

ISED CABid: ES1909

Lab. Company Number: 4621A

Test Report No:

84807RRF.005A1

Test Report

USA FCC Part 15.247, 15.209

CANADA RSS-247, RSS-Gen

(*) Identification of item tested	Headunit with Display and TP, USB, BT and WLAN
(*) Trademark	HARMAN
(*) Model and /or type reference	SPACE 4 BASE 1.2A
Other identification of the product	FCC ID: T8GSPACE4B12A IC: 6434A-SPACE4B12A
(*) Features	Bluetooth, WLAN HW version: PV SW version: 16
Applicant	HARMAN BECKER AUTOMOTIVE SYSTEMS GMBH BECKER-GOERING-STR. 16; 76307 KARLSBAD GERMANY 76307, Karlsbad, GERMANY
Test method requested, standard	USA FCC Part 15.247 (10-1-25 Edition): Operation within the bands 902 - 928 MHz, 2400 -2483.5 MHz, and 5725 - 5850 MHz. USA FCC Part 15.209 (10-1-25 Edition): Radiated emission limits; general requirements. CANADA RSS-247 Issue 4 (July 2024). CANADA RSS-Gen Issue 5 amendment 2 (February 2021). 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 C63.10-2020 + Cor.1-2023 + C63.10a-2024 + Errata to C63.10a-2024: 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  Firmado digitalmente por 53680346W JOSE MANUEL GOMEZ (CA29507456) Fecha: 2026.10.06 11:14:48 +02'00'
Date of issue	2026-10-06
Report template No	FDT08_27 (*) "Data provided by the client"

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Acronyms

Acronym ID	Acronym Description
Avg COT	Average Channel Occupancy Time
BW	Bandwidth
Detector	Detector used
Ebw	Emission Bandwidth
Equipment	Equipment Type
Freq	Frequency
Freq Rng	Frequency Range
Freq Sep	Frequency Separation
Inband Peak Lvl	Inband Peak Level
Lvl	Level
MP	Measurement Point
Mod	Modulation
Mode	MIMO Mode
NHC	Number of Hopping Channels
NHp	Number of hops over the period
Occ Ch BW	Occupied Channel Bandwidth
Peak Power	Maximum Peak Conducted Output Power
Pol	Polarization
Port	Active Port
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.

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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 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 radiated emissions of EUT from 1 GHz to 17 GHz is:
Measurement uncertainty $\leq \pm 4,32$ 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 $\leq \pm 5,51$ dB with factor ($k = 2$).

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

- RF Peak Output Power: Measurement uncertainty $\leq \pm 0,80$ dB
- RF Average Output Power: Measurement uncertainty $\leq \pm 0,99$ dB
- Power Spectral Density: Measurement uncertainty $\leq \pm 0,99$ dB
- 6dB Bandwidth: Measurement uncertainty $\leq \pm 1,14$ %
- Occupied Channel Bandwidth: Measurement uncertainty $\leq \pm 1,40$ %
- Conducted Band-edge spurious emissions: Measurement uncertainty $\leq \pm 1,76$ dB
- Accumulated Dwell Time: Measurement uncertainty $\leq \pm 0,16$ %
- Minimum Frequency Occupation Time: Measurement uncertainty $\leq \pm 0,53$ %

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 an Headunit with USB, BT, WLAN.

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.

Usage of samples

Samples undergoing test have been selected by: The client.

Id	Control Number	Description	Model	Serial N°	Date of Reception	Application
S/01	84807_29.1	Headunit	SPACE 4 BASE 1.2A	Z13107S283000031	2025-12-16	Element Under Test
S/01	84807_8.1	Module Circuit Board	--	--	2025-12-16	Auxiliary Element
S/01	84807_10.1	USB cable	--	--	2025-12-16	Auxiliary Element
S/01	80708_83.1	Main Harness	--	--	2025-03-31	Auxiliary Element
S/02	84807_4.1	Headunit	SPACE 4 BASE 1.2A	Z13187S283000112	2025-12-16	Element Under Test
S/02	84807_8.1	Module Circuit Board	--	--	2025-12-16	Auxiliary Element
S/02	84807_10.1	USB cable	--	--	2025-12-16	Auxiliary Element
S/02	80708_83.1	Main Harness	--	--	2025-03-31	Auxiliary Element

Notes referenced to samples during the project:

Id	Type
S/01	Sample used for radiated tests
S/02	Sample used for conducted tests

Test sample description

Ports..... :	Port name and description		Cable				
			Specified max length [m]	Attached during test	Shielded	Coupled to patient ⁽³⁾	
	Main Connector (M1/L3 12V; M2 GND; B3 to GND; all other GPIOs floating)		2m	[X]	[]	[]	
	USB Connector		--	[X]	[X]	[]	
	GPS/FVC/RVC		--	[X]	[X]	[]	
--							
Supplementary information to the ports..... :							
Rated power supply	Voltage and Frequency		Reference poles				
			L1	L2	L3	N	PE
	[]	AC:	[]	[]	[]	[]	[]
[X]	DC: 12V car battery /attenuator (9,5-15,5v normal operation)						
Rated Power	--						
Clock frequencies.....	--						
Other parameters	--						
Software version	16						
Hardware version	PV						
Dimensions in cm (W x H x D)	--						
Mounting position	[]	Table top equipment					
	[]	Wall/Ceiling mounted equipment					
	[]	Floor standing equipment					
	[]	Hand-held equipment					
	[X]	Other: automotive (car vehicles, agricultural vehicles, motor bikes)					
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

HARMAN BECKER AUTOMOTIVE SYSTEMS GMBH
BECKER-GOERING-STR. 16
76307 KARLSBAD GERMANY

Testing period and place

Test Location	DEKRA Testing and Certification S.A.U. C/ Severo Ochoa, 6, Málaga Tech Park, 29590, Málaga, Spain (Location B)
Date (start)	2026-01-13
Date (finish)	2026-03-10

Document history

Report number	Date	Description
84807RRF.005	2026-05-14	First release.
84807RRF.005A1	2026-10-06	Second release. Modification due to typos. This test report cancel and replaces to 84807RRF.005

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: Antonio Maireles, Pablo Redondo and Carmen Vázquez.

Used instrumentation:

Control No.	Equipment	Model	Manufacturer	Next Calibration
06791	SEMIANECHOIC ABSORBER LINED CHAMBER IV	FACT 3 200 STP	ETS LINDGREN	N/A
06792	SHIELDED ROOM	S101	ETS LINDGREN	N/A
06609	ETHERNET TEMPERATURE AND HUMIDITY LOGGER	HWg-STE	HW GROUP	2026-04-21
06615	ETHERNET TEMPERATURE AND HUMIDITY LOGGER	HWg-STE	HW GROUP	2026-04-24
07817	EMI TEST RECEIVER 2Hz-44GHz	ESW44	ROHDE AND SCHWARZ	2026-07-01
06143	HYBRID BILOG ANTENNA 30MHz-6GHz	3142E	ETS LINDGREN	2027-01-22
06142	PRE-AMPLIFIER G>38dB 30MHz-6GHz	BLNA 0360-01N	BONN ELEKTRONIK	2026-07-30
06496	HORN ANTENNA 1-18GHz	BBHA 9120 D	SCHWARZBECK	2026-12-01
03783	PRE-AMPLIFIER G>30dB 1GHz-18GHz	BLMA 0118-3A	BONN ELEKTRONIK	2026-03-17
04657	HORN ANTENNA 18-40GHz	BBHA 9170	SCHWARZBECK	2026-06-12
10573	PRE-AMPLIFIER G>46dB 18GHz-40GHz	BLMA 1840-5G	BONN ELEKTRONIK	2026-03-07
07445	DC POWER SUPPLY 30V/5A	U8002A	KEYSIGHT TECHNOLOGIES	N/A
07760	DIGITAL MULTIMETER	175	FLUKE	2026-11-07
04848	SOFTWARE FOR EMC/RF TESTING	EMC32	ROHDE AND SCHWARZ	N/A
06793	SHIELDED ROOM	S101	ETS LINDGREN	N/A
06611	TEMPERATURE AND HUMIDITY PROBE	HWg-STE	HW GROUP	2026-04-21
06668	SIGNAL AND SPECTRUM ANALYZER 10Hz-40GHz	FSV40	ROHDE AND SCHWARZ	2027-04-01
08848	OPEN SWITCH UNIT UP TO 7.5 GHz	OSP-B157W8 PLUS	ROHDE & SCHWARZ	2027-01-02
07796	EXTENSION FOR OPEN SWITCH UNIT UP TO 40GHz	OSP-B157Wx	ROHDE AND SCHWARZ	2027-01-09
00922	POWER SUPPLY DC 40 V / 40 A	NGPE 40/40	ROHDE AND SCHWARZ	2027-10-02
05850	DIGITAL MULTIMETER	179	FLUKE	2026-11-06
07798	WMS32	WMS32	ROHDE AND SCHWARZ	N/A

Testing verdicts

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

Summary

Bluetooth EDR. ANT 1. Appendix A

Requirement – Test case	FCC PART 15 PARAGRAPH / RSS-247	Verdict	Remark
FCC 15.247 (a) (1) / RSS-247 6.2.3.1 (a)	20 dB Bandwidth	P	--
FCC 15.247 (a) (1) (iii) / RSS-247 6.2.3.1 (b)	Time of Occupancy (Dwell Time)	P	--
FCC 15.247 (b) / RSS-247 6.2.3.2	Maximum peak output power and	P	--
FCC 15.247 (a) (1) (iii) / RSS-247 6.2.3.1 (b)	Number of hopping channels	P	--
FCC 15.247 (d) / RSS-247 6.6	Band-edge emissions compliance	P	--
FCC 15.247 (d) / RSS-247 6.6	Emission limitations radiated (Transmitter)	P	--
<u>Supplementary information and remarks:</u> None			

Bluetooth EDR. ANT 2. Appendix B

Requirement – Test case	FCC PART 15 PARAGRAPH / RSS-247	Verdict	Remark
FCC 15.247 (a) (1) / RSS-247 6.2.3.1 (a)	20 dB Bandwidth	P	--
FCC 15.247 (a) (1) (iii) / RSS-247 6.2.3.1 (b)	Time of Occupancy (Dwell Time)	P	--
FCC 15.247 (b) / RSS-247 6.2.3.2	Maximum peak output power and	P	--
FCC 15.247 (a) (1) (iii) / RSS-247 6.2.3.1 (b)	Number of hopping channels	P	--
FCC 15.247 (d) / RSS-247 6.6	Band-edge emissions compliance	P	--
FCC 15.247 (d) / RSS-247 6.6	Emission limitations radiated (Transmitter)	P	--
<u>Supplementary information and remarks:</u> None			

Bluetooth EDR. ANT 3. Appendix C

Requirement – Test case	FCC PART 15 PARAGRAPH / RSS-247	Verdict	Remark
FCC 15.247 (a) (1) / RSS-247 6.2.3.1 (a)	20 dB Bandwidth	P	--
FCC 15.247 (a) (1) (iii) / RSS-247 6.2.3.1 (b)	Time of Occupancy (Dwell Time)	P	--
FCC 15.247 (b) / RSS-247 6.2.3.2	Maximum peak output power and	P	--
FCC 15.247 (a) (1) (iii) / RSS-247 6.2.3.1 (b)	Number of hopping channels	P	--
FCC 15.247 (d) / RSS-247 6.6	Band-edge emissions compliance	P	--
FCC 15.247 (d) / RSS-247 6.6	Emission limitations radiated (Transmitter)	P	--
<u>Supplementary information and remarks:</u> None			

WLAN 2.4 GHz. Appendix D

FCC PART 15 PARAGRAPH/ RSS-247			
Requirement – Test case		Verdict	Remark
FCC 15.247 (a)(2) / RSS-247 6.3.1 (a)	6 dB Bandwidth	P	--
FCC 15.247 (b) / RSS-247 6.3.2	Maximum output power and antenna gain	P	--
FCC 15.247 (d) / RSS-247 6.6	Band-edge emissions compliance (Transmitter)	P	--
FCC 15.247 (e) / 6.3.1 (b)	Power spectral density	P	--
FCC 15.247 (d) / RSS-247 6.6.	Emission limitations radiated (Transmitter)	P	--
<u>Supplementary information and remarks:</u> None.			