



# FCC PART 15C

## TEST REPORT

For

# Hatch Baby, Inc

3525 Alameda De Las Pulgas, Suite D, Menlo Park, California, United States 94025

## FCC ID: 2AFYZ-HBREST2BASE

Report Type: **Product Type:** Original Report Hatch Rest Plus - Sound Machine and Night Light **Report Number:** SZ4210713-28810E-RF-00 2021-08-04 **Report Date:** Jimmy Xiao RF Engineer

> Bay Area Compliance Laboratories Corp. (Shenzhen) **Prepared By:**

5F(B-West), 6F, 7F, the 3rd Phase of Wan Li Industrial

Building D, Shihua Rd, FuTian Free Trade Zone,

Shenzhen, China Tel: +86-755-33320018

**Reviewed By:** 

Fax: +86-755-33320008 www.baclcorp.com.cn

**Note:** This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★".

BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with an asterisk '\*'. Customer model name, addresses, names, trademarks etc. are not considered data.

This report cannot be reproduced except in full, without prior written approval of the Company. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

# **TABLE OF CONTENTS**

GENERAL INFORMATION	3
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	3
Objective	
TEST METHODOLOGY	
MEASUREMENT UNCERTAINTY	
TEST FACILITY	4
SYSTEM TEST CONFIGURATION	5
JUSTIFICATION	5
EUT Exercise Software	
SUPPORT EQUIPMENT LIST AND DETAILS	
EXTERNAL I/O CABLE	
BLOCK DIAGRAM OF TEST SETUP	5
SUMMARY OF TEST RESULTS	6
TEST EQUIPMENT LIST	7
1EST EQUIPMENT LIST	
FCC §1.1310, §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE	)8
APPLICABLE STANDARD	
BLOCK DIAGRAM OF TEST SETUP	9
Test Data	9
FCC§15.203 – ANTENNA REQUIREMENT	11
APPLICABLE STANDARD	
ANTENNA CONNECTED CONSTRUCTION	
FCC §15.207 – AC LINE CONDUCTED EMISSION	12
APPLICABLE STANDARD	
EUT SETUP	
EMI TEST RECEIVER SETUP	13
TEST PROCEDURE	
CORRECTED FACTOR & MARGIN CALCULATION	
TEST DATA	13
FCC §15.205 & §15.209 - RADIATED EMISSIONS TEST	
APPLICABLE STANDARD	18
EUT SETUP	
EMI TEST RECEIVER SETUP	
CORRECTED AMPLITUDE & MARGIN CALCULATION	
TEST DATA	19

### **GENERAL INFORMATION**

#### **Product Description for Equipment Under Test (EUT)**

Product	Hatch Rest Plus – Sound Machine and Night Light
Tested Model	HBREST2BASE
Frequency Range	110.5-205KHz
Antenna Type	Coil
Voltage Range	DC 5V From Adapter
Date of Test	2021-07-21 to 2021-07-24
Sample serial number	SZ4210713-28810E-EM-S1 (Assigned by BACL, Shenzhen)
Received date	2021-07-13
Sample/EUT Status	Good condition
Adapter 1 information	Model: SA130-050200U Input: AC 100-240V,~50/60Hz, 0.4A MAX Output: DC 5.0V, 2.0 A
Adapter 2 information	Model: CYSE12-050200U Input: AC 100-240V,~50/60Hz, 0.35A MAX Output: DC 5.0V, 2.0 A

Report No.: SZ4210713-28810E-RF-00

## **Objective**

This test report is in accordance with Part 2, Subpart J, and Part 15, Subparts A and C of the Federal Communications Commission's rules.

The objective is to determine the compliance of EUT with FCC rules, section 15.203, 15.205, 15.207 and 15.209.

### **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.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

FCC Part 15C Page 3 of 24

#### **Measurement Uncertainty**

Iten	Uncertainty		
AC Power Line Con-	±1.95 dB		
D 11 / 1	9 kHz~30MHz	±4.52 dB	
Radiated emission	30MHz~1 GHz	±5.81 dB	
Occupied Ba	Occupied Bandwidth		
Tempera	±3.0 ℃		
Humic	±6 %		

Report No.: SZ4210713-28810E-RF-00

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

#### **Test Facility**

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West), 6F, 7F, the 3<sup>rd</sup> Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 342867, the FCC Designation No.: CN1221.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062B.

FCC Part 15C Page 4 of 24

## SYSTEM TEST CONFIGURATION

#### **Justification**

The system was configured for testing in a test mode

### **EUT Exercise Software**

No software used in test.

## **Support Equipment List and Details**

Manufacturer	Description	Model	Serial Number
Hatch Baby, Inc.	Hatch Rest Plus – Sound Machine and Night Light	HBRESTPLUS2	Unknown

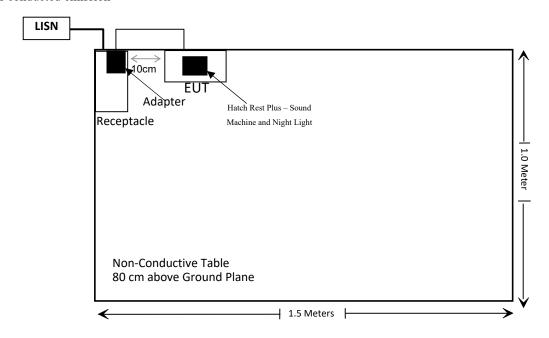
Report No.: SZ4210713-28810E-RF-00

#### **External I/O Cable**

Cable Description	Length (m)	From Port	То
Un-shielding Un-Detachable DC Cable	1.5	Adapter	EUT

## **Block Diagram of Test Setup**

For conducted emission



FCC Part 15C Page 5 of 24

## **SUMMARY OF TEST RESULTS**

FCC Rules	Description of Test	Result
FCC§1.1310 & §2.1091	Maximum Permissible Exposure(MPE)	Compliant
FCC§15.203	Antenna Requirement	Compliant
FCC§15.207	AC Line Conducted Emission	Compliant
§15.209 §15.205	Radiated Emission Test	Compliant

Report No.: SZ4210713-28810E-RF-00

FCC Part 15C Page 6 of 24

## TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date	
MPE						
Narda	Exposure Level Tester	ELT-400	N-0229	2019/11/19	2021/11/18	
Narda	B Field Probe	ELT Probe 100cm <sup>2</sup>	M-0666	2019/11/19	2021/11/18	
ETS-Lindgreen	Isotropic Field Probe	HI-6005	69461	2018/09/28	2021/09/27	
	Co	onducted Emission	s Test			
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2021/07/07	2022/07/06	
Rohde & Schwarz	LISN	ENV216	101613	2021/07/07	2022/07/06	
Rohde & Schwarz	Transient Limitor	ESH3Z2	DE25985	2020/11/29	2021/11/28	
Unknown	CE Cable	CE Cable	UF A210B-1- 0720-504504	2020/11/29	2021/11/28	
Rohde & Schwarz	CE Test software	EMC 32	V8.53.0	NCR	NCR	
		RF Radiated tes	t			
R&S	EMI Test Receiver	ESR3	102455	2021/07/06	2022/07/05	
Sonoma instrument	Pre-amplifier	310 N	186238	2020/08/04	2021/08/03	
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2020/12/22	2023/12/21	
EMCO	Active shielded loop	6507	9001-1188	2021/07/16	2024/07/15	
Unknown	Cable 2	RF Cable 2	F-03-EM197	2020/11/29	2021/11/28	
Unknown	Cable	Chamber Cable 1	F-03-EM236	2020/11/29	2021/11/28	
Unknown	Cable	Chamber Cable 4	EC-007	2020/11/29	2021/11/28	
Rohde & Schwarz	Auto test software	EMC 32	V9.10.00	NCR	NCR	
CHIGO	Temperature & Humidity Meter	HTC-1S	T-03-EM451	2021/04/07	2022/04/06	

Report No.: SZ4210713-28810E-RF-00

FCC Part 15C Page 7 of 24

<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. (Shenzhen) 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 subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Report No.: SZ4210713-28810E-RF-00

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(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)		
0.3–1.34	614	1.63	*(100)	30		
1.34–30	824/f	2.19/f	*(180/f²)	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;

According with KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01 clause 3 c)

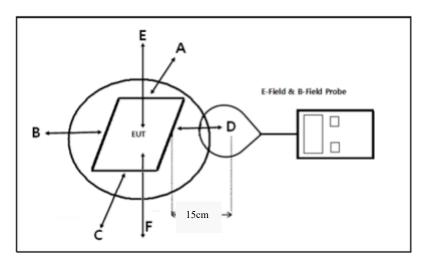
c) For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. Below 100 kHz, applicable reference levels for maximum instantaneous exposure field strengths are defined in clause 3.a).(2).

According to KDB 680106 D01 RF Exposure Wireless Charging App v03r01 clause 5 b)

- b) Inductive wireless power transfer applications with supporting field strength results and meeting all of the following requirements are not required to submit a KDB inquiry for devices approved using SDoC <sup>2</sup>or a PAG<sup>3</sup> for equipment approved using certification to address RF exposure compliance. However, the responsible party is required to keep a copy of the test report in accordance with KDB 865664 D02. A copy of the test report is to be submitted with the application if the device is approved using certification.
  - (1) Power transfer frequency is less than 1 MHz
  - (2) Output power from each primary coil is less than or equal to 15 watts.
  - (3) The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.
  - (4) Client device is placed directly in contact with the transmitter.
  - (5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
  - (6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.

FCC Part 15C Page 8 of 24

## **Block Diagram of Test Setup**



Report No.: SZ4210713-28810E-RF-00

Note: 20 cm for Top test.

### **Test Data**

#### **Environmental Conditions**

Temperature:	25°C
Relative Humidity:	65 %
ATM Pressure:	101.0 kPa

The testing was performed by Zero Yan on 2021-07-24.

Test mode: Full load

## **H-Field Strength**

Frequency	Position	Position	Position	Position	Position	50%	Limit (A/m)
Range	A	B	C	D	E	Limit	
(kHz)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	
110.5-205	0.217	0.239	0.206	0.316	0.684	0.815	1.63

### **E-Field Strength**

Frequency Range (kHz)	Position A (V/m)	Position B (V/m)	Position C (V/m)	Position D (V/m)	Position E (V/m)	50% Limit (V/m)	Limit (V/m)
110.5-205	1.574	1.324	1.769	1.647	2.207	307	614

Note: Test with 15cm distance from the center of the probe(s) to the edge of the device, 20cm from the center of the probe(s) to the top of the device.

FCC Part 15C Page 9 of 24

#### **Result: Pass**

### Considerations of compliance 680106 D01 RF Exposure Wireless Charging App v03r01 clause 5 b:

Report No.: SZ4210713-28810E-RF-00

(1) Power transfer frequency is less than 1 MHz.

Yes, the operation frequency is 110.5-205 kHz.

(2) Output power from each primary coil is less than or equal to 15 watts.

Yes, the maximum output power of primary coil is 7.5Watts.

(3) The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.

The transfer system includes one primary coils to detect and allow coupling only between individual pairs of coils.

(4) Client device is placed directly in contact with the transmitter.

Yes, client device is placed directly in contact with the transmitter

(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

Yes, mobile exposure conditions only

(6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.

Yes, the test result for H and E-Field strength less than 50% of the MPE limit.

FCC Part 15C Page 10 of 24

## 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.

Report No.: SZ4210713-28810E-RF-00

#### **Antenna Connected Construction**

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

**Result: Pass** 

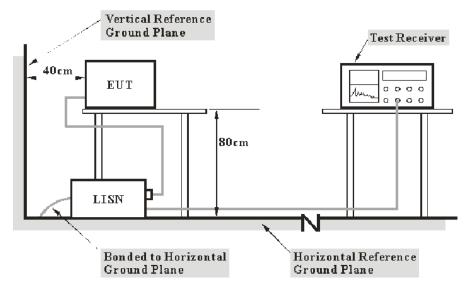
FCC Part 15C Page 11 of 24

## FCC §15.207 – AC LINE CONDUCTED EMISSION

### **Applicable Standard**

FCC§15.207

## **EUT Setup**



Report No.: SZ4210713-28810E-RF-00

Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMIN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

FCC Part 15C Page 12 of 24

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.

Report No.: SZ4210713-28810E-RF-00

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle. The spacing between the peripherals was 10 cm.

### **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	IF B/W
150 kHz – 30 MHz	9 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.

All final data was recorded in the Quasi-peak and average detection mode.

#### **Corrected Factor & Margin Calculation**

The Corrected factor is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

Correction Factor = LISN VDF + Cable Loss + Transient Limiter Attenuation

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

Margin = Limit – Corrected Amplitude

#### **Test Data**

#### **Environmental Conditions**

Temperature:	26°C
Relative Humidity:	70 %
ATM Pressure:	101.0 kPa

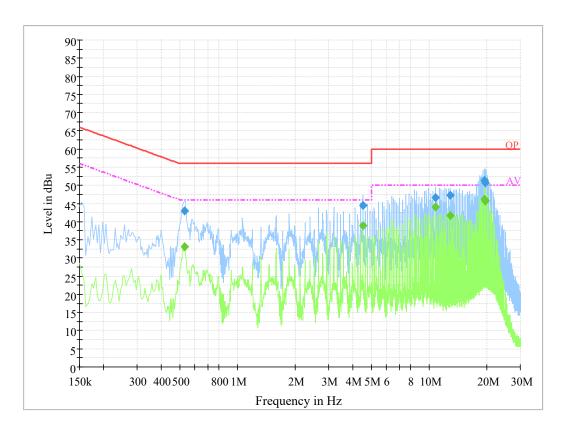
The testing was performed by Haiguo Li on 2021-07-22.

Test mode: Full Load

FCC Part 15C Page 13 of 24

For Adapter SA130-050200U:

## AC 120 V/60 Hz, Line:



Report No.: SZ4210713-28810E-RF-00

## **Final Result 1**

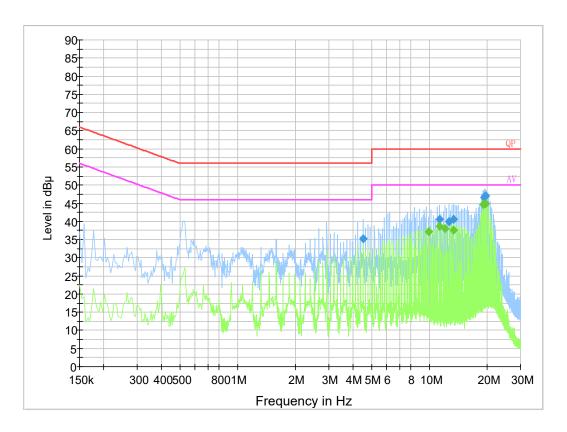
Frequency (MHz)	QuasiPeak (dB µ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.529990	42.9	9.000	L1	19.8	13.1	56.0
4.522170	44.5	9.000	L1	19.9	11.5	56.0
10.768390	46.6	9.000	L1	20.0	13.4	60.0
12.900530	47.3	9.000	L1	20.0	12.7	60.0
19.422730	51.7	9.000	L1	20.5	8.3	60.0
19.686650	51.2	9.000	L1	20.5	8.8	60.0

## Final Result 2

Frequency (MHz)	Average (dB µ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.529990	33.0	9.000	L1	19.8	13.0	46.0
4.522170	38.8	9.000	L1	19.9	7.2	46.0
10.768390	44.0	9.000	L1	20.0	6.0	50.0
12.900530	41.6	9.000	L1	20.0	8.4	50.0
19.422730	46.7	9.000	L1	20.5	3.3	50.0
19.686650	46.4	9.000	L1	20.5	3.6	50.0

FCC Part 15C Page 14 of 24

## **AC 120V/ 60 Hz, Neutral:**



Report No.: SZ4210713-28810E-RF-00

## **Final Result 1**

Frequency (MHz)	QuasiPeak (dB µ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
4.522170	35.2	9.000	N	19.9	20.8	56.0
11.300470	40.7	9.000	N	20.0	19.3	60.0
12.632550	39.9	9.000	N	20.0	20.1	60.0
13.428610	40.7	9.000	N	19.9	19.3	60.0
19.406770	46.6	9.000	N	20.4	13.4	60.0
19.678790	47.0	9.000	N	20.4	13.0	60.0

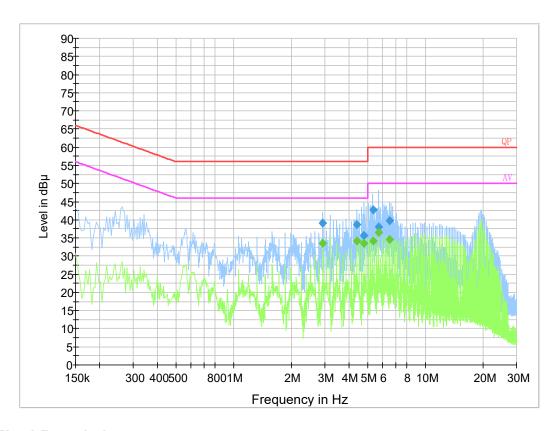
## Final Result 2

Frequency (MHz)	Average (dB µ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
9.974000	37.1	9.000	N	20.0	12.9	50.0
11.302000	38.6	9.000	N	20.0	11.4	50.0
12.098000	38.0	9.000	N	20.0	12.0	50.0
13.422000	37.6	9.000	N	19.9	12.4	50.0
19.146000	44.6	9.000	N	20.3	5.4	50.0
19.678000	44.8	9.000	N	20.4	5.2	50.0

FCC Part 15C Page 15 of 24

For Adapter CYSE12-050200U:

## AC 120 V/60 Hz, Line:



Report No.: SZ4210713-28810E-RF-00

## Final Result 1

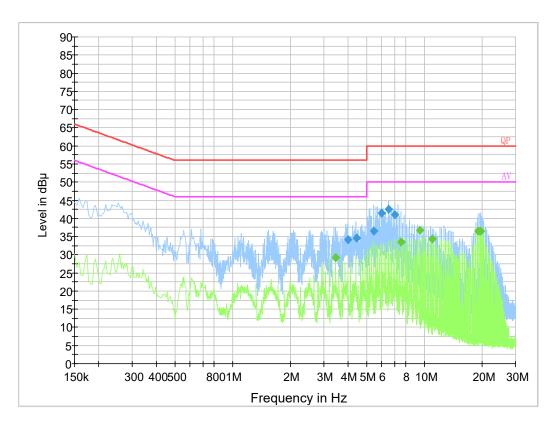
	_					1
Frequency	QuasiPeak	Bandwidth	Line	Corr.	Margin	Limit
(MHz)	(dB μ V)	(kHz)		(dB)	(dB)	(dB $\mu$ V)
2.926110	39.0	9.000	L1	19.9	17.0	56.0
4.392150	38.7	9.000	L1	19.9	17.3	56.0
4.790150	35.6	9.000	L1	19.9	20.4	56.0
5.346170	42.7	9.000	L1	19.9	17.3	60.0
5.744170	37.9	9.000	L1	19.9	22.1	60.0
6.520230	39.7	9.000	L1	19.9	20.3	60.0

## Final Result 2

Frequency (MHz)	Average (dB µ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
2.926110	33.6	9.000	L1	19.9	12.4	46.0
4.392150	34.2	9.000	L1	19.9	11.8	46.0
4.790150	33.6	9.000	L1	19.9	12.4	46.0
5.346170	34.2	9.000	L1	19.9	15.8	50.0
5.744170	36.5	9.000	L1	19.9	13.5	50.0
6.520230	34.6	9.000	L1	19.9	15.4	50.0

FCC Part 15C Page 16 of 24

## **AC 120V/ 60 Hz, Neutral:**



Report No.: SZ4210713-28810E-RF-00

## **Final Result 1**

Frequency (MHz)	QuasiPeak (dB µ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
3.997910	34.2	9.000	N	19.9	21.8	56.0
4.452090	34.7	9.000	N	19.9	21.3	56.0
5.456130	36.6	9.000	N	19.9	23.4	60.0
5.988150	41.4	9.000	N	19.9	18.6	60.0
6.520110	42.4	9.000	N	19.9	17.6	60.0
7.052190	41.0	9.000	N	19.9	19.0	60.0

## Final Result 2

Frequency (MHz)	Average (dB µ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
3.462000	29.3	9.000	N	19.9	16.7	46.0
7.590000	33.6	9.000	N	19.9	16.4	50.0
9.454000	36.7	9.000	N	19.9	13.3	50.0
11.046000	34.3	9.000	N	20.0	15.7	50.0
19.170000	36.5	9.000	N	20.3	13.5	50.0
19.698000	36.6	9.000	N	20.4	13.4	50.0

FCC Part 15C Page 17 of 24

## FCC §15.205 & §15.209 - RADIATED EMISSIONS TEST

#### **Applicable Standard**

As per FCC Part 15.209

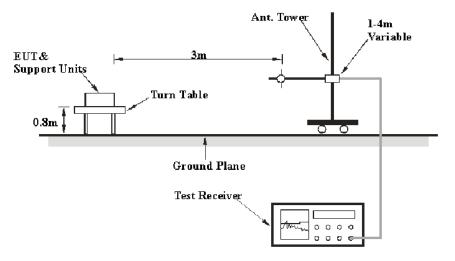
(a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Report No.: SZ4210713-28810E-RF-00

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	1-1.705 24000/F(kHz)	
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

<sup>\*\*</sup>Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permItted under other sections of this part, e.g., §§15.231 and 15.241.

### **EUT Setup**



The radiated emission tests were performed in the 3-meter chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC Part Subpart C limits.

The spacing between the peripherals was 10 cm.

FCC Part 15C Page 18 of 24

### **EMI Test Receiver Setup**

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

Frequency Range	RBW	Video B/W	Measurement
9 kHz – 150 kHz	300 Hz	1 kHz	PK
150 kHz – 30 MHz	10 kHz	30 kHz	PK
30 MHz – 1000 MHz	120 kHz	300 kHz	QP

Report No.: SZ4210713-28810E-RF-00

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

If the maximized peak measured value complies with the limit, then it is unnecessary to perform an QP/Average measurement

#### **Corrected Amplitude & Margin Calculation**

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

Corr. Ampl. = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

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 = Limit - Corr. Ampl.

#### **Test Data**

#### **Environmental Conditions**

Temperature:	29°C
Relative Humidity:	56~ 56 %
ATM Pressure:	101.0 kPa

The testing was performed by Cloud Oiu on 2021-07-24 and Willia Wang on 2021-07-21.

Test mode: Full Load

FCC Part 15C Page 19 of 24

## 1) 9 kHz~30MHz:

## For Adapter CYSE12-050200U:

Frequency	Corrected	PK/QP/Ave.	Turntable	RX Antenna	FCC Part 15.205&15.209		D I
(MHz)	Amplitude (dBµV/m)		Degree	Height (m)	Limit (dBµV/m)	Margin (dB)	Remark
0.00931	58.68	PK	219	1.0	128.23	69.55	
0.09236	54.00	PK	200	1.0	108.29	54.29	
0.10399	58.73	PK	304	1.0	107.26	48.53	Spurious Emission
0.172	50.43	PK	125	1.0	102.89	52.46	
29.762	50.15	PK	180	1.0	69.54	19.39	
0.13357	82.86	PK	10	1.0	105.09	22.23	Fundamental

Report No.: SZ4210713-28810E-RF-00

### For Adapter SA130-050200U:

Frequency	Corrected	DIZ/OD/A	Turntable	RX Antenna	FCC Part 15.205&15.209		Remark
(MHz)	Amplitude (dBμV/m)	PK/QP/Ave.	Degree	Height (m)	Limit (dBµV/m)	Margin (dB)	Kentark
0.0191	58.44	PK	219	1.0	121.98	63.54	
0.06746	59.05	PK	200	1.0	111.02	51.97	
0.10888	58.42	PK	304	1.0	106.87	48.45	Spurious Emission
0.172	53.53	PK	125	1.0	102.89	49.36	
29.46	52.91	PK	180	1.0	69.54	16.63	
0.13521	82.18	PK	10	1.0	104.98	22.80	Fundamental

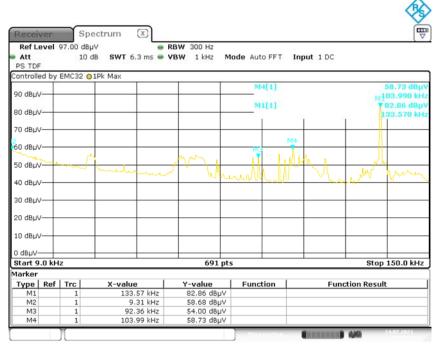
Note: PK detector data Compliant with average and QP detector limit.

FCC Part 15C Page 20 of 24

#### For Adapter CYSE12-050200U:

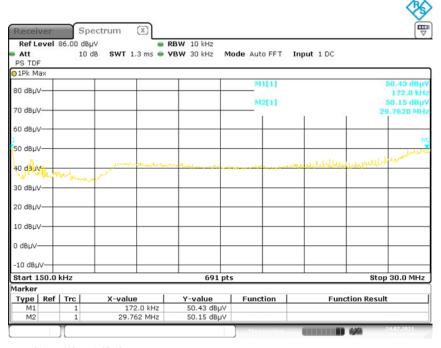
#### 9 kHz-150 kHz

Report No.: SZ4210713-28810E-RF-00



Date: 24.JUL.2021 13:57:22

150 kHz-30 MHz

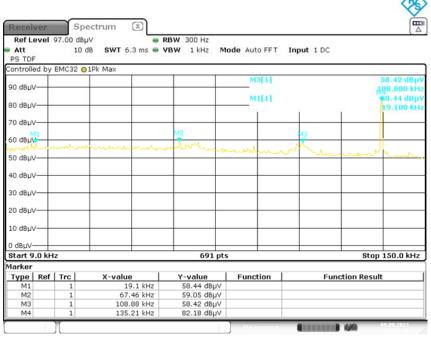


Date: 24.JUL.2021 14:07:48

FCC Part 15C Page 21 of 24

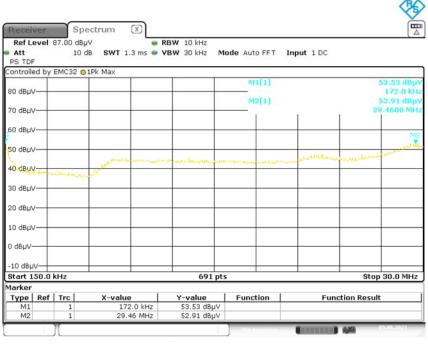
9 kHz-150 kHz

Report No.: SZ4210713-28810E-RF-00



Date: 24.JUL.2021 11:27:29

150 kHz-30 MHz

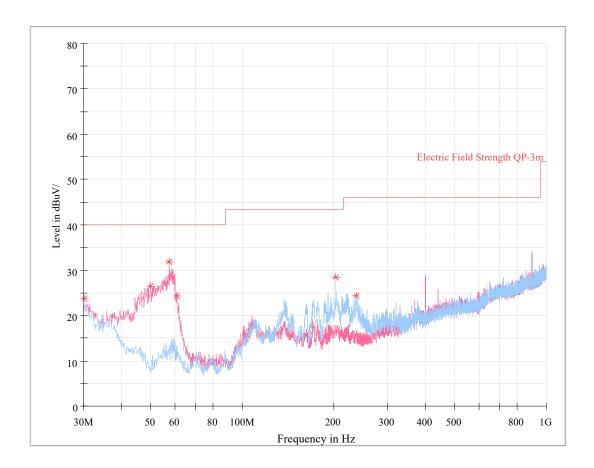


Date: 24.JUL.2021 11:18:44

FCC Part 15C Page 22 of 24

## For Adapter CYSE12-050200U:

### 2) 30 MHz ~ 1 GHz



Report No.: SZ4210713-28810E-RF-00

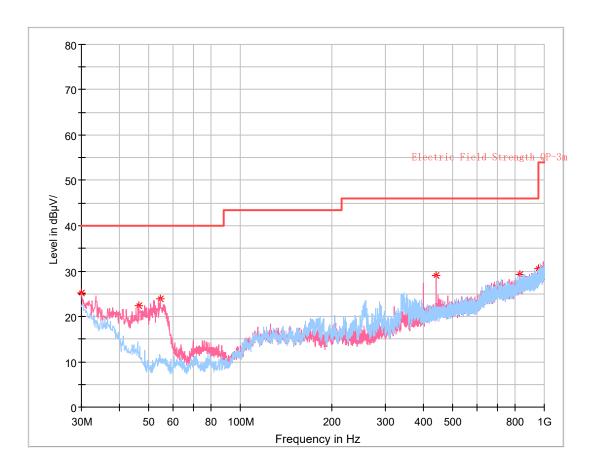
## **Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.121250	23.56	40.00	16.44	200.0	Н	134.0	-3.6
49.885000	26.46	40.00	13.54	100.0	V	27.0	-16.6
57.645000	31.89	40.00	8.11	100.0	V	58.0	-16.5
60.797500	24.31	40.00	15.69	100.0	V	205.0	-16.5
203.266250	28.42	43.50	15.08	200.0	Н	249.0	-11.1
237.095000	24.26	46.00	21.74	100.0	Н	281.0	-11.7

FCC Part 15C Page 23 of 24

For Adapter SA130-050200U:

 $30~MHz \sim 1~GHz$ 



Report No.: SZ4210713-28810E-RF-00

**Critical Freqs** 

• · · · · · • · · · · · · · · · · · · ·	. • 9 •						
Frequency (MHz)	MaxPeak (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.000000	25.23	40.00	14.77	100.0	V	71.0	-3.5
46.247500	22.33	40.00	17.67	100.0	V	26.0	-14.5
54.492500	23.97	40.00	16.03	100.0	V	37.0	-16.6
439.946250	29.07	46.00	16.93	100.0	V	37.0	-6.0
831.947500	29.29	46.00	16.71	200.0	V	231.0	-0.1
953.440000	30.50	46.00	15.50	300.0	V	255.0	1.8

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

FCC Part 15C Page 24 of 24