

ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART C REQUIREMENT

OF

Dual Alarm Clock Stereo Speaker System with Qi Wireless Charging

Model No.: iBTW38, iBTW38X (X means A-Z, denote as color of cabinet)

Trademark: iHome

FCC ID: EMOIBTW38

Report No.: ES180123028E2

Issue Date: February 05, 2018

Prepared for

SDI TECHNOLOGIES INC. 1299, Main Street, Rahway, NJ 07065, U.S.A.

Prepared by

EMTEK(SHENZHEN) CO., LTD.

No.281, Guantai Road, Nancheng District, Dongguan, Guangdong, China TEL: 86-769-22807078 FAX: 86-769-22807079

This report shall not be reproduced, except in full, without the written approval of EMTEK(SHENZHEN) CO., LTD.

TRF No: FCC part 15C

Page 1 of 28



VERIFICATION OF COMPLIANCE

Applicant:	SDI Technologies Inc. 1299, Main Street, Rahway, NJ 07065, U.S.A.
Manufacturer:	SDI Technologies Inc. 1299, Main Street, Rahway, NJ 07065, U.S.A.
Factory:	DongGuan Synst Electronics Co., Ltd. The Science &Technology Industrial Park, Houjie Town, DongGuan, China.
Product Description:	Dual Alarm Clock Stereo Speaker System with Qi Wireless Charging
Trade Mark:	iHome
Model Number:	iBTW38, iBTW38X (X means A-Z, denote as color of cabinet) (Note: The samples are the same except difference color of appearance and model number, Here iBTW38 was selected for full test.)

We hereby certify that:

The above equipment was tested by EMTEK(SHENZHEN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10-2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15C.

Date of Test :

January 23, 2018 to February 02, 2018

Prepared/Tested by :

Ymping Shen

Yaping Shen/Editor

he tha

Reviewer:

Joe Xia/Supervisor

Approved & Authorized Signer :

Lisa Wang/Manager

TRF No: FCC part 15C

Page 2 of 28



Modified Information

Version	Summary	Revision Date	Report No.
Ver.1.0	Original Report	/	ES180123028E3



Table of Contents

1	GEI	NERAL INFORMATION	. 5
	1.1 1.2 1.3 1.4 1.5 1.6	PRODUCT DESCRIPTION RELATED SUBMITTAL(S) / GRANT(S) TEST METHODOLOGY SPECIAL ACCESSORIES EQUIPMENT MODIFICATIONS TEST FACILITY	6 6 6
2	SYS	STEM TEST CONFIGURATION	7
	2.1 2.2 2.3 2.4	EUT CONFIGURATION EUT EXERCISE TEST PROCEDURE CONFIGURATION OF TESTED SYSTEM	7 7
3	SUI	MMARY OF TEST RESULTS	8
4	CO	NDUCTED EMISSIONS TEST	10
	4.1 4.2 4.3 4.4 4.5 4.6	MEASUREMENT PROCEDURE TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION) MEASUREMENT EQUIPMENT USED CONDUCTED EMISSION LIMIT MEASUREMENT RESULT CONDUCTED MEASUREMENT PHOTO	10 10 10 11
5	RAI	DIATED EMISSION TEST	17
	5.1 5.2 5.3 5.4 5.5 5.6	MEASUREMENT PROCEDURE TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION) MEASUREMENT EQUIPMENT USED RADIATED EMISSION LIMIT MEASUREMENT RESULT RADIATED MEASUREMENT PHOTOS	17 18 18 20 25
6	20D	B BANDWIDTH	26
	6.1 6.2 6.3 6.4 6.5	20DB BANDWIDTH LIMIT	26 26 26
7	AN		28
	7.1 7.2	ANTENNA REQUIREMENT	



1 General Information

1.1 **Product Description**

Characteristics	Description		
Product Name	Dual Alarm Clock Stereo Speaker System with Qi Wireless Charging		
Model number	iBTW38		
Input Rating	DC 12V from adapter		
Power Supply	AC120V/60Hz for adapter		
Adapter1	Manufacturer: Dongguan City Gangqi Electronic Co., Ltd. Model number:GQ24-120250-AU Input rating: 100-240V~, 50/60Hz, 1.0A Max. Output rating: DC 12V, 2.5A		
Adapter2	Manufacturer: Dongguan Becky Electronic Co., Ltd. Model number:S030A1202500U Input rating: 100-240V~, 50/60Hz, Max.800mA Output rating: DC 12V, 2500mA		
Operating Frequency	127-205KHz		
Modulation Technique	Induction		
Antenna Type	Induction coil		
Radio Software Version	V004		
Radio Hardware version	V015		



1.2 Related Submittal(s) / Grant(s)

This submittal(s) (test report) is intended for FCC ID: EMOIBTW38 filing to comply with the FCC Part 15, Subpart C Rules.

1.3 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 (2013). Radiated testing was performed at an antenna to EUT distance 3 meters.

1.4 Special Accessories

Not available for this EUT intended for grant.

1.5 Equipment Modifications

Not available for this EUT intended for grant.

1.6 Test Facility

Site Description EMC Lab.	CNAS-CL01:2006 (ide	
		einland Shenzhen 2016.5.19 een assessed according to the requirements ISO/IEC
	Accredited by FCC, Au Designation Number: Test Firm Registration	CN1204
		Canada, November 24, 2015 ation Number is 4480A.
	Accredited by A2LA, J The Certificate Numbe	
Name of Firm Site Location	: EMTEK(SHENZHEN) : Bldg 69, Majialong Inc Guangdong, China.	CO., LTD. ustry Zone, Nanshan District, Shenzhen,
FCC part 15C	Page 6 of 28	Report No: ES180123028E3 Ver.1.0

TRF No: F



2 System Test Configuration

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

2.3 Test Procedure

2.3.1 Conducted Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.

2.3.2 Radiated Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the fixed in a particular direction according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013.



2.4 Configuration of Tested System

Fig. 2-1 Configuration of Tested System

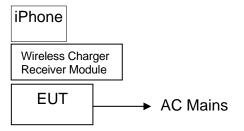


Table 2-1 Equipment Used in Tested System

Item	Equipment	Trade Mark	Model No.	FCC ID	Note
1.	Dual Alarm Clock Stereo Speaker System with Qi Wireless Charging	iHome	iBTW38	EMOIBTW38	EUT
2.	Adapter1	N/A	GQ24-120250-AU	N/A	Support EUT
3.	Adapter2	N/A	S030A1202500U	N/A	Support EUT
4.	iPhone	Apple	A1524	N/A	Support Equipment
5.	Wireless Charger Receiver Module	Universal	N/A	N/A	Support Equipment

Note:

(1) Unless otherwise denoted as EUT in [Remark] column, device(s) used in tested system is a support equipment.

3 Summary of Test Results

FCC Rules	Description Of Test	Result	
§15.207	AC Power Conducted Emission	Compliant	
§15.209	Radiated Emission	Compliant	
§2.1049	20dB Bandwidth	Compliant	
§15.203	Antenna Requirement	Compliant	



4 Description of test modes

Channel	Frequency(KHz)
Low frequency	127
Mid frequency	166
High frequency	205

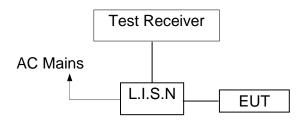


5 Conducted Emissions Test

5.1 Measurement Procedure

- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 3. Repeat above procedures until all frequency measured was complete.

5.2 Test SET-UP (Block Diagram of Configuration)



5.3 Measurement Equipment Used

Conducted Emission Test Site							
EQUIPMENT	Last Cal.	Due date					
TYPE		NUMBER	NUMBER				
Test Receiver	Rohde & Schwarz	ESCS30	100018	05/16/2017	05/15/2018		
L.I.S.N	Rohde & Schwarz	ENV216	100017	05/16/2017	05/15/2018		
RF Switching Unit	CDS	RSU-M2	38401	05/16/2017	05/15/2018		
Coaxial Cable	CDS	79254	46107086	05/16/2017	05/15/2018		

5.4 Conducted Emission Limit

Conducted Emission		
Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

TRF No: FCC part 15C

Page 10 of 28



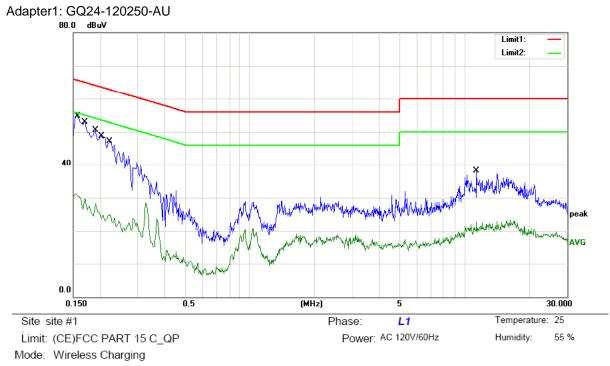
5.5 Measurement Result

Operation Mode:	ТХ	Test Date :	February 02, 2018
Frequency Range:	0.15MHz~30MHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Test By:	Yaping Shen		

Pass

We pretested three modes (max load, mid load, min load) for EUT. The worst mode (max load) test data see follow the table.





Note:

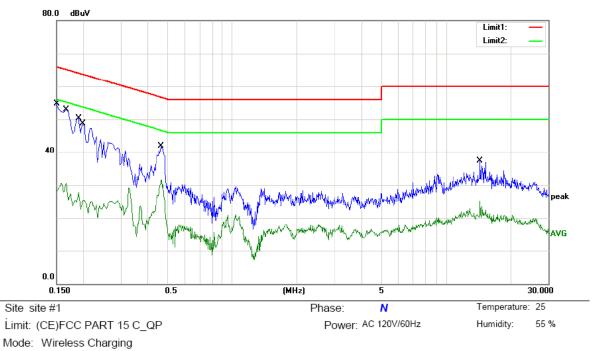
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1580	41.52	9.78	51.30	65.57	-14.27	QP	
2		0.1580	21.14	9.78	30.92	55.57	-24.65	AVG	
3		0.1700	39.82	9.78	49.60	64.96	-15.36	QP	
4		0.1700	18.79	9.78	28.57	54.96	-26.39	AVG	
5		0.1900	37.71	9.79	47.50	64.04	-16.54	QP	
6		0.1900	16.96	9.79	26.75	54.04	-27.29	AVG	
7		0.2030	35.01	9.79	44.80	63.49	-18.69	QP	
8		0.2030	14.09	9.79	23.88	53.49	-29.61	AVG	
9		0.2220	33.81	9.79	43.60	62.74	-19.14	QP	
10		0.2220	14.91	9.79	24.70	52.74	-28.04	AVG	
11		11.4140	25.28	10.02	35.30	60.00	-24.70	QP	
12		11.4140	10.02	10.02	20.04	50.00	-29.96	AVG	

*:Maximum data x:Over limit I:over margin

Comment: Factor build in receiver.

Operator: Yaping shen





```
Note:
```

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	41.72	9.78	51.50	66.00	-14.50	QP	
2		0.1500	18.25	9.78	28.03	56.00	-27.97	AVG	
3		0.1660	39.12	9.78	48.90	65.16	-16.26	QP	
4		0.1660	18.33	9.78	28.11	55.16	-27.05	AVG	
5		0.1900	36.71	9.79	46.50	64.04	-17.54	QP	
6		0.1900	16.04	9.79	25.83	54.04	-28.21	AVG	
7		0.1980	34.81	9.79	44.60	63.69	-19.09	QP	
8		0.1980	15.52	9.79	25.31	53.69	-28.38	AVG	
9		0.4660	28.47	9.83	38.30	56.58	-18.28	QP	
10		0.4660	19.54	9.83	29.37	46.58	-17.21	AVG	
11		14.3860	24.11	10.09	34.20	60.00	-25.80	QP	
12		14.3860	11.31	10.09	21.40	50.00	-28.60	AVG	

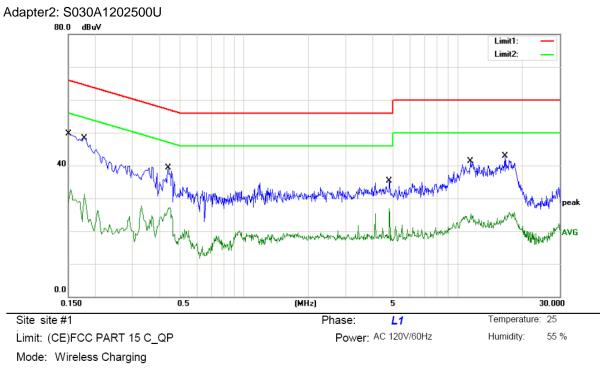
*:Maximum data x:Over lin

x:Over limit I:over margin

Comment: Factor build in receiver.

Operator: Yaping shen





Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	37.02	9.78	46.80	66.00	-19.20	QP	
2		0.1500	18.96	9.78	28.74	56.00	-27.26	AVG	
3		0.1780	35.72	9.78	45.50	64.58	-19.08	QP	
4		0.1780	19.16	9.78	28.94	54.58	-25.64	AVG	
5		0.4420	27.17	9.83	37.00	57.02	-20.02	QP	
6		0.4420	17.02	9.83	26.85	47.02	-20.17	AVG	
7		4.7940	23.25	9.85	33.10	56.00	-22.90	QP	
8	*	4.7940	17.15	9.85	27.00	46.00	-19.00	AVG	
9		11.4940	28.58	10.02	38.60	60.00	-21.40	QP	
10		11.4940	12.96	10.02	22.98	50.00	-27.02	AVG	
11		16.6380	29.65	10.15	39.80	60.00	-20.20	QP	
12		16.6380	13.41	10.15	23.56	50.00	-26.44	AVG	

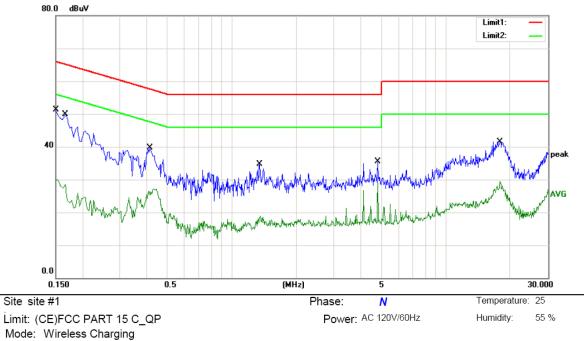
*:Maximum data x:Over limit 1:over margin

margin Cor

Comment: Factor build in receiver.

Operator: Yaping shen





Mode:	Wirel
Note:	

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	38.02	9.78	47.80	66.00	-18.20	QP	
2		0.1500	20.24	9.78	30.02	56.00	-25.98	AVG	
3		0.1660	37.02	9.78	46.80	65.16	-18.36	QP	
4		0.1660	18.17	9.78	27.95	55.16	-27.21	AVG	
5		0.4140	27.47	9.83	37.30	57.57	-20.27	QP	
6		0.4140	16.69	9.83	26.52	47.57	-21.05	AVG	
7		1.3500	22.66	9.84	32.50	56.00	-23.50	QP	
8		1.3500	7.79	9.84	17.63	46.00	-28.37	AVG	
9		4.7980	23.35	9.85	33.20	56.00	-22.80	QP	
10	*	4.7980	19.13	9.85	28.98	46.00	-17.02	AVG	
11		17.9220	28.41	10.19	38.60	60.00	-21.40	QP	
12		17.9220	17.26	10.19	27.45	50.00	-22.55	AVG	

*:Maximum data x:Over limit !:or

I:over margin Comr

Comment: Factor build in receiver.

Operator: Yaping shen



5.6 Conducted Measurement Photo



TRF No: FCC part 15C

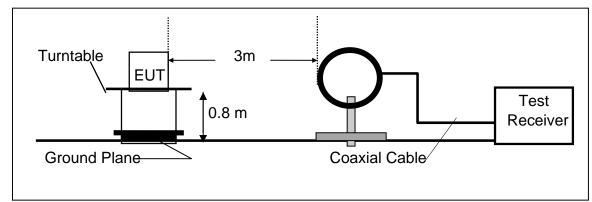


6 Radiated Emission Test

6.1 Measurement Procedure

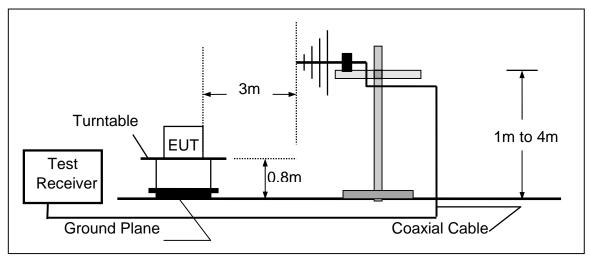
- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 4. Repeat above procedures until all frequency measured were complete.

6.2 Test SET-UP (Block Diagram of Configuration)



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

(B) Radiated Emission Test Set-Up, Frequency Below 1000MHz



TRF No: FCC part 15C

Page 17 of 28



Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due date
Test Receiver	Rohde & Schwarz	ESCI	1166.5950.03	05/16/2017	05/15/2018
Signal Analyzer	Rohde & Schwarz	FSV30	103040	05/16/2017	05/15/2018
Loop Antenna	Schwarzbeck	FMZB 1519	012	05/16/2017	05/15/2018
Bilog Antenna	Schwarzbeck	VULB9163	000141	05/16/2017	05/15/2018
Power Amplifier	CDS	RSU-M352	818	05/16/2017	05/15/2018
Power Amplifier	HP	8447F	OPT H64	05/16/2017	05/15/2018
Color Monitor	SUNSPO	SP-140A	N/A	05/16/2017	05/15/2018
Single Line Filter	JIANLI	XL-3	N/A	05/16/2017	05/15/2018
Single Phase Power Line Filter	JIANLI	DL-2X100B	N/A	05/16/2017	05/15/2018
3 Phase Power Line Filter	JIANLI	DL-4X100B	N/A	05/16/2017	05/15/2018
DC Power Filter	JIANLI	DL-2X50B	N/A	05/16/2017	05/15/2018
Cable	Schwarzbeck	PLF-100	549489	05/16/2017	05/15/2018
Cable	Rosenberger	CIL02	A0783566	05/16/2017	05/15/2018
Cable	Rosenberger	RG 233/U	525178	05/16/2017	05/15/2018

6.3 Measurement Equipment Used

6.4 **Radiated Emission Limit**

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table 15.209(a):

	FCC Part 15.209												
	Field Streng	gth	Field Strength Limitation Frequency tion at 3m										
Frequency	Limitation		Meas	urement Dist									
(MHz)	(uV/m)	Dist	(uV/m)	(dBuV/m)									
0.009 - 0.490	2400 / F(KHz)	300m	10000 * 2400/F(KHz)	20log 2400/F(KHz) + 80									
0.490 - 1.705	24000 / F(KHz)	30m	100 * 24000/F(KHz)	20log 24000/F(KHz) + 40									
1.705 – 30.00	30	30m	100* 30	20log 30 + 40									
30.0 - 88.0	100	3m	100	20log 100									
88.0 - 216.0	150	3m	150	20log 150									
216.0 - 960.0	200	3m	200	20log 200									
Above 960.0	500	3m	500	20log 500									



15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

Remark: 1. Emission level in dBuV/m=20 log (uV/m)

2. Measurement was performed at an antenna to the closed point of EUT distance of meters.

3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of ξ 15.205, and the emissions located in restricted bands also comply with 15.209 limit.



6.5 Measurement Result

We pretested three modes (max load, mid load, min load) for EUT. The worst mode (max load) and worst test frequency(Low frequency: 127KHz)test data see follow the table.

Operation Mode:	Low frequency	Test Date :	February 02, 2018
Frequency Range:	9KHz~30MHz	Temperature :	20 °C
Test Result:	PASS	Humidity :	55 %
Measured Distance:	3m	Test By:	Yaping Shen

Freq.	Ant.Pol.	Emission Level	Limit 3m	Over	Note
(MHz)	H/V	(dBuV/m)	(dBuV/m)	(dB)	
0.12762(F)	Н	77.54	105.49	-27.95	PK
0.255	Н	68.36	99.47	-31.11	PK
0.383	Н	67.09	95.94	-28.85	PK
0.510	Н	64.39	93.45	-29.06	PK
0.638	Н	65.64	91.50	-25.86	PK
0.12762(F)	V	79.28	105.49	-26.21	PK
0.255	V	67.39	99.47	-32.08	PK
0.653	V	60.39	95.94	-35.55	PK
0.383	V	71.39	93.45	-22.06	PK
0.510	V	63.28	91.50	-28.22	PK

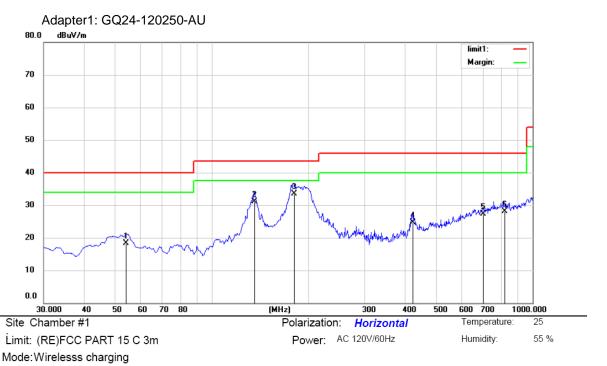
Note: (1) All Readings are Peak Value.

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

(3) The average measurement was not performed when the peak measured data under the limit of average detection.

(4) EUT lying on the table position is the worst case result in the report.

We pretested three modes (max load, mid load, min load) for EUT. The worst mode (max load) and worst test frequency(High frequency: 205KHz)test data see follow the page.



Note:

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		54.2500	34.11	-15.86	18.25	40.00	-21.75	QP			
2		135.7300	52.60	-21.55	31.05	43.50	-12.45	QP			
3	*	180.3500	52.90	-19.39	33.51	43.50	-9.99	QP			
4		422.8500	35.22	-10.45	24.77	46.00	-21.23	QP			
5		701.2400	31.60	-4.20	27.40	46.00	-18.60	QP			
6		817.6400	31.30	-3.16	28.14	46.00	-17.86	QP			

*:Maximum data x:Over limit I:over margin Co

Comment: Factor build in receiver.

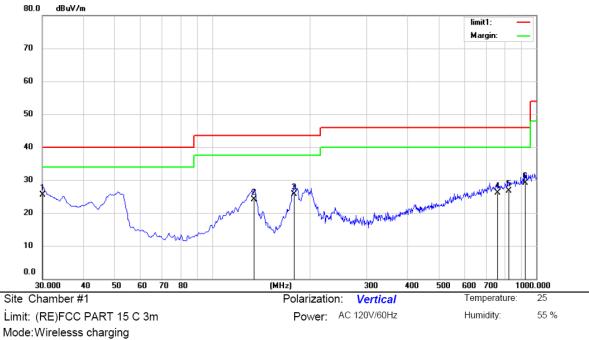
Operator: Yaping shen

FΚ

EM

Access to the World





```
Note:
```

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	30.0000	44.30	-18.76	25.54	40.00	-14.46	QP			
2		134.7600	42.90	-18.70	24.20	43.50	-19.30	QP			
3		179.3863	45.10	-19.49	25.61	43.50	-17.89	QP			
4		758.4700	30.90	-4.79	26.11	46.00	-19.89	QP			
5		819.5800	30.70	-3.96	26.74	46.00	-19.26	QP			
6		923.3700	31.60	-2.44	29.16	46.00	-16.84	QP			

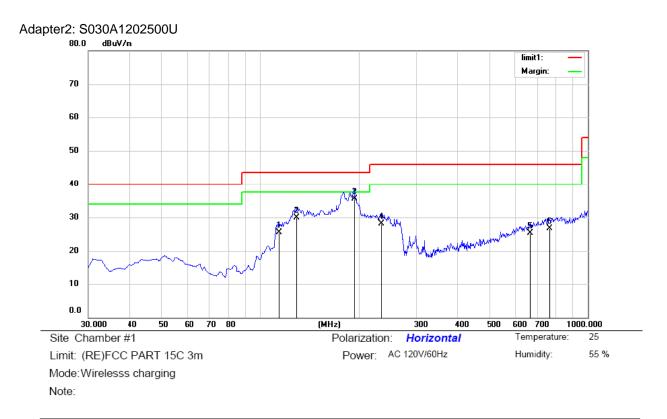
*:Maximum data x:Over limit

x:Over limit I:over margin

Comment: Factor build in receiver.

Operator: Yaping shen



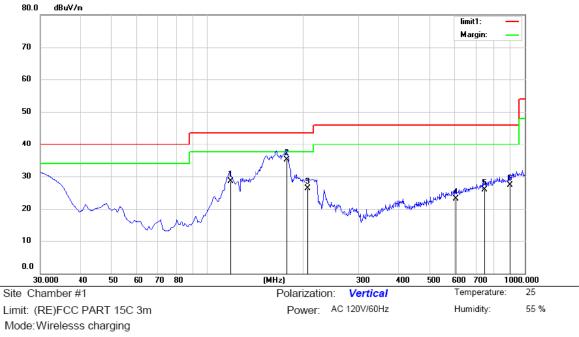


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		114.5146	44.65	-19.06	25.59	43.50	-17.91	QP			
2		129.0144	51.26	-21.27	29.99	43.50	-13.51	QP			
3	*	193.9300	53.23	-17.82	35.41	43.50	-8.09	QP			
4		234.6700	44.23	-16.07	28.16	46.00	-17.84	QP			
5		667.2900	30.10	-4.88	25.22	46.00	-20.78	QP			
6		763.3200	30.20	-3.54	26.66	46.00	-19.34	QP			

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Yaping shen

TRF No: FCC part 15C





Note:

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		118.2700	47.26	-18.81	28.45	43.50	-15.05	QP			
2	*	178.4100	54.80	-19.61	35.19	43.50	-8.31	QP			
3		206.5400	43.60	-17.34	26.26	43.50	-17.24	QP			
4		607.1500	30.40	-7.27	23.13	46.00	-22.87	QP			
5		742.9500	30.80	-4.88	25.92	46.00	-20.08	QP			
6		898.1500	30.90	-3.54	27.36	46.00	-18.64	QP			

*:Maximum data x:Ov

x:Over limit !:over margin

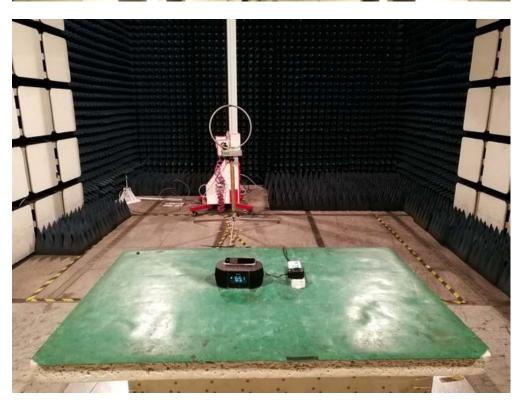
Comment: Factor build in receiver.

Operator: Yaping shen

TRF No: FCC part 15C







TRF No: FCC part 15C

Page 25 of 28



7 20db Bandwidth

7.1 20dB Bandwidth Limit

None: for reporting purposed only.

7.2 Test Instruments

Refer a test equipment and calibration data table in this test report.

7.3 Test Procedure

The bandwidth of the fundamental frequency was measured by spectrum analyzer with 10Hz RBW and 30Hz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

7.4 Test Setup

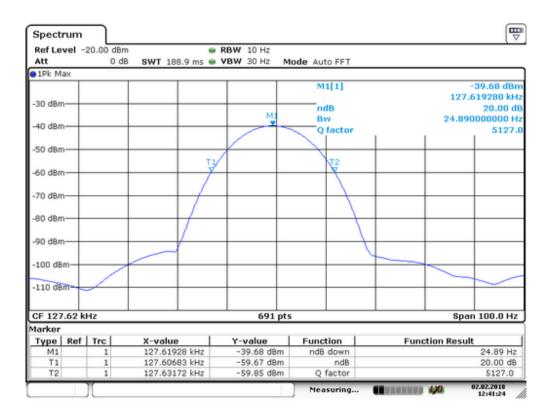
EUT	- Spectrum Analyzer
-----	---------------------

7.5 Test Result

Frequency (KHz)	20dB Bandwidth (Hz)	Results
127.62	24.89	PASS



20 dB Bandwidth Test plot





8 Antenna Application

8.1 Antenna requirement

For intentional device, according to FCC 47 CFR Section 15.203, 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.

8.2 Result

The EUT's antenna, permanent attached antenna, used an Induction coil and integrated on PCB, The antenna's gain meets the requirement.

9 Photos of EUT

Please refer to external photos and internal photos.