Test Report

Test report no.: 23028490-32631-0
Date of issue: 2023-10-17
Test result: The test item **- passed - and complies** with the listed standards.

Applicant
BURY Sp. z o.o.

Manufacturer
Same as applicant

Test Item
WCA CS NFC LCI

Radio Frequency Testing according to:

FCC 47 CFR Part 15
Radio frequency devices
Parts 1.1307, 1.1310, 2.1091, 2.1093

680106 D01 RF Exposure Wireless Charging Apps v03r01

Tested by (name, function, signature)	*Andreas Bender* *Deputy Managing Director*	
Approved by (name, function, signature)	*Karsten Geraldy* *Lab Manager*	

Applicant and Test item details	
Applicant	BURY Sp. z o.o. ul. Wojska Polskiego 4 PL39-300 , Mielec , POLAND Fon: -- Fax: --
Manufacturer	Same as applicant
Test item description	Wireless Charger with NFC
Model/Type reference (unique)	WCA CS NFC LCI
Standard specific information	
Frequency	13.56 MHz, 125 kHz
Technology	RFID, Qi
Antenna	PCB antenna
Power supply	Vehicle Battery (Vnom: 12; Vmax: 16; Vmin: 6)
Temperature range	-40 °C ~ +80 °C
FCC ID	QZ9-WCACS
Company number:	5927A

Disclaimer and Notes

The content of this report relates to the mentioned test sample(s) only.
IBL-Lab GmbH does not take samples. The samples used for testing are provided by the applicant.
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The last valid version is available at TAMSys®.
Signatures are done electronically, if signer does not match stated signer, it is signed per order.
Information supplied by the applicant can affect the validity of results. The data is marked accordingly.

Within this test report, a ☒ point / ☐ comma is used as a decimal separator.
If otherwise, a detailed note is added adjected to its use.

Decision rule:
Decision rule based on simple acceptance without guard bands, binary statement, based on mutually agreed uncertainty tolerances with expansion factor k=2.

1 TABLE OF CONTENTS

2 GENERAL INFORMATION

2.1 Administrative details

Testing laboratory	**IBL-Lab GmbH** Heinrich-Hertz-Allee 7 66386 St. Ingbert / Germany Fon: +49 6894 38938-0 Fax: +49 6894 38938-99 URL: https://ib-lenhardt.com/ E-Mail: info@ib-lenhardt.com
Accreditation / Designation	The testing laboratory is accredited by Deutsche Akkreditierungsstelle GmbH (DAkkS) in compliance with DIN EN ISO/IEC 17025:2018. Scope of testing and registration number: • Attachment to the accreditation certificate D-PL-21375-01-00 ○ Electronics ○ Electromagnetic Compatibility ○ Radio ○ Electromagnetic Compatibility and Telecommunication (FCC requirements) ○ Telecommunication (TC) and Electromagnetic Compatibility (EMC) for Canadian Standards ○ Automotive EMC Website DAkkS: https://www.dakks.de/ The Deutsche Akkreditierungsstelle GmbH (DAkkS) is also a signatory to the ILAC Mutual Recognition Arrangement. • Designations ○ FCC Testing Laboratory Designation No. DE0024 ○ ISED Company Number 27156 Testing Laboratory CAB Identifier DE0020 ○ Kraftfahrt-Bundesamt KBA-P 00120-23
Testing location	**IBL-Lab GmbH** Heinrich-Hertz-Allee 7 66386 St. Ingbert / Germany
Date of receipt of test samples	2023-10-10
Start – End of tests	2023-10-10 – 2023-10-12

2.2 Possible test case verdicts

Test sample meets the requirements	P (PASS)
Test sample does not meet the requirements	F (FAIL)
Test case does not apply to the test sample	N/A (Not applicable)
Test case not performed	N/P (Not performed)

2.3 Observations

No additional observations other than the reported observations within this test report have been made.

2.4 Opinions and interpretations

No appropriate opinions or interpretations according ISO/IEC 17025:2017 clause 7.8.7 are within this test report.

2.5 Document history

-0 Initial Version
-

3 ENVIRONMENTAL CONDITIONS

3.1 Environmental conditions of lab

Temperature	25°C ± 10°C (see below)
Relative humidity	25-75% r.H. (see below)
Barometric Pressure	860-1060 mbar
Power supply	230/400 V AC (see below)

4 TEST STANDARDS AND REFERENCES

Test standard (accredited)	**Description**
FCC 47 CFR Part 15	*RADIO FREQUENCY DEVICES*

Test standard (not accredited)	**Description**
none	-

Reference	**Description**
447498 D04 Interim General RF Exposure Guidance v01	*RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices*
680106 D01 RF Exposure Wireless Charging Apps v03r01	*RF EXPOSURE CONSIDERATIONS FOR LOW POWER CONSUMER WIRELESS POWER TRANSFER APPLICATIONS*

5 MPE Assessment Requirements

5.1 FCC – KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01

Requirement	Implementation	Verdict
Power transfer frequency is less than 1 MHz.	Operation frequency range is within Qi limits < 1MHz (~127 kHz)	P
Output power from each primary coil is less than or equal to 15 watts.	5 W	P
The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.	Coupling only between individual pairs of coils.	P
Client device is placed directly in contact with the transmitter.	No gap, but direct contact is intended use.	P
Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	Mobile exposure is intended.	P
The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.	See measurement tables E-Limit: 614 V/m -> 50% -> 307 V/m H-Limit: 1.63 A/m -> 50% -> 0.815 A/m	P

5.1.1 Limits – 3. RF Exposure Requirements

c) For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: **614 V/m** and **1.63 A/m**. Below 100 kHz, applicable reference levels for maximum instantaneous exposure field strengths are defined in clause 3.a).(2).

5.1.2 EUT setup + Measurements

Set-up #	Setup modes	Remark
1	NFC polling	--
2	Wireless polling	--
3	NFC with NFC Card	--
4	Wireless charging	15W
5	--	--

Section	Setup	Orientation	Frequency [MHZ]	Distance [cm]	E-Field [V/m]	E-Field limit [V/m]	H-Field [A/m]	H-Field limit [A/m]	Note	Verdict
A	1	Top	13.56	15	4.44	28	0.0115	0.073	--	P
A	1	High	13.56	15	5.95	28	0.0370	0.073	--	P
A	1	Low	13.56	15	8.59	28	0.0296	0.073	--	P
A	1	Left	13.56	15	6.32	28	0.0199	0.073	--	P
A	1	Right	13.56	15	9.33	28	0.0245	0.073	--	P
Supplementary information:										
B	2	Top	0.125	15	0.0552	307	0.0052	0.815	No change in spectrum, no carrier visible.	P
B	2	High	0.125	15	0.0541	307	0.0064	0.815	No change in spectrum, no carrier visible.	P
B	2	Low	0.125	15	0.0570	307	0.0080	0.815	No change in spectrum, no carrier visible.	P
B	2	Left	0.125	15	0.0553	307	0.0052	0.815	No change in spectrum, no carrier visible.	P
B	2	Right	0.125	15	0.0570	307	0.0049	0.815	No change in spectrum, no carrier visible.	P
Supplementary information: Field probe measures nothing but background noise. No carrier visible. Digital ping does not show on spectrum This is considered as passed.										
C	3	Top	13.56	15	5.66	28	0.0110	0.073	--	P
C	3	High	13.56	15	9.48	28	0.0501	0.073	--	P
C	3	Low	13.56	15	5.56	28	0.0334	0.073	--	P
C	3	Left	13.56	15	11.08	28	0.0205	0.073	--	P
C	3	Right	13.56	15	10.85	28	0.0238	0.073	--	P
Supplementary information:										
D	4	Top	0.125	15	0.0550	307	0.435	0.815	--	P
D	4	High	0.125	15	0.0507	307	0.0557	0.815	No change in spectrum, no carrier visible.	P
D	4	Low	0.125	15	0.0520	307	0.0401	0.815	No change in spectrum, no carrier visible.	P
D	4	Left	0.125	15	0.1033	307	0.1931	0.815	--	P
D	4	Right	0.125	15	0.0471	307	0.2184	0.815	--	P
Supplementary information:										

6 List of test equipment used

#	Equipment Class	ID	Calibration due date
1	Field Probe	LAB000231	2023-04-13 → 12M → 2024-04-13
2	Field Probe	LAB000232	2023-05-08 → 12M → 2024-05-08
3	Field Probe	LAB000233	2023-04-13 → 12M → 2024-04-13
4	Tape Measure	LAB000256	2023-01-02 → 24M → 2024-01-02
5	RERX- BST	LAB000432	2023-06-26 → 12M → 2024-06-26
6	Datalogger	LAB000255	2022-09-14 → 24M → 2024-09-14
7	Caliper	LAB000266	2023-01-02 → 12M → 2024-01-02

Annex 1 Photo Documentation

Section A – exemplary

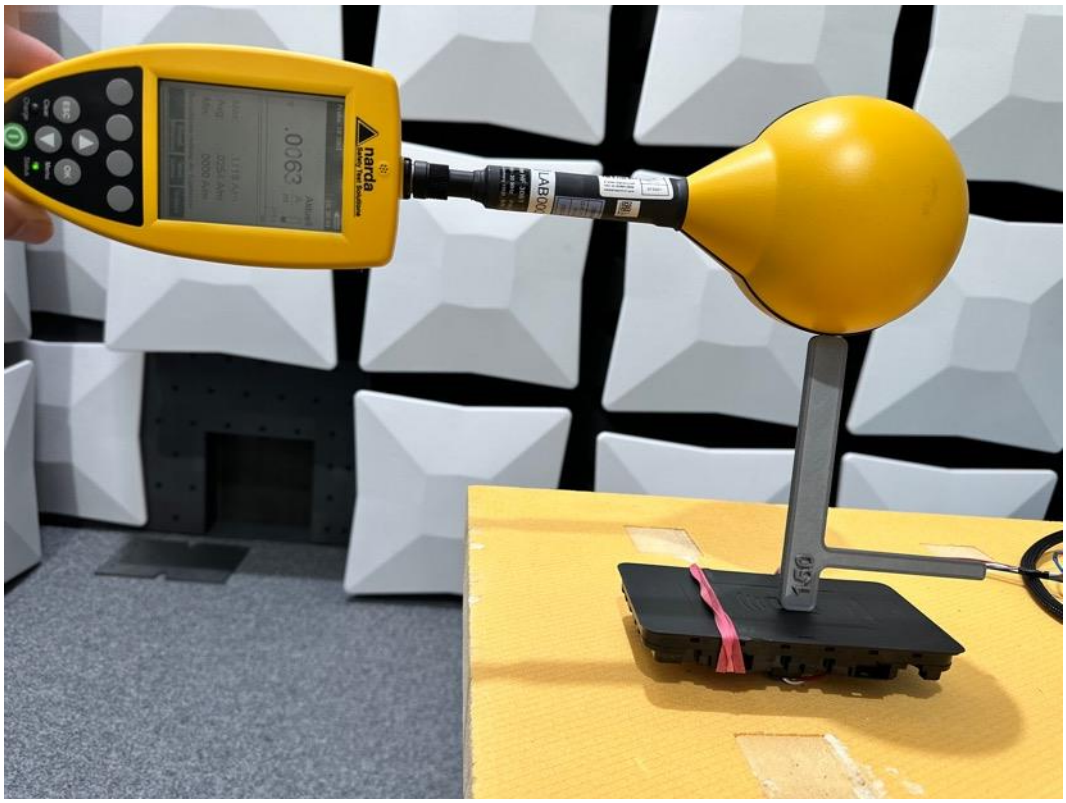


Photo : 1

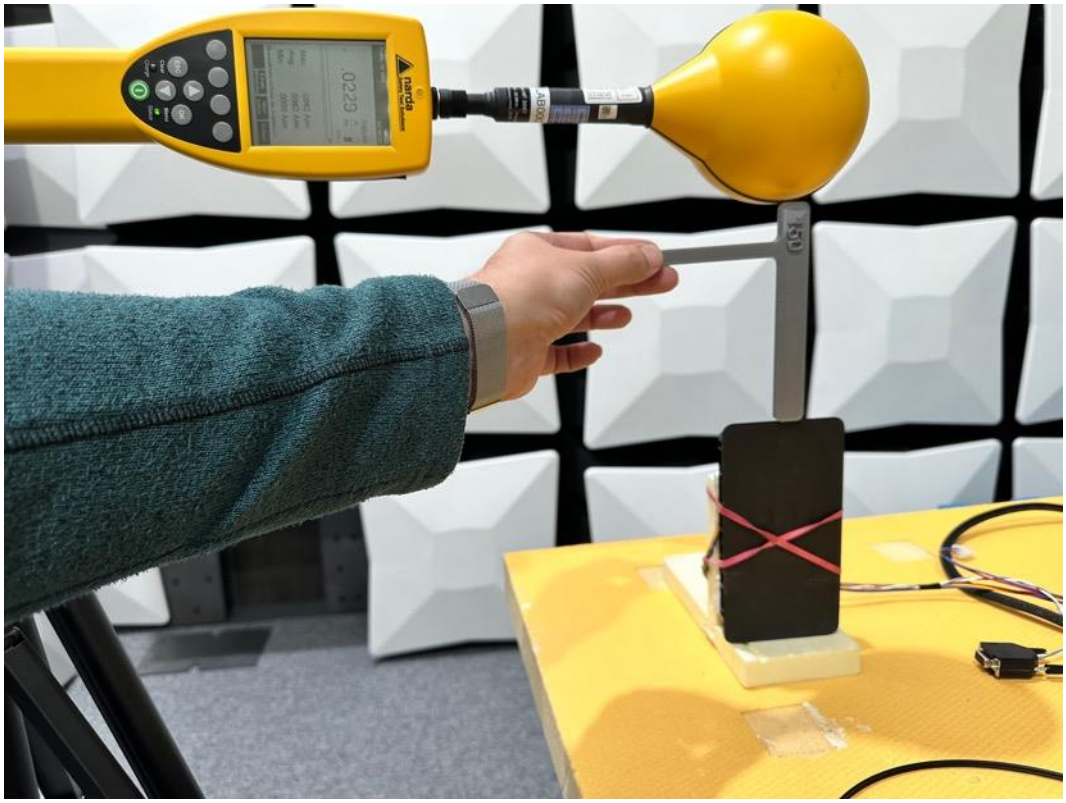


Photo : 2

Section B - examplary

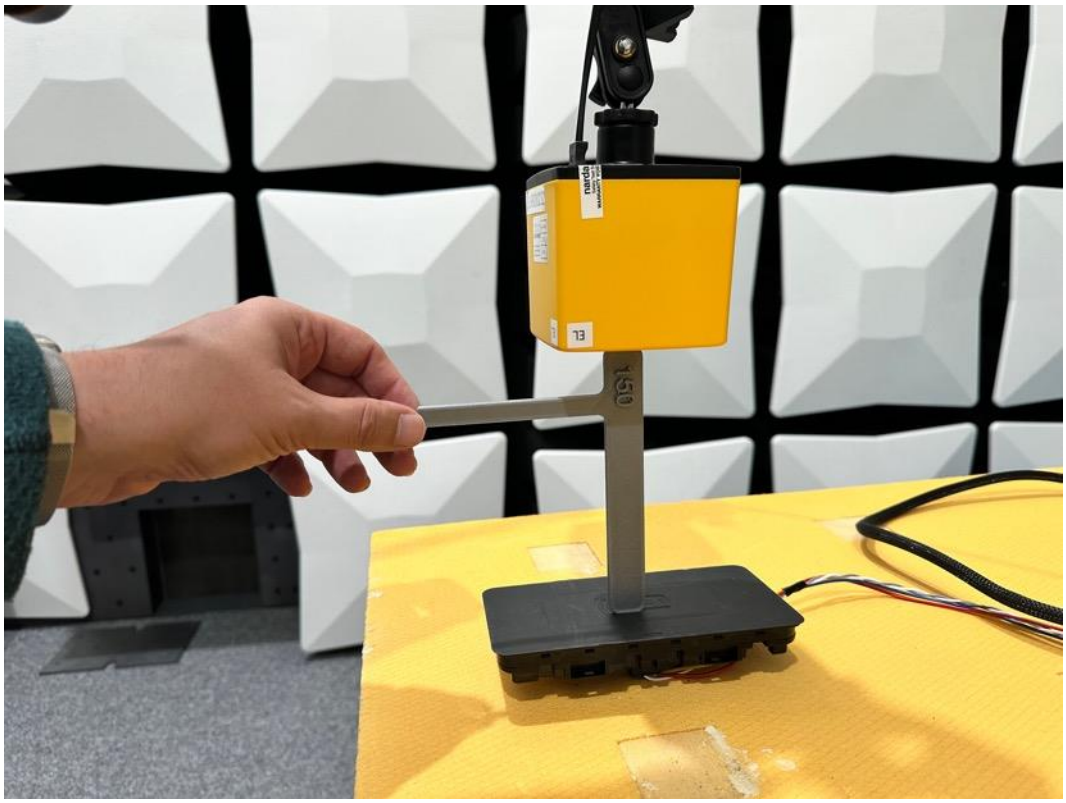
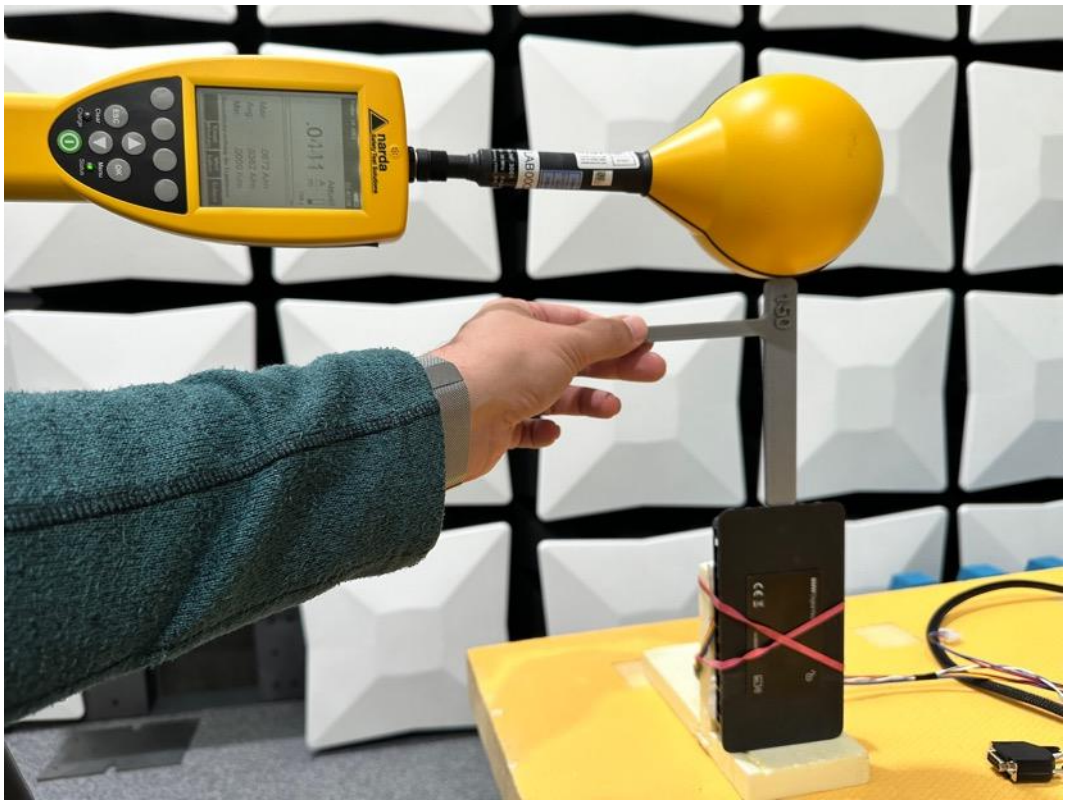


Photo : 3

Section C - exemplary



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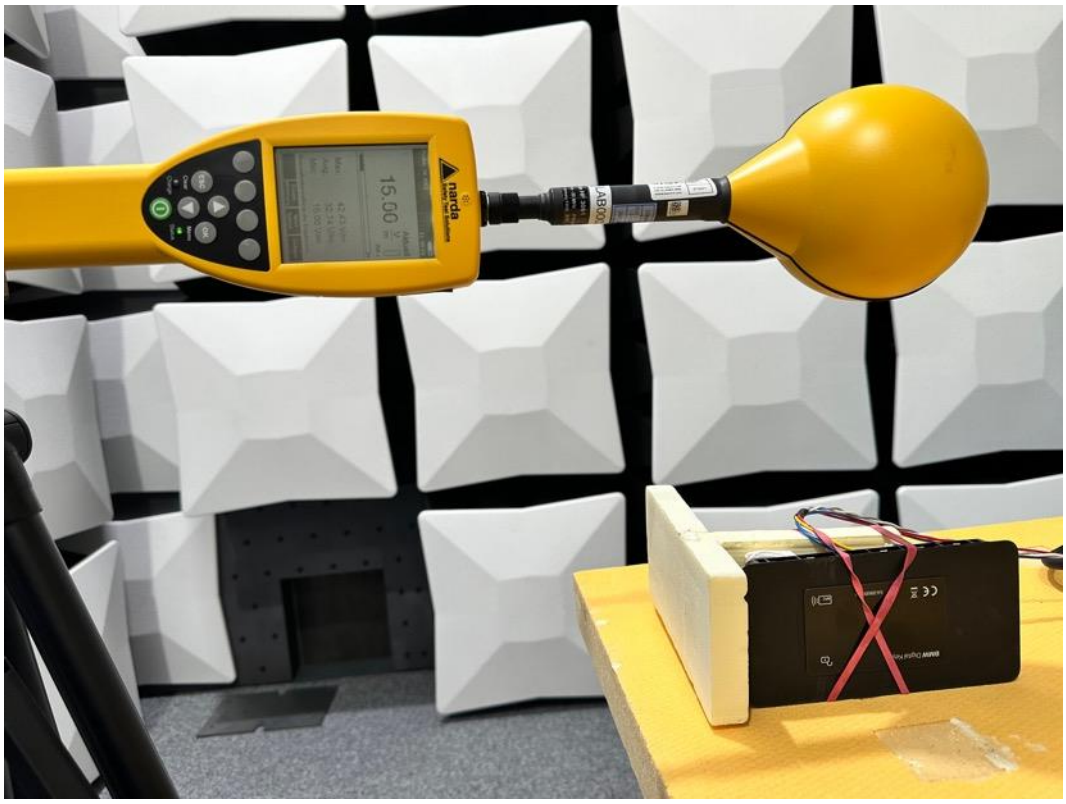
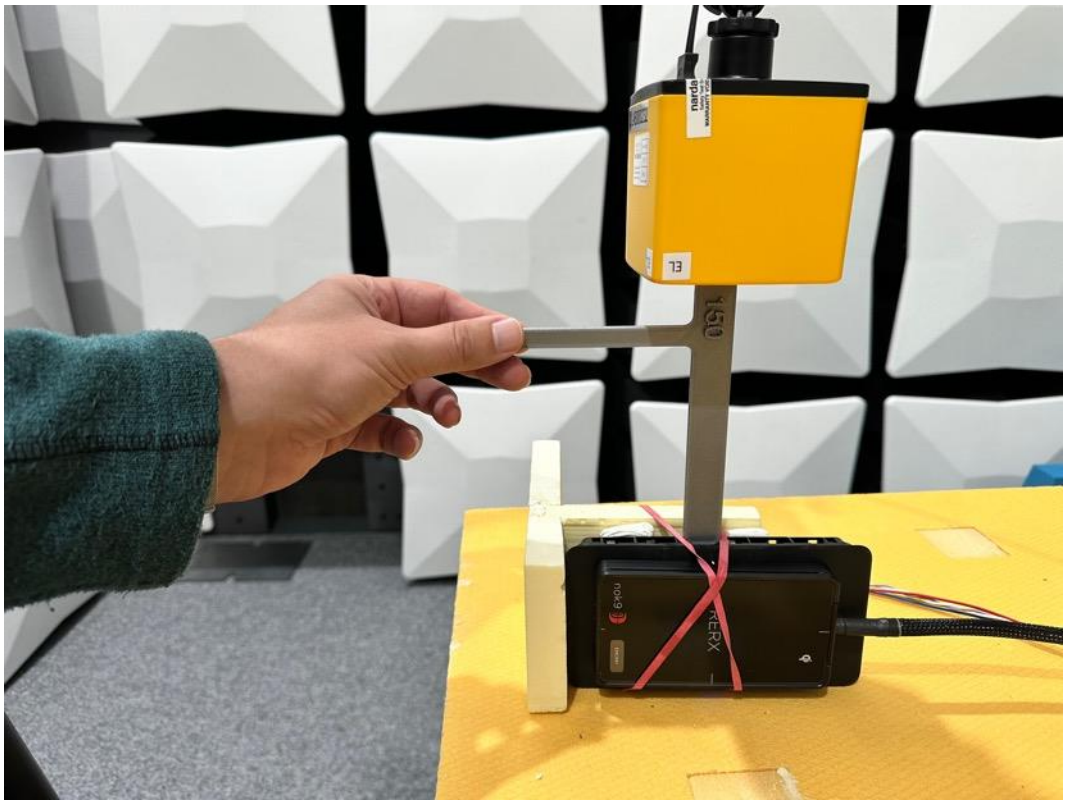


Photo : 5

Section D - exemplary



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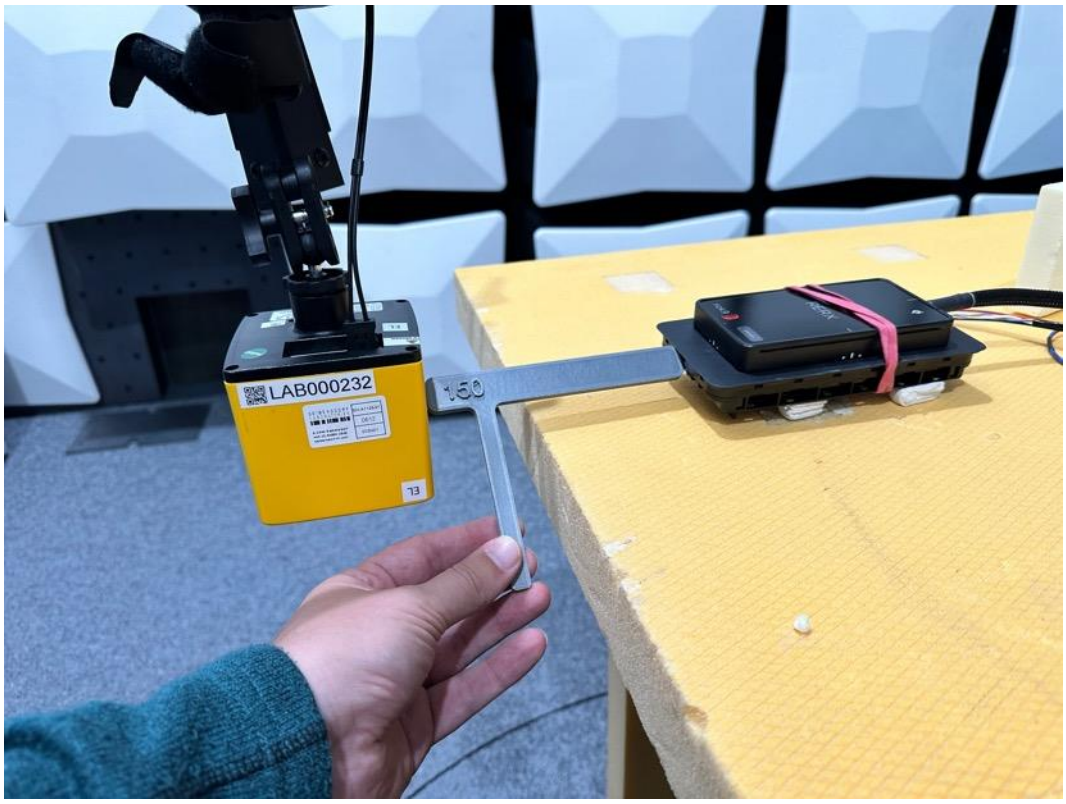

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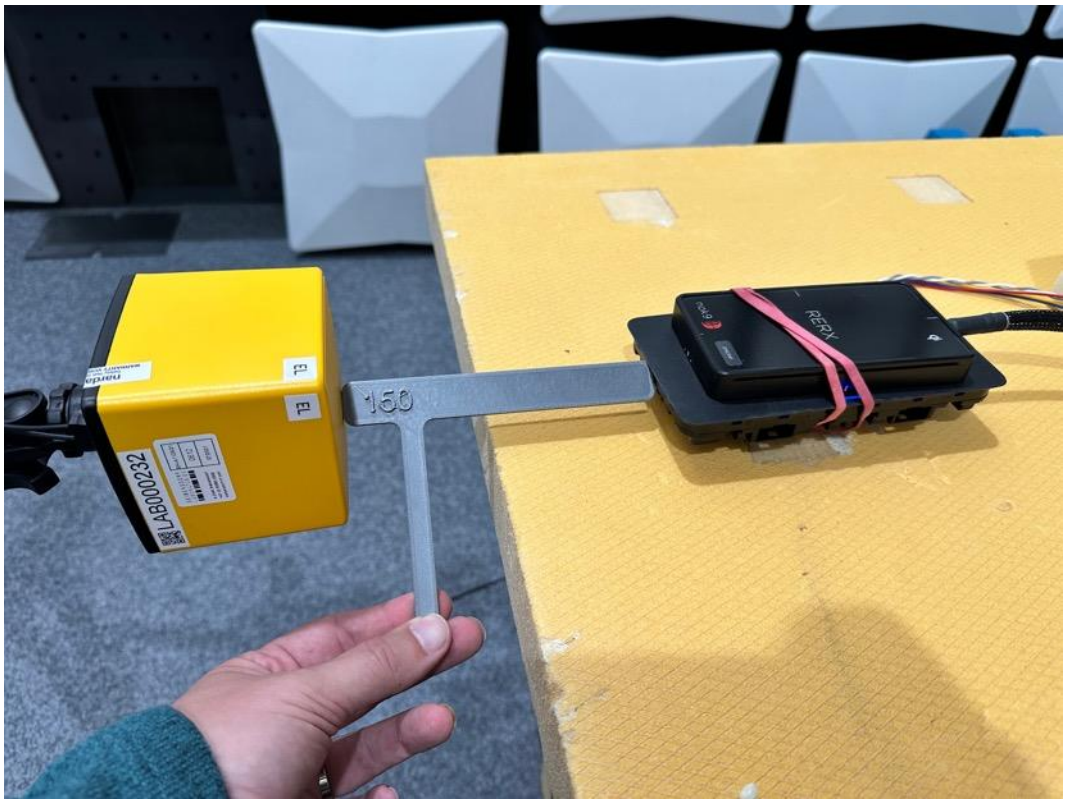

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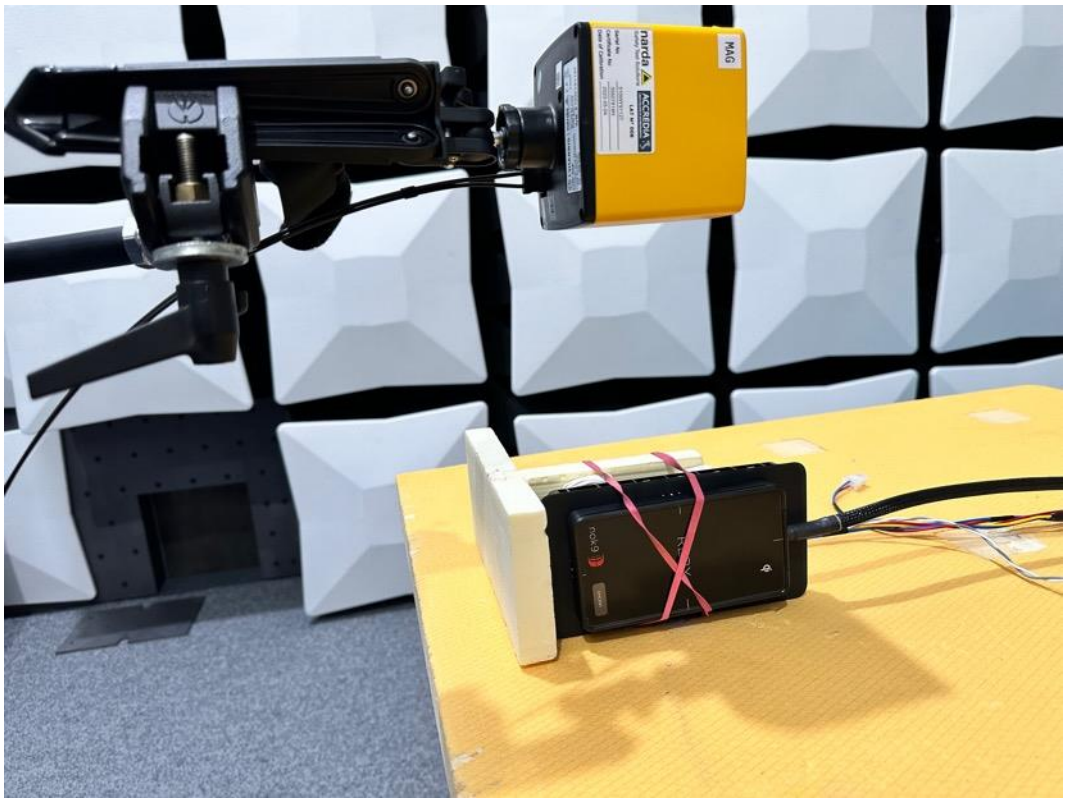

Photo : 9

Photo : 10

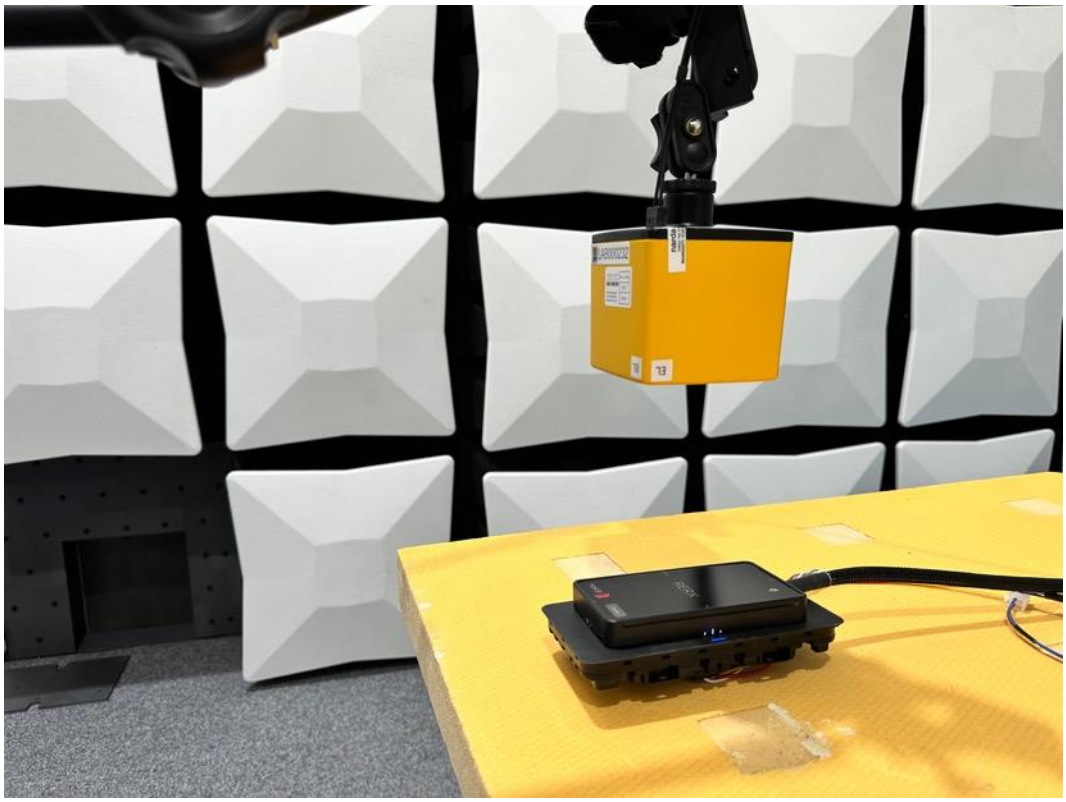

Photo : 11

End of Test Report