TEST REPORT

Application No.:	GZCR2412001469HS
Applicant:	Health In Motion LLC
Address of Applicant:	3300 Horseless Carriage Drive, Norco, CA 92860, United States of America
Manufacturer:	SHUHUA SPORTS CO., LTD
Address of Manufacturer:	SHICHUN INDUSTRIAL PARK, CHIDIAN, JINJIANG, FUJIAN, CHINA
Factory:	SHUHUA SPORTS CO., LTD
Address of Factory:	SHICHUN INDUSTRIAL PARK, CHIDIAN, JINJIANG, FUJIAN, CHINA
Product Name:	Motorized Treadmill
Model No.:	T5S, T5S-110.1, T5B-110.1 ♣
♣	Please refer to section 2 of this report which indicates which item was actually tested and which were electrically identical.
Trade Mark:	Inspire Fitness, CENTR
Standard(s) :	47 CFR Part 15, Subpart C 15.209
Date of Receipt:	2024-12-06
Date of Test:	2024-12-23 to 2025-01-17
Date of Issue:	2025-03-13
Test Result:	**Pass***

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

Ricky Liu

Manager

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Revision Record			
Version	**Report No.**	**Date**	**Remark**
01	GZCR241200146902	2025-03-13	Original

Authorized for issue by:				
		Luke Lin **Luke Lin/Project Engineer**		
		Vico Cui **Vico Cui/Reviewer**		

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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**
20dB Bandwidth	47 CFR Part 15, Subpart C	ANSI C63.10 (2013) Section 6.9.2	47 CFR Part 15, Subpart C 15.215	Pass
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)		ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Restricted Bands		ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.205	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

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.

♣ Declaration of EUT Family Grouping:

Model No.: T5S, T5S-110.1, T5B-110.1

According to the declaration from the applicant, the electrical circuit design, layout, components used and internal wiring were identical for all models, with only difference on model name.

Therefore only one model T5S was tested in this report.

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4 General Information

4.1 Details of E.U.T.

Power supply:	AC 120V 60Hz
Cable(s):	AC mains, 3 wires, 2.0m, unshielded.
	USB 2.0 Port x1 for charging function.
Test voltage:	AC 120V 60Hz
Antenna Type:	Loop Antenna
Modulation Type:	Load Modulation
Frequency Range:	113kHz to 148.034kHz
Duty Cycle:	100%

Remark: The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Mobile Phone	SAMSUNG	SM-G9508	R28K110W9JV
Mobile Phone	SAMSUNG	SM-G9810	RFCN309Q9QF
Mobile Phone	APPLE	iPhone 12 mini	F71DP3NG0GQY
Wireless changing resistor load	/	Wireless charging power: 5W/7.5W/10W/15W	/

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
20dB Bandwidth	± 0.274%
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)	± 3.22dB
Restricted Bands	±5.14dB (3m); ±4.90dB (10m);±4.88dB (1GHz-6GHz);±5.06dB (6GHz-18GHz); ±5.30dB (18GHz-40GHz)
Radiated Emissions (9kHz-30MHz)	± 3.12dB
Radiated Emissions (30MHz-1GHz)	±5.14dB (3m); ±4.90dB (10m)

Remark:

The U_{lab} (lab Uncertainty) is less than U_{cispr} (CISPR Uncertainty) or U_{ETSI}(ETSI Uncertainty).

Emission decision rule:

– Compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit, marked as Pass in the report.

– Non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit, marked as Fail in the report.

4.4 Test Location

All tests were performed at:

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

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663

Tel: +86 20 82155555

No tests were sub-contracted.

4.5 Test Facility

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

- **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.

- **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	2024-08-04	2025-08-03
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2022-10-16	2025-10-15
Two-Line V-Network-GZ	Rohde & Schwarz	ENV216	EMC2135	2024-09-08	2025-09-07
EMI Test Receiver (9kHz-3.6GHz)	Rohde & Schwarz	ESR3	EMC2221	2024-05-19	2025-05-18
Test Software E3r	Audix	Ver.6.11812	GZE100-77	N/A	N/A

20dB Bandwidth & Restricted Bands					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
MI CABLE	SGS-EMC	0.8M	EMC2137	2023-11-02	2025-11-01
MXA Signal Analyzer (10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2024-02-20	2025-02-19

Radiated Emissions (9kHz-30MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2022-10-16	2025-10-15
Coaxial cable	Mirco-COAX UTIFLEX	311A	EMC0540	2023-06-14	2025-06-13
Amplifier (9kHz-1.3GHz)	HP	8447F	EMC2065	202406-14	2025-06-13
Active Loop Antenna-RED	ETS-Lindgren	6502	EMC2190	2024-04-08	2026-04-07
EMI Test Receiver (1Hz-8GHz)	Rohde & Schwarz	ESW8	EMC2220	2024-05-19	2025-05-18
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

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Radiated Emissions (30MHz-1GHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2022-10-16	2025-10-15
Coaxial cable	Mirco-COAX UTIFLEX	311A	EMC0540	2023-06-14	2025-06-13
Amplifier (9kHz-1.3GHz)	HP	8447F	EMC2065	2024-06-14	2025-06-13
EMI Test Receiver (1Hz-8GHz)	Rohde & Schwarz	ESW8	EMC2220	2024-05-19	2025-05-18
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

General used equipment					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
DMM	Fluke	73	EMC0006	2024-06-13	2025-06-12

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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 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C Section
Test Method: ANSI C63.10 (2013)

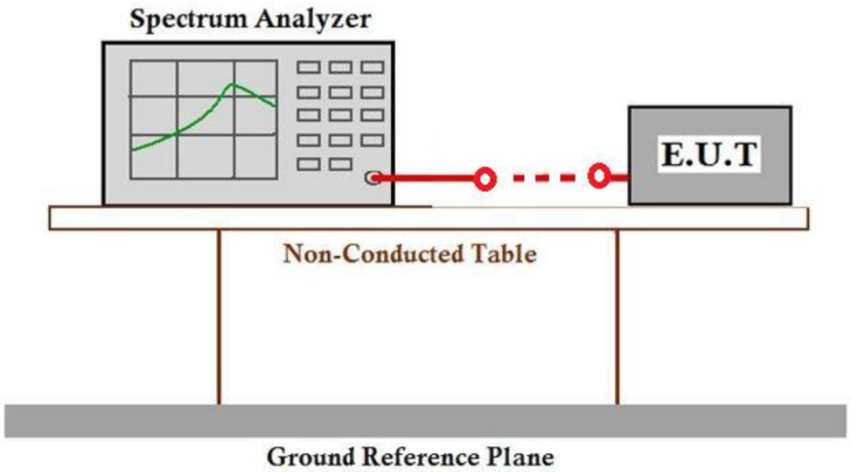
7.1.1 E.U.T. Operation

Operating Environment:
Temperature: 22.2 °C Humidity: 44.5 % RH Atmospheric Pressure: 1020 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	00	Charging mode_Keep the EUT charging(5W)
Pre-scan	01	Charging mode_Keep the EUT charging(7.5W)
Pre-scan	02	Charging mode_Keep the EUT charging(10W)
Final test	03	Charging mode_Keep the EUT charging(15W)

7.1.3 Test Setup Diagram

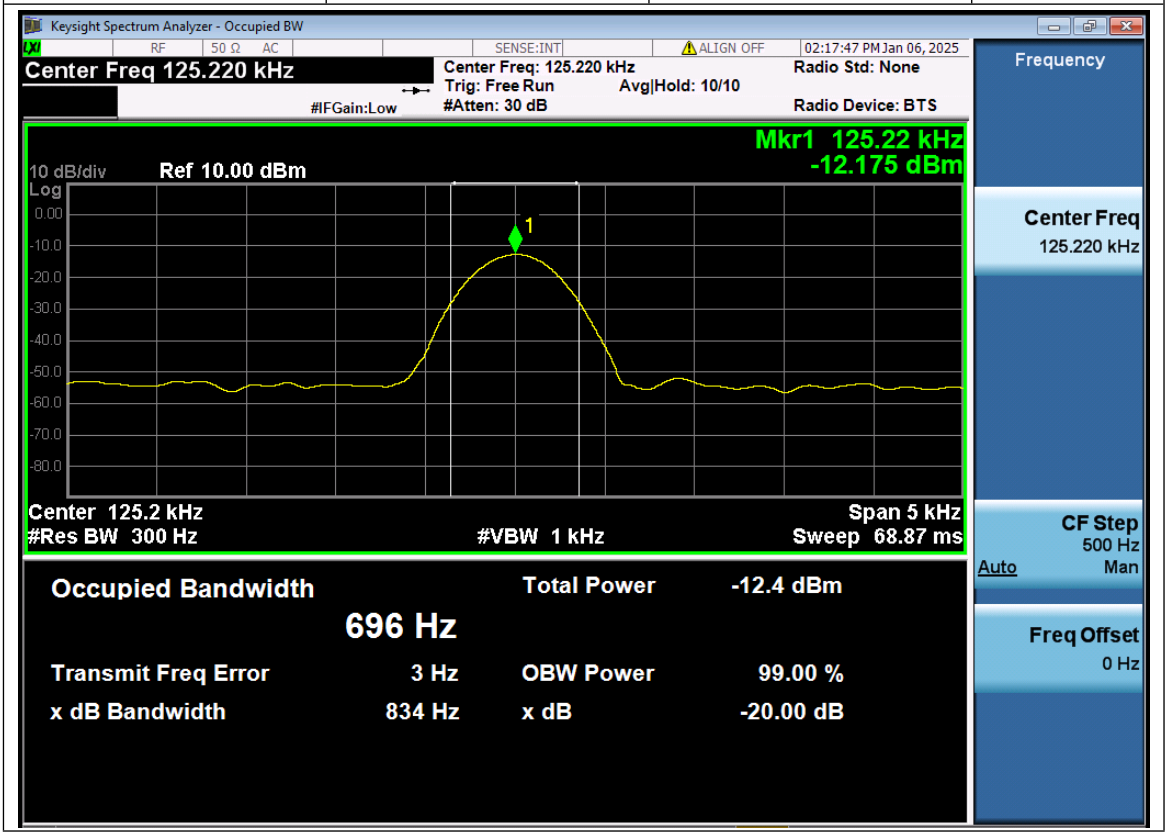


7.1.4 Measurement Procedure and Data

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
125.22kHz which is the worst case within the operation frequency range	0.834	---	Pass



7.2 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.		

7.2.1 E.U.T. Operation

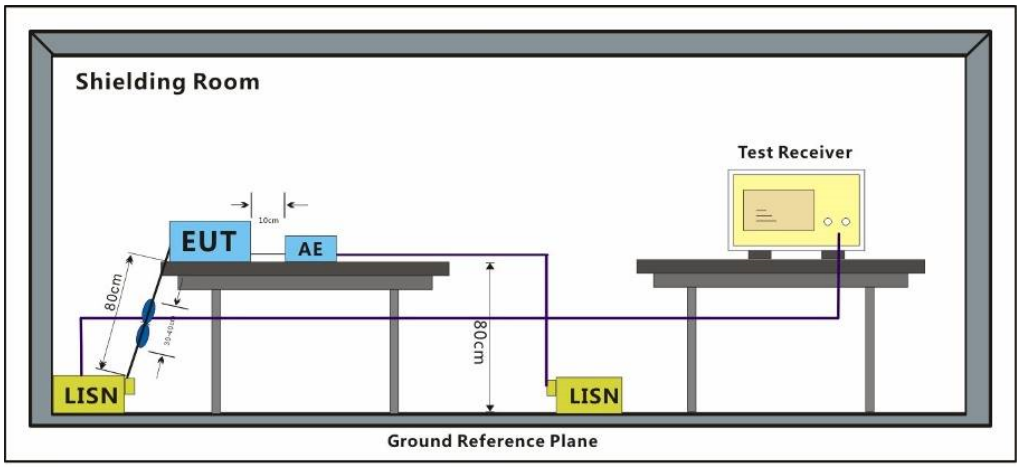
Operating Environment:

Temperature: 23.6 °C Humidity: 51.0 % RH Atmospheric Pressure: 1020 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	01	Charge mode_Keep the EUT charging(5W)
Pre-scan	02	Charge mode_Keep the EUT charging(7.5W)
Pre-scan	03	Charge mode_Keep the EUT charging(10W)
Final test	04	Charge mode_Keep the EUT charging(15W)

7.2.3 Test Setup Diagram



7.2.4 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

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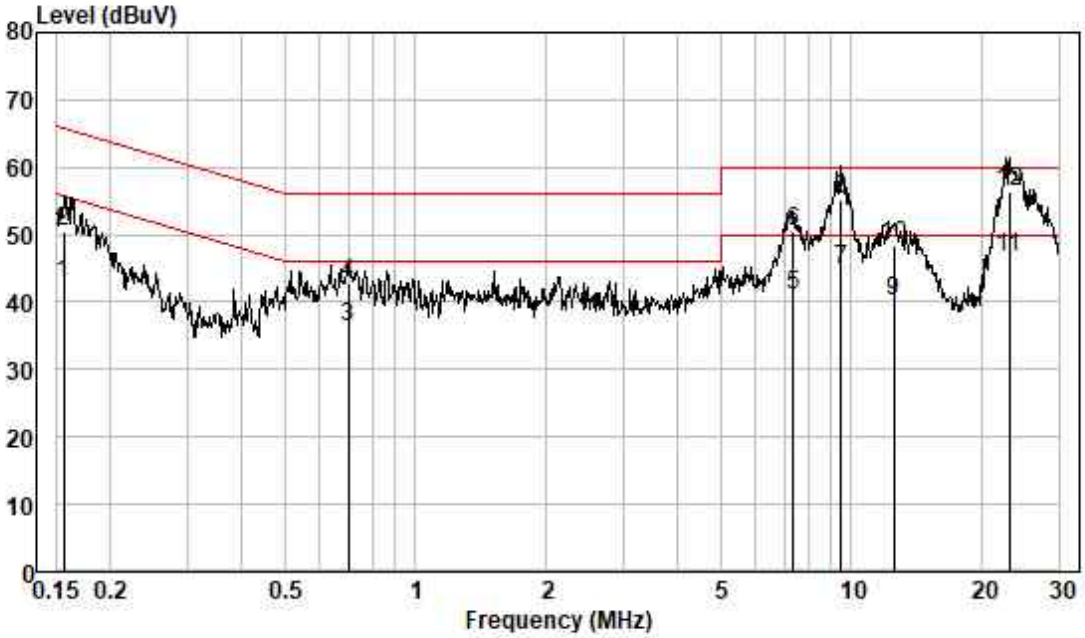
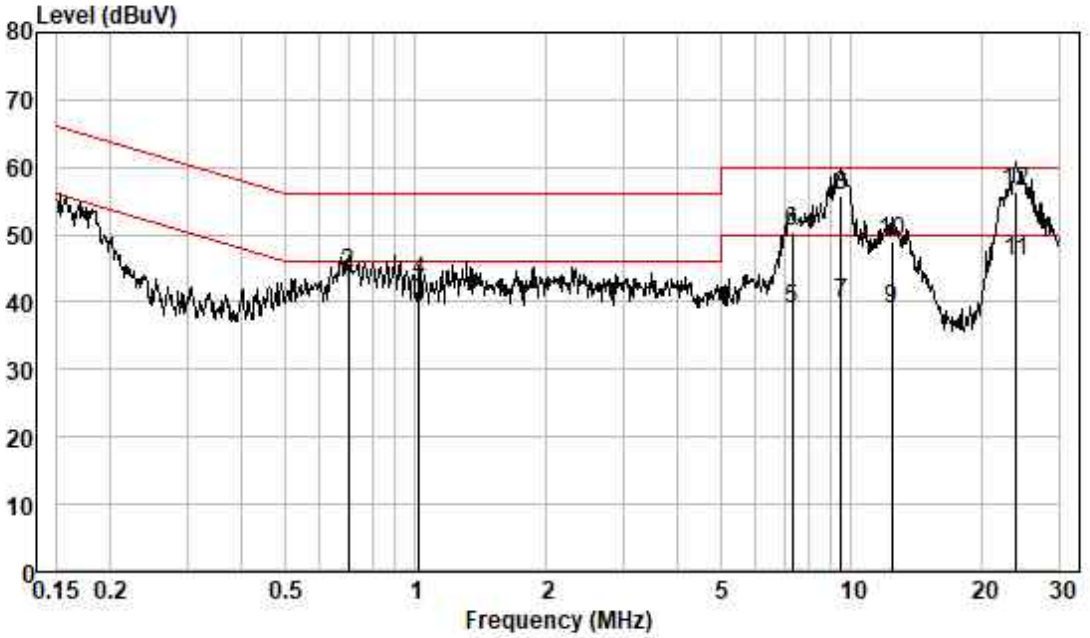
Test Mode: 04; Line: Live line



Pol :LINE
Mode :
Model :
Power :

	Frequenc MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
1	0.156	33.06	0.04	9.56	42.66	55.69	-13.03	Average
2	0.156	40.82	0.04	9.56	50.42	65.69	-15.27	QP
3	0.701	26.71	0.06	9.60	36.37	46.00	-9.63	Average
4	0.701	33.06	0.06	9.60	42.72	56.00	-13.28	QP
5	7.368	31.23	0.23	9.68	41.14	50.00	-8.86	Average
6	7.368	40.44	0.23	9.68	50.35	60.00	-9.65	QP
7	9.451	34.95	0.25	9.70	44.90	50.00	-5.10	Average
8	9.451	45.40	0.25	9.70	55.35	60.00	-4.65	QP
9	12.516	29.98	0.29	9.79	40.06	50.00	-9.94	Average
10	12.516	38.41	0.29	9.79	48.49	60.00	-11.51	QP
11	23.018	36.39	0.41	9.83	46.63	50.00	-3.37	Average
12	23.018	46.14	0.41	9.83	56.38	60.00	-3.62	QP

Test Mode: 04; Line: Neutral Line



Pol :NEUTRAL
Mode :
Model :
Power :

	Frequenc MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
1	0.701	32.08	0.06	9.54	41.68	46.00	-4.32	Average
2	0.701	34.76	0.06	9.54	44.36	56.00	-11.64	QP
3	1.021	30.29	0.07	9.56	39.92	46.00	-6.08	Average
4	1.021	33.48	0.07	9.56	43.11	56.00	-12.89	QP
5	7.329	29.18	0.23	9.66	39.07	50.00	-10.93	Average
6	7.329	40.46	0.23	9.66	50.35	60.00	-9.65	QP
7	9.451	29.99	0.25	9.75	39.99	50.00	-10.01	Average
8	9.451	45.92	0.25	9.75	55.92	60.00	-4.08	QP
9	12.384	28.85	0.29	9.84	38.98	50.00	-11.02	Average
10	12.384	38.88	0.29	9.84	49.01	60.00	-10.99	QP
11	23.888	35.74	0.42	9.96	46.12	50.00	-3.88	Average
12	23.888	46.08	0.42	9.96	56.46	60.00	-3.54	QP

7.3 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

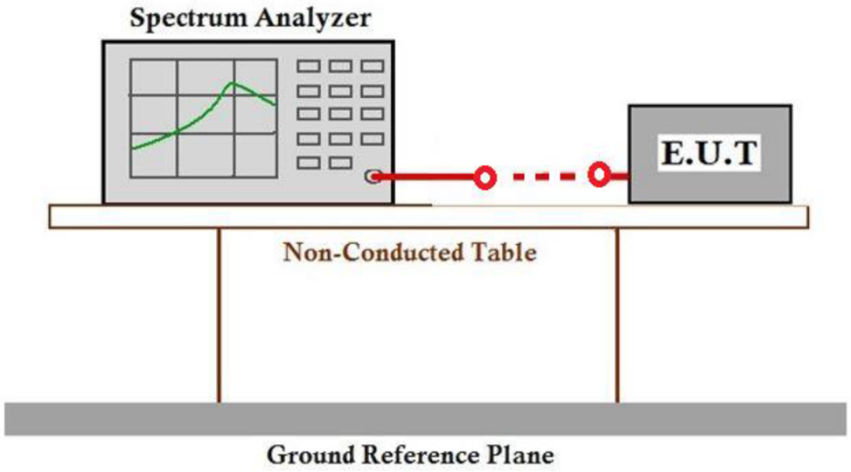
7.3.1 E.U.T. Operation

Operating Environment:
Temperature: 22.3 °C Humidity: 66.8 % RH Atmospheric Pressure: 1020 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	01	Charge mode_Keep the EUT charging(5W)
Pre-scan	02	Charge mode_Keep the EUT charging(7.5W)
Pre-scan	03	Charge mode_Keep the EUT charging(10W)
Final test	04	Charge mode_Keep the EUT charging(15W)

7.3.3 Test Setup Diagram

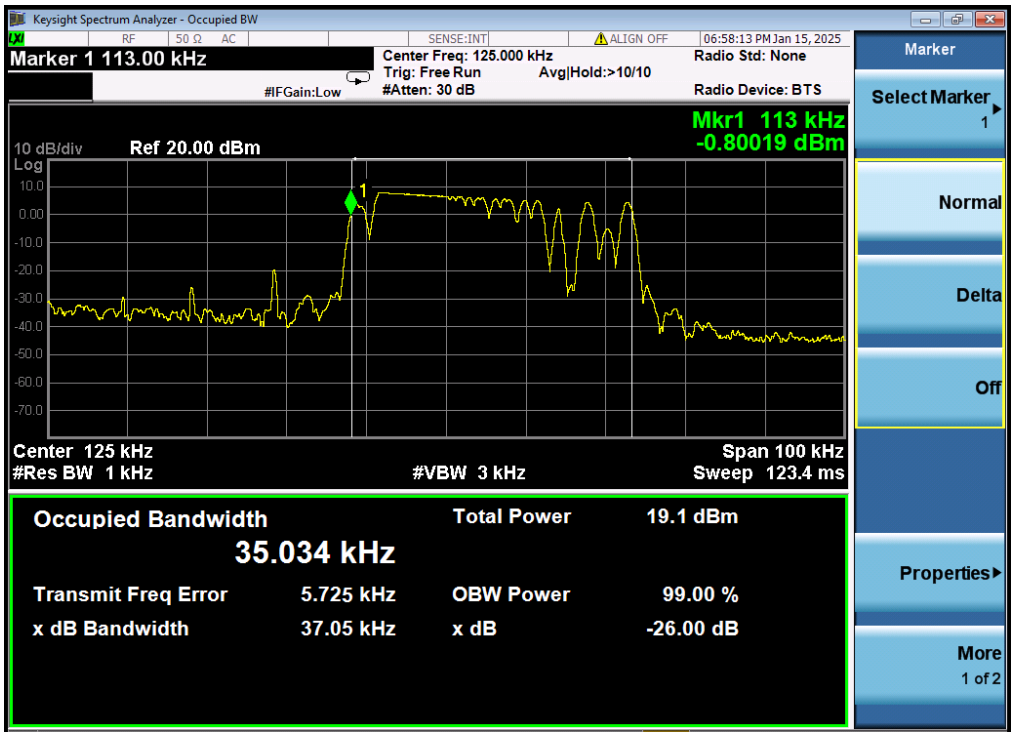


7.3.4 Measurement Procedure and Data

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 7.4.

Test Mode: 04



7.4 Radiated Emissions(9kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C Section 15.205/15.209
Test Method: ANSI C63.10 (2013) (2013) Section 6.4
Test Distance: 10m
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.

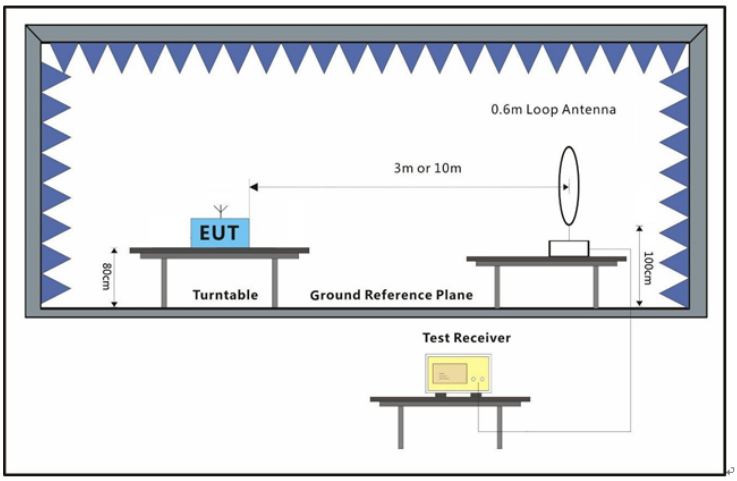
7.4.1 E.U.T. Operation

Operating Environment:
Temperature: 20.5 °C Humidity: 40.1 % RH Atmospheric Pressure: 1017 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	00	Charging mode_Keep the EUT charging(5W)
Pre-scan	01	Charging mode_Keep the EUT charging(7.5W)
Pre-scan	02	Charging mode_Keep the EUT charging(10W)
Final test	03	Charging mode_Keep the EUT charging(15W)

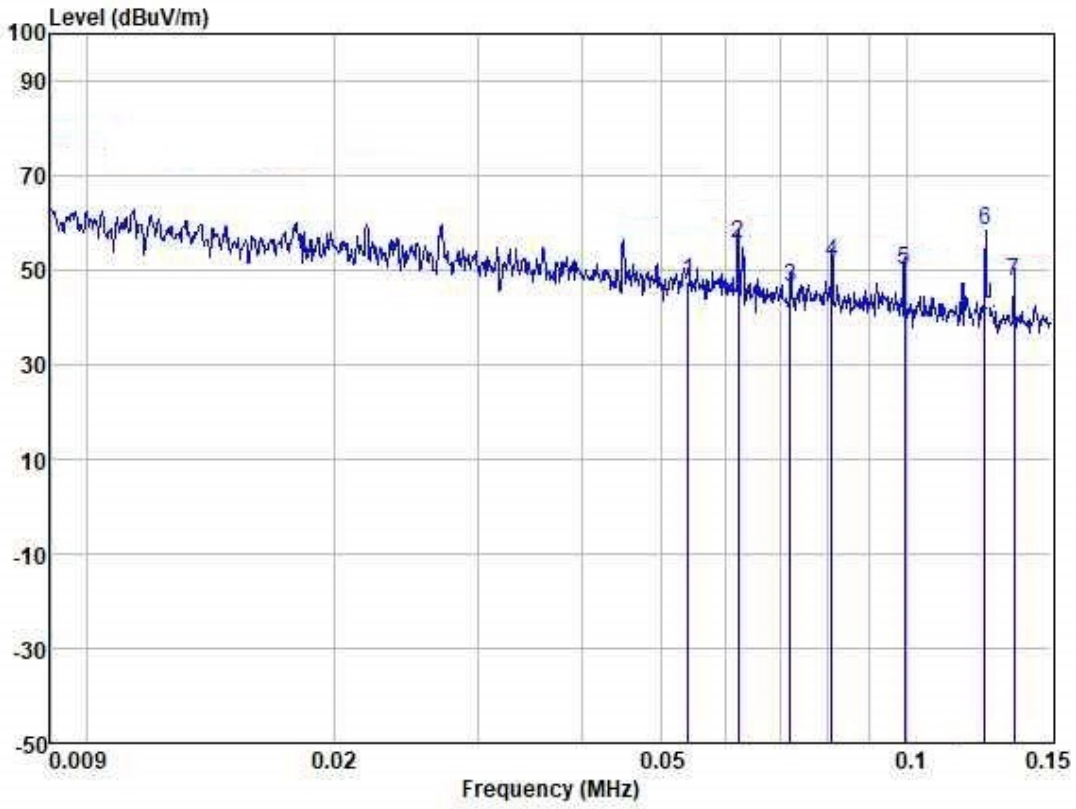
7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

For testing performed with the loop antenna, the center of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specified 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. Only the worst position of vertical was shown in the report.

Test Mode: 03



Site : SGS
Job : 2
Model :
Power :
Test Mode : 15W

	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				
1	0.054	64.71	12.16	0.02	29.32	47.57				
2	0.062	72.95	12.09	0.02	29.37	55.69				
3	0.072	63.62	12.01	0.02	29.42	46.23				
4	0.081	68.94	11.98	0.02	29.45	51.49				
5	0.099	67.36	11.95	0.02	29.50	49.83				
6	0.127	76.05	11.94	0.02	29.50	58.51				
7	0.135	64.98	11.91	0.02	29.50	47.41				

Frequency (MHz)	Level @10m (dBuV/m)	Limit @300m (dBuV/m)	Convert Factor (dB)@10 m to 300 m	Level @ 300m (dBuV/m)	Over limit (dB)	Remark
0.054	47.57	32.96	59.08	-11.51	-44.47	AV
0.062	55.69	31.76	59.08	-3.39	-35.15	AV
0.072	46.23	30.46	59.08	-12.85	-43.31	AV
0.081	51.49	29.43	59.08	-7.59	-37.03	AV
0.099	49.83	27.69	59.08	-9.25	-36.95	QP
0.127	58.51	25.53	59.08	-0.57	-26.10	AV
0.135	47.41	25.00	59.08	-11.67	-36.67	AV

Remark 1:

Extrapolation Correction (dB)@10m to 300 m = 40*log(10/300)=-59.08 according to FCC part 15.31 (f) (1)

Level (dBuV/m) @ 300m = Measured Level (dBuV/m) @10m + Extrapolation Correction (dB)@10 m to 300 m

Remark 2: The frequency 127kHz is the intentional transmitter.

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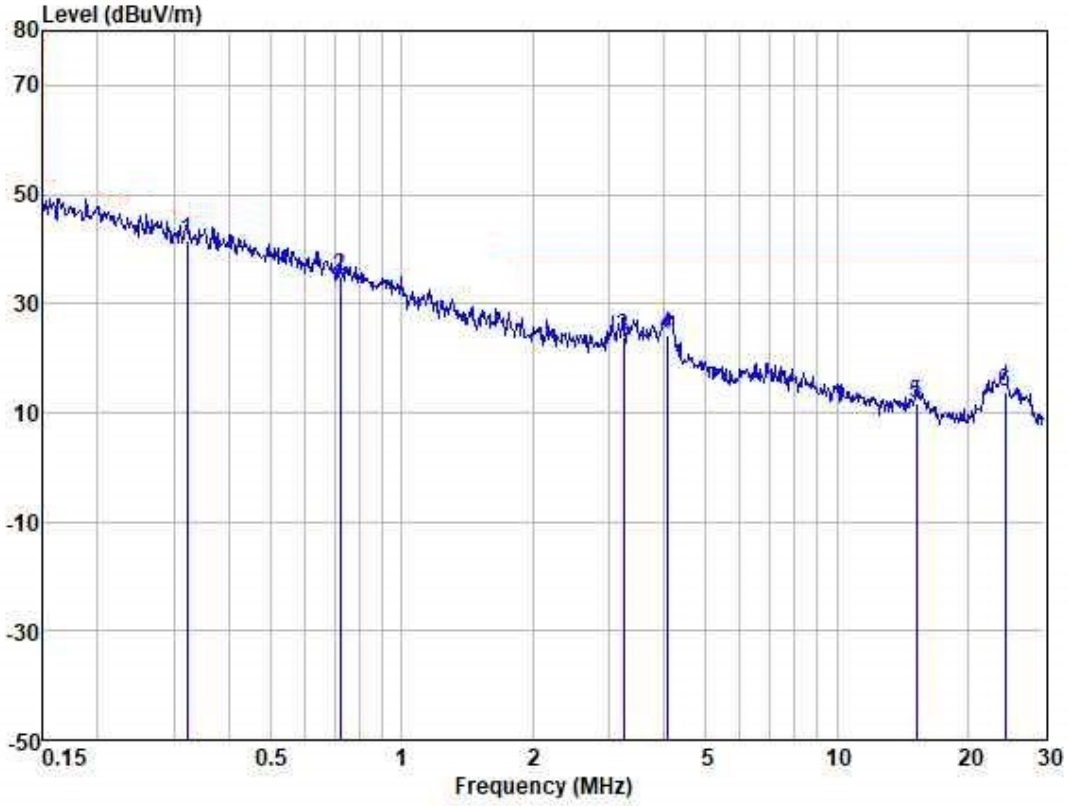
Test Mode: 03; Polarity: Coaxial



Site : SGS
Job : 2
Model :
Power :
Test Mode : 15W

	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				
1	0.322	58.88	11.87	0.05	29.44	41.36				
2	0.724	52.41	11.82	0.07	29.40	34.90				
3	3.241	41.28	11.80	0.15	29.40	23.83				
4	4.070	41.85	11.65	0.17	29.40	24.27				
5	15.226	30.96	9.75	0.27	29.30	11.68				
6	24.400	34.62	7.87	0.34	29.20	13.63				

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Frequency (MHz)	Level @10m (dBuV/m)	Limit @300m (dBuV/m)	Convert Factor (dB)@10 m to 300 m	Level @ 300m (dBuV/m)	Over limit (dB)	Remark
0.322	41.36	17.45	59.08	-17.72	-35.17	AV
Frequency (MHz)	Level @10m (dBuV/m)	Limit @30m (dBuV/m)	Convert Factor (dB)@10 m to 30 m	Level @ 30m (dBuV/m)	Over limit (dB)	Remark
0.724	34.90	30.41	19.08	15.82	-14.59	QP
3.241	23.83	29.54	19.08	4.75	-24.80	QP
4.070	24.27	29.54	19.08	5.19	-24.36	QP
15.226	11.68	29.54	19.08	-7.40	-36.95	QP
24.400	13.63	29.54	19.08	-5.45	-35.00	QP

Remark:
Extrapolation Correction (dB)@10m to 30 m = 40*log(10/30)=-19.08 according to FCC part 15.31 (f) (1)
Level (dBuV/m) @ 30m = Measured Level (dBuV/m) @10m + Extrapolation Correction (dB)@10 m to 30 m
Extrapolation Correction (dB)@10m to 300 m = 40*log(10/300)=-59.08 according to FCC part 15.31 (f) (1)
Level (dBuV/m) @ 300m = Measured Level (dBuV/m) @10m + Extrapolation Correction (dB)@10 m to 300 m

7.5 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
Test Distance: 10 m
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.		

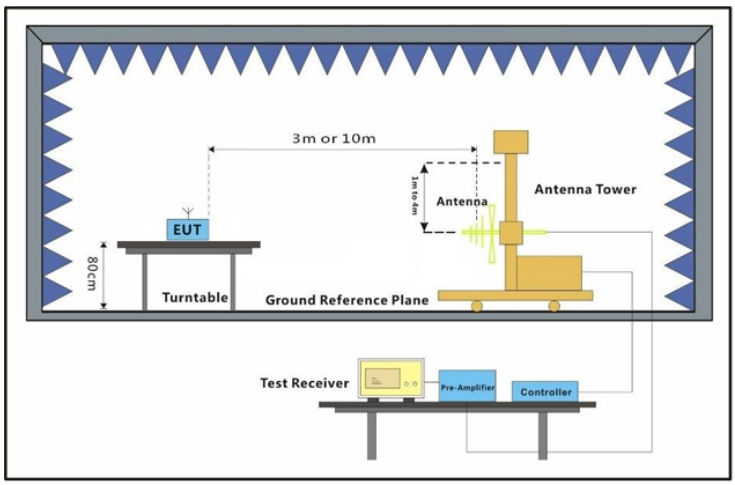
7.5.1 E.U.T. Operation

Operating Environment:
Temperature: 23.8 °C Humidity: 56.9 % RH Atmospheric Pressure: 1020 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	00	Charging mode_Keep the EUT charging(5W)
Pre-scan	01	Charging mode_Keep the EUT charging(7.5W)
Pre-scan	02	Charging mode_Keep the EUT charging(10W)
Final test	03	Charging mode_Keep the EUT charging(15W)

7.5.3 Test Setup Diagram



7.5.4 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.

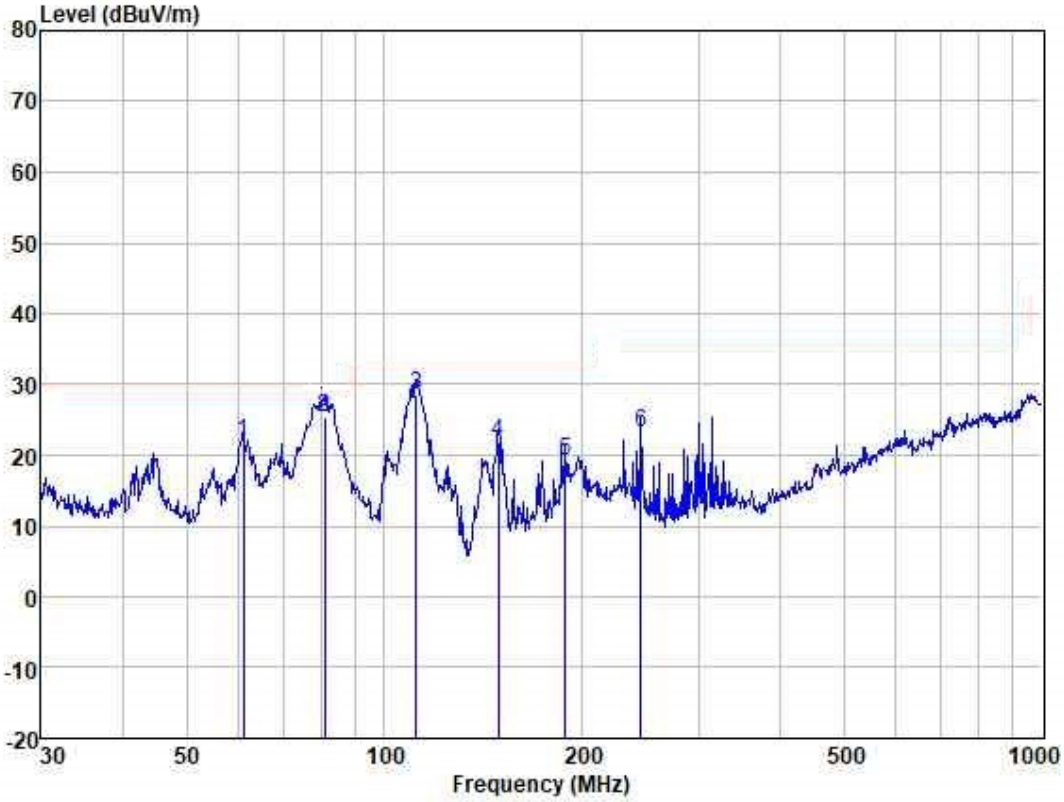
g. Test the EUT in the lowest channel,the middle channel,the Highest channel

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: 03; Polarity: Horizontal



Site : SGS
Job :
Model :
Power :
Test Mode : 15W

	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				
1	60.918	36.36	13.20	0.52	28.10	21.98				
2	80.927	43.98	8.87	0.59	28.10	25.34				
3	111.738	45.52	10.49	0.70	28.07	28.64				
4	148.963	35.36	13.52	0.82	27.86	21.84				
5	188.413	34.59	11.38	0.92	27.63	19.26				
6	245.951	37.99	11.72	1.07	27.52	23.26				

Frequency (MHz)	Level @10m (dBuV/m)	Convert Factor (dB)@10 m to 3 m	Level @ 3m (dBuV/m)	Limit @3m (dBuV/m)	Over limit (dB)	Pol/Phase	Remark
60.918	21.98	10.46	32.44	53.98	-21.54	HORIZONTAL	QP
80.927	25.34	10.46	35.80	53.98	-18.18	HORIZONTAL	QP
111.738	28.64	10.46	39.10	53.98	-14.88	HORIZONTAL	QP
148.963	21.84	10.46	32.30	53.98	-21.68	HORIZONTAL	QP
188.413	19.26	10.46	29.72	53.98	-24.26	HORIZONTAL	QP
245.951	23.26	10.46	33.72	53.98	-20.26	HORIZONTAL	QP

*Remark:

Level (dBuV/m) @3m = Level (dBuV/m) @10m + Convert Factor (dB)

Convert Factor (dB) = 20*log(Measurement Distance/Specified Distance) = 20*log(10/3) = 10.46 dB according to 15.31 (f) (1)

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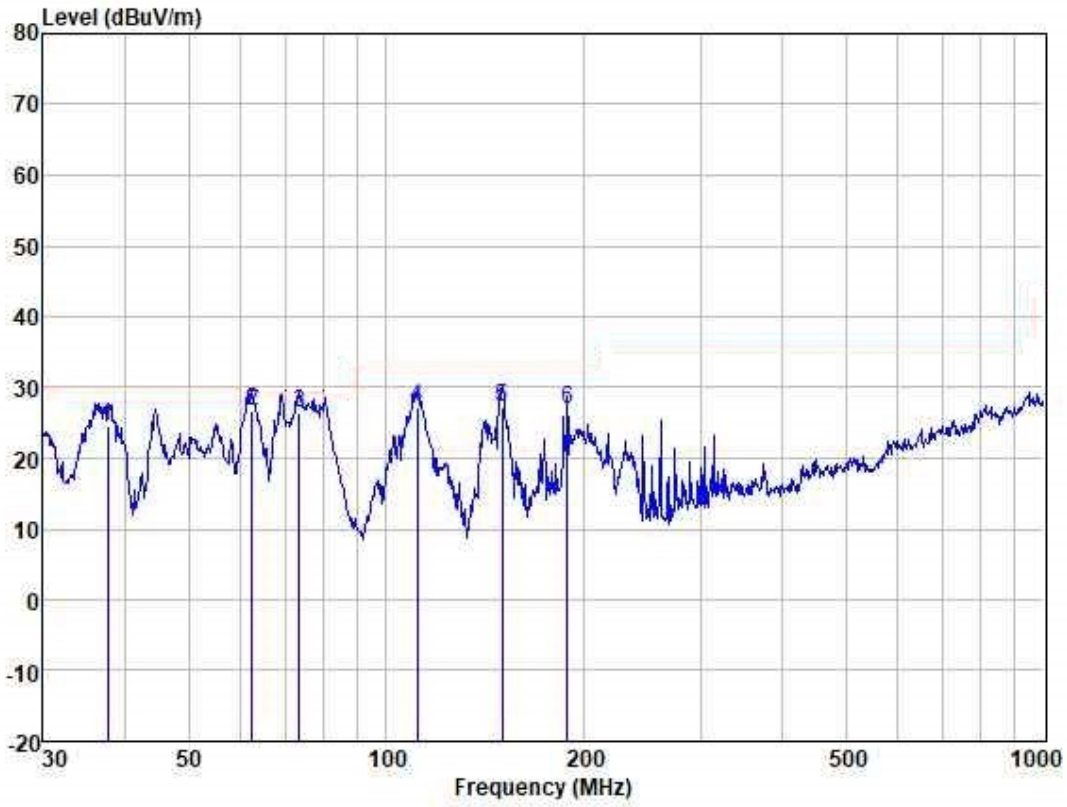
Test Mode: 03; Polarity: Vertical



Site : SGS
Job :
Model :
Power :
Test Mode : 15W

	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				
1	37.680	39.04	13.31	0.41	28.14	24.62				
2	62.431	41.05	13.06	0.53	28.10	26.54				
3	73.617	43.22	10.71	0.57	28.10	26.40				
4	111.347	44.07	10.49	0.70	28.07	27.19				
5	150.011	40.61	13.58	0.83	27.85	27.17				
6	188.413	42.26	11.38	0.92	27.63	26.93				

Frequency (MHz)	Level @10m (dBuV/m)	Convert Factor (dB)@10 m to 3 m	Level @ 3m (dBuV/m)	Limit @3m (dBuV/m)	Over limit (dB)	Pol/Phase	Remark
37.680	24.62	10.46	35.08	53.98	-18.90	VERTICAL	QP
62.431	26.54	10.46	37.00	53.98	-16.98	VERTICAL	QP
73.617	26.40	10.46	36.86	53.98	-17.12	VERTICAL	QP
111.347	27.19	10.46	37.65	53.98	-16.33	VERTICAL	QP
150.011	27.17	10.46	37.63	53.98	-16.35	VERTICAL	QP
188.413	26.93	10.46	37.39	53.98	-16.59	VERTICAL	QP

*Remark:

Level (dBuV/m) @3m = Level (dBuV/m) @10m + Convert Factor (dB)
Convert Factor (dB) = 20*log(Measurement Distance/Specified Distance) = 20*log(10/3) = 10.46 dB according to 15.31 (f) (1)

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8 Test Setup Photo

Refer to Appendix _ Setup Photo for GZCR241200146902

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9 EUT Constructional Details (EUT Photos)

Refer to Appendix_ Photographs of EUT Constructional Details for GZCR2412001469HS

- End of the Report -

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