

RADIO REPORT FCC 47 CFR Part 15C ISED Canada RSS-247 Digital transmission systems operating within the 2400.0 MHz - 2483.5 MHz band	
Report Reference No	G0M-2007-9170-TFC247ZB-V01
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-2 DAkkS - Registration number : D-PL-12092-01-04 (FCC) FCC Filed Test Laboratory, Reg.-No.: 96970
Applicant	SKAN Deutschland GmbH
Address	Nickrischer Straße 2 02827 Görlitz/Hagenwerder GERMANY
Test Specification	47 CFR Part 15C RSS-247, Issue 2, 2017-02 RSS-Gen, Issue 5, Amendment 1, 2019-03
Non-Standard Test Method	None
Equipment under Test (EUT):	
Product Description	Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
Model(s)	Network Extender wirelessGlovTester evolution 2
Additional Model(s)	None
Brand Name(s)	SKAN NE wGT evo2
Hardware Version(s)	SKAN partID 1308593 Version C
Software Version(s)	main processor 2.27; radiomodule ZigBee 2661700; performance test application 0.9.13
FCC-ID	2AXZXSKANWGTX2
IC	26652-SKANNE02
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	2020-09-14	
Report:		
Compiled by	Toralf Jahn	
Tested by (+ signature) (Responsible for Test)	Toralf Jahn	
Approved by (+ signature) (Test Lab Engineer)	Wilfried Treffke	
Date of Issue	2021-02-16	
Total number of pages	128	
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:		

VERSION HISTORY

Version History			
Version	Issue Date	Remarks	Revised By
01	2020-02-16	Initial Release	

ABBREVIATIONS AND ACRONYMS

Acronyms	
Acronym	Description
DSSS	Direct Sequence Spread Spectrum
EUT	Equipment Under Test
FCC	Federal Communications Commission
IEEE 802.15.4	MAC and PHY Layer for Wireless Personal Area Networks
ISED	Innovation, Science and Economic Development Canada
O-QPSK	Offset-Quadrature Phase Shift Keying
QPSK	Quadrature Phase Shift Keying
RBW	Resolution bandwidth
RMS	Root mean square
VBW	Video bandwidth
V _{NOM}	Nominal supply voltage

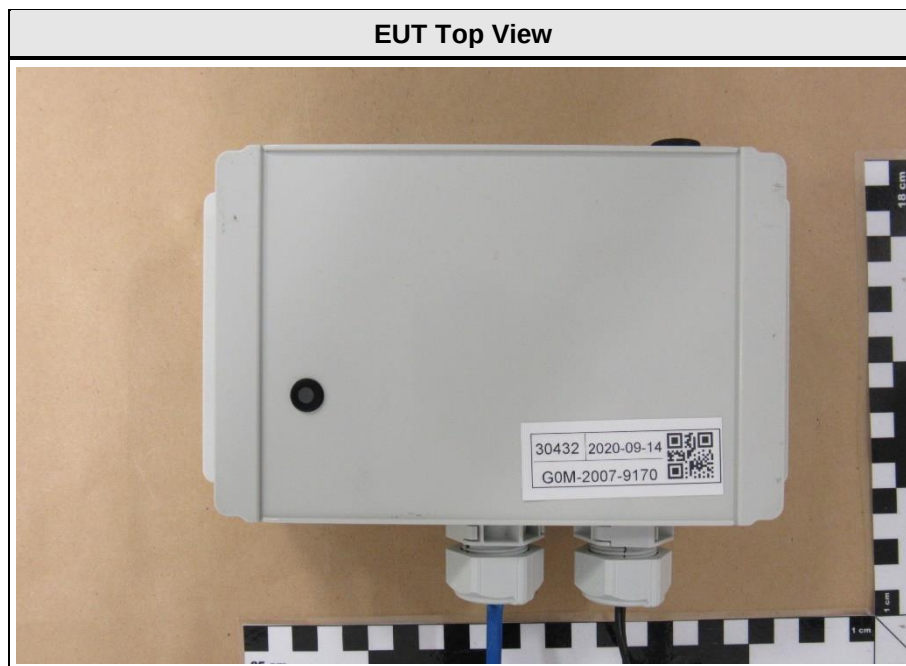
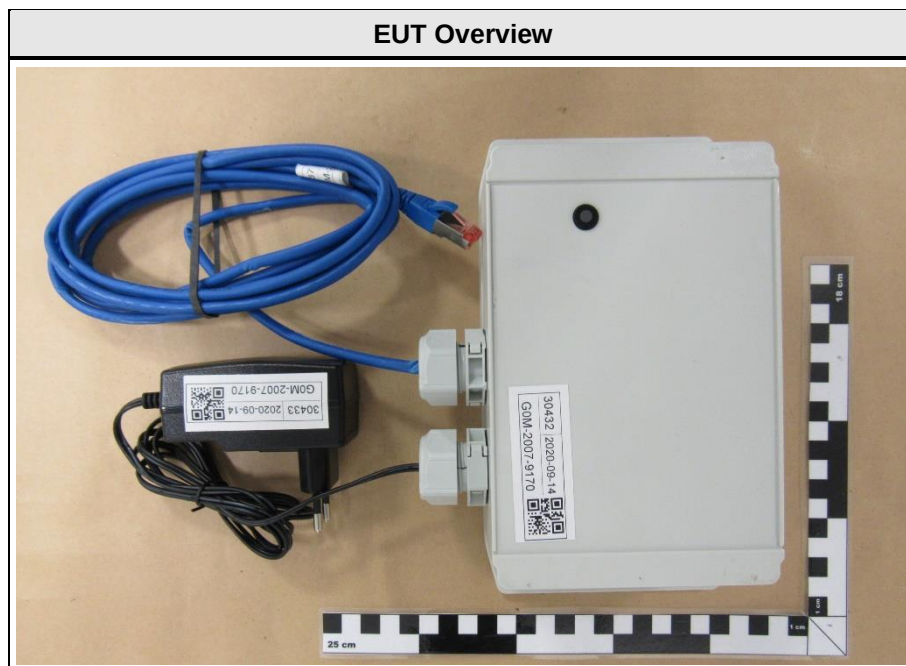
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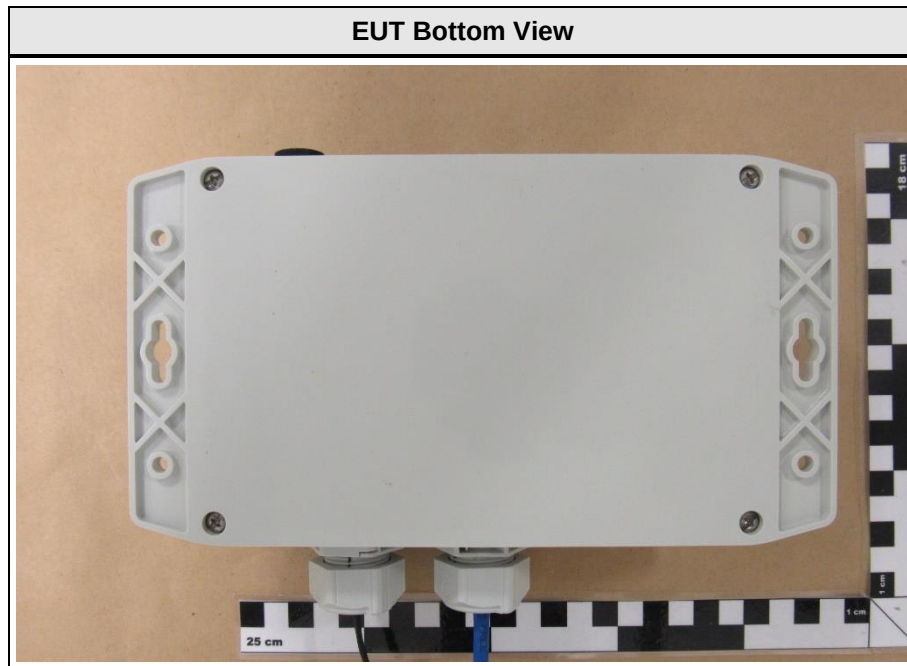
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1 Equipment (Test Item) Under Test

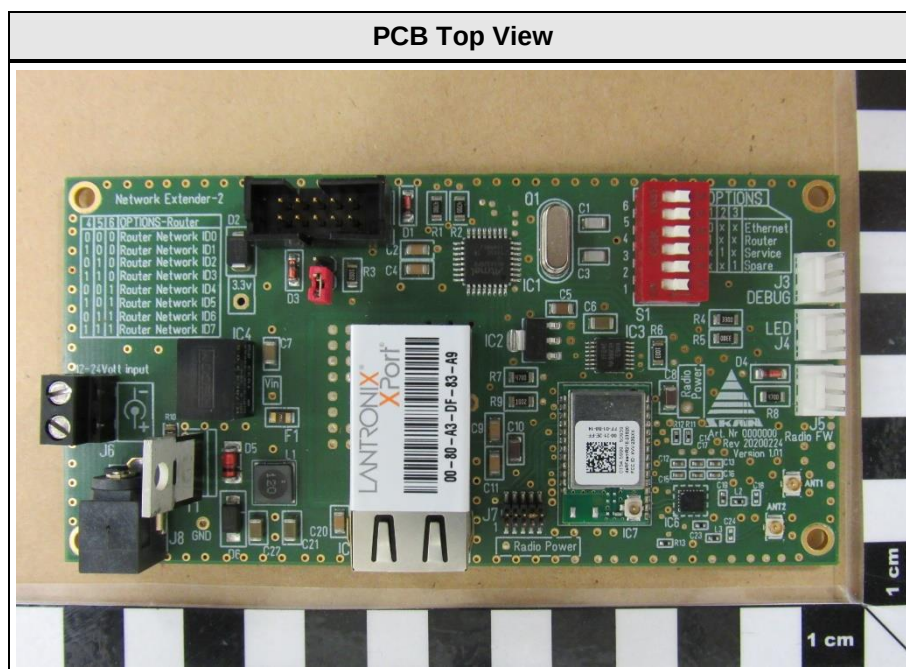
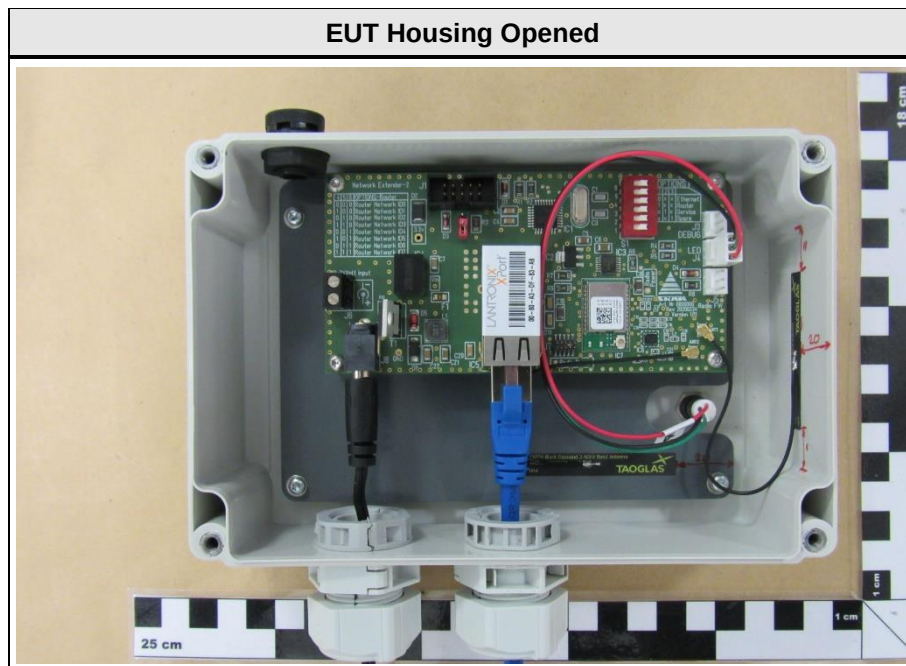
Description	Network Extender resp. Repeater/ part of the product portfolio wireless glove tester	
Model	Network Extender wirelessGlovTester evolution 2	
Additional Model(s)	None	
Brand Name(s)	SKAN NE wGT evo2	
Serial Number(s)	None / Test Sample ID 30432	
Hardware Version(s)	SKAN partID 1308593 Version C	
Software Version(s)	main processor 2.27; radiomodule ZigBee 2661700; performance test application 0.9.13	
PMN	Network Extender	
HVIN	Network Extender 2	
FVIN	26710700	
HMN	N/A	
FCC-ID	2AXZXSKANWGTX2	
IC	26652-SKANNE02	
Equipment type	End Product	
Radio type	Transceiver	
Assigned frequency bands	2400.0 MHz - 2483.5 MHz	
Radio technology	IEEE 802.15.4	
Modulation	O-QPSK, DSSS O-QPSK	
Number of antenna ports	2	
Antenna 1 (Rx antenna diversity)	Type	Integrated, 2.4GHZ FLAT PATCH
	Model	FXP74.07.0100A
	Manufacturer	taoglas
	Gain	4 dBi (declared by customer)
Antenna 2 (Rx antenna diversity)	Type	Integrated, 2.4GHZ FLAT PATCH
	Model	FXP74.07.0100A
	Manufacturer	taoglas
	Gain	4 dBi (declared by customer)
Supply Voltage	V _{NOM}	24 VDC
Operating Temperature	T _{NOM}	20 °C
AC/DC-Adaptor	Model	GE24I24-P1J
	Vendor	Mean Well
	Input	100 – 240 VAC; 50-60 Hz
	Output	24 V DC
Manufacturer	SKAN Deutschland GmbH Nickrischer Straße 2 02827 Görlitz/Hagenwerder GERMANY	

1.1 Photos – Equipment External

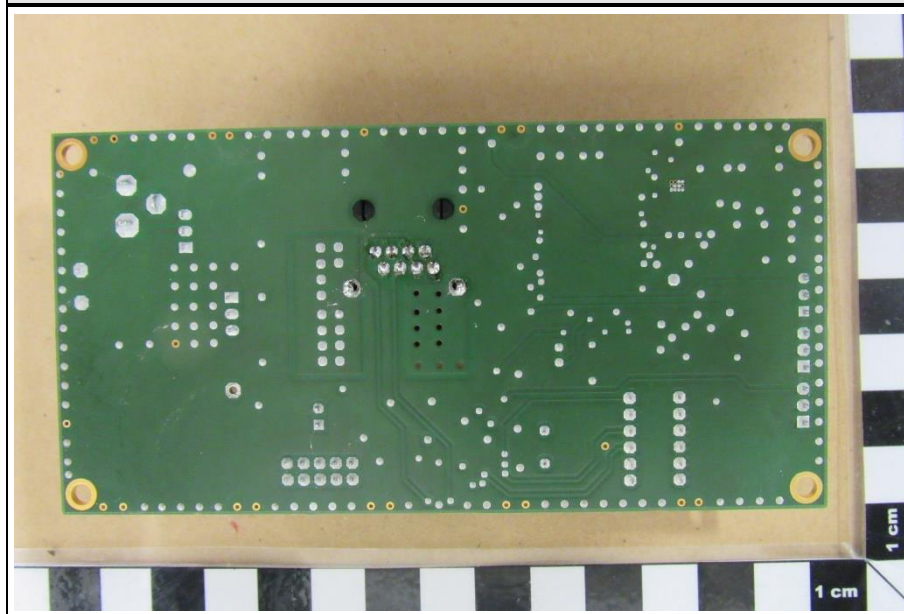




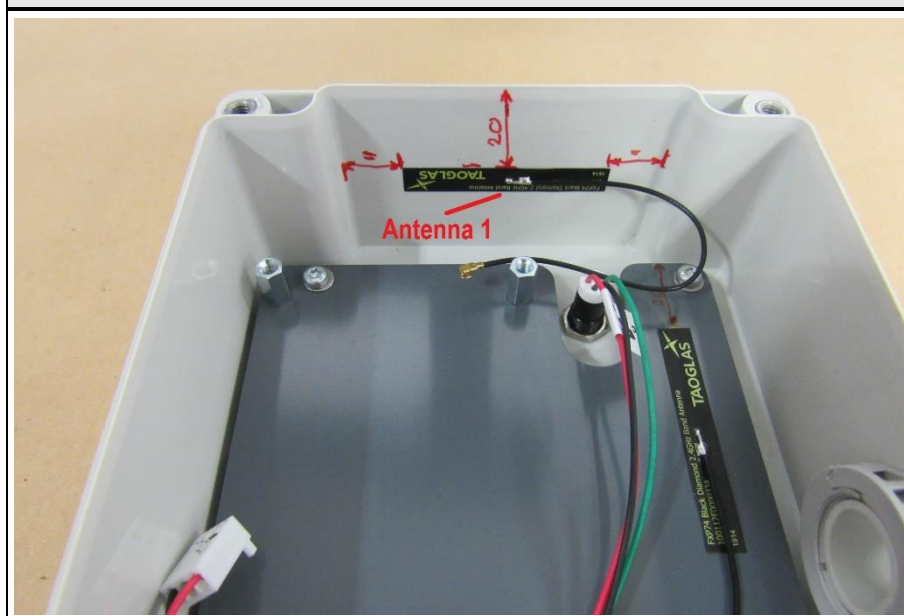
1.2 Photos – Equipment Internal



PCB Bottom View

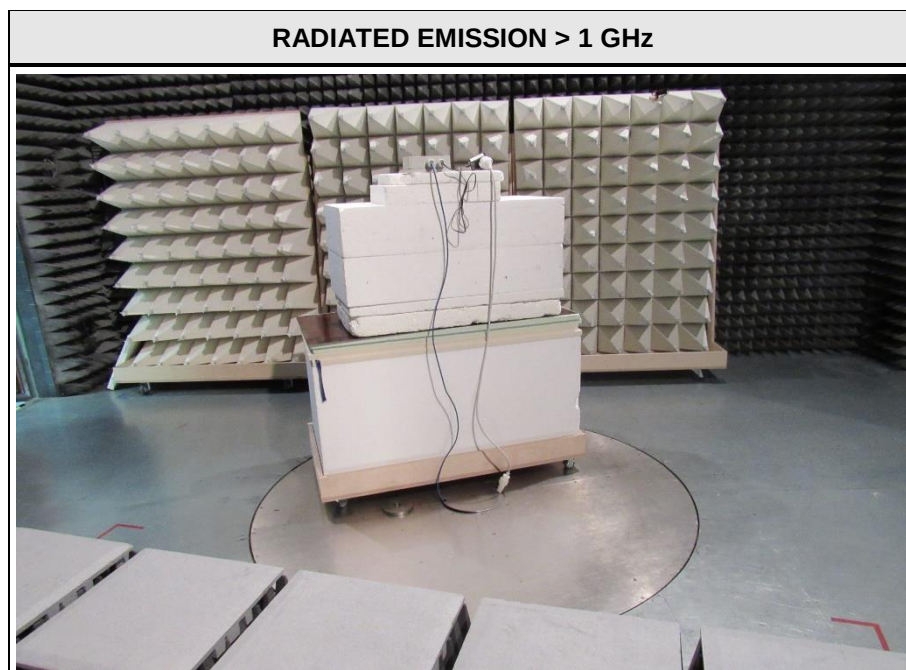
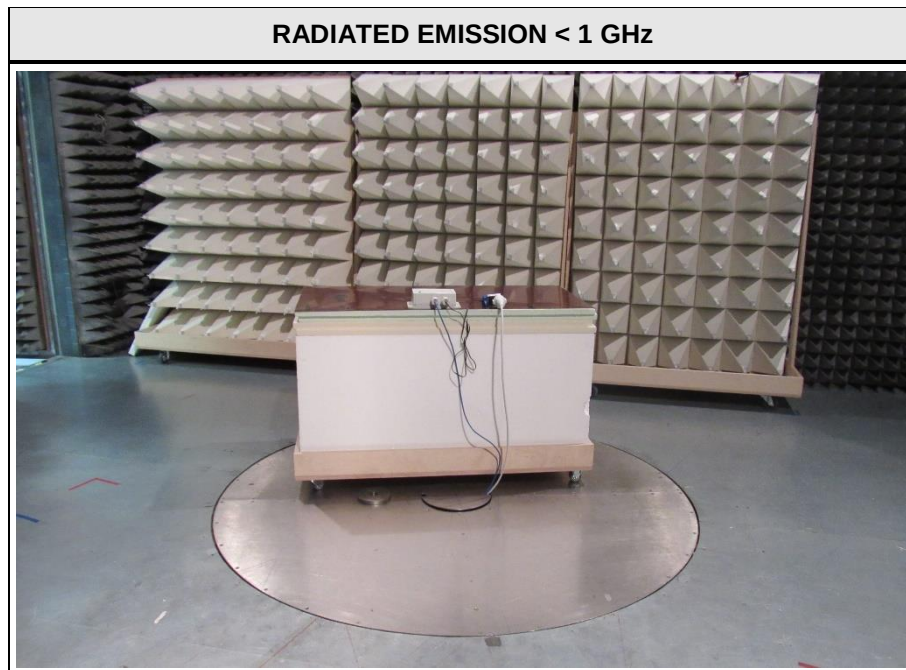


Assembly of the Antennas





1.3 Photos – Test Setup



CONDUCTED EMISSION AC



1.4 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
AE	Laptop	Lenovo	T450	To set EUT in test mode
Description:				
AE	Auxiliary Equipment			
SIM	Simulator			
CBL	Connecting Cable			
SFT	Software			
SFT Note: The Equipment Under Test used an operating system with a test firmware. The driver for the tested technology was running in a manufacturer mode.				
Comment:				

1.5 Test mode duty cycle

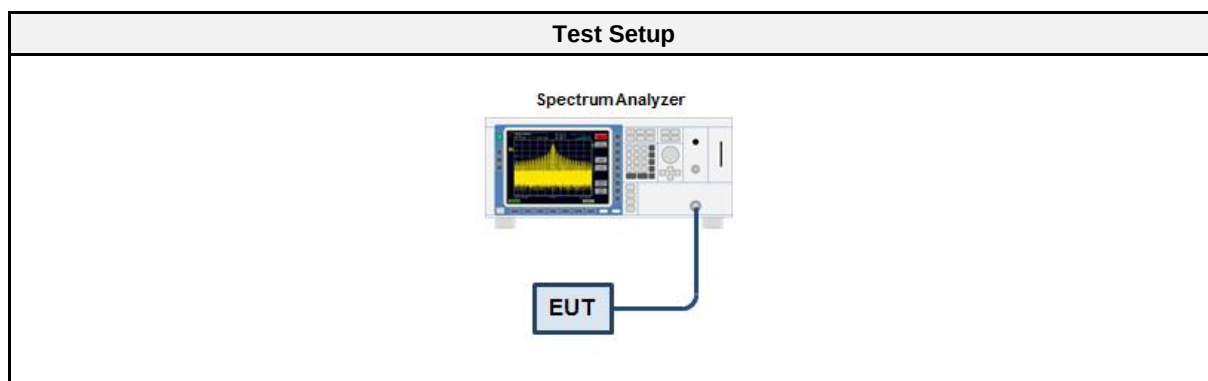
1.5.1 Information

Test Information	
Measurement Method	ANSI C63.10 11.6

1.5.2 Requirements

Requirements	
Duty cycle	Duty cycle correction
≥ 98 %	No correction required
< 98 %	Correction required ($10 \times \log_{10}(1/DC)$)

1.5.3 Setup



1.5.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSW 43	EF00896	2020-07	2021-07
Cable	Gigalane	SMS111B	EF00779 CAABB	2018-10	2020-10

1.5.5 Procedure

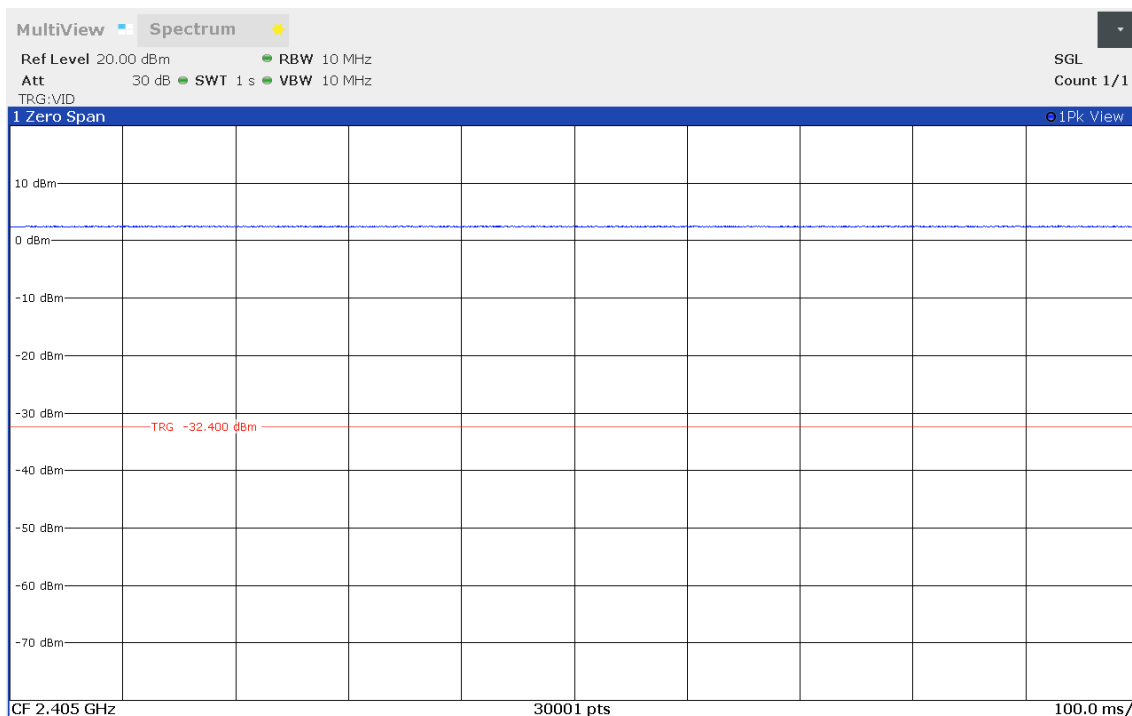
Test Procedure
- EUT set to test mode - Span is set to zero span - Detector set to peak - Sweep time is set long enough to capture at least 5 bursts - Envelope peak value of emission spectrum is selected - The maximum burst duration T_{ON} is measured using two markers set to the start and the end of the longest burst - The minimum idle duration T_{OFF} is measured using two markers set to the start and the end of the shortest idle period - The duty cycle is calculated by $DC = T_{ON} / (T_{ON} + T_{OFF})$ - The duty cycle correction is calculated by $DC = 10 \times \log_{10}(T_{ON} / (T_{ON} + T_{OFF}))$

1.5.6 Results

Duty Cycle Results Antenna Port 1		
Mode	Duty Cycle	Correction Factor [dB]
DSSS O-QPSK	100%	0.0
O-QPSK	100%	0.0

Duty Cycle

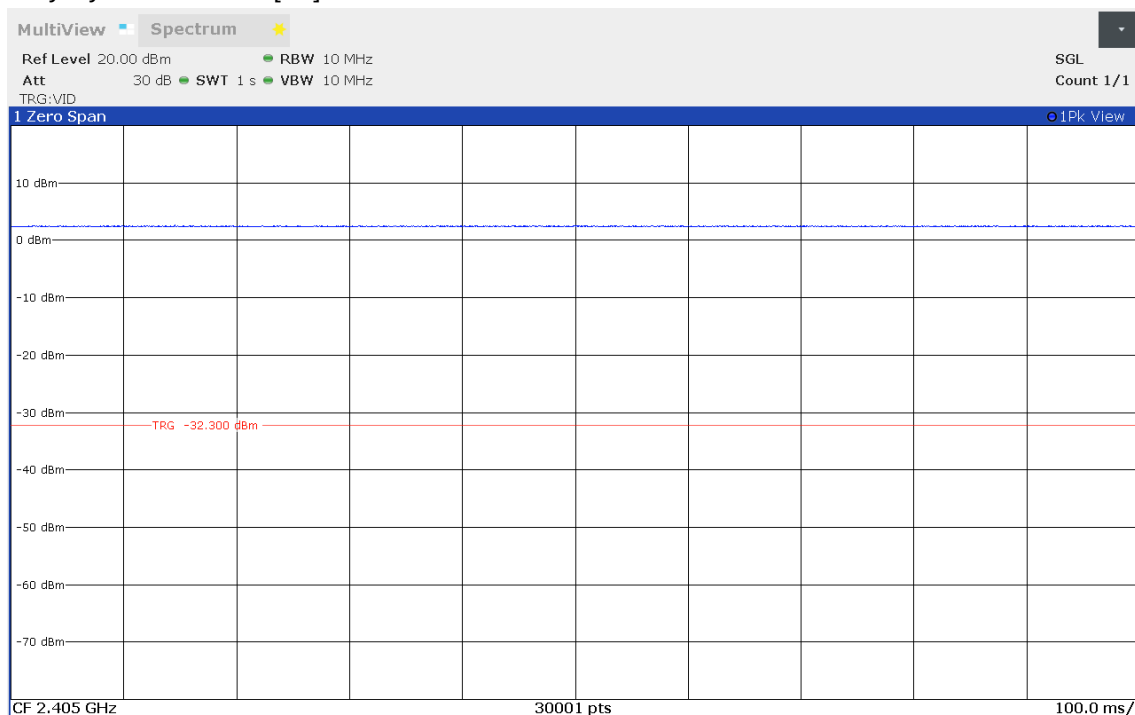
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: ANSI C63.10:2013
 Reference Method: ANSI C63.10:2013, Section 7.5
 Operating Frequency: 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: DSSS O-QPSK
 Duty Cycle Period: 100
 Maximum Duty Cycle: 1.00
 Maximum Duty Cycle [%]: 100
 Duty Cycle Correction [dB]: 0.00



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Duty Cycle

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: ANSI C63.10:2013
 Reference Method: ANSI C63.10:2013, Section 7.5
 Operating Frequency: 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: O-QPSK
 Duty Cycle Period: 100
 Maximum Duty Cycle: 1.00
 Maximum Duty Cycle [%]: 100
 Duty Cycle Correction [dB]: 0.00



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1.6 Test Modes

Mode	Description
DSSS O-QPSK	Mode = Transmit Modulation = O-QPSK Spreading = DSSS Data rate = 250 kbps (PRBS) Chip rate = 2000 kbps Duty cycle = 100% Power = 13 (software setting)
O-QPSK	Mode = Transmit Modulation = O-QPSK Spreading = None Data rate = 2000 kbps (PRBS) Duty cycle = 100% Power = 13 (software setting)
Receive	Mode = Receive (Scan)
Comment: The duty cycle is a special test mode duty cycle.	

1.7 Test Frequencies

Designator	Mode	Channel	Frequency [MHz]
F1	Tx / Rx	11	2405
F2	Tx / Rx	17	2435
F3	Tx / Rx	24	2470
Comment: Channels 25 and 26 are disabled by the manufacturer.			

1.8 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 dBμV. 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).

Limit:

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

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

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.

Example only:

Reading + AF	= Net Reading	:	Net reading - FCC limit	= Margin
+21.5 dBμV + 26 dB/m	= 47.5 dBμV/m	:	47.5 dBμV/m - 57.0 dBμV/m	= -9.5 dB

2 Result Summary

FCC 47 CFR Part 15C, ISED RSS-247				
Product Standard Reference	Requirement	Reference Method	Result	Remarks
ISED RSS-Gen, Issue 5 (section 6.6)	Occupied Bandwidth	ANSI C63.10-2013	N/R	Informational only
FCC § 15.247(a)(2) ISED RSS-247, Issue 2 (section 5.2)	6 dB Bandwidth	ANSI C63.10-2013	PASS	
FCC § 15.247(b)(1) ISED RSS-247, Issue 2 (section 5.4)	Maximum peak conducted power	ANSI C63.10-2013	PASS	
FCC § 15.247(e) ISED RSS-247, Issue 2 (section 5.2)	Power spectral density	ANSI C63.10-2013	PASS	
FCC § 15.207 ISED RSS-247, Issue 2 (section 3.1)	AC power line conducted emissions	ANSI C63.10-2013	PASS	
FCC § 15.247(d) ISED RSS-247, Issue 2 (section 5.5)	Band edge compliance	ANSI C63.10-2013	PASS	
FCC § 15.247(d) ISED RSS-247, Issue 2 (section 5.5)	Conducted spurious emissions	ANSI C63.10-2013	PASS	
FCC § 15.247(d) FCC § 15.209 ISED RSS-Gen, Issue 5 (section 6.13)	Transmitter radiated spurious emissions	ANSI C63.10-2013	PASS	
ISED RSS-247, Issue 2 (section 3.1)	Receiver radiated spurious emissions	ANSI C63.10-2013	PASS	
Comment:				

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

3 Test Conditions and Results

3.1 Test Conditions and Results - Occupied bandwidth

3.1.1 Information

Test Information	
Reference	ISED RSS-Gen, Issue 5 (section 6.6)
Measurement Method	ANSI C63.10 6.9.3
Measurement Uncertainty	$\pm 1.26 \%$
Operator	Toralf Jahn
Date	2020-10-01

3.1.2 Limits

Limits
None (Informational only)

3.1.3 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSW 43	EF00896	2020-07	2021-07
Cable	Gigalane	SMS111B	EF00779 CAABB	2018-10	2020-10

3.1.4 Procedure

Test Procedure
1. EUT transmitter is activated in test mode under normal conditions 2. The spectrum analyzer is set to peak detection and maximum hold with a span twice the emission spectrum 3. The resolution bandwidth is set to the range of 1 % to 5 % of the occupied bandwidth 4. The occupied bandwidth is measured with the build-in analyzer function

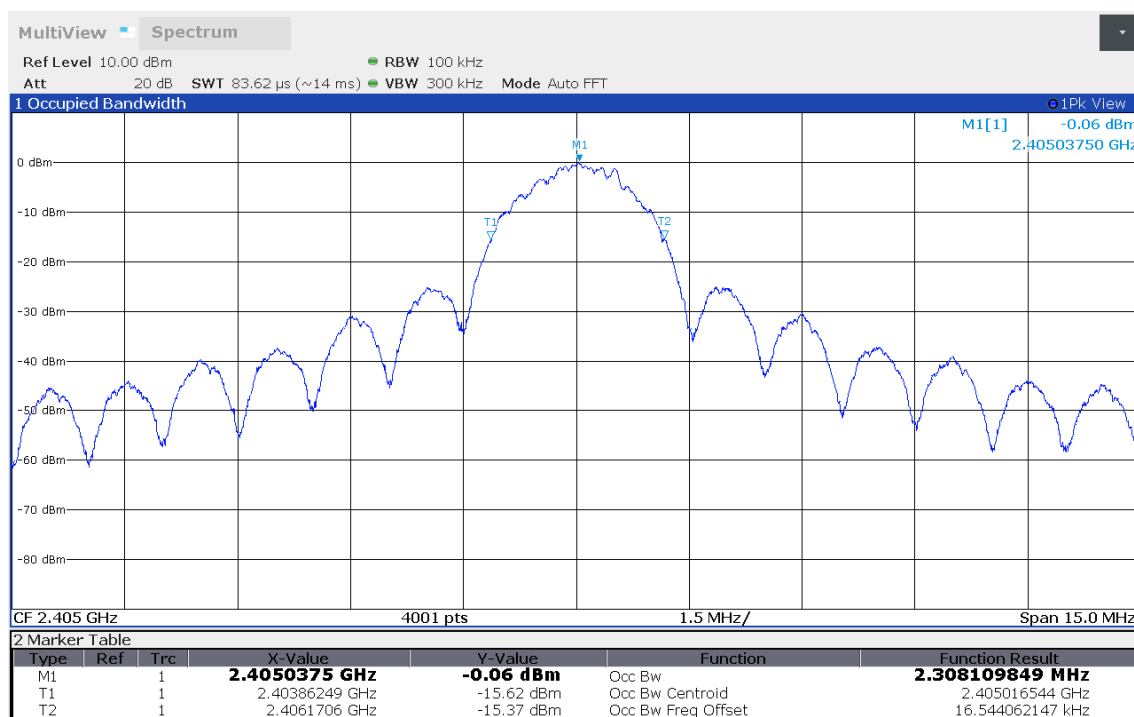
3.1.5 Results

Test Results Antenna Port 1		
Mode	Frequency [MHz]	Bandwidth [MHz]
O-QPSK	2405	2.308
O-QPSK	2435	2.313
O-QPSK	2470	2.334

Test Results Antenna Port 1		
Mode	Frequency [MHz]	Bandwidth [MHz]
DSSS O-QPSK	2405	2.296
DSSS O-QPSK	2435	2.313
DSSS O-QPSK	2470	2.348

Occupied Bandwidth

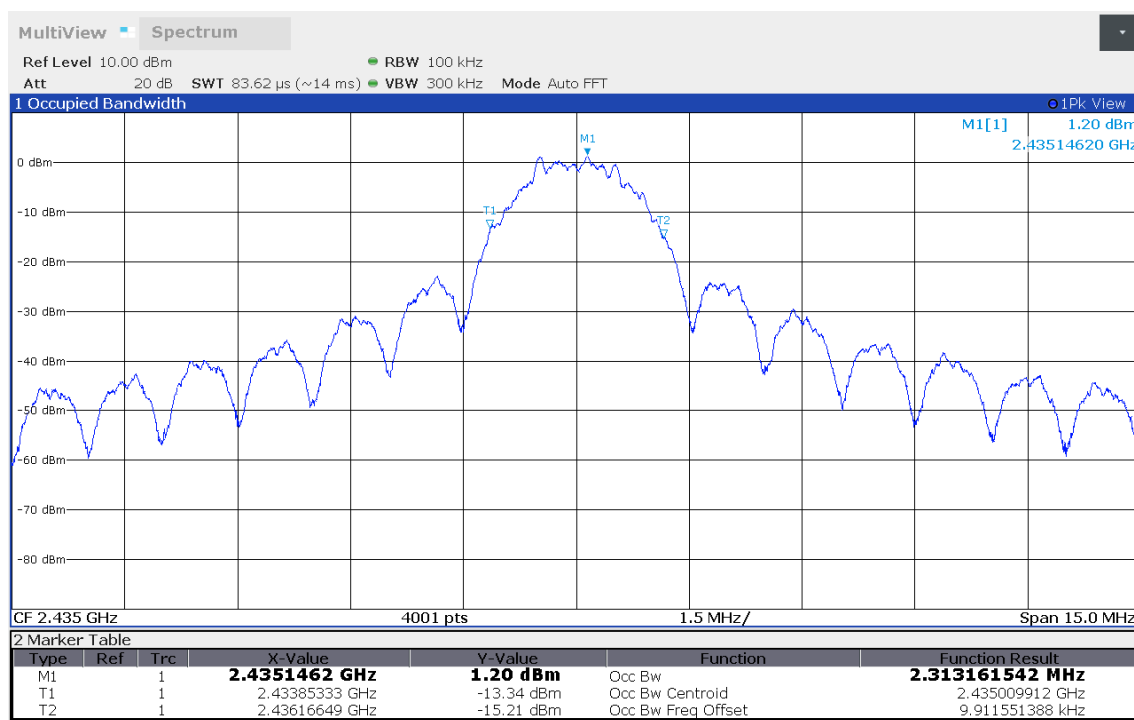
Project Number: G0M-2007-9170
Applicant: SKAN Deutschland GmbH
Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
Model: Network Extender wirelessGlovTester evolution 2
Test Sample ID: 30432
Reference Standards: FCC 15.247, RSS-247
Reference Method: ANSI C63.10:2013, Section 6.9.3
Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 11, 2405 MHz
Operating Conditions: Tnom/Vnom
Operator: Toralf Jahn
Test Site: Eurofins Product Service GmbH
Test Date: 2020-10-01
Note: Antenna Port 1
Occupied Bandwidth [MHz]: 2.308



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Occupied Bandwidth

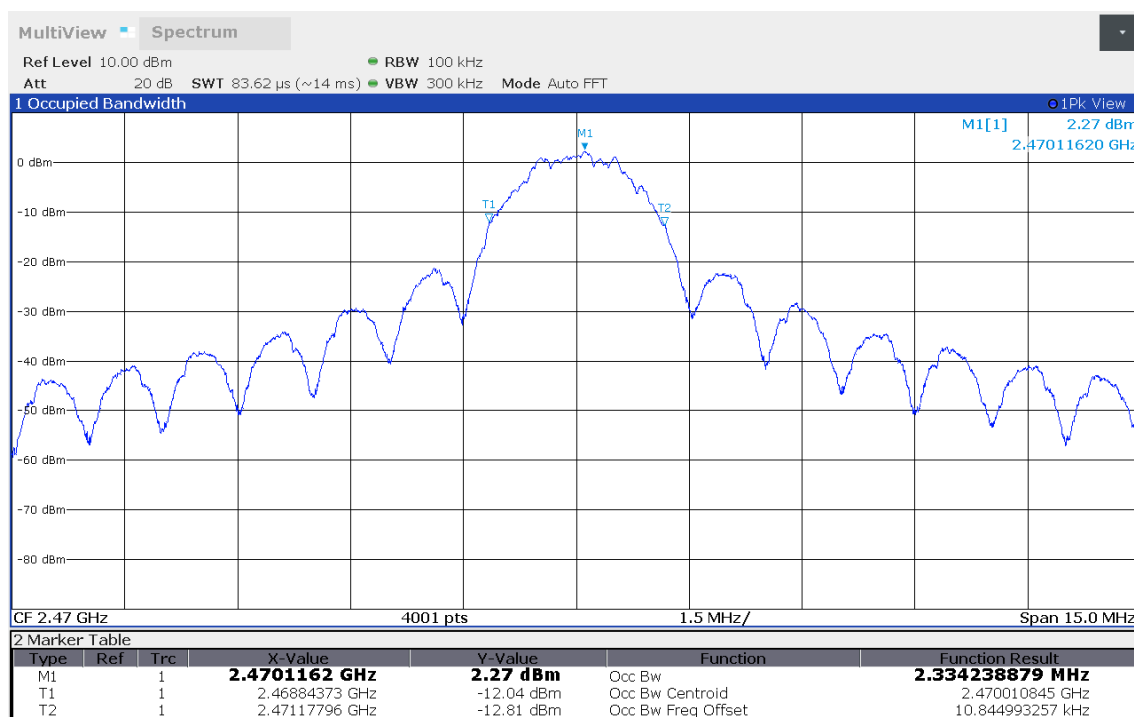
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 6.9.3
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 17, 2435 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Occupied Bandwidth [MHz]: 2.313



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Occupied Bandwidth

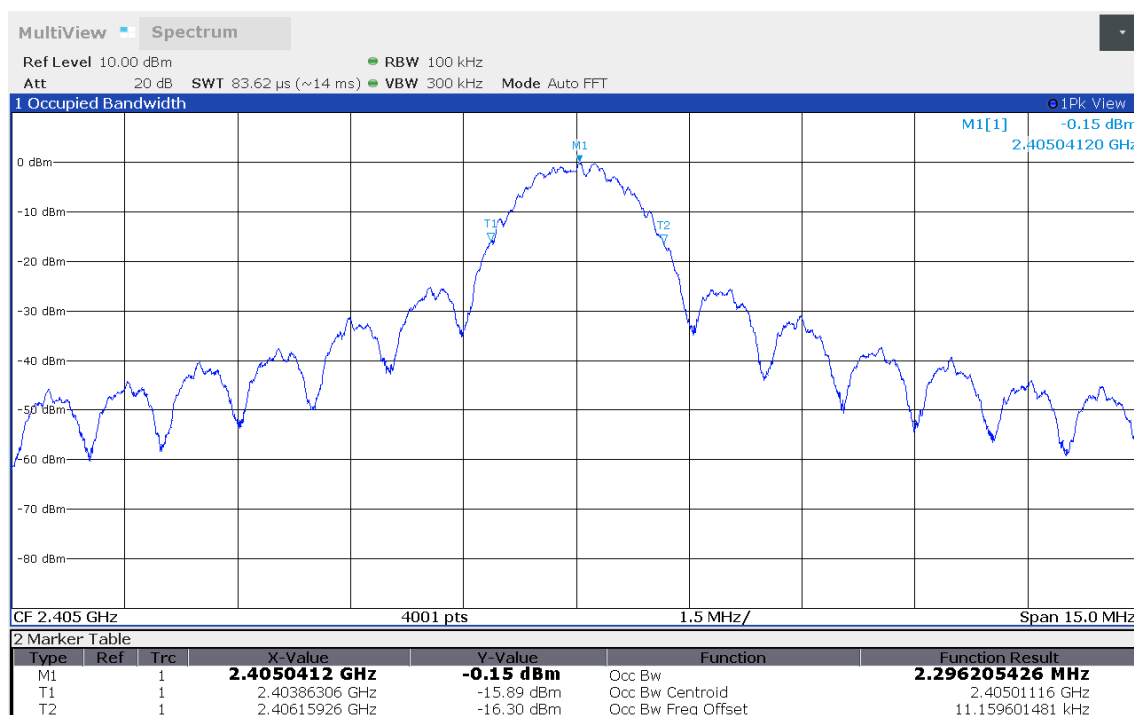
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 6.9.3
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Occupied Bandwidth [MHz]: 2.334



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Occupied Bandwidth

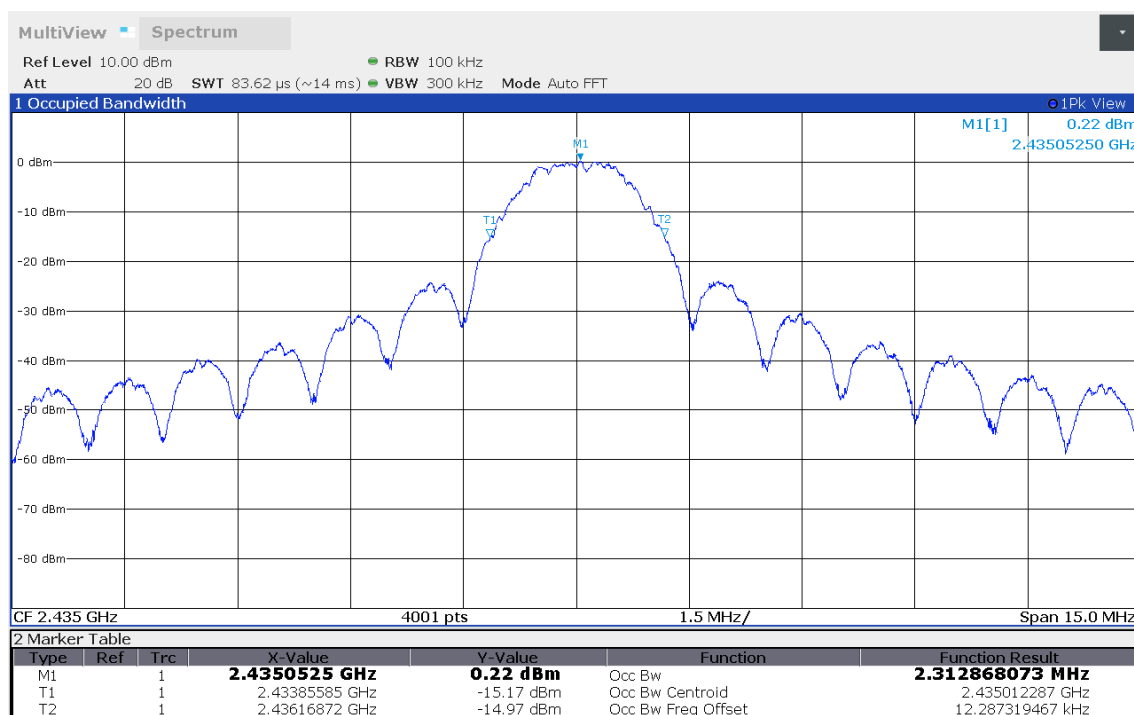
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 6.9.3
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 11, 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Occupied Bandwidth [MHz]: 2.296



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Occupied Bandwidth

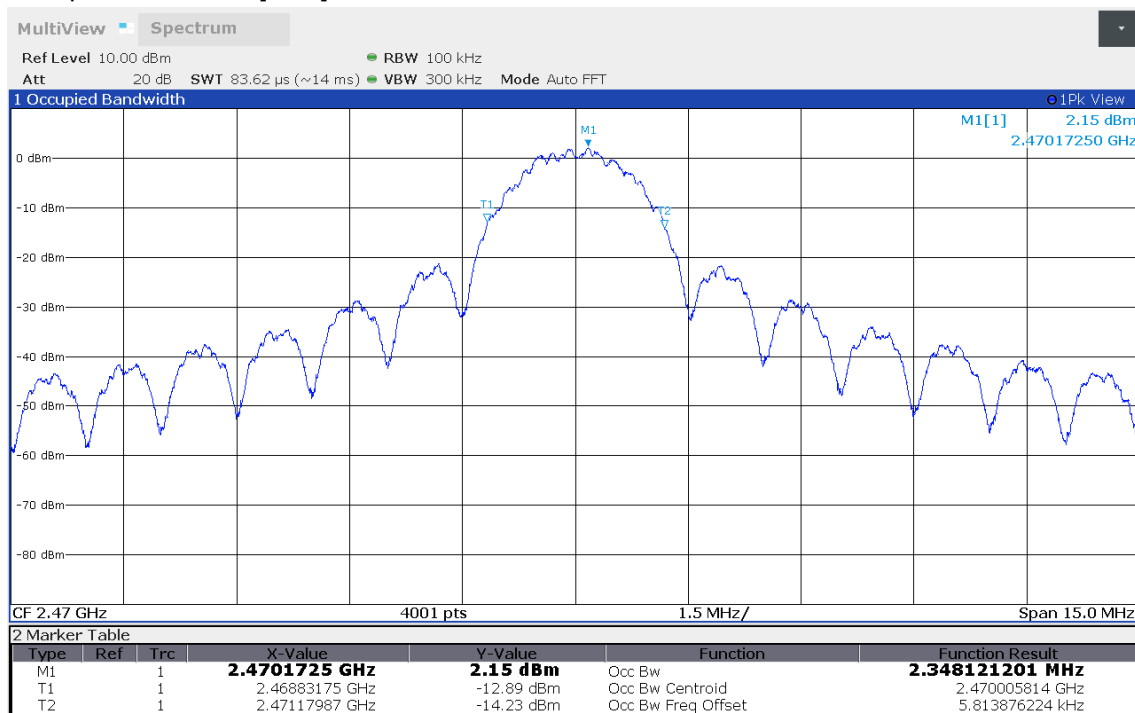
Project Number: G0M-2007-9170
Applicant: SKAN Deutschland GmbH
Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
Model: Network Extender wirelessGlovTester evolution 2
Test Sample ID: 30432
Reference Standards: FCC 15.247, RSS-247
Reference Method: ANSI C63.10:2013, Section 6.9.3
Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 17, 2435 MHz
Operating Conditions: Tnom/Vnom
Operator: Toralf Jahn
Test Site: Eurofins Product Service GmbH
Test Date: 2020-10-01
Note: Antenna Port 1
Occupied Bandwidth [MHz]: 2.313



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Occupied Bandwidth

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 6.9.3
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Occupied Bandwidth [MHz]: 2.348



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3.2 Test Conditions and Results - 6 dB bandwidth

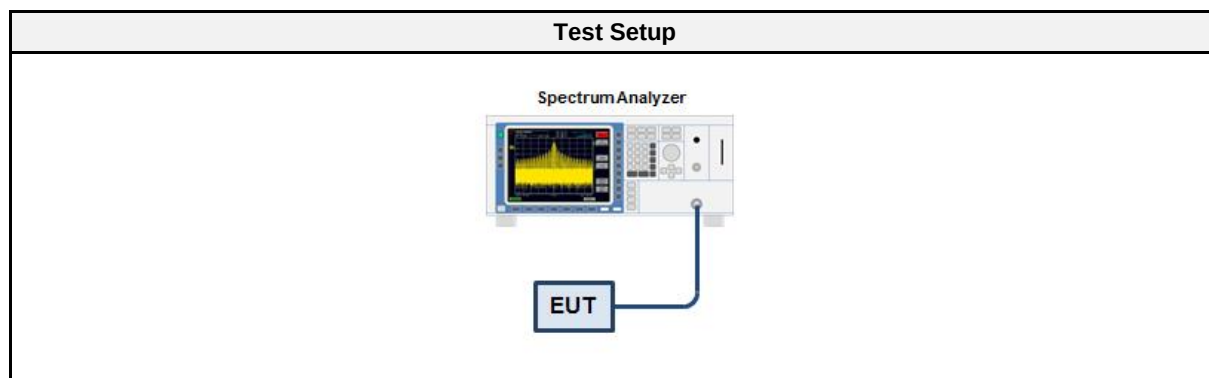
3.2.1 Information

Test Information	
Reference	FCC § 15.247(a)(2); ISED RSS-247, Issue 2 (section 5.2)
Measurement Method	ANSI C63.10 11.8
Measurement Uncertainty	± 1.26 %
Operator	Toralf Jahn
Date	2020-10-01

3.2.2 Limits

Limits
≥ 500kHz

3.2.3 Setup



3.2.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSW 43	EF00896	2020-07	2021-07
Cable	Gigalane	SMS111B	EF00779 CAABB	2018-10	2020-10

3.2.5 Procedure

Test Procedure
1. EUT set to test mode 2. Span set to at least twice the emission spectrum 3. Detector set to peak and max hold and RBW is set to 100 kHz 4. Envelope peak value of emission spectrum is selected 5. Marker on envelope of spectrum is set to level of -6 dB to the left of the peak 6. Marker on envelope of spectrum is set to level of -6 dB to the right of the peak 7. 6 dB Bandwidth is determined by marker frequency separation

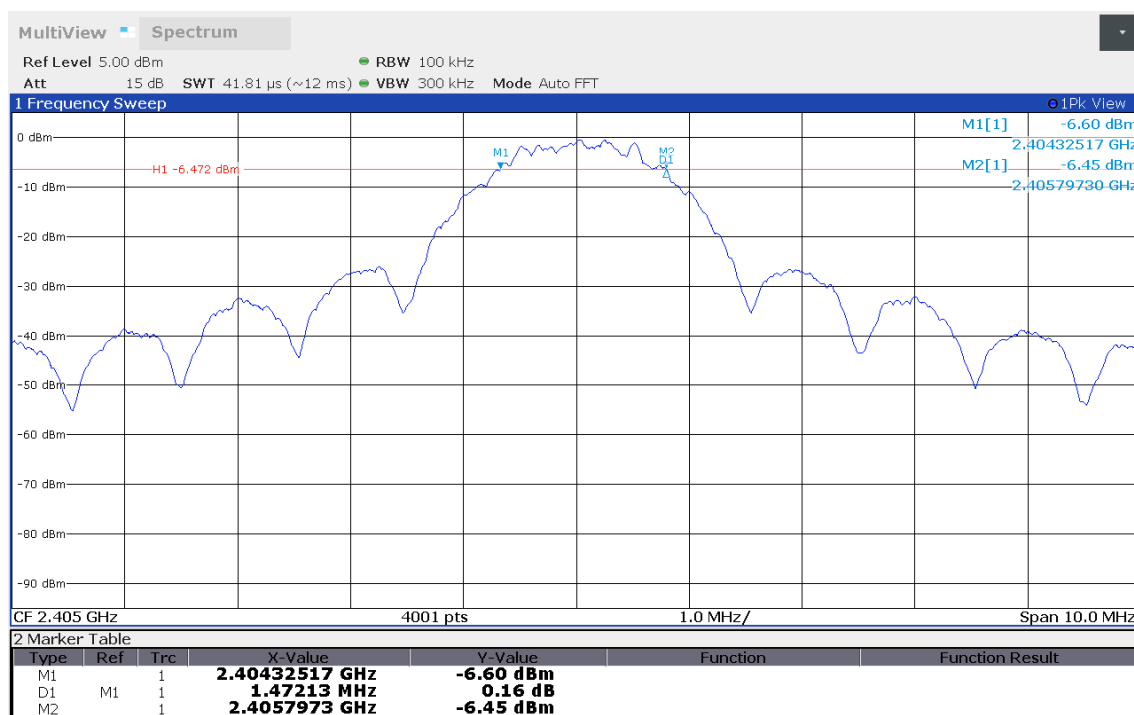
3.2.6 Results

Test Results Antenna Port 1				
Mode	Frequency [MHz]	Bandwidth [kHz]	Limit [kHz]	Verdict
O-QPSK	2405	1432.1	500	PASS
O-QPSK	2435	1534.6	500	PASS
O-QPSK	2470	1409.6	500	PASS

Test Results Antenna Port 1				
Mode	Frequency [MHz]	Bandwidth [kHz]	Limit [kHz]	Verdict
DSSS O-QPSK	2405	1472.1	500	PASS
DSSS O-QPSK	2435	1532.1	500	PASS
DSSS O-QPSK	2470	1514.6	500	PASS

DTS (6 dB) Bandwidth

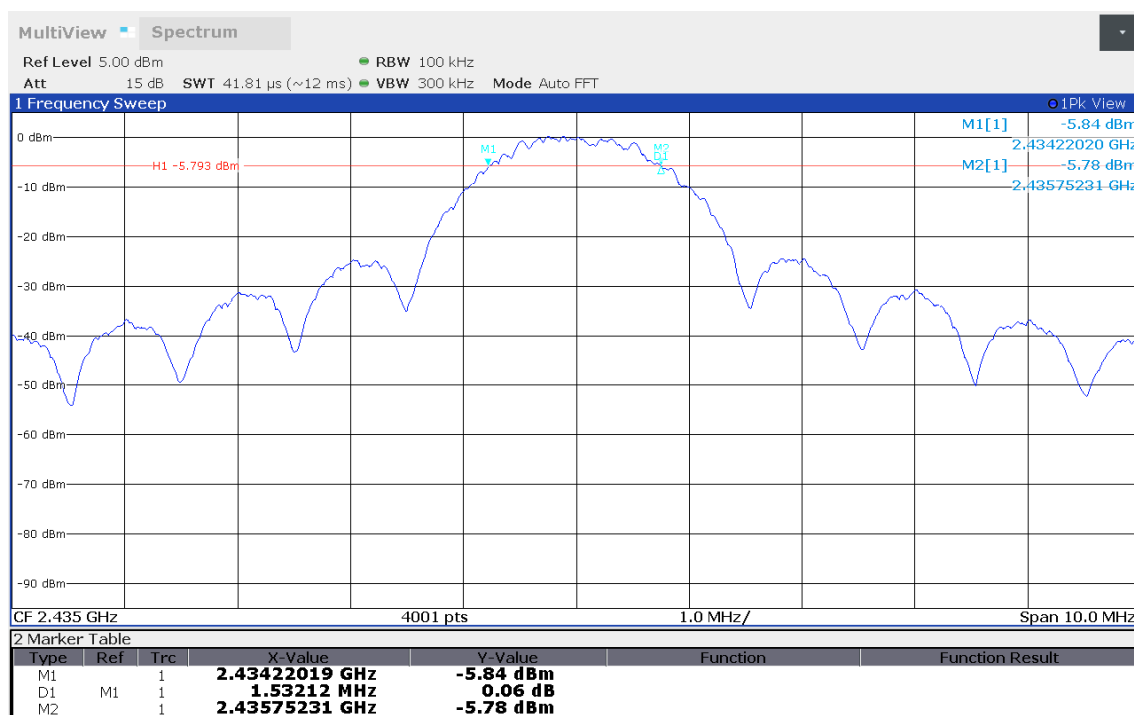
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 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.8.1 Option 1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 11, 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Lower Frequency [MHz]: 2404.325
 Upper Frequency [MHz]: 2405.797
 6 dB Bandwidth [kHz]: 1472.1



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DTS (6 dB) Bandwidth

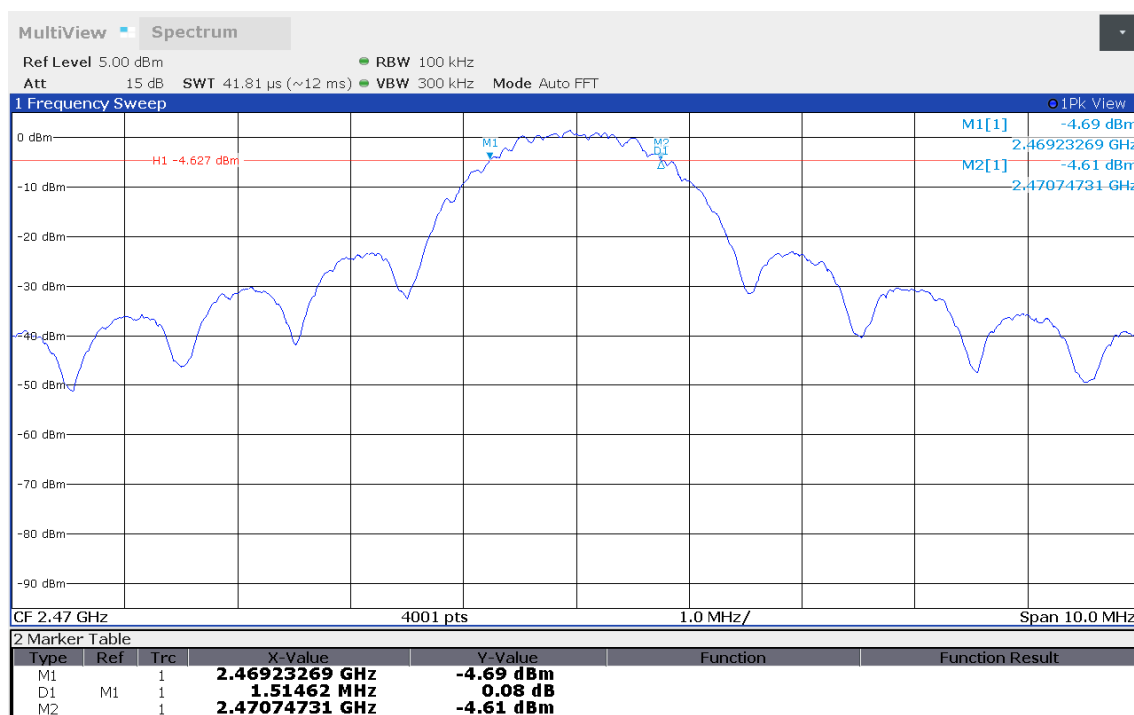
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.8.1 Option 1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 17, 2435 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Lower Frequency [MHz]: 2434.220
 Upper Frequency [MHz]: 2435.752
 6 dB Bandwidth [kHz]: 1532.1



13:52:30 01.10.2020

DTS (6 dB) Bandwidth

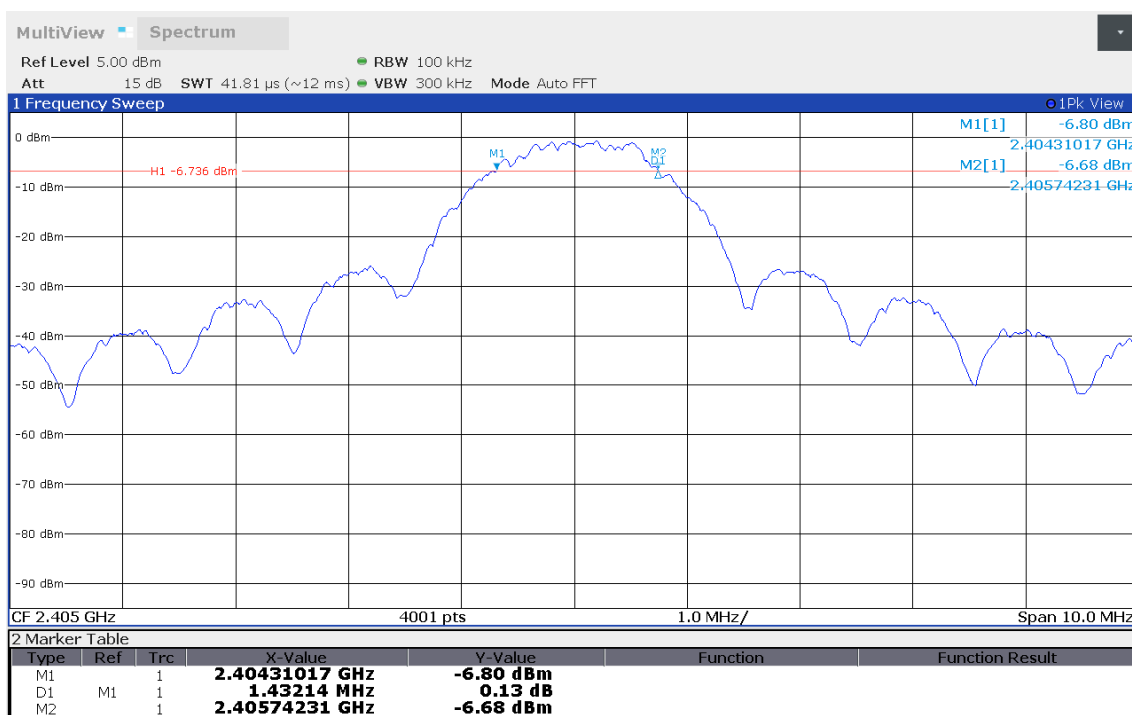
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.8.1 Option 1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Lower Frequency [MHz]: 2469.233
 Upper Frequency [MHz]: 2470.747
 6 dB Bandwidth [kHz]: 1514.6



13:53:32 01.10.2020

DTS (6 dB) Bandwidth

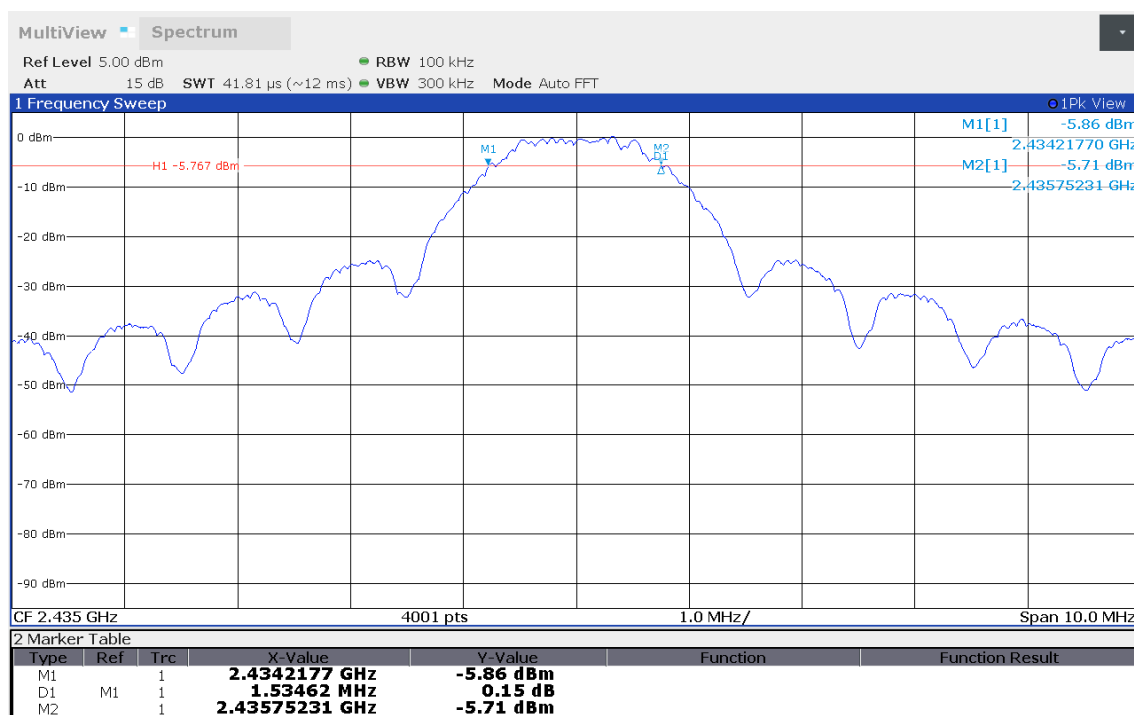
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.8.1 Option 1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 11, 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Lower Frequency [MHz]: 2404.310
 Upper Frequency [MHz]: 2405.742
 6 dB Bandwidth [kHz]: 1432.1



13:55:02 01.10.2020

DTS (6 dB) Bandwidth

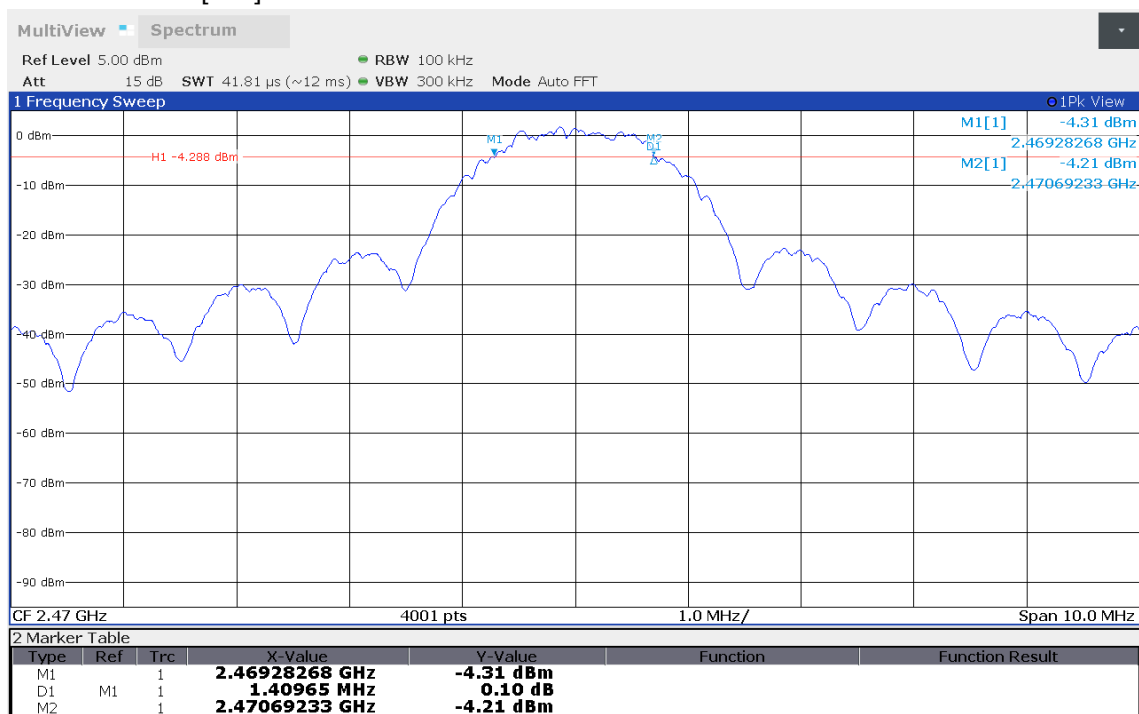
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.8.1 Option 1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 17, 2435 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Lower Frequency [MHz]: 2434.218
 Upper Frequency [MHz]: 2435.752
 6 dB Bandwidth [kHz]: 1534.6



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DTS (6 dB) Bandwidth

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.8.1 Option 1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Lower Frequency [MHz]: 2469.283
 Upper Frequency [MHz]: 2470.692
 6 dB Bandwidth [kHz]: 1409.6



13:57:02 01.10.2020

3.3 Test Conditions and Results - Maximum peak conducted output power

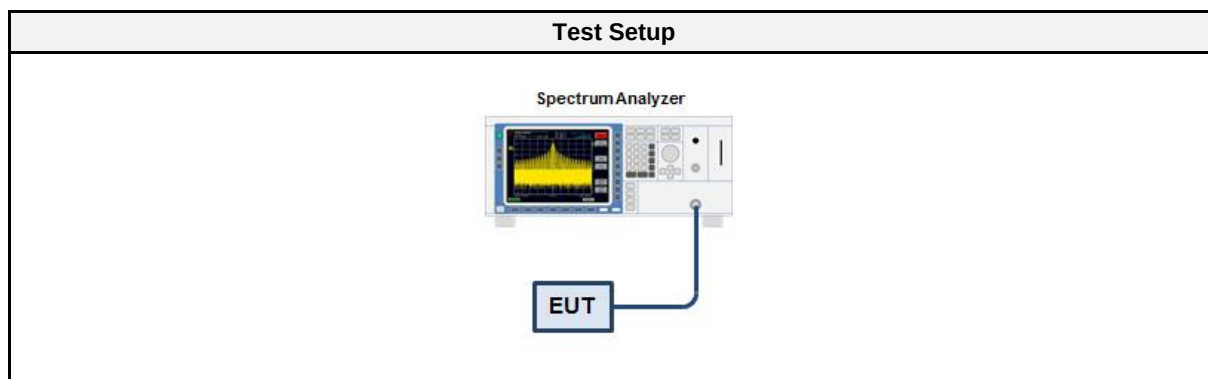
3.3.1 Information

Test Information	
Reference	FCC § 15.247(b)(1); ISED RSS-247, Issue 2 (section 5.4)
Measurement Method	ANSI C63.10 11.9.1
Measurement Uncertainty	± 2.86 dB
Operator	Toralf Jahn
Date	2020-10-01

3.3.2 Limits

Limits
1 W (30 dBm)
The conducted output power limit specified above is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in the table, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.3 Setup



3.3.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSW 43	EF00896	2020-07	2021-07
Cable	Gigalane	SMS111B	EF00779 CAABB	2018-10	2020-10

3.3.5 Procedure

Test Procedure
1. EUT set to test mode (Communication tester is used if needed) 2. Analyzer resolution bandwidth is set ≥ DTS bandwidth 3. Detector set to peak and max hold 4. Sweep time is set to auto 5. After the trace has stabilized a marker is set to peak of envelope

3.3.6 Results

Test Results O-QPSK Antenna Port 1				
Channel [MHz]	Power [dBm]	Power [W]	Limit [W]	Verdict
2405	3.703	0.002346	1.0	PASS
2435	4.843	0.003050	1.0	PASS
2470	6.048*	0.004025*	1.0	PASS
Comment: *Worst case power				

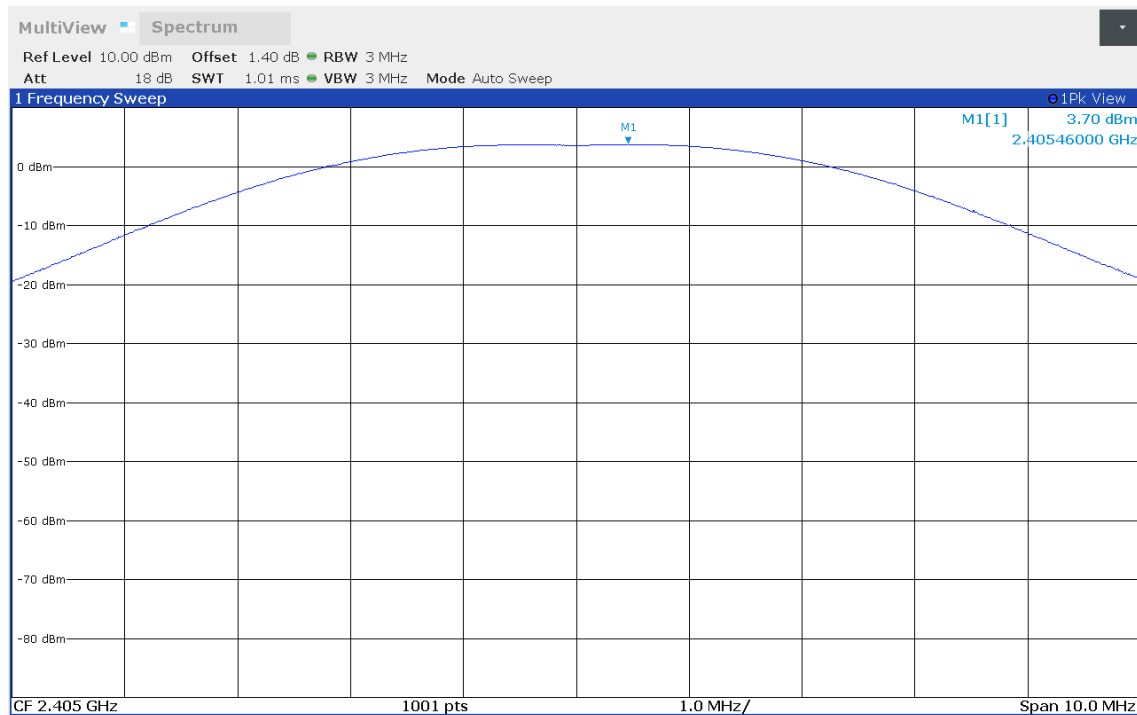
Test Results DSSS O-QPSK Antenna Port 1				
Channel [MHz]	Power [dBm]	Power [W]	Limit [W]	Verdict
2405	3.719	0.002355	1.0	PASS
2435	4.847	0.003053	1.0	PASS
2470	6.041	0.004019	1.0	PASS

Test Results O-QPSK Antenna Port 2				
Channel [MHz]	Power [dBm]	Power [W]	Limit [W]	Verdict
2405	3.673	0.002330	1.0	PASS
2435	4.831	0.003042	1.0	PASS
2470	6.016	0.003996	1.0	PASS

Test Results DSSS O-QPSK Antenna Port 2				
Channel [MHz]	Power [dBm]	Power [W]	Limit [W]	Verdict
2405	3.692	0.002340	1.0	PASS
2435	4.849	0.003054	1.0	PASS
2470	6.024	0.004003	1.0	PASS

Peak Conducted Output Power

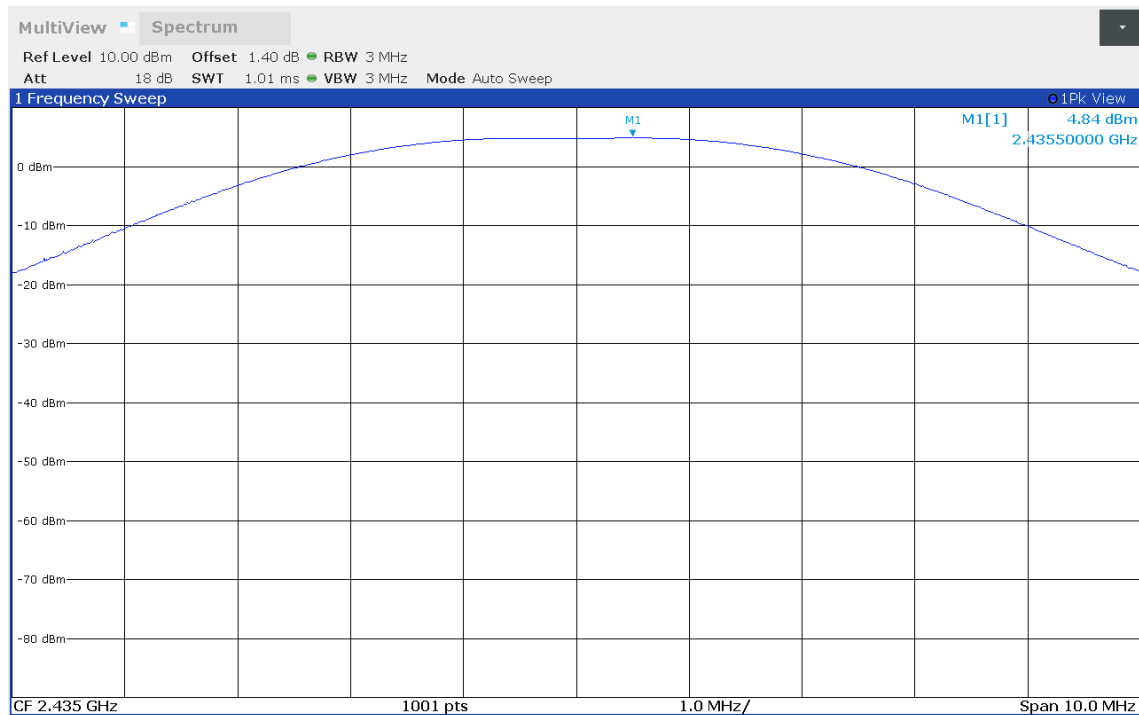
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 11, 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Power [dBm]: 3.703
 Peak Power [W]: 0.002346



13:01:24 01.10.2020

Peak Conducted Output Power

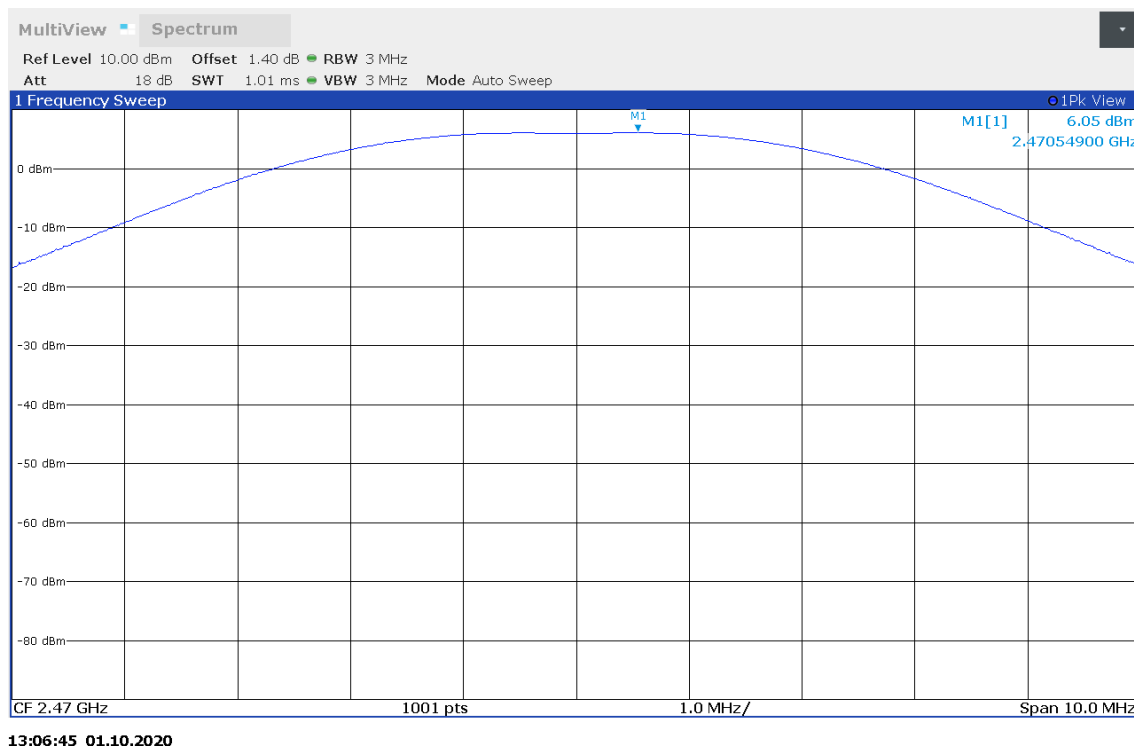
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 17, 2435 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Power [dBm]: 4.843
 Peak Power [W]: 0.003050



13:05:16 01.10.2020

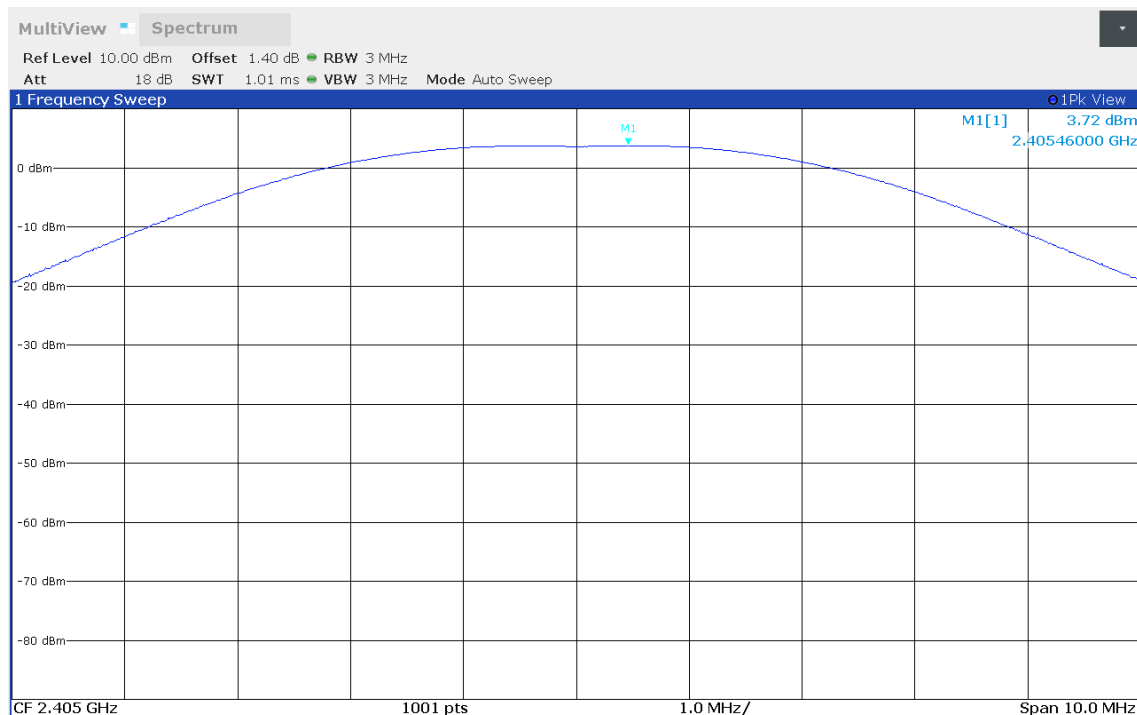
Peak Conducted Output Power

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Power [dBm]: 6.048
 Peak Power [W]: 0.004025



Peak Conducted Output Power

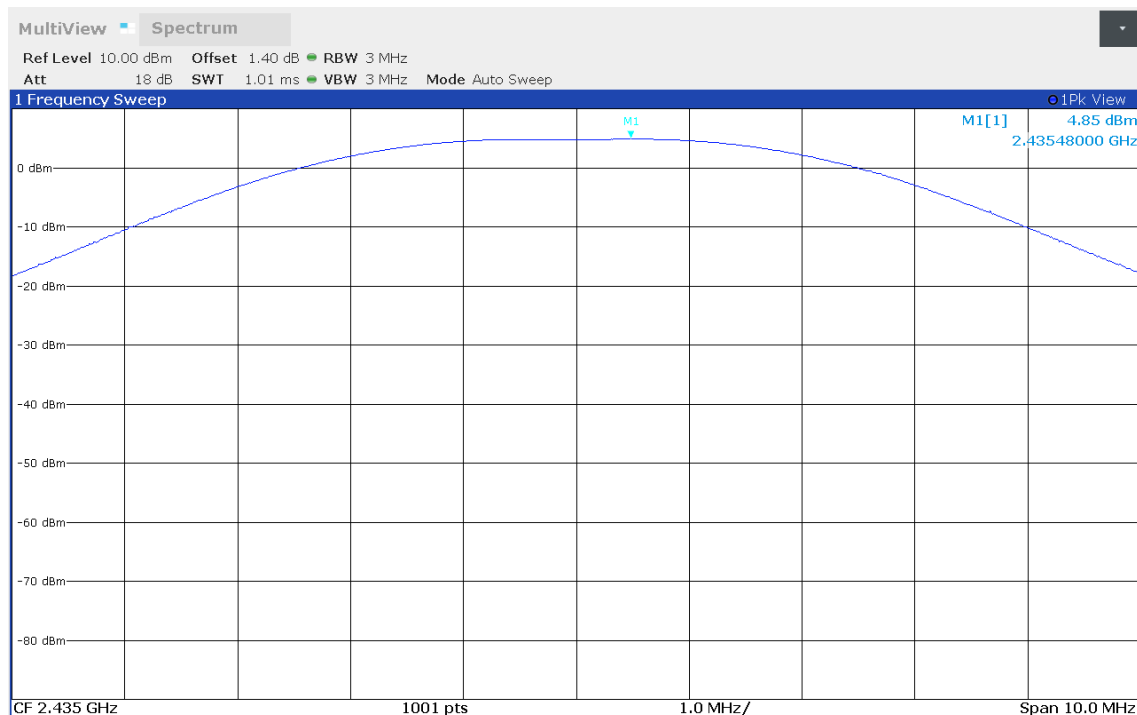
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 11, 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Power [dBm]: 3.719
 Peak Power [W]: 0.002355



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Peak Conducted Output Power

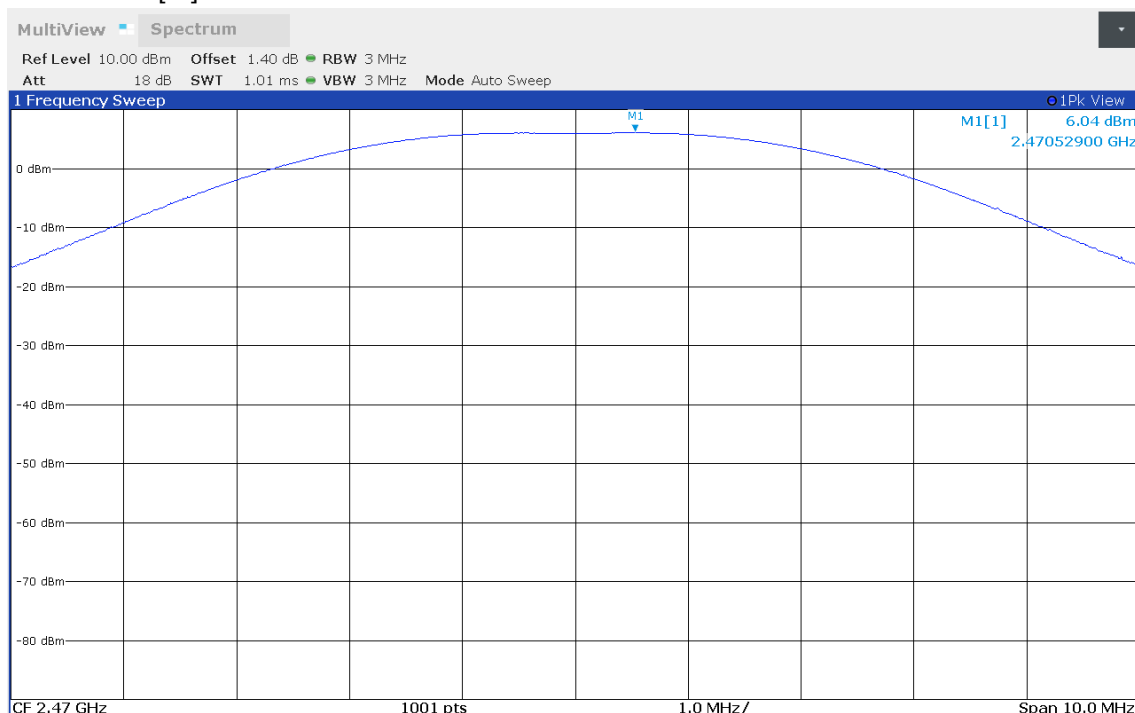
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 17, 2435 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Power [dBm]: 4.847
 Peak Power [W]: 0.003053



13:11:33 01.10.2020

Peak Conducted Output Power

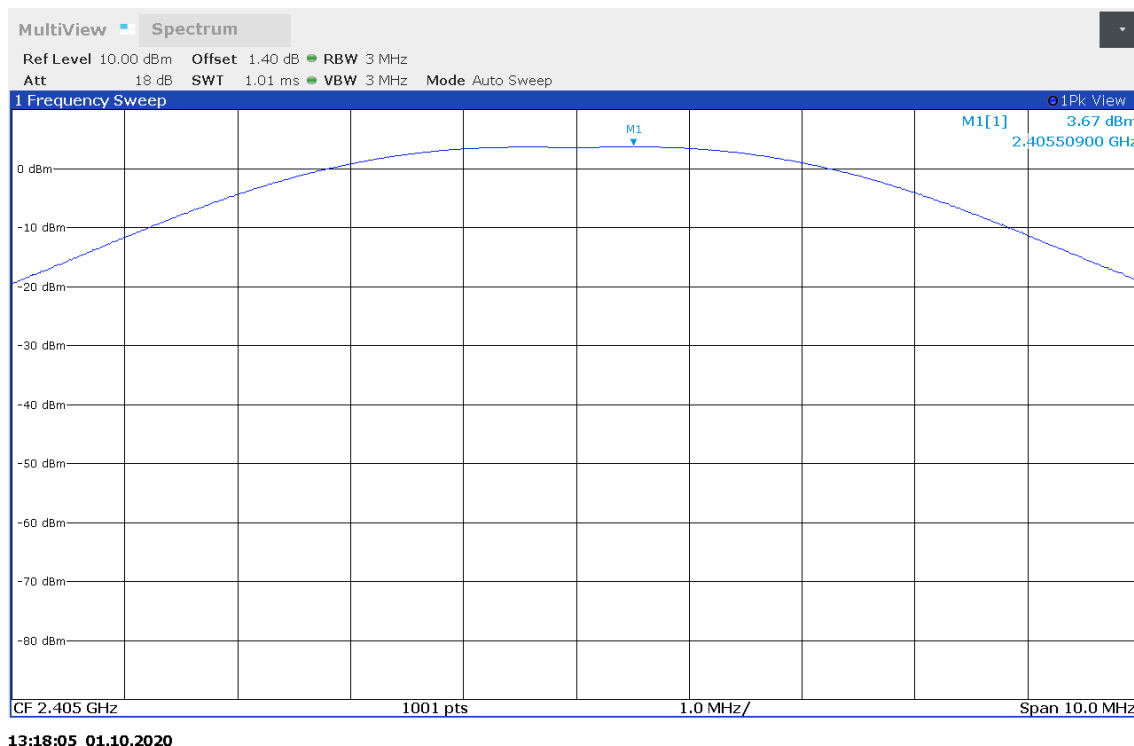
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Power [dBm]: 6.041
 Peak Power [W]: 0.004019



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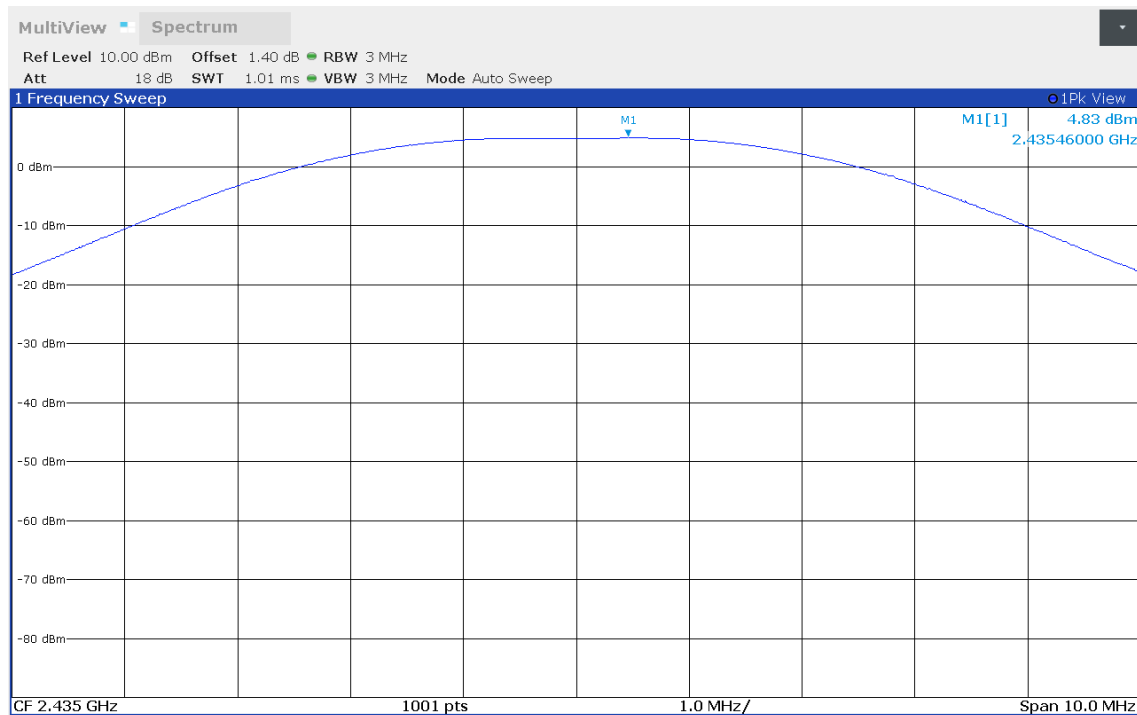
Peak Conducted Output Power

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 11, 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 2
 Peak Power [dBm]: 3.673
 Peak Power [W]: 0.002330



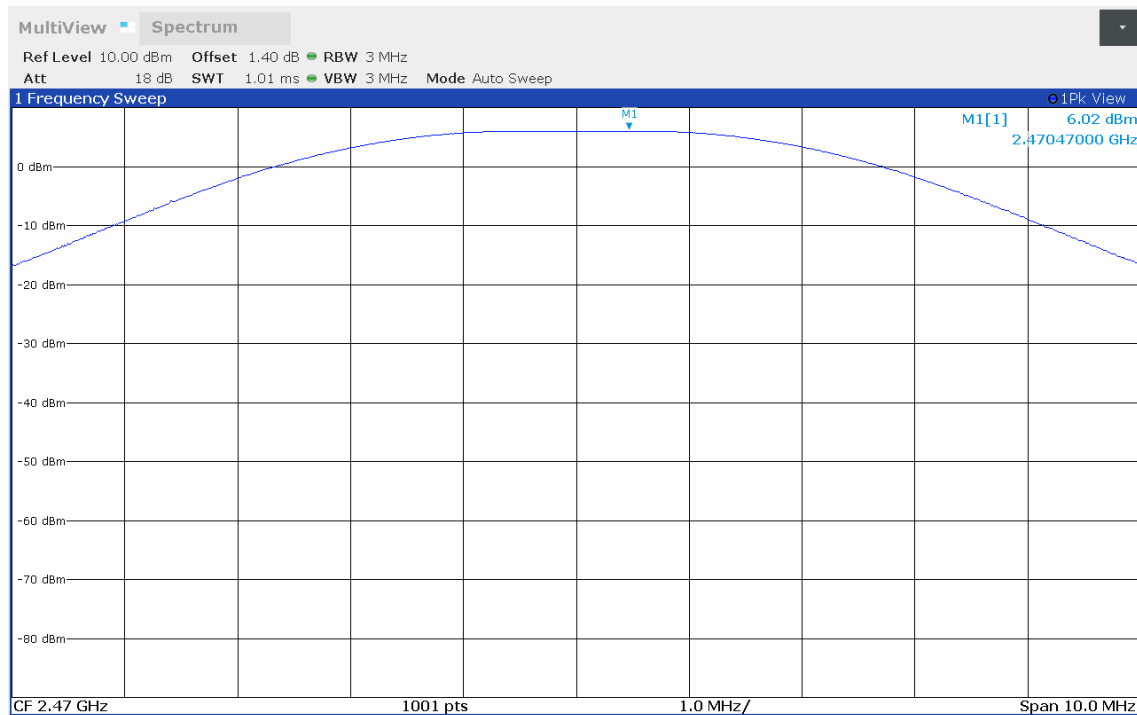
Peak Conducted Output Power

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 17, 2435 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 2
 Peak Power [dBm]: 4.831
 Peak Power [W]: 0.003042



Peak Conducted Output Power

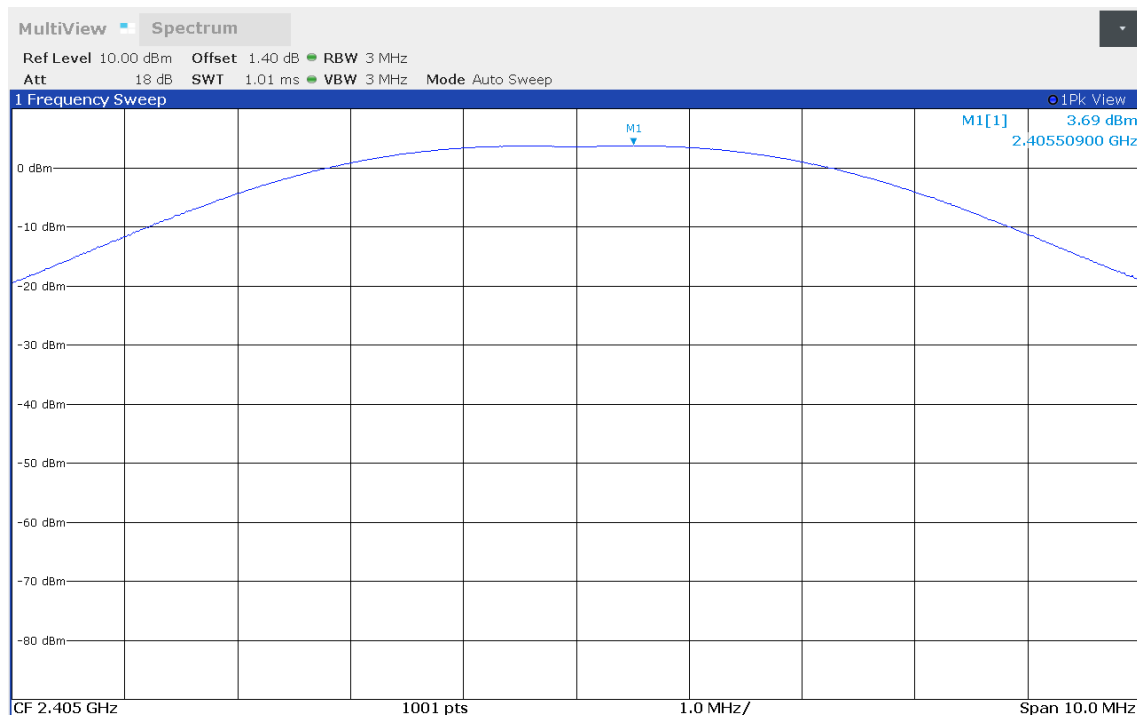
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 2
 Peak Power [dBm]: 6.016
 Peak Power [W]: 0.003996



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Peak Conducted Output Power

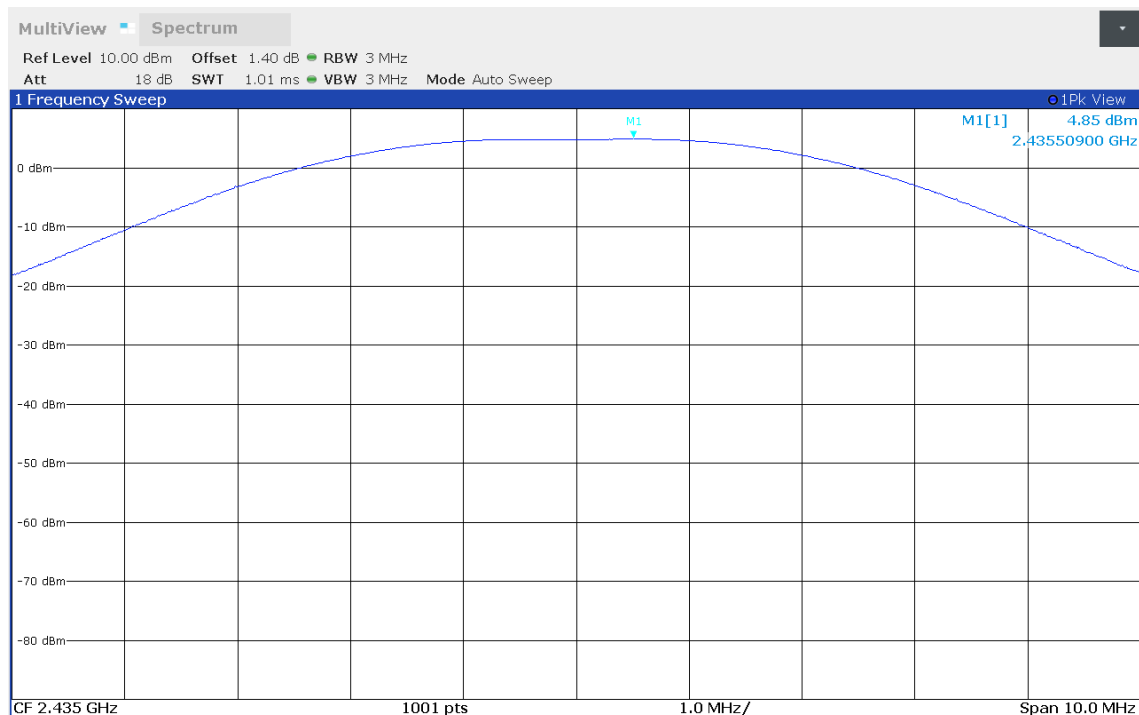
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 11, 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 2
 Peak Power [dBm]: 3.692
 Peak Power [W]: 0.002340



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Peak Conducted Output Power

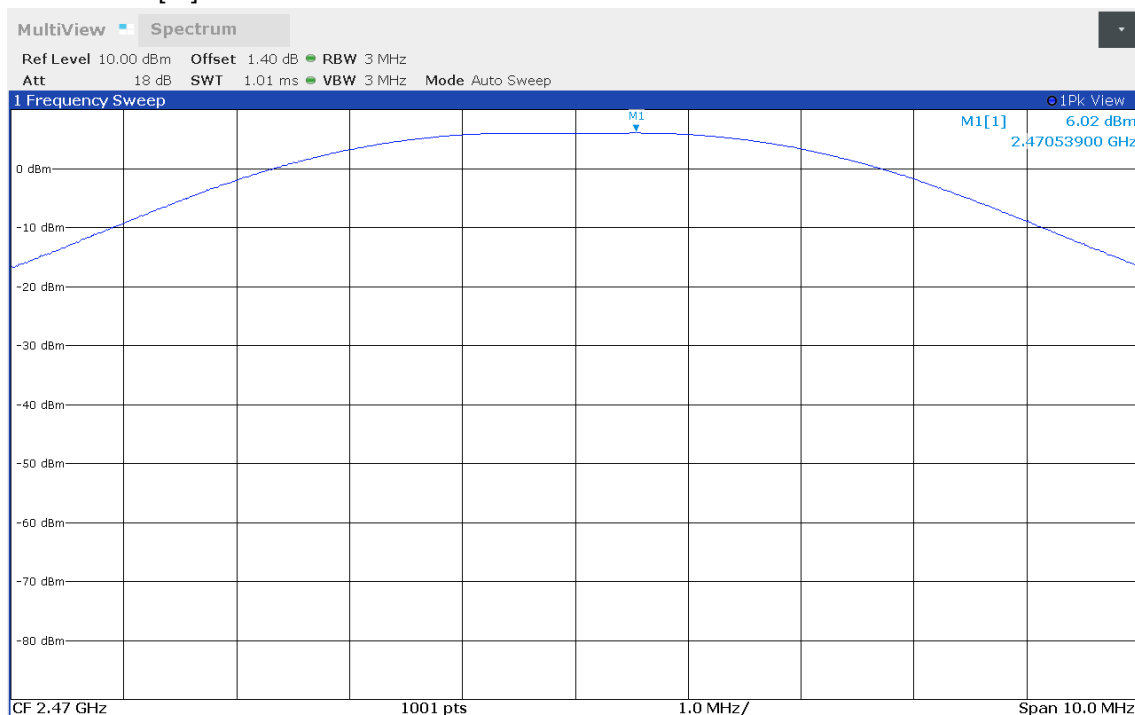
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 17, 2435 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 2
 Peak Power [dBm]: 4.849
 Peak Power [W]: 0.003054



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Peak Conducted Output Power

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 2
 Peak Power [dBm]: 6.024
 Peak Power [W]: 0.004003



13:24:22 01.10.2020

3.4 Test Conditions and Results - Power spectral density

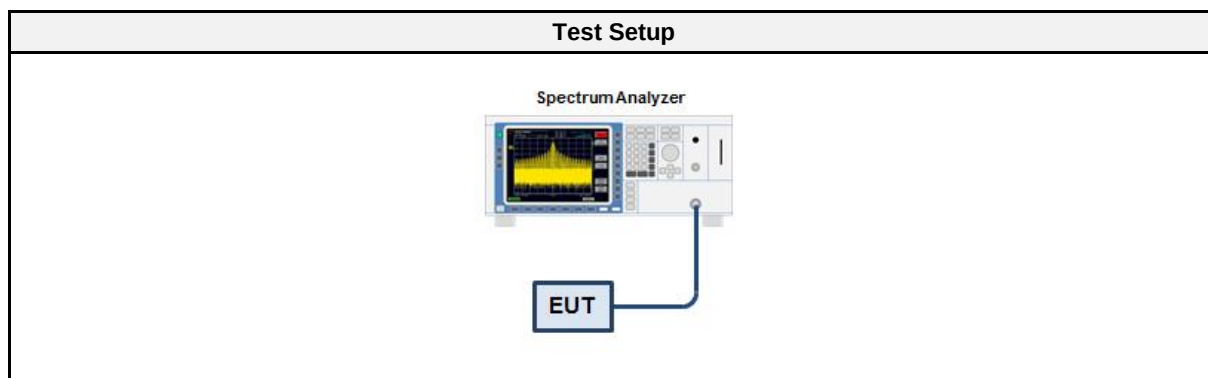
3.4.1 Information

Test Information	
Reference	FCC § 15.247(e); ISSED RSS-247, Issue 2 (section 5.2)
Measurement Method	ANSI C63.10 11.10.2, 14.3.2
Measurement Uncertainty	± 2.86 dB
Operator	Toralf Jahn
Date	2020-10-01

3.4.2 Limits

Limits
8 dBm / 3 kHz

3.4.3 Setup



3.4.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSW 43	EF00896	2020-07	2021-07
Cable	Gigalane	SMS111B	EF00779 CAABB	2018-10	2020-10

3.4.5 Procedure

Test Procedure
1. EUT set to test mode 2. The analyzer is set to DTS channel center frequency with a span of 1.5 times the DTS bandwidth 3. The RBW is set to 100 kHz with VBW $\geq$ RBW and the detector is set to peak with max hold 4. After the trace has stabilized a marker is set to the envelope maximum 5. If the power spectral density is above the limit the RBW is reduced (not lower than 3 kHz) and the measurement is repeated 6. If the EUT has more than one transmit chain the procedure is repeated for each transmit chain

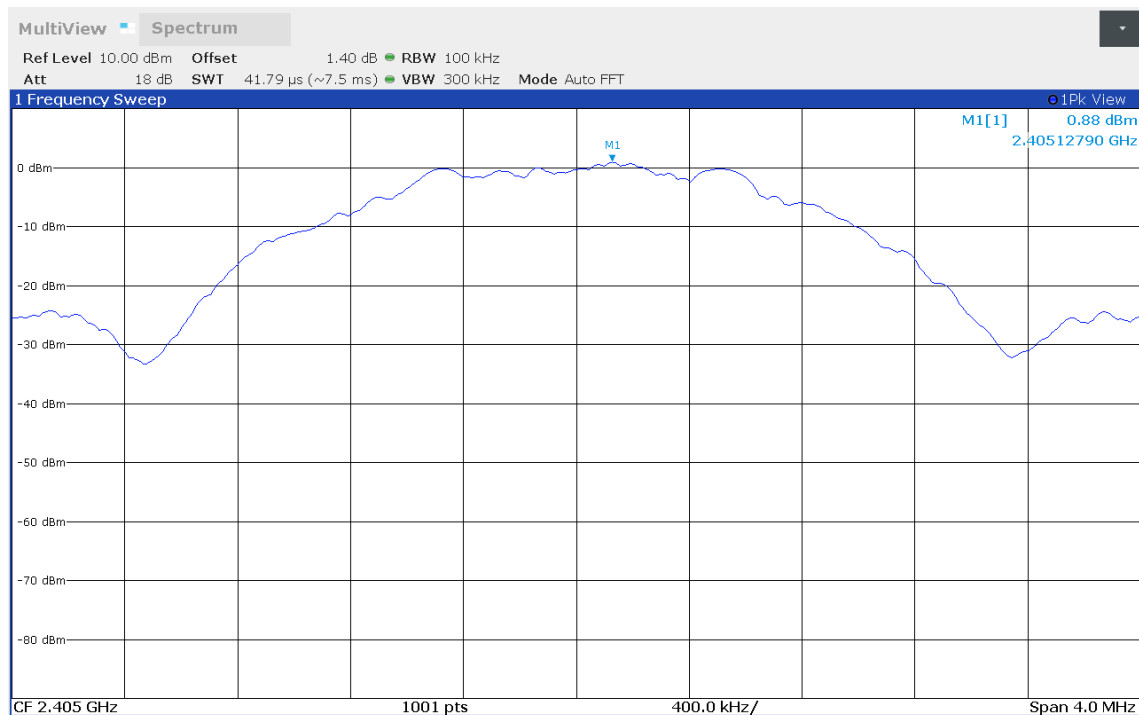
3.4.6 Results

Test Results O-QPSK Antenna Port 1			
Channel [MHz]	PSD [dBm/RBW]	Limit [dBm/3kHz]	Verdict
2405	0.885	8.0	PASS
2435	1.990	8.0	PASS
2470	2.991	8.0	PASS
RBW = 100 kHz			

Test Results DSSS O-QPSK Antenna Port 1			
Channel [MHz]	PSD [dBm/RBW]	Limit [dBm/3kHz]	Verdict
2405	0.967	8.0	PASS
2435	2.991	8.0	PASS
2470	3.174	8.0	PASS
RBW = 100 kHz			

Peak Power Spectral Density

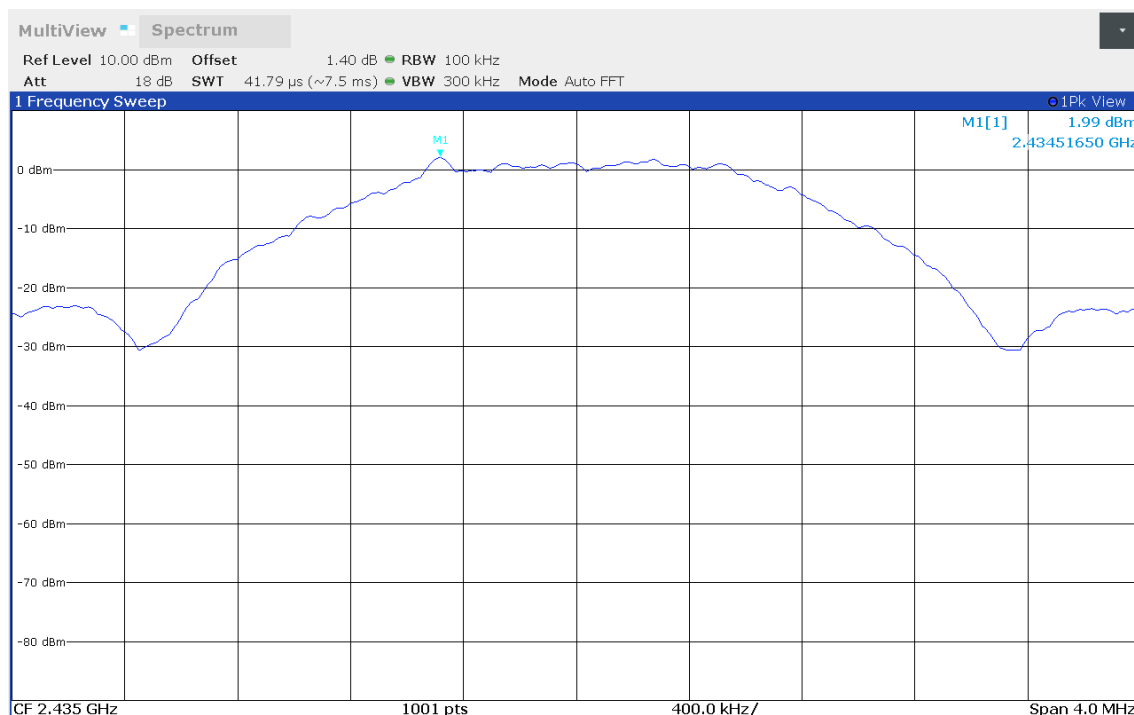
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.10.2
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 11, 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Frequency [MHz]: 2405.128
 Spectral Density [dBm/RBW]: 0.885
 Resolution Bandwidth [kHz]: 100 kHz



14:13:43 01.10.2020

Peak Power Spectral Density

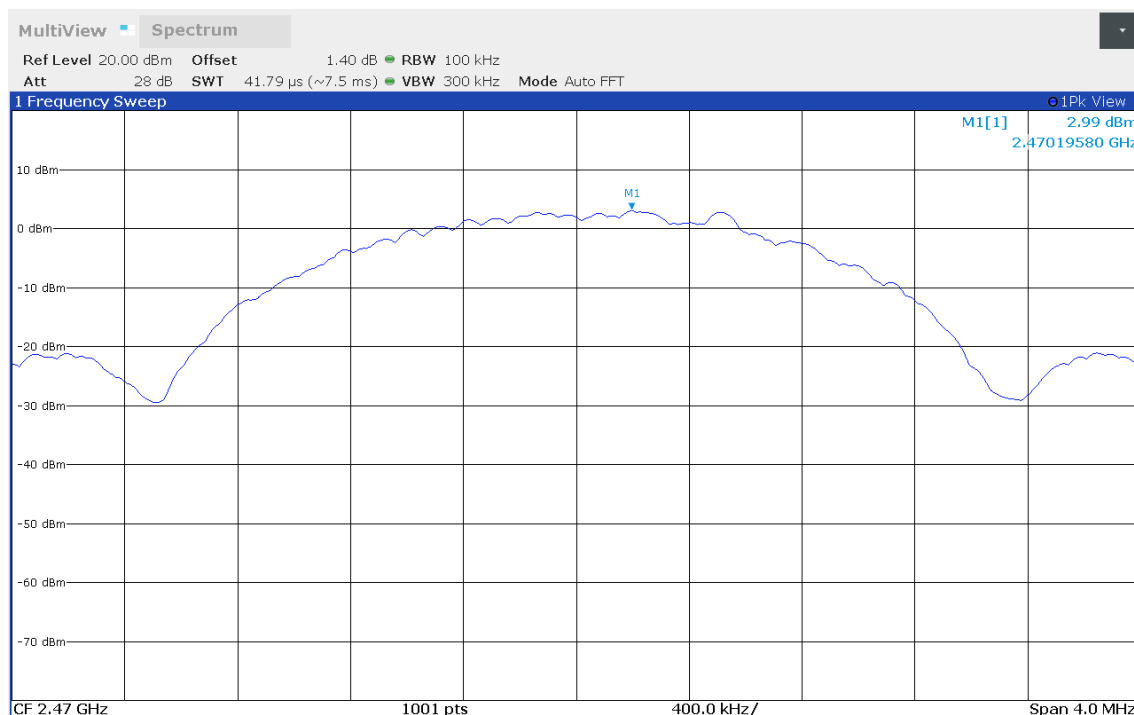
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.10.2
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 17, 2435 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Frequency [MHz]: 2434.517
 Spectral Density [dBm/RBW]: 1.990
 Resolution Bandwidth [kHz]: 100 kHz



14:14:50 01.10.2020

Peak Power Spectral Density

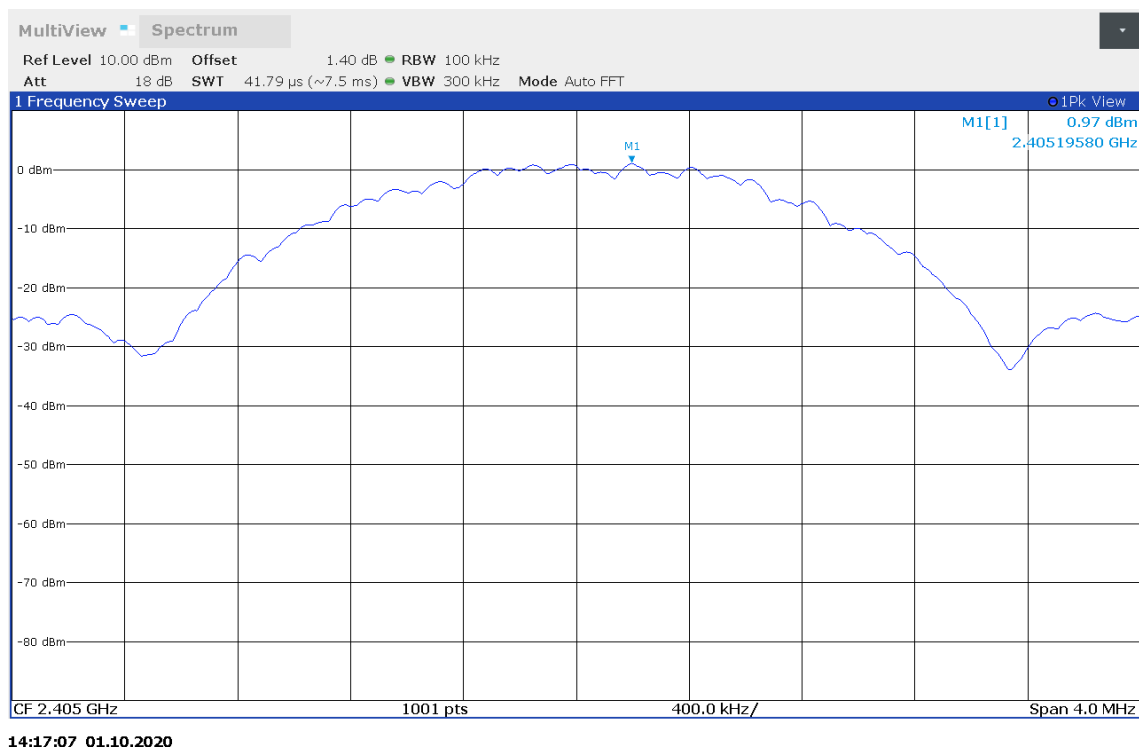
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.10.2
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Frequency [MHz]: 2470.196
 Spectral Density [dBm/RBW]: 2.991
 Resolution Bandwidth [kHz]: 100 kHz



14:15:39 01.10.2020

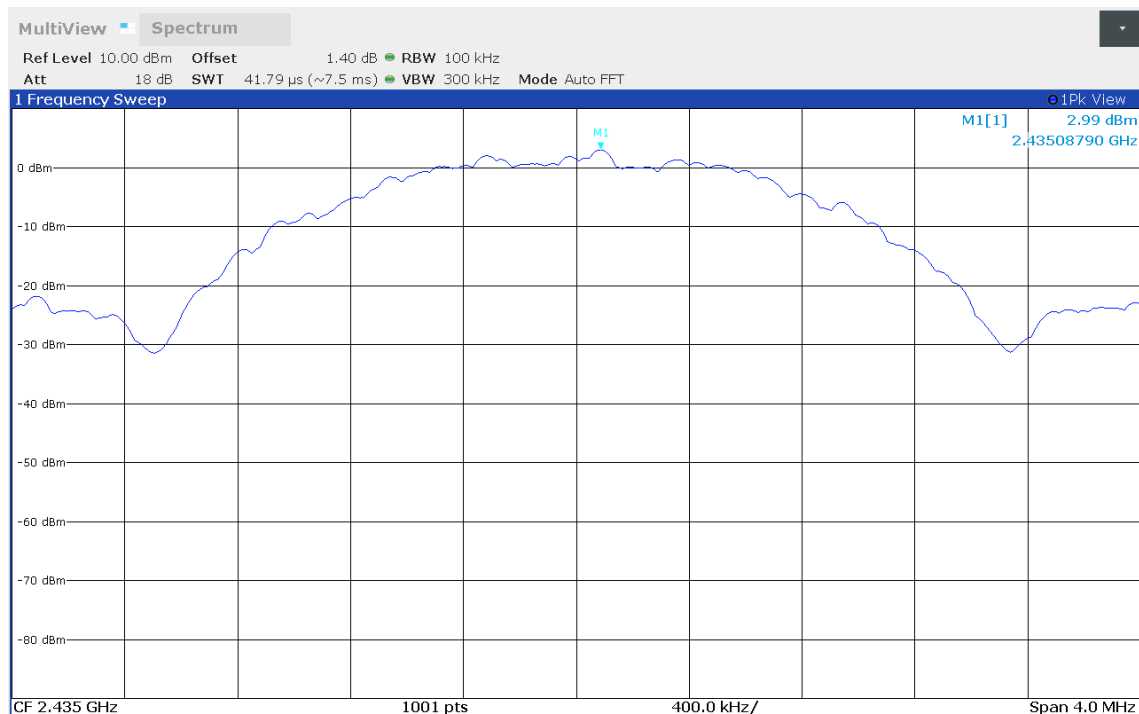
Peak Power Spectral Density

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.10.2
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 11, 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Frequency [MHz]: 2405.196
 Spectral Density [dBm/RBW]: 0.967
 Resolution Bandwidth [kHz]: 100 kHz



Peak Power Spectral Density

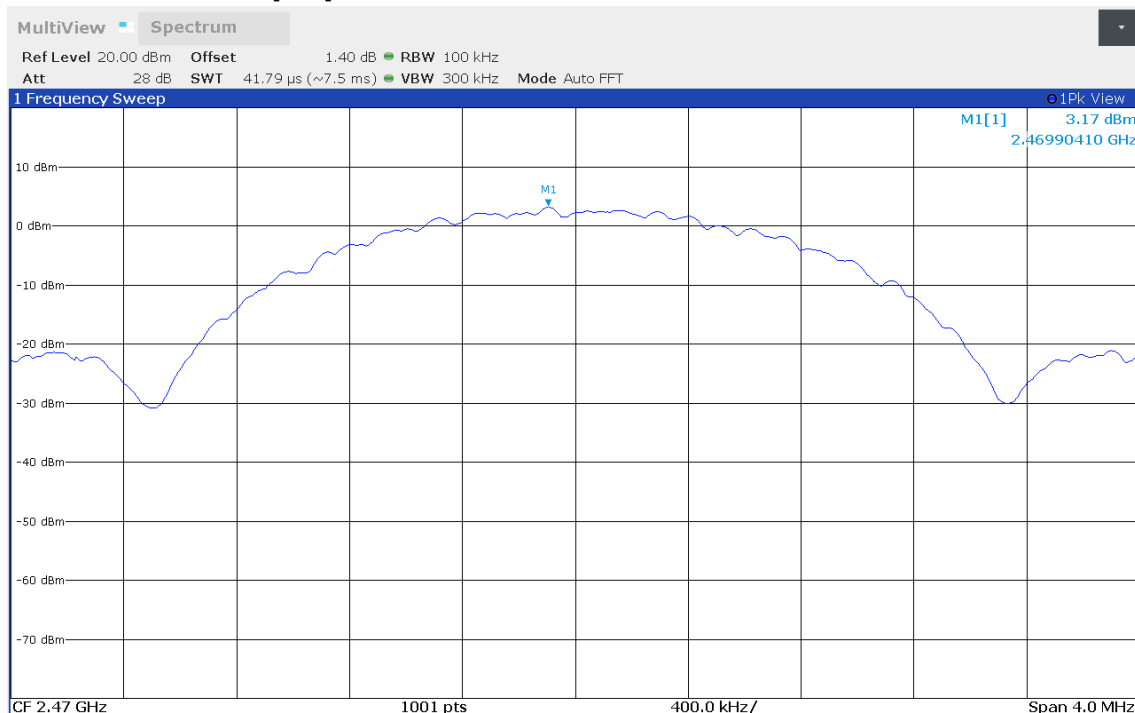
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.10.2
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 17, 2435 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Frequency [MHz]: 2435.088
 Spectral Density [dBm/RBW]: 2.991
 Resolution Bandwidth [kHz]: 100 kHz



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Peak Power Spectral Density

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.10.2
 Operational Mode: IEEE 802.15.4 (DSSS/250 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Peak Frequency [MHz]: 2469.904
 Spectral Density [dBm/RBW]: 3.174
 Resolution Bandwidth [kHz]: 100 kHz



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3.5 Test Conditions and Results - AC powerline conducted emissions

3.5.1 Information

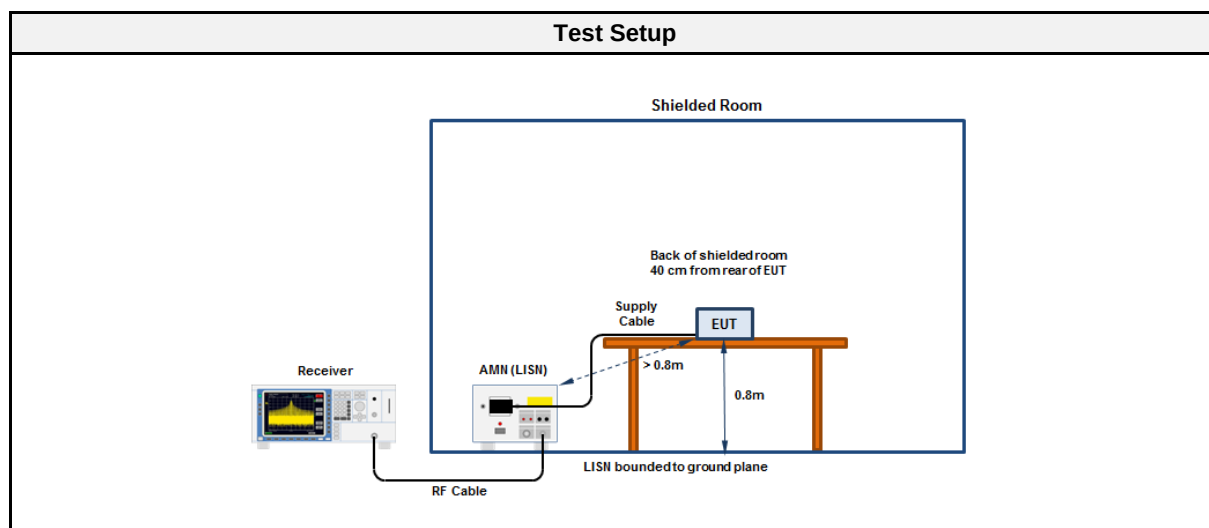
Test Information	
Reference	FCC § 15.207; ISED RSS-247, Issue 2 (section 3.1)
Measurement Method	ANSI C63.10 6.2
Measurement Uncertainty	± 3.82 dB
Operator	Toralf Jahn
Date	2020-10-05

3.5.2 Limits

Limits		
Frequency [MHz]	Quasi-Peak [dBμV]	Average [dBμV]
0.15 - 0.5	66 - 56*	56 - 46*
0.5 - 5	56	46
5 - 30	60	50

* Limit decreases linearly with the logarithm of the frequency

3.5.3 Setup



3.5.4 Equipment

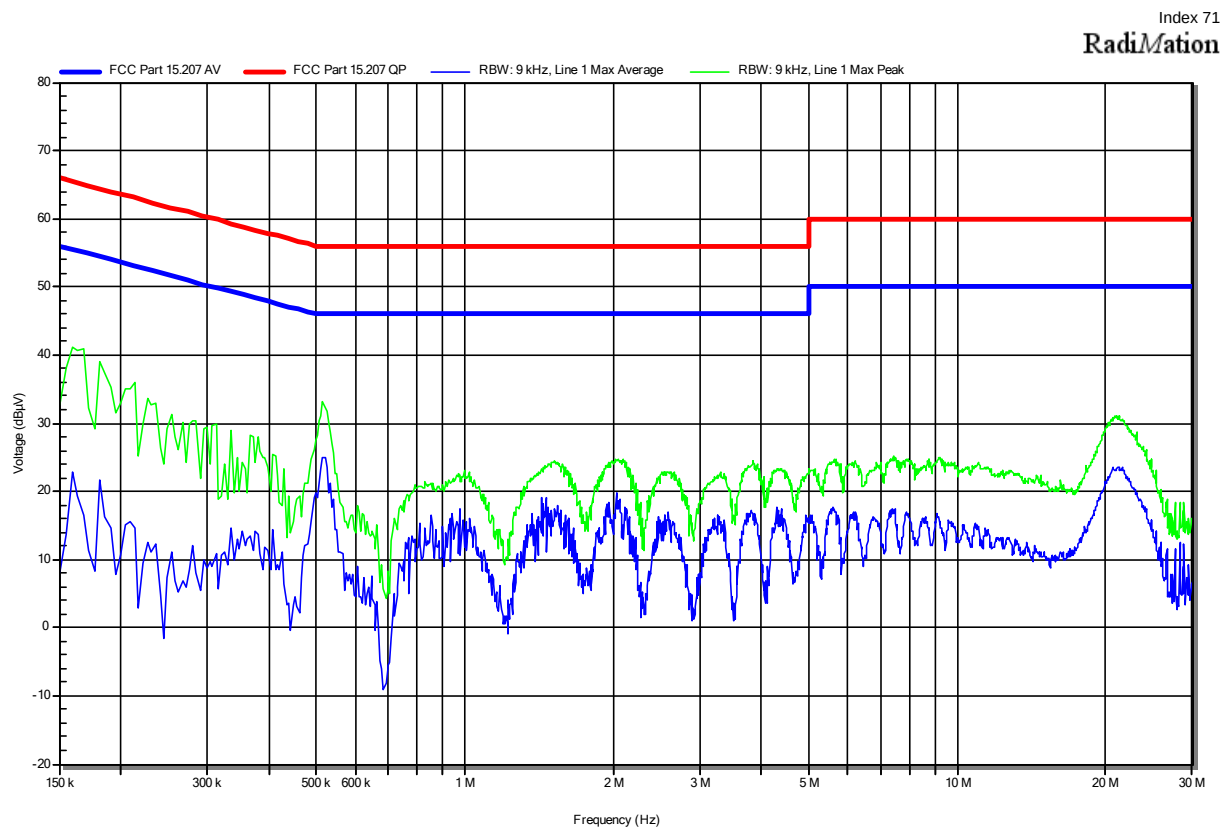
Test Software			
Description	Manufacturer	Name	Version
EMC Software	DARE Instruments	RadiMation	2016.1.10

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
EMI Test Receiver	R&S	ESR7	EF00943	2020-07	2021-07
LISN	Schwarzbeck	NSLK 8127 RC	EF01592	2020-07	2021-07

Conducted emissions at the mains power port according to FCC part 15 C

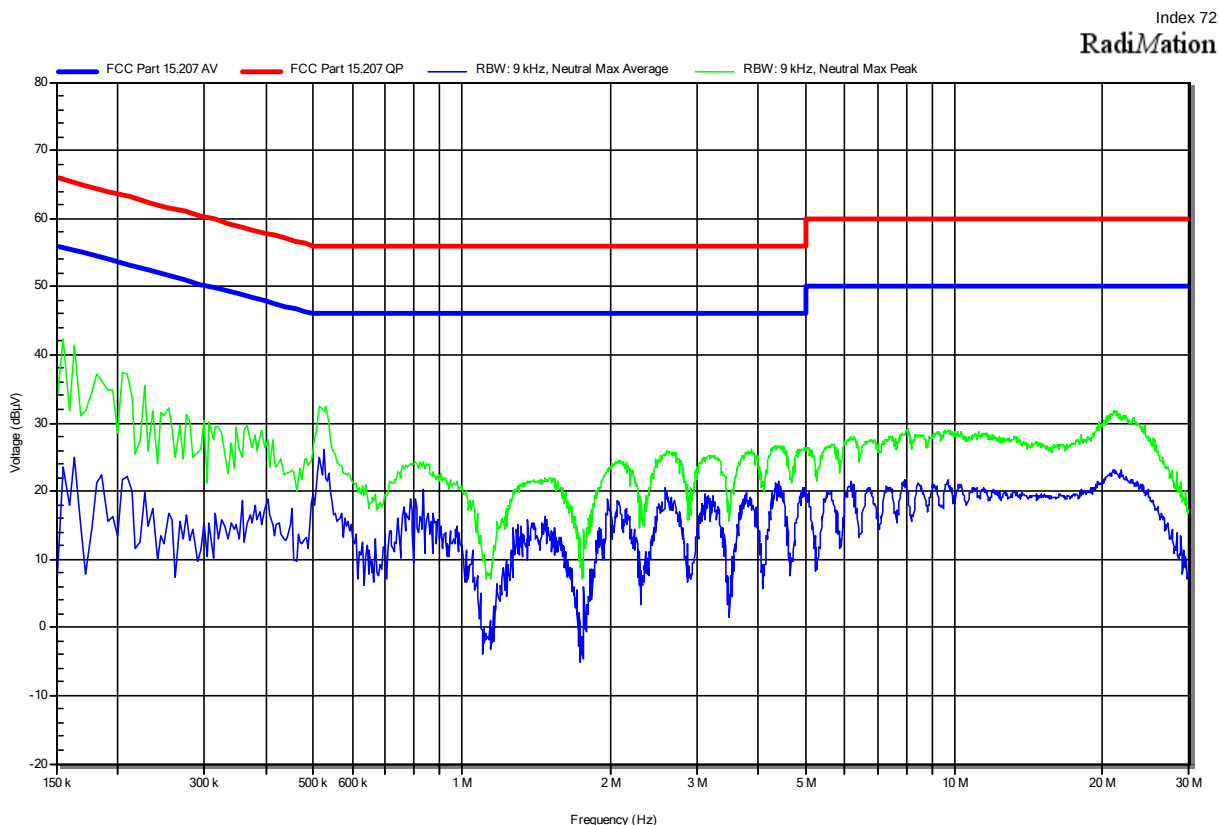
Project Number:	G0M-2007-9170
Applicant:	SKAN Deutschland GmbH
Model Description:	Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
Model:	Network Extender wirelessGlovTester evolution 2
Test Sample ID:	30432
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Date:	2020-10-05
Operating Conditions:	ambient temperature: 24 °Celsius°C power input: 24 VDC (120VAC/DC adaptor)
LISN:	Schwarzbeck NSLK 8127 RC L
Operational Mode & EUT Configuration:	IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17
Applied to Port:	AC

Note 1:



Conducted emissions at the mains power port according to FCC part 15 C

Project Number:	G0M-2007-9170
Applicant:	SKAN Deutschland GmbH
Model Description:	Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
Model:	Network Extender wirelessGlovTester evolution 2
Test Sample ID:	30432
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Jahn
Test Date:	2020-10-05
Operating Conditions:	ambient temperature: 24 °Celsius°C power input: 24 VDC (120VAC/DC adaptor)
LISN:	Schwarzbeck NSLK 8127 RC N
Operational Mode & EUT Configuration:	IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17
Applied to Port:	AC
Note 1:	



3.6 Test Conditions and Results - Band-edge compliance

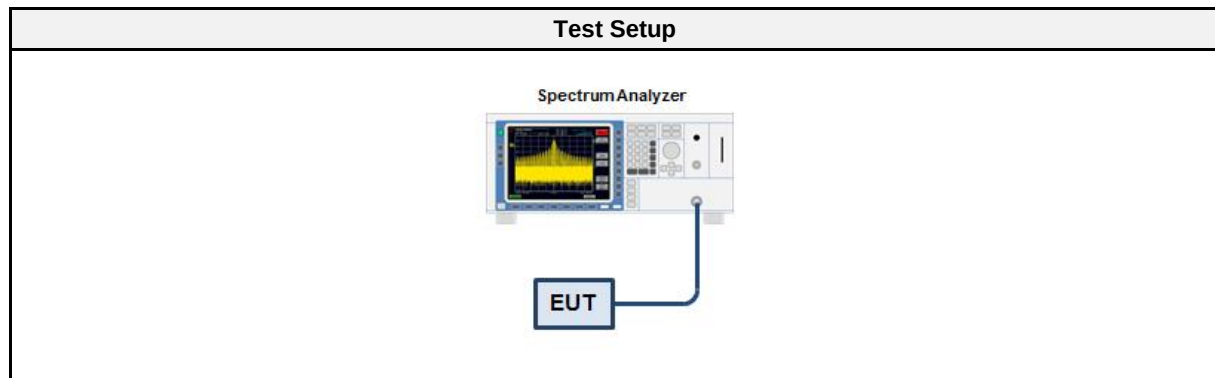
3.6.1 Information

Test Information	
Reference	FCC § 15.247(d); ISSED RSS-247, Issue 2 (section 5.5)
Measurement Method	ANSI C63.10 11.13
Measurement Uncertainty	± 3.64 dB
Operator	Toralf Jahn
Date	2020-10-01

3.6.2 Limits

Limits	
Power Measurement	Out-of-band attenuation [dB]
Peak	20
RMS	30

3.6.3 Setup



3.6.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSW 43	EF00896	2020-07	2021-07
Cable	Gigalane	SMS111B	EF00779 CAABB	2018-10	2020-10

3.6.5 Procedure

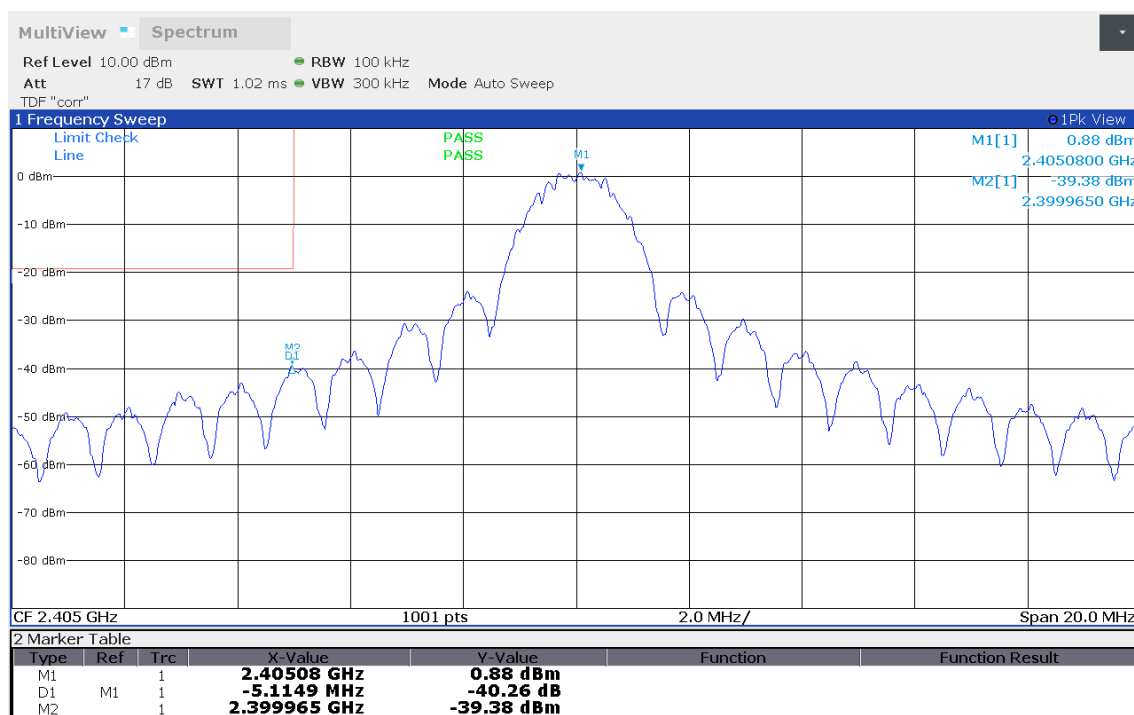
Test Procedure
1. EUT set to test mode (Communication tester is used if needed) 2. Span set around lower band edge and detector is set to peak and max hold 3. Resolution bandwidth is set to 100 kHz 4. Markers are set to peak emission levels within frequency band and outside frequency band 5. Band edge attenuation is determined from level difference

3.6.6 Results

Test Results Antenna Port 1				
Mode	Channel [MHz]	Out-of-band Attenuation [dB]	Limit [dB]	Verdict
O-QPSK	2405	-40.26	-20	PASS
O-QPSK	2470	-56.74	-20	PASS

Emissions in nonrestricted frequency bands at the Band-edge

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.11
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 11, 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Band-edge: Lower
 In-band Frequency [MHz]: 2405.08
 Max. in-band Level [dBm/100 kHz]: 0.88
 Out-of-band Frequency [MHz]: 2399.965
 Max. out-of-band Level [dBm/100 kHz]: -39.381
 Attenuation [dB]: -40.26



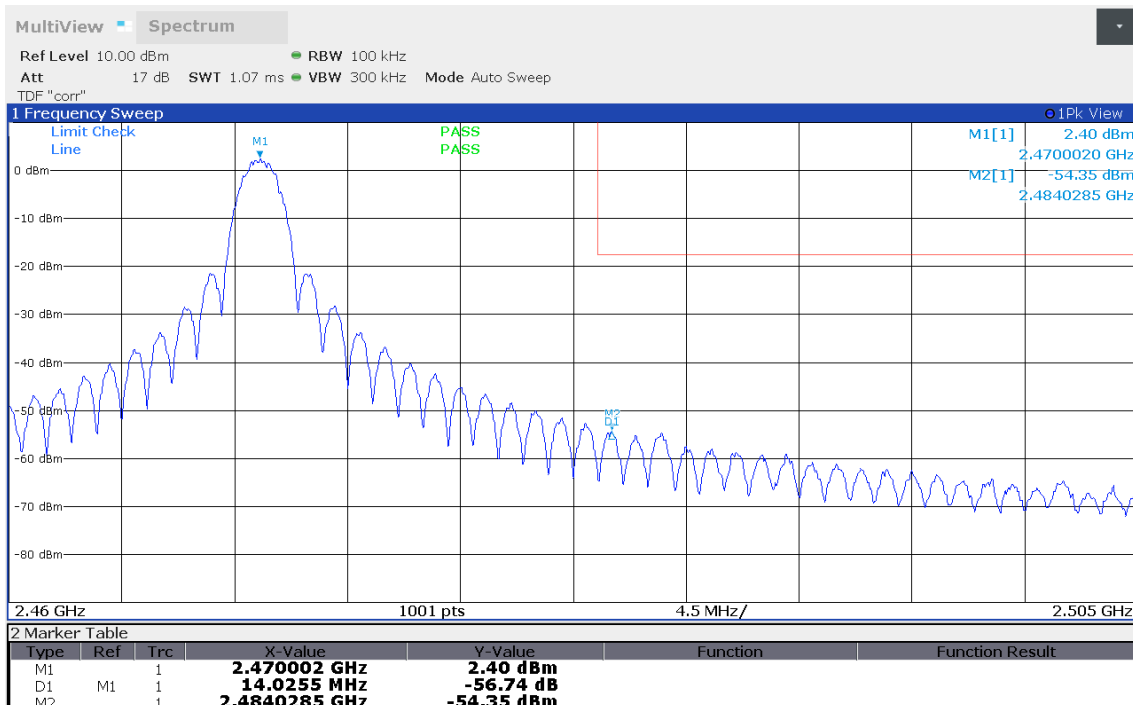
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Test Report No.: G0M-2007-9170-TFC247ZB-V01

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

Emissions in nonrestricted frequency bands at the Band-edge

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.11
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Band-edge: Upper
 In-band Frequency [MHz]: 2470.002
 Max. in-band Level [dBm/100 kHz]: 2.398
 Out-of-band Frequency [MHz]: 2484.028
 Max. out-of-band Level [dBm/100 kHz]: -54.345
 Attenuation [dB]: -56.74



14:57:15 01.10.2020

3.7 Test Conditions and Results - Conducted spurious emissions

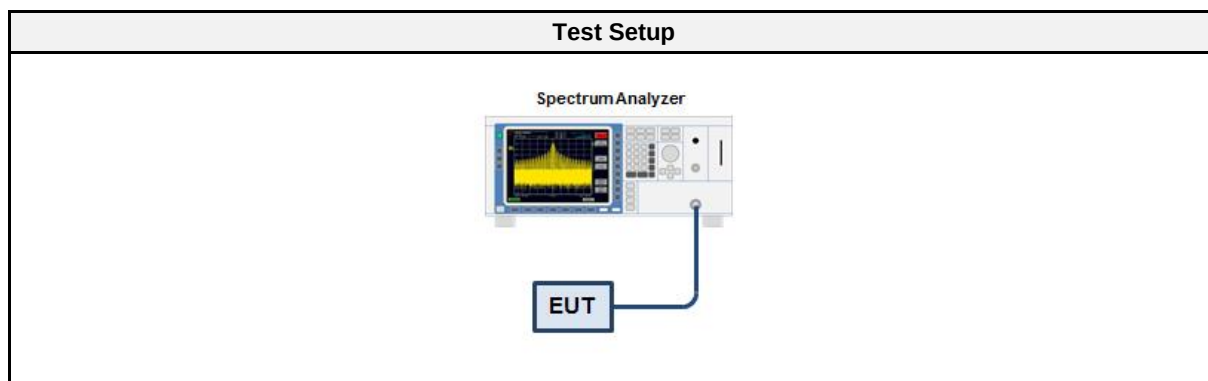
3.7.1 Information

Test Information	
Reference	FCC § 15.247(d); ISED RSS-247, Issue 2 (section 5.5)
Measurement Method	ANSI C63.10 11.11
Measurement Uncertainty	± 4.25 dB
Operator	Toralf Jahn
Date	2020-10-01

3.7.2 Limits

Limits	
Power Measurement	Out-of-band attenuation [dB]
Peak	20
RMS	30

3.7.3 Setup



3.7.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSW 43	EF00896	2020-07	2021-07
Cable	Gigalane	SMS111B	EF00779 CAABB	2018-10	2020-10

3.7.5 Procedure

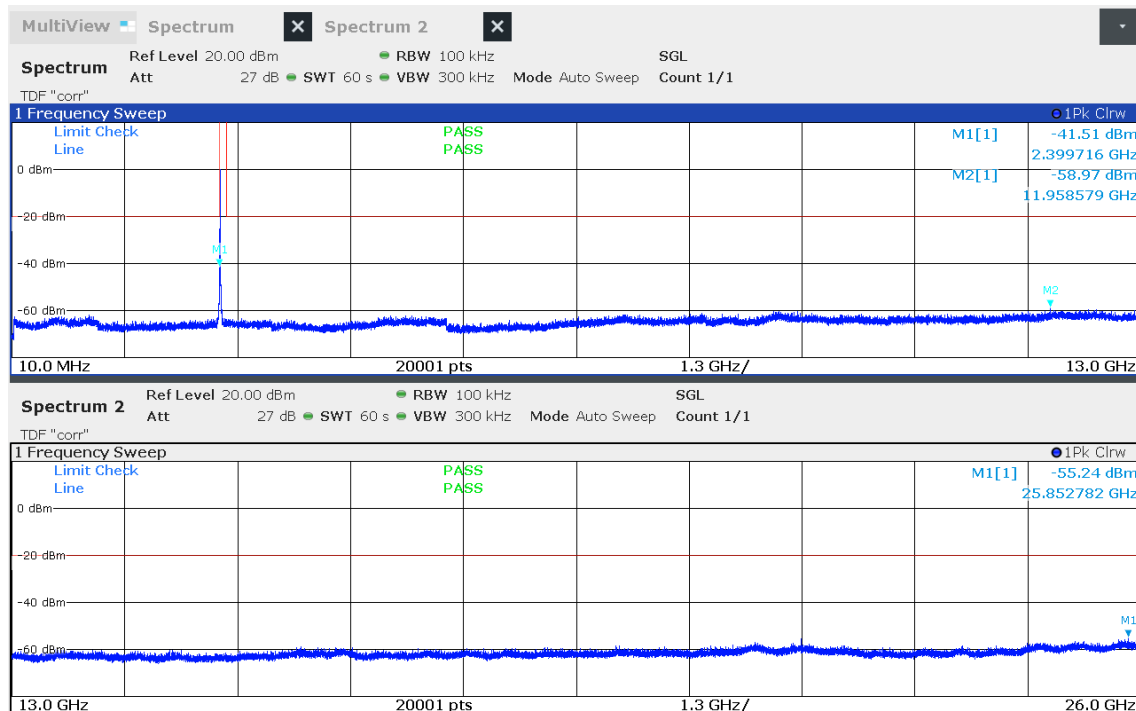
Test Procedure
1. EUT set to test mode (Communication tester is used if needed) 2. Span set around lower band edge and detector is set to peak and max hold 3. Resolution bandwidth is set to 100 kHz 4. Markers are set to peak emission levels outside frequency band

3.7.6 Results

Test Results		
Mode	Channel [MHz]	Verdict
O-QPSK	2405	PASS
O-QPSK	2435	PASS
O-QPSK	2470	PASS

Conducted Spurious Emissions

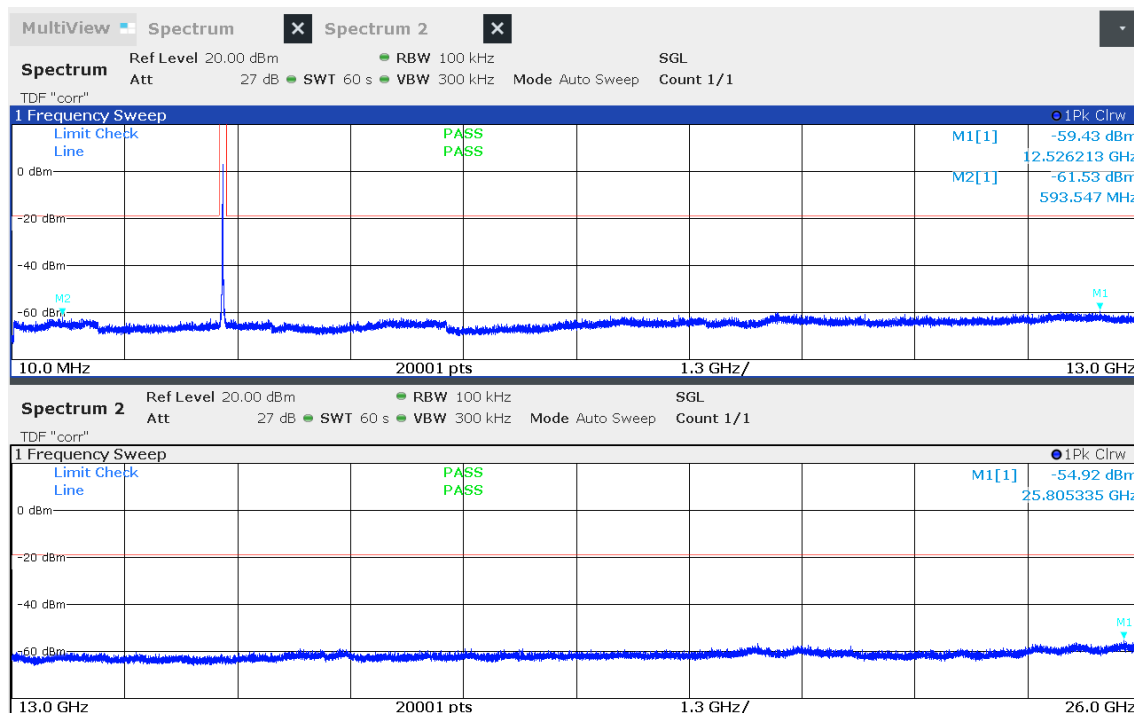
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.11
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 11, 2405 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Max. in-band Frequency [MHz]: 2404.7
 Max. in-band Level [dBm/100 kHz]: -0.1
 Out-of-band Limit [dBm/100 kHz]: -20.1



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Conducted Spurious Emissions

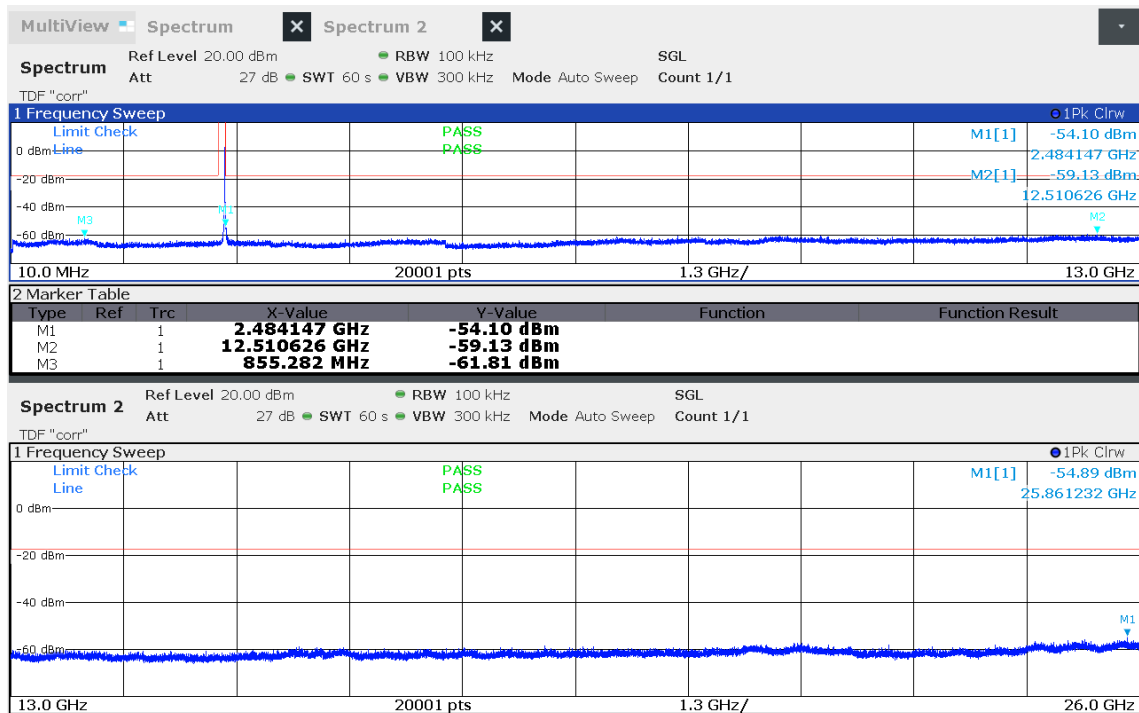
Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.11
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 17, 2435 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Max. in-band Frequency [MHz]: 2435.1
 Max. in-band Level [dBm/100 kHz]: 1.2
 Out-of-band Limit [dBm/100 kHz]: -18.8



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Conducted Spurious Emissions

Project Number: G0M-2007-9170
 Applicant: SKAN Deutschland GmbH
 Model Description: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Sample ID: 30432
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.11
 Operational Mode: IEEE 802.15.4 (2000 kbps), Channel: 24, 2470 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Toralf Jahn
 Test Site: Eurofins Product Service GmbH
 Test Date: 2020-10-01
 Note: Antenna Port 1
 Max. in-band Frequency [MHz]: 2469.7
 Max. in-band Level [dBm/100 kHz]: 2.5
 Out-of-band Limit [dBm/100 kHz]: -17.5



14:37:54 01.10.2020

3.8 Test Conditions and Results - Transmitter radiated emissions

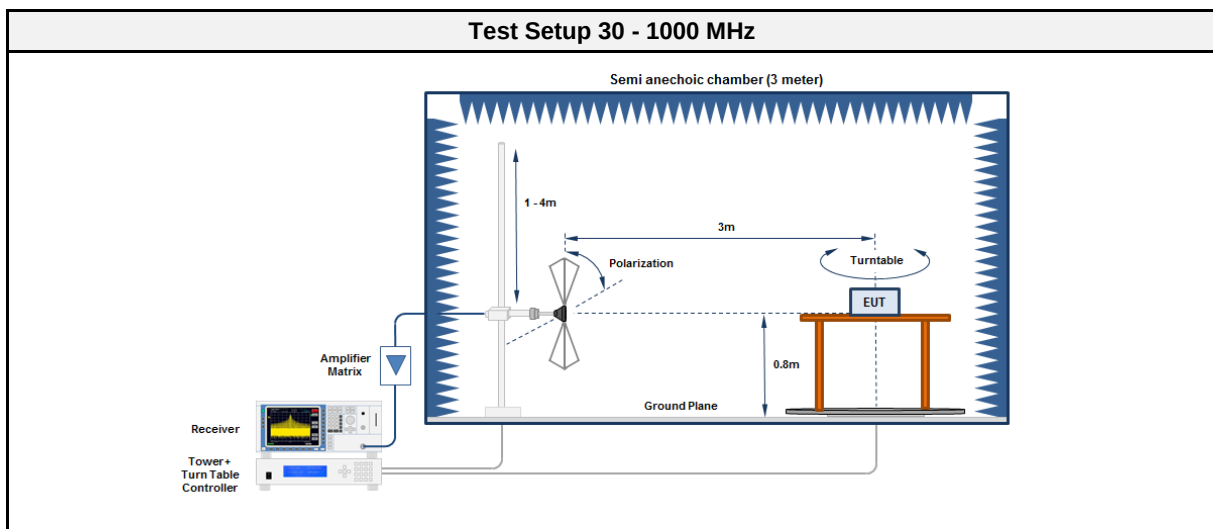
3.8.1 Information

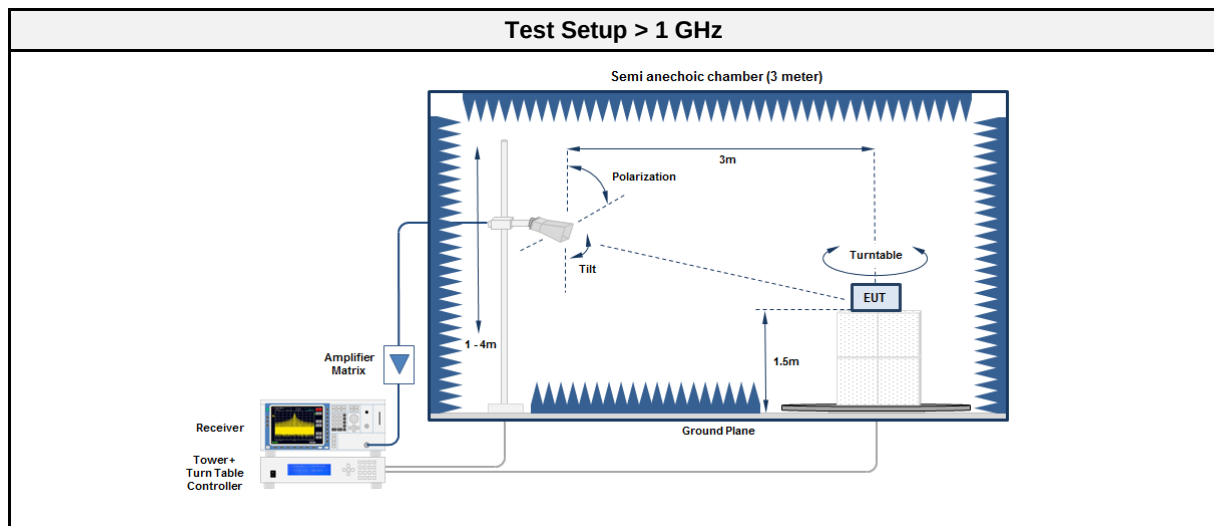
Test Information	
Reference	FCC § 15.247(d); FCC § 15.209; ISSED RSS-Gen, Issue 5 (section 6.13)
Measurement Method	ANSI C63.10 6.4, 6.5, 6.6, 11.12
Measurement Uncertainty	± 5.95 dB
Operator	Toralf Jahn
Date	2020-10-02

3.8.2 Limits

Limits			
Frequency [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

3.8.3 Setup





3.8.4 Equipment

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

Test Equipment 30 - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2018-07	2021-07
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2020-06	2021-06
Antenna	R&S	HK 116	EF00030	2019-04	2022-04
Antenna	R&S	HL 223	EF00187	2019-05	2022-05

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2018-07	2021-07
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2020-06	2021-06
Antenna	Schwarzbeck	BBHA 9120D	EF00018	2019-10	2022-10
Antenna	Amplifier Research	AT4560	EF00302	2019-05	2021-05

3.8.5 Procedure

Test Procedure 30 - 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

3.8.6 Results

Test Results						
Channel [MHz]	Emission [MHz]	Level [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Margin [dB]
2405	74.0162	24.70	qpk	ver	40.00	-15.26
2405	608.8862	35.70	pk	ver	46.00	-10.30
2435	73.0555	26.70	qpk	ver	40.00	-13.32
2435	611.3479	35.70	pk	ver	46.00	-10.27
2470	73.3077	26.00	qpk	ver	40.00	-13.96
2470	611.9484	36.10	pk	ver	46.00	-09.88
2405	2400	59.92	pk	hor	74.00	-14.08
2405	2400	55.56	pk	ver	74.00	-18.44
2405	4808	39.61	pk	hor	74.00	-34.39
2405	4808	41.66	pk	ver	74.00	-32.34
2435	4872	42.51	pk	hor	74.00	-31.49
2435	4872	41.38	pk	ver	74.00	-32.62

3.9 Test Conditions and Results - Receiver radiated emissions

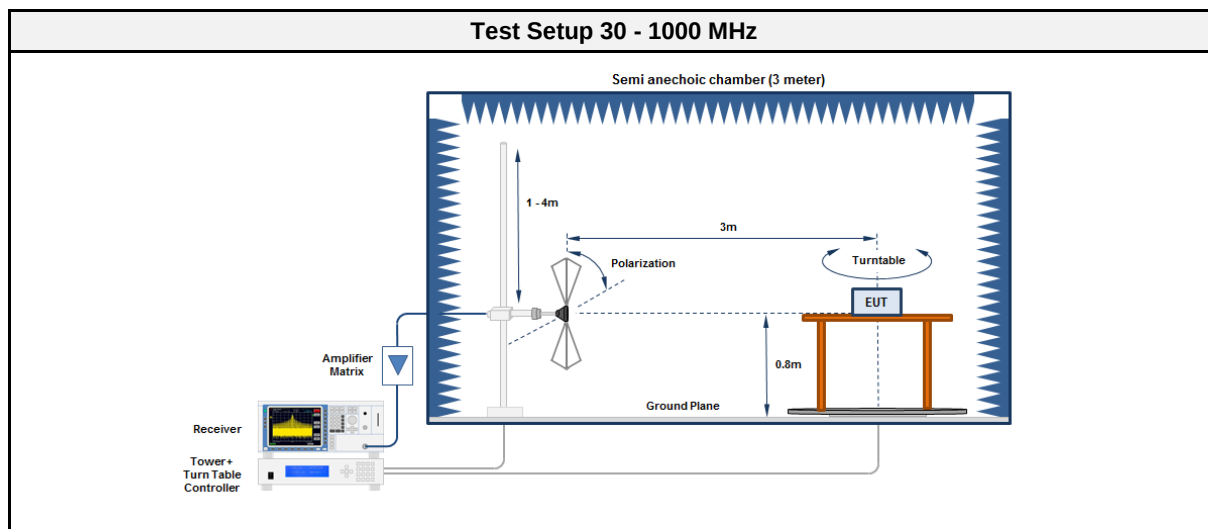
3.9.1 Information

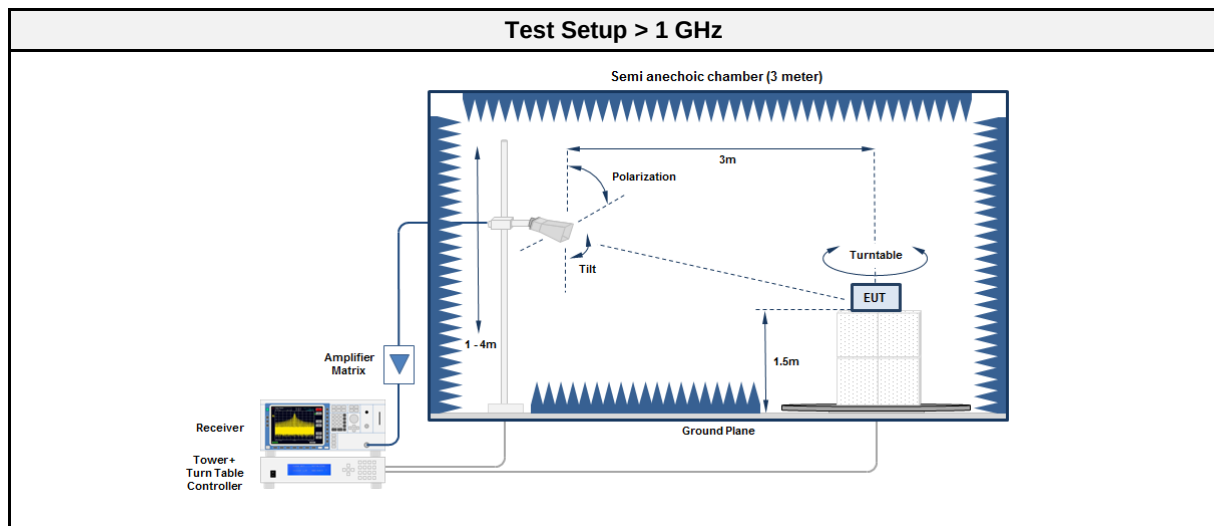
Test Information	
Reference	ISED RSS-247, Issue 2 (section 3.1)
Measurement Method	ANSI C63.10 6.5, 6.6, 11.12
Measurement Uncertainty	± 5.95 dB
Operator	Toralf Jahn
Date	2020-10-05

3.9.2 Limits

Limits			
Frequency [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

3.9.3 Setup





3.9.4 Equipment

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

Test Equipment 30 - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2018-07	2021-07
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2020-06	2021-06
Antenna	R&S	HK 116	EF00030	2019-04	2022-04
Antenna	R&S	HL 223	EF00187	2019-05	2022-05

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2018-07	2021-07
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2020-06	2021-06
Antenna	Schwarzbeck	BBHA 9120D	EF00018	2019-10	2022-10
Antenna	Amplifier Research	AT4560	EF00302	2019-05	2021-05

3.9.5 Procedure

Test Procedure 30 - 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

3.9.6 Results

Test Results						
Channel [MHz]	Emission [MHz]	Level [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Margin [dB]
2405 - 2470	499.9999	36.00	qpk	hor	46.00	-10.00

ANNEX A Transmitter spurious emissions

Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Measurement software: RadiMation, version 2020.1.8

Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

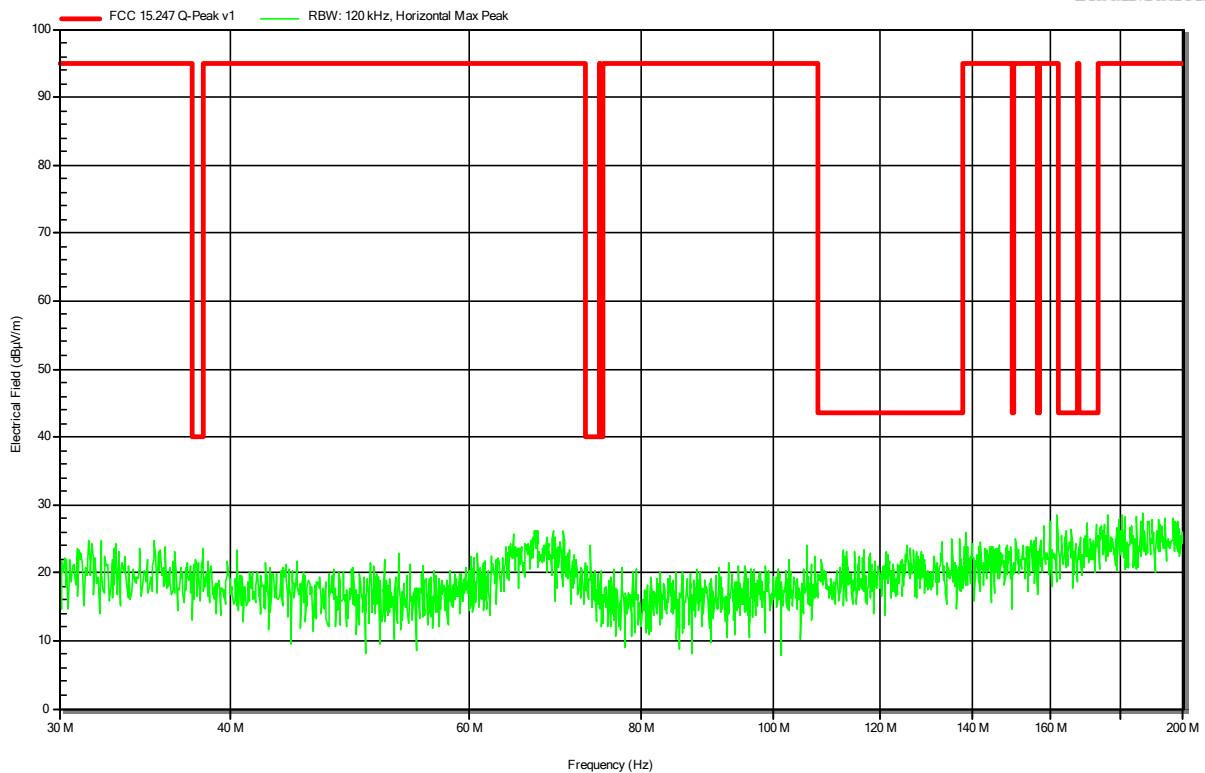
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11

Test Date: 2020-10-05

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

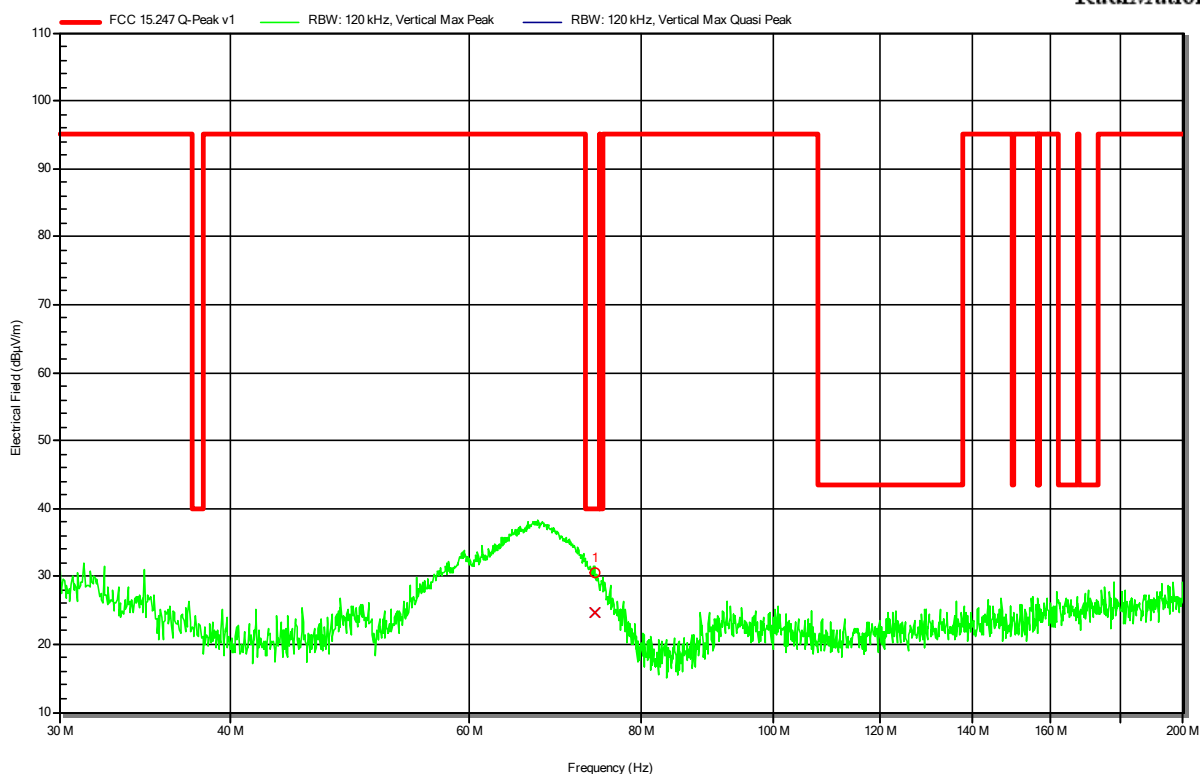
Applicant: SKAN Deutschland GmbH
 EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
 Antenna: Rohde & Schwarz HK 116, Vertical
 Measurement distance: 3 m
 Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11

Test Date: 2020-10-05
 Note: EUT hor

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RadiMation



Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status
74.0162 MHz	24.7 dBµV/m	40 dBµV/m	-15.26 dB	Pass

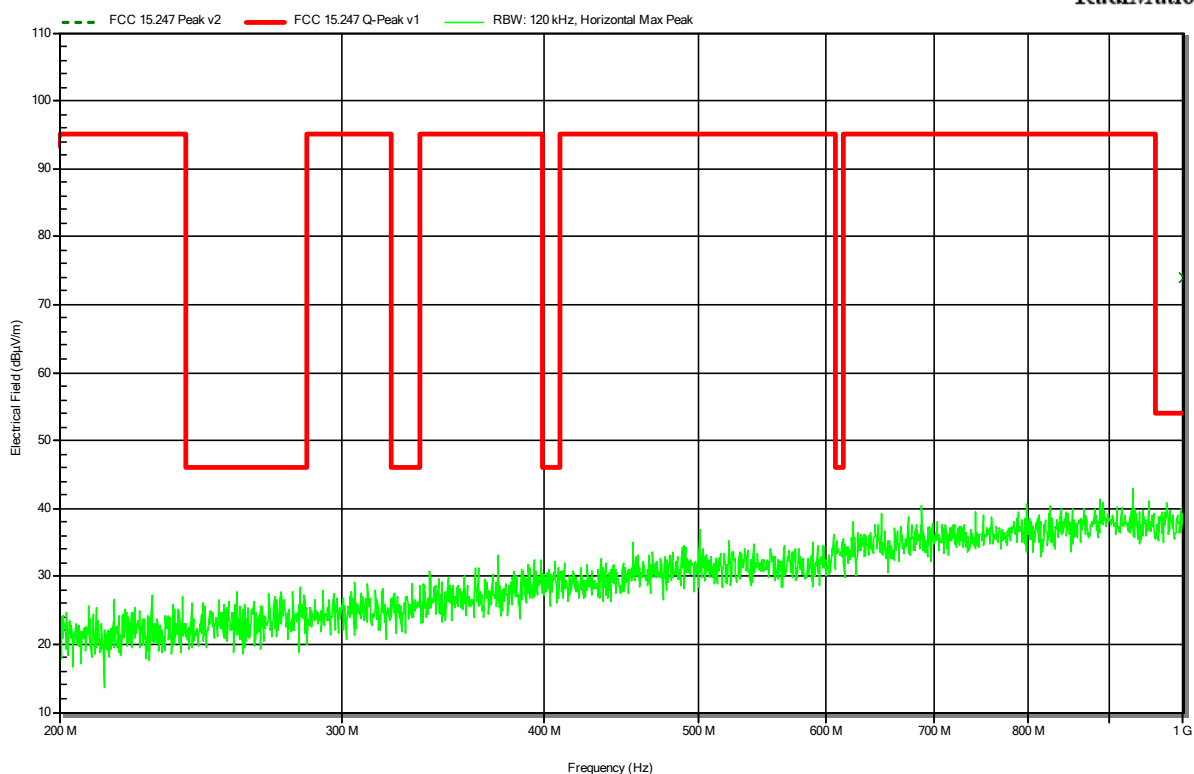
Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
 EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
 Antenna: Rohde & Schwarz HL 223, Horizontal
 Measurement distance: 3 m
 Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11
 Test Date: 2020-10-05
 Note: EUT hor

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RadiMation



Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Measurement software: RadiMation, version 2020.1.8

Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

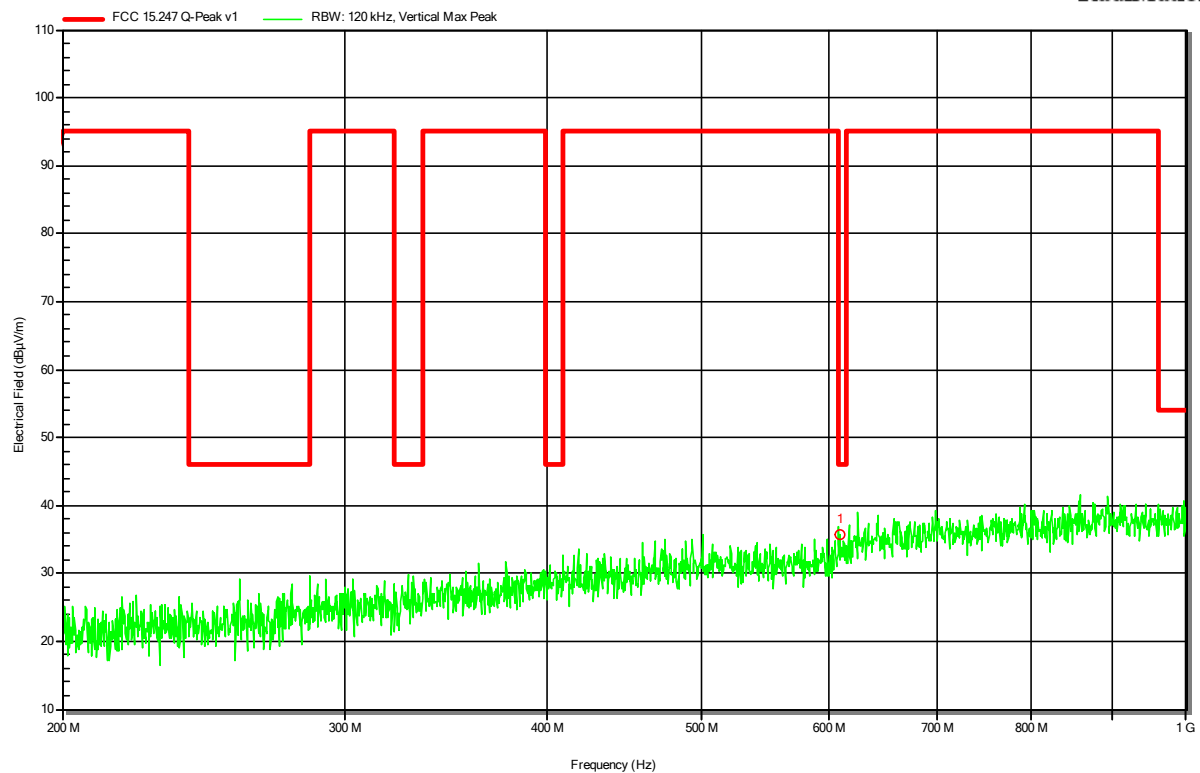
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11

Test Date: 2020-10-05

Note: EUT hor

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RadiMation



Frequency
608.8862 MHz

Peak
35.7 dBμV/m

Peak Limit
46 dBμV/m

Peak Difference
-10.3 dB

Status
Pass

Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Measurement software: RadiMation, version 2020.1.8

Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

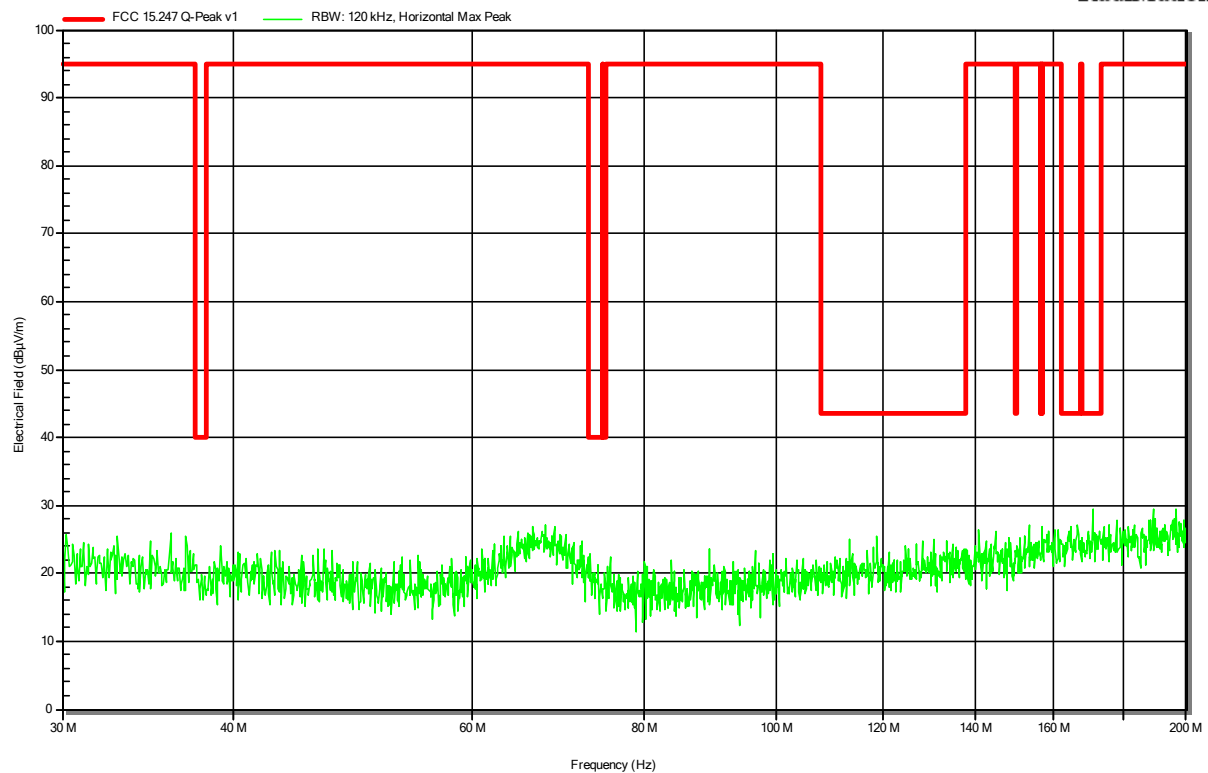
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-05

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

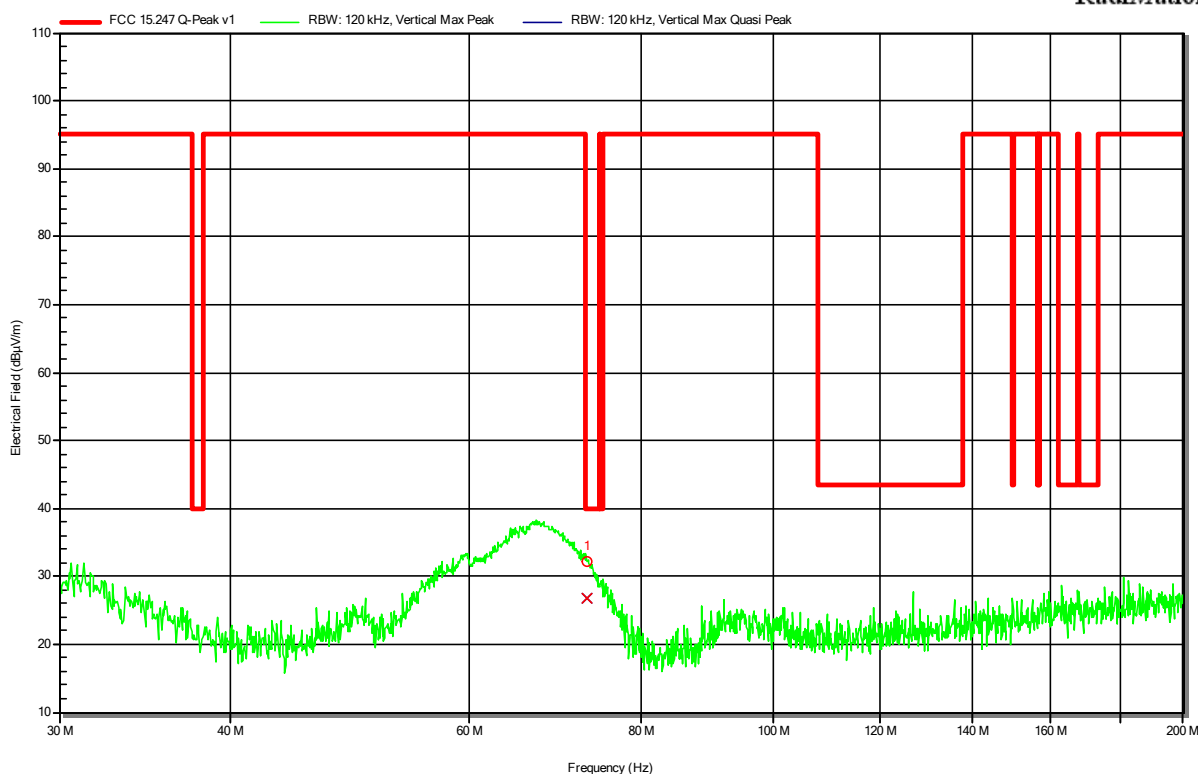
Applicant: SKAN Deutschland GmbH
 EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
 Antenna: Rohde & Schwarz HK 116, Vertical
 Measurement distance: 3 m
 Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-05
 Note: EUT hor

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RadiMation



Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status
73.0555 MHz	26.7 dBµV/m	40 dBµV/m	-13.32 dB	Pass

Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Measurement software: RadiMation, version 2020.1.8

Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

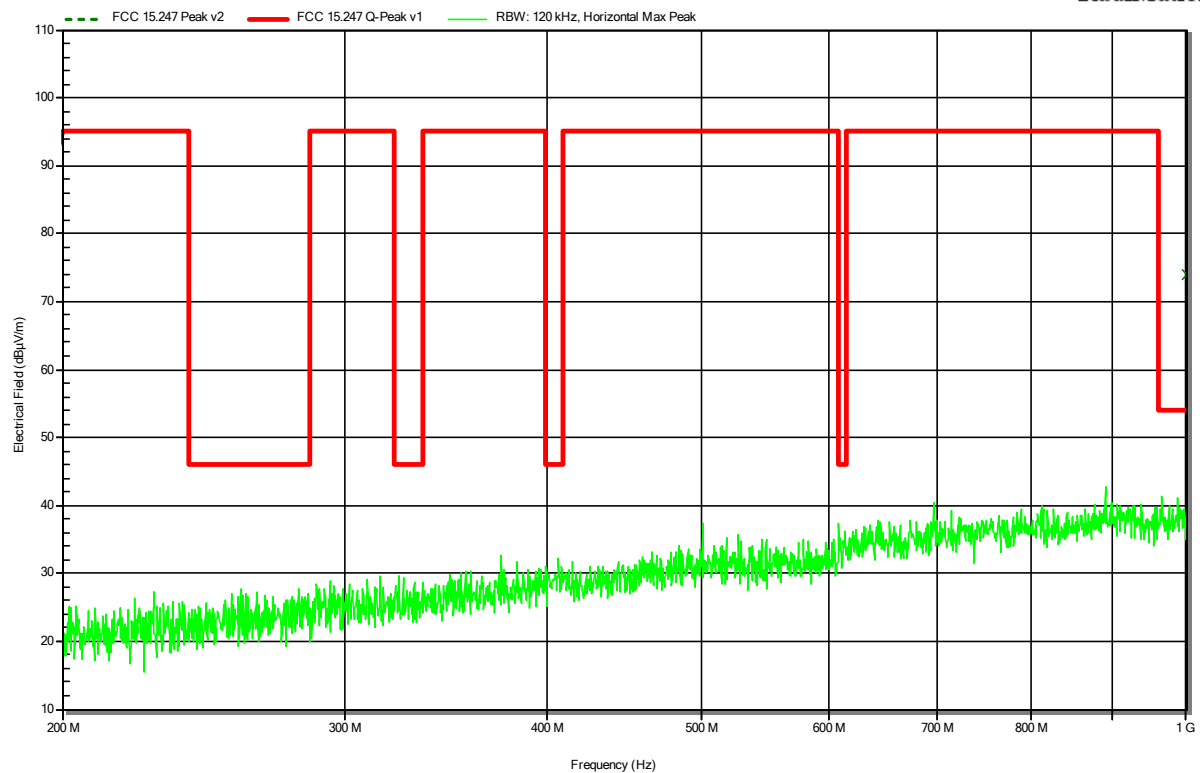
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-05

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

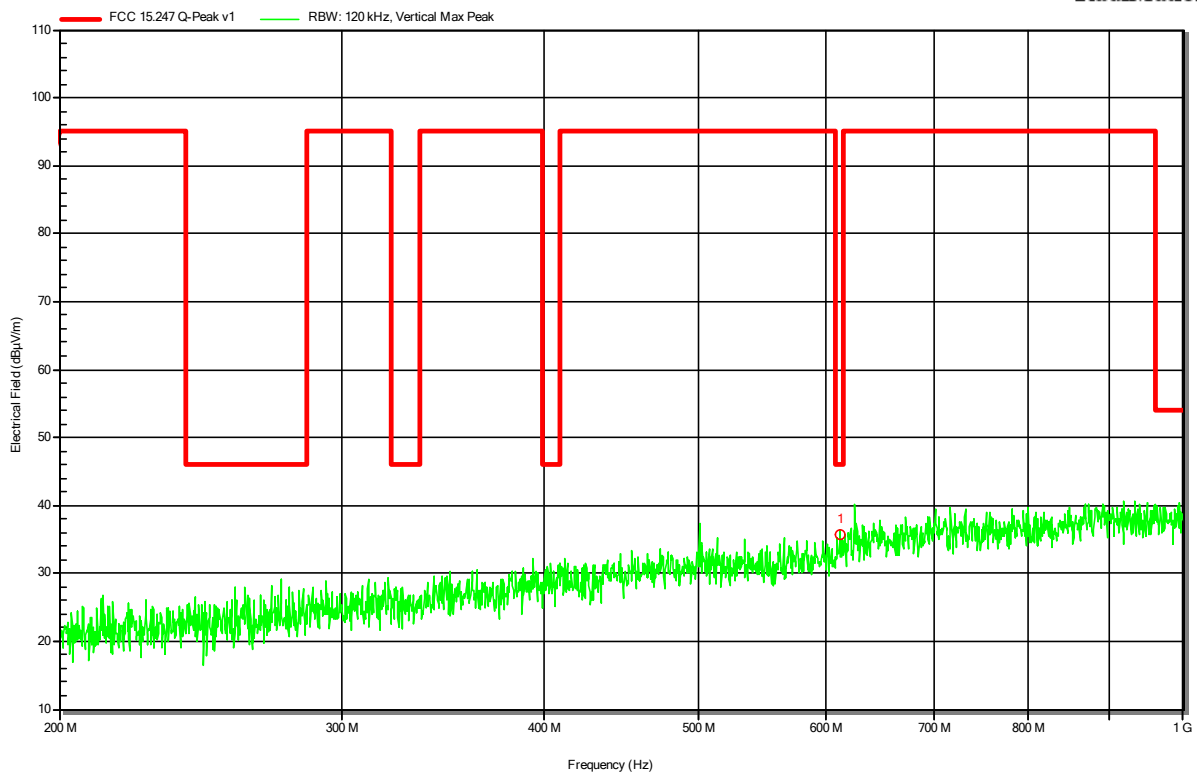
Applicant: SKAN Deutschland GmbH
 EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
 Antenna: Rohde & Schwarz HL 223, Vertical
 Measurement distance: 3 m
 Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-05
 Note: EUT hor

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RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Status
611.3479 MHz	35.7 dBμV/m	46 dBμV/m	-10.27 dB	Pass

Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Measurement software: RadiMation, version 2020.1.8

Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

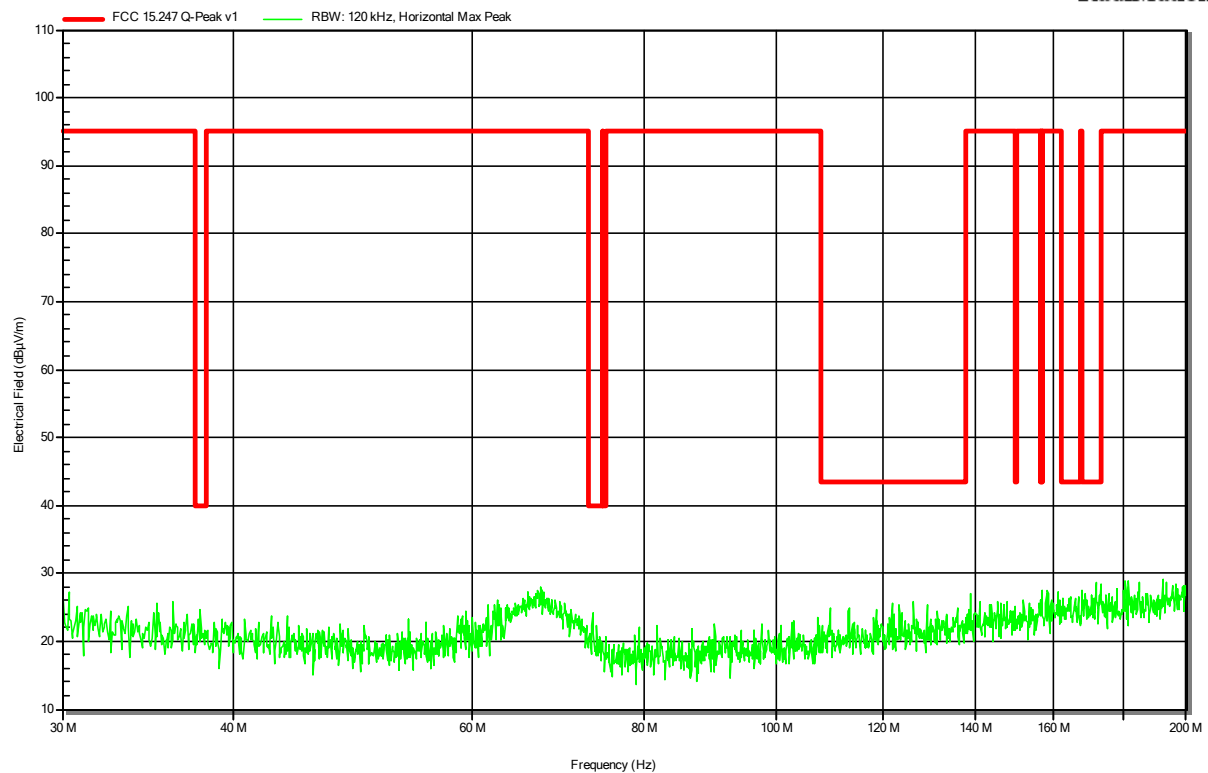
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-05

Note: EUT hor

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RadiMation



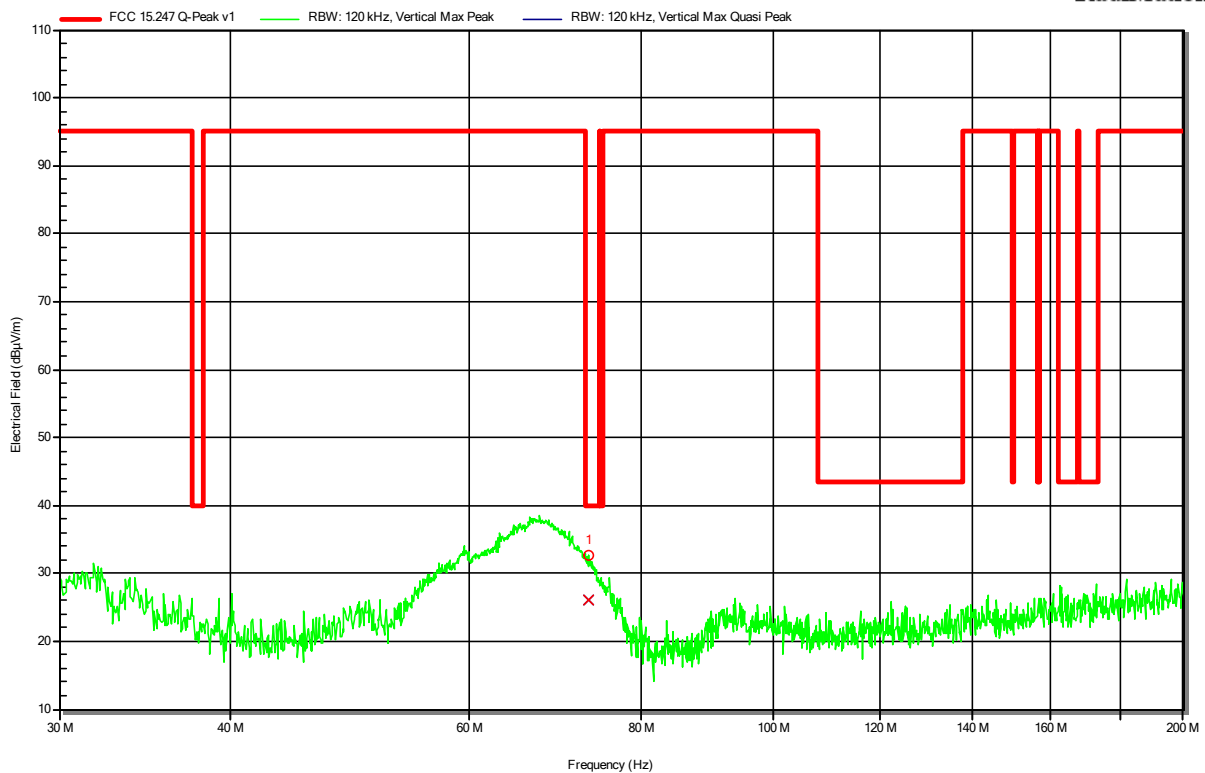
Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio
wireless glove tester
Model: Network Extender wirelessGlovTester evolution 2
Test Site: Eurofins Product Service GmbH
Operator: Mr. Jahn
Measurement software: RadiMation, version 2020.1.8
Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
Antenna: Rohde & Schwarz HK 116, Vertical
Measurement distance: 3 m
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps,
Duty cycle = 100%, Power = 13, Antenna 1, Channel 24
Test Date: 2020-10-05
Note: EUT hor

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RadiMation



Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status
73.3077 MHz	26 dBμV/m	40 dBμV/m	-13.96 dB	Pass

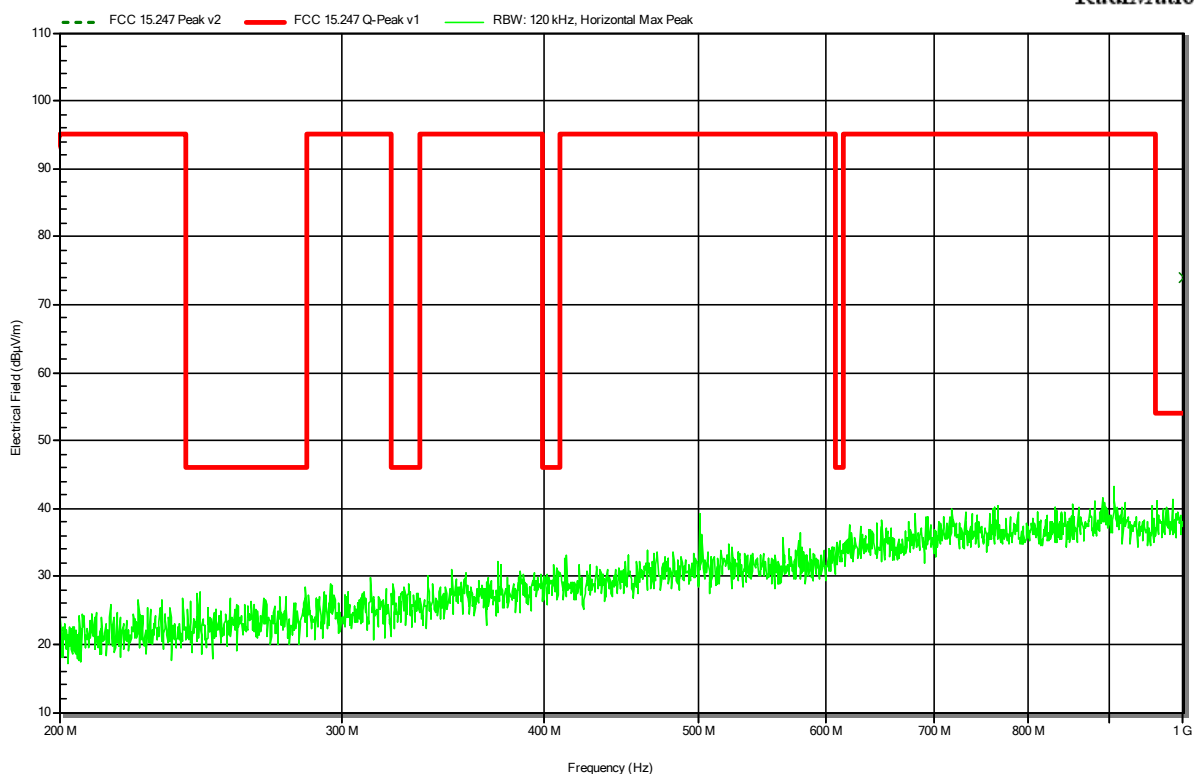
Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
 EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
 Antenna: Rohde & Schwarz HL 223, Horizontal
 Measurement distance: 3 m
 Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24
 Test Date: 2020-10-05
 Note: EUT hor

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RadiMation



Spurious emissions according to FCC 47 CFR 15.247

Project number: G0M-2007-9170

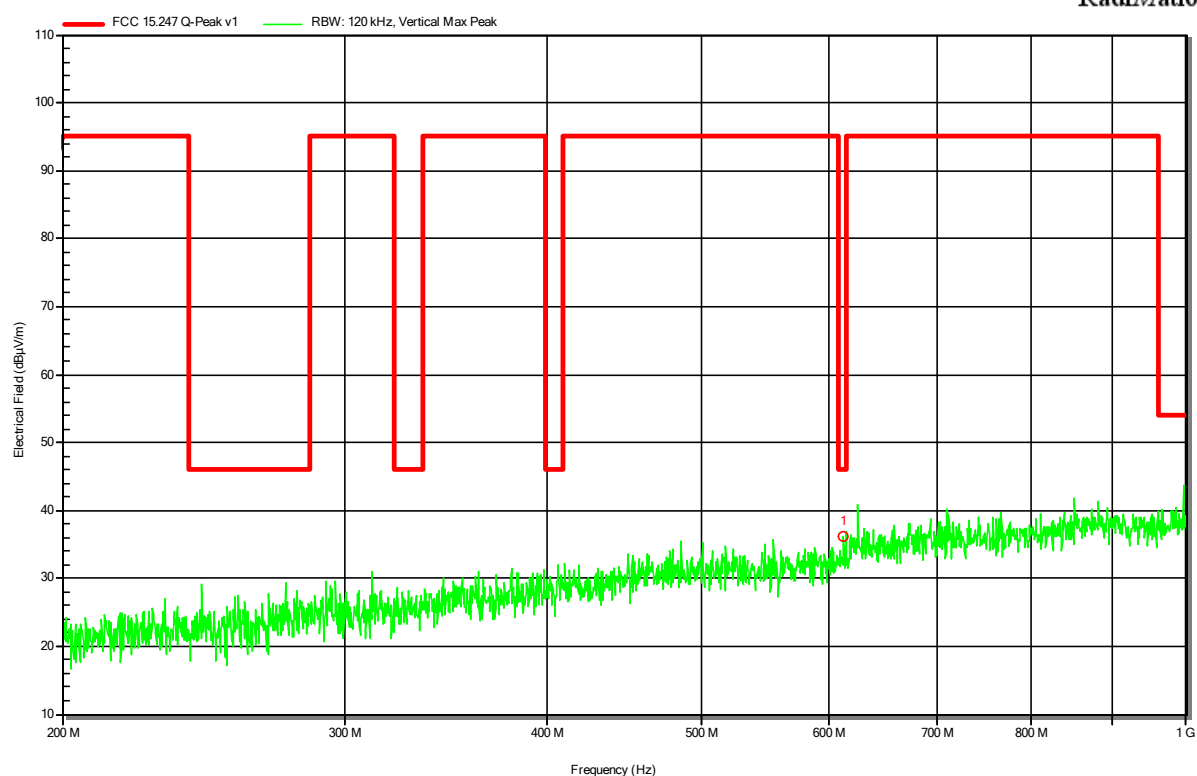
Applicant: SKAN Deutschland GmbH
 EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
 Antenna: Rohde & Schwarz HL 223, Vertical
 Measurement distance: 3 m
 Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-05
 Note: EUT hor

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RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Status
611.9484 MHz	36.1 dBµV/m	46 dBµV/m	-9.88 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

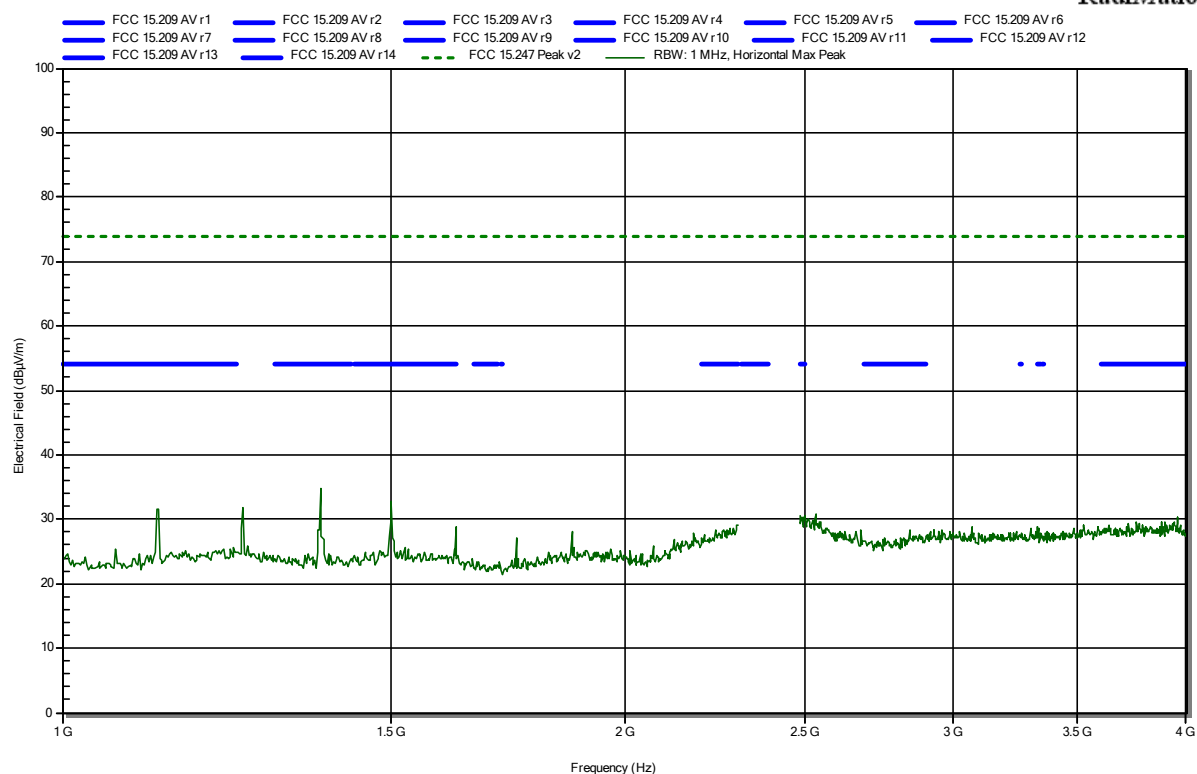
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

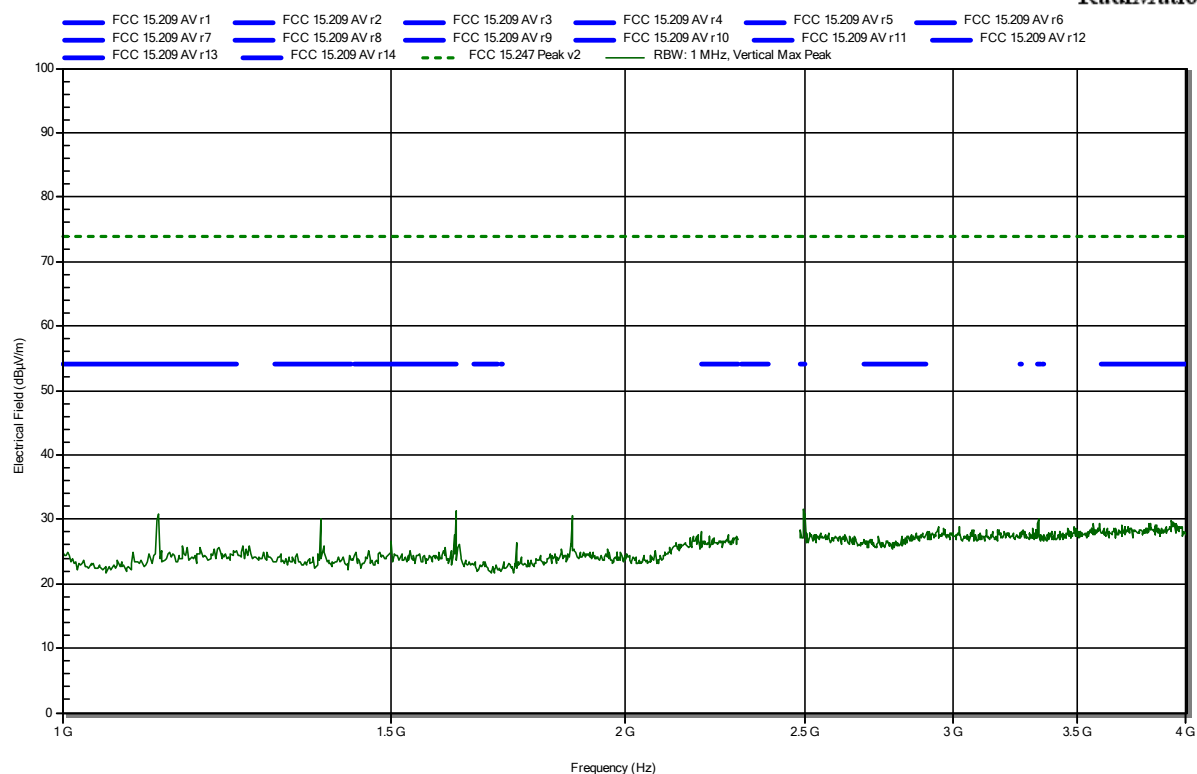
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



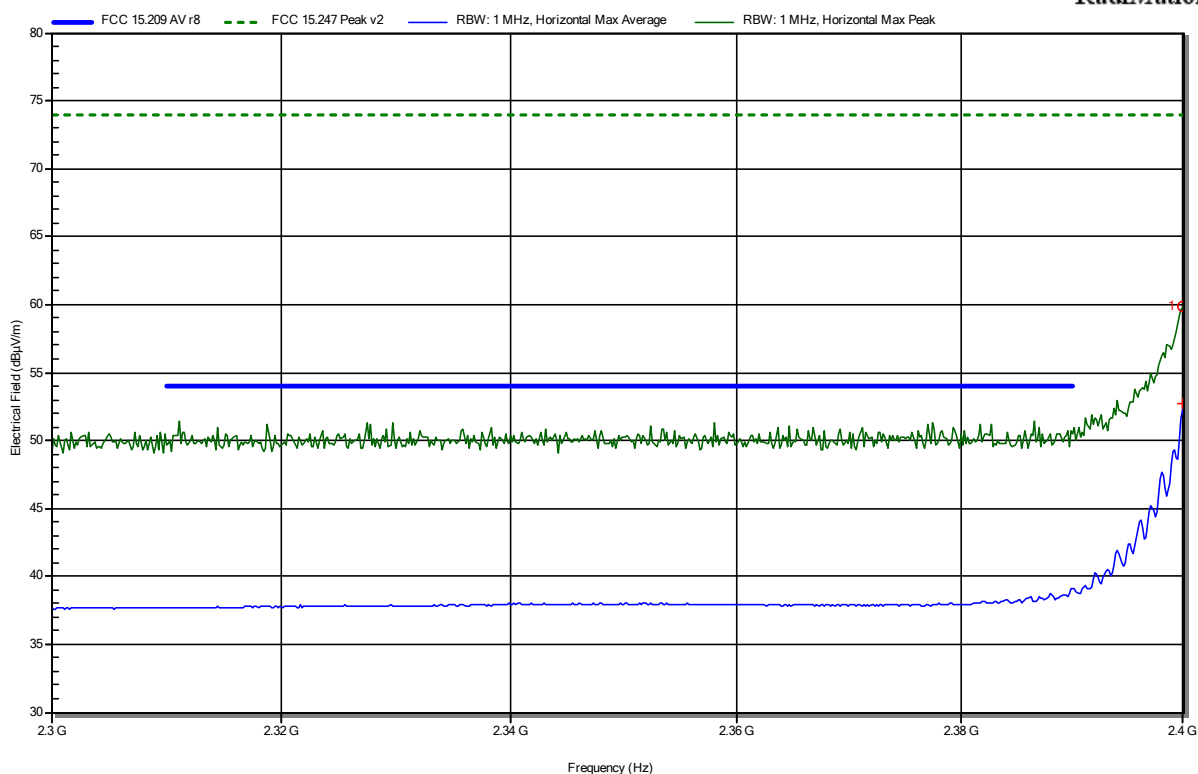
Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
 EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Site: Eurofins Product Service GmbH
 Operator: Toralf Jahn
 Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement distance: 1 m converted to 3m
 Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11
 Test Date: 2020-10-02
 Note: lower bandedge, EUT hor

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RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4 GHz	59.92 dBµV/m	74 dBµV/m	-14.08 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

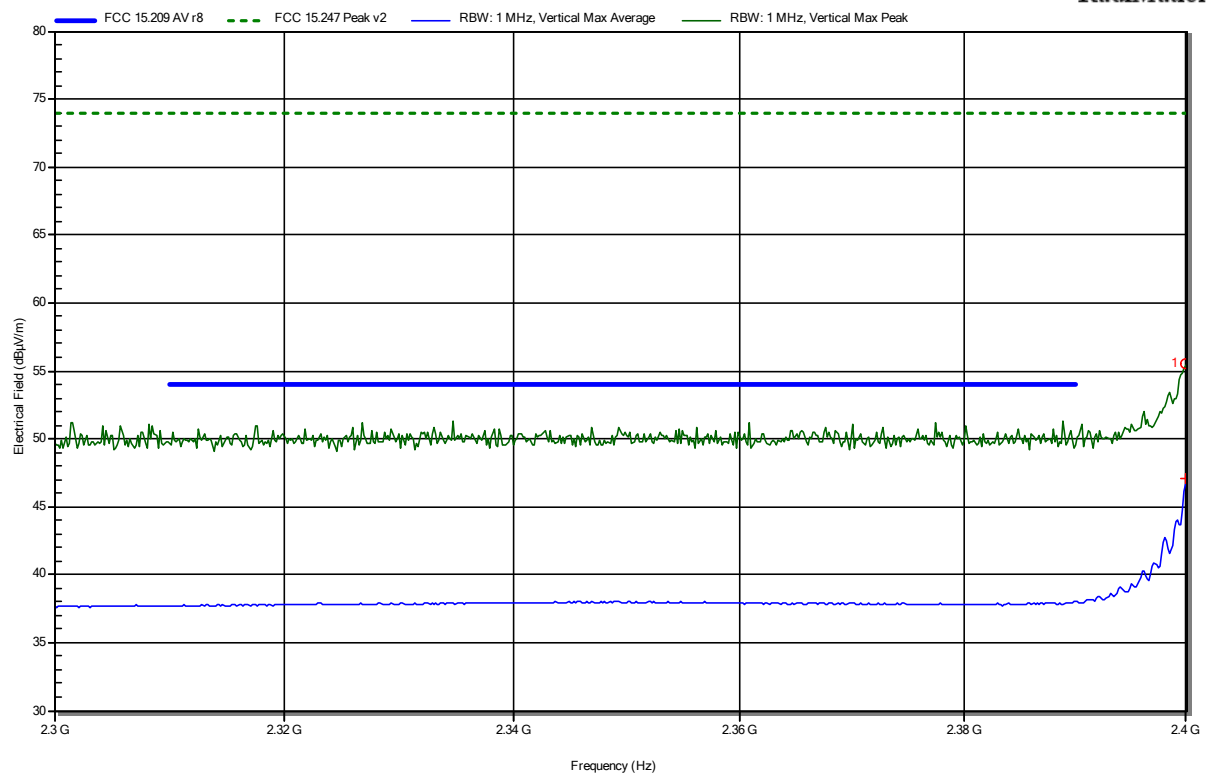
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11

Test Date: 2020-10-02

Note: lower bandedge, EUT hor

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RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4 GHz	55.56 dBμV/m	74 dBμV/m	-18.44 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

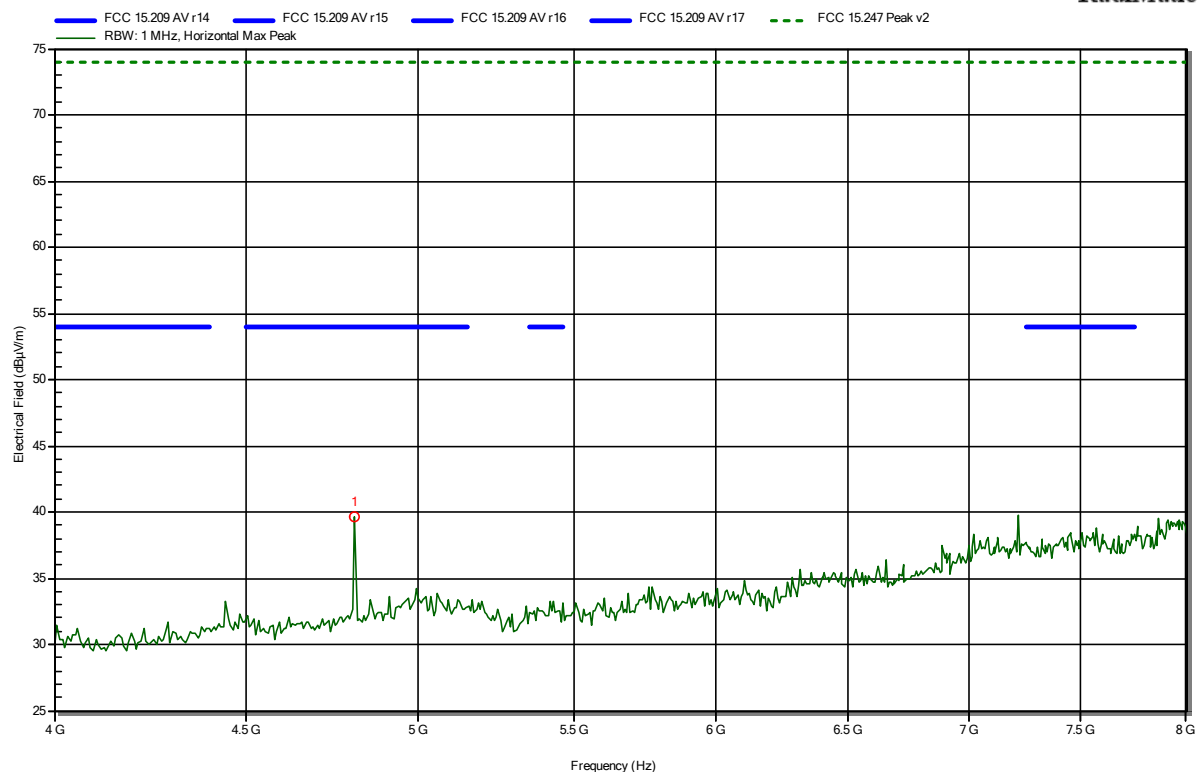
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.808 GHz	39.61 dBµV/m	74 dBµV/m	-34.39 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

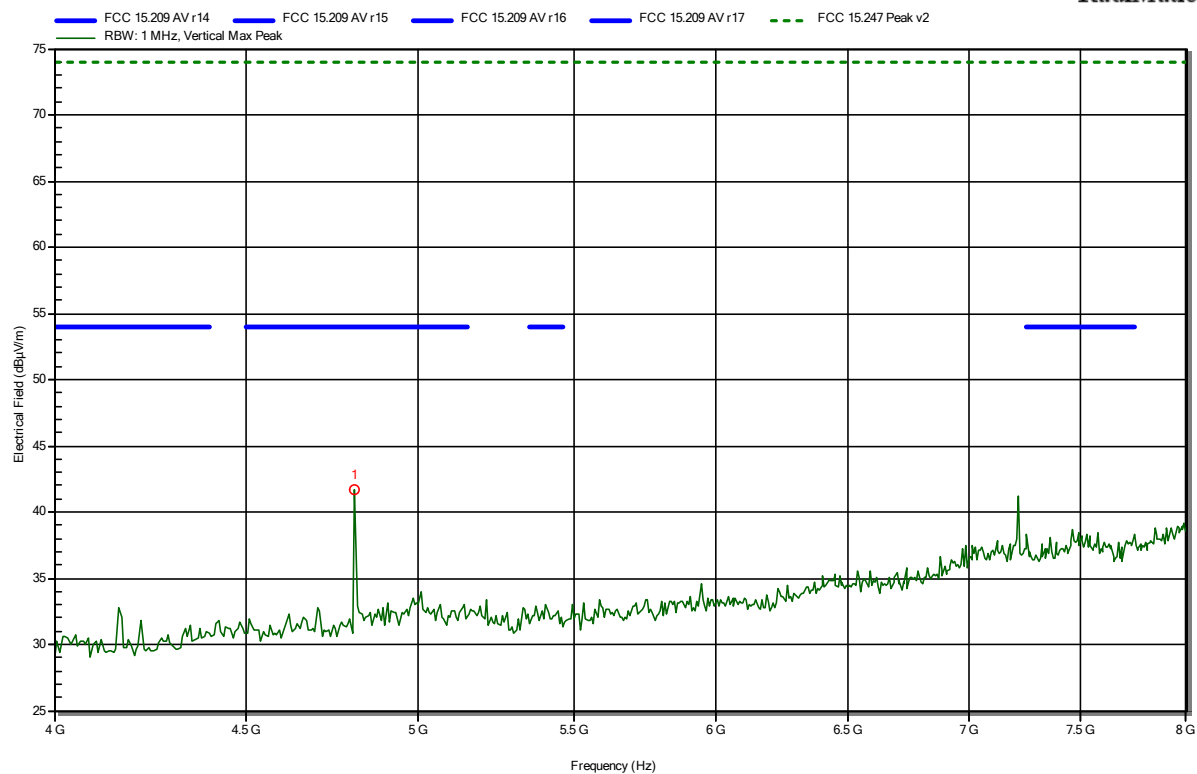
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.808 GHz	41.66 dBμV/m	74 dBμV/m	-32.34 dB	Pass

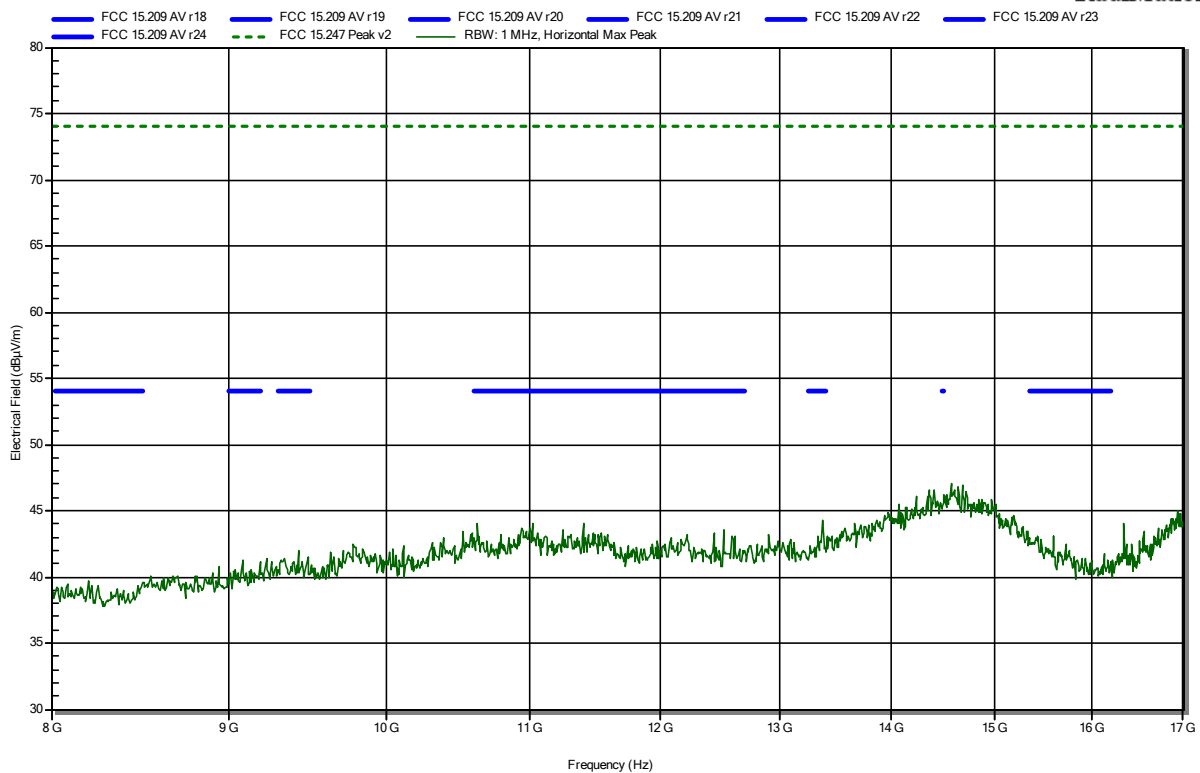
Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
Model: Network Extender wirelessGlovTester evolution 2
Test Site: Eurofins Product Service GmbH
Operator: Toralf Jahn
Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps,
Duty cycle = 100%, Power = 13, Antenna 1, Channel 11
Test Date: 2020-10-02
Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps,

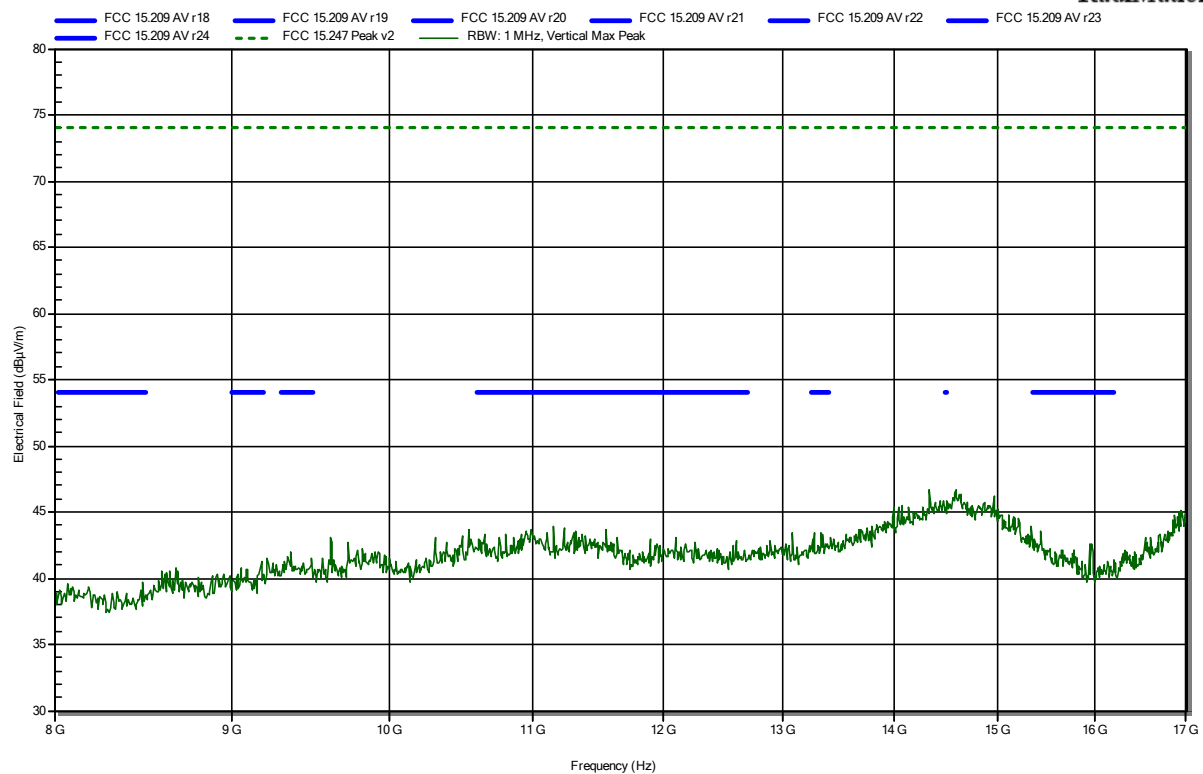
Duty cycle = 100%, Power = 13, Antenna 1, Channel 11

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Amplifier Research AT4560, Horizontal

Measurement distance: 1 m converted to 3m

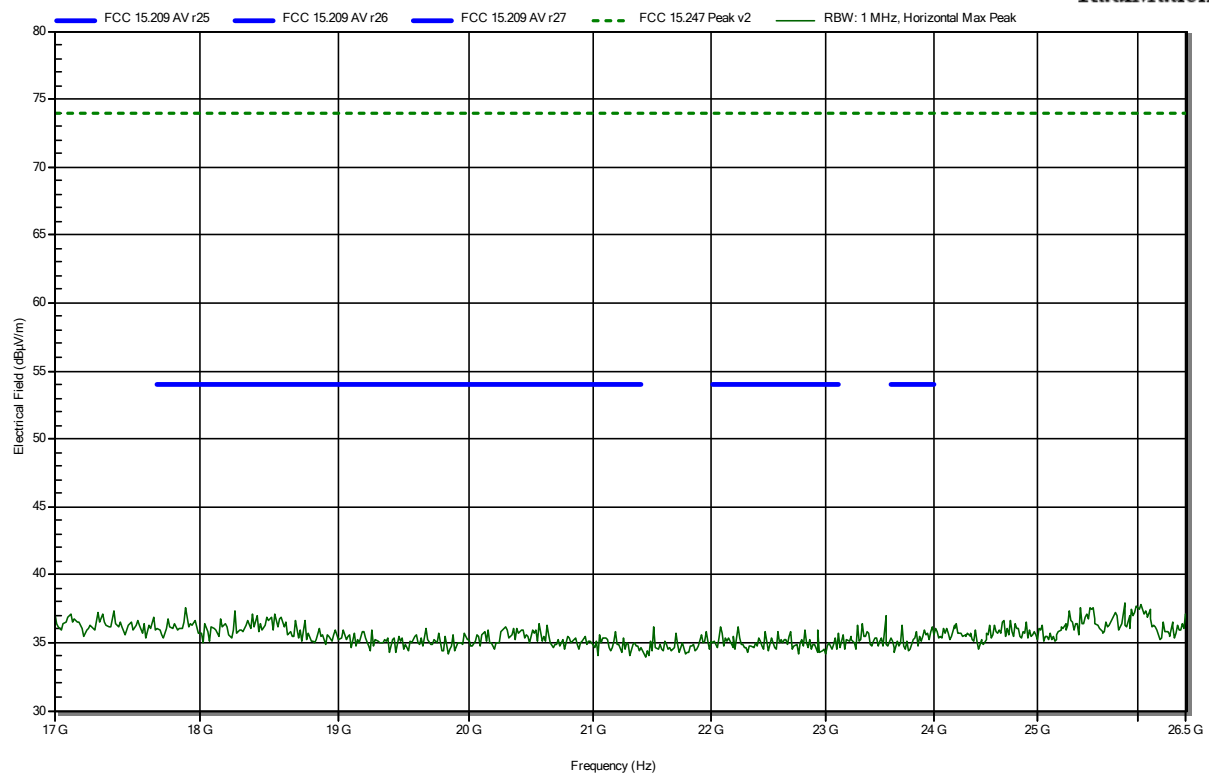
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Amplifier Research AT4560, Vertical

Measurement distance: 1 m converted to 3m

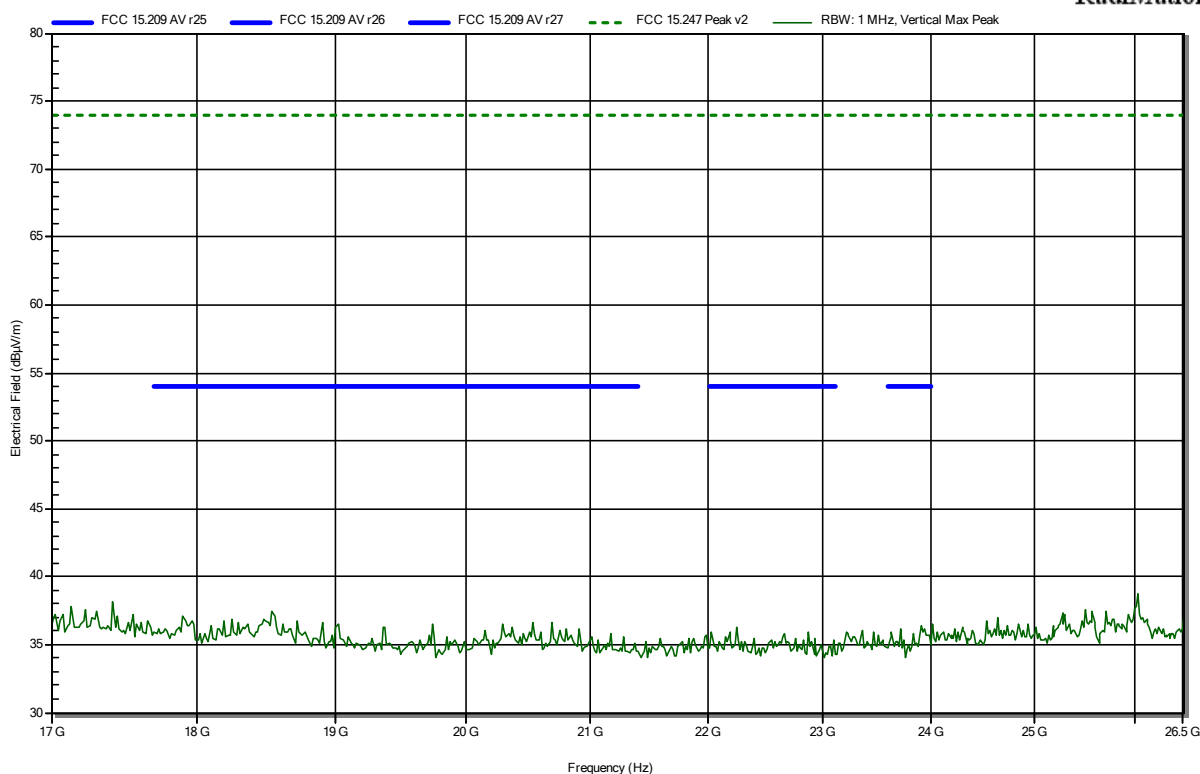
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 11

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

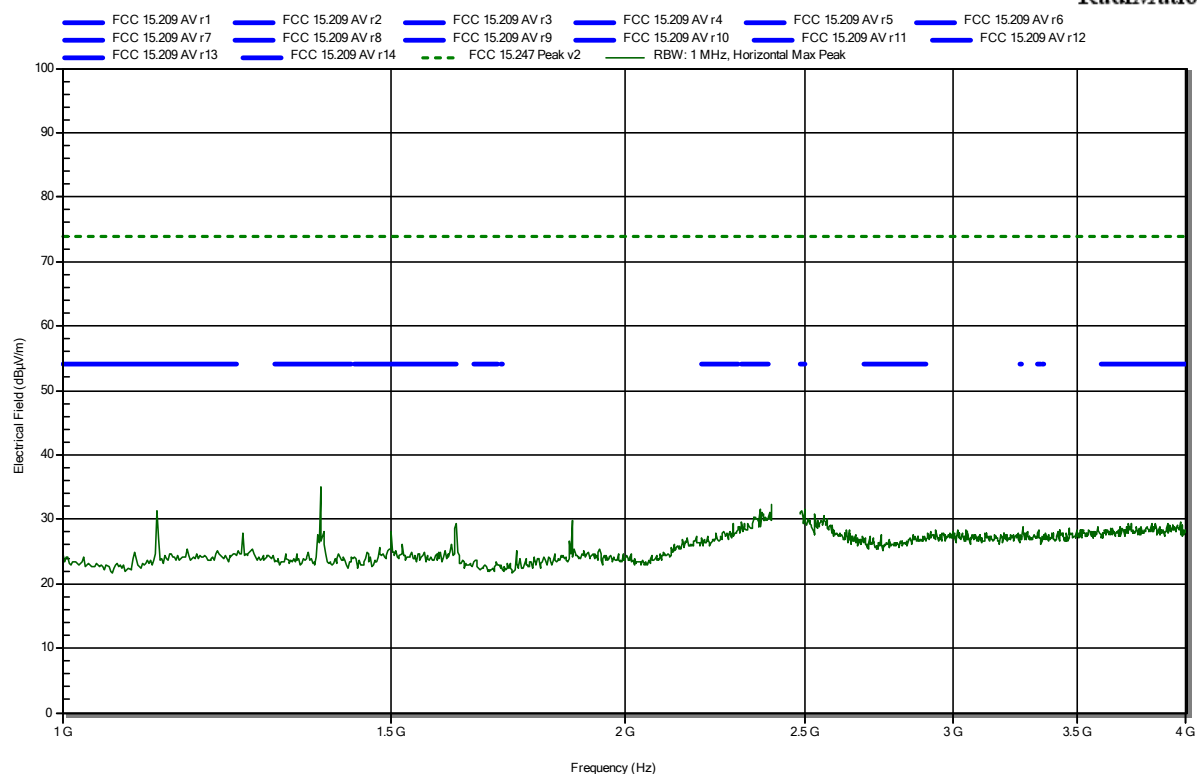
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

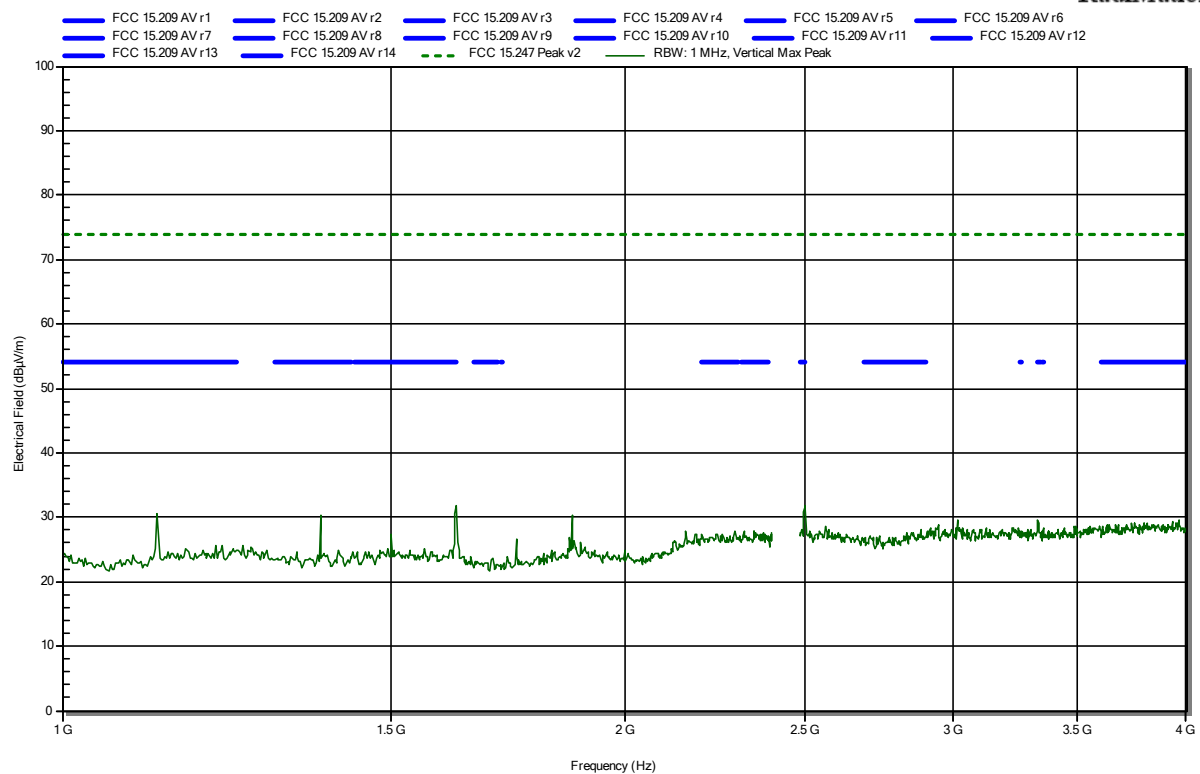
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

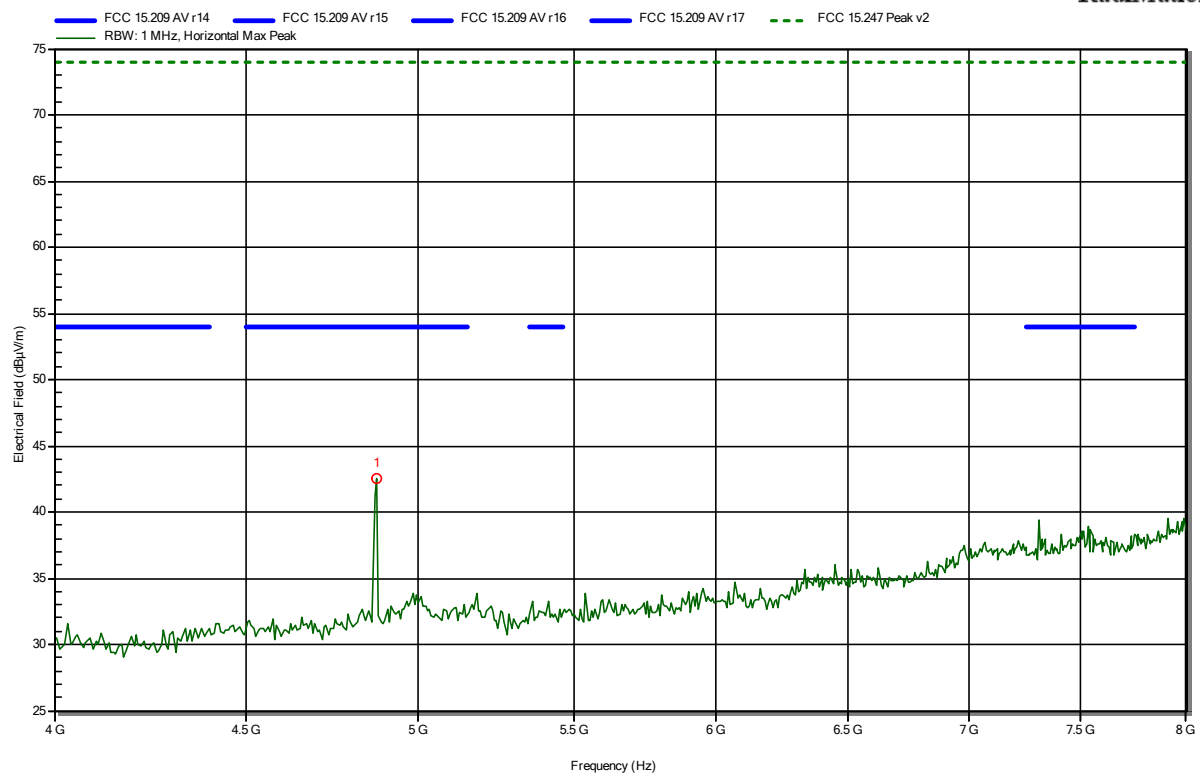
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.872 GHz	42.51 dBμV/m	74 dBμV/m	-31.49 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

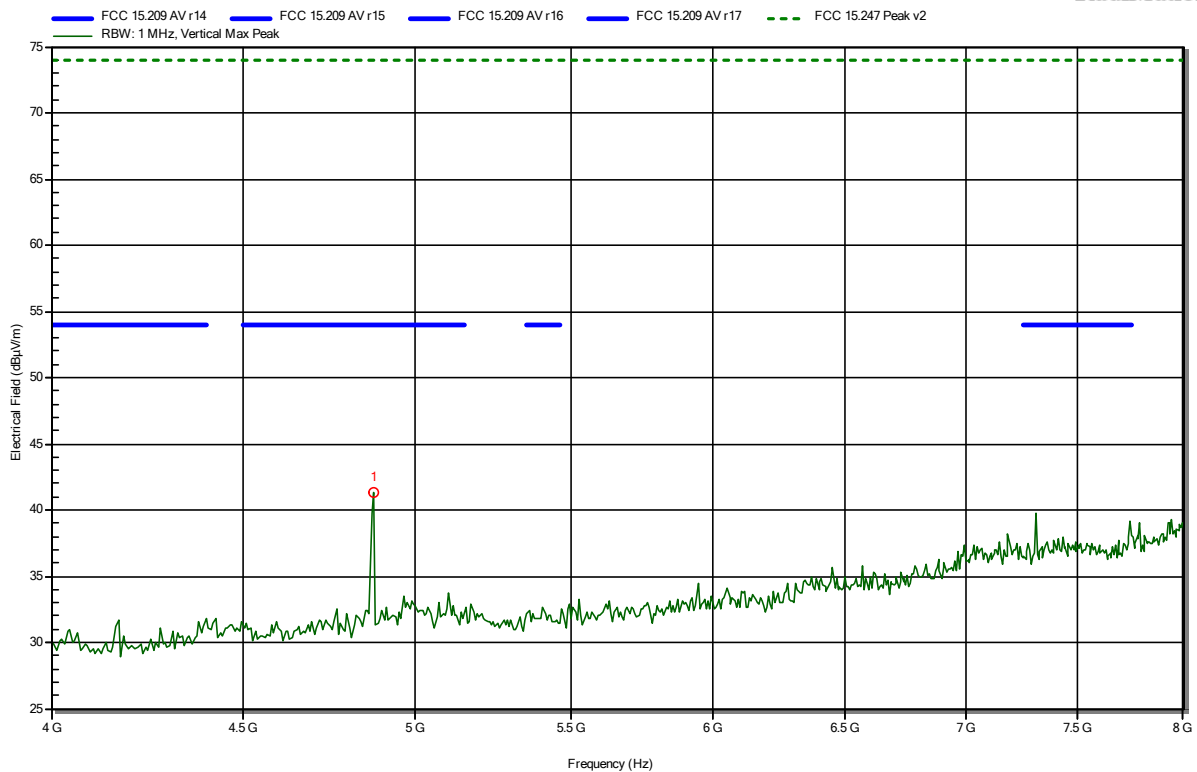
Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2
Test Site: Eurofins Product Service GmbH
Operator: Toralf Jahn
Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-02
Note: EUT hor

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RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.872 GHz	41.38 dBµV/m	74 dBµV/m	-32.62 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

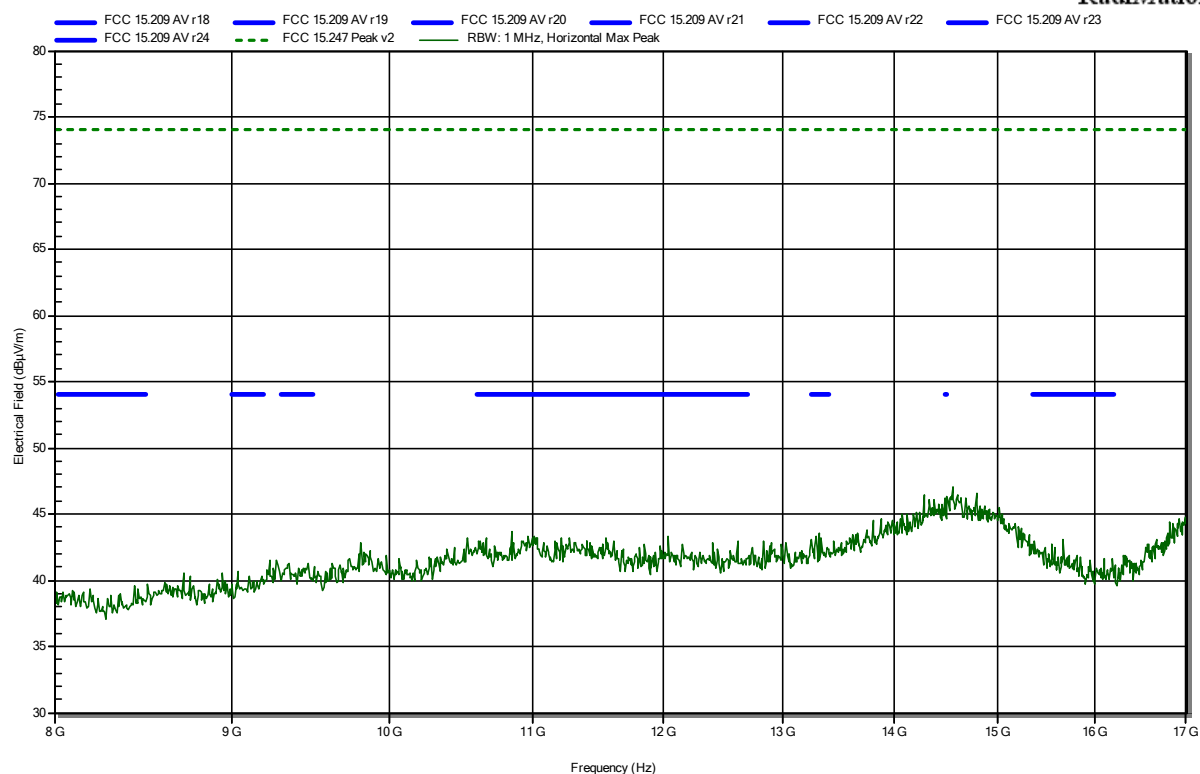
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

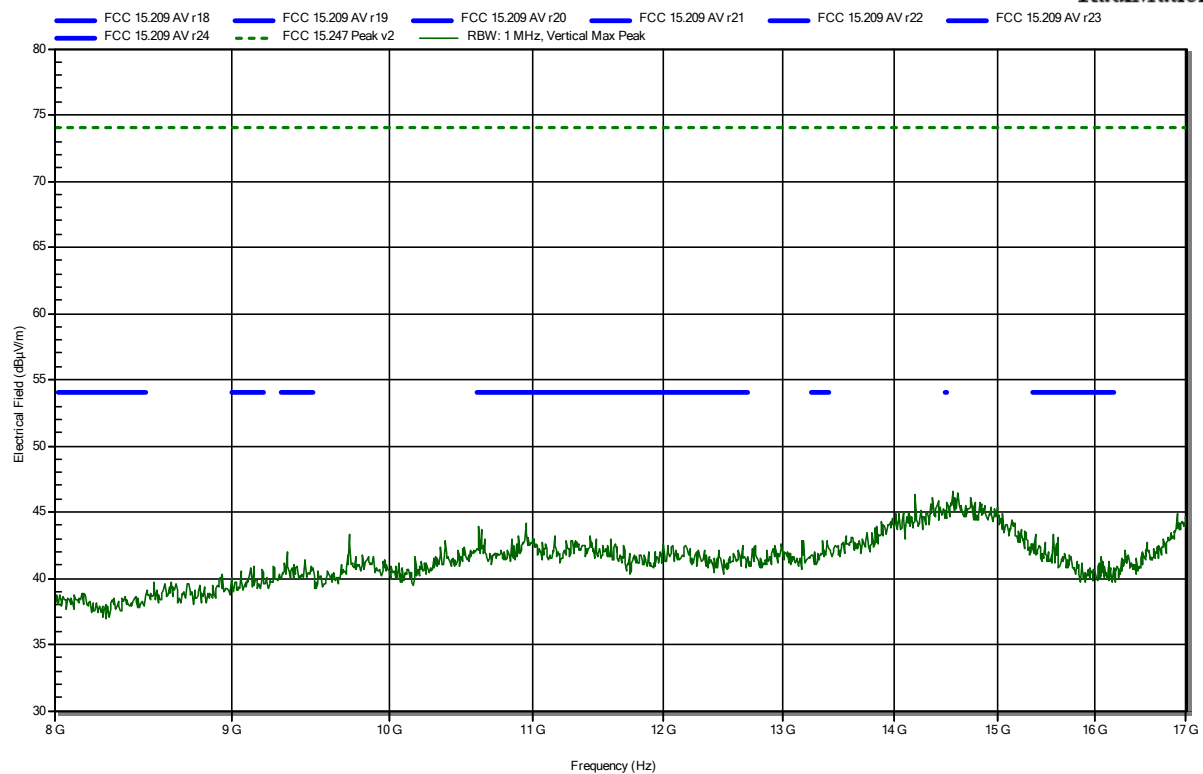
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Amplifier Research AT4560, Horizontal

Measurement distance: 1 m converted to 3m

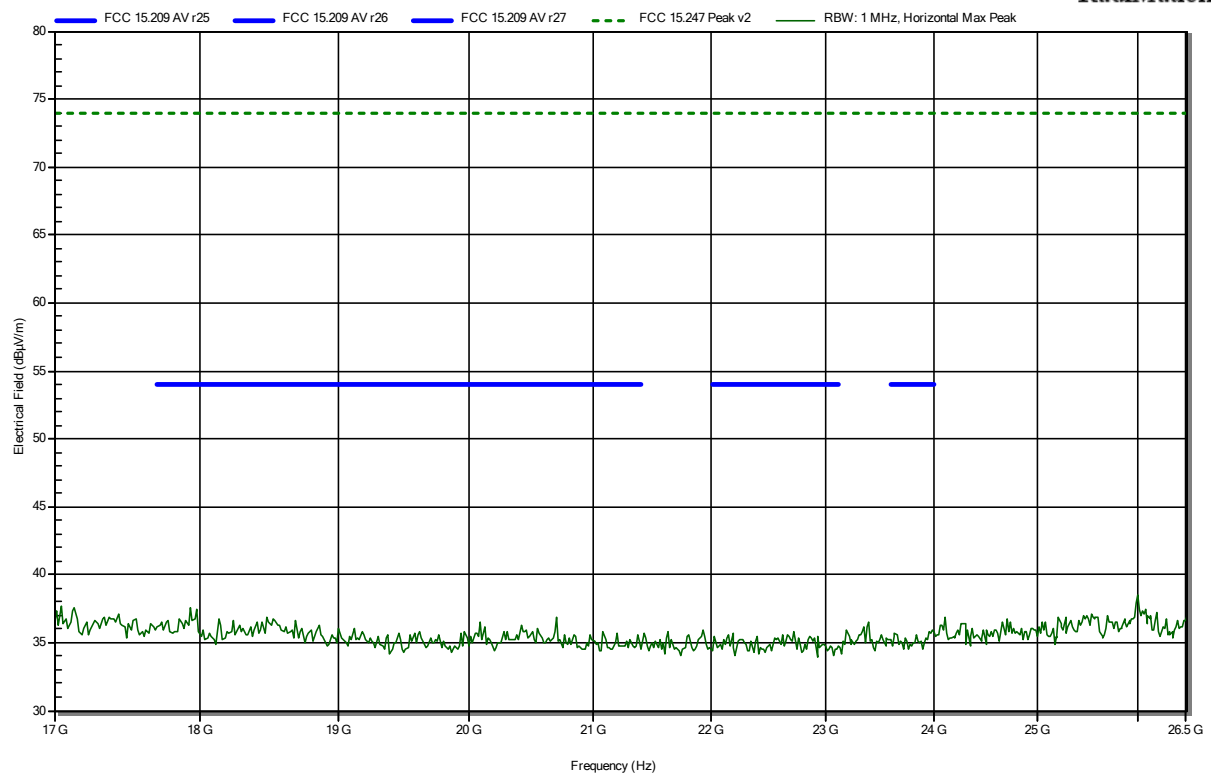
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Amplifier Research AT4560, Vertical

Measurement distance: 1 m converted to 3m

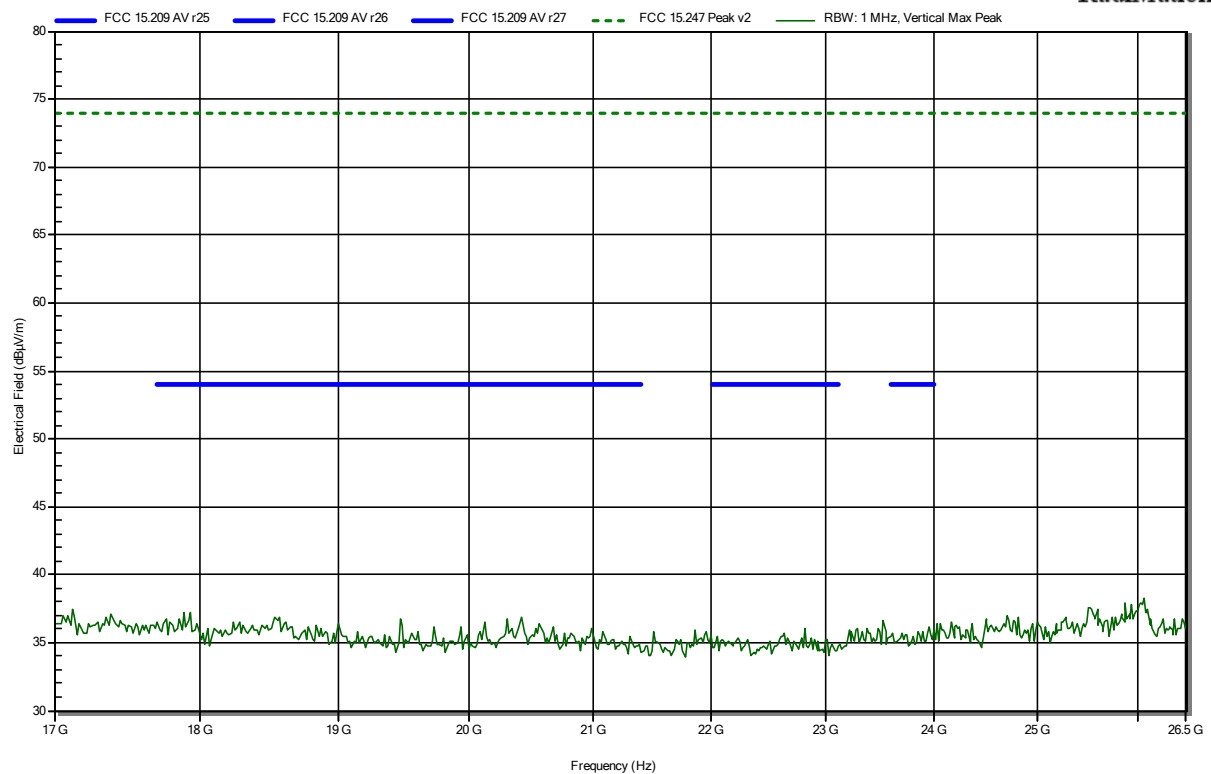
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 17

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

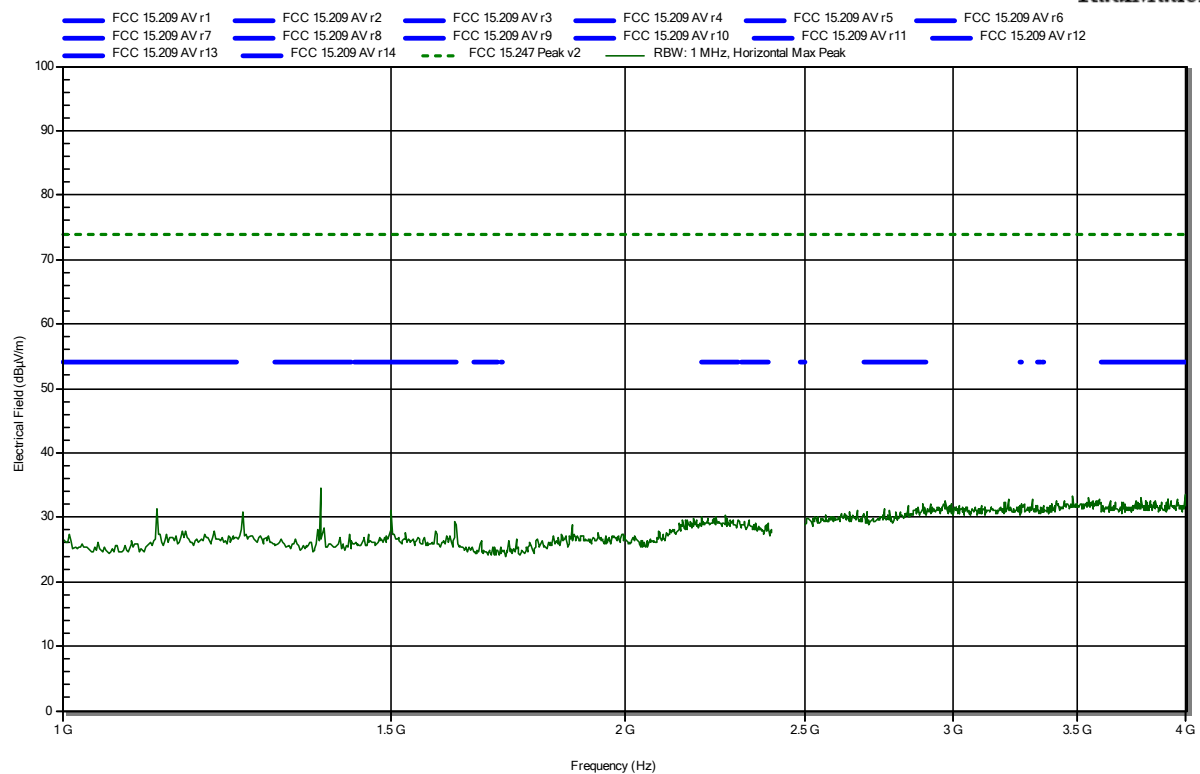
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

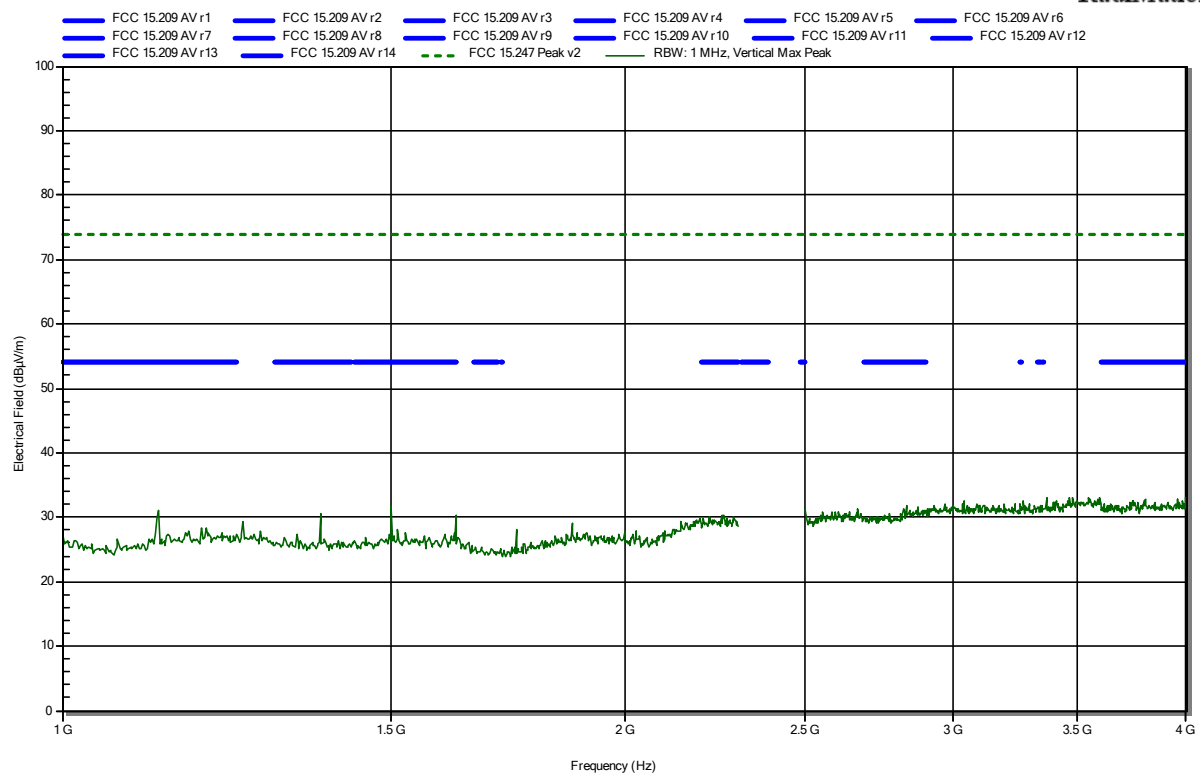
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

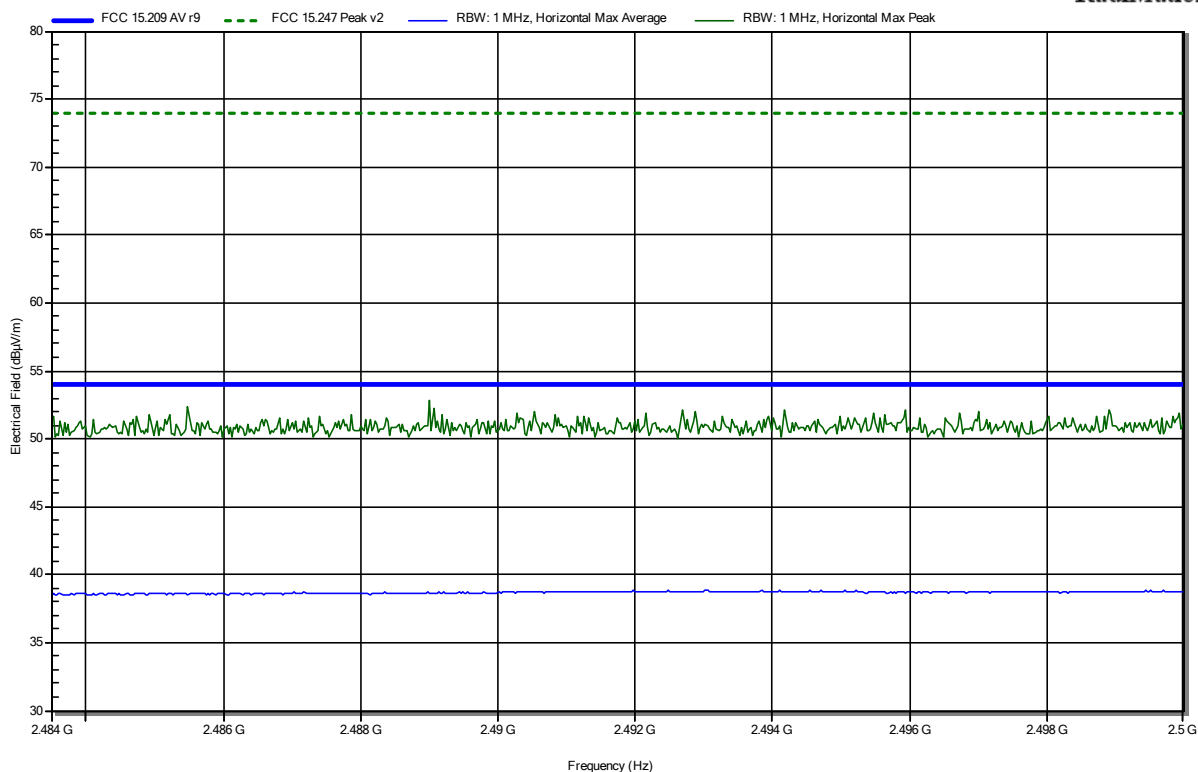
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-02

Note: upper bandedge, EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

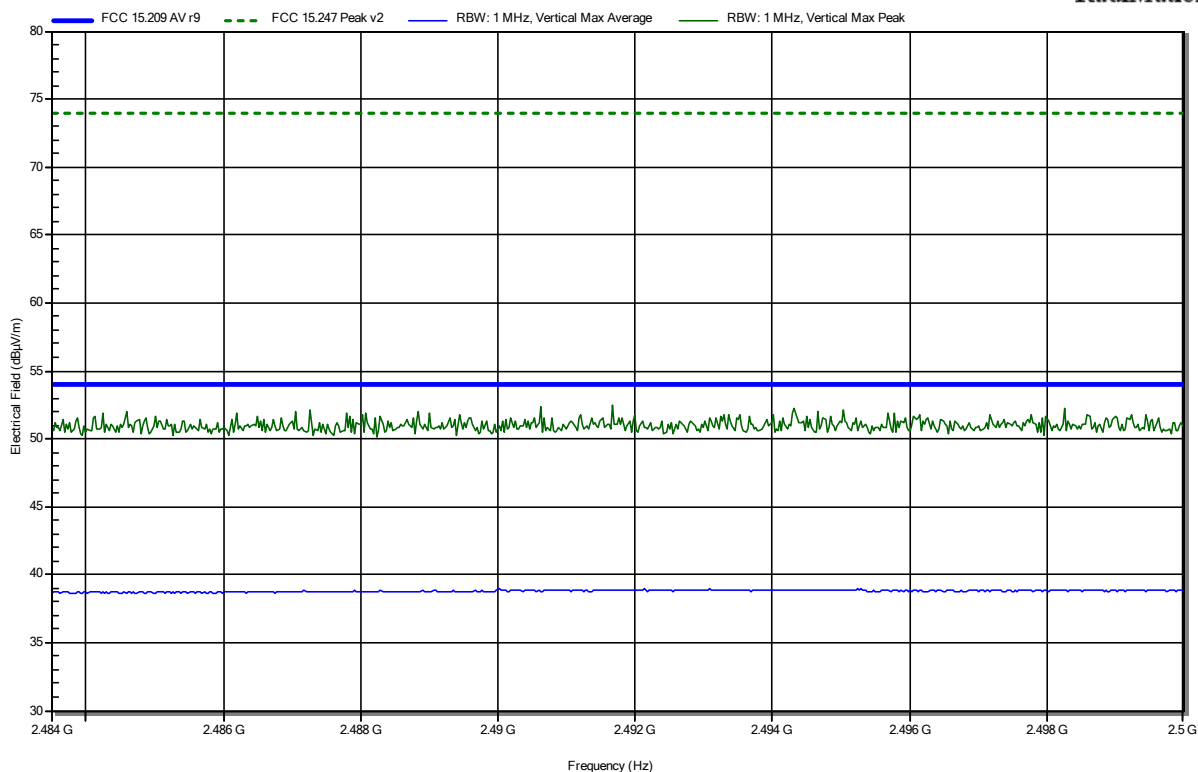
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-02

Note: upper bandedge, EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

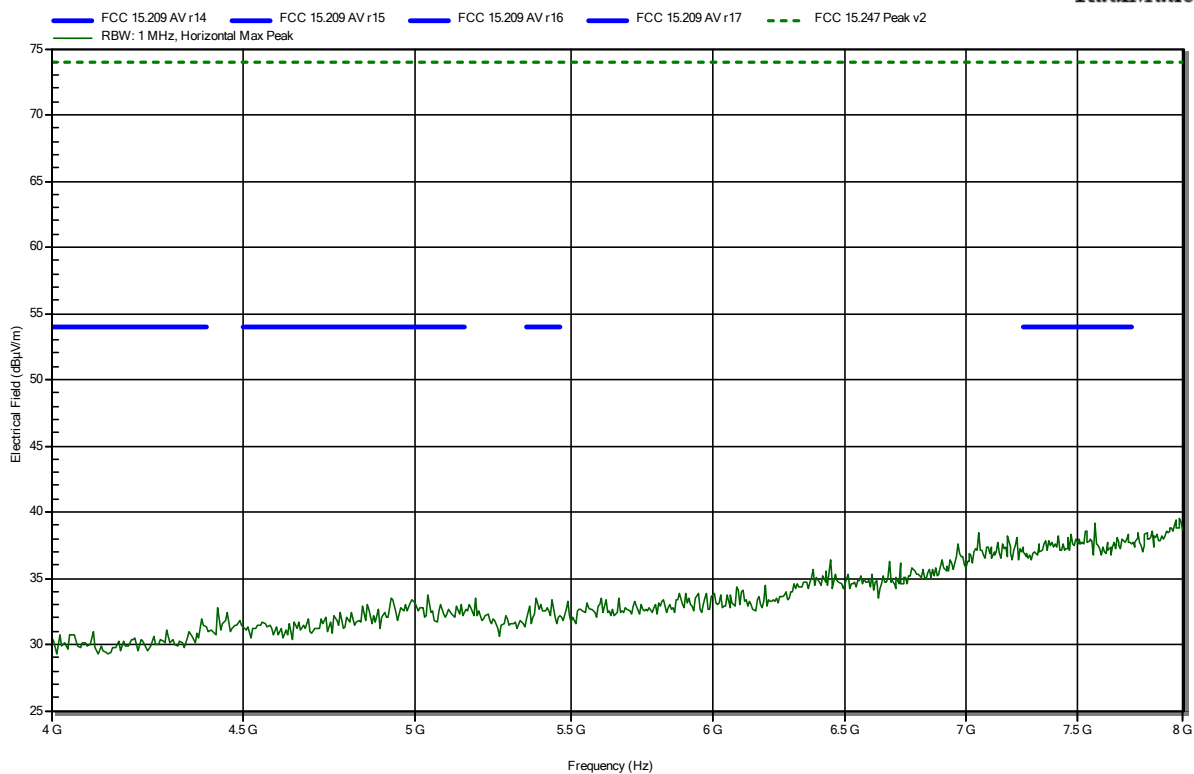
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

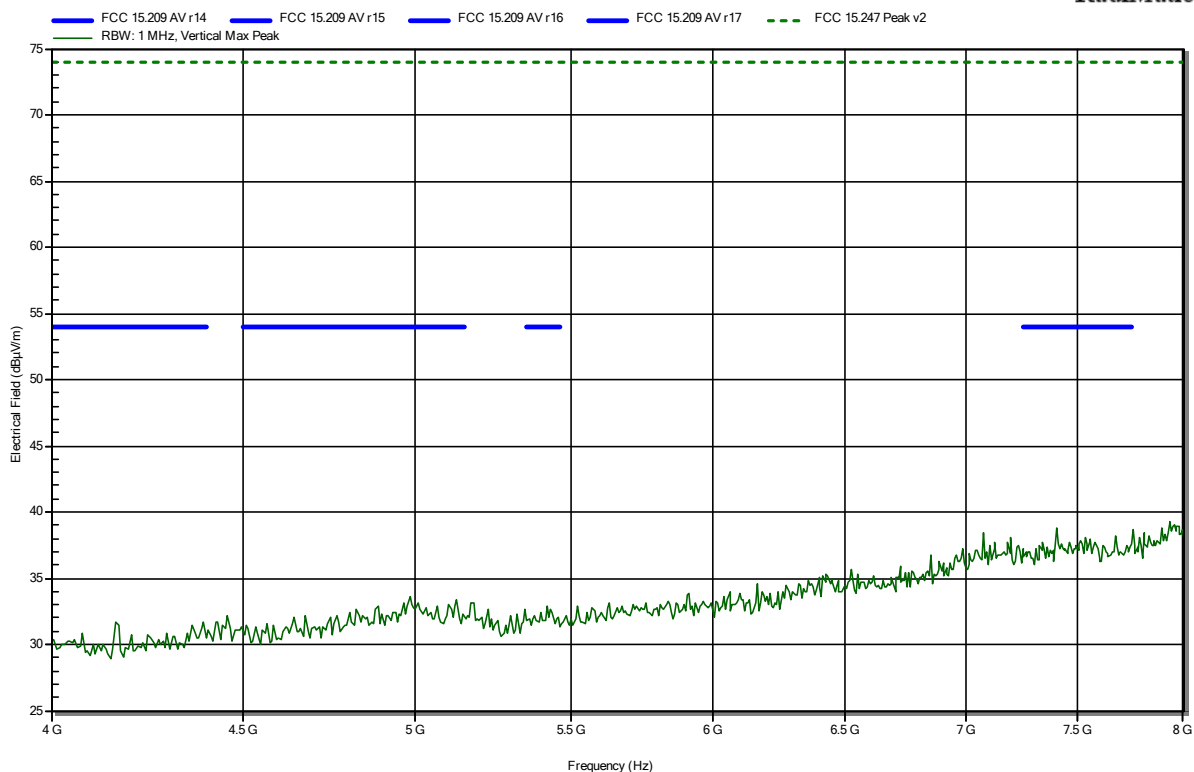
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

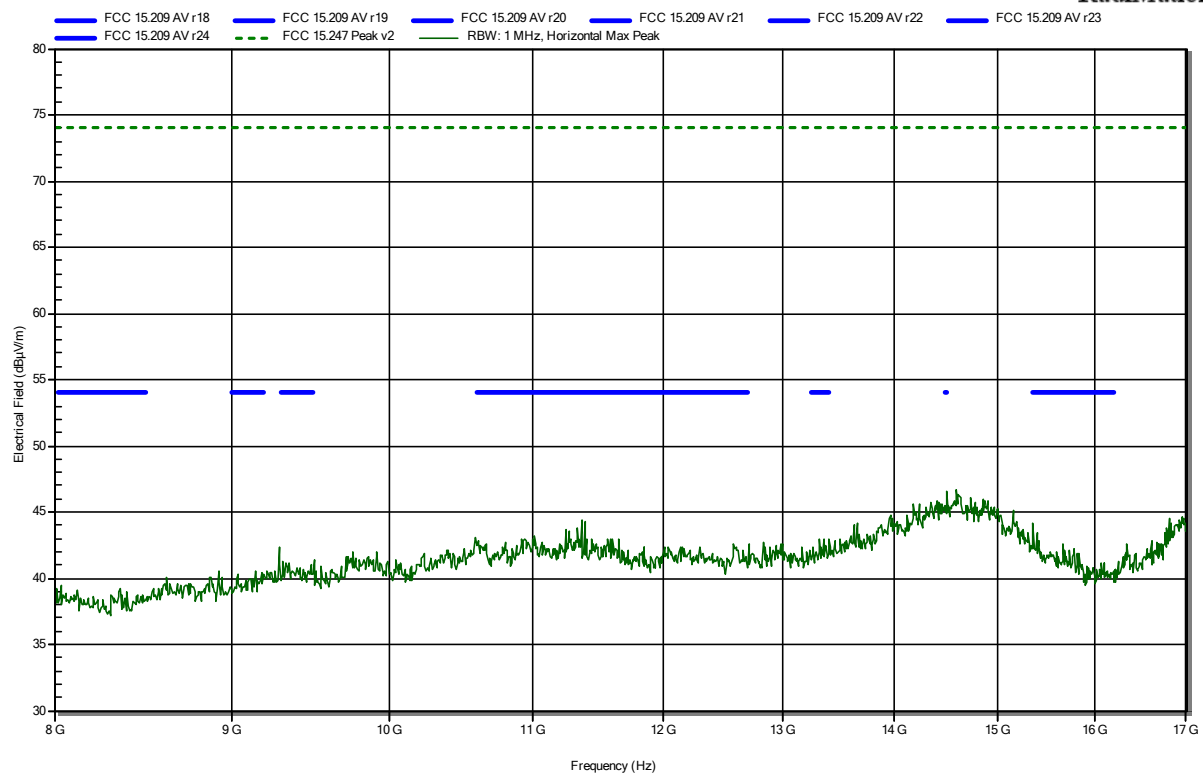
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

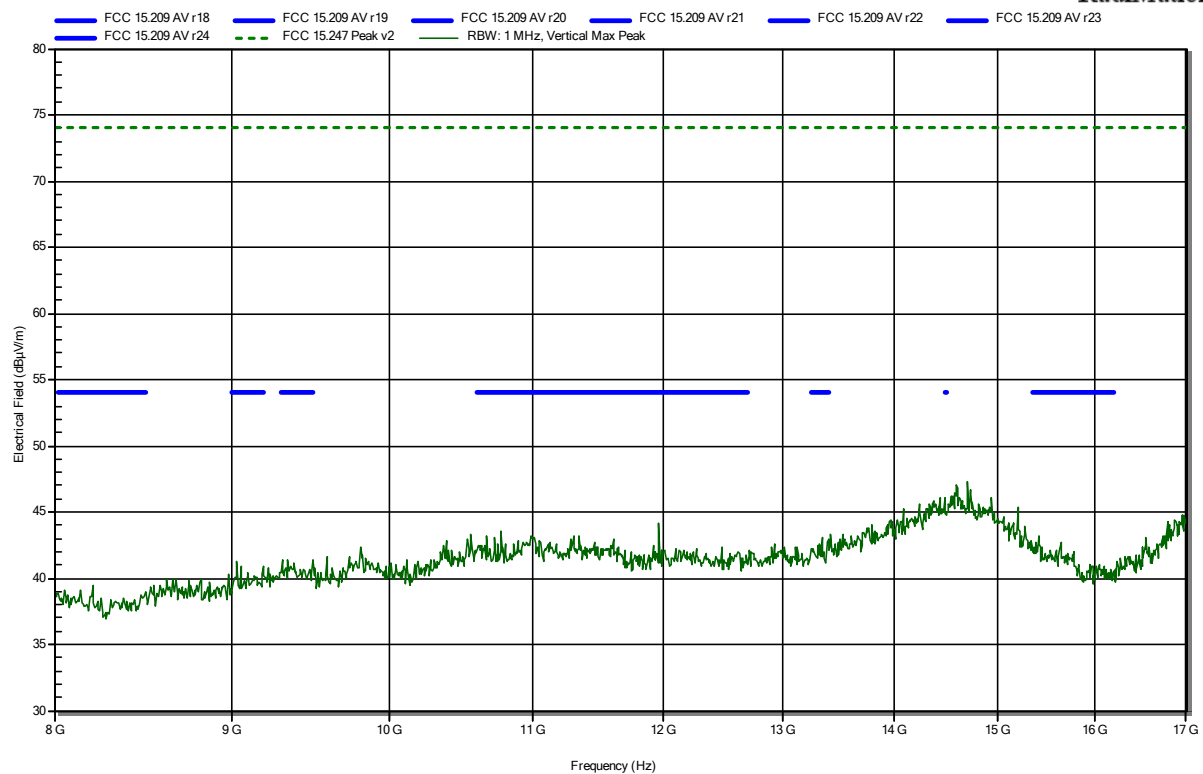
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Amplifier Research AT4560, Horizontal

Measurement distance: 1 m converted to 3m

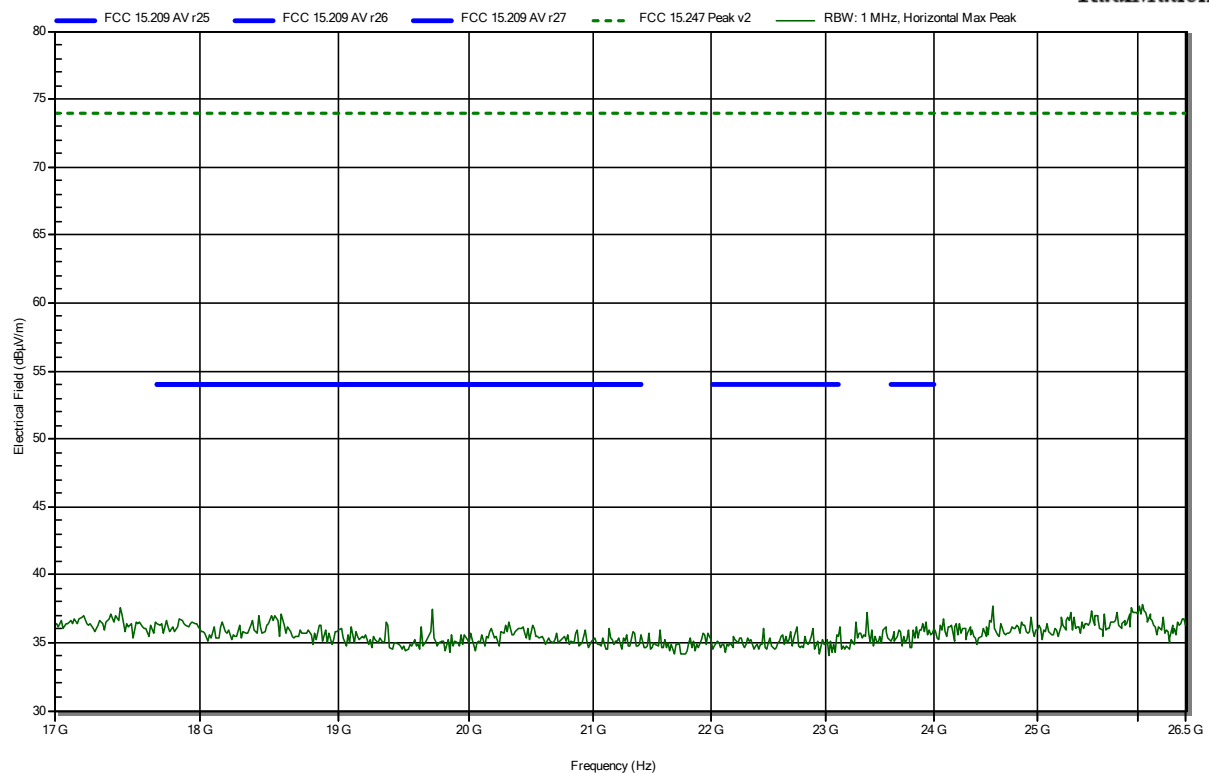
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



Spurious emissions according to FCC 15.247

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Amplifier Research AT4560, Vertical

Measurement distance: 1 m converted to 3m

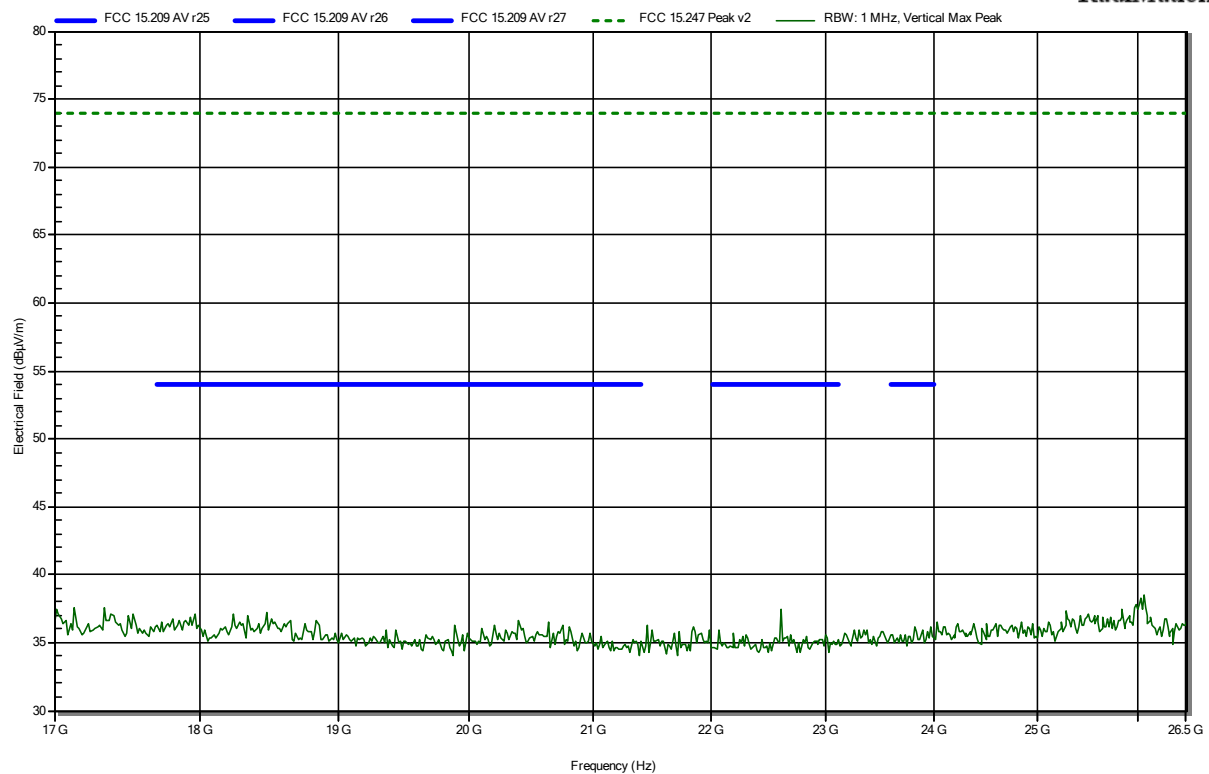
Mode: TX; IEEE 802.15.4, O-QPSK, No Spreading, Data rate = 2000 kbps, Duty cycle = 100%, Power = 13, Antenna 1, Channel 24

Test Date: 2020-10-02

Note: EUT hor

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RadiMation



ANNEX B Receiver spurious emissions

Spurious emissions according to RSS-Gen

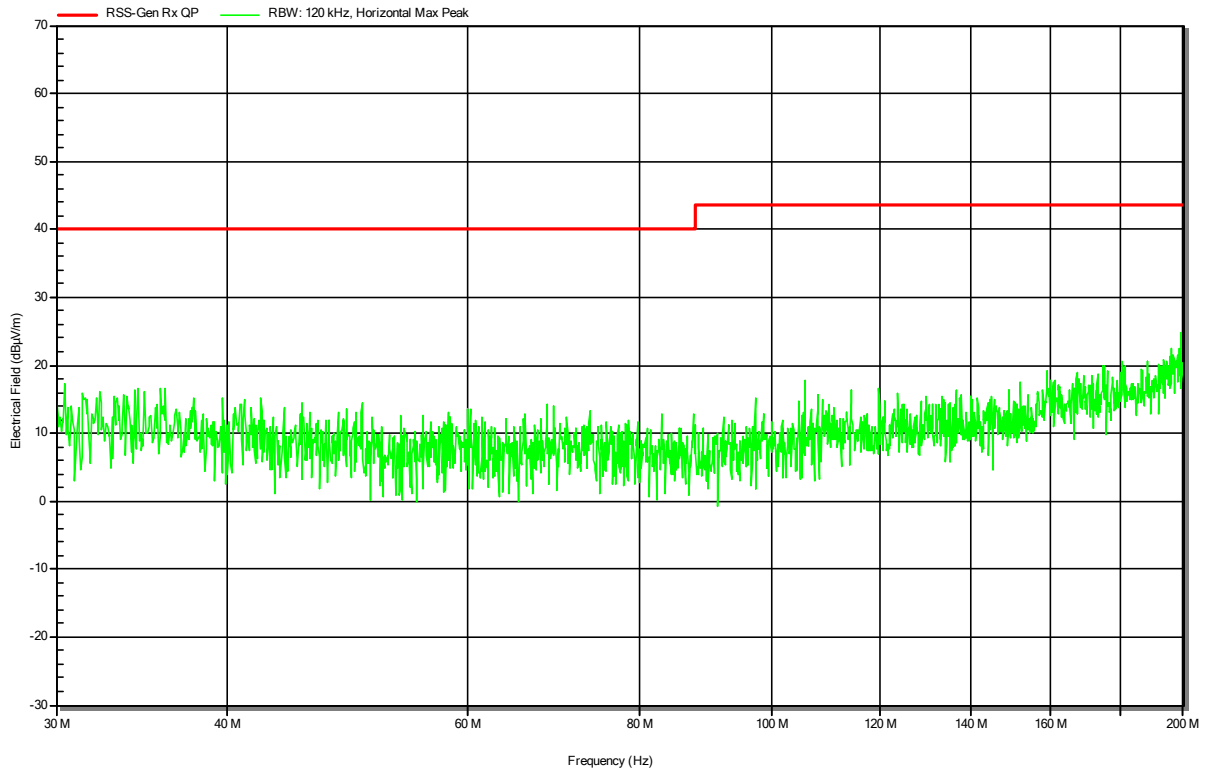
Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
 EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
 Antenna: Rohde & Schwarz HK 116, Horizontal
 Measurement distance: 3 m
 Mode: RX; IEEE 802.15.4, Receive
 Test Date: 2020-10-05
 Note: EUT hor

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RadiMation



Spurious emissions according to RSS-Gen

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Measurement software: RadiMation, version 2020.1.8

Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

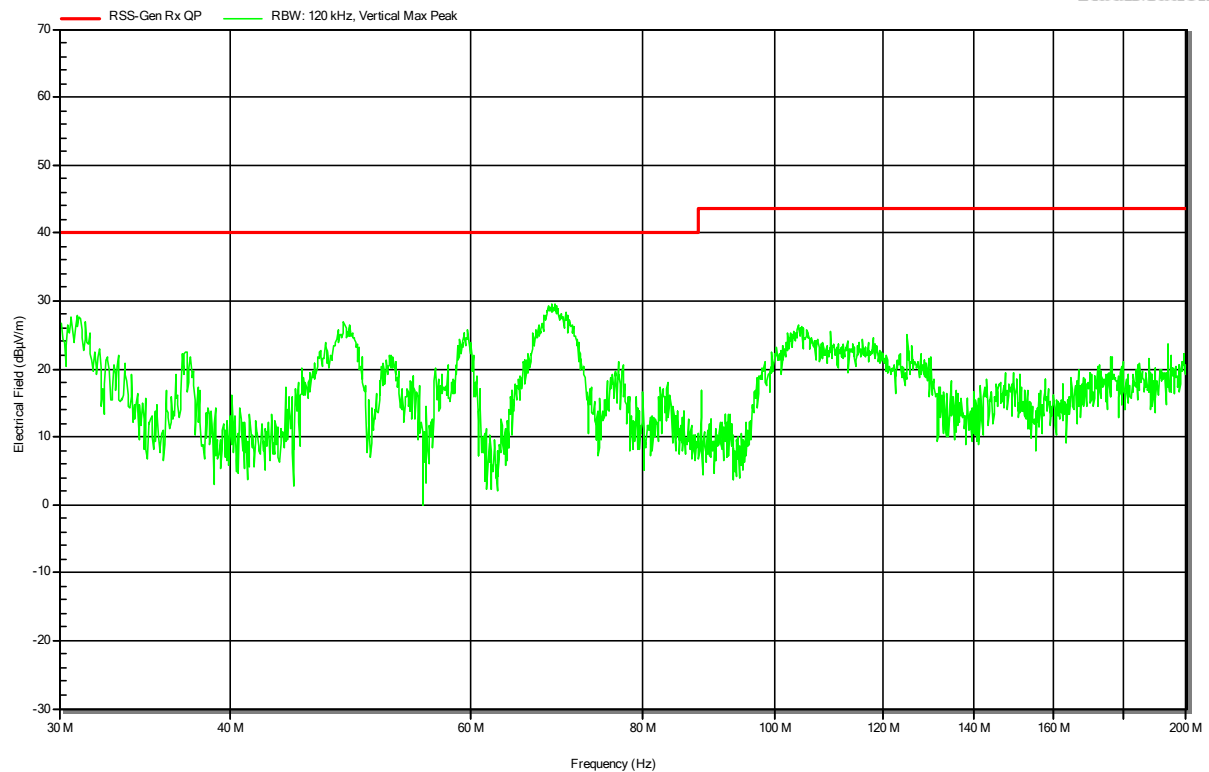
Mode: RX; IEEE 802.15.4, Receive

Test Date: 2020-10-05

Note: EUT hor

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RadiMation



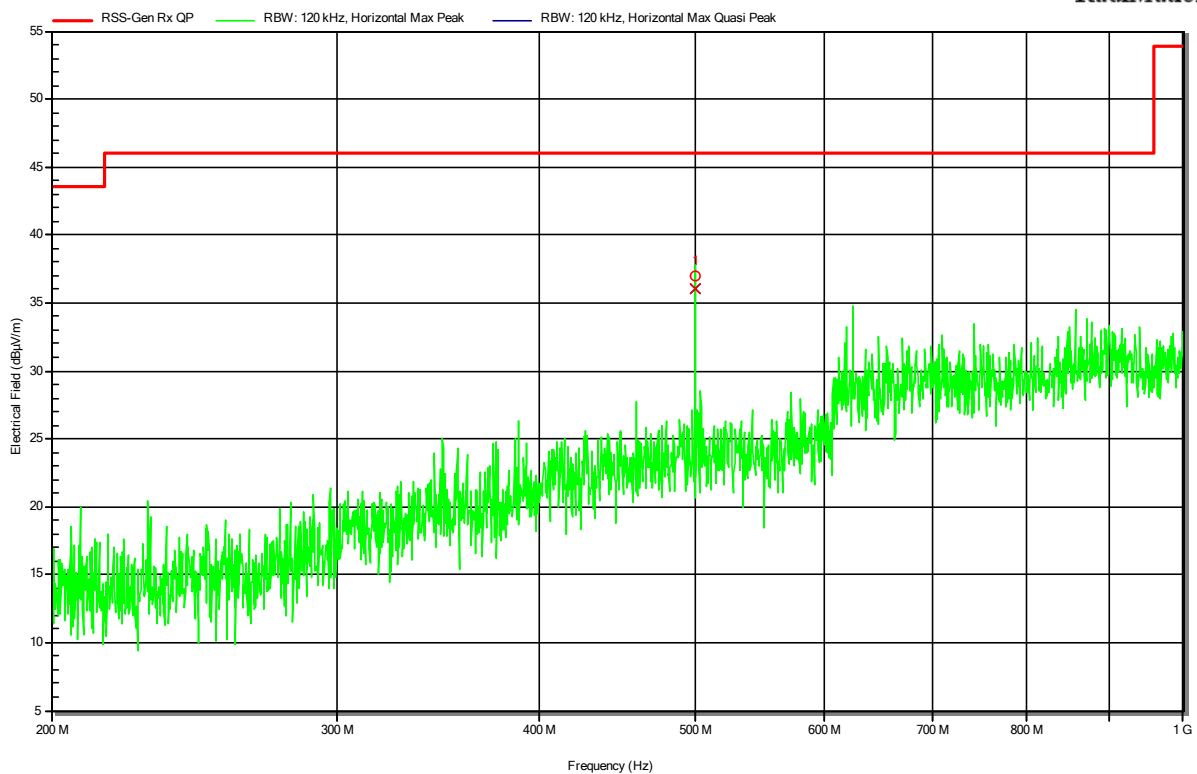
Spurious emissions according to RSS-Gen

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
 EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
 Model: Network Extender wirelessGlovTester evolution 2
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Jahn
 Measurement software: RadiMation, version 2020.1.8
 Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
 Antenna: Rohde & Schwarz HL 223, Horizontal
 Measurement distance: 3 m
 Mode: RX; IEEE 802.15.4, Receive
 Test Date: 2020-10-05
 Note: EUT hor

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RadiMation



Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Angle	Height
499.9999 MHz	36 dBμV/m	46 dBμV/m	-10 dB	Pass	0 degrees	1 m

Spurious emissions according to RSS-Gen

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Mr. Jahn

Measurement software: RadiMation, version 2020.1.8

Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

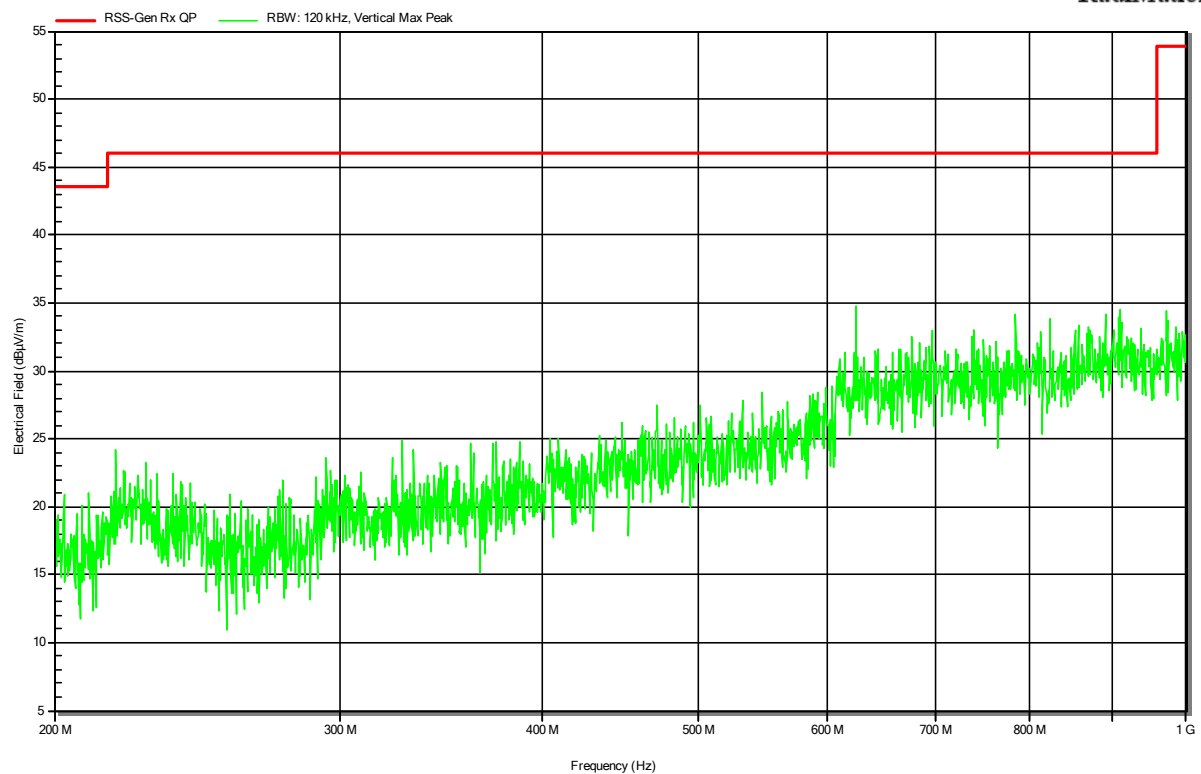
Mode: RX; IEEE 802.15.4, Receive

Test Date: 2020-10-05

Note: EUT hor

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RadiMation



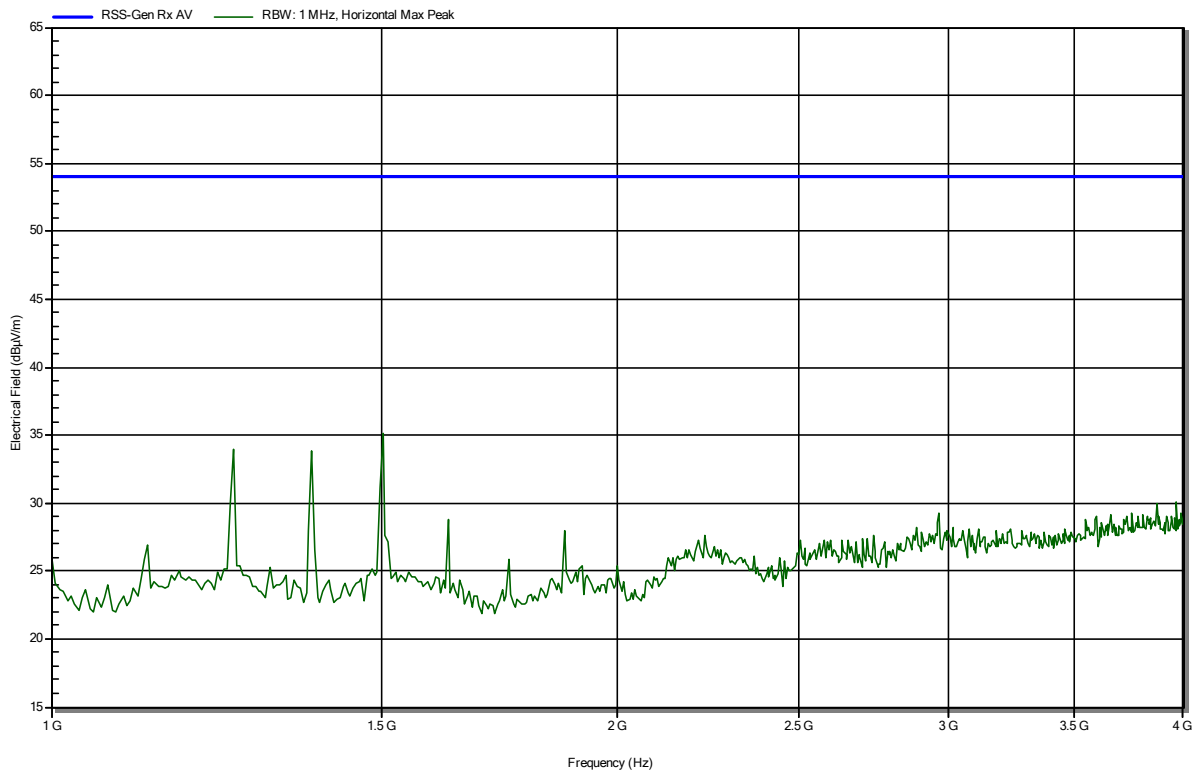
Spurious emissions according to RSS-Gen

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
Model: Network Extender wirelessGlovTester evolution 2
Test Site: Eurofins Product Service GmbH
Operator: Toralf Jahn
Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE 802.15.4, Receive
Test Date: 2020-10-06
Note: EUT hor

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Radiation



Spurious emissions according to RSS-Gen

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

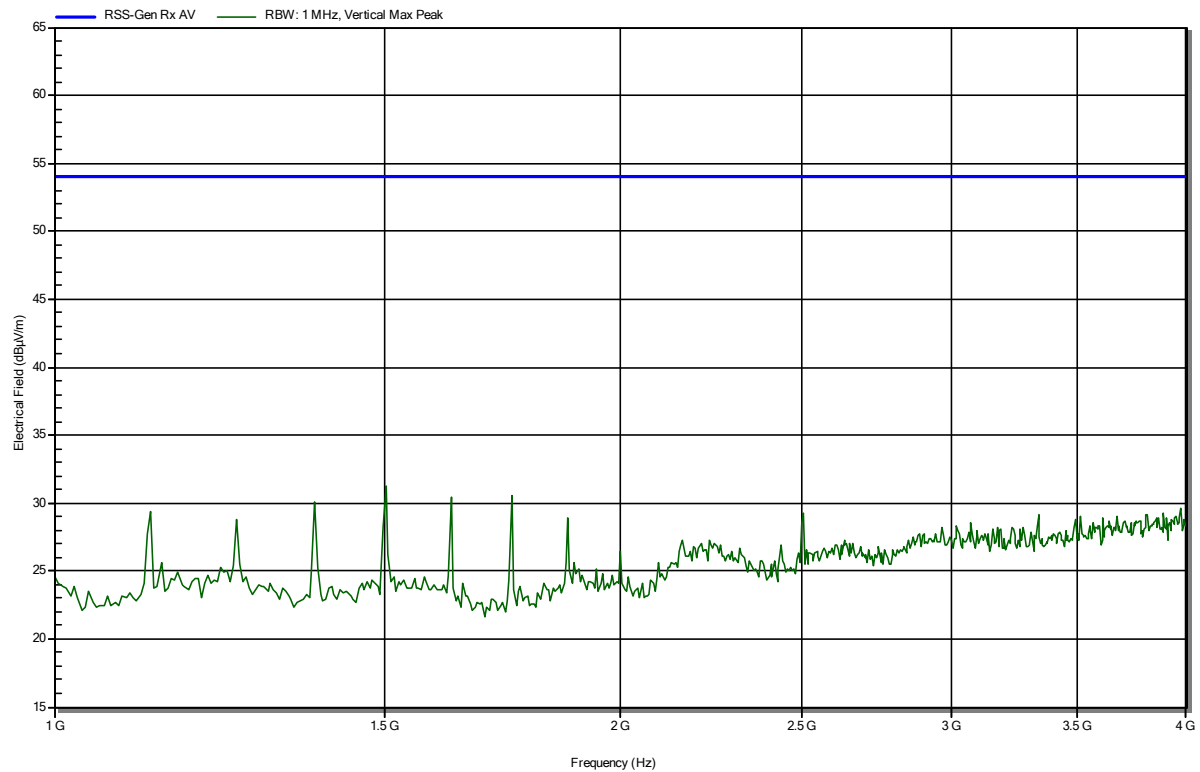
Mode: TX; IEEE 802.15.4, Receive

Test Date: 2020-10-06

Note: EUT hor

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Radiation



Spurious emissions according to RSS-Gen

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester

Model: Network Extender wirelessGlovTester evolution 2

Test Site: Eurofins Product Service GmbH

Operator: Toralf Jahn

Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)

Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

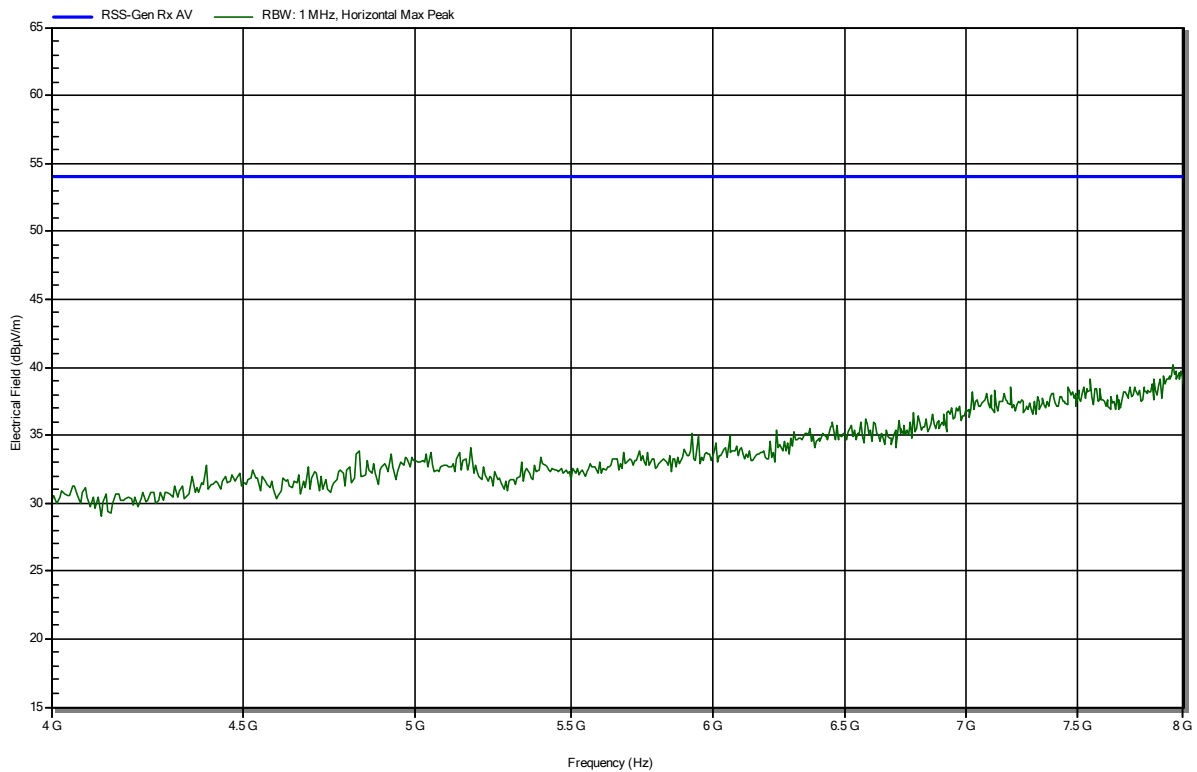
Mode: TX; IEEE 802.15.4, Receive

Test Date: 2020-10-06

Note: EUT hor

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Radiation



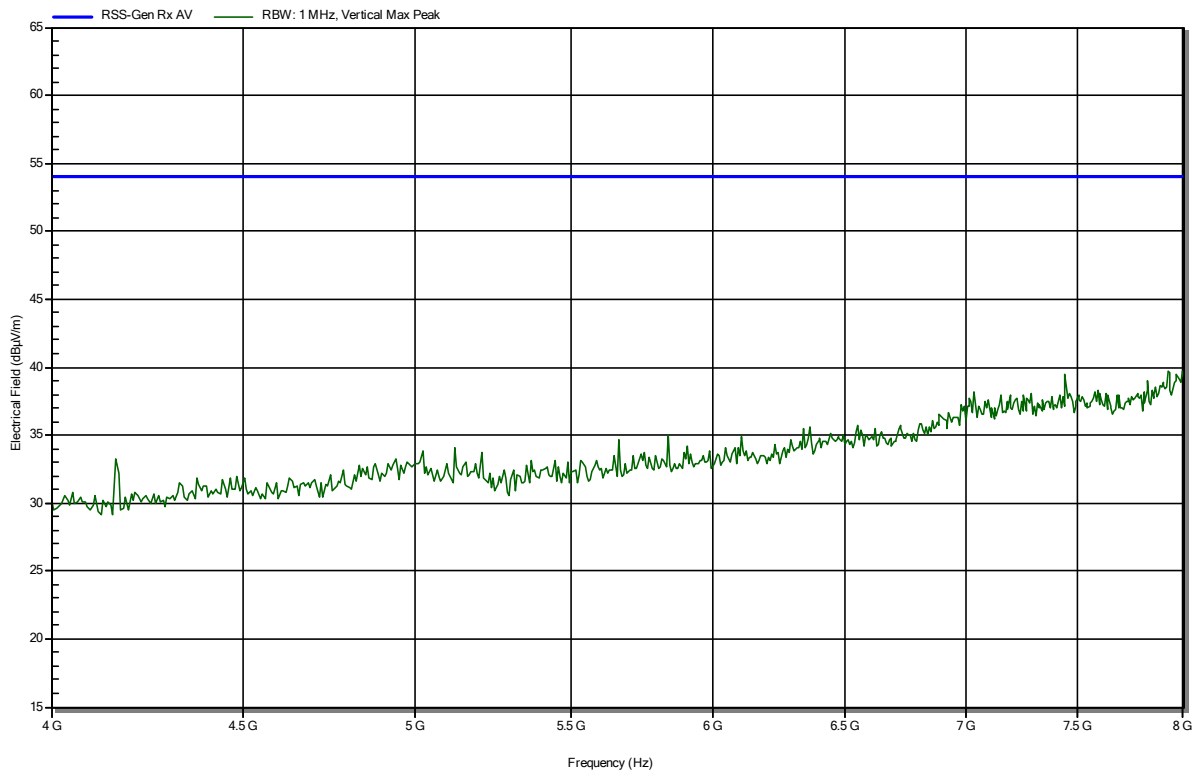
Spurious emissions according to RSS-Gen

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
Model: Network Extender wirelessGlovTester evolution 2
Test Site: Eurofins Product Service GmbH
Operator: Toralf Jahn
Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: TX; IEEE 802.15.4, Receive
Test Date: 2020-10-06
Note: EUT hor

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RadiMation



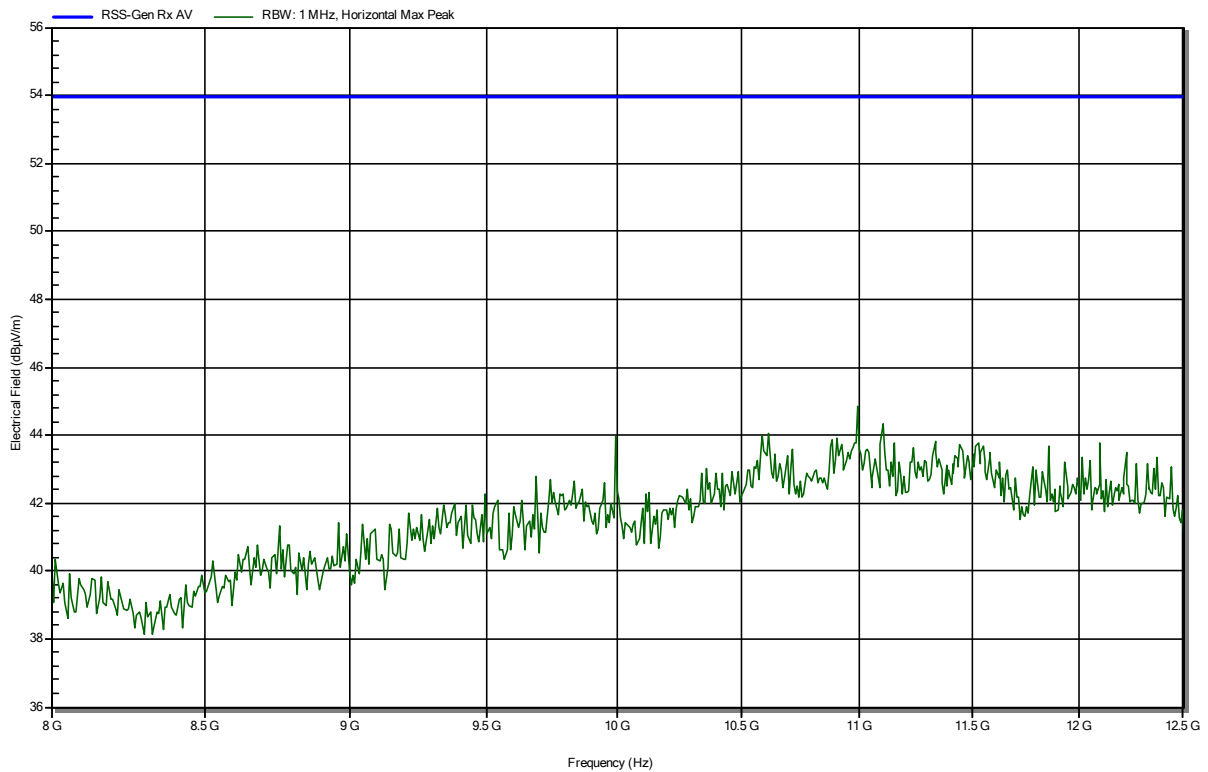
Spurious emissions according to RSS-Gen

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
Model: Network Extender wirelessGlovTester evolution 2
Test Site: Eurofins Product Service GmbH
Operator: Toralf Jahn
Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 1 m converted to 3m
Mode: RX; IEEE 802.15.4, Receive
Test Date: 2020-10-06
Note: EUT hor

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RadiMation



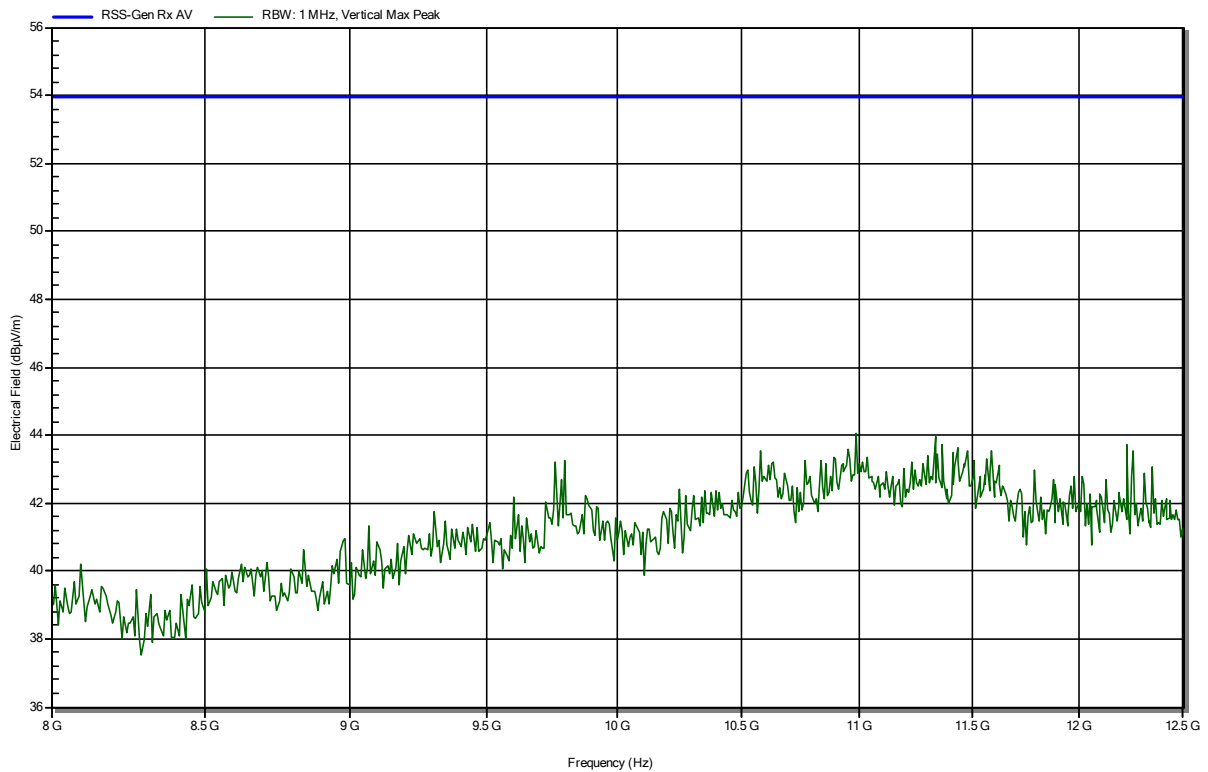
Spurious emissions according to RSS-Gen

Project number: G0M-2007-9170

Applicant: SKAN Deutschland GmbH
EUT Name: Network Extender resp. Repeater/ part of the product portfolio wireless glove tester
Model: Network Extender wirelessGlovTester evolution 2
Test Site: Eurofins Product Service GmbH
Operator: Toralf Jahn
Test Conditions: Tnom: 24 °Celsius°C, Vnom: 24 VDC (120VAC/DC adaptor)
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 1 m converted to 3m
Mode: RX; IEEE 802.15.4, Receive
Test Date: 2020-10-06
Note: EUT hor

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RadiMation



== END OF TEST REPORT ==