eurofins | Product Service

FCC TEST REPORT

FCC 47 CFR Part 15C
Industry Canada RSS-210

Digital transmission systems operating within the 2400 – 2483.5 MHz band

Report Reference No.....:	G0M-1502-4502-TFC247BL-V01
Testing Laboratory.....:	Eurofins Product Service GmbH
Address.....:	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation.....:	A2LA Accredited Testing Laboratory, Certificate No.: 1983.01 FCC Filed Test Laboratory, Reg.-No.: 96970 IC OATS Filing assigned code: 3470A
Applicant's name.....:	SMT & Hybrid GmbH
Address.....:	An der Priessnitzaue 22 01328 Dresden GERMANY
Test specification:	
Standard.....:	47 CFR Part 15C KDB Publication No. 558074 RSS-210, Issue 8, 2015-05 RSS-Gen, Issue 4, 2014-11 ANSI C63.4:2014
Test scope.....:	complete Radio compliance test
Equipment under test (EUT):	
Product description	Datenlogger
Model No.	sensor module
Additional Model(s)	None
Brand Name(s)	MONI LOG sensor module
Hardware version	R2
Firmware / Software version	0.90
	FCC-ID: 2AELT-09MONILOG
Contains	IC: 5123A-BGTBLE112
Test result	**Passed**

Possible test case verdicts:

- neither assessed nor tested ..... : N/N
- required by standard but not appl. to test object..... : N/A
- required by standard but not tested..... : N/T
- not required by standard for the test object ..... : N/R
- test object does meet the requirement..... : P (Pass)
- test object does not meet the requirement..... : F (Fail)

Testing:

Test Lab Temperature..... :	20 – 23 °C	
Test Lab Humidity ..... :	32 – 38 %	
Date of receipt of test item ..... :	2015-03-25	
Date (s) of performance of tests ..... :	2015-06-05 – 2012-06-08	
Compiled by ..... :	Christian Weber	
Tested by (+ signature)..... : (Responsible for Test)	Burkhard Pudell	B. Pudell .....
Approved by (+ signature) ..... : (Head of Lab)	Christian Weber	C. Weber .....
Date of issue ..... :	2015-06-16	
Total number of pages ..... :	83	

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.

Additional comments:

Version History

Version	Issue Date	Remarks	Revised by
01	2015-06-16	Initial Release	

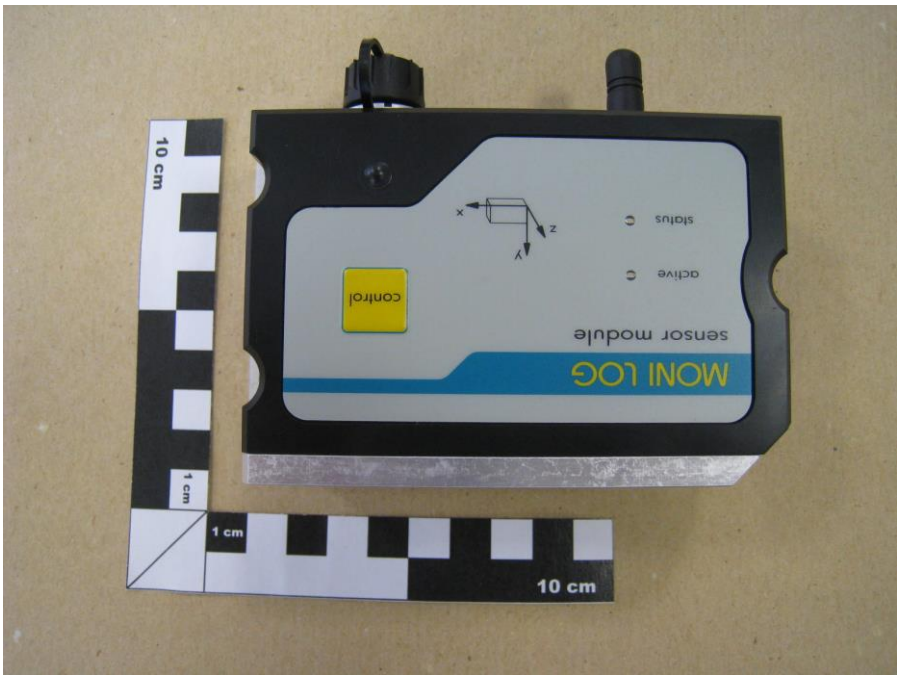
REPORT INDEX

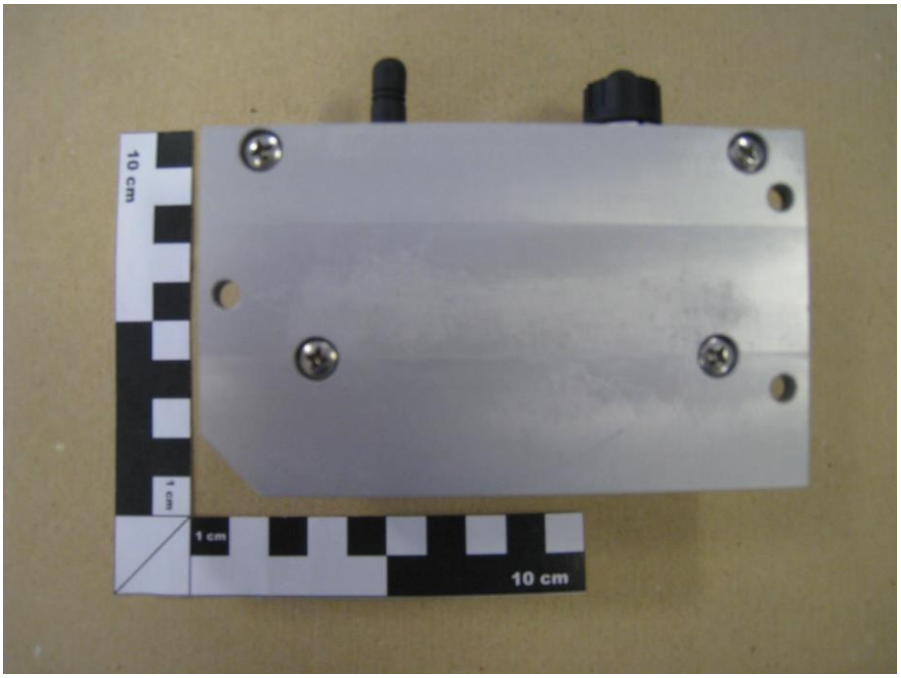
1 Equipment (Test item) Description

Description	Datenlogger	
Model	sensor module	
Additional Model(s)	None	
Brand Name(s)	MONI LOG sensor module	
Serial number	20159xxxx	
Hardware version	R2	
Software / Firmware version	0.90	
FCC-ID	2AELT-09MONILOG	
Contains IC	5123A-BGTBLE112	
Equipment type	End product	
Radio type	Transceiver	
Radio technology	Bluetooth 4.0 Low Energy	
Operating frequency range	2402 - 2480 MHz	
Assigned frequency band	2400 - 2483.5 MHz	
Main test frequencies	F_{LOW}	2402 MHz
	F_{MID}	2442 MHz
	F_{HIGH}	2480 MHz
Spreading	Frequency Hopping	
Modulations	GFSK	
Number of channels	40	
Channel spacing	2MHz	
Number of antennas	1	
Radio module	Type	Bluetooth Module
	Model	BLE112-A
	Manufacturer	Bluegiga
	HW Version	1
	SW Version	1.3
	FCC-ID	QOQBLE112
	IC	5123A-BGTBLE112
Antenna	Type	external dedicated
	Model	SMA monopole antenna, ANT-24G-S21P
	Manufacturer	RF Solutions
	Gain	0.0 dBi (manufacturer declaration)
Manufacturer	SMT & Hybrid GmbH An der Priessnitzaue 22 01328 Dresden GERMANY	

Power supply	V_{NOM}	3.6 VDC (Lithium Battery)
	V_{MIN}	N/R
	V_{MAX}	N/R
AC/DC-Adaptor	none	

1.1 Photos – Equipment External

EUT TOP


EUT BOTTOM


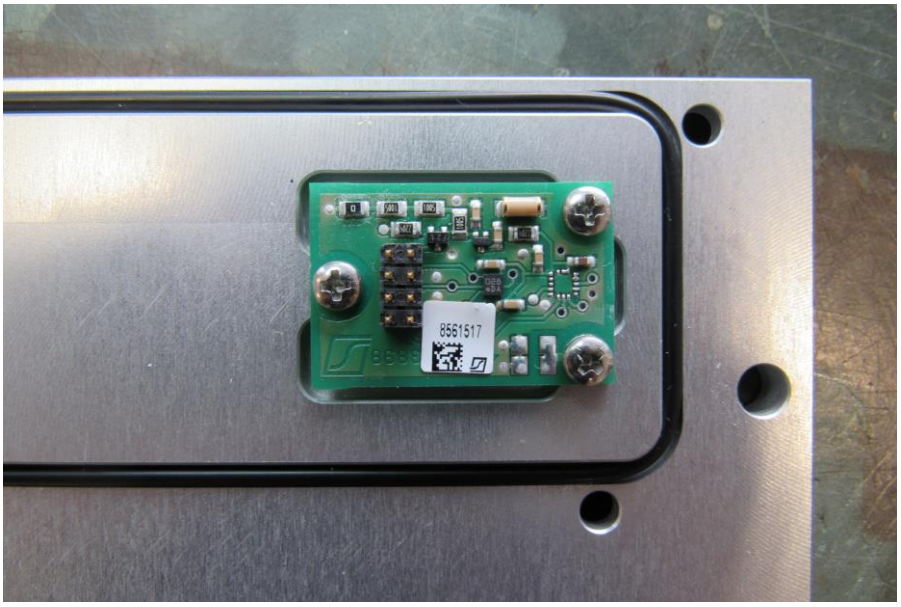
EUT LABEL

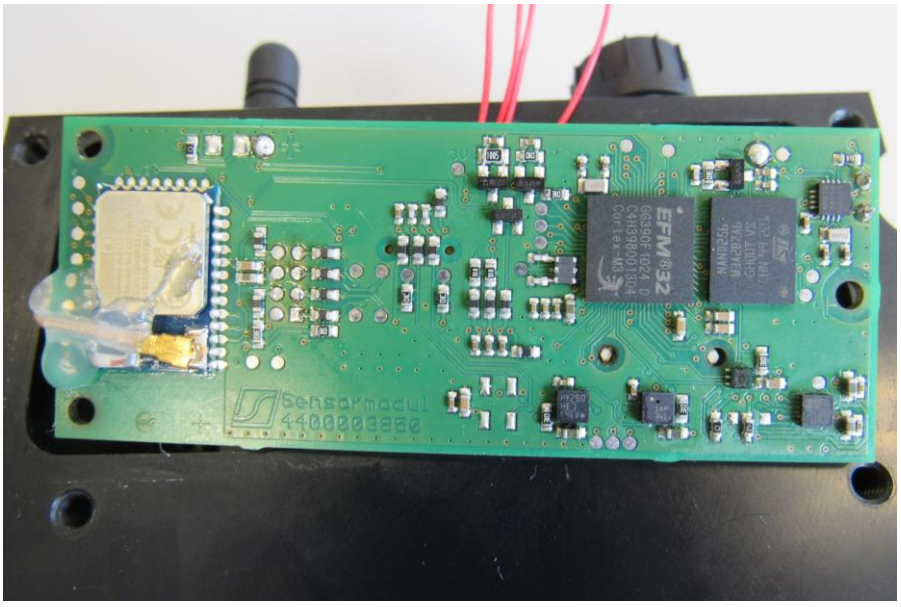

EUT FRONT

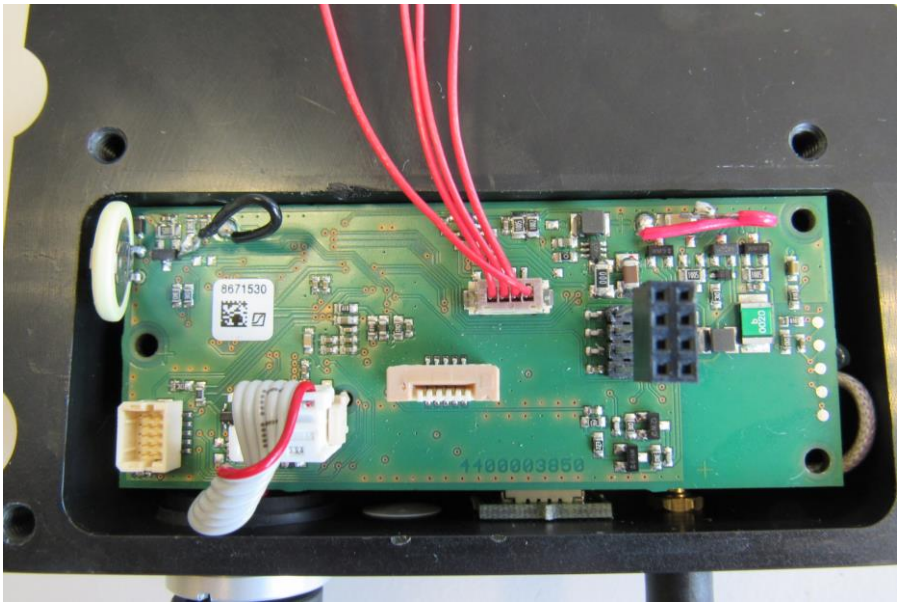

1.2 Photos – Equipment internal

EUT OPEN


EUT BATTERY


EUT PCB


EUT PCB WITH RADIO MODULE TOP


EUT PCB WITH RADIO MODULE BOTTOM


1.3 Photos – Test setup

TEST SETUP - RADIATED EMISSIONS


1.4 Supporting Equipment Used During Testing

Product Type*	Device	Manufacturer	Model No.	Comments
None				

***Note:** Use the following abbreviations:

AE : Auxiliary/Associated Equipment, or

SIM : Simulator (Not Subjected to Test)

CABL : Connecting cables

1.5 Test Modes

Mode #	Description	
Transmit	General conditions:	EUT powered by fully charged battery
	Radio conditions:	Mode = standalone transmit Spreading = Hopping stopped (single hopping channel) Modulation = GFSK Data rate = 1 Mbps Bandwidth = 2 MHz Duty cycle = 100 % Power level = Maximum
Receive	General conditions:	EUT powered by fully charged battery
	Radio conditions:	Mode = standalone receive (scan mode) Spreading = On Modulation = GFSK

1.6 Test Equipment Used During Testing

Measurement Software			
Description	Manufacturer	Name	Version
EMC Test Software	Dare Instruments	Radimation	2014.1.15

Occupied Bandwidth					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	EF00312	2015-02	2016-02

Radiated spurious emissions					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Semi-anechoic chamber	Frankonia	AC 1	EF00062	-	-
Spectrum Analyzer	R&S	FSIQ26	EF00242	2015-04	2016-04
Biconical Antenna	R&S	HK 116	EF00012	2013-02	2016-02
LPD Antenna	R&S	HL 223	EF00187	2014-03	2017-03
Horn antenna	Schwarzbeck	BBHA 9120D	EF00018	2013-09	2016-09

1.7 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) = Net field strength (dBµV/m)

Net:

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

Limit:

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

Limit (dBµV/m) = 20*log (µV/m)

Margin:

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

Example only:

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

2 Result Summary

FCC 47 CFR Part 15C, IC RSS-210				
Product Specific Standard Section	**Requirement – Test**	**Reference Method**	**Result**	**Remarks**
RSS-Gen 6.6	Occupied Bandwidth	RSS-Gen 6.6	N/R	Informational only
FCC § 15.247(a)(2) IC RSS-210 § A8.2	6dB Bandwidth	KDB Publication No. 558074	PASS	See Test Report for "BLE112-A" under FCC-ID QOQBLE112
FCC § 15.247(b)(3) IC RSS-210 § A8.4	Maximum peak conducted power	KDB Publication No. 558074	PASS	See Test Report for "BLE112-A" under FCC-ID QOQBLE112
FCC § 15.247(e) IC RSS-210 § A8.2	Power spectral density	KDB Publication No. 558074	PASS	See Test Report for "BLE112-A" under FCC-ID QOQBLE112
47 CFR 15.207 RSS-Gen 8.8	AC power line conducted emissions	KDB Publication No. 558074 / ANSI C63.4	N/R	EUT exclusively battery powered
FCC § 15.247(d) IC RSS-210 § A8.5	Band edge compliance	KDB Publication No. 558074	PASS	See Test Report for "BLE112-A" under FCC-ID QOQBLE112
FCC § 15.247(d) IC RSS-210 § A8.5	Conducted spurious emissions	KDB Publication No. 558074	PASS	See Test Report for "BLE112-A" under FCC-ID QOQBLE112
FCC § 15.247(d) FCC § 15.209 IC RSS-210 A8.5 IC RSS-Gen 6.13	Transmitter radiated spurious emissions	KDB Publication No. 558074 / ANSI C 63.4	PASS	
IC RSS-Gen 7.1	Receiver radiated spurious emissions	ANSI C 63.4	PASS	
Remarks:				

3 Test Conditions and Results

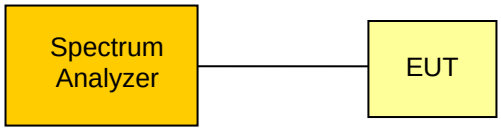
3.1 Test Conditions and Results – Occupied Bandwidth

Occupied Bandwidth acc. to IC RSS-Gen	**Verdict: PASS**
Test according to measurement reference	Reference Method
	RSS-Gen 6.6
Test frequency range	Tested frequencies
	F_{LOW} / F_{MID} / F_{HIGH}

Limits

None (Informational only)

Test setup



Test procedure

1. EUT set to test mode (Communication tester is used if needed)
2. Span set to at least twice the emission spectrum
3. Resolution bandwidth set to 1 % of span
4. Occupied Bandwidth (99 %) measurement with spectrum analyzer built in measurement function

Test results

Channel	Frequency [MHz]	Mode	Occupied Bandwidth [kHz]
F_{LOW}	2402	Transmit	1064
F_{MID}	2442	Transmit	1064
F_{HIGH}	2480	Transmit	1070

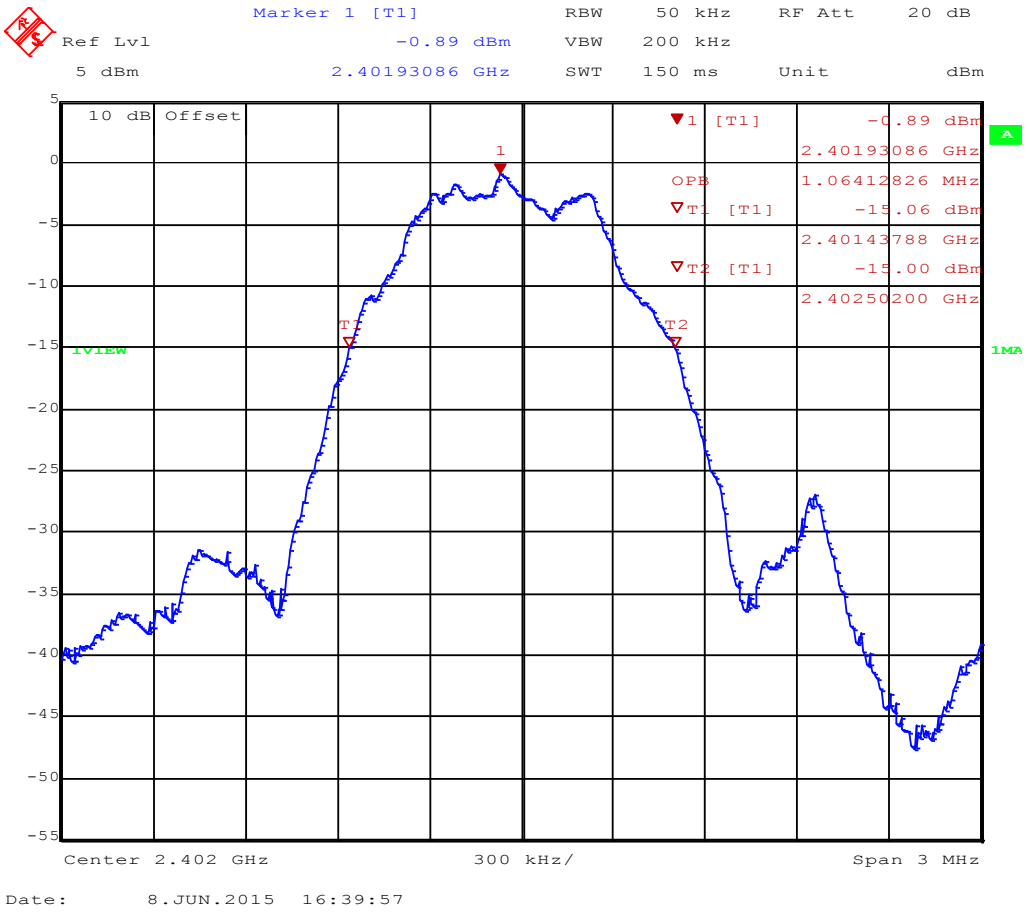
Comments:

Occupied Bandwidth – F_{LOW}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	sensor module
Model:	MONI LOG sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Burkhard Pudell
Test Conditions:	Tnom / Vnom
Mode:	Tx, BT-BLE, CH: 0, 2402 MHz, GFSK
Test Date:	2015-06-08
Verdict:	NONE (INFORMATION ONLY)
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	OBW= 1.064 MHz

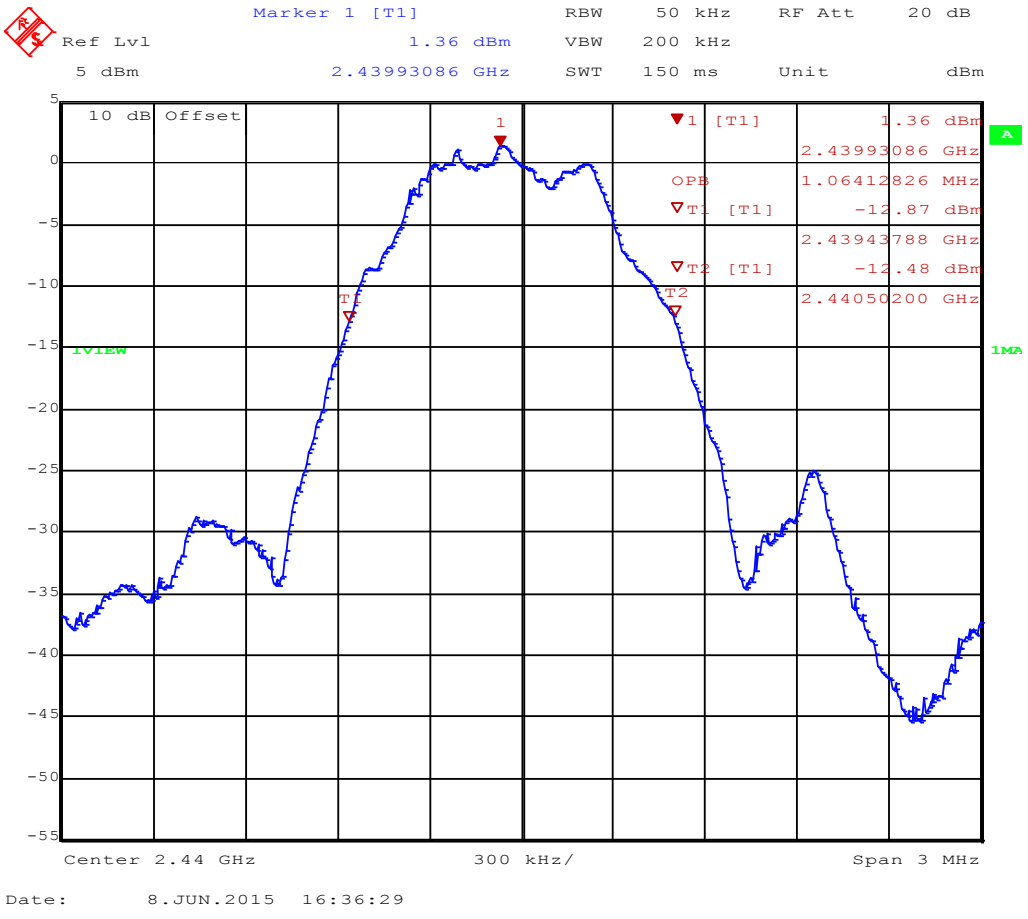


Occupied Bandwidth – F_{MID}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	sensor module
Model:	MONI LOG sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Burkhard Pudell
Test Conditions:	Tnom / Vnom
Mode:	Tx, BT-BLE, CH: 19, 2440 MHz, GFSK
Test Date:	2015-06-08
Verdict:	NONE (INFORMATION ONLY)
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	OBW= 1.064 MHz

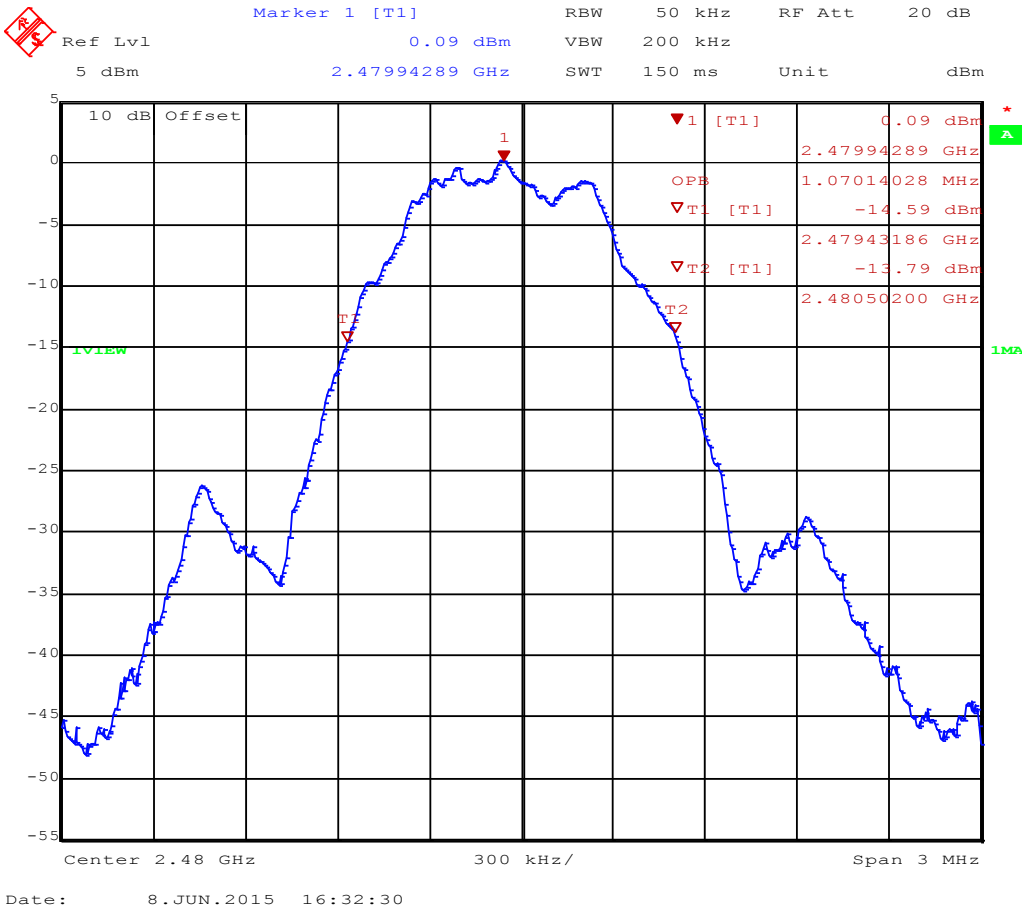


Occupied Bandwidth – F_{HIGH}

Occupied Bandwidth acc. to RSS-Gen

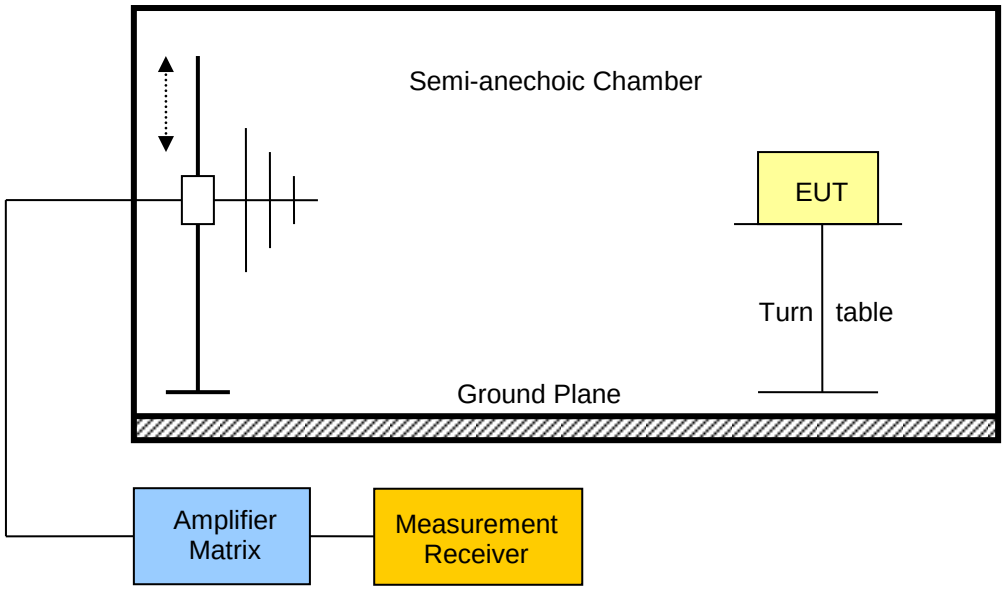
Project Number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	sensor module
Model:	MONI LOG sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Burkhard Pudell
Test Conditions:	Tnom / Vnom
Mode:	Tx, BT-BLE, CH: 39, 2480 MHz, GFSK
Test Date:	2015-06-08
Verdict:	NONE (INFORMATION ONLY)
Note 1:	A spectrum analyzer with an integrated 99% power bandwidth function is used
Note 2:	OBW= 1.070 MHz



3.3 Test Conditions and Results – Transmitter radiated emissions

Transmitter radiated emissions acc. to FCC 47 CFR 15.247 / IC RSS-210				**Verdict: PASS**
Test according referenced standards		Reference Method		
		FCC 15.247(d) / IC RSS-210 A8.5		
Test according to measurement reference		Reference Method		
		FCC KDB Publication No. 558074 / ANSI C63.4		
Test frequency range		Tested frequencies		
		30 MHz – 10th Harmonic		
Limits				
Frequency range [MHz]	Detector	Limit [µV/m]	Limit [dBµV/m]	Limit Distance [m]
30 – 88	Quasi-Peak	100	40	3
88 – 216	Quasi-Peak	150	43.5	3
216 – 960	Quasi-Peak	200	46	3
960 – 1000	Quasi-Peak	500	54	3
> 1000	Average	500	54	3
Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)). When average radiated emission measurements are specified, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.				
Test setup				



Test procedure
1. EUT set to test mode (Communication tester is used if needed) 2. Span it set according to measurement range 3. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz 4. Markers are set to peak emission levels within restricted bands

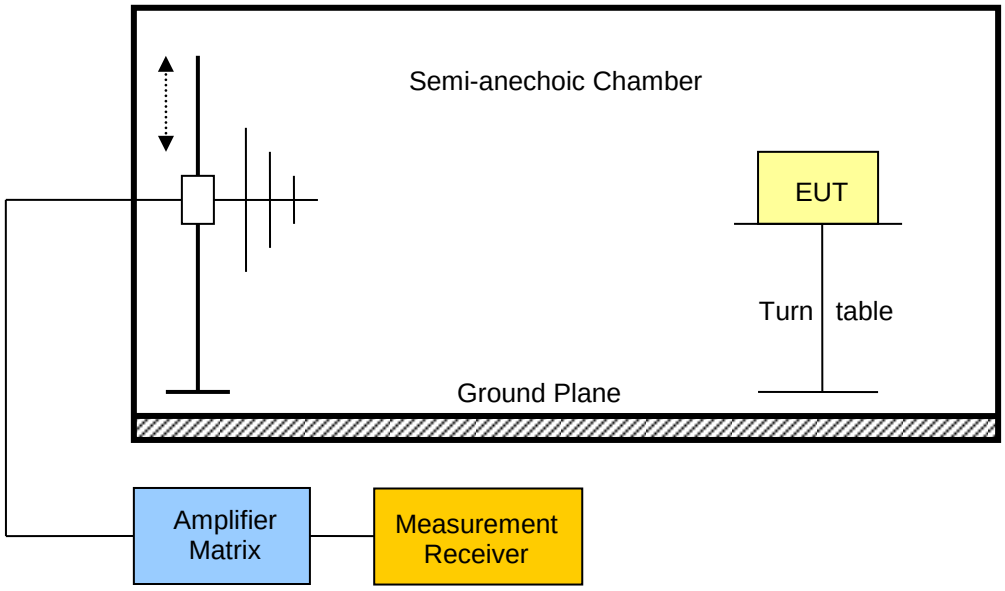
Test results

Channel	Frequency [MHz]	Mode	Emission [MHz]	Level [dbµV/m]	Det.	Pol.	Limit [dbµV/m]	Margin [dB]
0	2402	Transmit	2337	41.84	pk	ver	74.00	-32.16
0	2402	Transmit	2337	30.10	RMS	ver	54.00	-23.90
0	2402	Transmit	2338	41.04	pk	hor	74.00	-32.96
0	2402	Transmit	2338	29.90	RMS	hor	54.00	-24.10
0	2402	Transmit	2399	77.47	pk	ver	95.00	-17.53
0	2402	Transmit	2399	72.96	pk	hor	95.00	-22.04
0	2402	Transmit	4800	41.21	pk	ver	74.00	-32.79
0	2402	Transmit	4800	41.71	pk	hor	74.00	-32.29
19	2440	Transmit	4872	43.29	pk	hor	74.00	-30.71
19	2440	Transmit	4880	41.30	pk	ver	74.00	-32.70
39	2480	Transmit	2484	55.05	pk	ver	74.00	-18.95
39	2480	Transmit	2484	44.64	RMS	ver	54.00	-09.36
39	2480	Transmit	2484	53.34	pk	hor	74.00	-20.66
39	2480	Transmit	2484	42.26	RMS	hor	54.00	-11.74
39	2480	Transmit	4952	44.24	pk	ver	74.00	-29.76
39	2480	Transmit	4952	46.20	pk	hor	74.00	-27.80

Comments:

3.4 Test Conditions and Results – Receiver radiated emissions

Receiver radiated emissions acc. to IC RSS-210				**Verdict: PASS**
Test according referenced standards	Reference Method			
	IC RSS-210 A8.5			
Test according to measurement reference	Reference Method			
	ANSI C63.4			
Test frequency range	Tested frequencies			
	30 MHz – 5th Harmonic			
EUT test mode	Receive			
Limits				
Frequency range [MHz]	Detector	Limit [µV/m]	Limit [dBµV/m]	Limit Distance [m]
30 – 88	Quasi-Peak	100	40	3
88 – 216	Quasi-Peak	150	43.5	3
216 – 960	Quasi-Peak	200	46	3
960 – 1000	Quasi-Peak	500	54	3
> 1000	Average	500	54	3
Test setup				



Test procedure
1. EUT set to receive mode (Communication tester is used if needed) 2. Span it set according to measurement range 3. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz 4. Markers are set to peak emission levels

Test results

Channel	Frequency [MHz]	Emission [MHz]	Emission Level [dbµV/m]	Polarisation	Det.	Limit [dbµV/m]	Margin [dbµV/m]
19	2440	7376	51.24	ver	pk	53.98	-2.74 dB
19	2440	7824	51.19	hor	pk	53.98	-2.79 dB
19	2440	17832	49.76	ver	pk	53.98	-4.22 dB
19	2440	17795	49.41	hor	pk	53.98	-4.57 dB

Comments:

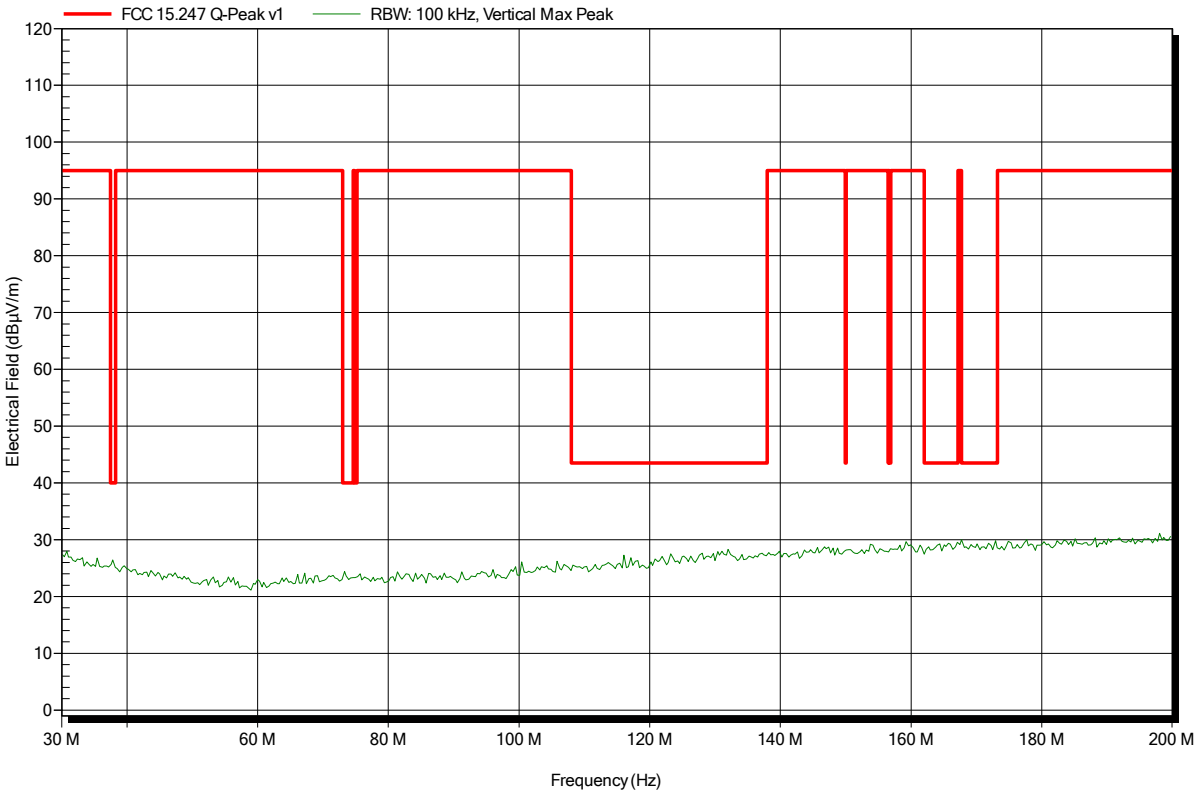
ANNEX A Transmitter radiated spurious emissions

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 39

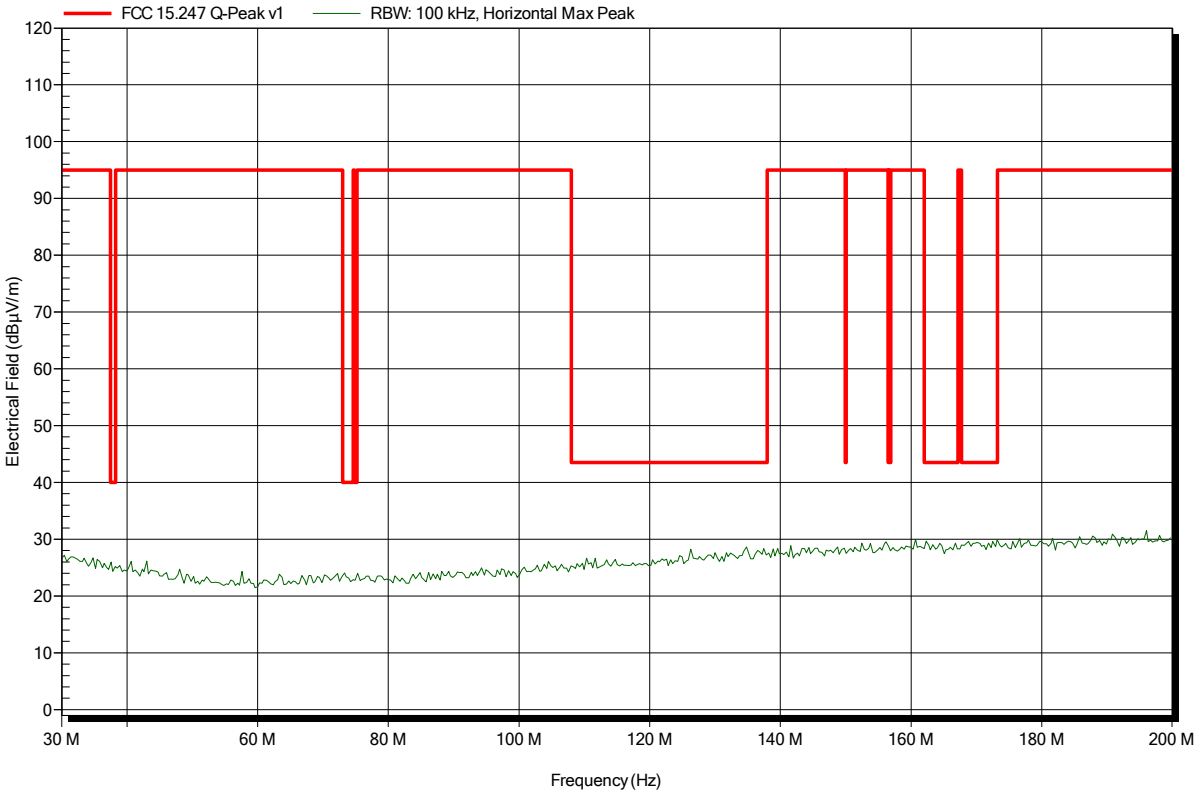


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 44

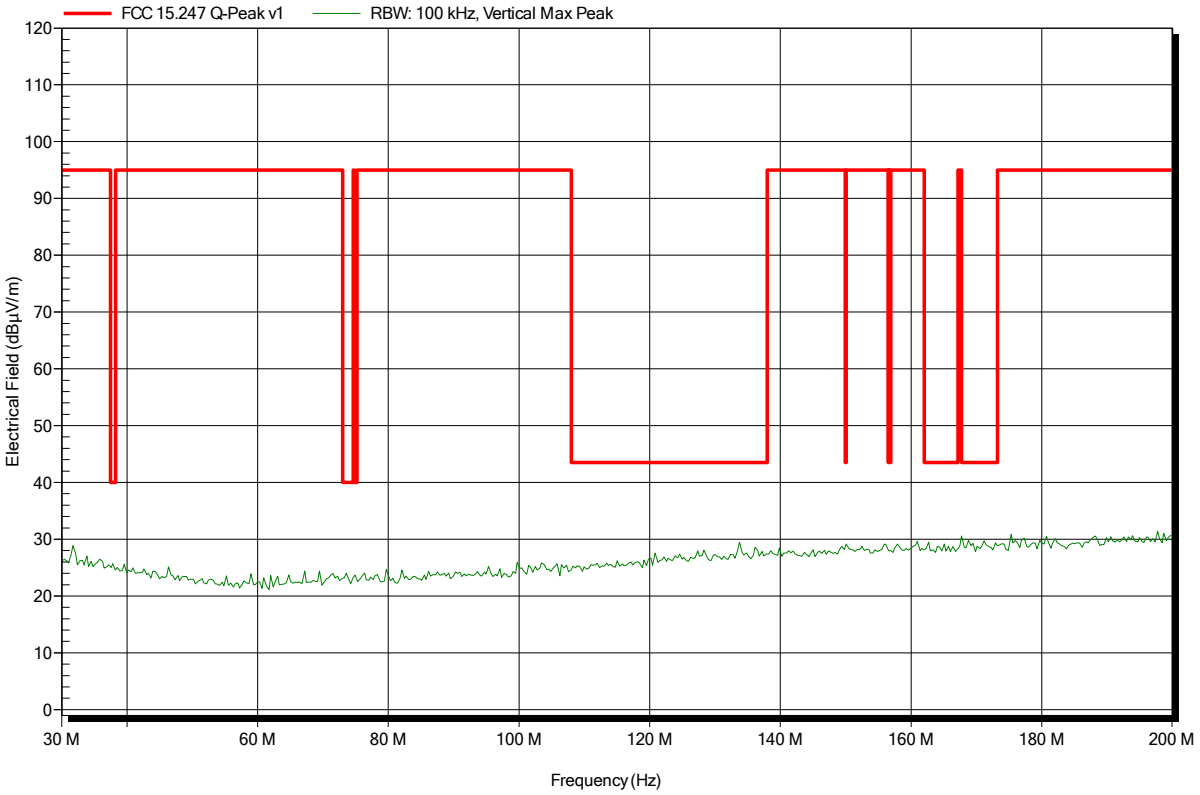


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 40

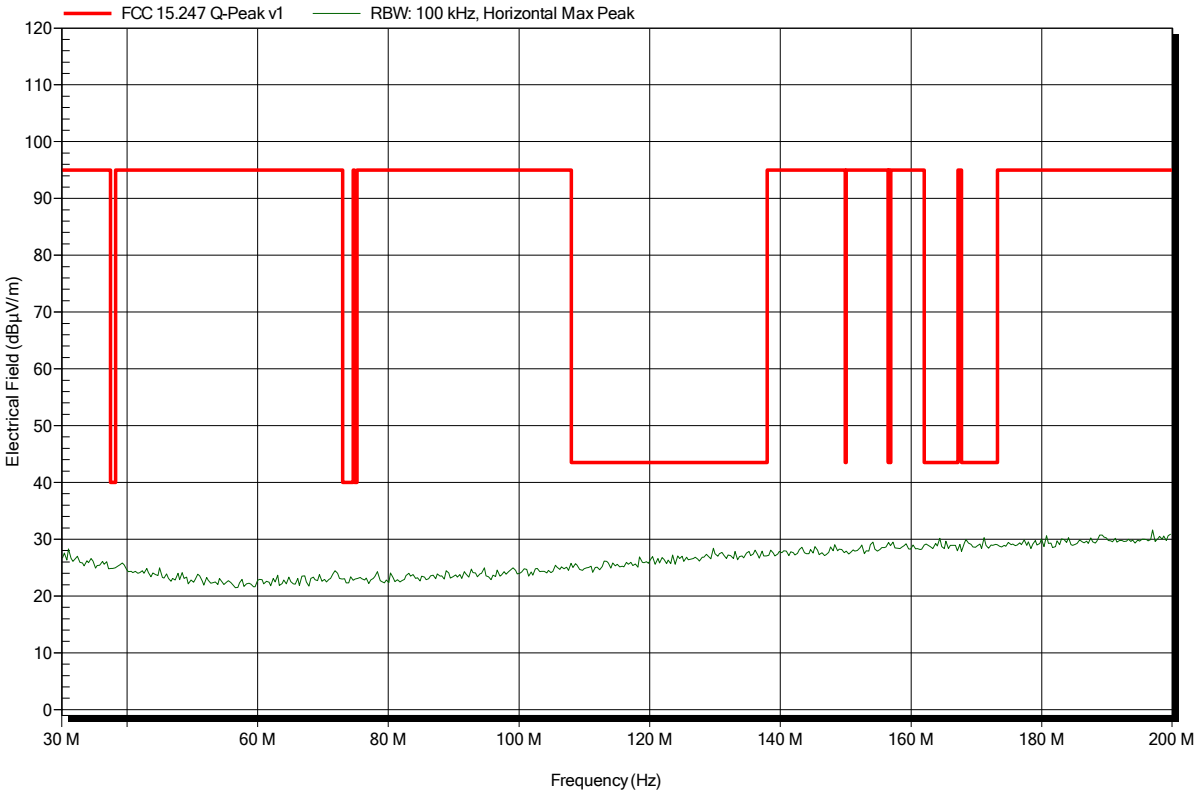


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 43

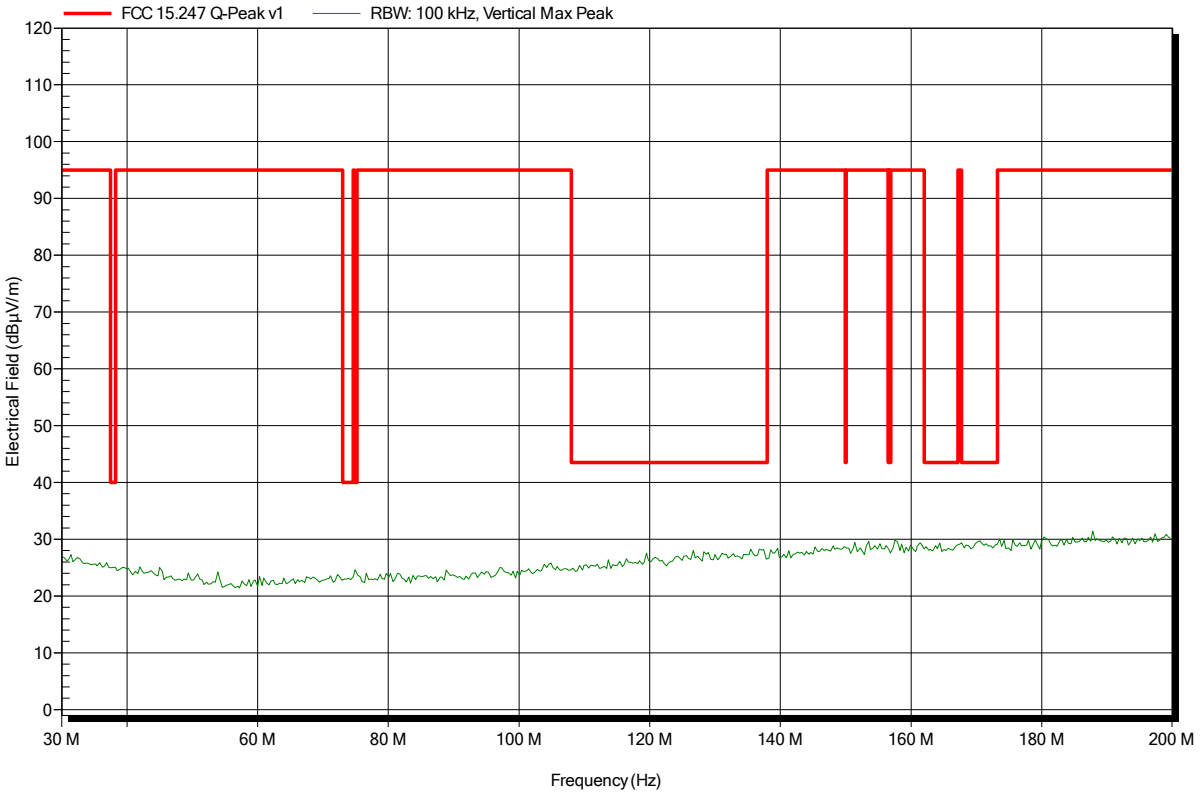


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 41

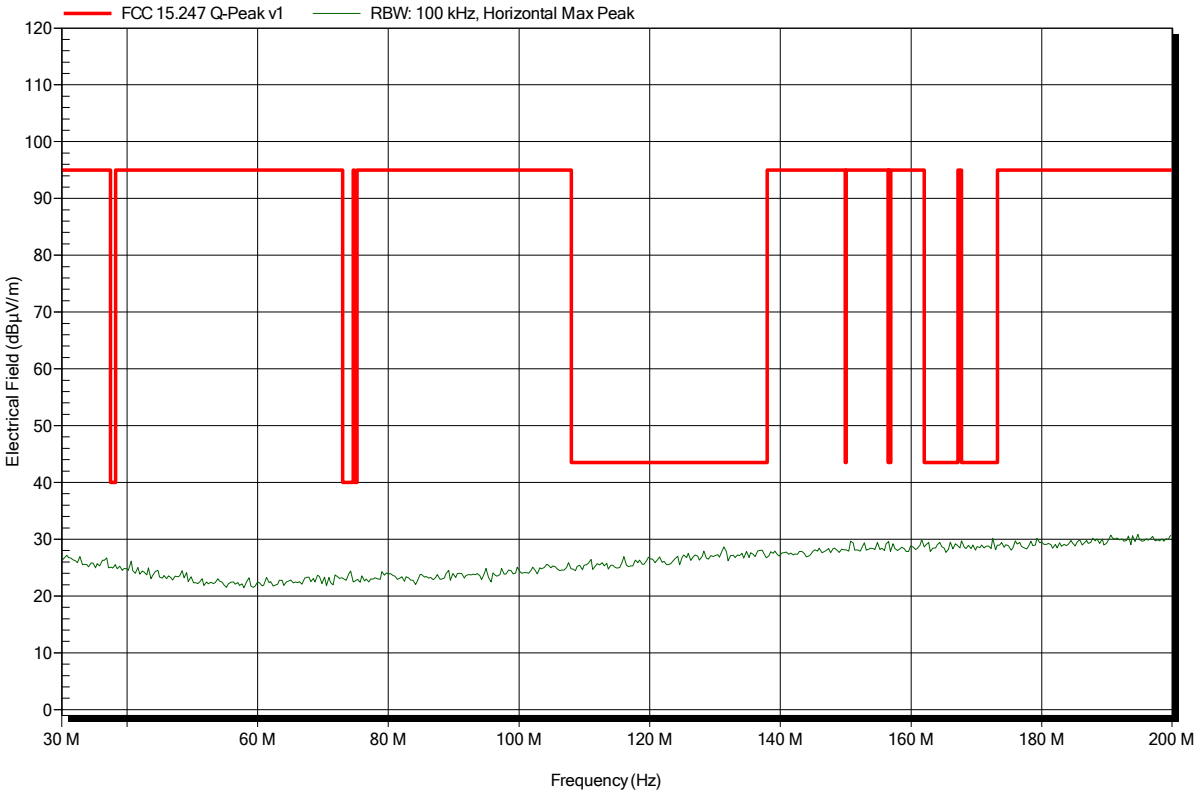


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 42

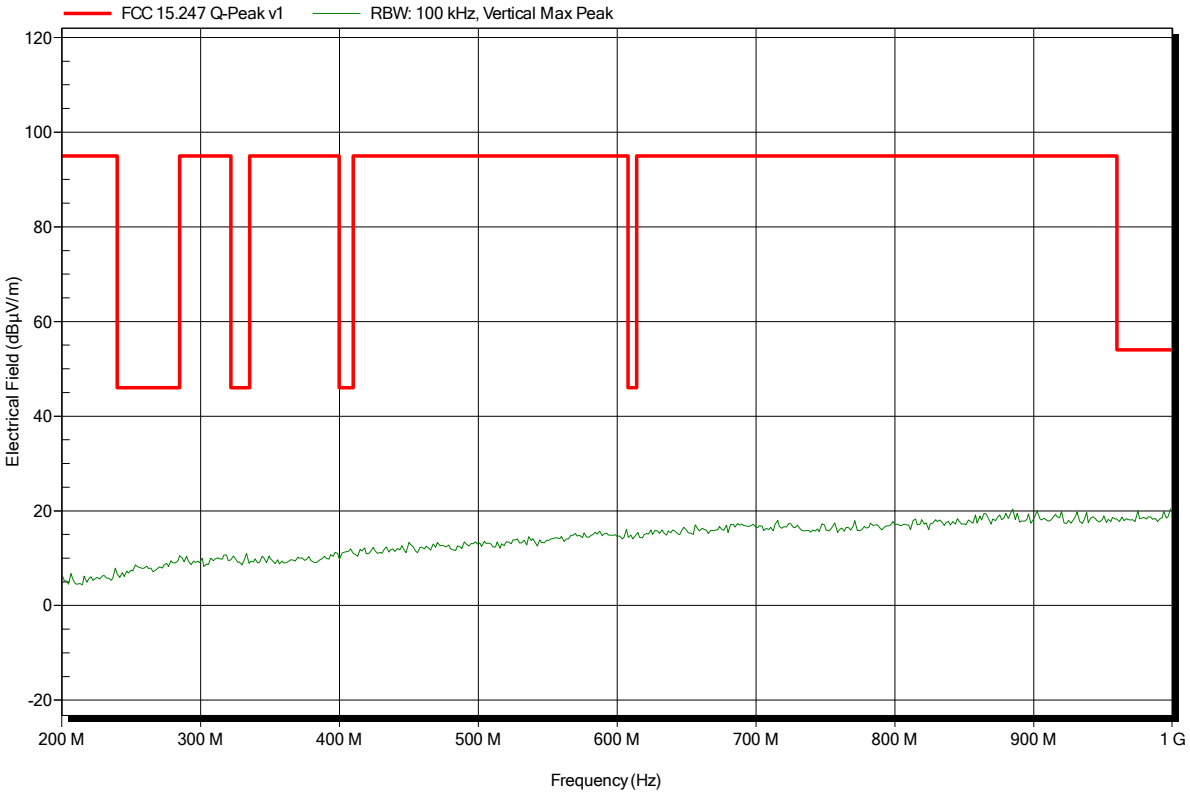


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 33

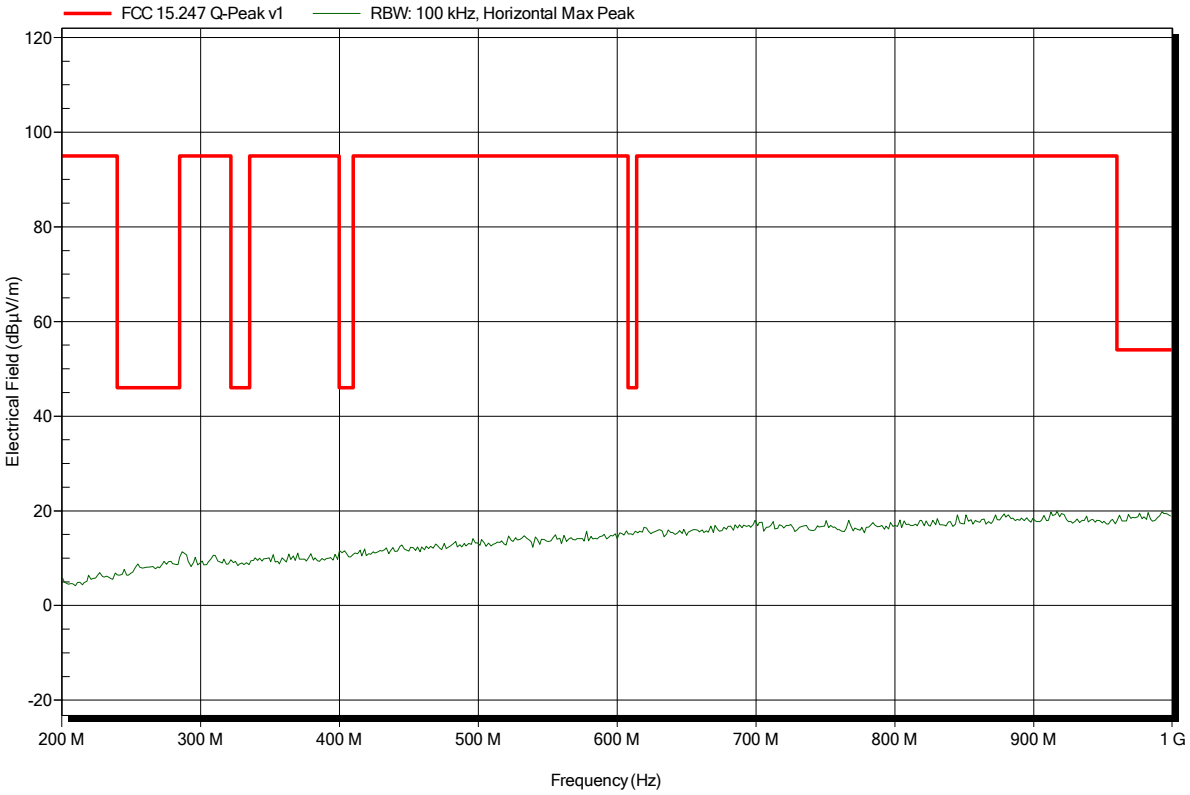


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 38

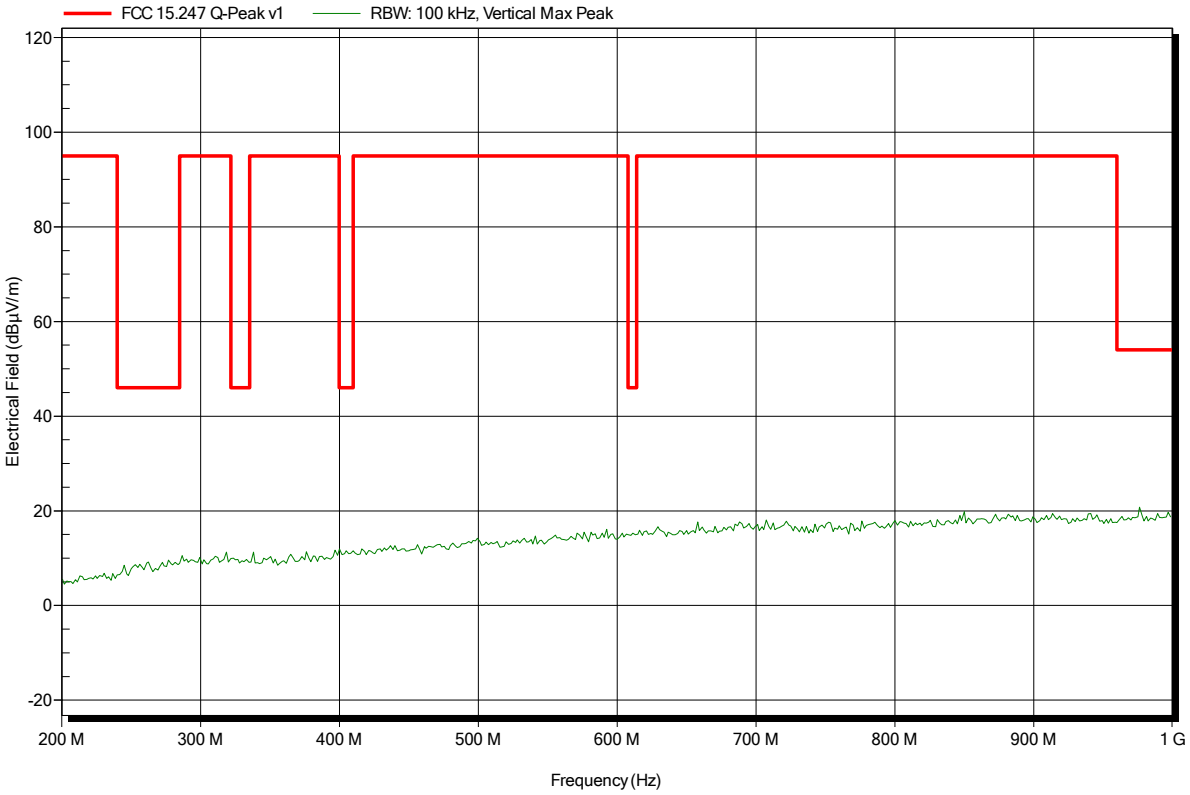


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 34

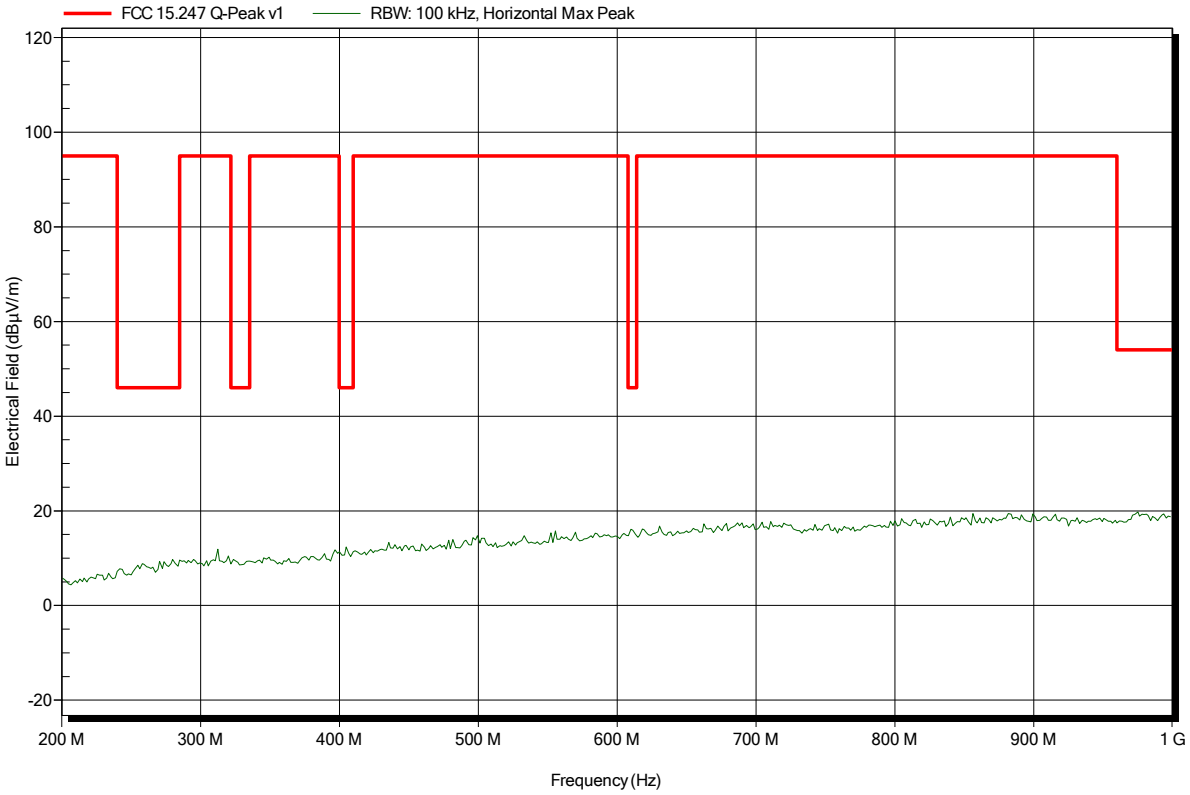


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 37

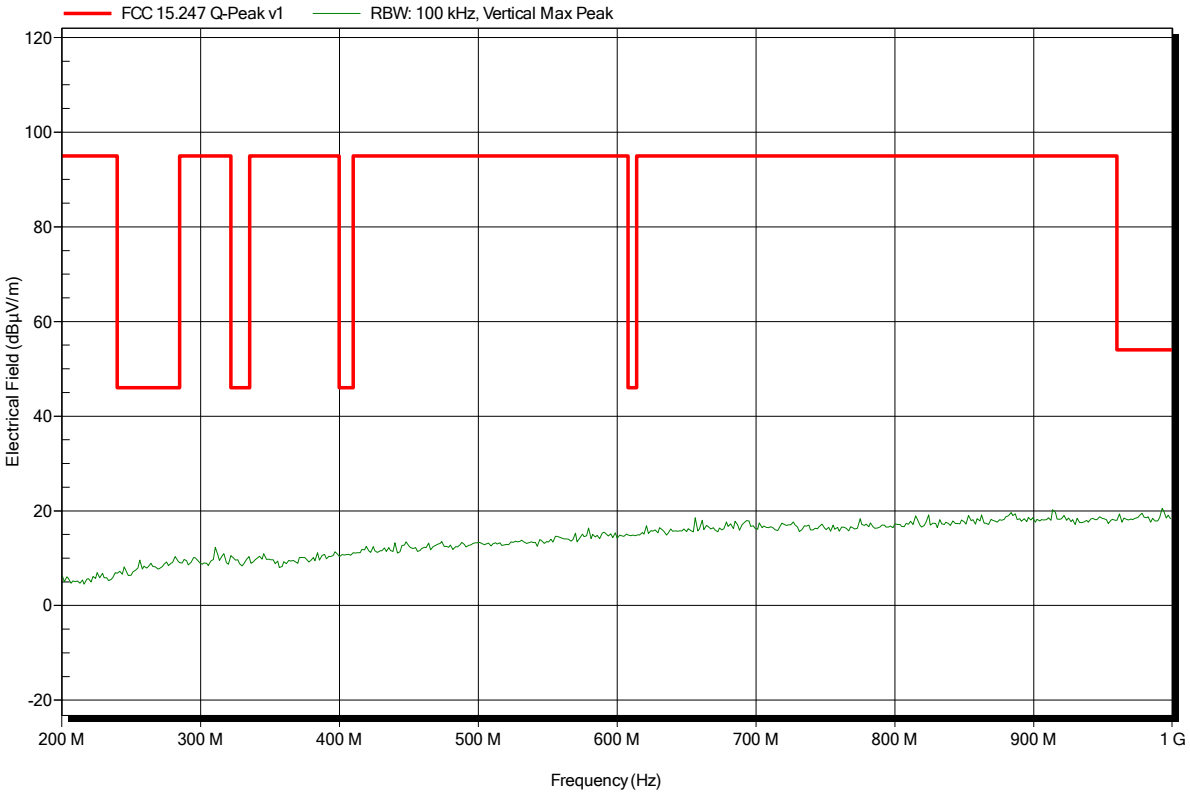


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 35

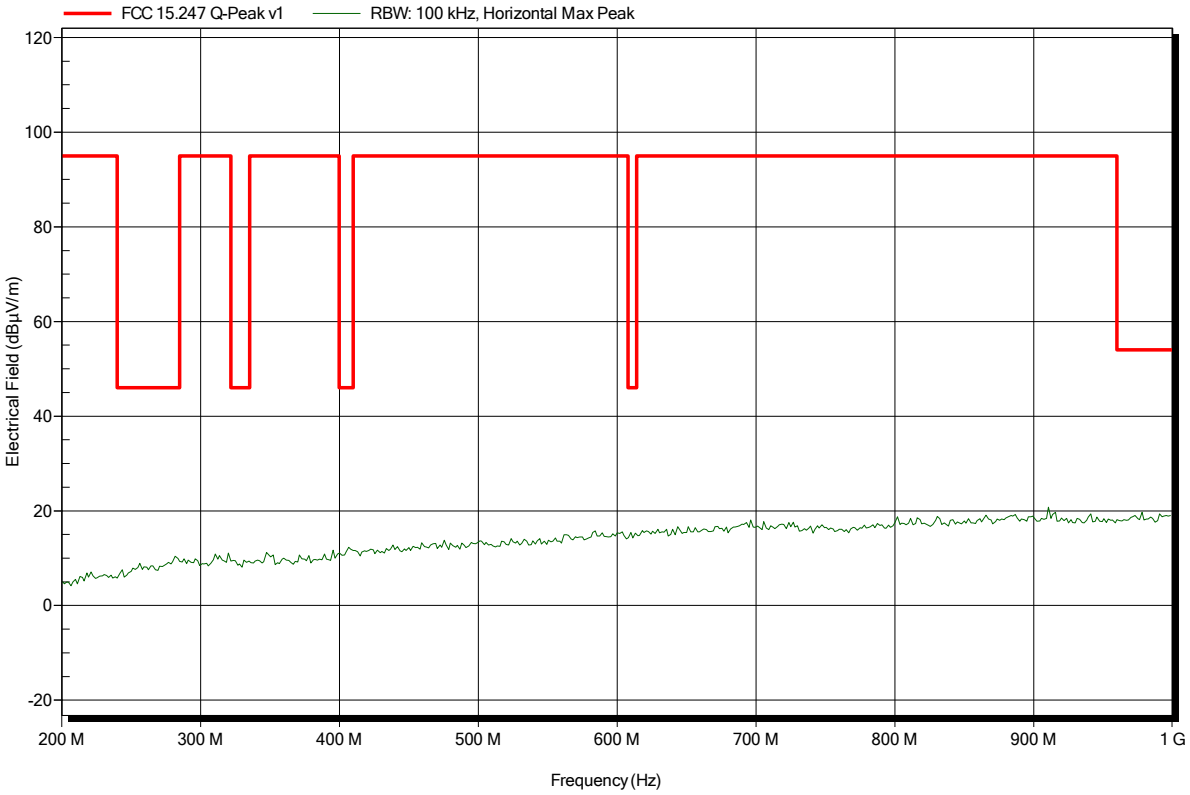


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 36

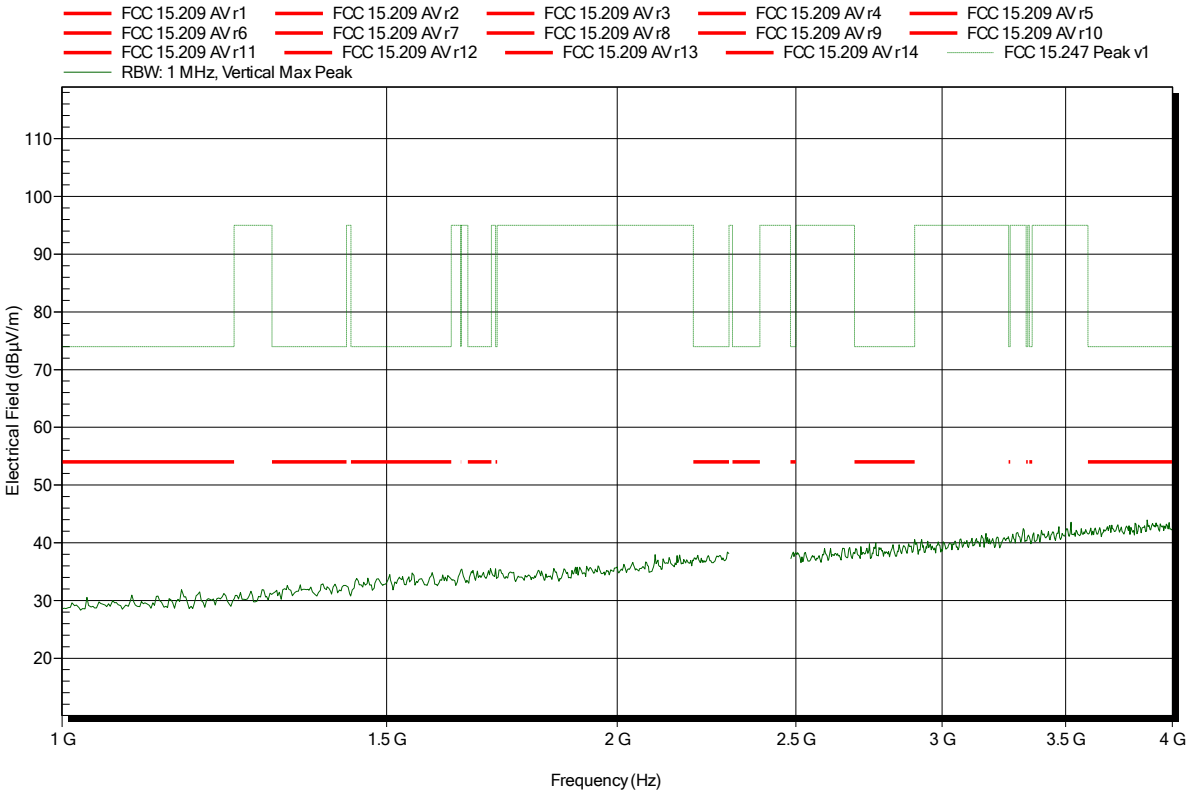


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 3

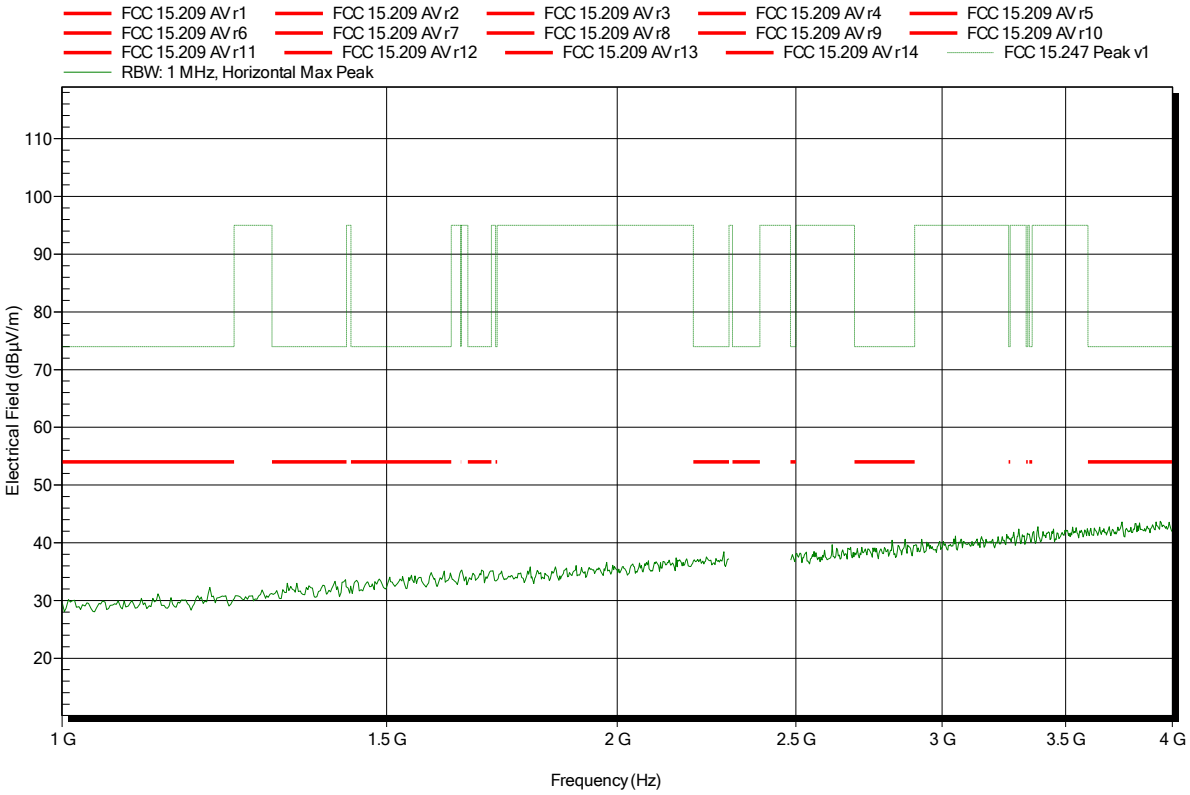


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 6

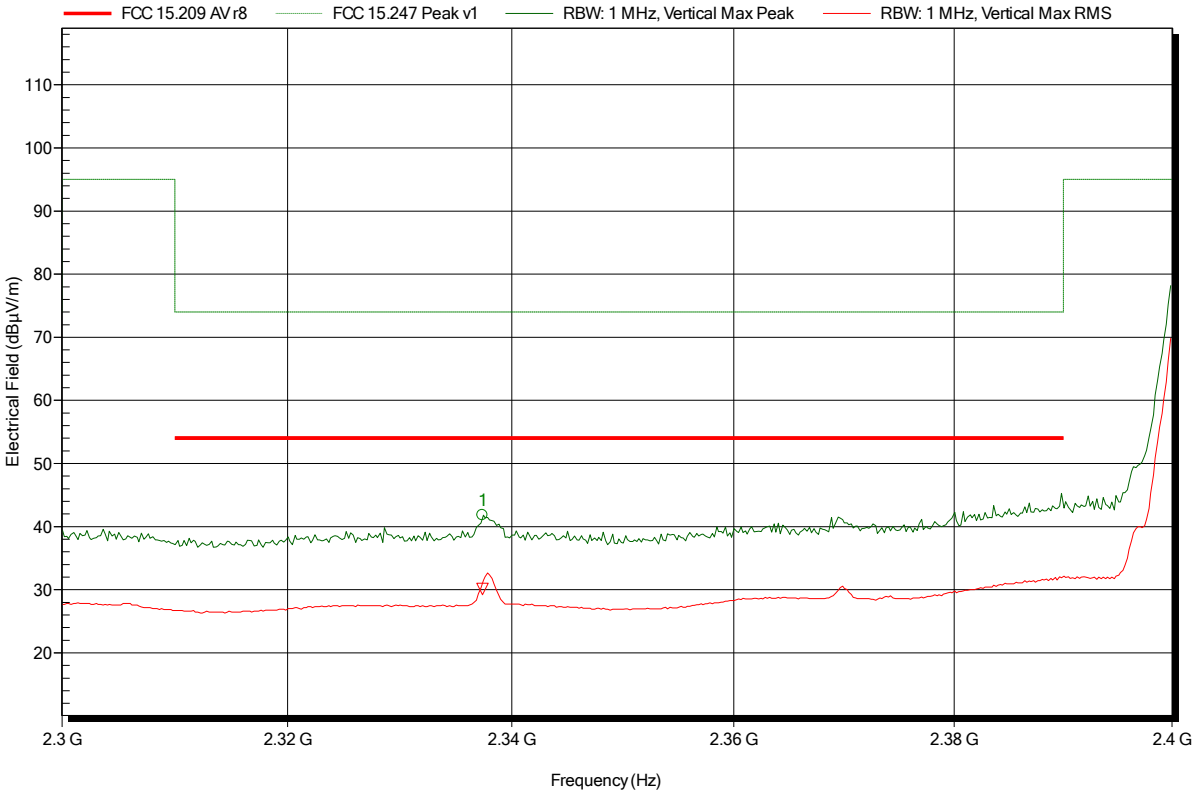


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical; lower bandedge

Index 2



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.337 GHz	41.84 dBµV/m	74 dBµV/m	-32.16 dB	Pass

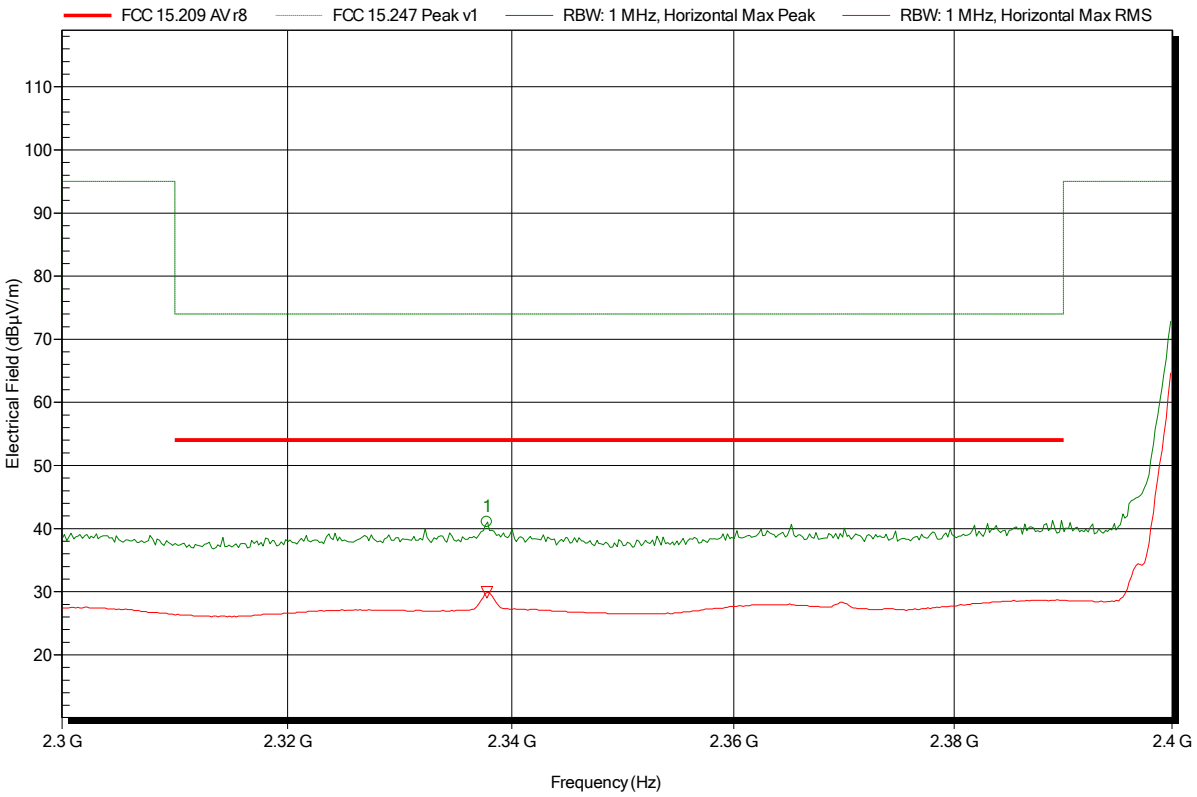
Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.337 GHz	30.1 dBµV/m	54 dBµV/m	-23.9 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical; lower bandedge

Index 4



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.338 GHz	41.04 dBµV/m	74 dBµV/m	-32.96 dB	Pass

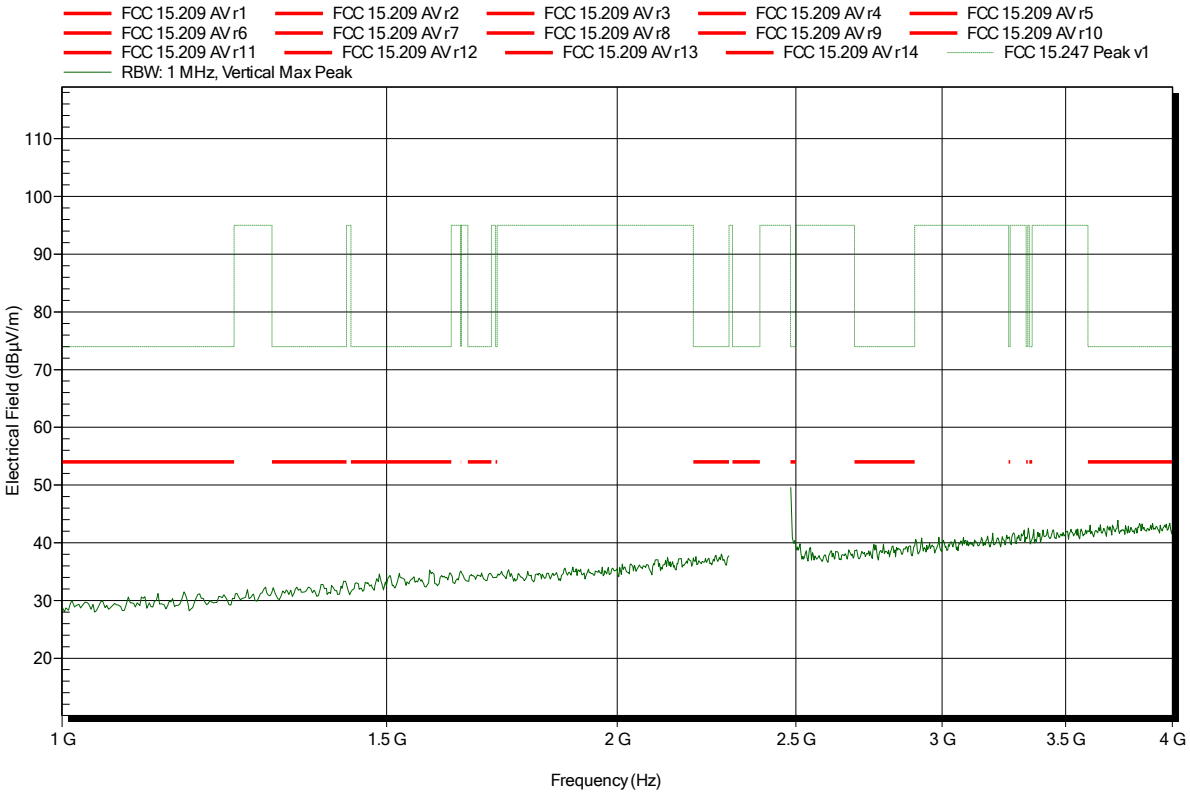
Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.338 GHz	29.9 dBµV/m	54 dBµV/m	-24.1 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 11

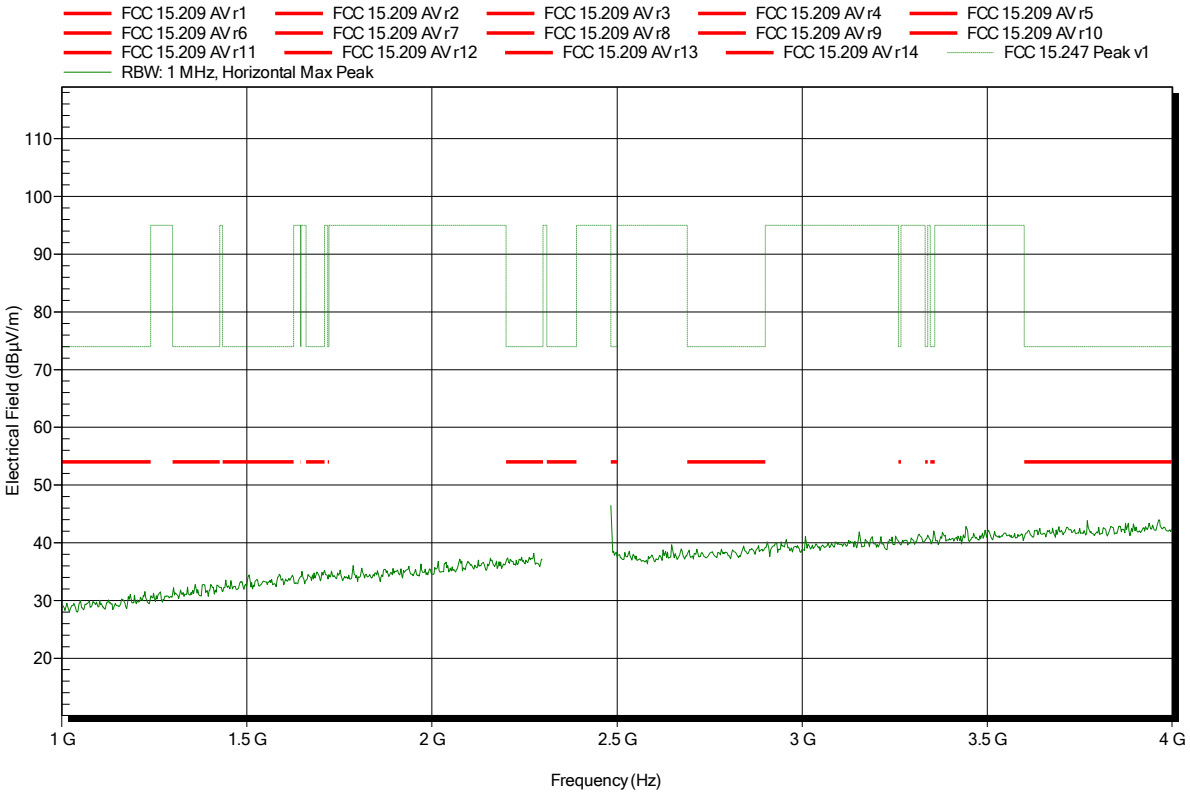


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 45

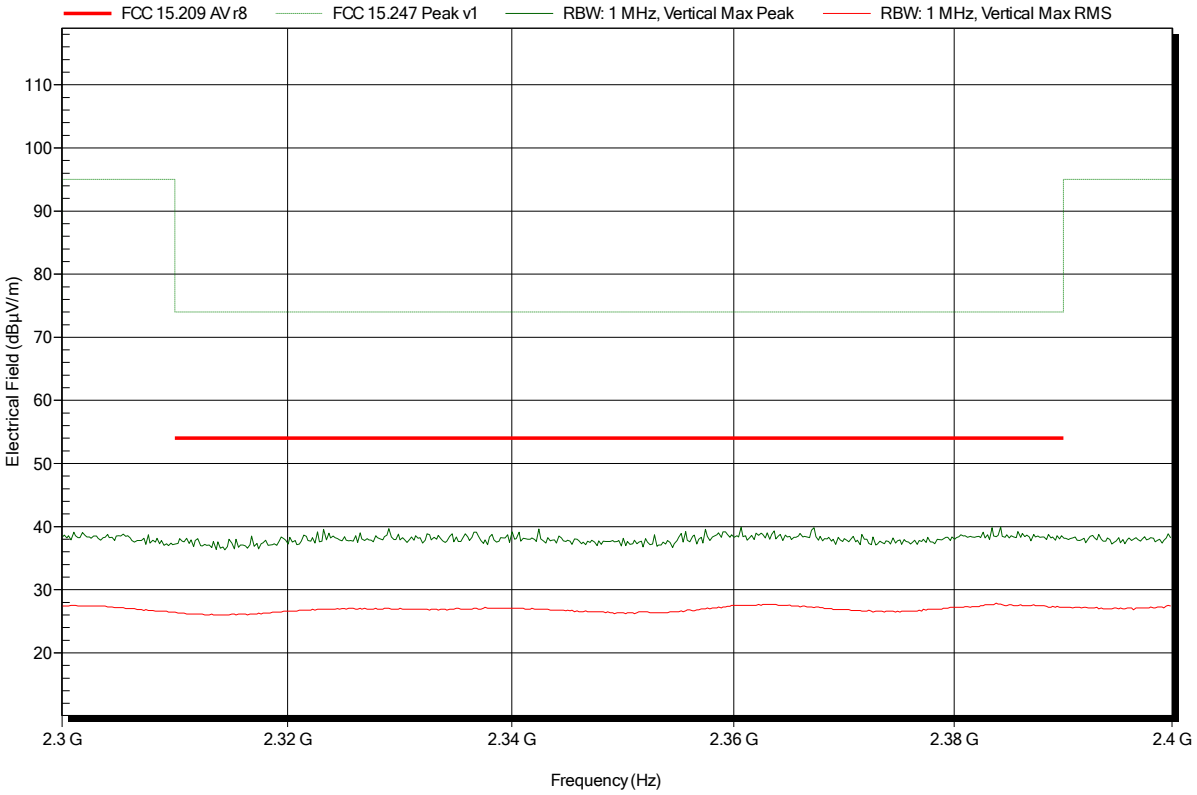


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical; lower bandedge

Index 9

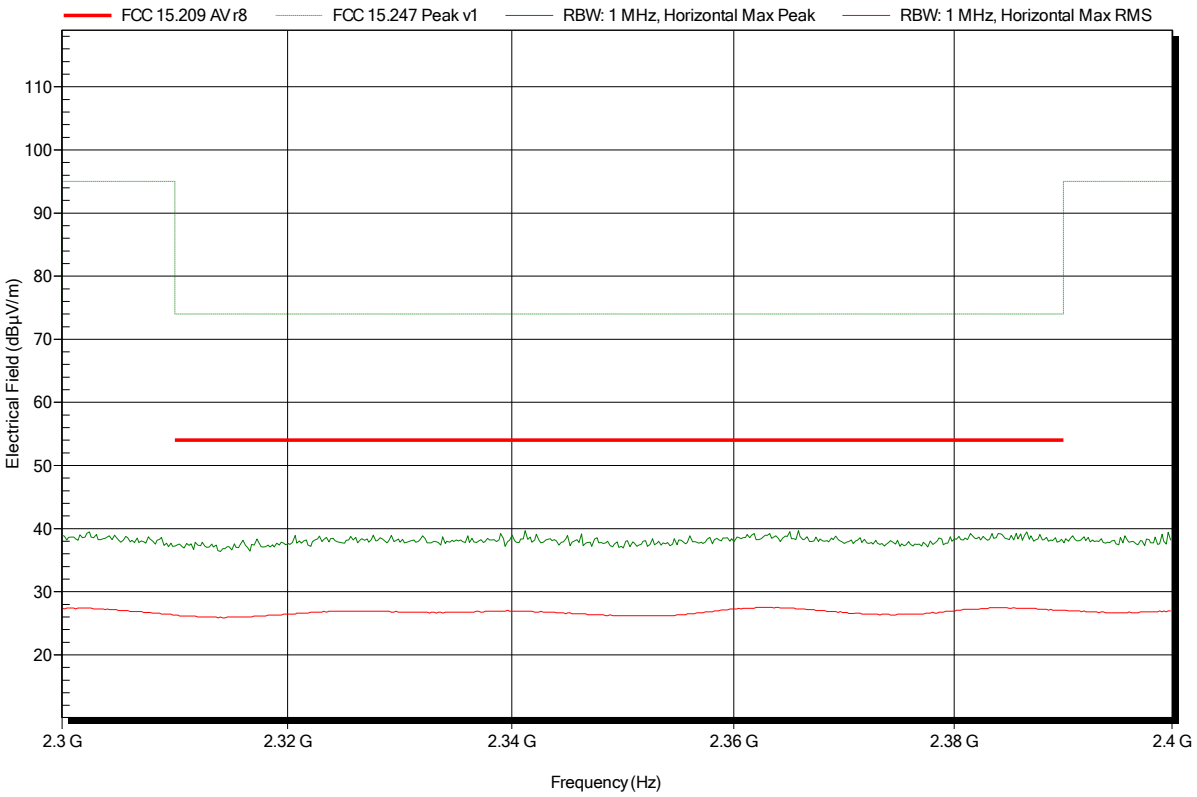


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical; lower bandedge

Index 12

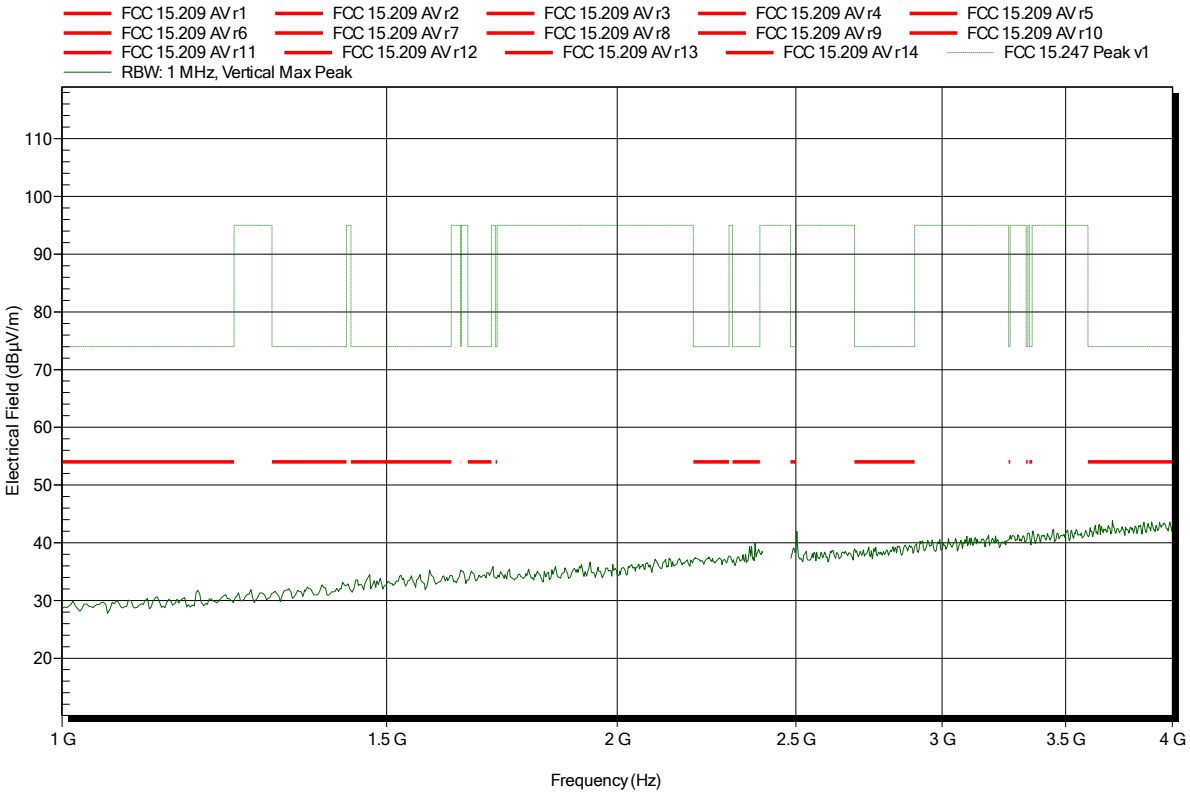


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 7

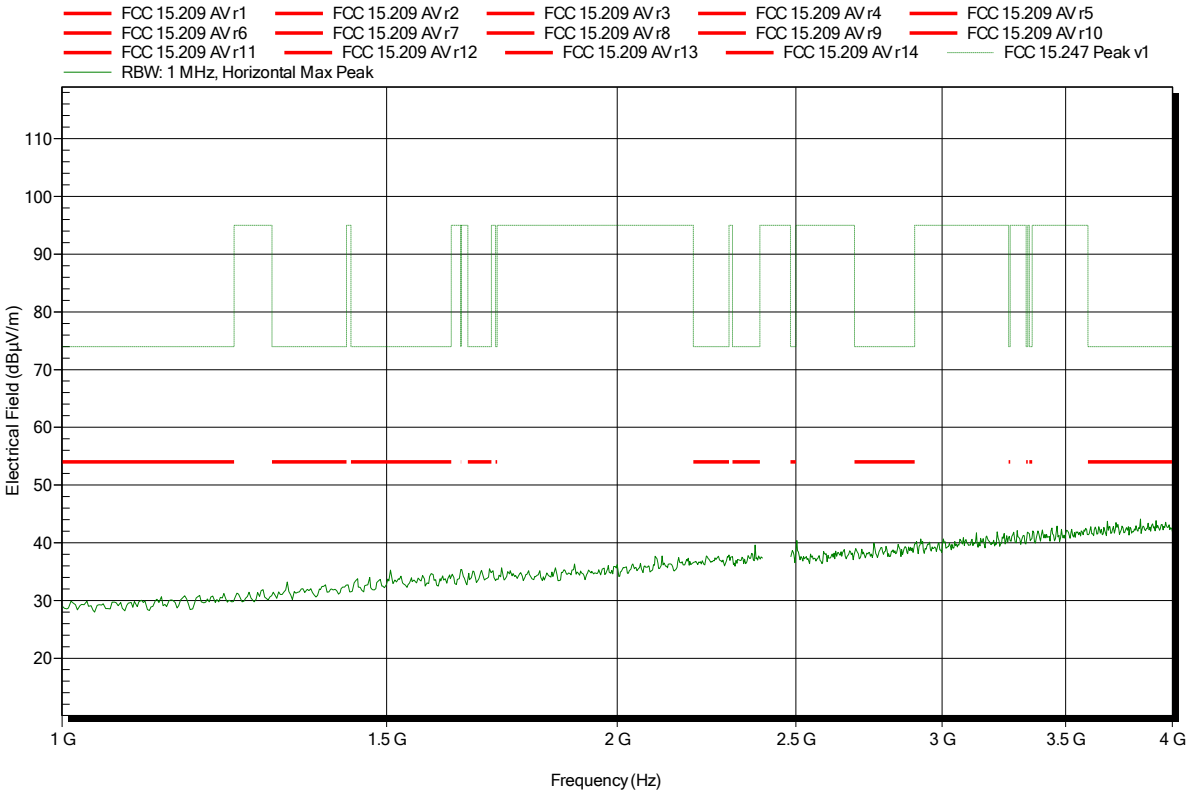


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 8

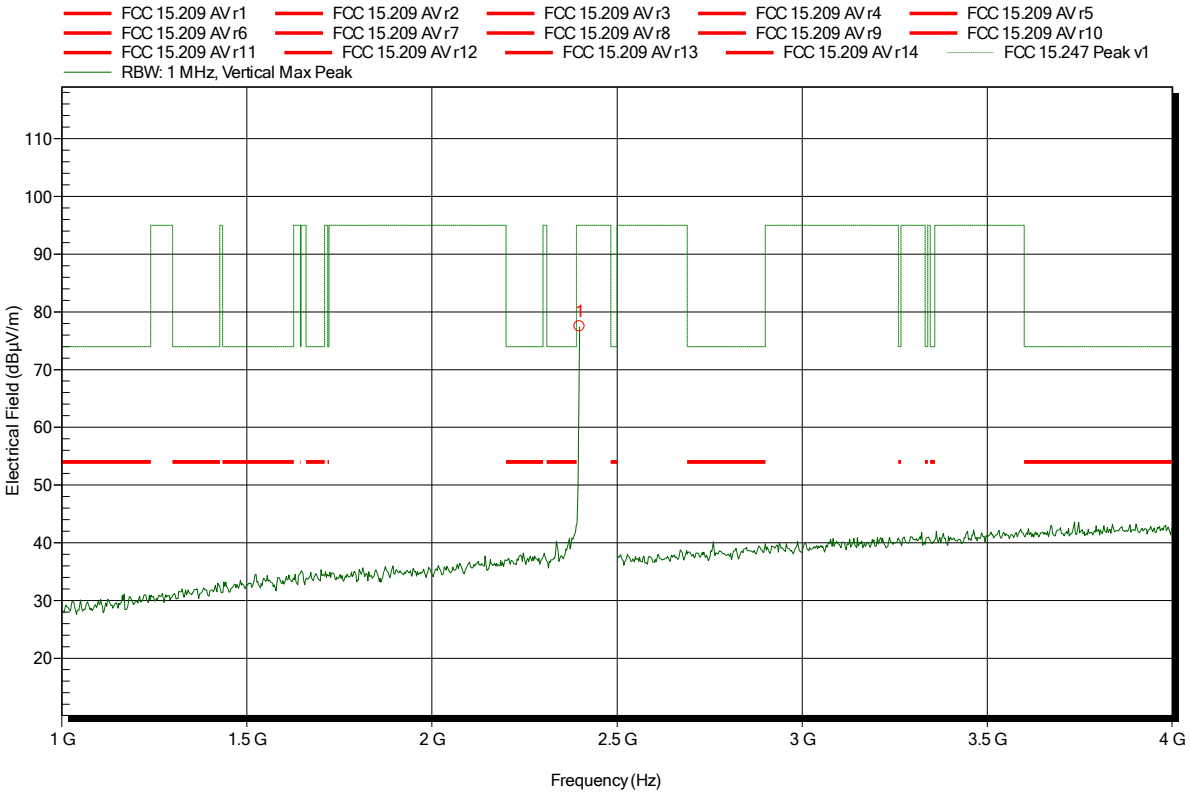


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 47



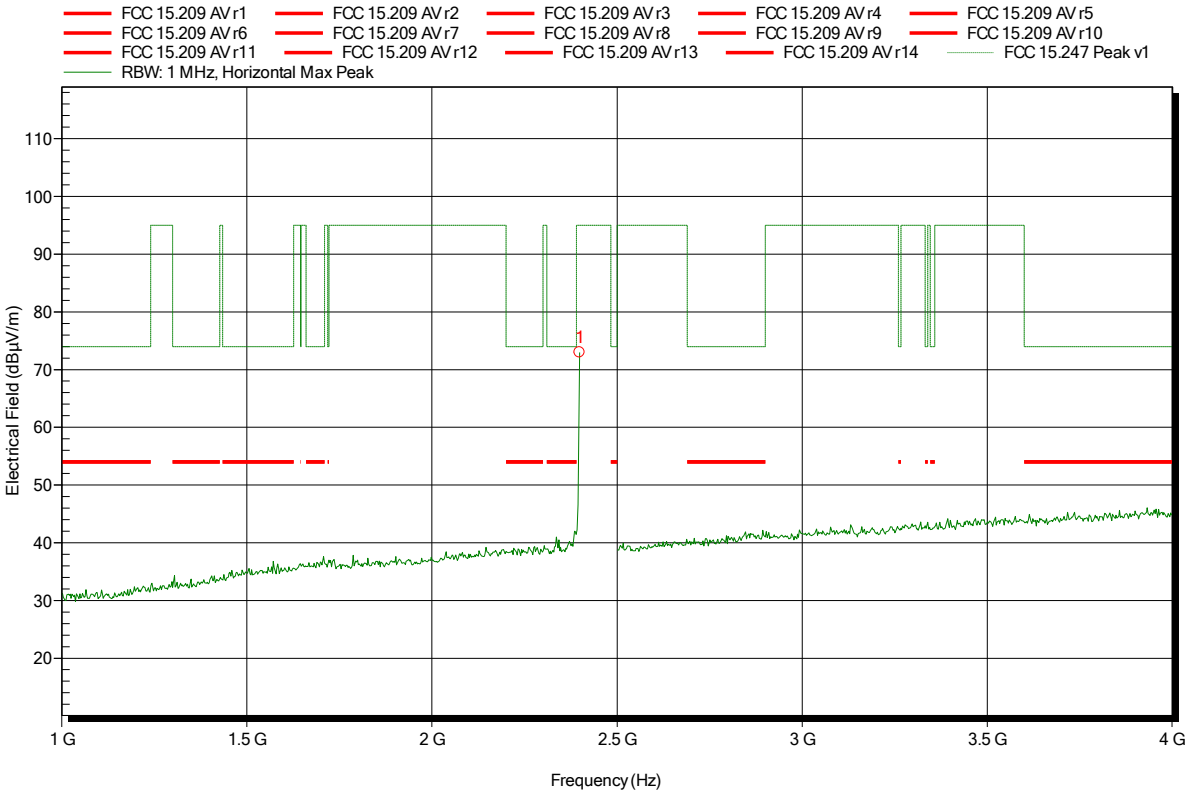
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.399 GHz	77.47 dBµV/m	95 dBµV/m	-17.53 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 48



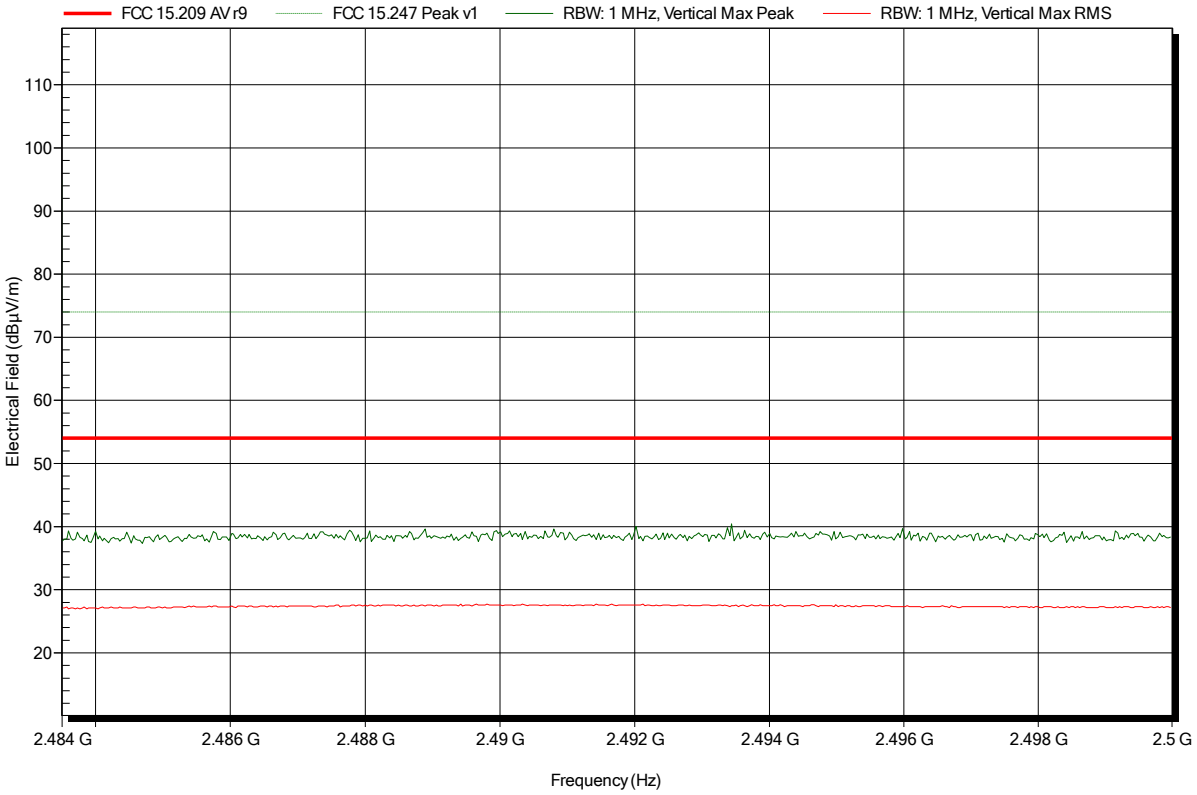
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.399 GHz	72.96 dBµV/m	95 dBµV/m	-22.04 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical; higher bandedge

Index 1

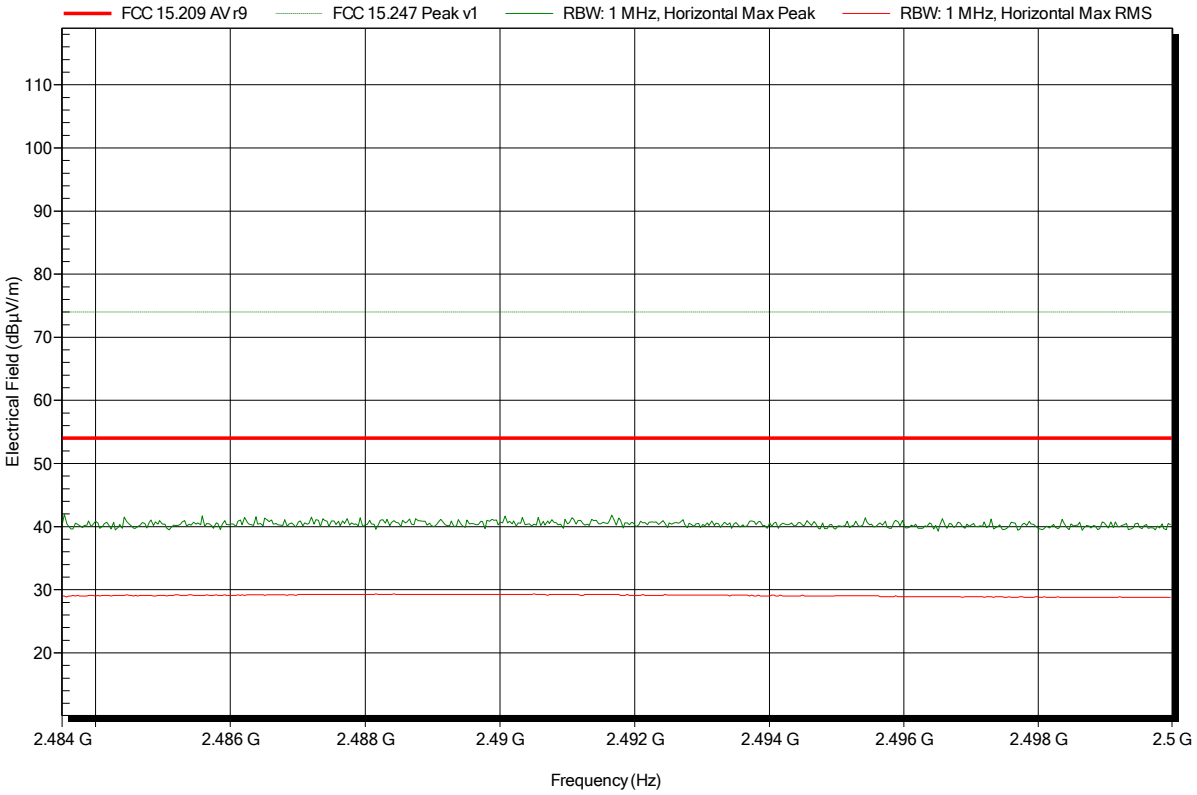


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical; higher bandedge

Index 5

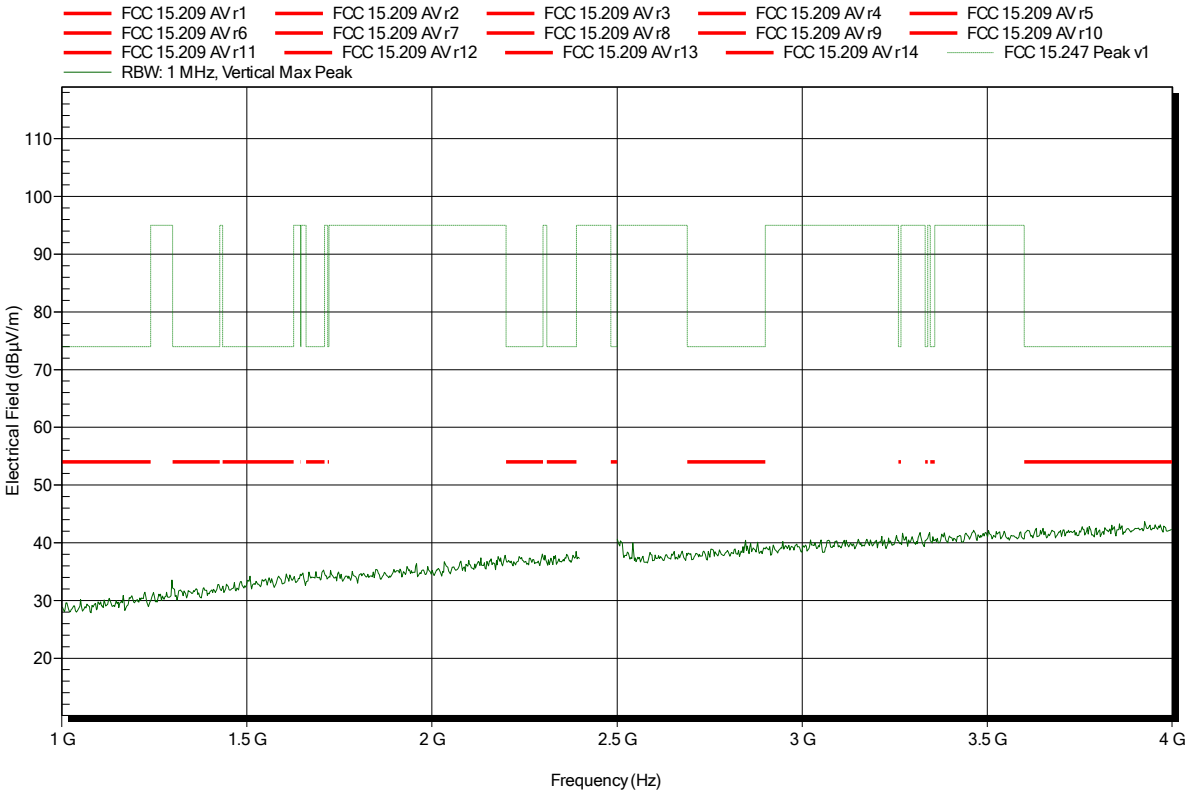


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-08
Note:	EUT vertical

Index 46

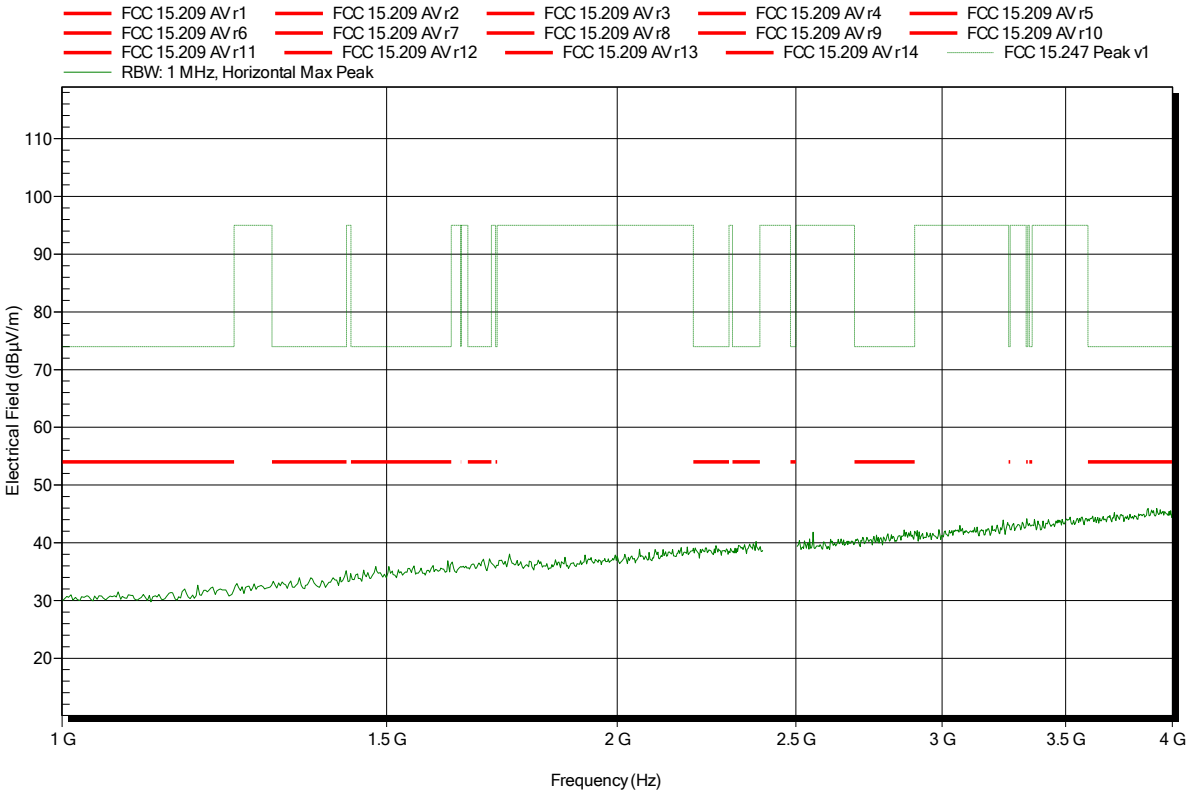


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 14

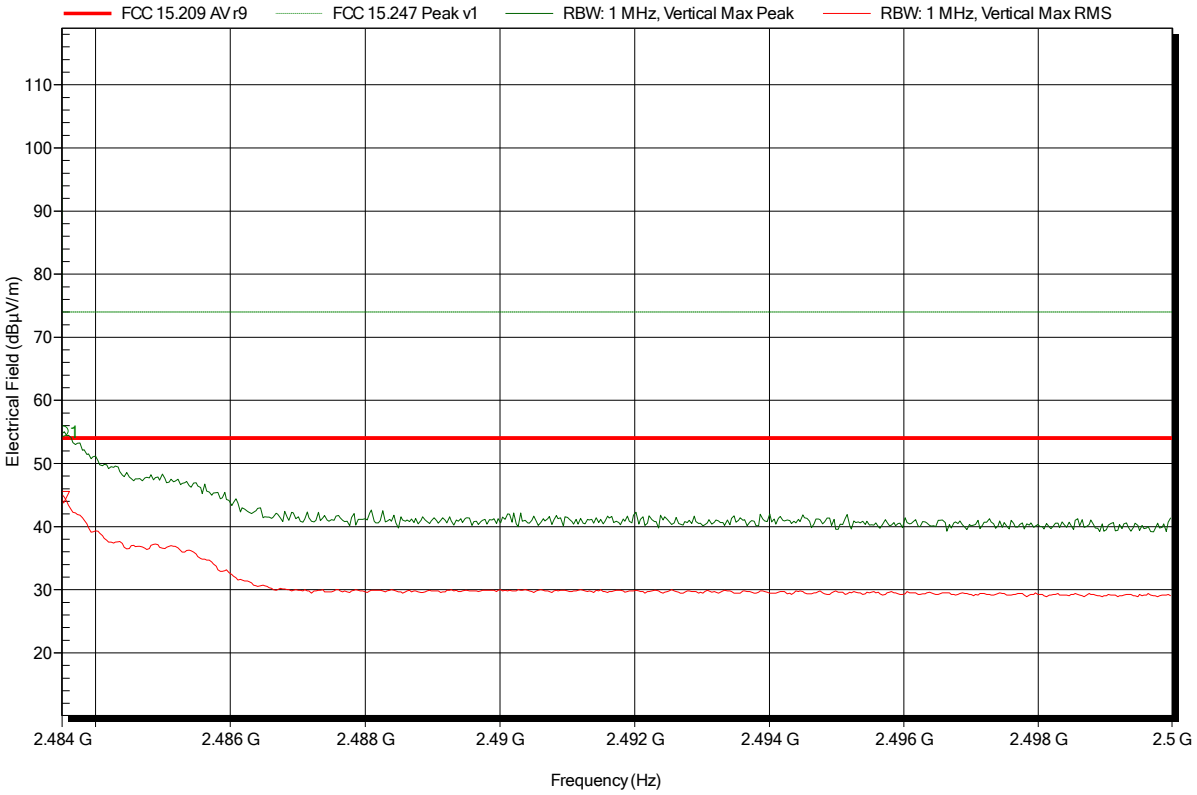


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical; higher bandedge

Index 10



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.484 GHz	55.05 dBµV/m	74 dBµV/m	-18.95 dB	Pass

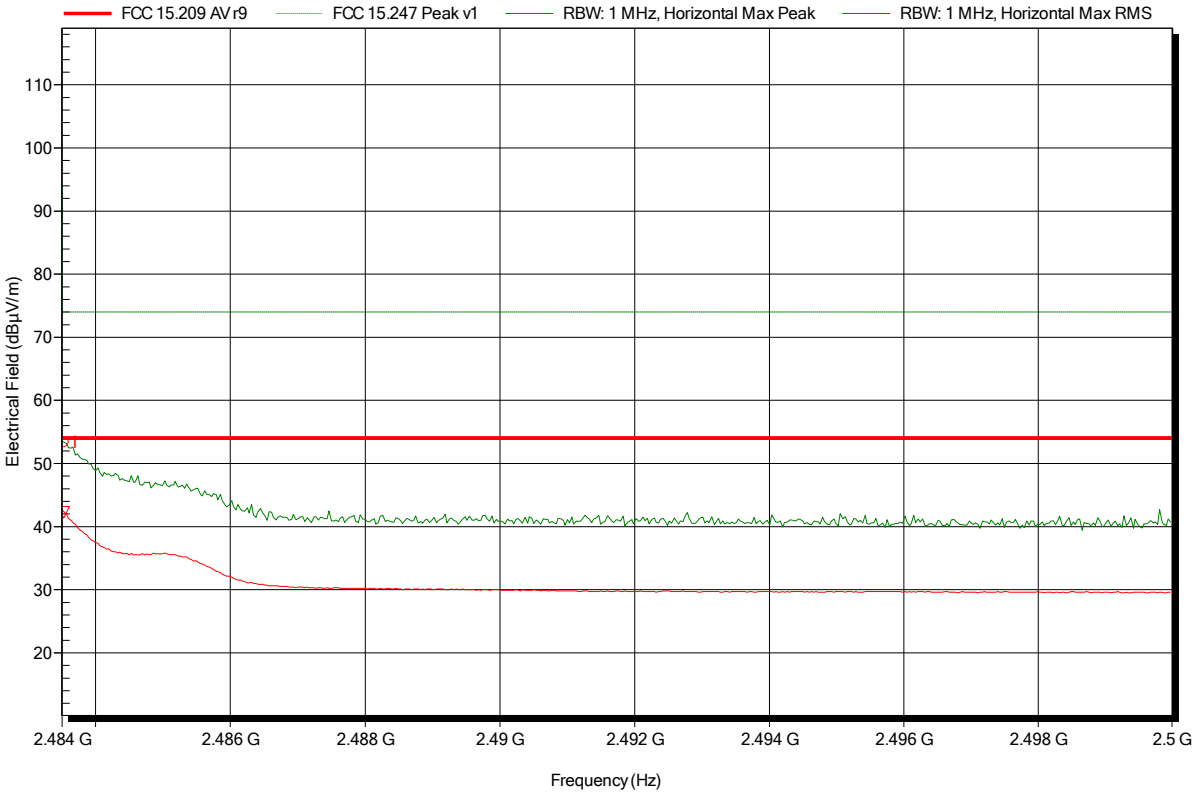
Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.484 GHz	44.64 dBµV/m	54 dBµV/m	-9.36 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	3 m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical; higher bandedge

Index 13



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.484 GHz	53.34 dBµV/m	74 dBµV/m	-20.66 dB	Pass

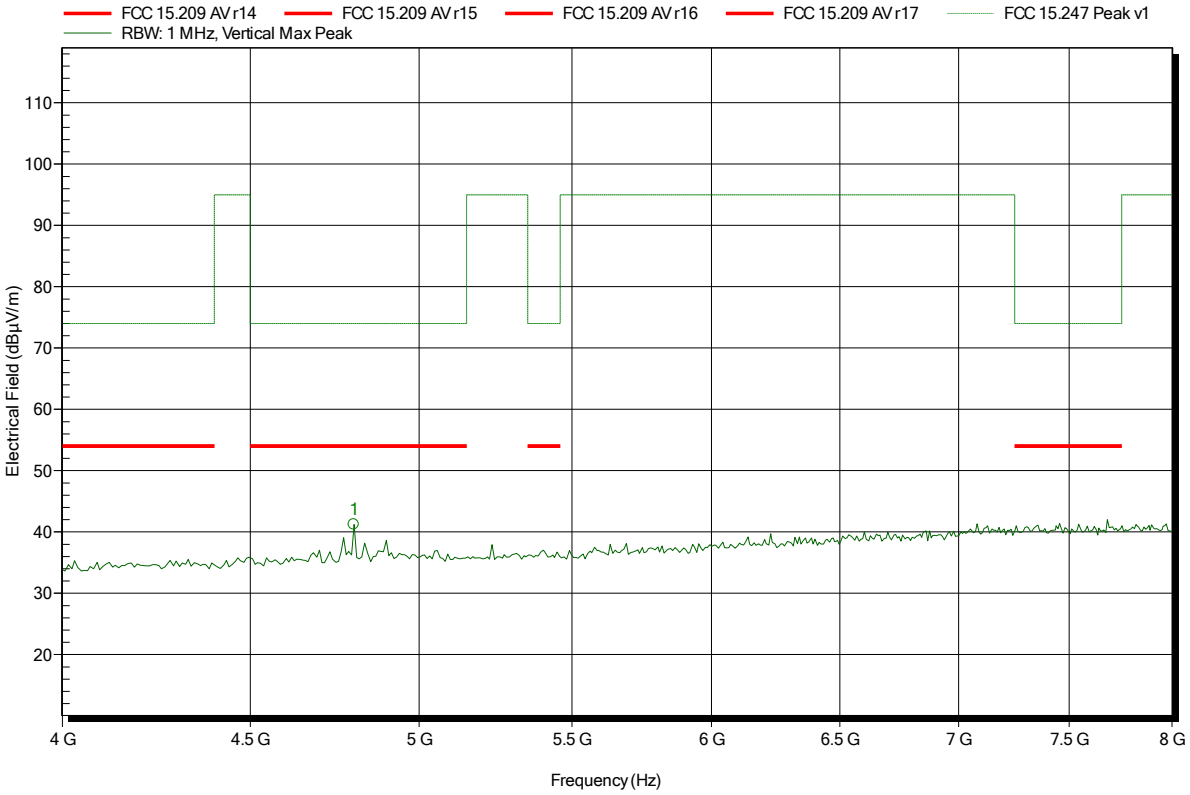
Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.484 GHz	42.26 dBµV/m	54 dBµV/m	-11.74 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 27



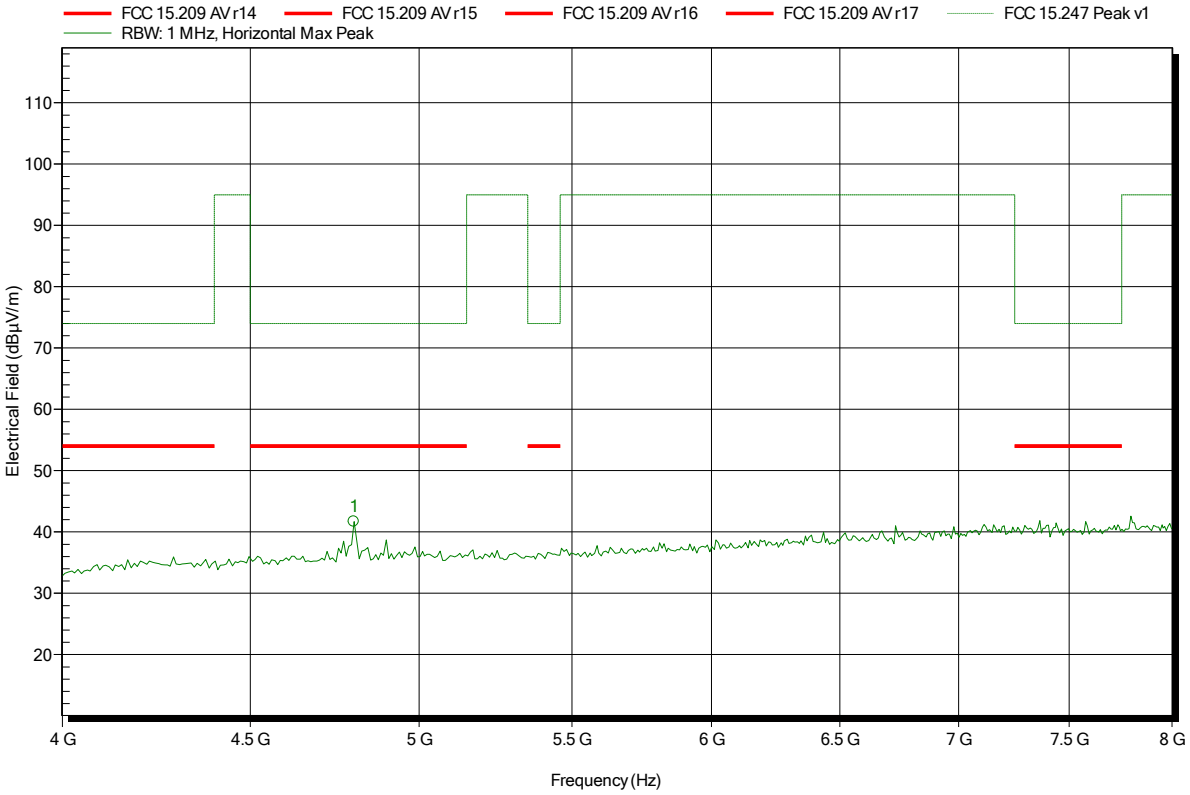
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.8 GHz	41.21 dBµV/m	74 dBµV/m	-32.79 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 32



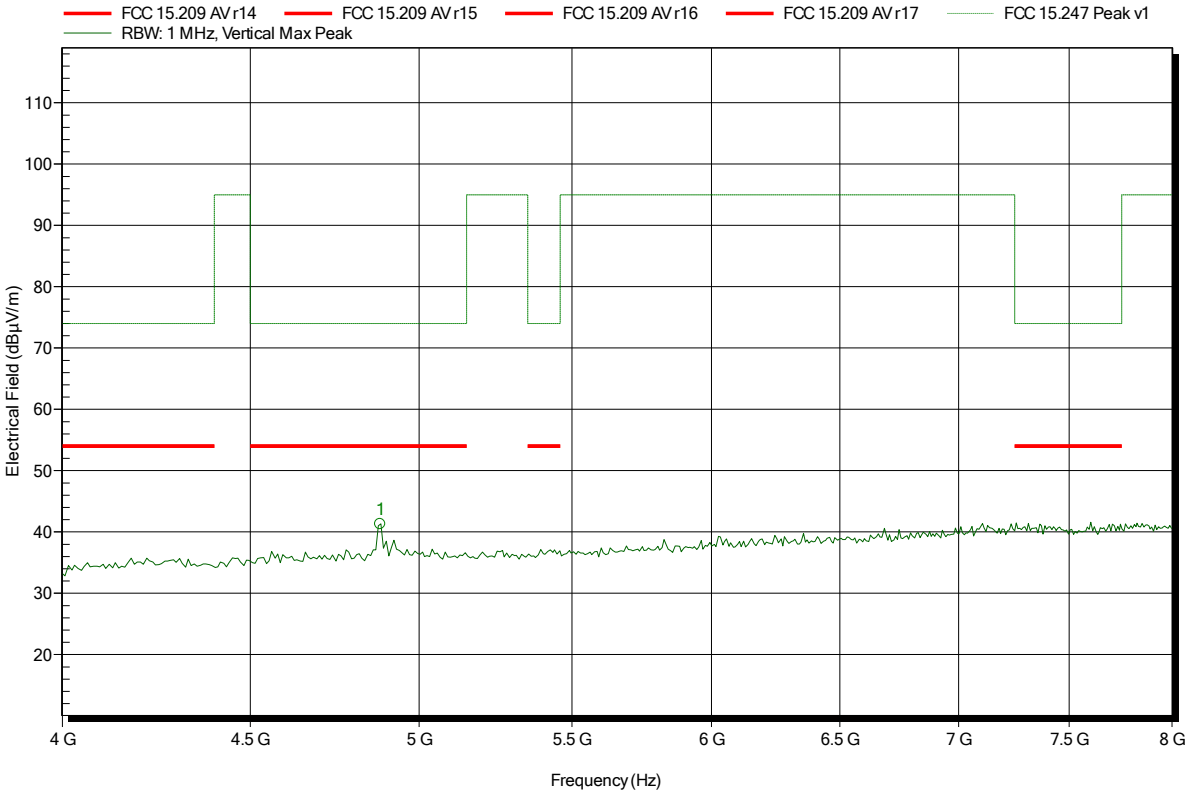
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.8 GHz	41.71 dBµV/m	74 dBµV/m	-32.29 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 21



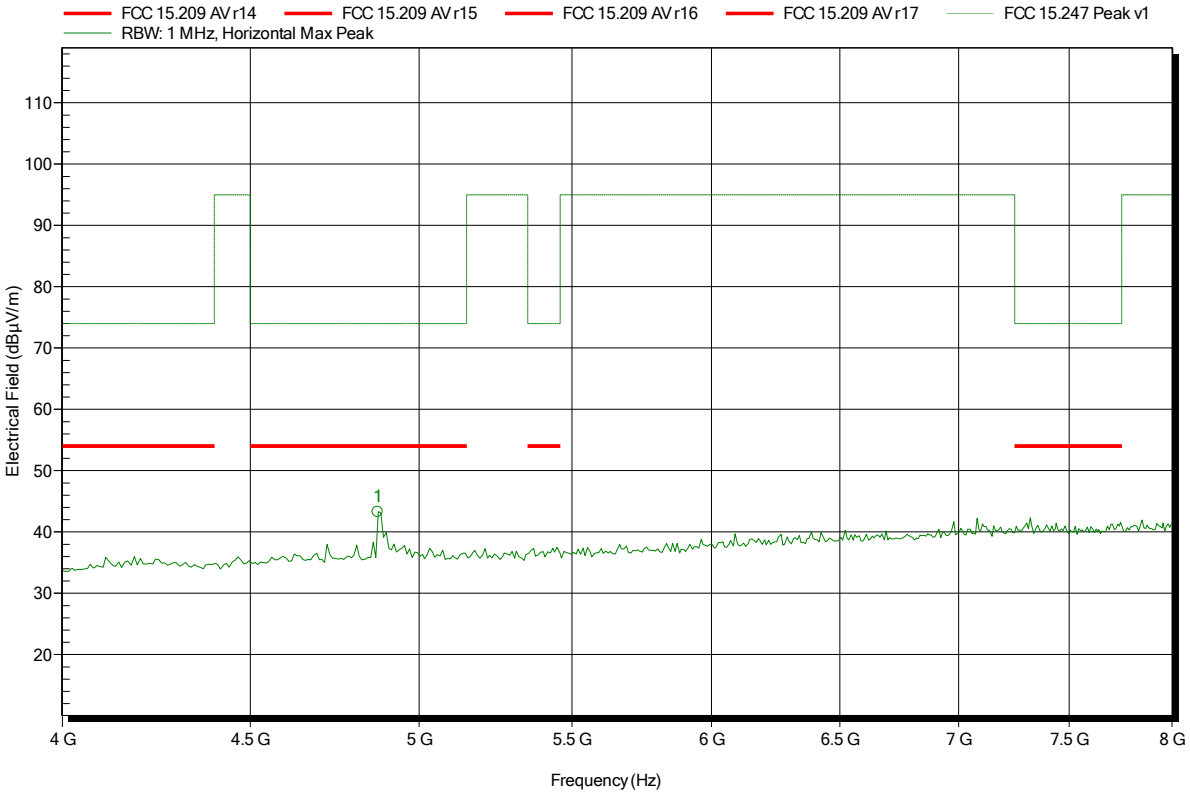
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.88 GHz	41.3 dBµV/m	74 dBµV/m	-32.7 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 26



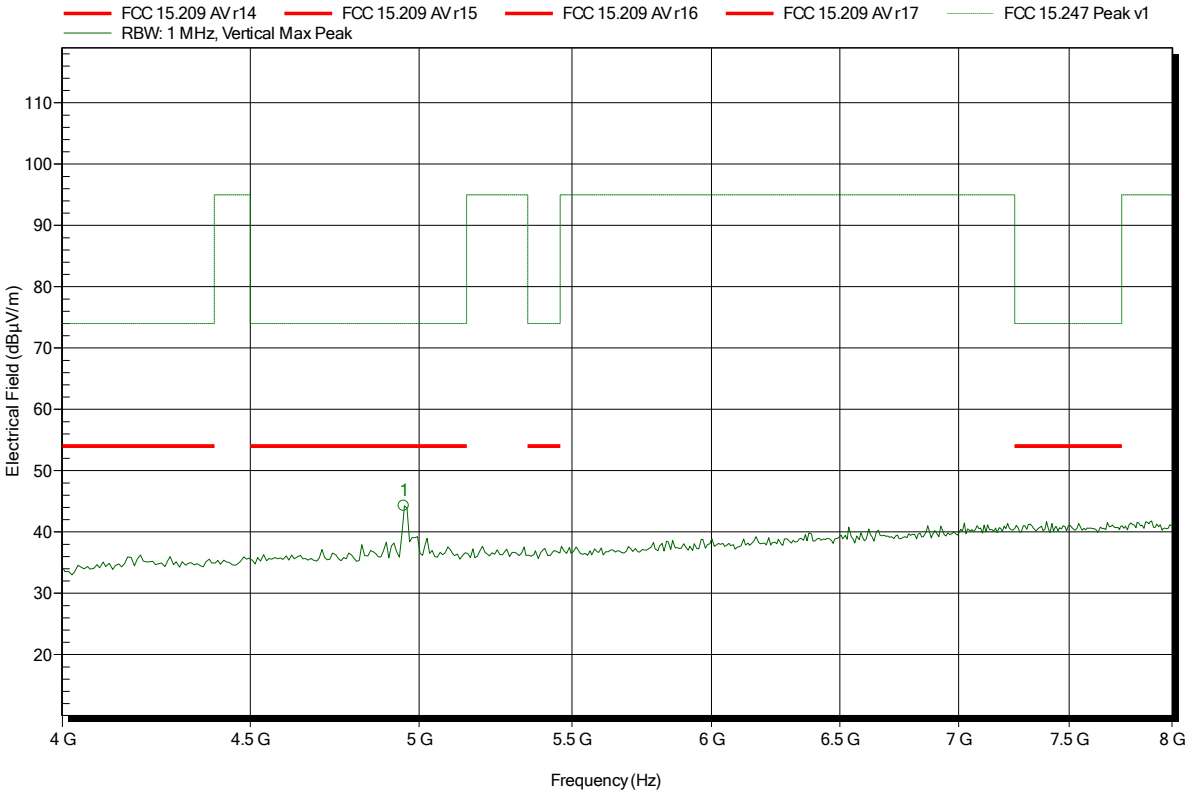
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.872 GHz	43.29 dBµV/m	74 dBµV/m	-30.71 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 15



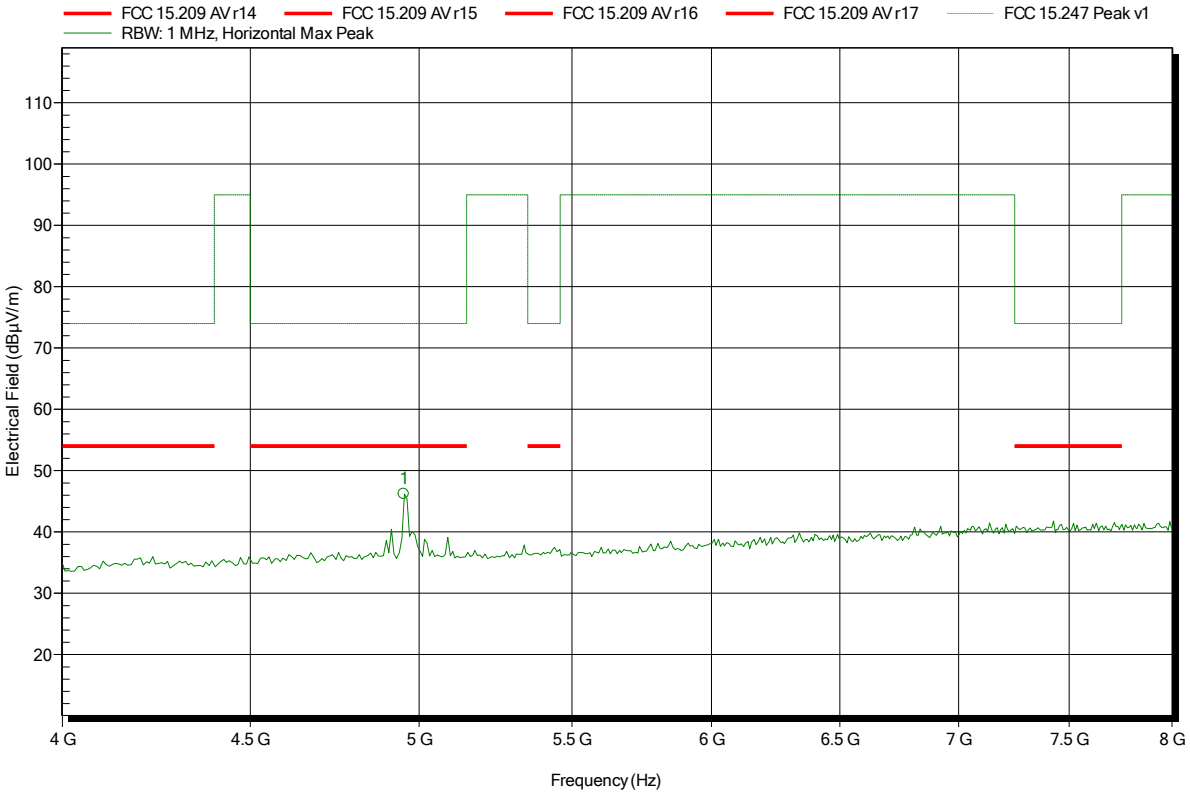
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.952 GHz	44.24 dBµV/m	74 dBµV/m	-29.76 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 18



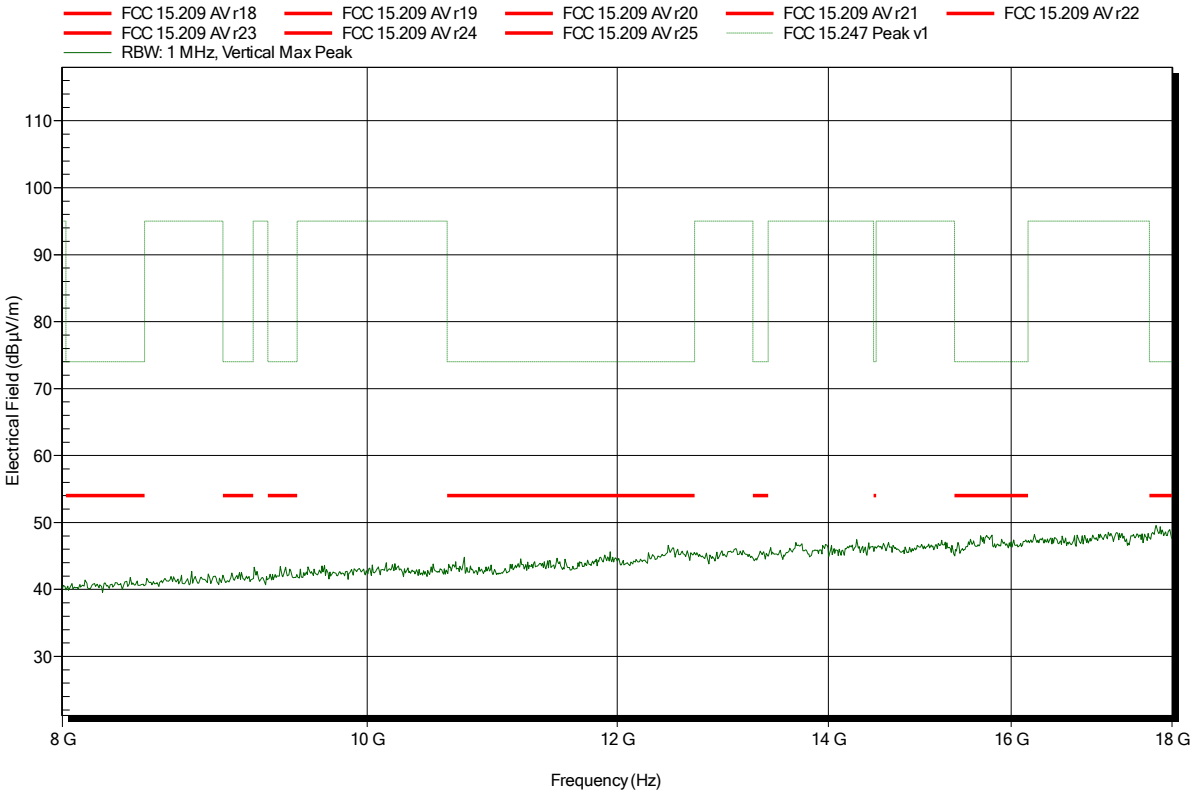
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.952 GHz	46.2 dBµV/m	74 dBµV/m	-27.8 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 28

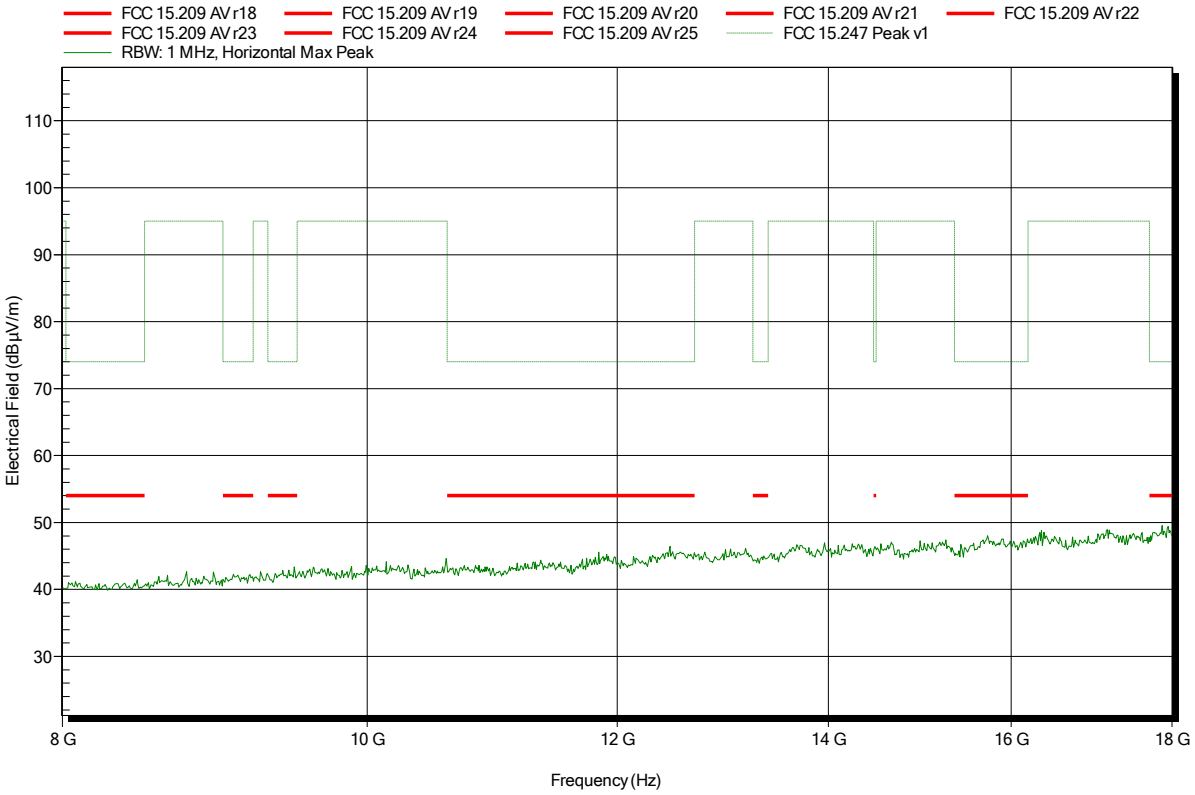


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 31

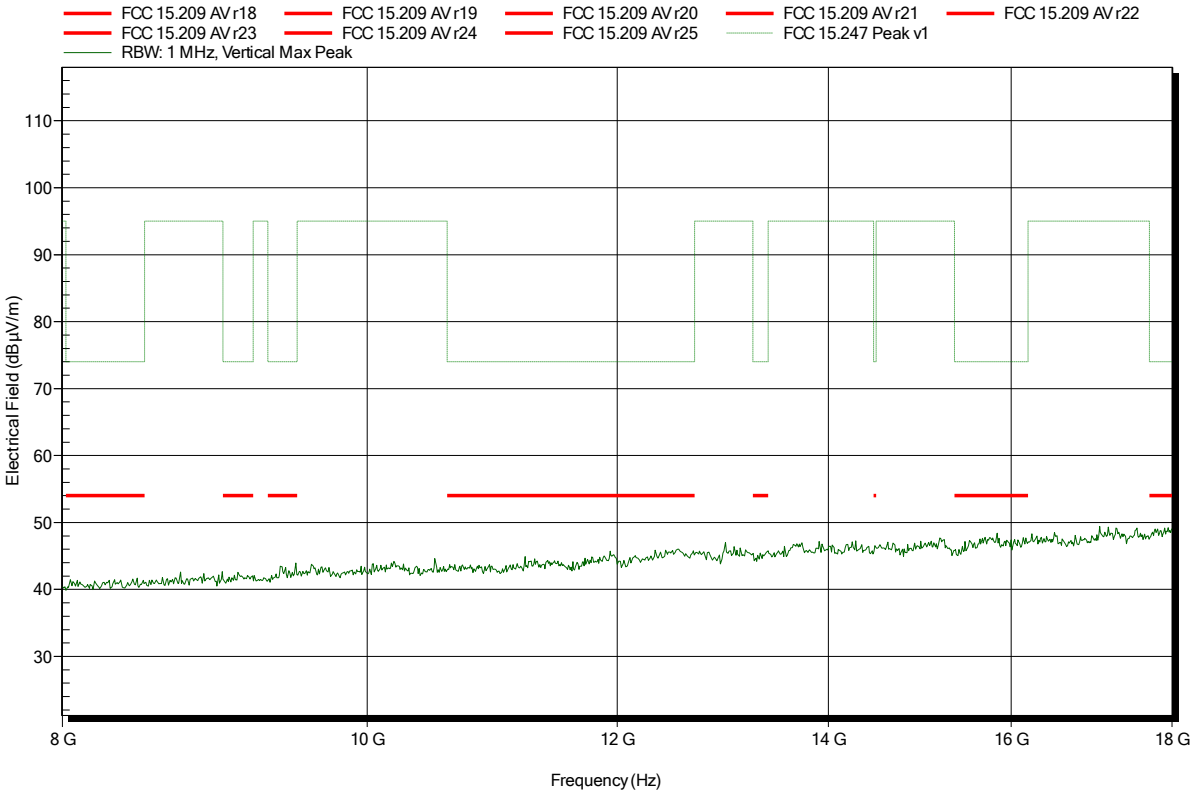


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 22

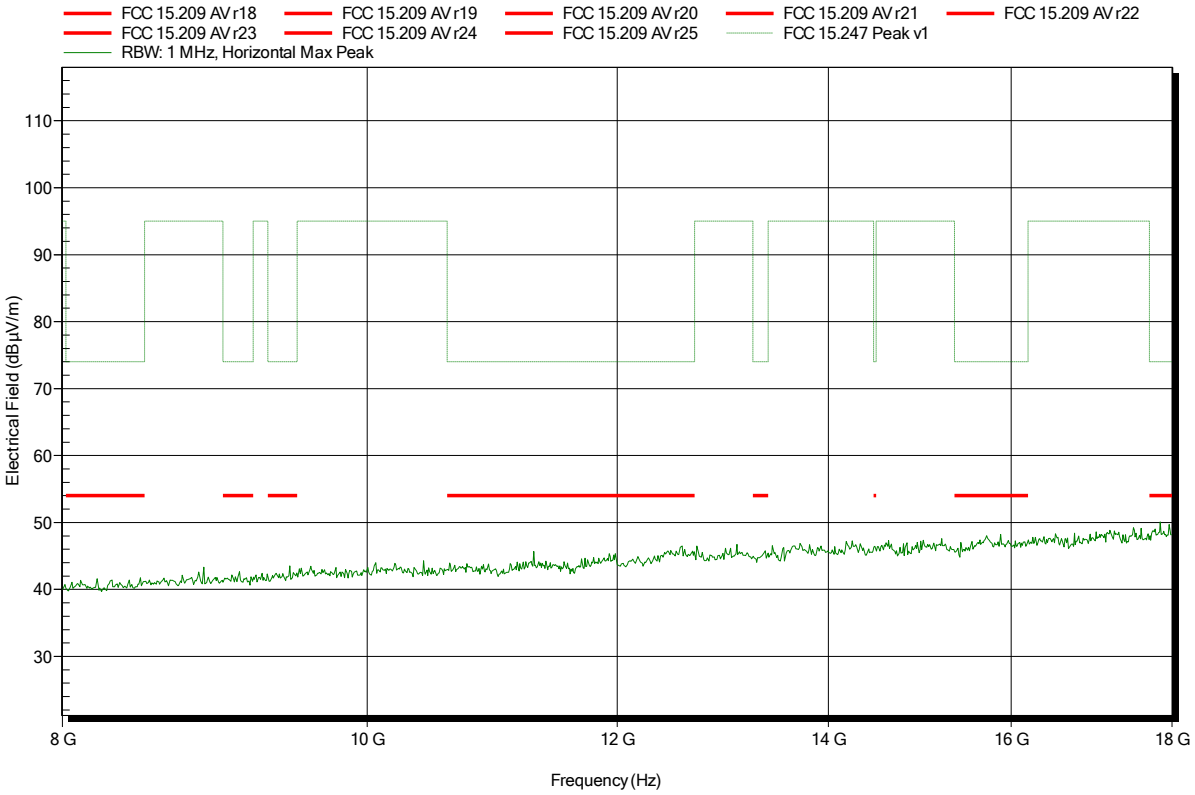


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 25

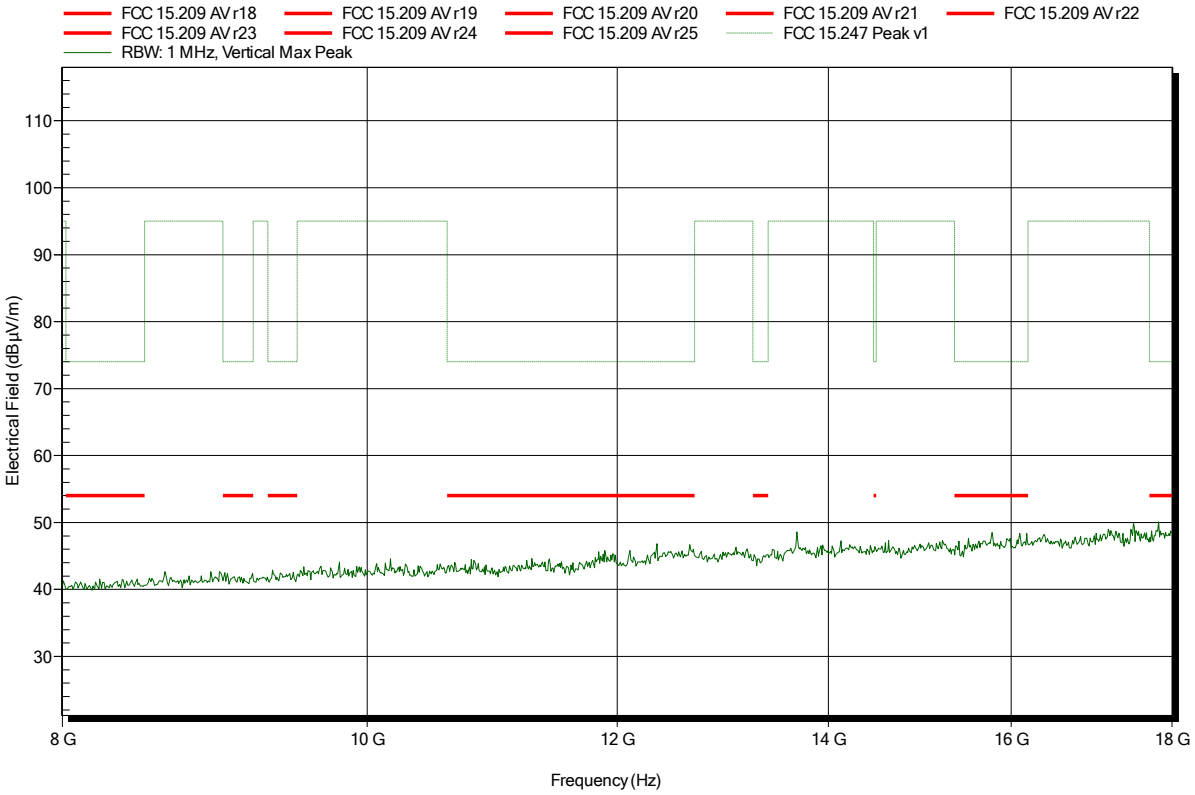


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 16

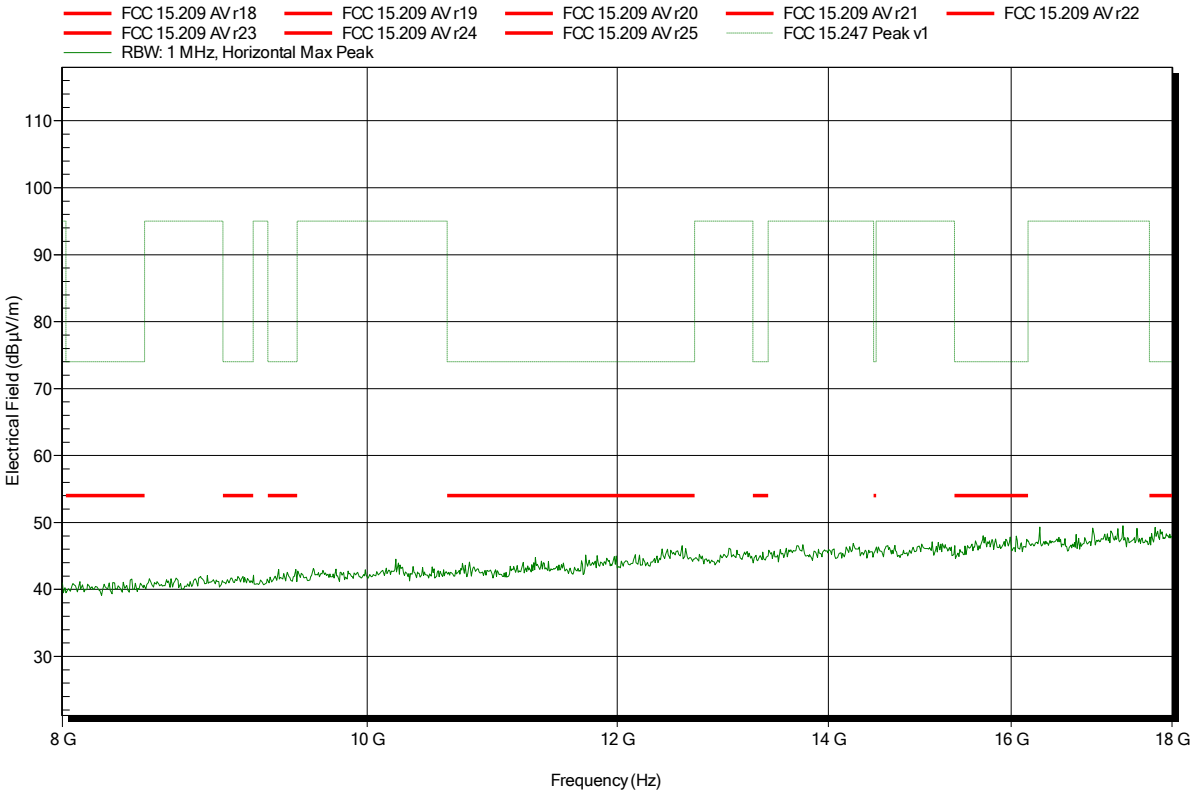


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 19

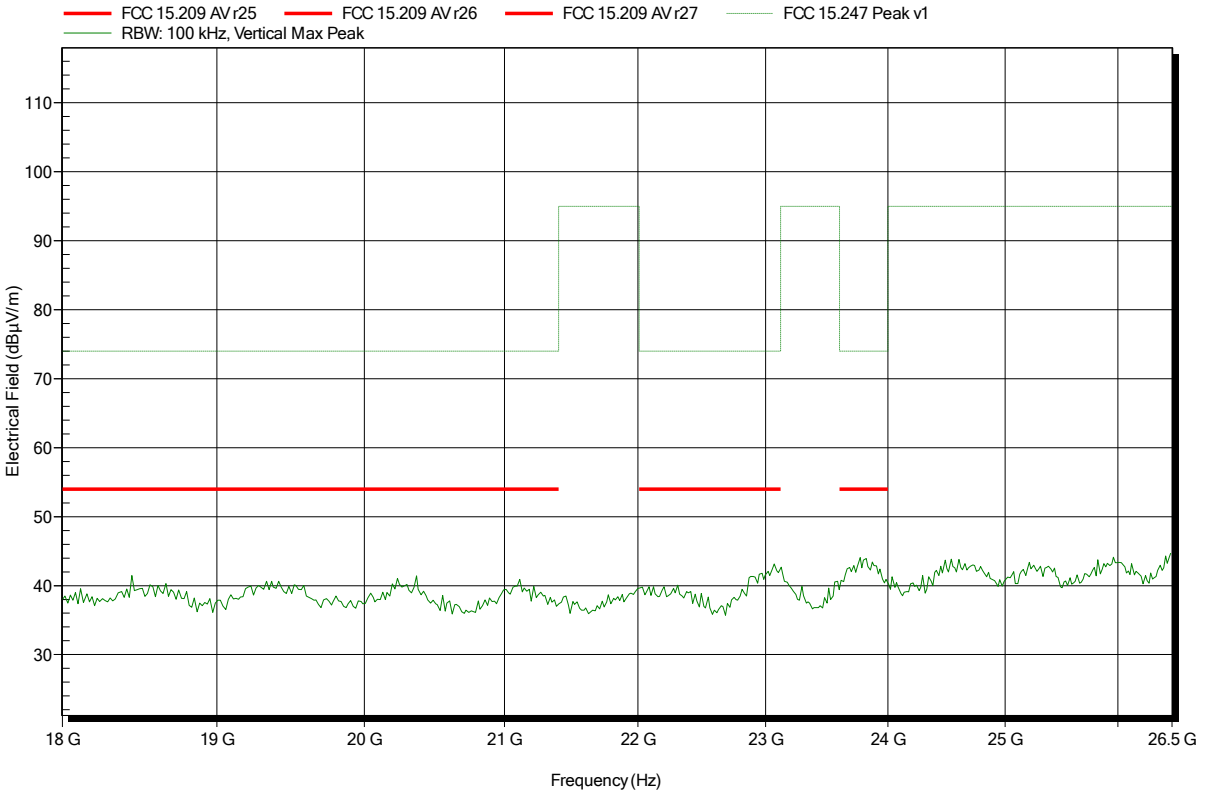


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 29

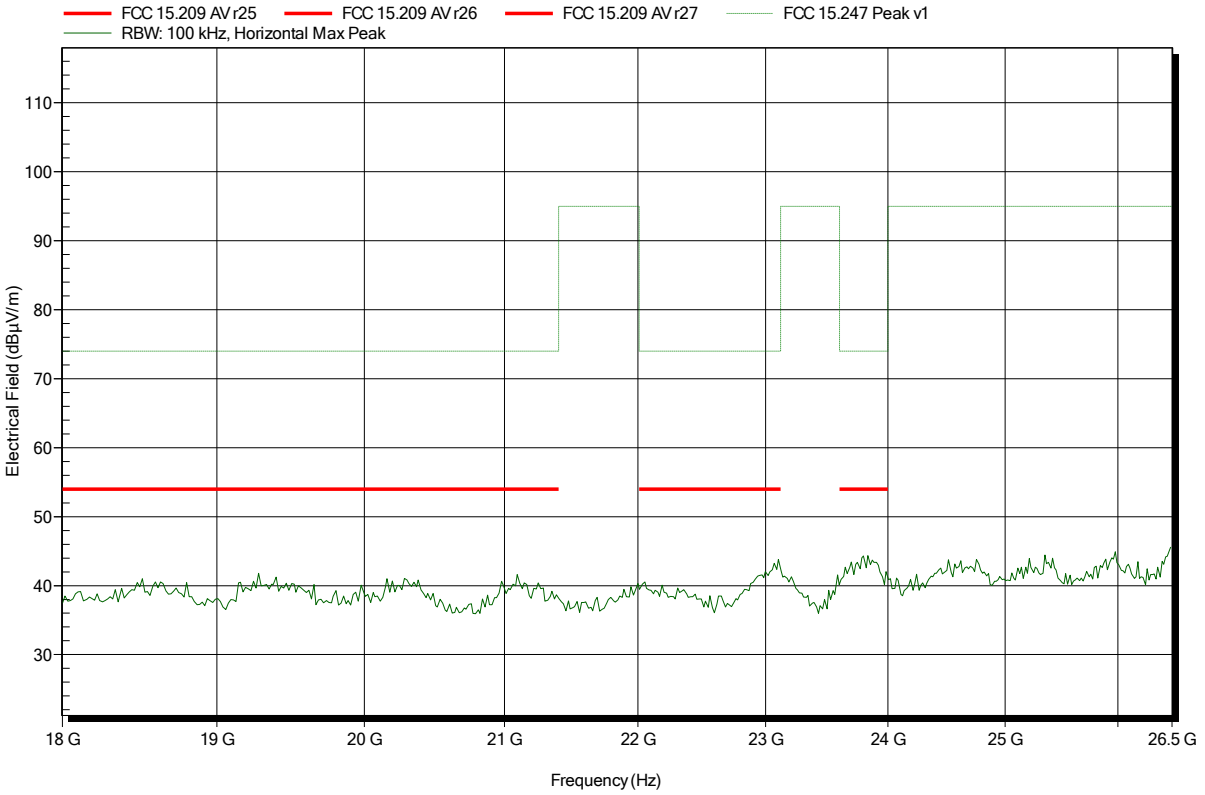


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 0; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 30

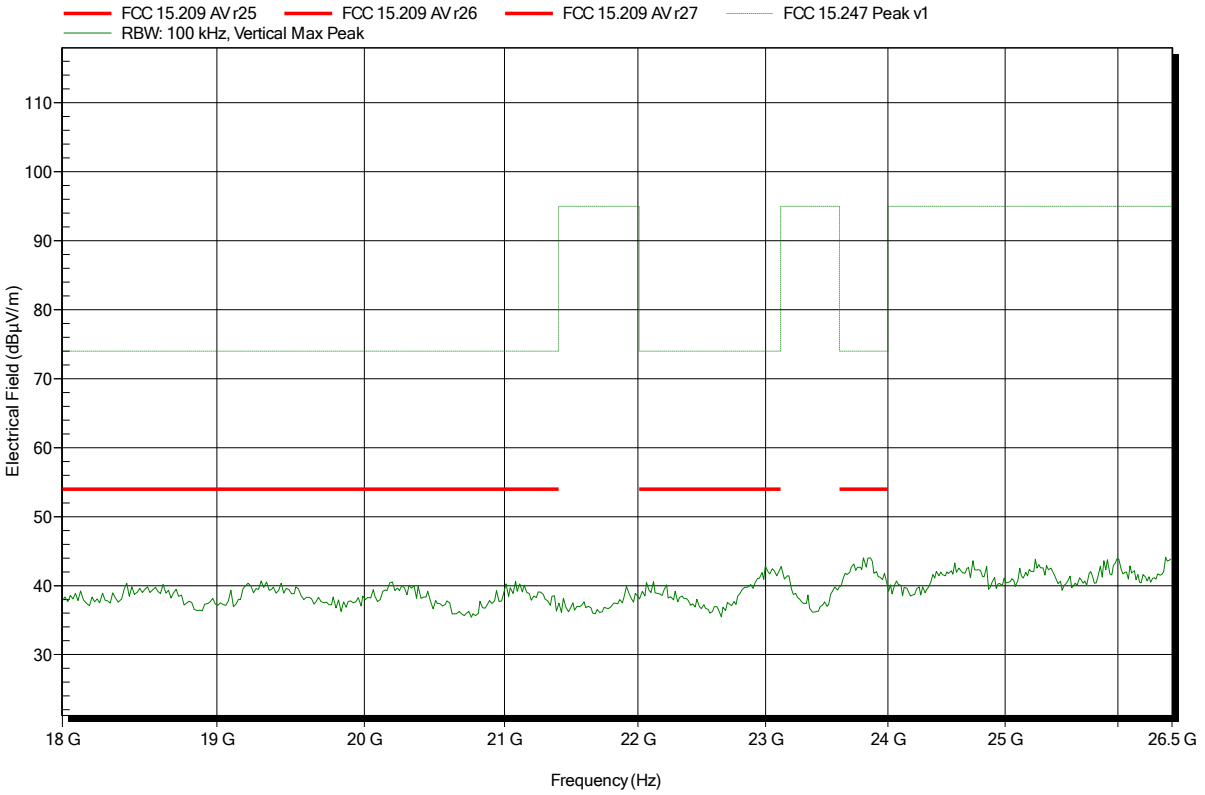


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 23

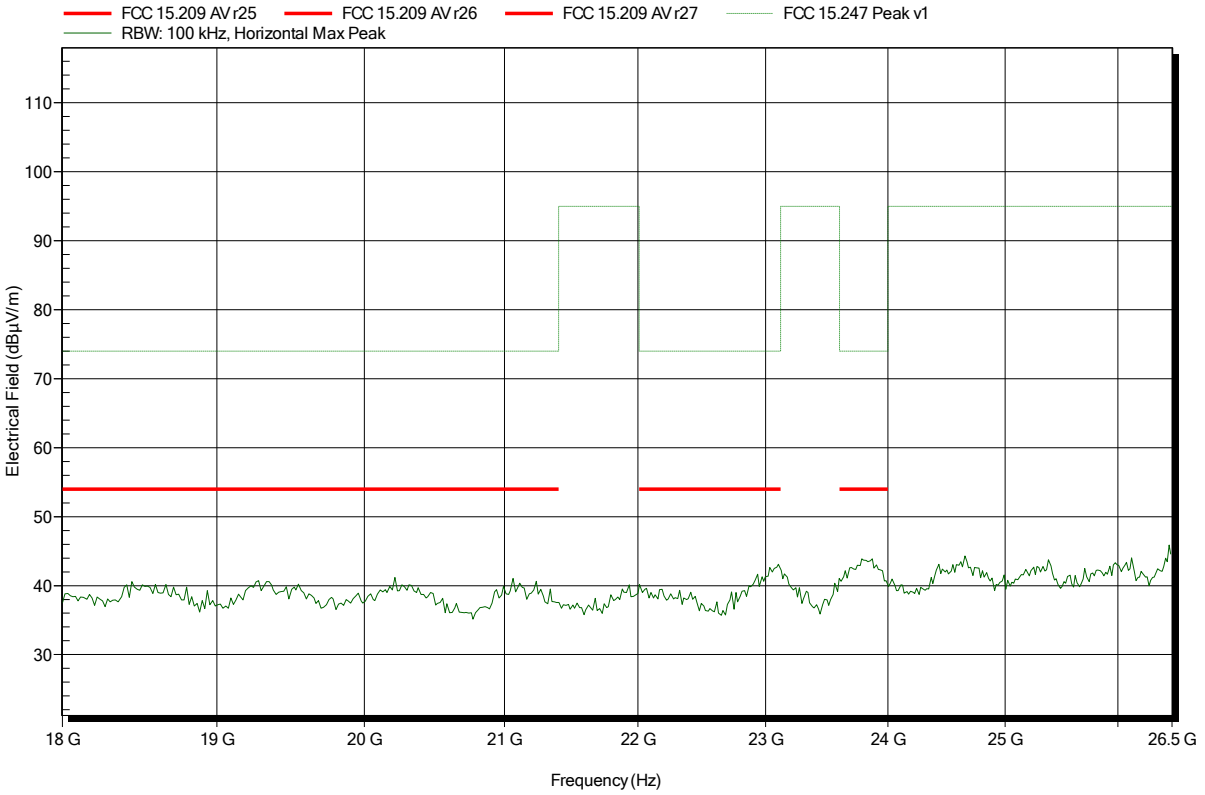


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 19; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 24

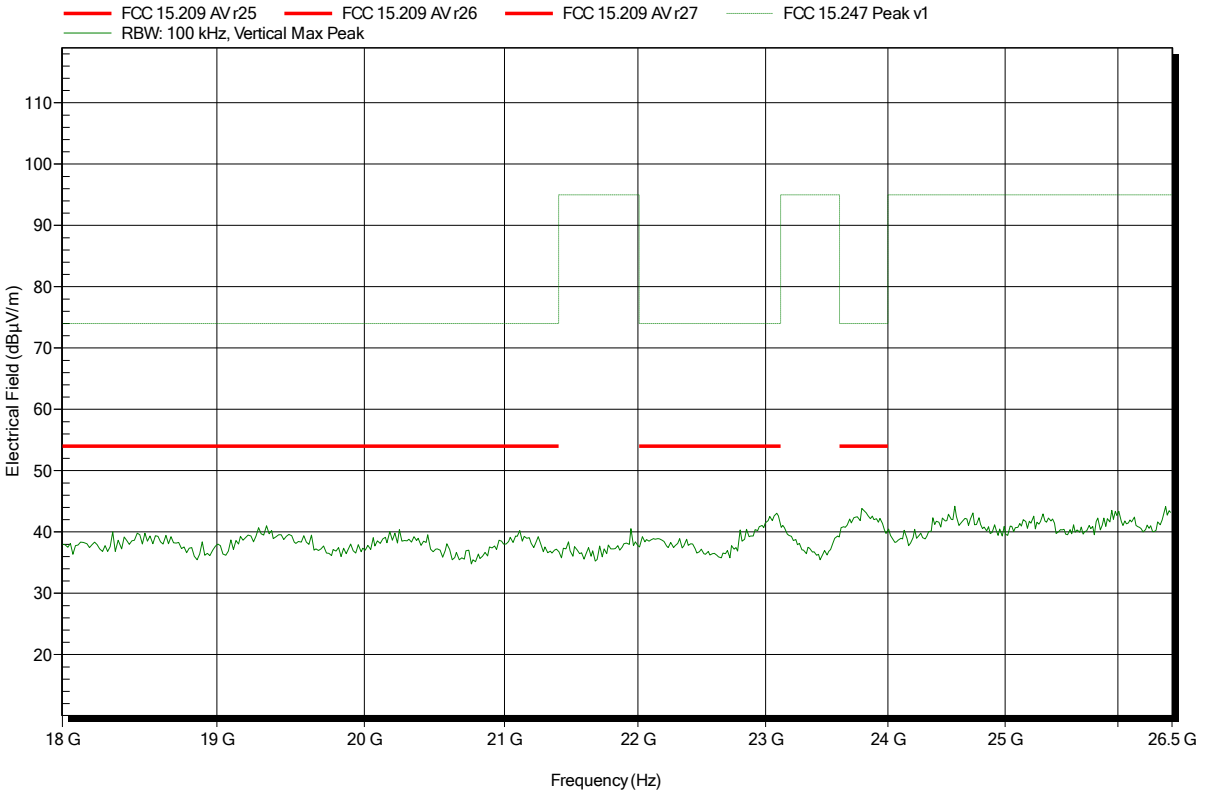


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 17

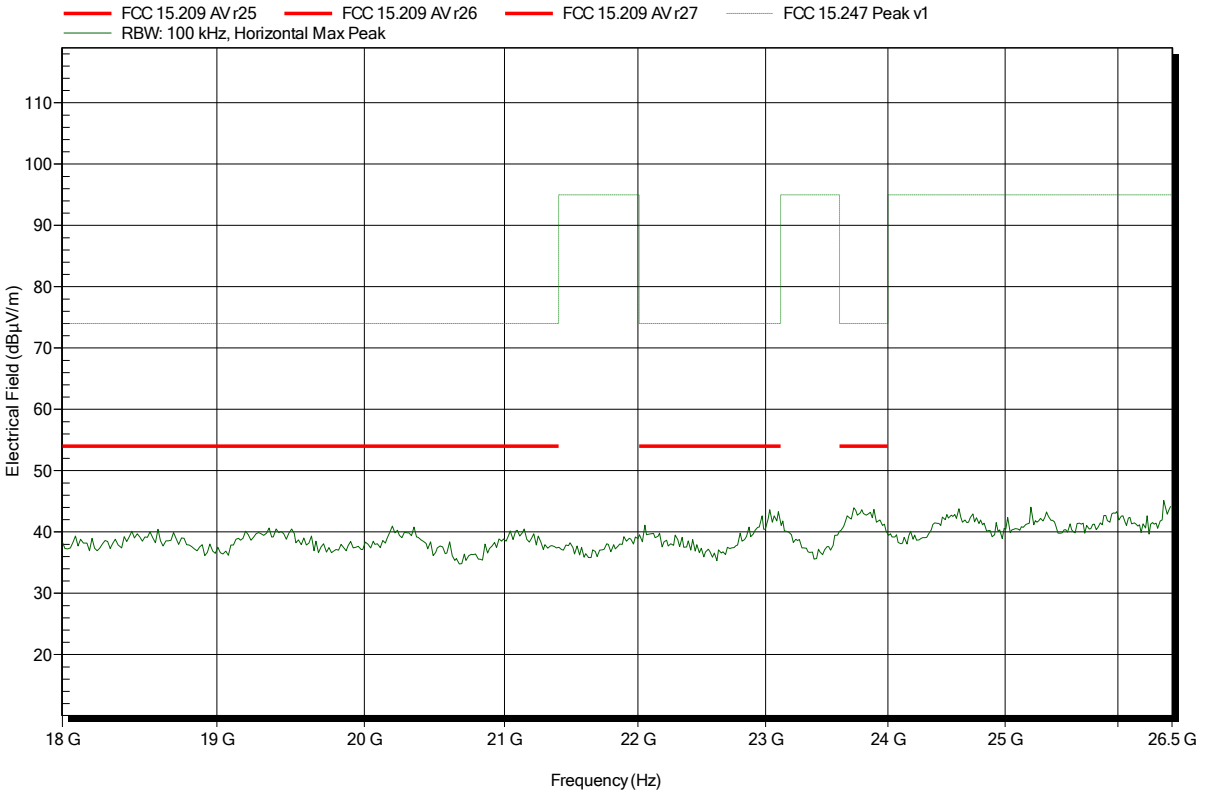


Spurious emissions according to FCC part 15 Subpart C § 15.247, IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Weber
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BTLE; Ch. 39; Pmax
Test Date:	2015-06-05
Note:	EUT vertical

Index 20



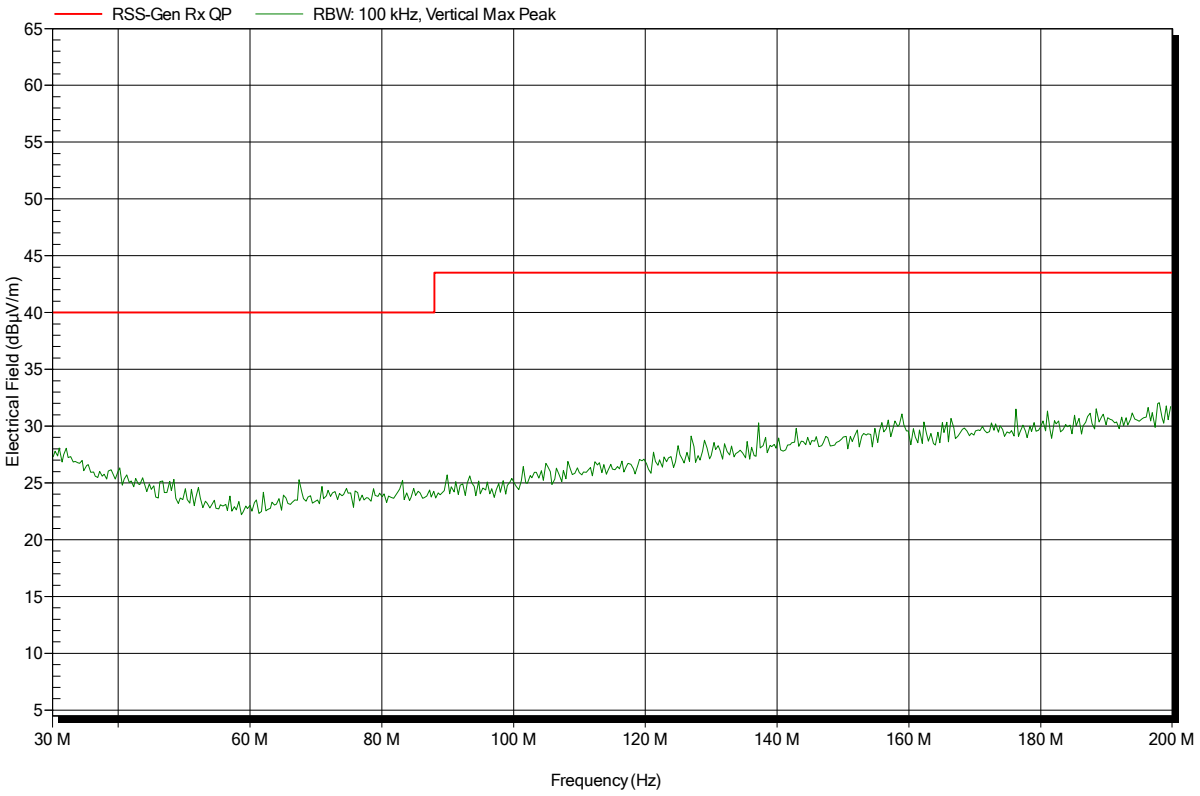
ANNEX B Receiver radiated spurious emissions

Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	RX; BTLE; Ch. 19; Rx-mode
Test Date:	2015-06-08
Note:	EUT vertical

Index 44

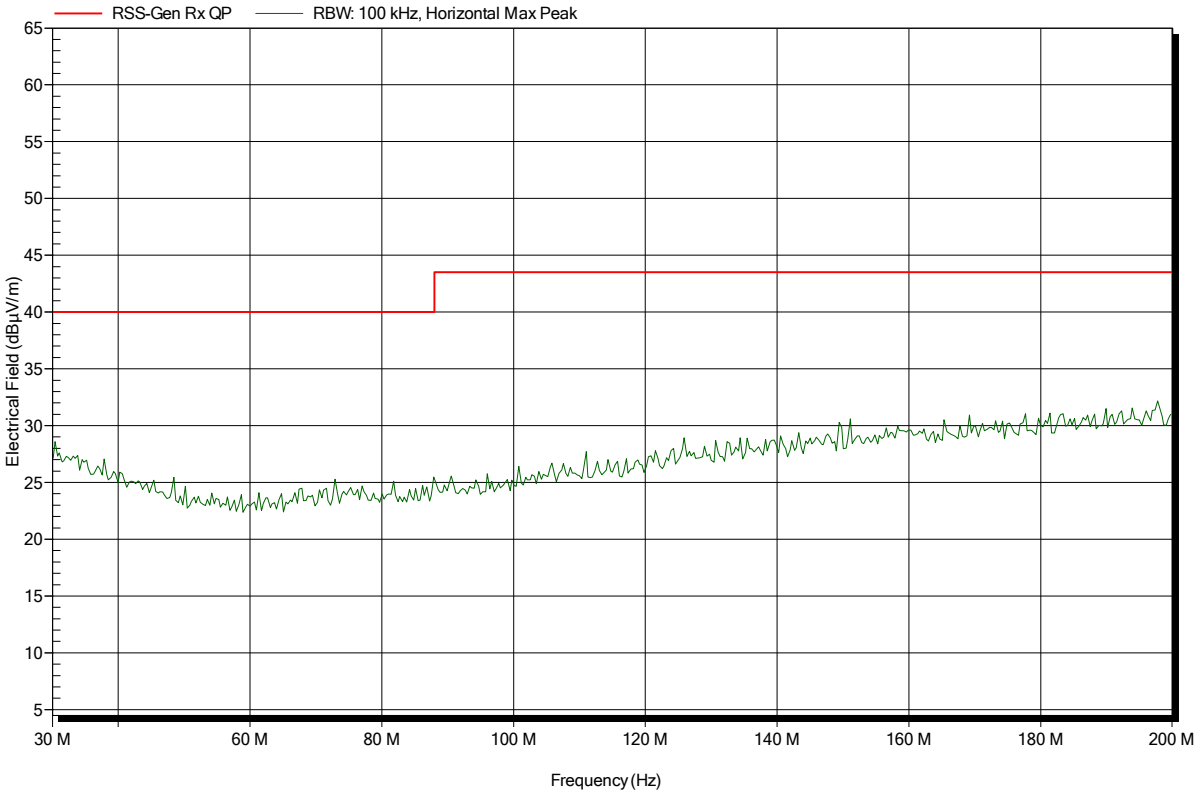


Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	RX; BTLE; Ch. 19; Rx-mode
Test Date:	2015-06-08
Note:	EUT vertical

Index 45

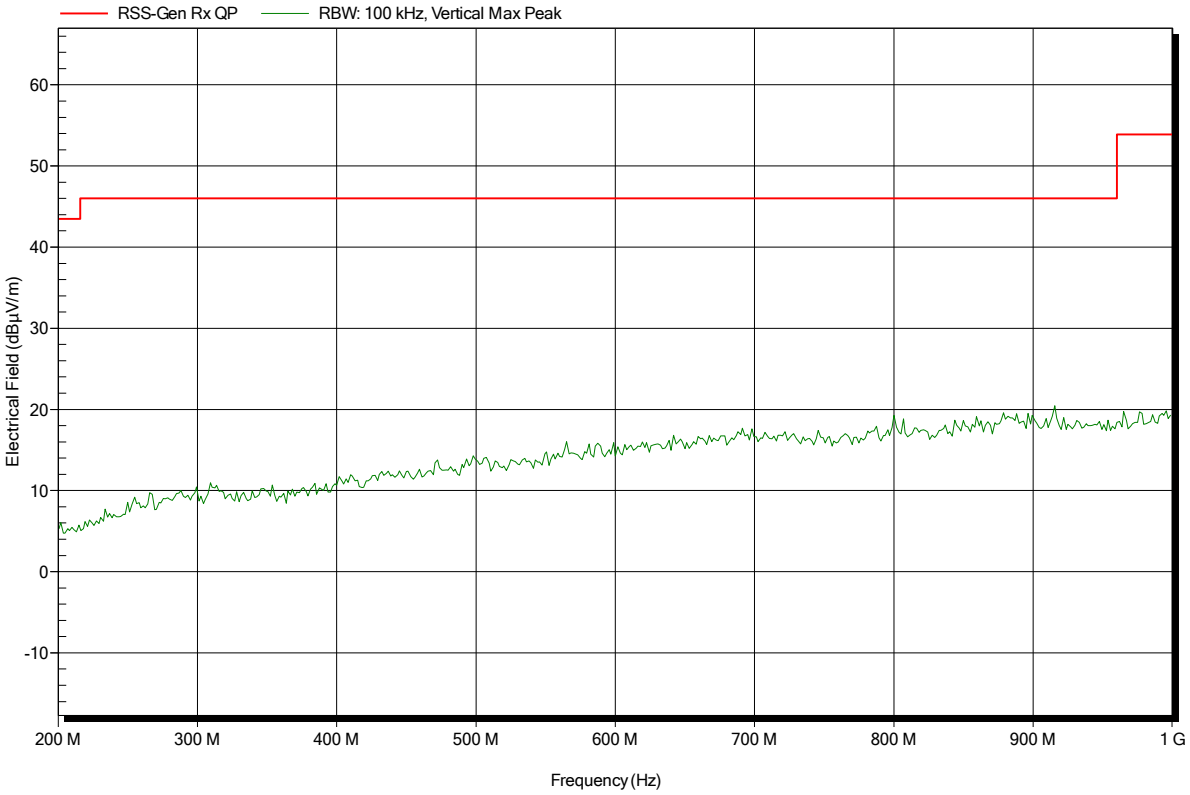


Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	RX; BTLE; Ch. 19; Rx-mode
Test Date:	2015-06-08
Note:	EUT vertical

Index 46

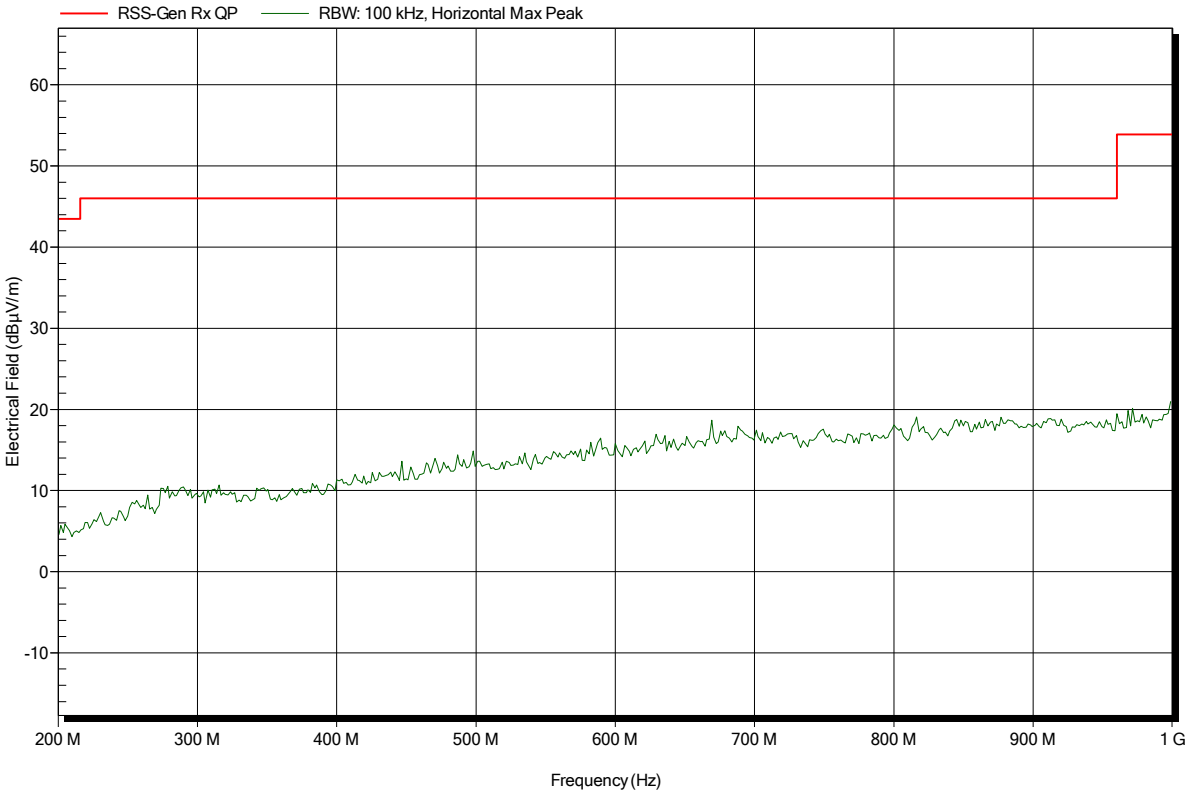


Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	RX; BTLE; Ch. 19; Rx-mode
Test Date:	2015-06-08
Note:	EUT vertical

Index 47

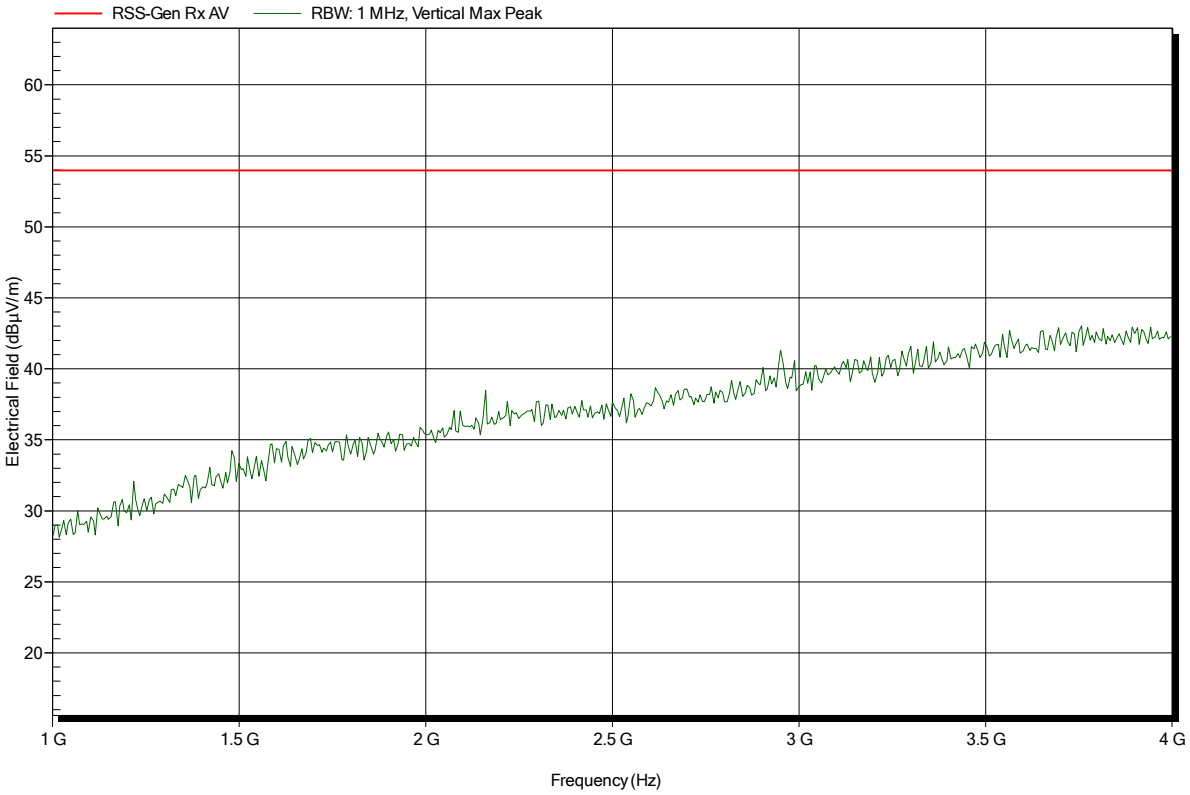


Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	3 m
Mode:	RX; BTLE; Ch. 19; Rx-mode
Test Date:	2015-06-08
Note:	EUT vertical

Index 48

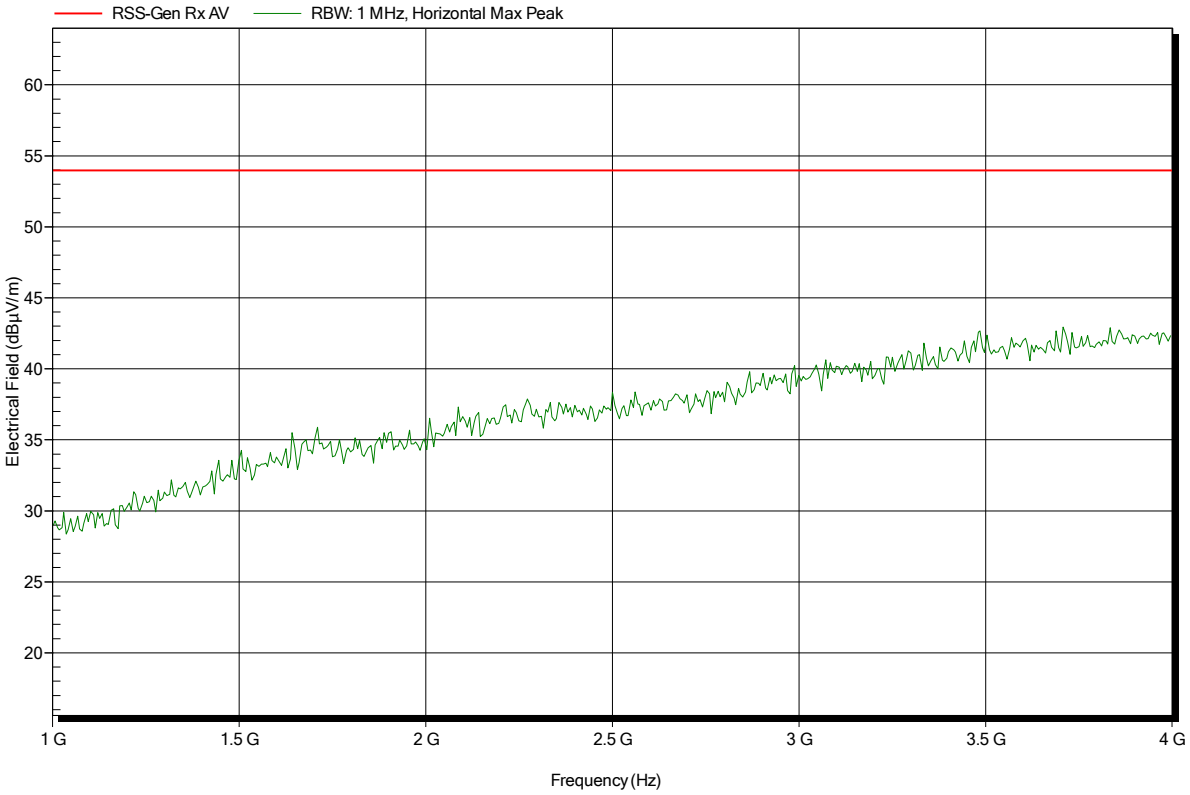


Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	3 m
Mode:	RX; BTLE; Ch. 19; Rx-mode
Test Date:	2015-06-08
Note:	EUT vertical

Index 50

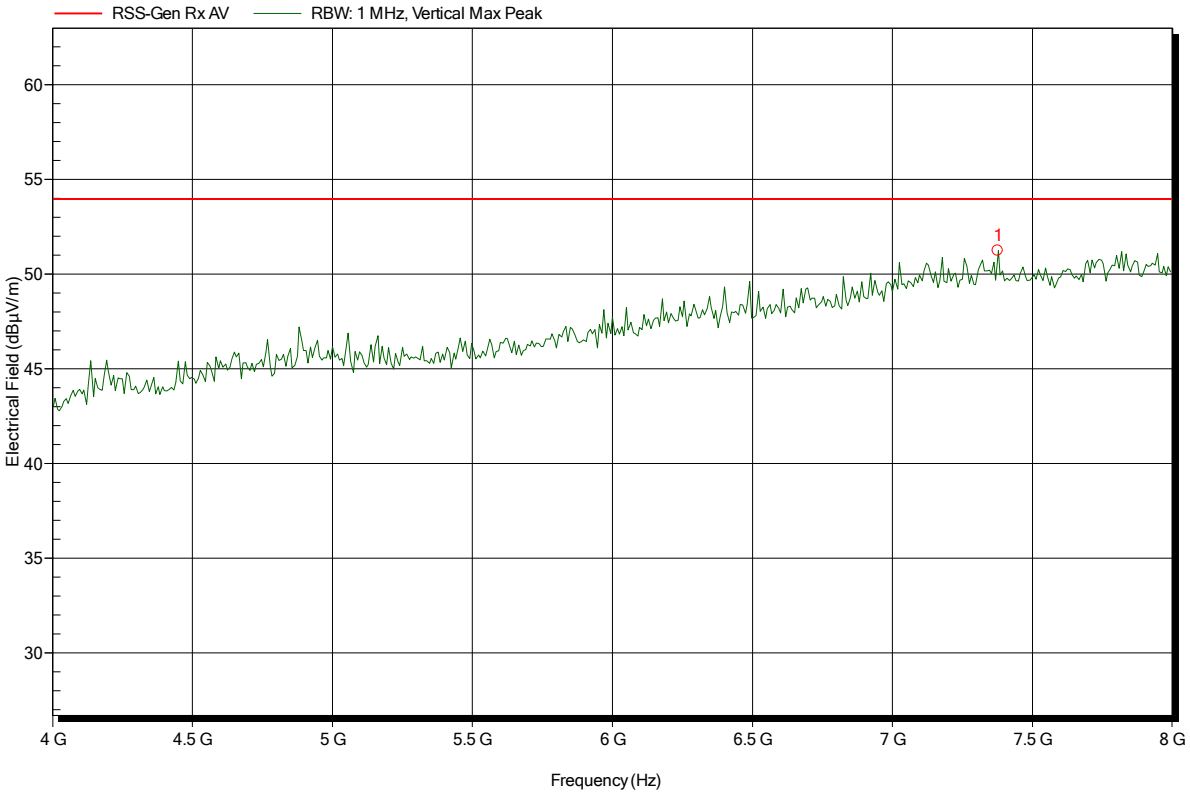


Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	3 m
Mode:	RX; BTLE; Ch. 19; Rx-mode
Test Date:	2015-06-08
Note:	EUT vertical

Index 49



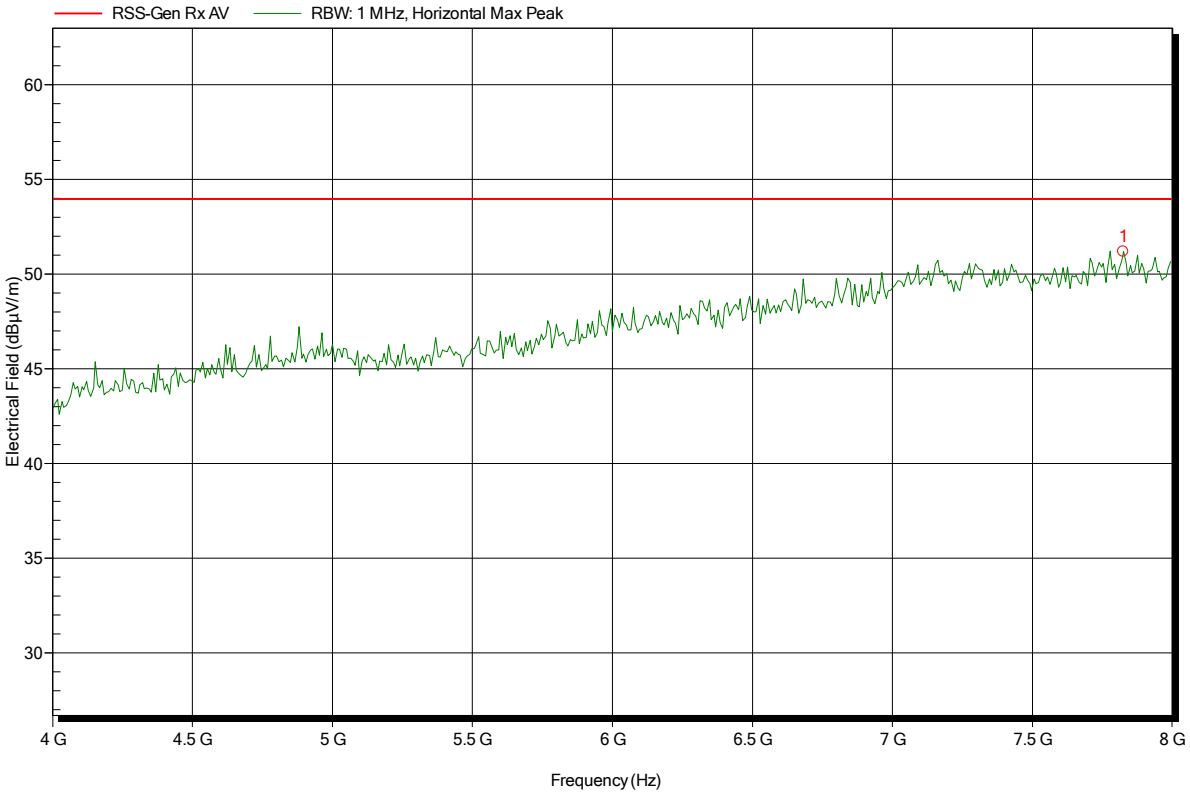
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
7.376 GHz	51.24 dBµV/m	53.98 dBµV/m	-2.74 dB	Pass

Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	3 m
Mode:	RX; BTLE; Ch. 19; Rx-mode
Test Date:	2015-06-08
Note:	EUT vertical

Index 51



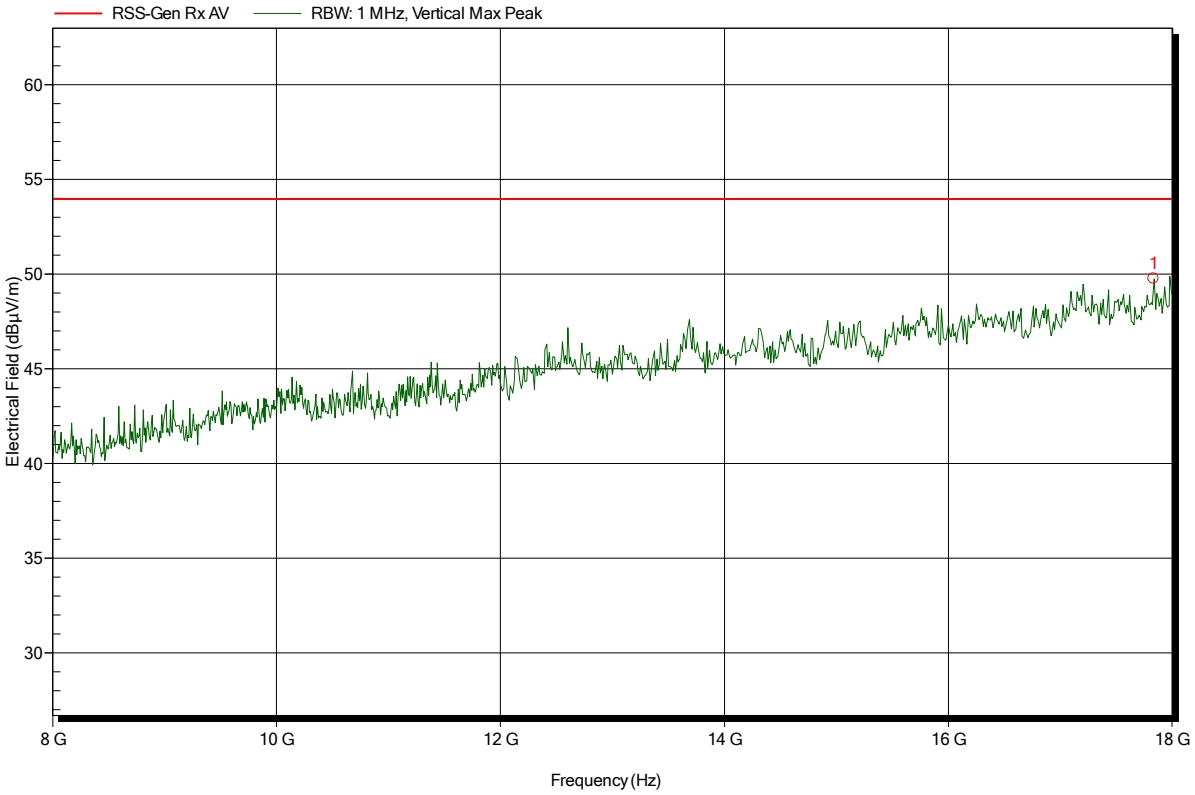
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
7.824 GHz	51.19 dBµV/m	53.98 dBµV/m	-2.79 dB	Pass

Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Vertical
Measurement distance:	1 m
Mode:	RX; BTLE; Ch. 19; Rx-mode
Test Date:	2015-06-08
Note:	EUT vertical

Index 52



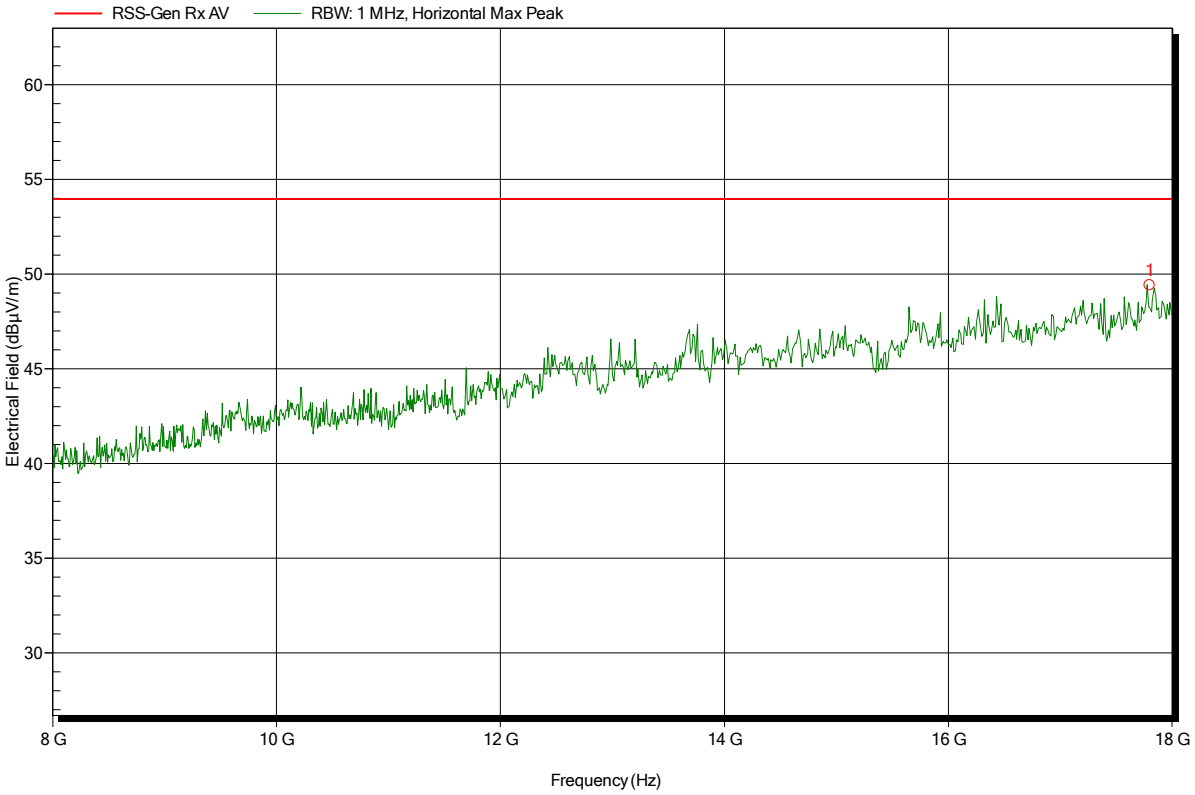
Frequency	Peak	Peak Limit	Peak Difference	Peak Status
17.832 GHz	49.76 dBµV/m	53.98 dBµV/m	-4.22 dB	Pass

Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1502-4502

Applicant:	SMT & Hybrid GmbH
EUT Name:	Datenlogger
Model:	sensor module
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Pudell
Test Conditions:	Tnom: 24°C, Vnom: 3.6 VDC (Battery)
Antenna:	Rohde & Schwarz HL 025, Horizontal
Measurement distance:	1 m
Mode:	RX; BTLE; Ch. 19; Rx-mode
Test Date:	2015-06-08
Note:	EUT vertical

Index 53



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
17.795 GHz	49.41 dBµV/m	53.98 dBµV/m	-4.57 dB	Pass