

FCC PART 15C
TEST REPORT

For

Lumi Legend Corporation

22/F., Building 1, Lisi Plaza, Huifeng East Road, Ningbo, China 315100

FCC ID: 2AG62HPS04

Report Type: Original Report	Product Name: RING-SHAPED RGB GAMING HEADPHONE STAND
Report Number:	<u>RKSA230215001-00B</u>
Report Date:	<u>2024-01-26</u>
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S.Government.

TABLE OF CONTENTS

REPORT REVISION HISTORY.....	3
GENERAL INFORMATION.....	4
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....	4
OBJECTIVE.....	4
TEST METHODOLOGY.....	4
MEASUREMENT UNCERTAINTY.....	4
TEST FACILITY.....	5
SYSTEM TEST CONFIGURATION.....	6
DESCRIPTION OF TEST CONFIGURATION.....	6
EQUIPMENT MODIFICATIONS.....	6
EUT EXERCISE SOFTWARE.....	6
SUPPORT EQUIPMENT LIST AND DETAILS.....	6
EXTERNAL I/O CABLE.....	6
BLOCK DIAGRAM OF TEST SETUP.....	7
SUMMARY OF TEST RESULTS.....	8
TEST EQUIPMENT LIST.....	9
FCC §1.1310 & §2.1091–MAXIMUM PERMISSIBLE EXPOSURE (MPE).....	10
APPLICABLE STANDARD.....	10
TEST SYSTEM SETUP.....	11
RESULT.....	11
TEST DATA.....	12
FCC §15.203 - ANTENNA REQUIREMENT.....	13
APPLICABLE STANDARD.....	13
ANTENNA CONNECTOR CONSTRUCTION.....	13
FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS.....	14
APPLICABLE STANDARD.....	14
TEST SYSTEM SETUP.....	14
EMI TEST RECEIVER SETUP.....	14
TEST PROCEDURE.....	14
TEST RESULTS SUMMARY.....	15
TEST DATA.....	15
FCC §15.209 & §15.205 - SPURIOUS EMISSIONS.....	18
APPLICABLE STANDARD.....	18
TEST SYSTEM SETUP.....	18
EMI TEST RECEIVER SETUP.....	19
TEST PROCEDURE.....	19
TEST RESULTS SUMMARY.....	19
TEST DATA.....	20
§15.215(c) - 20dB EMISSION BANDWIDTH TESTING.....	28
REQUIREMENT.....	28
TEST PROCEDURE.....	28
TEST DATA.....	28
EUT PHOTOGRAPHS.....	30
TEST SETUP PHOTOGRAPHS.....	31

REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA230215001-00B	R1V1	2024-01-26	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Lumi Legend Corporation
Tested Model:	HPS04-2
Product Name:	RING-SHAPED RGB GAMING HEADPHONE STAND
Rated Input Voltage:	Type-C input: 5V===0.5A Wireless charger input: 5V===3A, 9V===2A, 12V===1.5A
RF Function:	WPT
Operating Band/Frequency:	116 kHz
Antenna Type:	Coil Antenna

Note: Pre-Scan all voltage, DC 12V was the worst, DC 12V was used to test all items.

All measurement and test data in this report was gathered from production sample serial number: RKSA230215001-1 (Assigned by the BACL. The EUT supplied by the applicant was received on 2023-02-15)

Objective

This report is prepared for *Lumi Legend Corporation* in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207 and 15.209 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19 dB
Radiated emission	9 kHz~150 kHz	3.8 dB
	150 kHz~30 MHz	3.4 dB
	30MHz~1GHz	6.11dB
Temperature		1.0°C
Humidity		6%

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu Province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) Lab is accredited to ISO/IEC 17025 by NVLAP (Lab code: 600338-0) and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No.: CN5055.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user)

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

No Exercise Software was used.

Support Equipment List and Details

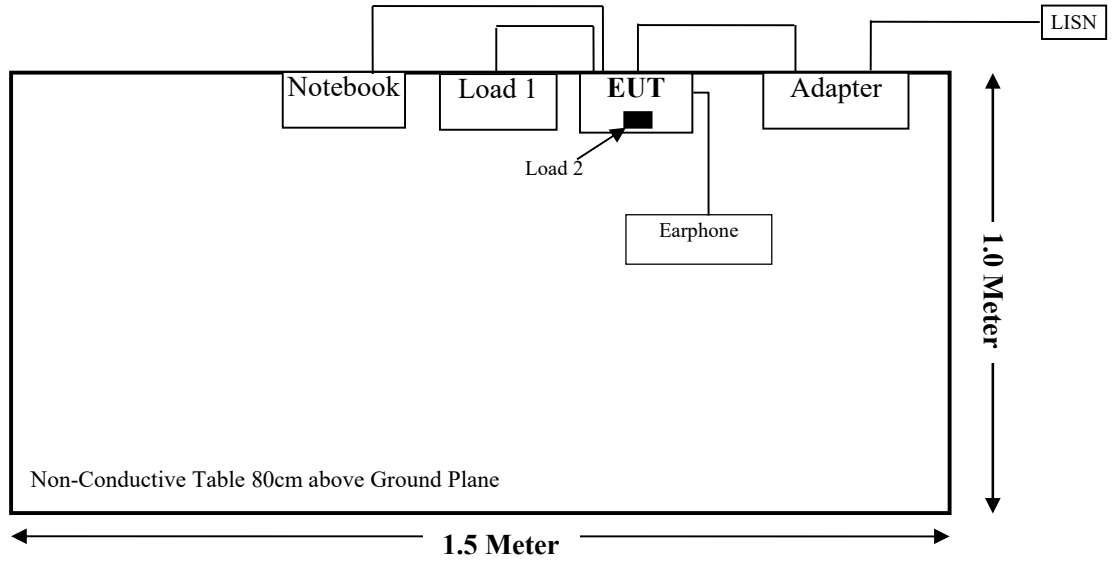
Manufacturer	Description	Model	Serial Number
Unknown	Adapter	Unknown	Unknown
Unknown	Load 1	Unknown	Unknown
Unknown	Load 2	Unknown	Unknown
Unknown	Earphone	Unknown	Unknown
Lenovo	Notebook	ZQ-202000905OLIT	00329000000003AA658

External I/O Cable

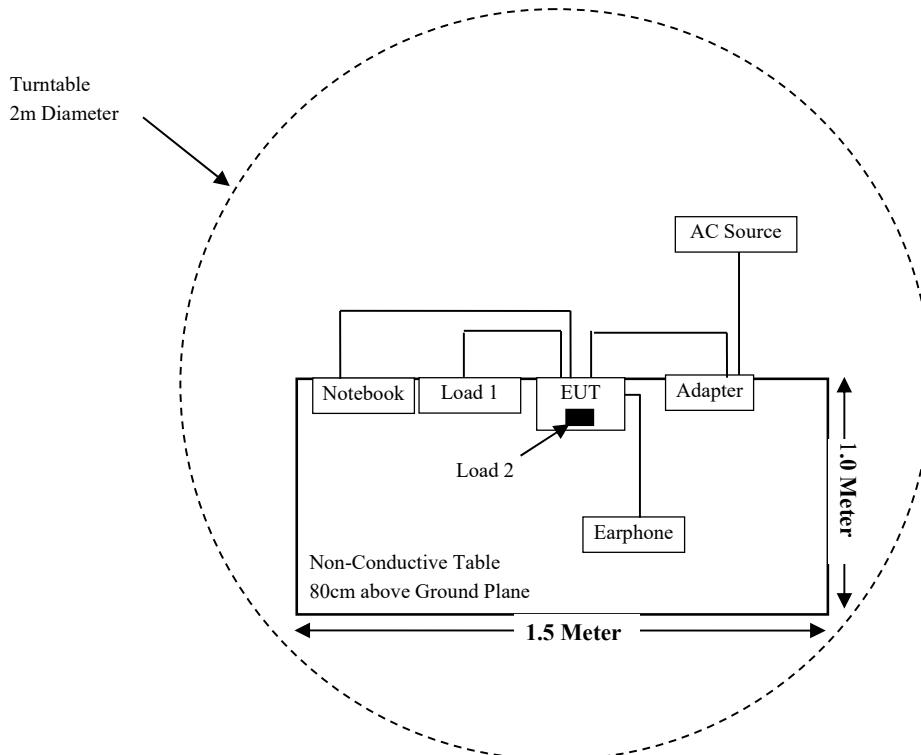
Cable Description	Length (m)	From Port	To
Power Cable 1	1.5	AC Source	Adapter
USB Cable 1	1.0	Adapter	EUT
USB Cable 2	0.5	Notebook	EUT
USB Cable 3	0.3	EUT	Load
Audio Cable 1	1.2	EUT	Earphone

Block Diagram of Test Setup

For Conducted Emissions:



For Radiated Emissions:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1310& §2.1091	Maximum Permissible Exposure(MPE)	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 (a)	AC Line Conducted Emissions	Compliant
§15.205, §15.209	Spurious Emissions	Compliant
§15.215(c)	20dB Emission Bandwidth Testing	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test (Chamber 1#)					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2023-05-23	2024-05-22
Sunol Sciences	Hybrid Antenna	JB3	A090314-1	2023-11-11	2024-11-10
Sonoma Instrument	Amplifier	310N	171205	2023-05-23	2024-05-22
Narda	6dB Attenuator	773-6	10690812-2-1	2023-11-11	2024-11-10
ETS-LINDGREN	Loop Antenna	6512	108100	2023-11-09	2024-11-08
MICRO-COAX	Coaxial Cable	Cable-8	008	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-9	009	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-10	010	2023-05-23	2024-05-22
Rohde & Schwarz	Test Software	EMC32	100361	N/A	N/A
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	101746	2023-05-23	2024-05-22
Rohde & Schwarz	LISN	ENV216	101115	2023-05-23	2024-05-22
Rohde & Schwarz	Pulse Limiter	ESH3-Z2	0357.8810.54	2023-05-23	2024-05-22
Audix	Test Software	e3	V9	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-15	015	2023-05-23	2024-05-22
MPE					
NARDA	Isotropic Field Probe	EA5091	16868	2023-05-22	2024-05-21
NARDA	Broadband field Meter	NBM-550	B-1130	2023-05-22	2024-05-21
ETS-LINDGREN	Isotropic Field Probe	HI-6005	200234	2023-11-08	2024-11-07

Statement of Traceability: Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §1.1310 & §2.1091–MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to the item 5.2 of KDB 680106 D01 Wireless Power Transfer v04; Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF evaluation.

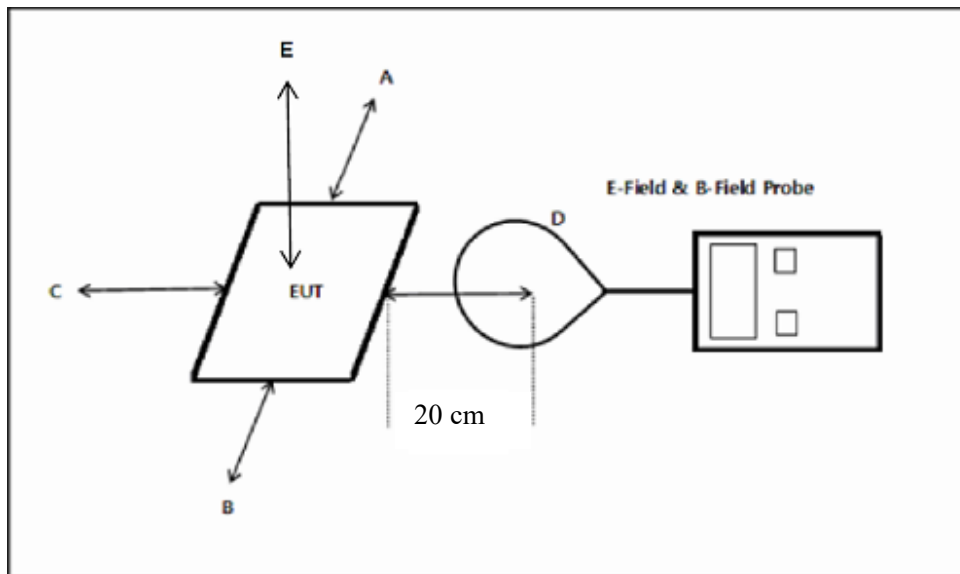
- (1) The power transfer frequency is below 1 MHz.
- (2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.
- (3) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)
- (4) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).
- (5) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.
- (6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.

Limits for Maximum Permissible Exposure (MPE)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm²)	Averaging Time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

Test System Setup



Result

- a) The power transfer frequency is below 1 MHz
Yes, the device operates in the frequency 116 kHz.
- b) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.
Yes, the maximum output power of the primary coil is 15W.
- c) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact).
Yes, client device is placed directly in contact with the transmitter.
- d) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).
Yes, this is a mobile device.
- e) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.
Yes, please refer to test data

f) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.

Yes, systems with only one radiating structure

Test Data

Environmental Conditions & Test Information

Temperature:	22.3 °C
Relative Humidity:	31 %
ATM Pressure:	102.5 kPa
Test Date:	2024-01-17
Test Engineer:	Aaron Sun

H-Filed Strength

Frequency Range (kHz)	Position A (A/m)	Position B (A/m)	Position C (A/m)	Position D (A/m)	Position E (A/m)	Limit Test (A/m)	50%Limit (A/m)
116	0.087	0.049	0.068	0.064	0.234	1.63	0.815

E-Filed Strength

Frequency Range (kHz)	Position A (V/m)	Position B (V/m)	Position C (V/m)	Position D (V/m)	Position E (V/m)	Limit Test (V/m)	50%Limit (V/m)
116	1.910	1.101	1.562	1.432	2.136	614	307

Note:

1: According with KDB 680106 D01 Wireless Power Transfer v04, Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614V/m and 1.63 A/m.

2: The distance is 20cm.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

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.

Antenna Connector Construction

The EUT has a Coil antenna arrangement which permanently attached to EUT, fulfill the requirement of this section. Please refer to the EUT photos.

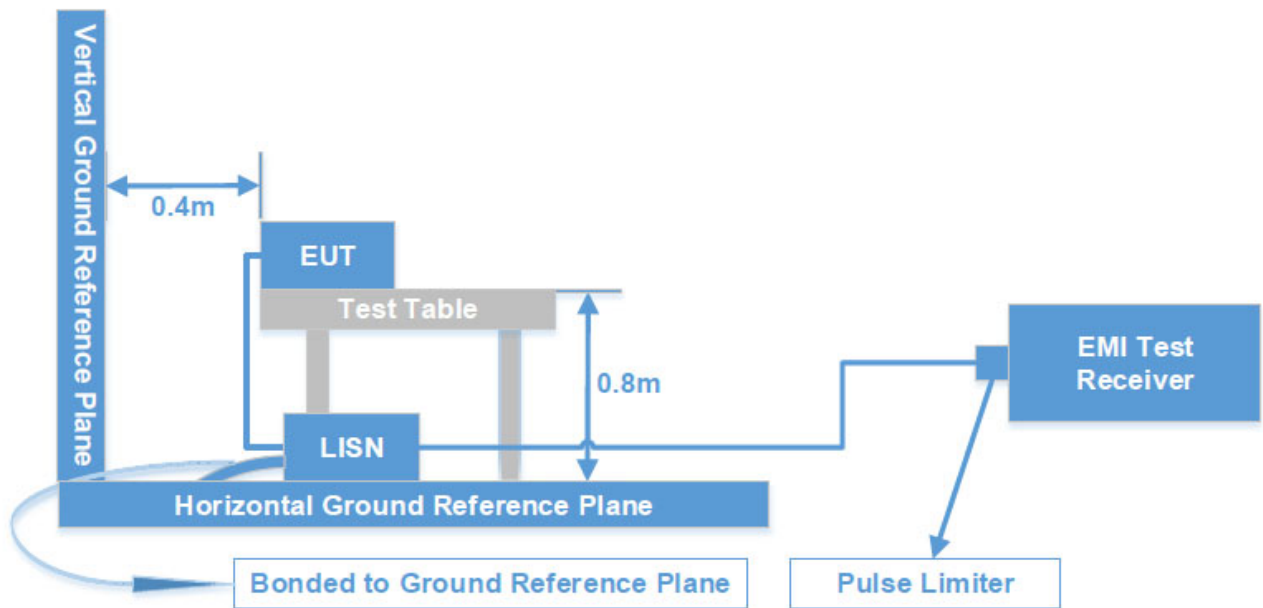
Result: Compliant.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a)

Test System Setup



The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	VBW
150 kHz - 30 MHz	9 kHz	30 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

If the maximum peak value of the emissions is below the average limit, the QP value and average value measurement will not need to be performed and only record the maximum peak measured value to meet the requirements.

Level & Over Limit Calculation

The Level is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation from the Meter Reading. The basic equation is as follows:

$$\text{Factor (dB)} = \text{LISN VDF (dB)} + \text{Cable Loss (dB)} + \text{Transient Limiter Attenuation (dB)}$$

$$\text{Level (dB}\mu\text{V)} = \text{Read level (dB}\mu\text{V)} + \text{Factor (dB)}$$

The “**Over Limit**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit of 7 dB means the emission is 7 dB above the limit. The equation for Over Limit calculation is as follows:

$$\text{Over Limit (dB)} = \text{Level (dB}\mu\text{V)} - \text{Limit (dB}\mu\text{V)}$$

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

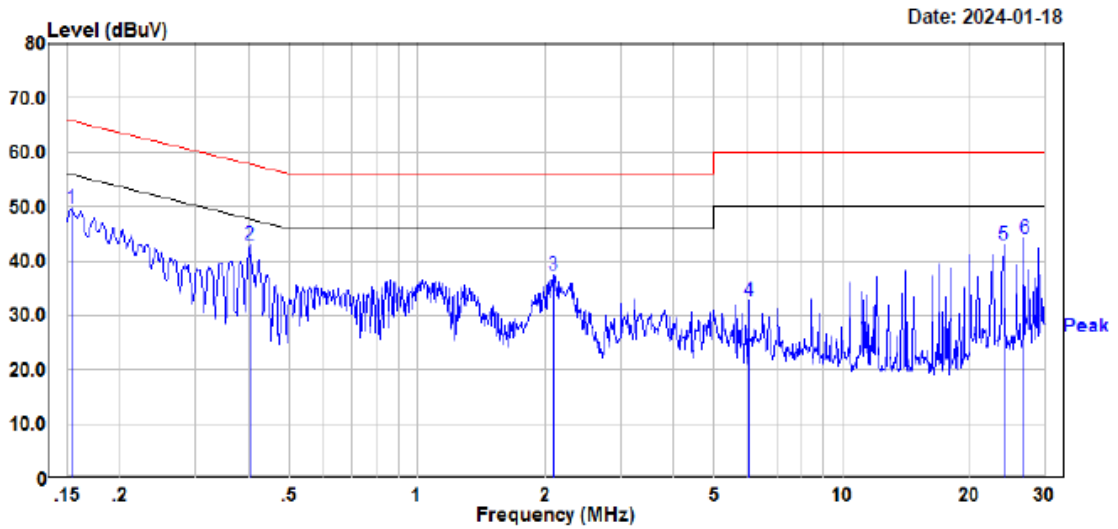
Test Data

Environmental Conditions & Test Information

Temperature:	15.3 °C
Relative Humidity:	40 %
ATM Pressure:	102.2 kPa
Test Date:	2024-01-18
Test Engineer:	Aaron Sun

EUT operation mode: charging and communication

AC 120V/60 Hz, Line

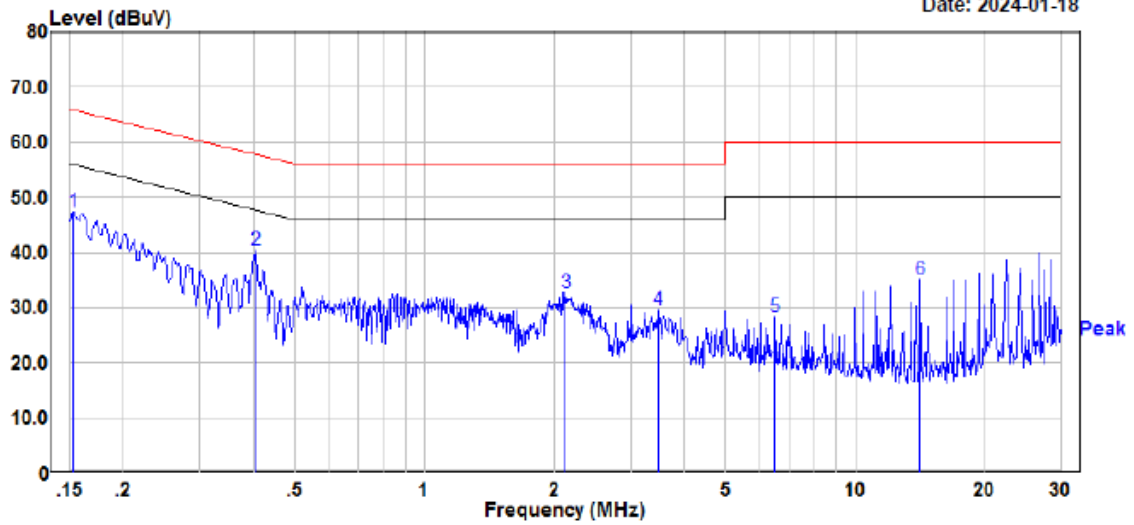


Site : CE
 Condition : FCC Part 15.207
 : DET:Peak
 Model : HPS04-2
 Phase : L
 Voltage : 120V/60HZ
 Mode : Transmitting
 Test Equipment : ENV216,ESR
 Temperature : 15.3°C
 Humidity : 40%
 Atmospheric pressure: 102.2kPa
 Test Engineer : Aaron Sun

	Read	Read	Limit	Over		
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB	dBuV	dBuV	dB
1	0.153	29.89	19.89	49.78	65.83	-16.05 Peak
2	0.402	23.01	20.07	43.08	57.80	-14.72 Peak
3	2.085	17.32	20.21	37.53	56.00	-18.47 Peak
4	6.027	12.31	20.28	32.59	60.00	-27.41 Peak
5	23.972	23.17	19.92	43.09	60.00	-16.91 Peak
6	26.751	24.26	19.97	44.23	60.00	-15.77 Peak

AC 120V/60 Hz, Neutral

Date: 2024-01-18



Site : CE
 Condition : FCC Part 15.207
 : DET:Peak
 Model : HPS04-2
 Phase : N
 Voltage : 120V/60HZ
 Mode : Transmitting
 Test Equipment : ENV216,ESR
 Temperature : 15.3°C
 Humidity : 40%
 Atmospheric pressure: 102.2kPa
 Test Engineer : Aaron.Sun

	Read	Limit	Over				
Freq	Level	Factor	Level	Line			
MHz	dBuV	dB	dBuV	dBuV			
1	0.152	27.54	19.89	47.43	65.88	-18.45	Peak
2	0.404	20.40	20.07	40.47	57.76	-17.29	Peak
3	2.127	12.44	20.21	32.65	56.00	-23.35	Peak
4	3.483	9.20	20.26	29.46	56.00	-26.54	Peak
5	6.495	8.07	20.26	28.33	60.00	-31.67	Peak
6	14.134	15.30	19.83	35.13	60.00	-24.87	Peak

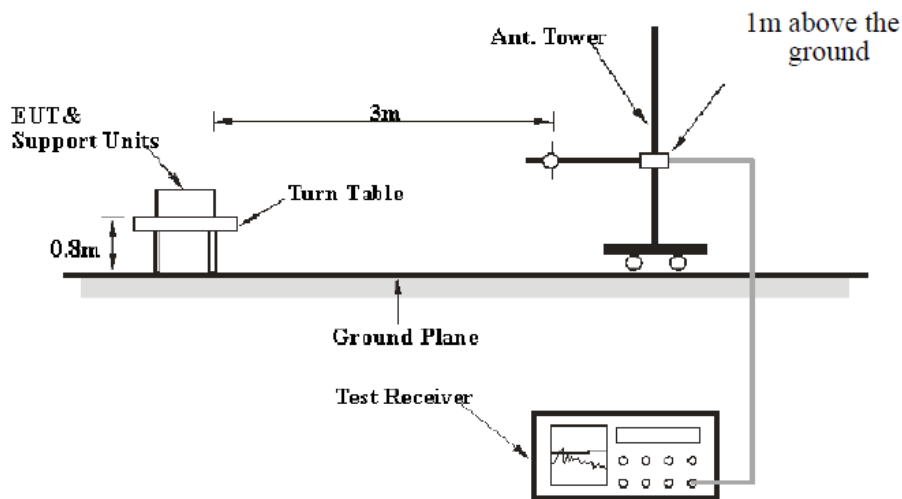
FCC §15.209 & §15.205 - SPURIOUS EMISSIONS

Applicable Standard

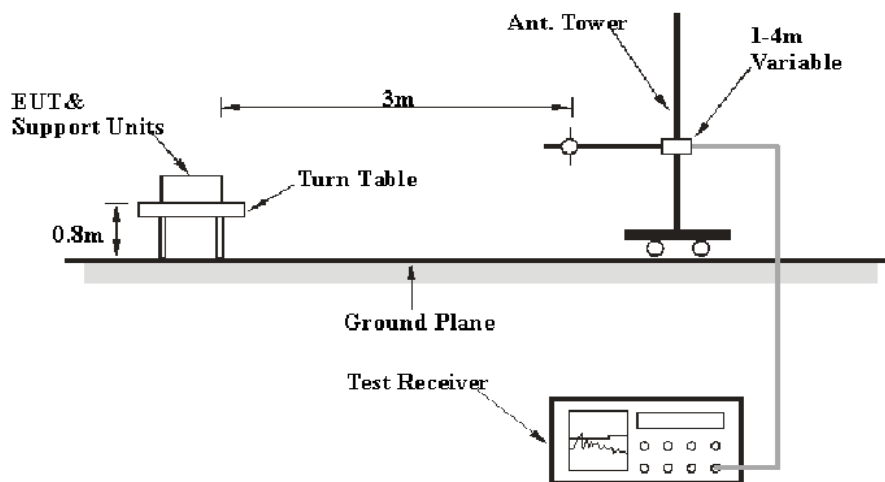
FCC §15.209; §15.205;

Test System Setup

9 kHz~30MHz



30 MHz-1GHz



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209 and FCC 15.205 limits.

EMI Test Receiver Setup

The system was investigated from 9 kHz to 1GHz.

During the radiated emission test, the EMI test receiver setup was set with the following configurations:

Frequency Range	RBW	VBW	Measurement
9 kHz – 150 kHz	200 Hz	1 kHz	PK /AV
150 kHz – 30 MHz	9 kHz	30 kHz	PK /AV
30 MHz – 1000 MHz	100 kHz	300 kHz	PK

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 meter, and the EUT is placed on a turntable, which is 0.8 meter above ground plane, the table shall be rotated for 360 degrees to find out the highest emission. The receiving antenna should be changed the polarization both of horizontal and vertical.

If the measured peak level of the emissions that the measuring receiver reading level plus corrected factor is at least 10 dB below the QP emission limit, there's no need to record the measured QP level of the emissions in the report.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude (dB μ V/m) = Meter Reading (dB μ V) + Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB)

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin (dB) = Limit (dB μ V/m) – Corrected Amplitude (dB μ V/m)

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.205 and 15.209.

Test Data

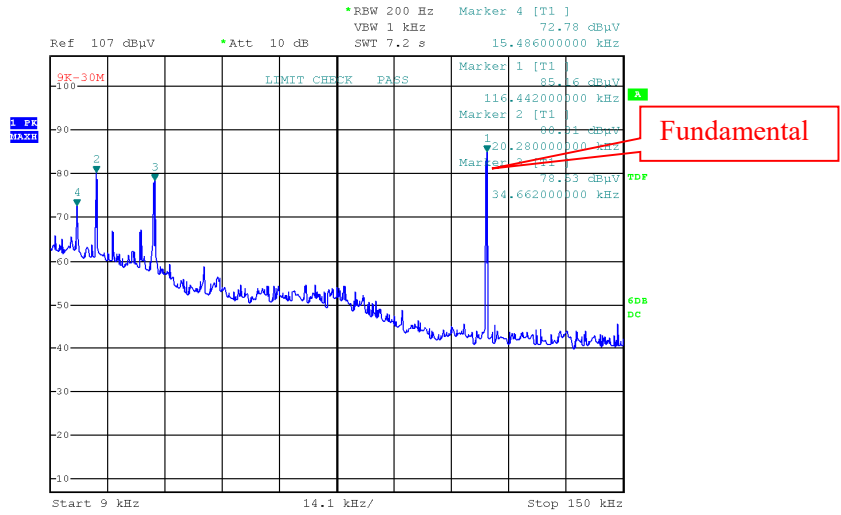
Environmental Conditions & Test Information

Frequency Range:	9 kHz - 30 MHz	30 MHz - 1 GHz
Temperature:	16.8 °C	19.1 °C
Relative Humidity:	41 %	43 %
ATM Pressure:	102.5 kPa	102.2 kPa
Test Date:	2024-01-18	2024-01-18
Test Engineer:	Joe Zhang	Peter Wang

9 kHz-30 MHz:

For Ground-parallel

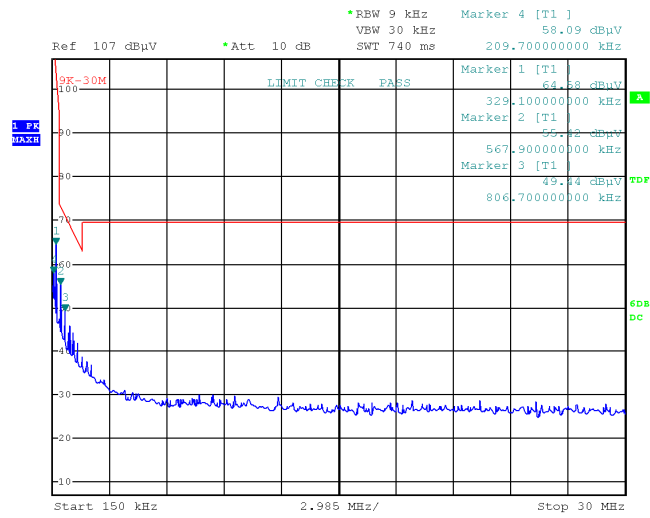
9kHz-150kHz (PK)



Project No. RKSA230215001 Tester: Joe Zhang
 Date: 18.JAN.2024 19:40:59

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.209		
				Limit (dBμV/m) 300m	Limit (dBμV/m) @3m	Margin (dB)
0.015486	72.78	PK	56.71	43.81	123.81	51.03
0.02028	80.31	PK	46.73	41.46	121.46	41.15
0.034662	78.53	PK	50.56	36.81	116.81	38.28
0.116442	85.16	PK	33.65	26.28	106.28	21.12

150kHz-30MHz (PK)

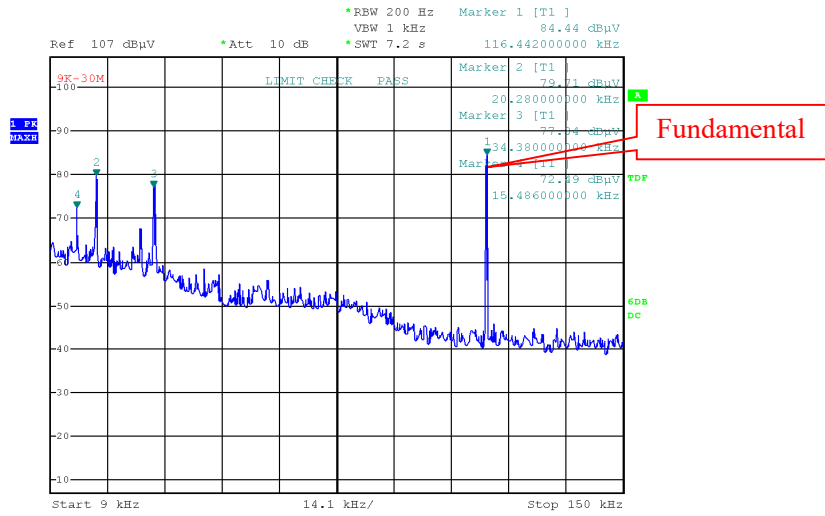


Project No. RKSA230215001 Tester: Joe Zhang
 Date: 18.JAN.2024 19:37:00

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.209		
				Limit (dBμV/m) 30m	Limit (dBμV/m) @3m	Margin (dB)
0.20970	58.09	PK	28.58	41.17	81.17	23.08
0.32910	64.58	PK	24.90	37.56	77.56	12.98
0.56790	55.42	PK	19.41	32.52	72.52	17.1
0.80670	49.44	PK	16.84	29.47	69.47	20.03

For Parallel

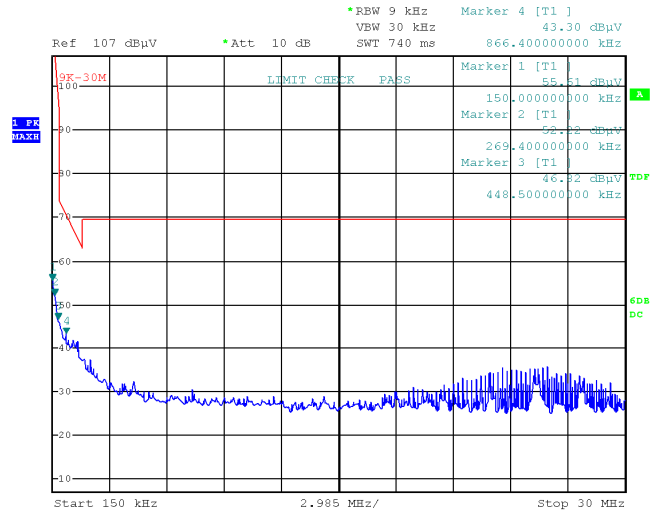
9kHz-150kHz (PK)



Project No. RKSA230215001 Tester: Joe Zhang
 Date: 18.JAN.2024 19:26:26

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.209		
				Limit (dBμV/m) 300m	Limit (dBμV/m) @3m	Margin (dB)
0.015486	72.49	PK	50.72	43.81	123.81	51.32
0.02028	79.71	PK	47.99	41.46	121.46	41.75
0.03438	77.34	PK	43.73	36.88	116.88	39.54
0.116442	84.44	PK	33.65	26.28	106.28	21.84

150kHz-30MHz (PK)

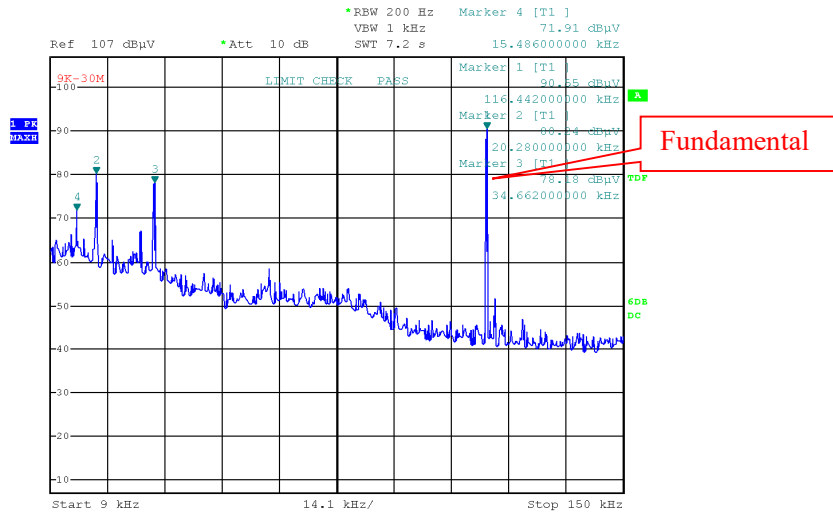


Project No. RKSA230215001 Tester: Joe Zhang
 Date: 18.JAN.2024 19:32:48

Frequency (MHz)	Corrected Amplitude (dBµV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.209		
				Limit (dBµV/m) 30m	Limit (dBµV/m) @3m	Margin (dB)
0.15000	55.61	PK	31.74	44.08	84.08	28.47
0.26940	52.22	PK	26.67	39.00	79.00	26.78
0.44850	46.32	PK	21.68	34.57	74.57	28.25
0.86640	43.30	PK	16.36	28.85	68.85	25.55

For Perpendicular

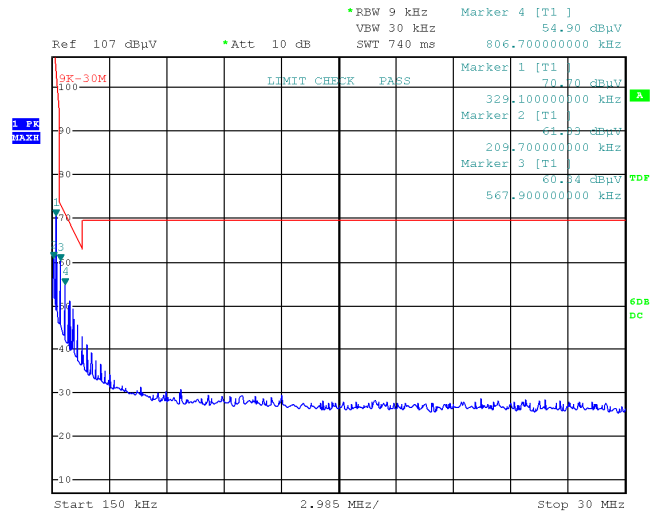
9kHz-150kHz (PK)



Project No. RKSA230215001 Tester: Joe Zhang
 Date: 18.JAN.2024 19:44:58

Frequency (MHz)	Corrected Amplitude (dBµV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.209		
				Limit (dBµV/m) 300m	Limit (dBµV/m) @3m	Margin (dB)
0.015486	71.91	PK	50.72	43.81	123.81	51.90
0.02028	80.24	PK	47.99	41.46	121.46	41.22
0.034662	78.18	PK	43.40	36.81	116.81	38.63
0.116442	90.55	PK	33.65	26.28	106.28	15.73

150kHz-30MHz (PK)



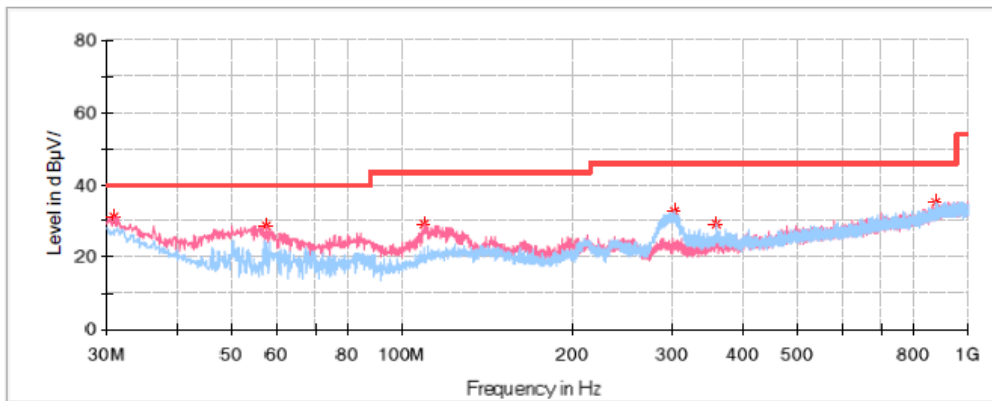
Project No. RKSA230215001 Tester: Joe Zhang
 Date: 18.JAN.2024 19:04:28

Frequency (MHz)	Corrected Amplitude (dBµV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.209		
				Limit (dBµV/m) 30m	Limit (dBµV/m) @3m	Margin (dB)
0.20970	61.03	PK	28.58	41.17	81.17	20.14
0.32910	70.70	PK	24.90	37.26	77.26	6.56
0.56790	60.34	PK	19.41	32.52	72.52	12.18
0.80670	54.90	PK	16.84	29.47	69.47	14.57

30MHz-1GHz

Common Information

Project No: RKSA230215001
 EUT Model: HPS04-2
 Test Mode: Transmitting
 Standard: FCC Part 15.205 & FCC Part 15.209
 Test Equipment: ESCI, JB3, 310N
 Temperature: 19.1°C
 Humidity: 43%
 Barometric Pressure: 102.2kPa
 Test Engineer: Joe Zhang
 Test Date: 2024/1/18



Critical Freqs

Frequency (MHz)	Corrected Amplitude	Limit (dBµ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
	MaxPeak (dBµ V/m)						
30.970000	31.08	40.00	8.92	100.0	V	175.0	-5.1
57.645000	28.70	40.00	11.30	100.0	V	73.0	-17.3
109.418750	29.00	43.50	14.50	100.0	V	251.0	-13.1
303.176250	32.49	46.00	13.51	100.0	H	346.0	-11.0
359.315000	29.07	46.00	16.93	100.0	H	18.0	-9.6
876.082500	35.46	46.00	10.54	200.0	H	258.0	0.7

§15.215(c) - 20dB EMISSION BANDWIDTH TESTING

Requirement

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

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.

Test Data

Environmental Conditions & Test Information

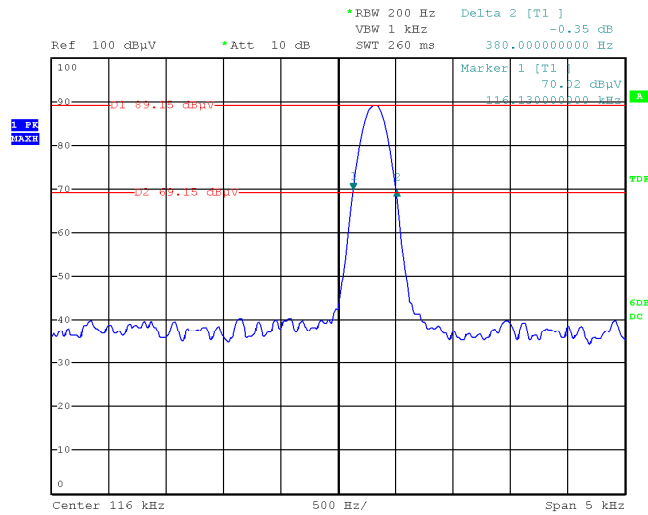
Temperature:	16.8 °C
Relative Humidity:	41 %
ATM Pressure:	102.5 kPa
Test Date:	2024-01-25
Test Engineer:	Joe Zhang

Test Mode: Transmitting

Test Result: Compliant

Frequency (kHz)	20 dB Bandwidth (kHz)
116	0.38

20 dB Emission Bandwidth



Project No. RKSA230215001 Tester: Joe Zhang
 Date: 25.JAN.2024 15:43:27

EUT PHOTOGRAPHS

Please refer to the attachment EXHIBIT A_EUT EXTERNAL PHOTOGRAPHS and EXHIBIT B_EUT INTERNAL PHOTOGRAPHS.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment EXHIBIT C_TEST SETUP PHOTOGRAPHS.

Declarations

1. Bay Area Compliance Laboratories Corp. (Kunshan) is not responsible for authenticity of any test data provided by the applicant. Test data from the applicant that may affect test results are marked with an asterisk “★”. The model number, product name, address, trademark, etc. from the applicant are not considered as test data.
2. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.
3. Unless required by the rule provided by the applicant or product regulations, then decision rule in this report did not consider the uncertainty.
4. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor $k=2$ with the 95.45% confidence interval.
5. This report cannot be reproduced except in full, without prior written approval of Bay Area Compliance Laboratories Corp. (Kunshan).
6. This report is valid only with a valid digital signature. The digital signature may be available only under the adobe software above version 7.0.

******* END OF REPORT *******