TEST REPORT

Applicant:	Ugreen Group Limited
Address of Applicant:	Ugreen Building, Longcheng Industrial Park, Longguanxi Road, Longhua, Shenzhen, China
Manufacturer:	Ugreen Group Limited
Address of Manufacturer:	Ugreen Building, Longcheng Industrial Park, Longguanxi Road, Longhua, Shenzhen, China
Product name:	Magnetic Wireless Car Charger
Model:	W708
Rating(s):	Input: 5.0V⎓3.0A/9.0V⎓2.22A Wireless Charging Total Output Power: 15.0W Max
Trademark:	UGREEN
Standards:	47 CFR PART 15 Subpart C
FCC ID:	2AQI5-W708A
Data of Receipt:	2025-07-23
Date of Test:	2025-07-23~2025-08-20
Date of Issue:	2025-08-20
Test Result	**Pass***

* In the configuration tested, the test item complied with the standards specified above.

Authorized for issue by:

Test by:

Aug.20, 2025 Chivas Tsang Project Engineer

Date Name/Position Signature

Reviewed by:

Aug.20, 2025 Victor Meng Project Engineer

Date Name/Position Signature

Possible test case verdicts:

test case does not apply to the test object .. :	N/A
test object does meet the requirement ..... :	P (Pass)
test object does not meet the requirement .. :	F (Fail)

Testing Laboratory information:

Testing Laboratory Name .....:	ITL Co., Ltd.
Address .....:	No.8, JinQianLing street 5, DongHuan Road, Huangjiang Town, Dongguan, China.
Testing location :	Same as above
Tel :	0086-769-39001678
Fax :	0086-20-62824387
E-mail :	itl@i-testlab.com

General remarks:

The test results presented in this report relate only to the object tested.

The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.

This report would be invalid test report without all the signatures of testing technician and approver.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

General product information:

P/N code in the below table, for marketing purpose, will be marked on the marking plate.

35970	35970P	35970X	35970A	35970B	35970U	35970JP	35970D	35970T
45776	45776P	45776X	45776A	45776B	45776U	45776JP	45776D	45776T

1 Test Summary

Test	Test Requirement	Test method	Result
Antenna Requirement	FCC PART 15 section 15.203	FCC PART 15 section 15.203	PASS
Radiated Emission	FCC PART 15 section 15.209	ANSI C 63.10	PASS
Conducted Emission	FCC PART 15 section 15.207	ANSI C 63.10	N/A
Emission Bandwidth	FCC PART 15 section 15.215(c)	ANSI C 63.10	PASS

Remark:

N/A: Because the device is DC power operated.
EUT: In this whole report EUT means Equipment Under Test.
Tx: In this whole report Tx (or tx) means Transmitter.
Rx: In this whole report Rx (or rx) means Receiver.
RF: In this whole report RF means Radio Frequency.
ANSI C63.10: the detail version is ANSI C63.10:2013 in the whole report.

2 Contents

3 General Information

3.1 Client Information

Applicant:	Ugreen Group Limited
Address of Applicant:	Ugreen Building, Longcheng Industrial Park, Longguanxi Road, Longhua, Shenzhen, China

3.2 General Description of E.U.T.

Name:	Magnetic Wireless Car Charger
Model No.:	W708
P/N code:	35970, 35970P, 35970X, 35970A, 35970B, 35970U, 35970JP, 35970ZD, 35970T, 45776, 45776P, 45776X, 45776A, 45776B, 45776U, 45776JP, 45776ZD, 45776T
Trade Mark:	UGREEN
Operating Frequency:	360kHz
Type of Modulation	ASK
Antenna Type:	Coil Antenna

3.3 Details of E.U.T.

EUT Power Supply:	5Vdc, 3A/9.0Vdc, 2.22A (From Car Charger)
Test mode:	Mode 1: base station in stand-by, idle mode Mode 2: Communication and charging

All test modes were pre-tested, but we only recorded the worst case in this report.

3.4 Details of Support Equipment(s)

Description	Manufacturer	Model No.	Working state
Wireless Charging load	YBZ	5W/7.5W/10W/15W	Normal
Car Charger	UGREEN	EC 706	Normal

3.5 Test Location

All tests were performed at:

ITL Co., Ltd.
No.8, JinQianLing street 5, DongHuan Road, Huangjiang Town, Dongguan, China.
0086-769-39001678
itl@i-testlab.com

No tests were sub-contracted.

3.6 Deviation from Standards

None.

3.7 Abnormalities from Standard Conditions

None.

3.8 Other Information Requested by the Customer

None.

3.9 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS Lab code:L9342**
- **FCC Designation No.:CN5035**
- **IC Registration NO.: 12593A**
- **CAB identifier number: CN0025**
- **NVLAP LAB CODE: 600199-0**

3.10 Measurement Uncertainty

The below measurement uncertainties given below are based on a 95% confidence level (base on a coverage factor (k=2).)

Parameter	Uncertainty
Radio frequency	$\pm 1.06 \times 10^{-7}$
total RF power, conducted	1.37 dB
RF power density , conducted	2.89 dB
All emissions, radiated	±3.35 dB
Temperature	±0.23 °C
Humidity	±0.3 %
DC and low frequency voltages	±0.3 %

4 Instruments Used during Test

No.	Test Equipment	Manufacturer	Model	Serial No.	Cal Data	Due Date
DGITL- 301	Semi-Anechoic chamber	ETS•Lindgren	9*6*6	CT000874-1181	2023.08.02	2026.08.02
DGITL- 307	EMI test receiver	SCHWARZBECK	ESVS10	833616/003	2025.03.15	2026.03.15
DGITL-376	Wideband Radio Communication Tester	SCHWARZBECK	CMW500	LR114195	2025.03.15	2026.03.15
DGITL-349a	Vector Signal Generator	ROHDE&SCHWARZ	SMBV100A	259268	2025.03.15	2026.03.15
DGITL- 306	Spectrum Analyzer	Agilent Technologies	N9010A	MY54200334	2025.03.15	2026.03.15
DGITL- 352	Pre Amplifier	Mlnl-Clrcuits	ZFC-1000HX	SN292801110	2025.03.15	2026.03.15
DGITL-375	Spectrum Analyzer	SCHWARZBECK	FSV40-N	6625-01-588-5515	2025.03.15	2026.03.15
DGITL-309	Horn Antenna	ETS Lindgren	3117	SN00152265	2025.03.15	2026.03.15
DGITL- 308	BroadBand Antenna	SCHWARZBECK	VULB 9168	0844	2025.05.13	2027.05.12
DGITL-350	Wideband Amplifier Super Ultra	Mlnl-Clrcuits	ZVA-183X-S+	SN986401426	2024.05.15	2026.05.11
DGITL-371	Pre Amplifier	teramicrowave	TALA-0040G35	18081001	2023.08.02	2026.08.02
DGITL-363	Active Loop Antenna	SCHWARZBECK	FMZB1519B	00062	2025.03.15	2026.03.15

5 Test Results

5.1 Antenna Requirement

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

Test Result

This product uses permanently attached internal coil antenna that meets the requirement in 15.203.

5.2 Radiated Emissions

Test Requirement: FCC Part 15 C section 209(a)

Test Method: ANSI C63.10

Operating Environment:

Temperature: 24.0 °C Humidity: 53 % RH Atmospheric Pressure: 101 kPa

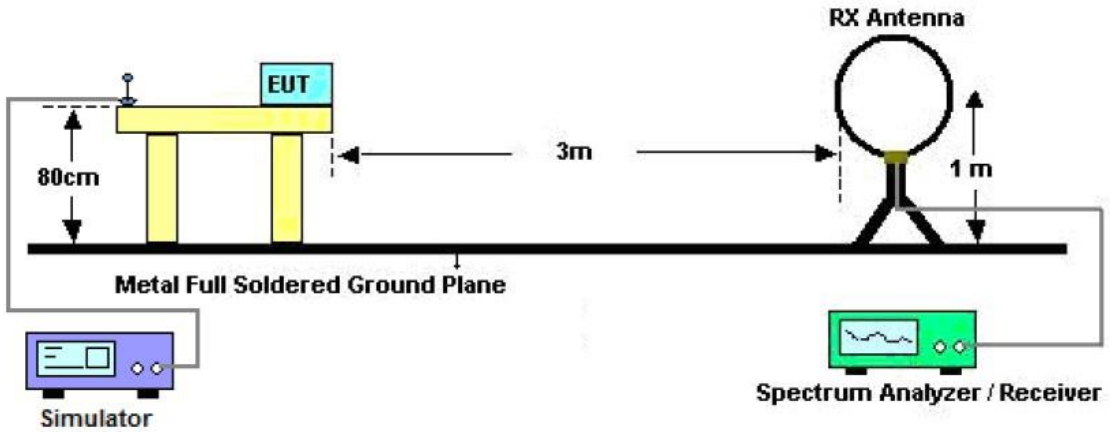
Test Status: Test the transmitter in continuous transmitting mode.

Limit: The field strength of emissions from intentional radiators operated under this Section shall not exceed the following:

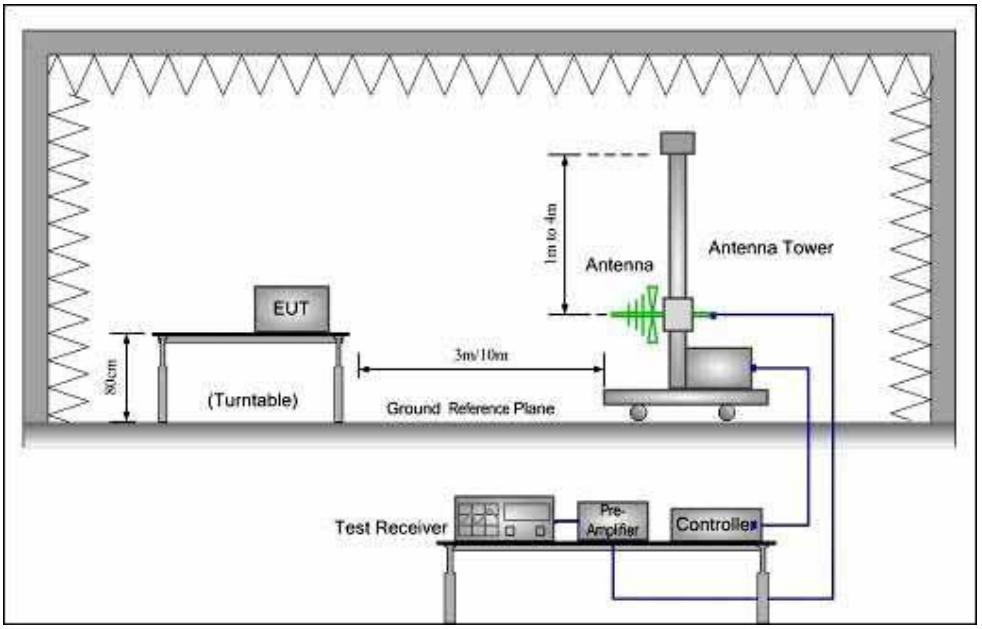
Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))} + 80$
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))} + 40$
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

Test Configuration:

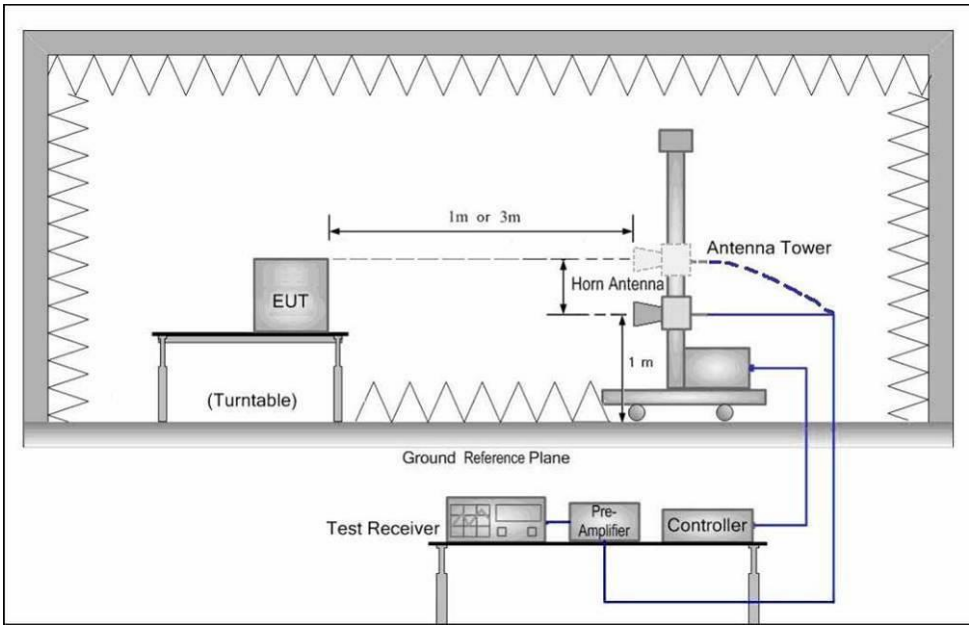
1) 9 kHz to 30 MHz emissions:



2) 30 MHz to 1 GHz emissions:



3) 1 GHz to 40 GHz emissions:



Test Procedure:

1) 9 kHz to 30 MHz emissions:

For testing performed with the loop antenna. The centre of the loop was positioned 1 m above the ground and positioned with its plane vertical at the special distance from the EUT. During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane.

2) 30 MHz to 1 GHz emissions:

For testing performed with the bi-log type antenna. The measurement is performed with the EUT rotated 360º, the antenna height scanned between 1m and 4m, and the antenna rotated to repeat the measurement for both the horizontal and vertical antenna polarizations.

3) 1 GHz to 40 GHz emissions:

Test site with RF absorbing material covering the ground plane that met the site validation criterion called out in CISPR 16-1-4:2007 was used to perform radiated emission test above 1 GHz.

For testing performed with the horn antenna. The measurement is performed with the EUT rotated 360º, the antenna height scanned between 1m and 4m, and the antenna rotated to repeat the measurement for both the horizontal and vertical antenna polarizations.

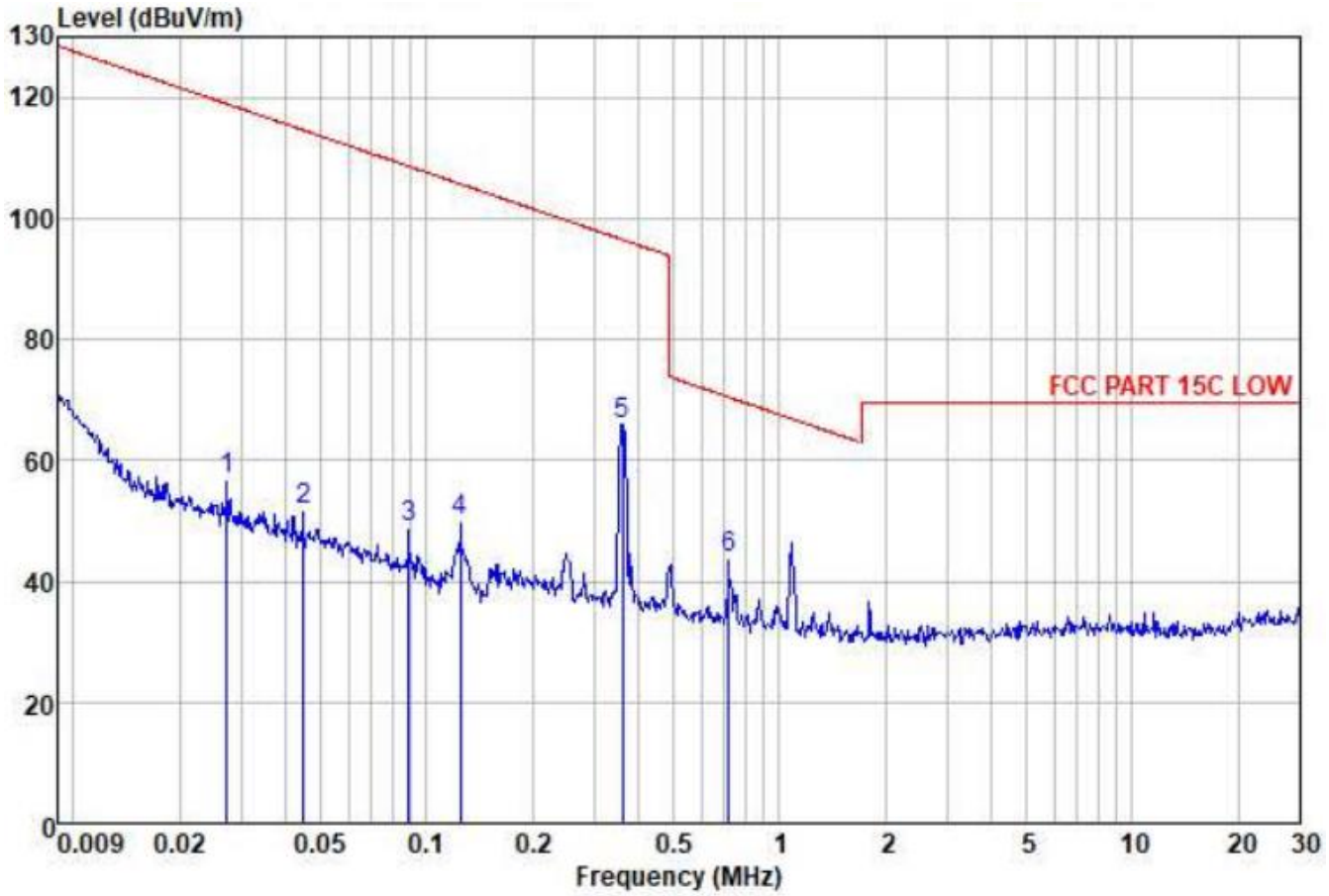
The field strength of radiation emission was measured in the following position: EUT stand-up position (Y axis), lie-down position (X, Z axis). The worst case of X axis was reported.

Detector: Resolution bandwidth for Peak and Quasi-Peak value:
200 Hz for 9 kHz to 150 kHz
9 kHz for 150 kHz to 30 MHz
120 kHz for 30 MHz to 1GHz
1 MHz for above 1 GHz,
VBW $\geq$ RBW
Sweep = auto
Detector function = peak
Trace = max hold
For AV value:
Average = Peak value + 20log (Duty cycle)

Measurement Data

Evaluation has been done with the antenna placed vertically and horizontally. Only the worst test data in the report.

9kHz~30MHz Test result

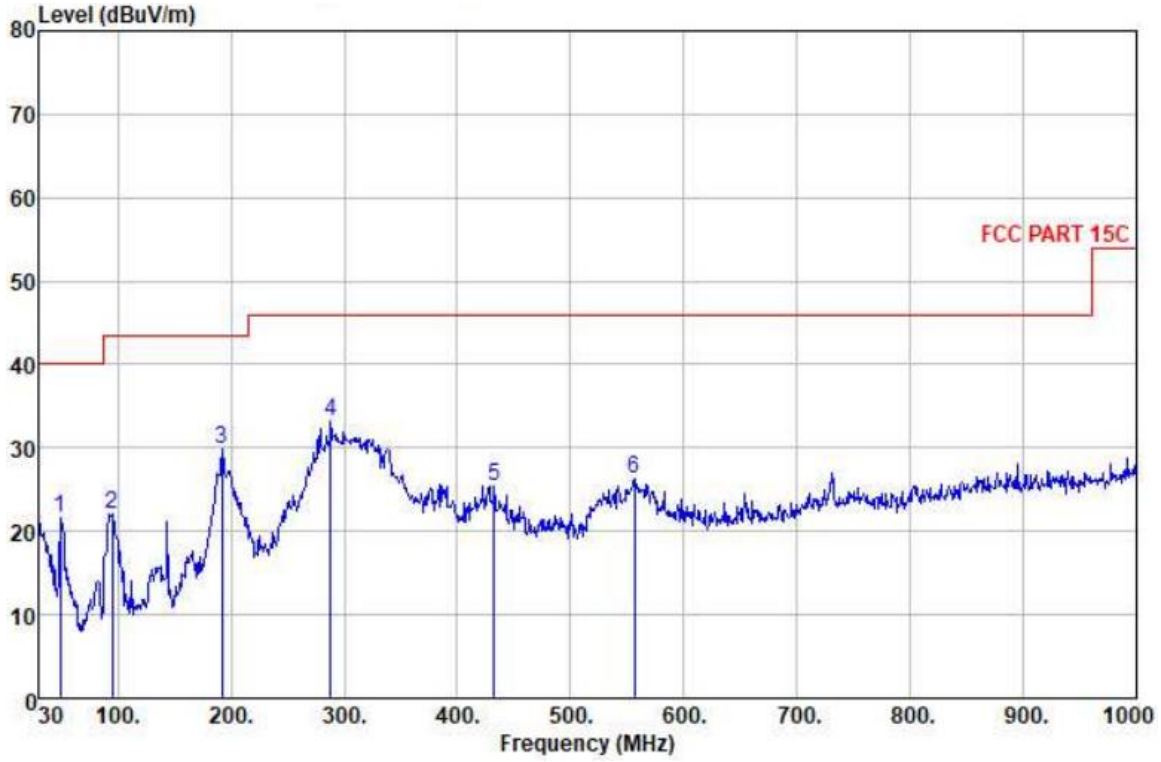


Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
0.027	56.85	118.94	62.09	PK
0.045	51.93	114.57	62.64	PK
0.089	48.87	108.58	59.71	PK
0.125	49.90	105.69	55.79	PK
0.360	65.84	96.46	30.62	PK
0.719	43.73	70.47	26.74	PK

30 MHz~1 GHz Spurious Emissions .Quasi-Peak Measurement

Horizontal:

Peak scan

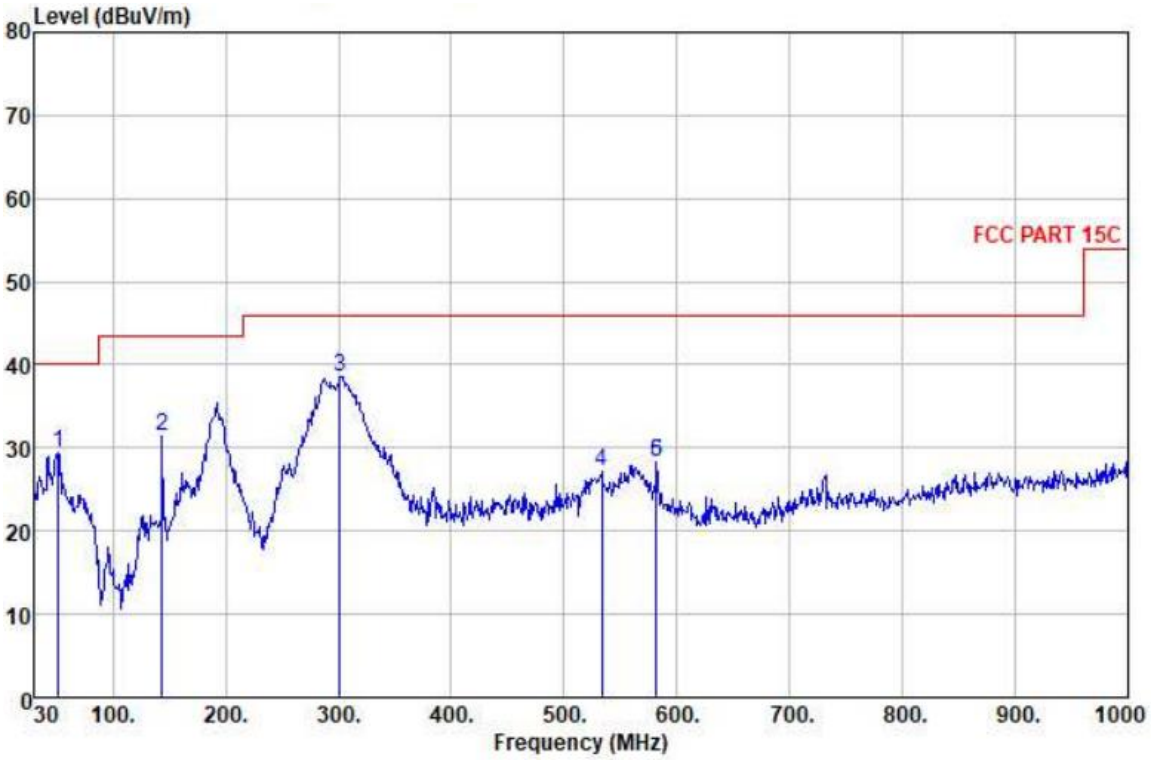


No.	Freq MHz	Read Level dBuV	Antenna Factor dB	Cable Loss dB	Preamp Factor dB	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Pol/Phase	Remark
1	49.400	41.19	8.20	0.80	28.59	21.60	40.00	-18.40	HORIZONTAL	QP
2	94.990	40.93	8.70	1.14	28.60	22.17	43.50	-21.33	HORIZONTAL	QP
3	191.990	45.41	10.50	1.67	27.66	29.92	43.50	-13.58	HORIZONTAL	QP
4	288.020	45.45	13.24	2.08	27.54	33.23	46.00	-12.77	HORIZONTAL	QP
5	432.550	35.37	15.75	2.57	28.25	25.44	46.00	-20.56	HORIZONTAL	QP
6	556.710	34.00	18.13	2.94	28.85	26.22	46.00	-19.78	HORIZONTAL	QP

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

Vertical:

Peak scan



No.	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB		
1	51.340	49.89	7.20	0.82	28.54	29.37	40.00	-10.63	VERTICAL	QP
2	143.490	49.96	8.35	1.43	28.34	31.40	43.50	-12.10	VERTICAL	QP
3	301.600	50.43	13.57	2.13	27.59	38.54	46.00	-7.46	VERTICAL	QP
4	533.430	35.35	17.57	2.87	28.70	27.09	46.00	-18.91	VERTICAL	QP
5	581.930	34.95	18.84	3.01	28.56	28.24	46.00	-17.76	VERTICAL	QP
6	581.930	34.95	18.84	3.01	28.56	28.24	46.00	-17.76	VERTICAL	QP

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

5.3 Emission Bandwidth

Test Requirement: FCC Part 15 C section 15.215 (c)

Test Method: ANSI C63.10:

Operating Environment:

Temperature: 24.0 °C Humidity: 53 % RH Atmospheric Pressure: 101 kPa

Requirements:

According to 15.215 (c), intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

Method of measurement: The useful radiated emission from the EUT was detected by the spectrum analyzer with peak detector. Record the 20 dB bandwidth of the carrier.

According to the ANSI 63.10-2013, the emission bandwidth test method as follows.

Set span = 10kHz, centered on a transmitting channel

5% of 20dB Bandwidth≥RBW≥1% of 20dB Bandwidth, VBW ≥RBW

Sweep = auto

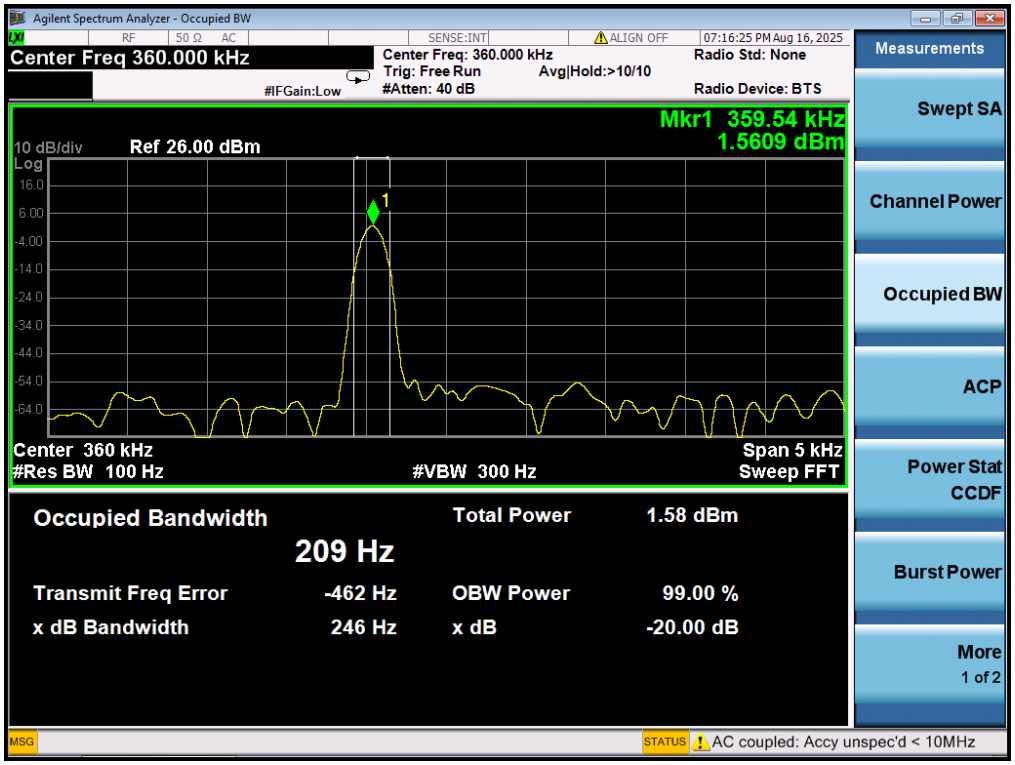
Detector function = peak

Trace = max hold

Test result:

Test Frequency kHz	20dB Bandwidth Hz
360	246

Test plot:



Note: Because the measured signal is CW-like, adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

5.4 Conducted Emissions at Mains Terminals 150 kHz to 30MHz

Test Requirement: FCC Part 15 C section 15.207

Test Method: ANSI C63.10

Operating Environment:

Temperature: 24 °C Humidity: 51 % RH Atmospheric Pressure: 101 kPa

Frequency Range: 150 kHz to 30 MHz

Detector: Peak for pre-scan (9 kHz Resolution Bandwidth)

Test Limit

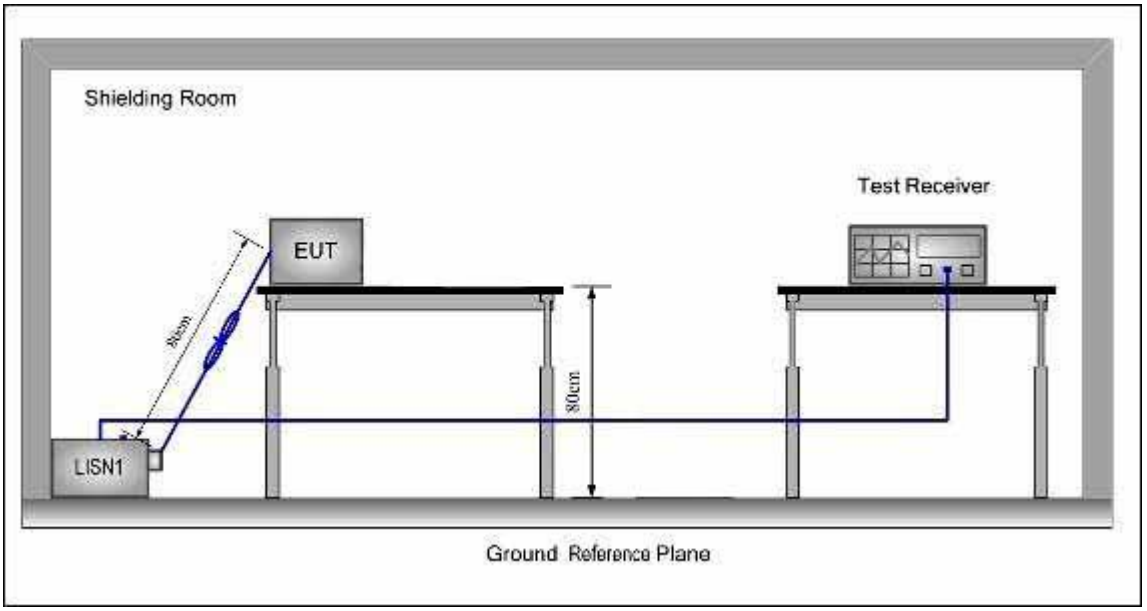
Limits for conducted disturbance at the mains ports of class B

Frequency Range (MHz)	Class B Limit dB(μV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
NOTE 1 The limit decreases linearly with the logarithm of the frequency in the range 0,15 MHz to 0,50 MHz.		

EUT Operation: Test in normal operating mode. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, channels and antenna ports (if EUT with antenna diversity architecture).

Test Configuration:



Test procedure:

1. The mains terminal disturbance voltage test was conducted in a shielded room.

2. The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

3. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.

4. The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0,4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0,8 m from the LISN 2.

Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected. For EUT the communicating was worst case mode.

The following Quasi-Peak and Average measurements were performed on the EUT

Live line

Peak Scan:

Level (dBμV)

/

Quasi-peak and Average measurement

/

Neutral Line

Peak Scan:

Level (dBµV)

/

Quasi-peak and Average measurement

/

-- End of test report --