



Regulatory Test Report

Prepared for Harman International Industries, Inc.

This report presents detailed information on

R1 INT ER 3B HW4

R1 INT RW 3B HW4

Prepared by

Aravind Buddana

Engineer III

Approved by

Jason Kanakry

General Manager

Issue date: 05/09/2025

Report No: J23134-R1 INT ER-RW 3B HW4-TR3 v1

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

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1. Test Request Information

Test Request #:	7700206793
Test Requested By:	Pranav Patel Harman International Industries, Inc. 30001 Cabot Drive, Novi, MI 48377
Test item Description:	R1 INT ER 3B HW4, R1 INT RW 3B HW4
Part Number:	P68711112AA, 2182
DUT Sample Number:	J23134 ER 3B#001, J23134 RW 3B#001
FVIN:	FCA-MY24.MNL-OD.4214
Hardware Version of DUT:	N/A
Software Version of DUT:	N/A
Component Category of DUT:	N/A
FCC ID:	2AHPN-BE2882 (R1 INT ER 3B HW4) 2AHPN-BE2883 (R1 INT RW 3B HW4)
ISED ID:	6434C-BE2882
Type of Test:	FCC/ISED Certification
Test Method:	CFR Title 47 FCC Part 15.247, ISED Canada RSS-247 Issue 3, ISED Canada RSS-Gen Issue 5 and ANSI C63.10-2013, KDB 558074 D01 15.247 Meas Guidance v05r02
Deviations from standard:	None
Approved Test Plan Number:	N/A
Test Plan Revision:	N/A
Date Test Sample Received:	03-03-2025
Date Test Started:	03-05-2025
Date Test Finished:	05-02-2025

2. 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)

3. 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 shown in the label exhibit.
		15.21	Information to the user shown in the instruction manual exhibit.
		15.27	No special accessories are required for compliance.
3.2		15.31	The EUT tested in accordance with the measurement standards in this section.
6.13.2		15.33	Frequency range investigated according to this section, unless noted in specific rule section under which the equipment operates.
6.13.1		15.35	The EUT emissions are 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 integrated PCB antenna with -1.24dBi 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.

4. Conducted Testing

4.1 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 3

The products are **R1 INT ER 3B HW4** and **R1 INT RW 3B HW4** frequency hopping spread spectrum transmitter that operates in the 2402 – 2480 MHz frequency range.

Details	Description
Frequency Range (MHz)	2402 – 2480
Supported Modulation	GFSK, $\pi/4$ DQPSK, 8DPSK
Tested Modulation	GFSK (DH1), 8DPSK (3-DH1) - Highest Emissions
Number of Channels	79
Tested Channels	0,39,78
DUT Antenna Type	Integrated PCB antenna
Number of transmit chains	1
Equipment type	Frequency Hopping Spread Spectrum
Dwell Time	350ms
DUT Antenna Gain	-1.24dBi ☒ Provided by Customer with Gain Report ☐ Not Provided by Customer
DUT Power Class/Power Settings	Power Class: 1 (MRVL_Class1)
DUT Software Tool/Settings	MFGBridge_Tool/Dut labtool is used to configure device Bluetooth modes and data rates.

Note: **R1 INT ER 3B HW4** is determined as worst-case variant and full testing is performed on **R1 INT ER 3B HW4**.

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

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
Hopping Frequencies	--- (hopping)	Pass	--	--	--	--	--	Pass	--	--
Band Edge High	--- (hopping)	Pass	--	--	--	--	--	Pass	--	--
Carrier Frequency Separation	2402.000 (hopping)	Pass	--	--	--	--	--	Pass	--	--
Carrier Frequency Separation	2480.000 (hopping)	Pass	--	--	--	--	--	Pass	--	--
Time of Channel Occupancy	2402.000 (hopping)	Pass	--	--	--	--	--	Pass	--	--
Time of Channel Occupancy	2441.000 (hopping)	Pass	--	--	--	--	--	Pass	--	--
Time of Channel Occupancy	2480.000 (hopping)	Pass	--	--	--	--	--	Pass	--	--
Emissions Bandwidth 20dB	2402.000 (single)	Pass	--	--	--	--	--	Pass	--	--
Occupied Channel Bandwidth 99%	2402.000 (single)	Pass	--	--	--	--	--	Pass	--	--
Band Edge Low	2402.000 (single)	Pass	--	--	--	--	--	Pass	--	--
Peak Output Power	2402.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Tx Spurious	2402.000 (single)	Pass	--	--	--	--	--	Pass	--	--
Emissions Bandwidth 20dB	2441.000 (single)	Pass	--	--	--	--	--	Pass	--	--
Occupied Channel Bandwidth 99%	2441.000 (single)	Pass	--	--	--	--	--	Pass	--	--
Peak Output Power	2441.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Tx Spurious	2441.000 (single)	Pass	--	--	--	--	--	Pass	--	--
Emissions Bandwidth 20dB	2480.000 (single)	Pass	--	--	--	--	--	Pass	--	--
Occupied Channel Bandwidth 99%	2480.000 (single)	Pass	--	--	--	--	--	Pass	--	--
Band Edge High	2480.000 (single)	Pass	--	--	--	--	--	Pass	--	--
Peak Output Power	2480.000 (single)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Tx Spurious	2480.000 (single)	Pass	--	--	--	--	--	Pass	--	--

Test Item	Sample #	Result
FCC 15.247 Bluetooth Classic	J23134 ER 3B#001 J23134 RW 3B#001	Meets Requirement

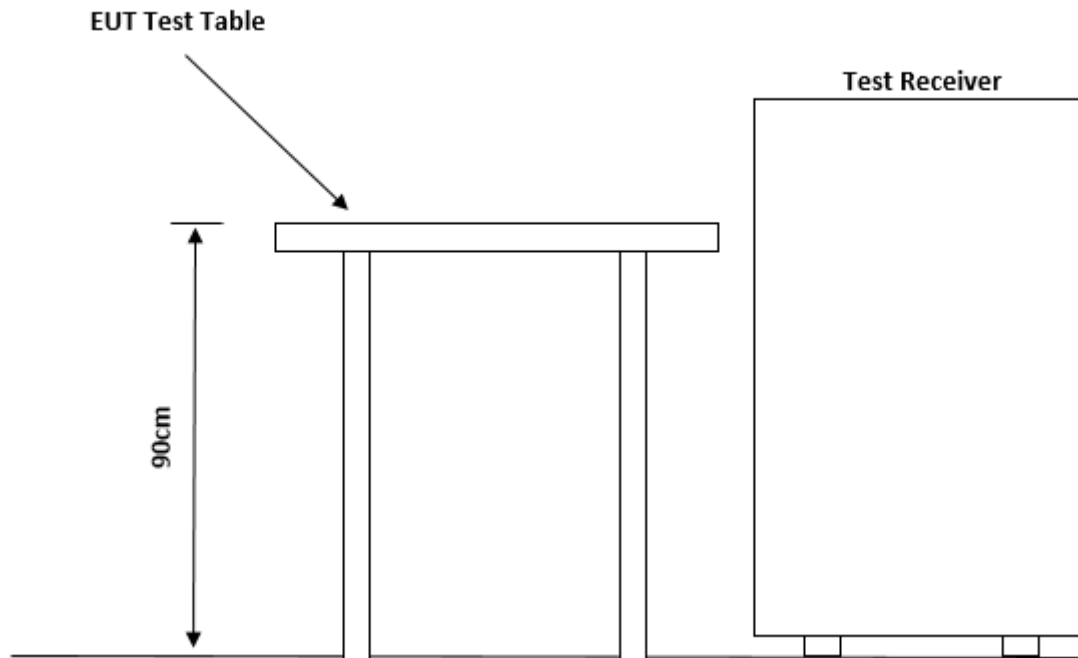
We found that the product met the above requirements without modification.

Test samples received in good condition.

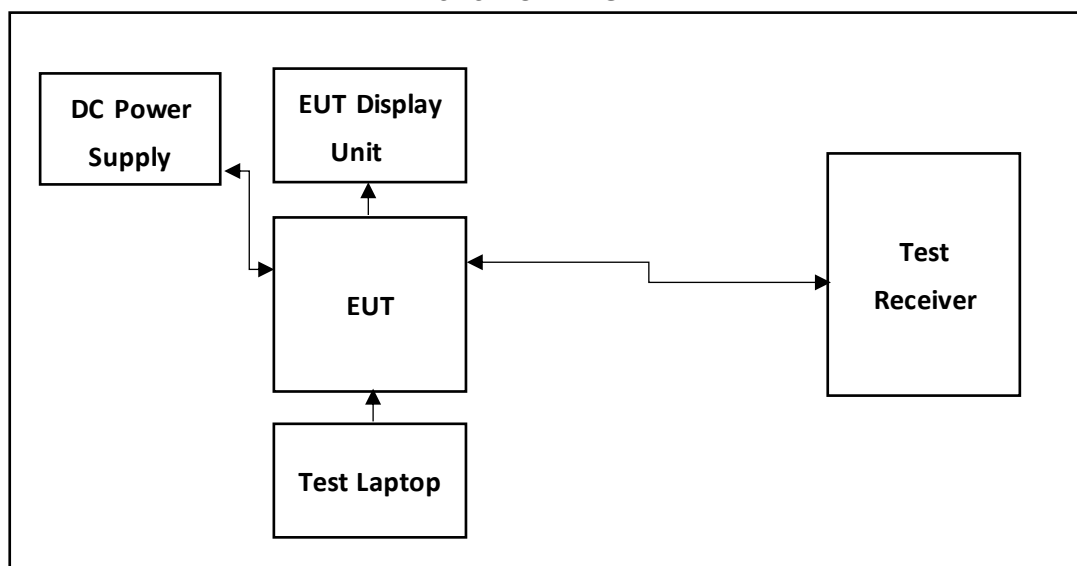
4.2 Test Setup

Conducted Test Site Description

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



TEST SETUP DIAGRAM



4.3 Test Equipment Used

ID #	Equipment	Manufacturer	Model #	Serial #	Cal Due
BVD0226	Spectrum Analyzer 10Hz-44GHz	Rohde & Schwarz	FSV3044	101018	04/20/2026
BVD0227	8 port switch unit for Wireless Test system	Rohde & Schwarz	OSP150	101100	11/24/2025
BVD0228	8 port switch unit for Wireless Test system	Rohde & Schwarz	OSP220	101632	11/14/2025
BVD0224	Signal Generator 100kHz-40GHz	Rohde & Schwarz	SMB100A	181741	04/19/2026
BVD0225	Signal Generator 100k-6GHz with GPS simulator	Rohde & Schwarz	SMW200A	107664	04/20/2026
BVD0250	Wireless Connectivity Tester 70M-6GHz	Rohde & Schwarz	CMW270	102113	04/19/2026
BVD0302	DC power supply 1-15VDC 60A 110/220 11.5A max input	BK Precision	1693	257F17180	N/A
BVD0321	Fixed Attenuator 2W 20dB -40GHz	Mini-Circuits	BW-K20-2W44+	2103	01/27/2026
BVD0430	Multimeter	Fluke	117	49710262SV	11/07/2025
BVD0229	Temp and Humidity Meter	Fluke	971	12001009	05/23/2025
N/A	Test-PC	Lenovo ThinkPad	E480	SL10Q37355	N/A

Notes:- DC power supply verified before use with calibrated Multimeter.

Customer Supplied Equipment

ID #	Equipment	Manufacturer	Model	Serial #	Version No.
N/A	Harness	Harman	N/A	N/A	N/A
N/A	Display Unit	MOBIS	BMM6100000	231107 01	N/A
N/A	Shark Fin Antenna	Alfa Romeo	B901	719147	N/A
N/A	Antenna	Aptiv	APN35409682	N/A	N/A
N/A	Camera	N/A	23295906C	N/A	N/A
N/A	MFGBridge_Tool/Dut labtool	N/A	N/A	N/A	2.0.0.89

Equipment List (Software)

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

4.4 Test Data

4.4.1 Number of Hopping Frequencies

Test according to FCC title 47 part 15 §15.247(a),(g), KDB 558074 D01 DTS Meas Guidance v05 r02 and ANSI C63.10-2013 7.8.3, RSS-247 Section 5.1(d)

Spectrum Analyzer Settings

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	200.000 kHz	<= 200.000 kHz
VBW	200.000 kHz	>= 200.000 kHz
SweepPoints	418	~ 418
Sweptime	200.000 ms	200.000 ms
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	FFT
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	10 / max. 10	max. 10
Stable	1 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

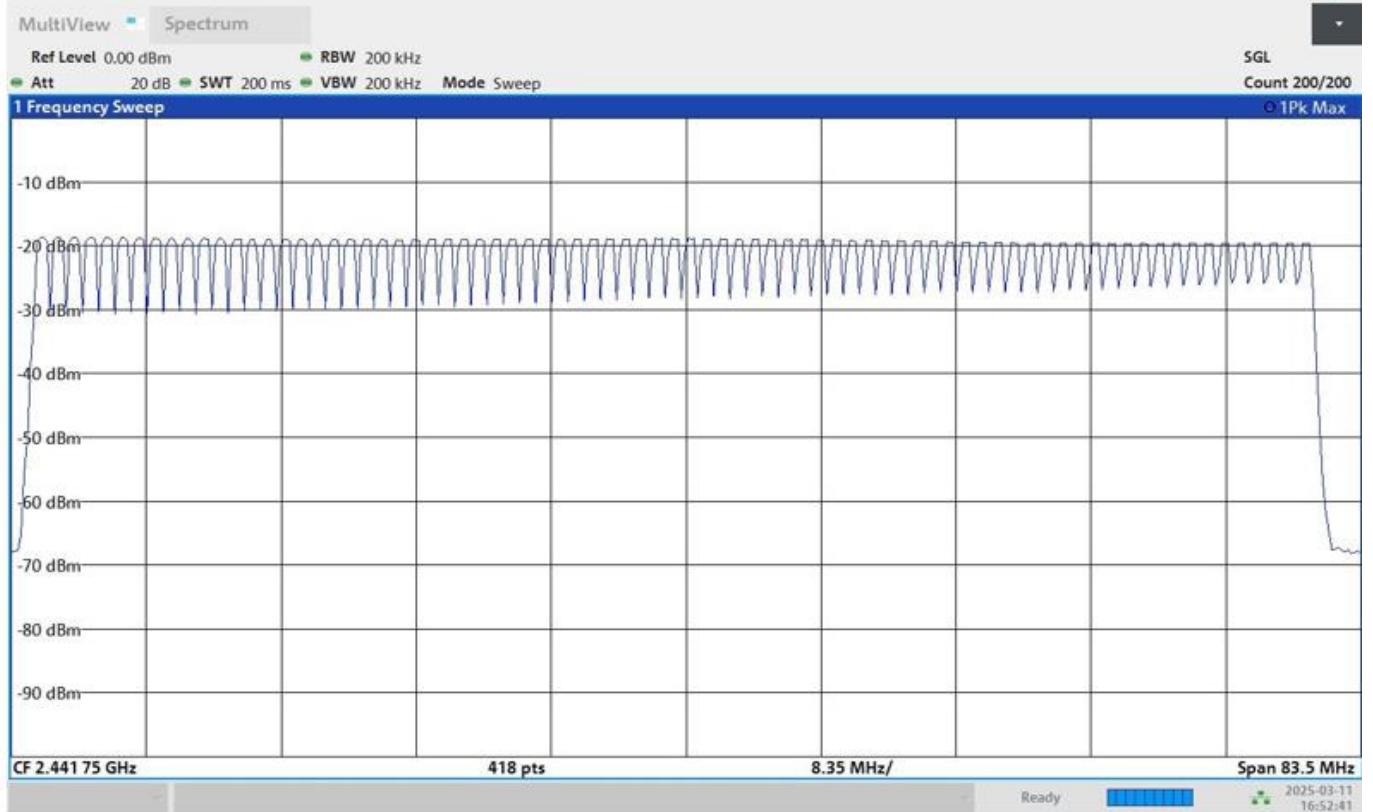
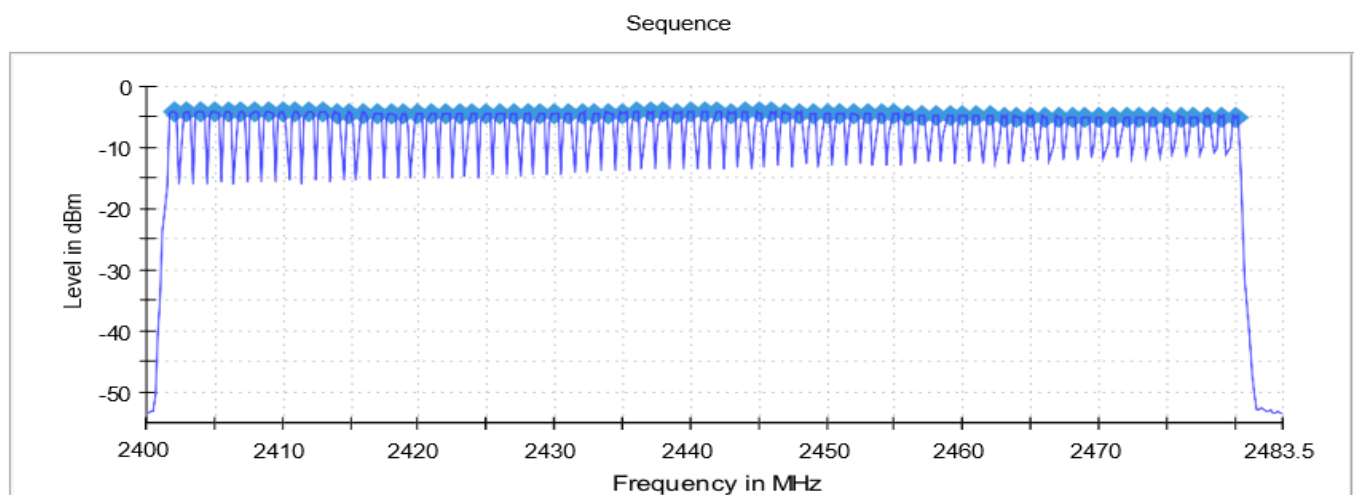
4.4.1.1 DH1

Channels:

Channels	Limit Min	Result
79	15	PASS

Plots:

Hopping Frequencies



4.4.1.1 3-DH1

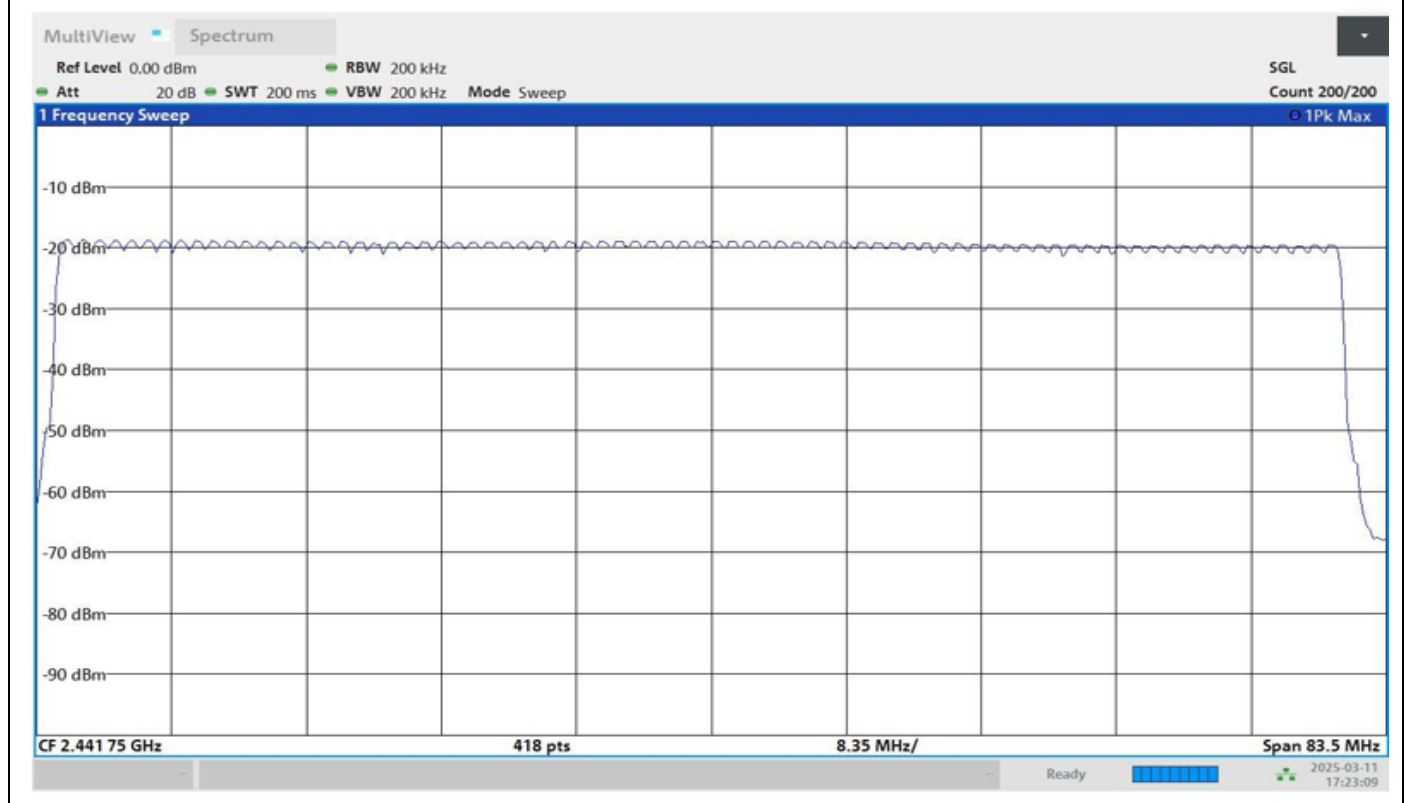
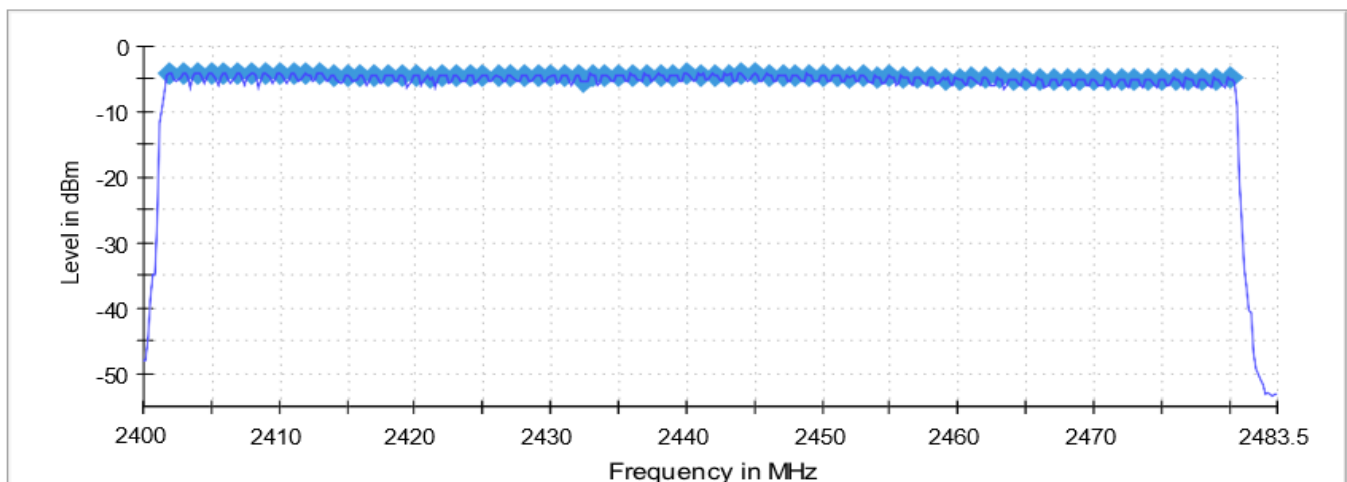
Channels:

Channels	Limit Min	Result
79	15	PASS

Plots:

Hopping Frequencies

Sequence



4.4.2 Band Edge (Hopping)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 7.8.6, RSS-247 Section 5.5

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-HCH	2401.825000	-4.5
3-DH1-HCH	2401.825000	-4.3

Spectrum Analyzer Settings

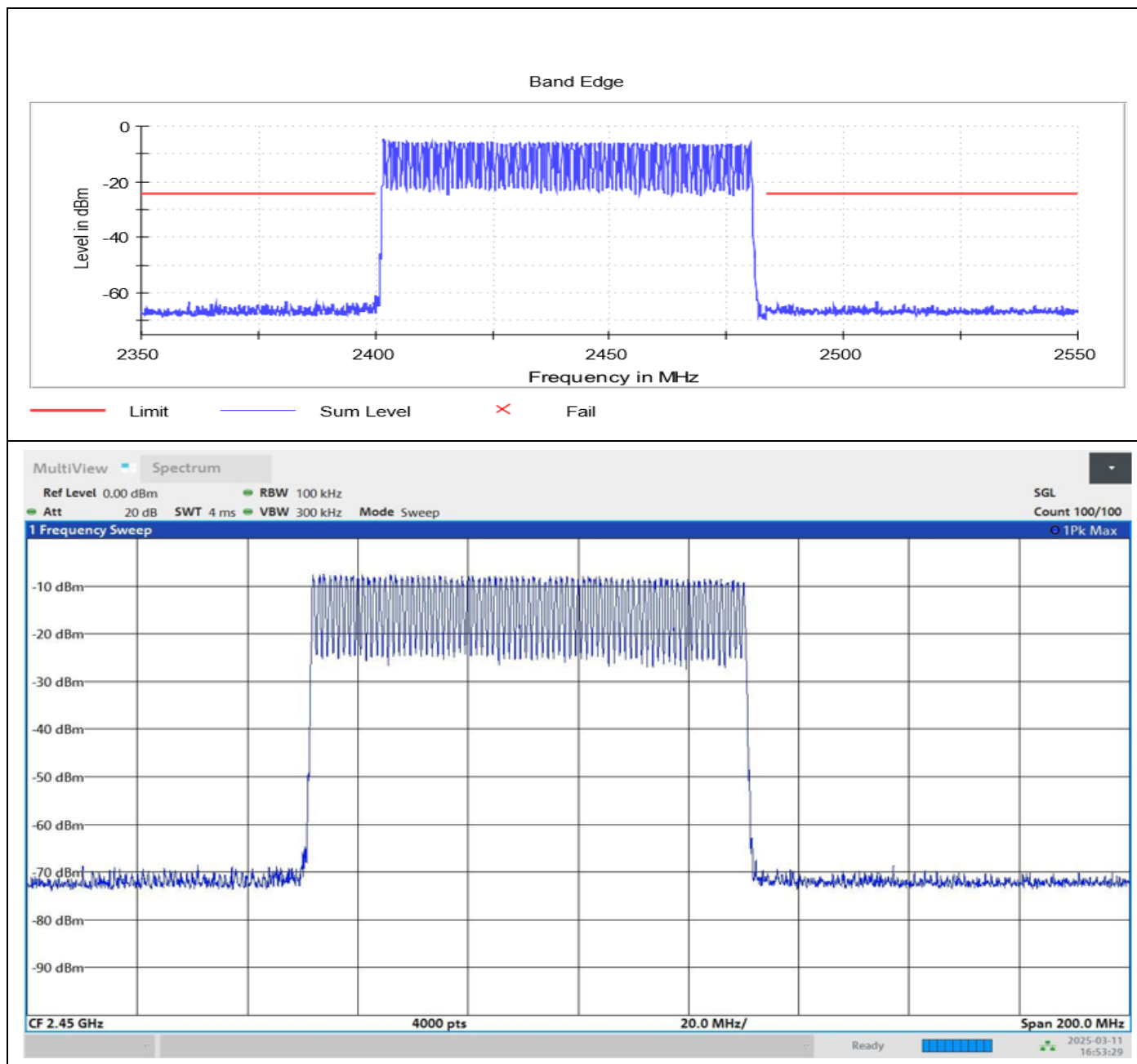
Setting	Instrument Value	Target Value
Start Frequency	2.35000 GHz	2.35000 GHz
Stop Frequency	2.55000 GHz	2.55000 GHz
Span	200.000 MHz	200.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	4000	~ 4000
SweepTime	4.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	48 / max. 50	max. 50
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

4.4.2.1 DH1

Measurements:

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.975000	-61.0	36.5	-24.5	PASS
2381.025000	-63.3	38.8	-24.5	PASS
2380.975000	-63.3	38.8	-24.5	PASS
2507.075000	-63.4	38.9	-24.5	PASS
2507.125000	-63.4	38.9	-24.5	PASS
2360.125000	-63.5	39.0	-24.5	PASS
2399.875000	-63.5	39.0	-24.5	PASS
2395.325000	-63.6	39.1	-24.5	PASS
2360.175000	-63.6	39.1	-24.5	PASS
2395.375000	-63.6	39.1	-24.5	PASS
2387.175000	-63.7	39.2	-24.5	PASS
2393.925000	-63.7	39.2	-24.5	PASS
2387.225000	-63.7	39.2	-24.5	PASS
2365.825000	-63.8	39.3	-24.5	PASS
2365.875000	-63.8	39.4	-24.5	PASS

Plots:

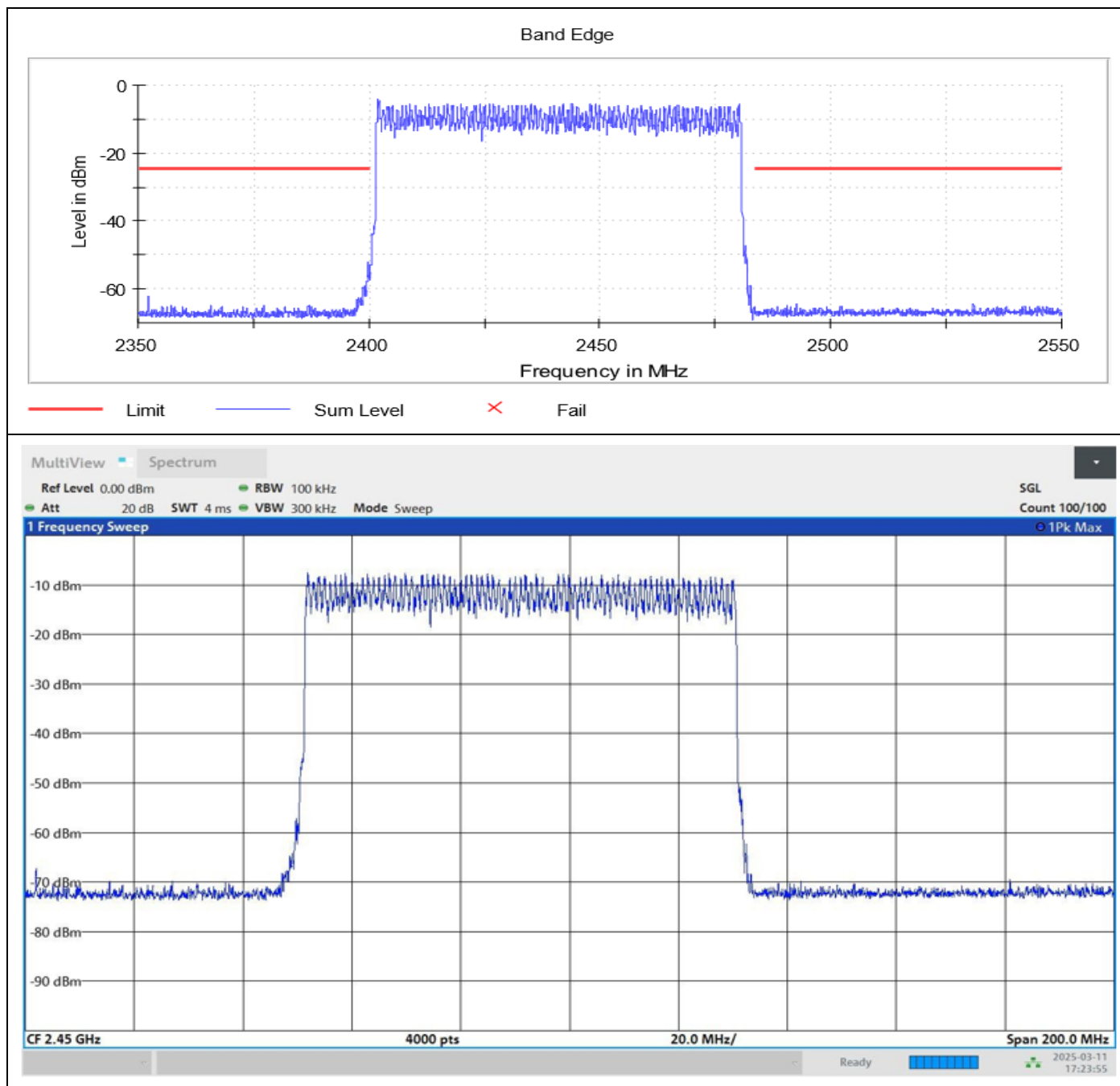


4.4.2.2 3-DH1

Measurements:

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.775000	-51.9	27.6	-24.3	PASS
2399.725000	-52.4	28.1	-24.3	PASS
2399.825000	-52.7	28.4	-24.3	PASS
2399.975000	-55.2	30.9	-24.3	PASS
2399.875000	-55.9	31.6	-24.3	PASS
2399.625000	-56.0	31.8	-24.3	PASS
2399.675000	-56.3	32.0	-24.3	PASS
2399.575000	-56.7	32.4	-24.3	PASS
2399.925000	-57.1	32.8	-24.3	PASS
2399.475000	-57.8	33.5	-24.3	PASS
2399.525000	-57.8	33.5	-24.3	PASS
2399.425000	-58.4	34.1	-24.3	PASS
2399.025000	-58.9	34.6	-24.3	PASS
2399.075000	-59.1	34.8	-24.3	PASS
2398.975000	-59.3	35.0	-24.3	PASS

Plots:



4.4.3 Carrier Frequency Separation

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 7.8.2, RSS-247 Section 5.1(b)

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

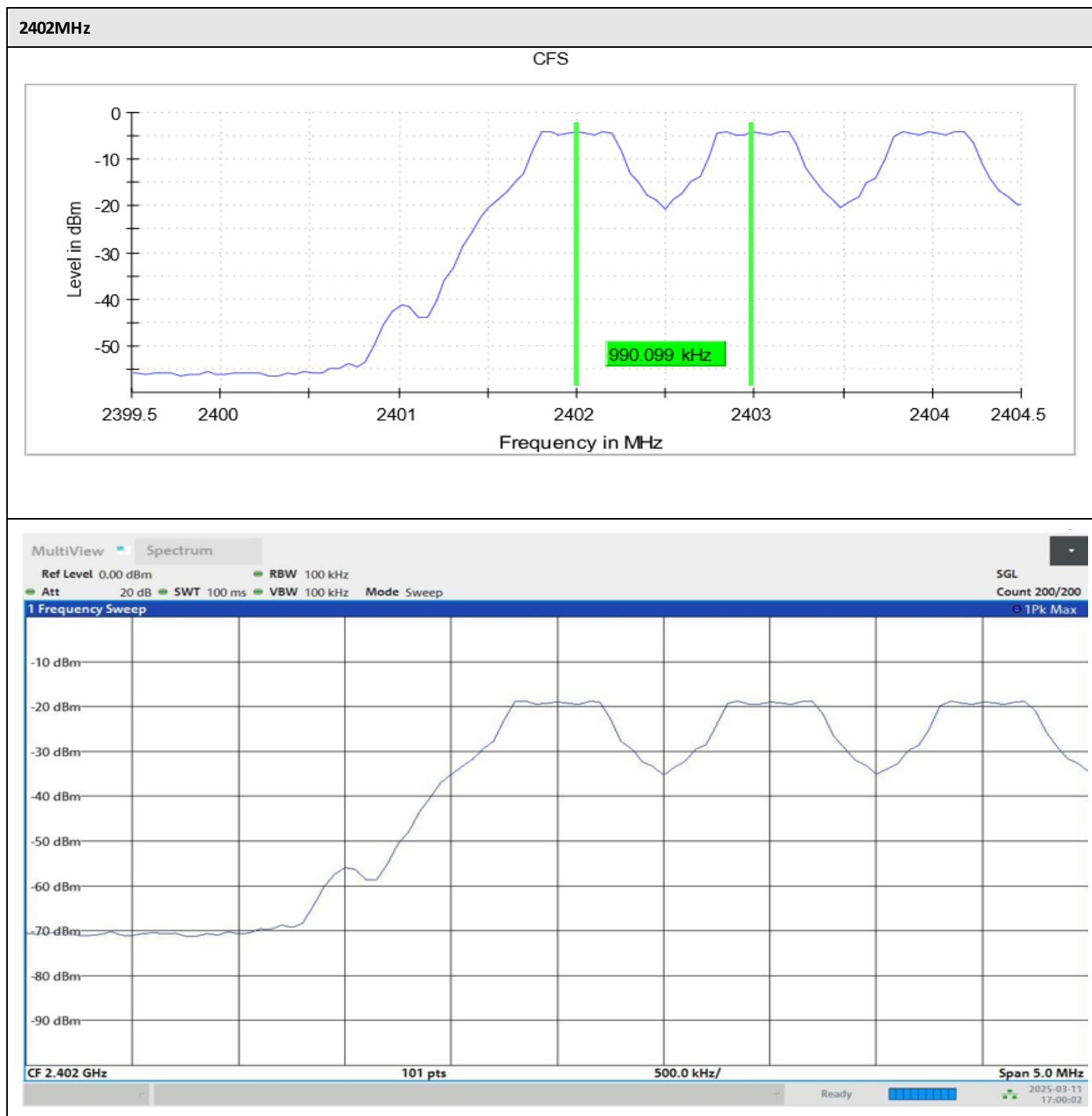
Hopping Mode				
Packet Type	2402MHz		2480MHz	
	Frequency Separation (MHz)	Minimum Limit (MHz)	Frequency Separation (MHz)	Minimum Limit (MHz)
DH1	0.990099	0.666667	0.990099	0.666667
3-DH1	0.990099	0.871286	0.990099	0.871286

Spectrum Analyzer Settings:

Setting	Instrument Value	Target Value
Start Frequency	2.39950 GHz	2.39950 GHz
Stop Frequency	2.40450 GHz	2.40450 GHz
Span	5.000 MHz	5.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	100.000 kHz	>= 100.000 kHz
SweepPoints	101	~ 50
SweepTime	100.000 ms	100.000 ms
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	FFT
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	19 / max. 50	max. 50
Stable	10 / 10	10
Max Stable Difference	0.38 dB	0.50 dB

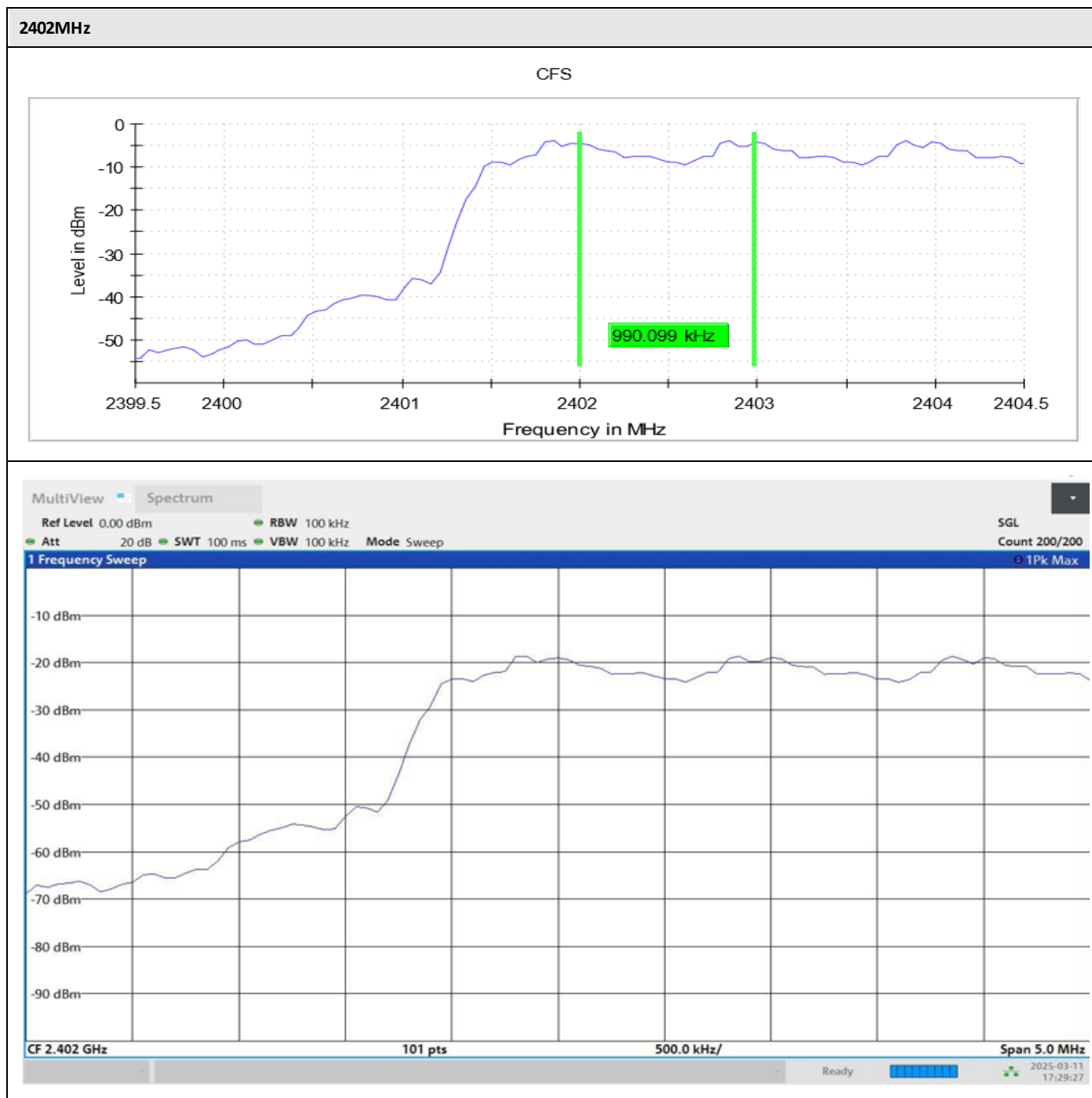
4.4.3.1 DH1

Plots:



4.4.3.2 3-DH1

Plots:



4.4.4 Time of Channel Occupancy

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 7.8.4, RSS-247 Section 5.1(d)

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

The transmit time per hop was measured by summing the sweep points above a threshold at least 10dB from the maximum level on the spectrum analyzer display.

Frequency	Data Rate	Mean Transmit Time per Hop (ms)	Number of Hops	Time (ms)	Limit Max (ms)	Result
2402	DH1	0.394	319	125.950	400.000	PASS
2402	3-DH1	0.356	319	113.970	400.000	PASS
2441	DH1	0.394	319	125.950	400.000	PASS
2441	3-DH1	0.355	319	113.620	400.000	PASS
2480	DH1	0.393	319	125.880	400.000	PASS
2480	3-DH1	0.346	319	110.710	400.000	PASS

Spectrum Analyzer Settings:

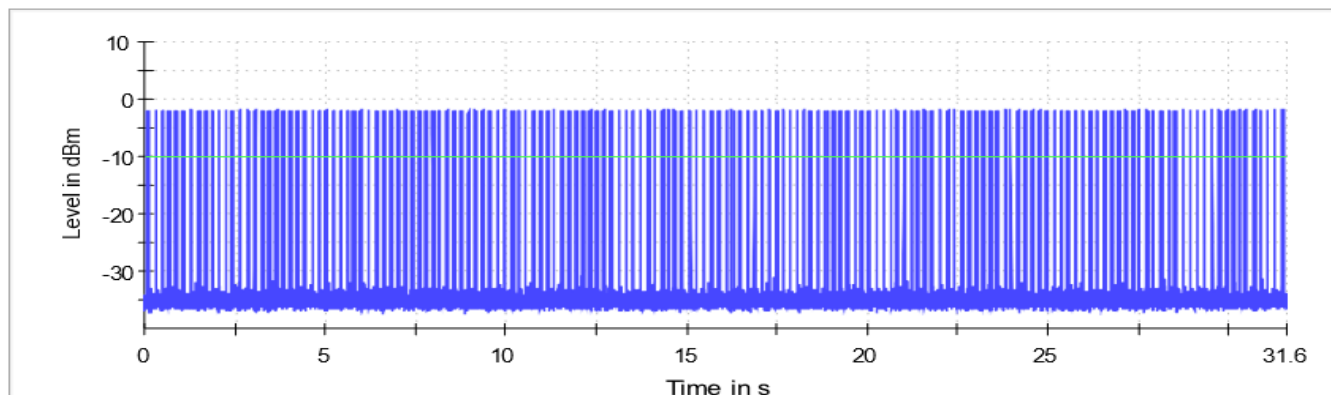
Setting	Instrument Value	Target Value
Center Frequency	2.40200 GHz	2.40200 GHz
Span	ZeroSpan	ZeroSpan
RBW	500.000 kHz	~ 500.000 kHz
VBW	1.000 MHz	~ 1.500 MHz
SweepPoints	30001	~ 30001
SweepTime	31.600 s	31.600 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	1	1
Filter	Channel	Channel
Trace Mode	Clear Write	Clear Write
SweepType	Sweep	AUTO
Preamplifier	off	off
Trigger	External	External
Trigger Offset	0.000 s	0.000 s

4.4.4.1 DH1

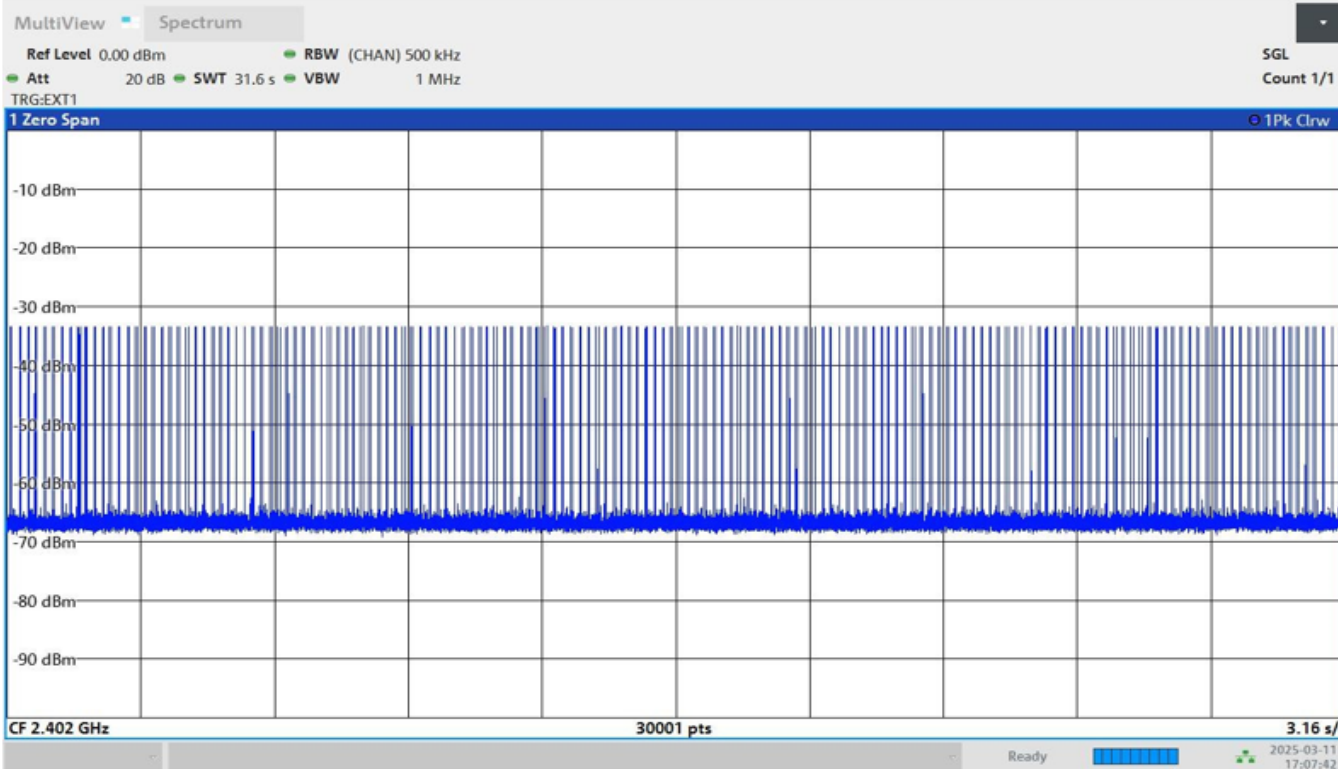
Plots:

2402MHz

Time of Channel Occupancy

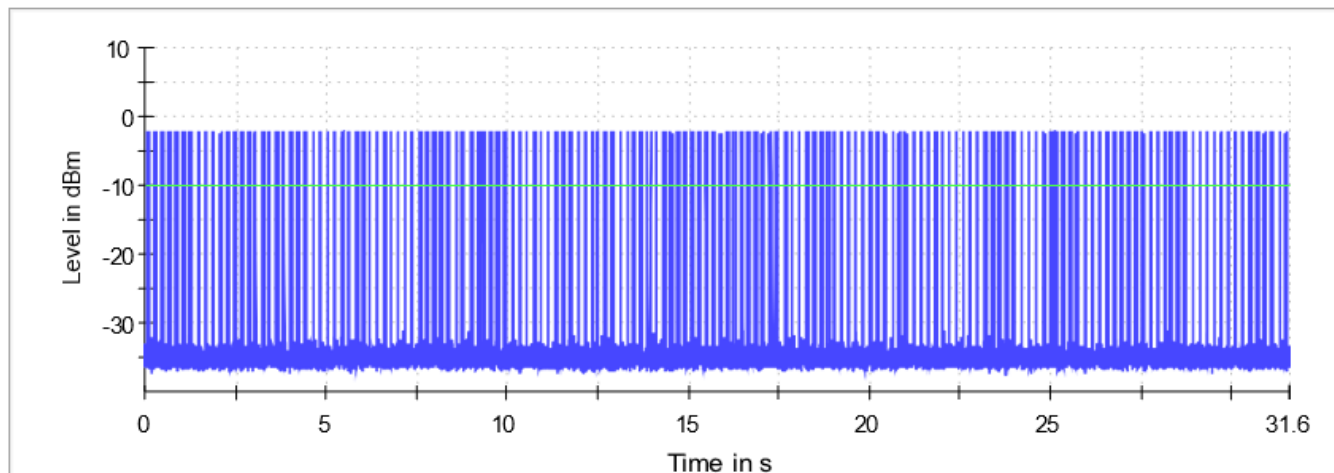


Trace Threshold



2441MHz

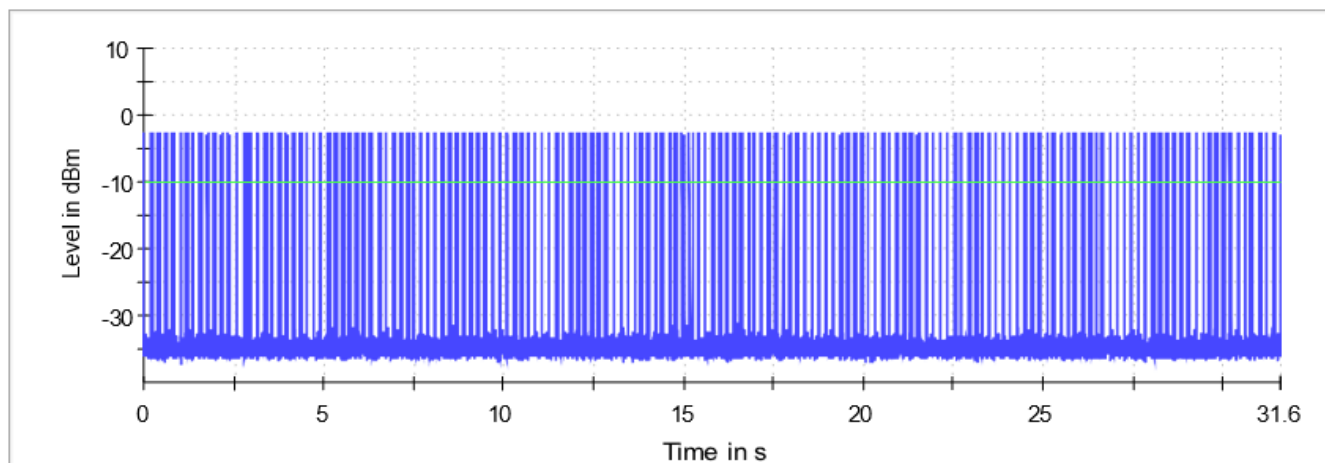
Time of Channel Occupancy



Trace Threshold

2480MHz

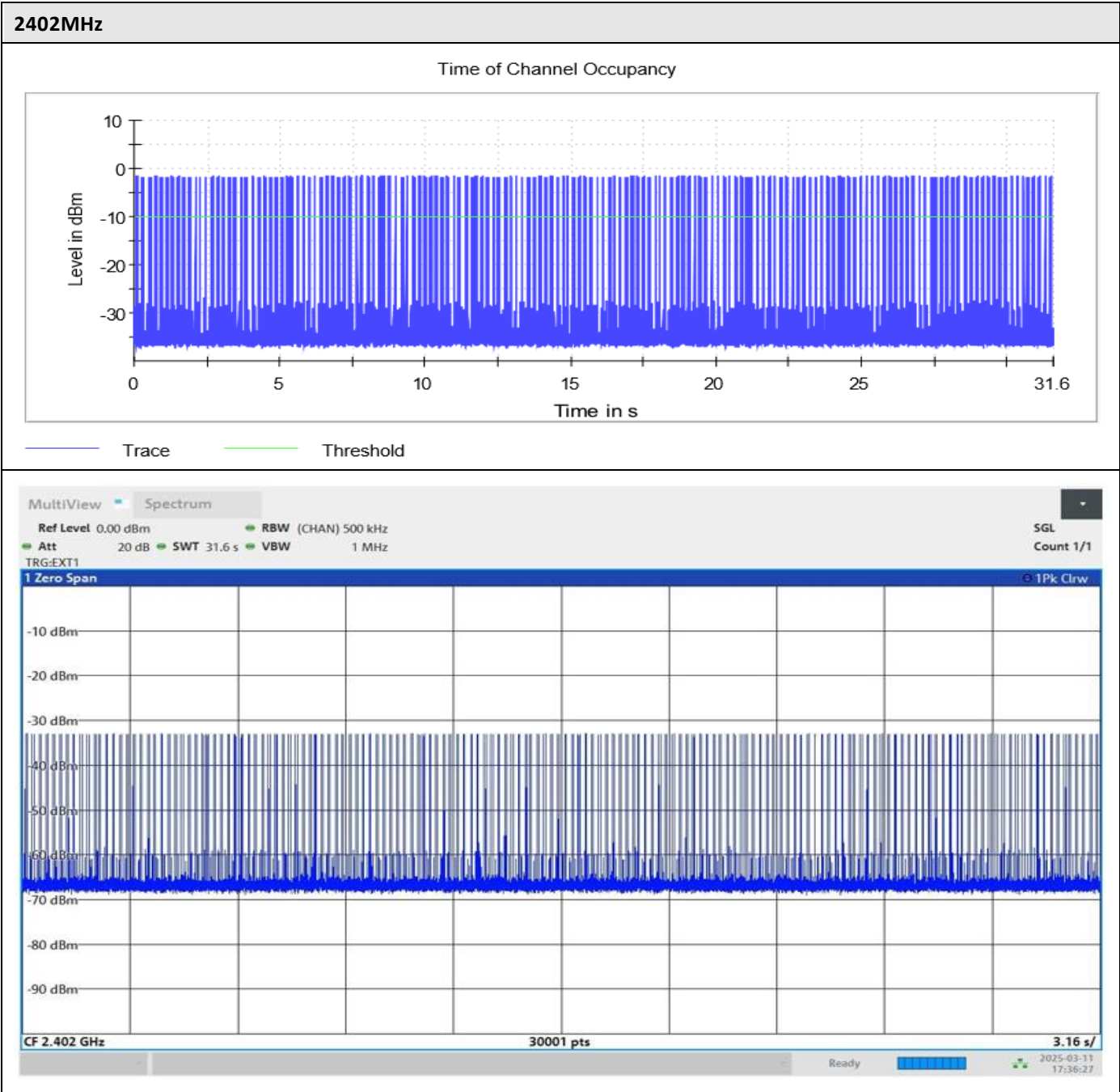
Time of Channel Occupancy



Trace Threshold

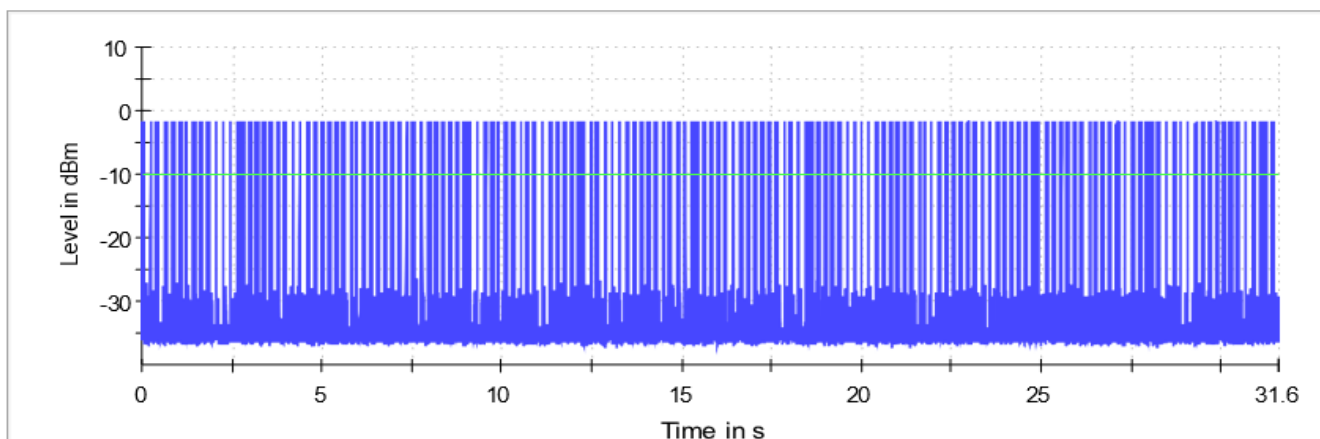
4.4.4.2 3-DH1

Plots:



2441MHz

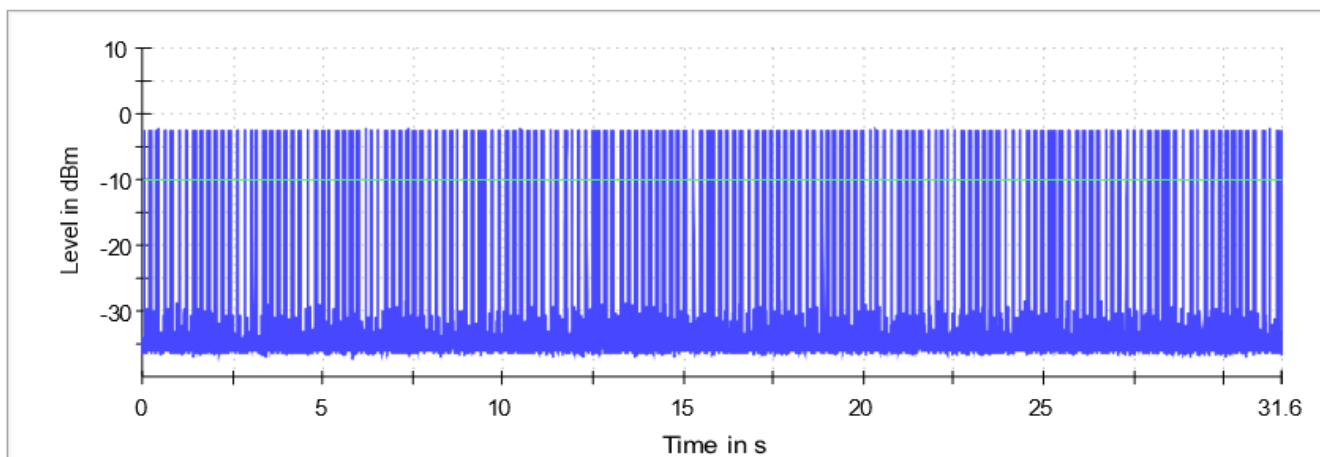
Time of Channel Occupancy



Trace Threshold

2480MHz

Time of Channel Occupancy



Trace Threshold

4.4.5 Peak Output Power

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 7.8.5, RSS-247 Section 5.4 (b)

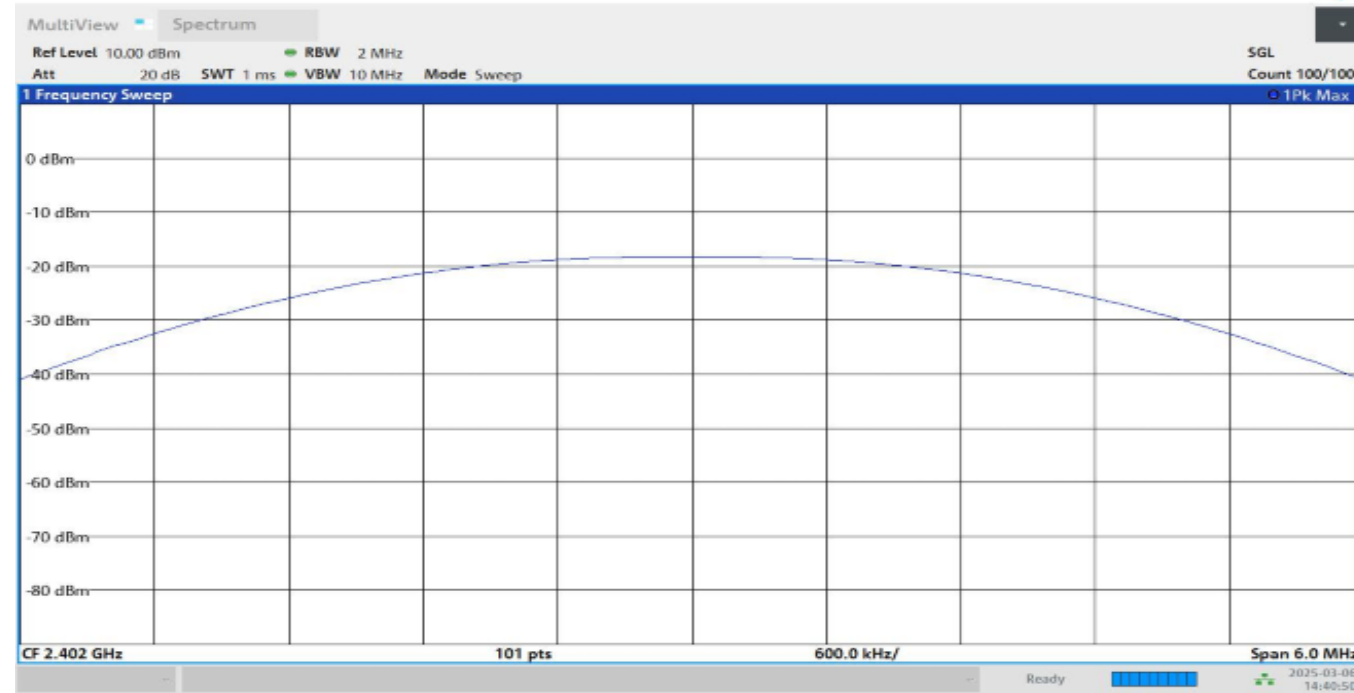
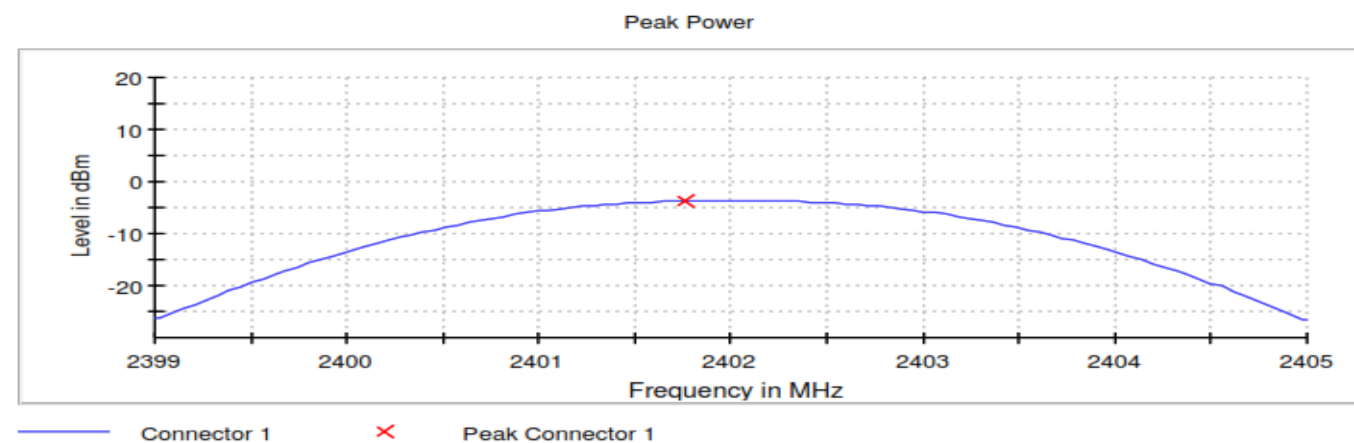
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Combined Uncertainty of absolute Level Measurement (K=2) < 1 dB

4.4.5.1 R1 INT ER 3B HW4

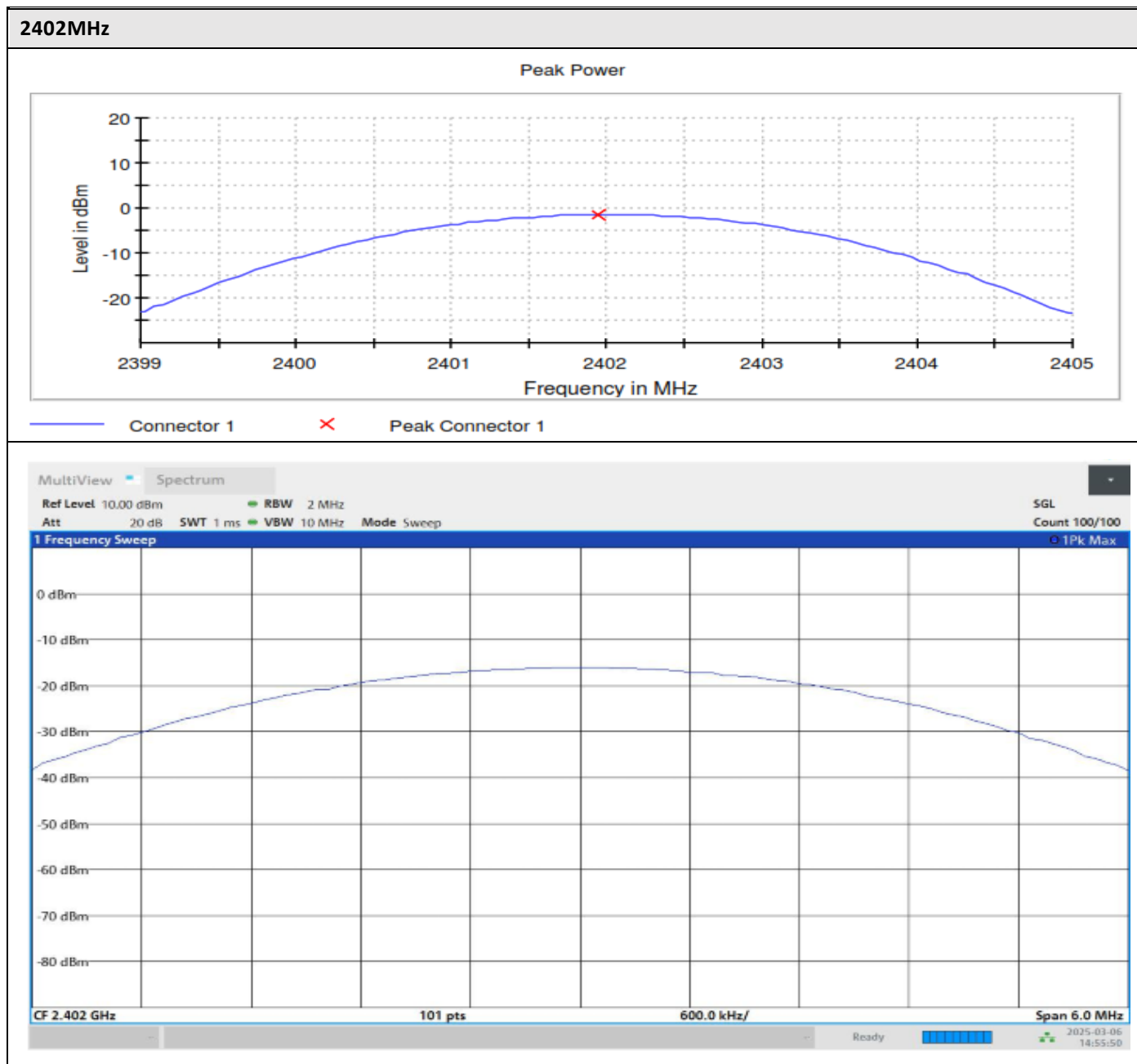
Data Rate	2402 MHz	2441 MHz	2480 MHz	Limit dBm
DH1	-3.754	-3.904	-4.513	21.0
DH3	-3.785	-3.947	-4.562	21.0
DH5	-3.814	-3.978	-4.599	21.0
2-DH1	-1.722	-1.907	-2.541	21.0
2-DH3	-1.769	-1.938	-2.581	21.0
2-DH5	-1.740	-1.949	-2.542	21.0
3-DH1	-1.436	-1.632	-2.249	21.0
3-DH3	-1.443	-1.626	-2.262	21.0
3-DH5	-1.460	-1.670	-2.281	21.0

4.4.5.1.1 DH1

2402MHz



4.4.5.1.2 3-DH1



4.4.5.2 R1 INT RW 3B HW4

Data Rate	2402 MHz	2441 MHz	2480 MHz	Limit dBm
DH1	-4.006	-4.386	-5.101	21.0
DH3	-4.058	-4.410	-5.152	21.0
DH5	-4.086	-4.447	-5.171	21.0
2-DH1	-1.992	-2.392	-3.090	21.0
2-DH3	-1.981	-2.399	-3.106	21.0
2-DH5	-1.992	-2.374	-3.079	21.0
3-DH1	-1.692	-2.121	-2.823	21.0
3-DH3	-1.701	-2.099	-2.807	21.0
3-DH5	-1.694	-2.079	-2.809	21.0

4.4.6 Emission Bandwidth 20dB

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 7.8.7, RSS-247 Section 5.1(a)

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

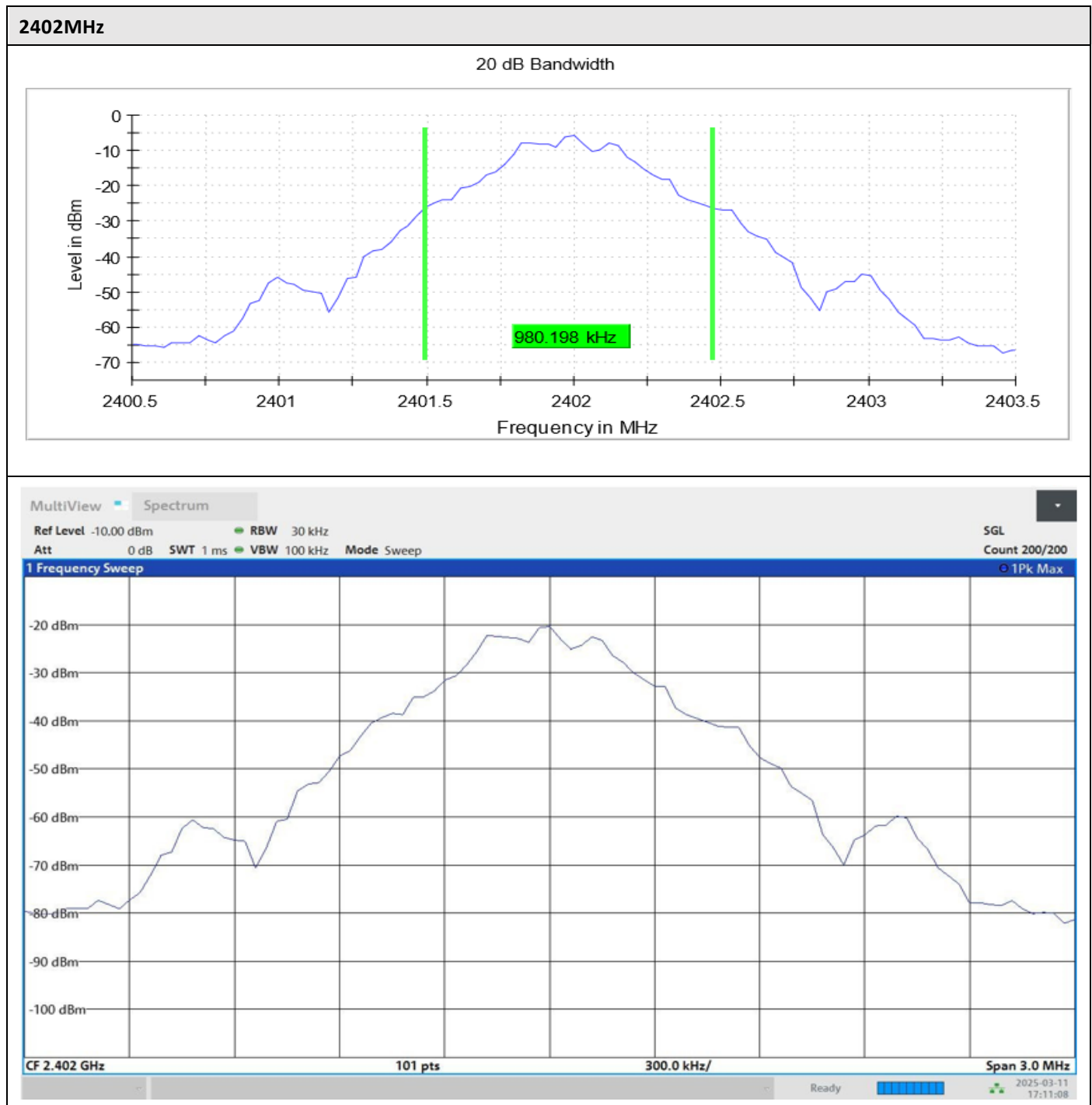
Channel / Frequency (MHz)	Packet Type	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
0 / 2402	DH1	0.980198	2401.495050	2402.475248	PASS
	3-DH1	1.306930	2401.346535	2402.653465	PASS
39 / 2441	DH1	0.980198	2440.495050	2441.475248	PASS
	3-DH1	1.306930	2440.346535	2441.653465	PASS
78 / 2480	DH1	1.009901	2479.465347	2480.475248	PASS
	3-DH1	1.306930	2479.346535	2480.653465	PASS

Spectrum Analyzer Settings:

Setting	Instrument Value	Target Value
Start Frequency	2.40050 GHz	2.40050 GHz
Stop Frequency	2.40350 GHz	2.40350 GHz
Span	3.000 MHz	3.000 MHz
RBW	30.000 kHz	>= 30.000 kHz
VBW	100.000 kHz	>= 90.000 kHz
SweepPoints	101	~ 101
Sweptime	1.000 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweptype	Sweep	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.02 dB	0.50 dB

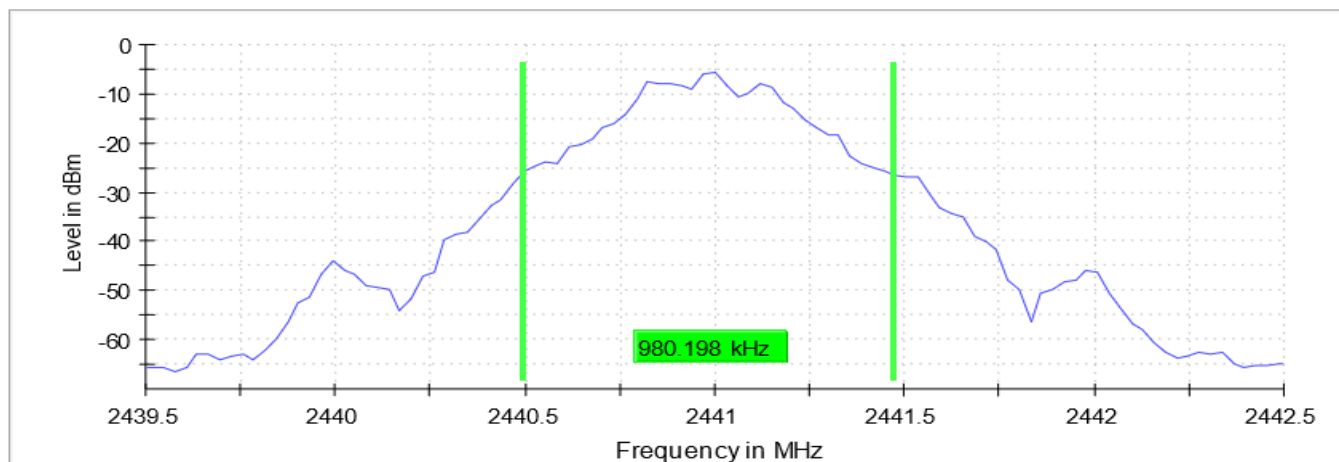
4.4.6.1 DH1

Plots:



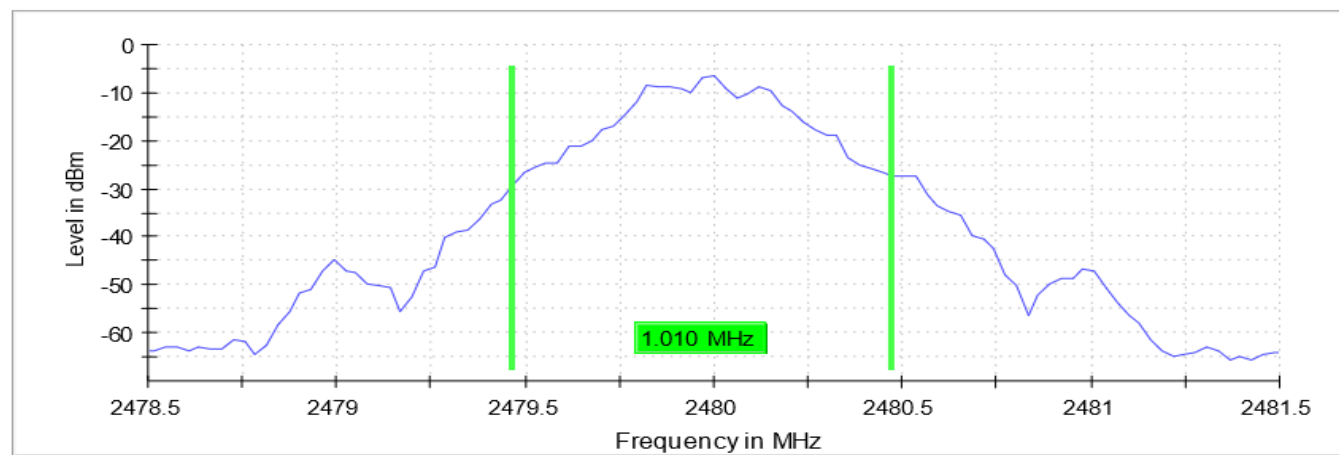
2441MHz

20 dB Bandwidth



2480MHz

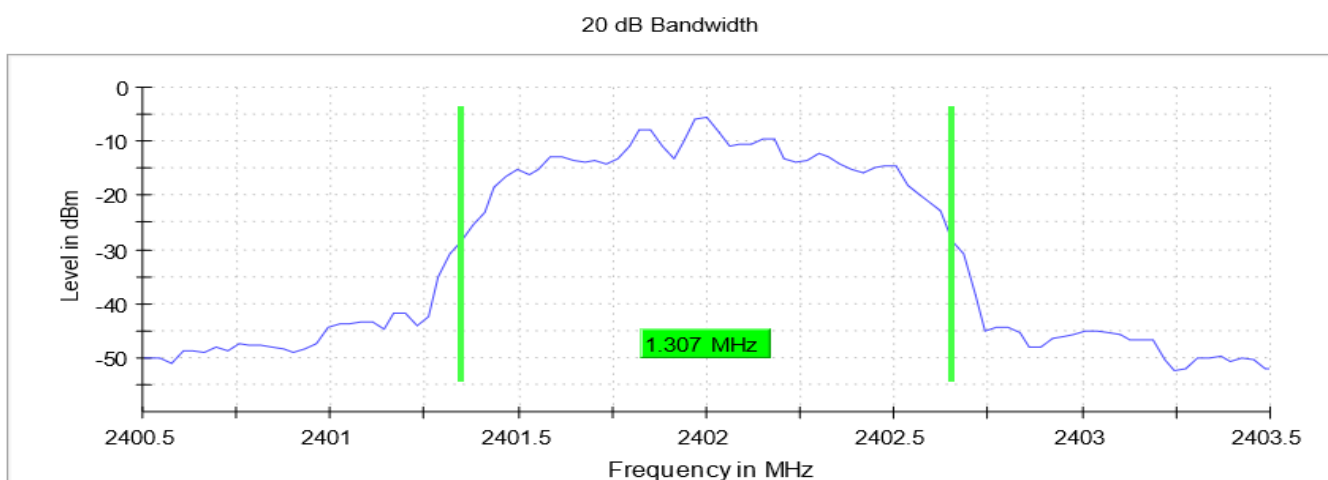
20 dB Bandwidth



4.4.6.2 3-DH1

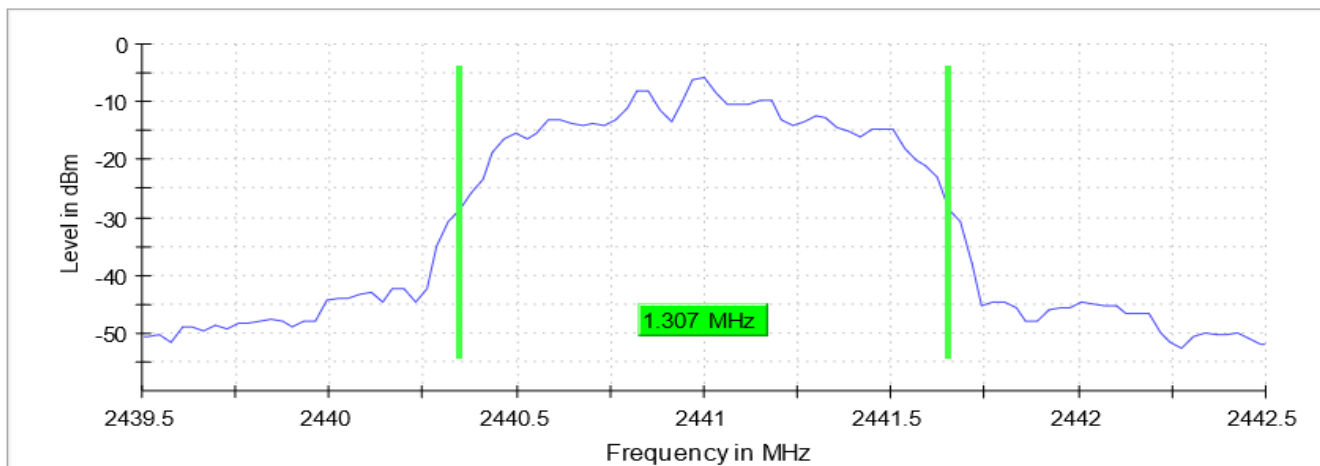
Plots:

2402MHz



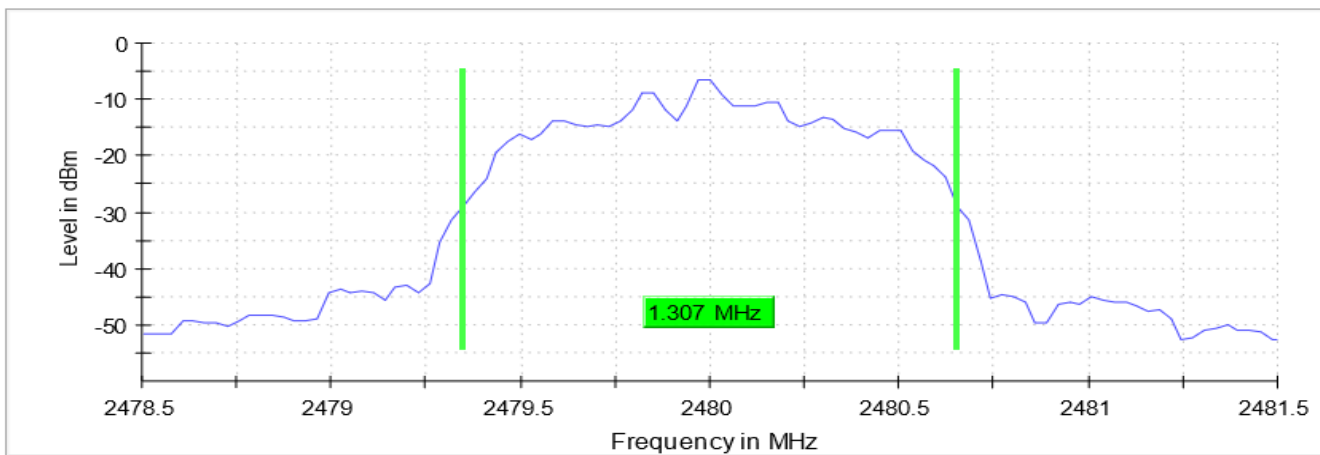
2441MHz

20 dB Bandwidth



2480MHz

20 dB Bandwidth



4.4.7 Occupied Channel Bandwidth 99%

Test according to RSS-GEN Section 6.7, KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

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

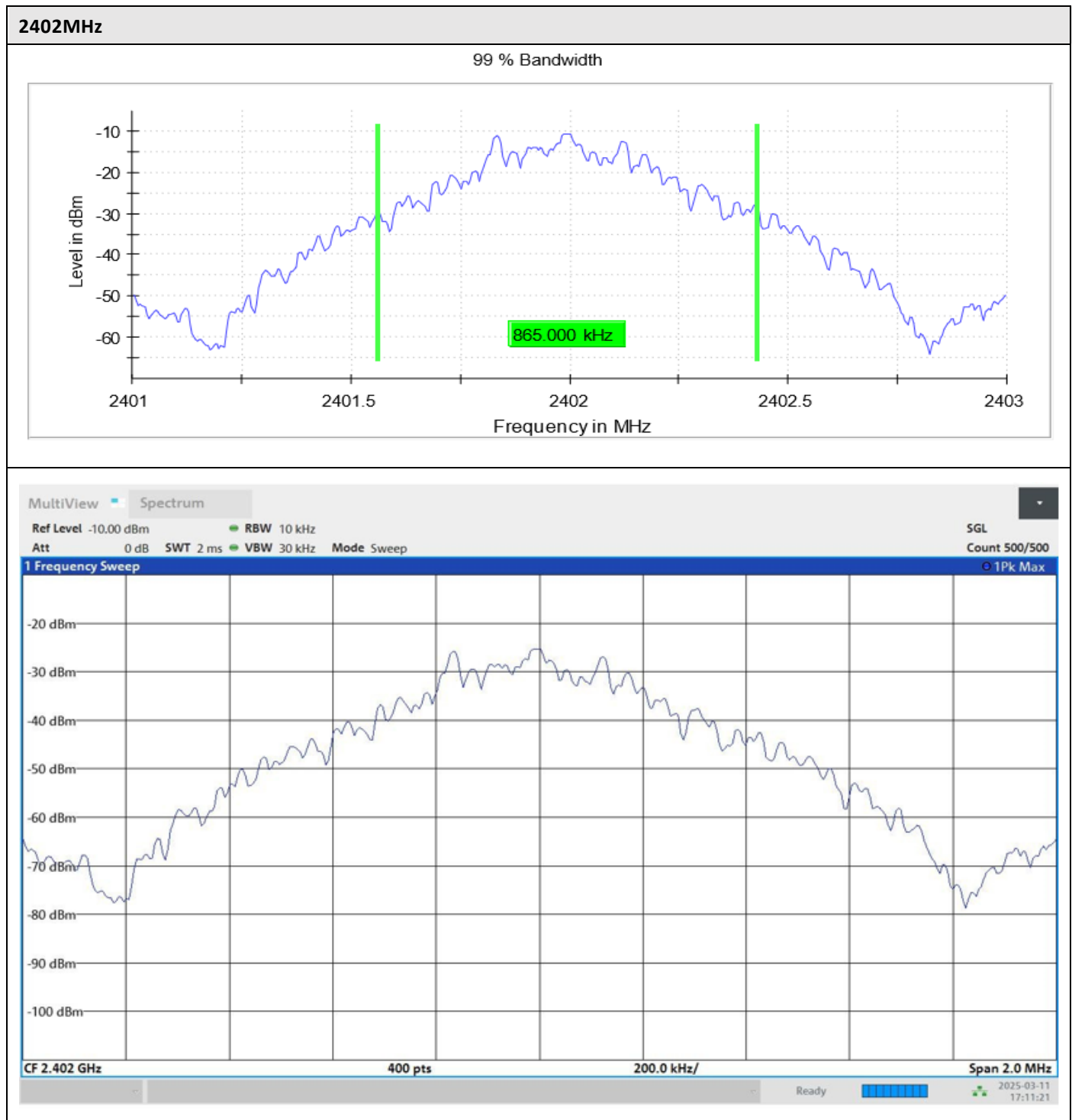
Channel / Frequency (MHz)	Packet Type	Bandwidth (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
0 / 2402	DH1	0.865000	2401.562500	2402.427500	PASS
	3-DH1	1.155000	2401.432500	2402.587500	PASS
39 / 2441	DH1	0.870000	2440.562500	2441.432500	PASS
	3-DH1	1.155000	2440.432500	2441.587500	PASS
78 / 2480	DH1	0.870000	2479.562500	2480.432500	PASS
	3-DH1	1.155000	2479.432500	2480.587500	PASS

Spectrum Analyzer Settings:

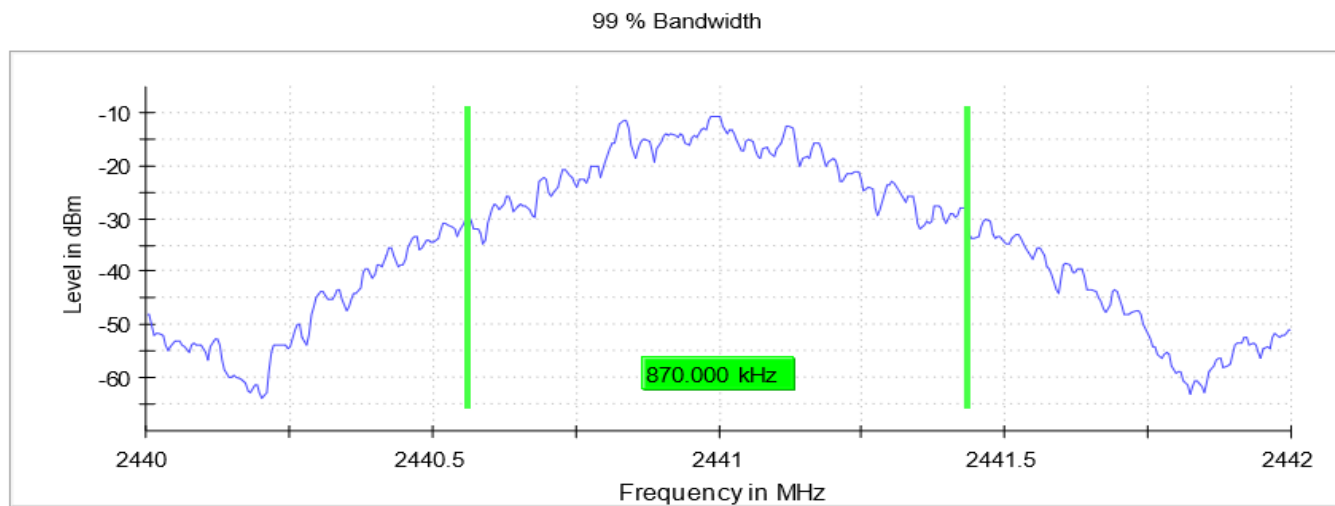
Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
SweepTime	2.000 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.06 dB	0.30 dB

4.4.7.1 DH1

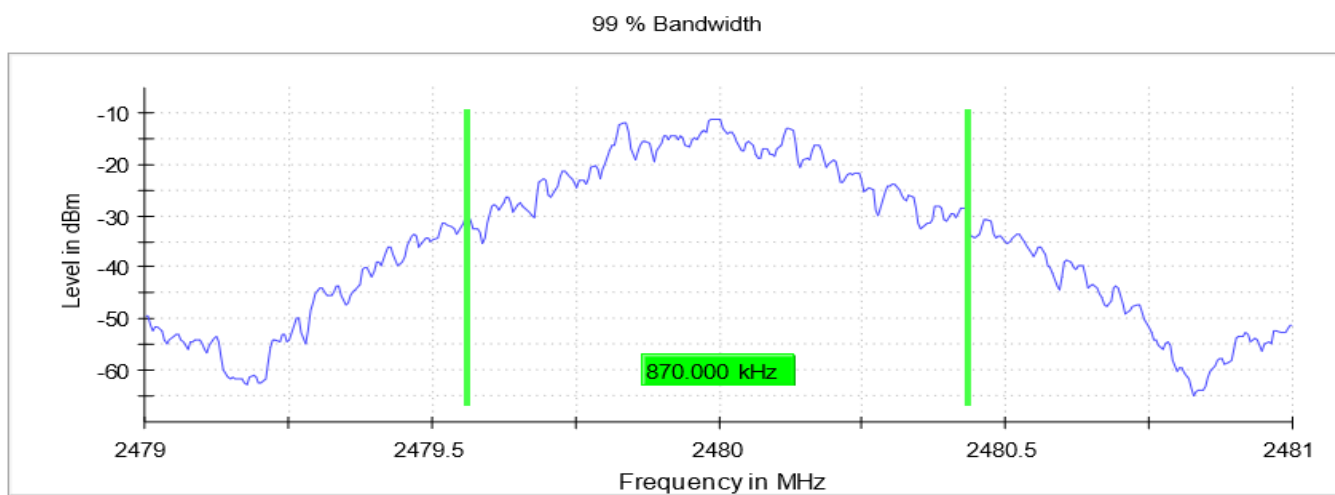
Plots:



2441MHz

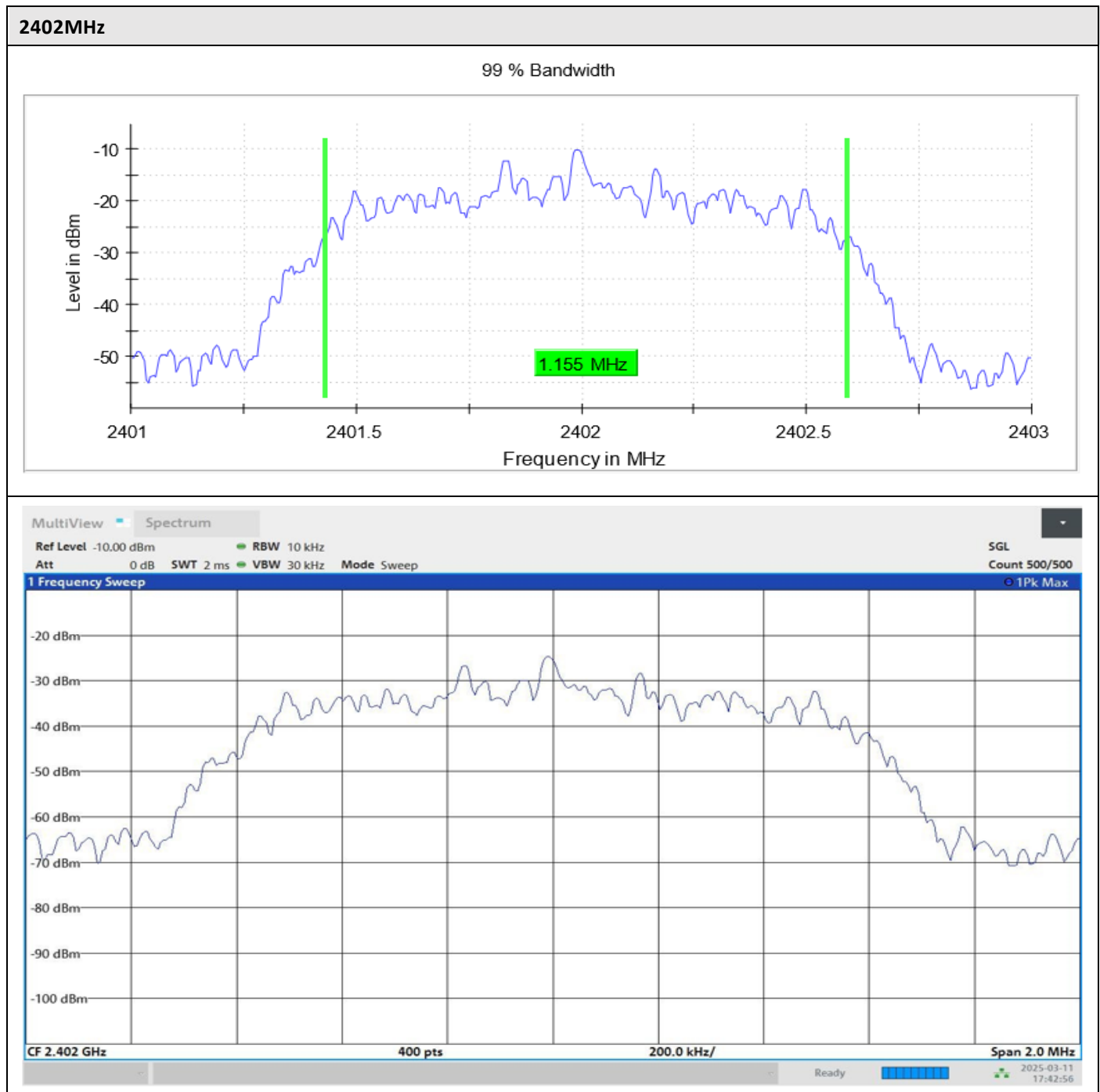


2480MHz



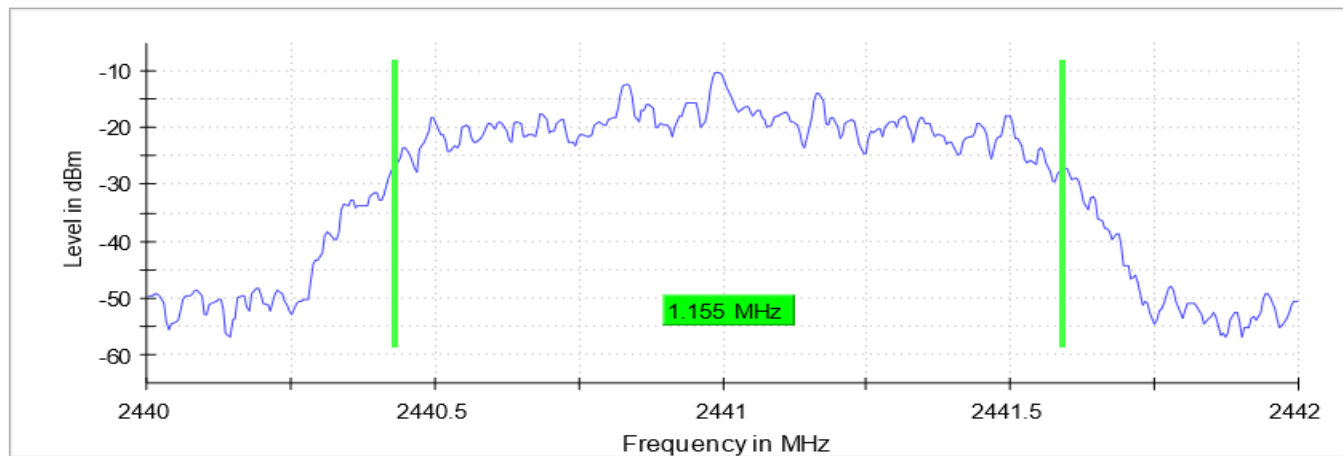
4.4.7.2 3-DH1

Plots:



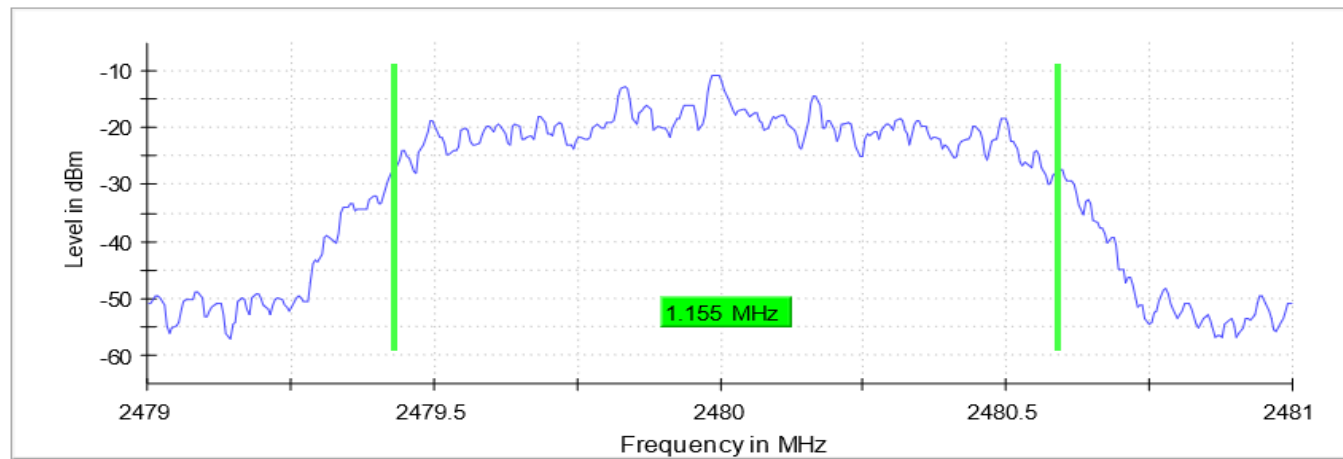
2441MHz

99 % Bandwidth



2480MHz

99 % Bandwidth



4.4.8 Band Edge Low (2402 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 7.8.6, RSS-247 Section 5.5

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

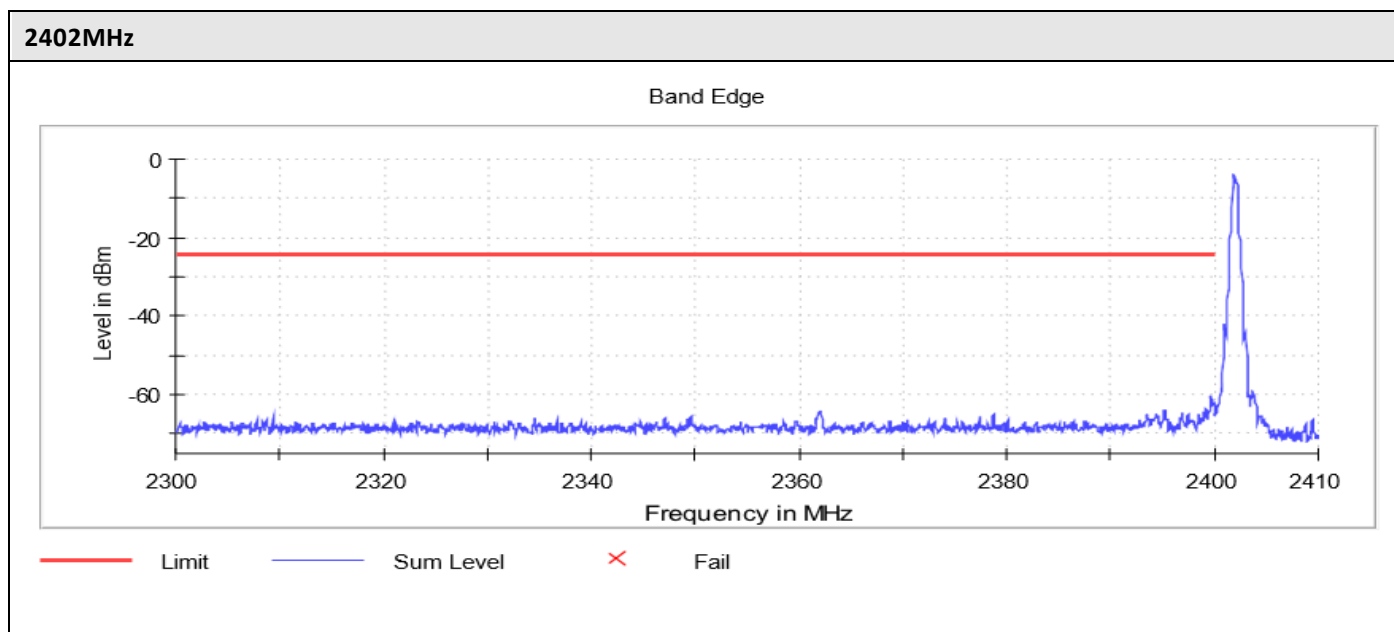
Data Rate	Frequency (MHz)	Level(dBm)
DH1	2401.825000	-4.3
3-DH1	2401.825000	-4.2

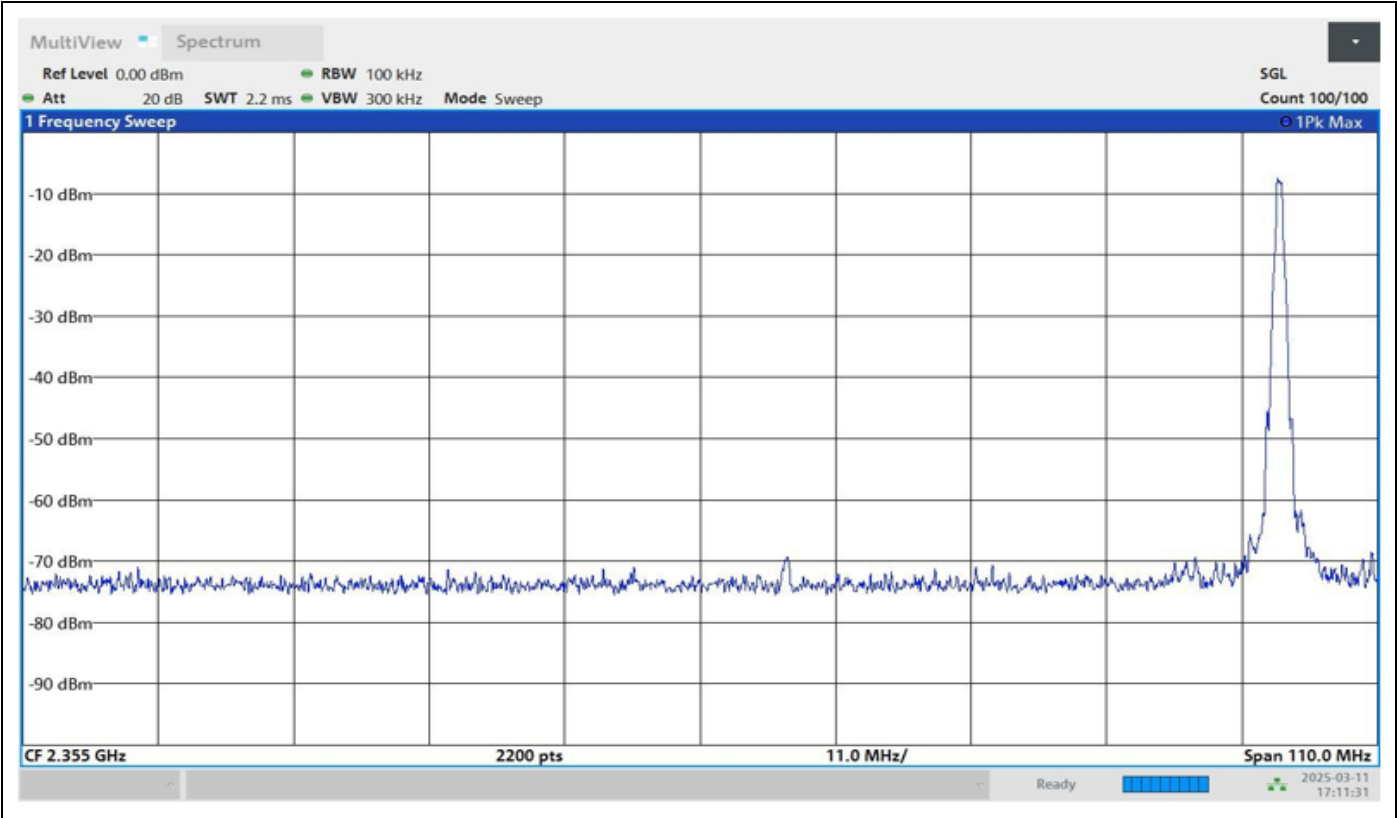
4.4.8.1 DH1

Measurements:

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.625000	-60.4	36.1	-24.3	PASS
2399.575000	-60.9	36.5	-24.3	PASS
2399.675000	-61.1	36.8	-24.3	PASS
2399.725000	-61.5	37.1	-24.3	PASS
2399.775000	-61.7	37.3	-24.3	PASS
2399.825000	-62.3	37.9	-24.3	PASS
2399.975000	-62.5	38.1	-24.3	PASS
2399.925000	-62.6	38.2	-24.3	PASS
2399.875000	-62.9	38.6	-24.3	PASS
2399.225000	-63.7	39.4	-24.3	PASS
2362.075000	-64.1	39.7	-24.3	PASS
2395.175000	-64.1	39.7	-24.3	PASS
2399.275000	-64.1	39.7	-24.3	PASS
2399.525000	-64.2	39.8	-24.3	PASS
2362.125000	-64.2	39.9	-24.3	PASS

Plots:



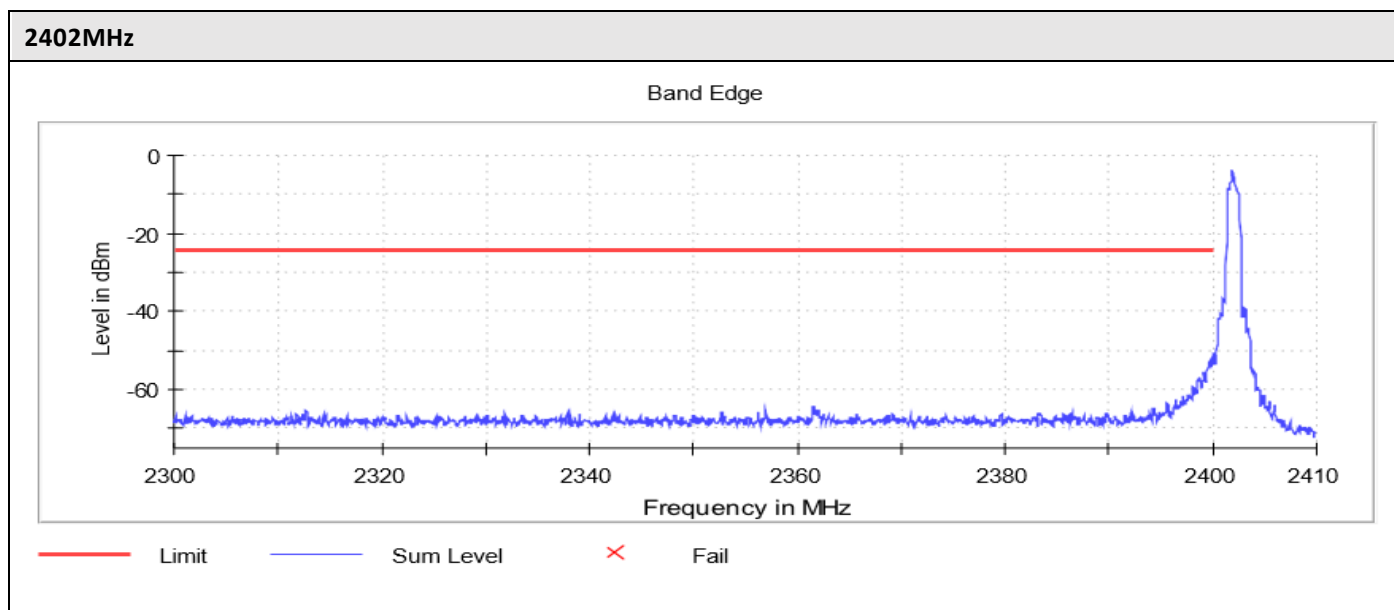


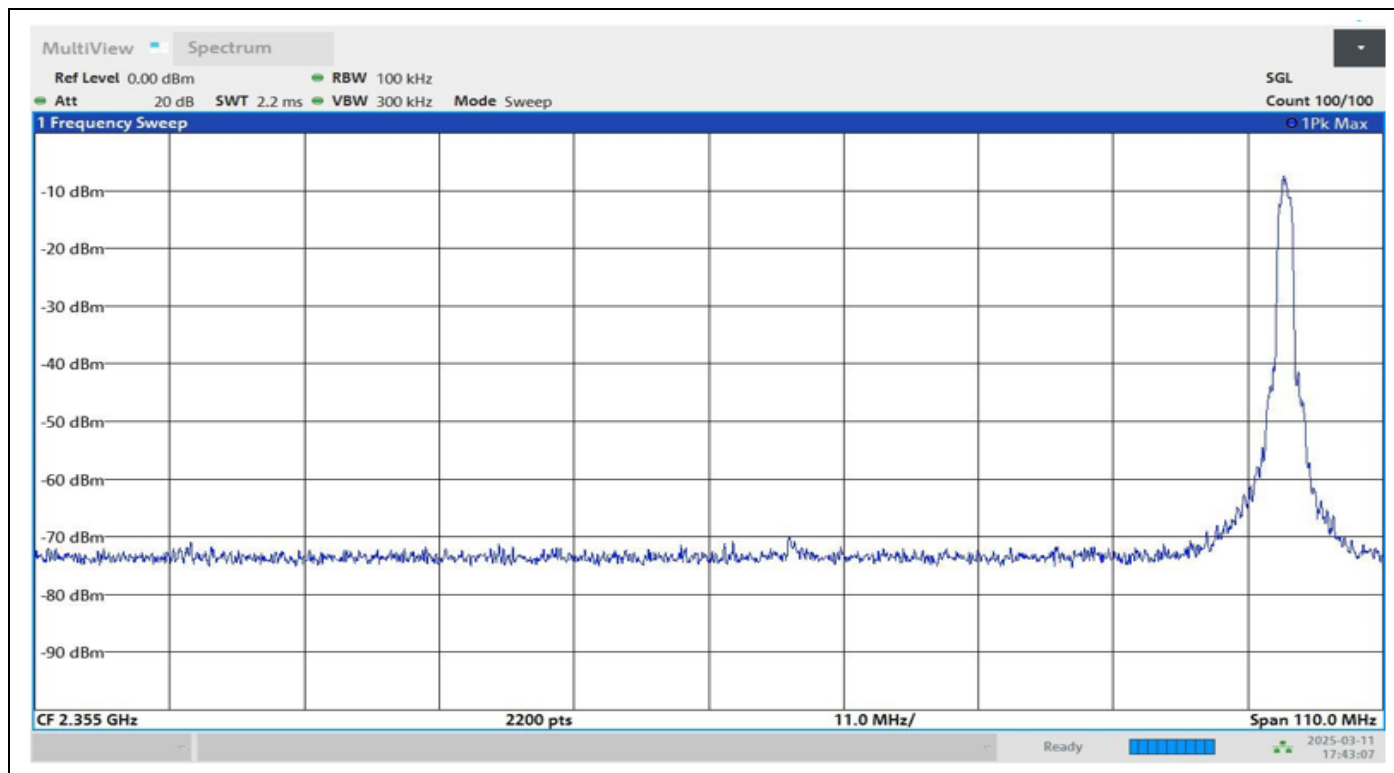
4.4.7.2 3-DH1

Measurements:

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.775000	-52.6	28.3	-24.2	PASS
2399.725000	-52.6	28.3	-24.2	PASS
2399.825000	-52.8	28.6	-24.2	PASS
2399.975000	-53.4	29.2	-24.2	PASS
2399.675000	-53.6	29.4	-24.2	PASS
2399.625000	-53.8	29.6	-24.2	PASS
2399.575000	-53.9	29.7	-24.2	PASS
2399.875000	-54.3	30.1	-24.2	PASS
2399.525000	-54.4	30.2	-24.2	PASS
2399.925000	-54.5	30.3	-24.2	PASS
2399.475000	-55.7	31.4	-24.2	PASS
2399.175000	-56.0	31.7	-24.2	PASS
2399.125000	-56.1	31.9	-24.2	PASS
2399.225000	-56.5	32.2	-24.2	PASS
2399.425000	-56.7	32.4	-24.2	PASS

Plots:





4.4.9 Band Edge High (2480 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 7.8.6, RSS-247 Section 5.5

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

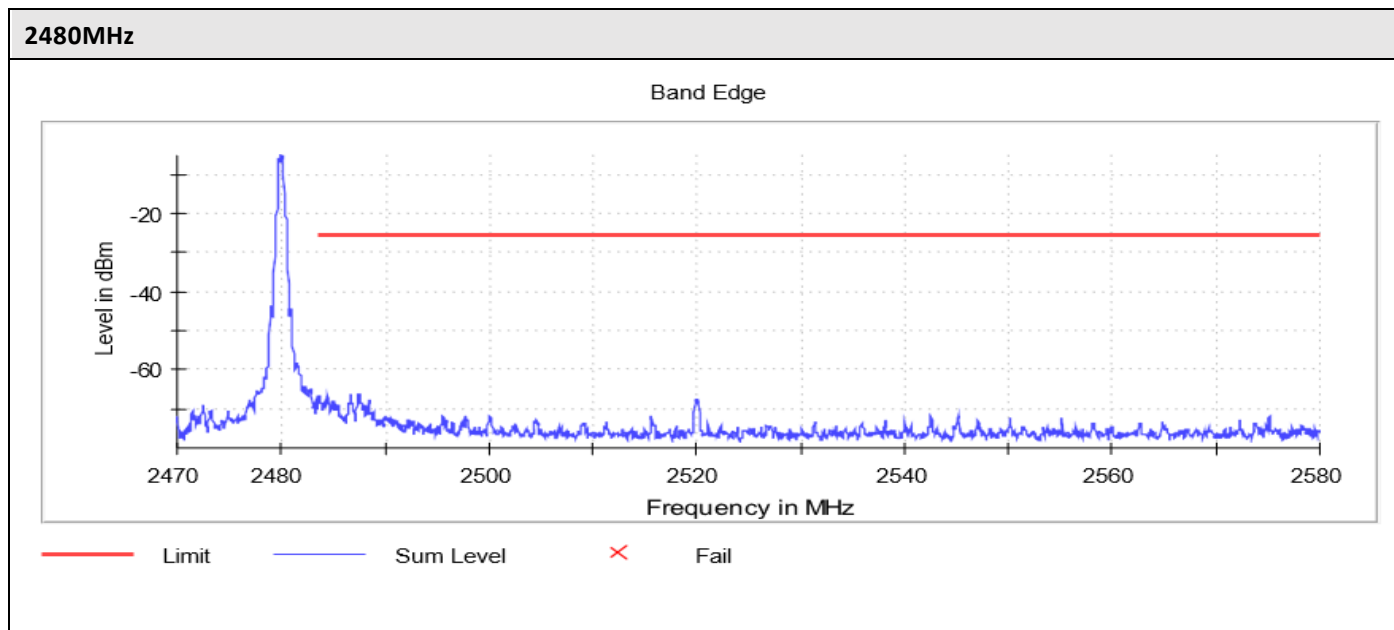
Data Rate	Frequency (MHz)	Level(dBm)
DH1	2480.175000	-5.5
3-DH1	2480.025000	-5.5

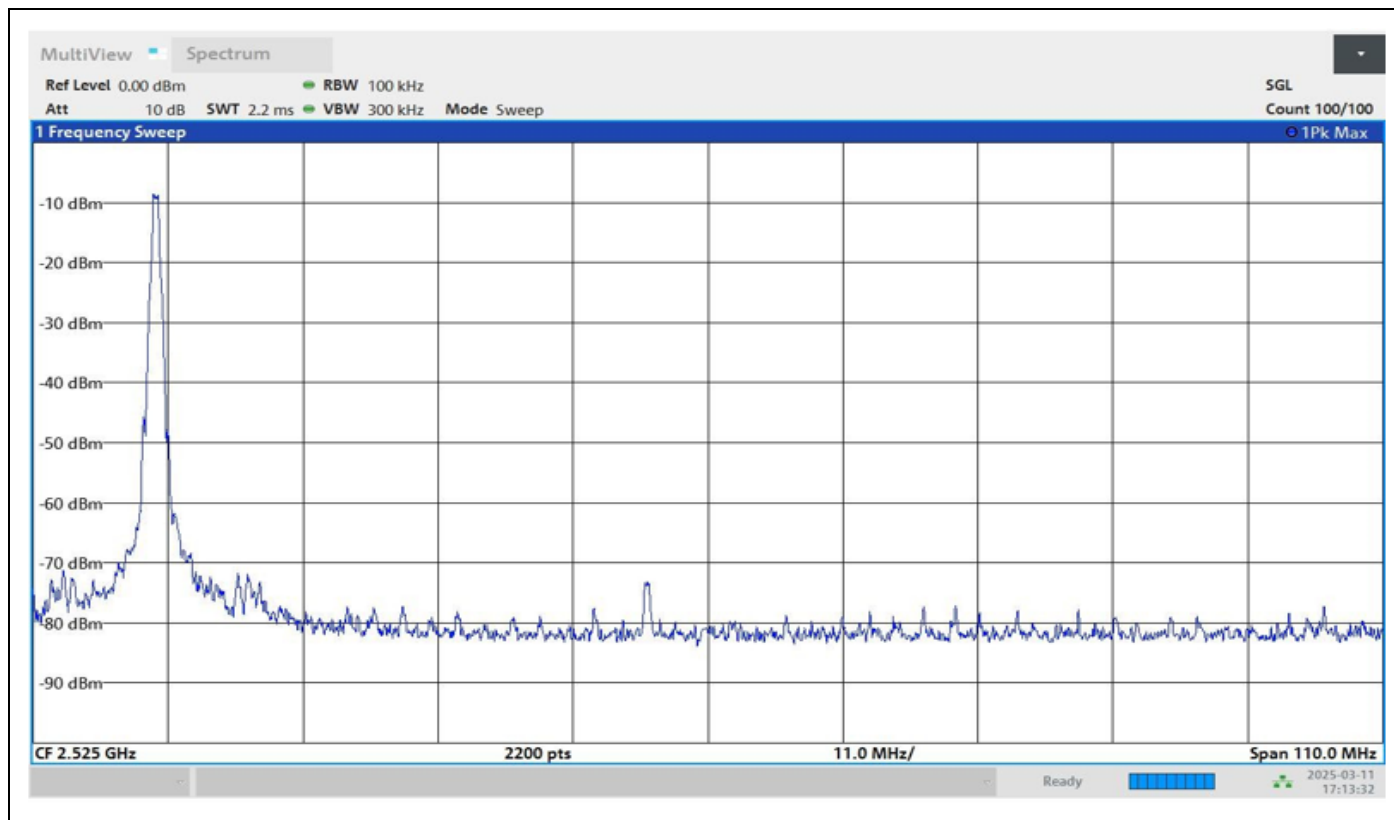
4.4.9.1 DH1

Measurements:

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2486.725000	-66.4	40.9	-25.5	PASS
2486.675000	-66.4	41.0	-25.5	PASS
2487.525000	-66.6	41.1	-25.5	PASS
2487.475000	-66.6	41.1	-25.5	PASS
2483.625000	-66.9	41.4	-25.5	PASS
2483.675000	-66.9	41.4	-25.5	PASS
2484.475000	-67.0	41.5	-25.5	PASS
2484.525000	-67.0	41.5	-25.5	PASS
2487.625000	-67.6	42.1	-25.5	PASS
2487.575000	-67.7	42.2	-25.5	PASS
2487.675000	-67.7	42.2	-25.5	PASS
2483.775000	-67.7	42.2	-25.5	PASS
2520.025000	-67.9	42.4	-25.5	PASS
2488.475000	-67.9	42.4	-25.5	PASS
2488.525000	-67.9	42.4	-25.5	PASS

Plots:



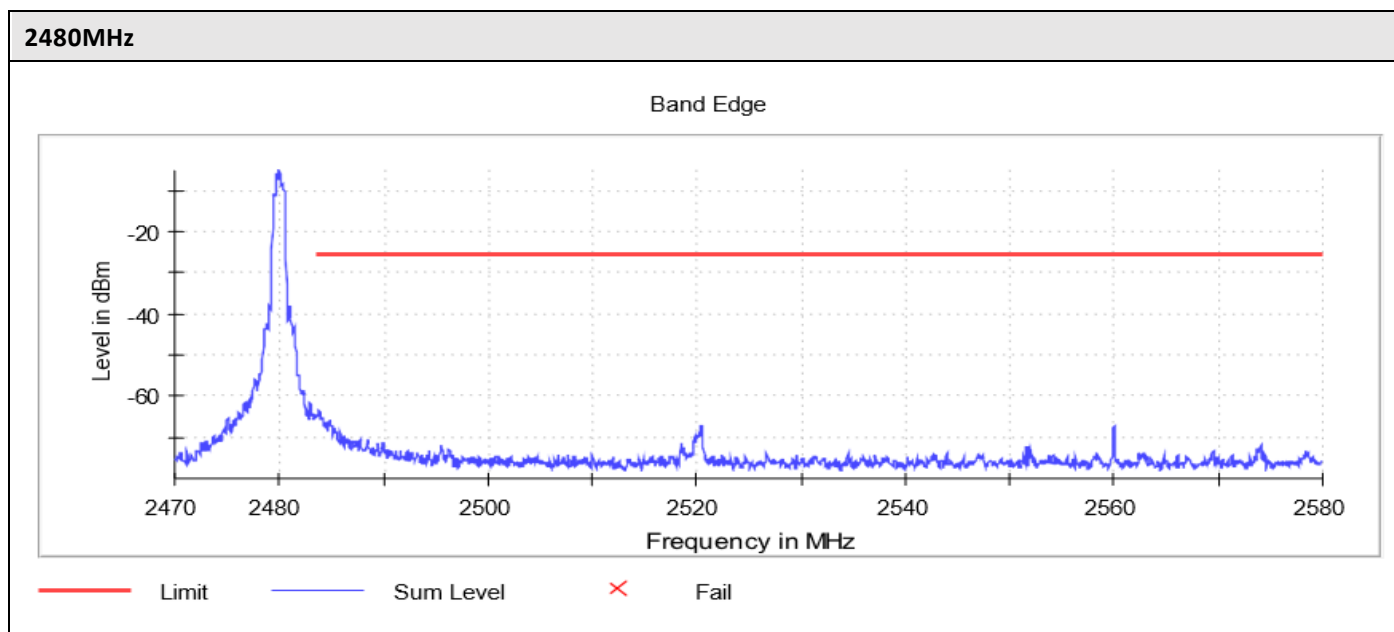


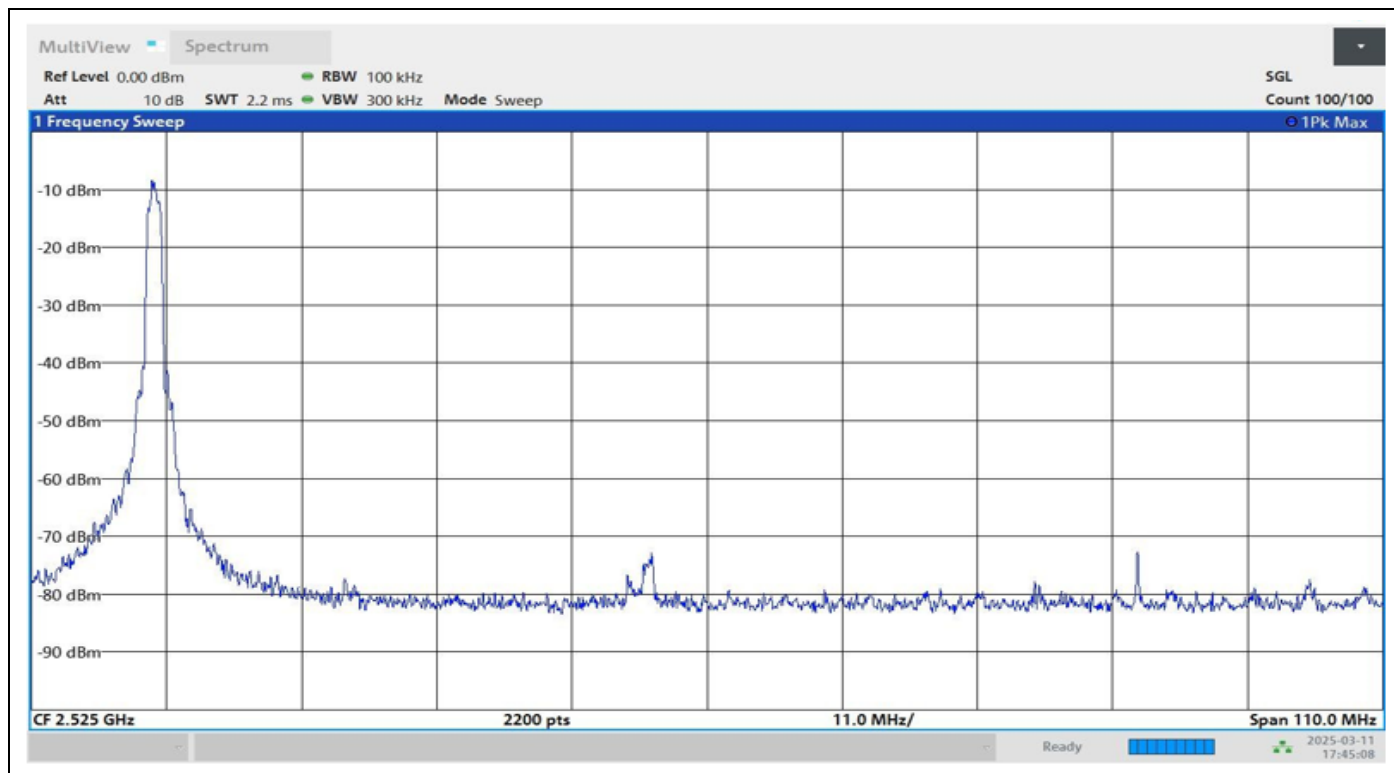
4.4.9.2 3-DH1

Measurements:

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2483.825000	-63.4	38.0	-25.5	PASS
2483.875000	-63.6	38.2	-25.5	PASS
2483.925000	-64.1	38.6	-25.5	PASS
2483.775000	-64.2	38.7	-25.5	PASS
2483.525000	-64.4	39.0	-25.5	PASS
2483.725000	-64.7	39.2	-25.5	PASS
2483.675000	-65.1	39.6	-25.5	PASS
2483.625000	-65.1	39.7	-25.5	PASS
2483.975000	-65.3	39.8	-25.5	PASS
2484.125000	-65.3	39.9	-25.5	PASS
2484.175000	-65.4	39.9	-25.5	PASS
2483.575000	-65.4	40.0	-25.5	PASS
2484.075000	-65.5	40.1	-25.5	PASS
2484.875000	-66.0	40.5	-25.5	PASS
2484.225000	-66.0	40.6	-25.5	PASS

Plots:





4.4.10 Tx Spurious Emission

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 Section 7.8.8, RSS-247 Section 5.5. Measurement uncertainty calculated in accordance with ETSI TR 100 028-1. Expanded Uncertainty (K=2) < 1.8 dB

Spectrum Analyzer Pre-Measurement Settings:

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	238	~ 238
SweepTime	23.700 ms	AUTO
Reference Level	-20.000 dBm	-30.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	6 / max. 40	max. 40
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Spectrum Analyzer Final-Measurement Settings:

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	401	~ 401
SweepTime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB

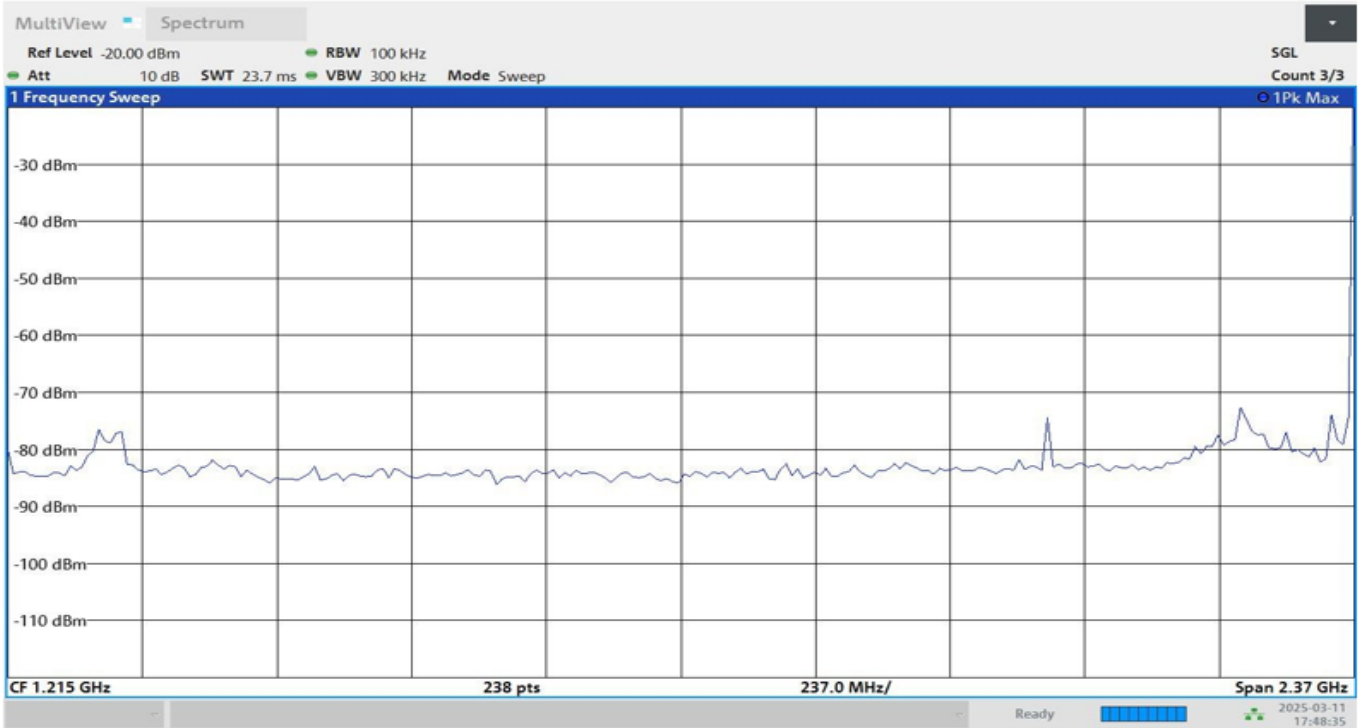
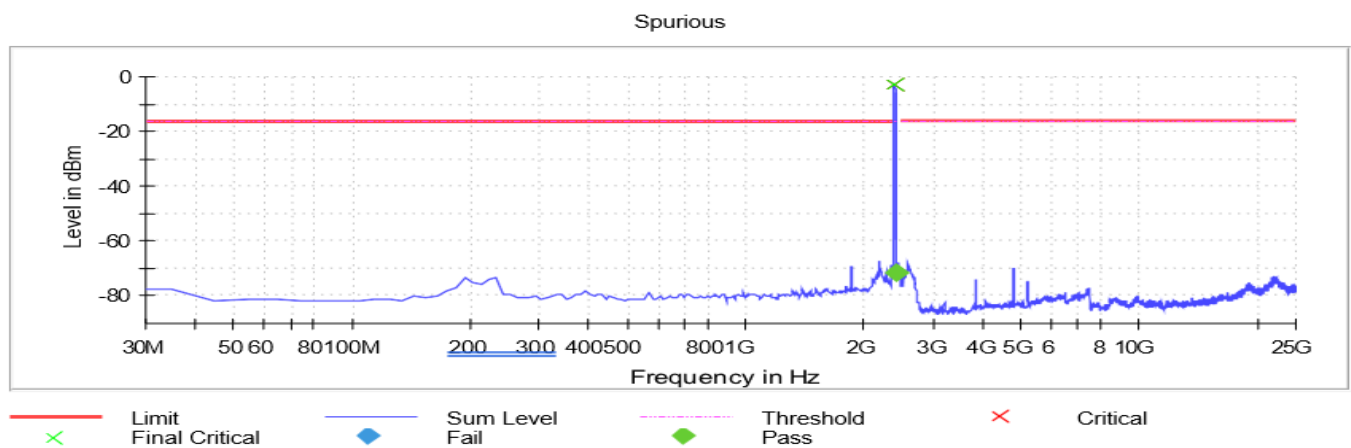
Trace Mode	Average Linear	Average Linear
Sweeptype	Sweep	AUTO
Preamp	off	off

4.4.10.1 DH1

2402MHz				
Final Measurement				
Frequency (MHz)	Level Pre-Measurement (dBm)	Level (dBm)	Margin (dB)	Limit (dBm)
2399.958664	-5.1	-72.0	56.0	-16.0
Pre-Measurement				
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	
2395.021008	-3.1	-12.9	-16.0	
2195.861345	-67.6	51.6	-16.0	
2598.431092	-68.1	52.1	-16.0	
2355.189076	-68.8	52.8	-16.0	
2385.063025	-69.1	53.1	-16.0	
2205.819328	-69.7	53.6	-16.0	
1857.289916	-69.7	53.7	-16.0	
4807.106858	-70.1	54.0	-16.0	
2588.437084	-70.2	54.2	-16.0	
2608.425100	-70.7	54.7	-16.0	
2578.443076	-70.7	54.7	-16.0	
2638.407124	-70.9	54.8	-16.0	
2618.419108	-71.3	55.3	-16.0	
2558.455060	-71.4	55.4	-16.0	
2628.413116	-71.5	55.5	-16.0	

Plots:

2402MHz

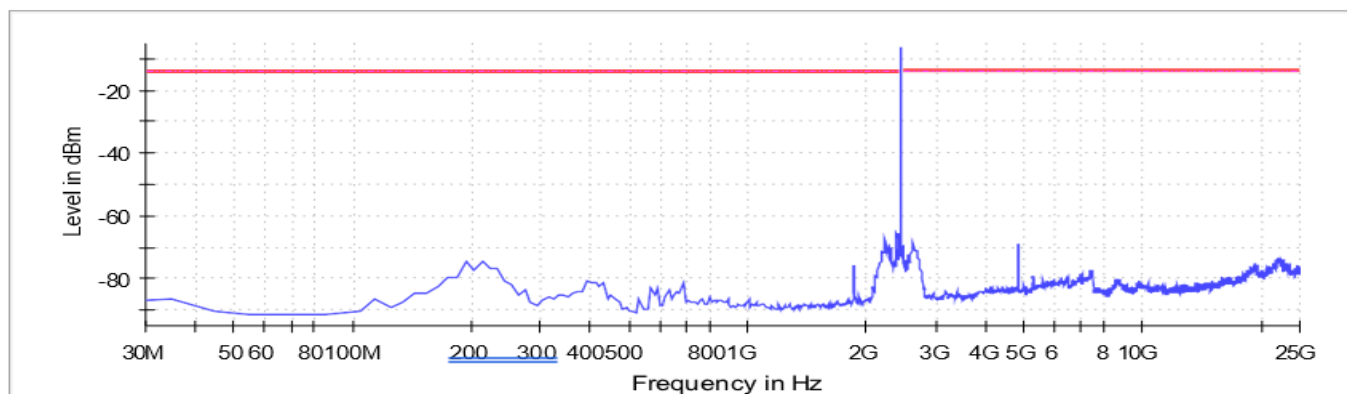


2441MHz

Pre-Measurement

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2395.021008	-65.7	51.6	-14.1
2235.693277	-67.3	53.2	-14.1
2638.407124	-68.6	54.6	-14.1
4877.064913	-69.4	55.3	-14.1
2245.651261	-69.7	55.6	-14.1
2628.413116	-70.2	56.2	-14.1
2315.357143	-70.3	56.2	-14.1
2275.525210	-70.5	56.4	-14.1
2255.609244	-70.8	56.7	-14.1
2618.419108	-71.1	57.0	-14.1
2608.425100	-71.2	57.1	-14.1
2668.389148	-71.5	57.4	-14.1
2648.401132	-71.5	57.4	-14.1
2658.395140	-71.5	57.4	-14.1
2195.861345	-71.6	57.5	-14.1

Spurious

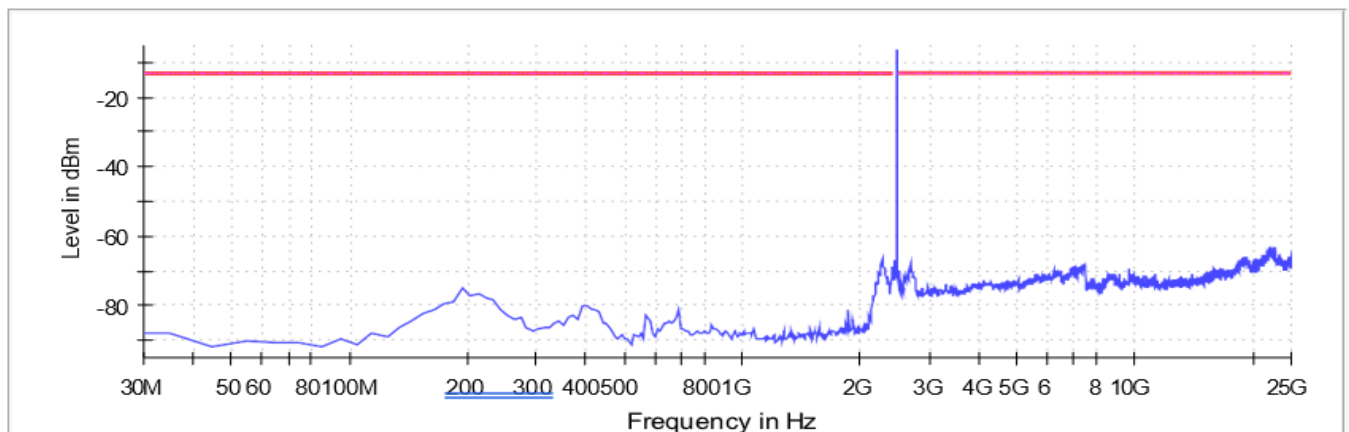


2480MHz

Pre-Measurement

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
22056.764647	-63.2	49.7	-13.5
22046.770639	-63.4	49.9	-13.5
22726.363182	-63.5	50.0	-13.5
22076.752663	-64.0	50.5	-13.5
22106.734687	-64.2	50.7	-13.5
21996.800599	-64.3	50.9	-13.5
22676.393142	-64.4	51.0	-13.5
22006.794607	-64.5	51.0	-13.5
22266.638815	-64.5	51.0	-13.5
21846.890479	-64.6	51.1	-13.5
22136.716711	-64.6	51.1	-13.5
22146.710719	-64.7	51.2	-13.5
21936.836551	-64.7	51.2	-13.5
22546.471039	-64.7	51.3	-13.5
22206.674767	-64.8	51.3	-13.5

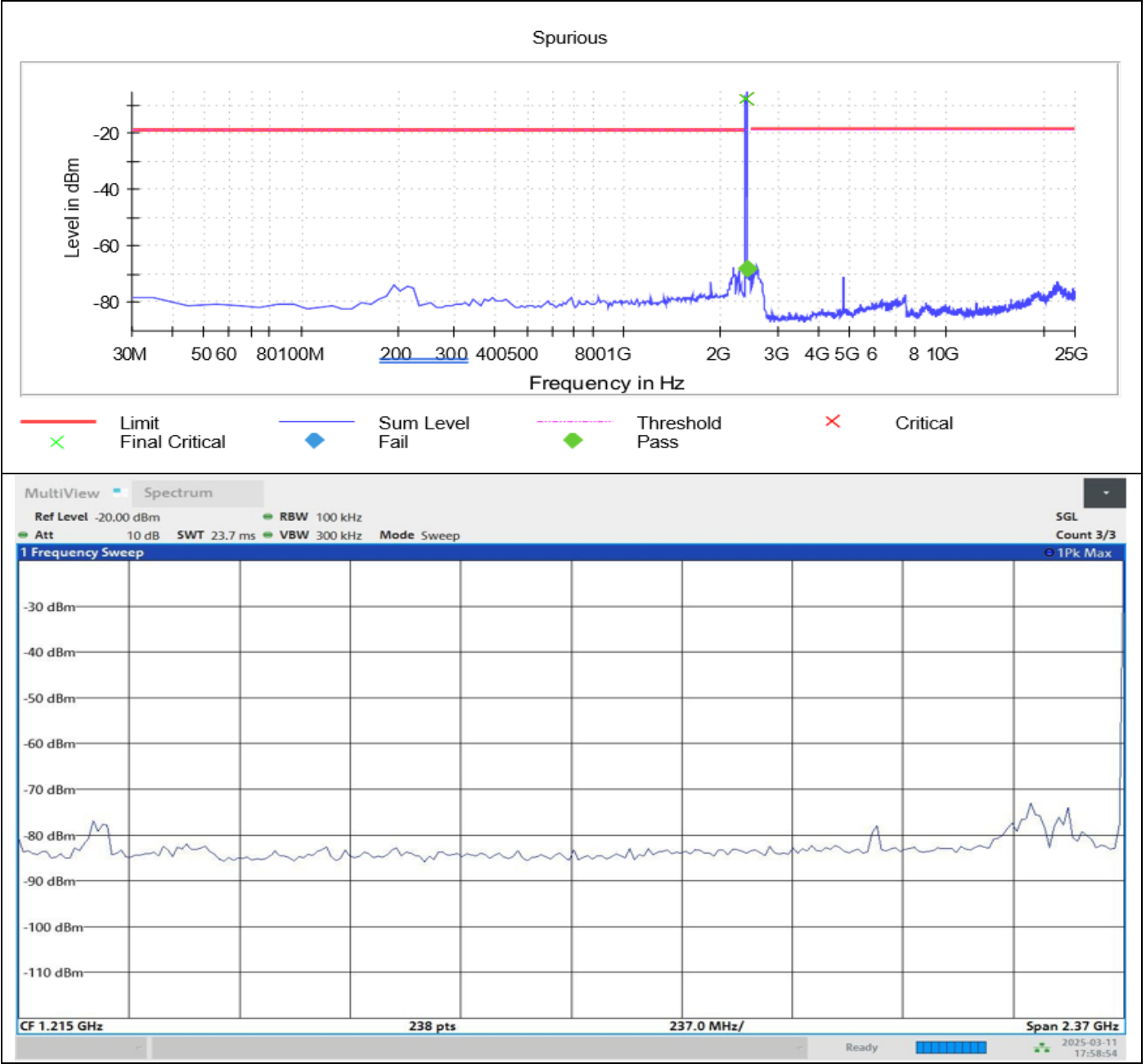
Spurious



4.4.10.2 3-DH1

2402MHz				
Final Measurement				
Frequency (MHz)	Level Pre-Measurement (dBm)	Level (dBm)	Margin (dB)	Limit (dBm)
2399.709287	-10.0	-68.0	49.3	-18.8
Pre-Measurement				
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	
2395.021008	-8.1	-10.6	-18.8	
2598.431092	-67.1	48.3	-18.8	
2195.861345	-67.9	49.2	-18.8	
2578.443076	-68.4	49.6	-18.8	
2275.525210	-68.8	50.1	-18.8	
2588.437084	-68.9	50.2	-18.8	
2608.425100	-69.0	50.2	-18.8	
2558.455060	-69.7	50.9	-18.8	
2548.461052	-69.8	51.0	-18.8	
2518.479028	-69.8	51.0	-18.8	
2568.449068	-70.2	51.5	-18.8	
2205.819328	-70.4	51.7	-18.8	
2215.777311	-70.7	52.0	-18.8	
2538.467044	-70.9	52.1	-18.8	
2255.609244	-70.9	52.2	-18.8	

Plots:

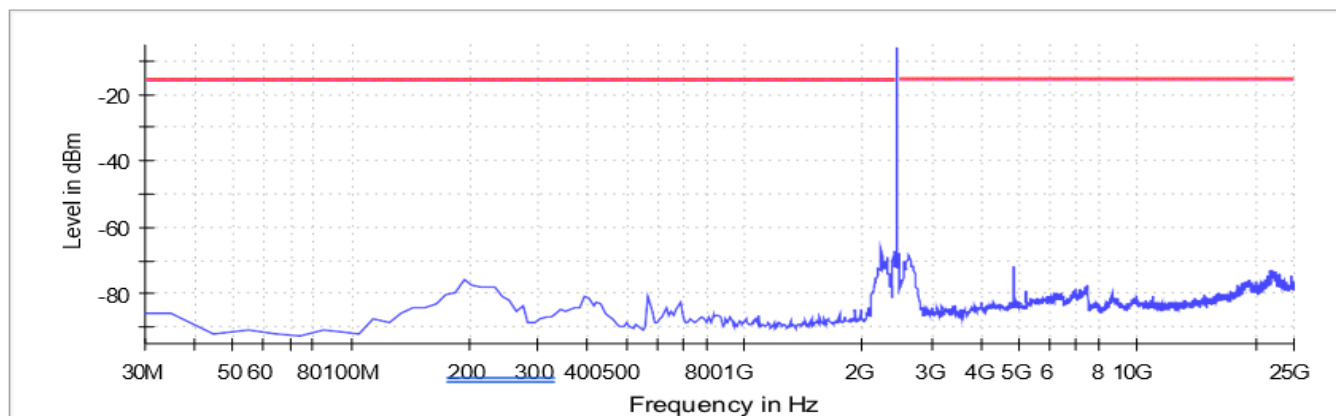


2441MHz

Pre-Measurement

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2235.693277	-66.3	50.6	-15.6
2638.407124	-68.4	52.7	-15.6
2628.413116	-68.6	53.0	-15.6
2245.651261	-69.1	53.4	-15.6
2315.357143	-69.2	53.6	-15.6
2618.419108	-69.4	53.8	-15.6
2608.425100	-69.5	53.8	-15.6
2255.609244	-70.0	54.4	-15.6
2558.455060	-70.0	54.4	-15.6
2285.483193	-70.3	54.6	-15.6
2648.401132	-70.4	54.8	-15.6
2395.021008	-70.5	54.9	-15.6
2658.395140	-70.8	55.1	-15.6
2598.431092	-70.8	55.2	-15.6
2275.525210	-71.0	55.4	-15.6

Spurious

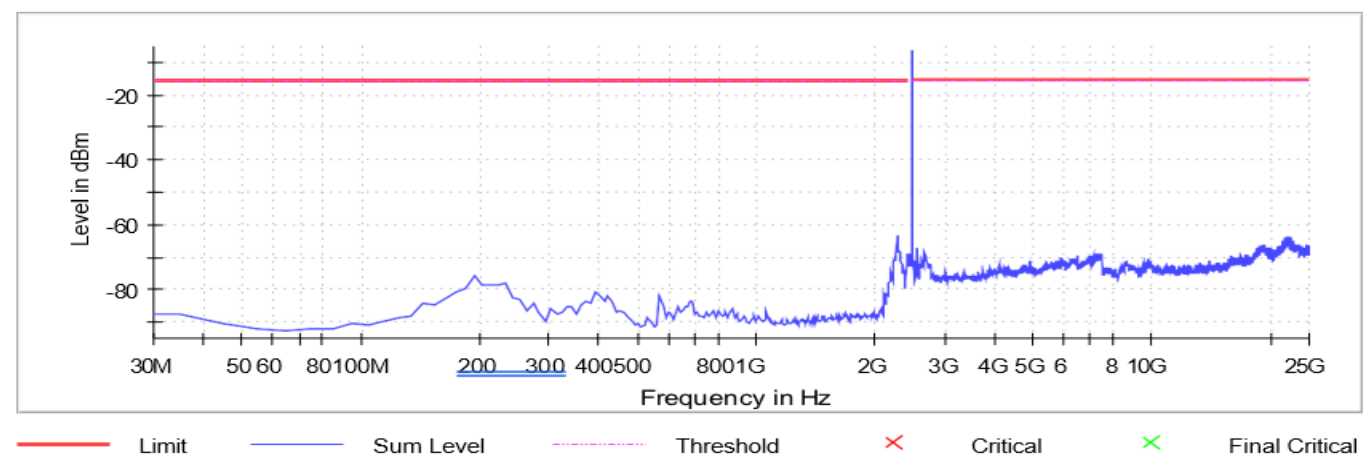


2480MHz

Pre-Measurement

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2275.525210	-63.7	48.3	-15.5
22316.608855	-63.8	48.3	-15.5
22096.740679	-64.0	48.5	-15.5
22146.710719	-64.1	48.6	-15.5
22056.764647	-64.1	48.6	-15.5
22466.518975	-64.1	48.7	-15.5
21796.920439	-64.1	48.7	-15.5
22116.728695	-64.3	48.8	-15.5
22066.758655	-64.3	48.9	-15.5
22036.776631	-64.4	48.9	-15.5
21976.812583	-64.4	49.0	-15.5
22106.734687	-64.5	49.0	-15.5
21926.842543	-64.5	49.0	-15.5
21866.878495	-64.5	49.1	-15.5
22126.722703	-64.5	49.1	-15.5

Spurious



5. Radiated Testing

5.1 Test Summary

Start: 03/19/2025	End: 05/02/2025	Temperature: 23.1°C	Initials: SS/AB
		Humidity: 34.2%R.H	

DUT S/N	J23134 ER 3B#001	DUT Operating Mode			BT Classic
Comment	DH1, 3-DH1				
Antenna	Frequency Range	Polarization	Result Over/Under Limit		Notes
Loop	9kHz-30MHz	Parallel	☐ Over	☒ Under	√
		Perpendicular	☐ Over	☒ Under	√
		Ground-Parallel	☐ Over	☒ Under	√
Log Periodic	30MHz-1GHz	Horizontal	☐ Over	☒ Under	√
		Vertical	☐ Over	☒ Under	√
Horn	1GHz-18GHz	Horizontal	☐ Over	☒ Under	√
		Vertical	☐ Over	☒ Under	√
Horn	18GHz-27.5GHz	Horizontal	☐ Over	☒ Under	√
		Vertical	☐ Over	☒ Under	√

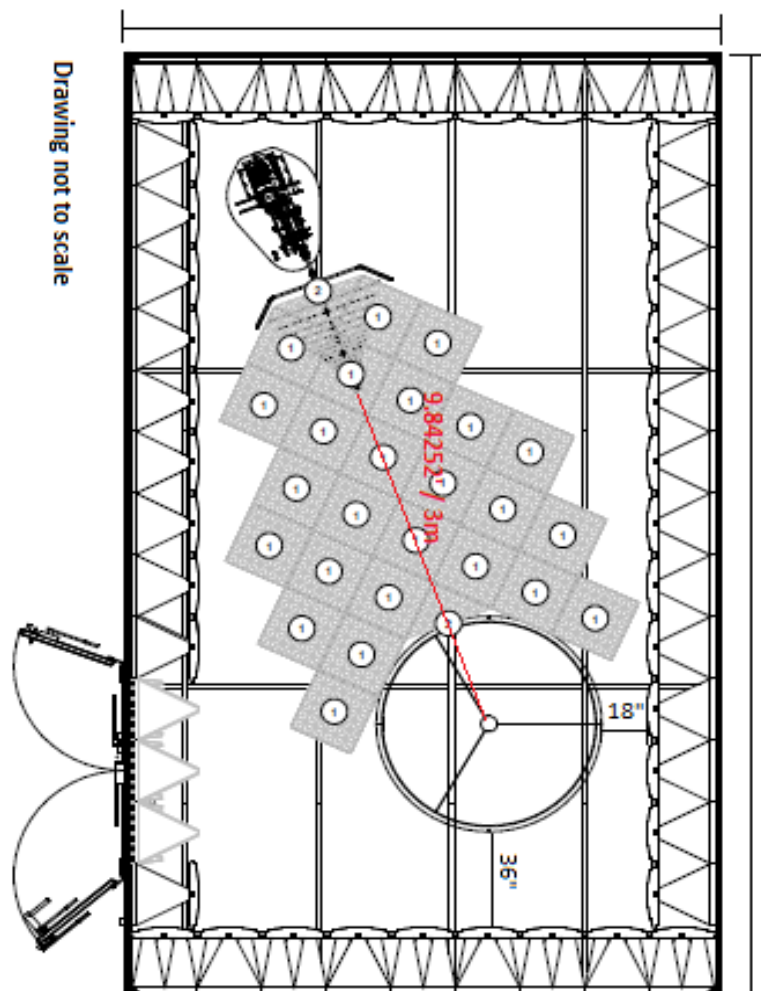
Notes: √ meets the requirements of the acceptance criteria.

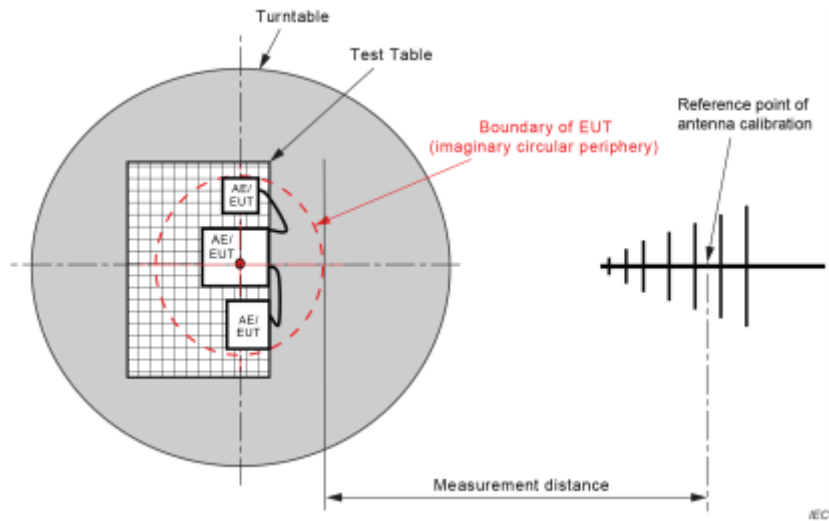
5.2 Test Setup

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





5.3 Test Equipment Used

ID #	Equipment	Manufacturer	Model #	Serial #	Cal Due
BVD0217	Receiver 2Hz-44GHz	Rohde & Schwarz	ESW44	101871	4/18/2026
BVD0118	Antenna Mast Position Controller	ETS	7006-001	00214778/00214648	N/A
BVD0111	3 Meter Anechoic Chamber	ETS	N/A	N/A	N/A
BVD0247	Turn Table	ETS	920250	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
BVD0312	Optima 12V Blue top Marine battery	Optima	D34M	N/A	N/A
BVD0187	Preamplifier 25dB cal to 100kHz-1GHz	Rohde & Schwarz	TS-PR1	102080	6/27/2025
BVD0184	Preamplifier 29dB 1-18GHz	Rohde & Schwarz	TS-PR18	101646	7/13/2025
BVD0185	Preamplifier 45dB 18-40GHz	Rohde & Schwarz	TS-PR1840	100064	7/13/2025
BVD0011	Loop Antenna 9kHz-30MHz	Rohde & Schwarz	FMZB1519B	145	6/10/2025
BVD0021	UltraLog Antenna 30-6000MHz	Rohde & Schwarz	HL562E	101113	6/26/2025
BVD0267	Double Ridge Waveguide 800MHz-18GHz	Rohde & Schwarz	HF907	102832	6/27/2025
BVD0320	18-40GHz Horn Antenna	L3 Narda ATM	PNR 180-442-KF	136164-01	7/15/2025
BVD0045	Field Probe Mast	Rohde & Schwarz	TS-FPMA	N/A	N/A
BVD0480	Band Reject Filter 50dB from 2400 to 2500MHz	Micro-Tronics	BRM50702	G482	6/17/2025
BVD0394	Double Shielded N-Type Cable 6.9 Meter	Rohde & Schwarz	N-Type	N/A	4/7/2026
BVD0398	Double Shielded N-Type Cable 2 Meter	Rohde & Schwarz	N-Type	N/A	4/7/2026
BVD0563	RF Cable Assembly	Huber+Suhner, inc	SUCOFLEX 102A	502215/2A	10/30/2025
BVD0407	Double Shielded N-Type Cable 410mm (For PreAmp)	Rohde & Schwarz	N-Type	N/A	10/15/2025
BVD0495	SMA Shielded Cable approx 100mm (for Pre-Amp)	Rohde & Schwarz	SMA-Type	N/A	7/15/2025
BVD0587	Double Shielded N-Type Cable 440mm (For PreAmp)	Winchester Interconnect	250-251-660157 REV A	N/A	7/3/2025
BVD0229	Temp and Humidity Meter	Fluke	971	12001009	5/23/2025

Equipment List (Software)

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

Customer Supplied Equipment

ID #	Equipment	Manufacturer	Model	Serial #	Version No.
N/A	Harness	Harman	N/A	N/A	N/A
N/A	Display Unit	MOBIS	BMM6100000	231107 01	N/A
N/A	Shark Fin Antenna	Alfa Romeo	B901	719147	N/A
N/A	Antenna	Aptiv	APN35409682	N/A	N/A
N/A	Camera	N/A	23295906C	N/A	N/A
N/A	MFGBridge_Tool/Dut labtool	N/A	N/A	N/A	2.0.0.89

5.4 Test Limits and Procedures

Radiated emissions that fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a). Other emissions shall be at least 20dB below the highest level of the desired power.

Frequencies (MHz)	Field strength ($\mu\text{V}/\text{m}$)	Field strength (dB $\mu\text{V}/\text{m}$)	Measurement distance (meters)
0.009 ~ 0.490	2400/F(kHz)	48.5 - 13.8	300
0.490 ~ 1.705	24000/F(kHz)	33.8 - 23	30
1.705 ~ 30.0	30	29.54	30
30 ~ 88	100	40.0	3
88 ~ 216	150	43.5	3
216 ~ 960	200	46.0	3
Above 960	500	54.0	3

Note:

- The lower limit shall apply at the transition frequencies.
- As per 15.35(b), for frequencies above 1000MHz, the field strength limits based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
- For performing measurements at a specified distance of 3m, the values are extrapolated using extrapolation factor.
Frequencies below 30MHz are extrapolated using 40dB/decade.
Frequencies above 30MHz are extrapolated using 20dB/decade.

Frequencies (MHz)	Formula for Limits derivation for below 30MHz	Limits for frequencies below 30MHz (dB $\mu\text{V}/\text{m}$)
0.009 ~ 0.490	2400/F(kHz) + 40 Log (300m/3m)	128.5 ~ 93.8
0.490 ~ 1.705	24000/F(kHz) + 40 Log (30m/3m)	73.8 ~ 62.96
1.705 ~ 30.0	29.54 + 40 Log (30m/3m)	69.54

The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377 Ω .

The measurement procedures are as per ANSI C63.10-2013 Sections 6.3, Section 6.4, Section 6.5, and Section 6.6

1. The table height for emissions measurements
 - i) Below 1 GHz, the table height is 80 cm above the reference ground plane.
 - ii) Above 1 GHz, the table height is 1.5 m
2. Radiated emission tests are performed in the frequency range
 - i) 9 kHz to 30 MHz, using a calibrated loop antenna
 - ii) 30 MHz to 1GHz, using a calibrated log antenna
 - iii) Above 1 GHz using a calibrated horn antenna
3. Measurements performed with the EUT rotated from 0° to 360°, the antenna height scanned between 1m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

5.5 EMI Test Receiver/Spectrum Analyzer Settings

Below 1GHz

Frequency	RBW	Detector
9KHz to 30MHz	9KHz	Peak

Frequency	RBW	Detector
30MHz to 1GHz	120KHz	Peak/Quasi Peak

Above 1GHz

Frequency	RBW	Detector
1GHz to 40GHz	1 MHz	Peak/ Power Averaging (RMS)

Note: Trace average is 100 traces for continuous transmission else the traces shall be increased by a factor of $1/x$, where x is the duty cycle. Duty cycle $> 98\%$ no correction factor needed and for Duty cycle $< 98\%$ the correction factor $10 \log (1/x)$, where x is the duty cycle.

5.6 Test Plots

Uncertainty

Radiated Emissions (30MHz to 40GHz)

Test Engineer Initials: AP/AB

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

Remarks:

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

Remarks:

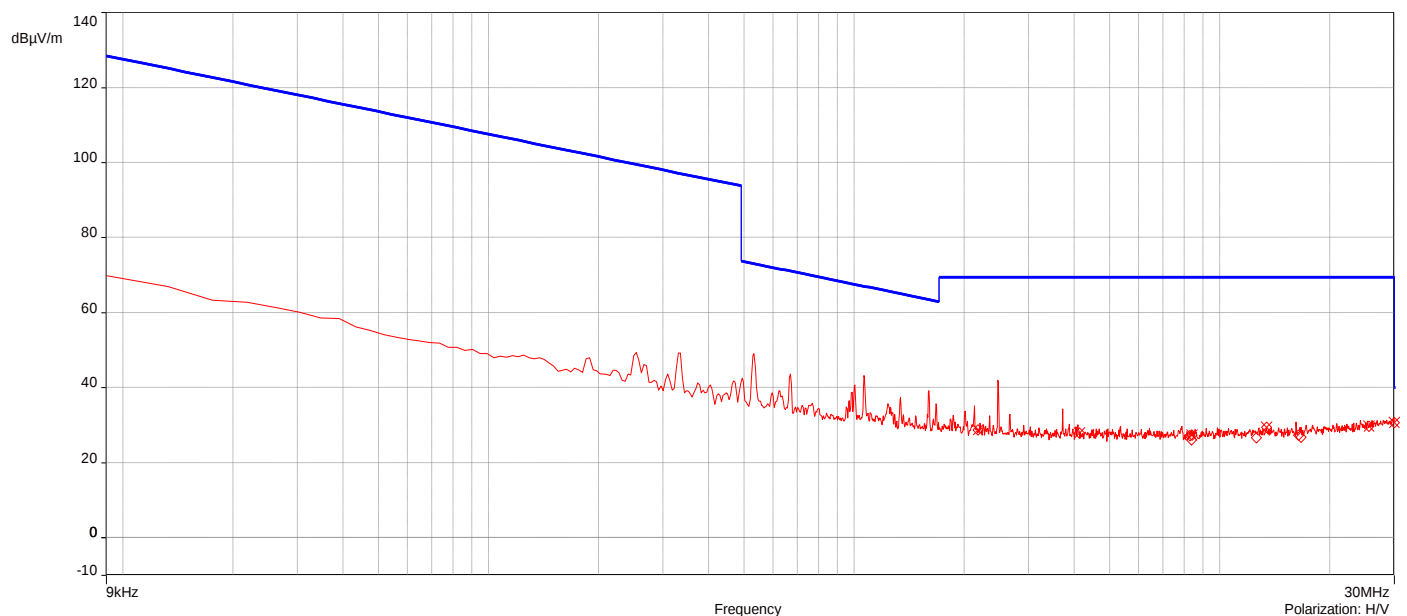
1. Level Average Reading (dBμV/m) = Raw Average Level + Correction Factor
2. Correction Factor (dB) = Antenna Factor + Cable Loss – Preamplifier Gain
3. Margin = Level Average Reading – Limit

J23134 ER 3B#001_BT_DH1_Ch 39_9kHz-30MHz_Ground-Parallel

4/30/2025 11:25:29 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.181516MHz	28.78	19.55	69.54	-40.76	1.00	10.20	H/V	Passed
2.	4.126924MHz	27.87	19.71	69.54	-41.67	1.00	107.30	H/V	Passed
3.	8.38197MHz	27.42	19.53	69.54	-42.12	1.00	324.00	H/V	Passed
4.	13.399752MHz	29.47	19.91	69.54	-40.07	1.00	262.30	H/V	Passed
5.	25.569268MHz	29.75	21.16	69.54	-39.79	1.00	204.30	H/V	Passed
6.	30MHz	30.68	22.05	40.00	-9.32	1.00	352.00	H/V	Passed

Overall Graphs:

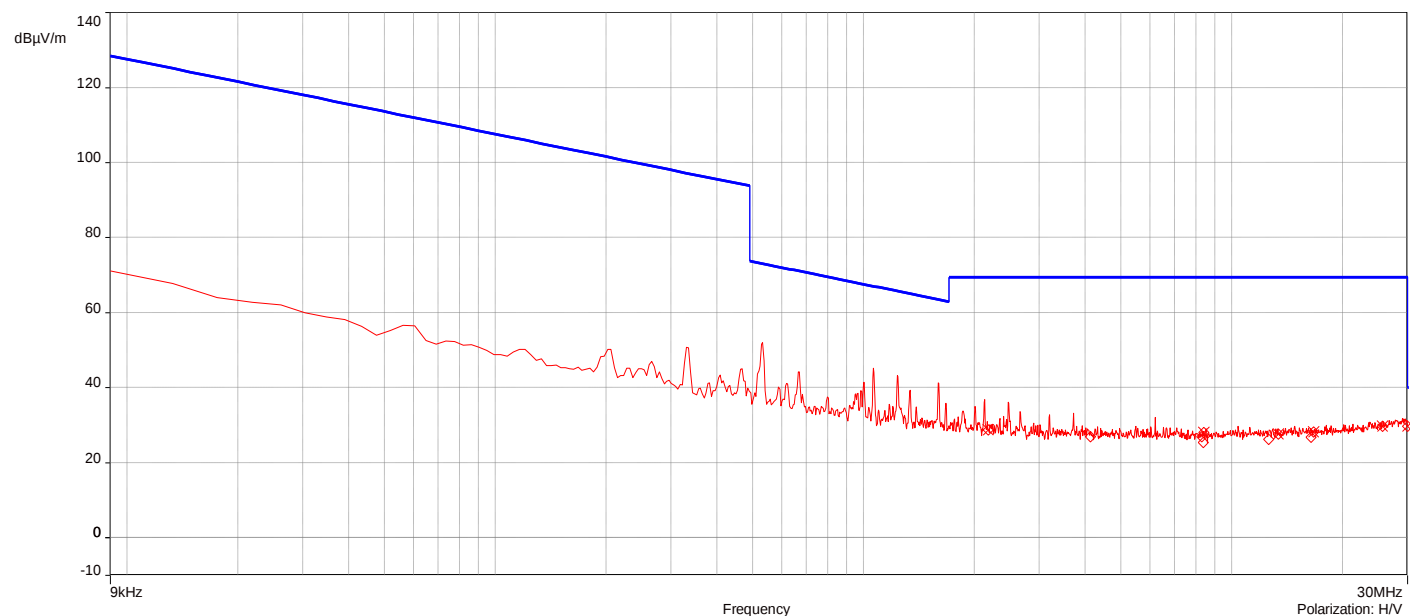


J23134 ER 3B#001_BT_DH1_Ch 39_9kHz-30MHz_Parallel

4/30/2025 10:47:28 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.181516MHz	28.71	19.55	69.54	-40.83	1.00	197.30	H/V	Passed
2.	8.377685MHz	28.14	19.53	69.54	-41.40	1.00	354.30	H/V	Passed
3.	13.361187MHz	27.70	19.91	69.54	-41.84	1.00	245.10	H/V	Passed
4.	16.694949MHz	28.25	20.12	69.54	-41.29	1.00	120.80	H/V	Passed
5.	25.637829MHz	29.74	21.16	69.54	-39.80	1.00	311.90	H/V	Passed
6.	30MHz	29.68	22.05	40.00	-10.32	1.00	199.70	H/V	Passed

Overall Graphs:

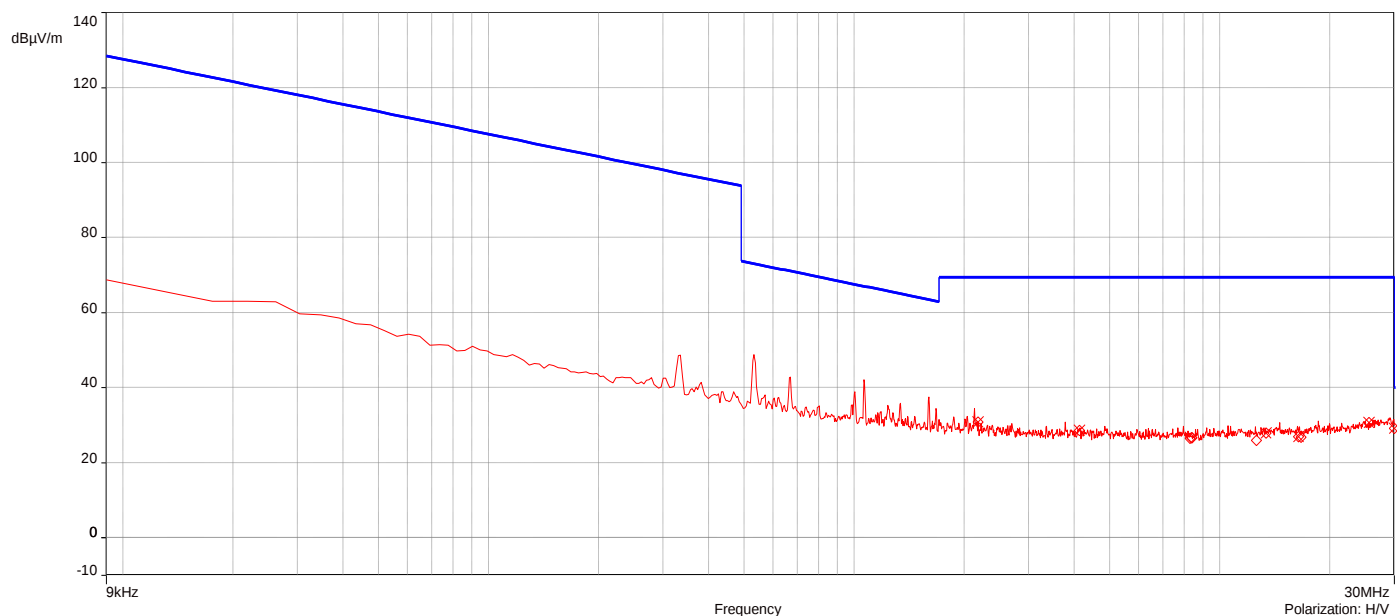


J23134 ER 3B#001_BT_DH1_Ch 39_9kHz-30MHz_Perpendicular

4/30/2025 11:23:18 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.177231MHz	30.84	19.55	69.54	-38.70	1.00	37.60	H/V	Passed
2.	4.126924MHz	28.67	19.71	69.54	-40.87	1.00	86.40	H/V	Passed
3.	13.374042MHz	27.92	19.91	69.54	-41.62	1.00	150.10	H/V	Passed
4.	16.420706MHz	26.94	20.08	69.54	-42.60	1.00	292.70	H/V	Passed
5.	25.616403MHz	30.71	21.16	69.54	-38.83	1.00	46.00	H/V	Passed
6.	30MHz	29.15	22.05	40.00	-10.85	1.00	268.80	H/V	Passed

Overall Graphs:

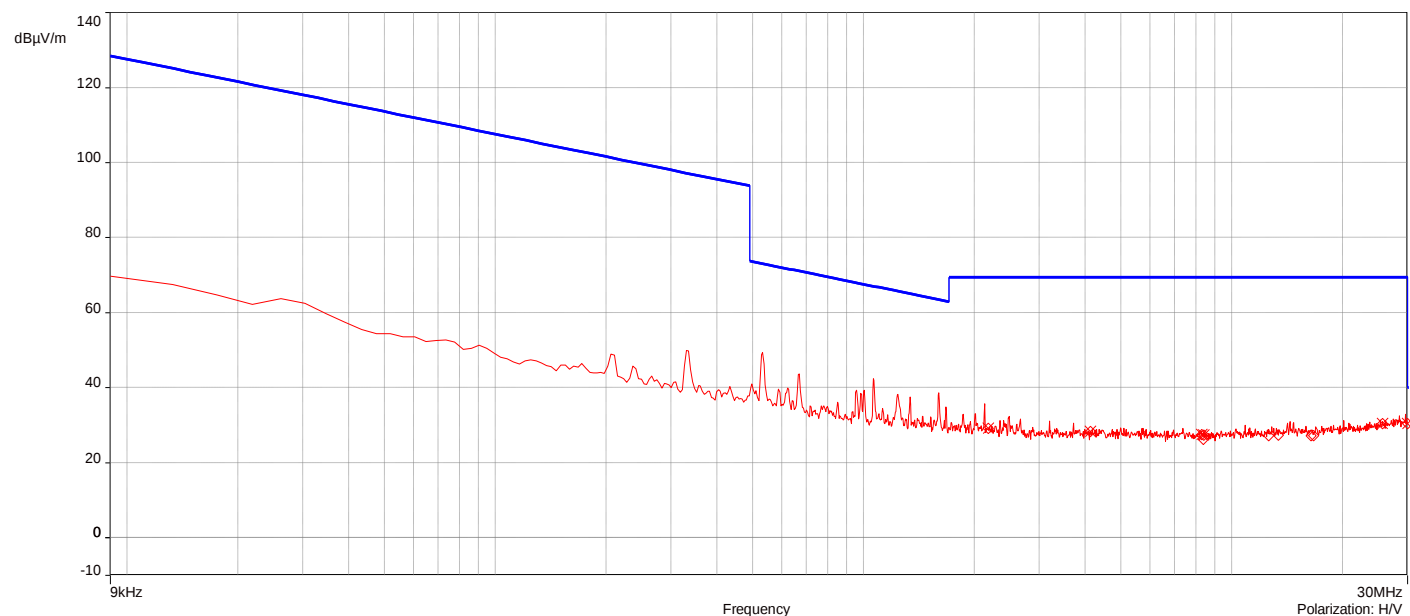


J23134 ER 3B#001_BT_3-DH1_Ch 0_9kHz-30MHz_Ground-Parallel

4/30/2025 11:27:53 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.177231MHz	29.19	19.55	69.54	-40.35	1.00	24.10	H/V	Passed
2.	4.126924MHz	28.31	19.71	69.54	-41.23	1.00	293.20	H/V	Passed
3.	8.291984MHz	27.48	19.53	69.54	-42.06	1.00	126.70	H/V	Passed
4.	8.386255MHz	27.33	19.53	69.54	-42.21	1.00	215.70	H/V	Passed
5.	25.650684MHz	30.46	21.16	69.54	-39.08	1.00	79.20	H/V	Passed
6.	30MHz	30.45	22.05	40.00	-9.55	1.00	186.30	H/V	Passed

Overall Graphs:

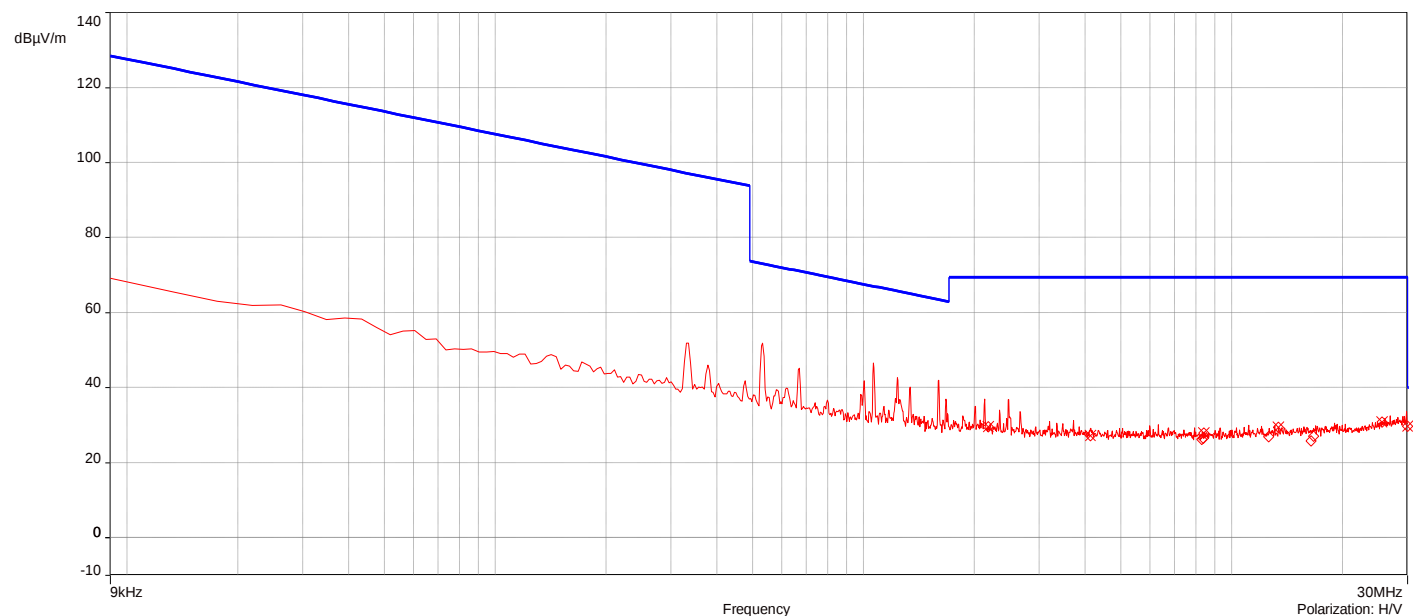


J23134 ER 3B#001_BT_3-DH1_Ch 0_9kHz-30MHz_Parallel

4/30/2025 11:06:28 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.181516MHz	29.60	19.55	69.54	-39.94	1.00	107.80	H/V	Passed
2.	4.126924MHz	27.29	19.71	69.54	-42.25	1.00	358.90	H/V	Passed
3.	8.377685MHz	28.00	19.53	69.54	-41.54	1.00	176.60	H/V	Passed
4.	13.391182MHz	29.52	19.91	69.54	-40.02	1.00	144.60	H/V	Passed
5.	25.612118MHz	30.87	21.16	69.54	-38.67	1.00	328.90	H/V	Passed
6.	30MHz	29.72	22.05	40.00	-10.28	1.00	282.10	H/V	Passed

Overall Graphs:

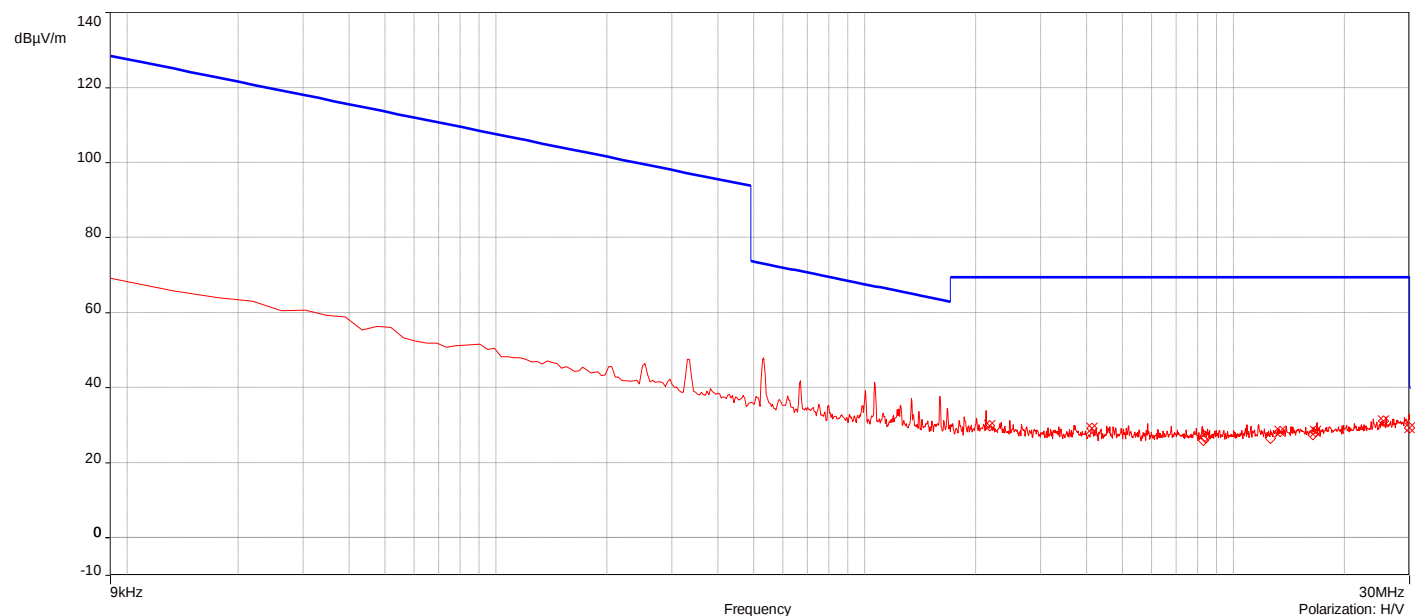


J23134 ER 3B#001_BT_3-DH1_Ch 0_9kHz-30MHz_Perpendicular

4/30/2025 11:19:38 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.177231MHz	29.82	19.55	69.54	-39.72	1.00	325.20	H/V	Passed
2.	4.126924MHz	29.21	19.71	69.54	-40.33	1.00	133.80	H/V	Passed
3.	13.369757MHz	28.41	19.91	69.54	-41.13	1.00	210.30	H/V	Passed
4.	16.694949MHz	28.33	20.12	69.54	-41.21	1.00	244.30	H/V	Passed
5.	25.526417MHz	31.19	21.15	69.54	-38.35	1.00	93.40	H/V	Passed
6.	30MHz	29.28	22.05	40.00	-10.72	1.00	316.80	H/V	Passed

Overall Graphs:

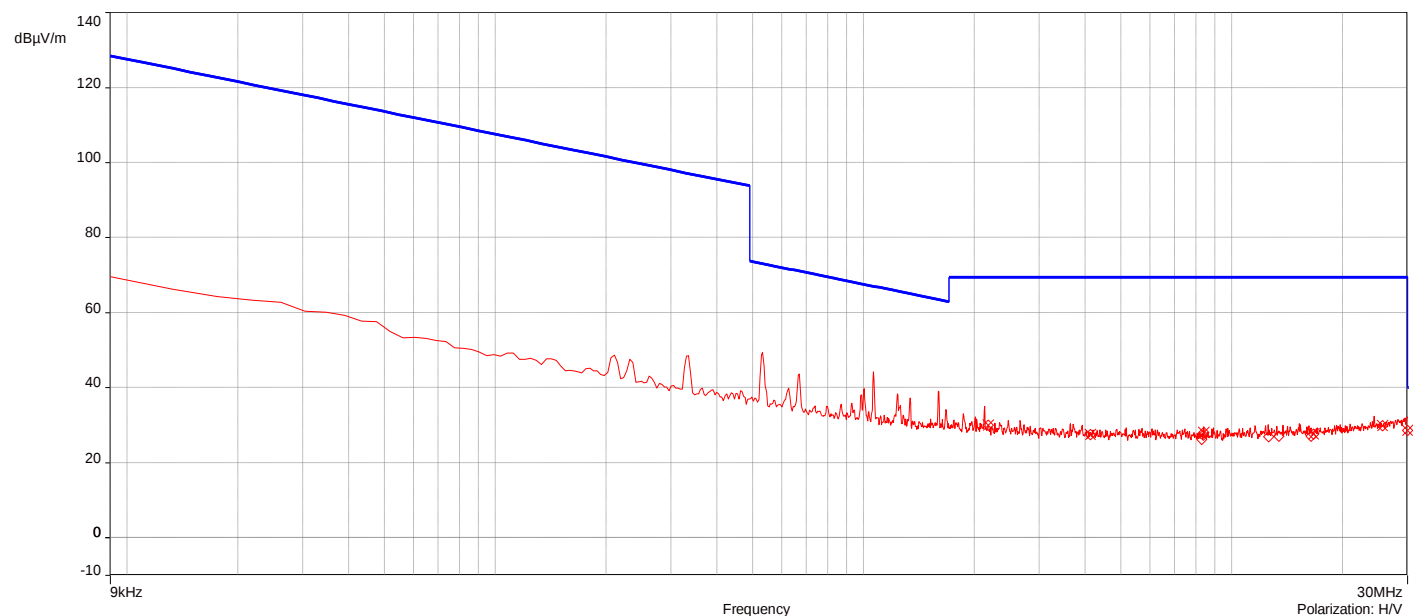


J23134 ER 3B#001_BT_3-DH1_Ch 39_9kHz-30MHz_Ground-Parallel

4/30/2025 11:30:58 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.181516MHz	30.03	19.55	69.54	-39.51	1.00	240.40	H/V	Passed
2.	4.126924MHz	27.44	19.71	69.54	-42.10	1.00	66.50	H/V	Passed
3.	8.377685MHz	28.05	19.53	69.54	-41.49	1.00	122.10	H/V	Passed
4.	16.694949MHz	27.63	20.12	69.54	-41.91	1.00	253.20	H/V	Passed
5.	25.663539MHz	29.91	21.16	69.54	-39.63	1.00	92.10	H/V	Passed
6.	30MHz	28.64	22.05	40.00	-11.36	1.00	49.70	H/V	Passed

Overall Graphs:

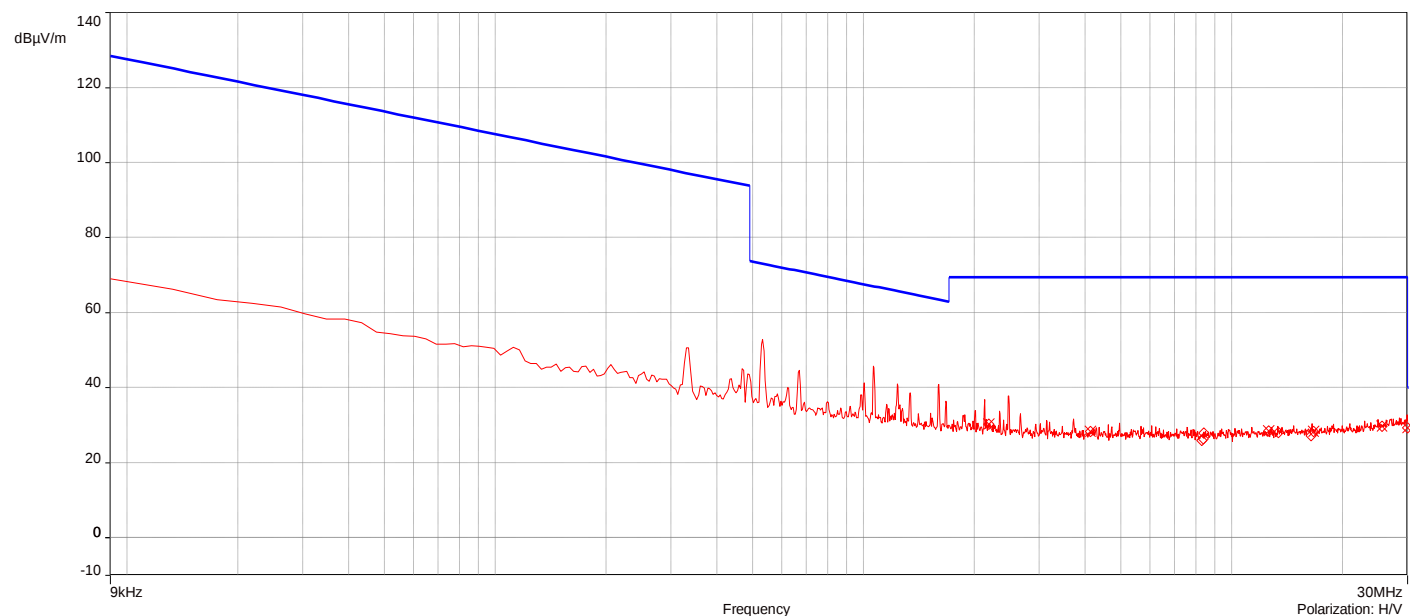


J23134 ER 3B#001_BT_3-DH1_Ch 39_9kHz-30MHz_Parallel

4/30/2025 11:09:12 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.185801MHz	30.30	19.55	69.54	-39.24	1.00	176.40	H/V	Passed
2.	4.126924MHz	28.29	19.71	69.54	-41.25	1.00	95.90	H/V	Passed
3.	12.577024MHz	28.46	19.84	69.54	-41.08	1.00	18.20	H/V	Passed
4.	16.694949MHz	28.35	20.12	69.54	-41.19	1.00	170.00	H/V	Passed
5.	25.594978MHz	29.75	21.16	69.54	-39.79	1.00	318.90	H/V	Passed
6.	30MHz	29.38	22.05	40.00	-10.62	1.00	7.10	H/V	Passed

Overall Graphs:

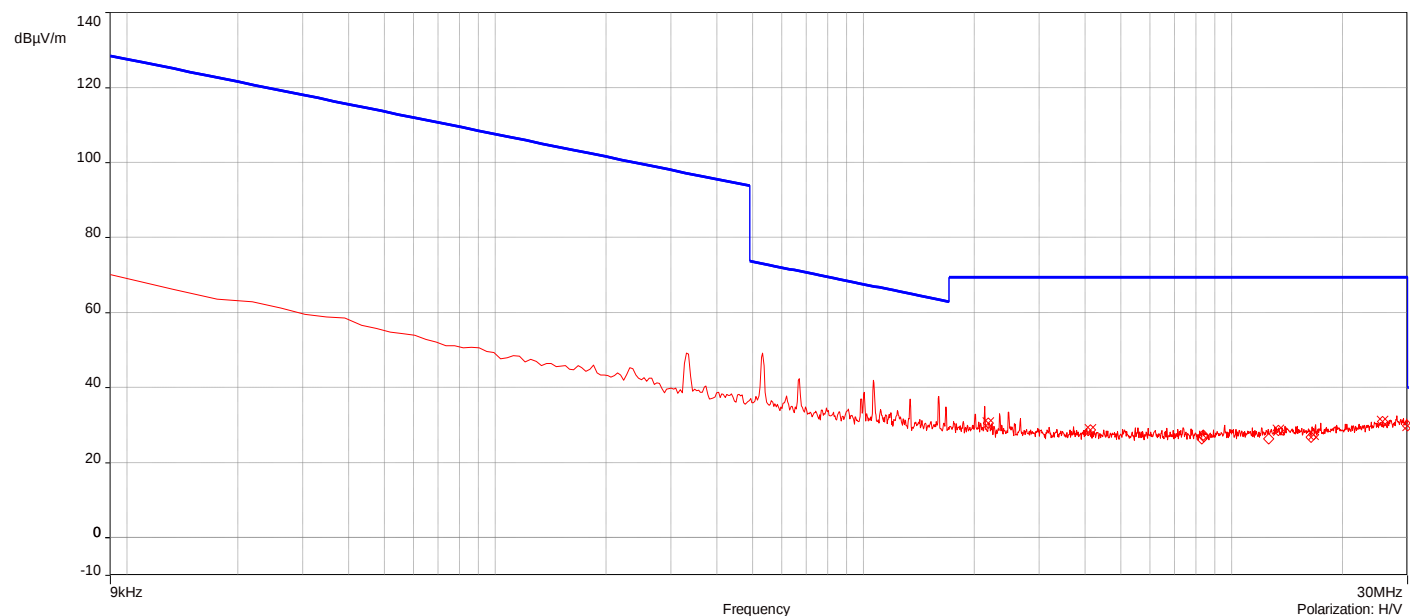


J23134 ER 3B#001_BT_3-DH1_Ch 39_9kHz-30MHz_Perpendicular

4/30/2025 11:11:41 AM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.181516MHz	30.54	19.55	69.54	-39.00	1.00	229.10	H/V	Passed
2.	4.126924MHz	28.75	19.71	69.54	-40.79	1.00	79.30	H/V	Passed
3.	13.382612MHz	28.58	19.91	69.54	-40.96	1.00	45.00	H/V	Passed
4.	16.694949MHz	27.48	20.12	69.54	-42.06	1.00	280.40	H/V	Passed
5.	25.642114MHz	30.95	21.16	69.54	-38.59	1.00	318.90	H/V	Passed
6.	30MHz	29.85	22.05	40.00	-10.15	1.00	152.50	H/V	Passed

Overall Graphs:



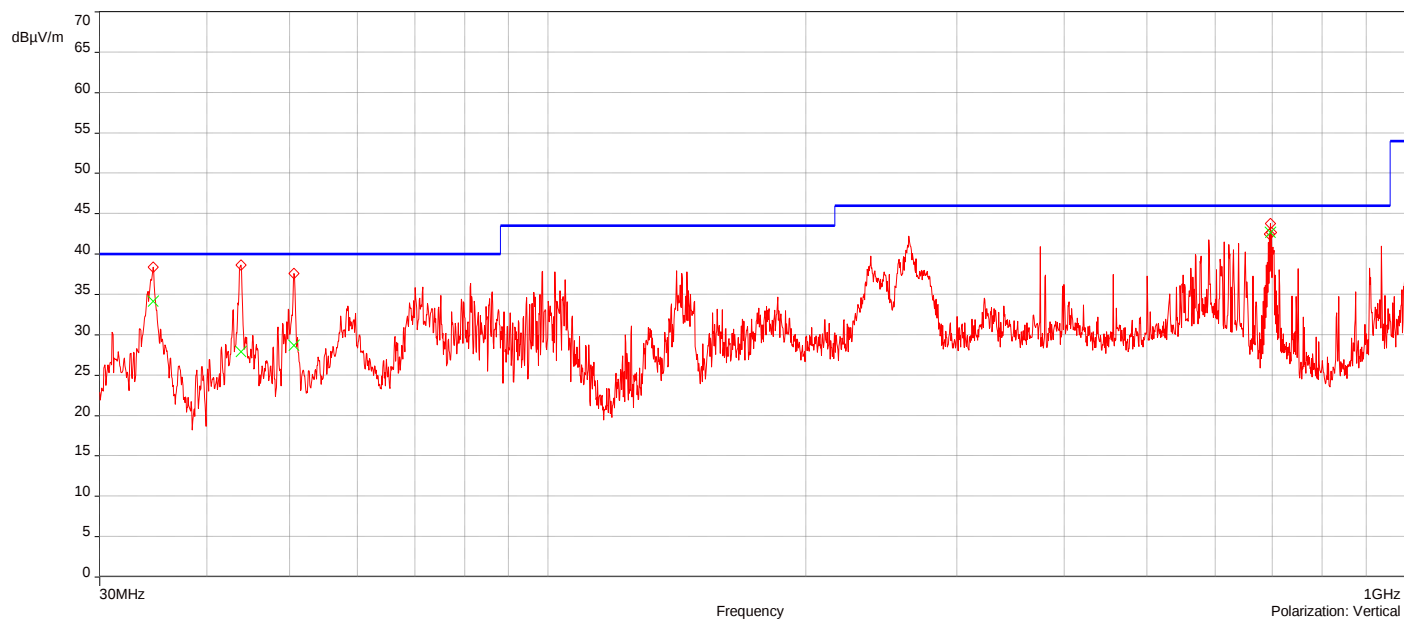
J23134 ER 3B#001_BT_DH1_Ch 0_30MHz-1GHz

4/28/2025 1:10:23 PM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	34.622037MHz	34.17	-9.54	40.00	-5.83	1.25	205.90	Vertical	Passed
2.	43.86611MHz	27.91	-14.99	40.00	-12.09	1.50	0.10	Vertical	Passed
3.	50.542385MHz	28.69	-18.09	40.00	-11.31	1.50	0.10	Vertical	Passed
4.	696.02977MHz	42.69	-4.10	46.00	-3.31	1.00	11.10	Vertical	Passed
5.	264.98206MHz	41.47	-12.18	46.00	-4.53	1.00	119.90	Horizontal	Passed
6.	639.02465MHz	40.78	-3.78	46.00	-5.22	1.50	82.10	Horizontal	Passed

Overall Graphs:





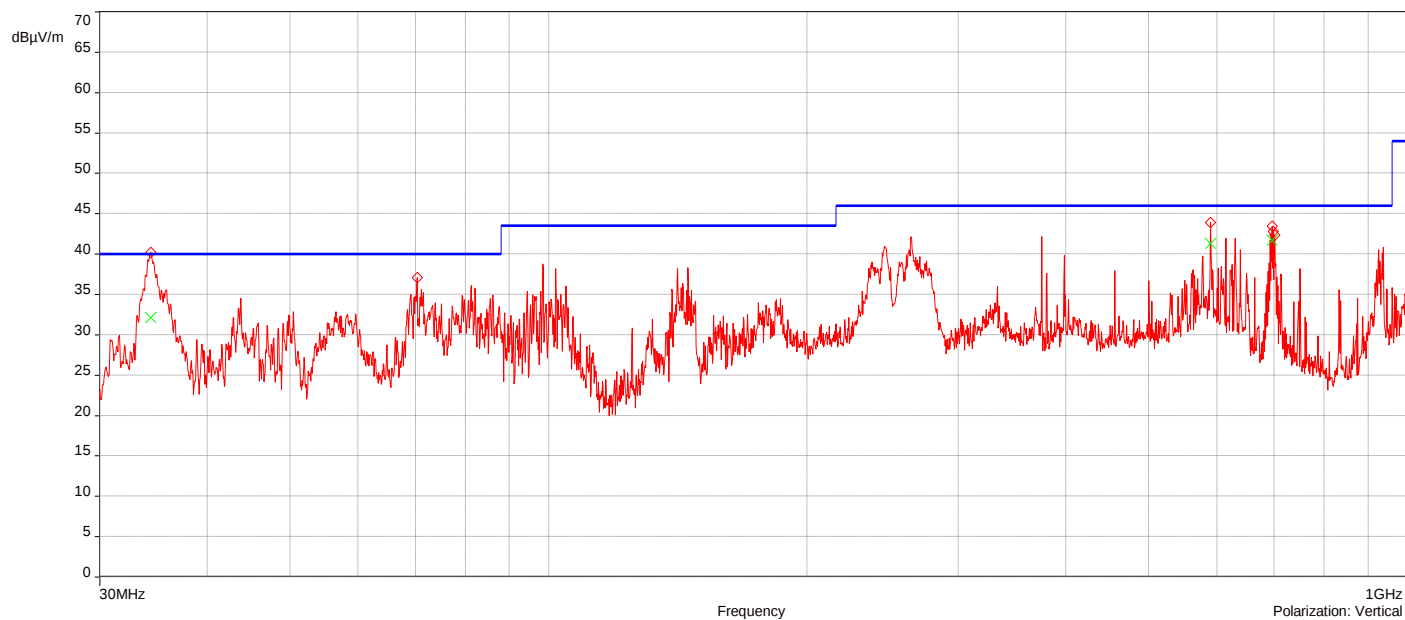
J23134 ER 3B#001_BT_DH1_Ch 39_30MHz-1GHz

4/28/2025 1:40:47 PM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	34.393788MHz	32.14	-9.40	40.00	-7.86	1.00	320.90	Vertical	Passed
2.	589.83705MHz	41.34	-5.52	46.00	-4.66	1.00	26.10	Vertical	Passed
3.	696.02977MHz	41.70	-4.10	46.00	-4.30	1.00	2.10	Vertical	Passed
4.	245.23854MHz	43.08	-13.15	46.00	-2.92	1.00	126.10	Horizontal	Passed
5.	264.06906MHz	41.08	-12.27	46.00	-4.92	1.00	131.90	Horizontal	Passed
6.	639.02465MHz	40.93	-3.78	46.00	-5.07	1.50	74.90	Horizontal	Passed

Overall Graphs:





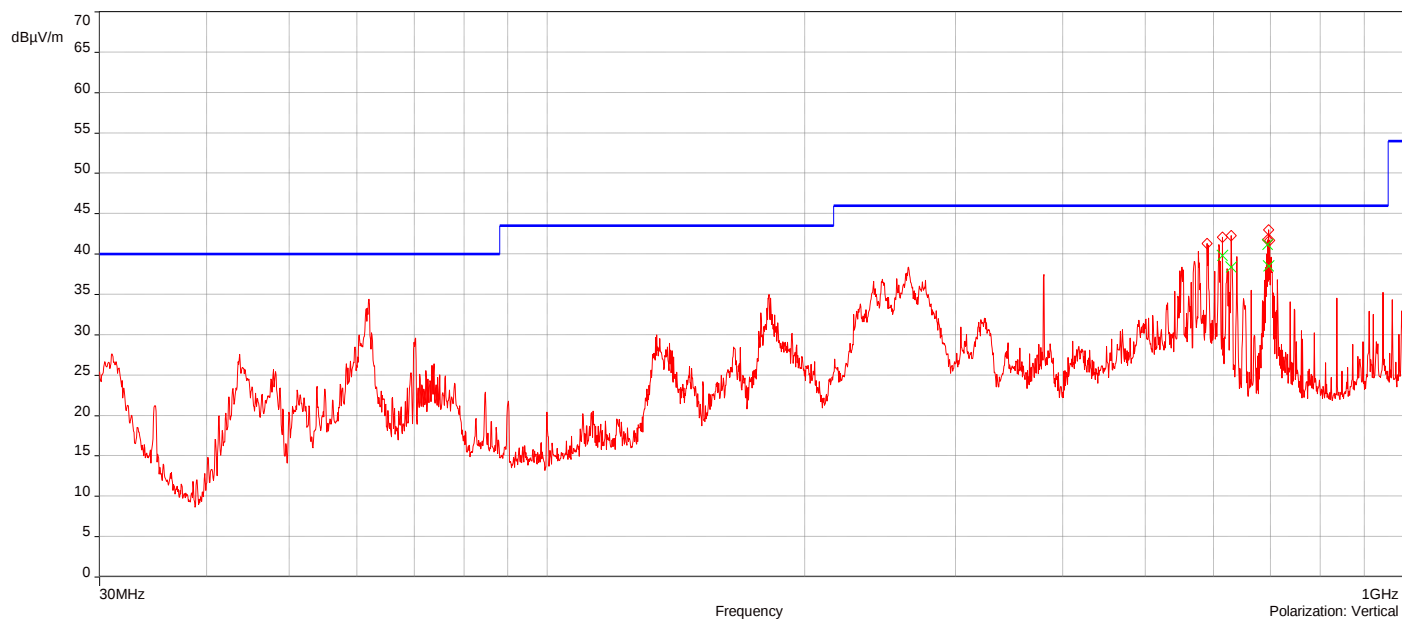
J23134 ER 3B#001_BT_3-DH1_Ch 0_30MHz-1GHz

4/28/2025 2:21:03 PM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	614.43085MHz	39.81	-5.28	46.00	-6.19	1.00	5.90	Vertical	Passed
2.	628.92464MHz	38.36	-5.23	46.00	-7.64	1.00	0.10	Vertical	Passed
3.	694.03259MHz	41.17	-4.10	46.00	-4.83	1.00	3.10	Vertical	Passed
4.	696.08683MHz	38.51	-4.10	46.00	-7.49	1.75	13.10	Vertical	Passed
5.	256.65098MHz	41.44	-12.71	46.00	-4.56	1.25	225.90	Horizontal	Passed
6.	639.02465MHz	38.78	-3.78	46.00	-7.22	1.50	80.10	Horizontal	Passed

Overall Graphs:





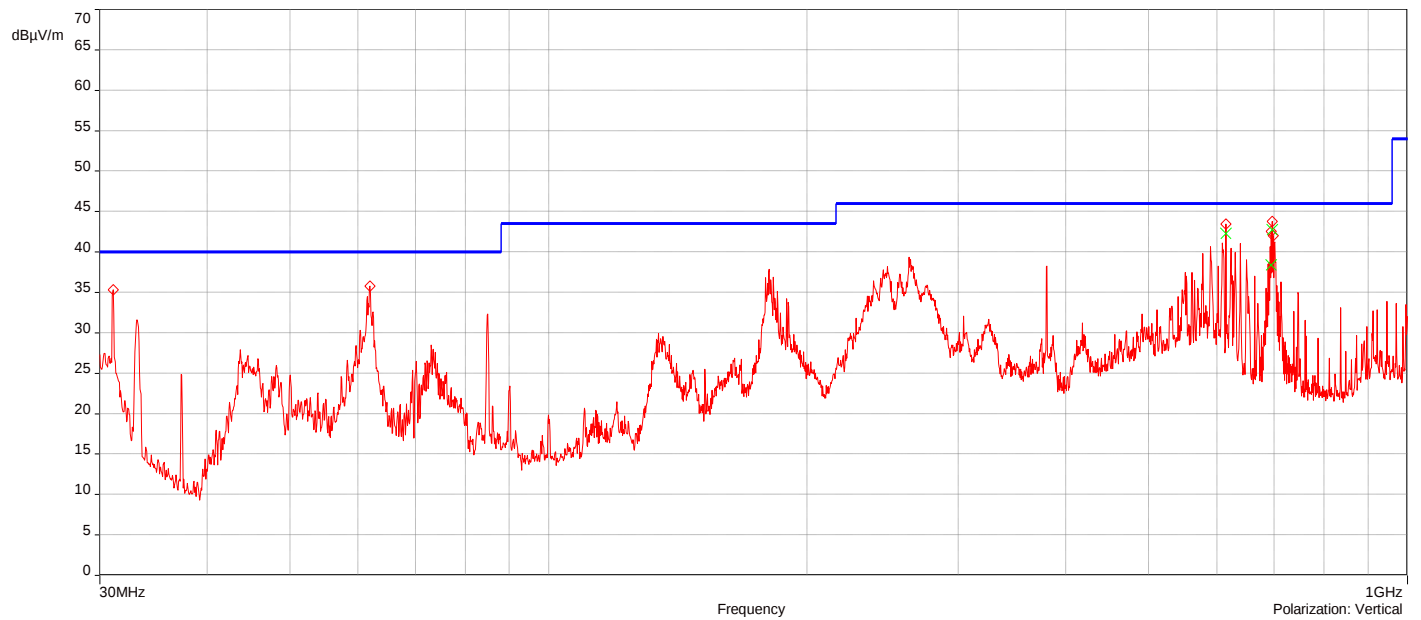
J23134 ER 3B#001_BT_3-DH1_Ch 39_30MHz-1GHz

4/28/2025 3:00:54 PM

No	Frequency (MHz)	Level Q-Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	614.43085MHz	42.27	-5.28	46.00	-3.73	1.00	358.90	Vertical	Passed
2.	694.03259MHz	38.37	-4.10	46.00	-7.63	2.00	0.10	Vertical	Passed
3.	696.02977MHz	42.77	-4.10	46.00	-3.23	1.00	16.10	Vertical	Passed
4.	246.55097MHz	43.18	-13.14	46.00	-2.82	1.00	120.90	Horizontal	Passed
5.	629.66645MHz	32.79	-3.96	46.00	-13.21	1.25	338.90	Horizontal	Passed
6.	639.02465MHz	41.86	-3.78	46.00	-4.14	1.50	74.10	Horizontal	Passed

Overall Graphs:





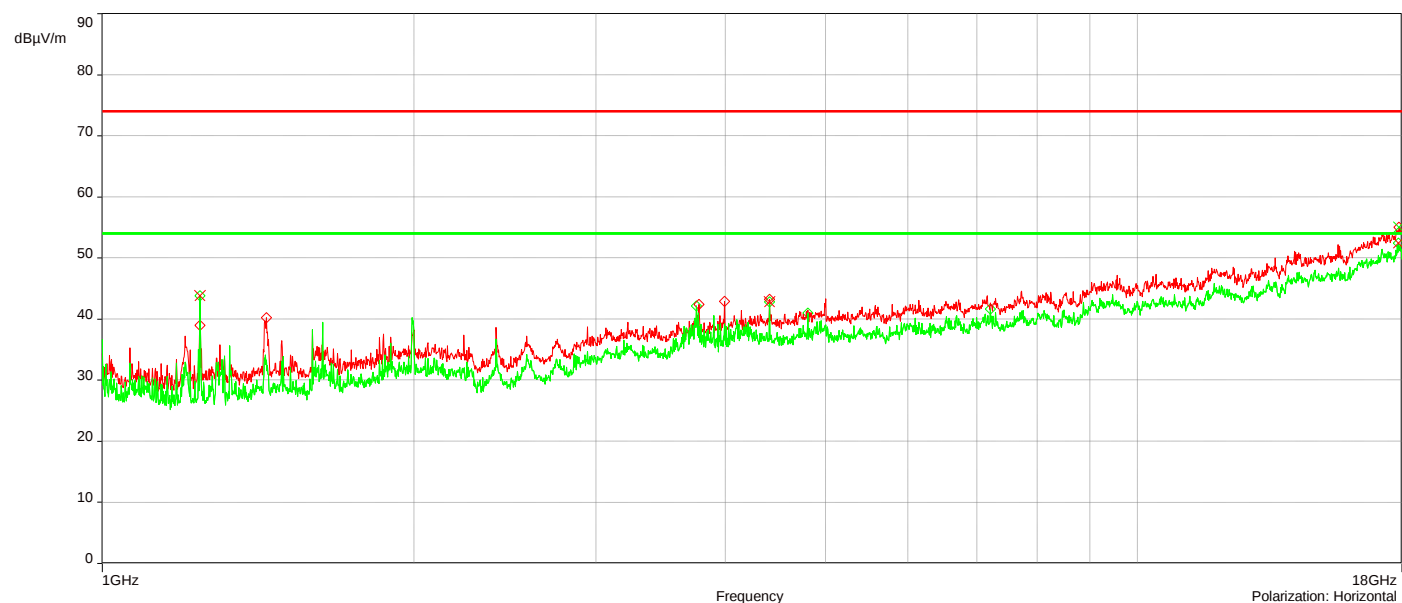
J23134 ER 3B#001_BT_DH1_Ch 0_1-18GHz

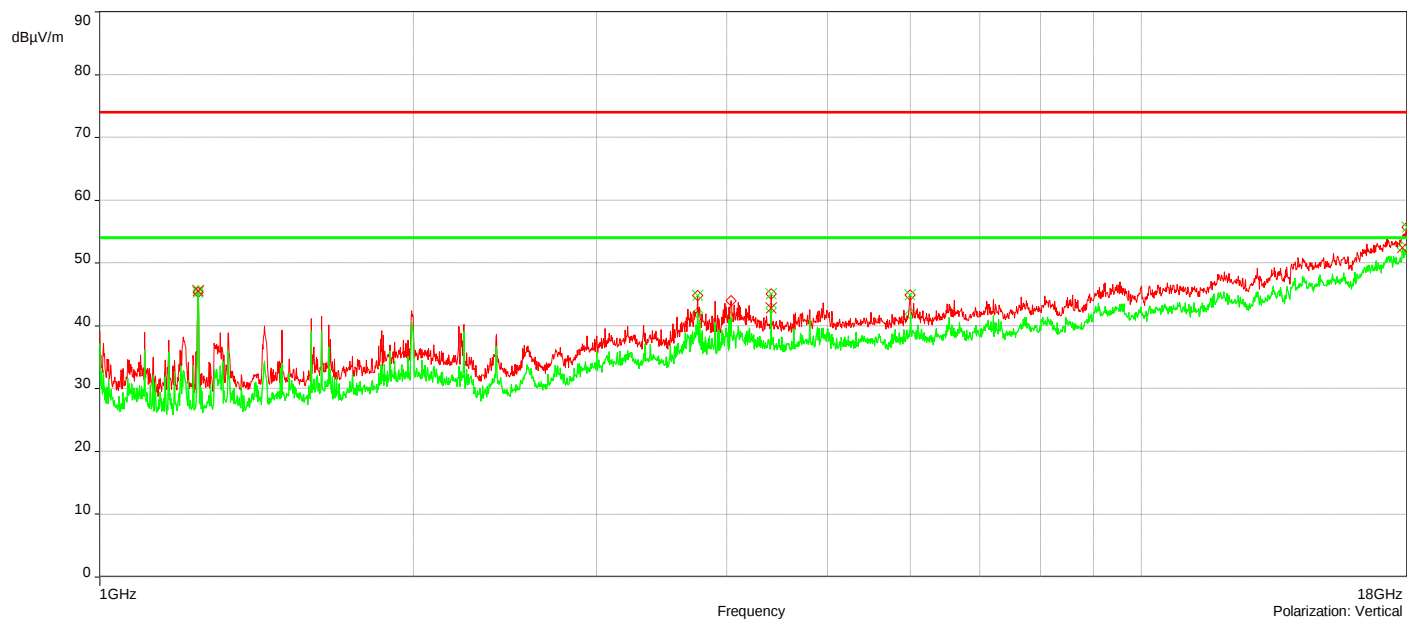
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	1.2430071GHz	45.31	-8.07	74.00	-28.69	4.00	29.90	Vertical	Passed
2.	3.7470808GHz	44.80	2.65	74.00	-29.20	1.00	77.20	Vertical	Passed
3.	4.4096003GHz	45.13	4.56	74.00	-28.87	4.00	329.00	Vertical	Passed
4.	5.9916468GHz	44.93	6.41	74.00	-29.07	1.00	86.70	Vertical	Passed
5.	17.977499GHz	55.75	21.48	74.00	-18.25	4.00	359.90	Vertical	Passed
6.	17.882497GHz	55.05	20.68	74.00	-18.95	3.50	345.80	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	1.2430071GHz	21.70	-8.07	54.00	-32.3	4.00	29.90	Vertical	Passed
2.	4.4096003GHz	41.50	4.56	54.00	-12.50	4.00	329.00	Vertical	Passed
3.	17.805494GHz	51.99	20.27	54.00	-2.01	1.00	359.90	Vertical	Passed
4.	1.2430071GHz	24.83	-7.96	54.00	-29.17	4.00	0.10	Horizontal	Passed
5.	4.4096003GHz	33.65	4.60	54.00	-20.35	4.00	0.10	Horizontal	Passed
6.	17.862996GHz	52.28	20.64	54.00	-1.72	4.00	52.80	Horizontal	Passed

Overall Graphs:





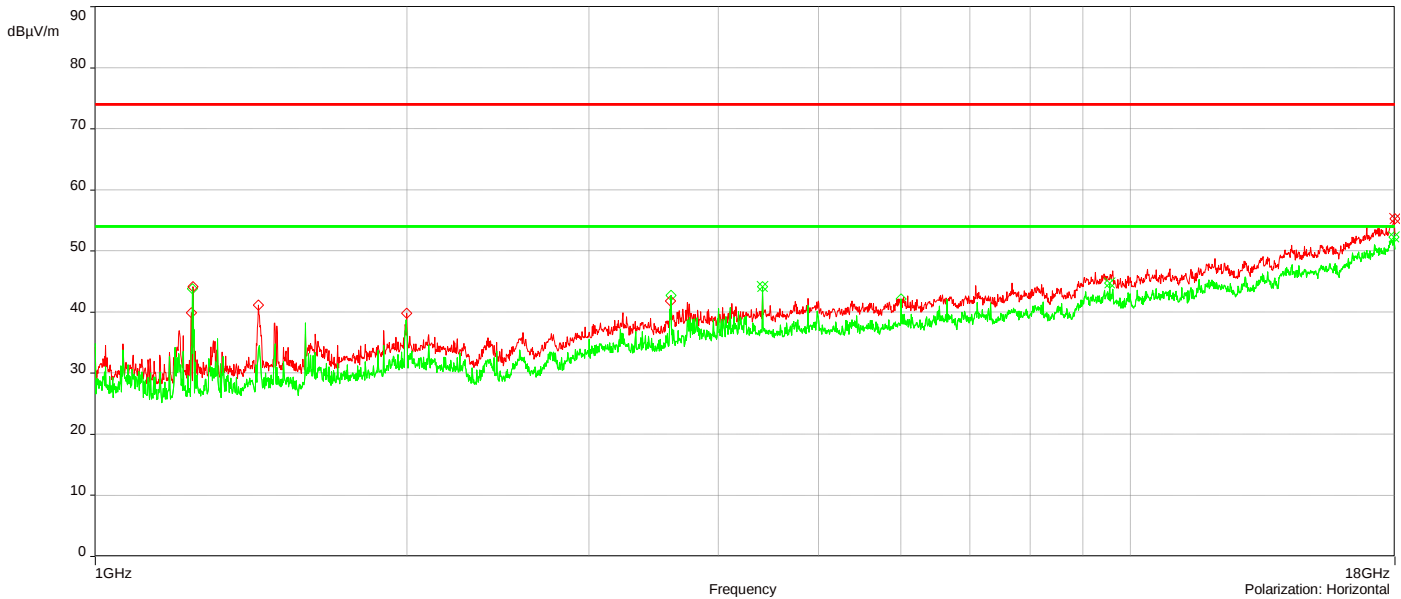
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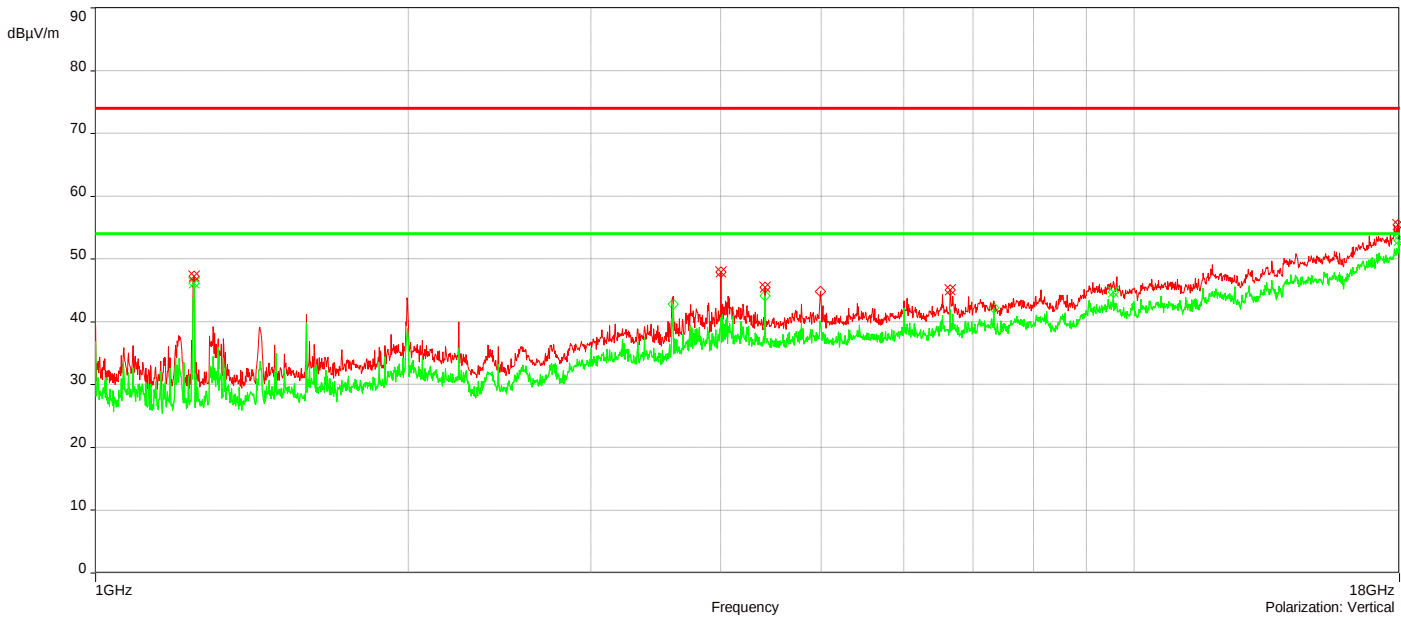
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No	Frequency (MHz)	Level Peak Reading (dBµV/m)	Correction Factor (dB)	Limit dBµV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	1.2445072GHz	47.29	-8.06	74.00	-26.71	1.50	14.10	Vertical	Passed
2.	4.0000882GHz	47.96	3.21	74.00	-26.04	4.00	119.20	Vertical	Passed
3.	4.4096003GHz	45.51	4.56	74.00	-28.49	4.00	337.70	Vertical	Passed
4.	6.645166GHz	45.11	7.48	74.00	-28.89	3.00	80.80	Vertical	Passed
5.	17.941498GHz	55.44	20.90	74.00	-18.56	4.00	359.90	Vertical	Passed
6.	17.994GHz	55.27	21.68	74.00	-18.73	4.00	197.30	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBµV/m)	Correction Factor (dB)	Limit dBµV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	1.2445072GHz	22.20	-8.06	54.00	-31.80	1.50	14.10	Vertical	Passed
2.	9.5437513GHz	40.15	10.68	54.00	-13.85	2.00	319.60	Vertical	Passed
3.	17.9865GHz	52.22	21.62	54.00	-1.78	2.50	337.60	Vertical	Passed
4.	4.4096003GHz	33.05	4.60	54.00	-20.95	4.00	0.10	Horizontal	Passed
5.	9.5437513GHz	40.04	10.68	54.00	-13.96	2.00	0.10	Horizontal	Passed
6.	17.969499GHz	52.35	21.30	54.00	-1.65	4.00	0.10	Horizontal	Passed

Overall Graphs:





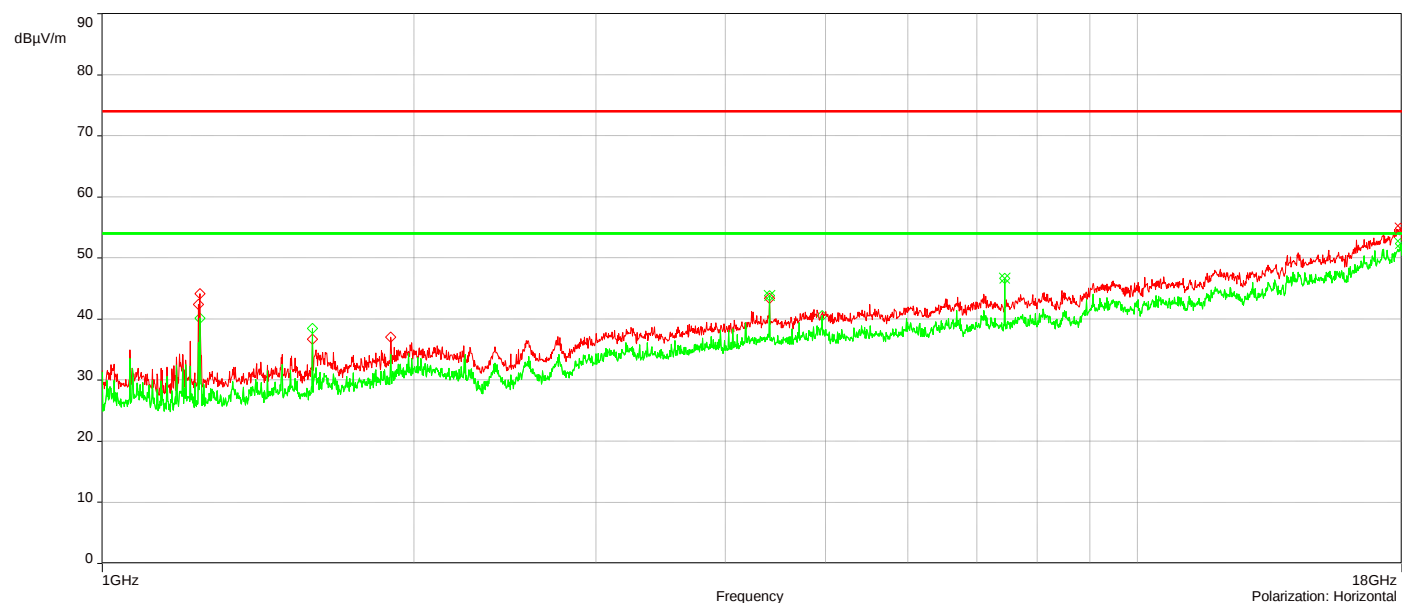
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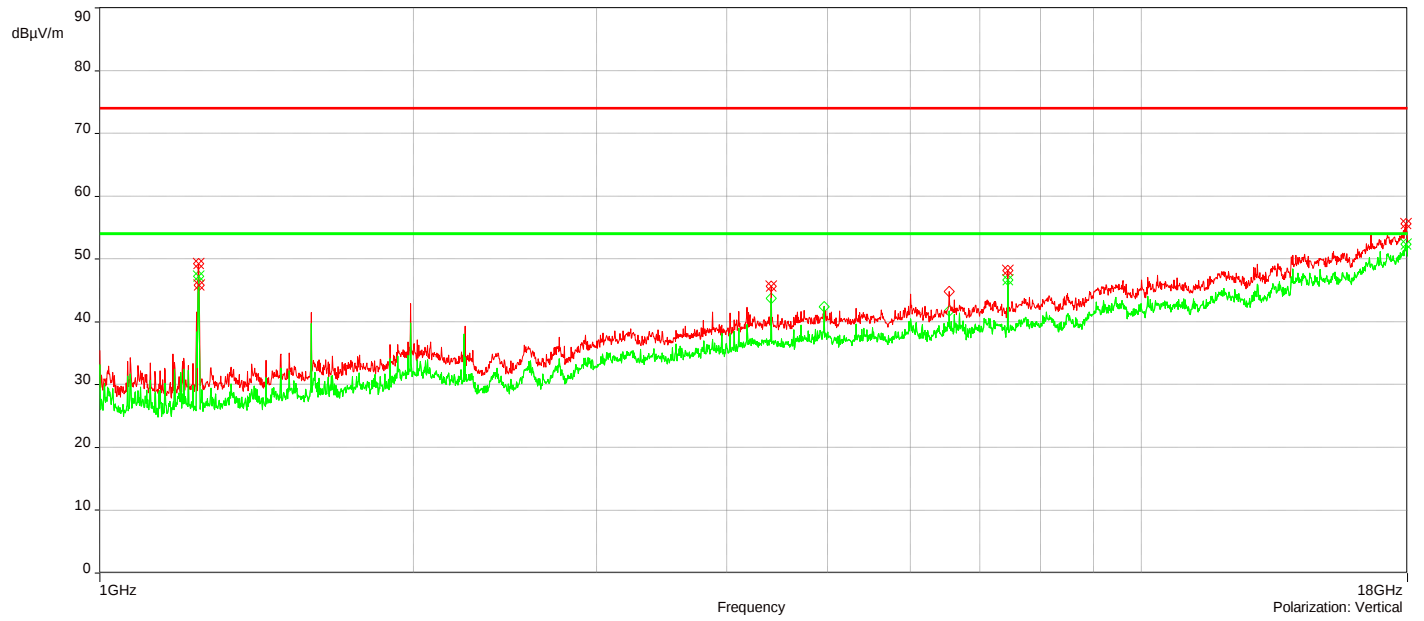
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	1.2435072GHz	49.31	-8.07	74.00	-24.69	2.50	234.30	Vertical	Passed
2.	1.2460072GHz	45.87	-8.06	74.00	-28.13	2.50	290.00	Vertical	Passed
3.	4.4096003GHz	45.69	4.56	74.00	-28.31	4.00	339.50	Vertical	Passed
4.	7.4401894GHz	48.19	7.82	74.00	-25.81	1.00	88.70	Vertical	Passed
5.	17.945998GHz	55.65	20.94	74.00	-18.35	3.50	319.20	Vertical	Passed
6.	17.942998GHz	54.88	20.90	74.00	-19.12	3.50	226.90	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	1.2435072GHz	22.07	-8.07	54.00	-31.93	2.50	234.30	Vertical	Passed
2.	7.4401894GHz	41.10	7.82	54.00	-12.9	1.00	88.70	Vertical	Passed
3.	17.942998GHz	52.20	20.91	54.00	-1.80	3.50	0.00	Vertical	Passed
4.	4.4096003GHz	33.73	4.60	54.00	-20.27	4.00	359.90	Horizontal	Passed
5.	7.4401894GHz	36.07	7.83	54.00	-17.93	1.00	359.90	Horizontal	Passed
6.	17.942998GHz	52.39	20.90	54.00	-1.61	3.50	226.90	Horizontal	Passed

Overall Graphs:





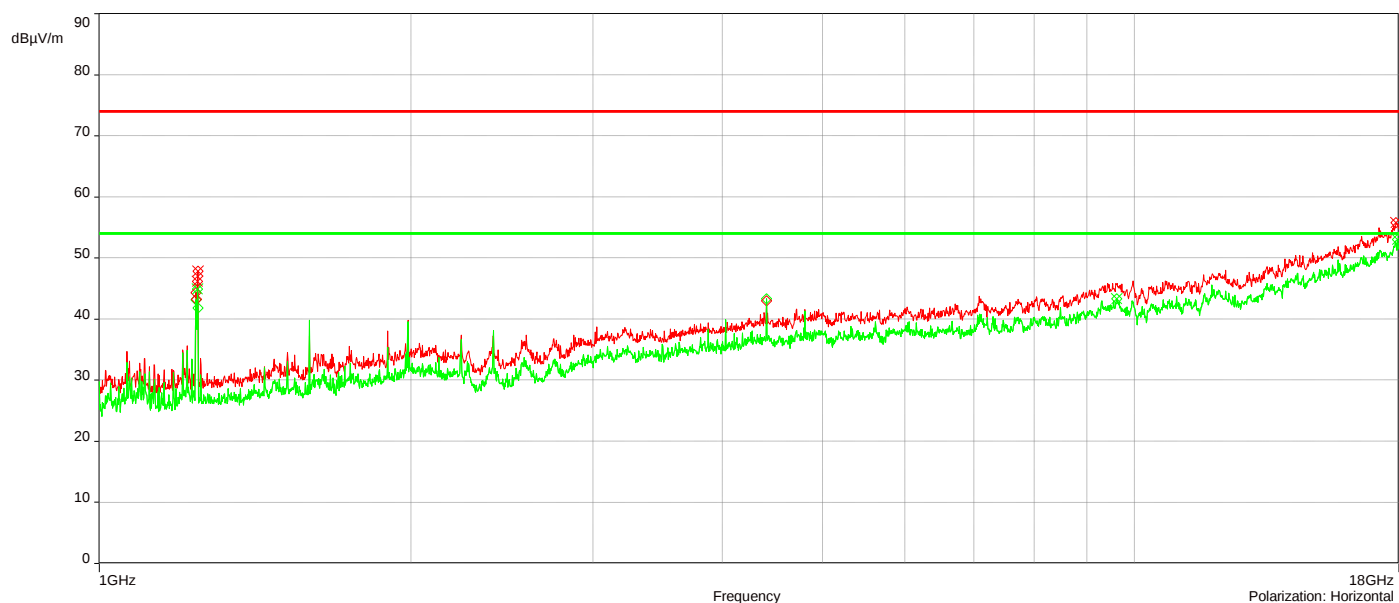
J23134 ER 3B#001_BT_3-DH1_Ch 0_1-18GHz

3/19/2025 1:58:16 PM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	1.238507GHz	45.31	-7.99	74.00	-28.69	3.00	114.70	Vertical	Passed
2.	1.2420071GHz	50.45	-7.96	74.00	-23.55	3.50	310.70	Vertical	Passed
3.	17.999GHz	56.16	22.25	74.00	-17.84	3.50	124.00	Vertical	Passed
4.	1.2435072GHz	46.18	-7.84	74.00	-27.82	4.00	78.50	Horizontal	Passed
5.	1.2455072GHz	47.84	-7.81	74.00	-26.16	3.50	122.10	Horizontal	Passed
6.	17.873496GHz	55.83	21.14	74.00	-18.17	3.50	11.50	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	1.2420071GHz	22.19	-7.96	54.00	-31.81	3.50	310.70	Vertical	Passed
2.	11.87132GHz	41.93	11.99	54.00	-12.07	3.00	21.50	Vertical	Passed
3.	17.930998GHz	52.44	21.25	54.00	-1.56	2.00	236.10	Vertical	Passed
4.	1.2435072GHz	22.16	-7.84	54.00	-31.84	4.00	78.50	Horizontal	Passed
5.	9.6072532GHz	40.95	10.41	54.00	-13.05	3.00	0.00	Horizontal	Passed
6.	17.930998GHz	52.51	21.27	54.00	-1.49	2.00	0.00	Horizontal	Passed

Overall Graphs:





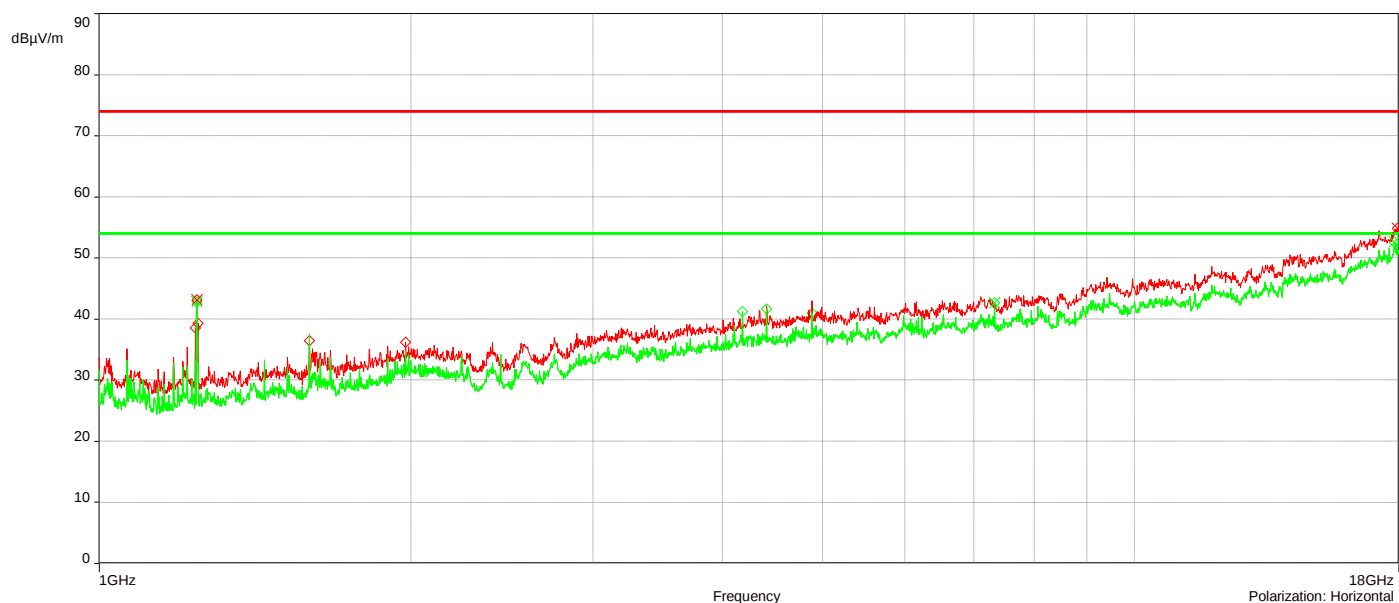
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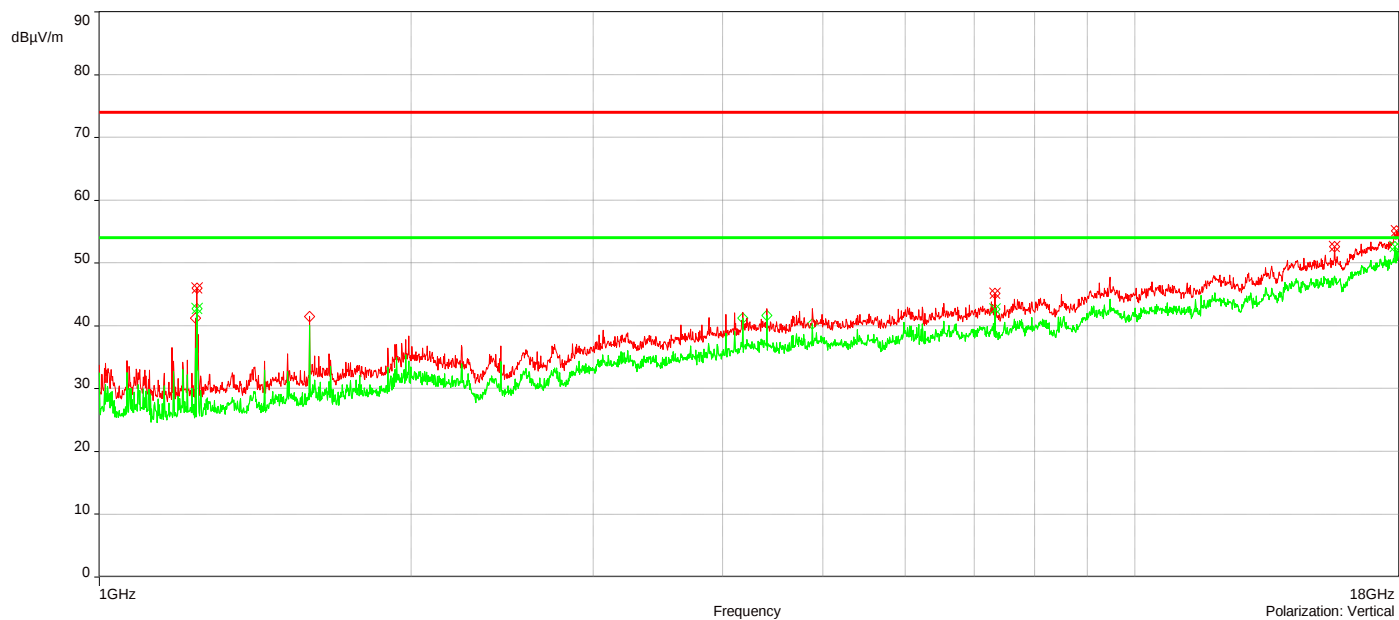
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	1.2425071GHz	45.99	-8.08	74.00	-28.01	2.00	108.60	Vertical	Passed
2.	7.323186GHz	45.18	7.99	74.00	-28.82	1.00	79.80	Vertical	Passed
3.	15.575929GHz	52.62	16.78	74.00	-21.38	1.50	14.60	Vertical	Passed
4.	17.885997GHz	55.11	20.59	74.00	-18.89	4.00	221.70	Vertical	Passed
5.	1.2420071GHz	43.13	-7.98	74.00	-30.87	2.00	32.10	Horizontal	Passed
6.	17.945998GHz	54.86	20.92	74.00	-19.14	1.00	319.10	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	1.2420071GHz	22.65	-8.08	54.00	-31.35	2.00	108.60	Vertical	Passed
2.	7.3221859GHz	38.72	7.99	54.00	-15.28	1.00	89.00	Vertical	Passed
3.	17.818495GHz	52.08	20.33	54.00	-1.92	2.00	241.00	Vertical	Passed
4.	1.2420071GHz	21.96	-7.98	54.00	-32.04	2.00	32.10	Horizontal	Passed
5.	7.3221859GHz	35.86	7.97	54.00	-18.14	1.00	0.10	Horizontal	Passed
6.	17.818495GHz	52.10	20.36	54.00	-1.90	2.00	0.00	Horizontal	Passed

Overall Graphs:





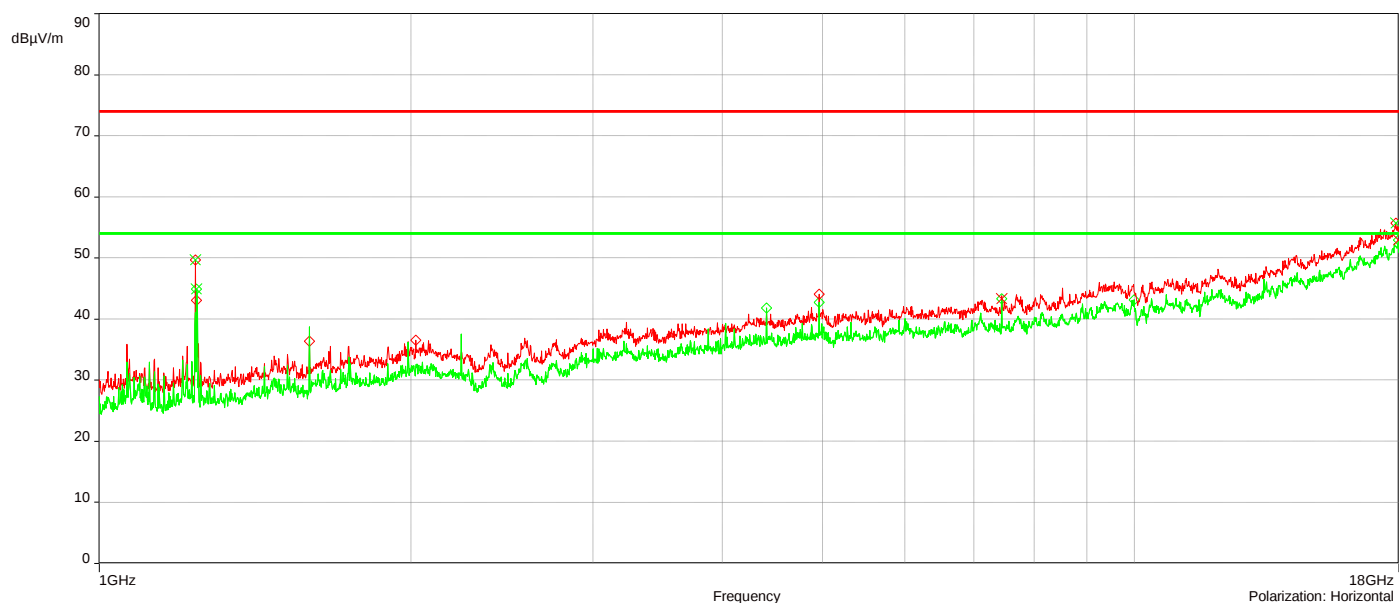
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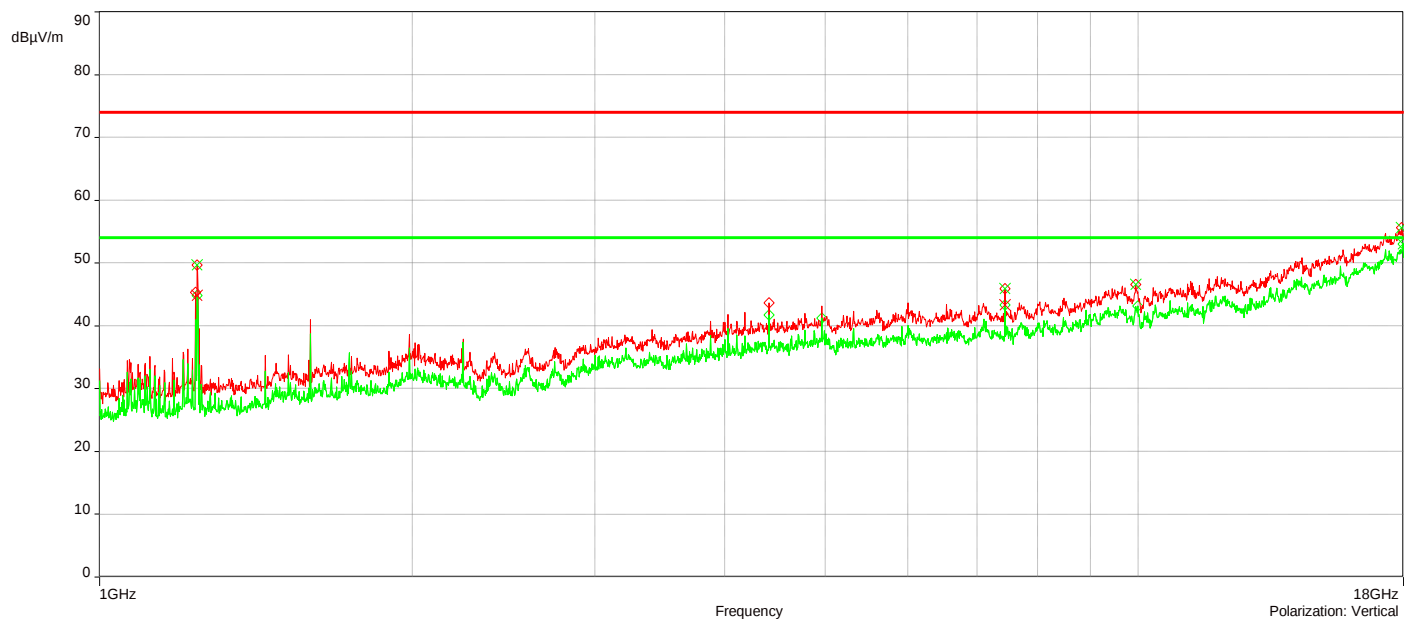
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	1.2415071GHz	49.65	-7.96	74.00	-24.35	1.50	6.10	Vertical	Passed
2.	7.4406894GHz	45.93	7.81	74.00	-28.07	1.50	97.10	Vertical	Passed
3.	9.9397629GHz	46.61	10.96	74.00	-27.39	1.00	179.90	Vertical	Passed
4.	17.927998GHz	55.64	21.24	74.00	-18.36	3.50	31.30	Vertical	Passed
5.	1.238007GHz	49.72	-7.91	74.00	-24.28	1.50	125.10	Horizontal	Passed
6.	17.878996GHz	55.69	21.16	74.00	-18.31	4.00	218.00	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	1.2415071GHz	21.81	-7.96	54.00	-32.19	1.50	6.10	Vertical	Passed
2.	7.4391894GHz	38.56	7.81	54.00	-15.44	1.00	88.20	Vertical	Passed
3.	17.984GHz	52.81	21.91	54.00	-1.19	3.50	0.00	Vertical	Passed
4.	1.2415071GHz	22.39	-7.86	54.00	-31.61	3.00	0.00	Horizontal	Passed
5.	7.4391894GHz	36.14	7.83	54.00	-17.86	1.00	0.10	Horizontal	Passed
6.	17.984GHz	52.45	21.87	54.00	-1.55	3.50	178.90	Horizontal	Passed

Overall Graphs:





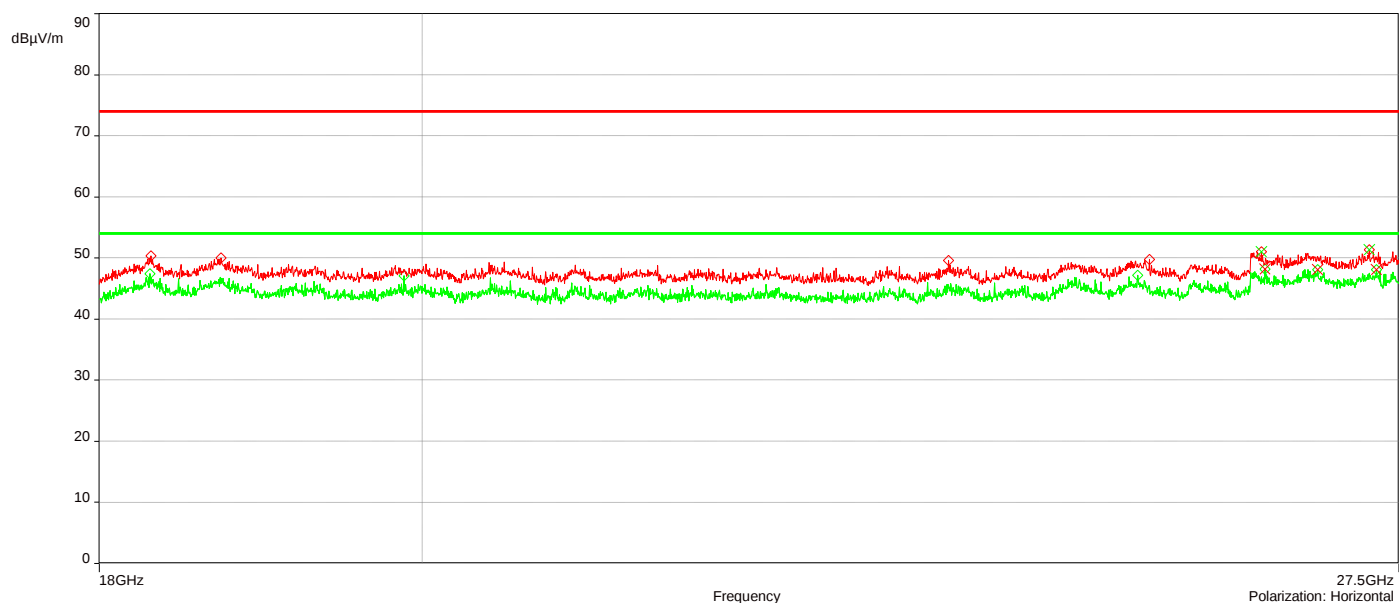
J23134 ER 3B#001_BT_DH1_Ch 0_18-27.5GHz

5/1/2025 1:14:30 PM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	25.698235GHz	50.39	3.15	74.00	-23.61	2.80	269.90	Vertical	Passed
2.	26.262088GHz	51.02	2.41	74.00	-22.98	3.84	134.90	Vertical	Passed
3.	26.672034GHz	51.91	2.93	74.00	-22.09	4.00	44.90	Vertical	Passed
4.	27.29289GHz	51.11	2.79	74.00	-22.89	1.00	112.40	Vertical	Passed
5.	26.292015GHz	51.01	2.30	74.00	-22.99	2.13	89.90	Horizontal	Passed
6.	27.236837GHz	51.37	2.64	74.00	-22.63	3.97	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.	26.222661GHz	48.66	2.36	54.00	-5.34	3.57	112.40	Vertical	Passed
2.	26.672034GHz	49.12	2.93	54.00	-4.88	4.00	44.90	Vertical	Passed
3.	27.424471GHz	48.15	2.76	54.00	-5.85	3.21	0.10	Vertical	Passed
4.	26.323841GHz	48.20	2.25	54.00	-5.80	4.00	112.40	Horizontal	Passed
5.	26.781764GHz	48.13	2.75	54.00	-5.87	3.03	224.90	Horizontal	Passed
6.	27.30144GHz	48.13	2.77	54.00	-5.87	3.72	134.90	Horizontal	Passed

Overall Graphs:





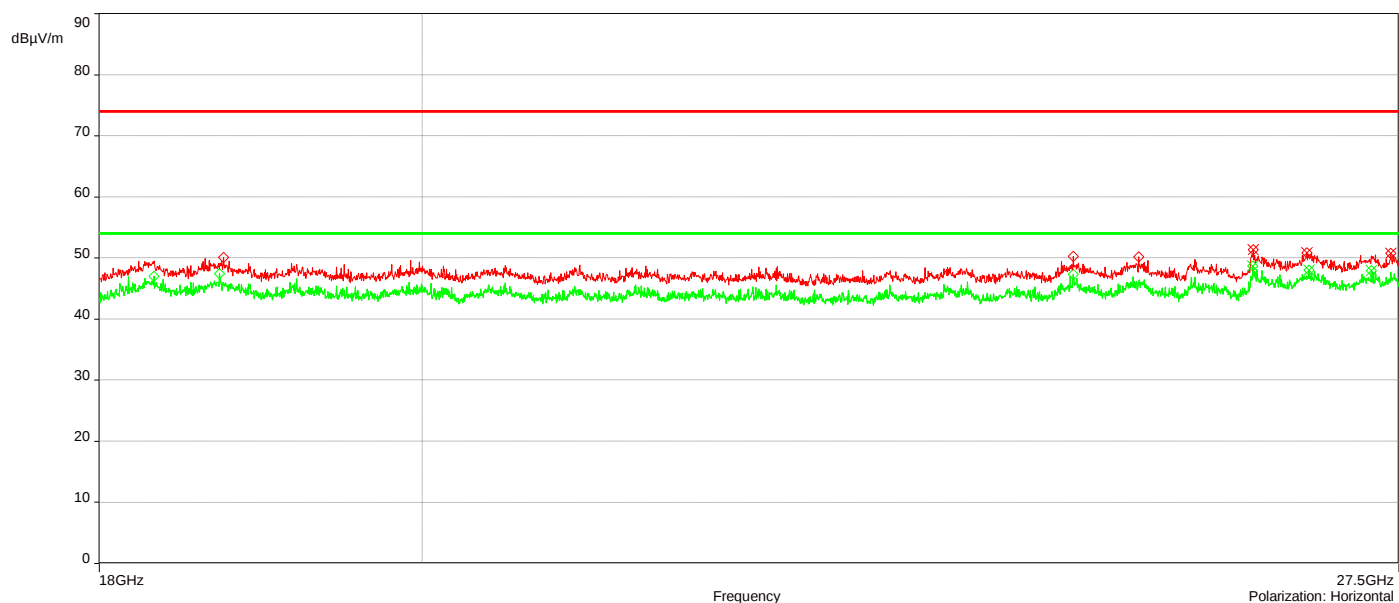
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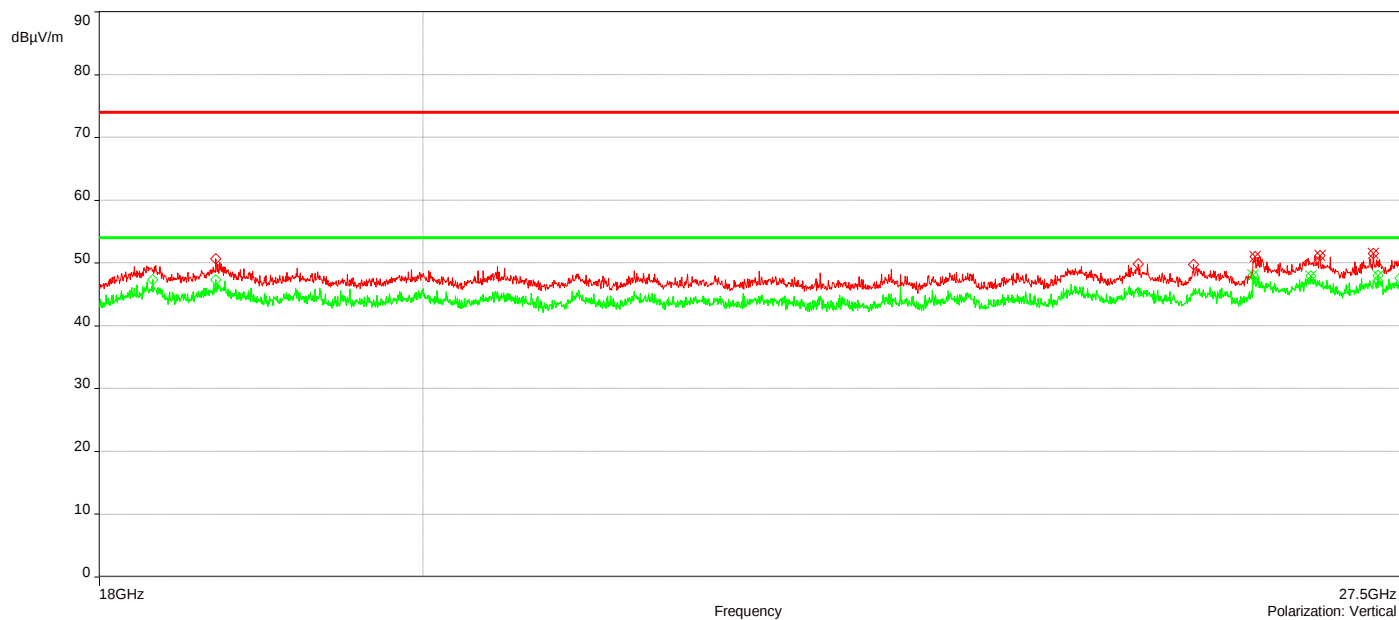
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	26.219811GHz	51.02	2.36	74.00	-22.98	1.03	247.60	Vertical	Passed
2.	26.780814GHz	51.20	2.80	74.00	-22.80	3.70	270.10	Vertical	Passed
3.	27.249662GHz	51.54	2.73	74.00	-22.46	3.33	112.60	Vertical	Passed
4.	26.222661GHz	51.39	2.37	74.00	-22.61	2.82	315.10	Horizontal	Passed
5.	26.685809GHz	50.85	2.96	74.00	-23.15	1.68	270.10	Horizontal	Passed
6.	27.427321GHz	50.75	2.80	74.00	-23.25	1.94	270.10	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	26.201285GHz	48.14	2.35	54.00	-5.86	3.58	225.20	Vertical	Passed
2.	26.699111GHz	47.91	2.99	54.00	-6.09	1.56	337.40	Vertical	Passed
3.	27.288139GHz	48.00	2.77	54.00	-6.00	4.00	112.60	Vertical	Passed
4.	26.217911GHz	48.65	2.36	54.00	-5.35	3.97	337.40	Horizontal	Passed
5.	26.70576GHz	47.98	2.94	54.00	-6.02	2.49	247.60	Horizontal	Passed
6.	27.254413GHz	47.90	2.73	54.00	-6.10	3.23	180.10	Horizontal	Passed

Overall Graphs:





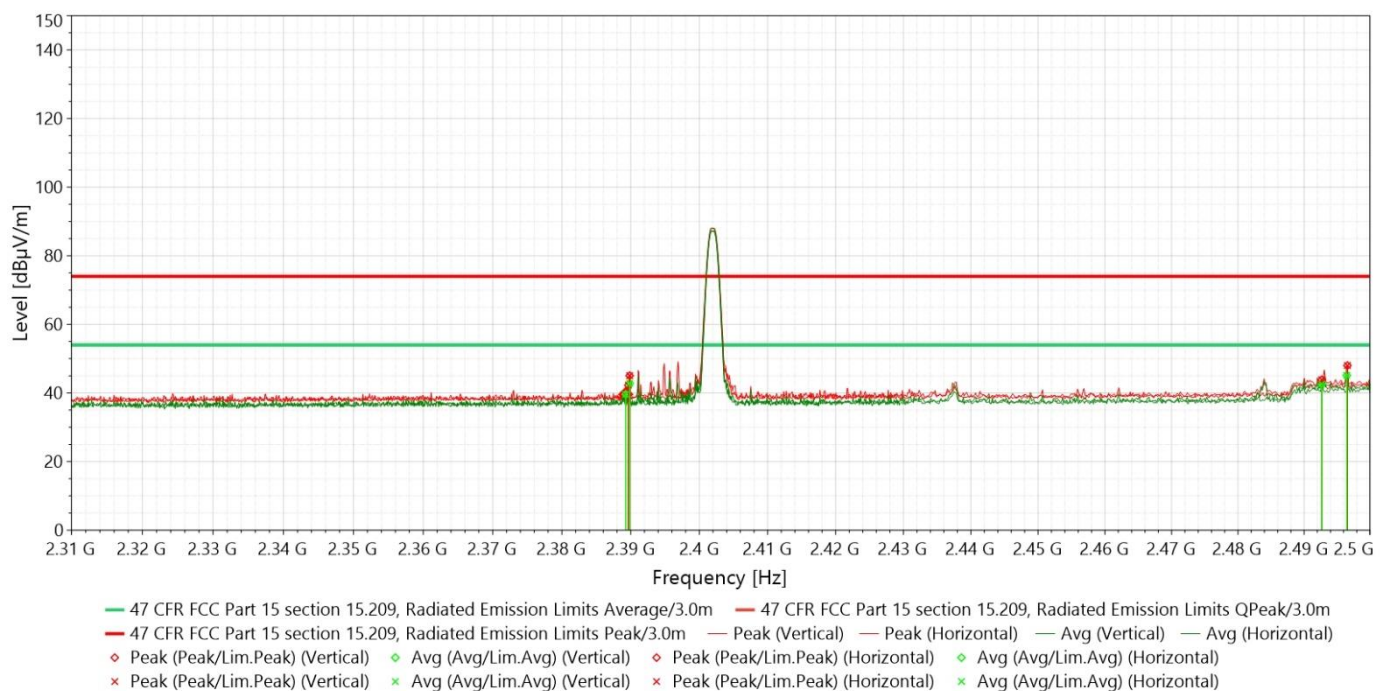
J23134 ER 3B#001_BT_DH1_Restricted Bandedge_Ch 0

5/2/2025 12:28:56 PM

No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.3896498GHz	42.27	-2.61	74.00	-31.73	1.02	89.90	Vertical	Passed
2.	2.4965783GHz	48.01	-1.96	74.00	-25.99	2.95	112.40	Vertical	Passed
3.	2.3898399GHz	45.05	-2.60	74.00	-28.95	2.74	67.40	Horizontal	Passed
4.	2.4926813GHz	43.88	-1.96	74.00	-30.12	1.74	67.40	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	2.3892696GHz	26.62	-2.62	54.00	-27.38	1.02	44.90	Vertical	Passed
2.	2.4964832GHz	27.62	-1.96	54.00	-26.38	2.95	112.40	Vertical	Passed
3.	2.3898399GHz	26.50	-2.60	54.00	-27.50	2.74	67.40	Horizontal	Passed
4.	2.4926813GHz	26.68	-1.96	54.00	-27.32	1.74	67.40	Horizontal	Passed

Overall Graphs:



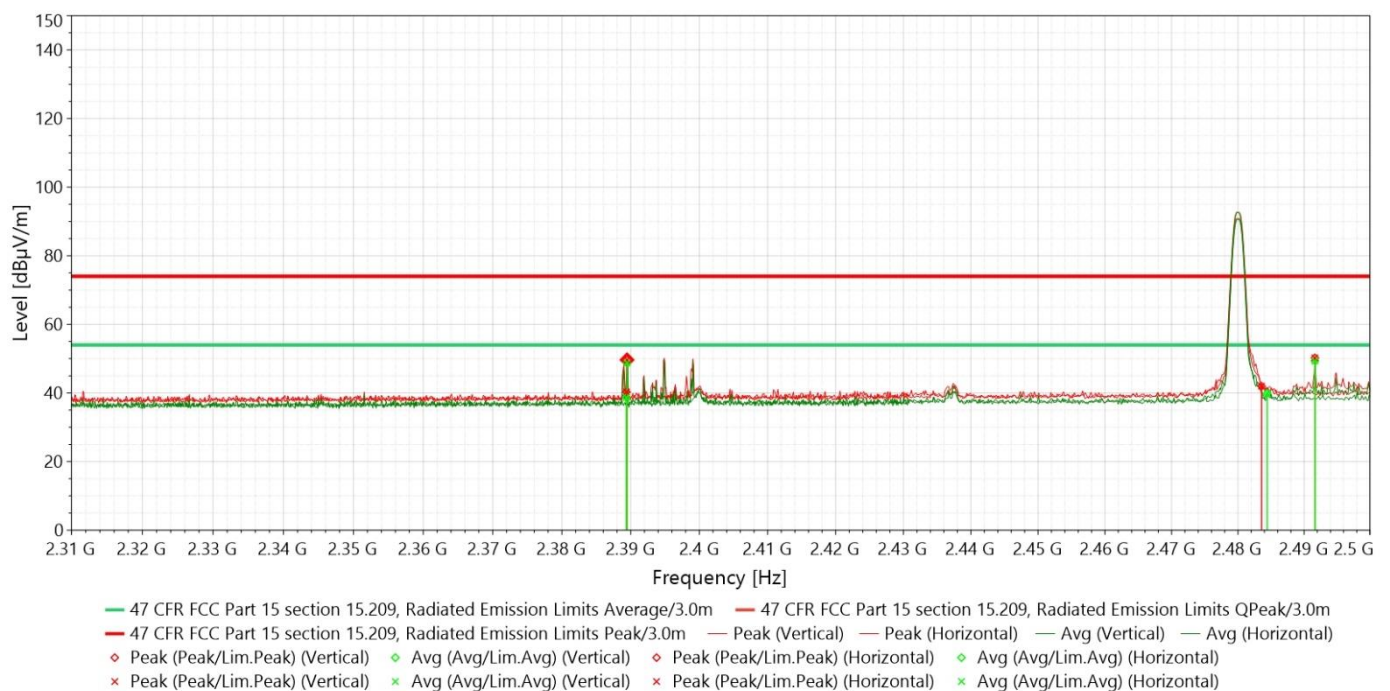
J23134 ER 3B#001_BT_DH1_Restricted Bandedge_Ch 78

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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.	2.3894597GHz	49.66	-2.62	74.00	-24.34	2.55	89.10	Vertical	Passed
2.	2.4916358GHz	50.24	-1.96	74.00	-23.76	3.51	21.60	Vertical	Passed
3.	2.3893647GHz	40.30	-2.61	74.00	-33.70	1.47	269.10	Horizontal	Passed
4.	2.4835568GHz	41.97	-2.03	74.00	-32.03	3.97	134.20	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	2.3894597GHz	26.05	-2.62	54.00	-27.95	2.55	89.10	Vertical	Passed
2.	2.4916358GHz	27.07	-1.96	54.00	-26.93	3.51	21.60	Vertical	Passed
3.	2.3893647GHz	26.18	-2.61	54.00	-27.82	1.47	269.10	Horizontal	Passed
4.	2.4844122GHz	27.20	-2.02	54.00	-26.80	1.02	291.60	Horizontal	Passed

Overall Graphs:



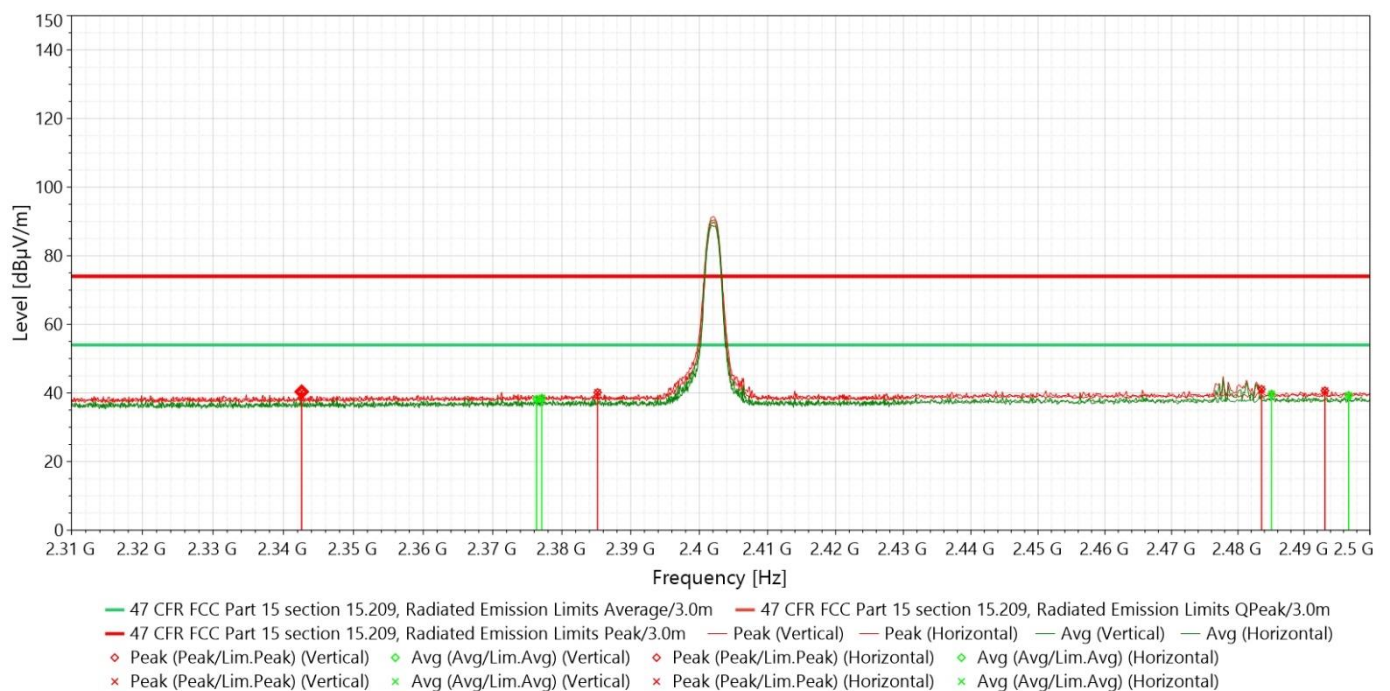
J23134 ER 3B#001_BT_3-DH1_Restricted Bandedge_Ch 0

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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.	2.3426013GHz	40.35	-2.89	74.00	-33.65	2.87	246.50	Vertical	Passed
2.	2.4835568GHz	41.10	-2.02	74.00	-32.90	3.80	44.00	Vertical	Passed
3.	2.3851826GHz	40.15	-2.59	74.00	-33.85	1.02	291.60	Horizontal	Passed
4.	2.4931566GHz	40.65	-1.98	74.00	-33.35	3.54	201.60	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	2.3771036GHz	26.77	-2.64	54.00	-27.23	1.21	179.00	Vertical	Passed
2.	2.4850775GHz	27.21	-2.01	54.00	-26.79	3.62	44.00	Vertical	Passed
3.	2.3763432GHz	26.11	-2.63	54.00	-27.89	1.76	44.00	Horizontal	Passed
4.	2.4967684GHz	27.04	-2.00	54.00	-26.96	3.45	21.60	Horizontal	Passed

Overall Graphs:



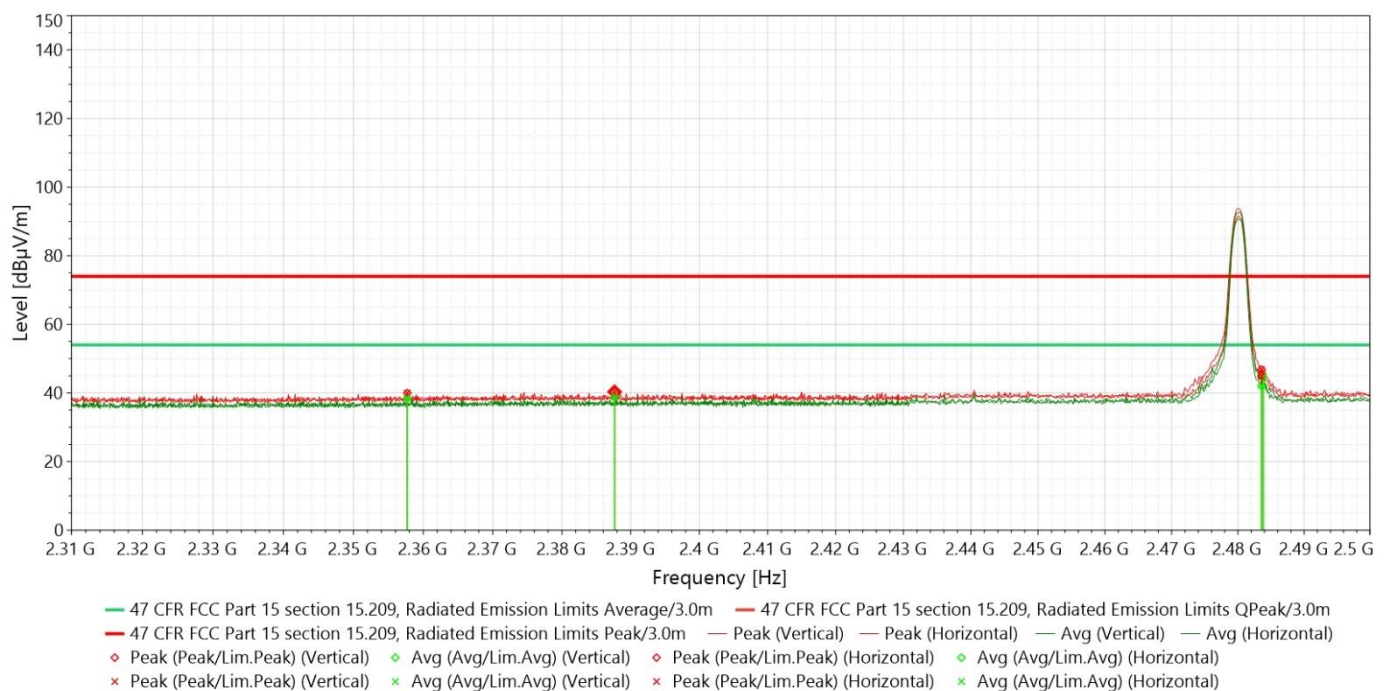
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No	Frequency (MHz)	Level Peak Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgement
1.	2.3876538GHz	40.33	-2.58	74.00	-33.67	1.56	224.90	Vertical	Passed
2.	2.4835568GHz	46.82	-2.02	74.00	-27.18	1.03	269.90	Vertical	Passed
3.	2.3577139GHz	39.95	-2.87	74.00	-34.05	1.74	202.40	Horizontal	Passed
4.	2.4835568GHz	44.84	-2.02	74.00	-29.16	1.29	292.40	Horizontal	Passed

No	Frequency (MHz)	Level Average Reading (dBμV/m)	Correction Factor (dB)	Limit dBμV/m	Margin (dB)	Height (m)	Angle (°)	Polarization	Judgment
1.	2.3876538GHz	26.26	-2.58	54.00	-27.74	1.56	224.90	Vertical	Passed
2.	2.4838419GHz	29.05	-2.01	54.00	-24.95	1.03	247.40	Vertical	Passed
3.	2.3577139GHz	26.20	-2.87	54.00	-27.80	1.74	202.40	Horizontal	Passed
4.	2.4835568GHz	29.13	-2.02	54.00	-24.87	1.29	292.40	Horizontal	Passed

Overall Graphs:



Document Revisions

Version	Date	Modifier	Changes
1.0	05/09/2025	Aravind Buddana	Initial Release

End of Report