FCC TEST REPORT
FCC ID:2BDHW-CRWXCZJ

Report Number.....:	**ZHT-231113016E**
Date of Test.....	Nov. 13, 2023 to Nov. 23, 2023
Date of issue.....:	Nov. 23, 2023
Test Result .....:	PASS
Testing Laboratory.....:	**Guangdong Zhonghan Testing Technology Co., Ltd.**
Address .....:	Room 104, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Applicant's name .....:	**Shenzhen Chengrong Technology Co.,Ltd.**
Address .....:	Room707 Kangrui Time Square,Keyuan Business Building,Huarong Road 39,Gaofeng Community, Dalang Street,Longhua Disctrict,Shenzhen City.
Manufacturer's name .....:	**Shenzhen Chengrong Technology Co.,Ltd.**
Address .....:	Room707 Kangrui Time Square,Keyuan Business Building,Huarong Road 39,Gaofeng Community, Dalang Street,Longhua Disctrict,Shenzhen City.
Factory's name .....:	**Dongguan Chengrong Precision Manufacturing Co., Ltd.**
Address .....:	Room201.Building No.9,Shengqi Road No.7, ChangpingTown, Dongguang City, Guangdong Province,China
Test specification:	
Standard.....:	FCC CFR Title 47 Part 15 Subpart C
Test procedure.....:	/
Non-standard test method .....:	N/A

This device described above has been tested by ZHT, and the test resul/ show that the equipment under test (EUT) is in compliance with the FCC requiremen/. And it is applicable only to the tested sample identified in the report.
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Product name.....:	**Liftable wireless charging laptop stand**
Trademark .....:	/
Model/Type reference.....:	E7BW, M7
Model Difference.....	Only model name is different.
Ratings.....:	Input:5V-9V Wireless charging output: 5 W or 7.5 W or 10 W or 15 W Max

Testing procedure and testing location:

Testing Laboratory.....:	Guangdong Zhonghan Testing Technology Co., Ltd.
Address.....:	Room 104, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Tested by (name + signature).....:	Leon Li
Reviewer (name + signature).....:	Baret Wu
Approved (name + signature).....:	Levi Lee

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1. VERSION

Report No.	Version	Description	Approved
ZHT-231113016E	Rev.01	Initial issue of report	Nov. 23, 2023

2. TEST SUMMARY

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	Pass
Spurious Emission	15.209(a)(f)	Pass
20dB Bandwidth	15.215	Pass

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

2.1 TEST FACILITY

Guangdong Zhonghan Testing Technology Co., Ltd.
Add. : Room 104, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an Distric Shenzhen, Guangdong, China

FCC Registration Number:255941
Designation Number: CN0325
IC Registered No.: 29832
CAB identifier: CN0143

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ± U，where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2，providing a level of confidence of approximately 95 %。

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power conducted	±0.16dB
3	Spurious emissions conducted	±0.21dB
4	All emissions radiated(9k-30MHz)	±4.68dB
5	All emissions radiated(<1G)	±4.68dB
6	All emissions radiated(>1G)	±4.89dB
7	Temperature	±0.5°C
8	Humidity	±2%
9	Occupied Bandwidth	±4.96%

3. GENERAL INFORMATION

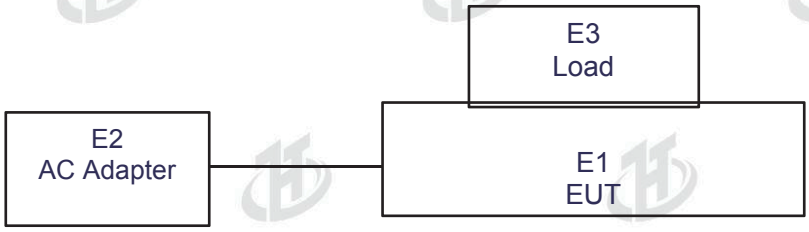
3.1 GENERAL DESCRIPTION OF EUT

Product Name:	Liftable wireless charging laptop stand
Test Model No:	E7BW
Hardware version:	V4.0
Software version:	V2.0
Operation Frequency:	110-205KHz
Modulation type:	MSK
Antenna Type:	WPC A11 coil
Antenna gain:	0dBi
Ratings.....	Input:5V/9V Wireless charging output: 5 W or 7.5 W or 10 W or 15 W Max

3.2 Test mode

Test Modes:	
Mode 1	Wireless charging mode(15W)
Mode 2	Wireless charging mode(10W)
Mode 3	Wireless charging mode(7.5W)
Mode 4	Wireless charging mode(5W)
Note: All modes were tested, only the worst-case was recorded in the report. Mode 1 is the worst mode.	

3.3 Block Diagram of EUT Configuration



3.4 Test Conditions

Temperature: 23~26℃

Relative Humidity: 54~63 %

3.5 Description Of Support Uni/ (Conducted Mode)

The EUT has been tested as an independent unit together with other necessary accessories or support uni/. The following support uni/ or accessories were used to form a representative test configuration during the tes/.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E1	Power adapter	/	GS-551E	/	AE
E2	Wireless charging load	/	EESON	N/A	AE

Item	Shielded Type	Ferrite Core	Length	Note

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in『Length』column.
(3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.

3.6 EQUIPMEN/ LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Equipment	Manufacturer	Model	Asset NO.	Last Cal.	Next Cal.
1	Receiver	R&S	ESCI	ZH-E005	May 12, 2023	May 11, 2024
2	Loop antenna	EMCI	LAP600	ZH-E036	May 12, 2023	May 11, 2024
3	Amplifier	Schwarzbeck	BBV 9743 B	ZH-E019	May 12, 2023	May 11, 2024
4	Amplifier	Schwarzbeck	BBV 9718 B	ZH-E021	May 12, 2023	May 11, 2024
5	Bilog Antenna	Schwarzbeck	VULB9162	ZH-E017	May 17, 2023	May 16, 2024
6	Horn Antenna	Schwarzbeck	BBHA9120D	ZH-E020	May 17, 2023	May 16, 2024
7	966 Anechoic Chamber	EMToni	9m6m6m	ZH-E001	Nov. 25, 2021	Nov. 24, 2024
8	Spectrum Analyzer	KEYSIGHT	N9020A	ZH-E032	May 12, 2023	May 11, 2024
9	Power Sensor	MWRFtest	MW100-RFCB	ZH-E066	May 12, 2023	May 11, 2024
10	Power Amplifier Shielding Room	EMToni	2m3m3m	ZH-E003	Nov. 25, 2021	Nov. 24, 2024

Conduction Test equipment

Equipment	Manufacturer	Model	Asset NO.	Last Cal.	Next Cal.
Receiver	R&S	ESCI	ZH-E005	May 12, 2023	May 11, 2024
LISN	R&S	ENV216	ZH-E006	May 12, 2023	May 11, 2024
ISN CAT 6	Schwarzbeck	NTFM 8158	ZH-E012	May 12, 2023	May 11, 2024
ISN CAT 5	Schwarzbeck	CAT5 8158	ZH-E013	May 12, 2023	May 11, 2024
Capacitive Voltage Probe	Schwarzbeck	CVP 9222 C	ZH-E014	May 12, 2023	May 11, 2024
Current Transformer Clamp	Schwarzbeck	SW 9605	ZH-E015	May 12, 2023	May 11, 2024
CE Shielding Room	EMToni	9m4m3m	ZH-E002	Nov. 25, 2021	Nov. 24, 2024

4. CONDUCTED EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto

4.1.1 POWER LINE CONDUCTED EMISSION Limi/

FREQUENCY (MHz)	Limit (dBuV)		Standard
	QP	AVG	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) *Decreases with the logarithm of the frequency.

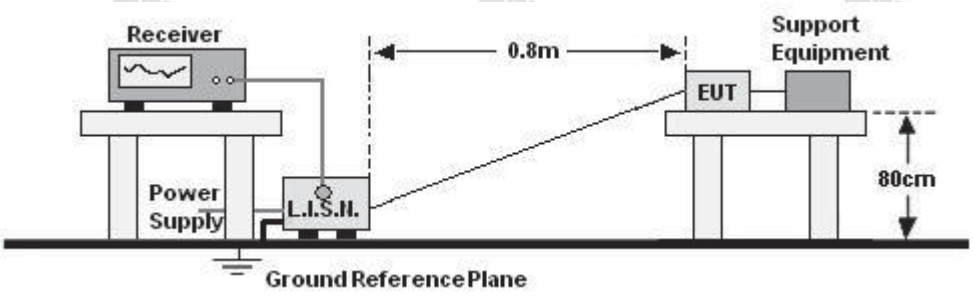
4.1.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipmen/ powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

4.1.4 TEST SETUP

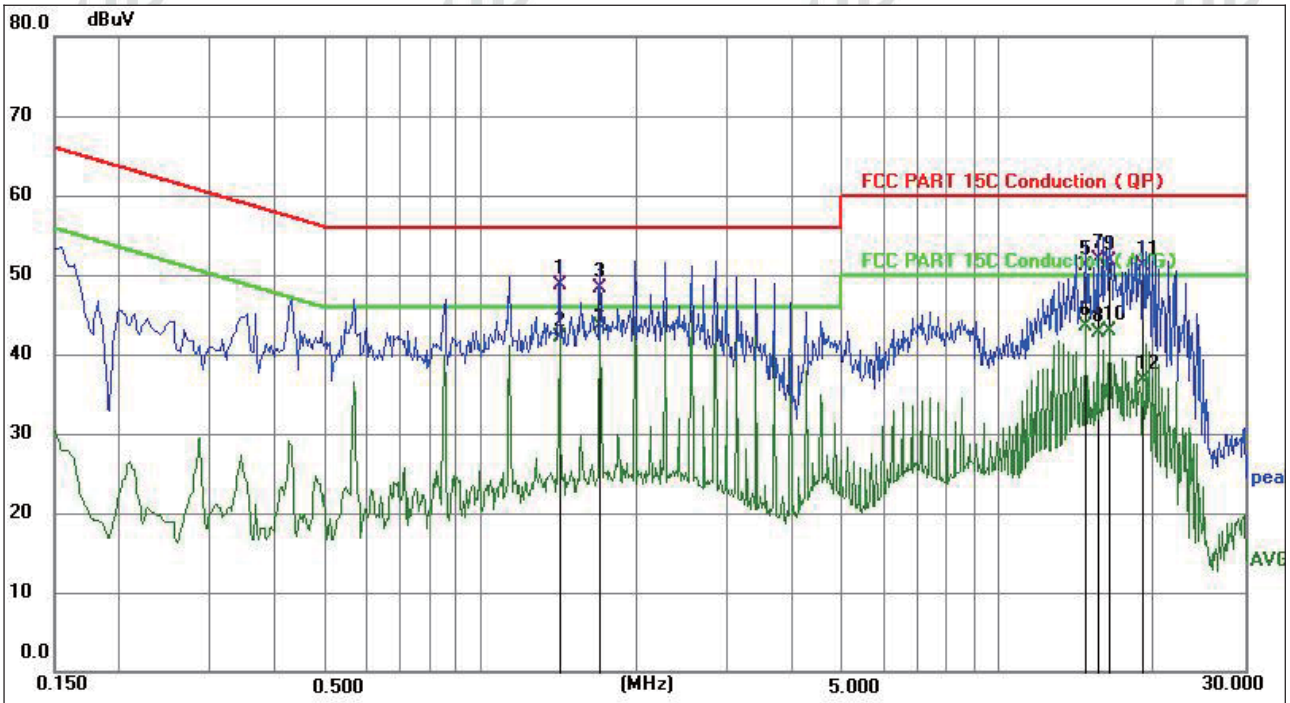


4.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

4.1.6 Test Result

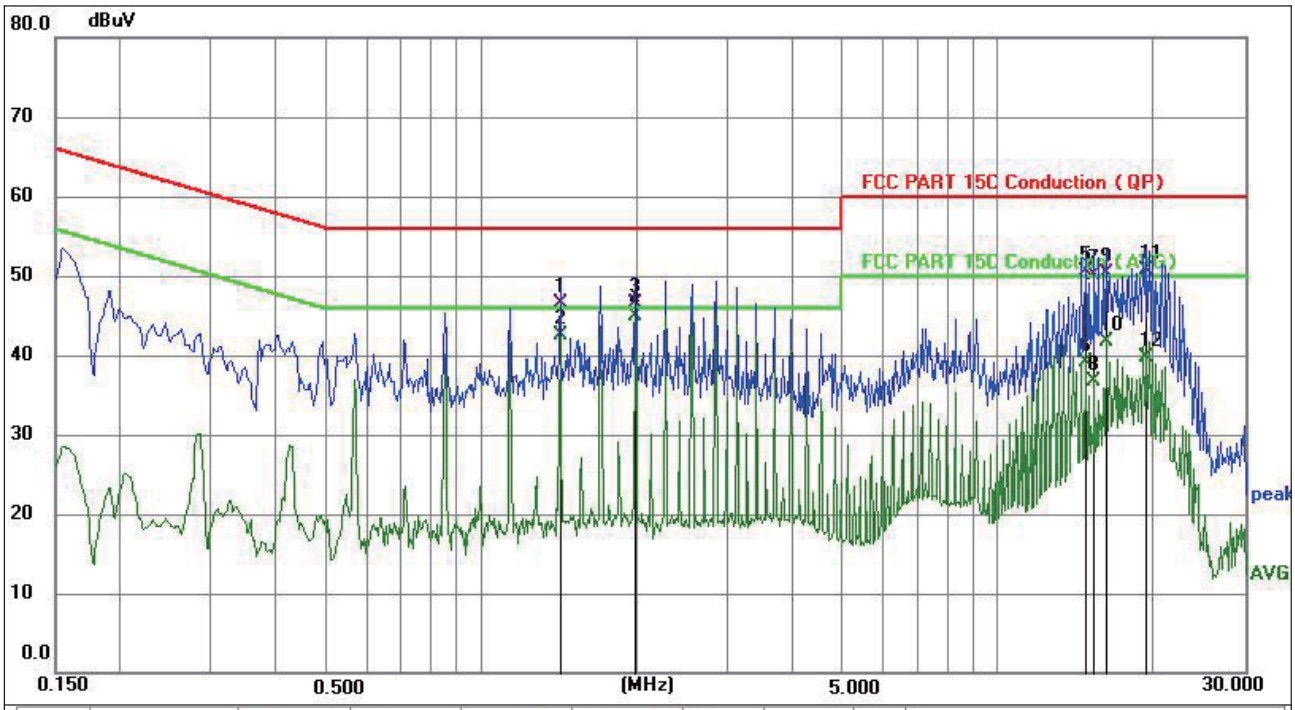
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Phase :	L
Test Voltage:	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	1.4190	38.56	10.07	48.63	56.00	-7.37	QP	P	
2	1.4190	31.98	10.07	42.05	46.00	-3.95	AVG	P	
3	1.7070	38.22	10.06	48.28	56.00	-7.72	QP	P	
4 *	1.7070	33.50	10.06	43.56	46.00	-2.44	AVG	P	
5	14.7750	40.98	10.09	51.07	60.00	-8.93	QP	P	
6	14.7750	33.51	10.09	43.60	50.00	-6.40	AVG	P	
7	15.6300	41.86	10.10	51.96	60.00	-8.04	QP	P	
8	15.6300	32.53	10.10	42.63	50.00	-7.37	AVG	P	
9	16.4850	41.53	10.10	51.63	60.00	-8.37	QP	P	
10	16.4850	32.82	10.10	42.92	50.00	-7.08	AVG	P	
11	19.0500	41.09	10.11	51.20	60.00	-8.80	QP	P	
12	19.0500	26.62	10.11	36.73	50.00	-13.27	AVG	P	

Notes:
1.An initial pre-scan was performed on the line and neutral lines with peak detector.
2.Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3.Mesurement Level = Reading level + Correct Factor

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Phase :	N
Test Voltage:	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	1.4190	36.45	10.07	46.52	56.00	-9.48	QP	P	
2	1.4190	32.37	10.07	42.44	46.00	-3.56	AVG	P	
3	1.9901	36.47	10.06	46.53	56.00	-9.47	QP	P	
4 *	1.9901	34.79	10.06	44.85	46.00	-1.15	AVG	P	
5	14.7660	40.51	10.09	50.60	60.00	-9.40	QP	P	
6	14.7660	29.02	10.09	39.11	50.00	-10.89	AVG	P	
7	15.3420	39.96	10.10	50.06	60.00	-9.94	QP	P	
8	15.3420	26.68	10.10	36.78	50.00	-13.22	AVG	P	
9	16.1970	40.16	10.10	50.26	60.00	-9.74	QP	P	
10	16.1970	31.69	10.10	41.79	50.00	-8.21	AVG	P	
11	19.3245	40.63	10.11	50.74	60.00	-9.26	QP	P	
12	19.3245	29.50	10.11	39.61	50.00	-10.39	AVG	P	

Notes:
1.An initial pre-scan was performed on the line and neutral lines with peak detector.
2.Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3.Mesurement Level = Reading level + Correct Factor

5. RADIATED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.209
Test Method:	ANSI C63.10:2013
Test Frequency Range:	9kHz to 1GHz
Test site:	Measurement Distance: 3m
Receiver setup:	

Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

5.1 Radiated Emission Limi/

Limi/ for frequency below 30MHz

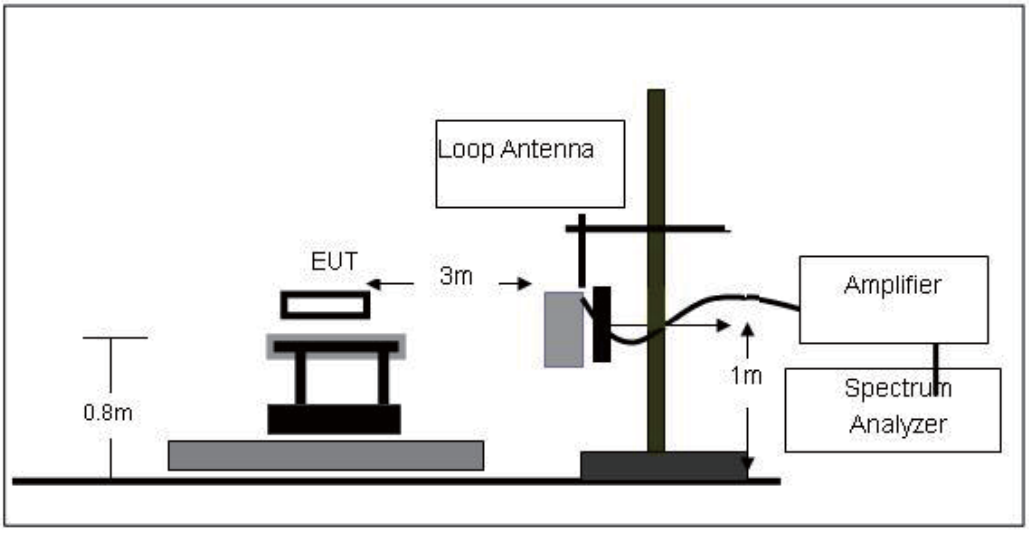
Frequency	Limit (uV/m)	Measurement Distance(m)	Remark
0.009-0.490	2400/F(kHz)	300	Quasi-peak Value
0.490-1.705	24000/F(kHz)	30	Quasi-peak Value
1.705-30	30	30	Quasi-peak Value

Limi/ for frequency Above 30MHz

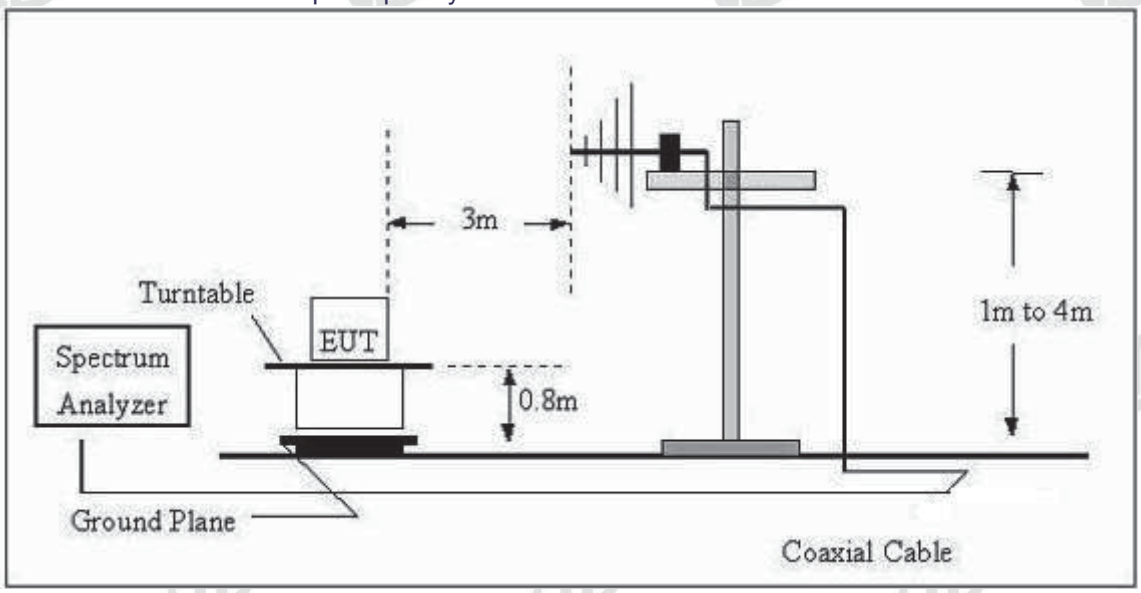
Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.00	Quasi-peak Value
88MHz-216MHz	43.50	Quasi-peak Value
216MHz-960MHz	46.00	Quasi-peak Value
960MHz-1GHz	54.00	Quasi-peak Value
Above 1GHz	54.00	Average Value
	74.00	Peak Value

5.2 Anechoic Chamber Test Setup Diagram

（A）Radiated Emission Test-Up Frequency Below 30MHz



（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



The radiated emission tes/ 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 limi/.

5.3 Test Procedure

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna (calibrated by dipole antenna) are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement.

5.4 DEVIATION FROM TEST STANDARD

No deviation

5.5 Test Result

Measurement data:
Note: Limit dBuV/m @3m = Limit dBuV/m @300m+ 80
Limit dBuV/m @3m = Limit dBuV/m @30m + 40

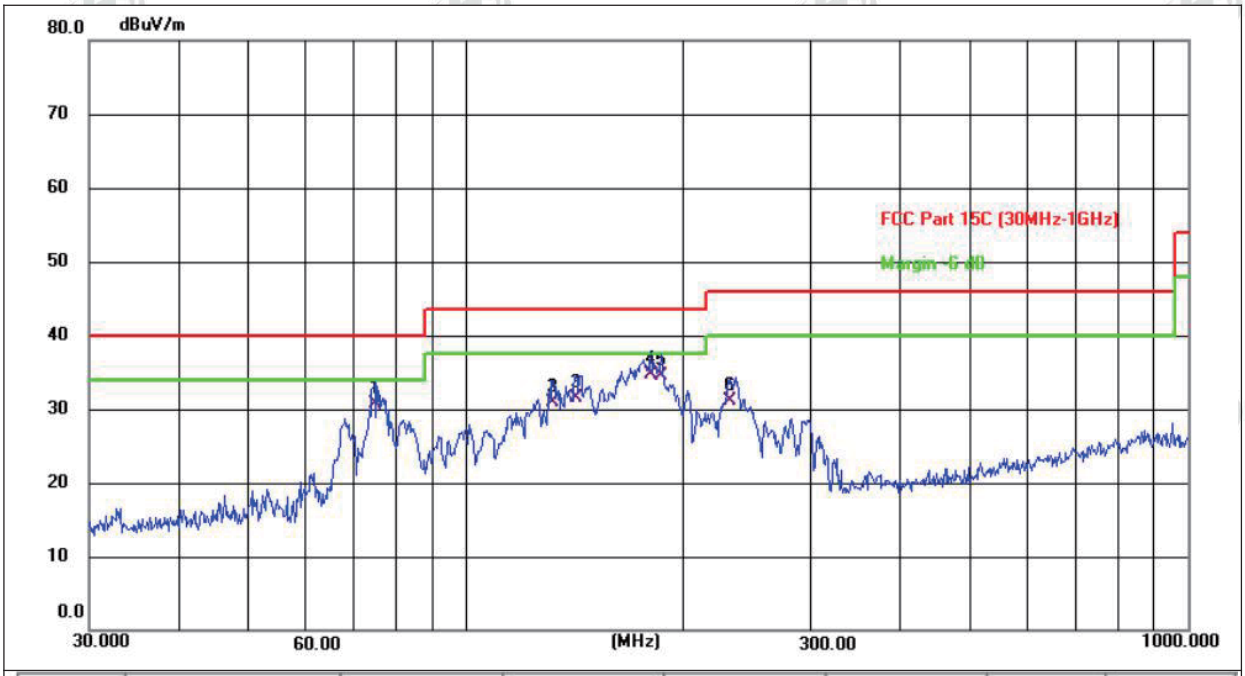
9 kHz~30 MHz

Frequency	Meter Reading	Factor	Emission Level	Limi/	Margin	Detector Type
(kHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
65.83	49.63	15.15	64.78	111.85	-47.07	AVG
99.16	50.87	15.18	66.05	106.78	-40.73	AVG
185.32	74.15	15.2	89.35	105.58	-16.23	AVG
619.85	28.46	16.33	44.79	70.83	-26.04	QP
995.83	29.15	16.87	46.02	68.37	-22.35	QP
1205.86	20.11	17.62	37.73	65.29	-27.56	QP

Note:
Pre-scan in the all of mode, the worst case in of was recorded.
Factor = antenna factor + cable loss – pre-amplifier.
Emission Level = Meter Reading - Factor
Margin = Emission Level- Limit.
The amplitude of emissions which are attenuated by more than 20db below the permissible value has no need to be reported.

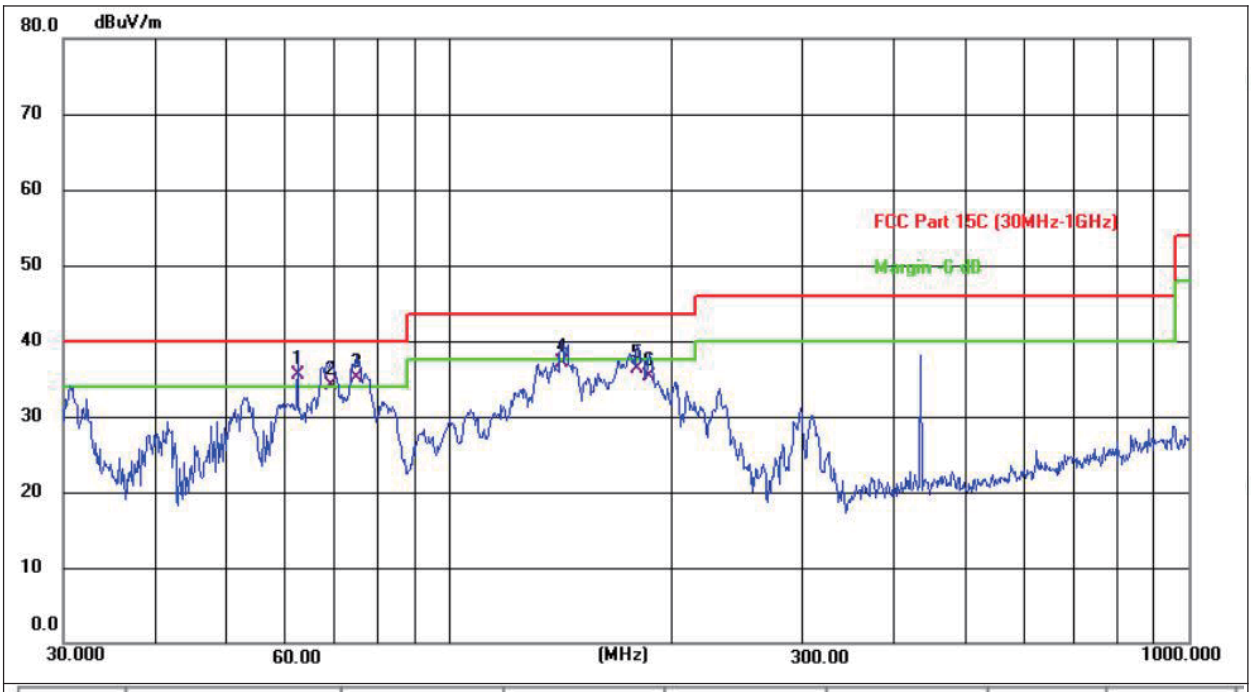
30MHz-1GHz

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	74.6568	44.49	-13.78	30.71	40.00	-9.29	QP
2	131.7577	44.37	-13.38	30.99	43.50	-12.51	QP
3	141.8262	45.31	-13.73	31.58	43.50	-11.92	QP
4 *	180.0164	46.97	-12.33	34.64	43.50	-8.86	QP
5	186.4408	46.34	-11.87	34.47	43.50	-9.03	QP
6	231.7178	40.85	-9.73	31.12	46.00	-14.88	QP

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	62.2128	46.00	-10.54	35.46	40.00	-4.54	QP
2 !	69.1141	46.82	-12.76	34.06	40.00	-5.94	QP
3 !	74.6569	48.89	-13.78	35.11	40.00	-4.89	QP
4	141.8262	50.92	-13.73	37.19	43.50	-6.31	QP
5	179.3863	48.73	-12.37	36.36	43.50	-7.14	QP
6	185.7882	47.22	-11.91	35.31	43.50	-8.19	QP

Remarks:
1. Factor = Antenna Factor + Cable Loss – Preamplifier Factor
2. Level = Reading + Factor
3. Margin = Emission Level- Limit.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

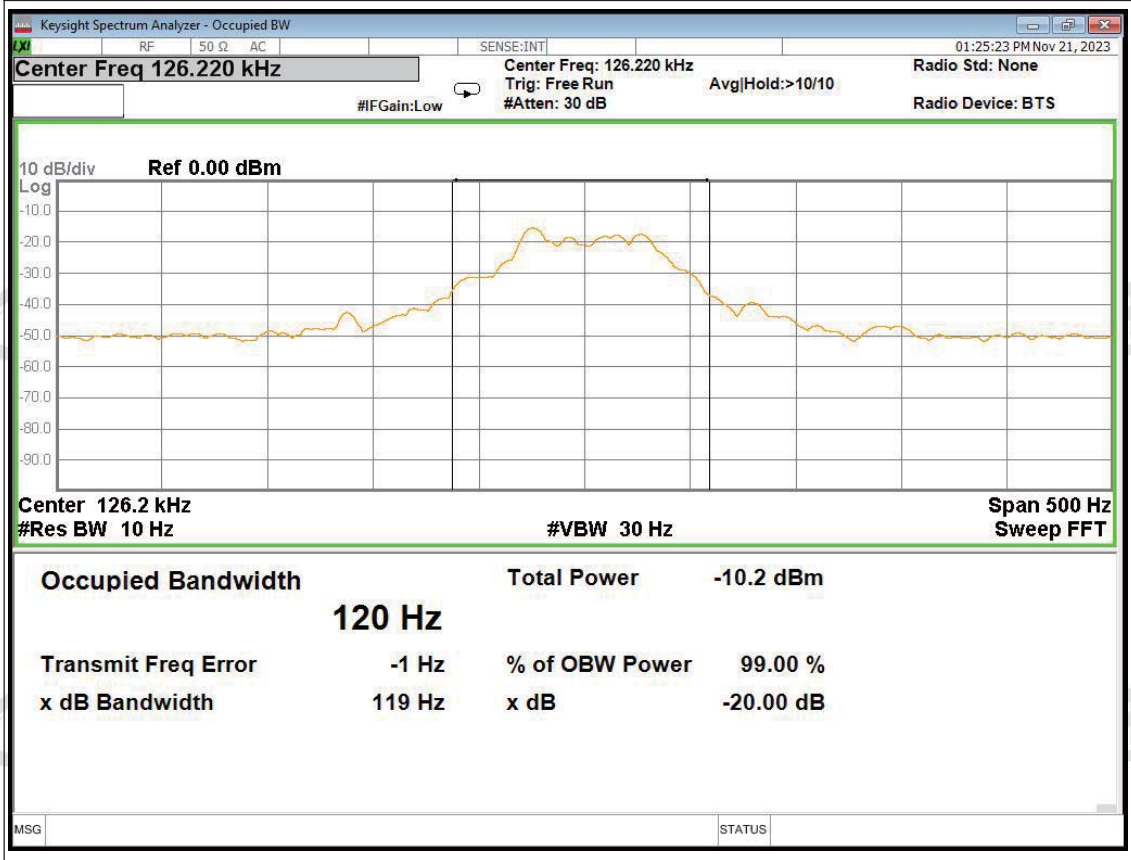
6. BANDWIDTH TEST

1. Set RBW = 10 Hz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude poin/ (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission.

TEST SETUP

Temperature:	25.7 ℃	Relative Humidity:	55%
Pressure:	101kPa		

Frequency (KHz)	20dB bandwidth (KHz)	Result
126.22	0.119	Pass



7. ANTENNA REQUIREMENT

Standard requirement:	FCC Part15 C Section 15.203
15.203 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, 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 WPC A11 coil, the best case gain of the antennas is 0dBi, reference to the appendix II for details	

8. TEST SETUP PHOTO

Reference to the appendix I for details.

9. EUT CONSTRUCTIONAL DETAILS

Reference to the appendix II for details.

※※※※※ END OF REPORT ※※※※※