Prüfbericht-Nr.: *Test report no.:*	**CN263W8Z 001**	**Auftrags-Nr.:** *Order no.*:	326184568	Seite 1 von 40 *Page 1 of 40*
Kunden-Referenz-Nr.: *Client reference no.:*	1288983	**Auftragsdatum:** *Order date:*	2026-05-06	
Auftraggeber: *Client:*	**IKEA of Sweden AB** Box 702, SE-343 81 Älmhult, Sweden			
Prüfgegenstand: *Test item:*	Matter motion sensor			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	E2706			
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:*	2026-04-29	Refer to photo document.
Prüfmuster-Nr.: *Test sample no:*	A004265857-012~013	
Prüfzeitraum: *Testing period:*	2026-05-21 ~ 2026-06-05	
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 Hongfei Wu Signed by: Hongfei Wu	**genehmigt von:** authorized by:	X Weidong Wang Signed by: Weidong Wang
Datum: *Date:* 2026-07-16		**Datum:** *Date:* 2026-07-16	
Stellung / *Position:*	Sachverständige(r)/Expert	**Stellung** / *Position:*	Sachverständige(r)/Expert

Sonstiges / *Other:*	FCC ID: FHO-E2706 IC: 10912A-E2706 HVIN: E2706 PMN: MYGGSPRAY This report is for Thread.
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)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
* *Legend:*	*P(ass) = passed a.m. test specification(s)*	*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.
This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.

Anmerkungen
Remarks

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4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnisen 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 bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. *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.*

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.
Workshop14, 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
EMC-C-196	Wireless connectivity tester	CMW270	Rohde & Schwarz	2027-08-09
EMC-C-302	Signal generator	SMB100B (6 GHz)	Rohde & Schwarz	2026-11-27
EMC-C-303	Vector Signal generator	SMW200A	Rohde & Schwarz	2026-11-27
EMC-C-304	OSP	OSP-B157W8	Rohde & Schwarz	2026-12-17
EMC-C-161	Spectrum analyser	FSV40	Rohde&Schwarz	2026-07-11
EMC-C-019	Double ridged horn antenna	BBHA 9120 D	Schwarzbeck	2026-08-28
EMC-C-066	EMI test receiver	ESCI	Rohde&Schwarz	2026-09-28
EMC-C-068	Broadband horn antenna	BBHA 9170	Schwarzbeck	2028-06-18
EMC-C-155	BiLog antenna	CBL 6112D	Teseq	2026-09-24
EMC-C-175	Preamplifier	EMC051845SE	EMCI Taiwan	2026-07-11
EMC-C-176	Preamplifier	EMC184045SE	EMCI Taiwan	2026-07-11
EMC-C-001	3 m semi-anechoic chamber	SAC3	Frankonia	2026-12-03
		software		
EMC-S-036	RF measurement software	WMS32-WB (11.40.00)	Rohde&Schwarz	NA
EMC-S-032	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 basics 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 Matter motion sensor which supports Bluetooth Low Energy, Zigbee and Thread.

The aim of this report is to evaluate RF character of Thread of the EUT.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Description of EUT	
Product Name:	Matter motion sensor
Model No.:	E2706
Operation Voltage:	DC 3.0V (AAA*2)
RF Technical:	1) BLE 2) Zigbee 3) Thread
Technical Specification of Thread	
Frequency Range:	2405~2480MHz
Modulation Type:	OQPSK
Antenna Type:	PCB Antenna
Antenna Gain:	1.33 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]
11	2405	15	2425	19	2445	23	2465
12	2410	16	2430	20	2450	24	2470
13	2415	17	2435	21	2455	25	2475
14	2420	18	2440	22	2460	26	2480

3.3 Independent Operation Modes

Test frequencies are lowest channel: 2405 MHz, middle channel: 2445 MHz and highest channel:2480 MHz

The basic operation modes are:

A. Thread transmitting 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: Telink BDT V5.8.5.4

Table 5: Power parameter value

Mode	Power Parameter Setting Value
Thread	4

4.3 Special Accessories and Auxiliary Equipment

Table 6: Special Accessories

Accessories	Parameter
RF Cable between the antenna port and test system	Cable loss: 0.5dB

Note: The RF cable used in the test was provided by
☒Client
☐Test Lab
And the cable loss has been factored in the related test.

Table 7: Auxiliary Equipment

Equipment	Manufacturer	Model
Laptop	Lenovo	21AJ-S57N0J

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 1.33 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 8: 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:	1.33 dBi
Verdict:	PASS	

5.1.2 6dB & 99% Bandwidth

RESULT: **Pass**

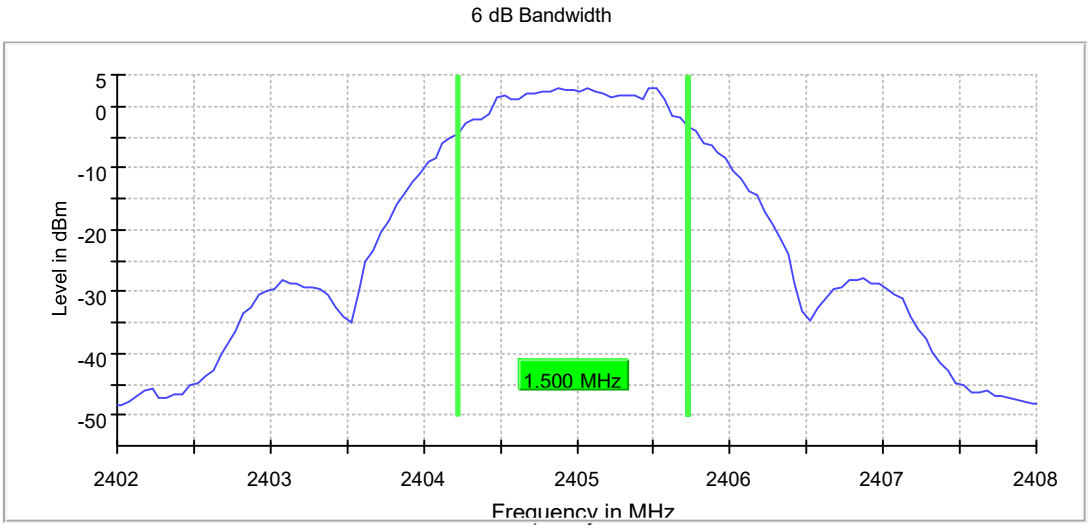
Date of testing	:	2026-05-21
Ambient temperature	:	22.3°C
Relative humidity	:	49.6%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(a)(2) RSS-247 Issue 4, July 24, 2025, Clause 6.3.1(a) RSS-Gen Issue 5, Amendment 2, February 2021, Clause 6.7
Test procedure	:	ANSI C63.10:2020 ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
Test voltage	:	DC 3.0V
Test modes applied	:	A

6dB Bandwidth, 2405MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2405.000000	1.500000	0.500000	---	2404.225000	2405.725000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2405.000000	2.9	PASS



Measurement

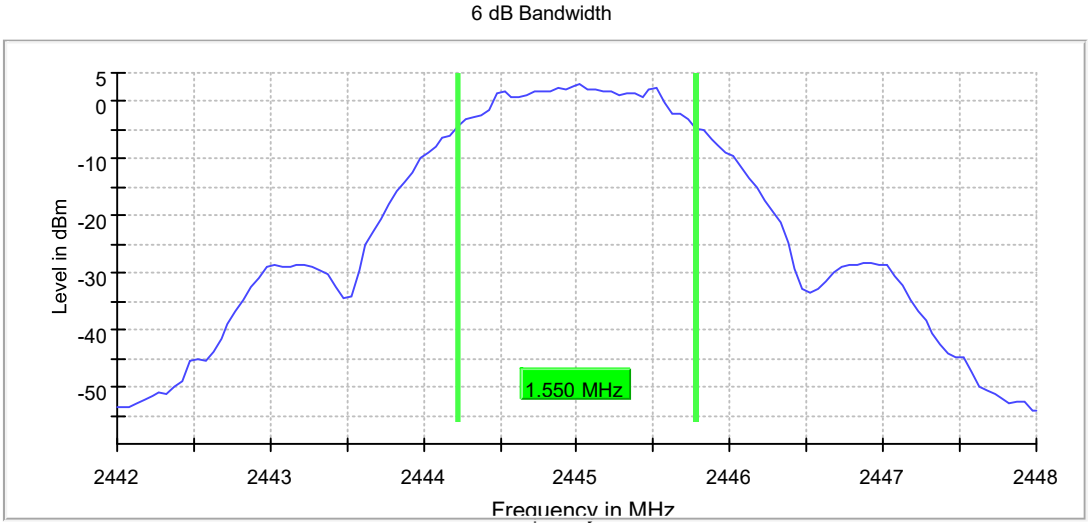
Setting	Instrument Value	Target Value
Start Frequency	2.40200 GHz	2.40200 GHz
Stop Frequency	2.40800 GHz	2.40800 GHz
Span	6.000 MHz	6.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	120	~ 120
Sweeptime	18.984 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 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	0.10 dB	0.50 dB

6dB Bandwidth, 2445MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2445.000000	1.550000	0.500000	---	2444.225000	2445.775000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2445.000000	3.0	PASS



Measurement

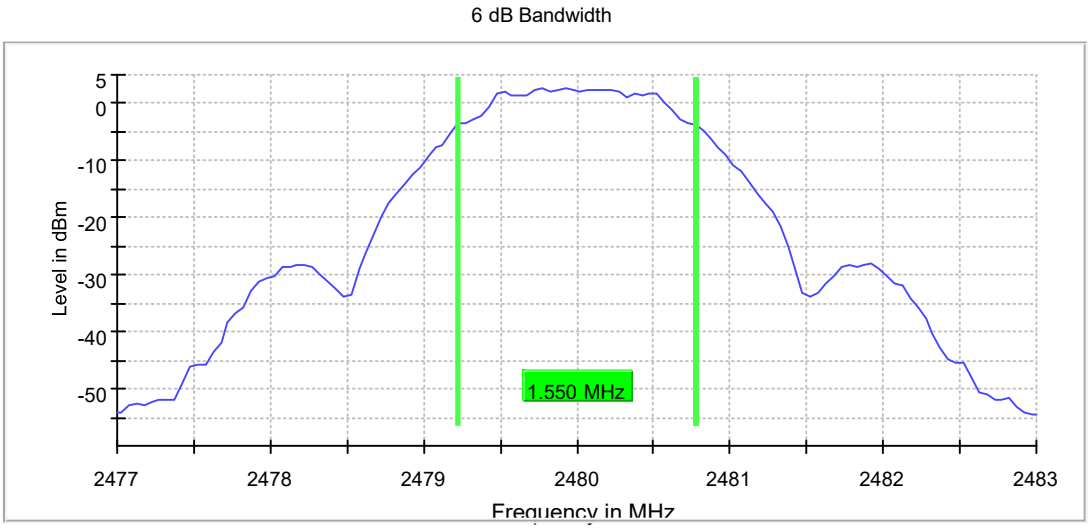
Setting	Instrument Value	Target Value
Start Frequency	2.44200 GHz	2.44200 GHz
Stop Frequency	2.44800 GHz	2.44800 GHz
Span	6.000 MHz	6.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	120	~ 120
Sweeptime	18.984 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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	0.49 dB	0.50 dB

6dB Bandwidth, 2480MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.550000	0.500000	---	2479.225000	2480.775000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	2.6	PASS



Measurement

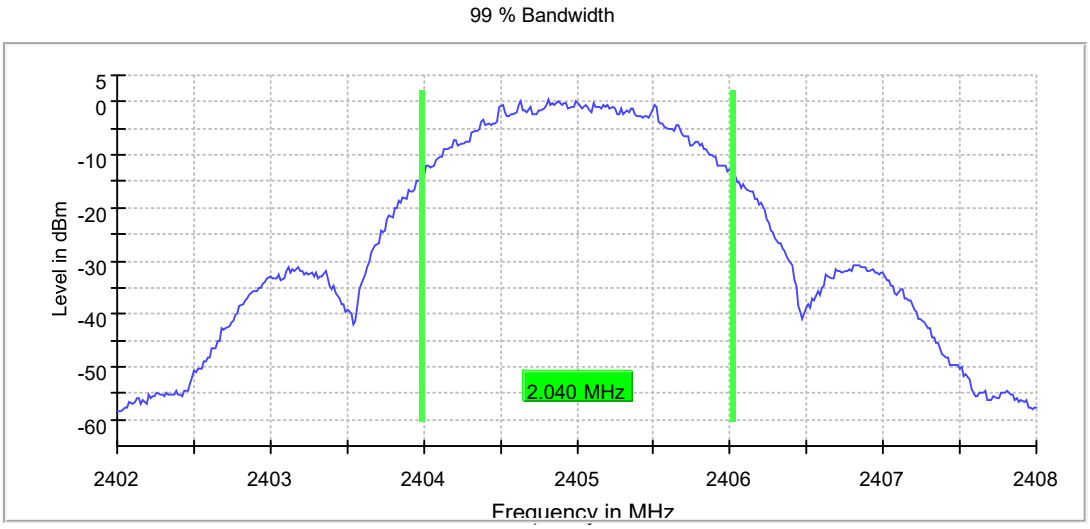
Setting	Instrument Value	Target Value
Start Frequency	2.47700 GHz	2.47700 GHz
Stop Frequency	2.48300 GHz	2.48300 GHz
Span	6.000 MHz	6.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	120	~ 120
Sweeptime	18.984 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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	0.00 dB	0.50 dB

99% Occupied Channel Bandwidth, 2405MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2405.000000	2.040000	---	---	2403.987500	2406.027500

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

DUT Frequency (MHz)	Result
2405.000000	PASS



Measurement

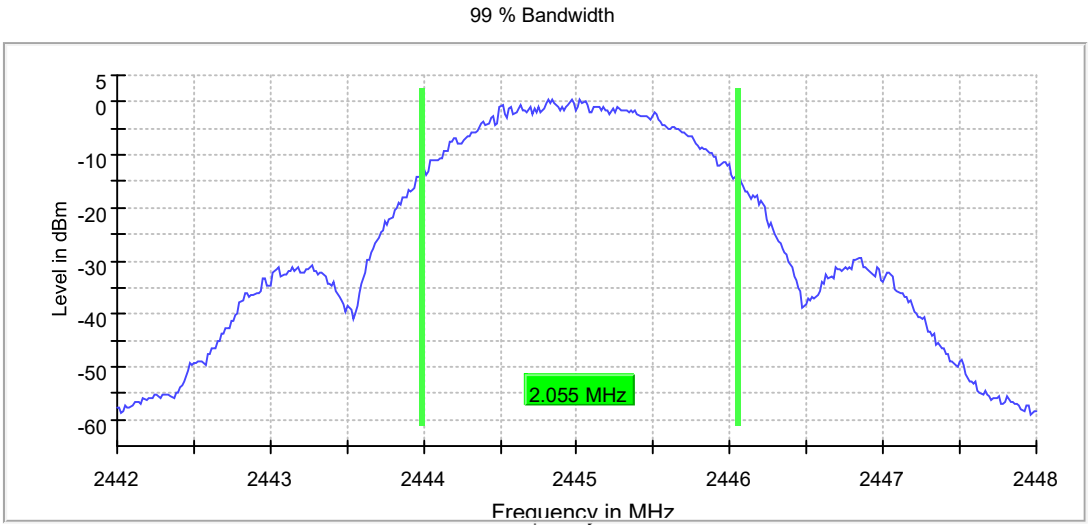
Setting	Instrument Value	Target Value
Start Frequency	2.40200 GHz	2.40200 GHz
Stop Frequency	2.40800 GHz	2.40800 GHz
Span	6.000 MHz	6.000 MHz
RBW	30.000 kHz	>= 30.000 kHz
VBW	100.000 kHz	>= 90.000 kHz
SweepPoints	400	~ 400
Sweeptime	63.216 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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	44 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.26 dB	0.30 dB

99% Occupied Channel Bandwidth, 2445MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2445.000000	2.055000	---	---	2443.987500	2446.042500

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

DUT Frequency (MHz)	Result
2445.000000	PASS



Measurement

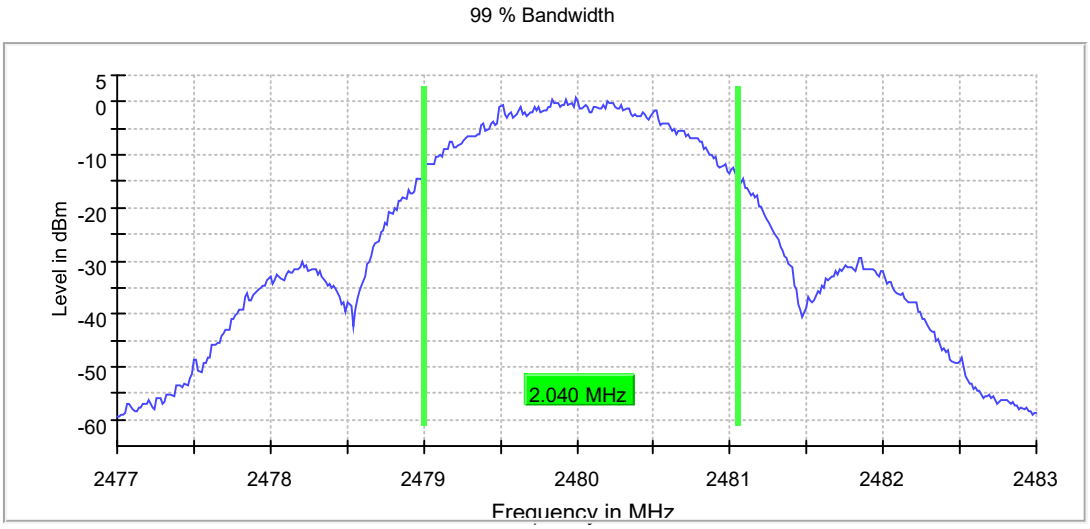
Setting	Instrument Value	Target Value
Start Frequency	2.44200 GHz	2.44200 GHz
Stop Frequency	2.44800 GHz	2.44800 GHz
Span	6.000 MHz	6.000 MHz
RBW	30.000 kHz	>= 30.000 kHz
VBW	100.000 kHz	>= 90.000 kHz
SweepPoints	400	~ 400
Sweeptime	63.216 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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	46 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.16 dB	0.30 dB

99% Occupied Channel Bandwidth, 2480MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	2.040000	---	---	2479.002500	2481.042500

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

DUT Frequency (MHz)	Result
2480.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47700 GHz	2.47700 GHz
Stop Frequency	2.48300 GHz	2.48300 GHz
Span	6.000 MHz	6.000 MHz
RBW	30.000 kHz	>= 30.000 kHz
VBW	100.000 kHz	>= 90.000 kHz
SweepPoints	400	~ 400
Sweeptime	63.216 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	29 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.30 dB

5.1.3 Output Power

RESULT: **Pass**

Date of testing	:	2026-05-21
Ambient temperature	:	22.3°C
Relative humidity	:	49.6%
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 3.0V
Test modes applied	:	A

Table 9: Peak Output Power

Frequency [MHz]	Peak Conducted Output Power [dBm]	Limit [dBm]
2405	4.8	30
2445	4.6	30
2480	4.9	30

Note:
EIRP=Conducted Output Power + Antenna Gain (1.33dBi), which is far below the 4 W (36dBm).

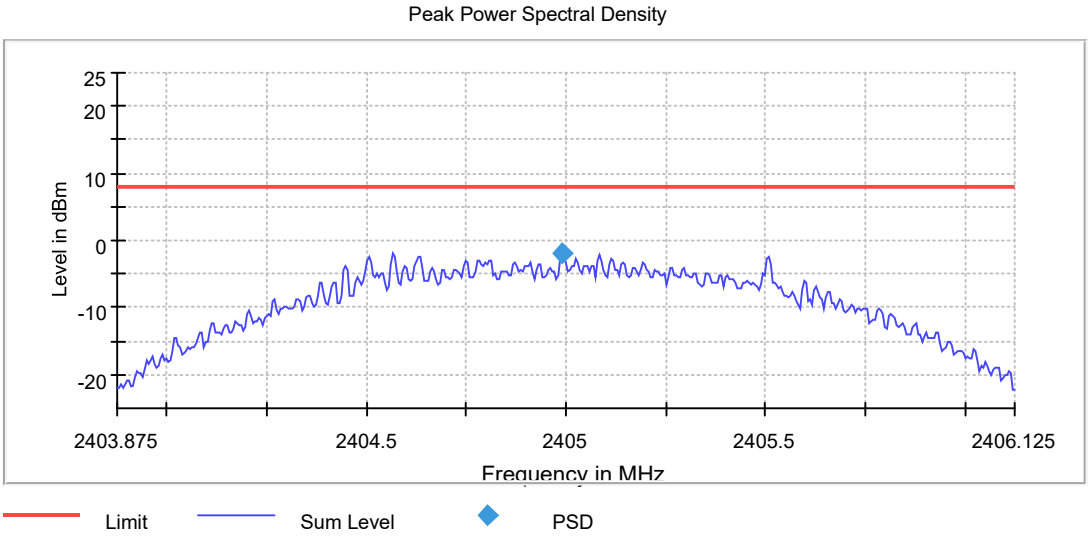
5.1.4 Power Spectral Density

RESULT: **Pass**

Date of testing	:	2026-05-21
Ambient temperature	:	22.3°C
Relative humidity	:	49.6%
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 3.0V
Test modes applied	:	A

Power Spectral Density, 2405MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2405.000000	2404.992500	-1.817	8.0	PASS

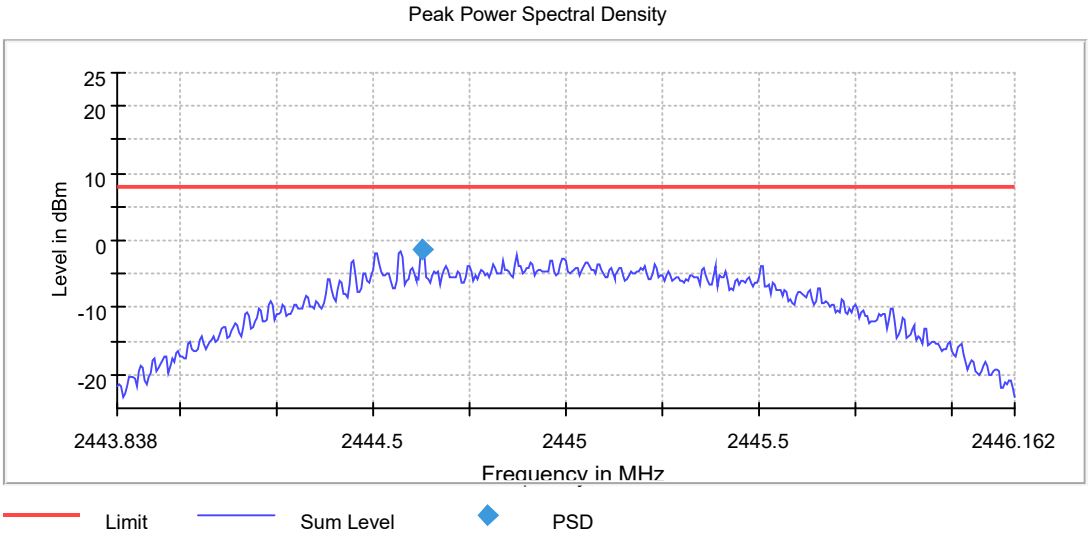


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40388 GHz	2.40388 GHz
Stop Frequency	2.40613 GHz	2.40613 GHz
Span	2.250 MHz	2.250 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	450	~ 450
Sweeptime	2.250 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	53 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.00 dB	0.50 dB

Power Spectral Density, 2445MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2445.000000	2444.630000	-1.447	8.0	PASS

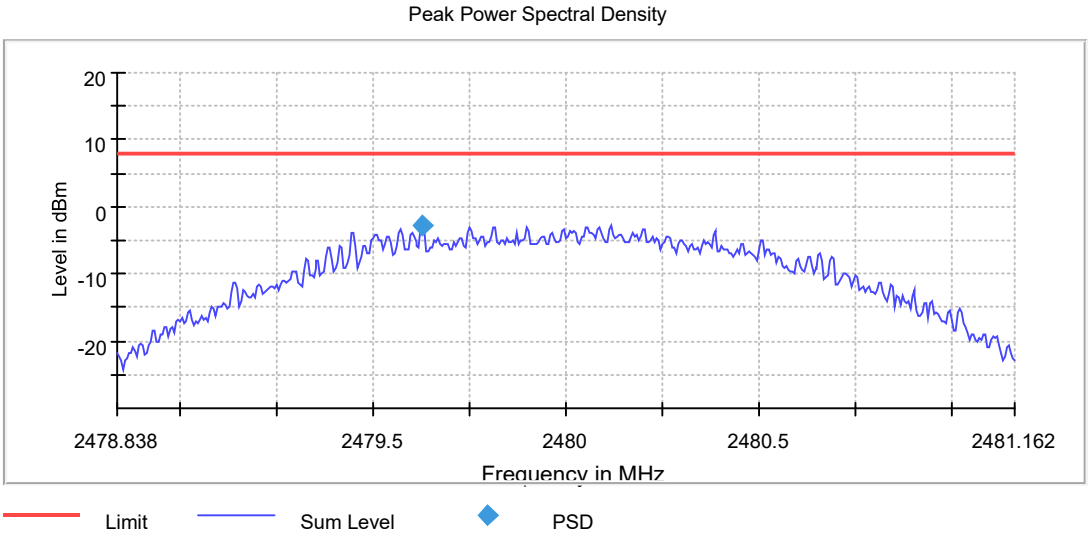


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44384 GHz	2.44384 GHz
Stop Frequency	2.44616 GHz	2.44616 GHz
Span	2.325 MHz	2.325 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	465	~ 465
Sweeptime	2.330 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	65 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.12 dB	0.50 dB

Power Spectral Density, 2480MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2479.630000	-2.749	8.0	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47884 GHz	2.47884 GHz
Stop Frequency	2.48116 GHz	2.48116 GHz
Span	2.325 MHz	2.325 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	465	~ 465
Sweeptime	2.330 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	21 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.21 dB	0.50 dB

5.1.5 Conducted Band Edge and out-of Band Emissions

RESULT: **Pass**

Date of testing	:	2026-05-21
Ambient temperature	:	22.3°C
Relative humidity	:	49.6%
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 3.0V
Test modes applied	:	A

Figure 1: Reference level

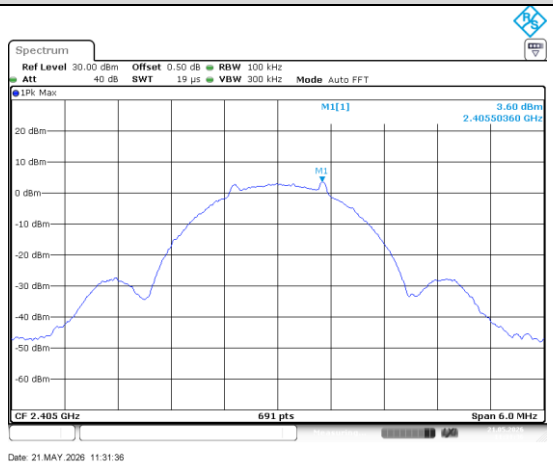
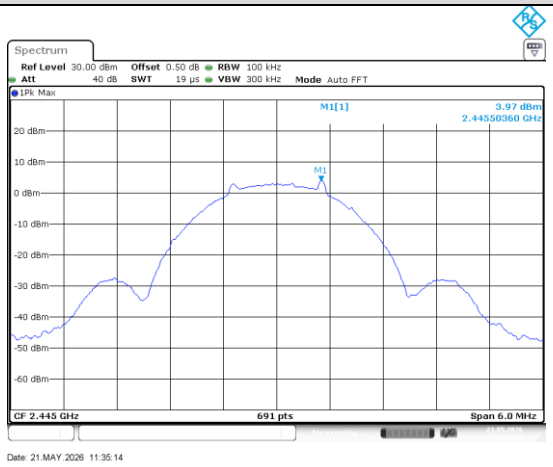
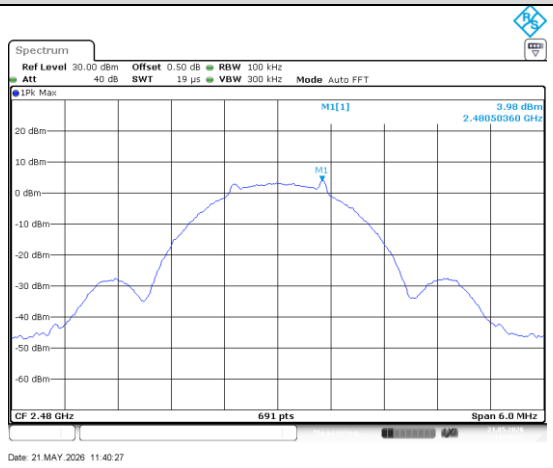
2405MHz	2445MHz
	
2480MHz	/
	/

Figure 2: Conducted Spurious Emission

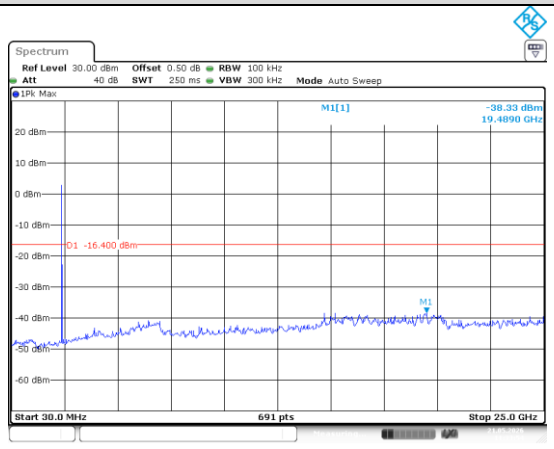
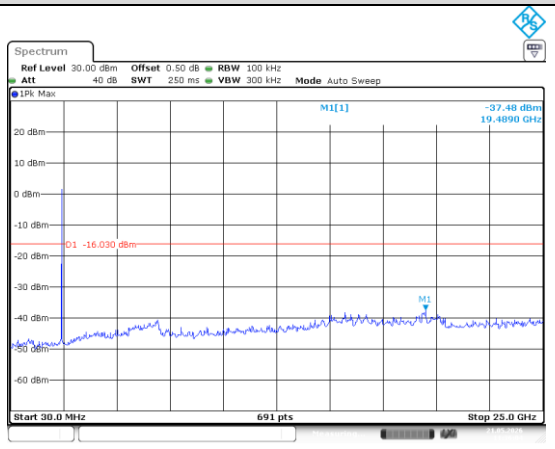
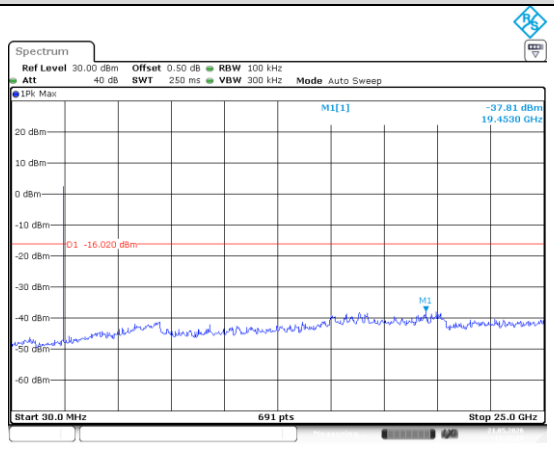
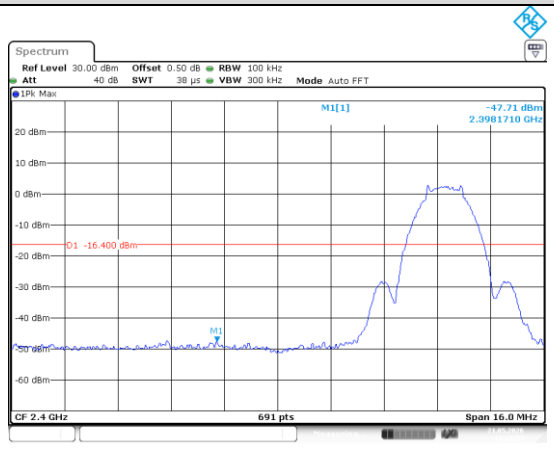
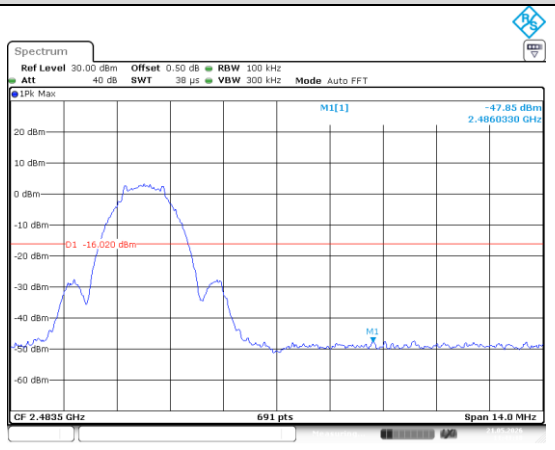
2405MHz	2445MHz
	
2480MHz	**/**
	/

Figure 3: Conducted Band Edge

2405MHz	2480MHz
	

5.2 Emission in the Frequency Range up to 30MHz

5.2.1 Conducted Emission

RESULT: **N/A**

Date of testing	:	/
Ambient temperature	:	/
Relative humidity	:	/
Atmospheric pressure	:	/
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	:	/
Test modes applied	:	/

Note: This product is power by battery, so it is not applicable for this test.

5.3 Emission in the Frequency Range above 30MHz

5.3.1 Radiated Band-Edge

RESULT: **Pass**

Date of testing	:	2026-06-05
Ambient temperature	:	23.5°C
Relative humidity	:	48.6%
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 3.0V
Test modes applied	:	A

Figure 4: Radiated Band-Edge, 2405MHz, H

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

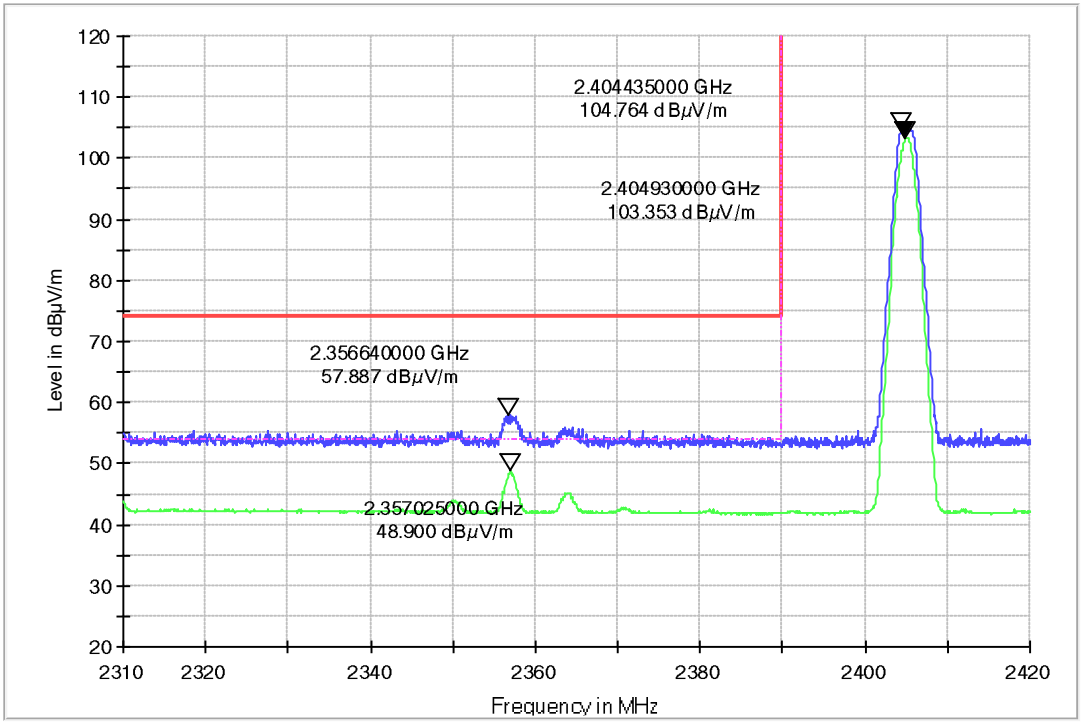


Figure 5: Radiated Band-Edge, 2405MHz, V

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

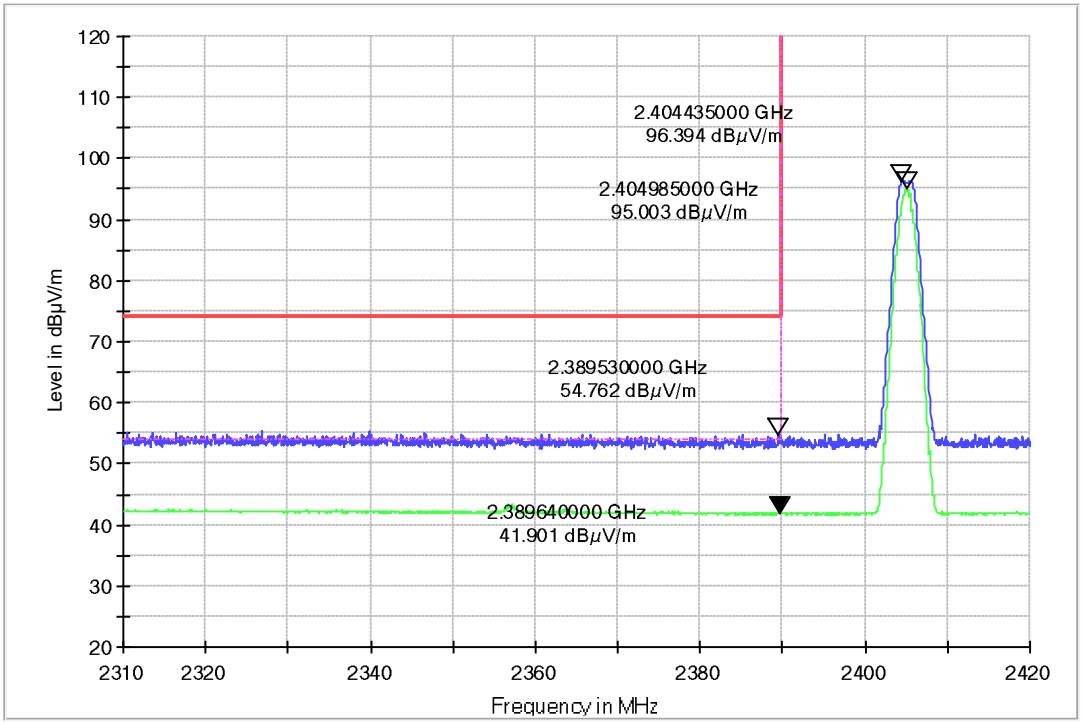


Figure 6: Radiated Band-Edge, 2480MHz, H

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

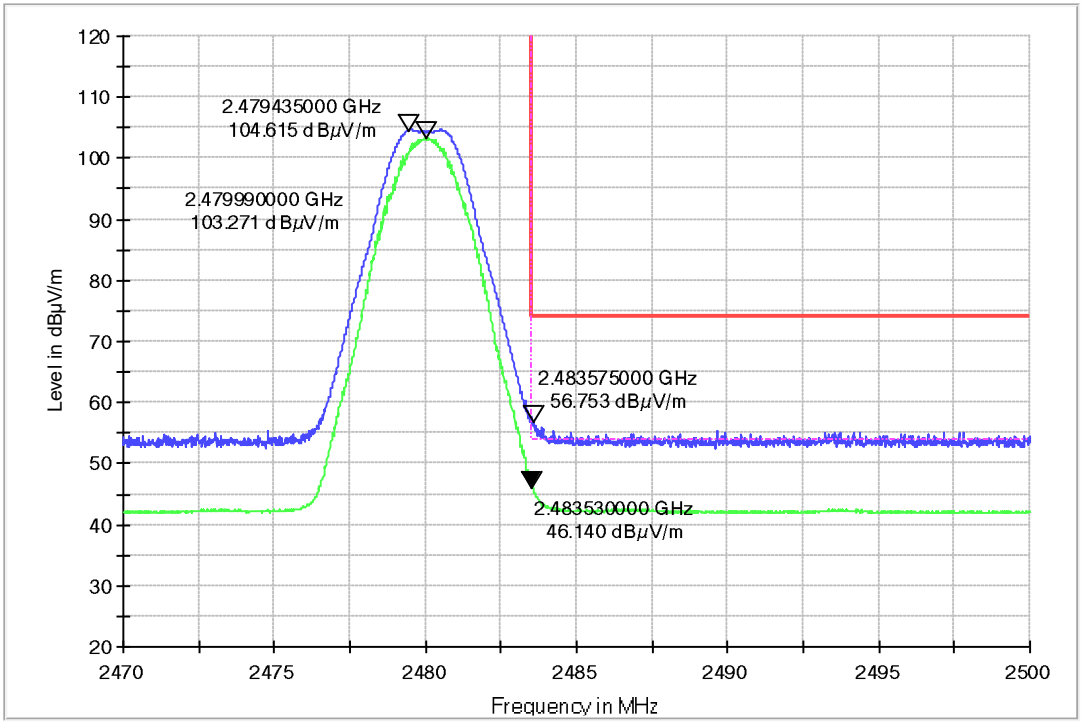
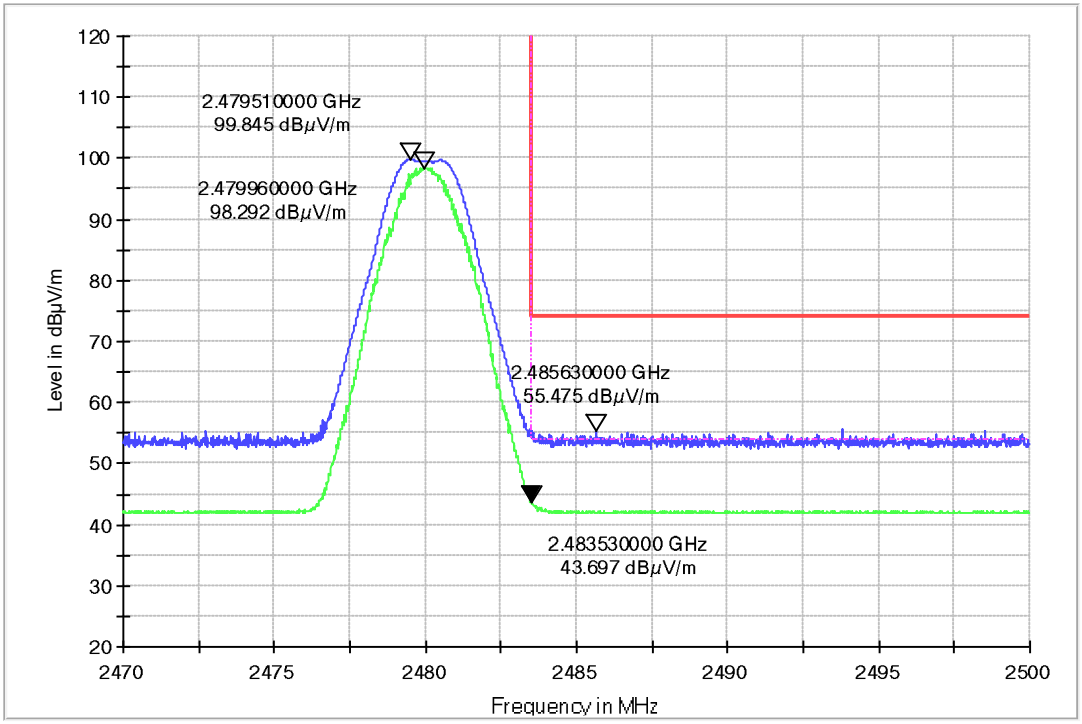


Figure 7: Radiated Band-Edge, 2480MHz, V

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



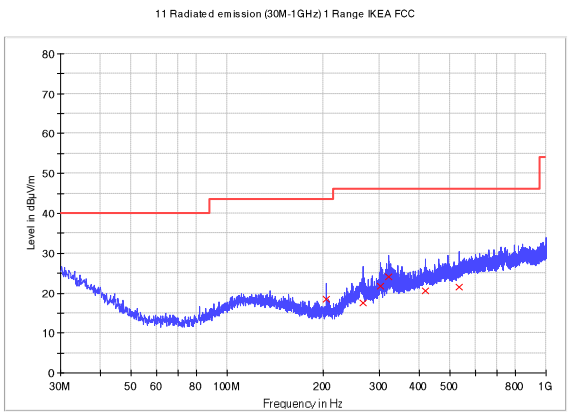
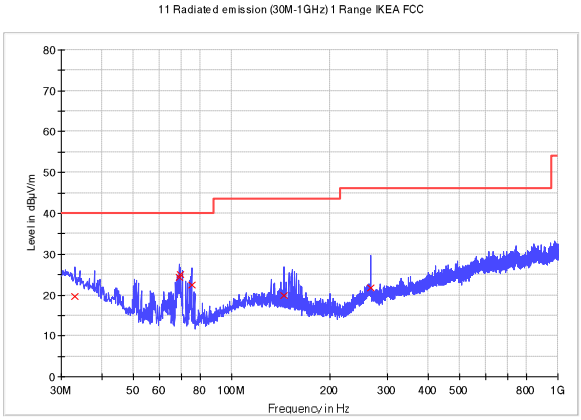
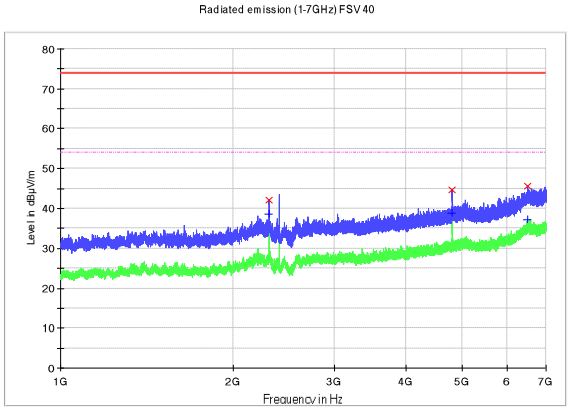
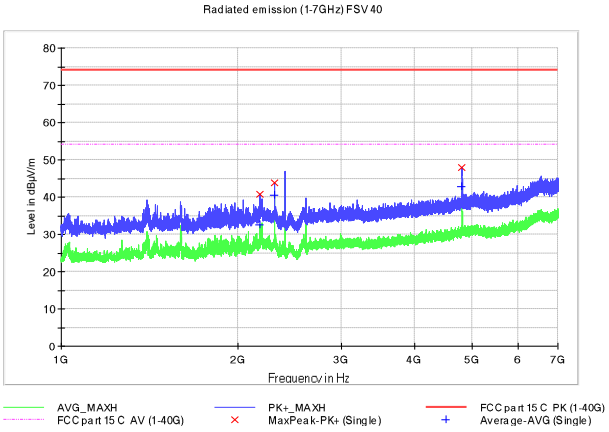
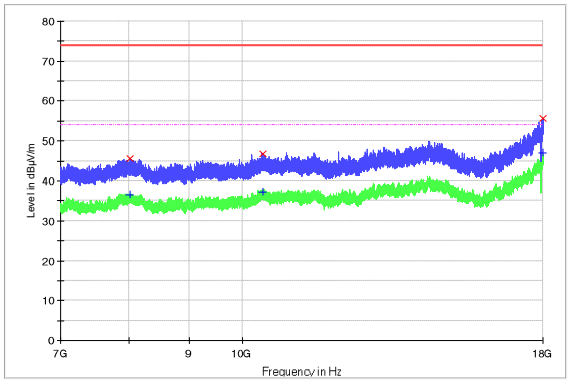
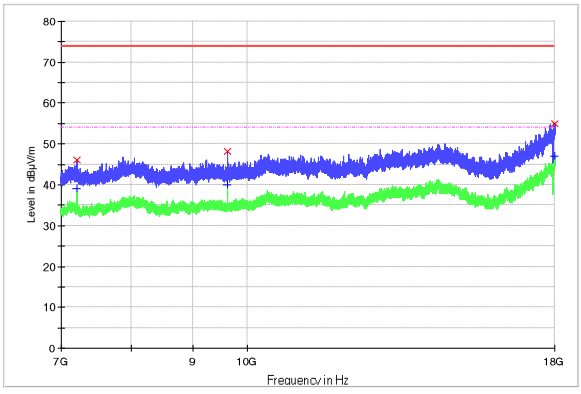
5.3.2 Radiated Spurious Emission

RESULT: **Pass**

Date of testing	:	2026-06-05
Ambient temperature	:	23.5°C
Relative humidity	:	48.6%
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+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
Test voltage	:	DC 3.0V
Test modes applied	:	A

Note:
For the frequency range from 18GHz to 25GHz, no emission was found.

Figure 8: Radiated Spurious Emission, 2405MHz

30MHz to 1GHz H	30MHz to 1GHz V
	
1GHz to 7GHz H	**1GHz to 7GHz V**
	
7GHz to 18GHz H	**7GHz to 18GHz V**
	

Limit and Margin

QP

Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
203.993750	18.4	H	16.2	25.1	43.5
266.195000	17.5	H	21.1	28.5	46.0
302.933750	21.9	H	20.7	24.2	46.0
320.515000	24.0	H	21.0	22.0	46.0
419.818750	20.5	H	24.0	25.5	46.0
532.460000	21.6	H	25.0	24.4	46.0
33.031250	19.6	V	23.7	20.4	40.0
68.921250	24.2	V	12.8	15.8	40.0
69.648750	24.9	V	12.8	15.1	40.0
75.226250	22.5	V	13.2	17.5	40.0
144.338750	19.8	V	17.6	23.7	43.5
266.316250	21.7	V	21.1	24.3	46.0

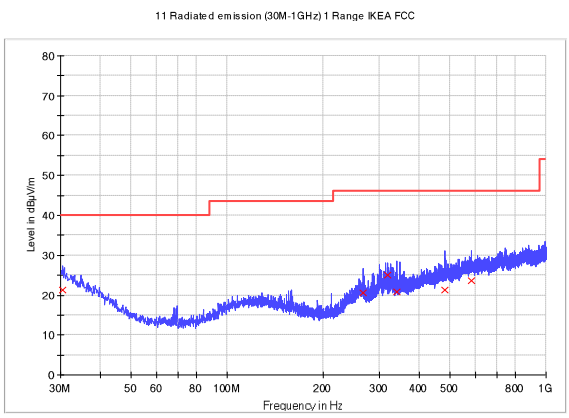
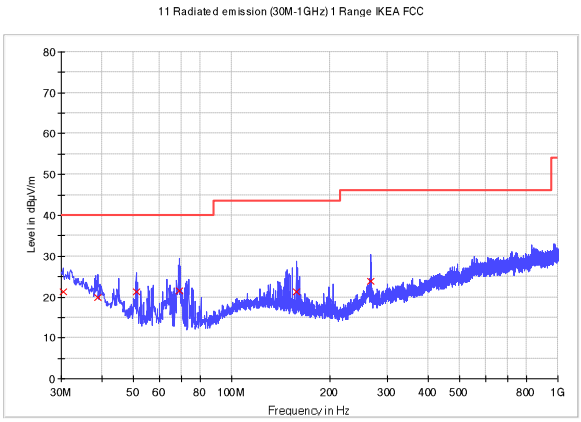
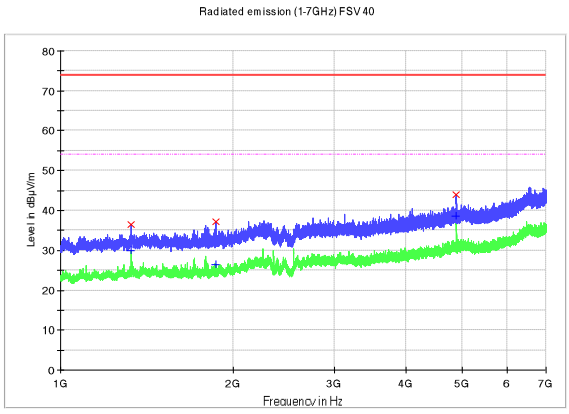
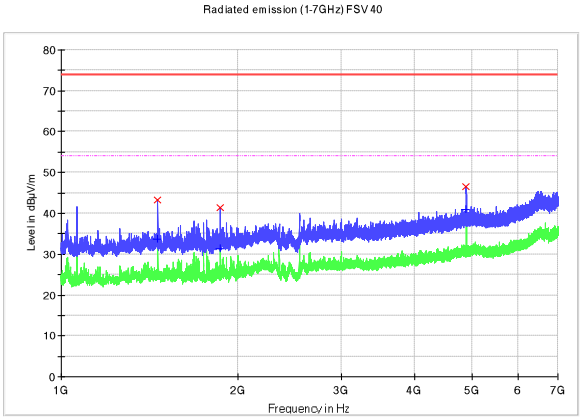
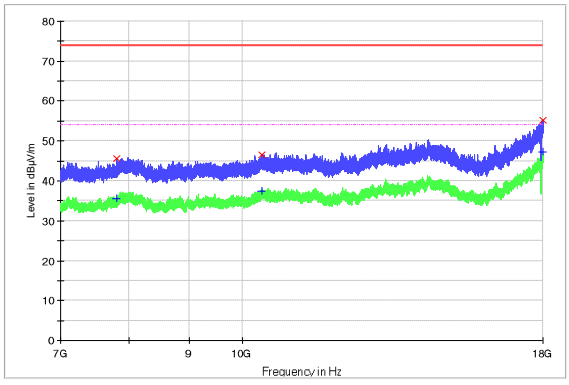
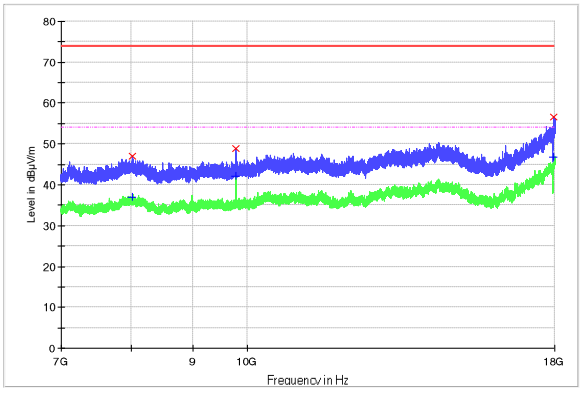
PK

Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2309.363636	42.2	H	-15.8	31.8	74.0
4809.454546	44.7	H	-11.2	29.3	74.0
6490.272727	45.7	H	-7.4	28.3	74.0
8025.750000	45.7	H	-3.4	28.3	74.0
10403.125000	46.8	H	-2.0	27.2	74.0
17984.187500	55.7	H	11.8	18.3	74.0
2176.545455	40.8	V	-15.9	33.2	74.0
2308.545455	43.8	V	-15.8	30.2	74.0
4809.181818	47.8	V	-11.2	26.2	74.0
7215.187500	46.2	V	-6.0	27.8	74.0
9621.781250	48.1	V	-4.4	25.9	74.0
17995.875000	55.0	V	12.0	19.0	74.0

AV

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2309.363636	38.5	H	-15.8	15.5	54.0
4809.454546	38.8	H	-11.2	15.2	54.0
6490.272727	37.1	H	-7.4	16.9	54.0
8025.750000	36.5	H	-3.4	17.5	54.0
10403.125000	37.3	H	-2.0	16.8	54.0
17984.187500	47.1	H	11.8	6.9	54.0
2176.545455	32.7	V	-15.9	21.3	54.0
2308.545455	40.5	V	-15.8	13.5	54.0
4809.181818	42.9	V	-11.2	11.1	54.0
7215.187500	39.0	V	-6.0	15.1	54.0
9621.781250	39.9	V	-4.4	14.1	54.0
17995.875000	47.1	V	12.0	6.9	54.0

Figure 9: Radiated Spurious Emission, 2445MHz

30MHz to 1GHz H	30MHz to 1GHz V
	
1GHz to 7GHz H	**1GHz to 7GHz V**
	
7GHz to 18GHz H	**7GHz to 18GHz V**
	

Limit and Margin

QP

Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.485000	21.2	H	25.2	18.8	40.0
266.195000	20.6	H	21.1	25.4	46.0
318.211250	25.1	H	20.8	20.9	46.0
340.521250	20.9	H	20.8	25.1	46.0
480.080000	21.2	H	24.7	24.8	46.0
582.536250	23.7	H	27.0	22.3	46.0
30.363750	21.2	V	25.2	18.8	40.0
38.851250	19.9	V	20.4	20.1	40.0
50.976250	21.4	V	14.4	18.7	40.0
69.163750	21.5	V	12.8	18.5	40.0
157.797500	21.2	V	16.9	22.3	43.5
266.316250	23.9	V	21.1	22.1	46.0

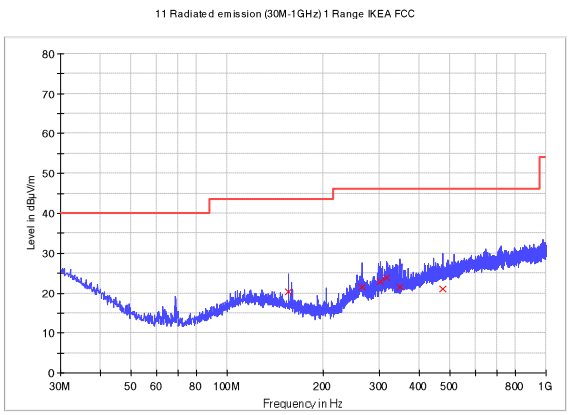
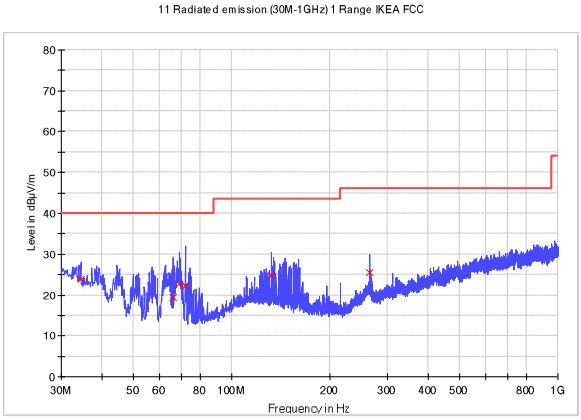
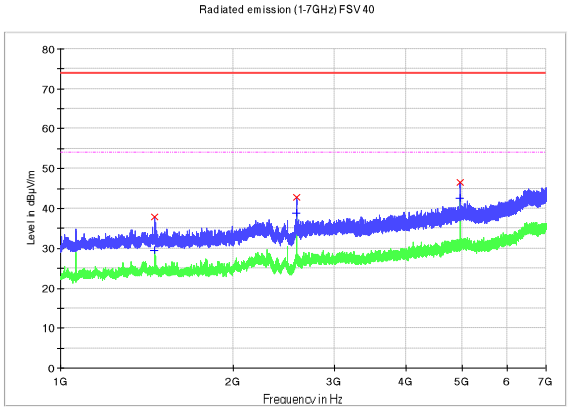
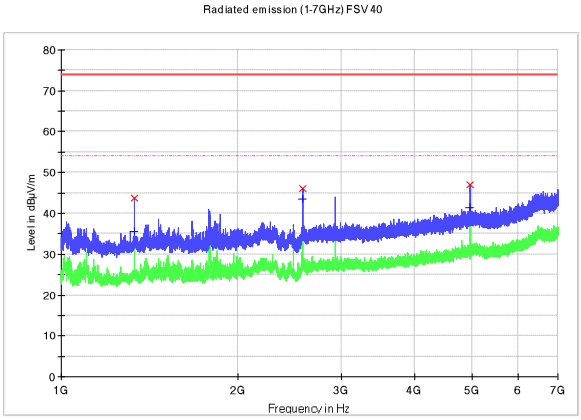
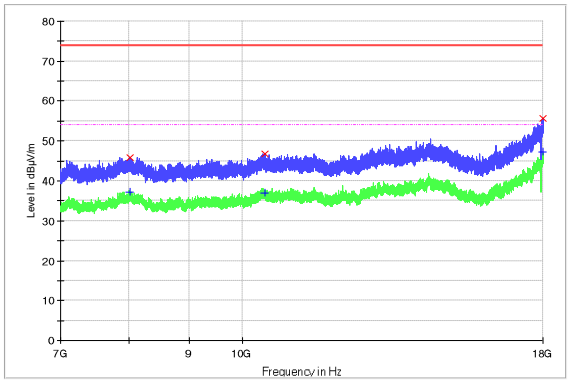
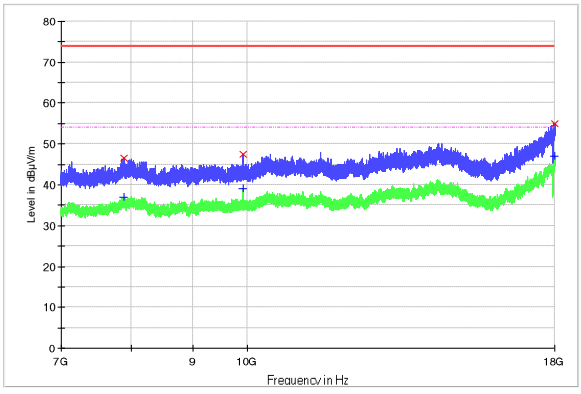
PK

Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1328.636364	36.5	H	-18.7	37.5	74.0
1860.454546	37.2	H	-18.5	36.8	74.0
4889.090909	44.0	H	-11.1	30.0	74.0
7818.812500	45.6	H	-4.7	28.4	74.0
10375.281250	46.6	H	-2.1	27.4	74.0
17993.125000	55.3	H	12.0	18.7	74.0
1460.363636	43.4	V	-18.6	30.6	74.0
1861.545455	41.5	V	-18.5	32.5	74.0
4890.727273	46.4	V	-11.1	27.6	74.0
8018.875000	47.0	V	-3.4	27.0	74.0
9777.843750	49.0	V	-3.9	25.0	74.0
17963.906250	56.6	V	11.5	17.4	74.0

AV

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1328.636364	29.8	H	-18.7	24.2	54.0
1860.454546	26.5	H	-18.5	27.5	54.0
4889.090909	38.7	H	-11.1	15.3	54.0
7818.812500	35.4	H	-4.7	18.6	54.0
10375.281250	37.4	H	-2.1	16.6	54.0
17993.125000	47.2	H	12.0	6.8	54.0
1460.363636	33.6	V	-18.6	20.4	54.0
1861.545455	31.4	V	-18.5	22.6	54.0
4890.727273	41.0	V	-11.1	13.0	54.0
8018.875000	37.0	V	-3.4	17.0	54.0
9777.843750	42.0	V	-3.9	12.0	54.0
17963.906250	46.7	V	11.5	7.3	54.0

Figure 10: Radiated Spurious Emission, 2480MHz

30MHz to 1GHz H	30MHz to 1GHz V
	
1GHz to 7GHz H	**1GHz to 7GHz V**
	
7GHz to 18GHz H	**7GHz to 18GHz V**
	

Limit and Margin

QP

Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
155.857500	20.4	H	16.9	23.2	43.5
265.467500	21.4	H	21.2	24.6	46.0
302.933750	22.8	H	20.7	23.2	46.0
316.150000	23.8	H	20.5	22.3	46.0
348.038750	21.6	H	21.4	24.4	46.0
474.623750	21.1	H	24.7	24.9	46.0
34.486250	23.8	V	22.9	16.2	40.0
65.890000	19.4	V	12.6	20.6	40.0
69.163750	22.8	V	12.8	17.2	40.0
71.952500	22.1	V	13.0	17.9	40.0
132.092500	24.9	V	18.5	18.6	43.5
265.467500	25.5	V	21.2	20.5	46.0

PK

Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1460.636364	37.9	H	-18.6	36.1	74.0
2576.636364	42.7	H	-15.8	31.3	74.0
4959.454546	46.6	H	-11.0	27.4	74.0
8017.156250	46.0	H	-3.4	28.0	74.0
10445.750000	46.9	H	-1.9	27.1	74.0
17993.468750	55.7	H	12.0	18.3	74.0
1331.909091	43.6	V	-18.7	30.4	74.0
2575.545455	46.1	V	-15.8	27.9	74.0
4958.909091	47.0	V	-11.0	27.0	74.0
7886.187500	46.6	V	-3.9	27.4	74.0
9918.437500	47.6	V	-3.6	26.4	74.0
17984.875000	55.0	V	11.9	19.0	74.0

AV

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1460.636364	29.6	H	-18.6	24.4	54.0
2576.636364	38.7	H	-15.8	15.3	54.0
4959.454546	42.5	H	-11.0	11.5	54.0
8017.156250	37.3	H	-3.4	16.8	54.0
10445.750000	37.0	H	-1.9	17.0	54.0
17993.468750	47.2	H	12.0	6.8	54.0
1331.909091	35.5	V	-18.7	18.5	54.0
2575.545455	43.6	V	-15.8	10.4	54.0
4958.909091	41.5	V	-11.0	12.5	54.0
7886.187500	37.0	V	-3.9	17.1	54.0
9918.437500	39.1	V	-3.6	14.9	54.0
17984.875000	47.1	V	11.9	6.9	54.0

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