

Test report No:
76719REM.002A1

Test report

**FCC Rules and Regulations CFR 47, Part 15, Subpart B
(10-1-23 Edition) & ICES-003 Issue 7 (October 2020)**

(*) Identification of item tested	Central In-Vehicle Infotainment Computer CIVIC Gen20xi.3
(*) Trademark	BOSCH
(*) Model and /or type reference	BCI3L3R1 / vehicular architecture 3.0
Other identification of the product	FCC ID: 2AUXS-BCI3L3R1 IC: N/A
(*) Features	HW version: D5 SW version: E064.4
Manufacturer	Robert Bosch GmbH Robert-Bosch-Platz 1 70639 Gerlingen // GERMANY
Test method requested, standard	FCC Rules and Regulations CFR 47, Part 15, Subpart B (10-1-23 Edition) & ICES-003 Issue 7 (October 2020)
Summary	IN COMPLIANCE
Approved by (name / position & signature)	José Manuel Gómez EMC Consumer & RF Lab. Manager
Date of issue	2025-06-04
Report template No	FDT08_25 (*) "Data provided by the client"



Index

ACRONYMS3

COMPETENCES AND GUARANTEES3

GENERAL CONDITIONS3

UNCERTAINTY3

DATA PROVIDED BY THE CLIENT4

USAGE OF SAMPLES5

TEST SAMPLE DESCRIPTION6

IDENTIFICATION OF THE CLIENT8

TESTING PERIOD AND PLACE8

DOCUMENT HISTORY8

ENVIRONMENTAL CONDITIONS9

REMARKS AND COMMENTS10

TESTING VERDICTS10

LIST OF EQUIPMENT USED DURING THE TEST10

SUMMARY11

APPENDIX A: TEST RESULTS12

Acronyms

Acronym ID	Acronym Description
Code	EMC Test Code
Freq Rng	Frequency Range
MP	Measurement Point
OM	Operation Mode
S/	Sample
V	Verdict

Competences and guarantees

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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.

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

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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 measured radio disturbance characteristics of EUT from 30 MHz to 1000 MHz is $I = \pm 4,9$ dB for quasi-peak measurements, $I = \pm 4,6$ dB for peak measurements ($k=2$).

The total uncertainty of the measurement system for the measured radio disturbance characteristics of EUT from 1000 MHz to 12.75 GHz is $I = \pm 2,6$ dB for peak and average measurements ($k=2$).

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 Central In-Vehicle Infotainment Computer CIVIC Gen20xi.3, including: GNSS (GPS, Galileo Beidou Glonass), AM/FM/DAB (ROW/ECE), AM/FM/SXM (NA), AM/FM/TV (JP), WLAN 2.4 & 5GHz & Bluetooth.

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	76719D_197.1	Headunit	BCI3L3R1	0018956	2024-12-19	Element Under Test
S/01	76719D_14.1	Harness	--	--	2024-04-04	Auxiliary Element
S/01	76719D_20.1	Antenna	--	--	2024-04-04	Auxiliary Element
S/01	76719D_44.1	Fakra- USB adapter cable	--	--	2024-04-17	Auxiliary Element
S/01	76719D_45.1	USB male-male adpter	--	--	2024-04-17	Auxiliary Element
S/01	76719D_9.1	Fakra - 4 Fakra Cable	--	--	2024-04-04	Auxiliary Element
S/01	76719D_91.1	Antenna	A1779052902/002	--	2024-04-17	Auxiliary Element
S/01	76719D_92.1	Antenna	A1779052902/002	--	2024-04-17	Auxiliary Element

Notes referenced to samples during the project:

Test sample description

Ports..... :	Port name and description		Cable				
			Specified max length [m]	Attached during test	Shielded	Coupled to patient ⁽³⁾	
	Main Connector		2m	[X]	[]	[]	
	Fakra Quad Connector AM/FM/DAB		.....	[X]	[]	[]	
	Fakra Single Connector GPS						
	Fakra Quad Connector WLAN/BT		.....	[X]	[]	[]	
	USB Cable		.....	[X]	[]	[]	
.....			[]	[]	[]		
Supplementary information to the ports..... :	.....						
Rated power supply	Voltage and Frequency			Reference poles			
				L1	L2	L3	N	PE
		AC:	[]	[]	[]	[]	[]
	X	DC: 9-16V nominal 12 VDC by vehicle battery					
Rated Power .....	.....						
Clock frequencies.....	.....						
Other parameters	IP20 ; -40C to +65C						
Software version	E064.4						
Hardware version	D5						
Dimensions in cm (W x H x D)	220mmx161mmx78mm						
Mounting position	[]	Table top equipment					
	[]	Wall/Ceiling mounted equipment					
	[]	Floor standing equipment					
	[]	Hand-held equipment					

	☒	Other: Cluster in the car with separate antennas built into the cockpit of vehicle		
Modules/parts.....:	Module/parts of test item		Type	Manufacturer
				
Accessories (not part of the test item)	Description		Type	Manufacturer
	Antennas		.....	.....
	Display		.....	.....
	any other equipment to make device functional		.....	.....
	Laptop		.....	.....
				
Documents as provided by the applicant	Description		File name	Issue date
				

⁽³⁾ Only for Medical Equipment

Identification of the client

Robert Bosch GmbH
Robert-Bosch-Strasse 200, 31139 Hildesheim. GERMANY

Testing period and place

Test Location	DEKRA Testing and Certification S.A.U.
Date (start)	2025-03-19
Date (finish)	2025-03-19

Document history

Report number	Date	Description
76719REM.002	2025-04-07	First release
76719REM.002A1	2025-06-04	Second release. Modification due to minor typos. This test report cancels and replaces the test report 76719REM.002.

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. = 30 % Max. = 75 %
Air pressure	Min. = 860mbar Max. = 1060mbar

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

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 30 % Max. = 75 %
Air pressure	Min. = 860mbar Max. = 1060mbar

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. = 30 % Max. = 60 %
Air pressure	Min. = 860mbar Max. = 1060mbar

Remarks and comments

The tests have been performed by the technical personnel: Antonio Ruiz Sánchez and Iván Guerrero González.

Testing verdicts

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

List of equipment used during the test

Control No.	Equipment	Model	Manufacturer	Next Calibration
08866	EMI TEST RECEIVER 2Hz-44GHz	ESW44	ROHDE AND SCHWARZ	2026-06-12
06132	ETHERNET TEMPERATURE AND HUMIDITY LOGGER	HWg-STE	HW GROUP	2025-04-09
06126	ETHERNET TEMPERATURE AND HUMIDITY LOGGER	HWg-STE	HW GROUP	2025-04-04
04612	HORN ANTENNA 1-18GHz	BBHA 9120 D	SCHWARZBECK MESS-ELEKTRONIK	2027-10-15
04657	HORN ANTENNA 18-40GHz	BBHA 9170	SCHWARZBECK	2026-06-12
05641	HYBRID BILOG ANTENNA 30MHz-6GHz	3142E	ETS LINDGREN	2027-10-23
10573	PRE-AMPLIFIER G>46dB 18-40GHz	BLMA 1840-5G	BONN ELEKTRONIK	2026-03-07
09360	PRE-AMPLIFIER G>40dB 1-18 GHz	BLMA 0118-1M	BONN ELEKTRONIK	2025-08-05
06064	SEMIANECHOIC ABSORBER LINED CHAMBER	SAC-3	Frankonia	--
06329	SHIELDED ROOM	--	FRANKONIA	--
04848	SOFTWARE FOR EMC/RF TESTING	EMC32	ROHDE AND SCHWARZ	--

Summary

Test Specification	Requirement – Test case	Verdict	Remark
FCC CFR 47, Part 15, Subpart B (10-1-23 Edition) & ICES-003 Issue 7 (October 2020)	RE Radiated emission. Electromagnetic field measure	P	(1)
	CE Continuous conducted emission	N/A	(2)
<u>Supplementary information and remarks:</u> (1) Test required only to the 5th harmonics of the maximum internal work frequency in the EUT. (2) EUT powered by batteries.			

Appendix A: Test results

Appendix A content

DESCRIPTION OF THE OPERATION MODES14

TEST STANDARDS VERSION APPLIED15

TEST CASES DETAILS16

Description of the operation modes

The operation modes described in this paragraph constitute a functionality of the sample under test for itself.
The operation modes used by the samples to which the present report refers, are shown in the following table:

Id	Description
OM/01	EUT ON. WiFi 2.4GHz and 5GHz without communication established. Bluetooth without communication established. GNSS module waiting for a valid position signal. Receiving AM signal. Power supply: 12Vdc.

Test standards version applied

The product standards and test standards applied for each test cases are shown in the following table:

Product Test Standard	Test standard	Requirement – Test case
FCC CFR 47, Part 15, Subpart B (10-1-23 Edition) & ICES-003 Issue 7 (October 2020)	ANSI C63.4 (2014)	RE Radiated emission.
	ANSI C63.4 (2014)	CE Continuous conducted emission

Test Cases Details

FCC 47 CFR Part 15B

RE Radiated emission. Electromagnetic field measure

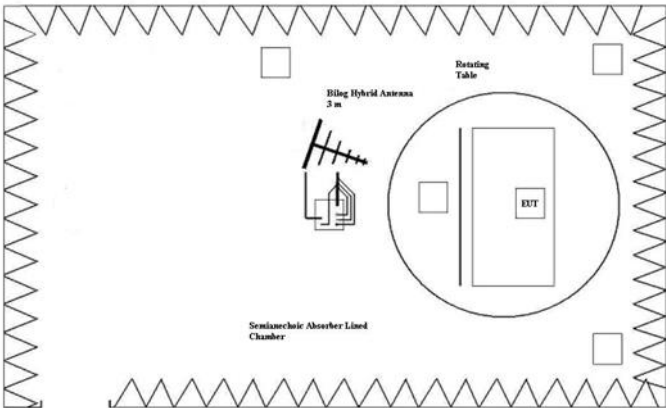
Limits of interference Class B

The applied limit for radiated emissions, 3 m distance, according to the requirements of FCC Rules and Regulations 47 CFR Part 15, Subpart B (10-1-23 Edition), Secs. 15.109 & ICES-003 Issue 7 (October 2020)

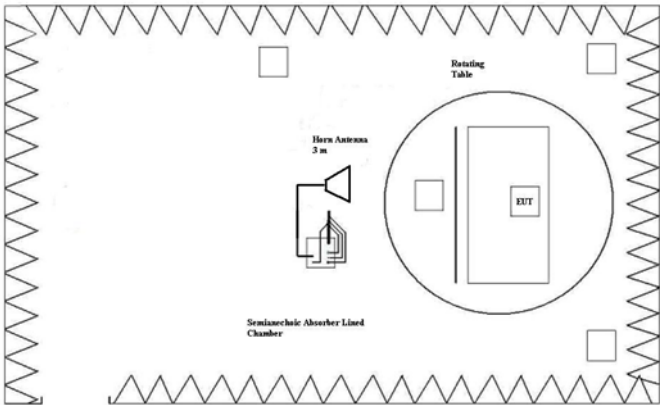
Frequency range (MHz)	FCC Part 15B		ICES-003 Issue 7		FCC Part 15B & ICES-003 Issue 7	
	QP Limit for 3 m		QP Limit for 3 m		PK Limit for 3 m	AVG Limit for 3 m
	(μ V/m)	(dB μ V/m)	(μ V/m)	(dB μ V/m)	(dB μ V/m)	(dB μ V/m)
30 to 88	100	40	100	40	---	---
88 to 216	150	43.5	150	43.5	---	---
216 to 230	200	46	200	46	---	---
230 to 960	200	46	224	47		
960 to 1000	500	54	500	54	---	---
Above 1000	---	---	---	---	74	54

Limits according to FCC Part 15B, are equal or more stringent than those of ICES-003 Issue 7.

Setup for measurements



Setup for measurements < 1GHz.



Setup for measurements > 1GHz.

Results

S/	OM	Code	Freq Rng (MHz)	V
01	OM/01	RE0101LR	[30, 1000]	P
01	OM/01	RE0101HR1	[1000, 17000]	P
01	OM/01	RE0101HR2	[17000, 26000]	P

Verdict

Pass

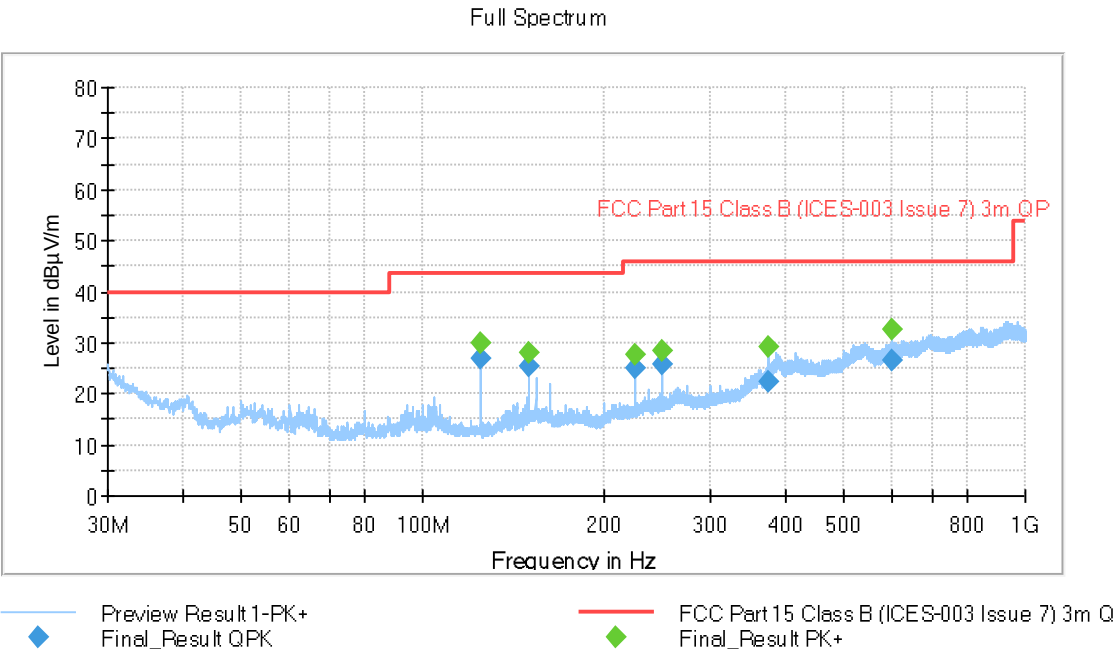
Attachments

EMC Test Code = RE0101LR Frequency Range MHz = [30, 1000]

Sample ID: S/01

Operation Mode: OM/01

Images:



Tables:

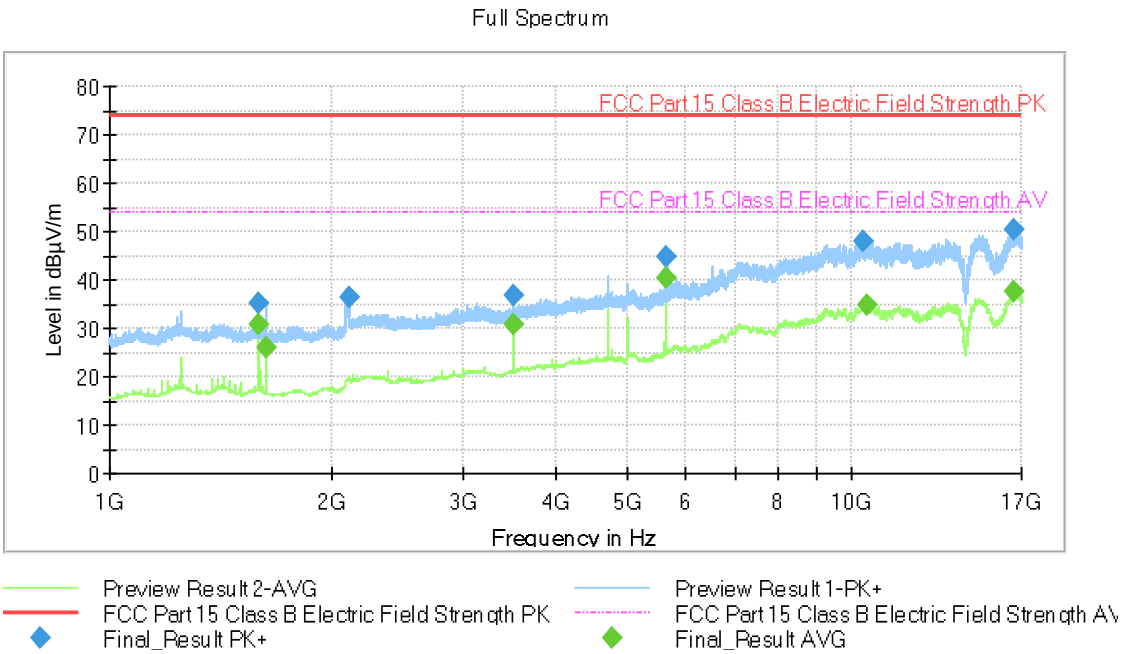
Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
124.997000	27.03	---	43.52	16.49	100.0	V	-90.0
124.997000	---	30.06	---	---	100.0	V	-90.0
150.003000	---	27.96	---	---	100.0	V	180.0
150.003000	25.36	---	43.52	18.16	100.0	V	180.0
225.008000	---	27.80	---	---	100.0	V	103.0
225.008000	24.88	---	46.00	21.12	100.0	V	103.0
250.021000	---	28.33	---	---	167.0	V	-135.0
250.021000	25.63	---	46.00	20.37	167.0	V	-135.0
375.013000	---	29.14	---	---	100.0	V	31.0
375.013000	22.53	---	46.00	23.47	100.0	V	31.0
600.028000	26.50	---	46.00	19.50	155.0	V	71.0
600.028000	---	32.76	---	---	155.0	V	71.0

EMC Test Code = RE0101HR1 Frequency Range MHz = [1000, 17000]

Sample ID: S/01

Operation Mode: OM/01

Images:



Tables:

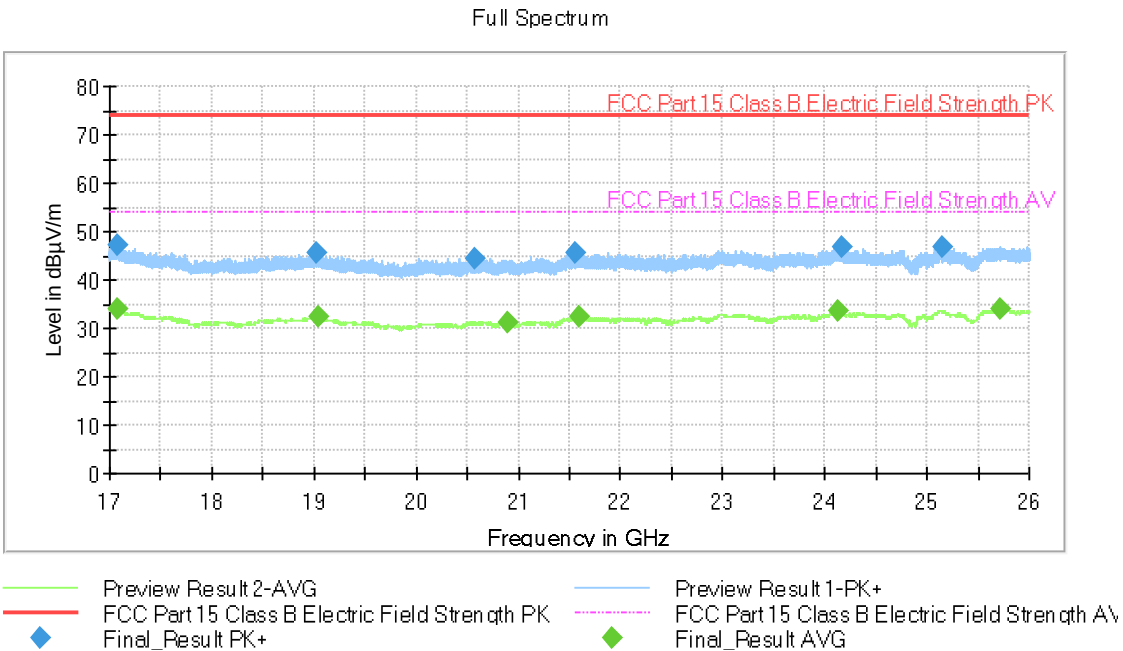
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
1584.000000	---	30.73	53.97	23.24	80.0	V	0.0
1584.000000	35.09	---	73.97	38.88	80.0	V	0.0
1625.000000	---	26.07	53.97	27.90	80.0	V	0.0
2099.750000	36.31	---	73.97	37.66	80.0	V	0.0
3498.500000	---	30.72	53.97	23.25	80.0	H	0.0
3498.750000	36.87	---	73.97	37.10	80.0	H	0.0
5620.000000	44.88	---	73.97	29.09	80.0	V	0.0
5620.000000	---	40.24	53.97	13.73	80.0	V	0.0
10372.000000	47.81	---	73.97	26.16	80.0	H	0.0
10539.250000	---	34.86	53.97	19.11	80.0	H	0.0
16615.500000	50.36	---	73.97	23.61	80.0	H	0.0
16616.000000	---	37.45	53.97	16.52	80.0	H	0.0

EMC Test Code = RE0101HR2 Frequency Range MHz = [17000, 26000]

Sample ID: S/01

Operation Mode: OM/01

Images:



Tables:

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
17072.500000	---	33.99	53.97	19.98	80.0	V	0.0
17077.500000	47.16	---	73.97	26.81	80.0	V	0.0
19024.250000	45.68	---	73.97	28.29	80.0	V	0.0
19034.000000	---	32.38	53.97	21.59	80.0	V	0.0
20579.250000	44.52	---	73.97	29.45	80.0	V	0.0
20890.750000	---	31.37	53.97	22.60	80.0	V	0.0
21563.000000	45.50	---	73.97	28.47	80.0	H	0.0
21590.250000	---	32.33	53.97	21.64	80.0	V	0.0
24123.750000	---	33.73	53.97	20.24	80.0	V	0.0
24170.750000	46.63	---	73.97	27.34	80.0	V	0.0
25147.000000	46.75	---	73.97	27.22	80.0	V	0.0
25717.500000	---	33.88	53.97	20.09	80.0	V	0.0