

File reference No.: 2022-05-18

Applicant: LEADER PREMIUMS LTD.

Product: Bluetooth Speaker

Model No.: AE0207

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 Tang

Manager

Dated: May 18, 2022

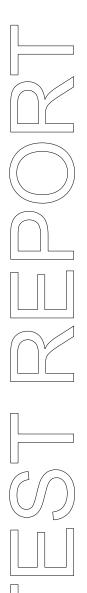
Results appearing herein relate only to the sample tested

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



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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 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

Date: 2022-05-18



Test Report Conclusion

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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

Site on File with the Federal Communications Commission – United Sates

Registration Number: 744189 For 3m Anechoic Chamber

1.2 Applicant Details

Applicant: LEADER PREMIUMS LTD.

Address: 9/F., Hengfu Mansion, NO.858. Fuming Road, Ningbo, China

Telephone: -Fax: --

1.3 Description of EUT

Product: Bluetooth Speaker

Manufacturer: LEADER PREMIUMS LTD.

Address: 9/F., Hengfu Mansion, NO.858. Fuming Road, Ningbo, China

Trademark: N/A
Model Number: AE0207
Additional Model Name N/A

Rating: DC5V, 100mA

Battery: DC3.7V, 300mAh Li-ion battery

Modulation Type: GFSK, $\pi/4DQPSK$

Operation Frequency: 2402-2480MHz

Channel Number: 79 Channel Separation: 1MHz

Hardware Version: Bluetooth speaker AE0207

Software Version: leader 2022 05 Serial No.: AE0207

Antenna Designation PCB antenna with gain 1.3dBi Max (Get from the antenna specification)

1.4 Submitted Sample: 1 Sample

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1.5 Test Duration

2022-05-12 to 2022-05-18

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

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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	2021-06-18	2022-06-17
LISN	R&S	EZH3-Z5	100294	2021-06-18	2022-06-17
LISN	R&S	EZH3-Z5	100253	2021-06-18	2022-06-17
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2021-06-18	2022-06-17
Loop Antenna	EMCO	6507	00078608	2021-06-18	2024-06-17
Spectrum	R&S	FSIQ26	100292	2021-06-18	2022-06-17
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2021-07-02	2024-07-01
Horn Antenna	R&S	BBHA 9120D	9120D-631	2021-07-02	2024-07-01
Power meter	Anritsu	ML2487A	6K00003613	2021-06-18	2022-06-17
Power sensor	Anritsu	MA2491A	32263	2021-06-18	2022-06-17
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2021-07-02	2024-07-01
9*6*6 Anechoic			N/A	2021-07-02	2022-07-01
EMI Test Receiver	RS	ESVB	826156/011	2021-06-18	2022-06-17
EMI Test Receiver	RS	ESH3	860904/006	2021-06-18	2022-06-17
Spectrum	HP/Agilent	ESA-L1500A	US37451154	2021-06-18	2022-06-17
Spectrum	HP/Agilent	E4407B	MY50441392	2021-06-18	2022-06-17
Spectrum	RS	FSP	1164.4391.38	2022-01-15	2023-01-14
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA		2021-06-18	2022-06-17
RF Cable	Zhengdi	7m		2021-06-18	2022-06-17
RF Switch	EM	EMSW18	060391	2021-06-18	2022-06-17
Pre-Amplifier	Schwarebeck	BBV9743	#218	2021-06-18	2022-06-17
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2021-06-18	2022-06-17
LISN	SCHAFFNER	NNB42	00012	2022-01-05	2023-01-04

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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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

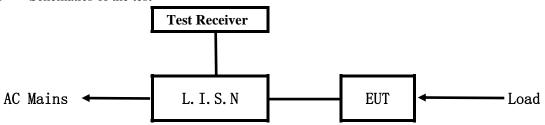
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

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5. Power Line Conducted Emission Test

5.1 Schematics of the test

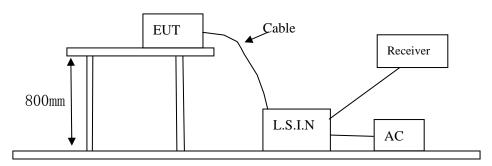


EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2014. The Frequency spectrum from 0.15MHz to 30MHz was investigated. The LISN used was 500hm/50uH as specified by section 5.1 of ANSI C63.4 -2014.

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



5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.4-2014. 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
Bluetooth Speaker	LEADER PREMIUMS LTD.	AE0207	2APYY-AE0207

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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 C63.4 -2014

- 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:

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

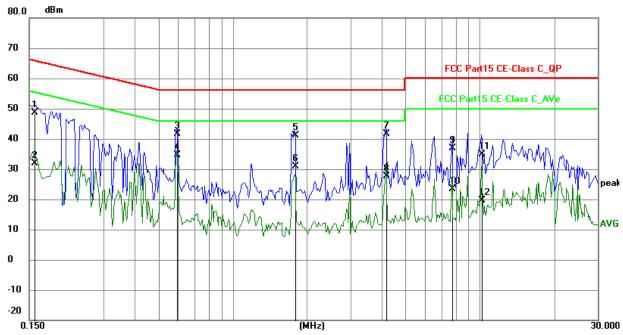
EUT Operating Environment

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

EUT set Condition: Communication by BT

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1578	38.93	9.78	48.71	65.58	-16.87	QP	П
2	0.1578	22.08	9.78	31.86	55.58	-23.72	AVG	Р
3	0.5946	31.88	9.77	41.65	56.00	-14.35	QP	Р
4	0.5946	24.87	9.77	34.64	46.00	-11.36	AVG	Р
5	1.7880	31.30	9.80	41.10	56.00	-14.90	QP	А
6	1.7880	21.01	9.80	30.81	46.00	-15.19	AVG	Л
7	4.1778	31.67	9.89	41.56	56.00	-14.44	QP	Р
8	4.1778	17.72	9.89	27.61	46.00	-18.39	AVG	Р
9	7.7424	26.95	10.05	37.00	60.00	-23.00	QP	Р
10	7.7424	13.26	10.05	23.31	50.00	-26.69	AVG	Р
11	10.1409	24.71	10.17	34.88	60.00	-25.12	QP	Р
12	10.1409	9.45	10.17	19.62	50.00	-30.38	AVG	Р

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

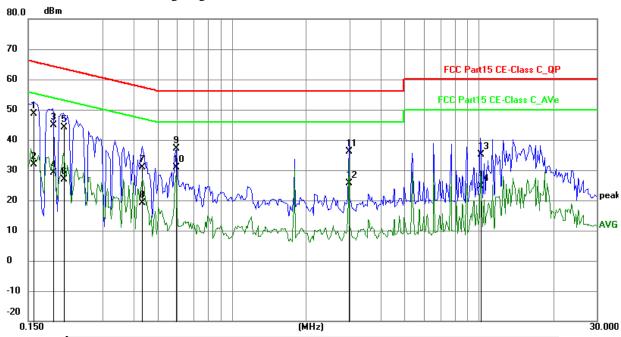
EUT Operating Environment

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

EUT set Condition: Communication by BT

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1578	38.83	9.78	48.61	65.58	-16.97	QP	Р
2	0.1578	22.00	9.78	31.78	55.58	-23.80	AVG	Ъ
3	0.1890	35.21	9.76	44.97	64.08	-19.11	QP	Р
4	0.1890	19.40	9.76	29.16	54.08	-24.92	AVG	Р
5	0.2085	34.29	9.75	44.04	63.26	-19.22	QP	Р
6	0.2085	17.18	9.75	26.93	53.26	-26.33	AVG	Т
7	0.4347	21.10	9.77	30.87	57.16	-26.29	QP	Р
8	0.4347	9.25	9.77	19.02	47.16	-28.14	AVG	Р
9	0.5946	27.34	9.77	37.11	56.00	-18.89	QP	П
10	0.5946	21.18	9.77	30.95	46.00	-15.05	AVG	Р
11	2.9853	26.33	9.84	36.17	56.00	-19.83	QP	Ъ
12	2.9853	15.85	9.84	25.69	46.00	-20.31	AVG	Р
13	10.1370	25.01	10.17	35.18	60.00	-24.82	QP	Р
14	10.1370	14.43	10.17	24.60	50.00	-25.40	AVG	Р

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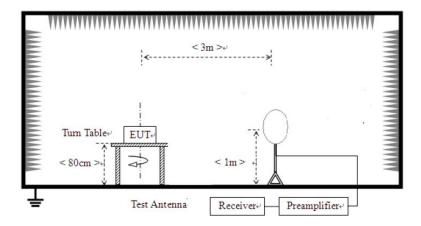


6 Radiated Emission Test

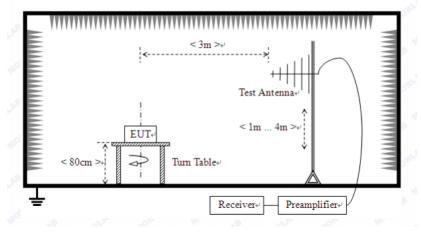
- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size 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 30 MHz 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



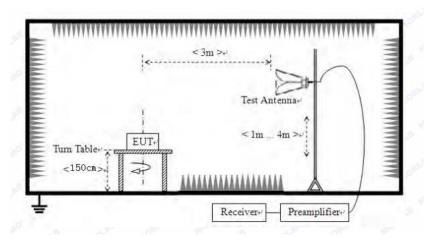
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For radiated emissions above 1GHz



- 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 Strength of Fundamental (3m)			Field S	trength of Harmo	onics (3m)
(MHz)	mV/m	dBuV/m		uV/m	dBu	V/m
2400-2483.5	50	94 (Average)	114 (Peak)	500	54 (Average)	74 (Peak)

Note:

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

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

Frequency Range (MHz)	Distance (m)	Field strength (dB µ 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	43.5
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. 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.
- 5. 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.
- 6. For radiated emissions from 9kHz to 30MHz, the emission level is much less than the limit for more than 20dB. No necessary to take down the record.
- 7. Battery fully charged was used during tests.

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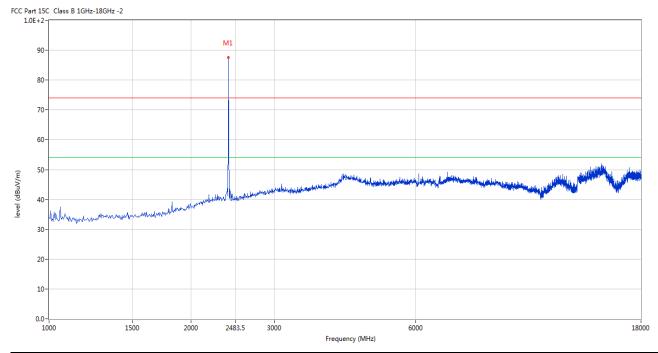


6.5 Test result

A Fundamental & Harmonics Radiated Emission Data

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

Horizontal



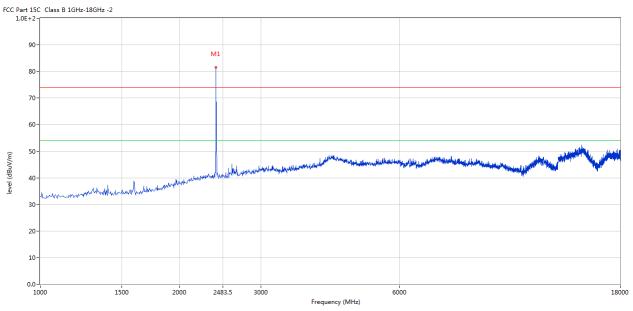
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2402	87.54	-3.57	114.0	-26.46	Peak	150.00	100	Horizontal	Pass

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Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2402	81.56	-3.57	114.0	-32.44	Peak	144.00	100	Vertical	Pass

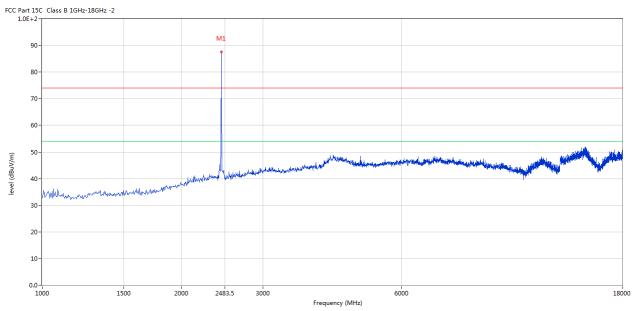
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Please refer to the following test plots for details: Middle Channel-2441MHz

Horizontal



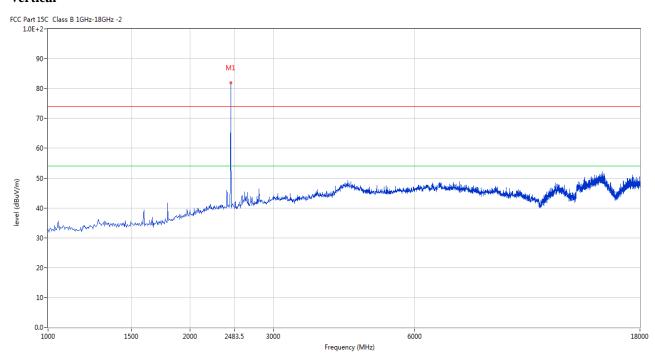
Ī	No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(o)	(cm)		
	1	2441	87.65	-3.57	114.0	-26.35	Peak	113.00	100	Horizontal	Pass

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Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2441	81.95	-3.57	114.0	-32.05	Peak	159.00	100	Vertical	Pass

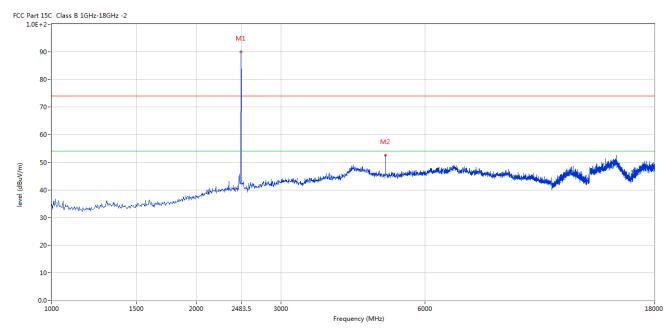
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Please refer to the following test plots for details: High Channel-2480MHz

Horizontal



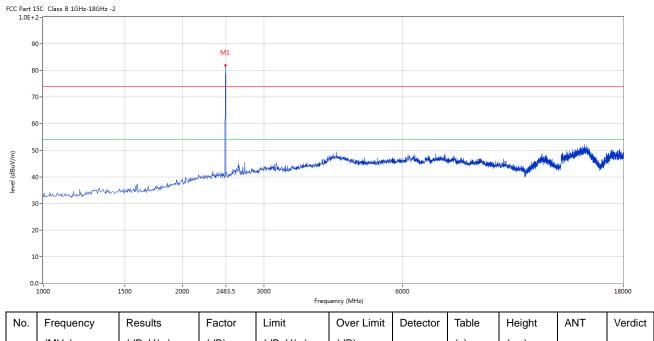
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	89.85	-3.57	114.0	-24.15	Peak	111.00	100	Horizontal	Pass
2	4960.010	52.45	3.36	74.0	-21.55	Peak	136.00	100	Horizontal	Pass

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Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	81.83	-3.57	114.0	-32.17	Peak	156.00	100	Vertical	Pass

Note: (2) Emission Level = Reading Level + Antenna Factor + Cable Loss-Amplifier

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

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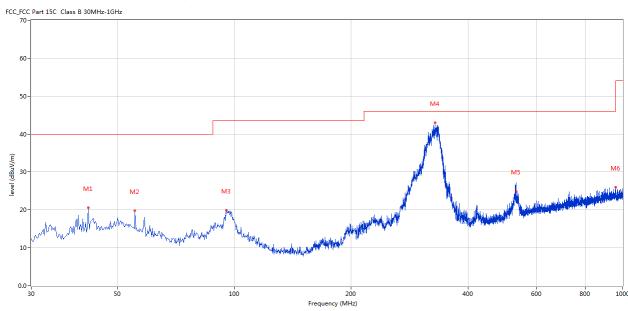


B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	42.122	20.54	-11.64	40.0	-19.46	Peak	312.00	200	Horizontal	Pass
2	55.456	19.72	-11.89	40.0	-20.28	Peak	117.00	100	Horizontal	Pass
3	95.459	19.86	-14.22	43.5	-23.64	Peak	360.00	200	Horizontal	Pass
4	329.170	42.99	-10.29	46.0	-3.01	Peak	89.00	100	Horizontal	Pass
5	531.365	24.95	-6.46	46.0	-21.05	Peak	277.00	200	Horizontal	Pass
6	960.240	25.93	-1.63	54.0	-28.07	Peak	350.00	100	Horizontal	Pass

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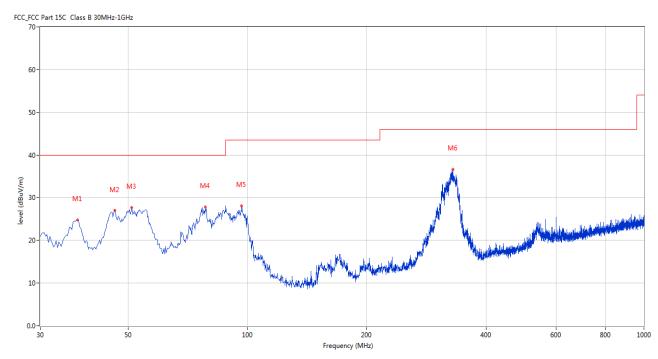


Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	37.273	24.74	-13.06	40.0	-15.26	Peak	360.00	200	Vertical	Pass
2	46.243	27.07	-11.41	40.0	-12.93	Peak	360.00	200	Vertical	Pass
3	51.092	27.69	-11.41	40.0	-12.31	Peak	267.00	100	Vertical	Pass
4	78.245	27.82	-17.48	40.0	-12.18	Peak	48.00	100	Vertical	Pass
5	96.671	28.05	-14.02	43.5	-15.45	Peak	234.00	100	Vertical	Pass
6	329.898	36.69	-10.25	46.0	-9.31	Peak	49.00	200	Vertical	Pass

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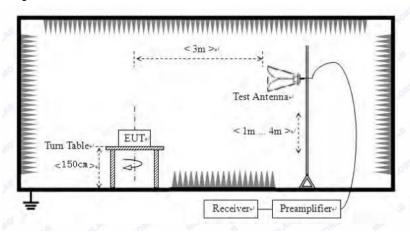


7. Band Edge

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.

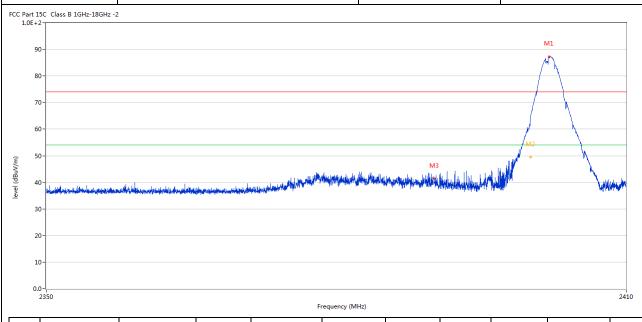
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7.6 Test Result

Product:	Bluetooth 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)		(o)	(cm)		
1	2401.917	87.10	-3.57	74.0	13.10	Peak	139.00	100	Horizontal	N/A
2	2399.998	64.58	-3.57	74.0	-9.42	Peak	139.00	100	Horizontal	Pass
2**	2399.998	49.50	-3.57	54.0	-4.50	AV	139.00	100	Horizontal	Pass
3	2390.025	43.47	-3.53	74.0	-30.53	Peak	360.00	100	Horizontal	Pass

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]	Product:		Bluetooth	Speaker		Detecto	or	7	Vertical	
	Mode	K	eeping Tra	nsmitting		Test Volt	age	Γ	DC3.7V	
Te	mperature		24 deg	g. C,		Humidi	ty	5	6% RH	
Те	est Result:		Pas	S						
CC Part 1 1.0E+	LSC Class B 1GHz-18GHz -	2			1		•			,
9	10-							M1		
8	80-								 \	
7	70-									
6	60-								$\overline{}$	
e 5	0-						1	M2		
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m/Vudb) level		ntalumallypendyddyn acystrafiddydd acystrafidd	المستعلى والمستعدد والمستعد والمستعدد والمستعد والمستعدد والمستعد	inishdisan dan sakan adda da ka	disciplinate security and the second security days the	Maria Maria		M2	malapack	
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ق/Angp) 4 4 3 3 2 2 1 1 0.	10 - Harris California (1984)	n kalumaliyen dipirkan ayai safii dipirkan ayai dali	الدخار أرساد	in kabilisan dan sakan kaban dan dan ba	desidente es sendon estado esta	MANAGE MA		M2	mulapad	
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اوبدوا (ABu/س) م	10 - Harris California (1984)	Results	Factor			Detector	Table	Height	ANT	
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版/(\ngp) 44 3 3 2 1 0 .	o- 	Results	Factor	Free	quency (MHz) Over Limit			_		2410
#/(/ngp) 4 3 2 1 0 . No .	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	quency (MHz) Over Limit (dB)	Detector	(0)	(cm)	ANT	2410 Verdid
(Agp) 4 3 3 2 1 0 0 1 1 1 1 1 1 1	Frequency (MHz) 2401.797	Results (dBuV/m) 81.53	Factor (dB)	Limit (dBuV/m) 74.0	Over Limit (dB) 7.53	Detector Peak	(o) 147.00	(cm) 100	ANT Vertical	verdid

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P	roduct:		Blı	uetooth Spea	aker		Polarit	y	Horizon	ıtal
	Mode		Kee	ping Transm	itting		Test Volt	age	DC3.7	V
Ten	nperature			24 deg. C,			Humidi	ty	56% R	Н
Tes	st Result:			Pass						
	C Class B 1GHz-18GHz	: -2								
1.0E+2										
90	_			~~~						
80	_									
70				1						
60	_			<u></u>	A					
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40 30 20 10 0.0 2	470 Frequency	Results		-	2483.5 Frequency (MI	iz)		_	ANT Horizontal	1
40 30 20 10 0.0	Frequency (MHz)	Results (dBuV/m)	(dB)	(dBuV/m)	2483.5 Frequency (Minute (dB)	Detector	Table (o)	(cm)		Verd N/A Pass

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J	Product:	oduct: Bluetooth Spe			Bluetooth Speaker			Detector		Vertical	
	Mode Keeping Transm			ng Transmi	tting	-	Test Voltage DC		DC3.7	V	
Te	Temperature 24 deg. C, Test Result: Pass					Humidity	56% RH				
Te				Pass							
C Part 1 1.0E+	.5C Class B 1GHz-18GHz 2-	-2									
9	0-										
8	0-		~	L							
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Note: 1. The PK emission level less than the AV limit. No necessary to record the AV emission level.

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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.

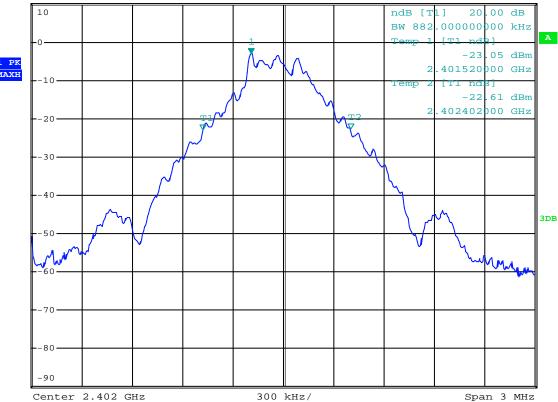
This product has a PCB antenna. The antenna gain is 1.3dBi Max. It fulfills the requirement of this section. Test Result: Pass

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9.0 20dB Bandwidth M	Measurement				
GFSK Modulation					
Product:	Mechanical Keyb	oard	Test Mode:	Keep transmitting	
Mode	Keeping Transmi	tting	Test Voltage Humidity Detector	DC3.7V	
Temperature	24 deg. C,			56% RH PK 	
Test Result:	Pass				
20dB Bandwidth	882.0kHz				
Ref 10 dBm	*Att 20 dB	*RBW 30 kHz *VBW 100 kH: SWT 5 ms		T1] -2.97 dBm 808000 GHz	
10 -0	<u> </u>	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Temp 1 [T1	20.00 dB 0000000 kHz -nds] -23.05 dBm .520000 GHz	
20		V V	Temp 2 [TI		



Date: 14.MAY.2022 15:18:17

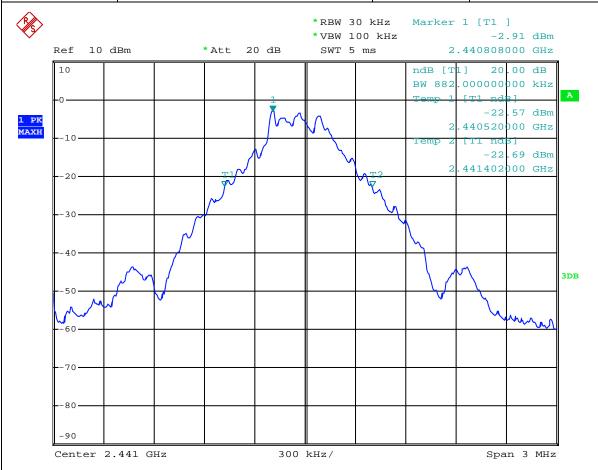
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GFSK Modulation						
Product:	Mechanical Keyboard	Test Mode:	Keep transmitting			
Mode	Keeping Transmitting	Test Voltage	DC3.7V			
Temperature	24 deg. C,	Humidity	56% RH			
Test Result:	Pass	Detector	PK			
20dB Bandwidth	882.0kHz					



Date: 14.MAY.2022 15:35:22

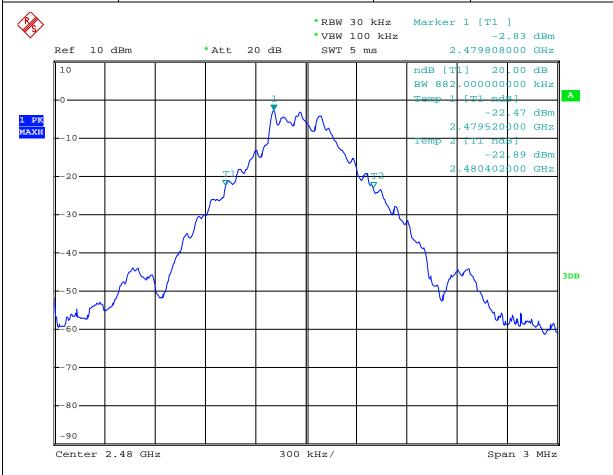
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GFSK Modulation						
Product:	Mechanical Keyboard	Test Mode:	Keep transmitting			
Mode	Keeping Transmitting	Test Voltage	DC3.7V			
Temperature	24 deg. C,	Humidity	56% RH			
Test Result:	Pass	Detector	PK			
20dB Bandwidth	882.0kHz					



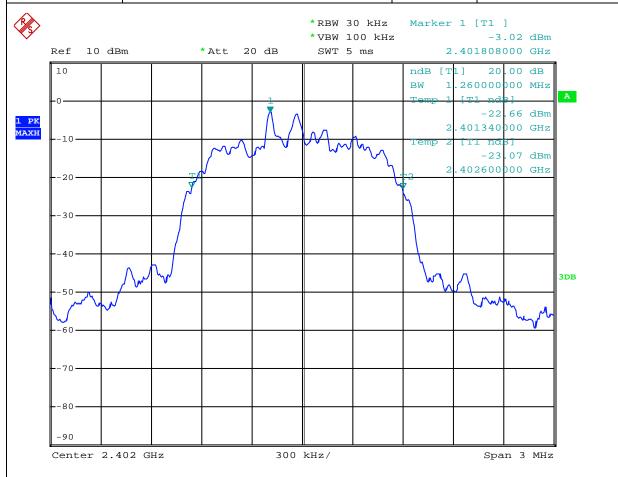
Date: 14.MAY.2022 15:36:07

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π /4DQPSK Modulation					
Product:	Mechanical Keyboard	Test Mode:	Keep transmitting		
Mode	Keeping Transmitting	Test Voltage	DC3.7V		
Temperature	24 deg. C,	Humidity	56% RH		
Test Result:	Pass	Detector	PK		
20dB Bandwidth	1.260MHz				



Date: 14.MAY.2022 15:39:30

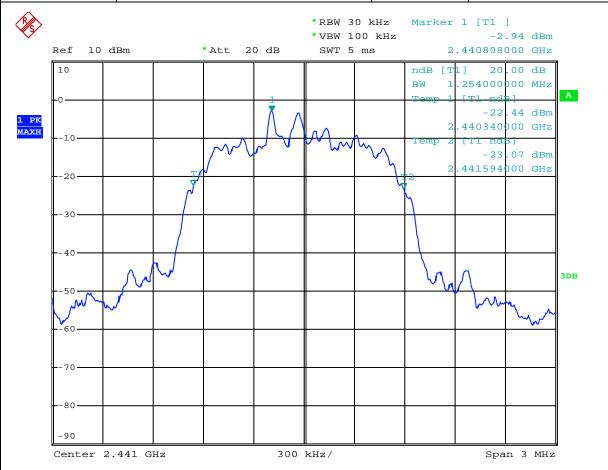
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π /4DQPSK Modulation					
Product:	Mechanical Keyboard	Test Mode:	Keep transmitting		
Mode	Keeping Transmitting	Test Voltage	DC3.7V		
Temperature	24 deg. C,	Humidity	56% RH		
Test Result:	Pass	Detector	PK		
20dB Bandwidth	1.254MHz				



Date: 14.MAY.2022 15:38:09

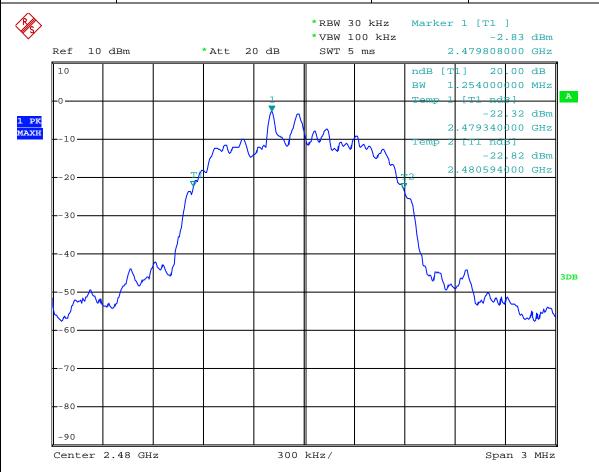
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π/4DQPSK Modulation					
Product:	Mechanical Keyboard	Test Mode:	Keep transmitting		
Mode	Keeping Transmitting	Test Voltage	DC3.7V		
Temperature	24 deg. C,	Humidity	56% RH		
Test Result:	Pass	Detector	PK		
20dB Bandwidth	1.254MHz				



Date: 14.MAY.2022 15:37:20

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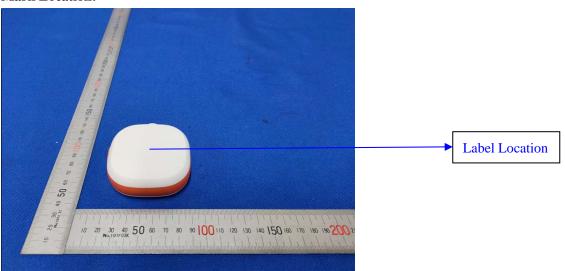
10.0 FCC ID Label

FCC ID: 2APYY-AE0207

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:



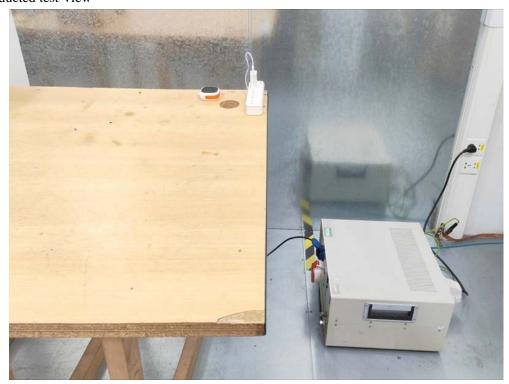
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11.0 Photo of testing

11.1 Conducted test View--



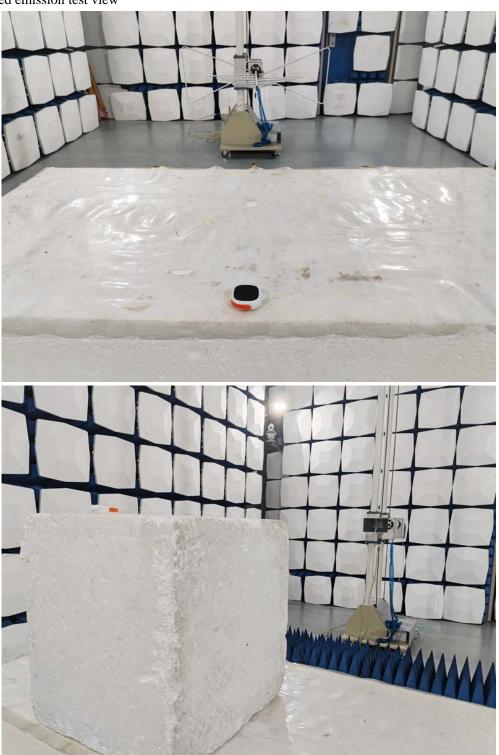
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Radiated emission test view



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11.2 Photographs – EUT

Outside View



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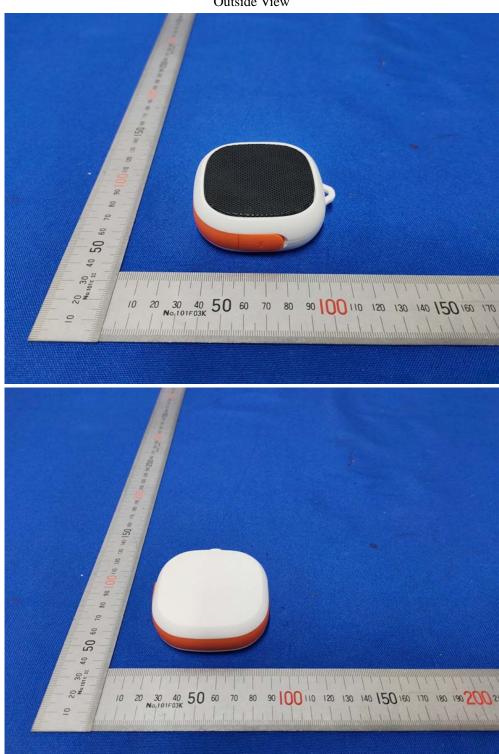
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Outside View



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Outside View



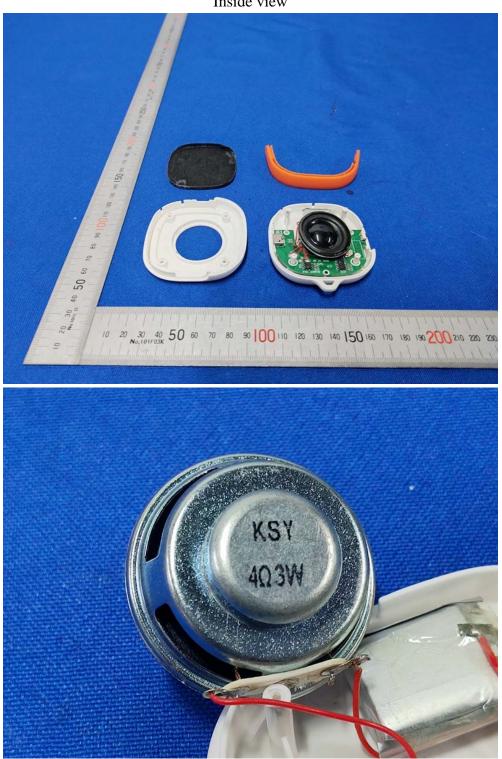
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Inside view



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Inside view



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will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

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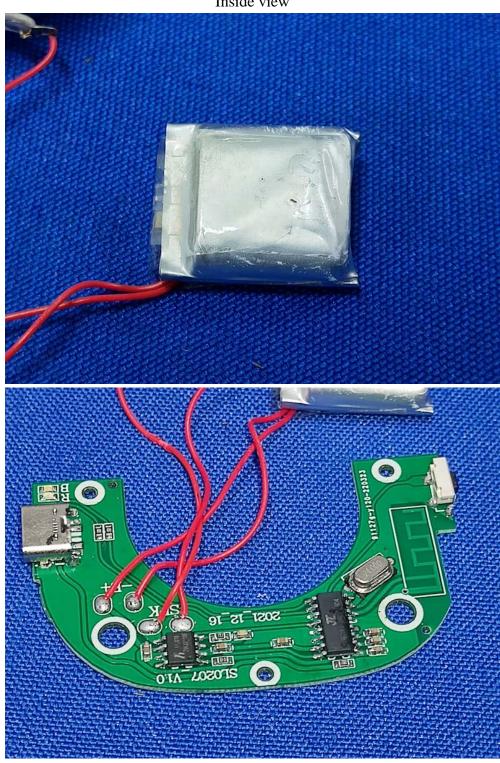
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Inside view



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

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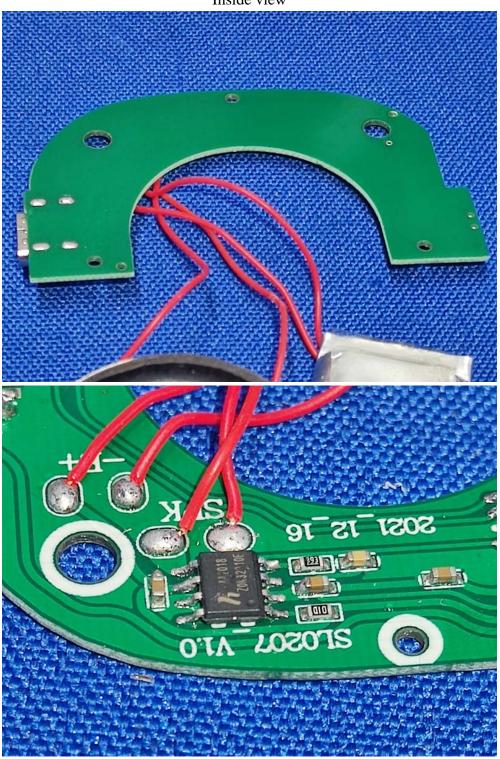
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Inside view



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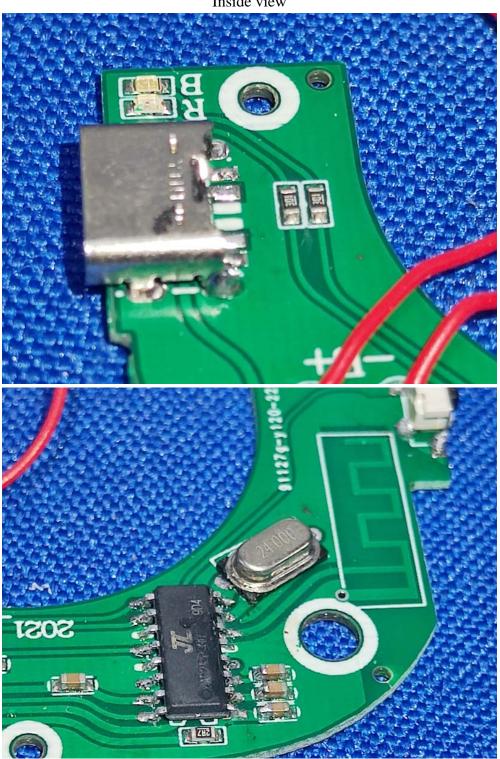
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Inside view



-- End of the report--

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