

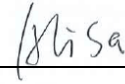
## RF Exposure Evaluation Report

**Report Reference No.**.....: **MTWG22030190-H**

**FCC ID**..... : **2AWDBTTV102B**

Compiled by

( position+printed name+signature)..: File administrators Alisa Luo



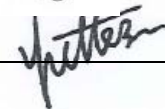
Supervised by

( position+printed name+signature)..: Test Engineer Sunny Deng



Approved by

( position+printed name+signature)..: Manager Yvette Zhou



Date of issue.....: **June 21,2022**

**Representative Laboratory Name** ..: **Shenzhen Most Technology Service Co., Ltd.**

Address .....: No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park,  
Nanshan, Shenzhen, Guangdong, China.

**Applicant's name**.....: **Fujian Baldr Technology Co., Ltd**

Address .....: 2F Jin Shan Ya Yuan, No. 36 Jin Rong North Road, Fuzhou, China

**Test specification/ Standard** .....: **47 CFR Part 1.1307**

**47 CFR Part 2.1093**

TRF Originator.....: Shenzhen Most Technology Service Co., Ltd.

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**Test item description** .....: Bluetooth Water Timer

Trade Mark .....: Rainpoint

Model/Type reference.....: TTV102B

Listed Models .....: N/A

Modulation Type .....: GFSK

Operation Frequency.....: From 2402MHz to 2480MHz

Rating .....: DC 4.5V(by Batteries)

Hardware version .....: TTV102B-V01

Software version .....: V0.0.16

Result.....: **PASS**

**TEST REPORT**

Equipment under Test : Bluetooth Water Timer

Model /Type : TTV102B

Listed Models : N/A

Remark : N/A

**Applicant** : **Fujian Baldr Technology Co., Ltd**

Address : 2F Jin Shan Ya Yuan, No. 36 Jin Rong North Road, Fuzhou, China

**Manufacturer** : **Fujian Baldr Technology Co., Ltd**

Address : 2F Jin Shan Ya Yuan, No. 36 Jin Rong North Road, Fuzhou, China

<b>Test Result:</b>	<b>PASS</b>
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The test report merely corresponds to the test sample.  
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

## 1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2022.06.21	Initial Issue	Alisa Luo

## 2. SAR Evaluation

### 2.1 RF Exposure Compliance Requirement

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

**TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)**

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3–3.0 .....	614	1.63	*(100)	6
3.0–30 .....	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30–300 .....	61.4	0.163	1.0	6
300–1500 .....	.....	.....	f/300	6
1500–100,000 .....	.....	.....	5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3–1.34 .....	614	1.63	*(100)	30
1.34–30 .....	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30–300 .....	27.5	0.073	0.2	30
300–1500 .....	.....	.....	f/1500	30
1500–100,000 .....	.....	.....	1.0	30

F= Frequency in MHz

Friis Formula

Friis transmission formula:  $Pd = (Pout \cdot G) / (4 \cdot \pi \cdot R^2)$  Where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

## 2.1.3 EUT RF Exposure

Measurement Data

BLE

GFSK				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	0.881	$0.881 \pm 1$	1.881	1.54
Middle(2440MHz)	1.007	$1.007 \pm 1$	2.007	1.59
Highest(2480MHz)	0.883	$0.883 \pm 1$	1.883	1.54

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum Peak Conducted Output Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit	Result
Highest(2462 MHz)	2.007	1.59	1.08	0.0004	1.0	Pass

Note: 1) Refer to report **MTWG22030190-R2** for EUT test Max Conducted average Output Power value.

Note: 2)  $P_d = (P_{out} * G) / (4 * \pi * R^2) = (1.59 * 1.28) / (4 * 3.1416 * 20^2) = 0.0004$

Note: 3) EUT's Bluetooth module is more than 20cm away from the human body.

.....**THE END OF REPORT**.....