eurofins | Product Service

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-1801-7167-TFC247WF-V01
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 IC Testing Laboratory site: 3470A-3
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	Laser Distance Meter
Model(s)	Leica BLK3D
Additional Model(s)	None
Brand Name(s)	Leica Geosystems AG
Hardware Version(s)	V02
Software Version(s)	Android Version 7.1.2, API 25, Kernel Version 3.18.31, BSP Version 3.5
FCC-ID	RFF-IIS01
IC	3177A-IIS01
Test Result	**PASSED**

Possible test case verdicts:		
required by standard but not tested	N/T	
not required by standard	N/R	
not applicable to EUT	N/A	
test object does meet the requirement	P(PASS)	
test object does not meet the requirement	F(FAIL)	
Testing:		
Test Lab Temperature	20 - 23 °C	
Test Lab Humidity	32 – 38 %	
Date of receipt of test item	2018-02-16	
Report:		
Compiled by	Wilfried Treffke	
Tested by (+ signature) (Responsible for Test)	Wilfried Treffke	
Approved by (+ signature) (Deputy Head of Lab)	Toralf Jahn	
Date of Issue	2018-04-13	
Total number of pages	124	
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:		
None		

VERSION HISTORY

Version History			
Version	Issue Date	Remarks	Revised By
01	2018-04-13	Initial Release	

ABBREVIATIONS AND ACRONYMS

Acronyms	
Acronym	Description
BPSK	Binary Phase Shift Keying
DSSS	Direct Sequence Spread Spectrum
EUT	Equipment Under Test
FCC	Federal Communications Commission
HT	High Throughput
IEEE 802.11	MAC and PHY Layer for WiFi
ISED	Innovation, Science and Economic Development Canada
OFDM	Orthogonal Frequency Division Multiplexing
QAM	Quadrature Amplitude Modulation
QPSK	Quadrature Phase Shift Keying
RBW	Resolution bandwidth
RMS	Root mean square
VBW	Video bandwidth
V_{NOM}	Nominal supply voltage

REPORT INDEX

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

1 Equipment (Test Item) Under Test

Description	Laser Distance Meter	
Model	Leica BLK3D	
Additional Model(s)	None	
Brand Name(s)	Leica Geosystems AG	
Serial Number(s)	Not specified	
Hardware Version(s)	V02	
Software Version(s)	Android Version 7.1.2, API 25, Kernel Version 3.18.31, BSP Version 3.5	
PMN	Leica BLK3D	
HVIN	Leica BLK3D	
FVIN	N/A	
HMN	N/A	
FCC-ID	RFF-IIS01	
IC	3177A-IIS01	
Equipment type	End Product	
Radio type	Transceiver	
Assigned frequency bands	2400 - 2483.5 MHz	
Radio technology	IEEE 802.11 b/g/n (HT20 + HT40)	
Modulation	BPSK, QPSK, 16-QAM, 32-QAM	
Number of antenna ports	2	
Radio Module	Type	IEEE 802.11 b/g/n Module
	Model	NFA324A-12H32
	Manufacturer	FOXCONN
	HW Version	V02
	SW Version	BSP 3.5
Antenna 1	Type	Integrated
	Model	A9703050 Rev 05
	Manufacturer	Sinbon
	Gain	-2.87 dBi (by measurement)
Antenna 2	Type	Integrated
	Model	A9703050 Rev 05
	Manufacturer	Sinbon
	Gain	-2.87 dBi (by measurement)
Supply Voltage	V_{NOM}	3.8 VDC
Operating Temperature	T_{NOM}	25 °C
AC/DC-Adaptor	Model	AD06D050100E
	Vendor	RRC
	Input	100-240 VAC
	Output	5.0 VDC
Manufacturer	Leica Geosystems AG Heinrich Wild Strasse 9435 Heerbrugg SWITZERLAND	

1.1 Photos – Equipment External

EUT OVER VIEW


EUT TOP VIEW


EUT BOTTOM VIEW

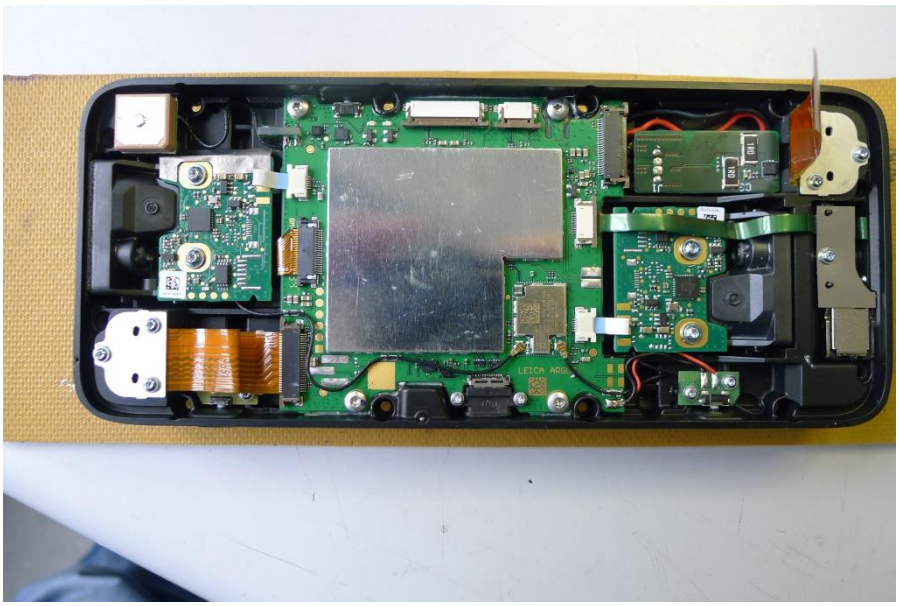

EUT SIDE VIEW (A)

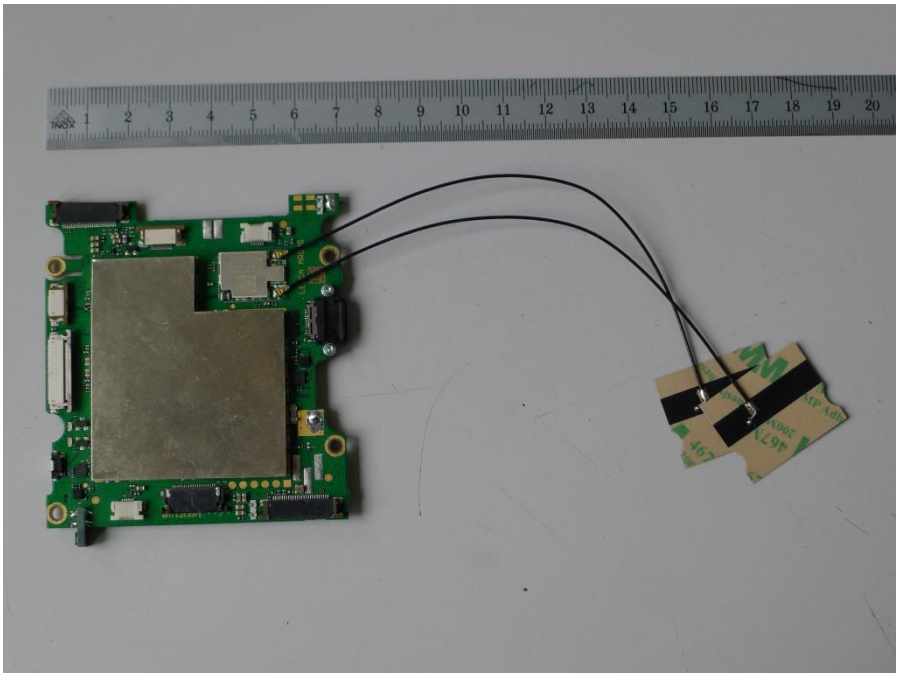

EUT SIDE VIEW (B)

EUT SIDE VIEW (C)

EUT SIDE VIEW (D)


1.2 Photos – Equipment Internal

EUT INTERNAL OVERVIEW


EUT INTERNAL DETAIL (A)


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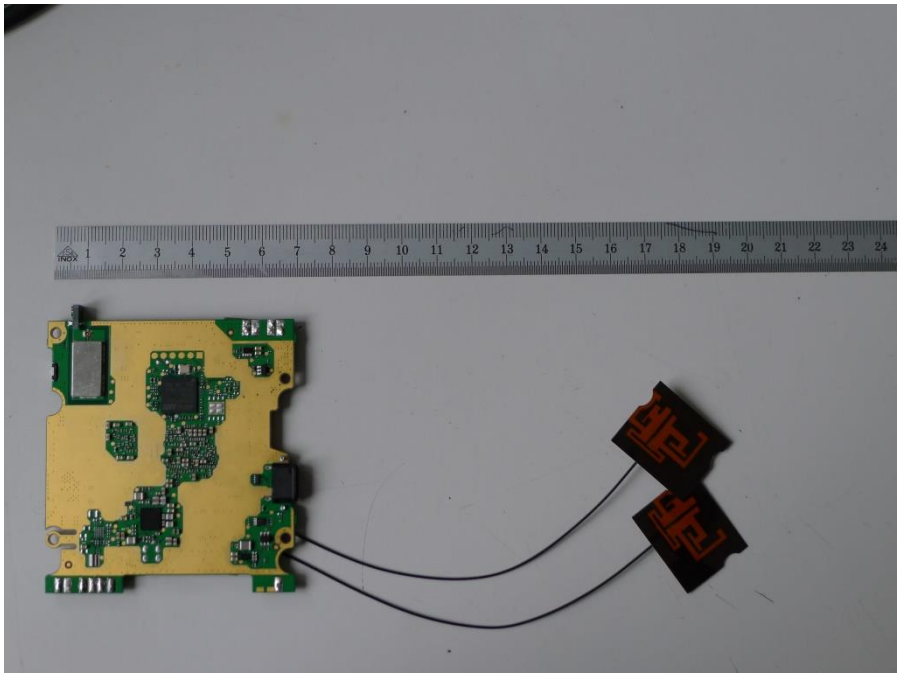
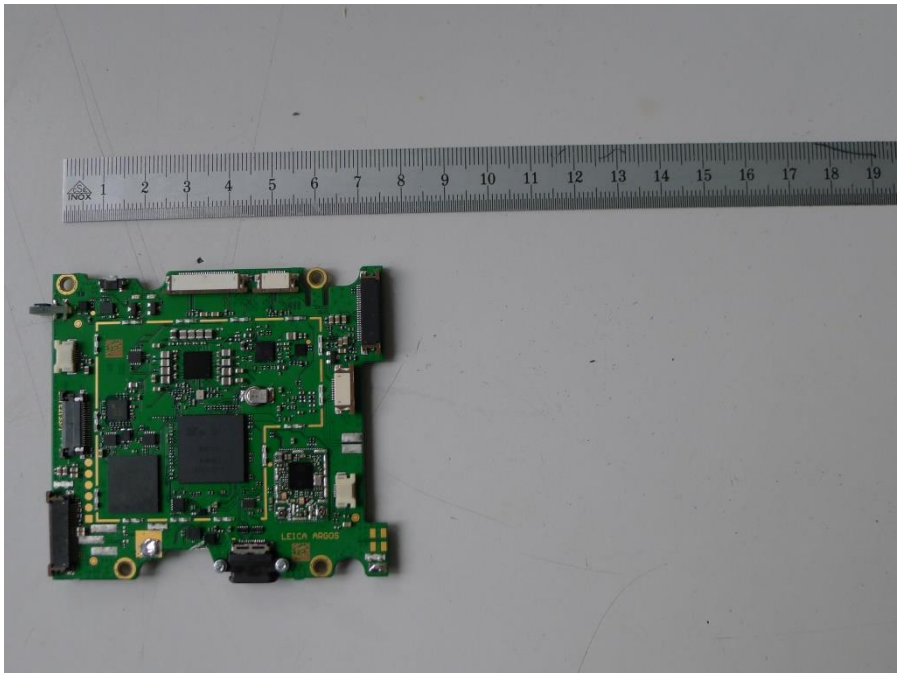
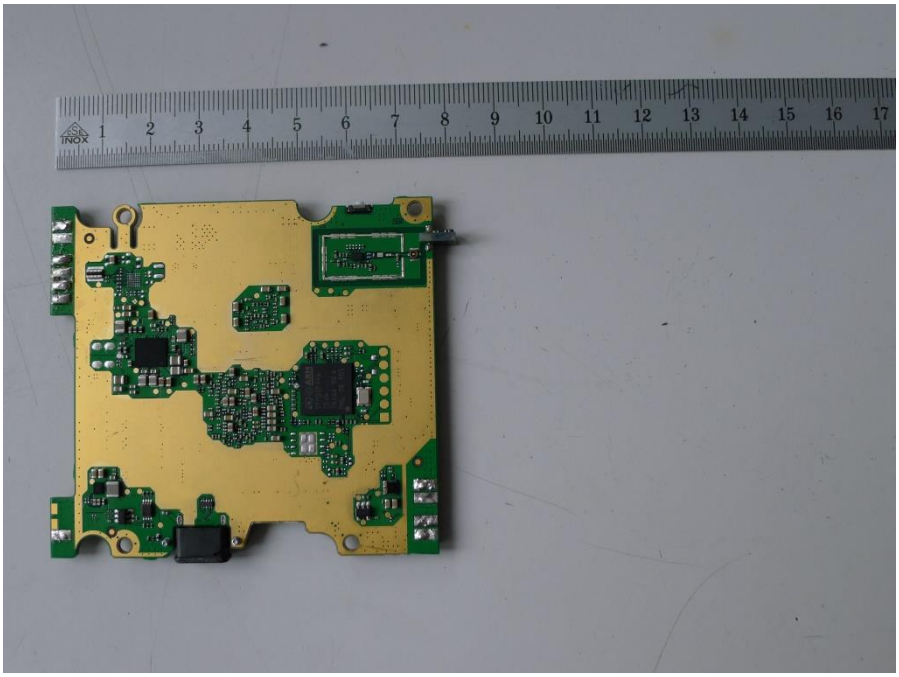


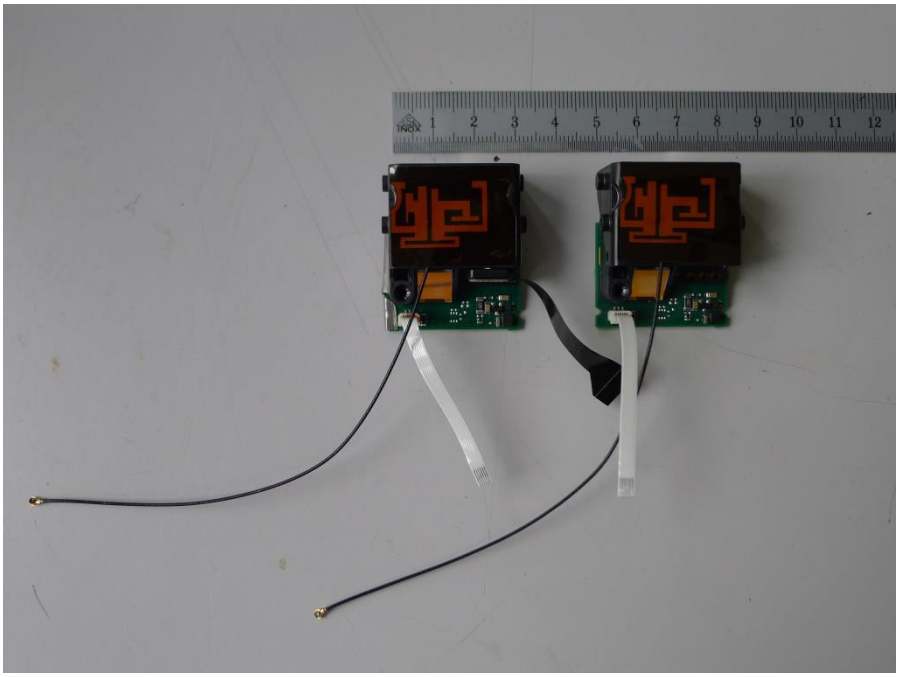
EUT INTERNAL DETAIL (B)



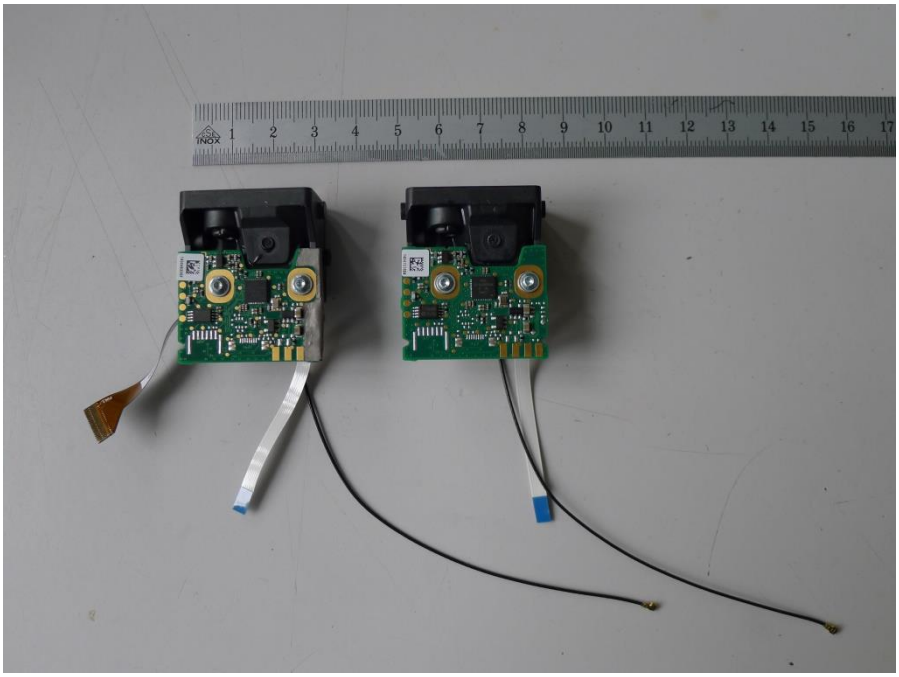
EUT INTERNAL DETAIL (C)



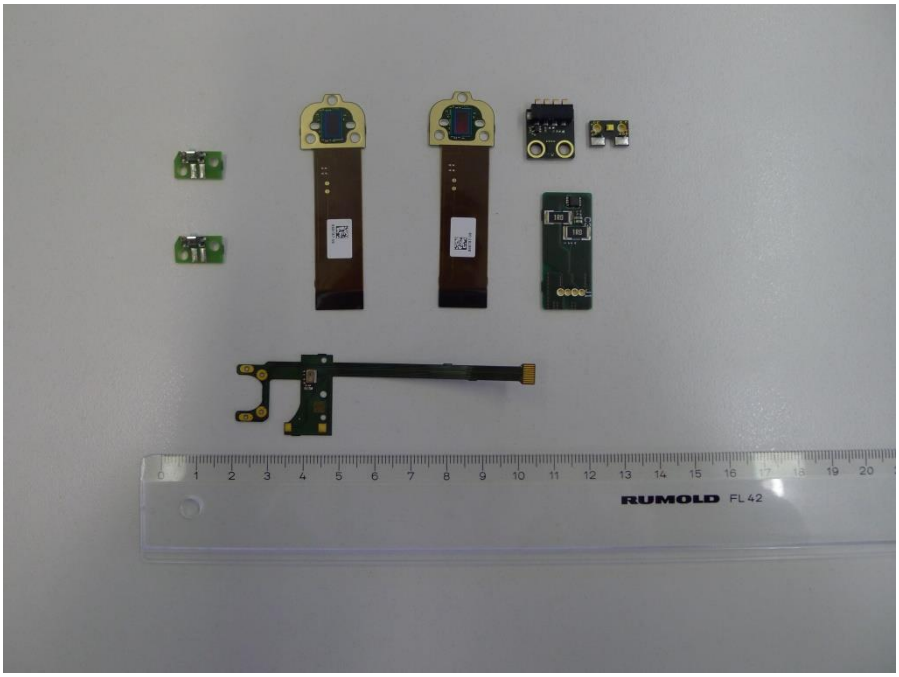
EUT INTERNAL DETAIL (D)

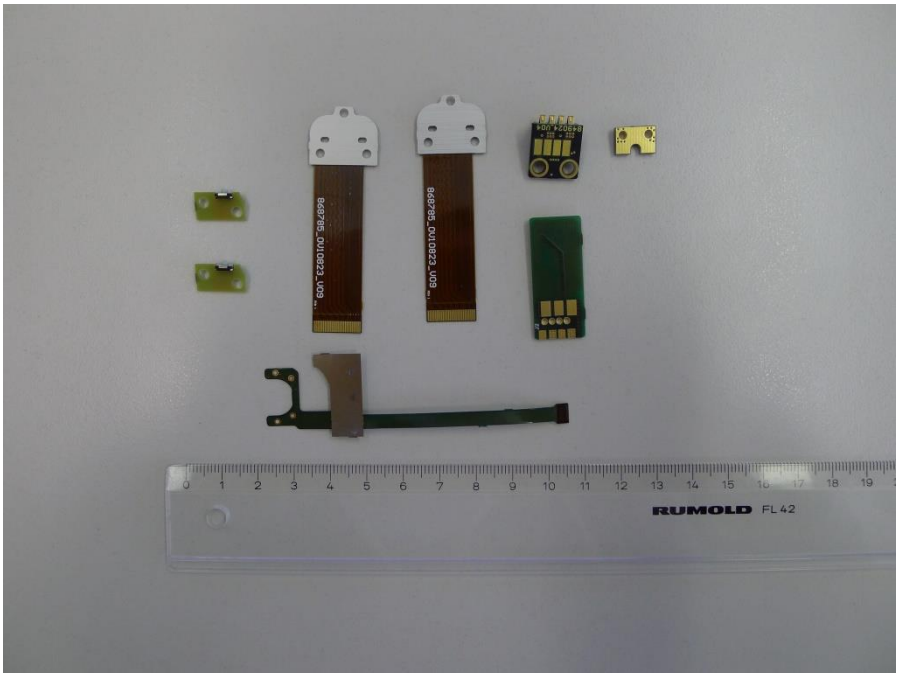


EUT INTERNAL DETAIL (E)

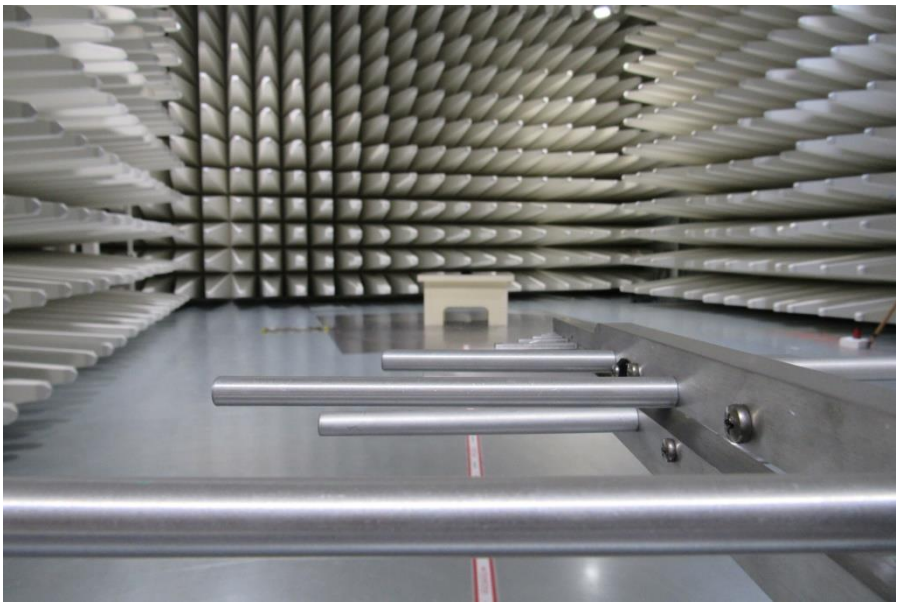


EUT INTERNAL DETAIL (F)



EUT INTERNAL DETAIL (G)


1.3 Photos – Test Setup

TEST SETUP (A)


TEST SETUP (B)


1.4 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
AE1	Notebook	Lenovo	L430	S/N R9-T6F8A 12/09 (Type 2466-3FG)
AE2	Power Supply AC Adapter 90W 20V	Lenovo	42T4428	None
AE3	Personal Computer (Toughpad)	Panasonic Corporation Osaka, Japan	FZ-M1	Model No.: FZ-M1CCAACED Serial No.: 4LTCA17675
AE4	Power Supply AC Adapter	Panasonic Corporation Osaka, Japan	---- / ----	Model No.: CF-AA6373A M2
Description:				
AE1 – A4	Auxillary Equipment			
SIM	Simulator			
CBL	Connecting Cable			
Comment: None				

1.5 Test mode duty cycle

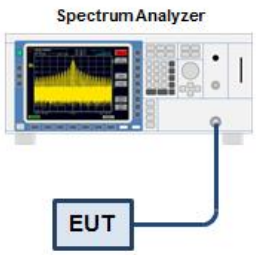
1.5.1 Information

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 3	EF00241	2017-07	2019-07

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]
DSSS	100	0
OFDM	100	0
HT20	100	0
HT40	100	0

1.6 Test Modes

Mode	Description
DSSS (IEEE 802.11b)	Mode = Transmit Modulation = BPSK Spreading = DSSS Bandwidth = 20 MHz Duty cycle = 100% Power setting = Max Data rate = 1 Mbps
OFDM (IEEE 802.11g)	Mode = Transmit Modulation = BPSK Spreading = OFDM Bandwidth = 20 MHz Duty cycle = 100% Power setting = Max Data rate = 6 Mbps
HT20 (IEEE 802.11n)	Mode = Transmit Modulation = BPSK Spreading = OFDM Bandwidth = 20 MHz Duty cycle = 100% Power setting (2 Simultaneous Tx) = max Data rate (2 Simultaneous Tx) = 13 Mbps MCS (2 Simultaneous Tx) = 8
HT40 (IEEE 802.11n)	Mode = Transmit Modulation = BPSK Spreading = OFDM Bandwidth = 40 MHz Duty cycle = 100% Power setting (2 Simultaneous Tx) = max Data rate (2 Simultaneous Tx) = 26 Mbps MCS (2 Simultaneous Tx) = 8
Receive	Mode = Receive
Comment: The above settings were found as worst case during pre-tests.	

1.7 Test Frequencies

Designator	Mode	Channel	Frequency [MHz]
F1	Tx / Rx	1	2412
F2	Tx / Rx	3	2422
F3	Tx / Rx	6	2437
F4	Tx / Rx	9	2452
F5	Tx / Rx	11	2462

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	PASS	
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

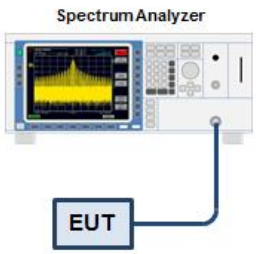
3.1.1 Information

Test Information	
Reference	ISED RSS-Gen 6.6
Measurement Method	ANSI C63.10 6.9.3
Operator	Wilfried Treffke
Date	2018-03-01

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]	Limit
DSSS	2412	13.050	N/A
DSSS	2437	13.050	N/A
DSSS	2462	13.050	N/A
OFDM	2412	16.500	N/A
OFDM	2437	16.462	N/A
OFDM	2462	16.488	N/A
HT20	2412	17.562	N/A
HT20	2437	17.550	N/A
HT20	2462	17.550	N/A
HT40	2422	35.850	N/A
HT40	2437	35.825	N/A
HT40	2452	35.850	N/A

3.2 Test Conditions and Results - AC powerline conducted emissions

3.2.1 Information

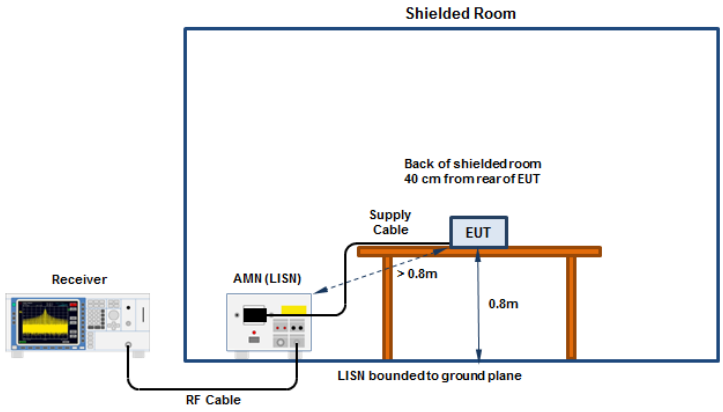
Test Information	
Reference	FCC 15.207
Measurement Method	ANSI C63.10 6.2
Operator	Abdullah Al Jamal
Date	2018-03-05

3.2.2 Limits

Limits		
Frequency [MHz]	Quasi-Peak [dBµV]	Average [dBµV]
0.15 - 0.5	66 - 56*	56 - 46*
0.5 - 5	56	46
5 - 30	60	50
* Limit decreases linearly with the logarithm of the frequency		

3.2.3 Setup

Test Setup



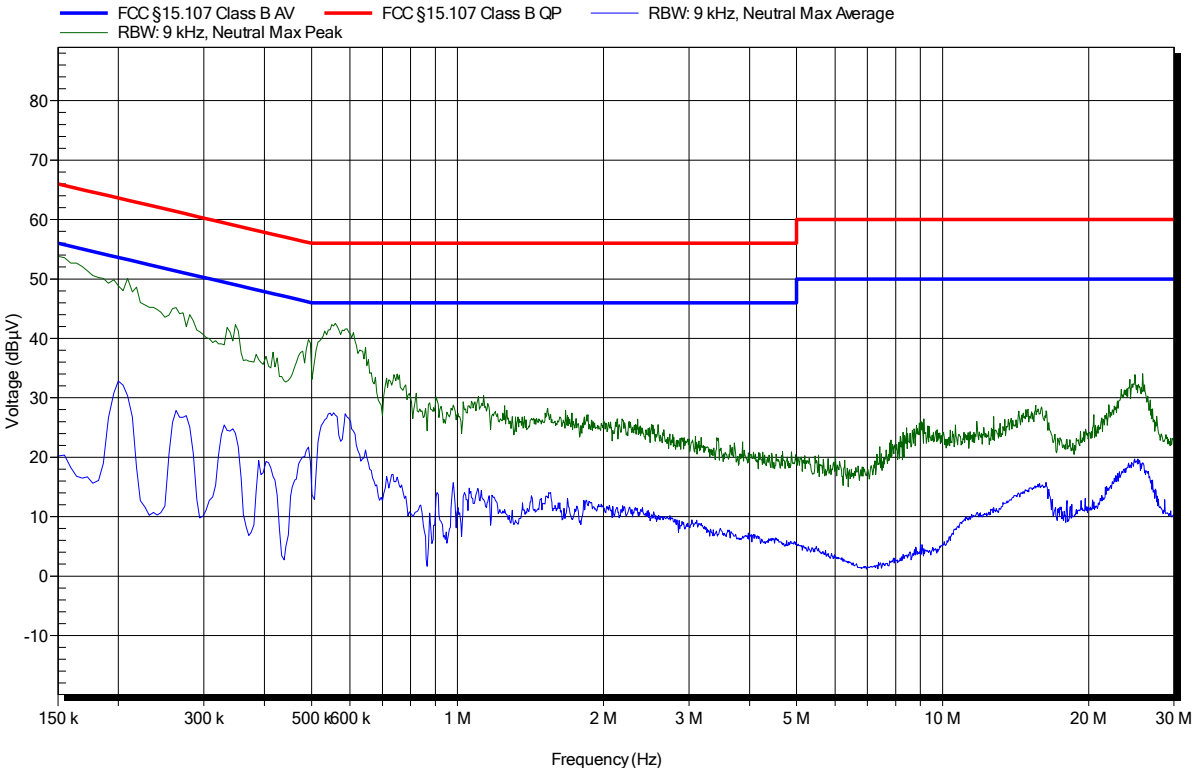
3.2.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
EMI Test Receiver	R&S	ESCS 30	EF00295	2017-07	2018-07
LISN	R&S	ESH2-Z5	EF00182	2017-01	2019-01

EMI voltage test in the ac-mains according to FCC 15.207

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Laser Distance Meter
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Abdullah Al Jamal
Test Conditions:	Tnom: 21.8°C, Unom: 3.8 VDC (rechargeable battery pack Li-Ion)
LISN:	ESH2-Z5 N
Mode:	BT/LE, WLAN
Test Date:	2018-03-05
Note:	

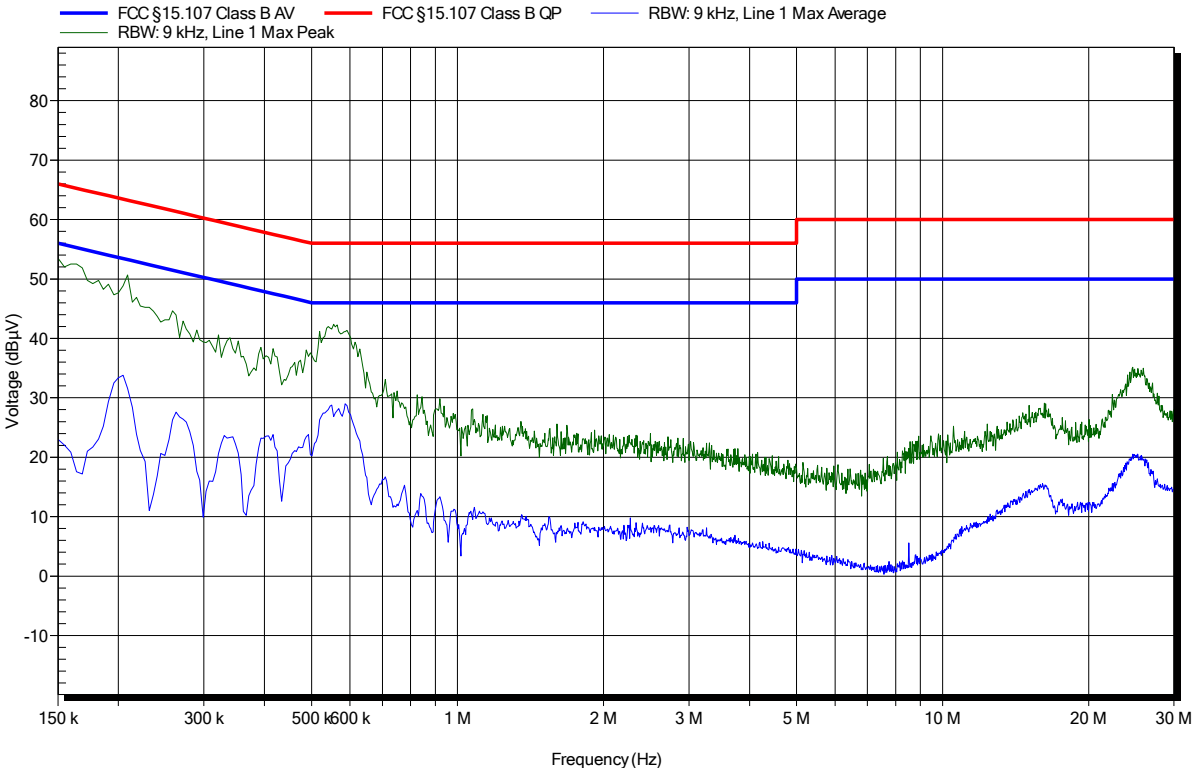
Index 1



EMI voltage test in the ac-mains according to FCC 15.207

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Laser Distance Meter
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Abdullah Al Jamal
Test Conditions:	Tnom: 21.8°C, Unom: 3.8 VDC (rechargeable battery pack Li-Ion)
LISN:	ESH2-Z5 L
Mode:	BT/LE, WLAN
Test Date:	2018-03-05
Note:	

Index 2



3.3 Test Conditions and Results - Transmitter radiated emissions

3.3.1 Information

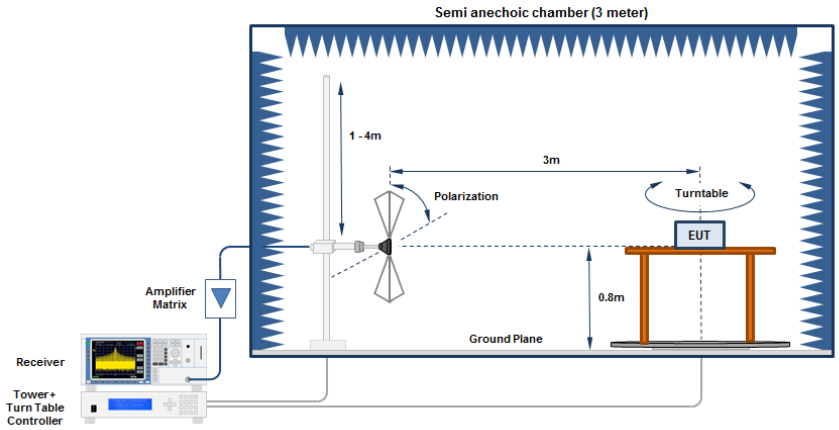
Test Information	
Reference	FCC 15.247(d) / ISED RSS-GEN 8.9
Measurement Method	ANSI C63.10 6.4, 6.5, 6.6, 11.12
Operator	Wilfried Treffke
Date	2018-03-01

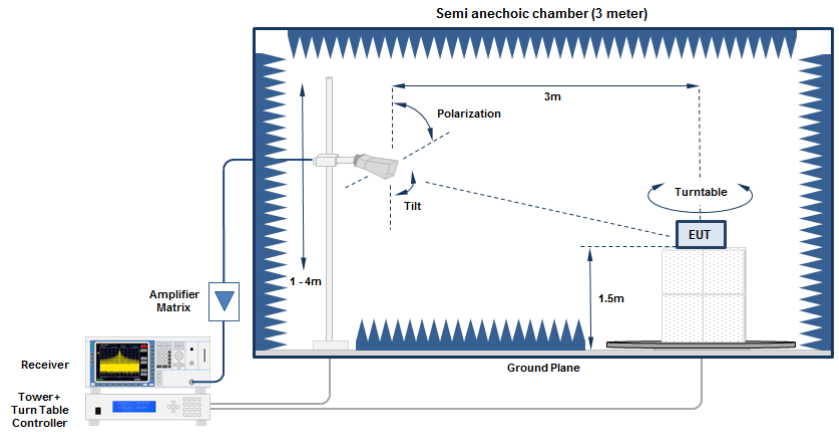
3.3.2 Limits

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

3.3.3 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	AC6	EF00910	2017-03	2020-03
Measurement Receiver	R&S	ESU 26	EF00887	2017-07	2018-07
Antenna	R&S	VULB 9162	EF00978	2016-11	2019-11

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2017-02	2020-02
Measurement Receiver	R&S	ESU 26	EF00887	2017-07	2018-07
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 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

3.3.6 Results

Test Results - DSSS						
Channel [MHz]	Emission [MHz]	Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dB]
2412	2484	37.88	pk	ver	74.00	-36.12
2437	2483.5	40.71	pk	hor	74.00	-33.29

Test Results - OFDM						
Channel [MHz]	Emission [MHz]	Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dB]
2412	2388	50.38	pk	hor	74.00	-23.62
2412	2388	36.82	avg	hor	54.00	-17.18
2412	2487	41.75	pk	ver	74.00	-32.25
2412	4818	45.74	pk	ver	74.00	-28.26
2437	2388.8	46.43	pk	hor	74.00	-27.57
2437	2483.5	47.09	pk	hor	74.00	-26.91
2437	2485.7	51.10	pk	ver	74.00	-22.90
2437	2485.7	38.54	avg	ver	54.00	-15.46
2437	4880	46.15	pk	hor	74.00	-27.85
2437	4880	43.83	pk	ver	74.00	-30.17
2462	4920	44.45	pk	ver	74.00	-29.55

Test Results - HT20						
Channel [MHz]	Emission [MHz]	Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dB]
2412	2388	50.71	pk	hor	74.00	-23.29
2412	2388	37.22	avg	hor	54.00	-16.78
2412	2390	51.57	pk	ver	74.00	-22.43
2412	2390	38.32	avg	ver	54.00	-15.68
2412	2484	42.32	pk	hor	74.00	-31.68
2412	2487	42.54	pk	ver	74.00	-31.46
2412	4824	39.15	pk	hor	74.00	-34.85
2412	4824	48.08	pk	ver	74.00	-25.92
2412	4824	36.54	avg	ver	54.00	-17.46
2437	2383.2	44.56	pk	hor	74.00	-29.44
2437	2389.2	47.45	pk	ver	74.00	-26.55
2437	2389.2	35.61	avg	ver	54.00	-18.39
2437	2483.5	46.76	pk	hor	74.00	-27.24
2437	2483.5	48.47	pk	ver	74.00	-25.53
2437	2483.5	36.86	avg	ver	54.00	-17.14
2462	4920	43.30	pk	ver	74.00	-30.70

Test Results - HT40						
Channel [MHz]	Emission [MHz]	Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dB]
2422	2268	51.47	pk	hor	74.00	-22.53
2422	2268	24.45	avg	hor	54.00	-29.55
2422	2290	55.47	pk	ver	74.00	-18.53
2422	2290	27.97	avg	ver	54.00	-26.03
2422	2389	55.89	pk	hor	74.00	-18.11
2422	2389	37.21	avg	hor	54.00	-16.79
2422	2390	59.79	pk	ver	74.00	-14.21
2422	2390	38.66	avg	ver	54.00	-15.34
2422	2484	54.64	pk	ver	74.00	-19.36
2422	2484	34.45	avg	ver	54.00	-19.55
2422	2489	52.85	pk	hor	74.00	-21.15
2422	2489	32.59	avg	hor	54.00	-21.41
2437	2346.8	47.21	pk	ver	74.00	-26.79
2437	2380.4	48.28	pk	hor	74.00	-25.72
2437	2483.5	47.72	pk	hor	74.00	-26.28
2437	2483.5	47.38	pk	ver	74.00	-26.62
2452	2383	48.30	pk	hor	74.00	-25.70
2452	2485	53.75	pk	hor	74.00	-20.25
2452	2485	36.16	avg	hor	54.00	-17.84
2452	2486	53.33	pk	ver	74.00	-20.67
2452	2486	36.16	avg	ver	54.00	-17.84
2452	2500	47.40	pk	hor	74.00	-26.60

3.4 Test Conditions and Results - Receiver radiated emissions

3.4.1 Information

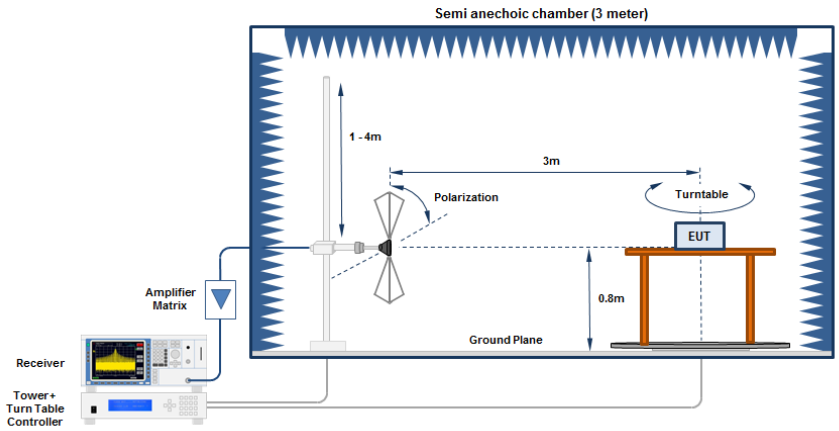
Test Information	
Reference	ISED RSS-247 3.1
Measurement Method	ANSI C63.10 6.5, 6.6, 11.12
Operator	Wilfried Treffke
Date	2018-03-01

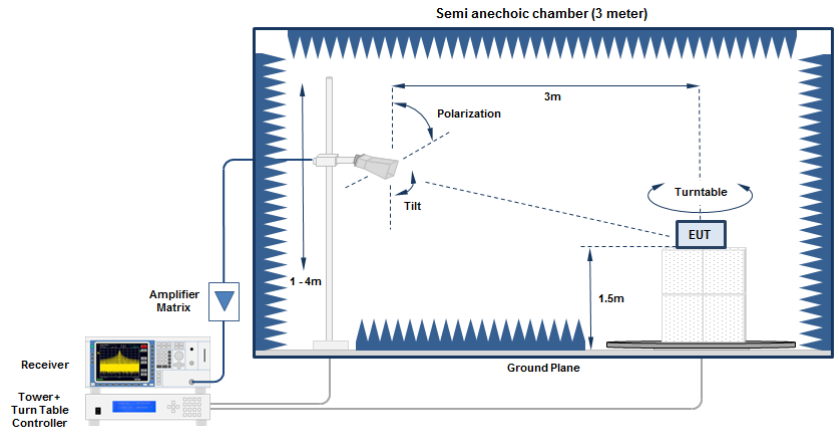
3.4.2 Limits

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

3.4.3 Setup

Test Setup 30 - 1000 MHz



Test Setup > 1 GHz


3.4.4 Equipment

Test Equipment 30 - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC6	EF00910	2017-03	2020-03
Measurement Receiver	R&S	ESU 26	EF00887	2017-07	2018-07
Antenna	R&S	VULB 9162	EF00978	2016-11	2019-11

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic Chamber	Frankonia	AC1	EF00062	2017-02	2020-02
Measurement Receiver	R&S	ESU 26	EF00887	2017-07	2018-07
Antenna	R&S	BBHA 9120D	EF01153	2017-08	2018-08
Antenna	Amplifier Research	AT4560	EF01152	2017-10	2018-10

3.4.5 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

3.4.6 Results

Test Results						
Channel [MHz]	Emission [MHz]	Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dB]
2437	3952	44.48	pk	ver	53.98	-09.50
2437	7952	50.49	pk	hor	53.98	-03.49
2437	14730	47.55	pk	hor	53.98	-06.43

ANNEX A Transmitter spurious emissions

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number: G0M-1801-7167

Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-03-01
Note:	EUT vertical; ANT integral

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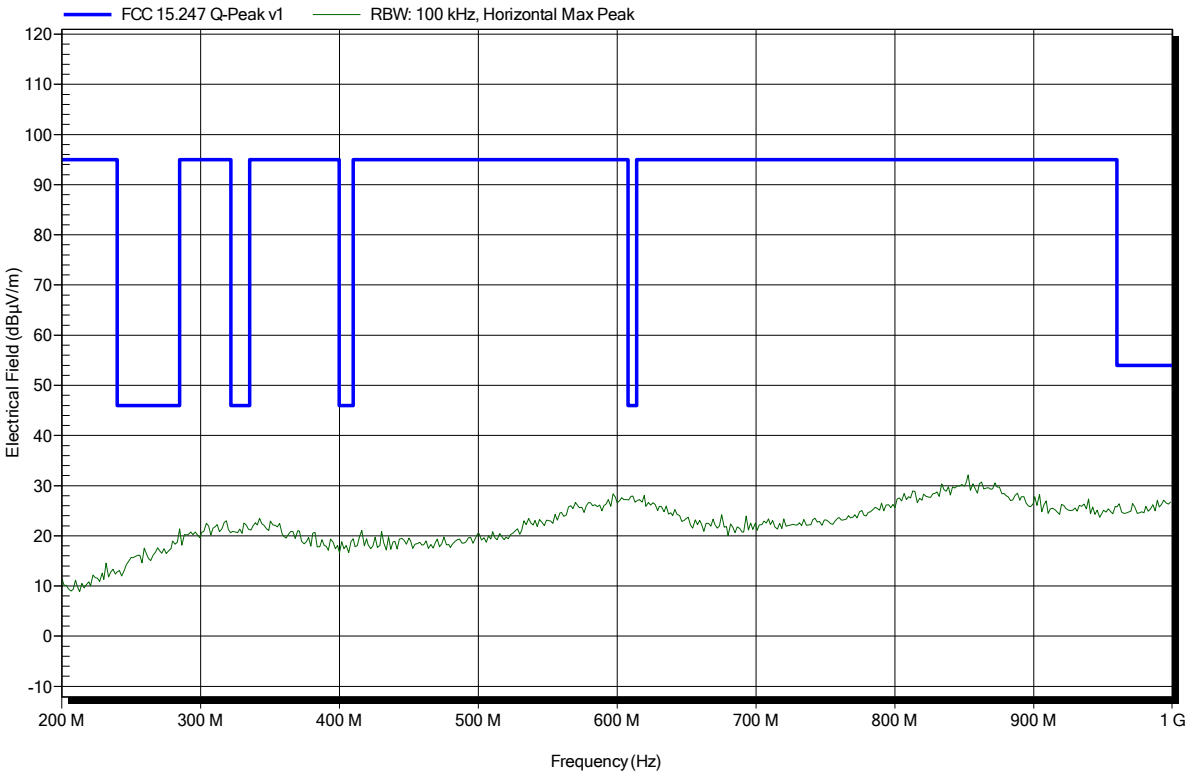

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number: G0M-1801-7167

Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-03-01
Note:	EUT vertical; ANT integral

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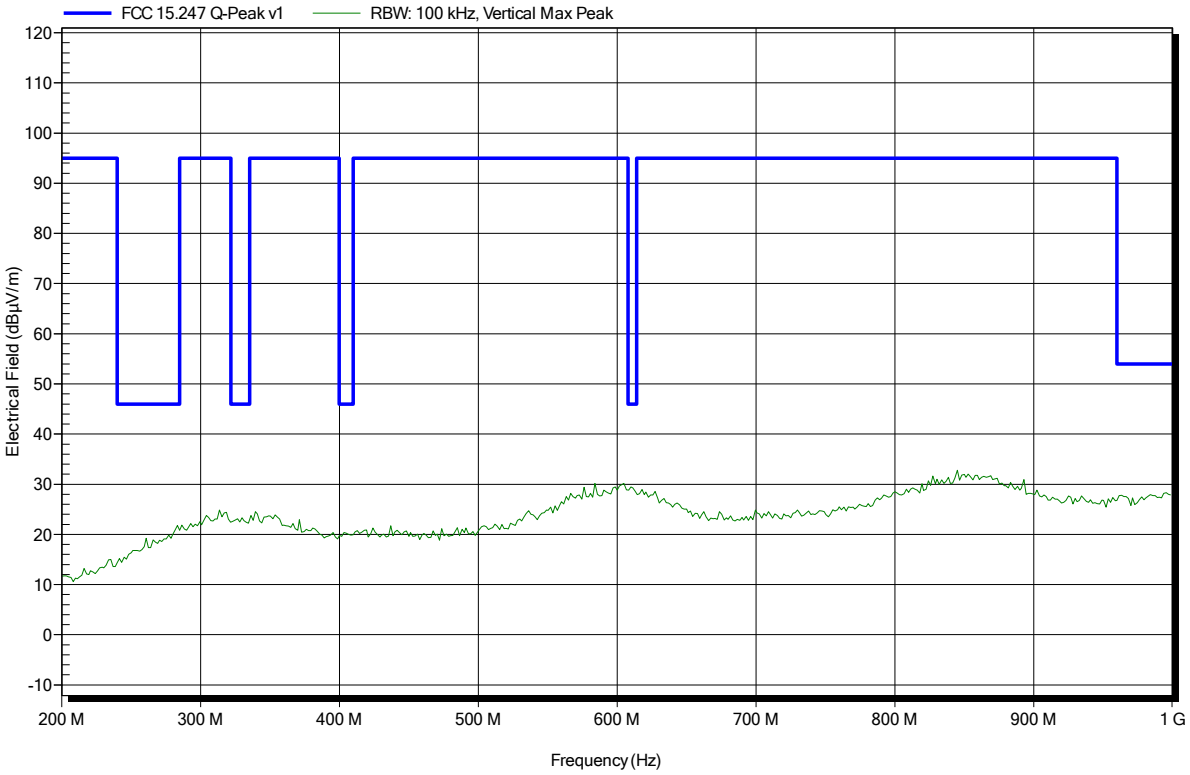

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number: G0M-1801-7167

Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	HK116, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-03-01
Note:	EUT vertical; ANT integral

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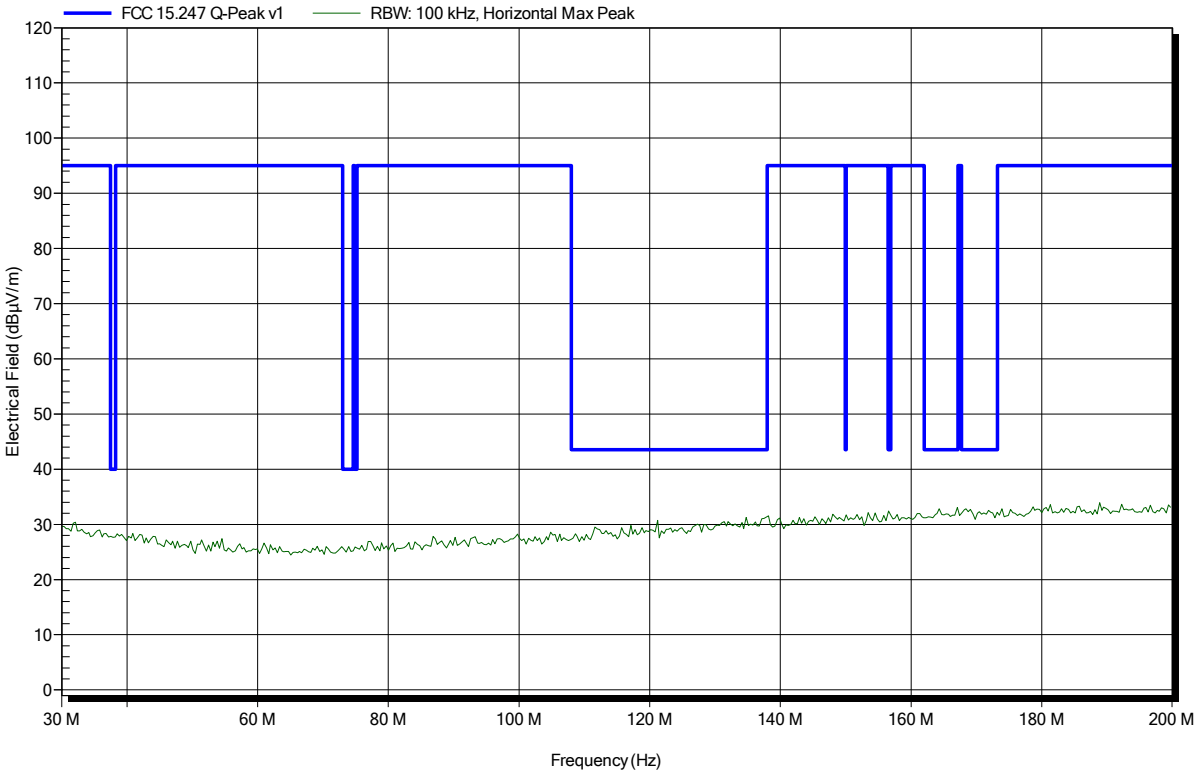

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number: G0M-1801-7167

Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	HK116, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-03-01
Note:	EUT vertical; ANT integral

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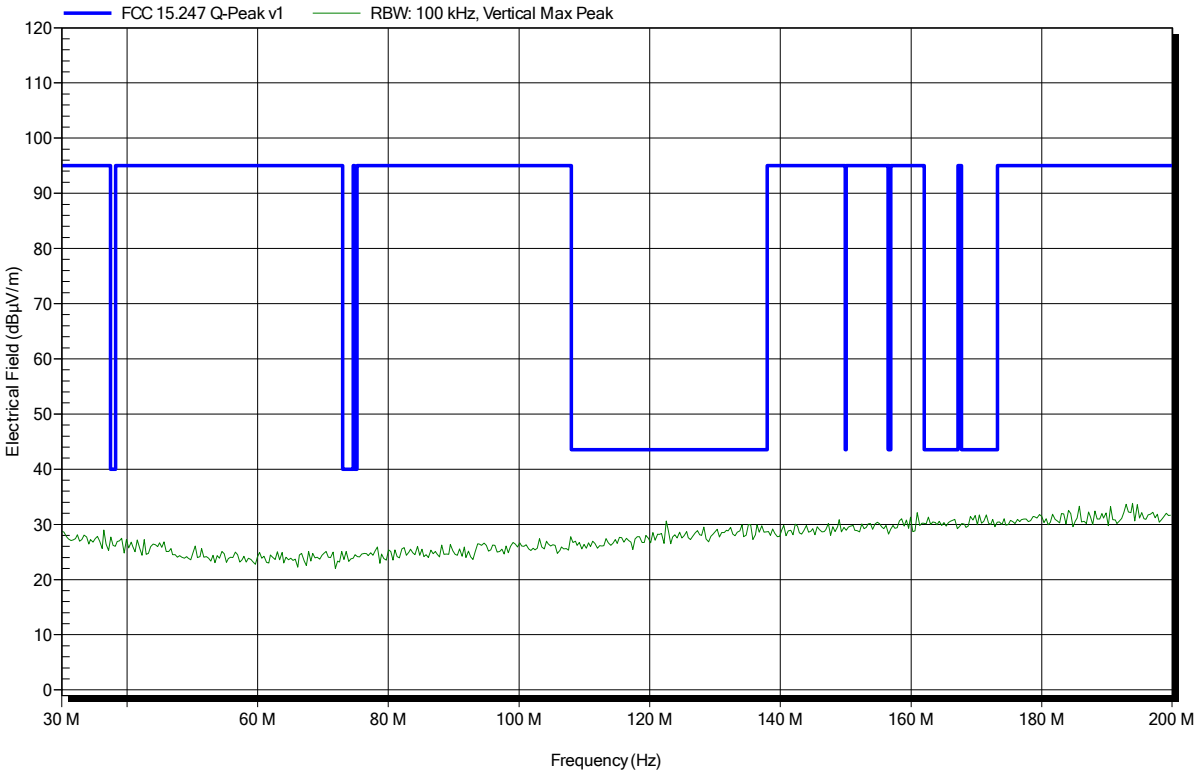

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-02-28
Note:	

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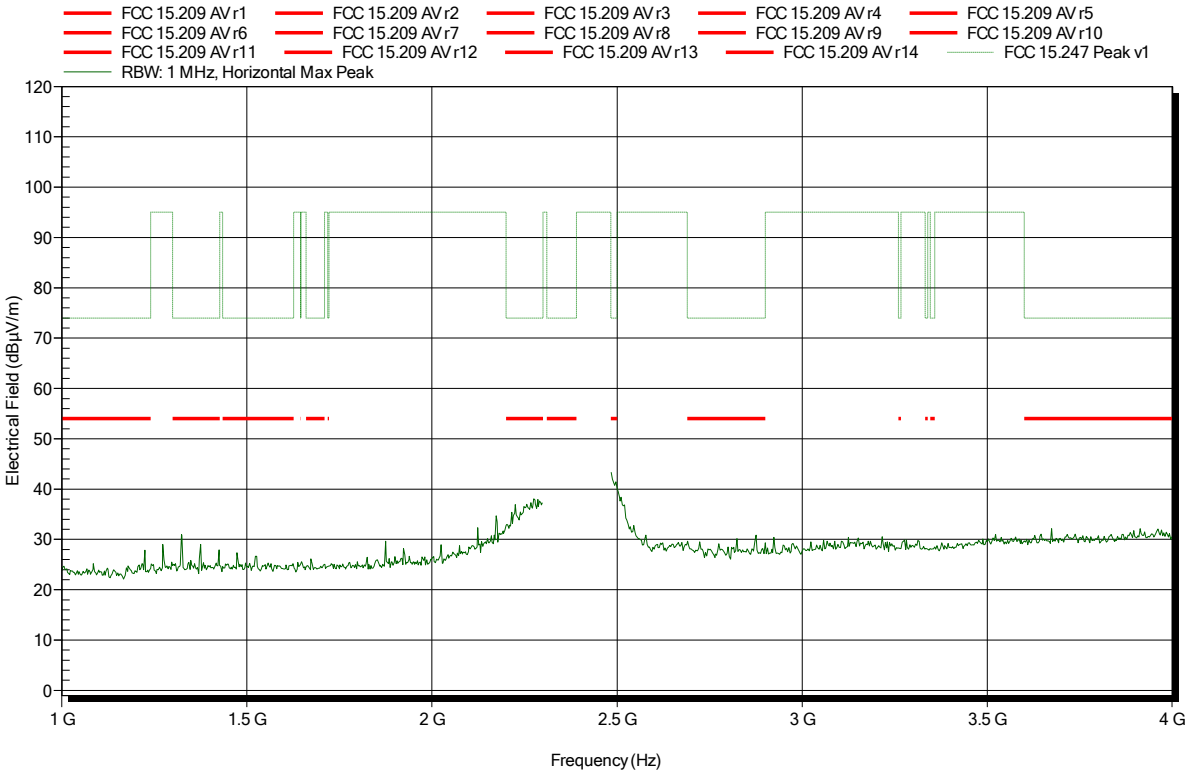

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-02-28
Note:	

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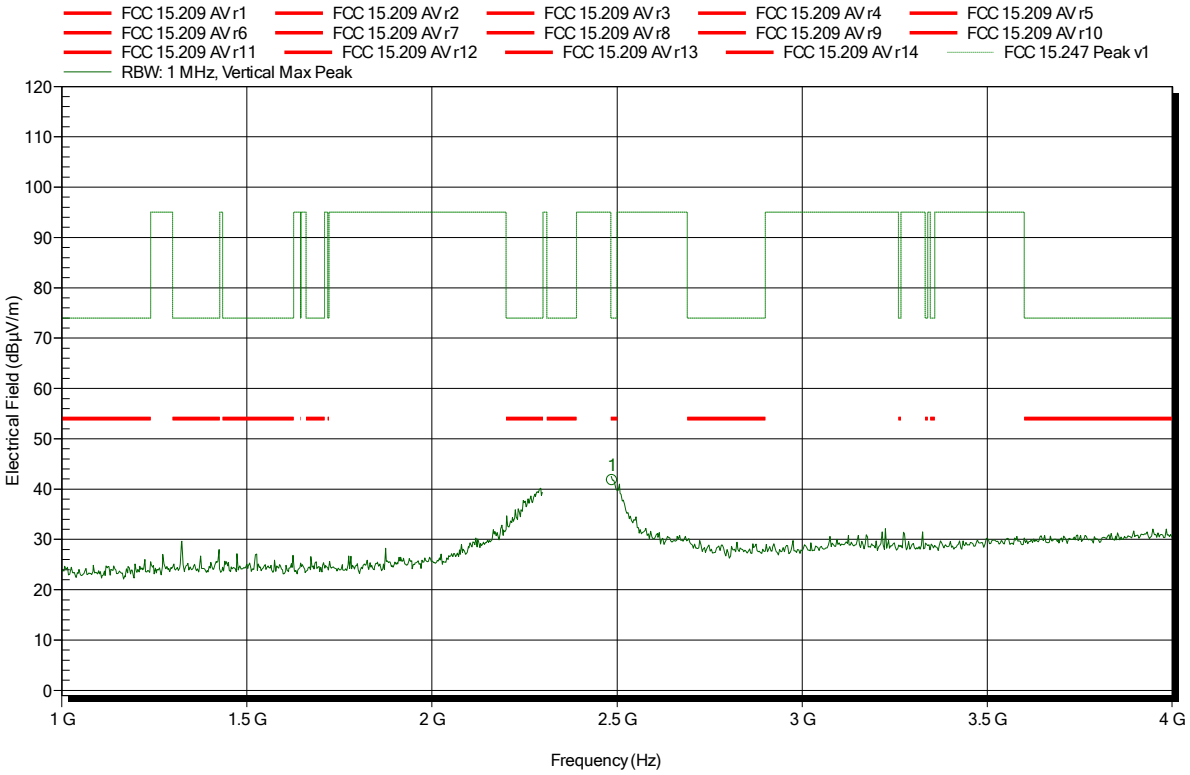

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.487 GHz	41.75 dBµV/m	74 dBµV/m	-32.25 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-02-28
Note:	lower bandedge

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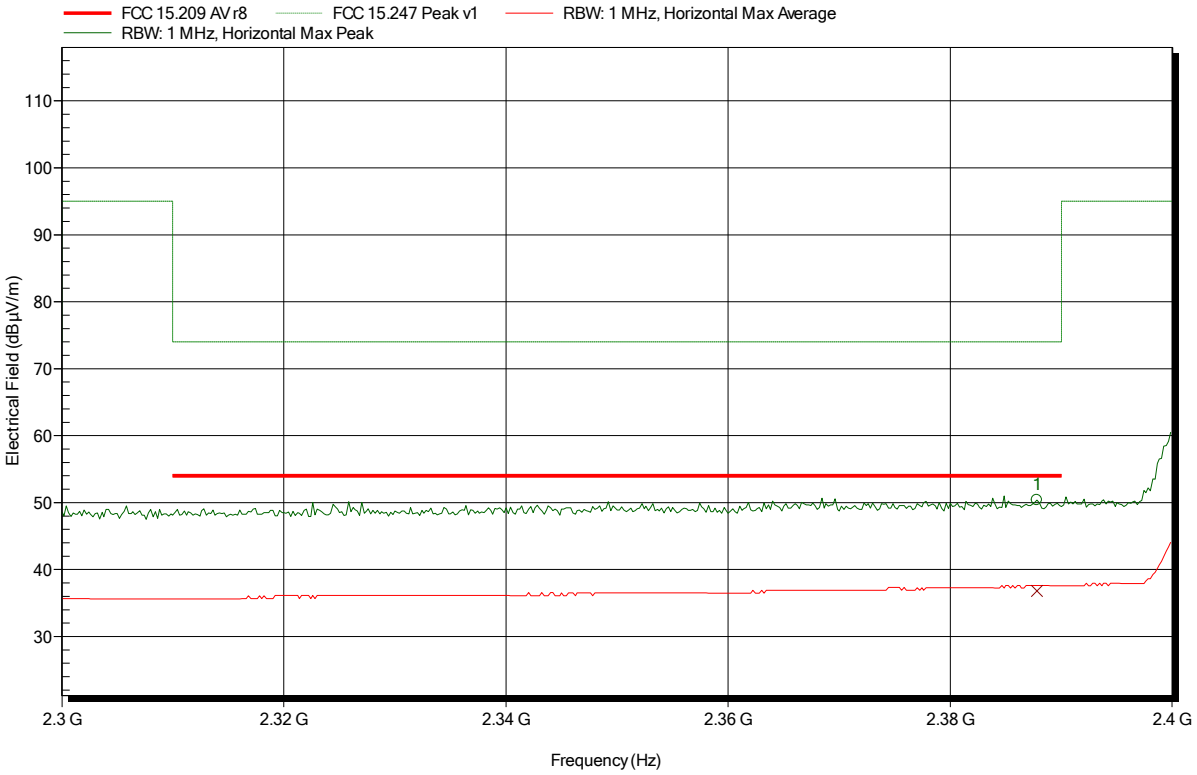

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.388 GHz	50.38 dBµV/m	74 dBµV/m	-23.62 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.388 GHz	36.82 dBµV/m	54 dBµV/m	-17.18 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-02-28
Note:	lower bandedge

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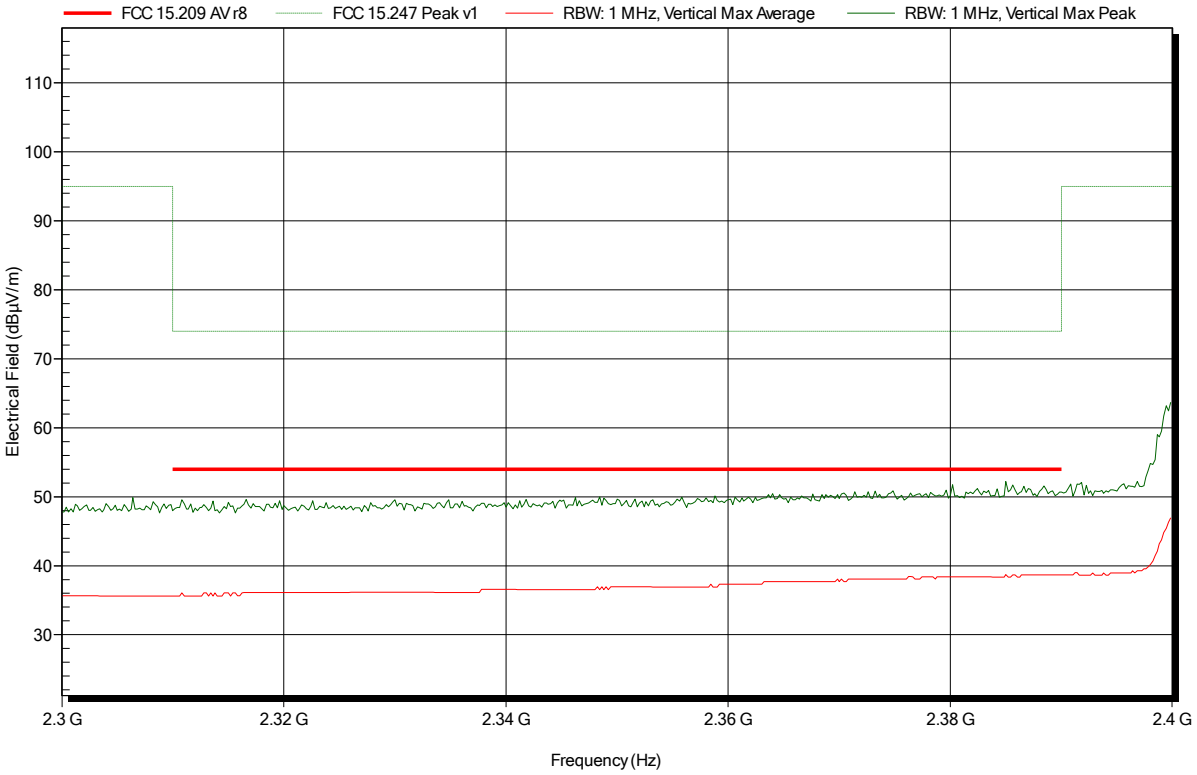

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-02-28
Note:	

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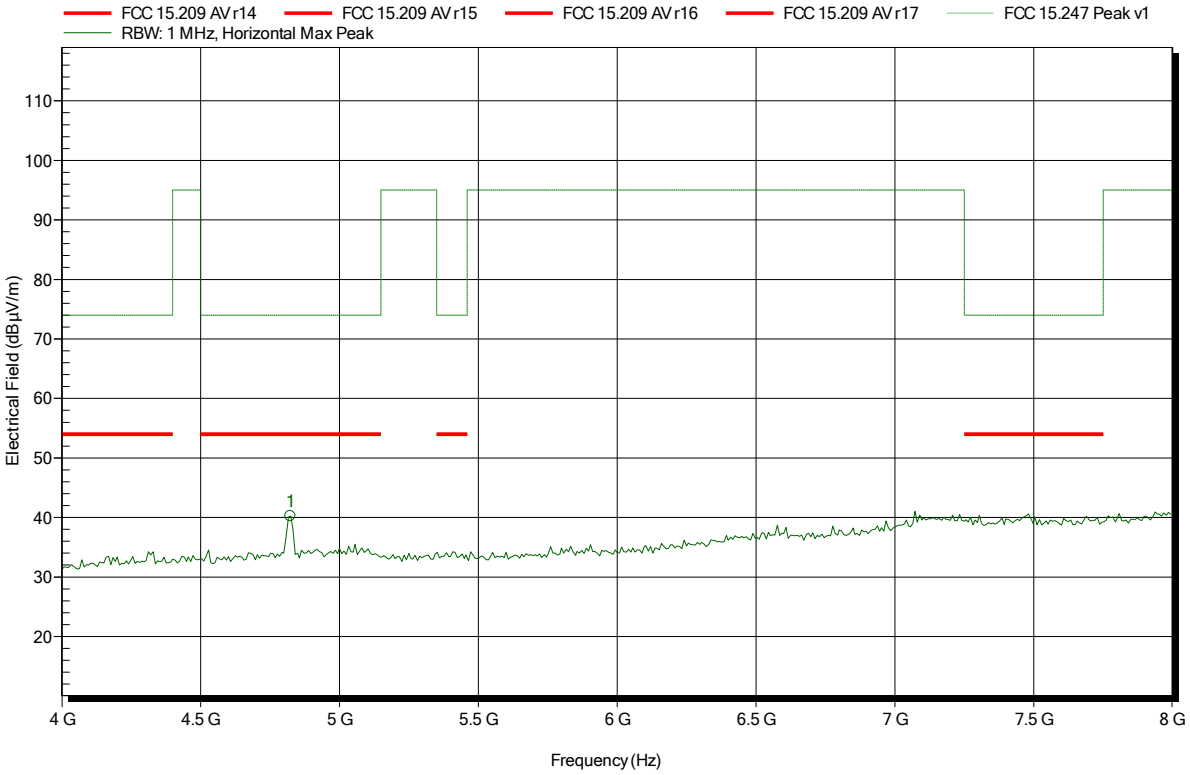

Frequency	Peak	Peak Limit	Peak Difference	Status
4.824 GHz	40.2 dBµV/m	74 dBµV/m	-33.8 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-02-28
Note:	

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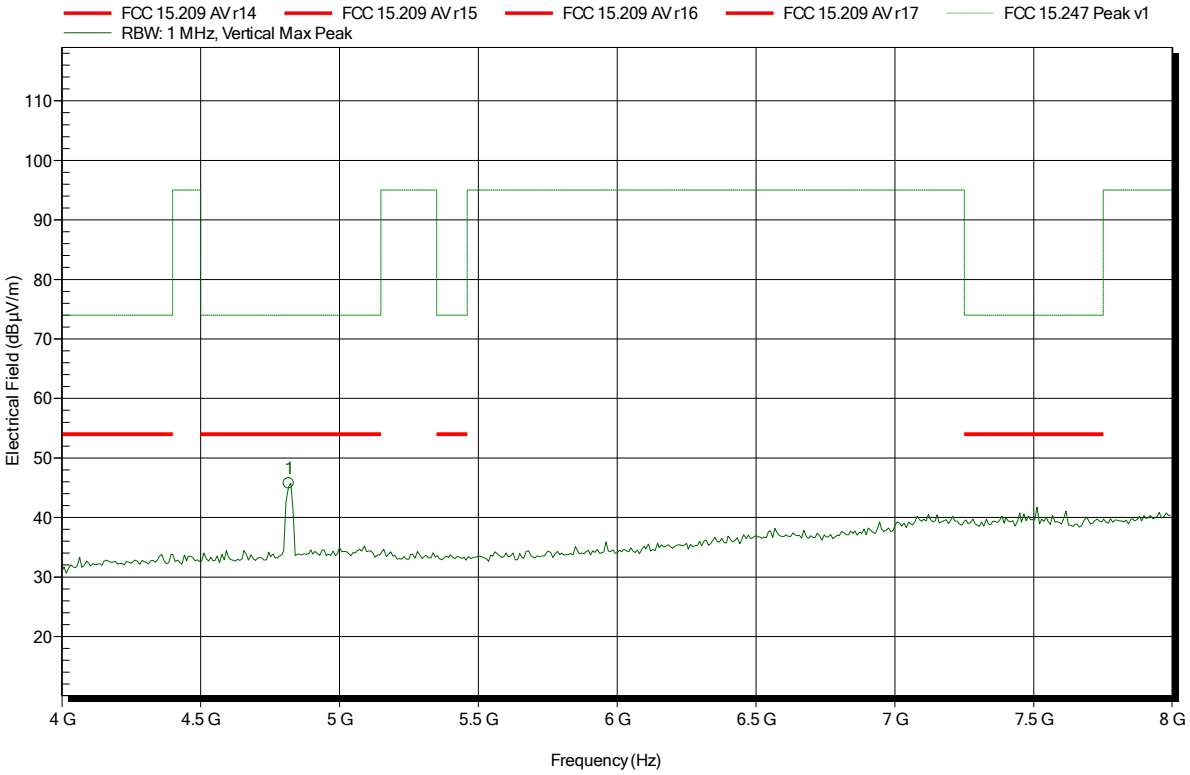

Frequency	Peak	Peak Limit	Peak Difference	Status
4.818 GHz	45.74 dBµV/m	74 dBµV/m	-28.26 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-02-28
Note:	

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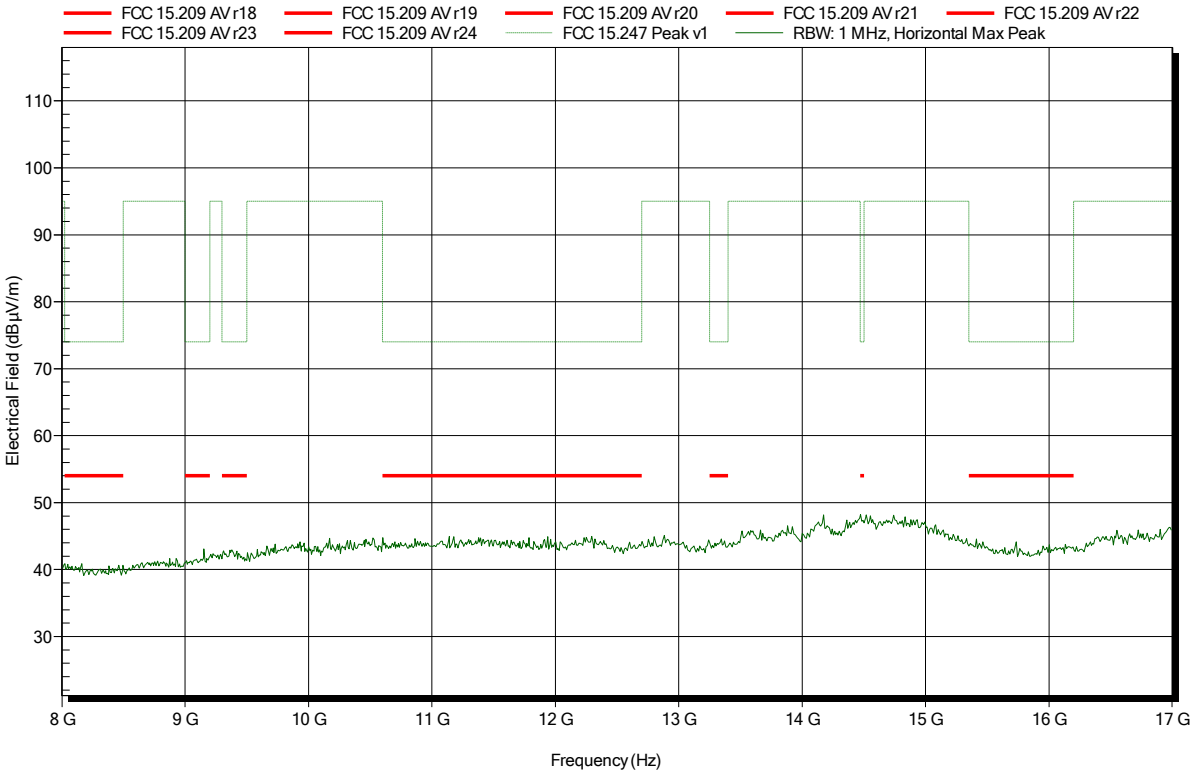

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-02-28
Note:	

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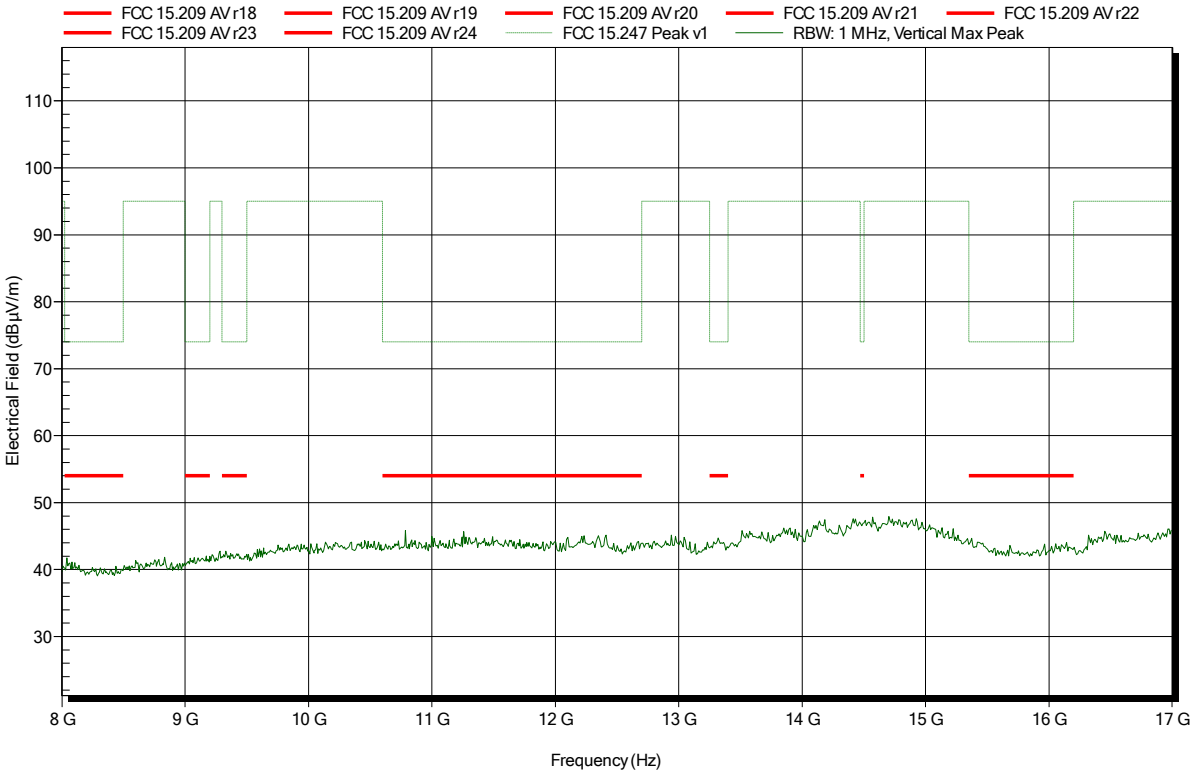

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	ATH18G40, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-02-28
Note:	

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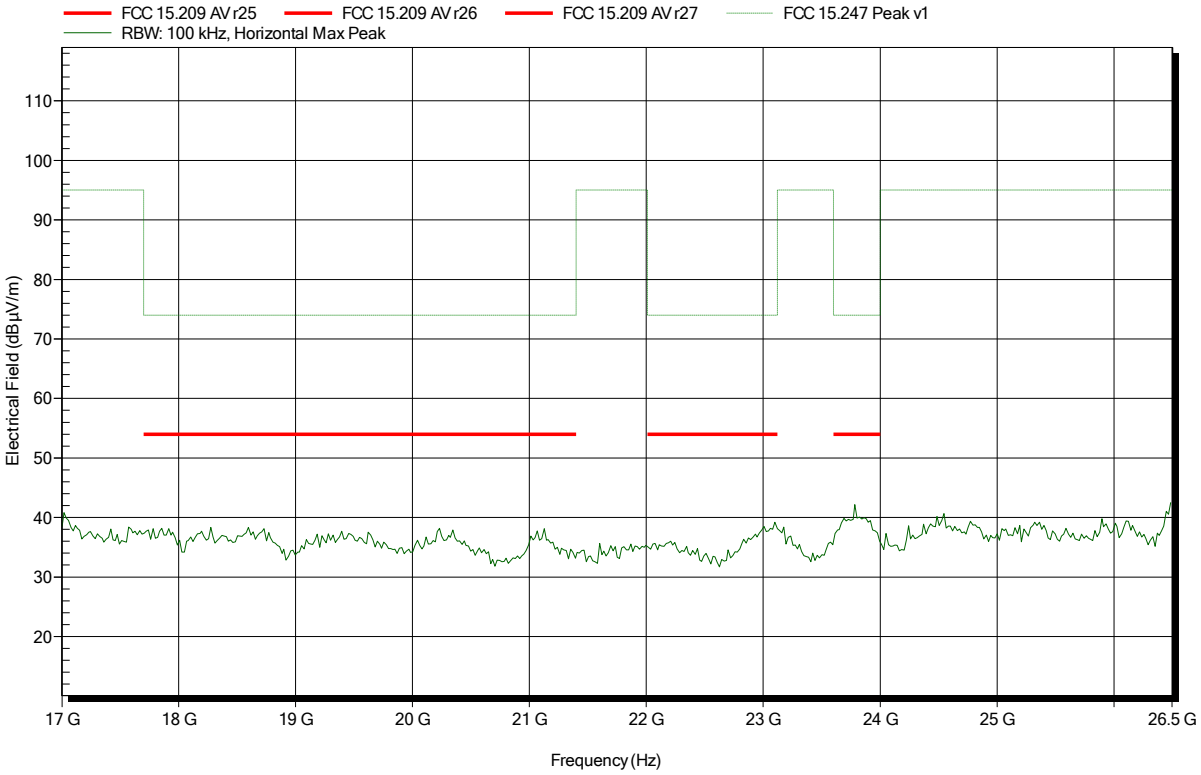

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	ATH18G40, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2412 MHz
Test Date:	2018-02-28
Note:	

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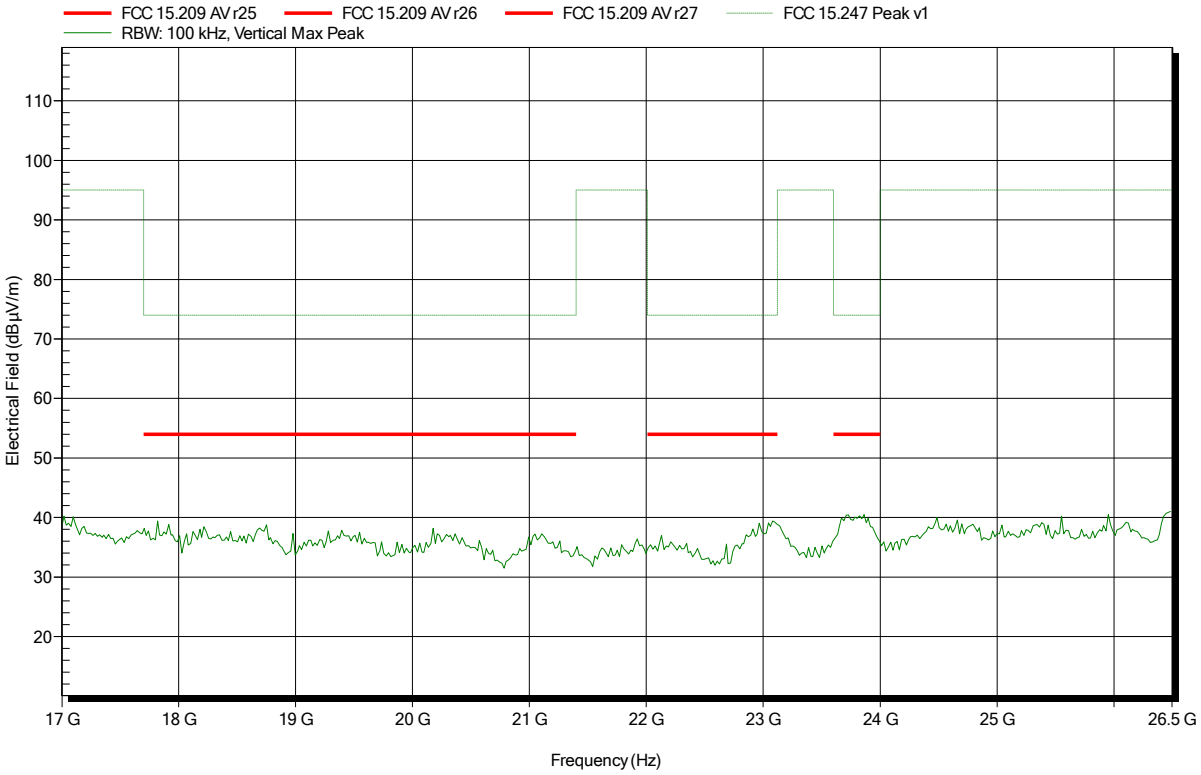

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2437 MHz
Test Date:	2018-02-28
Note:	

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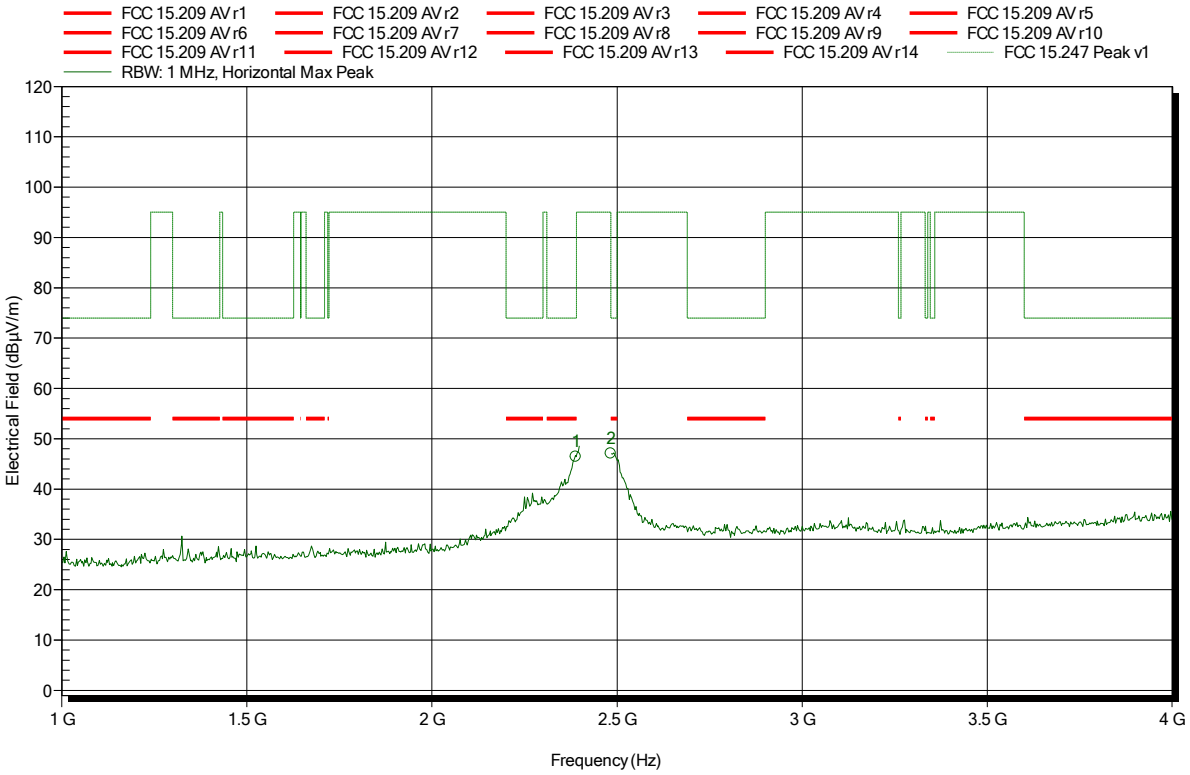

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.3888 GHz	46.43 dBµV/m	74 dBµV/m	-27.57 dB	Pass
2.4835 GHz	47.09 dBµV/m	74 dBµV/m	-26.91 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2437 MHz
Test Date:	2018-02-28
Note:	

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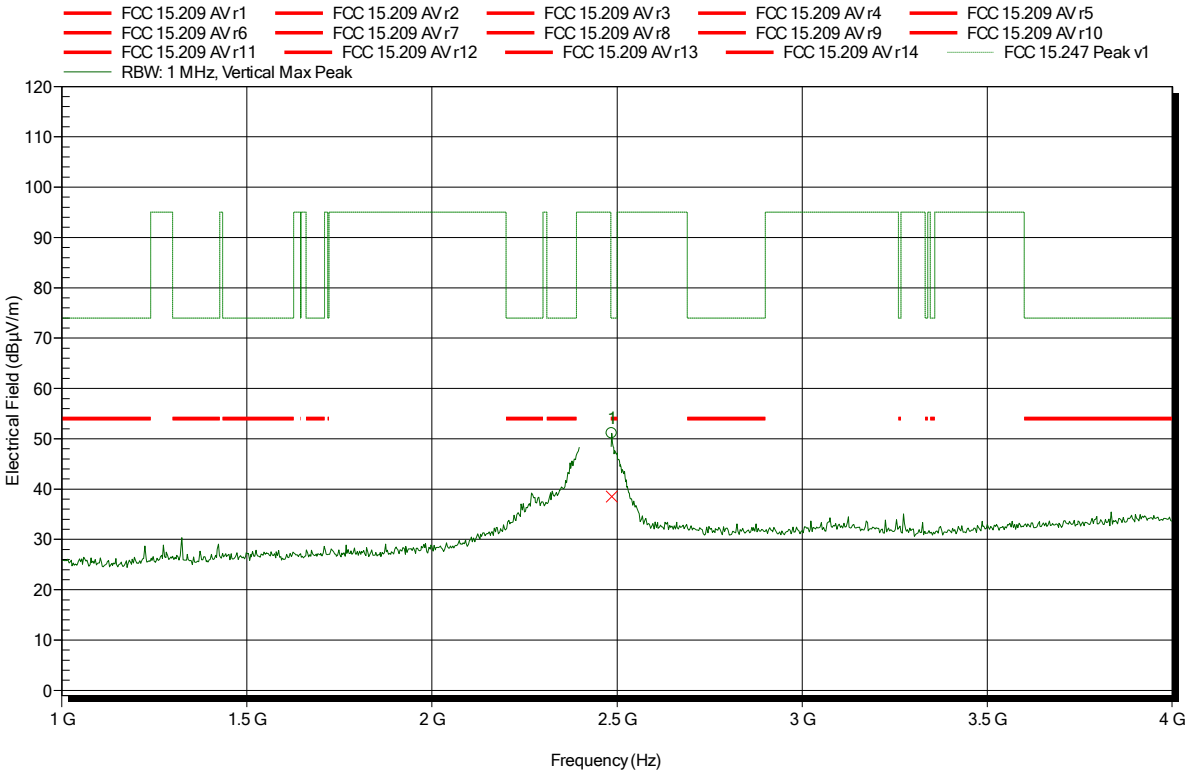

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4857 GHz	51.1 dBµV/m	74 dBµV/m	-22.9 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.4857 GHz	38.54 dBµV/m	54 dBµV/m	-15.46 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2437 MHz
Test Date:	2018-02-28
Note:	

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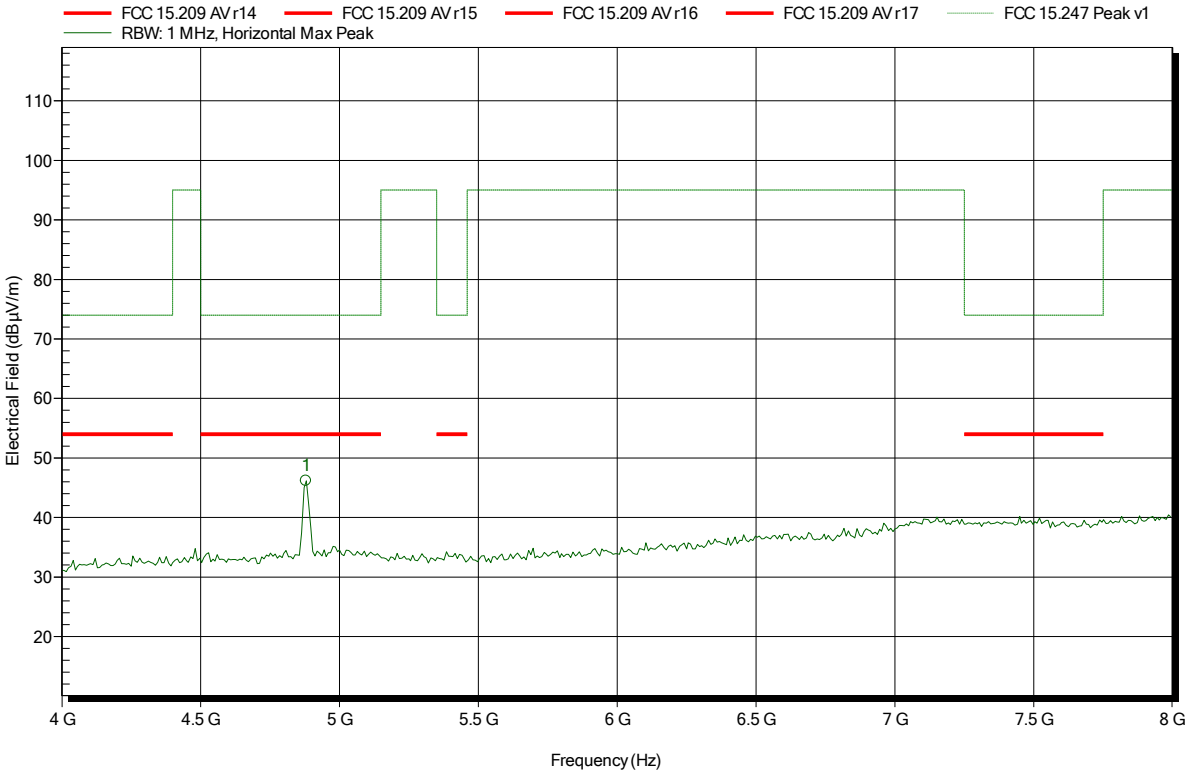

Frequency	Peak	Peak Limit	Peak Difference	Status
4.88 GHz	46.15 dBµV/m	74 dBµV/m	-27.85 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2437 MHz
Test Date:	2018-02-28
Note:	

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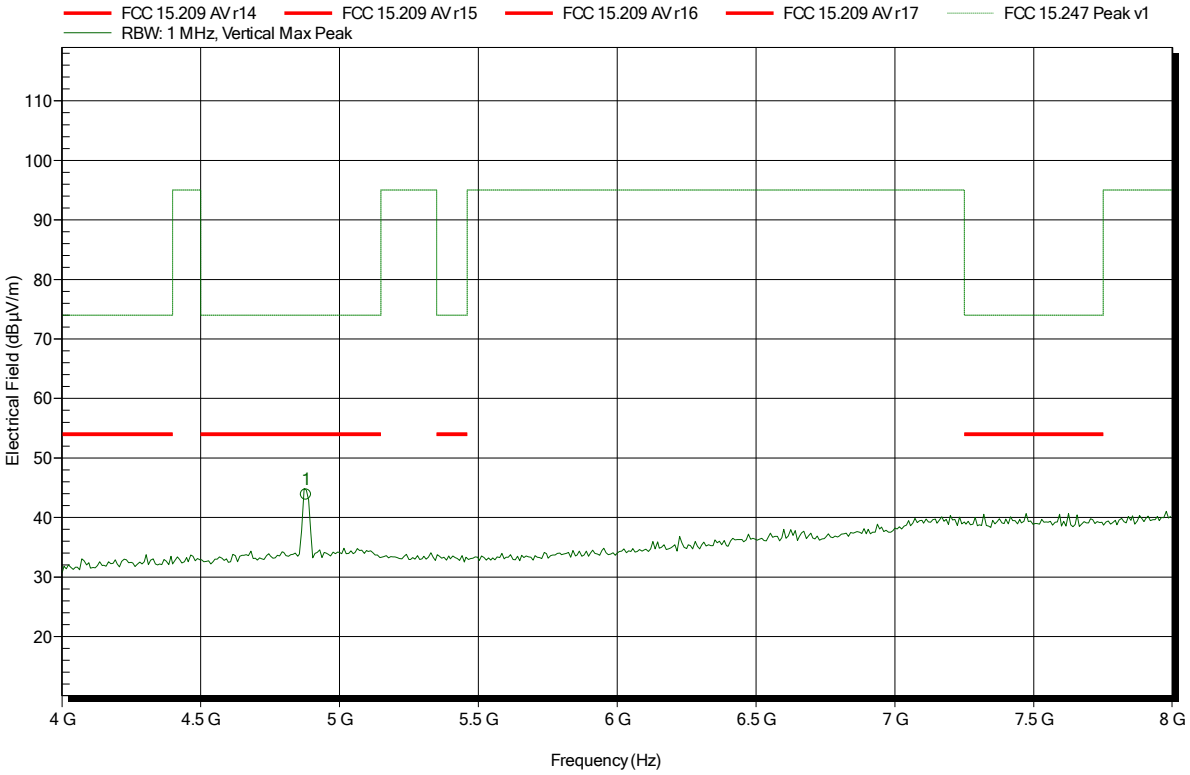

Frequency	Peak	Peak Limit	Peak Difference	Status
4.88 GHz	43.83 dBµV/m	74 dBµV/m	-30.17 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2437 MHz
Test Date:	2018-02-28
Note:	

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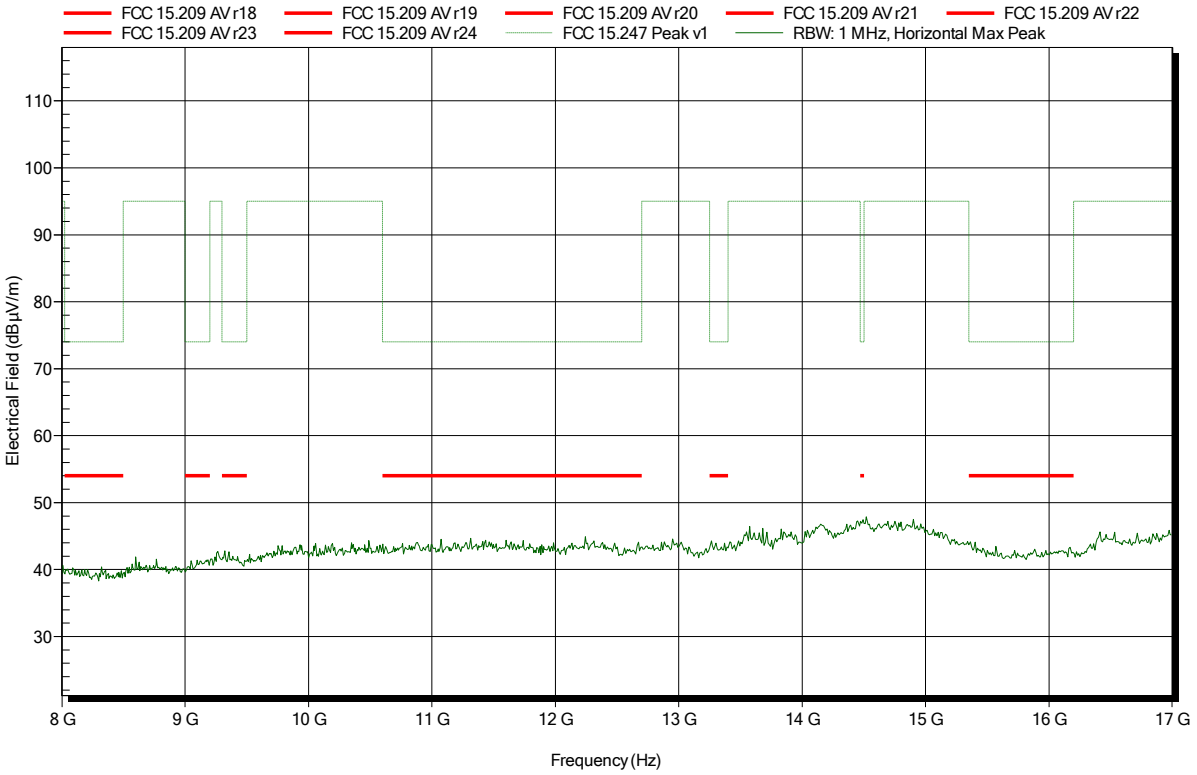

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2437 MHz
Test Date:	2018-02-28
Note:	

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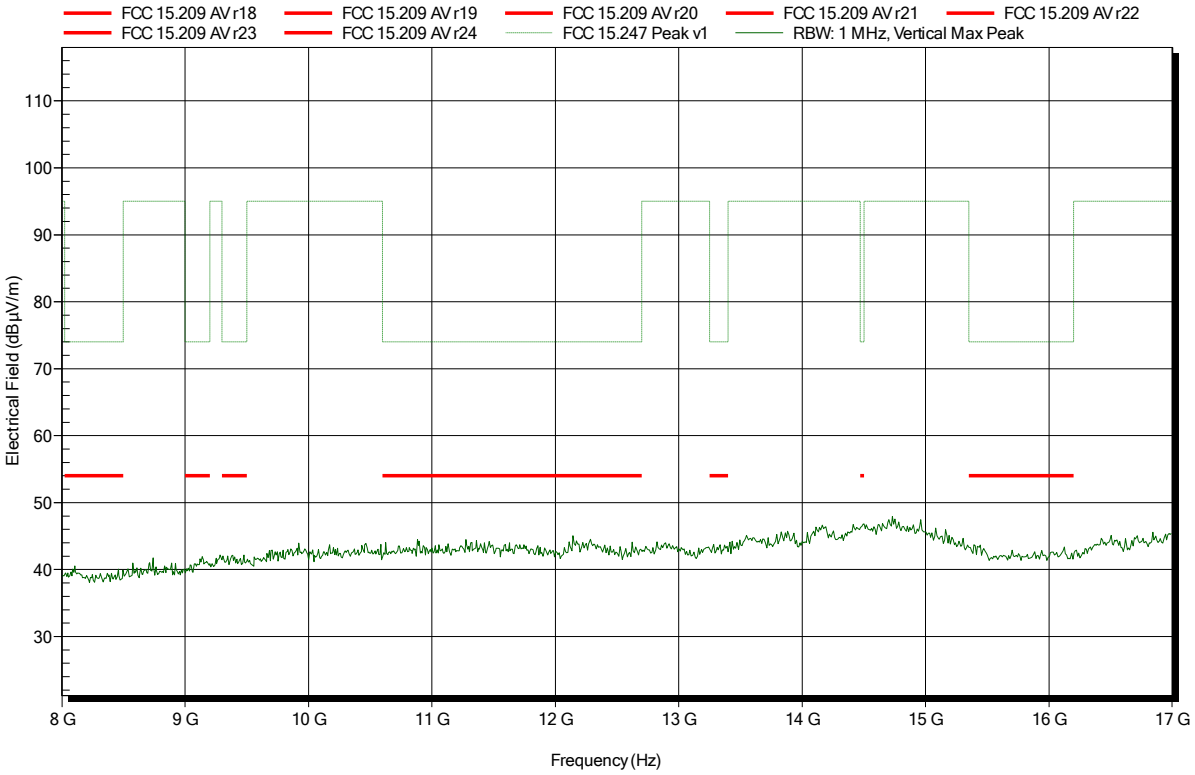

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	ATH18G40, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2437 MHz
Test Date:	2018-02-28
Note:	

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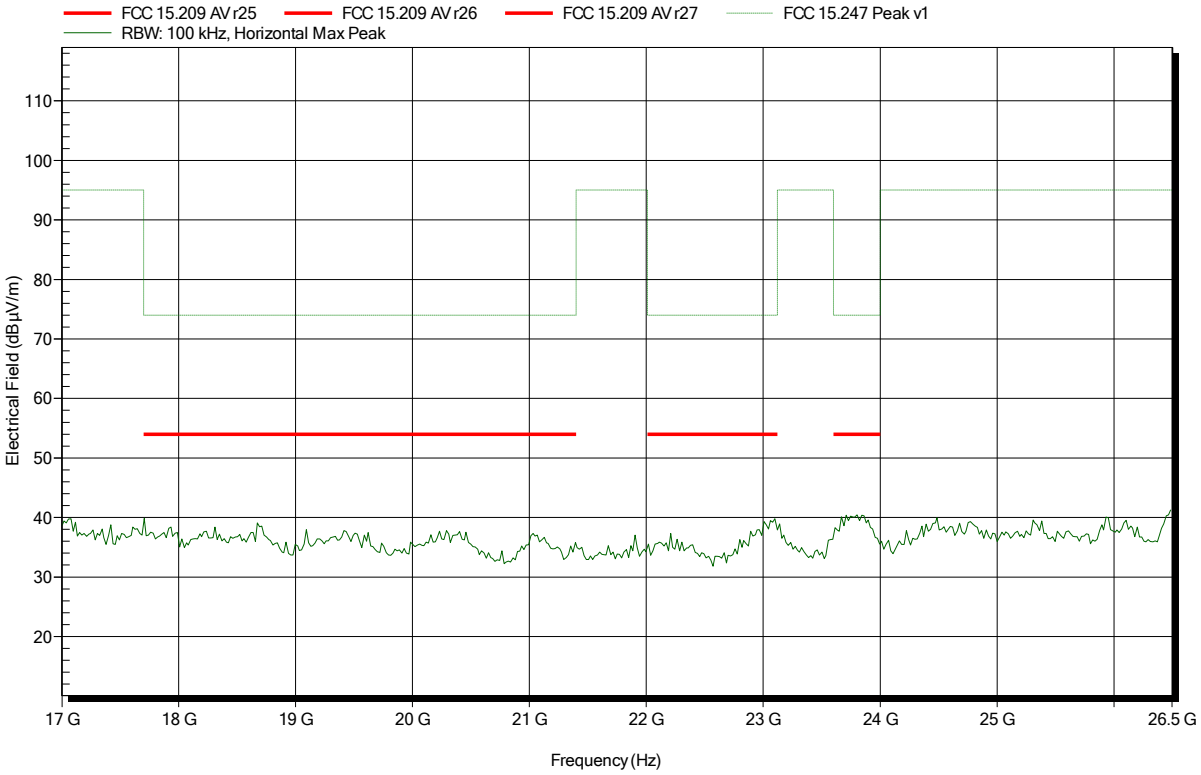

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	ATH18G40, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2437 MHz
Test Date:	2018-02-28
Note:	

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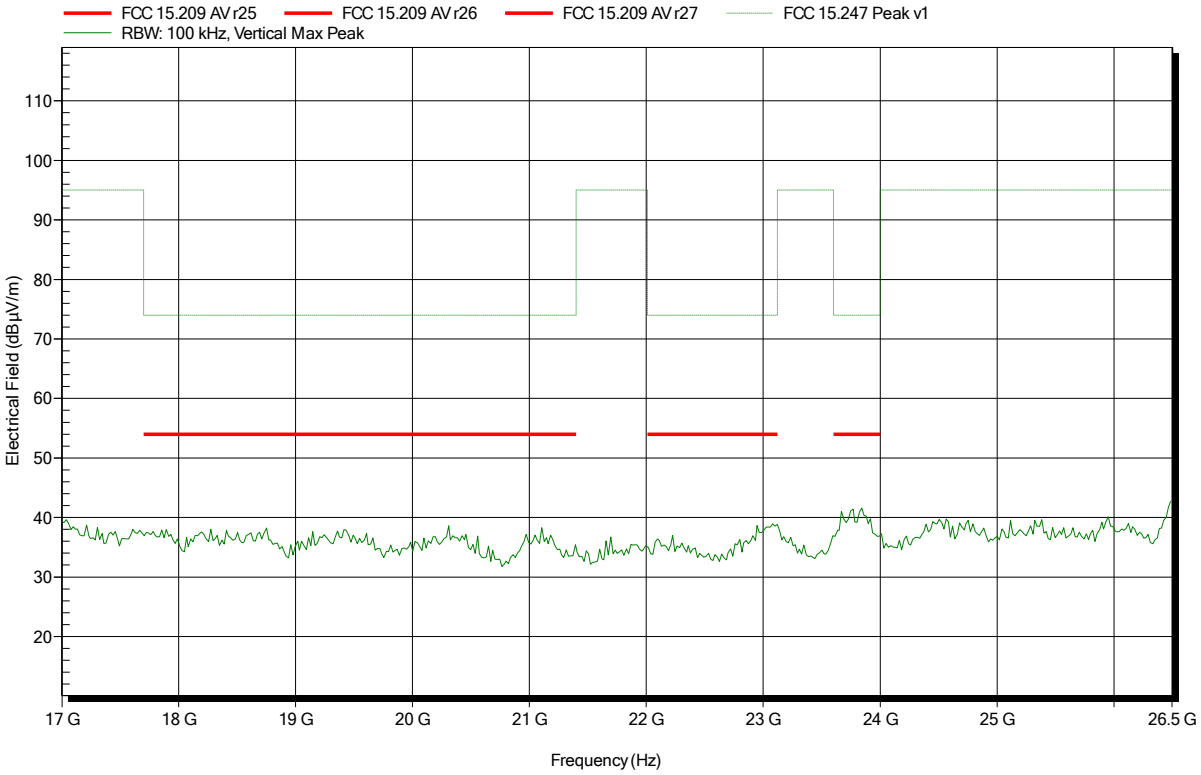

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2462 MHz
Test Date:	2018-02-28
Note:	

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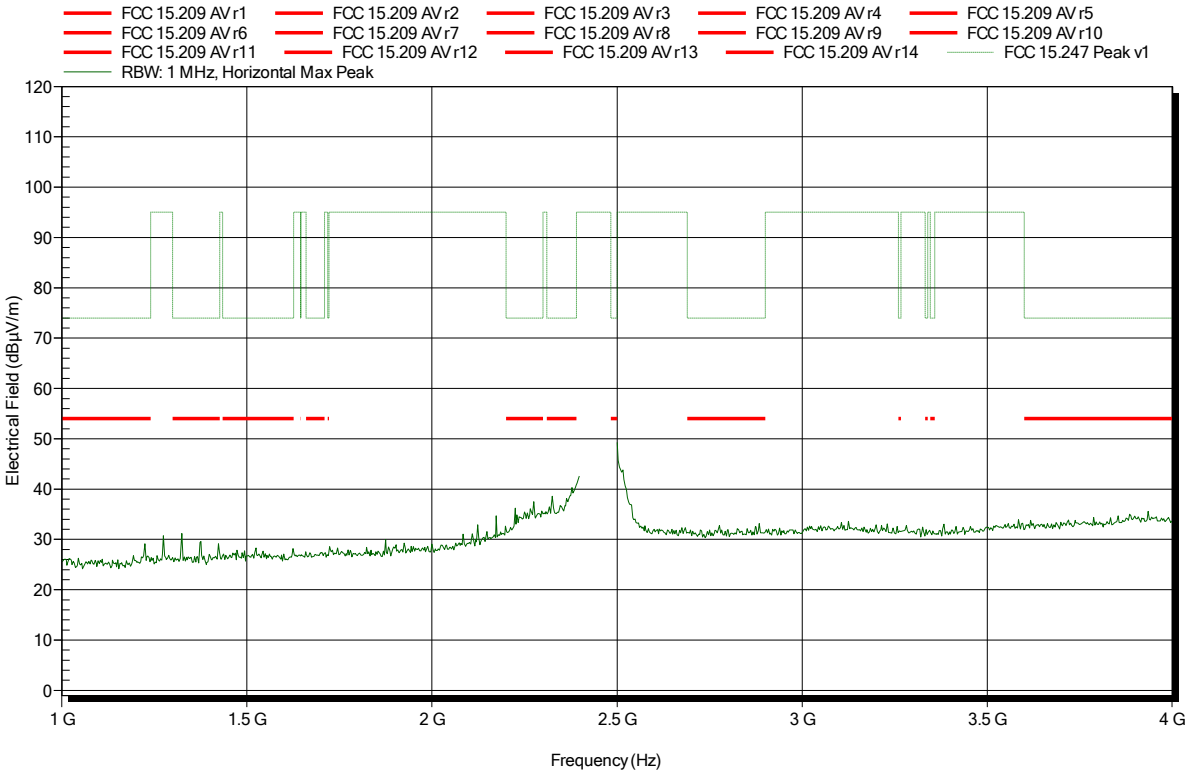

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2462 MHz
Test Date:	2018-02-28
Note:	

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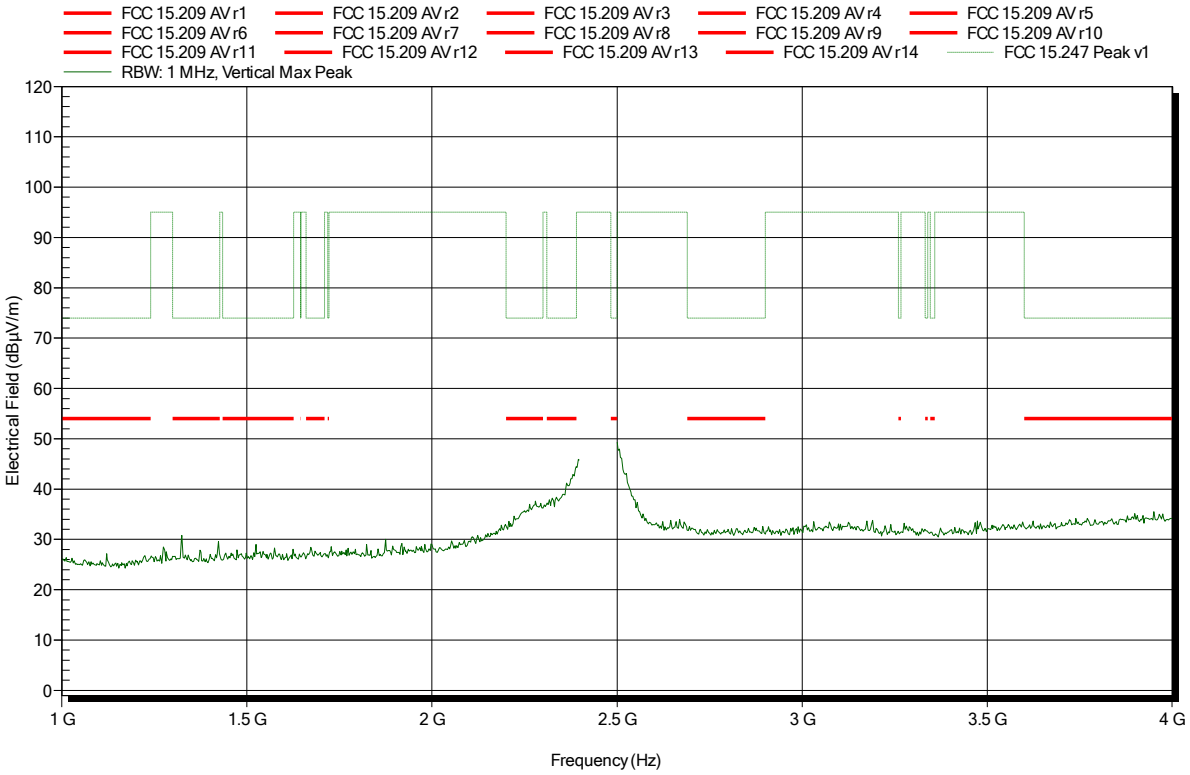

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2462 MHz
Test Date:	2018-02-28
Note:	upper bandedge

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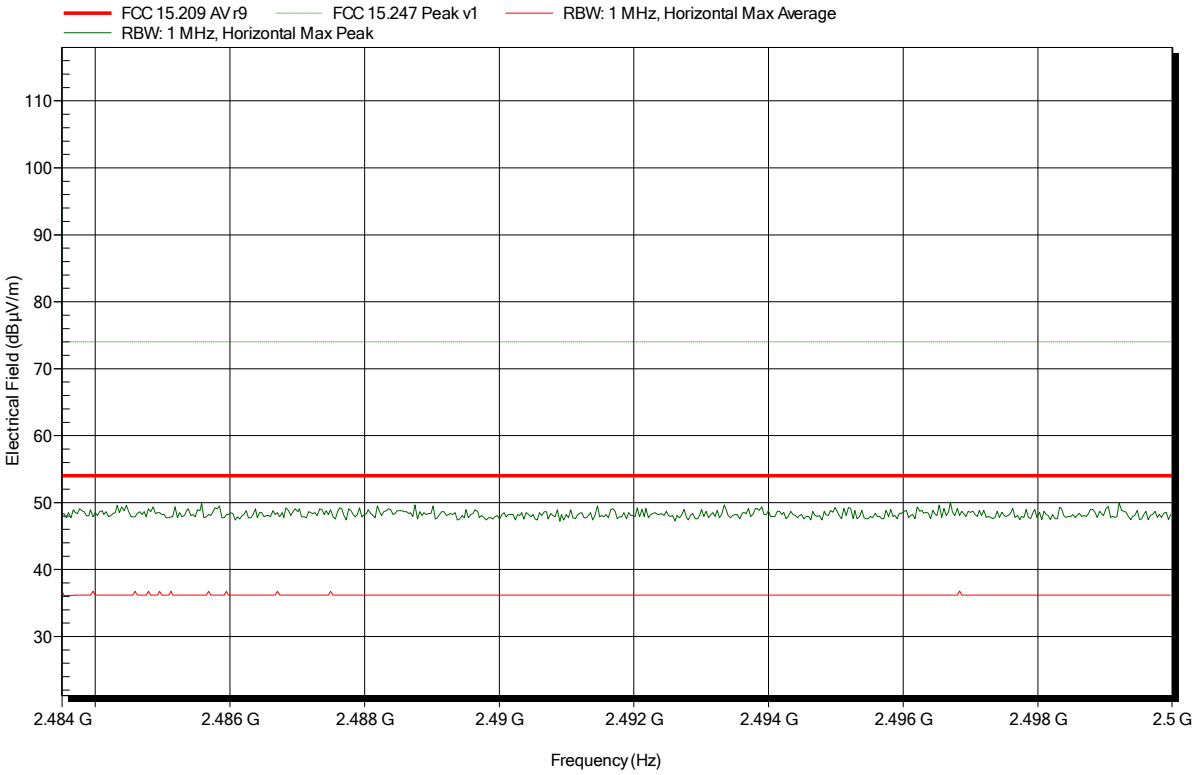

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2462 MHz
Test Date:	2018-02-28
Note:	Upper bandedge

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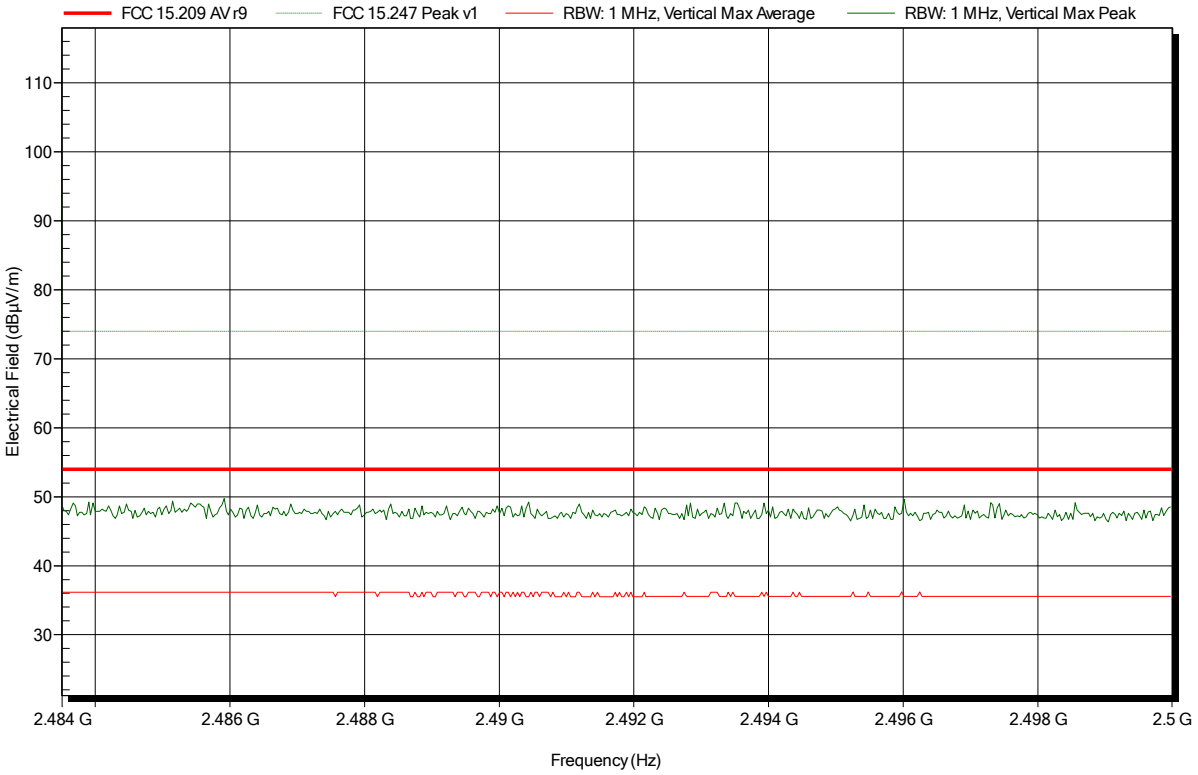

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2462 MHz
Test Date:	2018-02-28
Note:	

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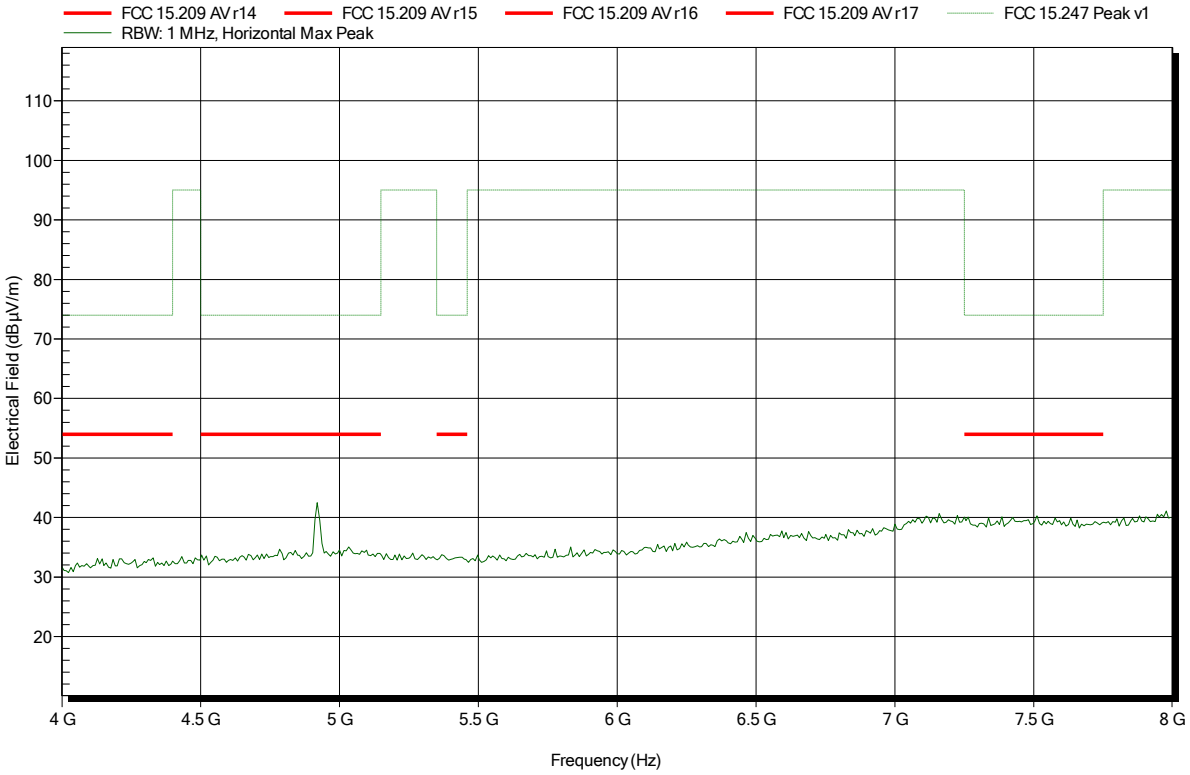

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2462 MHz
Test Date:	2018-02-28
Note:	

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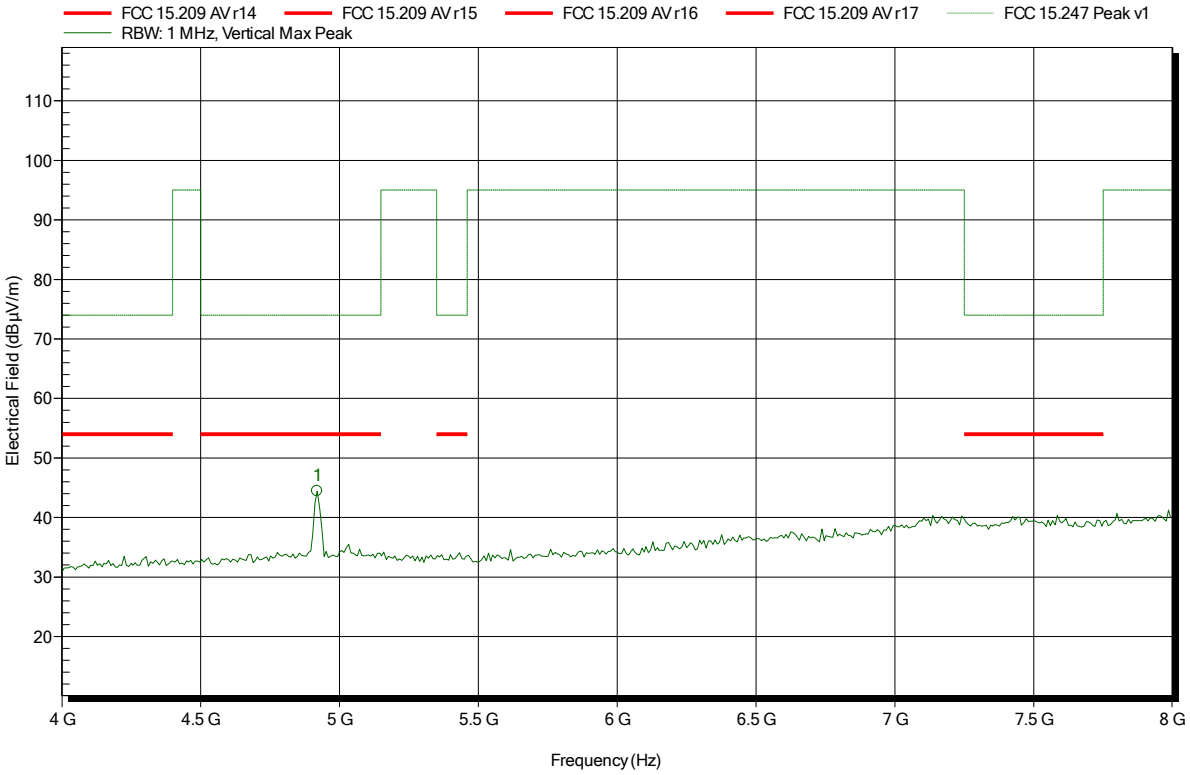

Frequency	Peak	Peak Limit	Peak Difference	Status
4.92 GHz	44.45 dBµV/m	74 dBµV/m	-29.55 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2462 MHz
Test Date:	2018-02-28
Note:	

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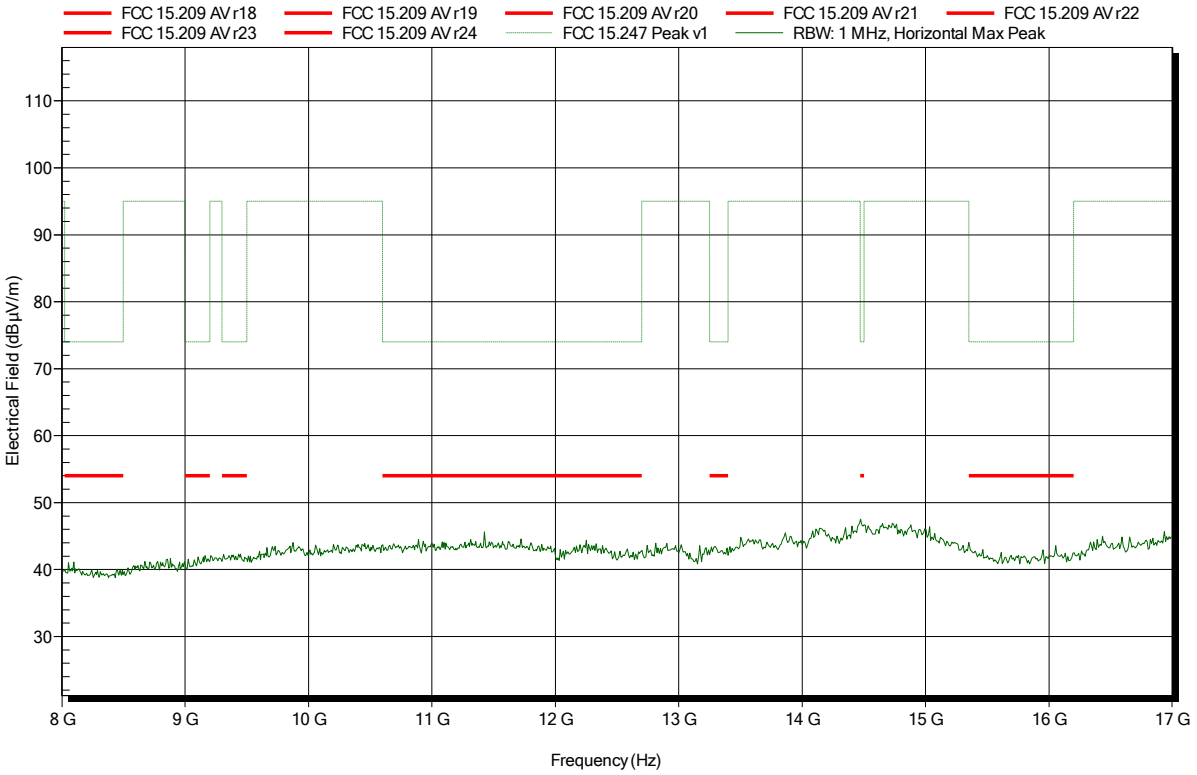

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2462 MHz
Test Date:	2018-02-28
Note:	

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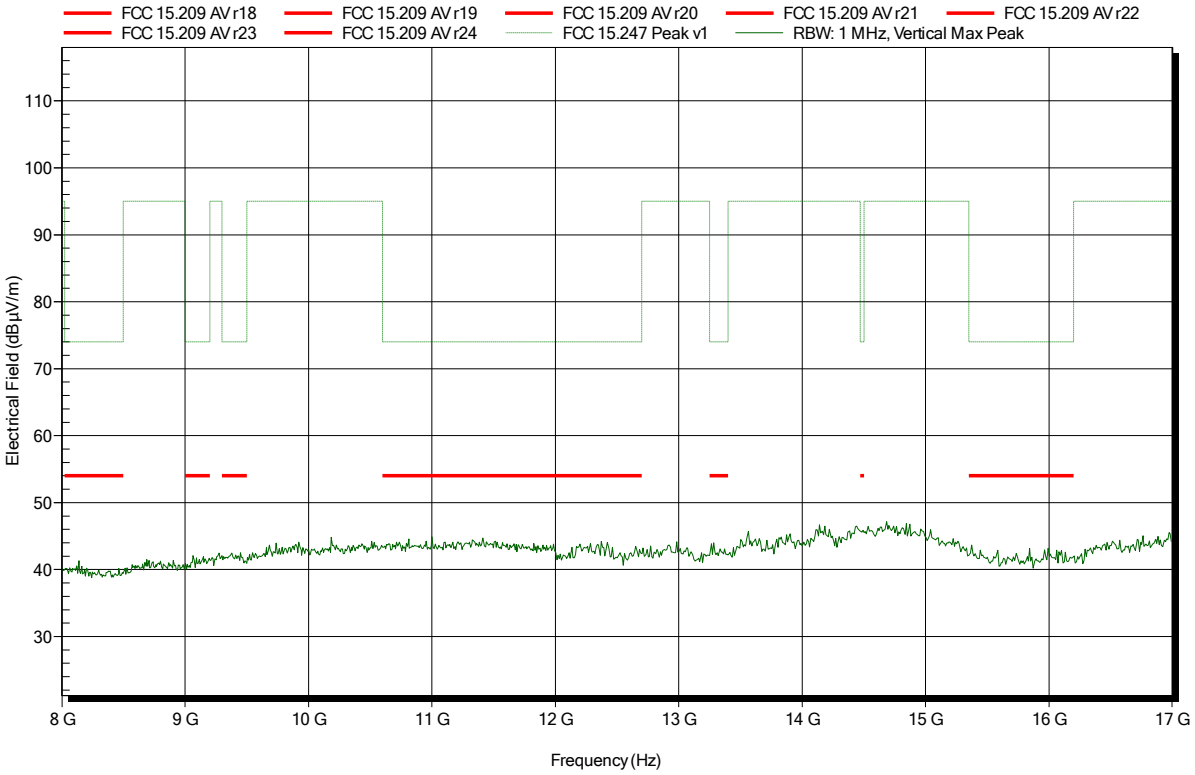

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	ATH18G40, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11g; 6 Mbps, 2462 MHz
Test Date:	2018-02-28
Note:	

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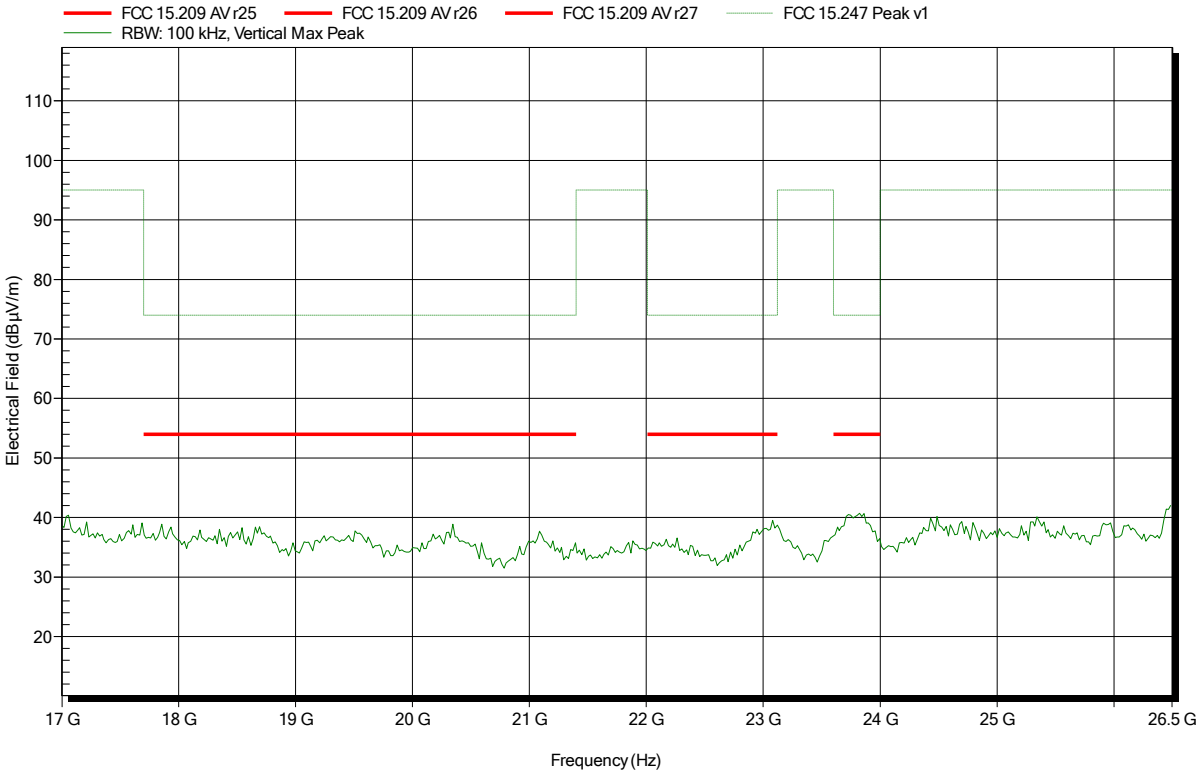

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2422 MHz
Test Date:	2018-02-28
Note:	

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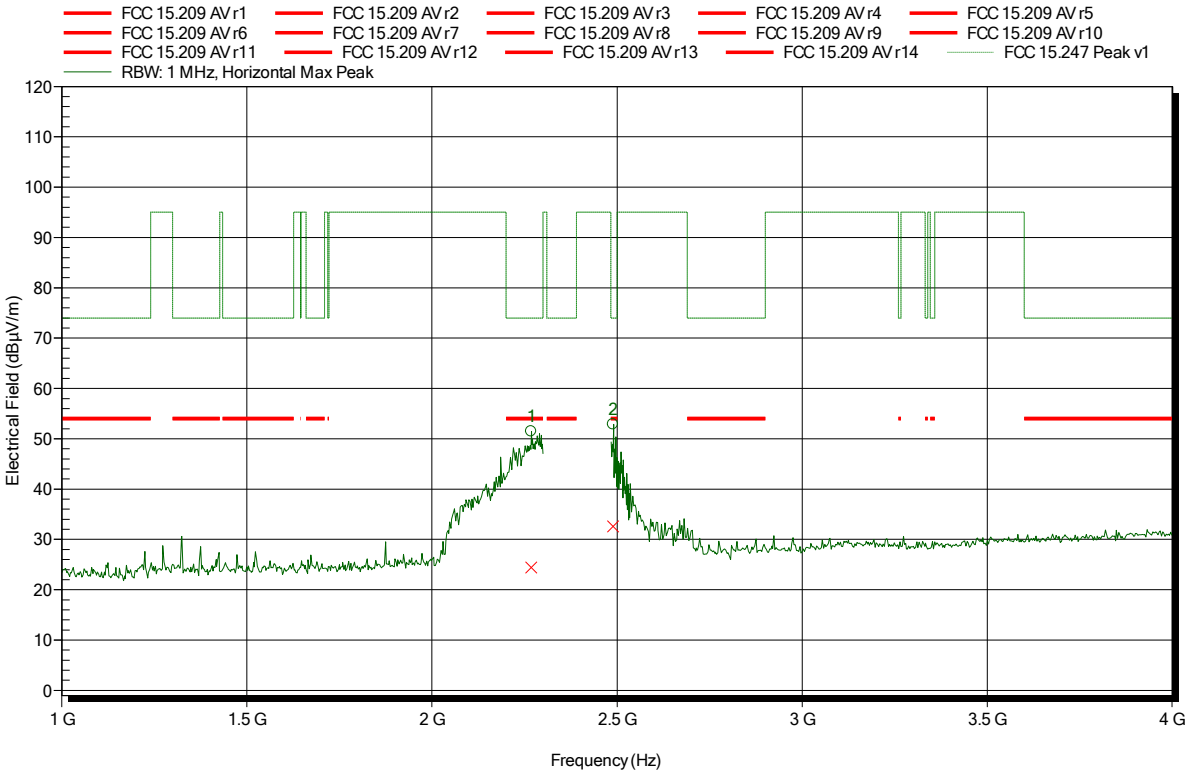

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.268 GHz	51.47 dBµV/m	74 dBµV/m	-22.53 dB	Pass
2.489 GHz	52.85 dBµV/m	74 dBµV/m	-21.15 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.268 GHz	24.45 dBµV/m	54 dBµV/m	-29.55 dB	Pass
2.489 GHz	32.59 dBµV/m	54 dBµV/m	-21.41 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2422 MHz
Test Date:	2018-02-28
Note:	

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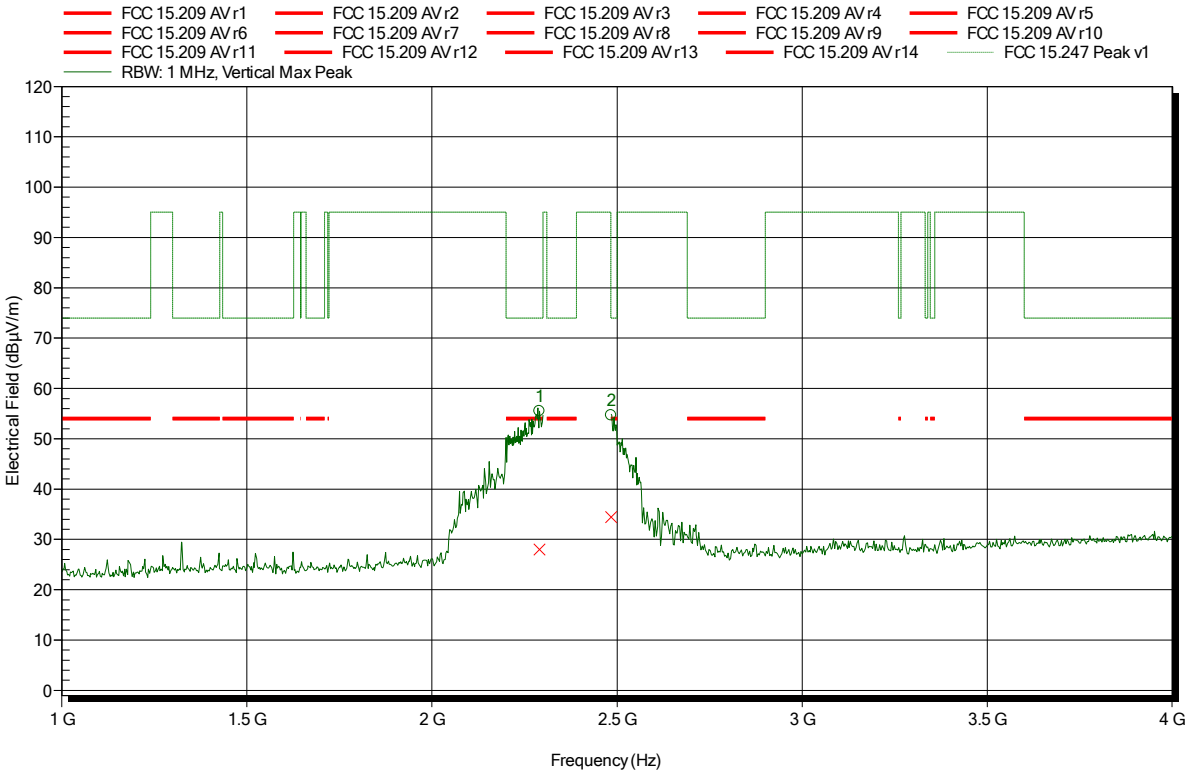

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.29 GHz	55.47 dBµV/m	74 dBµV/m	-18.53 dB	Pass
2.484 GHz	54.64 dBµV/m	74 dBµV/m	-19.36 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.29 GHz	27.97 dBµV/m	54 dBµV/m	-26.03 dB	Pass
2.484 GHz	34.45 dBµV/m	54 dBµV/m	-19.55 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2422 MHz
Test Date:	2018-02-28
Note:	lower bandedge

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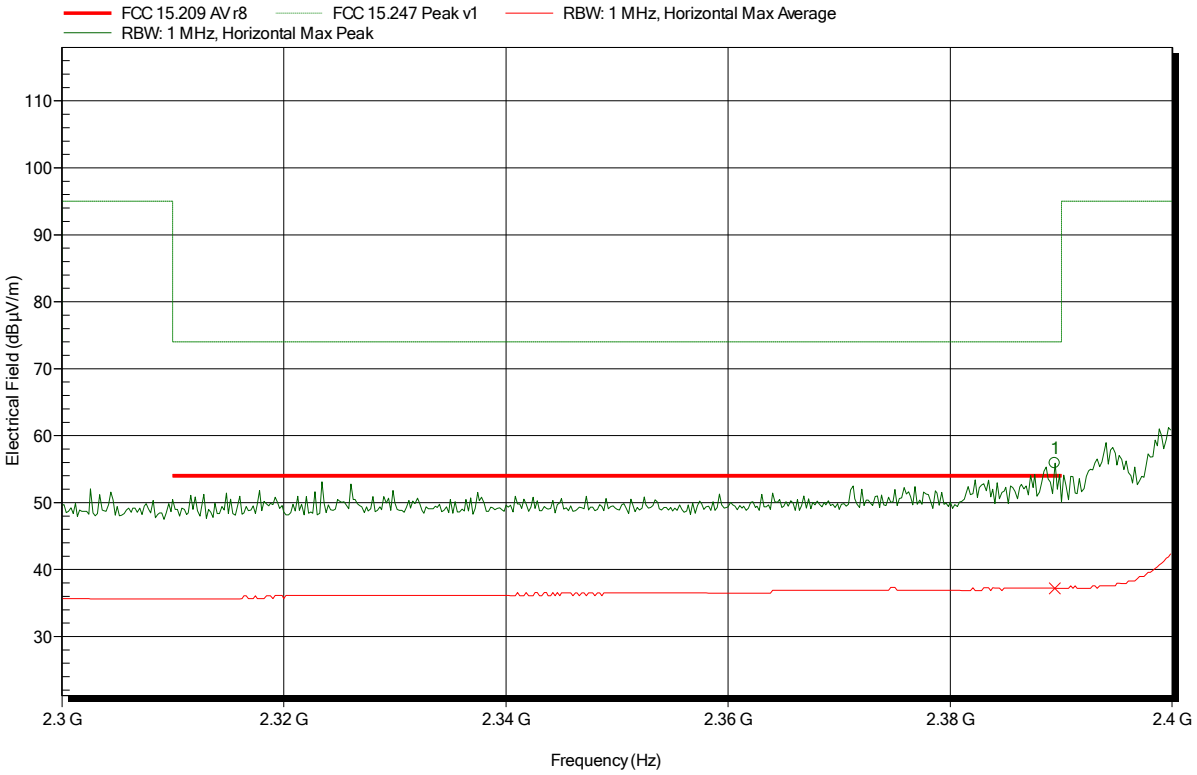

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.389 GHz	55.89 dBµV/m	74 dBµV/m	-18.11 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.389 GHz	37.21 dBµV/m	54 dBµV/m	-16.79 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2422 MHz
Test Date:	2018-02-28
Note:	lower bandedge

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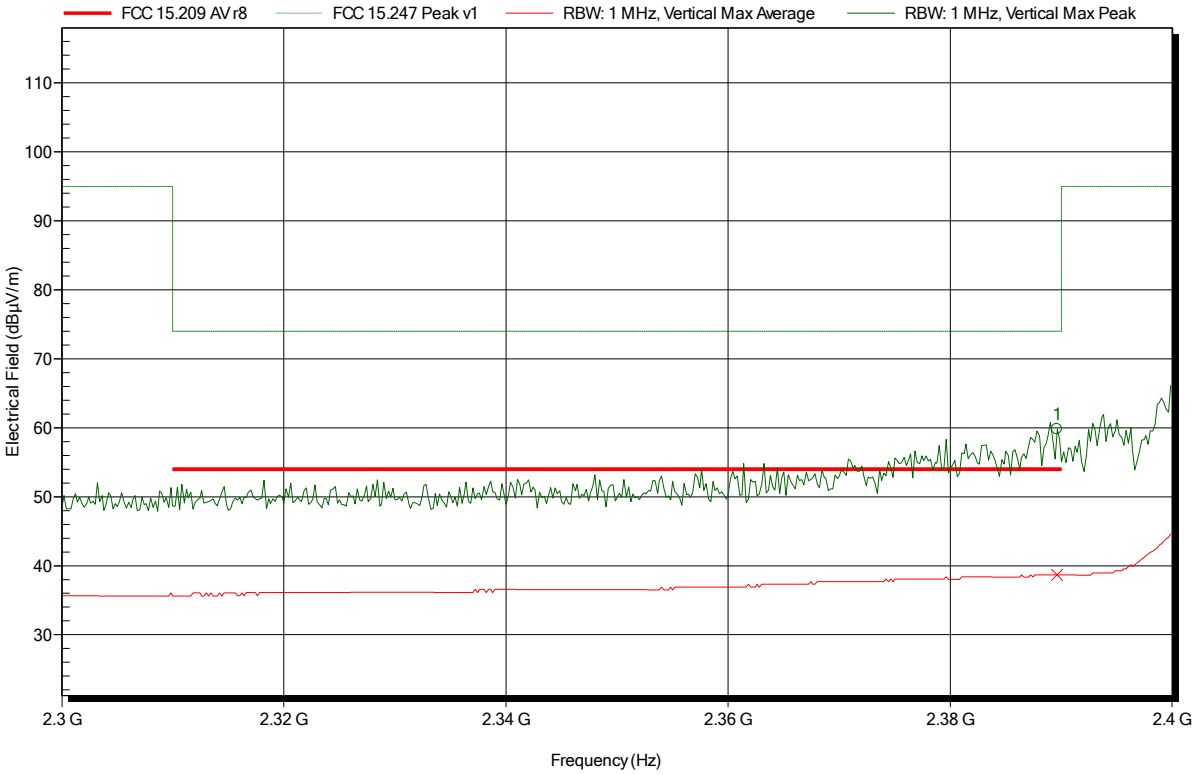

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.39 GHz	59.79 dBµV/m	74 dBµV/m	-14.21 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.39 GHz	38.66 dBµV/m	54 dBµV/m	-15.34 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2422 MHz
Test Date:	2018-02-28
Note:	

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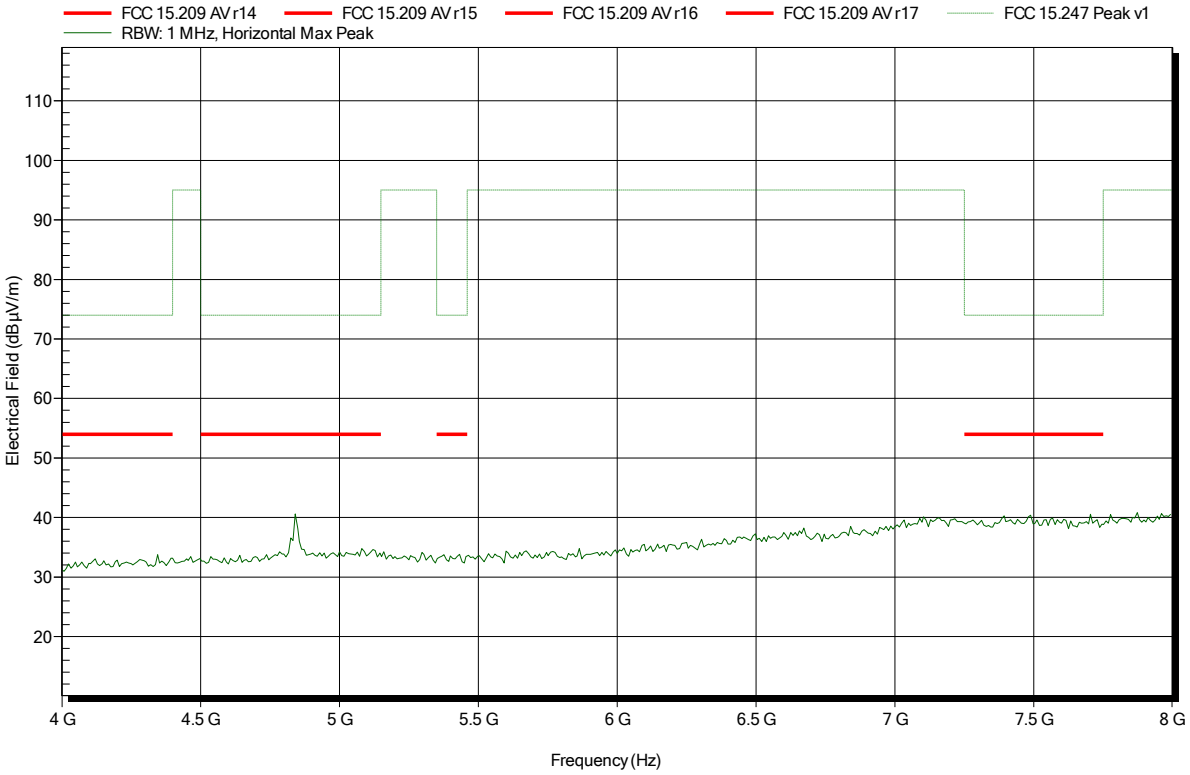

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2422 MHz
Test Date:	2018-02-28
Note:	

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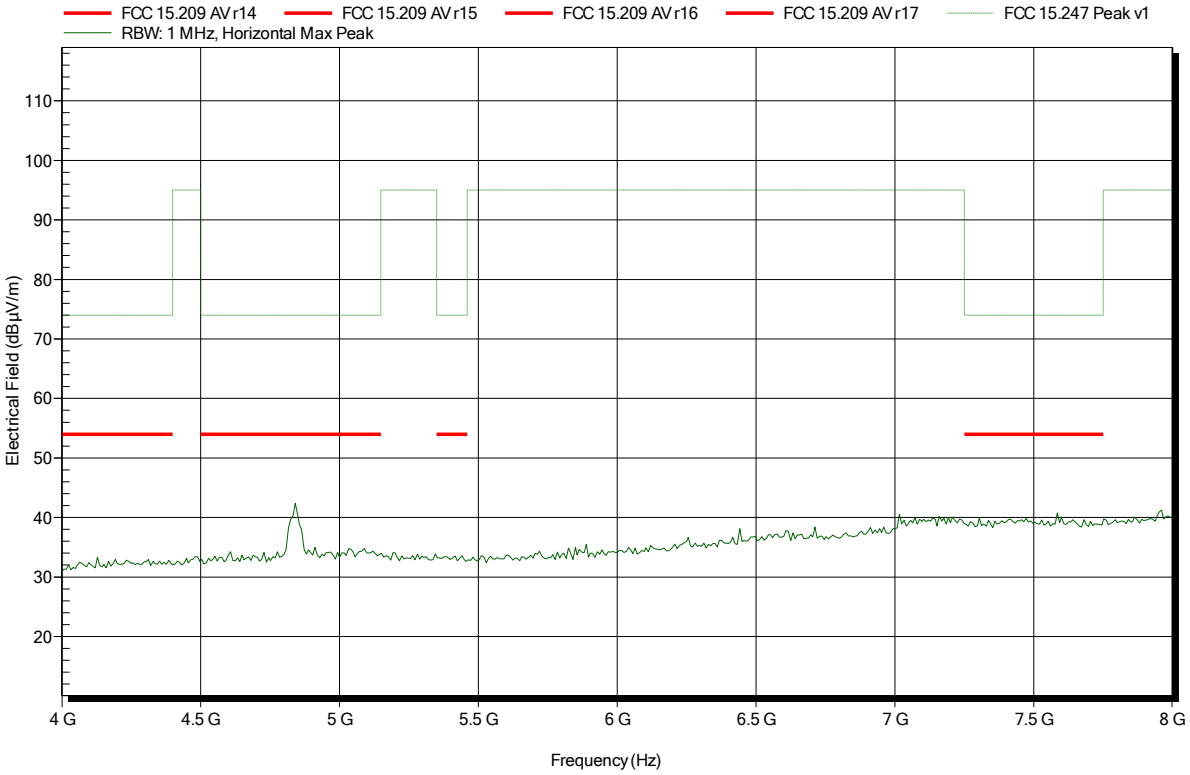

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2437 MHz
Test Date:	2018-02-28
Note:	

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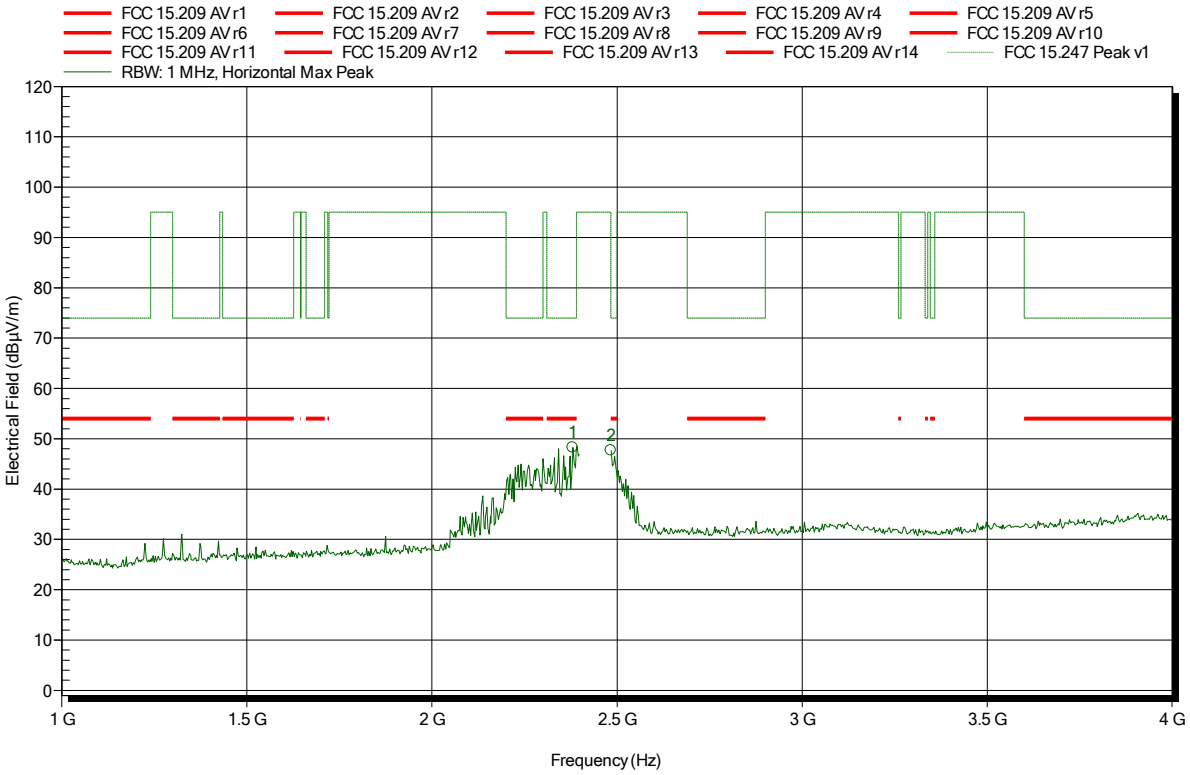

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.3804 GHz	48.28 dBµV/m	74 dBµV/m	-25.72 dB	Pass
2.4835 GHz	47.72 dBµV/m	74 dBµV/m	-26.28 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2437 MHz
Test Date:	2018-02-28
Note:	

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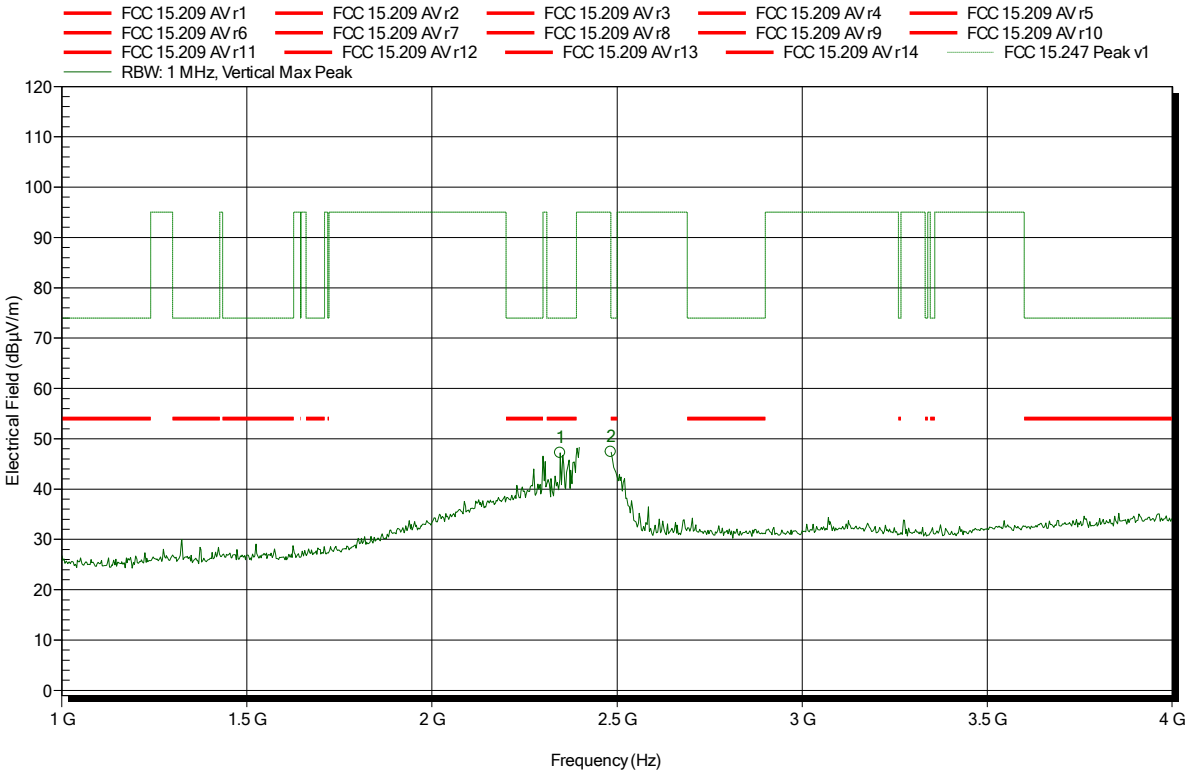

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.3468 GHz	47.21 dBµV/m	74 dBµV/m	-26.79 dB	Pass
2.4835 GHz	47.38 dBµV/m	74 dBµV/m	-26.62 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2437 MHz
Test Date:	2018-02-28
Note:	

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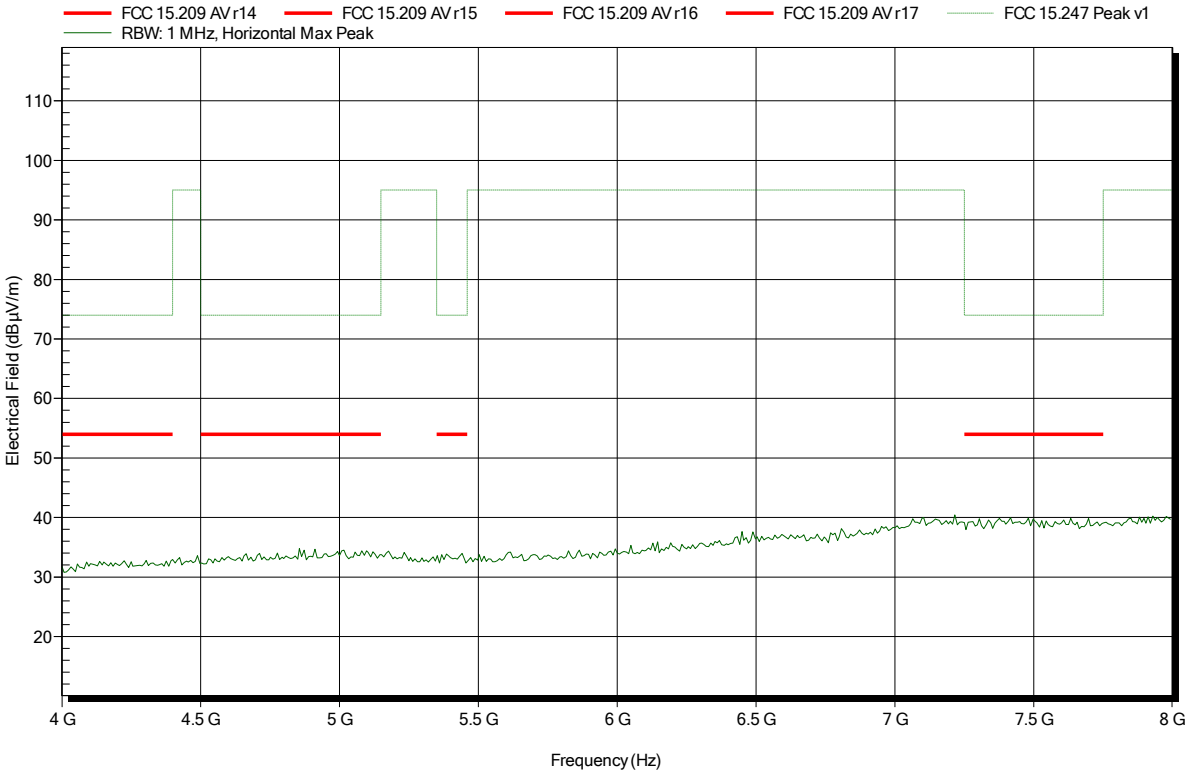

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2437 MHz
Test Date:	2018-02-28
Note:	

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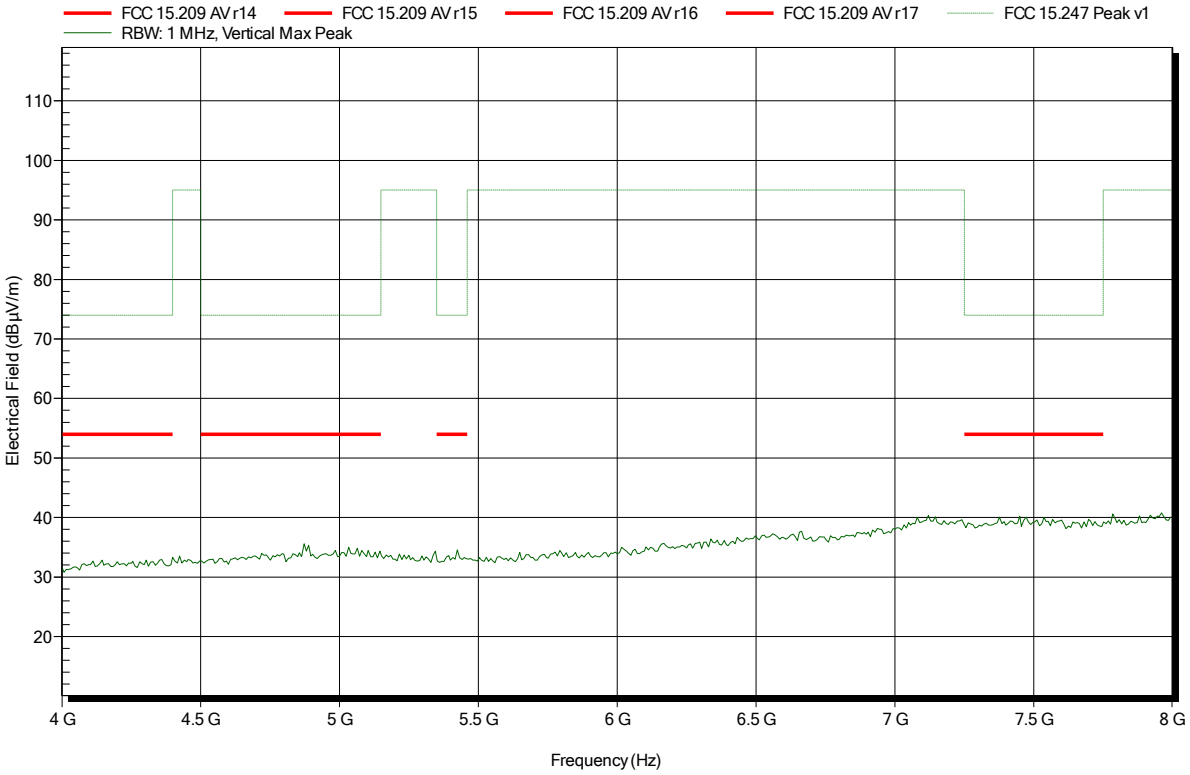

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2452 MHz
Test Date:	2018-02-28
Note:	

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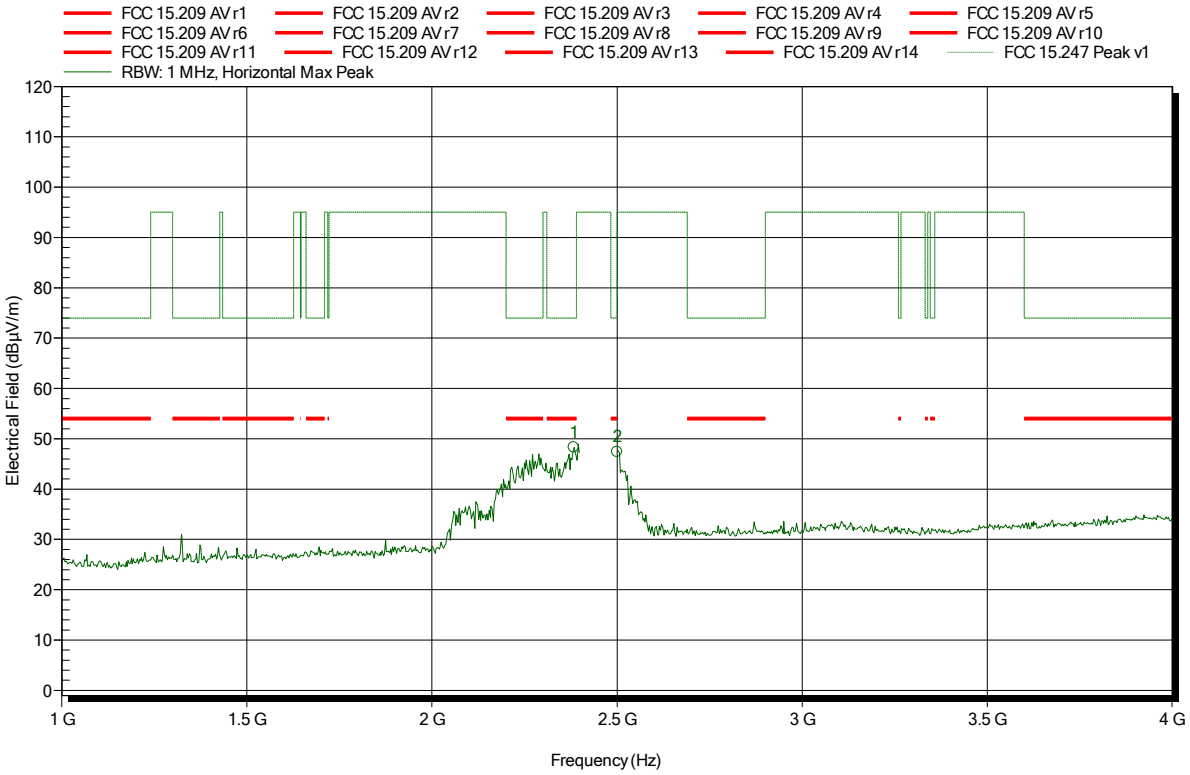

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.383 GHz	48.3 dBµV/m	74 dBµV/m	-25.7 dB	Pass
2.5 GHz	47.4 dBµV/m	74 dBµV/m	-26.6 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2452 MHz
Test Date:	2018-02-28
Note:	

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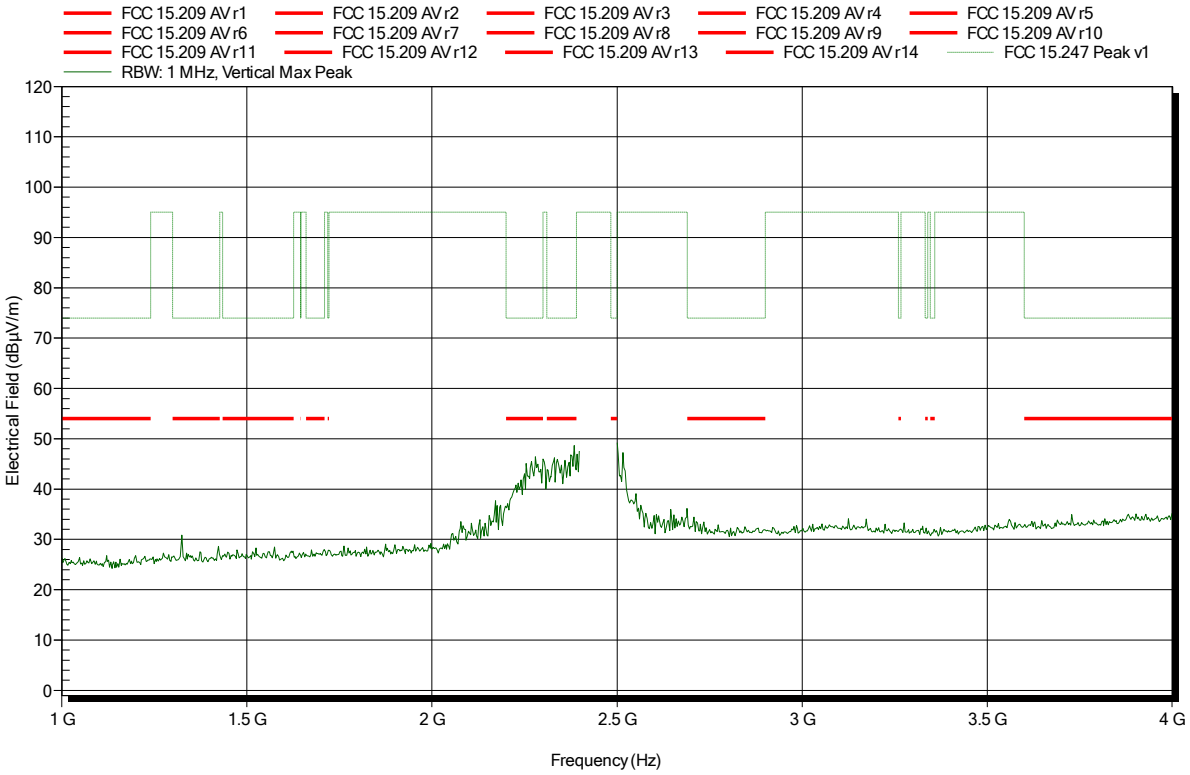

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2452 MHz
Test Date:	2018-02-28
Note:	upper bandedge

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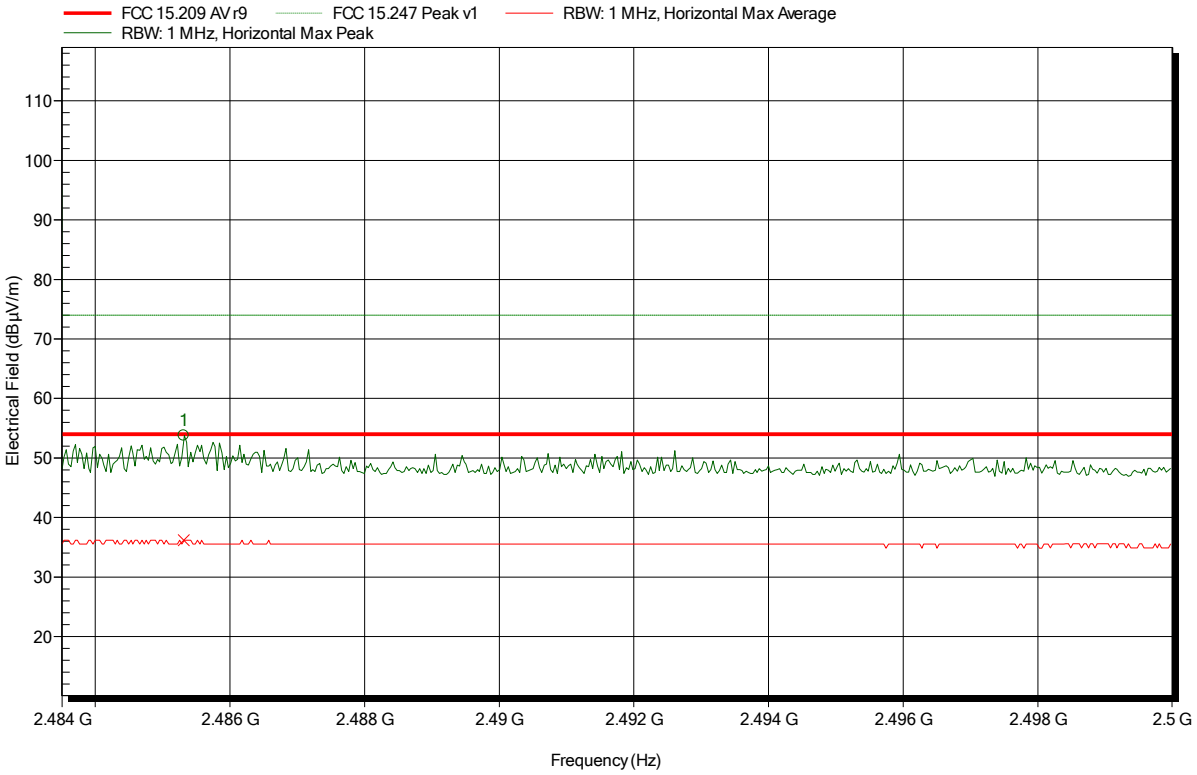

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.485 GHz	53.75 dBµV/m	74 dBµV/m	-20.25 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.485 GHz	36.16 dBµV/m	54 dBµV/m	-17.84 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2452 MHz
Test Date:	2018-02-28
Note:	Upper bandedge

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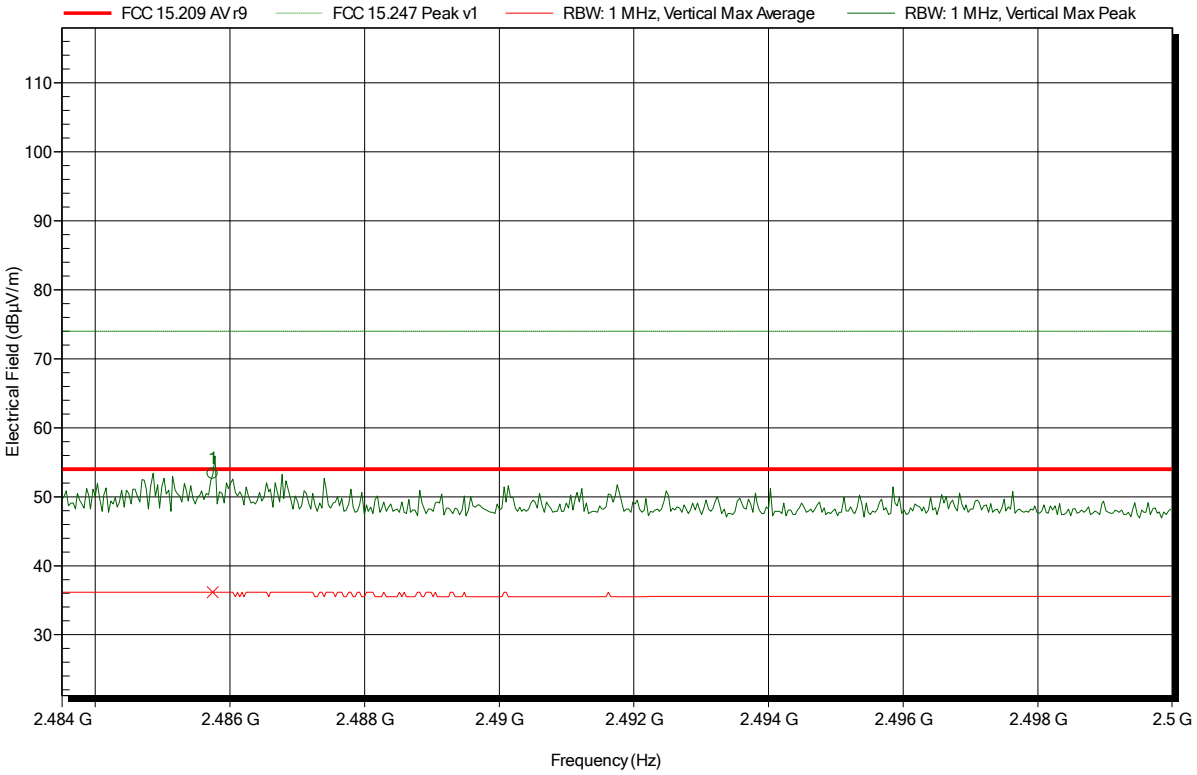

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.486 GHz	53.33 dBµV/m	74 dBµV/m	-20.67 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.486 GHz	36.16 dBµV/m	54 dBµV/m	-17.84 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2452 MHz
Test Date:	2018-02-28
Note:	

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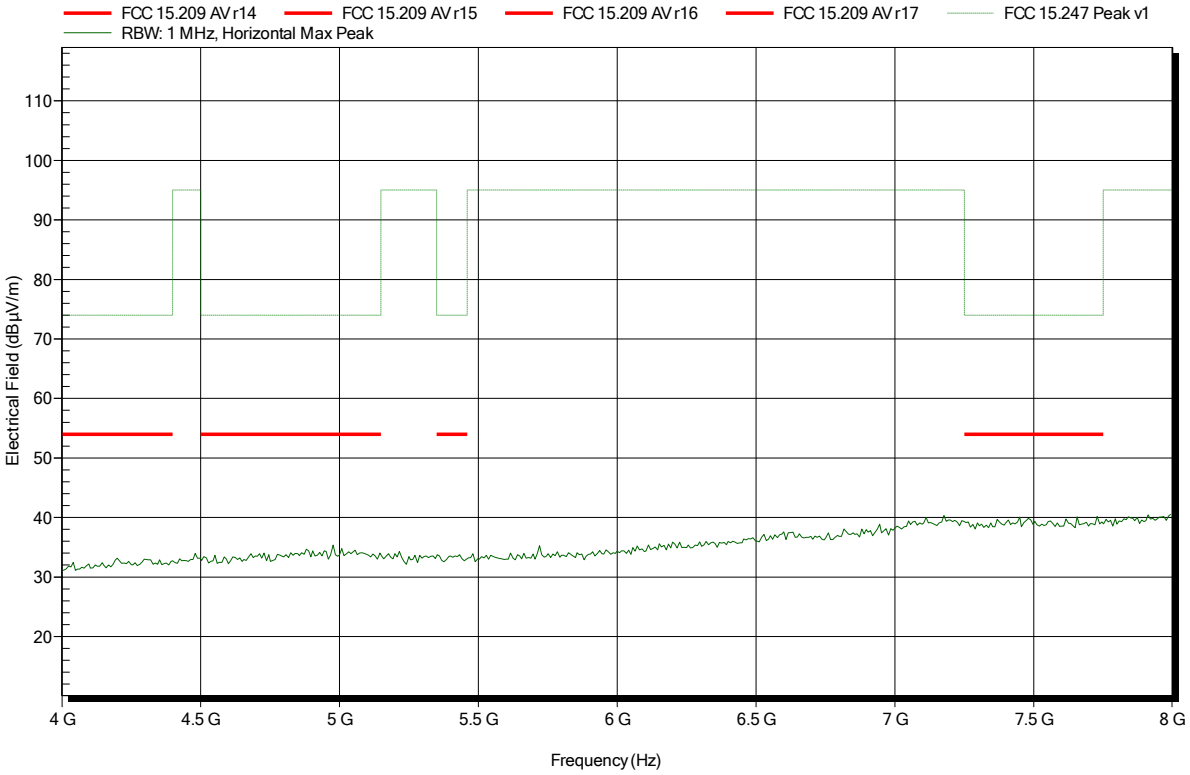

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE 802.11n; HT40; MCS8, 2452 MHz
Test Date:	2018-02-28
Note:	

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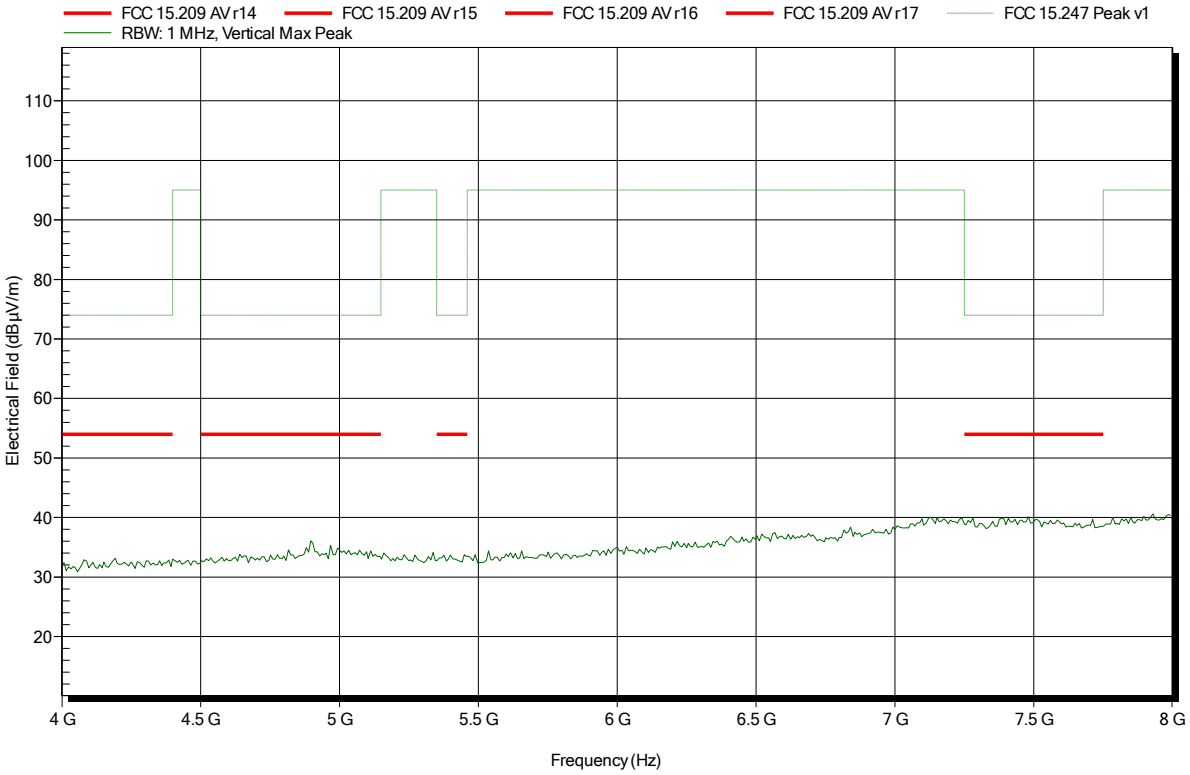

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; iEEE802.11b; DSSS; 1Mbps; 2412 MHz
Test Date:	2018-03-01
Note:	

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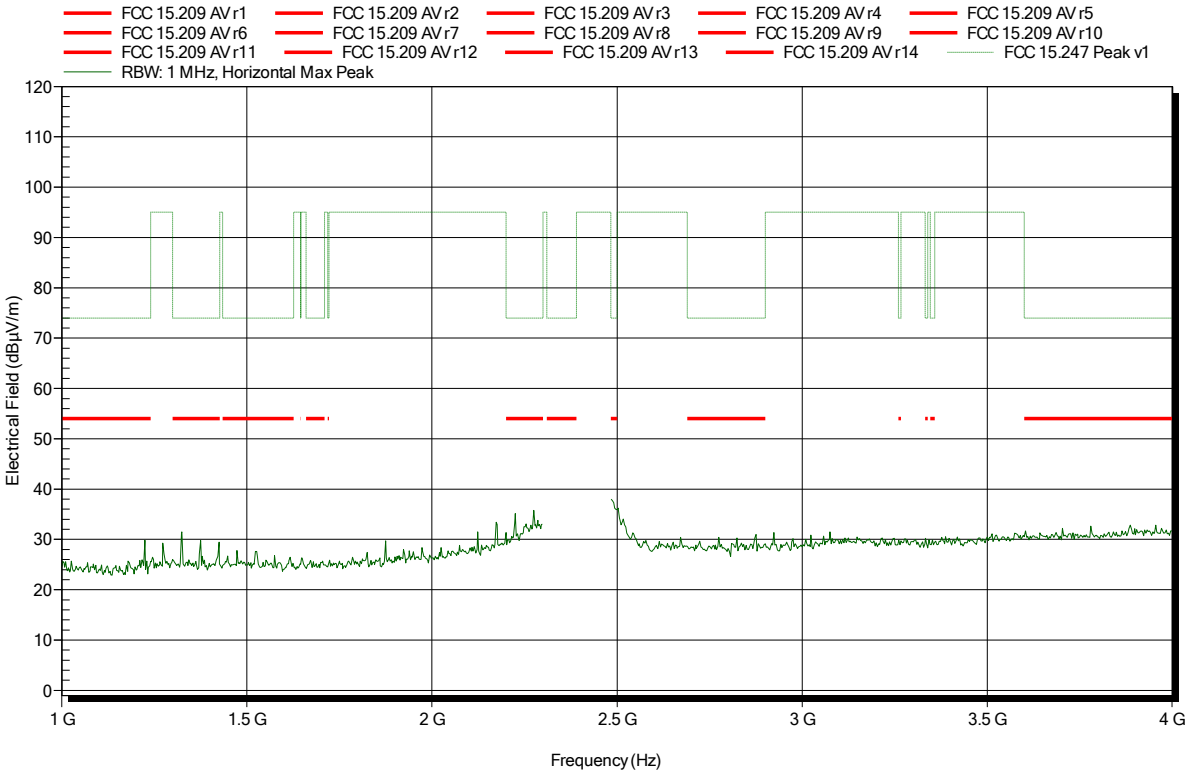

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2412 MHz
Test Date:	2018-03-01
Note:	

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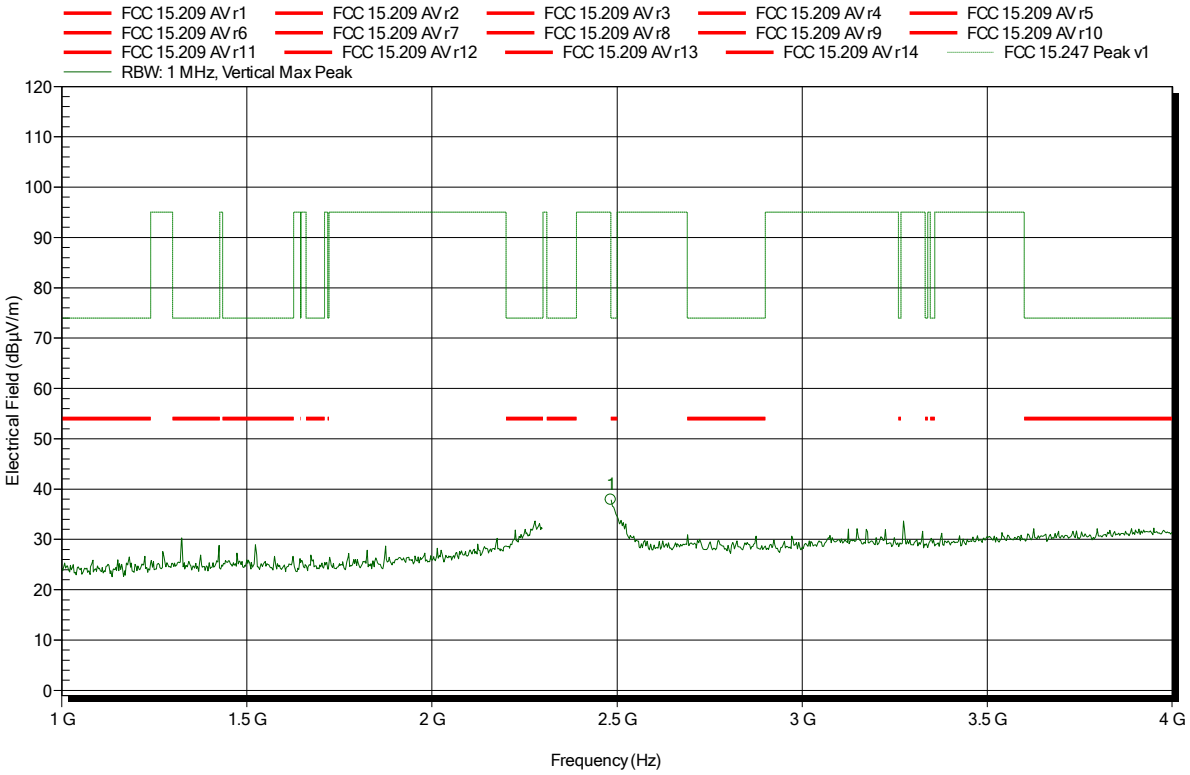

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.484 GHz	37.88 dBµV/m	74 dBµV/m	-36.12 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; iEEE802.11b; DSSS; 1Mbps; 2412 MHz
Test Date:	2018-03-01
Note:	lower bandedge

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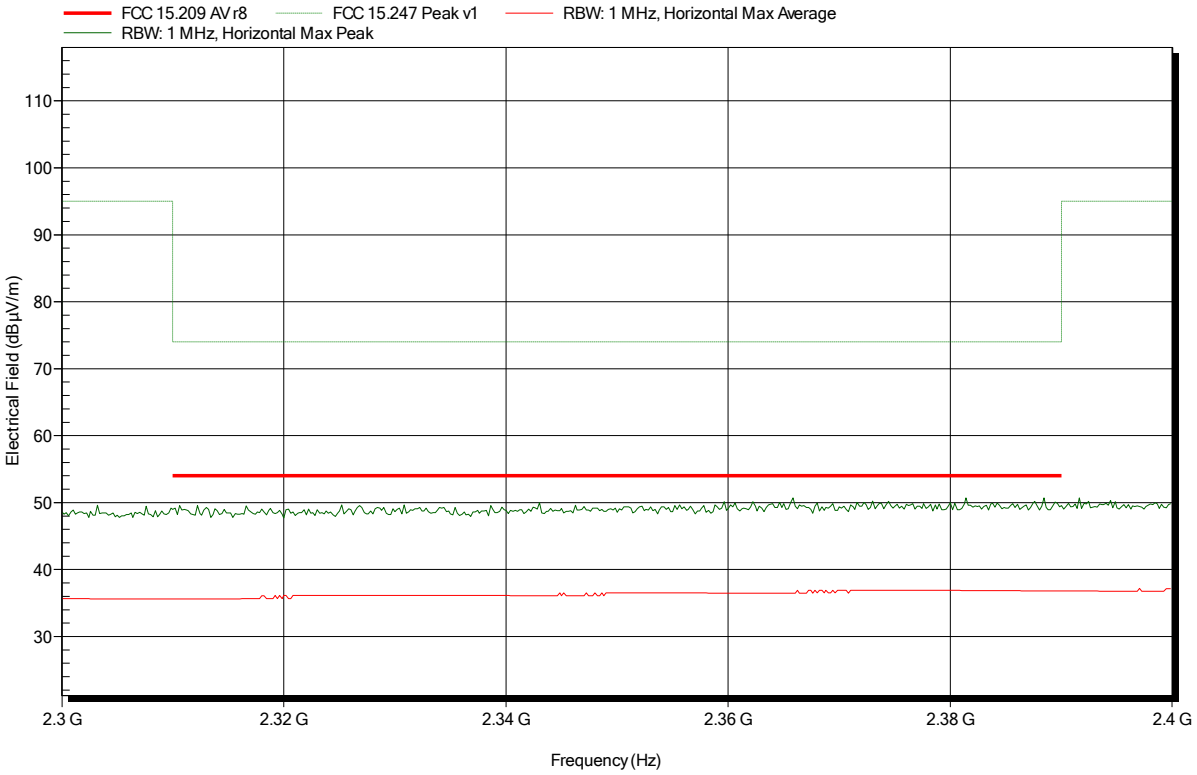

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2412 MHz
Test Date:	2018-03-01
Note:	lower bandedge

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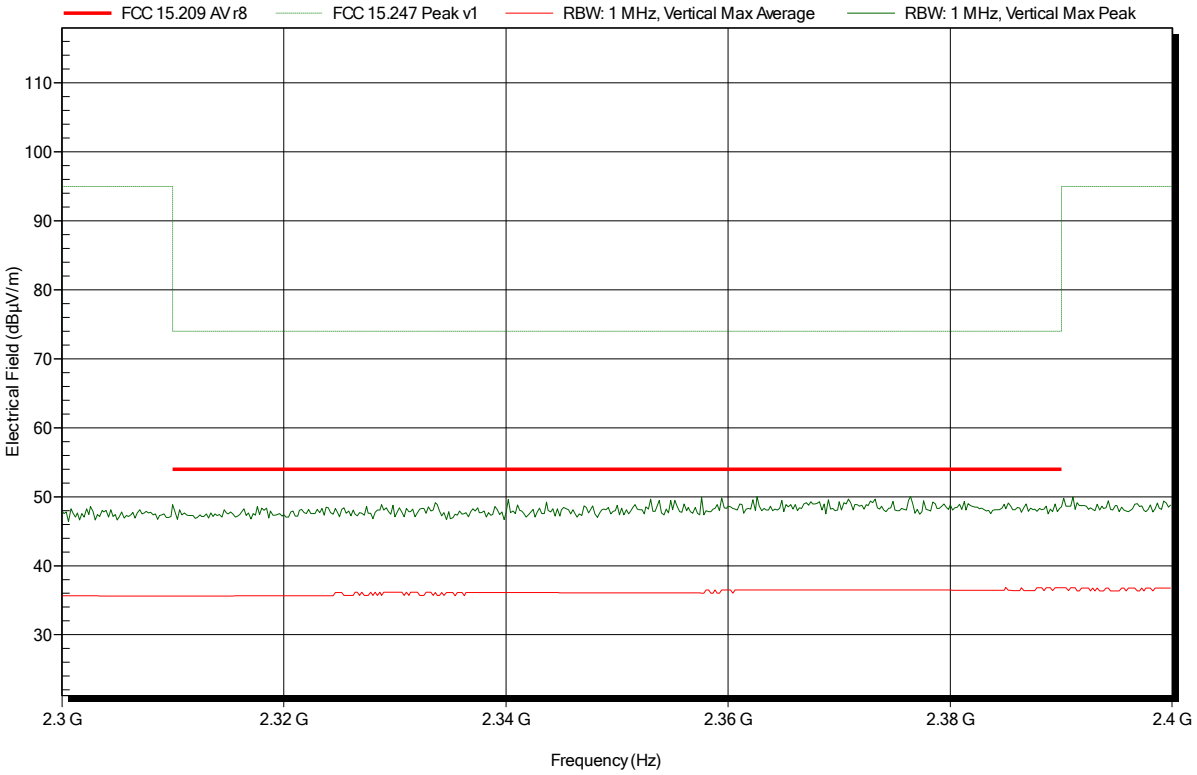

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2412 MHz
Test Date:	2018-03-01
Note:	

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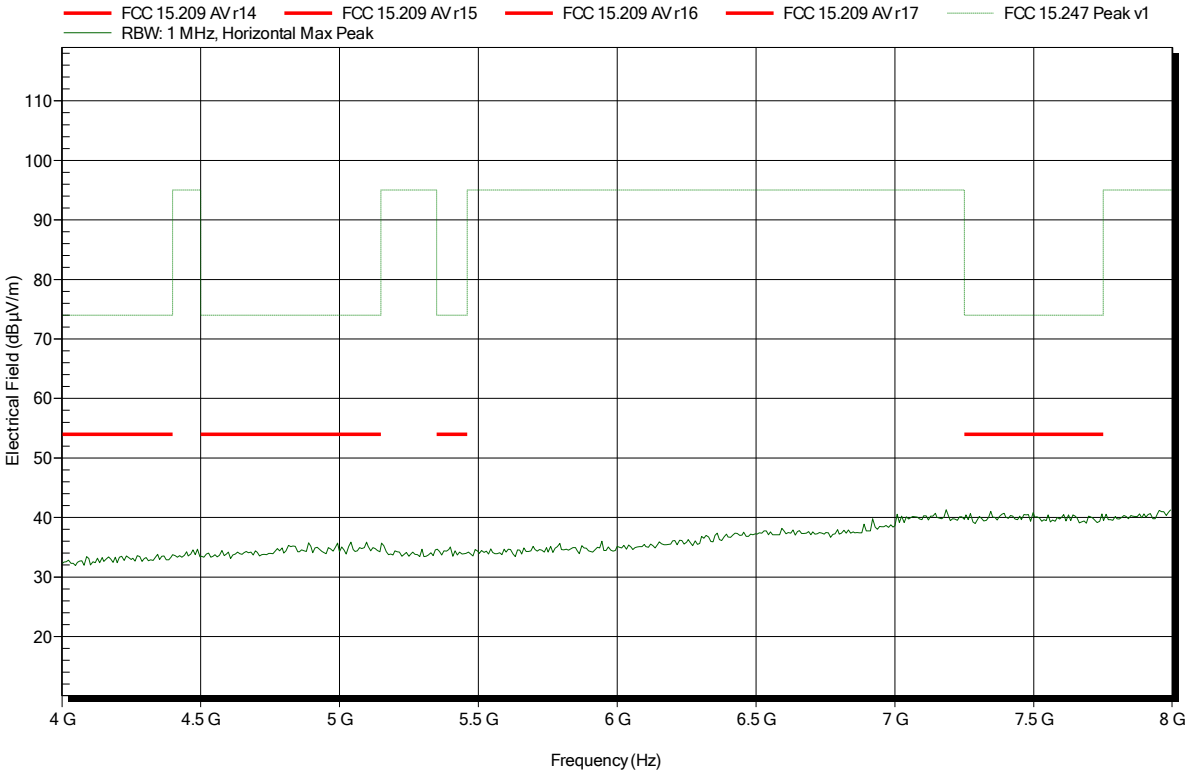

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2412 MHz
Test Date:	2018-03-01
Note:	

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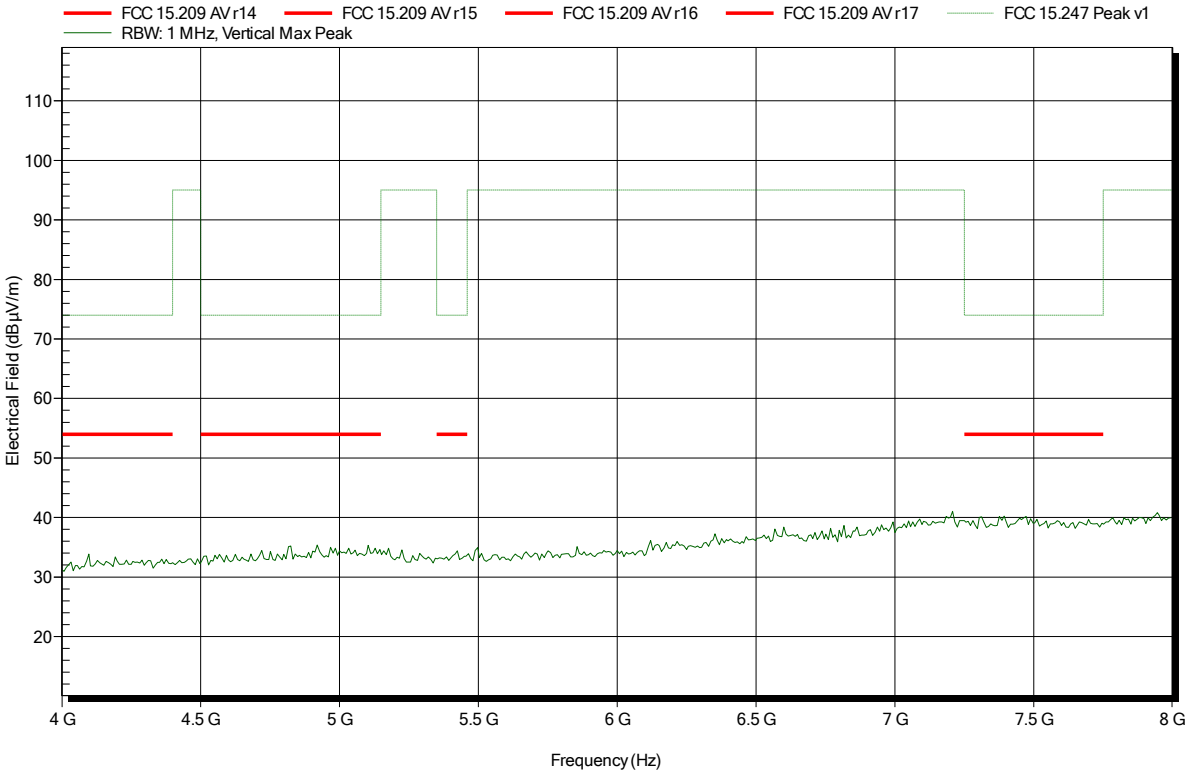

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2437 MHz
Test Date:	2018-03-01
Note:	

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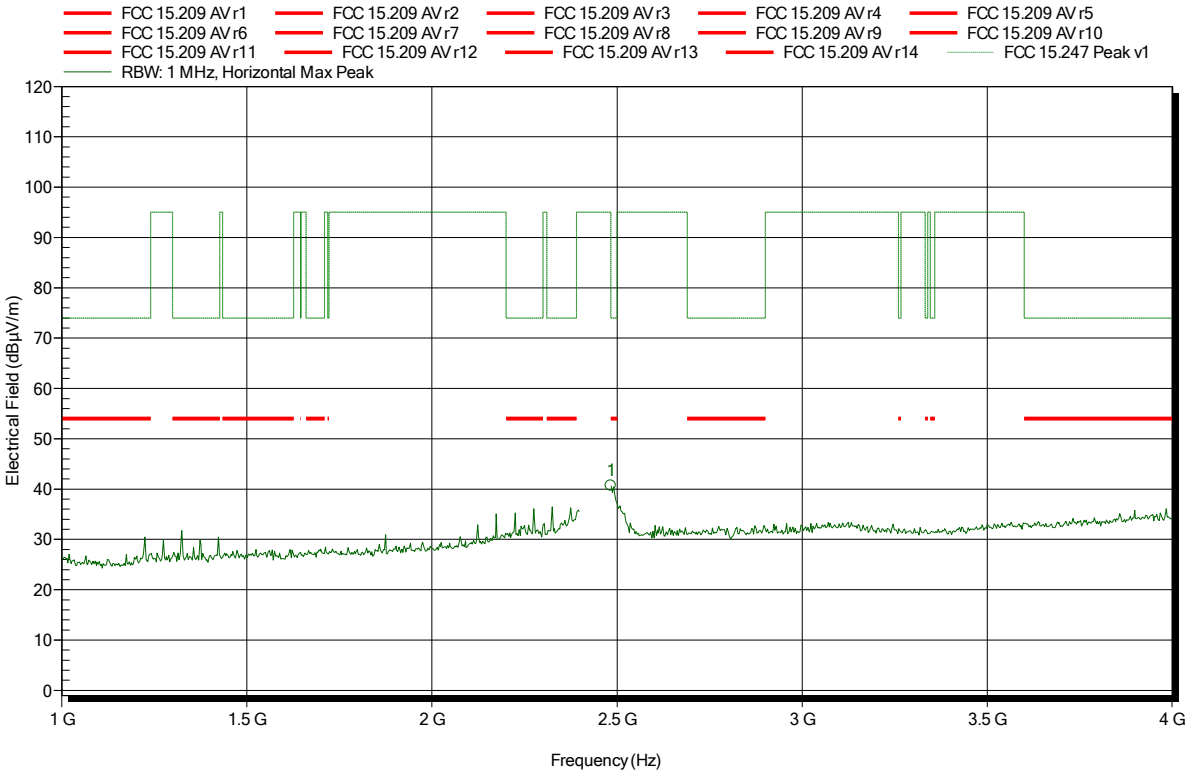

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4835 GHz	40.71 dBµV/m	74 dBµV/m	-33.29 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2437 MHz
Test Date:	2018-03-01
Note:	

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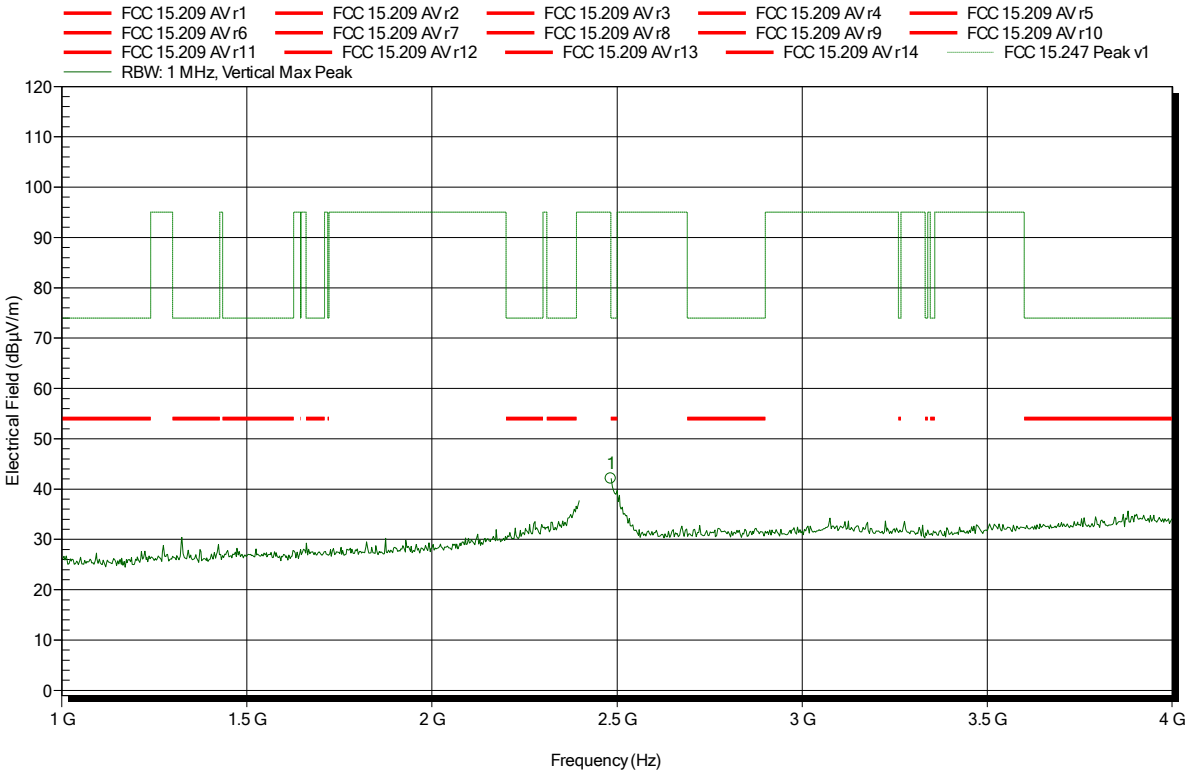

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.4835 GHz	42.12 dBµV/m	74 dBµV/m	-31.88 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2437 MHz
Test Date:	2018-03-01
Note:	

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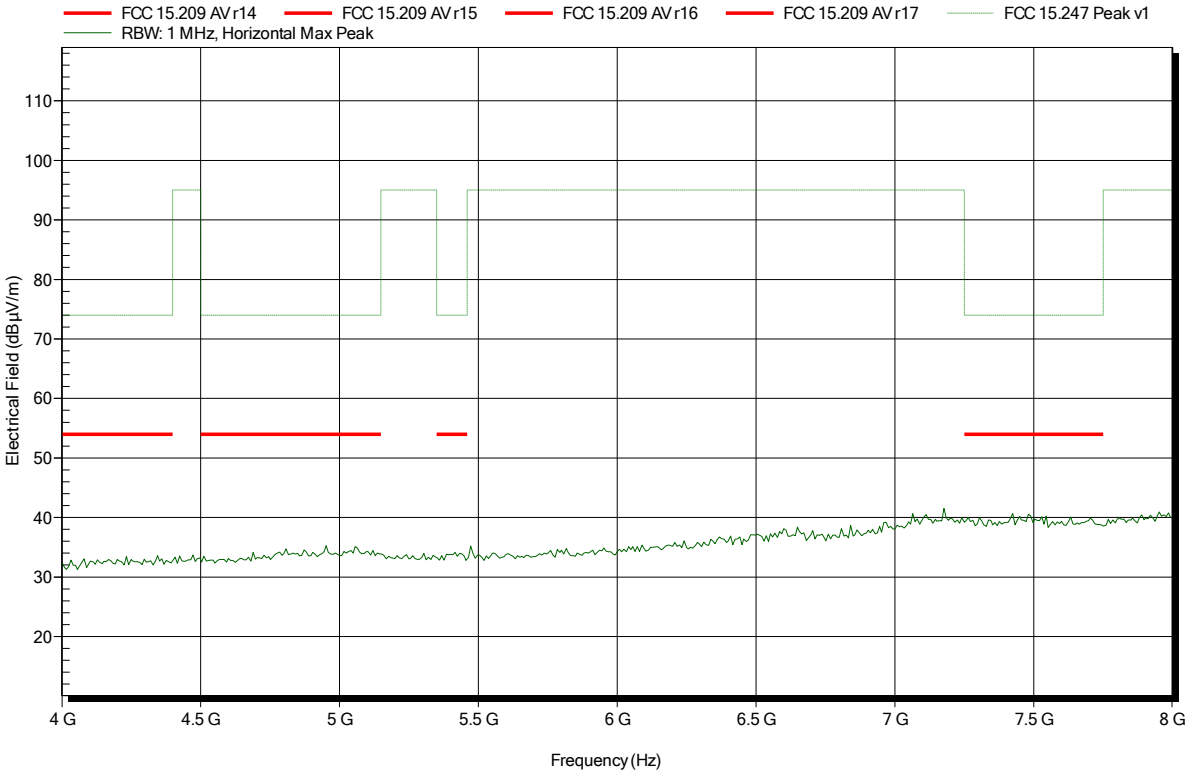

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2437 MHz
Test Date:	2018-03-01
Note:	

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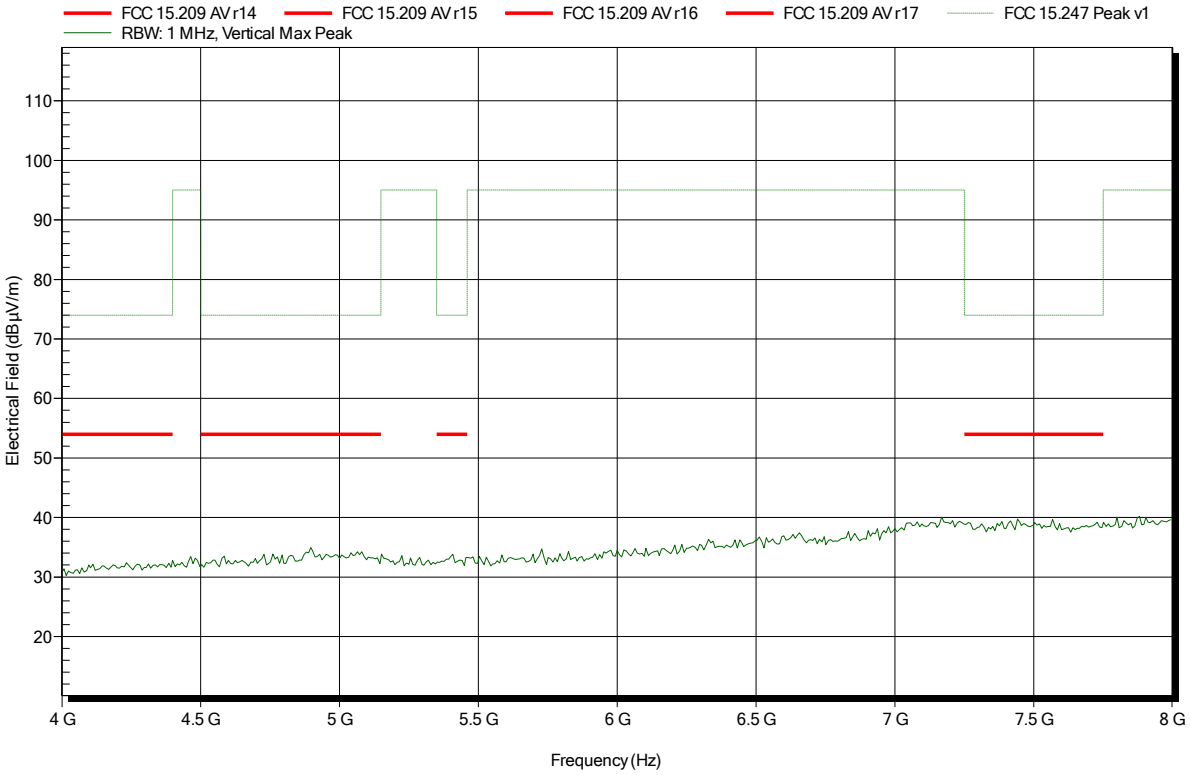

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2462 MHz
Test Date:	2018-03-01
Note:	

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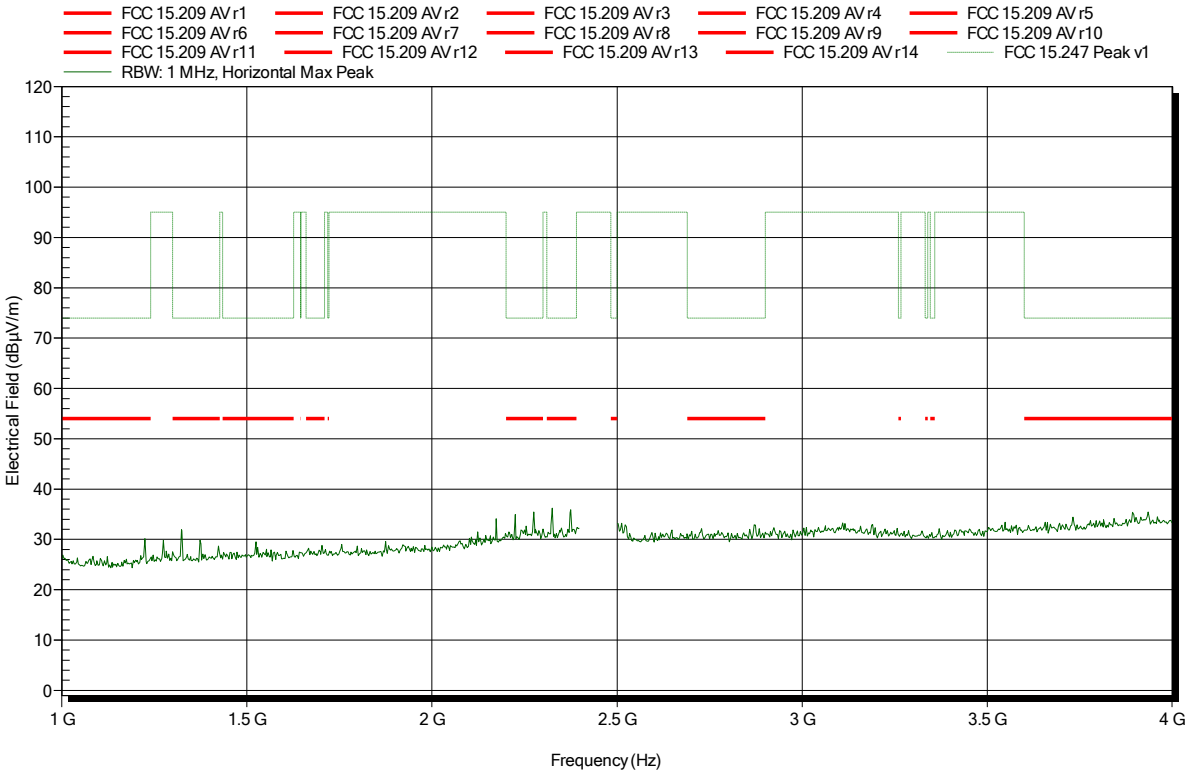

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2462 MHz
Test Date:	2018-03-01
Note:	

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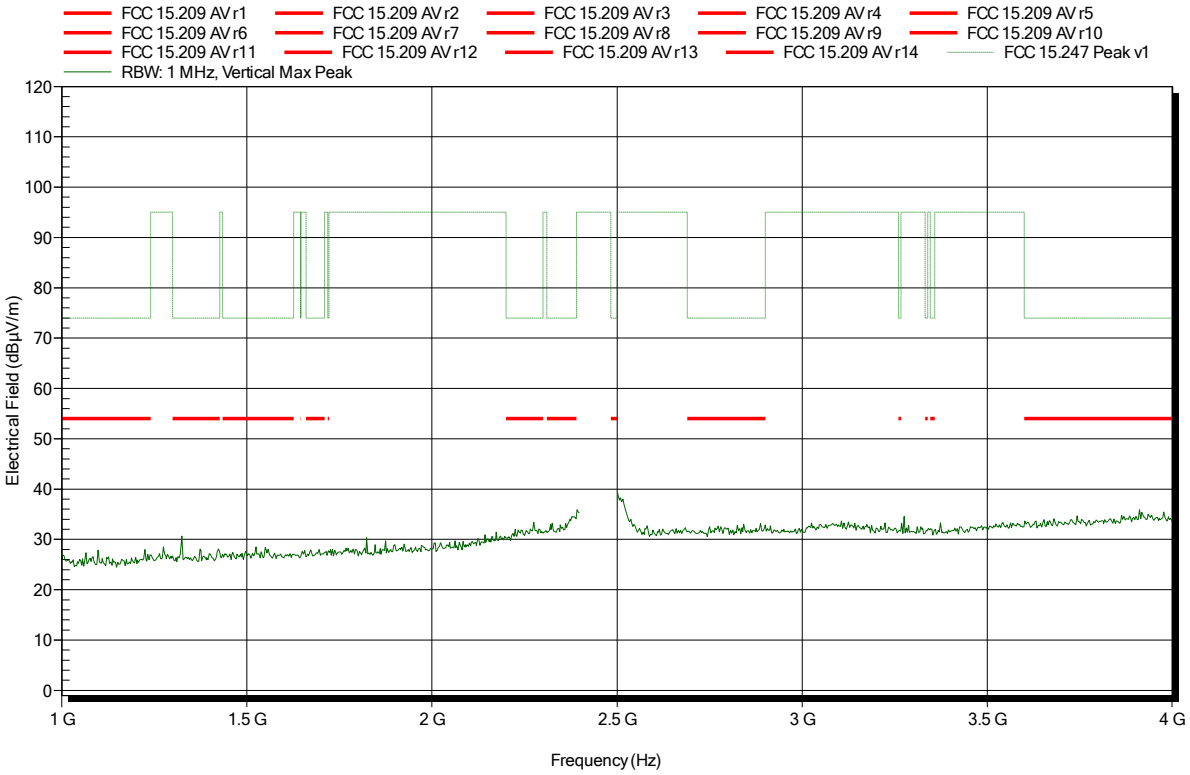

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2462 MHz
Test Date:	2018-03-01
Note:	upper bandedge

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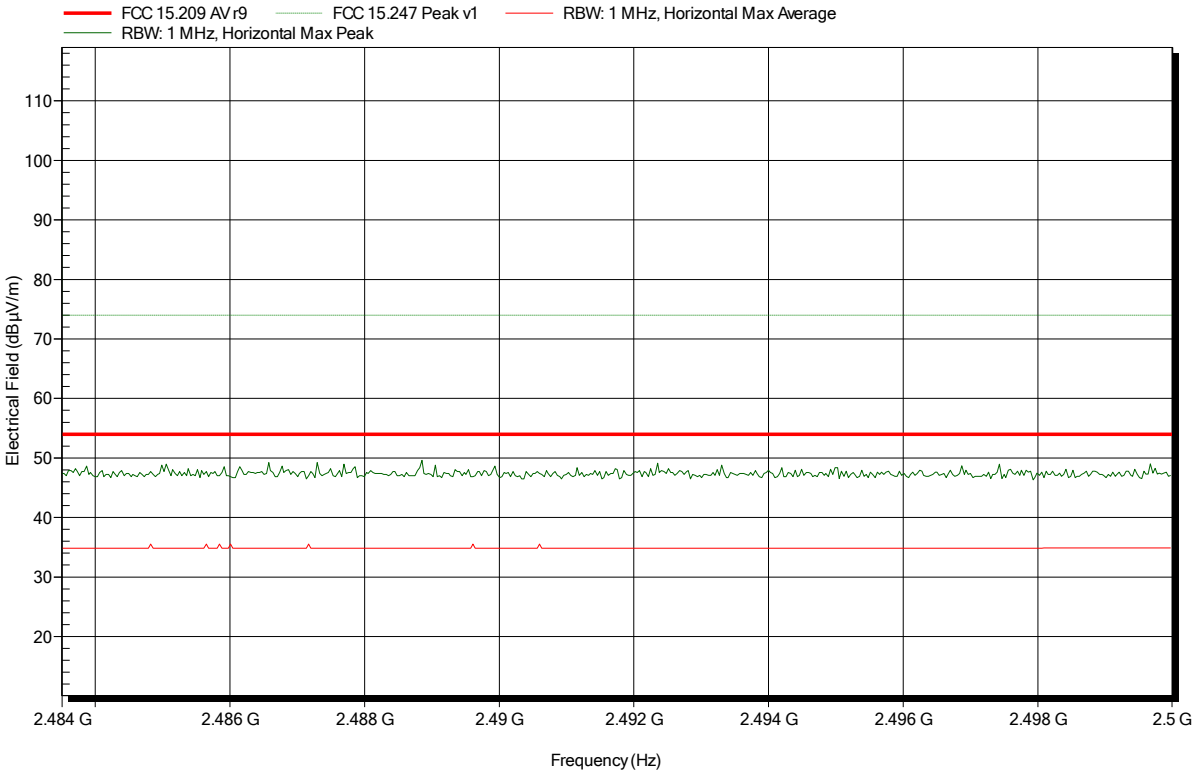

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2462 MHz
Test Date:	2018-03-01
Note:	Upper bandedge

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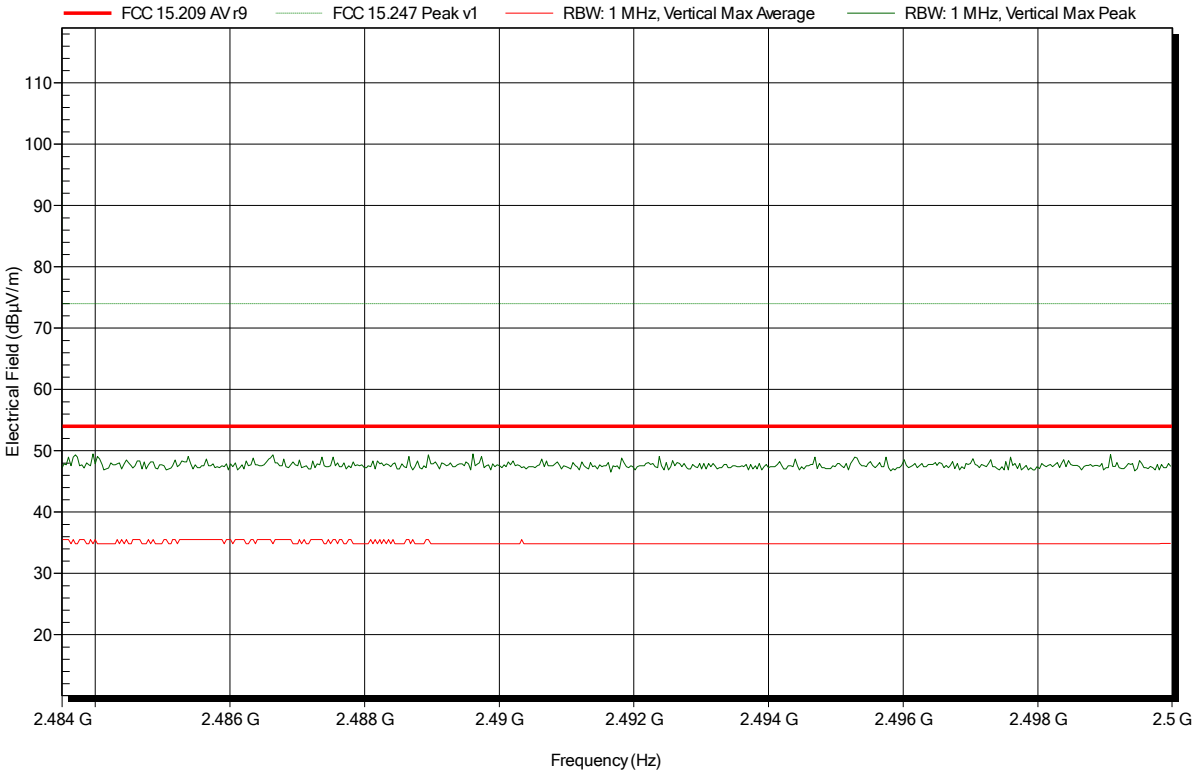

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2462 MHz
Test Date:	2018-03-01
Note:	

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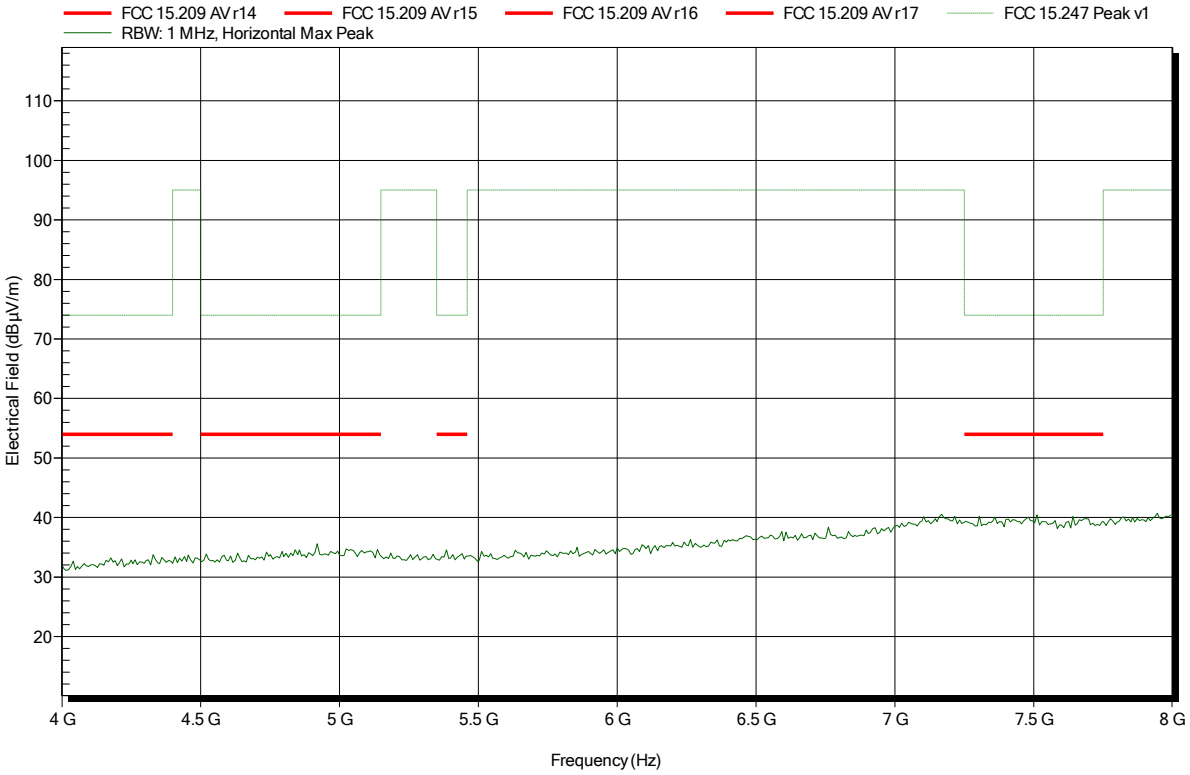

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11b; DSSS; 1Mbps; 2462 MHz
Test Date:	2018-03-01
Note:	

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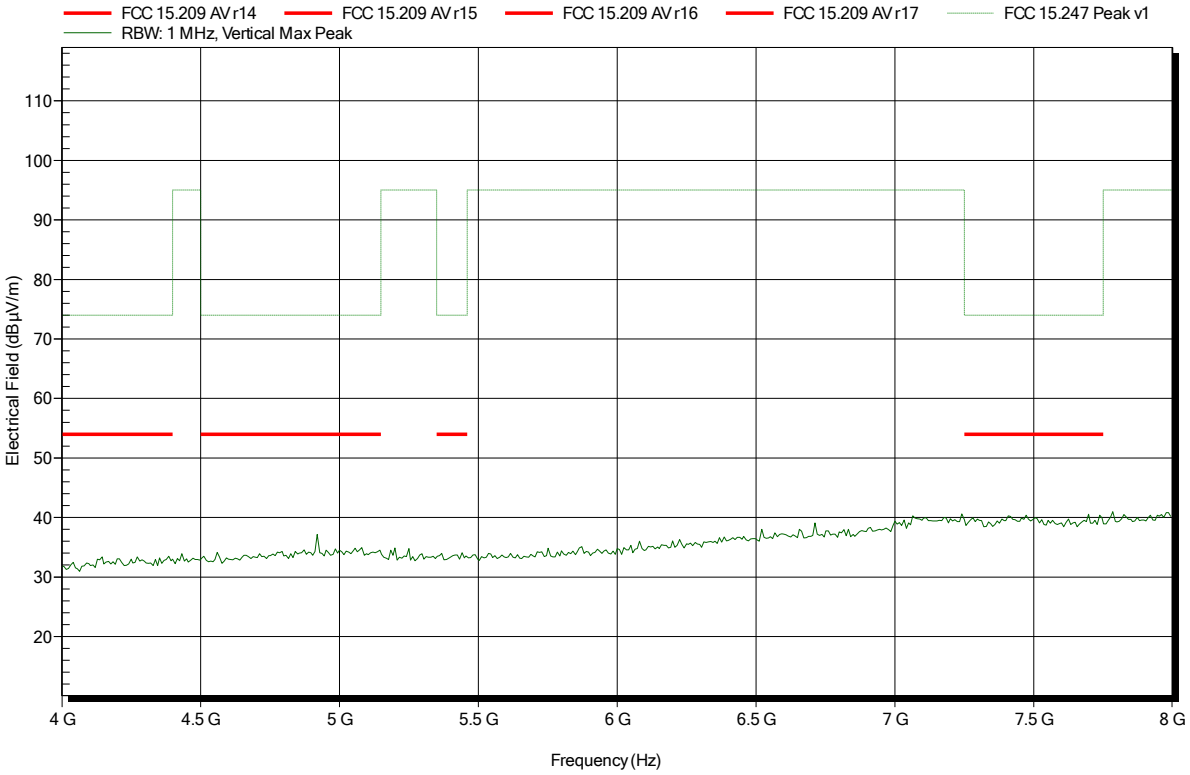

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2412 MHz
Test Date:	2018-03-01
Note:	

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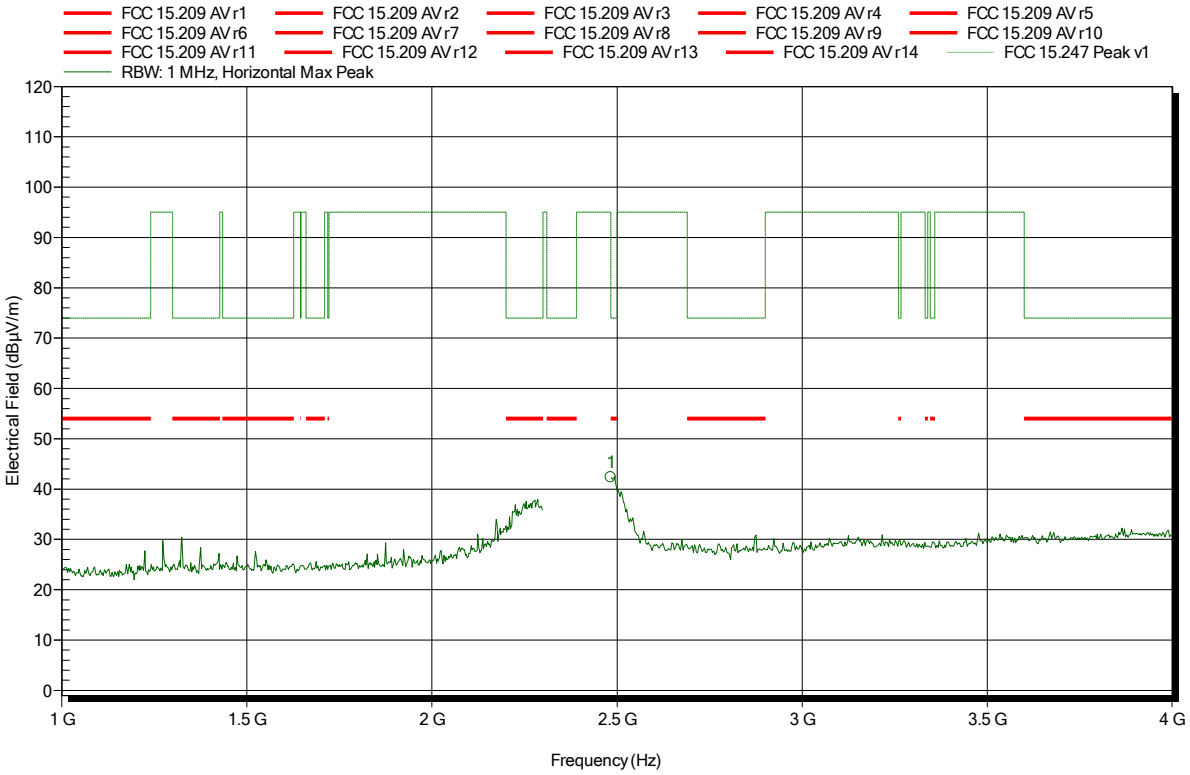

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.484 GHz	42.32 dBµV/m	74 dBµV/m	-31.68 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2412 MHz
Test Date:	2018-03-01
Note:	

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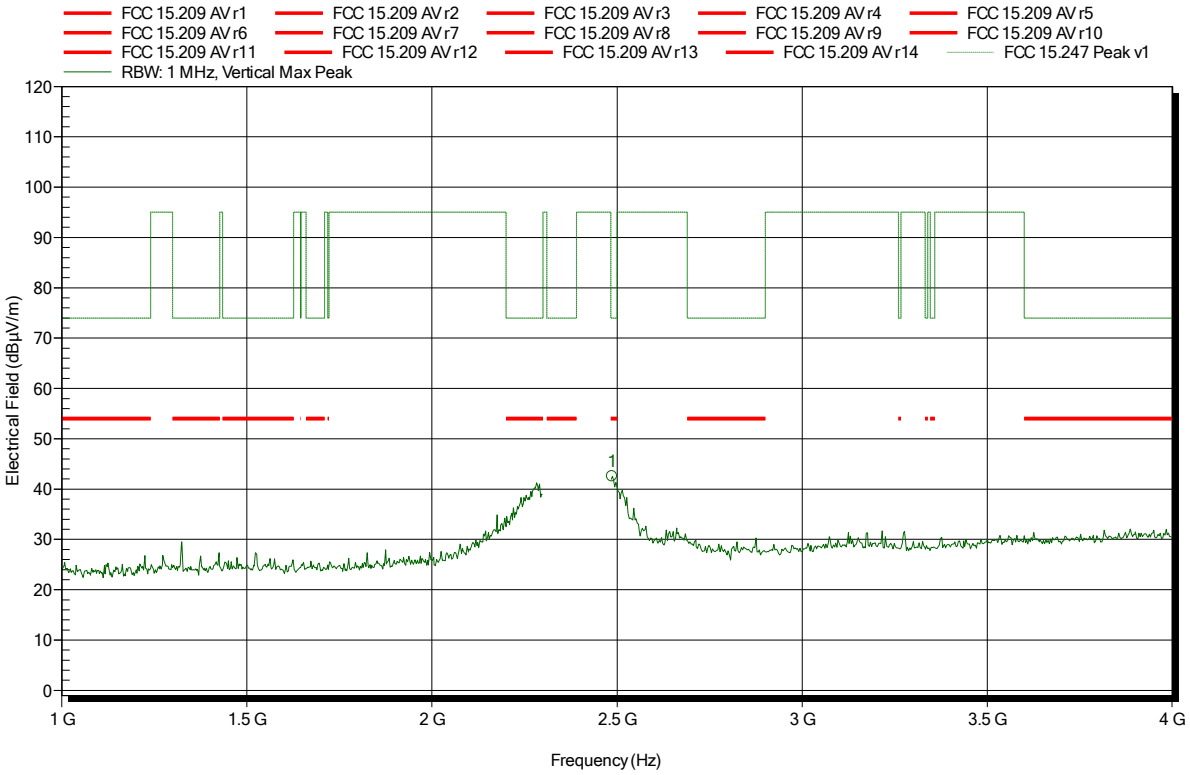

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.487 GHz	42.54 dBµV/m	74 dBµV/m	-31.46 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2412 MHz
Test Date:	2018-03-01
Note:	lower bandedge

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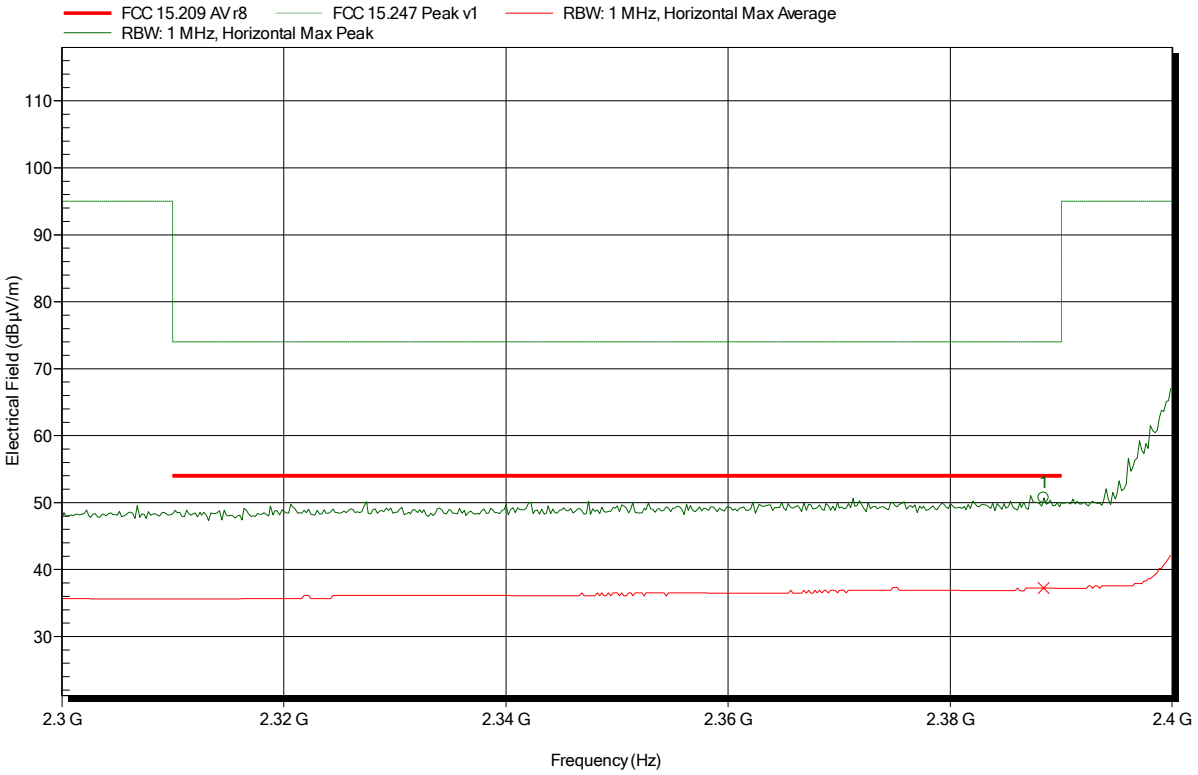

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.388 GHz	50.71 dBµV/m	74 dBµV/m	-23.29 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.388 GHz	37.22 dBµV/m	54 dBµV/m	-16.78 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2412 MHz
Test Date:	2018-03-01
Note:	lower bandedge

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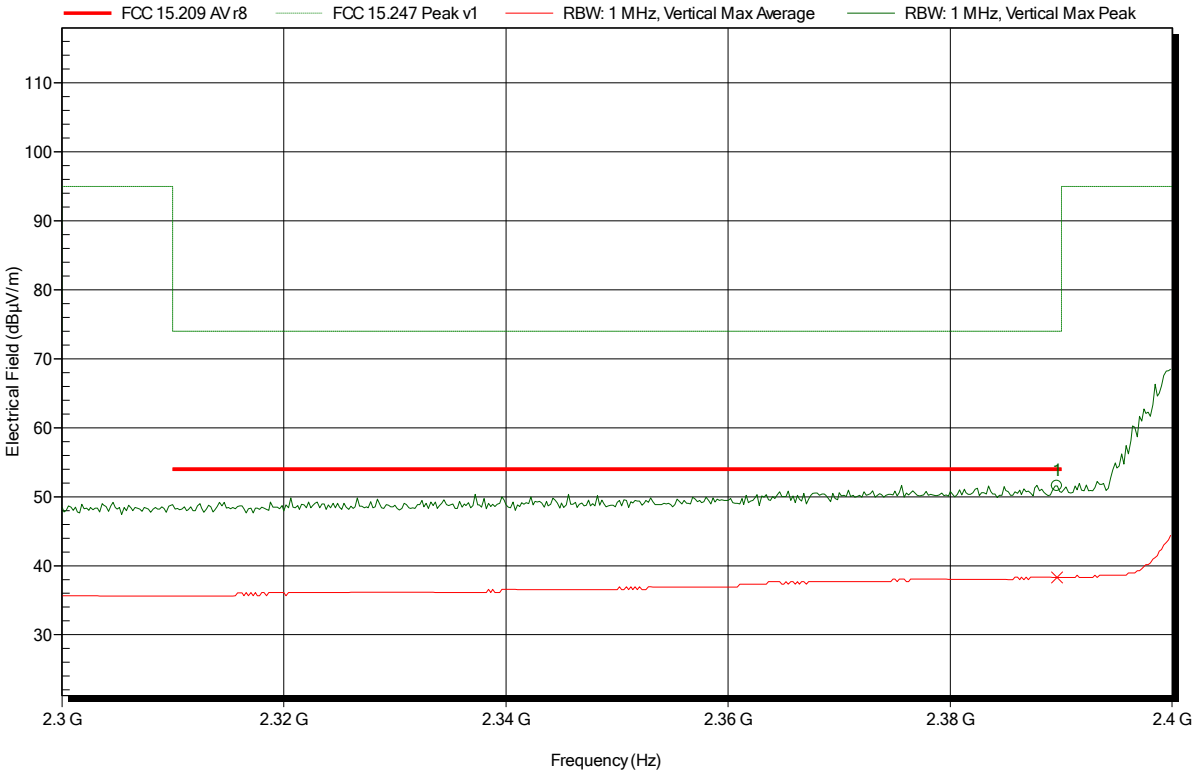

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.39 GHz	51.57 dBµV/m	74 dBµV/m	-22.43 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.39 GHz	38.32 dBµV/m	54 dBµV/m	-15.68 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2412 MHz
Test Date:	2018-03-01
Note:	

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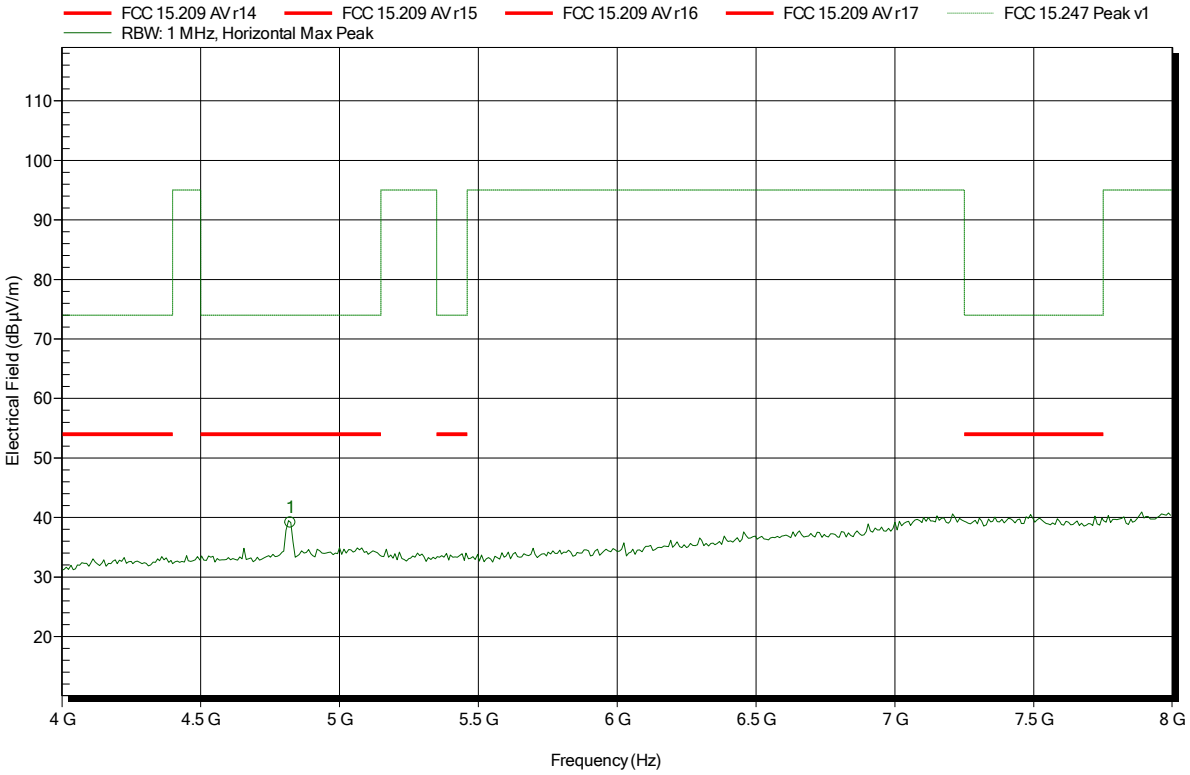

Frequency	Peak	Peak Limit	Peak Difference	Status
4.824 GHz	39.15 dBµV/m	74 dBµV/m	-34.85 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2412 MHz
Test Date:	2018-03-01
Note:	

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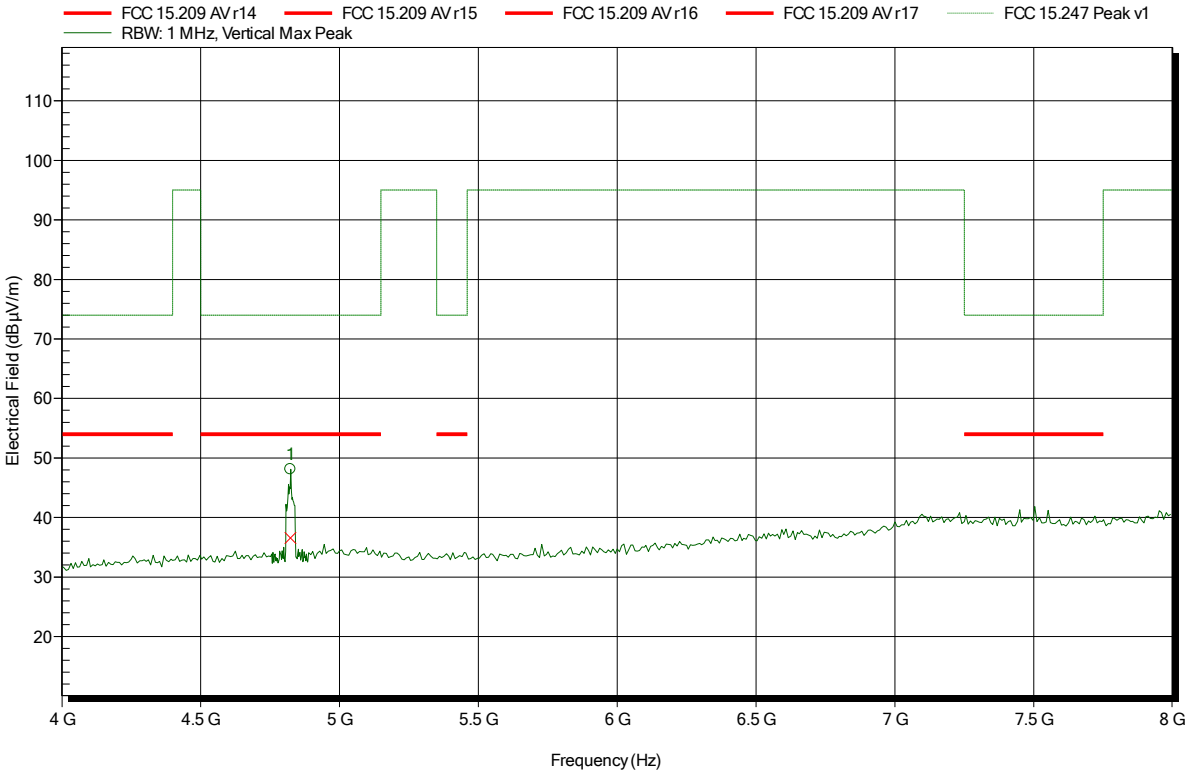

Frequency	Peak	Peak Limit	Peak Difference	Status
4.824 GHz	48.08 dBµV/m	74 dBµV/m	-25.92 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
4.824 GHz	36.54 dBµV/m	54 dBµV/m	-17.46 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2437 MHz
Test Date:	2018-03-01
Note:	

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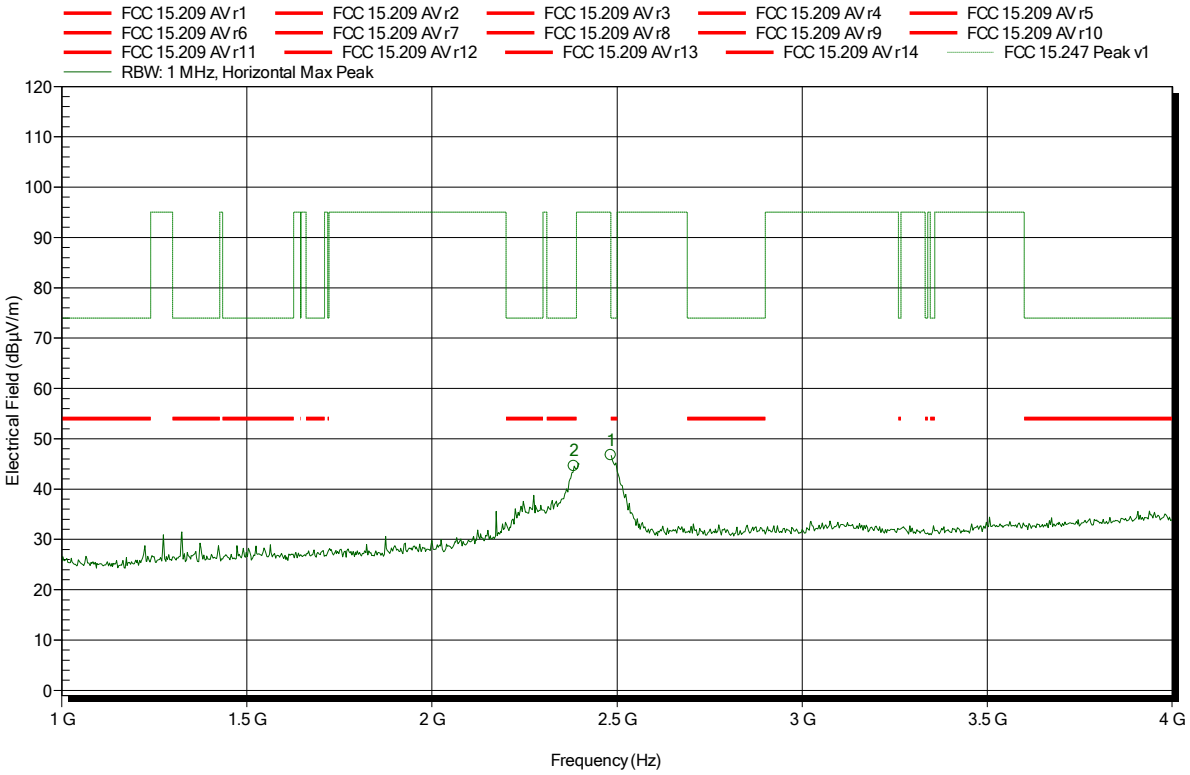

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.3832 GHz	44.56 dBµV/m	74 dBµV/m	-29.44 dB	Pass
2.4835 GHz	46.76 dBµV/m	74 dBµV/m	-27.24 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2437 MHz
Test Date:	2018-03-01
Note:	

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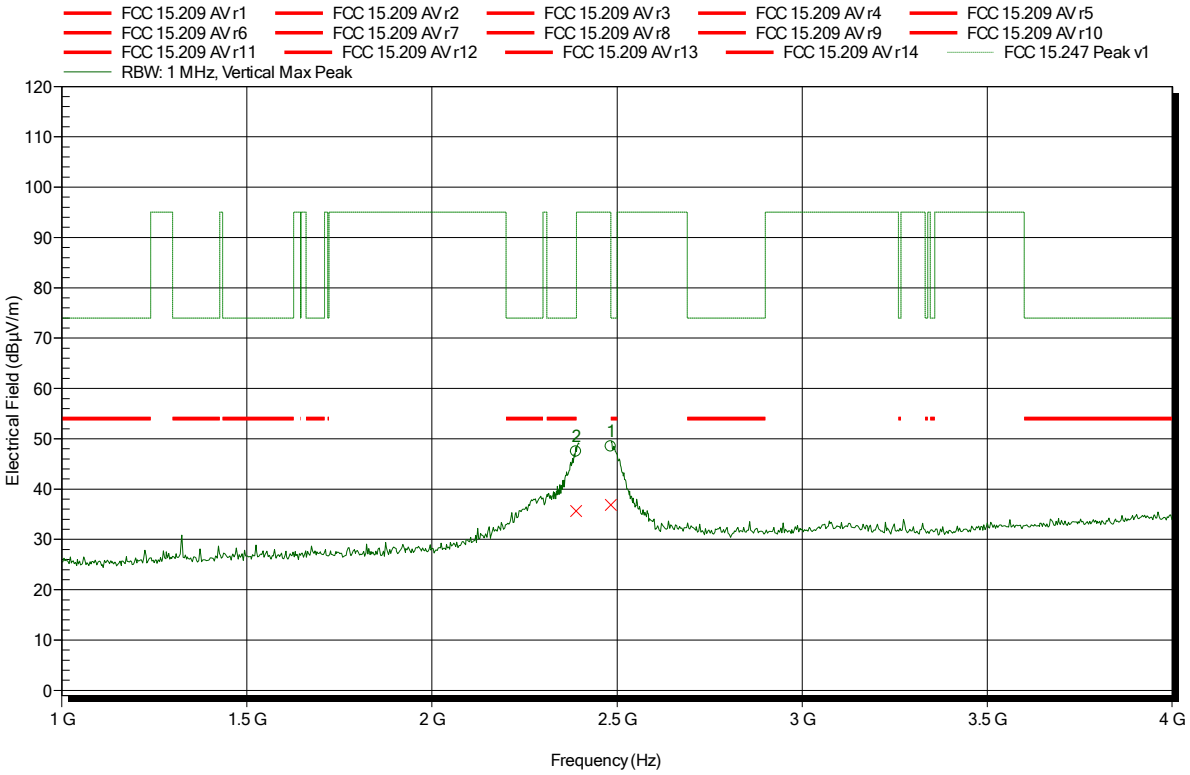

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.3892 GHz	47.45 dBµV/m	74 dBµV/m	-26.55 dB	Pass
2.4835 GHz	48.47 dBµV/m	74 dBµV/m	-25.53 dB	Pass

Frequency	Average	Average Limit	Average Difference	Average Status
2.3892 GHz	35.61 dBµV/m	54 dBµV/m	-18.39 dB	Pass
2.4835 GHz	36.86 dBµV/m	54 dBµV/m	-17.14 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2437 MHz
Test Date:	2018-03-01
Note:	

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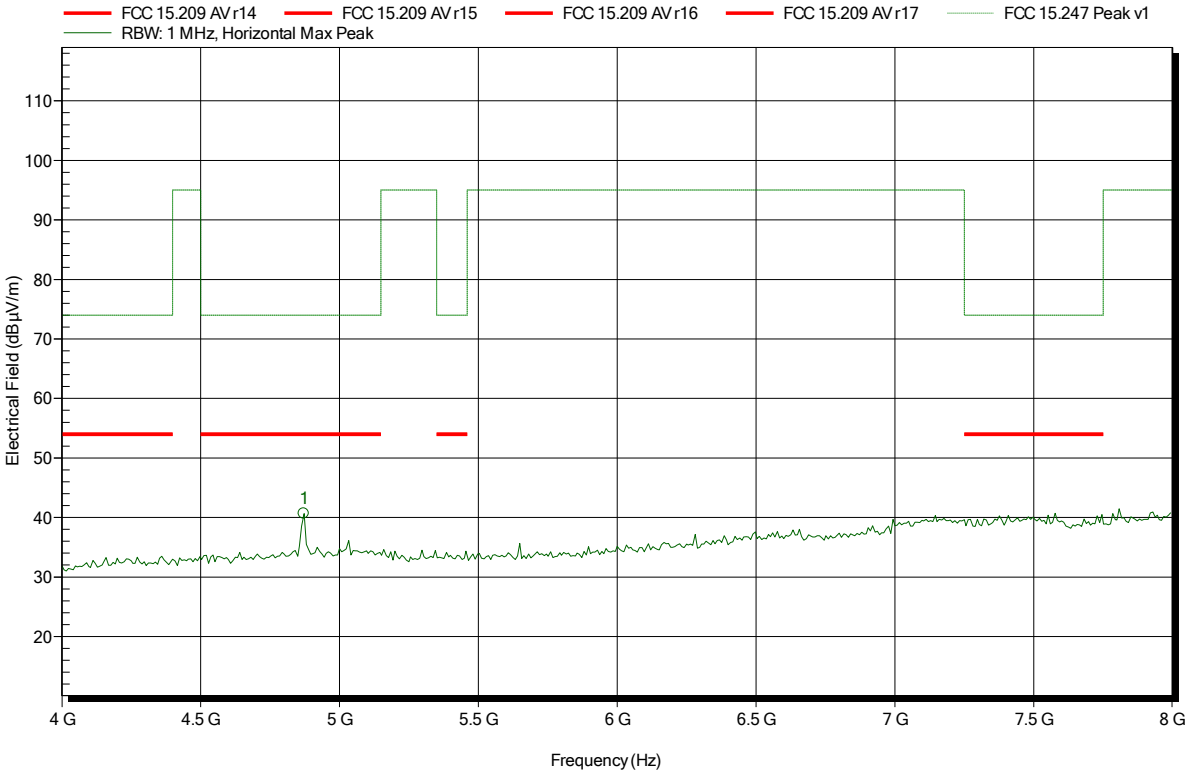

Frequency	Peak	Peak Limit	Peak Difference	Status
4.872 GHz	40.64 dBµV/m	74 dBµV/m	-33.36 dB	Pass

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2437 MHz
Test Date:	2018-03-01
Note:	

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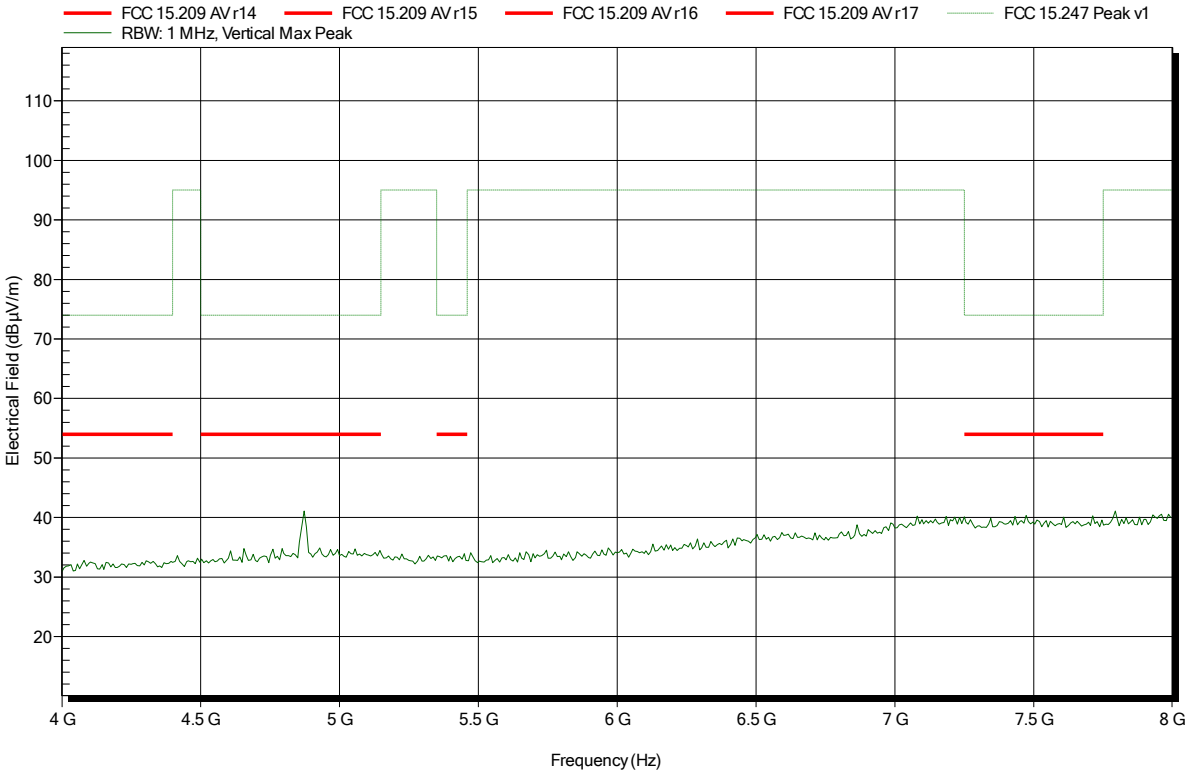

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2462 MHz
Test Date:	2018-03-01
Note:	

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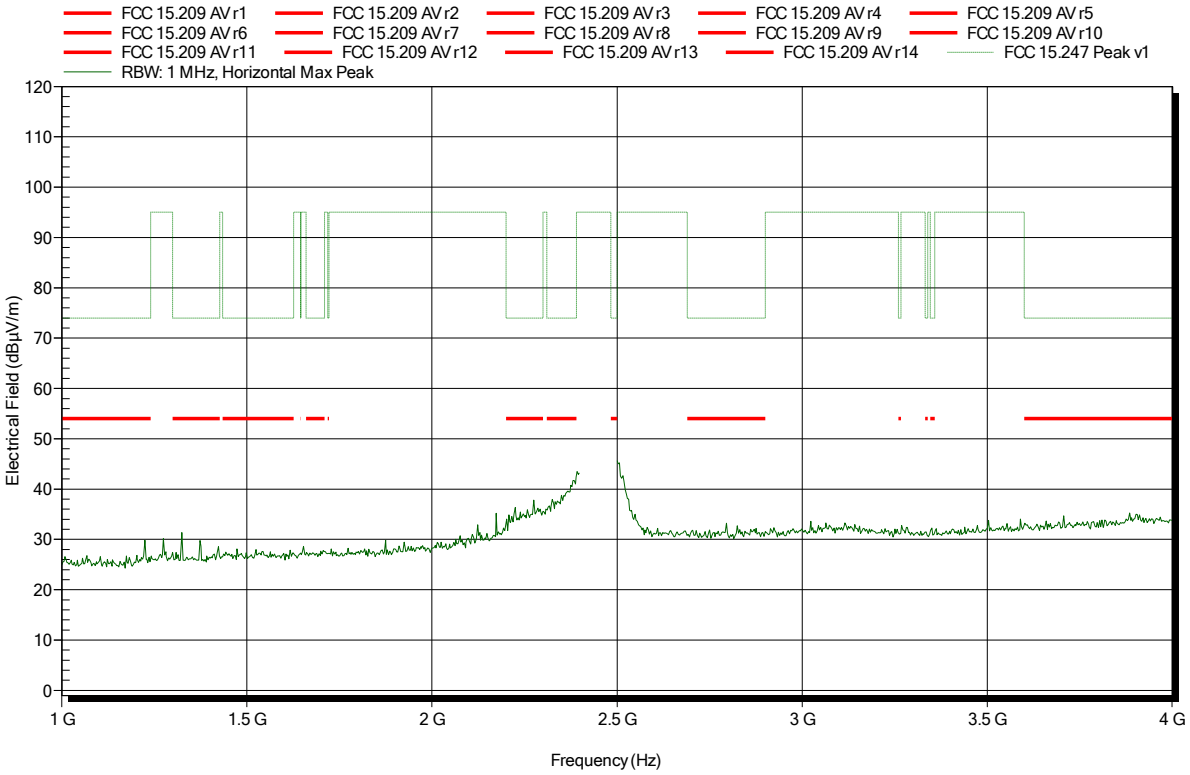

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2462 MHz
Test Date:	2018-03-01
Note:	

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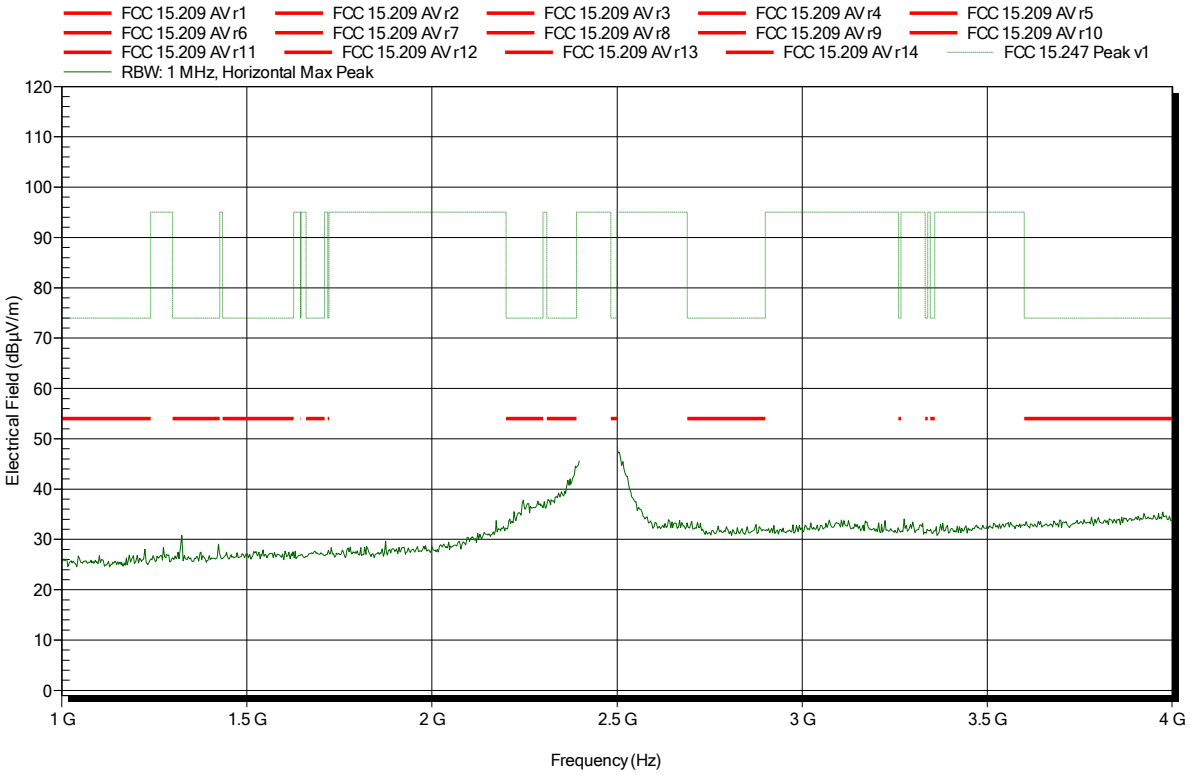

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2462 MHz
Test Date:	2018-03-01
Note:	upper bandedge

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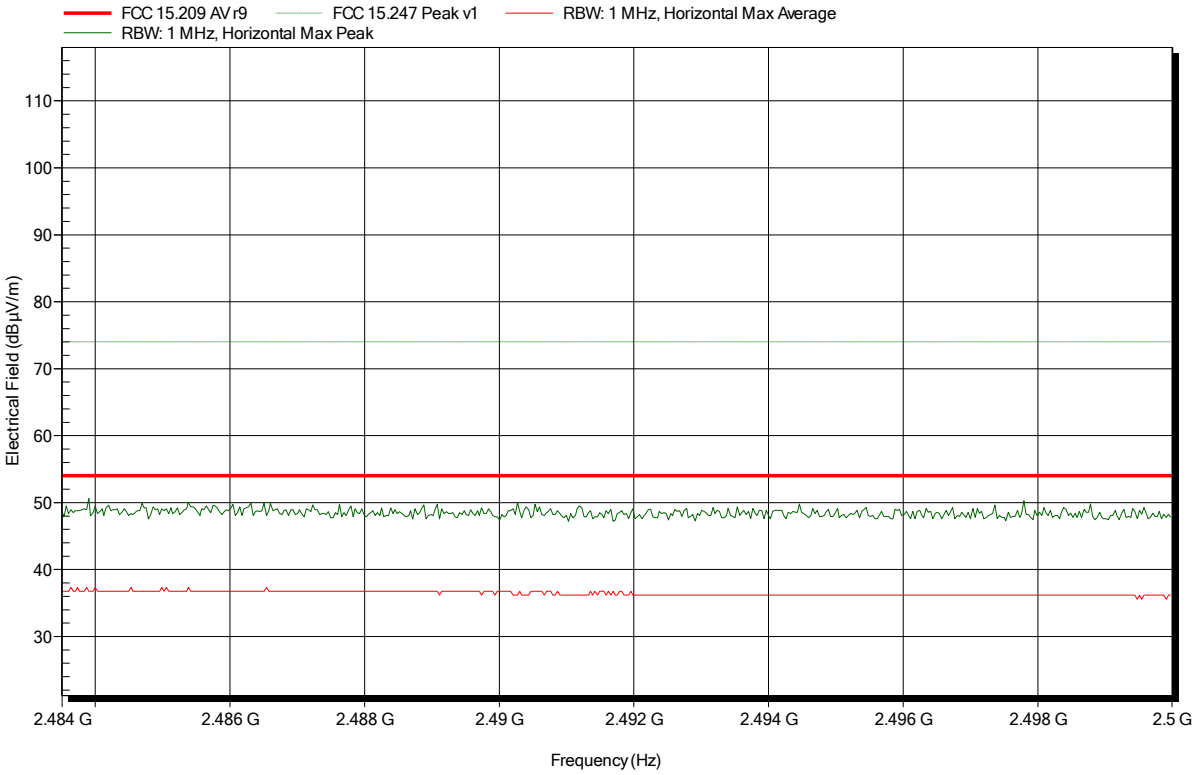

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2462 MHz
Test Date:	2018-03-01
Note:	Upper bandedge

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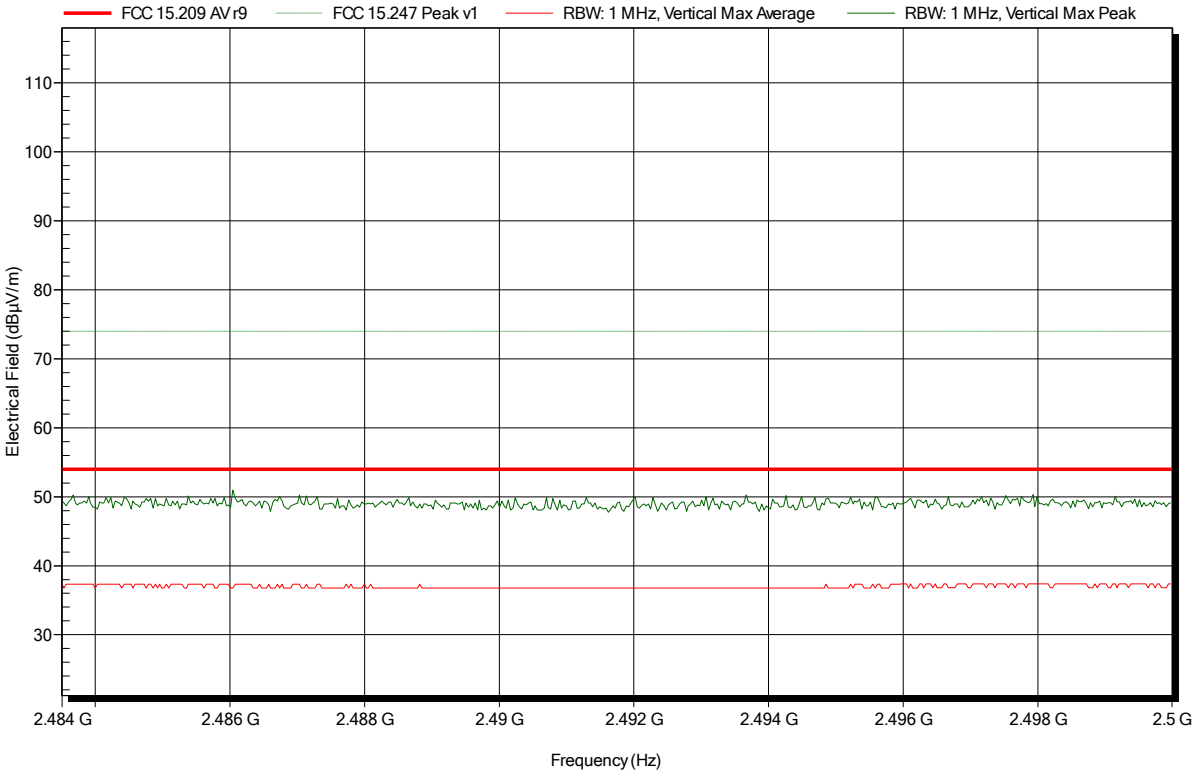

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2462 MHz
Test Date:	2018-03-01
Note:	

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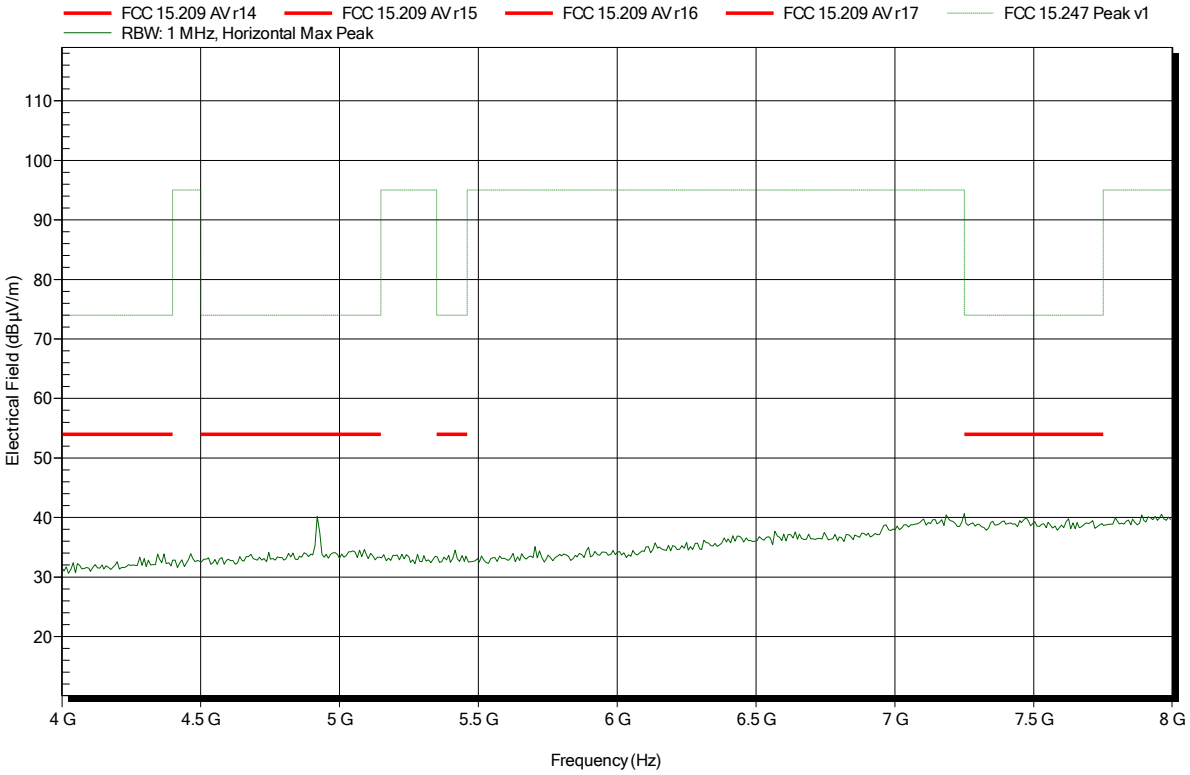

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Leica Geosystems AG
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 22.5°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	1 m converted to 3m
Mode:	TX; IEEE802.11n; HT20; MCS8; 2462 MHz
Test Date:	2018-03-01
Note:	

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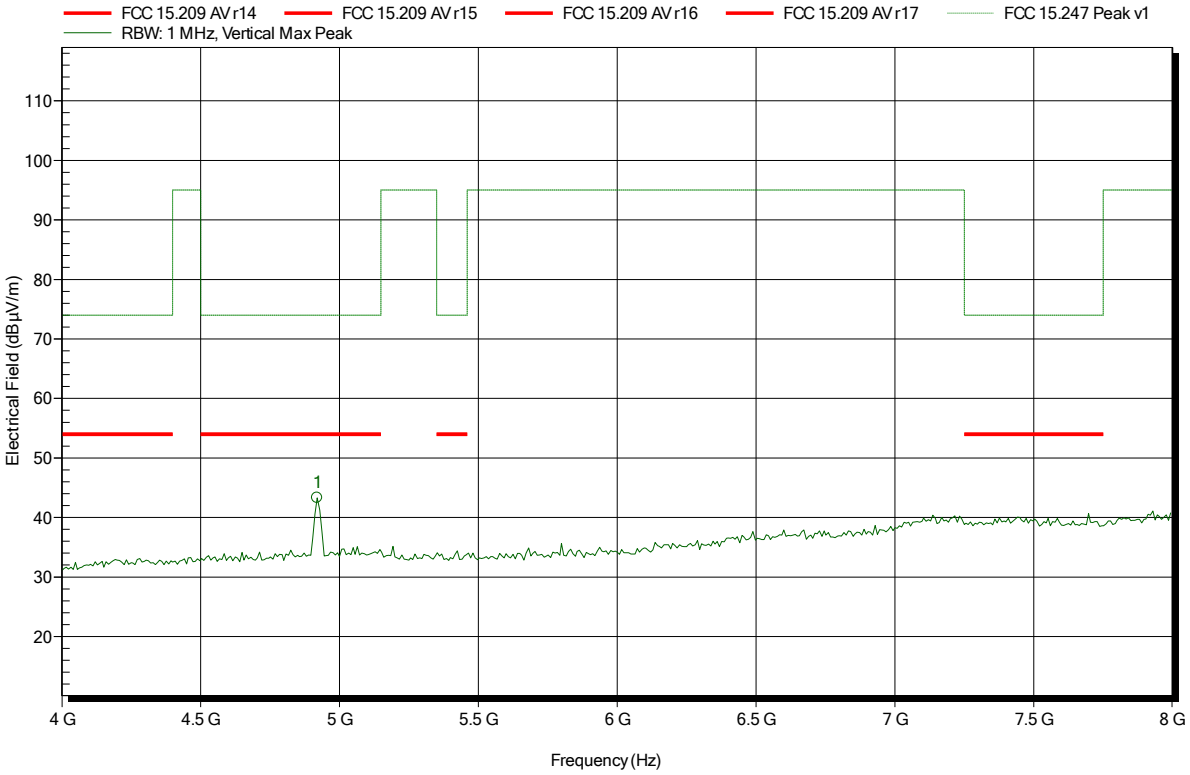

Frequency	Peak	Peak Limit	Peak Difference	Status
4.92 GHz	43.3 dBµV/m	74 dBµV/m	-30.7 dB	Pass

ANNEX B Receiver spurious emissions

Spurious emissions according to ISED RSS-247, I2

Project number: G0M-1801-7167

Applicant:	Leica Geosystems AG
EUT Name:	Laser Distance Meter
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 24.8°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	HK116, Horizontal
Measurement distance:	3 m
Mode:	RX; IEEE 802.11g; 2437 MHz
Test Date:	2018-03-01
Note:	

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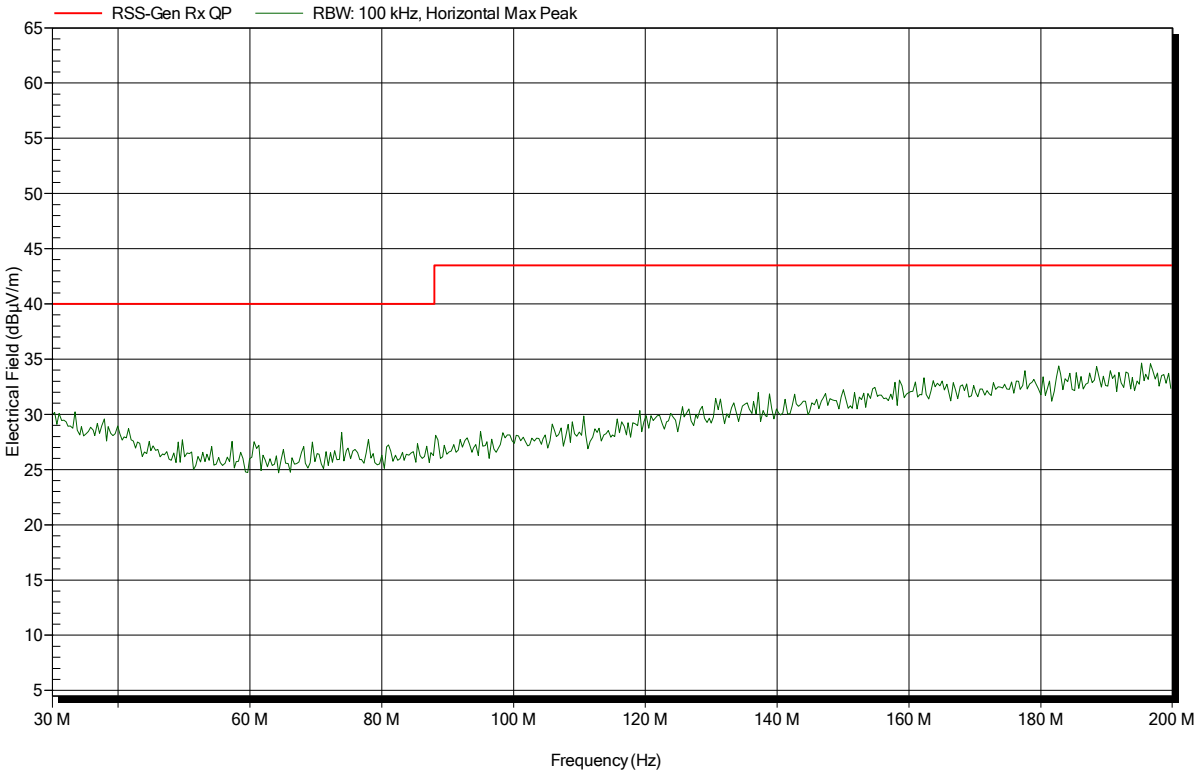

Spurious emissions according to ISED RSS-247, I2

Project number: G0M-1801-7167

Applicant:	Leica Geosystems AG
EUT Name:	Laser Distance Meter
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 24.8°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	HK116, Vertical
Measurement distance:	3 m
Mode:	RX; IEEE 802.11g; 2437 MHz
Test Date:	2018-03-01
Note:	

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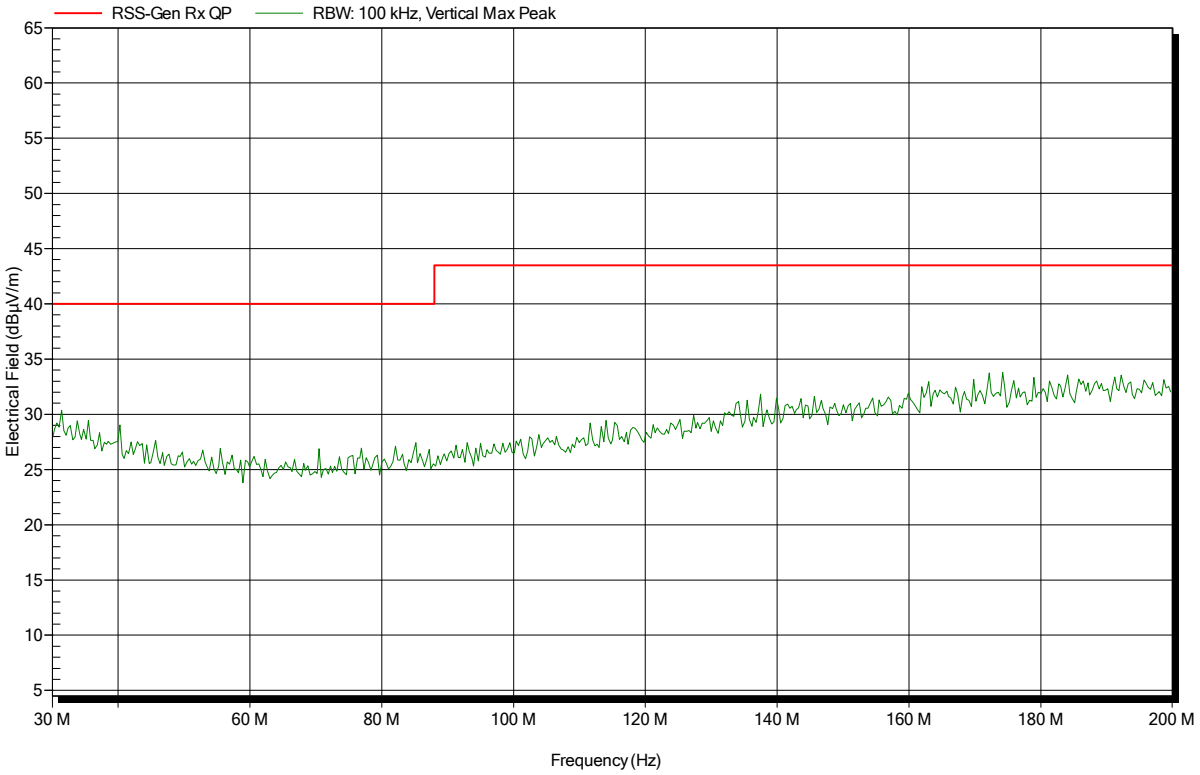

Spurious emissions according to ISED RSS-247, I2

Project number: G0M-1801-7167

Applicant:	Leica Geosystems AG
EUT Name:	Laser Distance Meter
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 24.8°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Rohde & Schwarz HL 223, Horizontal
Measurement distance:	3 m
Mode:	RX; IEEE 802.11g; 2437 MHz
Test Date:	2018-03-01
Note:	

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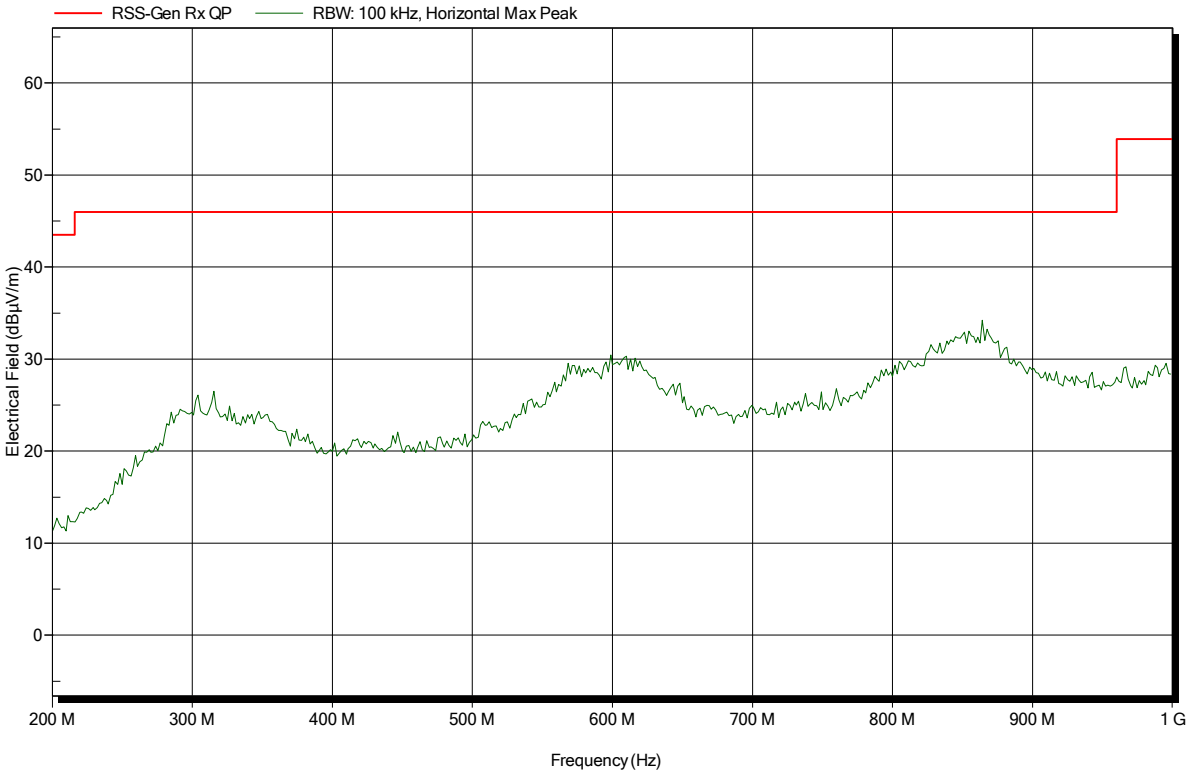

Spurious emissions according to ISED RSS-247, I2

Project number: G0M-1801-7167

Applicant:	Leica Geosystems AG
EUT Name:	Laser Distance Meter
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 24.8°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Rohde & Schwarz HL 223, Vertical
Measurement distance:	3 m
Mode:	RX; IEEE 802.11g; 2437 MHz
Test Date:	2018-03-01
Note:	

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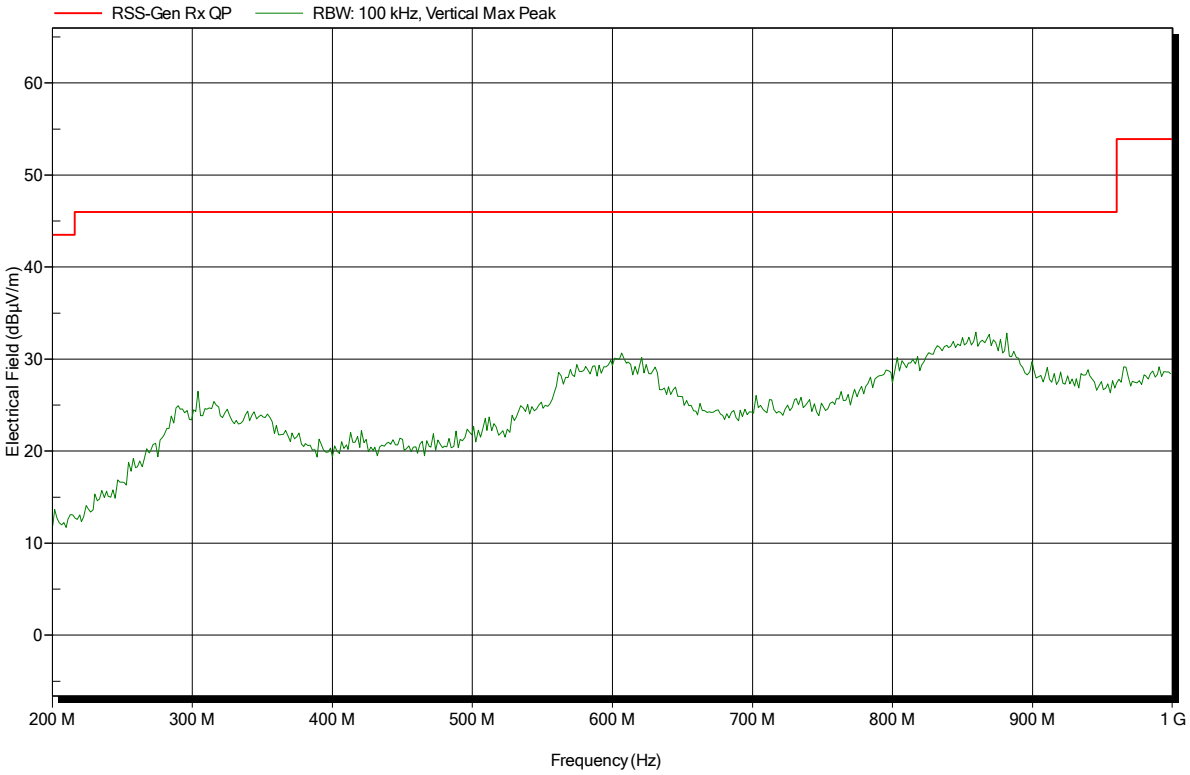
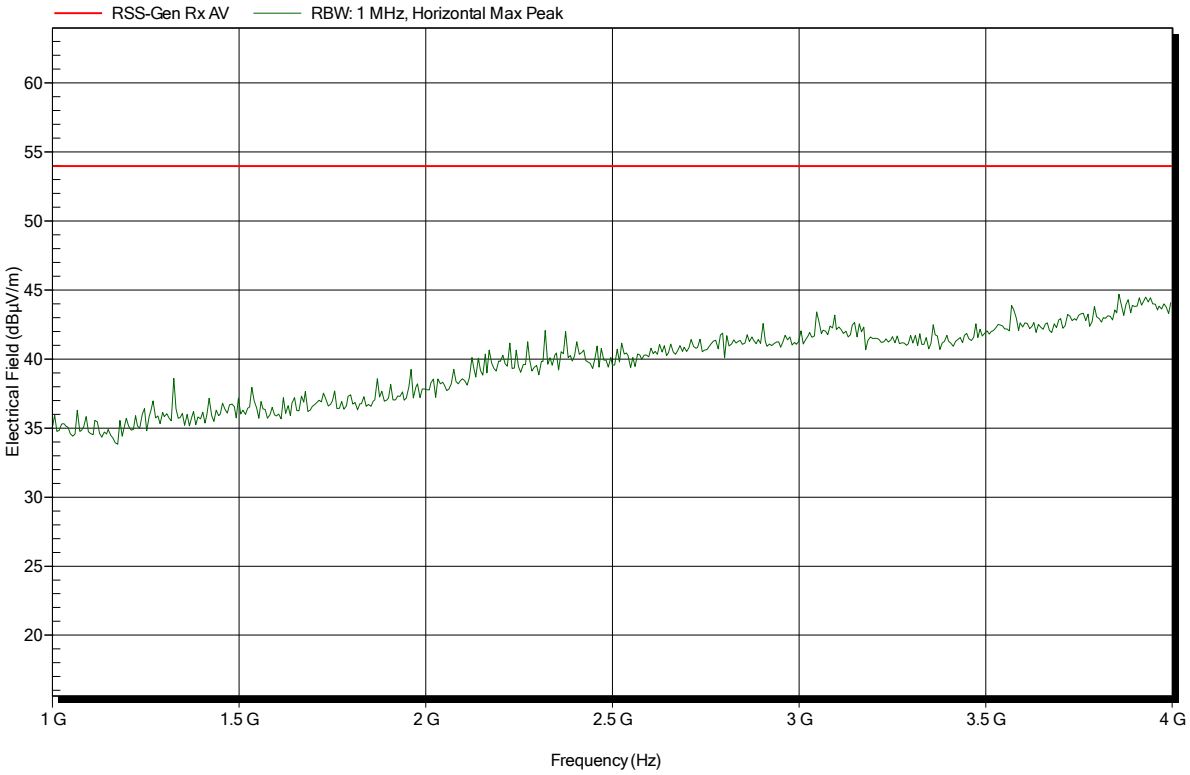


Spurious emissions according to ISED RSS-247, I2

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Laser Distance Meter
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 24.8°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	RX; IEEE 802.11g; 2437 MHz
Test Date:	2018-02-27
Note:	

Index 3



Spurious emissions according to ISED RSS-247, I2

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Laser Distance Meter
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 24.8°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	RX; IEEE 802.11g; 2437 MHz
Test Date:	2018-02-27
Note:	

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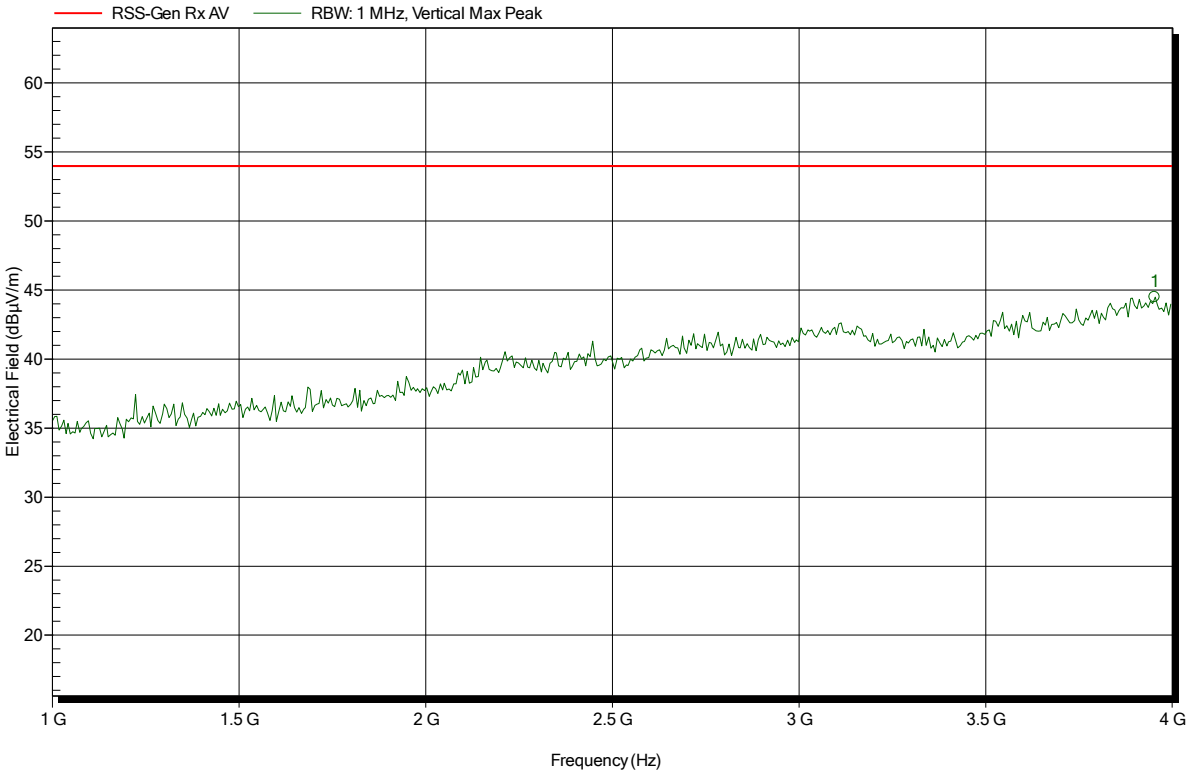

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
3.952 GHz	44.48 dBµV/m	53.98 dBµV/m	-9.5 dB	Pass

Spurious emissions according to ISED RSS-247, I2

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Laser Distance Meter
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 24.8°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	3 m
Mode:	RX; IEEE 802.11g; 2437 MHz
Test Date:	2018-02-27
Note:	

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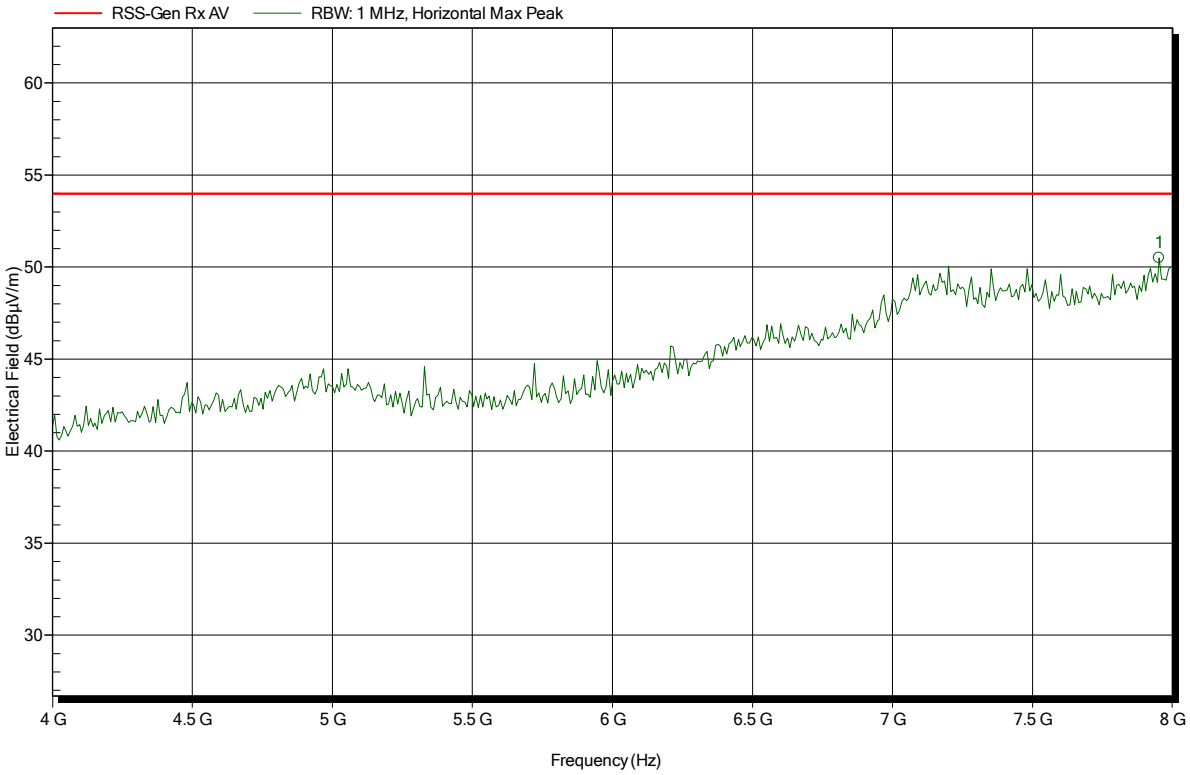

Frequency	Peak	Peak Limit	Peak Difference	Peak Status
7.952 GHz	50.49 dBµV/m	53.98 dBµV/m	-3.49 dB	Pass

Spurious emissions according to ISED RSS-247, I2

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Laser Distance Meter
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 24.8°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Vertical
Measurement distance:	3 m
Mode:	RX; IEEE 802.11g; 2437 MHz
Test Date:	2018-02-27
Note:	

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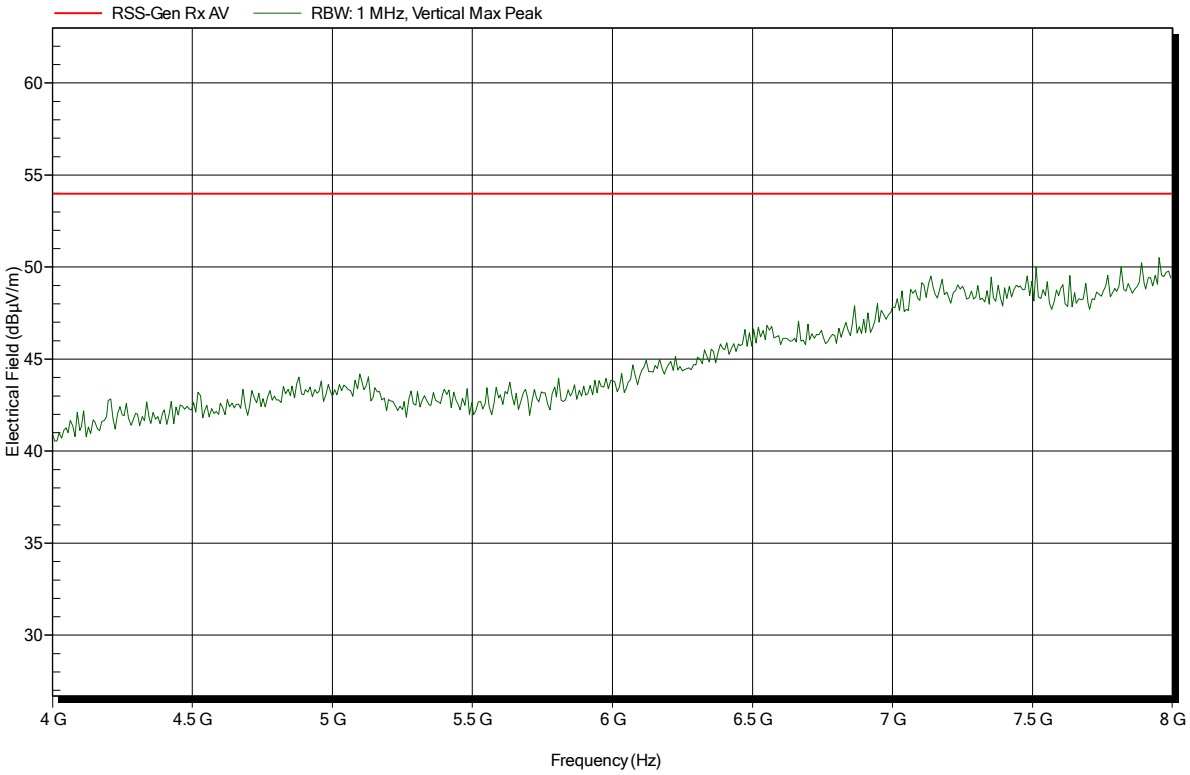

Spurious emissions according to ISED RSS-247, I2

Project number:	G0M-1801-7167
Applicant:	Leica Geosystems AG
EUT Name:	Laser Distance Meter
Model:	Leica BLK3D
Test Site:	Eurofins Product Service GmbH
Operator:	Wilfried Treffke
Test Conditions:	Tnom: 24.8°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
Antenna:	Schwarzbeck BBHA 9120D, Horizontal
Measurement distance:	1 m converted to 3m
Mode:	RX; IEEE 802.11g; 2437 MHz
Test Date:	2018-02-27
Note:	

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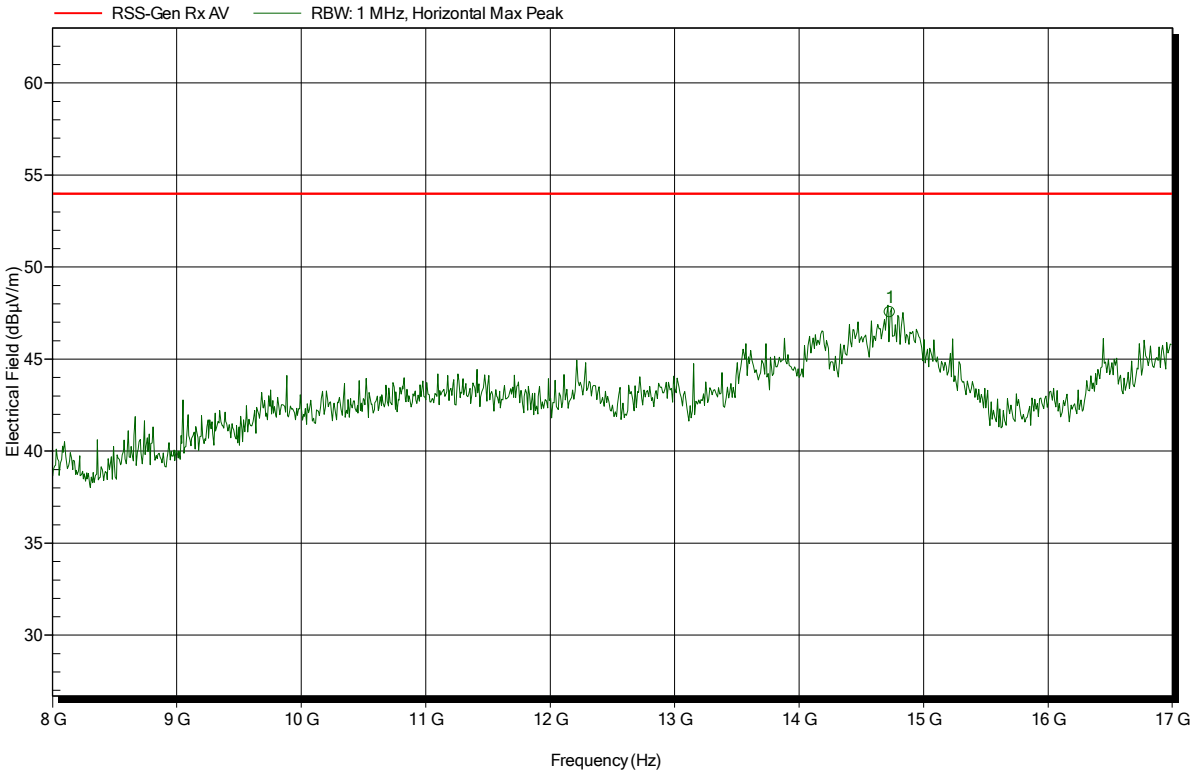

Frequency	Peak	Peak Limit	Peak Difference	Status
14.73 GHz	47.55 dBµV/m	53.98 dBµV/m	-6.43 dB	Pass

Spurious emissions according to ISED RSS-247, I2

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Test Conditions:	Tnom: 24.8°C, Vnom: 3.8 VDC (rechargeable battery pack Li-Ion)
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Measurement distance:	1 m converted to 3m
Mode:	RX; IEEE 802.11g; 2437 MHz
Test Date:	2018-02-27
Note:	

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