



File Reference No.: 2022-01-25

Applicant: Guangzhou Fuhe Electronic Science and Technology Co., LTD

Product: Sound Bar, Speaker, Tiki Tunes Speaker

Trademark: DRIVE, FUERA

Model No.: M600BT, M800BT, M500BT, M100BT, M200BT M300BT,

M700BT, EEVD-01, EEVD-02, EEVD-03, EEVD-05, EEVD-06, EEVD-07, EEVD-08, EEVD-09, FUEAR-T01, FUEAR-T02, FUEAR-T03, FUEAR-B06, FUEAR-B08, FUEAR-Y06, FUEAR-Y08, LSB03-D, LSB03-DV, LEB03-D, LSB03-D, LSB03-D

LEB-D, LSB-D, DRIVE-01A, DRIVE-02A, DRIVE-03, DRIVE-04A, DRIVE-05A, DRIVE-06A, DRIVE-07A,

DRIVE-08A, DRIVE-09A

Test Standards: FCC Part 15 Subpart B

Test Result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.4&FCC Part 15 regulations

for the evaluation of electromagnetic compatibility

Approved By

Peny lang

Terry Tang Manager

Dated: January 25, 2022

Results appearing herein relate only to the sample tested

The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TESTING LABORATORIES.

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688 Fax (755) 83442996 Email: <u>info@timeway-lab.com</u>

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Special Statement:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

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

CNAS-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 744189

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

Industry Canada (IC) — **Registration No.:5205A**

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

A2LA (Certification Number:5013.01)

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

Date: 2022-01-25



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1.0 General Details

1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le

Village, Nanshan District, Shenzhen, China

Telephone: (755) 83448688 Fax: (755) 83442996

1.2 Applicant Details

Applicant: Guangzhou Fuhe Electronic Science and Technology Co., LTD Address: No. 4-2, 513 Street, Yangyi Village, Huadu District, Guangzhou

Telephone: 020-31238007 Fax: 020-31238007

1.3 Description of EUT

Product: Sound Bar, Speaker, Tiki Tunes Speaker

Manufacturer: Guangzhou Fuhe Electronic Science and Technology Co., LTD Address: No. 4-2, 513 Street, Yangyi Village, Huadu District, Guangzhou

Trademark: DRIVE, FUERA

Basic Model M600BT

Additional Model: M800BT, M500BT, M100BT, M200BT M300BT, M700BT, EEVD-01, EEVD-02, EEVD-03, EEVD-05, EEVD-06, EEVD-07, EEVD-08, EEVD-09, FUEAR-T01, FUEAR-T02, FUEAR-T03, FUEAR-B06, FUEAR-B08, FUEAR-Y06, FUEAR-Y08, LSB03-D, LSB03-DV, LEB03-D, LEB-D, LSB-D, DRIVE-01A, DRIVE-02A, DRIVE-03, DRIVE-04A, DRIVE-05A, DRIVE-06A, DRIVE-07A, DRIVE-08A,

DRIVE-09A Input: DC5V, 1A

Battery: DC3.7V, 1500mAh Li-ion battery

1.4 Submitted Sample: 1 Sample

1.5 Test Duration

Date of Receipt of Application: January 24, 2022 Date of Test: January 24, 2022 ~ January 25, 2022

1.6 Test Uncertainty

Conducted Emissions Uncertainty =3.6dB Radiated Emissions Uncertainty =4.7dB

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1.7 Test Engineer

The sample tested by

Print Name: Leo Lau

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2.0 List of Measurement Equipment

2.1 Conducted Emission Test

				Calibration	Calibration
Name	Model No.	Serial No.	Manufacturer	Date	Cycle
EMI Test Receiver	ESH3	860905/006	RS	2021.06.18	1Year
Spectrum Analyzer	ESA-L1500A	US37451154	HP	2021.06.18	1Year
PULSE LIMITER	ESH3-Z2	100281	RS	2021.06.18	1Year
LISN	ESH3-Z5	100294	RS	2021.06.18	1Year
LISN	ESH3-Z5	100253	RS	2021.06.18	1Year
LISN	NNB42	00012	SCHAFFNER	2022.01.05	1Year

2.2 Radiated electromagnetic disturbance test

				Calibration	Calibration
Name	Model No	Serial No.	Manufacturer	Date	Cycle
EMI Test Receiver	ESPI 3	100379	RS	2021.06.18	1Year
Spectrum Analyzer	E4407B	MY50441392	HP/Agilent	2021.06.18	1Year
Amplifier	BBV9743	#218	HP/Agilent	2021.06.18	1Year
Bilog Antenna	VULB9163	9163/340	Schwarebeck	2021.07.02	3Year
Horn Antenna	BBHA 9120D	9120D-631	RS	2021.07.02	3Year
Amplifier	8449B	3008A00160	HP/Agilent	2021.06.18	1Year

2.3 Auxiliary Equipment

Device	Manufacturer	Model	Rating

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3.0 Technical Details

3.1 Investigations Requested

Perform Electromagnetic Interference [EMI] tests for FCC Requirement.

3.2 Test Standards

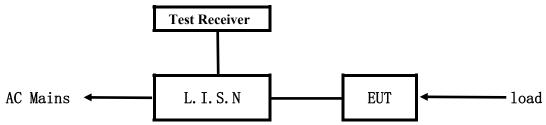
FCC Part 15 Subpart B

Date: 2022-01-25



4.0 Conducted Power line Test

4.1 Schematics of the test

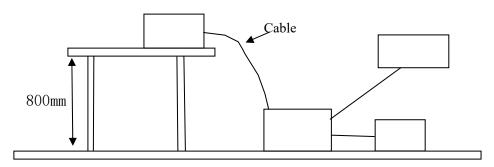


EUT: Equipment Under Test

4.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2014. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.4 –2014. Cables and peripherals were moved to find the maximum emission levels for each frequency.

Test Voltage: 120V~, 60Hz Block diagram of Test setup



4.3 Power line conducted Emission Limit

Frequency	Class A Lin	nits dB(µV)	Class B Limits dB(µV)		
(MHz)	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level	
$0.15 \sim 0.50$	79.00	66.00	66.00~56.00*	56.00~46.00*	
$0.50 \sim 5.00$	73.00	60.00	56.00	46.00	
$5.00 \sim 30.00$	73.00	60.00	60.00	50.00	

Notes:

- 1. *decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

4.4 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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A: Conducted Emission on Live Terminal (150kHz to 30MHz)

EUT Operating Environment

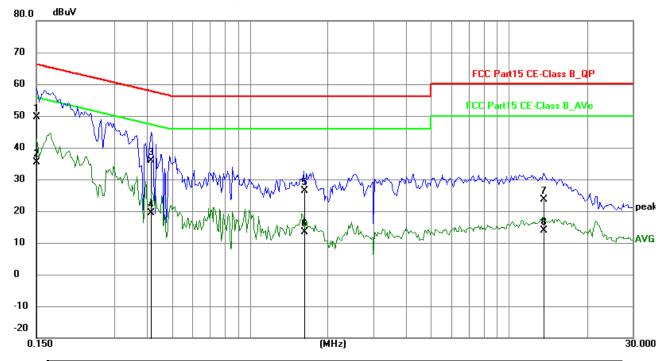
Temperature: 25°C Humidity:75%RH Atmospheric Pressure: 101 kPa

EUT set Condition: LED On + Play Music

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1500	39.92	9.79	49.71	66.00	-16.29	QP	Р
2	0.1500	25.51	9.79	35.30	56.00	-20.70	AVG	Р
3	0.4152	26.24	9.76	36.00	57.54	-21.54	QP	Р
4	0.4152	9.56	9.76	19.32	47.54	-28.22	AVG	Р
5	1.6203	16.65	9.80	26.45	56.00	-29.55	QP	Р
6	1.6203	3.59	9.80	13.39	46.00	-32.61	AVG	Р
7	13.6119	13.35	10.32	23.67	60.00	-36.33	QP	Р
8	13.6119	3.51	10.32	13.83	50.00	-36.17	AVG	Р

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B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

EUT Operating Environment

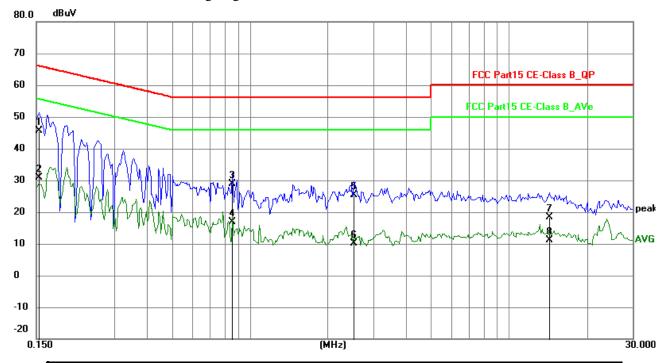
Temperature: 25°C Humidity:75%RH Atmospheric Pressure: 101 kPa

EUT set Condition: LED On + Play Music

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1539	35.91	9.78	45.69	65.79	-20.10	QP	Р
2	0.1539	21.16	9.78	30.94	55.79	-24.85	AVG	Р
3	0.8559	19.16	9.79	28.95	56.00	-27.05	QP	Р
4	0.8559	7.19	9.79	16.98	46.00	-29.02	AVG	Р
5	2.5251	15.48	9.82	25.30	56.00	-30.70	QP	Р
6	2.5251	0.22	9.82	10.04	46.00	-35.96	AVG	Р
7	14.2983	8.11	10.35	18.46	60.00	-41.54	QP	Р
8	14.2983	0.86	10.35	11.21	50.00	-38.79	AVG	Р

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5.0 Radiated Disturbance Test

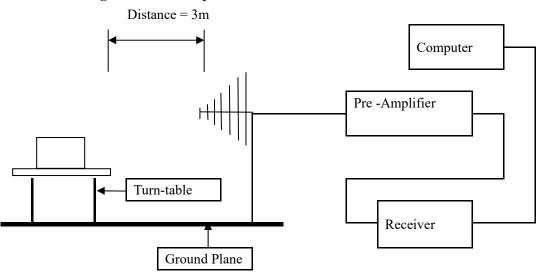
5.1 Schematics of the test



5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4 –2014, The frequency spectrum from 30MHz to 1GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak 0values with a resolution bandwidth of 120kHz. All readings are above 1GHz, peak values with a resolution bandwidth of 1MHz. Measurements were made at 3 meters.

Test Voltage: 120V~, 60Hz Block diagram of Test setup



5.3 Radiated Emission Limit

Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
30-88	3	40.00
88-216	3	43.50
216-960	3	46.00
Above 960	3	54.00

Note: The lower limit shall apply at the transition frequencies

5.4 Test result

The frequency spectrum from 30MHz to 1GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120kHz. All readings are above 1GHz, peak values with a resolution bandwidth of 1MHz. Measurements were made at 3 meters.

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A: Radiated Disturbance (30MHz----1000MHz)

Project Number: CASE1 Test Time: 2022-01-24 18.05.53

EUT Name: Sound Bar, Speaker, Tiki Tunes Speaker Test Engineer: LUCK

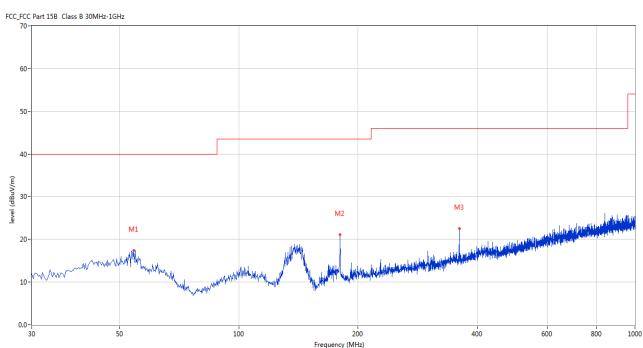
Manufacturer: Guangzhou Fuhe Electronic Science and Test Standard: FCC Part 15B

Technology Co., LTD

Model: M600BT Work Addition: LED On + Play Music

 Temp.(oC):
 25
 Load:

 Hum.:
 65%
 Remark:



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	54.244	17.41	-11.60	40.0	-22.59	Peak	174.00	100	Horizontal	Pass
2	180.070	21.04	-15.31	43.5	-22.46	Peak	72.00	100	Horizontal	Pass
3	359.960	22.59	-9.46	46.0	-23.41	Peak	2.00	100	Horizontal	Pass

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B: Radiated Disturbance (30MHz----1000MHz)

Project Number: CASE1 Test Time: 2022-01-24_18.06.27

EUT Name: Sound Bar, Speaker, Tiki Tunes Speaker Test Engineer: LUCK

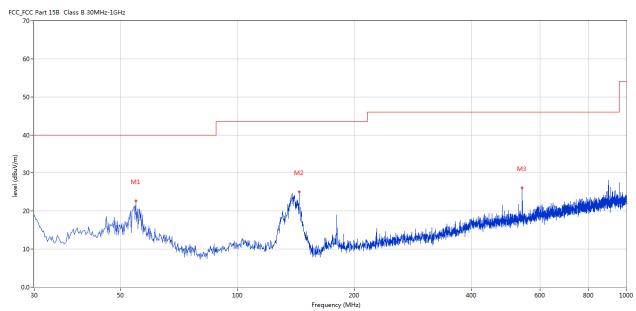
Manufacturer: Guangzhou Fuhe Electronic Science and Test Standard: FCC Part 15B

Technology Co., LTD

Model: M600BT Work Addition: LED On + Play Music

 Temp.(oC):
 25
 Load:

 Hum.:
 65%
 Remark:



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	54.729	22.66	-11.72	40.0	-17.34	Peak	356.00	100	Vertical	Pass
2	143.947	25.09	-17.10	43.5	-18.41	Peak	351.00	100	Vertical	Pass
3	540.092	26.07	-6.52	46.0	-19.93	Peak	321.00	100	Vertical	Pass

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6.0 FCC Label

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location: On the product body

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7.0 Photo of testing

Conducted Emissions

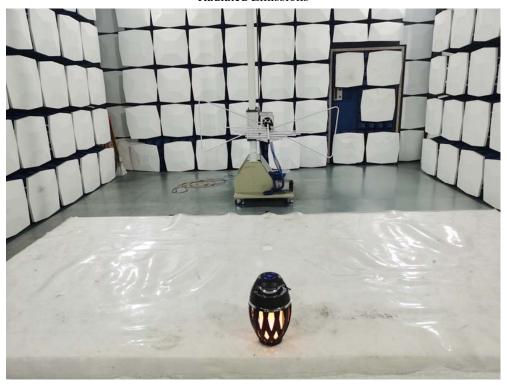


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Radiated Emissions



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Photographs – EUT





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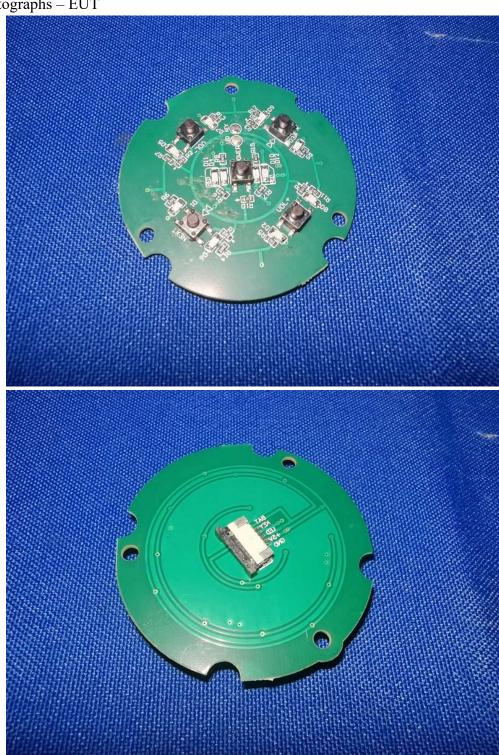
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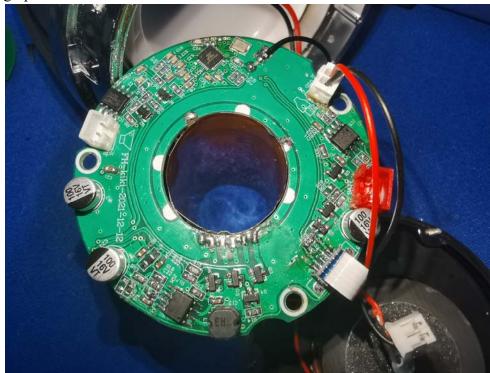
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-- End of the Report--