

Test report for

15.247 (DSS), 15.209 and 15.207



Product name : Niostem headset
Applicant : Mane Biotech GmbH
FCC ID : FCC ID: 2BE8J-NIO1
IC : NA

Test report No. : P000351073 001 Ver 3.0

Laboratory information

Accreditation

Kiwa Nederland B.V. complies with the accreditation criteria for test laboratories as laid down in ISO/IEC 17025:2017. The accreditation covers the quality system of the laboratory as well as the specific activities as described in the authorized annex bearing the accreditation number L248 and is granted by the Dutch Council For Accreditation (RvA: Raad voor Accreditatie).

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Testing Location

Test Site	Kiwa Nederland B.V.
Test Site location	Wilmersdorf 50 7327 AC Apeldoorn The Netherlands Tel. +31 88998 3393
Test Site FCC	NL0001
CABID	NL0001

Revision History

Version	Date	Remarks	By
v0.5	27-03-2025	First draft	MHK
v1.0	24-04-2025	Initial release	MHK
V2.0	27-05-2025	Customer feedback	MHK
V3.0	27-05-2025	Customer feedback	MHK

Table of Contents

Revision History	2
Summary of Test results	5
1 General Description	6
1.1 Applicant	6
1.2 Manufacturer	6
1.3 Tested Equipment Under Test (EUT)	6
1.3.1 Auxiliary items	7
1.4 Product specifications of Equipment under test	8
1.5 Environmental conditions	8
1.6 Measurement standards	8
1.7 Applicable standards	8
1.8 Observation and remarks	8
1.9 Modifications to the EUT (Equipment Under Test)	8
1.10 Conclusions	9
2 Test configuration of the Equipment Under Test	10
2.1 Test mode	10
2.2 Test setups	10
2.3 Equipment used in the test configuration	13
2.4 Sample calculations	13
3 Test results	14
3.1 Radiated spurious emissions	14
3.1.1 Limit	14
3.1.2 Measurement instruments	14
3.1.3 Test setup	14
3.1.4 Test procedure	15
3.1.5 Measurement Uncertainty	15
3.1.6 Test results	16
3.1.7 Plots of the Radiated Spurious Emissions Measurement	17
3.2 Output Power Measurement	26
3.2.1 Limit	26
3.2.2 Measurement instruments	26
3.2.3 Test setup	26
3.2.4 Test procedure	26
3.2.5 Test results of Output Power Measurement	26
3.3 AC Power-line conducted emissions	27
3.3.1 Limit	27
3.3.2 Measurement instruments	27
3.3.3 Test setup	27

3.3.4	Test procedure.....	27
3.3.5	Measurement uncertainty	27
3.3.6	AC Power Line Conducted emission data of the EUT, results	28
3.3.7	Plots of the AC mains conducted spurious measurement.....	29
4	Sample calculations.....	30

Summary of Test results

FCC	ISED	Description	Section in report	Verdict
15.247(d) 15.209 (a)	RSS-Gen 8.9	Radiated spurious emissions	3.1	Pass
15.205 (a)	RSS Gen 8.10	Spurious emissions in the restricted bands	3.1	Pass
15.207 (c)	RSS-Gen 8.8	AC power-line conducted emissions	3.6	Pass

Decision rule: Pass/Fail decisions are based on measurement results without taking into account measurement uncertainty.

1 General Description

1.1 Applicant

Client name:	Mane Biotech GmbH
Address:	Stüttgerhofweg 1
Zip code:	50858
Country:	Germany
Telephone:	17662515766
E-mail:	carlos@niostem.com
Contact name:	Carlos Chacón

1.2 Manufacturer

Manufacturer name:	Mane Biotech GmbH
Address:	Stüttgerhofweg 1
Zip code:	50858
Country:	Germany
Telephone:	17662515766
E-mail:	carlos@niostem.com
Contact name:	Carlos Chacón

1.3 Tested Equipment Under Test (EUT)

Product name:	
Brand name:	Niostem headset
FCC ID:	Niostem
IC:	--
Product description:	Device is a wearable headset that stimulates scalp
Variant model(s):	Nio 1
Batch and/or serial No.	V1.0
Software version:	V1.0
Hardware version:	V1.0
Date of receipt:	10-12-2024
Tests started:	02-01-2025
Testing ended:	18-02-2025

1.3.1 Auxiliary items

AUX1

Product name:

Power supply for EUT

Product type:

AC/DC Adaptor

Remarks:

Connects to EUT

1.4 Product specifications of Equipment under test

Tx Frequency:	BLE: 2400 – 2483.5 MHz
Rx frequency:	BLE: 2400 – 2483.5 MHz
Occupied channel width:	1 MHz
Antenna type:	PCB meander
Antenna gain:	1.95dBi
Type of modulation:	BLE: GFSK
Emission designator	1M06F1D

Disclaimer: The operating frequency bands are declared by the applicant

1.5 Environmental conditions

Normal test conditions:

Temperature (*) : +15°C to +25°C
Relative humidity(*) : 20 % to 75 %

1.6 Measurement standards

- ANSI C63.10:2013
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02

1.7 Applicable standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart C §15.207
- FCC Part 15 Subpart C §15.209
- FCC Part 15 Subpart C §15.247
- RSS-Gen Issue 5
- RSS-247 Issue 3

1.8 Observation and remarks

The EUT contains a pre-certified radio module.

1.9 Modifications to the EUT (Equipment Under Test)

None

1.10 Conclusions

The sample of the product showed **NO NON-COMPLIANCES** to the specifications stated in paragraph 1.7 of this report.

The results of the test as stated in this report, are exclusively applicable to the product items as identified in this report. Kiwa Nederland B.V. accepts no responsibility for any properties of product items in this test report, which are not supported by the tests as specified in paragraph 1.7 "*Applicable standards*".

All tests are performed by:

Name : ing. Maaz. H. Khan

Review of test methods and report by:

Name : P. van Wanrooij, BAsC

The above conclusions have been verified by the following signatory:

Date : 25-06-2025

Name : P. van Wanrooij

Function : Test Engineer

Signature :

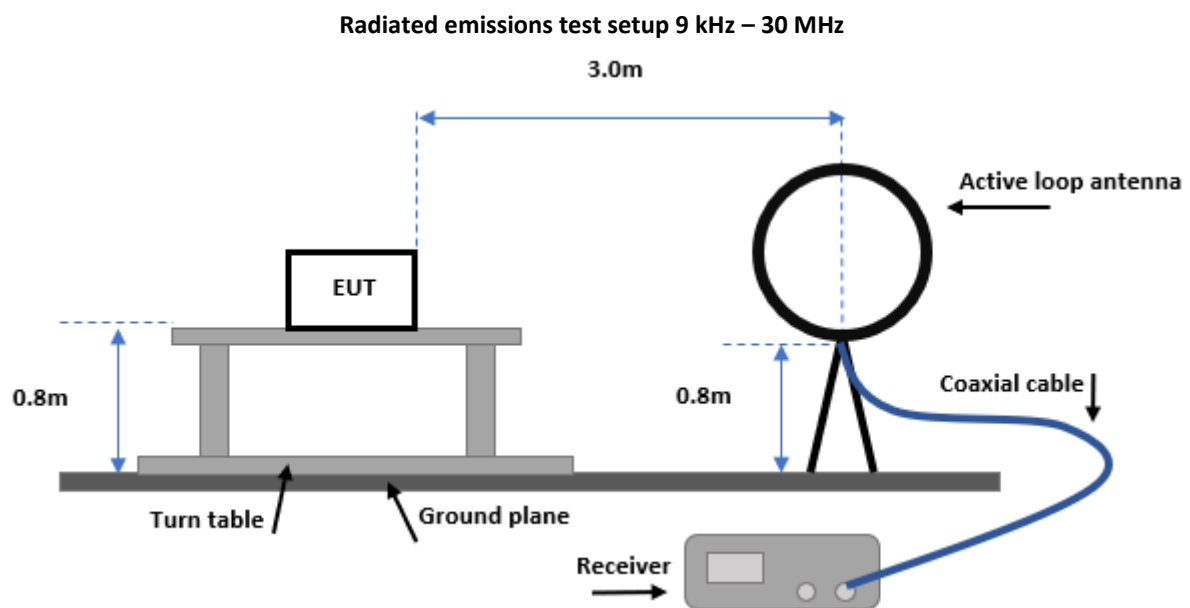
A handwritten signature in black ink, consisting of a stylized 'P' and 'W' followed by a dot.

2 Test configuration of the Equipment Under Test

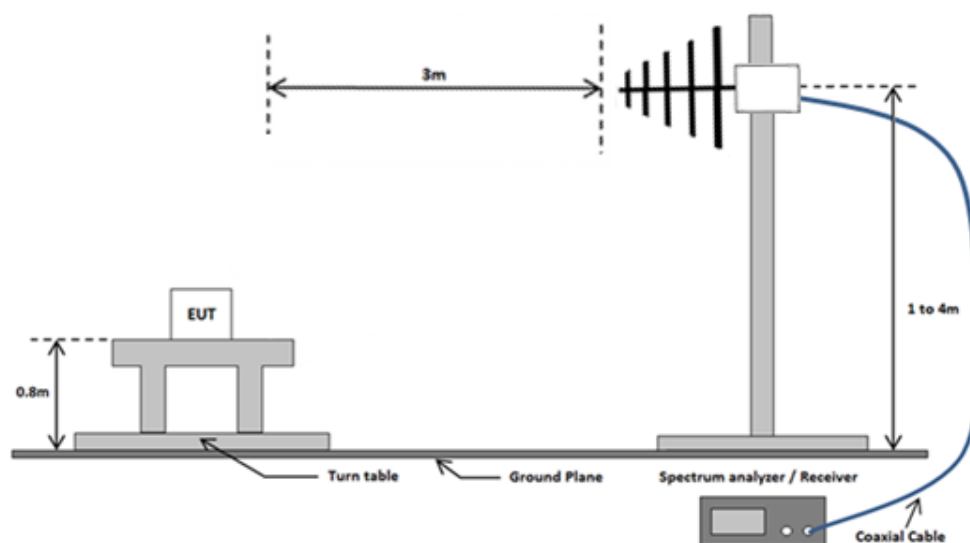
2.1 Test mode

The STM32 RF test tool was used to perform radiated emissions.

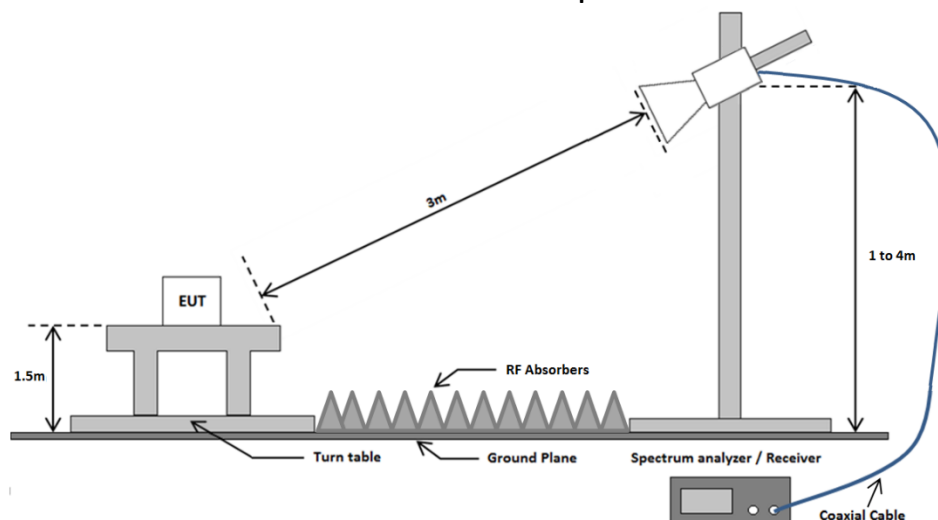
2.2 Test setups



Radiated emissions test setup 30 MHz - 1 GHz

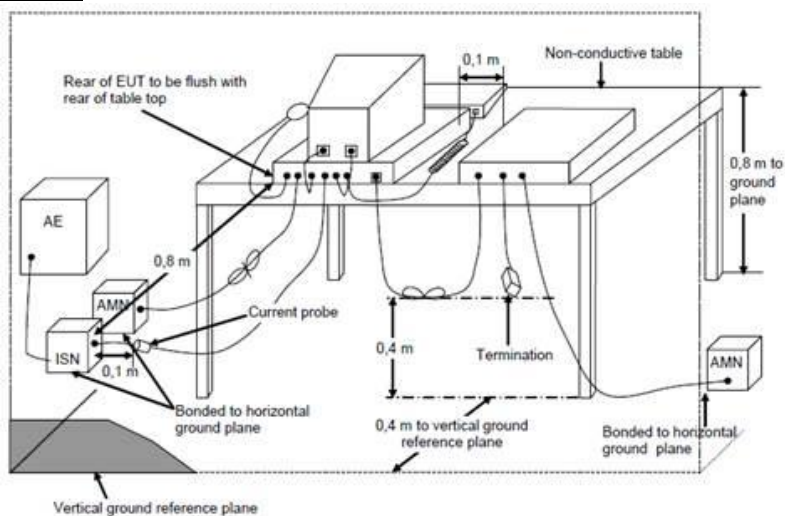


Radiated emissions test setup above 1 GHz



AC Power line conducted emissions test setup

Emissions test at AC mains



List of used cables					
Number	Function	From	To	Length	Remarks
1	AC Power	mains 120Vac 60 Hz	EUT	< 3m	-
2	Serial	AUX1	EUT	< 3m	-

2.3 Equipment used in the test configuration

Description	Manufacturer	Model	ID	Cal. Done date	Cal. due date	Used at Par.
EMI Test receiver	Rohde & Schwarz	EPL1000	115435	12-2024	12-2025	3.2
EMI Receiver	Rohde & Schwarz	ESR7	114605	11-2024	11-2025	3.1
Spectrum Analyzer	Rohde & Schwarz	FSV3044	114923	10-2023	10-2025	3.1
2.5 GHz HPF	Wainwright	WHKX12-2477.75-2650-18000-40SS	115031	09-2024	09-2025	3.1
Biconical antenna + 6dB attenuator	EMCO	3146	107818	06-2022	06-2025	3.1
Logperiodic antenna	EMCO	3147	114385	02-2021	02-2026	3.1
Horn antenna	EMCO	3115	114607	01-2021	01-2025	3.1
Preamplifier 1-18 GHz	µComp Nordic	MCNA-40-0010800-25-10P	114771	08-2024	08-2025	3.1
Semi-Anechoic Chamber	ETS Lindgren	SAR	114624	03-2023	03-2026	3.1
Test software	Raditeq	Radimation Version 2023.2.3	--	--	--	3.1, 3.2
LISN /Two line V-network	Rohde & Schwarz	ENV 216	114379	11-2023	11-2025	3.6

*Note: Standard gain horn antennas do not need calibration

NA= Not Applicable

2.4 Sample calculations

All formulas for data conversions and conversion factors are reported in chapter 4 of this test report.

3 Test results

3.1 Radiated spurious emissions

3.1.1 Limit

FCC 15.209(a)

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Measurement distance(m)
0.009 – 0.490	2400/F(kHz)	$20 \cdot \{\log[2400] - \log[F(\text{kHz})]\}$	300*
0.490 – 1.705	24000/F(kHz)	$20 \cdot \{\log[24000] - \log[F(\text{kHz})]\}$	30*
1.705 – 30.0	30	29.5	30*
30 -88	100	40	3
88 - 216	150	43,5	3
216-960	200	46	3
Above 960	500	54	3

*Note: Measured values in the plots 9 kHz to 30 MHz corrected to 30m or 300m limit distance according to the method described in ANSI C63.10-2013, clause 6.4

3.1.2 Measurement instruments

The measurement instruments are listed in chapter 2.3 of this report.

3.1.3 Test setup

The test setup is as shown in chapter 2.2 of this report.

3.1.4 Test procedure

9 kHz – 30 MHz: According to ANSI C63.10-2013, section 6.4

30 MHz to 26.5 GHz: According to ANSI C63.10-2013, section 6.5 and 6.6

9 kHz to 30 MHz: IRN 441 – Method 10

30 MHz to 1 GHz: IRN 441 – Method 1

1 GHz to 18 GHz: IRN 441– Method 2

18 to 26 GHz: IRN 441– Method 3

In case of handheld and/or body-worn equipment, the EUT's orientation (X, Y, Z) was varied in order to ensure that maximum emission amplitudes were attained. In all other cases the associated cabling and the EUT orientation was varied for maximum emissions.

The spectrum was examined from 0.009 MHz to 10 times X GHz, not more than the 10th harmonic of the highest intentional generated frequency (X GHz). Final radiated emission measurements were made at 3m distance.

The 6 highest emission amplitudes relative to the appropriate limit were recorded in this report. Field strength values of radiated emissions at frequencies not listed in the tables are more than 20 dB below the applicable limit.

3.1.5 Measurement Uncertainty

Frequency range	Polarization	Uncertainty
9 kHz – 30 MHz	--	±1.6 dB
30 – 200 MHz	Horizontal	±4.5 dB
	Vertical	±5.4 dB
200 -1000 MHz	Horizontal	±3.6 dB
	Vertical	±4.6 dB
1 – 18 GHz	Horizontal	±5.7 dB
	Vertical	±5.7 dB
18 – 26.5 GHz	Horizontal	±4.9 dB
	Vertical	±4.9 dB

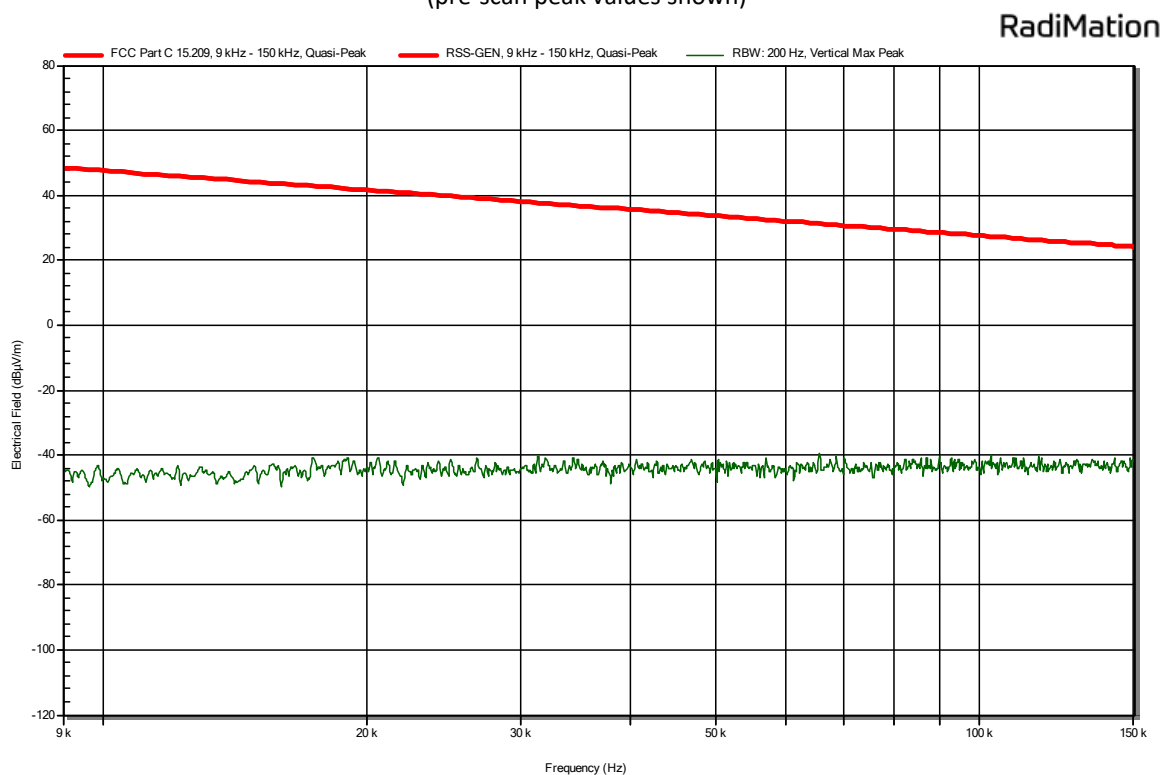
3.1.6 Test results

Frequency	Peak	Quasi-Peak	Quasi-Peak Limit	Angle	Height	Polarization	Quasi-Peak Status
Low channel							
163.582 MHz	43.4 dBμV/m	40.9 dBμV/m	43.5 dBμV/m	39 degrees	1 m	Horizontal	Pass
205.758 MHz	45.9 dBμV/m	43.3 dBμV/m	43.5 dBμV/m	48 degrees	1 m	Vertical	Pass
203.756 MHz	45.7 dBμV/m	42.8 dBμV/m	43.5 dBμV/m	73 degrees	1 m	Vertical	Pass
204.609 MHz	46.3 dBμV/m	43.4 dBμV/m	43.5 dBμV/m	25 degrees	1 m	Vertical	Pass
125.003 MHz	38.3 dBμV/m	37.2 dBμV/m	43.5 dBμV/m	345 degrees	1 m	Horizontal	Pass
218.597 MHz	39 dBμV/m	33.4 dBμV/m	46 dBμV/m	44 degrees	2.5 m	Vertical	Pass
51.009 MHz	33.1 dBμV/m	28.9 dBμV/m	40 dBμV/m	0 degrees	1.5 m	Vertical	Pass
59.964 MHz	32.6 dBμV/m	31.5 dBμV/m	40 dBμV/m	0 degrees	1.5 m	Vertical	Pass
Mid Channel							
60.052 MHz	32.5 dBμV/m	30.3 dBμV/m	40 dBμV/m	1 degrees	1.5 m	Vertical	Pass
67.669 MHz	28 dBμV/m	20.3 dBμV/m	40 dBμV/m	246 degrees	1 m	Vertical	Pass
77.201 MHz	26.2 dBμV/m	10.1 dBμV/m	40 dBμV/m	246 degrees	1 m	Vertical	Pass
125.01 MHz	39.3 dBμV/m	37.4 dBμV/m	43.5 dBμV/m	191 degrees	1 m	Horizontal	Pass
162.847 MHz	42.3 dBμV/m	41 dBμV/m	43.5 dBμV/m	360 degrees	1 m	Horizontal	Pass
204.843 MHz	46 dBμV/m	42.5 dBμV/m	43.5 dBμV/m	335 degrees	1 m	Vertical	Pass
219.296 MHz	40.7 dBμV/m	36.9 dBμV/m	46 dBμV/m	317 degrees	2 m	Horizontal	Pass
High Channel							
203.934 MHz	46 dBμV/m	43.2 dBμV/m	43.5 dBμV/m	213 degrees	1 m	Vertical	Pass
198.245 MHz	43.1 dBμV/m	39.9 dBμV/m	43.5 dBμV/m	318 degrees	1 m	Vertical	Pass
60.694 MHz	31 dBμV/m	15.6 dBμV/m	40 dBμV/m	147 degrees	1 m	Vertical	Pass
187.899 MHz	40.2 dBμV/m	38.9 dBμV/m	43.5 dBμV/m	360 degrees	1 m	Horizontal	Pass
162.522 MHz	43.2 dBμV/m	40.7 dBμV/m	43.5 dBμV/m	142 degrees	1 m	Horizontal	Pass
125.022 MHz	38.5 dBμV/m	37.1 dBμV/m	43.5 dBμV/m	19 degrees	1 m	Horizontal	Pass
437.541 MHz	36.8 dBμV/m	34.2 dBμV/m	46 dBμV/m	251 degrees	1.5 m	Horizontal	Pass

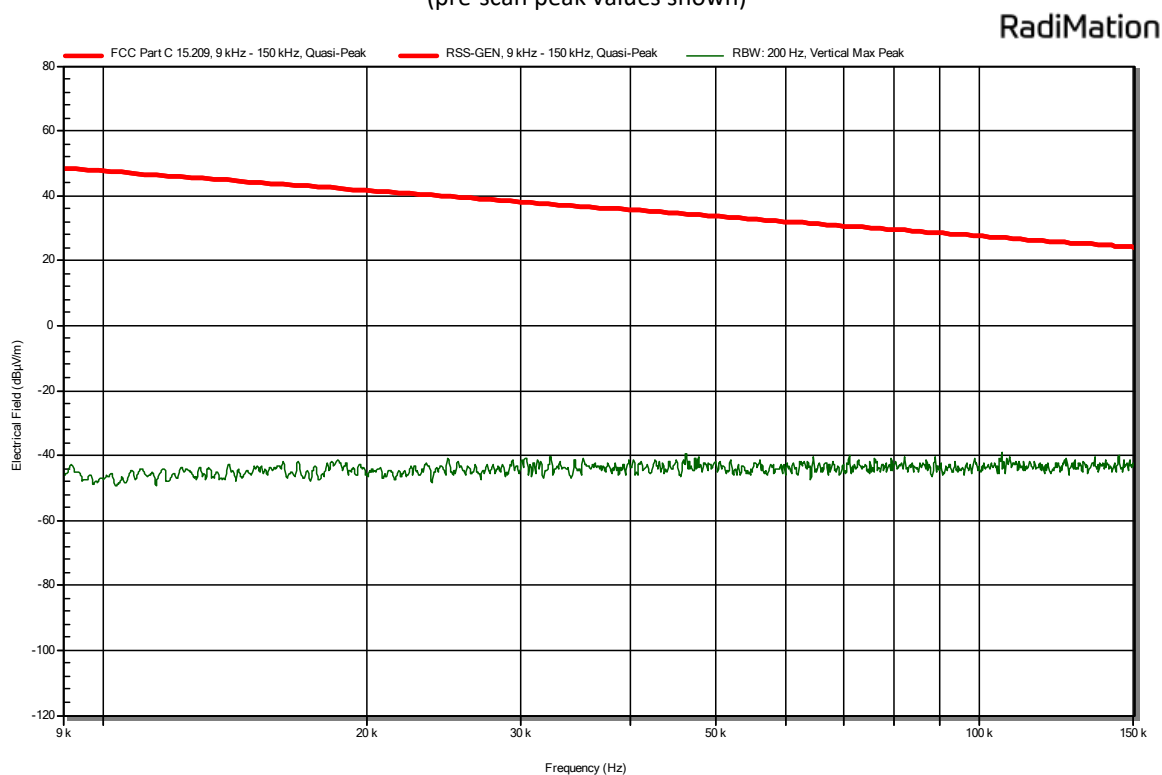
High Channel									
Frequency	Peak	Peak Limit	Average	Average Limit	Angle	Height	Distance	Pol	Status
2.479 GHz	48.6 dBμV/m	74 dBμV/m	42 dBμV/m	54 dBμV/m	133 degrees	3 m	3 m	V	Pass
4.959 GHz	50 dBμV/m	74 dBμV/m	41.8 dBμV/m	54 dBμV/m	151 degrees	2.5 m	3 m	V	Pass

3.1.7 Plots of the Radiated Spurious Emissions Measurement

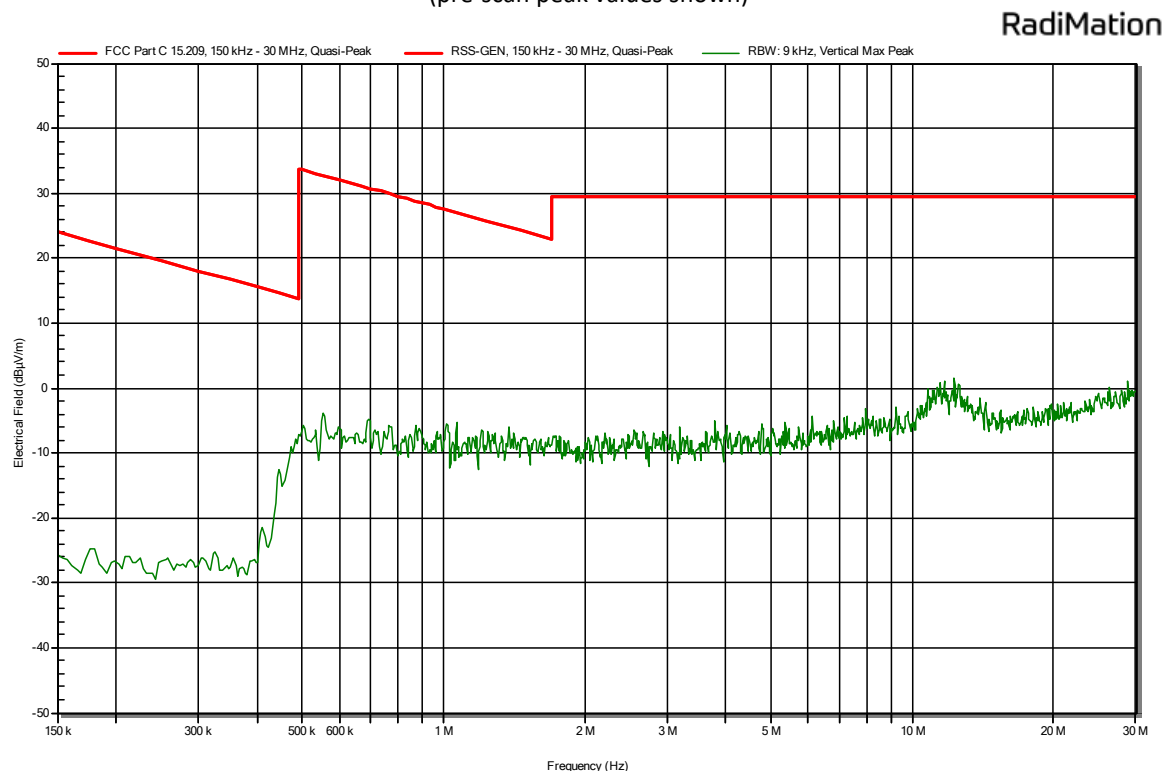
Plot 1a: radiated emissions of the EUT , Low Channel, Antenna perpendicular, in the range 9 – 150KHz
(pre-scan peak values shown)



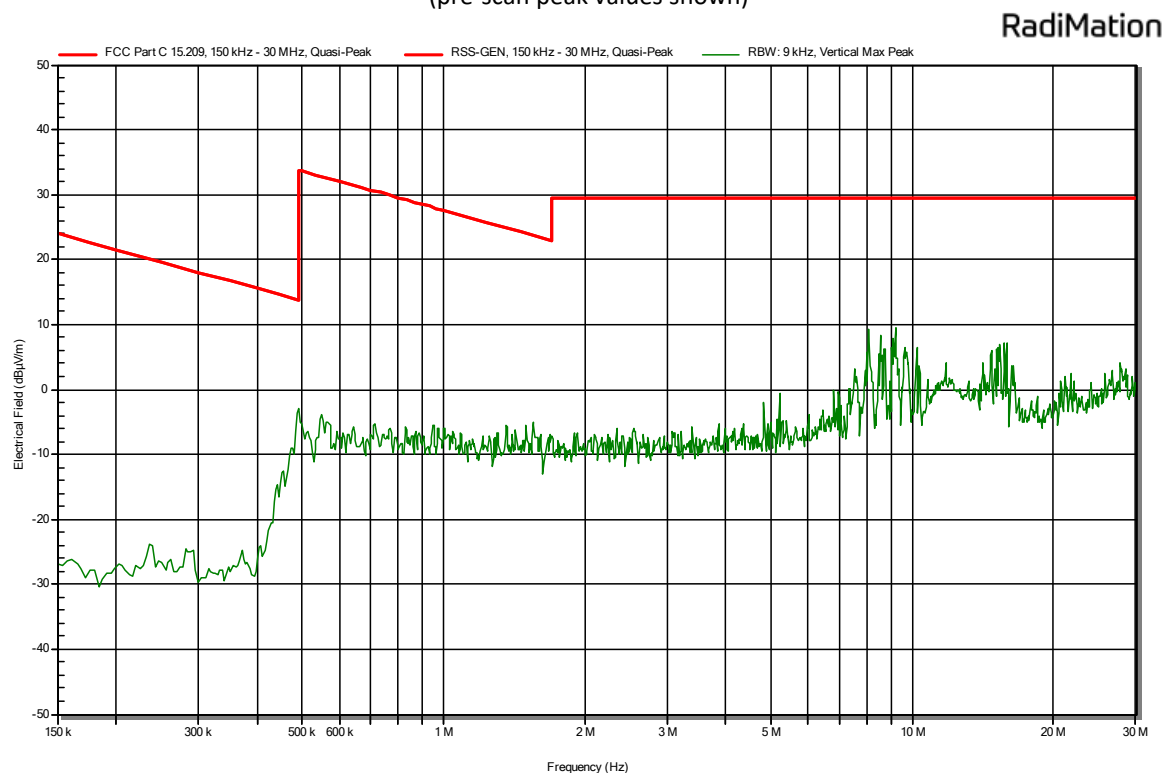
Plot 1b: radiated emissions of the EUT, High Channel, Antenna parallel, in the range 9 – 150KHz
(pre-scan peak values shown)



Plot 2a: radiated emissions of the EUT, Low Channel, Antenna perpendicular, in the range 150KHz-30 MHz
(pre-scan peak values shown)

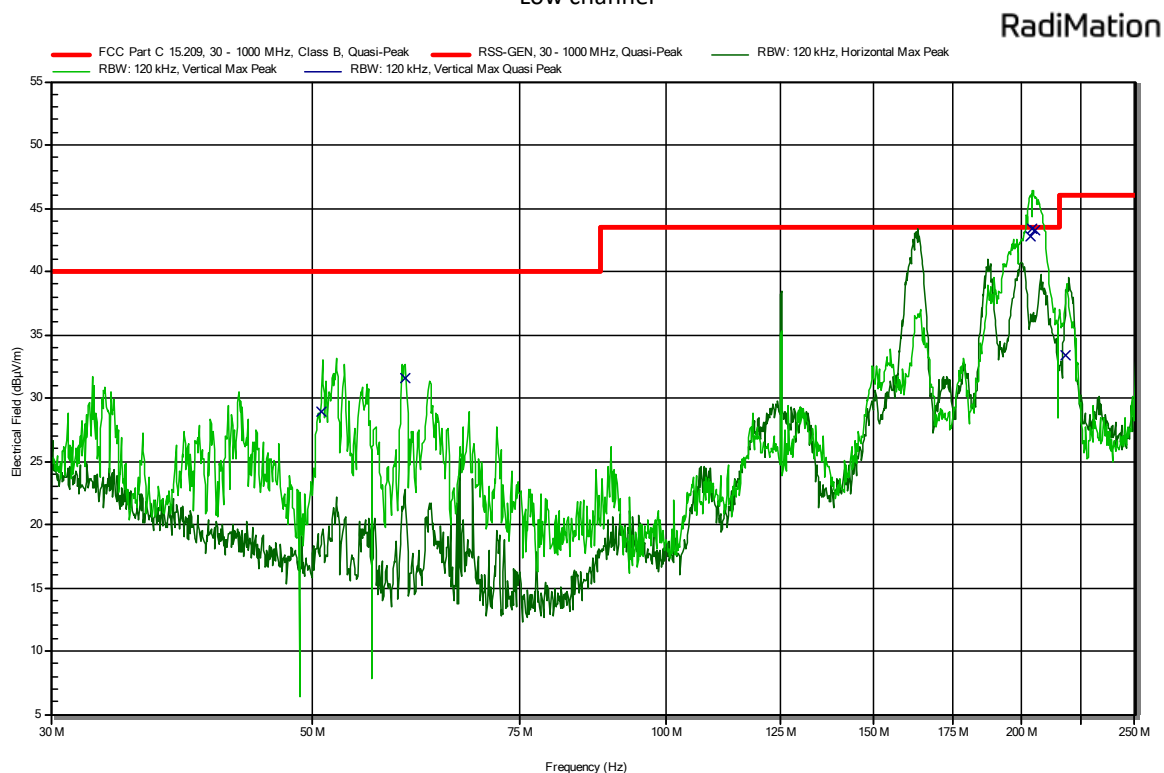


Plot 2b: radiated emissions of the EUT, High Channel, Antenna parallel, in the range 150KHz-30 MHz
(pre-scan peak values shown)



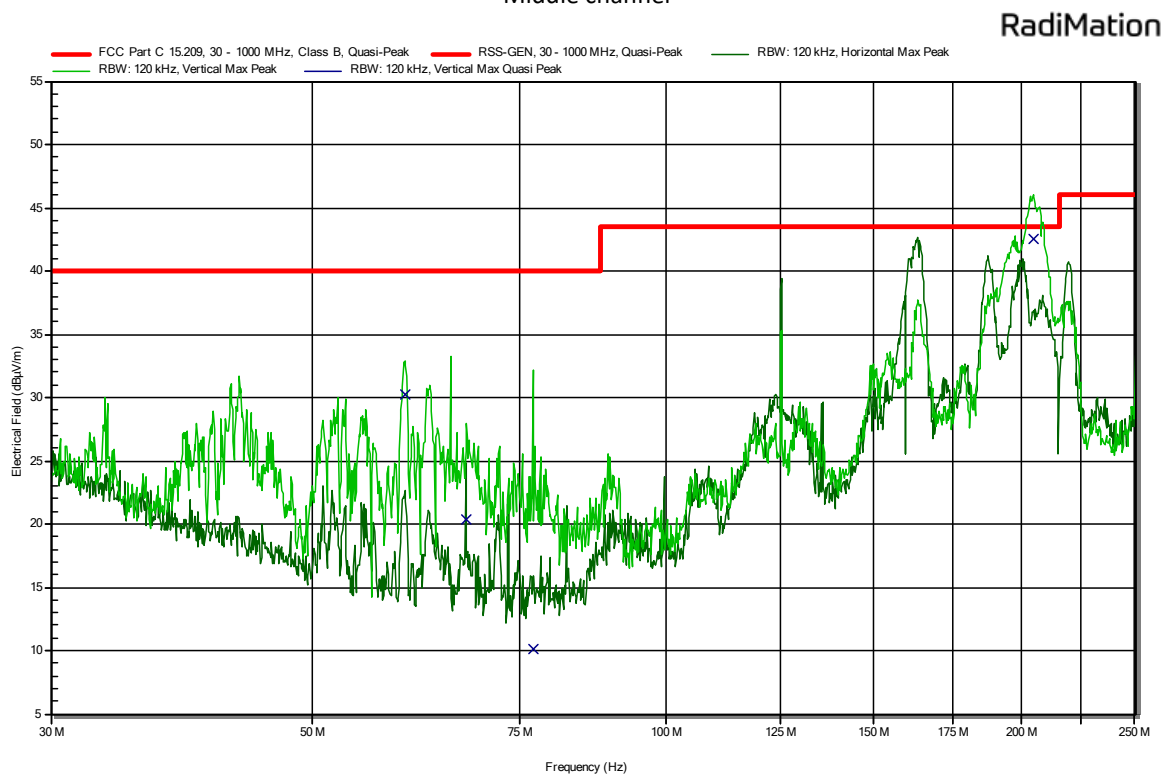
Plot 3a: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 30 – 250 MHz
(pre-scan peak values shown)

Low channel



Plot 3b: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 30 – 250 MHz
(pre-scan peak values shown)

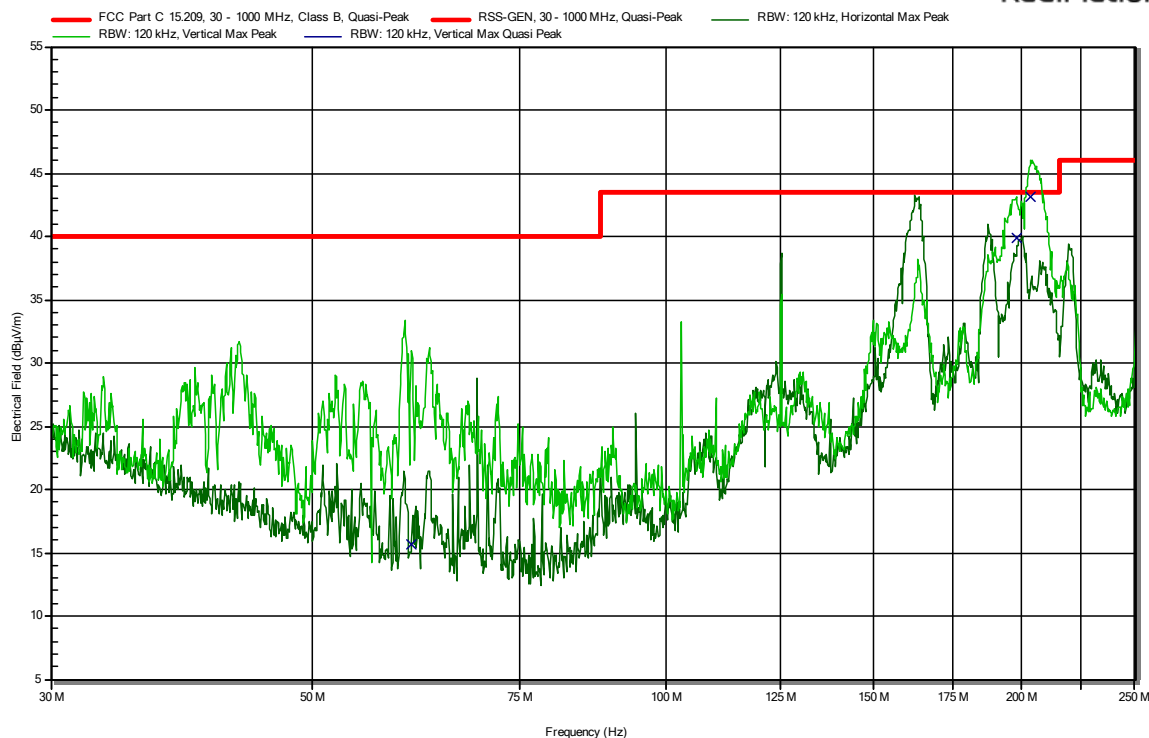
Middle channel



Plot 3c: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 30 – 250 MHz
(pre-scan peak values shown)

High channel

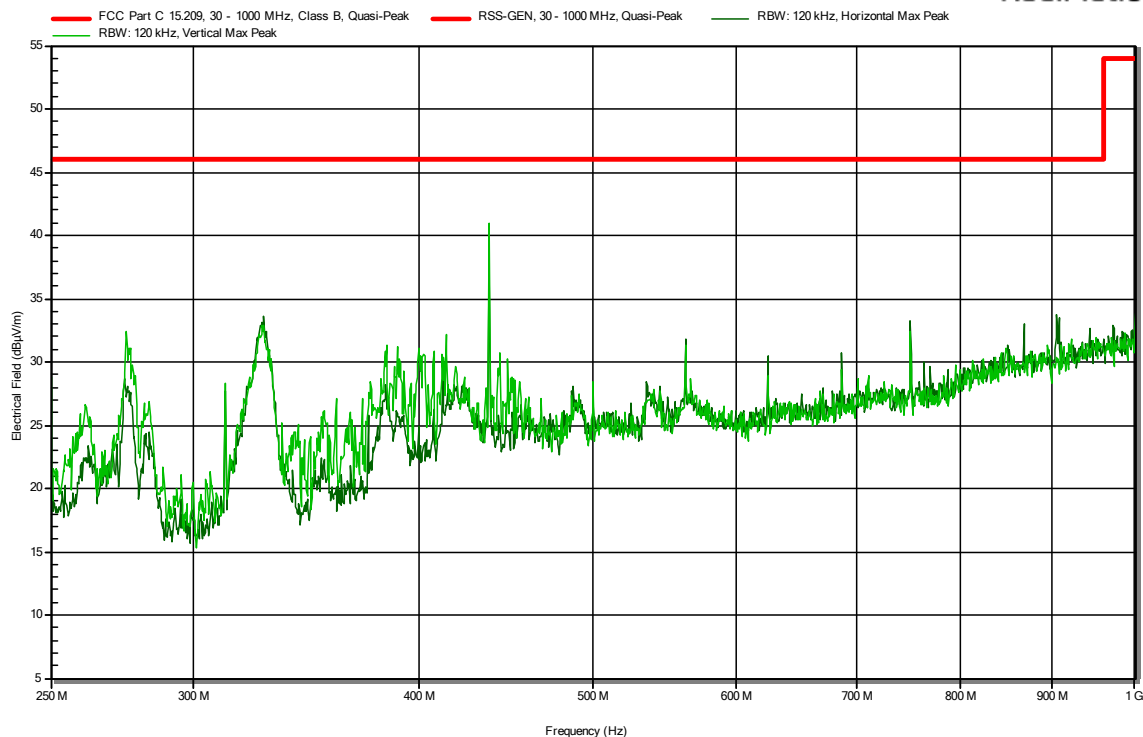
RadiMation



Plot 4a: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 250-1000 MHz
(pre-scan peak values shown)

Low channel

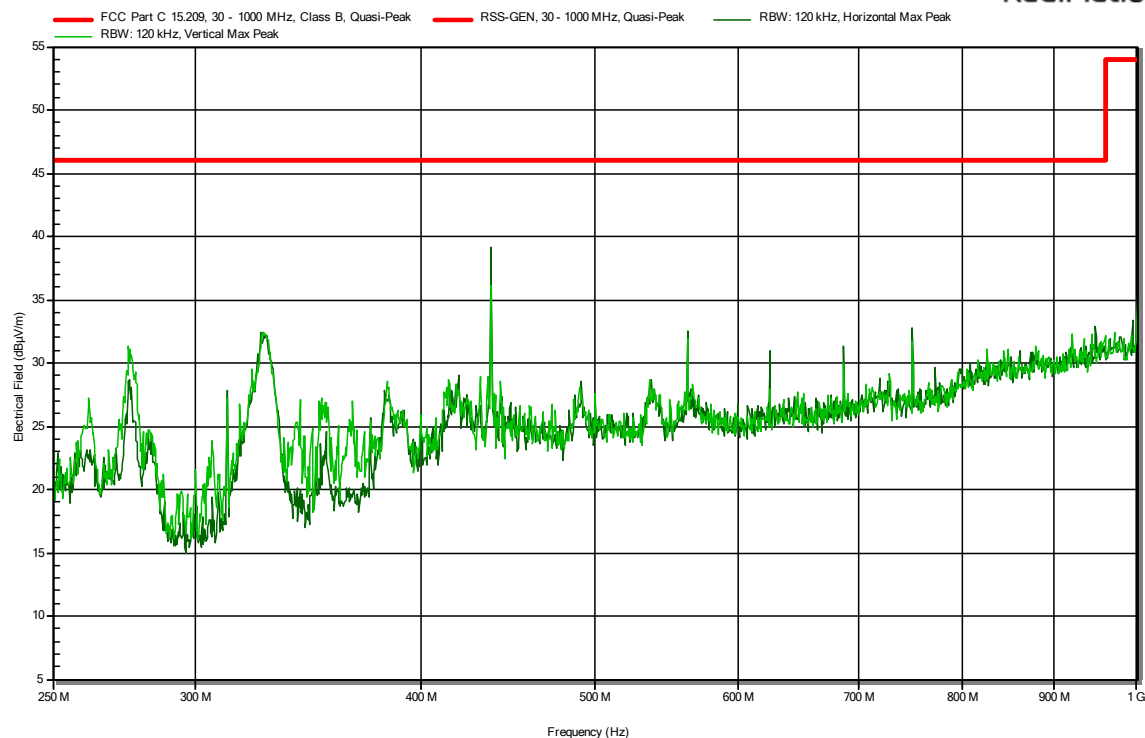
RadiMation



Plot 4b: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 250-1000 MHz
(pre-scan peak values shown)

Middle channel

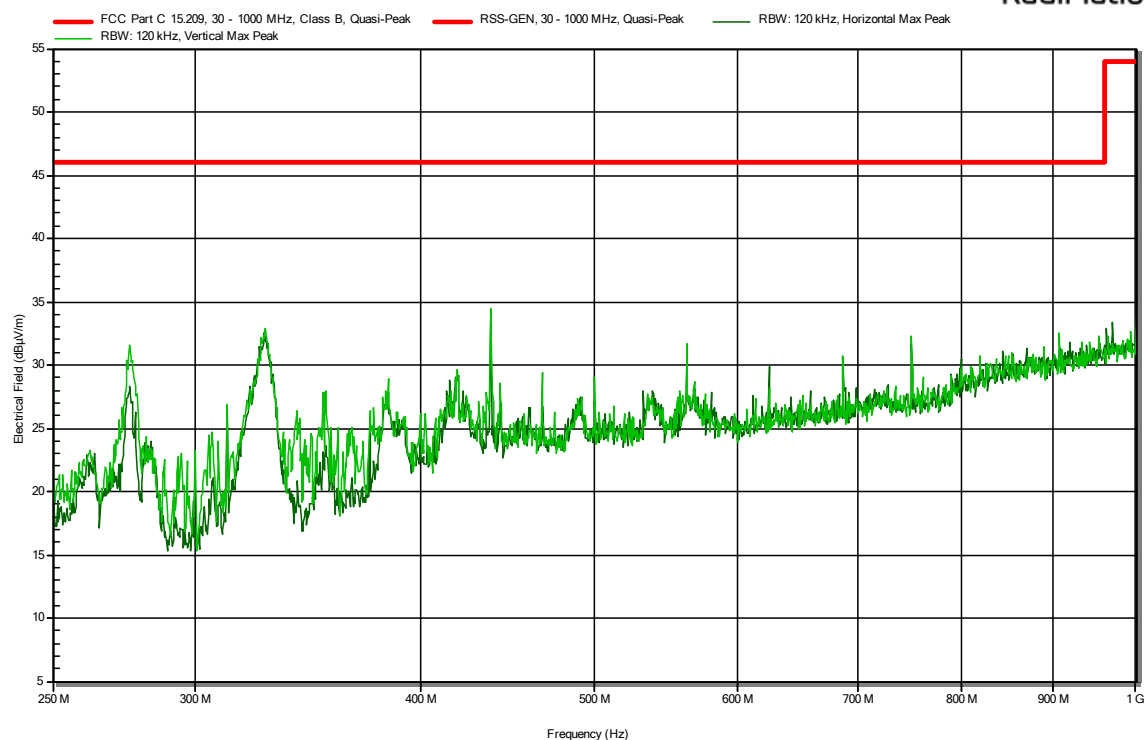
RadiMation



Plot 4c: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 250-1000 MHz
(pre-scan peak values shown)

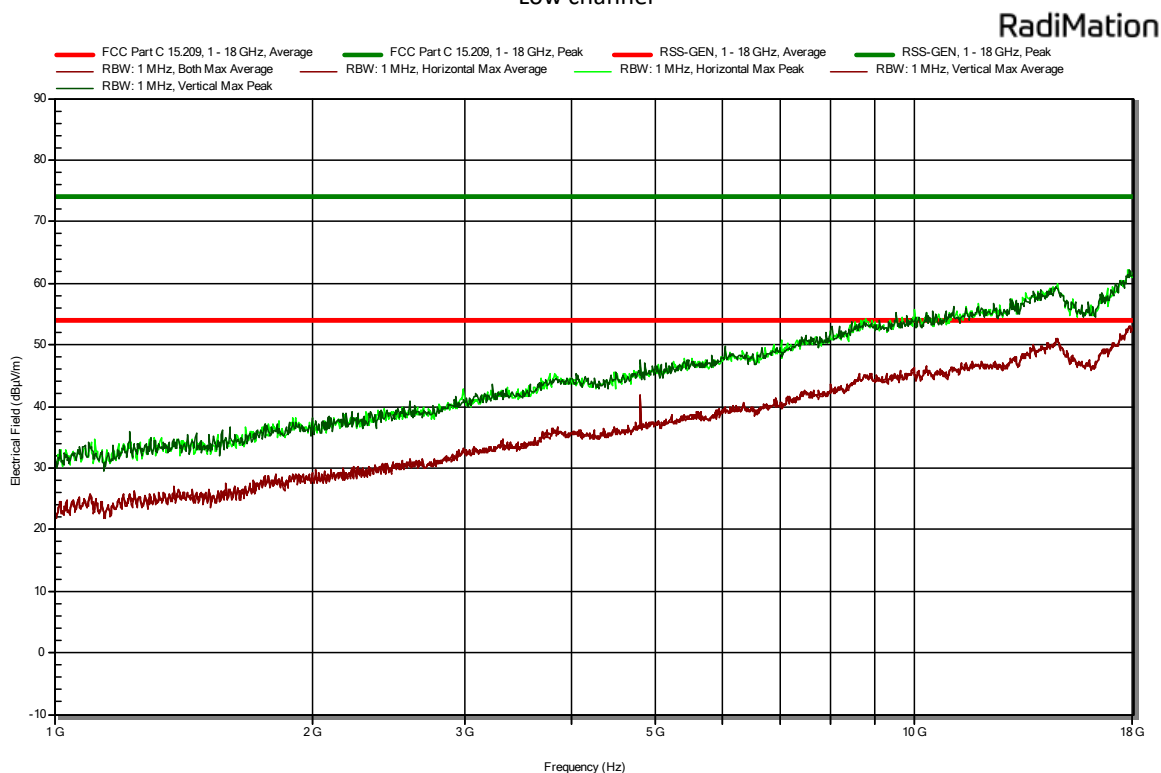
High channel

RadiMation



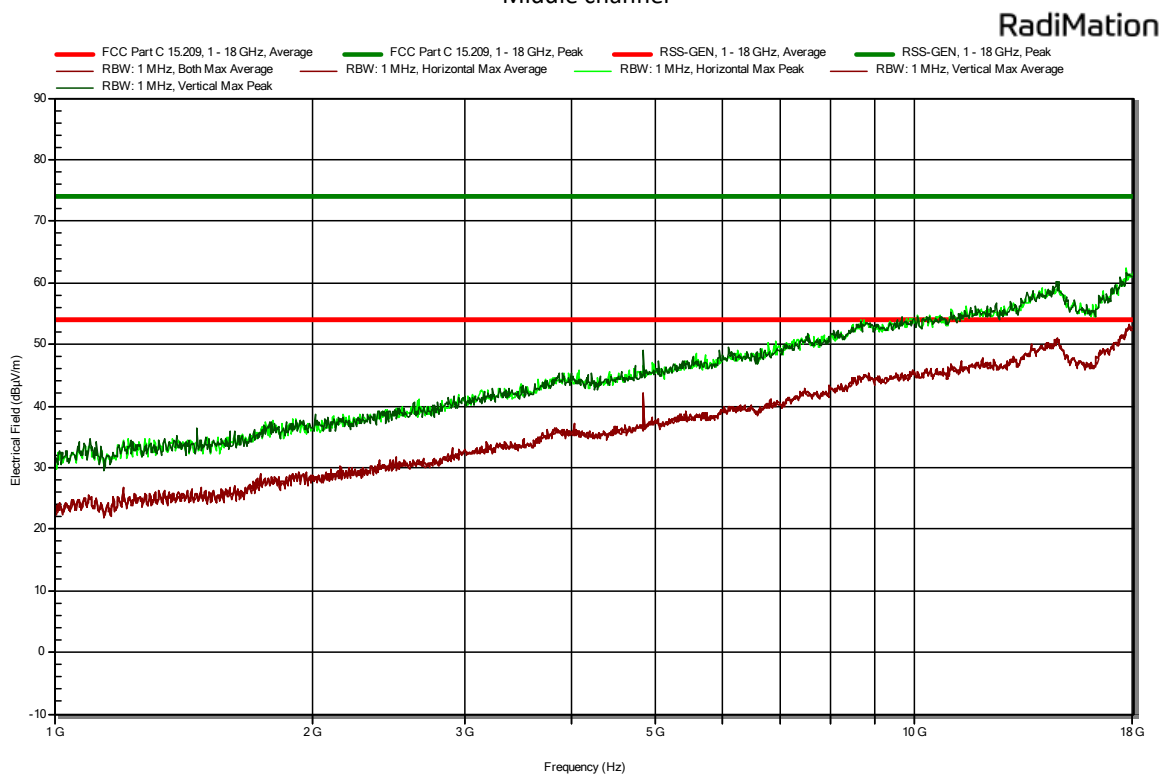
Plot 5a: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 1 – 18 GHz
(peak and average values shown)

Low channel



Plot 5b: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 1 – 18 GHz
(peak and average values shown)

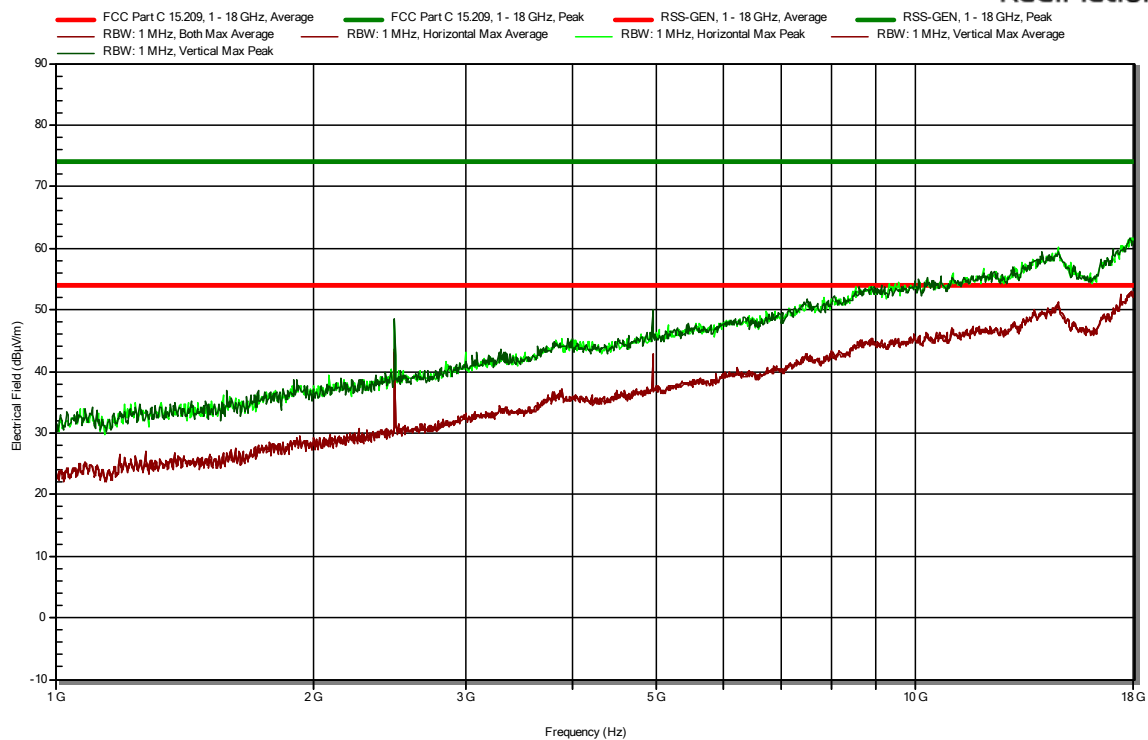
Middle channel



Plot 5b: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 1 – 18 GHz
(peak and average values shown)

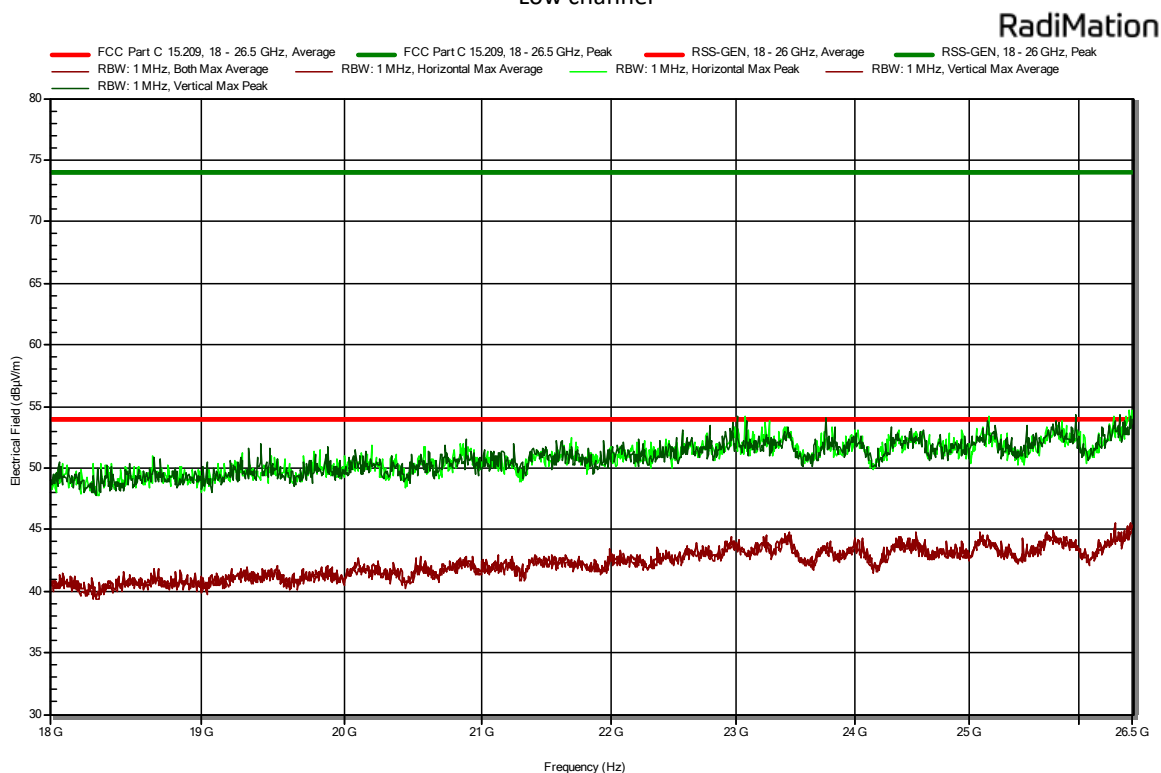
High channel

RadiMation



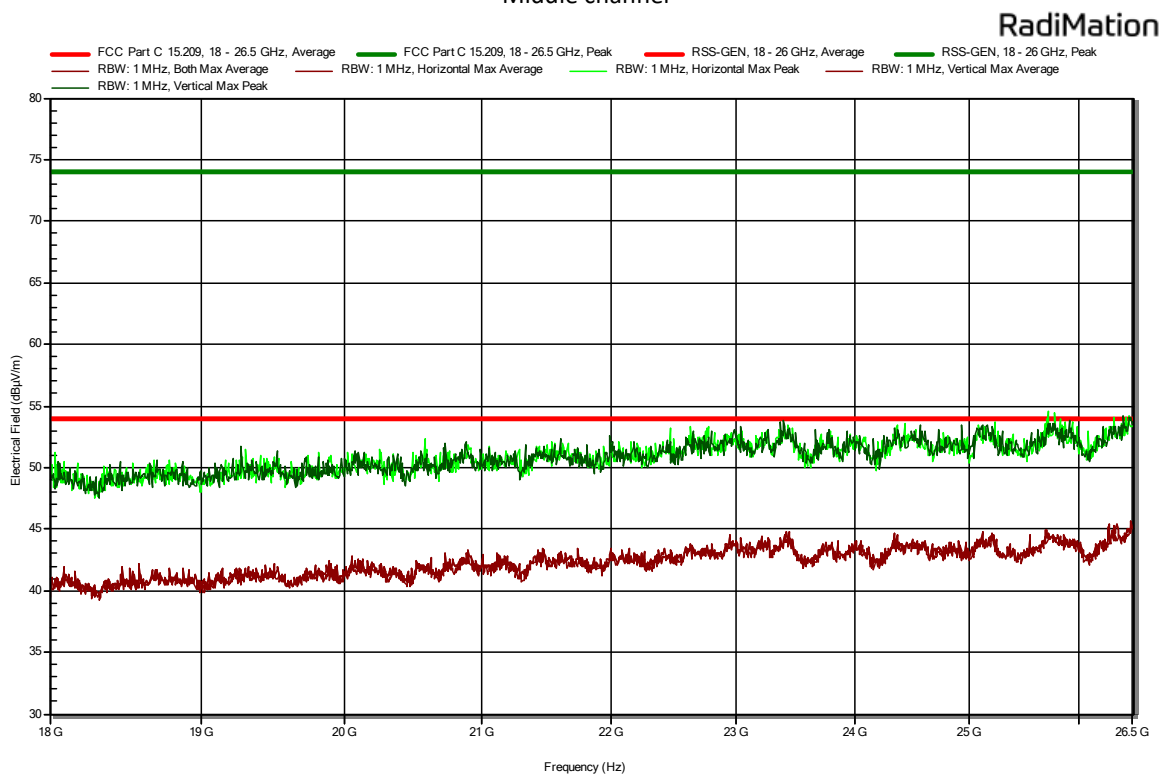
Plot 6a: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 18 – 26.5 GHz
(peak and average values shown)

Low channel



Plot 6b: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 18 – 26.5 GHz
(peak and average values shown)

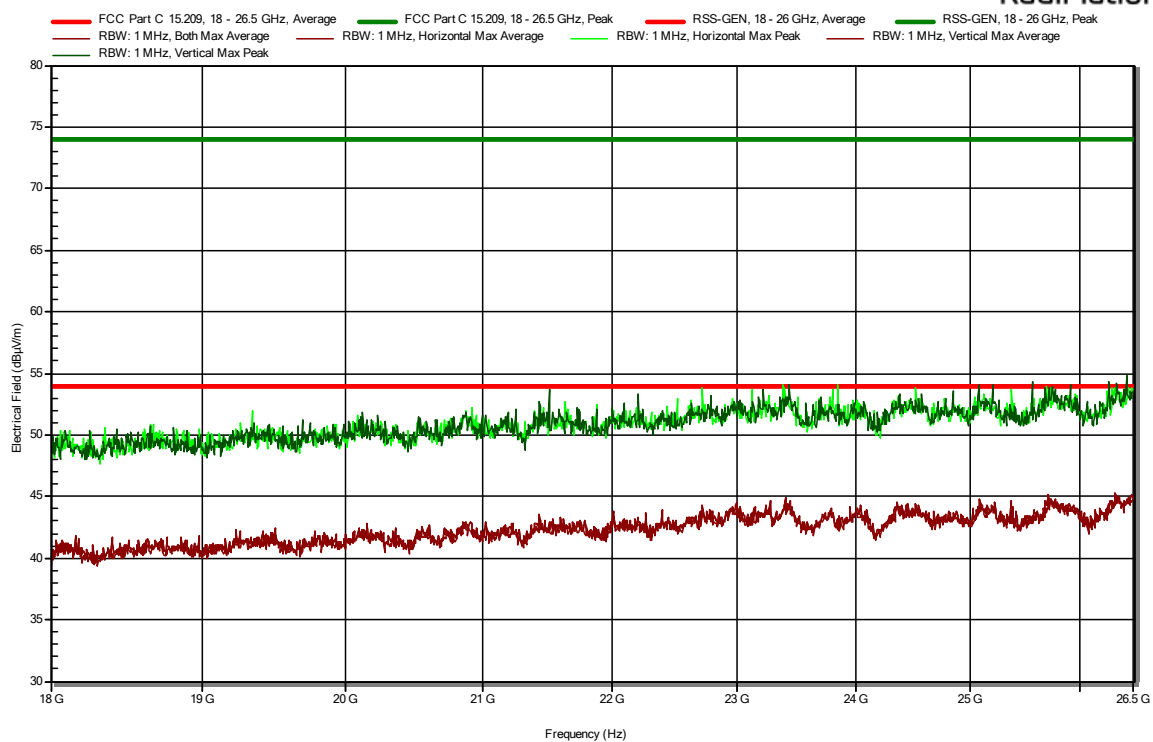
Middle channel



Plot 6b: radiated emissions of the EUT, Antenna vertical & horizontal, in the range 18 – 26.5 GHz
(peak and average values shown)

High channel

RadiMation



3.2 Output Power Measurement

3.2.1 Limit

FCC: For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of this section. The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.2.2 Measurement instruments

The measurement instruments are listed in chapter 2.3 of this report.

3.2.3 Test setup

The test setup is as shown in chapter 2.2 of this report.

3.2.4 Test procedure

The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02.

IRN 402 - RF power (W) - Method 12 – Peak Method according to ANSI C63.10.

3.2.5 Test results of Output Power Measurement

Variant 3v1:

Peak method						
Technology Std.	Channel	Frequency (MHz)	Data rate	Peak output power conducted (dBm)	Peak output power conducted (W)	Peak output power EIRP (W)
BLE	37	2402	1Mbps	-11.55	0.0000699842	0.00011
	18	2442	1Mbps	-10.25	0.0000944061	0.00015
	39	2480	1Mbps	-8.95	0.0001273503	0.0002
Uncertainty				±0.71 dB		

3.3 AC Power-line conducted emissions

3.3.1 Limit

According to 15.207 (a), (c)

An intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN).

Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

Since the FCC and RSS limits are exactly the same, the plots only show FCC limits.

Frequency (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 ¹	56 to 46 ¹
0.5 – 5	56	46
5 – 30	60	50

Note 1: The level decreases linearly with the logarithm of the frequency.

3.3.2 Measurement instruments

The measurement instruments are listed in chapter 2.3 of this report.

3.3.3 Test setup

The test setup is as shown in chapter 2.2 of this report.

3.3.4 Test procedure

According to ANSI C63.10-2020 Section 6.2
IRN 439 – Method 1

3.3.5 Measurement uncertainty

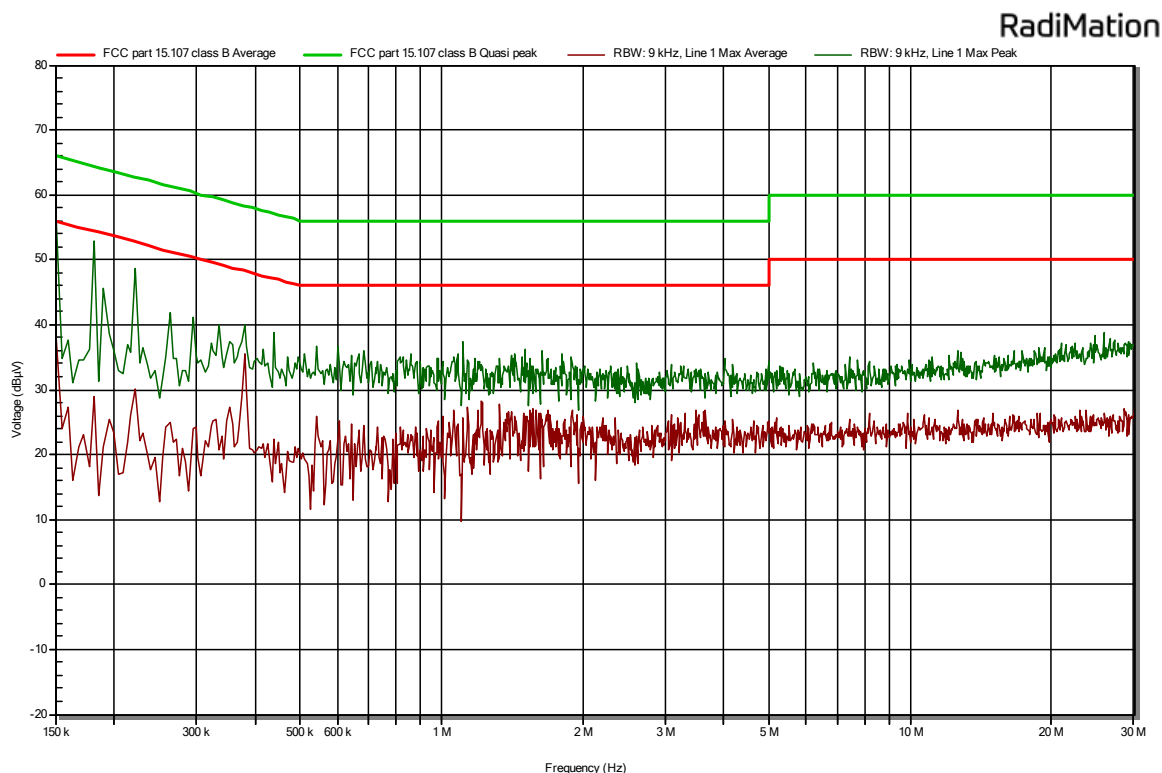
+/- 3.6 dB

3.3.6 AC Power Line Conducted emission data of the EUT, results

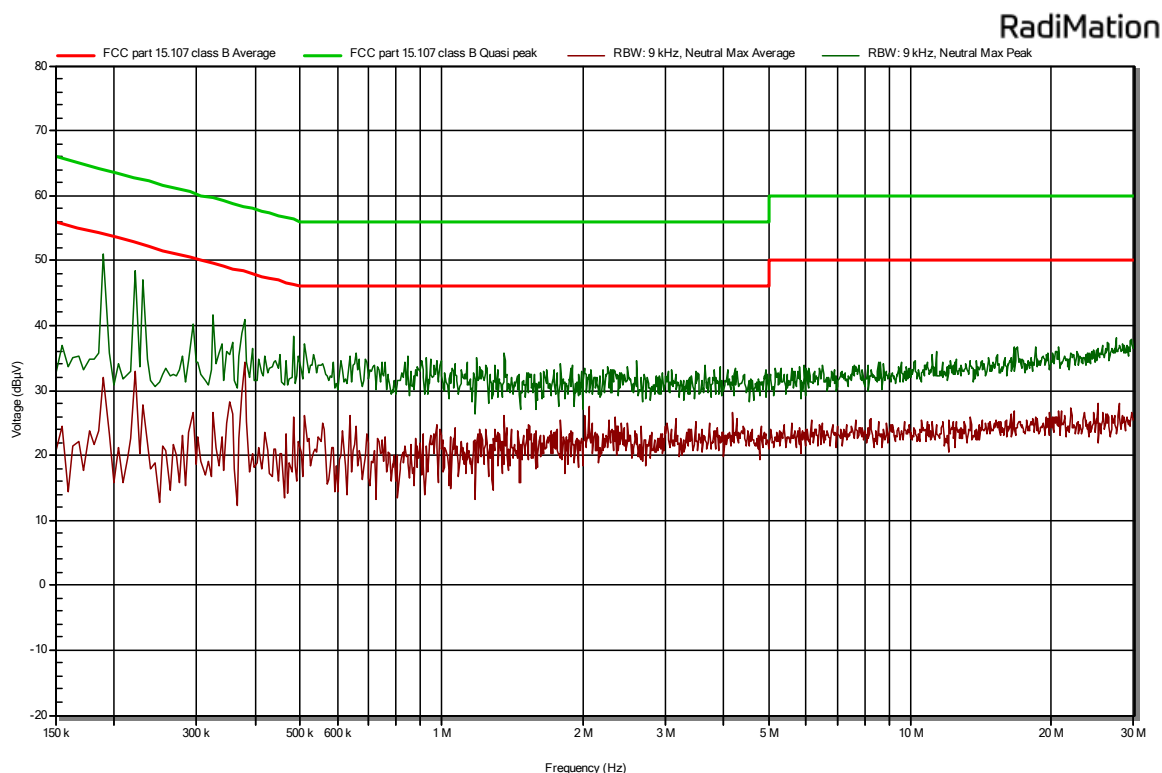
Frequency	Peak	Average	Average Limit	Quasi-Peak	Quasi-Peak limit	Status
181.5 kHz	52.8 dB μ V	28.9 dB μ V	54.4 dB μ V	48.3 dB μ V	64.8 dB μ V	Pass
222 kHz	48.7 dB μ V	30.1 dB μ V	52.7 dB μ V	47.8 dB μ V	64.0 dB μ V	Pass

3.3.7 Plots of the AC mains conducted spurious measurement

Pre-scan plot with peak detector of the AC Power-line Conducted emissions on **Phase**



Pre-scan plot with peak detector of the AC Power-line Conducted emissions on **Neutral**



4 Sample calculations

All formulas for data conversions and conversion factors are reported in this chapter.

Conducted emission Measurement:

$$U_{\text{lisn}} (\text{dB}\mu\text{V}) = U (\text{dB}\mu\text{V}) + \text{Corr. (dB)}$$

Where:

U = Measuring receiver voltage

LISN insertion loss = Voltage division factor of LISN

Corr. = sum of single correction factors of used LISN, cables and pulse limiter.

Linear interpolation will be used for frequencies in between the values in the table.

Frequency (MHz)	Voltage division LISN (db)	Cable loss (dB)	Corr. (dB)
	114379 SN: 230000813 Rohde & Schwarz ENV 216	TE 11134	
0,15	9.7	0.02	9.72
0,2	9.68	0.03	9.71
0,3	9.68	0.03	9.71
0,5	9.69	0.08	9.77
0,7	9.69	0.25	9.94
0,8	9.69	0.25	9.94
1	9.68	0.11	9.79
2	9.7	0.15	9.85
3	9.71	0.21	9.92
5	9.72	0.21	9.93
7	9.76	0.25	10.01
8	9.77	0.25	10.02
10	9.77	0.29	10.06
15	9.84	0.34	10.18
20	9.88	0.37	10.25
25	9.97	0.43	10.4
30	10.08	0.45	10.53

Magnetic field strength measurement:

$$H \left[dB \left(\mu \frac{A}{m} \right) \right] = V[dB(\mu V)] + L_c[dB] + AF^H \left[\frac{dB}{\Omega m} \right]$$

Where:

H is the magnetic field strength (to be compared to the limit)

V is the voltage level measured by the receiver or spectrum analyzer

L_c is the cable loss

AF^H is the magnetic antenna factor

Frequency (MHz)	AF	300m to 3m and 30m to 3m correction	CL (dB)	Corr. (dB)
	114515 EMCO 6505 S/N:9112-2710		SAR cable	
0.009	18.49	104.956	0.7	-85.8
0.01	17.64	104.041	0.05	-86.4
0.02	13.23	98.02	0.07	-84.7
0.03	11.65	94.498	0.1	-82.7
0.04	10.97	91.999	0.1	-80.9
0.1	10.14	84.041	0.1	-73.8
0.2	10.01	78.02	0.1	-67.9
0.5	9.95	50.061	0.1	-40
1	9.91	44.041	0.2	-33.9
3	9.93	34.498	0.2	-24.4
5	9.93	30.061	0.3	-19.8
10	9.75	24.041	0.6	-13.7
15	9.29	20.519	0.9	-10.3
20	8.57	18.02	1	-8.5
25	7.55	16.082	0.7	-7.8
27	7.01	15.413	1.2	-7.2
30	6.03	14.498	1	-7.5

Field Strength Measurement:

$$E \text{ (dB}\mu\text{V/m)} = U \text{ (dB}\mu\text{V)} + AF \text{ (dB/m)} + \text{Corr. (dB)}$$

Where:

E = Electric field strength

U = Measuring receiver voltage

AF = Antenna factor

CL = Cable loss

Corr. = sum of single correction factors of used cable and amplifier (if applicable).

Linear interpolation will be used for frequencies in between the values in the table.

Tables shows an extract of the values.

Frequency (MHz)	AF (dB/m)	Cable loss (dB)	Attenuator	Corr. (dB)
	ID: 107818 EMCO 3109	Id: 114928	ID:114525 Hewlett Packet	
30	13.5	1.8	6	21.3
100	9.2	2.7	6	17.9
150	12.6	3.2	6	21.8
200	13.6	3.6	6	23.2
250	15.2	4.3	6	25.5

Frequency (MHz)	AF (dB/m)	Cable loss (dB)	Corr. (dB)
	ID: 114385 EMCO LPDA	Id: 114928	
250	11.8	4.3	16.1
300	13	5.1	18.1
350	14.2	5.8	20.0
400	15.6	7.3	22.9
450	17.1	7.9	25.0
500	17.3	8.0	25.3
550	17.7	8.0	25.7
600	18.4	7.7	26.1
650	19.2	7.5	26.7
700	19.7	7.7	27.4
750	20.3	7.9	28.2
800	21.4	8.2	29.6
850	22.0	8.7	30.7
900	22.1	8.9	31.0
950	22.6	9.2	31.8
1000	22.5	9.6	32.1

Frequency (MHz)	AF (dB/m)	Gain (dB)	Cable loss (dB)	Corr. (dB)
	114607 Emco 3115 SN: 9412-4377	114690 µComp Nordic MCNA-40-0010800-25-10P	114691	
1000	23.6	45.1	2.1	-19.4
2000	27.1	44.7	3.3	-14.3
3000	30.5	44.2	4.2	-9.5
4000	32.7	43.5	4.9	-5.9
5000	33.2	43.1	5.6	-4.3
6000	34.6	43.0	6.3	-2.1
7000	35.2	42.9	6.4	-1.3
8000	37.0	43.3	7.2	0.9
9000	38.1	43.3	7.9	2.7
10000	38.2	43.0	8.2	3.4
11000	38.3	42.9	8.7	4.1
12000	39.1	42.6	9.0	5.5
13000	39.2	43.6	9.8	5.4
14000	41.1	44.3	9.7	6.5
15000	40.2	44.4	10.4	6.2
16000	37.5	44.3	10.8	4.0
17000	41.1	44.5	11.4	8.0
18000	44.0	44.9	11.4	10.5

Frequency (MHz)	AF (dB/m)	Gain (dB)	Cable loss (dB)	Corr. (dB)
	Kiwa ID: 114518 Flann 20240-25 SN: 163703	Kiwa ID: Schwarzbeck BBV 9721	114691	
18000	31.3	34.5	11.4	8.2
19000	31.5	34.9	11.2	7.8
20000	31.7	34.1	11.6	9.2
21000	31.9	33.6	12.1	10.4
22000	32.1	33.6	12.4	10.9
23000	32.2	33.3	13.6	12.5
24000	32.3	32.3	13.5	13.5
25000	32.4	33.0	13.4	12.8
26000	32.5	32.9	13.7	13.3

Frequency (MHz)	AF (dB/m)	Gain (dB)	Cable loss (dB)	Corr. (dB)
	Kiwa ID: 114487 Scientific Atlanta	Kiwa ID: Schwarzbeck BBV 9721	114691	
26000	35.3	32.9	13.7	16.1
27000	35.4	32.6	14.9	17.7
28000	35.6	32.6	14.4	17.4
29000	35.9	32.9	14.6	17.6
30000	36.2	32.7	15.2	18.7
31000	36.1	32.9	14.9	18.1
32000	36.0	33.8	16.7	18.9
33000	36.2	34.8	16.8	18.2
34000	36.3	35.5	15.9	16.7
35000	36.4	35.5	17.5	18.4
36000	36.5	34.6	17.9	19.8
37000	36.6	33.6	18.2	21.2
38000	36.8	32.5	17.7	22.0
39000	37.0	32.1	17.7	22.6
40000	37.2	29.9	19.0	26.3

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