

<b>Prüfbericht-Nr.:</b> Test report no.:	<b>CN25AM8H 001</b>	<b>Auftrags-Nr.:</b> Order no.:	<b>326107909</b>	<b>Seite 1 von 31</b> Page 1 of 31
<b>Kunden-Referenz-Nr.:</b> Client reference no.:	<b>1288983</b>	<b>Auftragsdatum:</b> Order date:	<b>2025-05-07</b>	
<b>Auftraggeber:</b> Client:	<b>IKEA of Sweden AB</b> Box 702, SE-343 81 Älmhult, Sweden			
<b>Prüfgegenstand:</b> Test item:	<b>Portable Luminaire</b>			
<b>Bezeichnung / Typ-Nr.:</b> Identification / Type no.:	<b>B2417</b>			
<b>Auftrags-Inhalt:</b> Order content:	<b>TÜV Rheinland EMC service</b>			
<b>Prüfgrundlage:</b> Test specification:	<b>FCC 47 CFR Part 15, Subpart B:2023 Class B</b> <b>ICES-005:2018</b>			
<b>Wareneingangsdatum:</b> Date of sample receipt:	<b>2025-05-13</b>	Refer to the EUT photos file		
<b>Prüfmuster-Nr.:</b> Test sample no.:	<b>A003981901-001</b>			
<b>Prüfzeitraum:</b> Testing period:	<b>2025-05-16~2025-05-22</b>			
<b>Ort der Prüfung:</b> Place of testing:	<b>Refer to clause 1.1</b>			
<b>Prüflaboratorium:</b> Testing laboratory:	<b>TÜV Rheinland (Shanghai) Co., Ltd.</b>			
<b>Prüfergebnis*:</b> Test result*:	<b>Pass</b>			
<b>geprüft von:</b> tested by:	<i>Jinyu Huang</i>	<b>genehmigt von:</b> authorized by:	<i>Jiayi Zhou</i>	
<b>Datum:</b> Date:	<b>2025-06-20</b>	<b>Ausstellungsdatum:</b> Issue date:	<b>2025-06-20</b>	
<b>Stellung / Position:</b>	<b>Project engineer</b>	<b>Stellung / Position:</b>	<b>Authorizer</b>	
<b>Sonstiges /</b> Other:	<b>FCC ID: FHO-B2417</b> Test Firm Name: TÜV Rheinland (Shanghai) Co., Ltd. Designation Number: CN1396 Test Firm Registration Number: 930979			
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> Condition of the test item at delivery:	<b>Prüfmuster vollständig und unbeschädigt</b> <b>Test item complete and undamaged</b>			
* 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
<b>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.</b> <i>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.</i>				

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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.<br/>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.<br/>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.<br/>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
CN25AM8H 001	2025-06-20	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 table lamp for lighting and similar use. For further information, refer to the user's manual.

### 2.2 Ratings and System Details

Rated input : 5V DC, Max. 4 W, Battery input: 3xAA HR6 2450 mA, 3.6 Vdc  
Protection class : Class III

### 2.3 Independent Operation Modes

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

- Mode 1: EUT was charged by adapter and lighting on with max lighting output
- Mode 2: EUT was charged by adapter and lighting on with min lighting output
- Mode 3: EUT was charged by laptop and lighting on with max lighting output
- Mode 4: EUT was charged by laptop and lighting on with min lighting output
- Mode 5: EUT was powered by internal battery and lighting on with max lighting output
- Mode 6: EUT was powered by internal battery and lighting on with min lighting output

### 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 1 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.

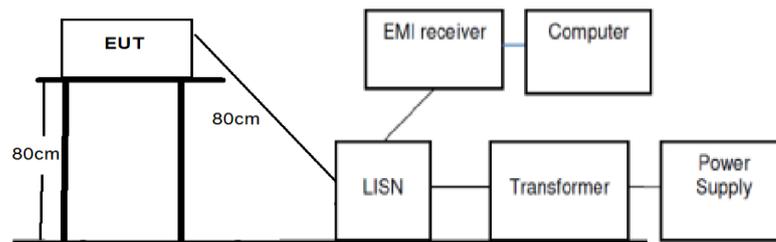
Refer to the related paragraph of this report.

The sequence of testing:

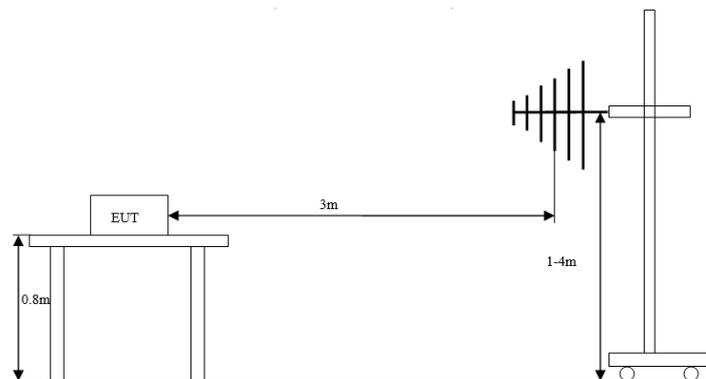
1. Conducted emission tests were performed on 2025-05-16.
2. Radiated emission tests were performed on 2025-05-22.

#### 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 test, the adaptor (model: ICPSW5-5NA-1, brand: IKEA) and laptop (model: T45, brand: IKEA) were used as power supply.

### **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  $U_{\text{CISPR}}$  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

<b>Result:</b>	<b>Passed</b>
Date of testing	: 2025-05-16
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 $\mu$ V (decrease with the logarithm of frequency); 0.5 – 5 MHz, 56 dB $\mu$ V; 5 – 30 MHz, 60 dB $\mu$ V Average limit: 0.15 – 0.5 MHz, 56 to 46 dB $\mu$ V (decrease with the logarithm of frequency); 0.5 – 5 MHz, 46 dB $\mu$ V; 5 – 30 MHz, 50 dB $\mu$ 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 adapter and power supply of laptop
Operational mode	: Mode 1: EUT was powered by adapter and lighting on with max lighting output Mode 2: EUT was powered by adapter and lighting on with min lighting output Mode 3: EUT was powered by laptop and lighting on with max lighting output Mode 4: EUT was powered by laptop and lighting on with min lighting output
Ambient condition	: Temperature: 22.8 °C; Relative humidity: 53.4 %
Expanded measurement uncertainty ( $k=2$ )	: 2.33 dB The minimum margin to the limit is 15.85 dB at 0.629250 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.

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

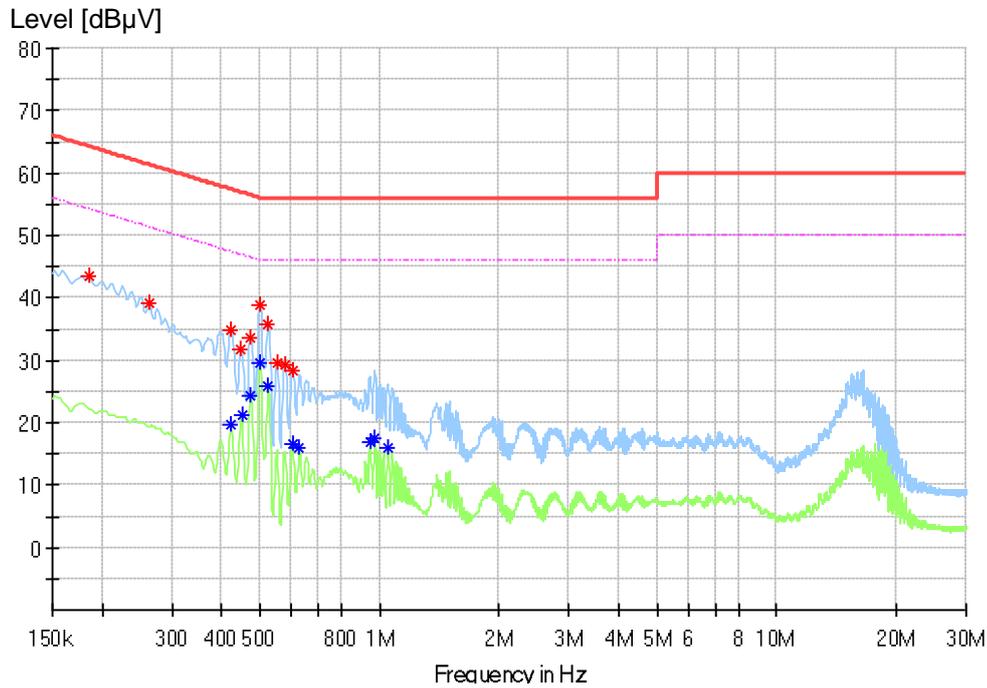
The following figures and tables were those measured by an automatic measuring system. Both quasi-peak and average measurements were performed. In the following spectral diagram, “\*” means Quasi-Peak Value and “\*” means Average Value results.

Notes on following tables of conducted emission results and conversions:

Level (dB $\mu$ V): final measurement results by using quasi-peak detector and average detector

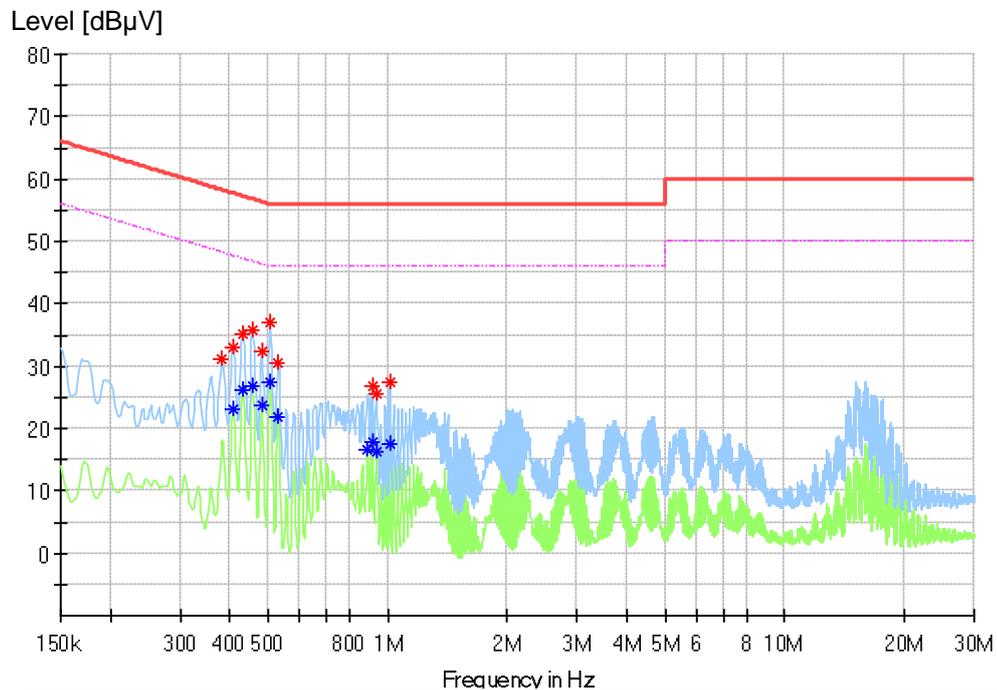
Transd (dB): transducer factor including cable loss, insertion loss of artificial mains network and gain of pre-amplifier (if used)

Margin: Limit (dB $\mu$ V) - Level (dB $\mu$ V)

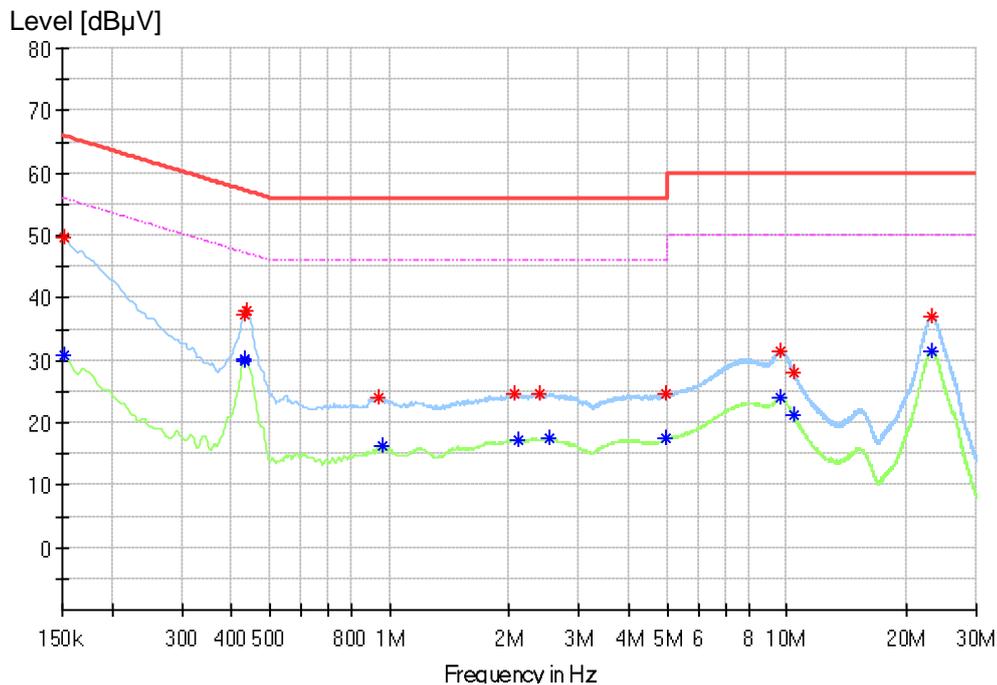
**Figure 1: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, Live and Neutral Line on mode 1**


Final measurement result:

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.474000	33.47	---	56.44	22.97	L1	10.3
0.550500	29.69	---	56.00	26.31	L1	10.3
0.577500	29.18	---	56.00	26.82	L1	10.3
0.602250	28.49	---	56.00	27.51	L1	10.3
0.186000	43.41	---	64.21	20.81	N	10.6
0.262500	39.17	---	61.35	22.19	N	10.6
0.422250	34.81	---	57.40	22.60	N	10.3
0.447000	31.79	---	56.93	25.14	N	10.3
0.501000	38.90	---	56.00	17.10	N	10.2
0.525750	35.86	---	56.00	20.14	N	10.2
0.422250	---	19.56	47.40	27.84	L1	10.3
0.449250	---	21.09	46.89	25.80	L1	10.3
0.474000	---	24.35	46.44	22.10	L1	10.3
0.498750	---	29.48	46.02	16.54	L1	10.3
0.525750	---	25.98	46.00	20.02	L1	10.3
0.602250	---	16.55	46.00	29.45	L1	10.3
0.629250	---	15.85	46.00	30.15	L1	10.3
0.946500	---	16.92	46.00	29.08	L1	10.7
0.973500	---	17.68	46.00	28.32	L1	10.7
1.050000	---	15.92	46.00	30.08	L1	10.7

**Figure 2: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, Live and Neutral Line on mode 2**

**Final measurement result:**

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.431250	35.02	---	57.23	22.21	L1	10.3
0.456000	35.64	---	56.77	21.13	L1	10.3
0.480750	32.39	---	56.33	23.93	L1	10.3
0.530250	30.65	---	56.00	25.35	L1	10.3
0.912750	26.84	---	56.00	29.16	L1	10.6
0.937500	25.50	---	56.00	30.50	L1	10.7
1.011750	27.52	---	56.00	28.48	L1	10.7
0.381750	31.03	---	58.24	27.21	N	10.4
0.406500	32.99	---	57.72	24.73	N	10.3
0.505500	37.14	---	56.00	18.86	N	10.2
0.406500	---	23.23	47.72	24.49	L1	10.3
0.431250	---	26.17	47.23	21.05	L1	10.3
0.456000	---	26.69	46.77	20.07	L1	10.3
0.480750	---	23.80	46.33	22.53	L1	10.3
0.505500	---	27.50	46.00	18.50	L1	10.3
0.530250	---	21.87	46.00	24.13	L1	10.3
0.888000	---	16.57	46.00	29.43	L1	10.6
0.912750	---	17.87	46.00	28.13	L1	10.6
0.937500	---	16.28	46.00	29.72	L1	10.7
1.011750	---	17.54	46.00	28.46	L1	10.7

**Figure 3: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, Live and Neutral Line on mode 3**


Final measurement result:

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.960000	---	16.33	46.00	29.67	L1	10.7
9.645000	---	23.91	50.00	26.09	L1	10.8
10.398750	---	21.11	50.00	28.89	L1	10.8
0.152250	---	30.89	55.88	24.99	N	10.2
0.431250	---	30.05	47.23	17.18	N	10.3
0.433500	---	30.12	47.19	17.06	N	10.3
2.118750	---	17.36	46.00	28.64	N	10.5
2.523750	---	17.52	46.00	28.48	N	10.6
4.933500	---	17.43	46.00	28.57	N	10.7
23.149500	---	31.51	50.00	18.49	N	11.4
0.942000	23.90	---	56.00	32.10	L1	10.7
4.967250	24.52	---	56.00	31.49	L1	10.3
9.595500	31.57	---	60.00	28.43	L1	10.8
10.412250	28.06	---	60.00	31.94	L1	10.8
0.152250	49.71	---	65.88	16.17	N	10.2
0.431250	37.38	---	57.23	19.85	N	10.3
0.438000	37.82	---	57.10	19.28	N	10.3
2.069250	24.50	---	56.00	31.50	N	10.5
2.377500	24.60	---	56.00	31.40	N	10.6
23.286750	37.10	---	60.00	22.90	N	11.4

## 5.2 Emission in the Frequency Range above 30 MHz

### 5.2.1 Radiated emission (30-1000 MHz)

<b>Result:</b>	<b>Passed</b>
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Date of testing	: 2025-05-22
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 $\mu$ V/m; 88 – 216 MHz, 43.5 dB $\mu$ V/m; 216 – 1000 MHz, 46 dB $\mu$ 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 for adapter and power supply of laptop DC 3.6 V for internal battery
Operational mode	: Mode 1: EUT was powered by adapter and lighting on with max lighting output Mode 2: EUT was powered by adapter and lighting on with min lighting output Mode 3: EUT was powered by laptop and lighting on with max lighting output Mode 4: EUT was powered by laptop and lighting on with min lighting output Mode 5: EUT was powered by internal battery and lighting on with max lighting output Mode 6: EUT was powered by internal battery and lighting on with min lighting output
Ambient condition	: Temperature: 22.8 °C; Relative humidity: 58.4 %
Expanded measurement uncertainty ( $k=2$ )	: 5.40 dB The minimum margin to the limit is 10.99 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.

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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.

Notes on following tables of radiated emission results and conversions:

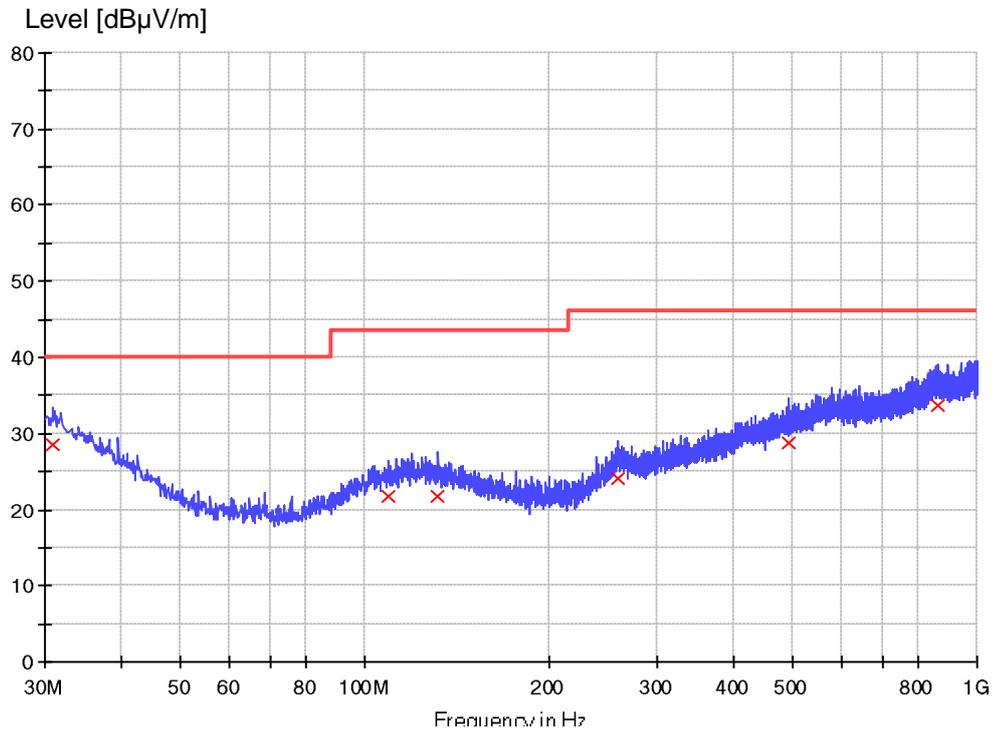
QuasiPeak (dB $\mu$ V/m): final measurement results by using quasi-peak detector

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

Margin: Limit (dB $\mu$ V/m) - QuasiPeak (dB $\mu$ V/m)

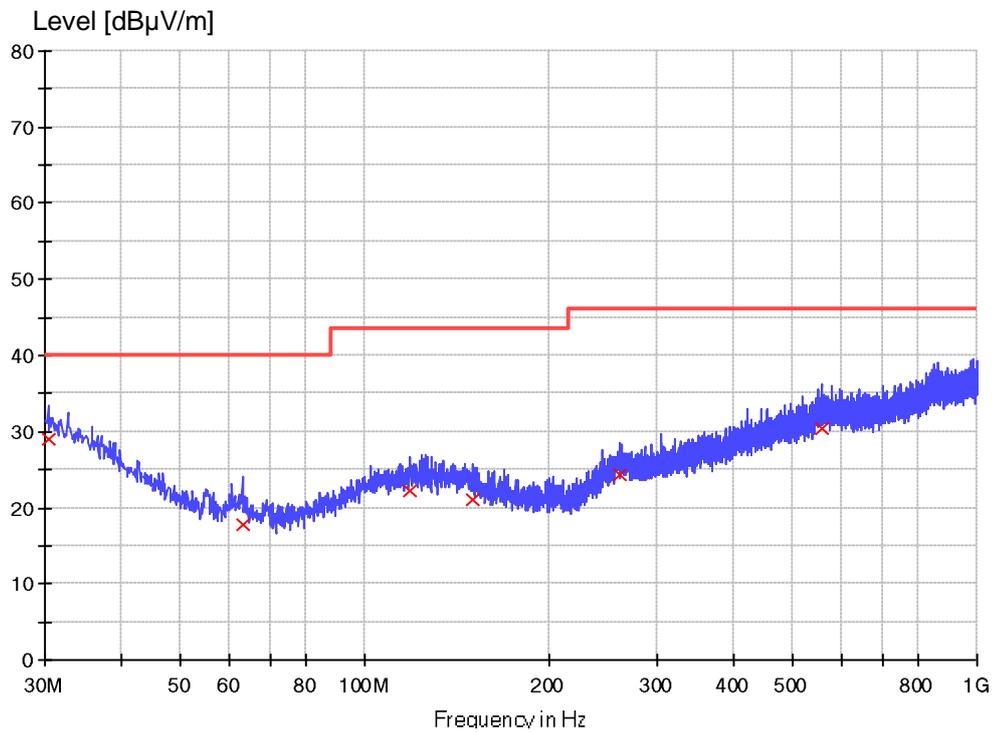
*Note 1: The highest frequency in the EUT is less than 108 MHz. According to FCC Part 15 subpart B §15.33 (b) (1), the upper frequency for radiated emission measurement is 1000 MHz.*

*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 4: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 1**


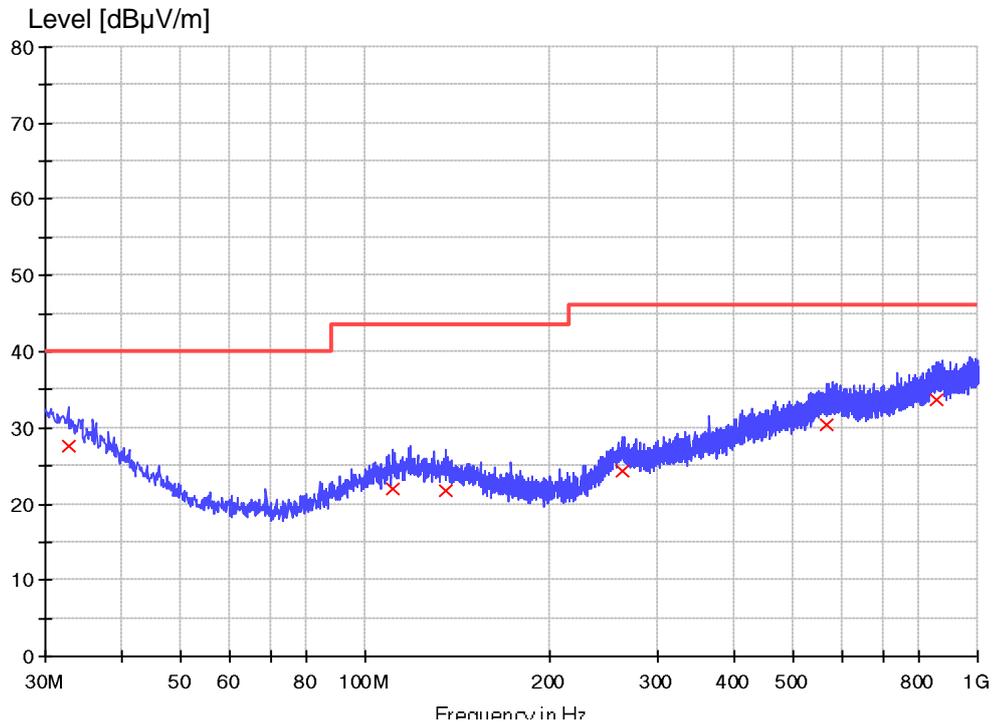
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/)
30.970000	28.6	1000.0	120.000	113.0	H	142.0	25.2	11.4	40.0
109.418750	21.8	1000.0	120.000	102.0	H	93.0	18.6	21.7	43.5
131.728750	21.9	1000.0	120.000	137.0	H	98.0	18.7	21.6	43.5
259.405000	24.1	1000.0	120.000	184.0	H	-38.0	20.8	21.9	46.0
492.083750	28.7	1000.0	120.000	192.0	H	-128.0	25.2	17.3	46.0
861.896250	33.8	1000.0	120.000	203.0	H	42.0	28.9	12.3	46.0

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


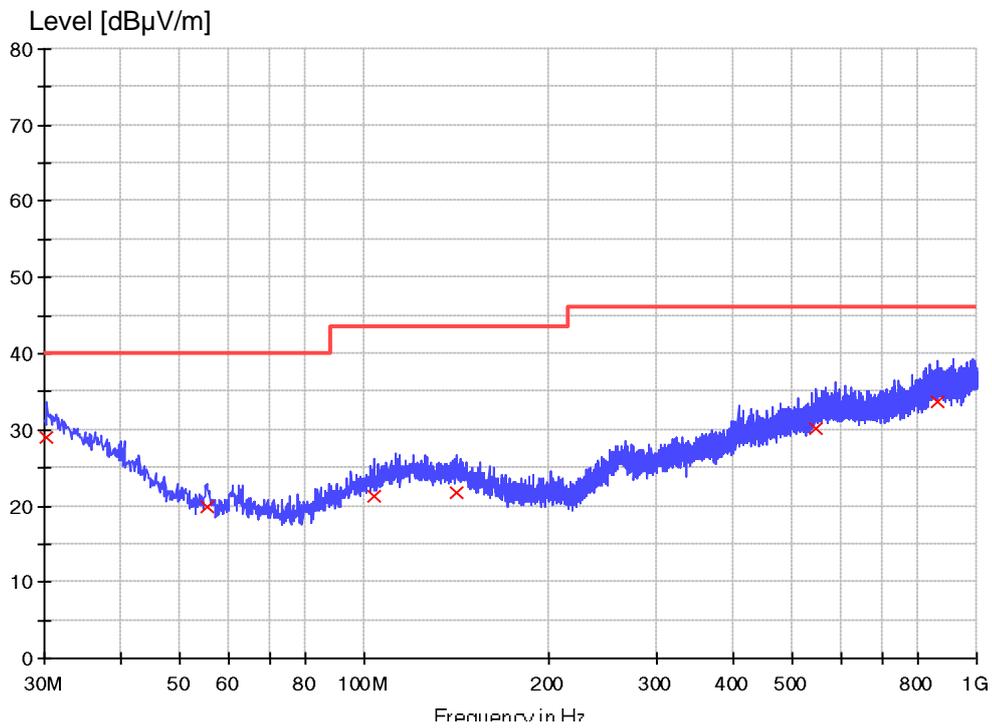
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/)
30.363750	29.0	1000.0	120.000	102.0	V	149.0	25.5	11.0	40.0
63.101250	17.7	1000.0	120.000	116.0	V	128.0	12.8	22.3	40.0
118.270000	22.2	1000.0	120.000	123.0	V	-94.0	19.0	21.3	43.5
150.158750	21.1	1000.0	120.000	198.0	V	-82.0	17.5	22.4	43.5
261.830000	24.3	1000.0	120.000	204.0	V	137.0	21.0	21.7	46.0
556.103750	30.4	1000.0	120.000	216.0	V	8.0	26.7	15.6	46.0

**Figure 6: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 2**


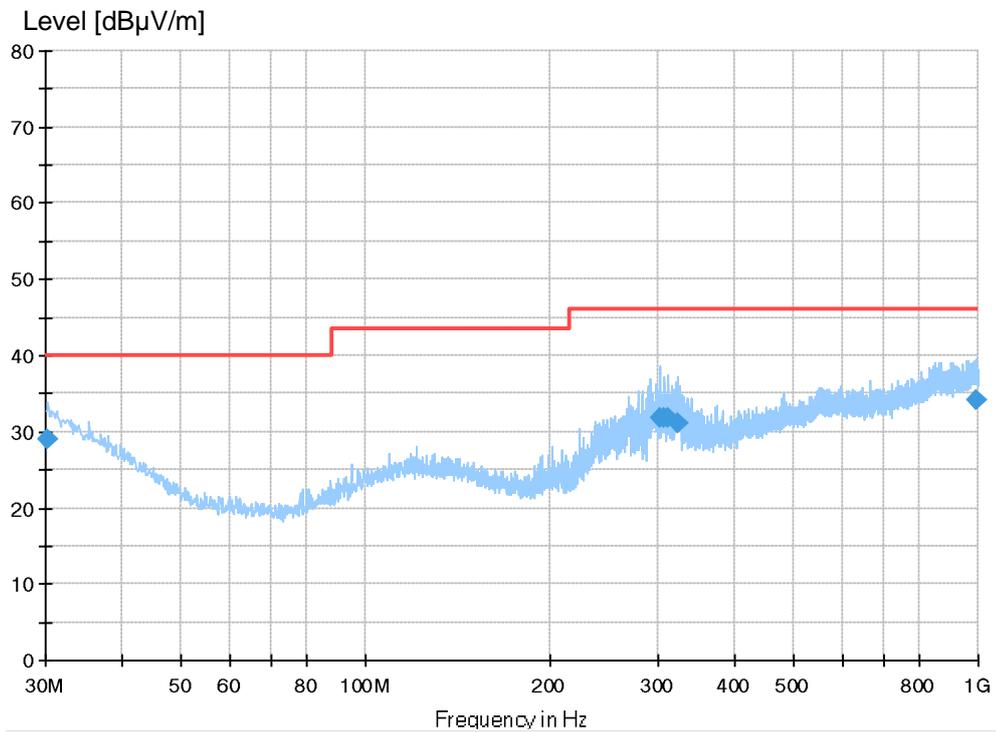
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/)
32.667500	27.6	1000.0	120.000	113.0	H	92.0	24.1	12.4	40.0
110.752500	21.9	1000.0	120.000	102.0	H	89.0	18.7	21.6	43.5
135.487500	21.7	1000.0	120.000	189.0	H	-127.0	18.5	21.8	43.5
263.285000	24.3	1000.0	120.000	121.0	H	98.0	21.0	21.7	46.0
567.501250	30.5	1000.0	120.000	214.0	H	164.0	26.6	15.5	46.0
857.410000	33.7	1000.0	120.000	192.0	H	-37.0	29.0	12.3	46.0

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


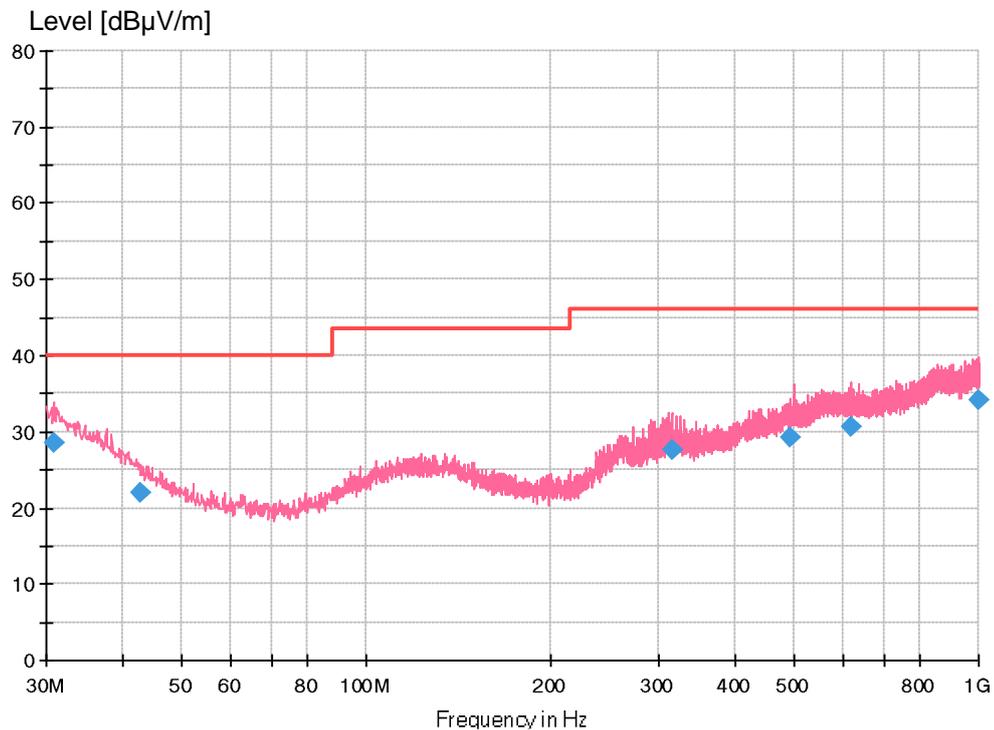
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/)
30.242500	29.0	1000.0	120.000	114.0	V	136.0	25.5	11.0	40.0
55.220000	20.0	1000.0	120.000	126.0	V	145.0	13.4	20.0	40.0
103.720000	21.3	1000.0	120.000	213.0	V	-97.0	18.1	22.2	43.5
141.428750	21.8	1000.0	120.000	194.0	V	102.0	18.1	21.7	43.5
545.555000	30.2	1000.0	120.000	103.0	V	89.0	26.4	15.8	46.0
864.685000	33.8	1000.0	120.000	101.0	V	97.0	28.8	12.3	46.0

**Figure 8: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 3**


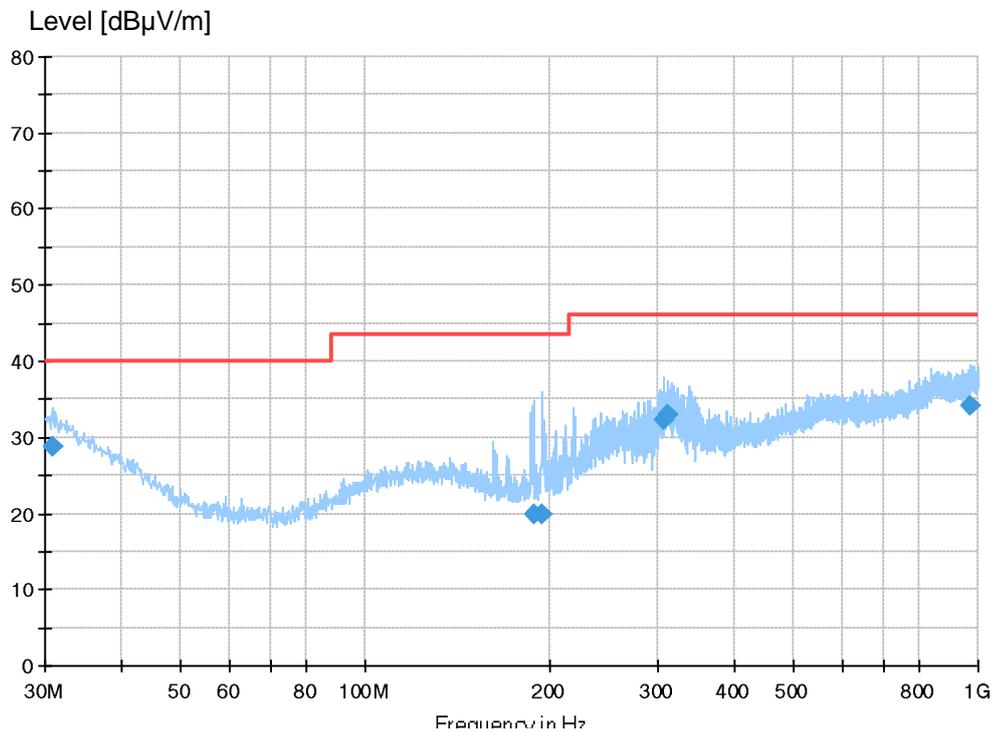
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
30.242500	29.01	40.00	10.99	1000.0	120.000	230.0	H	50.0
302.327500	31.79	46.00	14.21	1000.0	120.000	100.0	H	-25.0
306.086250	31.91	46.00	14.09	1000.0	120.000	100.0	H	-33.0
311.542500	31.79	46.00	14.21	1000.0	120.000	100.0	H	-51.0
322.455000	31.18	46.00	14.82	1000.0	120.000	100.0	H	-33.0
993.816250	34.22	46.00	11.78	1000.0	120.000	190.0	H	-59.0

**Figure 9: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization on mode 3**


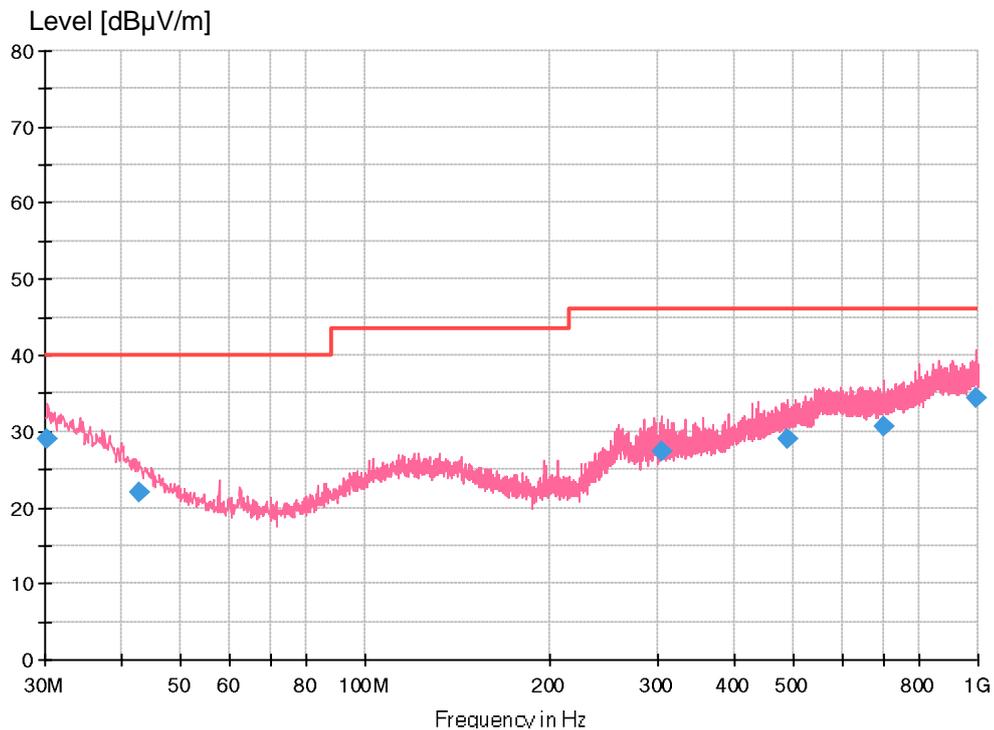
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
30.848750	28.64	40.00	11.36	1000.0	120.000	215.0	V	159.0
42.610000	21.92	40.00	18.08	1000.0	120.000	230.0	V	-113.0
315.058750	27.60	46.00	18.40	1000.0	120.000	170.0	V	41.0
494.023750	29.12	46.00	16.88	1000.0	120.000	100.0	V	169.0
618.183750	30.59	46.00	15.41	1000.0	120.000	230.0	V	170.0
997.938750	34.20	46.00	11.80	1000.0	120.000	230.0	V	-103.0

**Figure 10: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 4**


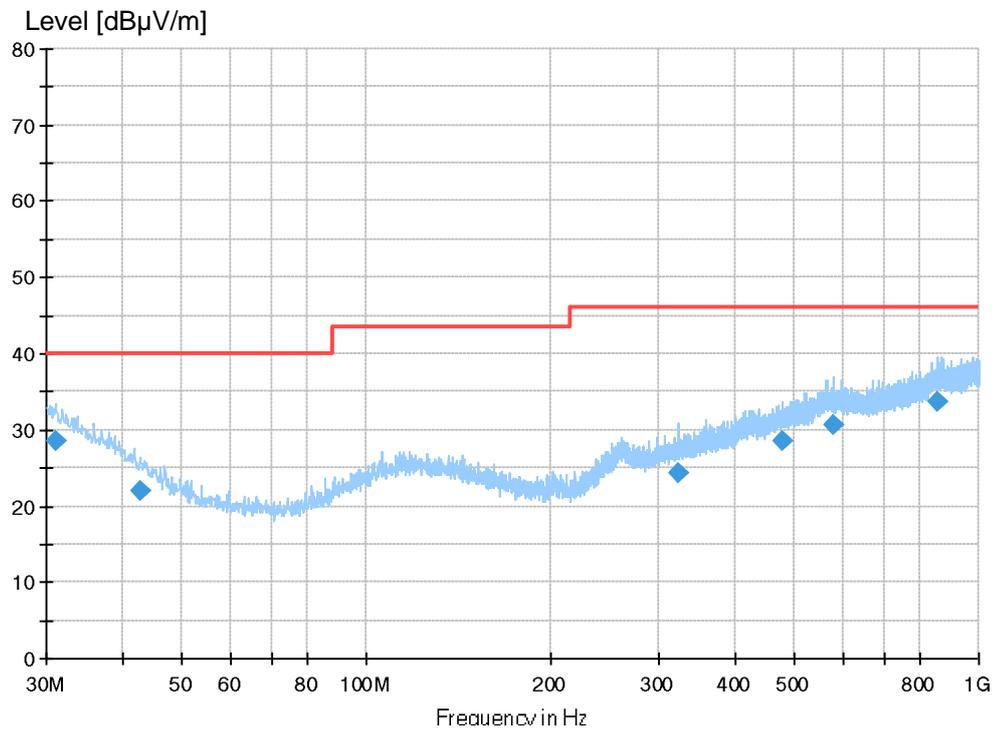
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
30.848750	28.78	40.00	11.22	1000.0	120.000	130.0	H	170.0
187.988750	19.81	43.50	23.69	1000.0	120.000	130.0	H	-80.0
194.657500	19.93	43.50	23.57	1000.0	120.000	130.0	H	-48.0
307.056250	32.33	46.00	13.67	1000.0	120.000	100.0	H	-45.0
310.936250	33.07	46.00	12.93	1000.0	120.000	100.0	H	104.0
972.476250	34.09	46.00	11.91	1000.0	120.000	130.0	H	-82.0

**Figure 11: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization on mode 4**


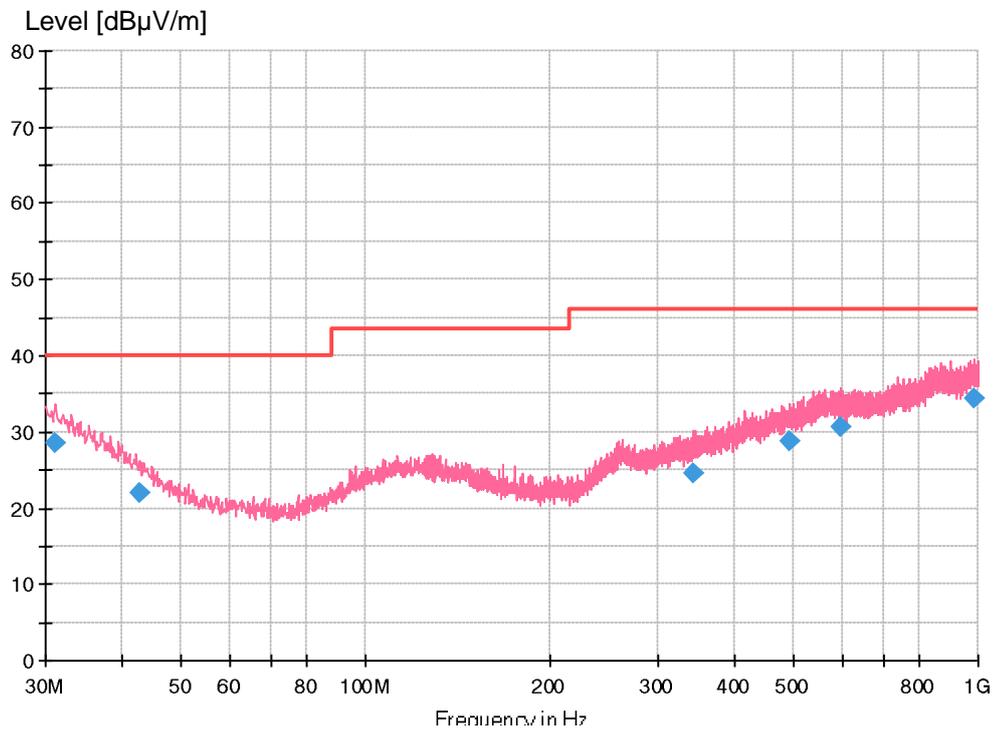
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
30.242500	29.01	40.00	10.99	1000.0	120.000	204.0	V	84.0
42.731250	21.90	40.00	18.10	1000.0	120.000	230.0	V	94.0
303.661250	27.27	46.00	18.73	1000.0	120.000	190.0	V	63.0
488.567500	29.01	46.00	16.99	1000.0	120.000	100.0	V	175.0
704.028750	30.72	46.00	15.28	1000.0	120.000	100.0	V	68.0
991.148750	34.29	46.00	11.71	1000.0	120.000	120.0	V	25.0

**Figure 12: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 5**


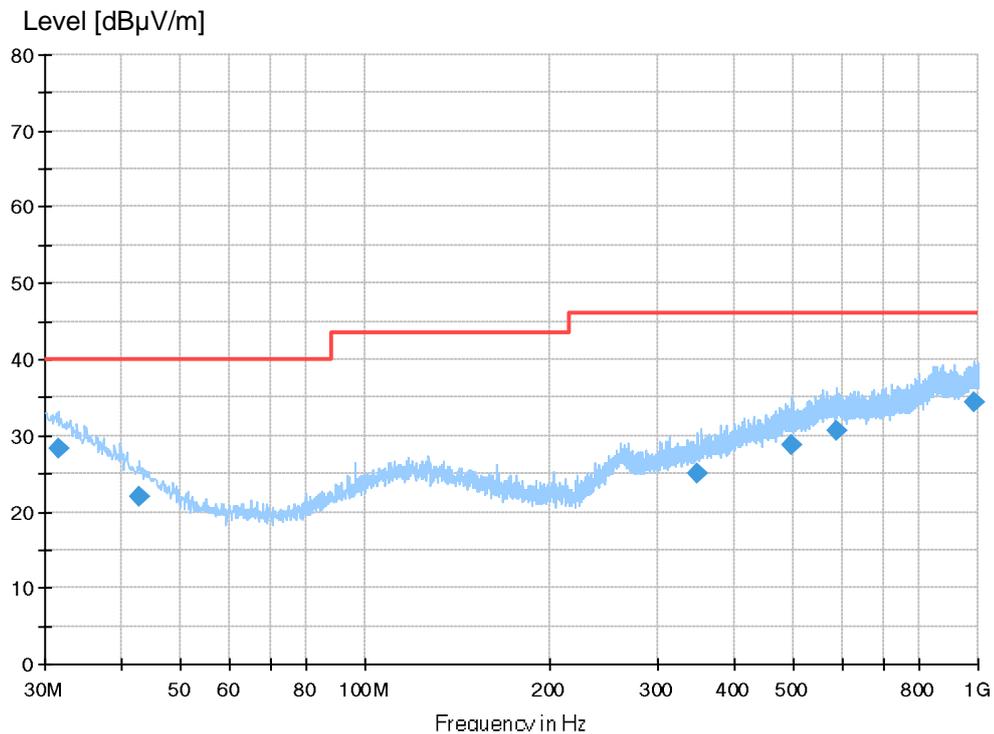
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
31.091250	28.57	40.00	11.43	1000.0	120.000	120.0	H	66.0
42.610000	21.99	40.00	18.01	1000.0	120.000	120.0	H	180.0
323.303750	24.37	46.00	21.63	1000.0	120.000	230.0	H	-175.0
479.231250	28.59	46.00	17.41	1000.0	120.000	120.0	H	-179.0
578.292500	30.55	46.00	15.45	1000.0	120.000	100.0	H	66.0
856.561250	33.73	46.00	12.27	1000.0	120.000	100.0	H	112.0

**Figure 13: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization on mode 5**


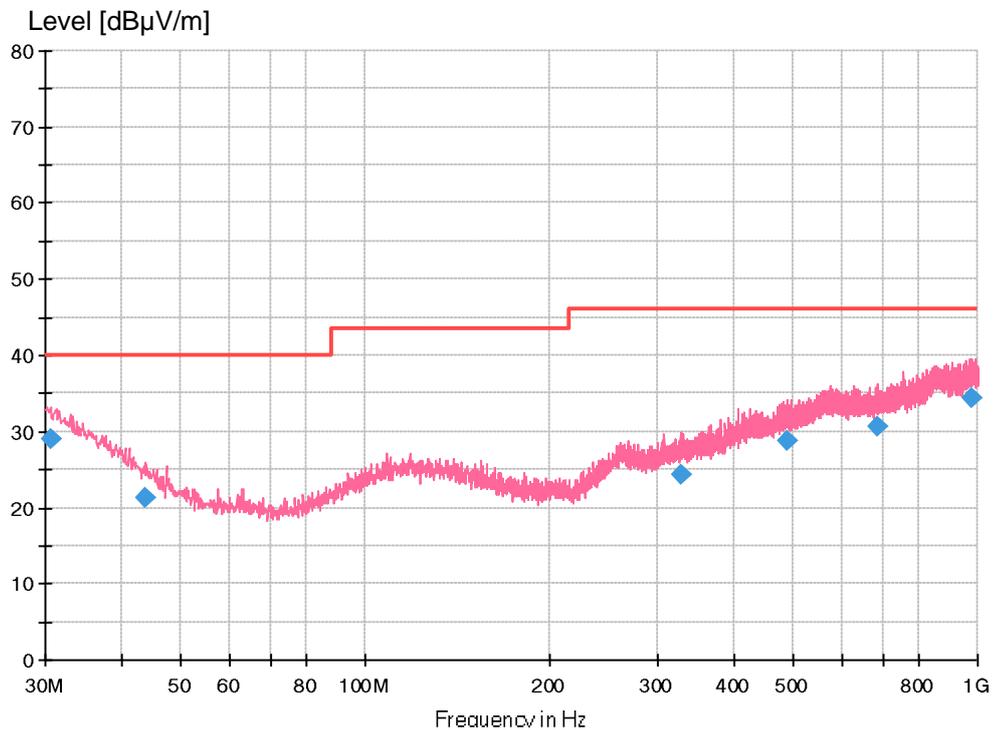
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
31.212500	28.51	40.00	11.49	1000.0	120.000	120.0	V	-61.0
42.731250	21.89	40.00	18.11	1000.0	120.000	100.0	V	135.0
342.340000	24.66	46.00	21.34	1000.0	120.000	120.0	V	-180.0
491.477500	28.74	46.00	17.26	1000.0	120.000	100.0	V	136.0
596.965000	30.75	46.00	15.25	1000.0	120.000	230.0	V	50.0
987.026250	34.29	46.00	11.71	1000.0	120.000	100.0	V	157.0

**Figure 14: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization on mode 6**


Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
31.576250	28.33	40.00	11.67	1000.0	120.000	121.0	H	-30.0
42.731250	21.90	40.00	18.10	1000.0	120.000	203.0	H	173.0
349.130000	24.96	46.00	21.04	1000.0	120.000	170.0	H	21.0
494.993750	28.78	46.00	17.22	1000.0	120.000	230.0	H	140.0
585.931250	30.53	46.00	15.47	1000.0	120.000	120.0	H	68.0
987.996250	34.31	46.00	11.69	1000.0	120.000	100.0	H	14.0

**Figure 15: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization on mode 6**


Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
30.606250	28.89	40.00	11.11	1000.0	120.000	230.0	V	149.0
43.822500	21.33	40.00	18.67	1000.0	120.000	170.0	V	-114.0
326.820000	24.30	46.00	21.70	1000.0	120.000	190.0	V	-124.0
487.233750	28.72	46.00	17.28	1000.0	120.000	100.0	V	36.0
688.630000	30.60	46.00	15.40	1000.0	120.000	120.0	V	25.0
981.570000	34.32	46.00	11.68	1000.0	120.000	230.0	V	-157.0

## **6 Photographs of the Test Set-Up**

Refer to the test setup file.

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## 7 List of Test and Measurement Instruments

Equip. no.	Equipment name	Model	Serial no.	Manufacturer	Cal. date	Due date
EMC-S-028	EMI measurement software	EMC32-E+ (10.60.20)	100150	Rohde & Schwarz	N/A	N/A
EMC-C-366	Thermohygrometer	608-H1	2485149174	testo	2024-07-26	2025-07-26
EMC-C-195	EMI test receiver	ESR3	102794	Rohde & Schwarz	2024-08-03	2025-08-03
EMC-C-190	Artificial mains network	ENV432	101514	Rohde & Schwarz	2024-10-11	2025-10-11
EMC-S-032	EMI measurement software	EMC32-MEB (10.60.20)	100697	Rohde & Schwarz	N/A	N/A
EMC-C-155	BiLog antenna	CBL 6112D	40530	Teseq	2025-03-24	2026-03-24
EMC-C-121	Thermohygrometer	608-H1	1241320265	testo	2024-06-25	2025-06-25
EMC-C-066	EMI test receiver	ESCI	100280	Rohde & Schwarz	2024-10-17	2025-10-17
EMC-C-001	3 m semi-anechoic chamber	SAC3	FJ129002	Frankonia	2023-12-03	2026-12-03

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Figure 7: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L on mode 4	<b>Error! Bookmark not defined.</b>
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**End of test report**