

Prüfbericht-Nr.: Test report no.:	CN25GATQ 001	Auftrags-Nr.: Order no.:	326097880	Seite 1 von 54 Page 1 of 54
Kunden-Referenz-Nr.: Client reference no.:	1288983	Auftragsdatum: Order date:	2025-03-03	
Auftraggeber: Client:	IKEA of Sweden AB Box 702, SE-343 81 Älmhult, Sweden			
Prüfgegenstand: Test item:	Portable Luminaire			
Bezeichnung / Typ-Nr.: Identification / Type no.:	E2499			
Auftrags-Inhalt: Order content:	Test Report			
Prüfgrundlage: Test specification:	FCC CFR47 Part 15, Subpart C Section 15.247 RSS-Gen Issue 5, Amendment 2, February 2021 RSS-247 Issue 4, July 24, 2025			
Wareneingangsdatum: Date of sample receipt:	2025-03-07 2025-04-07	Refer to photo document.		
Prüfmuster-Nr.: Test sample no:	A003940424-006 A003963730-001			
Prüfzeitraum: Testing period:	2025-04-10 ~ 2025-06-05			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:	X <u>Hongfei Wu</u>		genehmigt von: authorized by:	X <u>Elliot Zhang</u>
Datum: Date: 2025-12-24	Signed by: Hongfei Wu		Datum: Date: 2025-12-24	Signed by: Elliot Zhang
Stellung / Position:	Sachverständige(r)/Expert		Stellung / Position:	Sachverständige(r)/Expert
Sonstiges / Other:	FCC ID: FHO-E2499 IC: 10912A-E2499 HVIN: E2499 PMN: VARMBLIXT This report is for BLE.			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) * Legend: P(ass) = passed a.m. test specification(s)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n) F(ail) = failed a.m. test specification(s)	N/A = nicht anwendbar N/A = not applicable	N/T = nicht getestet N/T = not tested	
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Anmerkungen Remarks

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4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2023, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2023, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>

TEST SUMMARY

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 6dB & 99% BANDWIDTH

RESULT: Pass

5.1.3 OUTPUT POWER

RESULT: Pass

5.1.4 POWER SPECTRAL DENSITY

RESULT: Pass

5.1.5 CONDUCTED BAND EDGE AND OUT-OF BAND EMISSIONS

RESULT: Pass

5.2.1 CONDUCTED EMISSION

RESULT: N/A

5.3.1 RADIATED BAND-EDGE

RESULT: Pass

5.3.2 RADIATED SPURIOUS EMISSION

RESULT: Pass

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1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

2. Test Sites

2.1 Test Facilities

TÜV Rheinland (Shanghai) Co., Ltd.

Workshop 14, North Half of Workshop 10 and Workshop 16, Pingqian (Taicang) Modern Industrial Park, No.525, Yuewang Lingang South Road, Shaxi, Taicang, Jiangsu, China

The used test equipment is in accordance with CISPR 16 for measurement of radio interference.

The Federal Communications Commission has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance with the requirements of section 2.948 of the FCC rules. The description of the test facility is listed under FCC registration number 930979.

The Innovation, Science and Economic Development Canada has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance. The description of the test facility is listed under chambers filing number 33038.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Equip.	Description	Model	Manufacturer	Due Date DD.MM.YYYY
EMC-C-196	Wireless connectivity tester	CMW270	Rohde & Schwarz	23.08.2025
EMC-C-302	Signal generator	SMB100B (6 GHz)	Rohde & Schwarz	10.12.2025
EMC-C-303	Vector Signal generator	SMW200A	Rohde & Schwarz	10.12.2025
EMC-C-304	OSP	OSP-B157W8	Rohde & Schwarz	10.12.2025
EMC-C-161	Spectrum analyser	FSV40	Rohde&Schwarz	15.07.2025
EMC-C-018	Double ridged horn antenna	BBHA 9120 D	Schwarzbeck	24.03.2026
EMC-C-066	EMI test receiver	ESCI	Rohde&Schwarz	27.10.2025
EMC-C-068	Broadband horn antenna	BBHA 9170	Schwarzbeck	18.06.2028
EMC-C-155	BiLog antenna	CBL 6112D	Teseq	24.03.2026
EMC-C-175	Preamplifier	EMC051845SE	EMCI Taiwan	24.07.2025
EMC-C-176	Preamplifier	EMC184045SE	EMCI Taiwan	24.07.2025
EMC-C-001	3 m semi-anechoic chamber	SAC3	Frankonia	03.12.2026
EMC-C-141	Shielded enclosure	10.055x3.605x3.000	Frankonia	08.11.2028
EMC-C-195	EMI test receiver	ESR3	Rohde&Schwarz	03.08.2025
EMC-C-190	Artificial mains network	ENV432	Rohde&Schwarz	11.10.2025
software				
EMC-S-036	RF measurement software	WMS32-WB (11.40.00)	Rohde&Schwarz	NA
EMC-S-032	EMI measurement software	EMC32-E+ (10.60.20)	Rohde&Schwarz	NA
EMC-S-028	EMI measurement software	EMC32-MEB (10.60.20)	Rohde&Schwarz	NA

2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

Table 2: Measurement Uncertainty

Measurement Type	Frequency	Uncertainty
Antenna Port Conducted Emission	< 1GHz	±0.39dB
	> 1GHz	±0.68dB
Conducted Emission	150kHz - 30MHz	±2.33dB
Radiated Emission	9kHz - 30MHz	±2.93dB
	30MHz - 1GHz	±5.34dB
	> 1GHz	±5.40dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT (Equipment Under Test) is a LED lamp which supports Bluetooth Low Energy, Zigbee and Thread.

The aim of this report is to evaluate RF character of Bluetooth Low Energy of the EUT.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Description of EUT	
Product Name:	Portable Luminaire
Model No.:	E2499
Operation Voltage:	DC 24V (Powered by adapter, Model: ICPSW24-7-4, Input: AC 100-240V, Output: DC 24V)
Test Voltage:	DC 3.3V
RF Technical:	1) BLE 2) Zigbee 3) Thread
Technical Specification of Bluetooth Low Energy	
Frequency Range:	2402~2480MHz
Modulation Type:	GFSK
Data Rate:	1Mbps, 2Mbps
Antenna Type:	PCB Antenna
Antenna Gain:	-0.54 dBi (declared by client)

Table 4: Operation Channel List

RF Channel	Frequency [MHz]	RF Channel	Frequency [MHz]	RF Channel	Frequency [MHz]	RF Channel	Frequency [MHz]
00	2402	10	2422	20	2442	30	2462
01	2404	11	2424	21	2444	31	2464
02	2406	12	2426	22	2446	32	2466
03	2408	13	2428	23	2448	33	2468
04	2410	14	2430	24	2450	34	2470
05	2412	15	2432	25	2452	35	2472
06	2414	16	2434	26	2454	36	2474
07	2416	17	2436	27	2456	37	2476
08	2418	18	2438	28	2458	38	2478
09	2420	19	2440	29	2460	39	2480

3.3 Independent Operation Modes

Test frequencies are lowest channel: 2402 MHz, middle channel: 2442 MHz and highest channel: 2480 MHz

The basic operation modes are:

- A. BLE transmitting mode
- B. Radio operating mode

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10:2020 and ANSI C63.10-2020+COR. 1-2023+C63.10A-2024+ERRATA TO C63.10A-2024.

Test Software: sscom 5.13.1

Table 5: Power parameter value

Mode	Power Parameter Setting Value
BLE	10

4.3 Special Accessories and Auxiliary Equipment

Table 6: Auxiliary Equipment

Equipment	Manufacturer	Model
Laptop	Lenovo	21AJ-S57N0J
Mobile phone	Apple	iPhone 15
Loudspeaker	Apple	HomePod mini
Remote control	IKEA	E2489

4.4 Countermeasures to achieve EMC Compliance

Null.

5. Test Results

5.1 Conducted Testing at Antenna Port

5.1.1 Antenna Requirement

RESULT:**Pass**

According to the manufacturer declared, the EUT has one internal PCB antenna, the directional gain of antenna is -0.54 dBi and the antenna is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Table 7: Antenna Requirement

FCC 15.203 – Antenna Requirement 1		
Requirement:	No antenna other than that furnished by the responsible party shall be used with the device	
Results:	Antenna type:	PCB Antenna
Verdict:	Pass	

FCC 15.204 – Antenna Requirement 2		
Requirement:	An intentional radiator may be operated only with the antenna with which it is authorized. If an antenna is marketed with the intentional radiator, it shall be of a type which is authorized with the intentional radiator.	
Results:	Only one PCB antenna can be used	
Verdict:	Pass	

RSS-Gen 6.4 – External Control		
Requirement:	The device shall not have any external controls accessible to the user that enable it to be adjusted, selected or programmed to operate in violation of the regulatory requirements, including RSS-Gen and the applicable RSSs	
Results:	The device does not have any transmitter external controls accessible to the user that can be adjusted and operated in violation of the limits of this standard.	
Verdict:	PASS	

RSS-Gen 6.8 – Antenna Requirement

Requirement: When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer.

Results:

a) Antenna Type:	PCB Antenna
b) Manufacture:	N/A
c) Model No.:	N/A
d) Gain with reference to an isotropic radiator:	-0.54 dBi

Verdict: PASS

5.1.2 6dB & 99% Bandwidth**RESULT:****Pass**

Date of testing	:	2025-05-23
Ambient temperature	:	22.4°C
Relative humidity	:	57.5%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(a)(2) RSS-247 Issue 4, July 24, 2025, Clause 6.3.1(a) RSS-Gen Issue 5, Amendment 2, February 2021, Clause 6.7
Test procedure	:	ANSI C63.10:2020 ANSI C63.10-2020+COR. 1-2023+C63.10A-2024+ERRATA TO C63.10A-2024
Test voltage	:	DC 3.3V
Test modes applied	:	A

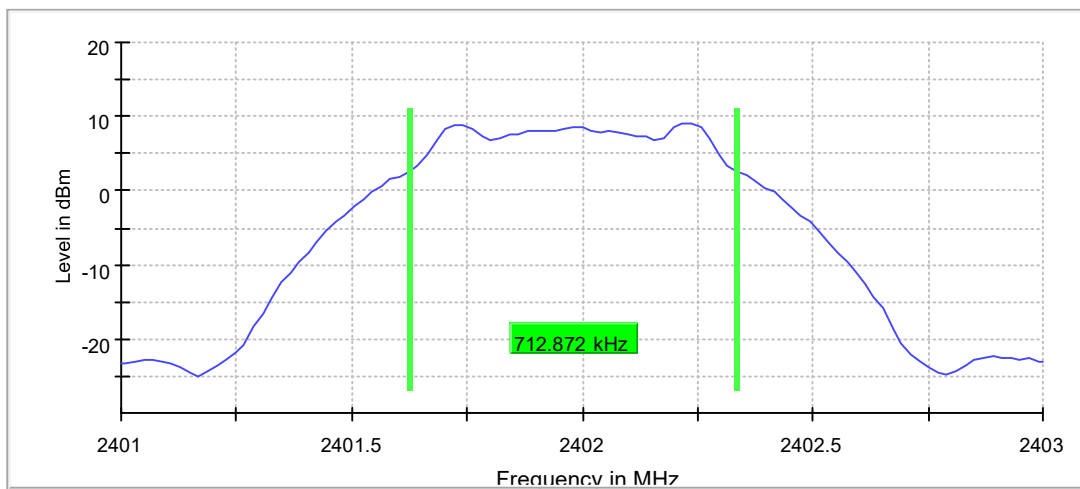
6dB Bandwidth, 1Mbps, 2402MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.712872	0.500000	---	2401.623762	2402.336634

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	9.1	PASS

6 dB Bandwidth


Measurement

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	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	18.938 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	13 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.05 dB	0.50 dB

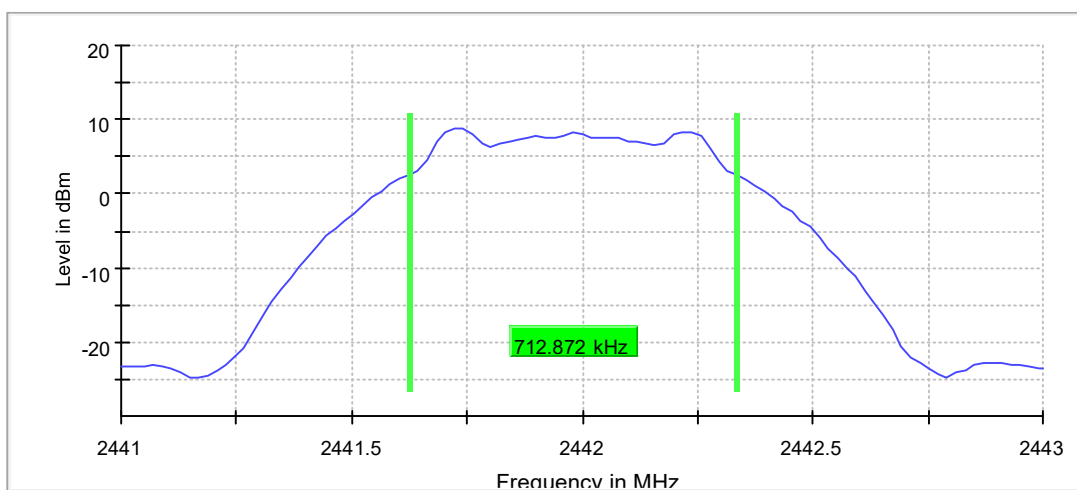
6dB Bandwidth, 1Mbps, 2442MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2442.000000	0.712872	0.500000	---	2441.623762	2442.336634

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2442.000000	8.9	PASS

6 dB Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44100 GHz	2.44100 GHz
Stop Frequency	2.44300 GHz	2.44300 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	18.938 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 dB	0.50 dB

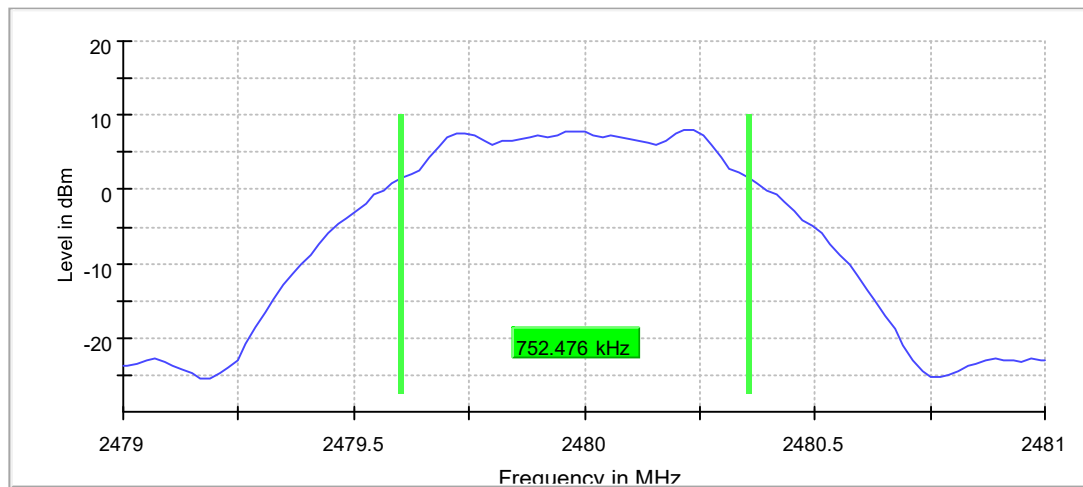
6dB Bandwidth, 1Mbps, 2480MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.752476	0.500000	---	2479.603960	2480.356436

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	8.1	PASS

6 dB Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweptime	18.938 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	12 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.15 dB	0.50 dB

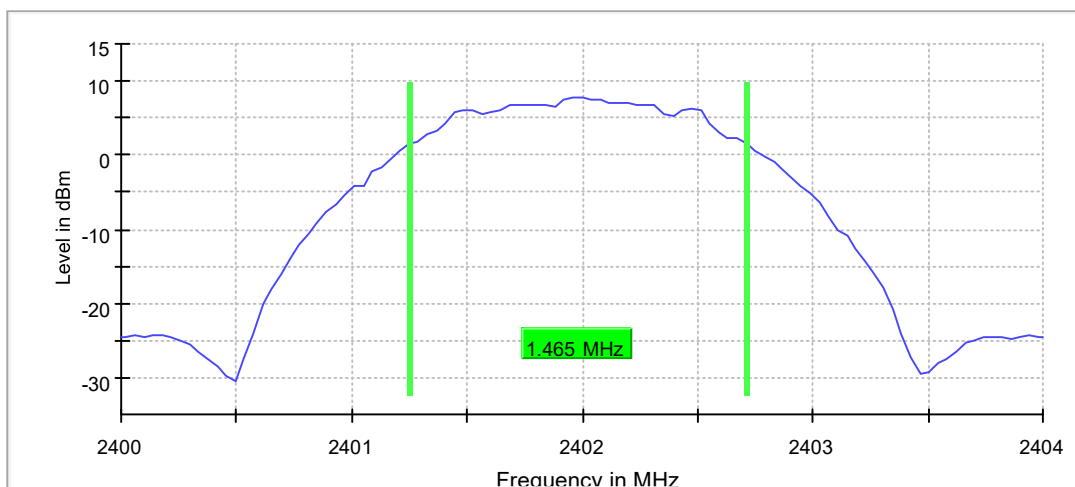
6dB Bandwidth, 2Mbps, 2402MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.465346	0.500000	---	2401.247525	2402.712871

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	7.7	PASS

6 dB Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.40400 GHz	2.40400 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
Sweptime	18.938 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	20 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.29 dB	0.50 dB

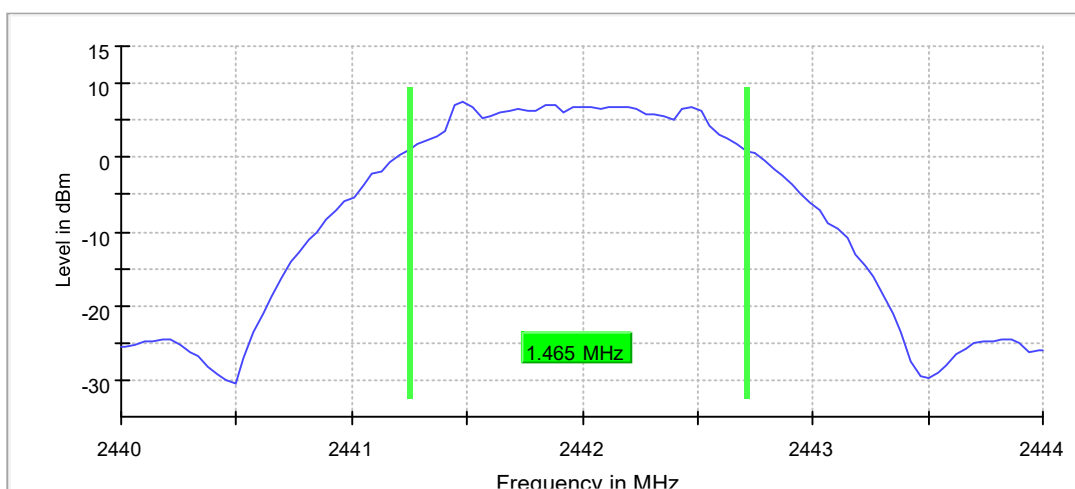
6dB Bandwidth, 2Mbps, 2442MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2442.000000	1.465346	0.500000	---	2441.247525	2442.712871

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2442.000000	7.5	PASS

6 dB Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44000 GHz	2.44000 GHz
Stop Frequency	2.44400 GHz	2.44400 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
Sweeptime	18.938 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	32 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 dB	0.50 dB

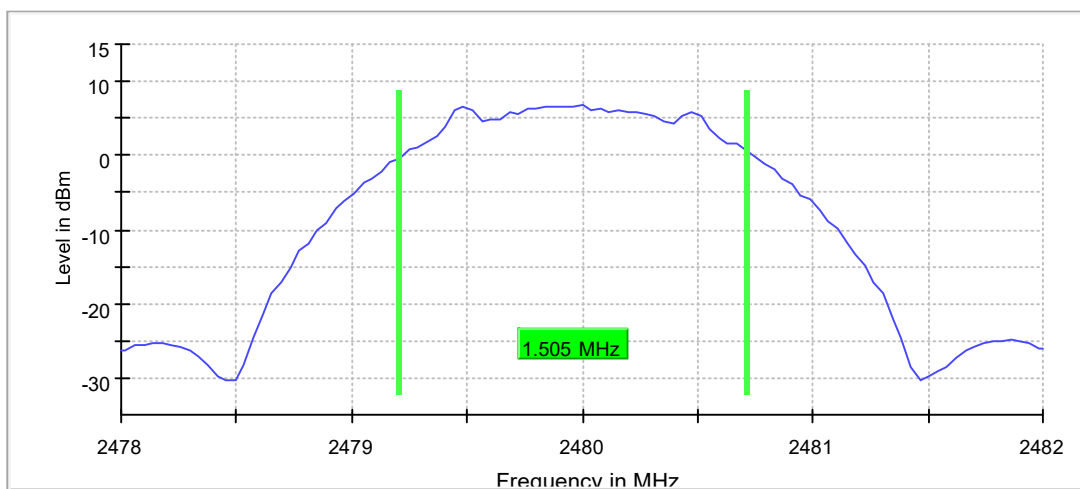
6dB Bandwidth, 2Mbps, 2480MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.504950	0.500000	---	2479.207921	2480.712871

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	6.7	PASS

6 dB Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47800 GHz	2.47800 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
Sweeptime	18.938 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	27 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 dB	0.50 dB

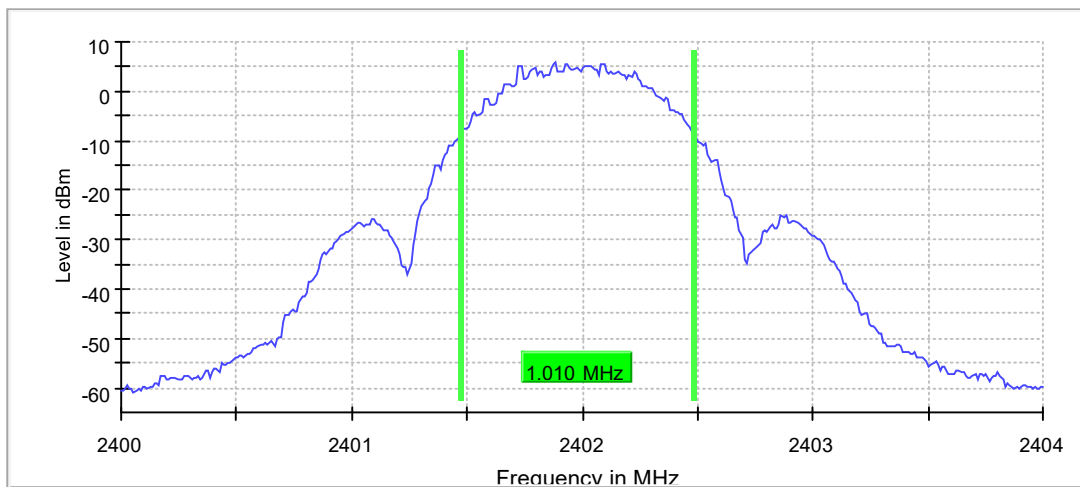
99% Bandwidth, 1Mbps, 2402MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.010000	---	---	2401.475000	2402.485000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2402.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.40400 GHz	2.40400 GHz
Span	4.000 MHz	4.000 MHz
RBW	20.000 kHz	>= 20.000 kHz
VBW	100.000 kHz	>= 60.000 kHz
SweepPoints	400	~ 400
Sweeptime	94.824 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	24 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.17 dB	0.30 dB

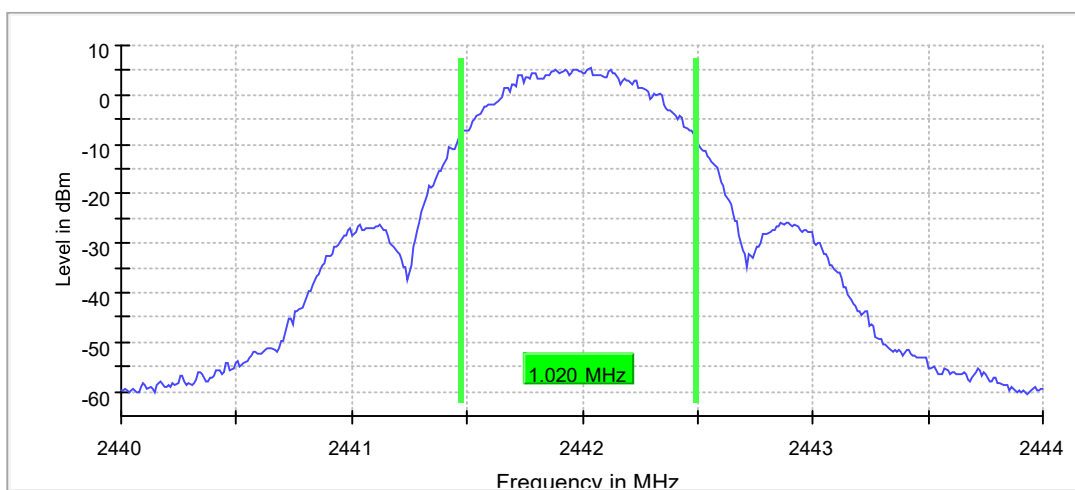
99% Bandwidth, 1Mbps, 2442MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2442.000000	1.020000	---	---	2441.475000	2442.495000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2442.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44000 GHz	2.44000 GHz
Stop Frequency	2.44400 GHz	2.44400 GHz
Span	4.000 MHz	4.000 MHz
RBW	20.000 kHz	>= 20.000 kHz
VBW	100.000 kHz	>= 60.000 kHz
SweepPoints	400	~ 400
SweepTime	94.824 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	43 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.30 dB

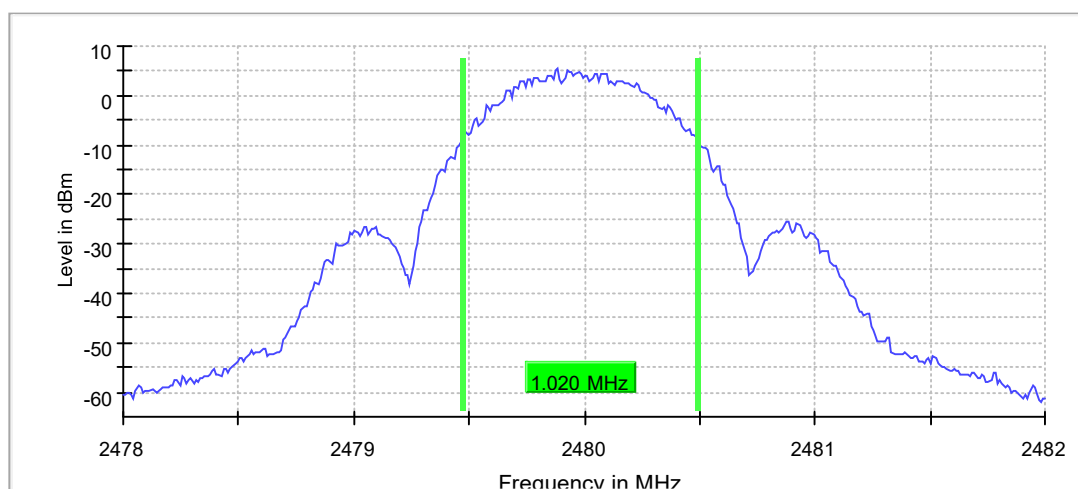
99% Bandwidth, 1Mbps, 2480MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.020000	---	---	2479.475000	2480.495000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47800 GHz	2.47800 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	4.000 MHz	4.000 MHz
RBW	20.000 kHz	>= 20.000 kHz
VBW	100.000 kHz	>= 60.000 kHz
SweepPoints	400	~ 400
Sweptime	94.824 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	26 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.21 dB	0.30 dB

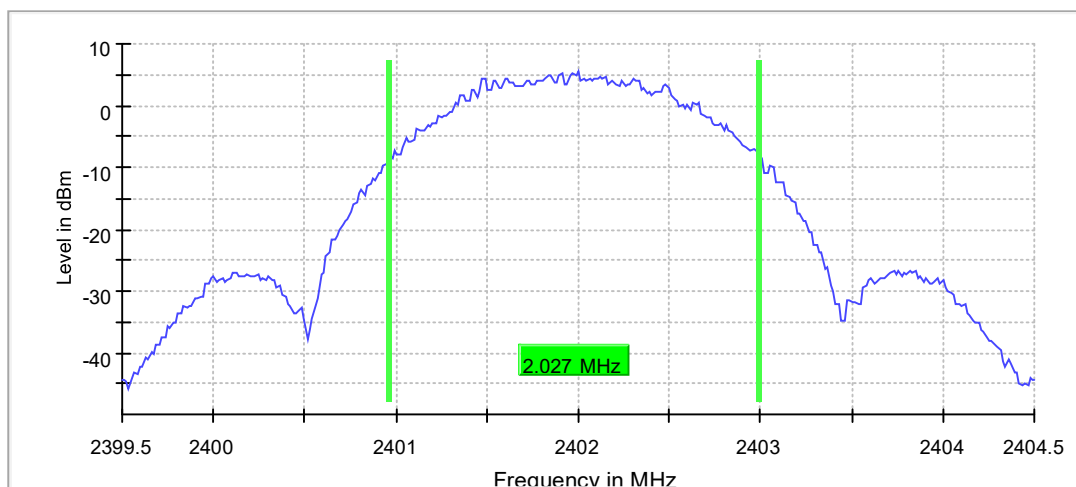
99% Bandwidth, 2Mbps, 2402MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	2.027027	---	---	2400.963964	2402.990991

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2402.000000	PASS

99 % Bandwidth


Measurement

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	30.000 kHz	>= 25.000 kHz
VBW	100.000 kHz	>= 90.000 kHz
SweepPoints	333	~ 333
Sweeptime	63.218 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	51 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.30 dB

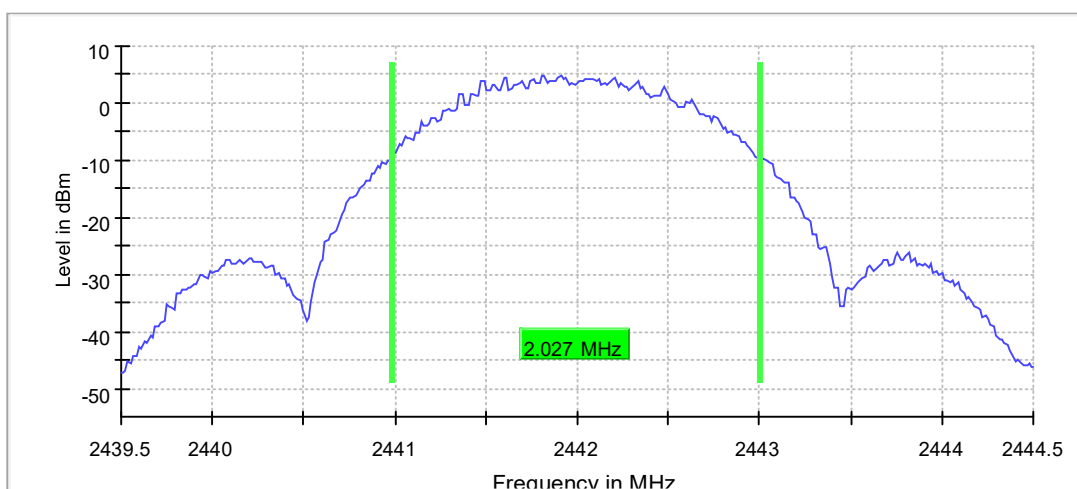
99% Bandwidth, 2Mbps, 2442MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2442.000000	2.027027	---	---	2440.978979	2443.006006

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2442.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43950 GHz	2.43950 GHz
Stop Frequency	2.44450 GHz	2.44450 GHz
Span	5.000 MHz	5.000 MHz
RBW	30.000 kHz	>= 25.000 kHz
VBW	100.000 kHz	>= 90.000 kHz
SweepPoints	333	~ 333
Sweeptime	63.218 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	39 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.30 dB

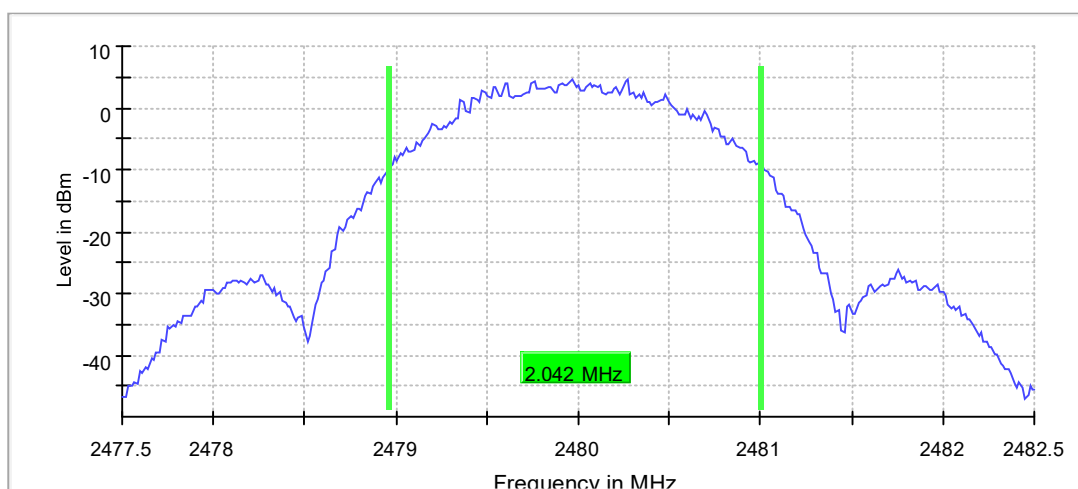
99% Bandwidth, 2Mbps, 2480MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	2.042042	---	---	2478.963964	2481.006006

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47750 GHz	2.47750 GHz
Stop Frequency	2.48250 GHz	2.48250 GHz
Span	5.000 MHz	5.000 MHz
RBW	30.000 kHz	>= 25.000 kHz
VBW	100.000 kHz	>= 90.000 kHz
SweepPoints	333	~ 333
Sweeptime	63.218 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	36 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.22 dB	0.30 dB

5.1.3 Output Power

RESULT:**Pass**

Date of testing : 2025-05-23
Ambient temperature : 22.4°C
Relative humidity : 57.5%
Atmospheric pressure : 101kPa
Test requirement : FCC Part 15.247(b)(3)
RSS-247 Issue 4, July 24, 2025, Clause 6.3.2
Test procedure : ANSI C63.10:2020
ANSI C63.10-2020+COR. 1-2023+C63.10A-
2024+ERRATA TO C63.10A-2024
Test voltage : DC 3.3V
Test modes applied : A

Table 8: Peak Output Power

Data Rate	Frequency [MHz]	Peak Conducted Output Power [dBm]	Limit [dBm]
1Mbps	2402	9.4	30
1Mbps	2442	9.0	30
1Mbps	2480	8.7	30
2Mbps	2402	9.4	30
2Mbps	2442	9.0	30
2Mbps	2480	8.6	30

Note:

1. The cable loss is taken into account in results.
2. EIRP=Conducted Output Power + Antenna Gain (-0.54dBi), which is far below the 4 W (36dBm).

5.1.4 Power Spectral Density

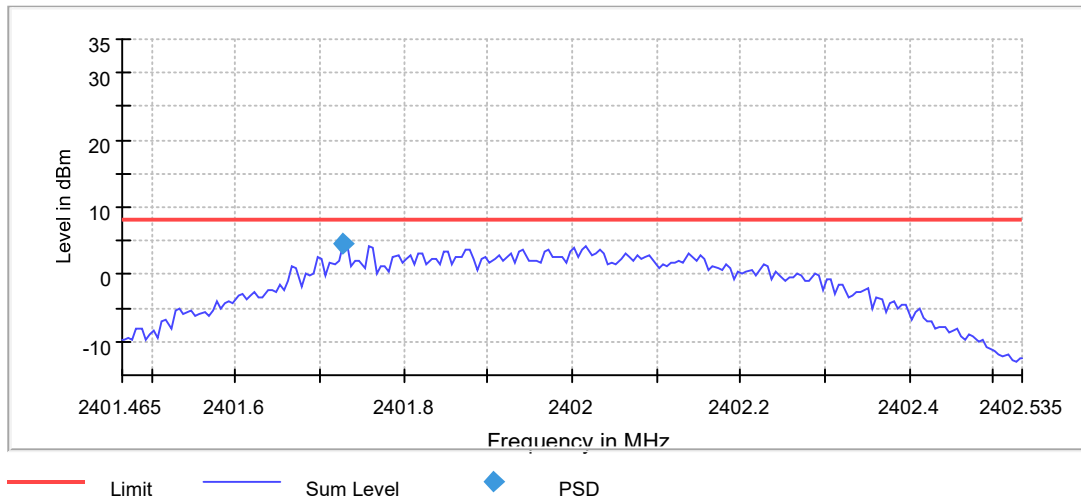
RESULT:**Pass**

Date of testing	:	2025-05-23
Ambient temperature	:	22.4°C
Relative humidity	:	57.5%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(e) RSS-247 Issue 4, July 24, 2025, Clause 6.3.1(b)
Test procedure	:	ANSI C63.10:2020 ANSI C63.10-2020+COR. 1-2023+C63.10A- 2024+ERRATA TO C63.10A-2024
Test voltage	:	DC 3.3V
Test modes applied	:	A

Power Spectral Density, 1Mbps, 2402MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2402.000000	2401.727676	4.534	8.0	PASS

Peak Power Spectral Density

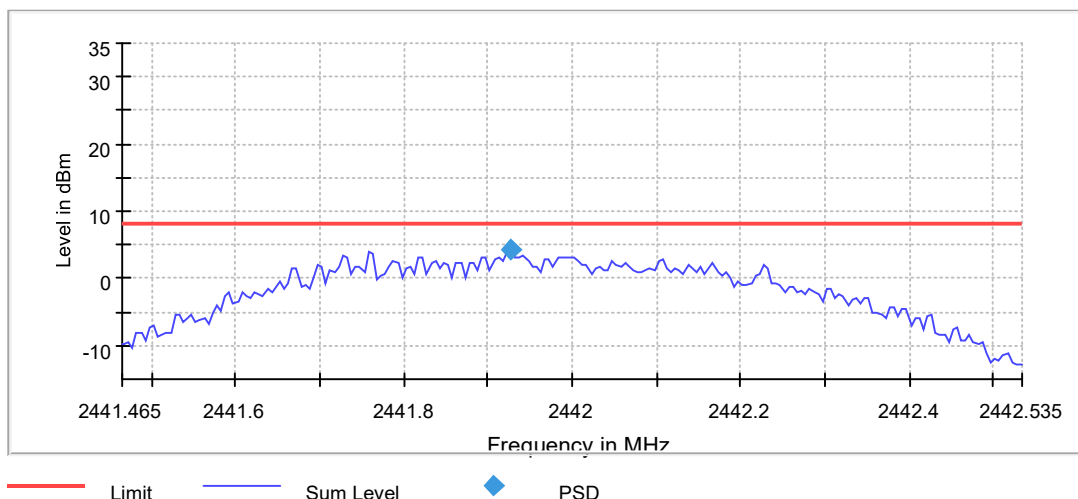

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40147 GHz	2.40147 GHz
Stop Frequency	2.40253 GHz	2.40253 GHz
Span	1.069 MHz	1.069 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	214	~ 214
SweepTime	1.070 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	23 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.14 dB	0.50 dB

Power Spectral Density, 1Mbps, 2442MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2442.000000	2441.927547	4.269	8.0	PASS

Peak Power Spectral Density

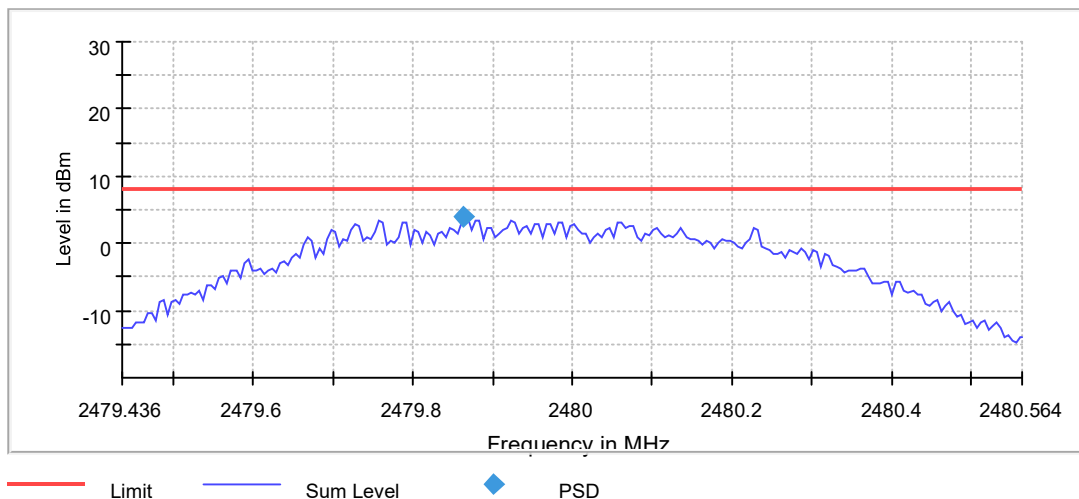

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44147 GHz	2.44147 GHz
Stop Frequency	2.44253 GHz	2.44253 GHz
Span	1.069 MHz	1.069 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	214	~ 214
Sweeptime	1.070 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	24 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.29 dB	0.50 dB

Power Spectral Density, 1Mbps, 2480MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2479.862656	3.884	8.0	PASS

Peak Power Spectral Density

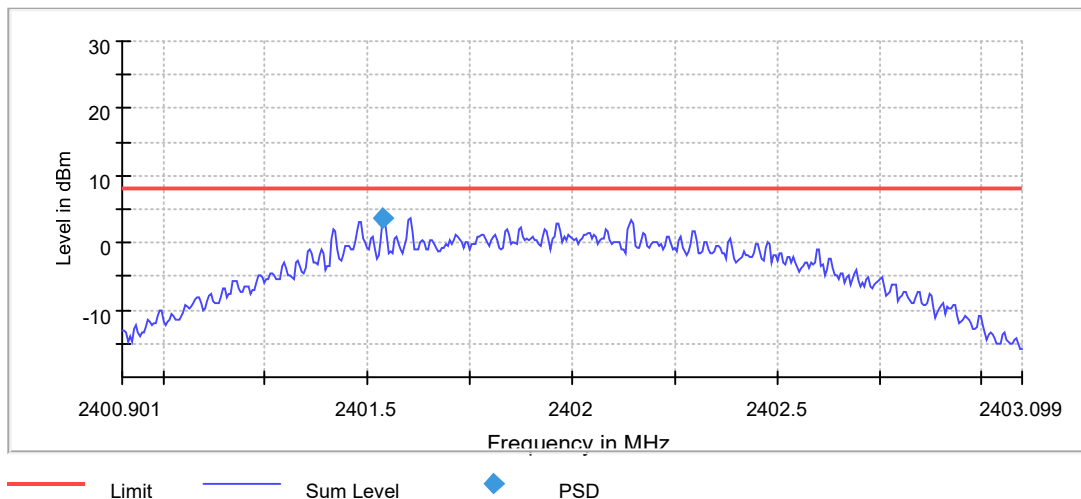

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47944 GHz	2.47944 GHz
Stop Frequency	2.48056 GHz	2.48056 GHz
Span	1.129 MHz	1.129 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	226	~ 226
Sweptime	1.130 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	29 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.22 dB	0.50 dB

Power Spectral Density, 2Mbps, 2402MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2402.000000	2401.537916	3.556	8.0	PASS

Peak Power Spectral Density

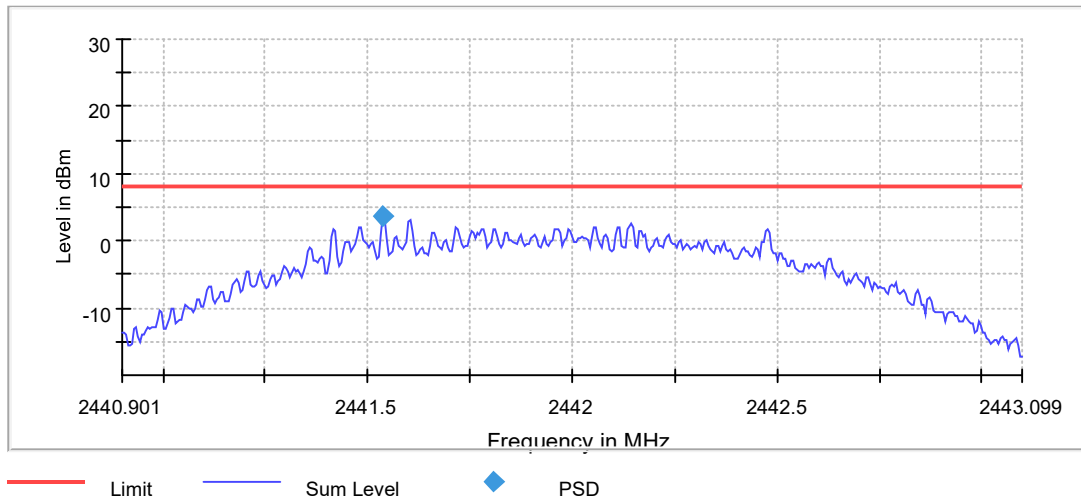

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40090 GHz	2.40090 GHz
Stop Frequency	2.40310 GHz	2.40310 GHz
Span	2.198 MHz	2.198 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	440	~ 440
SweepTime	2.200 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	48 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.27 dB	0.50 dB

Power Spectral Density, 2Mbps, 2442MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2442.000000	2441.537916	3.492	8.0	PASS

Peak Power Spectral Density

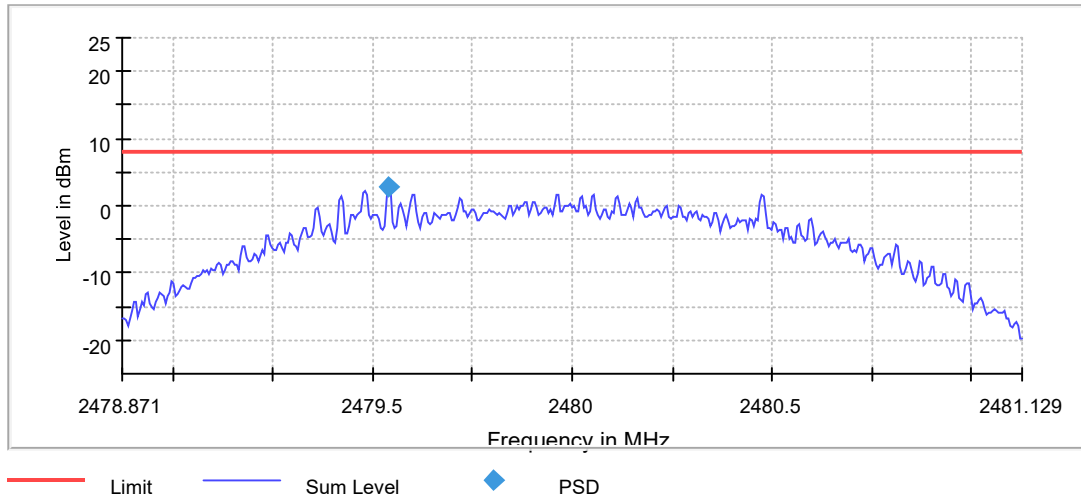

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44090 GHz	2.44090 GHz
Stop Frequency	2.44310 GHz	2.44310 GHz
Span	2.198 MHz	2.198 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	440	~ 440
SweepTime	2.200 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	57 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.43 dB	0.50 dB

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Power Spectral Density, 2Mbps, 2480MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2479.539505	2.681	8.0	PASS

Peak Power Spectral Density


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47887 GHz	2.47887 GHz
Stop Frequency	2.48113 GHz	2.48113 GHz
Span	2.257 MHz	2.257 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	451	~ 451
SweepTime	2.260 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	31 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.13 dB	0.50 dB

5.1.5 Conducted Band Edge and out-of Band Emissions

RESULT:**Pass**

Date of testing	:	2025-05-08
Ambient temperature	:	22.5°C
Relative humidity	:	57.5%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(d) RSS-247 Issue 4, July 24, 2025, Clause 6.6
Test procedure	:	ANSI C63.10:2020 ANSI C63.10-2020+COR. 1-2023+C63.10A- 2024+ERRATA TO C63.10A-2024
Test voltage	:	DC 3.3V
Test modes applied	:	A

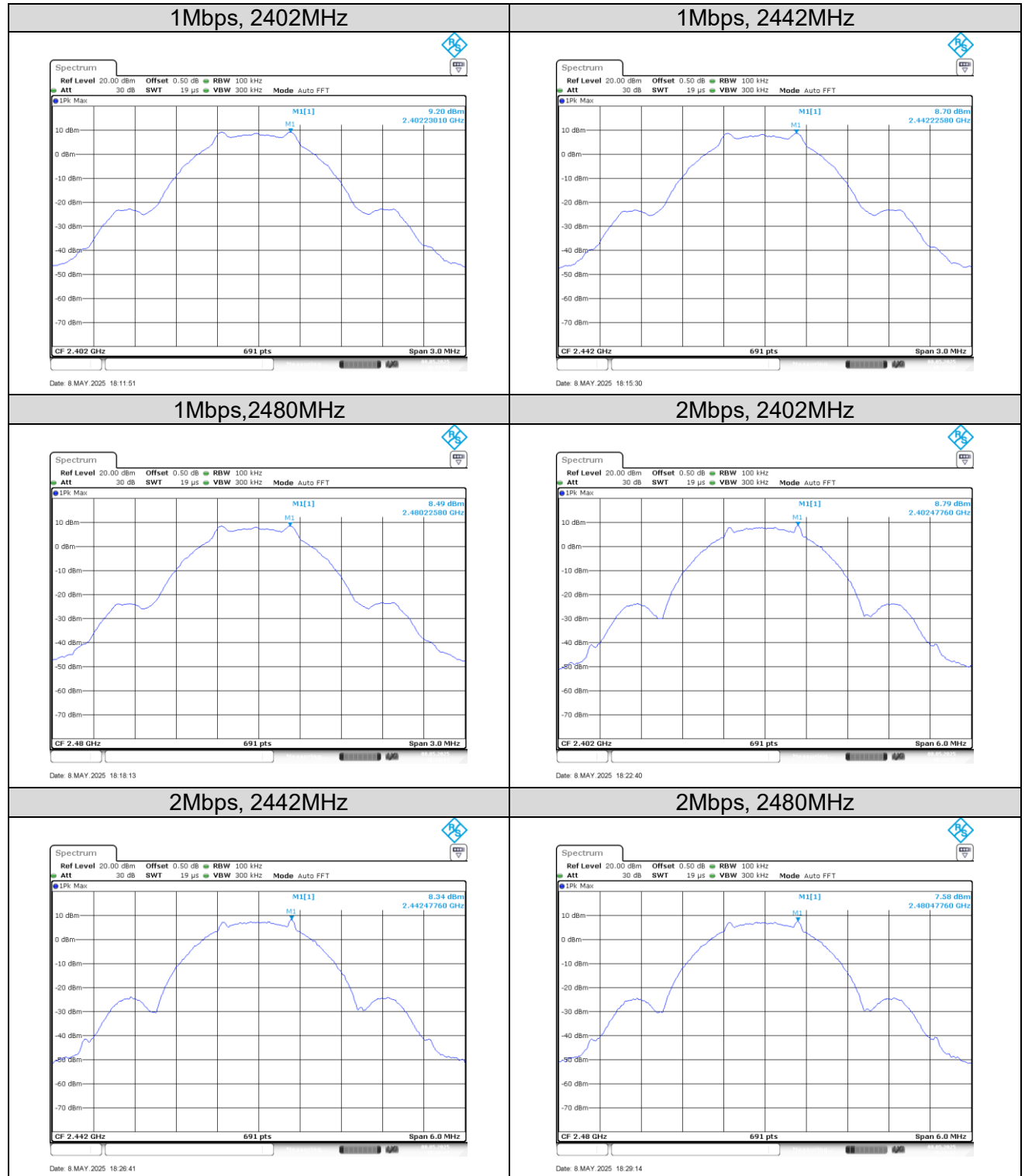
Figure 1: Reference level


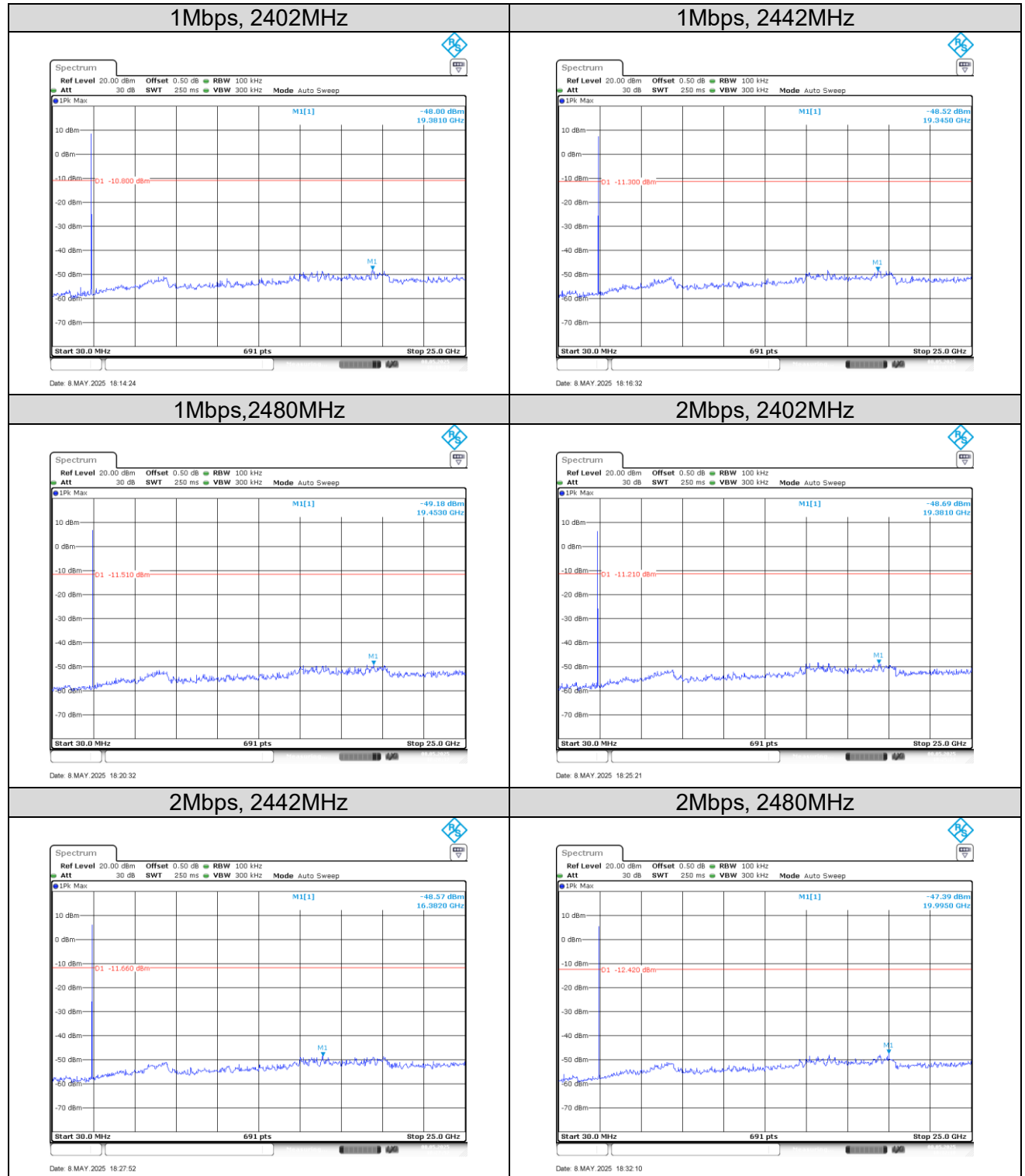
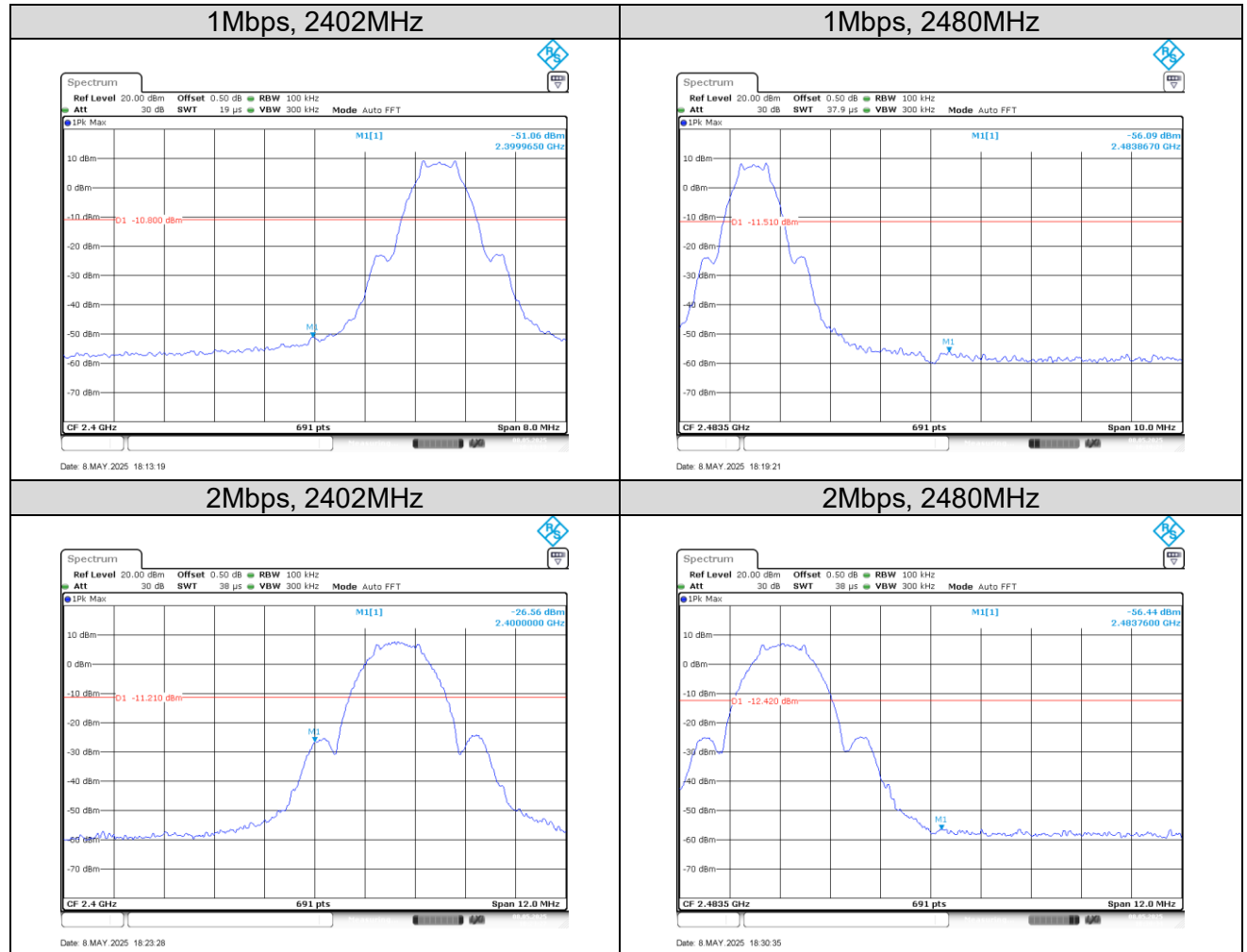
Figure 2: Conducted Spurious Emission


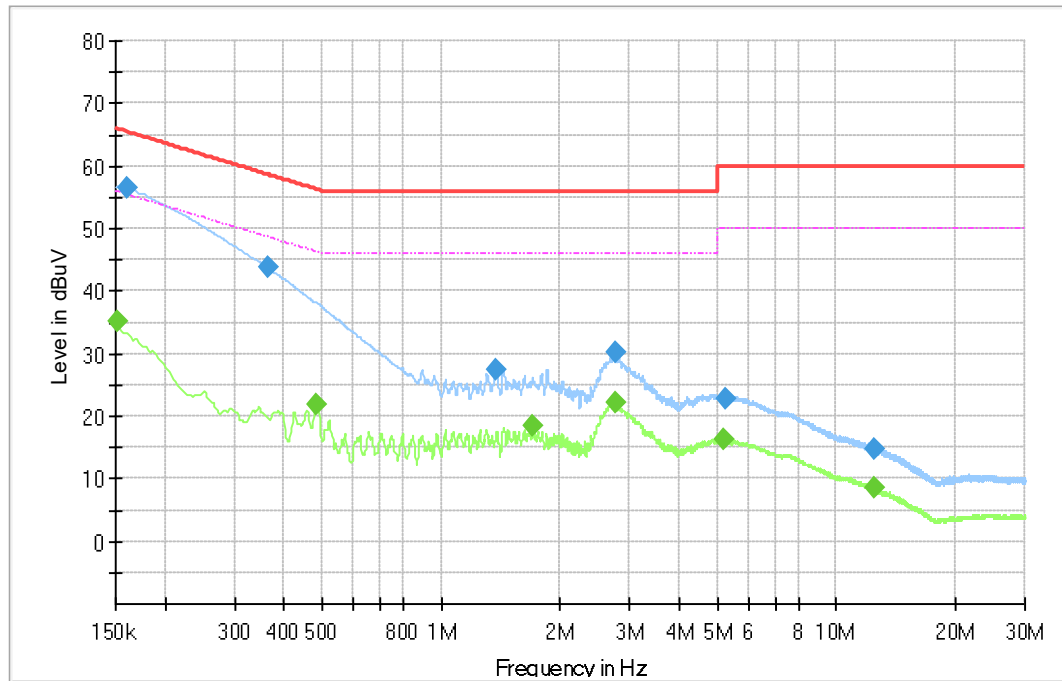
Figure 3: Conducted Band Edge


5.2 Emission in the Frequency Range up to 30MHz

5.2.1 Conducted Emission

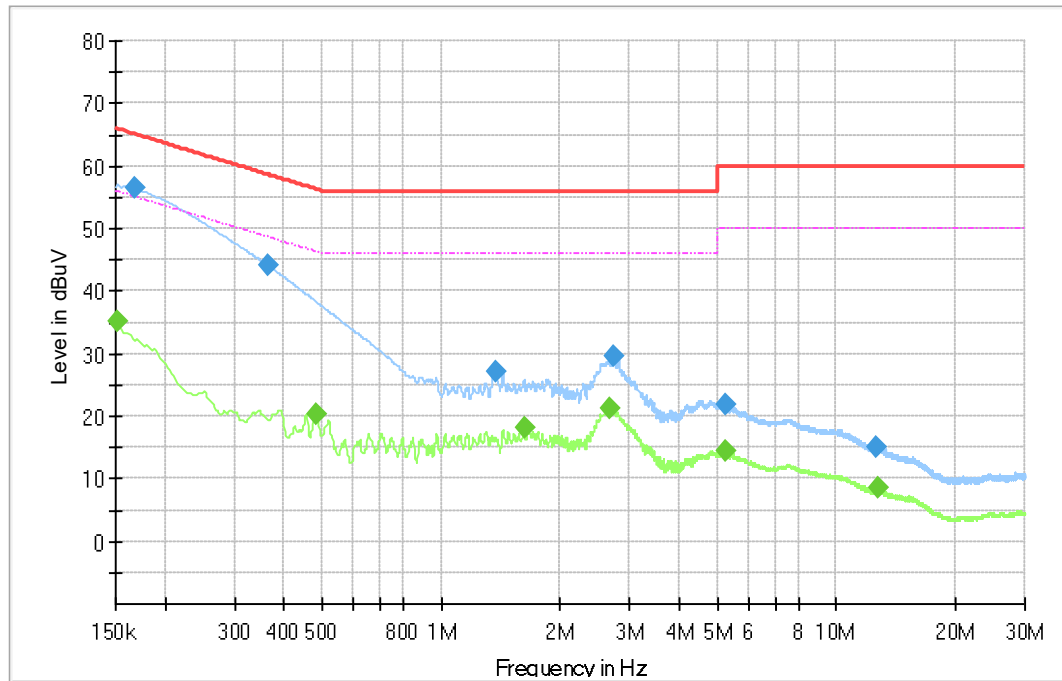
RESULT:**Pass**

Date of testing	:	2025-04-10
Ambient temperature	:	22.4°C
Relative humidity	:	50.0%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.207 (a) RSS-Gen Issue 5, Amendment 2, February 2021, Clause 8.8
Test procedure	:	ANSI C63.10:2020 ANSI C63.10-2020+COR. 1-2023+C63.10A- 2024+ERRATA TO C63.10A-2024
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	B

Figure 4: Conducted Emission, L


Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
0.152250	---	34.60	55.88	21.28	L1	10.3
0.161250	56.56	---	65.40	8.84	L1	10.3
0.363750	43.75	---	58.64	14.89	L1	10.3
0.483000	---	21.43	46.29	24.86	L1	10.3
1.376250	27.64	---	56.00	28.36	L1	10.4
1.704750	---	18.05	46.00	27.95	L1	10.2
2.748750	30.07	---	56.00	25.93	L1	10.1
2.755500	---	22.07	46.00	23.93	L1	10.1
5.181000	---	16.30	50.00	33.70	L1	10.4
5.246250	23.25	---	60.00	36.75	L1	10.4
12.414750	---	8.29	50.00	41.71	L1	10.8
12.516000	14.80	---	60.00	45.20	L1	10.8

Figure 5: Conducted Emission, N


Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
0.152250	---	34.65	55.88	21.23	N	10.2
0.168000	56.52	---	65.06	8.54	N	10.4
0.363750	44.17	---	58.65	14.48	N	10.4
0.480750	---	20.10	46.32	26.22	N	10.2
1.369500	27.00	---	56.00	29.00	N	10.4
1.623750	---	17.85	46.00	28.15	N	10.5
2.674500	---	21.09	46.00	24.91	N	10.6
2.726250	29.50	---	56.00	26.50	N	10.6
5.228250	---	14.21	50.00	35.79	N	10.7
5.228250	22.19	---	60.00	37.81	N	10.7
12.554250	15.24	---	60.00	44.76	N	11.1
12.779250	---	8.30	50.00	41.70	N	11.1

5.3 Emission in the Frequency Range above 30MHz

5.3.1 Radiated Band-Edge

RESULT:**Pass**

Date of testing	:	2025-05-22
Ambient temperature	:	23.7°C
Relative humidity	:	55.2%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(d) FCC Part 15.205(a) FCC Part 15.209(a) RSS-Gen Issue 5, Amendment 2, February 2021, Clause 8.9 RSS-Gen Issue 5, Amendment 2, February 2021, Clause 8.10 RSS-247 Issue 4, July 24, 2025, Clause 6.6
Test procedure	:	ANSI C63.10:2020 ANSI C63.10-2020+COR. 1-2023+C63.10A- 2024+ERRATA TO C63.10A-2024
Test voltage	:	DC 3.3V
Test modes applied	:	A

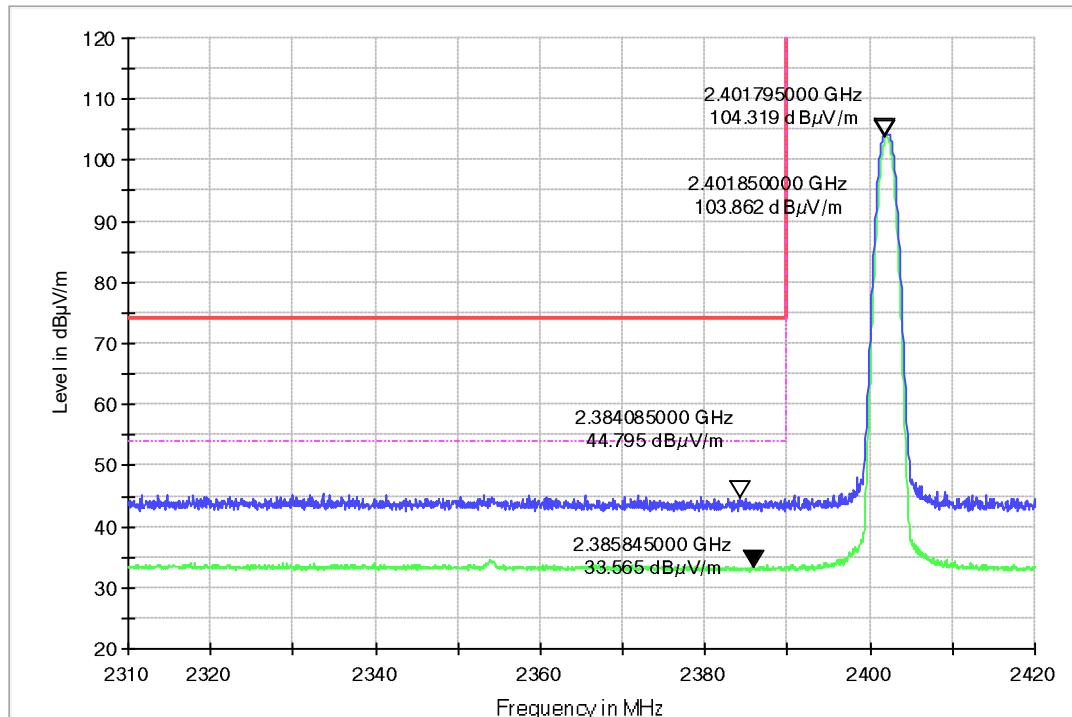
Note:

Trace (Blue): Measured peak value

Trace (Green): Measured average value

Figure 6: Radiated Band-Edge, 1Mbps, 2402MHz, H

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 7: Radiated Band-Edge, 1Mbps, 2402MHz, V

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG

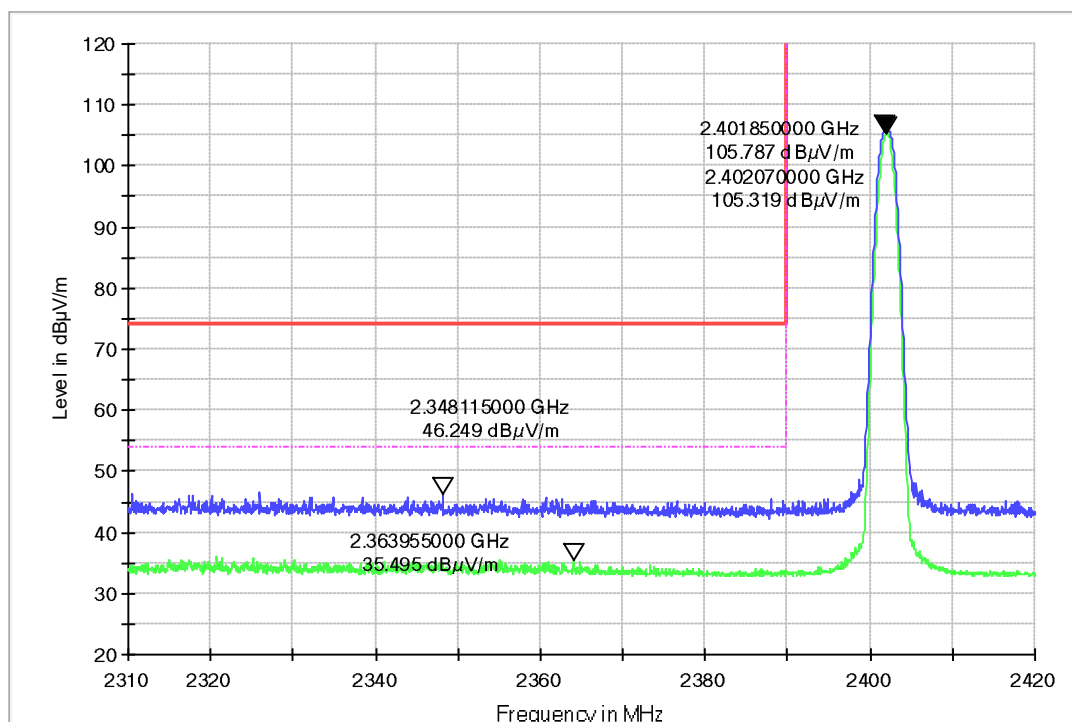
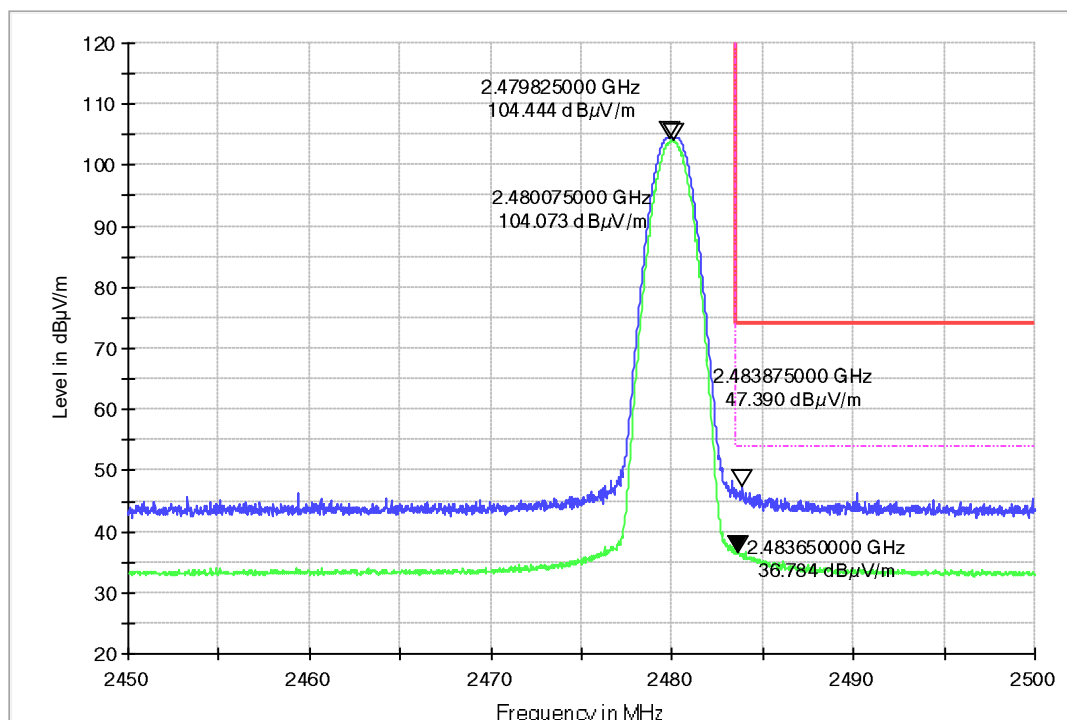


Figure 8: Radiated Band-Edge, 1Mbps, 2480MHz, H

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 9: Radiated Band-Edge, 1Mbps, 2480MHz, V

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG

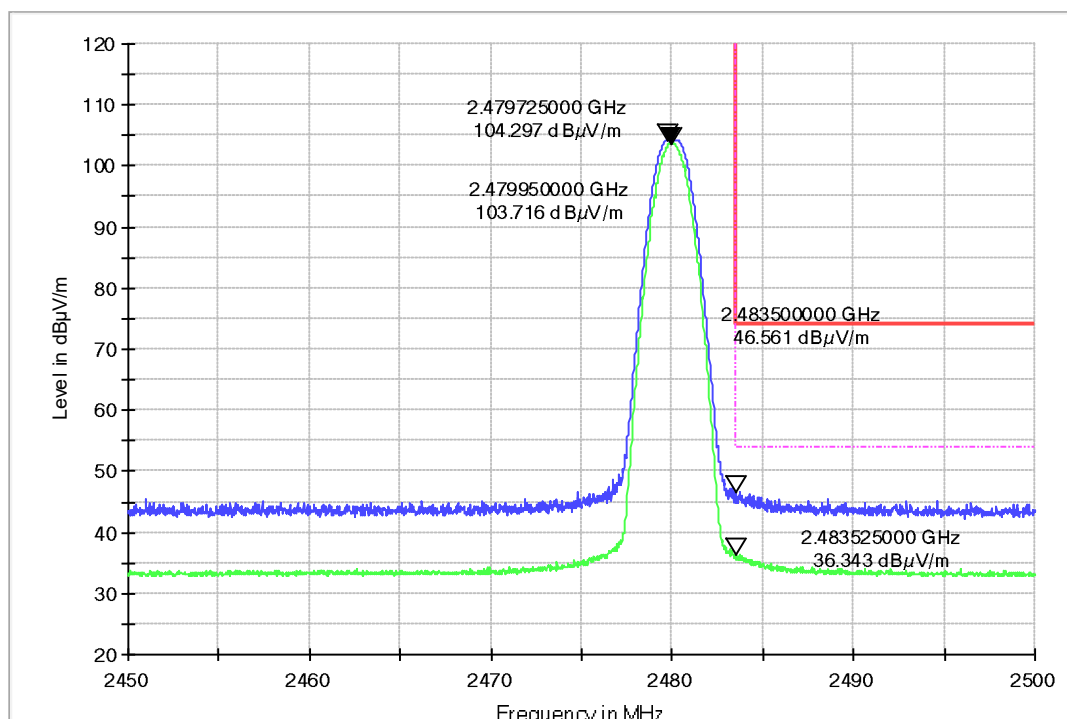
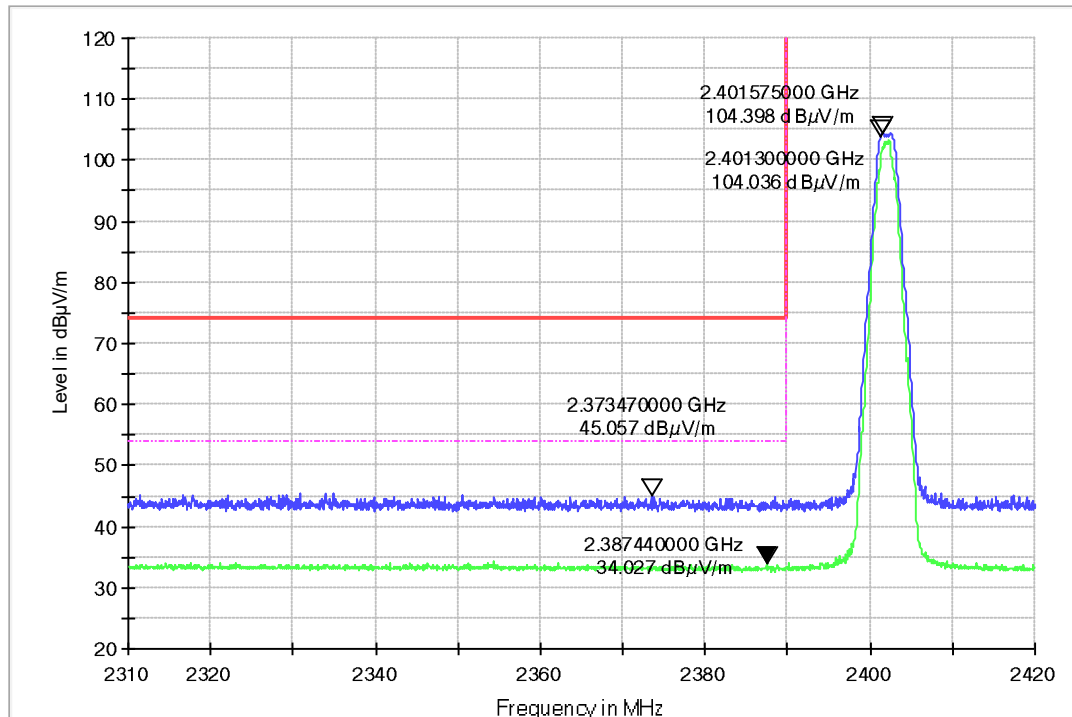


Figure 10: Radiated Band-Edge, 2Mbps, 2402MHz, H

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 11: Radiated Band-Edge, 2Mbps, 2402MHz, V

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG

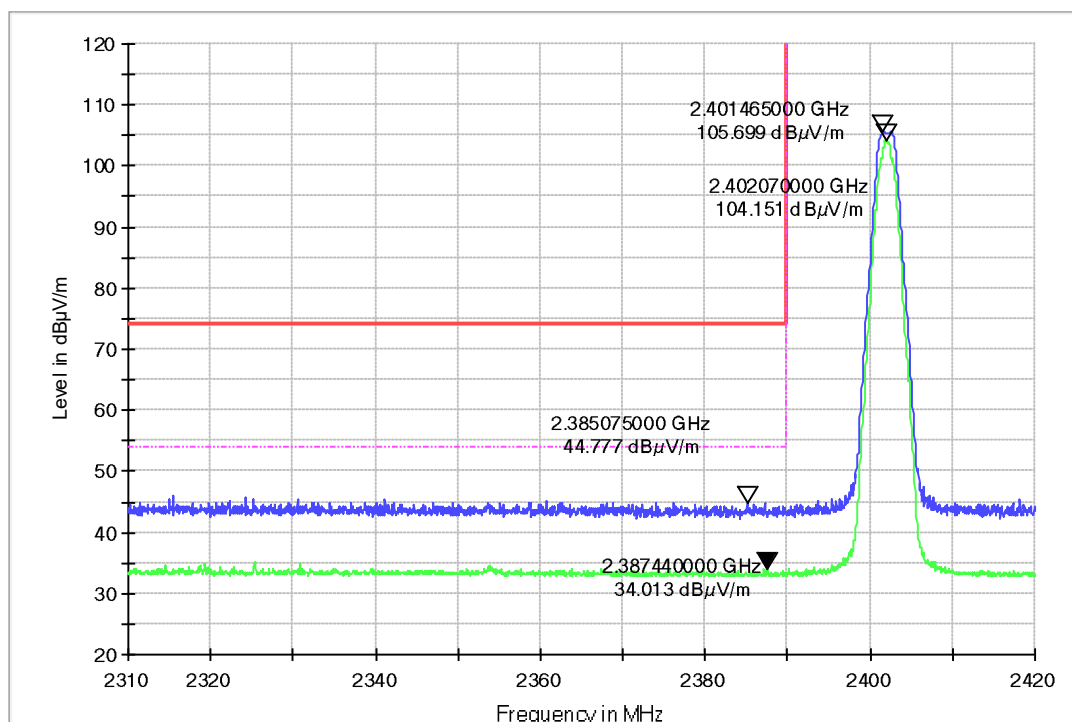
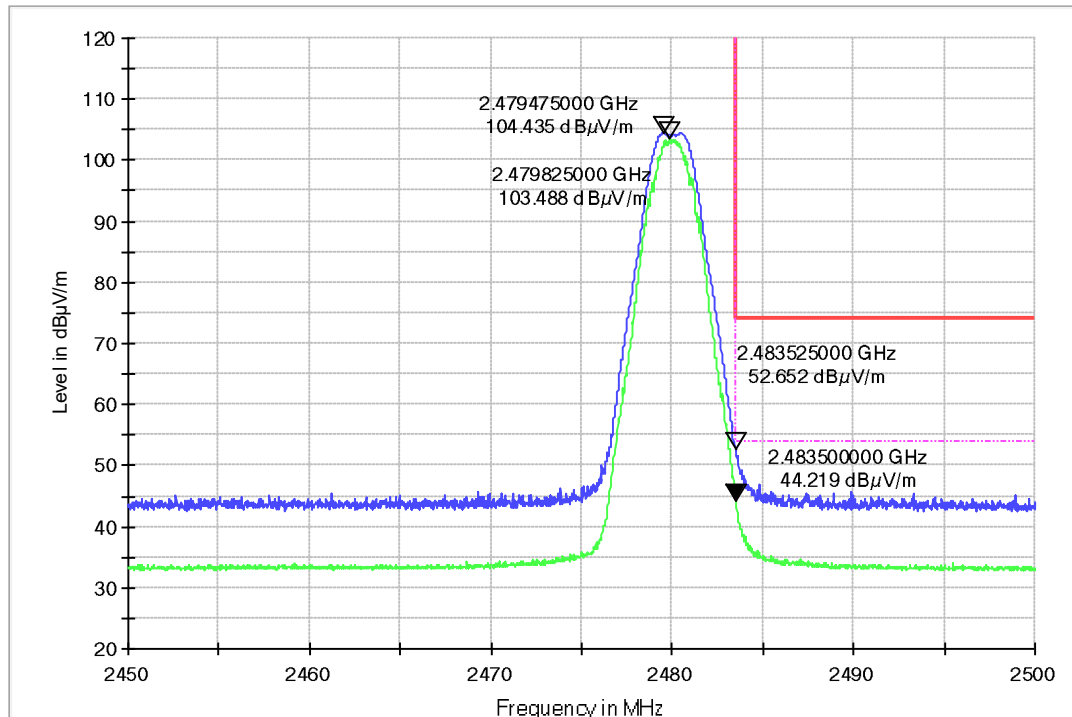
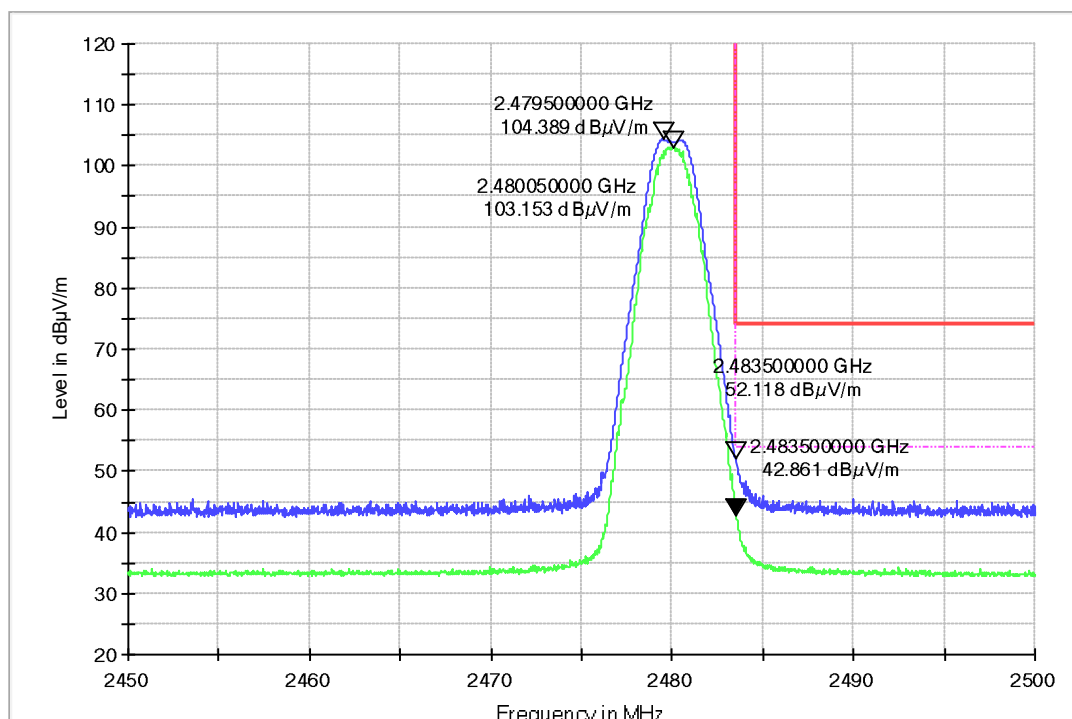


Figure 12: Radiated Band-Edge, 2Mbps, 2480MHz, H

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 13: Radiated Band-Edge, 2Mbps, 2480MHz, V

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG



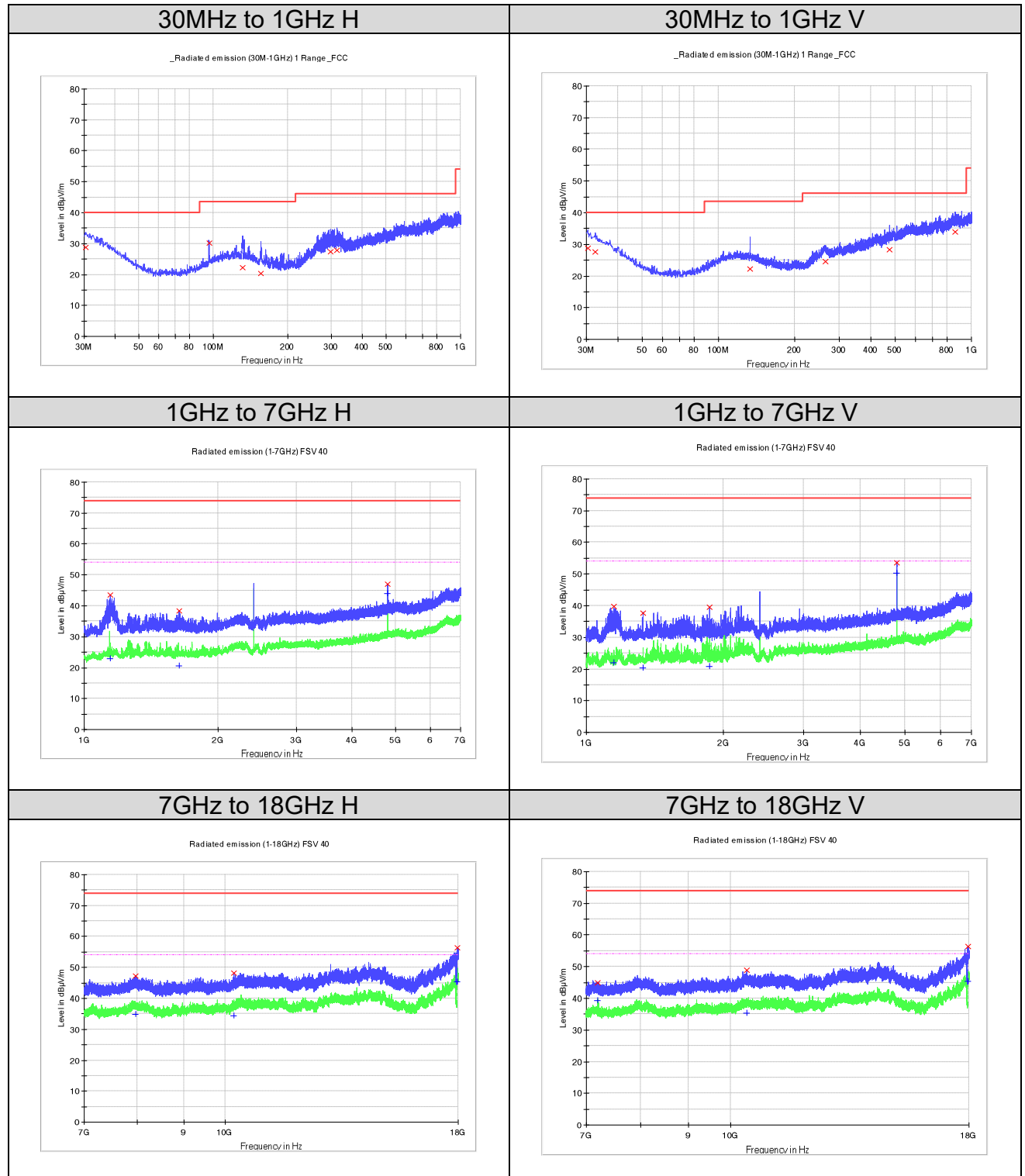
5.3.2 Radiated Spurious Emission

RESULT:**Pass**

Date of testing	:	2025-06-05
Ambient temperature	:	22.9°C
Relative humidity	:	57.6%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(d) FCC Part 15.209(a) RSS-Gen Issue 5, Amendment 2, February 2021, Clause 8.9 RSS-247 Issue 4, July 24, 2025, Clause 6.6
Test procedure	:	ANSI C63.10:2020 ANSI C63.10-2020+COR. 1-2023+C63.10A- 2024+ERRATA TO C63.10A-2024
Test voltage	:	DC 3.3V
Test modes applied	:	A

Note:

1. Only the worst case is shown on the report.
2. For the frequency range from 18GHz to 25GHz, no emission was found.

Figure 14: Radiated Spurious Emission, 1Mbps, 2402MHz


Limit and Margin
QP

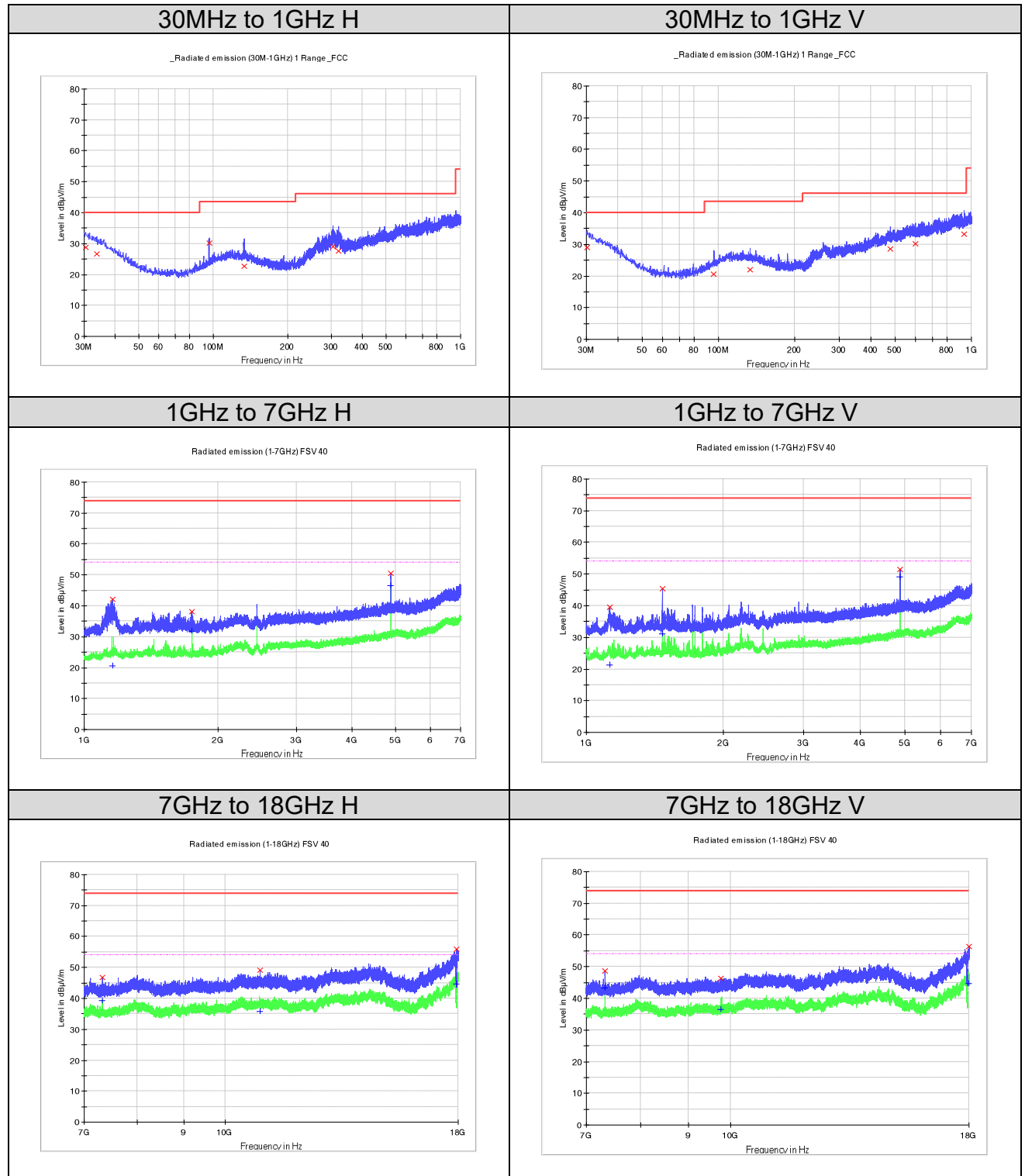
Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.485000	28.7	H	25.2	11.3	40.0
96.081250	30.1	H	16.6	13.4	43.5
131.122500	22.1	H	18.5	21.4	43.5
155.978750	20.3	H	16.9	23.2	43.5
297.477500	27.4	H	20.6	18.6	46.0
316.635000	27.8	H	20.6	18.2	46.0
30.363750	28.7	V	25.2	11.3	40.0
32.546250	27.6	V	24.0	12.5	40.0
132.941250	22.2	V	18.4	21.3	43.5
264.497500	24.6	V	21.4	21.4	46.0
474.623750	28.4	V	24.7	17.6	46.0
861.532500	34.0	V	29.1	12.1	46.0

PK

Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1142.909091	43.6	H	-19.7	30.4	74.0
1635.727273	38.3	H	-18.9	35.7	74.0
4803.454546	47.0	H	-11.2	27.0	74.0
7973.500000	47.2	H	-3.4	26.8	74.0
10212.687500	48.3	H	-2.8	25.7	74.0
17979.031250	56.5	H	11.8	17.5	74.0
1149.727273	39.7	V	-19.9	34.3	74.0
1331.636364	37.7	V	-18.8	36.3	74.0
1866.181818	39.6	V	-18.4	34.4	74.0
4804.545455	53.6	V	-11.4	20.4	74.0
7205.218750	44.9	V	-5.9	29.1	74.0
10393.156250	48.9	V	-2.0	25.1	74.0
17969.406250	56.3	V	11.6	17.7	74.0

AV

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1142.909091	22.9	H	-19.7	31.2	54.0
1635.727273	20.7	H	-18.9	33.4	54.0
4803.454546	43.9	H	-11.2	10.1	54.0
7973.500000	35.0	H	-3.4	19.0	54.0
10212.687500	34.5	H	-2.8	19.5	54.0
17979.031250	45.5	H	11.8	8.5	54.0
1149.727273	21.9	V	-19.9	32.1	54.0
1331.636364	20.3	V	-18.8	33.7	54.0
1866.181818	20.8	V	-18.4	33.2	54.0
4804.545455	50.3	V	-11.4	3.7	54.0
7205.218750	39.3	V	-5.9	14.7	54.0
10393.156250	35.4	V	-2.0	18.6	54.0
17969.406250	45.3	V	11.6	8.7	54.0

Figure 15: Radiated Spurious Emission, 1Mbps, 2442MHz


Limit and Margin
QP

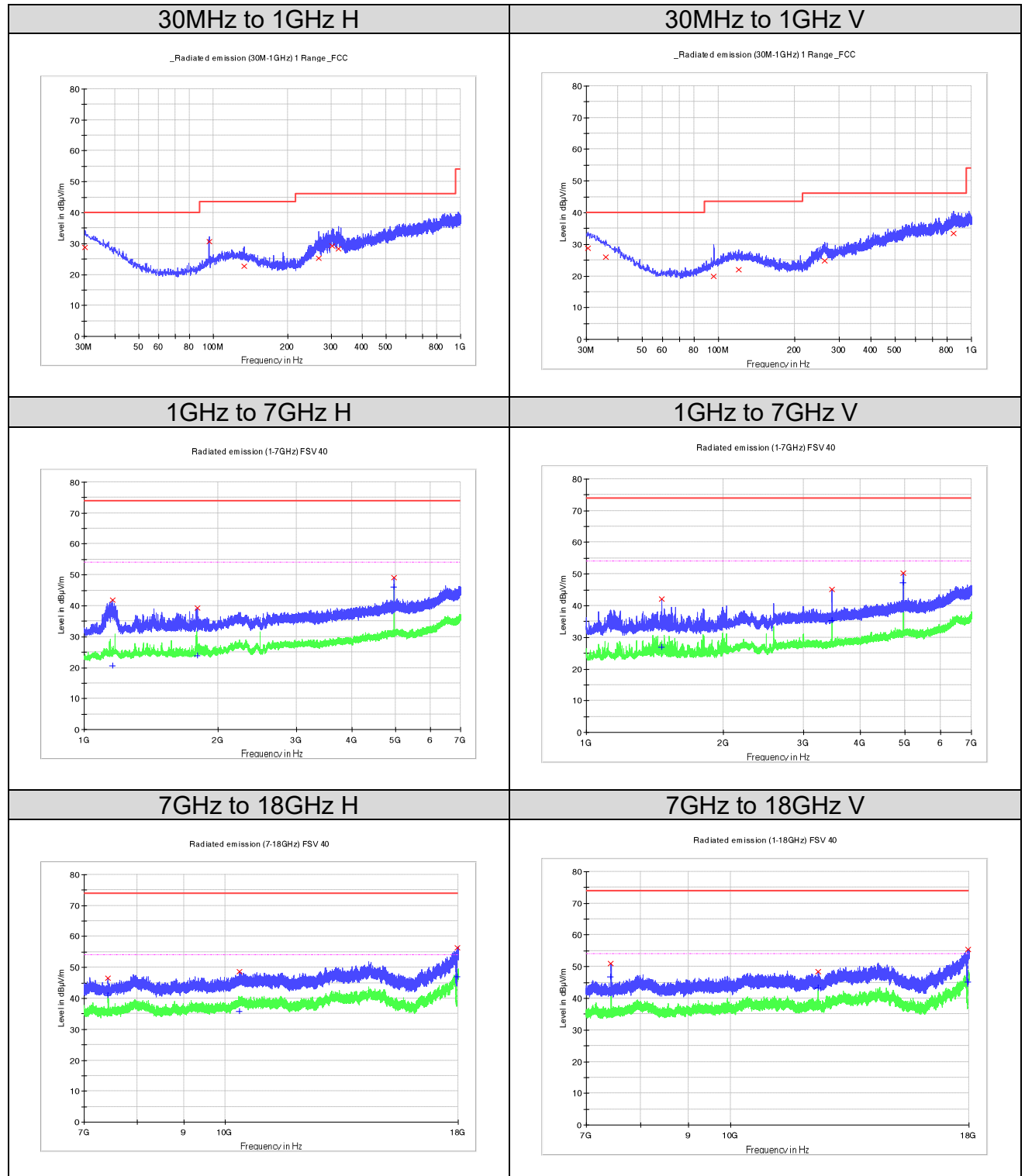
Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.363750	28.8	H	25.2	11.2	40.0
33.637500	26.8	H	23.4	13.2	40.0
96.081250	30.1	H	16.6	13.4	43.5
133.183750	22.7	H	18.4	20.8	43.5
304.025000	29.0	H	20.6	17.0	46.0
321.727500	27.7	H	21.2	18.3	46.0
30.121250	28.9	V	25.3	11.1	40.0
95.596250	20.6	V	16.5	22.9	43.5
133.062500	22.1	V	18.4	21.5	43.5
478.382500	28.5	V	24.7	17.5	46.0
600.238750	30.2	V	26.4	15.9	46.0
933.191250	33.2	V	28.6	12.8	46.0

PK

Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1157.363636	42.2	H	-19.6	31.8	74.0
1746.727273	38.1	H	-18.8	35.9	74.0
4884.454546	50.5	H	-11.1	23.5	74.0
7326.562500	46.7	H	-6.3	27.3	74.0
10921.843750	49.1	H	-1.4	24.9	74.0
17943.625000	56.0	H	11.2	18.0	74.0
1124.909091	39.5	V	-19.8	34.5	74.0
1466.909091	45.3	V	-18.6	28.7	74.0
4883.363636	51.4	V	-11.1	22.6	74.0
7326.562500	48.8	V	-6.3	25.2	74.0
9766.843750	46.2	V	-3.9	27.8	74.0
17995.187500	56.3	V	12.0	17.7	74.0

AV

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1157.363636	20.5	H	-19.6	33.5	54.0
1746.727273	31.7	H	-18.8	22.3	54.0
4884.454546	46.7	H	-11.1	7.4	54.0
7326.562500	39.2	H	-6.3	14.8	54.0
10921.843750	35.7	H	-1.4	18.3	54.0
17943.625000	44.7	H	11.2	9.4	54.0
1124.909091	21.3	V	-19.8	32.7	54.0
1466.909091	31.1	V	-18.6	22.9	54.0
4883.363636	49.1	V	-11.1	5.0	54.0
7326.562500	43.3	V	-6.3	10.8	54.0
9766.843750	36.4	V	-3.9	17.6	54.0
17995.187500	44.7	V	12.0	9.3	54.0

Figure 16: Radiated Spurious Emission, 1Mbps, 2480MHz


Limit and Margin
QP

Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.242500	28.9	H	25.3	11.2	40.0
96.081250	30.6	H	16.6	12.9	43.5
133.305000	22.7	H	18.4	20.8	43.5
266.073750	25.3	H	21.1	20.7	46.0
302.812500	29.2	H	20.8	16.9	46.0
321.606250	28.4	H	21.2	17.6	46.0
30.363750	28.8	V	25.2	11.2	40.0
35.698750	25.9	V	22.2	14.1	40.0
95.838750	19.8	V	16.5	23.7	43.5
120.452500	22.0	V	18.7	21.5	43.5
263.285000	24.9	V	21.5	21.1	46.0
850.983750	33.6	V	28.9	12.4	46.0

PK

Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1159.272727	41.8	H	-19.6	32.2	74.0
1793.636364	39.3	H	-18.8	34.7	74.0
4959.727273	49.2	H	-11.0	24.8	74.0
7440.000000	46.5	H	-5.8	27.5	74.0
10362.218750	48.7	H	-2.1	25.3	74.0
17974.562500	56.3	H	11.7	17.7	74.0
1466.090909	42.1	V	-18.6	31.9	74.0
3458.636364	45.2	V	-14.7	28.8	74.0
4960.000000	50.2	V	-11.0	23.8	74.0
7440.343750	51.1	V	-5.8	22.9	74.0
12401.000000	48.4	V	-2.0	25.6	74.0
17969.406250	55.5	V	11.6	18.5	74.0

AV

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1159.272727	20.6	H	-19.6	33.5	54.0
1793.636364	23.8	H	-18.8	30.2	54.0
4959.727273	46.0	H	-11.0	8.0	54.0
7440.000000	40.9	H	-5.8	13.1	54.0
10362.218750	35.7	H	-2.1	18.3	54.0
17974.562500	47.0	H	11.7	7.0	54.0
1466.090909	27.0	V	-18.6	27.0	54.0
3458.636364	35.3	V	-14.7	18.7	54.0
4960.000000	47.3	V	-11.0	6.7	54.0
7440.343750	46.7	V	-5.8	7.3	54.0
12401.000000	43.3	V	-2.0	10.7	54.0
17969.406250	45.3	V	11.6	8.8	54.0

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