

ISED CABid: ES1909

Test Report No:  
79301RRF.004

## Test Report

USA FCC Part 15.209

CANADA RSS-Gen, RSS-210

(*) 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 15.209 (10-1-20 Edition): Radiated emission limits; general requirements. CANADA RSS-Gen Issue 5 amendment 1 (March 2019). General Requirements for Compliance of Radio Apparatus. CANADA RSS-210 Issue 11 (June 2024). Licence-Exempt Radio Apparatus: Category I Equipment ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.
Summary	IN COMPLIANCE
Approved by (name / position & signature)	José Manuel Gómez Galván EMC Consumer & RF Lab. Manager
Date of issue	2025-06-30
Report template No	FDT08_25 (*) "Data provided by the client"

## Index

---

ACRONYMS .....	3
COMPETENCES AND GUARANTEES .....	3
GENERAL CONDITIONS .....	3
UNCERTAINTY .....	4
DATA PROVIDED BY THE CLIENT .....	4
USAGE OF SAMPLES .....	6
TEST SAMPLE DESCRIPTION .....	6
IDENTIFICATION OF THE CLIENT .....	9
TESTING PERIOD AND PLACE .....	9
DOCUMENT HISTORY .....	9
ENVIRONMENTAL CONDITIONS .....	9
REMARKS AND COMMENTS .....	10
TESTING VERDICTS .....	10
SUMMARY.....	11
<b>APPENDIX A: TEST RESULTS. MI 10.667MHZ.....</b>	<b>12</b>

## Acronyms

Acronym ID	Acronym Description
99OBW	99% Occupied Channel Bandwidth
Avg Field	Average Field Strength
Detector	Detector used
Ebw	Emission Bandwidth
Equipment	Equipment Type
Freq	Frequency
Freq Rng	Frequency Range
MP	Measurement Point
Mod	Modulation
Pk Field	Peak Field Strength
Pol	Polarization
Unwanted Freq	Unwanted Emissions Frequency
Unwanted Lvl	Unwanted Emissions Level

## Competences and guarantees

DEKRA Testing and Certification S.A.U. is a testing laboratory accredited by the National Accreditation Body (ENAC -Entidad Nacional de Acreditación), to perform the tests indicated in the Certificate No. 51/LE 147.

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

DEKRA Testing and Certification S.A.U. is an ISED-recognized accredited testing laboratory, CABid: ES1909, Company Number: 4621A, with the appropriate scope of accreditation that covers the performed tests in this report.

In order to assure the traceability to other national and international laboratories, DEKRA Testing and Certification S.A.U. has a calibration and maintenance program for its measurement equipment.

DEKRA Testing and Certification S.A.U. guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated on the report and, it is based on the knowledge and technical facilities available at DEKRA Testing and Certification S.A.U. at the time of performance of the test.

DEKRA Testing and Certification S.A.U. is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

**IMPORTANT:** No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA Testing and Certification S.A.U.

## General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA Testing and Certification S.A.U.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA Testing and Certification S.A.U. and the Accreditation Bodies.

## Uncertainty

Uncertainty (factor  $k=2$ ) was calculated according to the DEKRA Testing and Certification S.A.U. 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  $\leq \pm 3,08$  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  $\leq \pm 5,35$  dB with factor ( $k = 2$ ).

The total uncertainty of the measurement system for the conducted testing of EUT is:

Field strength of fundamental and harmonic emissions: Measurement uncertainty  $\leq \pm 4,32$  dB  
Occupied Channel Bandwidth: Measurement uncertainty  $\leq \pm 1,40$  %

## 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.

Docusign Envelope ID: 406873B7-6690-43FA-A5E1-7B8408B35C17



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:  
  
389D2E3E10D14FE...

Søren Carlsen  
Regulatory Certification Engineer  
GN Hearing A/S

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

## 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_14.1	Hearing Aid	LUBR90	2500801463	2025-03-18	Element Under Test
S/02	79301D_30.1	Hearing Aid	LUBR90	2500801470	2025-03-18	Element Under Test
	72126_17.1	Speedlink device	--	1881274590	2022-10-03	Auxiliary Element
	72126_24.1	Programming cable	--	--	2022-10-03	Auxiliary Element

Notes referenced to samples during the project:

Id	Type
S/01	Sample for Conducted tests
S/02	Sample for Radiated tests

## Test sample description

Ports.....:	Port name and description	Cable			
		Specified max length [m]	Attached during test	Shielded	Coupled to patient <sup>(3)</sup>
Supplementary information to the ports.....:					
Rated power supply .....	Voltage and Frequency		Reference poles		
			L1	L2	L3
	AC:				

	AC:												
	DC: 3.7V (rechargeable battery)												
	DC:												
Rated Power .....	3.73V, 50 mAh, 0,187Wh												
Clock frequencies.....	CPU XTAL: 32 MHz												
Other parameters .....													
Software version .....	Dooku3												
Hardware version .....	LUBR90,V2,C6.0												
Dimensions in cm (W x H x D) ....	40x15x9mm												
Mounting position .....		Table top equipment											
		Wall/Ceiling mounted equipment											
		Floor standing equipment											
		Hand-held equipment											
		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										


<sup>(3)</sup> Only for Medical Equipment

## Identification of the client

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

## Testing period and place

Test Location	DEKRA Testing and Certification S.A.U.
Date (start)	2025-05-30
Date (finish)	2025-06-19

## Document history

Report number	Date	Description
79301RRF.004	2025-06-30	First release.

## Environmental conditions

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

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

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

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

In the chamber for conducted measurements, the following limits were not exceeded during the test:

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

## Remarks and comments

---

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

Used instrumentation:

Control No.	Equipment	Model	Manufacturer	Next Calibration
10304	EMI TEST RECEIVER 2Hz-44GHz	ESW44	ROHDE AND SCHWARZ	2026-10-01
09968	HYBRID BILOG ANTENNA 30MHz-6GHz	3142E	ETS LINDGREN	2026-09-22
08130	SEMIANCHOIC ABSORBER LINED CHAMBER	P29419	ALBATROSS	--
08134	SHIELDED ROOM	P29419	ALBATROSS PROJECTS GMBH	--
08661	SHIELDED ROOM	-	SIEPEL	--
08835	SIGNAL AND SPECTRUM ANALYZER 2Hz-50GHz	FSW50	ROHDE AND SCHWARZ	2027-04-15
04848	SOFTWARE FOR EMC/RF TESTING	EMC32	ROHDE AND SCHWARZ	--
07549	TEMPERATURE AND HUMIDITY PROBE	HWg-STE	HW GROUP	2026-04-23
07550	TEMPERATURE AND HUMIDITY PROBE	HWg-STE	HW GROUP	2026-04-23
07552	TEMPERATURE AND HUMIDITY PROBE	HWg-STE	HW GROUP	2026-04-23
07762	ACTIVE LOOP ANTENNA 9kHz-30MHz	FMZB 1519B	SCHWARZBECK	2025-12-01

## Testing verdicts

---

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

## Summary

---

### MI 10.667MHz. Appendix A.

FCC PART 15.209 / RSS-Gen, RSS-210 PARAGRAPH		
Requirement – Test case	Verdict	Remark
Occupied bandwidth	P	--
FCC 15.209 (a) / RSS-Gen 8.9 / RSS-210 B.4 Fundamental emission	P	--
FCC 15.209 (a) / RSS-Gen 8.9 / RSS-210 B.4 General field strength limits	P	--

Supplementary information and remarks:  
None.

## **Appendix A: Test results. MI 10.667MHz.**

## INDEX

---

TEST CONDITIONS .....	14
TEST CASES DETAILS .....	17
<i>Occupied Channel Bandwidth 99%</i> .....	17
FCC 15.209 (a) / RSS-Gen 8.9 / RSS-210 B.4 (Fundamental emission).....	19
FCC 15.209 (a) / RSS-Gen 8.9 / RSS-210 B.4 (General field strength) .....	21

## TEST CONDITIONS

(\*): Data provided by the client.

### POWER SUPPLY (\*):

Vnominal: 3.7 V  
Type of Power Supply: Battery

### ANTENNA (\*):

Type of Antenna: Magnetic Induction coil  
Maximum Declared Antenna Gain: N/A

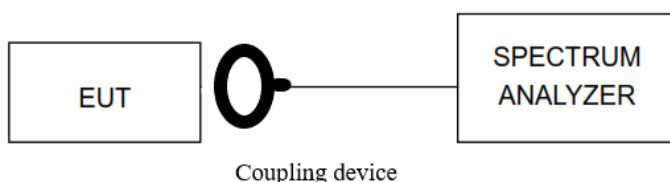
### TEST FREQUENCIES (\*):

Modulation	Data rates	Channel
Proprietary protocol MI	Proprietary	10.667 MHz

During transmitter test the EUT was controlled by a SW tool provided by the client to operate in a continuous transmit mode on the modulation schemes and test channels as required.

### CONDUCTED MEASUREMENTS:

The equipment under test was set up in a shielded room and it is connected to the TS8997 using a low loss RF cable. The reading of the spectrum analyser is corrected taking into account the cable loss.



### RADIATED MEASUREMENTS:

All radiated tests were performed in a semi-anechoic chamber. The measurement antenna is situated at a distance of 3 m (Bilog antenna for the range 30 MHz to 200 MHz) and at a distance of 1 m (Loop antenna for the range 9 kHz to 30 MHz) due to its extremely low emission. The maximum peak value of the fundamental emission was measured as the worst case.

For radiated emissions in the range 9 kHz to 30 MHz performed at a distance closer than the distance specified in the standard, an inverse proportionality factor of 40 dB per decade is used to normalize the measured data for determining compliance.

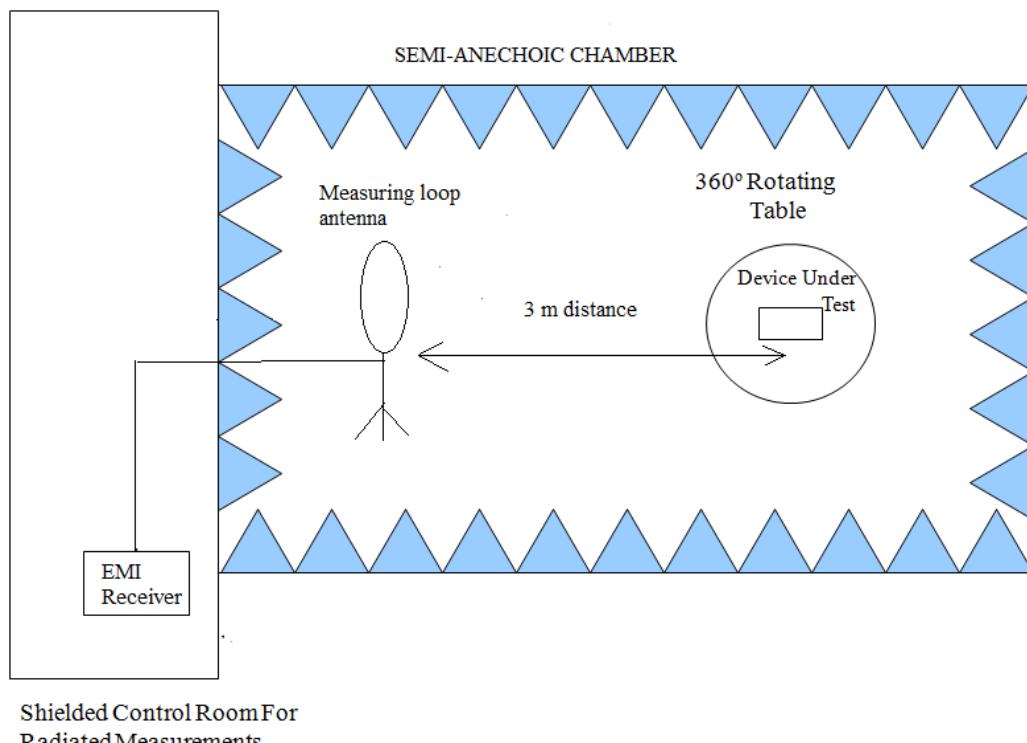
The equipment under test was set up on a non-conductive platform above the ground plane and its situation and orientation were varied to find the maximum radiated emission. It was also rotated 360°.

In the range between 9 kHz and 30 MHz the measurements were made in the three different orientation planes of the loop antenna to determine the maximum received field.

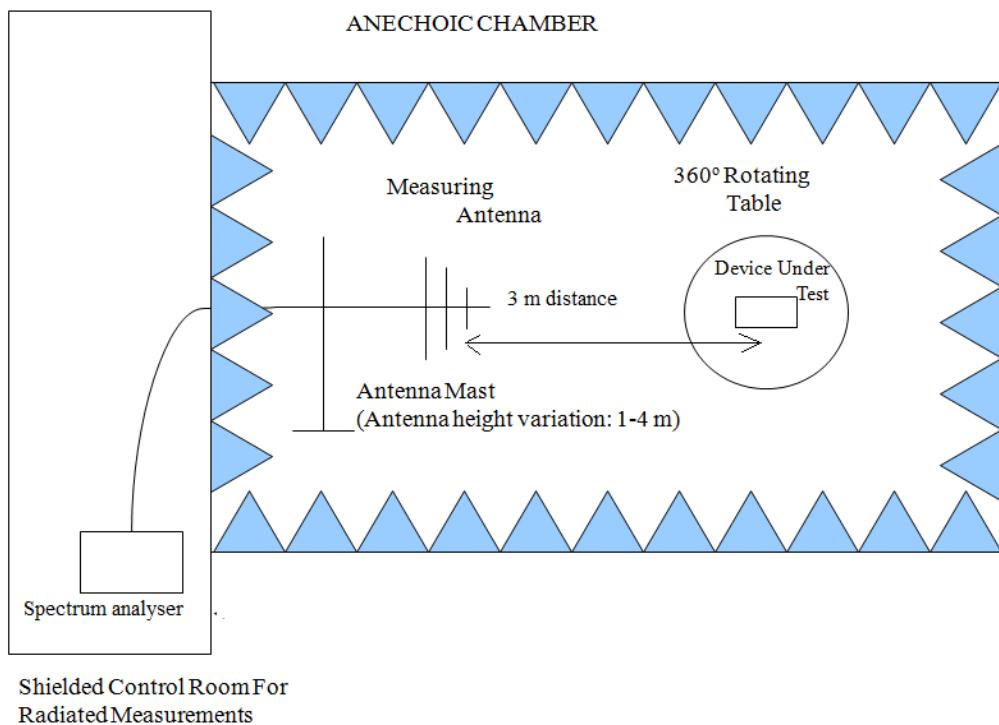
Measurements above 30 MHz up to 200 MHz were made in both horizontal and vertical planes of polarization and the measuring antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

The field strength is calculated by adding correction factor to the measured level from the spectrum analyser. This correction factor includes antenna factor and cable loss.

Radiated measurements setup  $f < 30$  MHz:



Radiated measurements setup from 30 MHz to 200 MHz:



## TEST CASES DETAILS

---

### Occupied Channel Bandwidth 99%

#### ***Limits***

#### ***Specification***

\* RSS-Gen Issue 5, Clause 6.7 Occupied bandwidth (or 99% emission bandwidth):

The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

Modulation: MI

#### ***Results***

Freq (MHz)	Freq Peak (MHz)	99OBW (MHz)
10.6670	10.6615	3.275

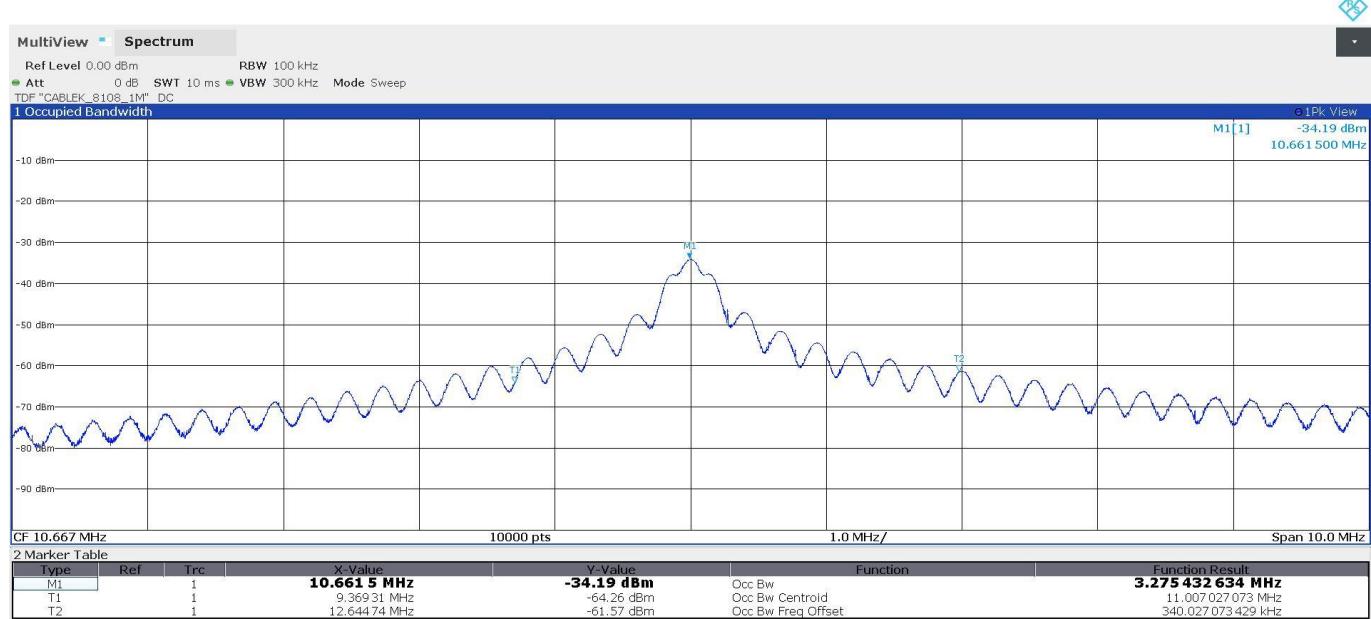
#### ***Verdict***

Pass

## Attachments

Modulation = MI Frequency MHz = 10.66000

## Images:



## FCC 15.209 (a) / RSS-Gen 8.9 / RSS-210 B.4 (Fundamental emission)

### Limits

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table (see §15.205(c) / RSS-Gen):

Frequency Range (MHz)	Field strength ( $\mu$ V/m)	Field strength ( $\text{dB}\mu\text{V}/\text{m}$ )	Magnetic field strength (H-Field) ( $\mu\text{A}/\text{m}$ )	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	-	6.37/ F(kHz)	300
0.490 - 1.705	24000/F(kHz)	-	63.7/ F(kHz)	30
1.705 - 30.0	30	29.54	0.08	30
30 - 88	100	40	-	3
88 - 216	150	43.5	-	3
216 - 960	200	46	-	3
Above 960	500	54	-	3

Additionally, the level of any transmitter unwanted emission shall not exceed the level of the transmitter's fundamental emission.

Modulation: MI

### Results

Freq (MHz)	Freq Peak (MHz)	Pk Field ( $\text{dB}\mu\text{V}/\text{m}$ )
10.667	10.75625	38.60

E ( $\text{dB}\mu\text{V}/\text{m}$ ) measured at 1 m (Peak value)	38.60
E ( $\text{dB}\mu\text{V}/\text{m}$ ) extrapolated to 30 m (40 dB/decade)	-20.48
Equivalent level ( $\text{dB}\mu\text{A}/\text{m}$ ) at 30 m	-71.98

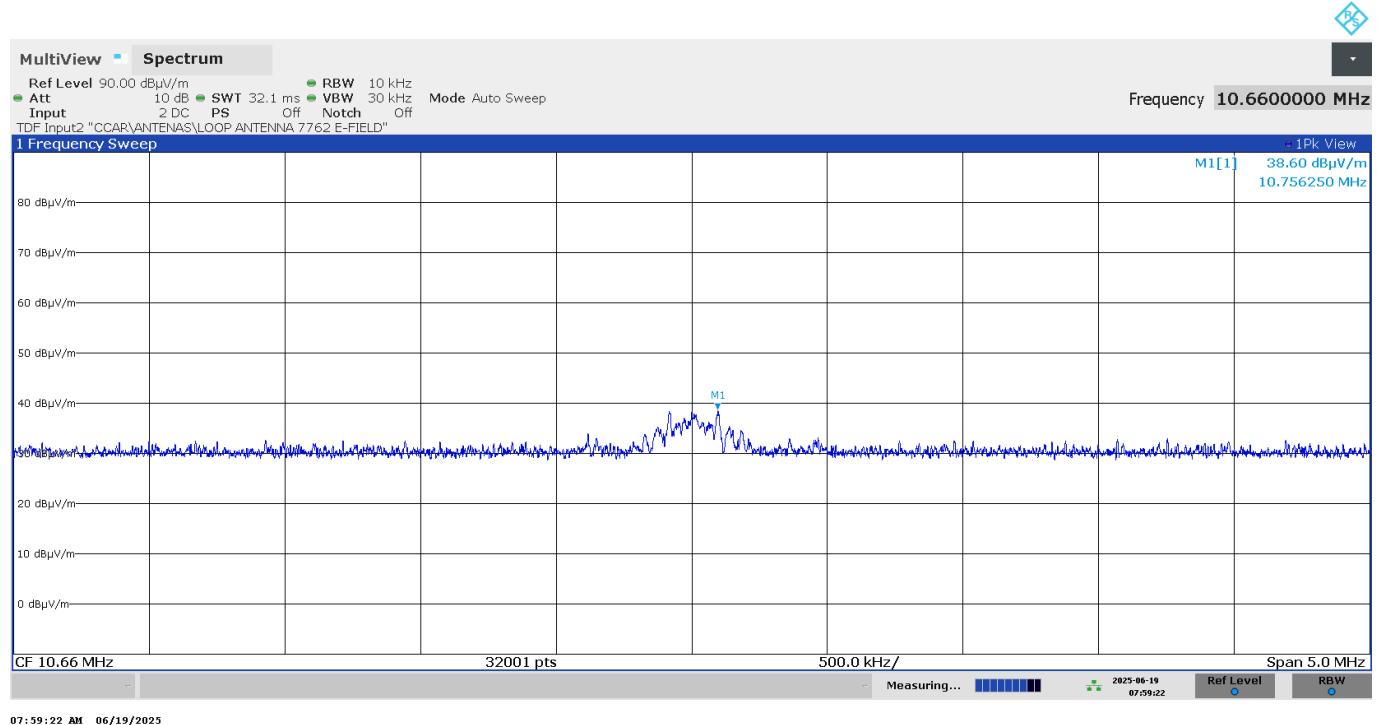
### Verdict

Pass

## Attachments

Modulation = M1 Frequency MHz = 10.667

## Images:



## FCC 15.209 (a) / RSS-Gen 8.9 / RSS-210 B.4 (General field strength)

### **Limits**

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table (see §15.205(c) / RSS-Gen):

Frequency Range (MHz)	Field strength ( $\mu$ V/m)	Field strength ( $\text{dB}\mu\text{V/m}$ )	Magnetic field strength (H-Field) ( $\mu\text{A/m}$ )	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	-	6.37/ F(kHz)	300
0.490 - 1.705	24000/F(kHz)	-	63.7/ F(kHz)	30
1.705 - 30.0	30	29.54	0.08	30
30 - 88	100	40	-	3
88 - 216	150	43.5	-	3
216 - 960	200	46	-	3
Above 960	500	54	-	3

Additionally, the level of any transmitter unwanted emission shall not exceed the level of the transmitter's fundamental emission.

Modulation: MI

### **Results**

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

### **Verdict**

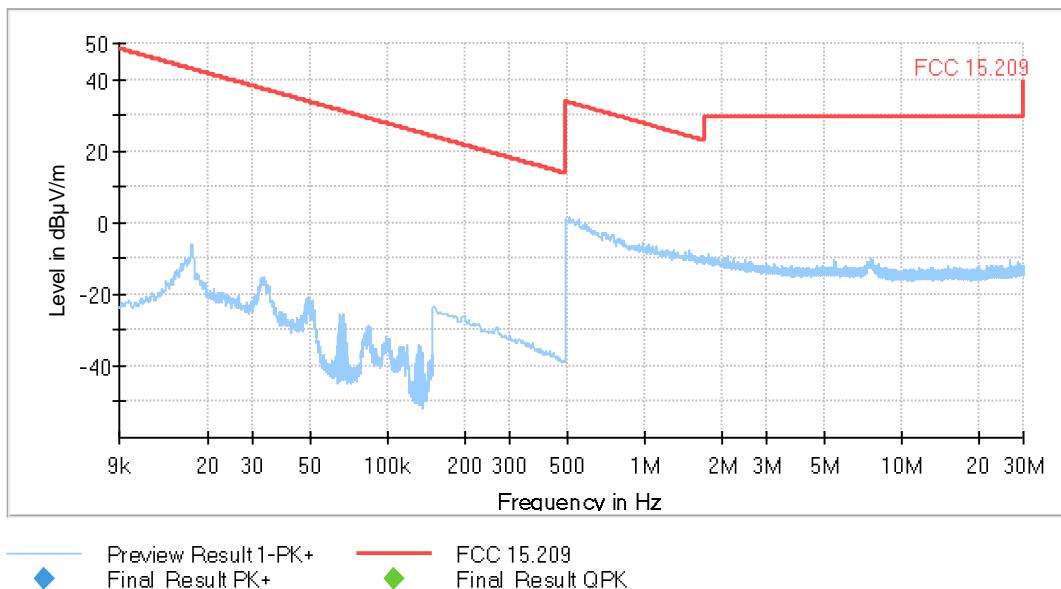
Pass

### Attachments

Modulation = MI Frequency MHz = 10.66700

Frequency Range GHz = [0.000009, 0.03]

### Images:



### Tables:

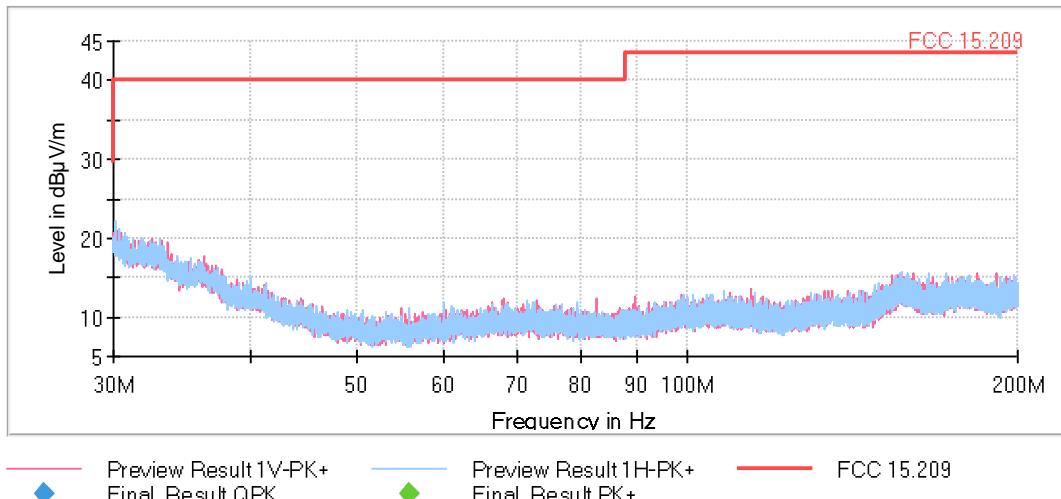
Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
	Receiver: [ESW 44]					
	9 kHz - 150 kHz	50 Hz	PK+	200 Hz	0,1 s	0 dB
	150 kHz - 30 MHz	2,25 kHz	PK+	9 kHz	0,1 s	0 dB

Modulation = MI Frequency MHz = 10.66700

Frequency Range GHz = [0.03, 0.2]

## Images:



## Tables:

## Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	30 MHz - 1 GHz	8,5 kHz	PK+	100 kHz	1 s	20 dB