DEKRA Testing and Certification, S.A.U.
Parque Tecnológico de Andalucía,
c/ Severo Ochoa nº 2 · 29590 Campanillas · Málaga · España
C.I.F. A29507456

ISED CABid: ES1909
Lab. Company Number: 4621A

Test Report No:
79301RRF.005

Partial Test Report
USA FCC Part 15.31h, 15.247, 15.209
CANADA RSS-247, RSS-Gen

(*) Identification of item tested	Rechargeable hearing instrument
(*) Trademark	ReSound, Beltone, Interton, GN Hearing, Danavox, Audigy, Jabra, GN Audio
(*) Model and /or type reference	LUBR90
Other identification of the product	FCC ID: X26LUBR90 IC: 6941C-LUBR90
(*) Features	BT 1/2Mbit, proximity & MI radio, rechargeable battery, IP68 enclosure HW version: LUBR90,V2,C6.0 SW version: Dooku3
Applicant	GN Hearing A/S Lautrupbjerg 7, DK-2750 Ballerup, Denmark
Test method requested, standard	USA FCC Part 15.31(h) (10-1-20 Edition): Measurement standard. USA FCC Part 15.247 (10-1-20) Edition: Operation within the bands 902 - 928 MHz, 2400 -2483.5 MHz, and 5725 - 5850 MHz. USA FCC Part 15.209 (10-1-20) Edition: Radiated emission limits; general requirements. CANADA RSS-247 Issue 3 (August 2023). CANADA RSS-Gen Issue 5 (March 2019). Guidance for Performing Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid Systems Devices Operating Under Section 15.247 of the FCC Rules. 558074 D01 Meas Guidance v05r02 dated April 2, 2019. ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.
Approved by (name / position & signature)	José Manuel Gómez Galván EMC Consumer & RF Lab. Manager Firmado digitalmente por 53680346W JOSE MANUEL GOMEZ (C:A29507456)
Date of issue	2025-06-30
Report template No	FDT08_24 (*) “Data provided by the client”

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DEKRA Testing and Certification is a FCC-recognized accredited testing laboratory with appropriate scope of accreditation that covers the performed tests in this report.

DEKRA Testing and Certification is an ISED-recognized accredited testing laboratory, CABid: ES1909, with the appropriate scope of accreditation that covers the performed tests in this report.

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Uncertainty

Uncertainty (factor k=2) was calculated according to the DEKRA Testing and Certification internal document PODT000.

The total uncertainty of the measurement system for the radiated emissions of EUT from 9 KHz to 30 MHz is: Measurement uncertainty ≤ ± 3.08 dB with factor (k = 2).

The total uncertainty of the measurement system for the radiated emissions of EUT from 30 MHz to 1 GHz is: Measurement uncertainty ≤ ± 5.15 dB with factor (k = 2).

The total uncertainty of the measurement system for the radiated emissions of EUT from 1 GHz to 17 GHz is: Measurement uncertainty ≤ ± 4.28 dB with factor (k = 2).

The total uncertainty of the measurement system for the radiated emissions of EUT from 17 GHz to 26 GHz is: Measurement uncertainty ≤ ± 4.89 dB with factor (k = 2).

Data provided by the client

The following data has been provided by the client:

1. Information relating to the description of the sample ("Identification of the item tested", "Trademark", "Model and/or type reference tested").

2. The sample consists of a rechargeable wireless hearing aid.

3. The next page contains a statement from the client regarding the different brand versions of the device under test.

DEKRA Testing and Certification S.A.U. declines any responsibility with respect to the information provided by the client and that may affect the validity of results. The laboratory is not responsible for such information and it is not covered by accreditation.

GN Hearing A/S

20.03.2025

Statement of equivalence

As manufacturer of the "LUBR90" hearing aid, GN Hearing A/S, hereby confirm that the devices may be marketed under several different brands. There are no differences in electronics or mechanics between the different brand versions. The only difference is the brand name appearing on the devices.

Consequently, all devices marketed under below brands will have equivalent electrical and mechanical properties and performance as the model tested which is the ReSound "LUBR90" hearing aid version.

GN Hearing "LUBR90" hearing aid may be marketed under the brands:

- GN Hearing A/S
- GN Audio A/S
- ReSound
- Beltone
- Jabra
- Interton
- Audigy
- Danavox

Sincerely,

DocuSigned by:
Søren Carlsen
389D2E3E10D14FE...

Søren Carlsen
Regulatory Certification Engineer
GN Hearing A/S

GN Hearing A/S
Lautrupbjerg 7
DK-2750 Ballerup
Denmark
CVR: 55082715

GN Hearing A/S | Lautrupbjerg 7 | DK-2750 Ballerup | +45 45 75 00 00
Co. Reg. no. 55082715 | info@gn.com | www.gn.com

Usage of samples

Samples undergoing test have been selected by: The client.

Id	Control Number	Description	Model	Serial Nº	Date of Reception	Application
S/01	79301D_16.1	Hearing aid	LUBR90	2500801476	2025-03-18	Element Under Test

Notes referenced to samples during the project:

Id	Type
S/01	Sample for Radiated tests

Test sample description

<table>
<tr><td rowspan="6">Ports……. :</td><td rowspan="2">Port name and description</td><td colspan="4">Cable</td></tr>
<tr><td>Specified max length [m]</td><td>Attached during test</td><td>Shielded</td><td>Coupled to patient(3)</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Supplementary information to the ports……. :</td><td colspan="5"></td></tr>
<tr><td rowspan="5">Rated power supply ..... :</td><td colspan="2" rowspan="2">Voltage and Frequency</td><td colspan="4">Reference poles</td></tr>
<tr><td>L1</td><td>L2</td><td>L3</td><td>N</td><td>PE</td></tr>
<tr><td></td><td>AC:</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>AC:</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td colspan="5">DC: 3.7 V (rechargeable battery)</td></tr>
<tr><td></td><td colspan="5">DC:</td></tr>
<tr><td>Rated Power ..... :</td><td colspan="5">3.73V, 50 mAh, 0,187Wh</td></tr>
<tr><td>Clock frequencies..... :</td><td colspan="5">CPU XTAL: 32 MHz</td></tr>
<tr><td>Other parameters ..... :</td><td colspan="5"></td></tr>
<tr><td>Software version ..... :</td><td colspan="5">Dooku3</td></tr>
<tr><td>Hardware version ..... :</td><td colspan="5">LUBR90, V2, C6.0</td></tr>
<tr><td>Dimensions in cm (W x H x D)..... :</td><td colspan="5">40x15x9mm</td></tr>
<tr><td rowspan="4">Mounting position ..... :</td><td></td><td colspan="4">Table top equipment</td></tr>
<tr><td></td><td colspan="4">Wall/Ceiling mounted equipment</td></tr>
<tr><td></td><td colspan="4">Floor standing equipment</td></tr>
<tr><td></td><td colspan="4">Hand-held equipment</td></tr>
</table>

	[ ]	Other:

Modules/parts..... :	Module/parts of test item	Type	Manufacturer

Accessories (not part of the test item)..... :	Description	Type	Manufacturer

Documents as provided by the applicant..... :	Description	File name	Issue date

(3) Only for Medical Equipment

Identification of the client

GN Hearing A/S
Lautrupbjerg 7, 2750 Ballerup, Denmark

Testing period and place

Test Location	DEKRA Testing and Certification S.A.U.
Date (start)	2025-06-18
Date (finish)	2025-06-20

Document history

Report number	Date	Description
79301RRF.005	2025-06-30	First release.

Environmental conditions

In the control chamber, the following limits were not exceeded during the test:

Temperature	Min. = 15 ºC Max. = 35 ºC
Relative humidity	Min. = 20 % Max. = 75 %

In the semianechoic chamber, the following limits were not exceeded during the test.

Temperature	Min. = 15 ºC Max. = 35 ºC
Relative humidity	Min. = 20 % Max. = 75 %

Remarks and comments

The tests have been performed by the technical personnel: Victoria Olmedo.

Used instrumentation:

Control No.	Equipment	Model	Manufacturer	Next Calibration
07762	ACTIVE LOOP ANTENNA 9kHz-30MHz	FMZB 1519B	SCHWARZBECK	2025-12-01
10304	EMI TEST RECEIVER 2Hz-44GHz	ESW44	ROHDE & SCHWARZ	2026-10-01
09968	HYBRID BILOG ANTENNA 30MHz-6GHz	3142E	ETS LINDGREN	2026-09-22
08130	SEMIANECHOIC ABSORBER LINED CHAMBER	P29419	ALBATROSS	--
08134	SHIELDED ROOM	P29419	ALBATROSS PROJECTS GMBH	--
04848	SOFTWARE FOR EMC/RF TESTING	EMC32	ROHDE AND SCHWARZ	--
07550	TEMPERATURE AND HUMIDITY PROBE	HWg-STE	HW GROUP	2025-04-24
07549	TEMPERATURE AND HUMIDITY PROBE	HWg-STE	HW GROUP	2025-04-24
07763	HORN ANTENNA 1-18GHz	BBHA 9120D	SCHWARZBECK MESS-ELEKTRONIK	2026-01-16
06495	HORN ANTENNA 18-40GHz	BBHA 9170	SCHWARZBECK	2027-07-11
10573	PRE-AMPLIFIER G>46dB 18-40 GHz	BLMA 1840-5G	BONN ELEKTRONIK	2026-03-07
07769	PREAMPLIFIER 30dB 500MHz-18GHz	BBV 9718 C	SCHWARZBECK	2025-03-13

Testing verdicts

Not applicable:	N/A
Pass:	P
Fail:	F
Not measured:	N/M

Summary

FCC PART 15 PARAGRAPH / RSS-247		
Requirement – Test case	Verdict	Remark
FCC 15.31 (h), FCC 15.209 (a), 15.247 (d) / RSS-Gen 8.9, RSS-247 5.5: - Emission limitations radiated (Transmitter)	P	(1)
Supplementary information and remarks: (1) Only Co-Location radiated spurious emission test was requested.		

Appendix A: Test results.

INDEX

TEST CONDITIONS

(*): Data provided by the client.

POWER SUPPLY (V):

Vnominal:	3.7 Vdc
Type of Power Supply:	Internal rechargeable battery

ANTENNA:

Type of Antenna for Bluetooth LE:	Integral.
Type of Antenna for Proximity:	Integral.
Type of Antenna for MI:	Magnetic induction coil.
Maximum Declared Antenna Gain for Bluetooth LE:	-8.3 dBi
Maximum Declared Antenna Gain for Proximity:	-8.3 dBi
Maximum Declared Antenna Gain for MI:	N/A

RADIOS AND TEST FREQUENCIES TESTED:

Bluetooth Low Energy 5.4 (2M, 1M) / DTS	
Mode:	1M (GFSK)
Channel Spacing:	1 MHz
Frequency Range:	2402 MHz to 2480 MHz
Transmit Channel:	2480 MHz

Proximity (2M) / DTS	
Mode:	2 M
Channel Spacing:	2 MHz
Frequency Range:	2402 MHz to 2480 MHz
Transmit Channel:	2480 MHz

MI 10.66 MHz / D-BPSK	
Mode:	Single Channel
Channel Spacing:	Not Applicable
Frequency Range:	5 - 30 MHz
Transmit Channel:	10.66 MHz

The EUT was tested in the following operating mode:

- Continuous transmission with a modulated carrier at maximum power in all required channels selecting the supported data rates/modulations types.

During transmitter test the EUT was being controlled by the SW tool to operate in a continuous transmit mode on the test channel as required and in each of the different modulation modes.

Selected Transmission Modes for each Radio:

The following configurations were selected based on preliminary testing that identified those corresponding to the worst-cases:

* Bluetooth Low Energy 5.4: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in 1 Mbps.

* Proprietary: Transmitter radiated spurious emissions tests were performed with the EUT transmitting with a bit rate of 2 Mbps.

* MI 10.66 MHz: Transmitter radiated spurious emissions tests were performed with the EUT transmitting in the single channel configuration supported by this radio.

TESTED SIMULTANEOUS TRANSMISSION MODES:

*** Co-Location mode Bluetooth, SRD 10.66 MHz**: with the EUT configured to simultaneously transmit two signals at maximum output power: Bluetooth Low Energy in 1 Mbps mode, MI 10.66 MHz.

*** Co-Location mode Proximity, SRD 10.66 MHz**: with the EUT configured to simultaneously transmit two signals at maximum output power: Proprietary protocol 2.4 GHz in 2 Mbps mode, MI 10.66 MHz.

RADIATED MEASUREMENTS:

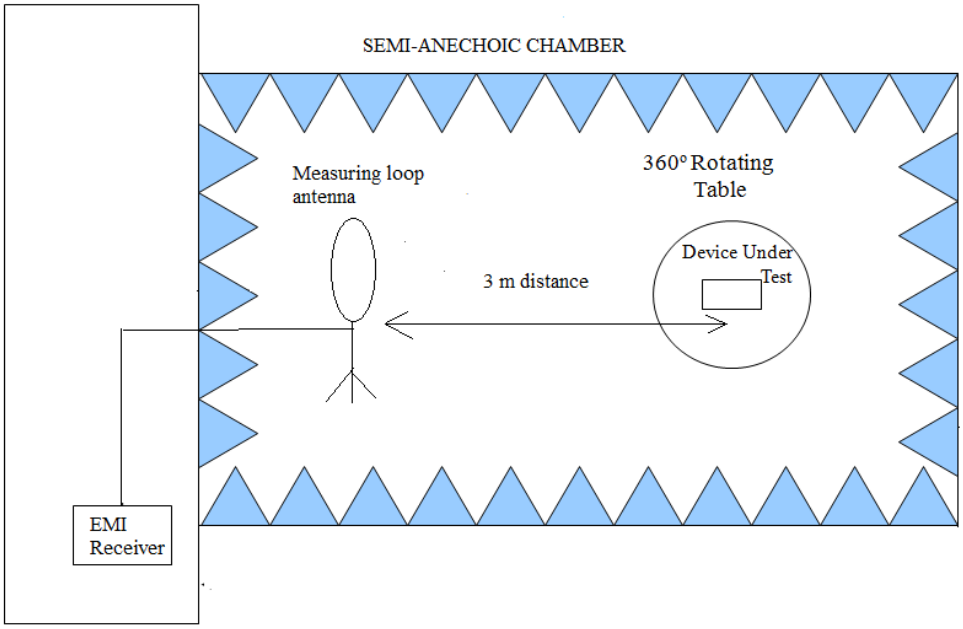
All radiated tests were performed in a semi-anechoic chamber. The measurement antenna is situated at a distance of 3 m (Loop antenna for the range between 9 kHz to 30 MHz. The measurement antenna (Bilog antenna for the range between 30 MHz to 1000 MHz and 1 GHz-17 GHz Double ridge horn antenna) is situated at a distance of 3 m and at a distance of 1.5 m for the frequency range 17 GHz-26 GHz (17 GHz-40 GHz horn antenna).

For radiated emissions in the range 17 GHz-26 GHz that is performed at a distance closer than the specified distance, an inverse proportionality factor of 20 dB per decade is used to normalize the measured data for determining compliance.

The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360º and the antenna height (Bilog antenna and Double ridge horn antenna) was varied from 1 to 4 meters to find the maximum radiated emission.

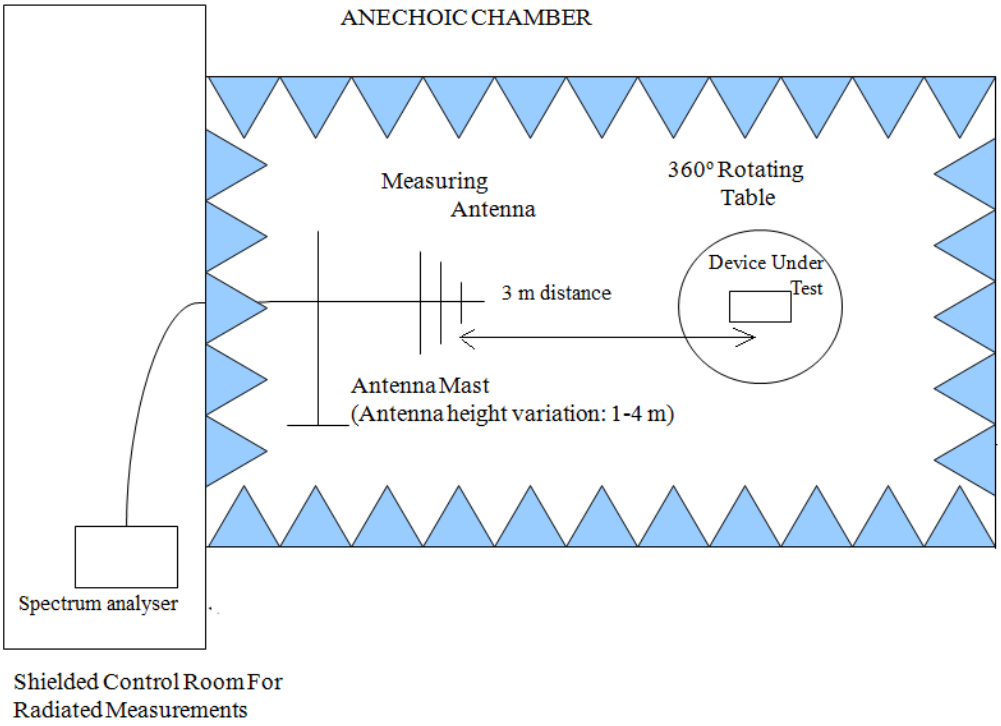
Measurements were made in both horizontal and vertical planes of polarization.

Radiated measurements setup 9 KHz < f < 30 MHz:

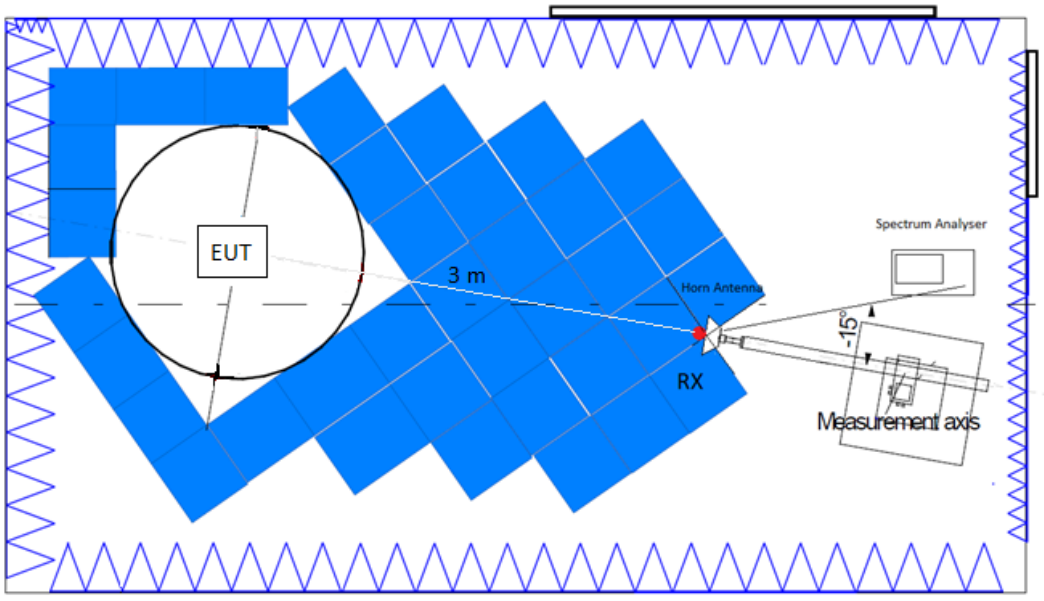


Shielded Control Room For Radiated Measurements

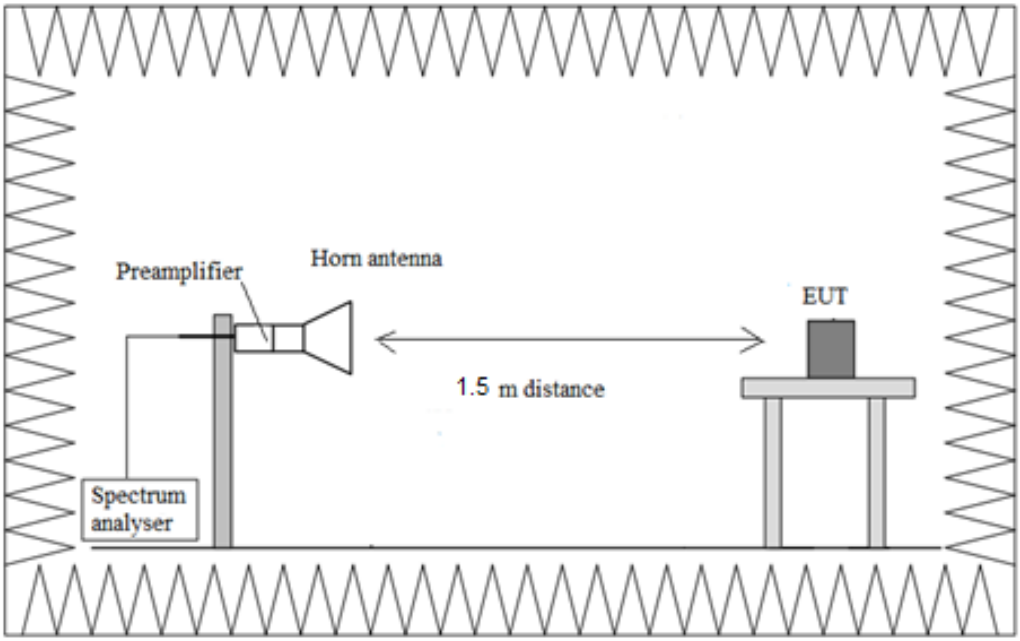
Radiated measurements setup 30 MHz < f < 1 GHz:



Radiated measurements setup f > 1 GHz up to 17 GHz:



Radiated measurements setup f > 17 GHz up to 40 GHz:



Radiated Emissions

Limits

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), appearing outside of the band 13.110 MHz - 14.010 MHz band must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c) / RSS-Gen):

Frequency Range (MHz)	Field strength (µV/m)	Field strength (dBµV/m)	Measurement distance (m)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705 - 30.0	30	29.54	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
960 - 40000	500	54	3

The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table is specified when measuring with peak detector function.

RSS-247. Attenuation below the general field strength limits specified in RSS-Gen is not required.

RESULTS:

The situation and orientation was varied to find the maximum radiated emission. It was also rotated 360º and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

Measurements were made in both horizontal and vertical planes of polarization.

All tests were performed in a semi-anechoic chamber at a distance of 3 m for the frequency range 30 MHz-17 GHz and at distance of 1m for the frequency range 17 GHz-26 GHz.

The field strength is calculated by adding correction factor to the measured level from the spectrum analyzer. This correction factor includes antenna factor, cable loss and pre-amplifiers gain.

Test performed on the following worst-cases in all relevant tests channels.

- **Co-Location mode Bluetooth Low Energy, MI 10.66 MHz:**

Bluetooth Low Energy:	High Channel (2480 MHz). GFSK. 1 Mbps.
MI 10.66 MHz:	Single Channel (10.66 MHz). D-BPSK.

Frequency range 9 kHz - 30 MHz:

No spurious frequencies detected at less than 20 dB below the limit.

Frequency range 30 MHz - 1 GHz:

No spurious frequencies detected at less than 20 dB below the limit.

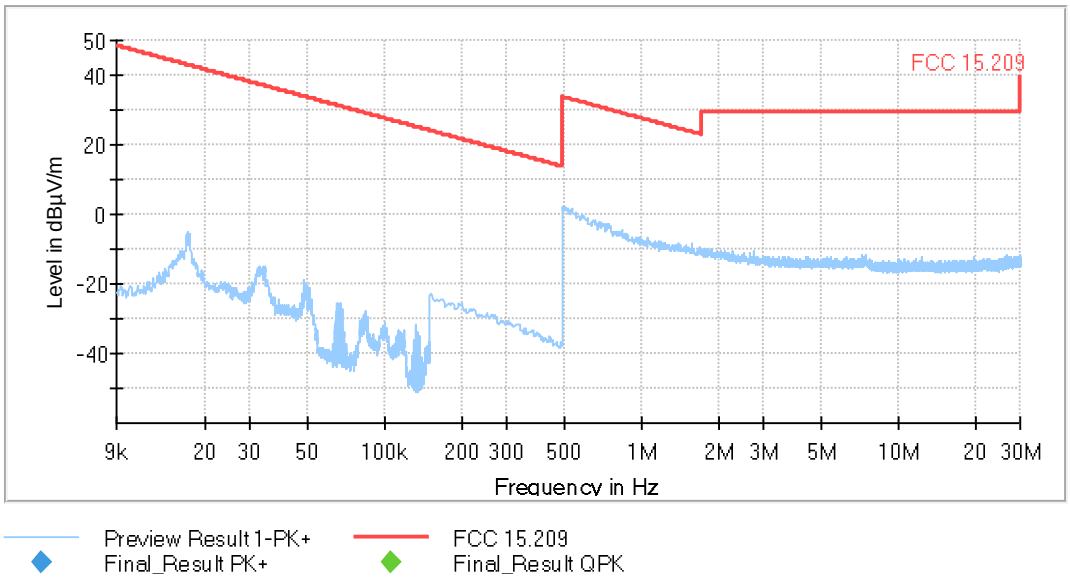
Frequency range 1 - 26 GHz:

No spurious frequencies detected at less than 20 dB below the limit.

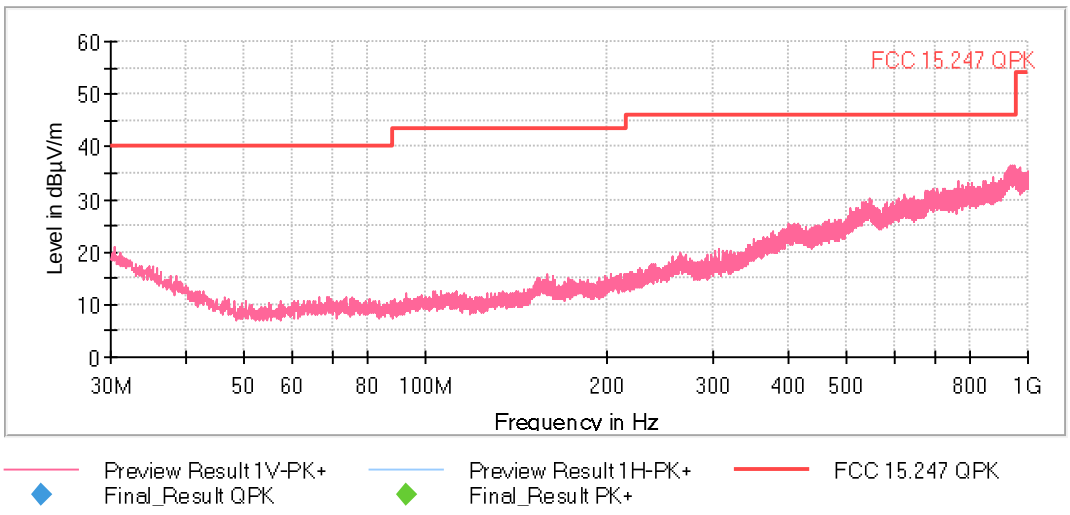
Verdict: Pass

Attachments

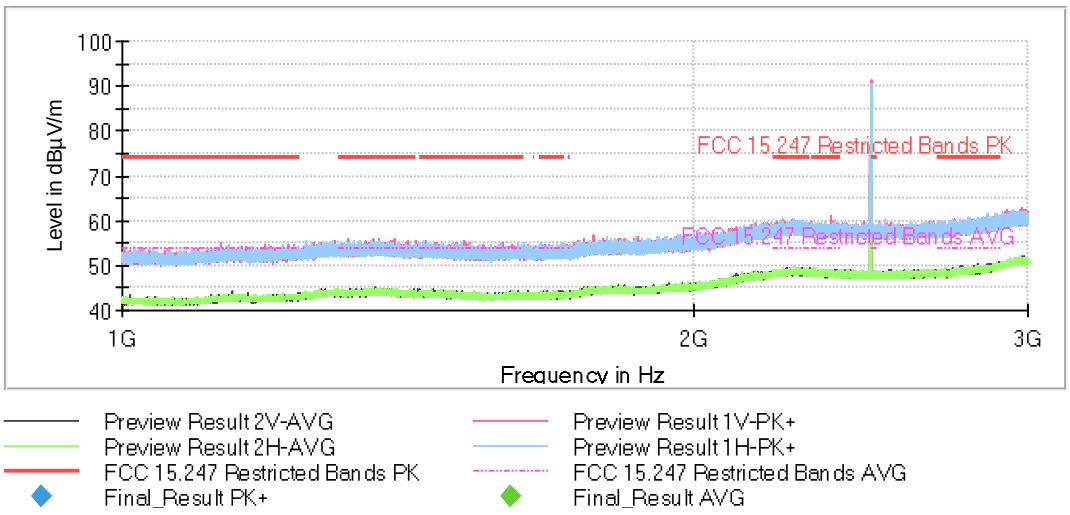
Frequency Range 9 kHz - 30 MHz



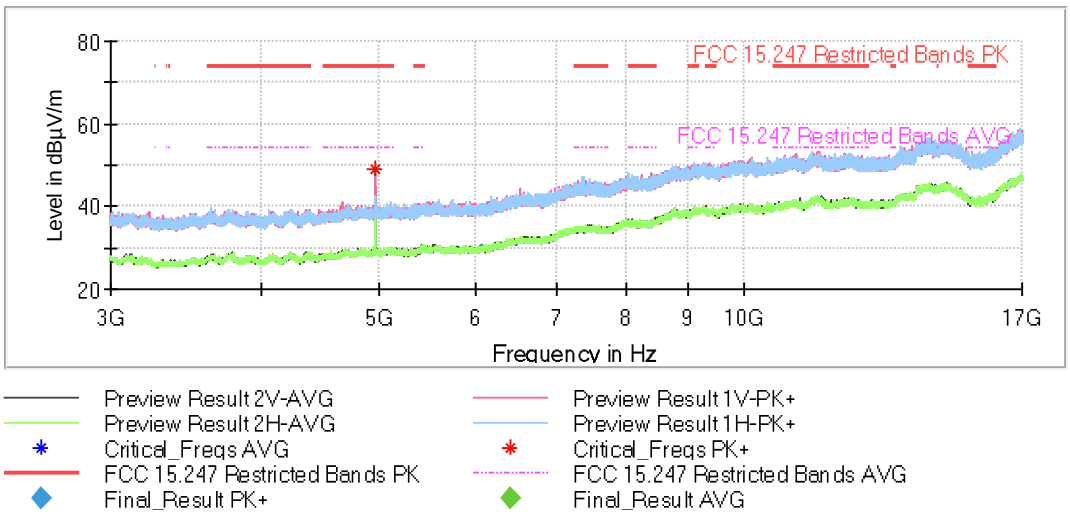
Frequency Range 30 MHz - 1 GHz



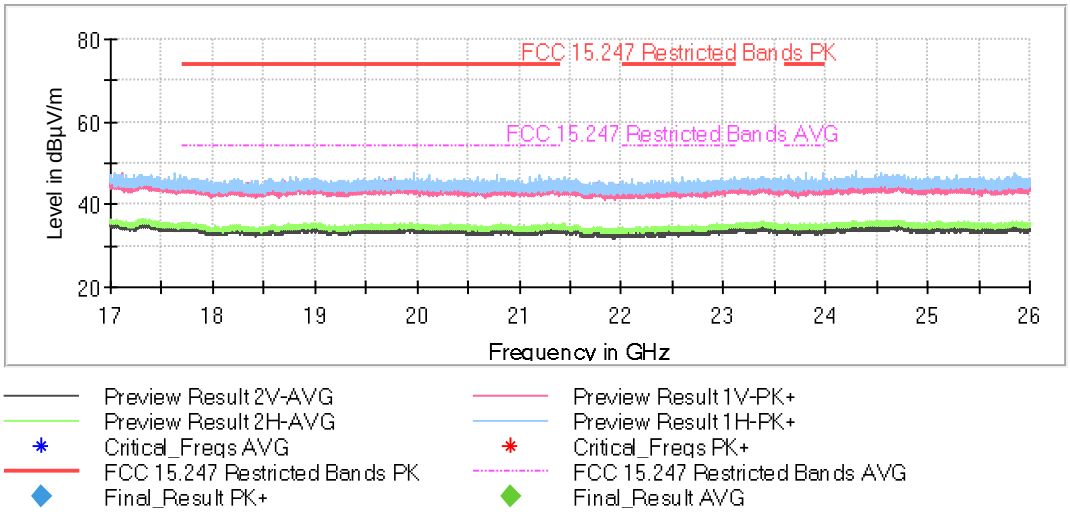
Frequency Range 1 - 3 GHz



Frequency Range 3 - 17 GHz



Frequency Range 17 - 26 GHz



- **Co-Location mode Proprietary protocol 2.4 GHz, MI 10.66 MHz:**

Proprietary:	High Channel (2480 MHz). GFSK. 2 Mbps.
MI 10.66 MHz:	Single Channel (10.66 MHz). D-BPSK.

Frequency range 9 kHz - 30 MHz:

No spurious frequencies detected at less than 20 dB below the limit.

Frequency range 30 MHz - 1 GHz:

No spurious frequencies detected at less than 20 dB below the limit.

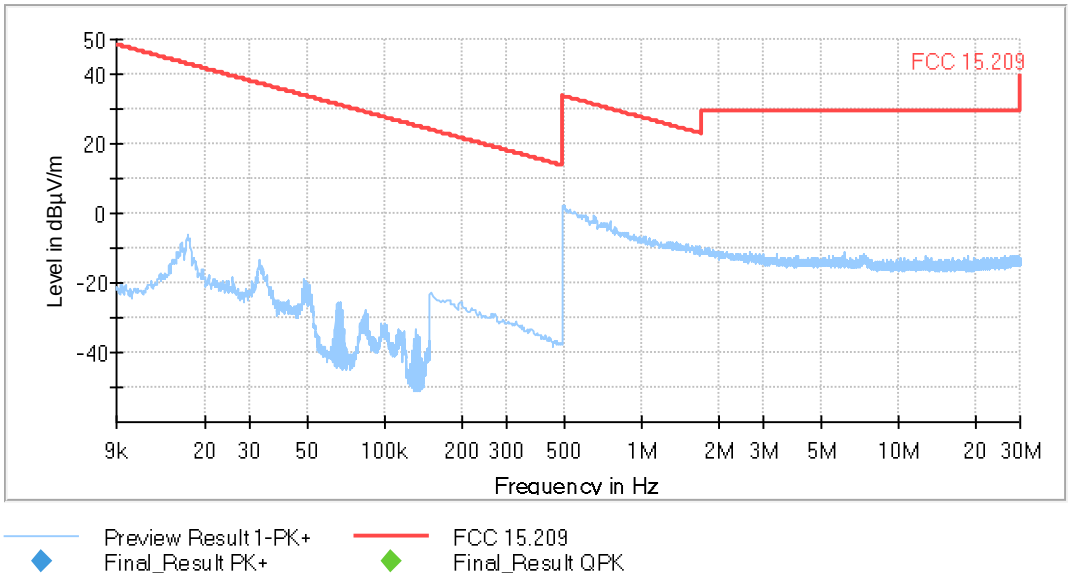
Frequency range 1 - 26 GHz:

No spurious frequencies detected at less than 20 dB below the limit.

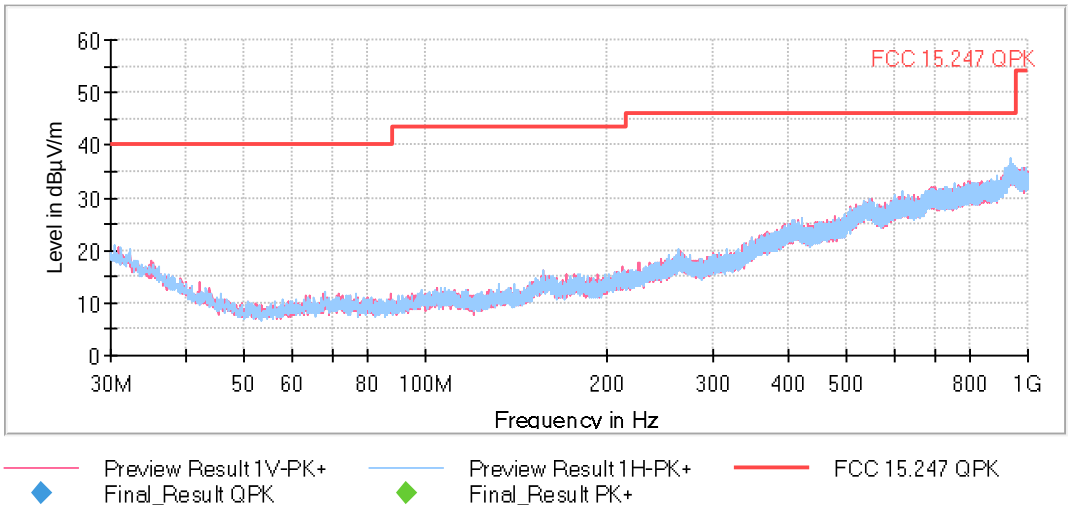
Verdict: Pass

Attachments

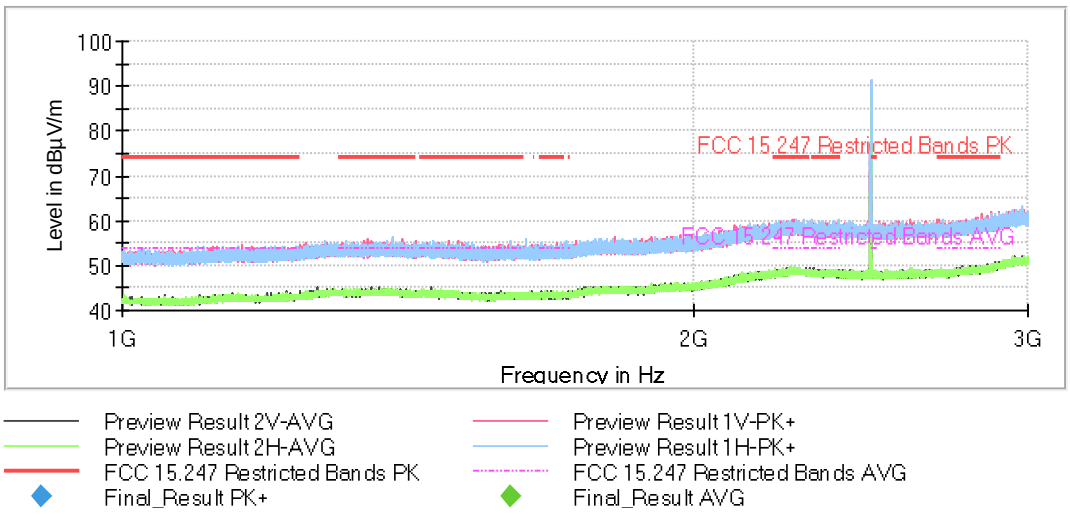
Frequency Range 9 kHz - 30 MHz



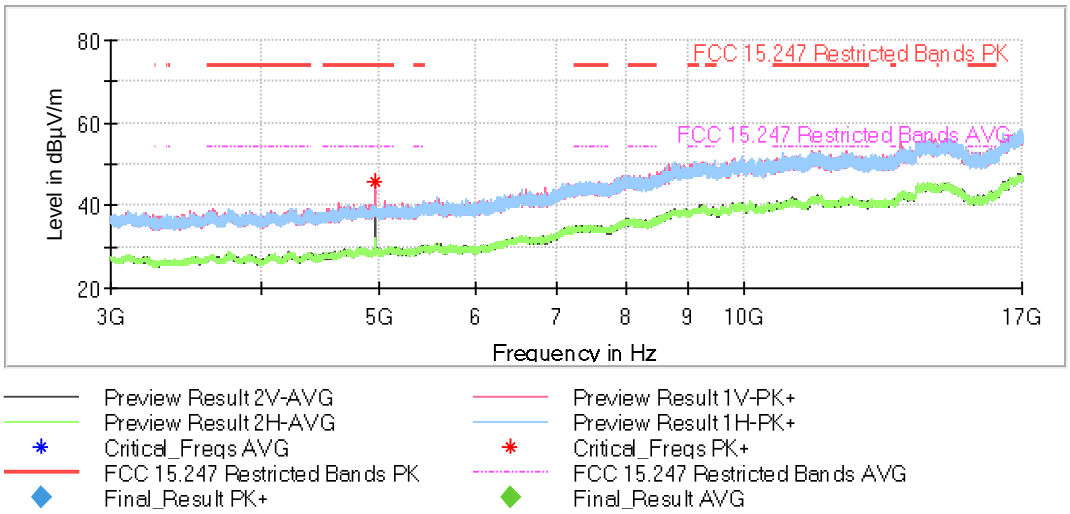
Frequency Range 30 MHz - 1 GHz



Frequency Range 1 - 3 GHz



Frequency Range 3 - 17 GHz



Frequency Range 17 - 26 GHz