

FCC - TEST REPORT

Report Number : **68.950.24.1116.01** Date of Issue: **2024-10-11**

Model : **A25L0**

Product Type : **Anker MagGo Wireless Charger (Stand with Spotlight)**

Applicant : **Anker Innovations Limited**

Address : **Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong**

Manufacturer : **Anker Innovations Limited**

Address : **Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong**

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including
Appendices : **21**

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2 Details about the Test Laboratory

Details about the Test Laboratory

Test Site 1

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu,
Nantou, Nanshan District, Shenzhen, Guangdong, China

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FCC Registration No.: 514049

FCC Designation Number: CN5009

3 Description of the Equipment Under Test

Product:	Anker MagGo Wireless Charger (Stand with Spotlight)
Model No.:	A25L0
FCC ID:	2AOKB-A25L0
Rating:	Input: 9VDC, 2.77A / 12VDC, 2A / 15VDC, 1.66A supplied by external adapter Output: Wireless charging output: 5W, 7.5W, 15W
RF Transmission Frequency:	111-147kHz, 360kHz
Antenna Type:	Integrated coil antenna
Modulation Type:	FSK/ASK
WPT Type:	Magnetic Induction
Description of the EUT:	The Equipment Under Test (EUT) is an Anker MagGo Wireless Charger (Stand with Spotlight) which operated at 111-147kHz and 360kHz for wireless charging function (with data transmitting function).

4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2023 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators

All the test methods were according to ANSI C63.10 (2020).

5 Summary of Test Results

Technical Requirements					
FCC Part 15 Subpart C					
Test Condition		Test Site	Test Result		
			Pass	Fail	N/A
§15.207	Conducted emission AC power port	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.215(c)	20dB bandwidth	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.209	Radiated emission	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.203	Antenna requirement	See note 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note 1: The EUT uses an integrated coil antenna. In accordance to §15.203, it is considered sufficiently to comply with the provisions of this section.

6 General Remarks

Remarks

This submittal(s) (test report) is intended for FCC ID: 2AOKB-A25L0 complies with Section 15.207, 15.209, 15.205 of the FCC Part 15, Subpart C rules.

SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: 2024-09-02

Testing Start Date: 2024-09-02

Testing End Date: 2024-09-25

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch -

Reviewed by:

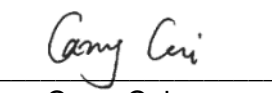
Prepared by:

Tested by:


John Zhi
Project Manager



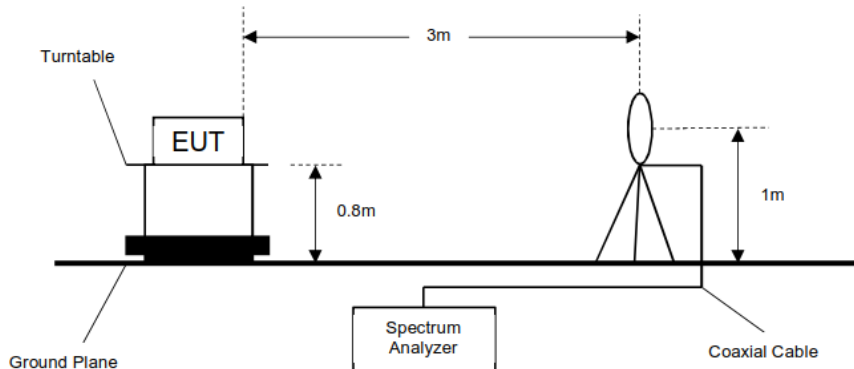

Sanvin Zheng
Project Engineer


Carry Cai
Test Engineer

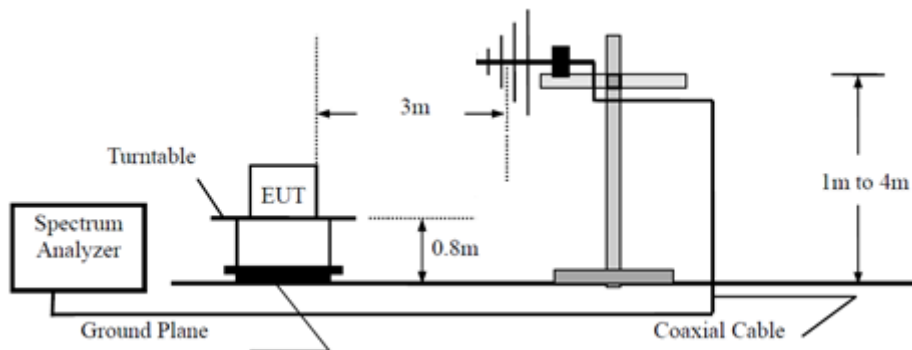
7 Test Setups

7.1 Radiated test setups

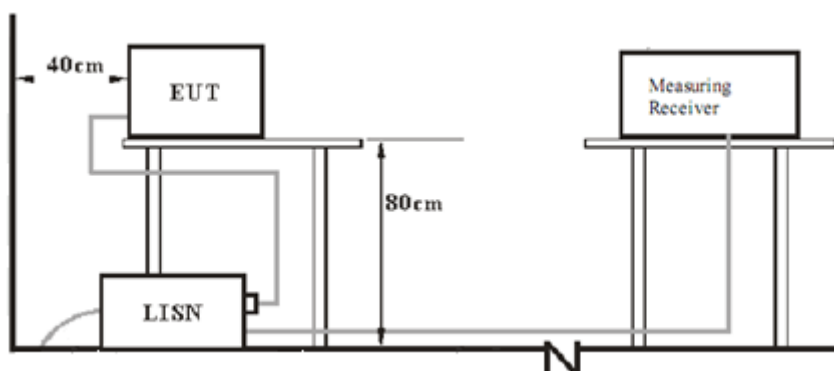
Below 30MHz



30MHz-1GHz



7.2 AC Power Conducted test setups



8 Systems test configuration

Auxiliary Equipment Used during Test:

Description	Manufacturer	Model NO.	Remark
Switching Adapter	Anker Innovations Limited	ASGaN83w- P40W20	Rating: Input: 100-240V, 50/60Hz, 1.0A Output: DC 5.0V, 3.0A, 15.0W / 9.0V, 3.0A, 27.0W / 12.0V, 3.0A, 36.0W / 15.0V, 2.66A, 39.9W / 20.0V, 2.0A, 40.0W
Dummy Load	---	---	---

9 Technical Requirement

9.1 Conducted Emission Test

Test Method

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. Both sides of AC line were checked for maximum conducted interference.
6. The frequency range from 150 kHz to 30 MHz was searched.
7. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

Limit

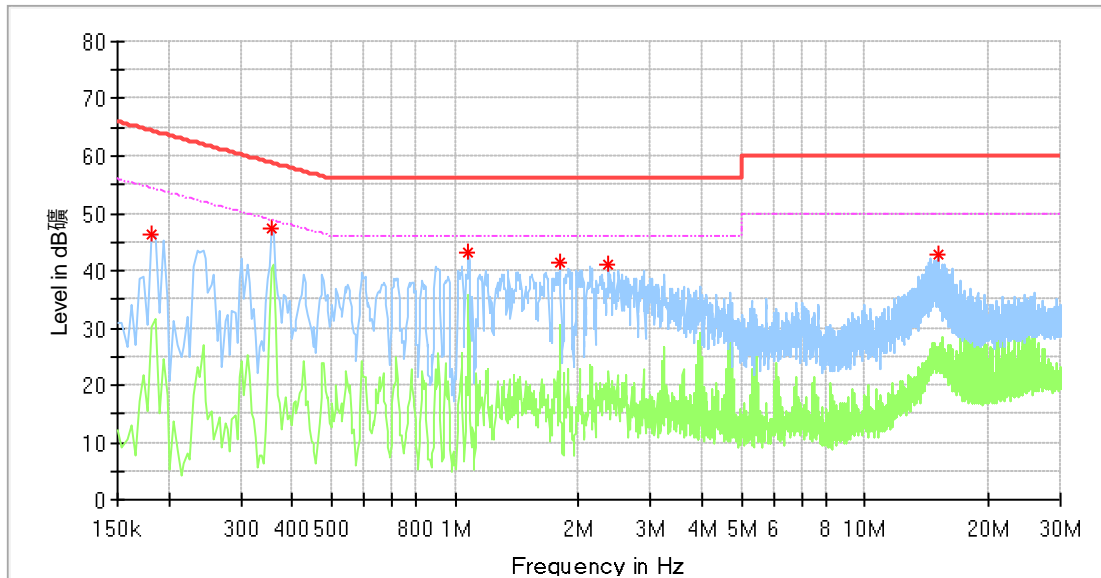
According to §15.207, conducted emissions limit as below:

Frequency MHz	QP Limit dB μ V	AV Limit dB μ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

*Decreasing linearly with logarithm of the frequency

Conducted Emission

Model: A25L0
Operating Condition: Wireless Power Transfer
Test Specification: Power Line, Live
Remark: 15W (maximum output power)



Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.182000	46.20	---	64.39	18.19	L1	10.30
0.358000	47.33	---	58.77	11.45	L1	10.31
1.078000	43.09	---	56.00	12.91	L1	10.32
1.802000	41.31	---	56.00	14.69	L1	10.36
2.370000	41.01	---	56.00	14.99	L1	10.38
15.110000	42.93	---	60.00	17.07	L1	10.86

Remark:

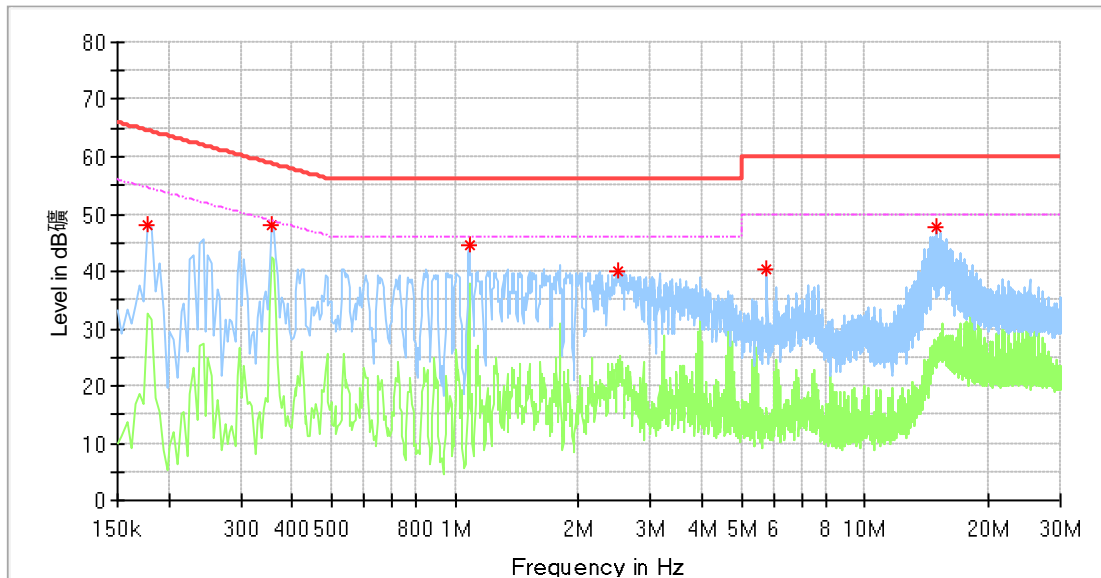
Level=Reading Level + Correction Factor

Correction Factor=Cable Loss + LISN Factor

(The Reading Level is recorded by software which is not shown in the sheet)

Conducted Emission

Model: A25L0
 Operating Condition: Wireless Power Transfer
 Test Specification: Power Line, Neutral
 Remark: 15W (maximum output power)



Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.178000	47.91	---	64.58	16.67	N	10.34
0.358000	48.08	---	58.77	10.69	N	10.34
1.082000	44.44	---	56.00	11.56	N	10.36
2.494000	40.03	---	56.00	15.97	N	10.42
5.762000	40.19	---	60.00	19.81	N	10.61
14.878000	47.75	---	60.00	12.25	N	11.55

Remark:

Level=Reading Level + Correction Factor

Correction Factor=Cable Loss + LISN Factor

(The Reading Level is recorded by software which is not shown in the sheet)

9.2 20 dB Bandwidth

Test Method

1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. Use the following test receiver settings:
Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
RBW \geq 1% to 5% of the 20 dB bandwidth, VBW \geq 3RBW, Sweep = auto,
Detector function = peak, Trace = max hold
4. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth. Record the results.

Limit

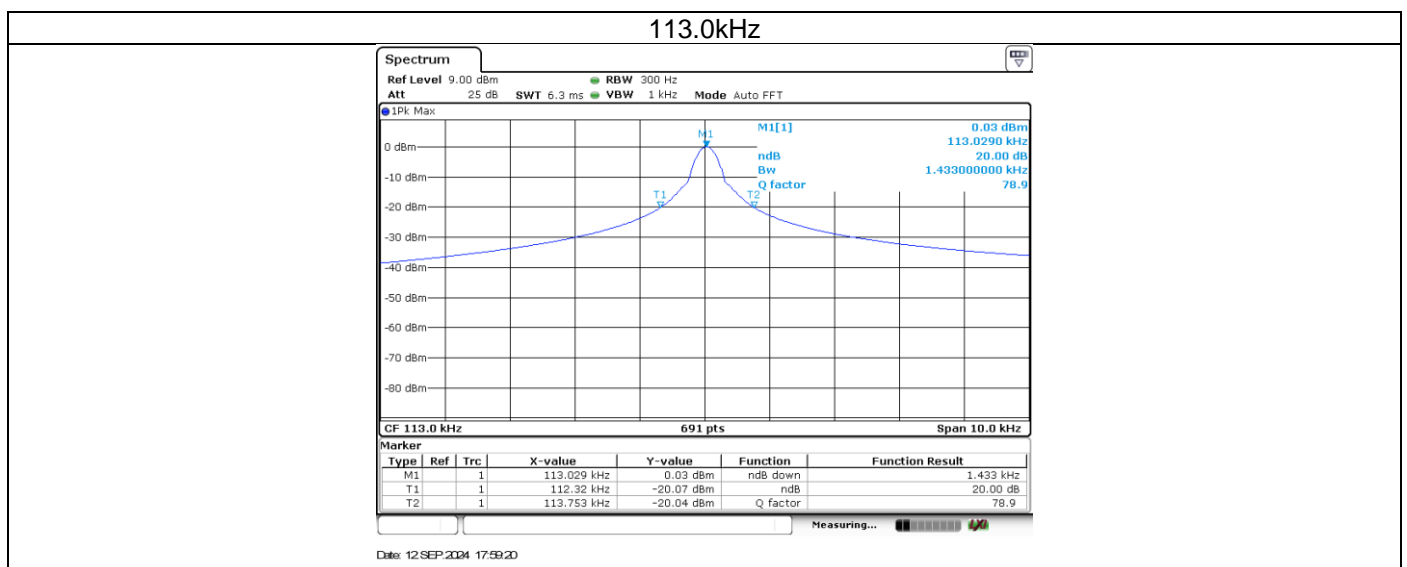
Intentional radiators must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

Test Result

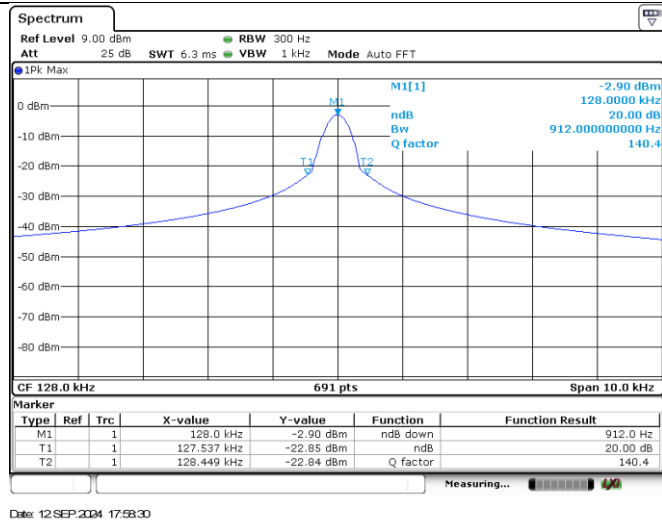
Frequency	20dB bandwidth	Result		Result
kHz	kHz	F _L (kHz)	F _H (kHz)	
113.0	1.433	112.320	113.753	Pass
128.0	0.912	127.537	128.449	Pass
360.0	0.868	359.595	360.463	Pass

The device didn't operate in the 90-110 kHz band.

Test Graph

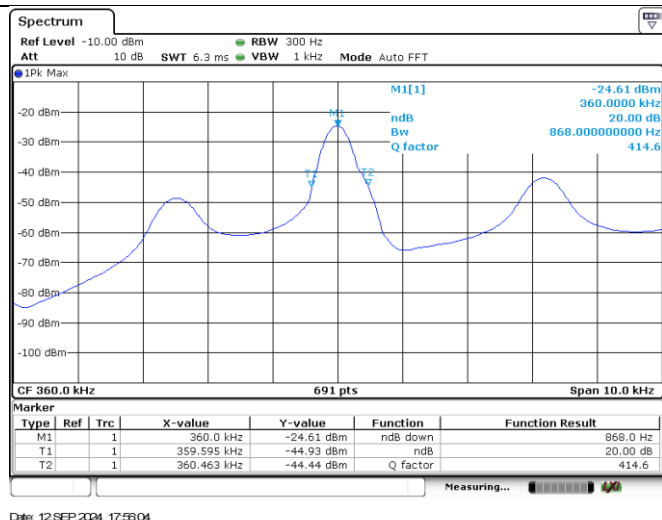


128.0kHz



Date: 12 SEP 2024 17:58:30

360.0kHz



Date: 12 SEP 2024 17:58:04

9.3 Radiated Emission Test

Test Method

1. The EUT was placed on a turn table which is 0.8m above ground plane. The table was rotated 360 degrees to determine the position of the highest radiation.
2. Set to the maximum power setting and enable the EUT transmit continuously
3. The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
4. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
5. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

Use the following test receiver settings According to C63.10:

For Below 9kHz-1GHz, use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious

9kHz -150kHz

RBW = 200Hz, VBW = 600Hz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

150kHz - 30MHz

RBW = 10 kHz, VBW = 30 kHz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

30MHz - 1GHz

RBW = 10 kHz, VBW = 30 kHz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

Limit

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

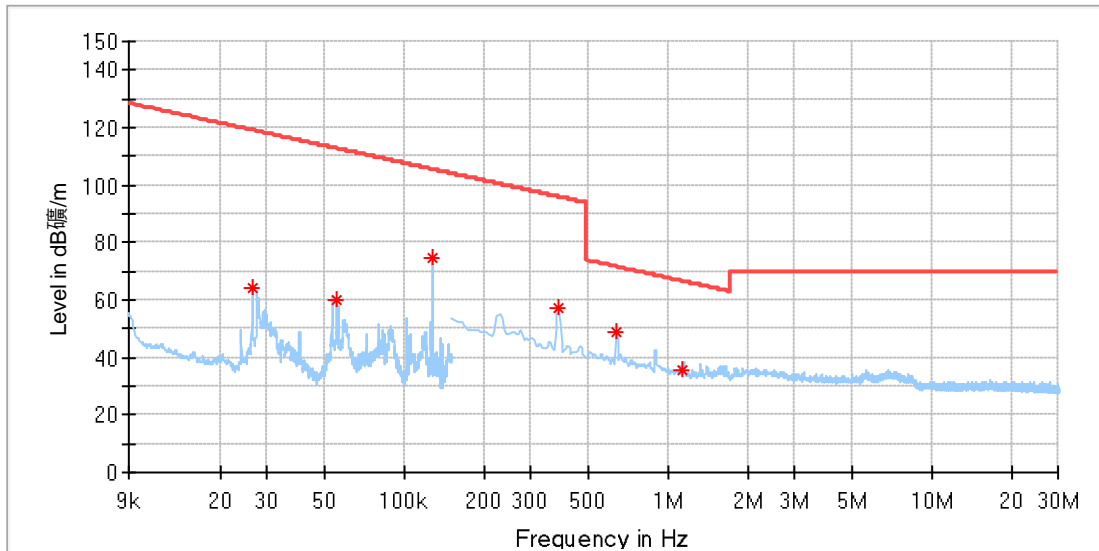
Frequency MHz	Field Strength $\mu\text{V/m}$	Field Strength $\text{dB}\mu\text{V/m}$	Detector	Measurement distance meters
0.009-0.490	2400/F(kHz)	48.5-13.8	QP	300
0.490-1.705	24000/F(kHz)	33.8-23.0	QP	30
1.705-30	30	29.5	QP	30
30-88	100	40	QP	3
88-216	150	43.5	QP	3
216-960	200	46	QP	3
960-1000	500	54	QP	3
Above 1000	500	54	AV	3
Above 1000	5000	74	PK	3

Note 1: Limit $3\text{m}(\text{dB}\mu\text{V/m}) = \text{Limit } 300\text{m}(\text{dB}\mu\text{V/m}) + 40\text{Log}(300\text{m}/3\text{m})$ (Below 30MHz)

Note 2: Limit $3\text{m}(\text{dB}\mu\text{V/m}) = \text{Limit } 30\text{m}(\text{dB}\mu\text{V/m}) + 40\text{Log}(30\text{m}/3\text{m})$ (Below 30MHz)

Radiated emissions test (9KHz-30MHz)

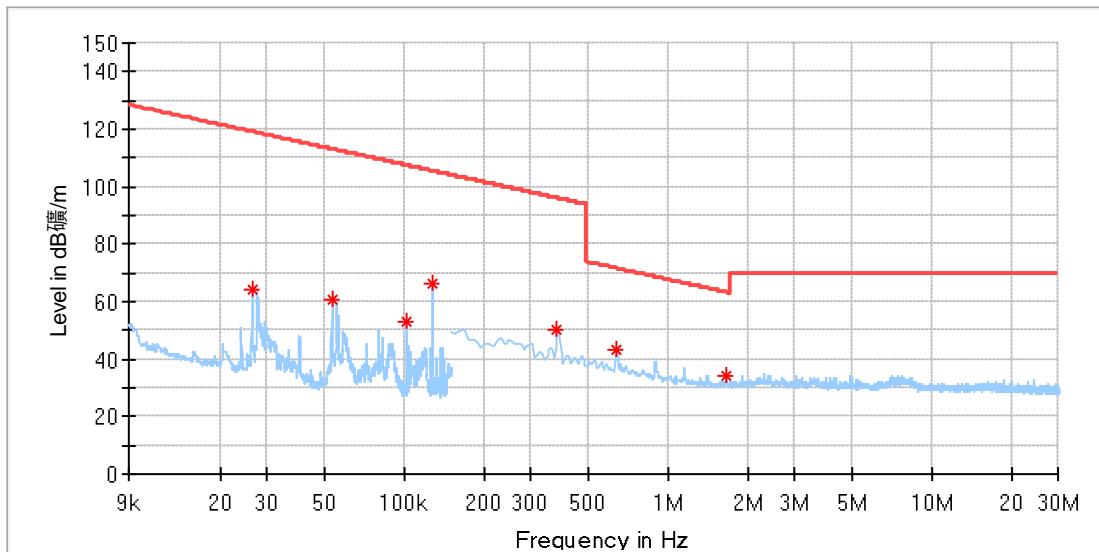
Model: A25L0
 Test Mode: Wireless Power Transfer
 Test Voltage: AC 120V/60Hz
 Remark: 7.5W wireless charging output



Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
0.026531	64.10	119.12	55.02	H	213.0	19.93
0.055295	60.03	112.74	52.71	H	221.0	19.96
0.128004	74.41	105.45	31.04	H	333.0	19.94
0.383825	57.51	95.92	38.41	H	309.0	19.94
0.637550	48.71	71.52	22.81	H	309.0	19.98
1.125100	35.34	66.60	31.26	H	215.0	20.01

Report Number: 68.950.24.1116.01

Model: A25L0
 Test Mode: Wireless Power Transfer
 Test Voltage: AC 120V/60Hz
 Remark: 7.5W wireless charging output



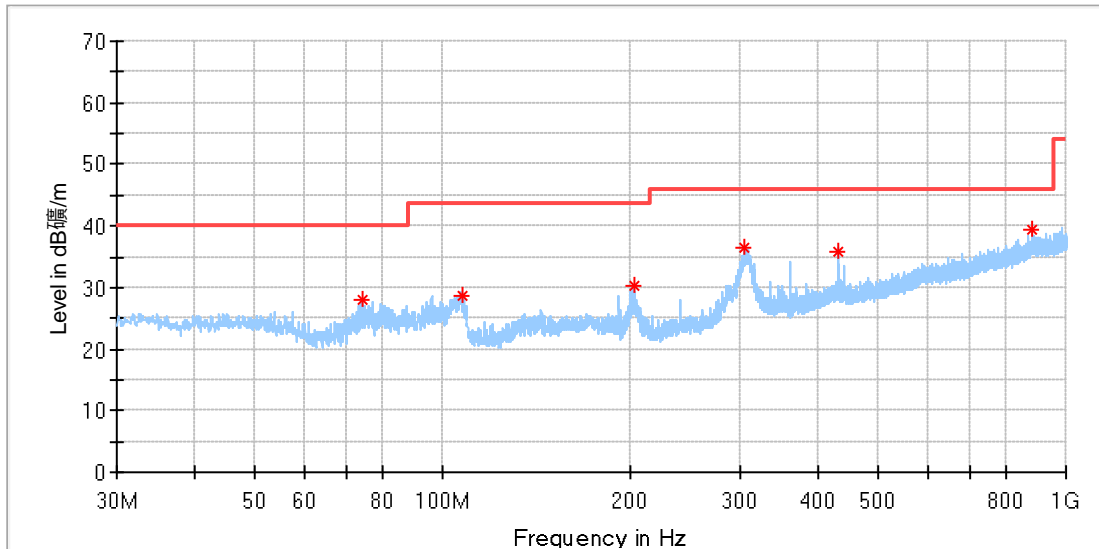
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
0.026484	64.47	119.13	54.66	V	317.0	19.93
0.053039	61.02	113.10	52.08	V	261.0	19.95
0.101496	52.80	107.47	54.67	V	293.0	19.95
0.128004	66.23	105.45	39.23	V	245.0	19.94
0.378850	49.89	96.03	46.14	V	33.0	19.94
0.637550	43.22	71.52	28.30	V	50.0	19.98
1.657425	34.11	63.25	29.14	V	345.0	20.03

Remark:

- (1) Below 1GHz: Corrector factor = Antenna Factor + Cable Loss.
- (2) The worst-case data were reported and no other spurious and harmonics emissions were reported greater than listed emission above table.

Radiated emissions test (30MHz-1000MHz)

Model: A25L0
 Test Mode: Wireless Power Transfer
 Test Voltage: AC 120V/60Hz
 Remark: 15W wireless charging output



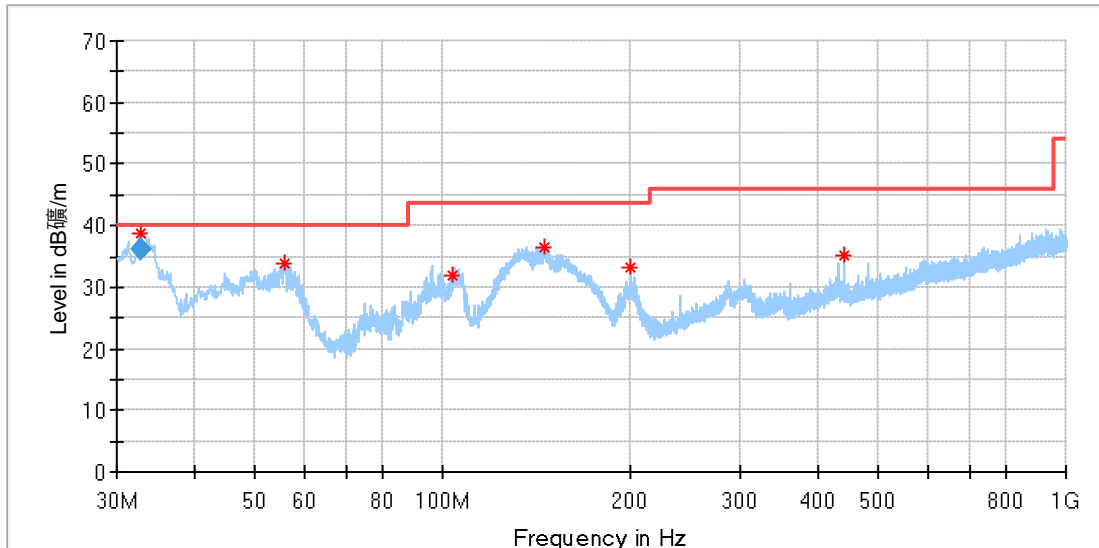
Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
74.135000	28.11	40.00	11.89	200.0	H	355.0	14.86
107.963750	28.67	43.50	14.83	200.0	H	331.0	19.50
202.296250	30.26	43.50	13.24	200.0	H	208.0	18.69
305.661875	36.56	46.00	9.44	100.0	H	115.0	21.65
431.943750	35.86	46.00	10.14	100.0	H	314.0	24.89
883.903125	39.38	46.00	6.62	100.0	H	5.0	31.91

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

Model: A25L0
 Test Mode: Wireless Power Transfer
 Test Voltage: AC 120V/60Hz
 Remark: 15W wireless charging output



Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.728125	38.60	40.00	1.40	100.0	V	21.0	21.06
55.644375	34.00	40.00	6.00	100.0	V	269.0	19.96
103.962500	31.87	43.50	11.63	100.0	V	0.0	19.88
145.248125	36.52	43.50	6.98	100.0	V	124.0	15.70
199.931875	33.16	43.50	10.34	100.0	V	0.0	18.82
439.946250	35.14	46.00	10.86	100.0	V	218.0	24.83

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.728125	36.10	40.00	3.90	100.0	V	21.0	21.06

Remark:

- (1) Below 1GHz: Corrector factor = Antenna Factor + Cable Loss.
- (2) The worst-case data were reported and no other spurious and harmonics emissions were reported greater than listed emission above table.

10 Test Equipment List

List of Test Instruments

Radiated Emission Test (9kHz-30MHz) (SAC-3 #1)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 7	68-4-74-19-001	102176	1	2025-5-13
Loop Antenna	Rohde & Schwarz	HFH2-Z2	68-4-80-14-006	100398	1	2025-7-24
Cable	HUBER-SUHNER	RG214	68-4-90-14-001-A21	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #1	68-4-90-14-001	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-14-001-A10	Version10.35.02	N/A	N/A

Radiated Emission Test (30MHz-1GHz) (SAC-3 #1)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 7	68-4-74-19-001	102176	1	2025-5-13
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	68-4-80-14-002	707	1	2025-7-2
Attenuator	Mini-circuits	UNAT-6+	68-4-81-21-001	15542	1	2025-5-11
Cable	HUBER-SUHNER	RG214	68-4-90-14-001-A20	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #1	68-4-90-14-001	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-14-001-A10	Version10.35.02	N/A	N/A

Conducted Emission Test (AMN)(CSR #1)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	68-4-74-14-001	101782	1	2025-5-13
LISN	Rohde & Schwarz	ENV432	68-4-87-16-001	101318	1	2025-5-13
LISN	Rohde & Schwarz	ENV216	68-4-87-14-002	100326	1	2025-5-12
Attenuator	Shanghai Huaxiang	TS2-26-3	68-4-81-16-003	080928189	1	2025-5-11
Cable	OUQIAO	RG142	68-4-90-19-004-A20	----	----	----
Test software	Rohde & Schwarz	EMC32	68-4-90-14-003-A10	Version9.15.00	N/A	N/A
Shielding Room	TDK	CSR #1	68-4-90-19-004	----	3	2025-10-15

11 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty	
Items	Extended Uncertainty
Uncertainty for Conducted Emission in shielding room (68-4-90-19-004) 9kHz-150kHz	3.67dB
Uncertainty for Conducted Emission in shielding room (68-4-90-19-004) 150kHz-30MHz (for test using AMN ENV432 or ENV4200)	3.26dB
Uncertainty for Radiated Emission in 3m chamber (68-4-90-14-001) 9kHz-30MHz	4.69dB
Uncertainty for Radiated Emission in 3m chamber (68-4-90-14-001) 30MHz-1000MHz	Horizontal: 4.78dB; Vertical: 5.85dB;
Uncertainty Evaluation for Temperature	0.26°C
Uncertainty Evaluation for Humidity	1.32%

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2023, clause 4.3.3 and 4.3.4.

---END OF TEST REPORT---