

Report No.: TW2307383E

Applicant: TECHNOFASHION INC.

Product: Portable Wireless Speaker

Model No.: UCCSP04, UCCSP04-1, UCCSP04-2, UCCSP04-3,

UCCSP04-4

Trademark: N/A

Test Standards: FCC Part 15.249

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10 & FCC Part 15 Subpart C,

Paragraph 15.249 regulations for the evaluation of

electromagnetic compatibility

Approved By

Total Proof

Terry Tang

Manager

Dated: August 08, 2023

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, E-Mail:info@timeway-lab.com

Report No.: TW2307383E Page 2 of 49

Date: 2023-08-08



## **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 17025:2017 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

Report No.: TW2307383E

Date: 2023-08-08



## Test Report Conclusion Content

#### 1.0 General Details..... 1.1 Test Lab Details. 1.2 Applicant Details. 4 1.3 Description of EUT .... 4 1.4 Submitted Sample.... 4 1.5 Test Duration. 5 1.6 Test Uncertainty. 5 1.7 Test By..... 5 2.0 List of Measurement Equipment..... 7 3.0 Technical Details..... 3.1 Summary of Test Results.... 7 3.2 7 Test Standards.... 4.0 EUT Modification.... 7 Power Line Conducted Emission Test.... 5.0 8 5.1 Schematics of the Test. 8 5.2 Test Method and Test Procedure. 5.3 Configuration of the EUT..... 5.4 EUT Operating Condition. 5.5 Conducted Emission Limit. 9 5.6 Test Result. 6.0 Radiated Emission test..... 12 Test Method and Test Procedure. 6.1 12 6.2 Configuration of the EUT..... 13 6.3 EUT Operation Condition. 13 6.4 Radiated Emission Limit. 13 6.5 Test Result. 15 7.0 Band Edge.... 23 7.1 Test Method and Test Procedure. 23 7.2 Radiated Test Setup. 23 7.3 Configuration of the EUT.... 23 7.4 EUT Operating Condition. 23 7.5 Band Edge Limit.... 23 7.6 Band Edge Test Result. 24 8.0 Antenna Requirement. 28 20dB bandwidth measurement.... 9.0 29 10.0 FCC ID Label.... 38 Photo of Test Setup and EUT View.... 11.0

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Date: 2023-08-08



#### 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

Site on File with the Federal Communications Commission – United Sates

Registration Number: 744189 For 3m Anechoic Chamber

#### 1.2 Applicant Details

Applicant: TECHNOFASHION INC.

Address: 127, Kingsland Ave, Clifton, NJ, USA, 07014

Telephone: +1 (973) 866 7373

Fax: --

## 1.3 Description of EUT

Product: Portable Wireless Speaker
Manufacturer: TECHNOFASHION INC.

Address: 127, Kingsland Ave, Clifton, NJ, USA, 07014

Trademark: N/A

Model Number: UCCSP04

Additional Model Name UCCSP04-1, UCCSP04-2, UCCSP04-3, UCCSP04-4

Rating: Input: DC5V, 1A, Output: 10W Battery: DC3.7V, 500mAh Li-ion battery

Modulation Type: GFSK, Л/4DQPSK, 8DPSK for Bluetooth

Operation Frequency: 2402-2480MHz

Channel Number: 79
Channel Separation: 1MHz

Hardware Version: SL8158-00L

Software Version: SL8158(NAUTICA SP400)\_OSC28\_改 EQ 和提示音

\_VUSBUART\_5377A2\_59EE7D62\_230612

Serial No.: UCCSP04202305

Antenna Designation PCB antenna with gain 1.7dBi Max (Get from the antenna specification)

#### 1.4 Submitted Sample: 2 Samples

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Report No.: TW2307383E Page 5 of 49

Date: 2023-08-08



## 1.5 Test Duration

2023-07-24 to 2023-08-08

## 1.6 Test Uncertainty

Conducted Emissions Uncertainty =3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

Conducted Power Uncertainty = 6.0dB

Occupied Channel Bandwidth Uncertainty = 5%

Conducted Emissions Uncertainty = 3.6dB

Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

1.7 Test Engineer

The sample tested by

Print Name: Andy Xing

Page 6 of 49

Report No.: TW2307383E

Date: 2023-08-08



2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2023-07-14	2024-07-13
LISN	R&S	EZH3-Z5	100294	2023-07-14	2024-07-13
LISN	R&S	EZH3-Z5	100253	2023-07-14	2024-07-13
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2023-07-14	2024-07-13
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17
Spectrum	R&S	FSIQ26	100292	2023-07-14	2024-07-13
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2022-07-18	2025-07-17
Horn Antenna	R&S	BBHA 9120D	9120D-631	2022-07-18	2024-07-17
Power meter	Anritsu	ML2487A	6K00003613	2023-07-14	2024-07-13
Power sensor	Anritsu	MA2491A	32263	2023-07-14	2024-07-13
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2022-07-18	2025-07-17
9*6*6 Anechoic			N/A	2022-07-26	2025-07-25
EMI Test Receiver	RS	ESVB	826156/011	2023-07-14	2024-07-13
EMI Test Receiver	RS	ESCS 30	834115/006	2023-07-14	2024-07-13
Spectrum	HP/Agilent	E4407B	MY50441392	2023-07-14	2024-07-13
Spectrum	RS	FSP	1164.4391.38	2023-07-14	2024-07-13
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA		2023-07-14	2024-07-13
RF Cable	Zhengdi	7m		2023-07-14	2024-07-13
Pre-Amplifier	Schwarebeck	BBV9743	#218	2023-07-14	2024-07-13
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2023-07-14	2024-07-13
LISN	SCHAFFNER	NNB42	00012	2023-07-14	2024-07-13
ESPI Test Receiver	R&S	ESPI 3	100379	2023-07-14	2024-07-13
LISN	R&S	EZH3-Z5	100294	2023-07-14	2024-07-13

## 2.2 Automation Test Software

#### For Conducted Emission Test

Name	Version		
EZ-EMC	Ver.EMC-CON 3A1.1		

### For Radiated Emissions

Name	Version
EMI Test Software BL410-EV18.91	V18.905
EMI Test Software BL410-EV18.806 High Frequency	V18.06

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Report No.: TW2307383E Page 7 of 49

Date: 2023-08-08



#### 3.0 Technical Details

## 3.1 Summary of test results

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.203	Antenna Requirement	Pass	Complies
FCC Part 15, Paragraph 15.207	Conducted Emission Test	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.249(a) & 15.249(b) Limit	Field Strength of Fundamental	Pass	Complies
FCC Part 15, Paragraph 15.209	Radiated Emission Test	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.249(d) Limit	Band Edge Test	Pass	Complies

#### 3.2 Test Standards

FCC Part 15 Subpart C, Paragraph 15.249, ANSI C63.4:2014 and ANSI C63.10:2013

#### 4.0 EUT Modification

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

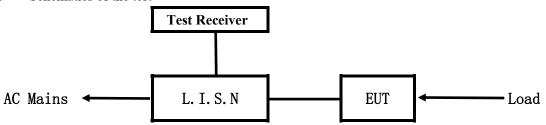
Report No.: TW2307383E

Date: 2023-08-08



#### 5.0 Power Line Conducted Emission Test

#### 5.1 Schematics of the test

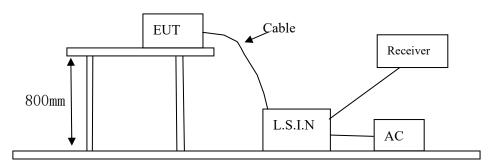


**EUT: Equipment Under Test** 

#### 5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum from 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10-2013.

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



## 5.3 Configuration of the EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

79 channels are provided to the EUT

#### A. EUT

Device	Manufacturer	Model	FCC ID
		UCCSP04, UCCSP04-1,	
Portable Wireless Speaker	TECHNOFASHION INC.	UCCSP04-2, UCCSP04-3,	2AZBO-N00024
		UCCSP04-4	

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Report No.: TW2307383E Page 9 of 49

Date: 2023-08-08



#### B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

## C. Peripherals

Device	Manufacturer	Model	Rating
Power Supply	KEYU	KA23-0502000DEU	Input: 100-240V~, 50/60Hz, 0.35A;
			Output: DC5V, 2A

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.10-2013

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.207

Frequency	Limits (dB μ V)				
(MHz)	Quasi-peak Level	Average Level			
$0.15 \sim 0.50$	66.0~56.0*	56.0~46.0*			
$0.50 \sim 5.00$	56.0	46.0			
5.00 ~ 30.00	60.0	50.0			

Notes:

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

#### 5.6 Test Results:

Report No.: TW2307383E

Date: 2023-08-08



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

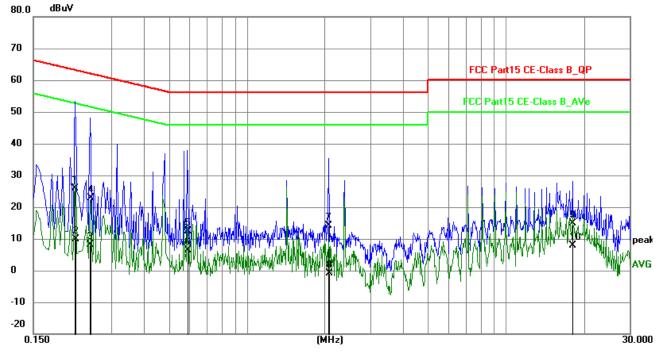
**EUT Operating Environment** 

Temperature: 25°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

**EUT set Condition: Charging + Communication by BT** 

**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	0.2170	16.09	9.75	25.84	62.93	-37.09	QP	Р
2	0.2180	0.11	9.75	9.86	52.89	-43.03	AVG	Р
3	0.2480	-1.64	9.75	8.11	51.82	-43.71	AVG	Р
4	0.2490	13.10	9.75	22.85	61.79	-38.94	QP	Р
5	0.5910	2.71	9.77	12.48	56.00	-43.52	QP	Р
6	0.5910	-3.45	9.77	6.32	46.00	-39.68	AVG	Р
7	2.0640	4.30	9.80	14.10	56.00	-41.90	QP	Р
8	2.0740	-10.70	9.80	-0.90	46.00	-46.90	AVG	Р
9	18.0960	4.26	10.57	14.83	60.00	-45.17	QP	Р
10	18.0970	-2.74	10.57	7.83	50.00	-42.17	AVG	Р

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Date: 2023-08-08



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

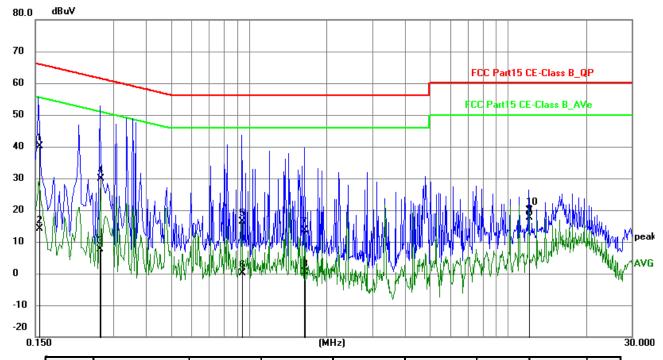
**EUT Operating Environment** 

Temperature: 25°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

**EUT set Condition: Charging + Communication by BT** 

**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	0.1550	30.28	9.78	40.06	65.73	-25.67	QP	Р
2	0.1550	4.23	9.78	14.01	55.73	-41.72	AVG	Р
3	0.2660	-2.13	9.75	7.62	51.24	-43.62	AVG	Р
4	0.2680	20.03	9.75	29.78	61.18	-31.40	QP	Р
5	0.9410	6.61	9.79	16.40	56.00	-39.60	QP	Р
6	0.9410	-9.77	9.79	0.02	46.00	-45.98	AVG	Р
7	1.6340	3.92	9.80	13.72	56.00	-42.28	QP	Р
8	1.6430	-9.31	9.80	0.49	46.00	-45.51	AVG	Р
9	12.0229	7.30	10.25	17.55	50.00	-32.45	AVG	Р
10	12.0260	9.73	10.25	19.98	60.00	-40.02	QP	Р

Page 12 of 49

Report No.: TW2307383E

Date: 2023-08-08



#### **6** Radiated Emission Test

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 9kHz to 25 GHz was investigated. The frequency spectrum is set as follows:

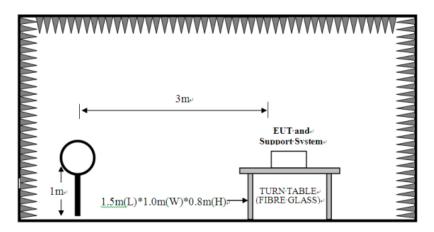
Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
ADOVE IGHZ	Peak	1MHz	10Hz	Average

(Note: for Fundamental frequency radiated emission measurement, RBW=3MHz, VBW=10MHz). Measurements were made at 3 meters.

- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) The antenna polarization: Vertical polarization and Horizontal polarization.

#### **Block diagram of Test setup**

For radiated emissions from 9kHz to 30MHz

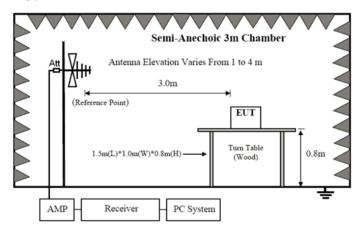


Report No.: TW2307383E

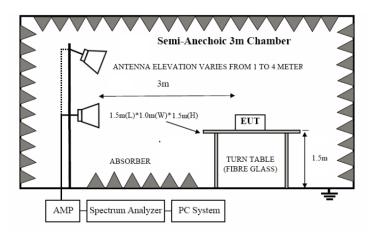
Date: 2023-08-08



For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



- 6.2 Configuration of the EUT
  Same as section 5.3 of this report
- 6.3 EUT Operating Condition

  Same as section 5.4 of this report.
- 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

## A FCC Part 15 Subpart C Paragraph 15.249(a) Limit

Fundamental Frequency	Field Strength of Fundamental (3m)		Field Strength of Harmonics (3m)		
(MHz)	mV/m	dBuV/m	uV/m	dBuV/m	

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Report No.: TW2307383E Page 14 of 49

Date: 2023-08-08



2400-2483.5	50	94 (Average)	114 (Peak)	500	54 (Average)	74 (Peak)
Z <del>4</del> 00-Z <del>4</del> 03.3	30	74 (Average)	11 <del>4</del> (1 cak)	500	J+ (Avclage)	/4 (F cak)

Note: 1. RF Field Strength  $(dBuV) = 20 \log RF \text{ Voltage } (uV)$ 

- 2.Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
- 3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

## B. Frequencies in restricted band are complied to limit on Paragraph 15.209.

Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ V/m)
0.009-0.490	3	20log(2400/F(kHz)) +40log (300/3)
0.490-1.705	3	20log(24000/F(kHz)) +40log (30/3)
1.705-30	3	69.5
30-80	3	40.0
88-216	3	43.
216-960	3	46.0
Above 960	3	54.0

Note:

- 1. RF Voltage  $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.
- 5. The three modulation modes of GFSK, Pi/4D-QPSK and 8DPSK were tested. And only the worst case was recorded in the test report. GFSK was the worst case.
- 6. This is a portable device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.
- 7. Battery fully charged was used during the test.

Report No.: TW2307383E Page 15 of 49

Date: 2023-08-08

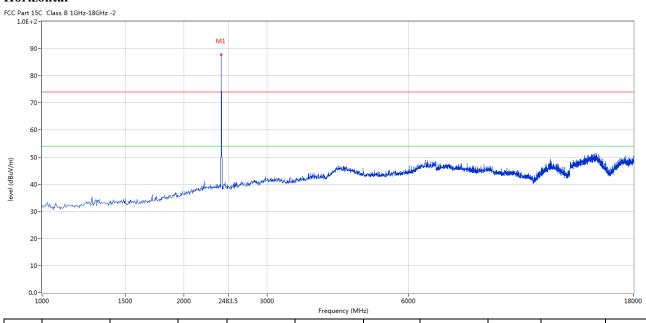


## 6.5 Test result

## A Fundamental & Harmonics Radiated Emission Data

Please refer to the following test plots for details: Low Channel-2402MHz

#### Horizontal



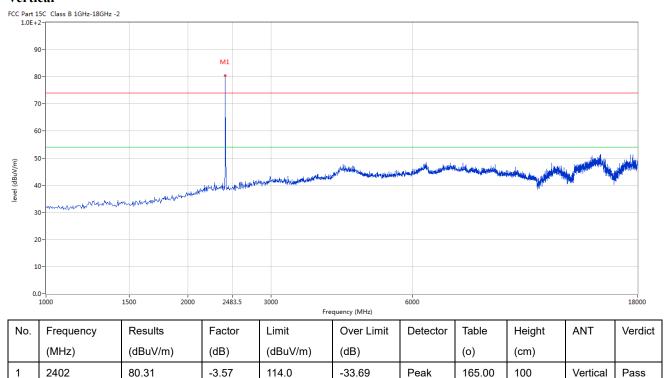
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2402	88.23	-3.57	114.0	-25.77	Peak	136.00	100	Horizontal	Pass

Report No.: TW2307383E Page 16 of 49

Date: 2023-08-08



### Vertical



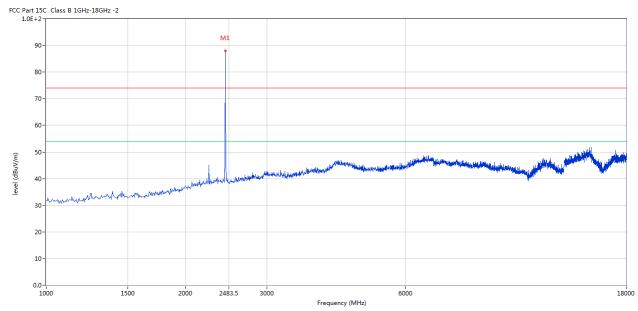
Report No.: TW2307383E Page 17 of 49

Date: 2023-08-08



Please refer to the following test plots for details: Middle Channel-2441MHz

#### Horizontal



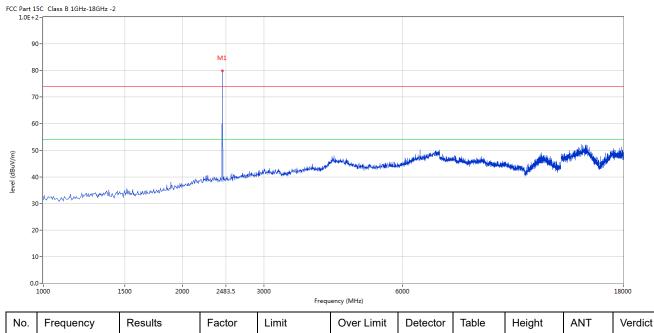
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	87.85	-3.57	114.0	-26.15	Peak	132.00	100	Horizontal	Pass

Report No.: TW2307383E Page 18 of 49

Date: 2023-08-08



### Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	79.83	-3.57	114.0	-34.17	Peak	145.00	100	Vertical	Pass

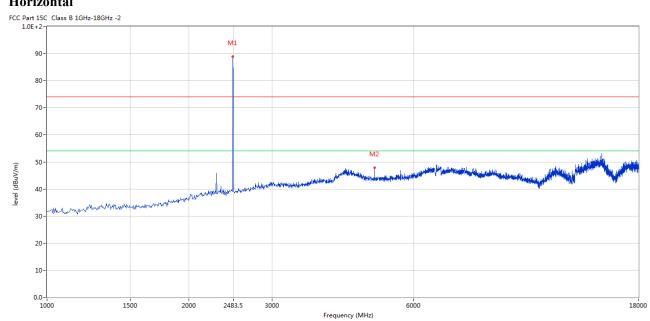
Page 19 of 49 Report No.: TW2307383E

Date: 2023-08-08



Please refer to the following test plots for details: High Channel-2480MHz

#### Horizontal



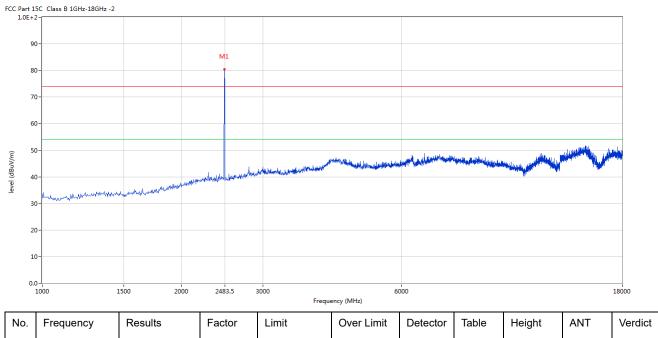
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	89.10	-3.57	114.0	-24.90	Peak	158.00	100	Horizontal	Pass
2	4960.010	47.90	3.36	74.0	-26.10	Peak	52.00	100	Horizontal	Pass

Report No.: TW2307383E Page 20 of 49

Date: 2023-08-08



#### Vertical



1	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	1	2480	80.39	-3.57	114.0	-33.61	Peak	52.00	100	Vertical	Pass

Note: (1) Emission Level = Reading Level + Antenna Factor + Cable Loss-Amplifier

- (2) Margin=Emission-Limits
- (3) According to section 15.35(b), the peak limit is 20dB higher than the average limit
- (4) For test purpose, keep EUT continuous transmitting
- (5) For emission above 18GHz and Below 30MHz, It is only the floor noise and less than the limit for more than 20dB. No necessary to take down.
- (6) the measured PK value less than the AV limit.

Report No.: TW2307383E Page 21 of 49

Date: 2023-08-08

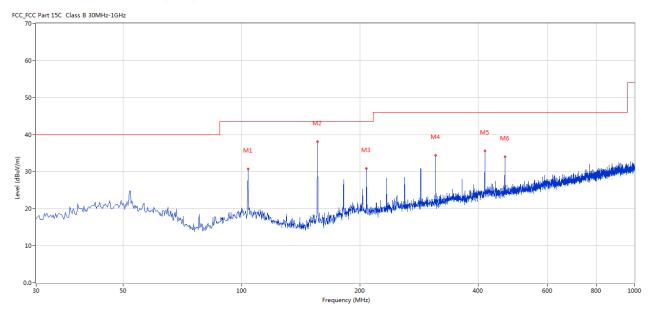


# B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	103.944	30.69	-13.33	43.5	12.81	Peak	166.00	100	Horizontal	Pass
2	155.826	38.15	-16.65	43.5	5.35	Peak	0.00	100	Horizontal	Pass
3	207.951	30.80	-13.69	43.5	12.70	Peak	348.00	100	Horizontal	Pass
4	311.957	34.38	-10.76	46.0	11.62	Peak	86.00	100	Horizontal	Pass
5	415.964	35.56	-8.34	46.0	10.44	Peak	94.00	100	Horizontal	Pass
6	467.846	33.98	-7.61	46.0	12.02	Peak	264.00	100	Horizontal	Pass

Report No.: TW2307383E Page 22 of 49

Date: 2023-08-08

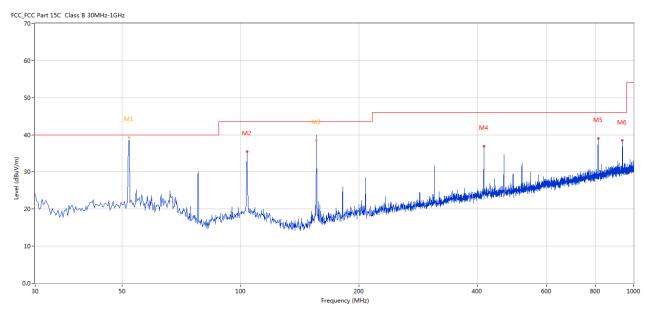


## Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1*	52.000	39.34	-11.43	40.0	0.66	QP	333.00	198	Vertical	Pass
2	103.944	35.50	-13.33	43.5	8.00	Peak	188.00	100	Vertical	Pass
3*	155.996	38.53	-16.65	43.5	4.97	QP	218.00	100	Vertical	Pass
4	415.964	36.89	-8.34	46.0	9.11	Peak	18.00	100	Vertical	Pass
5	812.594	39.04	-2.94	46.0	6.96	Peak	279.00	100	Vertical	Pass
6	937.451	38.44	-1.78	46.0	7.56	Peak	305.00	100	Vertical	Pass

Report No.: TW2307383E Page 23 of 49

Date: 2023-08-08

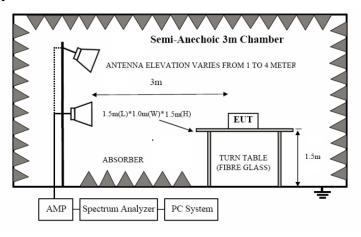


#### 7. Band Edge

#### 7.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.10–2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) Set Spectrum as RBW=1MHz, VBW=3MHz and Peak detector used for PK value. RBW=1MHz, VBW=10Hz and Peak detector used for AV value.
- (3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (4) The antenna polarization: Vertical polarization and Horizontal polarization.

## 7.2 Radiated Test Setup



For the actual test configuration, please refer to the related items – Photos of Testing

## 7.3 Configuration of the EUT

Same as section 5.3 of this report

#### 7.4 EUT Operating Condition

Same as section 5.4 of this report.

## 7.5 Band Edge Limit

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

The report refers only to the sample tested and does not apply to the bulk.

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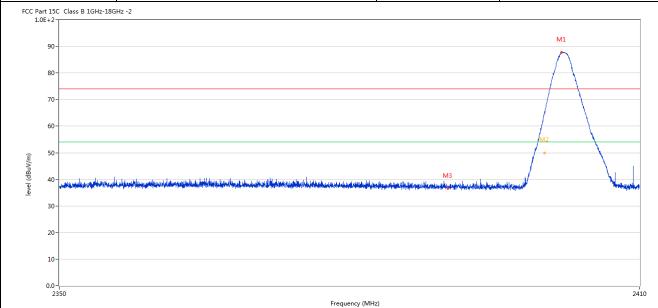
Report No.: TW2307383E Page 24 of 49

Date: 2023-08-08



#### 7.6 Test Result

Product:	Portable Wireless Speaker	Polarity	Horizontal
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(0)	(cm)		
1	2401.842	87.74	-3.57	74.0	13.74	Peak	144.00	100	Horizontal	N/A
2	2400.042	65.00	-3.57	74.0	-9.00	Peak	144.00	100	Horizontal	Pass
2**	2400.042	49.94	-3.57	54.0	-4.06	AV	144.00	100	Horizontal	Pass
3	2390.025	36.52	-3.53	74.0	-37.48	Peak	261.00	100	Horizontal	Pass

Report No.: TW2307383E Page 25 of 49

Report No., 1 w 230/3
Date: 2023-08-08



J	Product:	Po	rtable Wire	eless Speaker		Detect	tor		Vertical	
	Mode	]	Keeping Tr	ansmitting		Test Vol	tage		DC3.7V	
Te	mperature		24 de	g. C,		Humid	ity		56% RH	
	est Result:		Pa				-			
CC Par 1.08	t 15C Class B 1GHz-18GF E+2-	Hz -2			 		l			
	90-									
	80-								M1	
	70-									
	60-							/_		
									$\overline{}$	
Ē	50-								V.	
level (dBuV)	30-	<b>ત્ર<sup>મા</sup>ના કરતાં કે કે કે પ્રત્યાન પ</b> ર અને અને કરતાં કરતા કરતાં કરતા કરતા કરતા કરતા કરતા કરતા કરતા કરતા	yldenik fearlit fyll fyrsiol pylisway.	ىدۇرىيىلىنىدىلادىلادىلادىلىنىلىنىلىدىلىدىلىدىلىدىلىدىلىدىلىدىلى	N Mariel Marielling Mariel and American	13 echarlikase scillescouplesco	kiri <del>an di</del> dan sepakabi ban	Handler H. K.L.	34	.hp.astulaterd
level (dBuV)	and appropriate additional and beauty by the beauty	કુમાનુકાના કું કે <del>નહિંત અને કર્યો</del> ન અને કર્યો અને કહ્યું કહ્યું કહ્યું કહ્યું કહ્યું કહ્યું કહ્યું કહ્યું કહ્યુ	<del>ada as fil agi biya kilya</del> sawaya	regionile, version per proprieta de la companya de			kirinte ett iden och en sind från der e	transaturin, at had	**Ada	.hep-gatestates-d
	30 - 20 - 10 -	કુમાનુકાનાં કૃષ્ટિકાનાં અને અમેન્યાનાં અને કૃષ્ટિકાનાં કૃષ્ટિકાનાં અને અમેન્યાનાં અને કૃષ્ટિકાનાં અને અમેન્યાન	add mei dafa afa'd mgi bang da baga kenaga i	بدونه والمراجعة والمراجع والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة و			kirateallikkorren akkiron	Ha Alberts Klad		hap-gaighteach
	30 - 20 -	કુ <sup>શા</sup> નકલાનું મું કે લીતો અને રાજે અન્યત લેવ કું આવે કરિયાને કહ્યું હતા. 	nda makaka di Ingilangan kepulangan	erganika ang mangangan pangangan			keranan kelengan dalah ber	No. address. Klad	<u></u>	
	30 - 20	Results	Factor	Limit	de sie de partie de la company de la comp		Table	Height	ANT	2410
	20 - 10 - 0.0 - 2350	mercia de proprio de la companya de			Frequency (MHz)	al <sub>e</sub> ntil the state that any interest	Table	Height (cm)		2410
No.	20- 10- 2350 Frequency	Results	Factor	Limit	Frequency (MHz)  Over Limit	al <sub>e</sub> ntil the state that any interest				2410
No.	20- 10- 0.0- 2350 Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Frequency (MHz)  Over Limit (dB)	Detector	(0)	(cm)	ANT	verdid
(W/\ngp)  ave	20- 10- 2350 Frequency (MHz) 2402.037	Results (dBuV/m) 80.34	Factor (dB) -3.57	Limit (dBuV/m) 74.0	Frequency (MHz)  Over Limit (dB)  6.34	Detector Peak	(o) 149.00	(cm)	ANT Vertical	Verdid

Report No.: TW2307383E Page 26 of 49



I	Product:	Po	ortable Wi	reless Speak	er	P	olarity		Horizont	al
	Mode		Keeping 7	Transmitting		Test	Voltage		DC3.7\	I
Te	mperature		24 d	leg. C,		Н	ımidity		56% RI	I
Te	est Result:		F	Pass						
CC Part	t 15C Class B 1GHz-18G	Hz -2				•		1		
1.02				M1						
	90-			1						
	80-		-f							
	70-									
	60-		1							
	60-									
			1	Ja Ja	2					
uv/m)	50-	undal i i all	y	, m	2 2 2 3 3 4 4 1 1 1	ıl				
aver (dbuv/mi)	40-		<b>/</b>	N. N.			ويدراه ليوال المالية	n skipal ka glada skipal ka kapa skibida.	attingston, ji strad kje, stabinsk syssefysje	lestales acquiles
(apna/uni)	t ala		<i>y</i>		And the second s		photosica kalifikisha ca	n ett de sage har ett de sage	راعته والمستعدد والمعارضة والمستعدد والمستعدد والمستعدد والمستعدد والمستعدد والمستعدد والمستعدد والمستعدد والم	is it the stage of st
level (dbuv/m)	40-		<b>/</b>	, no.	The second secon	Mandanan	درجه وأخذارا إمراء المتعادم الو	مركاء في مراجع من المراجع من المر	Mayora, ay terod digo, daharat garippi	laythlay wayula
	30-		<b>V</b>		The state of the s		yak aran da	n tily dan ophale skumannyan till ka	antigorous production of the section	le ithis wayda
	30-			n n	The second secon	M. M	يويد موادة في المراجعة	rettyddirefiddi diwngwysi efedia	ettigatin qapi kiran ki tilan dahara kana kaya kapit	benither recently
	30-			248:			ngi waxaya kafi kibika na w	netti da septembra de escripción de la consençación de la consençación de la consençación de la consençación d	Maryan aya kira di diga da da karan kaya fiyad	2500
	30 - 20 - 10 - 2470				Frequency (MHz)	Marine Ma	god was in hydrafi d hillips on h	rettylskylvás ikuszenne síráku	Mayora, and Armed Affair Address Survey Proper	I
	30- 20- 10- 2470 Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	I
	30 - 20 - 10 - 2470	Results (dBuV/m)	Factor (dB)		Frequency (MHz)	Detector	Table	Height (cm)	ANT	2500
	30- 20- 10- 2470 Frequency			Limit	Over	Detector Peak		_	ANT  Horizontal	I

Report No.: TW2307383E Page 27 of 49

Date: 2023-08-08



J	Product:	Por	rtable Wire	eless Speaker		Detec	tor		Vertical	
	Mode	F	Keeping Tr	ansmitting		Test Vo	ltage		DC3.7V	
Te	emperature		24 de	g. C,		Humio	lity	56% RH		
Τe	est Result:		Pa	ss						
	rt 15C Class B 1GHz-18G	Hz -2			•					
	90-		M	11						
	80-			and the second						
	70-									
	60-									
			/							
uV/m)	50-			M2						
vel (dBuV/m)	40-	المالية للمارية بالمادية المالادية بالمادية	p d	M2	de de contratación de la contrat	as photographs who broads by the description	washinga steletanike	<del>gh a a c</del> ircipeitheas per glade,	Agya tiljan produkt kirkan sama i hadistalan sha	gging in a garage
level (dBuV/m)		the boundary of the second second		M2	No who have a proper light way harder a real	عديان معيوات أجاليان والمراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة	varibuna. Finlatand fol	يفيه مرسوبا إدارة والمعارض والمراسية	Lage Tiles out the sec of before the sec	gyfrag Arrygto /moddy
level (dBuV/m)	40-	المتحلة المتدون المتدورة المتدورة المتحدد	p d	M2	المراجعة والمراجعة والمراجع والمراجعة والمراجعة والمراجعة والمراجع	asylveests Jacomis (1), Sur	<i>ەخەلىدىدانىي بىر</i> چاندىد	بلايه مواديونانيوس ميطر	الميوالية والمقادمة المدعد والعلامة الم	gyphony in sight strendth
level (dBuV/m)	40- 	the same of the sa		M2	المراجع المراج	nti yko wasi who wat iy ii, suca	sa <del>ninga, pal</del> asulpa	يستعيدون بالمقابه فالمهدونية	Aggetijder stoten teiter op en bedeckte op het en b	gydrag den syfte fenteddis
level (dBuV/m)	40-	A The transport of the second		M2	المراجعة والمراجعة والمراج	as ja venesis dessenti de fizikusi	<u>androne professables</u>	gan ang palagan palaga	dag tip satistic kenarah disebuah	ngha ang katalah
level (dBuV/m)	40- 	المعالم المستحمد والمستومل المتعادمة		M2	5	as ferrence decorate la finance	saninga, papasada	يفاجه فرحا أوجا فالمتازي بديده في	der für sätte i trans de der trock	
level (dBuV/m)	30 - 20 - 10 - 2470			M2 2483.	5 Frequency (MHz)	as ja venesis decembris fizikasi			day tigo satis as the country desirable the	2500
	40	Results	Factor	2483.	5	Detector	Table	Height	ANT	2500
(m/\mu/\mu/\mu) level (Bu\mu/\mu).	30- 20- 10- 2470 Frequency (MHz)		Factor (dB)	1	5 Frequency (MHz)					2500
	30- 20- 10- 2470	Results		Limit	5 Frequency (MHz)		Table	Height		2500

Note: 1. The PK emission level less than the AV limit. No necessary to record the AV emission level.

2. For Restricted band test, the three modulation modes of GFSK, Pi/4D-QPSK and 8DPSK were tested. And only the worst case was recorded in the test report. GFSK was the worst case.

Report No.: TW2307383E Page 28 of 49

Date: 2023-08-08



## 8.0 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.

This product has a PCB antenna. The antenna gain is 1.7dBi Max. It fulfills the requirement of this section. Test Result: Pass

Report No.: TW2307383E Page 29 of 49



Product:		e Wireless			To	est Mode:		Keep tran	smitti	ng	
Mode		ing Transn				st Voltage		DC3.7V 56% RH			
Temperature		24 deg. C,				Humidity		56% RH PK			
Test Result:		Pass		Detector PK							
OdB Bandwidth	,	889.78kHz	Z						•		_
Ref Lvl 10 dBm	Marker 1 [T1 ndB] ndB 20.00 dB BW 889.77955912 kHz			RE VE SV	ЗW	30 ki 100 ki 8.5 m	Hz	? Att	20	dB dBm	
10 dBiii	BW 00	1	912 KHZ	SV				11.0		аын	ı
0			3	ļ.		<b>▼</b> 1	[T1]	-1 2.40200	301	dBm GHz	
			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Vy		ndB BW		20 19.77955		dB kHz	
-10		^	N			$ abla_{ ext{T1}} $	[T1]	2.40154		dBm GHz	
-20		TA .				$\nabla_{\mathbf{T}^2} \nabla_{\mathbf{T}^2}$	[T1]	-20 2.40243			
1MAX		كرم				V		2.10213	307	GIIZ	1
-30	<i>~</i>						$\sim$				
-40	mand							M			
-50								- Tures		m	
-60											
-70											
-80											
-90 Center 2.40			300						n 3		l

Page 30 of 49

Report No.: TW2307383E



Product:		Portable '	Wireless S	peaker		T	est Mode:		Keep tra	nsmitting	
Mode			g Transmi			To	est Voltage			3.7V	
Temperature		2	4 deg. C,			]	Humidity		56%	6 RH	
Test Result:			Pass				Detector		I	PK	
0dB Bandwidth		88	89.78kHz								
Ŕ		Marker	1 [T1 r	ndB]	R	BW	30 kH	Iz RI	7 Att	20 dB	
Ref Lvl		ndB		00 dB	V	BW	100 kH				
10 dBm		BW 889	779559	12 kHz	SI	WT	8.5 ms	s U1	nit	dBn	n _
0							<b>v</b> <sub>1</sub>	[T1]	-1	.34 dBm	A
				-	L				2.44100	301 GHz	
				$\sim$			ndB	0.6	20	.00 dB	
							BW ▼ <sub>T1</sub>	88 [T1]	9.77955 -21	912 kHz	
-10			^	N		1	^		2.44054		
			TA			Ĭ	$\setminus_{\mathrm{T2}} \nabla_{\mathrm{T2}}$	[T1]	-21	.00 dBm	ı
-20 1MAX			<del>\</del>				V		2.44143	587 GHz	1M
			<i>ر</i> ا				$\mathcal{N}$				
-30			/				\ \	<u> </u>			
-40		<del>-  </del>							۸.		
	~~~~	كسهم									
-50	~'								<del>\</del>	www.	
-60											
-70											
-80							+				
-90											ļ

Page 31 of 49

Report No.: TW2307383E



Product:	]	Portable V	Wireless S	peaker		T	est Mode:		Keep tra	nsmitting	
Mode		Keepin	g Transmi	tting		Т	est Voltage		DC	3.7V	
Temperature		24	4 deg. C,			]	Humidity		56%	6 RH	
Test Result:			Pass				Detector		I	PK	
20dB Bandwidth		88	39.78kHz								
Ŕ	ľ	Marker	1 [T1 n	ndB]	R	BW 30 kH:		Iz RI	7 Att	20 dB	
Ref Lvl	1	ndB	20.	00 dB	V	VBW 100 kHz					
10 dBm	I	BW 889	779559	12 kHz	S	WT	8.5 ms	5 U1	nit	dBm	n
10							<b>v</b> <sub>1</sub>	[T1]	-2	.50 dBm	A
0				_					2.48000	301 GHz	-
0				- A	1		ndB		20	.00 dB	
					$\bigvee$	١	BW ▼ <sub>T1</sub>	88	9.77955	912 kHz	
-10			^				* T.I.	[T1]	2.47954	.20 dBm 609 GHz	
			$\int_{0}^{\infty}$			V	$\setminus  \nabla_{\mathrm{T2}}$	[T1]	-22	.29 dBm	
-20			T1				T2		2.48043	587 GHz	
1MAX			السمر				$\sqrt{\ \ }$				1M2
-30			f					$\sqrt{}$			
-40									Λ,		
-50	and the same of th								June 1		
-60											
-70											
-80											
-90 Center 2	40 011-			300	kHz/				G	n 3 MHz	

Report No.: TW2307383E Page 32 of 49



I/4DQPSK			TT 7' 1	~ 1		_	3 1		T7	••	
Product:			Wireless				est Mode:		Keep tran		
Mode			ng Transm				est Voltage		DC3		
Temperature			24 deg. C,				Humidity		56%		
Test Result:			Pass				Detector		Pk	ζ	
0dB Bandwidth		1	1.275MHz	· 						•	
r A	Marker 1 [T1 ndB]			RI	ЗW	30 k	Hz Rl	7 Att	20 dB		
Ref Lvl	ndB 20.00 dB		VI	VBW 100							
10 dBm		BW 1	L.274549	10 MHz	SI	ИT	8.5 m	s Ui	nit	dBm	1
10							<b>v</b> <sub>1</sub>	[T1]	-1	.07 dBm	A
0									2.40200	301 GHz	-
0				ΛΛ/	$\wedge$		ndB	3	20	.00 dB	
			^	/ / /	1/5	,	A BW		1.27454		
-10			<del></del>	<b>~</b>	,	ζ.		[T1]	-21	.15 dBm	
							$\nabla \mathcal{A}_{0}$	2.40135972 GHz 2.2[T1] -21.05 dBn			
-20	m - m - m - m - m - m - m - m - m - m -						- 1	T2" + 1	2.40263	427 GHz	
1MAX											1M
-30											
-40								M	<b>\</b>		
-50	1-4 0								<del>\</del>	· · · · · · · · · · · · · · · · · · ·	
Ĭ											
-60											
-70											
-80											
- 30											
-90	-			300	kHz/				Sna	n 3 MHz	!

Page 33 of 49

Report No.: TW2307383E



Product:		Portable '	Wireless S	peaker		T	est Mode:		Keep tra	nsmitting	
Mode		Keepin	g Transmi	tting		Te	est Voltage	:	DC	3.7V	
Temperature		2	4 deg. C,			F	Humidity		56%	6 RH	
Test Result:			Pass			]	Detector		F	PK	
0dB Bandwidth		1.	.275MHz								
Ŕ		Marker	1 [T1 n	ndB]	R	BW	30 k	Hz RI	F Att	20 dB	
Ref Lvl		ndB	20.	00 dB	V	BW	100 k				
10 dBm		BW 1	L.274549	10 MHz	S	WT	8.5 m	s Uı	nit	dBm	ı
10							<b>v</b> <sub>1</sub>	[T1]	-1	.39 dBm	A
0									2.44100	301 GHz	
0				ΛΛ/	$\wedge$		ndE		20	.00 dB	
			^	/ / / /	\	١ 👡	N PT1	[T1]	1.27454	910 MHz	
-10			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<b>√</b> ~			7	. [TI]	2.44035	.44 dBm 972 GHz	
			$\checkmark$				$\nabla \int_{\mathbb{T}}$	[T1]	-21	.38 dBm	
-20		7					\ 	7	2.44163	427 GHz	
-30											1M
-40	~	V						W			
-50	~								Lun.	freshold	
-60											
-70											
-80											
-90											

Page 34 of 49

Report No.: TW2307383E



/4DQPSK		Dout-1.1	Winal O			т	.a.t M - 1.		V a 4		
Product:			Wireless S				est Mode:			nsmitting	
Mode			g Transmi	ttıng			st Voltage	:		3.7V	
Temperature		2	4 deg. C,				Iumidity			% RH	
Test Result:			Pass			I	Detector		I	PK	
0dB Bandwidth		1	.275MHz								
Ŕ		Marker	1 [T1 r	ndB]	RE	BW 30 kHz		Hz RI	7 Att	20 dB	
Ref Lvl		ndB	20.	00 dB	VE	BW.	100 k	Hz			
10 dBm		BW 3	1.274549	010 MHz	SW	ΙΤ	8.5 m	s Uı	nit	dBm	ı
10							<b>v</b> <sub>1</sub>	[T1]	-2	.58 dBm	
									2.48000	301 GHz	A
0					_	$\top$	ndE		20	.00 dB	
							BW		910 MHz		
-10			M/^	<b>V</b>	V \	کلمسر	$\sqrt{\nabla_{\text{T}}}$	[T1]	-22	.68 dBm	
	-20				\\		2.47935972 [T1] -22.47				
-20			7					T2 2.4806		.47 dBm	
1MAX		, v							2.10003	12, 0112	1M
-30											
-40	<b>,</b> \							h	\ <u>\</u>		
-50 <b>www</b>	wW.								hu	M	
-60											
-70											
-80											
-90 Center 2	.48 GH	Z	ı	300	kHz/				Spa	n 3 MHz	
ate: 4.	.AUG.20		07:00						_		

Report No.: TW2307383E Page 35 of 49



8DPSK											
Product:		Portable	Wireless	Speaker		T	est Mode:		Keep tran	smitting	
Mode		Keepii	ng Transm	itting		Te	est Voltage		DC3	.7V	
Temperature		2	24 deg. C,			I	Humidity		56%	RH	
Test Result:			Pass				Detector		Pl	X	
20dB Bandwidth		1	.244MHz							-	
₹ <b>N</b>	1	Marker 1 [T1 ndB] ndB 20.00 dB				ВW	30 k	Hz Rl	F Att	20 dB	
Ref Lvl		ndB				3W	100 k				
10 dBm		BW 1	.244488	98 MHz	Sī	ИT	8.5 m	s Ui	nit	dBn	n =1
							$\mathbf{v}_1$	[T1]	-1	.12 dBm	A
0				1					2.40199	699 GHz	
				$\wedge \wedge /$	\ _ \		ndH BW		1.24448	.00 dB 898 MHz	
-10			~~	~ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	%V (	/د	\ \varphi_{T1}	[T1]	-21	.12 dBm	
10	10					•	$\sim$		2.40138	978 GHz	
-20		T	<i></i>				$ abla^{ ext{T}} abla$	[T1]	-21	.34 dBm	1
1MAX									2.40263	427 GHz	1MA
-30											-
-40	/ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	N							$\mathcal{M}$		
-50	J								<u></u>	Mondo	-
-60											
-70											-
	70										
-80	80								-		
	80										
-90											]
Center 2.				300	kHz/				Spa	ın 3 MHz	
Date: 4.A	UG.202	23 14:	10:26								

Page 36 of 49

Report No.: TW2307383E



DPSK	_		x7' 1 ~	1	ı		1.351		T7 ·	••	
Product:	P		Wireless S				est Mode:			nsmitting	
Mode			g Transmi	ttıng			est Voltage			3.7V	
Temperature		24	4 deg. C,				Humidity			% RH	
Test Result:			Pass				Detector		F	PK	
20dB Bandwidth		1.	244MHz								
Ŕ	M	larker	1 [T1 r	idB]		RBW 30 kH		Hz RI	7 Att	20 dB	
Ref Lvl	ndB 20.00 dB BW 1.24448898 MHz				BW	100 k					
10 dBm	В	8W 1	.244488	98 MHz	SI	WT	8.5 m	s Ur	nit	dBm	ı
10							<b>v</b> <sub>1</sub>	[T1]	-1	.35 dBm	A
				-					2.44099	699 GHz	
0				α Λ /	1		ndB	i	20	.00 dB	
				[ / \ \	W		BW		1.24448	898 MHz	
-10			7\\\			V		[T1]	-21	.63 dBm 978 GHz	
		/				$\nabla$	[m1]	2.44038 [T1] -21			
-20					Y		2.44163	.44 dBm	ĺ		
1MAX											1M
-30											
-40	~/\/m	~~						$\mathcal{M}$	$\bigvee$		
-50									<u></u>	manne	
-60											
-70											
-80											
-90 Center 2	441 011-	7		300	kHz/				2~2	n 3 MHz	
Date: 4.	. TTI GN2	_		300	17117/				spa	ZHM C 11.	

Report No.: TW2307383E Page 37 of 49

Date: 2023-08-08



Product:	8DPSK										
Temperature 24 deg. C, Humidity 56% RH  Test Result: Pass Detector PK  20dB Bandwidth 1.238MHz	Product:	Portable '	Ortable Wireless Speaker					Keep transmitting			
Test Result:  20dB Bandwidth  1.238MHz    Marker 1 [T1 ndB] RBW 30 kHz RF Att 20 dB 10 dB 20.00 dB VBW 100 kHz 10 dBm  Ref Lvl ndB BW 1.23847695 MHz SWT 8.5 ms Unit dBm  10	Mode						est Voltage		56% RH		
20dB Bandwidth	Temperature						Humidity				
Marker 1 [T1 ndB]	Test Result:	Pass					Detector				
Ref Lvl ndB 20.00 dB VBW 100 kHz 10 dBm BW 1.23847695 MHz SWT 8.5 ms Unit dBm  10	20dB Bandwidth	1.238MHz									
10 dBm BW 1.23847695 MHz SWT 8.5 ms Unit dBm  10	Ŕ	Marker 1 [T1 ndB]				RBW	30 k	Hz R	F Att	20 dB	
The state of the s	•										
T1 [T1]			BW 1	L.238476	95 MHz	SWT	8.5 m	ıs Uı	nit	dBm	
2.48000 301 GHS 20 00 dB 30							<b>v</b> <sub>1</sub>	[T1]	-2	.51 dBm	Α
-10 -10 -10 -10 -10 -10 -10 -10 -10 -10					-				2.48000	301 GHz	
-10					^ ^ /	٨			20		
2.47938978 GHz -20 1MAX -30 2.48062826 GHz 1MA -50 -60 -70 -80 -90 Center 2.48 GHz 300 kHz/ Span 3 MHz	1.0				$\bigcup \bigvee \bigvee$	W		[T1]	-22		
2.48062826 GHZ  1MAX  -30  -40  -50  -60  -70  -80  -90  Center 2.48 GHz  300 kHz/  Span 3 MHz	-10			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<u> </u>	V	\ \ \		2.47938		
1MAX -30 -40 -50 -60 -70 -80 -90 Center 2.48 GHz 300 kHz/ Span 3 MHz								[T1]	-22	.41 dBm	
-30 -40 -50 -60 -70 -80 -90 Center 2.48 GHz 300 kHz/ Span 3 MHz			y					Ÿ	2.48062	826 GHz	1 MA
-40 -50 -60 -70 -80 -90 Center 2.48 GHz 300 kHz/ Span 3 MHz								)			
-50 -60 -70 -80 -90 Center 2.48 GHz 300 kHz/ Span 3 MHz	-30										
-60 -70 -80 -90 Center 2.48 GHz 300 kHz/ Span 3 MHz	-40	$\wedge$							$\mathcal{N}$		
-70 -80 -90 Center 2.48 GHz 300 kHz/ Span 3 MHz	-50	W >							Cun	London	
-80 -90 Center 2.48 GHz 300 kHz/ Span 3 MHz	-60										
-90 Center 2.48 GHz 300 kHz/ Span 3 MHz	-70										
Center 2.48 GHz 300 kHz/ Span 3 MHz	-80										
	-90										
Date: 4.AUG.2023 14:13:29	Center 2.48 GHz 300 kHz/ Span 3									an 3 MHz	
1.1.00.2020 11.15.27	Date: 4	.AUG.20	23 14:	13:29							

Report No.: TW2307383E Page 38 of 49

Date: 2023-08-08



### 10.0 FCC ID Label

### FCC ID: 2AZBO-N00024

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:



Page 39 of 49

Report No.: TW2307383E

Date: 2023-08-08



### 11.0 Photo of testing

#### 11.1 Conducted test View



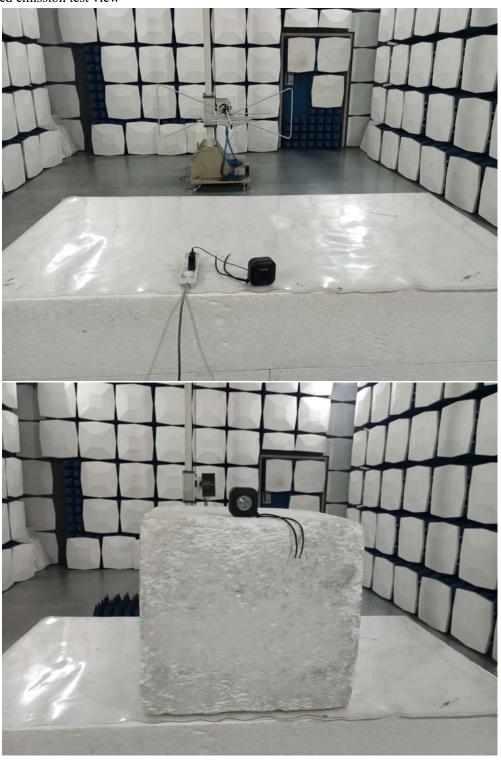
Page 40 of 49

Report No.: TW2307383E

Date: 2023-08-08



## Radiated emission test view



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Report No.: TW2307383E

Date: 2023-08-08



# 11.2 Photographs – EUT



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Page 42 of 49

Report No.: TW2307383E

Date: 2023-08-08



Outside View



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Page 43 of 49

Report No.: TW2307383E

Date: 2023-08-08



Outside View



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Page 44 of 49

Report No.: TW2307383E

Date: 2023-08-08



Outside View



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Report No.: TW2307383E Page 45 of 49

Date: 2023-08-08



Outside View



Page 46 of 49

Report No.: TW2307383E

Date: 2023-08-08



Inside View



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Page 47 of 49

Report No.: TW2307383E

Date: 2023-08-08



Inside View



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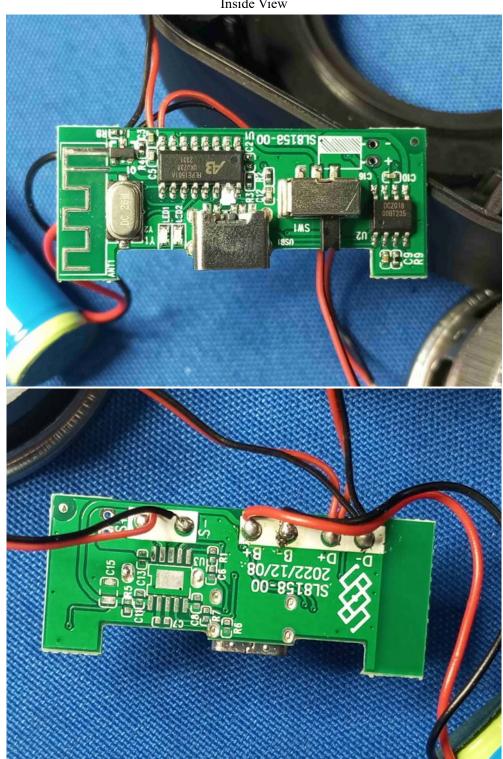
Page 48 of 49

Report No.: TW2307383E

Date: 2023-08-08



Inside View



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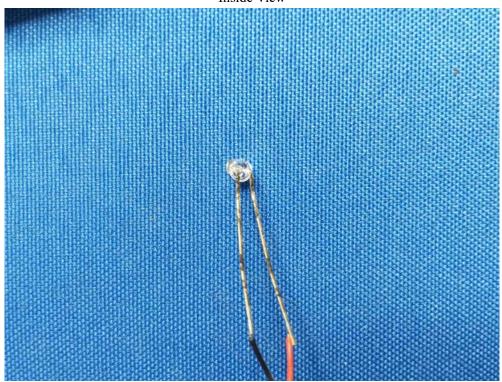
adopt any other remedies which may be appropriate.

Page 49 of 49 Report No.: TW2307383E

Date: 2023-08-08



Inside View



-- End of the report--