

RADIO TEST REPORT FCC 47 CFR Part 15C Digital transmission systems operating within the 902.0 MHz - 928.0 MHz band	
Report Reference No	G0M-2411-2825-TFC247DT01-V02
Testing Laboratory	Eurofins Product Service GmbH
Address	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation	  DAKKS - Registration number : D-PL-12092-01-04 (FCC) FCC Filed Test Laboratory, Reg.-No.: 96970
Applicant	senTec Elektronik GmbH
Address	Robert-Bosch-Ring 2 98693 Ilmenau GERMANY
Test Specification	47 CFR Part 15C
Non-Standard Test Method	None
Equipment under Test (EUT):	
Product Description	Radio Module
Model(s)	Modul VIII
Additional Model(s)	None
Brand Name(s)	None
Hardware Version(s)	Release 1.5
Software Version(s)	Version 8.0
FCC ID	2BB4J-WM08A
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	See test sample identification table on page 6	
Report:		
Compiled by	Ehsan Sohrabi	
Tested by (+ signature) (Responsible for Test)	Ehsan Sohrabi	
Approved by (+ signature) (Senior Radio Expert)	Radwan Jaafar	
Date of Issue	2025-04-24	
Total number of pages	69	
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	2025-02-25	Initial Release	--
02	2025-04-24	Replaced document: G0M-2411-2825-TFC247DT01-V01 Replaced by: G0M-2411-2825-TFC247DT01-V02 Reason: • Replacement of the conducted test samples (EUTs). • Repeated all conducted measurements with the replacement samples.	E. Sohrabi

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

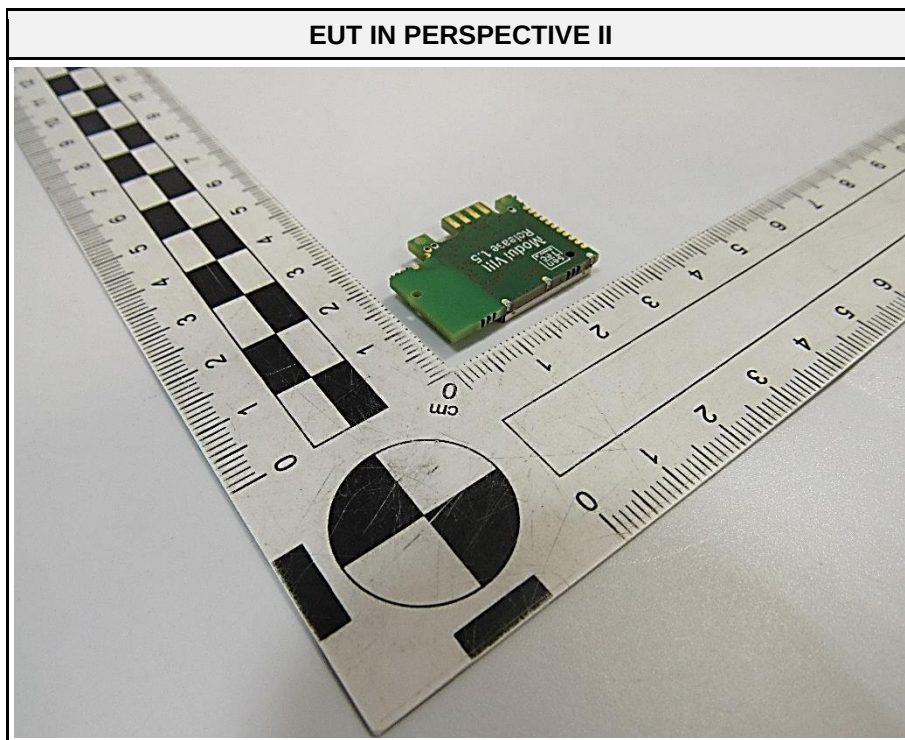
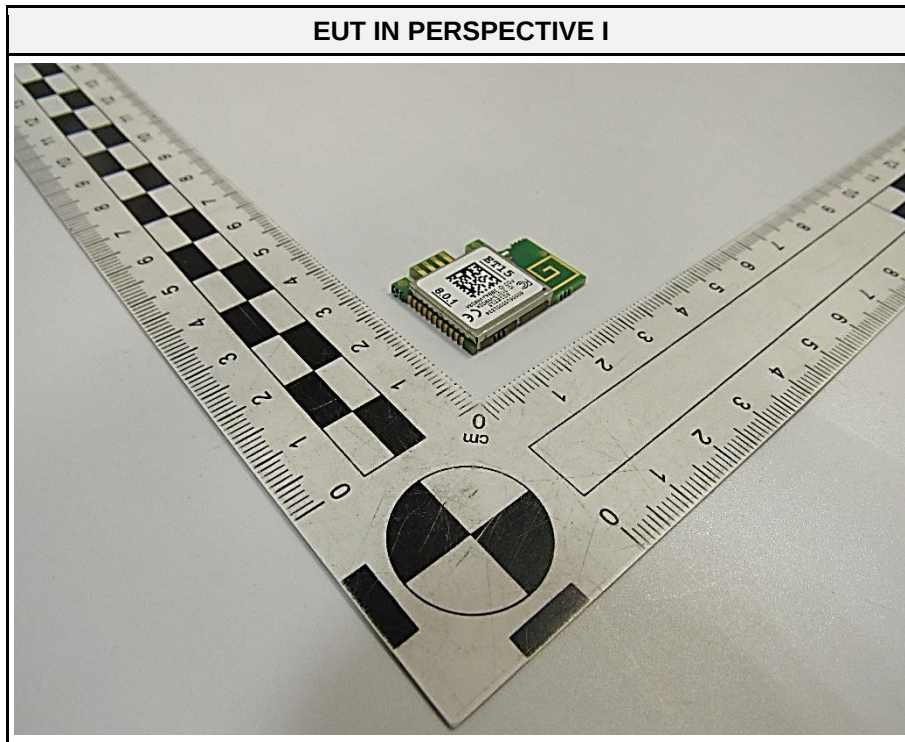
REPORT INDEX

1	Equipment (Test Item) Under Test.....	6
1.1	Photos – Equipment External	7
1.2	Photos – Equipment Internal	12
1.3	Support Equipment.....	14
1.4	EUT Configuration.....	15
1.5	Test mode duty cycle	16
1.6	Test Modes	21
1.7	Test Frequencies.....	22
1.8	Sample emission level calculation.....	23
1.9	Measurement Uncertainties	24
2	Result Summary.....	25
3	Test Conditions and Results.....	26
3.1	Test Conditions and Results - 6 dB bandwidth.....	26
3.2	Test Conditions and Results - Maximum peak conducted output power	31
3.3	Test Conditions and Results - Power spectral density	36
3.4	Test Conditions and Results - AC powerline conducted emissions.....	41
3.5	Test Conditions and Results - Band-edge compliance.....	45
3.6	Test Conditions and Results - Conducted spurious emissions.....	49
3.7	Test Conditions and Results - Transmitter radiated emissions	54
ANNEX A	Transmitter spurious emissions	61

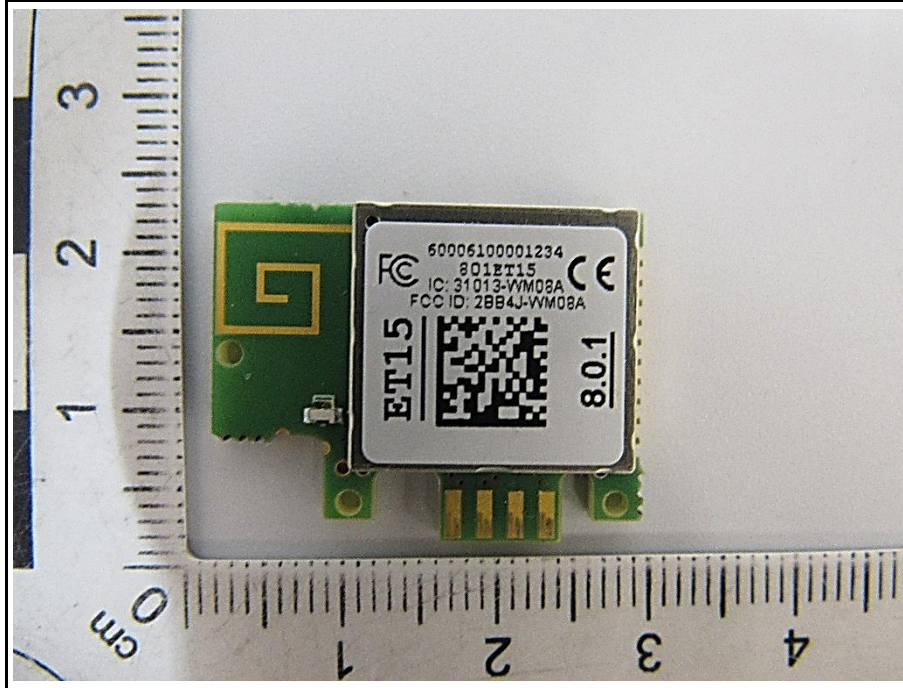
1 Equipment (Test Item) Under Test

Description	Radio Module			
Model	Modul VIII			
Additional Model(s)	None			
Brand Name(s)	None			
Sample Identification	EUT #	Sample-ID	Serial Number	Date of receipt
	EUT 1 (Conducted)	50981	60006750001234 (ET80)	2025-04-03
	EUT 2 (Conducted)	50985	60006770001234 (ET82)	2025-04-03
	EUT 3 (Conducted)	50989	60006790001234 (ET84)	2025-04-03
	EUT 4 (Radiated)	50686	60006100001234 ET15)	2025-01-30
	EUT 5 (Radiated)	50700	60006240001234 (ET29)	2025-01-30
	EUT 6 (Radiated)	50714	60006380001234 (ET43)	2025-01-30
Hardware Version(s)	Release 1.5			
Software Version(s)	Version 8.0			
FCC ID	2BB4J-WM08A			
Equipment type	Radio Module			
Radio type	Transceiver			
Assigned frequency bands	902.0 MHz - 928.0 MHz			
Radio technology	Digital Modulation			
Modulation	2GFSK			
Number of antenna ports	1			
Antenna	Type	Integrated antenna		
	Model	PCB antenna		
	Manufacturer	Silicon Labs		
	Gain	-3.6 dBi (Antenna data sheet)		
Supply Voltage	V _{NOM}	3.3 V DC via External rechargeable lithium battery or via power supply		
Operating Temperature	T _{NOM}	23°C		
Dedicated AC/DC-Adaptor	None			
Manufacturer	senTec Elektronik GmbH Robert-Bosch-Ring 2 98693 Ilmenau GERMANY			

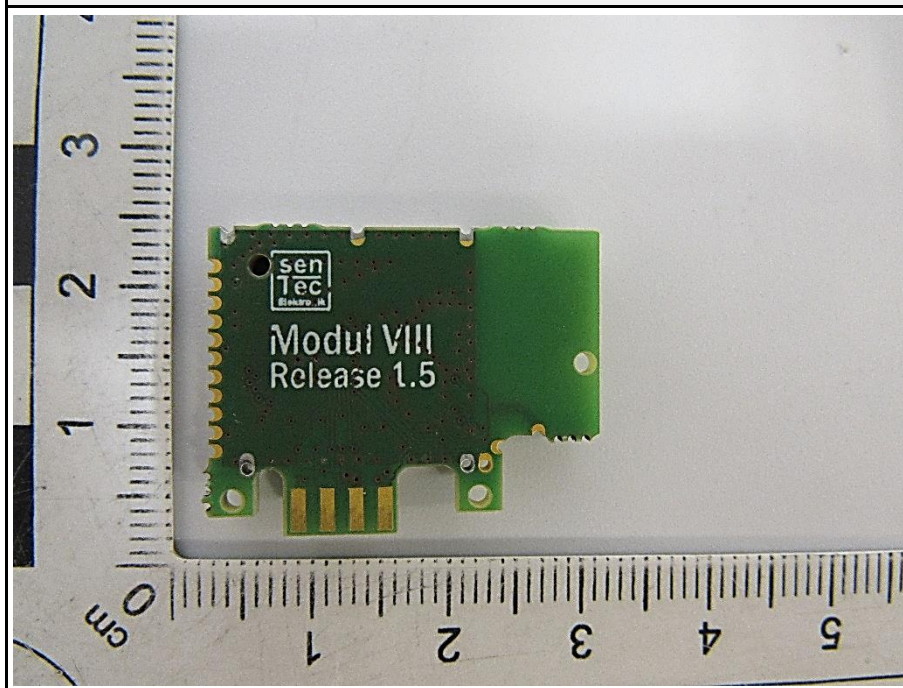
1.1 Photos – Equipment External



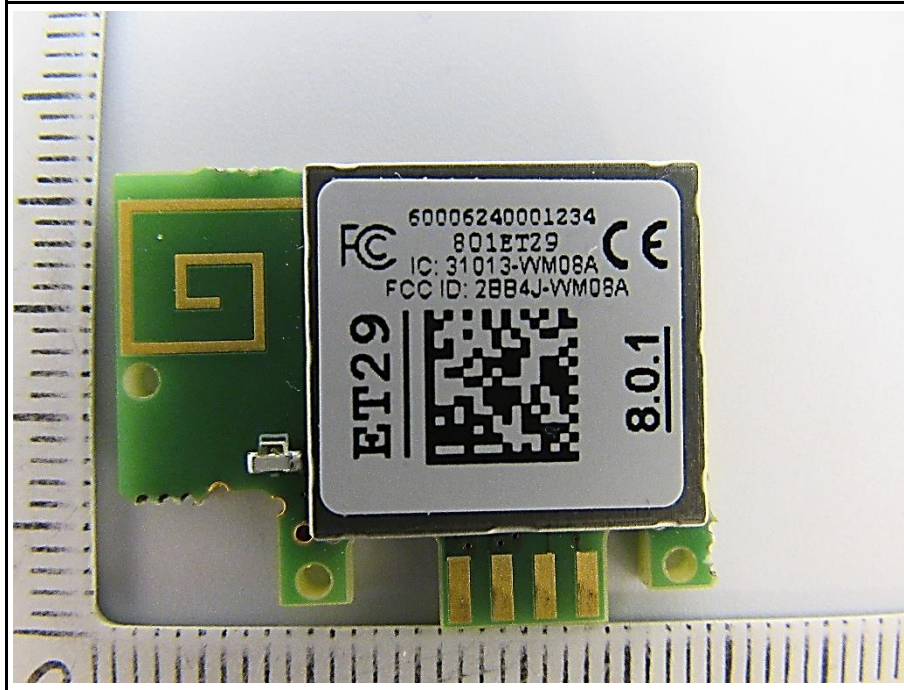
EUT TOP SIDE -Tx RADIATED SAMPLE 1 (EUT 4)



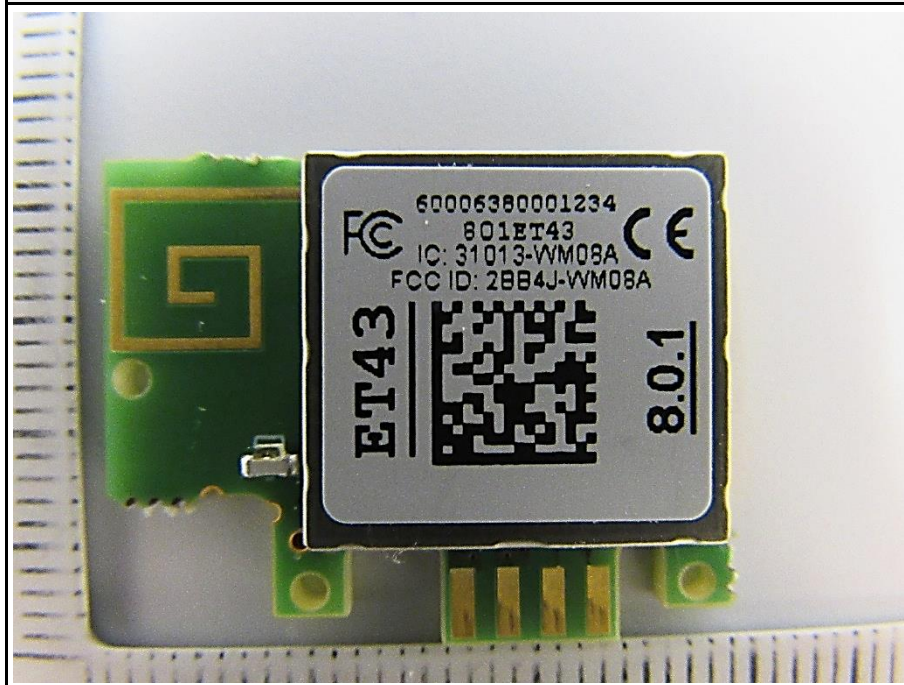
EUT BOTTOM SIDE

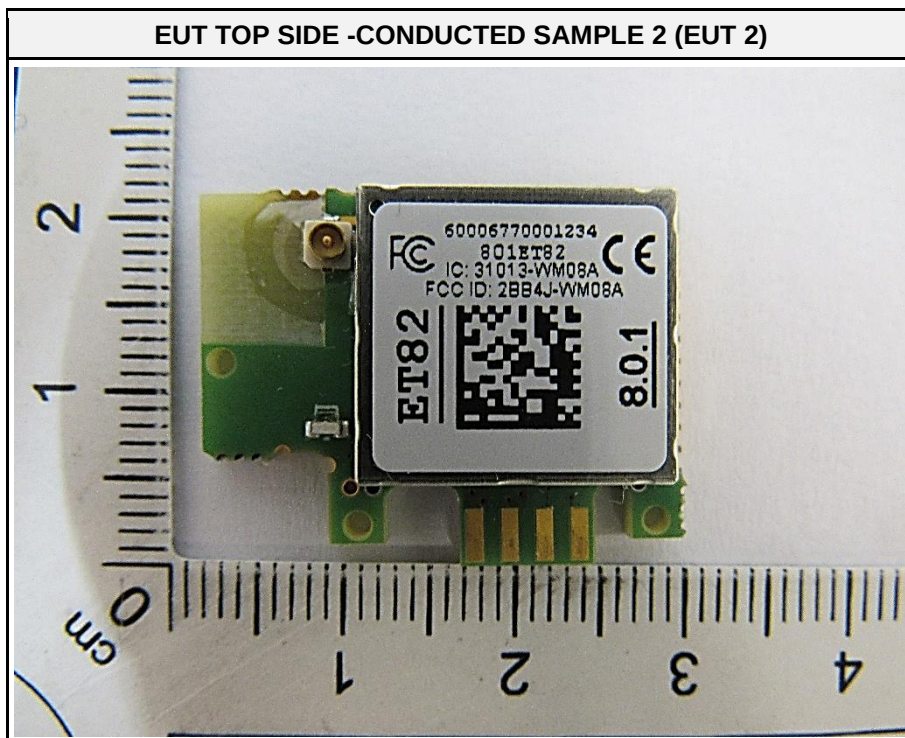
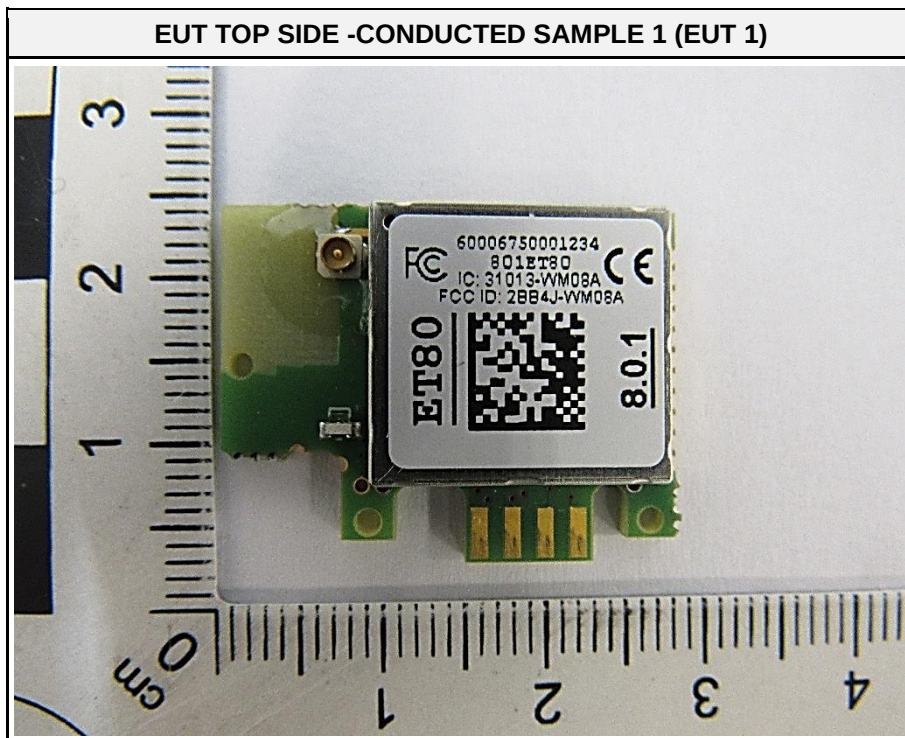


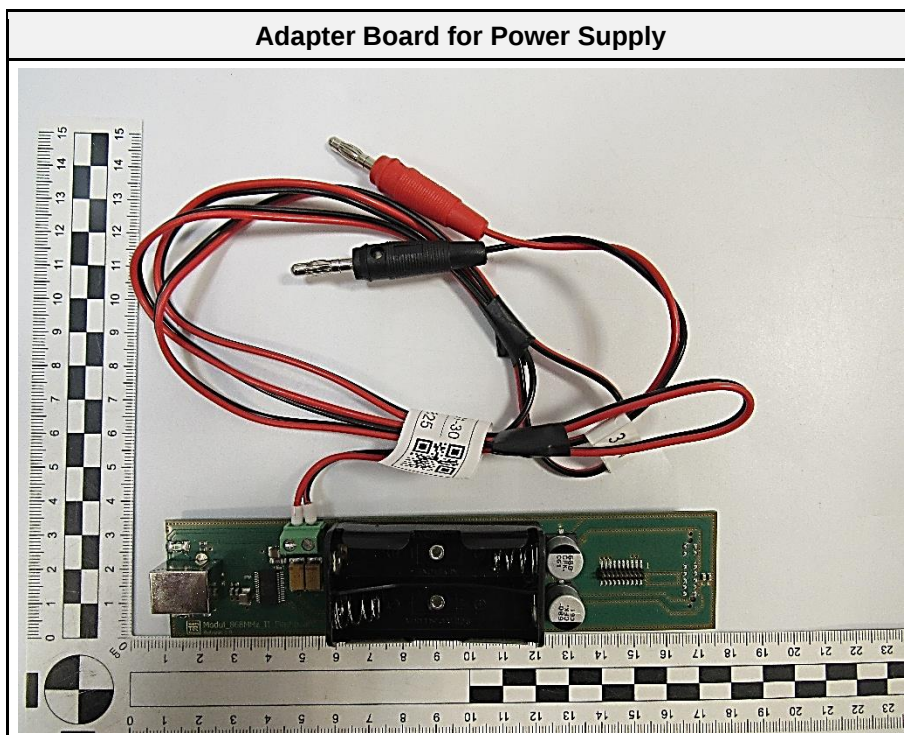
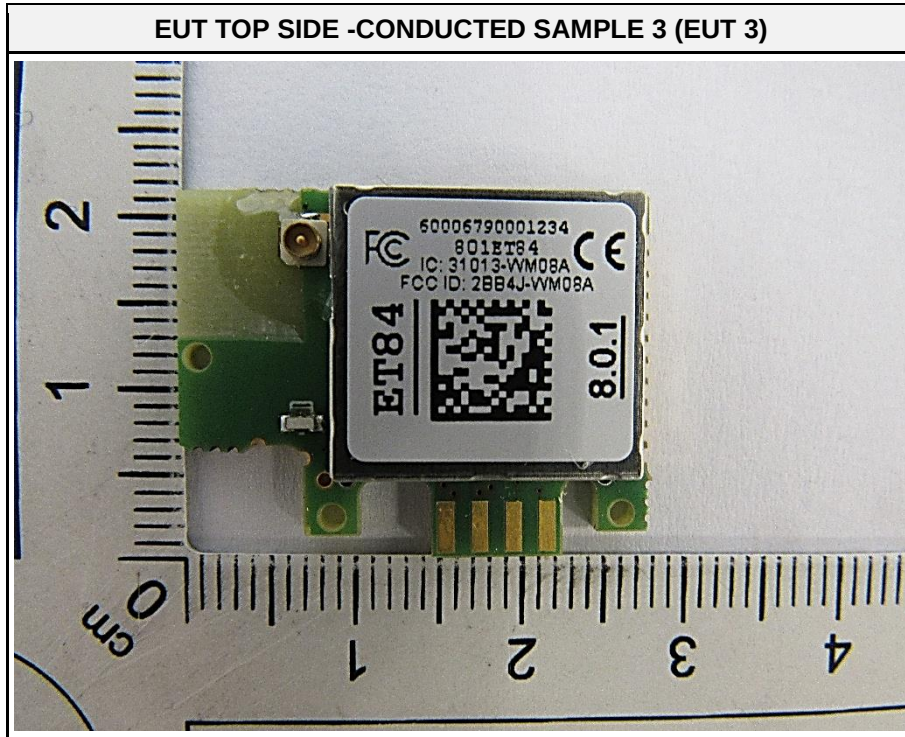
EUT TOP SIDE -Tx RADIATED SAMPLE 2 (EUT 5)



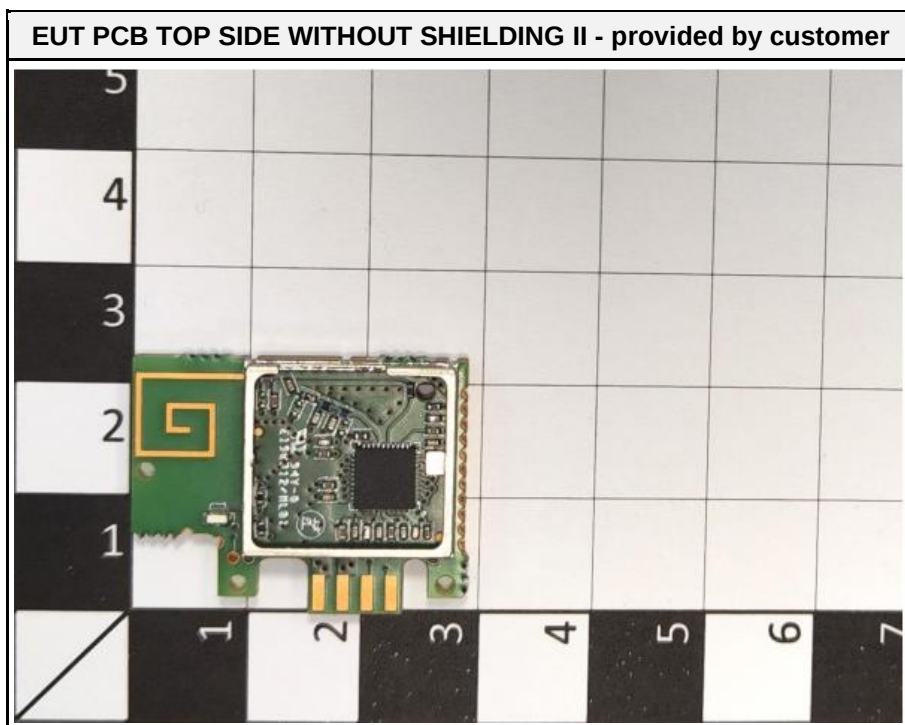
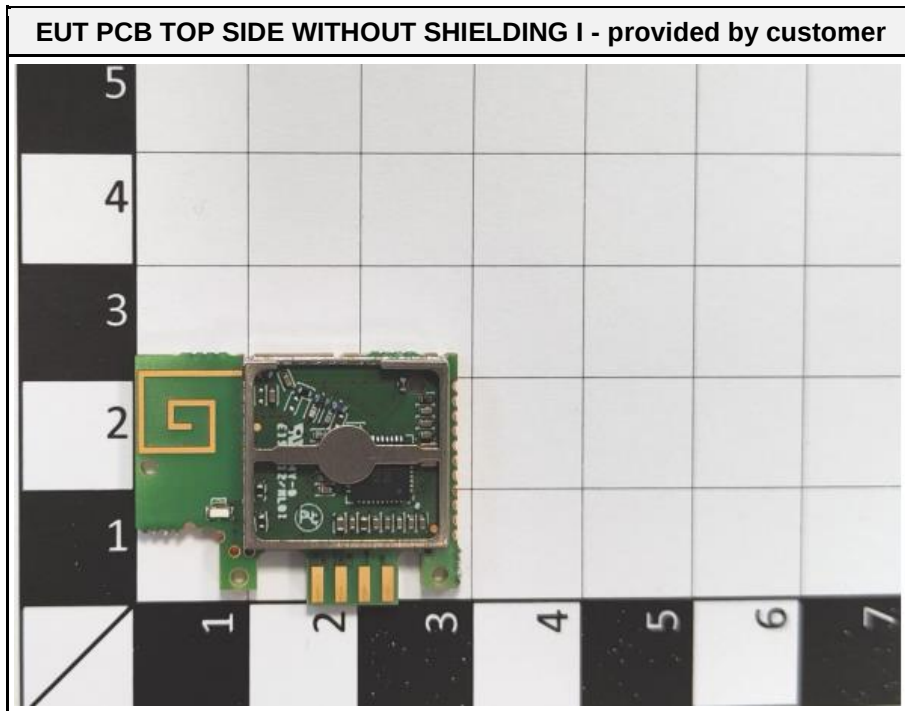
EUT TOP SIDE -Tx RADIATED SAMPLE 3 (EUT 6)

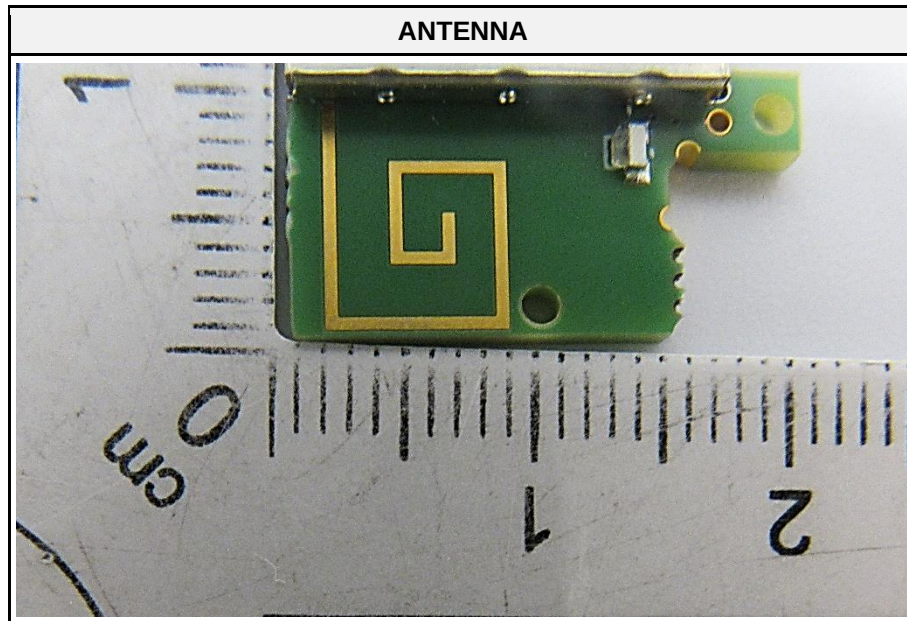






1.2 Photos – Equipment Internal





1.3 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
AE	Adapter Board for Power Supply	senTec Elektronik GmbH	Release 1.0	For EUT power
Description:				
AE	Auxiliary Equipment			
SIM	Simulator			
CBL	Connecting Cable			
SFT	Software			
Comment: --				

1.4 EUT Configuration

Configuration #	Description
1	EUT is powered by 3.3 V DC power supply
Comment: EUT configuration was chosen by customer.	

1.5 Test mode duty cycle

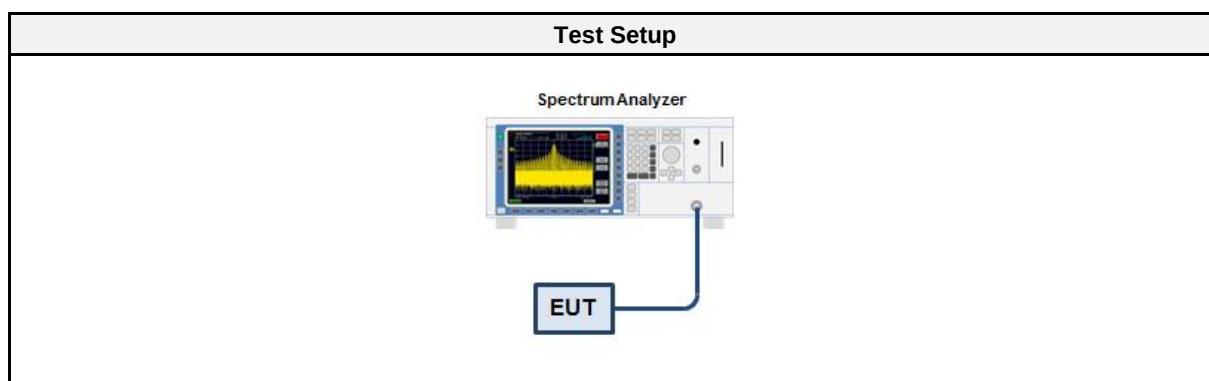
1.5.1 Information

Test Information	
Measurement Method	ANSI C63.10 11.6

1.5.2 Requirements

Requirements	
Duty cycle	Duty cycle correction
≥ 98 %	No correction required
< 98 %	Correction required

1.5.3 Setup



1.5.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum analyzer	R&S	FSU26	EF01407	2024-07	2025-07

1.5.5 Procedure

Test Procedure
- EUT set to test mode - Span is set to zero span - Detector set to peak - Sweep time is set long enough to capture at least 5 bursts - Envelope peak value of emission spectrum is selected - The maximum burst duration T_{ON} is measured using two markers set to the start and the end of the longest burst - The minimum idle duration T_{OFF} is measured using two markers set to the start and the end of the shortest idle period - The duty cycle is calculated by $DC = T_{ON} / (T_{ON} + T_{OFF})$ - The duty cycle correction is calculated for: - RMS detector by $DC = 10 \times \log_{10}(T_{ON} / (T_{ON} + T_{OFF}))$ - AVG detector by $DC = 20 \times \log_{10}(T_{ON} / (T_{ON} + T_{OFF}))$

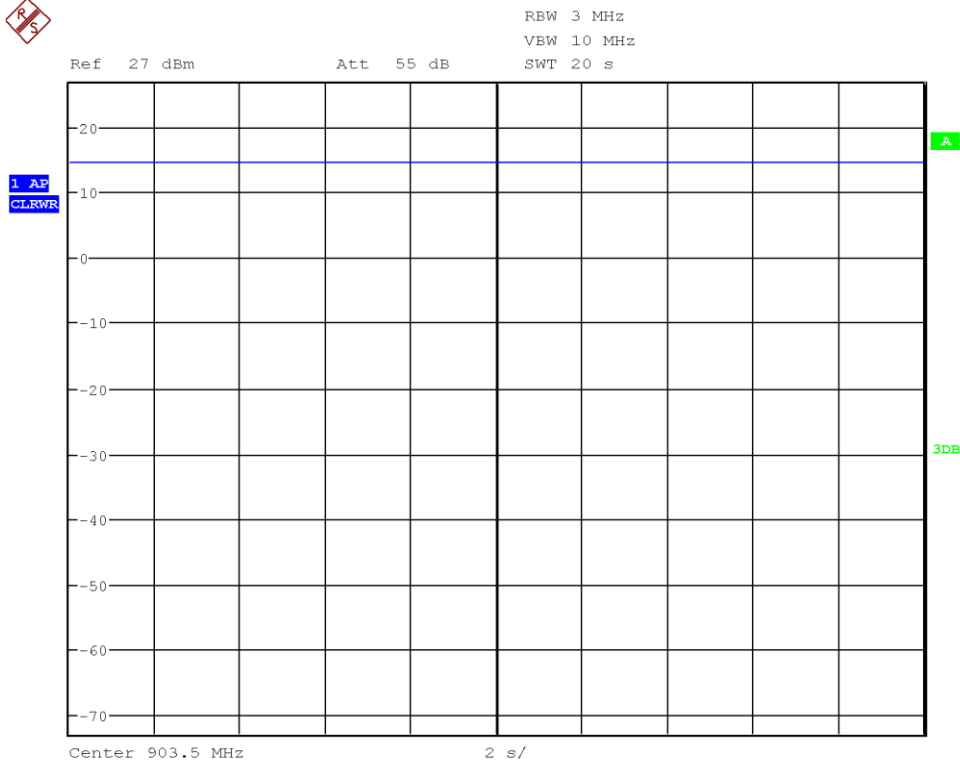
1.5.6 Results

Duty Cycle Results – Conducted sample		
Mode	Duty Cycle	Correction Factor [dB]
Transmit	1	0

Duty Cycle Results – Radiated sample		
Mode	Duty Cycle	Correction Factor [dB]
Transmit	0.63	4.01 (AVG detector)
Comment: Using equation to calculate DCCF = $20 \log(1/DC)$		

Duty cycle (conducted samples)

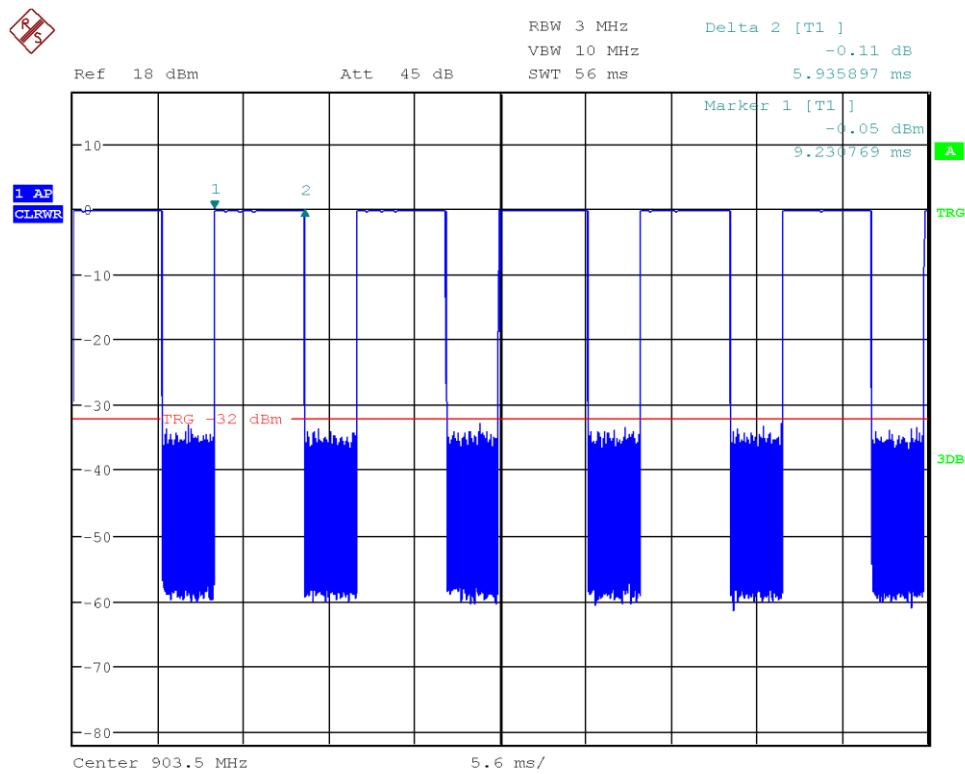
Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50891
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-04
 Operating Conditions: Tnom/Vnom
 Mode: Ton



Date: 4.APR.2025 17:17:57

T on (Radiated samples)

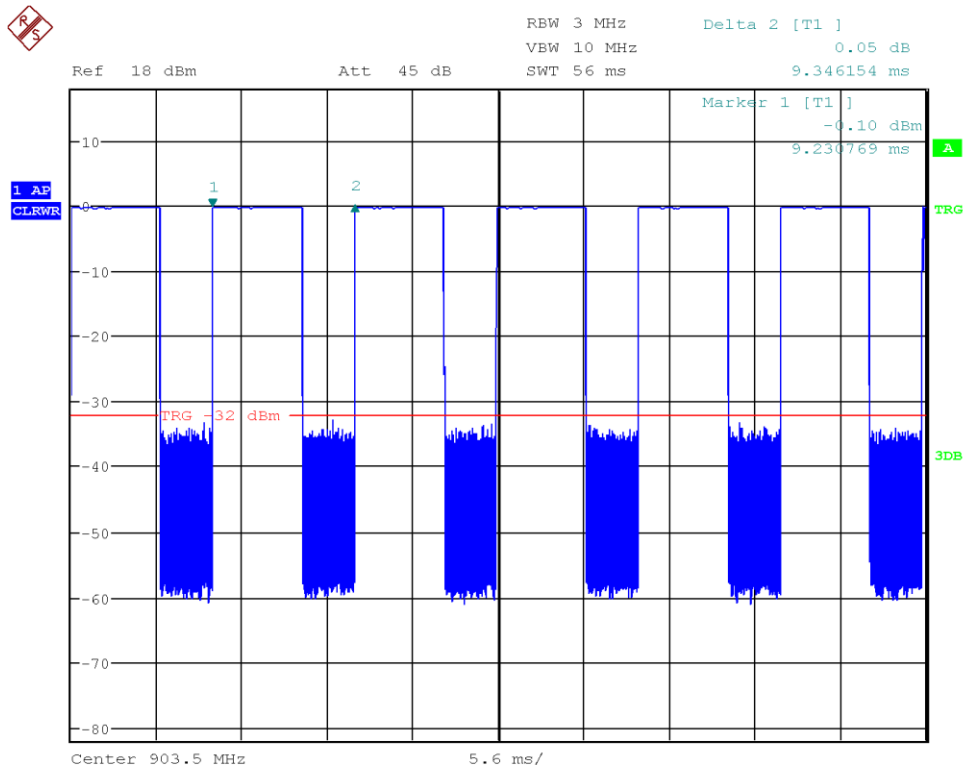
Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50649
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-01-31
 Operating Conditions: Tnom/Vnom



Date: 31.JAN.2025 09:43:14

T on+Toff (Radiated samples)

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50649
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-01-31
 Operating Conditions: Tnom/Vnom



Date: 31.JAN.2025 09:43:57

1.6 Test Modes

Mode	Description
Transmit (Conducted sample)	Mode = Transmit (PN9 Mode) Modulation = 2GFSK Duty cycle = 100 % Power setting = Set to default power by customer
Transmit (Radiated sample)	Mode = Transmit Modulation = 2GFSK Duty cycle = 63.5 % Power setting = Set to default power by customer
Comment: --	

1.7 Test Frequencies

Designator	Mode	Channel	Frequency [MHz]
F1	Tx	1	903.50
F2	Tx	2	915.50
F3	Tx	3	927.50

1.8 Sample emission level calculation

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

Reading:

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

A.F.:

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

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

Net:

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

Margin:

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

Field strength limit:

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

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

Example only for radiated field strength:

$$\text{Reading} + \text{AF} = \text{Net Reading} \quad : \quad \text{Net reading} - \text{Field strength limit} = \text{Margin}$$

1.9 Measurement Uncertainties

Test case	Maximum measurement uncertainty
Occupied Bandwidth (2)	1.3 %
Maximum peak conducted power (2)	1.77 dB
AC power line conducted emissions (1)	3.82 dB
Band edge compliance (2)	1.8 dB
Conducted spurious emissions (2)	4.25 dB
Transmitter radiated spurious emissions (1) Receiver radiated spurious emissions (1)	30-1000 MHz: 6.29 dB 1-6 GHz: 5.17 dB 6-18 GHz: 5.49 dB
6 dB Bandwidth (2)	1.3 %
Power spectral density (2)	1.73 dB
Note (1): Measurement uncertainty calculation according to CISPR 16-4-2: 2014-02 Note (2): Measurement uncertainty calculation according to ETSI TR 100 028 V1.4.1	

2 Result Summary

FCC 47 CFR Part 15C				
Product Standard Reference	Requirement	Reference Method	Result	Remarks
FCC § 15.247(a)(2)	6 dB Bandwidth	ANSI C63.10-2013	PASS	--
FCC § 15.247(b)	Maximum peak conducted power	ANSI C63.10-2013	PASS	--
FCC § 15.247(e)	Power spectral density	ANSI C63.10-2013	PASS	--
FCC § 15.207	AC power line conducted emissions	ANSI C63.10-2013	PASS	--
FCC § 15.247(d)	Band edge compliance	ANSI C63.10-2013	PASS	--
FCC § 15.247(d)	Conducted spurious emissions	ANSI C63.10-2013	PASS	--
FCC § 15.247(d) FCC § 15.209	Transmitter radiated spurious emissions	ANSI C63.10-2013	PASS	--
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 - 6 dB bandwidth

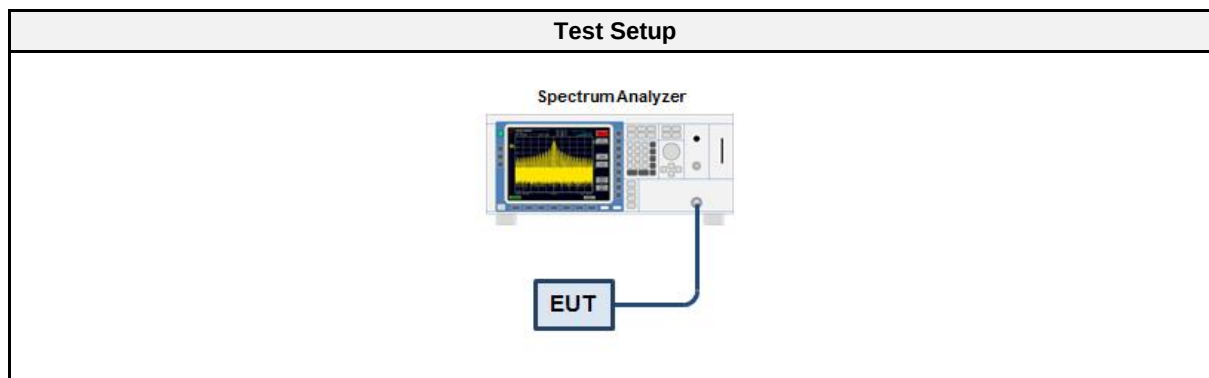
3.1.1 Information

Test Information	
Reference	FCC § 15.247(a)(2)
Measurement Method	ANSI C63.10 11.8
Operator	Ehsan Sohrabi
Date	2025-04-03

3.1.2 Limits

Limits
≥ 500kHz

3.1.3 Setup



3.1.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum analyzer	R&S	FSU26	EF01407	2024-07	2025-07
Cable (CAABD)	Gigalane	GIGALANE 1730	EF00779	2024-04	2025-04

3.1.5 Procedure

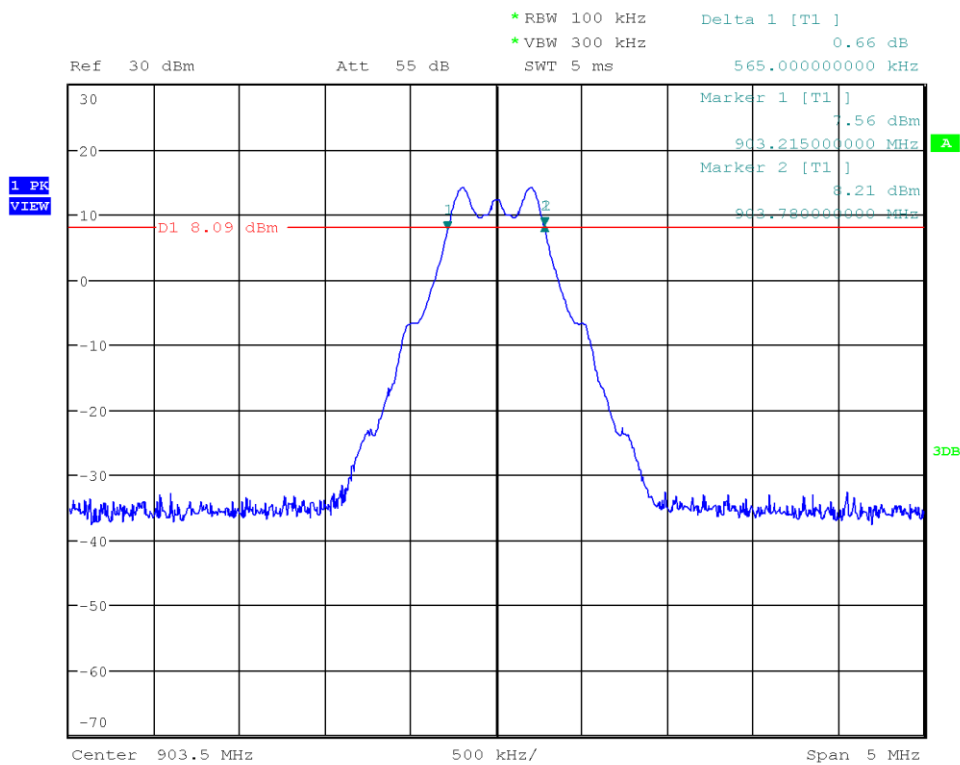
Test Procedure
1. EUT set to test mode 2. Span set to at least twice the emission spectrum 3. Detector set to peak and max hold and RBW is set to 100 kHz 4. Envelope peak value of emission spectrum is selected 5. Marker on envelope of spectrum is set to level of -6 dB to the left of the peak 6. Marker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

3.1.6 Results

Test Results				
Mode	Frequency [MHz]	Bandwidth [kHz]	Limit [kHz]	Verdict
Transmit	903.50	565	500	PASS
Transmit	915.50	560	500	PASS
Transmit	927.50	565	500	PASS

DTS (6 dB) Bandwidth

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50981
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.8.1 Option 1
 Operational Mode: 2GFSK, Channel: 903.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Lower Frequency [MHz]: 903.215
 Upper Frequency [MHz]: 903.780
 6 dB Bandwidth [kHz]: 565



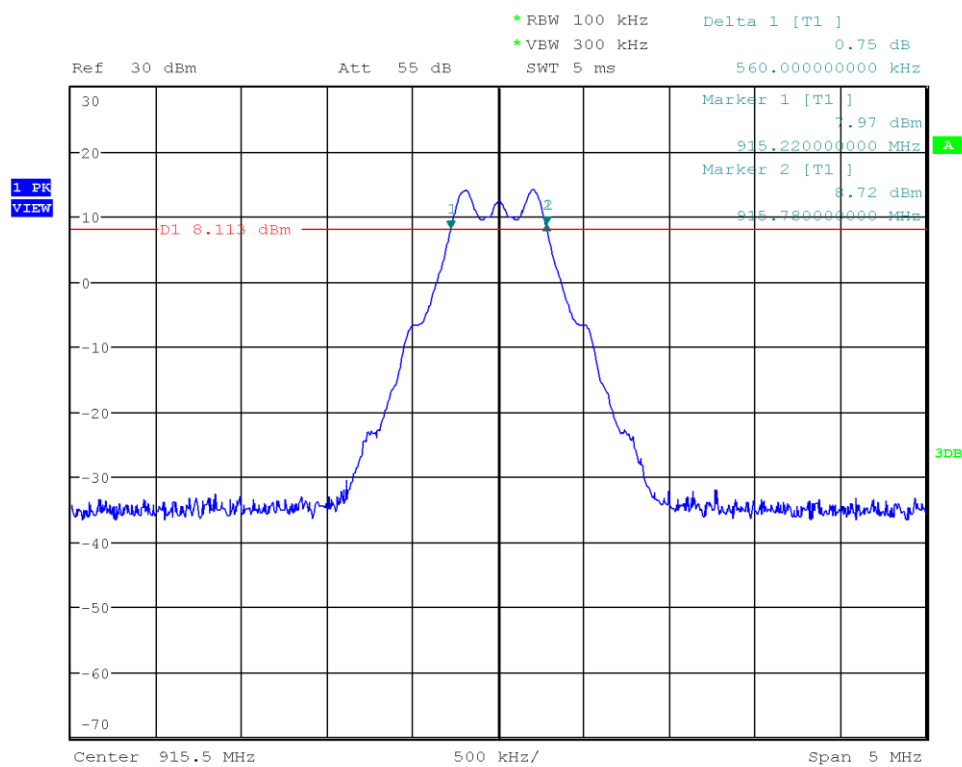
Date: 3.APR.2025 15:58:57

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

DTS (6 dB) Bandwidth

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50985
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.8.1 Option 1
 Operational Mode: 2GFSK, Channel: 915.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Lower Frequency [MHz]: 915.220
 Upper Frequency [MHz]: 915.780
 6 dB Bandwidth [kHz]: 560



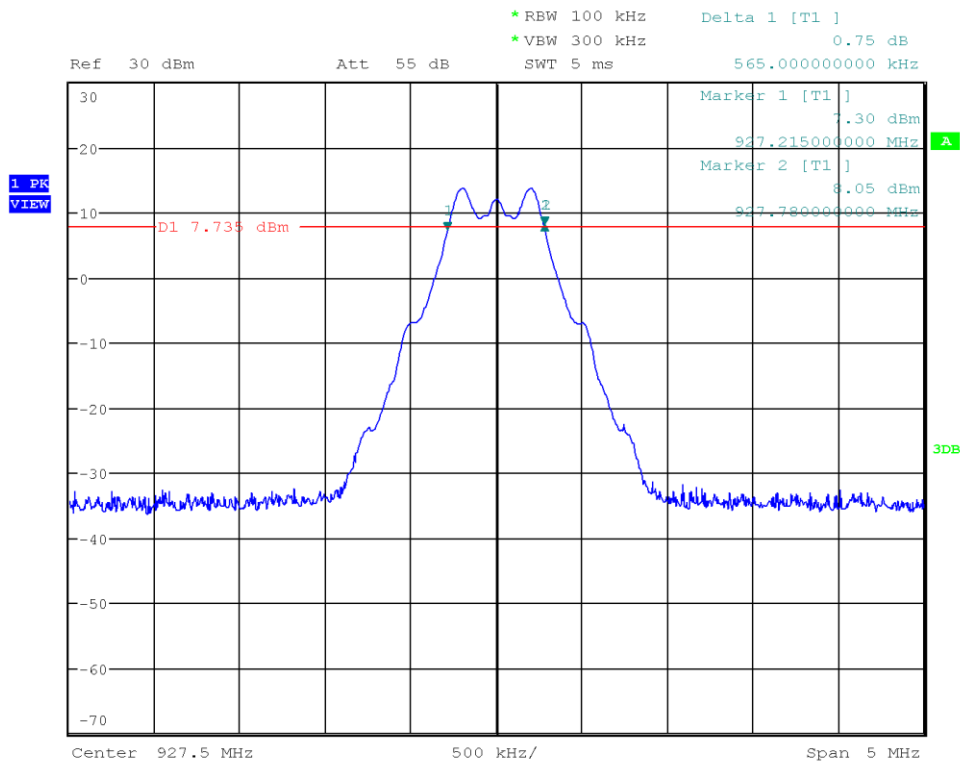
Date: 3.APR.2025 16:17:19

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

DTS (6 dB) Bandwidth

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50989
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.8.1 Option 1
 Operational Mode: 2GFSK, Channel: 927.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Lower Frequency [MHz]: 927.215
 Upper Frequency [MHz]: 927.780
 6 dB Bandwidth [kHz]: 565



Date: 3.APR.2025 16:29:43

3.2 Test Conditions and Results - Maximum peak conducted output power

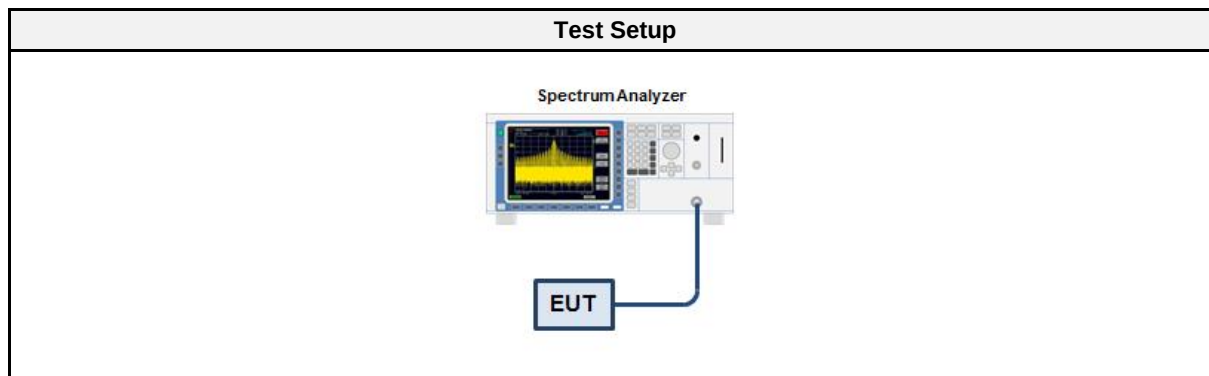
3.2.1 Information

Test Information	
Reference	FCC § 15.247(b)
Measurement Method	ANSI C63.10 11.9.1
Operator	Ehsan Sohrabi
Date	2025-04-03

3.2.2 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.

3.2.3 Setup



3.2.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum analyzer	R&S	FSU26	EF01407	2024-07	2025-07
Cable (CAABD)	Gigalane	GIGALANE 1730	EF00779	2024-04	2025-04

3.2.5 Procedure

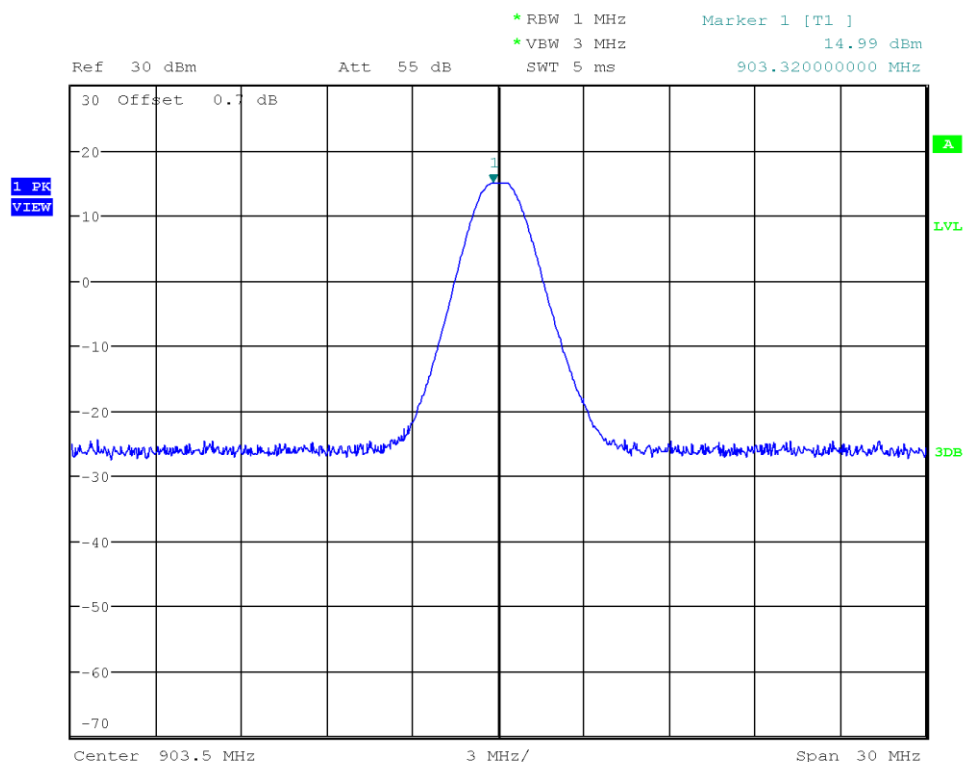
Test Procedure
- EUT set to test mode (Communication tester is used if needed) - Analyzer resolution bandwidth is set $\geq$ DTS bandwidth - Detector set to peak and max hold - Sweep time is set to auto - After the trace has stabilized a marker is set to peak of envelope

3.2.6 Results

Test Results							
Channel [MHz]	Conducted Power [dBm]	Conducted Power [W]	Conducted Limit [W]	EIRP Power [dBm]	EIRP Power [W]	EIRP Limit [W]	Verdict
903.50	14.993	0.0316	1.0	11.39	0.0137	4.0	PASS
915.50	14.994	0.0316	1.0	11.39	0.0137	4.0	PASS
927.50	14.625	0.0290	1.0	11.02	0.0126	4.0	PASS
Note: Antenna gain= -3.6 dBi							

Peak Conducted Output Power

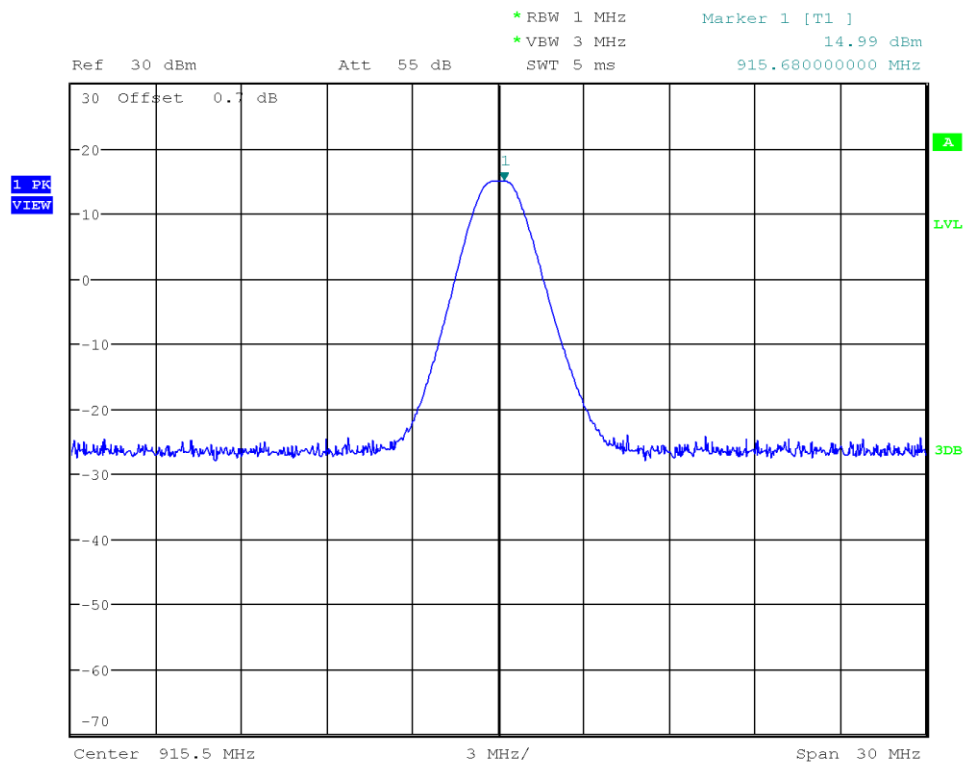
Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50981
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: 2GFSK, Channel: 903.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Peak Power [dBm]: 14.993
 Peak Power [W]: 0.0316



Date: 3.APR.2025 16:00:45

Peak Conducted Output Power

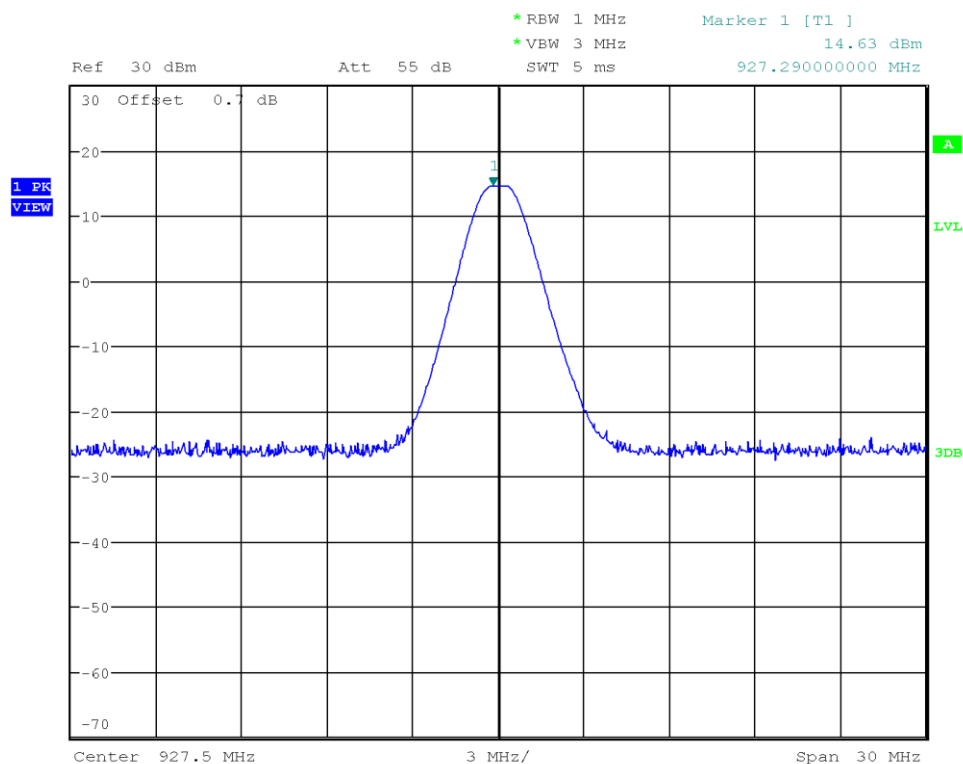
Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50985
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: 2GFSK, Channel: 915.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Peak Power [dBm]: 14.994
 Peak Power [W]: 0.0316



Date: 3.APR.2025 16:14:11

Peak Conducted Output Power

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50989
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.9.1.1
 Operational Mode: 2GFSK, Channel: 927.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Peak Power [dBm]: 14.625
 Peak Power [W]: 0.0290



Date: 3.APR.2025 16:25:26

3.3 Test Conditions and Results - Power spectral density

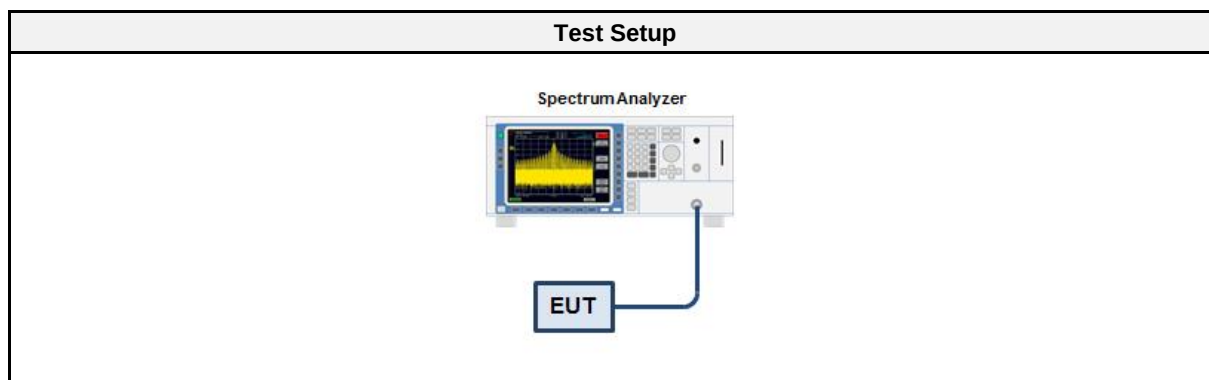
3.3.1 Information

Test Information	
Reference	FCC § 15.247(e)
Measurement Method	ANSI C63.10 11.10.2, 14.3.2
Operator	Ehsan Sohrabi
Date	2025-04-03

3.3.2 Limits

Limits
8 dBm / 3 kHz

3.3.3 Setup



3.3.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum analyzer	R&S	FSU26	EF01407	2024-07	2025-07
Cable (CAABD)	Gigalane	GIGALANE 1730	EF00779	2024-04	2025-04

3.3.5 Procedure

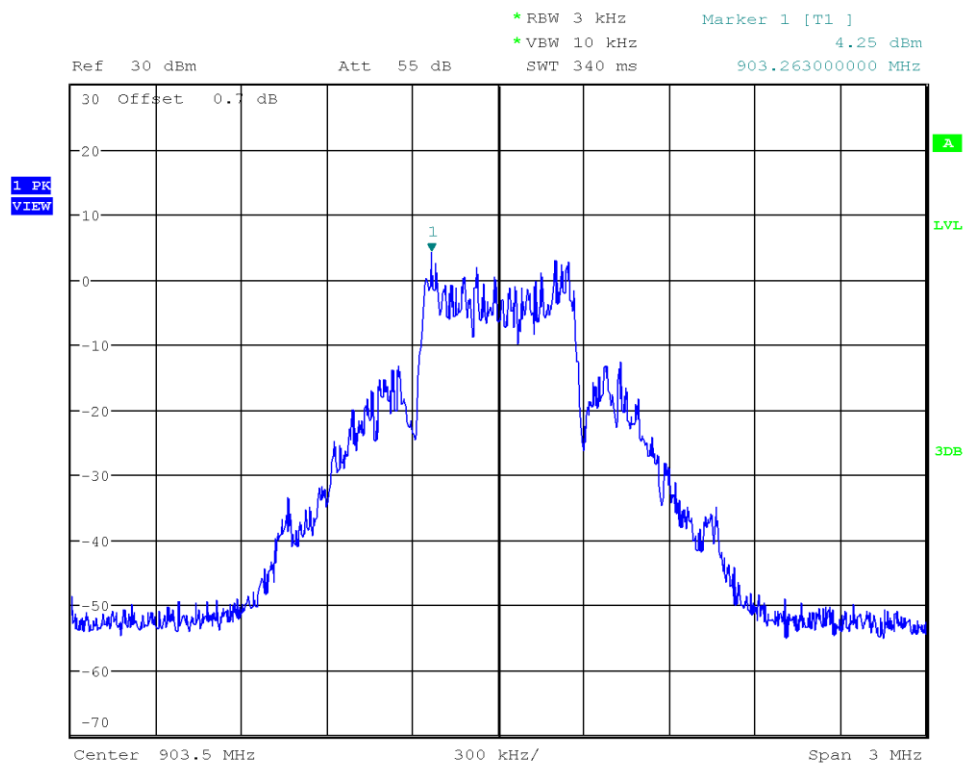
Test Procedure
1. EUT set to test mode 2. The analyzer is set to DTS channel center frequency with a span of 1.5 times the DTS bandwidth 3. The RBW is set to 100 kHz with VBW $\geq$ RBW and the detector is set to peak with max hold 4. After the trace has stabilized a marker is set to the envelope maximum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

3.3.6 Results

Test Results			
Channel [MHz]	PSD [dBm/RBW]	Limit [dBm/3kHz]	Verdict
903.50	4.248	8.0	PASS
915.50	4.244	8.0	PASS
927.50	3.890	8.0	PASS
RBW = 3 kHz			

Peak Power Spectral Density

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50981
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.10.2
 Operational Mode: 2GFSK, Channel: 903.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Peak Frequency [MHz]: 903.263
 Spectral Density [dBm/RBW]: 4.248
 Resolution Bandwidth [kHz]: 3 kHz



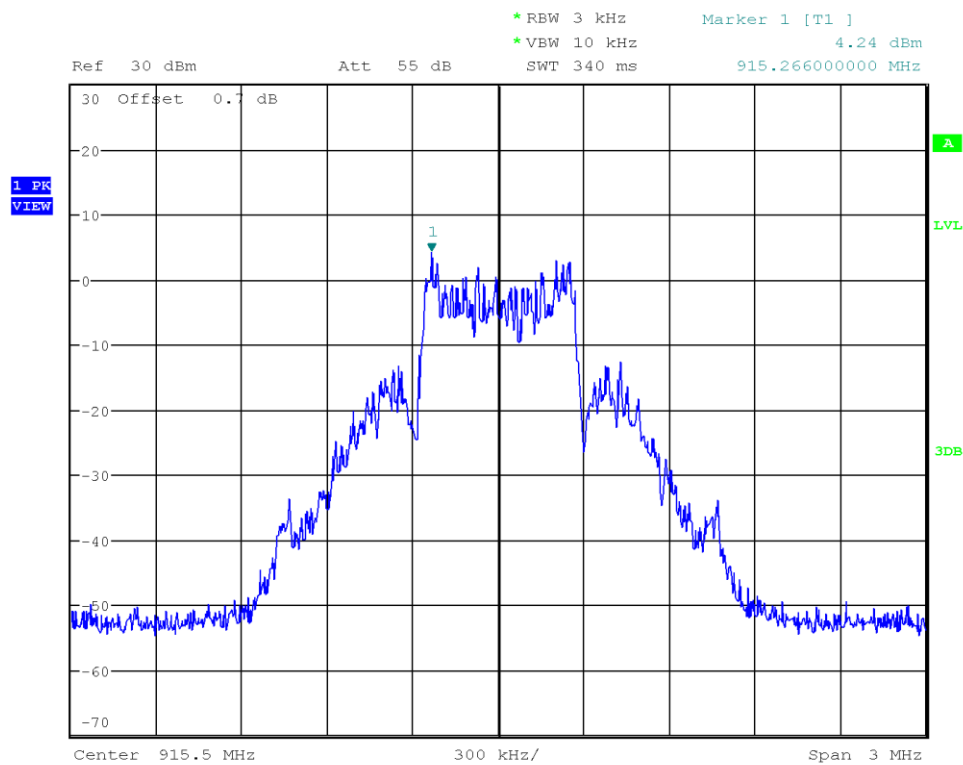
Date: 3.APR.2025 16:02:59

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

Peak Power Spectral Density

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50985
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.10.2
 Operational Mode: 2GFSK, Channel: 915.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Peak Frequency [MHz]: 915.266
 Spectral Density [dBm/RBW]: 4.244
 Resolution Bandwidth [kHz]: 3 kHz



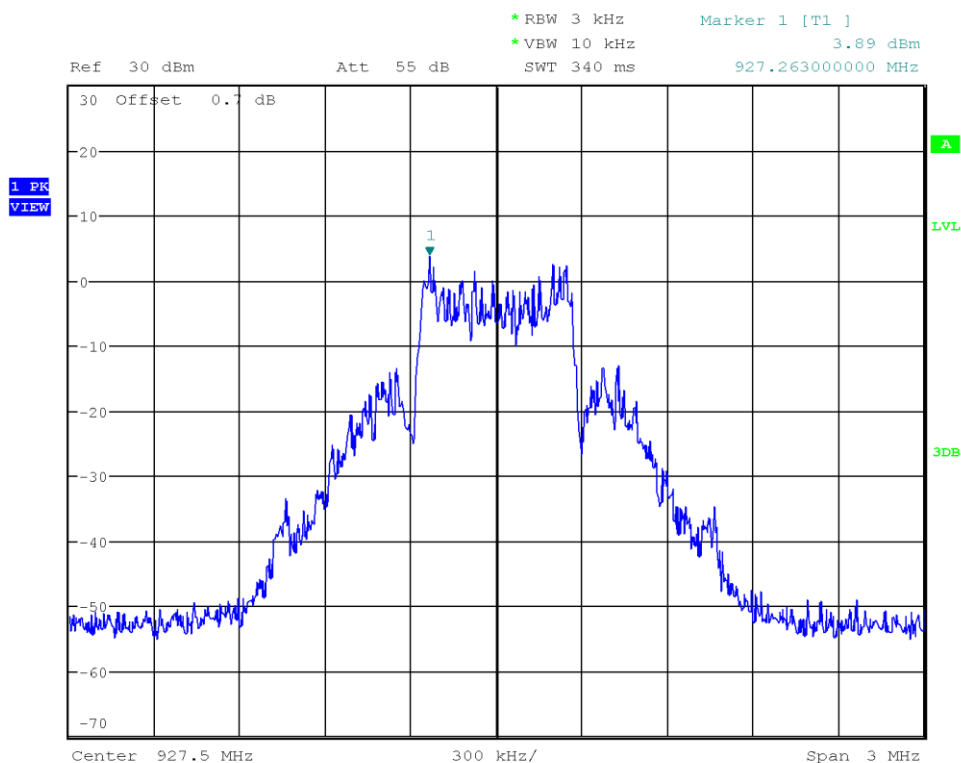
Date: 3.APR.2025 16:16:09

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

Peak Power Spectral Density

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50989
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.10.2
 Operational Mode: 2GFSK, Channel: 927.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Peak Frequency [MHz]: 927.263
 Spectral Density [dBm/RBW]: 3.890
 Resolution Bandwidth [kHz]: 3 kHz



Date: 3.APR.2025 16:28:11

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

3.4 Test Conditions and Results - AC powerline conducted emissions

3.4.1 Information

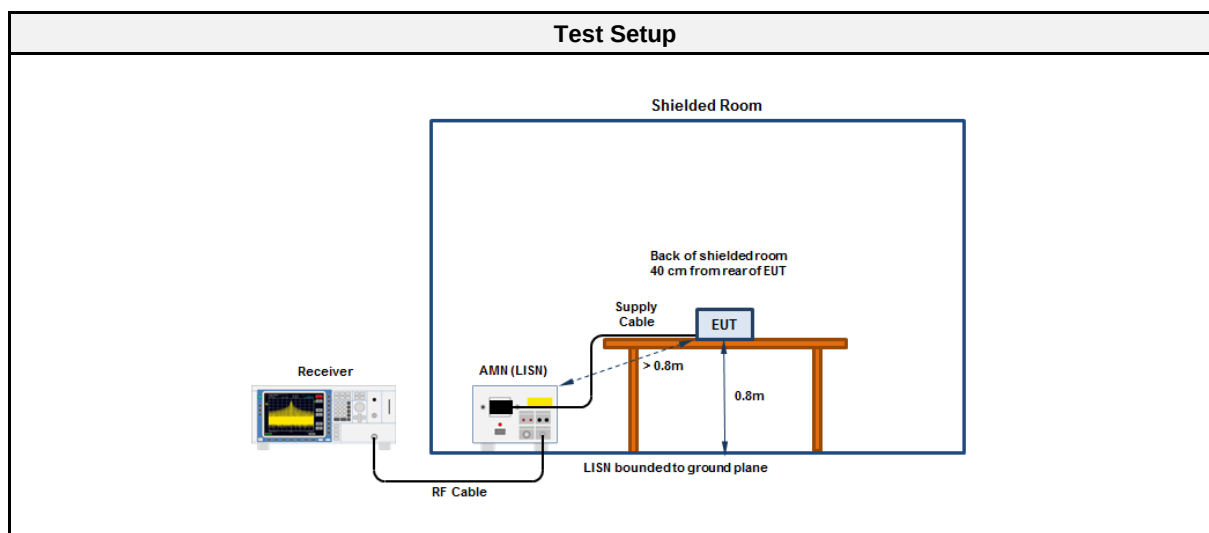
Test Information	
Reference	FCC § 15.207
Measurement Method	ANSI C63.10 6.2
Measurement Uncertainty	± 3.82 dB
Operator	Ehsan Sohrabi
Date	2025-02-04

3.4.2 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

3.4.3 Setup



3.4.4 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	DARE Instruments	RadiMation	2024.1.8

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
EMI Test Receiver	R&S	ESU26	EF00887	2024-01	2025-01
Pulse Limiter	R&S	ESH3-Z2	EF01222	2023-08	2025-08
LISN	Schwarzbeck	NSLK 8127 RC	EF01592	2024-07	2026-07

Setup for measurements 150 kHz - 30 MHz

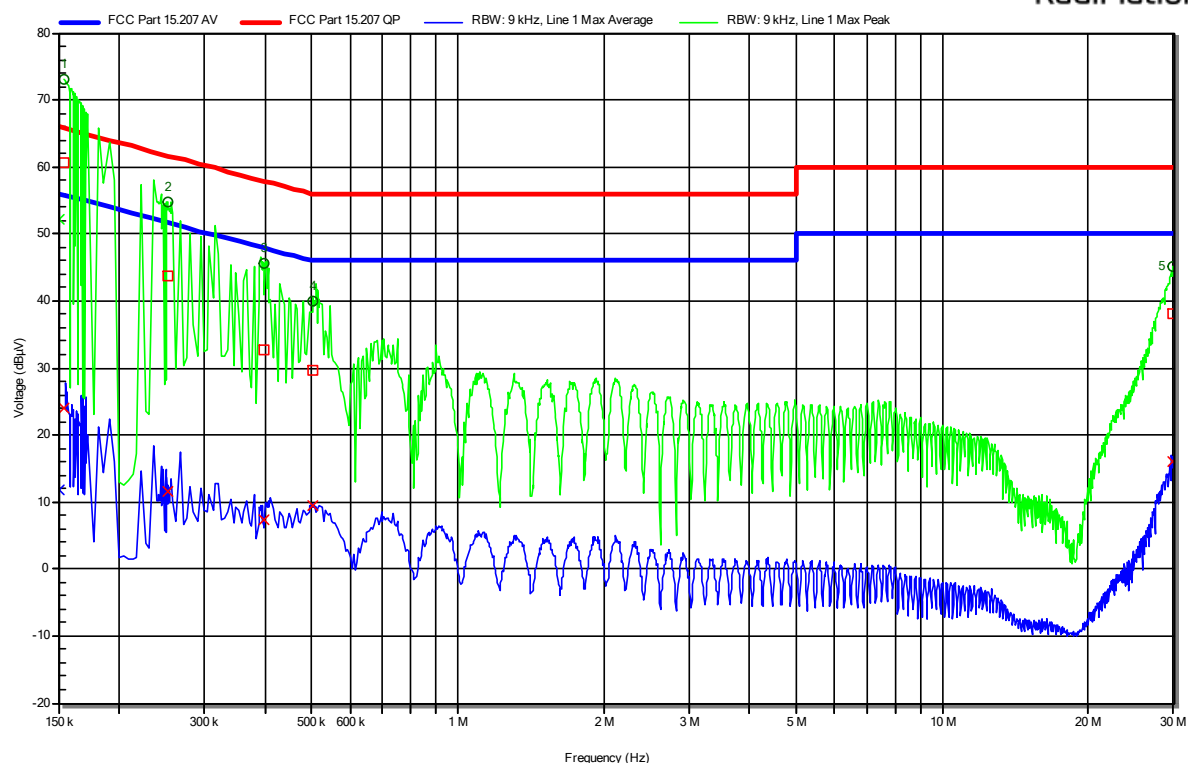


Conducted emissions at the mains power port according to FCC Part C 15.207

Project Number: GOM-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50700
 Test Site: Eurofins Product Service GmbH
 Operator: Ehsan Sohrabi
 Test Date & Time: 2025-02-04
 Operating Conditions: ambient temperature: 22 °Celsius
 power input: 3.3 V DC
 AMN: Schwarzbeck NSLK 8127
 Operational Mode: SRD, 915.50 MHz
 DUT Configuration:
 Applied to Port: 120 VAC / 60 Hz

Index 16

RadiMation



Peak Number	Frequency (MHz)	Quasi-Peak (dBμV)	Quasi-Peak Limit (dBμV)	Quasi-Peak Difference (dB)	Quasi-Peak Status	LISN
1	0.154	60.56	65.75	-5.19	Pass	Line 1
2	0.252	43.68	61.7	-18.02	Pass	Line 1
3	0.397	32.79	57.91	-25.11	Pass	Line 1
4	0.503	29.76	56	-26.24	Pass	Line 1
5	29.945	38.14	60	-21.86	Pass	Line 1

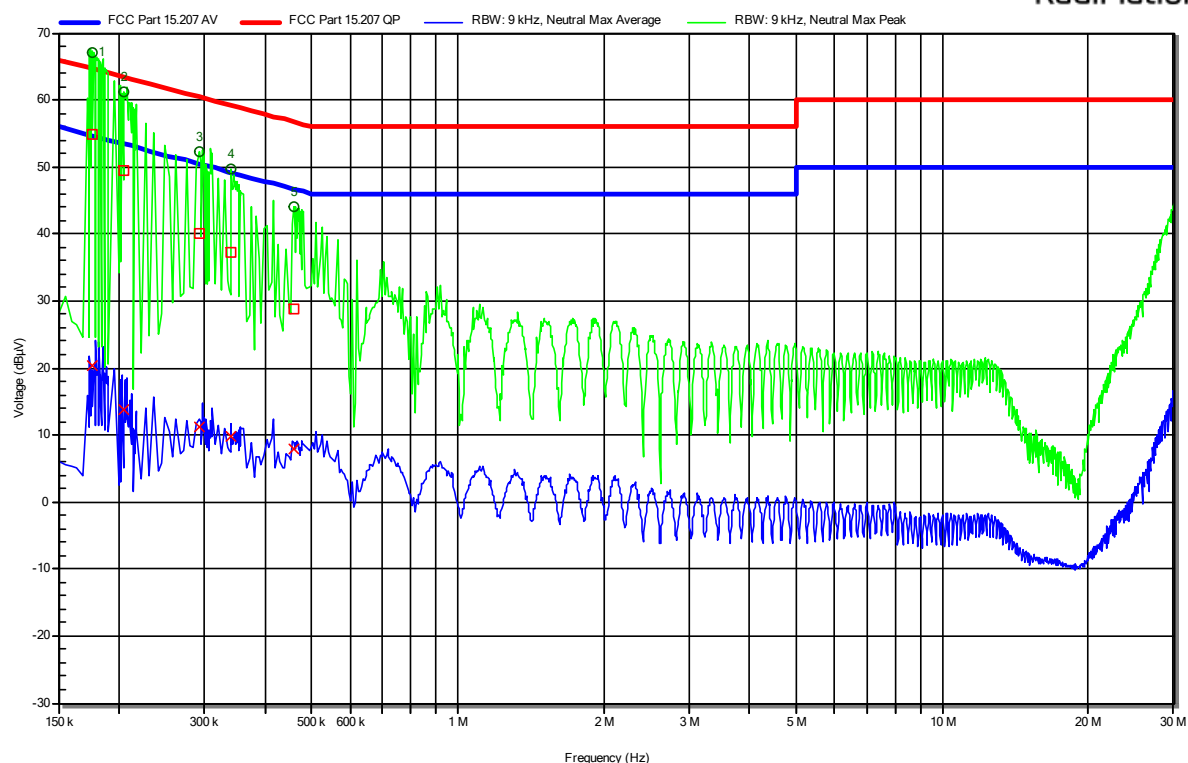
Peak Number	Frequency (MHz)	Average (dBμV)	Average Limit (dBμV)	Average Difference (dB)	Average Status	LISN
1	0.154	24.11	55.75	-31.65	Pass	Line 1
2	0.252	11.46	51.7	-40.24	Pass	Line 1
3	0.397	7.33	47.91	-40.58	Pass	Line 1
4	0.503	9.41	46	-36.59	Pass	Line 1
5	29.945	15.99	50	-34.01	Pass	Line 1

Conducted emissions at the mains power port according to FCC Part C 15.207

Project Number: GOM-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50700
 Test Site: Eurofins Product Service GmbH
 Operator: Ehsan Sohrabi
 Test Date & Time: 2025-02-04
 Operating Conditions: ambient temperature: 22 °Celsius
 power input: 3.3 V DC
 AMN: Schwarzbeck NSLK 8127
 Operational Mode: SRD, 915.50 MHz
 DUT Configuration:
 Applied to Port: 120 VAC / 60 Hz

Index 17

RadiMation



Peak Number	Frequency (MHz)	Quasi-Peak (dBμV)	Quasi-Peak Limit (dBμV)	Quasi-Peak Difference (dB)	Quasi-Peak Status	LISN
1	0.177	54.82	64.65	-9.83	Pass	Neutral
2	0.204	49.39	63.43	-14.04	Pass	Neutral
3	0.294	40.03	60.41	-20.38	Pass	Neutral
4	0.341	37.28	59.17	-21.89	Pass	Neutral
5	0.46	28.9	56.68	-27.79	Pass	Neutral

Peak Number	Frequency (MHz)	Average (dBμV)	Average Limit (dBμV)	Average Difference (dB)	Average Status	LISN
1	0.177	20.28	54.65	-34.36	Pass	Neutral
2	0.204	13.86	53.43	-39.57	Pass	Neutral
3	0.294	11.28	50.41	-39.13	Pass	Neutral
4	0.341	9.8	49.17	-39.37	Pass	Neutral
5	0.46	7.86	46.68	-38.83	Pass	Neutral

Test Report No.: GOM-2411-2825-TFC247DT01-V02

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

3.5 Test Conditions and Results - Band-edge compliance

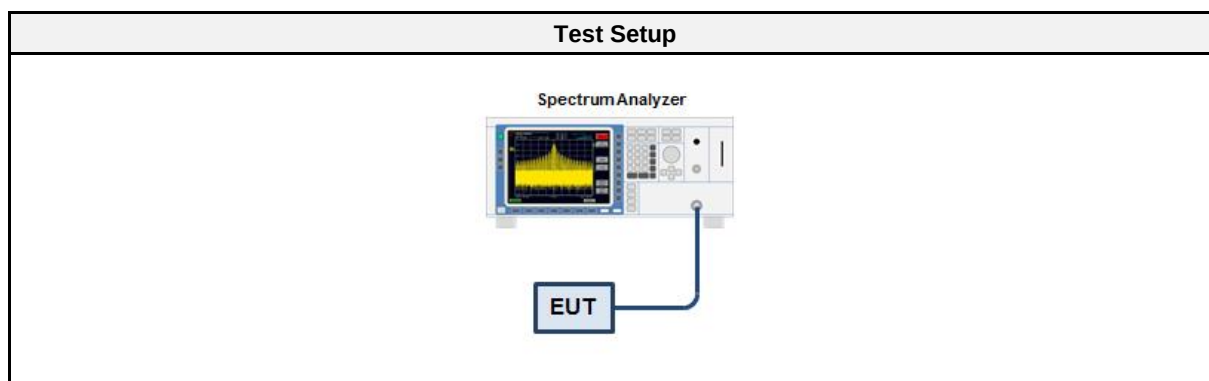
3.5.1 Information

Test Information	
Reference	FCC § 15.247(d)
Measurement Method	ANSI C63.10 11.13
Operator	Ehsan Sohrabi
Date	2025-04-03

3.5.2 Limits

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

3.5.3 Setup



3.5.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum analyzer	R&S	FSU26	EF01407	2024-07	2025-07
Cable (CAABD)	Gigalane	GIGALANE 1730	EF00779	2024-04	2025-04

3.5.5 Procedure

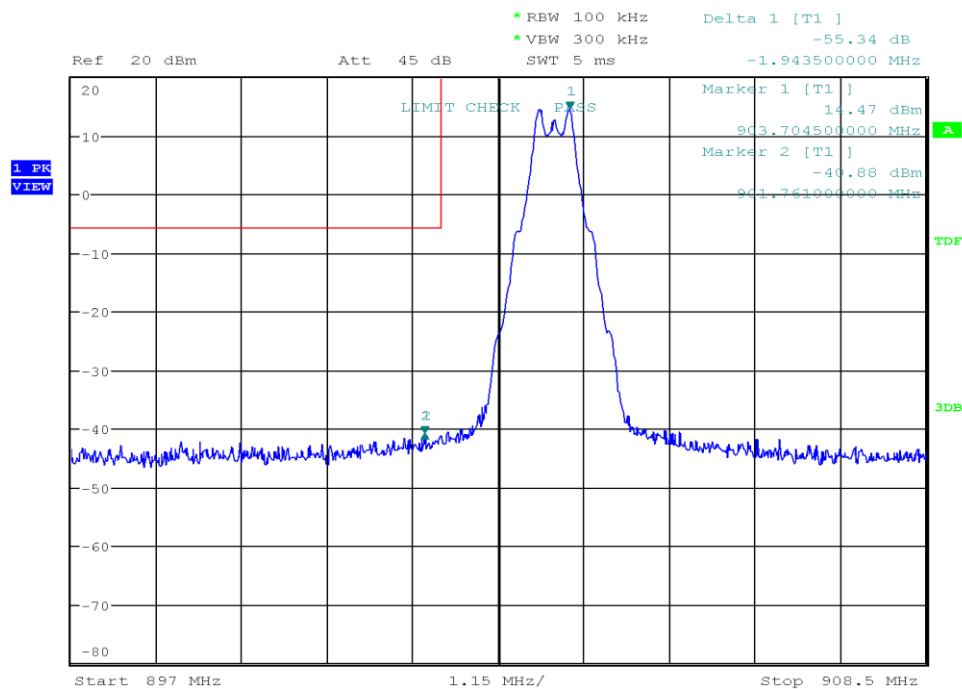
Test Procedure
1. EUT set to test mode (Communication tester is used if needed) 2. Span set around lower band edge and detector is set to peak and max hold 3. Resolution bandwidth is set to 100 kHz 4. Markers are set to peak emission levels within frequency band and outside frequency band 5. Band edge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

3.5.6 Results

Test Results				
Mode	Channel [MHz]	Out-of-band Attenuation [dB]	Limit [dB]	Verdict
Single	903.50	-55.34	-20	PASS
Single	927.50	-20.76	-20	PASS

Emissions in nonrestricted frequency bands at the Band-edge

Project Number:	G0M-2411-2825
Applicant:	senTec Elektronik GmbH
Model Description:	Radio Module
Model:	Modul VIII
Test Sample ID:	50981
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.10
Operational Mode:	single frequency, Channel: 903.5 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Ehsan Sohrabi
Test Site:	Eurofins Product Service GmbH
Test Date:	2025-04-03
Band-edge	Lower
In-band Frequency [MHz]:	903.705
Max. in-band Level [dBm/100 kHz]:	14.465
Out-of-band Frequency [MHz]:	901.761
Max. out-of-band Level [dBm/100 kHz]:	-40.878
Attenuation [dB]:	-55.34



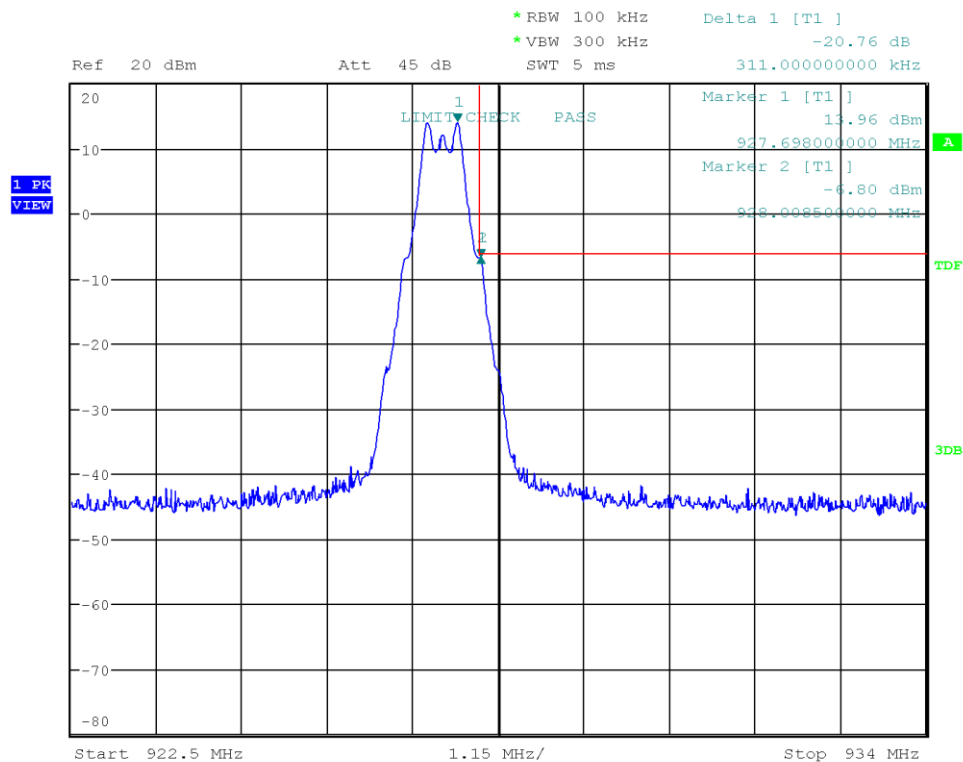
Date: 3.APR.2025 16:05:32

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

Emissions in nonrestricted frequency bands at the Band-edge

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50989
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 6.10
 Operational Mode: single frequency, Channel: 927.5 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Band-edge: Upper
 In-band Frequency [MHz]: 927.698
 Max. in-band Level [dBm/100 kHz]: 13.957
 Out-of-band Frequency [MHz]: 928.009
 Max. out-of-band Level [dBm/100 kHz]: -6.803
 Attenuation [dB]: -20.76



Date: 3.APR.2025 16:34:23

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

3.6 Test Conditions and Results - Conducted spurious emissions

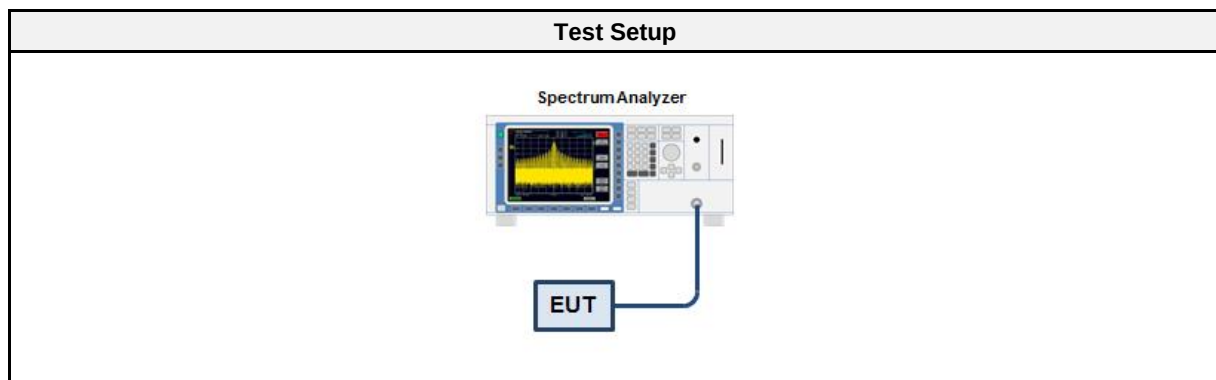
3.6.1 Information

Test Information	
Reference	FCC § 15.247(d)
Measurement Method	ANSI C63.10 11.11
Operator	Ehsan Sohrabi
Date	2025-04-03

3.6.2 Limits

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

3.6.3 Setup



3.6.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum analyzer	R&S	FSU26	EF01407	2024-07	2025-07
Cable (CAABD)	Gigalane	GIGALANE 1730	EF00779	2024-04	2025-04

3.6.5 Procedure

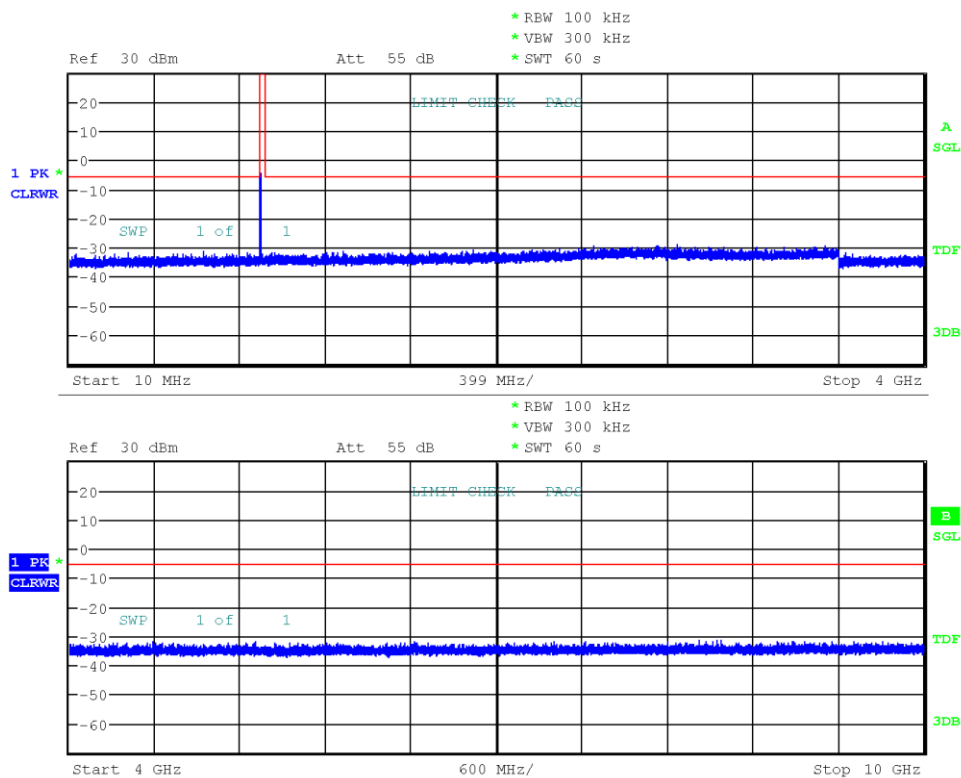
Test Procedure
1. EUT set to test mode (Communication tester is used if needed) 2. Span set around lower band edge and detector is set to peak and max hold 3. Resolution bandwidth is set to 100 kHz 4. Markers are set to peak emission levels outside frequency band

3.6.6 Results

Test Results		
Mode	Channel [MHz]	Verdict
Transmit	903.50	PASS
Transmit	915.50	PASS
Transmit	927.50	PASS

Conducted Spurious Emissions

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50981
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.11
 Operational Mode: 2GFSK, Channel: 903.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Max. in-band Frequency [MHz]: 903.7
 Max. in-band Level [dBm/100 kHz]: 14.4
 Out-of-band Limit [dBm/100 kHz]: -5.6



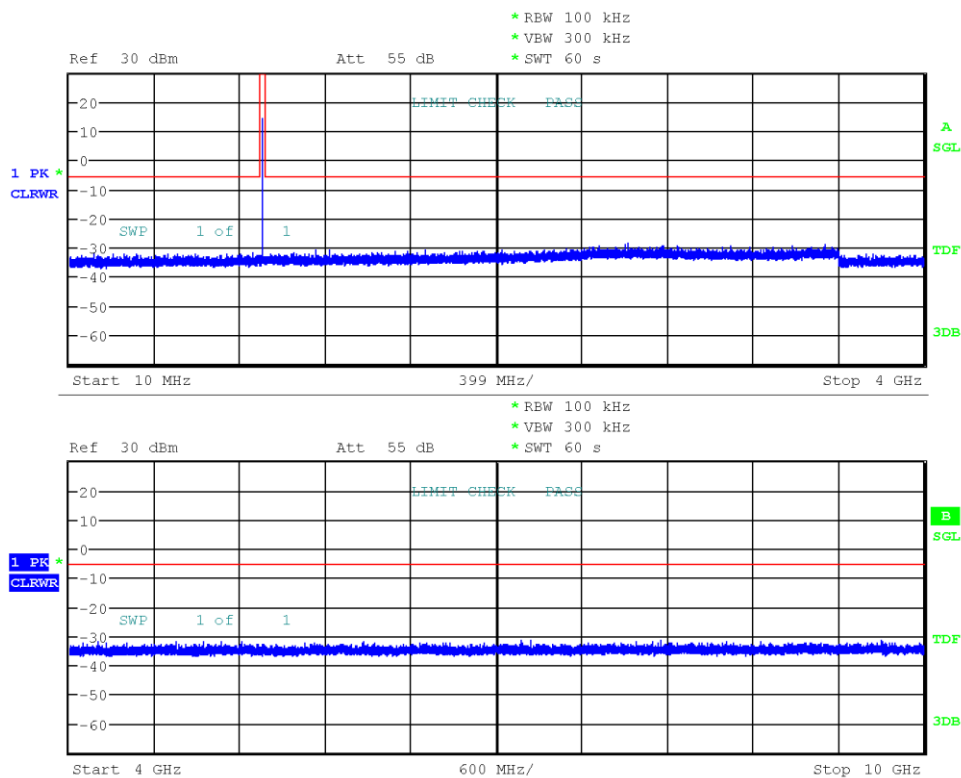
Date: 3.APR.2025 16:11:43

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

Conducted Spurious Emissions

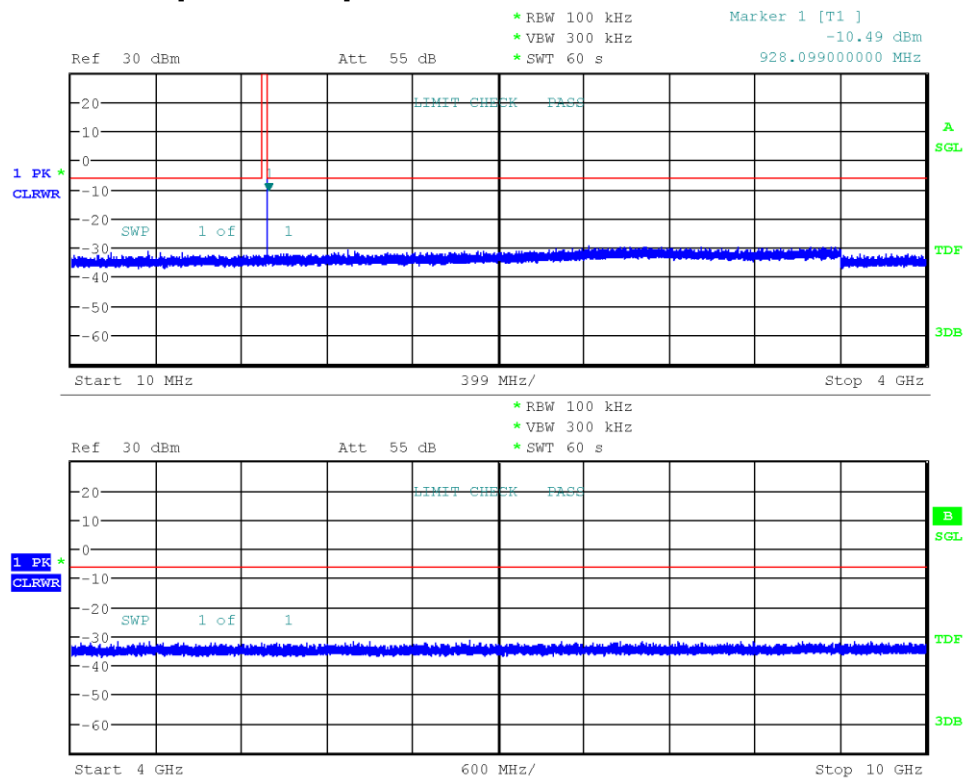
Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50985
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.11
 Operational Mode: 2GFSK, Channel: 915.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Max. in-band Frequency [MHz]: 915.7
 Max. in-band Level [dBm/100 kHz]: 14.4
 Out-of-band Limit [dBm/100 kHz]: -5.6



Date: 3.APR.2025 16:21:41

Conducted Spurious Emissions

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50989
 Reference Standards: FCC 15.247, RSS-247
 Reference Method: ANSI C63.10:2013, Section 11.11
 Operational Mode: 2GFSK, Channel: 927.50 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Ehsan Sohrabi
 Test Site: Eurofins Product Service GmbH
 Test Date: 2025-04-03
 Max. in-band Frequency [MHz]: 927.7
 Max. in-band Level [dBm/100 kHz]: 14.0
 Out-of-band Limit [dBm/100 kHz]: -6.0



Date: 3.APR.2025 16:38:38

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

3.7 Test Conditions and Results - Transmitter radiated emissions

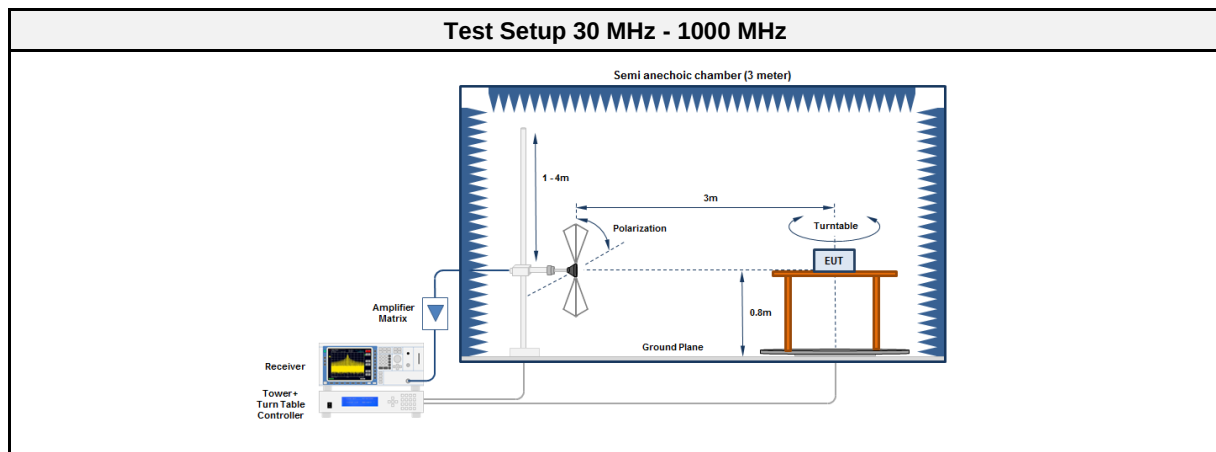
3.7.1 Information

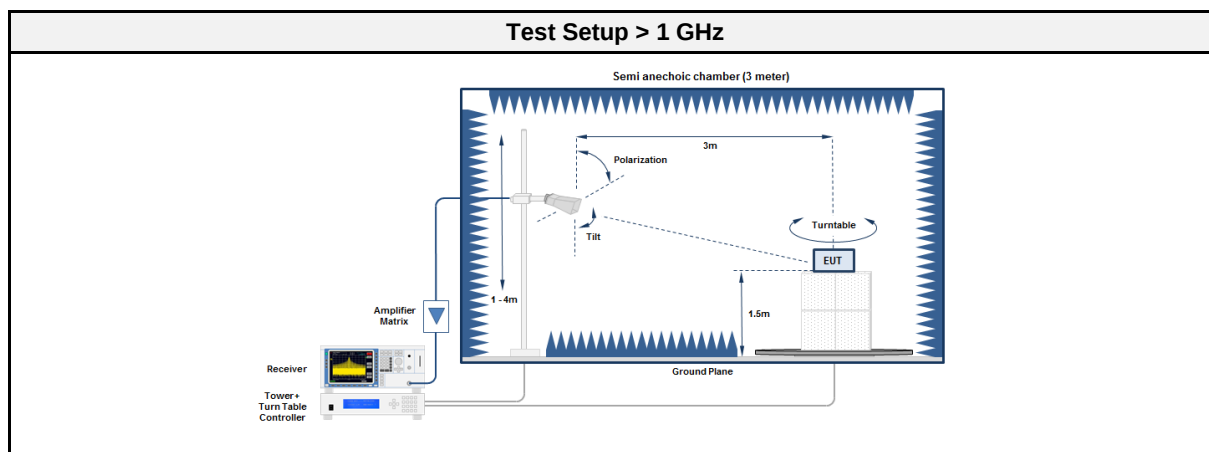
Test Information	
Reference	FCC § 15.247(d); FCC § 15.209
Measurement Method	ANSI C63.10 6.4, 6.5, 6.6, 11.12
Operator	Ehsan Sohrabi
Date	2025-01-30 – 2025-02-03

3.7.2 Limits

Limits			
Frequency range [MHz]	Detector	Field strength [$\mu\text{V/m}$]	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

3.7.3 Setup





3.7.4 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	Raditeq B.V.	RadiMation	2024.1.3

Test Equipment 30 MHz - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Semi-Anechoic chamber (NSA)	Frankonia	AC1	EF00062	2024-07	2027-07
Trilog Broadband Antenna	Schwarzbeck	VULB 9168	EF01824	2022-10	2025-10
EMI Test Receiver	R&S	ESW 44	EF01856	2024-04	2025-04

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic chamber (SVSWR)	Frankonia	AC2	EF01616	2024-07	2025-07
Spectrum Analyzer	R&S	FSW 43	EF00896	2024-07	2025-07
Antenna	Schwarzbeck	BBHA 9120B	EF01678	2024-05	2027-05
Antenna	Schwarzbeck	HWRD 650	EF01679	2024-05	2027-05

3.7.5 Procedure

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

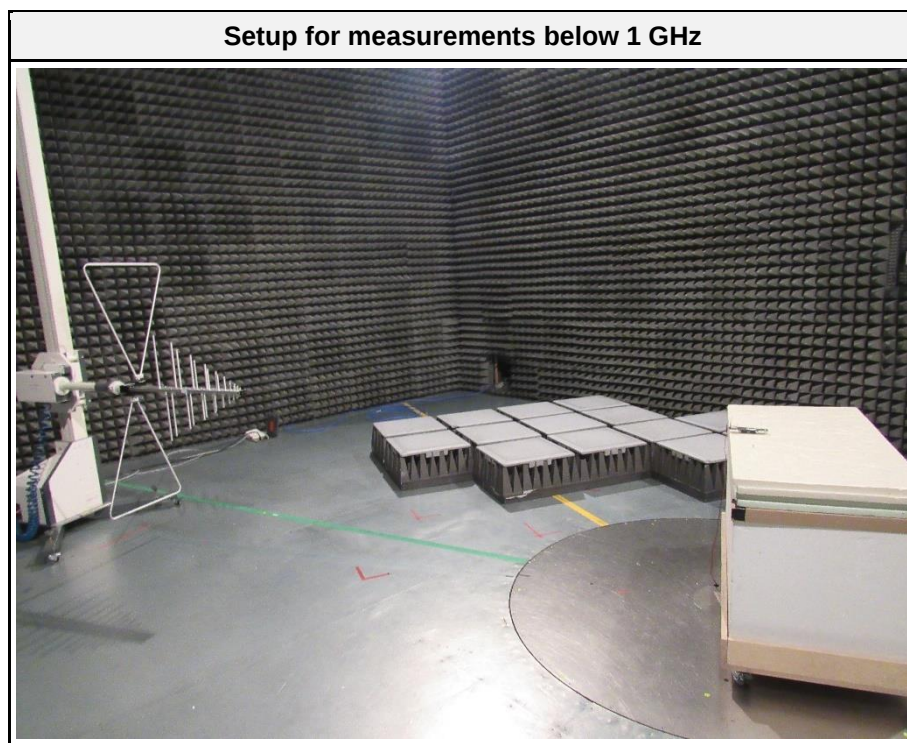
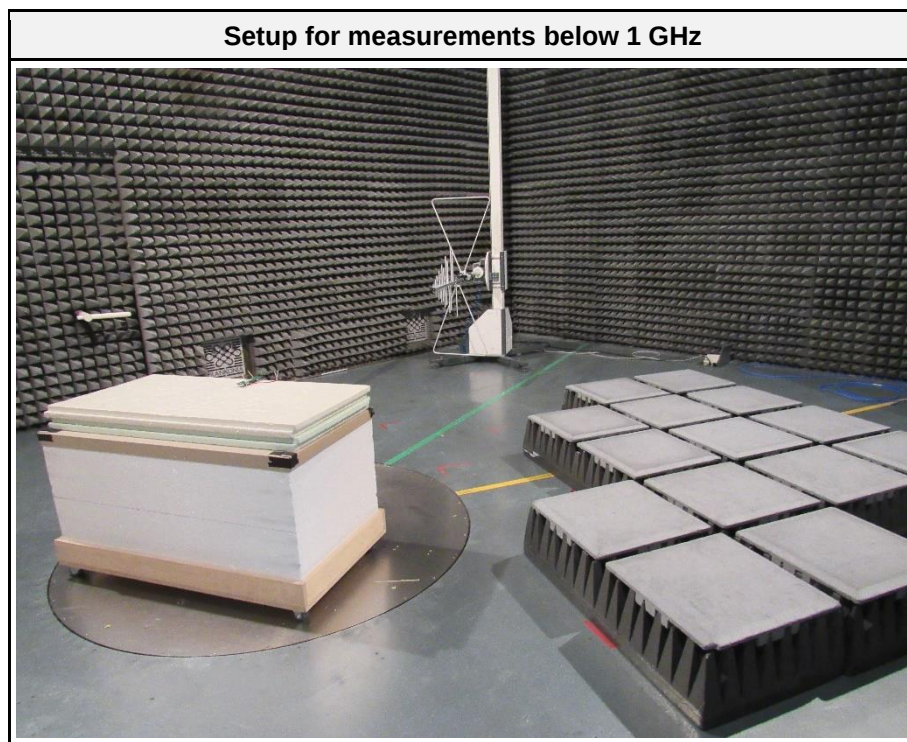
Test Procedure > 1 GHz

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

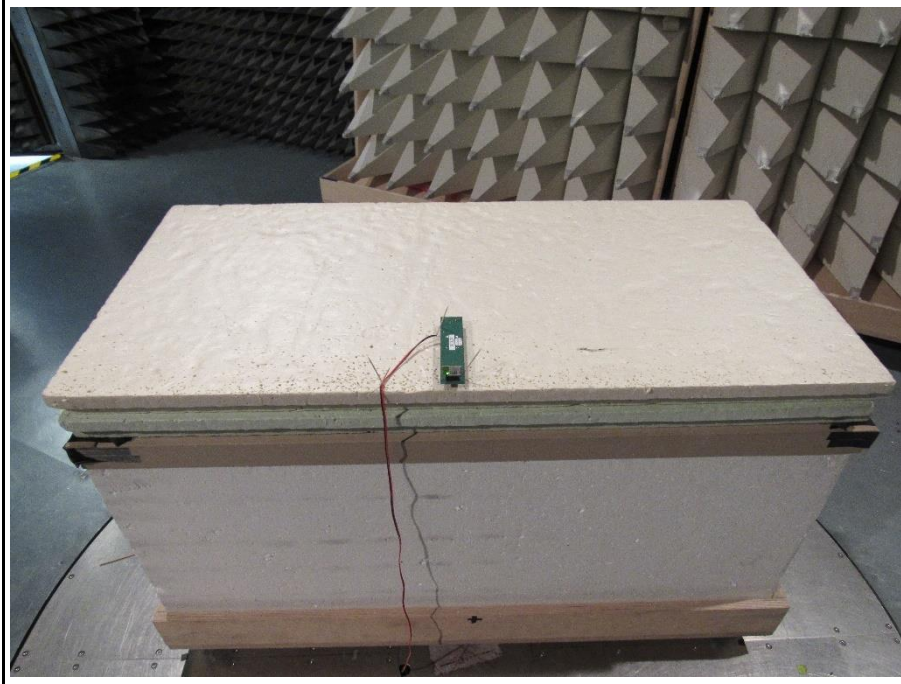
3.7.6 Results

Test Results							
Channel [MHz]	Emission [MHz]	Level [dBμV/m]	Level Corrected [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Margin [dB]
903.50	4516.5135	58.15	58.15	pk	hor	74	-15.85
903.50	4516.5135	48.12	52.13	avg	hor	54	-1.87
903.50	5419.7333	53.49	53.49	pk	hor	74	-20.51
903.50	5419.7333	42.64	46.65	avg	hor	54	-7.35
903.50	8129.681	53.26	53.26	pk	hor	74	-20.74
903.50	8129.681	42.15	46.16	avg	hor	54	-7.84
903.50	9032.903	47.53	47.53	pk	hor	74	-26.47
903.50	9032.903	35.72	39.73	avg	hor	54	-14.27
915.50	4576.4251	50.65	50.65	pk	hor	74	-23.35
915.50	4576.4251	49.47	53.48	avg	hor	54	-0.52
915.50	7322.4223	50.36	50.36	pk	hor	74	-23.64
915.50	7322.4223	47.92	51.93	avg	hor	54	-2.07
915.50	8237.669	57.81	57.81	pk	hor	74	-16.19
915.50	8237.669	46.84	50.85	avg	hor	54	-3.15
915.50	9152.979	47.02	47.02	pk	ver	74	-26.98
915.50	9152.979	43.49	47.5	avg	ver	54	-6.5
927.50	928.168	58.8	58.8	pk	hor	95	-36.2
927.50	4636.4772	50.38	50.38	pk	hor	74	-23.62
927.50	4636.4772	49.02	53.03	avg	hor	54	-0.97
927.50	7418.401	47.63	47.63	pk	hor	74	-26.37
927.50	7418.401	44.1	48.11	avg	hor	54	-5.89
927.50	8345.686	54.53	54.53	pk	hor	74	-19.47
927.50	8345.686	43.56	47.57	avg	hor	54	-6.43
Comment: Level for measurments with average detector is corrected to account for DCCF = 4.01 Level Corrected = Level + DCCF (only for AVG detector)							

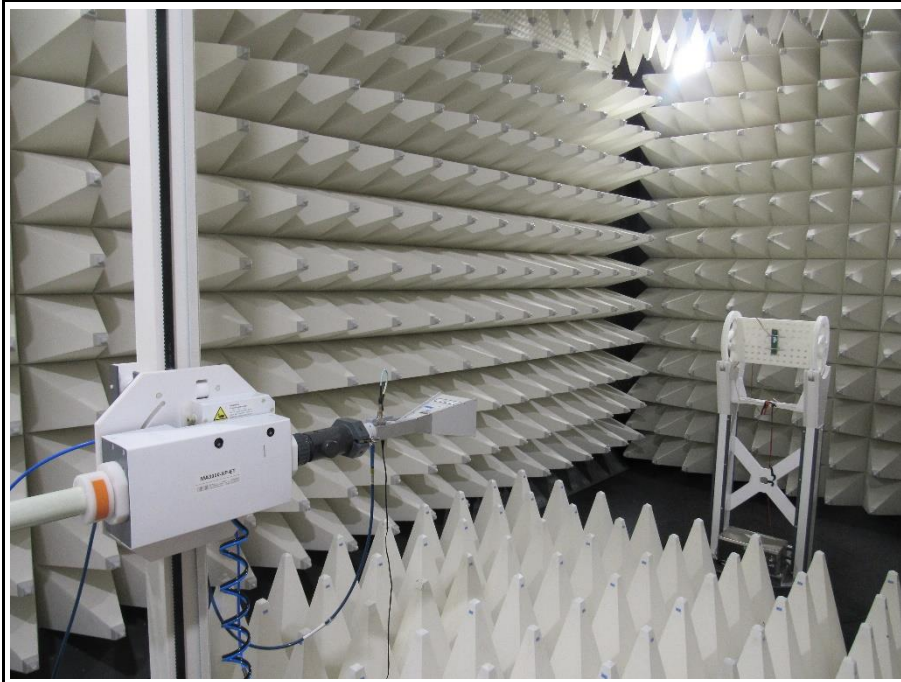
3.7.7 Setup Photos



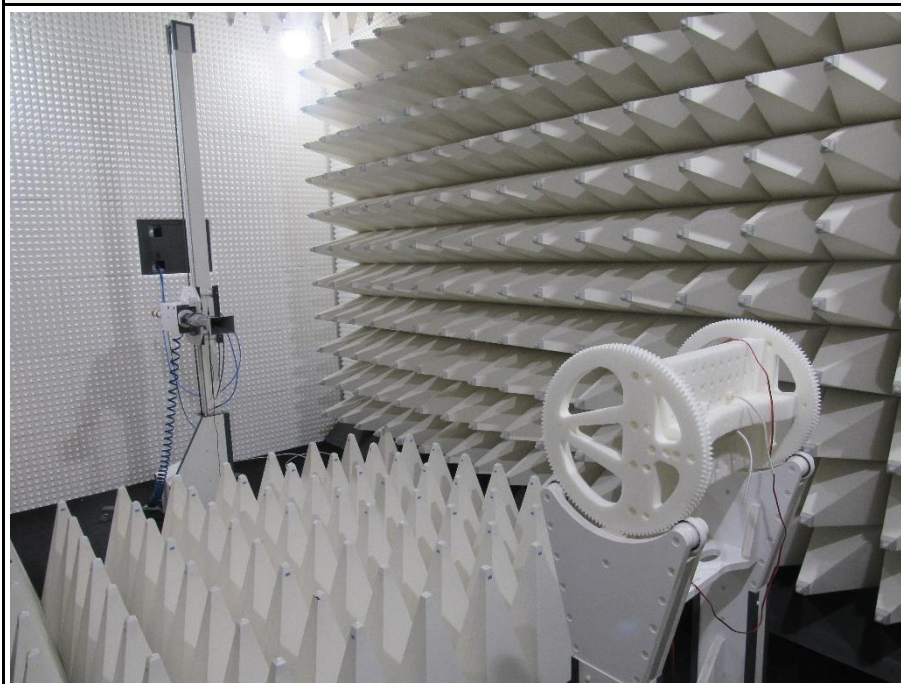
EUT Test Setup below 1 GHz

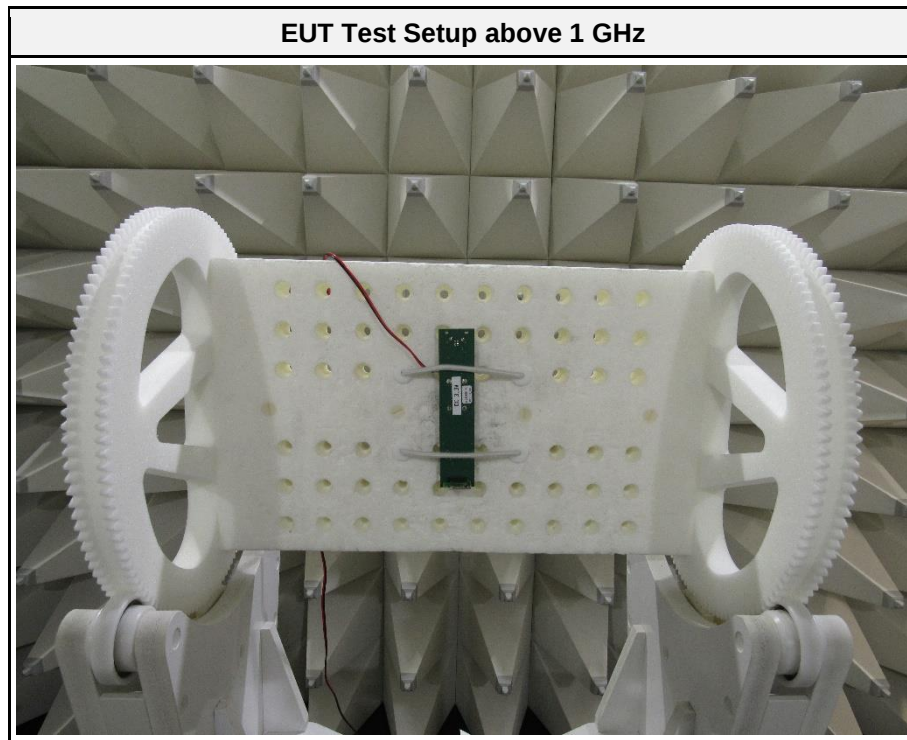


Setup for measurements above 1 GHz



Setup for measurements above 1 GHz

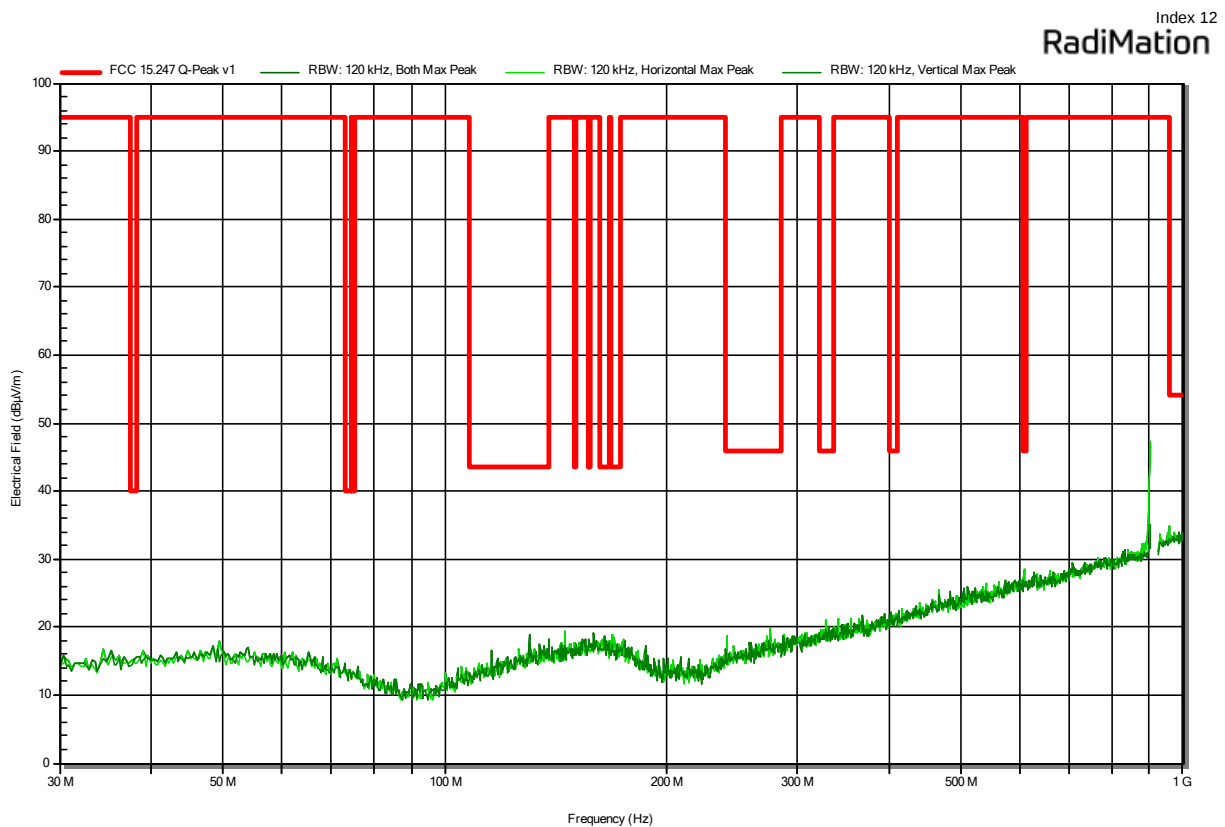




ANNEX A Transmitter spurious emissions

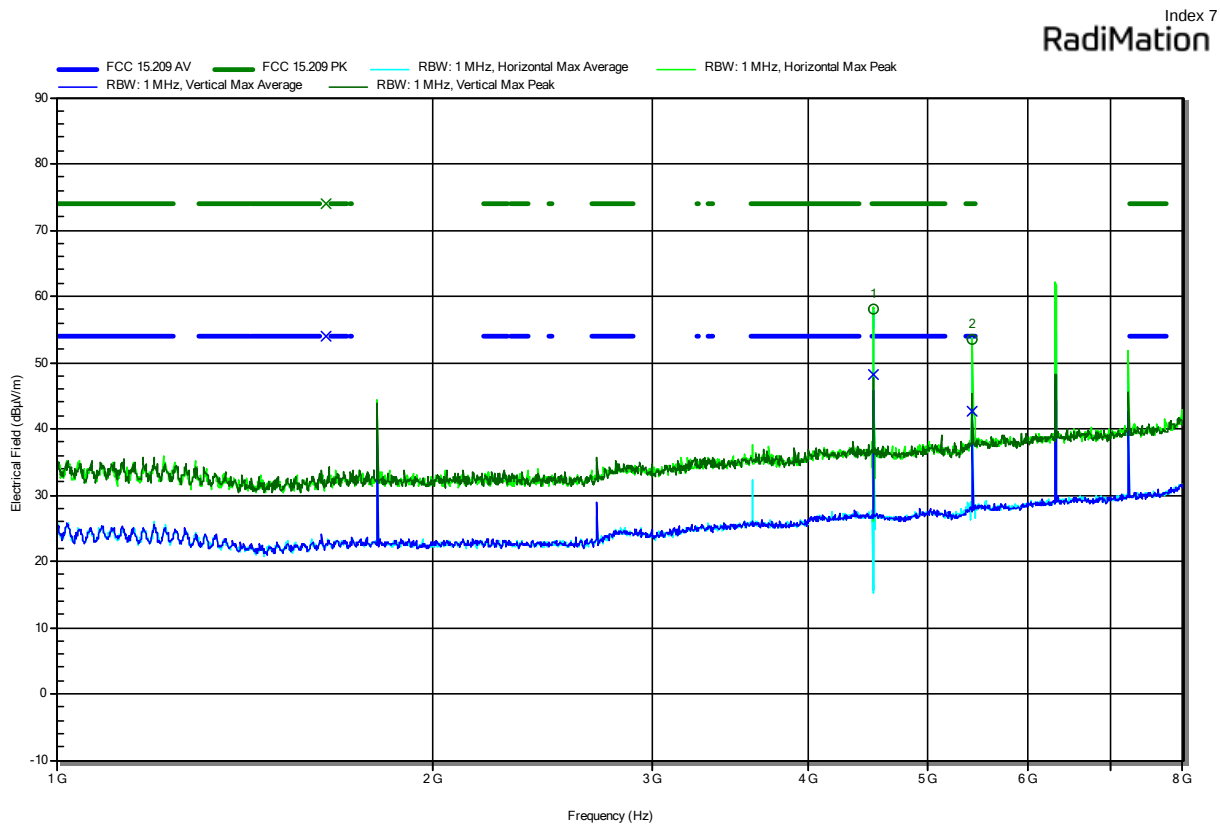
Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50686
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Sohrabi
 Measurement software: RadiMation, version 2024.1.6
 Test Conditions: Tnom: 22 °Celsius, Vnom: 3.3 V DC
 Antenna: Schwarzbeck VULB 9168
 Measurement distance: 3 m
 Mode: Tx; SRD, 903.50 MHz
 Test Date: 2025-02-03



Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50686
 Test Site: Eurofins Product Service GmbH
 Operator: Ehsan Sohrabi
 Measurement software: RadiMation, version 2024.1.3
 Test Conditions: Tnom: 23 °Celsius, Vnom: 3.3 V DC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; SRD, 903.50 MHz
 Test Date: 2025-01-30

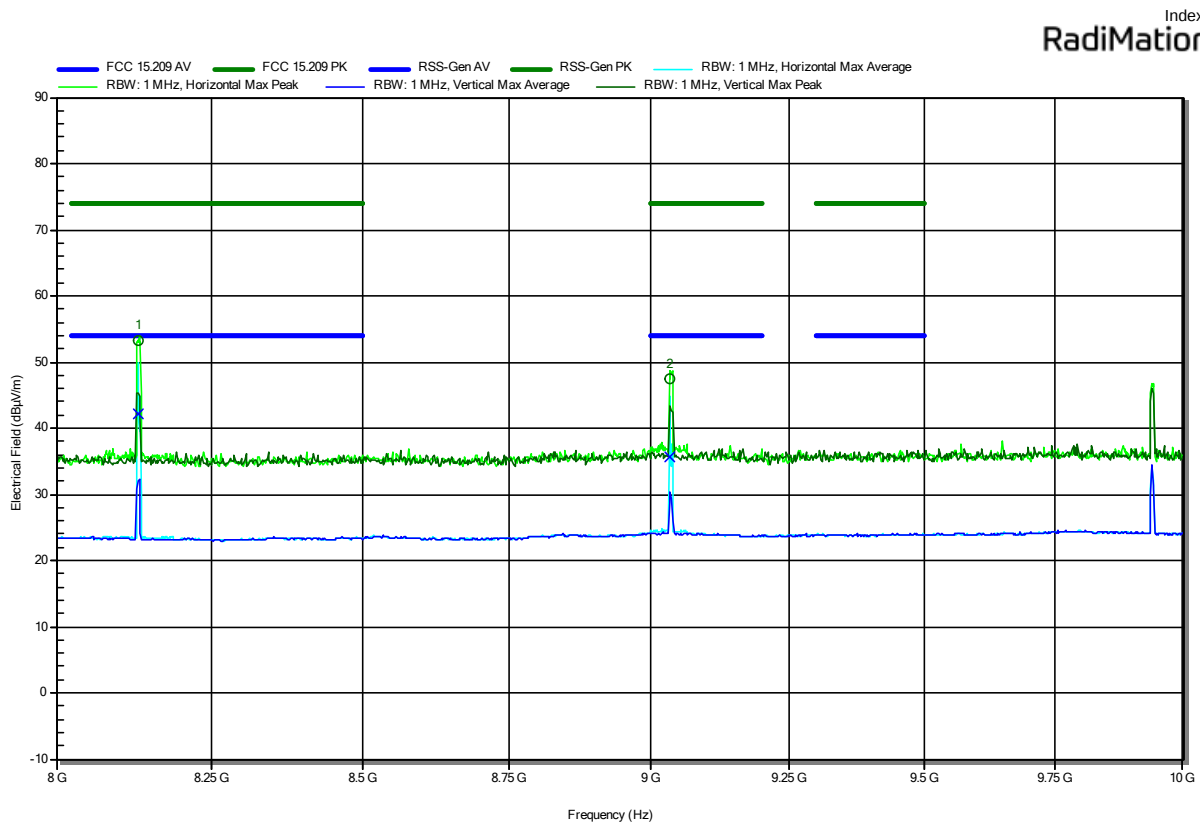


Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
1	4516.5135	58.15	74	-15.85	Pass	Horizontal
2	5419.7333	53.49	74	-20.51	Pass	Horizontal

Peak Number	Frequency (MHz)	Average DC Corrected (dBµV/m)	Average Limit (dBµV/m)	Average Difference (dB)	Average Status	Polarization
1	4516.5135	52.13	54	-1.87	Pass	Horizontal
2	5419.7333	46.65	54	-7.35	Pass	Horizontal

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50686
 Test Site: Eurofins Product Service GmbH
 Operator: Ehsan Sohrabi
 Measurement software: RadiMation, version 2024.1.3
 Test Conditions: Tnom: 23 °Celsius, Vnom: 3.3 V DC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Tx; SRD, 903.50 MHz
 Test Date: 2025-01-30



Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
1	8129.681	53.26	74	-20.74	Pass	Horizontal
2	9032.903	47.53	74	-26.47	Pass	Horizontal

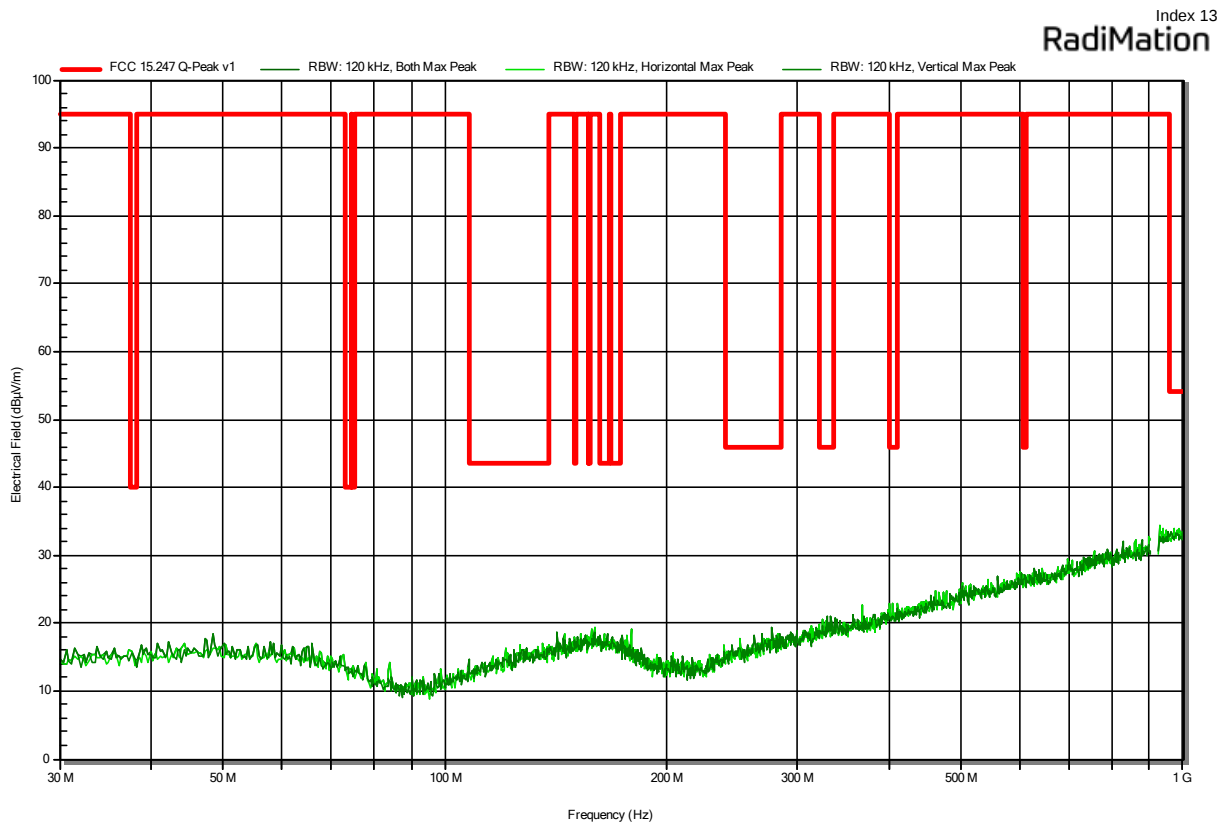
Peak Number	Frequency (MHz)	Average DC Corrected (dBµV/m)	Average Limit (dBµV/m)	Average Difference (dB)	Average Status	Polarization
1	8129.681	46.16	54	-7.84	Pass	Horizontal
2	9032.903	39.73	54	-14.27	Pass	Horizontal

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

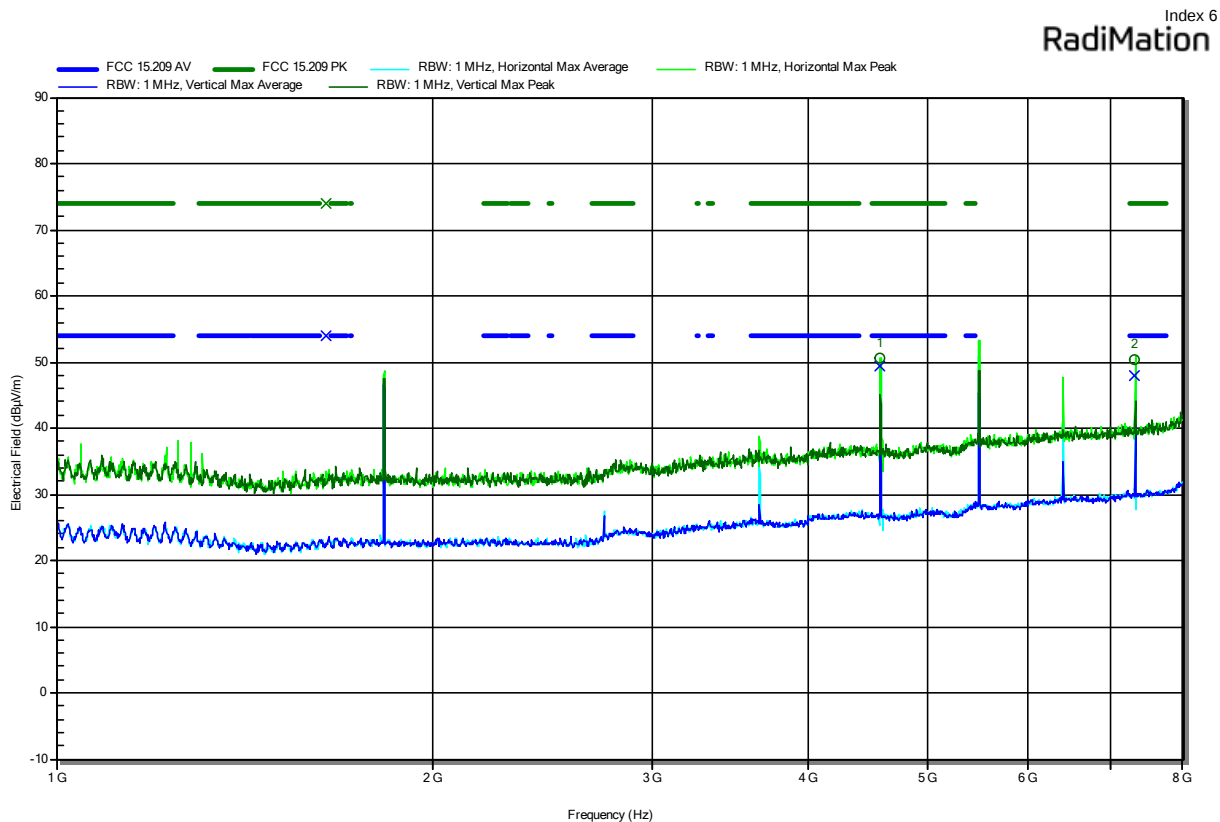
Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50700
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Sohrabi
 Measurement software: RadiMation, version 2024.1.6
 Test Conditions: Tnom: 22 °Celsius, Vnom: 3.3 V DC
 Antenna: Schwarzbeck VULB 9168
 Measurement distance: 3 m
 Mode: Tx; SRD, 915.50 MHz
 Test Date: 2025-02-03



Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50700
 Test Site: Eurofins Product Service GmbH
 Operator: Ehsan Sohrabi
 Measurement software: RadiMation, version 2024.1.3
 Test Conditions: Tnom: 23 °Celsius, Vnom: 3.3 V DC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; SRD, 915.50 MHz
 Test Date: 2025-01-30



Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
1	4576.4251	50.65	74	-23.35	Pass	Horizontal
2	7322.4223	50.36	74	-23.64	Pass	Horizontal

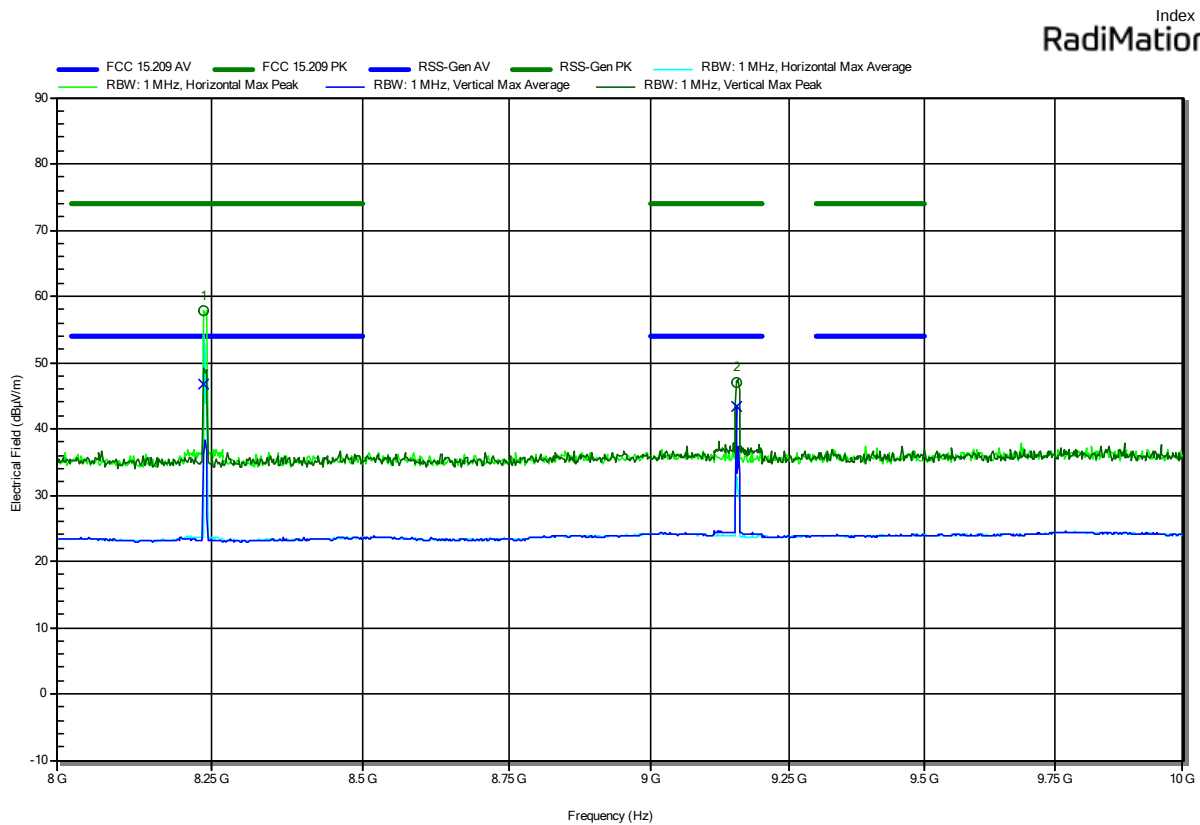
Peak Number	Frequency (MHz)	Average DC Corrected (dBµV/m)	Average Limit (dBµV/m)	Average Difference (dB)	Average Status	Polarization
1	4576.4251	53.48	54	-0.52	Pass	Horizontal
2	7322.4223	51.93	54	-2.07	Pass	Horizontal

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50700
 Test Site: Eurofins Product Service GmbH
 Operator: Ehsan Sohrabi
 Measurement software: RadiMation, version 2024.1.3
 Test Conditions: Tnom: 23 °Celsius, Vnom: 3.3 V DC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Tx; SRD, 915.50 MHz
 Test Date: 2025-01-30



Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
1	8237.669	57.81	74	-16.19	Pass	Horizontal
2	9152.979	47.02	74	-26.98	Pass	Vertical

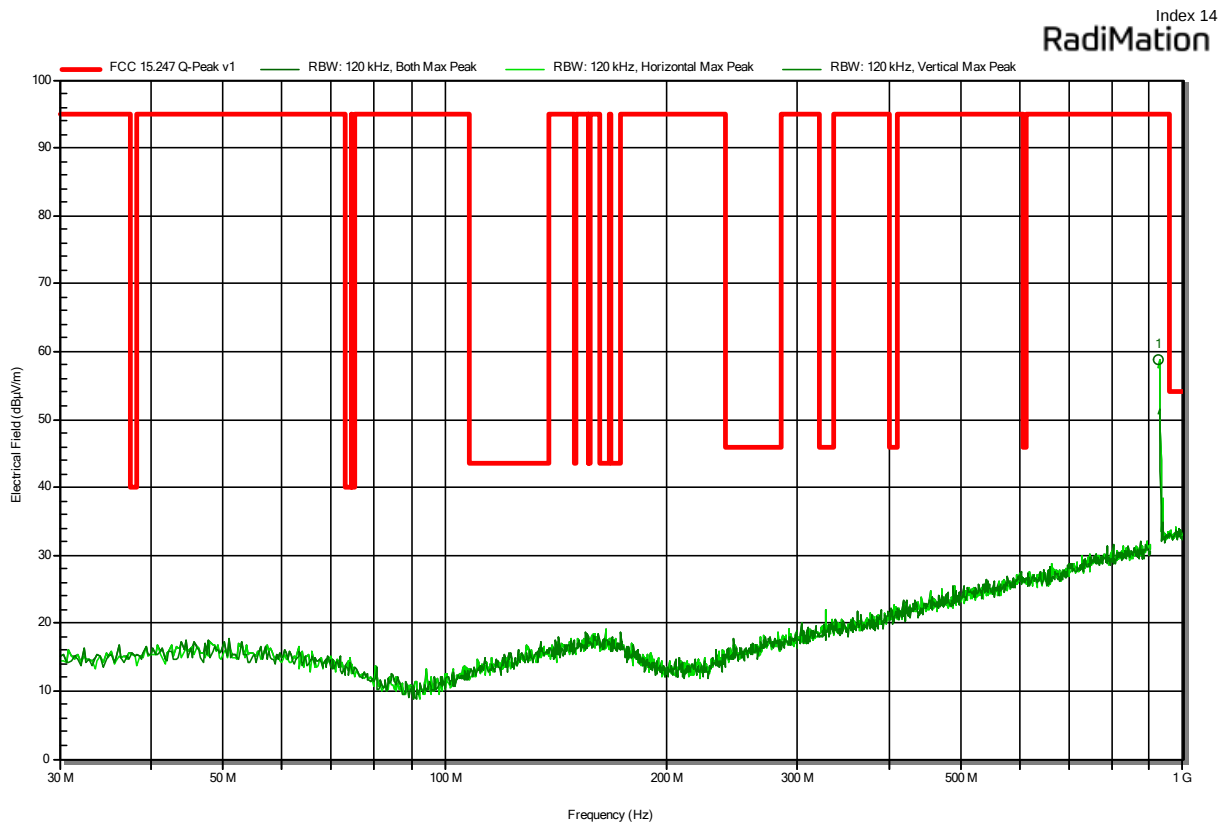
Peak Number	Frequency (MHz)	Average DC Corrected (dBµV/m)	Average Limit (dBµV/m)	Average Difference (dB)	Average Status	Polarization
1	8237.669	50.85	54	-3.15	Pass	Horizontal
2	9152.979	47.5	54	-6.5	Pass	Vertical

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

Radiated Spurious Emissions according to 47 CFR Part 15.247

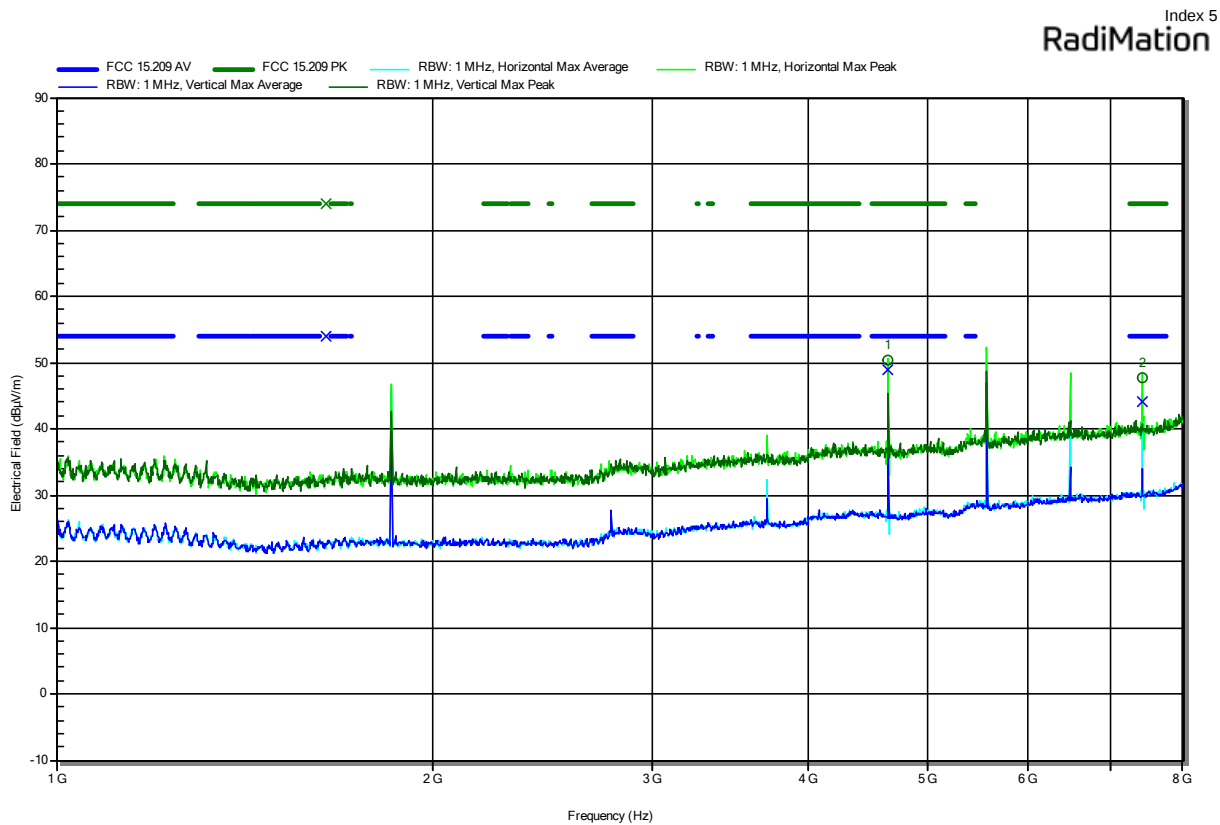
Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50714
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Sohrabi
 Measurement software: RadiMation, version 2024.1.6
 Test Conditions: Tnom: 22 °Celsius, Vnom: 3.3 V DC
 Antenna: Schwarzbeck VULB 9168
 Measurement distance: 3 m
 Mode: Tx; SRD, 927.50 MHz
 Test Date: 2025-02-03



Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
1	928.168	58.8	95	-36.2	Pass	Horizontal

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50714
 Test Site: Eurofins Product Service GmbH
 Operator: Ehsan Sohrabi
 Measurement software: RadiMation, version 2024.1.3
 Test Conditions: Tnom: 23 °Celsius, Vnom: 3.3 V DC
 Antenna: Schwarzbeck BBHA 9120B
 Measurement distance: 3 m
 Mode: Tx; SRD, 927.50 MHz
 Test Date: 2025-01-30



Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
1	4636.4772	50.38	74	-23.62	Pass	Horizontal
2	7418.401	47.63	74	-26.37	Pass	Horizontal

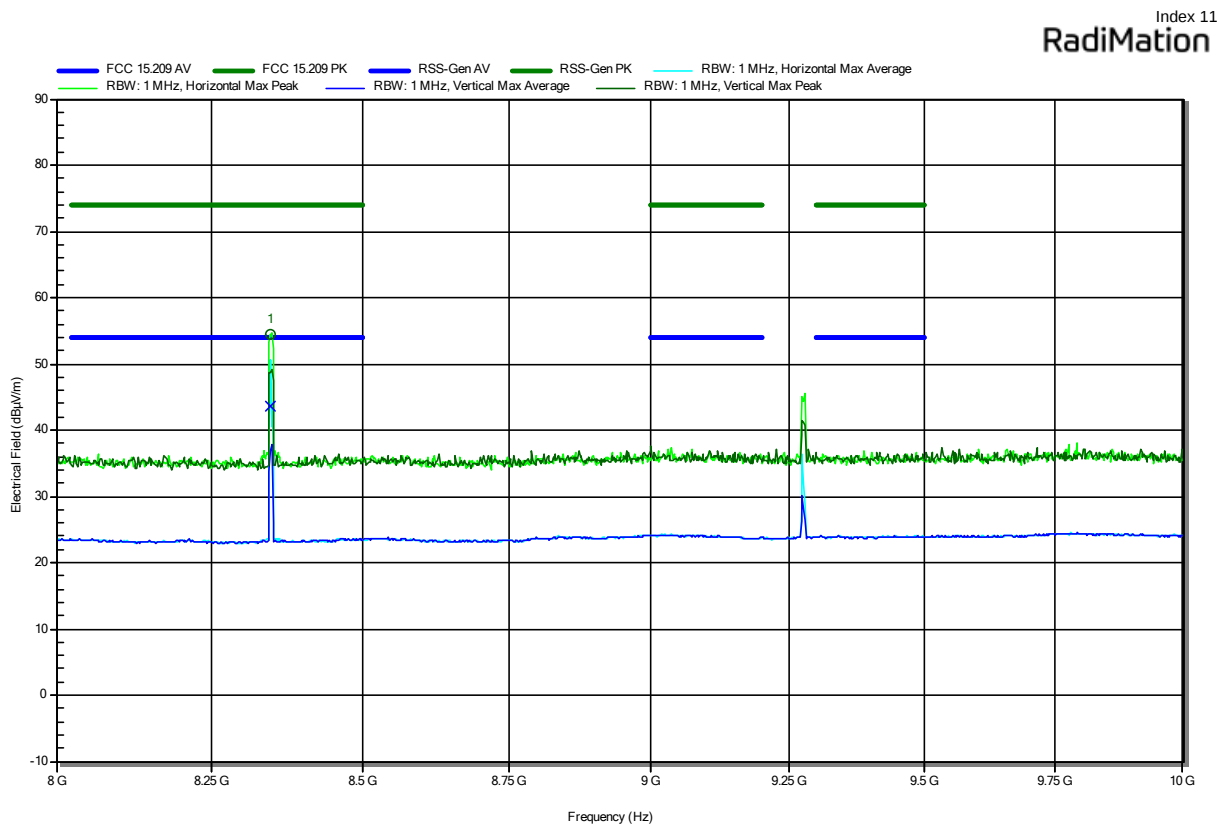
Peak Number	Frequency (MHz)	Average DC Corrected (dBµV/m)	Average Limit (dBµV/m)	Average Difference (dB)	Average Status	Polarization
1	4636.4772	53.03	54	-0.97	Pass	Horizontal
2	7418.401	48.11	54	-5.89	Pass	Horizontal

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2411-2825
 Applicant: senTec Elektronik GmbH
 Model Description: Radio Module
 Model: Modul VIII
 Test Sample ID: 50714
 Test Site: Eurofins Product Service GmbH
 Operator: Ehsan Sohrabi
 Measurement software: RadiMation, version 2024.1.3
 Test Conditions: Tnom: 23 °Celsius, Vnom: 3.3 V DC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Tx; SRD, 927.50 MHz
 Test Date: 2025-01-30



Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
1	8345.686	54.53	74	-19.47	Pass	Horizontal

Peak Number	Frequency (MHz)	Average DC Corrected (dBµV/m)	Average Limit (dBµV/m)	Average Difference (dB)	Average Status	Polarization
1	8345.686	47.57	54	-6.43	Pass	Horizontal

=== End of test report ===

Test Report No.: G0M-2411-2825-TFC247DT01-V02

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