

RADIO REPORT FCC 47 CFR Part 15C ISED Canada RSS-247 Frequency hopping systems operating within the 2400.0 MHz - 2483.5 MHz MHz band	
Report Reference No	G0M-2302-1881-TFC247BT-W260-V03
Testing Laboratory	Eurofins Product Service GmbH
Address	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation	    DAkkS - Registration number : D-PL-12092-01-03 (ISED) ISED Testing Laboratory site: 3470A DAkkS - Registration number : D-PL-12092-01-04 (FCC) FCC Filed Test Laboratory, Reg.-No.: 96970
Applicant	u-blox AG
Address	Zürcherstrasse 68 8800 Thalwil Switzerland
Test Specification	47 CFR Part 15C RSS-247, Issue 2, 2017-02 RSS-Gen, Issue 5, Amendment 2, 2021-02
Non-Standard Test Method	None
Equipment under Test (EUT):	
Product Description	MAYA-W2 host-based multiradio modules
Model(s)	MAYA-W260-00B
Additional Model(s)	None
Brand Name(s)	u-blox
Hardware Version(s)	03
Software Version(s)	1.0.0.39.1-18.80.1.p154.38
FCC ID	XPYMAYAW2A
IC	8595A-MAYAW2A
Test Result	PASSED

Possible test case verdicts:		
Required by standard but not tested	N/T	
Not required by standard	N/R	
Not applicable to EUT	N/A	
Test object does meet the requirement	P(PASS)	
Test object does not meet the requirement	F(FAIL)	
Testing:		
Test Lab Temperature	20 °C - 30 °C	
Test Lab Humidity	25 % - 55 %	
Date of receipt of test item	2023-03-02	
Report:		
Compiled by	Radwan Jaafar	
Responsible for test (+ signature) (Responsible for Test)	Radwan Jaafar	
Approved by (+ signature) (Test Lab Engineer)	Wilfried Treffke	
Date of Issue	2024-01-10	
Total number of pages	51	
General Remarks:		
The test results presented in this report relate only to the object tested. The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.		
Additional Comments:		
This test report presents results of a spot-check measurements based on worst-case results reported in the reference device MAYA-W271-00B, with hardware version 02 and software version 1.0.0.39.1-18.80.1.p154.38 according to KDB 484596 D01 for an additional variant. The full test data of the reference model is presented in the test report G0M-2302-1881-TFC247BT-W271-V03, issued by Eurofins Product Service GmbH on 2023-12-08.		

VERSION HISTORY

Version History			
Version	Issue Date	Remarks	Revised By
01	2023-11-22	Initial Release	--
02	2023-11-29	Replaced document: G0M-2302-1881-TFC247BT-W260-V01 Replaced by: G0M-2302-1881-TFC247BT-W260-V02 Reason: Correction of the model name and FVIN of the EUT.	R. Jaafar
03	2024-01-10	Replaced document: G0M-2302-1881-TFC247BT-W260-V02 Replaced by: G0M-2302-1881-TFC247BT-W260-V03 Reason: - Correction of the module name in the plots.	R. Jaafar

ABBREVIATIONS AND ACRONYMS

Acronyms	
Acronym	Description
BR	Basic Rate (Bluetooth)
EDR	Enhanced Data Rate (Bluetooth)
EUT	Equipment Under Test
FCC	Federal Communications Commission
ISED	Innovation, Science and Economic Development Canada
RBW	Resolution bandwidth
RMS	Root mean square
VBW	Video bandwidth
V _{NOM}	Nominal supply voltage

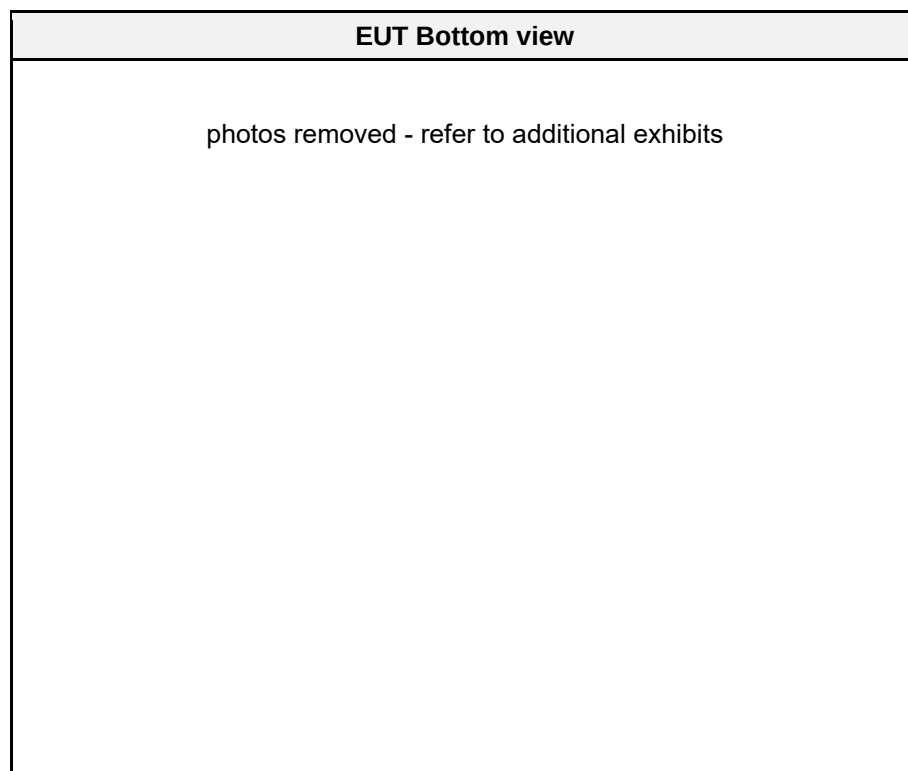
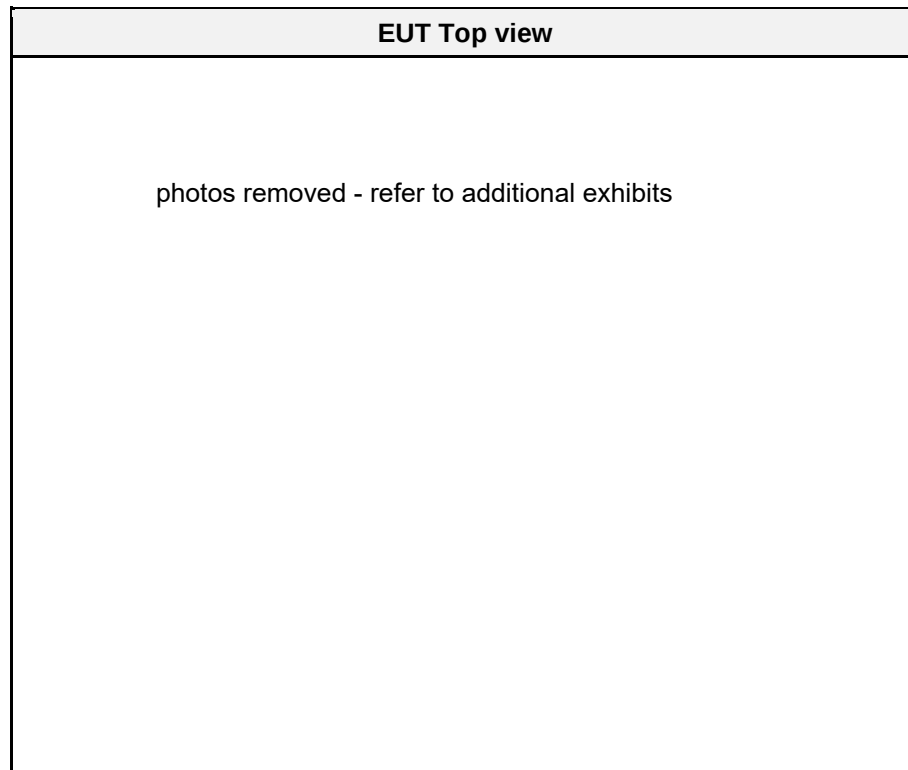
REPORT INDEX

1	Equipment (Test Item) Under Test.....	6
1.1	Photos – Equipment External	7
1.2	Photos – Equipment Internal	14
1.3	Support Equipment.....	16
1.4	Test Modes	17
1.5	Test Frequencies.....	18
1.6	Sample emission level calculation.....	19
2	Result Summary.....	20
2.1	Test Conditions and Results - Transmitter radiated emissions	21
2.2	Test Conditions and Results - Receiver radiated emissions	27
ANNEX A	Transmitter spurious emissions	31
ANNEX B	Receiver spurious emissions	49

1 Equipment (Test Item) Under Test

Description	MAYA-W2 host-based multiradio modules		
Model	MAYA-W260-00B		
Additional Model(s)	None		
Brand Name(s)	u-blox		
Sample Identification	EUT	Sample-ID	Serial Number
	Radiated with external antenna	45124	AM320BA364836E40600
Test Sample Id(s)	45124		
Hardware Version(s)	03		
Software Version(s)	1.0.0.39.1-18.80.1.p154.38		
PMN	MAYA-W260-00B		
HVIN	MAYA-W260-00B		
FVIN	N/A		
HMN	N/A		
FCC ID	XPYMAYAW2A		
IC	8595A-MAYAW2A		
Equipment type	Radio Module		
Radio type	Transceiver		
Assigned frequency bands	2400.0 MHz - 2483.5 MHz		
Radio technology	Bluetooth		
Modulation	GFSK, PI/4-DQPSK, 8-DPSK		
Number of antenna ports	2		
Antenna	Type	External	
	Model	ANT-DB1-RAF-SMA	
	Manufacturer	Linx Technologies	
	Gain	4.1 dBi (customer declaration)	
Supply Voltage (1st port)	V _{NOM}	3.3 VDC	
Supply Voltage (2nd port)	V _{NOM}	1.8 VDC	
Operating Temperature	T _{NOM}	20 °C	
AC/DC-Adaptor	Model	None	
Manufacturer	u-blox AG Zürcherstrasse 68 8800 Thalwil Switzerland		

1.1 Photos – Equipment External



EUT Front overview with external antennas

photos removed - refer to additional exhibits

EUT Back overview with external antennas

photos removed - refer to additional exhibits

External antenna

photos removed - refer to additional exhibits

External antenna cable

photos removed - refer to additional exhibits

Evaluation board top view

photos removed - refer to additional exhibits

Evaluation board bottom view

photos removed - refer to additional exhibits

Data cable

photos removed - refer to additional exhibits

USB C cable

photos removed - refer to additional exhibits

Evaluation board side view

photos removed - refer to additional exhibits

SPI Cable

photos removed - refer to additional exhibits

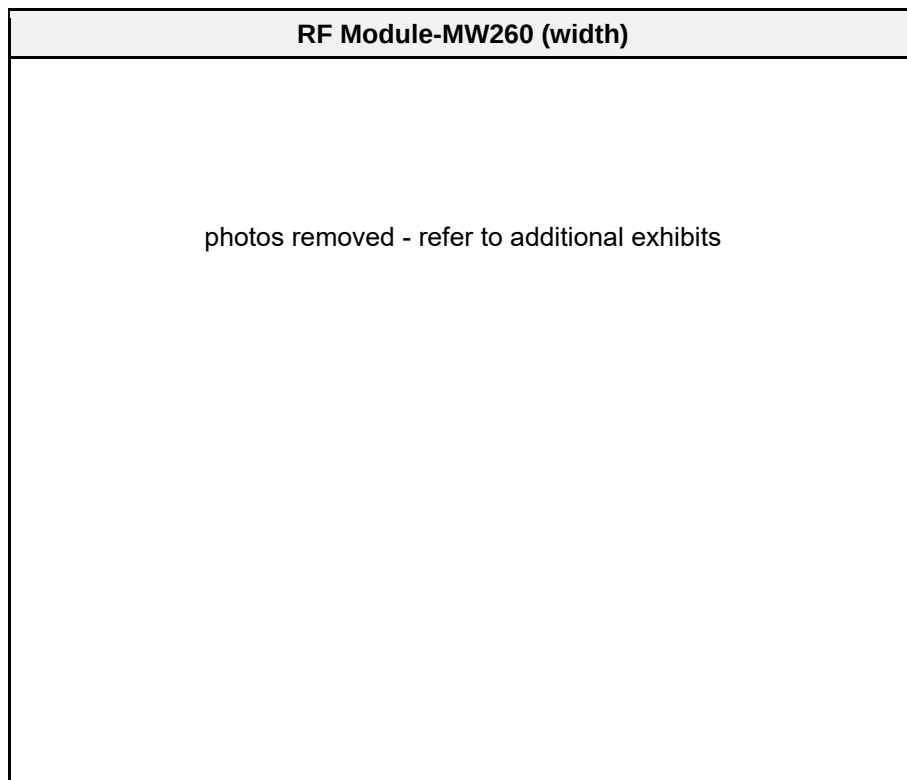
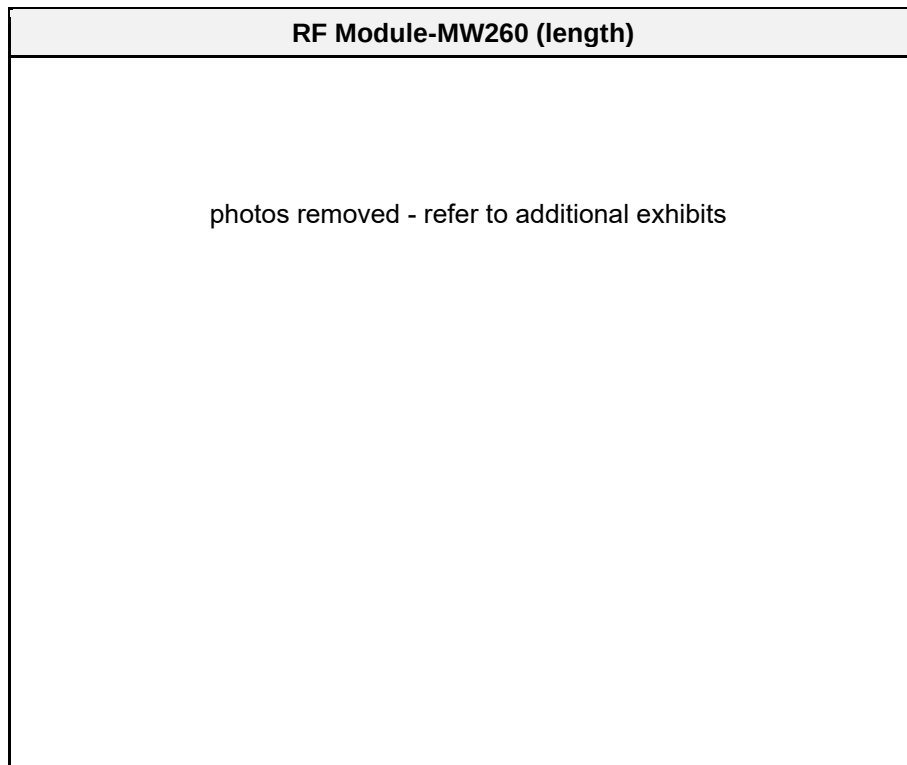
Power adapter

photos removed - refer to additional exhibits

Cable to connect EUT to external power supply

photos removed - refer to additional exhibits

1.2 Photos – Equipment Internal



RF Module-MW260 unshielded (length)

photos removed - refer to additional exhibits

RF Module-MW260 unshielded (width)

photos removed - refer to additional exhibits

1.3 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
AE	Notebook	Dell	Latitude E7250	For configuring test modes
AE	Evaluation Board	u-blox		
CBL	USB-C	---	---	Connection between evaluation board and EUT
CBL	Data cable	---	---	
CBL	SBI cable			
CBL	Ethernet	---	---	Connection between evaluation board and notebook
AE	AC/DC Adapter	EDACPOWER ELECT.	EA1045CR	To power the evaluation board
SFT	Terminal	Debian / Linux	---	For test mode activation
Description:				
AE	Auxiliary Equipment			
SIM	Simulator			
CBL	Connecting Cable			
SFT	Software			
Comment:				

1.4 Test Modes

Mode	Description
DH5 Single	Mode = Transmit Modulation = GFSK Spreading = None Packet type = DH5 Duty cycle = 77%
Receive	Mode = Scan mode
Note: Power for all test modes is set to maximum (controlled by the communication tester).	
Comment: The above settings were determined as a worst case, which found in the module test report "G0M-2302-1881-TFC247BT-W271-V02" issued by "Eurofins Product Service GmbH" on "2023-11-29".	

1.5 Test Frequencies

Designator	Mode	Channel	Frequency [MHz]
F1	Tx	0	2402
F2	Tx / Rx	39	2441
F4	Tx	78	2480

1.6 Sample emission level calculation

The following is a description of terms and a sample calculation, as appears in the radiated emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

Reading:

This is the reading obtained on the spectrum analyzer in dB μ V. Any external preamplifiers used are taken into account through internal analyzer settings.

A.F.:

This is the antenna factor for the receiving antenna. It is a conversion factor, which converts electric fields strengths to voltages, which can be measured directly on the spectrum analyzer. It is treated as a loss in dB. Cable losses have been included with the A.F. to simplify the calculations. The antenna factor is used in calculations as follows:

$$\text{Reading on Analyzer (dB}\mu\text{V)} + \text{A.F. (dB/m)} = \text{Net field strength (dB}\mu\text{V/m)}$$

Net:

This is the net field strength measurement (as shown above).

Margin:

This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Field strength limit:

This is the FCC Class B radiated emission limit (in units of dB μ V/m). The FCC limits are given in units of μ V/m. The following formula is used to convert the units of μ V/m to dB μ V/m:

$$\text{Field strength limit (dB}\mu\text{V/m)} = 20 \cdot \log (\mu\text{V/m})$$

Example only for radiated field strength:

Reading + AF	= Net Reading	:	Net reading	- Field strength limit	= Margin
+21.5 dB μ V	+ 26 dB/m	:	47.5 dB μ V/m	- 57.0 dB μ V/m	= -9.5

2 Result Summary

FCC 47 CFR Part 15C, ISED RSS-247				
Product Standard Reference	Requirement	Reference Method	Result	Remarks
ISED RSS-Gen, Issue 5 A2 (section 6.7)	Occupied Bandwidth	ANSI C63.10-2013	N/R	Informational only
FCC § 15.247(a)(1) ISED RSS-247 § 5.1 Issue 2	20 dB Bandwidth	ANSI C63.10-2013	N/T	
FCC § 15.247(a)(1)(iii) ISED RSS-247, Issue 2 (section 5.1)	Number of hopping frequencies	ANSI C63.10-2013	N/T	
FCC § 15.247(a)(1) ISED RSS-247, Issue 2 (section 5.1)	Frequency hopping channel separation	ANSI C63.10-2013	N/T	
FCC § 15.247(a)(1)(iii) ISED RSS-247, Issue 2 (section 5.1)	Time of occupancy (Dwell time)	ANSI C63.10-2013	N/T	
FCC § 15.247(b) ISED RSS-247, Issue 2 (section 5.4)	Maximum peak conducted power	ANSI C63.10-2013	N/T	
FCC § 15.207 ISED RSS-247, Issue 2 (section 3.1)	AC power line conducted emissions	ANSI C63.10-2013	N/T	
FCC § 15.247(d) ISED RSS-247, Issue 2 (section 5.5)	Band edge compliance	ANSI C63.10-2013	N/T	
FCC § 15.247(d) ISED RSS-247, Issue 2 (section 5.5)	Conducted spurious emissions	ANSI C63.10-2013	N/T	
FCC § 15.247(d) FCC § 15.209 ISED RSS-Gen, Issue 5 A2 (section 6.13)	Transmitter radiated spurious emissions	ANSI C63.10-2013	PASS	Note 1
ISED RSS-247, Issue 2 (section 3.1)	Receiver radiated spurious emissions	ANSI C63.4-2014	PASS	Note 1
Remarks: Note 1: Spot-check of an additional model. Comment: The Decision Rule is applied on the basis of ETSI TR 102 273 and ETSI TR 100 028. These standards provide guidance on how to calculate and apply measurement uncertainty whilst providing maximum uncertainties allowance. In all cases due consideration will be given to ILAC-G8:09/2019. Where a result is considered conditional in respect of its proximity to the limit line, the customer would be made aware of situation so that they can make an informed decision on how to proceed.				

Possible Test Case Verdicts	
PASS	Test object does meet the requirements
FAIL	Test object does not meet the requirements
N/T	Required by standard but not tested
N/R	Not required by standard for the test object

2.1 Test Conditions and Results - Transmitter radiated emissions

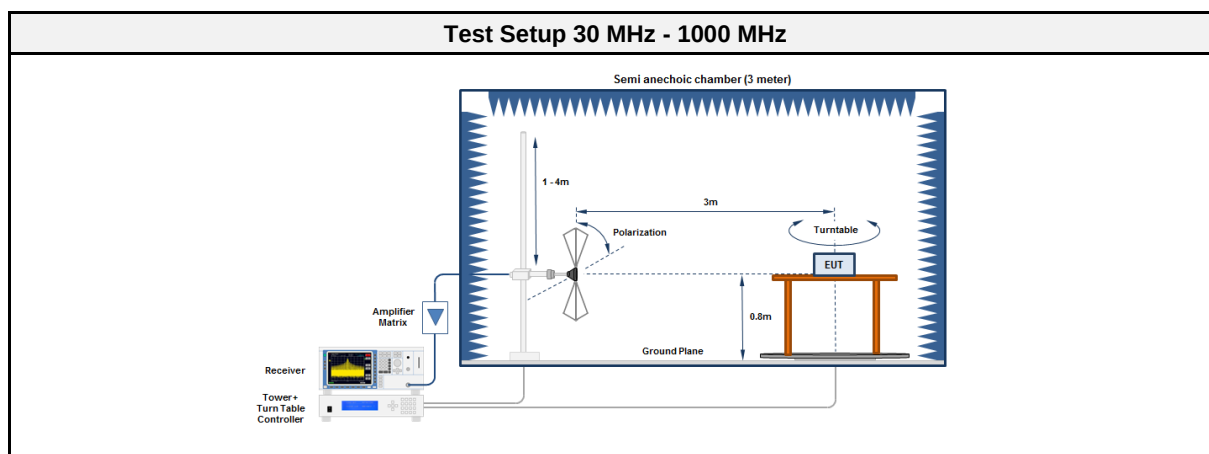
2.1.1 Information

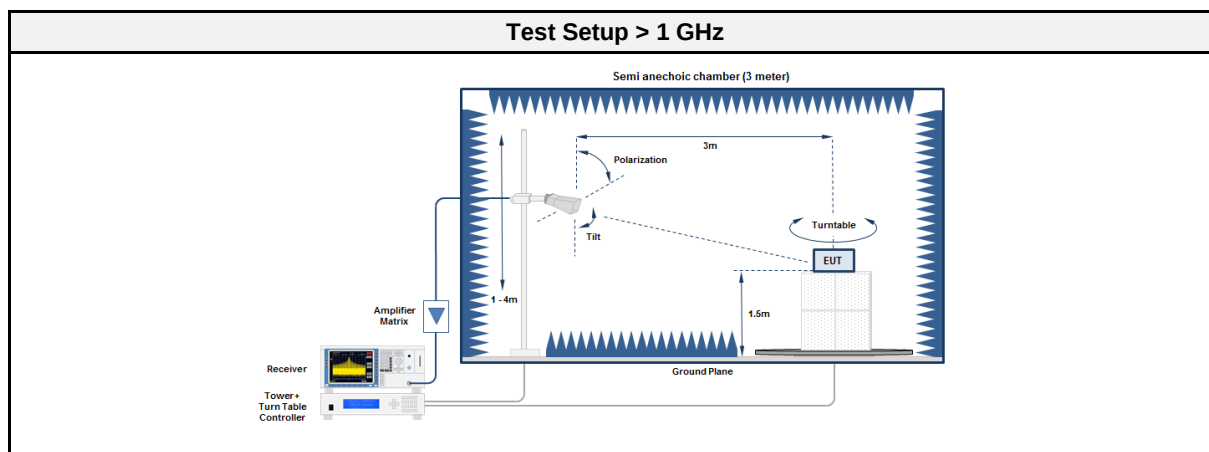
Test Information	
Reference	FCC § 15.247(d); FCC § 15.209; ISSED RSS-Gen, Issue 5 A2 (section 6.13)
Measurement Uncertainty	± 5.95 dB
Measurement Method	ANSI C63.10 6.4, 6.5, 6.6
Operator	Azamat Ibraimov
Date	2023-09-15

2.1.2 Limits

Limits			
Frequency range [MHz]	Detector	Field strength [µV/m]	Measurement distance [m]
0.009 - 0.09	Average	2400/F[kHz]	300
0.09 - 0.110	Quasi-Peak	2400/F[kHz]	300
0.110 - 0.490	Average	2400/F[kHz]	300
0.490 - 1.705	Quasi-Peak	24000/F[kHz]	30
1.705 - 30.0	Quasi-Peak	30	30
30 - 88	Quasi-Peak	100	3
88 - 216	Quasi-Peak	150	3
216 - 960	Quasi-Peak	200	3
960 - 1000	Quasi-Peak	500	3
>1000	Average	500	3

2.1.3 Setup





2.1.4 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	DARE Instruments	RadiMation	2020.1.8

Test Equipment 30 MHz - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2022-11	2025-11
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2023-02	2024-02
Antenna	Schwarzbeck	VULB 9168	EF01824	2022-10	2023-10

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC2	EF01616	2022-10	2023-10
Spectrum analyzer	R&S	FSW43	EF00896	2023-08	2024-08
Antenna	Schwarzbeck	BBHA 9120B	EF01678	2021-03	2024-03
Antenna	Schwarzbeck	HWRD 650	EF01679	2021-03	2024-03
Antenna	Amplifier Research	AT4560	EF00302	2021-06	2023-09

2.1.5 Procedure

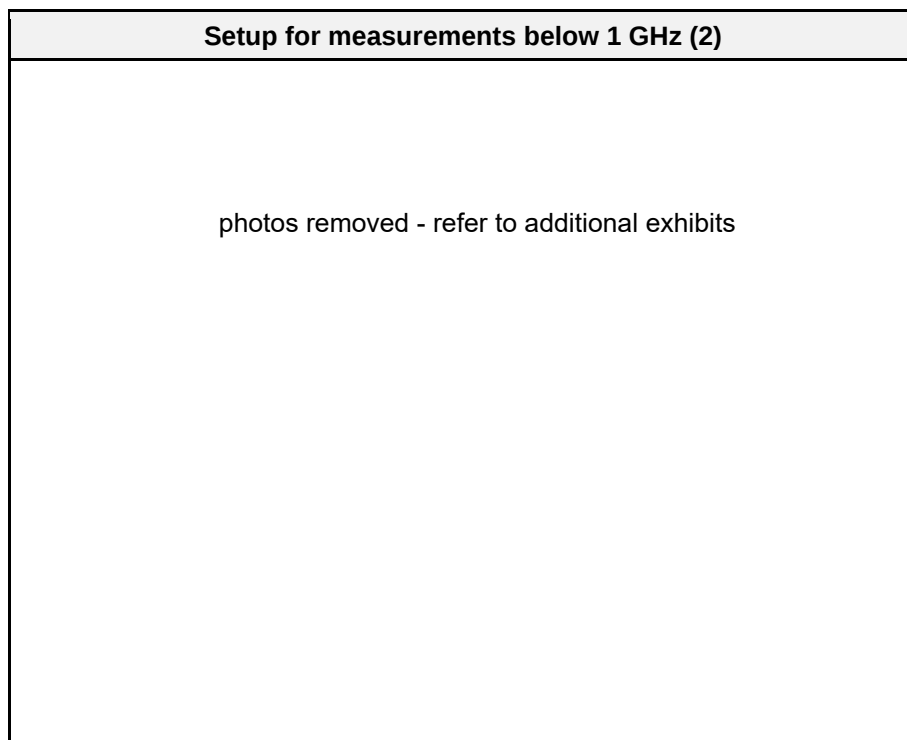
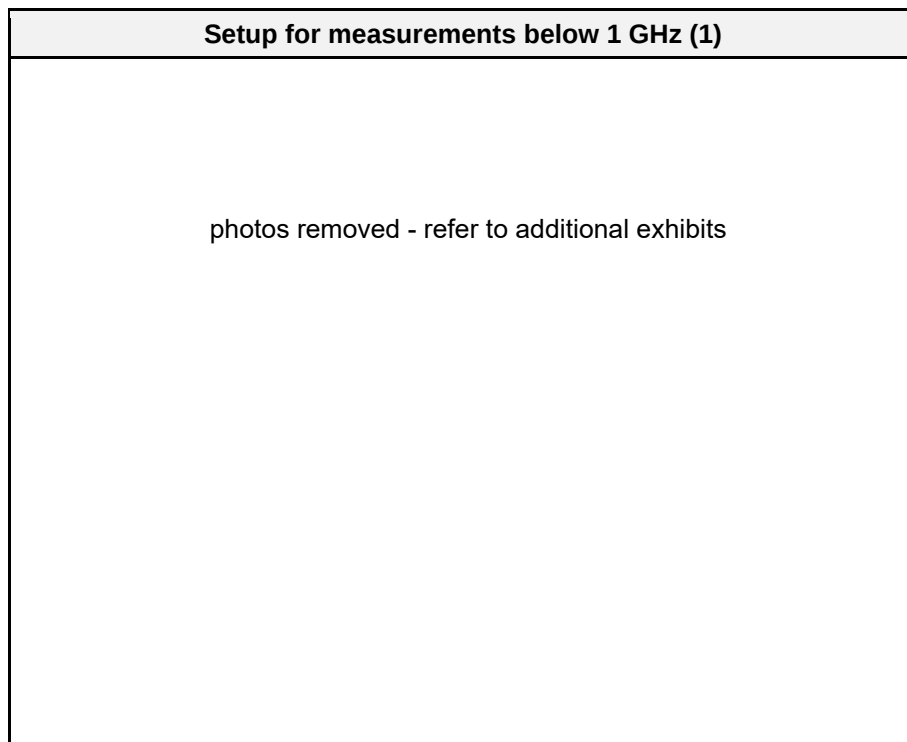
Test Procedure 30 MHz - 1000 MHz	
1. EUT is placed on a non conducting support at the center of a turn table 0.8 m above the ground 2. EUT set to test mode 3. The receiver is set to peak detection with max hold 4. The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m 5. All significant emissions are measured again using the corresponding final detector	

Test Procedure > 1 GHz	
1. EUT is placed on a non conducting support at the center of a turn table 1.5 m above the ground 2. EUT set to test mode 3. The receiver is set to peak detection with max hold 4. The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m 5. All significant emissions are measured again using the corresponding final detector	

2.1.6 Results

Test Results - DH5						
Channel [MHz]	Emission [MHz]	Level [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Margin [dB]
2402	2284.6	38.14	avg	ver	54.00	-15.86
2402	2362	60.46	pk	ver	74.00	-13.54
2402	2362	44.61	avg	ver	54.00	-09.39
2402	4804	42.74	avg	ver	54.00	-11.26
2402	12011	35.84	avg	ver	54.00	-18.16
2441	2313.3	38.96	avg	ver	54.00	-15.04
2441	4882.1	39.63	avg	ver	54.00	-14.37
2441	7322.4	49.58	pk	hor	74.00	-24.42
2441	7322.4	45.71	avg	hor	54.00	-08.29
2441	12206	36.16	avg	hor	54.00	-17.84
2480	2375	47.46	pk	ver	74.00	-26.54
2480	2375	39.11	avg	ver	54.00	-14.89
2480	2483.5	62.15	pk	ver	74.00	-11.85
2480	2483.5	48.49	avg	ver	54.00	-05.51
2480	4960	41.78	avg	ver	54.00	-12.22
2480	7440	47.76	pk	hor	74.00	-26.24
2480	7440	44.06	avg	hor	54.00	-09.94
2480	12399	40.59	avg	hor	54.00	-13.41

2.1.7 Setup Photos



EUT Test Setup below 1 GHz

photos removed - refer to additional exhibits

Setup for measurements above 1 GHz (1)

photos removed - refer to additional exhibits

Setup for measurements above 1 GHz (2)

photos removed - refer to additional exhibits

EUT Test Setup above 1 GHz

photos removed - refer to additional exhibits

2.2 Test Conditions and Results - Receiver radiated emissions

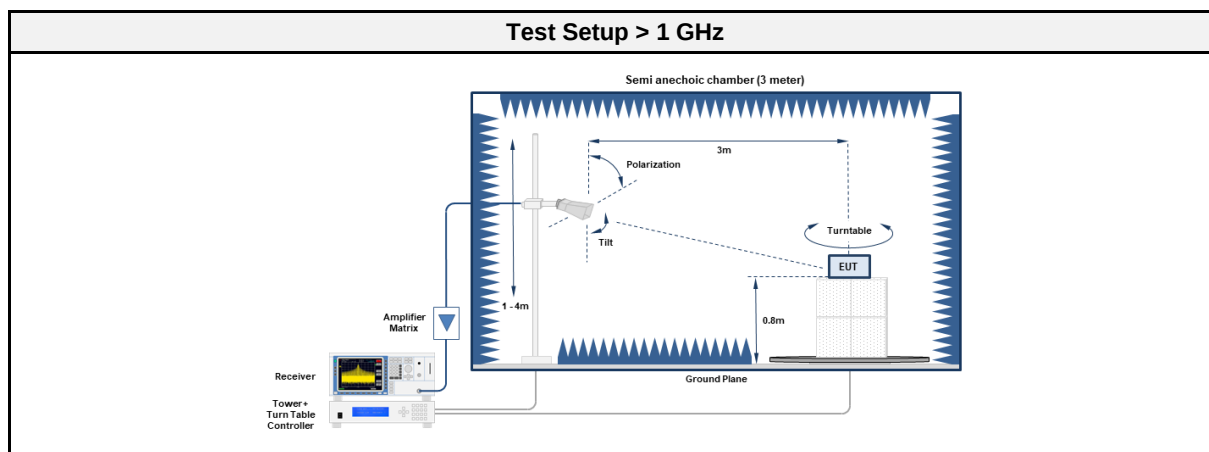
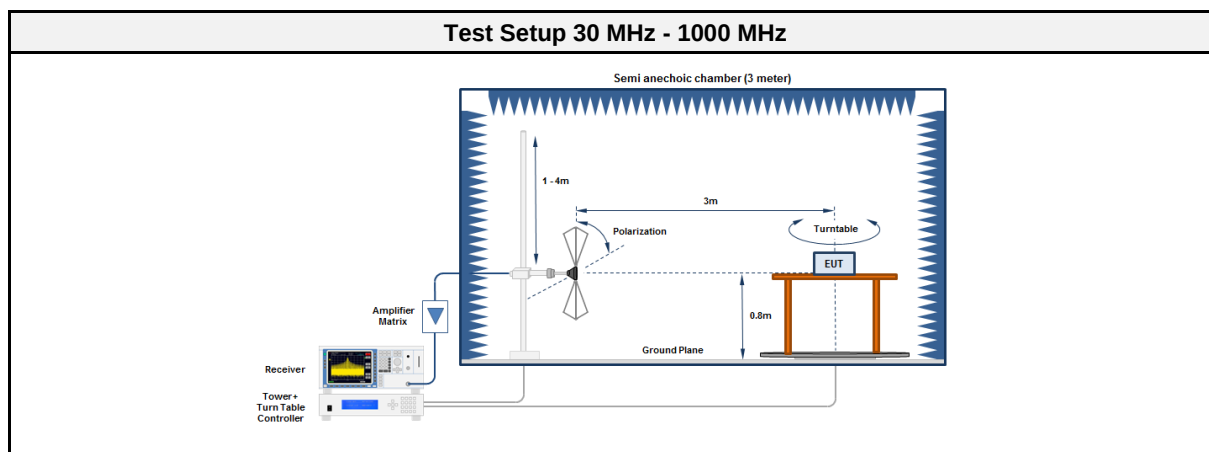
2.2.1 Information

Test Information	
Reference	ISED RSS-247, Issue 2 (section 3.1)
Measurement Uncertainty	± 5.95 dB
Measurement Method	ANSI C63.4-2014 8.1-8.3
Operator	E. Sohrabi
Date	2023-09-14

2.2.2 Limits

Limits			
Frequency range [MHz]	Detector	Field strength [$\mu\text{V/m}$]	Measurement distance [m]
30 - 88	Quasi-Peak	100	3
88 - 216	Quasi-Peak	150	3
216 - 960	Quasi-Peak	200	3
960 - 1000	Quasi-Peak	500	3
>1000	Average	500	3

2.2.3 Setup



2.2.4 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	DARE Instruments	RadiMation	2020.1.8

Test Equipment 30 MHz - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2022-11	2025-11
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2023-02	2024-02
Antenna	Schwarzbeck	VULB 9168	EF01824	2022-10	2023-10

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF01011	2022-11	2023-11
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2023-02	2024-02
Antenna	Schwarzbeck	BBHA 9120D	EF01561	2021-11	2024-11
Antenna	Schwarzbeck	HWRD 650	EF01679	2021-03	2024-03

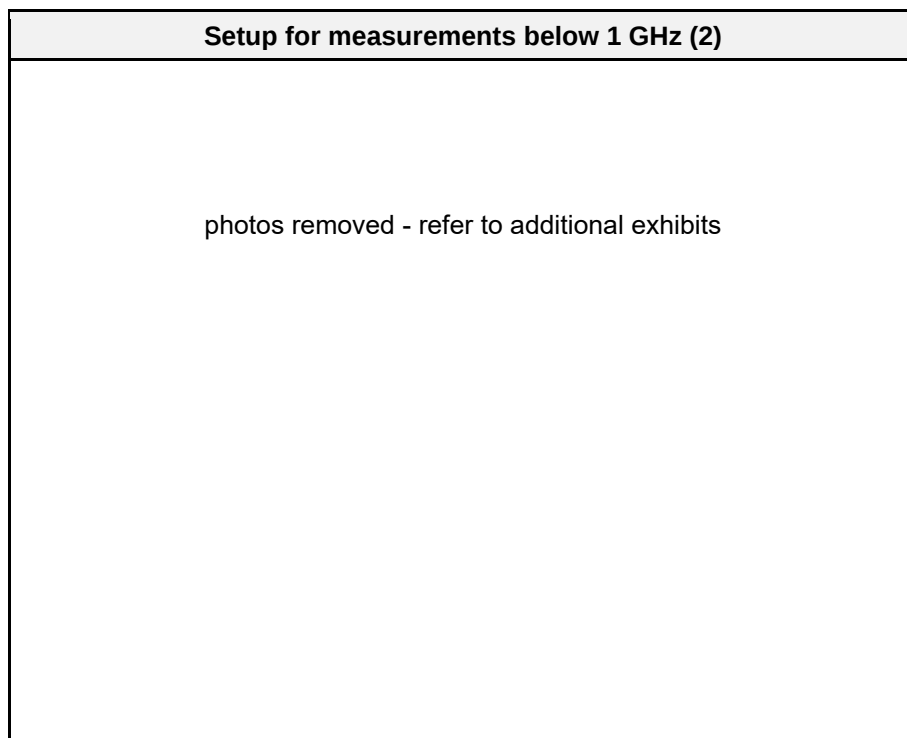
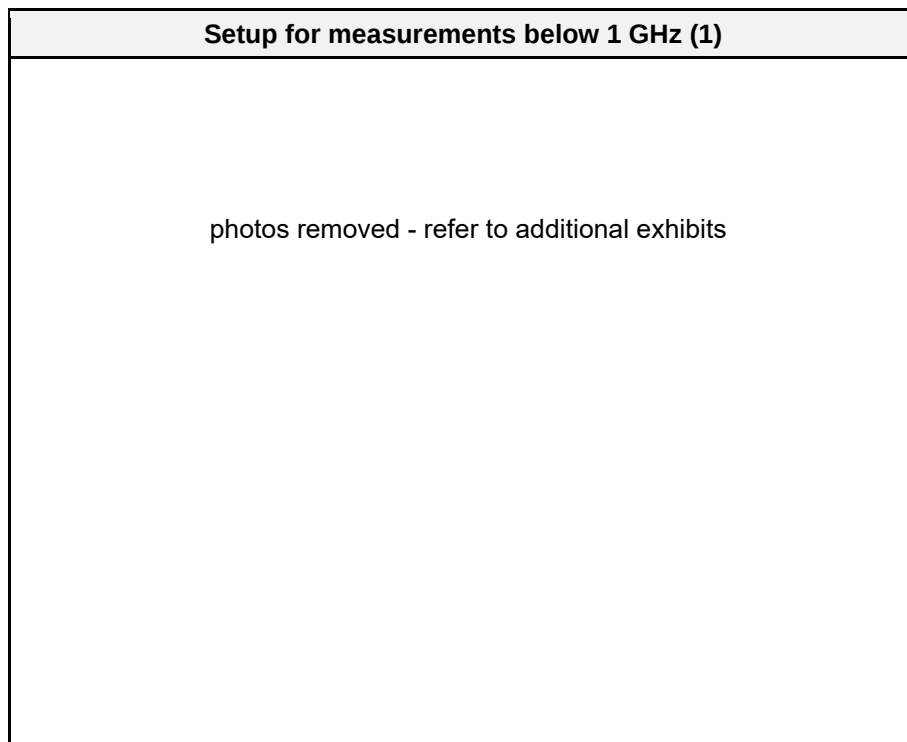
2.2.5 Procedure

Test Procedure	
1. EUT is placed on a non conducting support at the center of a turn table 0.8 m above the ground 2. EUT is set to test mode 3. The receiver is set to peak detection with max hold 4. The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m 5. All significant emissions are measured again using the corresponding final detector	

2.2.6 Results

Test Results						
Channel [MHz]	Emission [MHz]	Level [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Margin [dB]
Scan mode	957.999	35.00	pk	ver	46.00	-11.03

2.2.7 Setup Photos



Setup for measurements above 1 GHz (1)

photos removed - refer to additional exhibits

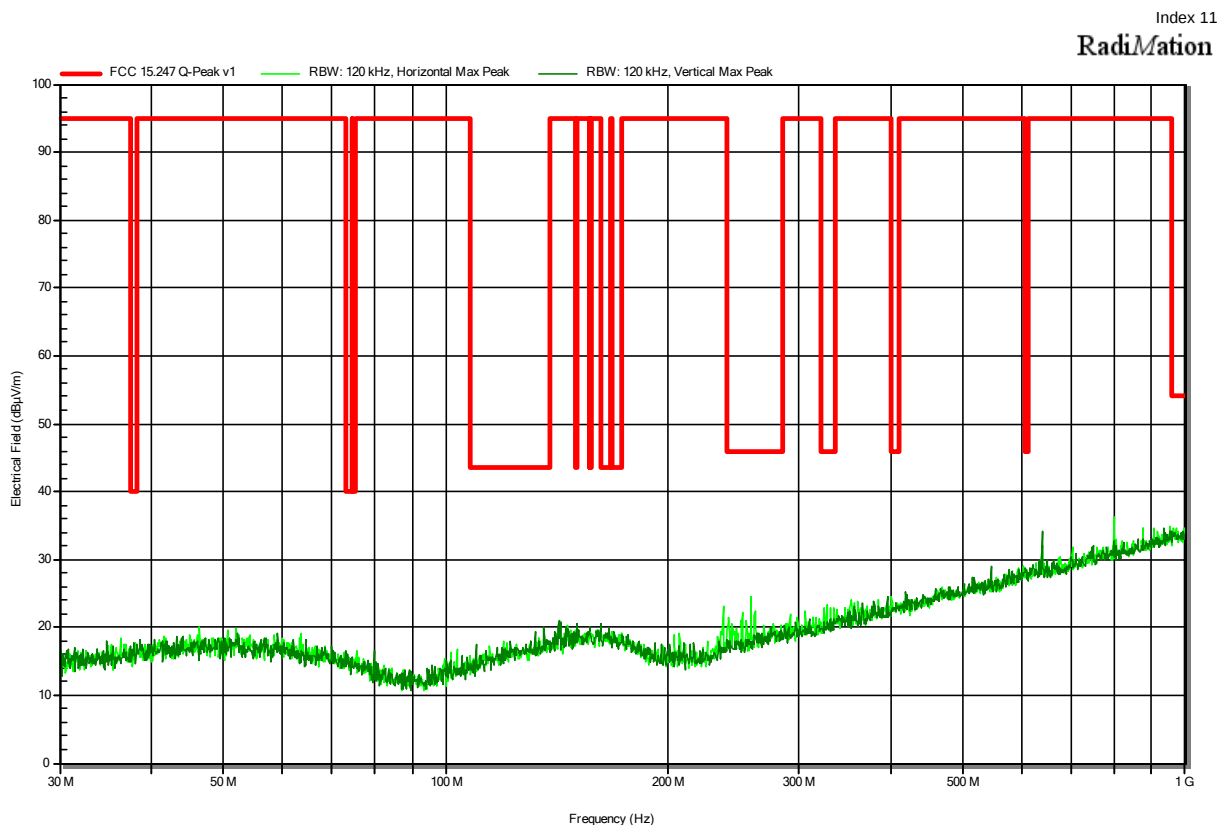
Setup for measurements above 1 GHz (2)

photos removed - refer to additional exhibits

ANNEX A Transmitter spurious emissions

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck VULB 9168
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2402 MHz, PRBS9, DH5, P = max
 Test Date: 2023-09-15
 Note:

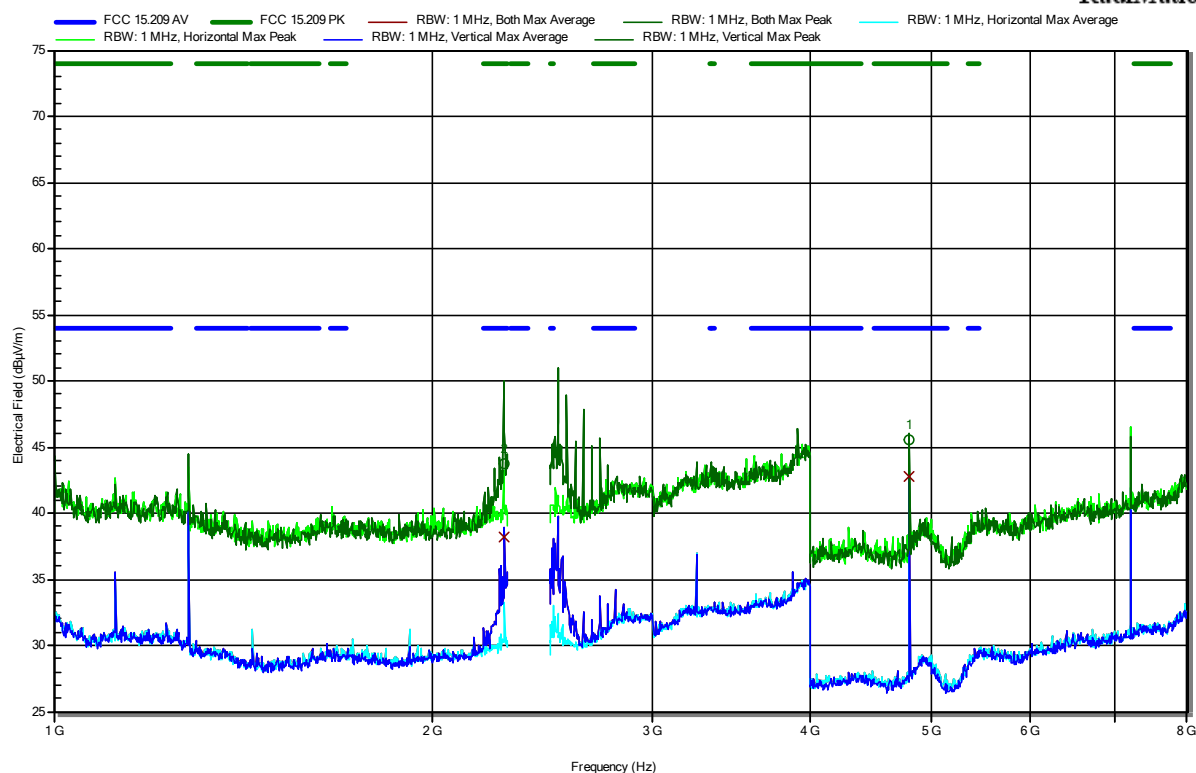


Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2402 MHz, PRBS9, DH5, P=max
 Test Date: 2023-09-15
 Note:

Index 229

RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.2846 GHz	43.71 dBμV/m	74 dBμV/m	-30.29 dB	Pass	Vertical
4.804 GHz	45.55 dBμV/m	74 dBμV/m	-28.45 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
2.2846 GHz	38.14 dBμV/m	54 dBμV/m	-15.86 dB	Pass	Vertical
4.804 GHz	42.74 dBμV/m	54 dBμV/m	-11.26 dB	Pass	Vertical

Test Report No.: G0M-2302-1881-TFC247BT-W260-V03

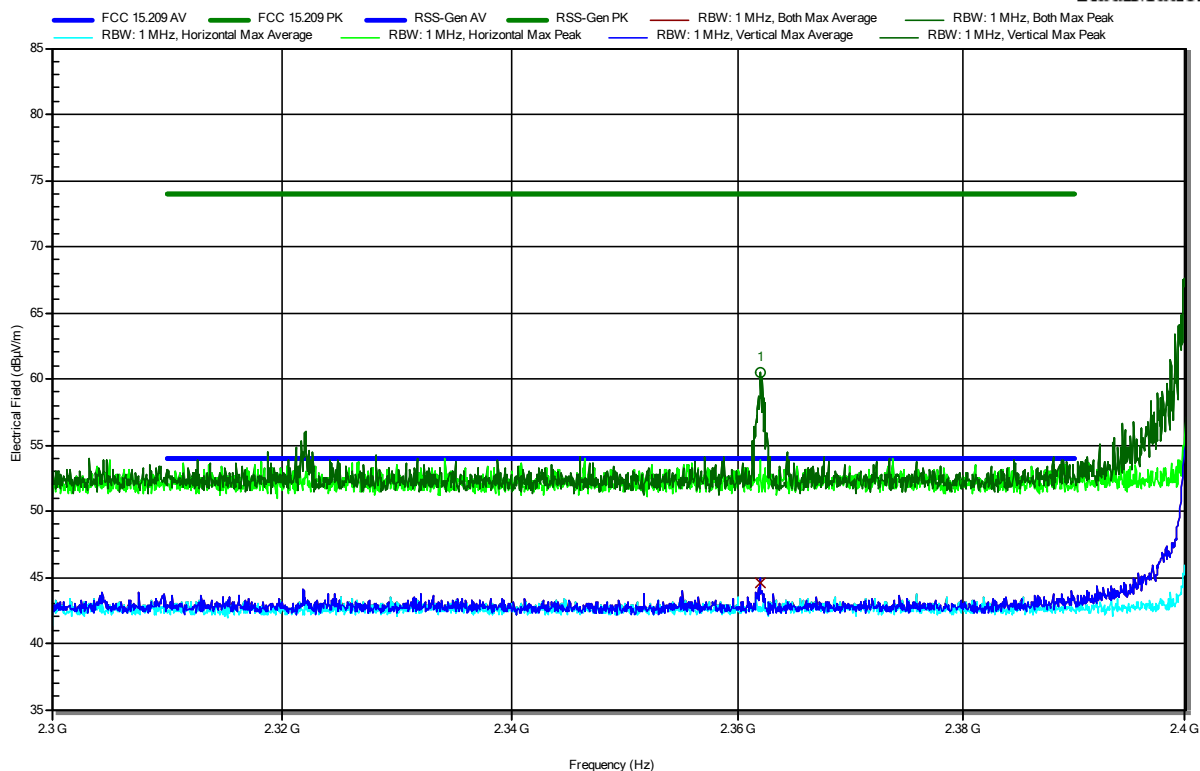
Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2402 MHz, PRBS9, DH5, P=max
 Test Date: 2023-09-15
 Note: lower bandedge

Index 228

RadiMation



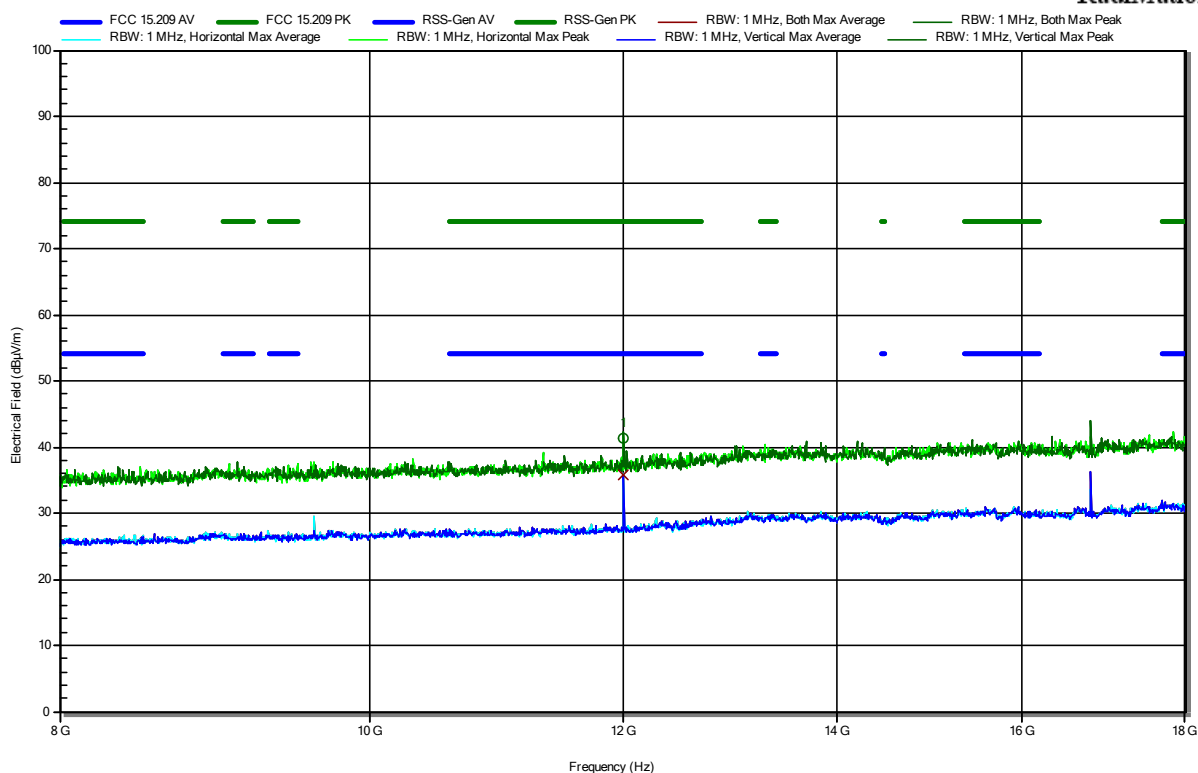
Frequency 2.362 GHz	Peak 60.46 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -13.54 dB	Peak Status Pass	Polarization Vertical
Frequency 2.362 GHz	Average 44.61 dBµV/m	Average Limit 54 dBµV/m	Average Difference -9.39 dB	Average Status Pass	Polarization Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2402 MHz, PRBS9, DH5, P=max
 Test Date: 2023-09-15
 Note:

Index 237

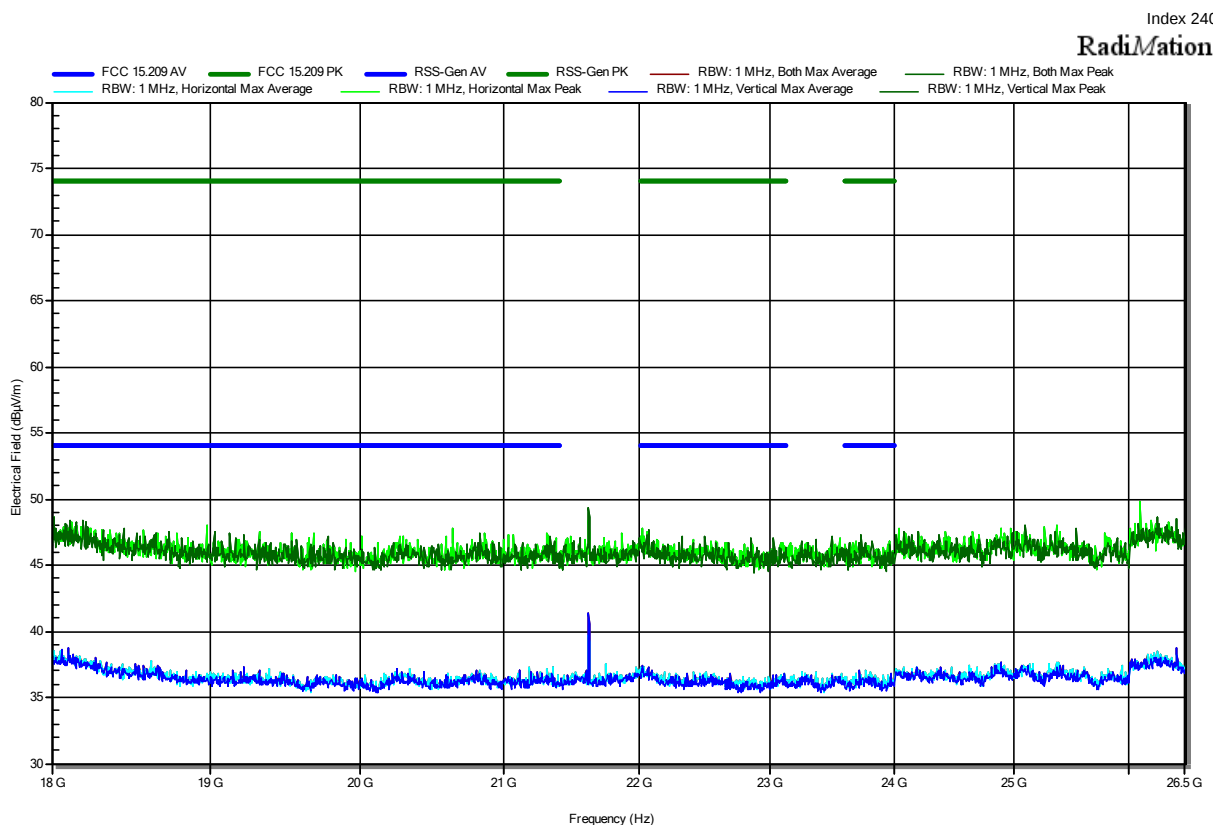
RadiMation



Frequency 12.011 GHz	Peak 41.33 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -32.67 dB	Peak Status Pass	Polarization Vertical
Frequency 12.011 GHz	Average 35.84 dBµV/m	Average Limit 54 dBµV/m	Average Difference -18.16 dB	Average Status Pass	Polarization Vertical

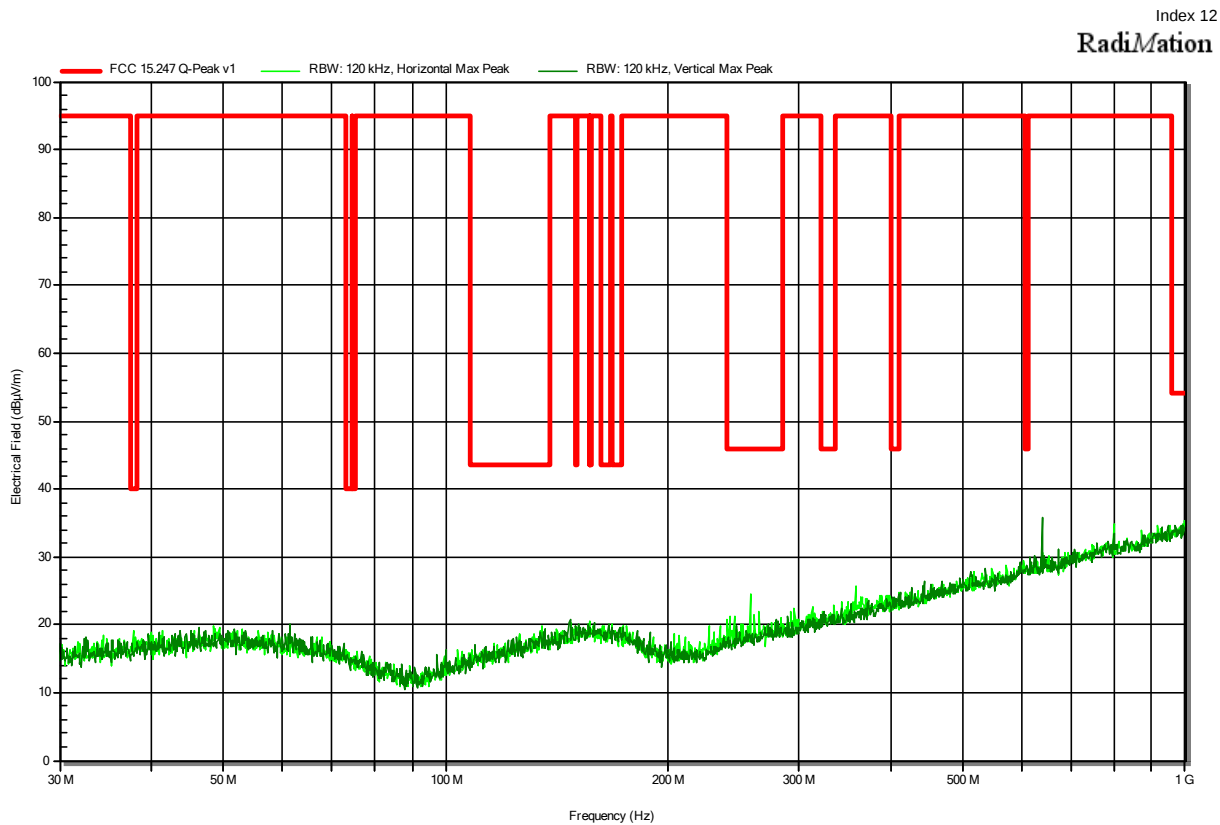
Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Amplifier Research AT4560
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2402 MHz, PRBS9, DH5, P=max
 Test Date: 2023-09-15
 Note:



Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck VULB 9168
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2441 MHz, PRBS9, DH5, P = max
 Test Date: 2023-09-15
 Note:

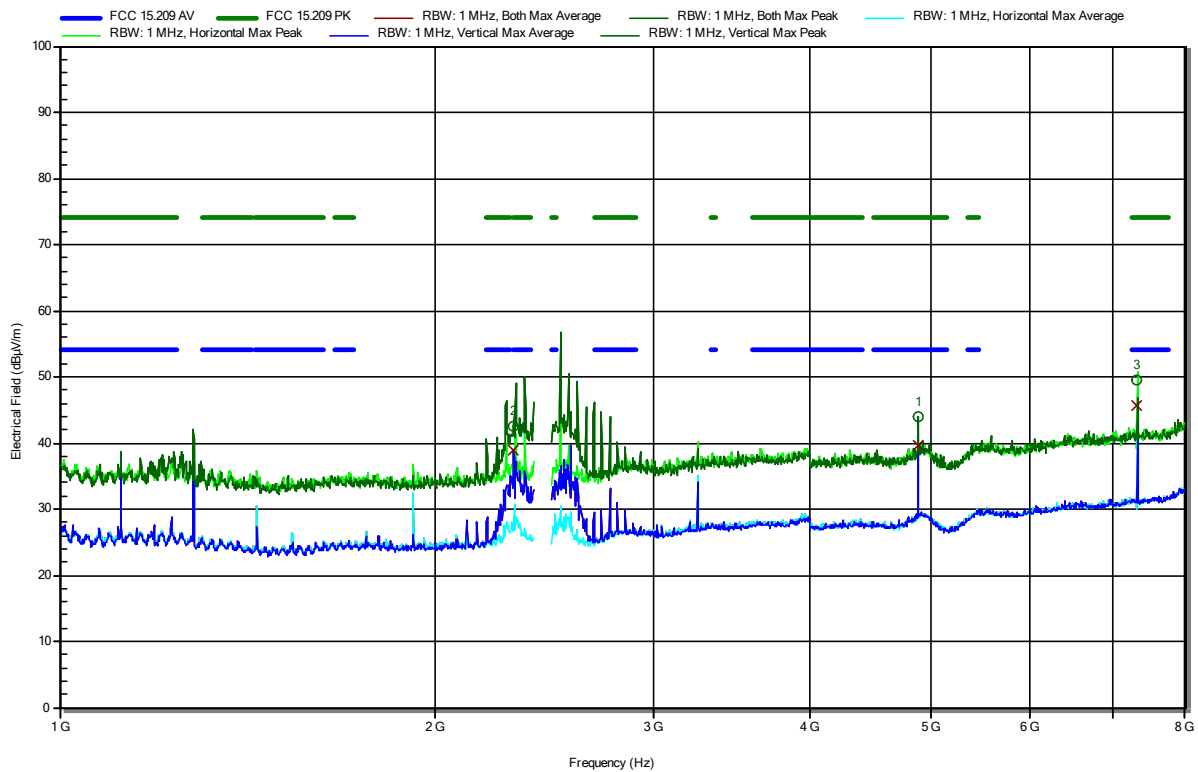


Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2441 MHz, PRBS9, DH5, P=max
 Test Date: 2023-09-15
 Note:

Index 230

RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.3133 GHz	42.61 dBµV/m	74 dBµV/m	-31.39 dB	Pass	Vertical
4.8821 GHz	43.94 dBµV/m	74 dBµV/m	-30.06 dB	Pass	Vertical
7.3224 GHz	49.58 dBµV/m	74 dBµV/m	-24.42 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
2.3133 GHz	38.96 dBµV/m	54 dBµV/m	-15.04 dB	Pass	Vertical
4.8821 GHz	39.63 dBµV/m	54 dBµV/m	-14.37 dB	Pass	Vertical
7.3224 GHz	45.71 dBµV/m	54 dBµV/m	-8.29 dB	Pass	Horizontal

Test Report No.: G0M-2302-1881-TFC247BT-W260-V03

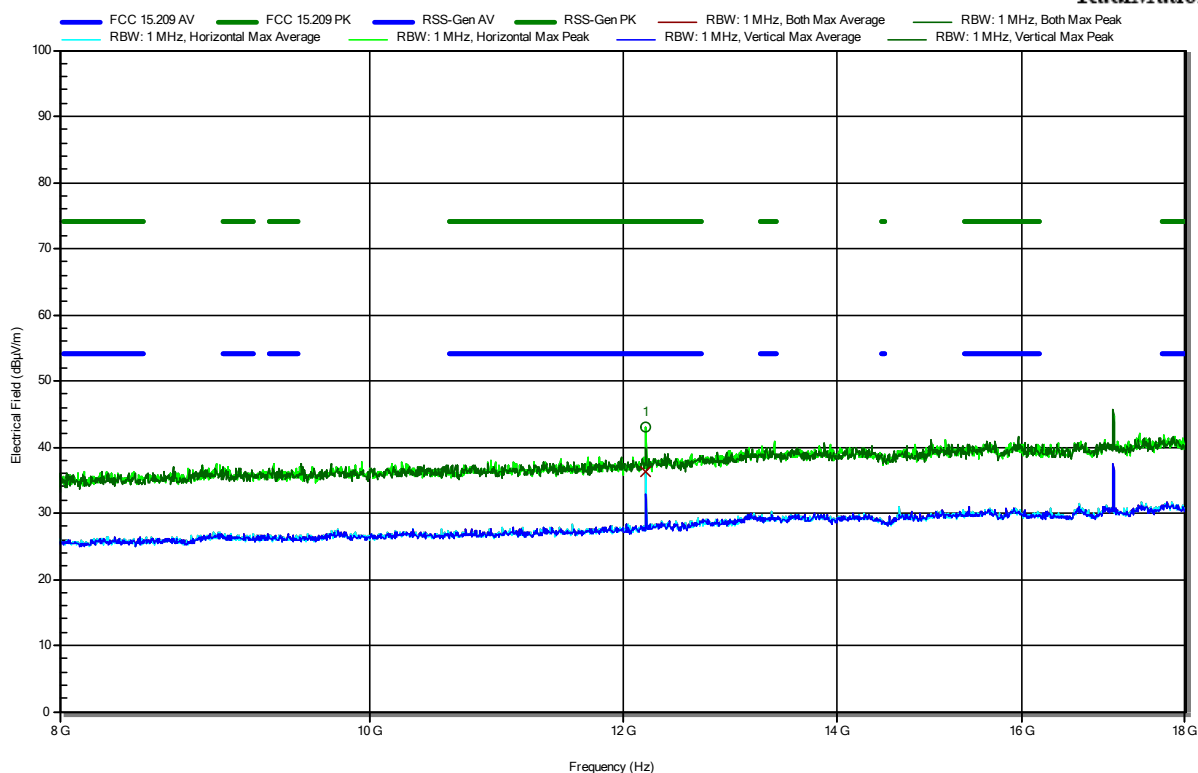
Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2441 MHz, PRBS9, DH5, P=max
 Test Date: 2023-09-15
 Note:

Index 238

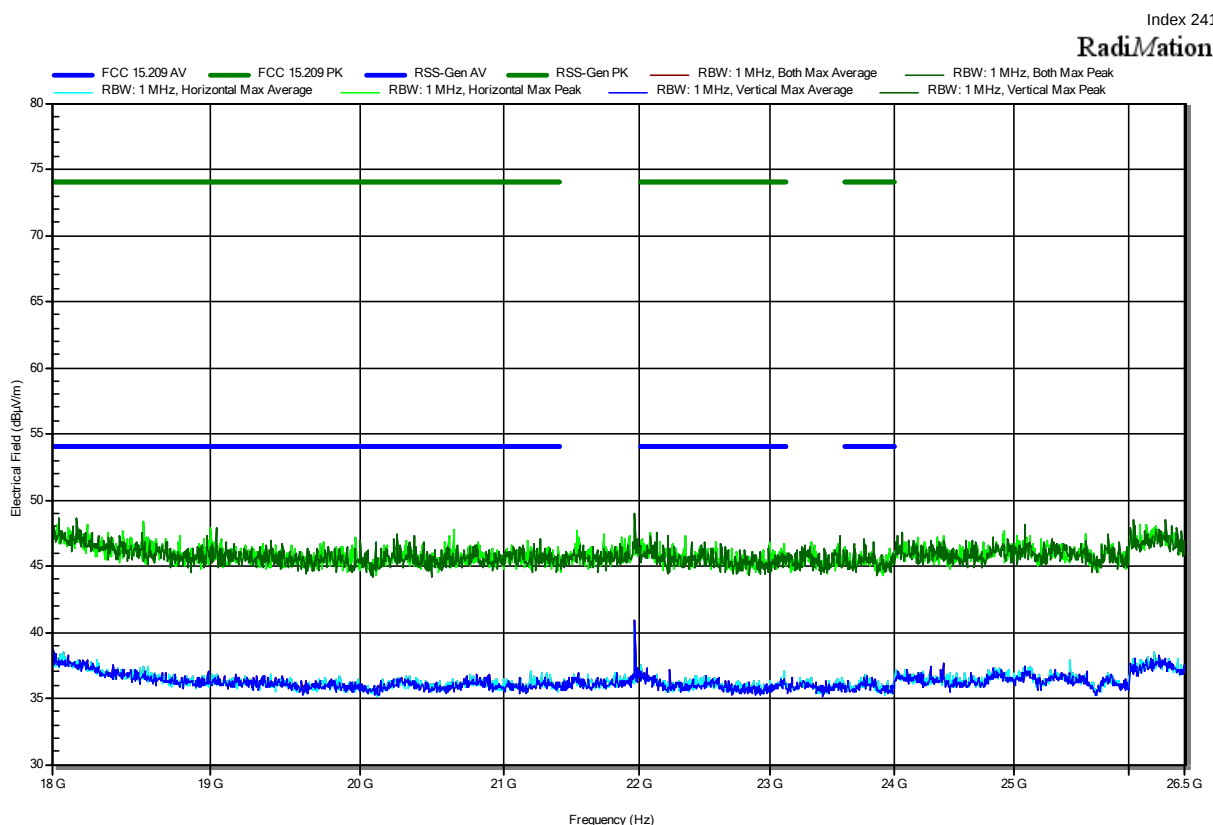
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
12.206 GHz	42.91 dBµV/m	74 dBµV/m	-31.09 dB	Pass	Horizontal
Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
12.206 GHz	36.16 dBµV/m	54 dBµV/m	-17.84 dB	Pass	Horizontal

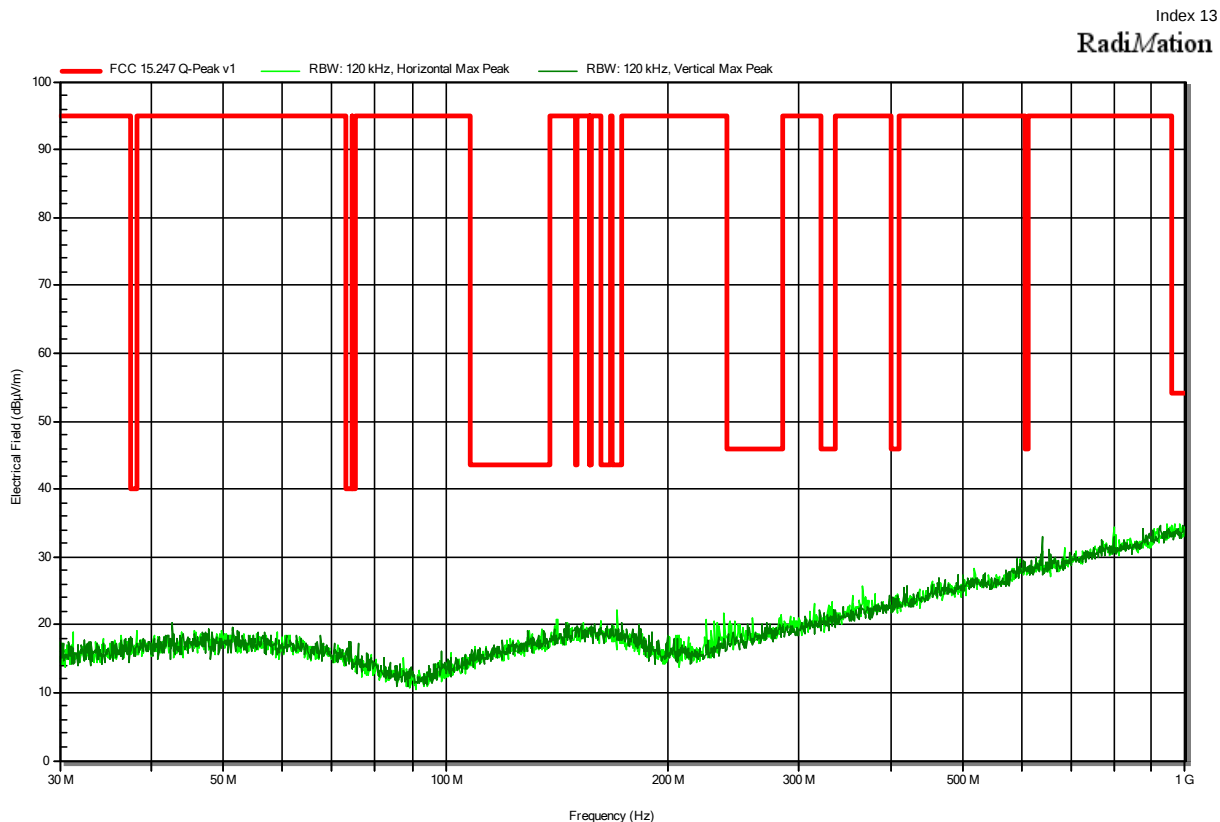
Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Amplifier Research AT4560
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2441 MHz, PRBS9, DH5, P=max
 Test Date: 2023-09-15
 Note:



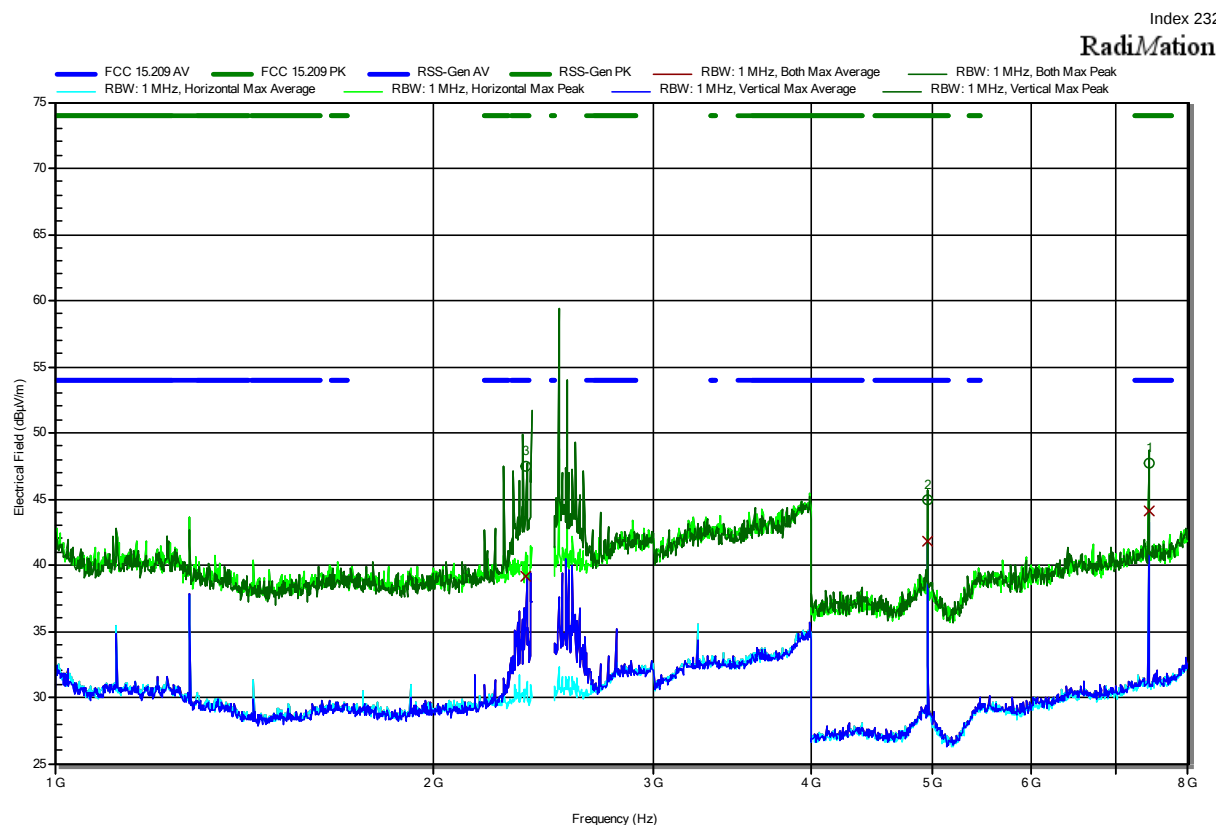
Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck VULB 9168
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2480 MHz, PRBS9, DH5, P = max
 Test Date: 2023-09-15
 Note:



Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2480 MHz, PRBS9, DH5, P=max
 Test Date: 2023-09-15
 Note:



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.375 GHz	47.46 dBµV/m	74 dBµV/m	-26.54 dB	Pass	Vertical
4.96 GHz	44.94 dBµV/m	74 dBµV/m	-29.06 dB	Pass	Vertical
7.44 GHz	47.76 dBµV/m	74 dBµV/m	-26.24 dB	Pass	Horizontal

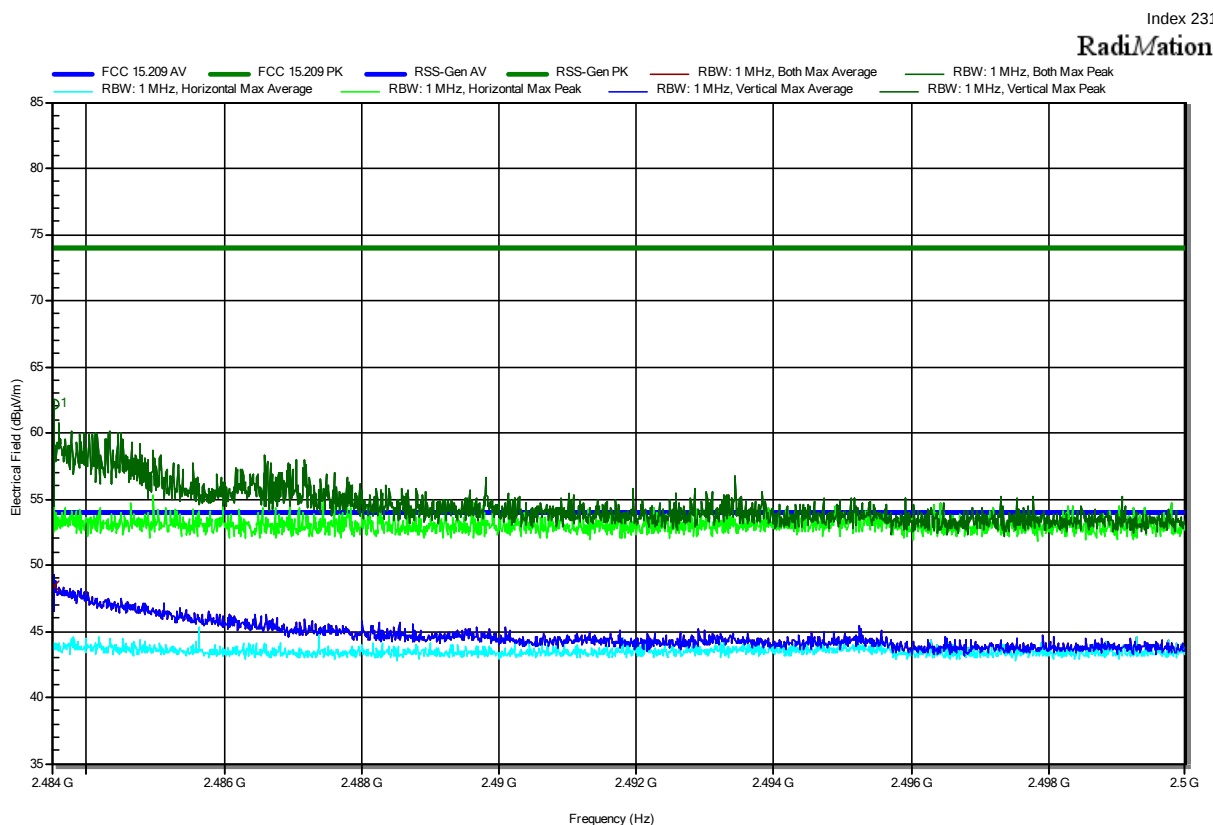
Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
2.375 GHz	39.11 dBµV/m	54 dBµV/m	-14.89 dB	Pass	Vertical
4.96 GHz	41.78 dBµV/m	54 dBµV/m	-12.22 dB	Pass	Vertical
7.44 GHz	44.06 dBµV/m	54 dBµV/m	-9.94 dB	Pass	Horizontal

Test Report No.: G0M-2302-1881-TFC247BT-W260-V03

Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2480 MHz, PRBS9, DH5, P=max
 Test Date: 2023-09-15
 Note: upper bandedge



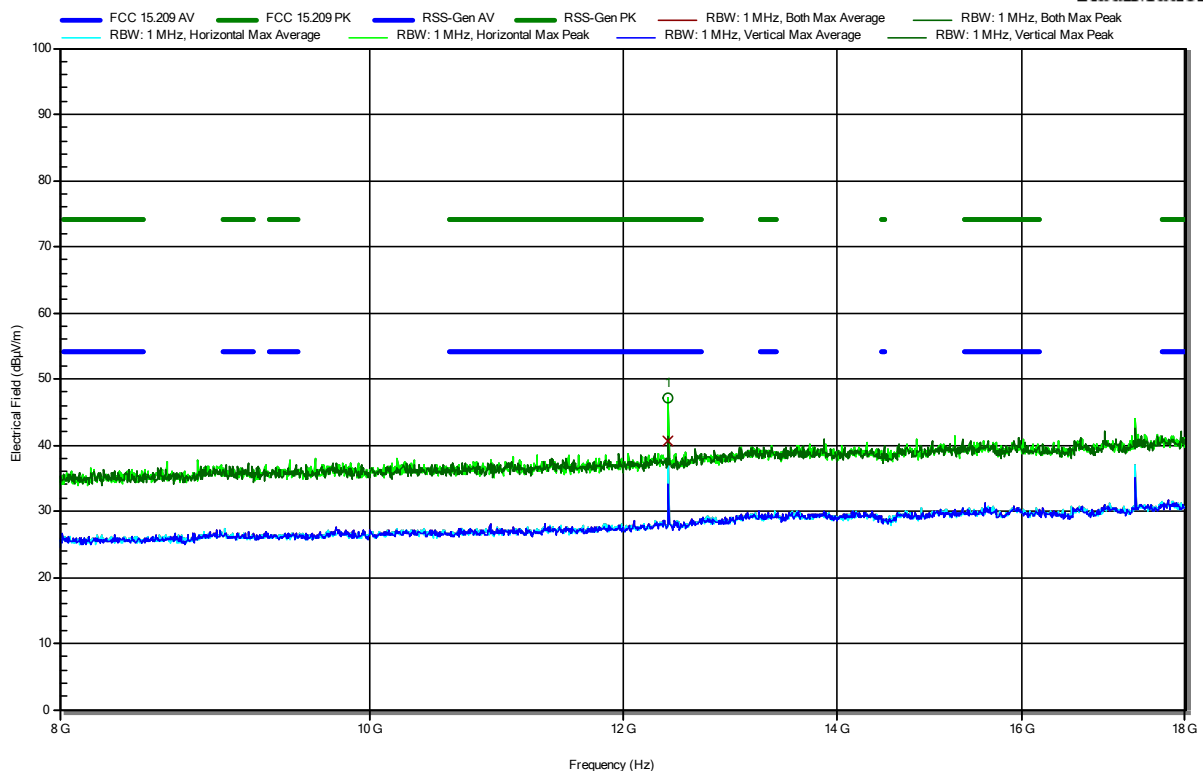
Frequency 2.4835 GHz	Peak 62.15 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -11.85 dB	Peak Status Pass	Polarization Vertical
Frequency 2.4835 GHz	Average 48.49 dBµV/m	Average Limit 54 dBµV/m	Average Difference -5.51 dB	Average Status Pass	Polarization Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2480 MHz, PRBS9, DH5, P=max
 Test Date: 2023-09-15
 Note:

Index 239

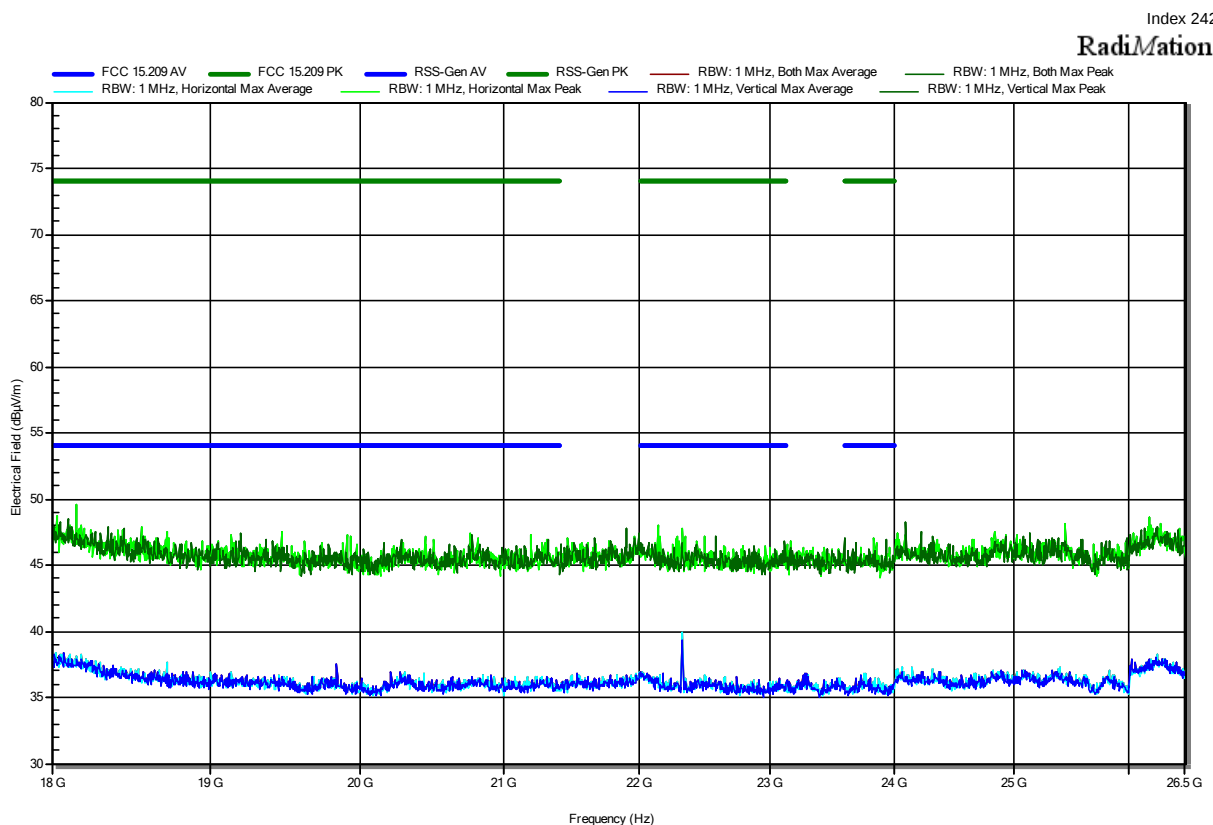
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
12.399 GHz	47.09 dBµV/m	74 dBµV/m	-26.91 dB	Pass	Horizontal
Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
12.399 GHz	40.59 dBµV/m	54 dBµV/m	-13.41 dB	Pass	Horizontal

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Amplifier Research AT4560
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2480 MHz, PRBS9, DH5, P=max
 Test Date: 2023-09-15
 Note:

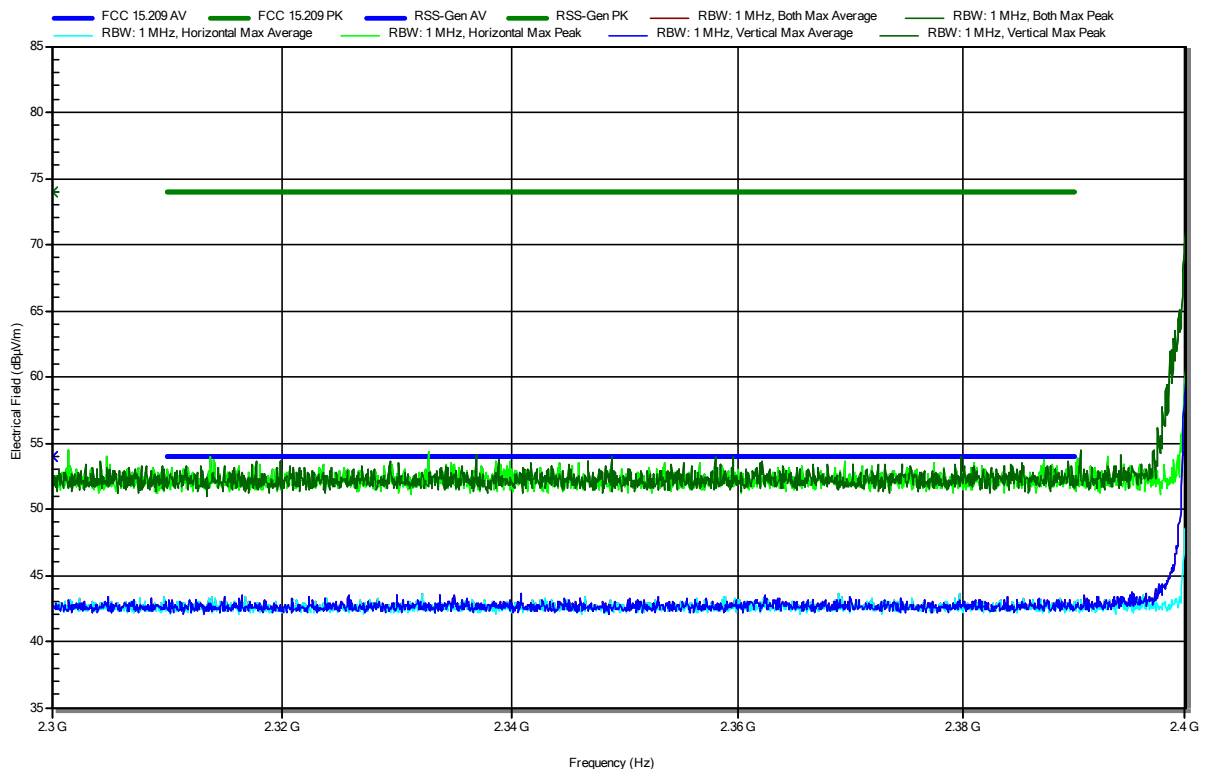


Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2402 MHz, PRBS9,2- DH5, P=max
 Test Date: 2023-09-15
 Note: lower bandedge

Index 233

RadiMation

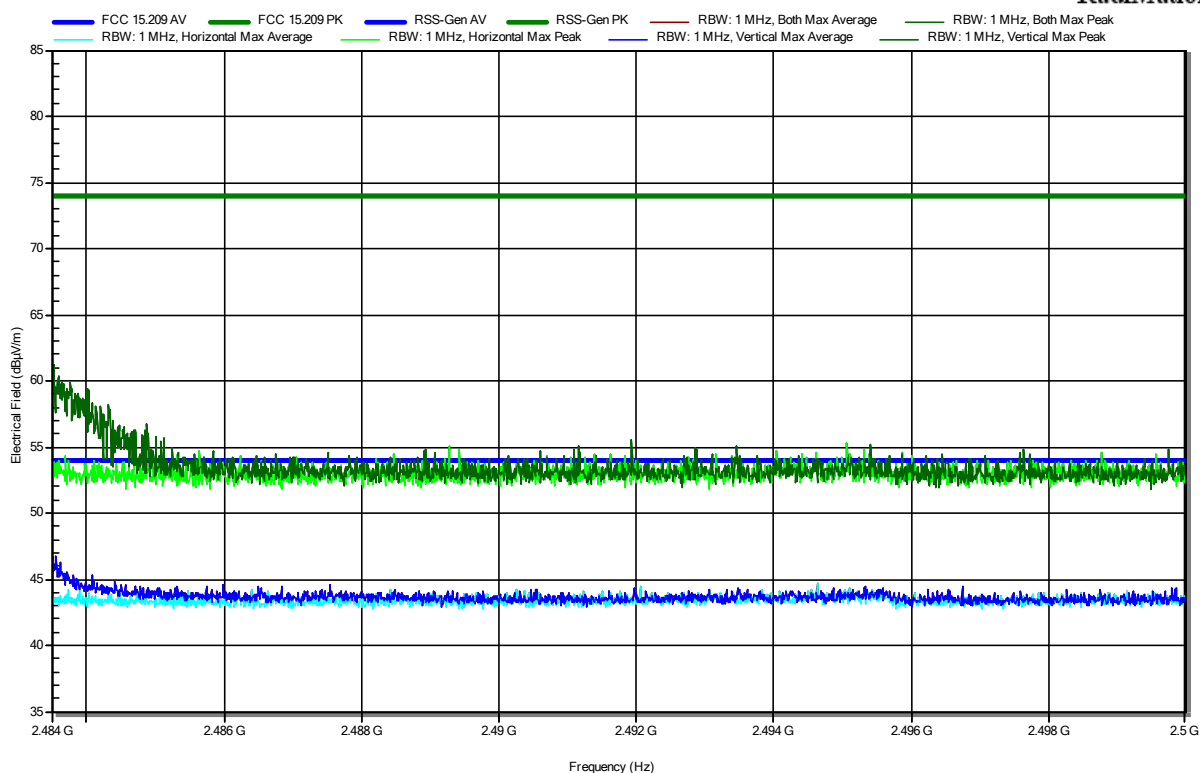


Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2480 MHz, PRBS9,2- DH5, P=max
 Test Date: 2023-09-15
 Note: upper bandedge

Index 234

RadiMation

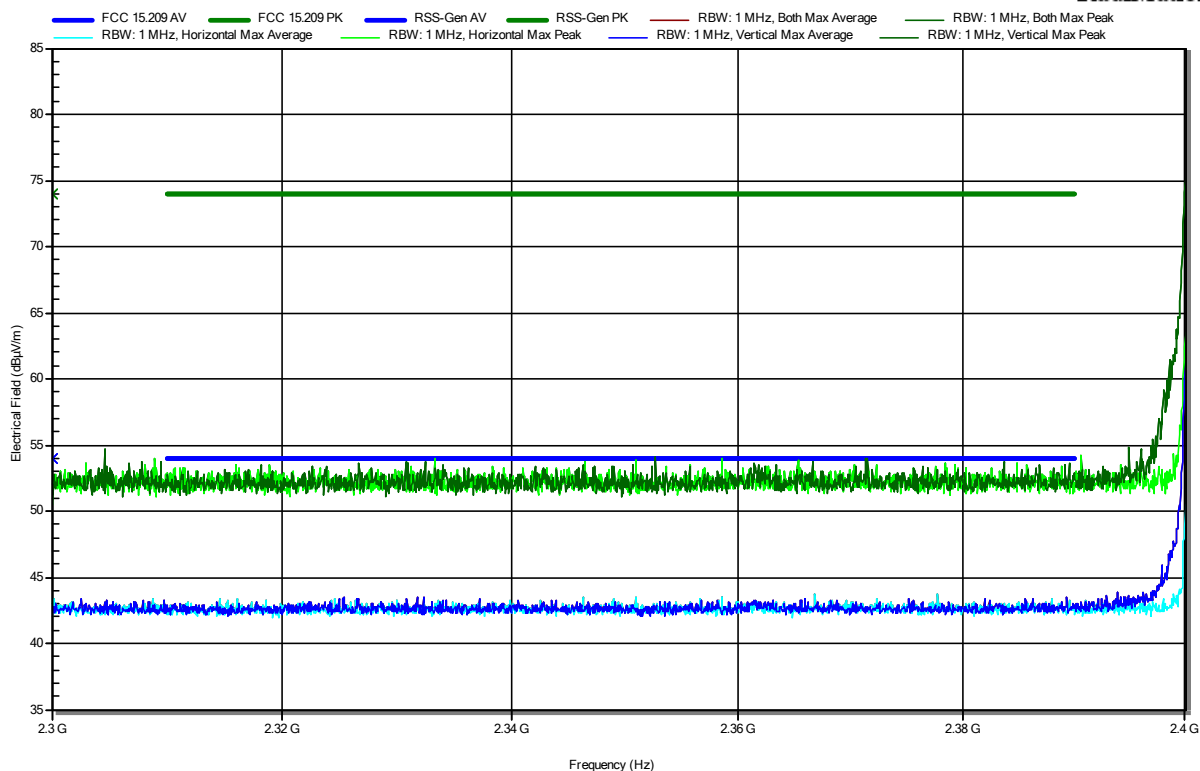


Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2402 MHz, PRBS9, 3- DH5, P=max
 Test Date: 2023-09-15
 Note: lower bandedge

Index 235

RadiMation

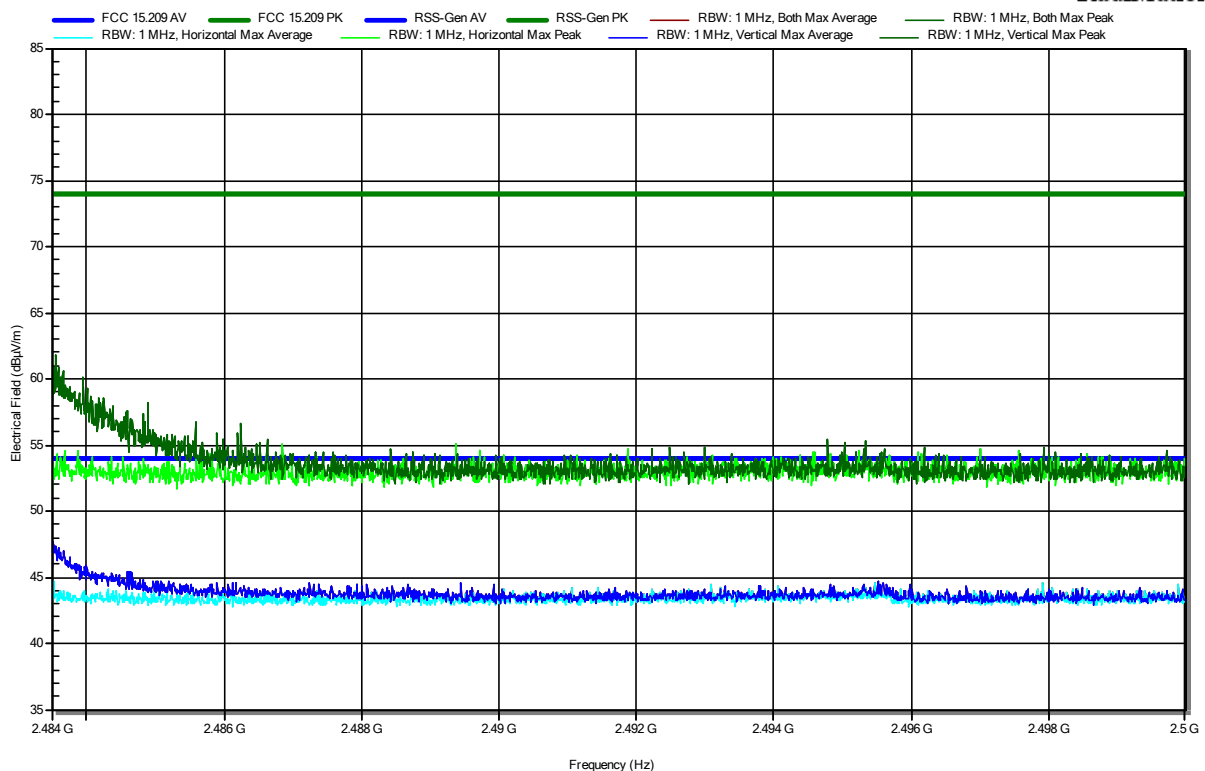


Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Ibraimov Azamat
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; BT 5.3, 2480 MHz, PRBS9, 3-DH5, P=max
 Test Date: 2023-09-15
 Note: upper bandedge

Index 236

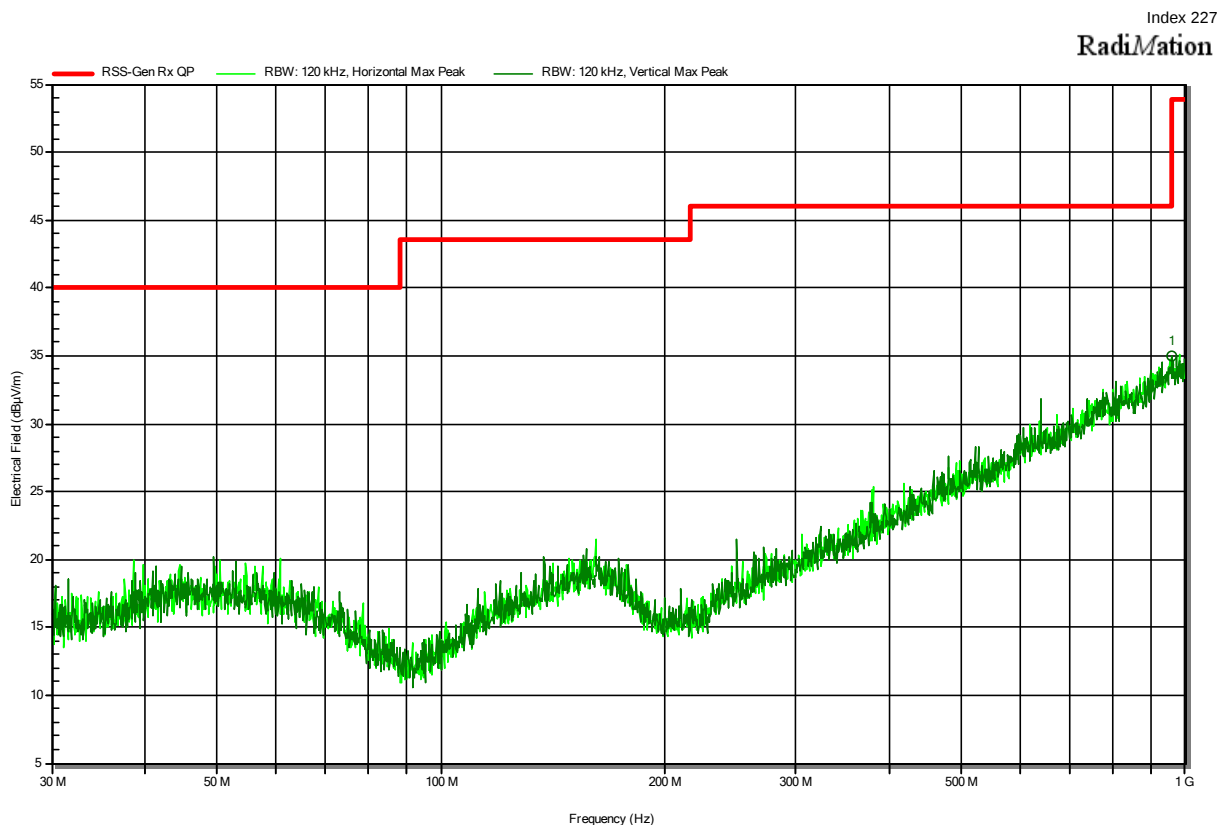
RadiMation



ANNEX B Receiver spurious emissions

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Sohrabi
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 22 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck VULB 9168
 Measurement distance: 3 m
 Mode: Rx; BT 5.3, Scan mode
 Test Date: 2023-09-14
 Note:



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
957.999 MHz	35 dBµV/m	46 dBµV/m	-11.03 dB	Pass	Vertical

Test Report No.: G0M-2302-1881-TFC247BT-W260-V03

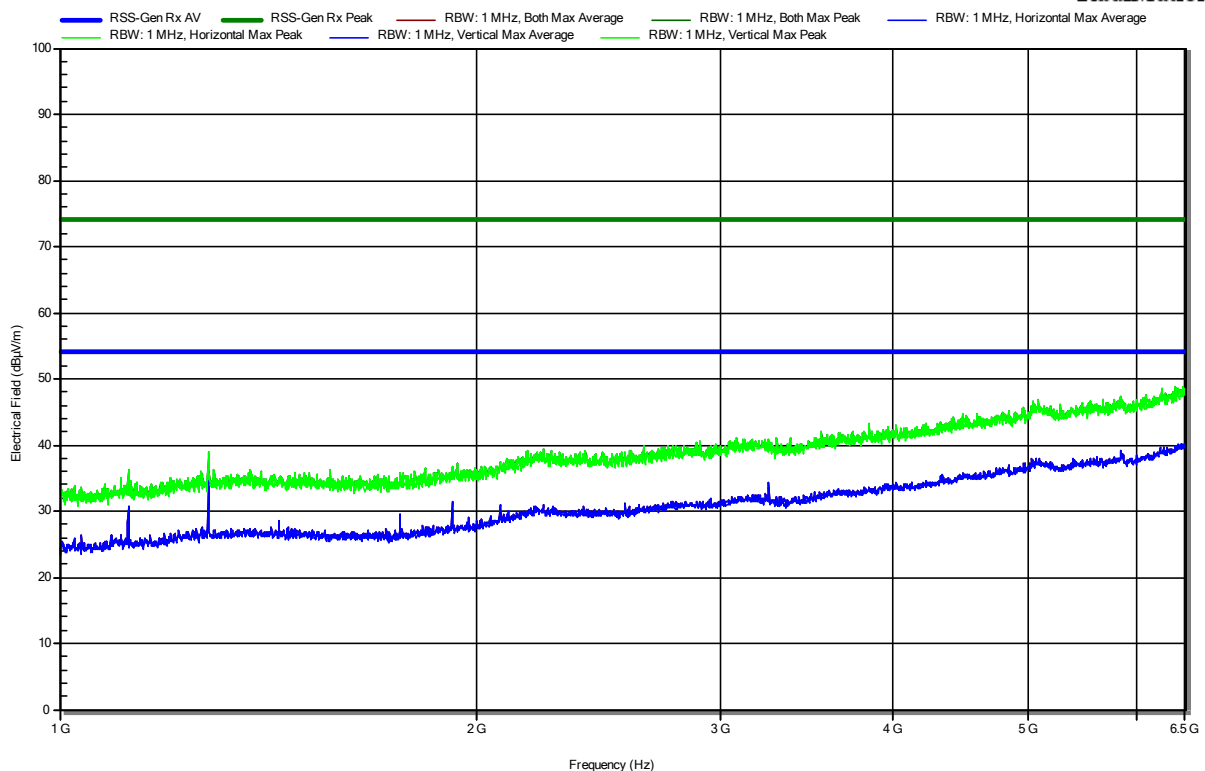
Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Sohrabi
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 22 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck BBHA 9120D
 Measurement distance: 3 m
 Mode: Rx; BT 5.3, Scan mode
 Test Date: 2023-09-14
 Note:

Index 226

RadiMation

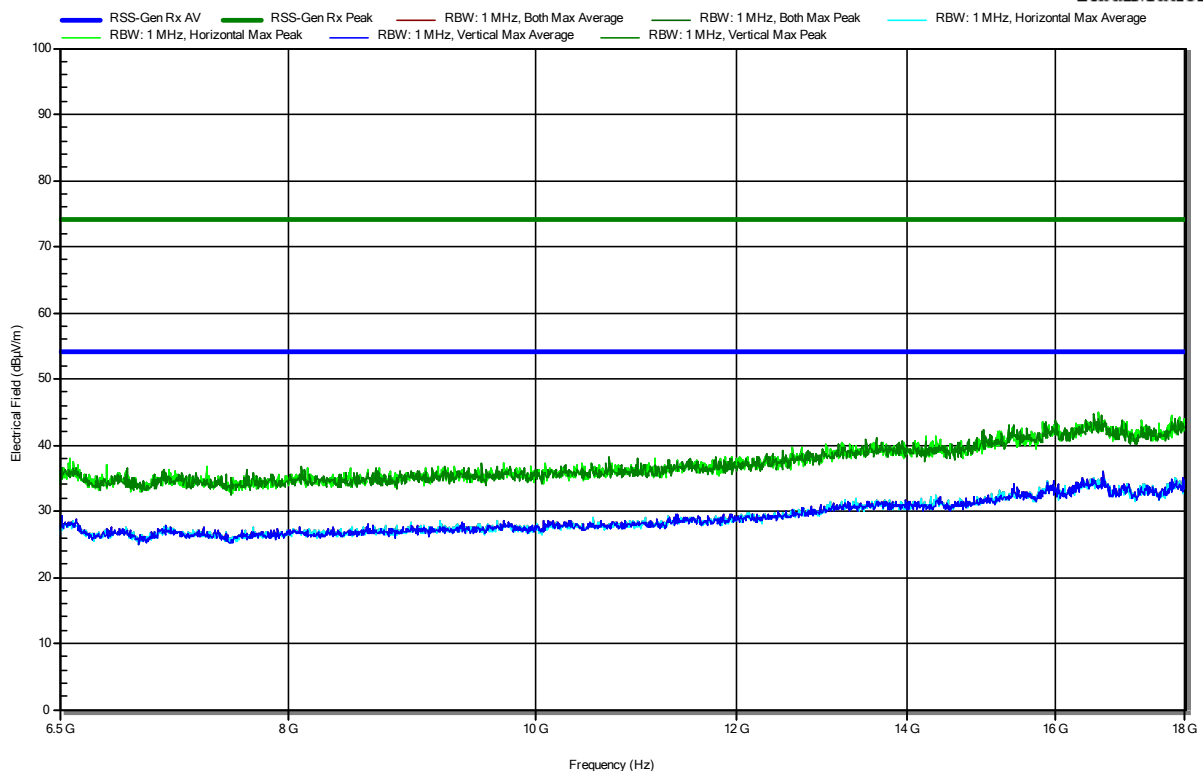


Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247 Issue 2

Project Number: G0M-2302-1881
 Applicant: u-blox Malmö AB
 Model Description: Host-based multiradio module
 Model: MAYA-W260-00B
 Test Sample ID: 45124
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Sohrabi
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 22 °Celsius, Vnom: 3.3 VDC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Rx; BT 5.3, Scan mode
 Test Date: 2023-09-14
 Note:

Index 225

RadiMation



== = END OF TEST REPORT == =