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RADIO REPORT

FCC 47 CFR Part 15C
ISED Canada RSS-247

Digital transmission systems operating within the 2400 – 2483.5 MHz band

Report Reference No	G0M-1707-6725-TFC247BL-V02
Testing Laboratory	Eurofins Product Service GmbH
Address	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation	A2LA Accredited Testing Laboratory, Certificate No.: 1983.01 FCC Test Firm Designation Number: DE0008 ISED Testing Laboratory site: 3470A-2
Applicant	Leica Geosystems AG
Address	Heinrich Wild Strasse 9435 Heerbrugg SWITZERLAND
Test Specification	According to FCC/ISED rules
Standard	47 CFR Part 15C RSS-247, Issue 2, 2017-02
Non-Standard Test Method	None
Test Scope	partial compliance test
Equipment under Test (EUT):	
Product Description	External GNSS Antenna
Model(s)	GG04 plus
Additional Model(s)	None
Brand Name(s)	Leica Geosystems AG
Hardware Version(s)	1.0.1
Software Version(s)	1.0.12
FCC-ID	RFD-SAGG04P
IC	3177A-SAGG04P
Test Result	**PASSED**

Possibe test case verdicts:		
required by standard but not tested	N/T	
not required by standard	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	2017-09-06	
Report:		
Compiled by	Sebastian Suckow	
Tested by (+ signature) (Responsible for Test)	Sebastian Suckow	
Approved by (+ signature) (Head of Lab)	Christian Weber	
Date of Issue	2017-12-11	
Total number of pages	80	
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	2017-11-23	Initial Release	
02	2017-12-11	3.2.6 Results updated	S. Suckow

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

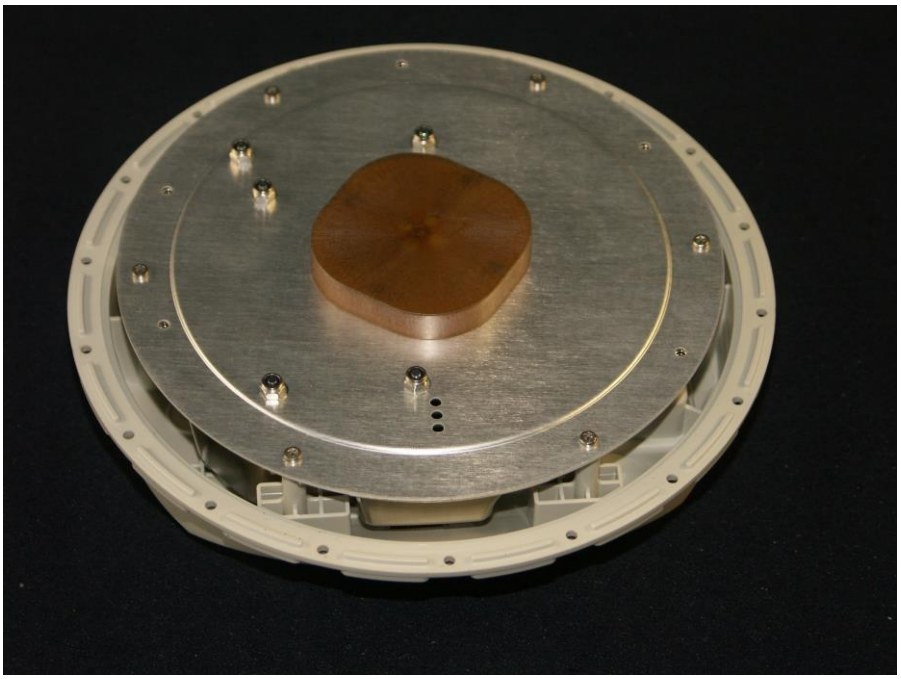
Description	External GNSS Antenna	
Model	GG04 plus	
Additional Model(s)	None	
Brand Name(s)	Leica Geosystems AG	
Serial Number(s)	None	
Hardware Version(s)	1.0.1	
Software Version(s)	1.0.12	
PMN	GG04P	
HVIN	Leica Zeno GG04 plus	
FVIN	1.0.12 (x.y.z: where y and z do not affect RF characteristics)	
HMN	N/A	
FCC-ID	RFD-SAGG04P	
IC	3177A-SAGG04P	
Equipment type	End Product	
Radio type	Transceiver	
Assigned frequency bands	2400 - 2483.5 MHz	
Radio technology	Bluetooth LE	
Modulation	GFSK	
Number of antenna ports	1	
Radio Module	Type	Bluetooth BR+EDR / LE Module
	Model	CC2564MODN
	Manufacturer	TI
	HW Version	Unspecified
	SW Version	Unspecified
	FCC-ID	Z64-2564N
	IC	451I-2564N
Antenna	Type	Integrated
	Model	BBL-2450
	Manufacturer	Kuk Electronic AG, CH-9050 Appenzell
	Gain	0 dBi
Supply Voltage	V_{NOM}	7.4 VDC
Operating Temperature	T_{NOM}	25 °C
Manufacturer	Leica Geosystems AG Heinrich Wild Strasse 9435 Heerbrugg SWITZERLAND	

1.1 Photos – Equipment External

EUT Top


EUT Bottom


1.2 Photos – Equipment Internal

EUT INTERIOR


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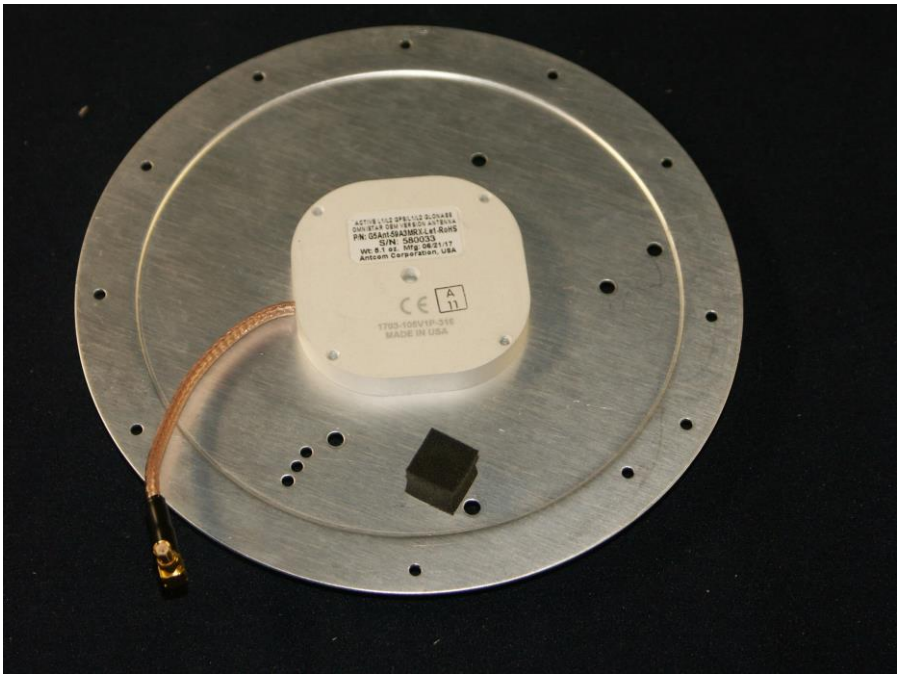

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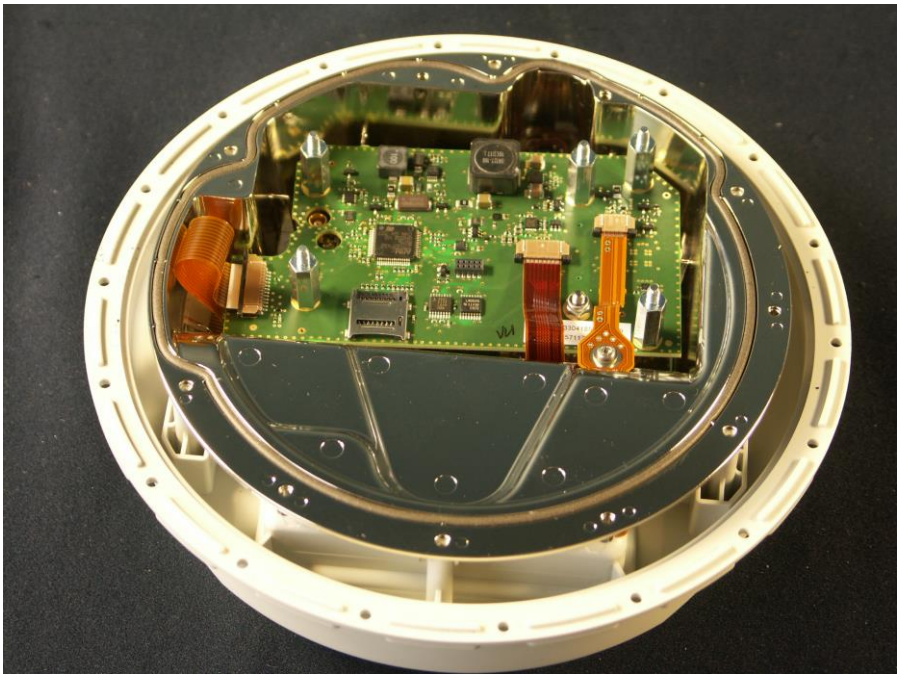

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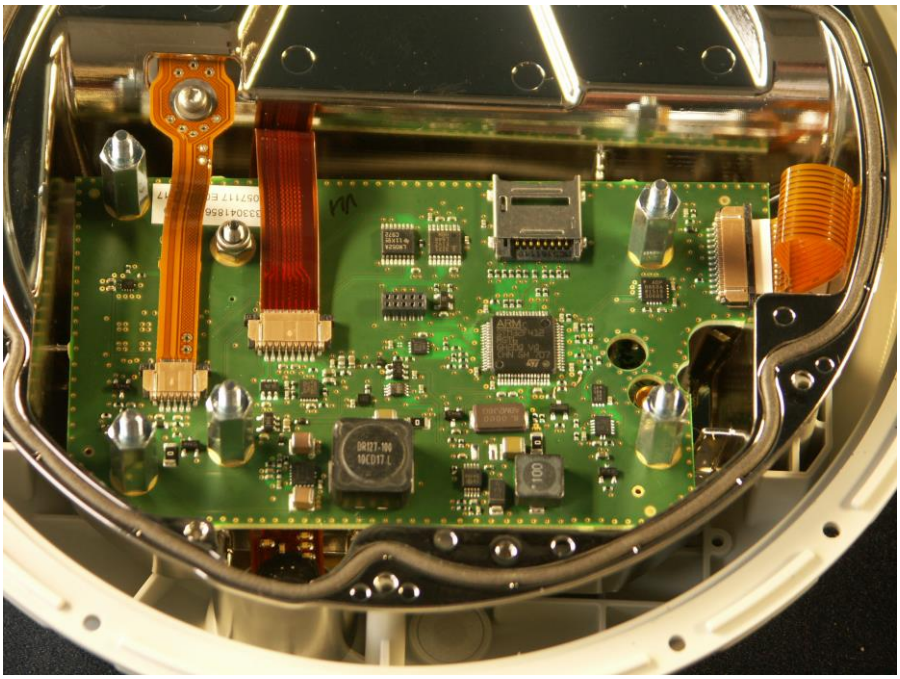

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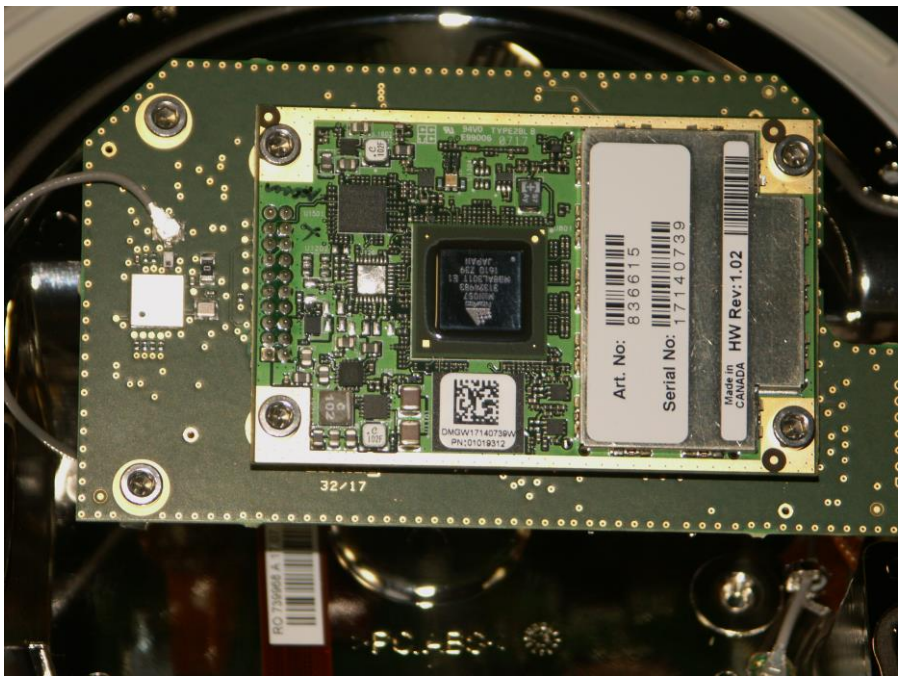
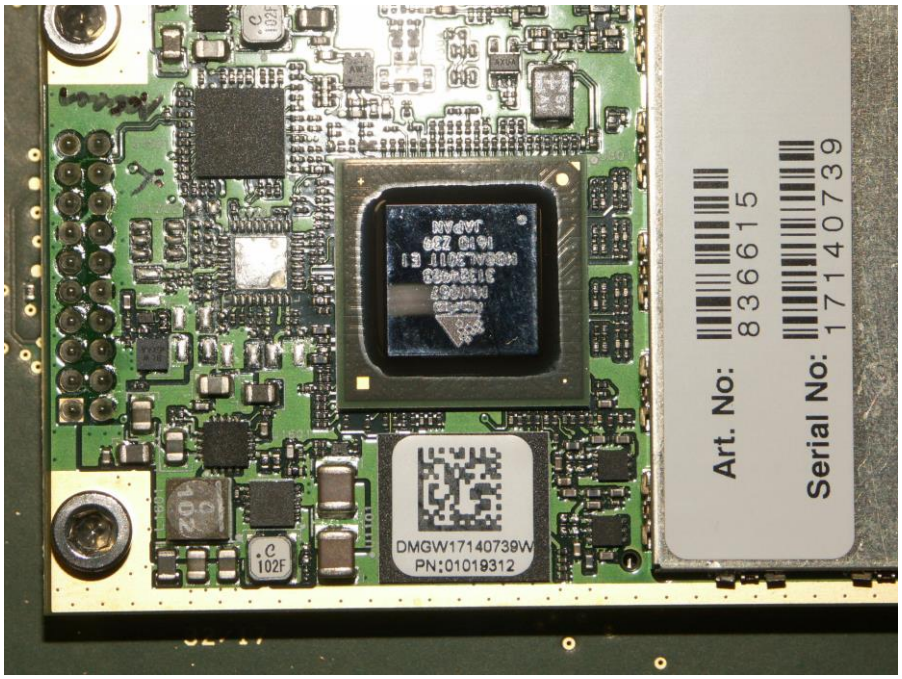
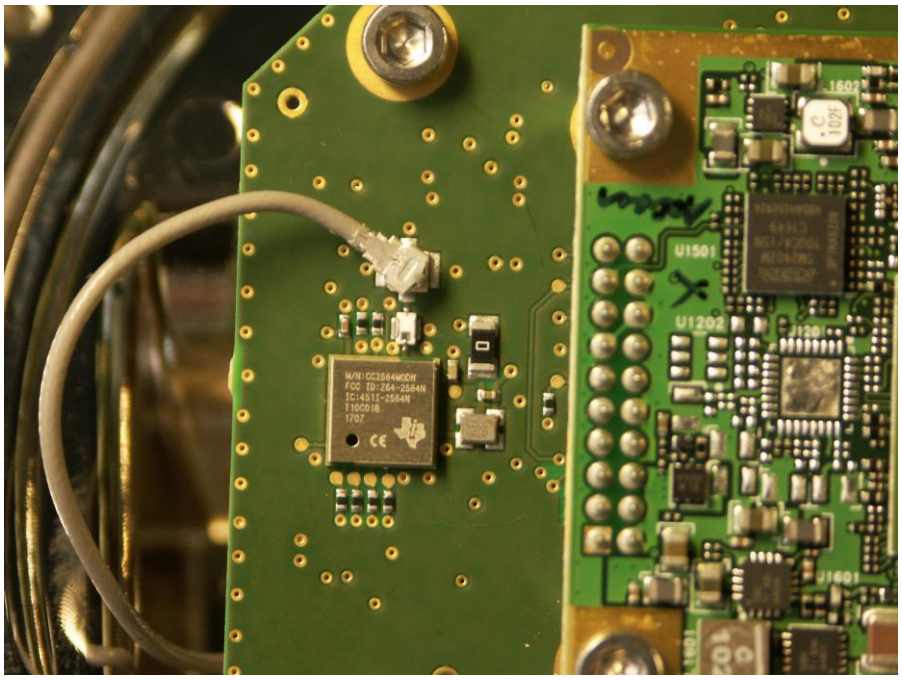


EUT INTERIOR

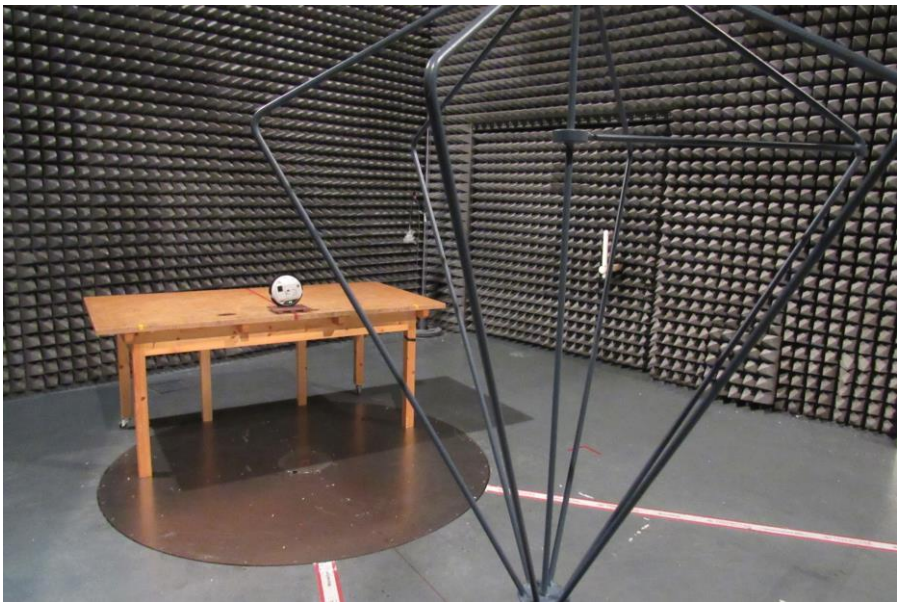


EUT INTERIOR

EUT INTERIOR



1.3 Photos – Test Setup

Test Setup


1.4 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
None				
Description:				
AE	Auxillary Equipment			
SIM	Simulator			
CBL	Connecting Cable			
Comment:				

1.5 Test mode duty cycle

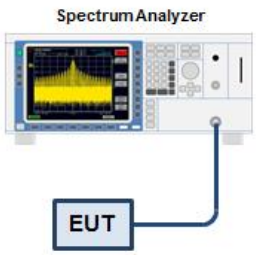
1.5.1 Information

Test Information	
Measurement Method	ANSI C63.10 11.6

1.5.2 Requirements

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

1.5.3 Setup

Test Setup


1.5.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01003	2017-07	2018-07

1.5.5 Procedure

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

1.5.6 Results

Duty Cycle Results		
Mode	Duty Cycle	Correction Factor [dB]
BT LE	100%	N/R

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

1.6 Test Modes

Mode	Description
GFSK	Mode = Transmit Modulation = GFSK Spreading = None Duty cycle = 100%
Receive	Mode = Receive
Comment:	

1.7 Test Frequencies

Designator	Mode	Channel	Frequency [MHz]
F1	Tx / Rx	0	2402
F2	Tx / Rx	19	2440
F3	Tx / Rx	39	2480

1.8 Sample emission level calculation

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

Reading:

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

A.F.:

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

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, ISED RSS-247				
Product Standard Reference	**Requirement**	**Reference Method**	**Result**	**Remarks**
RSS-Gen 6.6	Occupied Bandwidth	ANSI C63.10	N/R	Informational only
FCC § 15.247(a)(2) ISED RSS-247 § 5.2	6 dB Bandwidth	ANSI C63.10	N/T	
FCC § 15.247(b)(3) ISED RSS-247 § 5.4	Maximum peak conducted power	ANSI C63.10	N/T	
FCC § 15.247(e) ISED RSS-247 § 5.2	Power spectral density	ANSI C63.10	N/T	
FCC § 15.207 ISED RSS-247 § 3.1	AC power line conducted emissions	ANSI C63.10	N/T	
FCC § 15.247(d) ISED RSS-247 § 5.5	Band edge compliance	ANSI C63.10	N/T	
FCC § 15.247(d) ISED RSS-247 § 5.5	Conducted spurious emissions	ANSI C63.10	N/T	
FCC § 15.247(d) FCC § 15.209 ISED RSS-GEN § 8.9	Transmitter radiated spurious emissions	ANSI C63.10	PASS	
ISED RSS-247 § 3.1	Receiver radiated spurious emissions	ANSI C63.10	PASS	
Comment:				

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

3 Test Conditions and Results

3.1 Test Conditions and Results - Occupied bandwidth

3.1.1 Information

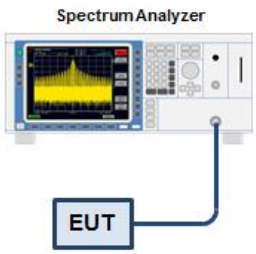
Test Information	
Reference	ISED RSS-Gen 6.6
Measurement Method	ANSI C63.10 6.9.3
Operator	Sebastian Suckow
Date	2017-11-07

3.1.2 Limits

Limits
None (Informational only)

3.1.3 Setup

Test Setup



3.1.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01003	2017-07	2018-07

3.1.5 Procedure

Test Procedure

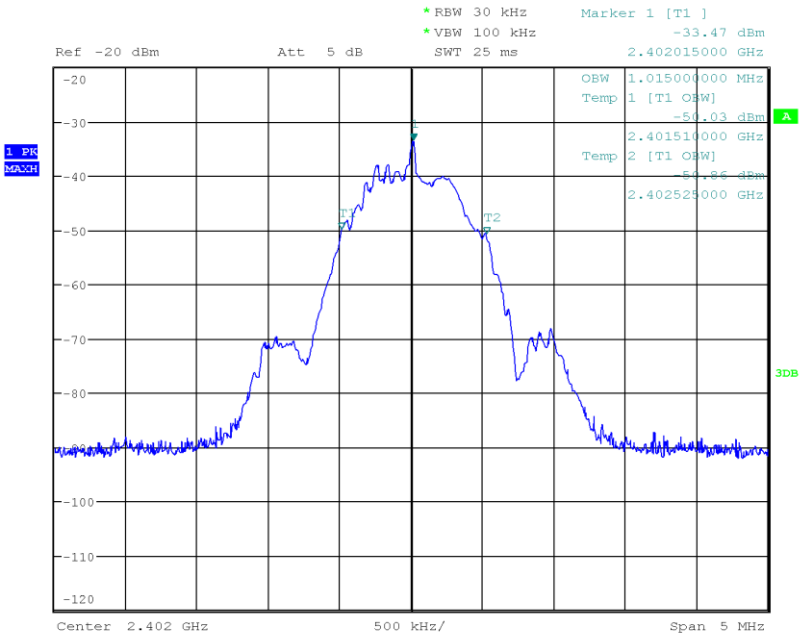
1. EUT transmitter is activated in test mode under normal conditions
2. The spectrum analyzer is set to peak detection and maximum hold with a span twice the emission spectrum
3. The resolution bandwidth is set to 1 % of the bandwidth
4. The occupied bandwidth is measured with the build-in analyzer function

3.1.6 Results

Test Results		
Mode	Frequency [MHz]	Bandwidth [MHz]
GFSK	2402	1.015
GFSK	2440	1.020
GFSK	2480	1.015

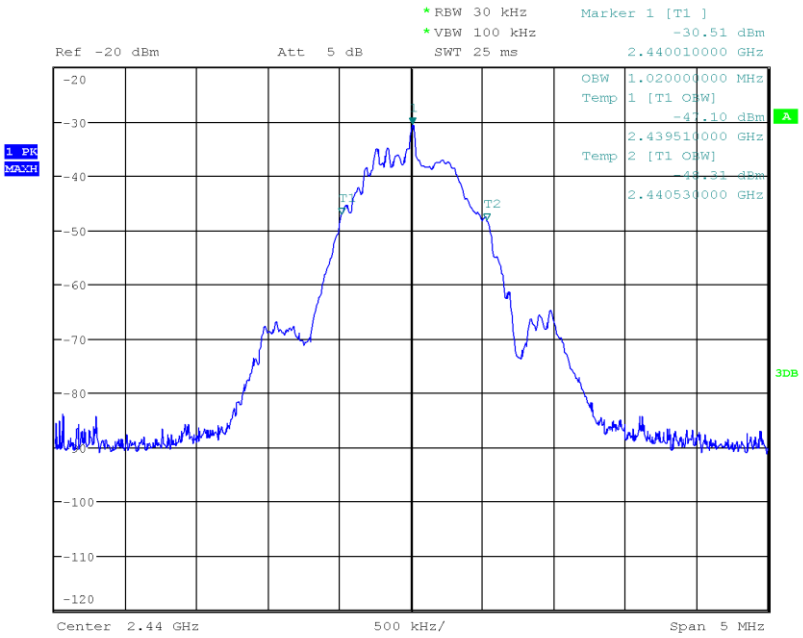
Occupied Bandwidth

Project Number:	G0M-1707-6725
Applicant:	Leica Geosystems AG
Model Description:	External GNSS Antenna
Model:	GG04 plus
Test Sample ID:	15123
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.9.3
Operational Mode:	GFSK, Channel: 0, 2402 MHz
Operating Conditions:	Tnom/Vnom
Operator:	S. Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2017-11-07
Occupied Bandwidth [MHz]:	1.015



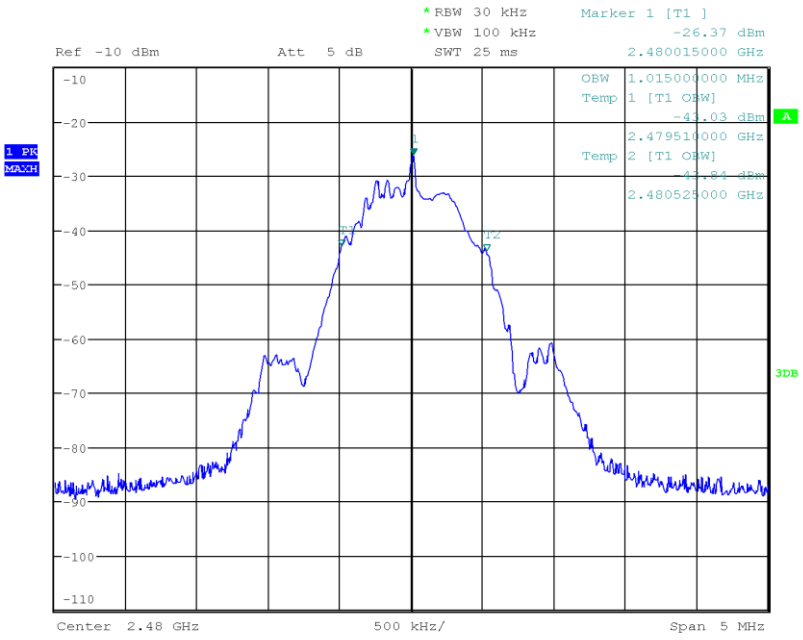
Occupied Bandwidth

Project Number:	G0M-1707-6725
Applicant:	Leica Geosystems AG
Model Description:	External GNSS Antenna
Model:	GG04 plus
Test Sample ID:	15123
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.9.3
Operational Mode:	GFSK, Channel: 19, 2440 MHz
Operating Conditions:	Tnom/Vnom
Operator:	S. Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2017-11-07
Occupied Bandwidth [MHz]:	1.020



Occupied Bandwidth

Project Number:	G0M-1707-6725
Applicant:	Leica Geosystems AG
Model Description:	External GNSS Antenna
Model:	GG04 plus
Test Sample ID:	15123
Reference Standards:	FCC 15.247, RSS-247
Reference Method:	ANSI C63.10:2013, Section 6.9.3
Operational Mode:	GFSK, Channel: 39, 2480 MHz
Operating Conditions:	Tnom/Vnom
Operator:	S. Suckow
Test Site:	Eurofins Product Service GmbH
Test Date:	2017-11-07
Occupied Bandwidth [MHz]:	1.015



3.2 Test Conditions and Results - Transmitter radiated emissions

3.2.1 Information

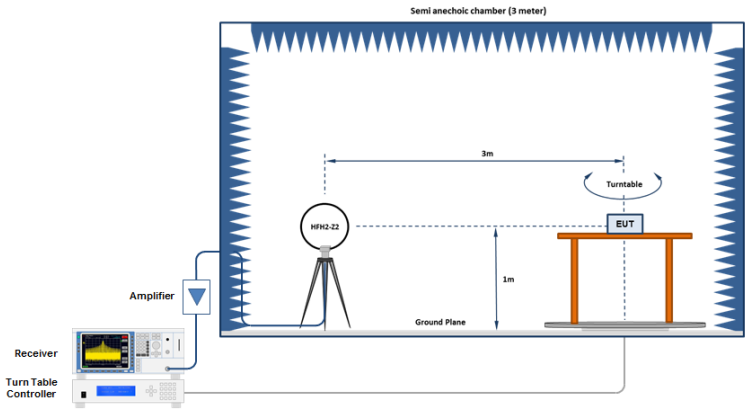
Test Information	
Reference	FCC 15.247(d) / ISED RSS-GEN 8.9
Measurement Method	ANSI C63.10 6.4, 6.5, 6.6, 11.12
Operator	Sebastian Suckow
Date	2017-10-27 – 2017-10-30

3.2.2 Limits

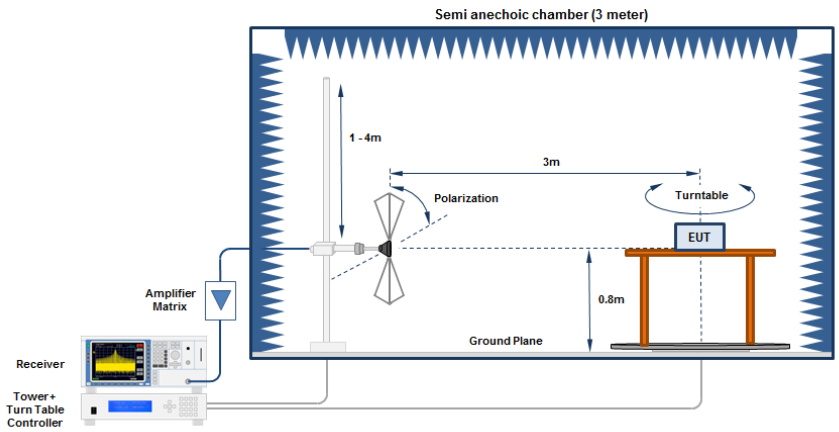
Limits			
Frequency [MHz]	Detector	Field strength [dBµV/m]	Measurement distance [m]
0.009 - 0.09	Average	2400/F[kHz]	300
0.09 - 0.110	Quasi-Peak	2400/F[kHz]	300
0.110 - 0.490	Average	2400/F[kHz]	300
0.490 - 1.705	Quasi-Peak	24000/F[kHz]	30
1.705 - 30.0	Quasi-Peak	30	30
30 - 88	Quasi-Peak	100	3
88 - 216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

3.2.3 Setup

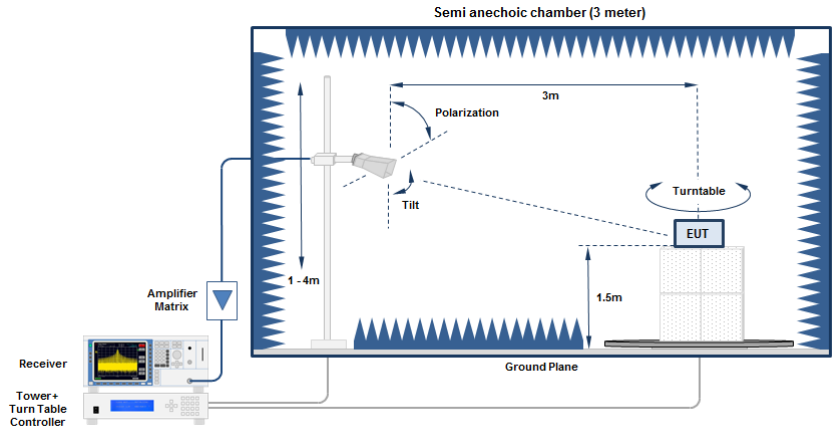
Test Setup < 30 MHz



Test Setup 30 - 1000 MHz



Test Setup > 1 GHz



3.2.4 Equipment

Test Equipment < 30 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	-	-
Loop Antenna	R&S	HFH2-Z2	EF00184	2016-12	2018-12
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2017-08	2018-08

Test Equipment 30 - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	-	-
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2017-08	2018-08
Antenna	R&S	HK 116	EF00012	2016-05	2019-05
Antenna	R&S	HL 223	EF00187	2016-05	2019-05

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	-	-
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2017-08	2018-08
Antenna	R&S	BBHA 9120D	EF01153	2017-08	2018-08
Antenna	Amplifier Research	AT4560	EF01152	2017-10	2018-10

3.2.5 Procedure

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

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

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

3.2.6 Results

Test Results						
Channel [MHz]	Emission [MHz]	Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dB]
2402	2311.6	54.05	pk	hor	74.00	-19.95
2402	2311.6	39.24	RMS	hor	54.00	-14.76
2402	2376.8	58.08	pk	hor	74.00	-15.92
2402	2376.8	39.77	RMS	hor	54.00	-14.23
2440	2384.9	53.79	pk	hor	74.00	-20.21
2440	2384.9	24.41	avg	hor	54.00	-29.59
2440	2489.6	51.56	pk	hor	74.00	-22.44
2440	4880	43.99	pk	hor	74.00	-30.01
2440	4880	41.85	pk	ver	74.00	-32.15
2480	2374	53.95	pk	hor	74.00	-20.05
2480	2374	27.73	avg	hor	54.00	-26.27
2480	2483.5	60.45	pk	hor	74.00	-13.55
2480	2483.5	52.04	RMS	hor	54.00	-01.96
2480	2483.5	54.50	pk	ver	74.00	-19.50
2480	2483.5	43.74	RMS	ver	54.00	-10.26

3.3 Test Conditions and Results - Receiver radiated emissions

3.3.1 Information

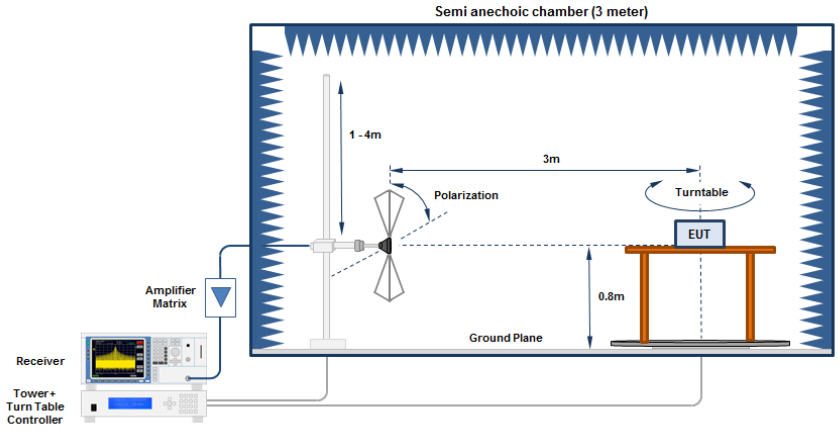
Test Information	
Reference	ISED RSS-247 3.1
Measurement Method	ANSI C63.10 6.5, 6.6, 11.12
Operator	Sebastian Suckow
Date	2017-10-24 – 2017-10-27

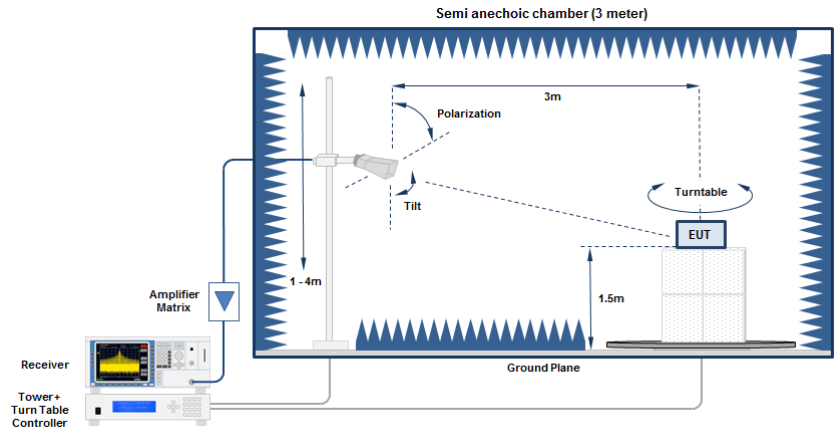
3.3.2 Limits

Limits			
Frequency [MHz]	Detector	Field strength [dBµV/m]	Measurement distance [m]
30 - 88	Quasi-Peak	100	3
88 - 216	Quasi-Peak	150	3
216 - 960	Quasi-Peak	200	3
960 - 1000	Quasi-Peak	500	3
>1000	Average	500	3

3.3.3 Setup

Test Setup 30 - 1000 MHz



Test Setup > 1 GHz


3.3.4 Equipment

Test Equipment 30 - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	-	-
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2017-08	2018-08
Antenna	R&S	HK 116	EF00012	2016-05	2019-05
Antenna	R&S	HL 223	EF00187	2016-05	2019-05

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	-	-
Measurement Receiver	Agilent	N9038A-526/WXP	EF01070	2017-08	2018-08
Antenna	R&S	BBHA 9120D	EF01153	2017-08	2018-08
Antenna	Amplifier Research	AT4560	EF01152	2017-10	2018-10

3.3.5 Procedure

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

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

3.3.6 Results

Test Results						
Channel [MHz]	Emission [MHz]	Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dB]
2440	No significant spurious emissions					

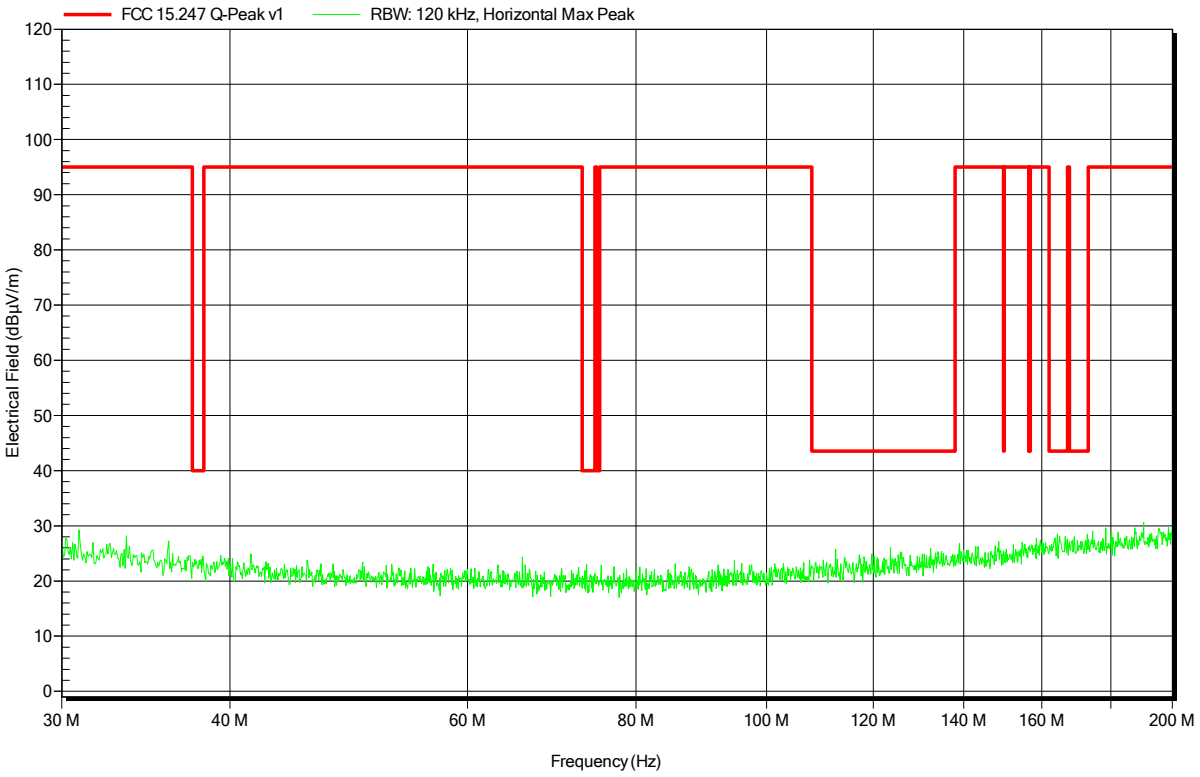
ANNEX A Transmitter spurious emissions

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-24
Note:	MA 100 TT 0

Index 2



Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-24
Note:	MA 100 TT 0

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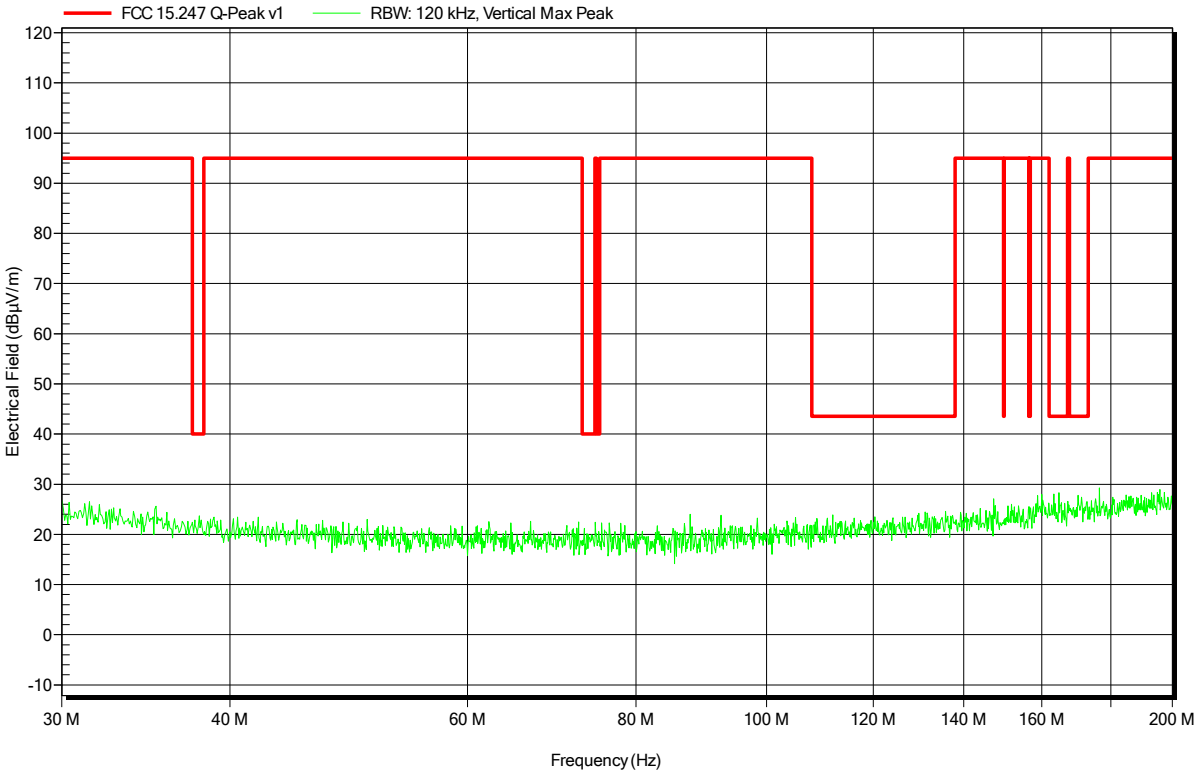

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-24
Note:	

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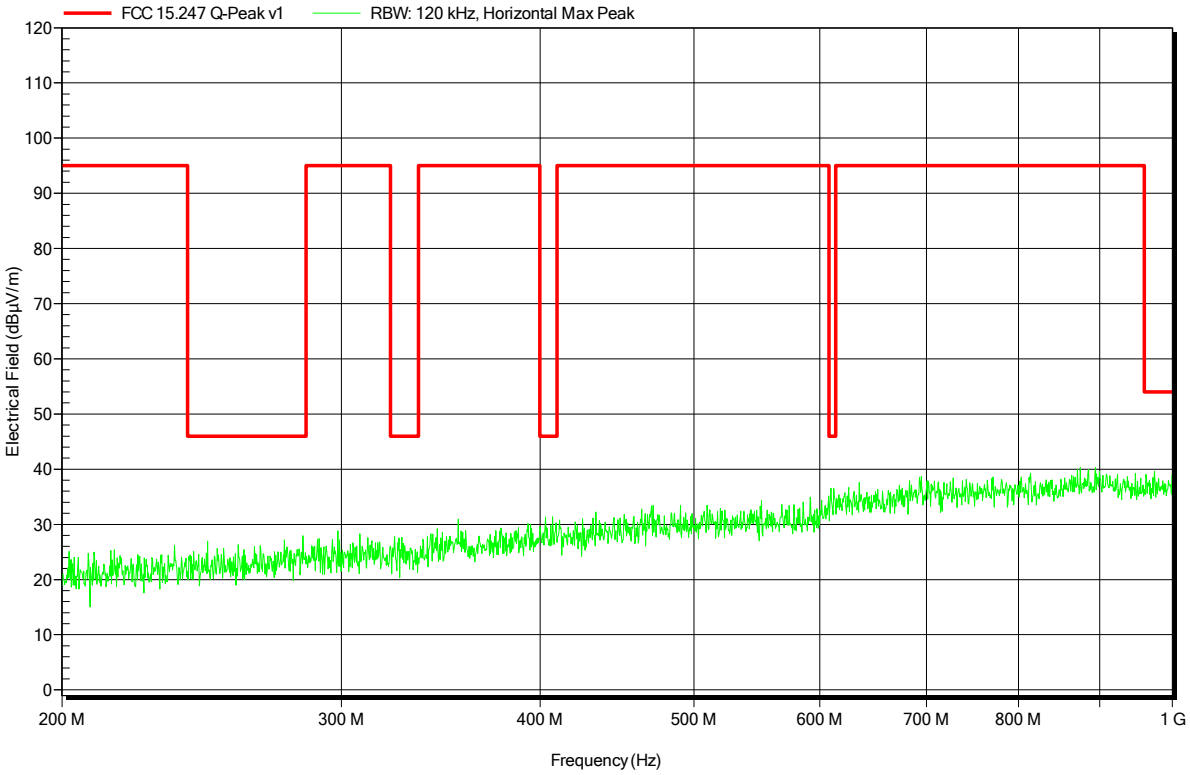

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-24
Note:	

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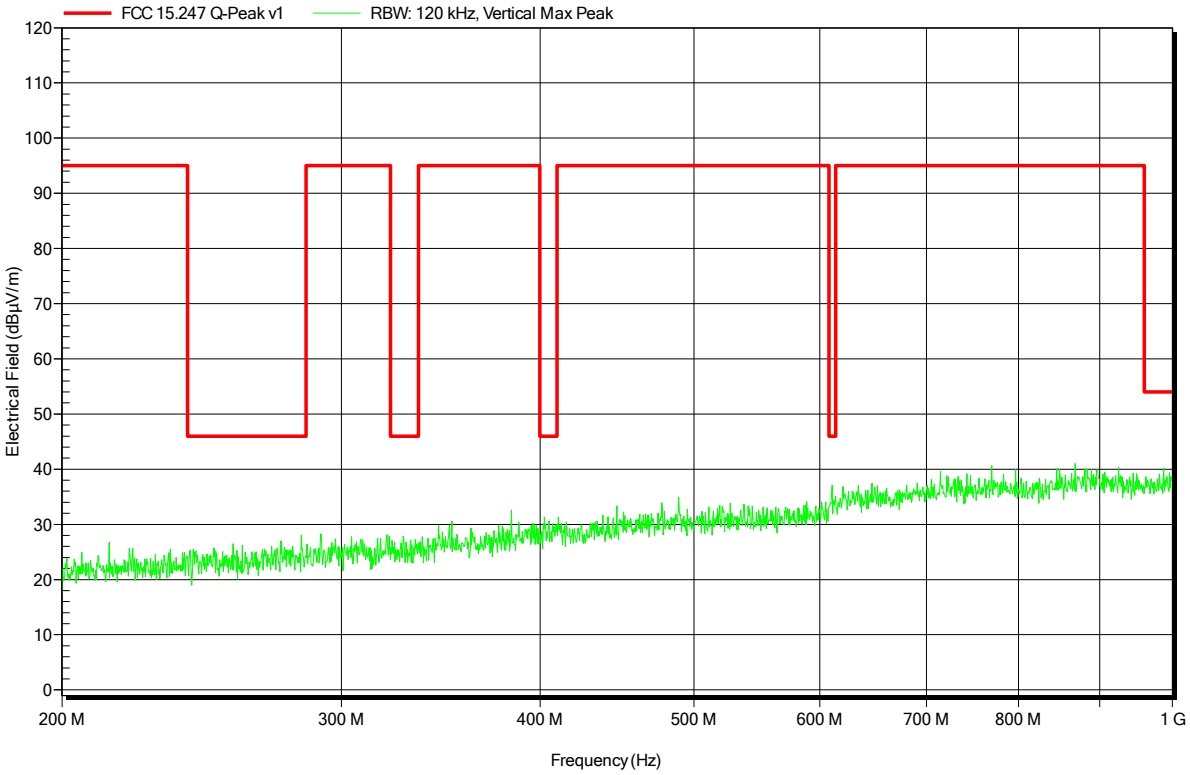

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-26
Note:	

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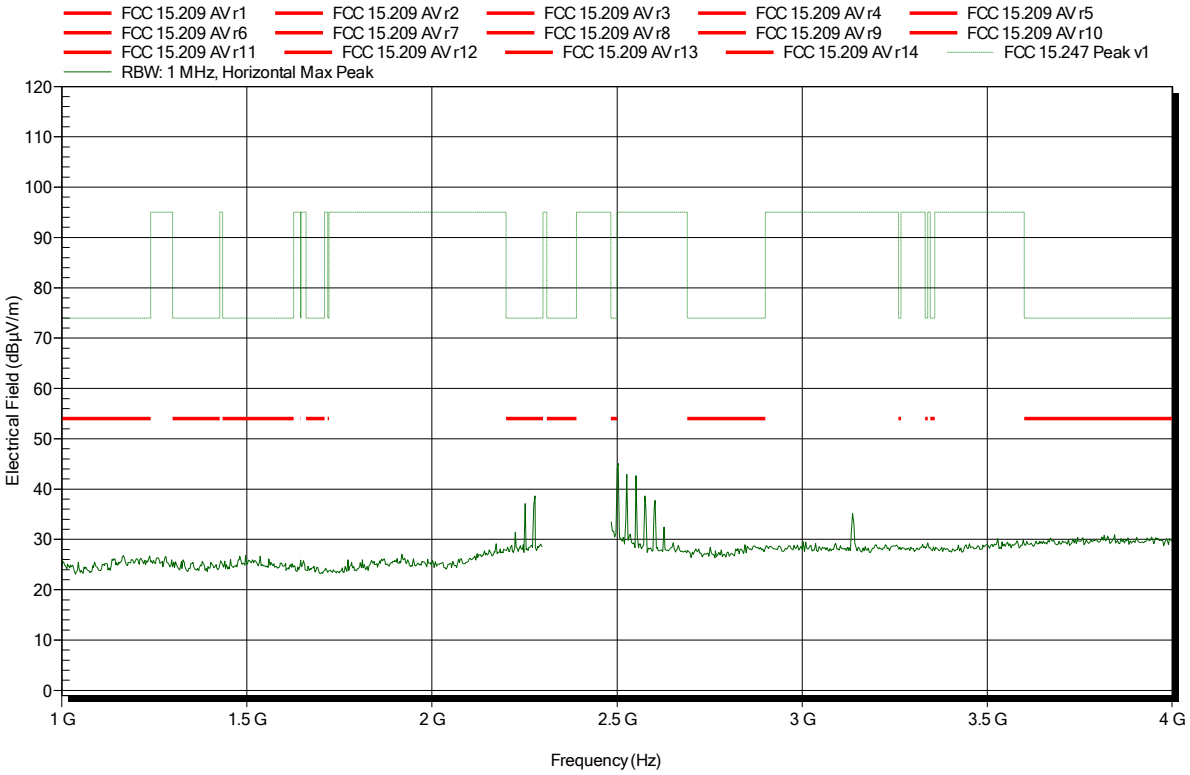

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-26
Note:	

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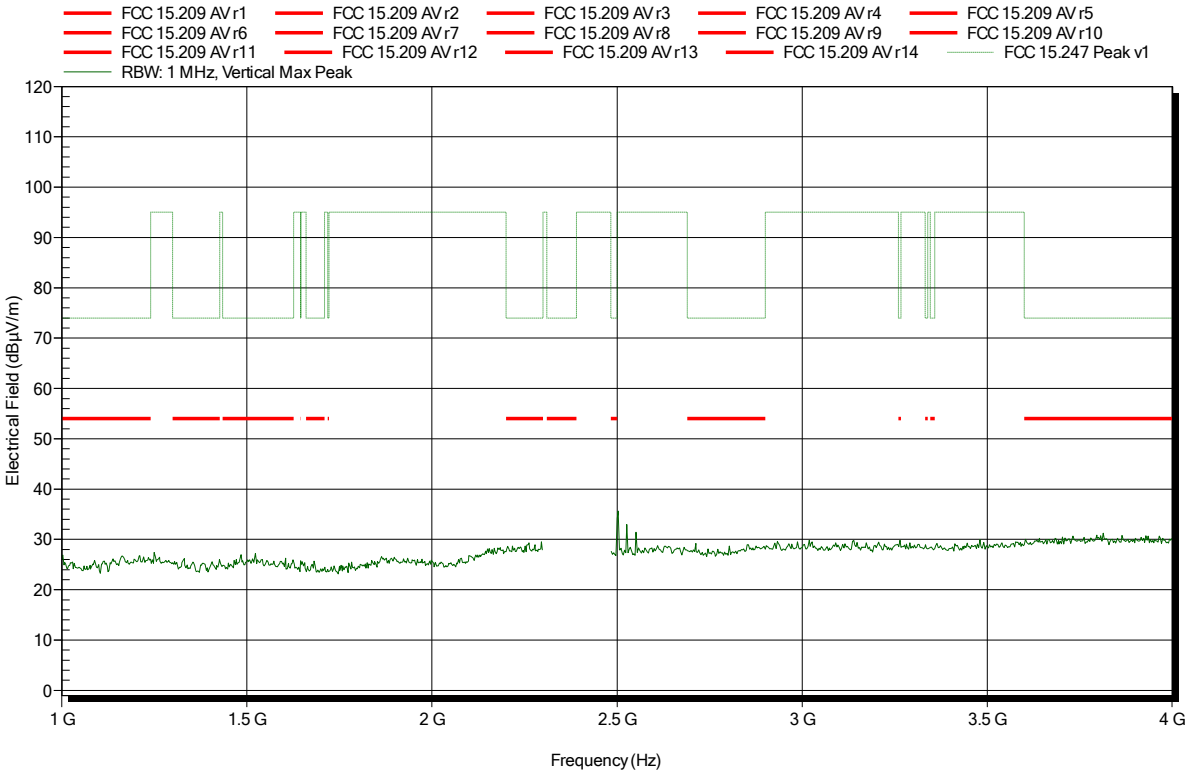

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-27
Note:	lower bandedge

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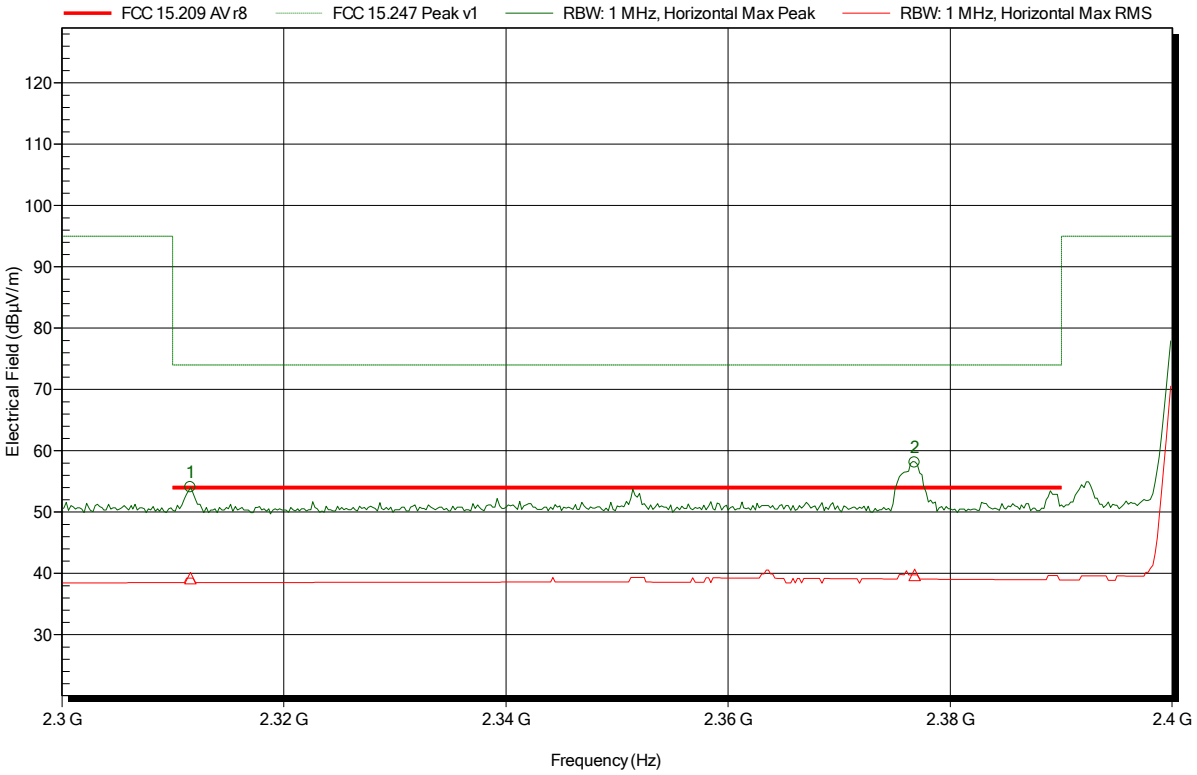

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.3116 GHz	54.05 dBµV/m	74 dBµV/m	-19.95 dB	Pass
2.3768 GHz	58.08 dBµV/m	74 dBµV/m	-15.92 dB	Pass

Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.3116 GHz	39.24 dBµV/m	54 dBµV/m	-14.76 dB	Pass
2.3768 GHz	39.77 dBµV/m	54 dBµV/m	-14.23 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-27
Note:	lower bandedge

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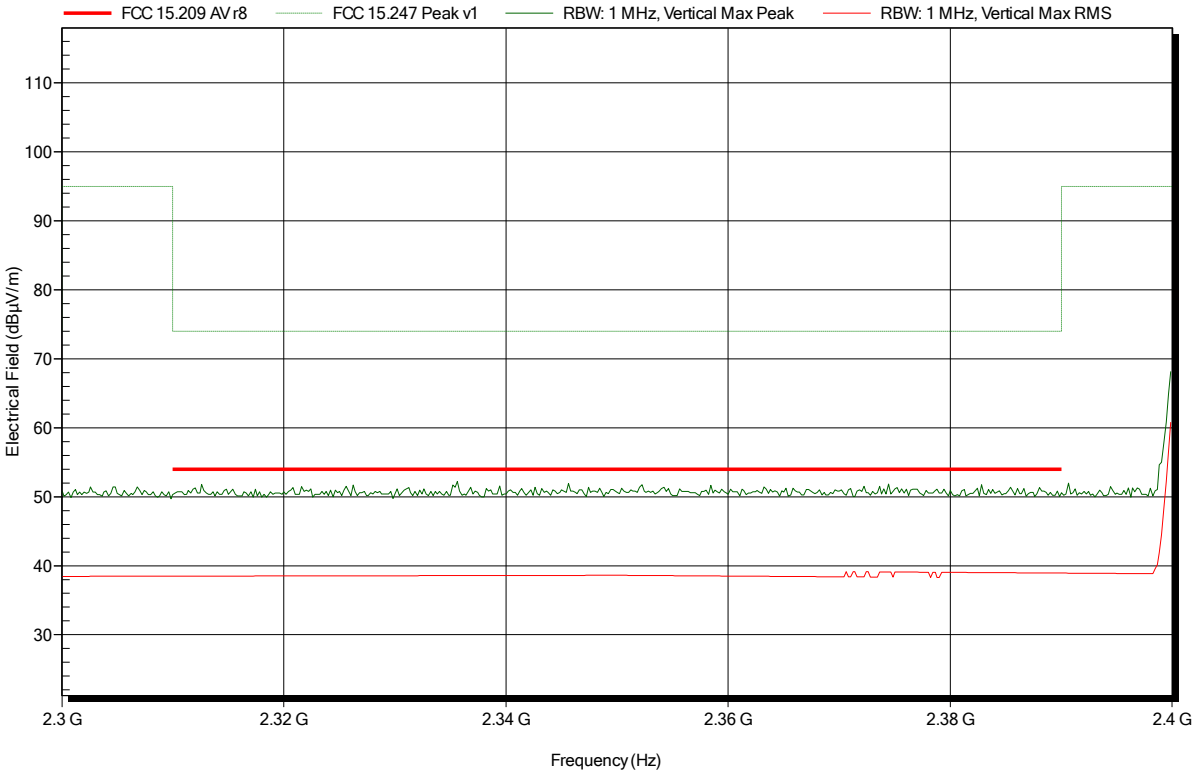

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-26
Note:	

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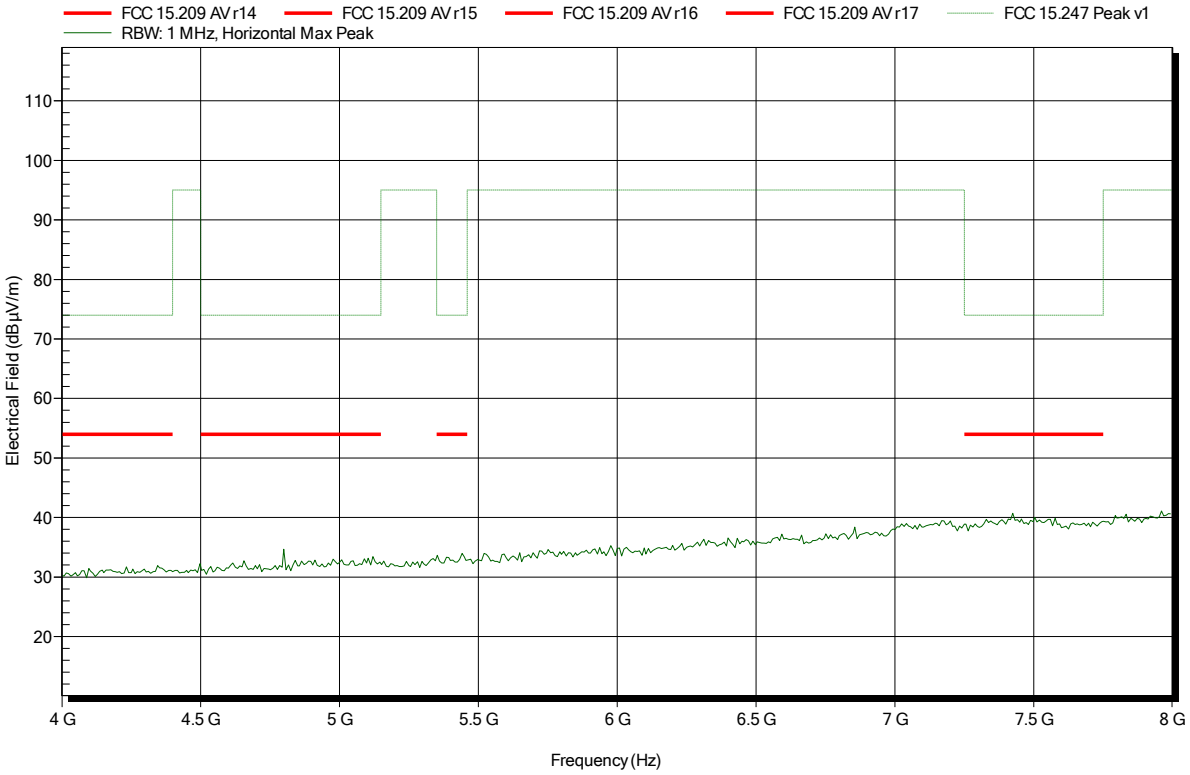

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-26
Note:	

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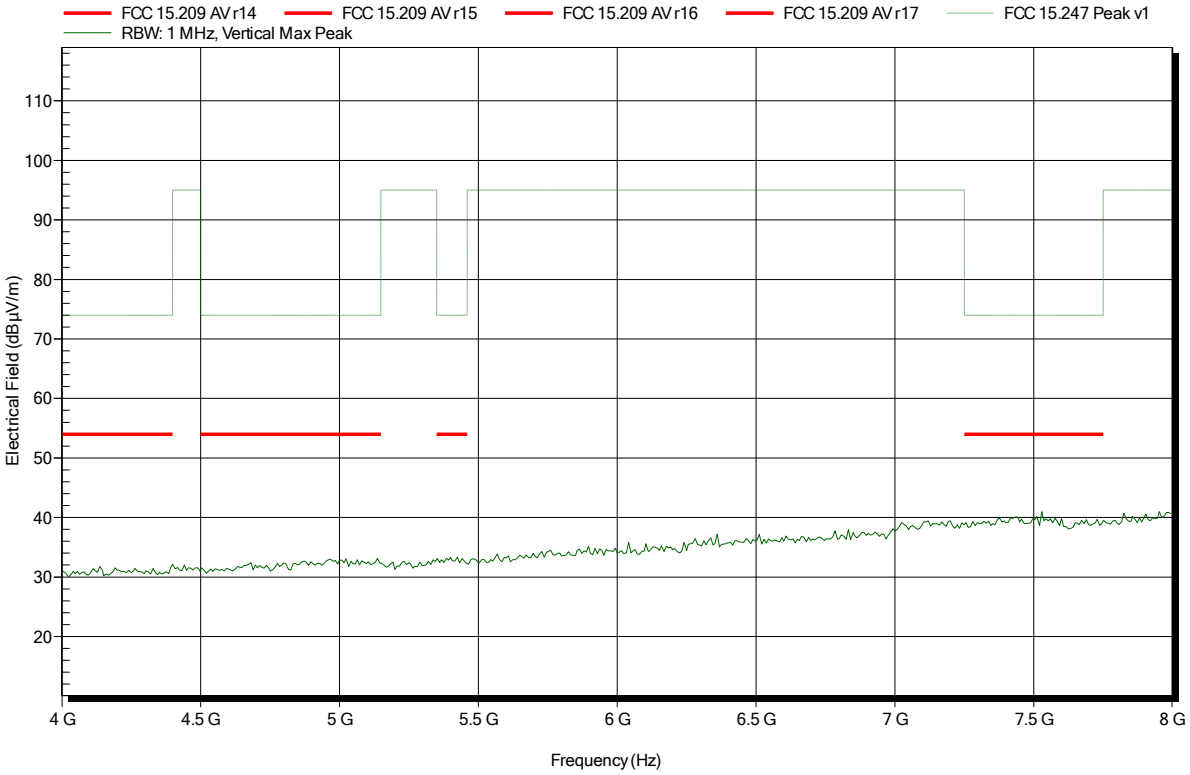

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-26
Note:	

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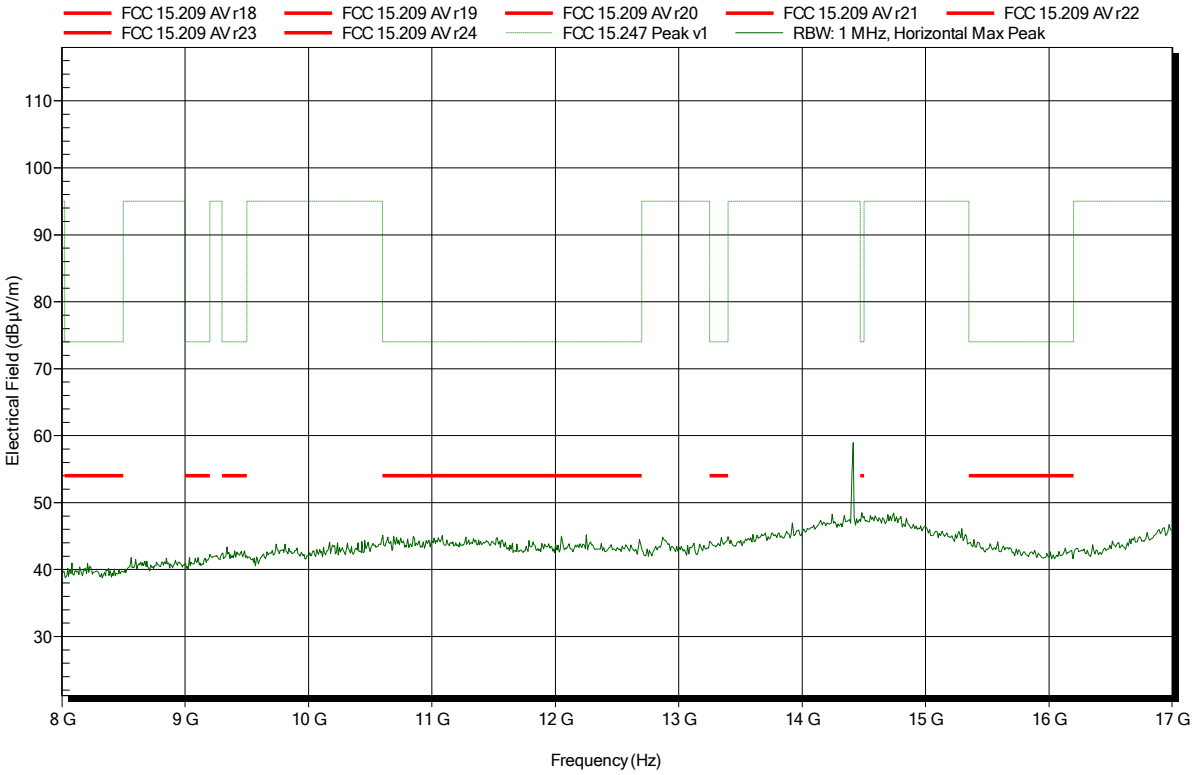

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-26
Note:	

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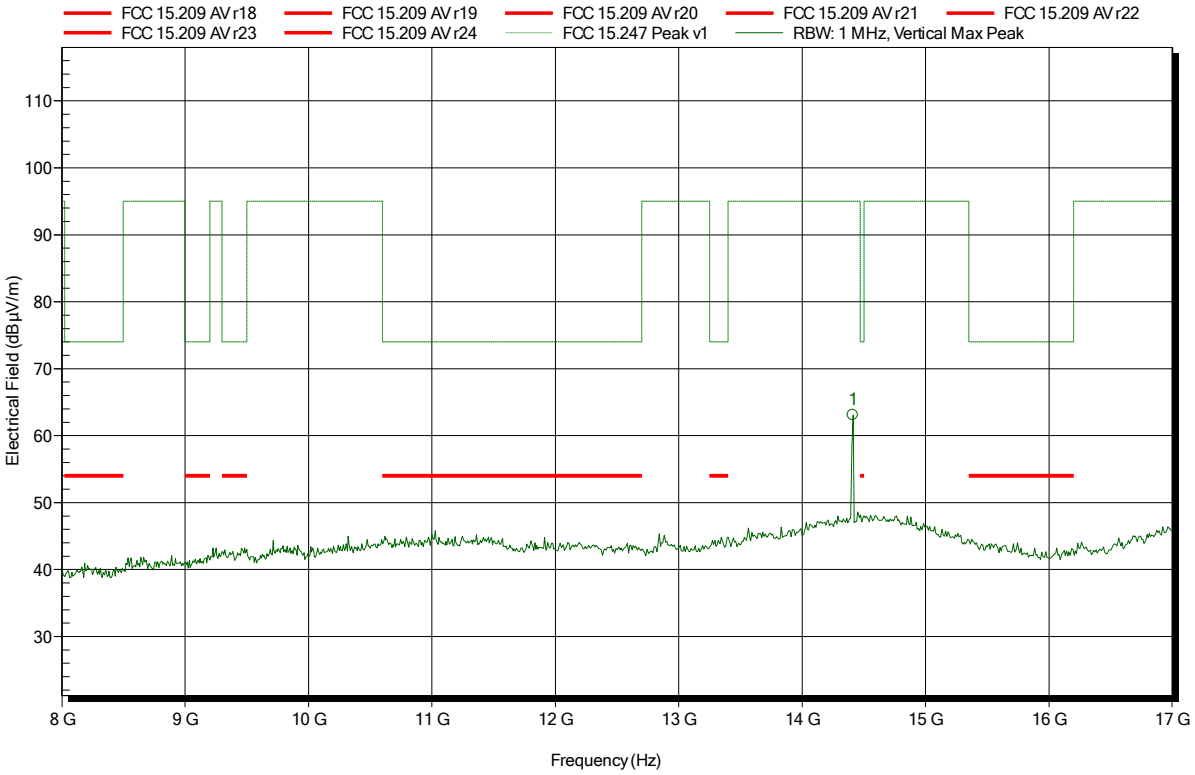

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
14.41 GHz	63.07 dBµV/m	95 dBµV/m	-31.93 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Amplifier Research AT 4560, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-27
Note:	

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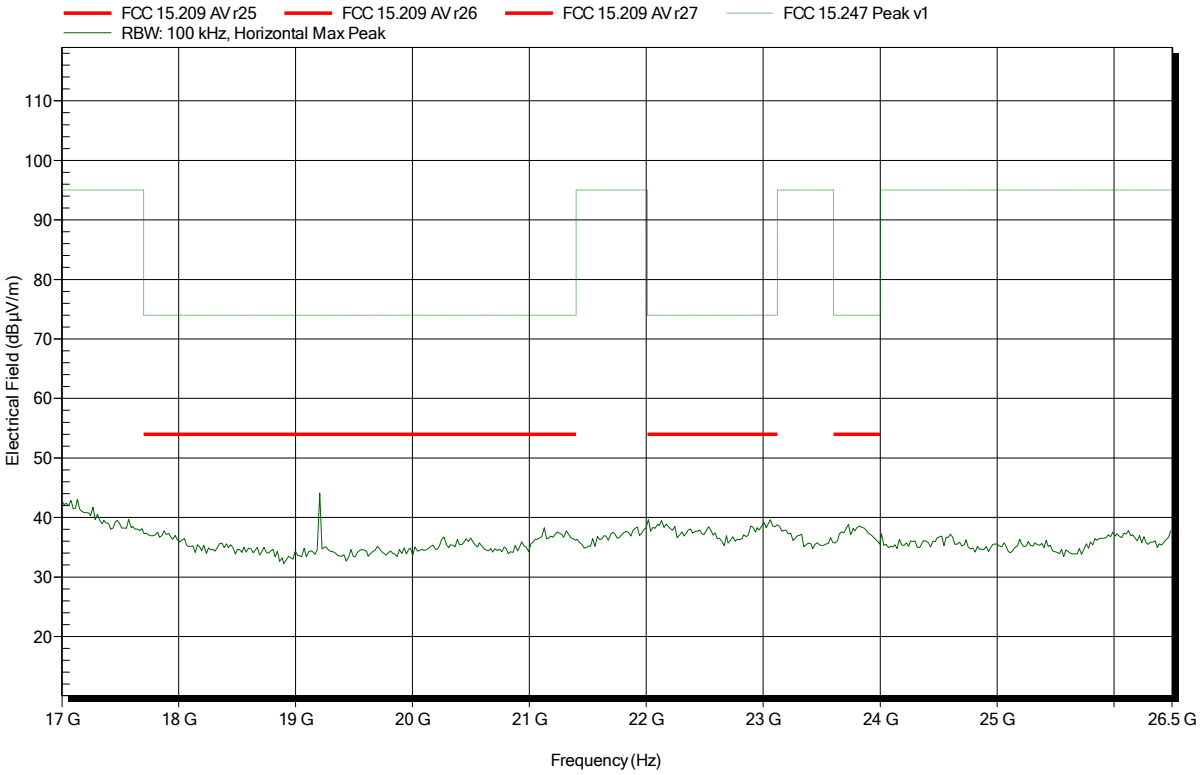

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Amplifier Research AT 4560, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2402 MHz
Test Date:	2017-10-27
Note:	

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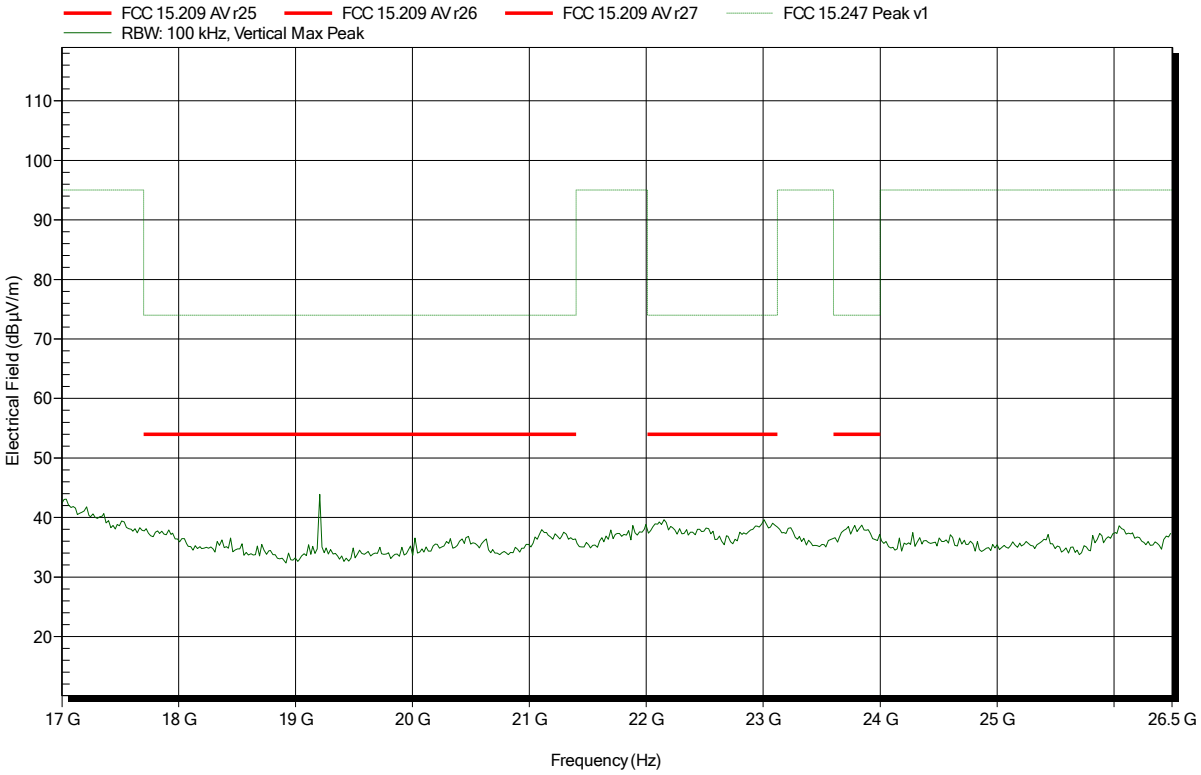

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-24
Note:	

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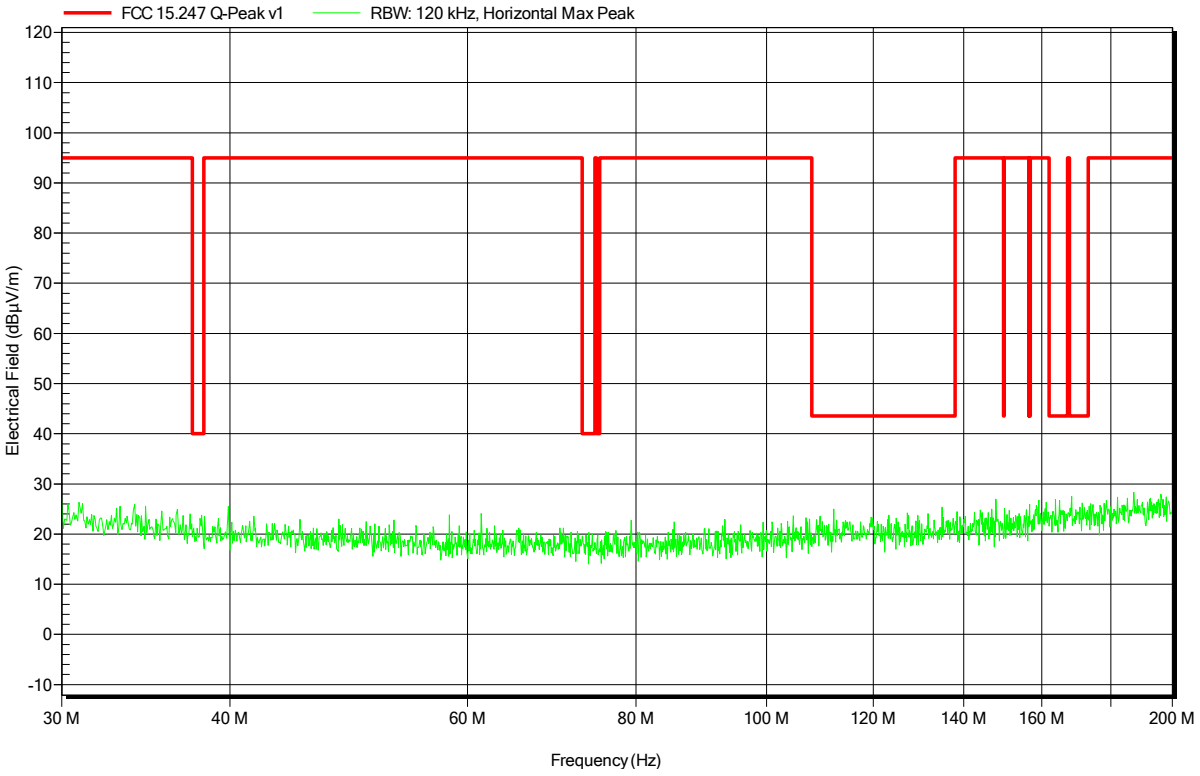

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-24
Note:	

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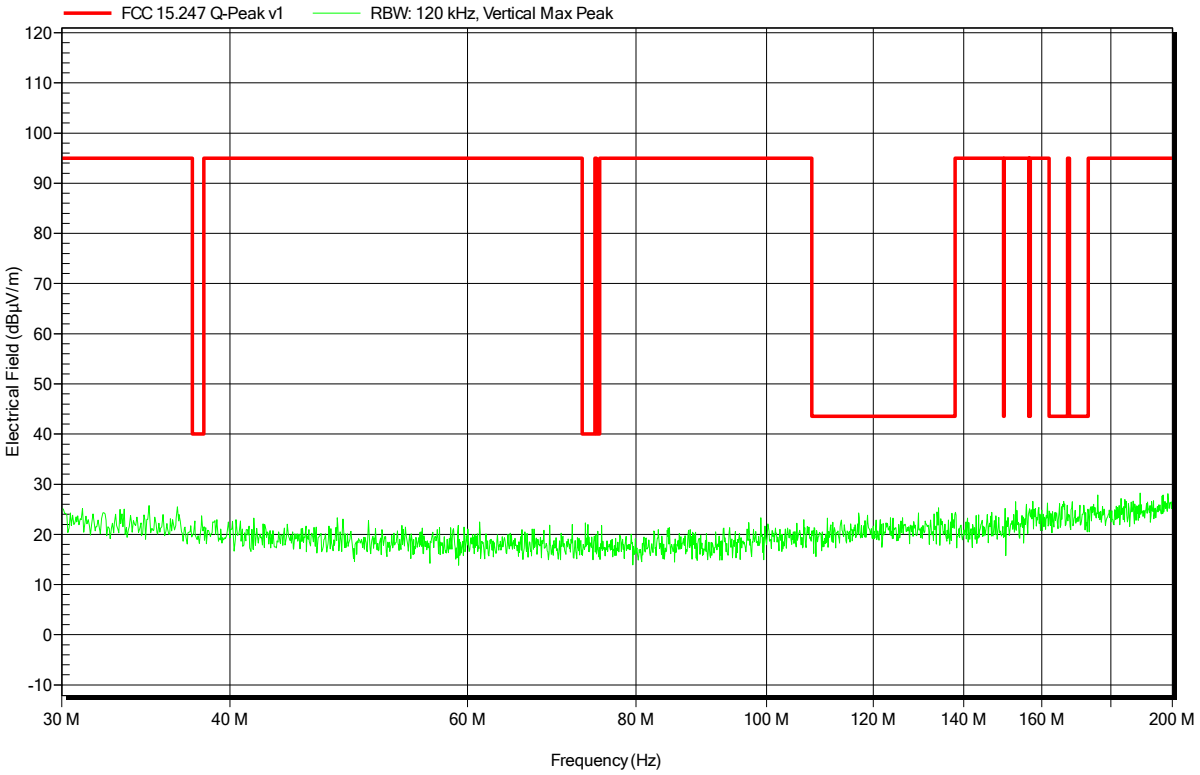

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-24
Note:	

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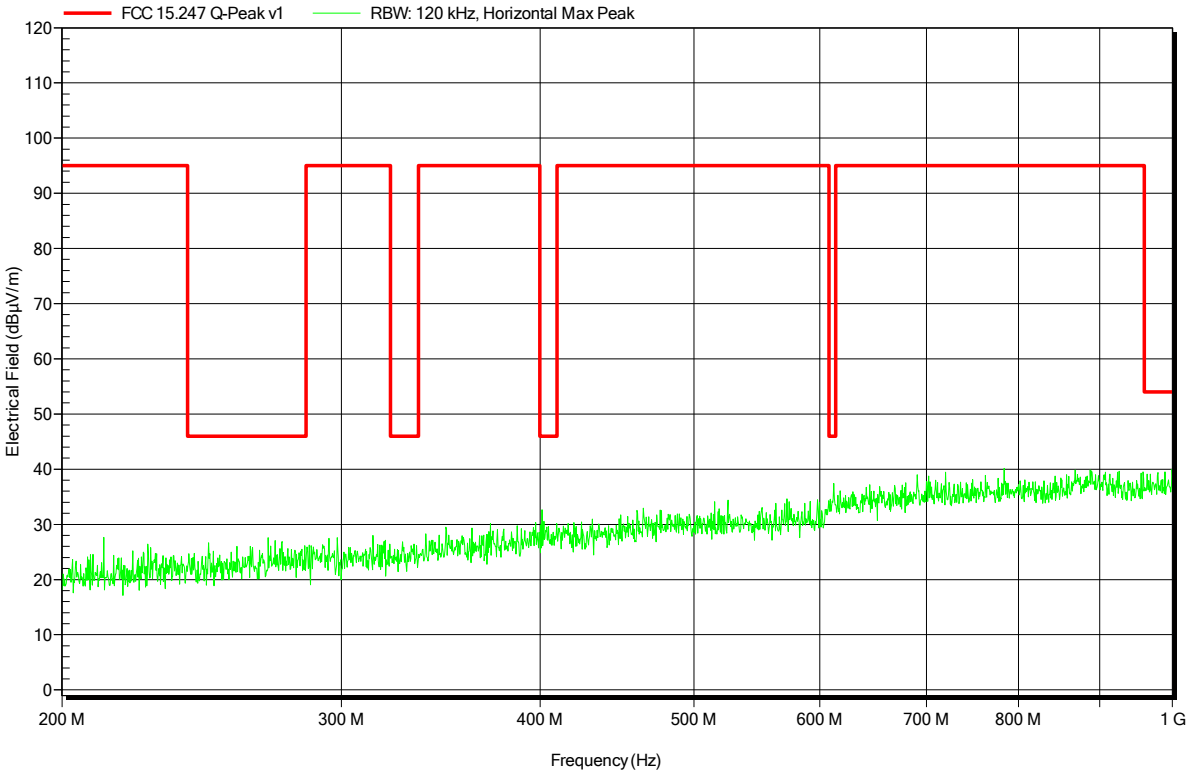

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-24
Note:	

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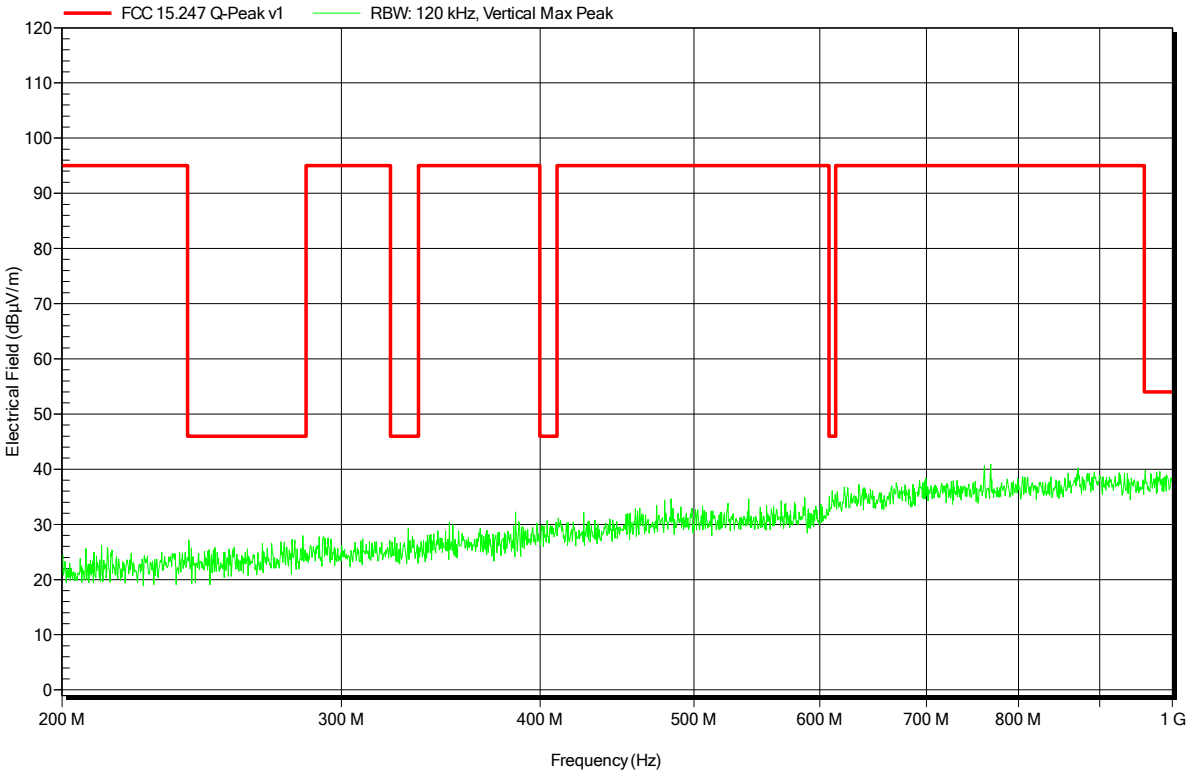

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-26
Note:	

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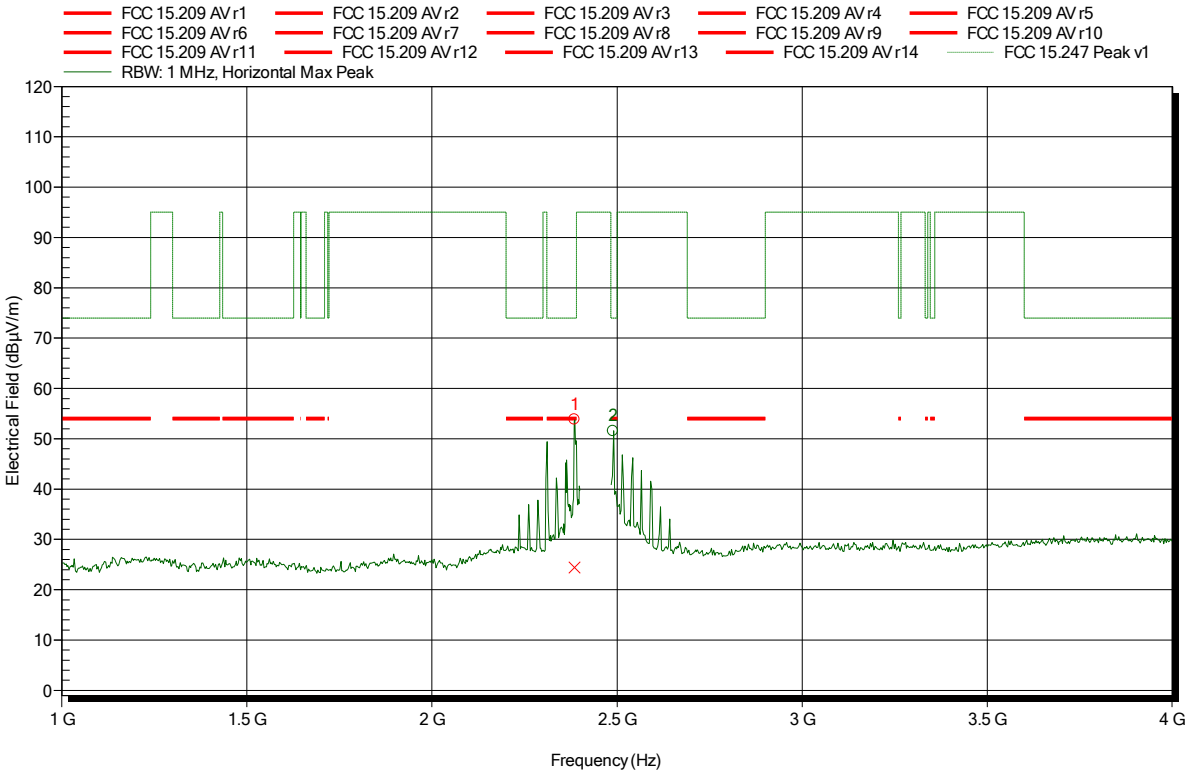

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.3849 GHz	53.79 dBµV/m	74 dBµV/m	-20.21 dB	Pass
2.4896 GHz	51.56 dBµV/m	74 dBµV/m	-22.44 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.3849 GHz	24.41 dBµV/m	54 dBµV/m	-29.59 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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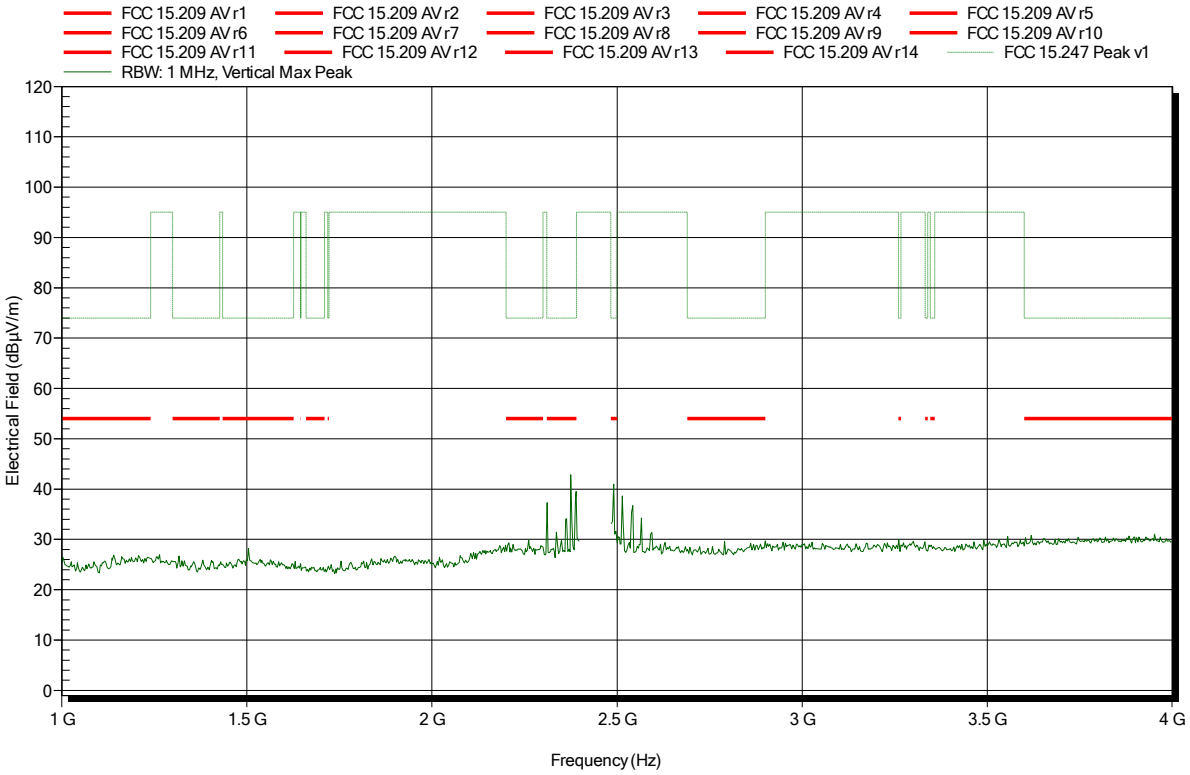

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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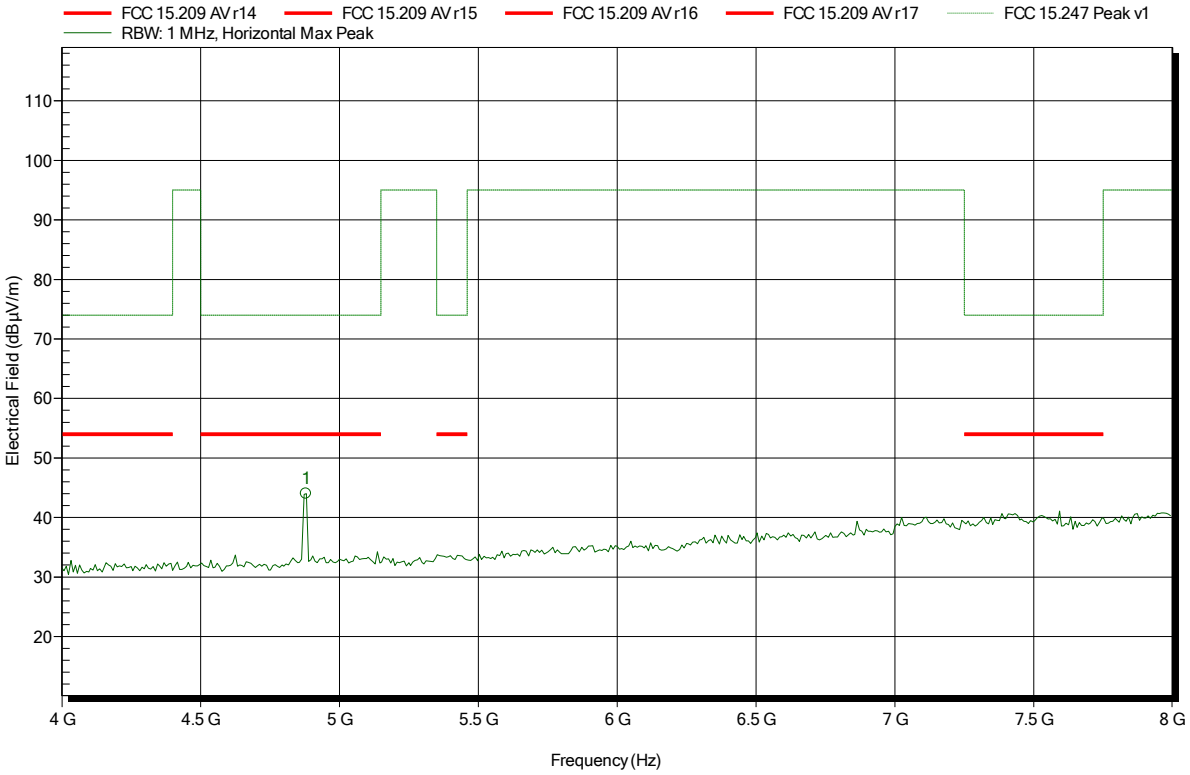

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.88 GHz	43.99 dBµV/m	74 dBµV/m	-30.01 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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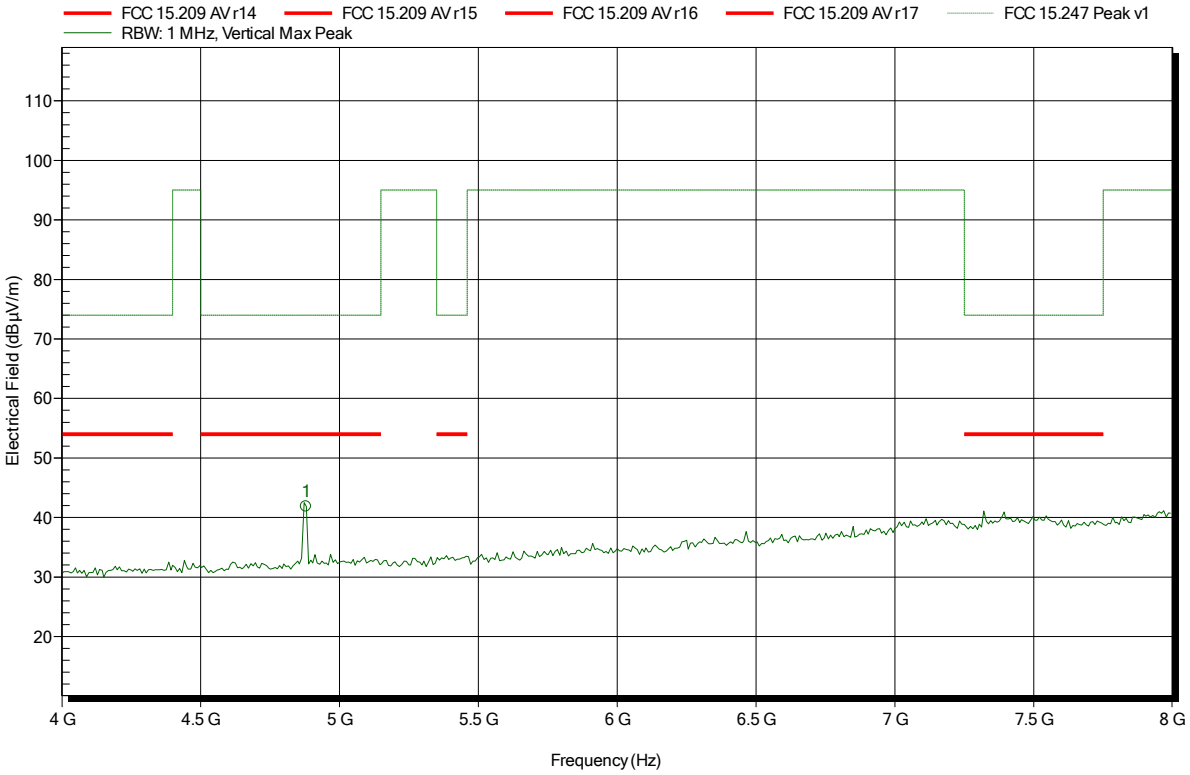

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
4.88 GHz	41.85 dBµV/m	74 dBµV/m	-32.15 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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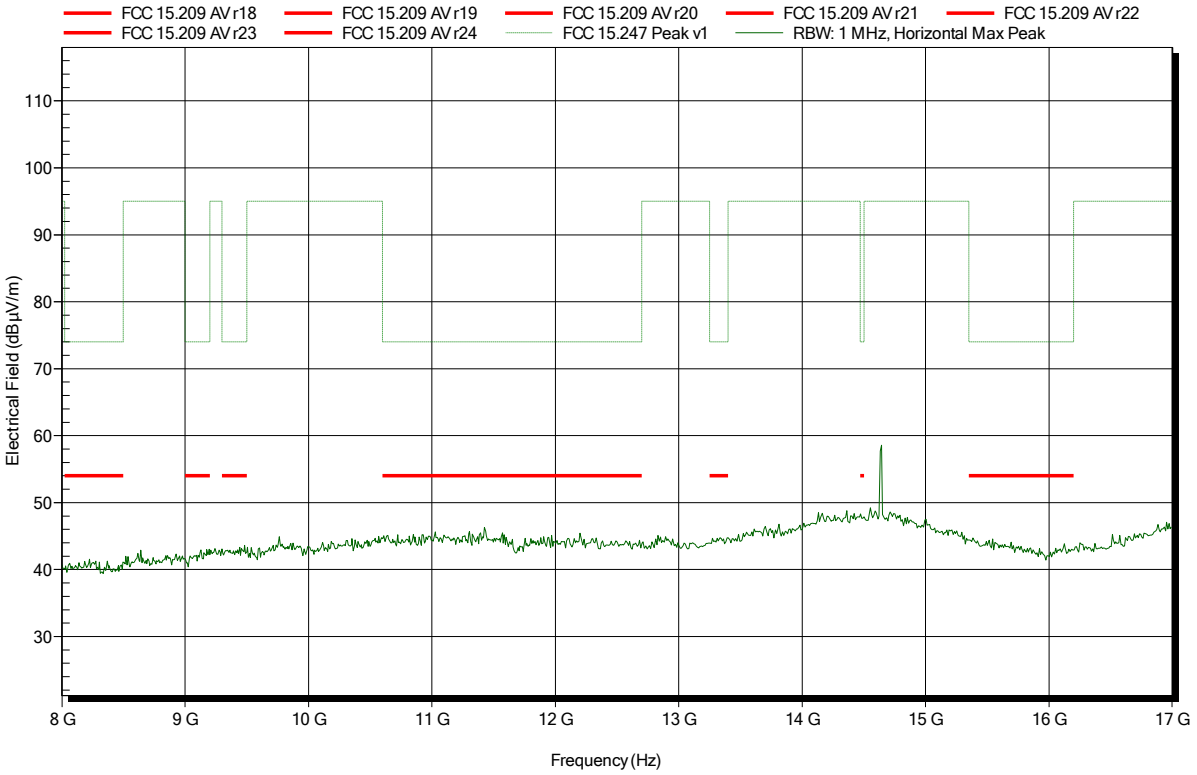

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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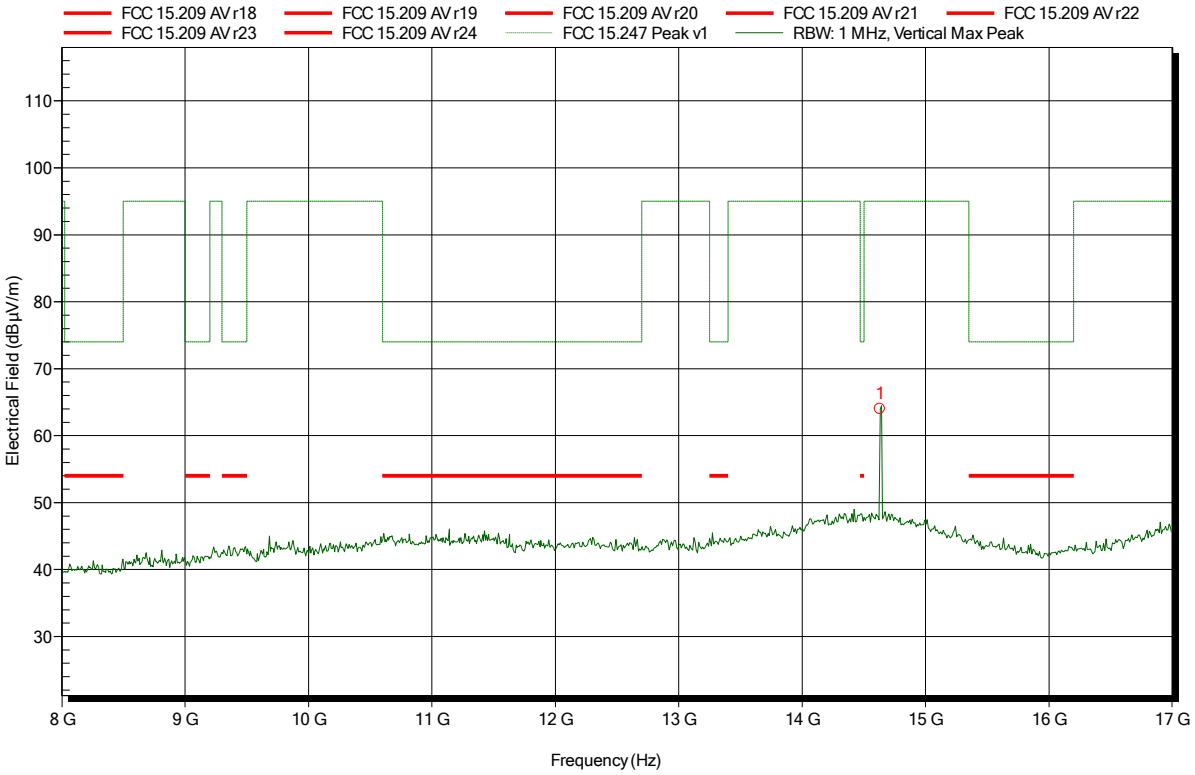

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
14.63 GHz	64 dBµV/m	95 dBµV/m	-31 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Amplifier Research AT 4560, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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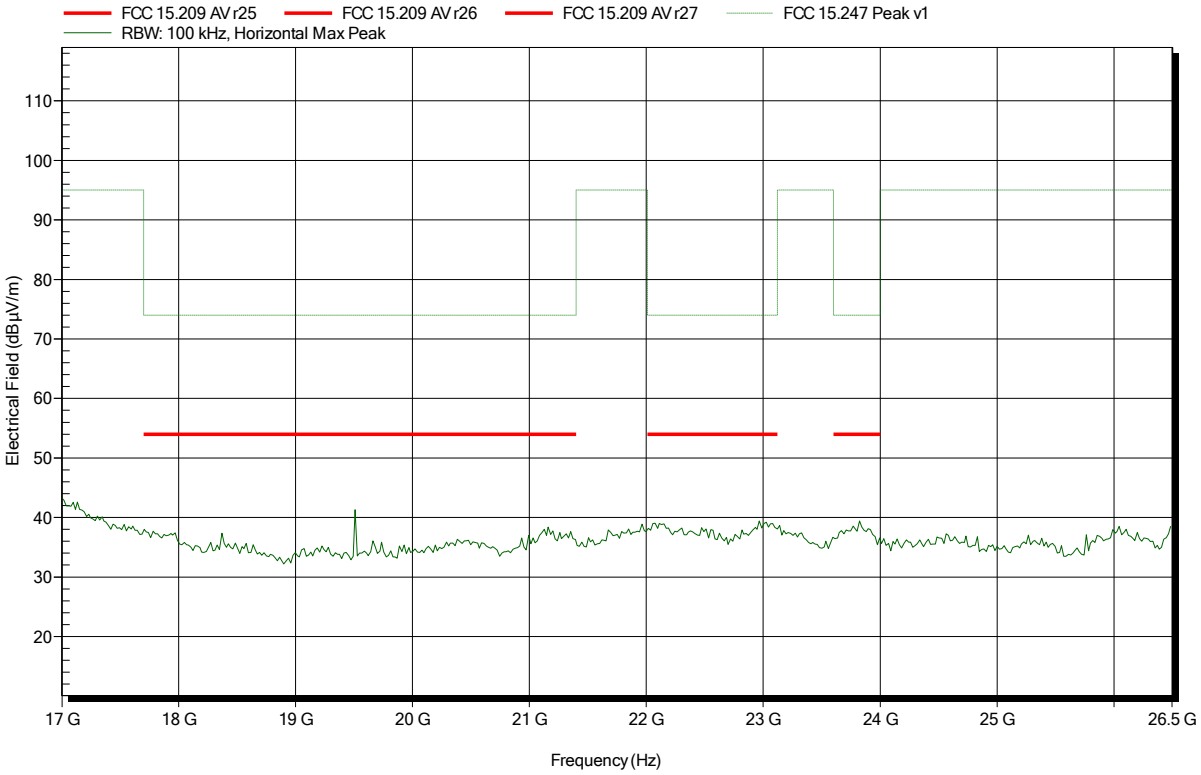

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Amplifier Research AT 4560, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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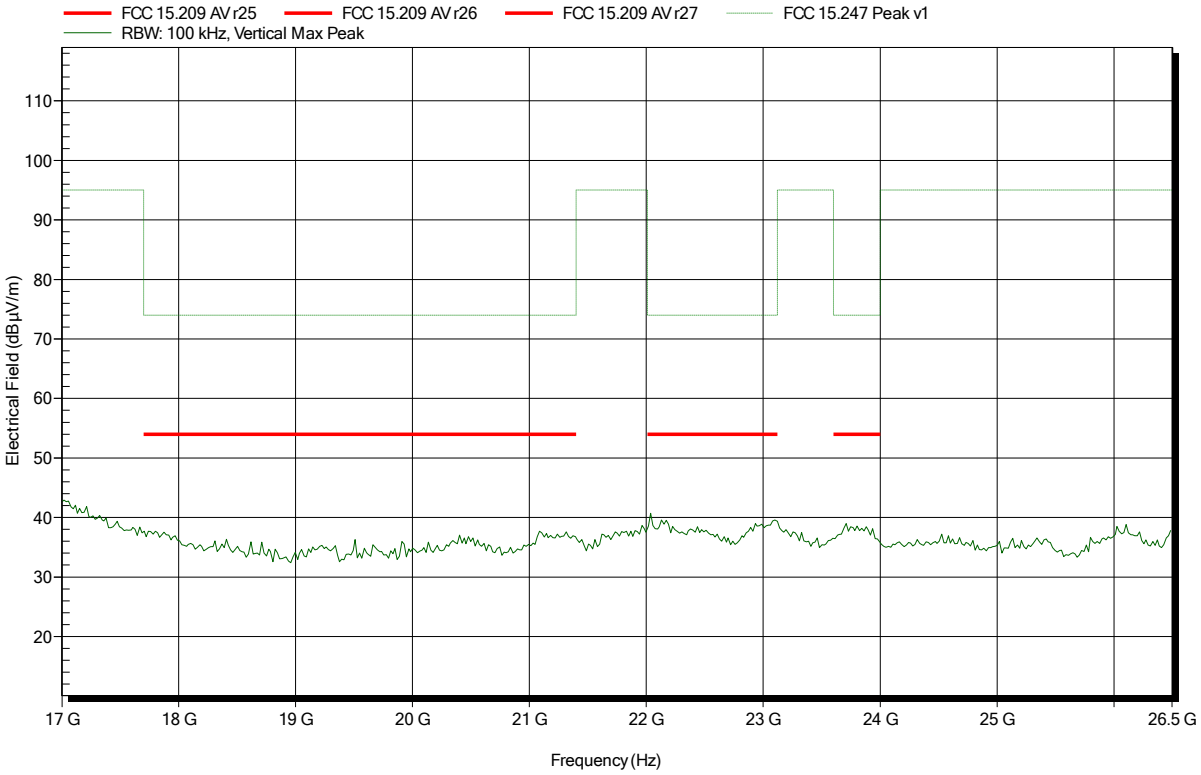

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-24
Note:	

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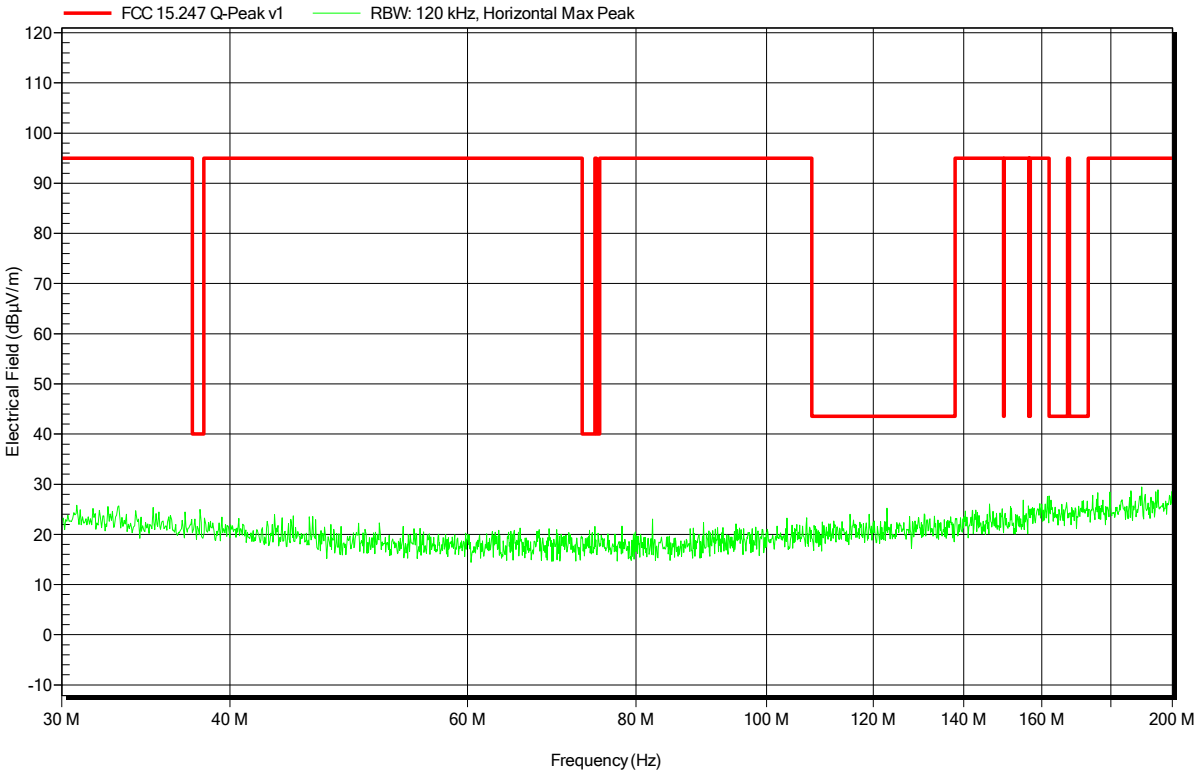

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-24
Note:	

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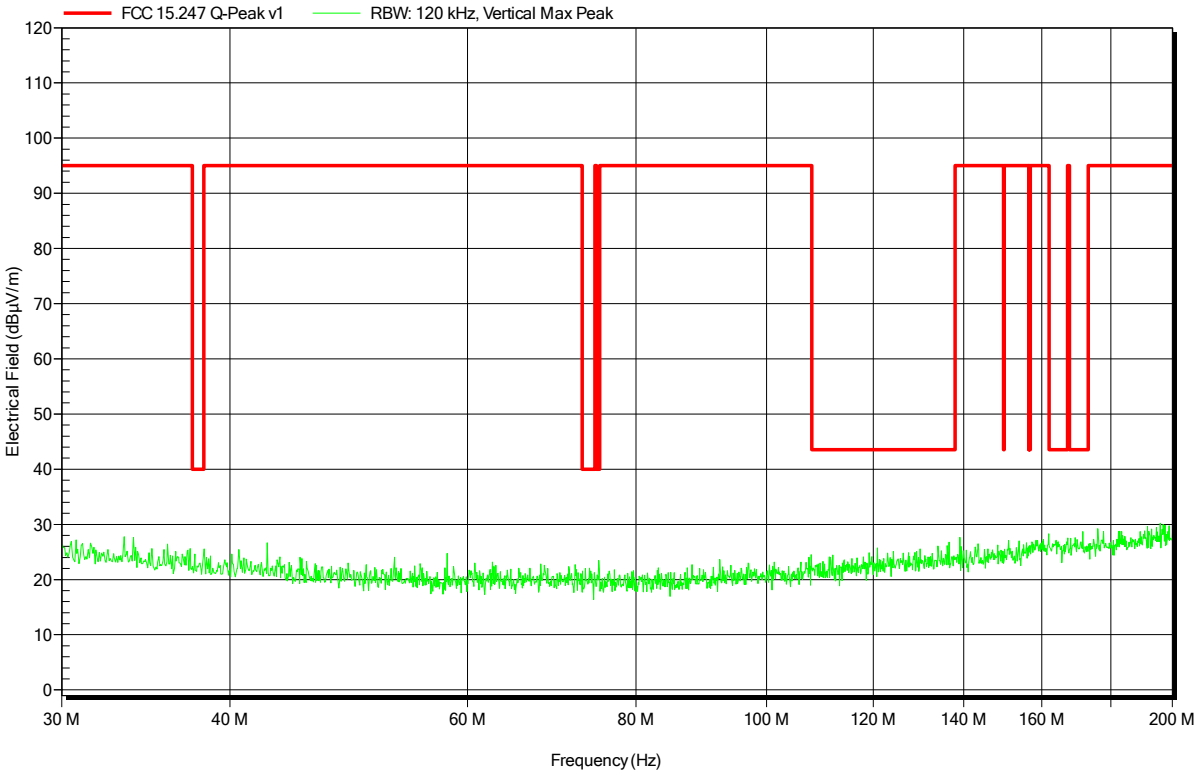

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-24
Note:	

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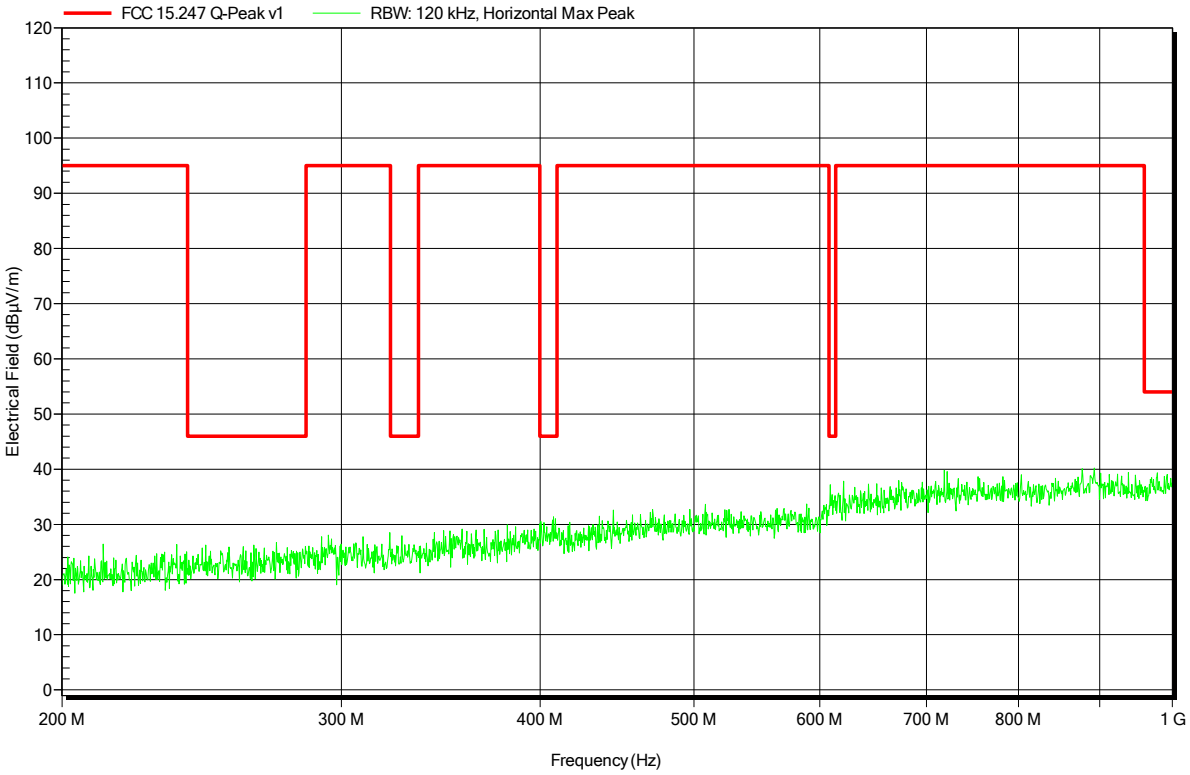

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-24
Note:	

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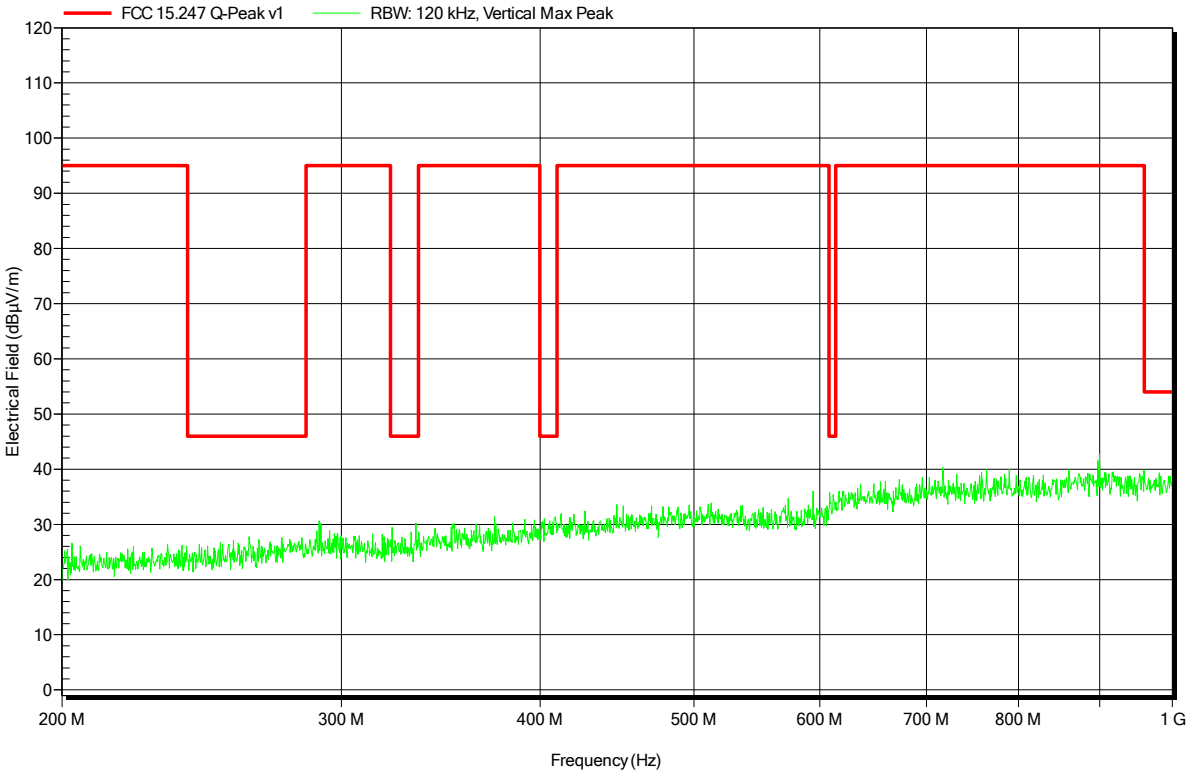

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-27
Note:	

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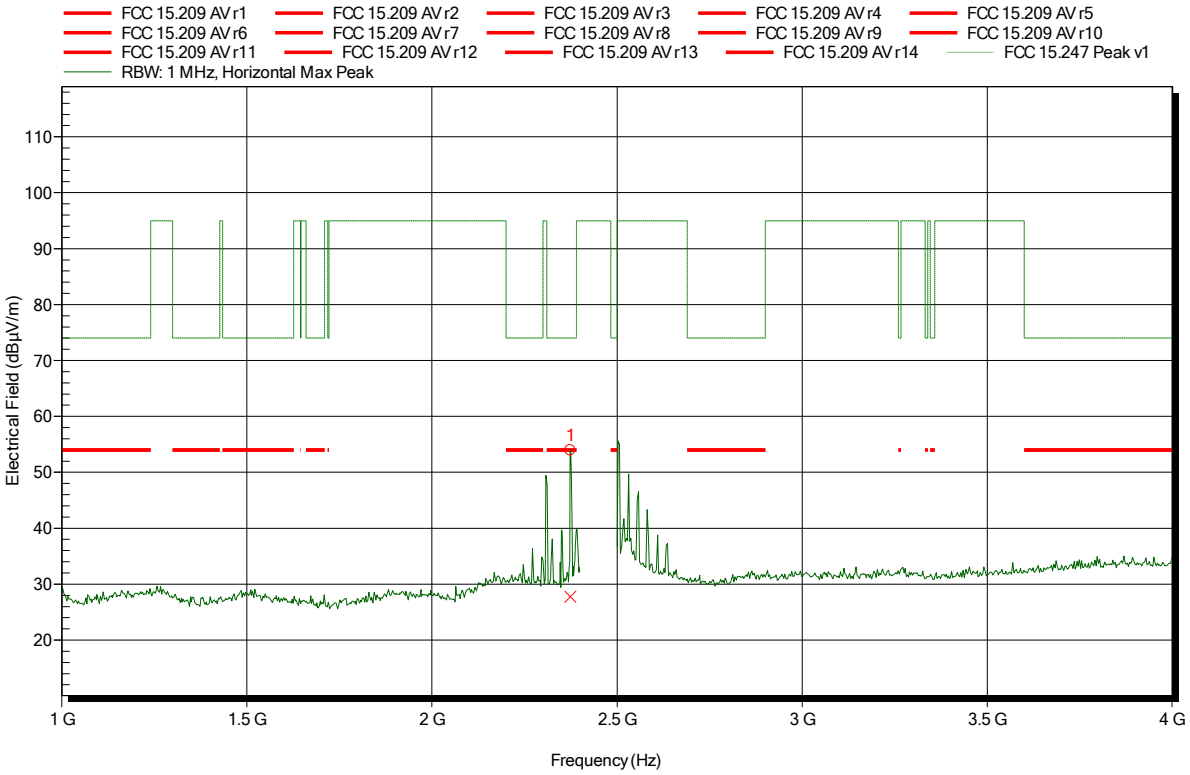

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.374 GHz	53.95 dBµV/m	74 dBµV/m	-20.05 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.374 GHz	27.73 dBµV/m	54 dBµV/m	-26.27 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-27
Note:	

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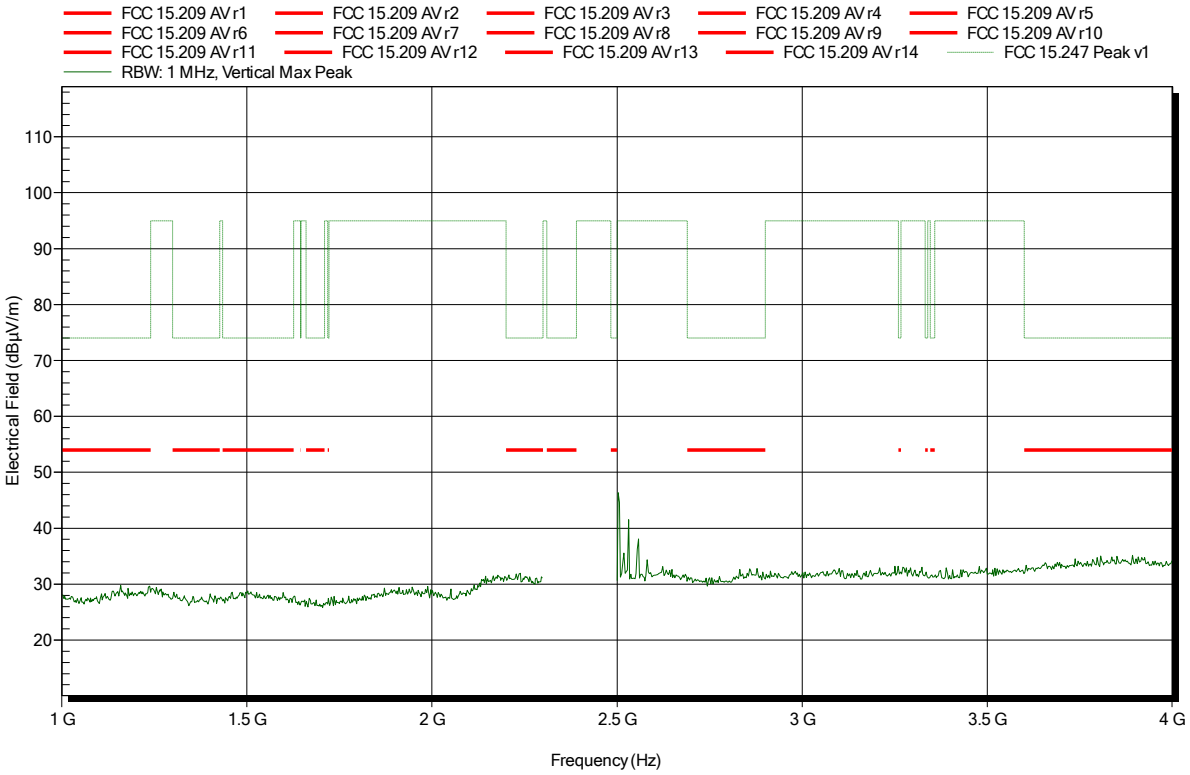

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-27
Note:	upper bandedge

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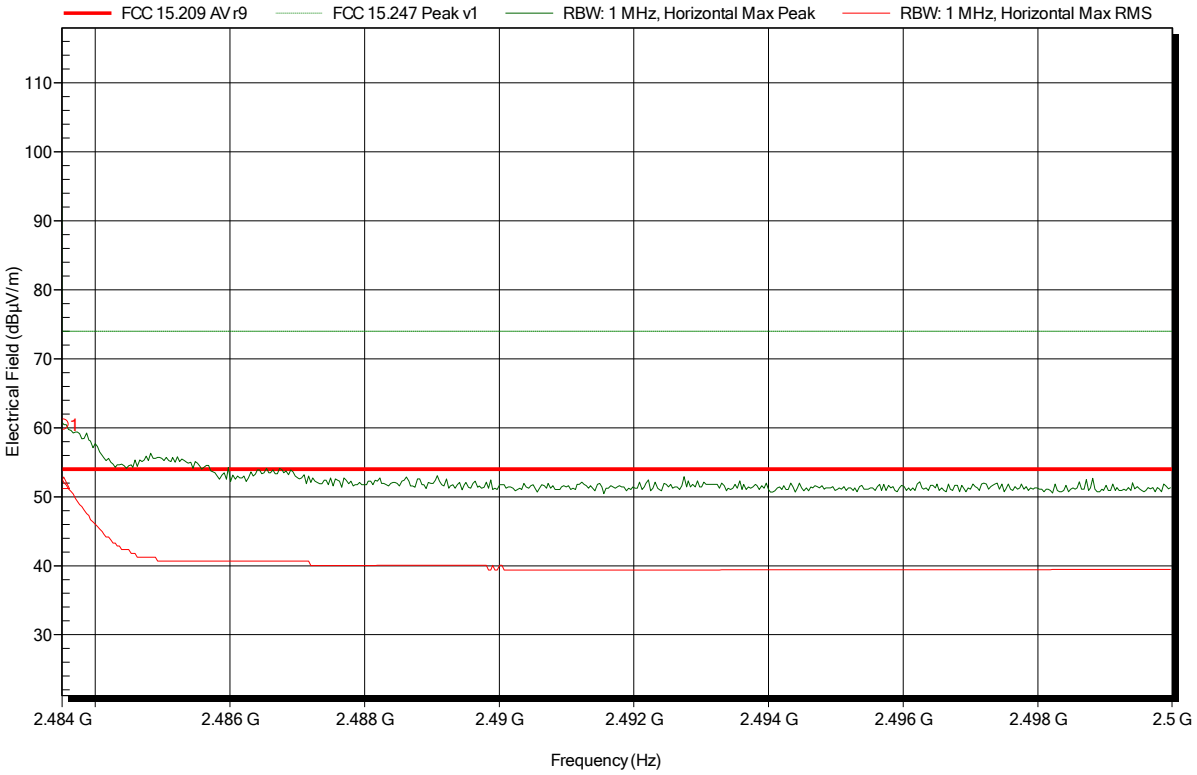

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4835 GHz	60.45 dBµV/m	74 dBµV/m	-13.55 dB	Pass

Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.4835 GHz	52.04 dBµV/m	54 dBµV/m	-1.96 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-27
Note:	upper bandedge

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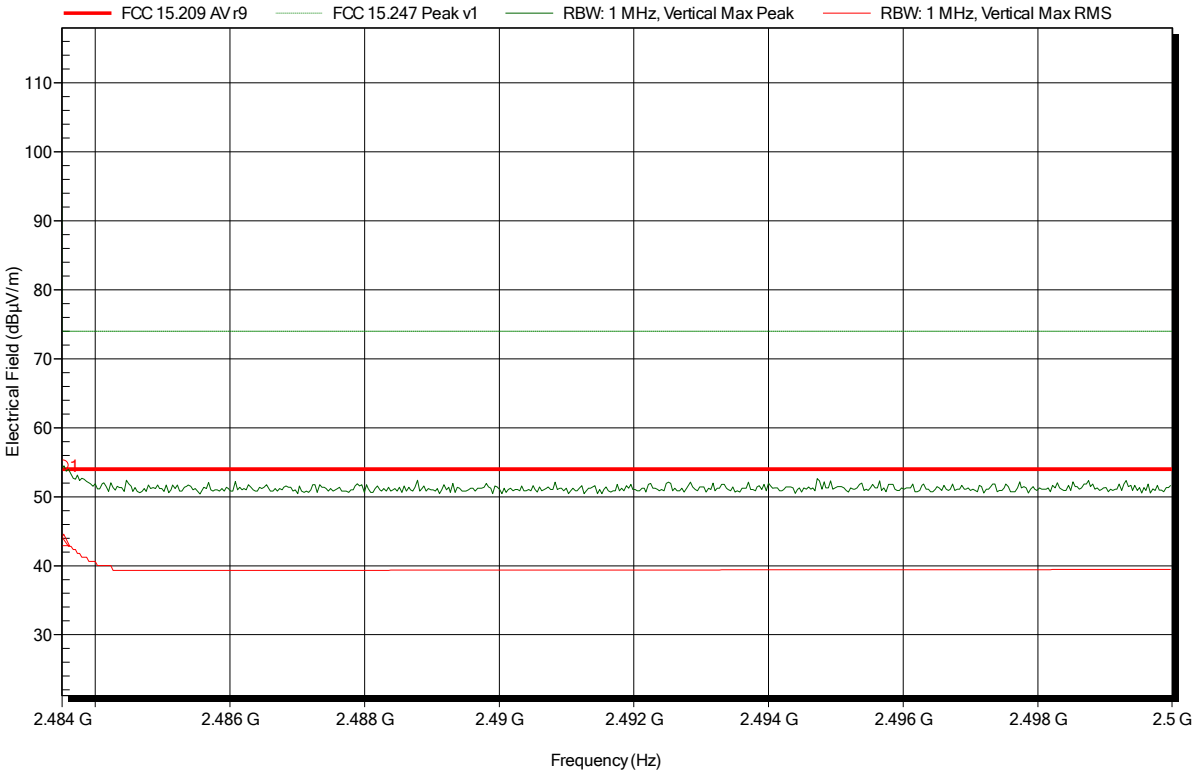

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4835 GHz	54.5 dBµV/m	74 dBµV/m	-19.5 dB	Pass

Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.4835 GHz	43.74 dBµV/m	54 dBµV/m	-10.26 dB	Pass

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-27
Note:	

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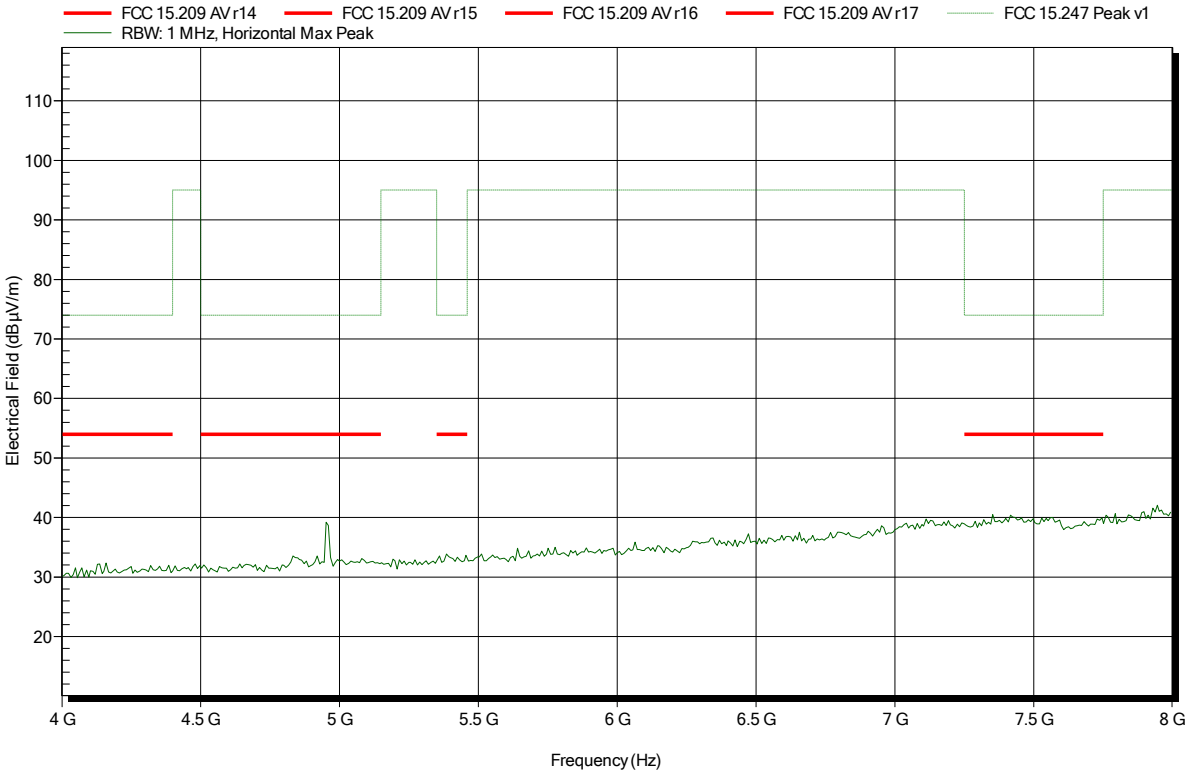

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-27
Note:	

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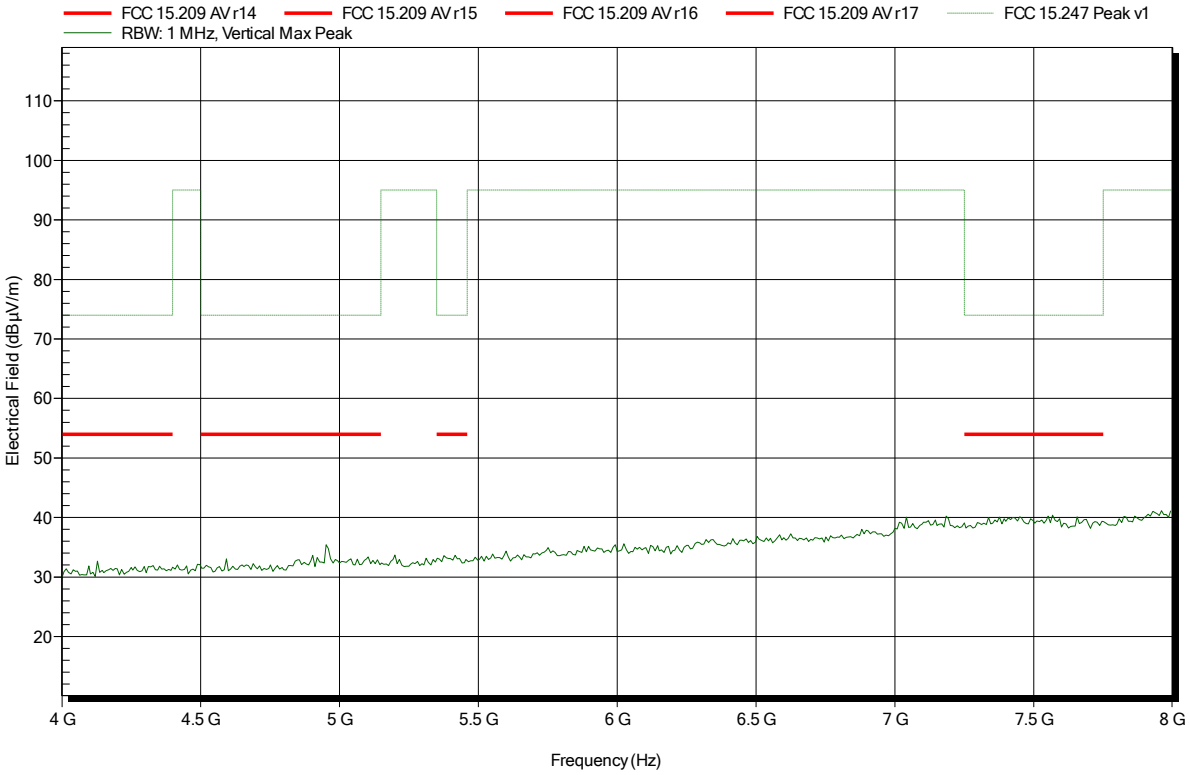

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-27
Note:	

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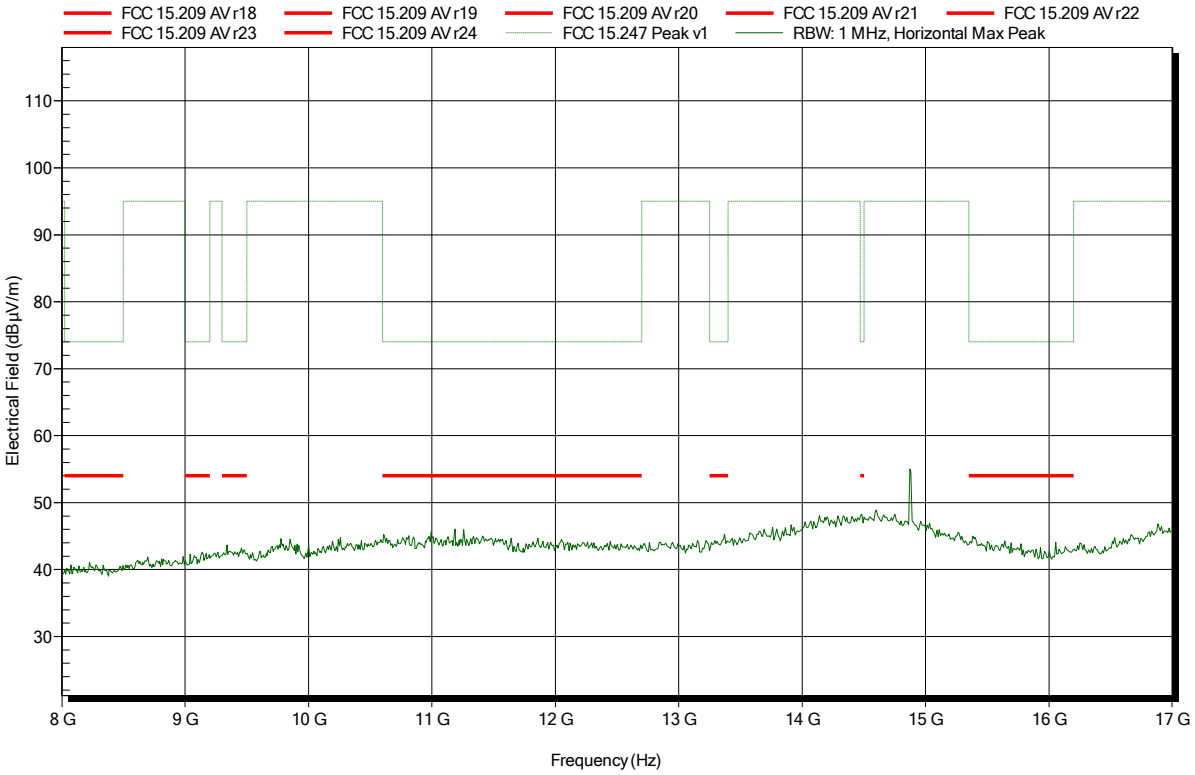

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-27
Note:	

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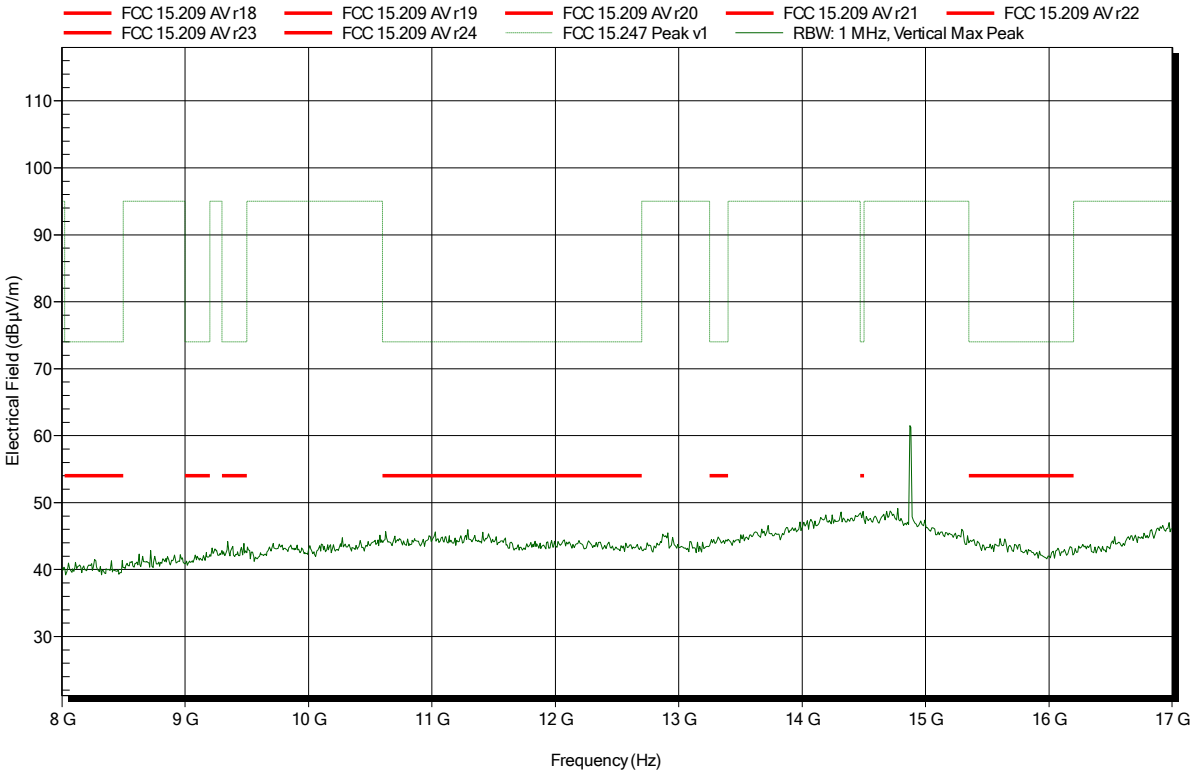

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Amplifier Research AT 4560, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-27
Note:	

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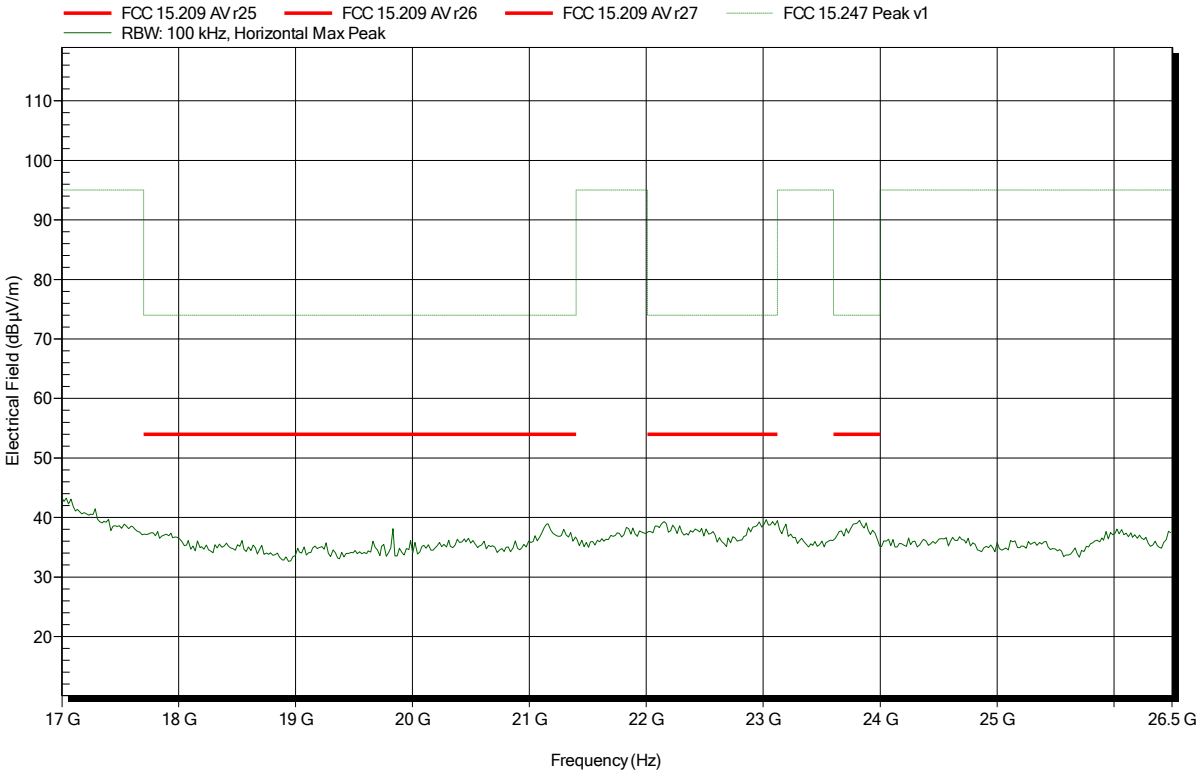

Spurious emissions according to FCC 15.247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Amplifier Research AT 4560, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; BT LE 2480 MHz
Test Date:	2017-10-27
Note:	

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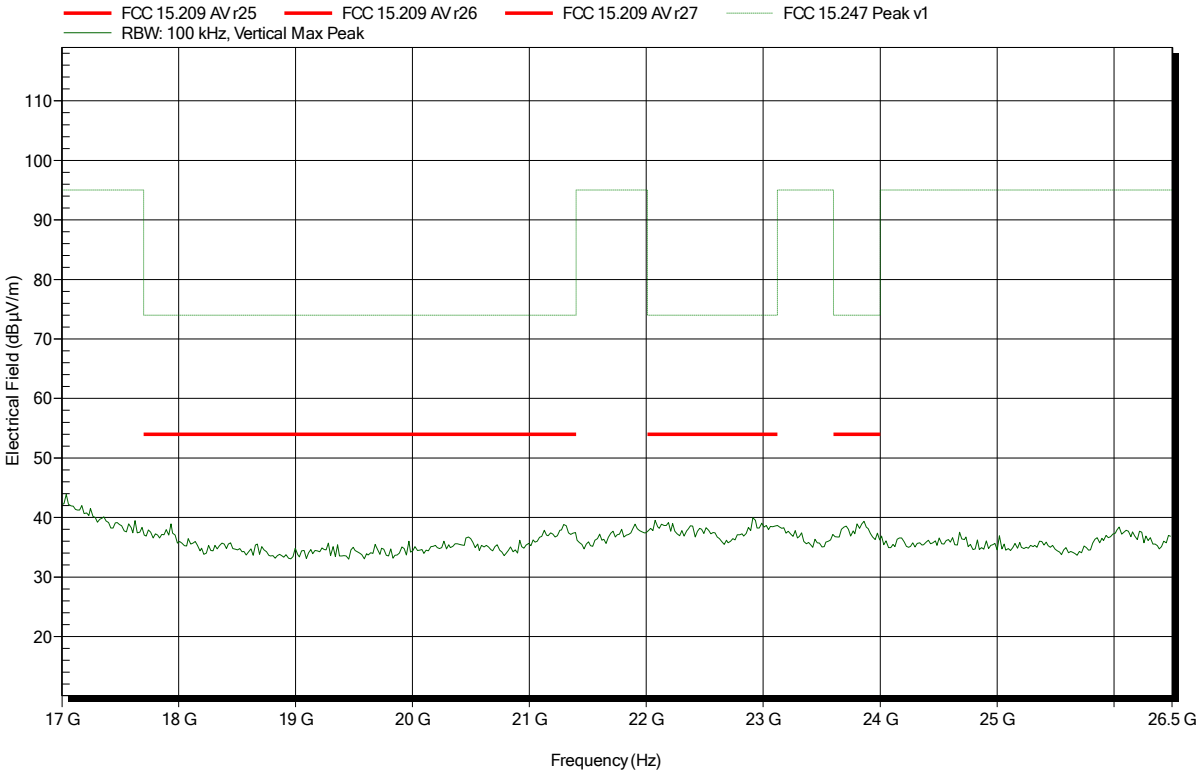

ANNEX B Receiver spurious emissions

Spurious emissions according to ISED RSS-247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3 m
Mode:	RX; BT LE 2440 MHz
Test Date:	2017-10-24
Note:	

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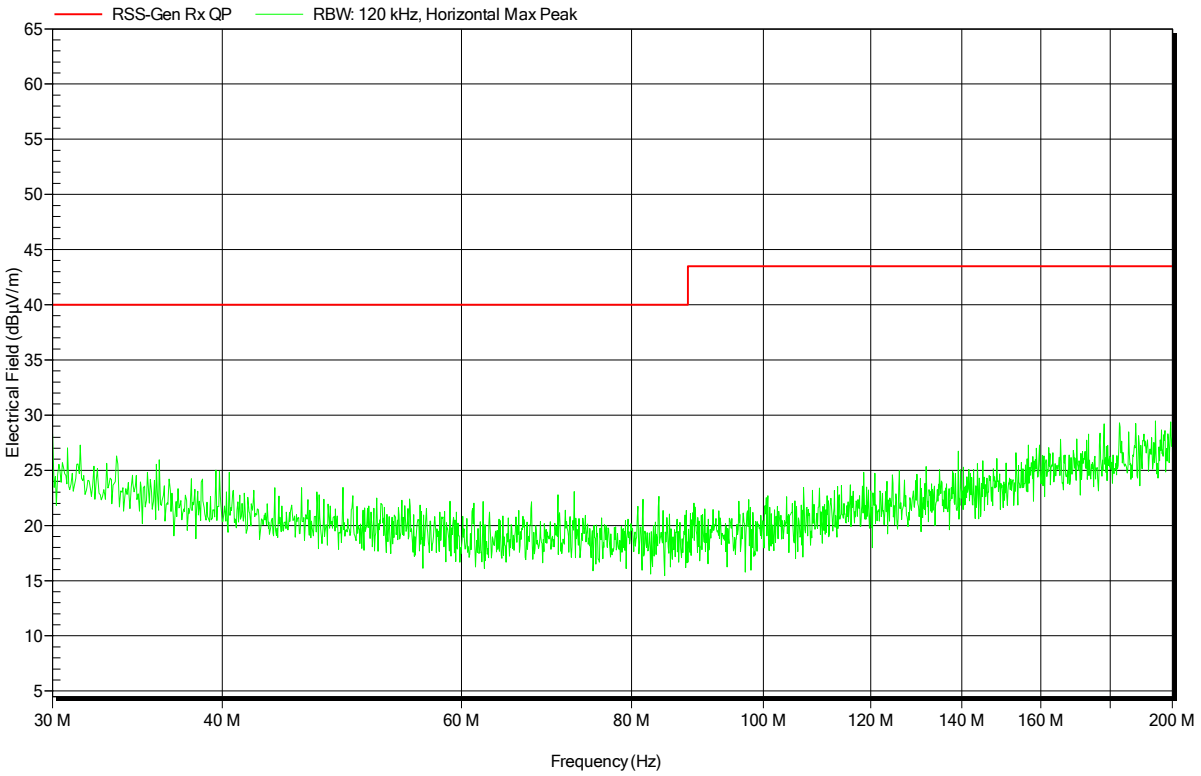

Spurious emissions according to ISED RSS-247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3 m
Mode:	RX; BT LE 2440 MHz
Test Date:	2017-10-24
Note:	

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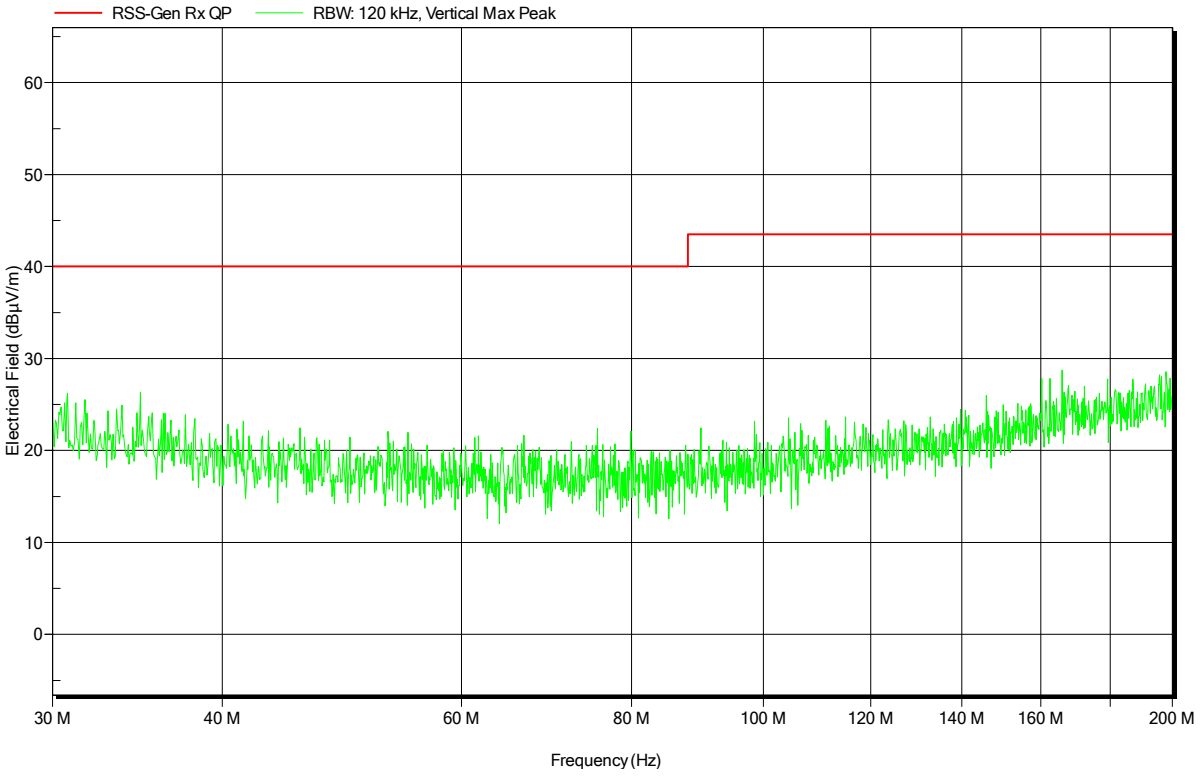

Spurious emissions according to ISED RSS-247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	RX; BT LE 2440 MHz
Test Date:	2017-10-24
Note:	MA 100 TT 0

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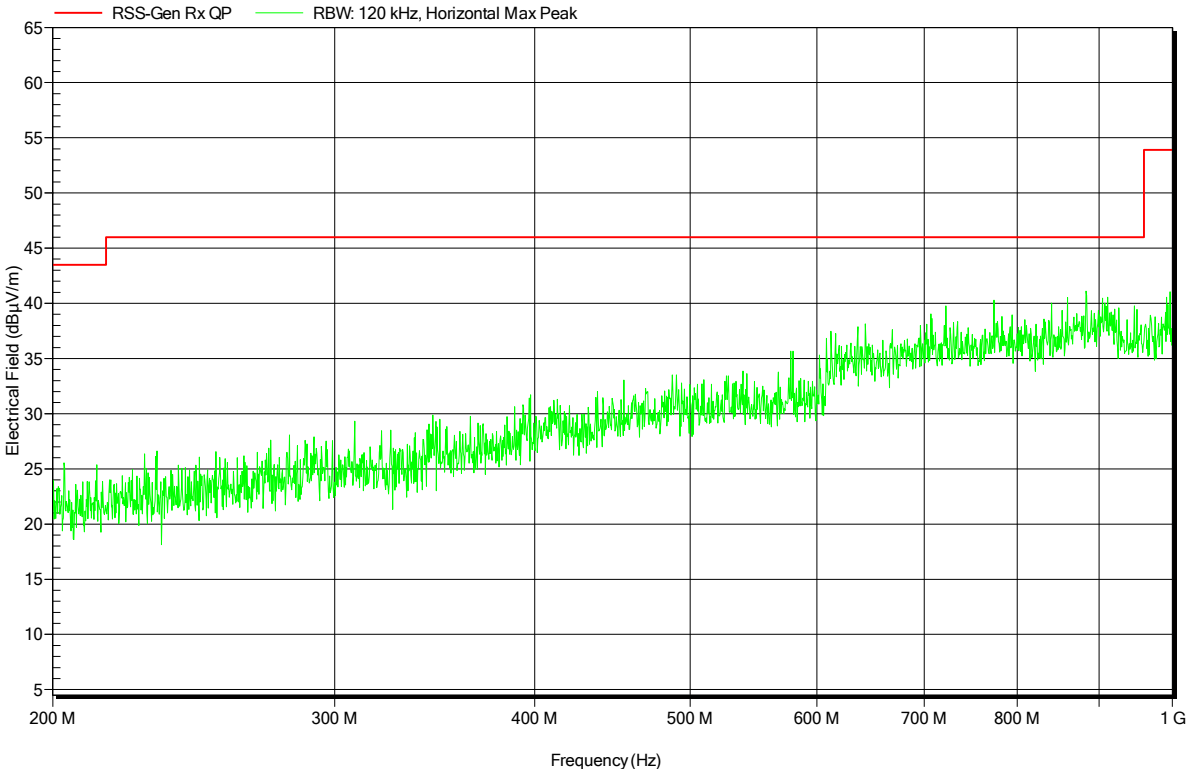

Spurious emissions according to ISED RSS-247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Suckow
Test Conditions:	Tnom: 24°C, Vnom: 12 VDC
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	RX; BT LE 2440 MHz
Test Date:	2017-10-24
Note:	

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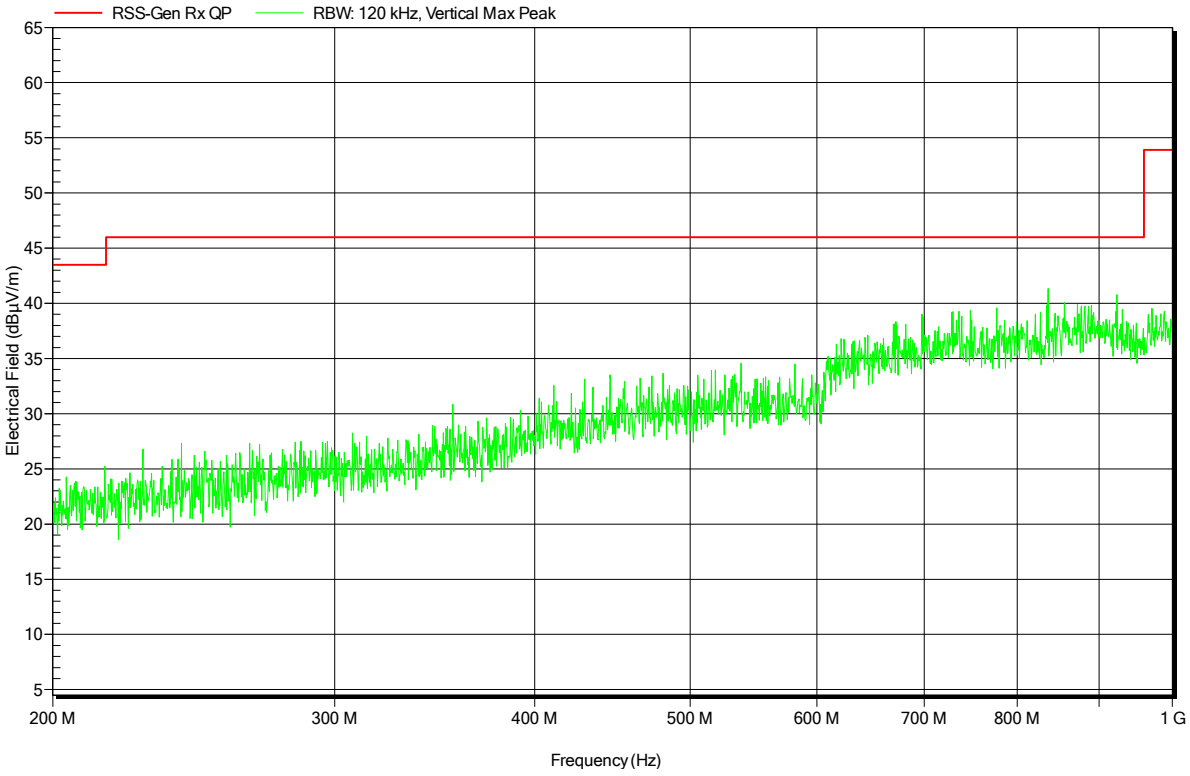

Spurious emissions according to ISED RSS-247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	RX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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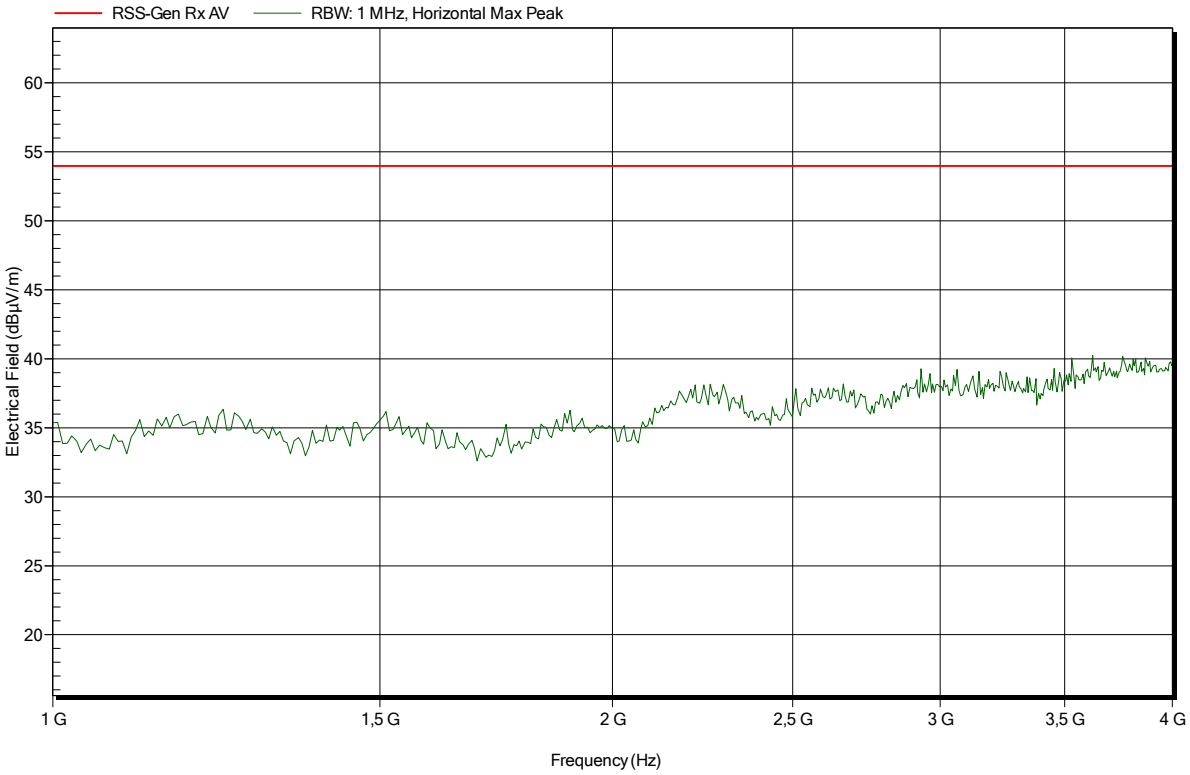

Spurious emissions according to ISED RSS-247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	RX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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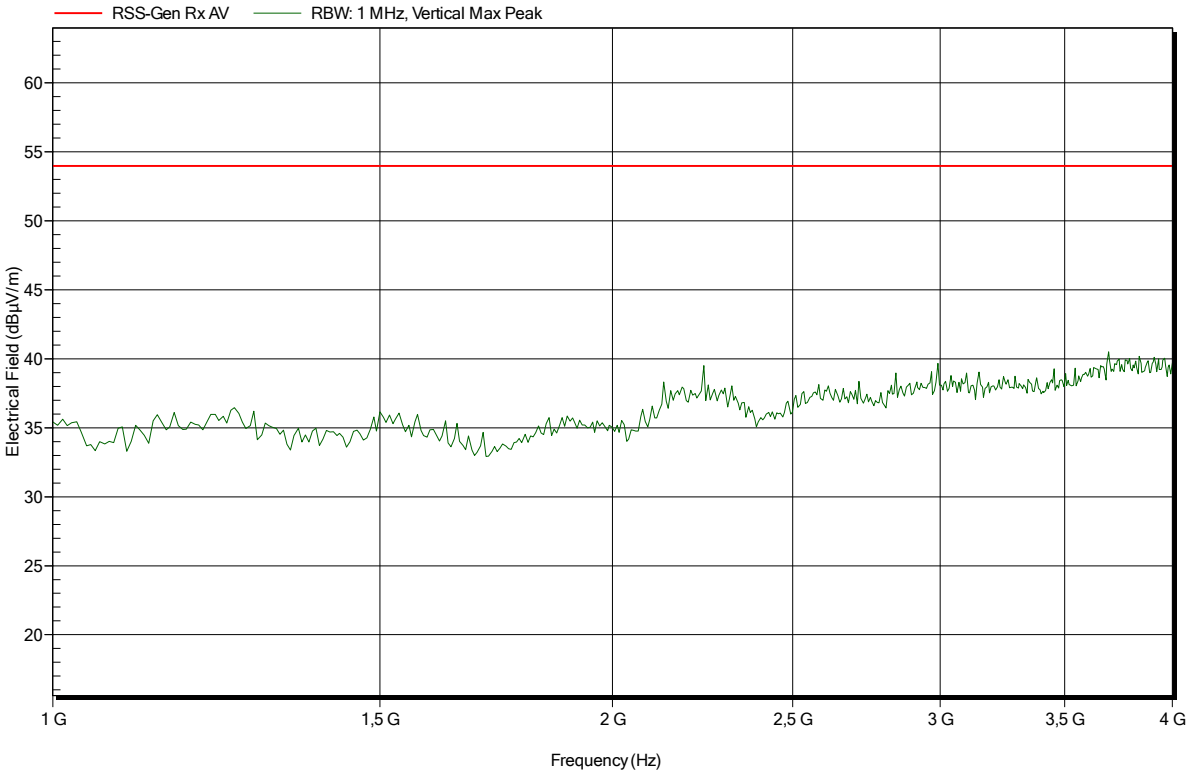

Spurious emissions according to ISED RSS-247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	RX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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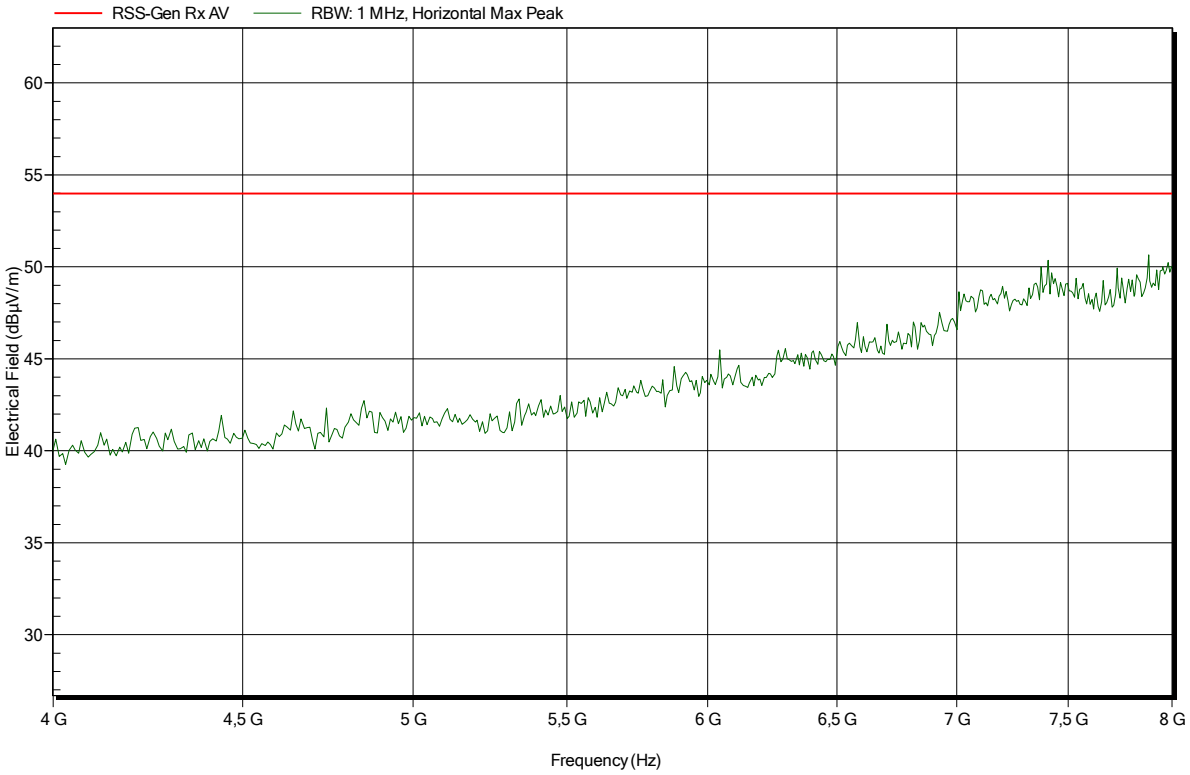

Spurious emissions according to ISED RSS-247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	RX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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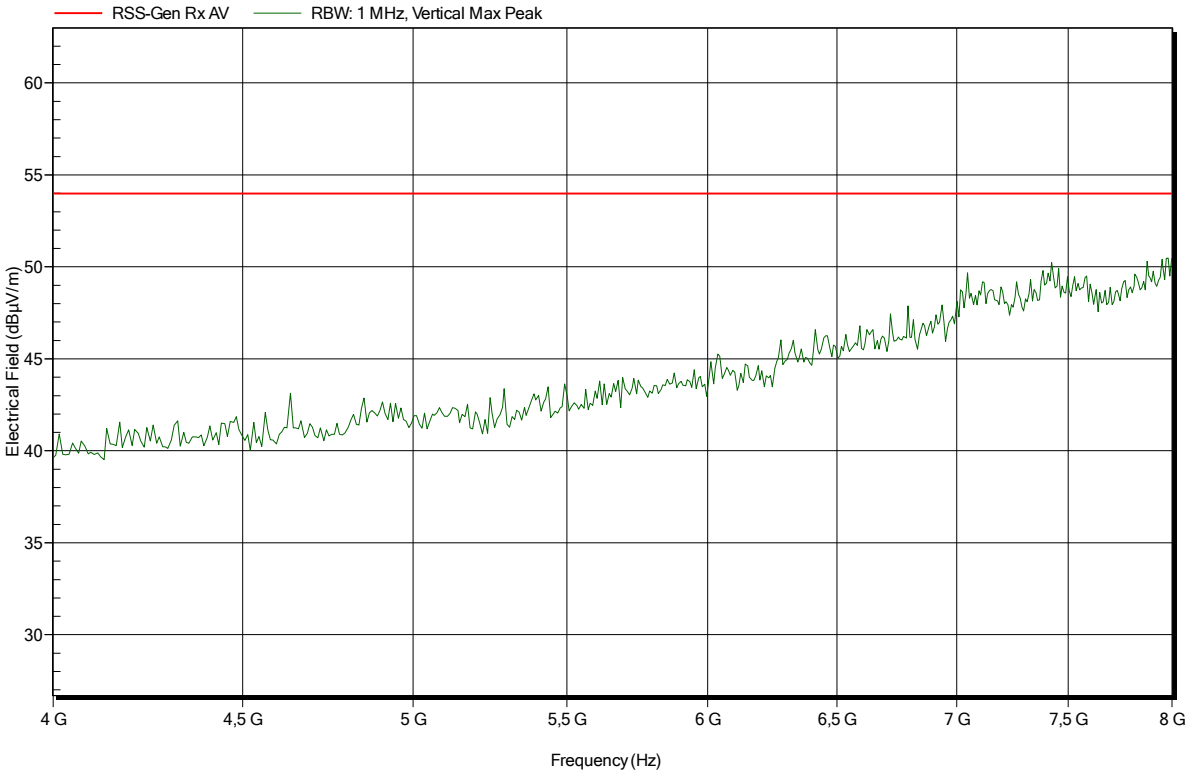

Spurious emissions according to ISED RSS-247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	RX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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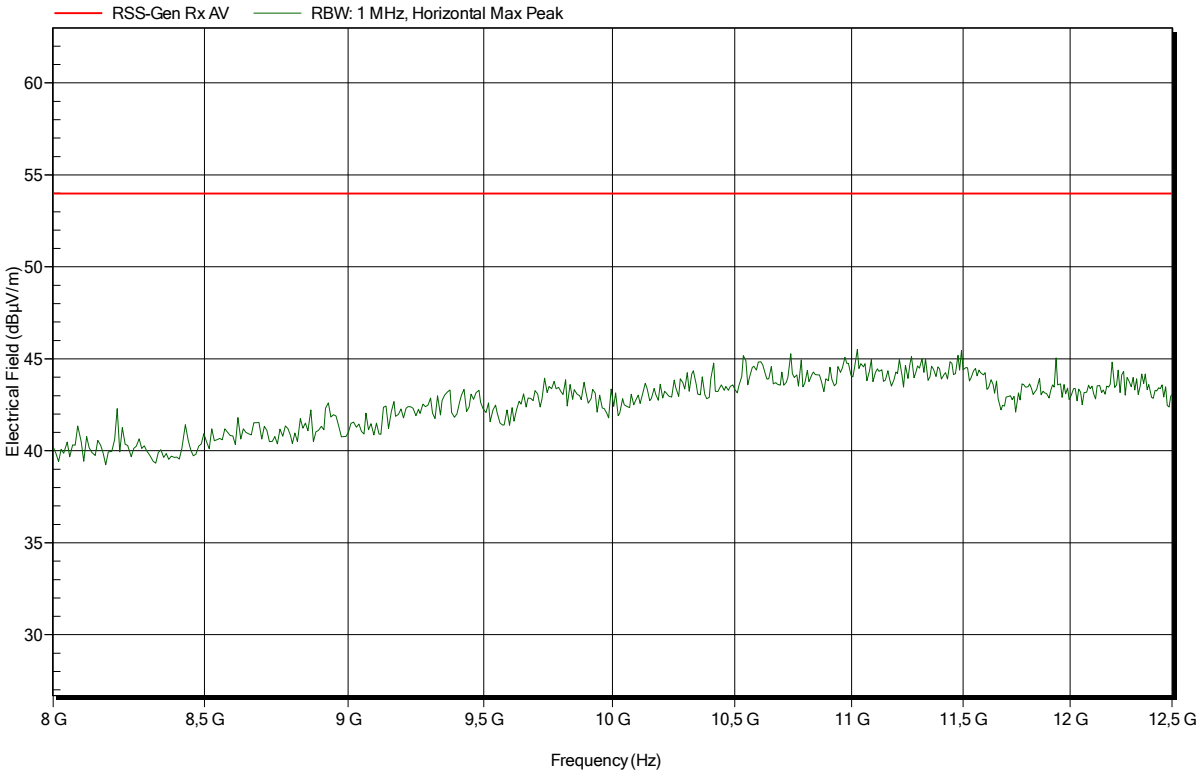

Spurious emissions according to ISED RSS-247

Project number: G0M-1707-6725

Applicant:	Leica Geosystems AG
EUT Name:	External GNSS Antenna
Model:	GG04 plus
Test Site:	Eurofins Product Service GmbH
Operator:	Sebastian Suckow
Test Conditions:	Tnom: 23°C, Vnom: 12 VDC
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	RX; BT LE 2440 MHz
Test Date:	2017-10-27
Note:	

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