

Prüfbericht-Nr.: Test report no.:	CN249VT3 001	Auftrags-Nr.: Order no.:	326066475	Seite 1 von 36 Page 1 of 36
Kunden-Referenz-Nr.: Client reference no.:	1288983	Auftragsdatum: Order date:	2024-12-02	
Auftraggeber: Client:	IKEA of Sweden AB Box 702, SE-343 81 Älmhult, Sweden			
Prüfgegenstand: Test item:	Table lamp			
Bezeichnung / Typ-Nr.: Identification / Type no.:	B2408			
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:	2025-05-20	Refer to the EUT photos file		
Prüfmuster-Nr.: Test sample no.:	A003997875-008 A003878506-001			
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:	<i>Jessie Xu</i> Jessie Xu	genehmigt von: authorized by:	<i>JiaYi Zhou</i> JiaYi Zhou	
Datum: Date:	2025-07-28	Ausstellungsdatum: Issue date:	2025-07-28	
Stellung / Position:	Project engineer	Stellung / Position:	Authorizer	
Sonstiges / Other:	FCC ID: FHO-B2408 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
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Test report no.:

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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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*Page 3 of 36***Revision history of test report:**

Report number	Issue date	Contents and reason for change if appropriate
CN249VT3 001	2025-07-28	Initial release.

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1 Test Sites

1.1 Test Facilities

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

Address: Workshop 14, 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 : 5 V DC, 5 W
Rechargeable Li-ion Battery
Capacity: DC 7.2 V 2600 mAh

Protection class : Class III

The model B2408 has two kinds of Li-ion Battery, models ICBL7.2-18-B1 and ICBL7.2-18-USBC-B1. Therefore, the EMC tests were performed on sample #1 (ICBL7.2-18-B1) and sample #2 (ICBL7.2-18-USBC-B1) respectively.

2.3 Independent Operation Modes

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

- Mode 1: EUT was charged by power supply and lighting on.
- Mode 2: EUT was charged by laptop and lighting on.
- Mode 3: EUT was powered by internal battery and lighting on.

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 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.

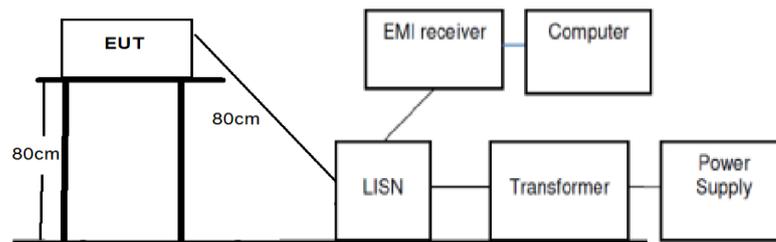
Refer to the related paragraph of this report.

The sequence of testing:

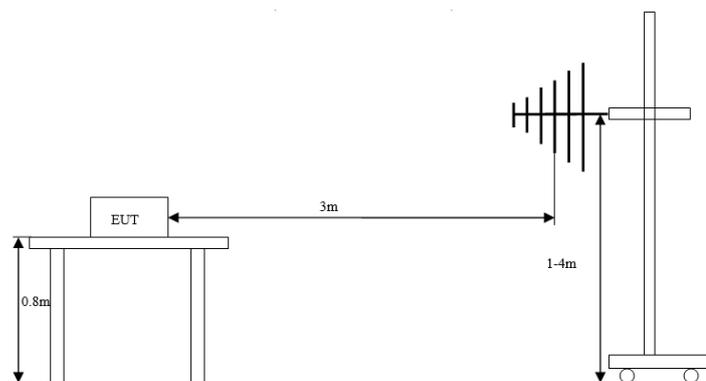
1. Conducted emission tests were performed on 2025-07-24.
2. Radiated emission tests were performed on 2025-06-03~2025-07-24.

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 following auxiliary equipment were used.

No.	Product	Model	Brand
1	Power supply	ICPSW5-5NA-1	IKEA
2	Laptop	T45	ThinkPad
3	USB cable	E2033	IKEA

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	: 2025-07-24
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 and power supply of laptop
Operational mode	: Mode 1: EUT was charged by power supply and lighting on. Mode 2: EUT was charged by laptop and lighting on.
Ambient condition	: Temperature: 16.4 °C; Relative humidity: 49.1 %
Expanded measurement uncertainty ($k=2$)	: 2.33 dB The minimum margin to the limit is 10.71 dB at 0.192750 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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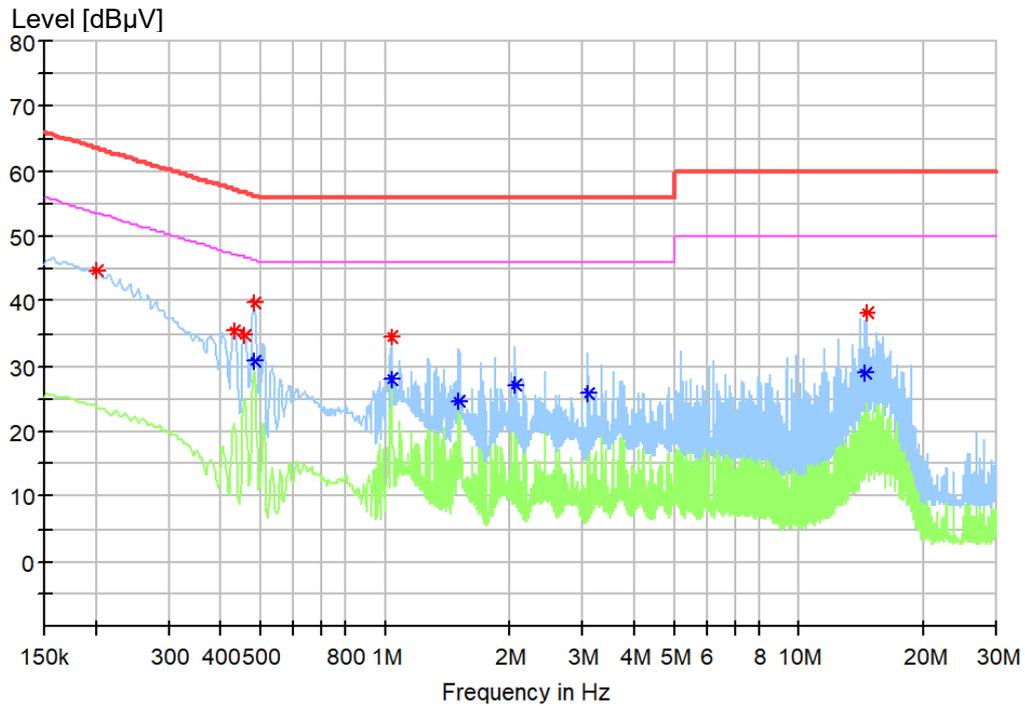
The following figures and tables were those measured by an automatic measuring system. Both quasi-peak and average measurements were performed. In the following spectral diagram, “*” means Quasi-Peak Value and “*” means Average Value results.

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)

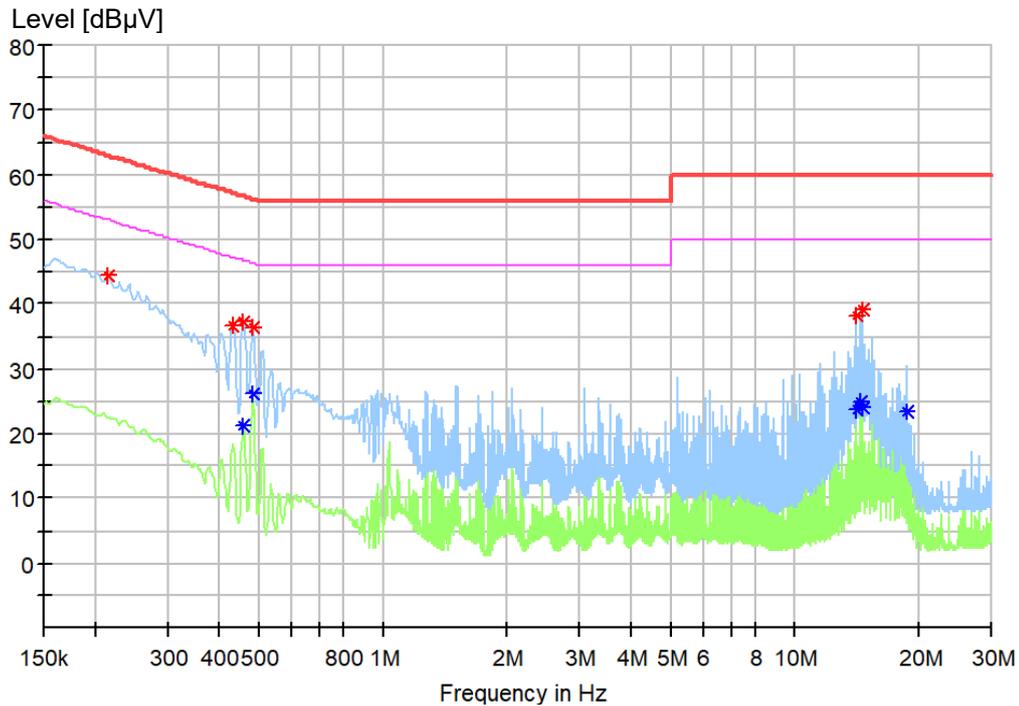
Figure 1: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L, sample #1, mode 1


Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line
0.201750	44.62	63.54	18.91	L1
0.431250	35.49	57.23	21.73	L1
0.458250	34.84	56.72	21.88	L1
0.483000	39.83	56.29	16.46	L1
1.036500	34.39	56.00	21.61	L1
14.545500	38.20	60.00	21.80	L1

Final average measurement result:

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line
0.483000	30.75	46.29	15.54	L1
1.034250	27.97	46.00	18.03	L1
1.513500	24.60	46.00	21.40	L1
2.069250	26.96	46.00	19.04	L1
3.104250	26.02	46.00	19.98	L1
14.491500	29.04	50.00	20.96	L1

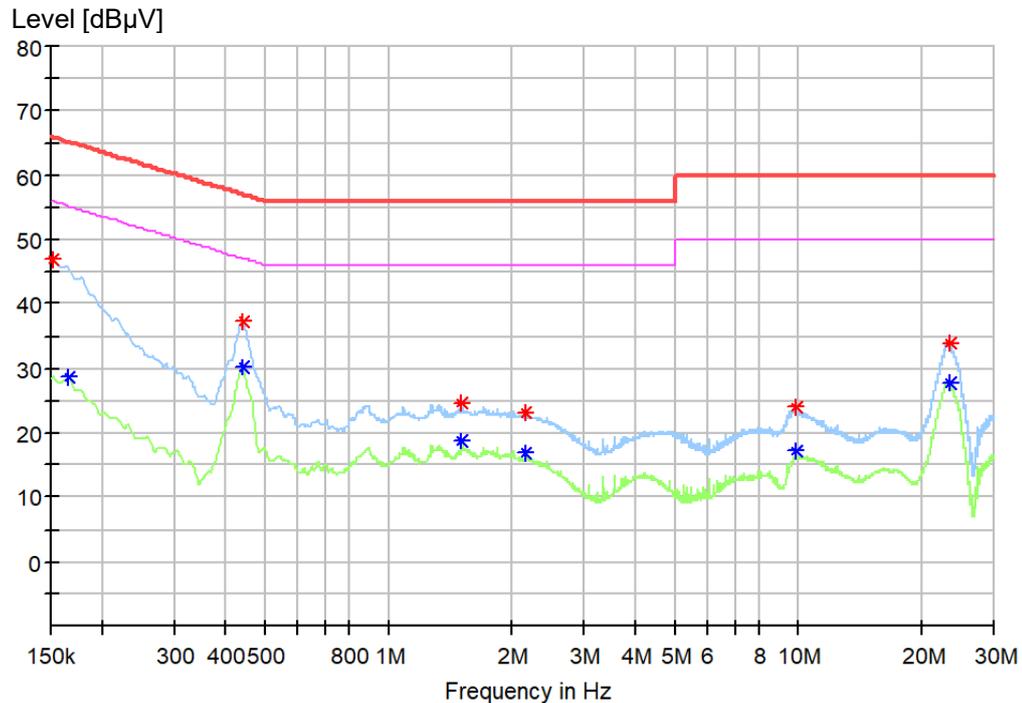
Figure 2: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N, sample #1, mode 1


Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line
0.215250	44.52	63.00	18.48	N
0.431250	36.64	57.23	20.59	N
0.458250	37.47	56.72	19.25	N
0.483000	36.53	56.29	19.76	N
14.127000	38.31	60.00	21.69	N
14.554500	39.16	60.00	20.84	N

Final average measurement result:

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line
0.458250	21.18	46.72	25.55	N
0.483000	26.29	46.29	20.00	N
14.127000	23.63	50.00	26.37	N
14.487000	24.97	50.00	25.03	N
14.552250	24.17	50.00	25.83	N
18.627000	23.46	50.00	26.54	N

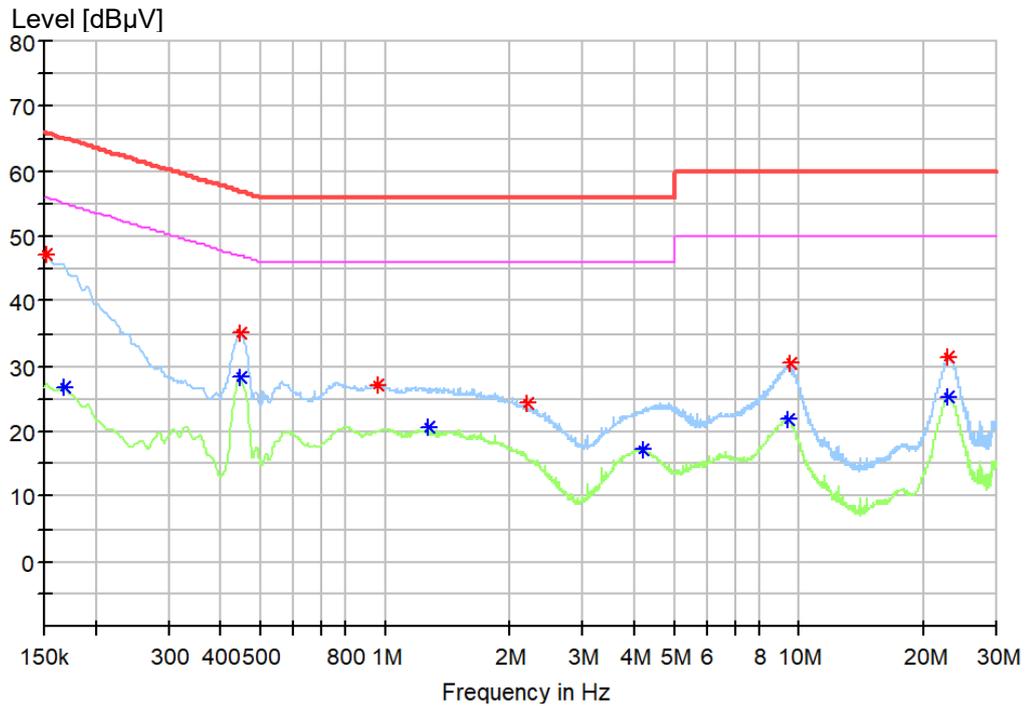
Figure 3: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L, sample #1, mode 2


Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line
0.152250	46.98	65.88	18.90	L1
0.442500	37.44	57.02	19.58	L1
1.513500	24.67	56.00	31.33	L1
2.152500	23.19	56.00	32.81	L1
9.863250	24.13	60.00	35.87	L1
23.293500	33.98	60.00	26.02	L1

Final average measurement result:

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line
0.165750	28.53	55.17	26.64	L1
0.440250	30.18	47.06	16.87	L1
1.513500	18.69	46.00	27.31	L1
2.152500	16.77	46.00	29.23	L1
9.865500	17.13	50.00	32.87	L1
23.295750	27.78	50.00	22.22	L1

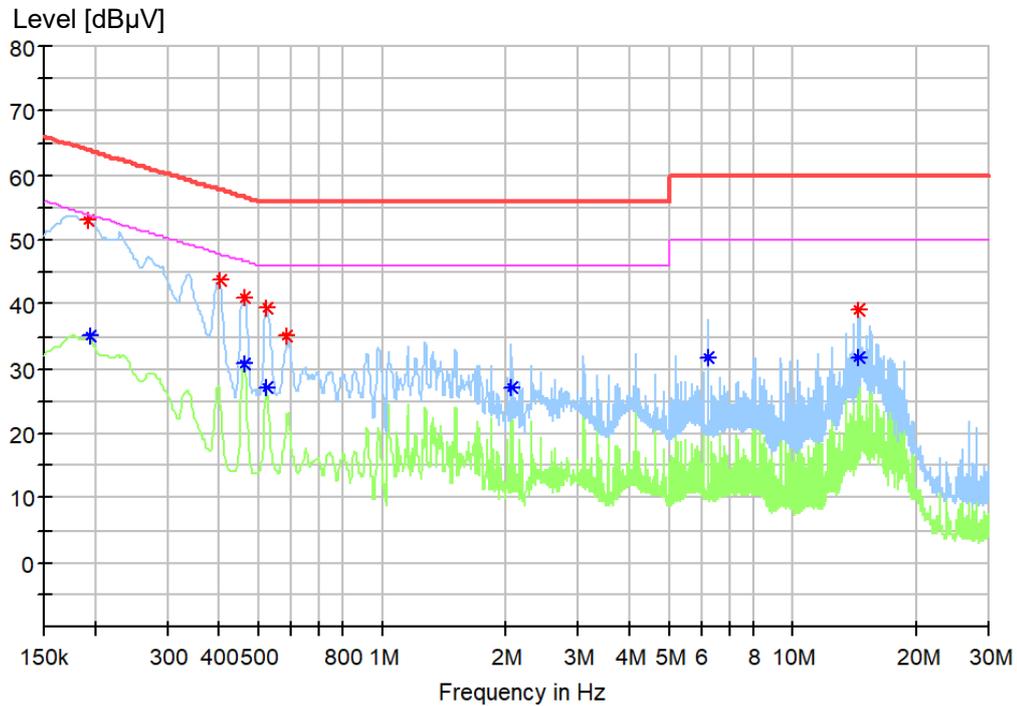
Figure 4: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N, sample #1, mode 2


Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line
0.152250	47.18	65.88	18.70	N
0.447000	35.03	56.93	21.90	N
0.960000	27.21	56.00	28.79	N
2.202000	24.23	56.00	31.77	N
9.474000	30.37	60.00	29.63	N
22.904250	31.39	60.00	28.61	N

Final average measurement result:

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line
0.168000	26.88	55.06	28.18	N
0.444750	28.42	46.97	18.55	N
1.277250	20.53	46.00	25.47	N
4.211250	17.19	46.00	28.81	N
9.440250	21.90	50.00	28.10	N
22.902000	25.40	50.00	24.60	N

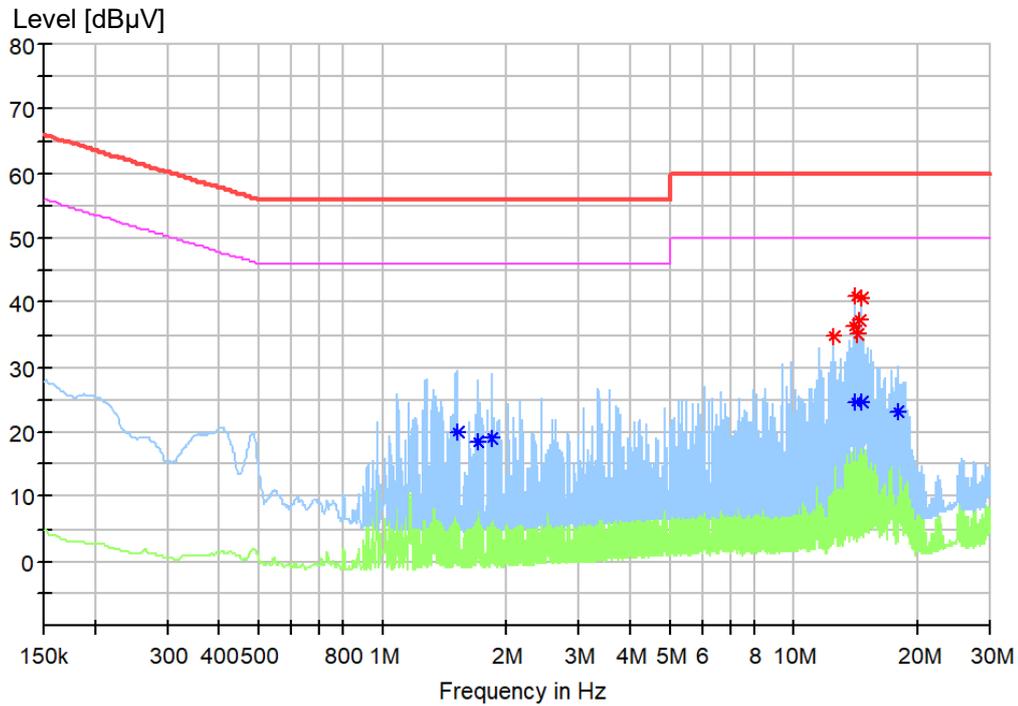
Figure 5: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L, sample #2, mode 1


Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBuV)	Limit (dBuV)	Margin (dB)	Line
0.192750	53.21	63.92	10.71	L1
0.402000	43.93	57.81	13.88	L1
0.460500	40.97	56.68	15.72	L1
0.523500	39.64	56.00	16.36	L1
0.586500	35.03	56.00	20.97	L1
14.496000	39.25	60.00	20.75	L1

Final average measurement result:

Frequency (MHz)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line
0.195000	35.01	53.82	18.81	L1
0.460500	30.89	46.68	15.80	L1
0.523500	27.03	46.00	18.97	L1
2.071500	27.17	46.00	18.83	L1
6.211500	31.61	50.00	18.39	L1
14.496000	31.65	50.00	18.35	L1

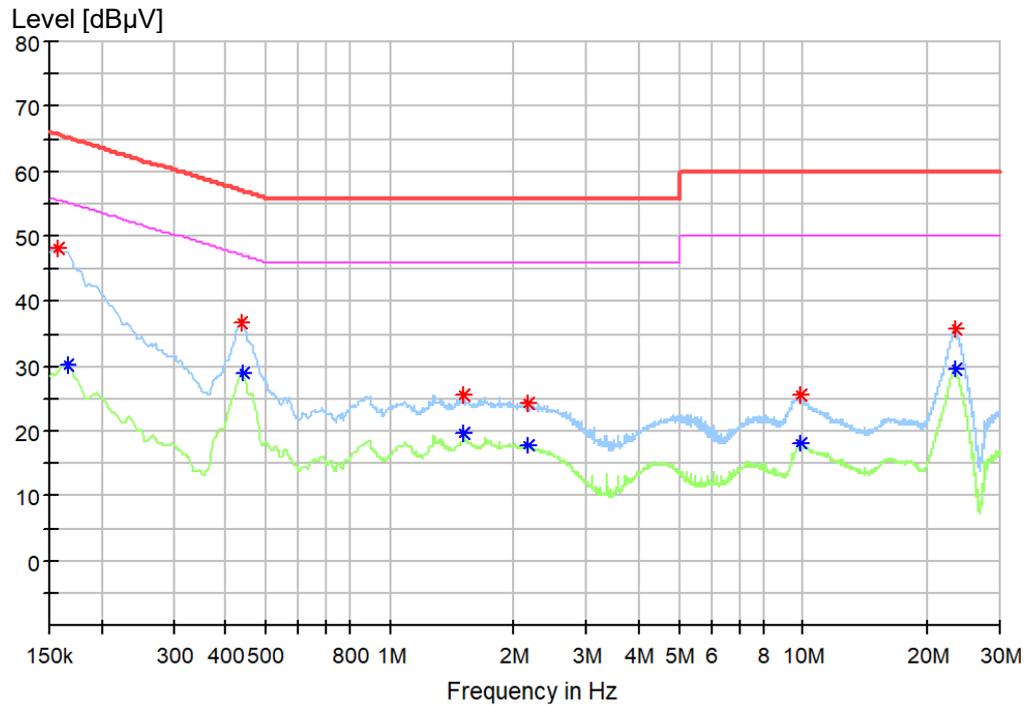
Figure 6: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N, sample #2, mode 1


Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line
12.428250	34.99	60.00	25.01	N
13.942500	36.49	60.00	23.51	N
14.131500	41.08	60.00	18.92	N
14.226000	35.01	60.00	24.99	N
14.392500	37.34	60.00	22.66	N
14.559000	40.65	60.00	19.35	N

Final average measurement result:

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line
1.515750	19.87	46.00	26.13	N
1.704750	18.41	46.00	27.59	N
1.846500	19.17	46.00	26.83	N
14.133750	24.73	50.00	25.27	N
14.559000	24.68	50.00	25.32	N
17.920500	23.08	50.00	26.92	N

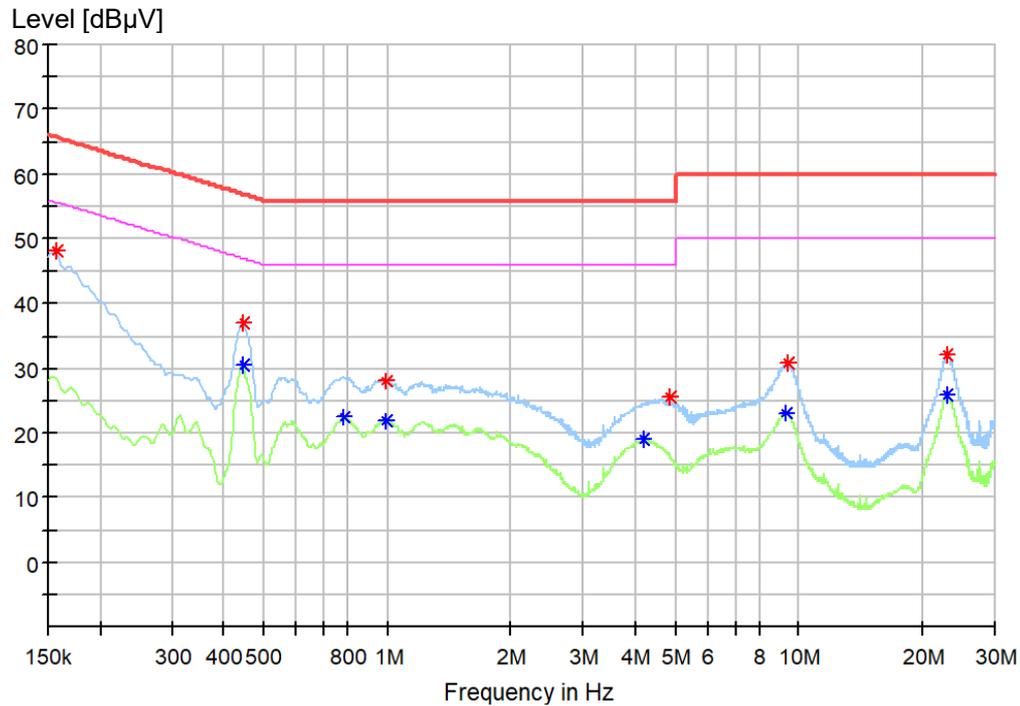
Figure 7: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L, sample #2, mode 2


Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBuV)	Limit (dBuV)	Margin (dB)	Line
0.156750	48.10	65.63	17.53	L1
0.438000	36.74	57.10	20.36	L1
1.513500	25.55	56.00	30.45	L1
2.152500	24.25	56.00	31.75	L1
9.863250	25.43	60.00	34.57	L1
23.388000	35.82	60.00	24.18	L1

Final average measurement result:

Frequency (MHz)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line
0.165750	30.25	55.17	24.92	L1
0.440250	29.01	47.06	18.05	L1
1.513500	19.62	46.00	26.38	L1
2.152500	17.84	46.00	28.16	L1
9.863250	18.25	50.00	31.75	L1
23.316000	29.51	50.00	20.49	L1

Figure 8: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N, sample #2, mode 2


Final quasi-peak measurement result:

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line
0.156750	48.12	65.63	17.52	N
0.444750	37.14	56.97	19.83	N
0.989250	28.02	56.00	27.98	N
4.827750	25.44	56.00	30.56	N
9.460500	30.85	60.00	29.15	N
22.913250	32.14	60.00	27.86	N

Final average measurement result:

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line
0.444750	30.55	46.97	16.42	N
0.782250	22.34	46.00	23.66	N
0.996000	21.92	46.00	24.08	N
4.211250	18.96	46.00	27.04	N
9.291750	23.07	50.00	26.93	N
22.904250	25.95	50.00	24.05	N

5.2 Emission in the Frequency Range above 30 MHz

5.2.1 Radiated emission (30-1000 MHz)

Result:	Passed
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Date of testing	: 2025-06-03~2025-07-24
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 for power supply and power supply of laptop
Operational mode	: Mode 1: EUT was charged by power supply and lighting on. Mode 2: EUT was charged by laptop and lighting on. Mode 3: EUT was powered by internal battery and lighting on.
Ambient condition	: Temperature: 15.3 °C; Relative humidity: 49.3 %
Expanded measurement uncertainty ($k=2$)	: 5.40 dB The minimum margin to the limit is 6.0 dB at 59.342500 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.

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)

Prüfbericht - Nr.: CN249VT3 001

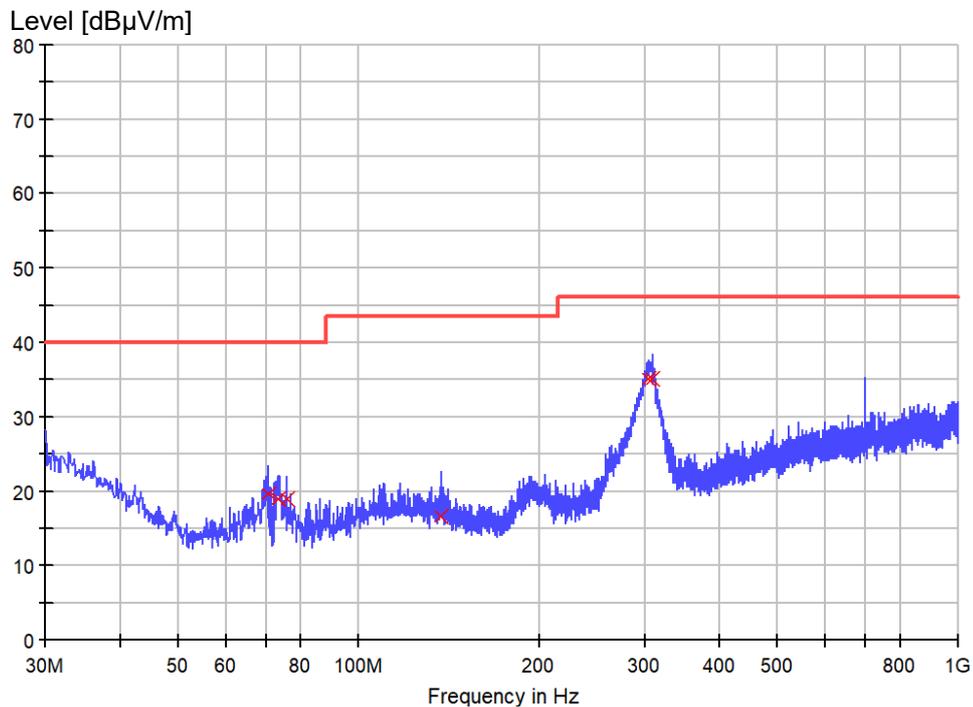
Test Report No.:

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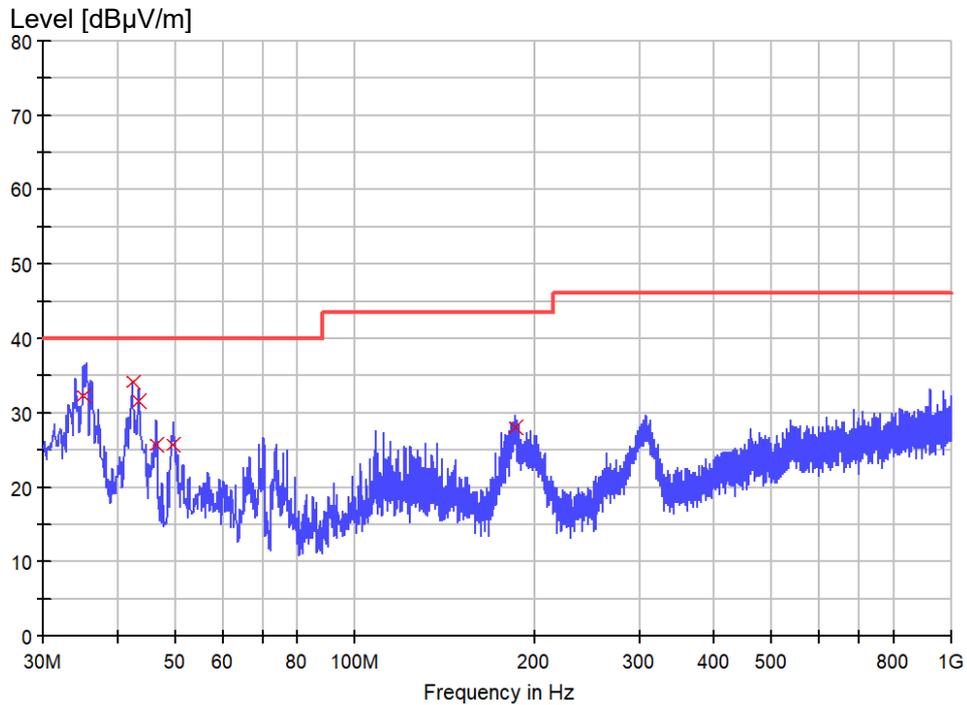
Note 1: The highest frequency in the EUT is less than 108 MHz. According to FCC Part 15 subpart B §15.33 (b) (1), the upper frequency for radiated emission measurement is 1000 MHz.

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 9: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization, sample #1, mode 1


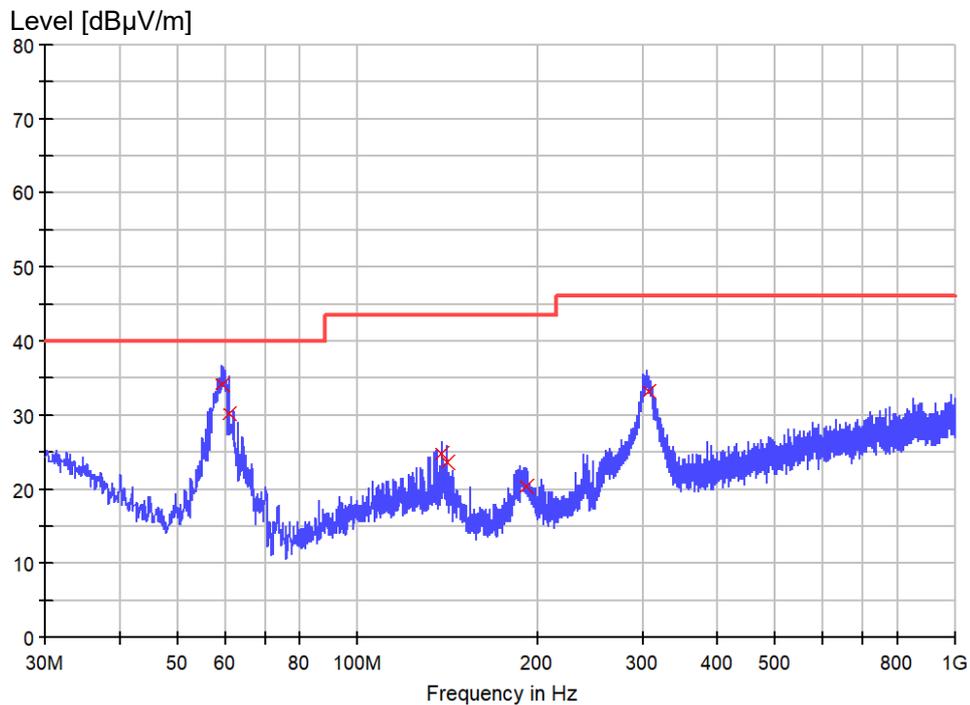
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
70.497500	19.7	1000.0	120.000	158.0	H	-167.0	12.9	20.3	40.0
73.528750	19.0	1000.0	120.000	163.0	H	-153.0	13.1	21.0	40.0
75.953750	18.9	1000.0	120.000	177.0	H	82.0	13.3	21.1	40.0
136.821250	16.5	1000.0	120.000	165.0	H	114.0	18.2	27.0	43.5
304.510000	35.1	1000.0	120.000	157.0	H	67.0	20.6	10.9	46.0
309.360000	35.2	1000.0	120.000	184.0	H	-139.0	20.2	10.8	46.0

Figure 10: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization, sample #1, mode 1


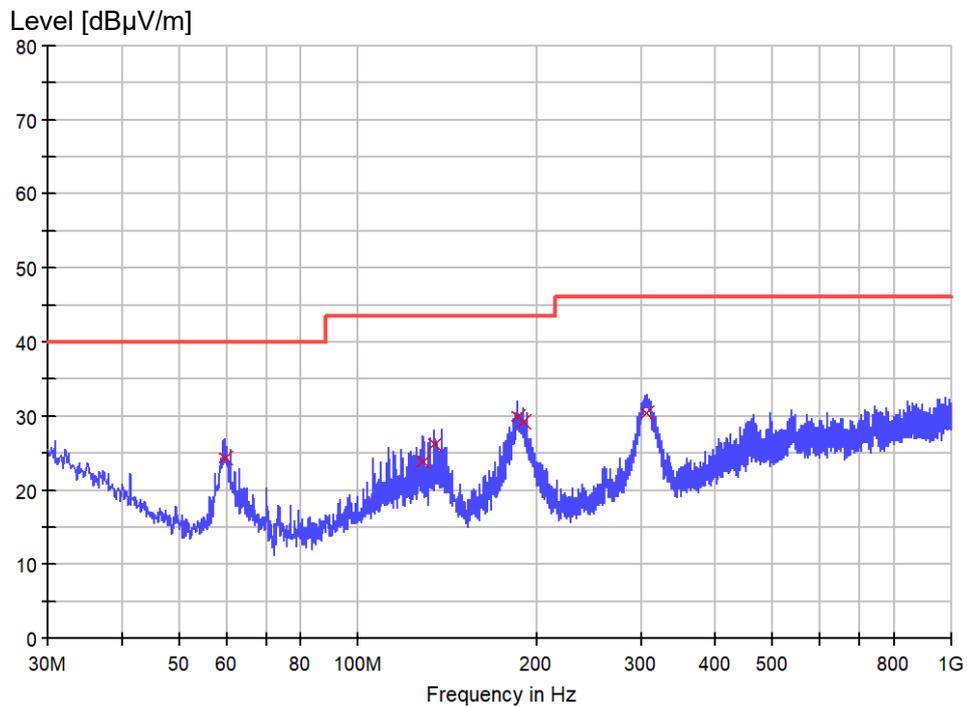
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
35.092500	32.3	1000.0	120.000	181.0	V	-138.0	22.6	7.7	40.0
42.367500	33.9	1000.0	120.000	156.0	V	-110.0	18.5	6.1	40.0
43.458750	31.7	1000.0	120.000	161.0	V	-91.0	17.9	8.3	40.0
46.490000	25.6	1000.0	120.000	192.0	V	-77.0	16.3	14.4	40.0
49.521250	25.7	1000.0	120.000	164.0	V	-119.0	15.0	14.3	40.0
185.442500	28.0	1000.0	120.000	161.0	V	10.0	15.9	15.5	43.5

Figure 11: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization, sample #1, mode 2


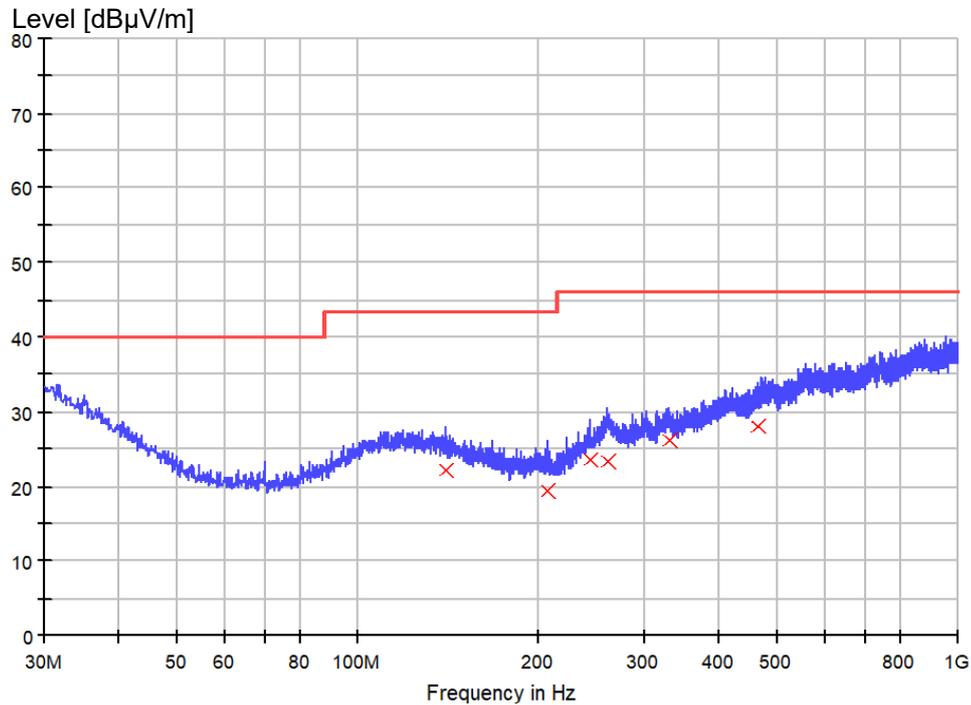
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
59.342500	34.0	1000.0	120.000	106.0	H	-170.0	12.7	6.0	40.0
60.918750	30.3	1000.0	120.000	173.0	H	64.0	12.6	9.7	40.0
138.033750	24.8	1000.0	120.000	186.0	H	168.0	18.1	18.8	43.5
141.428750	23.5	1000.0	120.000	184.0	H	-143.0	17.9	20.0	43.5
191.990000	20.4	1000.0	120.000	166.0	H	62.0	15.8	23.1	43.5
305.965000	33.1	1000.0	120.000	161.0	H	103.0	20.5	12.9	46.0

Figure 12: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization, sample #1, mode 2


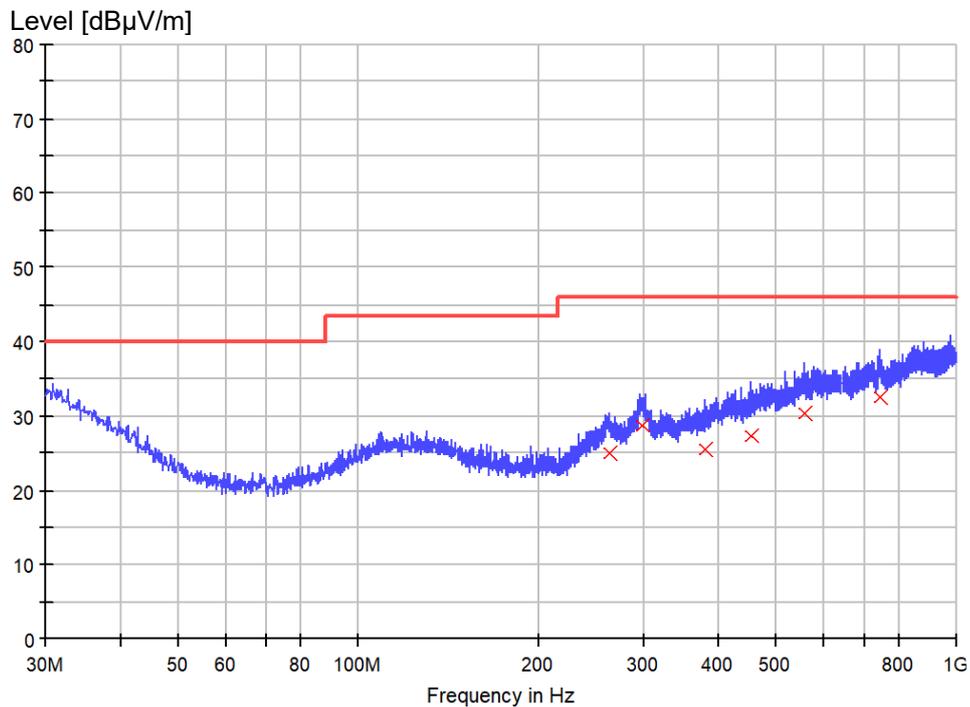
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
59.463750	24.4	1000.0	120.000	185.0	V	17.0	12.7	15.6	40.0
128.697500	23.8	1000.0	120.000	132.0	V	69.0	18.6	19.7	43.5
134.517500	26.1	1000.0	120.000	161.0	V	-81.0	18.3	17.4	43.5
186.291250	30.0	1000.0	120.000	167.0	V	-163.0	15.9	13.5	43.5
189.686250	29.3	1000.0	120.000	200.0	V	91.0	15.8	14.2	43.5
307.298750	30.3	1000.0	120.000	126.0	V	86.0	20.4	15.7	46.0

Figure 13: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization, sample #1, mode 3


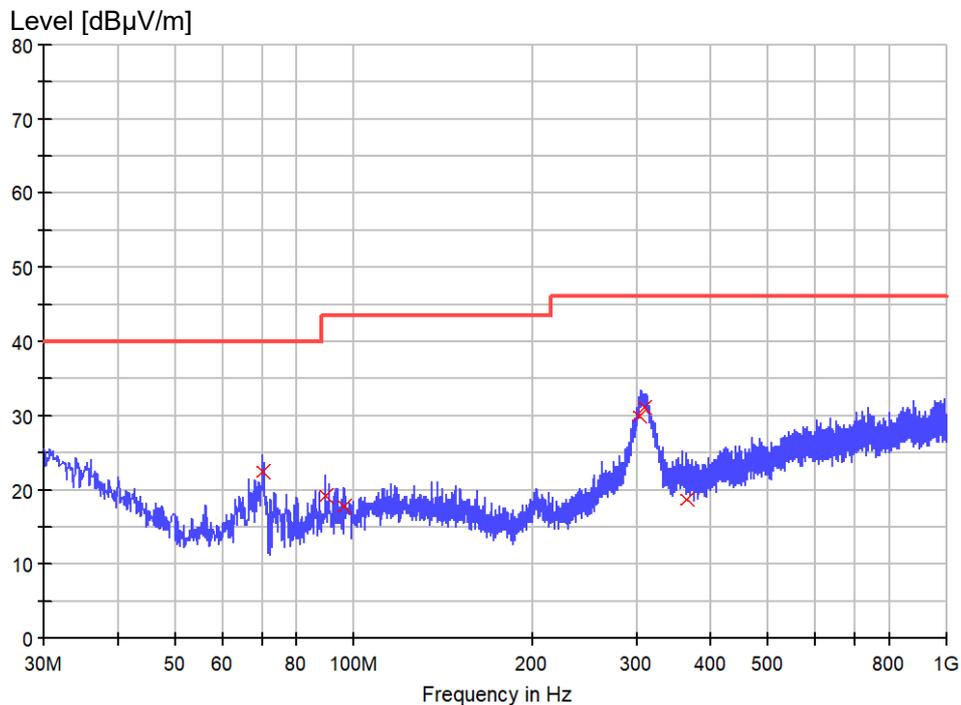
Final quasi-peak measurement results:

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)
139.852500	22.1	1000.0	120.000	168.0	H	-82.0	18.0	21.4	43.5
207.388750	19.3	1000.0	120.000	140.0	H	130.0	16.2	24.2	43.5
243.278750	23.7	1000.0	120.000	110.0	H	94.0	19.1	22.3	46.0
261.708750	23.5	1000.0	120.000	120.0	H	123.0	21.7	22.5	46.0
330.942500	26.1	1000.0	120.000	183.0	H	108.0	21.4	19.9	46.0
464.438750	28.1	1000.0	120.000	168.0	H	53.0	24.7	17.9	46.0

Figure 14: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization, sample #1, mode 3


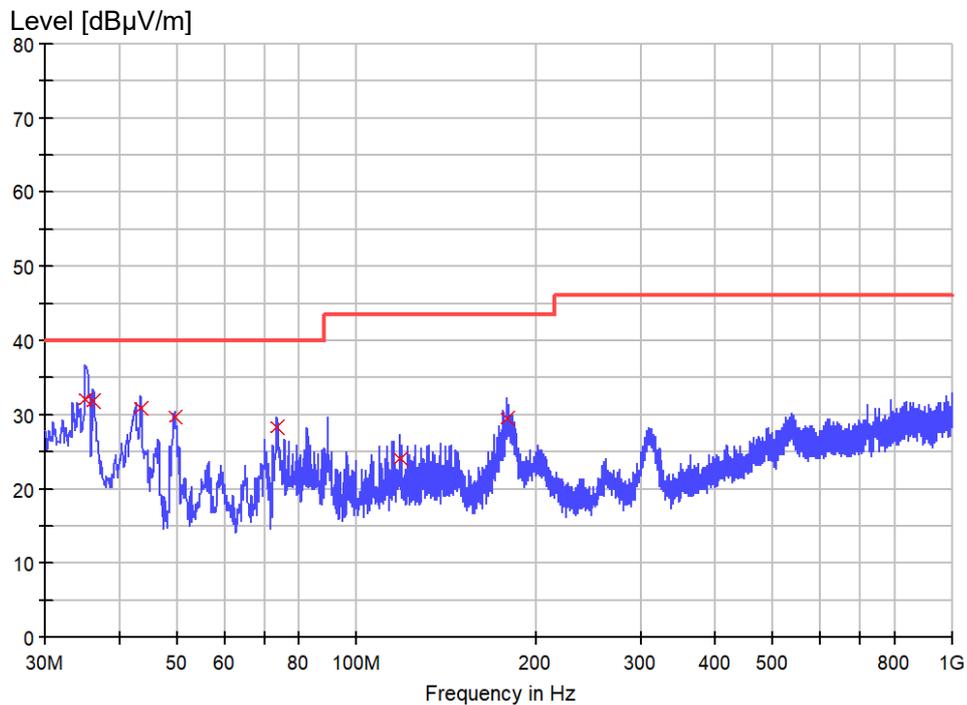
Final quasi-peak measurement results:

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)
263.042500	25.1	1000.0	120.000	167.0	V	178.0	21.6	21.0	46.0
297.962500	28.7	1000.0	120.000	126.0	V	-179.0	20.6	17.3	46.0
379.685000	25.6	1000.0	120.000	174.0	V	135.0	22.2	20.4	46.0
452.920000	27.5	1000.0	120.000	158.0	V	37.0	24.0	18.5	46.0
556.588750	30.3	1000.0	120.000	181.0	V	-91.0	26.5	15.7	46.0
743.192500	32.6	1000.0	120.000	164.0	V	-88.0	29.0	13.4	46.0

Figure 15: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization, sample #2, mode 1


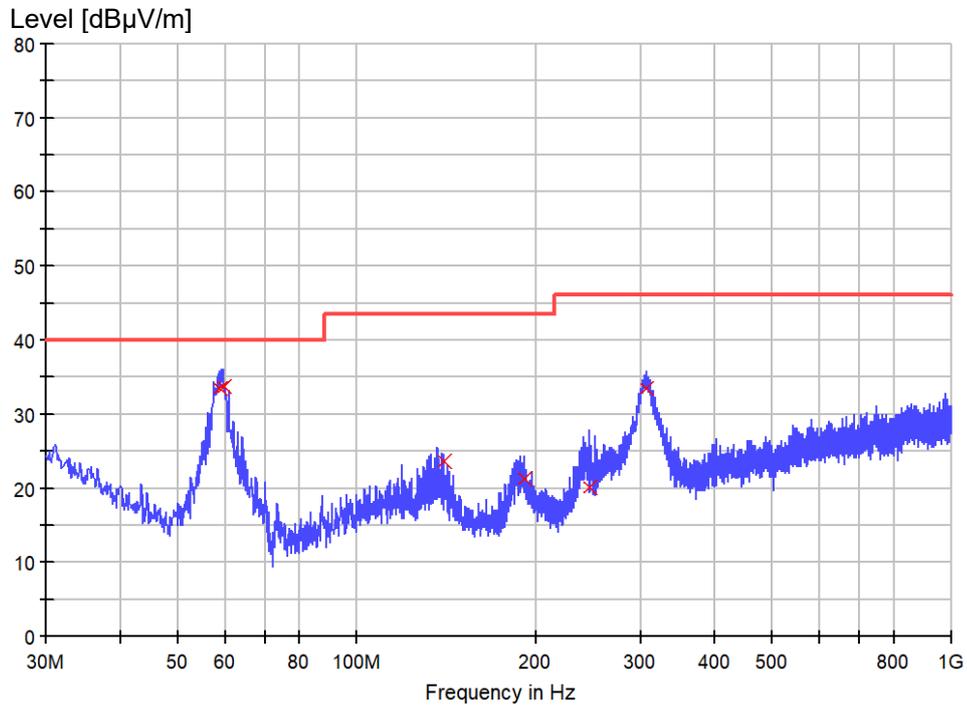
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
70.133750	22.6	1000.0	120.000	193.0	H	9.0	12.9	17.4	40.0
89.655000	19.3	1000.0	120.000	132.0	H	60.0	15.3	24.2	43.5
96.566250	17.8	1000.0	120.000	107.0	H	146.0	16.7	25.7	43.5
302.933750	29.9	1000.0	120.000	170.0	H	19.0	20.7	16.1	46.0
310.087500	31.1	1000.0	120.000	167.0	H	-111.0	20.2	14.9	46.0
364.892500	18.8	1000.0	120.000	119.0	H	-122.0	21.9	27.2	46.0

Figure 16: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization, sample #2, mode 1


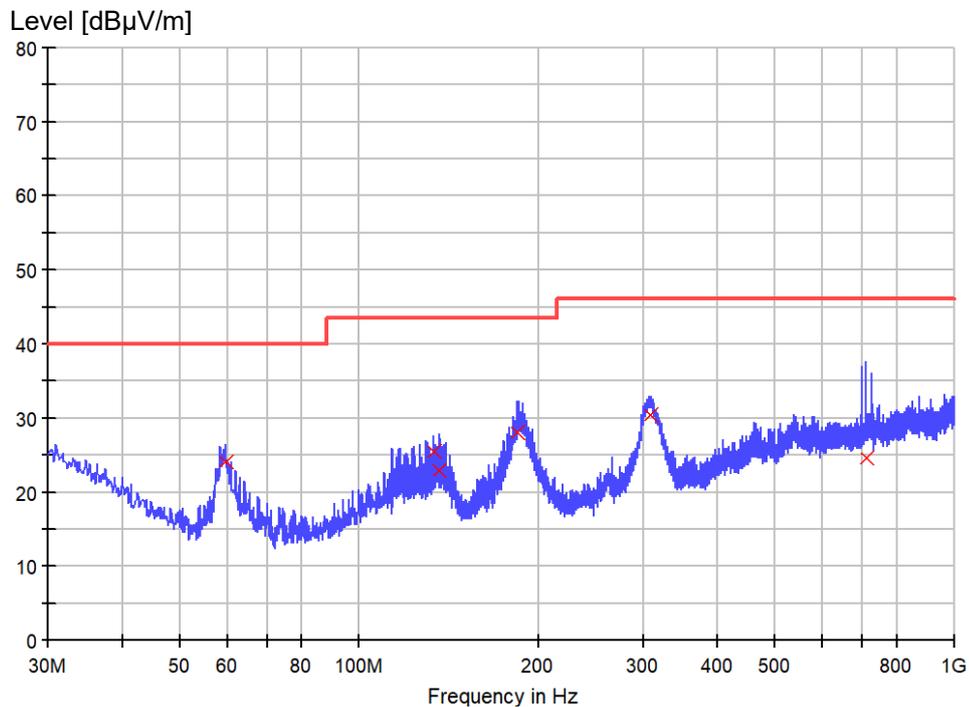
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
35.092500	32.1	1000.0	120.000	104.0	V	-159.0	22.6	7.9	40.0
36.183750	31.8	1000.0	120.000	150.0	V	179.0	22.0	8.3	40.0
43.458750	31.0	1000.0	120.000	131.0	V	-94.0	17.9	9.0	40.0
49.400000	29.7	1000.0	120.000	143.0	V	-98.0	15.0	10.3	40.0
73.528750	28.4	1000.0	120.000	106.0	V	86.0	13.1	11.6	40.0
118.270000	24.0	1000.0	120.000	134.0	V	87.0	18.8	19.5	43.5
179.258750	29.5	1000.0	120.000	105.0	V	-123.0	16.1	14.1	43.5

Figure 17: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization, sample #2, mode 2


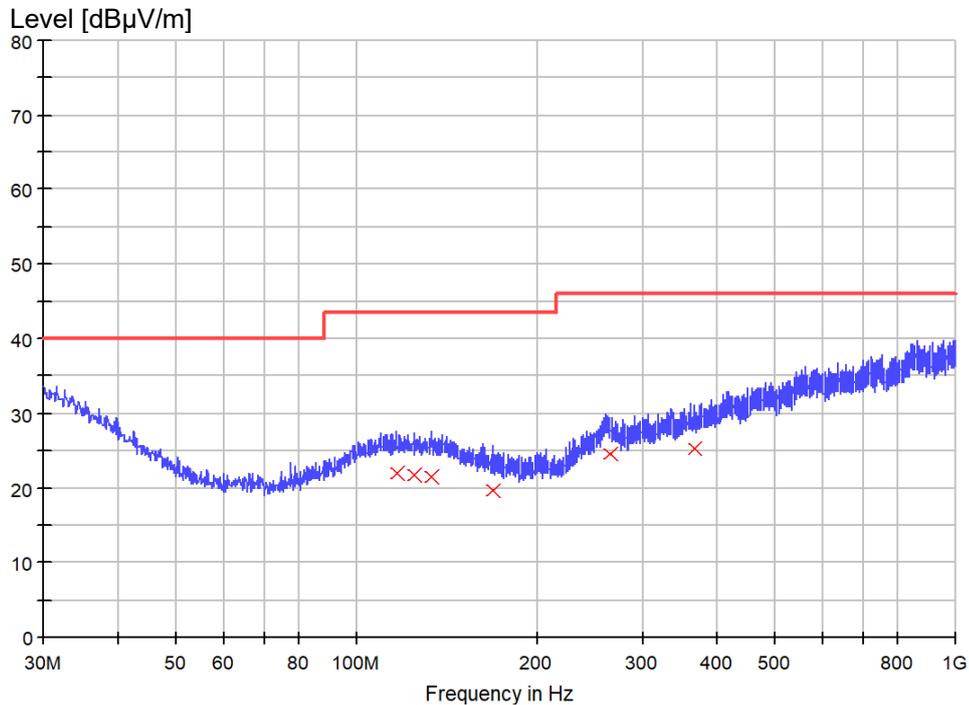
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
58.615000	33.5	1000.0	120.000	169.0	H	-21.0	12.8	6.5	40.0
59.463750	33.8	1000.0	120.000	154.0	H	176.0	12.7	6.2	40.0
140.095000	23.6	1000.0	120.000	181.0	H	-127.0	18.0	19.9	43.5
191.868750	21.2	1000.0	120.000	161.0	H	90.0	15.8	22.3	43.5
245.218750	20.1	1000.0	120.000	140.0	H	164.0	19.2	25.9	46.0
307.662500	33.5	1000.0	120.000	194.0	H	-63.0	20.3	12.5	46.0

Figure 18: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization, sample #2, mode 2


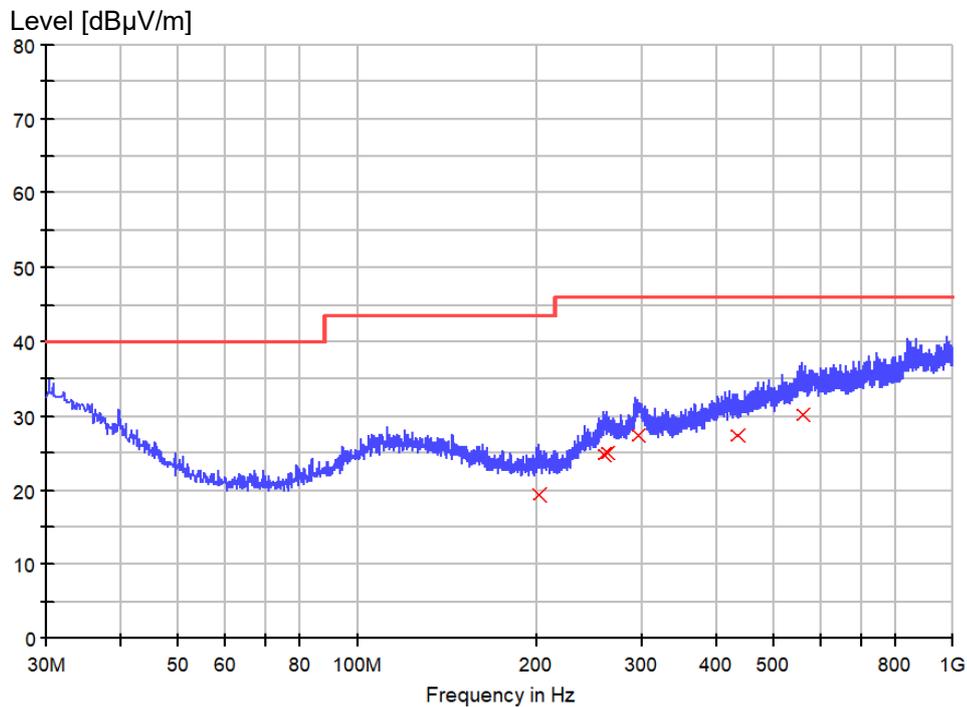
Final quasi-peak measurement results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
59.463750	24.2	1000.0	120.000	148.0	V	-60.0	12.7	15.8	40.0
133.183750	25.6	1000.0	120.000	200.0	V	-168.0	18.4	18.0	43.5
136.578750	22.9	1000.0	120.000	154.0	V	-91.0	18.2	20.6	43.5
184.836250	28.1	1000.0	120.000	119.0	V	54.0	15.9	15.4	43.5
308.875000	30.4	1000.0	120.000	119.0	V	180.0	20.3	15.7	46.0
712.031250	24.5	1000.0	120.000	103.0	V	160.0	27.6	21.5	46.0

Figure 19: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization, sample #2, mode 3


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)
116.572500	22.0	1000.0	120.000	175.0	H	-89.0	18.8	21.6	43.5
124.575000	21.8	1000.0	120.000	137.0	H	6.0	18.7	21.7	43.5
133.183750	21.6	1000.0	120.000	132.0	H	39.0	18.4	21.9	43.5
168.225000	19.6	1000.0	120.000	177.0	H	-53.0	16.4	23.9	43.5
264.861250	24.5	1000.0	120.000	113.0	H	179.0	21.3	21.5	46.0
366.832500	25.3	1000.0	120.000	177.0	H	177.0	21.9	20.7	46.0

Figure 20: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization, sample #2, mode 3


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)
201.932500	19.4	1000.0	120.000	164.0	V	-151.0	16.1	24.1	43.5
259.405000	24.7	1000.0	120.000	159.0	V	-7.0	21.3	21.3	46.0
263.042500	25.0	1000.0	120.000	104.0	V	-114.0	21.6	21.0	46.0
296.750000	27.4	1000.0	120.000	186.0	V	131.0	20.5	18.6	46.0
433.641250	27.3	1000.0	120.000	134.0	V	-42.0	23.8	18.7	46.0
556.467500	30.3	1000.0	120.000	104.0	V	18.0	26.5	15.7	46.0

6 Photographs of the Test Set-Up

Refer to the test setup file.

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	2028-03-24
EMC-C-121	Thermohygrometer	608-H1	1241320265	testo	2025-06-05	2026-06-05
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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End of test report