

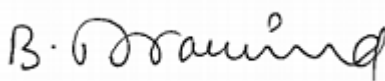


Regulatory Test Report


Prepared for Harman Becker Automotive Systems

This report presents detailed information on

CY20 DA UPPER

Prepared by 
Aravind Buddana

Engineer II

Approved by 
Jason Kanakry

General Manager

Issue date: 12/13/2021

Report No: AH21100601-HAR-134-TR3 v2

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The test is traceable to national standard or related international standard

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- **Test Request Information**

Test Request #: 7700096778

Test Requested By: Mark Bowman
Harman International Industries, Inc.
30001 Cabot Drive, Novi, MI 48377

Test item Description: CY20 DA UPPER

Part Number: T077

DUT Sample Number: AH21100601-HAR-134#1, AH21100601-HAR-134#3, AH21100601-HAR-134#4

Hardware Version of DUT: PV1

Software Version of DUT: 1.20.020

Component Category of DUT: N/A

Type of Test: FCC/ISED Certification

Test Method: CFR Title 47 FCC Part 15.247, ISED Canada RSS-247 Issue 2,
ISED Canada RSS-Gen Issue 5 and ANSI C63.10-2013

Deviations from standard: None

Approved Test Plan Number: N/A

Test Plan Revision: N/A

Date test sample received: 10-20-2021

Date test started: 10-27-2021

Date test finished: 12-10-2021

- **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 External detachable antenna with 2.4dBi 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 15.247, 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 15.247, ISED Canada RSS-247 Issue 2

The product is CY20 DA UPPER. It is a frequency hopping spread spectrum transmitter that operates in the 2402 – 2480 MHz frequency range.

Details	Description
Frequency Range (MHz)	2402 – 2480
Modulation	GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channels	79
Tested Channels	0,39,78
DUT Antenna Type	External detachable antenna
DUT Antenna Gain	2.4dBi

We found that the product met the above requirements without modification.

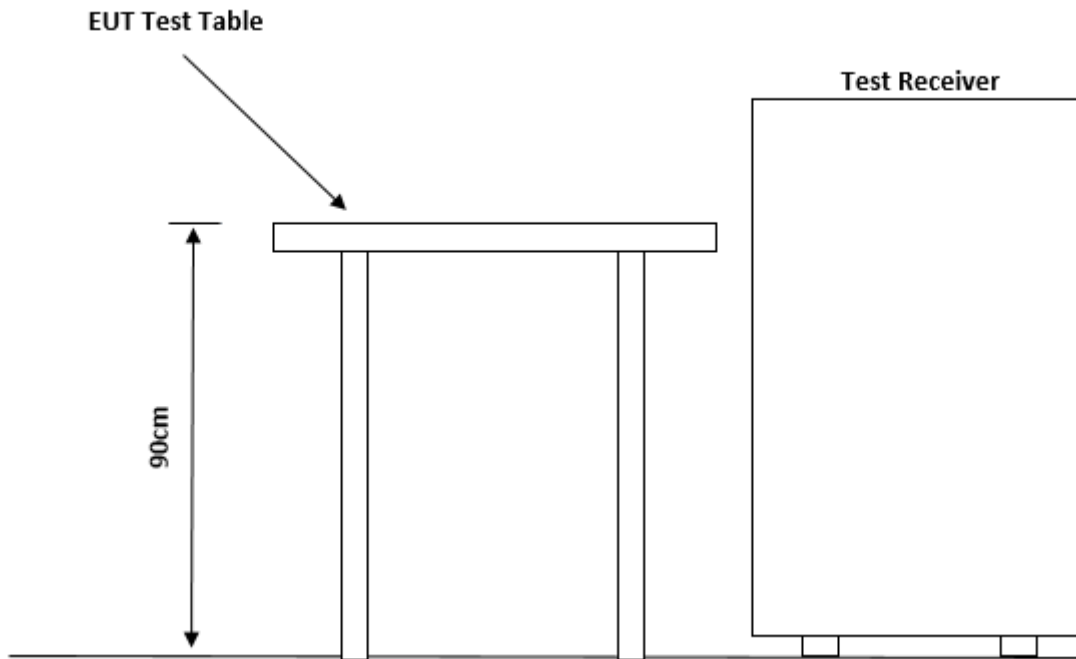
Test samples were received in good condition.

Test Item	Sample #	Result
FCC 15.247 Bluetooth Classic	AH21100601-HAR-134#1	Meets Requirement

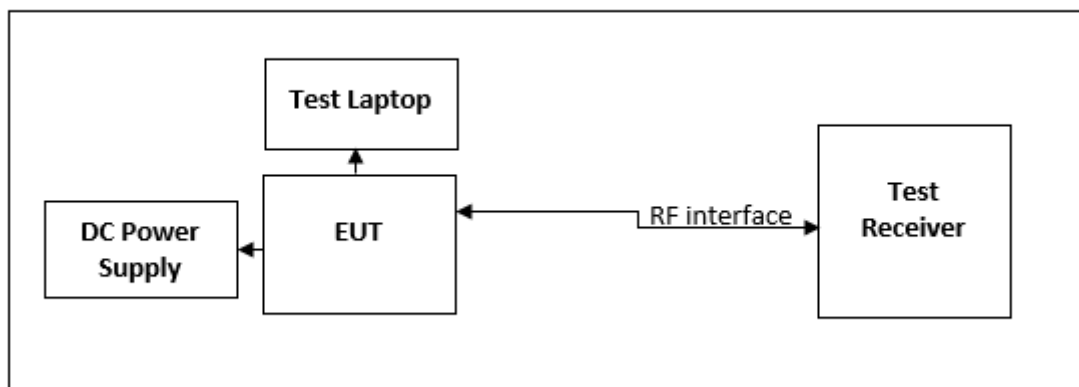
Test Setup

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	11/19/2022
BVD0225	Signal Generator 100k-6GHz with GPS simulator	Rohde & Schwarz	SMW200A	107664	11/18/2022
BVD0250	Wireless Connectivity Tester 70M-6GHz	Rohde & Schwarz	CMW270	102113	11/18/2022
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
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	USB Hub	Harman	N/A	N/A	N/A
N/A	USB 2.0 Ethernet Adapter	Harman	USB2-E100	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 15.247 Bluetooth Classic

DUT Information

DUT Name:	CY20 DA UPPER
Manufacturer:	Harman Becker Automotive Systems
Serial Number:	AH21100601-HAR-134#1

79 channels are provided for BT mode:

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
0	2402	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461		

Notes: The channels 0, 39 and 78 were selected as representative test channels.

Highest emissions are found with 3-DH1, So full testing is performed on 3-DH1

Antenna gain	2.4dBi
Number of transmit chains	1
Equipment type	Frequency Hopping Spread Spectrum

Test Results Summary

Test	Frequency (MHz)	DH1 Result	DH3 Result	DH5 Result	2-DH1 Result	2-DH3 Result	2-DH5 Result	3-DH1 Result	3-DH3 Result	3-DH5 Result
RF Output Power	--- (hopping)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Hopping Frequencies	--- (hopping)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Band Edge High	--- (hopping)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Carrier Frequency Separation	2402.000 (hopping)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Carrier Frequency Separation	2480.000 (hopping)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Time of Channel Occupancy	2402.000 (hopping)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Time of Channel Occupancy	2441.000 (hopping)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Time of Channel Occupancy	2480.000 (hopping)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Emissions Bandwidth 20dB	2402.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Occupied Channel Bandwidth 99%	2402.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Band Edge Low	2402.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Peak Output Power	2402.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Tx Spurious	2402.000 (single)	--	--	--	--	--	--	Pass	--	--
Emissions Bandwidth 20dB	2441.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Occupied Channel Bandwidth 99%	2441.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Peak Output Power	2441.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Tx Spurious	2441.000 (single)	--	--	--	--	--	--	Pass	--	--
Emissions Bandwidth 20dB	2480.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Occupied Channel Bandwidth 99%	2480.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Band Edge High	2480.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Peak Output Power	2480.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Tx Spurious	2480.000 (single)	--	--	--	--	--	--	Pass	--	--

RF Output Power (Frequency Independent) – Reference Only

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v05 and ANSI C63.10-2013 11.9.2.3.2.

Not mandatory.

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

All Power measurements performed in hopping mode.

Packet Type	Duty Cycle, %	Gated RMS (dBm)	Limit Max (dBm)
DH1	31.100	2.329	21.0
DH3	65.789	2.471	21.0
DH5	77.140	2.382	21.0
2-DH1	15.649	2.543	21.0
2-DH3	65.727	2.905	21.0
2-DH5	77.099	2.979	21.0
3-DH1	15.615	3.013	21.0
3-DH3	65.648	2.891	21.0
3-DH5	66.094	2.890	21.0

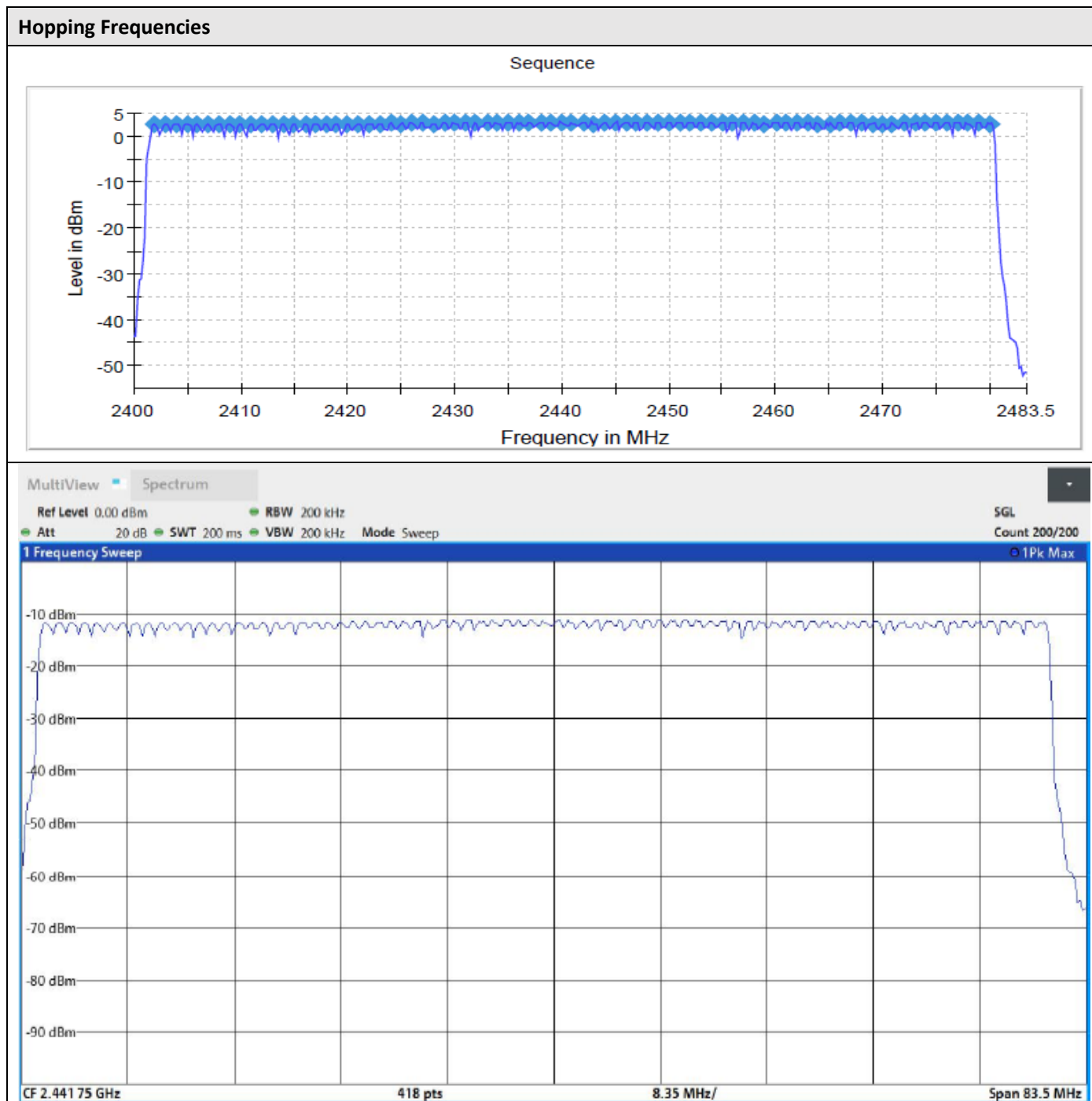
Number of Hopping Frequencies

Test according to FCC title 47 part 15 §15.247(a),(g), KDB 558074 D01 DTS Meas Guidance v05 9 and ANSI C63.10-2013 7.8.3

Channels

Channels	Limit Min	Result
79	15	PASS

Plot for packet type **3-DH1** shown below.



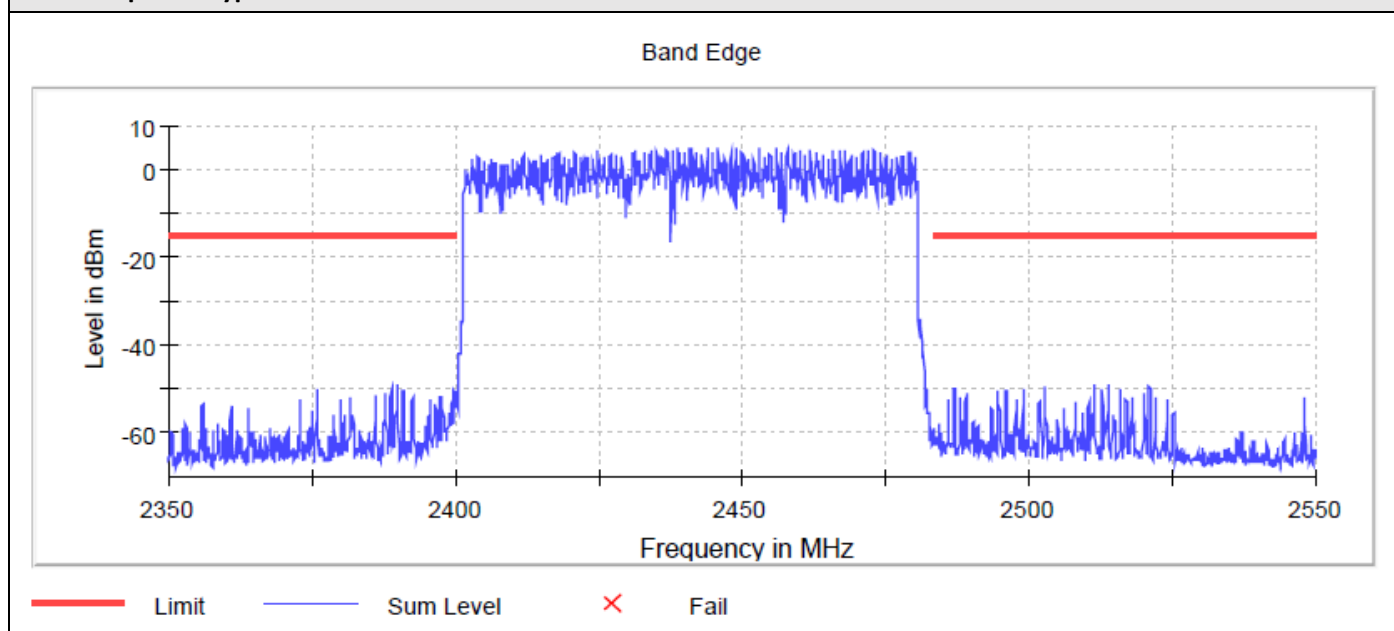
Band Edge (Hopping)

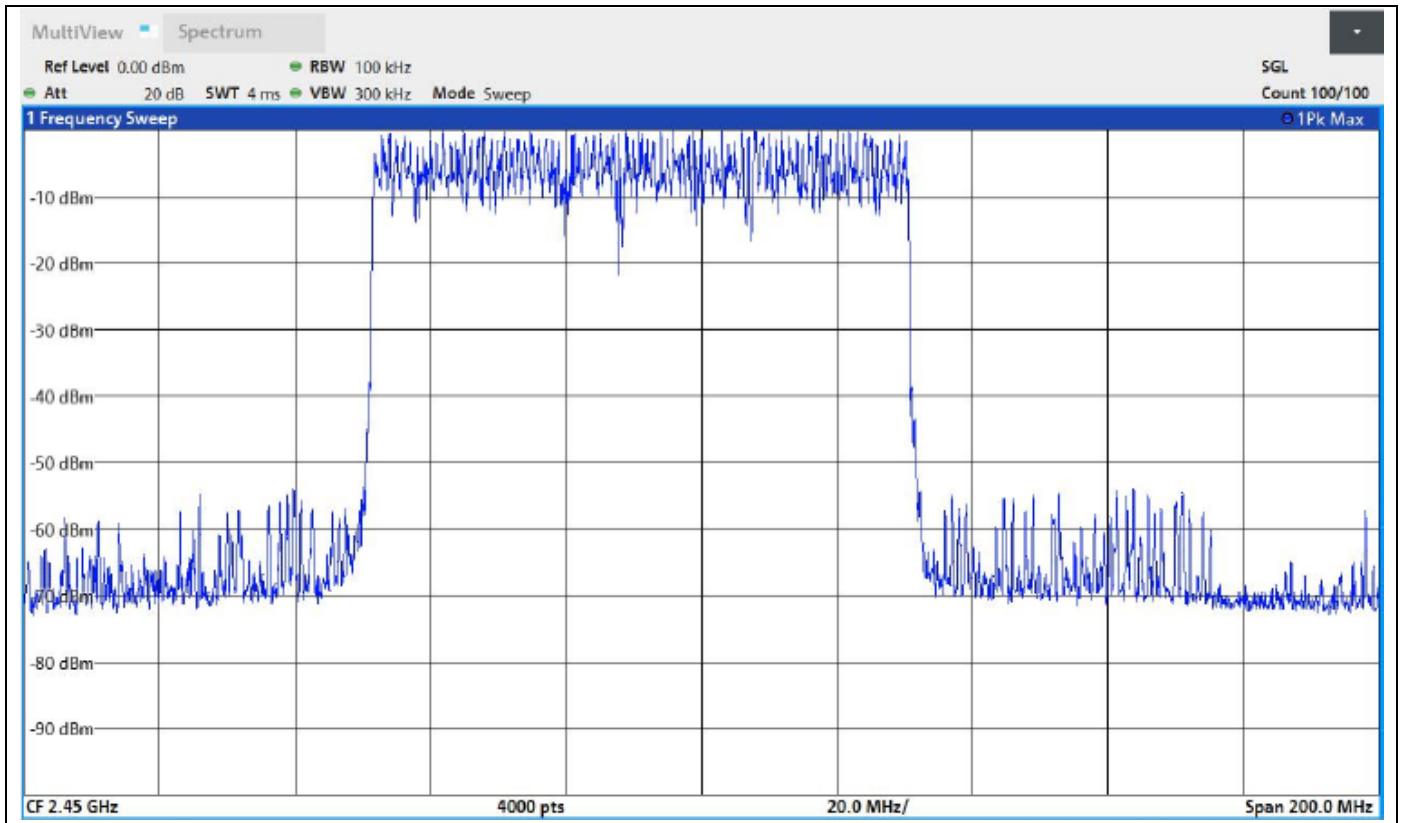
Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05 and ANSI C63.10-2013 7.8.6

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 0.8 dB

Data Rate	Frequency (MHz)	Level (dBm)
DH1	2443.975000	4.1
DH3	2439.175000	4.5
DH5	2441.175000	4.4
2-DH1	2451.825000	4.9
2-DH3	2446.975000	4.8
2-DH5	2447.975000	5.0
3-DH1	2440.825000	5.1
3-DH3	2442.175000	5.2
3-DH5	2437.175000	5.0

Plots for packet type 3-DH1 shown below





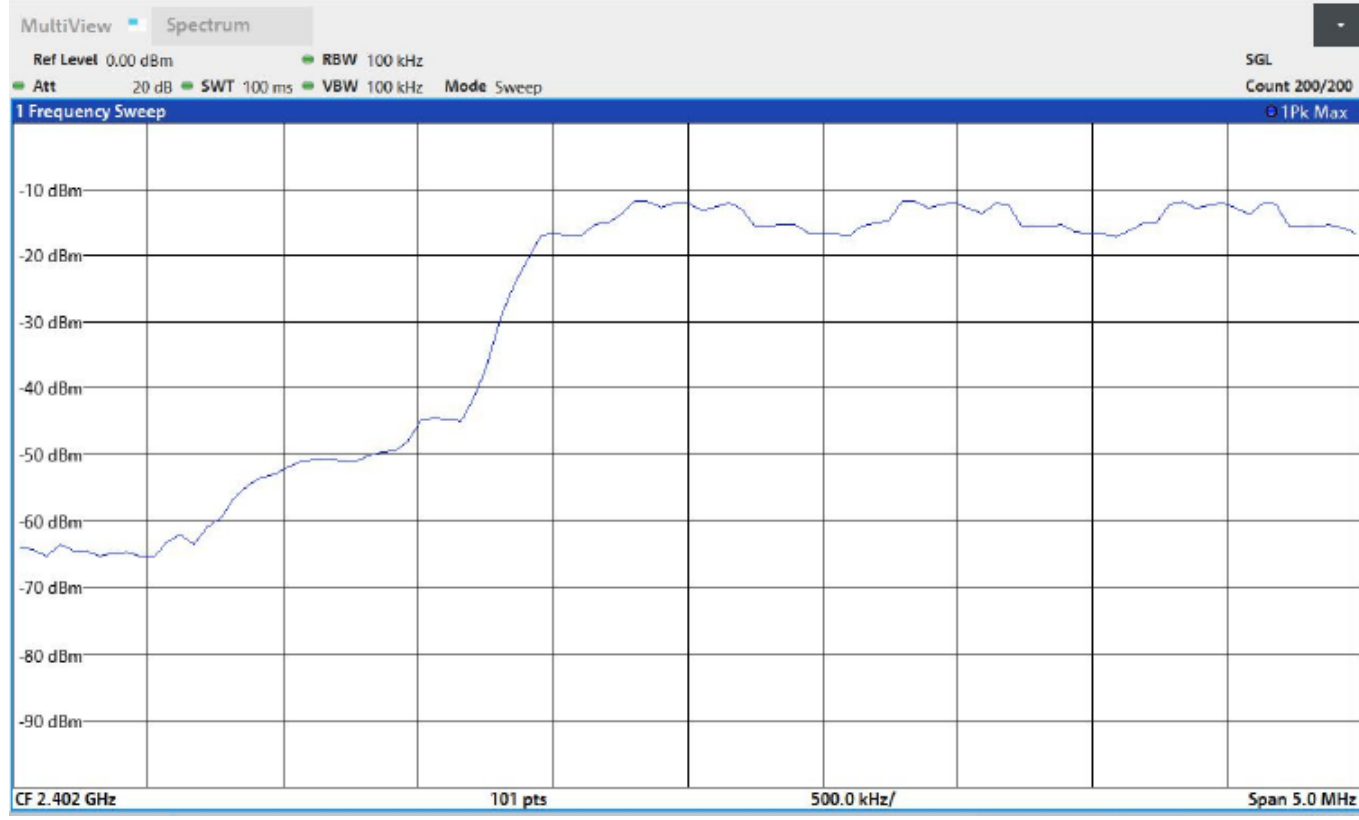
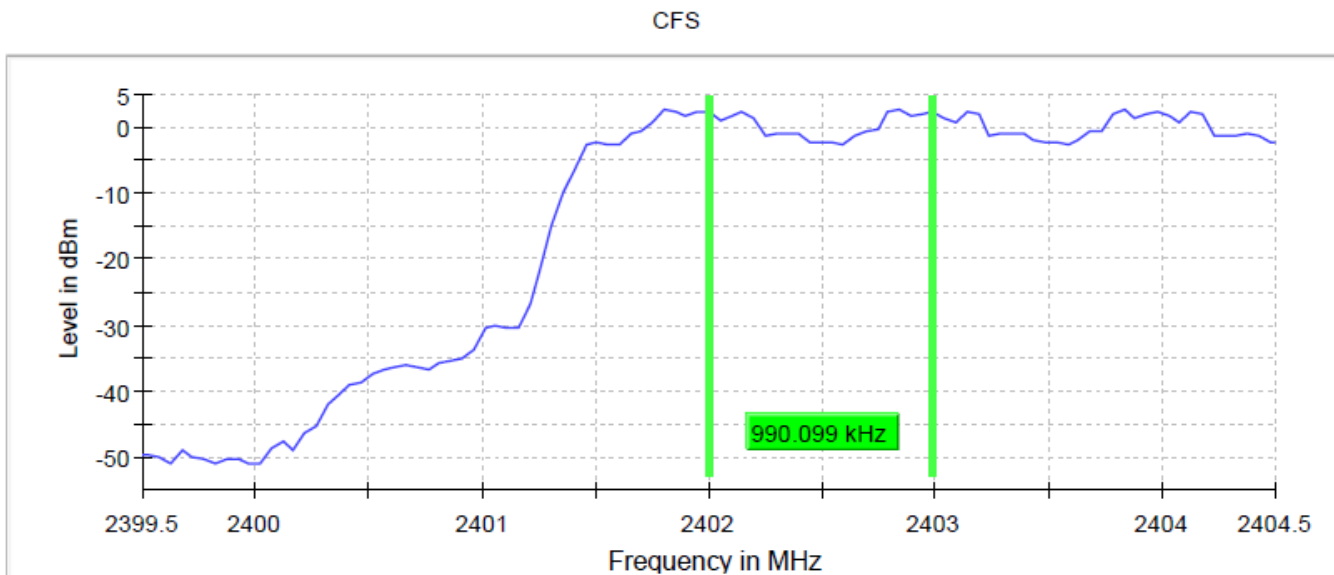
Carrier Frequency Separation

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05 9 and ANSI C63.10-2013 7.8.2

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

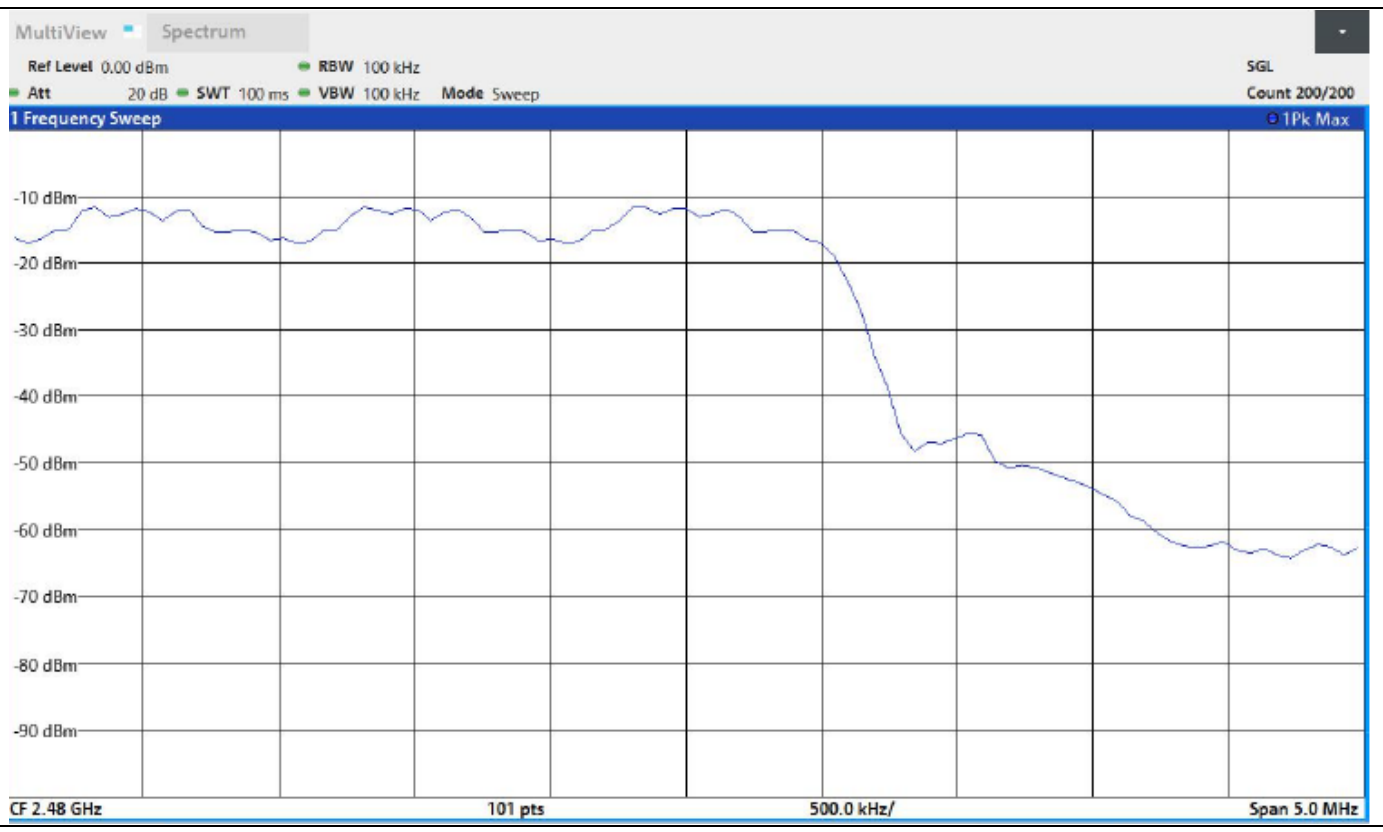
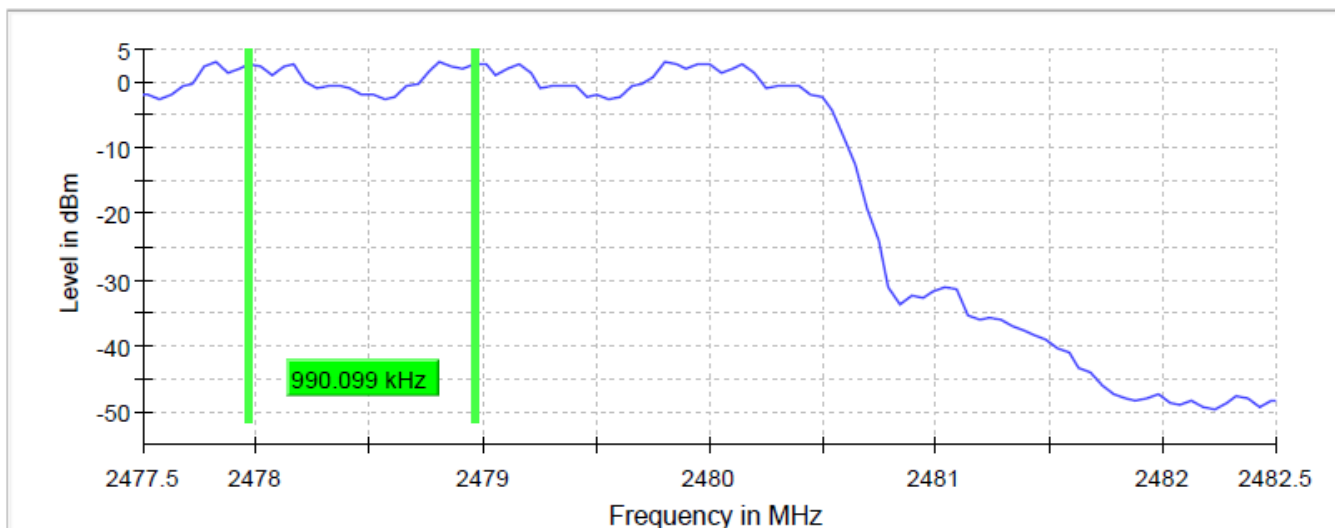
Hopping Mode				
Packet Type	2402MHz		2480MHz	
	Frequency Separation (MHz)	Minimum Limit (MHz)	Frequency Separation (MHz)	Minimum Limit (MHz)
DH1	0.990099	0.666667	0.990099	0.666667
DH3	0.990099	0.666667	0.990099	0.666667
DH5	0.990099	0.666667	0.990099	0.666667
2-DH1	0.990099	0.666667	0.990099	0.666667
2-DH3	0.990099	0.666667	0.990099	0.666667
2-DH5	0.990099	0.666667	0.990099	0.666667
3-DH1	0.990099	0.666667	0.990099	0.666667
3-DH3	0.940594	0.666667	0.990099	0.666667
3-DH5	0.940594	0.666667	0.990099	0.666667

2402MHz 3-DH1



2480MHz 3-DH1

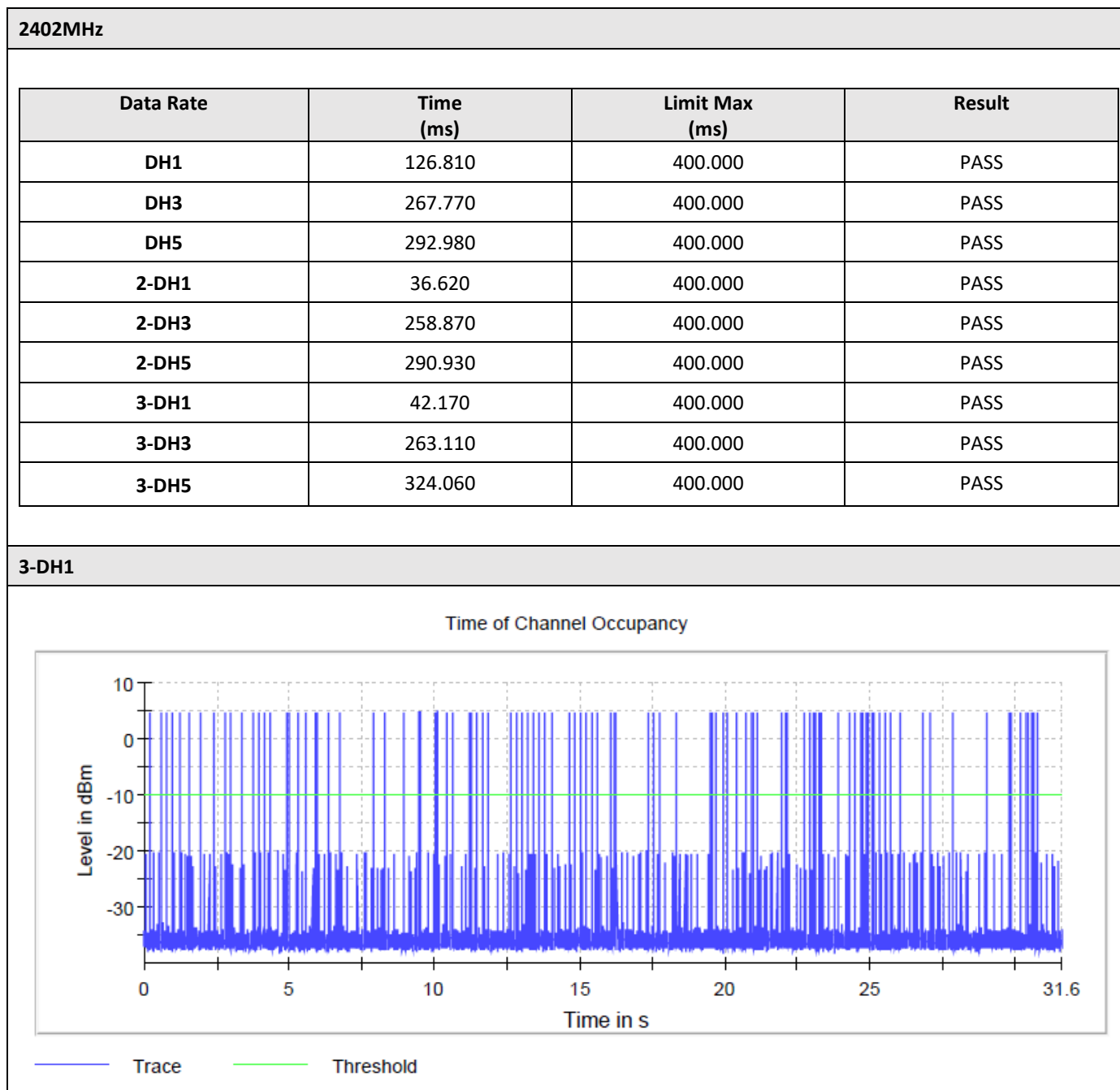
CFS

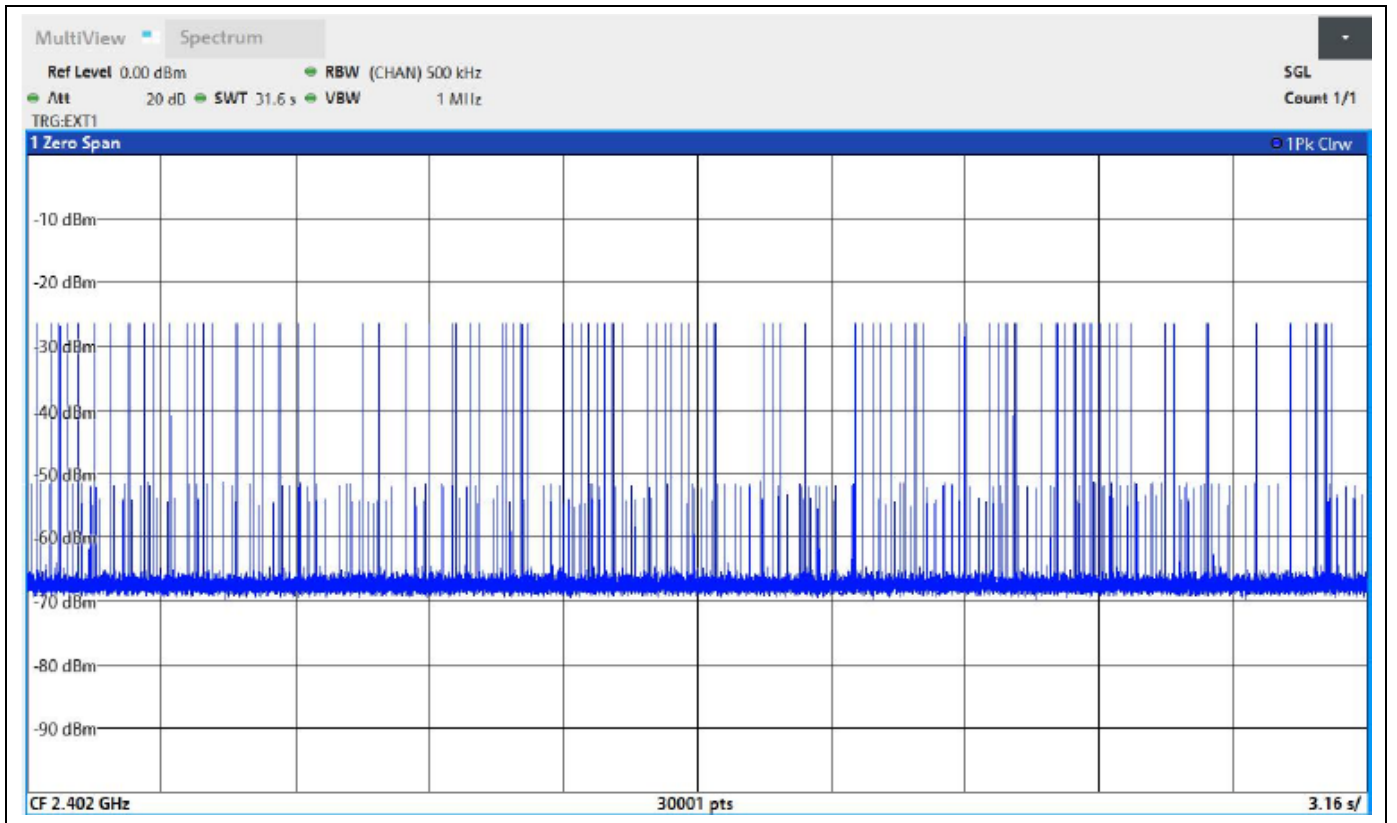


Time of Channel Occupancy

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05 and ANSI C63.10-2013 7.8.4

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



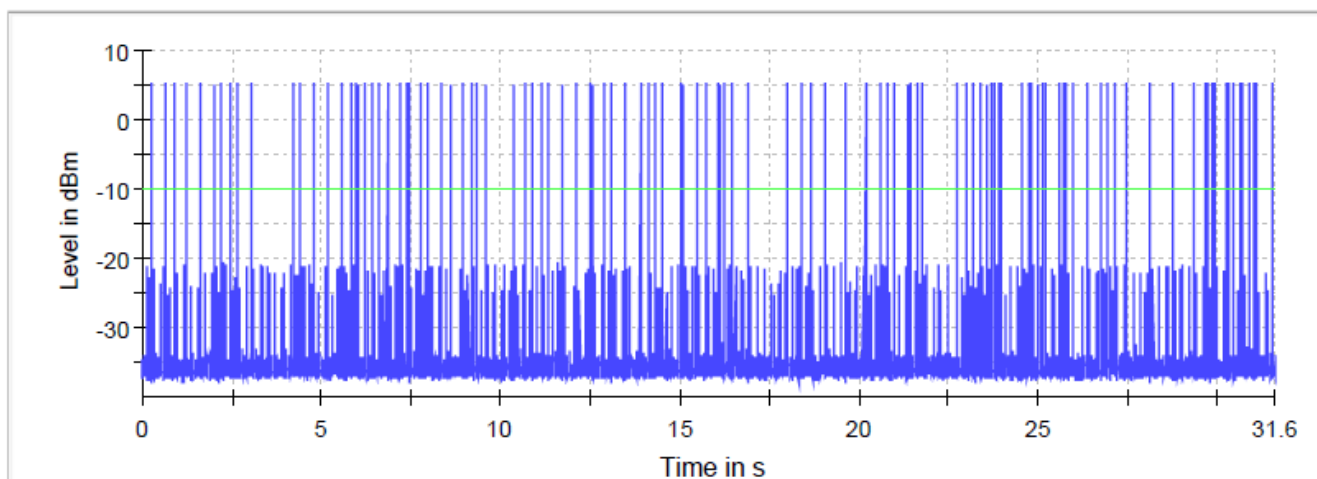


2441MHz

Data Rate	Time (ms)	Limit Max (ms)	Result
DH1	126.930	400.000	PASS
DH3	256.280	400.000	PASS
DH5	292.990	400.000	PASS
2-DH1	39.620	400.000	PASS
2-DH3	267.690	400.000	PASS
2-DH5	325.500	400.000	PASS
3-DH1	46.010	400.000	PASS
3-DH3	240.460	400.000	PASS
3-DH5	303.910	400.000	PASS

3-DH1

Time of Channel Occupancy



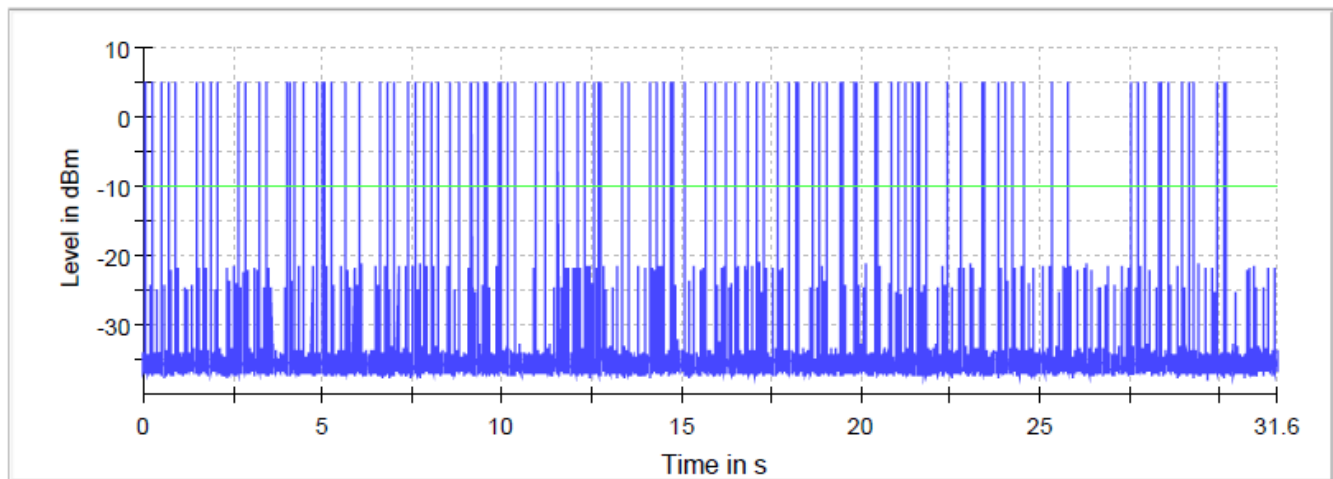
— Trace — Threshold

2480MHz

Data Rate	Time (ms)	Limit Max (ms)	Result
DH1	126.890	400.000	PASS
DH3	264.430	400.000	PASS
DH5	304.570	400.000	PASS
2-DH1	40.740	400.000	PASS
2-DH3	249.290	400.000	PASS
2-DH5	319.690	400.000	PASS
3-DH1	44.850	400.000	PASS
3-DH3	269.950	400.000	PASS
3-DH5	303.790	400.000	PASS

3-DH1

Time of Channel Occupancy



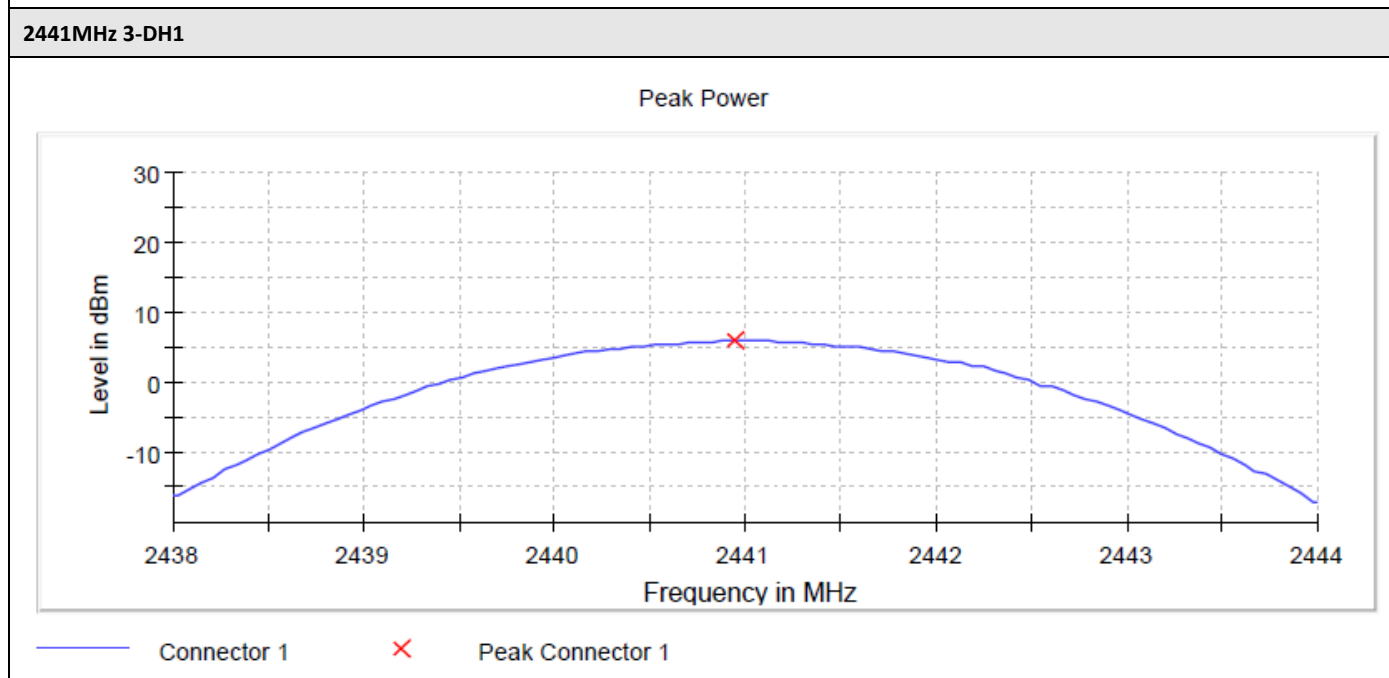
— Trace — Threshold

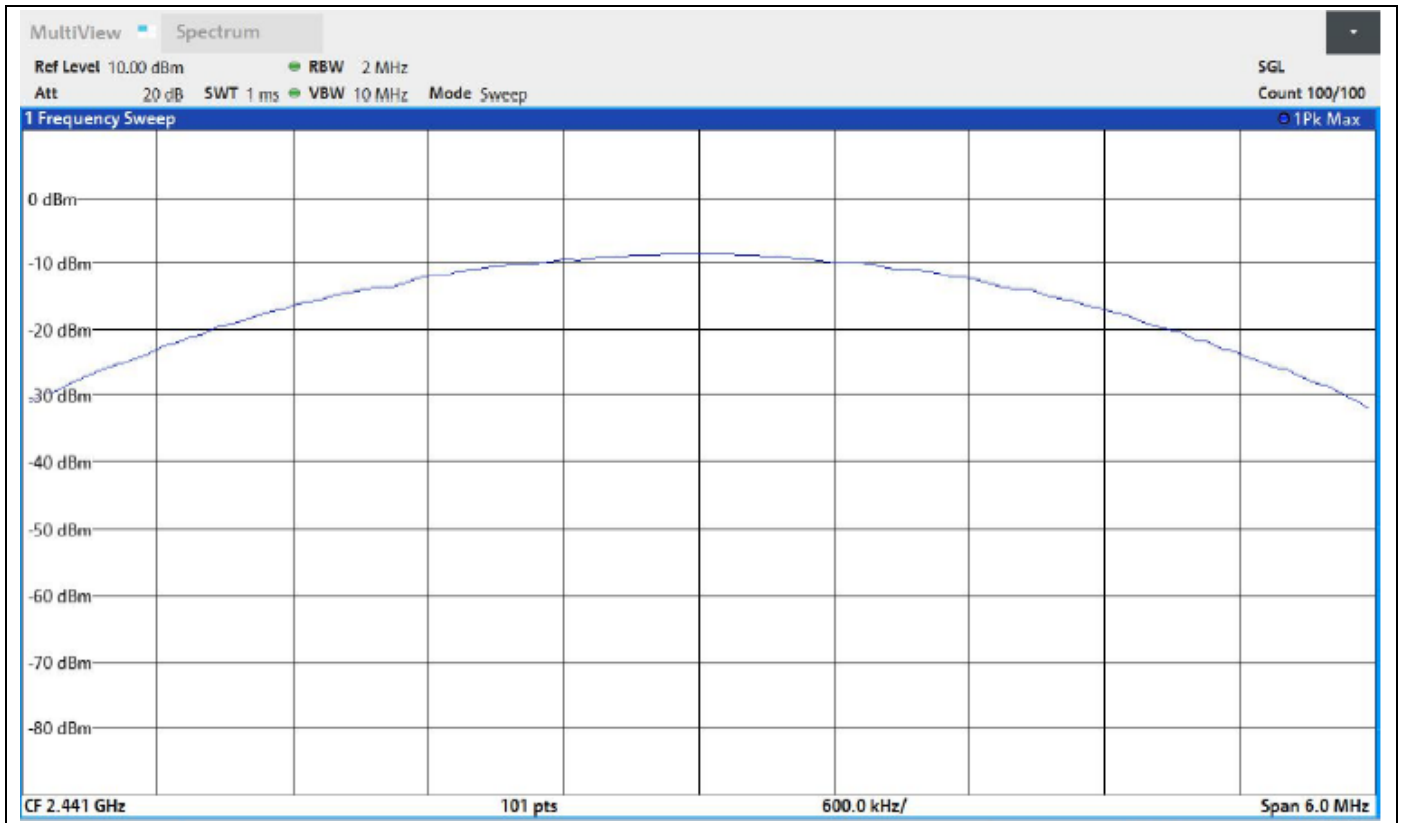
Peak Output Power

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v05 and ANSI C63.10-2013 7.8.5

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

2402MHz				
Data Rate	2402 MHz	2441 MHz	2480 MHz	Limit dBm
DH1	2.114	2.514	2.441	21.0
DH3	2.103	2.506	2.429	21.0
DH5	2.098	2.509	2.427	21.0
2-DH1	5.047	5.519	5.421	21.0
2-DH3	5.038	5.502	5.423	21.0
2-DH5	5.041	5.497	5.403	21.0
3-DH1	5.388	5.848	5.743	21.0
3-DH3	5.372	5.843	5.756	21.0
3-DH5	5.372	5.833	5.759	21.0



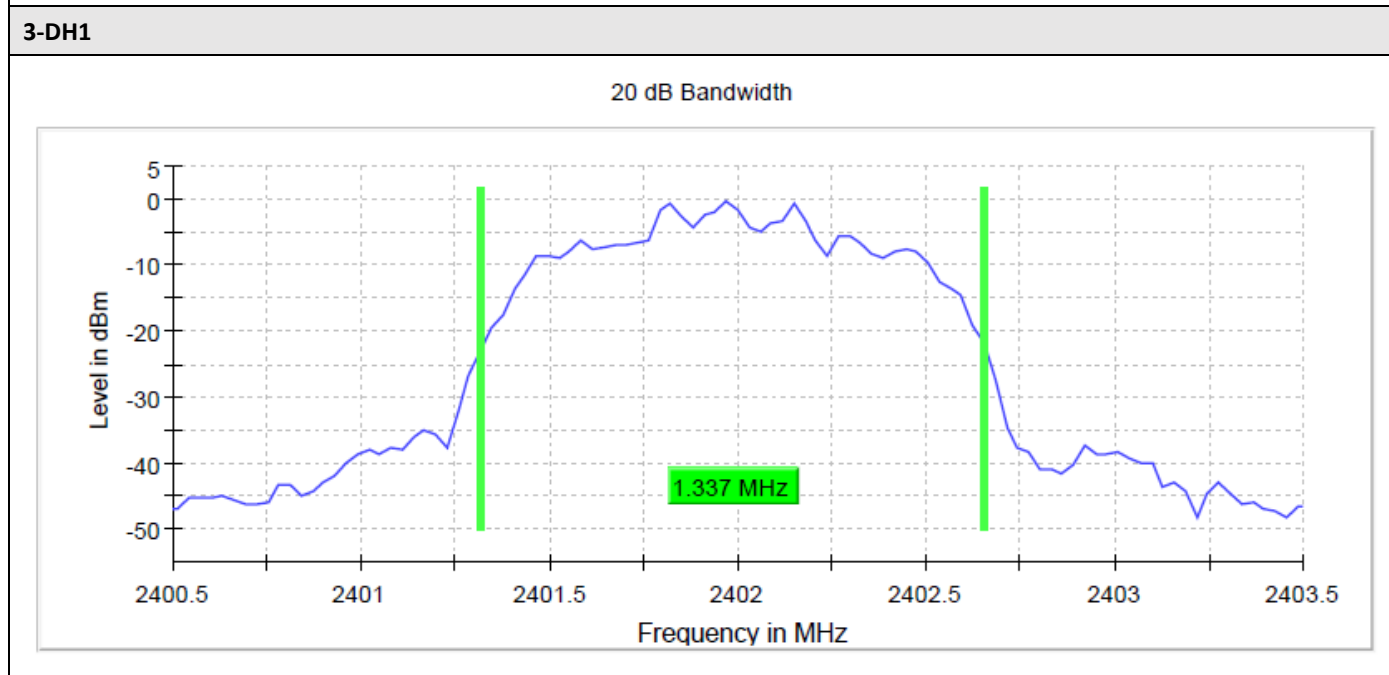


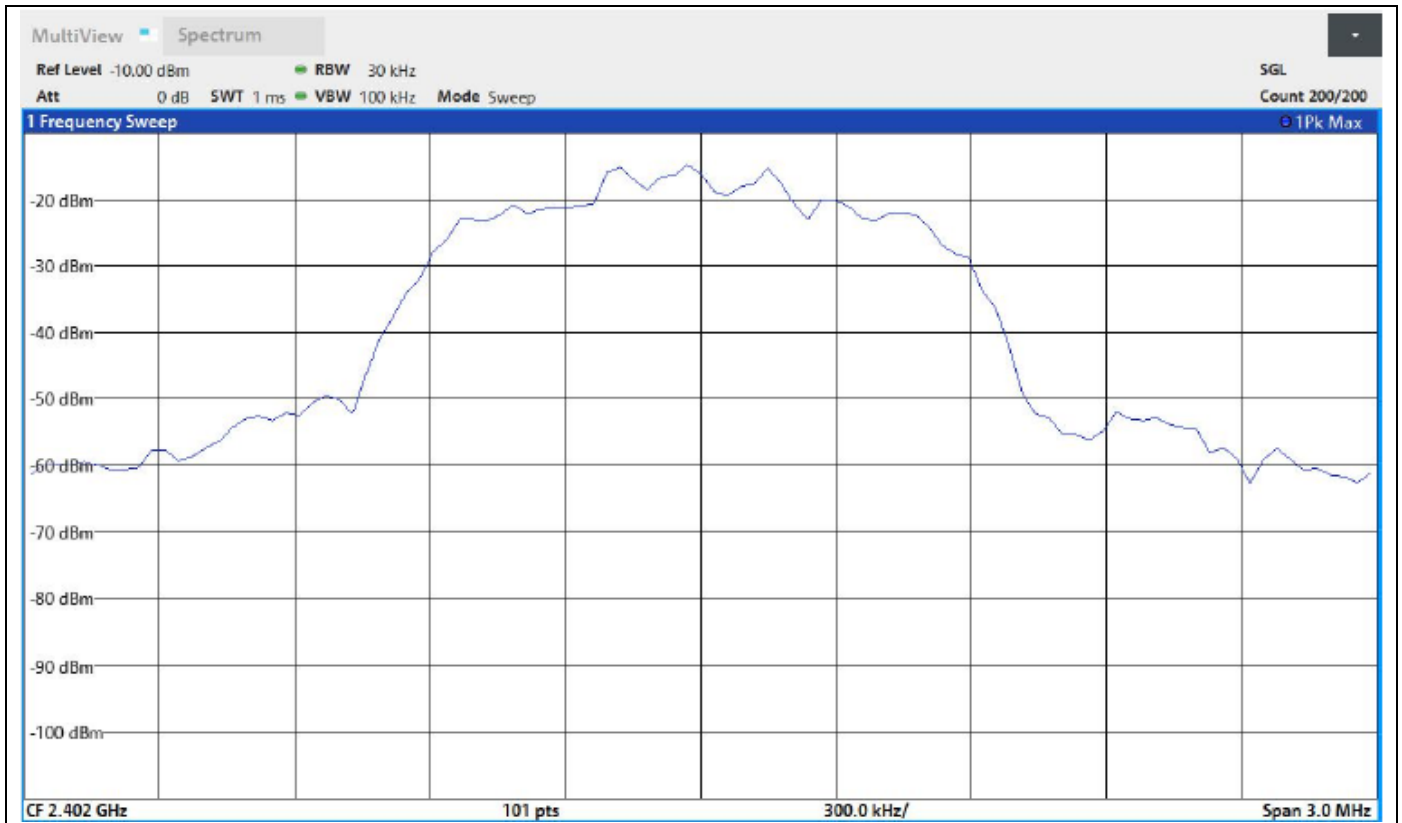
Emission Bandwidth 20dB

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05 and ANSI C63.10-2013 7.8.7

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

2402MHz				
Data Rate	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
DH1	1.009900	2401.495050	2402.504950	PASS
DH3	1.009900	2401.495050	2402.504950	PASS
DH5	1.009900	2401.495050	2402.504950	PASS
2-DH1	1.366336	2401.287129	2402.653465	PASS
2-DH3	1.366336	2401.316832	2402.683168	PASS
2-DH5	1.396039	2401.287129	2402.683168	PASS
3-DH1	1.336633	2401.316832	2402.653465	PASS
3-DH3	1.336633	2401.316832	2402.653465	PASS
3-DH5	1.336633	2401.316832	2402.653465	PASS

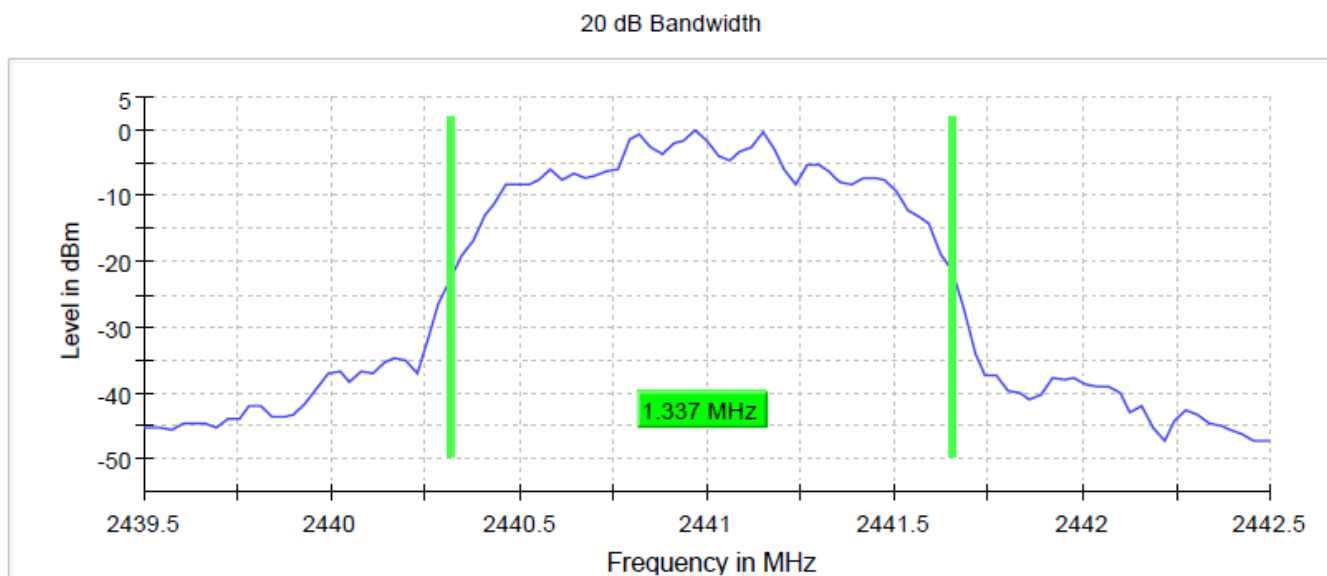




2441MHz

Data Rate	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
DH1	1.009900	2440.495050	2441.504950	PASS
DH3	1.009900	2440.495050	2441.504950	PASS
DH5	1.009900	2440.495050	2441.504950	PASS
2-DH1	1.366336	2440.287129	2441.653465	PASS
2-DH3	1.366336	2440.316832	2441.683168	PASS
2-DH5	1.396039	2440.287129	2441.683168	PASS
3-DH1	1.336633	2440.316832	2441.653465	PASS
3-DH3	1.336633	2440.316832	2441.653465	PASS
3-DH5	1.336633	2440.316832	2441.653465	PASS

3-DH1

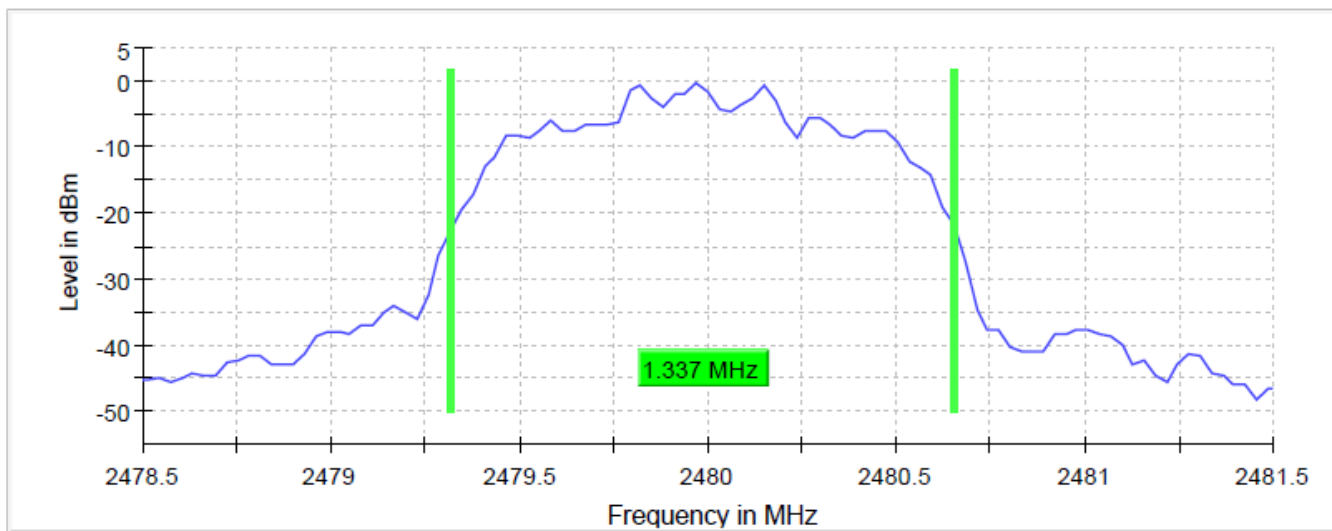


2480MHz

Data Rate	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
DH1	1.009900	2479.495050	2480.504950	PASS
DH3	1.009900	2479.495050	2480.504950	PASS
DH5	1.009900	2479.495050	2480.504950	PASS
2-DH1	1.366336	2479.287129	2480.653465	PASS
2-DH3	1.396039	2479.287129	2480.683168	PASS
2-DH5	1.396039	2479.287129	2480.683168	PASS
3-DH1	1.336633	2479.316832	2480.653465	PASS
3-DH3	1.336633	2479.316832	2480.653465	PASS
3-DH5	1.336633	2479.316832	2480.653465	PASS

3-DH1

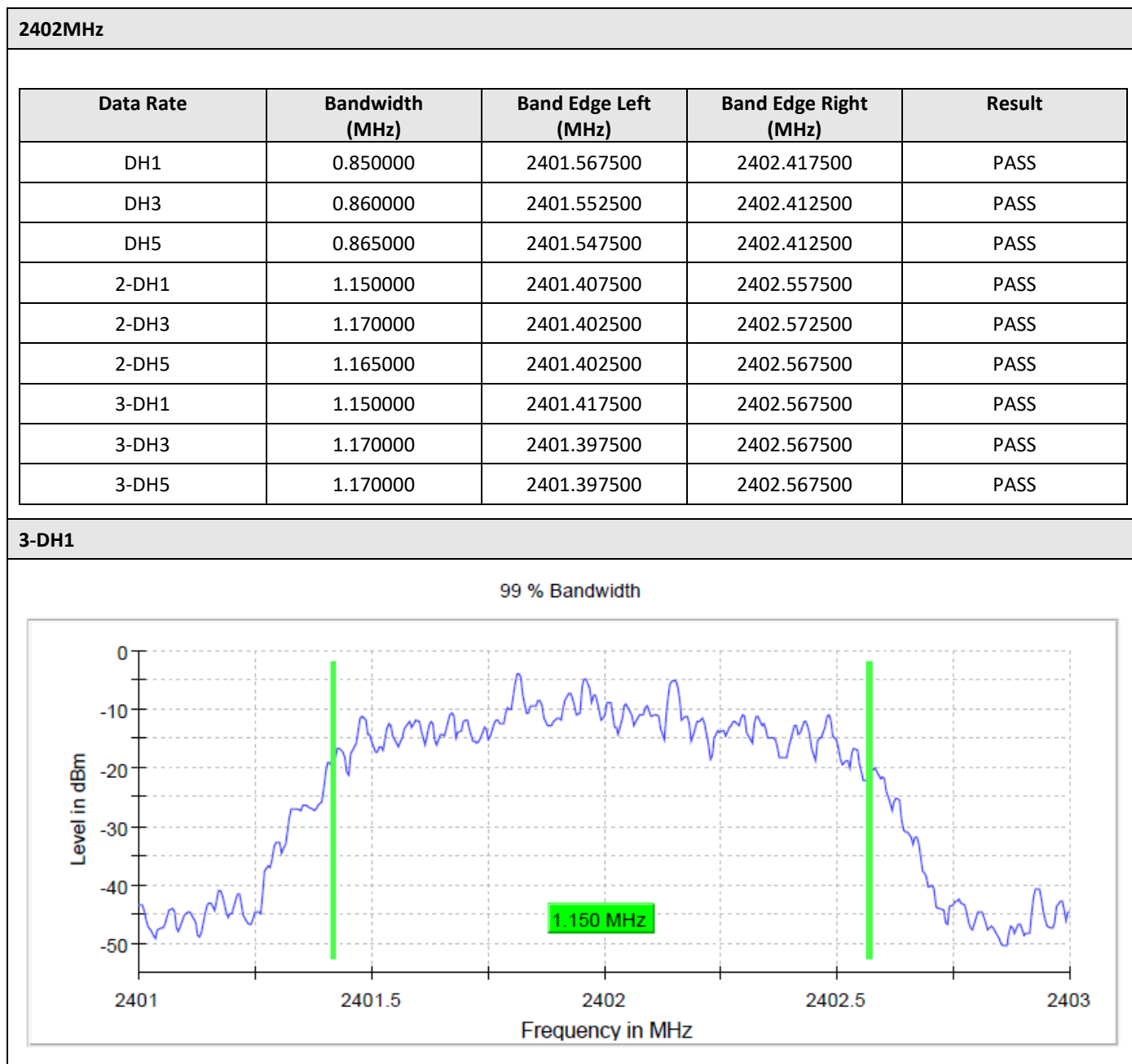
20 dB Bandwidth



Occupied Channel Bandwidth 99%

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05 and ANSI C63.10-2013 7.8.7

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

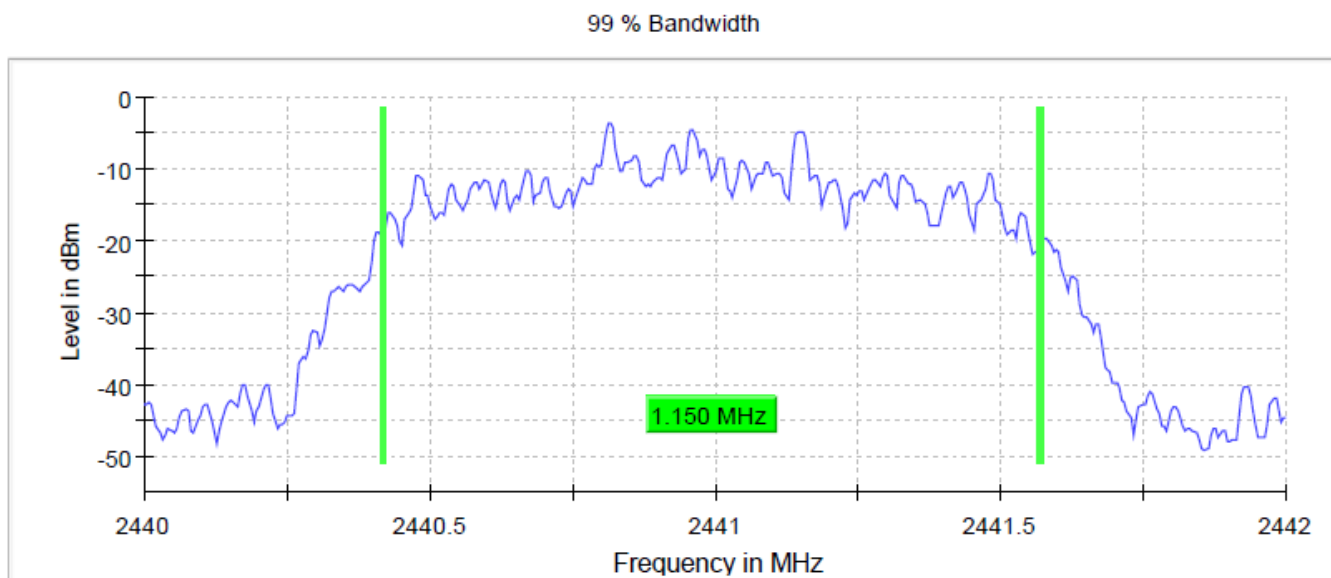




2441MHz

Data Rate	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
DH1	0.845000	2440.572500	2441.417500	PASS
DH3	0.860000	2440.552500	2441.412500	PASS
DH5	0.860000	2440.552500	2441.412500	PASS
2-DH1	1.150000	2440.407500	2441.557500	PASS
2-DH3	1.170000	2440.402500	2441.572500	PASS
2-DH5	1.165000	2440.402500	2441.567500	PASS
3-DH1	1.150000	2440.417500	2441.567500	PASS
3-DH3	1.170000	2440.397500	2441.567500	PASS
3-DH5	1.170000	2440.397500	2441.567500	PASS

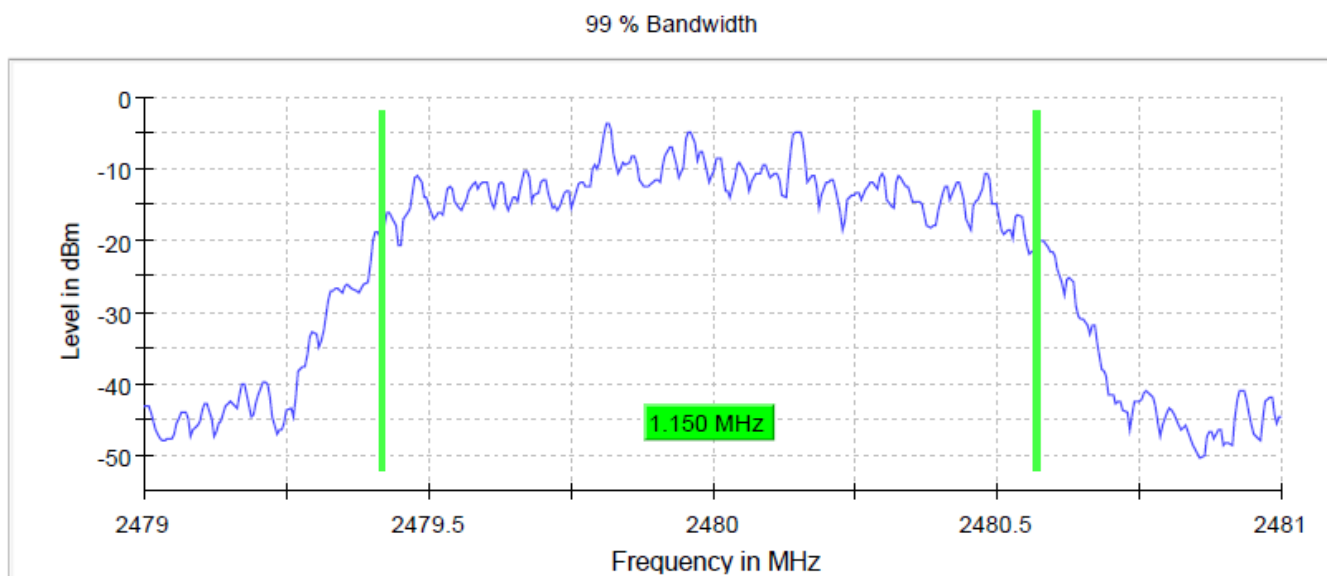
3-DH1



2480MHz

Data Rate	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
DH1	0.850000	2479.567500	2480.417500	PASS
DH3	0.860000	2479.552500	2480.412500	PASS
DH5	0.865000	2479.547500	2480.412500	PASS
2-DH1	1.150000	2479.407500	2480.557500	PASS
2-DH3	1.170000	2479.402500	2480.572500	PASS
2-DH5	1.165000	2479.402500	2480.567500	PASS
3-DH1	1.150000	2479.417500	2480.567500	PASS
3-DH3	1.170000	2479.397500	2480.567500	PASS
3-DH5	1.170000	2479.397500	2480.567500	PASS

3-DH1



Band Edge Low (2402 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05 and ANSI C63.10-2013 7.8.6

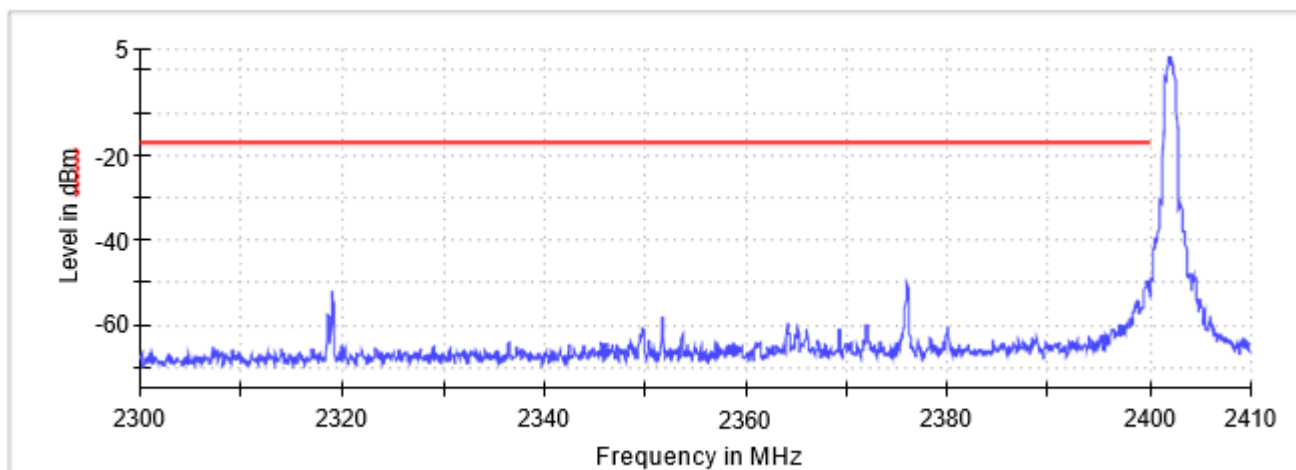
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 0.8 dB

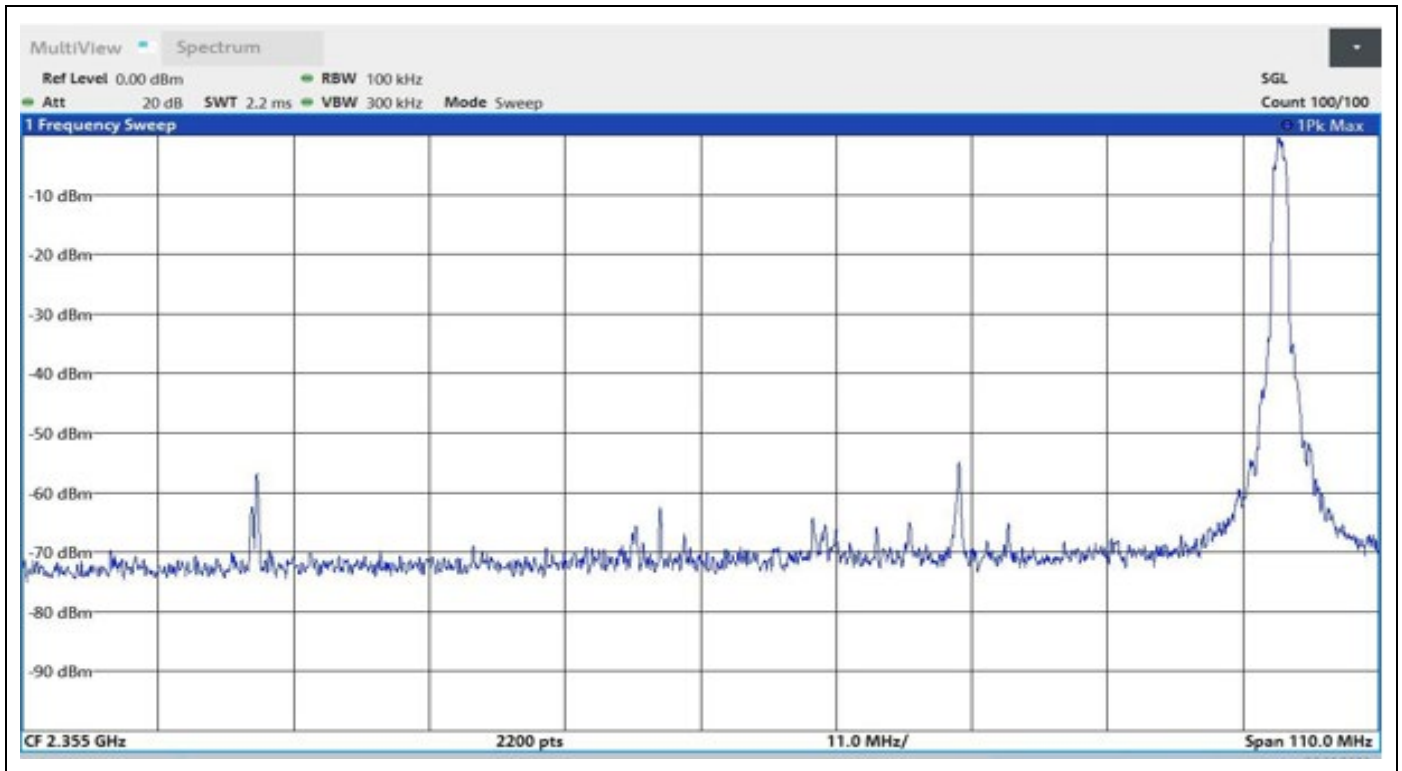
Data Rate	Frequency (MHz)	Level(dBm)
DH1	2401.825000	2.3
DH3	2402.175000	2.4
DH5	2402.175000	2.3
2-DH1	2401.825000	2.9
2-DH3	2401.975000	2.8
2-DH5	2402.175000	2.9
3-DH1	2401.825000	3.1
3-DH3	2402.175000	3.1
3-DH5	2402.175000	3.1

2402MHz 3-DH1

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.575000	-49.5	32.6	-16.9	PASS
2399.625000	-49.5	32.6	-16.9	PASS
2399.775000	-49.7	32.8	-16.9	PASS
2375.925000	-50.0	33.0	-16.9	PASS
2375.975000	-50.0	33.0	-16.9	PASS
2399.825000	-50.0	33.1	-16.9	PASS
2399.725000	-50.3	33.4	-16.9	PASS
2399.675000	-50.7	33.8	-16.9	PASS
2399.525000	-50.8	33.9	-16.9	PASS
2399.875000	-51.1	34.1	-16.9	PASS
2375.875000	-51.1	34.2	-16.9	PASS
2376.025000	-51.4	34.4	-16.9	PASS
2399.475000	-51.7	34.8	-16.9	PASS
2318.975000	-52.0	35.0	-16.9	PASS
2319.025000	-52.0	35.1	-16.9	PASS

Band Edge





Band Edge High (2480 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05 and ANSI C63.10-2013 7.8.6

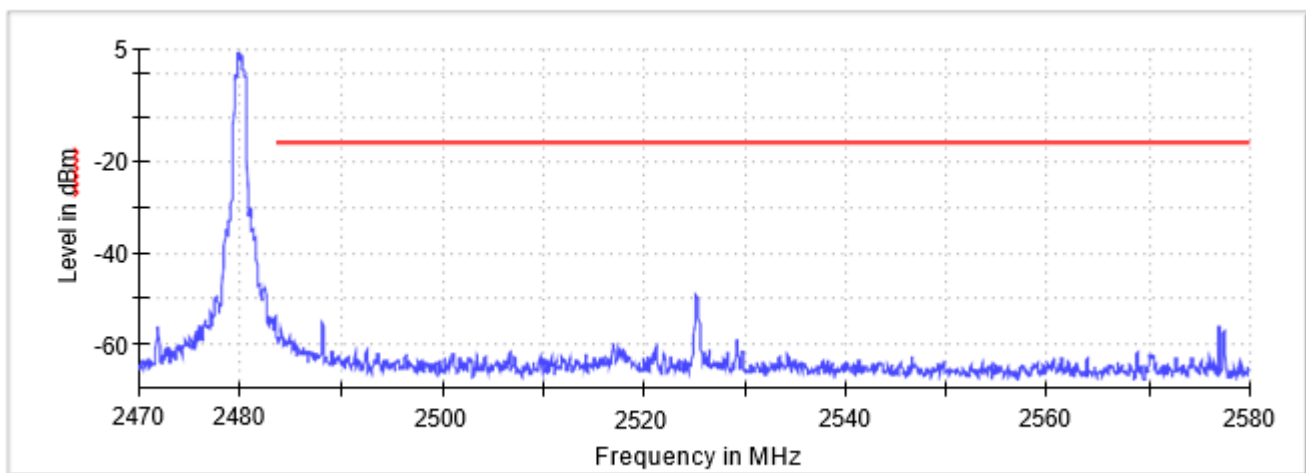
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 0.8 dB

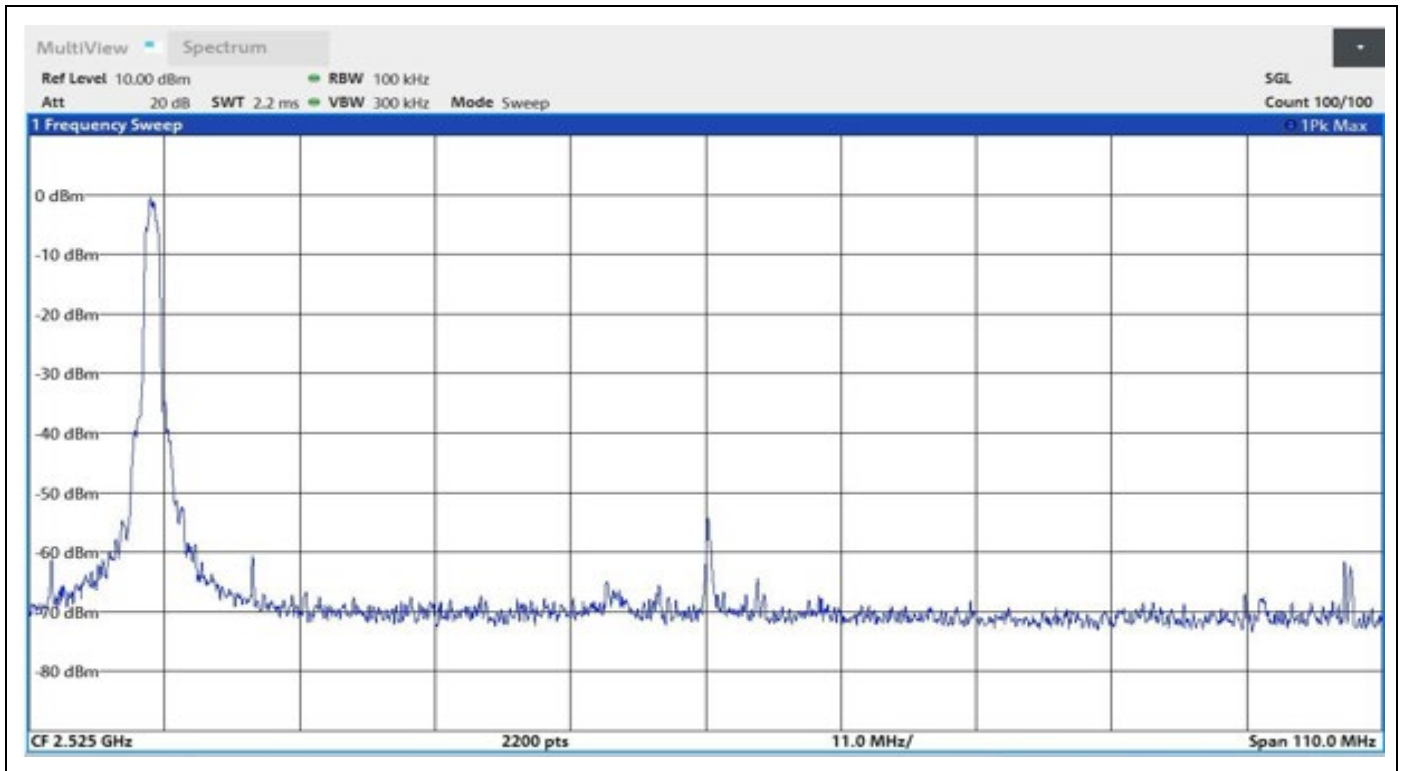
Data Rate	Frequency (MHz)	Level(dBm)
DH1	2479.825000	3.5
DH3	2480.175000	3.5
DH5	2480.175000	3.5
2-DH1	2479.825000	4.1
2-DH3	2480.175000	4.1
2-DH5	2479.825000	4.1
3-DH1	2479.825000	4.3
3-DH3	2480.175000	4.3
3-DH5	2480.175000	4.2

2480MHz 3-DH1

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2525.225000	-49.2	33.4	-15.7	PASS
2525.175000	-49.4	33.6	-15.7	PASS
2525.275000	-50.3	34.6	-15.7	PASS
2525.125000	-51.4	35.7	-15.7	PASS
2525.325000	-52.2	36.5	-15.7	PASS
2525.075000	-53.6	37.8	-15.7	PASS
2483.525000	-53.9	38.1	-15.7	PASS
2525.375000	-54.0	38.3	-15.7	PASS
2525.425000	-54.3	38.6	-15.7	PASS
2525.025000	-55.7	40.0	-15.7	PASS
2488.175000	-55.7	40.0	-15.7	PASS
2483.575000	-55.7	40.0	-15.7	PASS
2488.125000	-55.9	40.2	-15.7	PASS
2525.475000	-56.2	40.4	-15.7	PASS
2576.925000	-56.5	40.7	-15.7	PASS

Band Edge



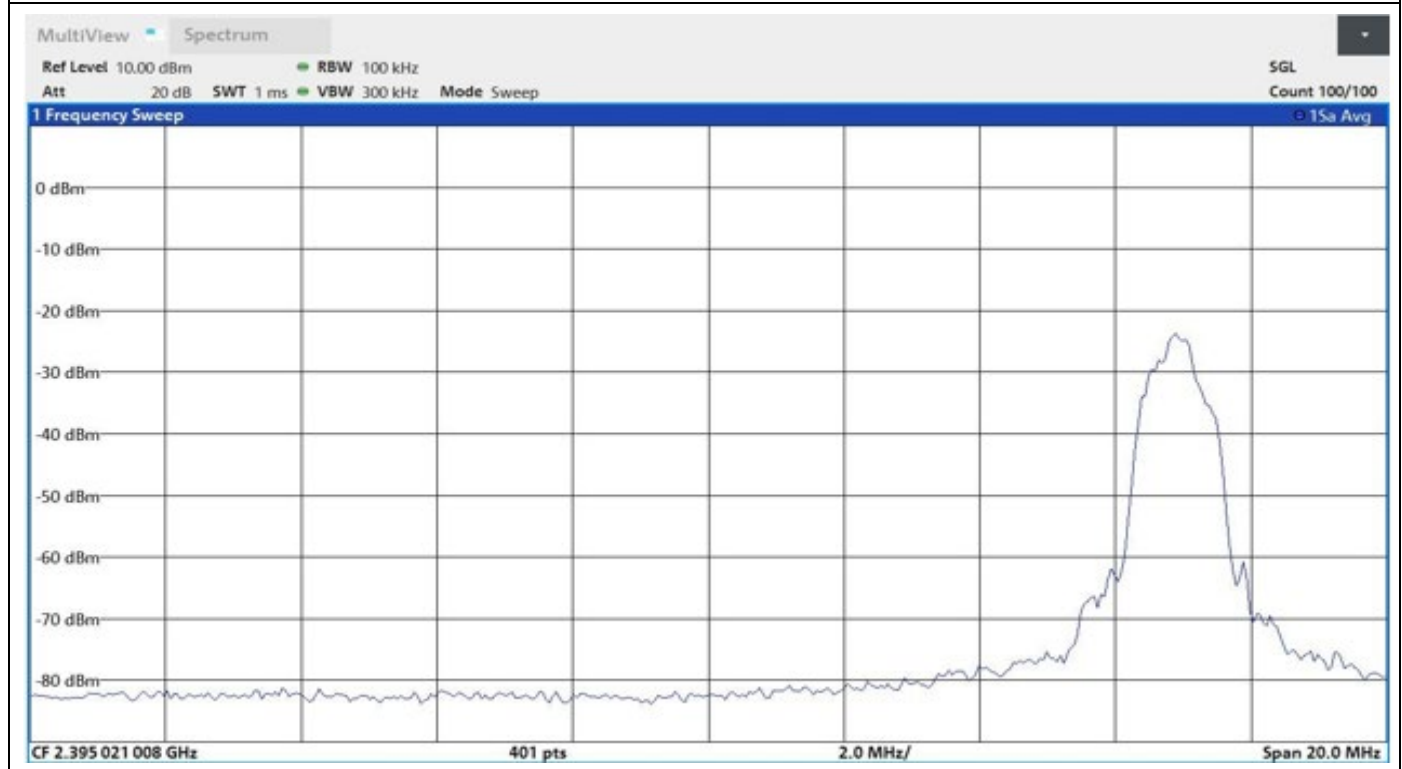
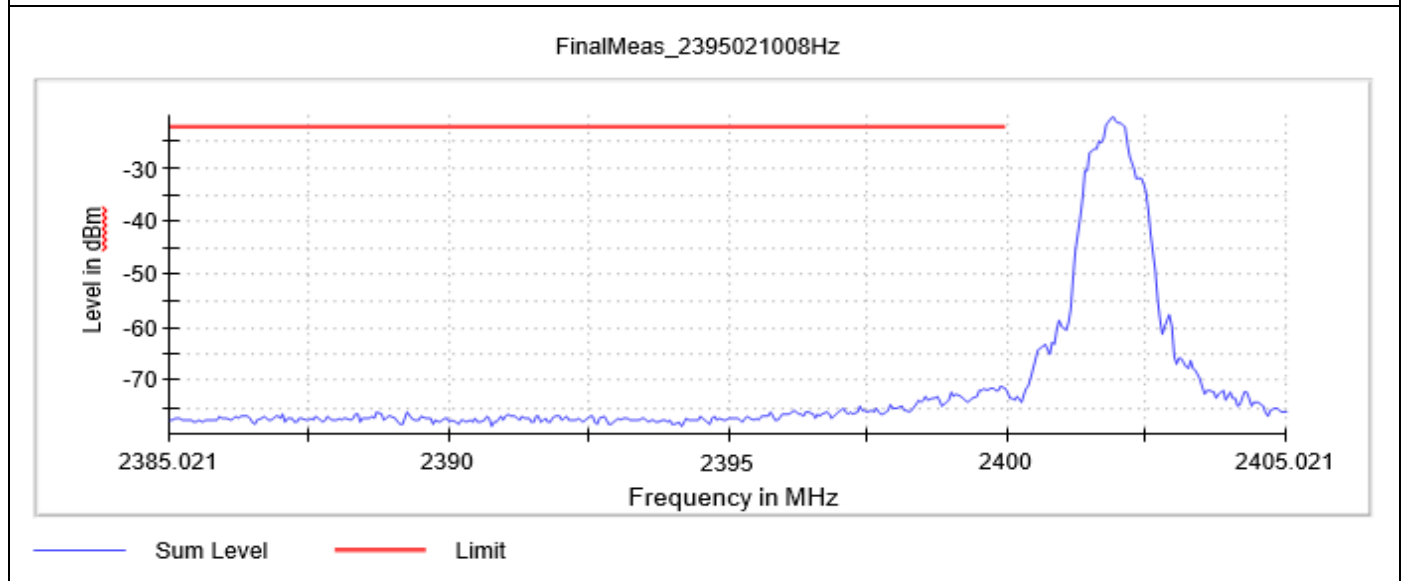
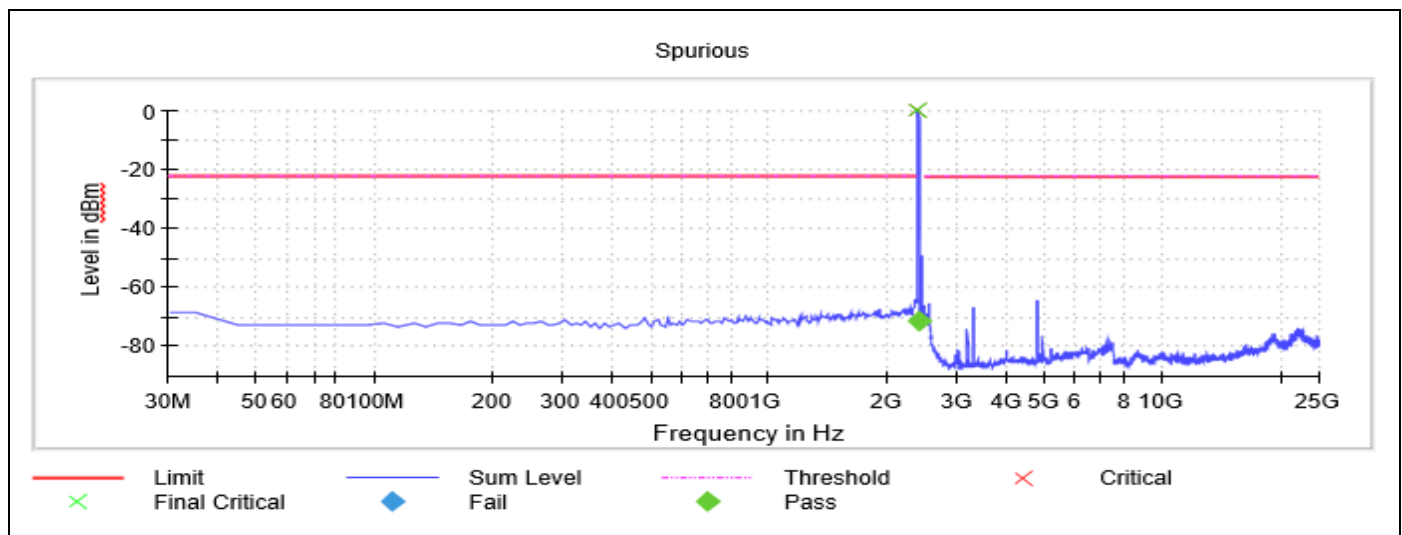


Tx Spurious Emission

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05 7.8.8 and ANSI C63.10-2013

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 1.8 dB

2402MHz 3-DH1				
Final Measurement				
Frequency (MHz)	Level Pre Measurement (dBm)	Level (dBm)	Margin (dB)	Limit (dBm)
2399.908789	-2.3	-71.0	48.7	-22.4
Pre Measurement				
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	
2395.021008	-0.3	-22.1	-22.4	
2385.063025	-63.6	41.3	-22.4	
2345.231092	-63.8	41.5	-22.4	
2365.147059	-64.0	41.6	-22.4	
2355.189076	-64.0	41.7	-22.4	
4797.112850	-64.0	41.7	-22.4	
4807.106858	-64.1	41.7	-22.4	
2548.461052	-65.0	42.6	-22.4	
2375.105042	-65.1	42.8	-22.4	
2335.273109	-66.3	43.9	-22.4	
2275.525210	-66.3	44.0	-22.4	
3308.005659	-66.5	44.1	-22.4	
1907.079832	-66.9	44.5	-22.4	
2325.315126	-66.9	44.5	-22.4	
2235.693277	-67.3	44.9	-22.4	

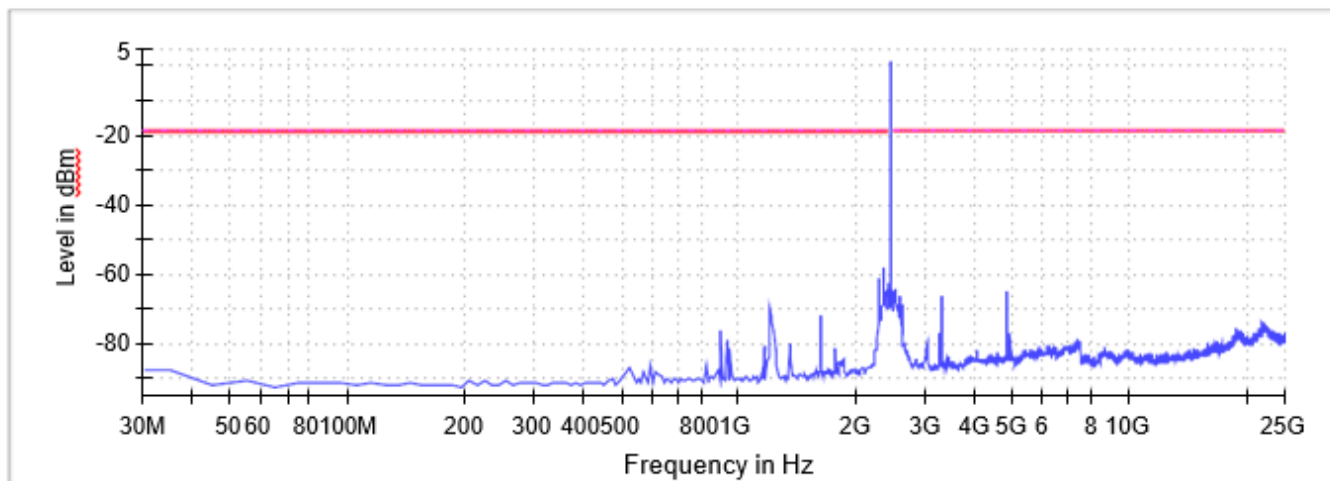


2441MHz 3-DH1

Pre Measurement

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2345.231092	-58.4	39.9	-18.5
2285.483193	-61.0	42.4	-18.5
2518.479028	-64.3	45.7	-18.5
4877.064913	-65.2	46.7	-18.5
2385.063025	-65.2	46.7	-18.5
2395.021008	-65.4	46.8	-18.5
2488.497004	-65.5	46.9	-18.5
2588.437084	-66.0	47.5	-18.5
3308.005659	-66.5	48.0	-18.5
2498.491012	-67.5	48.9	-18.5
2355.189076	-67.7	49.2	-18.5
2508.485020	-67.9	49.4	-18.5
2528.473036	-68.0	49.5	-18.5
2375.105042	-68.2	49.7	-18.5
2548.461052	-68.8	50.3	-18.5

Spurious



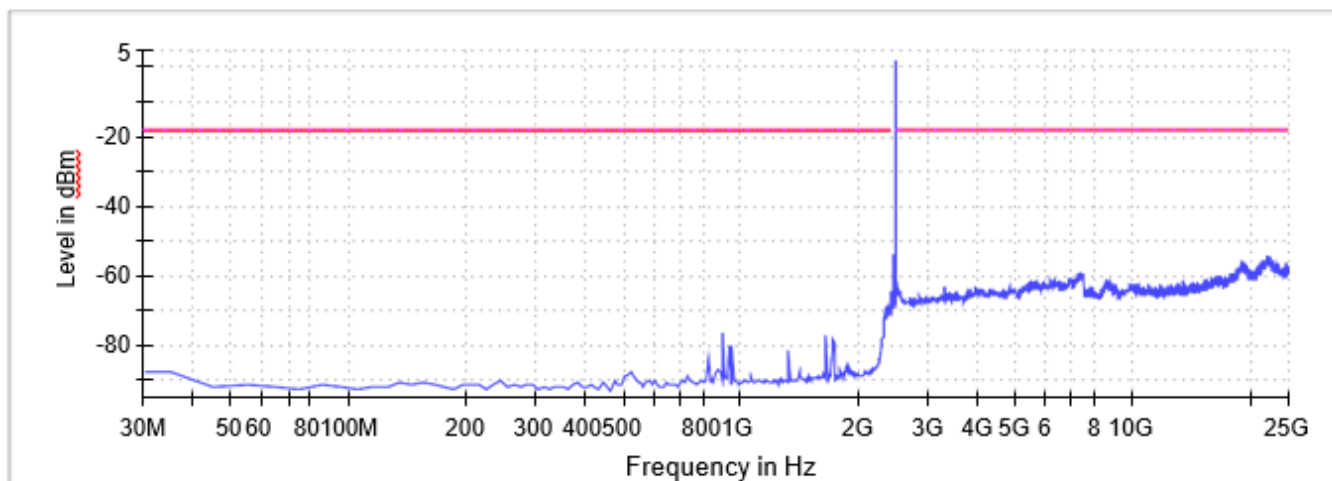
— Limit — Sum Level - - - Threshold × Critical × Final Critical

2480MHz 3-DH1

Pre Measurement

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
22106.734687	-54.2	35.9	-18.3
22206.674767	-54.2	36.0	-18.3
22166.698735	-54.4	36.2	-18.3
22256.644807	-54.4	36.2	-18.3
22236.656791	-54.9	36.6	-18.3
22156.704727	-54.9	36.7	-18.3
22016.788615	-55.0	36.7	-18.3
22086.746671	-55.0	36.8	-18.3
22036.776631	-55.0	36.8	-18.3
22076.752663	-55.0	36.8	-18.3
22196.680759	-55.2	36.9	-18.3
22126.722703	-55.2	36.9	-18.3
22186.686751	-55.2	36.9	-18.3
22096.740679	-55.2	37.0	-18.3
21996.800599	-55.2	37.0	-18.3

Spurious



— Limit — Sum Level - - - Threshold × Critical × Final Critical

• Radiated Testing

Test Summary

Start: 11/15/2021	End: 12/10/2021	Temperature: 22.6°C	Initials: RP
		Humidity: 27 %R.H.	

DUT S/N	AH21100601-HAR-134#004		DUT Operating Mode	BT Classic	
Comment	3 DH-1				
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-27.5GHz	Horizontal	<input type="checkbox"/> Over	<input checked="" type="checkbox"/> Under	√
		Vertical	<input type="checkbox"/> Over	<input checked="" type="checkbox"/> Under	√

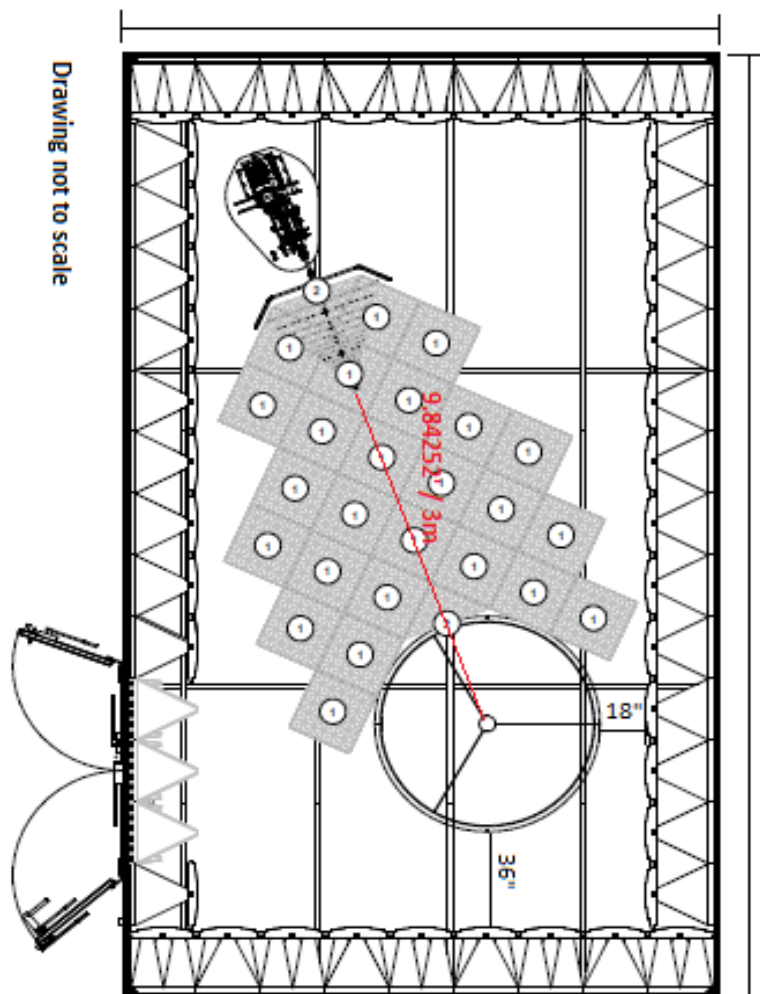
Notes: √ meets the requirements of the acceptance criteria.

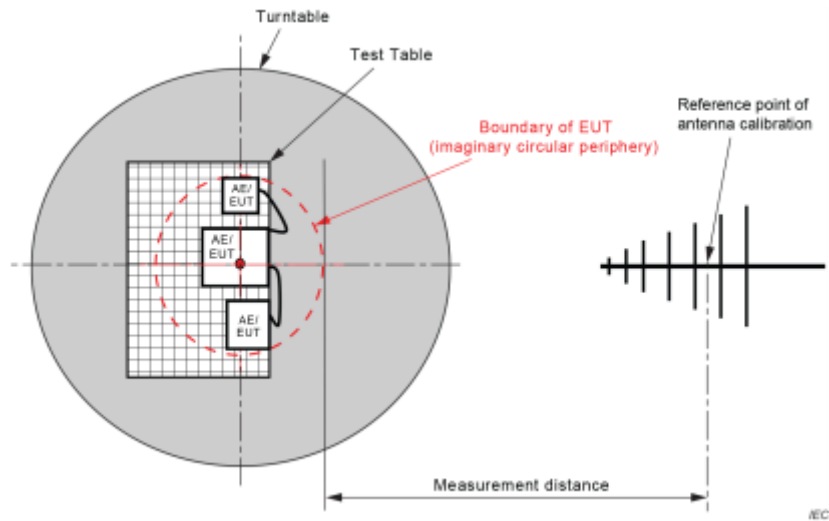
Test Setup

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

Chamber Dimensions





Test Equipment Used

ID #	Equipment	Manufacturer	Model	Serial #	Cal Due
BVD0217	Receiver 2Hz-44GHz	Rohde & Schwarz	ESW44	101871	4/16/2022
BVD0398	Double Shielded N-Type Cable 2 Meter	Rohde & Schwarz	N-Type	N/A	12/29/2022
BVD0404	Double Shielded N-Type Cable 440mm (For PreAmp)	Rohde & Schwarz	N-Type	N/A	8/10/2022
BVD0407	Double Shielded N-Type Cable 410mm (For PreAmp)	Rohde & Schwarz	N-Type	N/A	8/5/2022
BVD0187	Preamplifier 25dB cal to 100kHz-1GHz	Rohde & Schwarz	TS-PR1	102080	11/19/2021
BVD0184	Preamplifier 29dB 1-18GHz	Rohde & Schwarz	TS-PR18	101646	4/26/2022
BVD0394	Double Shielded N-Type Cable 6.9 Meter	Rohde & Schwarz	N-Type	N/A	12/29/2022
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
BVD0267	Double Ridge Waveguide 800MHz-18GHz	Rohde & Schwarz	HF907	102832	9/9/2022
BVD0320	18-40GHz Horn Antenna	L3 Narda ATM	PNR 180-442-KF	136164-01	3/8/2022
BVD0496	SMA Shielded Cable approx 100mm (for Pre-Amp)	Rohde & Schwarz	SMA-Type	N/A	N/A
BVD0480	Band Reject Filter 50dB from 2400 to 2500MHz	Micro-Tronics	BRM50702	G482	N/A
BVD0481	Band Reject Filter 40dB from 5150 to 5880MHz	Micro-Tronics	BRM50716	G336	N/A
BVD0495	SMA Shielded Cable approx 100mm (for Pre-Amp)	Rohde & Schwarz	SMA-Type	N/A	N/A
BVD0185	Preamplifier 45dB 18-40GHz	Rohde & Schwarz	TS-PR1840	100064	3/2/2022
BVD0118	Antenna Mast Position Controller	ETS	7006-001	00214778/00 214648	N/A
BVD0112	Equipment Chamber for 3 Meter Chamber	ETS	N/A	N/A	N/A
BVD0111	3 Meter Anechoic Chamber	ETS	N/A	N/A	10/16/2022
BVD0247	Turn Table	ETS	920250	N/A	N/A
BVD0258	Optima 12V Blue top Marine battery	Optima	D34M	N/A	N/A
BVD0323	Foam Test Table For 3 Meter Chamber	ETS-Lindgren	LDT-1.5	N/A	N/A
BVD0069	Bore Sight Tower	ETS	2171B	226732	N/A

Equipment List (Software)

Equipment	Manufacturer	Model	Version No.
EMC Test Software	Nexio	BAT-EMC	3.21.0.18

Customer Supplied Equipment

ID #	Equipment	Manufacturer	Model	Serial #	Version No.
N/A	Harness	Harman	1m	N/A	N/A

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	0.86605081
PRF Response	1.5	Rectangular	1.732	1	0.86605081
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:

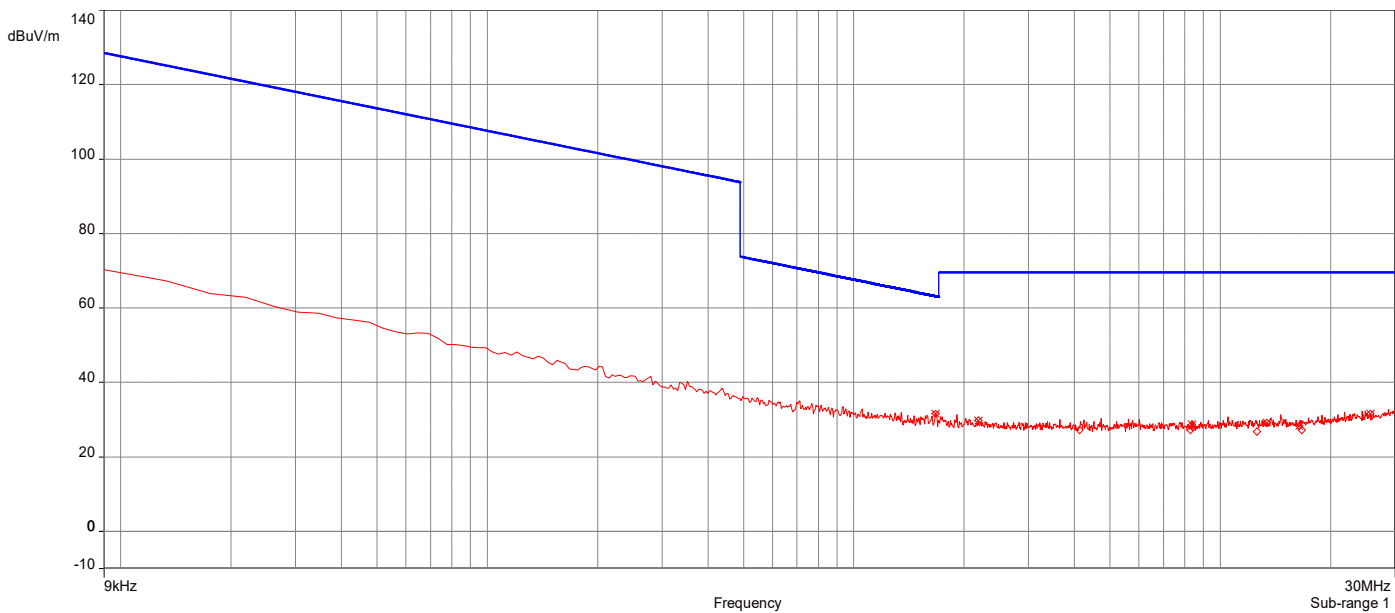
1. Raw Peak Level (dBuV/m) = Level Peak Reading - Correction Factor
2. Correction Factor (dB) = Antenna Factor + Cable Loss – Preamplifier Gain
3. Margin = Level – Limit

AH21100601-HAR-134#003_BT_Ch 39_9kHz-30MHz_Ground-Parallel

11/16/2021 7:23:00 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Judgement
1.	1.671596MHz	31.60	19.12	63.14	-31.54	1.00	176.80	Passed
2.	2.190086MHz	29.82	19.09	69.54	-39.72	1.00	84.90	Passed
3.	8.364829MHz	28.66	19.14	69.54	-40.88	1.00	352.00	Passed
4.	13.369757MHz	29.25	19.62	69.54	-40.29	1.00	5.40	Passed
5.	16.420706MHz	28.31	19.68	69.54	-41.23	1.00	291.60	Passed
6.	25.637829MHz	31.59	20.73	69.54	-37.95	1.00	249.50	Passed

Overall Graphs:

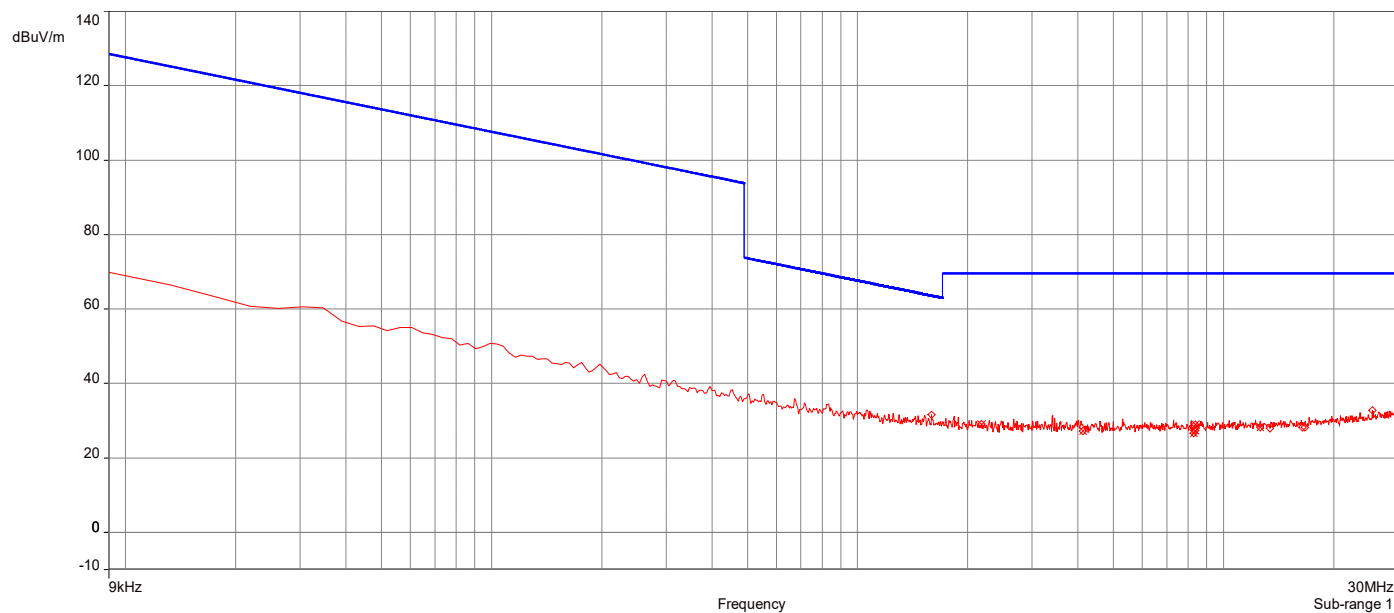


AH21100601-HAR-134#003_BT_Ch 39_9kHz-30MHz_Parallel

11/16/2021 6:52:21 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Judgement
1.	2.177231MHz	29.11	19.11	69.54	-40.44	1.00	298.70	Passed
2.	4.126924MHz	27.23	19.23	69.54	-42.31	1.00	126.40	Passed
3.	8.291984MHz	26.72	19.17	69.54	-42.83	1.00	102.30	Passed
4.	8.364829MHz	27.38	19.17	69.54	-42.16	1.00	53.50	Passed
5.	8.38197MHz	28.97	19.17	69.54	-40.58	1.00	235.40	Passed
6.	12.577024MHz	28.19	19.61	69.54	-41.35	1.00	283.90	Passed

Overall Graphs:

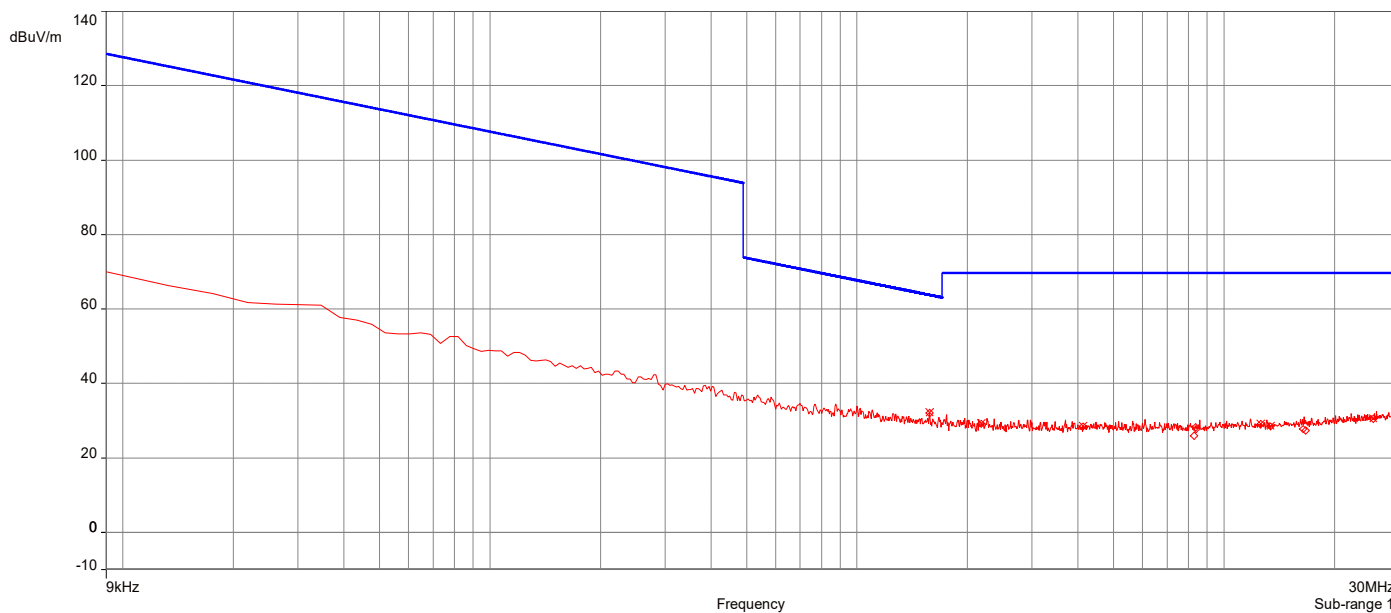


AH21100601-HAR-134#003_BT_Ch 39_9kHz-30MHz_Perpendicular

11/16/2021 7:10:44 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBuV/m	Margin (dB)	Height (m)	Angle (°)	Judgement
1.	1.577325MHz	32.01	19.15	63.65	-31.63	1.00	76.60	Passed
2.	2.177231MHz	29.20	19.11	69.54	-40.34	1.00	137.10	Passed
3.	4.126924MHz	28.48	19.23	69.54	-41.06	1.00	242.40	Passed
4.	12.577024MHz	29.10	19.61	69.54	-40.45	1.00	343.40	Passed
5.	13.391182MHz	28.48	19.65	69.54	-41.07	1.00	15.90	Passed
6.	25.504992MHz	30.57	20.75	69.54	-38.98	1.00	0.10	Passed

Overall Graphs:

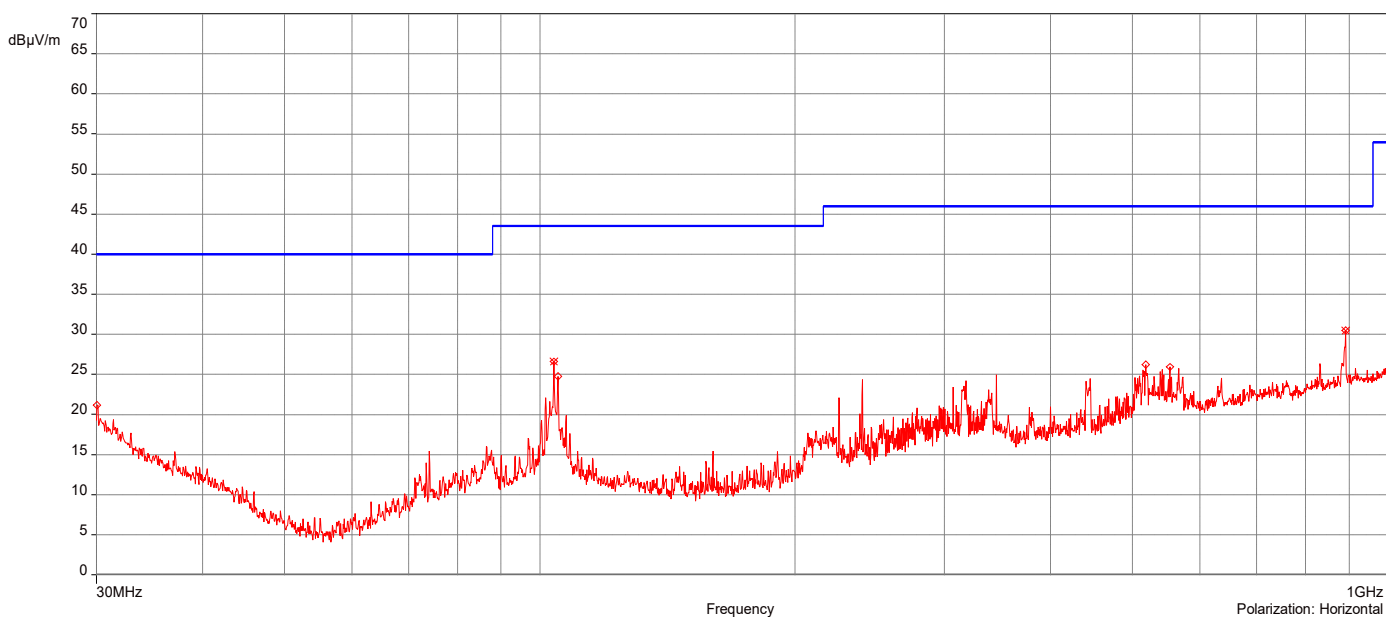


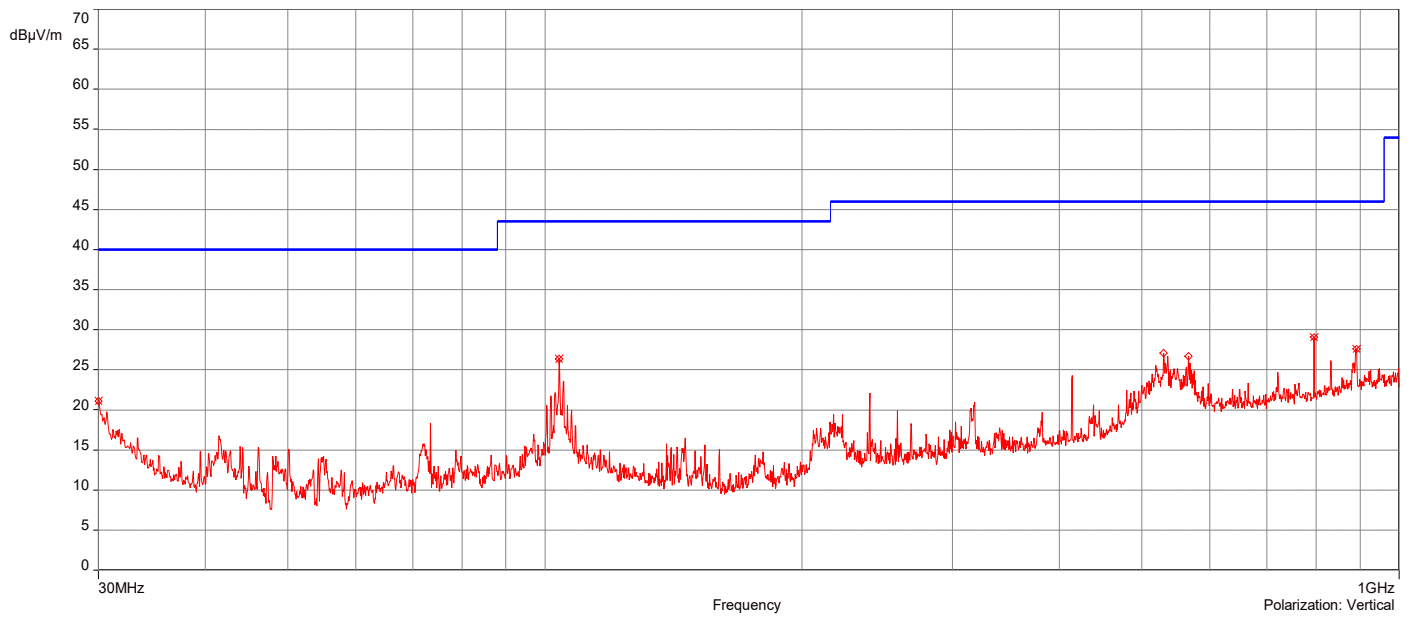
AH21100601-HAR-134#003_BT_Ch 0_30MHz-1GHz

11/15/2021 6:46:33 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	30MHz	21.11	-7.02	29.50	-8.39	1.25	248.40	Vertical	Passed
2.	103.95258MHz	26.37	-12.97	43.50	-17.13	1.00	119.30	Vertical	Passed
3.	794.8044MHz	29.07	-2.51	46.00	-16.93	3.75	283.30	Vertical	Passed
4.	891.41067MHz	27.64	-1.60	46.00	-18.36	1.25	179.40	Vertical	Passed
5.	103.95258MHz	26.65	-13.67	43.50	-16.85	2.25	223.30	Horizontal	Passed
6.	891.29655MHz	30.51	-0.37	46.00	-15.49	1.75	64.20	Horizontal	Passed

Overall Graphs:



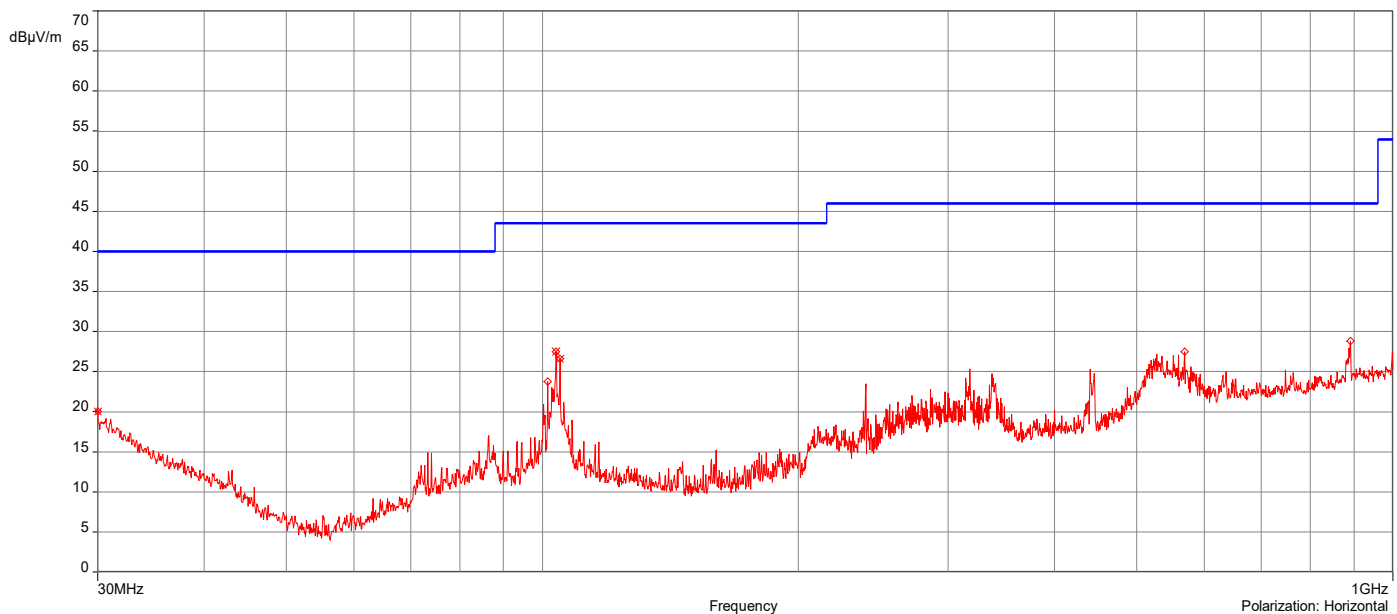


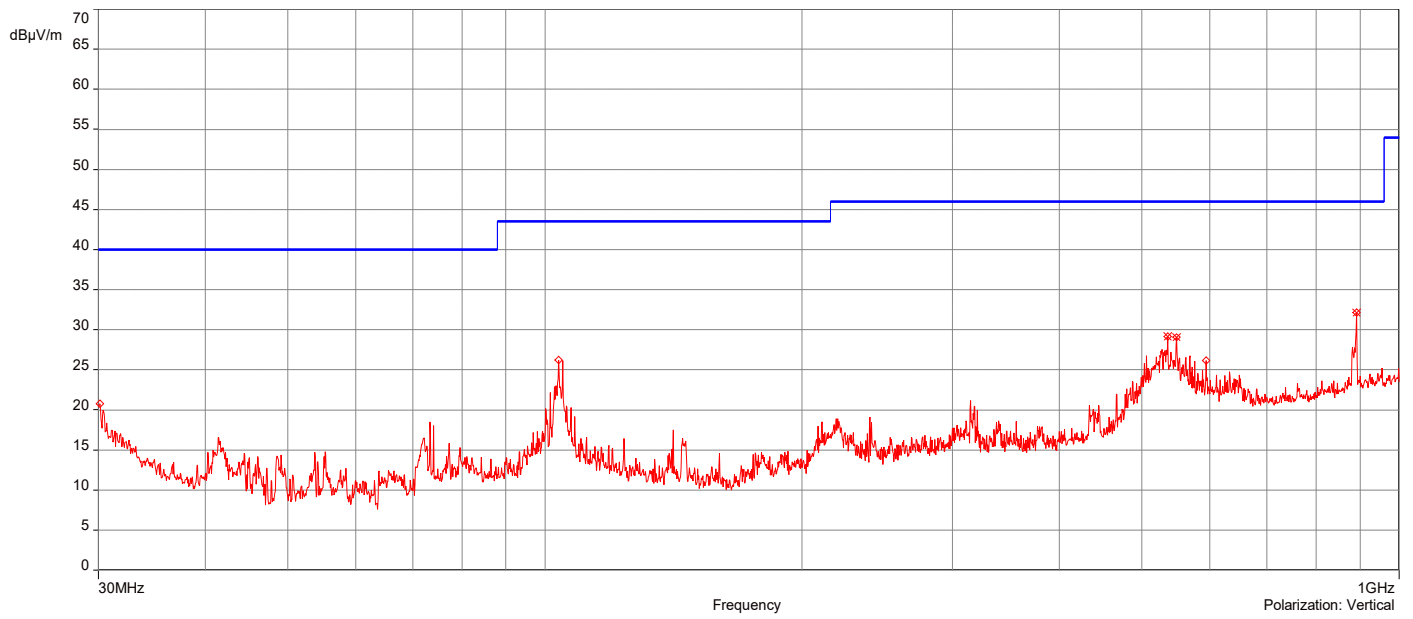
AH21100601-HAR-134#003_BT_Ch 39_30MHz-1GHz

11/15/2021 8:12:08 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	535.91329MHz	29.17	-6.86	46.00	-16.83	1.25	173.20	Vertical	Passed
2.	548.92347MHz	29.11	-6.66	46.00	-16.89	1.00	185.80	Vertical	Passed
3.	891.12536MHz	32.11	-1.60	46.00	-13.89	4.00	8.40	Vertical	Passed
4.	30MHz	20.04	-5.22	29.50	-9.46	3.25	8.00	Horizontal	Passed
5.	103.7814MHz	27.46	-13.68	43.50	-16.04	2.00	233.40	Horizontal	Passed
6.	104.92264MHz	26.59	-13.60	43.50	-16.91	2.75	218.00	Horizontal	Passed

Overall Graphs:



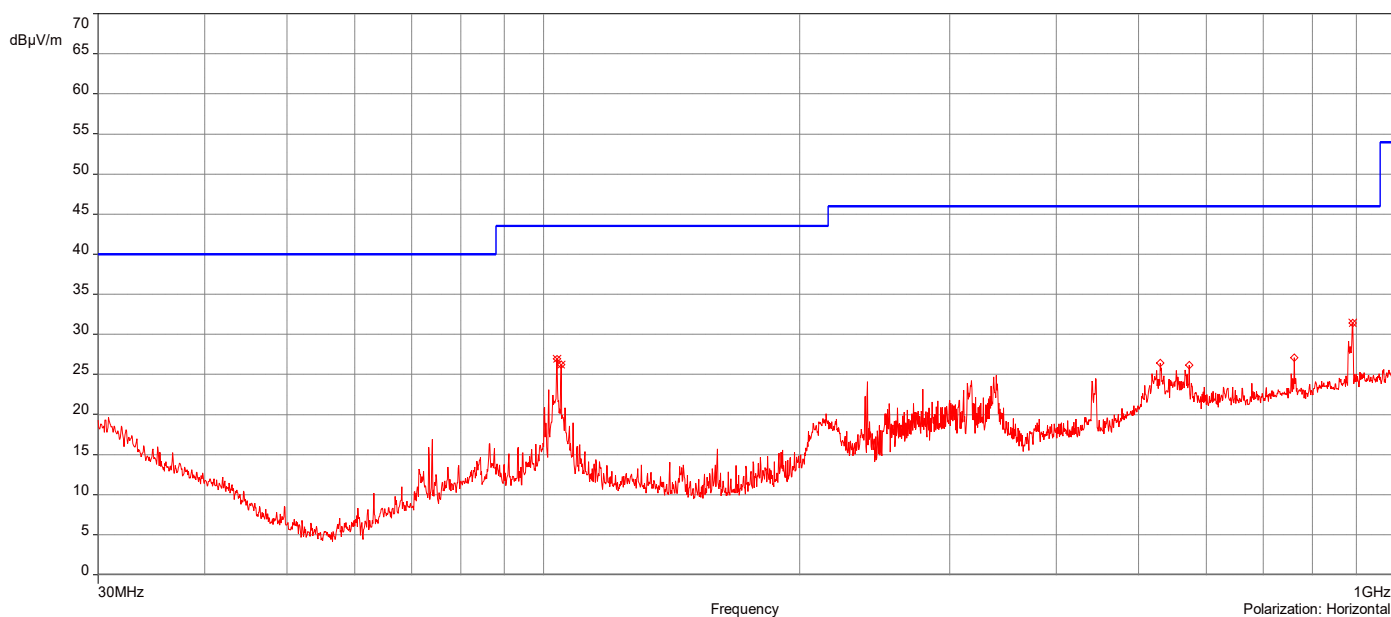


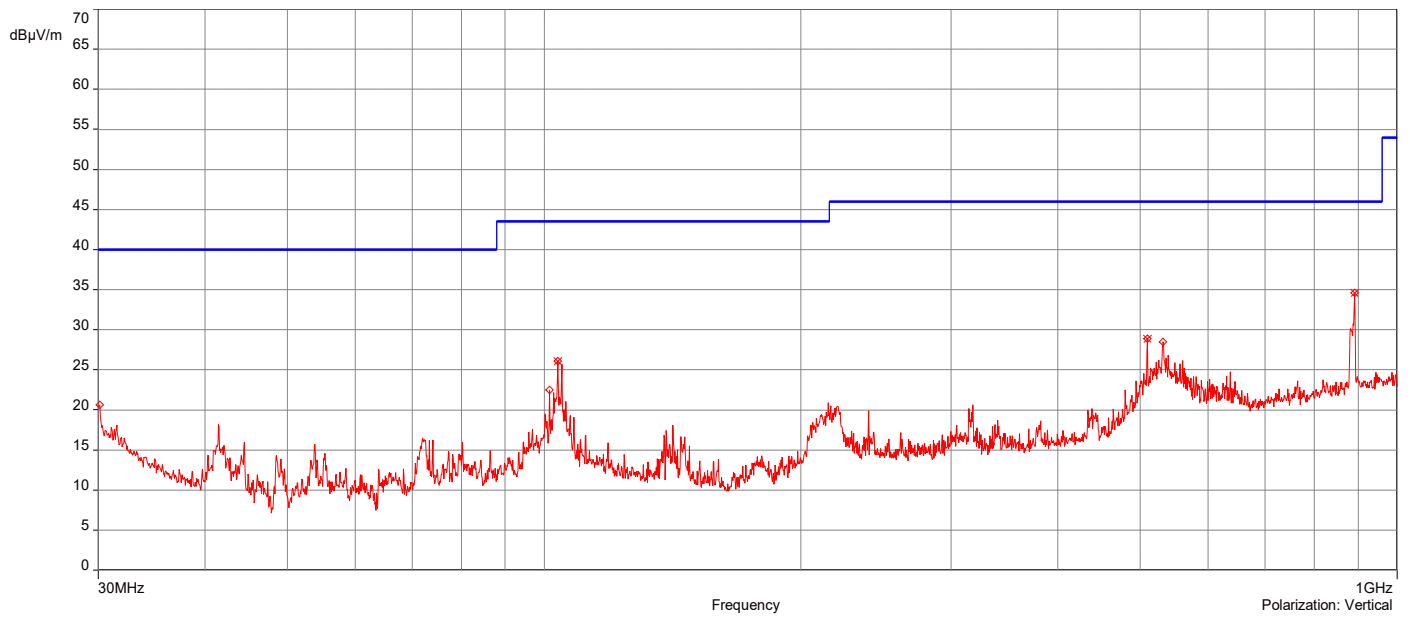
AH21100601-HAR-134#003_BT_Ch 78_30MHz-1GHz

11/15/2021 9:17:59 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	103.7814MHz	26.11	-12.98	43.50	-17.39	1.00	124.50	Vertical	Passed
2.	509.77881MHz	28.91	-7.12	46.00	-17.09	2.25	200.50	Vertical	Passed
3.	891.5248MHz	34.59	-1.60	46.00	-11.41	1.00	15.60	Vertical	Passed
4.	103.72434MHz	26.97	-13.69	43.50	-16.53	2.50	232.60	Horizontal	Passed
5.	104.92264MHz	26.22	-13.60	43.50	-17.28	3.00	235.40	Horizontal	Passed
6.	891.0683MHz	31.41	-0.40	46.00	-14.59	1.75	218.00	Horizontal	Passed

Overall Graphs:





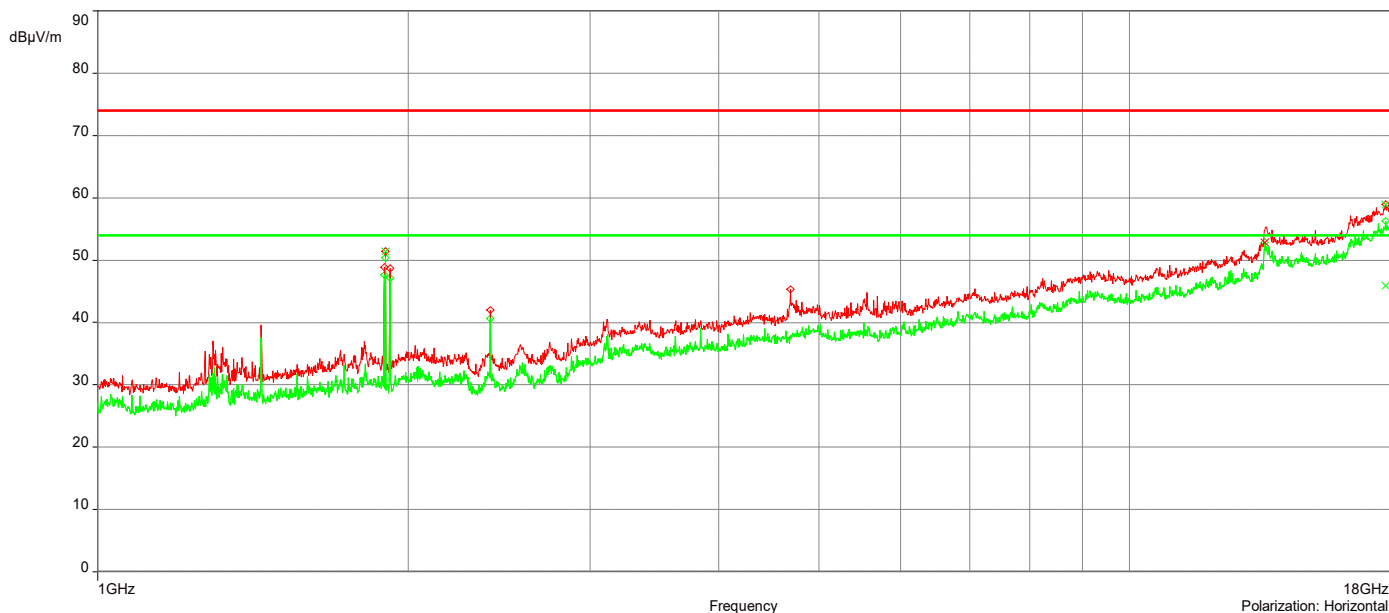
AH21100601-HAR-134#004_BT Classic_Ch 0_1-18GHz

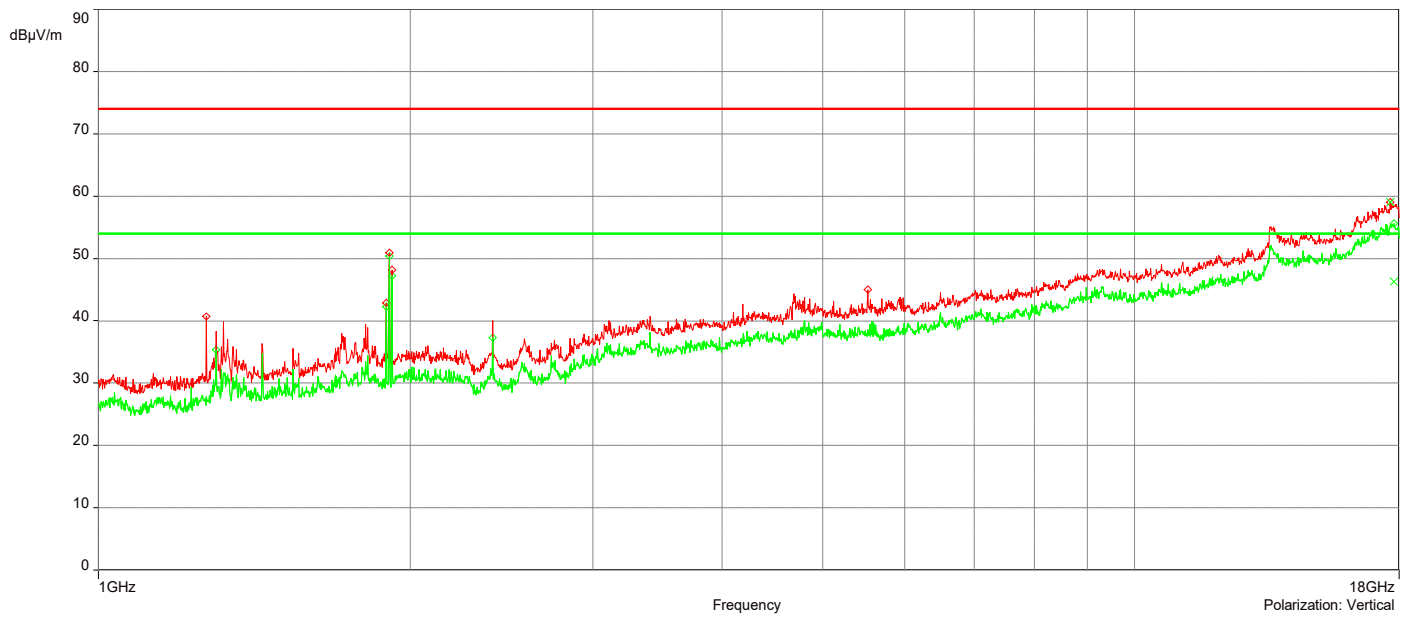
12/9/2021 9:02:39 AM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.64549GHz	59.05	18.29	74.00	-14.95	2.68	67.50	Vertical	Passed
2.	17.715492GHz	58.96	18.23	74.00	-15.04	3.17	22.60	Horizontal	Passed
3.	1.9005265GHz	51.44	-4.49	74.00	-22.56	1.45	292.50	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	17.715492GHz	45.97	18.23	54.00	-8.03	3.17	22.60	Horizontal	Passed
2.	17.791494GHz	46.33	18.31	54.00	-7.67	1.00	224.90	Vertical	Passed
3.	13.520868GHz	52.86	12.58	54.00	-1.14	1.95	90.10	Horizontal	Passed

Overall Graphs:





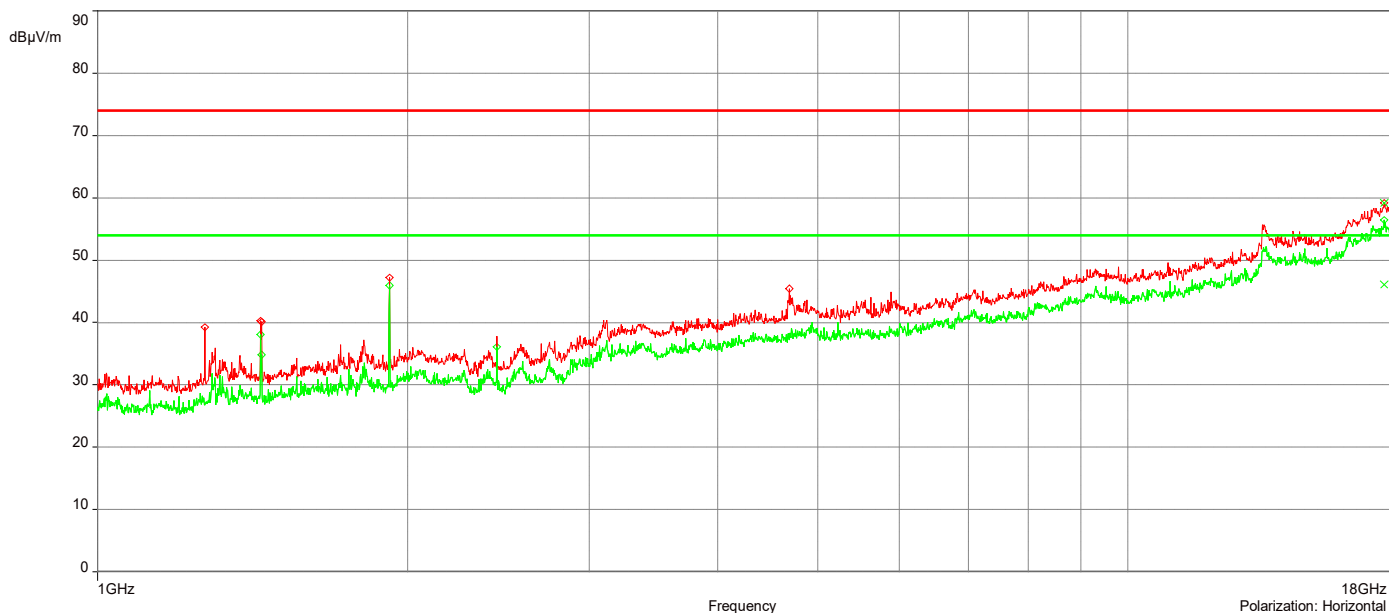
AH21100601-HAR-134#004_BT Classic_Ch 39_1-18GHz

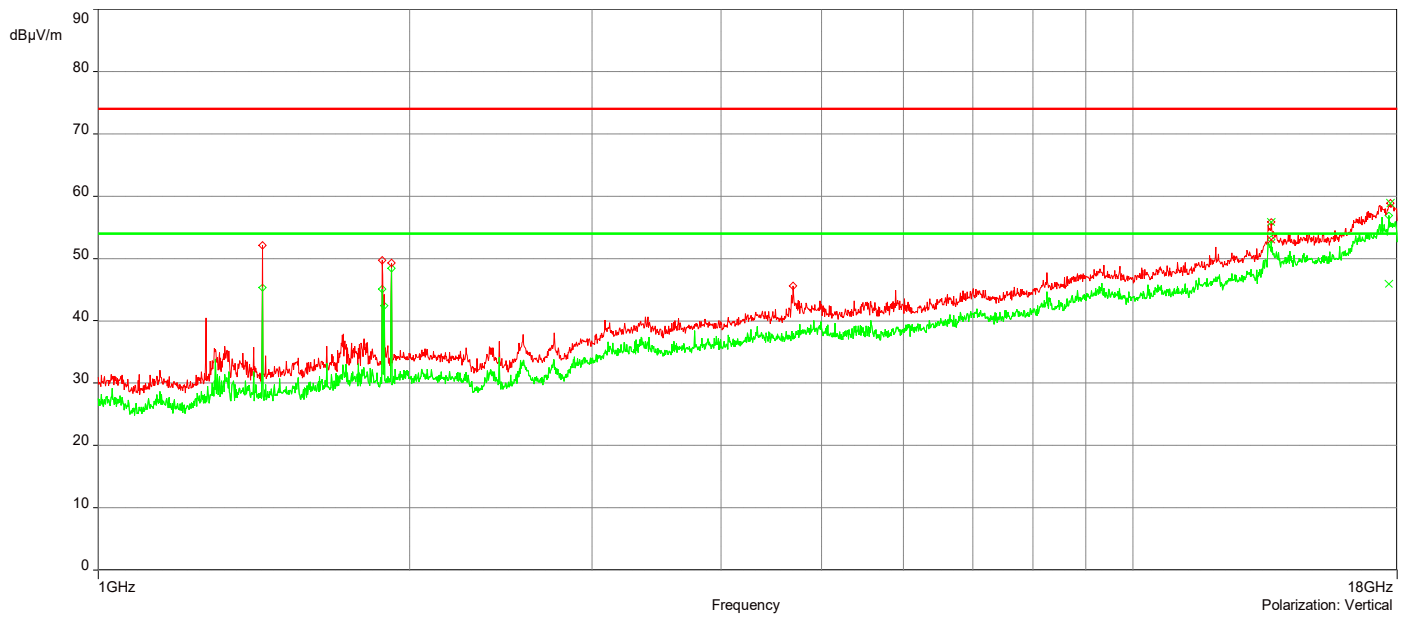
12/9/2021 8:56:09 AM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	13.599871GHz	55.85	12.64	74.00	-18.15	1.02	0	Vertical	Passed
2.	17.738992GHz	58.84	18.25	74.00	-15.16	2.44	224.90	Vertical	Passed
3.	17.732992GHz	59.21	18.22	74.00	-14.79	2.40	224.90	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	13.59537GHz	53.01	12.63	54.00	-0.99	1.32	22.40	Vertical	Passed
2.	17.733492GHz	46.10	18.25	54.00	-7.90	1.20	179.90	Horizontal	Passed
3.	17.67399GHz	45.92	18.26	54.00	-8.08	3.97	22.10	Vertical	Passed

Overall Graphs:





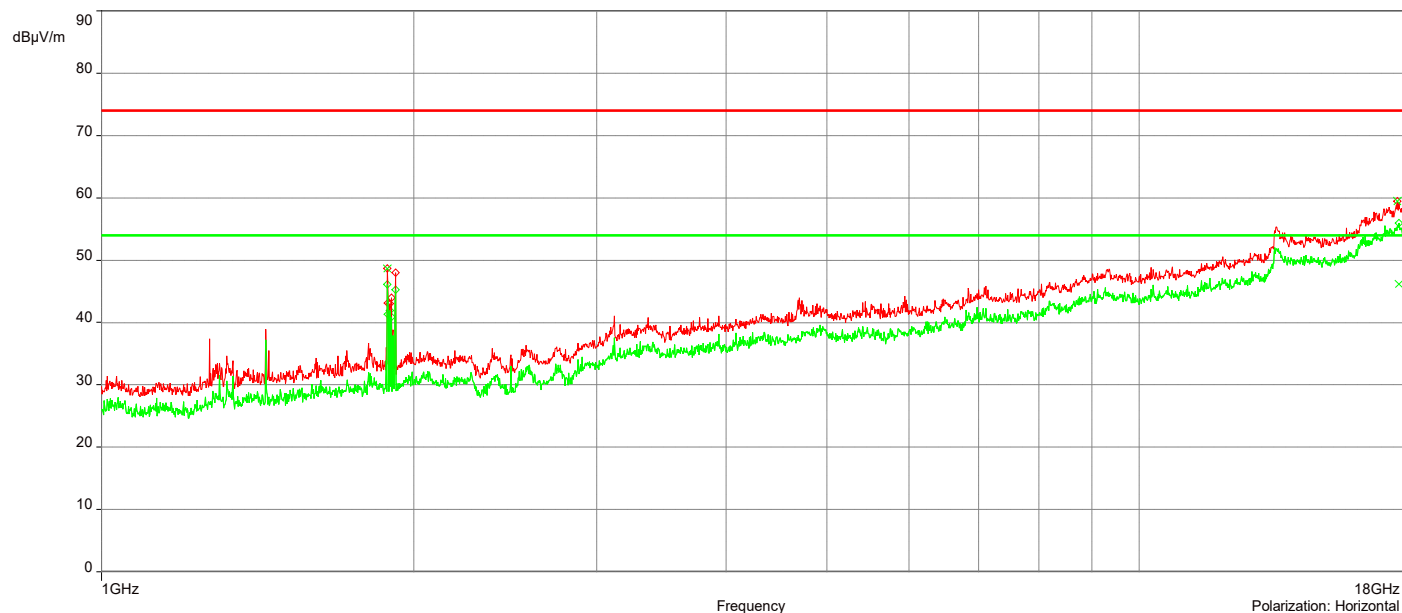
AH21100601-HAR-134#004_BT Classic_Ch 78_1-18GHz

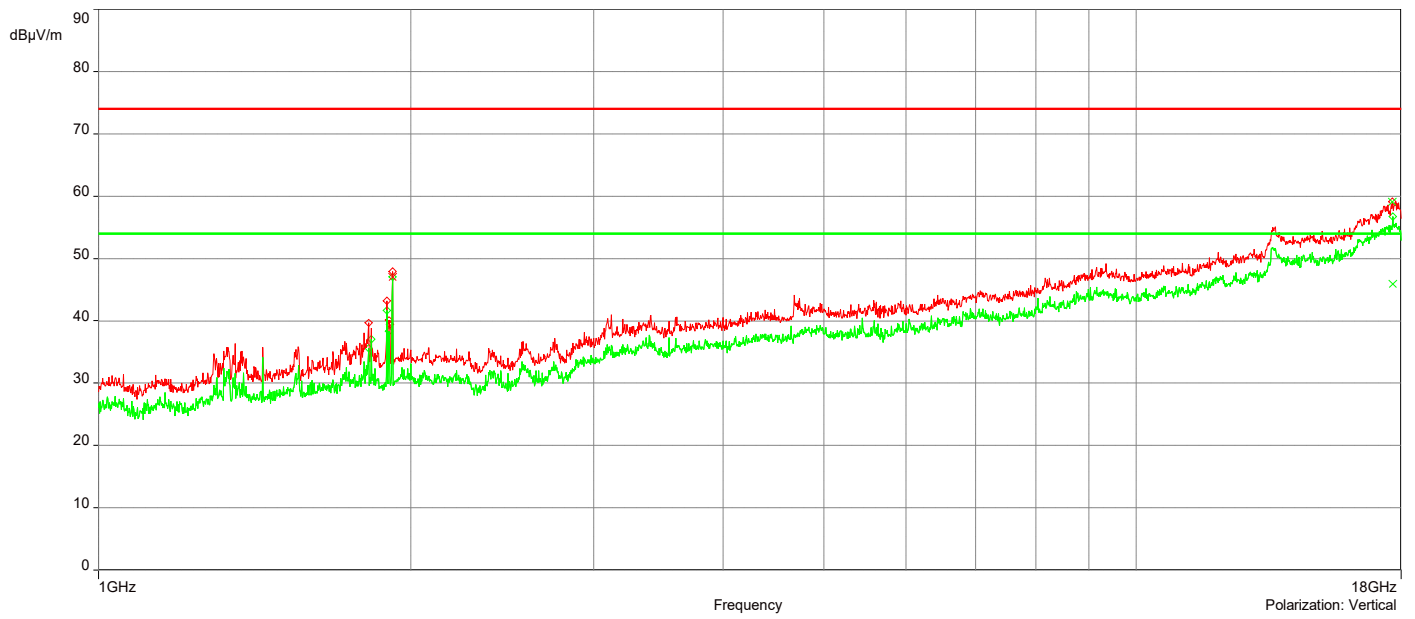
12/9/2021 7:59:14 AM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	1.8860261GHz	48.72	-4.29	74.00	-25.28	1.00	269.40	Horizontal	Passed
2.	17.65349GHz	59.10	18.29	74.00	-14.90	1.50	167.50	Vertical	Passed
3.	17.729492GHz	59.43	18.22	74.00	-14.57	4.00	38.10	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	1.9200271GHz	47.03	-4.05	54.00	-6.97	3.00	180.40	Vertical	Passed
2.	17.803494GHz	46.17	18.33	54.00	-7.83	2.50	33.90	Horizontal	Passed
3.	17.67449GHz	45.92	18.26	54.00	-8.08	3.50	0.20	Vertical	Passed

Overall Graphs:





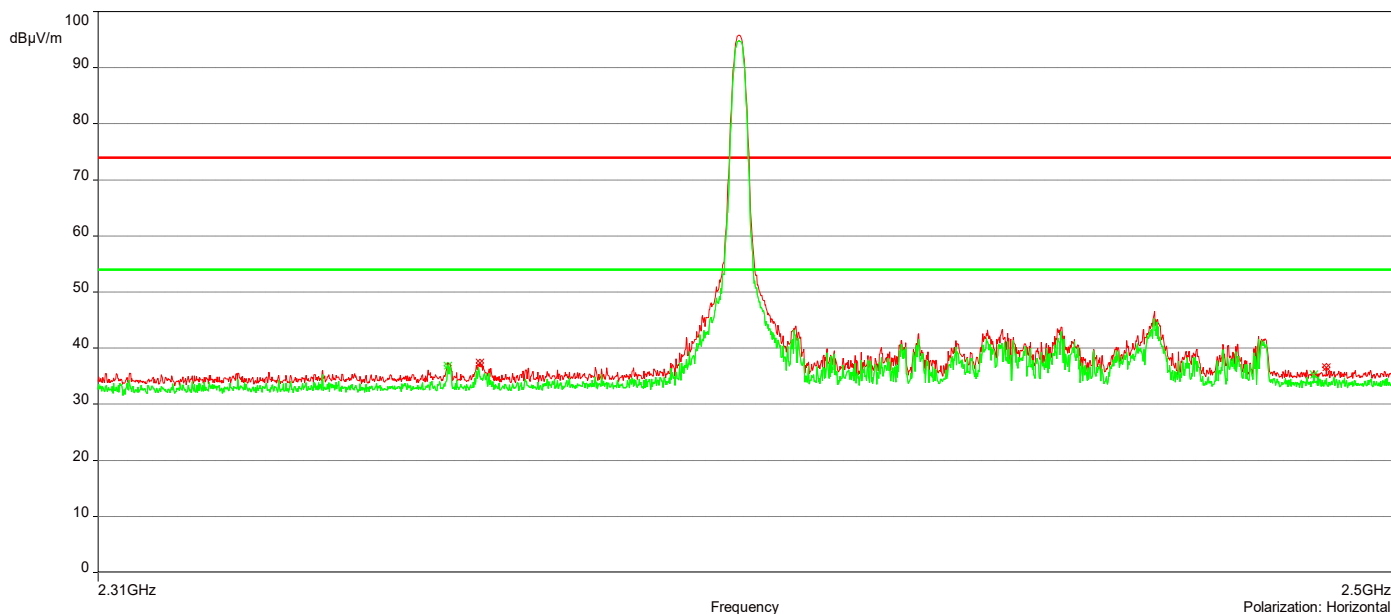
AH21100601-HAR-134#004_Restricted Bandedge_BT Classic_Ch 0

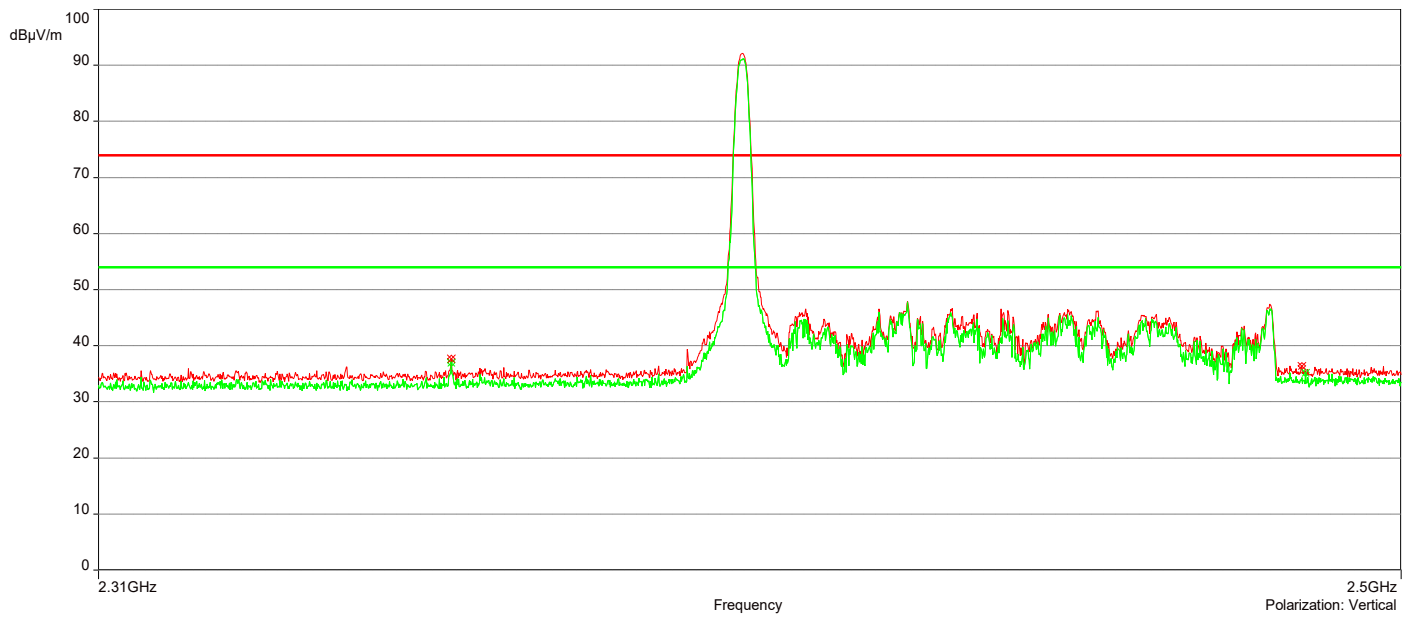
12/9/2021 7:03:23 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.359995GHz	37.69	-3.11	74.00	-36.31	3.97	67.40	Vertical	Passed
2.	2.3643672GHz	37.36	-3.05	74.00	-36.64	3.38	314.90	Horizontal	Passed
3.	2.4895448GHz	36.58	-2.39	74.00	-37.42	1.61	0.00	Horizontal	Passed
4.	2.4849825GHz	36.45	-2.39	74.00	-37.55	2.03	0.00	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dBuV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	2.359995GHz	37.01	-3.11	54.00	-16.99	3.97	67.40	Vertical	Passed
2.	2.3598049GHz	36.91	-3.06	54.00	-17.09	2.90	314.90	Horizontal	Passed
3.	2.4876438GHz	35.32	-2.39	54.00	-18.68	3.80	44.90	Horizontal	Passed
4.	2.4855528GHz	35.16	-2.40	54.00	-18.84	3.73	134.90	Vertical	Passed

Overall Graphs:





AH21100601-HAR-134#004_Restricted Bandedge_BT Classic_Ch 78

12/9/2021 7:28:41 AM

No	Frequency (MHz)	Level Peak Reading (dBuV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.4836518GHz	50.30	-2.39	74.00	-23.70	2.77	291.50	Horizontal	Passed
2.	2.4836518GHz	45.68	-2.38	74.00	-28.32	2.89	291.50	Vertical	Passed
3.	2.3750125GHz	37.35	-3.01	74.00	-36.65	2.84	291.50	Horizontal	Passed
4.	2.3216908GHz	36.61	-3.24	74.00	-37.39	2.31	269.10	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dBuV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	2.4836518GHz	47.82	-2.39	54.00	-6.18	2.77	291.50	Horizontal	Passed
2.	2.4836518GHz	42.96	-2.38	54.00	-11.04	2.89	291.50	Vertical	Passed
3.	2.3750125GHz	36.37	-3.01	54.00	-17.63	2.84	291.50	Horizontal	Passed
4.	2.3305303GHz	35.00	-3.21	54.00	-19.00	2.73	291.50	Vertical	Passed

Overall Graphs:





AH21100601-HAR-134#004_BT Classic_Ch 0_18-27.5GHz

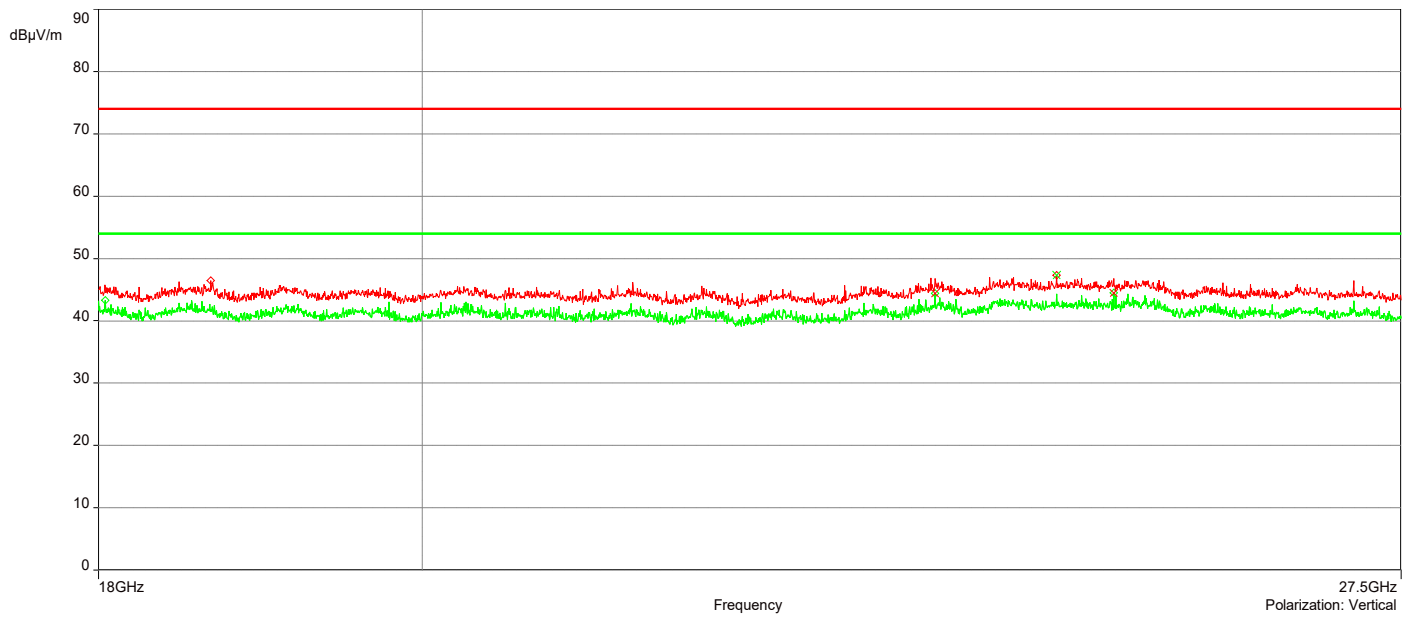
12/10/2021 6:47:58 AM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	20.208385GHz	46.90	-3.20	74.00	-27.10	1.00	247.60	Horizontal	Passed
2.	24.585254GHz	47.31	-0.20	74.00	-26.69	2.87	45.10	Vertical	Passed
3.	23.677959GHz	47.55	-1.06	74.00	-26.45	4.00	90.10	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	25.045077GHz	44.47	-0.06	54.00	-9.53	3.87	292.60	Vertical	Passed
2.	23.629031GHz	44.39	-1.13	54.00	-9.61	1.21	112.70	Vertical	Passed
3.	24.10548GHz	43.96	-0.35	54.00	-10.04	3.97	247.60	Horizontal	Passed

Overall Graphs:





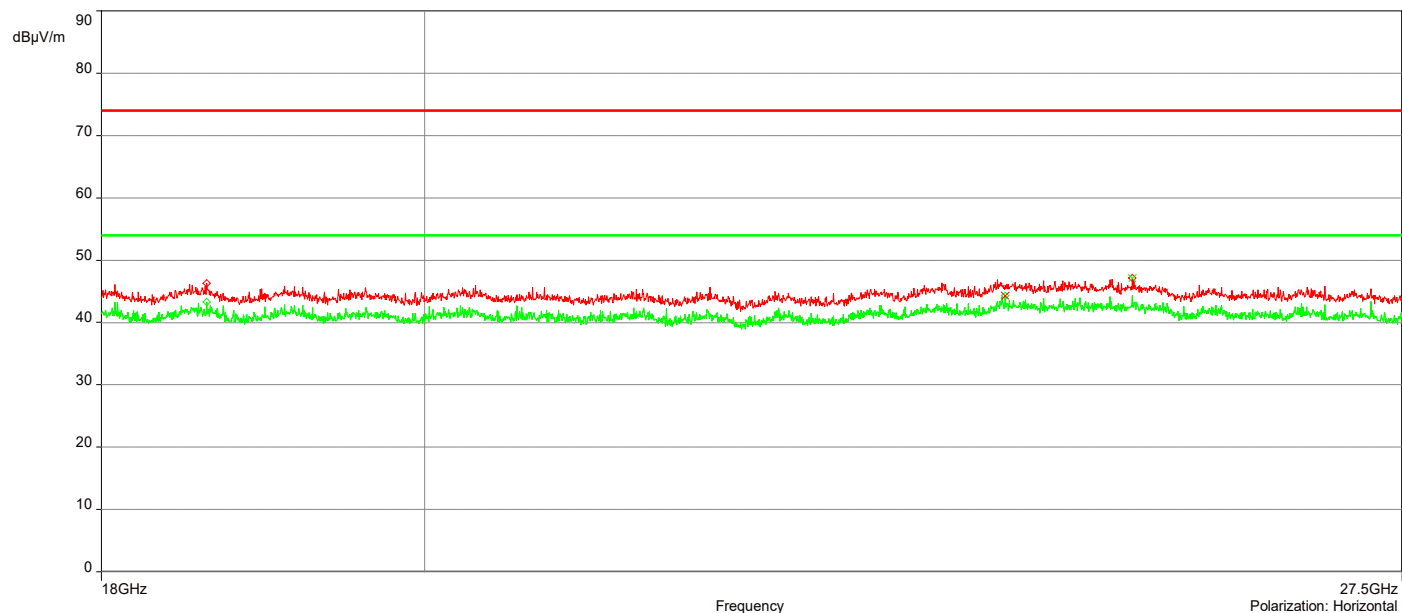
AH21100601-HAR-134#004_BT Classic_Ch 38_18-27.5GHz

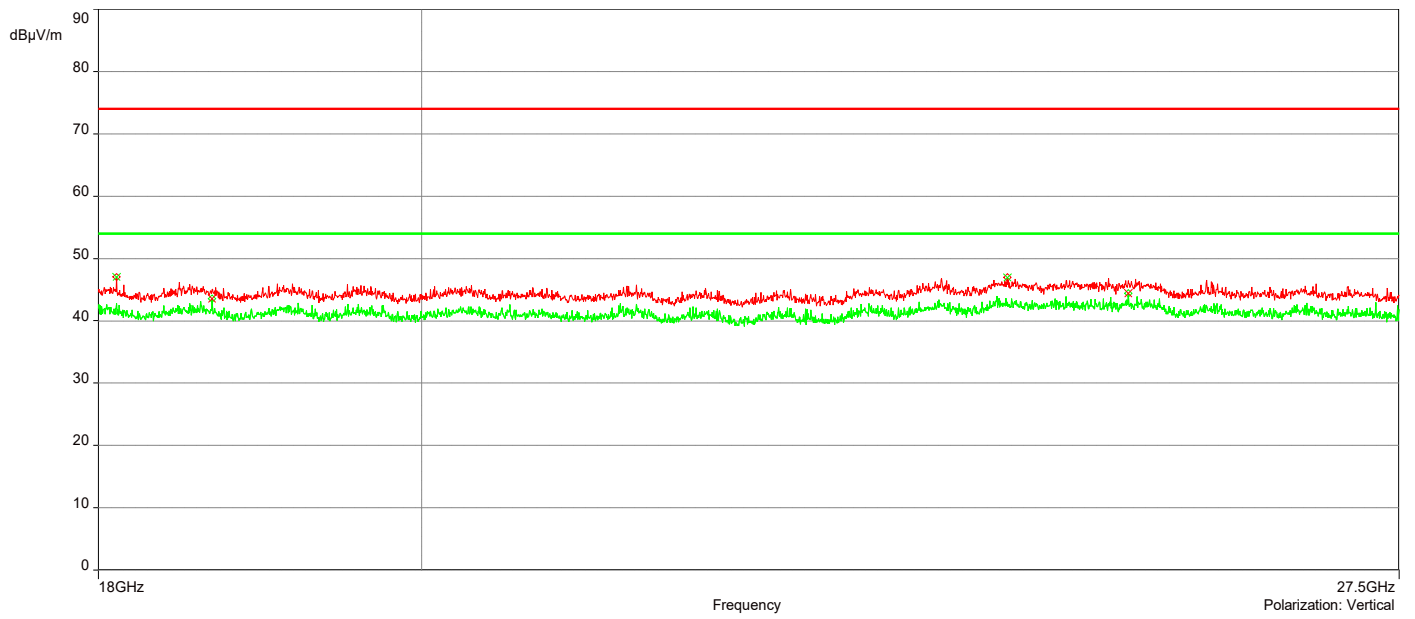
12/10/2021 7:28:52 AM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	25.186159GHz	47.16	-0.02	74.00	-26.84	4.00	22.40	Horizontal	Passed
2.	18.107355GHz	47.07	-4.00	74.00	-26.93	1.54	337.40	Vertical	Passed
3.	24.20381GHz	46.98	-0.33	74.00	-27.02	2.90	179.90	Vertical	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	24.165333GHz	44.36	-0.35	54.00	-9.64	3.08	44.90	Horizontal	Passed
2.	25.175234GHz	44.37	0.04	54.00	-9.63	3.30	292.40	Vertical	Passed
3.	18.678334GHz	43.55	-3.66	54.00	-10.45	4.00	89.90	Vertical	Passed

Overall Graphs:





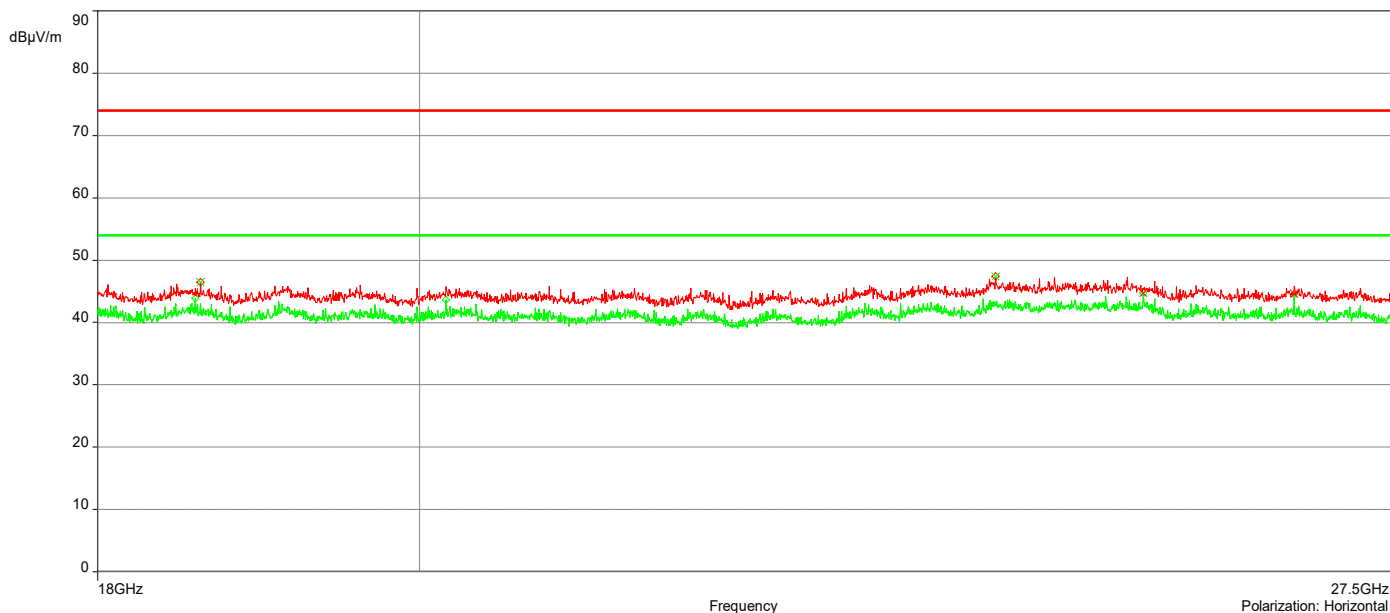
AH21100601-HAR-134#004_BT Classic_Ch 78_18-27.5GHz

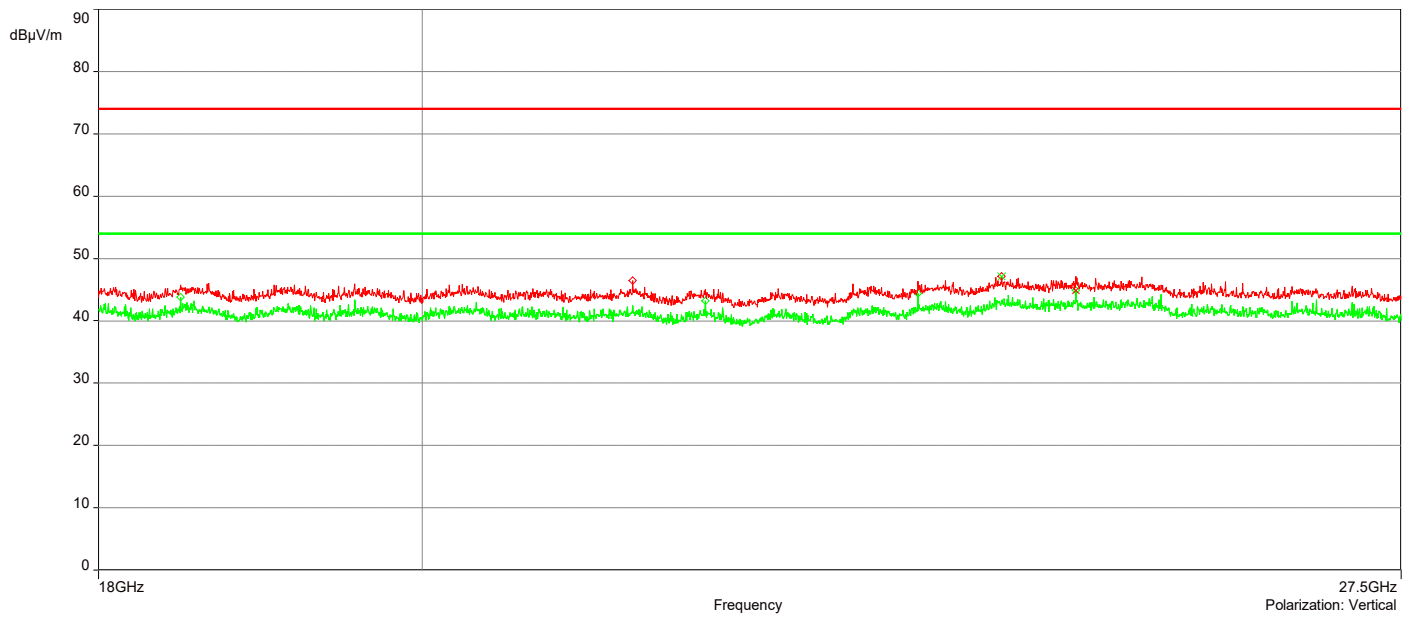
12/10/2021 8:04:47 AM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	24.146332GHz	47.42	-0.34	74.00	-26.58	1.15	67.70	Horizontal	Passed
2.	24.147757GHz	47.19	-0.32	74.00	-26.81	1.45	0	Vertical	Passed
3.	18.617531GHz	46.47	-3.75	74.00	-27.53	1.74	202.60	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	26.625006GHz	44.57	0.21	54.00	-9.43	2.70	180.00	Horizontal	Passed
2.	25.345292GHz	44.77	-0.11	54.00	-9.23	3.11	270.10	Horizontal	Passed
3.	24.737737GHz	44.95	-0.21	54.00	-9.05	2.09	112.60	Vertical	Passed

Overall Graphs:





Document Revisions

Version	Date	Modifier	Changes
1.0	12/03/2021	Aravind Buddana	<ul style="list-style-type: none">Initial Release
2.0	12/13/2021	Aravind Buddana Ryan Philips	<ul style="list-style-type: none">Updated Radiated test data

End of Report