

Prüfbericht-Nr.: Test report no.:	CN24D5Q6 001	Auftrags-Nr.: Order no.:	326061766	Seite 1 von 24 Page 1 of 24
Kunden-Referenz-Nr.: Client reference no.:	1288983	Auftragsdatum: Order date:	2024-11-06	
Auftraggeber: Client:	IKEA of Sweden AB Box 702, SE-343 81 Älmhult, Sweden			
Prüfgegenstand: Test item:	LED rope light			
Bezeichnung / Typ-Nr.: Identification / Type no.:	L2401			
Auftrags-Inhalt: Order content:	TÜV Rheinland EMC service			
Prüfgrundlage: Test specification:	FCC 47 CFR Part 15, Subpart B:2023 Class B ICES-005:2018			
Wareneingangsdatum: Date of sample receipt:	2024-12-16	Refer to the EUT photos file		
Prüfmuster-Nr.: Test sample no:	A003890238-003			
Prüfzeitraum: Testing period:	Refer to test report			
Ort der Prüfung: Place of testing:	Refer to clause 1.1			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:	genehmigt von: authorized by:			
Datum: Date:	Ausstellungsdatum: Issue date:			
Stellung / Position:	Project engineer	Stellung / Position:	Authorizer	
Sonstiges / Other:	FCC ID: FHO-L2401 Test Firm Name: TUV Rheinland (Shanghai) Co., Ltd. Designation Number: CN1396 Test Firm Registration Number: 930979			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	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
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.				

Prüfbericht-Nr.: CN24D5Q6 001
Test report no.:

Seite 2 von 24
Page 2 of 24

Anmerkungen
Remarks

1	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. <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>
2	Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben. Informationen zur Verifizierung der Authentizität unserer Dokumente erhalten Sie auf folgender Webseite: go.tuv.com/digital-signature <i>As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. For information on verifying the authenticity of our documents, please visit the following website: go.tuv.com/digital-signature</i>
3	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. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i> <i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
4	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. <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>

Prüfbericht - Nr.: CN24D5Q6 001

Test Report No.:

Seite 3 von 24

Page 3 of 24

Revision history of test report:

Report number	Issue date	Contents and reason for change if appropriate
CN24D5Q6 001	2025-02-17	Initial release.

Contents

1	TEST SITES	5
1.1	TEST FACILITIES.....	5
2	GENERAL PRODUCT INFORMATION	6
2.1	PRODUCT FUNCTION AND INTENDED USE	6
2.2	RATINGS AND SYSTEM DETAILS.....	6
2.3	INDEPENDENT OPERATION MODES.....	6
2.4	DESCRIPTION OF INTERCONNECTING CABLES	6
2.5	NOISE GENERATING AND NOISE SUPPRESSING PARTS	6
2.6	HIGHEST FREQUENCY GENERATED OR USED IN THE DEVICE OR ON WHICH THE DEVICE OPERATES OR TUNES	6
2.7	SUBMITTED DOCUMENTS.....	6
3	TEST SET-UP AND OPERATION MODES.....	7
3.1	PRINCIPLE OF CONFIGURATION SELECTION	7
3.2	EQUIPMENT AND CABLE ARRANGEMENT.....	7
3.3	TEST SOFTWARE	8
3.4	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	8
3.5	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE	8
4	CONFORMITY DECISION RULE.....	9
5	TEST RESULTS EMISSION	10
5.1	EMISSION IN THE FREQUENCY RANGE UP TO 30 MHz	10
5.1.1	Conducted emission	10
5.2	EMISSION IN THE FREQUENCY RANGE ABOVE 30 MHz.....	16
5.2.1	Radiated emission (30-1000 MHz).....	16
6	PHOTOGRAPHS OF THE TEST SET-UP.....	22
7	LIST OF TEST AND MEASUREMENT INSTRUMENTS	23
8	LIST OF FIGURES.....	24

Prüfbericht - Nr.: CN24D5Q6 001
Test Report No.:

Seite 5 von 24
Page 5 of 24

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 LED rope light for lighting and similar use. For the further information, refer to the user's manual.

2.2 Ratings and System Details

Rated input : DC 24 V, 200 mA

Rated power : 5 W

This product is LED rope light, it be powered by approved Class 2 power unit ICPSW24-7-4.
The information of power unit as below:

Manufacturer/ trademark	Type/model	Technical data
IKEA OF SWEDEN AB	ICPSW24-7-4	Input: AC 100-240 V, 50/60Hz, 0.11 A 10 W Output: DC 24 V, Max 0.29 A, Max 7 W

2.3 Independent Operation Modes

The basic operation modes are: "Off" and "ON" with dimming function.

2.4 Description of interconnecting cables

No.	Interface and name	Shielded or not	Specified length (m)
1	DC power line	Unshielded	3.5 m

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 16 MHz.

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.

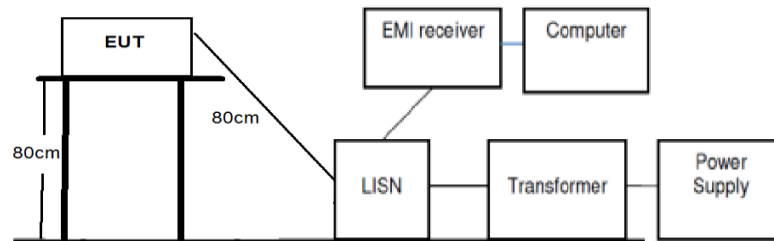
Refer to the related paragraph of this report.

The sequence of testing:

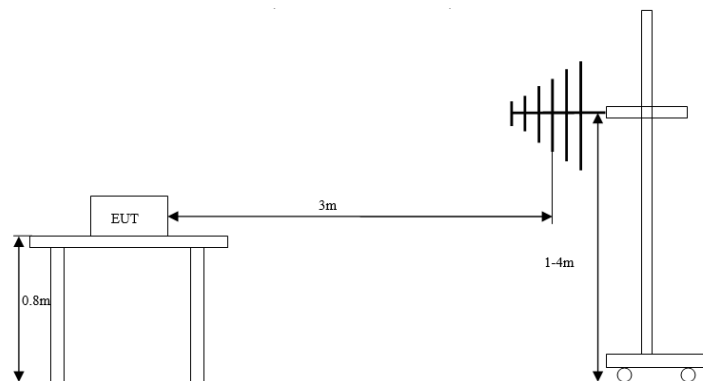
1. Radiated emission tests were performed on 2024-12-31.
2. Conducted emission tests were performed on 2025-02-01.

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

None.

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	: 2024-12-31	
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	
Operational mode	: Lighting on with dimming function. Mode 1: Lighting on with max lighting output. Mode 2: Lighting on with min lighting output. (The worst case was recorded in the test report by pre-scanning different color operating modes)	
Ambient condition	: Temperature: 21.5 °C; Relative humidity: 48 %	
Expanded measurement uncertainty ($k=2$)	: 2.33 dB The minimum margin to the limit is 10.50 dB at 0.161250 MHz and 0.168000 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.

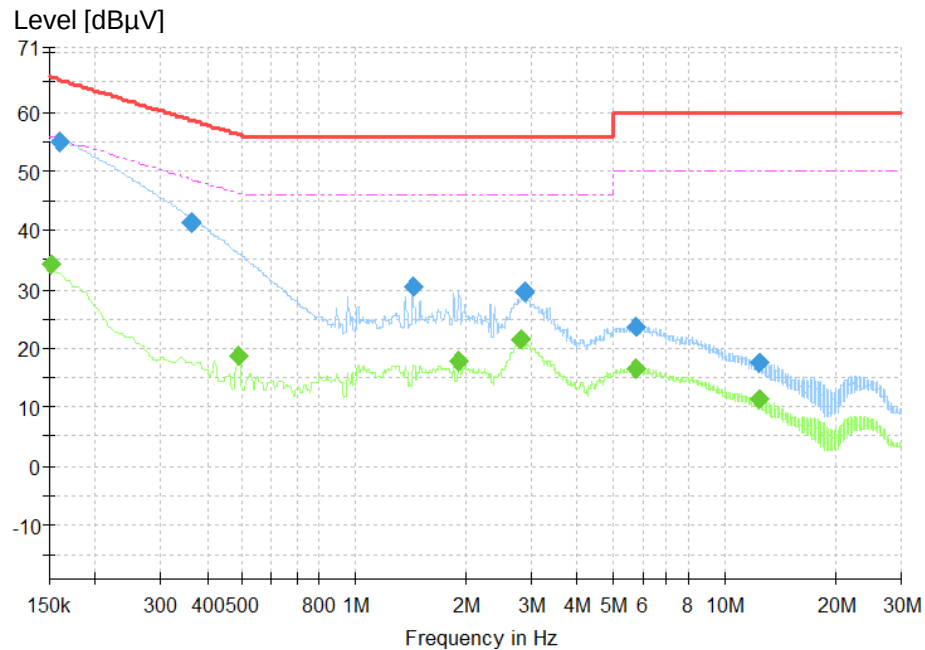
The following figures and tables were those measured by an automatic measuring system. Both quasi-peak and average measurements were performed. In the following spectral diagram, “◆” means Quasi-Peak Value and “◆” means Average Value results.

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, Mode 1


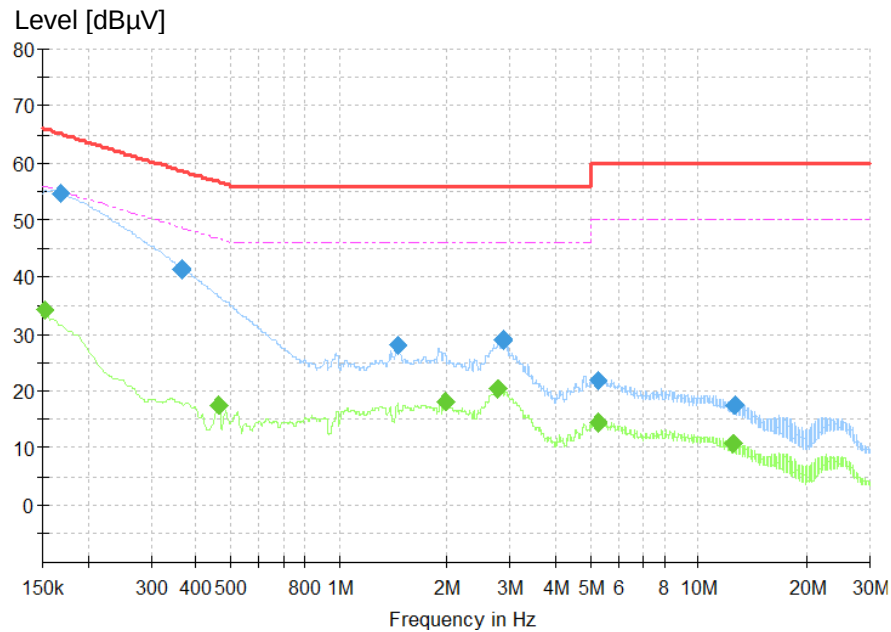
Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
12.423750	17.35	60.00	42.65	1000.0	9.000	L1	10.8
5.759250	23.61	60.00	36.39	1000.0	9.000	L1	10.5
2.879250	29.68	56.00	26.32	1000.0	9.000	L1	10.2
1.439250	30.35	56.00	25.65	1000.0	9.000	L1	10.4
0.363750	41.40	58.64	17.24	1000.0	9.000	L1	10.3
0.161250	54.89	65.40	10.50	1000.0	9.000	L1	10.3

Final average measurement result:

Frequency (MHz)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
12.426000	11.43	50.00	38.57	1000.0	9.000	L1	10.8
5.761500	16.52	50.00	33.48	1000.0	9.000	L1	10.5
0.485250	18.84	46.25	27.40	1000.0	9.000	L1	10.3
0.152250	34.35	55.88	21.53	1000.0	9.000	L1	10.3
2.818500	21.37	46.00	24.63	1000.0	9.000	L1	10.2
1.918500	17.77	46.00	28.23	1000.0	9.000	L1	10.1

Figure 2: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N, Mode 1



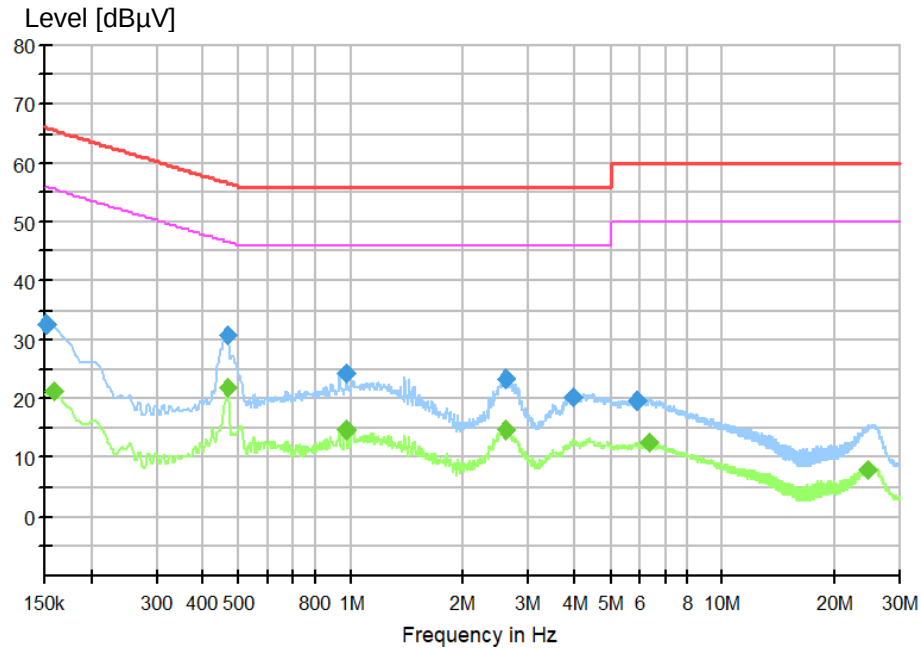
Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
12.630750	17.50	60.00	42.50	1000.0	9.000	N	11.1
5.246250	21.97	60.00	38.03	1000.0	9.000	N	10.7
1.455000	28.13	56.00	27.87	1000.0	9.000	N	10.4
2.843250	29.09	56.00	26.91	1000.0	9.000	N	10.6
0.363750	41.27	58.64	17.37	1000.0	9.000	N	10.4
0.168000	54.56	65.06	10.50	1000.0	9.000	N	10.4

Final average measurement result:

Frequency (MHz)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
12.414750	10.71	50.00	39.29	1000.0	9.000	N	11.1
5.246250	14.41	50.00	35.59	1000.0	9.000	N	10.7
0.460500	17.57	46.68	29.11	1000.0	9.000	N	10.3
0.152250	34.30	55.88	21.58	1000.0	9.000	N	10.2
2.773500	20.41	46.00	25.59	1000.0	9.000	N	10.6
1.979250	18.00	46.00	28.00	1000.0	9.000	N	10.5

Figure 3: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L, Mode 2



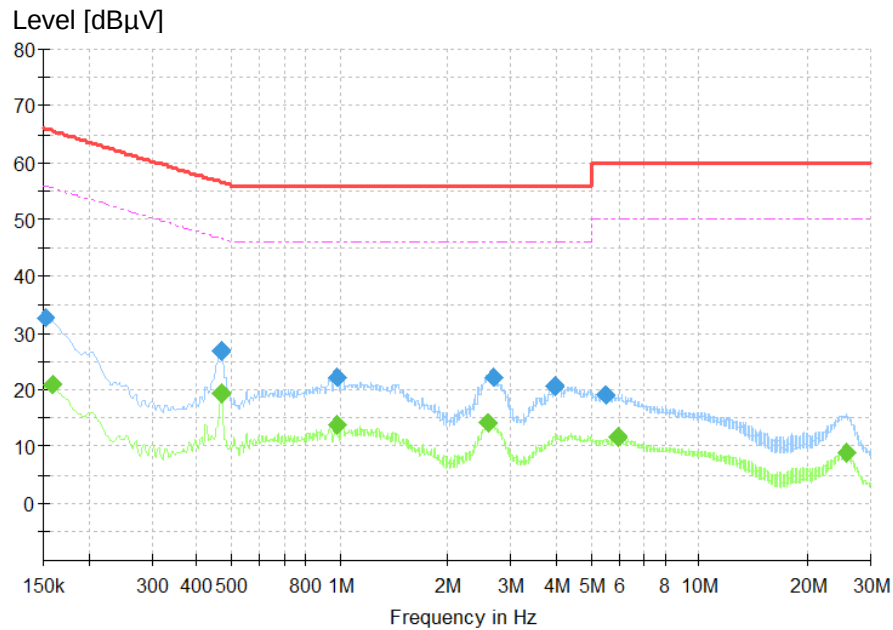
Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
5.898750	19.67	60.00	40.33	1000.0	9.000	L1	10.6
3.968250	20.41	56.00	35.59	1000.0	9.000	L1	10.2
2.620500	23.29	56.00	32.71	1000.0	9.000	L1	10.1
0.975750	24.46	56.00	31.54	1000.0	9.000	L1	10.7
0.465000	30.87	56.60	25.73	1000.0	9.000	L1	10.3
0.152250	32.72	65.88	33.16	1000.0	9.000	L1	10.3

Final average measurement result:

Frequency (MHz)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
6.317250	12.61	50.00	37.39	1000.0	9.000	L1	10.7
24.546750	7.82	50.00	42.18	1000.0	9.000	L1	11.1
0.159000	21.23	55.52	34.29	1000.0	9.000	L1	10.3
0.975750	14.73	46.00	31.27	1000.0	9.000	L1	10.7
0.465000	21.90	46.60	24.71	1000.0	9.000	L1	10.3
2.620500	14.70	46.00	31.30	1000.0	9.000	L1	10.1

Figure 4: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N, Mode 2



Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
5.500500	19.15	60.00	40.85	1000.0	9.000	N	10.7
3.981750	20.49	56.00	35.51	1000.0	9.000	N	10.7
0.980250	22.24	56.00	33.76	1000.0	9.000	N	10.4
2.670000	22.26	56.00	33.74	1000.0	9.000	N	10.6
0.467250	26.70	56.56	29.86	1000.0	9.000	N	10.2
0.152250	32.61	65.88	33.27	1000.0	9.000	N	10.2

Final average measurement result:

Frequency (MHz)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
5.932500	11.58	50.00	38.42	1000.0	9.000	N	10.6
25.503000	8.91	50.00	41.09	1000.0	9.000	N	11.6
0.159000	20.79	55.52	34.72	1000.0	9.000	N	10.3
0.467250	19.44	46.56	27.12	1000.0	9.000	N	10.2
2.575500	14.20	46.00	31.80	1000.0	9.000	N	10.6
0.980250	13.96	46.00	32.04	1000.0	9.000	N	10.4

5.2 Emission in the Frequency Range above 30 MHz

5.2.1 Radiated emission (30-1000 MHz)

Result:	Passed
----------------	---------------

Date of testing	: 2025-02-01
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	: AC 120 V, 60 Hz
Operational mode	: Lighting on with dimming function. Mode 1: Lighting on with max lighting output. Mode 2: Lighting on with min lighting output. (The worst case was recorded in the test report by pre-scanning different color operating modes)
Ambient condition	: Temperature: 20.5 °C; Relative humidity: 45.0 %
Expanded measurement uncertainty ($k=2$)	: 5.40 dB The minimum margin to the limit is 9.8 dB at 30.242500 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.

Prüfbericht - Nr.: CN24D5Q6 001

Test Report No.:

Seite 17 von 24

Page 17 of 24

Notes on following tables of radiated emission results and conversions:

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

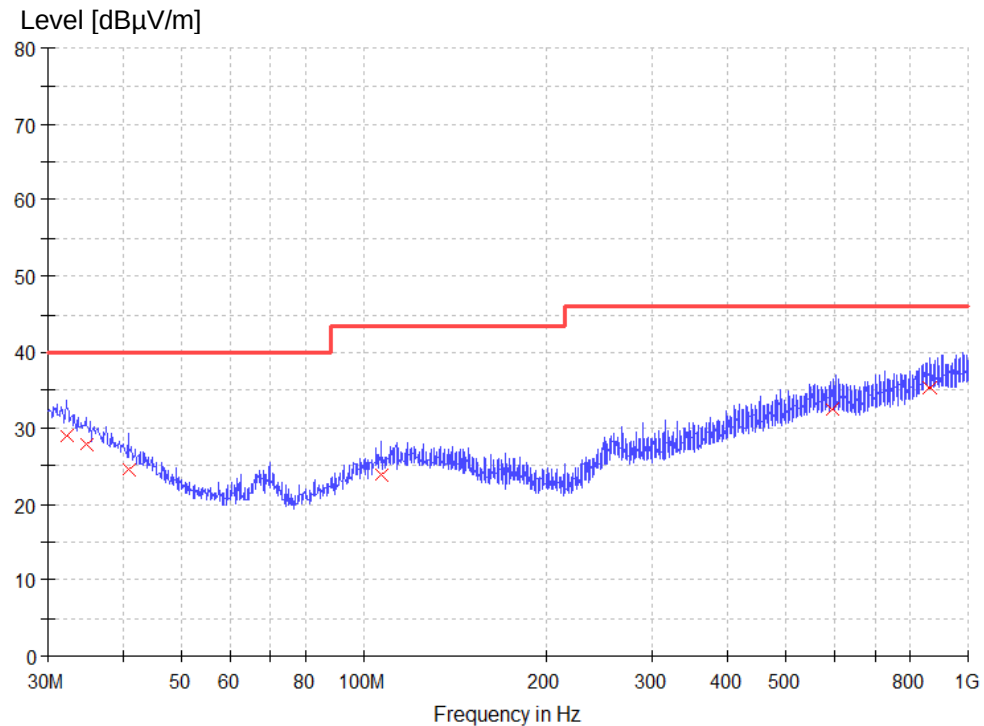
Corr. (dB): correction factor including: antenna factor, cable loss, and gain of pre-amplifier (if used)

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.

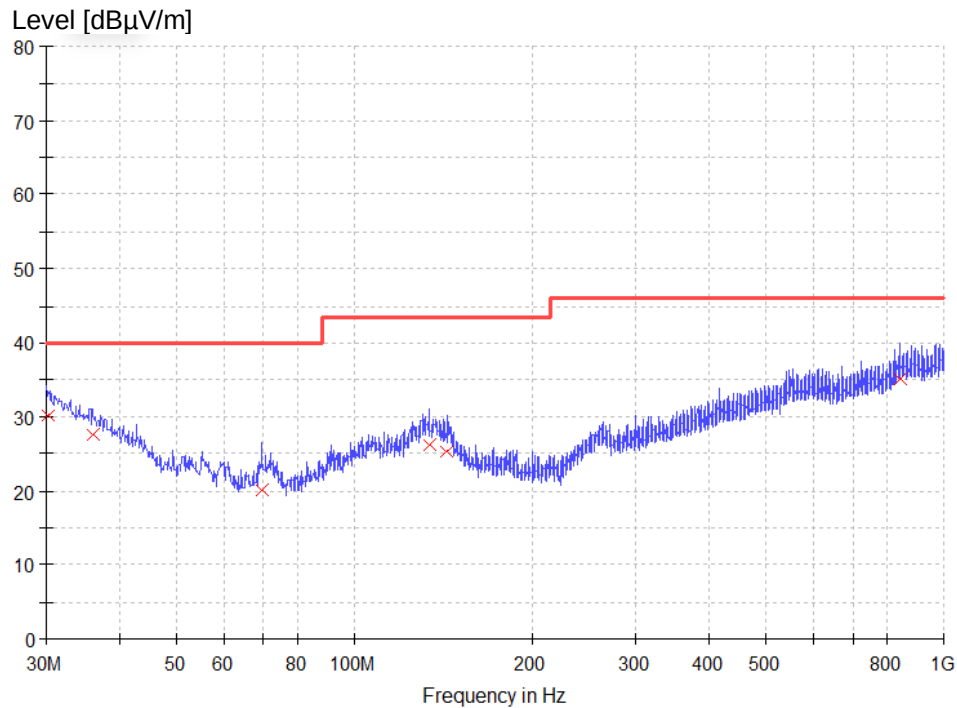
Figure 5: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 1



Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBμV/m)
32.182500	29.1	120.000	100.0	H	180.0	23.8	10.9	40.0
34.728750	27.8	120.000	120.0	H	-67.0	22.6	12.2	40.0
40.791250	24.6	120.000	140.0	H	124.0	19.3	15.4	40.0
106.630000	23.8	120.000	150.0	H	-166.0	18.4	19.7	43.5
596.480000	32.6	120.000	180.0	H	93.0	26.9	13.4	46.0
862.987500	35.3	120.000	200.0	H	-180.0	28.8	10.7	46.0

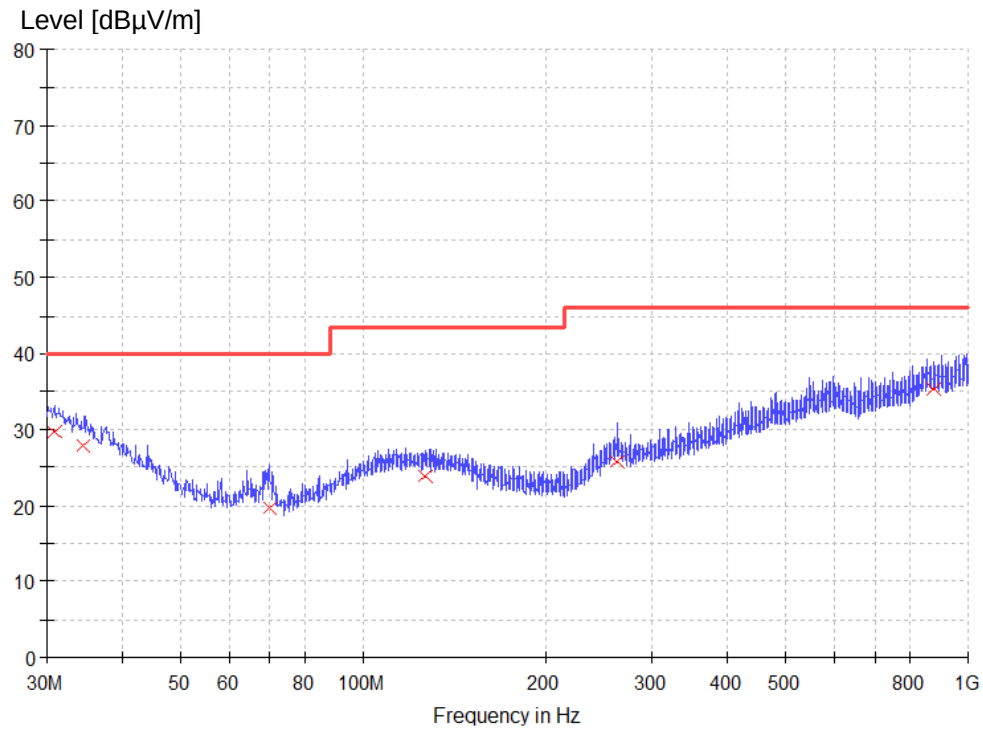
Figure 6: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization on mode 1



Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBμV/m)
30.242500	30.2	120.000	100.0	V	-180.0	24.7	9.8	40.0
36.062500	27.5	120.000	120.0	V	79.0	21.9	12.5	40.0
69.648750	20.2	120.000	140.0	V	-108.0	12.6	19.8	40.0
134.517500	26.2	120.000	150.0	V	111.0	18.4	17.3	43.5
143.490000	25.3	120.000	180.0	V	-162.0	18.0	18.2	43.5
842.738750	35.0	120.000	200.0	V	180.0	28.8	11.0	46.0

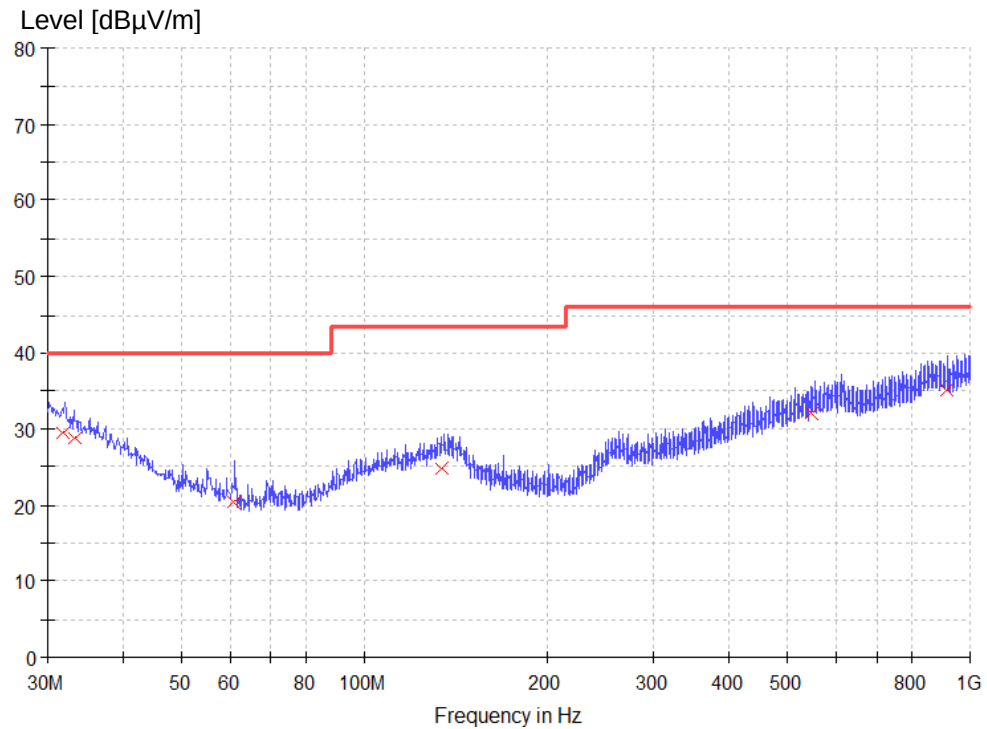
Figure 7: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 2



Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBμV/m)
30.848750	29.7	120.000	100.0	H	-180.0	24.4	10.3	40.0
34.607500	27.9	120.000	120.0	H	59.0	22.7	12.1	40.0
70.133750	19.7	120.000	140.0	H	-110.0	12.6	20.3	40.0
126.151250	23.8	120.000	160.0	H	81.0	18.7	19.7	43.5
262.678750	25.8	120.000	180.0	H	-145.0	20.9	20.2	46.0
872.687500	35.3	120.000	200.0	H	180.0	28.7	10.7	46.0

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



Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBμV/m)
31.818750	29.4	120.000	100.0	V	180.0	23.9	10.6	40.0
33.152500	28.7	120.000	120.0	V	-57.0	23.4	11.3	40.0
61.040000	20.4	120.000	140.0	V	135.0	12.8	19.6	40.0
134.032500	24.7	120.000	150.0	V	-144.0	18.4	18.8	43.5
547.131250	32.1	120.000	180.0	V	88.0	26.6	13.9	46.0
914.155000	35.1	120.000	200.0	V	-180.0	28.8	10.9	46.0

6 Photographs of the Test Set-Up

Refer to the test setup file.

Prüfbericht - Nr.: CN24D5Q6 001
Test Report No.:Seite 23 von 24
Page 23 of 24

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

8 List of Figures

Figure 1: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L, Mode 1	12
Figure 2: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N, Mode 1	13
Figure 3: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L, Mode 2	14
Figure 4: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N, Mode 2	15
Figure 5: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 1	18
Figure 6: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization on mode 1	19
Figure 7: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 2	20
Figure 8: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization on mode 2	21

End of test report