

TEST REPORT

Test report no.: 1-1447-25-01-03_TR1-R02



Deutsche
Akkreditierungsstelle
D-PL-12047-01-00

Testing laboratory

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Accredited Testing Laboratory:

The testing laboratory (area of testing) is accredited according to DIN EN ISO/IEC 17025 (2018-03) by the Deutsche Akkreditierungsstelle GmbH (DAkkS).

The accreditation is valid for the scope of testing procedures as stated in the accreditation certificate with the registration number:

D-PL-12047-01-00.

ISED Testing Laboratory Recognized Listing Number: DE0001

FCC designation number: DE0002

Applicant

BURY GmbH

Robert-Koch-Straße 1-7

32584 Löhne / Germany

Phone: +49 5732-9706-0

Contact: -/- -/-

e-mail: info@bury.com

Manufacturer

BURY Sp. z o.o.

ul. Wojska Polskiego 4

PL-39-300 Mielec / POLAND

Test standard/s

FCC - Title 47 CFR Part 15 FCC - Title 47 of the Code of Federal Regulations; Chapter I; Part 15 - Radio frequency devices

RSS - 216 Issue 3 RSS-216 – Wireless Power Transfer Devices

RSS - Gen Issue 5 incl. Spectrum Management and Telecommunications Radio Standards Specification
Amendment 1 & 2 - General Requirements for Compliance of Radio Apparatus

For further applied test standards please refer to section 3 of this test report.

Test Item

Kind of test item: **Wireless charger with NCF card protection**

Model name: **WLC MPP Single**

FCC ID: **QZ9-WMS01**

ISED certification number: **5927A-WMS01**

Frequency: 126 kHz; 360 kHz

Technology tested: WPT

Antenna: Integrated antenna

Power supply: 9.0 V to 16.0 V DC by car battery

Temperature range: -40°C to +45°C

This test report is electronically signed and valid without handwritten signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

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2 General information

2.1 Notes and disclaimer

The test results of this test report relate exclusively to the test item specified in this test report. cetecom advanced GmbH does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item.

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This test report replaces the test report with the number 1-1447-25-01-03_TR1-R01 and dated 2026-03-06.

2.2 Application details

Date of receipt of order:	2025-11-28
Date of receipt of test item:	2026-01-06
Start of test:*	2026-01-06
End of test:*	2026-01-22
Person(s) present during the test:	-/-

*Date of each measurement, if not shown in the plot, can be requested. Dates are stored in the measurement software.

2.3 Test laboratories sub-contracted

None

3 Test standard/s, references and accreditations

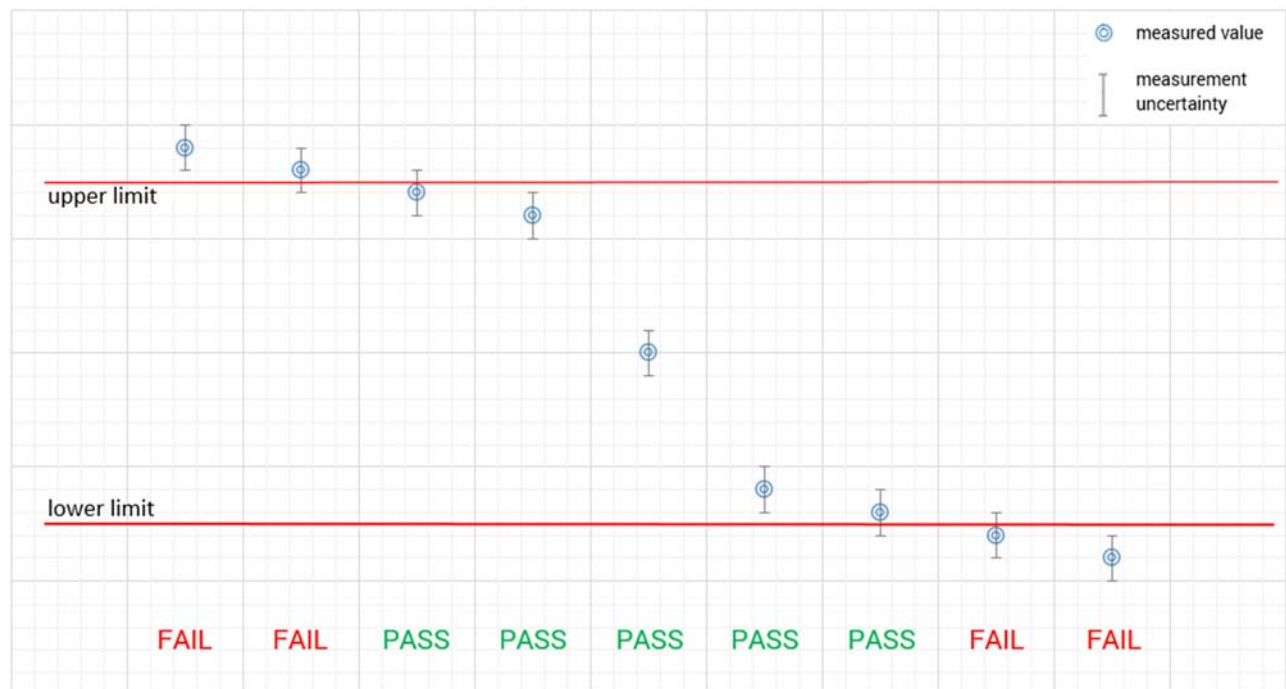
Test standard	Date	Description
FCC - Title 47 CFR Part 15		FCC - Title 47 of the Code of Federal Regulations; Chapter I; Part 15 - Radio frequency devices
RSS - 216 Issue 3	01.09.2024	RSS-216 – Wireless Power Transfer Devices
RSS - Gen Issue 5 incl. Amendment 1 & 2	February 2021	Spectrum Management and Telecommunications Radio Standards Specification - General Requirements for Compliance of Radio Apparatus
Guidance	Version	Description
ANSI C63.4a-2017	-/-	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
ANSI C63.10-2020	-/-	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

4 Reporting statements of conformity – decision rule

Only the measured values related to their corresponding limits will be used to decide whether the equipment under test meets the requirements of the test standards listed in chapter 3.

The measurement uncertainty is mentioned in this test report, see chapter 9, but is not taken into account - neither to the limits nor to the measurement results. Measurement results with a smaller margin to the corresponding limits than the measurement uncertainty have a potential risk of more than 5% that the decision might be wrong."

measured value, measurement uncertainty, verdict



5 Test environment

Temperature :	T_{nom} T_{max} T_{min}	+22 °C during room temperature tests +45 °C during high temperature tests -40 °C during low temperature tests
Relative humidity content :		55 %
Barometric pressure :		1021 hpa
Power supply :	V_{nom} V_{max} V_{min}	14.0 V DC by car battery 16.0 V 9.0 V

6 Test item

6.1 General description

Kind of test item :	Wireless charger with NCF card protection
Model name :	WLC MPP Single
HMN :	-/-
PMN :	WLC MPP Single
HVIN :	WLC MPP Single
FVIN :	-/-
S/N serial number :	32500000000009366317
Hardware status :	H01
Software status :	0001
Firmware status :	-/-
Frequency band :	126 kHz; 360 kHz
Type of radio transmission :	Modulated carrier
Use of frequency spectrum :	
Type of modulation :	PSK
Antenna :	Integrated antenna
Power supply :	9.0 V to 16.0 V DC by car battery
Temperature range :	-40°C to +45°C

6.2 Additional information

The content of the following annexes is defined in the QA. It may be that not all of the listed annexes are necessary for this report, thus some values in between may be missing.

Test setup and EUT photos are included in test report:

1-1447-25-01-01_TR1-A101-R01
1-1447-25-01-01_TR1-A102-R01
1-1447-25-01-01_TR1-A103-R01

7 Description of the test setup

Typically, the calibrations of the test apparatus are commissioned to and performed by an accredited calibration laboratory. The calibration intervals are determined in accordance with the DIN EN ISO/IEC 17025. In addition to the external calibrations, the laboratory executes comparison measurements with other calibrated test systems or effective verifications. Weekly chamber inspections and range calibrations are performed. Where possible, RF generating and signaling equipment as well as measuring receivers and analyzers are connected to an external high-precision 10 MHz reference (GPS-based or rubidium frequency standard).

In order to simplify the identification of the equipment used at some special tests, some items of test equipment and ancillaries can be provided with an identifier or number in the equipment list below (Lab/Item).

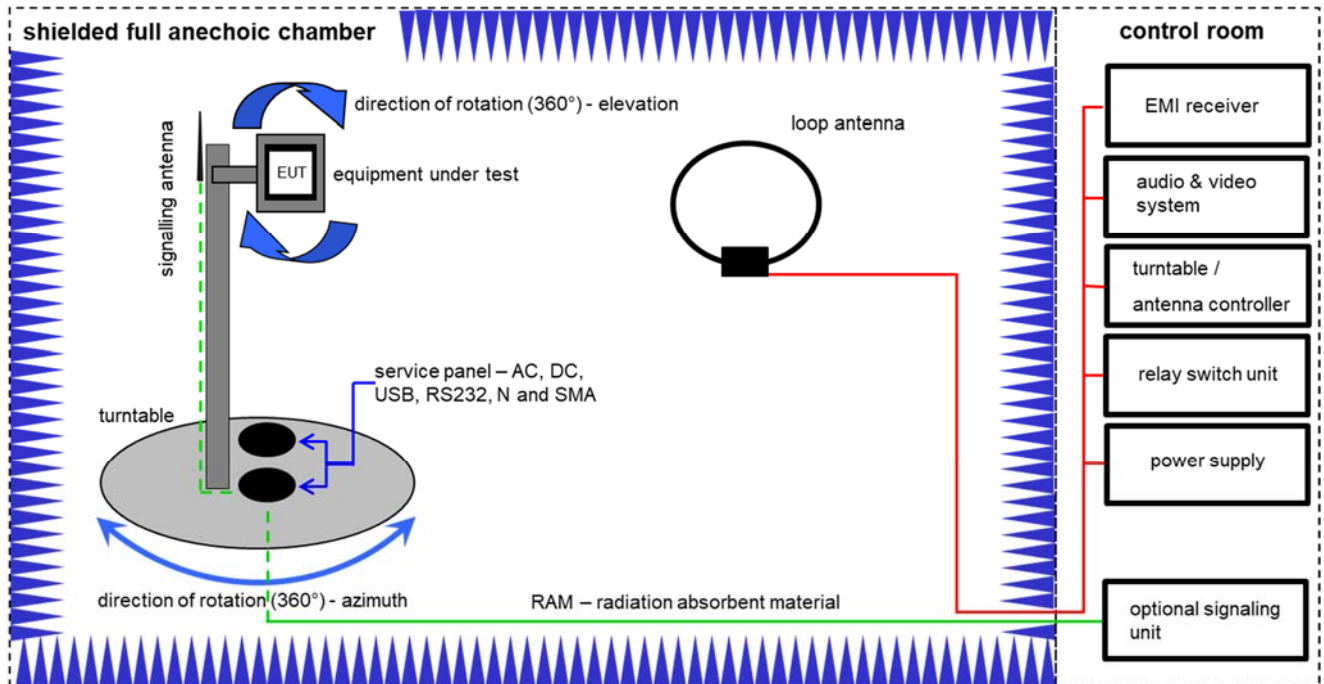
Each block diagram listed can contain several test setup configurations. All devices belonging to a test setup are identified with the same letter syntax. For example: Column Setup and all devices with an A.

Agenda: Kind of Calibration

k/cal	calibration / calibrated
Ne/cnn	not required (k, ev, izw, zw not required)
Ev/chk	periodic self verification
Ve	long-term stability recognized
vlk!	Attention: extended calibration interval
NK!	Attention: not calibrated
cpu	check prior usage

EK	limited calibration
zw	cyclical maintenance (external cyclical maintenance)
izw	internal cyclical maintenance
g	blocked for accredited testing
*)	next calibration ordered / currently in progress

7.1 Shielded fully anechoic chamber



Measurement distance: loop antenna 3 meter

FS = UR + CA + AF

(FS-field strength; UR-voltage at the receiver; CA-loss of the signal path; AF-antenna factor)

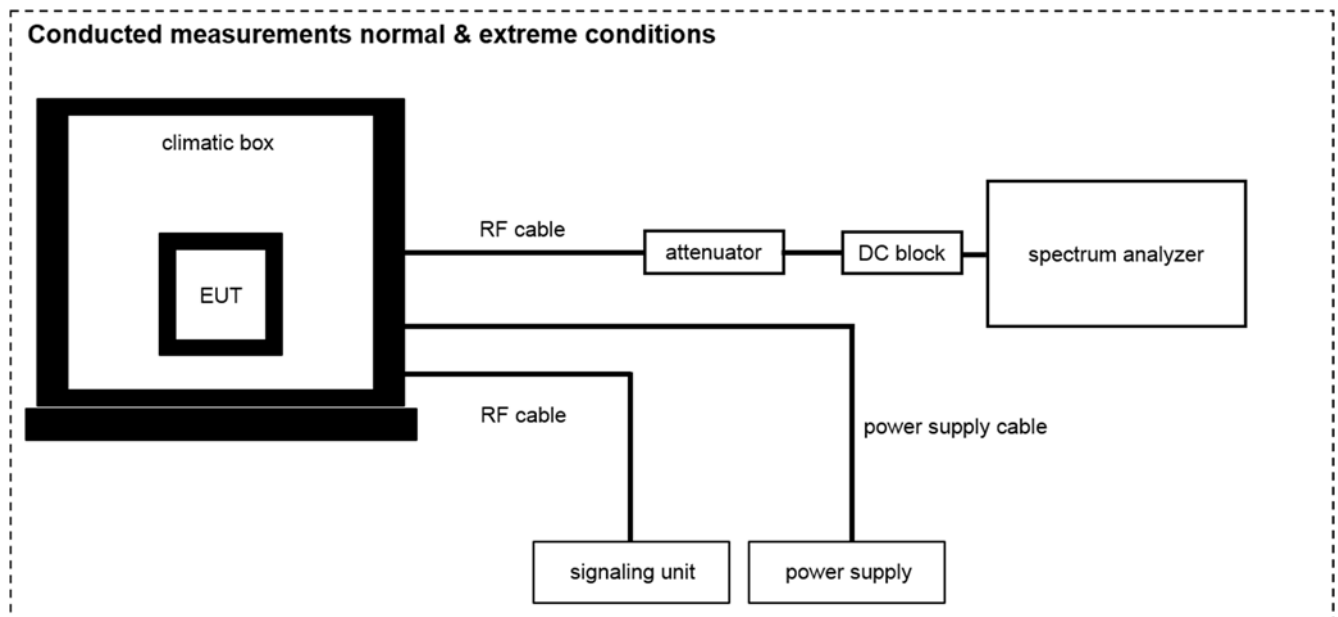
Example calculation:

FS [dBμV/m] = 40.0 [dBμV] + (-35.8) [dB] + 32.9 [dB/m] = 37.1 [dBμV/m] (71.61 μV/m) @ distance

Equipment table:

No.	Setup	Equipment	Type	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	A	Anechoic chamber	Anechoic chamber FAC 3/5m	MEC Import: MWB TDK	87400/02	40349	cpu	-/-	-/-
2	A	Switch / Control Unit	Switch / Control Unit 3488A	Hewlett Packard	*	40350	cnn	-/-	-/-
3	A	4U RF Switch Platform	4U RF Switch Platform L4491A	Agilent Technologies Deutschland GmbH Böblingen	MY50000037	40375	cnn	-/-	-/-
4	A	NEXIO EMV-Software	NEXIO EMV-Software BAT EMC V2022.0.32.0	MEC Import: Nexio		40383	cnn	-/-	-/-
5	A	Power Supply	Power Supply HMP2020	Rohde & Schwarz Messgerätebau GmbH Memmingen	120579	40408	cal	03.12.2025	31.12.2027
6	A	Active Loop Antenna	Active Loop Antenna 6502	EMCO Elektronik GmbH Gilching	2210	50044	cal	07.07.2025	07.07.2027
7	A	EMI Test Receiver	EMI Test Receiver ESU26	Rohde & Schwarz Messgerätebau GmbH Memmingen	100037	50254	cal	11.12.2025	31.12.2026

7.2 Conducted measurements normal and extreme conditions



OP = AV + CA
 (OP-output power; AV-analyzer value; CA-loss signal path)

Example calculation:

OP [dBm] = 6.0 [dBm] + 11.7 [dB] = 17.7 [dBm] (58.88 mW)

Equipment table:

No.	Setup	Equipment	Type	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	A,B	Signal- and Spectrum Analyzer	Signal- and Spectrum Analyzer FSW26	Rohde & Schwarz Messgerätebau GmbH Memmingen	101455	40114	cal	08.12.2025	31.12.2026
2	A,B	Loop Antenna	Loop Antenna	MEC Import: ZEG TS Steinfurt		40841	cpu	-/-	-/-
3	A,B	Power Supply	Power Supply HMP2020	Rohde & Schwarz Messgerätebau GmbH Memmingen	101961	40846	cal	05.12.2024	05.12.2026
4	B	Temperature Test Chamber	Temperature Test Chamber VT 4011	Vötsch Industrietechnik GmbH, a schunk company Balingen-Frommern	58566230600010	50404	calchk	11.07.2024	11.07.2026

8 Sequence of testing

8.1 Sequence of testing radiated spurious 9 kHz to 30 MHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer.
- If the EUT is a tabletop system, it is placed on a table with 0.8 m height.
- If the EUT is a floor standing device, it is placed directly on the turn table.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C 63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measurement distance is 3 m (see ANSI C 63.4) – see test details.
- EUT is set into operation.

Premeasurement*

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna height is 1 m.
- At each turntable position the analyzer sweeps with positive-peak detector to find the maximum of all emissions.

Final measurement

- Identified emissions during the pre-measurement are maximized by the software by rotating the turntable from 0° to 360°.
- Loop antenna is rotated about its vertical axis for maximum response at each azimuth about the EUT. (For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT)
- The final measurement is done in the position (turntable and elevation) causing the highest emissions with quasi-peak (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. A plot with the graph of the premeasurement and the limit is stored.

*)Note: The sequence will be repeated three times with different EUT orientations.

9 Measurement uncertainty

Measurement uncertainty	
Test case	Uncertainty
Occupied bandwidth	$\pm$ used RBW
Field strength of the fundamental	$\pm$ 3 dB
Field strength of the harmonics and spurious	$\pm$ 3 dB
Receiver spurious emissions and cabinet radiations	$\pm$ 3 dB
Conducted limits	$\pm$ 2.6 dB

10 Summary of measurement results

☒	No deviations from the technical specifications were ascertained
☐	There were deviations from the technical specifications ascertained
☐	This test report is only a partial test report. The content and verdict of the performed test cases are listed below.

TC Identifier	Description	Verdict	Date	Remark
RF-Testing	CFR Part 15 RSS 216 Issue 3 RSS Gen Issue 5	See table!	2026-05-06	-/-

Test specification clause	Test case	Temperature conditions	Power source conditions	C	NC	NA	NP	Remark
RSS Gen Issue 5 (6.6)	Occupied bandwidth	Nominal	Nominal	☒	☐	☐	☐	-/-
§ 15.209 RSS 216 Issue 3 (5.3)	Field strength of the fundamental	Nominal	Nominal	☒	☐	☐	☐	-/-
RSS 216 Issue 3 (5.5)	Frequency stability	extreme	extreme	☒	☐	☐	☐	-/-
§ 15.209 RSS Gen Issue 5 (6.13)	Field strength of the harmonics and spurious	Nominal	Nominal	☒	☐	☐	☐	-/-
§15.107 §15.207	Conducted limits	Nominal	Nominal	☐	☐	☒	☐	Car battery operated

Note: NA = Not applicable; NP = Not performed; C = Compliant; NC = Not compliant

11 Additional comments

Reference documents: None

Special test descriptions: None

Configuration descriptions: EUT classification: Type 3

12 Measurement results

12.1 Occupied bandwidth

Measurement:

The emission bandwidth (x dB) is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated x dB below the maximum in-band spectral density of the modulated signal.

Measurement parameters	
Detector:	Peak
Resolution bandwidth:	1 % – 5 % of the occupied bandwidth
Video bandwidth:	≥ 3x RBW
Trace mode:	Max hold
Analyser function:	99 % power function
Used test setup:	See sub clause 7.2 A
Measurement uncertainty:	See sub clause 9

Limit:

ISED
for RSP-100 test report coversheet only

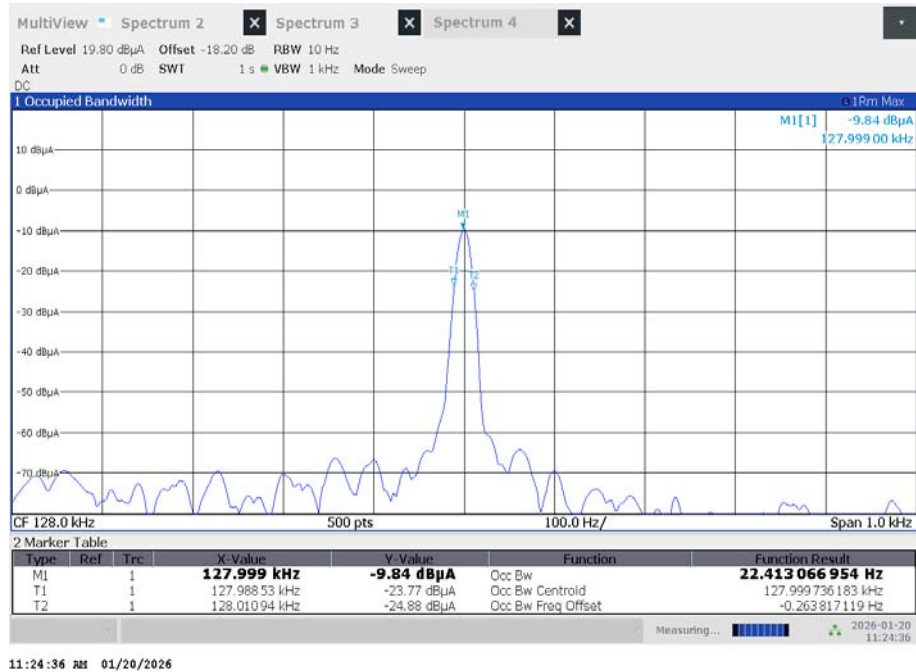
Result:

99% emission bandwidth, 128 kHz
0.022 kHz

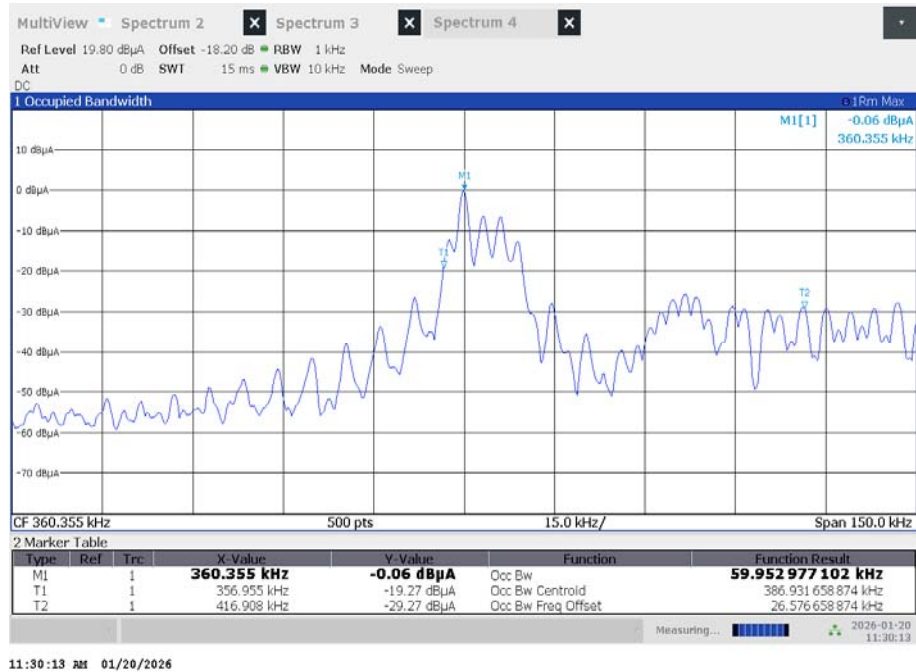
99% emission bandwidth, 360 kHz
59.95 kHz

Plots:

Plot 1: 99 % emission bandwidth, 128 kHz



Plot 2: 99 % emission bandwidth, 360 kHz



12.2 Frequency stability

Measurement:

The maximum detected field strength for the spurious. Measurement performed according to ANSI C63.30, chapter 6.8

Measurement parameters	
Detector:	Peak detector
Resolution bandwidth:	5 Hz
Video bandwidth:	> RBW
Trace mode:	max hold
Used equipment:	see chapter 7.3 B
Measurement uncertainty:	see chapter 9

Limit:

ISED
The frequency stability requirements with respect to ambient temperature specified in subclause 10.4.2 of ANSI C63.30-2021 shall apply only for WPT source devices intended for outdoor operation. This test shall be performed at the rated power supply voltage and for three ambient temperatures: -20°C, +20°C and +50°C The frequency stability with respect to power supply voltage shall apply to all WPT source devices.

Result: Temperature/ voltage variation

Frequency stability 126 kHz		
Measured frequency	Frequency error related to normal conditions	Conditions
127.9990 kHz	0 ppm	+20 °C & 9 V DC
127.9990 kHz	-/-	+20 °C & 14 VDC
127.9990 kHz	0 ppm	+20 °C & 16 V DC
128.0000 kHz	+7.8 ppm	-40 °C & 14 VDC
127.9970 kHz	-15.6 ppm	+50 °C & 14 VDC

Frequency stability 360 kHz		
Measured frequency	Frequency error related to normal conditions	Conditions
360.3580 kHz	0 ppm	+20 °C & 9 V DC
360.3580 kHz	-/-	+20 °C & 14 VDC
360.3580 kHz	0 ppm	+20 °C & 16 V DC
360.3690 kHz	+30.5 ppm	-40 °C & 14 VDC
360.3550 kHz	-8.3 ppm	+50 °C & 14 VDC

12.3 Field strength of the fundamental

Measurement parameters	
Detector:	average
Resolution bandwidth:	200 Hz / 9kHz
Video bandwidth:	≥ 3x RBW
Trace mode:	Max hold
Used test setup	See sub clause 7.1 A
Measurement uncertainty:	See sub clause 9

Limit:

FCC			
Frequency (MHz)	Field strength / (μV/m)	Limit	Measurement distance
0.009 – 0.490	2400 / F/kHz	19.2 μV/m 25.66 dBμV/m @ 128 kHz	300 m
0.009 – 0.490	2400 / F/kHz	6.7 μV/m 16.5 dBμV/m @ 360 kHz	300 m

ISED			
Frequency (MHz)	Field strength / (dBμA/m)	Limit	Measurement distance
0.07 – 0.15 MHz	69 to 39	45.8 dBμA/m @ 128 kHz	3 m
0.15 – 30 MHz	39 to 7	33.7 dBμA/m @ 360 kHz	3 m

Recalculation:

According to ANSI C63.10		
Frequency	Formula	Correction value
128 kHz	$FS_{limit} = FS_{max} - 40 \log \left(\frac{d_{nearfield}}{d_{measure}} \right) - 20 \log \left(\frac{d_{limit}}{d_{nearfield}} \right)$ FS_{limit} is the calculation of field strength at the limit distance, expressed in dBμV/m FS_{max} is the measured field strength, expressed in dBμV/m $d_{nearfield}$ is the $\lambda/2\pi$ distance $d_{measure}$ is the distance of the measurement point from EUT d_{limit} is the reference limit distance	-82dB from 3m to 300m

According to ANSI C63.10		
Frequency	Formula	Correction value
360 kHz	$FS_{limit} = FS_{max} - 40 \log \left(\frac{d_{nearfield}}{d_{measure}} \right) - 20 \log \left(\frac{d_{limit}}{d_{nearfield}} \right)$ FS_{limit} is the calculation of field strength at the limit distance, expressed in dBμV/m FS_{max} is the measured field strength, expressed in dBμV/m $d_{nearfield}$ is the $\lambda/2\pi$ distance $d_{measure}$ is the distance of the measurement point from EUT d_{limit} is the reference limit distance	-72.9 dB from 3m to 300m

Result:

Field strength of the fundamental		
frequency	128 kHz	
distance	@ 3 m	@ 300 m
measured / recalculated value	74.8 dB μ V/m	-7.2 dB μ V/m
measured value	23.1 dB μ A/m	-58.9 dB μ A/m

Field strength of the fundamental		
frequency	360 kHz	
distance	@ 3 m	@ 300 m
measured / recalculated value	62.4 dB μ V/m	-10.5 dB μ V/m
measured value	9.8 dB μ A/m	-63.1 dB μ A/m

12.4 Field strength of the harmonics and spurious

Measurement:

The maximum detected field strength for the harmonics and spurious.

Measurement parameters	
Detector:	Quasi peak / average or peak (worst case – pre-scan)
Resolution bandwidth:	F < 150 kHz: 200 Hz 150 kHz < F < 30 MHz: 9 kHz 30 MHz < F < 1 GHz: 120 kHz
Video bandwidth:	F < 150 kHz: 1 kHz 150 kHz < F < 30 MHz: 100 kHz 30 MHz < F < 1 GHz: 300 kHz
Trace mode:	Max hold
Used test setup:	9 kHz to 30 MHz: see sub clause 7.1A
Measurement uncertainty:	See sub clause 9

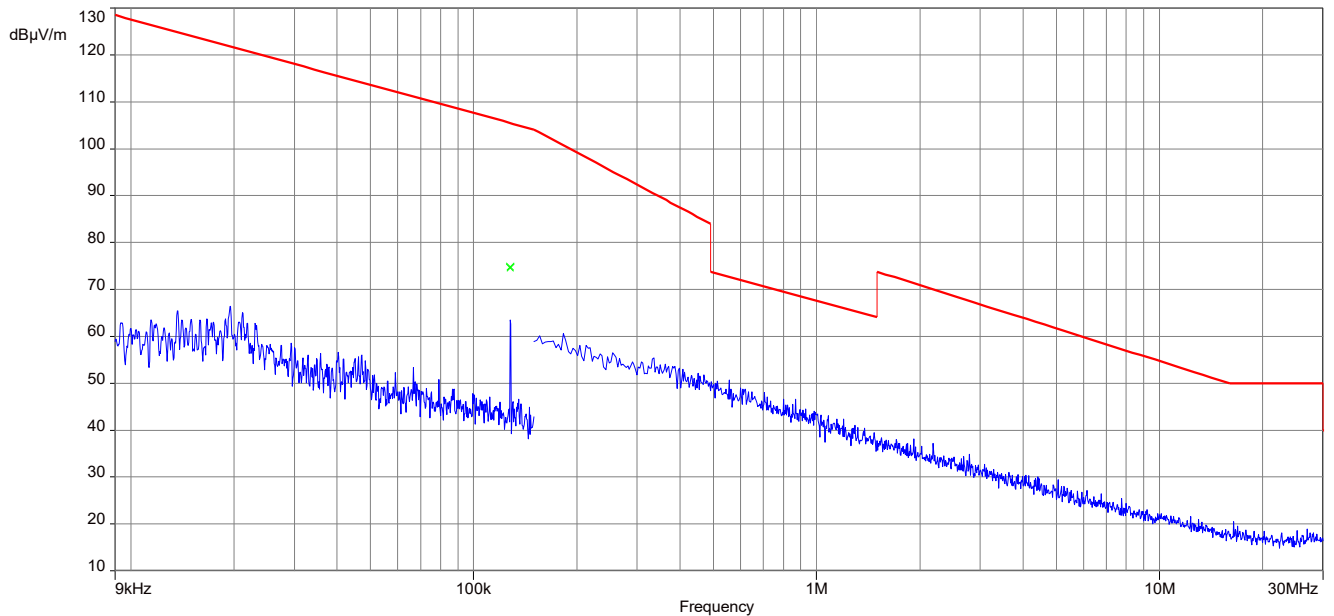
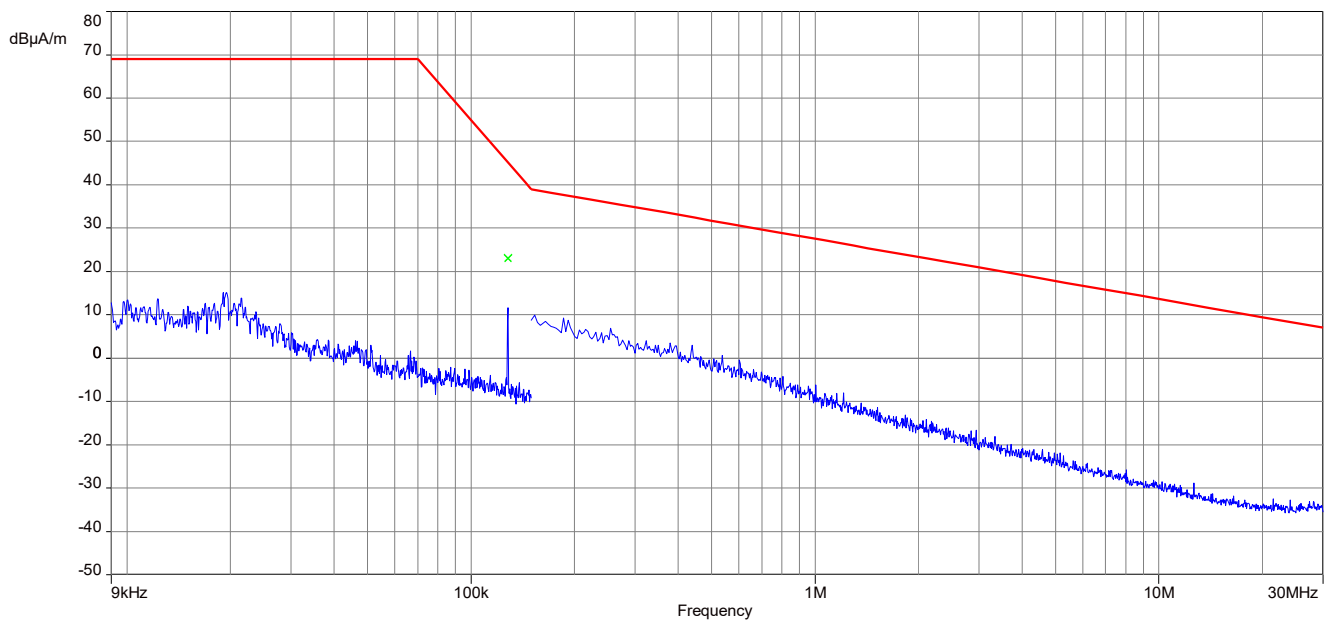
Limit:

FCC		
Frequency (MHz)	Field strength (dB μ V/m)	Measurement distance (m)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30	30 (29.5 dB μ V/m)	30
30 – 88	100 (40 dB μ V/m)	3
88 – 216	150 (43.5 dB μ V/m)	3
216 – 960	200 (46 dB μ V/m)	3

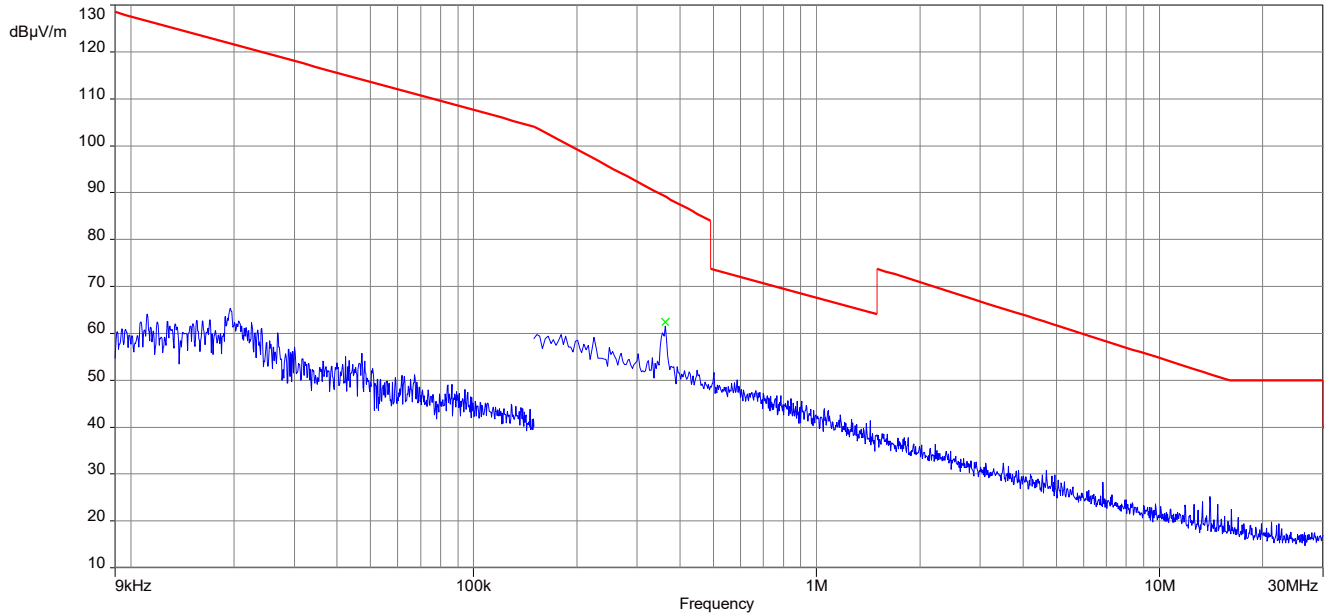
ISED		
Frequency (MHz)	Field strength (dB μ A/m)	Measurement distance (m)
0.009 – 0.07	69	3
0.07 – 0.15	69 to 39	3
0.15 – 30	39 to 7	3

Result:

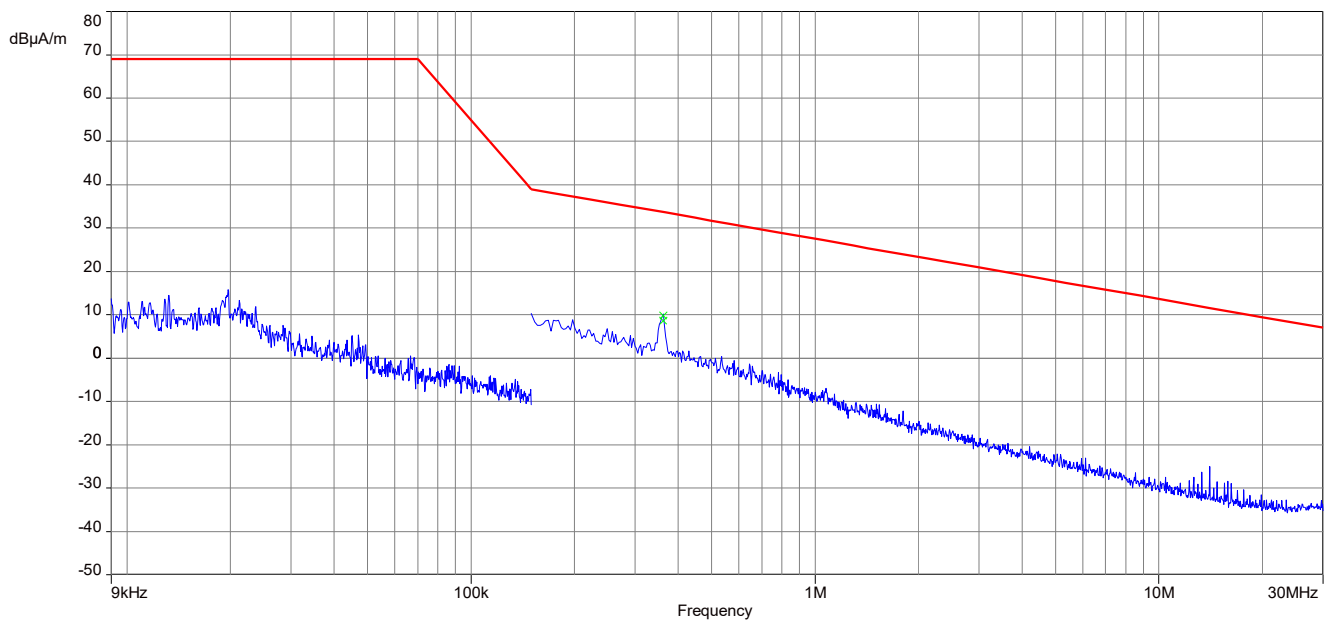
Detected emissions (both frequencies)			
Frequency (MHz)	Detector	Resolution bandwidth (kHz)	Detected value
No emissions detected.			

Plots:**Plot 1:** 9 kHz – 30 MHz, magnetic spurious emissions FCC, 126 kHz**Plot 2:** 9 kHz – 30 MHz, magnetic spurious emissions ISSED, 126 kHz

Plot 3: 9 kHz – 30 MHz, magnetic spurious emissions FCC, 360 kHz



Plot 4: 9 kHz – 30 MHz, magnetic spurious emissions ISED, 360 kHz



13 Observations

No observations except those reported with the single test cases have been made.

14 Glossary

AVG	Average
C	Compliant
C/N₀	Carrier to noise-density ratio, expressed in dB-Hz
CAC	Channel availability check
CW	Clean wave
DC	Duty cycle
DFS	Dynamic frequency selection
DSSS	Dynamic sequence spread spectrum
DUT	Device under test
EN	European Standard
ETSI	European Telecommunications Standards Institute
EMC	Electromagnetic Compatibility
EUT	Equipment under test
FCC	Federal Communications Commission
FCC ID	Combination of Grantee Code and Equipment Product Code
FHSS	Frequency hopping spread spectrum
FVIN	Firmware version identification number
GNSS	Global Navigation Satellite System
GUE	GNSS User Equipment
HMN	Host marketing name
HVIN	Hardware version identification number
HW	Hardware
ISED	Innovation, Science and Economic Development Canada
Inv. No.	Inventory number
MC	Modulated carrier
NA	Not applicable
NC	Not compliant
NOP	Non occupancy period
NP	Not performed
OBW	Occupied bandwidth
OC	Operating channel
OCW	Operating channel bandwidth
OFDM	Orthogonal frequency division multiplexing
OOB	Out of band
OP	Occupancy period
PER	Packet error rate
PMN	Product marketing name
PP	Positive peak
QP	Quasi peak
RLAN	Radio local area network
S/N or SN	Serial number
SW	Software
UUT	Unit under test
WLAN	Wireless local area network

15 Document history

Version	Applied changes	Date of release
R01	Initial release	2026-03-06
R02	Photo annex naming corrected	2026-05-06

END OF TEST REPORT