TEST REPORT

Application No.:	GZCR2208001056AT
Applicant:	The House of Marley. LLC
Address of Applicant:	3000 Pontiac Trail, Commerce Township, Michigan 48390 United States
Manufacturer:	The House of Marley. LLC
Address of Manufacturer:	3000 Pontiac Trail, Commerce Township, Michigan 48390 United States
Factory:	1.Dongguan Kailai Electronic Co., Ltd. 2. YING TONG (VIETNAM) ELECTRONIC TECHNOLOGY COMPANY LIMITED
Address of Factory:	1.Building 2, No.6, Baisha Road, Changping, Dongguan City, Guangdong Province, China 2.Plot No. CN02-1-2, Lot No. CN02, Binh Xuyen II Industrial Park, Ba Hien Commune, Binh Xuyen District, Vinh Phuc Province, Vietnam
Equipment Under Test (EUT):	
EUT Name:	Champion 2
Model No.:	EM-JE132
Trade Mark:	MARLEY
Standard(s) :	47 CFR Part 15, Subpart C
Date of Receipt:	2022-08-25
Date of Test:	2022-09-06 to 2022-09-26
Date of Issue:	2023-05-26
Test Result:	**Pass***

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

Ricky Liu
Manager

Revision Record			
Version	**Report No.**	**Date**	**Remark**
01	GZCR220800105603	2023-05-26	Original

Authorized for issue by:				
		Kevin Zhang **Kevin Zhang/Project Engineer**		
		Vico Cui **Vico Cui/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	Pass

Radio Spectrum Matter Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)	47 CFR Part 15, Subpart C	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Radiated Emissions (30MHz-1GHz)		ANSI C63.10 (2013) Section 6.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Emissions (9kHz-30MHz)		ANSI C63.10 (2013) Section 6.4	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
20dB Bandwidth		ANSI C63.10 (2013) Section 6.9.2	47 CFR Part 15, Subpart C 15.215	Pass
Restricted Bands		ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.205	Pass

Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

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4 General Information

4.1 Details of E.U.T.

Power supply:	Powered by built-in battery as below:
	Model: HJ 13330
	Rated: DC 3.7 V, 500mAh, 1.85Wh
Test Voltage:	AC120 V, 60 Hz for wireless charging by DC Power Adapter and Wireless Charging Pad refer to section 4.2
Cable(s):	Type C input ports
	DC output pins
Antenna Type:	Loop Antenna
Modulation Type:	Load Modulation
Frequency Range	117.36 kHz to 145.76 kHz

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
AC/DC Adapter	MEAN WELL	Model: RSP-75-5; Input: AC 100-240V, 0.9A, 50/60Hz; Output: DC 5V, 15A max.	/
Wireless Charging Pad	SAMSUNG	EP-1100	RF7M506VG3ZCIS

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)	± 2.76dB
Radiated Emissions (30MHz-1GHz)	±5.00dB (3m); ±4.38dB (10m)
Radiated Emissions (9kHz-30MHz)	± 3.12dB
20dB Bandwidth	± 3%
Restricted Bands	± 3%

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,

198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

4.5 Test Facility

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

- **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

- **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **CNAS (Lab Code: L0167)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

- **FCC Recognized Accredited Test Firm(Registration No.: 486818)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

- **ISED (Registration No.: 4620B, CAB identifier: CN0052)**

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

- **VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)**

The 10m Semi-anechoic chamber, 966 Anechoic Chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-20107 and T-11179 respectively.

- **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Conducted Emissions at AC Mains Power Port (150kHz-30MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Coaxial Cable	HangTianXing	2m	EMC0107	2022-08-24	2023-08-23
Shielding Room	ChangZhou ZhongYu	8m x 3m x 3.8m	EMC0306	2019-10-20	2022-10-19
Two-Line V-Network-GZ	Rohde & Schwarz	ENV216	EMC2135	2022-09-09	2023-09-08
EMI Test Receiver (9kHz-3.6GHz)	Rohde & Schwarz	ESR3	EMC2221	2022-05-20	2023-05-19
Test Software E3r	Audix	Ver.6.11812	GZE100-77	N/A	N/A

Radiated Emissions (30MHz-1GHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
Chamber cable	HangTianXing	N/A	EMC0542	2022-08-24	2023-08-23
Amplifier (9kHz-1.3GHz)	HP	8447F	EMC2065	2022-06-21	2023-06-20
EMI Test Receiver (1Hz-8GHz)	Rohde & Schwarz	ESW8	EMC2220	2022-05-20	2023-05-19
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Trilog Broadband Antenna (25MHz-1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	EMC2174	2022-06-19	2025-06-18

Radiated Emissions (9kHz-30MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
Chamber cable	HangTianXing	N/A	EMC0542	2022-08-24	2023-08-23
Amplifier (9kHz-1.3GHz)	HP	8447F	EMC2065	2022-06-21	2023-06-20
Active Loop Antenna-RED	ETS-Lindgren	6502	EMC2190	2022-04-06	2024-04-05
EMI Test Receiver (1Hz-8GHz)	Rohde & Schwarz	ESW8	EMC2220	2022-05-20	2023-05-19
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

20dB Bandwidth					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01
MXA Signal Analyzer (10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2022-03-03	2023-03-02

Restricted Bands					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01
MXA Signal Analyzer (10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2022-03-03	2023-03-02

General used equipment					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
DMM	Fluke	73	EMC0006	2022-06-24	2023-06-23

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 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. The manufacturer may design the unit 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 integrated on the main PCB and no consideration of replacement.

Refer to internal photos

7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at AC Mains Power Port (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207

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

Limit:

Frequency of emission(MHz)	Conducted limit(dBμV)	
	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

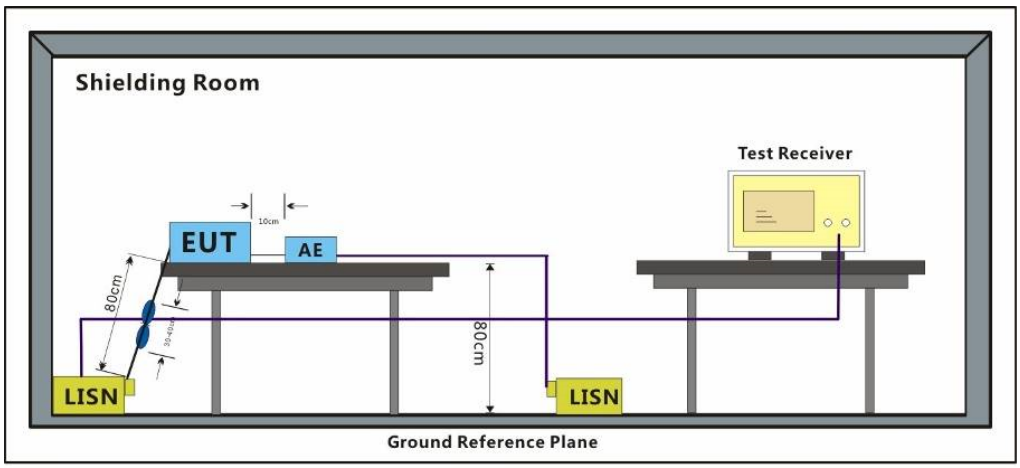
Operating Environment:

Temperature: 23 °C Humidity: 52 % RH Atmospheric Pressure: 1006 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	07	Charge mode_Keep the EUT charging(5W) Charging mode by type C ports

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.

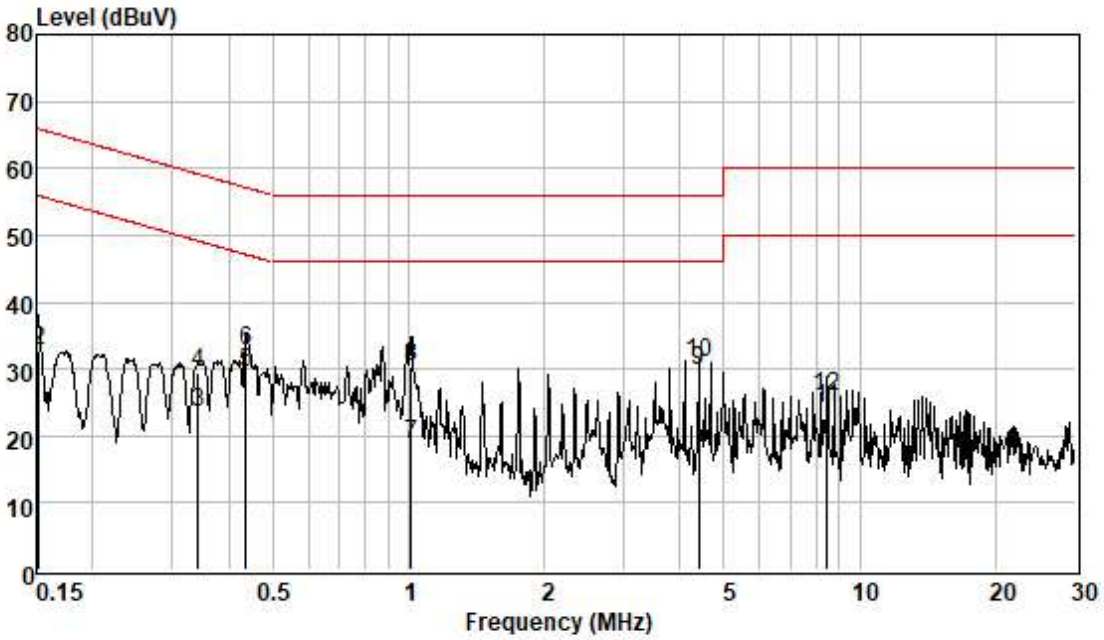
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

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

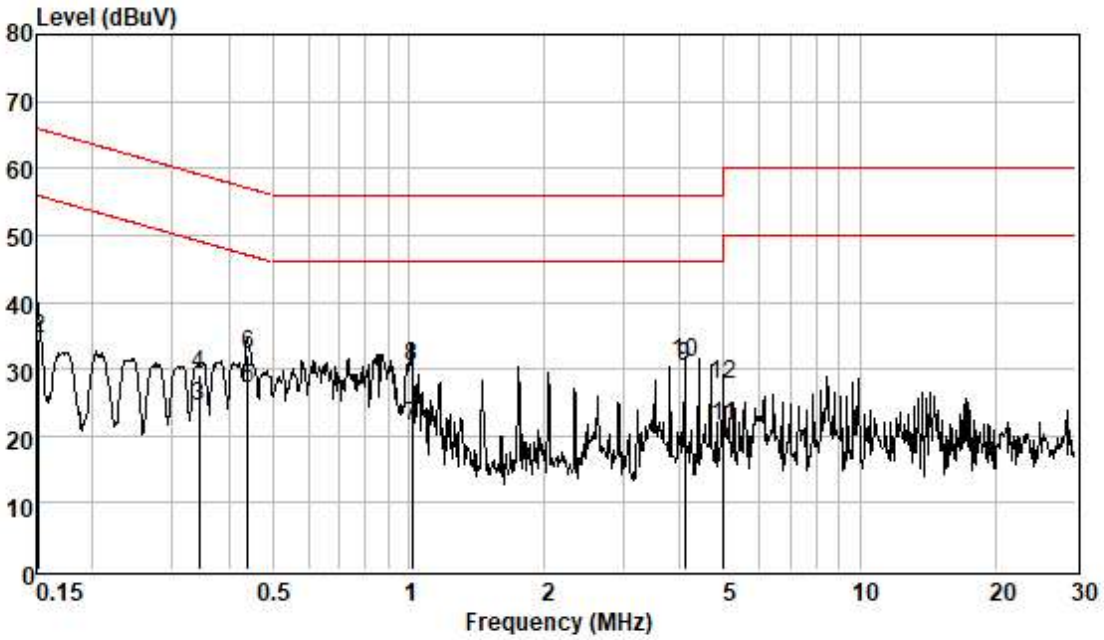
Test Mode: 07; Line: Live line



Pol :LINE
Mode :WPC
Model :
Power :

	Frequenc MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
1	0.152	21.77	0.06	9.61	31.44	55.91	-24.47	Average
2	0.152	23.04	0.06	9.61	32.71	65.91	-33.20	QP
3	0.343	13.71	0.06	9.60	23.37	49.13	-25.76	Average
4	0.343	19.66	0.06	9.60	29.32	59.13	-29.81	QP
5	0.437	19.86	0.06	9.59	29.51	47.11	-17.60	Average
6	0.437	23.19	0.06	9.59	32.84	57.11	-24.27	QP
7	1.016	9.02	0.07	9.59	18.68	46.00	-27.32	Average
8	1.016	20.62	0.07	9.59	30.28	56.00	-25.72	QP
9	4.384	19.92	0.17	9.64	29.73	46.00	-16.27	Average
10	4.384	21.09	0.17	9.64	30.90	56.00	-25.10	QP
11	8.476	14.25	0.21	9.67	24.13	50.00	-25.87	Average
12	8.476	15.92	0.21	9.67	25.80	60.00	-34.20	QP

Test Mode: 07; Line: Neutral Line



Pol :NEUTRAL
Mode :WPC
Model :
Power :

	Frequenc MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
1	0.152	23.88	0.06	9.63	33.57	55.91	-22.34	Average
2	0.152	24.74	0.06	9.63	34.43	65.91	-31.48	QP
3	0.345	14.76	0.06	9.62	24.44	49.09	-24.65	Average
4	0.345	19.59	0.06	9.62	29.27	59.09	-29.82	QP
5	0.442	17.47	0.06	9.61	27.14	47.02	-19.88	Average
6	0.442	22.31	0.06	9.61	31.98	57.02	-25.04	QP
7	1.021	11.64	0.07	9.61	21.32	46.00	-24.68	Average
8	1.021	20.62	0.07	9.61	30.30	56.00	-25.70	QP
9	4.092	20.55	0.16	9.64	30.35	46.00	-15.65	Average
10	4.092	21.13	0.16	9.64	30.93	56.00	-25.07	QP
11	4.978	11.51	0.17	9.65	21.33	46.00	-24.67	Average
12	4.978	17.89	0.17	9.65	27.71	56.00	-28.29	QP

7.2 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

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.		

7.2.1 E.U.T. Operation

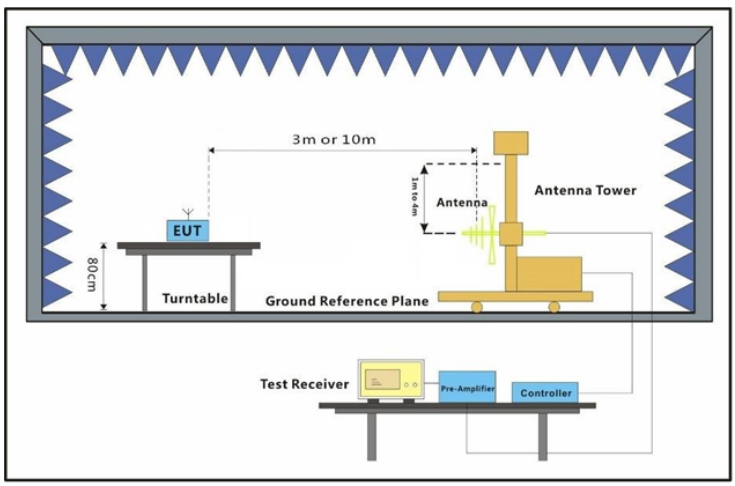
Operating Environment:

Temperature: 23.6 °C Humidity: 56.3 % RH Atmospheric Pressure: 1006 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	07	Charge mode_Keep the EUT charging(5W) Charging mode by type C ports

7.2.3 Test Setup Diagram



7.2.4 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.

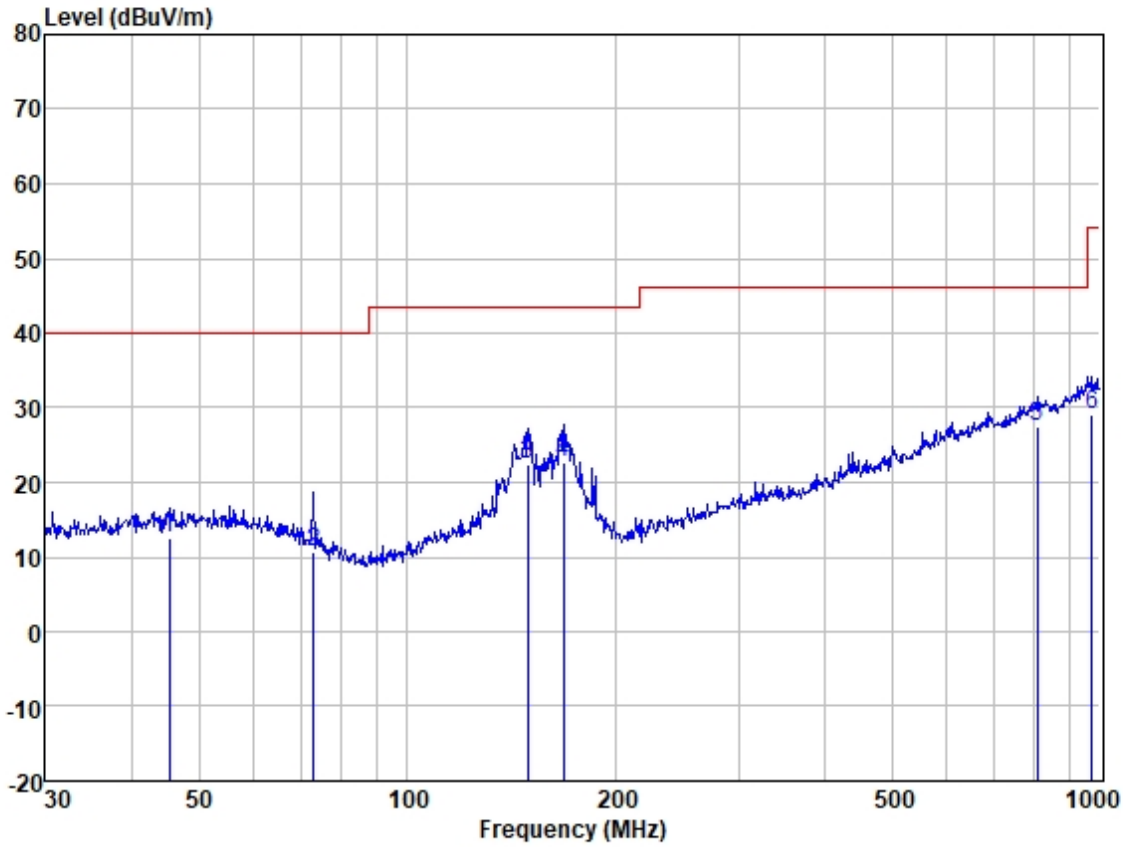
g. Test the EUT in the lowest channel,the middle channel,the Highest channel

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

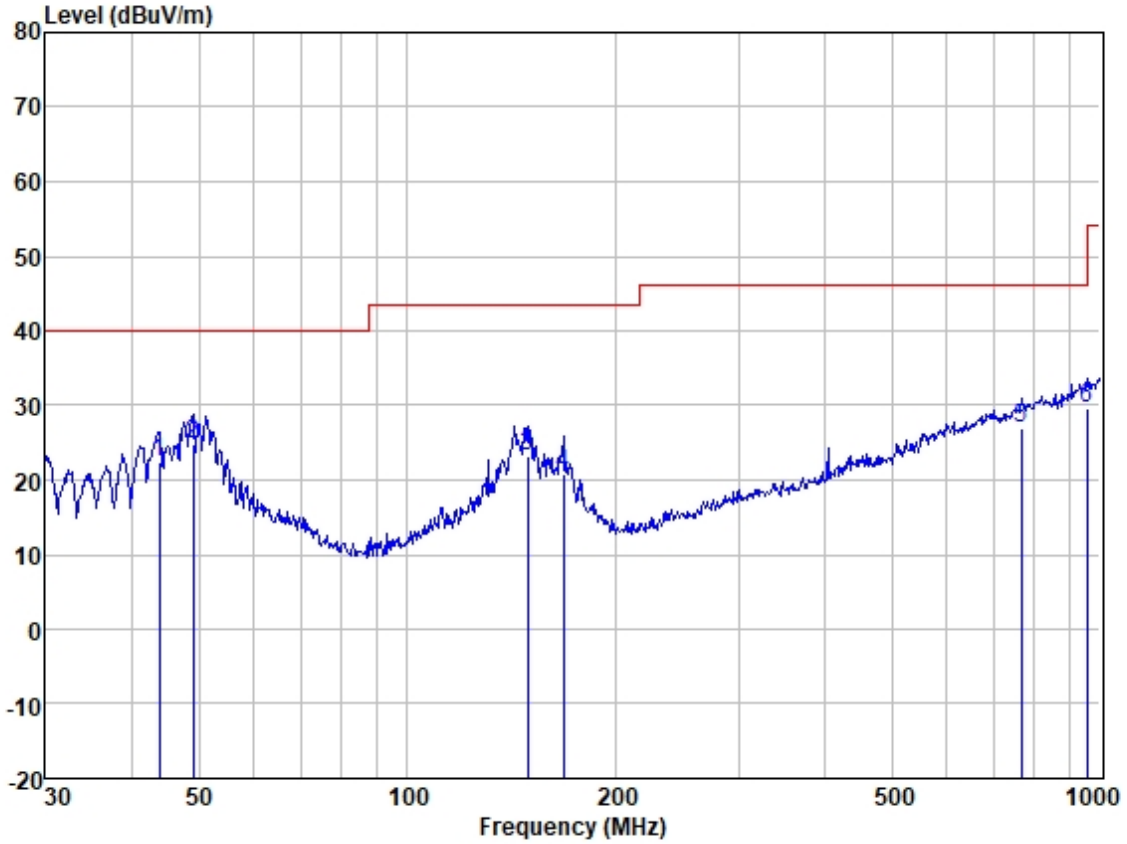
Test Mode: 07; Polarity: Horizontal



Site : SGS
Job :
Model :
Power :
Test Mode : CHARGING(5W)

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	45.217	25.15	13.93	1.12	27.60	12.60	40.00	-27.40	HORIZONTAL	QP
2	73.103	25.82	10.97	1.44	27.60	10.63	40.00	-29.37	HORIZONTAL	QP
3	148.963	33.98	13.52	2.22	27.40	22.32	43.50	-21.18	HORIZONTAL	QP
4	167.824	34.34	13.34	2.38	27.34	22.72	43.50	-20.78	HORIZONTAL	QP
5	810.265	26.53	23.21	6.23	28.57	27.40	46.00	-18.60	HORIZONTAL	QP
6	972.337	25.52	24.30	7.31	28.04	29.09	54.00	-24.91	HORIZONTAL	QP

Test Mode: 07; Polarity: Vertical



Site : SGS
Job :
Model :
Power :
Test Mode : CHARGING(5W)

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	43.812	35.10	13.82	1.12	27.61	22.43	40.00	-17.57	VERTICAL	QP
2	49.014	37.20	13.98	1.14	27.60	24.72	40.00	-15.28	VERTICAL	QP
3	148.963	34.76	13.52	2.22	27.40	23.10	43.50	-20.40	VERTICAL	QP
4	167.824	32.51	13.34	2.38	27.34	20.89	43.50	-22.61	VERTICAL	QP
5	768.748	27.38	22.14	6.05	28.62	26.95	46.00	-19.05	VERTICAL	QP
6	955.438	26.32	24.31	7.18	28.08	29.73	46.00	-16.27	VERTICAL	QP

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

Test Distance: 3 m

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 λ/2π and the limit distance is greater than λ/2π, 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 λ/2π distance, and at a 20 dB/decade of distance rate beyond λ/2π. This shall be accomplished using Equation (2):

$$FS_{(3m)} = FS_{(30/300m)} + 40\log\{d_{(\text{near field})}/d_{(3m)}\} + 20\log\{d_{(30/300m)}/d_{(\text{near field})}\} \quad (2)$$

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

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

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

$$FS_{(3m)} = FS_{(30/300m)} + 40\log\{d_{(30/300m)}/d_{(3m)}\} \quad (4)$$

Remark:

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

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

7.3.1 E.U.T. Operation

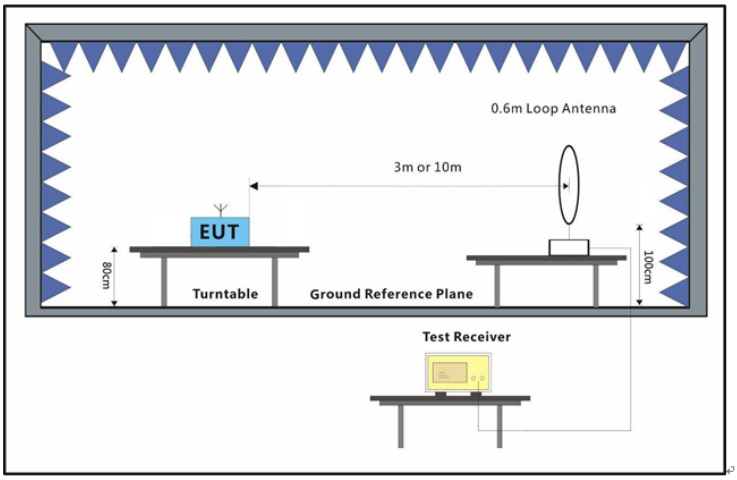
Operating Environment:

Temperature: 23.6 °C Humidity: 56.3 % RH Atmospheric Pressure: 1006 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	07	Charge mode_Keep the EUT charging(5W) Charging mode by type C ports

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;

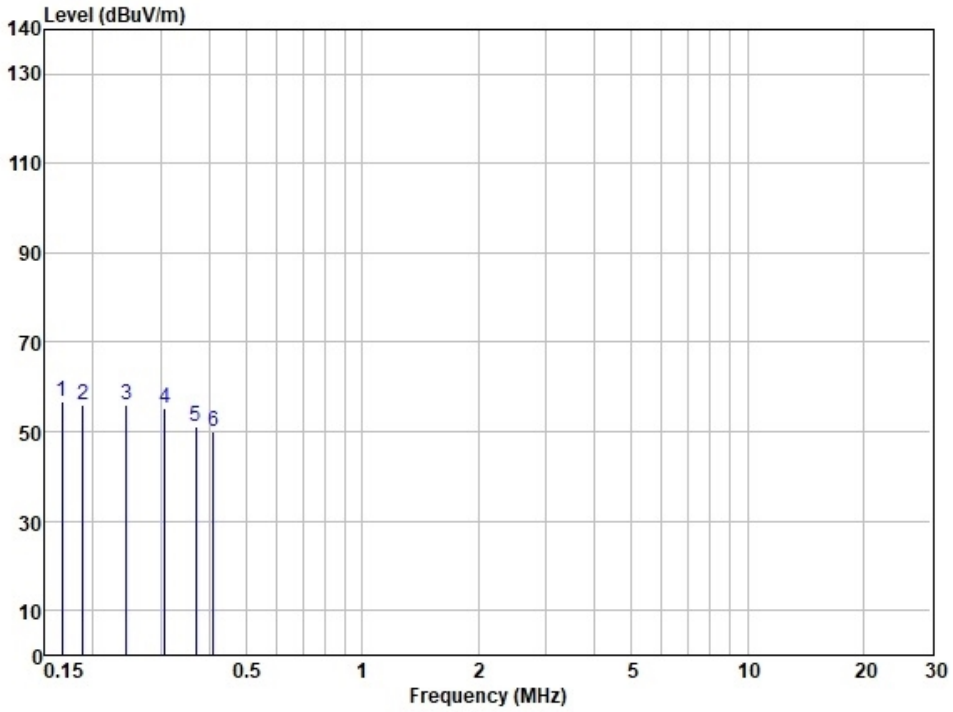
ii. the projection of its centre onto the ground plane shall be at the specified measurement distance from the projection on the ground plane of the closest point on the boundary of the equipment under test (EUT); and

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).

Test Mode: 07; Polarity: Coaxial

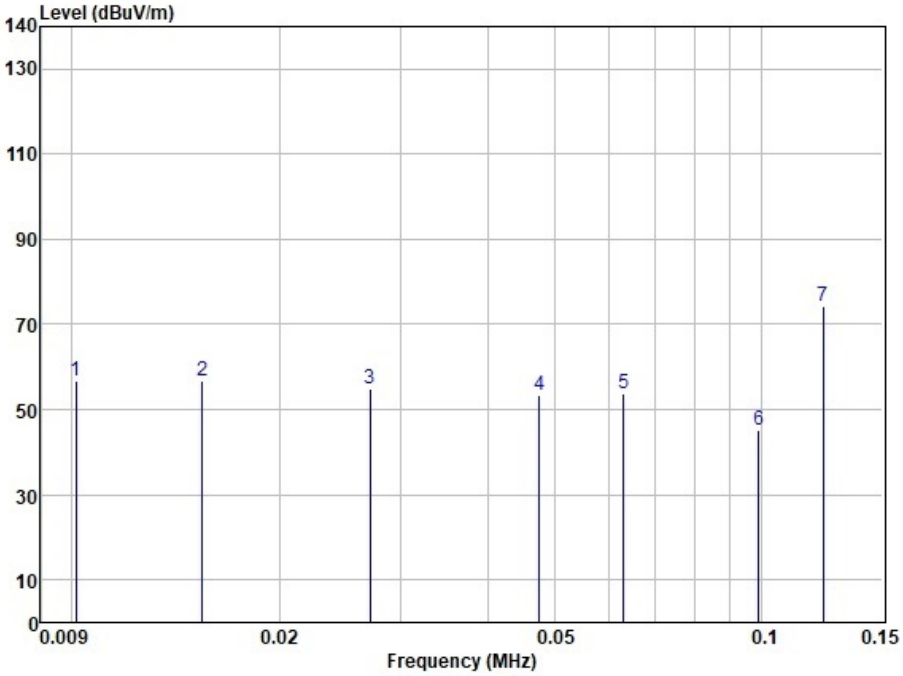


Site : SGS
Job :
Model :
Power :
Test Mode : 5W

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	0.166	74.38	11.87	0.05	29.40	56.90		
2	0.188	73.53	11.85	0.05	29.40	56.03		
3	0.244	73.64	11.86	0.05	29.40	56.15		
4	0.307	72.89	11.87	0.05	29.40	55.41		
5	0.369	68.64	11.86	0.06	29.40	51.16		
6	0.410	67.62	11.86	0.06	29.40	50.14		

Frequency (MHz)	Level @3m (dBuV/m)	Limit @300m (dBuV/m)	Convert Factor (dB)	Level @ 300m (dBuV/m)	Over limit (dB)	Remark
0.166	56.90	23.20	80	-23.10	-46.30	AV
0.188	56.03	22.12	80	-23.97	-46.09	AV
0.244	56.15	19.86	80	-23.85	-43.71	AV
0.307	55.41	17.86	80	-24.59	-42.45	AV
0.369	51.16	16.26	80	-28.84	-45.10	AV
0.410	50.14	15.35	80	-29.86	-45.21	AV

Test Mode: 07; Polarity: Coaxial



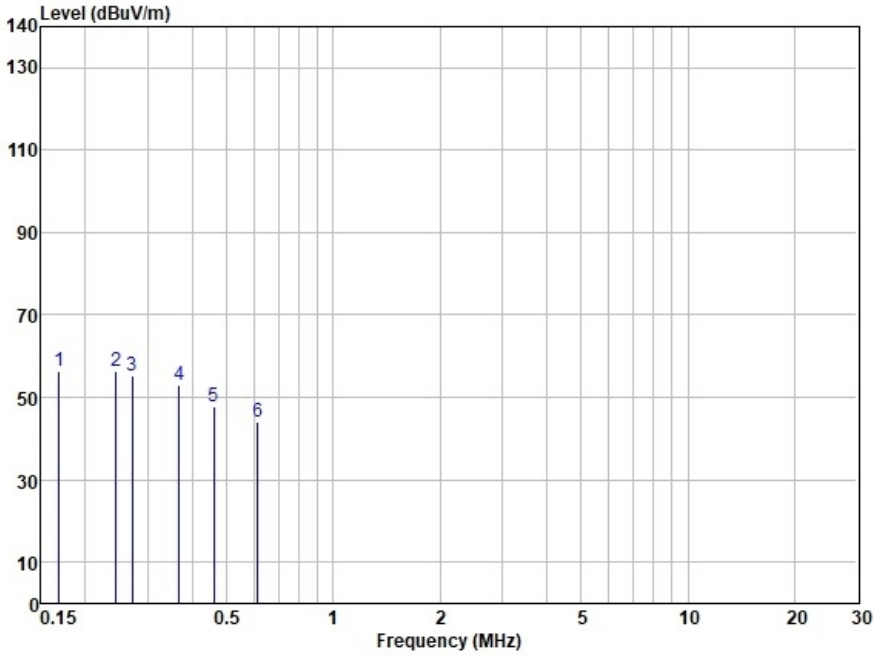
Site : SGS
Job :
Model :
Power :
Test Mode : 5W

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	0.010	66.56	18.57	0.05	28.42	56.76		
2	0.015	70.06	15.21	0.05	28.50	56.82		
3	0.027	70.55	13.16	0.05	28.76	55.00		
4	0.048	70.20	12.24	0.05	29.24	53.25		
5	0.063	71.03	12.08	0.05	29.32	53.84		
6	0.099	62.56	11.95	0.05	29.40	45.16		
7	0.123	91.71	11.93	0.05	29.40	74.29		

Frequency (MHz)	Level @3m (dBuV/m)	Limit @300m (dBuV/m)	Convert Factor (dB)	Level @ 300m (dBuV/m)	Over limit (dB)	Remark
0.01	56.76	47.60	80	-23.24	-70.84	AV
0.015	56.82	44.08	80	-23.18	-67.26	AV
0.027	55.00	38.98	80	-25.00	-63.98	AV
0.048	53.25	33.98	80	-26.75	-60.73	AV
0.063	53.84	31.62	80	-26.16	-57.78	AV
0.099	45.16	27.69	80	-34.84	-62.53	QP
0.123*	74.29	25.81	80	-5.71	-31.52	AV

*Remark: this point is the fundamental frequency of the EUT.

Test Mode: 07; Polarity: Coplanar

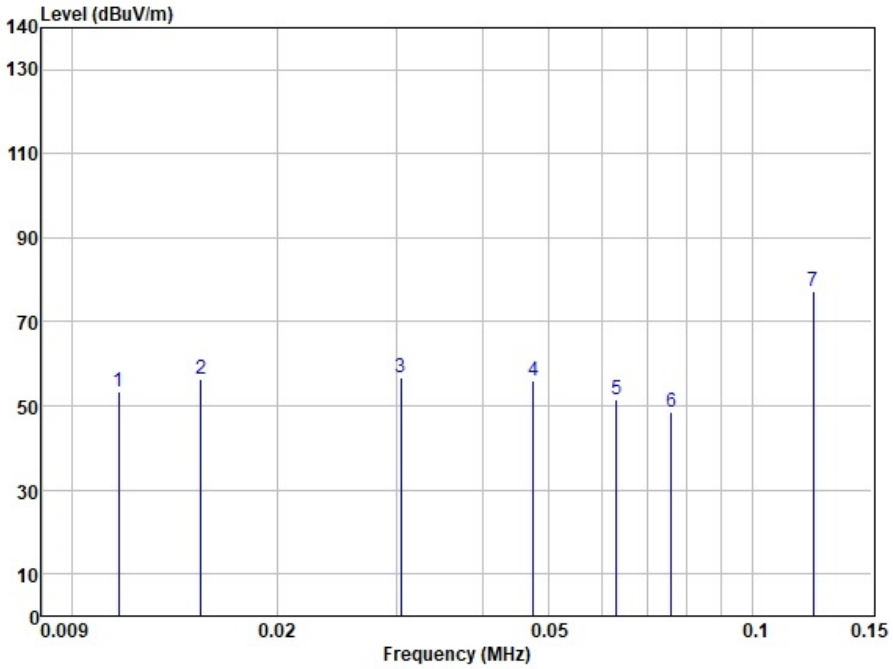



```
Site        : SGS
Job         :
Model       :
Power       :
Test Mode   : 5W
```

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	0.169	73.91	11.87	0.05	29.40	56.43		
2	0.244	73.79	11.86	0.05	29.40	56.30		
3	0.272	72.83	11.87	0.05	29.40	55.35		
4	0.367	70.33	11.86	0.06	29.40	52.85		
5	0.461	65.30	11.82	0.07	29.40	47.79		
6	0.614	61.38	11.81	0.10	29.40	43.89		

Frequency (MHz)	Level @3m (dBuV/m)	Limit @300m (dBuV/m)	Convert Factor (dB)	Level @ 300m (dBuV/m)	Over limit (dB)	Remark
0.169	56.43	23.05	80	-23.57	-46.62	AV
0.244	56.30	19.86	80	-23.70	-43.56	AV
0.272	55.35	18.91	80	-24.65	-43.56	AV
0.367	52.85	16.31	80	-27.15	-43.46	AV
0.461	47.79	14.33	80	-32.21	-46.54	AV
Frequency (MHz)	Level @3m (dBuV/m)	Limit @30m (dBuV/m)	Convert Factor (dB)	Level @ 30m (dBuV/m)	Over limit (dB)	Remark
0.614	43.89	31.84	40	3.89	-27.95	QP

Test Mode: 07; Polarity: Coplanar



Site : SGS
Job :
Model :
Power :
Test Mode : 5W

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	0.012	63.81	17.91	0.05	28.44	53.33		
2	0.015	69.74	15.21	0.05	28.50	56.50		
3	0.030	72.75	12.93	0.05	28.93	56.80		
4	0.048	73.02	12.24	0.05	29.24	56.07		
5	0.063	68.75	12.08	0.05	29.32	51.56		
6	0.076	65.67	11.99	0.05	29.36	48.35		
7	0.123	94.86	11.93	0.05	29.40	77.44		

Frequency (MHz)	Level @3m (dBuV/m)	Limit @300m (dBuV/m)	Convert Factor (dB)	Level @ 300m (dBuV/m)	Over limit (dB)	Remark
0.012	53.33	46.02	80	-26.67	-72.69	AV
0.015	56.50	44.08	80	-23.50	-67.58	AV
0.03	56.80	38.06	80	-23.20	-61.26	AV
0.048	56.07	33.98	80	-23.93	-57.91	AV
0.063	51.56	31.62	80	-28.44	-60.06	AV
0.076	48.35	29.99	80	-31.65	-61.64	AV
0.123	77.44	25.81	80	-2.56	-28.37	AV

*Remark: this point is the fundamental frequency of the EUT.

7.4 20dB Bandwidth

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

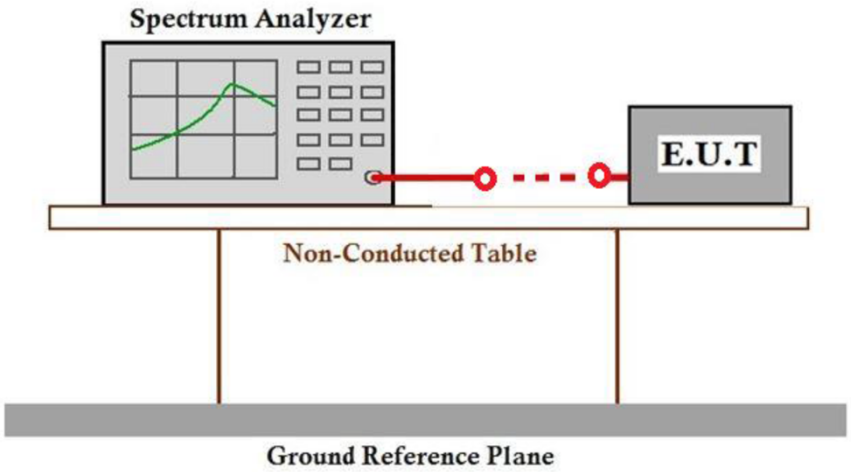
7.4.1 E.U.T. Operation

Operating Environment:
Temperature: 26.9 °C Humidity: 53.5 % RH Atmospheric Pressure: 1006 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	07	Charge mode_Keep the EUT charging(5W) Charging mode by type C ports

7.4.3 Test Setup Diagram



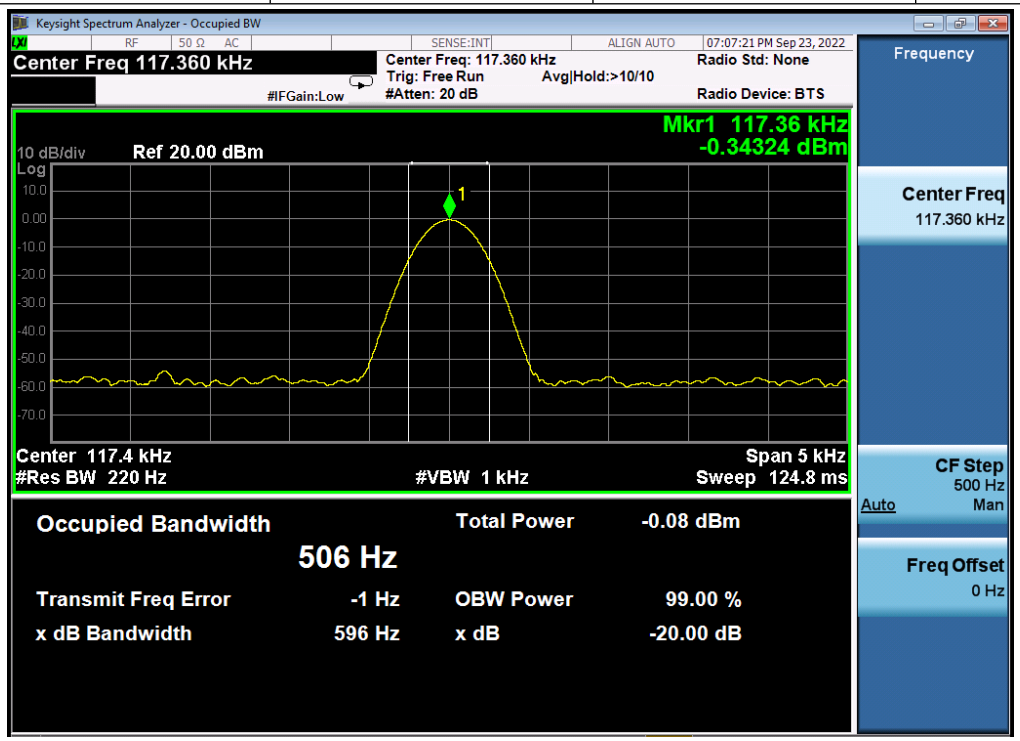
7.4.4 Measurement Procedure and Data

Test Mode: 07

Changing will take place when the charger is in contact with EUT only, no space is reserved/ designed for air because the structure of the EUT will automatically fix the device being charged closely.

Remark: The setting of RBW was the minimum for the spectrum.

Test Frequency	20 dB Bandwidth (kHz)	Limit (kHz)	Results
117.36kHz which is the worst case within the operation frequency range	0.506	---	Pass



7.5 Restricted Bands

Test Requirement 47 CFR Part 15, Subpart C 15.205
Test Method: ANSI C63.10 (2013) Section 6.10.5
Limit: The fundamental wave could not fall in the restricted band 90KHz-110KHz

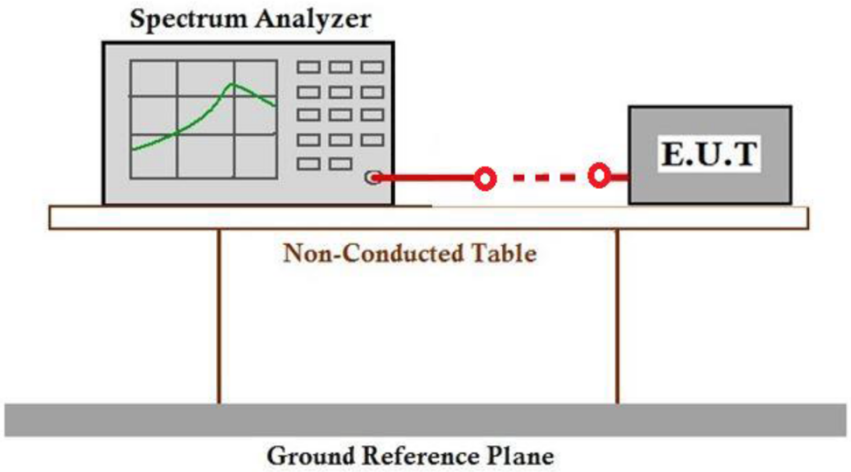
7.5.1 E.U.T. Operation

Operating Environment:
Temperature: 26.9 °C Humidity: 53.5 % RH Atmospheric Pressure: 1006 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	07	Charge mode_Keep the EUT charging(5W) Charging mode by type C ports

7.5.3 Test Setup Diagram

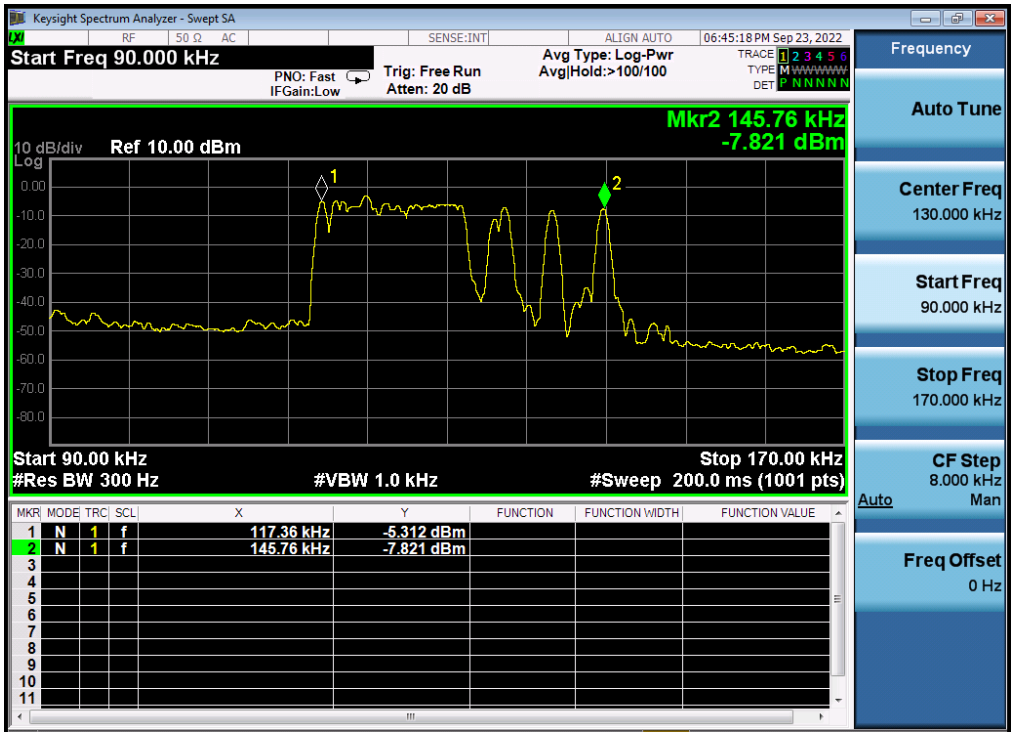


7.5.4 Measurement Procedure and Data

Test Mode: 07

Changing will take place when the charger is in contact with EUT only, no space is reserved/ designed for air because the structure of the EUT will automatically fix the device being charged closely.

According the test data below, the fundamental wave is not fall in the restricted band 90k~110kHz, the field strength also meet the 15.209 requirement, please refer to clause 7.3.



8 Test Setup Photo

Refer to Appendix - Test Setup Photo for GZCR220800105603

9 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for GZCR2208001056AT

- End of the Report -