RADIO REPORT

FCC 47 CFR Part 15C

Digital transmission systems operating within the 902.0 MHz - 928.0 MHz band

Report Reference No	G0M-2208-1620-TFC247DT-V02
Testing Laboratory	Eurofins Product Service GmbH
Address	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation	DAkkS - Registration number : D-PL-12092-01-03 (ISED) ISED Testing Laboratory site: 3470A DAkkS - Registration number : D-PL-12092-01-04 (FCC) FCC Filed Test Laboratory, Reg.-No.: 96970
Applicant	ansonic Funk- und Antriebstechnik GmbH
Address	Deilbachtal 23-25 45257 Essen GERMANY
Test Specification	47 CFR Part 15C
Non-Standard Test Method	None
Equipment under Test (EUT):	
Product Description	RF Tranceiver SRD
Model(s)	NXLD
Additional Model(s)	None
Brand Name(s)	None
Hardware Version(s)	1.2
Software Version(s)	1.2
FCC ID	2A28Q-NXLD
IC	-/-
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	2022-11-14	
Report:		
Compiled by	Odai Qawasmeh	
Tested by (+ signature) (Responsible for Test)	Odai Qawasmeh	O. Qawasmeh
Tested by (+ signature) (Responsible for Test)	Florian Voigt	F. Voigt
Approved by (+ signature) (Test Lab Engineer)	Wilfried Treffke	W. Treff
Date of Issue	2023-01-19	
Total number of pages	108	
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	2022-12-18	Initial Release	O. Qawasmeh
02	2023-01-19	Replaced document: G0M-2208-1620-TFC247DT-V01 Replaced by: G0M-2208-1620-TFC247DT-V02 Reason: • Correction of antenna gain • Photos added in section 1.1 • Correction of test equipment table and headline in section 3.3 for test case “Maximum average conducted output power”	

ABBREVIATIONS AND ACRONYMS

Acronyms	
Acronym	Description
EUT	Equipment Under Test
FCC	Federal Communications Commission
ISED	Innovation, Science and Economic Development Canada
RBW	Resolution bandwidth
RMS	Root mean square
VBW	Video bandwidth
V_{NOM}	Nominal supply voltage

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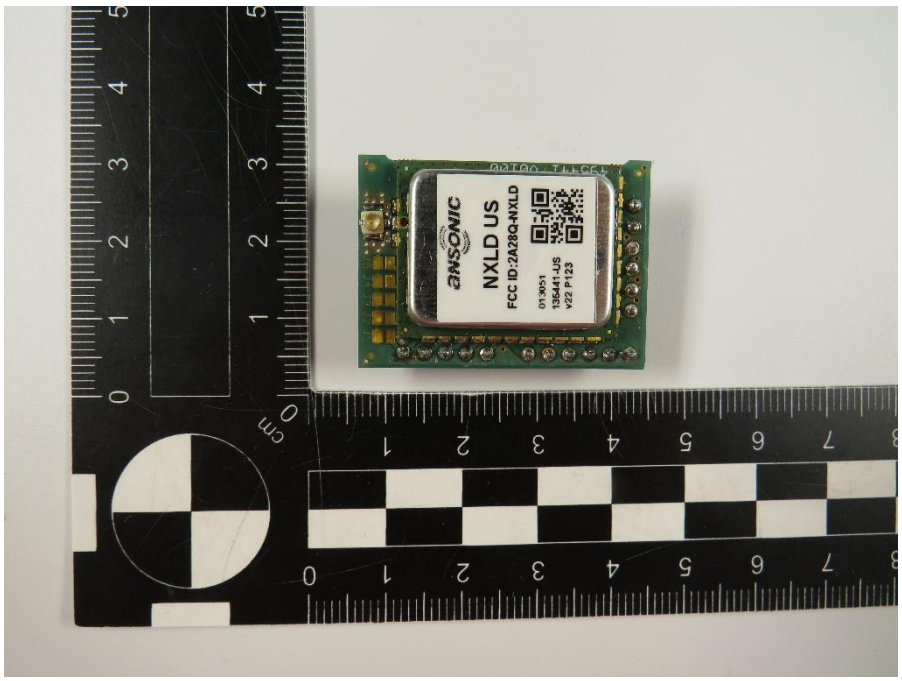
ANNEX A Transmitter spurious emissions 76

1 Equipment (Test Item) Under Test

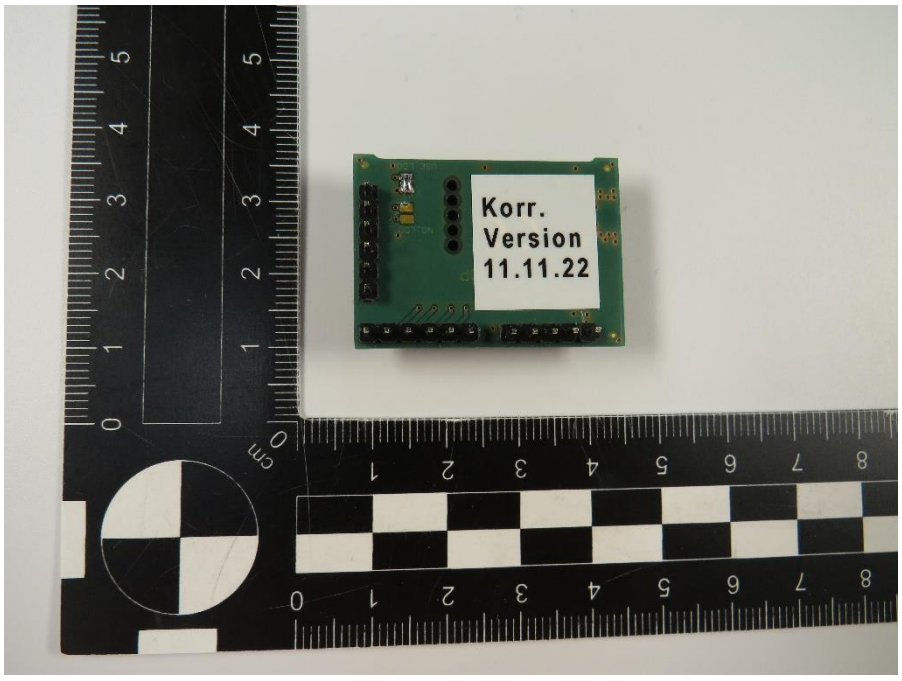
Description	RF Tranceiver SRD	
Model	NXLD	
Additional Model(s)	None	
Brand Name(s)	None	
Serial Number(s)	Prototype	
Test Sample Id(s)	EUT: 42093 Fixed Wire antenna: 41526 Flex Antenna: 41525	
Hardware Version(s)	1.2	
Software Version(s)	1.2	
FCC ID	2A28Q-NXLD	
Equipment type	End Product	
Radio type	Transceiver	
Assigned frequency bands	902.0 MHz - 928.0 MHz	
Radio technology	Digital Modulation	
Modulation	CSS	
Number of antenna ports	1	
Antenna 1	Type	Integrated
	Model	ANT-8/9-FPC-UFL
	Manufacturer	LINX
	Gain	-3 dBi
Antenna 2	Type	External
	Model	VR5_915
	Manufacturer	Ansonic
	Gain	5 dBi
Supply Voltage	V_{NOM}	3.5 VDC
Operating Temperature	T_{NOM}	20 °C
AC/DC-Adaptor	None	
Manufacturer	ansonic Funk- und Antriebstechnik GmbH Deilbachtal 23-25 45257 Essen GERMANY	

1.1 Photos – Equipment External & Internal

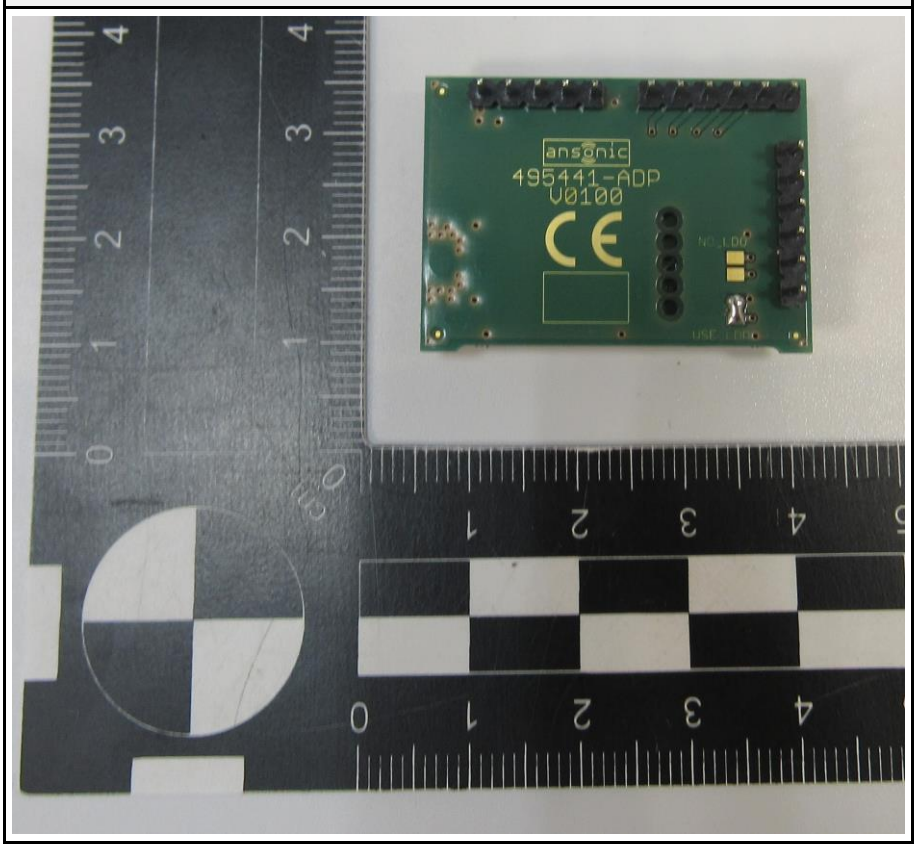
PCB Module Top View



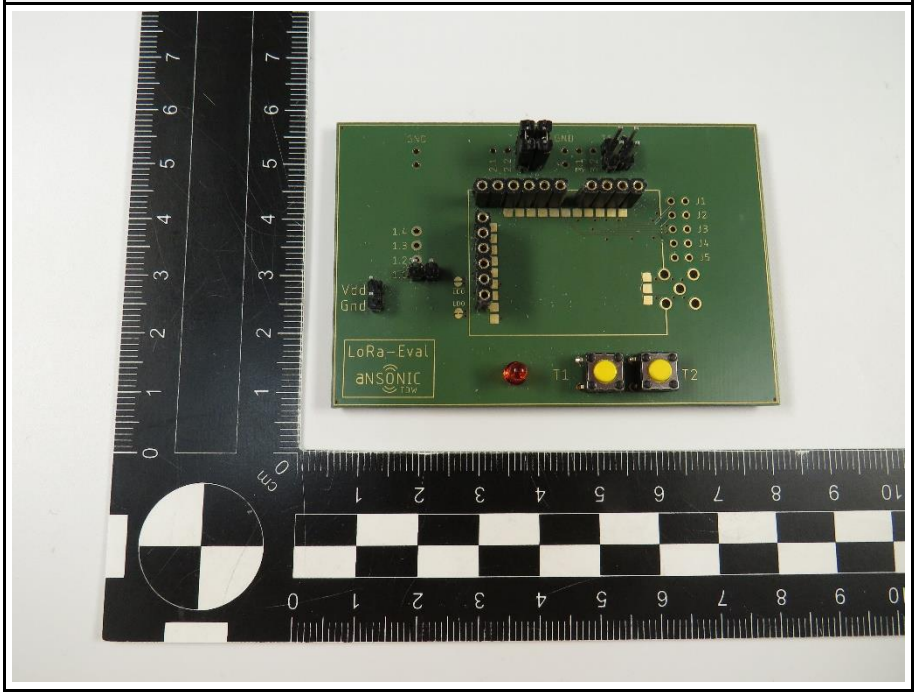
PCB Module Bottom View



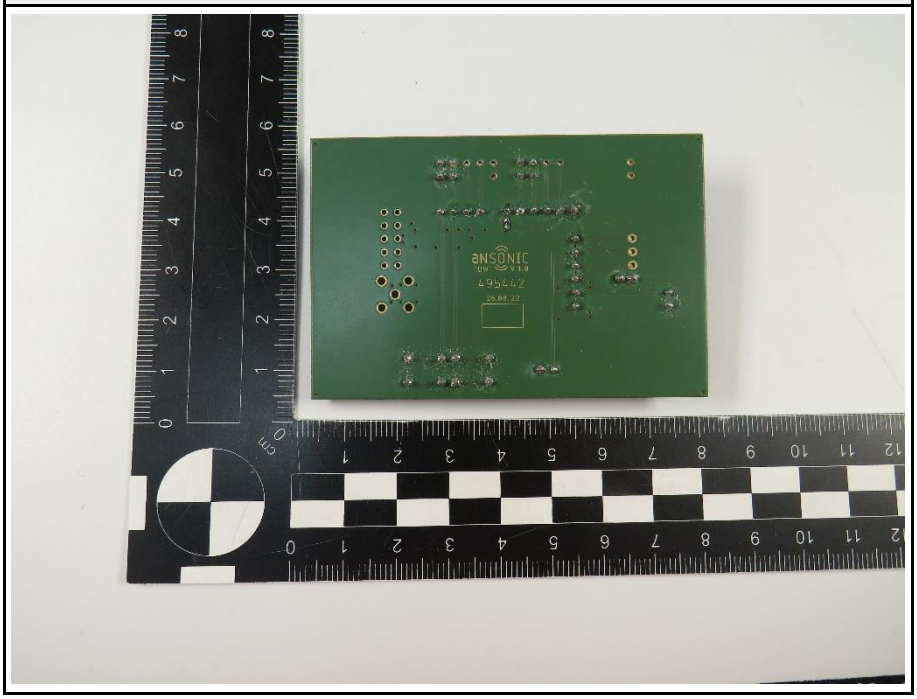
PCB Module Bottom View (without label)



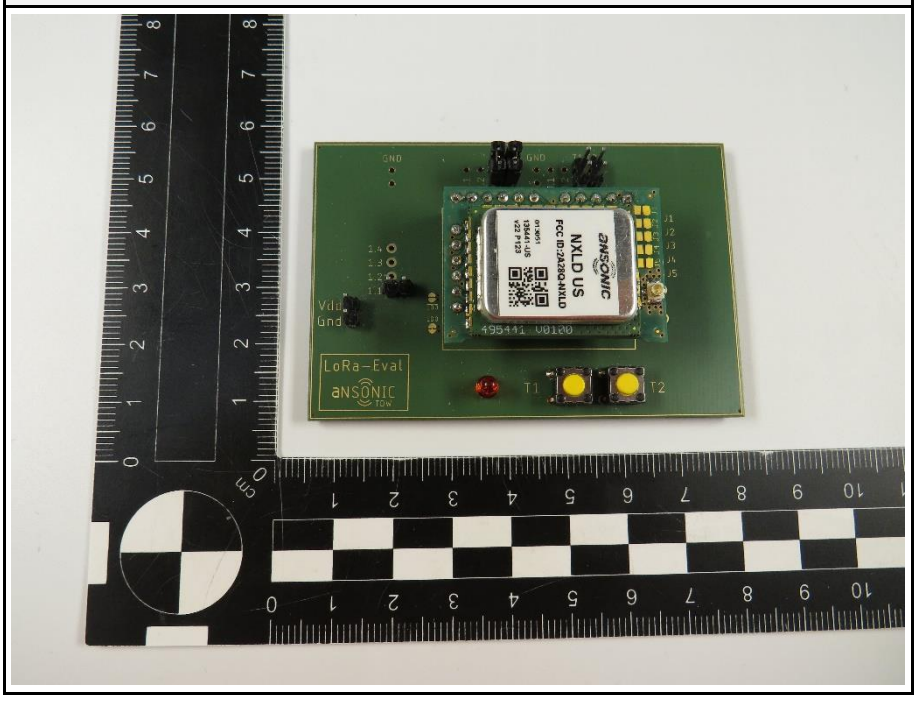
Evaluation Board Top View



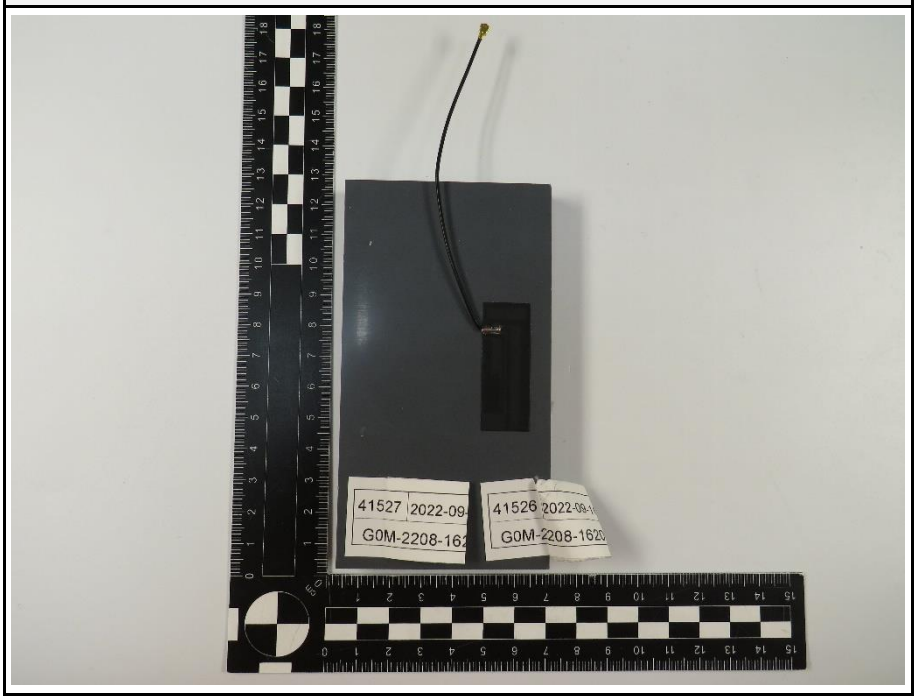
Evaluation Board Bottom View



Radio Module on the Evaluation Board



Fixed Wire Antenna



Flex Antenna

1.2 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
AE	Evaluation Board	Ansonic	-	for configuring test modes
Description:				
AE	Auxiliary Equipment			
SIM	Simulator			
CBL	Connecting Cable			
SFT	Software			
Comment: Jumpers were used to set the channels, no extra software or auxiliary equipment was necessary.				

1.3 Test mode duty cycle

1.3.1 Information

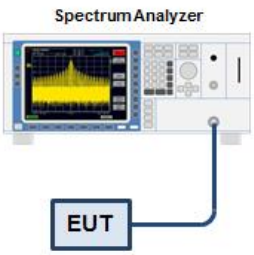
Test Information	
Measurement Method	ANSI C63.10 11.6

1.3.2 Requirements

Requirements	
Duty cycle	Duty cycle correction
≥ 98 %	No correction required
< 98 %	Correction required (10 x Log_{10}(1/DC)

1.3.3 Setup

Test Setup



1.3.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyser	R&S	FSU 26	EF01003	2022-07	2023-07
Cable	Gigalane	CAABD	EF00779	2022-02	2023-02

1.3.5 Procedure

Test Procedure

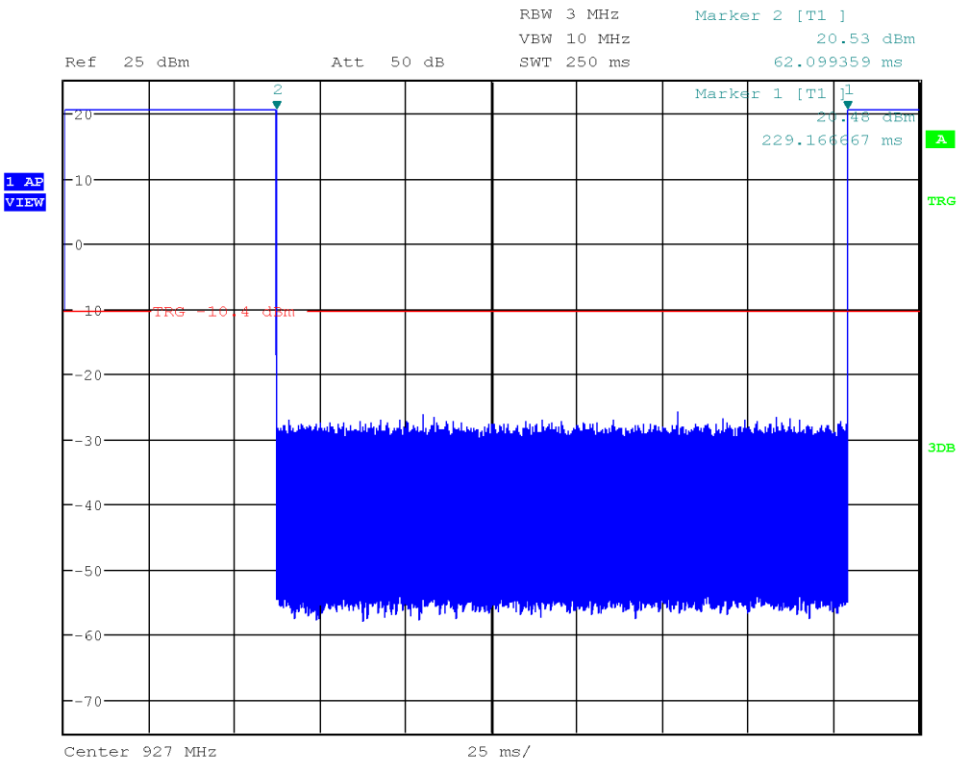
1. EUT set to test mode
2. Span is set to zero span
3. Detector set to peak
4. Sweep time is set long enough to capture at least 5 bursts
5. Envelope peak value of emission spectrum is selected
6. The maximum burst duration T_{ON} is measured using two markers set to the start and the end of the longest burst
7. The minimum idle duration T_{OFF} is measured using two markers set to the start and the end of the shortest idle period
8. The duty cycle is calculated by DC = T_{ON} / (T_{ON} + T_{OFF})
9. The duty cycle correction is calculated by DC = 10 x Log_{10}(T_{ON} / (T_{ON} + T_{OFF}))

1.3.6 Results

Duty Cycle Results		
Mode	Duty Cycle	Correction Factor [dB]
Transmit	27.1%	5.67

Duty cycle evaluation

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-25
Operating Conditions:	Tnom/Vnom
Mode:	927 MHz, CSS



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1.4 Test Modes

Mode	Description
Transmit	Mode = Transmit Modulation = CSS (LoRa) Encoding = DSSS Spreading factor = 10 Coding rate = 4/5 Bandwidth = 500 kHz Duty cycle = 27 %
Receive	Mode = Receive
Comment:	

1.5 Test Frequencies

Designator	Mode	Channel	Frequency [MHz]
F1	Tx	1	903
F2	Tx	2	911
F3	Tx	3	919
F4	Tx	4	927

1.6 Sample emission level calculation

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

Reading:

This is the reading obtained on the spectrum analyzer in 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:

Reading on Analyzer (dBµV) + A.F. (dB/m) = Net field strength (dBµV/m)

Net:

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

Margin:

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

Field strength limit:

This is the FCC Class B radiated emission limit (in units of 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:

Field strength limit (dBµV/m) = 20 · log (µV/m)

Example only for radiated field strength:

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

2 Result Summary

FCC 47 CFR Part 15C, ISED RSS-247				
Product Standard Reference	**Requirement**	**Reference Method**	**Result**	**Remarks**
ISED RSS-Gen, Issue 5 A2 (section 6.7)	Occupied Bandwidth	ANSI C63.10-2013	N/R	Informational only
FCC § 15.247(a)(2) ISED RSS-247, Issue 2 (section 5.2)	6 dB Bandwidth	ANSI C63.10-2013	PASS	
FCC § 15.247(b) 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 A2 (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 C63.4-2014	N/R	
Comment: The Decision Rule is applied on the basis of ETSI TR 102 273 and ETSI TR 100 028. These standards provide guidance on how to calculate and apply measurement uncertainty whilst providing maximum uncertainties allowance. In all cases due consideration will be given to ILAC-G8:09/2019. Where a result is considered conditional in respect of its proximity to the limit line, the customer would be made aware of situation so that they can make an informed decision on how to proceed.				

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

3 Test Conditions and Results

3.1 Test Conditions and Results - Occupied bandwidth

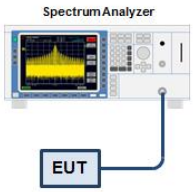
3.1.1 Information

Test Information	
Reference	ISED RSS-Gen, Issue 5 A2 (section 6.7)
Measurement Method	ANSI C63.10 6.9.3
Measurement Uncertainty	± 1.26 %
Test Sample ID	41520
Operator	Florian Voigt
Date	2022-11-25

3.1.2 Limits

Limits
None (Informational only)

3.1.3 Setup

Test Setup


3.1.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyser	R&S	FSU 26	EF01003	2022-07	2023-07
Cable	Gigalane	CAABD	EF00779	2022-02	2023-02

3.1.5 Procedure

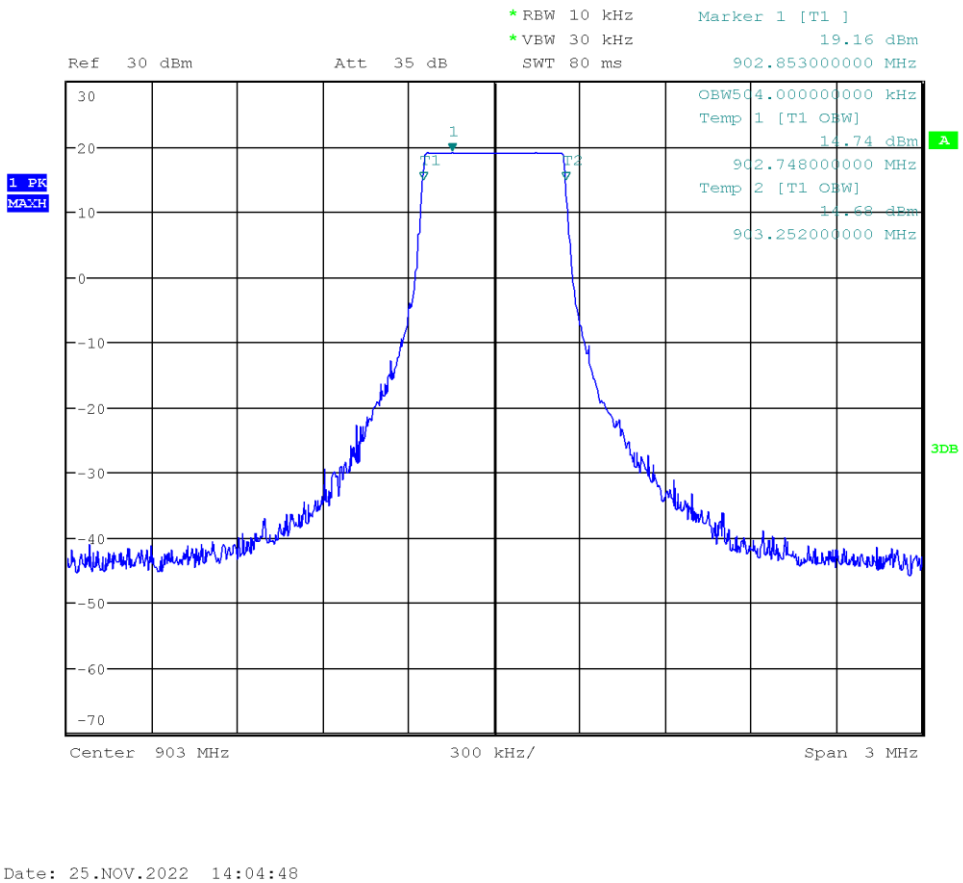
Test Procedure
1. EUT transmitter is activated in test mode under normal conditions 2. The spectrum analyzer is set to peak detection and maximum hold with a span twice the emission spectrum 3. The resolution bandwidth is set to the range of 1 % to 5 % of the occupied bandwidth 4. The occupied bandwidth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

3.1.6 Results

Test Results		
Mode	Frequency [MHz]	Bandwidth [MHz]
Transmit	903	0.504
Transmit	911	0.504
Transmit	919	0.504
Transmit	927	0.504

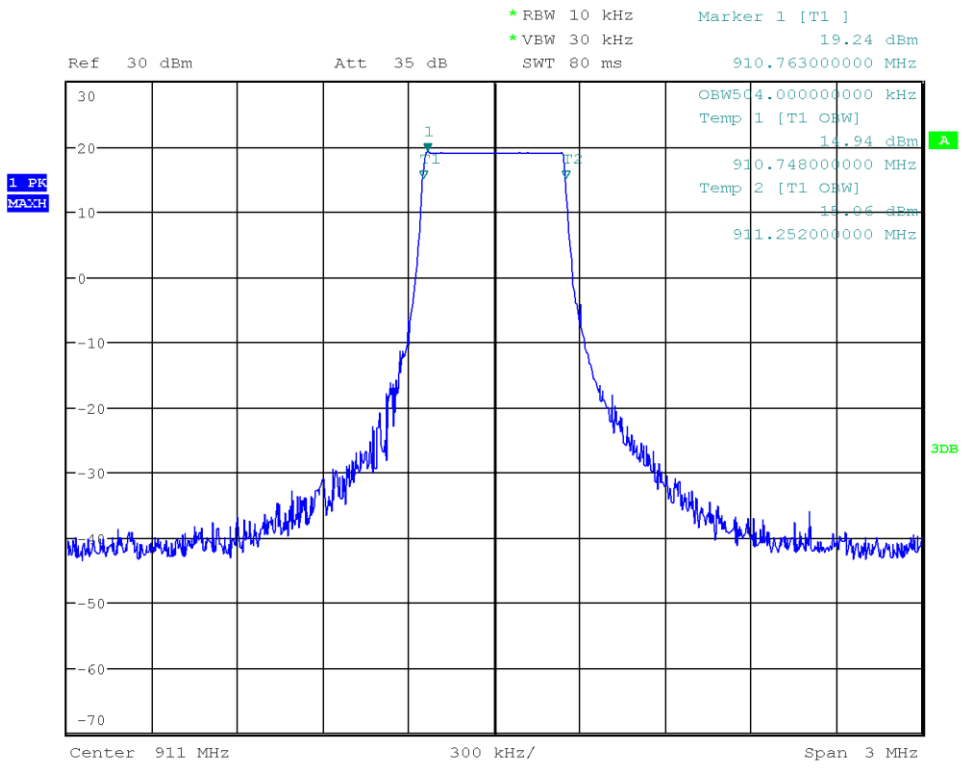
Occupied Bandwidth

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.9.3
Operational Mode:	CSS, Channel: 903 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-25
Occupied Bandwidth [MHz]:	0.504



Occupied Bandwidth

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.9.3
Operational Mode:	CSS, Channel: 911 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-25
Occupied Bandwidth [MHz]:	0.504



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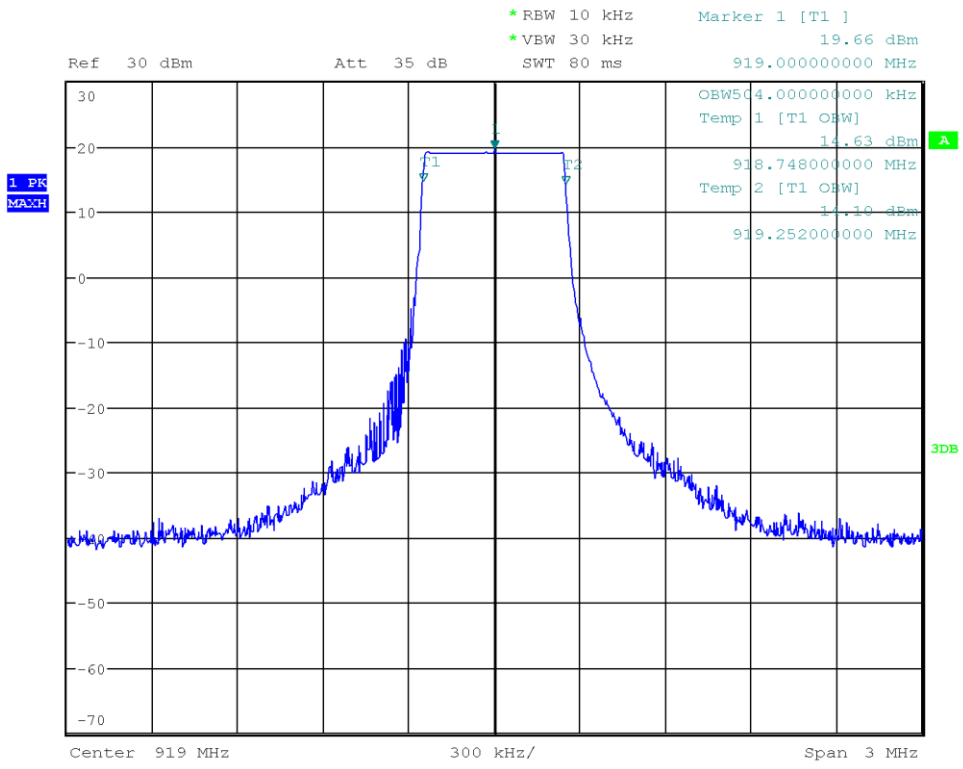
Occupied Bandwidth

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.9.3
Operational Mode:	CSS, Channel: 919 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-25
Occupied Bandwidth [MHz]:	0.504



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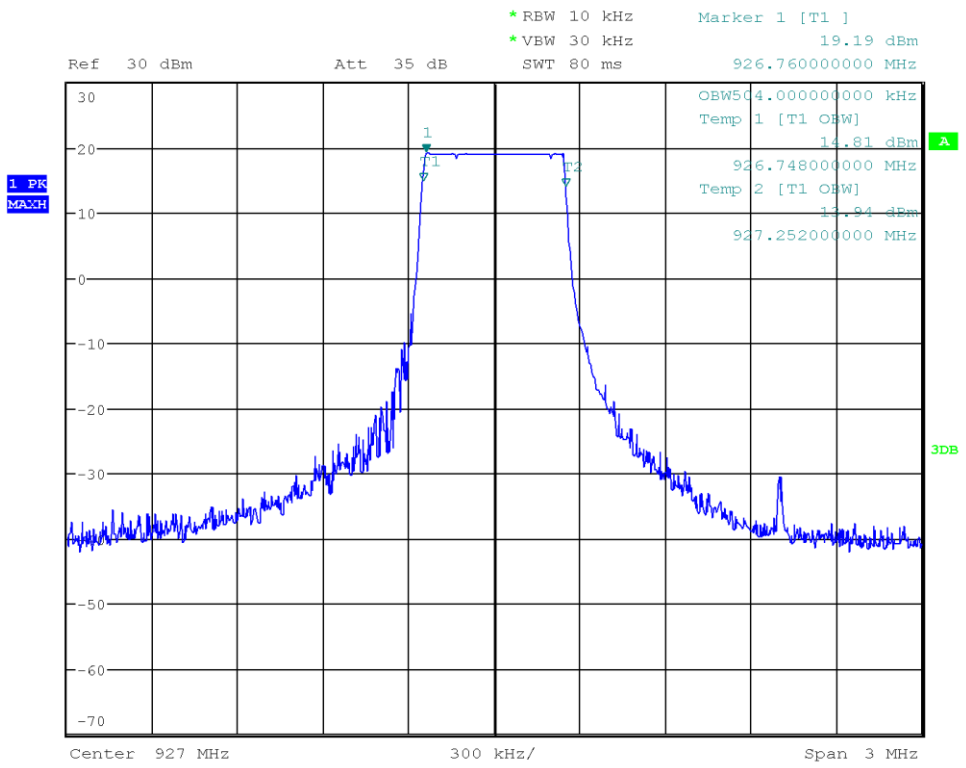
Occupied Bandwidth

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.9.3
Operational Mode:	CSS, Channel: 927 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-25
Occupied Bandwidth [MHz]:	0.504



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3.2 Test Conditions and Results - 6 dB bandwidth

3.2.1 Information

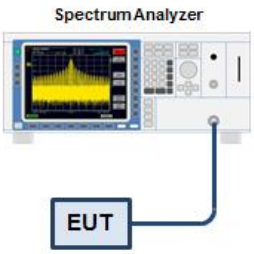
Test Information	
Reference	FCC § 15.247(a)(2); ISED RSS-247, Issue 2 (section 5.2)
Measurement Method	ANSI C63.10 11.8
Measurement Uncertainty	± 1.26 %
Operator	Florian Voigt
Date	2022-11-24

3.2.2 Limits

Limits
≥ 500kHz

3.2.3 Setup

Test Setup



3.2.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyser	R&S	FSU 26	EF01003	2022-07	2023-07
Cable	Gigalane	CAABD	EF00779	2022-02	2023-02

3.2.5 Procedure

Test Procedure

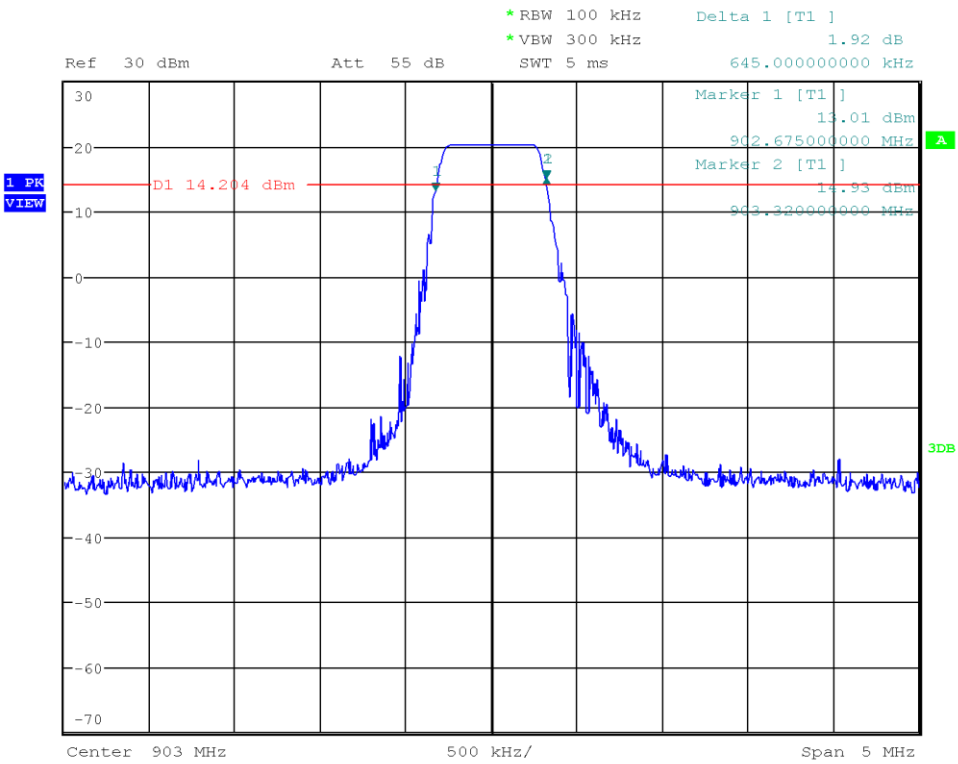
1. EUT set to test mode
2. Span set to at least twice the emission spectrum
3. Detector set to peak and max hold and RBW is set to 100 kHz
4. Envelope peak value of emission spectrum is selected
5. Marker on envelope of spectrum is set to level of -6 dB to the left of the peak
6. Marker on envelope of 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				
Mode	Frequency [MHz]	Bandwidth [kHz]	Limit [kHz]	Verdict
Transmit	903	645	500	PASS
Transmit	911	640	500	PASS
Transmit	919	635	500	PASS
Transmit	927	645	500	PASS

DTS (6 dB) Bandwidth

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.8.1 Option 1
Operational Mode:	CSS, Channel: 903 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-24
Lower Frequency [MHz]:	902.675
Upper Frequency [MHz]:	903.320
6 dB Bandwidth [kHz]:	645



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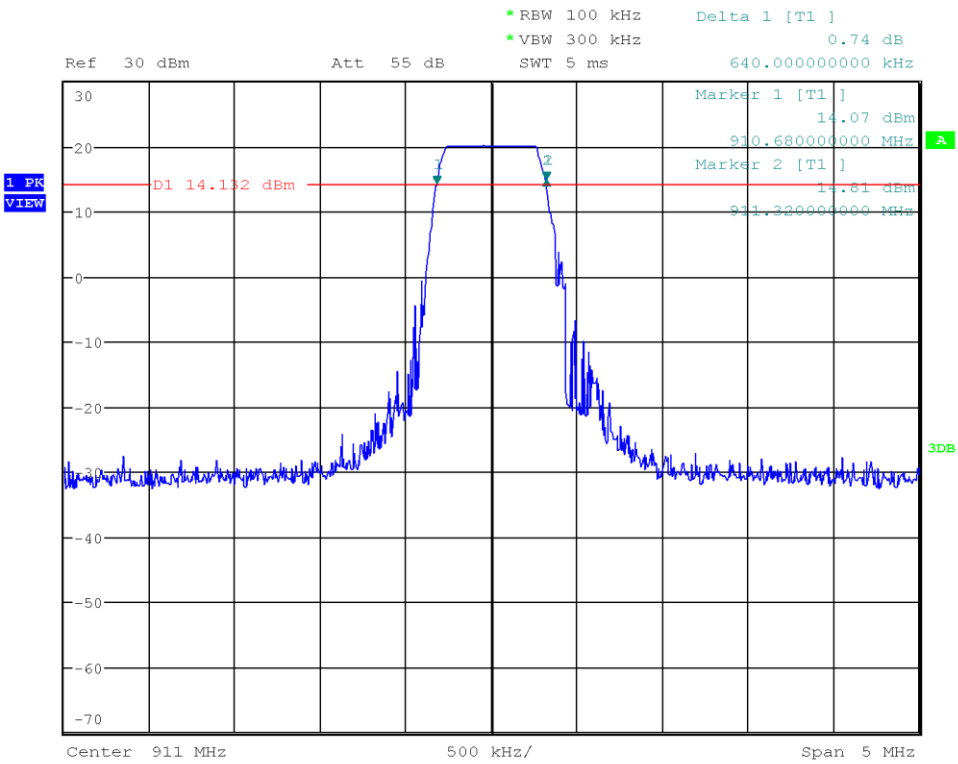
DTS (6 dB) Bandwidth

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.8.1 Option 1
Operational Mode:	CSS, Channel: 911 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-24
Lower Frequency [MHz]:	910.680
Upper Frequency [MHz]:	911.320
6 dB Bandwidth [kHz]:	640



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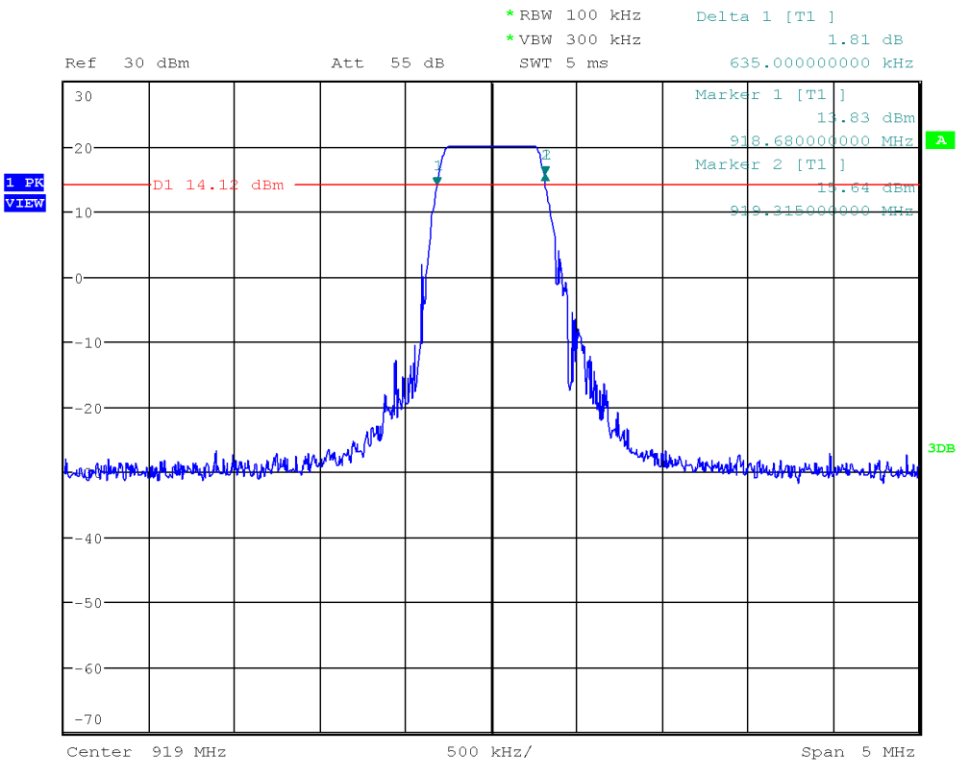
DTS (6 dB) Bandwidth

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.8.1 Option 1
Operational Mode:	CSS, Channel: 919 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-24
Lower Frequency [MHz]:	918.680
Upper Frequency [MHz]:	919.315
6 dB Bandwidth [kHz]:	635



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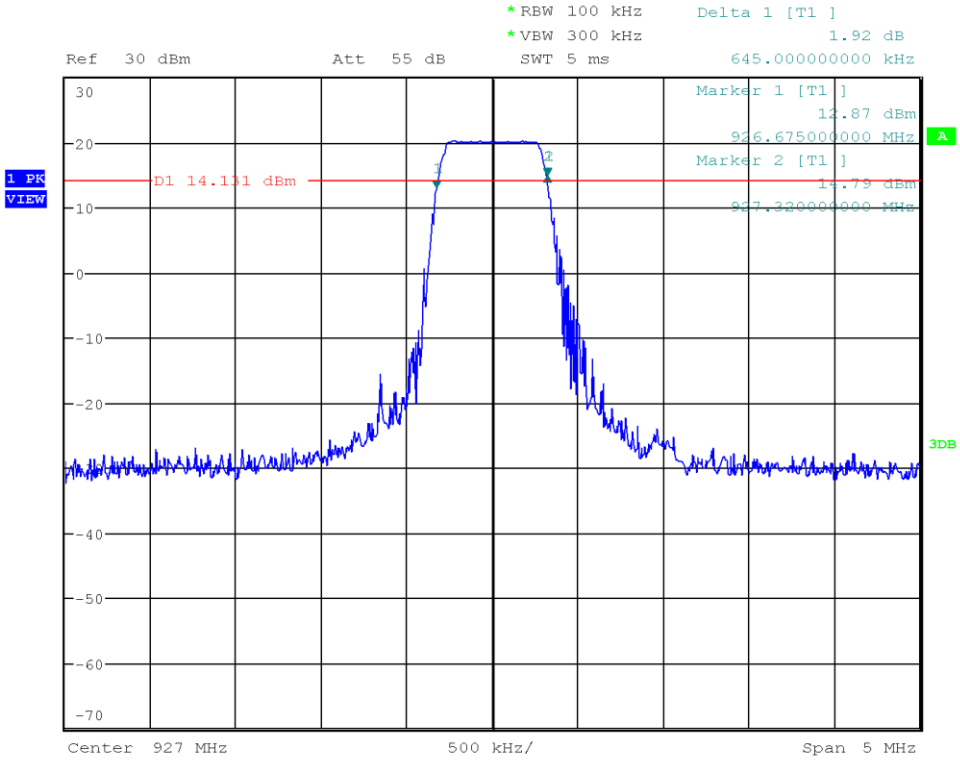
DTS (6 dB) Bandwidth

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.8.1 Option 1
Operational Mode:	CSS, Channel: 927 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-24
Lower Frequency [MHz]:	926.675
Upper Frequency [MHz]:	927.320
6 dB Bandwidth [kHz]:	645



Date: 24.NOV.2022 18:00:40

3.3 Test Conditions and Results - Maximum average conducted output power

3.3.1 Information

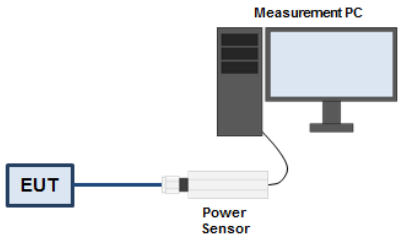
Test Information	
Reference	FCC § 15.247(b); ISED RSS-247, Issue 2 (section 5.4)
Measurement Method	ANSI C63.10 11.9.2.3.2
Measurement Uncertainty	± 1.59 dB
Operator	Florian Voigt
Date	2022-11-24

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

Test Setup



3.3.4 Equipment

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

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Power sensor	ETS-Lindgren	7002-006	EF00934	2022-07	2023-07

3.3.5 Procedure

Test Procedure

1. EUT set to test mode (Communication tester is used if needed)
2. Gated wide band power sensor is connected to antenna port of the EUT
3. The output power is measured at antenna ports
4. The maximum RMS power level is determined within a signal burst

3.3.6 Results

Test Results				
Channel [MHz]	Power [dBm]	Power [W]	Limit [W]	Verdict
903	21.5	0.14	1.0	PASS
911	21.4	0.14	1.0	PASS
919	21.5	0.14	1.0	PASS
927	21.5	0.14	1.0	PASS

3.4 Test Conditions and Results - Power spectral density

3.4.1 Information

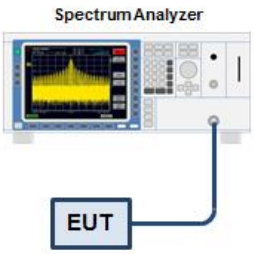
Test Information	
Reference	FCC § 15.247(e); ISED RSS-247, Issue 2 (section 5.2)
Measurement Method	ANSI C63.10 11.10.3, 14.3.2
Measurement Uncertainty	± 2.86 dB
Operator	Florian Voigt
Date	2022-11-23 + 2022-11-24

3.4.2 Limits

Limits
8 dBm / 3 kHz

3.4.3 Setup

Test Setup



3.4.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyser	R&S	FSU 26	EF01003	2022-07	2023-07
Cable	Gigalane	CAABD	EF00779	2022-02	2023-02

3.4.5 Procedure

Test Procedure

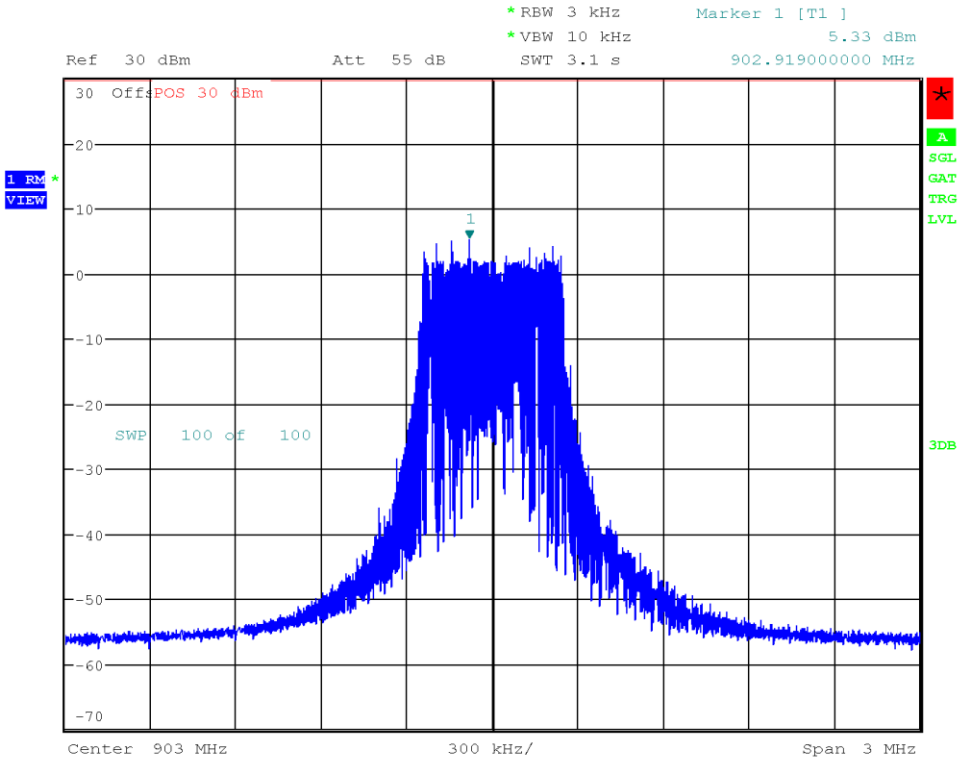
1. EUT set to test mode
2. The analyzer is set to DTS channel center frequency with a span of 1.5 times the DTS bandwidth
3. The RBW is set to 100 kHz with VBW ≥ RBW, the detector is set to RMS, sweeptime is set to auto couple and power trace averaging is set for 100 traces
4. A gated trigger is applied if transmission duty cycle is less than 98%
5. After averaging over 100 traces is completed a marker is set to the envelope maximum
6. If the power spectral density is above the limit the RBW is reduced (not lower than 3 kHz) and the measurement is repeated
7. If the EUT has more than one transmit chain the procedure is repeated for each transmit chain

3.4.6 Results

Test Results			
Channel [MHz]	PSD [dBm/RBW]	Limit [dBm/3kHz]	Verdict
903	5.33	8.0	PASS
911	5.35	8.0	PASS
919	6.68	8.0	PASS
927	5.27	8.0	PASS
RBW = 3 kHz			

Average Power Spectral Density

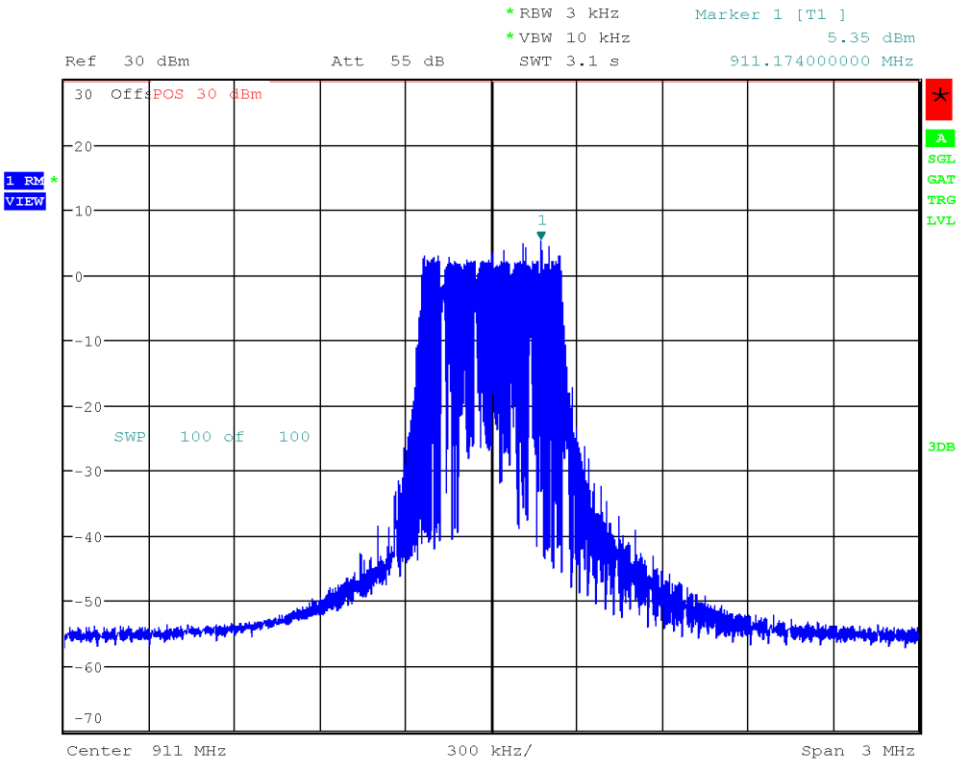
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.10.3
Operational Mode:	CSS, Channel: 903 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-23
Note:	Based on max. cond. average output power
Peak Frequency [MHz]:	902.919
Spectral Density [dBm/RBW]:	5.33
Resolution Bandwidth [kHz]:	3 kHz



Date: 23.NOV.2022 18:43:13

Average Power Spectral Density

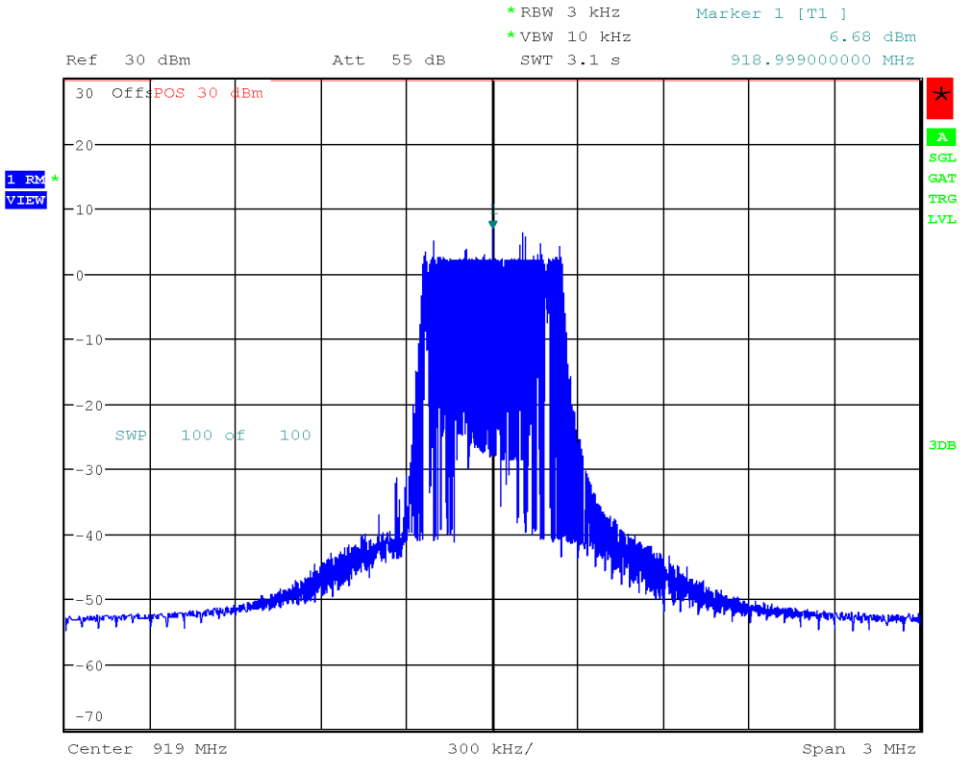
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.10.3
Operational Mode:	CSS, Channel: 911 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-23
Note:	Based on max. cond. average output power
Peak Frequency [MHz]:	911.174
Spectral Density [dBm/RBW]:	5.35
Resolution Bandwidth [kHz]:	3 kHz



Date: 23.NOV.2022 19:14:02

Average Power Spectral Density

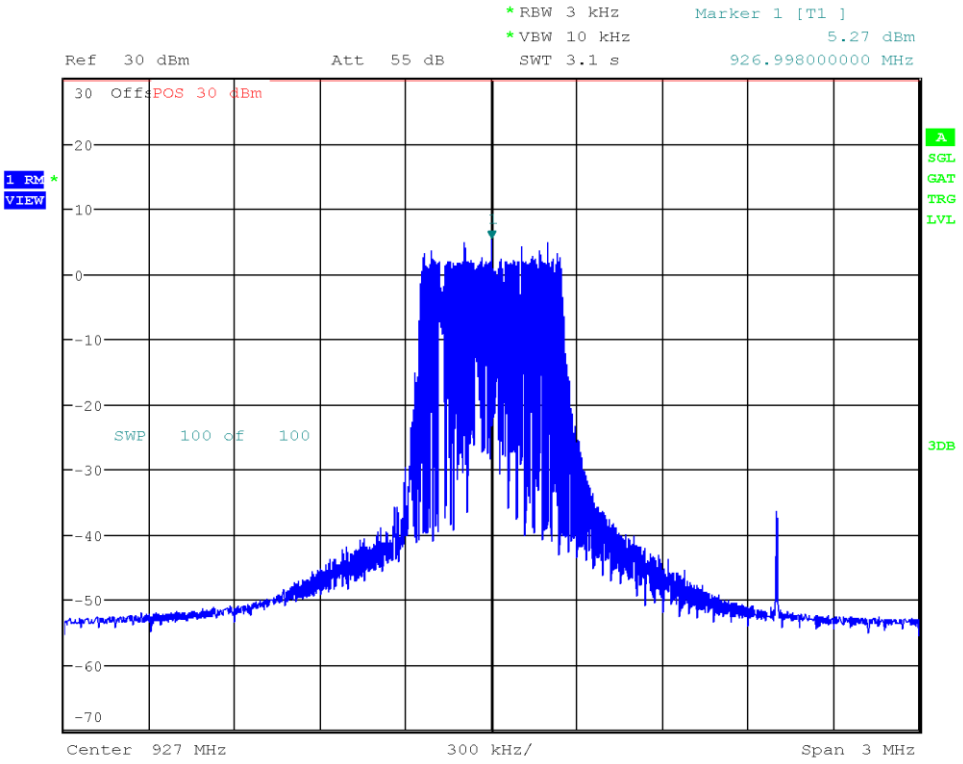
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.10.3
Operational Mode:	CSS, Channel: 919 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-24
Note:	Based on max. cond. average output power
Peak Frequency [MHz]:	918.999
Spectral Density [dBm/RBW]:	6.68
Resolution Bandwidth [kHz]:	3 kHz



Date: 24.NOV.2022 14:25:22

Average Power Spectral Density

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.10.3
Operational Mode:	CSS, Channel: 927 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-24
Note:	Based on max. cond. average output power
Peak Frequency [MHz]:	926.998
Spectral Density [dBm/RBW]:	5.271
Resolution Bandwidth [kHz]:	3 kHz



Date: 24.NOV.2022 15:30:58

3.5 Test Conditions and Results - AC powerline conducted emissions

3.5.1 Information

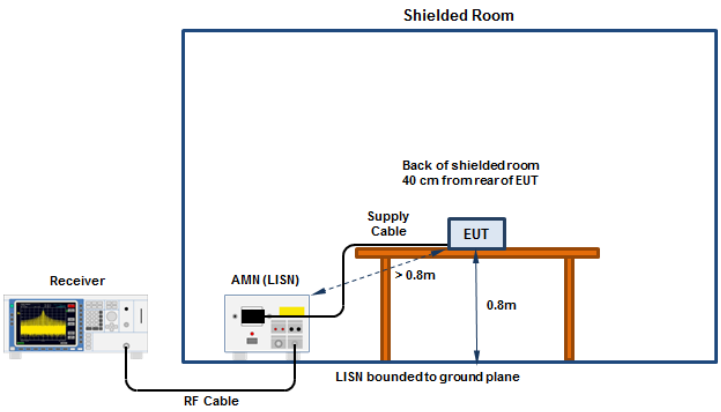
Test Information	
Reference	FCC § 15.207; ISED RSS-247, Issue 2 (section 3.1)
Measurement Method	ANSI C63.10 6.2
Measurement Uncertainty	± 3.82 dB
Operator	Odai Qawasmeh
Date	2022-11-25

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

Test Setup



3.5.4 Equipment

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

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
EMI Test Receiver	R&S	ESR7	EF00943	2022-07	2023-07
Pulse Limiter	R&S	ESH3-Z2	EF01222	2021-07	2023-07
LISN	Schwarzbeck	NSLK 8127 RC	EF01592	2021-07	2023-07

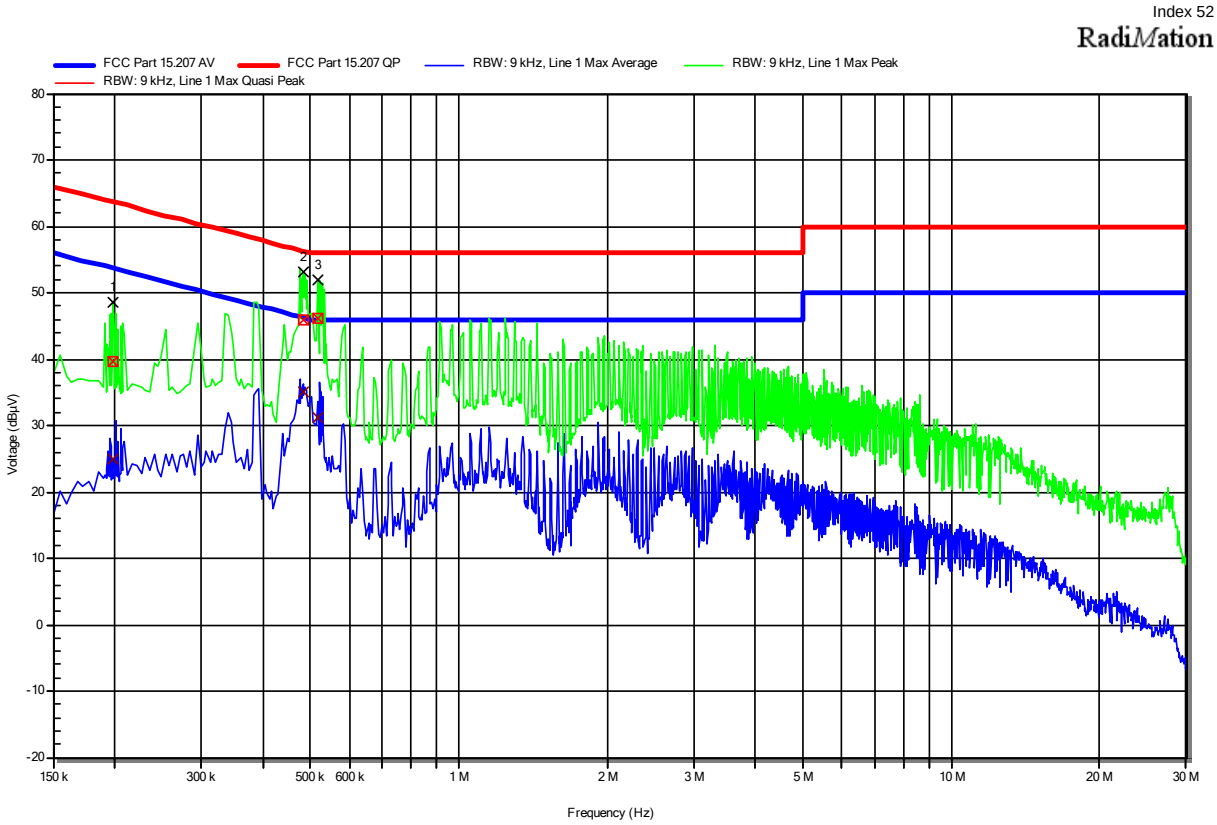
3.5.5 Setup Photos

Setup for measurements 150 kHz - 30 MHz (Fixed wire Antenna)

Setup for measurements 150 kHz - 30 MHz (Flex Link Antenna)

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 21 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127 RC L1
Operational Mode:	DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna
EUT Configuration:	fixed wire
Applied to Port:	120 VAC / 60 Hz
Note 1:	

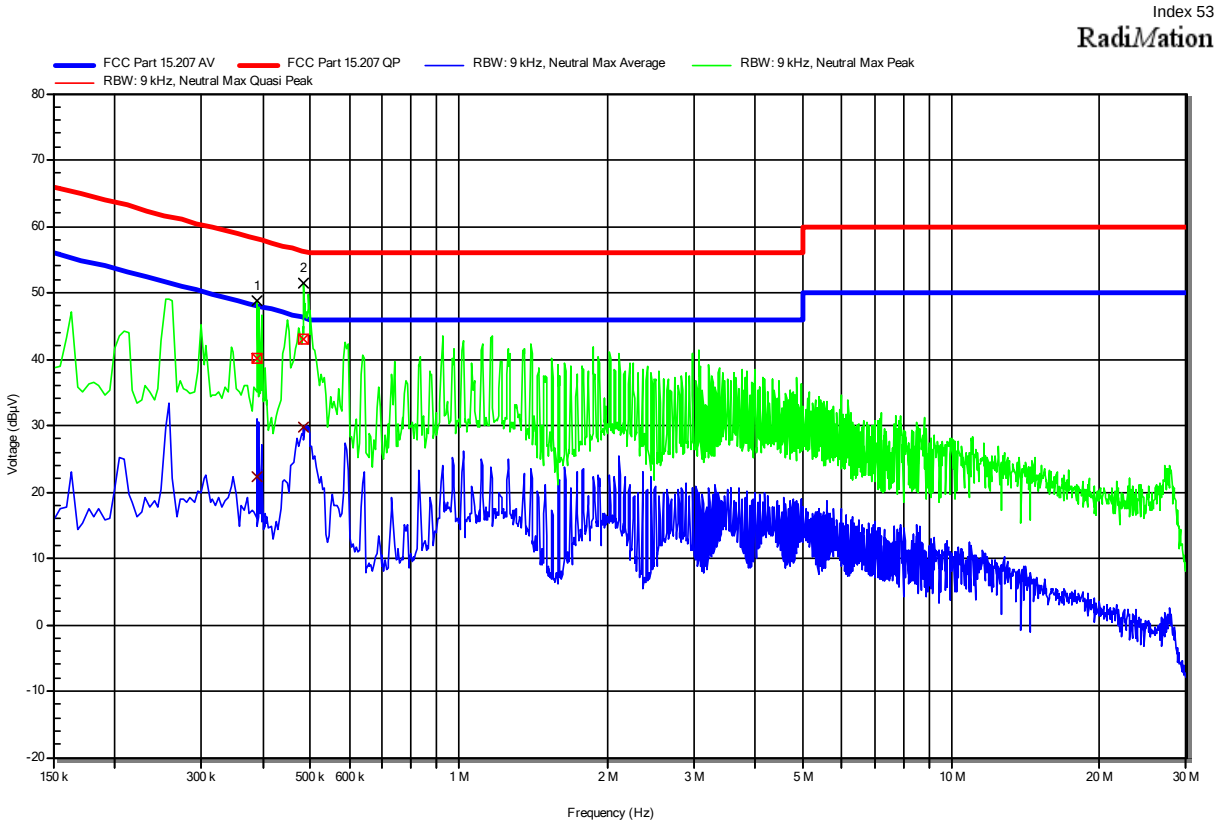


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	198.6 kHz	39.6 dBµV	63.67 dBµV	-24.07 dB	Pass	Line 1
2	482.55 kHz	46.02 dBµV	56.3 dBµV	-10.27 dB	Pass	Line 1
3	519 kHz	46.1 dBµV	56 dBµV	-9.9 dB	Pass	Line 1

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	198.6 kHz	25.01 dBµV	53.67 dBµV	-28.66 dB	Pass	Line 1
2	482.55 kHz	34.99 dBµV	46.3 dBµV	-11.3 dB	Pass	Line 1
3	519 kHz	31.27 dBµV	46 dBµV	-14.73 dB	Pass	Line 1

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 21 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127
Operational Mode:	DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna
EUT Configuration:	fixed wire
Applied to Port:	120 VAC / 60 Hz
Note 1:	

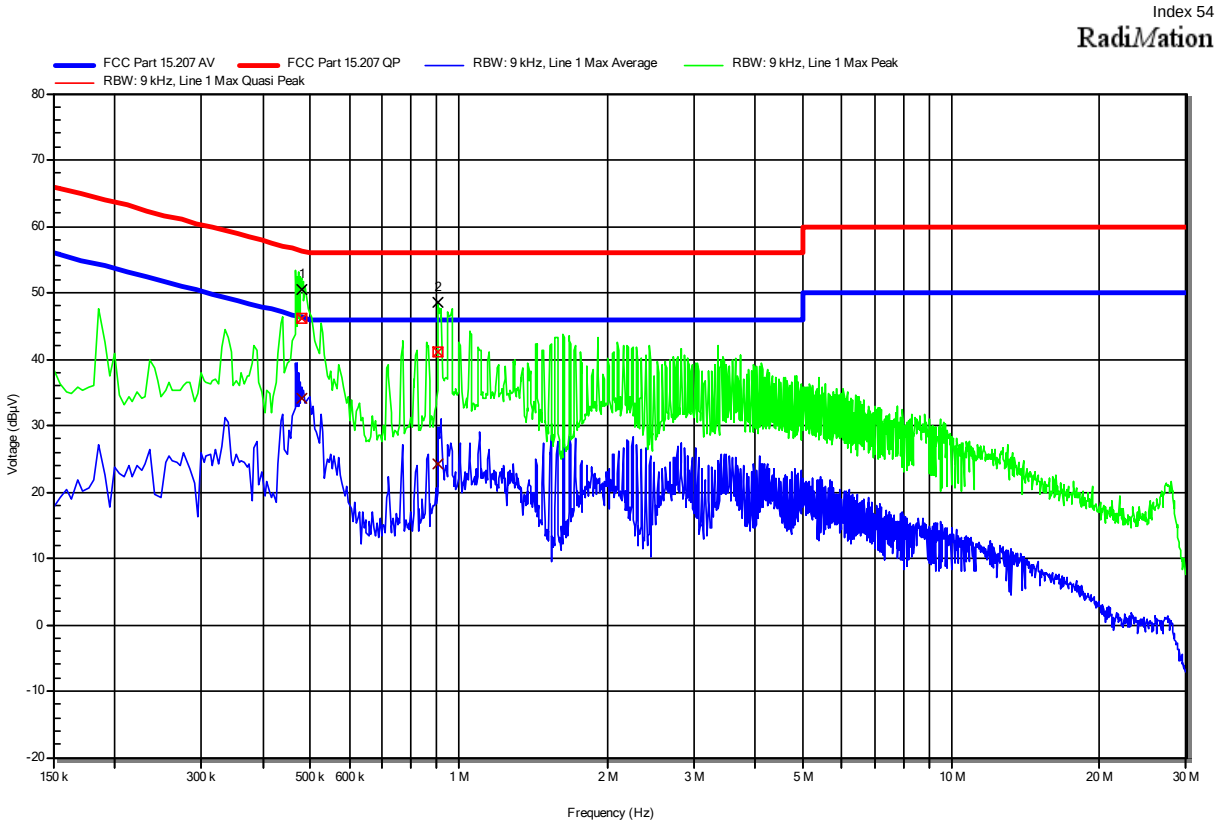


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	388.95 kHz	40.16 dBµV	58.09 dBµV	-17.93 dB	Pass	Neutral
2	484.8 kHz	42.9 dBµV	56.26 dBµV	-13.36 dB	Pass	Neutral

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	388.95 kHz	22.26 dBµV	48.09 dBµV	-25.83 dB	Pass	Neutral
2	484.8 kHz	29.88 dBµV	46.26 dBµV	-16.38 dB	Pass	Neutral

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 21 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127 RC L1
Operational Mode:	DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna
EUT Configuration:	fixed wire
Applied to Port:	120 VAC / 60 Hz
Note 1:	

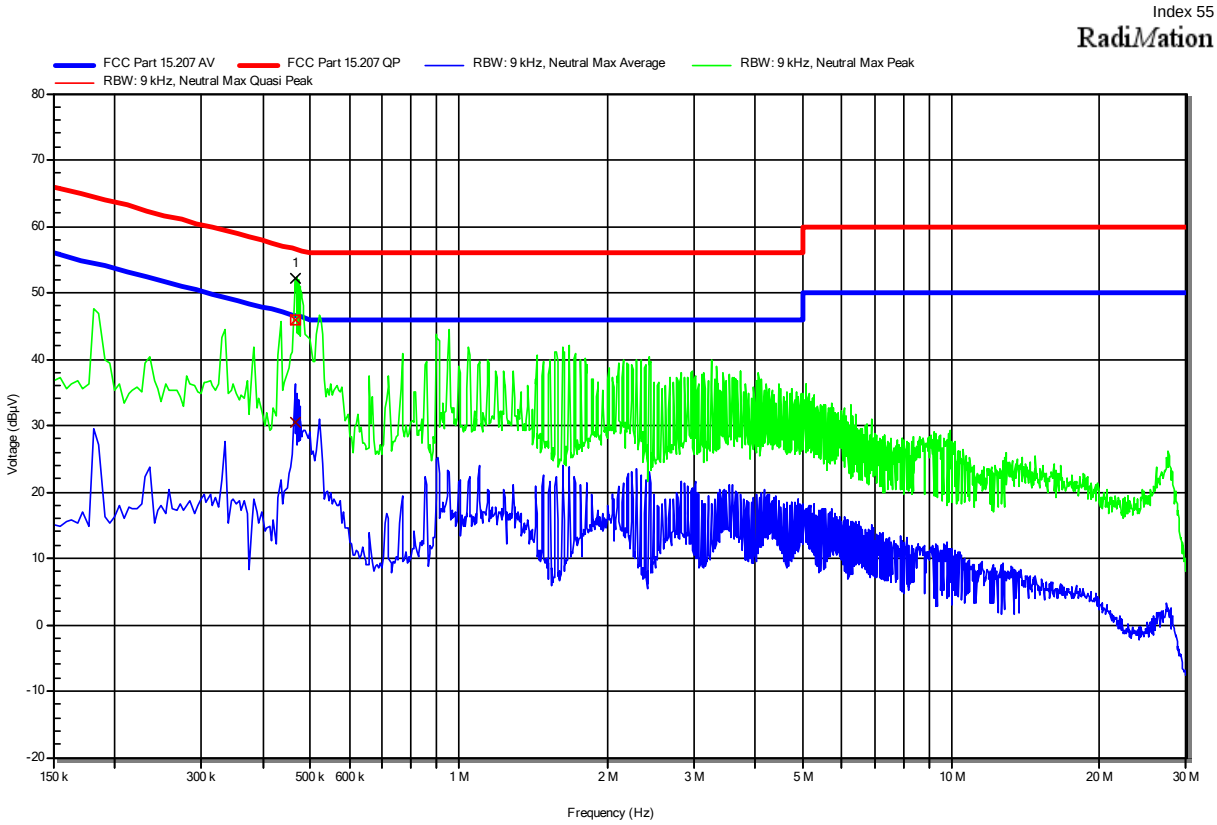


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	478.95 kHz	46.21 dBµV	56.36 dBµV	-10.15 dB	Pass	Line 1
2	906.45 kHz	41.04 dBµV	56 dBµV	-14.96 dB	Pass	Line 1

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	478.95 kHz	34.18 dBµV	46.36 dBµV	-12.17 dB	Pass	Line 1
2	906.45 kHz	24.2 dBµV	46 dBµV	-21.8 dB	Pass	Line 1

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 21 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127
Operational Mode:	DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna
EUT Configuration:	fixed wire
Applied to Port:	120 VAC / 60 Hz
Note 1:	

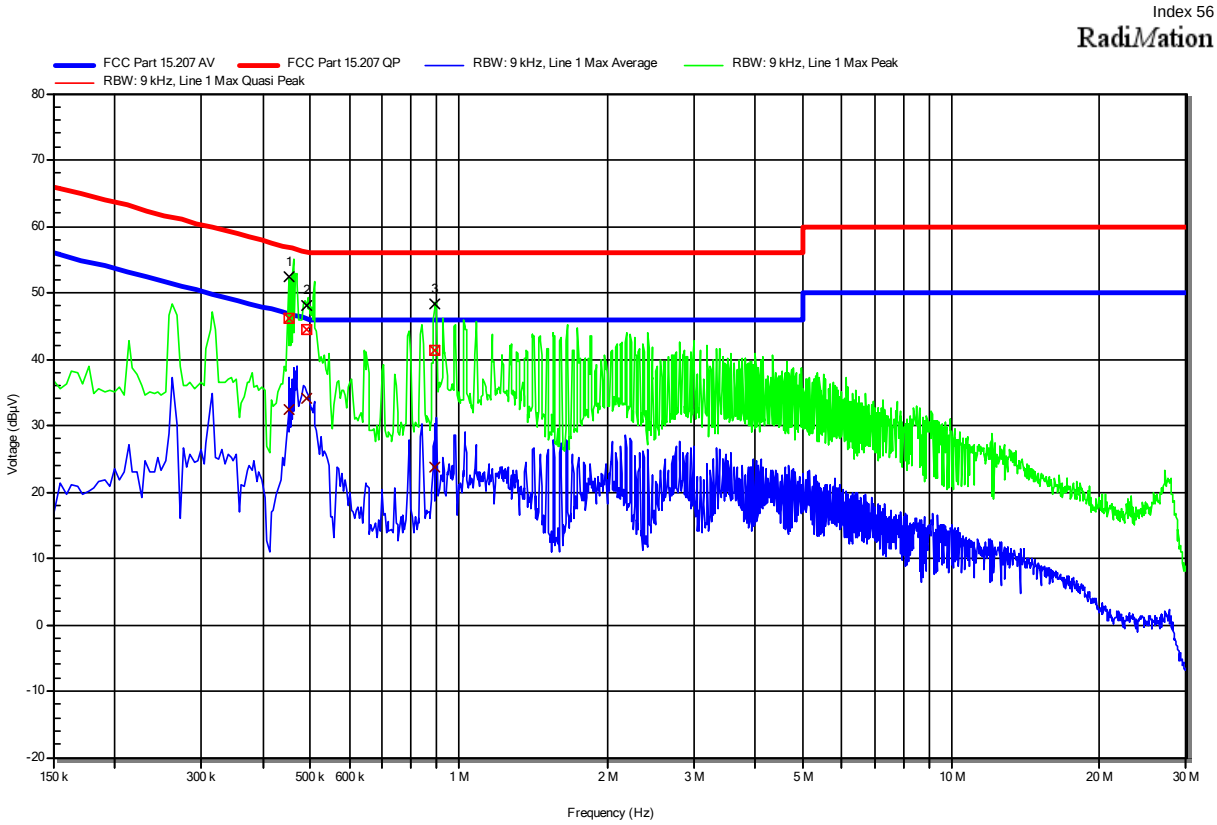


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	465 kHz	45.79 dBµV	56.6 dBµV	-10.81 dB	Pass	Neutral

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	465 kHz	30.38 dBµV	46.6 dBµV	-16.22 dB	Pass	Neutral

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 21 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127 RC L1
Operational Mode:	DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna
EUT Configuration:	fixed wire
Applied to Port:	120 VAC / 60 Hz
Note 1:	

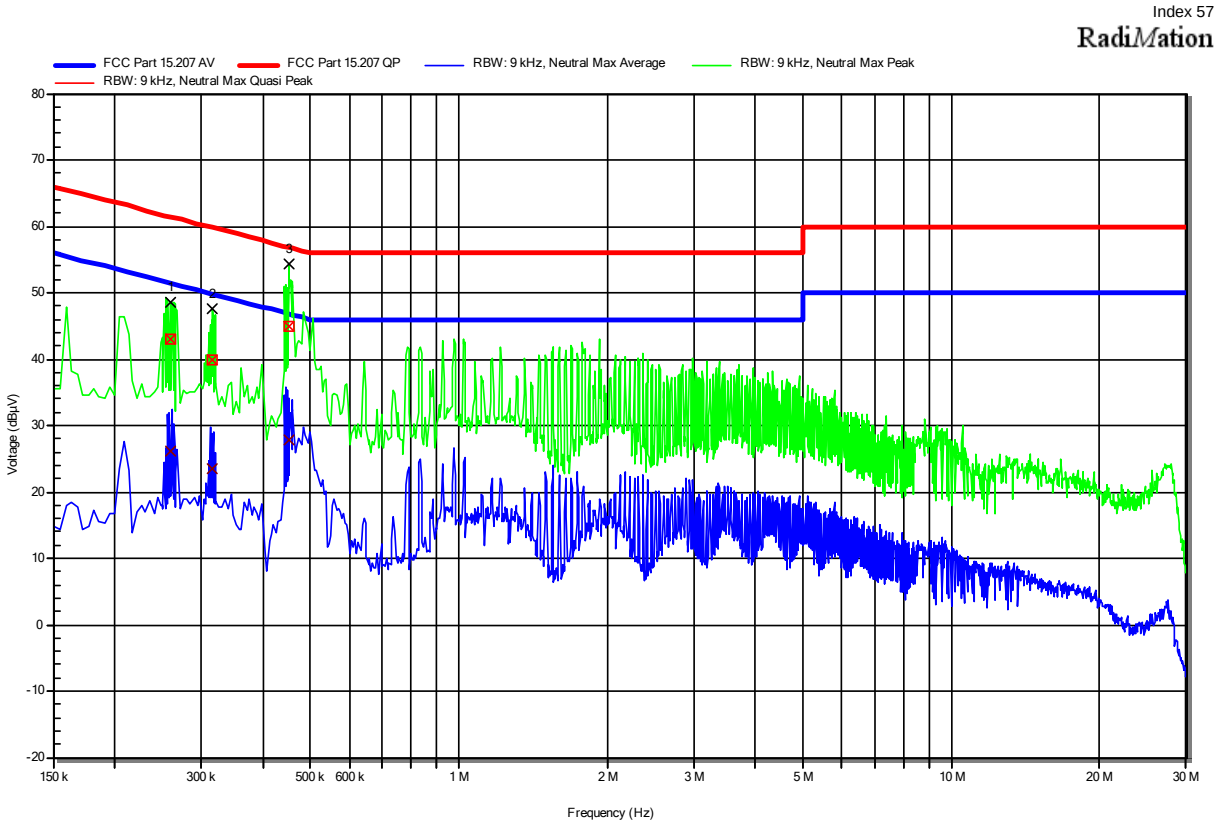


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	451.5 kHz	46.21 dBµV	56.85 dBµV	-10.64 dB	Pass	Line 1
2	492 kHz	44.41 dBµV	56.13 dBµV	-11.72 dB	Pass	Line 1
3	893.4 kHz	41.38 dBµV	56 dBµV	-14.62 dB	Pass	Line 1

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	451.5 kHz	32.42 dBµV	46.85 dBµV	-14.43 dB	Pass	Line 1
2	492 kHz	34.16 dBµV	46.13 dBµV	-11.98 dB	Pass	Line 1
3	893.4 kHz	23.76 dBµV	46 dBµV	-22.24 dB	Pass	Line 1

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 21 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127
Operational Mode:	DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna
EUT Configuration:	fixed wire
Applied to Port:	120 VAC / 60 Hz
Note 1:	

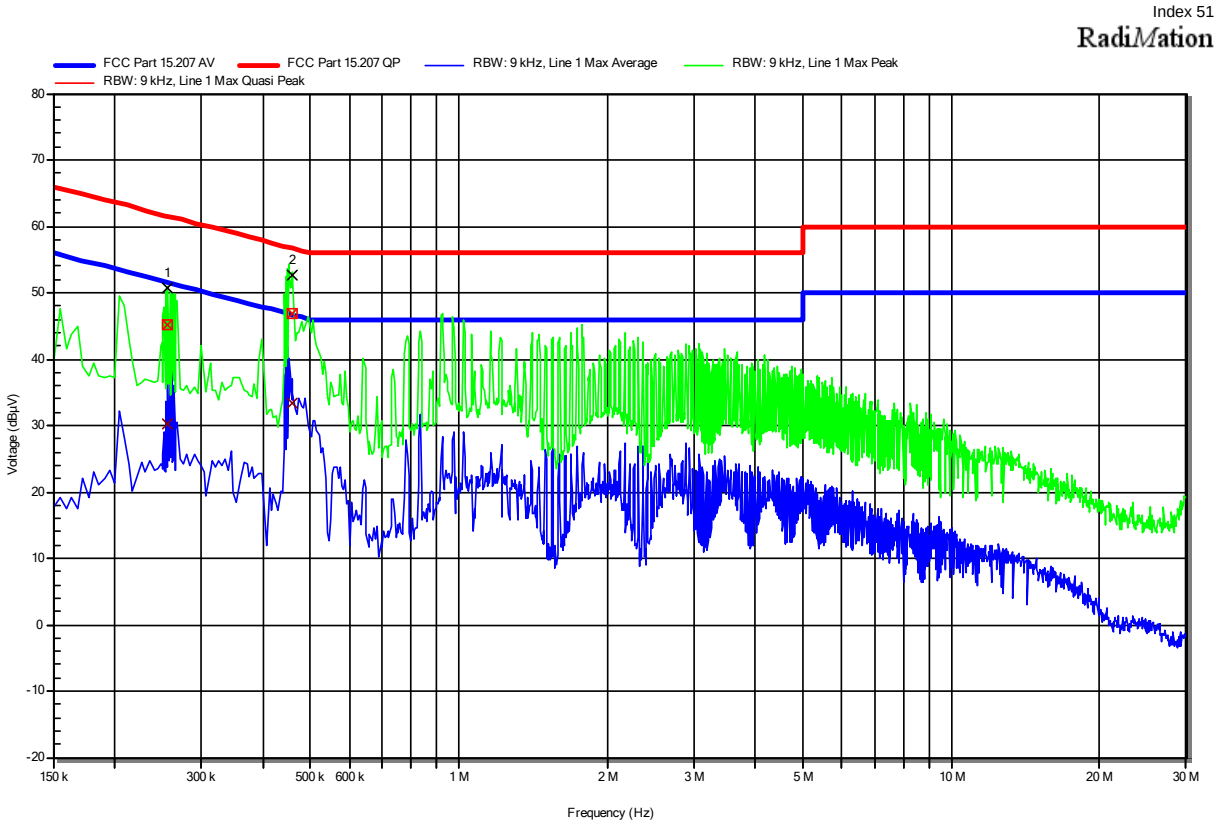


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	259.35 kHz	42.91 dBµV	61.45 dBµV	-18.55 dB	Pass	Neutral
2	316.95 kHz	39.8 dBµV	59.79 dBµV	-19.98 dB	Pass	Neutral
3	452.4 kHz	44.82 dBµV	56.83 dBµV	-12.01 dB	Pass	Neutral

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	259.35 kHz	26.21 dBµV	51.45 dBµV	-25.24 dB	Pass	Neutral
2	316.95 kHz	23.51 dBµV	49.79 dBµV	-26.27 dB	Pass	Neutral
3	452.4 kHz	27.85 dBµV	46.83 dBµV	-18.98 dB	Pass	Neutral

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 21 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127 RC L1
Operational Mode:	DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna
EUT Configuration:	fixed wire
Applied to Port:	120 VAC / 60 Hz
Note 1:	

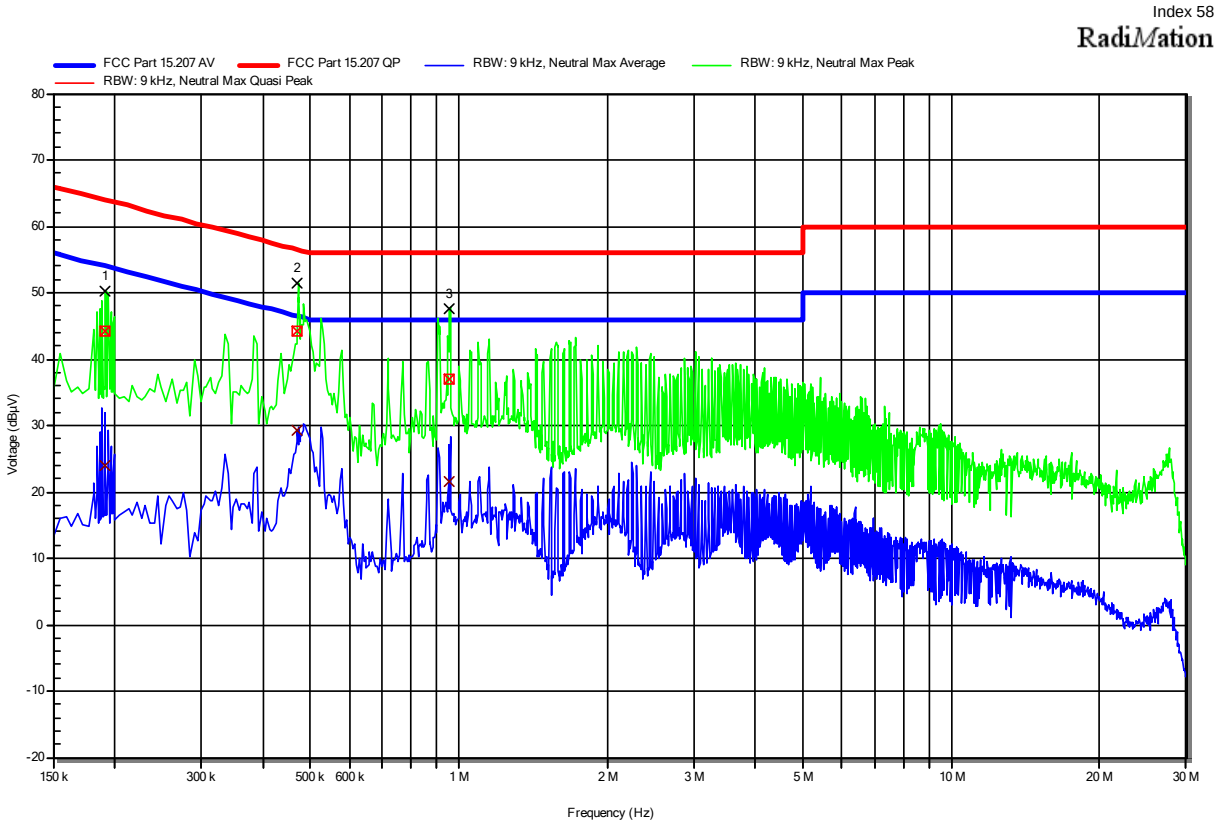


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	256.2 kHz	45.15 dBµV	61.55 dBµV	-16.4 dB	Pass	Line 1
2	460.5 kHz	46.96 dBµV	56.68 dBµV	-9.72 dB	Pass	Line 1

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	256.2 kHz	30.27 dBµV	51.55 dBµV	-21.29 dB	Pass	Line 1
2	460.5 kHz	33.39 dBµV	46.68 dBµV	-13.29 dB	Pass	Line 1

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 21 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127
Operational Mode:	DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna
EUT Configuration:	fixed wire
Applied to Port:	120 VAC / 60 Hz
Note 1:	

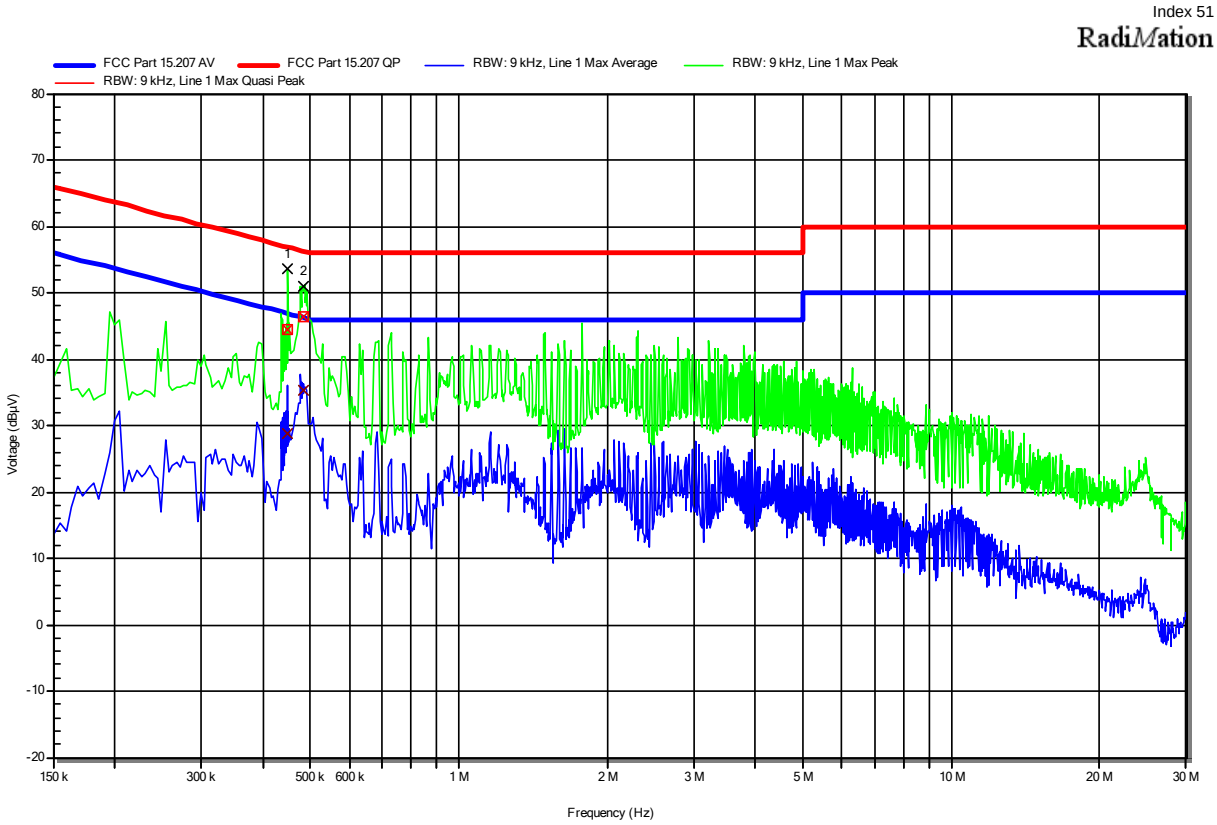


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	191.85 kHz	44.3 dBµV	63.96 dBµV	-19.66 dB	Pass	Neutral
2	471.3 kHz	44.26 dBµV	56.49 dBµV	-12.23 dB	Pass	Neutral
3	959.1 kHz	37.09 dBµV	56 dBµV	-18.91 dB	Pass	Neutral

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	191.85 kHz	23.93 dBµV	53.96 dBµV	-30.02 dB	Pass	Neutral
2	471.3 kHz	29.37 dBµV	46.49 dBµV	-17.12 dB	Pass	Neutral
3	959.1 kHz	21.51 dBµV	46 dBµV	-24.49 dB	Pass	Neutral

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 24 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127 RC L1
Operational Mode:	DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
EUT Configuration:	
Applied to Port:	120 VAC / 60 Hz
Note 1:	

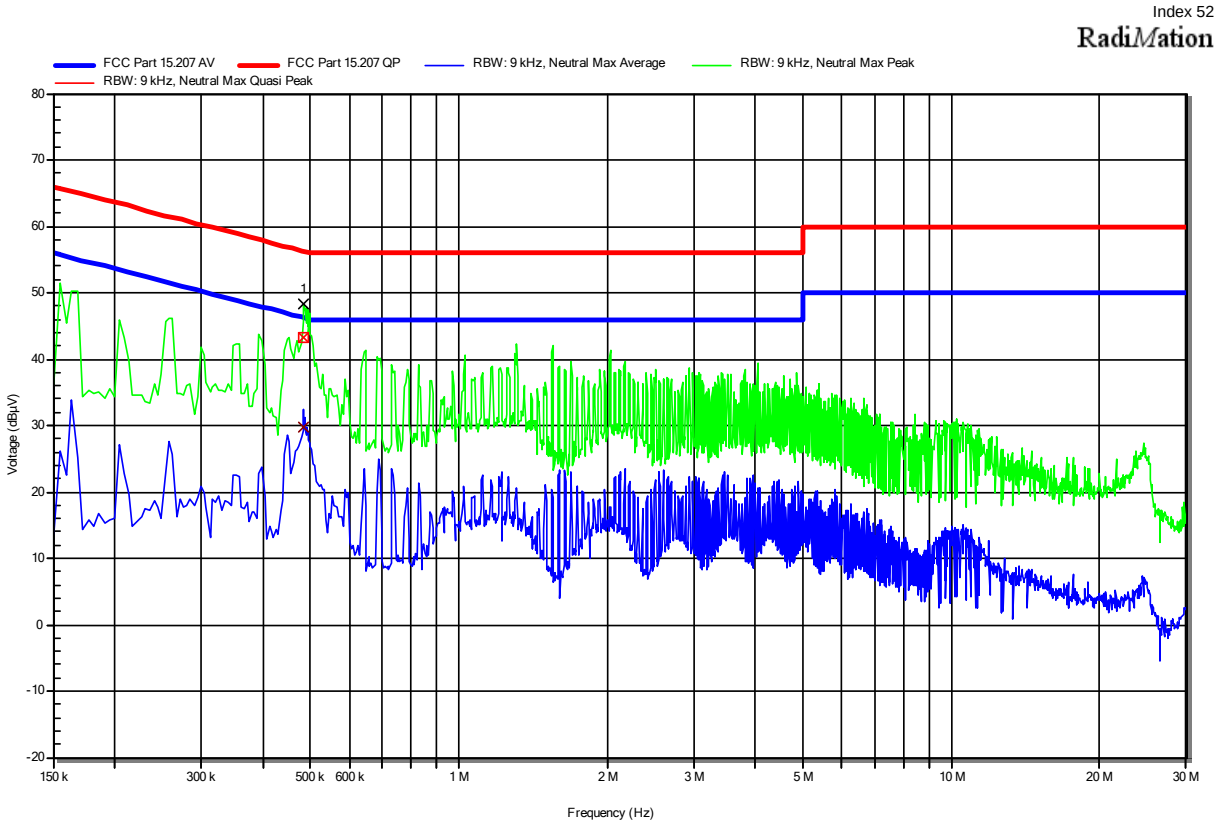


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	449.7 kHz	44.44 dBµV	56.88 dBµV	-12.44 dB	Pass	Line 1
2	483 kHz	46.33 dBµV	56.29 dBµV	-9.95 dB	Pass	Line 1

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	449.7 kHz	28.76 dBµV	46.88 dBµV	-18.12 dB	Pass	Line 1
2	483 kHz	35.37 dBµV	46.29 dBµV	-10.92 dB	Pass	Line 1

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 24 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127
Operational Mode:	DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
EUT Configuration:	
Applied to Port:	120 VAC / 60 Hz
Note 1:	



Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	483.45 kHz	43.34 dBµV	56.28 dBµV	-12.94 dB	Pass	Neutral

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	483.45 kHz	29.83 dBµV	46.28 dBµV	-16.45 dB	Pass	Neutral

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 24 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127 RC L1
Operational Mode:	DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
EUT Configuration:	
Applied to Port:	120 VAC / 60 Hz
Note 1:	

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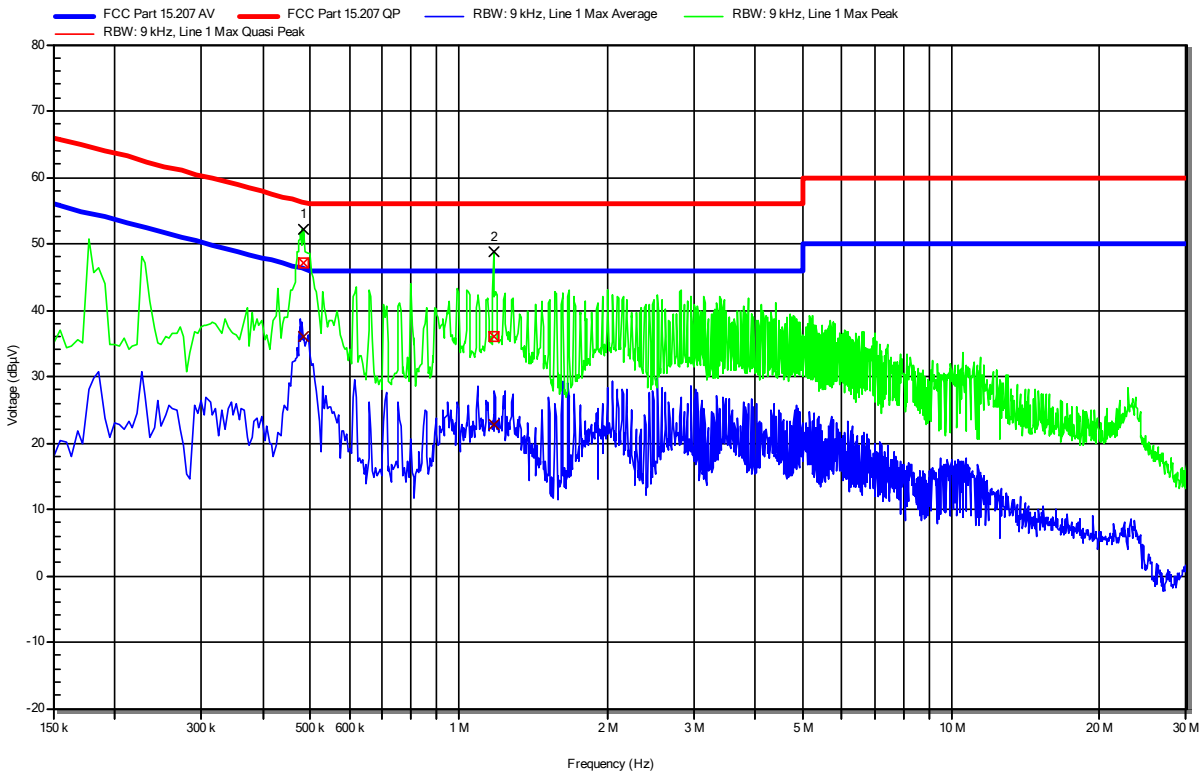
RadiMation

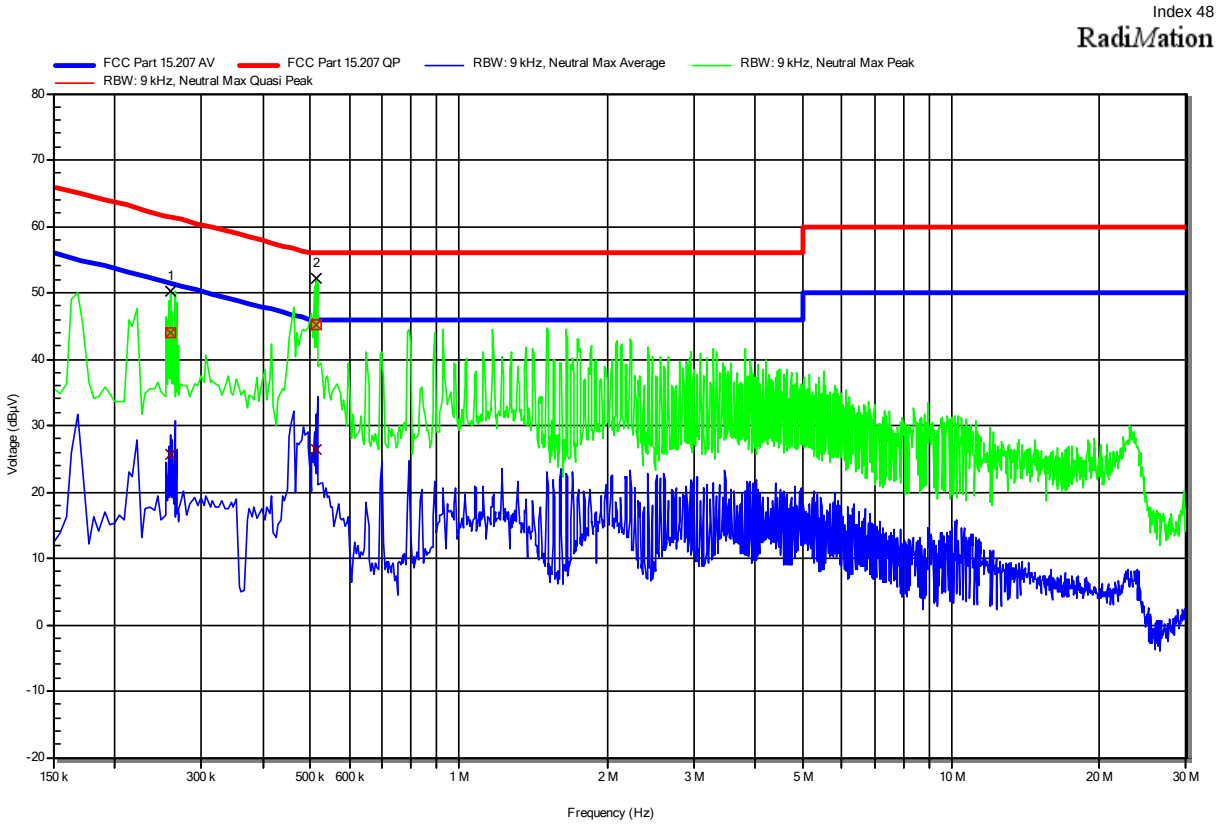


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	483 kHz	47.17 dBµV	56.29 dBµV	-9.12 dB	Pass	Line 1
2	1.176 MHz	35.92 dBµV	56 dBµV	-20.08 dB	Pass	Line 1

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	483 kHz	36.07 dBµV	46.29 dBµV	-10.22 dB	Pass	Line 1
2	1.176 MHz	22.75 dBµV	46 dBµV	-23.25 dB	Pass	Line 1

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 24 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127
Operational Mode:	DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
EUT Configuration:	
Applied to Port:	120 VAC / 60 Hz
Note 1:	

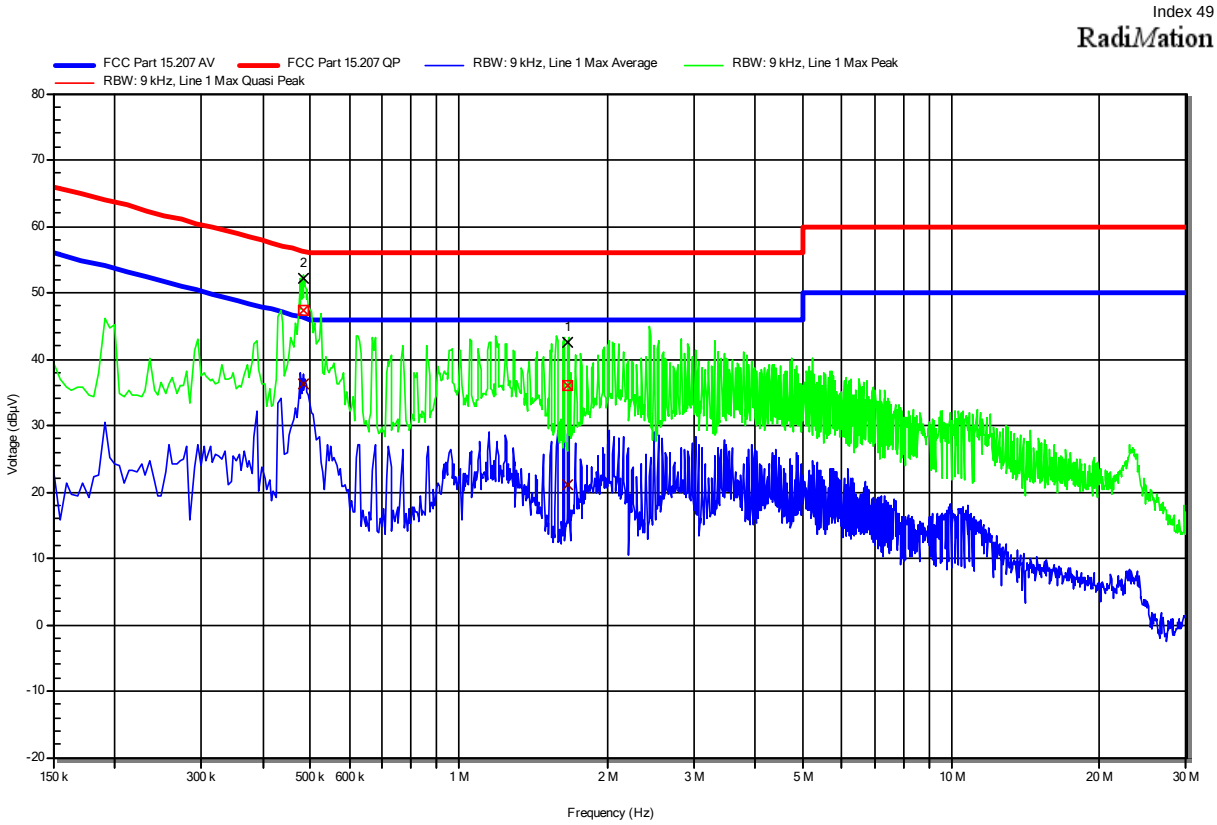


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	259.8 kHz	44.05 dBµV	61.44 dBµV	-17.39 dB	Pass	Neutral
2	513.15 kHz	45.17 dBµV	56 dBµV	-10.83 dB	Pass	Neutral

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	259.8 kHz	25.62 dBµV	51.44 dBµV	-25.82 dB	Pass	Neutral
2	513.15 kHz	26.38 dBµV	46 dBµV	-19.62 dB	Pass	Neutral

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 24 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127 RC L1
Operational Mode:	DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
EUT Configuration:	
Applied to Port:	120 VAC / 60 Hz
Note 1:	

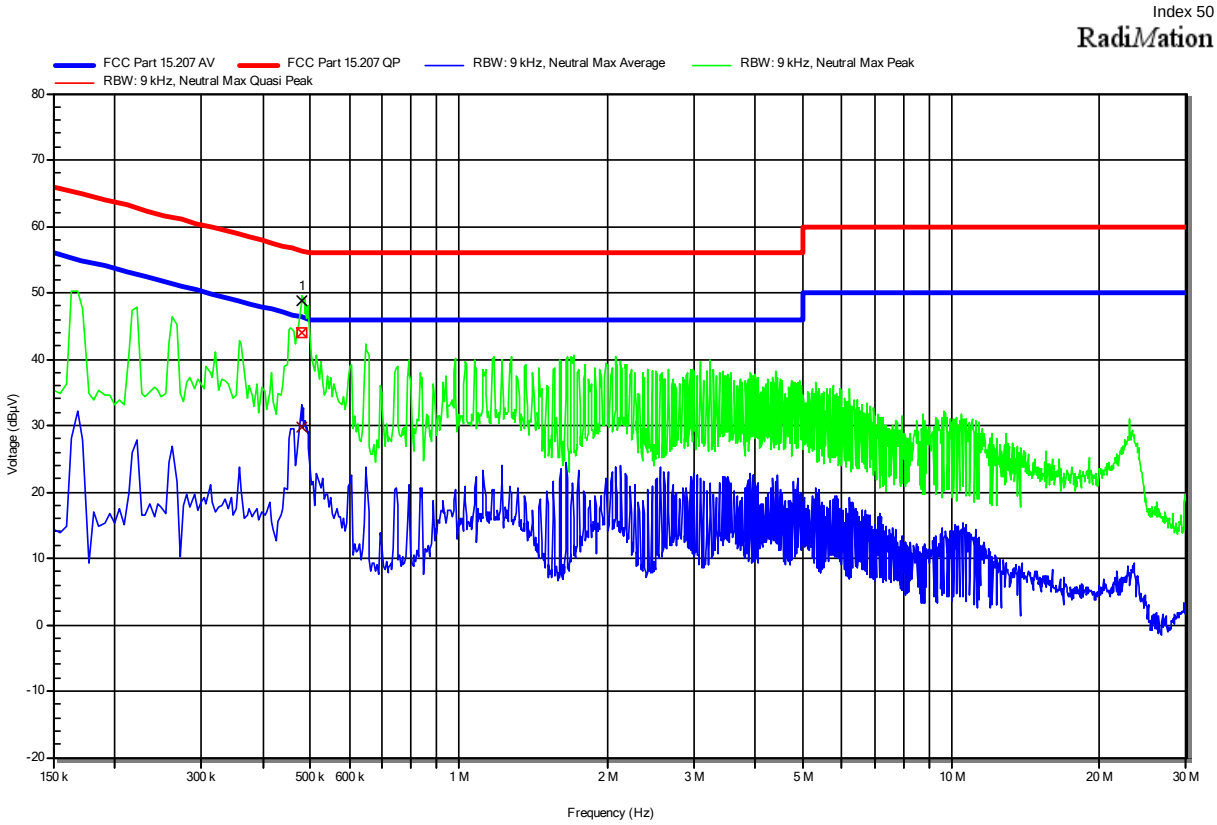


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	1.666 MHz	36.1 dBµV	56 dBµV	-19.9 dB	Pass	Line 1
2	484.8 kHz	47.43 dBµV	56.26 dBµV	-8.83 dB	Pass	Line 1

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	1.666 MHz	21.13 dBµV	46 dBµV	-24.87 dB	Pass	Line 1
2	484.8 kHz	36.16 dBµV	46.26 dBµV	-10.09 dB	Pass	Line 1

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 24 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127
Operational Mode:	DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
EUT Configuration:	
Applied to Port:	120 VAC / 60 Hz
Note 1:	

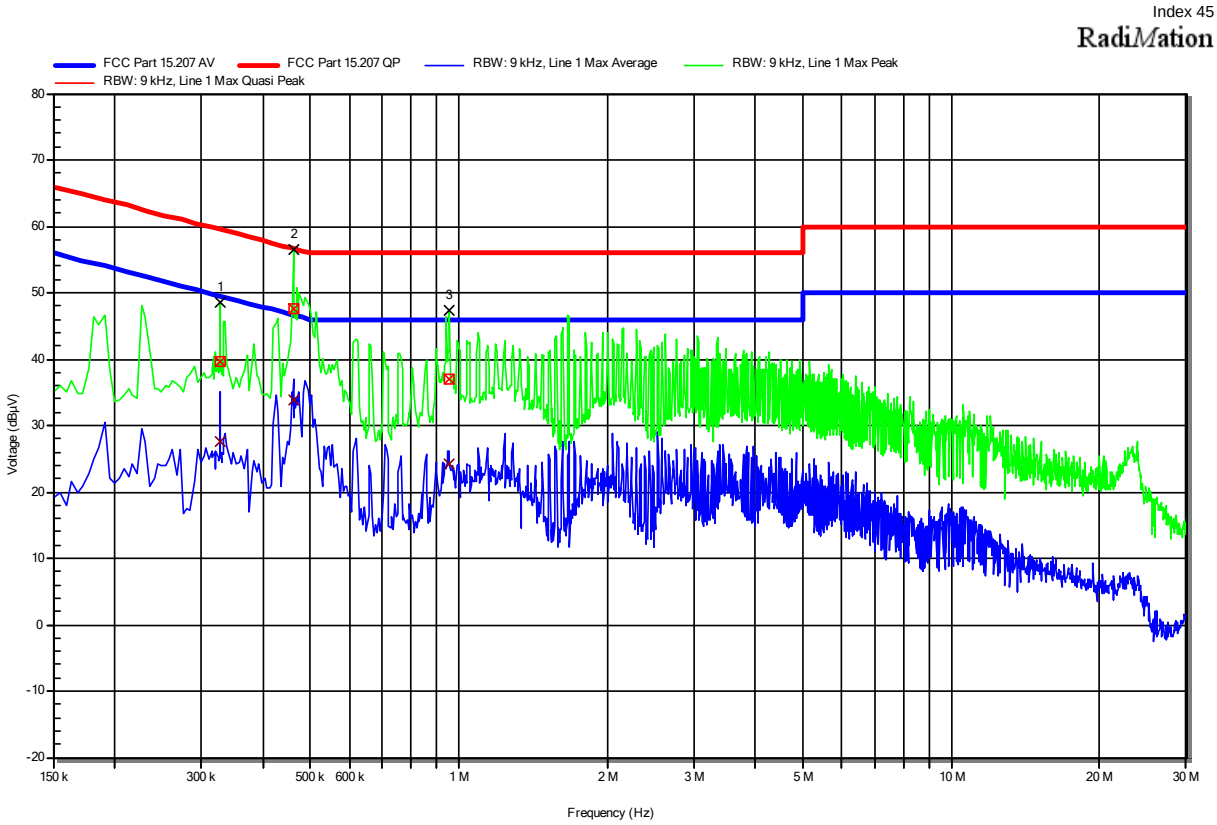


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	478.5 kHz	44.05 dBµV	56.37 dBµV	-12.31 dB	Pass	Neutral

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	478.5 kHz	29.79 dBµV	46.37 dBµV	-16.57 dB	Pass	Neutral

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 24 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127 RC L1
Operational Mode:	DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
EUT Configuration:	
Applied to Port:	120 VAC / 60 Hz
Note 1:	

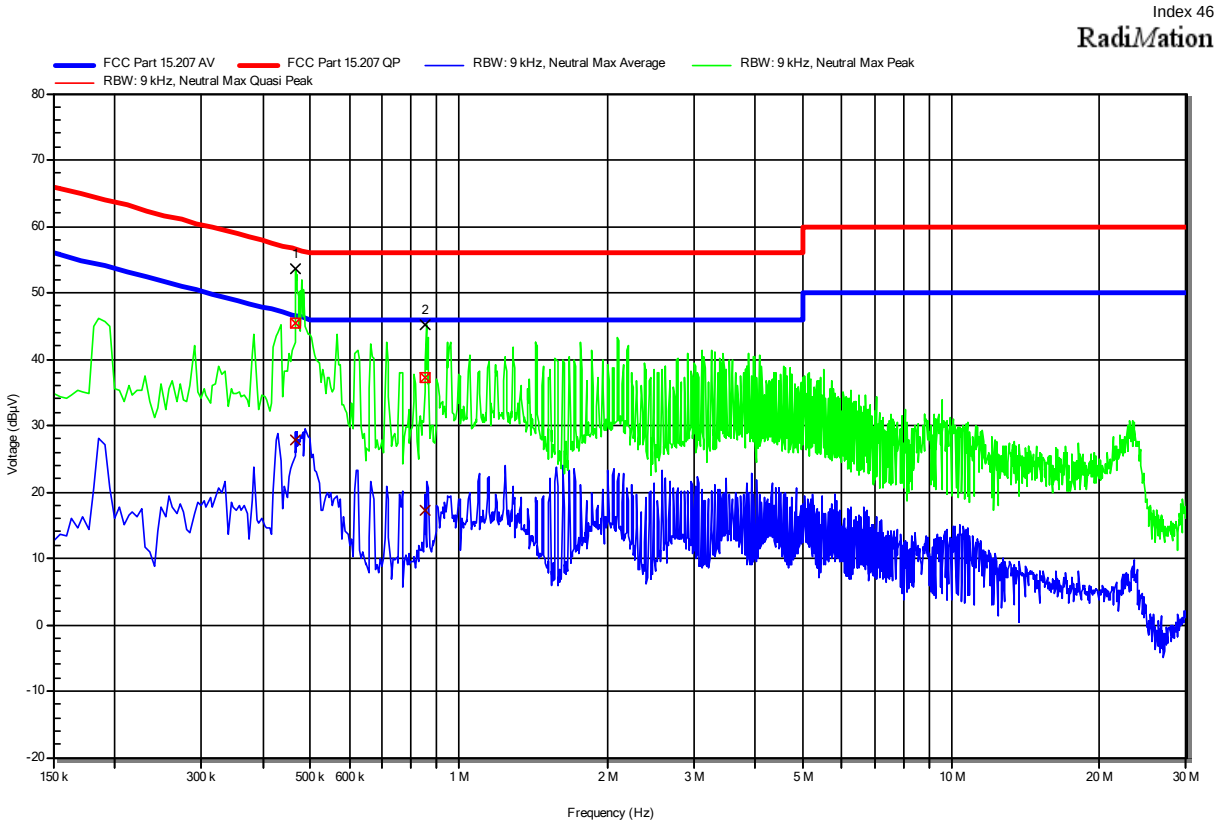


Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	327.3 kHz	39.73 dBµV	59.52 dBµV	-19.78 dB	Pass	Line 1
2	461.4 kHz	47.61 dBµV	56.67 dBµV	-9.06 dB	Pass	Line 1
3	955.5 kHz	37.1 dBµV	56 dBµV	-18.9 dB	Pass	Line 1

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	327.3 kHz	27.5 dBµV	49.52 dBµV	-22.02 dB	Pass	Line 1
2	461.4 kHz	33.93 dBµV	46.67 dBµV	-12.74 dB	Pass	Line 1
3	955.5 kHz	24.27 dBµV	46 dBµV	-21.73 dB	Pass	Line 1

Conducted emissions at the mains power port according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Test Date:	2022-11-25
Operating Conditions:	ambient temperature: 24 °Celsius power input: 3.5 V DC
LISN:	Schwarzbeck NSLK 8127
Operational Mode:	DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
EUT Configuration:	
Applied to Port:	120 VAC / 60 Hz
Note 1:	



Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	465.45 kHz	45.48 dBµV	56.59 dBµV	-11.12 dB	Pass	Neutral
2	856.95 kHz	37.18 dBµV	56 dBµV	-18.82 dB	Pass	Neutral

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	465.45 kHz	27.88 dBµV	46.59 dBµV	-18.72 dB	Pass	Neutral
2	856.95 kHz	17.22 dBµV	46 dBµV	-28.78 dB	Pass	Neutral

3.6 Test Conditions and Results - Band-edge compliance

3.6.1 Information

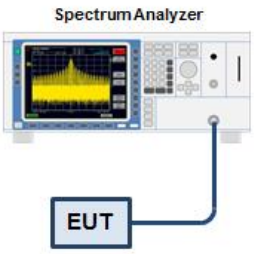
Test Information	
Reference	FCC § 15.247(d); ISED RSS-247, Issue 2 (section 5.5)
Measurement Uncertainty	± 3.64 dB
Measurement Method	ANSI C63.10 11.13
Operator	Florian Voigt
Date	2022-11-24

3.6.2 Limits

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

3.6.3 Setup

Test Setup



3.6.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyser	R&S	FSU 26	EF01003	2022-07	2023-07
Cable	Gigalane	CAABD	EF00779	2022-02	2023-02

3.6.5 Procedure

Test Procedure

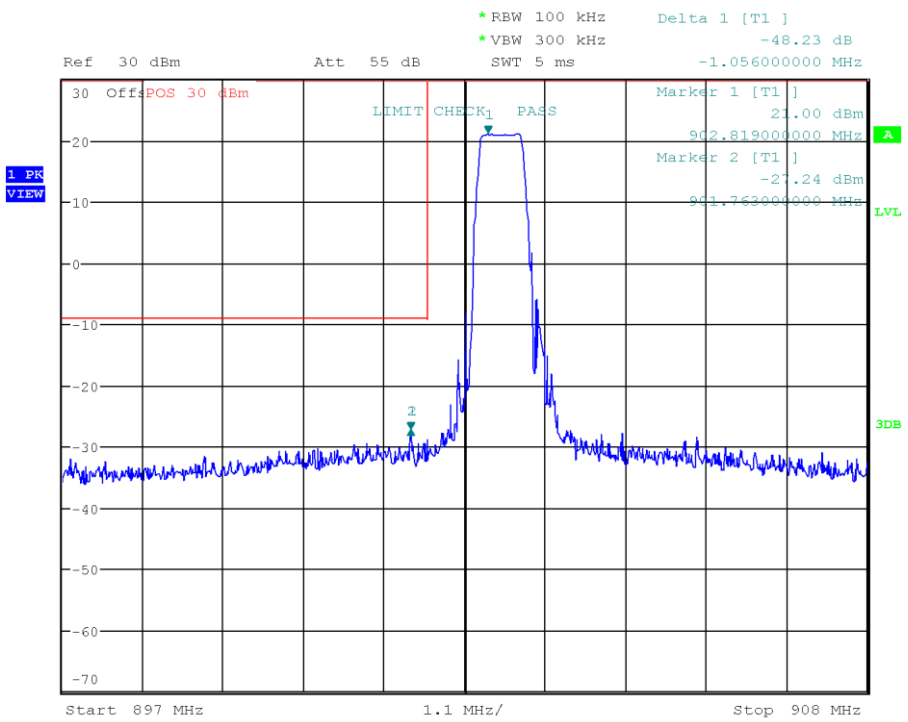
1. EUT set to test mode (Communication tester is used if needed)
2. Span set around lower band edge and detector is set to peak and max hold
3. Resolution bandwidth is set to 100 kHz
4. Markers are set to peak emission levels within frequency band and outside frequency band
5. Band edge attenuation is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

3.6.6 Results

Test Results				
Mode	Channel [MHz]	Out-of-band Attenuation [dB]	Limit [dB]	Verdict
Single	903	-48.23	-20	PASS
Single	927	-46.82	-20	PASS

Emissions in non restricted frequency bands at the Band-edge

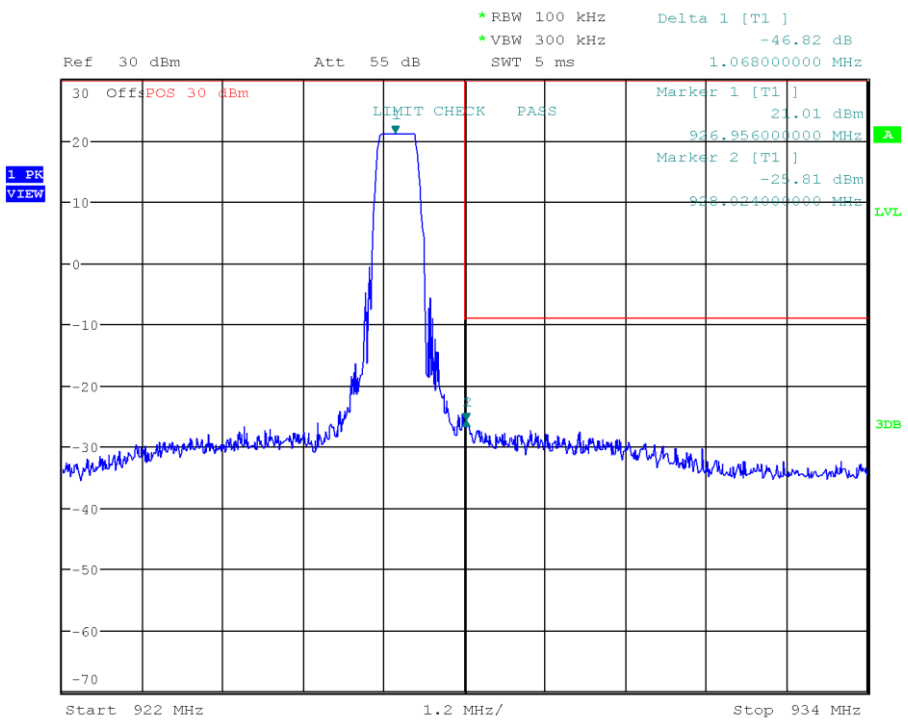
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.10
Operational Mode:	CSS, Channel: 903.0 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-24
Note:	Based on max. cond. average output power (limit =-30dBc)
Band-edge	Lower
In-band Frequency [MHz]:	902.819
Max. in-band Level [dBm/100 kHz]:	20.997
Out-of-band Frequency [MHz]:	901.763
Max. out-of-band Level [dBm/100 kHz]:	-27.237
Attenuation [dB]:	-48.23



Date: 24.NOV.2022 17:31:50

Emissions in non restricted frequency bands at the Band-edge

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.10
Operational Mode:	CSS, Channel: 927.0 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-24
Note:	Based on max. cond. average output power (limit =-30dBc)
Band-edge	Upper
In-band Frequency [MHz]:	926.956
Max. in-band Level [dBm/100 kHz]:	21.01
Out-of-band Frequency [MHz]:	928.024
Max. out-of-band Level [dBm/100 kHz]:	-25.811
Attenuation [dB]:	-46.82



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3.7 Test Conditions and Results - Conducted spurious emissions

3.7.1 Information

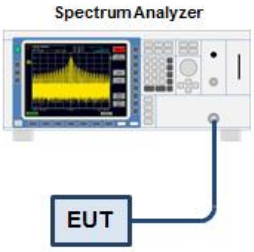
Test Information	
Reference	FCC § 15.247(d); ISED RSS-247, Issue 2 (section 5.5)
Measurement Uncertainty	± 4.25 dB
Measurement Method	ANSI C63.10 11.11
Operator	Florian Voigt
Date	2022-11-25

3.7.2 Limits

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

3.7.3 Setup

Test Setup



3.7.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyser	R&S	FSU 26	EF01003	2022-07	2023-07
Cable	Gigalane	CAABD	EF00779	2022-02	2023-02

3.7.5 Procedure

Test Procedure

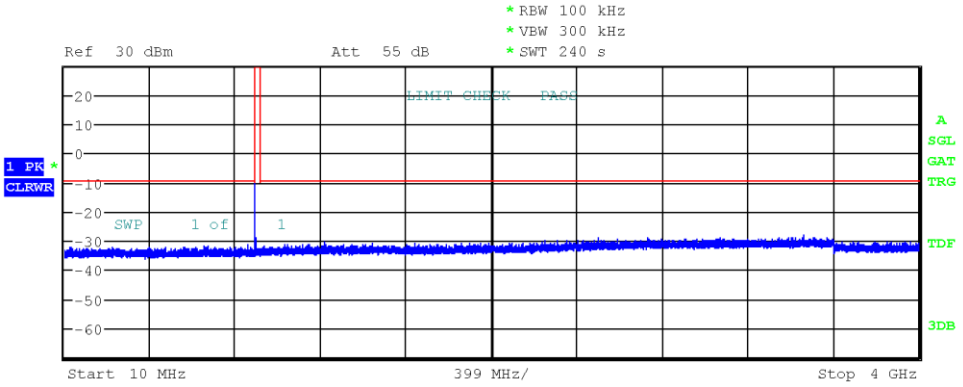
1. EUT set to test mode (Communication tester is used if needed)
2. Span set around lower band edge and detector is set to peak and max hold
3. Resolution bandwidth is set to 100 kHz
4. Markers are set to peak emission levels outside frequency band

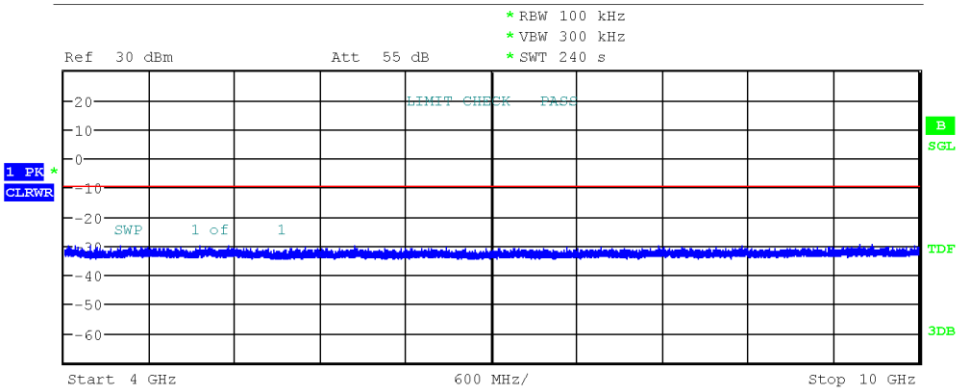
3.7.6 Results

Test Results		
Mode	Channel [MHz]	Verdict
Transmit	903	PASS
Transmit	911	PASS
Transmit	919	PASS
Transmit	927	PASS

Conducted Spurious Emissions

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.11
Operational Mode:	CSS, Channel: 903 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-25
Note:	Based on max. cond. average output power (limit =-30dBc)
Max. in-band Frequency [MHz]:	903.1
Max. in-band Level [dBm/100 kHz]:	20.8
Out-of-band Limit [dBm/100 kHz]:	-9.2

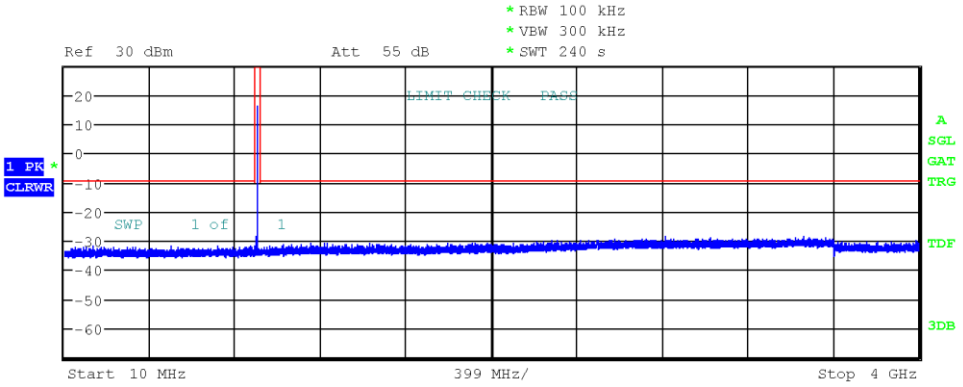


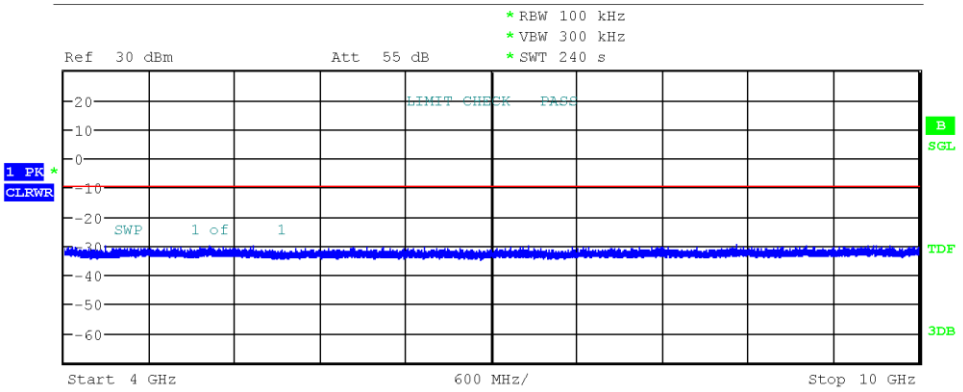


Date: 25.NOV.2022 12:30:12

Conducted Spurious Emissions

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.11
Operational Mode:	CSS, Channel: 911 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-25
Note:	Based on max. cond. average output power (limit =-30dBc)
Max. in-band Frequency [MHz]:	911.0
Max. in-band Level [dBm/100 kHz]:	20.8
Out-of-band Limit [dBm/100 kHz]:	-9.2

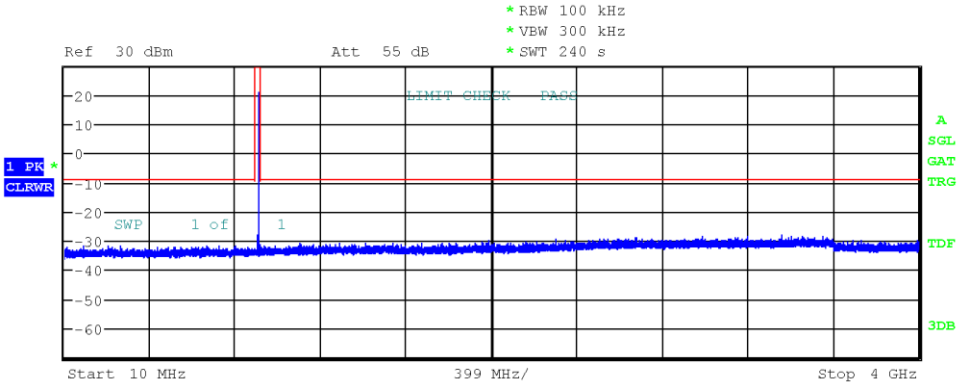


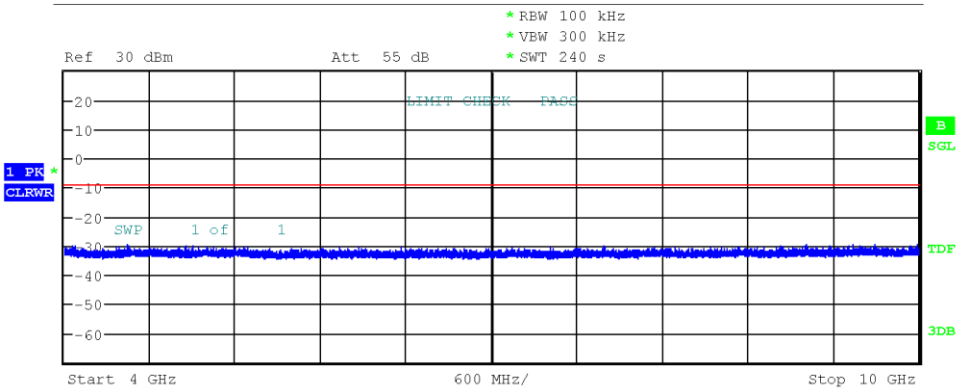


Date: 25.NOV.2022 12:49:59

Conducted Spurious Emissions

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.11
Operational Mode:	CSS, Channel: 919 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-25
Note:	Based on max. cond. average output power (limit =-30dBc)
Max. in-band Frequency [MHz]:	918.8
Max. in-band Level [dBm/100 kHz]:	20.9
Out-of-band Limit [dBm/100 kHz]:	-9.1

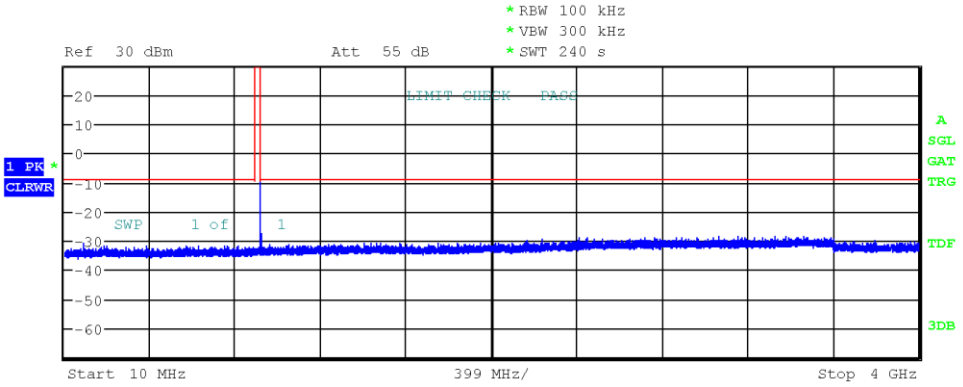


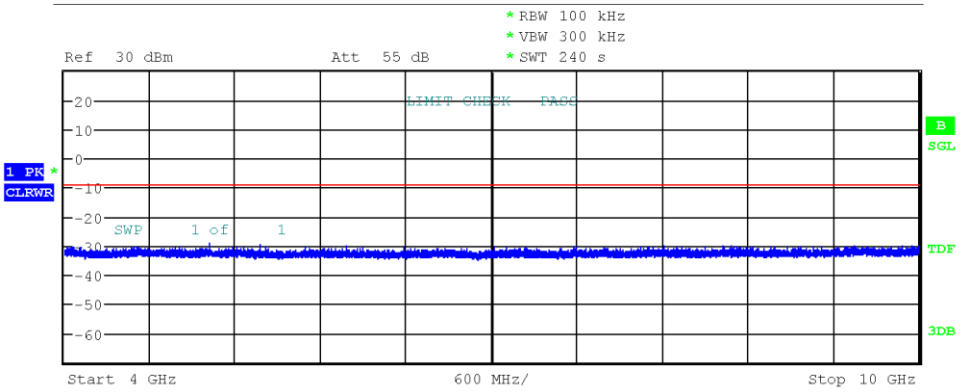


Date: 25.NOV.2022 13:16:11

Conducted Spurious Emissions

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	41520
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 11.11
Operational Mode:	CSS, Channel: 927 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Florian Voigt
Test Site:	Eurofins Product Service GmbH
Test Date:	2022-11-25
Note:	Based on max. cond. average output power (limit =-30dBc)
Max. in-band Frequency [MHz]:	926.8
Max. in-band Level [dBm/100 kHz]:	20.9
Out-of-band Limit [dBm/100 kHz]:	-9.1





Date: 25.NOV.2022 13:27:24

3.8 Test Conditions and Results - Transmitter radiated emissions

3.8.1 Information

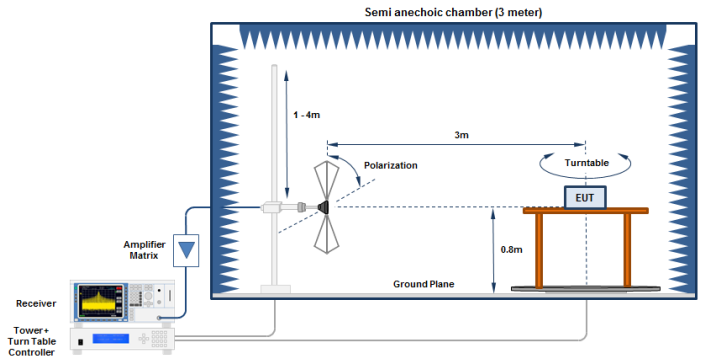
Test Information	
Reference	FCC § 15.247(d); FCC § 15.209; ISED RSS-Gen, Issue 5 A2 (section 6.13)
Measurement Uncertainty	± 5.95 dB
Measurement Method	ANSI C63.10 6.4, 6.5, 6.6, 11.12
Operator	Odai Qawasmeh
Date	2022-11-10

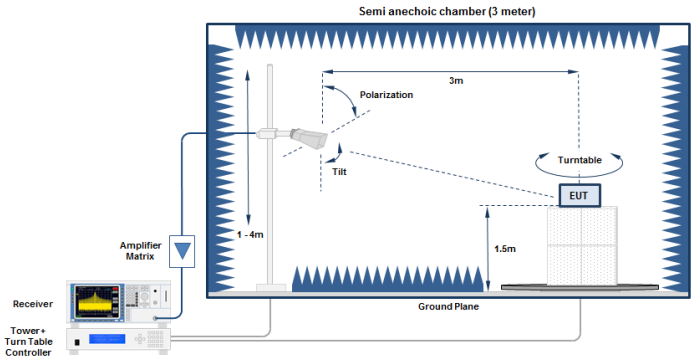
3.8.2 Limits

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

3.8.3 Setup

Test Setup 30 MHz - 1000 MHz



Test Setup > 1 GHz


3.8.4 Equipment

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

Test Equipment 30 MHz - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2022-11	2025-11
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2021-07	2023-01
Antenna	R&S	HK 116	EF00030	2021-05	2024-05
Antenna	R&S	HL 223	EF00212	2022-08	2025-08

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC2	EF01616	Verification	Verification
Antenna	Schwarzbeck	BBHA 9120B	EF01678	2021-03	2024-03
Antenna	Schwarzbeck	HWRD 650	EF01679	2021-03	2024-03

3.8.5 Procedure

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

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

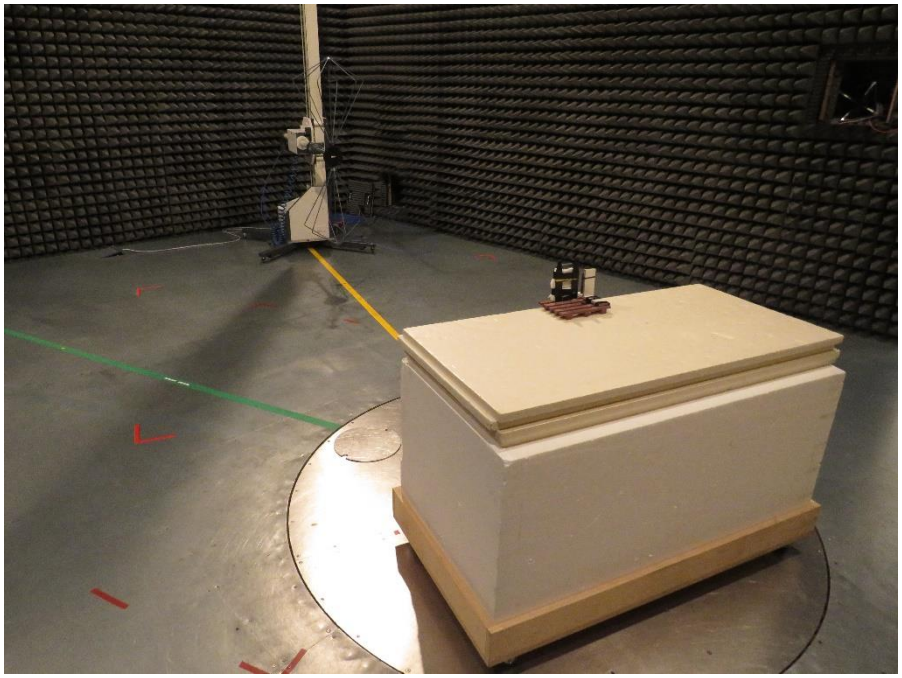
3.8.6 Results

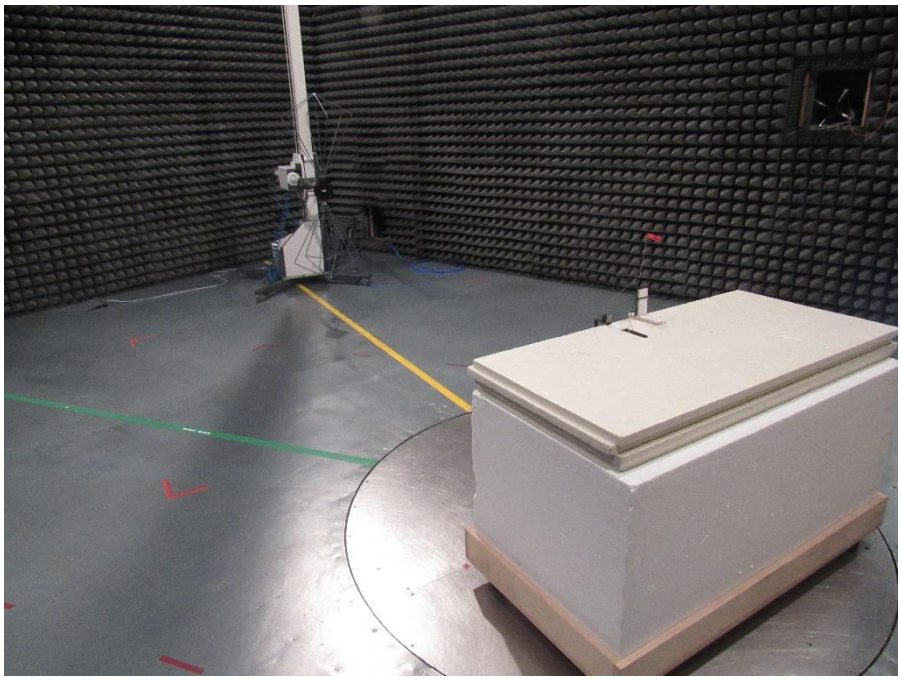
Test Results – Fixed Wire Antenna						
Channel [MHz]	Emission [MHz]	Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dB]
903	149.986	22.50	pk	ver	43.50	-20.98
903	986.1508	41.70	pk	hor	54.00	-12.33
903	2709.6	41.56	pk	hor	74.00	-32.44
903	2709.6	39.45	avg	hor	54.00	-14.55
903	3612.7	46.29	pk	ver	74.00	-27.71
903	3612.7	43.95	avg	ver	54.00	-10.05
903	4515.7	45.87	pk	hor	74.00	-28.13
903	4515.7	40.75	avg	hor	54.00	-13.25
903	5419.2	54.14	pk	hor	74.00	-19.86
903	5419.2	53.24	avg	hor	54.00	-00.76
903	5419.5	49.25	pk	ver	74.00	-24.75
903	5419.5	47.49	avg	ver	54.00	-06.51
903	8128	52.76	pk	hor	74.00	-21.24
903	8128	52.03	avg	hor	54.00	-01.97
903	9029	55.69	pk	ver	74.00	-18.31
903	9029	45.36	avg	ver	54.00	-08.64
903	9031	53.72	pk	hor	74.00	-20.28
903	9031	52.87	avg	hor	54.00	-01.13
911	162.022	17.80	pk	ver	43.50	-25.69
911	985.4002	41.60	pk	hor	54.00	-12.39
911	2733.3	42.09	pk	ver	74.00	-31.91
911	2733.3	40.46	avg	ver	54.00	-13.54
911	3644.5	49.24	pk	ver	74.00	-24.76
911	3644.5	47.56	avg	ver	54.00	-06.44
911	4554.1	48.76	pk	hor	74.00	-25.24
911	4554.1	47.73	avg	hor	54.00	-06.27
911	7287.9	51.53	pk	hor	74.00	-22.47
911	7287.9	50.54	avg	hor	54.00	-03.46
911	8196	52.30	pk	hor	74.00	-21.70
911	8196	49.31	avg	hor	54.00	-04.69
911	9109	53.84	pk	ver	74.00	-20.16
911	9109	53.11	avg	ver	54.00	-00.89
919	163.6413	17.20	pk	ver	43.50	-26.31
919	996.7528	41.90	pk	ver	54.00	-12.12
919	2756.8	45.08	pk	ver	74.00	-28.92
919	2756.8	43.96	avg	ver	54.00	-10.04
919	3676.1	51.54	pk	hor	74.00	-22.46
919	3676.1	50.74	avg	hor	54.00	-03.26
919	4595.5	46.02	pk	hor	74.00	-27.98
919	4595.5	44.57	avg	hor	54.00	-09.43
919	7351.7	46.76	pk	hor	74.00	-27.24
919	7351.7	44.25	avg	hor	54.00	-09.75
919	8198	55.78	pk	hor	74.00	-18.22
919	8199	56.53	pk	hor	74.00	-17.47
919	8199	42.37	avg	hor	54.00	-11.63
919	9112	53.82	pk	hor	74.00	-20.18

919	9112	52.74	avg	hor	54.00	-01.26
927	171.0533	16.90	pk	ver	43.50	-26.57
927	990.091	42.50	pk	ver	54.00	-11.53
927	2781.5	46.51	pk	ver	74.00	-27.49
927	2781.5	45.16	avg	ver	54.00	-08.84
927	3707.8	50.76	pk	hor	74.00	-23.24
927	3707.8	49.92	avg	hor	54.00	-04.08
927	4635.3	51.87	pk	hor	74.00	-22.13
927	4635.3	50.82	avg	hor	54.00	-03.18
927	7416.8	47.91	pk	hor	74.00	-26.09
927	7416.8	44.33	avg	hor	54.00	-09.67
927	8345	43.16	pk	ver	74.00	-30.84
927	8345	40.59	avg	ver	54.00	-13.41

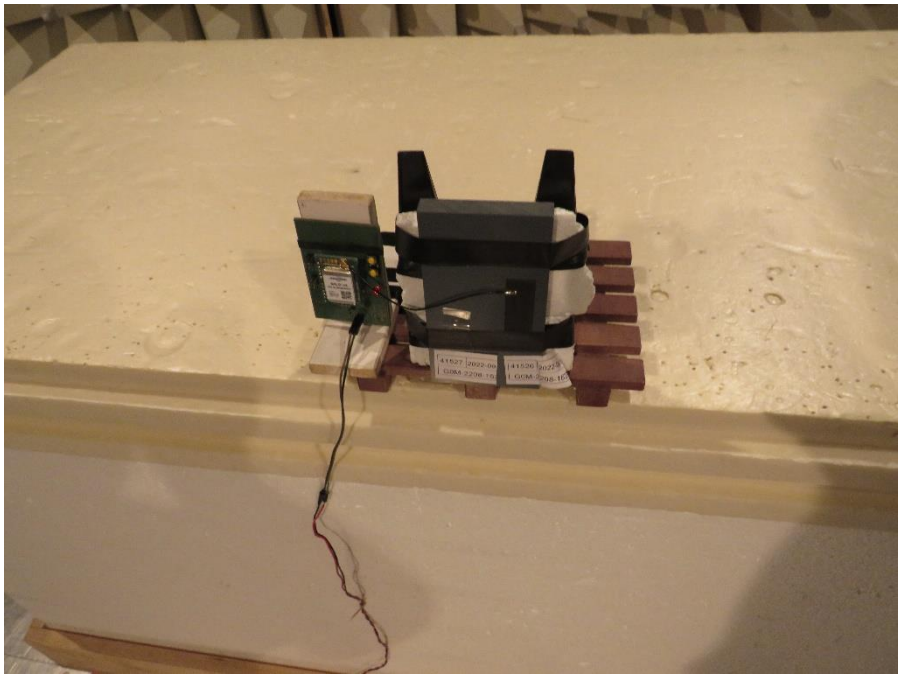
Test Results – Antenna flex linx						
Channel [MHz]	Emission [MHz]	Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dB]
903	171.7375	17.10	pk	ver	43.50	-26.46
903	990.7606	40.80	pk	hor	54.00	-13.16
903	3612.5	39.11	pk	hor	74.00	-34.89
903	3612.5	34.32	avg	hor	54.00	-19.68
903	3612.8	40.62	pk	ver	74.00	-33.38
903	3612.8	36.57	avg	ver	54.00	-17.43
903	4514.3	42.08	pk	ver	74.00	-31.92
903	4514.3	39.30	avg	ver	54.00	-14.70
903	4515.5	42.99	pk	hor	74.00	-31.01
903	4515.5	40.76	avg	hor	54.00	-13.24
903	5416.8	48.04	pk	ver	74.00	-25.96
903	5416.8	45.82	avg	ver	54.00	-08.18
903	5419.2	42.28	pk	ver	74.00	-31.72
903	5419.2	38.16	avg	ver	54.00	-15.84
903	8126	42.56	pk	hor	74.00	-31.44
903	8126	39.13	avg	hor	54.00	-14.87
911	169.8548	15.40	pk	ver	43.50	-28.16
911	993.5164	41.40	pk	ver	54.00	-12.59
911	2733.1	38.45	pk	ver	74.00	-35.55
911	2733.1	35.74	avg	ver	54.00	-18.26
911	3644.3	42.93	pk	hor	74.00	-31.07
911	3644.3	40.15	avg	hor	54.00	-13.85
911	4555.7	42.29	pk	hor	74.00	-31.71
911	4555.7	40.13	avg	hor	54.00	-13.87
911	8197	41.81	pk	hor	74.00	-32.19
911	8197	35.36	avg	hor	54.00	-18.64
919	171.6398	15.20	pk	ver	43.50	-28.35
919	999.0154	44.20	pk	hor	54.00	-09.76
919	2757.4	39.84	pk	ver	74.00	-34.16
919	2757.4	37.36	avg	ver	54.00	-16.64
919	4595.3	42.60	pk	hor	74.00	-31.40
919	4595.3	39.75	avg	hor	54.00	-14.25
919	8273	39.88	pk	hor	74.00	-34.12
919	8273	36.76	avg	hor	54.00	-17.24
927	172.0903	17.40	pk	ver	43.50	-26.08
927	980.7688	42.00	pk	ver	54.00	-11.98
927	2781.2	38.05	pk	ver	74.00	-35.95
927	2781.2	34.61	avg	ver	54.00	-19.39
927	3707.8	41.09	pk	hor	74.00	-32.91
927	3707.8	36.81	avg	hor	54.00	-17.19
927	4635.2	41.73	pk	hor	74.00	-32.27
927	4635.2	38.19	avg	hor	54.00	-15.81
927	8343	41.26	pk	hor	74.00	-32.74
927	8343	36.65	avg	hor	54.00	-17.35

3.8.7 Setup Photos

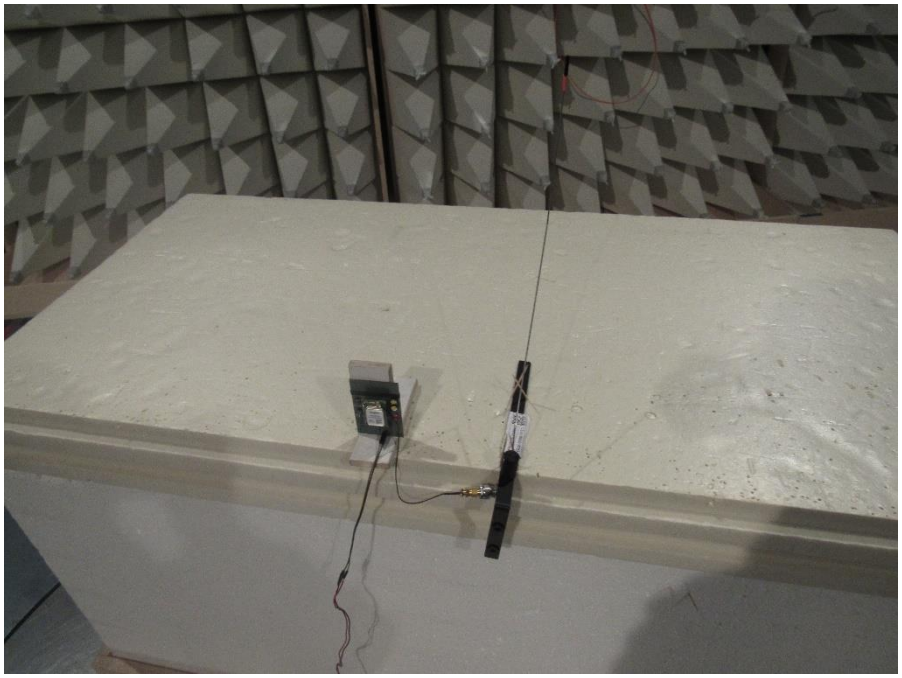
Setup for measurements below 1 GHz (Fixed wire Antenna)


Setup for measurements below 1 GHz (Flex Antenna)


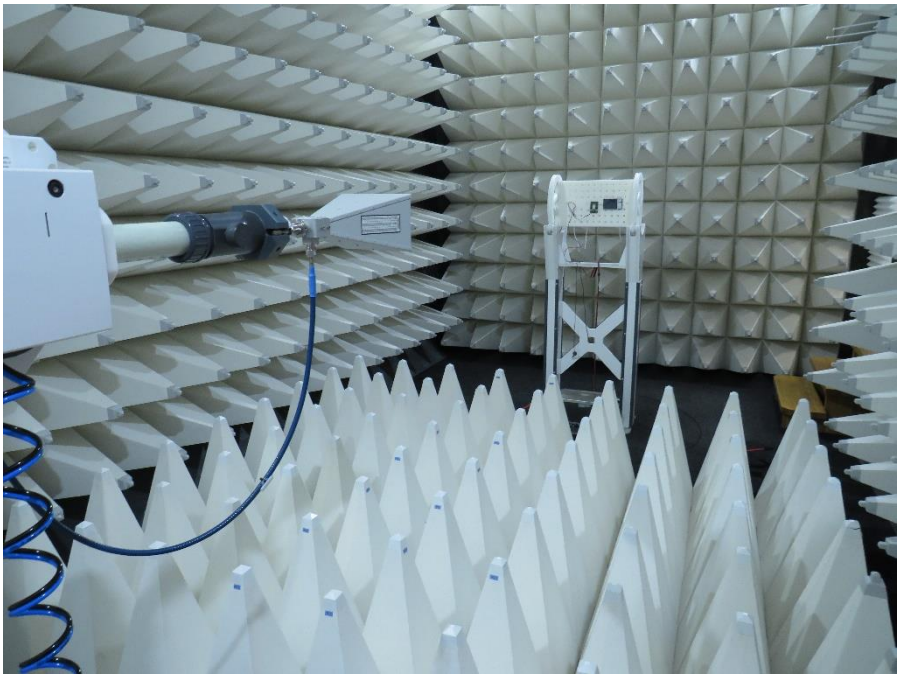
EUT Test Setup (Fixed wire Antenna)



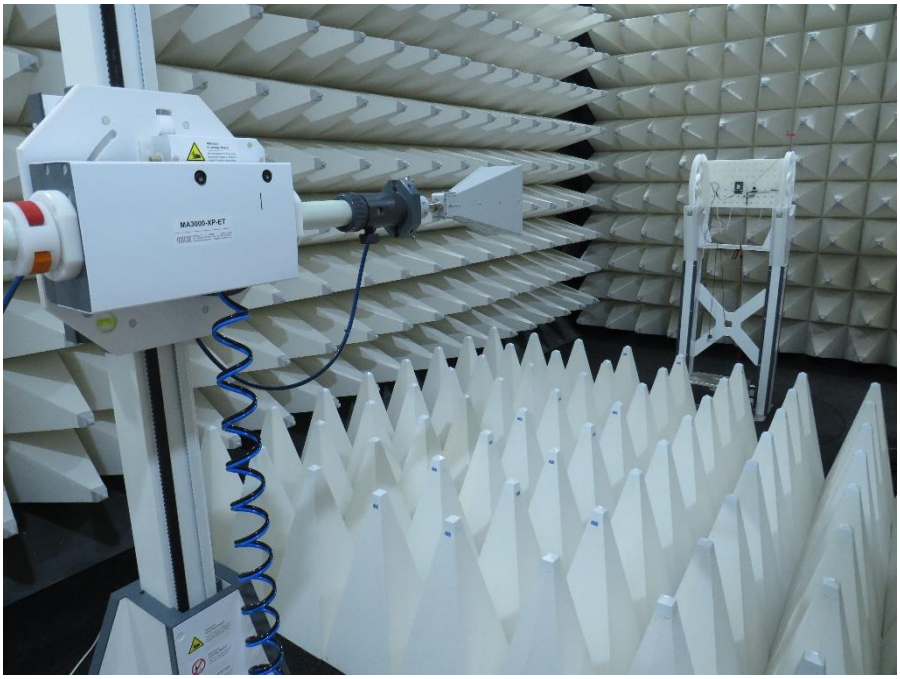
EUT Test Setup (Flex Antenna)

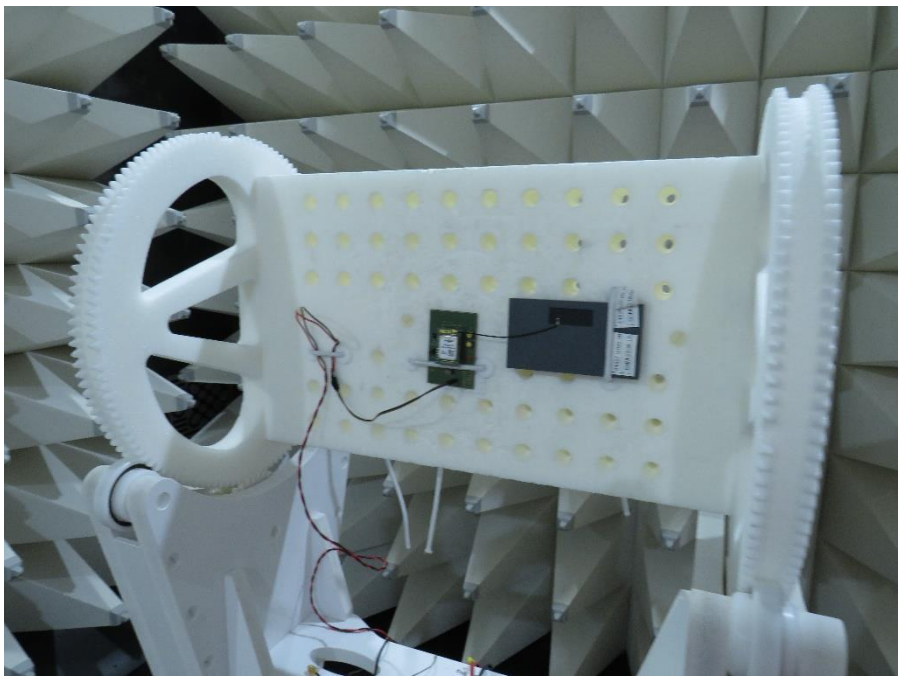


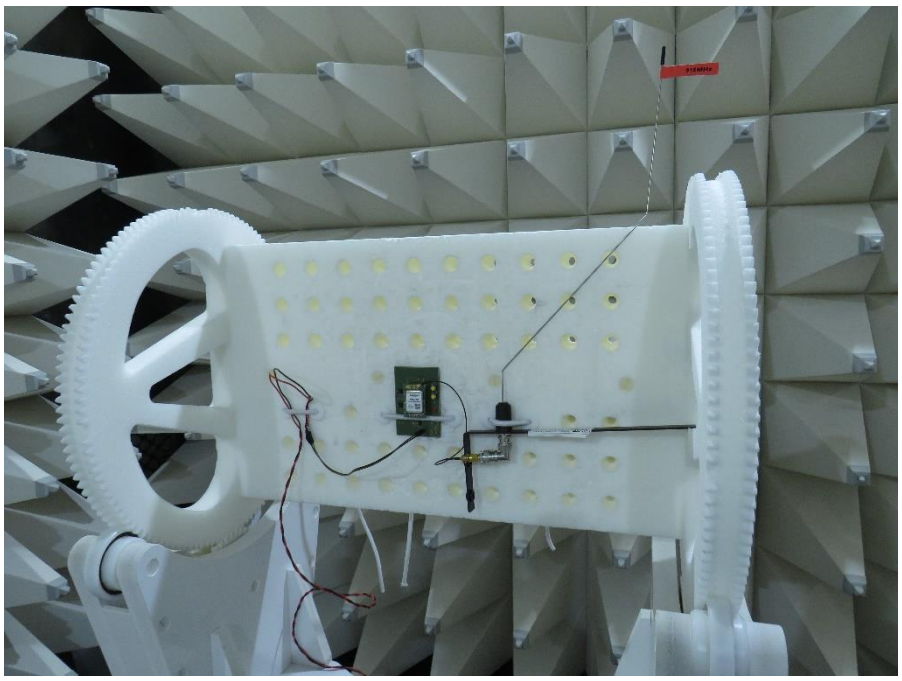
Setup for measurements above 1 GHz (Fix wire Antenna)



Setup for measurements above 1 GHz (Flex Antenna)



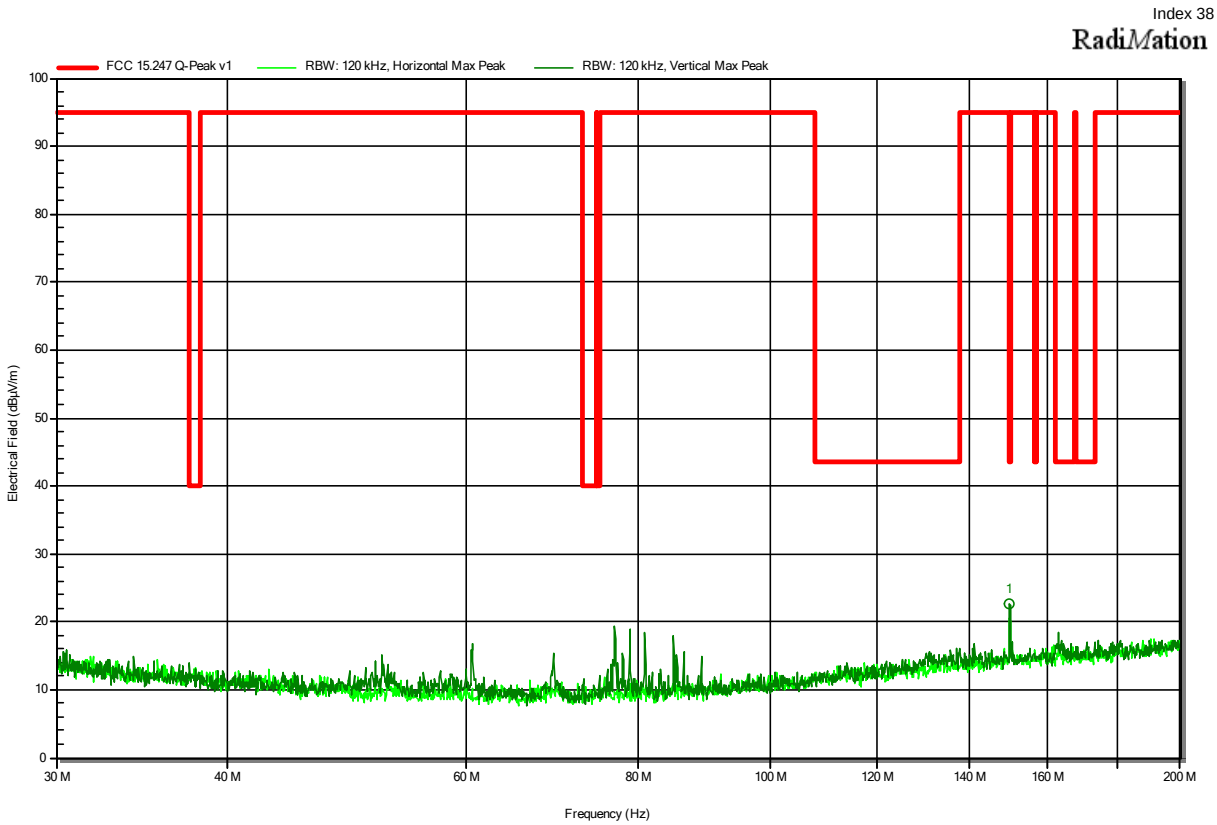
EUT Test Setup (Fix wire Antenna)


EUT Test Setup (Flex Antenna)


ANNEX A Transmitter spurious emissions

Radiated Spurious Emissions according to FCC 15.247

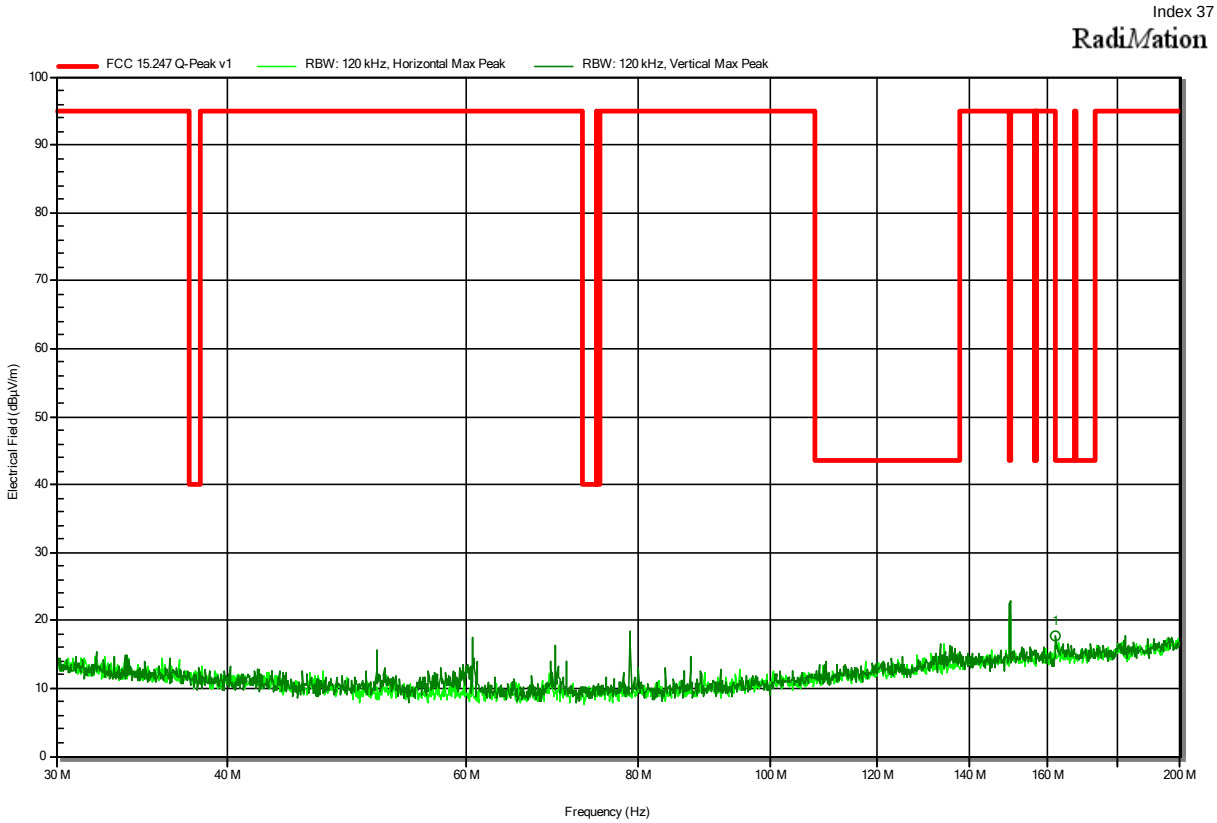
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-15
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
149.986 MHz	22.5 dBµV/m	43.5 dBµV/m	-20.98 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-15
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
162.022 MHz	17.8 dBµV/m	43.5 dBµV/m	-25.69 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-15
Note:	

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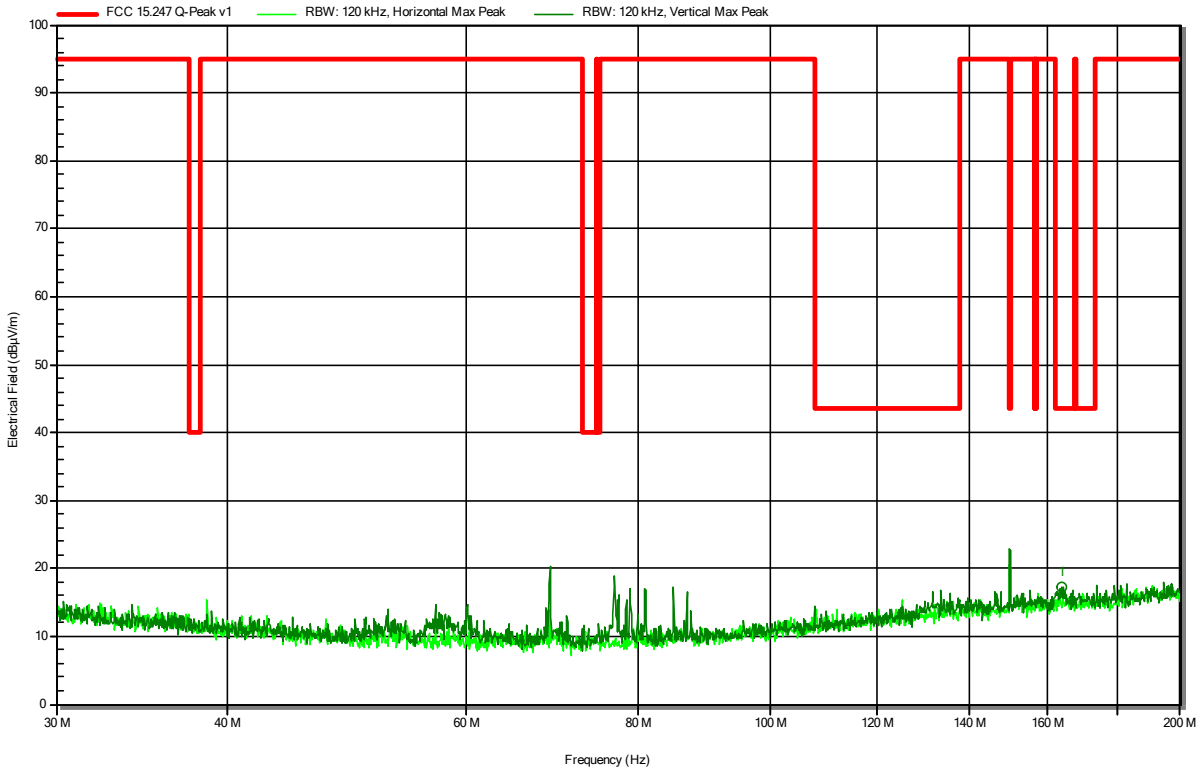
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
163.6413 MHz	17.2 dBµV/m	43.5 dBµV/m	-26.31 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-15
Note:	

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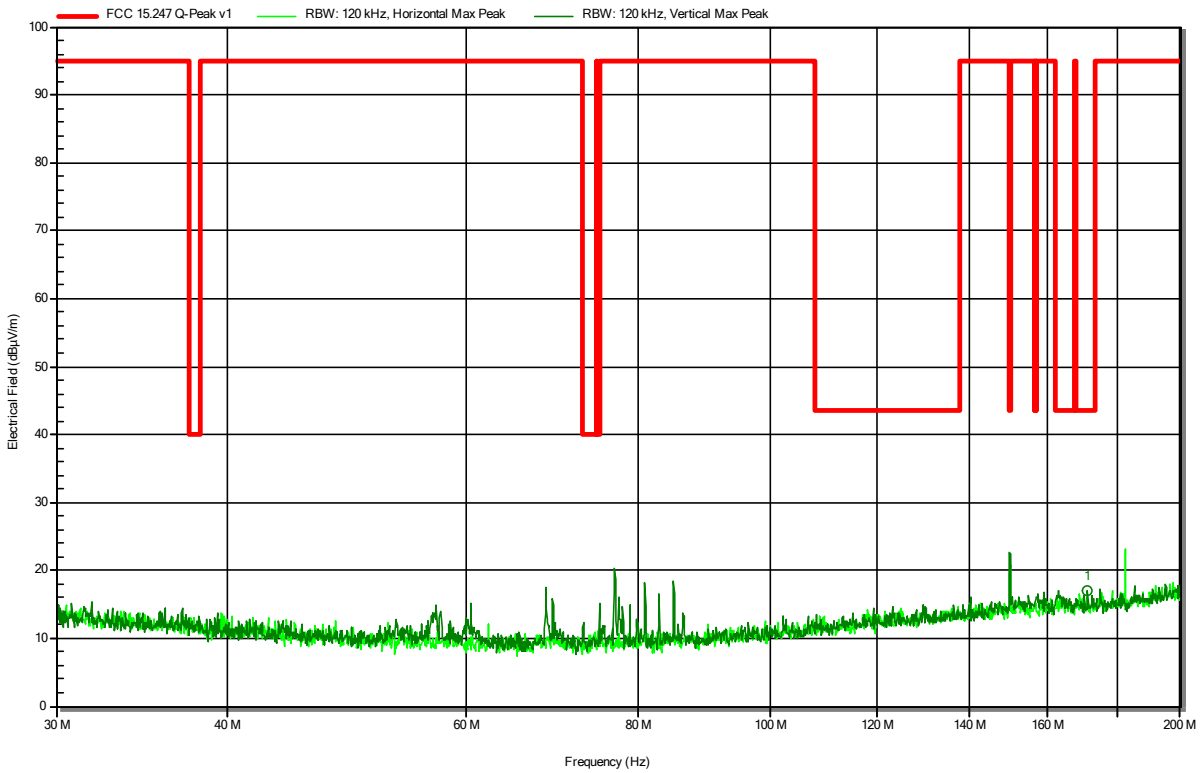
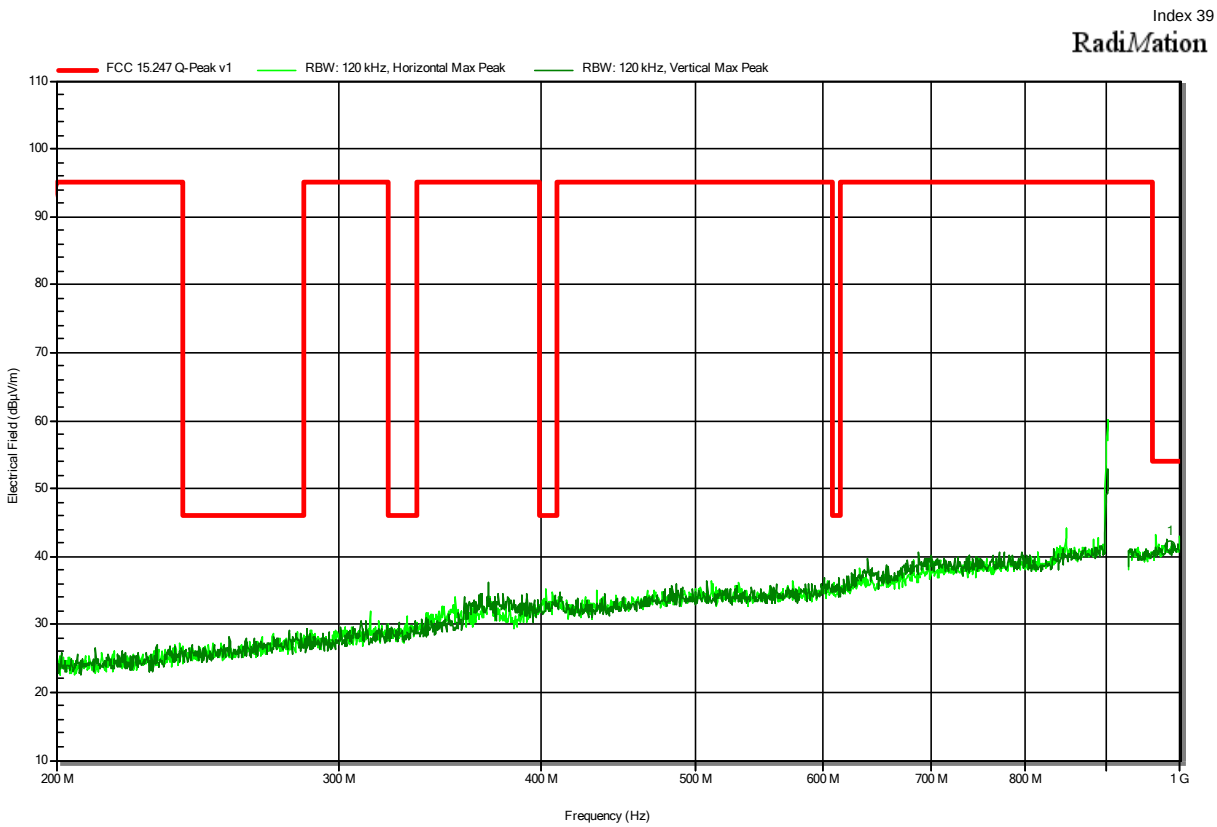
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
171.0533 MHz	16.9 dBµV/m	43.5 dBµV/m	-26.57 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

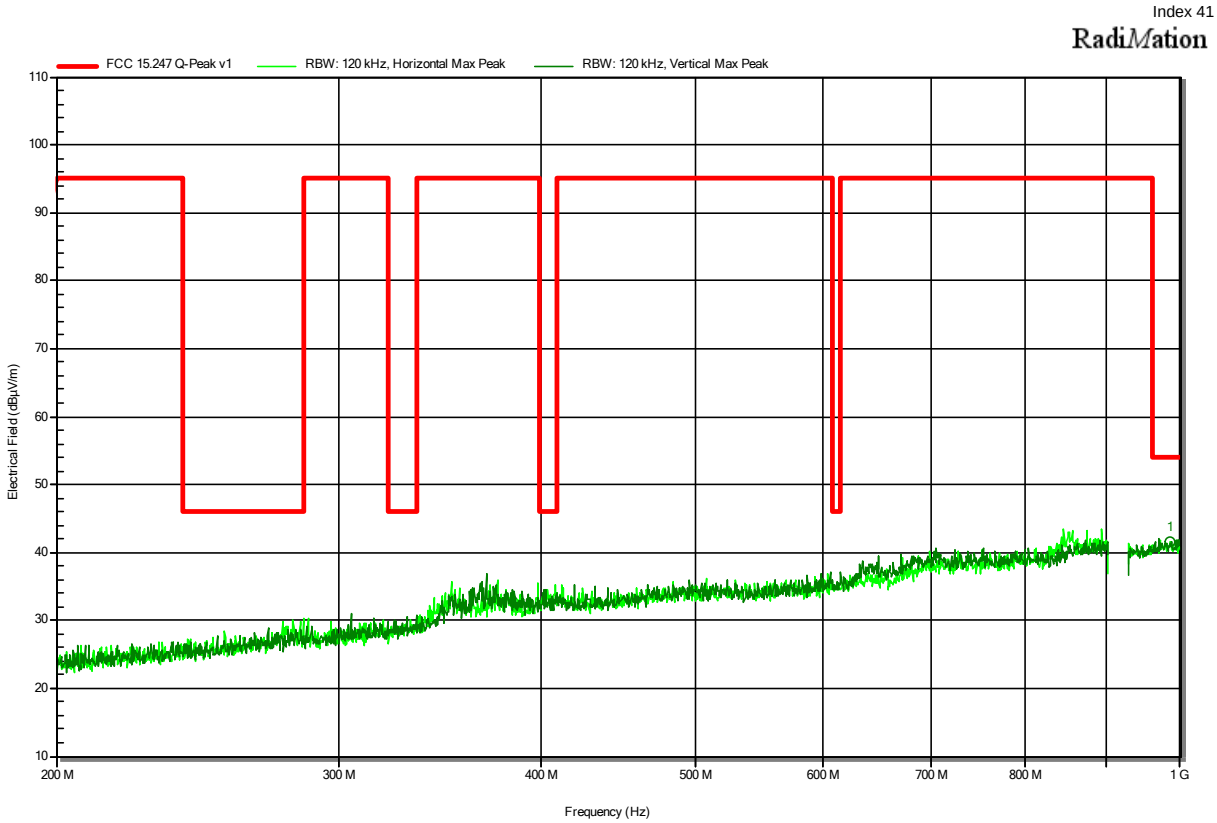
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-15
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
986.1508 MHz	41.7 dBµV/m	54 dBµV/m	-12.33 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

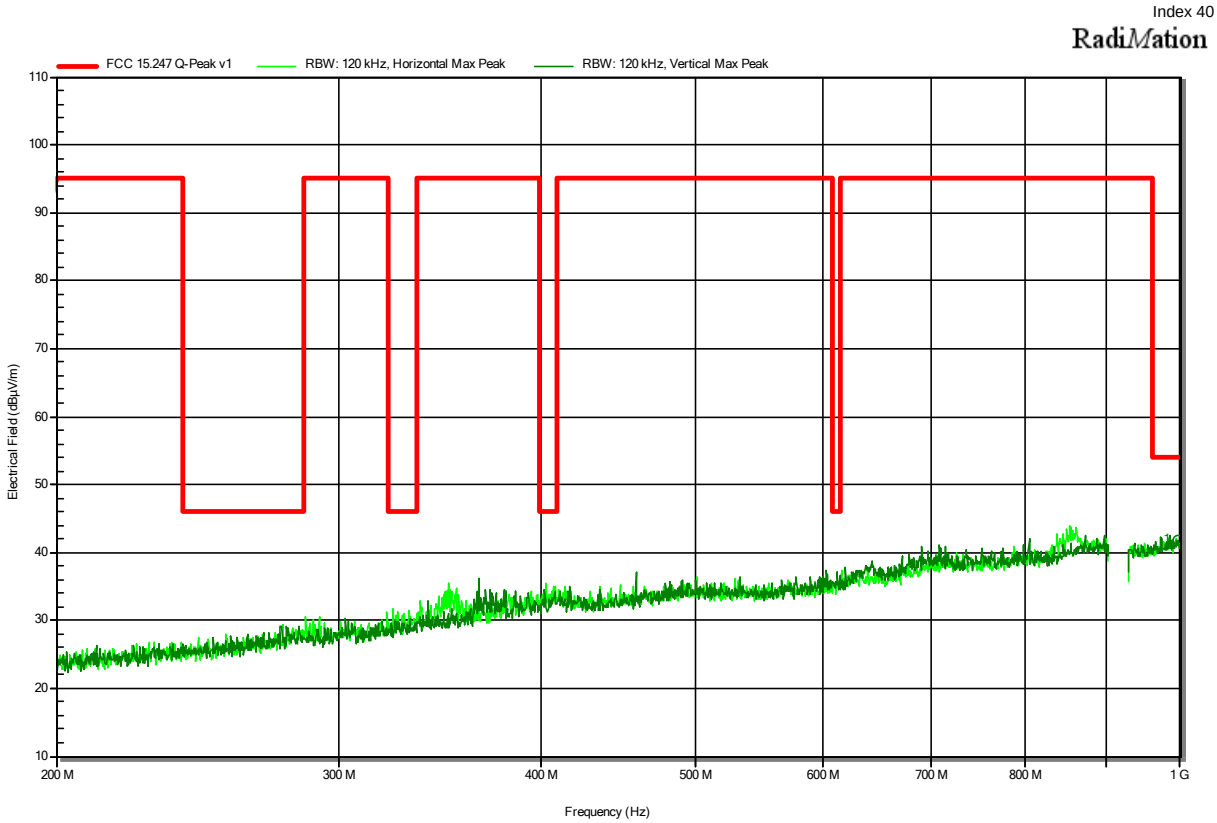
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-15
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
985.4002 MHz	41.6 dBµV/m	54 dBµV/m	-12.39 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

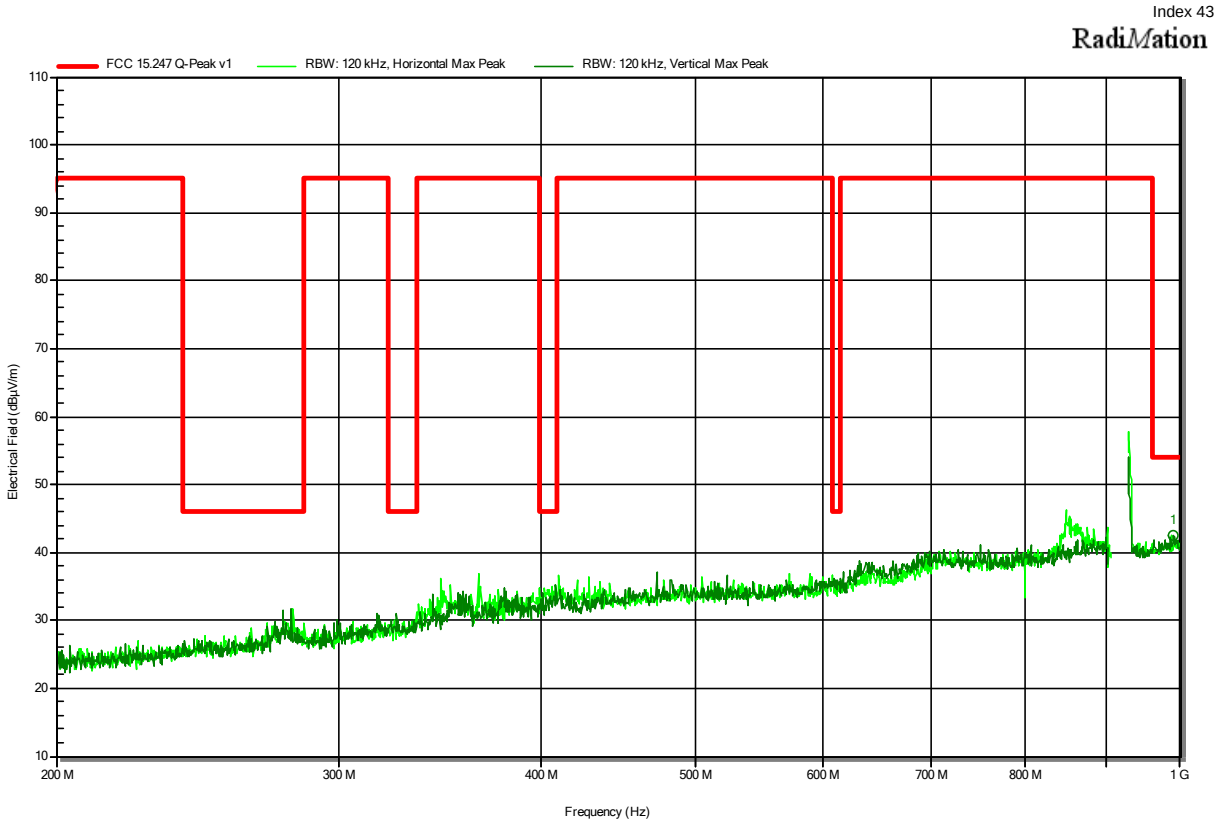
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-15
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
996.7528 MHz	41.9 dBµV/m	54 dBµV/m	-12.12 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-15
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
990.091 MHz	42.5 dBµV/m	54 dBµV/m	-11.53 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-10
Note:	

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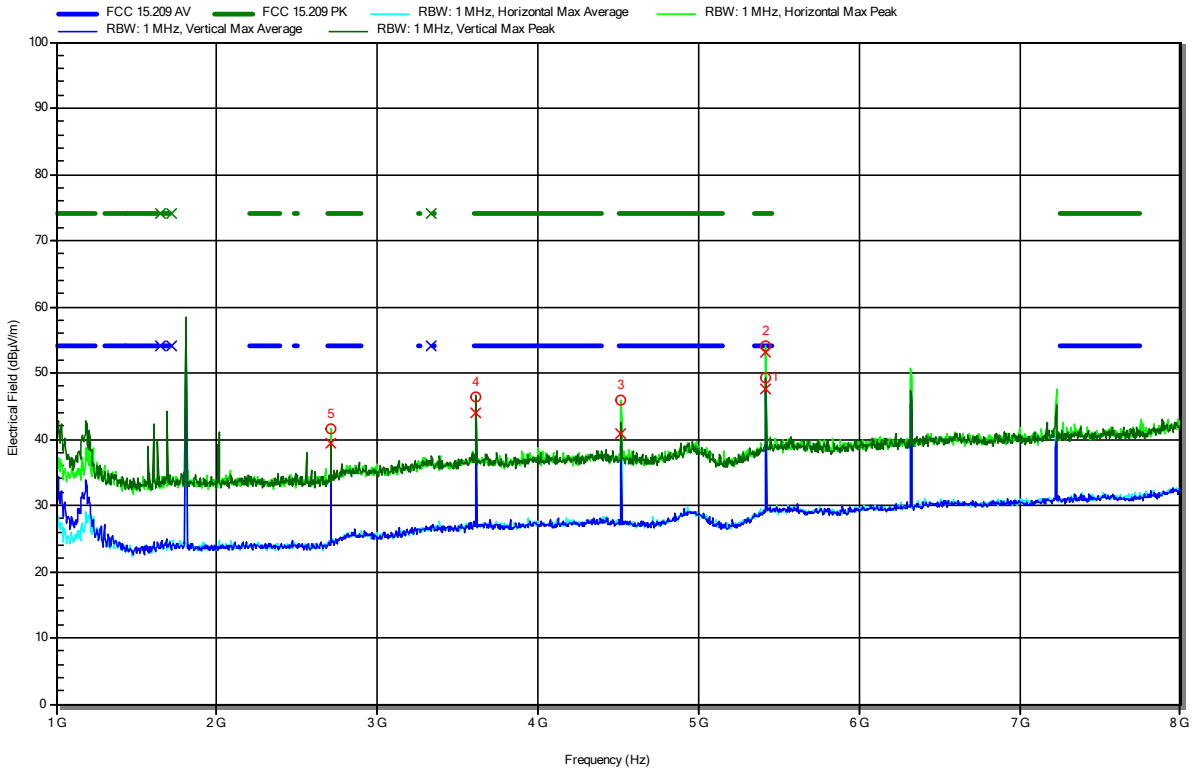
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.7096 GHz	41.56 dBµV/m	74 dBµV/m	-32.44 dB	Pass	Horizontal
3.6127 GHz	46.29 dBµV/m	74 dBµV/m	-27.71 dB	Pass	Vertical
4.5157 GHz	45.87 dBµV/m	74 dBµV/m	-28.13 dB	Pass	Horizontal
5.4192 GHz	54.14 dBµV/m	74 dBµV/m	-19.86 dB	Pass	Horizontal
5.4195 GHz	49.25 dBµV/m	74 dBµV/m	-24.75 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
2.7096 GHz	39.45 dBµV/m	54 dBµV/m	-14.55 dB	Pass	Horizontal
3.6127 GHz	43.95 dBµV/m	54 dBµV/m	-10.05 dB	Pass	Vertical
4.5157 GHz	40.75 dBµV/m	54 dBµV/m	-13.25 dB	Pass	Horizontal
5.4192 GHz	53.24 dBµV/m	54 dBµV/m	-0.76 dB	Pass	Horizontal
5.4195 GHz	47.49 dBµV/m	54 dBµV/m	-6.51 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-15
Note:	

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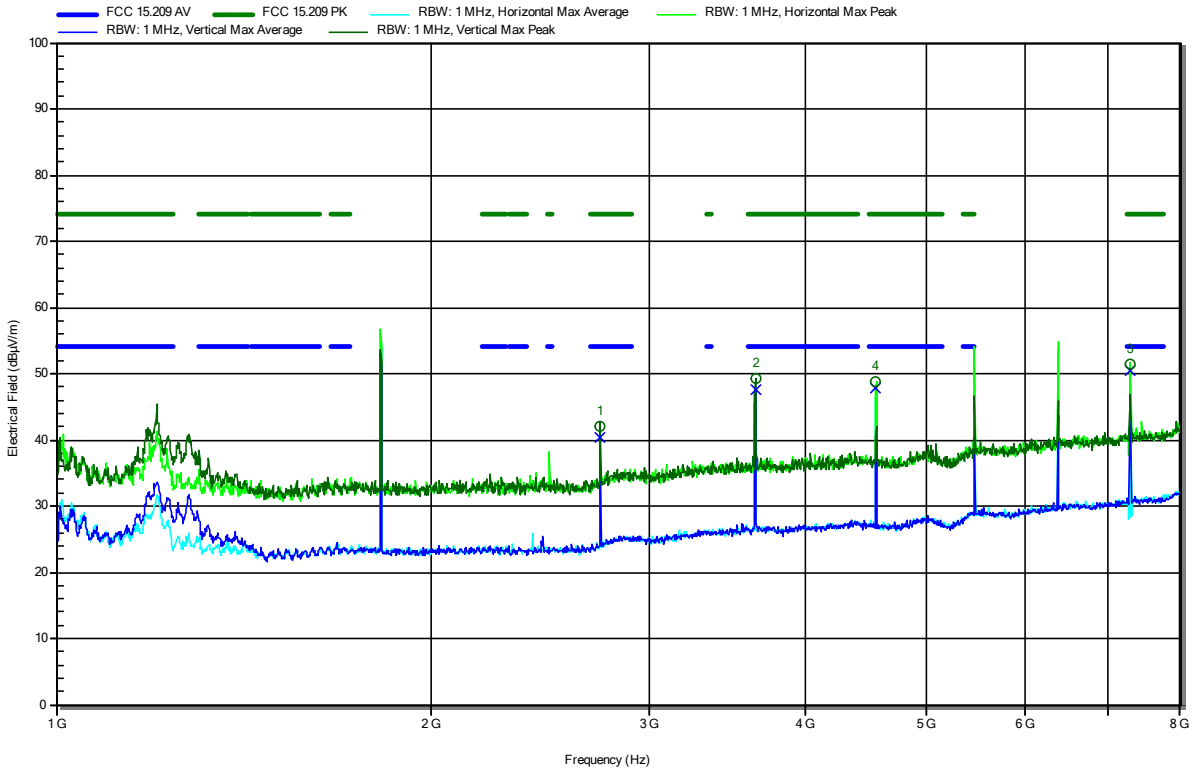
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.7333 GHz	42.09 dBµV/m	74 dBµV/m	-31.91 dB	Pass	Vertical
3.6445 GHz	49.24 dBµV/m	74 dBµV/m	-24.76 dB	Pass	Vertical
4.5541 GHz	48.76 dBµV/m	74 dBµV/m	-25.24 dB	Pass	Horizontal
7.2879 GHz	51.53 dBµV/m	74 dBµV/m	-22.47 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
2.7333 GHz	40.46 dBµV/m	54 dBµV/m	-13.54 dB	Pass	Vertical
3.6445 GHz	47.56 dBµV/m	54 dBµV/m	-6.44 dB	Pass	Vertical
4.5541 GHz	47.73 dBµV/m	54 dBµV/m	-6.27 dB	Pass	Horizontal
7.2879 GHz	50.54 dBµV/m	54 dBµV/m	-3.46 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-15
Note:	

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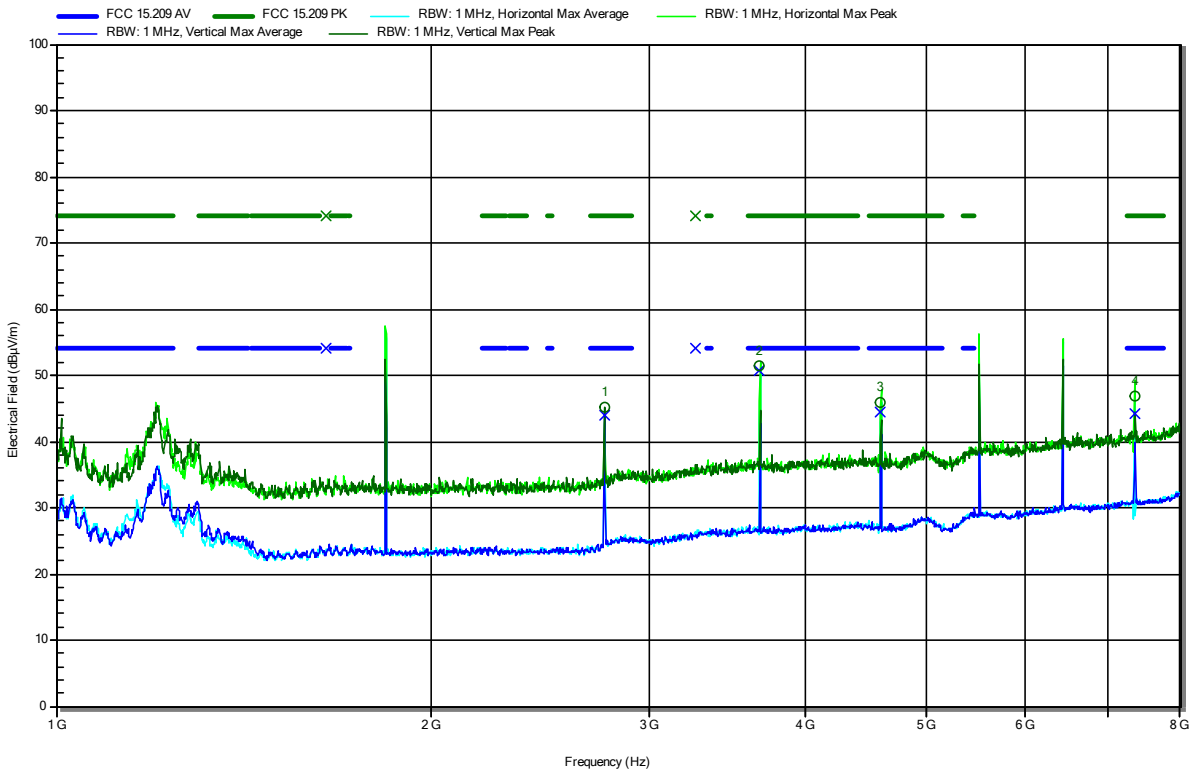
RadiMation



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.7568 GHz	45.08 dBµV/m	74 dBµV/m	-28.92 dB	Pass	Vertical
3.6761 GHz	51.54 dBµV/m	74 dBµV/m	-22.46 dB	Pass	Horizontal
4.5955 GHz	46.02 dBµV/m	74 dBµV/m	-27.98 dB	Pass	Horizontal
7.3517 GHz	46.76 dBµV/m	74 dBµV/m	-27.24 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
2.7568 GHz	43.96 dBµV/m	54 dBµV/m	-10.04 dB	Pass	Vertical
3.6761 GHz	50.74 dBµV/m	54 dBµV/m	-3.26 dB	Pass	Horizontal
4.5955 GHz	44.57 dBµV/m	54 dBµV/m	-9.43 dB	Pass	Horizontal
7.3517 GHz	44.25 dBµV/m	54 dBµV/m	-9.75 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-15
Note:	

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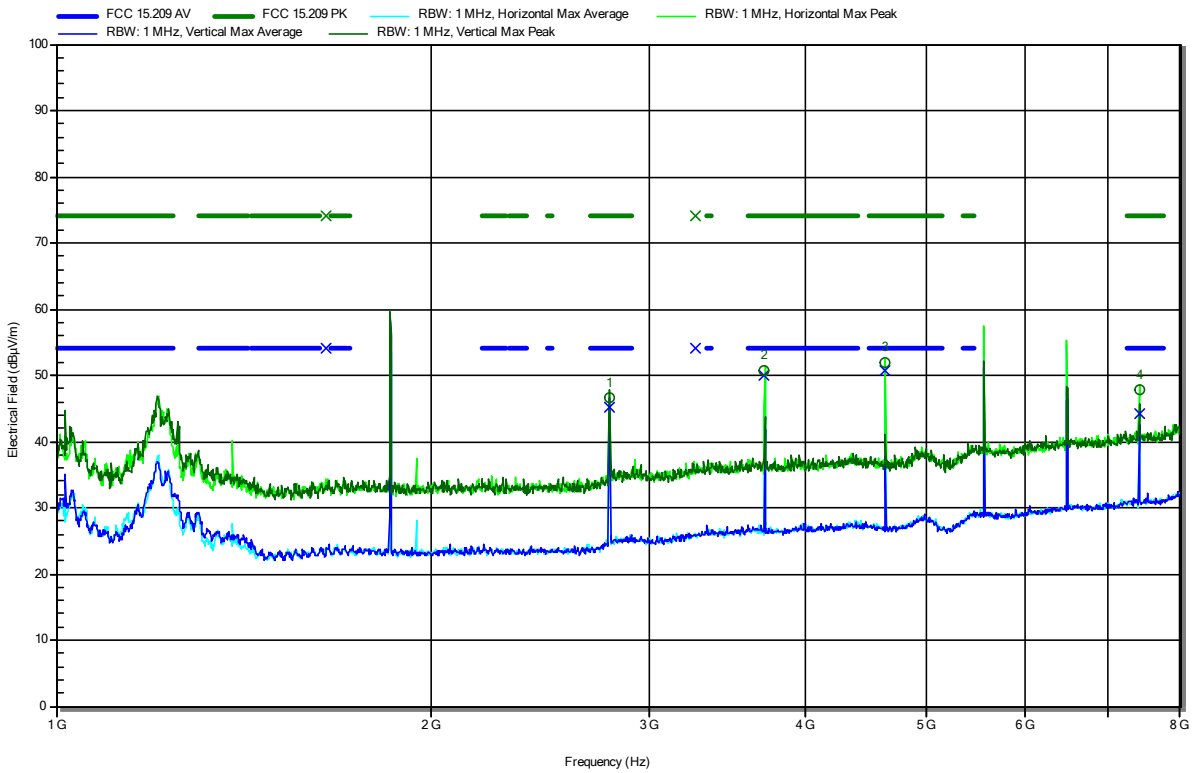
RadiMation

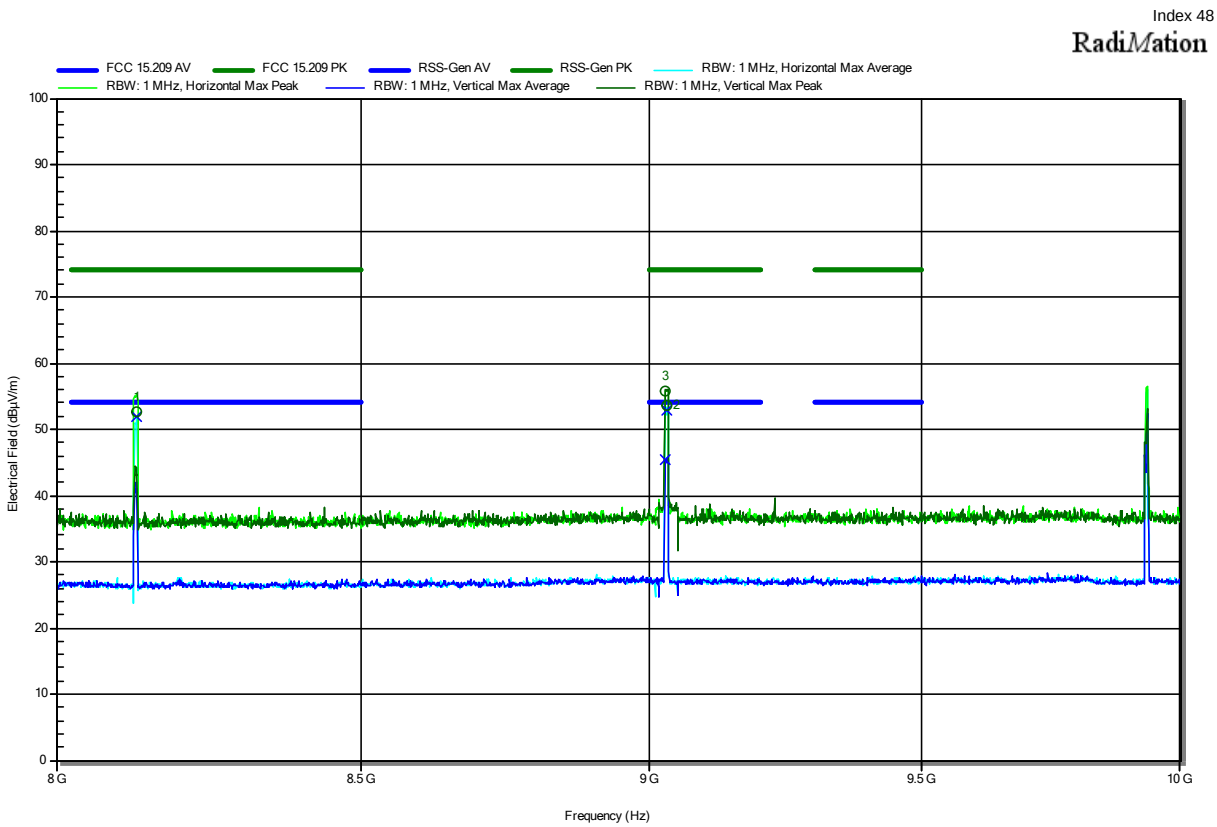


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.7815 GHz	46.51 dBµV/m	74 dBµV/m	-27.49 dB	Pass	Vertical
3.7078 GHz	50.76 dBµV/m	74 dBµV/m	-23.24 dB	Pass	Horizontal
4.6353 GHz	51.87 dBµV/m	74 dBµV/m	-22.13 dB	Pass	Horizontal
7.4168 GHz	47.91 dBµV/m	74 dBµV/m	-26.09 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
2.7815 GHz	45.16 dBµV/m	54 dBµV/m	-8.84 dB	Pass	Vertical
3.7078 GHz	49.92 dBµV/m	54 dBµV/m	-4.08 dB	Pass	Horizontal
4.6353 GHz	50.82 dBµV/m	54 dBµV/m	-3.18 dB	Pass	Horizontal
7.4168 GHz	44.33 dBµV/m	54 dBµV/m	-9.67 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-18
Note:	

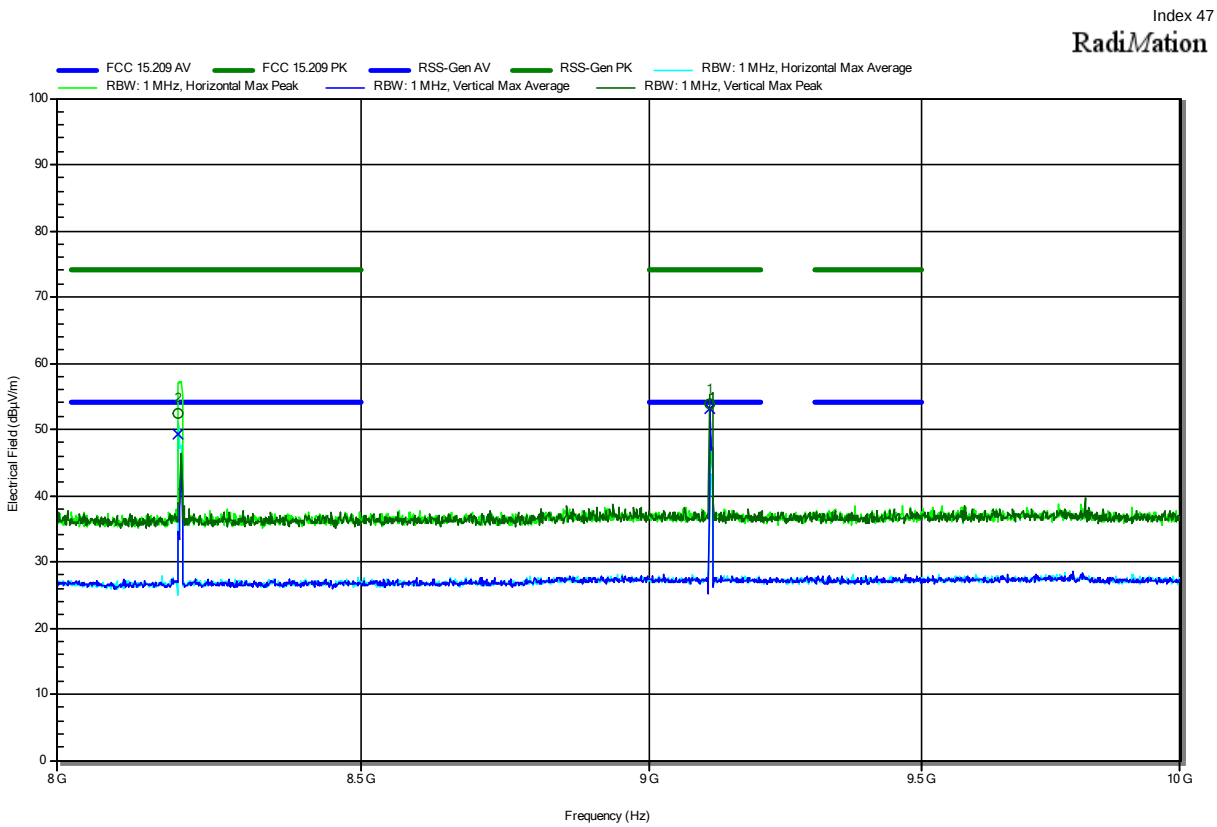


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
8.128 GHz	52.76 dBµV/m	74 dBµV/m	-21.24 dB	Pass	Horizontal
9.029 GHz	55.69 dBµV/m	74 dBµV/m	-18.31 dB	Pass	Vertical
9.031 GHz	53.72 dBµV/m	74 dBµV/m	-20.28 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
8.128 GHz	52.03 dBµV/m	54 dBµV/m	-1.97 dB	Pass	Horizontal
9.029 GHz	45.36 dBµV/m	54 dBµV/m	-8.64 dB	Pass	Vertical
9.031 GHz	52.87 dBµV/m	54 dBµV/m	-1.13 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-18
Note:	

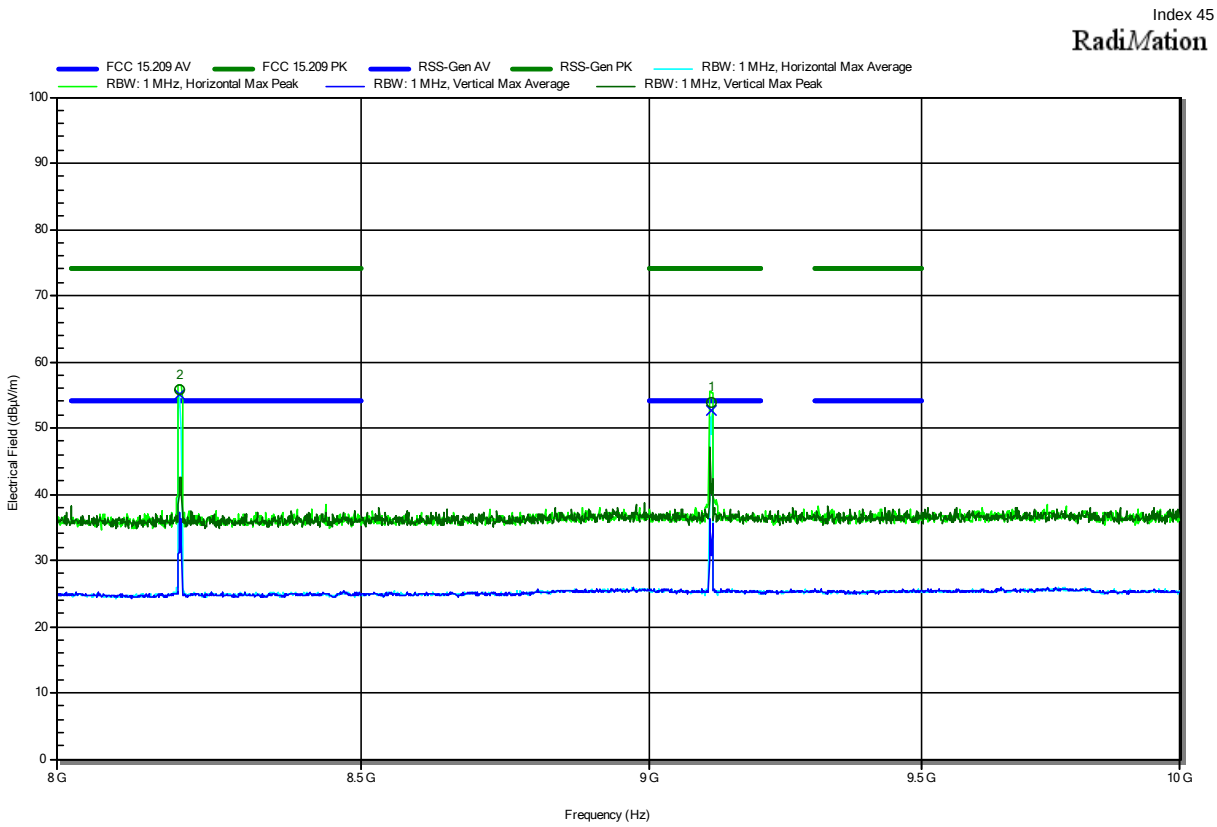


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
8.196 GHz	52.3 dBµV/m	74 dBµV/m	-21.7 dB	Pass	Horizontal
9.109 GHz	53.84 dBµV/m	74 dBµV/m	-20.16 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
8.196 GHz	49.31 dBµV/m	54 dBµV/m	-4.69 dB	Pass	Horizontal
9.109 GHz	53.11 dBµV/m	54 dBµV/m	-0.89 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-17
Note:	Emission at marker 2 has been remeasured with a longer sweep time, see next page

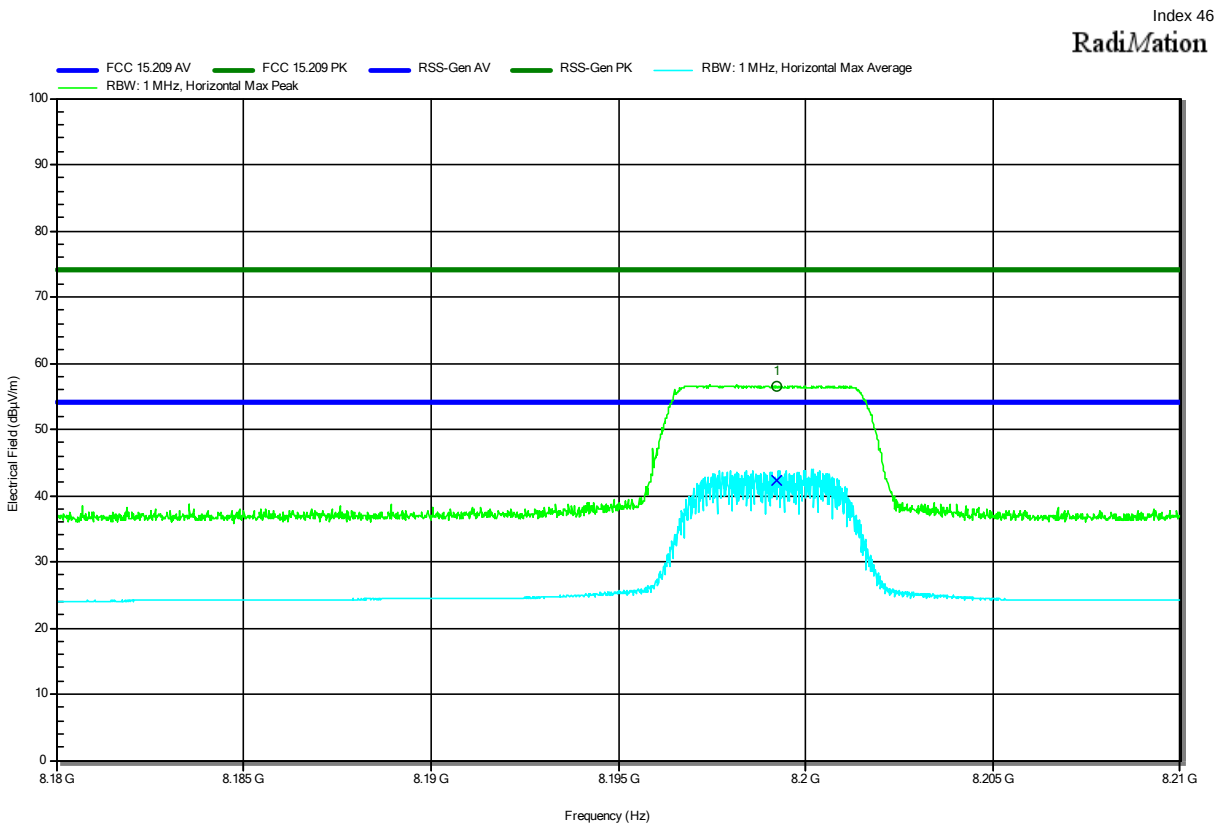


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
8.198 GHz	55.78 dBµV/m	74 dBµV/m	-18.22 dB	Pass	Horizontal
9.112 GHz	53.82 dBµV/m	74 dBµV/m	-20.18 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
8.198 GHz	55.11 dBµV/m	54 dBµV/m	1.11 dB	see next page	Horizontal
9.112 GHz	52.74 dBµV/m	54 dBµV/m	-1.26 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-17
Note:	Emission remeasured



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
8.199 GHz	56.53 dBµV/m	74 dBµV/m	-17.47 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
8.199 GHz	42.37 dBµV/m	54 dBµV/m	-11.63 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 21 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna fixed wire
Test Date:	2022-11-17
Note:	

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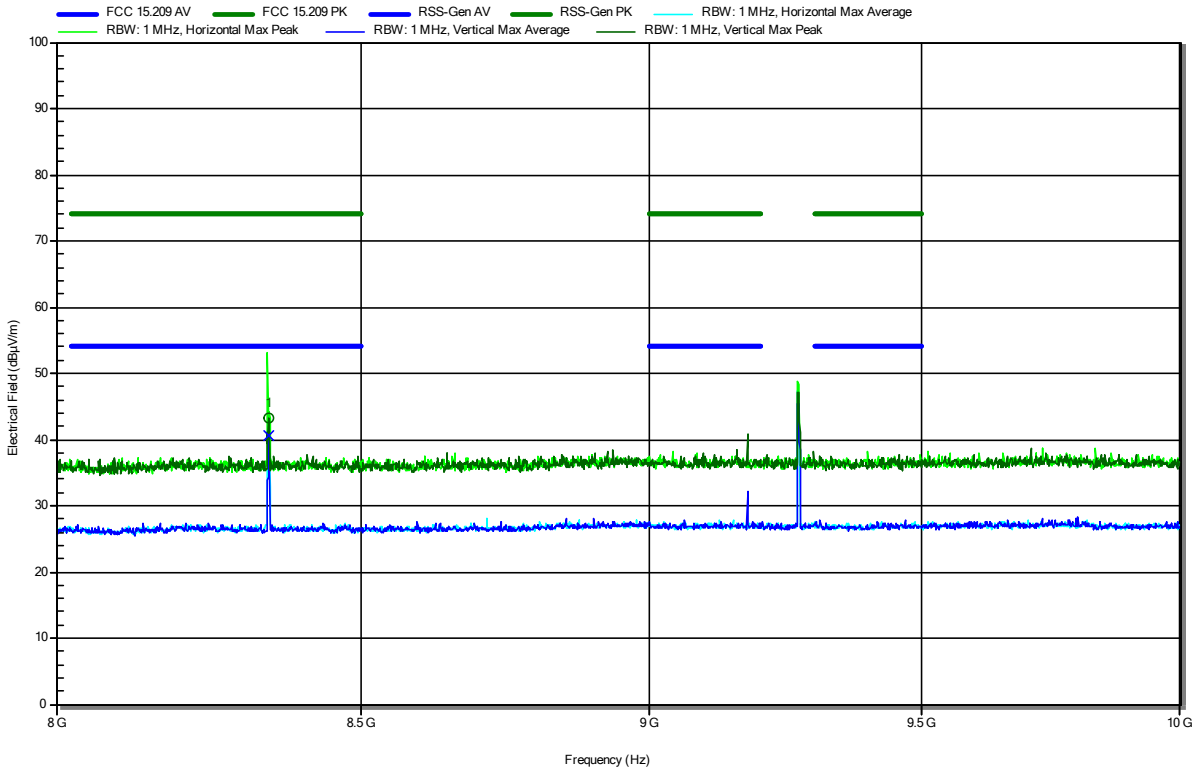
RadiMation

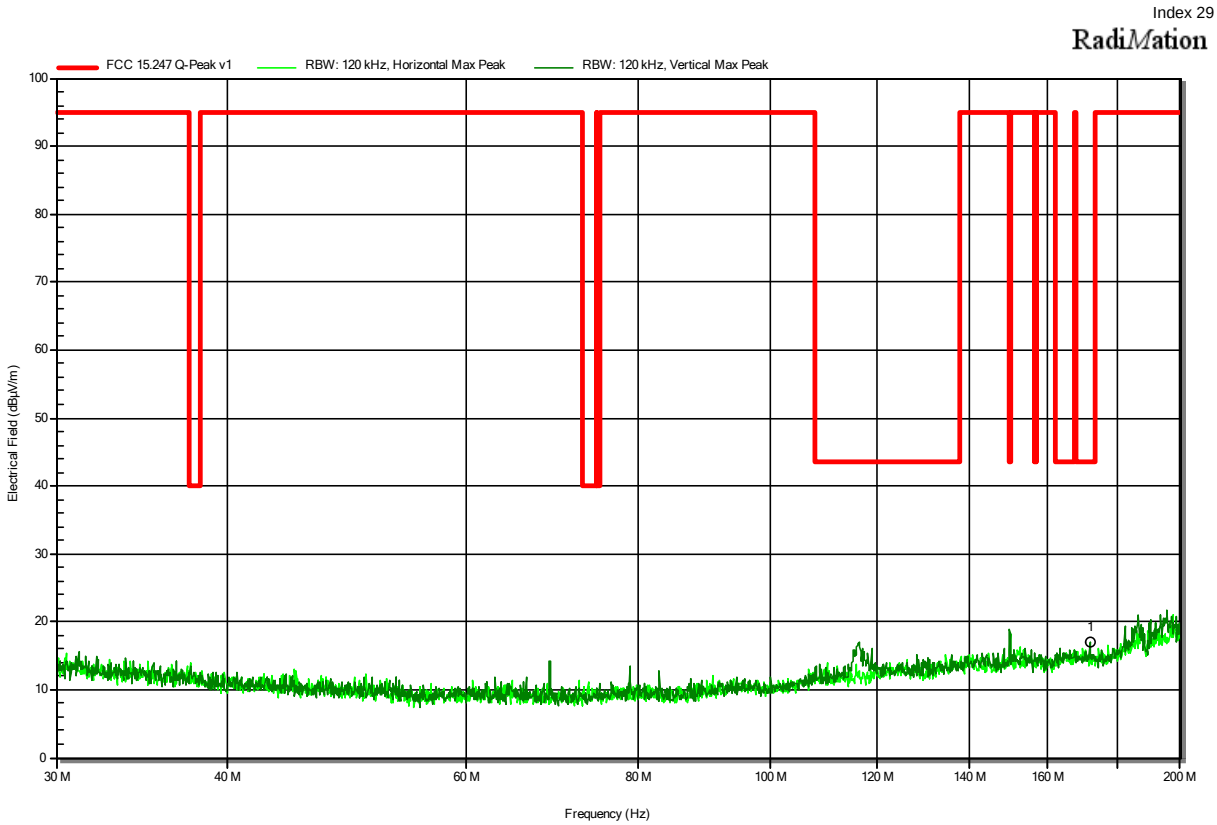


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
8.345 GHz	43.16 dBµV/m	74 dBµV/m	-30.84 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
8.345 GHz	40.59 dBµV/m	54 dBµV/m	-13.41 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

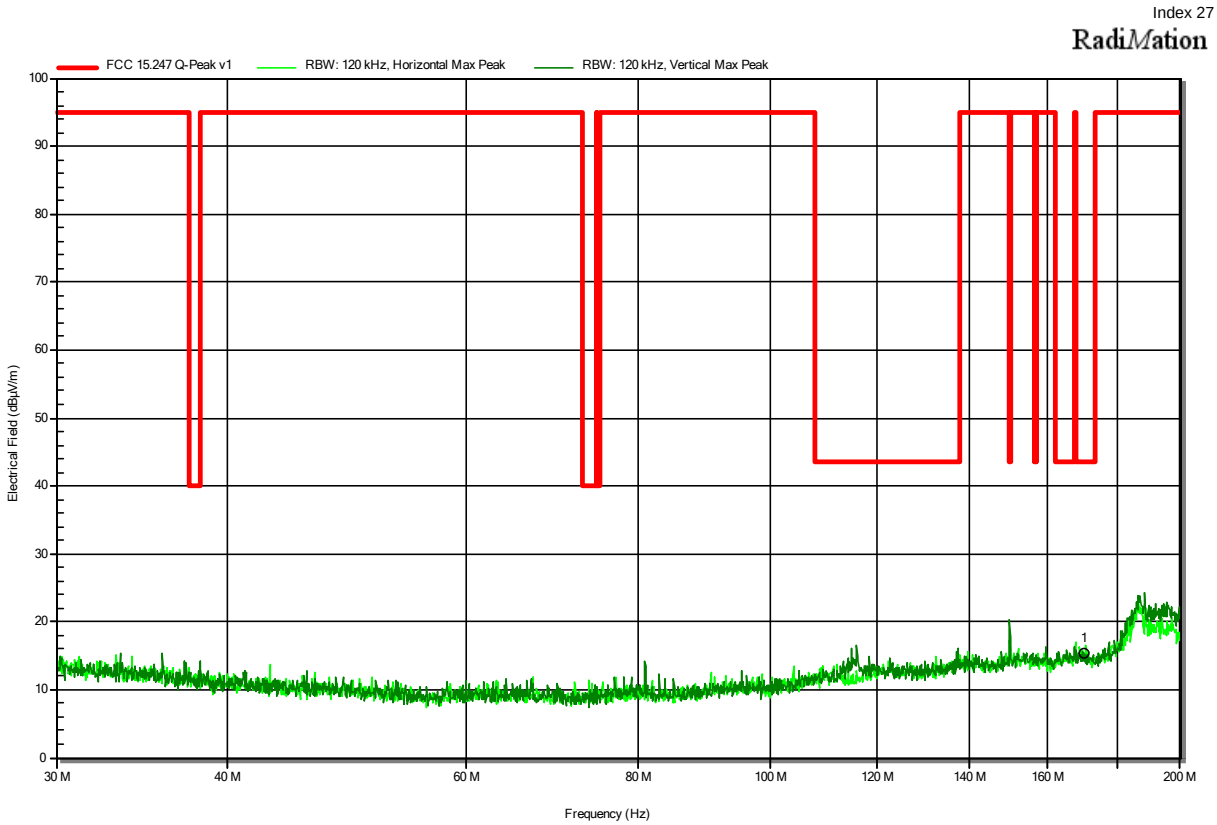
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
171.7375 MHz	17.1 dBµV/m	43.5 dBµV/m	-26.46 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

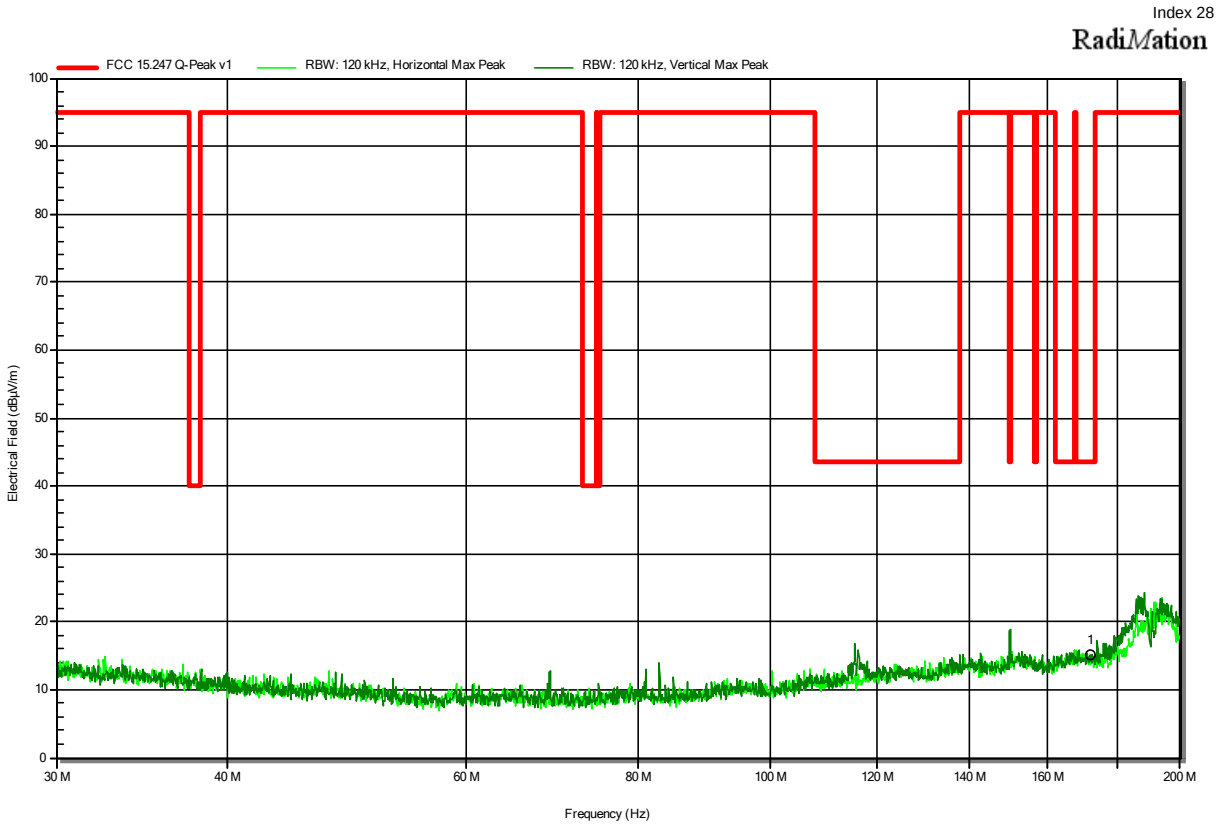
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
169.8548 MHz	15.4 dBµV/m	43.5 dBµV/m	-28.16 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

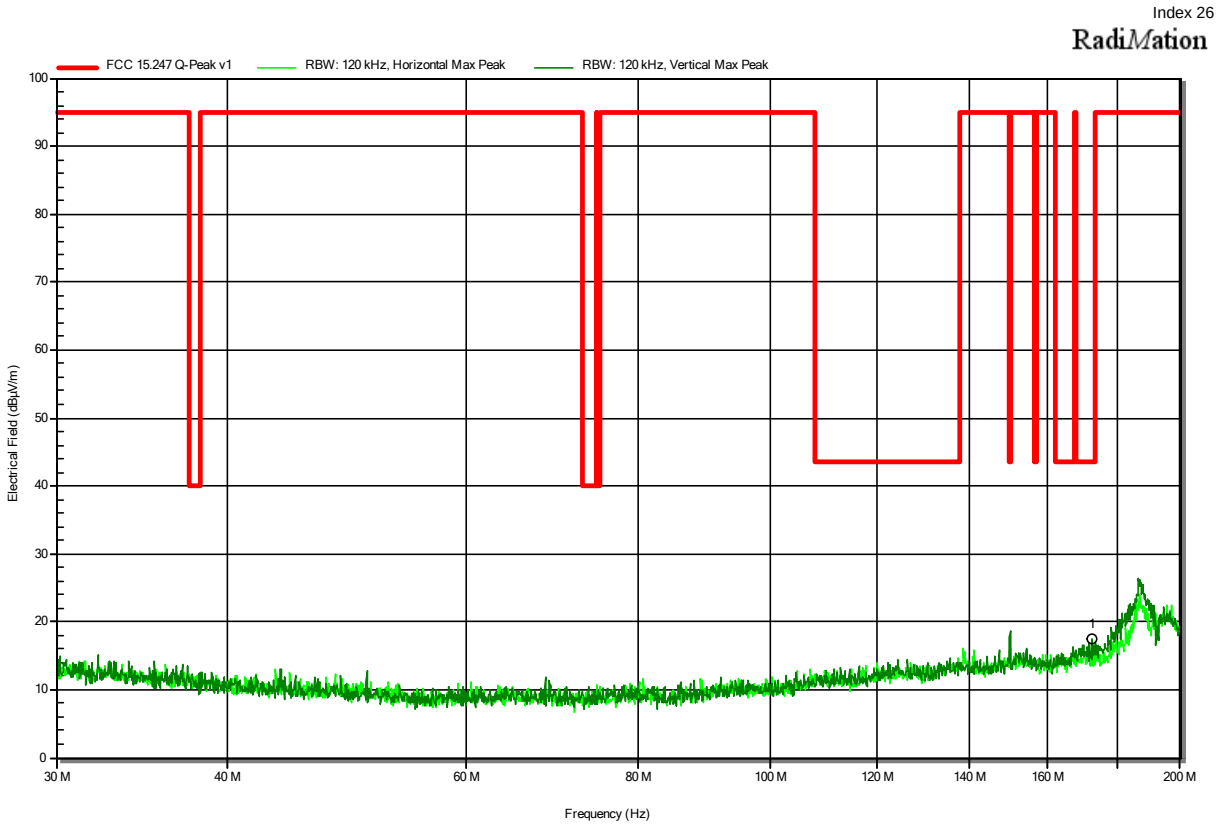
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
171.6398 MHz	15.2 dBµV/m	43.5 dBµV/m	-28.35 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

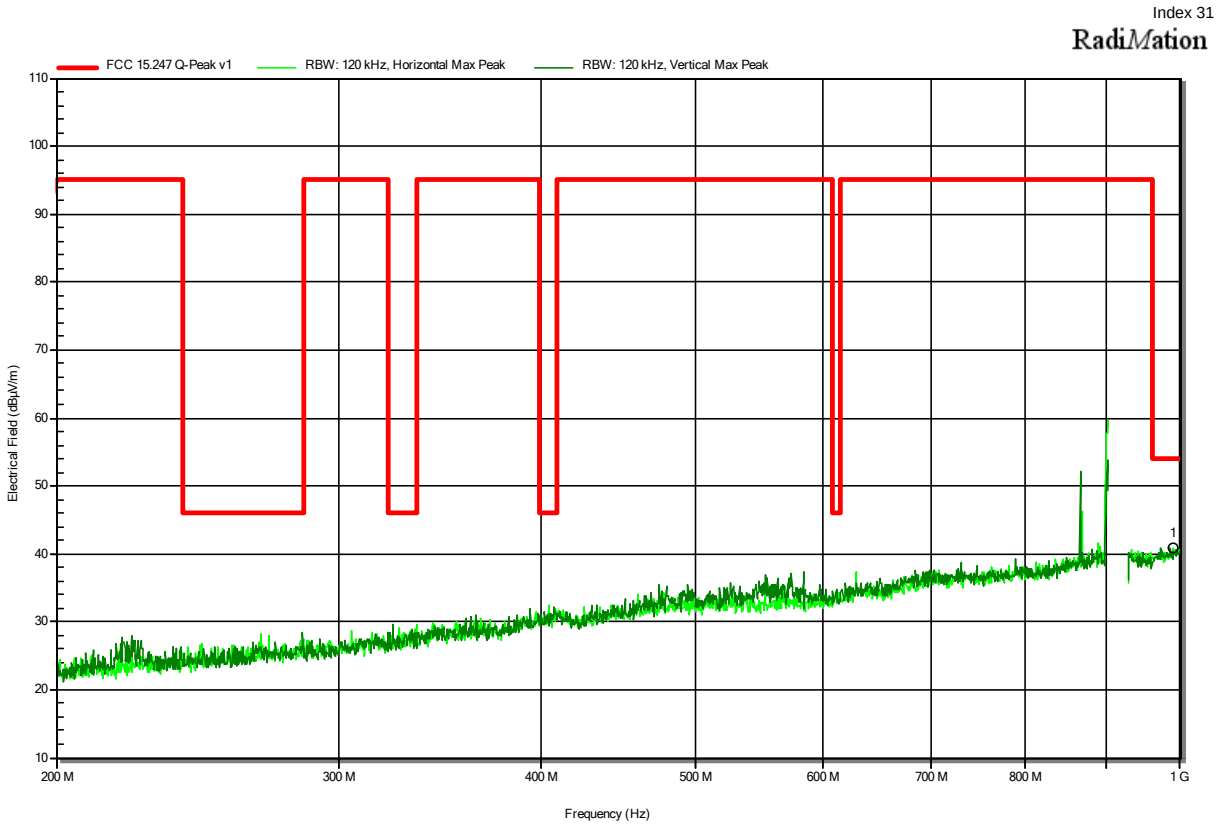
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HK 116
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
172.0903 MHz	17.4 dBµV/m	43.5 dBµV/m	-26.08 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

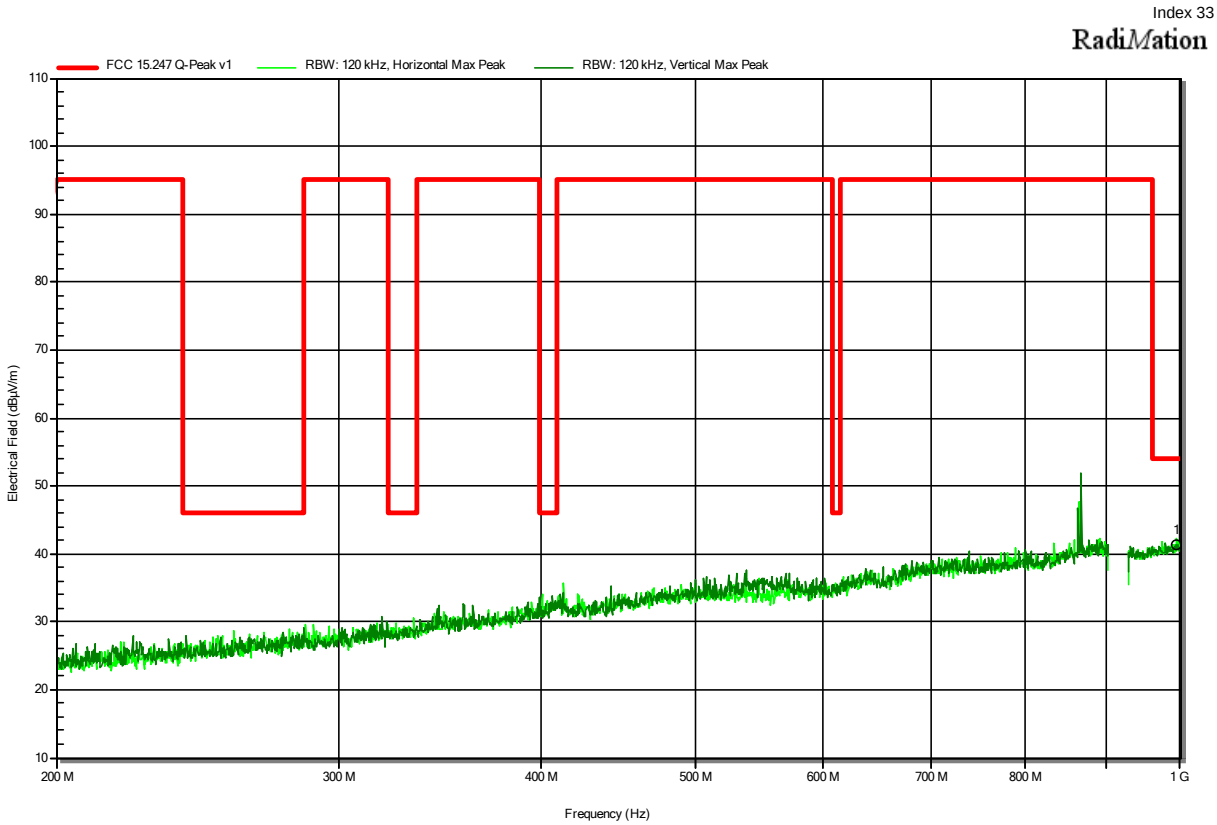
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
990.7606 MHz	40.8 dBµV/m	54 dBµV/m	-13.16 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

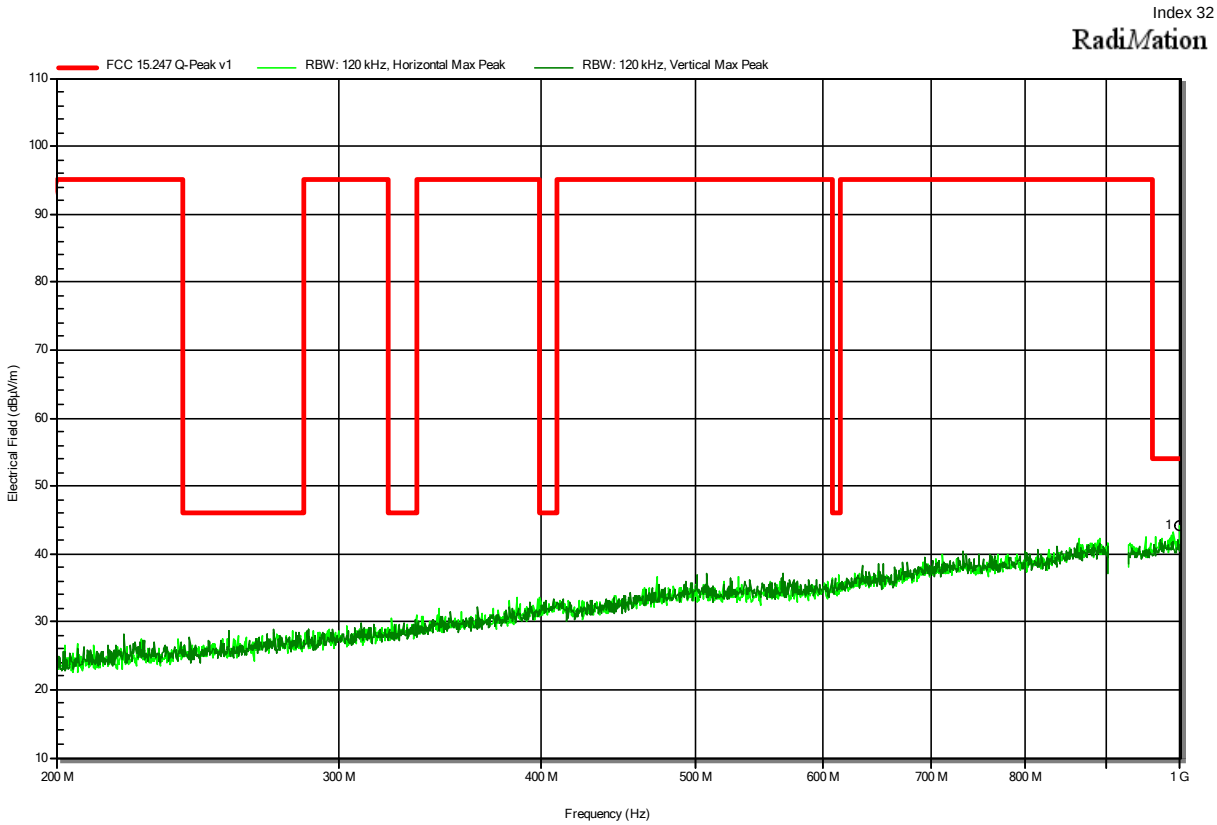
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
993.5164 MHz	41.4 dBµV/m	54 dBµV/m	-12.59 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

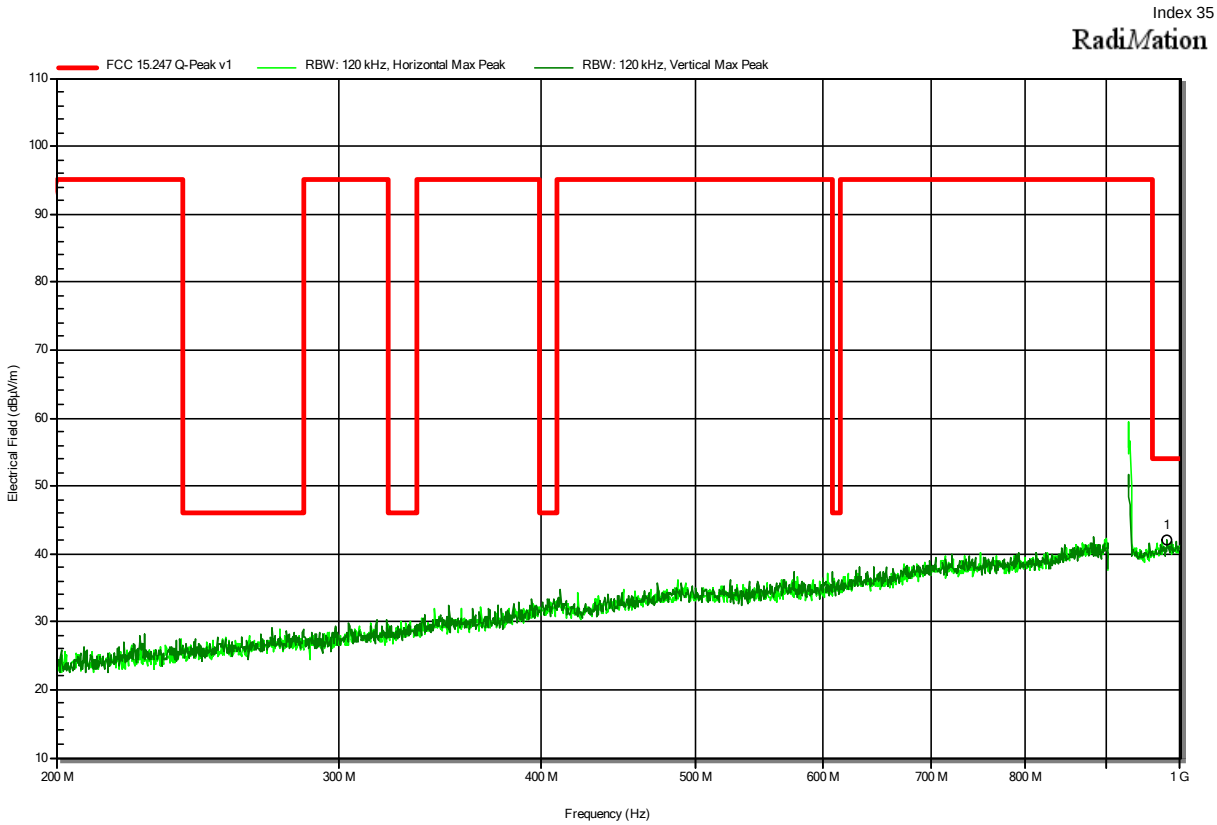
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
999.0154 MHz	44.2 dBµV/m	54 dBµV/m	-9.76 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

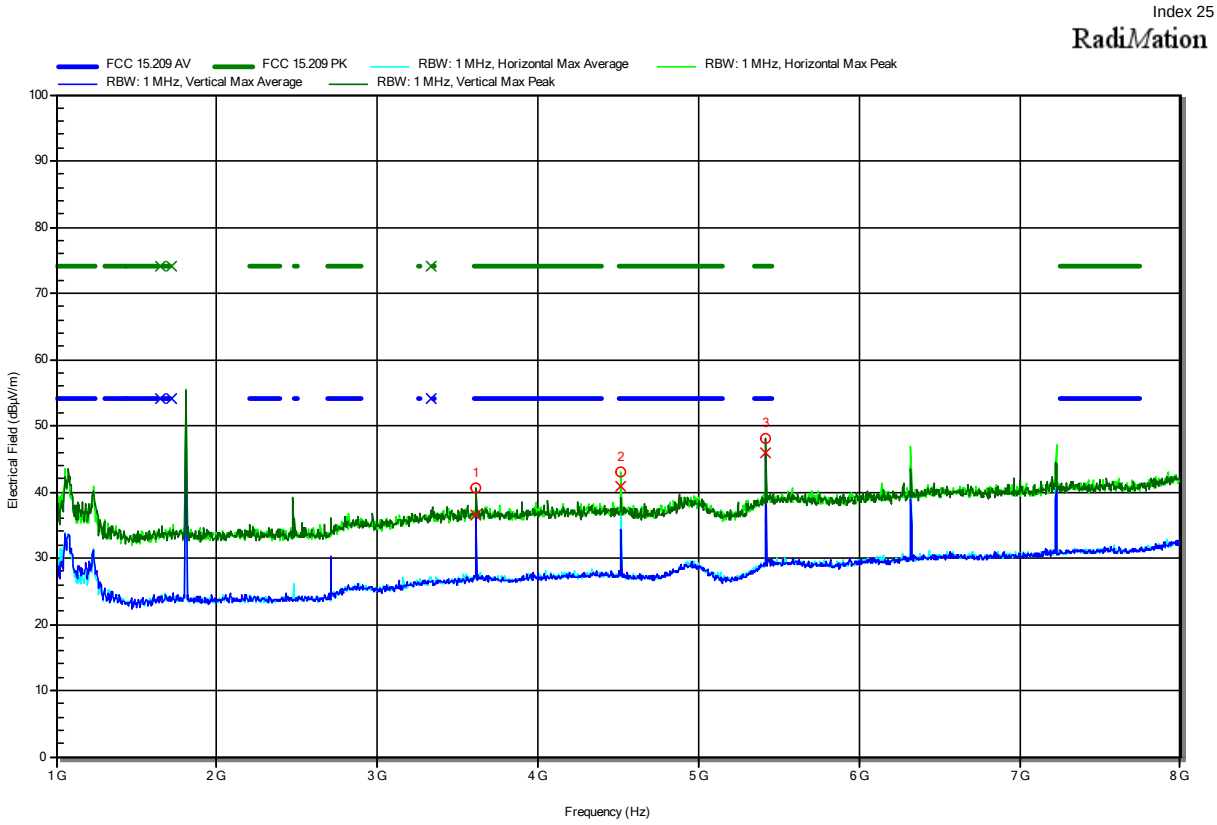
Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Rohde & Schwarz HL 223
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
980.7688 MHz	42 dBµV/m	54 dBµV/m	-11.98 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-10
Note:	EUT

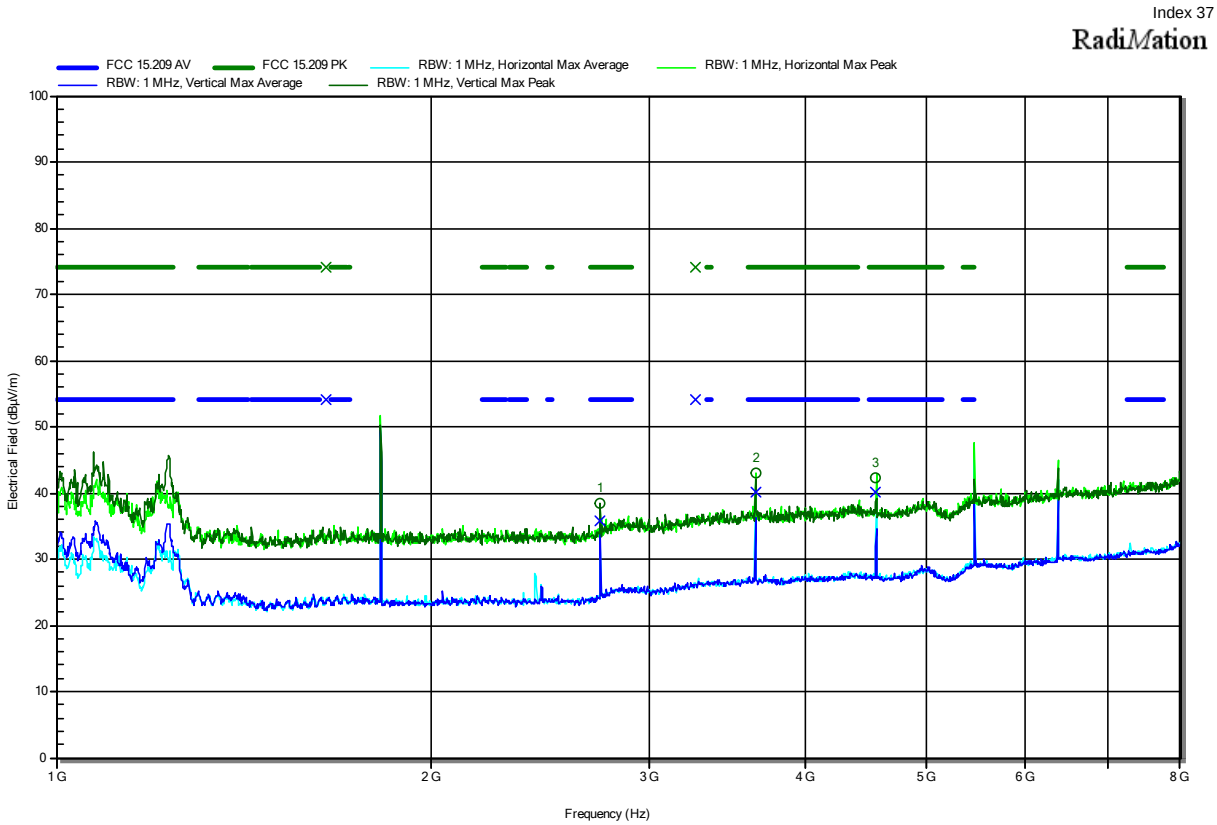


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
3.6128 GHz	40.62 dBµV/m	74 dBµV/m	-33.38 dB	Pass	Vertical
4.5155 GHz	42.99 dBµV/m	74 dBµV/m	-31.01 dB	Pass	Horizontal
5.4168 GHz	48.04 dBµV/m	74 dBµV/m	-25.96 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
3.6128 GHz	36.57 dBµV/m	54 dBµV/m	-17.43 dB	Pass	Vertical
4.5155 GHz	40.76 dBµV/m	54 dBµV/m	-13.24 dB	Pass	Horizontal
5.4168 GHz	45.82 dBµV/m	54 dBµV/m	-8.18 dB	Pass	Vertical

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	

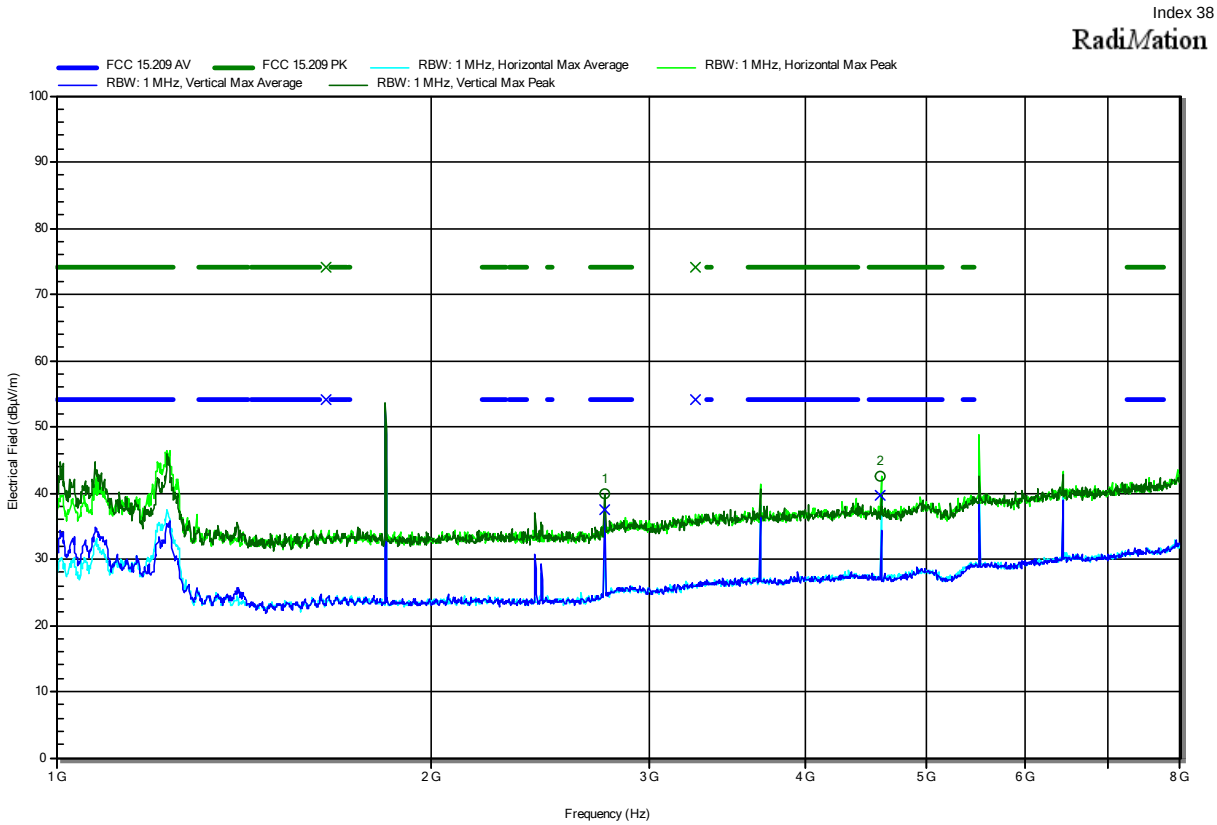


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.7331 GHz	38.45 dBµV/m	74 dBµV/m	-35.55 dB	Pass	Vertical
3.6443 GHz	42.93 dBµV/m	74 dBµV/m	-31.07 dB	Pass	Horizontal
4.5557 GHz	42.29 dBµV/m	74 dBµV/m	-31.71 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
2.7331 GHz	35.74 dBµV/m	54 dBµV/m	-18.26 dB	Pass	Vertical
3.6443 GHz	40.15 dBµV/m	54 dBµV/m	-13.85 dB	Pass	Horizontal
4.5557 GHz	40.13 dBµV/m	54 dBµV/m	-13.87 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	

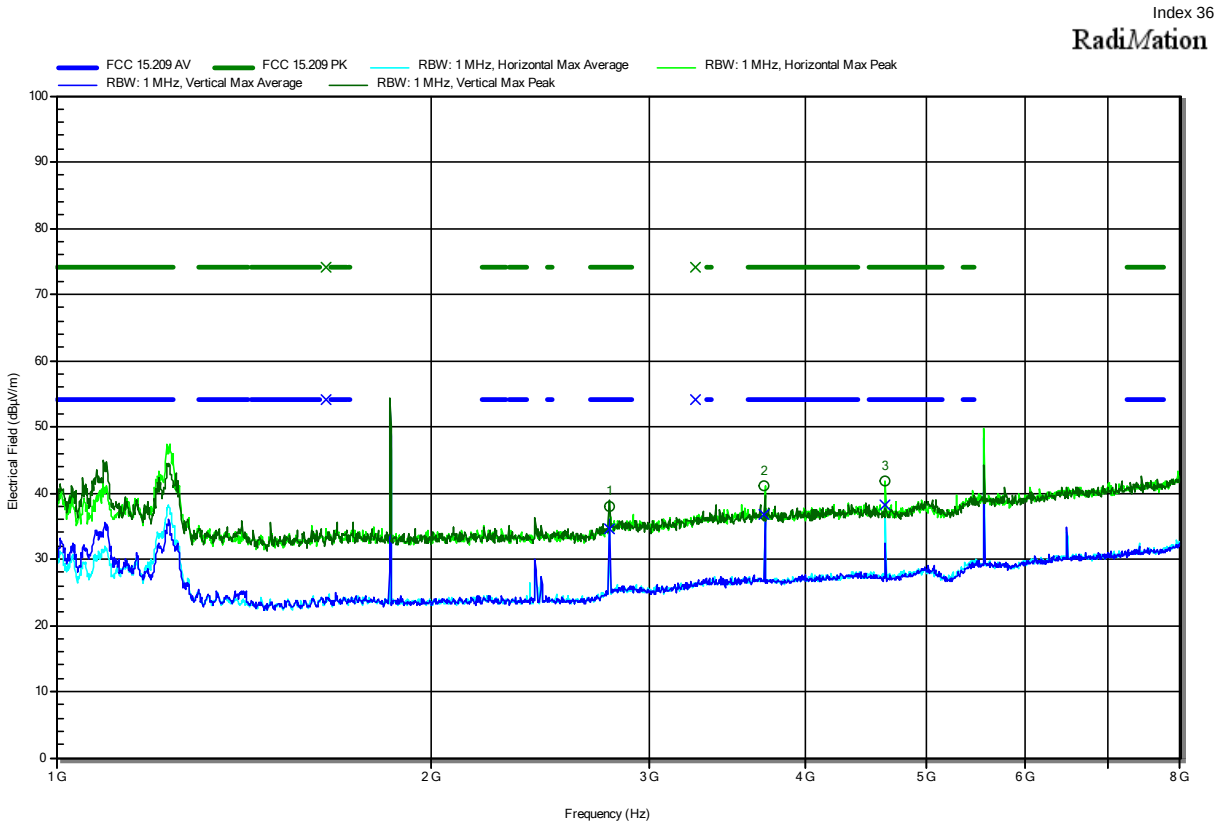


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.7574 GHz	39.84 dBµV/m	74 dBµV/m	-34.16 dB	Pass	Vertical
4.5953 GHz	42.6 dBµV/m	74 dBµV/m	-31.4 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
2.7574 GHz	37.36 dBµV/m	54 dBµV/m	-16.64 dB	Pass	Vertical
4.5953 GHz	39.75 dBµV/m	54 dBµV/m	-14.25 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	

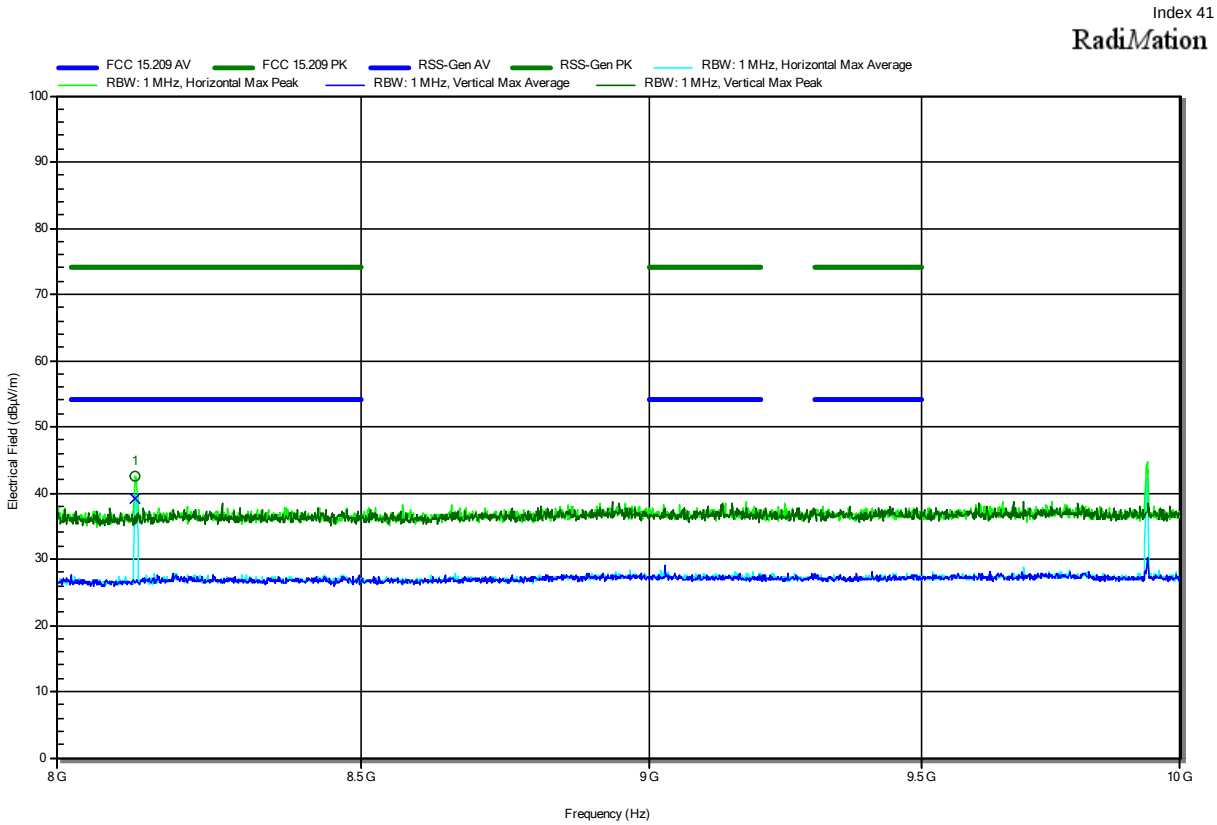


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.7812 GHz	38.05 dBµV/m	74 dBµV/m	-35.95 dB	Pass	Vertical
3.7078 GHz	41.09 dBµV/m	74 dBµV/m	-32.91 dB	Pass	Horizontal
4.6352 GHz	41.73 dBµV/m	74 dBµV/m	-32.27 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
2.7812 GHz	34.61 dBµV/m	54 dBµV/m	-19.39 dB	Pass	Vertical
3.7078 GHz	36.81 dBµV/m	54 dBµV/m	-17.19 dB	Pass	Horizontal
4.6352 GHz	38.19 dBµV/m	54 dBµV/m	-15.81 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 903 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	

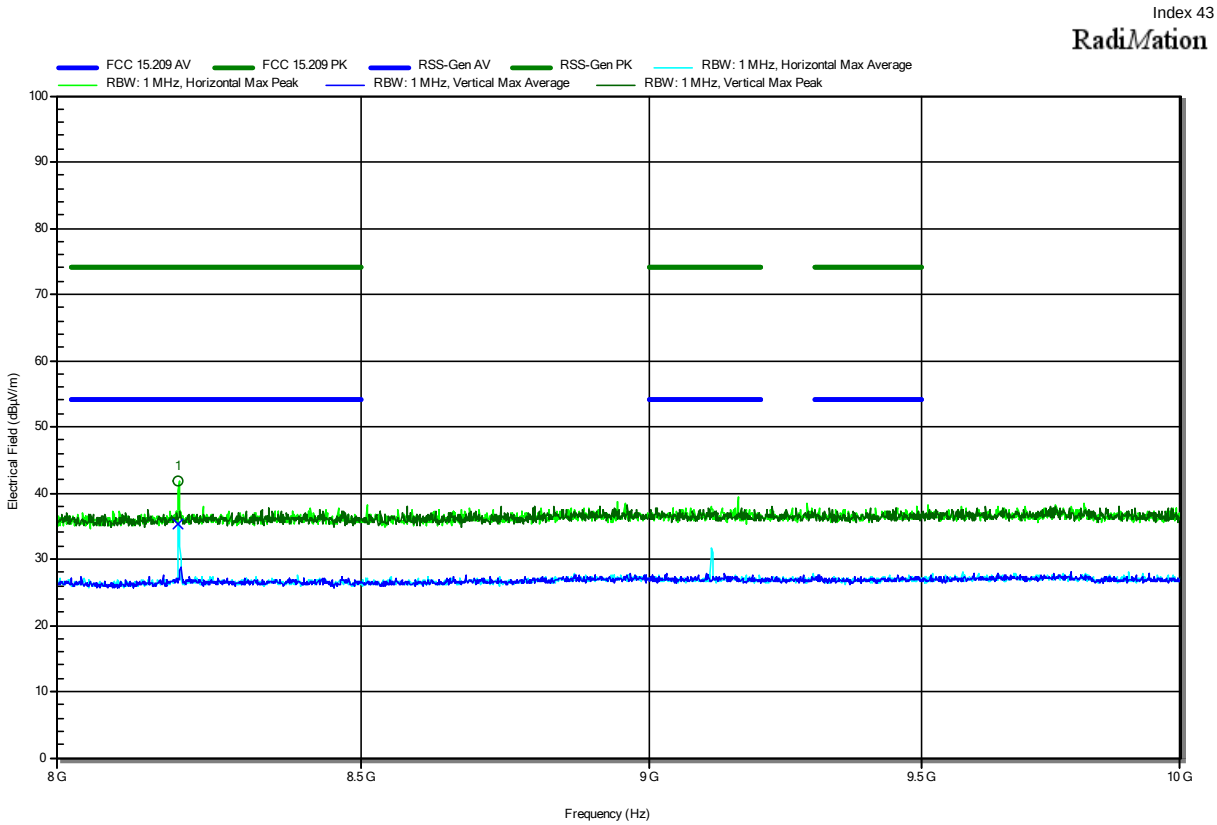


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
8.126 GHz	42.56 dBµV/m	74 dBµV/m	-31.44 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
8.126 GHz	39.13 dBµV/m	54 dBµV/m	-14.87 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 911 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	

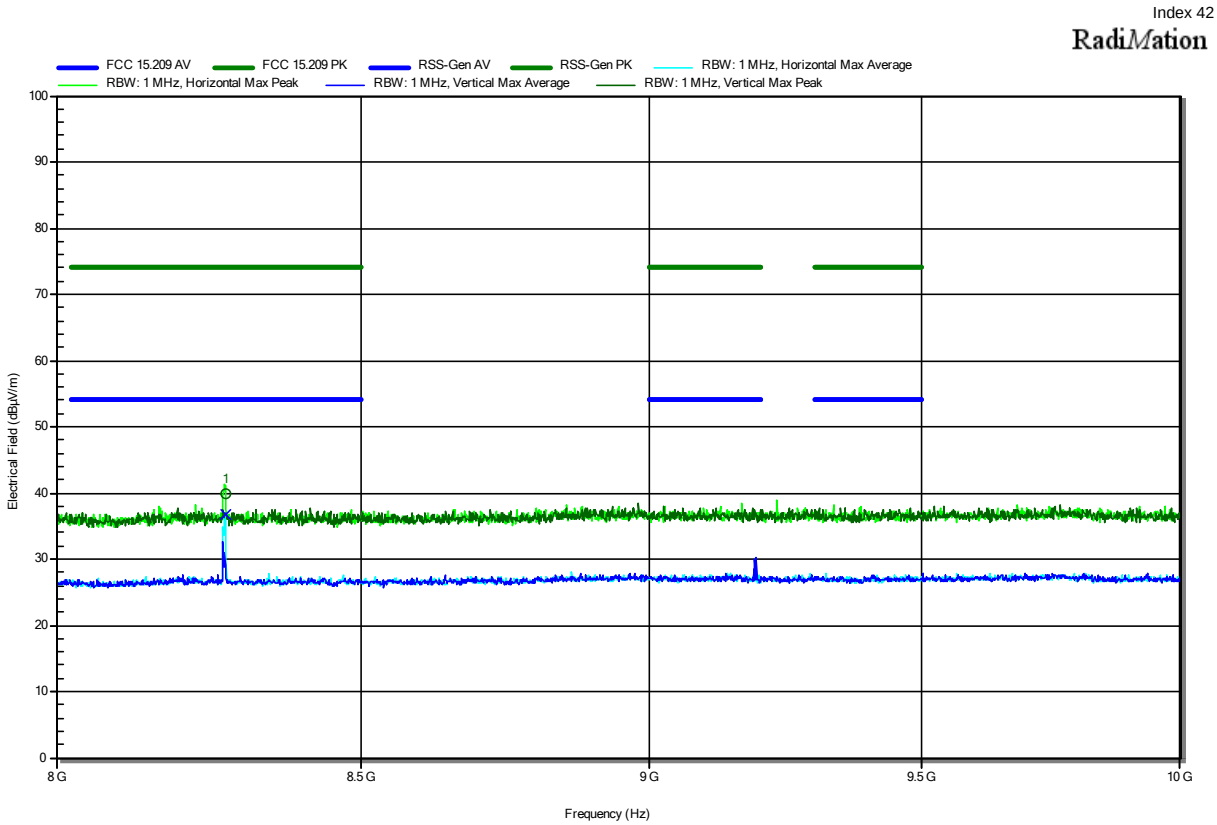


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
8.197 GHz	41.81 dBµV/m	74 dBµV/m	-32.19 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
8.197 GHz	35.36 dBµV/m	54 dBµV/m	-18.64 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 919 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	

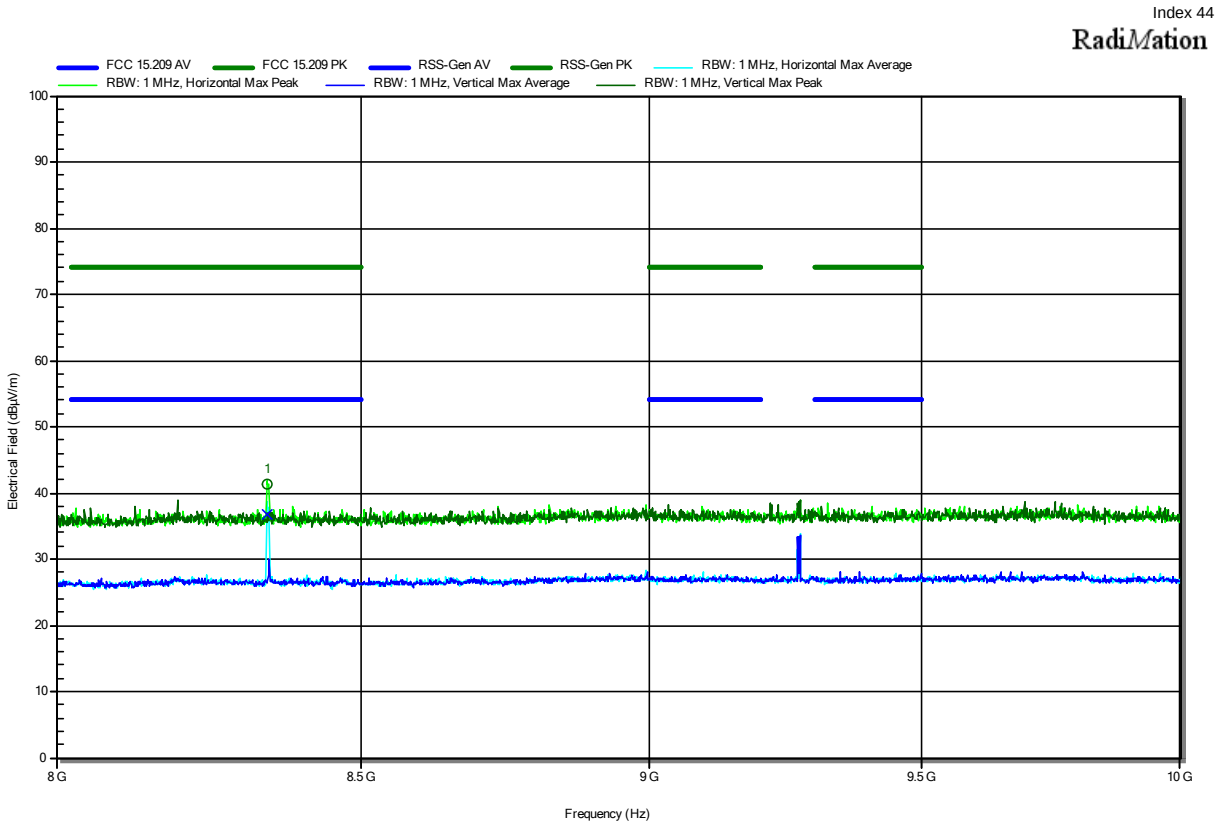


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
8.273 GHz	39.88 dBµV/m	74 dBµV/m	-34.12 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
8.273 GHz	36.76 dBµV/m	54 dBµV/m	-17.24 dB	Pass	Horizontal

Radiated Spurious Emissions according to FCC 15.247

Project Number:	G0M-2208-1620
Applicant:	ansonic Funk- und Antriebstechnik GmbH
Model Description:	RF Tranceiver SRD
Model:	NXLD
Test Sample ID:	42093
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Qawasmeh
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 3.5 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; DSSS-LoRa, 927 MHz, SF10, CR 4/5, 500 kHz Bandwidth, Antenna flex linx
Test Date:	2022-11-17
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
8.343 GHz	41.26 dBµV/m	74 dBµV/m	-32.74 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
8.343 GHz	36.65 dBµV/m	54 dBµV/m	-17.35 dB	Pass	Horizontal

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