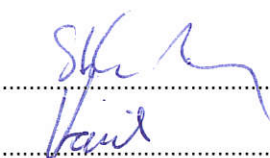


EMC TEST REPORT FCC 47 CFR Part 15B, ISED ICES-003 Issue 6	
Report Reference No	G0M-1901-7989-EF0115B-V01
Testing Laboratory	Eurofins Product Service GmbH
Address	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation	    DAKKS - Registration number : D-PL-12092-01-03 (ISED) ISED Testing Laboratory site: 3470A-2 DAKKS - Registration number : D-PL-12092-01-04 (FCC) FCC Filed Test Laboratory, Reg.-No.: 96970
Applicant	Amphenol Thermometrics, Inc.
Address	967 Windfall Road PA 15857 St. Marys USA
Test Specification	
Standard	47 CFR Part 15 Subpart B ISED ICES-003 Issue 6 ANSI C63.4:2014
Non-Standard Test Method	None
Equipment under Test (EUT):	
Product Description	Kaye ValProbe RT Base Station collects Temperature/Pressure/Humidity data from Kaye ValProbe RT Loggers via 2.4GHz RF channel and transmit data to Tablet PC via ethernet
Model(s)	RF3060 (X3015)
Additional Model(s)	None
Brand Name(s)	Kaye
Hardware Version(s)	2.4
Software Version(s)	0.6.18
FCC-ID	2AJQZ-VPRT-BS1
IC	25680-VPRTBS1
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	2019-10-14	
Report:		
Compiled by	Matthias Handrik	
Tested by (+ signature) (Responsible for Test)	Stefan Dose	
	Matthias Handrik	
Approved by (+ signature) (Deputy Head of Lab)	Jens Marquardt	
Date of Issue	2020-05-06	
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.		
Additional Comments:		

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	2020-05-06	Initial Release	

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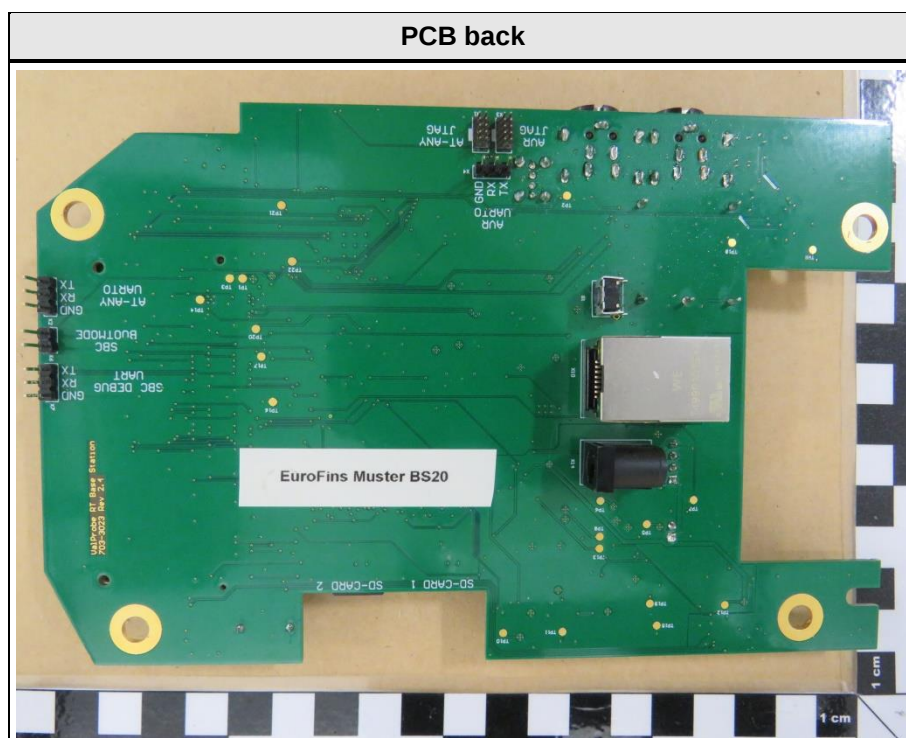
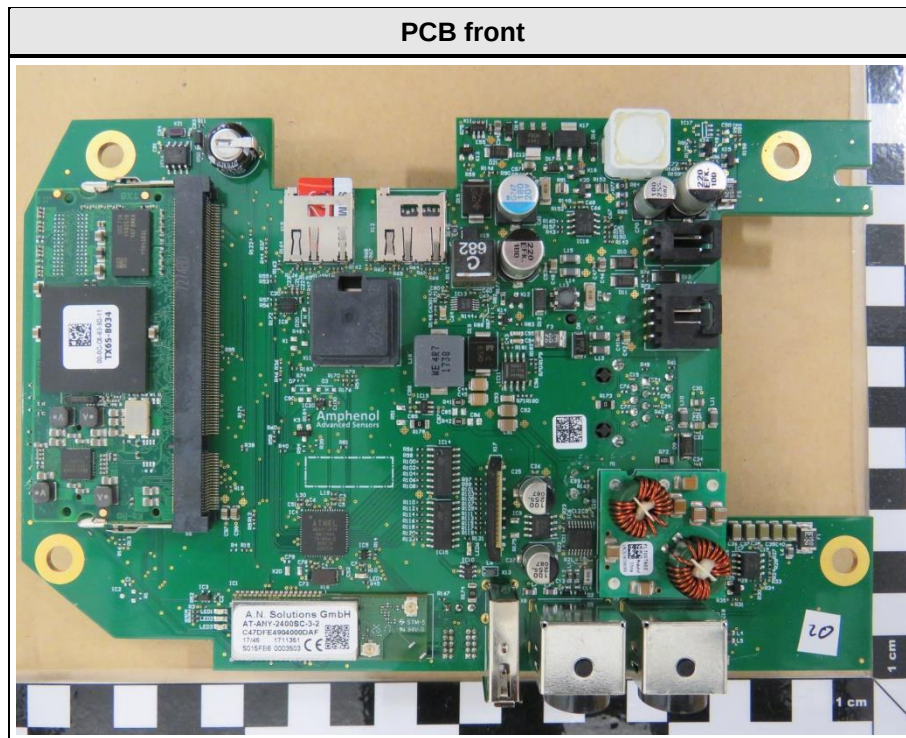
1 Equipment (Test Item) Under Test

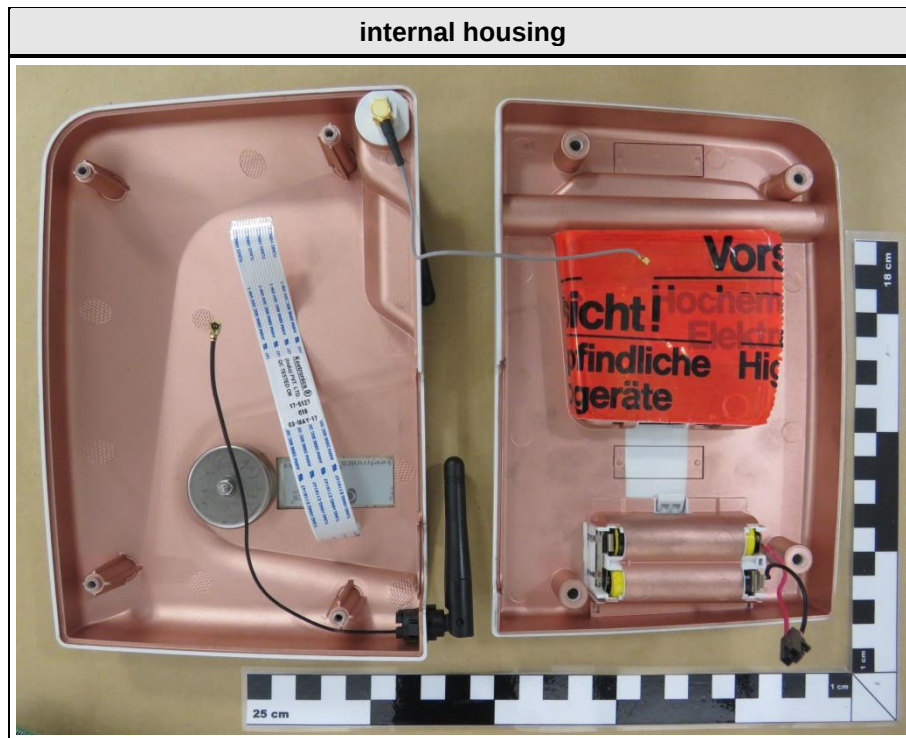
Description	Kaye ValProbe RT Base Station collects Temperature/Pressure/Humidity data from Kaye ValProbe RT Loggers via 2.4GHz RF channel and transmit data to Tablet PC via ethernet	
Model	RF3060 (X3015)	
Additional Model(s)	None	
Brand Name(s)	Kaye	
Serial Number(s)	unspecified	
Hardware Version(s)	2.4	
Software Version(s)	0.6.18	
FCC-ID	2AJQZ-VPRT-BS1	
IC	25680-VPRTBS1	
Class	Class B	
Equipment type	Table top	
Highest internal frequency [MHz]	2480	
Radio Module	Type	ZigBee
	Model	AT-ANY-2400-SC-3-2
	Manufacturer	A. N. Solutions GmbH
Supply Voltage	V _{NOM}	120VAC 60Hz
AC/DC-Adaptor	Model	AKM45US12C2
	Vendor	XP Power
	Input	100 – 240 VAC
	Output	12VDC
Manufacturer	Amphenol Thermometrics, Inc. 967 Windfall Road PA 15857 St. Marys USA	

1.1 Equipment Ports

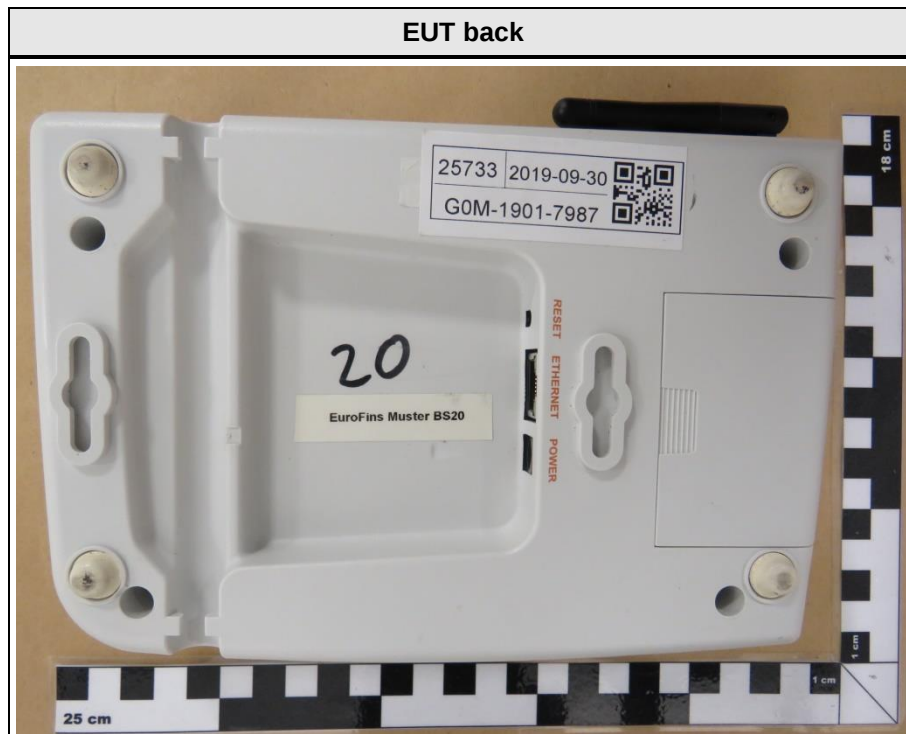
Name	Type	Attributes	Comment
Power	AC	Count: 1 Direction: In Service only: No	-
Ethernet	WNP	Count: 1 Direction: IO Service only: No	-
USB	IO	Count: 1 Direction: IO Service only: Yes	-
UART	IO	Count: 1 Direction: IO Service only: Yes	-
RS232	IO	Count: 1 Direction: IO Service only: Yes	-
Kayetenna	IO	Count: 1 Direction: IO Service only: No	-
Description:			
AC	AC mains power input/output port		
DC	DC power input/output port		
BAT	DC power input port connected to external battery		
IO	Input/Output port		
TP	Telecommunication port		
NE	Non-electrical port		

1.2 Equipment Photos - Internal





1.3 Equipment Photos - External



EUT ports downside



EUT ports back



1.4 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
MON	Tablet PC	Xplore Technologies	CFT-004	validation Console
AE	Docking station	Xplore Technologies	TCD-001	docking station
AE	Fritz!Box	AVM	7050	Router
AE	Kaye ValProbe RT dual flexible temperature Logger	Amphenol Thermometrics, Inc.	RF3050	providing sensor data (temperature)
AE	Kaye ValProbe RT Pressure Temperature Logger	Amphenol Thermometrics, Inc	RF3050	providing sensor data (temperature and pressure)
Description:				
AE	Auxiliary Equipment			
SIM	Simulator			
MON	Monitoring Equipment			
CBL	Connecting Cable			
Comment:				

1.5 Operational Modes

Mode #	Description
1	A "Qualification study" is started in the "ValProbe RT" software, the loggers are integrated and displaying temperature/pressure values.
Comment:	

1.6 EUT Configuration

Configuration #	Description
1	EUT is powered up via external ac/dc-adapter and connected to tablet PC via Ethernet cable and router, additionally via ZigBee with 2 sensors. Therefore 2 short antennas are used.
2	EUT is powered up via external ac/dc-adapter and connected to tablet PC via Ethernet cable and router, additionally via ZigBee with 2 sensors. Therefore 1 short antenna and 1 long antenna (5m) are used.
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 dBµV. 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 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:

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

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 dBµV + 26 dB/m	= 47.5 dBµV/m	:	47.5 dBµV/m - 57.0 dBµV/m	= -9.5 dB

2 Result Summary

FCC 47 CFR Part 15B, ISED ICES-003 Issue 6				
Reference	Requirement	Reference Method	Result	Remarks
Emission				
FCC 15.109 ICES-003, 8, 6.1	Radiated emissions	ANSI C63.4:2014	PASS	-
FCC 15.107 ICES-003, 8, 6.2	AC power line conducted emissions	ANSI C63.4:2014	PASS	-
Comment:				

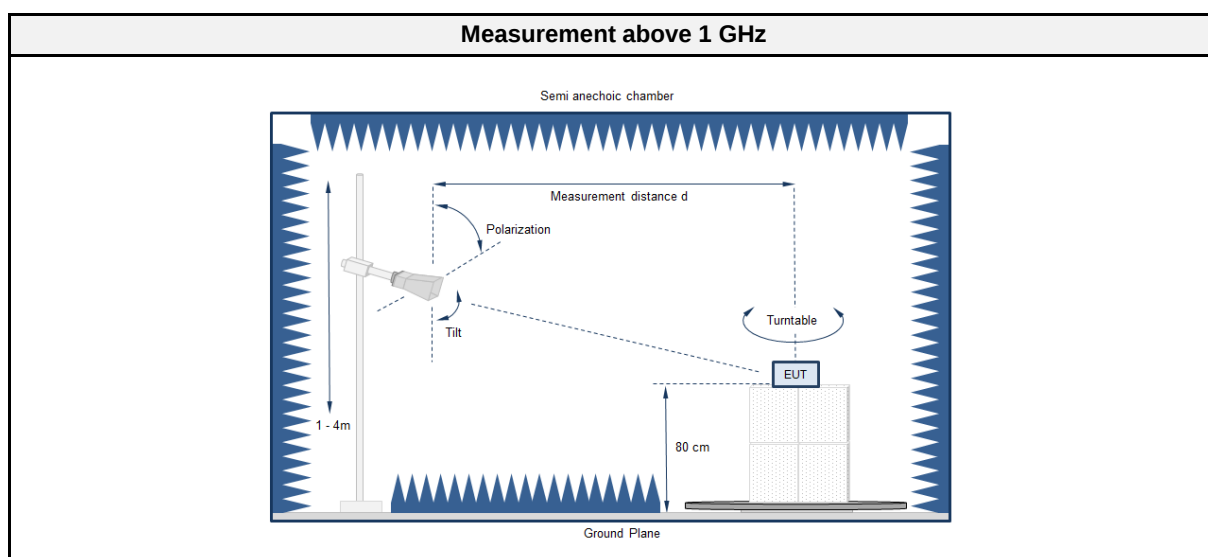
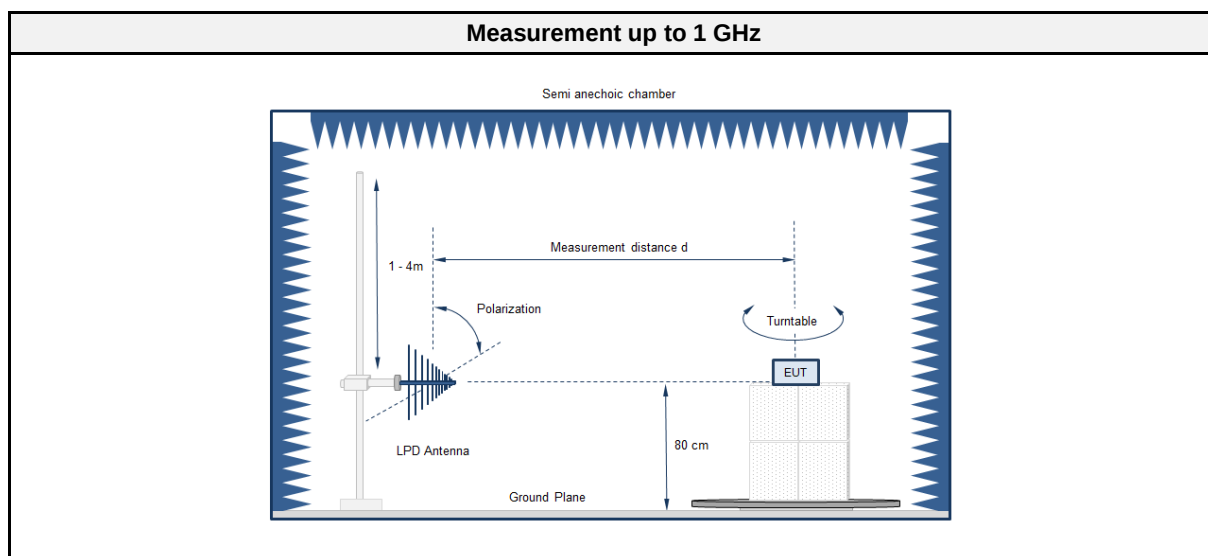
Possible Test Case Verdicts	
PASS	Test object does meet the requirements
FAIL	Test object does not meet the requirements
N/T	Required by standard but not tested
N/R	Not required by standard for the test object

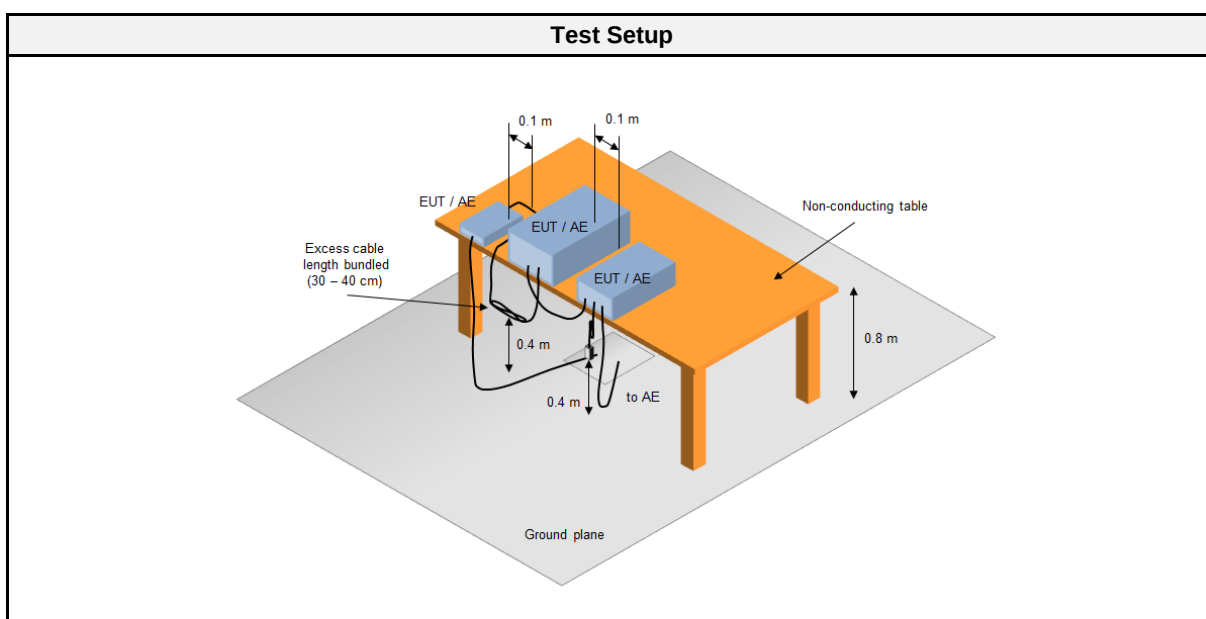
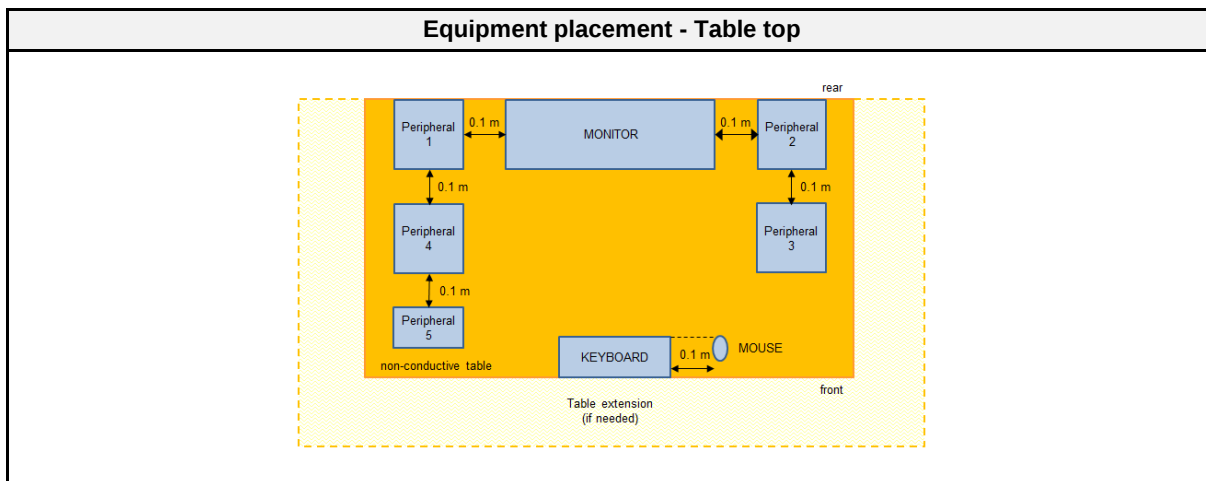
2.1 Test Conditions and Results - Radiated emissions acc. to ANSI C63.4

2.1.1 Information

Test Information	
Reference	FCC 15.109, ICES-003, 8, 6.1
Reference method	ANSI C63.4:2014 Section 8
Equipment class	Class B
Equipment type	Table top
Highest internal frequency [MHz]	2480
Measurement range	30 MHz to 12400 MHz
Temperature [°C]	20 – 24
Humidity [%]	51 – 47
Operator	Stefan Dose supervised by Matthias Handrik
Date	2019-10-18

2.1.2 Setup





2.1.3 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	DARE Instruments	Radimation	2016.1.10

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Anechoic chamber	Frankonia	AC1	EF00062	2018-07	2021-07
EMI Test Receiver	Rohde & Schwarz Vertriebs GmbH	ESR7	EF00943	2019-07	2020-07
Biconical Antenna	R&S	HK 116	EF00030	2019-04	2022-04
LPD Antenna	R&S	HL 223	EF00187	2019-05	2022-05
Horn antenna	Schwarzbeck	BBHA 9120D (1-18GHz)	EF00019	2018-10	2020-10
Climatic Sensor	Embedded Data Systems, LLC.	2800100000254 17E	EF01054	2019-05	2020-05

2.1.4 Procedure

Exploratory measurement	
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 or 10 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 1.3

Final measurement	
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 biconical antenna was used for the frequency range 30 – 200 MHz, a logarithmic periodical antenna was used for the frequency range from 200 – 1000 MHz. Above one 1 GHz a Double Ridged Broadband Horn antenna was used. The antenna was 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 receive 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	40
88 - 216	Quasi-peak	43.5
216 - 960	Quasi-peak	46
960 - 1000	Quasi-peak	54
> 1000	Peak	74
	Average	54

Class A @ 10 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

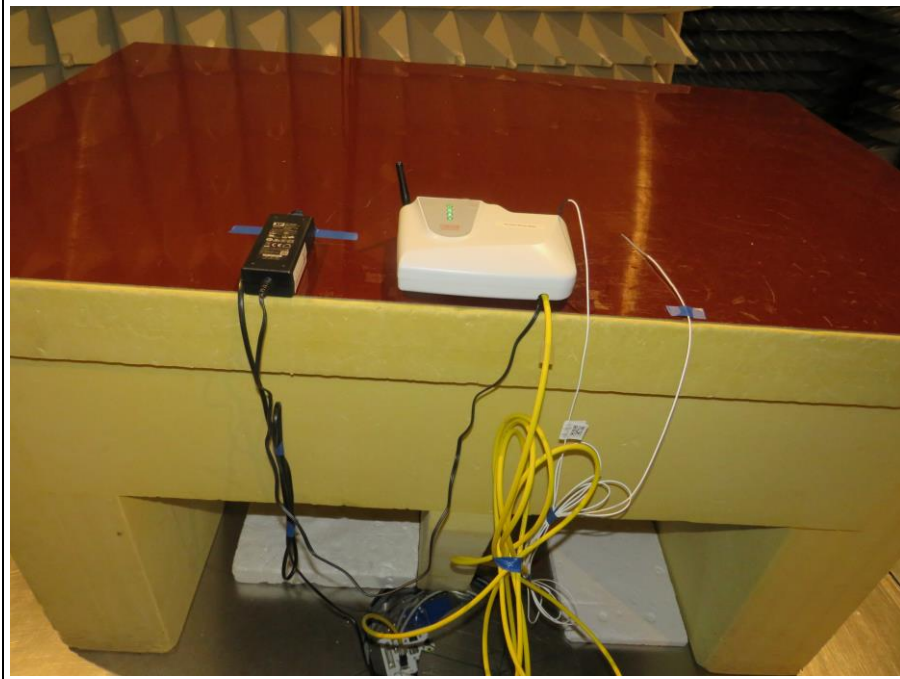
Test Results			
Operational mode	EUT Configuration	Verdict	Remark
1	1 / 2	PASS	-

2.1.7 Setup Photos

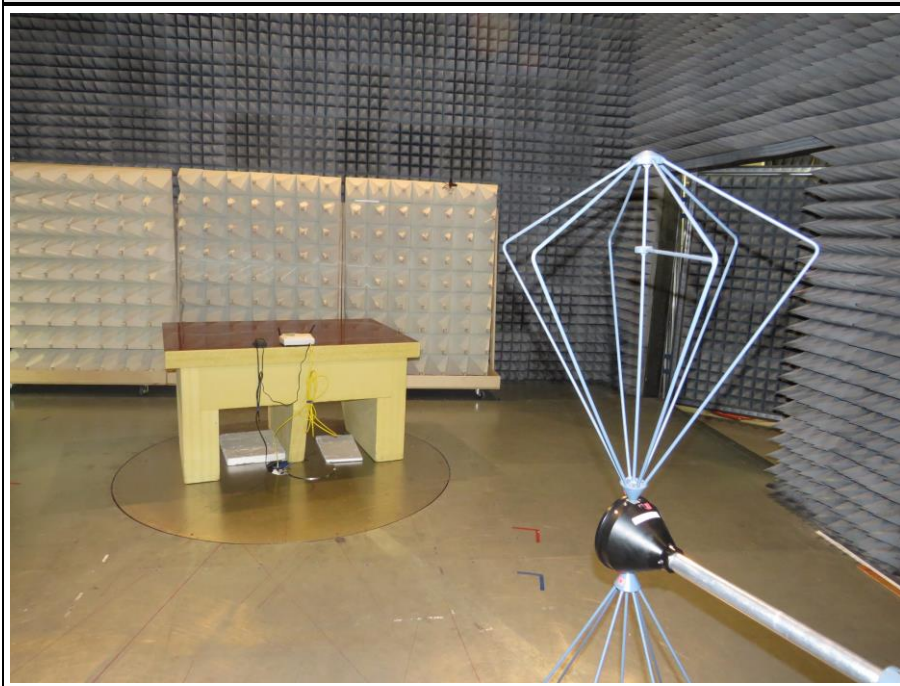
radiated emission - table setup with short antenna



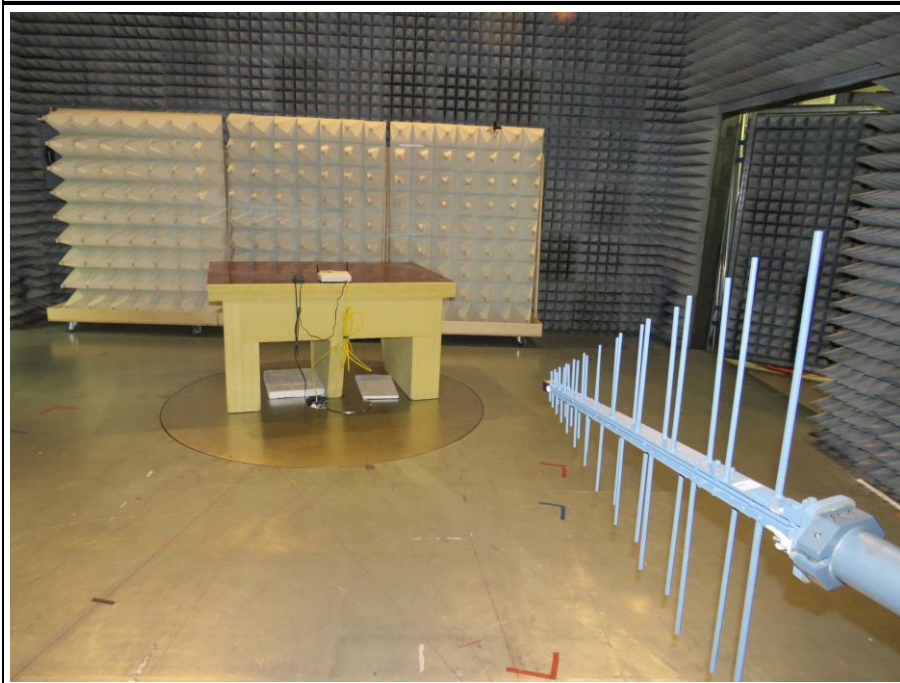
radiated emission - table setup with long antenna



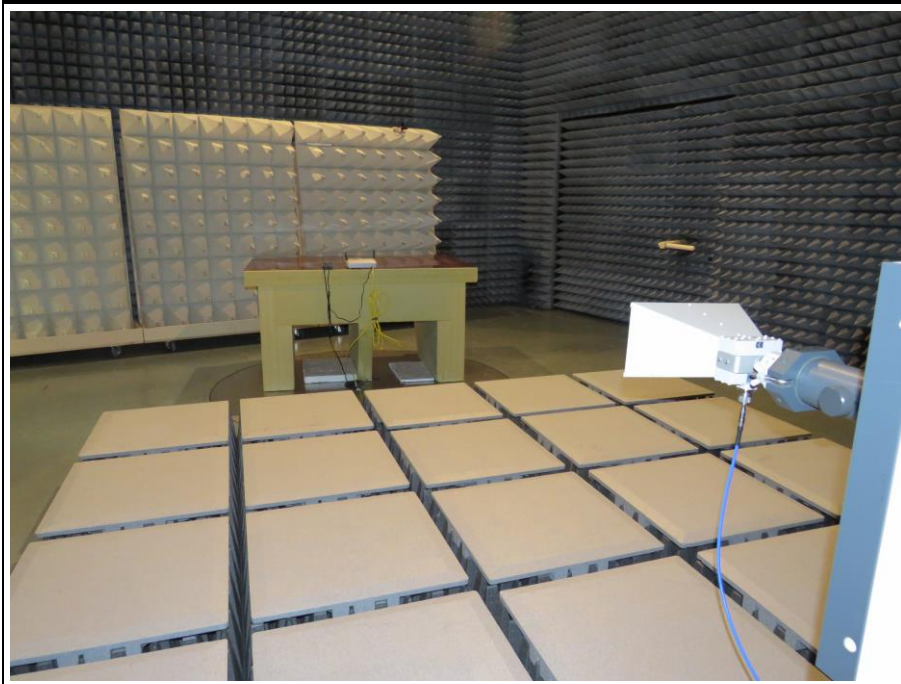
radiated emission - 30MHz-200MHz



radiated emission - 200MHz-1GHz



radiated emission - above 1GHz



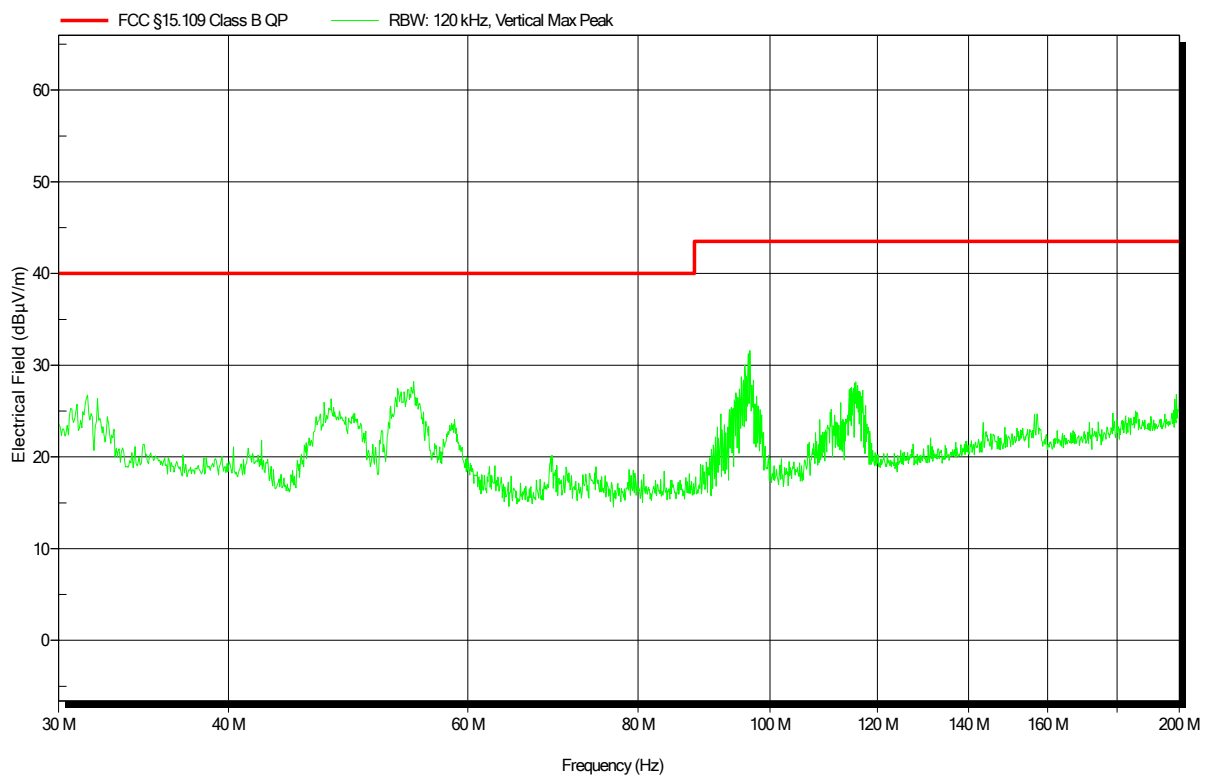
2.1.8 Records

Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant:	Amphenol Thermometrics, Inc.
EUT Name:	Kaye ValProbe RT Base station
Model:	RF3060 (X3015)
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Dose
Test Conditions:	Tnom: 22°C, Unom: 120VAC 60Hz
Antenna:	Rohde & Schwarz HK 116, Vertical
Measurement distance:	3m
Configuration:	1
Test Date:	2019-10-15

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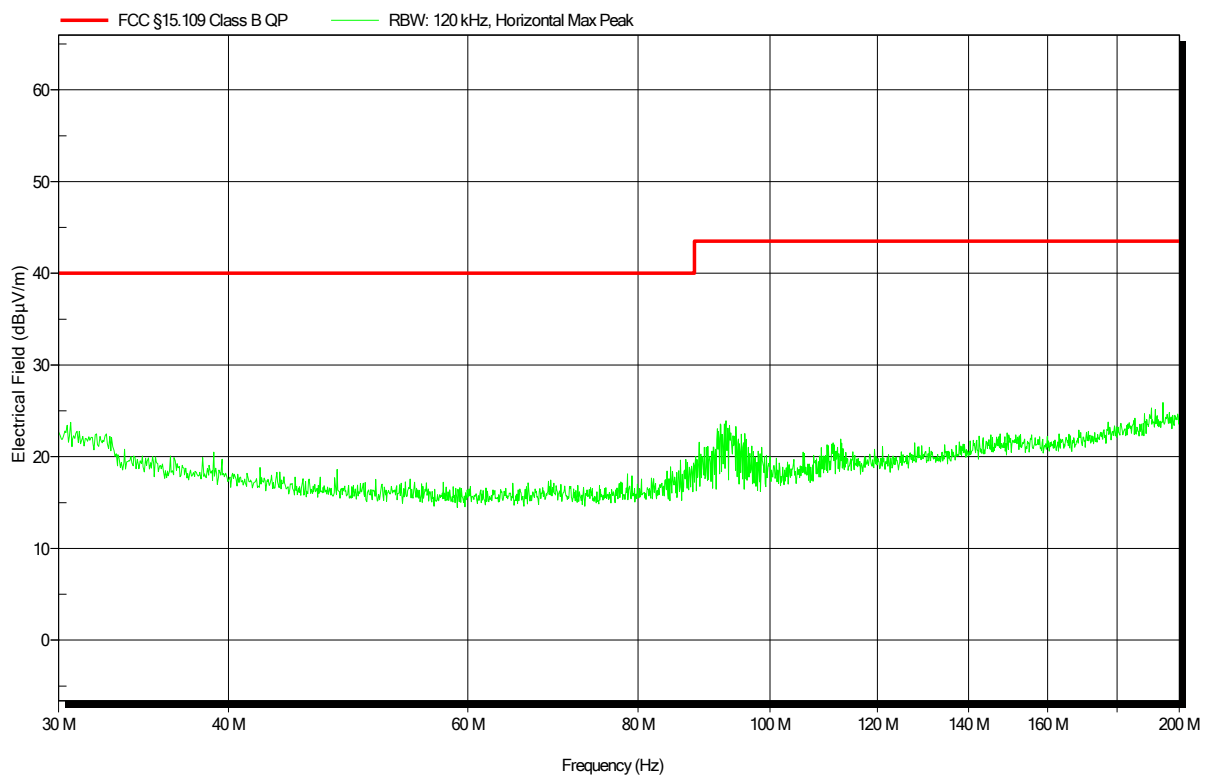


Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant:	Amphenol Thermometrics, Inc.
EUT Name:	Kaye ValProbe RT Base station
Model:	RF3060 (X3015)
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Dose
Test Conditions:	Tnom: 22°C, Unom: 120VAC 60Hz
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3m
Configuration:	1
Test Date:	2019-10-15

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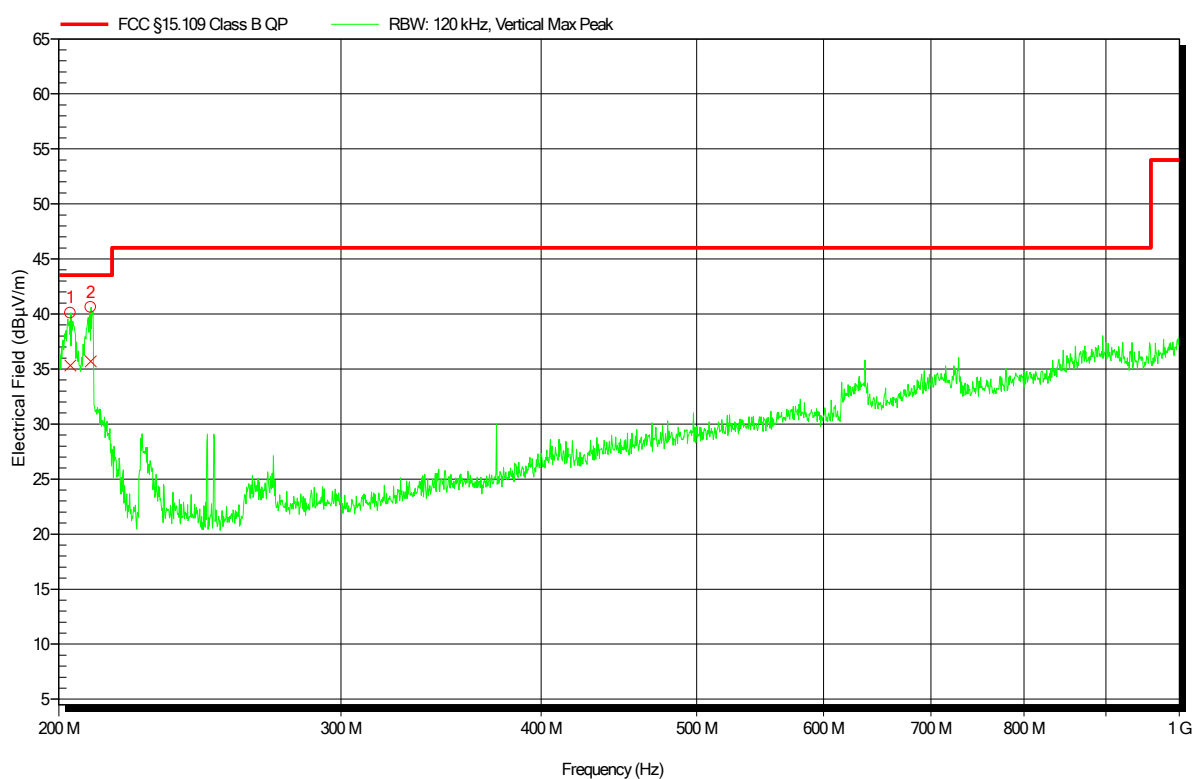


Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
 EUT Name: Kaye ValProbe RT Base station
 Model: RF3060 (X3015)
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Dose
 Test Conditions: Tnom: 22°C, Unom: 120VAC 60Hz
 Antenna: Rohde & Schwarz HL 223, Vertical
 Measurement distance: 3m
 Configuration: 1
 Test Date: 2019-10-15

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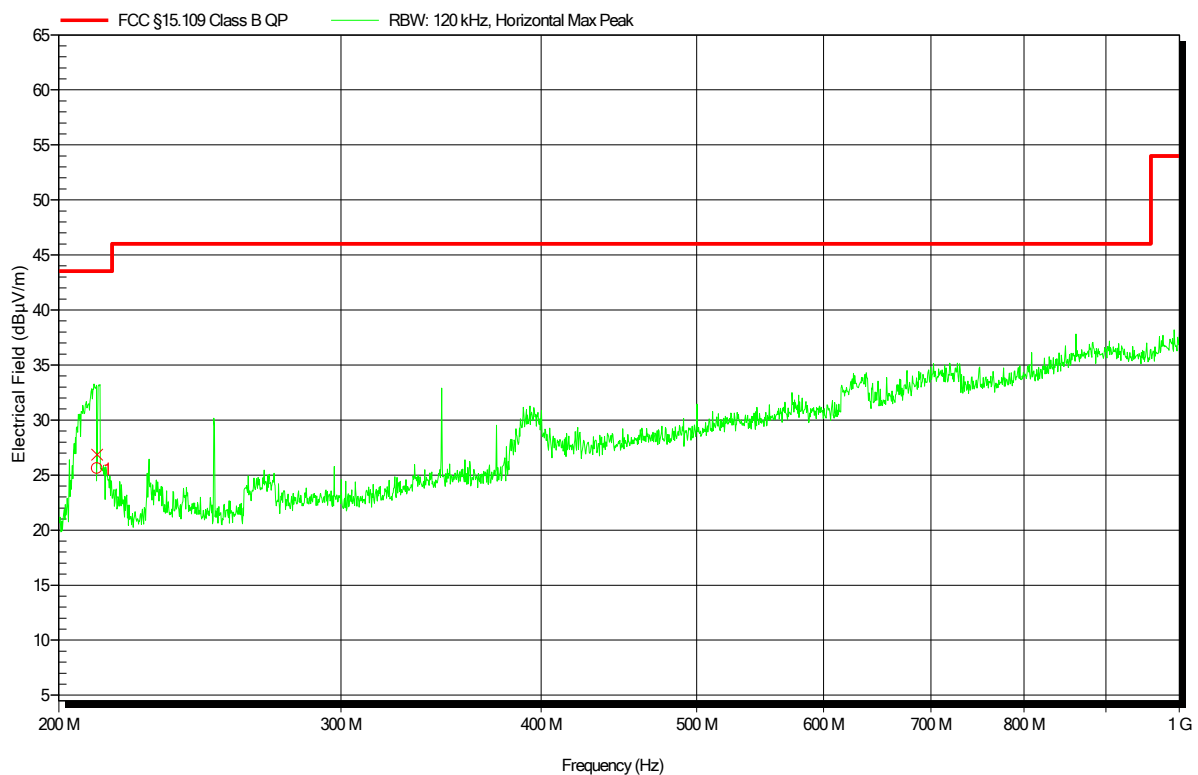
Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Angle	Height
1	203.492 MHz	35.3 dBµV/m	43.52 dBµV/m	-8.22 dB	Pass	90 Degree	1 m
2	209.54 MHz	35.7 dBµV/m	43.52 dBµV/m	-7.82 dB	Pass	90 Degree	1 m

Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
 EUT Name: Kaye ValProbe RT Base station
 Model: RF3060 (X3015)
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Dose
 Test Conditions: Tnom: 22°C, Unom: 120VAC 60Hz
 Antenna: Rohde & Schwarz HL 223, Horizontal
 Measurement distance: 3m
 Configuration: 1
 Test Date: 2019-10-15

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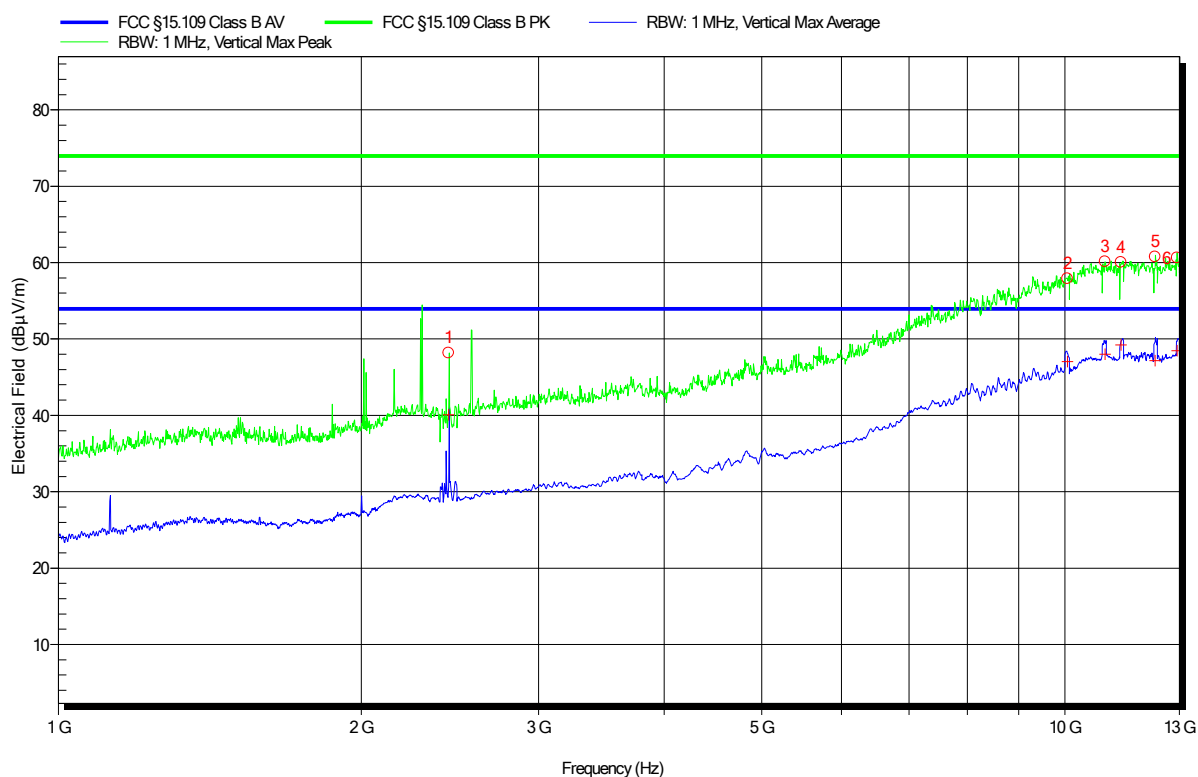
Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Angle	Height
1	211.4 MHz	26.87 dBµV/m	43.52 dBµV/m	-16.65 dB	Pass	120 Degree	1 m

Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
 EUT Name: Kaye ValProbe RT Base station
 Model: RF3060 (X3015)
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Dose
 Test Conditions: Tnom: 22°C, Unom: 120VAC 60Hz
 Antenna: Schwarzbeck BBHA 9120D, Vertical
 Measurement distance: 3m
 Configuration: 1
 Test Date: 2019-10-18

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Peak Number	Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Angle	Height
1	2.443 GHz	48.19 dBμV/m	73.98 dBμV/m	-25.79 dB	Pass	0 Degree	1 m
2	10.059 GHz	57.92 dBμV/m	73.98 dBμV/m	-16.06 dB	Pass	0 Degree	1 m
3	10.966 GHz	60.12 dBμV/m	73.98 dBμV/m	-13.86 dB	Pass	0 Degree	1 m
4	11.375 GHz	60.04 dBμV/m	73.98 dBμV/m	-13.94 dB	Pass	0 Degree	1 m
5	12.296 GHz	60.75 dBμV/m	73.98 dBμV/m	-13.23 dB	Pass	0 Degree	1 m
6	12.929 GHz	60.65 dBμV/m	73.98 dBμV/m	-13.33 dB	Pass	0 Degree	1 m

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	Angle	Height
1	2.443 GHz	40.06 dBμV/m	53.98 dBμV/m	-13.92 dB	Pass	0 Degree	1 m
2	10.059 GHz	47.06 dBμV/m	53.98 dBμV/m	-6.92 dB	Pass	0 Degree	1 m
3	10.966 GHz	48.01 dBμV/m	53.98 dBμV/m	-5.97 dB	Pass	0 Degree	1 m
4	11.375 GHz	49.22 dBμV/m	53.98 dBμV/m	-4.76 dB	Pass	0 Degree	1 m
5	12.296 GHz	47.19 dBμV/m	53.98 dBμV/m	-6.79 dB	Pass	0 Degree	1 m
6	12.929 GHz	48.45 dBμV/m	53.98 dBμV/m	-5.53 dB	Pass	0 Degree	1 m

Test Report No.: G0M-1901-7989-EF0115B-V01

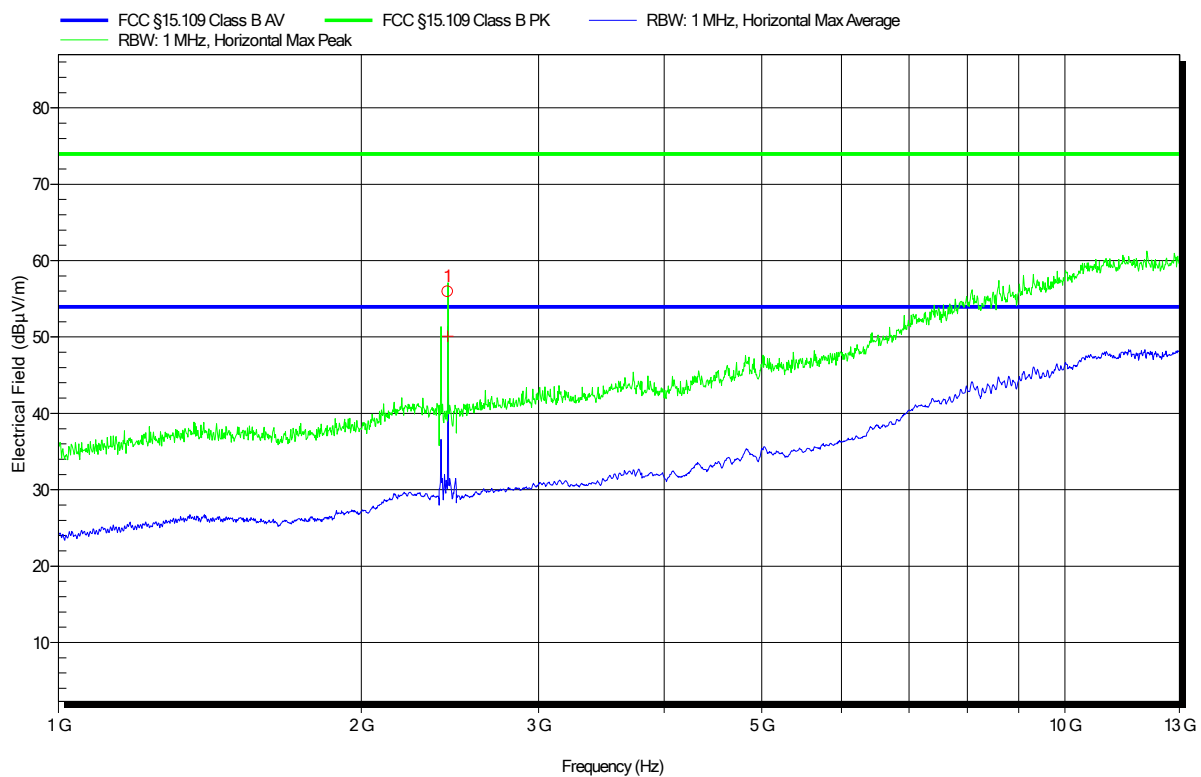
Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
EUT Name: Kaye ValProbe RT Base station
Model: RF3060 (X3015)
Test Site: Eurofins Product Service GmbH
Operator: Mr. Dose
Test Conditions: Tnom: 22°C, Unom: 120VAC 60Hz
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 3m
Configuration: 1
Test Date: 2019-10-18

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Peak Number	Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Angle	Height
1	2.437 GHz	55.93 dBμV/m	73.98 dBμV/m	-18.05 dB	Pass	0 Degree	1 m

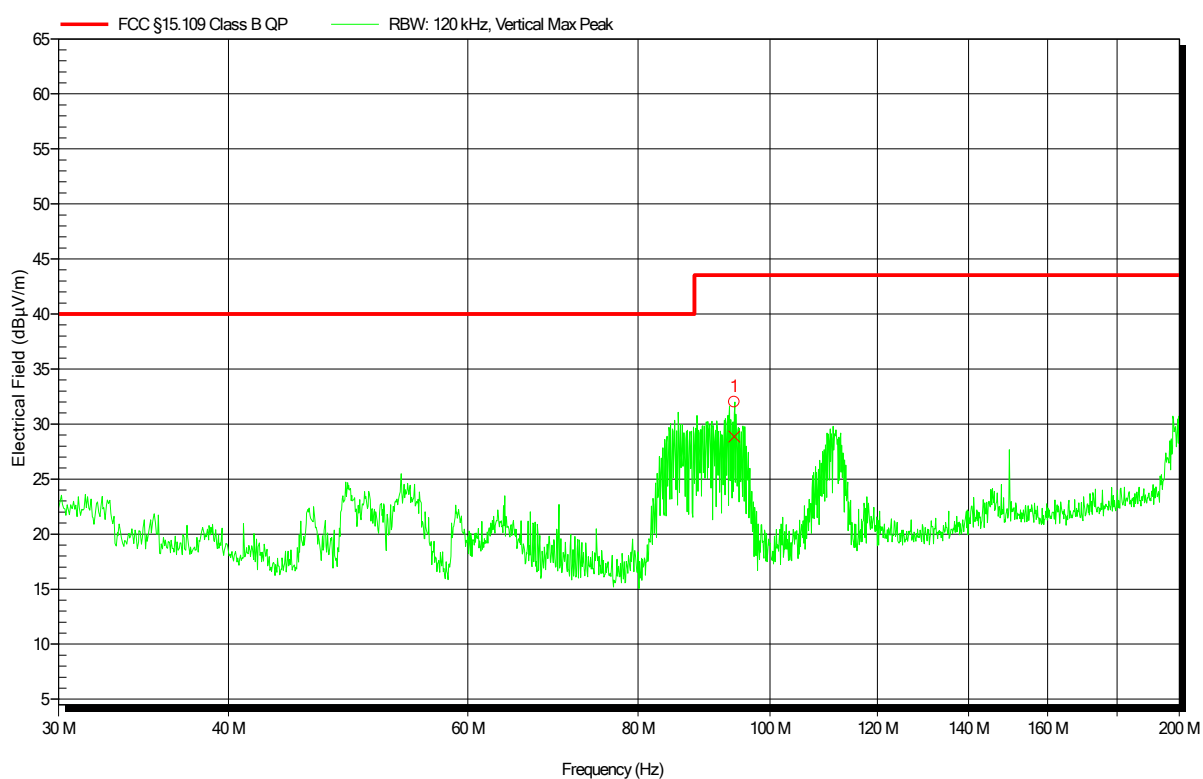
Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	Angle	Height
1	2.437 GHz	50.12 dBμV/m	53.98 dBμV/m	-3.86 dB	Pass	0 Degree	1 m

Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
EUT Name: Kaye ValProbe RT Base station
Model: RF3060 (X3015)
Test Site: Eurofins Product Service GmbH
Operator: Mr. Dose
Test Conditions: Tnom: 24°C, Unom: 120VAC 60Hz
Antenna: Rohde & Schwarz HK 116, Vertical
Measurement distance: 3m
Configuration: 2
Test Date: 2019-10-15

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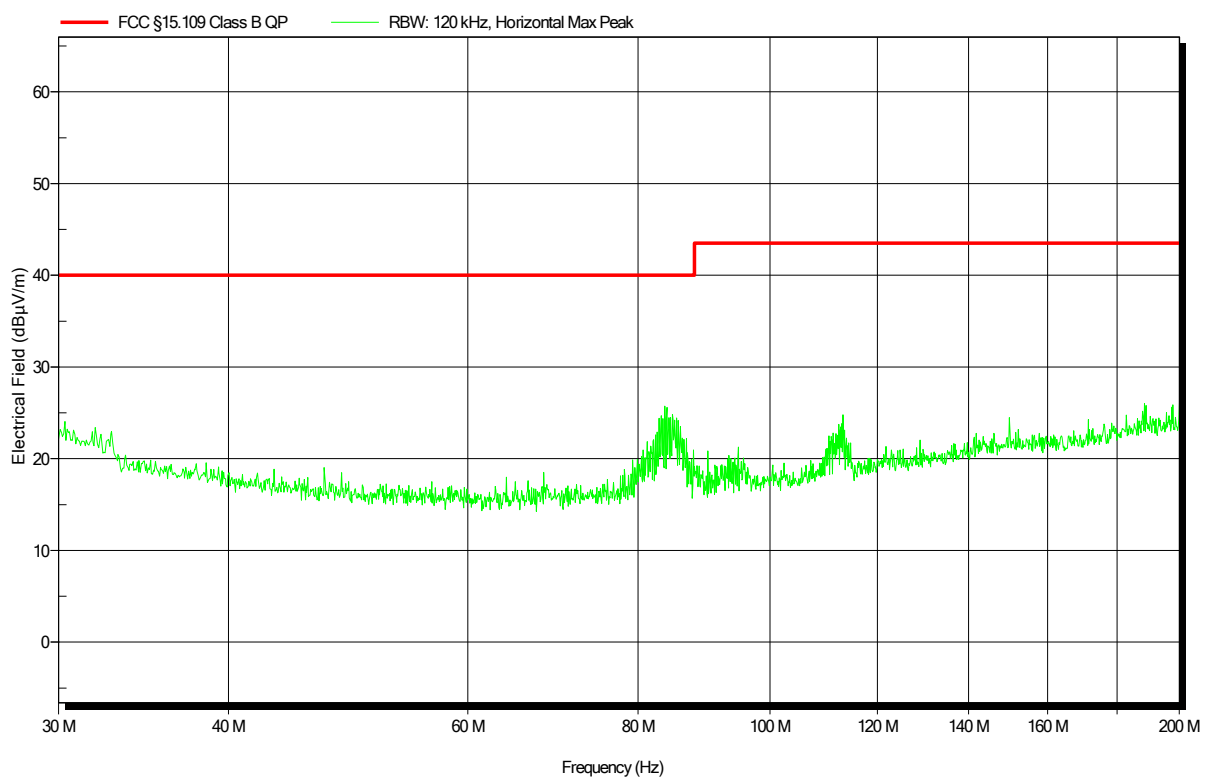
Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Angle	Height
1	94.164 MHz	28.87 dBµV/m	43.52 dBµV/m	-14.65 dB	Pass	90 Degree	1 m

Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant:	Amphenol Thermometrics, Inc.
EUT Name:	Kaye ValProbe RT Base station
Model:	RF3060 (X3015)
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Dose
Test Conditions:	Tnom: 24°C, Unom: 120VAC 60Hz
Antenna:	Rohde & Schwarz HK 116, Horizontal
Measurement distance:	3m
Configuration:	2
Test Date:	2019-10-15

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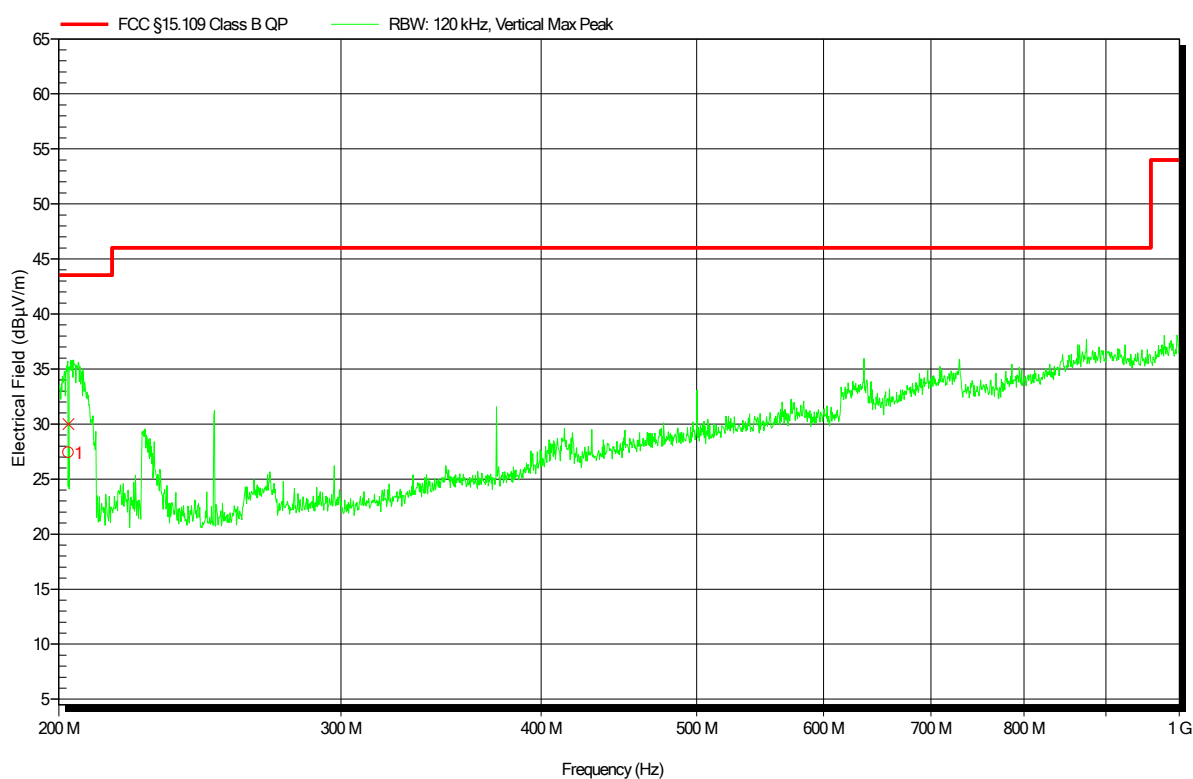


Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
 EUT Name: Kaye ValProbe RT Base station
 Model: RF3060 (X3015)
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Dose
 Test Conditions: Tnom: 24°C, Unom: 120VAC 60Hz
 Antenna: Rohde & Schwarz HL 223, Vertical
 Measurement distance: 3m
 Configuration: 2
 Test Date: 2019-10-15

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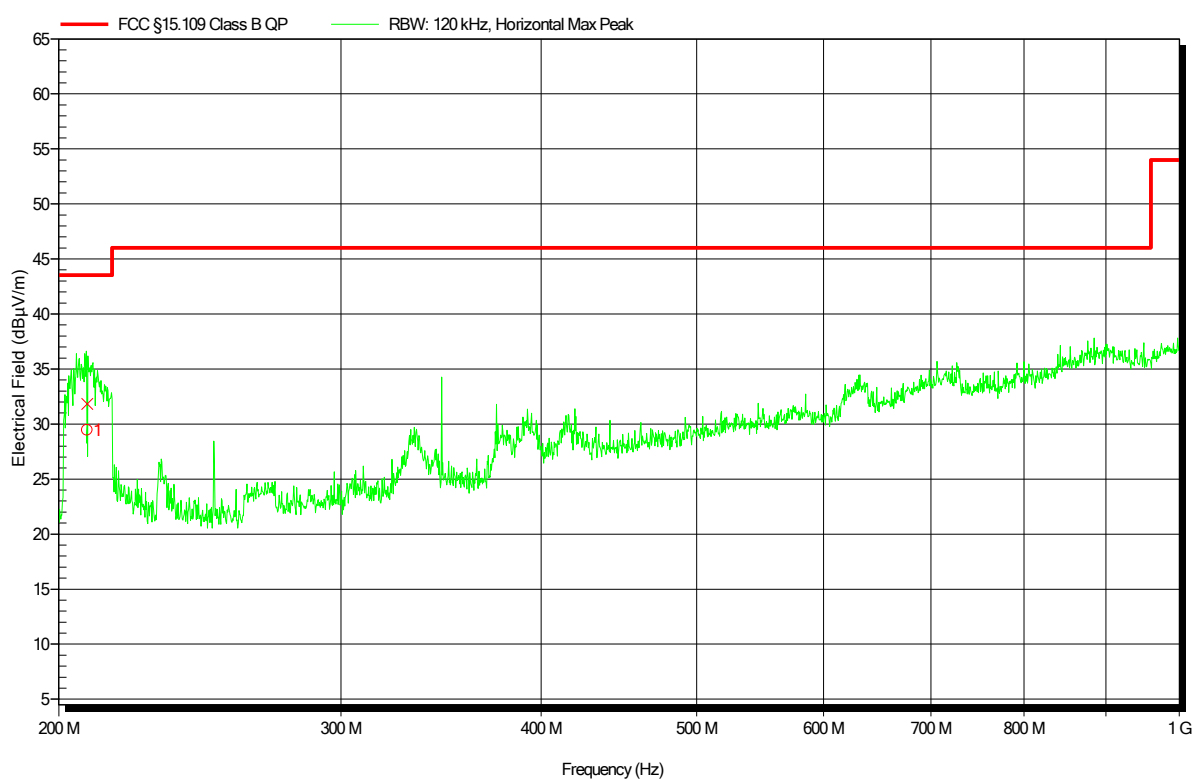
Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Angle	Height
1	202.904 MHz	29.99 dBμV/m	43.52 dBμV/m	-13.53 dB	Pass	90 Degree	1 m

Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
EUT Name: Kaye ValProbe RT Base station
Model: RF3060 (X3015)
Test Site: Eurofins Product Service GmbH
Operator: Mr. Dose
Test Conditions: Tnom: 22°C, Unom: 120VAC 60Hz
Antenna: Rohde & Schwarz HL 223, Horizontal
Measurement distance: 3m
Configuration: 2
Test Date: 2019-10-15

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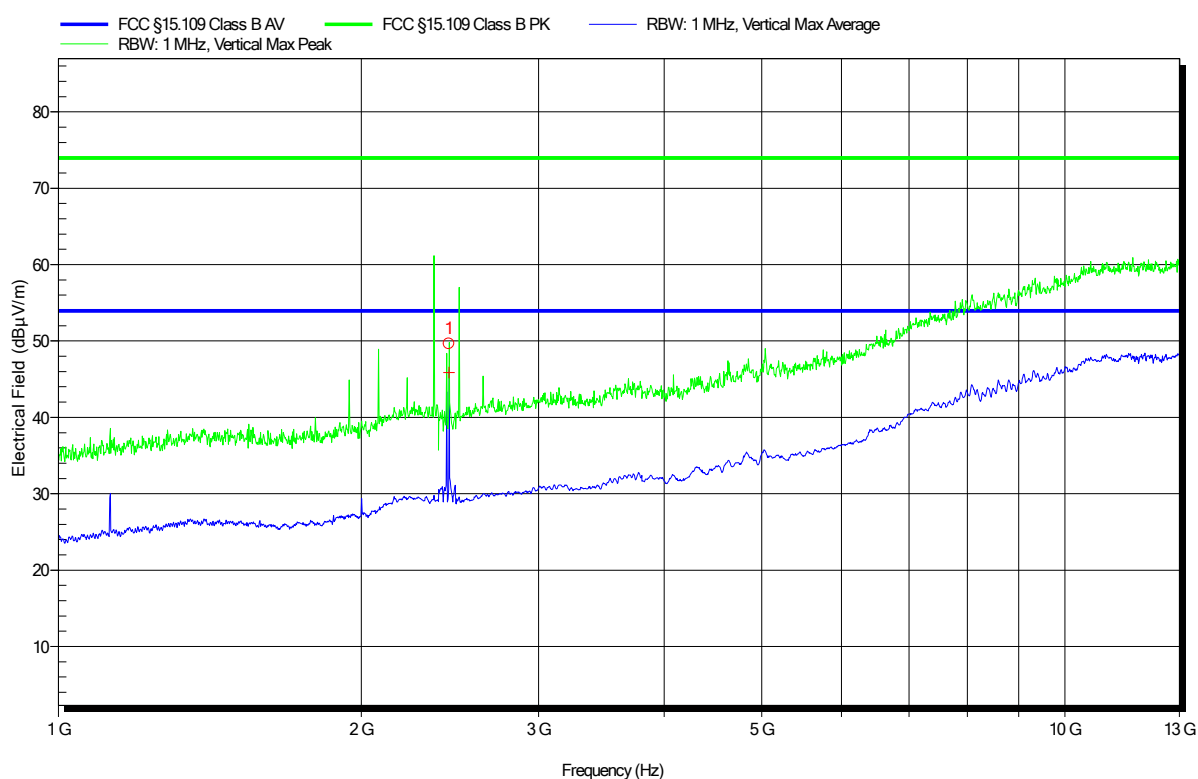
Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Angle	Height
1	208.418 MHz	31.84 dBµV/m	43.52 dBµV/m	-11.69 dB	Pass	90 Degree	1 m

Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
EUT Name: Kaye ValProbe RT Base station
Model: RF3060 (X3015)
Test Site: Eurofins Product Service GmbH
Operator: Mr. Dose
Test Conditions: Tnom: 22°C, Unom: 120VAC 60Hz
Antenna: Schwarzbeck BBHA 9120D, Vertical
Measurement distance: 3m
Configuration: 2
Test Date: 2019-10-18

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Peak Number	Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Angle	Height
1	2.445 GHz	49.66 dBμV/m	73.98 dBμV/m	-24.32 dB	Pass	0 Degree	1 m

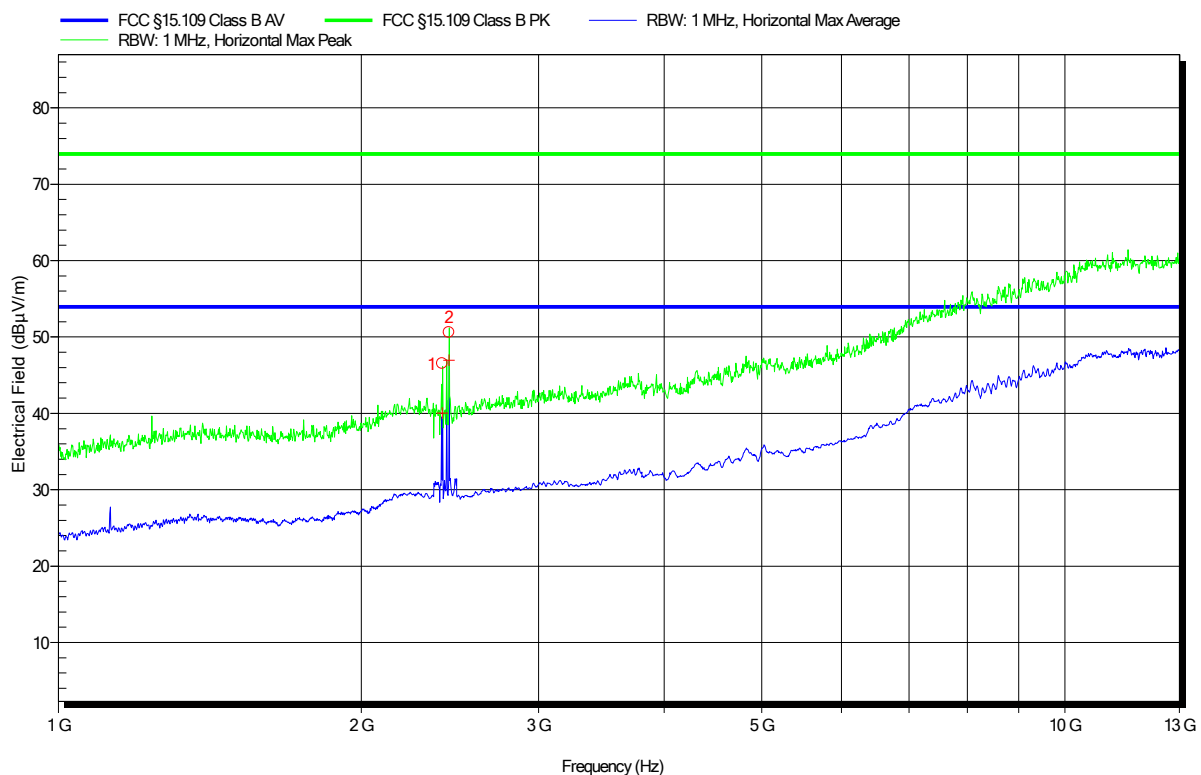
Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	Angle	Height
1	2.445 GHz	45.87 dBμV/m	53.98 dBμV/m	-8.11 dB	Pass	0 Degree	1 m

Radiated emissions according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
EUT Name: Kaye ValProbe RT Base station
Model: RF3060 (X3015)
Test Site: Eurofins Product Service GmbH
Operator: Mr. Dose
Test Conditions: Tnom: 22°C, Unom: 120VAC 60Hz
Antenna: Schwarzbeck BBHA 9120D, Horizontal
Measurement distance: 3m
Configuration: 2
Test Date: 2019-10-18

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Peak Number	Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Angle	Height
1	2.408 GHz	46.54 dBμV/m	73.98 dBμV/m	-27.44 dB	Pass	0 Degree	1 m
2	2.444 GHz	50.62 dBμV/m	73.98 dBμV/m	-23.36 dB	Pass	0 Degree	1 m

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status	Angle	Height
1	2.408 GHz	40.05 dBμV/m	53.98 dBμV/m	-13.93 dB	Pass	0 Degree	1 m
2	2.444 GHz	46.96 dBμV/m	53.98 dBμV/m	-7.02 dB	Pass	0 Degree	1 m

2.2.3 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	DARE Instruments	Radimation	2016.1.10

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
AMN	R&S	ESH2-Z5	EF00182	2019-02	2021-02
Pulse Limiter	R&S	ESH3-Z2	EF01063	2019-07	2020-07
EMI Test Receiver	Rohde & Schwarz Vertriebs GmbH	ESCS 30	EF00295	2019-07	2020-07
Climatic Sensor	Embedded Data Systems, LLC.	2800100000254 17E	EF01054	2019-05	2020-05

2.2.4 Procedure

Exploratory measurement
- 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) - The power cord that is normally supplied or recommended by the manufacturer was connected to the LISN. - The distance between the outer edge of the EUT and the LISN shall be set to 0.8 m. A longer power cord shall be bundled to this length (bundling shall not exceed 40 cm in length). - The LISN measurement port was connected to a measurement receiver - I/O cables were bundled not longer than 0.4 m - Measurement was performed in the frequency range 0.15 – 30MHz on each current-carrying conductor - To maximize the emissions the cable positions were manipulated - The worst configuration of EUT and cables is shown on a test setup picture at item 1.3

Final measurement
- 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) - The power cord that is normally supplied or recommended by the manufacturer was connected to the LISN. - The distance between the outer edge of the EUT and the LISN shall be set to 0.8 m. A longer power cord shall be bundled to this length (bundling shall not exceed 40 cm in length). - The LISN measurement port was connected to a measurement receiver - The EUT and cable arrangement were based on the exploratory measurement results - The test data of the worst-case conditions were recorded and shown on the next pages

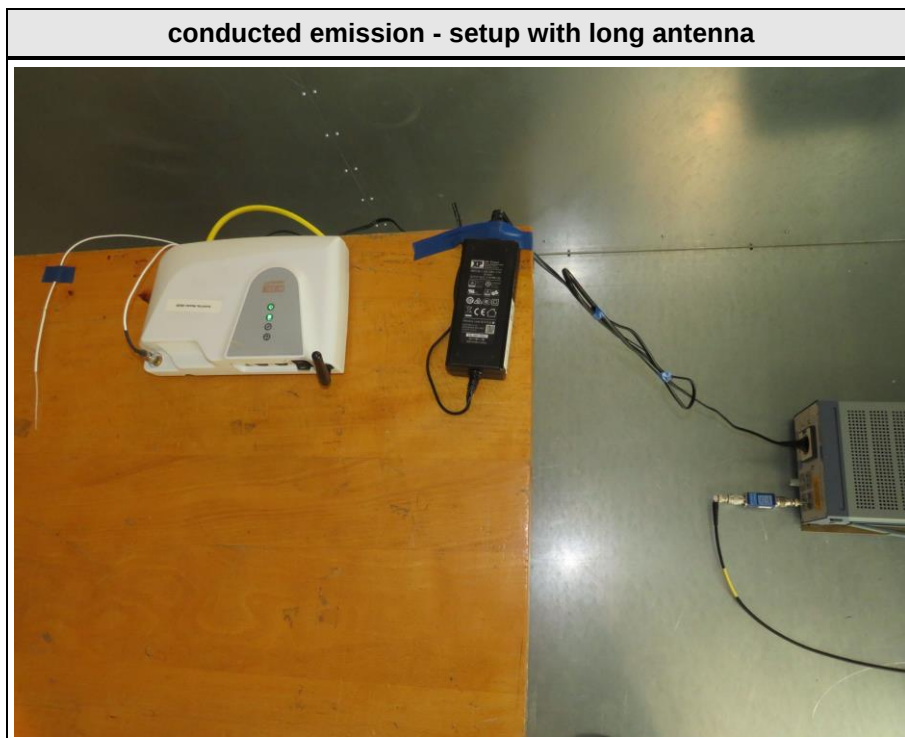
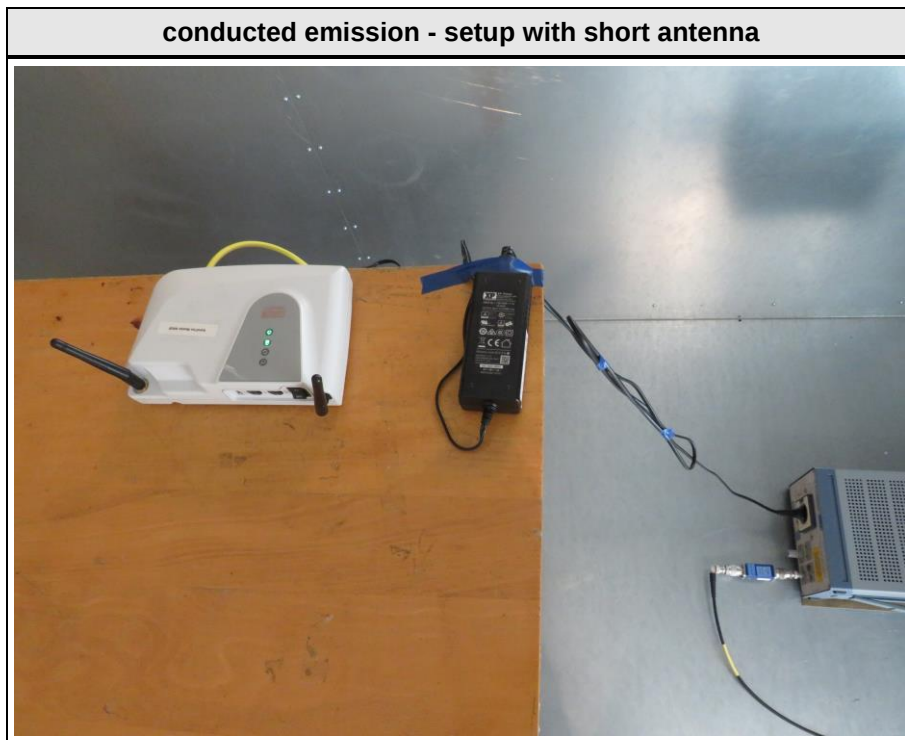
2.2.5 Limits

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 / 2	PASS	-

2.2.7 Setup Photos



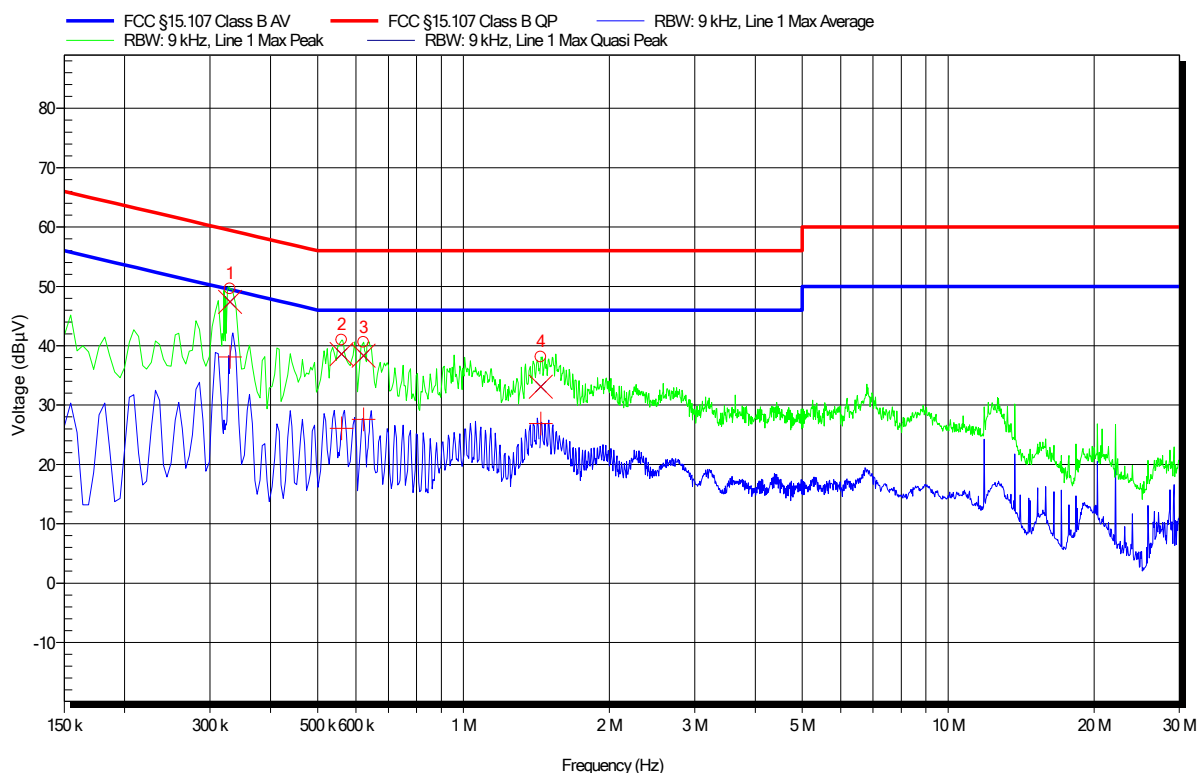
2.2.8 Records

EMI voltage test in the ac-mains according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
 EUT Name: Kaye ValProbe RT Base station
 Model: RF3060 (X3015)
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Dose
 Test Conditions: Tnom: 22°C, Unom: 120VAC 60Hz
 LISN: ESH2-Z5 (L)
 Configuration: 1
 Test Date: 2019-10-18

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Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status
1	330 kHz	47.39 dBμV	59.45 dBμV	-12.06 dB	Pass
2	560.85 kHz	38.61 dBμV	56 dBμV	-17.39 dB	Pass
3	622.5 kHz	38.33 dBμV	56 dBμV	-17.67 dB	Pass
4	1.444 MHz	33.07 dBμV	56 dBμV	-22.93 dB	Pass

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status
1	330 kHz	38.11 dBμV	49.45 dBμV	-11.34 dB	Pass
2	560.85 kHz	26.1 dBμV	46 dBμV	-19.9 dB	Pass
3	622.5 kHz	27.57 dBμV	46 dBμV	-18.43 dB	Pass
4	1.444 MHz	26.91 dBμV	46 dBμV	-19.09 dB	Pass

Test Report No.: G0M-1901-7989-EF0115B-V01

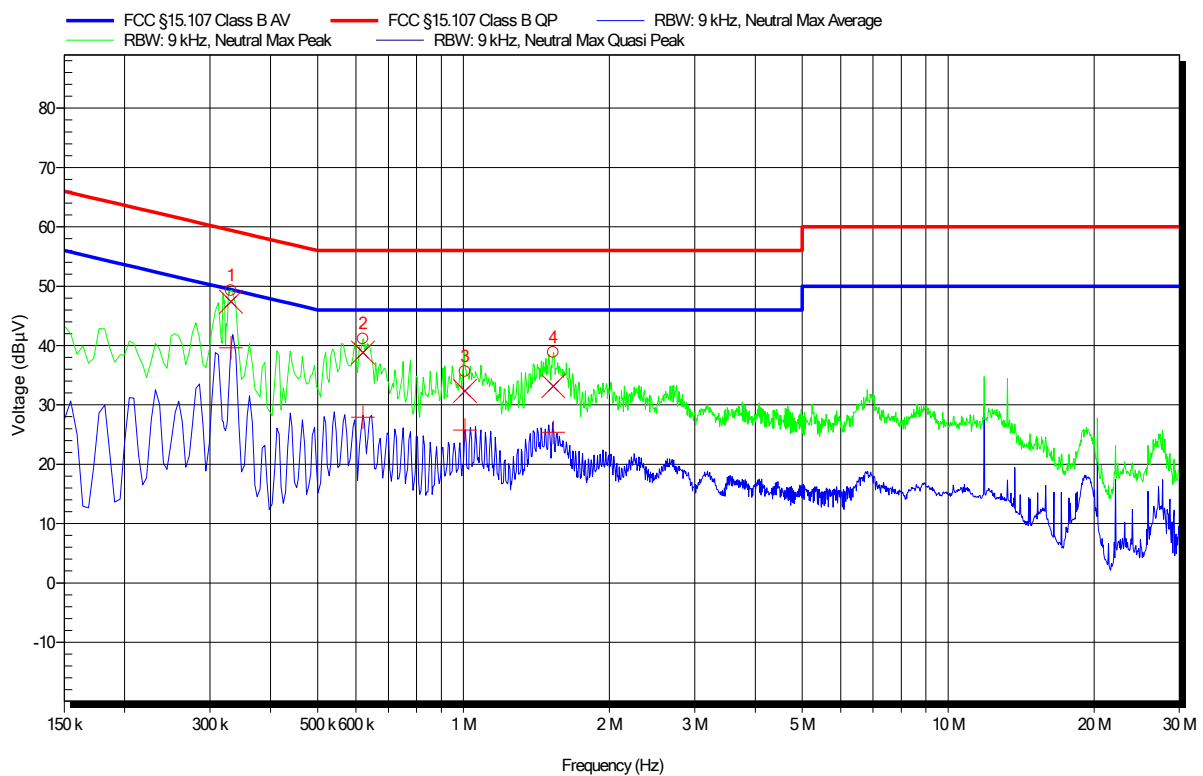
Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

EMI voltage test in the ac-mains according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
 EUT Name: Kaye ValProbe RT Base station
 Model: RF3060 (X3015)
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Dose
 Test Conditions: Tnom: 22°C, Unom: 120VAC 60Hz
 LISN: ESH2-Z5 (N)
 Configuration: 1
 Test Date: 2019-10-18

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Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status
1	331.35 kHz	47.37 dBμV	59.42 dBμV	-12.05 dB	Pass
2	620.7 kHz	38.81 dBμV	56 dBμV	-17.19 dB	Pass
3	1.007 MHz	32.32 dBμV	56 dBμV	-23.68 dB	Pass
4	1.531 MHz	33.17 dBμV	56 dBμV	-22.83 dB	Pass

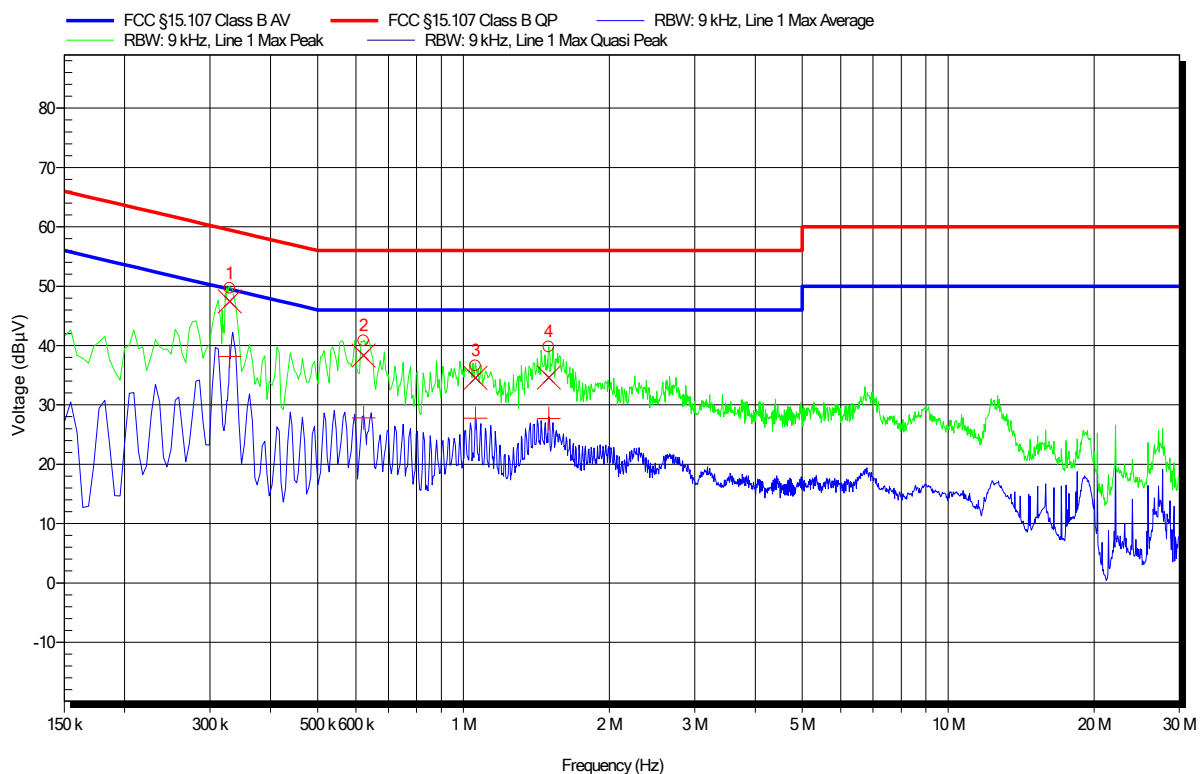
Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status
1	331.35 kHz	39.6 dBμV	49.42 dBμV	-9.82 dB	Pass
2	620.7 kHz	27.9 dBμV	46 dBμV	-18.1 dB	Pass
3	1.007 MHz	25.74 dBμV	46 dBμV	-20.26 dB	Pass
4	1.531 MHz	25.36 dBμV	46 dBμV	-20.64 dB	Pass

EMI voltage test in the ac-mains according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
 EUT Name: Kaye ValProbe RT Base station
 Model: RF3060 (X3015)
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Dose
 Test Conditions: Tnom: 22°C, Unom: 120VAC 60Hz
 LISN: ESH2-Z5 (L)
 Configuration: 2
 Test Date: 2019-10-18

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Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status
1	329.55 kHz	47.43 dBμV	59.46 dBμV	-12.03 dB	Pass
2	622.5 kHz	38.31 dBμV	56 dBμV	-17.69 dB	Pass
3	1.058 MHz	34.53 dBμV	56 dBμV	-21.47 dB	Pass
4	1.499 MHz	34.62 dBμV	56 dBμV	-21.38 dB	Pass

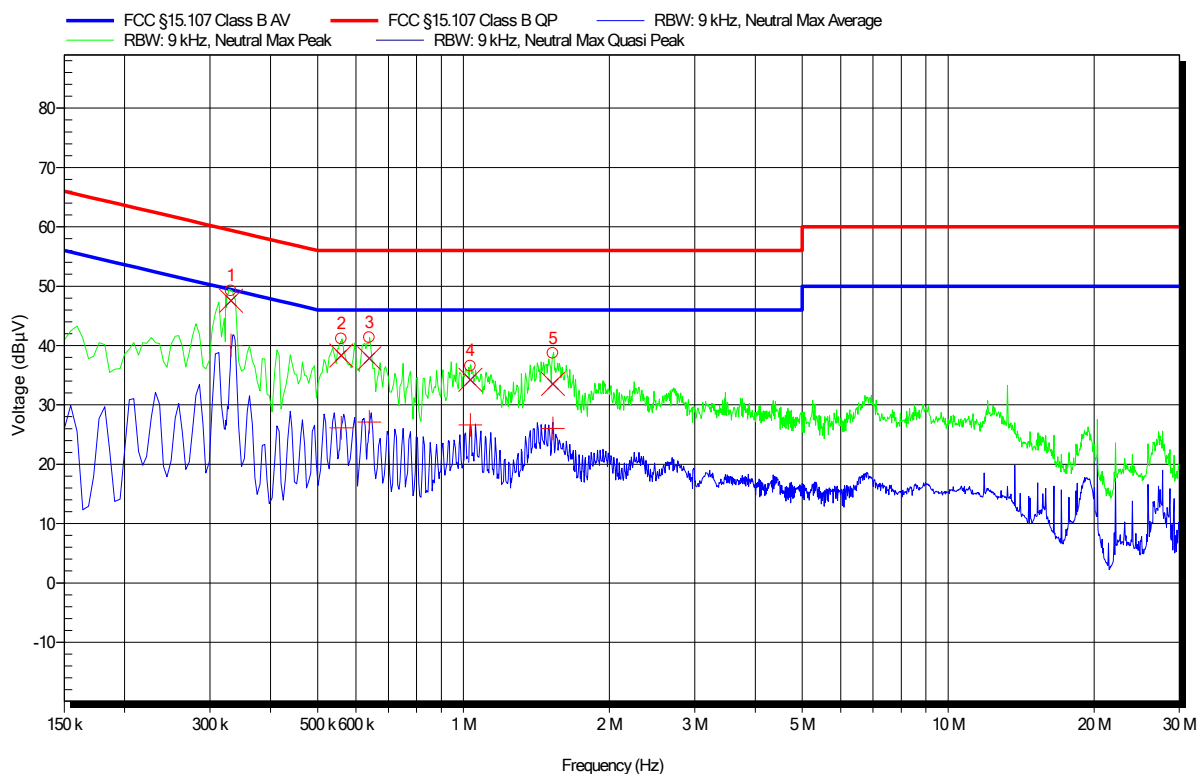
Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status
1	329.55 kHz	38.18 dBμV	49.46 dBμV	-11.28 dB	Pass
2	622.5 kHz	27.8 dBμV	46 dBμV	-18.2 dB	Pass
3	1.058 MHz	27.76 dBμV	46 dBμV	-18.24 dB	Pass
4	1.499 MHz	27.68 dBμV	46 dBμV	-18.32 dB	Pass

EMI voltage test in the ac-mains according to FCC Part 15b

Project number: G0M-1901-7989

Applicant: Amphenol Thermometrics, Inc.
 EUT Name: Kaye ValProbe RT Base station
 Model: RF3060 (X3015)
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Dose
 Test Conditions: Tnom: 22°C, Unom: 120VAC 60Hz
 LISN: ESH2-Z5 (N)
 Configuration: 2
 Test Date: 2019-10-18

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Peak Number	Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status
1	331.35 kHz	47.53 dBμV	59.42 dBμV	-11.89 dB	Pass
2	559.95 kHz	38.33 dBμV	56 dBμV	-17.67 dB	Pass
3	639.6 kHz	37.84 dBμV	56 dBμV	-18.16 dB	Pass
4	1.033 MHz	34.22 dBμV	56 dBμV	-21.78 dB	Pass
5	1.53 MHz	33.51 dBμV	56 dBμV	-22.49 dB	Pass

Peak Number	Frequency	Average	Average Limit	Average Difference	Average Status
1	331.35 kHz	40.02 dBμV	49.42 dBμV	-9.4 dB	Pass
2	559.95 kHz	26.13 dBμV	46 dBμV	-19.87 dB	Pass
3	639.6 kHz	27.11 dBμV	46 dBμV	-18.89 dB	Pass
4	1.033 MHz	26.61 dBμV	46 dBμV	-19.39 dB	Pass
5	1.53 MHz	26.02 dBμV	46 dBμV	-19.98 dB	Pass