Prüfbericht-Nr.: *Test report no.*:	**CN24XE6B 001**	**Auftrags-Nr.:** *Order no.*:	**244546463**	**Seite 1 von 47** *Page 1 of 47*
Kunden-Referenz-Nr.: *Client reference no.*:	**2419390**	**Auftragsdatum:** *Order date:*	**2023-09-21**	
Auftraggeber: *Client*:	**RUNHOOD POWER INC.** 3980-D Valley Blvd, Walnut, California, United States			
Prüfgegenstand: *Test item*:	**RESIDENTIAL ESS & PORTABLE POWER STATION**			
Bezeichnung / Typ-Nr.: *Identification / Type no.*:	**F3600-US**			
Auftrags-Inhalt: *Order content*:	**TÜV Rheinland EMC service**			
Prüfgrundlage: *Test specification*:	**FCC 47 CFR Part 15, Subpart B:2022 Class B** **ICES-003:2020** **ICES-005:2018**			
Wareneingangsdatum: *Date of sample receipt*:	**2024-01-11**	Refer to the EUT photos file		
Prüfmuster-Nr.: *Test sample no:*	**A003661104-002**			
Prüfzeitraum: *Testing period*:	**Refer to test report**			
Ort der Prüfung: *Place of testing*:	**Refer to clause 1.1**			
Prüflaboratorium: *Testing laboratory:*	**TÜV Rheinland (Suzhou) Co., Ltd.**			
Prüfergebnis*: *Test result**:	**Pass**			

geprüft von:
tested by: Jessie Xu

Datum:
Date: 2024-03-05

Stellung / Position: Project engineer

genehmigt von:
authorized by: Jiayi Zhou

Ausstellungsdatum:
Issue date: 2024-03-05

Stellung / Position: Reviewer

Sonstiges /
Other:
FCC ID: 2BB59-F3600-US
Test Firm Name: TÜV Rheinland (Suzhou) Co., Ltd.
Test Firm Registration Number: 251781
Designation Number: CN1370

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*

TUV Rheinland (Suzhou) Co., Ltd. No.14 building and north half of No.10 workshop building, No.525, Yuewang Lingang South Road, Pingqian (Taicang) Modern Industrial Park, Shaxi Town, Taicang City, Jiangsu Province, China
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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. *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.*
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4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnisen 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 bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. 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.

TEST SUMMARY

5.1.1 CONDUCTED EMISSION
Result:
Passed

5.2.1 RADIATED EMISSION (30 – 1000 MHZ)
Result:
Passed

5.2.2 RADIATED EMISSION (ABOVE 1 GHZ)
Result:
Passed

Contents

1 Test Sites

1.1 Test Facilities

Laboratory: TÜV Rheinland (Suzhou) Co., Ltd.
Address: No.14 building and north half of No.10 workshop building, No.525, Yuewang Lingang South Road, Pingqian (Taicang) Modern Industrial Park, Shaxi Town, Taicang City, Jiangsu Province, 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 power station. For the further information, refer to the user's manual.

2.2 Ratings and System Details

AC Input	:	AC 120 V, 15 A, 1800 W Max
EV Input	:	AC 120 V, 30 A, 3400 W Max
DC Input	:	DC 12~150 V, 25 A, 2400 W Max
AC Output	:	AC 120 V, 60 Hz, 3600 W (7200 W Surge), 20 A*4, 30 A*1
Back Up Output	:	AC 120 V, 60 Hz, 3600 W (7200 W Surge), 30 A*1
DC Output	:	2*USB-A 12 W Max (5V DC/2.4 A) 2*USB-A QC3.0 28 W Max (5V DC/3A, 9V DC/3A, 12 V DC/2.4 A). 2*USB-C PD 100 W Max (5V DC/3A, 9V DC/3A, 15V DC/3A, 20 V DC/5A). 1* Anderson 12 V DC/24 V DC 30 A 720 W Max 1*Car port 12 V DC 10 A 120 W Max.
Max. Charging Current	:	55 A
Max. Discharging Current	:	140 A
Protection class	:	II

2.3 Independent Operation Modes

The basic operation modes are: "On" and "Off".
The test modes are following:

Test mode	Input	Output
Mode 1	AC Input: 120 V, 60 Hz, 1800 W	AC output: 120 V, 60 Hz, total 1800 W USB A output(x2): 5 V/2.4 A, 12 W USB C output(x2): 20 V/ 5 A, 100 W Anderson (x1) 24 V, 30 A, 720 W Car DC port: 12 V/10 A, 120 W
Mode 2	AC Input: 120 V, 60 Hz, 1800 W	AC output: 120 V, 60 Hz, total 1800 W USB A output(x2): 5 V/2.4 A, 12 W USB A output (x2): 12 V/2.4 A, 28 W Anderson (x1): 24 V, 30 A, 720 W Car DC port: 12 V/10 A, 120 W

Mode 3	AC Input: 120 V, 60 Hz, 1800 W	AC output: 120 V, 60 Hz, total 1800 W USB A output (x2): 5 V/2.4 A USB A output (x2): 5 V/2.4 A USB C output (x2): 5 V/2.4 A Anderson (x1): 24 V, 30 A, 720 W Car DC port: 12 V/10 A, 120 W
Mode 4	AC Input: 120 V, 60 Hz, 1800 W	AC output: 120 V, 60 Hz, total 1800 W USB A output(x2): 5 V/2.4 A, 12 W USB C output(x2): 15 V/ 3 A, 45 W Anderson (x1) 24 V, 30 A, 720 W Car DC port: 12 V/10 A, 120 W
Mode 5	AC Input: 120 V, 60 Hz, 1800 W	AC output: 120 V, 60 Hz, total 1800 W USB A output(x2): 5 V/2.4 A, 12 W USB A output(x2): 9 V/ 3 A, 27 W Anderson (x1) 24 V, 30 A, 720 W Car DC port: 12 V/10 A, 120 W
Mode 6	DC Input: DC 72 V, 25 A, 1800 W	AC output: 120 V, 60 Hz, total 1800 W USB A output (x2): 5 V/2.4 A USB A output (x2): 5 V/2.4 A USB C output (x2): 5 V/2.4 A Anderson (x1): 24 V, 30 A, 720 W Car DC port: 12 V/10 A, 120 W
Mode 7	Full Battery powered	AC output: 120 V, 60 Hz, total 3600 W USB A output (x2): 5 V/2.4 A USB A output (x2): 5 V/2.4 A USB C output (x2): 5 V/2.4 A Anderson (x1): 24 V, 30 A, 720 W Car DC port: 12 V/10 A, 120 W

2.4 Description of interconnecting cables

Port/Line Name @EUT	Type	Typical length [m] Unshielded or shielded
Parallel interface (port 1& port 2)	Power port and communication	<3, Unshielded

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 2480 MHz.

2.7 Submitted Documents

Circuit diagram, user's manual and label.

3 Test Set-up and Operation Modes

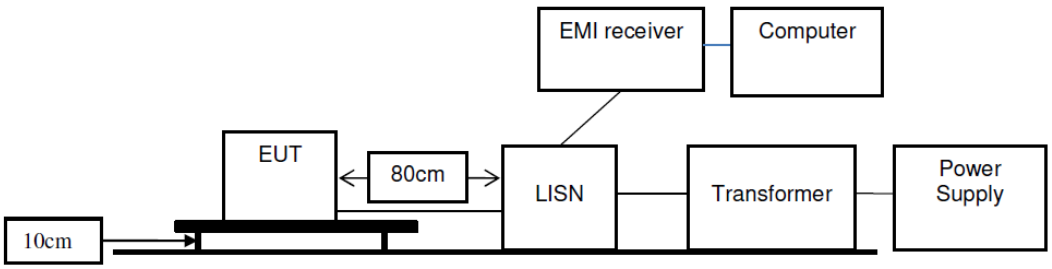
3.1 Principle of Configuration Selection

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.

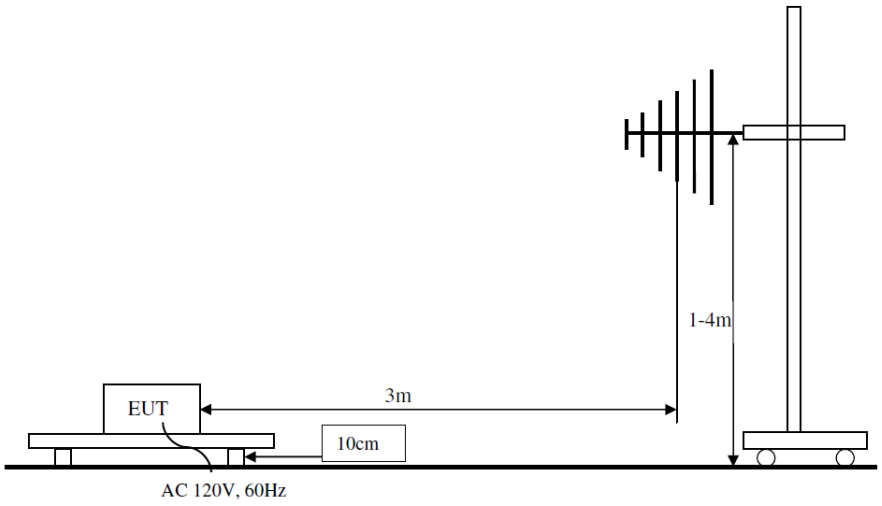
Refer to the related paragraph of this report.
The sequence of testing:
1. Radiated emission tests were performed on 2024-01-12 and 2024-01-31;
2. Conducted emission tests were performed on 2024-01-23.

3.2 Equipment and cable arrangement

Block diagrams for both conducted emission and radiated emission tests are as follows:



(Conducted emission)



(Radiated emission)

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

3.3 Test Software

During the tests, the “RUNHOOD” APP was used.

3.4 Special Accessories and Auxiliary Equipment

Port/Line Name @EUT	Type	Typical length [m] Unshielded or shielded	From	To
AC input port	AC power port	1.8, Unshielded	EUT	AC public mains network
AC output port	AC power port	1.8, Unshielded	EUT	Resistor
DC input	DC power port	<3, Unshielded	EUT	Battery
DC output	DC power port	<3, Unshielded	EUT	Resistor
Parallel interface (port 1& port 2)	Power port and communication	<3, Unshielded	EUT	Portable power station (F3600-EU)

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 E M I S S I O N

5.1 Emission in the Frequency Range up to 30 MHz

5.1.1 Conducted Emission

Result:	**Passed**

Date of testing	:	2024-01-23
Test procedure	:	FCC 47 CFR Part 15, Subpart B:2022, ICES-003:2020, 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 dBµV (decrease with the logarithm of frequency); 0.5 – 5 MHz, 56 dBµV; 5 – 30 MHz, 60 dBµV Average limit: 0.15 – 0.5 MHz, 56 to 46 dBµV (decrease with the logarithm of frequency); 0.5 – 5 MHz, 46 dBµV; 5 – 30 MHz, 50 dBµV
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	:	EUT connected with WIFI and Bluetooth, and LED lighting on. Refer to the test modes 1~4 as defined in clause 2.3 for the power input and output. (The test data of the worst case were recorded the report)
Ambient condition	:	Temperature: 19.2 °C; Relative humidity: 43.7 %
Expanded measurement uncertainty (k=2)	:	2.33 dB

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.

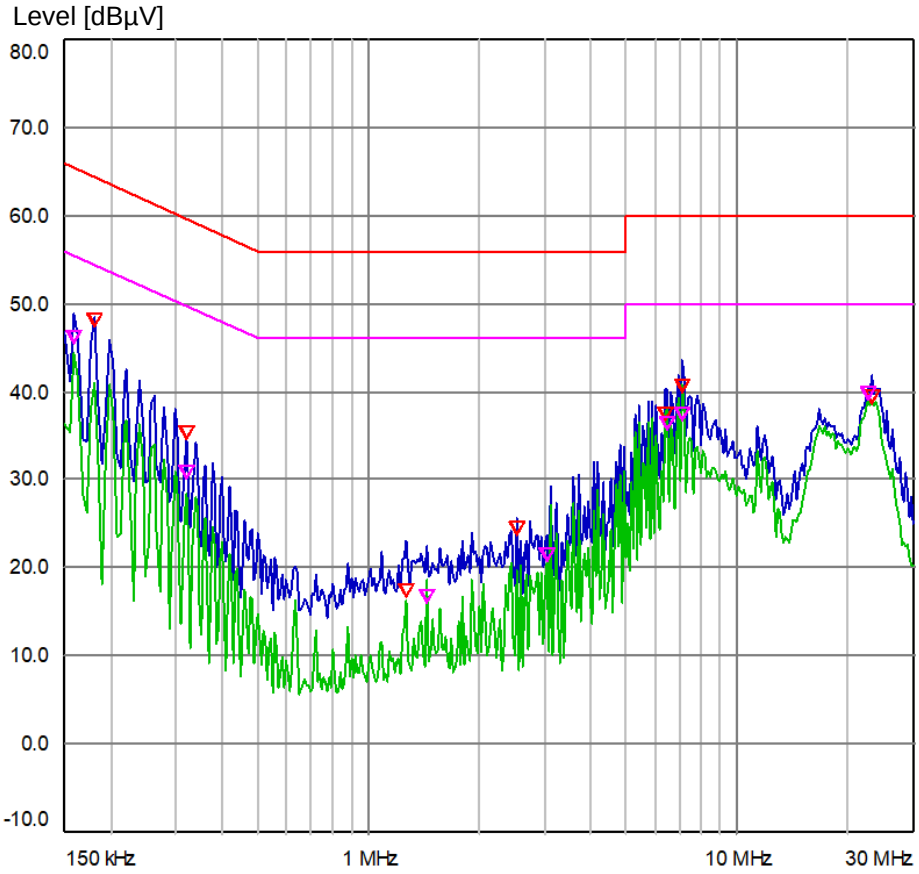
The following figures and tables were those measured by an automatic measuring system. Both quasi-peak and average measurements were performed. In the following spectral diagram, "▽" means Quasi-Peak Value and "▽" means Average Value results.

Notes on following tables of conducted emission results and conversions:

Level (dBµV): 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 (dBµV) - Level (dBµV)

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



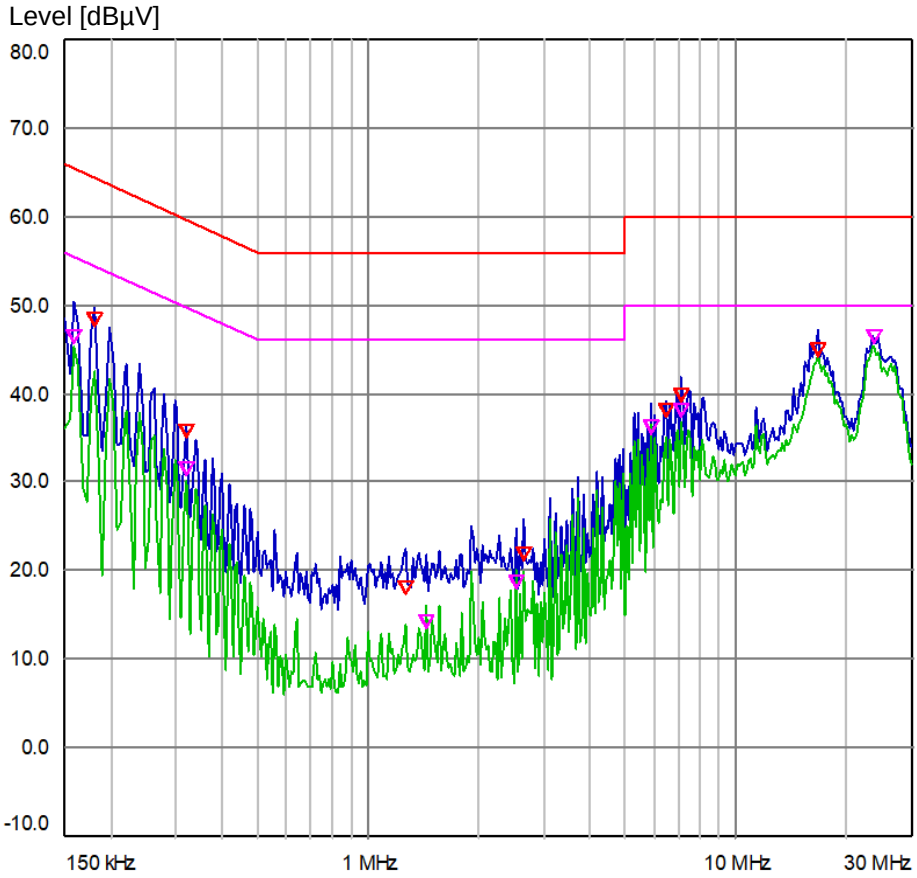
Final quasi-peak measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.1815	47.34	64.42	-17.08	L1 / off
0.321	34.68	59.68	-25.00	L1 / off
1.2615	16.73	56.00	-39.27	L1 / off
2.5215	23.78	56.00	-32.22	L1 / off
6.36	36.66	60.00	-23.34	L1 / off
7.08	39.95	60.00	-20.05	L1 / off
23.28	38.67	60.00	-21.33	L1 / off

Final average measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.159	45.37	55.52	-10.15	L1 / off
0.321	30.15	49.68	-19.53	L1 / off
1.4415	15.98	46.00	-30.02	L1 / off
3.039	20.67	46.00	-25.33	L1 / off
6.4815	35.68	50.00	-14.32	L1 / off
7.08	36.77	50.00	-13.23	L1 / off
22.74	39.01	50.00	-10.99	L1 / off

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



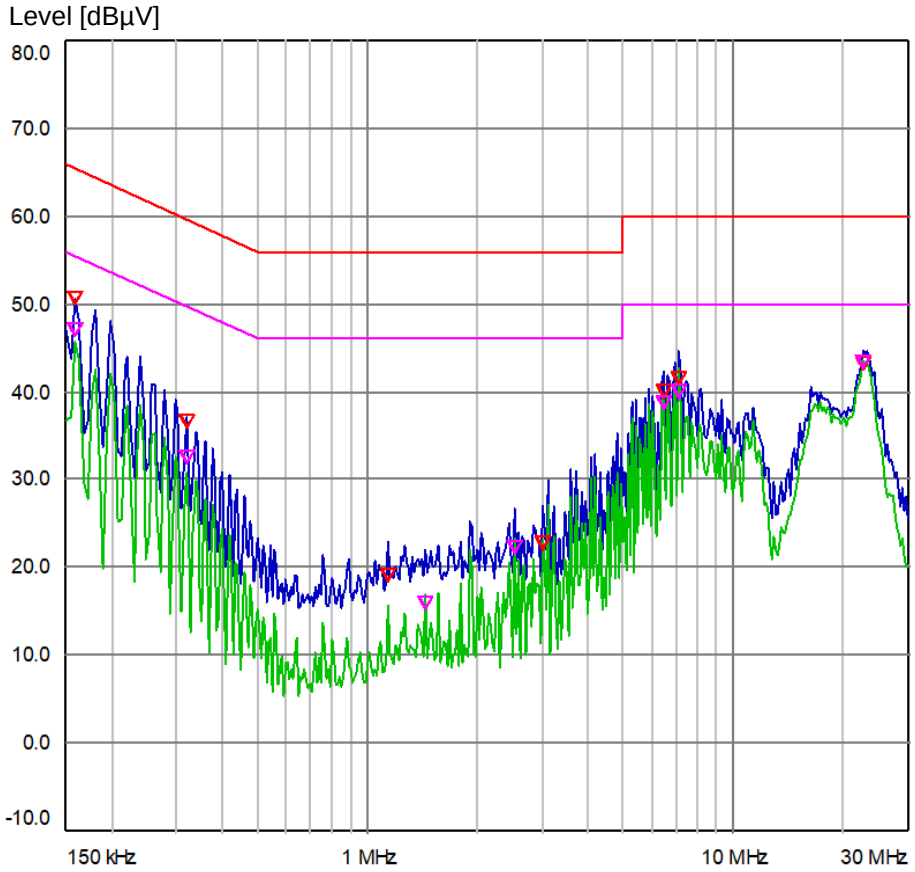
Final quasi-peak measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.1815	47.52	64.42	-16.90	N / off
0.321	35.01	59.68	-24.67	N / off
1.2615	17.37	56.00	-38.63	N / off
2.6385	21.23	56.00	-34.77	N / off
6.4815	37.38	60.00	-22.62	N / off
7.08	39.03	60.00	-20.97	N / off
16.62	44.08	60.00	-15.92	N / off

Final average measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.159	45.67	55.52	-9.85	N / off
0.321	30.63	49.68	-19.05	N / off
1.437	13.54	46.00	-32.46	N / off
2.517	17.88	46.00	-28.12	N / off
5.8785	35.35	50.00	-14.65	N / off
7.08	37.45	50.00	-12.55	N / off
23.6985	45.66	50.00	-4.34	N / off

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



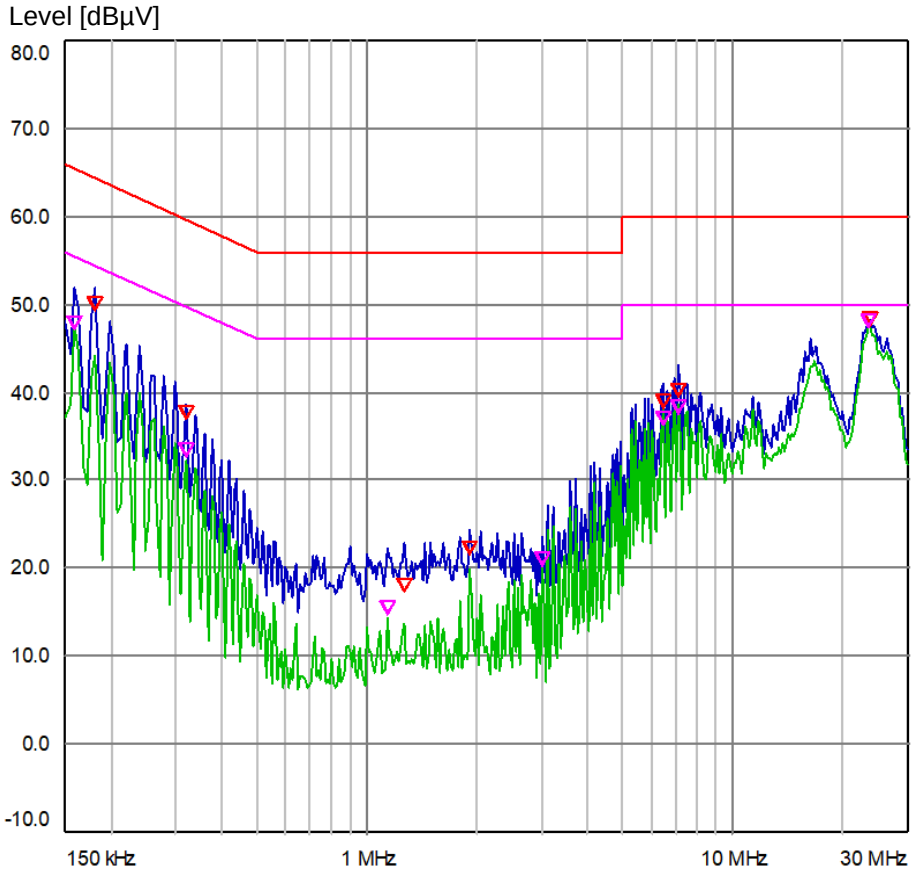
Final quasi-peak measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.159	49.93	65.52	-15.59	L1 / off
0.321	35.95	59.68	-23.73	L1 / off
1.14	18.27	56.00	-37.73	L1 / off
2.9985	21.92	56.00	-34.08	L1 / off
6.4815	39.37	60.00	-20.63	L1 / off
7.08	40.75	60.00	-19.25	L1 / off
22.74	42.51	60.00	-17.49	L1 / off

Final average measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.159	46.31	55.52	-9.21	L1 / off
0.321	31.72	49.68	-17.96	L1 / off
1.4415	15.22	46.00	-30.78	L1 / off
2.5215	21.59	46.00	-24.41	L1 / off
6.4815	37.98	50.00	-12.02	L1 / off
7.08	39.31	50.00	-10.69	L1 / off
22.74	42.74	50.00	-7.26	L1 / off

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



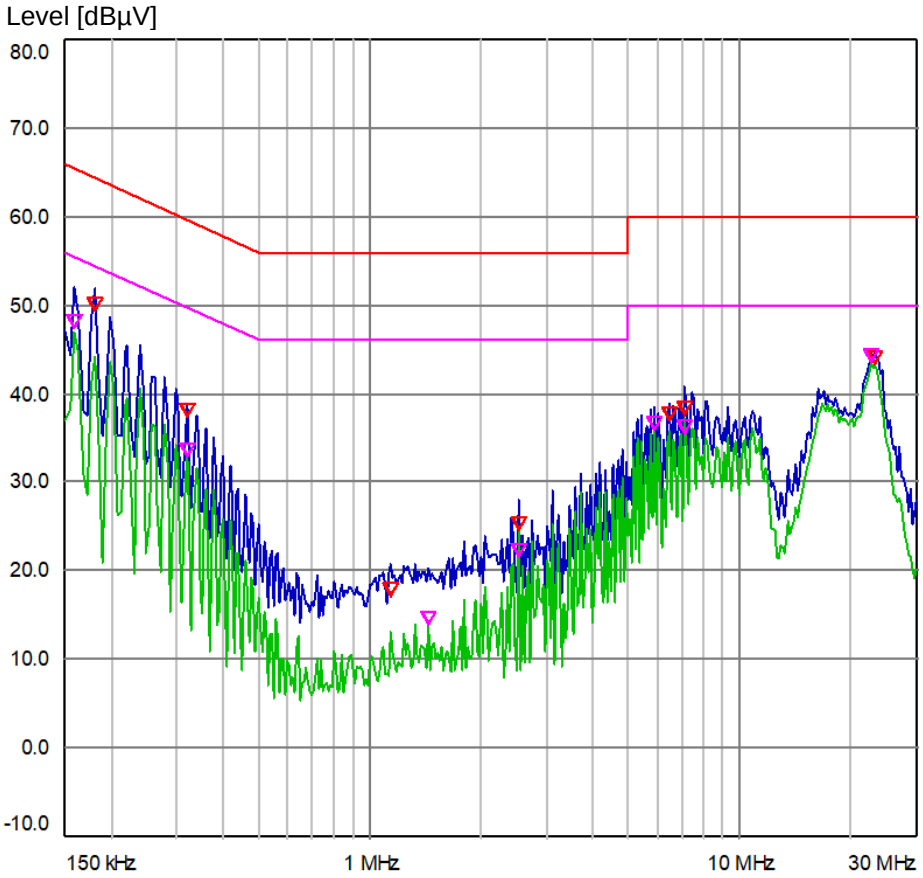
Final quasi-peak measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.1815	49.19	64.42	-15.23	N / off
0.321	36.92	59.68	-22.76	N / off
1.2615	17.37	56.00	-38.63	N / off
1.9185	21.46	56.00	-34.54	N / off
6.4815	38.15	60.00	-21.85	N / off
7.08	39.57	60.00	-20.43	N / off
23.6985	47.49	60.00	-12.51	N / off

Final average measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.159	47.21	55.52	-8.31	N / off
0.321	32.56	49.68	-17.12	N / off
1.14	14.69	46.00	-31.31	N / off
2.9985	20.24	46.00	-25.76	N / off
6.4815	36.23	50.00	-13.77	N / off
7.08	37.63	50.00	-12.37	N / off
23.46	47.44	50.00	-2.56	N / off

Figure 5: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L for mode 3



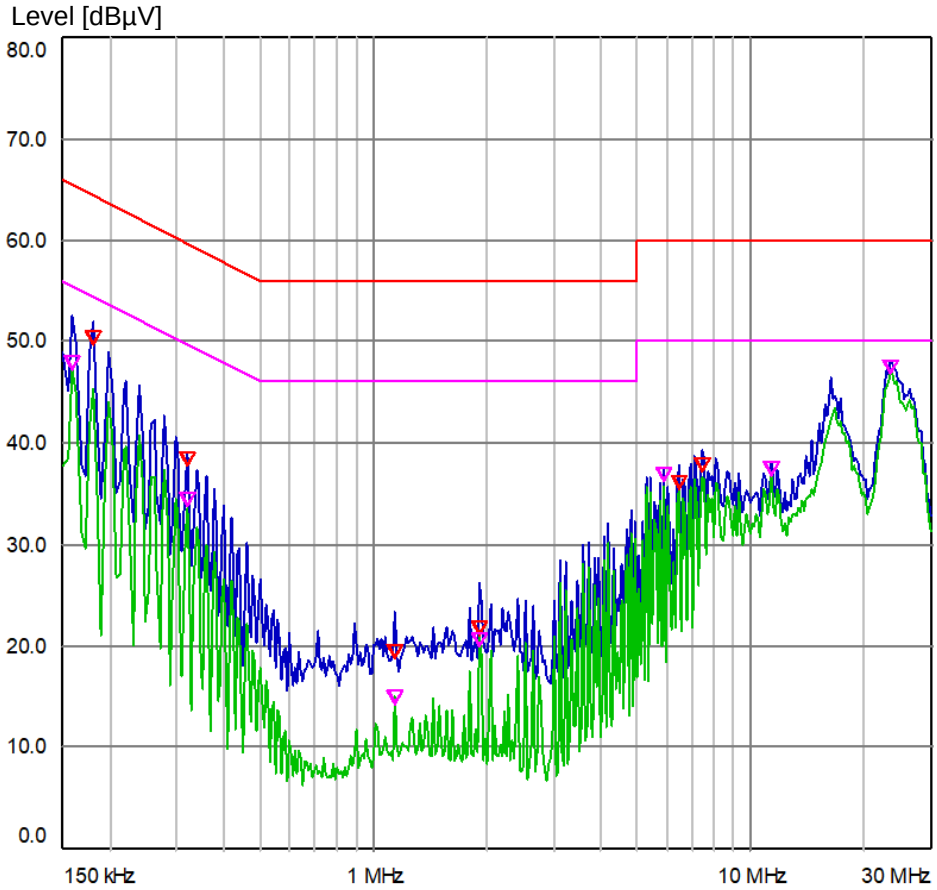
Final quasi-peak measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.1815	49.38	64.42	-15.04	L1 / off
0.321	37.25	59.68	-22.43	L1 / off
1.14	17.11	56.00	-38.89	L1 / off
2.5215	24.62	56.00	-31.38	L1 / off
6.4815	36.84	60.00	-23.16	L1 / off
7.08	37.50	60.00	-22.50	L1 / off
23.1	43.41	60.00	-16.59	L1 / off

Final average measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.159	47.36	55.52	-8.16	L1 / off
0.321	32.80	49.68	-16.88	L1 / off
1.4415	13.84	46.00	-32.16	L1 / off
2.5215	21.54	46.00	-24.46	L1 / off
5.8785	35.78	50.00	-14.22	L1 / off
7.08	35.35	50.00	-14.65	L1 / off
22.74	43.43	50.00	-6.57	L1 / off

Figure 6: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N for mode 3



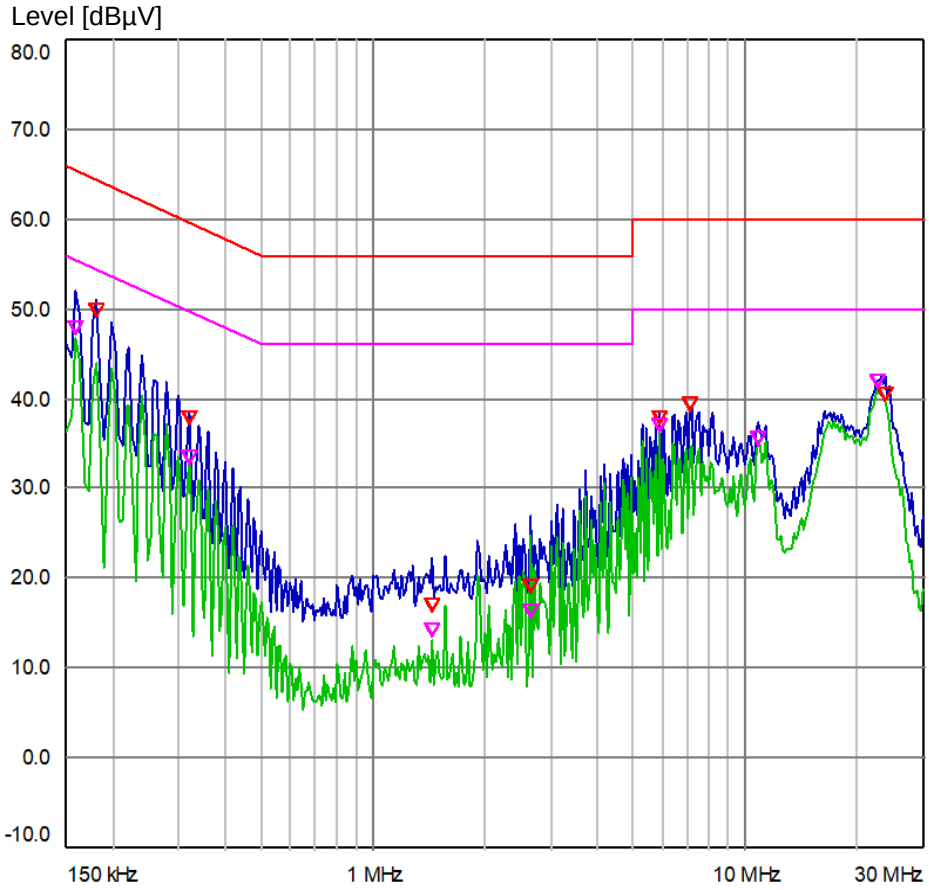
Final quasi-peak measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.1815	49.71	64.42	-14.71	N / off
0.321	37.80	59.68	-21.88	N / off
1.14	18.81	56.00	-37.19	N / off
1.9185	21.10	56.00	-34.90	N / off
6.4815	35.44	60.00	-24.56	N / off
7.44	37.13	60.00	-22.87	N / off
23.46	46.76	60.00	-13.24	N / off

Final average measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.159	47.22	55.52	-8.30	N / off
0.321	33.72	49.68	-15.96	N / off
1.14	14.24	46.00	-31.76	N / off
1.9185	19.97	46.00	-26.03	N / off
5.8785	36.18	50.00	-13.82	N / off
11.4	36.79	50.00	-13.21	N / off
23.46	46.86	50.00	-3.14	N / off

Figure 7: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L for mode 4



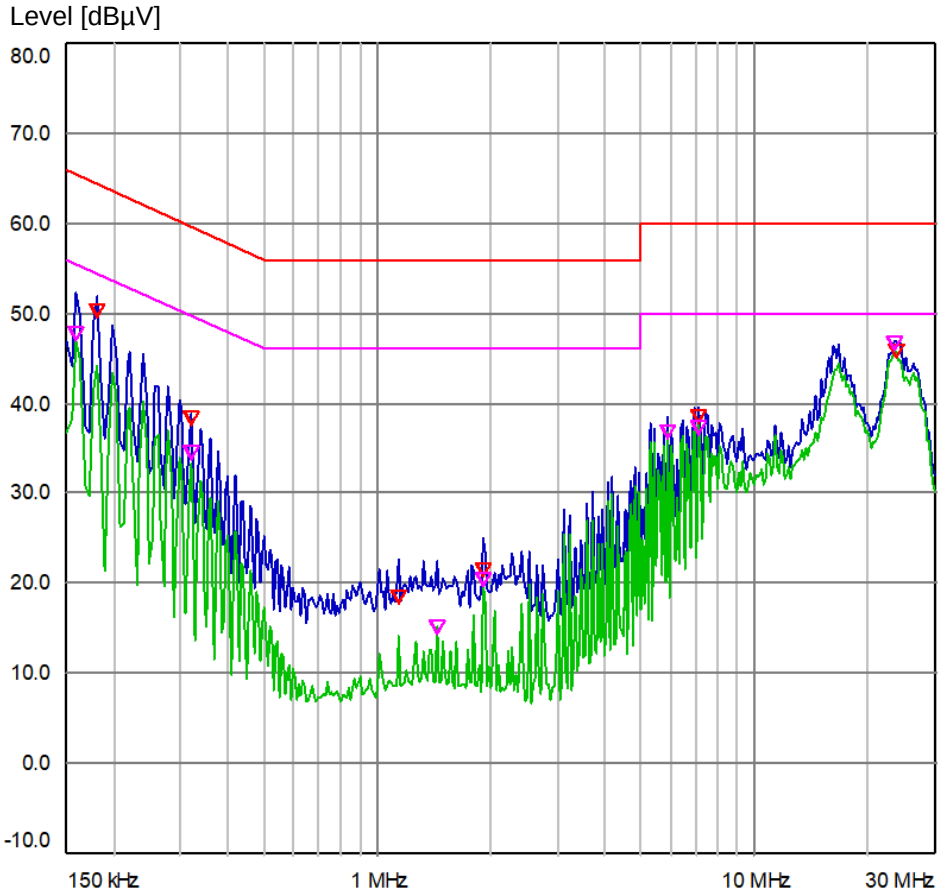
Final quasi-peak measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.1815	49.18	64.42	-15.24	L1 / off
0.321	37.07	59.68	-22.61	L1 / off
1.4415	16.15	56.00	-39.85	L1 / off
2.6385	18.44	56.00	-37.56	L1 / off
5.8785	37.08	60.00	-22.92	L1 / off
7.08	38.69	60.00	-21.31	L1 / off
23.6985	39.79	60.00	-20.21	L1 / off

Final average measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.159	47.10	55.52	-8.42	L1 / off
0.321	32.75	49.68	-16.93	L1 / off
1.4415	13.40	46.00	-32.60	L1 / off
2.6385	15.62	46.00	-30.38	L1 / off
5.8785	36.25	50.00	-13.75	L1 / off
10.8015	34.70	50.00	-15.30	L1 / off
22.74	41.23	50.00	-8.77	L1 / off

Figure 8: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N for mode 4



Final quasi-peak measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.1815	49.52	64.42	-14.90	N / off
0.321	37.65	59.68	-22.03	N / off
1.14	17.72	56.00	-38.28	N / off
1.9185	20.75	56.00	-35.25	N / off
5.8785	36.10	60.00	-23.90	N / off
7.08	37.70	60.00	-22.30	N / off
23.6985	44.92	60.00	-15.08	N / off

Final average measurement result:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Delta Limit (dB)	Comment
0.159	46.97	55.52	-8.55	N / off
0.321	33.62	49.68	-16.06	N / off
1.4415	14.37	46.00	-31.63	N / off
1.9185	19.63	46.00	-26.37	N / off
5.8785	36.01	50.00	-13.99	N / off
7.08	36.51	50.00	-13.49	N / off
23.46	45.78	50.00	-4.22	N / off

5.2 Emission in the Frequency Range above 30 MHz

5.2.1 Radiated Emission (30 – 1000 MHz)

Result:	**Passed**

Date of testing	:	2024-01-12
Test procedure	:	FCC 47 CFR Part 15, Subpart B:2022, ICES-003:2020, ICES-005:2018, ANSI C63.4-2014 and CISPR 16-2-3
Product classification	:	Class B
Frequency range	:	30 – 1000 MHz
Limits	:	Quasi-peak limits (3 m distance) (See Note 1) 30 – 88 MHz, 40 dBµV/m; 88 – 216 MHz, 43.5 dBµV/m; 216 – 960 MHz, 46 dBµV/m; Above 960 MHz, 54 dBµV/m.
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	:	EUT connected with WIFI and Bluetooth, and LED lighting on. Refer to the test modes 1~7 as defined in clause 2.3 for the power input and output.
Ambient condition	:	Temperature: 18.6 °C; Relative humidity: 41.5 %
Expanded measurement uncertainty (k=2)	:	5.49 dB

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 a 10 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.

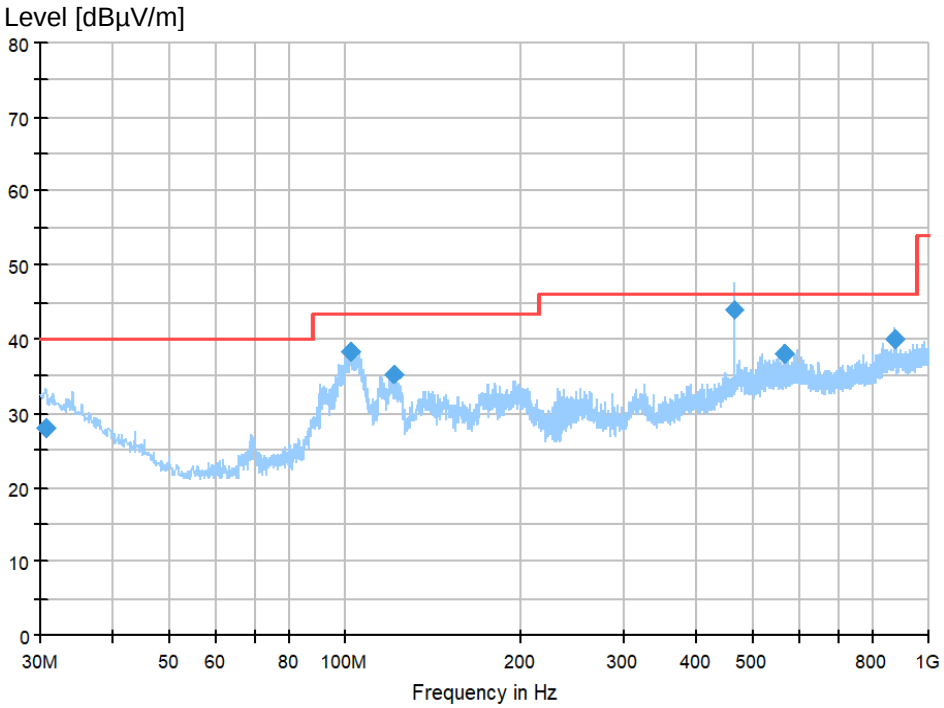
The following figures and tables were those measured by an automatic measurement system. A preview test was firstly performed with peak detector. The final test was performed with quasi-peak at those critical frequencies during the preview test. In the following spectral diagram, "◆" means quasi-peak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

Notes on following tables of radiated emission results and conversions:

QuasiPeak (dBµV/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 (dBµV/m) - QuasiPeak (dBµV/m)

Note 1: The class B limits of FCC 47 CFR Part 15, Subpart B:2022 were used in the following figures and tables. The test data also can meet the limit requirements of standards ICES-003:2020 and ICE-005:2018.

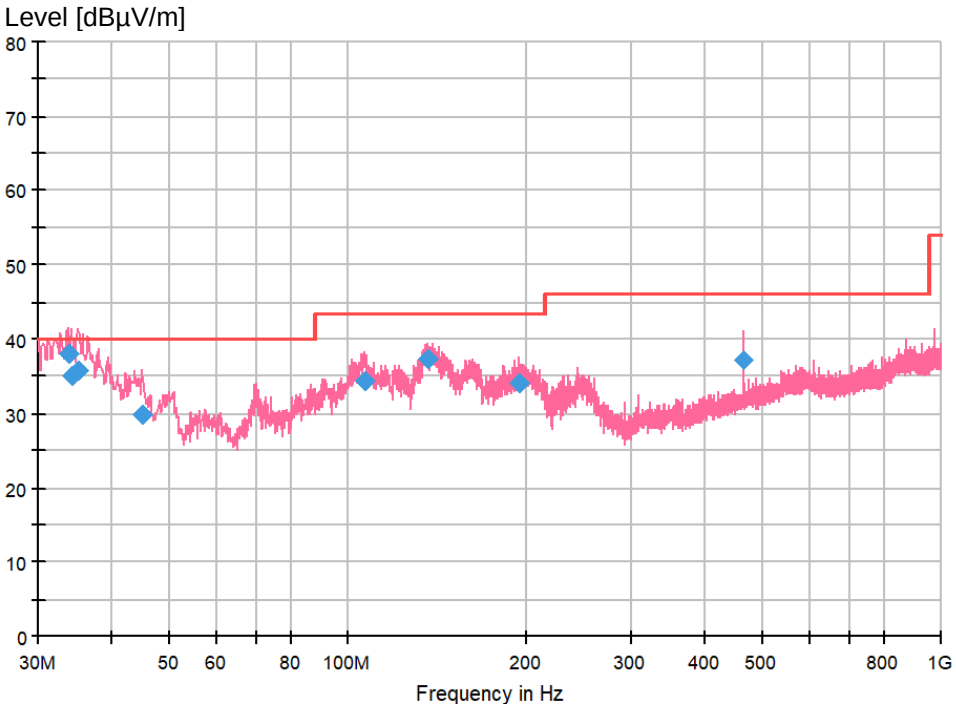
Figure 9: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization for mode 1



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)
30.727500	27.96	40.00	12.04	1000.0	120.000	170.0	H	-107.0
102.507500	38.40	43.50	5.10	1000.0	120.000	303.0	H	34.0
120.695000	35.27	43.50	8.23	1000.0	120.000	204.0	H	23.0
464.560000	44.03	46.00	1.97	1000.0	120.000	100.0	H	-107.0
567.743750	38.13	46.00	7.87	1000.0	120.000	100.0	H	-107.0
877.416250	40.01	46.00	5.99	1000.0	120.000	100.0	H	154.0

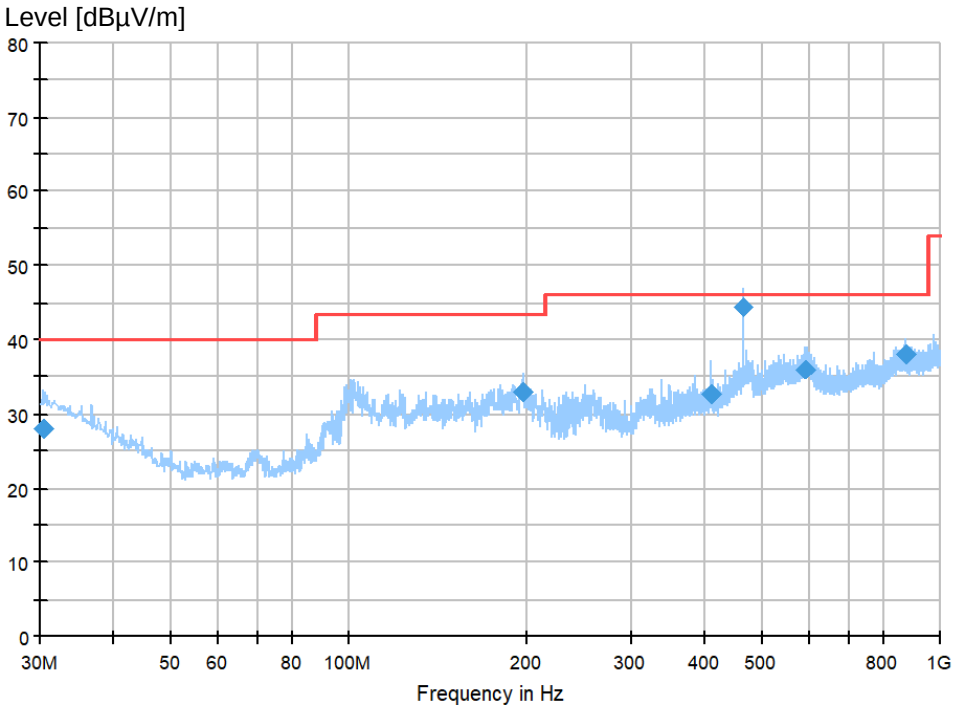
Figure 10: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization for mode 1



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)
33.637500	38.05	40.00	1.95	1000.0	120.000	100.0	V	-57.0
34.243750	35.17	40.00	4.83	1000.0	120.000	100.0	V	63.0
34.971250	35.72	40.00	4.28	1000.0	120.000	100.0	V	131.0
45.035000	30.05	40.00	9.95	1000.0	120.000	100.0	V	-3.0
106.751250	34.30	43.50	9.20	1000.0	120.000	120.0	V	109.0
135.972500	37.43	43.50	6.07	1000.0	120.000	100.0	V	142.0
194.778750	34.13	43.50	9.37	1000.0	120.000	100.0	V	75.0
464.560000	37.18	46.00	8.82	1000.0	120.000	100.0	V	-35.0

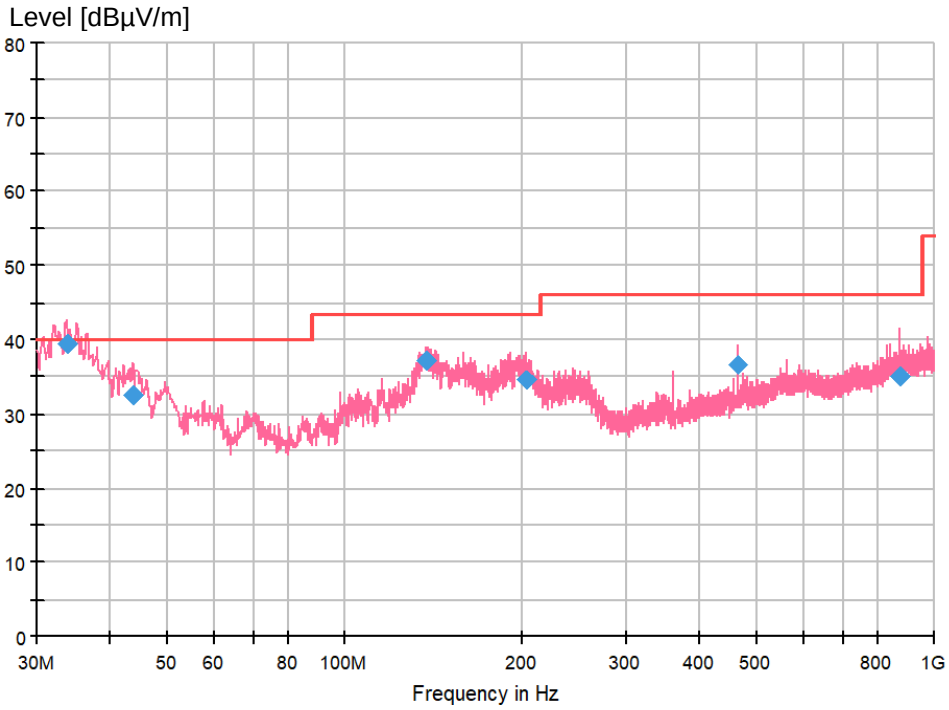
Figure 11: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization for mode 2



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)
30.363750	27.99	40.00	12.01	1000.0	120.000	204.0	H	-167.0
196.476250	33.00	43.50	10.50	1000.0	120.000	230.0	H	-86.0
409.512500	32.84	46.00	13.16	1000.0	120.000	121.0	H	168.0
464.560000	44.42	46.00	1.58	1000.0	120.000	100.0	H	-132.0
592.236250	35.91	46.00	10.09	1000.0	120.000	100.0	H	-167.0
877.416250	38.14	46.00	7.86	1000.0	120.000	100.0	H	-58.0

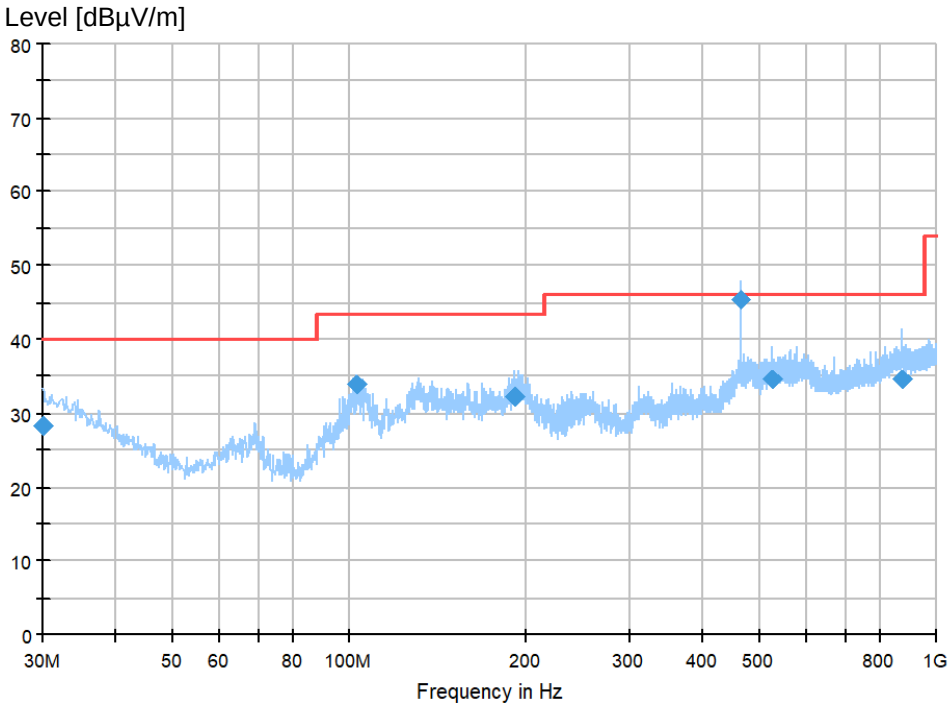
Figure 12: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization for mode 2



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)
33.637500	39.48	40.00	0.52	1000.0	120.000	100.0	V	-19.0
43.822500	32.46	40.00	7.54	1000.0	120.000	100.0	V	-74.0
136.942500	37.14	43.50	6.36	1000.0	120.000	100.0	V	67.0
203.023750	34.73	43.50	8.77	1000.0	120.000	100.0	V	-180.0
464.560000	36.72	46.00	9.28	1000.0	120.000	100.0	V	99.0
877.537500	35.11	46.00	10.89	1000.0	120.000	100.0	V	-139.0

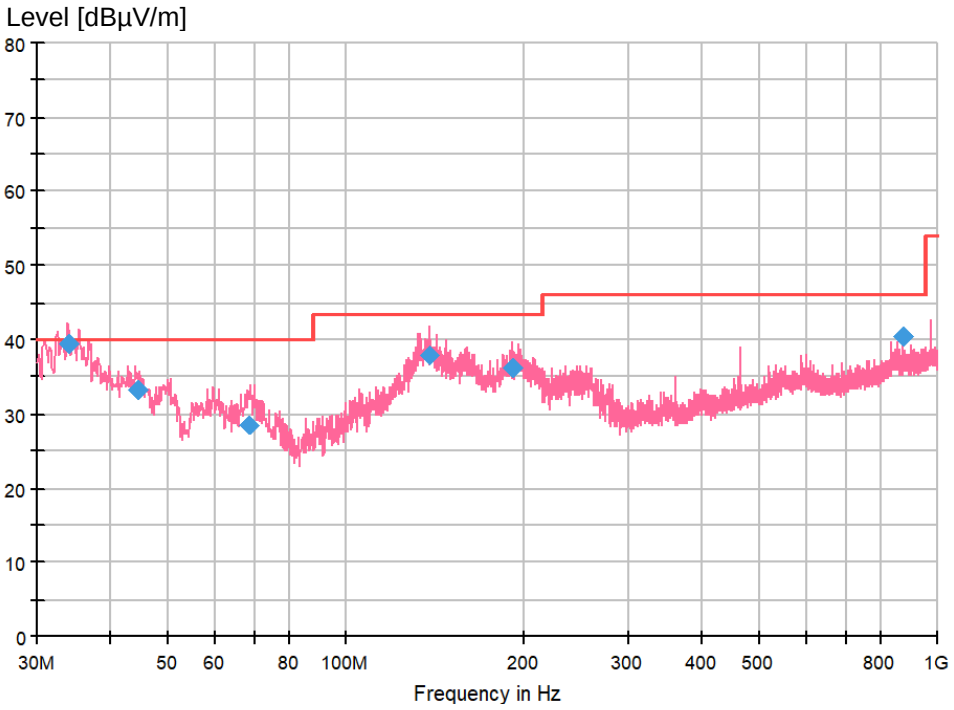
Figure 13: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization for mode 3



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)
30.000000	28.28	40.00	11.72	1000.0	120.000	120.0	H	-85.0
103.113750	33.91	43.50	9.59	1000.0	120.000	302.0	H	39.0
191.747500	32.22	43.50	11.28	1000.0	120.000	190.0	H	-93.0
464.560000	45.45	46.00	0.55	1000.0	120.000	100.0	H	-131.0
527.731250	34.57	46.00	11.43	1000.0	120.000	100.0	H	-112.0
877.537500	34.54	46.00	11.46	1000.0	120.000	100.0	H	-85.0

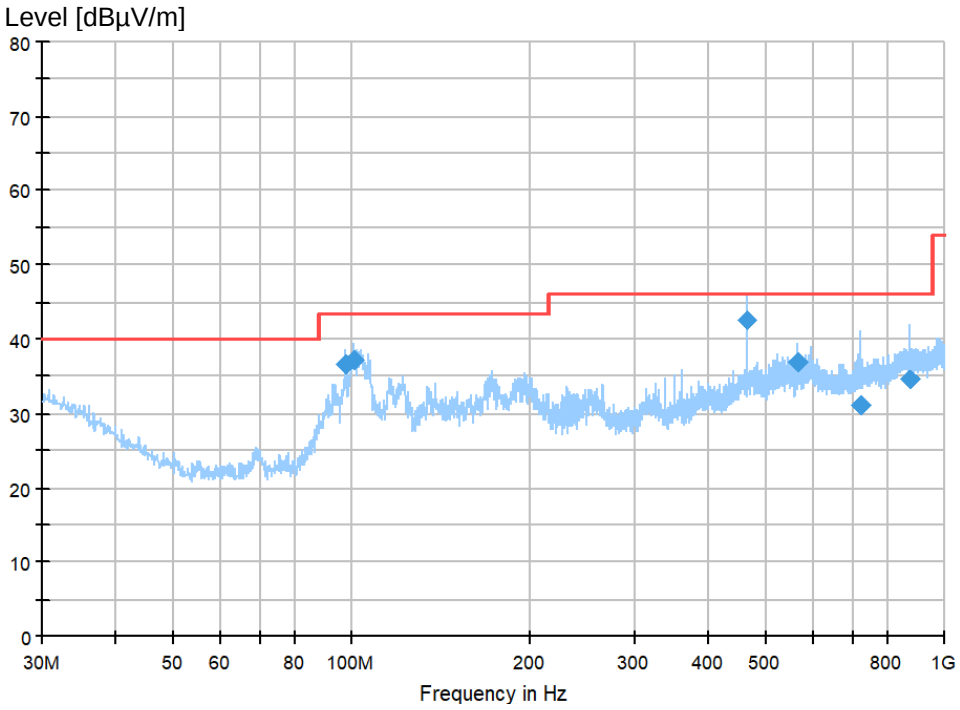
Figure 14: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization for mode 3



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)
33.930100	39.44	40.00	0.56	1000.0	120.000	100.0	V	-63.0
44.273950	33.16	40.00	6.84	1000.0	120.000	100.0	V	-30.0
68.517500	28.60	40.00	11.40	1000.0	120.000	170.0	V	141.0
138.269900	37.84	43.50	5.66	1000.0	120.000	100.0	V	69.0
191.268400	36.24	43.50	7.26	1000.0	120.000	100.0	V	36.0
877.441350	40.56	46.00	5.44	1000.0	120.000	100.0	V	-126.0

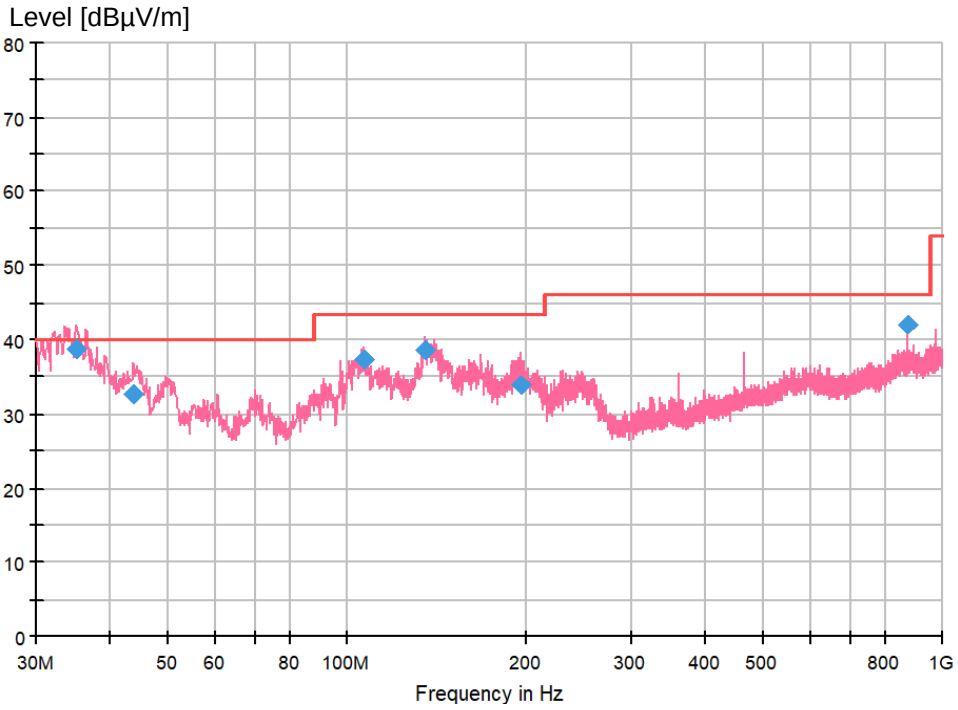
Figure 15: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization for mode 4



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)
97.657500	36.61	43.50	6.89	1000.0	120.000	315.0	H	45.0
100.567500	37.12	43.50	6.38	1000.0	120.000	330.0	H	45.0
464.560000	42.68	46.00	3.32	1000.0	120.000	100.0	H	-77.0
567.743750	36.87	46.00	9.13	1000.0	120.000	100.0	H	-170.0
721.731250	31.05	46.00	14.95	1000.0	120.000	100.0	H	-17.0
877.537500	34.71	46.00	11.29	1000.0	120.000	100.0	H	-77.0

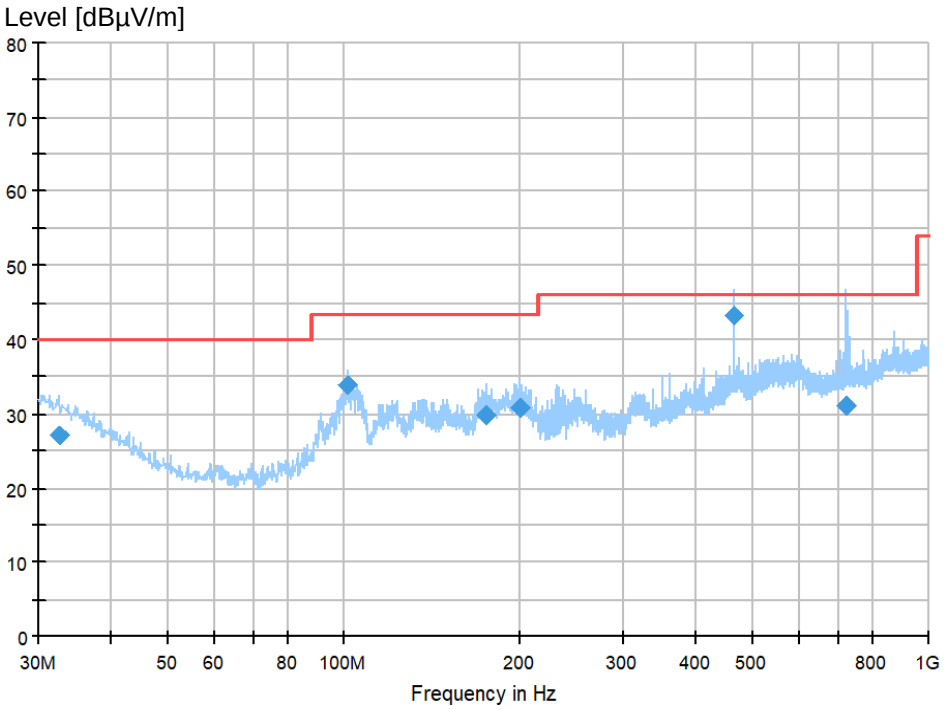
Figure 16: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization for mode 4



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)
34.971250	38.94	40.00	1.06	1000.0	120.000	100.0	V	-25.0
43.822500	32.75	40.00	7.25	1000.0	120.000	100.0	V	-158.0
106.508750	37.45	43.50	6.05	1000.0	120.000	100.0	V	86.0
135.245000	38.61	43.50	4.89	1000.0	120.000	100.0	V	86.0
195.991250	33.88	43.50	9.62	1000.0	120.000	100.0	V	41.0
877.416250	42.21	46.00	3.79	1000.0	120.000	100.0	V	-136.0

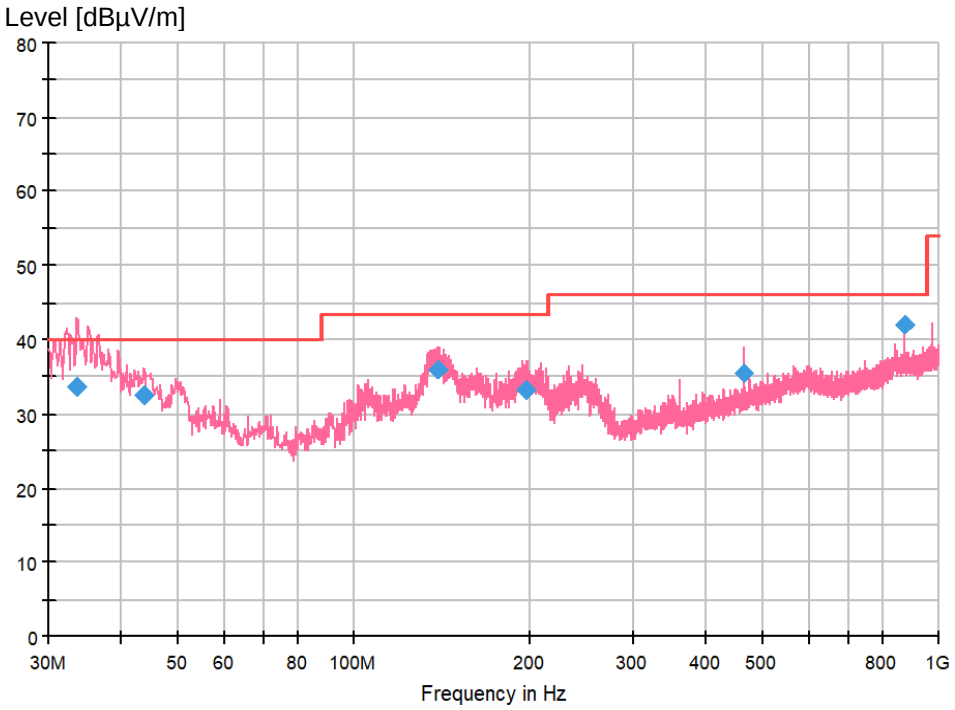
Figure 17: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization for mode 5



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)
32.425000	27.04	40.00	12.96	1000.0	120.000	330.0	H	45.0
101.658750	34.02	43.50	9.48	1000.0	120.000	316.0	H	32.0
174.651250	30.05	43.50	13.45	1000.0	120.000	190.0	H	26.0
200.356250	30.86	43.50	12.64	1000.0	120.000	170.0	H	26.0
464.560000	43.37	46.00	2.63	1000.0	120.000	100.0	H	-89.0
724.398750	31.12	46.00	14.88	1000.0	120.000	270.0	H	-89.0

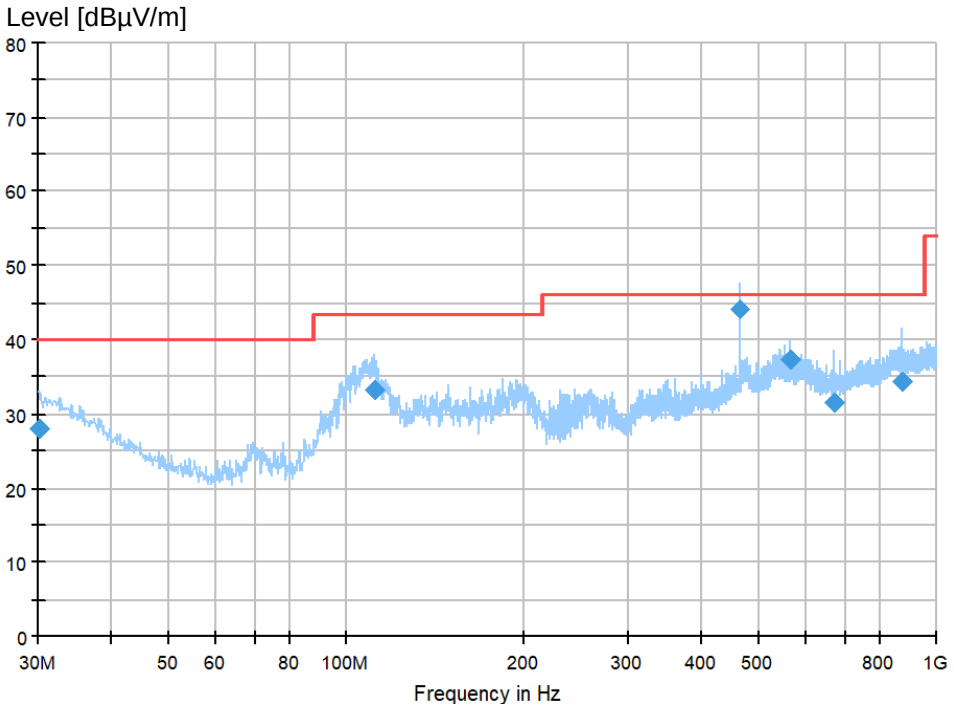
Figure 18: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization for mode 5



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)
33.516250	33.62	40.00	6.38	1000.0	120.000	100.0	V	10.0
43.822500	32.49	40.00	7.51	1000.0	120.000	100.0	V	-11.0
139.610000	35.96	43.50	7.54	1000.0	120.000	100.0	V	54.0
196.476250	33.21	43.50	10.29	1000.0	120.000	100.0	V	43.0
464.560000	35.46	46.00	10.54	1000.0	120.000	100.0	V	-44.0
877.416250	42.09	46.00	3.91	1000.0	120.000	100.0	V	-131.0

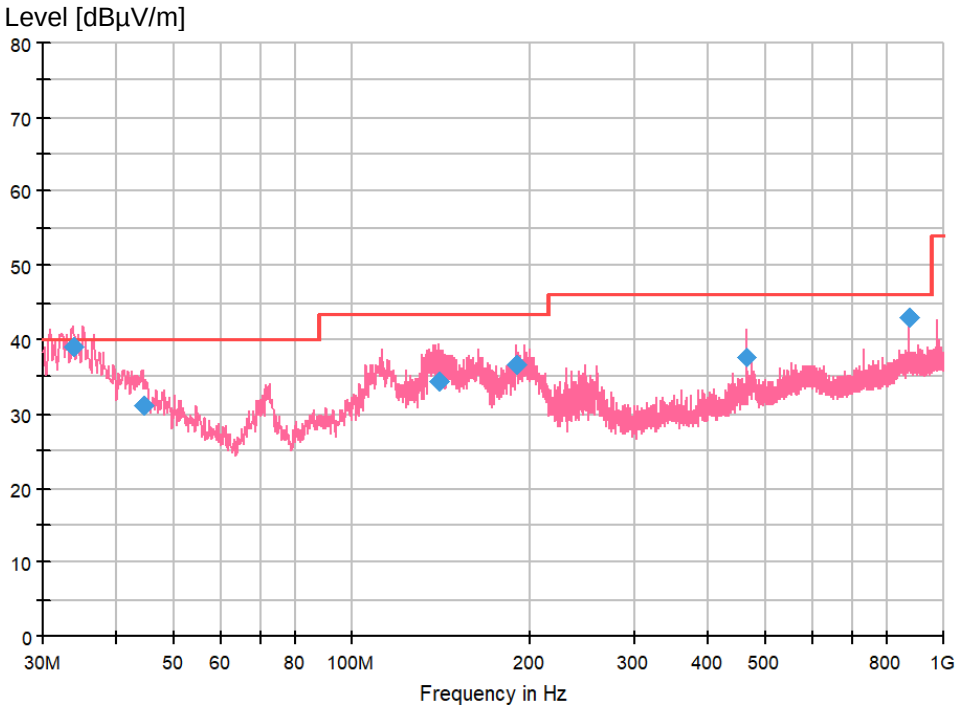
Figure 19: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization for mode 6



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)
30.121250	28.12	40.00	11.88	1000.0	120.000	316.0	H	-87.0
111.237500	33.21	43.50	10.29	1000.0	120.000	330.0	H	60.0
464.560000	44.18	46.00	1.82	1000.0	120.000	100.0	H	-119.0
567.743750	37.48	46.00	8.52	1000.0	120.000	100.0	H	-132.0
671.048750	31.64	46.00	14.36	1000.0	120.000	100.0	H	-93.0
877.537500	34.34	46.00	11.66	1000.0	120.000	100.0	H	147.0

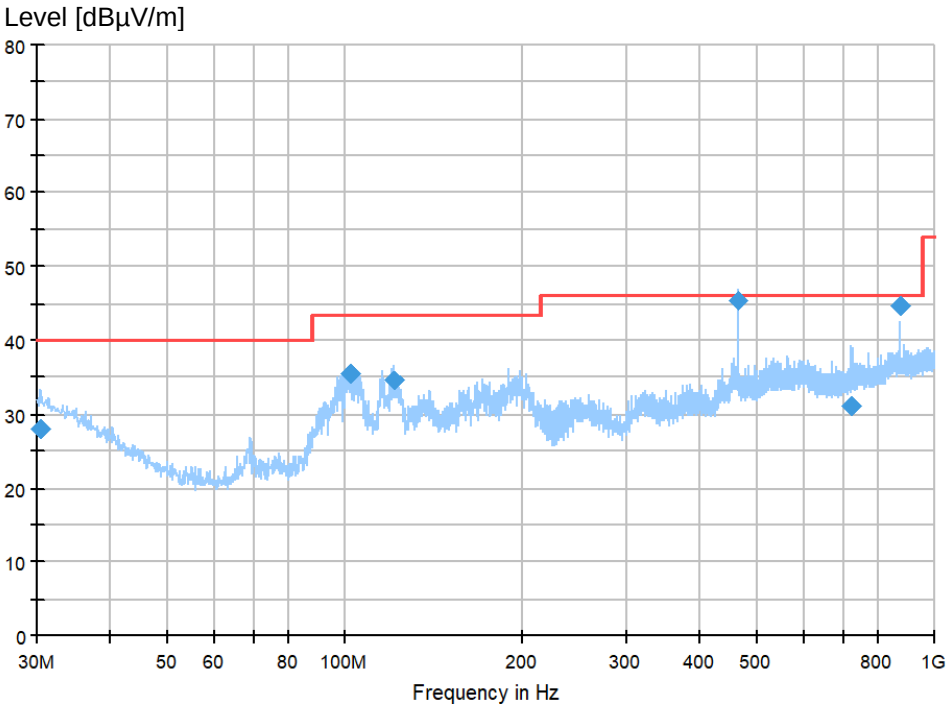
Figure 20: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization for mode 6



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)
33.637500	38.97	40.00	1.03	1000.0	120.000	100.0	V	-11.0
44.307500	31.03	40.00	8.97	1000.0	120.000	100.0	V	43.0
140.337500	34.43	43.50	9.07	1000.0	120.000	100.0	V	65.0
189.443750	36.74	43.50	6.76	1000.0	120.000	100.0	V	-143.0
464.560000	37.70	46.00	8.30	1000.0	120.000	100.0	V	-86.0
877.416250	43.06	46.00	2.94	1000.0	120.000	100.0	V	-143.0

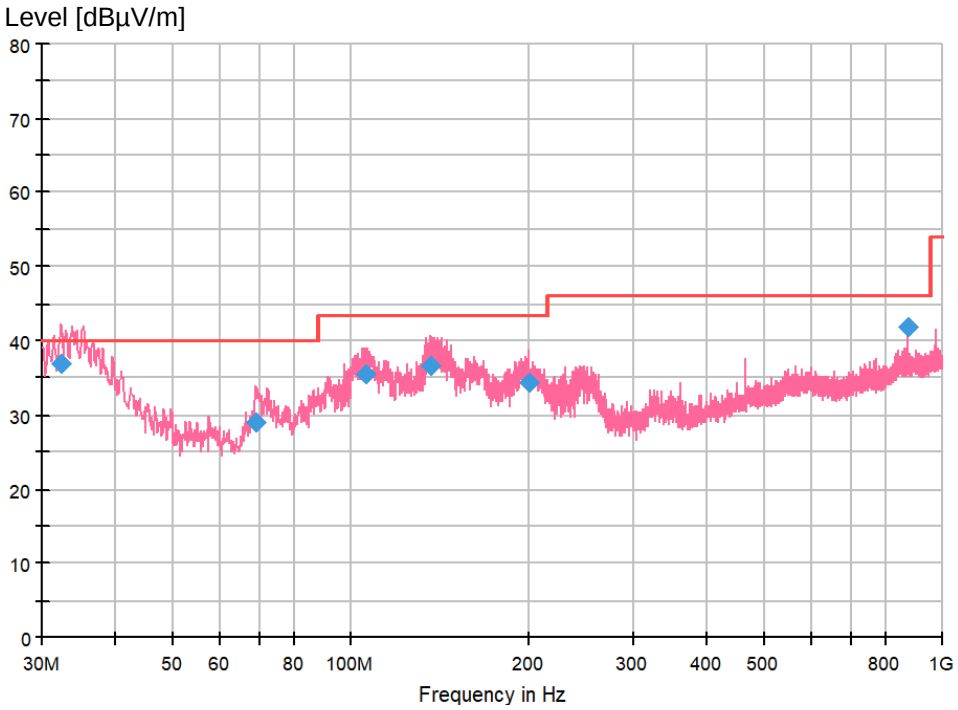
Figure 21: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Horizontal polarization for mode 7



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)
30.485000	28.06	40.00	11.94	1000.0	120.000	100.0	H	-134.0
102.265000	35.54	43.50	7.96	1000.0	120.000	230.0	H	25.0
120.937500	34.63	43.50	8.87	1000.0	120.000	203.0	H	25.0
464.560000	45.31	46.00	0.69	1000.0	120.000	100.0	H	-113.0
724.883750	31.06	46.00	14.94	1000.0	120.000	170.0	H	85.0
877.416250	44.79	46.00	1.21	1000.0	120.000	100.0	H	167.0

Figure 22: Spectral Diagrams, Radiated Emission, 30 MHz – 1000 MHz, Vertical polarization for mode 7



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)
32.303750	36.86	40.00	3.14	1000.0	120.000	100.0	V	30.0
69.285000	29.03	40.00	10.97	1000.0	120.000	120.0	V	30.0
106.023750	35.67	43.50	7.83	1000.0	120.000	100.0	V	30.0
136.700000	36.79	43.50	6.71	1000.0	120.000	100.0	V	63.0
199.386250	34.30	43.50	9.20	1000.0	120.000	100.0	V	-165.0
877.416250	41.85	46.00	4.15	1000.0	120.000	100.0	V	-132.0

5.2.2 Radiated Emission (Above 1 GHz)

Result:	**Passed**

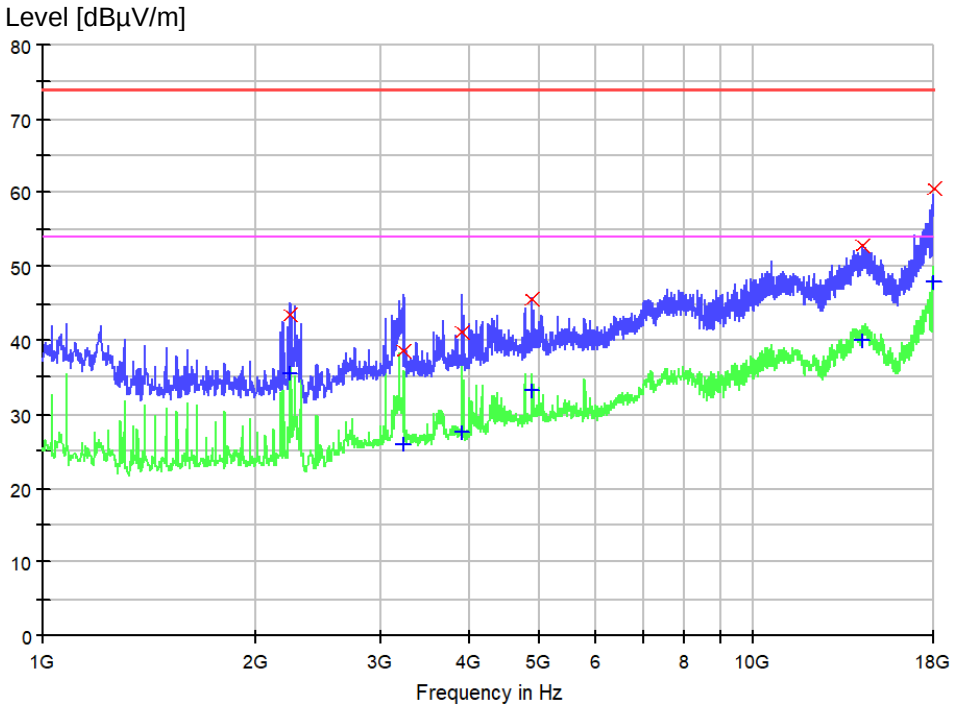
Date of testing	:	2024-01-31
Port	:	Enclosure
Test procedure	:	FCC 47 CFR Part 15, Subpart B:2022, ICES-003:2020, ANSI C63.4-2014 and CISPR 16-2-3
Product classification	:	Class B
Limit	:	MaxPeak limits (3 m distance): 1 – 18 GHz, 74 dBµV/m Average limits (3 m distance): 1 – 18 GHz, 54 dBµV/m
Frequency range	:	1 – 18 GHz (see Note 2)
Kind of test site	:	Semi-anechoic chamber with RF absorber material on the ground plane.
Test distance	:	3 m
Test voltage	:	AC 120 V, 60 Hz
Operational mode	:	EUT connected with WIFI and Bluetooth, and LED lighting on. Refer to the test mode 3, mode 6 and mode 7 as defined in clause 2.3 for the power input and output.
Earthing	:	No earthing
Ambient condition	:	Temperature: 22.8 °C; Relative humidity: 57.2 %
Expanded measurement uncertainty (*k*=2)	:	5.17 dB (1 GHz~6 GHz) 5.12 dB (6 GHz~18 GHz)

The radiated disturbance test was carried out in a semi-anechoic with RF absorber material on the ground plane. The test distance from the receiving antenna to the EUT is 3 m. The normalized site attenuation of the fully-anechoic chamber is regularly calibrated to ensure the radiated disturbance test results are valid. During the test, the EUT was placed on a 10 cm supporting plate. And the supporting plate 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. The final test was performed with peak detector and average detector at those critical frequencies during the preview test. In the following figure, "× (red)" means measurement results with peak detector and "+ (blue)" means measurement results with average detector.

Note 2: The highest frequency in the EUT is 144 MHz. According to FCC Part 15 subpart B §15.33 (b) (1) and Table 3 of ICES-003:2020, the upper frequency for radiated emission measurement is 18 GHz.

Figure 23: Spectral Diagrams and measurement results, 1 GHz – 18 GHz, horizontal polarization on mode 3



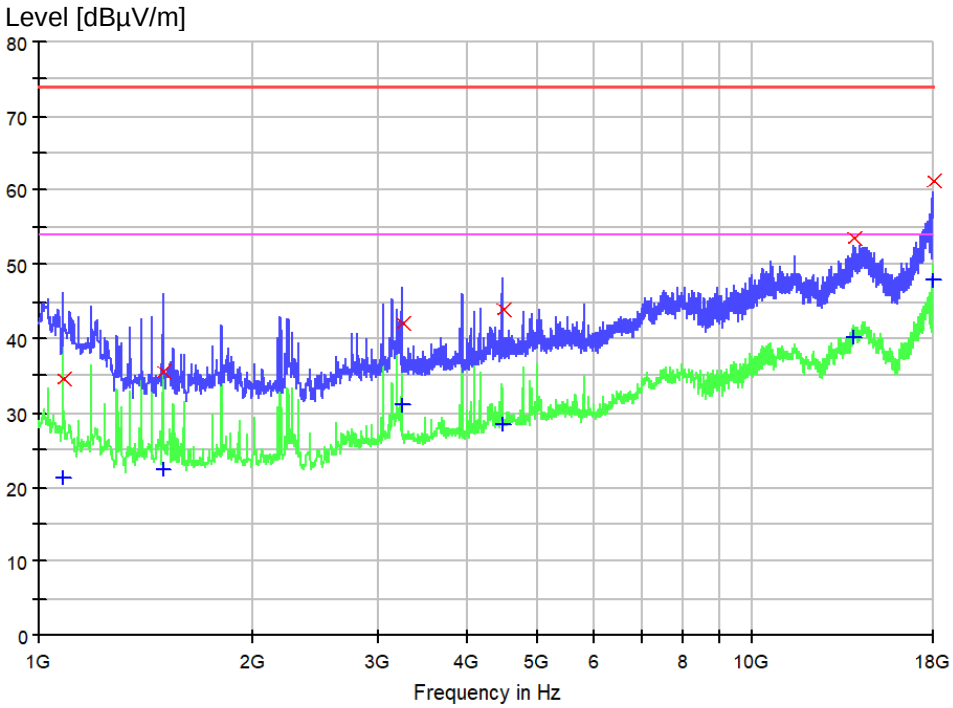
Final maxpeak measurement result:

Frequency (MHz)	MaxPeak (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2236.750000	43.4	1000.000	300.0	H	74.0	-16.7	30.6	74.0
3212.125000	38.5	1000.000	300.0	H	36.0	-14.2	35.5	74.0
3896.375000	41.1	1000.000	400.0	H	-92.0	-13.2	32.9	74.0
4882.375000	45.5	1000.000	400.0	H	-112.0	-10.5	28.5	74.0
14264.250000	52.9	1000.000	200.0	H	-170.0	2.2	21.1	74.0
17966.000000	60.6	1000.000	300.0	H	130.0	12.1	13.4	74.0

Final average measurement result:

Frequency (MHz)	Average (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2236.750000	35.7	1000.000	300.0	H	74.0	-16.7	18.3	54.0
3212.125000	25.9	1000.000	300.0	H	36.0	-14.2	28.1	54.0
3896.375000	27.6	1000.000	400.0	H	-92.0	-13.2	26.4	54.0
4882.375000	33.2	1000.000	400.0	H	-112.0	-10.5	20.8	54.0
14264.250000	40.1	1000.000	200.0	H	-170.0	2.2	13.9	54.0
17966.000000	47.9	1000.000	300.0	H	130.0	12.1	6.1	54.0

Figure 24: Spectral Diagrams and measurement results, 1 GHz – 18 GHz, vertical polarization on mode 3



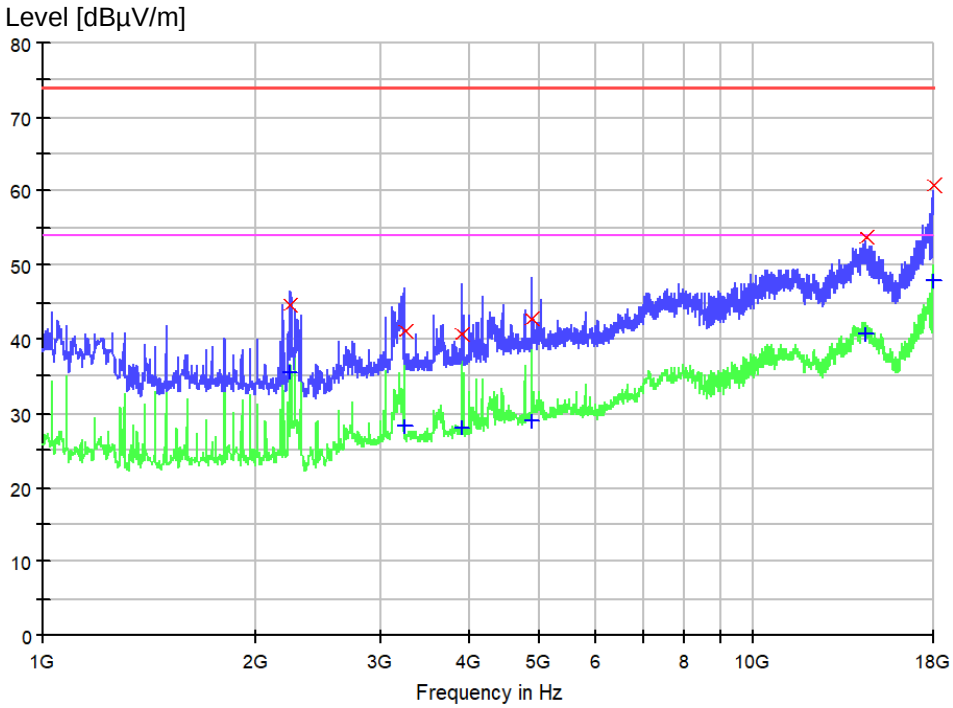
Final maxpeak measurement result:

Frequency (MHz)	MaxPeak (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1082.875000	34.6	1000.000	200.0	V	-123.0	-20.9	39.4	74.0
1495.125000	35.6	1000.000	300.0	V	-87.0	-19.2	38.4	74.0
3231.250000	42.1	1000.000	200.0	V	-12.0	-14.2	31.9	74.0
4472.250000	43.9	1000.000	200.0	V	54.0	-11.3	30.1	74.0
13956.125000	53.6	1000.000	300.0	V	-82.0	1.8	20.4	74.0
17976.625000	61.4	1000.000	300.0	V	125.0	12.3	12.6	74.0

Final average measurement result:

Frequency (MHz)	Average (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1082.875000	21.4	1000.000	200.0	V	-123.0	-20.9	32.6	54.0
1495.125000	22.4	1000.000	300.0	V	-87.0	-19.2	31.6	54.0
3231.250000	31.2	1000.000	200.0	V	-12.0	-14.2	22.8	54.0
4472.250000	28.6	1000.000	200.0	V	54.0	-11.3	25.4	54.0
13956.125000	40.3	1000.000	300.0	V	-82.0	1.8	13.7	54.0
17976.625000	48.0	1000.000	300.0	V	125.0	12.3	6.0	54.0

Figure 25: Spectral Diagrams and measurement results, 1 GHz – 18 GHz, horizontal polarization on mode 6



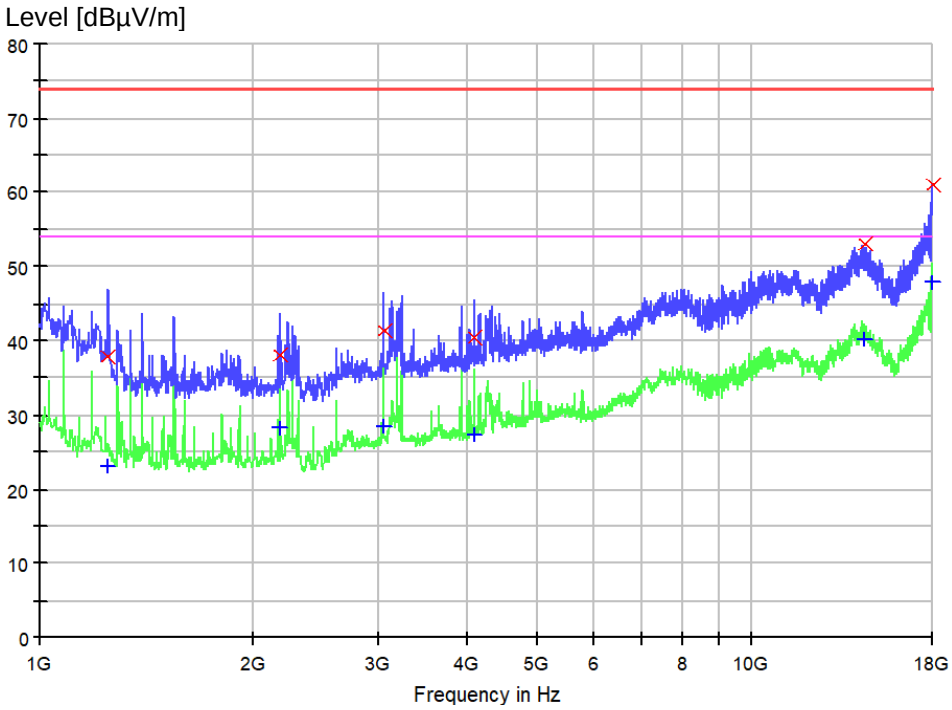
Final maxpeak measurement result:

Frequency (MHz)	MaxPeak (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2236.750000	44.6	1000.000	300.0	H	162.0	-16.7	29.4	74.0
3231.250000	41.2	1000.000	100.0	H	30.0	-14.2	32.8	74.0
3894.250000	40.7	1000.000	100.0	H	-97.0	-13.2	33.3	74.0
4884.500000	42.9	1000.000	100.0	H	22.0	-10.5	31.1	74.0
14430.000000	53.8	1000.000	200.0	H	-74.0	2.6	20.2	74.0
17961.750000	60.8	1000.000	100.0	H	165.0	12.0	13.2	74.0

Final average measurement result:

Frequency (MHz)	Average (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2236.750000	35.6	1000.000	300.0	H	162.0	-16.7	18.4	54.0
3231.250000	28.4	1000.000	100.0	H	30.0	-14.2	25.6	54.0
3894.250000	28.0	1000.000	100.0	H	-97.0	-13.2	26.0	54.0
4884.500000	29.1	1000.000	100.0	H	22.0	-10.5	24.9	54.0
14430.000000	40.7	1000.000	200.0	H	-74.0	2.6	13.3	54.0
17961.750000	47.9	1000.000	100.0	H	165.0	12.0	6.1	54.0

Figure 26: Spectral Diagrams and measurement results, 1 GHz – 18 GHz, vertical polarization on mode 6



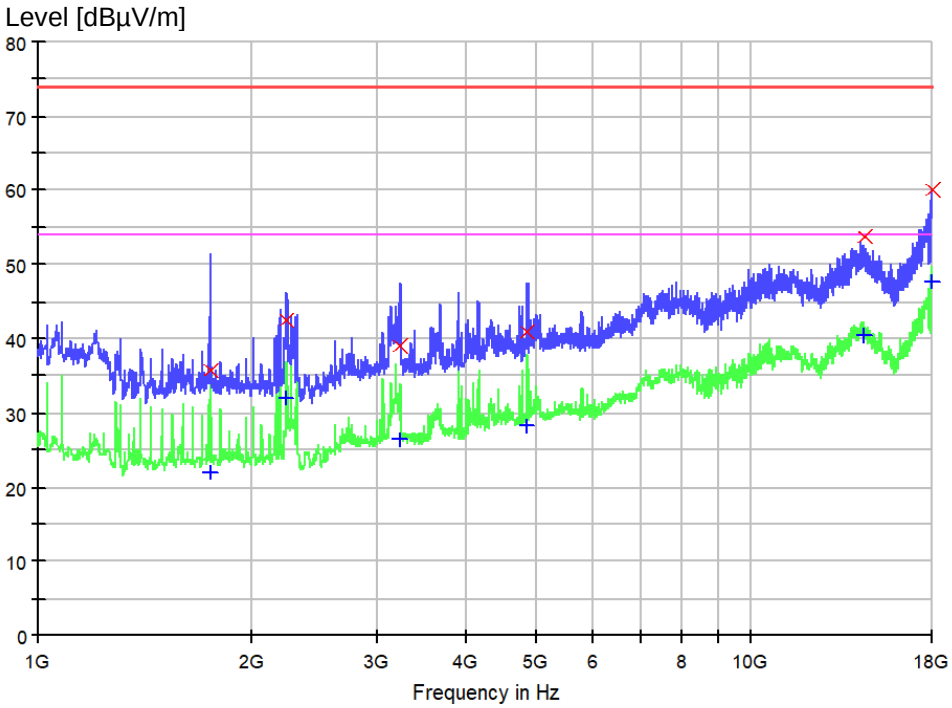
Final maxpeak measurement result:

Frequency (MHz)	MaxPeak (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1248.625000	37.9	1000.000	200.0	V	-74.0	-20.3	36.1	74.0
2179.375000	38.2	1000.000	200.0	V	-165.0	-16.9	35.8	74.0
3050.625000	41.4	1000.000	100.0	V	13.0	-14.5	32.6	74.0
4085.500000	40.6	1000.000	300.0	V	25.0	-12.5	33.5	74.0
14472.500000	53.2	1000.000	400.0	V	-99.0	2.6	20.8	74.0
17970.250000	60.9	1000.000	300.0	V	-12.0	12.2	13.1	74.0

Final average measurement result:

Frequency (MHz)	Average (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1248.625000	23.1	1000.000	200.0	V	-74.0	-20.3	30.9	54.0
2179.375000	28.3	1000.000	200.0	V	-165.0	-16.9	25.7	54.0
3050.625000	28.6	1000.000	100.0	V	13.0	-14.5	25.4	54.0
4085.500000	27.3	1000.000	300.0	V	25.0	-12.5	26.7	54.0
14472.500000	40.1	1000.000	400.0	V	-99.0	2.6	13.9	54.0
17970.250000	48.0	1000.000	300.0	V	-12.0	12.2	6.0	54.0

Figure 27: Spectral Diagrams and measurement results, 1 GHz – 18 GHz, horizontal polarization on mode 7



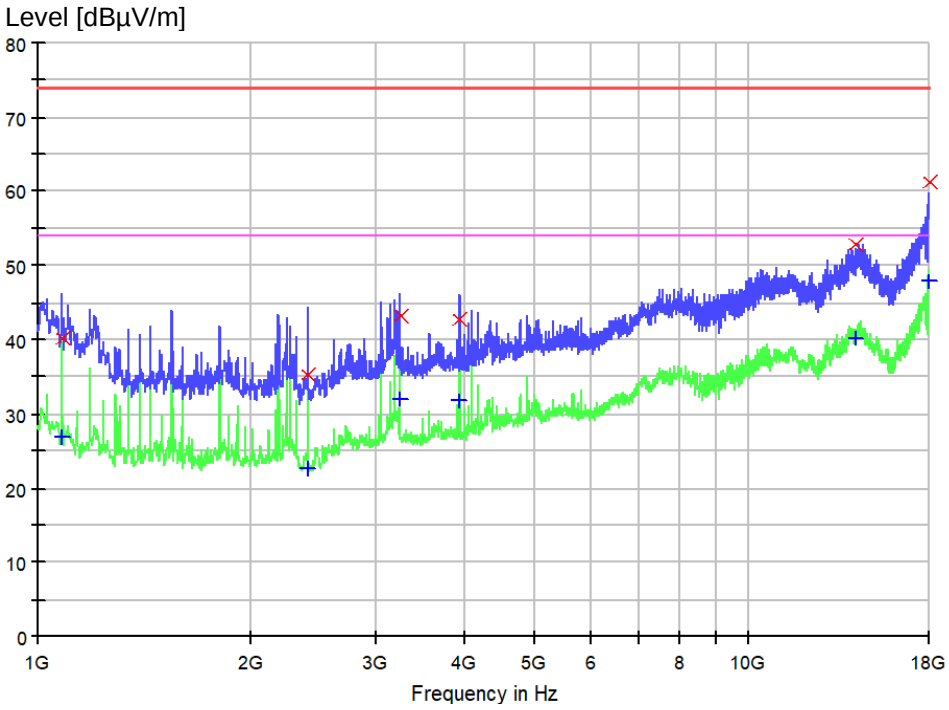
Final maxpeak measurement result:

Frequency (MHz)	MaxPeak (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1741.625000	35.7	1000.000	300.0	H	125.0	-18.3	38.3	74.0
2236.750000	42.5	1000.000	300.0	H	-47.0	-16.7	31.5	74.0
3229.125000	39.0	1000.000	400.0	H	-31.0	-14.2	35.0	74.0
4867.500000	41.0	1000.000	400.0	H	19.0	-10.5	33.1	74.0
14449.125000	53.8	1000.000	200.0	H	172.0	2.6	20.2	74.0
17963.875000	60.2	1000.000	100.0	H	67.0	12.1	13.8	74.0

Final average measurement result:

Frequency (MHz)	Average (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1741.625000	22.1	1000.000	300.0	H	125.0	-18.3	31.9	54.0
2236.750000	32.2	1000.000	300.0	H	-47.0	-16.7	21.8	54.0
3229.125000	26.5	1000.000	400.0	H	-31.0	-14.2	27.5	54.0
4867.500000	28.4	1000.000	400.0	H	19.0	-10.5	25.6	54.0
14449.125000	40.5	1000.000	200.0	H	172.0	2.6	13.5	54.0
17963.875000	47.7	1000.000	100.0	H	67.0	12.1	6.3	54.0

Figure 28: Spectral Diagrams and measurement results, 1 GHz – 18 GHz, vertical polarization on mode 7



Final maxpeak measurement result:

Frequency (MHz)	MaxPeak (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1082.875000	40.3	1000.000	200.0	V	95.0	-20.9	33.7	74.0
2402.500000	35.4	1000.000	100.0	V	-40.0	-16.1	38.7	74.0
3233.375000	43.2	1000.000	100.0	V	117.0	-14.2	30.8	74.0
3928.250000	42.7	1000.000	100.0	V	66.0	-13.1	31.3	74.0
14192.000000	52.9	1000.000	200.0	V	-141.0	2.0	21.1	74.0
17972.375000	61.2	1000.000	300.0	V	82.0	12.2	12.8	74.0

Final average measurement result:

Frequency (MHz)	Average (dBµV/m)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1082.875000	26.9	1000.000	200.0	V	95.0	-20.9	27.1	54.0
2402.500000	22.7	1000.000	100.0	V	-40.0	-16.1	31.3	54.0
3233.375000	32.1	1000.000	100.0	V	117.0	-14.2	21.9	54.0
3928.250000	31.9	1000.000	100.0	V	66.0	-13.1	22.1	54.0
14192.000000	40.2	1000.000	200.0	V	-141.0	2.0	13.8	54.0
17972.375000	47.9	1000.000	300.0	V	82.0	12.2	6.2	54.0

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
9053584	Shielded enclosure	FRSR	Frankonia	02.12.2022	02.12.2027
G1811402	EMI test receiver	ESCI	Rohde&Schwarz	05.12.2023	05.12.2024
G1811403	Artificial mains network	ENV216	Rohde&Schwarz	16.10.2023	16.10.2024
G1811378	3m semi-anechoic chamber	SAC3	Frankonia	10.06.2021	10.06.2024
G1811391	EMI test receiver	ESCI	Rohde&Schwarz	29.09.2023	29.09.2024
G1811425	Bilog antenna	CBL 6112D	Teseq	20.04.2023	20.04.2026
G1824845	EMC measurement software	EMC32 (Ver 10.20.01)	Rohde&Schwarz	N/A	N/A
G1822695	Spectrum analyser	FSP30	Rohde&Schwarz	31.08.2023	31.08.2025
G1825371	Preamplifier	EMC051845SE	Taiwan EMCI	20.06.2023	20.06.2025
G1822694	Double ridged broadband horn antenna	BBHA 9120 D	Schwarzbeck	31.08.2023	31.08.2028

8 List of Figures

End of test report