



Report No.: TW2112290E File Reference No.: 2022-01-14

Applicant: Hangzhou Roombanker Technology Co., Ltd.

Product: Outdoor Waterproof Beacon

Model No.: DSBC-150-1, DSBC-150-4, DSBC-150-5, DSBC-150-6,

DSBC-151-3, DSBC-151-4, DSBC-151-5, DSBC-152-1

Trademark: N/A

Test Standards: FCC Part 15.247

Test Result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10, FCC Part 15.247 for

the evaluation of electromagnetic compatibility

Approved By

Jack Chung

Manager

Dated: January 14, 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 CNAL. This approval result is accepted by MRA of APLAC.

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

## **CNAS-LAB Code: L2292**

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

## FCC-Registration No.: 744189

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

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

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

## **A2LA (Certification Number:5013.01)**

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

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# **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

## 1.2 Applicant Details

Applicant: Hangzhou Roombanker Technology Co., Ltd.

Address: A#801 Wantong center, Hangzhou, Zhejiang, China

Telephone: 18757285496

Fax: --

### 1.3 Description of EUT

Product: Outdoor Waterproof Beacon

Manufacturer: Hangzhou Roombanker Technology Co., Ltd.

Address: A#801 Wantong center, Hangzhou, Zhejiang, China

Trademark: N/A
Additional Trademark: N/A

Model Number: DSBC-150-1

Additional Model DSBC-150-4, DSBC-150-5, DSBC-150-6, DSBC-151-3, DSBC-151-4,

Number: DSBC-151-5, DSBC-152-1

Hardware Version: V2
Software Version: V2.0.4

Serial No.: 20220124000001

Type of Modulation GFSK (Bluetooth BLE)

Frequency range 2402-2480MHz Frequency Selection By software

Channel Number 40

Rating: DC3.0V

Battery: DC3.0V, 1500mAh CR123A battery

# 1.4 Submitted Sample: 2 Sample

#### 1.5 Test Duration

2021-12-21 to 2022-01-14

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## 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%

1.7 Test Engineer

The sample tested by

Print Name: Terry Tang

Terry lang

Date: 2022-01-14



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
TWO Line-V-NETW	R&S	EZH3-Z5	100294	2021-06-18	2022-06-17
TWO Line-V-NETW	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	2022-06-17
Spectrum	R&S	FSIQ26	100292	2021-06-18	2022-06-17
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2021-06-18	2022-06-17
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	2021-01-15	2022-01-14
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/F A		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

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.203	Antenna Requirement	Pass	Complies
FCC Part 15, Paragraph 15.207	<b>Conducted Emission Test</b>	N/A	N/A
FCC Part 15 Subpart C Paragraph 15.247(a)(2) Limit	Spectrum bandwidth of a Orthogonal Frequency Division Multiplex System Limit: 6dB bandwidth>500kHz	Pass	Complies
FCC Part 15, Paragraph 15.247(b)	Maximum peak output power Limit: max. 30dBm	Pass	Complies
FCC Part 15, Paragraph 15.205 & 15.209	Transmitter Radiated Emission Limit: Table 15.209	Pass	Complies
FCC Part 15, Paragraph 15.247(e)	Power Spectral Density Limit: max. 8dBm/3kHz	Pass	Complies
FCC Part 15, Paragraph 15.247(d)	Out of Band Emission and Restricted Band Radiation Limit: 20dB less than peak value of fundamental frequency Restricted band limit: Table 15,209	Pass	Complies

## 3.2 Test Standards

FCC Part 15 Subpart & Subpart C, Paragraph 15.247

### 4.0 EUT Modification

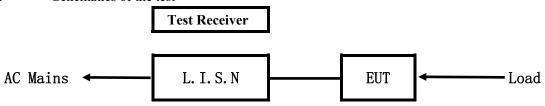
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES.

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#### **5.Power Line Conducted Emission Test**

#### 5.1 Schematics of the test

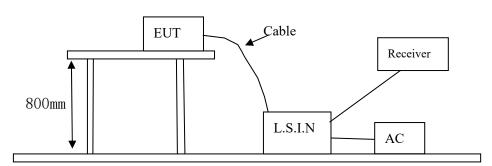


**EUT: Equipment Under Test** 

### 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.

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.

### A. EUT

Device	Manufacturer	Model	FCC ID
Outdoor Waterproof Beacon	Hangzhou Roombanker Technology Co., Ltd.	DSBC-150-1, DSBC-150-4, DSBC-150-5, DSBC-150-6, DSBC-151-3, DSBC-151-4, DSBC-151-5, DSBC-152-1	2AUXB-DSB C-15X

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#### B. Internal Device

Device	Manufacturer	Model	Rating

## 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 $\mu$ 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

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

Note: EUT powered by CR123A battery, this test item not applicable.

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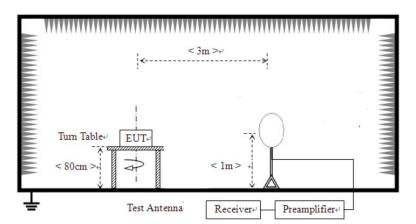


#### **6** Radiated Emission Test

- 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. For measurement above 1GHz, peak values with RBW=1MHz VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector. 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) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization: Vertical polarization and Horizontal polarization.

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

For radiated emissions from 9kHz to 30MHz



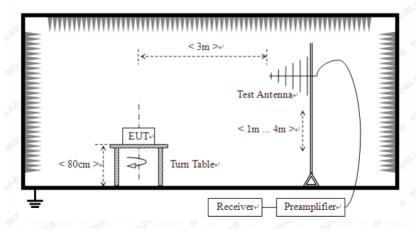
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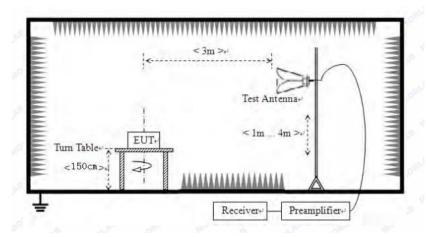
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For radiated emissions from 30MHz to1GHz



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.
- 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:

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

	<u> </u>	8 1
Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ V/m)
0.009-0.049	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 Voltage (uV)
- 2. In the Above Table, the higher limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. New battery was used during test.

600

1000

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#### Test result

## General Radiated Emission Data and Harmonics Radiated Emission Data

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

**EUT set Condition:** Keep Bluetooth Transmitting

100

**Results:** Pass

## Test Figure:

No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	49.395	15.60	-11.28	40.0	-24.40	Peak	266.00	100	Horizontal	Pass
2	106.853	13.28	-13.38	43.5	-30.22	Peak	241.00	100	Horizontal	Pass
3	383.962	32.31	-9.16	46.0	-13.69	Peak	256.00	100	Horizontal	Pass

Frequency (MHz)

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#### Test result

## General Radiated Emission Data and Harmonics Radiated Emission Data

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

**EUT** set Condition: **Keep Transmitting** 

**Results:** Pass

## Test Figure:

No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	41.880	15.63	-11.72	40.0	-24.37	Peak	359.00	100	Vertical	Pass
2	104.429	13.27	-13.28	43.5	-30.23	Peak	342.00	100	Vertical	Pass
3	548.820	21.44	-6.37	46.0	-24.56	Peak	357.00	100	Vertical	Pass

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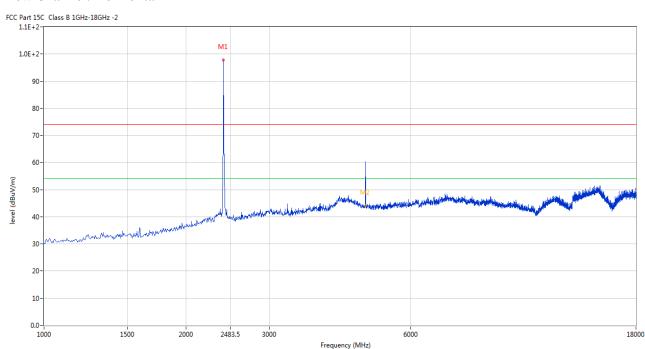
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## **Test Figures above 1GHz:**

Please refer to the following test plots for details:

### Low Channel: Horizontal



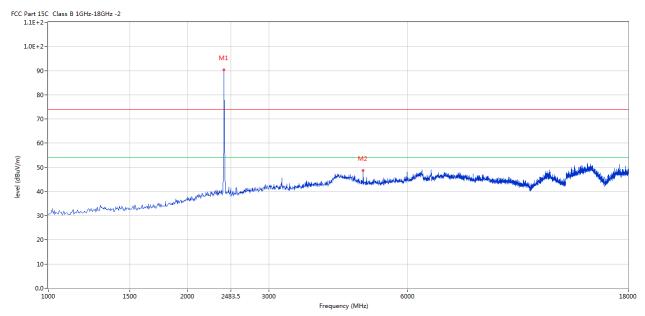
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
2	4802.799	60.33	3.12	74.0	-13.67	Peak	156.00	100	Horizontal	Pass
2**	4802.799	44.17	3.12	54.0	-9.83	AV	156.00	100	Horizontal	Pass

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### Low Channel: Vertical



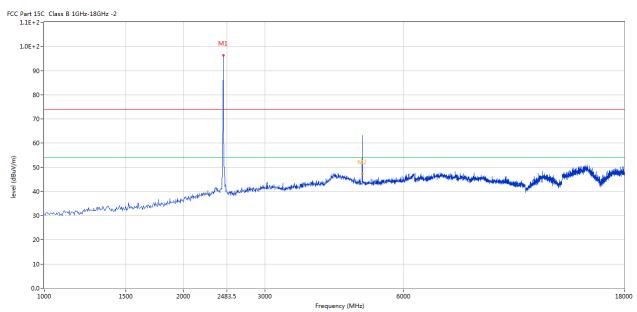
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
2	4802.799	48.59	3.12	74.0	-25.41	Peak	176.00	100	Vertical	Pass

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#### Middle Channel: Horizontal



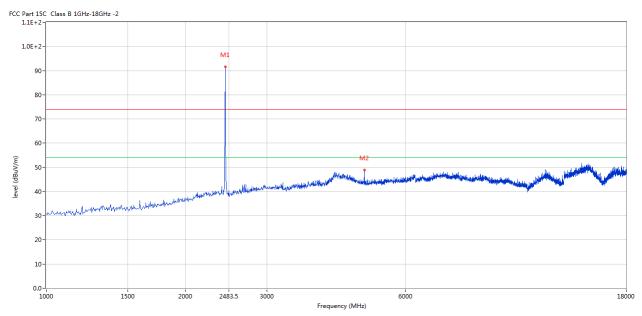
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
2	4879.280	63.18	3.20	74.0	-10.82	Peak	147.00	100	Horizontal	Pass
2**	4879.280	47.19	3.20	54.0	-6.81	AV	147.00	100	Horizontal	Pass

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#### Middle Channel: Vertical



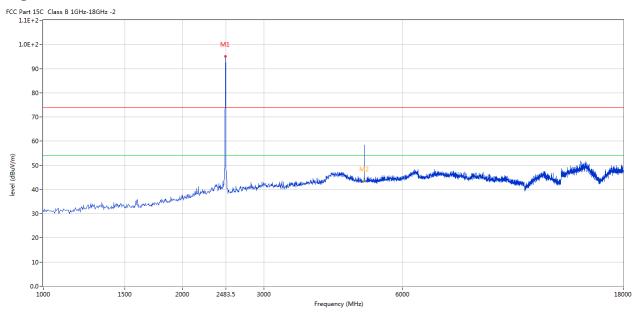
No	. Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
2	4879.280	52.93	3.20	74.0	-21.07	Peak	174.00	100	Vertical	Pass

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## **High Channel: Horizontal**



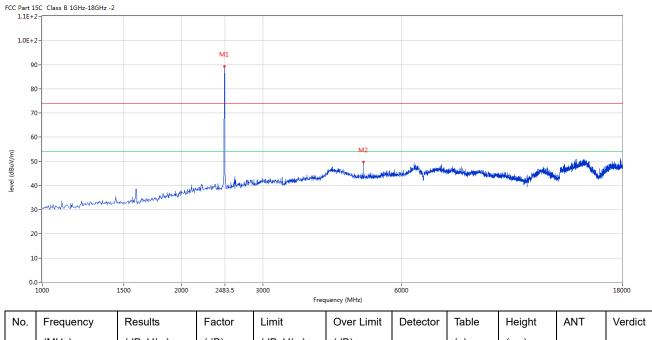
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
2	4960.010	58.39	3.36	74.0	-15.61	Peak	152.00	100	Horizontal	Pass
2**	4960.010	43.59	3.36	54.0	-10.41	AV	152.00	100	Horizontal	Pass

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## **High Channel: Vertical**



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
2	4960.010	49.70	3.36	74.0	-24.30	Peak	188.00	100	Vertical	Pass

Note: 1. Level = Reading + AF + Cable - Preamp

- 2. For the radiated emissions above 18G and below 30MHz, it is the floor noise.
- 3. The measured PK value less than the AV limit, no necessary to take down the AV measurement result.

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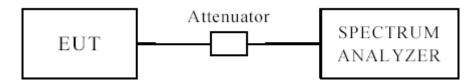
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## 7.0 6dB Bandwidth Measurement

## 7.1 Test Setup



# 7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500 kHz

## 7.3 Test Procedure

- 1. Set resolution bandwidth (RBW) = 100 kHz
- 2. Set the video bandwidth (VBW)  $\geq$  3 x RBW.
- 3. Detector = Peak.
- 4. Trace mode =  $\max$  hold.
- 5. Sweep = auto couple.
- 6. Allow the trace to stabilize.
- 7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 7.4 Test Result

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### 6dB BW

EUT		Outdoor Waterp	roof Beacon	Model		D	SBC-150-1
Mode		Keep Trans	smitting	Input Voltag	e		DC3.0V
Temperat	ure	24 deg	. C,	Humidity			56% RH
Channel	Ch	nannel Frequency (MHz)		andwidth Hz)	M	inimum Limit (kHz)	Pass/ Fail
Low		2402	7	09		0.5	Pass
Middle		2440	6	97		0.5	Pass
High		2480	7	15		0.5	Pass

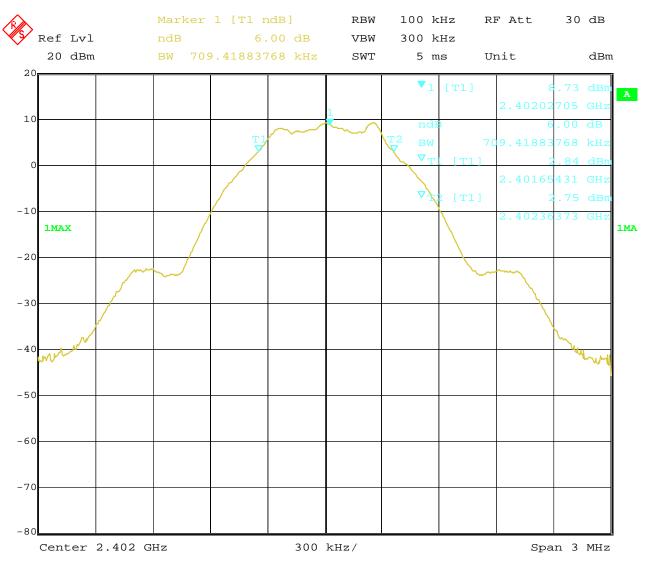
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## Test Figure:

# 1. Condition: Low Channel



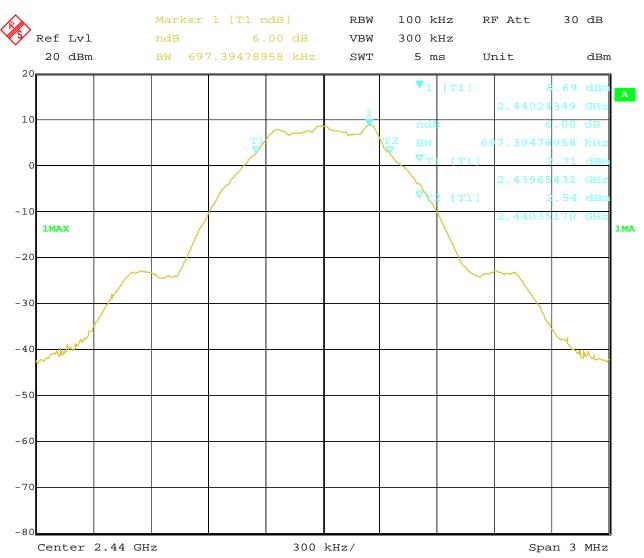
Date: 11.JAN.2022 09:07:54

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### 2. Condition: Middle Channel



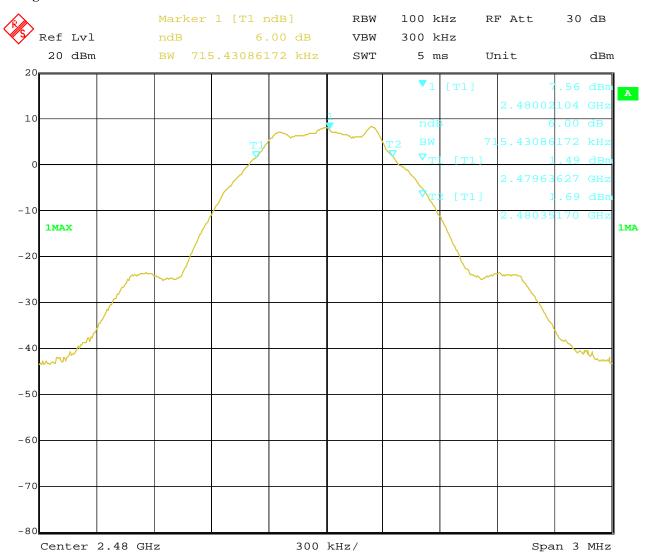
Date: 11.JAN.2022 09:13:48

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## 3. High Channel



Date: 11.JAN.2022 09:18:15

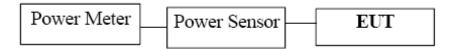
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## 8. Maximum Output Power

## 8.1 Test Setup



### 8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

#### **8.3 Test Procedure**

The RF power output was measured with a Power meter connected to the RF Antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate centre frequency.

Note: the Peak power were measured.

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#### **8.4Test Results**

EUT		Outdoor Waterpro	oof Beacon	Model		DSBC-15	0-1
Mode		Keep Transm	nitting	Input Voltage		DC3.0V	7
Temperatu	re	24 deg. (	Ξ,	Humidity		56% RI	H
Channel	Cl	nannel Frequency	Max	x. Power Output (dB	m)	Peak Power Limit	Pass/ Fail
Chamer		(MHz)		Peak		(dBm)	
Low		2402		9.35		30	Pass
Middle		2440		9.37		30	Pass
High		2480		8.93		30	Pass

Note: 1. the result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

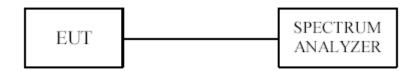
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Date: 2022-01-14



# 9. Power Spectral Density Measurement

## 9.1 Test Setup



### 9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm/3kHz.

#### 9.3 Test Procedure

- 1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
- 2. Set the RBW = 10 kHz.
- 3. Set the VBW  $\geq$  30 kHz.
- 4. Set the span to 1.5 times the DTS channel bandwidth.
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level.
- 10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
- 11. The resulting peak PSD level must be  $\leq 8 \text{ dBm/3kHz}$ .

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#### 9.4Test Result

EUT		Outdoo	r Waterproof	Beacon	Model		D	SBC-150-1
Mode		Ke	ep Transmitt	ing	Input Volta	age		DC3.0V
Temperat	ure		24 deg. C,		Humidit	y		56% RH
	Peak	Power	Cable	Final Po	wer Spectral	Max	ximum	
Channel	Re	ading	Loss	D	ensity	L	imit	Pass/ Fail
	(d	lBm)	(dB)	(dBn	n/10kHz)	(dBn	n/3kHz)	
Low	-	1.31	0.2	-	-1.11		8	Pass
Middle	-	1.24	0.2	-	-1.04		8	Pass
High	-	1.83	0.2	-	-1.63		8	Pass

Note: The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss

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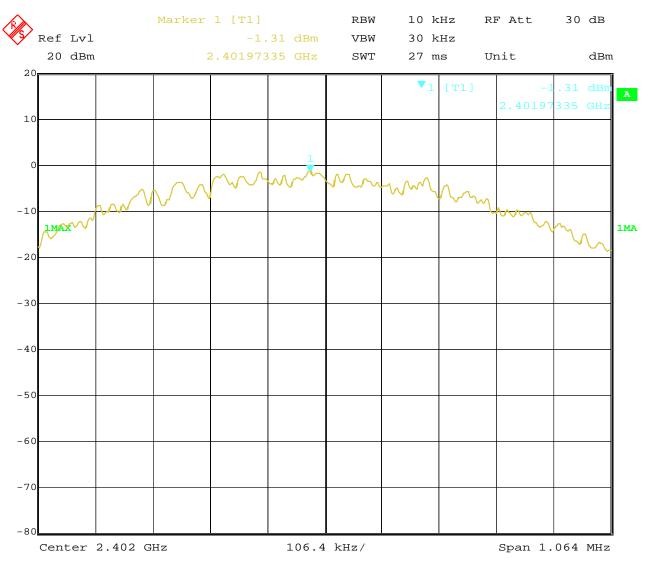
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## Test Figure:

# 1. Condition: Low Channel



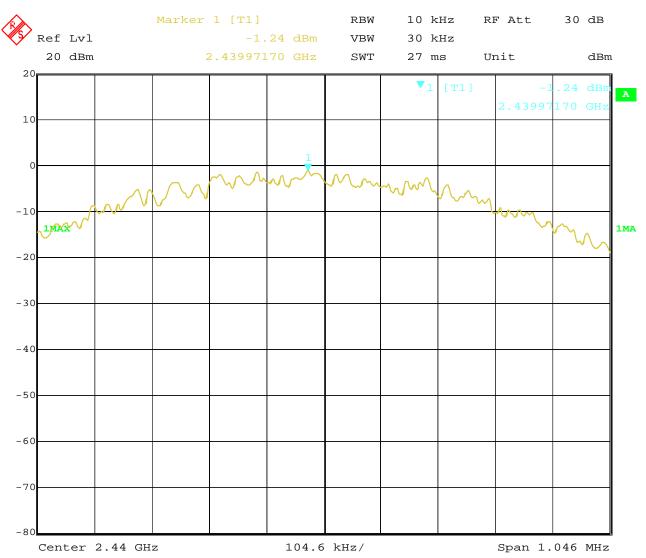
Date: 11.JAN.2022 09:36:01

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### 2. Condition: Middle Channel



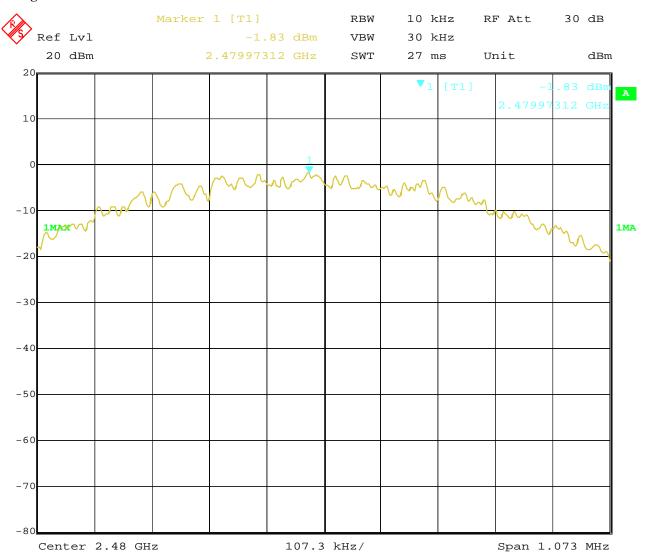
Date: 11.JAN.2022 09:32:27

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## 3. High Channel



Date: 11.JAN.2022 09:41:51

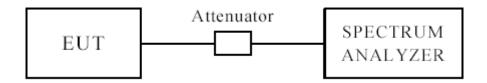
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# 10 Out of Band Measurement

# 10.1 Test Setup for band edge



The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

#### 10.2 Limits of Out of Band Emissions Measurement

- 1. Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

#### **10.3 Test Procedure**

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of Radiated emission test. (Peak values with RBW=1MHz, VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector)

For bandage test, the spectrum set as follows: RBW=100 kHz, VBW=300 kHz. A conducted measurement used

#### 10.4 Test Result

Please see next pages

Note: For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

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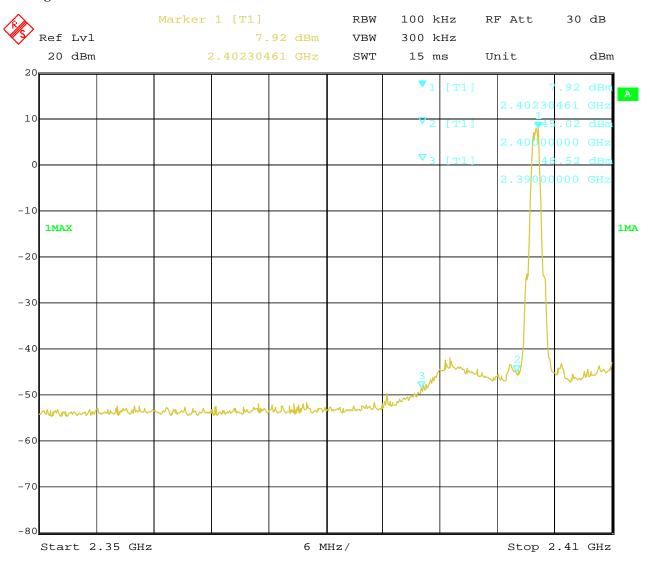
Date: 2022-01-14



### 10.4 Band-edge Measurement

EUT	Outdoor Waterproof Beacon	Model	DSBC-150-1
Mode	Keep Transmitting	Input Voltage	DC3.0V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

## **Test Figure:**



Date: 11.JAN.2022 09:52:03

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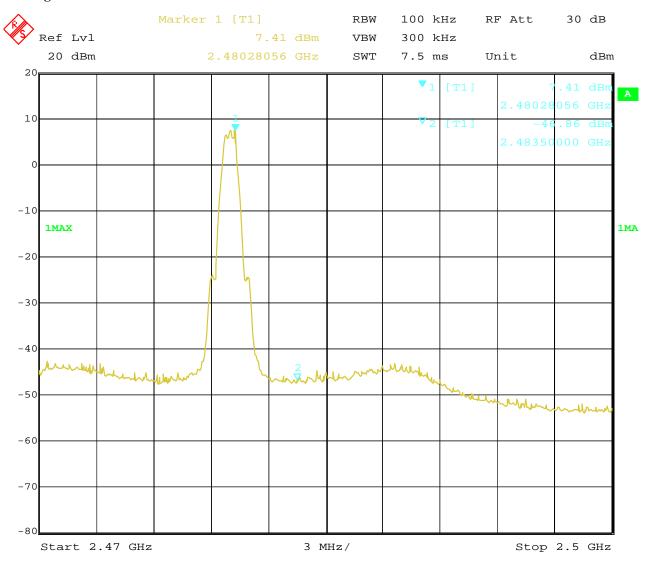
Date: 2022-01-14



### **10.4** Band-edge Measurement

EUT	Outdoor Waterproof Beacon	Model	DSBC-150-1
Mode	Keeping Transmitting	Input Voltage	DC3.0V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

## **Test Figure:**



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#### 10.4 Restrict Band Measurement

	EUT	Outdoor W	aterproof Beacon	Model			DSBC-	150-1	
	Mode	Keep '	Transmitting	Input Voltag	je		DC3	.0V	
Te	mperature	24	4 deg. C,	Humidity			56%	RH	
Τe	est Result:		Pass						
C Part 1 1.1E+	.5C Class B 1GHz-18GHz	-2		•	•				
								M1	
1.0E+	2-								
9	0-								
8	0-							$\overline{}$	
7	0-								
							/	\	
6	0-						1		
					M3	A STATE OF THE PARTY OF THE PAR	M2	No. of the last of	white
	0-	والمراجع	والمستواح والمألفة فالإنتاج المقارضة والمتعارض والمتعارض والمتعارضة والمتعارضة والمتعارضة والمتعارضة والمتعارضة	مدللونة راعلونة راعدون المرادية	M3	A Property of Control	M2	way!	wight from
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	O-	hida ana and the ball and all an ana an	મંદ્રમાનુકાર્યાન એને અને કે મોર્કા સ્ટ્રેક્ટર સ્ટ્રેક્ટર સ્ટ્રેક્ટર સ્ટ્રેક્ટર સ્ટ્રેક્ટર સ્ટ્રેક્ટર સ્ટ્રેક્ટર	nniihnrii audia idennokusputailissasyotikida	M3	A plant to the state of the sta	M2 •	- Angel	wish Alpenia
(III/Angap) Ianai 4	O-	and the state of t	hangen and a signific in the large party and the significant and t	nestilens ja negles jak erreden jarvaliten sen sakkele	M3	and the state of t	M2	- Longton	with lines.
(iii/anga) ia/ai 4	O-lining all many which Ale	hida aana wada (enda kabanda da aana aa	મંદ્રમાનુકુષ્યત્વનો <mark>ત્રી</mark> હતું કર્યા કર્યા કર્યા કરવા કરવા કર્યા કર્યા છે. જે ત્યારે કર્યા કરા કર્યા કર્યા કર્યા કર્યા કર્યા કર્યા કર્યા કરા કર્યા કરા કર્યા કરા કર્યા કરા કર્યા કરા કર્યા કરા કર્યા કરા કરા કરા કર્યા કરા કર્યા કરા કરા કરા કર્યા કરા કરા કર્યા કરા કર્યા ક	nosikerit <sub>e</sub> andra skonorden jarakitis arpitkisk	M3	ngin katan ngi ngi ilu dan	M2 o	hough	net the light of t
(EL/Appan) 19/01   3   3   2		high construction to the state of the state	hongen and a signific desirable recommendation of the second section.	nesishari <u>angka ja marka jara kilipungula kab</u>	M3	ngga bakan papingal lip dag	M2 o	The state of the s	
(EL/Appan) 19/01   3   3   2	O-lining him all manufactured by the O-	hida eesta ees	કંદમનુકુષ્યન એક્રીના હોંધ્યું હતાં હોઇ હેલ વેદ કંપણ અહિલ હોંધ્યું હોઇ હોંધ્યું હોઇ હોંધ્યું હોઇ હોંધ્યું હોઇ હ	Frequency (MHz)	M3	ngin katan ngi ing ila dan	M2 o	hough	2410
(EL/Appan) 19/01   3   3   2		Results	Factor Limit		Detector	Table	M2 •	ANT	2410
(iii/knoon)   5   3   3   2   1   0.	0-			Frequency (MHz)  Over Limit					

Note: The measured PK value less than the AV limit, no necessary to take down the AV measurement result.

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#### 10.4 Restrict Band Measurement

EUT		Outdoor Waterproof Beacon			Mode	el	DSBC-150-1			
Mode		Keep Transmitting		Input Voltage		DC3.0V				
Temperature		24 deg. C,		Humidity						
Test Result:		Pass								
C Part 1	.5C Class B 1GHz-18GHz	-2								
1.0E+	2-							M1		
9	0-								\	
8	0-								$\overline{}$	
7	0-									
	0-								\	
6	0-							1	\ \	
							l. fu	M2		
			halla hilla di alea ara a ha	al  u	d between the state of the stat	M3	Marinda in the dead files	M2	Magnitud	ngallode high
		pidados. Historia bribanos iliminadism	u zdiali je bišla i bisniki pravilne jeda	eleptores, limited by the	National House Microsoft and State	M3	برخا الدواملة فالاختاط والمجاورة	M2	Wagnaha a	ngallok dalil
5 4	O - shot wind e will have be able to be	places. Hasolich wiel-greinlyndischlim	m plant, in blibdy i the sibility in mysters, when	Mercia er Jantoria er d	المراد ال	M3	THE STATE OF THE PARTY OF THE P	M2	Magazina	egaloù-kill
	O - shot wind e will have be able to be	jlderin, blescheilweit-greinfradsdem	والمراب فياليا والمار أدمار	electory .	al helistantino de la lateria	M3 Military Military Market	hayayan da	M2	West-hid	ingeloù kijl
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5 4 3 2 1 1 0		plaketos bisparlini bribi eponiljenska dism	ar planed, ap idal far dag affigeración oprodus		equency (MHz)	M3	hayanda sarahada da ba	M2	Methoda	
5 5 4 3 2 1 1 O.		Results				Detector	Table	Height	ANT	
5 5 3 4 2 1 0.	0-11-11-11-11-11-11-11-11-11-11-11-11-11		Factor	Fn	equency (MHz)					2410

Note: The measured PK value less than the AV limit, no necessary to take down the AV measurement result.

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#### 10.4 Restrict Band Measurement

EUT		1			Model		DSBC-150-1				
Mode		Keep Transmitting			Input Voltage		DC3.0V				
Temperature		24 deg. C,			Humidit	y					
Τe	est Result:		Pass								
C Part 1	15C Class B 1GHz-18GHz	-2		•		•				,	
1.0E+	2-										
9	10-										
8	60-		-/-								
7	70-										
6	60-	/	/								
		100 minister and a second									
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3	10 -			M2 •	And application of the said		hadaken hadada daken	inhidenselikkyssidd yndd belydd yn sacodd	ontongo (d. 1994). Alfan alla anno Labir, bu	Atomic age	
- 3 2	10-			M2 •	The Part of the Control of the Contr		had a hard a	and the second s	onemony (4.174). Light digness hebry his	Attack of the	
- 2 1	10-			M2 •				ikusu alda asiri pitaya kunyi	and the state of t	Atheritanife	
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3 2 1	10-	Results	Factor	•	3.5	Detector	Table	Height	ANT		
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2 1	00- 00- 00- 00- 00- 00- 00- 00- 00- 00-			2483	0.5 Frequency (MHz)  Over Limit		Table	Height		2500	

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#### 10.4 Restrict Band Measurement

EUT		UT Outdoor Waterproof Beacon		]	Model		DSBC-150-1			
Mode		e Keep Transmitting		Inp	Input Voltage		DC3.0V			
Temperature		24 (	24 deg. C,		Humidity		56% RH			
Te	est Result:	I	Pass							
CC Part 1	.5C Class B 1GHz-18GHz 2-r	-2								
1.0E+	2_									
9	0-									
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(\(\mu \big  \((\mu \big  \mu \big  \) (\(\mu \big  \mu \big  \mu \big  \big  \) (\(\mu \big  \mu \big  \mu \big  \mu \big  \big  \) (\(\mu \big  \mu \big  \mu \big  \mu \big  \big  \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\		Results	/ Factor Limi	2483.5 Free		Detector	Table	Height	ANT	
(\(\pi/\)(\(\pi/\)(\(\pi/\)(\(\pi/\)) and 4.	0			2483.5 Free	quency (MHz)					2500
(\(\pi/\)(\(\pi/\)(\(\pi/\)(\(\pi/\)) and 4.	0- 0- 0- 0- 0- 0- 2470 Frequency	Results		2483.5 Free t	quency (MHz)  Over Limit		Table	Height		2500

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## 11.0 Antenna Requirement

## 11.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, 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.

And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

### 11.2 Antenna Connected construction

PCB antenna used. The gain of the antennas is 2.0dBi (Declared by the manufacturer)

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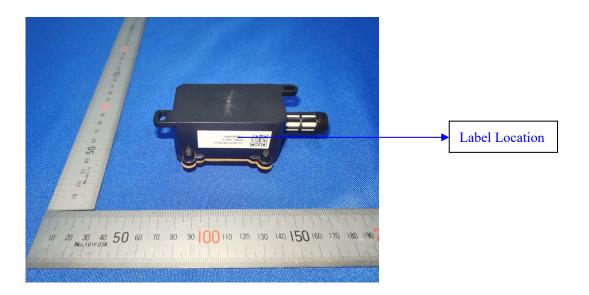
#### 12.0 FCC ID Label

## FCC ID: 2AUXB-DSBC-15X

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:**

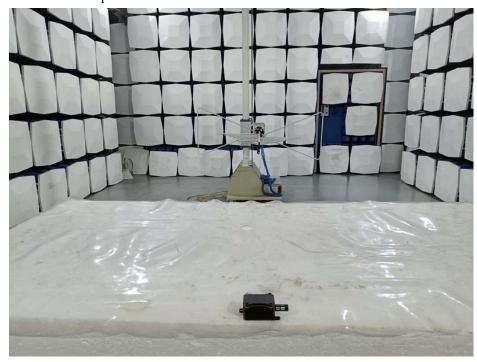


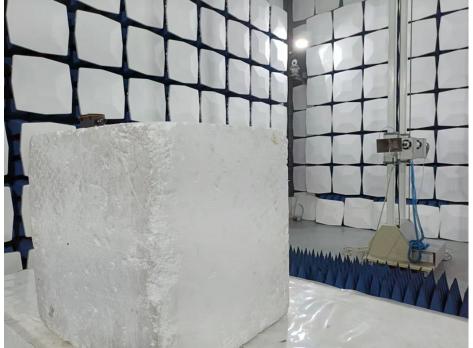
Date: 2022-01-14



## 13.0 Photo of testing

Conducted Emission Test Setup: N/A Radiated Emission Test Setup:





Date: 2022-01-14



### Photographs – EUT





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

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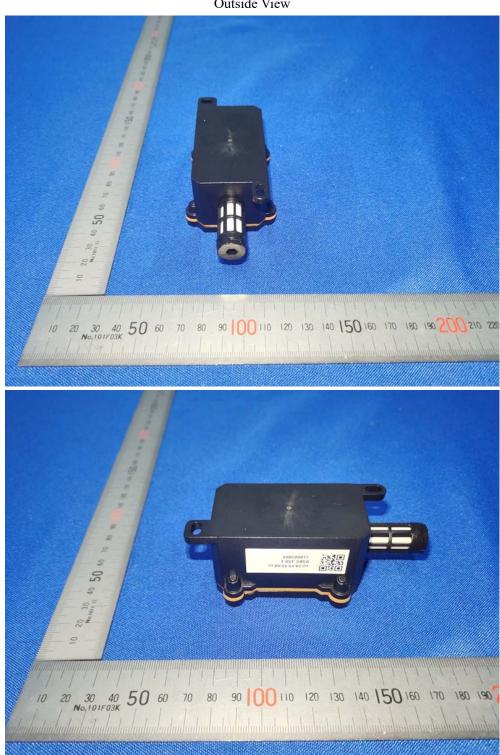
adopt any other remedies which may be appropriate.

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Outside View



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adopt any other remedies which may be appropriate.

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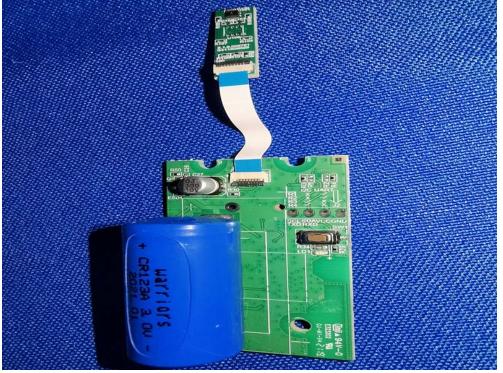
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Inside View





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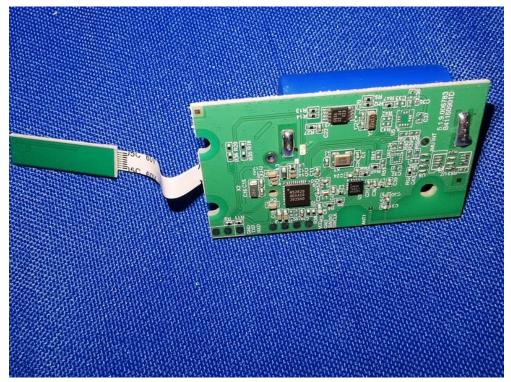
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Inside View



End of the report