

Report No.:	TW2307227E
Applicant:	LEADER PREMIUMS LIMITED
Product:	SPEAKER
Model No.:	AE0288
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	

Terry long

Terry Tang

Manager

Dated:

July 28, 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



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

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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, ChinaTelephone:(755) 83448688Fax:(755) 83442996Site on File with the Federal Communications Commission – United SatesRegistration Number: 744189For 3m Anechoic Chamber

1.2 Applicant Details

Applicant:LEADER PREMIUMS LIMITEDAddress:ROOM 901, HENGFU MANSION, NO.858, FUMINGROAD, NINGBO, CHINATelephone:--Fax:--

1.3 Description of EUT

Product:	SPEAKER
Manufacturer:	LEADER PREMIUMS LIMITED
Address:	ROOM 901, HENGFU MANSION, NO.858, FUMINGROAD, NINGBO,
	CHINA
Trademark:	N/A
Model Number:	AE0288
Additional Model Name	N/A
Rating:	Input: 5V, 500mA, 5W Max
Battery:	DC3.7V, 500mAh Li-ion battery
Modulation Type:	GFSK, Л/4DQPSK for Bluetooth
Operation Frequency:	2402-2480MHz
Channel Number:	79
Channel Separation:	1MHz
Hardware Version:	Wireless charging pad-AE0288
Software Version:	Software: leader.2023.07
Serial No.:	N/A
Antenna Designation	PCB antenna with gain -0.58dBi Max (Get from the antenna specification)

1.4 Submitted Sample: 3 Samples

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- 1.5 Test Duration 2023-07-12 to 2023-07-28
- 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

Andy - Xing

The sample tested by

Print Name: Andy Xing

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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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adopt any other remedies which may be appropriate.



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

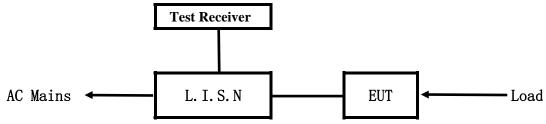
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5.0 **Power Line Conducted Emission Test**

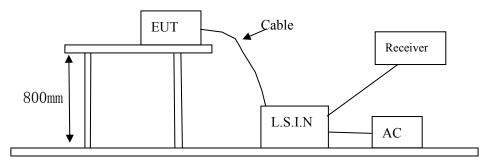
5.1 Schematics of the test



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.

А	EUT
11.	LUI

Device	Manufacturer	Model	FCC ID
SPEAKER	LEADER PREMIUMS LIMITED	AE0288	2APYY-AE0288

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B. Internal Device

2.				
	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

0 01			
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	
$5.00~\sim~30.00$	60.0	50.0	

Notes: 1. *Decreasing linearly with logarithm of frequency.

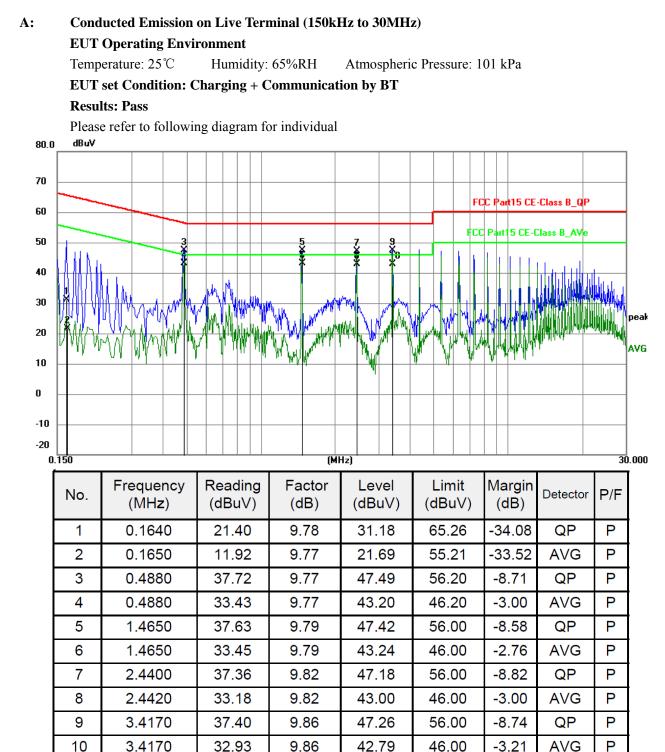
2. The tighter limit shall apply at the transition frequencies

5.6 Test Results:

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B:	Cond	lucted Emission	on Neutral T	Ferminal (15	0kHz to 30N	(IHz)			
		Operating Envi		× ×		,			
		erature: 25°C	Humidity:	65%RH	Atmospherie	c Pressure: 1	01 kPa		
	EUT	set Condition: (Charging + C	Communicat	ion by BT				
	Resu	lts: Pass							
		e refer to following	ng diagram fo	or individual					
80.0	dBu¥								
70									
						FC	C Part15 CE	-Class B_QP	
60									
50						FCC	Part15 CE-0	Class B_AVe	
40	MA &	5		8 ¥	10 ¥				
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					WW Y	Mr. M. A.	ייזין		
0									
-10									
-20									
U. [150	_			Hz)				30.000
	No.		Reading (dBuV)	Factor		Limit	Margin (dB)	Detector	P/F
		(MHz)	. ,	(dB)	(dBuV)	(dBuV)			
	1	0.1580	17.42	9.78	27.20	65.57	-38.37		Р
	2	0.1600	12.89	9.78	22.67	55.46	-32.79	AVG	Р
	3	0.1960	27.74	9.75	37.49	63.78	-26.29	QP	Ρ
	4	0.1960	11.55	9.75	21.30	53.78	-32.48	AVG	Р
	5	0.4910	28.54	9.77	38.31	56.15	-17.84	QP	Р
	6	0.4910	24.73	9.77	34.50	46.15	-11.65	AVG	Р
	7	1.4630	26.25	9.79	36.04	46.00	-9.96	AVG	Р
	8	1.4650	31.34	9.79	41.13	56.00	-14.87	QP	Р
	9	3.4160	24.79	9.86	34.65	46.00	-11.35	AVG	Р
	10	3.4170	30.74	9.86	40.60	56.00	-15.40		P
l									

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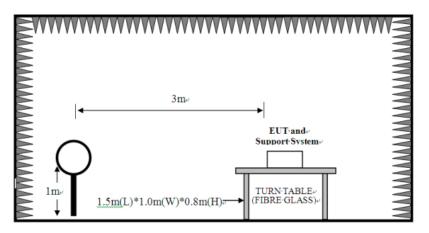


6 Radiated Emission Test

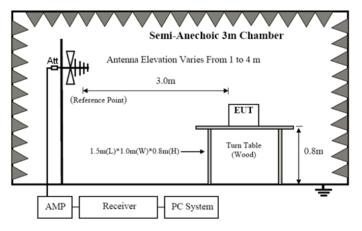
- 6.1 Test Method and test Procedure:
- The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 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. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 kHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz (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



For radiated emissions from 30MHz to1GHz

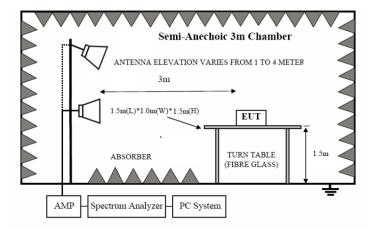


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For radiated emissions above 1GHz



- 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 Stre	ength of Fundame	ntal (3m)	Field St	trength of Harmo	nics (3m)
(MHz)	mV/m	dBu	V/m	uV/m	dBu	V/m
2400-2483.5	50	94 (Average)	114 (Peak)	500	54 (Average)	74 (Peak)

Note: 1. RF Field Strength $(dBuV) = 20 \log RF$ 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.

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Distance (m) Field strength (dB μ V/m) Frequency Range (MHz) 0.009-0.490 3 20log(2400/F(kHz)) +40log (300/3) 0.490-1.705 3 $20\log(24000/F(kHz)) + 40\log(30/3)$ 3 69.5 1.705-30 30-80 3 40.0 3 88-216 43.5 216-960 3 46.0 Above 960 3 54.0

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

Note: 1. RF Voltage $(dBuV) = 20 \log RF$ 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 two modulation modes of GFSK and Pi/4D-QPSK were tested. And only the worst case was recorded in the test report. GFSK was the worst case.

6. This is a handhold 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.

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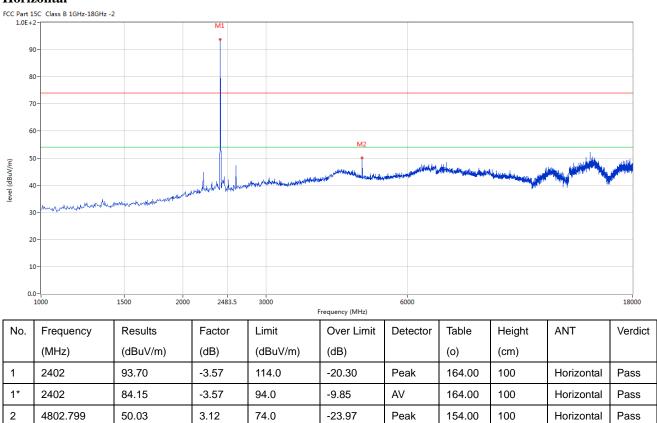


6.5 Test result

A Fundamental & Harmonics Radiated Emission Data

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

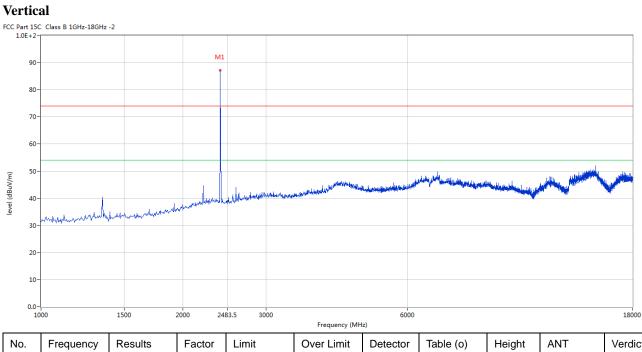
Horizontal



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I	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
	1	2402	87.28	-3.57	114.0	-26.72	Peak	178.00	100	Vertical	Pass

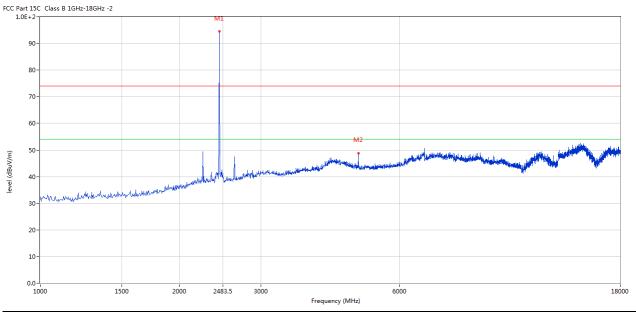
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Please refer to the following test plots for details: Middle Channel-2441MHz

Horizontal

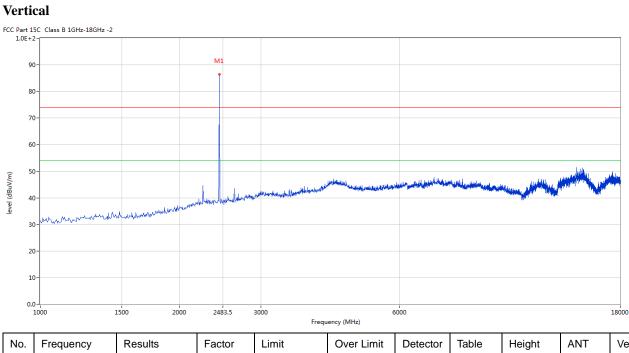


No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	94.50	-3.57	114.0	-19.50	Peak	98.00	100	Horizontal	Pass
1*	2441	85.21	-3.57	94.0	-8.79	AV	98.00	100	Horizontal	Pass
2	4883.529	48.80	3.20	74.0	-25.20	Peak	250.00	100	Horizontal	Pass

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No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	86.51	-3.57	114.0	-27.49	Peak	178.00	100	Vertical	Pass

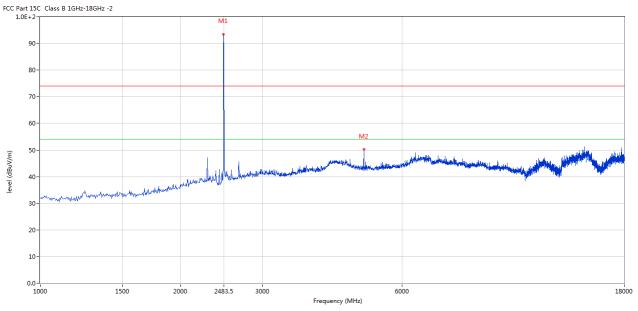
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Please refer to the following test plots for details: High Channel-2480MHz

Horizontal

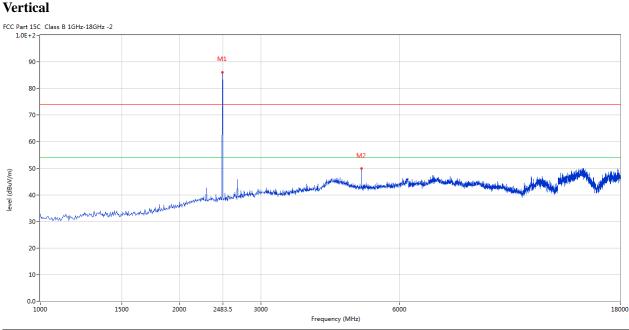


No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	93.49	-3.57	114.0	-20.51	Peak	84.00	100	Horizontal	Pass
1*	2480	84.71	-3.57	94.0	-9.29	AV	84.00	100	Horizontal	Pass
2	4960.010	50.24	3.36	74.0	-23.76	Peak	133.00	100	Horizontal	Pass

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No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	86.14	-3.57	114.0	-27.86	Peak	41.00	100	Vertical	Pass
2	4960.010	49.82	3.36	74.0	-24.18	Peak	86.00	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.

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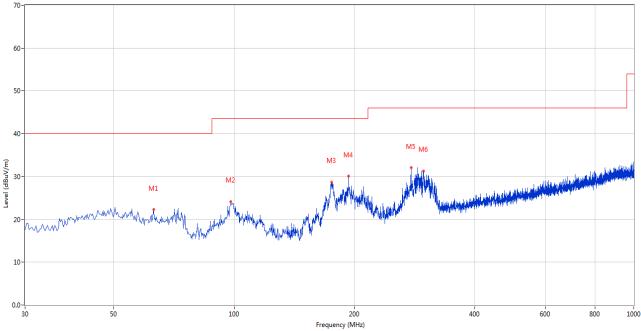
B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual

FCC_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	62.972	22.30	-13.31	40.0	17.70	Peak	2.00	100	Horizontal	Pass
2	98.125	24.18	-13.73	43.5	19.32	Peak	159.00	100	Horizontal	Pass
3	175.464	28.74	-15.57	43.5	14.76	Peak	195.00	100	Horizontal	Pass
4	193.404	30.10	-13.87	43.5	13.40	Peak	81.00	100	Horizontal	Pass
5	277.046	32.07	-11.54	46.0	13.93	Peak	84.00	100	Horizontal	Pass
6	297.653	31.34	-11.13	46.0	14.66	Peak	89.00	100	Horizontal	Pass

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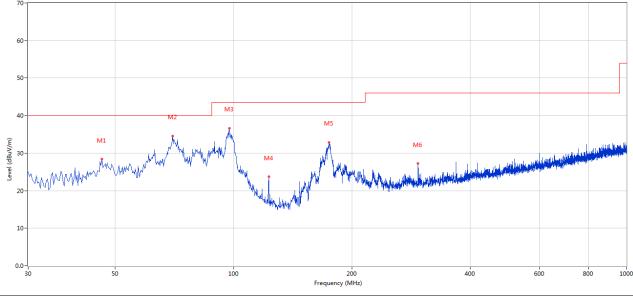
Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual

FCC_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	46.243	28.36	-11.41	40.0	11.64	Peak	259.00	100	Vertical	Pass
2	70.002	34.57	-15.67	40.0	5.43	Peak	273.00	100	Vertical	Pass
3	97.641	36.68	-13.79	43.5	6.82	Peak	3.00	100	Vertical	Pass
4	122.854	23.70	-15.86	43.5	19.80	Peak	353.00	100	Vertical	Pass
5	174.736	32.89	-15.73	43.5	10.61	Peak	183.00	100	Vertical	Pass
6	294.744	27.22	-11.18	46.0	18.78	Peak	291.00	100	Vertical	Pass

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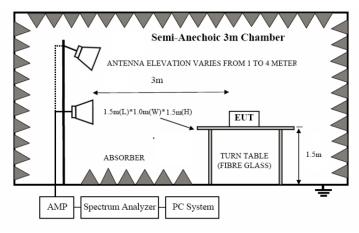


7. Band Edge

7.1 Test Method and test Procedure:

- 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.

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7.6 Test Result

]	Product:		SPEAK	ER		Polarit	у		Horizontal	
	Mode	Ke	eping Trar	nsmitting		Test Volta	age		DC3.7V	
Te	mperature		24 deg.	С,		Humidi	ty		56% RH	
Τe	est Result:		Pass							
	rt 15C Class B 1GHz-18G DE+2-r	Hz -2							M1	
•	90- 80- 70- 60- 50-						N 14 143	166 °		
level (dBuV/m)	30- 20- 10-	hasalondaripiti sidalahanyorda	elsesses en en elses	ing fillingen ingelingen ingelen	kold have been and be	n di ventan di di sentan di di seria d				2410
level (dBuV/n	30- 20- 10-	hanalonaoophi gi nabhirooonh	46	ing fillinger ingen i	Frequency (MHz)	n di talan da di posana ka				2410
No.	30- 20- 10-	Results	Factor	Limit		Detector	Table	Height	ANT	
	30- 20- 10- 2350				Frequency (MHz)	I		Height (cm)	ANT	2410 Verdic
	30- 20- 10- 2350 Frequency	Results	Factor	Limit	Frequency (MHz)	I	Table	-	ANT Horizontal	
No.	30- 20- 10- 2350 Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Frequency (MHz) Over Limit (dB)	Detector	Table (o)	(cm)		Verdic
No. 1 2	30- 20- 10- 2350 Frequency (MHz) 2401.827	Results (dBuV/m) 93.58	Factor (dB) -3.57	Limit (dBuV/m) 74.0	Frequency (MHz) Over Limit (dB) 19.58	Detector Peak	Table (o) 158.00	(cm) 100	Horizontal	Verdio
No. 1 2	30- 20- 10- 2350 Frequency (MHz) 2401.827 2400.012	Results (dBuV/m) 93.58 67.83	Factor (dB) -3.57 -3.57	Limit (dBuV/m) 74.0 74.0	Frequency (MHz) Over Limit (dB) 19.58 -6.17	Detector Peak Peak	Table (o) 158.00 81.00	(cm) 100 100	Horizontal Horizontal	Verdic N/A Pass
No. 1 2 2**	30- 20- 10- 2350 Frequency (MHz) 2401.827 2400.012 2400.012	Results (dBuV/m) 93.58 67.83 51.73	Factor (dB) -3.57 -3.57 -3.57	Limit (dBuV/m) 74.0 74.0 54.0	Frequency (MHz) Over Limit (dB) 19.58 -6.17 -2.27	Detector Peak Peak AV	Table (o) 158.00 81.00 81.00	(cm) 100 100 100	Horizontal Horizontal Horizontal	Verdic N/A Pass Pass
No. 1 2 ^{**} 3	30- 20- 10- 2350 Frequency (MHz) 2401.827 2400.012 2400.012 2390.000	Results (dBuV/m) 93.58 67.83 51.73 36.73	Factor (dB) -3.57 -3.57 -3.57 -3.53	Limit (dBuV/m) 74.0 74.0 54.0 74.0	Frequency (MHz) Over Limit (dB) 19.58 -6.17 -2.27 -37.27	Detector Peak Peak AV Peak	Table (o) 158.00 81.00 81.00 122.00	(cm) 100 100 100 100	Horizontal Horizontal Horizontal Horizontal	Verdic N/A Pass Pass Pass

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	Product:		SPEA	KER		Detect	tor		Vertical	
	Mode]	Keeping Ti	ransmitting		Test Vol	tage		DC3.7V	
Te	mperature		24 de	eg. C,		Humid	ity		56% RH	
Те	est Result:		Pa	ISS						
C Part 1 1.0E+	15C Class B 1GHz-18GHz +2-	2 -2								
	90-								M1	
5	90-								\wedge	
8	80-							1	\leftarrow	
7	70-							/		
6	50 -							/	-	
	50-							M2	-	
	-00						M4	м5 °	/	h.
2						M	2			A
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3	20	der, elsen son des der de	n h lit der har son die henries, Me	ek, dittaaniguseet the single as the second	tip levil of both the second states	and an if you and you have a single of	historia and high			
3 2 1 0	20				Frequency (MHz)					24
3	20	Results	Factor	Limit	Frequency (MHz) Over Limit	Detector	Table	Height	ANT	24
3 2 1 0	20				Frequency (MHz)		Table (o)		ANT	24
3 2 1 0	auto and a state of the state o	Results	Factor	Limit	Frequency (MHz) Over Limit		Table	Height	ANT	24
3 2 1 0 No.	10- 10- 20- 10- 2350 Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Frequency (MHz) Over Limit (dB)	Detector	Table (o)	Height (cm)		24 Verdie
3 1 0 No.	Interviewee	Results (dBuV/m) 87.16	Factor (dB) -3.57	Limit (dBuV/m) 74.0	Frequency (MHz) Over Limit (dB) 13.16	Detector Peak	Table (o) 190.00	Height (cm) 100	Vertical	24 Verdia
3 2 1 0 No.	International and the second	Results (dBuV/m) 87.16 60.54	Factor (dB) -3.57 -3.57	Limit (dBuV/m) 74.0 74.0	Frequency (MHz) Over Limit (dB) 13.16 -13.46	Detector Peak Peak	Table (o) 190.00 164.00	Height (cm) 100 100	Vertical Vertical	24 Verdia N/A Pass
3 2 1 0 No. 1 2 2**	Interviewee 20- 10- 2350 Frequency (MHz) 2402.127 2400.008 2400.008	Results (dBuV/m) 87.16 60.54 46.82	Factor (dB) -3.57 -3.57 -3.57	Limit (dBuV/m) 74.0 74.0 54.0	Frequency (MHz) Over Limit (dB) 13.16 -13.46 -7.18	Detector Peak Peak AV	Table (o) 190.00 164.00 164.00	Height (cm) 100 100 100	Vertical Vertical Vertical	24 Verdia N/A Pass Pass

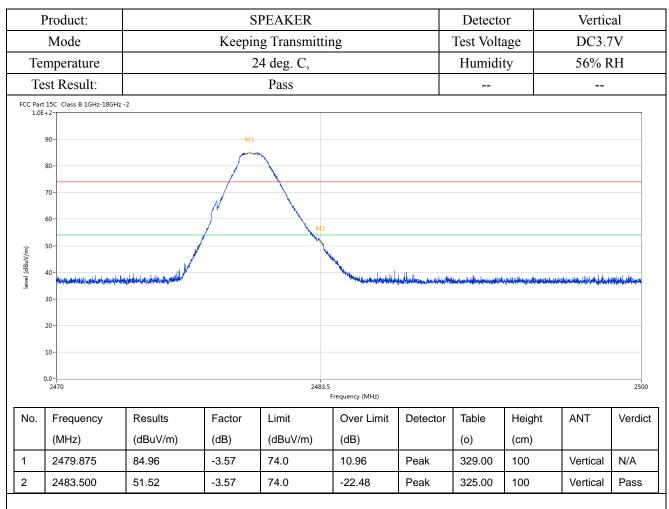
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	Product:		S	PEAKER			Polari	ty	Horizo	ntal
	Mode		Keepin	g Transmitti	ng		Test Vol	tage	DC3.7	VV
Те	emperature		2	4 deg. C,			Humid	ity	56% F	RH
Т	est Result:			Pass						
CC Part 1.0E·	15C Class B 1GHz-18GH	z -2								
1.02	72		N	1 1 ◆						
9	90-			X						
;	80-		/	\rightarrow						
	70-		_/	<u> </u>						
	/0-			X						
	60-			\sim	x					
					· W					
2	50-									
BuV/m)				м	2		e ha na		. I	
level (dBuV/m)	50- 40-			M •	2				nkebbelanar dekanarahi korra	
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level (dBuV/m	40-	had had been south a start of the second		M •	2		n pina ti na kali ti na kali na ka	nend a frankrik kriger	nkaktioniski pri	ni Landson
level (dBuV/m	40- 1411 - 1414 - 1414 - 1414 - 1414 - 1414 - 1414 - 1414 - 1414 - 1414 - 1414 - 1414 - 1414 - 1414 - 1414 - 141 30-	hallille halling som har and the		• •	2		a pinai na fali la cala la ca	nenta francisco franc	akakeina di madini ma	ni dan kana da
level (dBuV/m	40- 30- 20- 10- .0-	haddel de		•			a den in del de la del ne	n gud a dy anna christeria.	akaktivatukkonigiki prid	
level (dBuV/m	40 - 111 - 			248			a den in diel die	n çuk di siteriki ileriye	akateleon di horadi i pod	25
level (dBuV/m	40- 30- 20- 10- .0-	Results	Factor	•	3.5	Detector	Table	Height	ANT	
level (dBuV/m	40- 30- 20- 10- 2470	Results (dBuV/m)	Factor (dB)	248	3.5 Frequency (MHz)					
level (dBuV/m	40-40- 30- 20- 10- 2470 Frequency			248 Limit	3.5 Frequency (MHz) Over		Table	Height		
level (dBu//m	40- 30- 20- 10- 2470 Frequency (MHz)	(dBuV/m)	(dB)	248 Limit (dBuV/m)	3.5 Frequency (MHz) Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	250 Verdice N/A Pass

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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 two modulation modes of GFSK and Pi/4D-QPSK were tested. And only the worst case was recorded in the test report. GFSK was the worst case.

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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 -0.58dBi Max. It fulfills the requirement of this section. Test Result: Pass

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

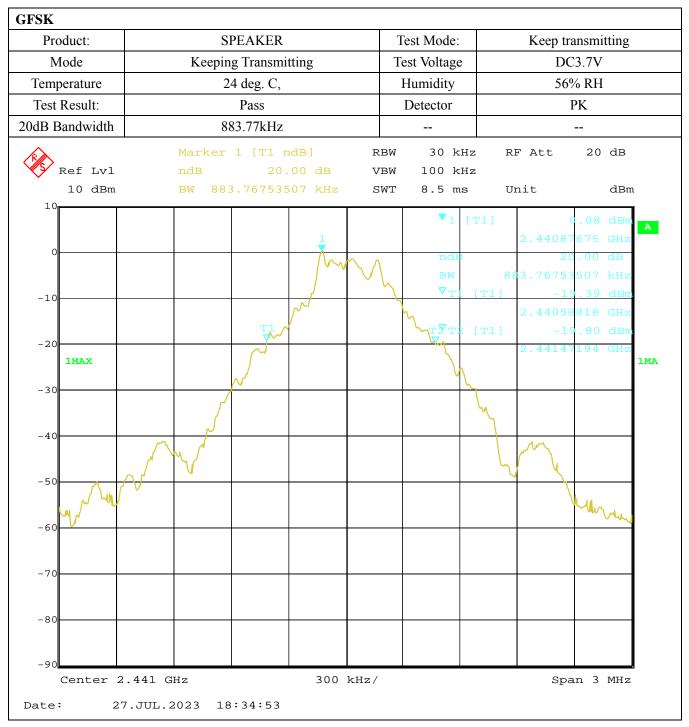
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FSK										
Product:	Product: SPEAKER				Test Mode:		Keep transmitting			
ModeKeeping TransmittingTemperature24 deg. C,					Te	est Voltage	DC3.7V			
					Humidity Detector		56% RH PK			
			Pass							
20dB Bandwidth		883.77kHz								
Ref Lvl	Marker 1 [T1 ndB] ndB 20.00 dB				BW 30 k BW 100 k					
10 dBm	BW 88	3.767535	507 kHz	SI	ΤW	8.5 m	s U	nit	dBn	n
10						▼1	[T1]	- (.09 dBm	2
			1					2.40187	675 GHz	
0			$/\sim$	$\wedge \wedge$		ndB		20).00 dB	
				\lor	h	BW VT1	83 [T1]	3.76753 -20		
-10			\mathcal{N}		Ч				818 GHz	
		TI				VTZ T2	2 [T1]		.66 dBm	
-20								2.40247	194 GHz	11
- 30	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						r y			
-50	\sim						Ĺ	mon		
-60 mm									mm	
-70										
- 80										
-90 Center 2.402	2 GHz	1	300	kHz/				l Sna	an 3 MHz	
ate: 27.JU		3:33:39								

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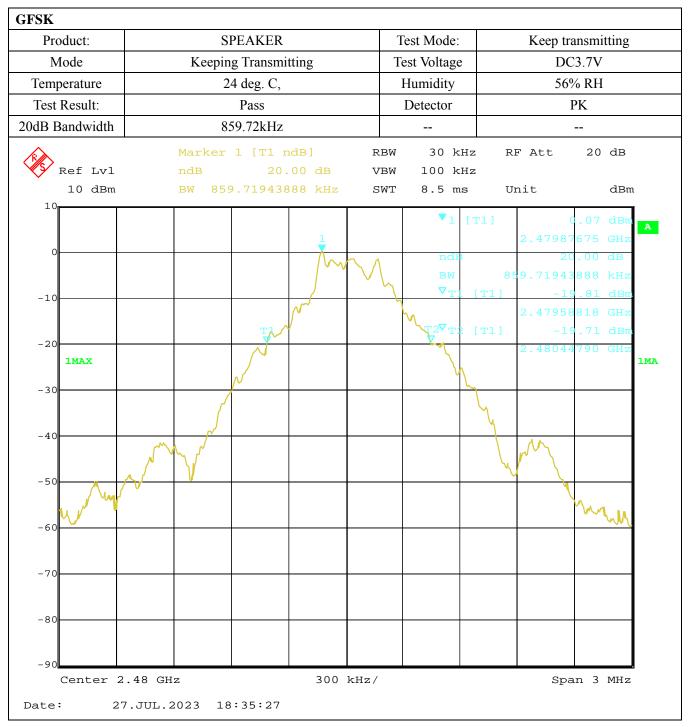




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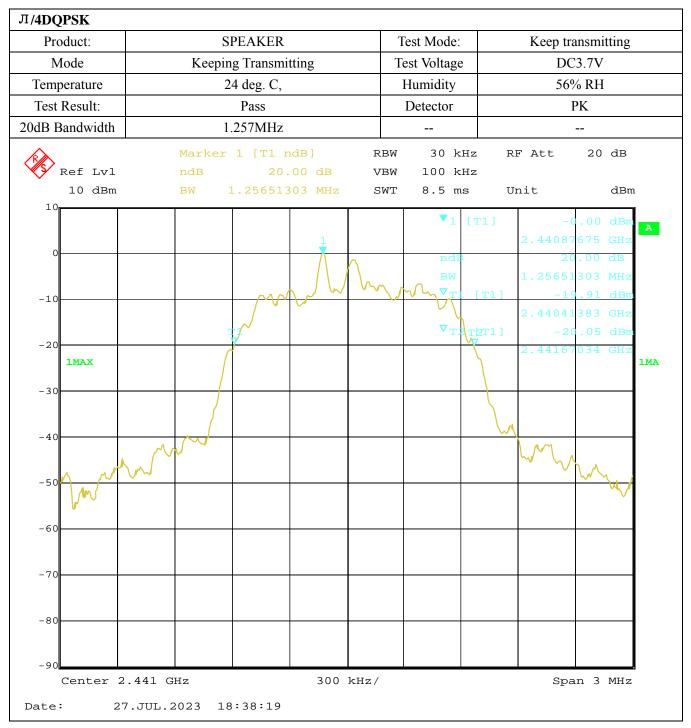
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Л/ 4DQPSK Product: SPEAKER					Test Mode:		Keep transmitting			
ModeKeeping TransmittingTemperature24 deg. C,				Test Voltage		DC3.7V				
				ung		Humidity	56% RH			
					Detector					
	Pass						РК			
20dB Bandwidth		1.226MHz								
		1 [T1 n			ЗW	30 k		F Att	20 dB	
Ref Lvl	ndB		00 dB		ЗW	100 k		• .	1-	
10 dBm	BW	1.226452	91 MHz	SI	NT .	8.5 m	s Ui	nit	dBn	n
						V l	[T1]	- C	.13 dBm	A
			1					2.40188	277 GHz	
0			Ń	\wedge		ndB		20	.00 dB	
				h				1.22645		
-10		$\sim \sim $			\checkmark		[T1]	-20		
						$\nabla_{\mathbf{T}}$	[] T1]		.19 dBm	
-20		/				1 0	M	2.40264	028 GHz	
1MAX										11
- 30										
-50								my	ng	
\bigvee									and a	
-60										
-70										-
-80										
-90 Center 2.40	D2 GHz		300	kHz/				Spa	n 3 MHz	ļ
			500	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				DP0		

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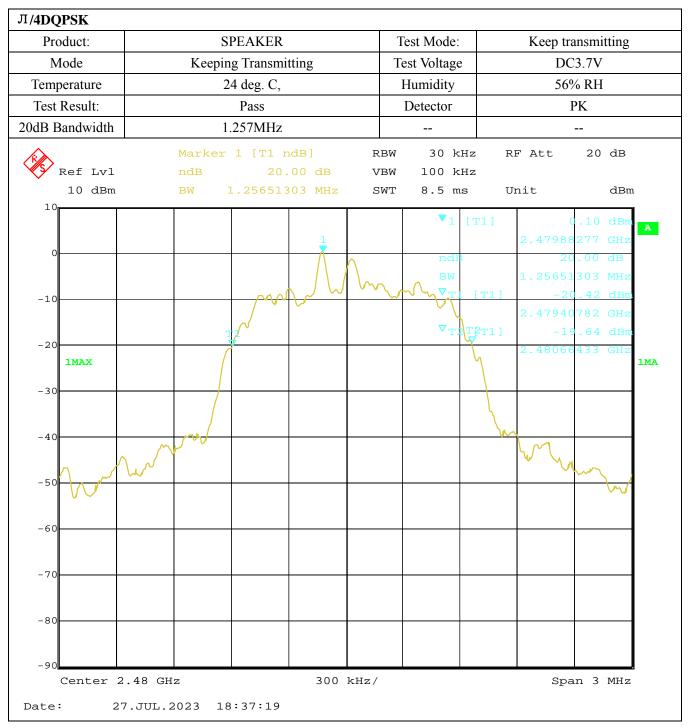




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10.0 FCC ID Label

FCC ID: 2APYY-AE0288

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:



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11.0 Photo of testing

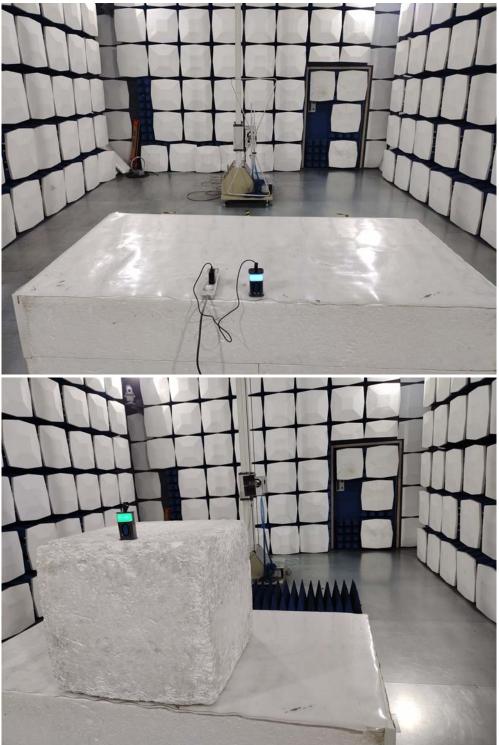
Conducted test View 11.1



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Radiated emission test view



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11.2 Photographs – EUT

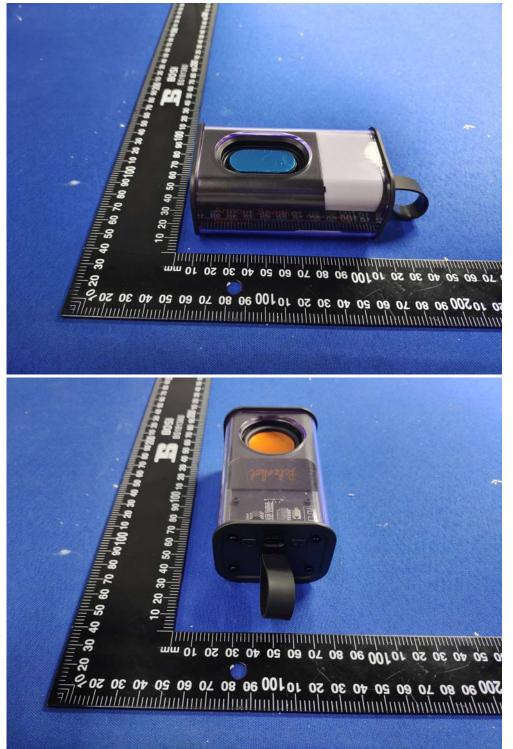


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Outside View



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Outside View

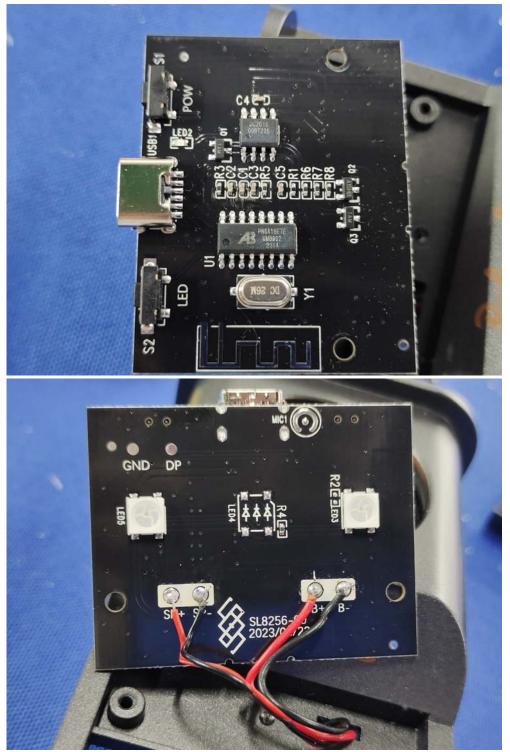


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Inside View



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Inside View



--End of Report--

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