



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR230800170101

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TEST REPORT

Application No.: SHCR2308001701BA
FCC ID: 2BC6W00001
Applicant: SUMEC Hardware & Tools.Co., Ltd.
Address of Applicant: No.1 Xinghuo Road, Jiangbei New Area Nanjing Jiangsu P.R.China
Manufacturer: SUMEC Hardware & Tools.Co., Ltd.
Address of Manufacturer: No.1 Xinghuo Road, Jiangbei New Area Nanjing Jiangsu P.R.China
Factory: Xuzhou Hengyuan Electrical Appliances Co.,Ltd.
Address of Factory: No.47, Zhujiang Road, National High-Tech Zone, Xuzhou City, Jiangsu Province, China

Equipment Under Test (EUT):

EUT Name: Portable Power Station
Model No.: PB-300
Standard(s) : 47 CFR Part 15, Subpart C
Date of Receipt: 2023-08-28
Date of Test: 2023-09-12 to 2024-01-29
Date of Issue: 2024-02-27

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.




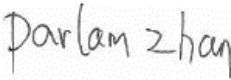
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<i>Revision Record</i>			
<i>Version</i>	<i>Description</i>	<i>Date</i>	<i>Remark</i>
00	Original	2024-02-27	/

Authorized for issue by:			
Tested By			
	Wade Zhang/Project Engineer		
Approved By			
	Parlam Zhan / Reviewer		

2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart C	N/A	47 CFR Part 15, Subpart C 15.203	Customer Declaration

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at Mains Terminals (150kHz-30MHz)	47 CFR Part 15, Subpart C	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
20dB Bandwidth		ANSI C63.10 (2013) Section 6.9.2	47 CFR Part 15, Subpart C 15.215	Pass
Radiated Emissions (9kHz-30MHz)		ANSI C63.10 (2013) Section 6.4	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Emissions (30MHz-1GHz)		ANSI C63.10 (2013) Section 6.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass

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4 General Information

4.1 Details of E.U.T.

Power supply:	AC 120V 60Hz 100W Max / DC 10-30V, 100W Max Battery Capacity: 230Wh(25.6V DC) Lithium iron phosphate Wireless Charging: 15W
Test Voltage:	AC 120V 60Hz
Operation frequency:	110kHz to 205kHz
Modulation type:	Load modulation
Antenna type:	Inductive Loop Coil Antenna

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Load	/	/	/

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4×10^{-8}
2	Timeout	2s
3	Duty Cycle	0.37%
4	RF Radiated Power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
5	Radiated Spurious Emission Test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
6	Temperature Test	1°C
7	Humidity Test	3%
8	Supply Voltages	1.5%
9	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666

Fax: +86 21 6191 5678

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc) is provided by the applicant. (if applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).
3. Sample source: sent by customer.

4.5 Test Facility

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

• **A2LA (Certificate No. 6332.01)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

• **FCC (Designation Number: CN1301)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

• **ISED (CAB Identifier: CN0020)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.
Company Number: 8617A

• **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
RF Radiated Test					
EMI test Receiver	R&S	ESU40	SHEM051-1	2023-12-19	2024-12-18
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2023-12-19	2024-12-18
Communication Tester	R&S	CMW500	SHEM268-1	2023-06-01	2024-05-31
Loop Antenna (9kHz-30MHz)	Schwarzbeck	FMZB1519	SHEM135-1	2023-12-19	2024-12-18
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM048-1	2023-09-03	2025-09-02
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM202-1	2023-04-17	2025-04-16
Horn Antenna (1-18GHz)	Schwarzbeck	HF906	SHEM009-1	2022-08-11	2024-08-10
Horn Antenna (1-18GHz)	Schwarzbeck	BBHA9120D	SHEM050-1	2023-09-03	2025-09-02
Horn Antenna (14-40GHz)	Schwarzbeck	BBHA 9170	SHEM049-1	2023-09-03	2025-09-02
Pre-Amplifier	HP	8447D	SHEM236-1	2023-12-19	2024-12-18
High-amplifier (14-40GHz)	Schwarzbeck	10001	SHEM049-2	2023-12-19	2024-12-18
Band Filter	LORCH	9BRX-875/X150	SHEM156-1	/	/
Band Filter	LORCH	13BRX-1950/X500	SHEM083-2	/	/
Band Filter	LORCH	5BRX-2400/X200	SHEM155-1	/	/
Band Filter	LORCH	5BRX-5500/X1000	SHEM157-2	/	/
High pass Filter	Wainwright	WHK3.0/18G	SHEM157-1	/	/
High pass Filter	Wainwright	WHKS1700	SHEM157-3	/	/
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2023-05-06	2026-05-05
RE test Cable	/	PT18-NMNM-10M	SHEM217-2	2023-12-19	2024-12-18
Test software	ESE	E3	Version: 6.111221a	/	/

Conducted Emissions at AC Mains Terminals (150kHz-30MHz)

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
EMI test receiver	Rohde & Schwarz	ESR7	SHEM162-1	2023/12/19	2024/12/18
Line impedance stabilization network	SCHWARZBECK	NSLK8127	SHEM061-1	2023/12/19	2024/12/18
Line impedance stabilization network	EMCO	3816_2	SHEM019-1	2023/12/19	2024/12/18
Pulse limiter	Rohde & Schwarz	ESH3-Z2	SHEM029-1	2023/12/19	2024/12/18
Shielding Room	ZHONGYU	8*4*3M	SHEM079-2	2023/12/19	2024/12/18
CE test Cable	/	/	SHEM172-1	2023/12/19	2024/12/18
Test Software	ESE	e3	Version: 6.191211	N/A	N/A

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

Standard Requirement:

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 an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is Inductive Loop Coil Antenna and no consideration of replacement.
Refer to internal photos

7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at Mains Terminals (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

7.1.1 E.U.T. Operation

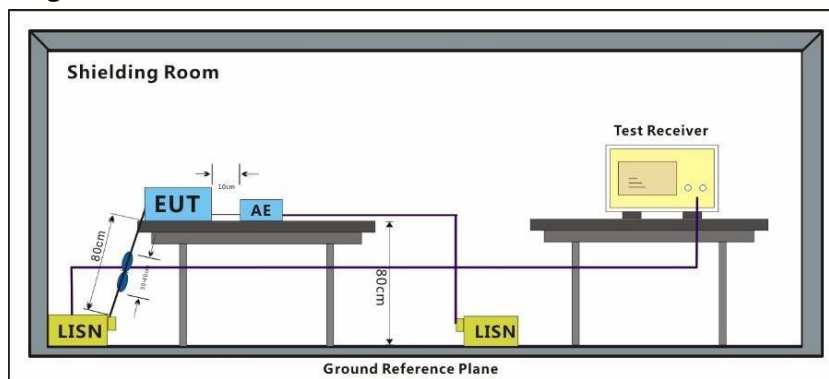
Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	00	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 15W respectively.
	01	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 7.5W respectively.
	02	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at empty load (0W) respectively.
Final test	00	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 15W respectively.

7.1.3 Test Setup Diagram

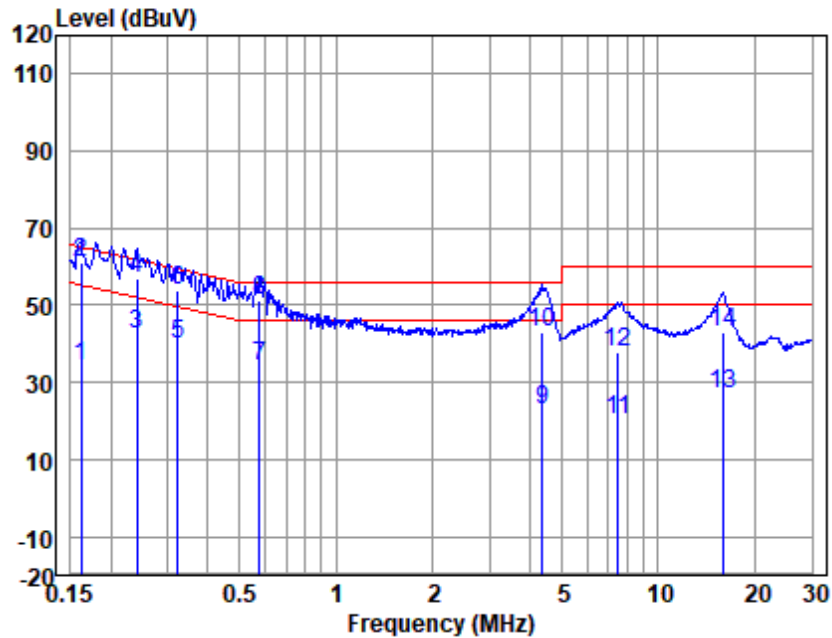


7.1.4 Measurement Procedure and Data

- 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 50ohm/50μH + 5ohm 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,
- 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.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: Level=Read Level+ Cable Loss+ LISN Factor

Test Mode: 00; Line: Live line



LISN : LINE
 EUT/Project No : 1701BA
 Test Mode : 00

	Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	0.16	23.78	0.50	9.90	34.18	55.38	-21.20	Average
2	0.16	50.59	0.50	9.90	60.99	65.38	-4.39	QP
3	0.24	32.27	0.44	9.90	42.61	52.08	-9.47	Average
4	0.24	46.79	0.44	9.90	57.13	62.08	-4.95	QP
5	0.32	29.66	0.34	9.90	39.90	49.66	-9.76	Average
6	0.32	43.44	0.34	9.90	53.68	59.66	-5.98	QP
7	0.58	24.30	0.20	9.90	34.40	46.00	-11.60	Average
8	0.58	41.03	0.20	9.90	51.13	56.00	-4.87	QP
9	4.38	12.60	0.29	10.19	23.08	46.00	-22.92	Average
10	4.38	32.72	0.29	10.19	43.20	56.00	-12.80	QP
11	7.49	9.80	0.42	10.32	20.54	50.00	-29.46	Average
12	7.49	27.05	0.42	10.32	37.79	60.00	-22.21	QP

Notes: Emission Level = Read Level + LISN Factor + Cable loss



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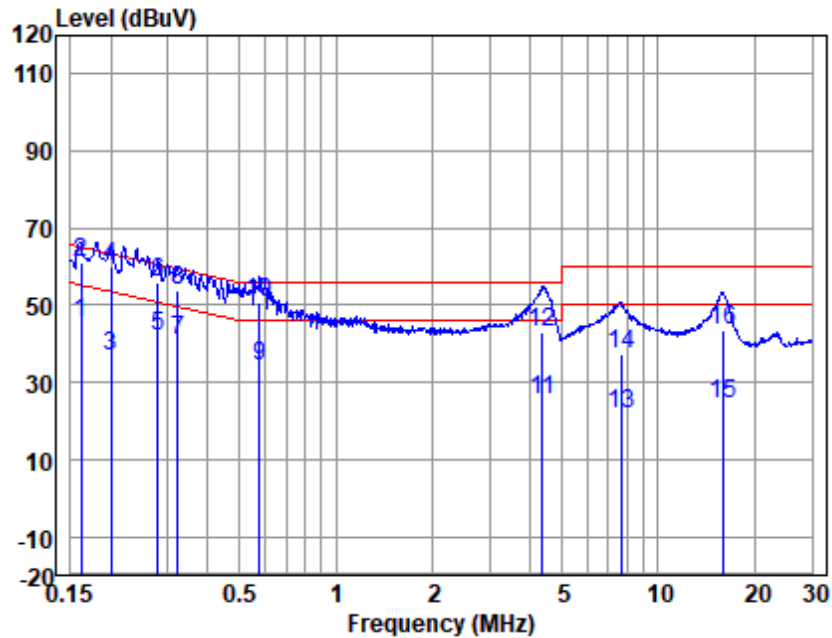
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Test Mode: 00; Line: Live line

	Freq	Read	LISN	Cable	Emission	Over	
	(MHz)	level	Factor	Loss	Level	Limit	Remark
		(dBuV)	(dB)	(dB)	(dBuV)	(dBuV)	(dB)
13	15.80	15.87	0.52	10.50	26.89	50.00	-23.11 Average
14	15.80	31.89	0.52	10.50	42.91	60.00	-17.09 QP

Notes: Emission Level = Read Level + LISN Factor + Cable loss

Test Mode: 00; Line: Neutral Line



LISN : NEUTRAL
 EUT/Project No : 1701BA
 Test Mode : 00

	Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	0.16	35.42	0.33	9.90	45.65	55.38	-9.73	Average
2	0.16	51.11	0.33	9.90	61.34	65.38	-4.04	QP
3	0.20	26.88	0.30	9.90	37.08	53.62	-16.54	Average
4	0.20	49.63	0.30	9.90	59.83	63.62	-3.79	QP
5	0.28	31.63	0.30	9.90	41.83	50.81	-8.98	Average
6	0.28	45.77	0.30	9.90	55.97	60.81	-4.84	QP
7	0.32	30.82	0.30	9.90	41.02	49.66	-8.64	Average
8	0.32	43.83	0.30	9.90	54.03	59.66	-5.63	QP
9	0.58	24.21	0.30	9.90	34.41	46.00	-11.59	Average
10	0.58	40.76	0.30	9.90	50.96	56.00	-5.04	QP
11	4.38	14.96	0.47	10.19	25.62	46.00	-20.38	Average
12	4.38	32.43	0.47	10.19	43.09	56.00	-12.91	QP

Notes: Emission Level = Read Level + LISN Factor + Cable loss



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Test Mode: 00; Line: Neutral Line

	Freq	Read	LISN	Cable	Emission	Over	
	(MHz)	level	Factor	Loss	Level	Limit	Remark
		(dBuV)	(dB)	(dB)	(dBuV)	(dBuV)	(dB)
13	7.65	10.85	0.42	10.32	21.59	50.00	-28.41 Average
14	7.65	26.82	0.42	10.32	37.56	60.00	-22.44 QP
15	15.80	13.39	0.65	10.50	24.54	50.00	-25.46 Average
16	15.80	32.47	0.65	10.50	43.62	60.00	-16.38 QP

Notes: Emission Level = Read Level + LISN Factor + Cable loss

7.2 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.215
 Test Method: ANSI C63.10 (2013) Section 6.9.2
 Measurement Distance: 3m
 Limit: For report reference only

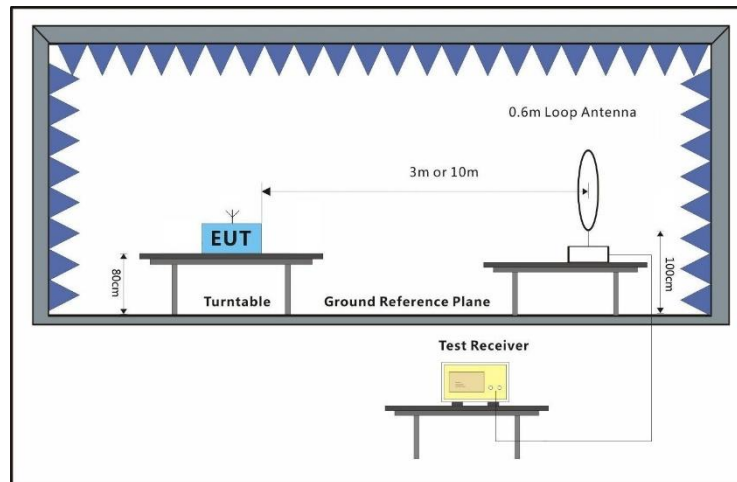
7.2.1 E.U.T. Operation

Operating Environment:
 Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	00	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 15W respectively.
	01	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 7.5W respectively.
	02	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at empty load (0W) respectively.
Final test	00	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 15W respectively.

7.2.3 Test Setup Diagram



7.3 Radiated Emissions (9kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

If field strength is measured at only a single point, then that point shall be at the radial from the EUT that produces the maximum emission at the frequency being measured, as described in 5.4. If that point is closer to the EUT than $\lambda/2\pi$ and the limit distance is greater than $\lambda/2\pi$, the measurement shall be extrapolated to the limit distance by conservatively presuming that the field strength decreases at a 40 dB/decade of distance rate to the $\lambda/2\pi$ distance, and at a 20 dB/decade of distance rate beyond $\lambda/2\pi$. This shall be accomplished using Equation (2):

$$FS_{(10m)} = FS_{(30/300m)} + 40\log\{d_{(near\ field)}/d_{(10m)}\} + 20\log\{d_{(30/300m)}/d_{(near\ field)}\} \tag{2}$$

If the single point measured is at a distance greater than $\lambda/2\pi$, then extrapolation to the limit distance shall be calculated using Equation (3):

$$FS_{(10m)} = FS_{(30/300m)} + 20\log\{d_{(30/300m)}/d_{(10m)}\} \tag{3}$$

If both the single point and the limit distance are equal to or closer to the EUT than $\lambda/2\pi$, then extrapolation to the limit distance shall be calculated using Equation (4):

$$FS_{(10m)} = FS_{(30/300m)} + 40\log\{d_{(30/300m)}/d_{(10m)}\} \tag{4}$$

Remark:

$$d_{near\ field} = 47.77 / f_{MHz}$$

where f_{MHz} is the frequency of the emission being measured in MHz.

7.3.1 E.U.T. Operation

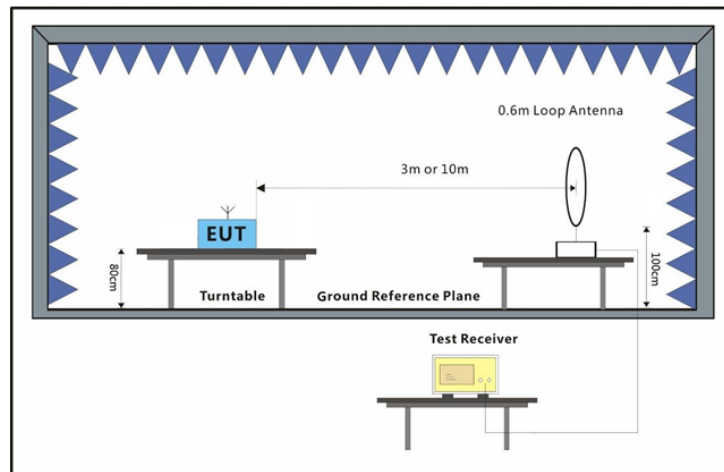
Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	00	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 15W respectively.
	01	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 7.5W respectively.
	02	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at empty load (0W) respectively.
Final test	00	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 15W respectively.

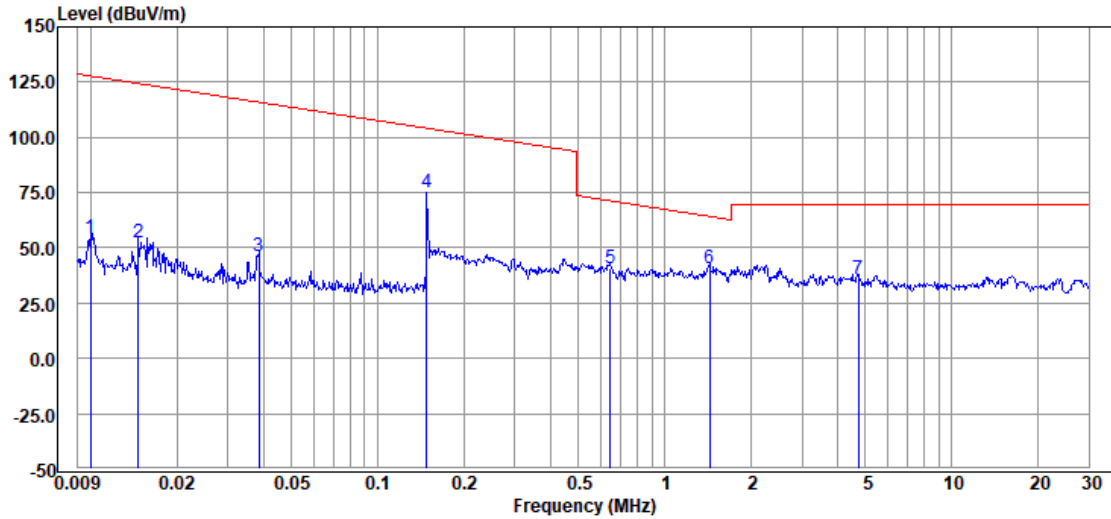
7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

- a. All radiated emission measurements in terms of magnetic field strength shall be performed with a shielded loop antenna.
- b. For all radiated emission measurements in terms of magnetic field strength, the loop antenna were placed such that:
 - i. its centre shall be at 1.3 m height above the ground plane;
 - ii. the projection of its centre onto the ground plane shall be at the specified measurement distance from the projection on the ground plane of the closest point on the boundary of the equipment under test (EUT); and
 - iii. measurements shall be performed with the loop antenna placed vertically, in turn, in two polarizations (the measurement axis specified below is the line segment connecting the projections on the ground plane of the centre of the loop antenna and the centre of the EUT arrangement):
 - coaxial (loop plane perpendicular to the ground plane and to the measurement axis); and
 - coplanar (loop plane perpendicular to the ground plane and coplanar with the measurement axis).

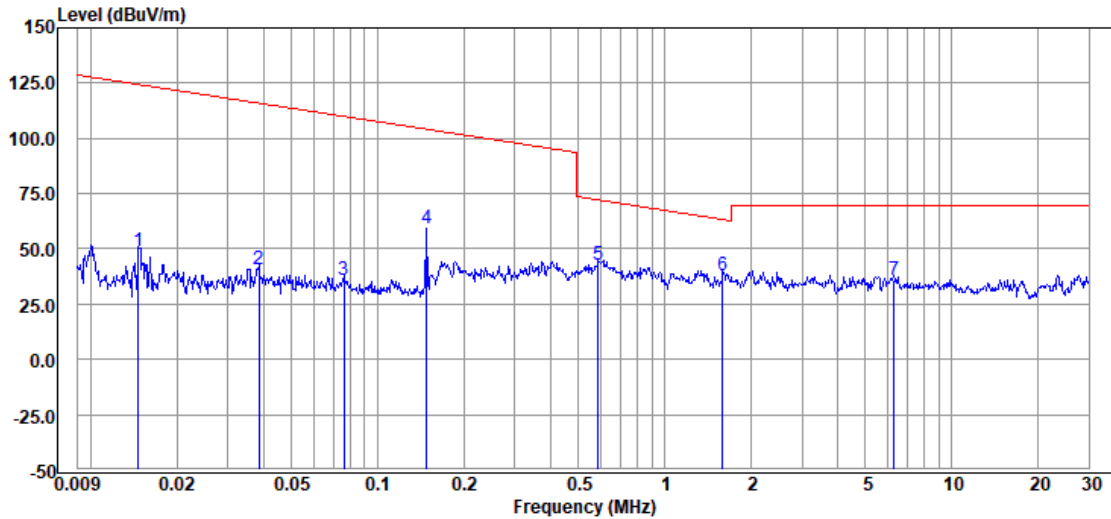
coaxial:



Item	Freq.	Read Level	Antenna Factor	Cable Loss	Result Level@3m	Result Level@SP EC	Limit Line@SP EC	Over Limit	Detector
(Mark)	(MHz)	(dB μ V)	(dB/m)	(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.010	36.18	18.00	0.20	54.38	-25.62	47.58	-73.2	QP
2	0.015	34.23	17.72	0.20	52.15	-27.85	44.27	-72.12	QP
3	0.038	29.00	17.31	0.20	46.51	-33.49	35.9	-69.39	QP
4	0.148	57.47	17.20	0.20	74.87	-5.13	24.21	-29.34	Peak
5	0.647	23.11	17.35	0.20	40.66	0.66	31.39	-30.73	QP
6	1.432	22.83	17.55	0.20	40.58	0.58	24.51	-23.93	QP
7	4.720	18.20	17.80	0.20	36.20	-3.8	29.5	-33.3	QP

Remark: Result Level= Read Level + Antenna Factor + Cable Loss

Coplanar:



Item	Freq.	Read Level	Antenna Factor	Cable Loss	Result Level@3m	Result Level@SPEC	Limit Line@SPEC	Over Limit	Detector
(Mark)	(MHz)	(dBμV)	(dB/m)	(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.015	31.38	17.72	0.20	49.30	-30.7	44.27	-74.97	QP
2	0.038	23.16	17.31	0.20	40.67	-39.33	35.9	-75.23	QP
3	0.076	18.72	17.24	0.20	36.16	-43.84	29.98	-73.82	QP
4	0.148	42.22	17.20	0.20	59.62	-20.38	24.21	-44.59	Peak
5	0.587	25.12	17.30	0.20	42.62	2.62	32.24	-29.62	QP
6	1.592	20.44	17.57	0.20	38.21	-1.79	23.6	-25.39	QP
7	6.269	17.99	17.80	0.20	35.99	-4.01	29.5	-33.51	QP

Remark: Result Level= Read Level + Antenna Factor + Cable Loss

NOTE:

(1) For test distance other than what is specified, but fulfilling the requirements of section 15.31(f) (2) the field strength is calculated by adding additionally an extrapolation factor of 40dB/decade (inverse linear distance for field strength measurements).

So the Distance Extrapolation Factor in dB is $40 \cdot \log(D_{TEST} / D_{SPEC})$ where D_{TEST} = Test Distance and D_{SPEC} = Specified Distance.

Field strength limit (dBμV/m)@test distance= Field strength limit (dBμV/m)@specified distance +Distance Extrapolation Factor

(2) The lower limit shall apply at the transition frequencies.

7.4 Radiated Emissions (30MHz-1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.5

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector.

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C

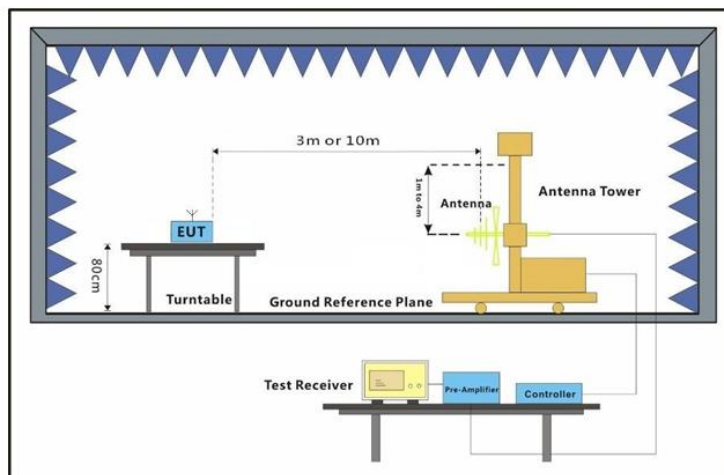
Humidity: 48 % RH

Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	00	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 15W respectively.
	01	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 7.5W respectively.
	02	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at empty load (0W) respectively.
Final test	00	Wireless charging mode _Keep the load charging via EUT, wireless charging load shall be set at 15W respectively.

7.4.3 Test Setup Diagram

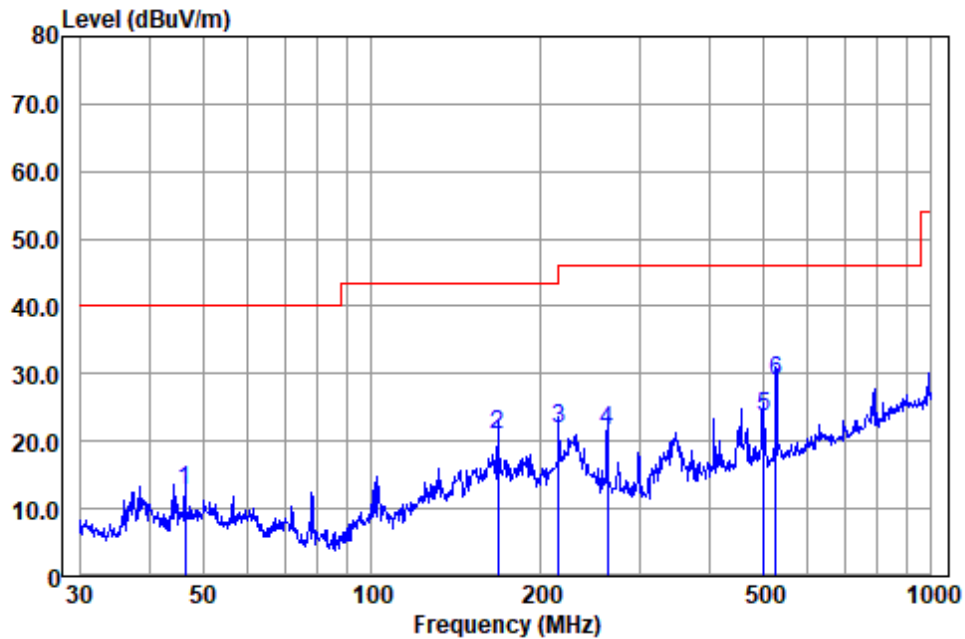


7.4.4 Measurement Procedure and Data

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground for below 1GHz at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height 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.
- d. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case.
- i. Repeat above procedures until all frequencies measured was complete.

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

Horizontal:

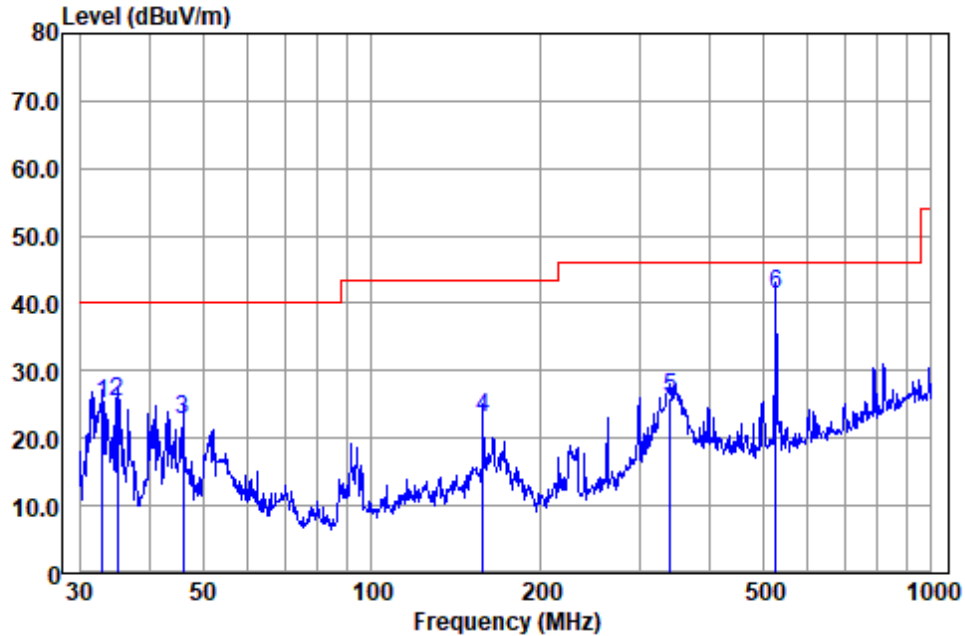


Antenna Polarity :HORIZONTAL
 EUT/Project :01701BA
 Test mode :00

	Read Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	46.340	30.80	13.83	1.40	33.20	12.83	40.00	-27.17	QP
2	167.824	38.35	12.90	2.80	33.00	21.05	43.50	-22.45	QP
3	216.024	41.74	9.86	3.08	32.93	21.75	46.00	-24.25	QP
4	263.819	38.82	12.11	3.45	32.80	21.58	46.00	-24.42	QP
5	501.179	33.38	18.02	4.93	32.70	23.63	46.00	-22.37	QP
6	526.397	38.15	18.42	5.03	32.70	28.90	46.00	-17.10	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Vertical:



Antenna Polarity :VERTICAL
 EUT/Project :01701BA
 Test mode :00

	Read Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	32.979	44.79	12.30	1.17	33.20	25.06	40.00	-14.94	QP
2	35.128	44.75	12.59	1.34	33.20	25.48	40.00	-14.52	QP
3	46.016	40.72	13.80	1.40	33.20	22.72	40.00	-17.28	QP
4	158.112	39.69	13.70	2.62	33.00	23.01	43.50	-20.49	QP
5	340.782	40.13	14.60	3.92	32.72	25.93	46.00	-20.07	QP
6	526.397	50.45	18.42	5.03	32.70	41.20	46.00	-4.80	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

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8 Test Setup Photo

Refer to Appendix - Test Setup Photo for SHCR2308001701BA

9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for SHCR2308001701BA

- End of the Report -