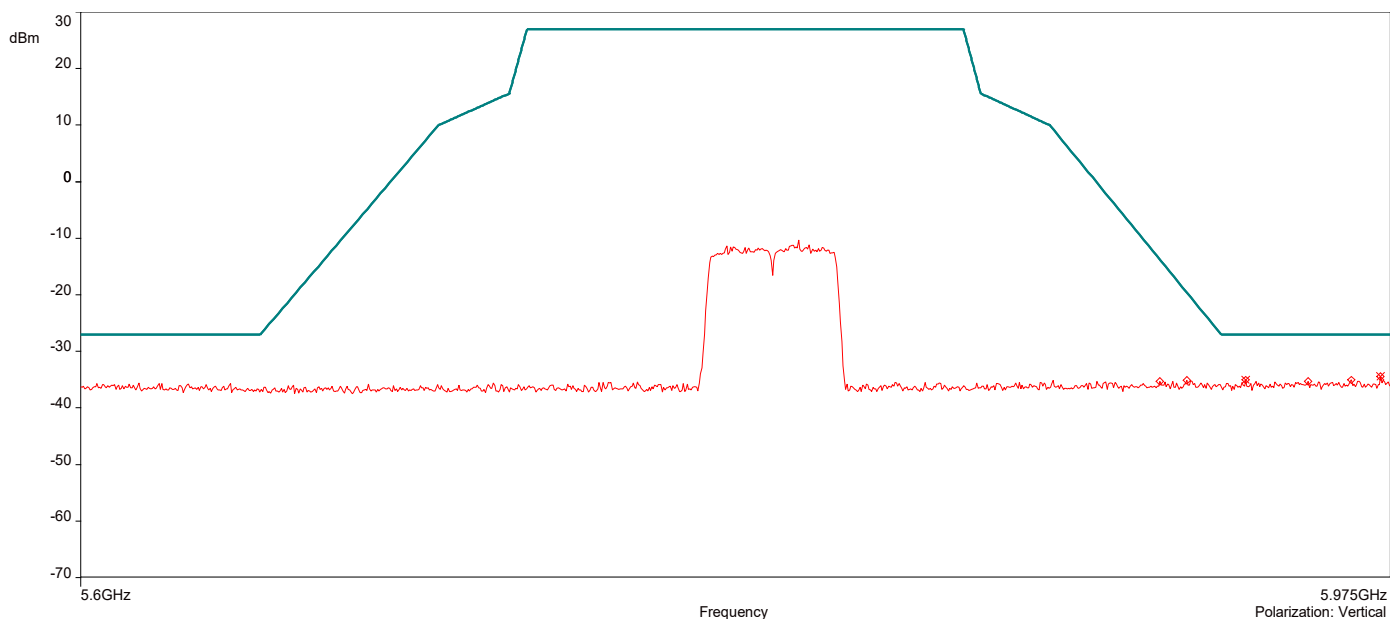
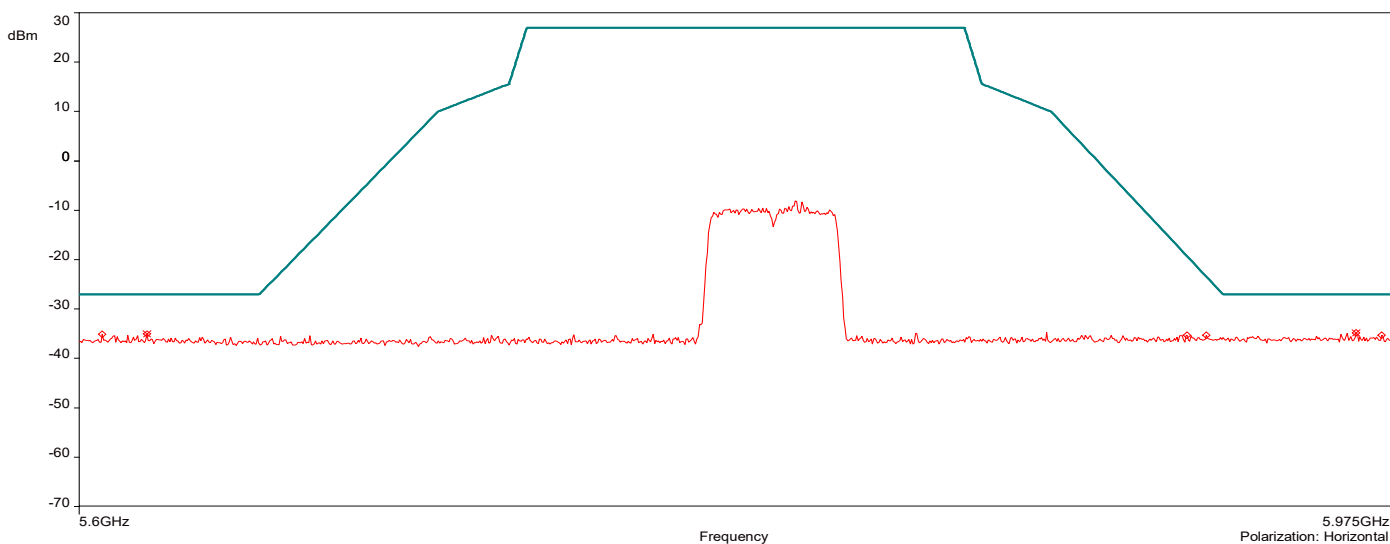


AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-3 (VHT40)_802.11ac_Ch 159

9/2/2021 11:47:39 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBm	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.61875GHz	-35.02	4.58	-27.00	-8.02	1.00	202.60	Horizontal	Passed
2.	5.964125GHz	-34.84	4.99	-27.00	-7.84	2.01	292.60	Horizontal	Passed
3.	5.93225GHz	-34.97	4.87	-27.00	-7.97	1.93	315.10	Vertical	Passed
4.	5.972GHz	-34.46	5.02	-27.00	-7.46	2.64	135.00	Vertical	Passed

Overall Graphs:

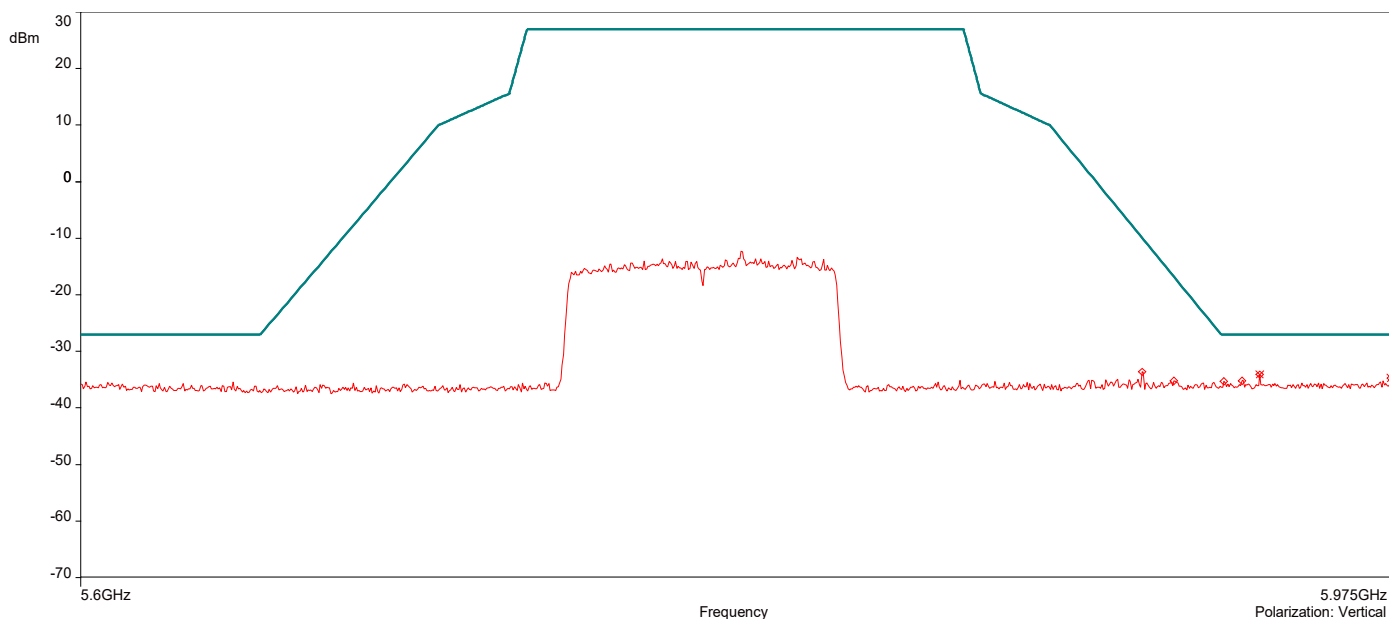
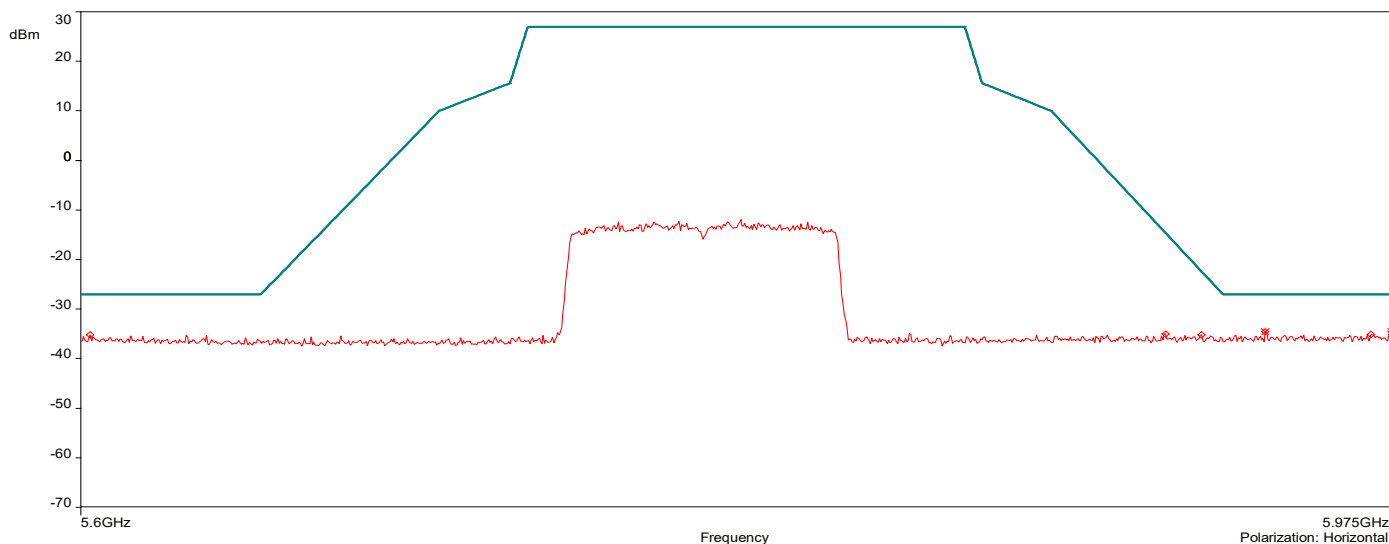


AH21042001-HAR-017#002_Restricted Bandedge_5G UNII-3 (VHT80)_802.11ac_Ch 155

9/2/2021 12:07:37 PM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBm	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	5.9375GHz	-34.54	4.89	-27.00	-7.54	1.40	314.90	Horizontal	Passed
2.	5.974625GHz	-34.58	5.03	-27.00	-7.58	3.39	202.40	Horizontal	Passed
3.	5.936375GHz	-34.05	4.89	-27.00	-7.05	2.76	44.90	Vertical	Passed
4.	5.975GHz	-34.72	5.03	-27.00	-7.72	3.81	179.90	Vertical	Passed

Overall Graphs:



Document Revisions

Version	Date	Modifier	Changes
1.0	09-18-2021	Aravind Buddana Ryan Philips	<ul style="list-style-type: none">Initial Draft
1.1	10-11-2021	Aravind Buddana	<ul style="list-style-type: none">Reduced Report Picture Resolution to meet FCC File Size Limits
1.2	10-12-2021	Aravind Buddana	<ul style="list-style-type: none">Updated correct FCC/IC ID

End of Report