

Prüfbericht-Nr.: <i>Test report no.:</i>	CN252ADZ 001	Auftrags-Nr.: <i>Order no.:</i>	326064891	Seite 1 von 27 <i>Page 1 of 27</i>
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	1288983	Auftragsdatum: <i>Order date:</i>	2024-11-25	
Auftraggeber: <i>Client:</i>	IKEA of Sweden AB Box 702, SE-343 81 Älmhult, Sweden			
Prüfgegenstand: <i>Test item:</i>	Portable general purpose luminaires			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	M2401 M2402 M2403			
Auftrags-Inhalt: <i>Order content:</i>	TÜV Rheinland EMC service			
Prüfgrundlage: <i>Test specification:</i>	FCC 47 CFR Part 15, Subpart B:2023 Class B ICES-005:2018			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2025-01-24	Refer to the EUT photos file		
Prüfmuster-Nr.: <i>Test sample no.:</i>	A003917538-006			
Prüfzeitraum: <i>Testing period:</i>	Refer to test report			
Ort der Prüfung: <i>Place of testing:</i>	Refer to clause 1.1			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>	geprüft von: <i>tested by:</i>	genehmigt von: <i>authorized by:</i>	Jacky C.L. Chen	
Datum: <i>Date:</i>	2025-07-25	Ausstellungsdatum: <i>Issue date:</i>	2025-07-25	
Stellung / Position:	Project engineer	Stellung / Position:	Authorizer	
Sonstiges / Other:	FCC ID: FHO-M2401 FCC ID: FHO-M2402 FCC ID: FHO-M2403 Test Firm Name: TÜV Rheinland (Shanghai) Co., Ltd. Designation Number: CN1396 Test Firm Registration Number: 930979			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested			
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Anmerkungen
Remarks

- | | |
|----------|--|
| 1 | <p>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.
Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</p> <p><i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i></p> |
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| 3 | <p>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben.
Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</p> <p><i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.
Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i></p> |
| 4 | <p>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</p> <p><i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i></p> |

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Revision history of test report:

Report number	Issue date	Contents and reason for change if appropriate
CN252ADZ 001	2025-07-25	Initial release.

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1 Test Sites

1.1 Test Facilities

Laboratory: TÜV Rheinland (Shanghai) Co., Ltd.

Address: Workshop14, North Half of Workshop 10 and Workshop 16, Pingqian (Taicang) Modern Industrial Park, No.525, Yuewang Lingang South Road, Shaxi, Taicang, Jiangsu, China

The used test equipment is in accordance with CISPR 16-1 series standards for measurement of radio interference.

Refer to Clause 7 for test and measurement instruments.

2 General Product Information

2.1 Product Function and Intended Use

The EUT (equipment under test) is an ordinary portable general purpose luminaires for lighting and similar use. For further information, refer to the user's manual.

2.2 Ratings and System Details

Model	: M2401
Rated input	: 5V DC, Max 0.4 W 1 × 1.2 V DC, 2/3AAA Rechargeable Battery, 0.01 W
Protection class	: Class III
Model	: M2402
Rated input	: 5V DC, Max 1.6 W Charging pad output rating: 4 × 5 V DC, Max 0.4 W
Protection class	: Class III
Model	: M2403
Rated input	: 5V DC, Max 4.8 W Charging pad output rating: 12 × 5 V DC, Max 0.4 W
Protection class	: Class III

Identities and differences:

The equipment is a Class III portable general purpose luminaire, M2401 has two power supply modes, 5 Vdc Max 0.4 W (with charging pad) and 1x1.2 V, 0.01 W (with battery only), The product is sold with battery, it should use 1 piece 2/3 AA 1.2 V 400 mAh rechargeable battery and can be charged by charging pad of the M2402 and M2403.

The charging pad of models M2402 and M2403 have similar circuit diagrams. The M2402 has four charging outputs, and the M2403 has 12 charging outputs, each circuit diagram of charging output is the same. The differences between them are the dimension, max power and number of charging output.

M2401 can also be sold separately

M2402 is sold together with 4 pieces M2401 in one package.

M2403 is sold together with 12 pieces M2401 in one package.

M2402 and M2403 should be powered by charging pad with type C. Therefore, the EMC tests were performed on the models M2403 and M2401 respectively.

2.3 Independent Operation Modes

The basic operation modes are: "Charging", "ON" and "OFF".

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2.4 Description of interconnecting cables

N/A

2.5 Noise Generating and Noise Suppressing Parts

Refer to the circuit diagram for further information.

2.6 Highest frequency generated or used in the device or on which the device operates or tunes

The highest frequency used in the EUT is 32.768 kHz.

2.7 Submitted Documents

Circuit diagram, user's manual and rating label.

3 Test Set-up and Operation Modes

3.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible emission level. The test conditions were adapted accordingly in reference to the instructions for use.

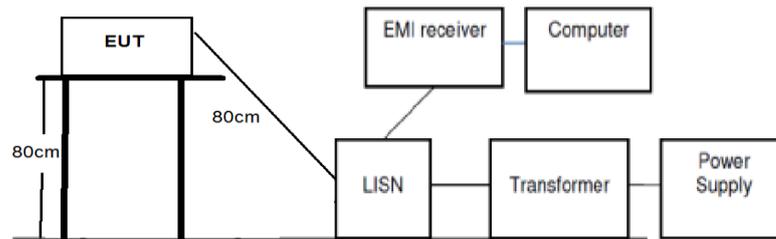
Refer to the related paragraph of this report.

The sequence of testing:

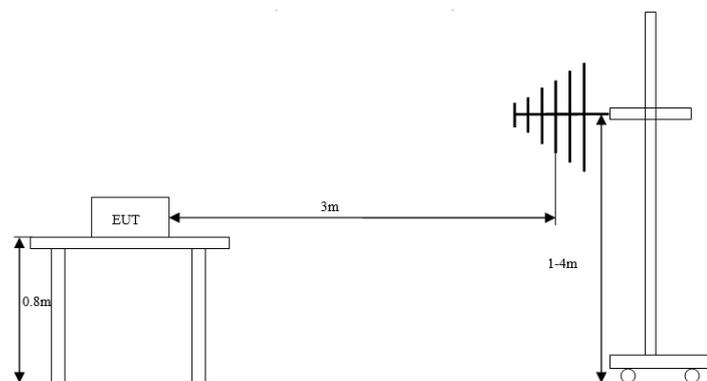
1. Conducted emission tests were performed on 2025-02-12.
2. Radiated emission tests were performed on 2025-02-13.

3.2 Equipment and cable arrangement

Block diagram for both conducted emission and radiated emission tests is as follows:



(Conducted emission)



(Radiated emission 30-1000 MHz)

Also refer to photographs on clause 6 for test setups for both conducted emission test and radiated emission test.

3.3 Test Software

No special test software was used during the tests.

3.4 Special Accessories and Auxiliary Equipment

During the tests, the power supply (Model: ICPSW5-5NA-1, Brand: IKEA) and laptop (Model: T40, Brand: ThinkPad) were used.

3.5 Countermeasures to achieve EMC Compliance

No other special measure is employed to achieve the requirement.

4 Conformity Decision Rule

For all EMI tests included in this report, as measurement uncertainties are less than the values U_{CISPR} given in CISPR 16-4-2, compliance with the limits is determined by comparing measurement results directly with corresponding limits without taking into consideration of measurement uncertainties.

5 Test Results EMISSION

5.1 Emission in the Frequency Range up to 30 MHz

5.1.1 Conducted emission

Result:	Passed
Date of testing	: 2025-02-12
Test procedure	: FCC 47 CFR Part 15, Subpart B:2023, ICES-005:2018, ANSI C63.4-2014 and CISPR 16-2-1
Frequency range	: 0.15 – 30 MHz
Limits	: Quasi-peak limit: 0.15 – 0.5 MHz, 66 to 56 dB μ V (decrease with the logarithm of frequency); 0.5 – 5 MHz, 56 dB μ V; 5 – 30 MHz, 60 dB μ V Average limit: 0.15 – 0.5 MHz, 56 to 46 dB μ V (decrease with the logarithm of frequency); 0.5 – 5 MHz, 46 dB μ V; 5 – 30 MHz, 50 dB μ V
Bandwidth of EMI receiver for final measurement	: 9 kHz
Measurement time for final measurement	: 1 s
Kind of test site	: Shielded room
Input voltage	: AC 120 V, 60 Hz for power supply
Operational mode	: Mode 1: Charging by power supply with charging pad and LED lighting on (M2403) Mode 2: Charging by laptop with charging pad and LED lighting on (M2403)
Ambient condition	: Temperature: 23.1 °C; Relative humidity: 46.1 %
Expanded measurement uncertainty ($k=2$)	: 2.33 dB The minimum margin to the limit is 11.97 dB at 0.195000 MHz. The margin is higher than expanded measurement uncertainty.

The measurement setup was made according to ANSI C63.4-2014 in a shielded room.

The measurement equipment like test receivers, quasi-peak detector and artificial mains network (AMN) are in compliance with CISPR 16-1 series standards.

The tested object was set-up on a wooden support. The EUT was set 0.8 m away from the AMN. The cord longer than necessary to be connected to the AMN was folded forth and back parallel so as to form a bundle with a length between 0.3 m and 0.4 m.

The disturbance voltage test was performed on the neutral line and phase line of the power supply of the EUT respectively.

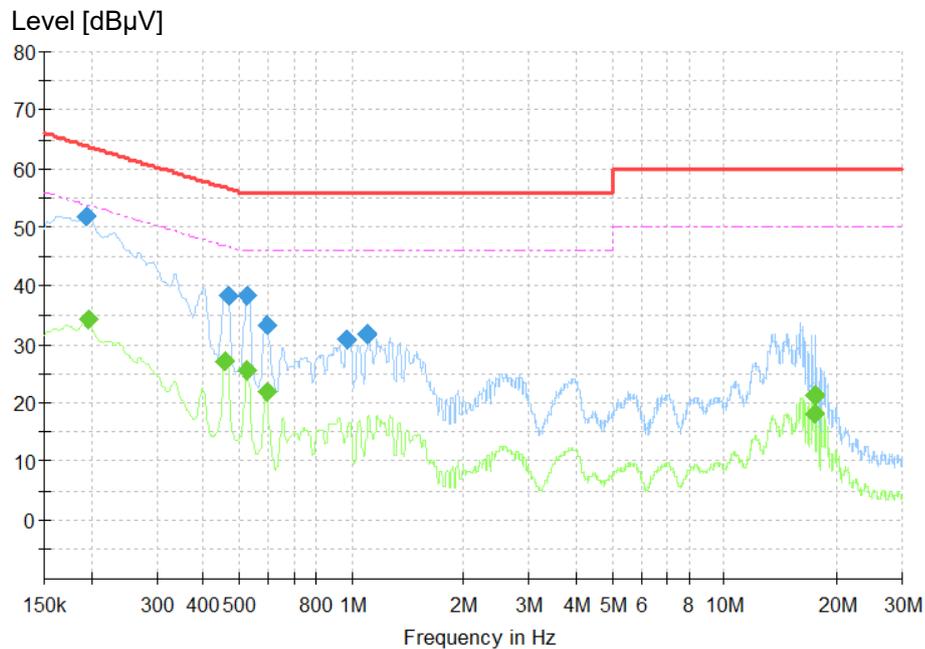
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The following figures and tables were those measured by an automatic measuring system. Both quasi-peak and average measurements were performed. In the following spectral diagram, “♦” means Quasi-Peak Value and “◆” means Average Value results.

Notes on following tables of conducted emission results and conversions:

Level (dB μ V): final measurement results by using quasi-peak detector and average detector
Transd (dB): transducer factor including cable loss, insertion loss of artificial mains network and gain of pre-amplifier (if used)

Margin: Limit (dB μ V) - Level (dB μ V)

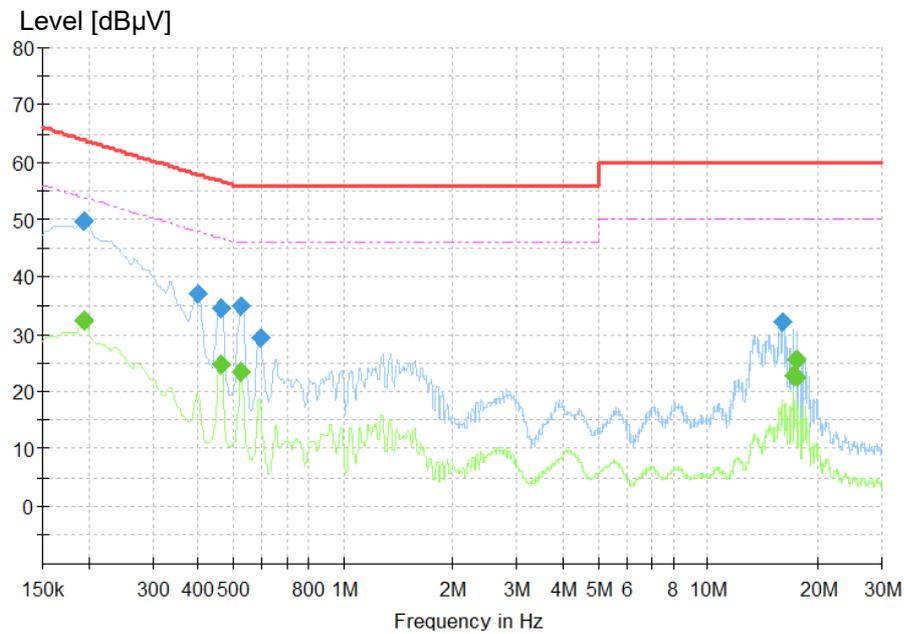
Figure 1: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L on mode 1 for model M2403


Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.195000	51.85	63.82	11.97	1000.0	9.000	L1
0.465000	38.34	56.60	18.26	1000.0	9.000	L1
0.525750	38.29	56.00	17.71	1000.0	9.000	L1
0.591000	33.20	56.00	22.80	1000.0	9.000	L1
0.973500	30.97	56.00	25.03	1000.0	9.000	L1
1.104000	31.90	56.00	24.10	1000.0	9.000	L1

Final average measurement result:

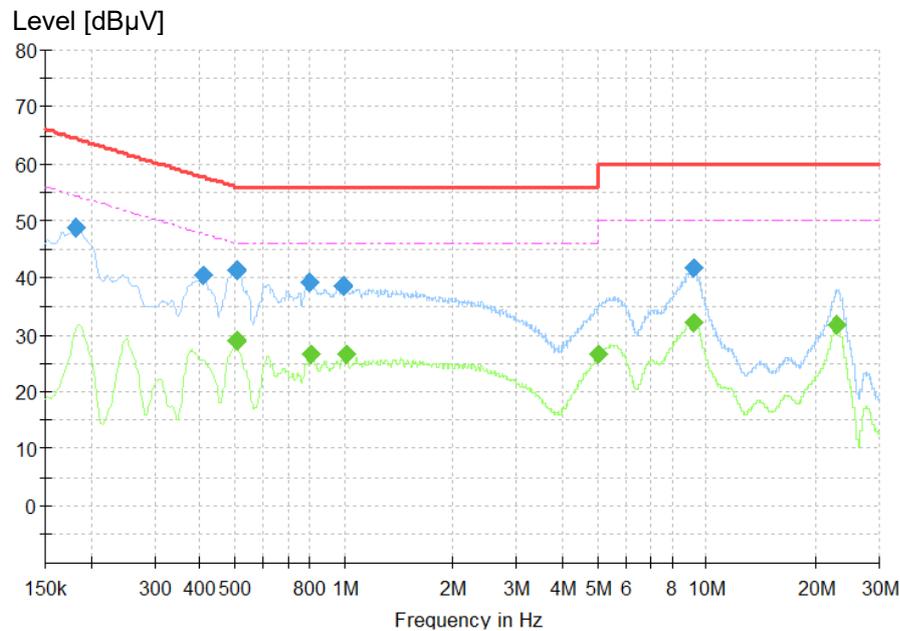
Frequency (MHz)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.197250	34.19	53.73	19.54	1000.0	9.000	L1
0.458250	27.20	46.72	19.53	1000.0	9.000	L1
0.523500	25.50	46.00	20.50	1000.0	9.000	L1
0.588750	21.71	46.00	24.29	1000.0	9.000	L1
17.479500	21.39	50.00	28.61	1000.0	9.000	L1
17.544750	18.10	50.00	31.90	1000.0	9.000	L1

Figure 2: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N on mode 1 for model M2403

Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.195000	49.83	63.82	13.99	1000.0	9.000	N
0.399750	36.91	57.86	20.95	1000.0	9.000	N
0.462750	34.55	56.64	22.09	1000.0	9.000	N
0.525750	34.75	56.00	21.25	1000.0	9.000	N
0.588750	29.38	56.00	26.62	1000.0	9.000	N
16.010250	31.91	60.00	28.09	1000.0	9.000	N

Final average measurement result:

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.195000	32.31	53.82	21.51	1000.0	9.000	N
0.460500	24.64	46.68	22.04	1000.0	9.000	N
0.523500	23.36	46.00	22.64	1000.0	9.000	N
17.070000	22.64	50.00	27.36	1000.0	9.000	N
17.466000	25.63	50.00	24.37	1000.0	9.000	N
17.531250	22.41	50.00	27.59	1000.0	9.000	N

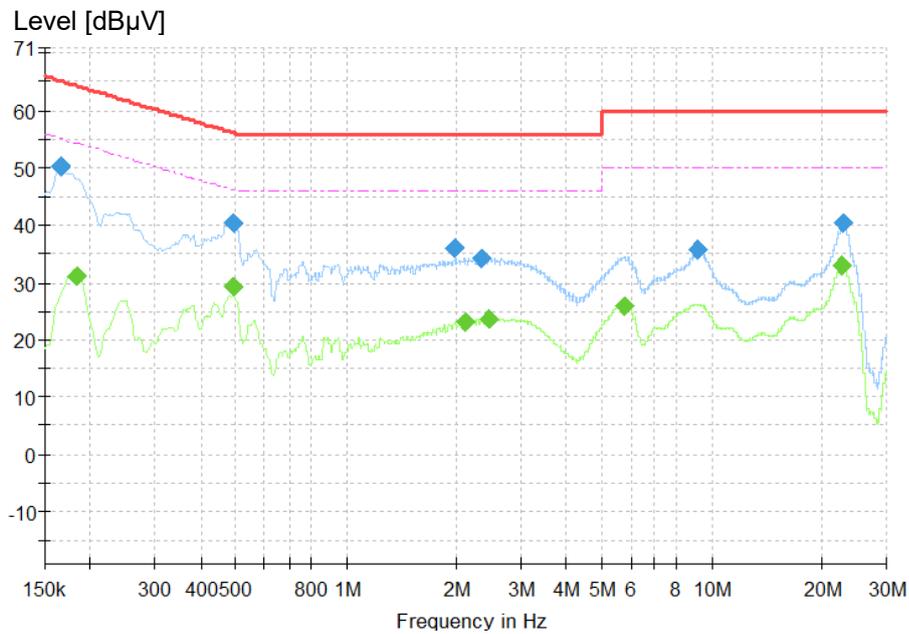
Figure 3: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L on mode 2 for model M2403


Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.181500	48.64	64.42	15.78	1000.0	9.000	L1
0.406500	40.31	57.72	17.41	1000.0	9.000	L1
0.505500	41.49	56.00	14.51	1000.0	9.000	L1
0.804750	39.04	56.00	16.96	1000.0	9.000	L1
0.989250	38.42	56.00	17.58	1000.0	9.000	L1
9.215250	41.57	60.00	18.43	1000.0	9.000	L1

Final average measurement result:

Frequency (MHz)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.503250	29.06	46.00	16.94	1000.0	9.000	L1
0.807000	26.43	46.00	19.57	1000.0	9.000	L1
1.011750	26.60	46.00	19.40	1000.0	9.000	L1
4.992000	26.40	46.00	19.60	1000.0	9.000	L1
9.174750	32.21	50.00	17.79	1000.0	9.000	L1
22.965000	31.88	50.00	18.12	1000.0	9.000	L1

Figure 4: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N on mode 2 for model M2403


Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.165750	50.27	65.17	14.90	1000.0	9.000	N
0.492000	40.23	56.13	15.90	1000.0	9.000	N
1.992750	36.15	56.00	19.85	1000.0	9.000	N
2.343750	34.33	56.00	21.67	1000.0	9.000	N
9.116250	35.83	60.00	24.17	1000.0	9.000	N
22.908750	40.42	60.00	19.58	1000.0	9.000	N

Final average measurement result:

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.183750	31.14	54.31	23.18	1000.0	9.000	N
0.492000	29.36	46.13	16.77	1000.0	9.000	N
2.109750	22.96	46.00	23.04	1000.0	9.000	N
2.469750	23.76	46.00	22.24	1000.0	9.000	N
5.741250	25.99	50.00	24.01	1000.0	9.000	N
22.677000	32.87	50.00	17.13	1000.0	9.000	N

5.2 Emission in the Frequency Range above 30 MHz

5.2.1 Radiated emission (30-1000 MHz)

Result:
Passed

Date of testing	: 2025-02-13
Test procedure	: FCC 47 CFR Part 15, Subpart B:2023, ICES-005:2018, ANSI C63.4-2014 and CISPR 16-2-3
Product classification	: Class B
Frequency range	: 30 – 1000 MHz (see Note 1)
Limits	: Quasi-peak limits (3 m distance): 30 – 88 MHz, 40 dB μ V/m; 88 – 216 MHz, 43.5 dB μ V/m; 216 – 1000 MHz, 46 dB μ V/m (see Note 2)
Bandwidth of EMI receiver for final measurement	: 120 kHz
Measurement time for final measurement	: 1 s
Kind of test site	: Semi-anechoic chamber
Input voltage	: DC 5 V for charging pad with M2403 DC 1.2 V for M2401
Operational mode	: Mode 1: Charging by power supply with charging pad and LED lighting on (M2403) Mode 2: Charging by laptop with charging pad and LED lighting on (M2403) Mode 3: Lighting on by battery powered (M2401).
Ambient condition	: Temperature: 23.1 °C; Relative humidity: 46.1 %
Expanded measurement uncertainty ($k=2$)	: 5.40 dB The minimum margin to the limit is 10.5 dB at 209.935000 MHz. The margin is higher than expanded measurement uncertainty.

The radiated disturbance test was carried out in a semi-anechoic chamber. The test distance from the receiving antenna to the EUT is 3 m. The normalized site attenuation of the semi-anechoic chamber is regularly calibrated to ensure the radiated disturbance test results are valid. During the test, the EUT was placed on an 80 cm wooden support above the reference ground plane. The wooden support was rotated 360° around and the height of the antenna was varied from 1 m to 4 m to find the maximum disturbance. The test was performed with the antenna both in its horizontal and vertical polarizations.

The following figures and tables were those measured by an automatic measurement system. A preview test was firstly performed with peak detector. The final test was performed with quasi-peak at those critical frequencies during the preview test. In the following spectral diagram, “×” means quasi-peak test results.

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Notes on following tables of radiated emission results and conversions:

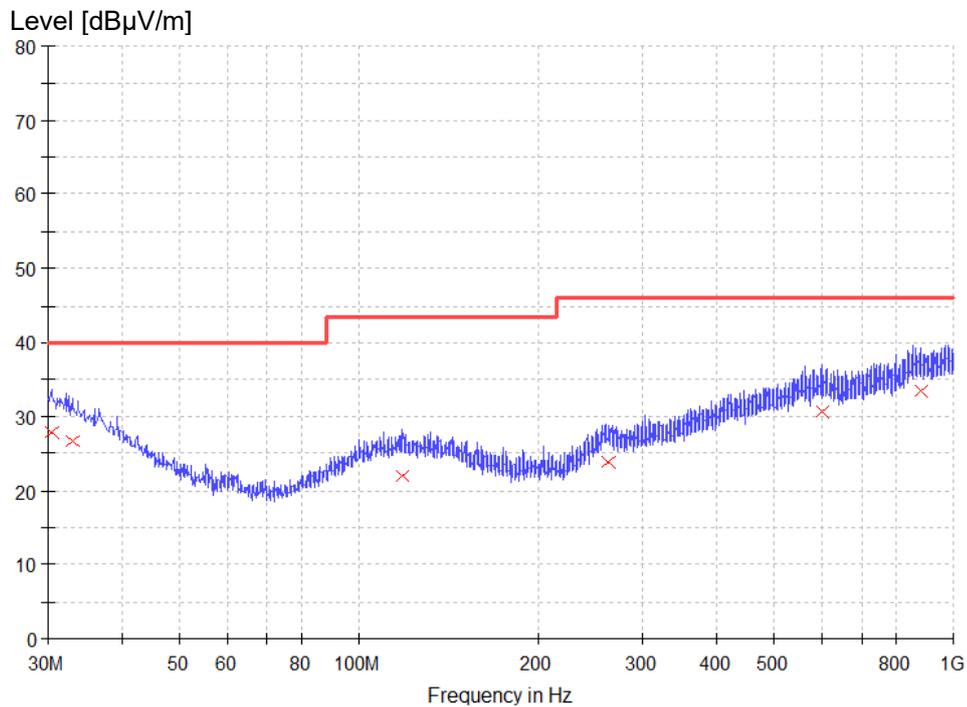
QuasiPeak (dB μ V/m): final measurement results by using quasi-peak detector

Corr. (dB): correction factor including: antenna factor, cable loss, and gain of pre-amplifier (if used)

Margin: Limit (dB μ V/m) - QuasiPeak (dB μ V/m)

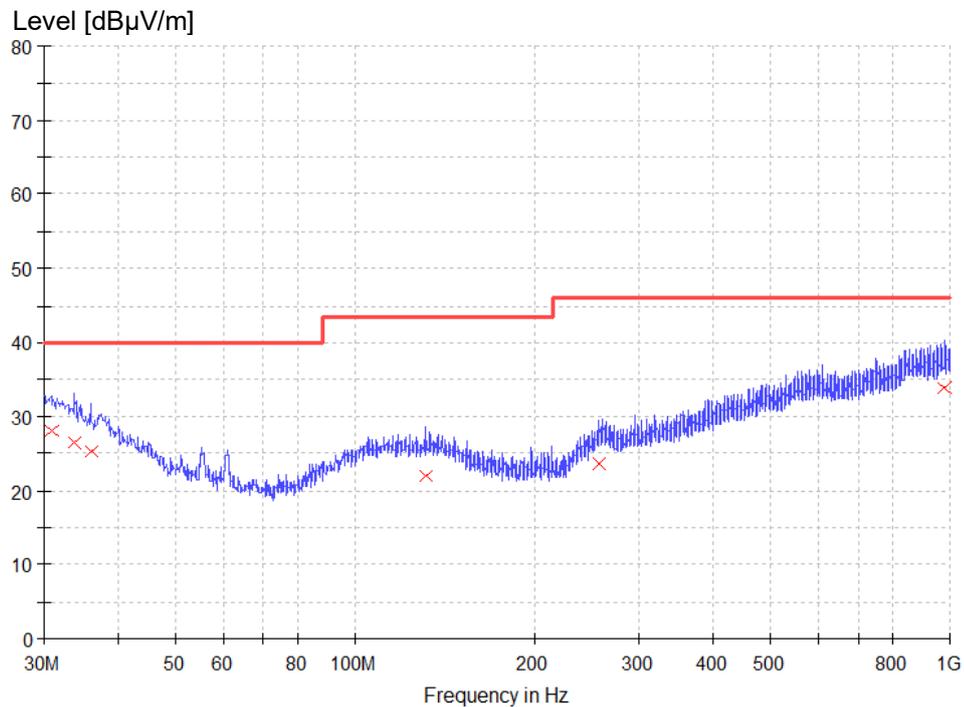
Note 1: The highest frequency in the EUT is less than 108 MHz. According to FCC Part 15 subpart B §15.33 (b) (1), the upper frequency for radiated emission measurement is 1000 MHz.

Note 2: The class B limits of ICES-005:2018 is stricter than those FCC 47 CFR Part 15, Subpart B:2023 for 3 m test distance. Therefore, the former limits are used in following figures and tables.

Figure 5: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 1 for M2403


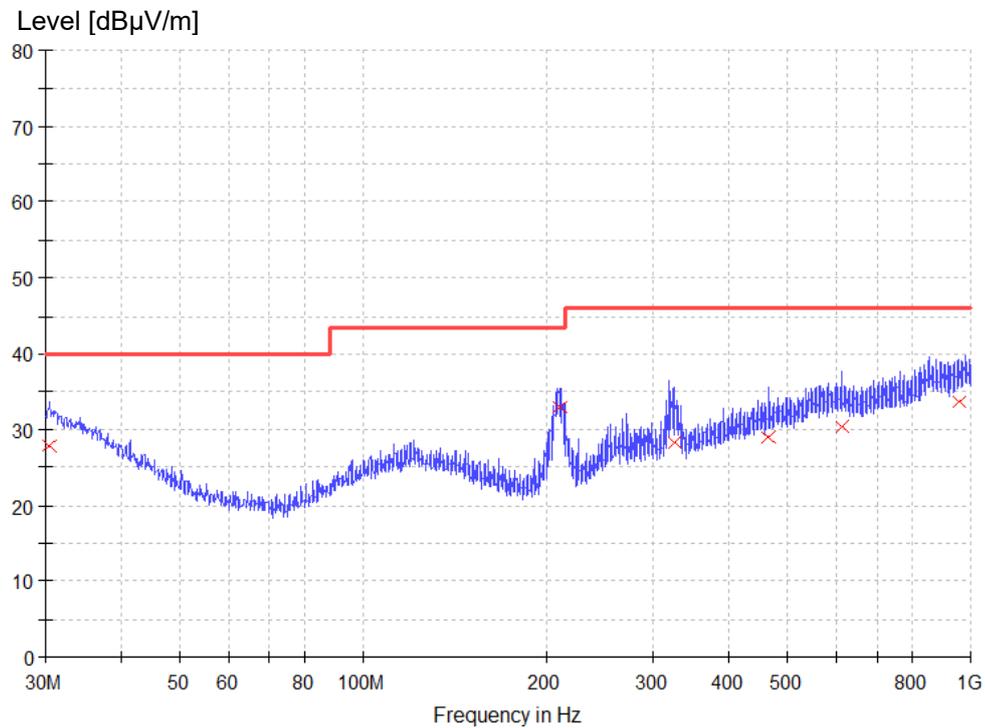
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.363750	27.9	1000.0	120.000	161	H	-15	24.6	12.1	40.0
32.910000	26.7	1000.0	120.000	102	H	100	23.5	13.3	40.0
118.755000	21.9	1000.0	120.000	174	H	-75	18.9	21.6	43.5
263.163750	23.9	1000.0	120.000	176	H	-170	20.8	22.1	46.0
599.147500	30.8	1000.0	120.000	115	H	-24	26.9	15.2	46.0
879.962500	33.4	1000.0	120.000	107	H	18	28.7	12.6	46.0

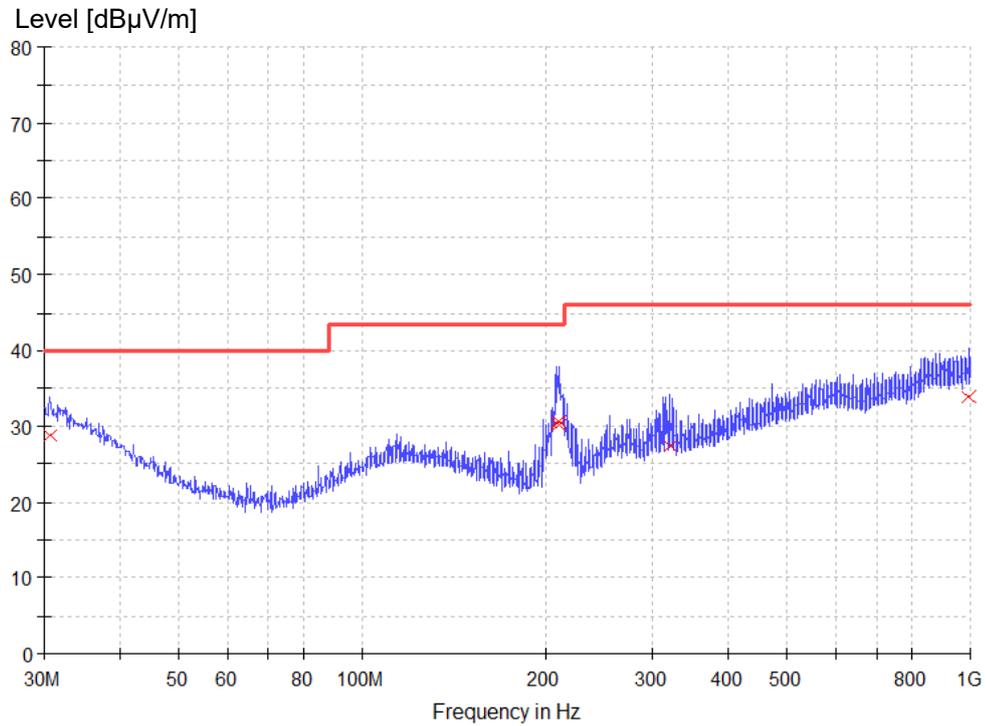
Figure 6: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization on mode 1 for M2403


Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.848750	28.0	1000.0	120.000	125	V	-109	24.4	12.0	40.0
33.758750	26.3	1000.0	120.000	164	V	122	23.1	13.7	40.0
36.062500	25.4	1000.0	120.000	193	V	-172	21.9	14.7	40.0
131.001250	21.9	1000.0	120.000	143	V	-57	18.6	21.6	43.5
257.465000	23.6	1000.0	120.000	195	V	100	20.5	22.4	46.0
977.690000	34.0	1000.0	120.000	177	V	68	29.8	12.0	46.0

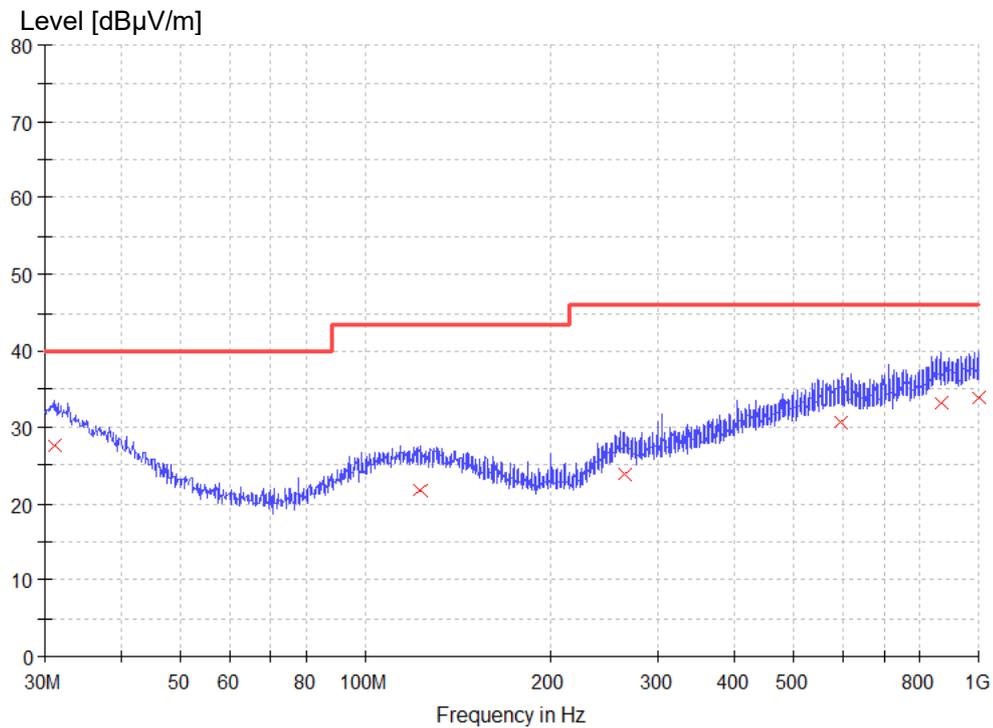
Figure 7: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 2 for M2403

Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.363750	28.0	1000.0	120.000	196	H	-104	24.6	12.1	40.0
209.935000	33.0	1000.0	120.000	165	H	-25	16.1	10.5	43.5
325.971250	28.4	1000.0	120.000	103	H	30	20.9	17.6	46.0
464.317500	29.0	1000.0	120.000	151	H	-152	24.6	17.0	46.0
615.637500	30.5	1000.0	120.000	146	H	-79	27.0	15.5	46.0
956.471250	33.6	1000.0	120.000	184	H	46	29.4	12.4	46.0

Figure 8: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization on mode 2 for M2403


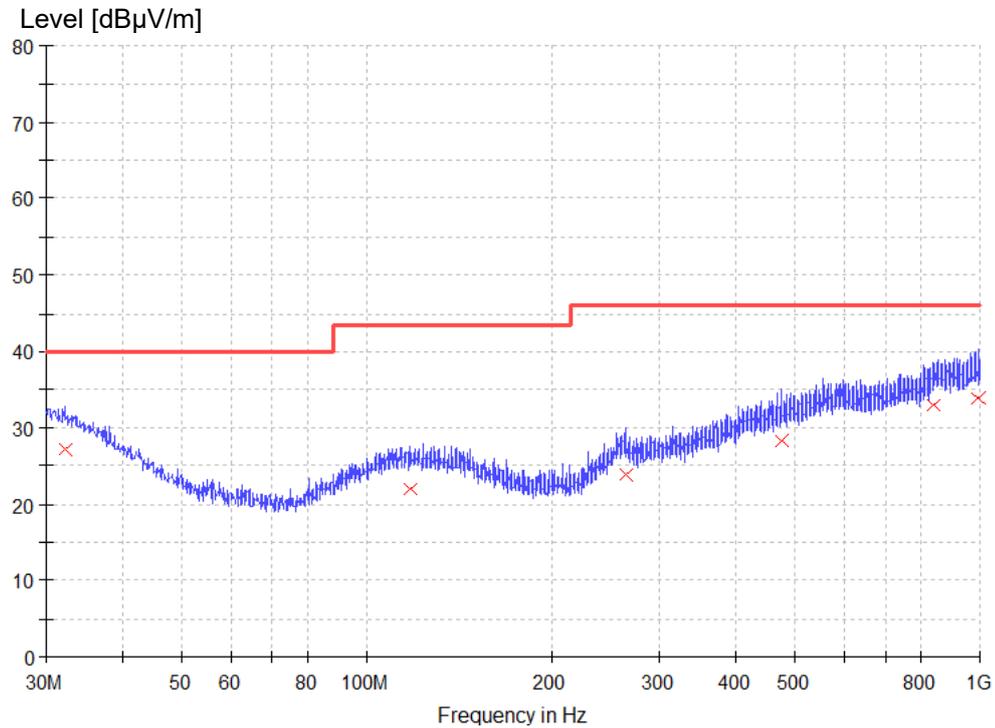
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.727500	28.7	1000.0	120.000	151	V	-21	24.5	11.3	40.0
209.571250	30.5	1000.0	120.000	176	V	-48	16.1	13.0	43.5
210.056250	30.1	1000.0	120.000	145	V	-85	16.1	13.4	43.5
210.905000	30.6	1000.0	120.000	142	V	92	16.1	12.9	43.5
321.485000	27.5	1000.0	120.000	166	V	-134	20.9	18.5	46.0
991.512500	34.0	1000.0	120.000	199	V	107	29.8	12.0	46.0

Figure 9: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 3 for M2401


Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
31.212500	27.7	1000.0	120.000	175	H	121	24.3	12.4	40.0
122.756250	21.8	1000.0	120.000	200	H	132	18.8	21.7	43.5
263.891250	23.8	1000.0	120.000	178	H	-10	20.8	22.2	46.0
595.752500	30.7	1000.0	120.000	176	H	166	26.9	15.3	46.0
869.050000	33.2	1000.0	120.000	189	H	-143	28.7	12.8	46.0
997.332500	33.9	1000.0	120.000	196	H	-162	29.8	12.1	46.0

Figure 10: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization on mode 3 for M2401


Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
32.182500	27.1	1000.0	120.000	162	V	-141	23.8	13.0	40.0
117.906250	21.9	1000.0	120.000	138	V	-151	18.9	21.6	43.5
263.891250	23.8	1000.0	120.000	132	V	-4	20.8	22.2	46.0
475.472500	28.3	1000.0	120.000	138	V	-99	25.0	17.7	46.0
840.435000	33.1	1000.0	120.000	157	V	63	28.8	12.9	46.0
995.150000	34.0	1000.0	120.000	180	V	97	29.8	12.0	46.0

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6 Photographs of the Test Set-Up

Refer to the test setup file.

7 List of Test and Measurement Instruments

Equip.	Description	Model	Manufacturer	Last Date DD.MM.YYYY	Due Date DD.MM.YYYY
9061503	Shielded enclosure	10.055x3.605x3.000	Frankonia	08.11.2023	08.11.2028
9023229	EMI test receiver	ESR3	Rohde&Schwarz	03.08.2024	03.08.2025
G1824248	Dual display multimeter	F45	Fluke	28.06.2024	28.06.2025
9062744	EMI measurement software	EMC32-E+(10.60.20)	Rohde&Schwarz	N/A	N/A
G1830003	Artificial mains network	ENV432	Rohde&Schwarz	11.10.2024	11.10.2025
G1811378	3m semi-anechoic chamber	SAC3	Frankonia	03.12.2023	03.12.2026
G1811391	EMI test receiver	ESCI	Rohde&Schwarz	17.10.2024	17.10.2025
G1811425	Bilog antenna	CBL 6112D	Teseq	20.04.2023	20.04.2026
9062745	EMI measurement software	EMC32-MEB (10.60.20)	Rohde&Schwarz	N/A	N/A

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End of test report