

Report No.: TW2209311E

Applicant: Hangzhou Roombanker Technology Co., Ltd

Product: Outdoor Beacon Sensor

Model No.: DSBC-060-1

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: October 19, 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/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

**CAB identifier: CN0033** 

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# Test Report Conclusion

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

10.0

11.0

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FCC ID Label

Photo of Test Setup and EUT View.....

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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: Hangzhou Roombanker Technology Co., Ltd Address: A#801 Wantong center, Hangzhou, China

Telephone: +86-13185020836

Fax: --

# 1.3 Description of EUT

Product: Outdoor Beacon Sensor

Manufacturer: Hangzhou Roombanker Technology Co., Ltd Address: A#801 Wantong center, Hangzhou, China

Trademark: N/A
Additional Trademark: N/A

Model Number: DSBC-060-1

Additional Model Name N/A Rating: DC3.0V

Battery: 1pc DC3.0V CR2477 button battery
Modulation Type: GFSK (Bluetooth Low Energy)

Operation Frequency: 2402-2480MHz

Channel Separate: 2MHz
Channel Number: 40
Hardware Version: V1.0
Software Version: V1.0

Serial No.: OUT0A0B0C

Antenna Designation PCB antenna with gain 0.2dBi Max (Get from the antenna specification)

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1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2022-09-27 to 2022-10-19

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

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	2022-07-15	2023-07-14
LISN	R&S	EZH3-Z5	100294	2022-07-18	2023-07-17
LISN	R&S	EZH3-Z5	100253	2022-07-18	2023-07-17
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2022-07-18	2023-07-17
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17
Spectrum	R&S	FSIQ26	100292	2022-07-15	2023-07-14
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	2022-07-18	2023-07-17
Power sensor	Anritsu	MA2491A	32263	2022-07-18	2023-07-17
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	2022-07-15	2023-07-14
EMI Test Receiver	RS	ESCS 30	834115/006	2022-07-15	2023-07-14
Spectrum	HP/Agilent	E4407B	MY50441392	2022-07-15	2023-07-14
Spectrum	RS	FSP	1164.4391.38	2022-07-15	2023-07-14
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA		2022-07-15	2023-07-14
RF Cable	Zhengdi	7m		2022-07-15	2023-07-14
Pre-Amplifier	Schwarebeck	BBV9743	#218	2022-07-15	2023-07-14
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2022-07-15	2023-07-14
LISN	SCHAFFNER	NNB42	00012	2022-08-18	2023-07-17
ESPI Test Receiver	R&S	ESPI 3	100379	2022-07-15	2023-07-14
LISN	R&S	EZH3-Z5	100294	2022-07-18	2023-07-17

# 2.1 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	ı tested accordin	g to the following	specifications:
		A	, 50000

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

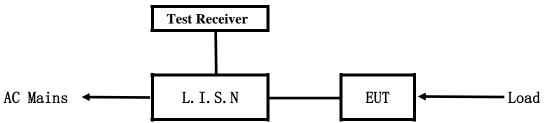
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## 5. Power Line Conducted Emission Test

# 5.1 Schematics of the test

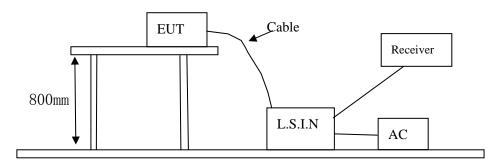


**EUT: Equipment Under Test** 

# 5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. 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.

#### 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.

40 channels are provided to the EUT

## A. EUT

Device	Manufacturer	Model	FCC ID
Outdoor Beacon Sensor	Hangzhou Roombanker Technology	DSBC-060-1 2AUXBDSBC	
Outdoor Beacon Sensor	Co., Ltd	D3DC-000-1	2AOADDSDC000D

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#### B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

# C. Peripherals

Device	Manufacturer	Model	Rating
N/A			

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:

N/A

Note: EUT powered by CR2477 button battery, this test item not applicable.

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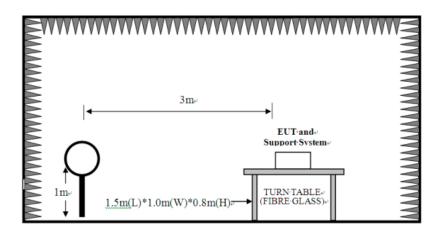
#### 6 Radiated Emission Test

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

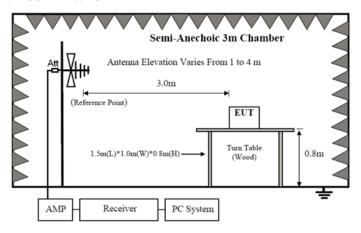


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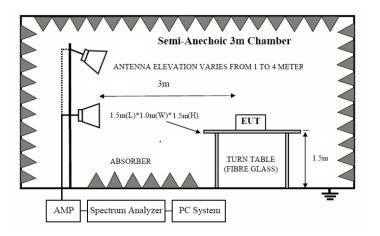
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For radiated emissions from 30MHz to1GHz



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.

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#### 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 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
30-88	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. 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. 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.
- 6. New Battery was used during tests.

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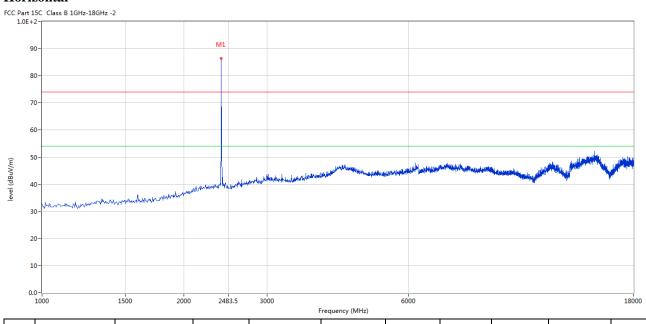


## 6.5 Test result

# A Fundamental & Harmonics Radiated Emission Data

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

#### Horizontal



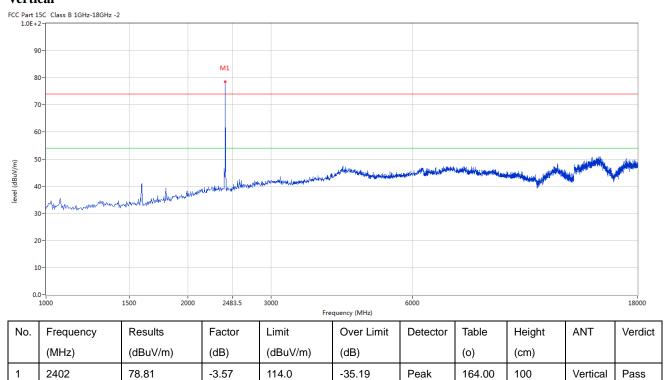
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2402	87.12	-3.57	114.0	-26.88	Peak	198.00	100	Horizontal	Pass

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# Vertical



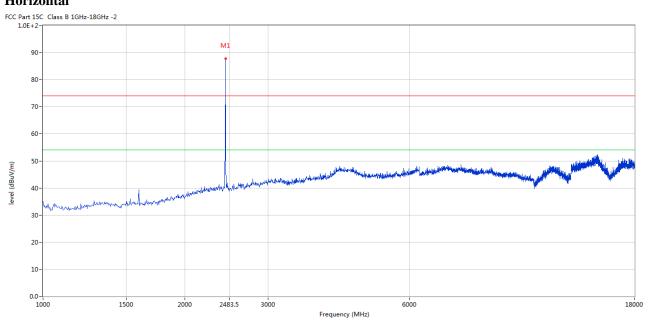
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# Please refer to the following test plots for details: Middle Channel-2440MHz

#### **Horizontal**



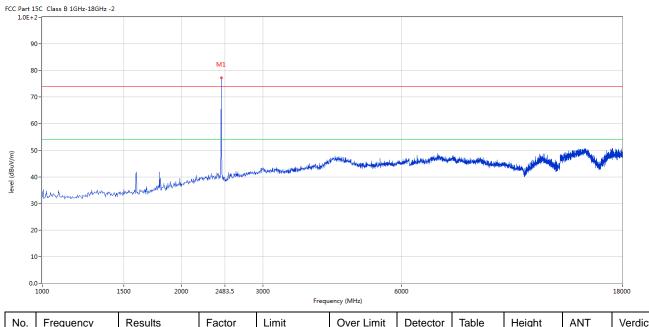
Ī	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
Ī	1	2440	87.28	-3.57	114.0	-26.72	Peak	57.00	100	Horizontal	Pass

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# Vertical



1	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
-	1	2440	77.31	-3.57	114.0	-36.69	Peak	155.00	100	Vertical	Pass

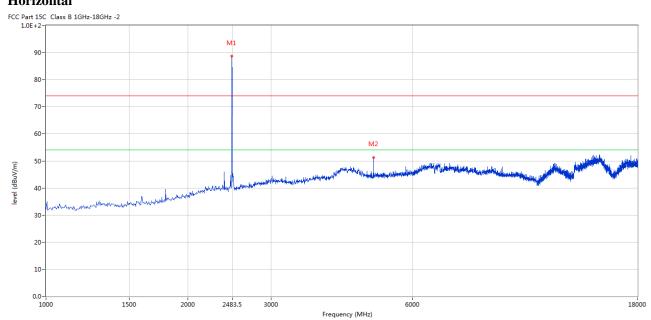
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# Please refer to the following test plots for details: High Channel-2480MHz

#### Horizontal



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	88.39	-3.57	114.0	-25.61	Peak	226.00	100	Horizontal	Pass
2	4960.010	51.30	3.36	74.0	-22.70	Peak	191.00	100	Horizontal	Pass

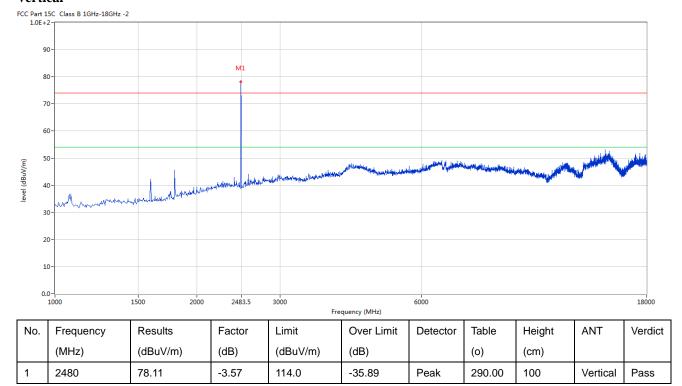
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#### Vertical



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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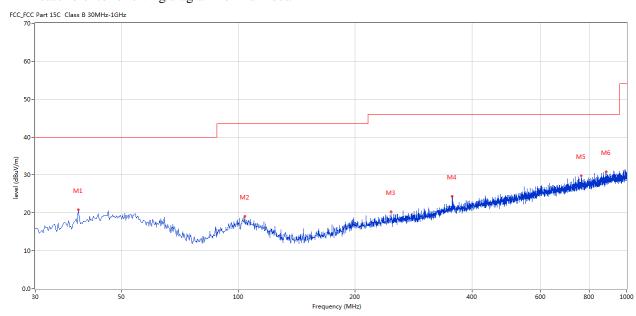


# B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

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	38.728	20.86	-12.63	40.0	-19.14	Peak	206.00	100	Horizontal	Pass
2	103.944	19.11	-13.33	43.5	-24.39	Peak	101.00	100	Horizontal	Pass
3	247.226	20.27	-12.10	46.0	-25.73	Peak	0.00	100	Horizontal	Pass
4	355.596	24.36	-9.46	46.0	-21.64	Peak	188.00	100	Horizontal	Pass
5	762.894	29.82	-3.29	46.0	-16.18	Peak	69.00	100	Horizontal	Pass
6	884.356	30.79	-2.08	46.0	-15.21	Peak	307.00	100	Horizontal	Pass

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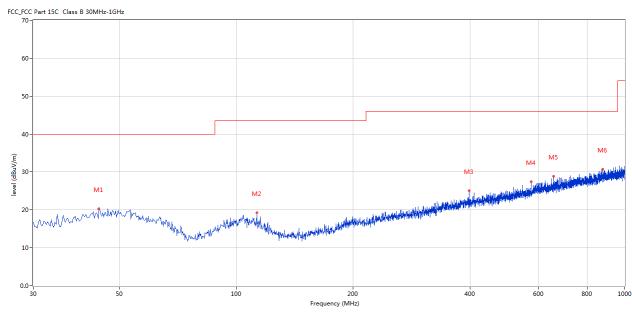


# Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	44.304	20.32	-11.46	40.0	-19.68	Peak	22.00	100	Vertical	Pass
2	112.914	19.18	-14.01	43.5	-24.32	Peak	99.00	100	Vertical	Pass
3	397.053	25.03	-8.73	46.0	-20.97	Peak	173.00	100	Vertical	Pass
4	573.549	27.48	-5.87	46.0	-18.52	Peak	97.00	100	Vertical	Pass
5	656.706	28.83	-4.44	46.0	-17.17	Peak	320.00	100	Vertical	Pass
6	876.598	30.70	-2.11	46.0	-15.30	Peak	168.00	100	Vertical	Pass

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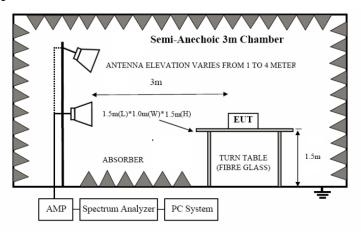


# 7. Band Edge

#### 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.

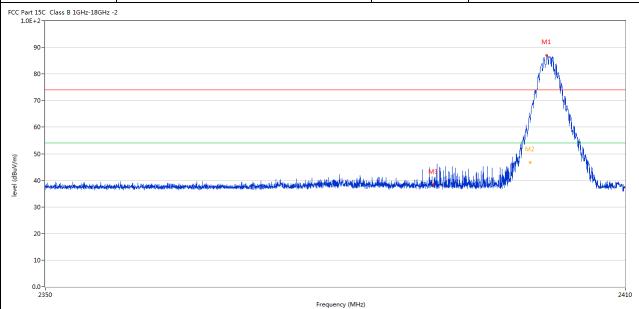
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## 7.6 Test Result

Product:	Outdoor Beacon Sensor	Polarity	Horizontal
Mode	Keeping Transmitting	Test Voltage	DC3.0V
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	2401.797	87.02	-3.57	74.0	13.02	Peak	191.00	100	Horizontal	N/A
2	2400.042	61.80	-3.57	74.0	-12.20	Peak	227.00	100	Horizontal	Pass
2**	2400.042	46.78	-3.57	54.0	-7.22	AV	227.00	100	Horizontal	Pass
3	2390.025	38.51	-3.53	74.0	-35.49	Peak	196.00	100	Horizontal	Pass

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Product:		Outdoor Bea	acon Sensor		Detecto	or	V	/ertical	
Mode		Keeping Tra	ansmitting		Test Volt	age	D	C3.0V	
Temperature		24 de	g. C,		Humidi	ty	50	6% RH	
Test Result:		Pas	SS						
Part 15C Class B 1GHz-18G	Hz -2								
90-							M /\	11 7	
70-								1	
60-								- hy	
50-					ار بالا	alicha bii		- h	
	har mit drawler ment de la	gradorie kajanje Ladvid Alderan	adada ay bahada da ada da				M2	N. Market	
	المستر ويتلفك مانالحان إستاما ليزم بلغال م	gardenski skusik i in birik i likhis i un	adadaga ay kalada sa walaa				M2	Made	all and hairs of the
50-	dan ayyah ka ah dan aya da ka a da dha da	god <del>ovic</del> ka planje 1 ko ko ko ki ki ko	ndesdenden en factoris de la composition della c	Andreas de la come de calony de	when he de la		M2	N. Markette	all the second of the
30- 20-	المستور والإنجاب والمطاويان والمداوا والمواوات المواوات المواوات المواوات المواوات المواوات المواوات المواوات	protective de la	والمعالمة المعالمة ا				M2	MALLE IN THE STREET	draktur jh
30- 10-	dent en stadt, odderste sjendedt en de difte de	gardeerle kushalik Lisa da kala Adda saan	ndhadundh na Lada shi na da ka				M M2	Mada	draktive fle
30- 20-		gardenin da salas di Lac da salas Aldrica.		requency (MHz)			M2	A A A A A A A A A A A A A A A A A A A	2410
30 - 20 - 10 - 2350	Results	Factor			Detector	Table	Height	ANT	2410
30 - 20 - 10 - 2350			Fi	requency (MHz)		Table (o)	Height (cm)		

No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2401.992	78.57	-3.57	74.0	4.57	Peak	177.00	100	Vertical	N/A
2	2400.087	56.00	-3.57	74.0	-18.00	Peak	161.00	100	Vertical	Pass
2**	2400.087	40.98	-3.57	54.0	-13.02	AV	161.00	100	Vertical	Pass
3	2390.010	38.57	-3.53	74.0	-35.43	Peak	167.00	100	Vertical	Pass

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]	Product:	(	Outdoor B	eacon Senso	r	Polar	rity	]	Horizontal	
	Mode		Keeping	<b>Fransmitting</b>		Test Vo	ltage		DC3.0V	
Te	mperature		24 0	leg. C,		Humi	dity		56% RH	
Te	est Result:		F	Pass						
Part 1	15C Class B 1GHz-18GHz	-2								
9	10-		M1							
			44/1/4/1	h/n.						
8			W	**						
7	70-		N"							
			.AN	1966						
6	60-		MAN 4°	VN.						
_			W,,,	W. William						
_		A WARREN	Mar.	M <sub>2</sub>	W <sub>Max</sub>		Աս	h		
5		A STAN STAN STAN STAN STAN STAN STAN STA	(1) <sup>[1]</sup>	Vn M≥	NIN WALLAND	way bear principles of the September of	ny kanponiny kalifika pika	Makingunghakhakh	\ <sup>\</sup> \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	*\\\\\\\\\
5		ada and and policy of the poli	W <sup>r.e</sup>	M2	No properties	and the state of t	na programa (Allaha)	Minimarkithida	Makhanponkhaka	*\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
5 4		and the second s	w <sup>r</sup>	M2	North Control of the Control	ary paragraphy diploje	www.phi/Aidh	Himonimim	i <sup>th</sup> ad the property of the second se	*hw/hylikhy
34	10 - MANAGAMANA	ooksakapid (Planskapid) (Planskapid)	M <sup>M</sup> "	M <sub>2</sub>	Mary Markery	and the state of t	wayoo jarahada	Hypryvypejdydd	of the state of th	**************************************
5 4 3 2 2 1 1		ach and a published by Property (W		M2	North Control of the Control	nemania, ita jita jita ji	nder prized history	HAMMANAKA	Mades programmes and the second	********
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5 4 4 3 2 1 1 0 0 .	00-	Results	Factor		5	Detector	Table	Height	ANT	2500 Verd
5 4 4 3 2 1 1 0 .	0-2470			2483.	5 Frequency (MHz)					I
5 4 3 2 1 0.	00- 00- 00- 00- 00- 00- 00- 00- 00- 00-	Results	Factor	2483.	5 Frequency (MHz)		Table	Height		I
. 50 . 44 . 34 . 24 . 10	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	5 Frequency (MHz) Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verd

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F	Product:		Outdoor Be	acon Sensor		Detecto	or	V	ertical	
	Mode		Keeping T	ransmitting		Test Volta	age	D	C3.0V	
Teı	mperature		24 de	eg. C,		Humidit	ty	50	6% RH	
Те	est Result:		Pa	ass						
	.5C Class B 1GHz-18GHz	-2								
1.0E+2	2-									
90	0-									
80	0-		M1							
			روائي موائيم	Y <sub>N</sub>						
7(	0-		<b>/</b>	<u> </u>						
60	0-		_/_	7						
			1	7						
-			1	7						
. 50	0-	اد.	$ \wedge $	M2						
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30	o-	almistrate still de	Á	MA M2	Maray o Marada di Ma	lakaturnu malintu jahu	lace the first of the first	بالماليطاليران الماليطاليا	hapata at phone a balla a balla a	
30		almistrate, tick days in the law of the law	A	MA M2	Marayedhindekkiladada karinda	المائدة الماسيدية والمائدة المائدة الم	haran da kalendari kan da	hinindalahila lahadada	hapita ji ka yiki t	
40		al-water this distribution of the state of t	A	Mod M2	Mary Markethalist Lands	المناد فالمائد بديد بدائل بأوا	ia <sub>w</sub> aliko dakak kan	بوليمية وطالب وليدأ والمعاجبة	hapitesi (Mankishia yilki A	
30	0-	atmichiata dal <sub>a</sub> dhipping	A	M2	المرموطة بالمالية المنهدا يتعملونه	ukaluranya, aha	tar <sub>est</sub> de la	بالمائدران الخدام المائد	humation of the last to be the last	
30 20		almistrator, diskularisti ili kulunda karaki kulunda karaki kulunda karaki kulunda kulunda kulunda kulunda kul	A	Man M2	<sup>No</sup> cocopy Mandrilla Madella della d	lakataranasikti.	ne mentakan disebebahan	himpedyskelejskihodyk	hagisalimikaha selah	
30 20	0-	atorish da, sid da	A	2483.		isikalakan eseriki jaki	na <sub>sai</sub> nt the earliest of the decease	بالمالة دليا لأمام المراسلة	hopitudhimhaha yili a	
30 20 10	0-		Factor	1	) Frequency (MHz)					25
40 30 20 10	o- 0- 0- 0- 0- 0- 2470	Results	Factor (dB)	Limit	Frequency (MHz)  Over Limit	Detector	Table	Height	ANT	25
30 20	0-		Factor (dB)	1	) Frequency (MHz)					

Note: 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 an PCB antenna. The antenna gain is 0.2dBi Max. It fulfills the requirement of this section. Test Result: Pass

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9.0 20dB Bandwidth Measurement							
Product:	Outdoor Beacon Sensor		Test Mode:	Keep transmitting			
Mode	Kee	oing Transmitting	Test Voltage		DC3.0V		
Temperature		24 deg. C,		Humidity 56% RH		% RH	
Test Result:		Pass		Detector	or PK		
20dB Bandwidth		1.202MHz					
R.	Marker	1 [T1 ndB]	RBW	100 kHz	RF Att	20 dB	
Ref Lvl	ndB	20.00 dB	VBW	300 kHz			
10 dBm	BW 3	L.20240481 MHz	SWT	5 ms	Unit	dBm	
10				▼ <sub>1</sub> [T1	L] -	7.66 dBm	
					2.40175	A 050 GHz	
0				ndB	20	0.00 dB	
		1		BW	1.20240	0481 MHz	
-10				V <sub>T</sub>	71] -2'	7.42 dBm	
			~	~ ▼ <sub>T2</sub> [3	2.40138	3978 GHz 7.55 dBm	
-20				11111	2.40259	9218 GHz	
1MAX	Ţ	/		T <sub>2</sub>		1MA	
-30	/						
-40							
-50					1		
-60							
-70							
-80							
-90							
Center 2.402 GHz 300 kHz/ Span 3 MHz							
Date: 17.OCT.2022 14:02:45							

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Product:	Outdoor Beacon Sensor			Test Mode:		Keep transmitting			
Mode	Keeping Transmitting			Test Voltage		DC3.0V			
Temperature		24 deg. C, Humidity		ity	56% RH				
Test Result:		Pass		Detector		PK			
20dB Bandwidth	1.208MHz								
Ř.	Marker	1 [T1 ndB]	RI	3W 10	0 kHz	z RI	F Att	20 dB	
Ref Lvl	ndB	20.00 dB			0 kHz				
10 dBm	BW 1	L.20841683 MHz	SV	TV	5 ms	Uı	nit	dBm	l
10					<b>v</b> 1 [	T1]	-6	.77 dBm	A
							2.43974	449 GHz	
0		1			ndB		20	.00 dB	
		سر 🏃			BW V⊤1	[T1]	1.20841	683 MHz	
-10			~		* 17 1	<u>  111  </u>	2.43938		
					$oldsymbol{ abla}_{\mathrm{T2}}$	[T1]	-26	.66 dBm	
-20					\		2.44059	218 GHz	
1MAX	T T	<b>/</b>			TI2				1MA
-30	/				$\overline{}$				
40							<u> </u>		
-40	/					<del></del>			
-50								Mexican	
-60									
-70									
-80									
-90									
Center 2.44 GHz 300 kHz/ Span 3 MHz									
Date: 17.OCT.2022 14:06:25									

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Product:	Outdoor Beacon S	Test Mode:	Keep tr	ansmitting		
Mode	Keeping Transmi	Test Voltage	e DO	C3.0V		
Temperature	24 deg. C,		Humidity	569	% RH	
Test Result:	Pass		Detector		PK	
20dB Bandwidth	1.214MHz					
Ŕ	Marker 1 [T1 1	ndB] F	RBW 100 k	Hz RF Att	20 dB	
Ref Lvl	ndB 20	.00 dB V	7BW 300 k	Hz		
10 dBm	BW 1.214428	886 MHz S	SWT 5 m	ns Unit	dBm	
10			<b>v</b> <sub>1</sub>	[T1] -	5.14 dBm	
				2.47974	1449 GHz	
0		<u>1</u>	ndE	20		
			BW ▼ <sub>T</sub>	1.21442 1.711 -2		
-10				[T1] -2 2.47938		
			$\nabla_{\mathrm{T}_{2}}$	2 [T1] -2		
-20	T			2.48059	9820 GHz	
1MAX	7		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		1MA	
-30	<del>-                                     </del>					
-40						
l lul						
-50					an war	
-60						
-70						
-80						
-90						
Center 2.4	48 GHz	300 kHz/	,	Spa	an 3 MHz	
Date: 17.	OCT.2022 14:12:12					

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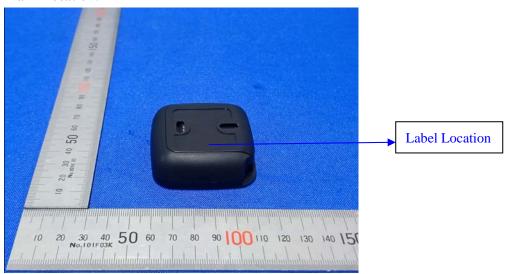


## 10.0 FCC ID Label

### FCC ID: 2AUXBDSBC060B

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:**



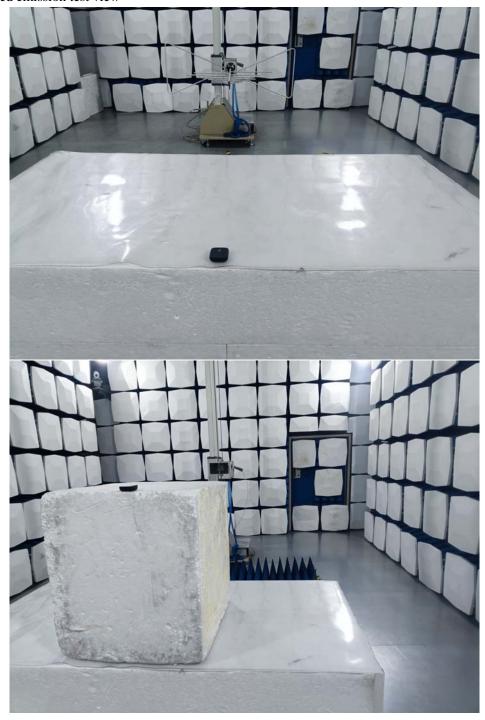
Report No.: TW2209311-02E

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#### 11.0 Photo of testing

#### 11.1 Radiated emission test view



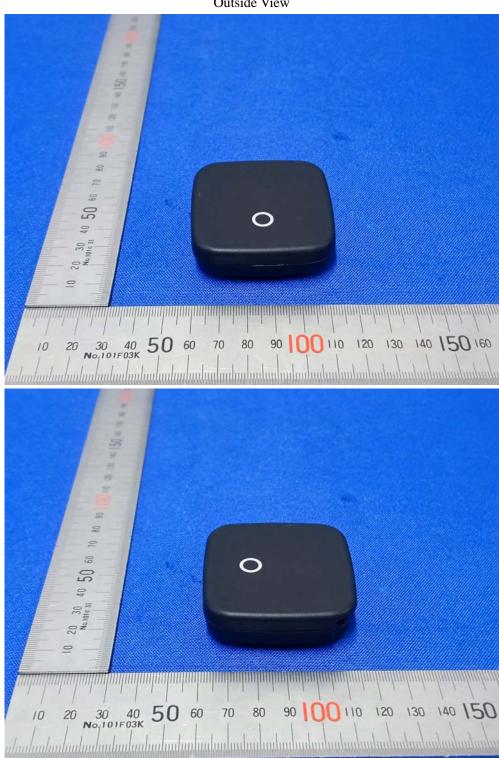
Report No.: TW2209311-02E

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#### 11.2 Photographs - EUT

Outside View



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

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Outside View



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Outside View



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Inside view



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adopt any other remedies which may be appropriate.

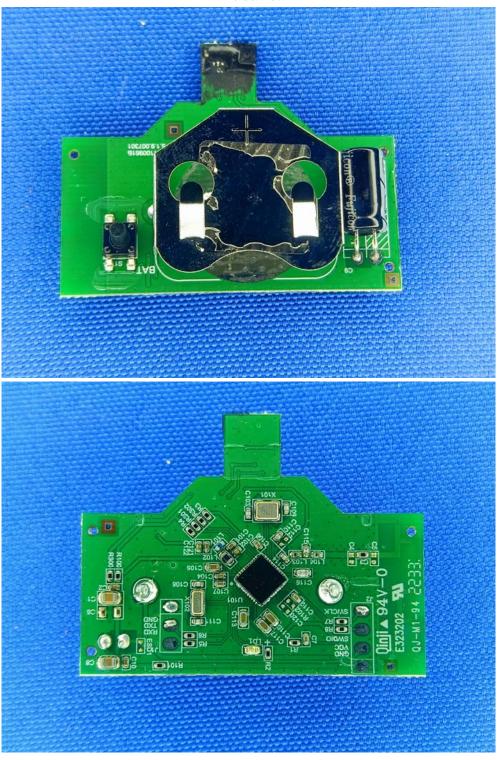
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Inside view



-- End of the report--

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