

EMC TEST REPORT FCC CFR Title 47 / Chapter I / Subchapter A / Part 15 / Subpart B ISED ICES-003 Issue 7	
Report Reference No	G0M-2303-1996-EF0115B-V01
Testing Laboratory	Eurofins Product Service GmbH
Address	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation	    A2LA - Registration number: 1983.01 (ISED) ISED wireless device testing laboratory: CN 3470A DAkkS - Registration number : D-PL-12092-01-04 (FCC) FCC Filed Test Laboratory, Reg.-No.: 96970
Applicant	Leica Geosystems AG
Address	Heinrich-Wild-Strasse SWITZERLAND
Test Specification Standard(s)	FCC CFR Title 47 / Chapter I / Subchapter A / Part 15 / Subpart B ISED ICES-Gen Issue 1; Amendment 1 (February 2021) ISED ICES-003 Issue 7 ANSI C63.4:2014+A1:2017
Non-Standard Test Method	None
Equipment under Test (EUT):	
Product Description	Laser Distance Meter
Model(s)	Leica Disto X6
Additional Model(s)	None
Brand Name(s)	Leica Geosystems AG
Hardware Version(s)	V0801-G
Software Version(s)	1.0.0
FCC-ID	RFF-LD6BT
IC	3177A-LD6BT
Test Result	PASSED

Possible test case verdicts:		
required by standard but not tested	N/T	
not required by standard	N/R	
required by standard but not appl. to test object	N/A	
test object does meet the requirement	P(PASS)	
test object does not meet the requirement	F(FAIL)	
Testing:		
Date of receipt of test item	2023-12-05	
Report:		
Compiled by	Pawel Skotnicki	
Tested by (+ signature) (Responsible for Test)	Pawel Skotnicki	
Tested by (+ signature) (Responsible for Test)	Matthias Handrik	
Approved by (+ signature) (Deputy Head of Lab)	Jens Marquardt	
Date of Issue	2024-02-14	
Total number of pages	40	
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.		
Statement concerning the uncertainty of the measurement systems used for decisions on conformity (decision rule): The Decision Rule is applied on the basis of CISPR 16-4-2 and/or IEC 61000-4-x (TR 61000-1-6) and their national publications. These standards provide guidance on how to calculate and apply measurement uncertainty whilst providing maximum uncertainties allowance. In all cases due consideration will be given to ILAC-G8:09/2019. Compliance or non-compliance with a disturbance limit is determined in the following manner. - If U_{lab} is less than or equal to U_{CISPR}, then: compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit; non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit. - If U_{lab} is greater than U_{CISPR}, then: compliance is deemed to occur if no measured disturbance level, increased by $(U_{lab} - U_{CISPR})$, exceeds the disturbance limit; non-compliance is deemed to occur if any measured disturbance level, increased by $(U_{lab} - U_{CISPR})$, exceeds the disturbance limit. Where appropriate for the test, for example for EMC pulsed immunity tests, the laboratory has demonstrated, by calibrating its equipment and facilities, that it complies with the above requirements and therefore no allowance of uncertainties has been given to the tolerances.		
Additional Comments:		
None		

ADDITIONAL VARIANTS

Additional variants have been declared by the manufacturer. The listed models were not tested, evaluated or assessed in no way.		
Additional Model 1	Product Type Description	Leica Disto D5
	Model Name	Disto D5
	Brand Name (optional)	Leica
	Hardware Version	V0801-G
	Software Version	1.0.0

ABBREVIATIONS AND ACRONYMS

Acronyms	
Acronym	Description
EUT	Equipment Under Test
FCC	Federal Communications Commission
ISED	Innovation, Science and Economic Development Canada
T _{NOM}	Nominal operating temperature
V _{NOM}	Nominal supply voltage

VERSION HISTORY

Version History			
Version	Issue Date	Remarks	Revised By
01	2024-02-14	Initial Release	--

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1 Equipment Under Test

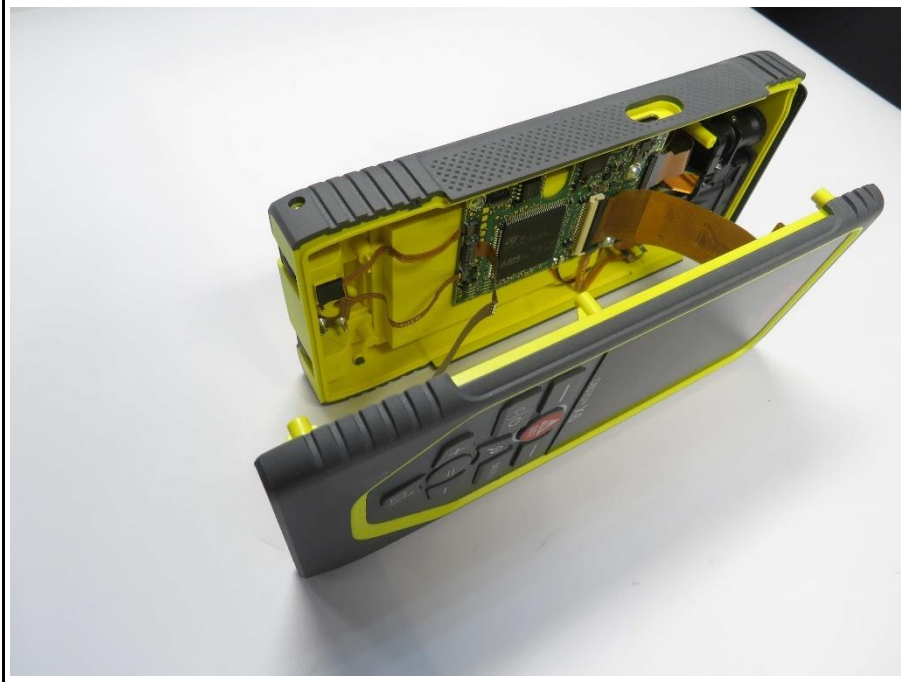
Description	Laser Distance Meter		
Model	Leica Disto X6		
Additional Model(s)	None		
Brand Name(s)	Leica Geosystems AG		
Hardware Version(s)	V0801-G		
Software Version(s)	none		
Number of tested samples	1		
Sample Identification	EUT #	Sample-ID	Serial Number
	EUT 1	47121	2433630128
EUT Dimensions [cm]	2.5 x 6.8 x 15.4		
FCC-ID	RFF-LD6BT		
IC	3177A-LD6BT		
Class	Class B		
Equipment type	Table top		
Highest internal frequency [MHz]	2480 (RF frequency)		
Protective Earth	No		
Functional Earth	No		
Radio Module	Type	Bluetooth Low Energy (LE)	
	Model	Unspecified	
	Manufacturer	Unspecified	
	FCC-ID	Unspecified	
	IC	Unspecified	
Supply Voltage	V _{NOM}	5 V DC (via AC/DC adaptor)	
	V _{nom}	3.7 V DC (Li-ion polymer Battery)	
AC/DC-Adaptor	Model	KSAS0060500100D5U	
	Vendor	Ktec	
	Input	100 – 240 V AC, 50/60 Hz, 0.18 A	
	Output	5.0 V DC, 1.0 A	
Manufacturer	Leica Geosystems AG Heinrich-Wild-Strasse 9435 Heerbrugg SWITZERLAND		

1.1 Equipment Ports

Name	Type	Attributes	Comment
Power	AC	Count: 1 Cable length [m]: <3 Direction: In Service only: No Shielded: No	L1-N
USB C	DC/IO	Count: 1 Cable length [m]: 1 Direction: In Service only: No Shielded: Yes	Shield is connected on both sides
Description:			
AC	AC mains power input/output port		
DC	DC power input/output port		
IO	Input/Output port		

1.2 Equipment Photos - Internal

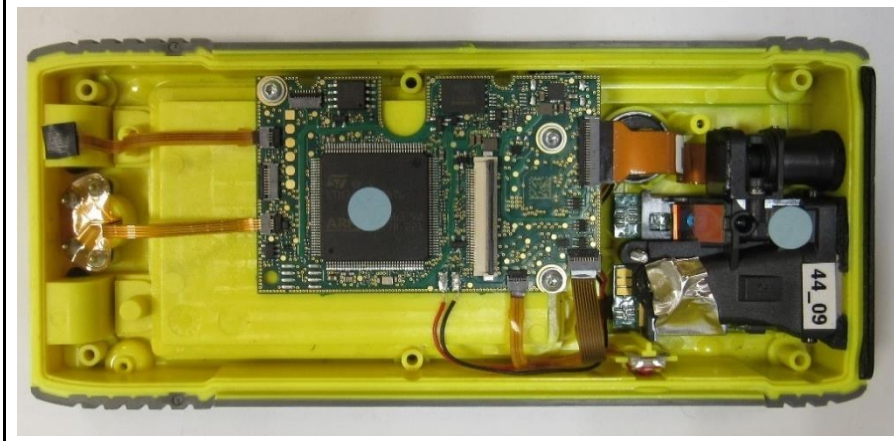
EUT OPEN 1



EUT OPEN 2



EUT PCB 1 TOP SIDE



1.3 Equipment Photos - External

EUT IN PERSPECTIVE 1



EUT IN PERSPECTIVE 2



EUT FRONT SIDE



EUT REAR SIDE



EUT RIGHT SIDE



EUT LEFT SIDE



EUT TOP SIDE



EUT BOTTOM SIDE

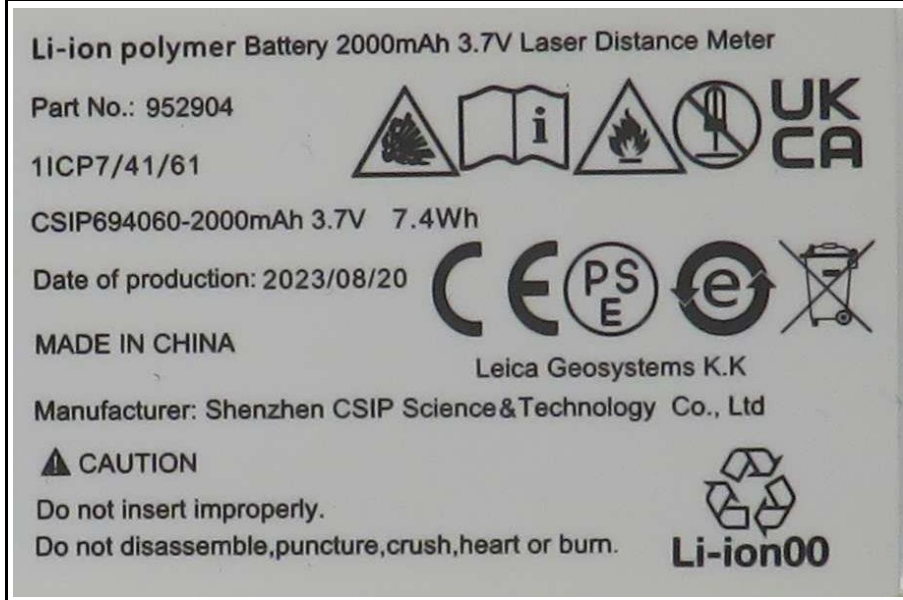




BATTERY compartment



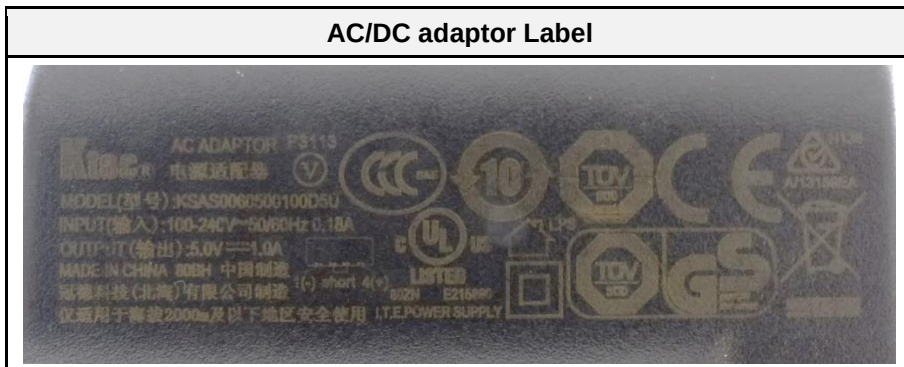
Internal BATTERY label



AC/DC adaptor



AC/DC adaptor Label



1.4 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
AE	Smartphone	COTS	COTS	To establish and maintain BT connection
CBL	USB-A to USB-C	-	S/N:011888 / 4500650406	RND 765-00097
Description:				
AE	Auxiliary Equipment			
SIM	Simulator			
MON	Monitoring Equipment			
CBL	Connecting Cable			
SW	Software			
Comment: --				

1.5 Operational Modes

Mode #	Description
1	Bluetooth LE connection. Device ON, DVF ON, Pointing Mode ON, Charging over USB
2	Bluetooth LE connection. Device ON, DVF ON, Pointing Mode ON, Battery powered
Comment: --	

1.6 EUT Configuration

Configuration #	Description
1	Powered by AC/DC adapter
2	Powered by internal batteries
Comment: --	

1.7 Sample emission level calculation

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

Reading:

This is the reading obtained on the spectrum analyser in dB μ V. Any external preamplifiers used are taken into account through internal analyser 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 analyser. It is treated as a loss in dB. Cable losses have been included with the A.F. to simplify the calculations. The antenna factor is used in calculations as follows:

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

Net:

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

Limit:

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

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

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 dB μ V + 26 dB/m	= 47.5 dB μ V/m	:	47.5 dB μ V/m - 57.0 dB μ V/m	= -9.5 dB

2 Result Summary

Title 47 CFR Part 15B, ISED ICES-003 Issue 7				
Reference	Requirement	Reference Method	Result	Remarks
Emission				
FCC 15.109 ICES-003, 3.2.2	Radiated emissions	ANSI C63.4:2014 +A1:2017	PASS	--
FCC 15.107 ICES-003, 3.2.1	AC power line conducted emissions	ANSI C63.4:2014 +A1:2017	PASS	--
Comment: --				

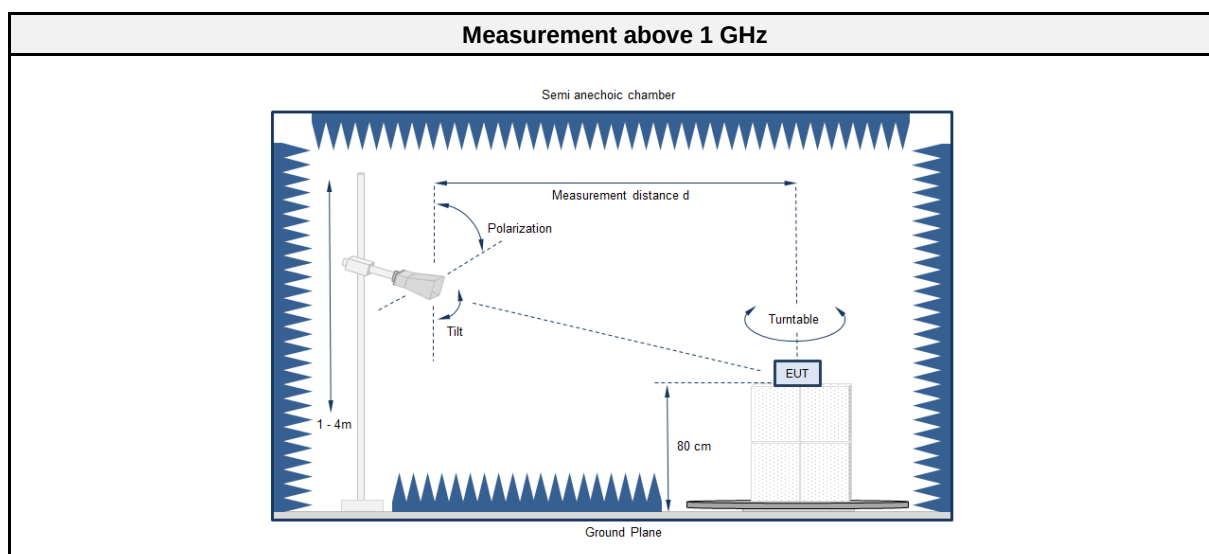
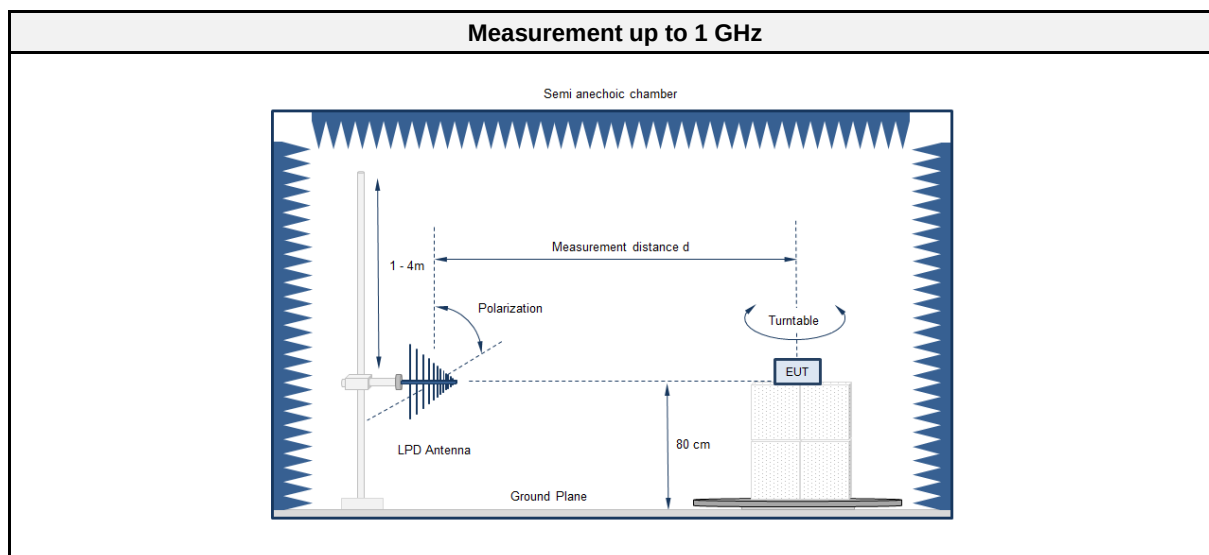
Possible Test Case Verdicts	
PASS	Test object does meet the requirements
FAIL	Test object does not meet the requirements
N/T	Required by standard but not tested
N/R	Not required by standard for the test object

2.1 Test Conditions and Results - Radiated emissions acc. to ANSI C63.4

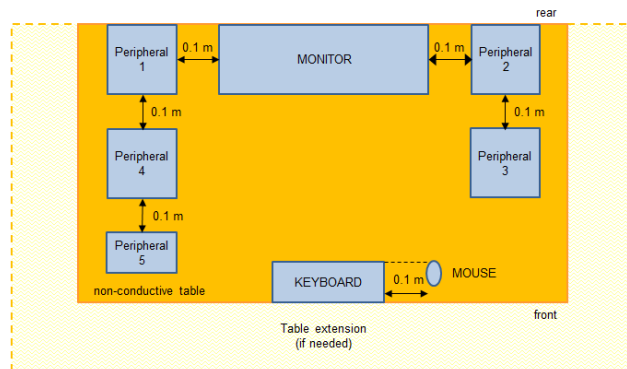
2.1.1 Information

Test Information	
Reference	FCC 15.109, ICES-003, 3.2.2
Reference method	ANSI C63.4 Section 8
Equipment class	Class B
Equipment type	Table top
Highest internal frequency [MHz]	2480
Measurement range	30 MHz to 13 GHz
Temperature [°C]	20 – 25
Humidity [%]	30 – 40
Operator	Pawel Skotnicki
Supervisor	Matthias Handrik
Date	2024-01-08
EUT #	1

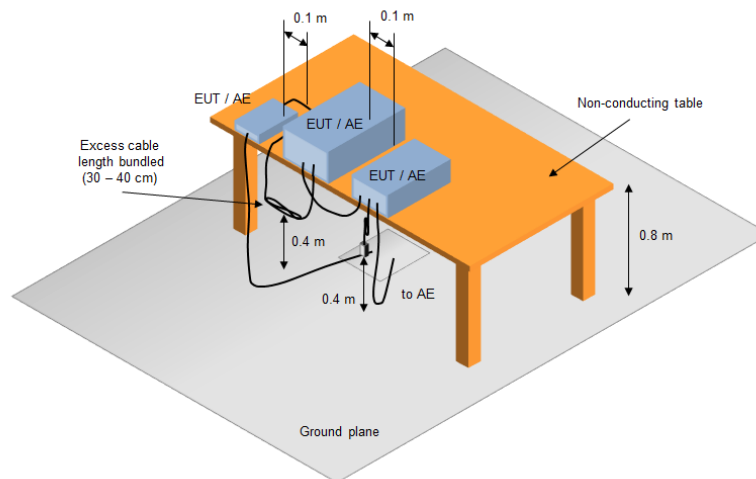
2.1.2 Setup Table top:



Equipment placement - Table top



Test Setup



2.1.3 Equipment

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

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic chamber (NSA)	Frankonia	AC1	EF00062	2022-11	2025-11
Anechoic chamber (SVSWR)	Frankonia	AC 1	EF01011	2022-11	2023-11
Programmable AC Source	Chroma ATE Inc.	61604	EF01068	2023-08	2025-08
EMI Test Receiver	R&S	ESU	EF00379	2023-08	2024-08
Trilog Broadband Antenna	Schwarzbeck	VULB 9168	EF01824	2022-10	2025-10
Horn Antenna	Schwarzbeck	BBHA9120D	EF00018	2022-12	2025-12
Climatic Sensor	Embedded Data Systems, LLC.	2800100000254 17E	EF01054	2023-07	2024-07

2.1.4 Procedure

Exploratory measurement Table top	
1.	The EUT was placed on a non-conductive table at a height of 0.8m.
2.	The EUT and support equipment, if needed, were set up to simulate typical usage.
3.	Cables, of type and length specified by the manufacturer, were connected to at least one port of each type and were terminated by a device or simulating load of actual usage.
4.	The antenna was placed at a distance of 3 m.
5.	The received signal was monitored at the measurement receiver.
6.	This procedure has to be performed in both antenna polarizations, horizontal and vertical.
7.	The arrangement of the equipment with the maximum emission level is shown on the setup picture at item 2.1.2

Final measurement 3m Table top	
1.	The EUT was placed on a 0.8 m non-conductive table at a 3 m distance from the receive antenna. The antenna output was connected to the measurement receiver.
2.	A logarithmic-periodical antenna was used for the frequency range from 30 MHz to 1000 MHz. For the frequency range from 1 GHz to 3.7 GHz a Double Ridged Broadband Horn antenna was used. For the frequency range from 3.7 GHz to 17 GHz a Double Ridged Broadband Horn antenna was used. For the frequency range from 17 GHz to 31 GHz a High Gain / Standard Gain Horn was used. The antennas were placed on an adjustable height antenna mast.
3.	The EUT and cable arrangement were based on the exploratory measurement results.
4.	Emissions were maximized at each frequency by rotating the EUT and adjusting the receiver antenna height and polarization. The maximum values were recorded.
5.	The test data of the worst-case conditions were recorded and shown on the next pages.

2.1.5 Limits

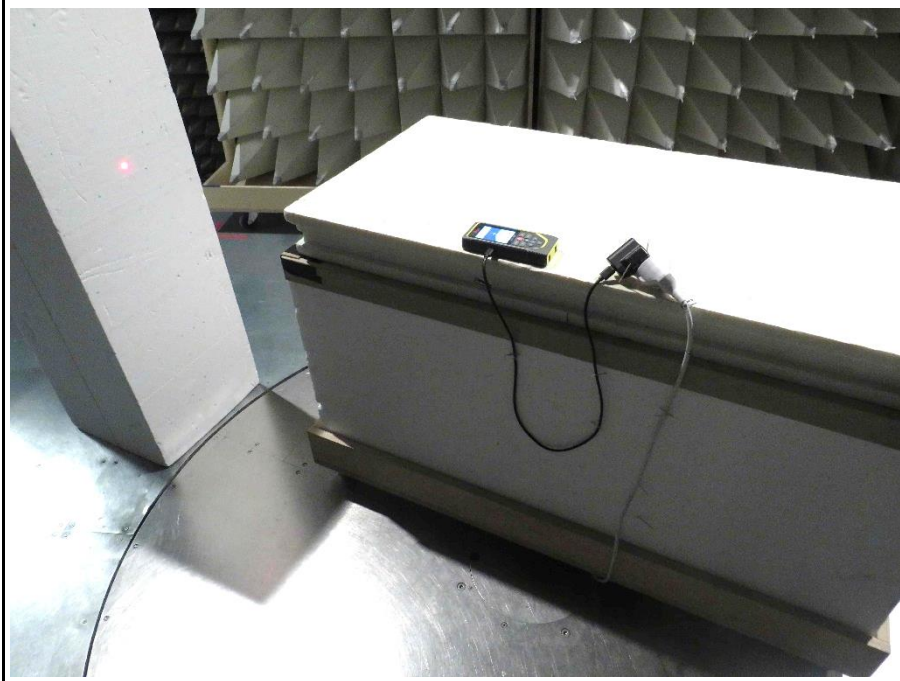
Class B @ 3 m		
Frequency [MHz]	Detector	Limit [dB μ V/m]
30 - 88	Quasi-peak	39
88 - 216	Quasi-peak	43.5
216 - 960	Quasi-peak	46.5
960 - 1000	Quasi-peak	49.5
> 1000	Peak	69.5
	Average	49.5

2.1.6 Results

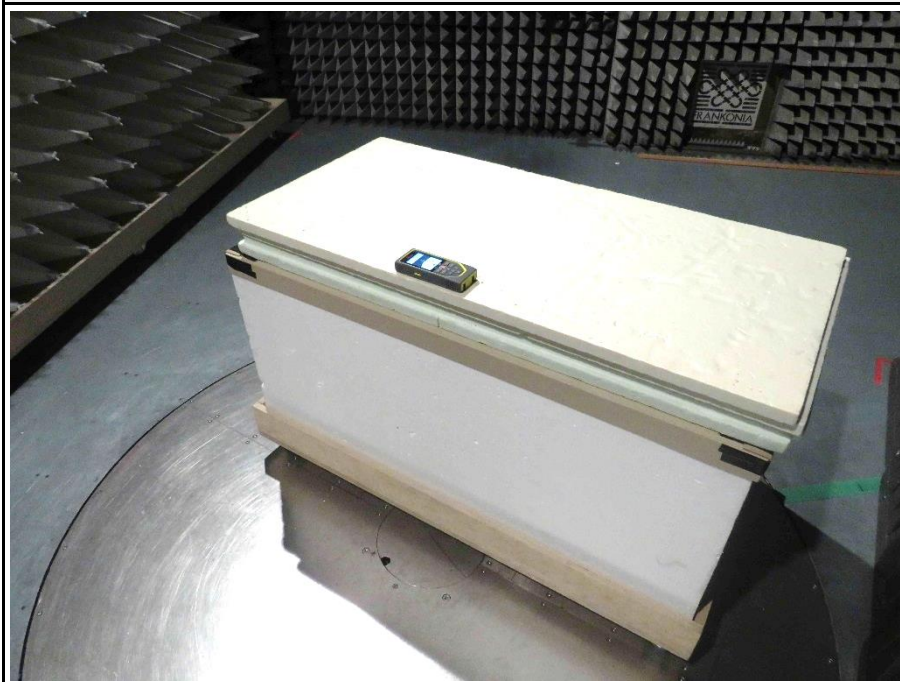
Test Results			
Operational mode	EUT Configuration	Verdict	Remark
1	1	PASS	-
2	2	PASS	-
Notes: --			

2.1.7 Setup Photos

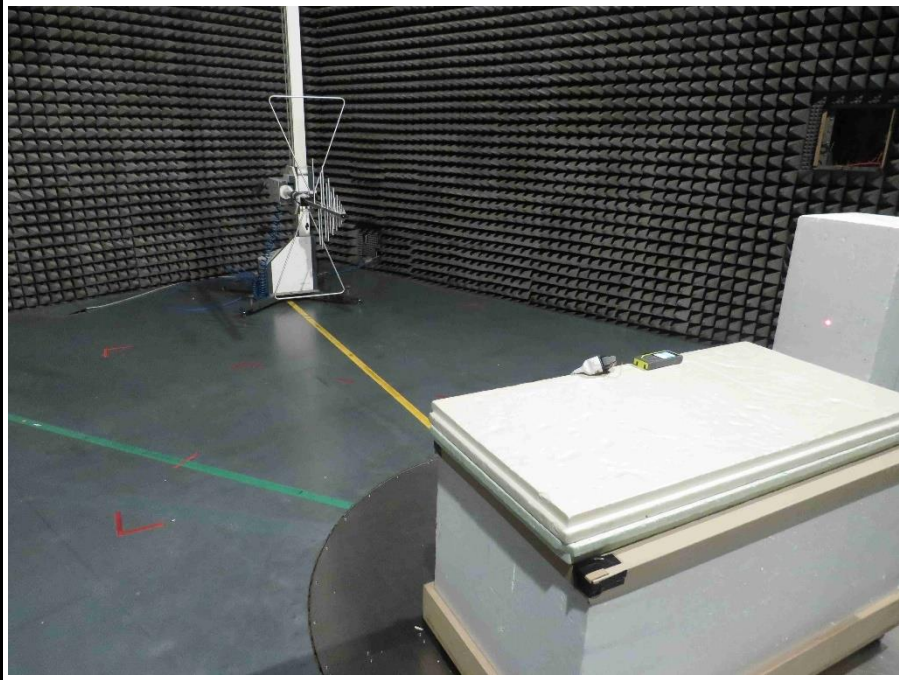
TEST SETUP – FOCUS - CONFIGURATION 1



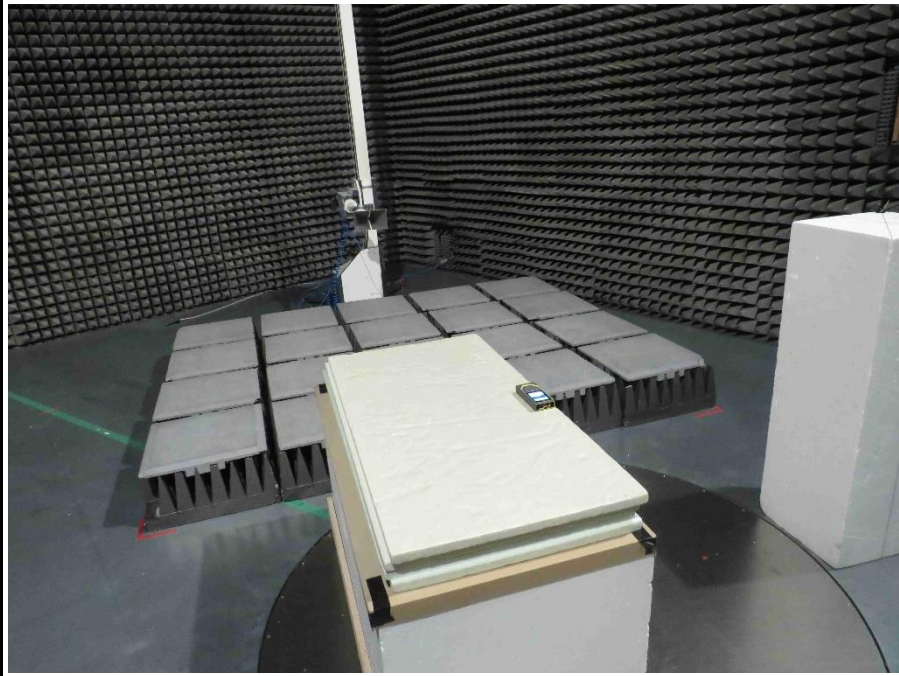
TEST SETUP – FOCUS - CONFIGURATION 2



TEST SETUP – 30 MHz to 1 GHz – example CONFIGURATION 1



TEST SETUP – 1 GHz to 13 GHz – example CONFIGURATION 2



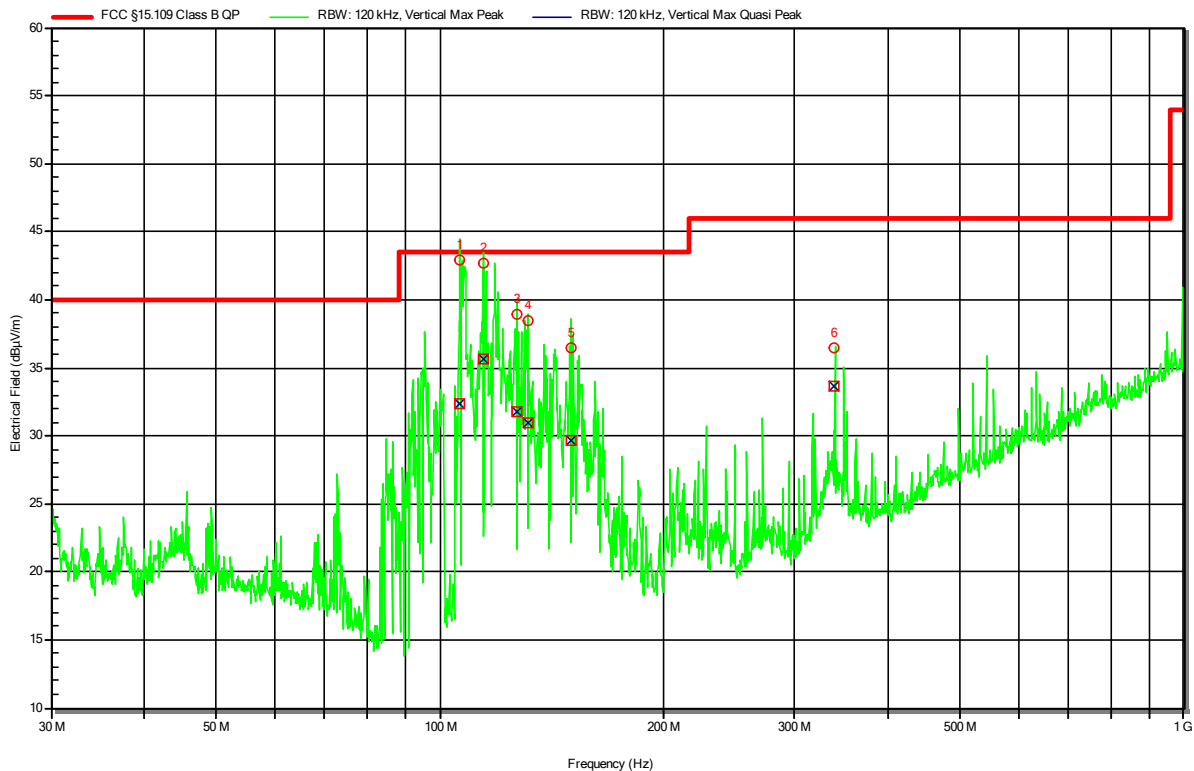
2.1.8 Records

Radiated emissions according to FCC PART 15B

Project Number: G0M-2303-1996
 Applicant: Leica Geosystems AG
 Model Description: Laser Distance Meter
 Model: Leica Disto X6
 Test Sample ID: 47121
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Skotnicki
 Test Date: 2024-01-06
 Operating Conditions: ambient temperature: 24.1 °C
 power input: 120 V AC / 60 Hz
 Antenna: Schwarzbeck VULB 9168, Vertical
 Measurement Distance: 3 m
 Operational Mode: 1
 EUT Configuration: 1
 Note 1: --

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RadiMation



Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Angle	Height
1	106.422 MHz	32.42 dBµV/m	40 dBµV/m	-7.58 dB	Pass	0 degrees	1 m
2	114.378 MHz	35.63 dBµV/m	40 dBµV/m	-4.37 dB	Pass	0 degrees	1 m
3	126.87 MHz	31.75 dBµV/m	40 dBµV/m	-8.25 dB	Pass	0 degrees	1 m
4	131.256 MHz	30.95 dBµV/m	40 dBµV/m	-9.05 dB	Pass	0 degrees	1 m
5	150.252 MHz	29.67 dBµV/m	40 dBµV/m	-10.33 dB	Pass	0 degrees	1 m
6	339.474 MHz	33.66 dBµV/m	46.02 dBµV/m	-12.36 dB	Pass	0 degrees	1 m

Test Report No.: G0M-2303-1996-EF0115B-V01

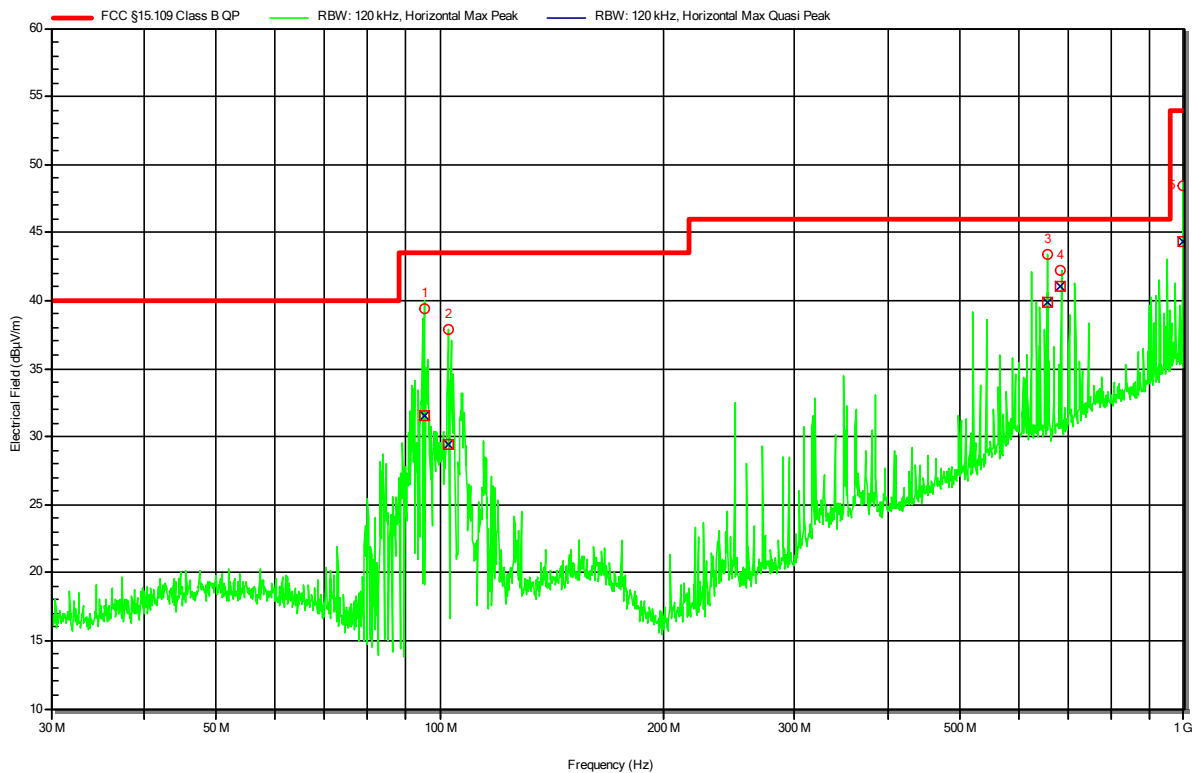
Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**Radiated emissions
according to FCC PART 15B**

Project Number: G0M-2303-1996
 Applicant: Leica Geosystems AG
 Model Description: Laser Distance Meter
 Model: Leica Disto X6
 Test Sample ID: 47121
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Skotnicki
 Test Date: 2024-01-06
 Operating Conditions: ambient temperature: 23.9 °C
 power input: 120 V AC / 60 Hz
 Antenna: Schwarzbeck VULB 9168, Horizontal
 Measurement Distance: 3 m
 Operational Mode: 1
 EUT Configuration: 1
 Note 1: --

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RadiMation



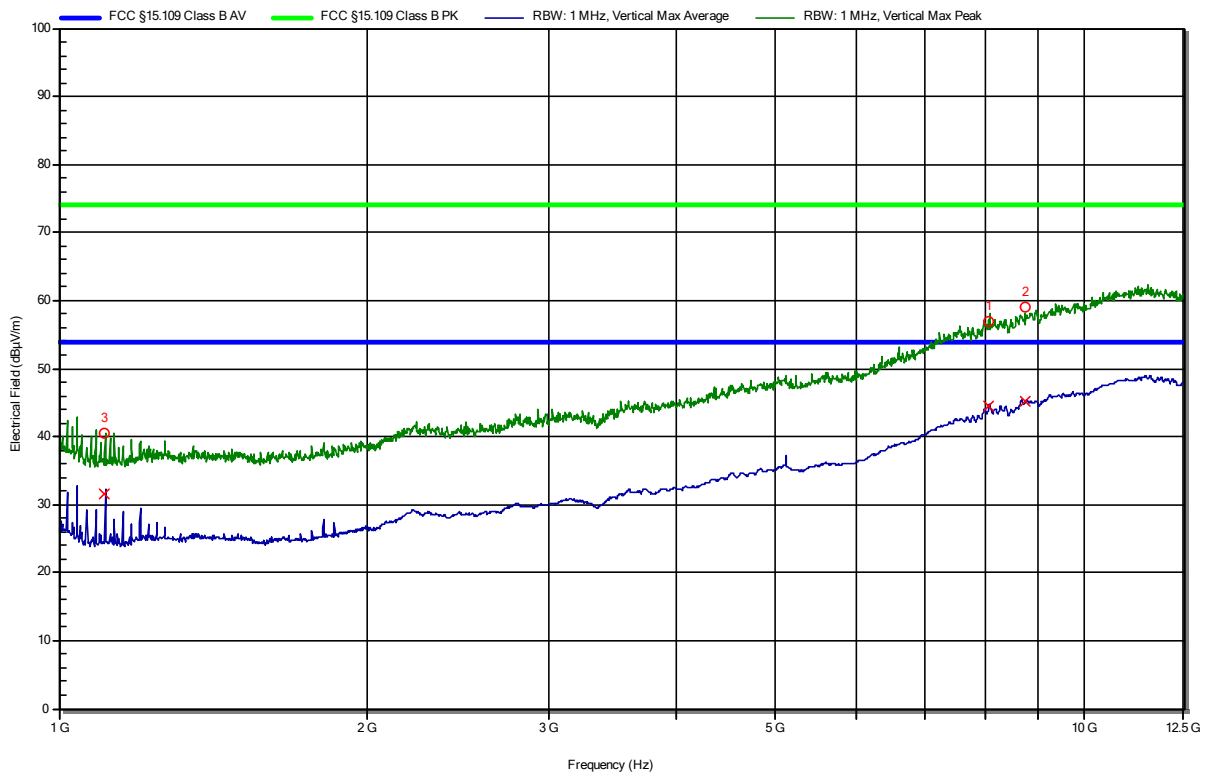
Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Angle	Height
1	95.22 MHz	31.55 dBµV/m	40 dBµV/m	-8.45 dB	Pass	0 degrees	1.5 cm
2	102.666 MHz	29.46 dBµV/m	40 dBµV/m	-10.54 dB	Pass	0 degrees	1.5 cm
3	656.31 MHz	39.9 dBµV/m	46.02 dBµV/m	-6.12 dB	Pass	0 degrees	1.5 cm
4	684.006 MHz	40.99 dBµV/m	46.02 dBµV/m	-5.03 dB	Pass	0 degrees	1.5 cm
5	995.772 MHz	44.29 dBµV/m	47 dBµV/m	-2.71 dB	Pass	0 degrees	1.5 cm

**Radiated emissions
according to FCC Part 15 B**

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 Model Description: Laser Distance Meter
 Model: Leica Disto X6
 Test Sample ID: 47121
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Skotnicki
 Test Date: 2024-01-08
 Operating Conditions: ambient temperature: 23.1 °C
 power input: 120 V AC / 60 Hz
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement Distance: 3 m
 Operational Mode: 1
 EUT Configuration: 1
 Note 1: --

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RadiMation



Peak Number	Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Angle	Height
1	8.079 GHz	57.01 dBμV/m	73.98 dBμV/m	-16.97 dB	Pass	90 degrees	1 m
2	8.763 GHz	58.96 dBμV/m	73.98 dBμV/m	-15.02 dB	Pass	90 degrees	1 m
3	1.109 GHz	40.57 dBμV/m	73.98 dBμV/m	-33.4 dB	Pass	90 degrees	1 m

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	Angle	Height
1	8.079 GHz	44.54 dBμV/m	53.98 dBμV/m	-9.44 dB	Pass	90 degrees	1 m
2	8.763 GHz	45.22 dBμV/m	53.98 dBμV/m	-8.76 dB	Pass	90 degrees	1 m
3	1.109 GHz	31.47 dBμV/m	53.98 dBμV/m	-22.5 dB	Pass	90 degrees	1 m

Test Report No.: G0M-2303-1996-EF0115B-V01

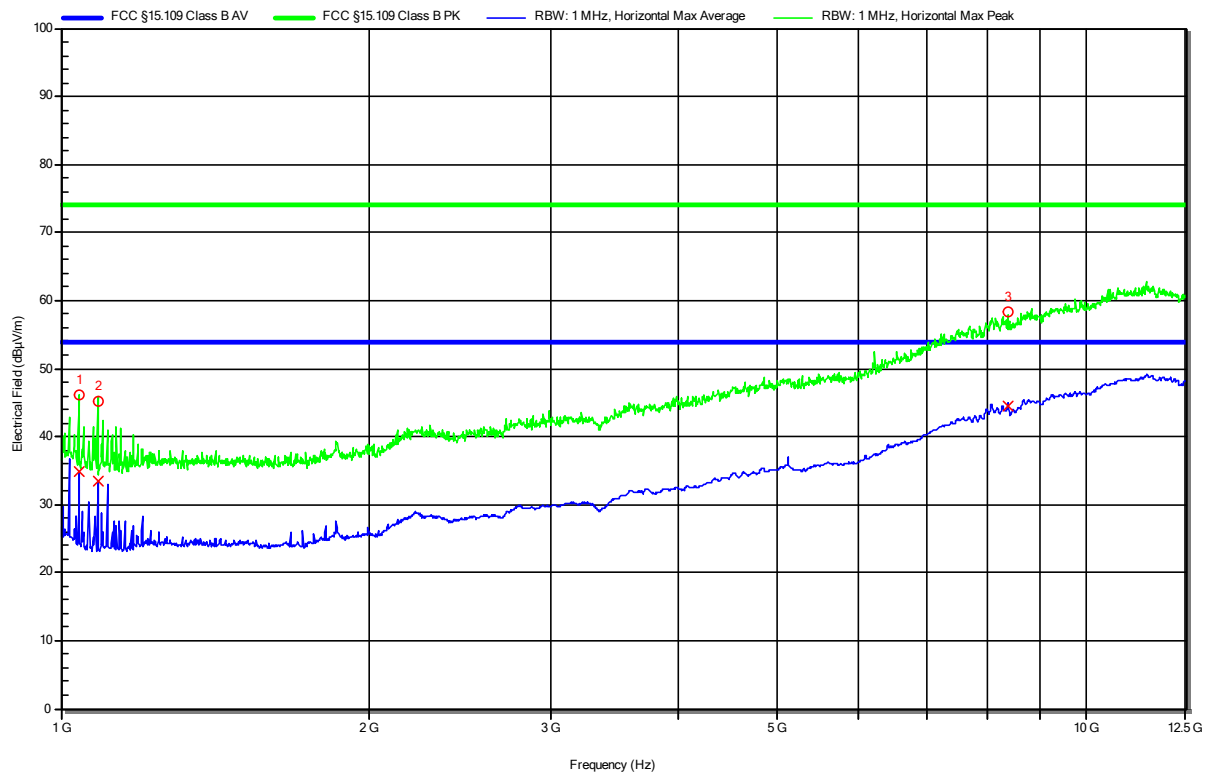
Eurofins Product Service GmbH
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 Test Date: 2024-01-08
 Operating Conditions: ambient temperature: 23.1 °C
 power input: 120 V AC / 60 Hz
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement Distance: 3 m
 Operational Mode: 1
 EUT Configuration: 1
 Note 1: --.

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RadiMation



Peak Number	Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Angle	Height
1	1.041 GHz	46.06 dBμV/m	73.98 dBμV/m	-27.92 dB	Pass	0 degrees	2.5 m
2	1.086 GHz	45.22 dBμV/m	73.98 dBμV/m	-28.76 dB	Pass	0 degrees	2.5 m
3	8.388 GHz	58.41 dBμV/m	73.98 dBμV/m	-15.57 dB	Pass	0 degrees	2.5 m

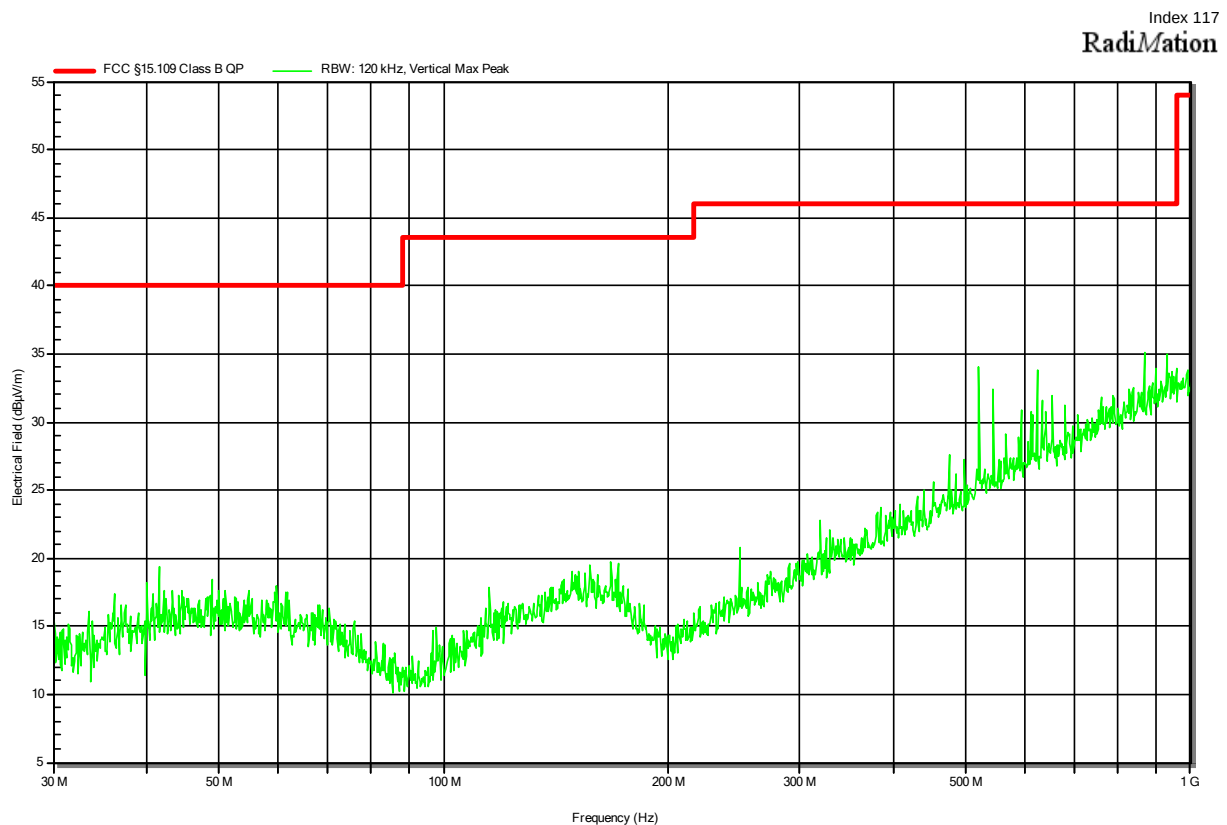
Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	Angle	Height
1	1.041 GHz	34.93 dBμV/m	53.98 dBμV/m	-19.05 dB	Pass	0 degrees	2.5 m
2	1.086 GHz	33.42 dBμV/m	53.98 dBμV/m	-20.56 dB	Pass	0 degrees	2.5 m
3	8.388 GHz	44.38 dBμV/m	53.98 dBμV/m	-9.6 dB	Pass	0 degrees	2.5 m

Test Report No.: G0M-2303-1996-EF0115B-V01

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

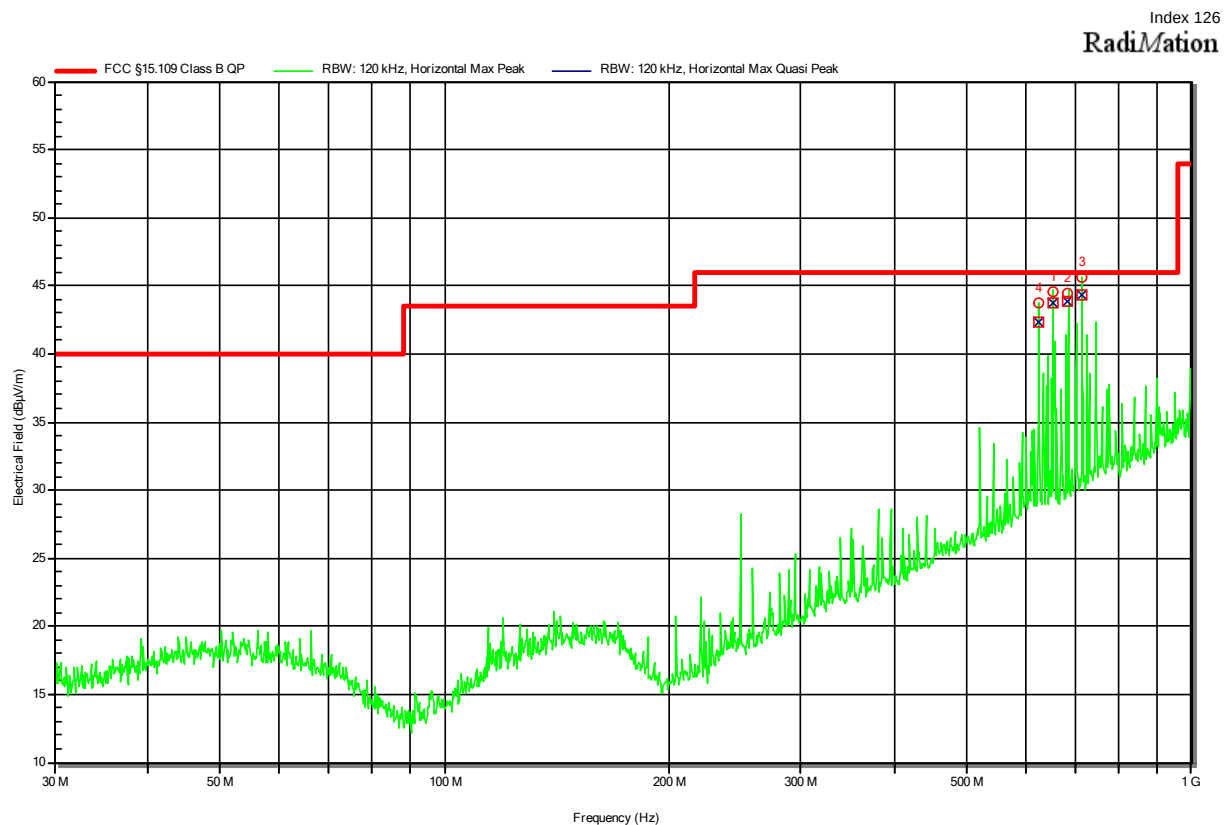
Radiated emissions according to FCC PART 15B

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Applicant:	Leica Geosystems AG
Model Description:	Laser Distance Meter
Model:	Leica Disto X6
Test Sample ID:	47121
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Skotnicki
Test Date:	2024-01-06
Operating Conditions:	ambient temperature: 24.1 °C power input: 3.7 V DC
Antenna:	Schwarzbeck VULB 9168, Vertical
Measurement Distance:	3 m
Operational Mode:	2
EUT Configuration:	2
Note 1:	--



**Radiated emissions
according to FCC PART 15B**

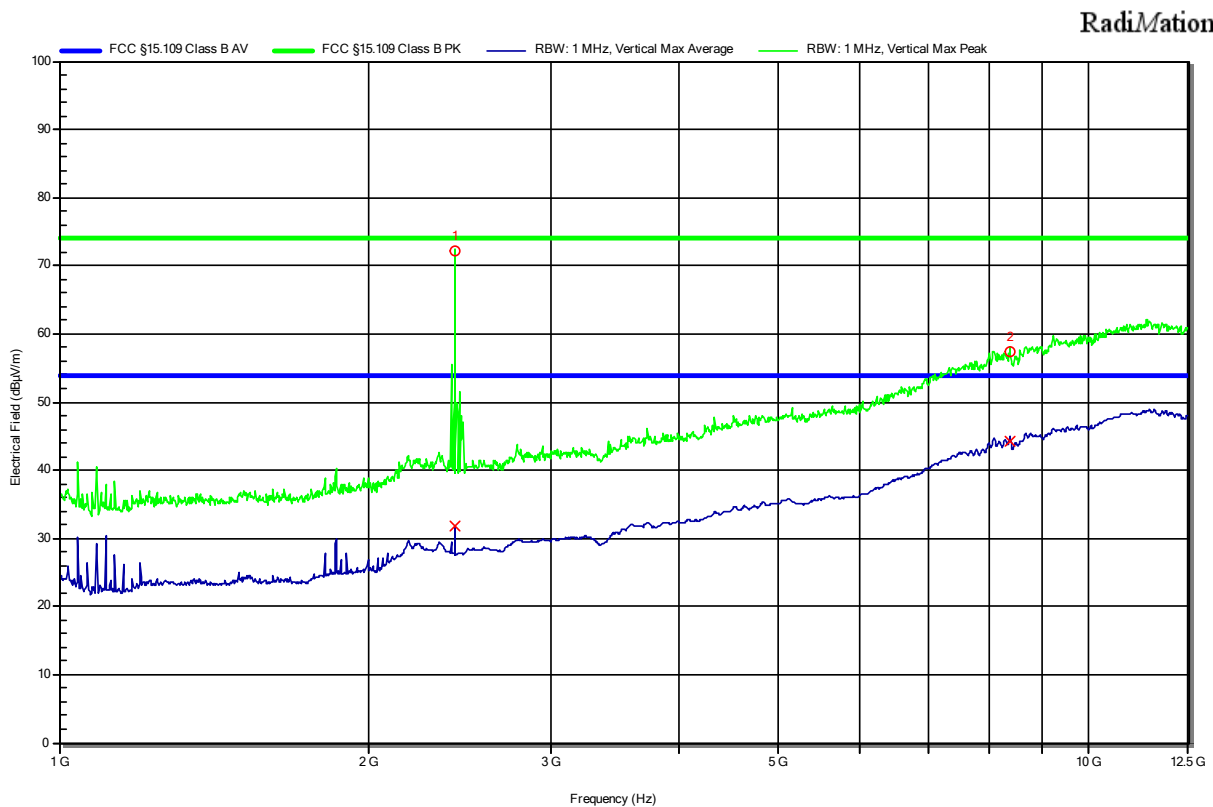
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 Test Sample ID: 47121
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Skotnicki
 Test Date: 2024-01-06
 Operating Conditions: ambient temperature: 23.9 °C
 power input: 3.7 V DC
 Antenna: Schwarzbeck VULB 9168, Horizontal
 Measurement Distance: 3 m
 Operational Mode: 2
 EUT Configuration: 2
 Note 1: --



Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Angle	Height
1	653.604 MHz	43.71 dBμV/m	46.02 dBμV/m	-2.31 dB	Pass	-90 degrees	1.2 cm
2	684.006 MHz	43.85 dBμV/m	46.02 dBμV/m	-2.17 dB	Pass	-90 degrees	1.2 cm
3	714.408 MHz	44.37 dBμV/m	46.02 dBμV/m	-1.65 dB	Pass	-90 degrees	1.2 cm
4	623.208 MHz	42.83 dBμV/m	46.02 dBμV/m	-3.65 dB	Pass	-90 degrees	1.2 cm

Radiated emissions according to FCC Part 15 B

Project Number: G0M-2303-1996
 Applicant: Leica Geosystems AG
 Model Description: Laser Distance Meter
 Model: Leica Disto X6
 Test Sample ID: 47121
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Skotnicki
 Test Date: 2024-01-08
 Operating Conditions: ambient temperature: 23.1 °C
 power input: 3.7 V DC
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement Distance: 3 m
 Operational Mode: 2
 EUT Configuration: 2
 Note 1: --

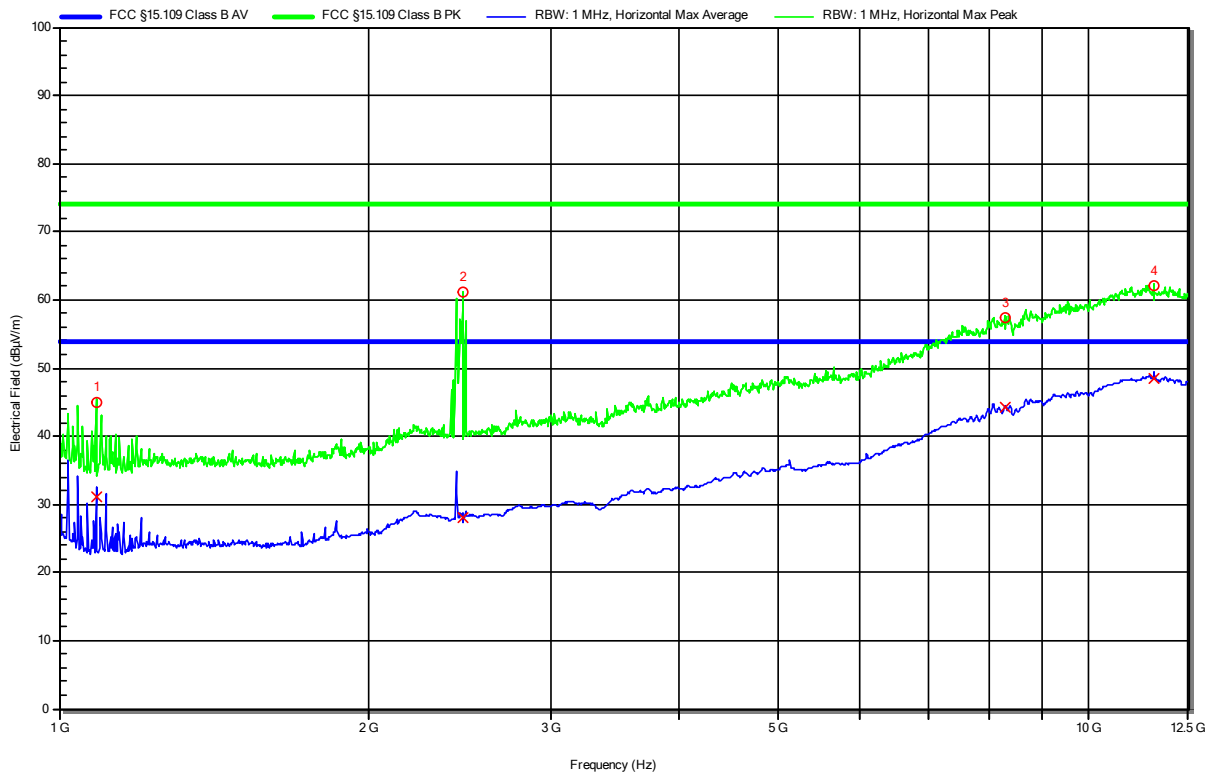


Peak Number	Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Angle	Height
1	2.424 GHz	Bluetooth carrier					
2	8.378 GHz	57.39 dBµV/m	73.98 dBµV/m	-16.59 dB	Pass	90 degrees	4 m
Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	Angle	Height
1	2.424 GHz	Bluetooth carrier					
2	8.378 GHz	44.32 dBµV/m	53.98 dBµV/m	-9.66dB	Pass	90 degrees	4 m

Radiated emissions according to FCC Part 15 B

Project Number: G0M-2303-1996
 Applicant: Leica Geosystems AG
 Model Description: Laser Distance Meter
 Model: Leica Disto X6
 Test Sample ID: 47121
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Skotnicki
 Test Date: 2024-01-08
 Operating Conditions: ambient temperature: 23.1 °C
 power input: 3.7 V DC
 Antenna: Schwarzbeck BBHA 9120D, Horizontal
 Measurement Distance: 3 m
 Operational Mode: 2
 EUT Configuration: 2
 Note 1: --

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Peak Number	Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Angle	Height
1	1.086 GHz	44.95 dBµV/m	73.98 dBµV/m	-29.03 dB	Pass	0 degrees	2.5 m
2	2.47 GHz	Bluetooth carrier					
3	8.289 GHz	57.31 dBµV/m	73.98 dBµV/m	-16.79 dB	Pass	0 degrees	2.5 m
4	11.563 GHz	62.02 dBµV/m	73.98 dBµV/m	-11.95 dB	Pass	0 degrees	2.5 m
Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	Angle	Height
1	1.086 GHz	31.14 dBµV/m	53.98 dBµV/m	-22.84 dB	Pass	0 degrees	2.5 m
2	2.47 GHz	Bluetooth carrier					
3	8.289 GHz	44.32 dBµV/m	53.98 dBµV/m	-9.66 dB	Pass	0 degrees	2.5 m
4	11.563 GHz	48.54 dBµV/m	53.98 dBµV/m	-5.43 dB	Pass	0 degrees	2.5 m

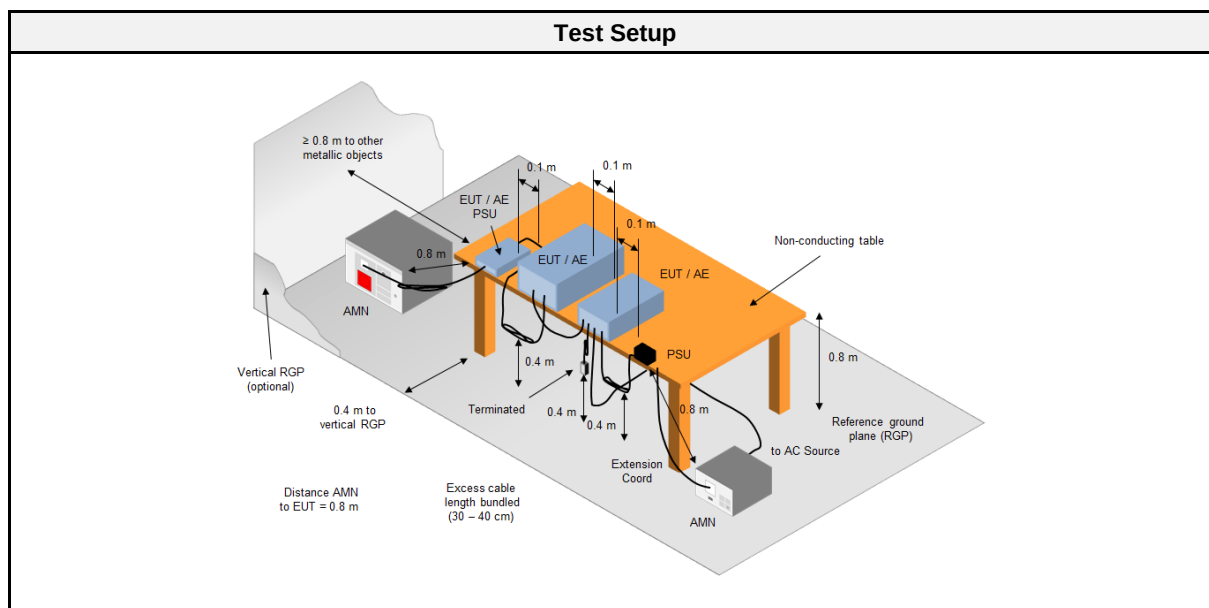
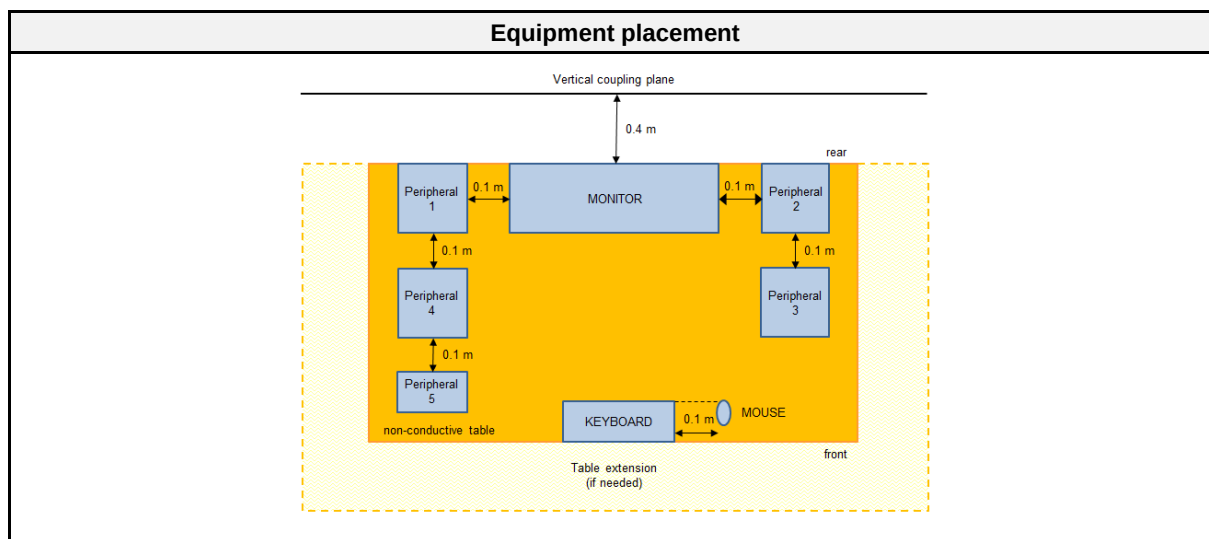
Test Report No.: G0M-2303-1996-EF0115B-V01

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

2.2.1 Information

Test Information	
Reference	FCC 15.107, ICES-003, 3.2.1
Reference method	ANSI C63.4:2014+A1:2017 Section 12
Measurement range	150 kHz to 30 MHz
Equipment class	Class B
Equipment type	Table top
Temperature [°C]	20 - 25
Humidity [%]	30 - 40
Operator	Pawel Skotnicki supervised by Matthias Handrik
Date	2024-01-03

2.2.2 Setup *Table top*



2.2.3 Equipment

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

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
AMN	Schwarzbeck	NSLK 8127 RC	EF01592	2023-06	2024-06
Pulse Limiter	R&S	ESH3-Z2	EF01063	2023-08	2025-08
EMI Test Receiver	R&S	ESCS30	EF00297	2023-08	2024-08
Climatic Sensor	Embedded Data Systems, LLC.	2800100000254 17E	EF01054	2023-07	2024-07

2.2.4 Procedure

Exploratory measurement Table top	
1.	The EUT was placed on a non conductive table 0.8 m above the reference ground plane and 0.4 m away from the vertical conducting plane (ANSI C63.4: 2014 item 7.3.1)
2.	The power cord that is normally supplied or recommended by the manufacturer was connected to the LISN.
3.	The distance between the outer edge of the EUT and the LISN was set to 0.8 m.
4.	The LISN measurement port was connected to a measurement receiver
5.	I/O cables were bundled not longer than 0.4 m
6.	Measurement was performed in the frequency range 0.15 MHz – 30 MHz on each current-carrying conductor
7.	To maximize the emissions the cable positions were manipulated
8.	The configuration of the EUT and cables is shown on a test setup picture at item.

Final measurement Table Top	
1.	The EUT was placed on a non conductive table 0.8 m above the reference ground plane and 0.4 m away from the vertical conducting plane (ANSI C63.4: 2014 item 7.3.1)
2.	The power cord that is normally supplied or recommended by the manufacturer was connected to the LISN.
3.	The distance between the outer edge of the EUT and the LISN was set to 0.8 m.
4.	The LISN measurement port was connected to a measurement receiver
5.	The EUT and cable arrangement were based on the exploratory measurement results
6.	The test data were recorded and shown on the next pages.

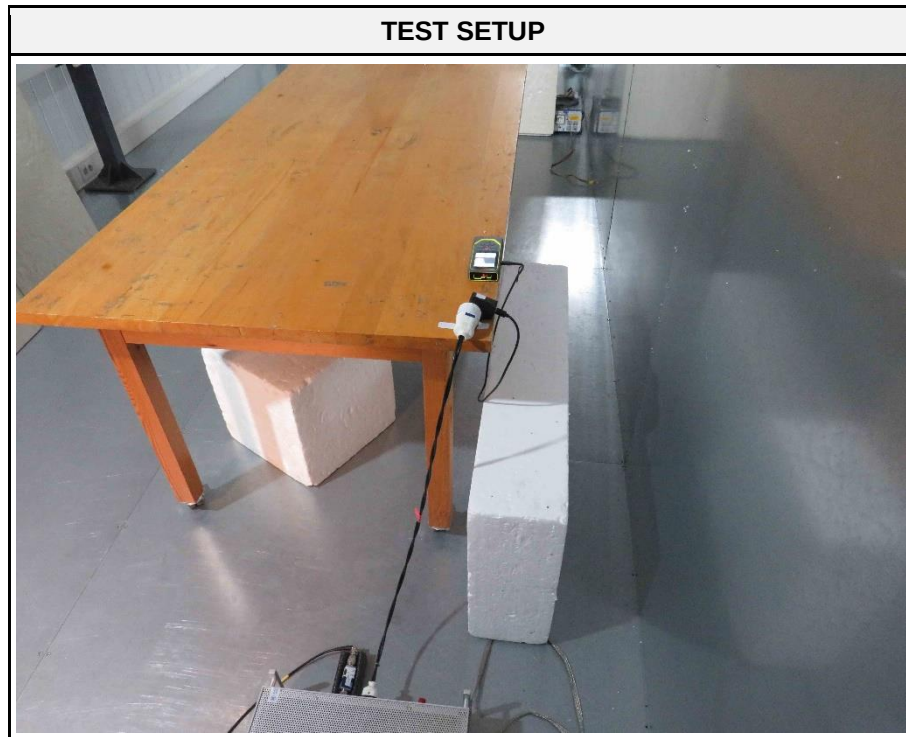
2.2.5 Limits

Class B		
Frequency [MHz]	Quasi-peak Limit [dBμV]	Average Limit [dBμV]
0.15 - 0.5	66 - 56 *	56 - 46 *
0.5 - 5	56	46
5 - 30	60	50
* Decreases with the logarithm of the frequency		

2.2.6 Results

AC power line conducted emissions					
Port	Coupling	Operational mode	EUT Configuration	Verdict	Remark
Power	AMN	1	1	PASS	-

2.2.7 Setup Photos



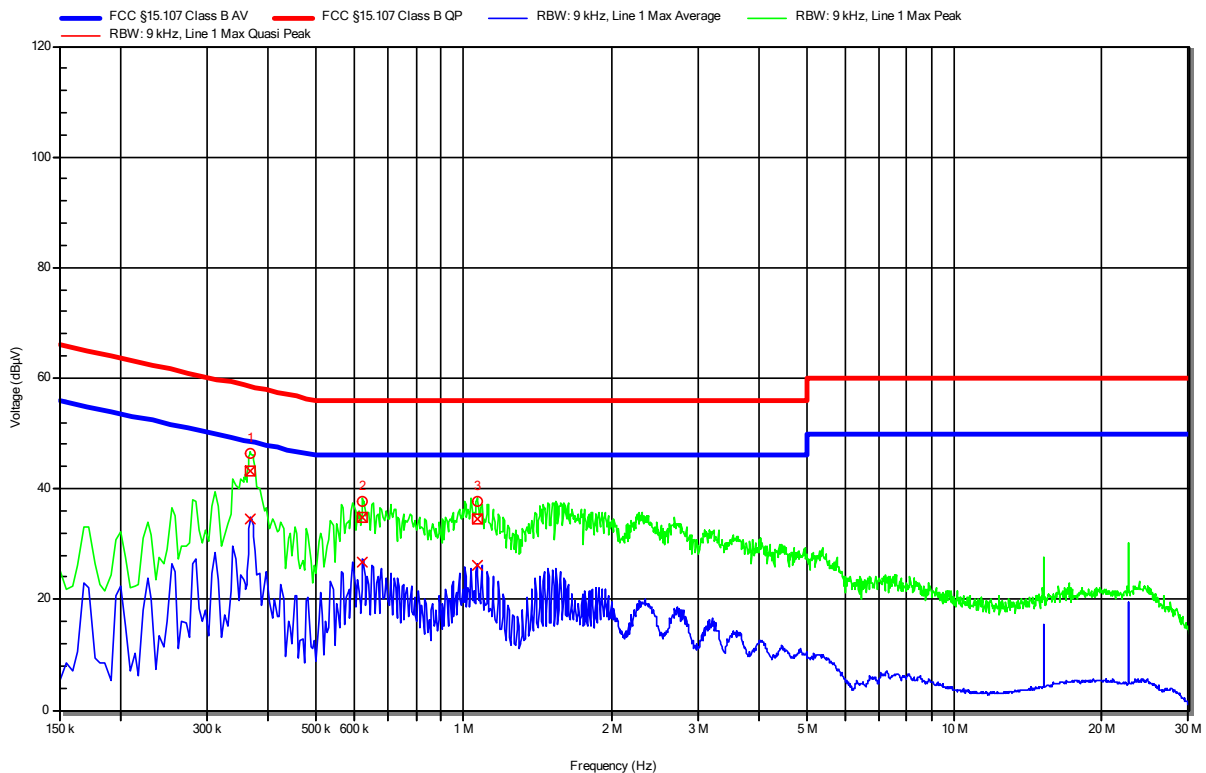
2.2.8 Records

Conducted emissions at the mains power port according to FCC PART 15B

Project Number: G0M-2303-1996
 Applicant: Leica Geosystems AG
 Model Description: Laser Distance Meter
 Model: Leica Disto X6
 Test Sample ID: 47121
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Skotnicki
 Test Date: 2024-01-03
 Operating Conditions: ambient temperature: 23 °C
 power input: 120 V AC / 60 Hz
 LISN: Schwarzbeck NSLK 8127 RC L1
 Operational Mode: 1
 EUT Configuration: 1
 Applied to Port: AC/DC adapter
 Note 1: --

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Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	367.8 kHz	43.27 dBμV	58.55 dBμV	-15.28 dB	Pass	Line 1
2	622.5 kHz	34.97 dBμV	56 dBμV	-21.03 dB	Pass	Line 1
3	1.065 MHz	34.45 dBμV	56 dBμV	-21.55 dB	Pass	Line 1
Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	367.8 kHz	34.68 dBμV	48.55 dBμV	-13.87 dB	Pass	Line 1
2	622.5 kHz	26.75 dBμV	46 dBμV	-19.25 dB	Pass	Line 1
3	1.065 MHz	26.18 dBμV	46 dBμV	-19.82 dB	Pass	Line 1

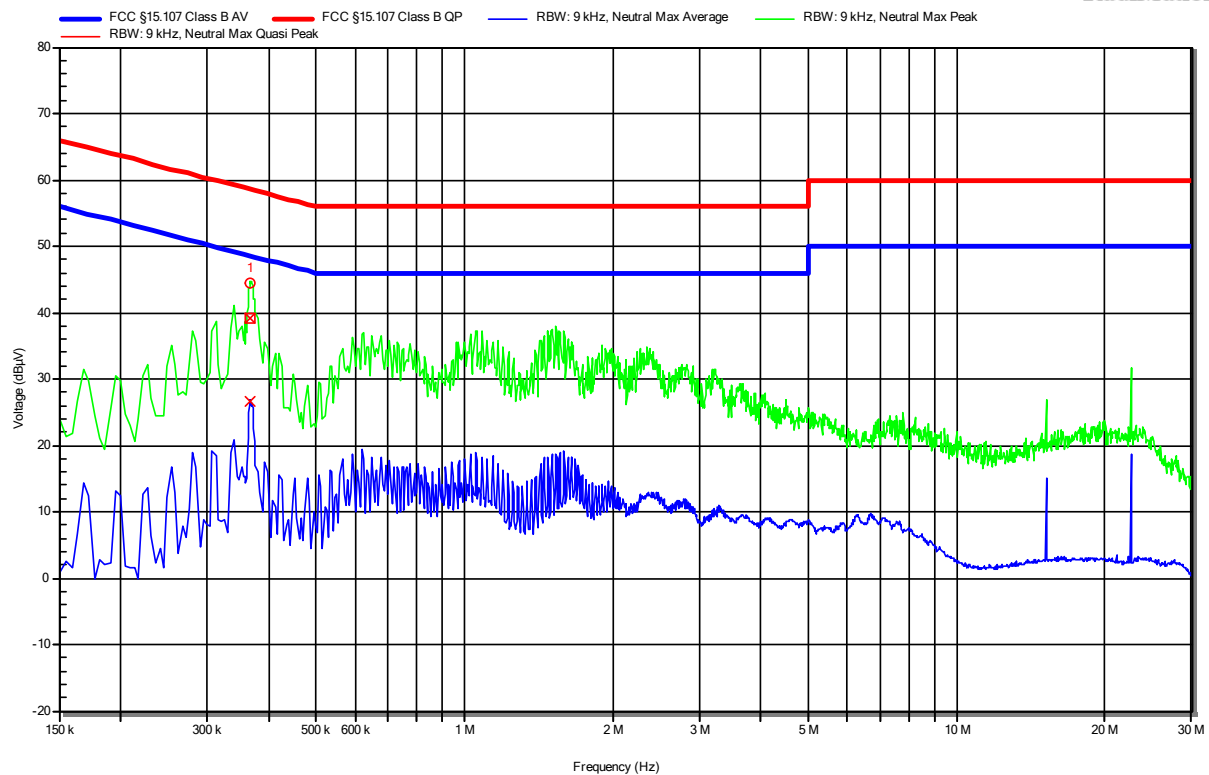
Test Report No.: G0M-2303-1996-EF0115B-V01

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

Conducted emissions at the mains power port according to FCC PART 15B

Project Number: G0M-2303-1996
 Applicant: Leica Geosystems AG
 Model Description: Laser Distance Meter
 Model: Leica Disto X6
 Test Sample ID: 47121
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Skotnicki
 Test Date: 2024-01-03
 Operating Conditions: ambient temperature: 23 °C
 power input: 120 V AC / 60 Hz
 LISN: Schwarzbeck NSLK 8127
 Operational Mode: 1
 EUT Configuration: 1
 Applied to Port: AC/DC adapter
 Note 1:

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Radiation



Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	LISN
1	367.8 kHz	39.06 dBμV	58.55 dBμV	-19.49 dB	Pass	Neutral
Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	LISN
1	367.8 kHz	26.55 dBμV	48.55 dBμV	-22 dB	Pass	Neutral

Test Report No.: G0M-2303-1996-EF0115B-V01

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

3 Measurement Uncertainty

All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95%, with a coverage factor of 2.

Test Name	Measurement Uncertainty
Conducted emissions at the mains power port	150kHz to 30MHz, 3.35dB
Radiated Emission	30MHz to 200MHz @ 3m, 5.1dB 200MHz to 1GHz @ 3m, 5.3dB >1GHz to 13GHz @3m, 5.95dB