

# **RF Exposure Evaluation Report**

APPLICANT	:	Zhejiang Lingzhu Technology Co., Ltd.
EQUIPMENT	:	Smart Tag
MODEL NAME	:	TTFM-11
FCC ID	:	2BEWX-TTFM-11
STANDARD	:	47 CFR PART 2.1093
		FCC KDB 447498 D01 v06

The product evaluation date was started from May 28, 2024 and completed on May 28, 2024. We, Sporton International Inc. (Kunshan), would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1093 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Si Zhang

Approved by: Si Zhang



**Sporton International Inc. (Kunshan)** No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China



# Table of Contents

1.	ADMINISTRATION DATA	.4
	1.1. Testing Laboratory	.4
2.	DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)	.5
3.	MAXIMUM RF TUNE UP POWER AMONG PRODUCTION UNITS	.6
4.	RF EXPOSURE EVALUATION	.6



SPORTON LAB. RF Exposure Evaluation Report

Report No. : FA442311

Revision History			
REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA442311	Rev. 01	Initial issue of report	May 30, 2024



# 1. Administration Data

#### 1.1. Testing Laboratory

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory				
Test Firm	Sporton International Inc. (Kunshan)			
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158			
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.	
	SAR01-KS	CN1257	314309	

Applicant			
Company Name Zhejiang Lingzhu Technology Co., Ltd.			
Address	Room 302, No 1 Building Huace Center, Xihu District, Hangzhou City, Zhejiang Province, China		

Manufacturer			
Company Name Zhejiang Lingzhu Technology Co., Ltd.			
Address	Room 302, No 1 Building Huace Center, Xihu District, Hangzhou City, Zhejiang Province, China		



## 2. Description of Equipment Under Test (EUT)

Product Feature & Specification			
EUT Type	Smart Tag		
Model Name	TTFM-11		
FCC ID	2BEWX-TTFM-11		
Wireless Technology and Frequency Range	Bluetooth: 2402 MHz ~ 2480 MHz		
Mode	Bluetooth LE : GFSK		
Antenna Type	Bluetooth: PCB Antenna		
Antenna Gain	Bluetooth: -0.44 dBi		
HW Version	V1.0.0		
EUT Stage	Production Unit		
Demontry			

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

#### Comments and Explanations:

 The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

The maximum RF output tune up power, antenna gain also the safe distance used for evaluate RF exposure were declared by manufacturer.



### 3. Maximum RF Tune Up power among production units

#### <Bluetooth>

Mode	Maximum Average Power (dBm)	
Bluetooth LE	1.0	

# 4. RF Exposure Evaluation

Mode	Maximum Average Power (dBm)	
Bluetooth LE	1.0	

#### Note:

- 1. Per KDB 447498 D01v06 the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:
  - [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]  $\left[\sqrt{f(GHz)}\right] \le 3.0$  for 1-g SAR and  $\le 7.5$  for 10-g extremity SAR
    - $\cdot$  f(GHz) is the RF channel transmit frequency in GHz
    - Power and distance are rounded to the nearest mW and mm before calculation
    - The result is rounded to one decimal place for comparison

Bluetooth Max Power (dBm)	Separation Distance (mm)	Frequency (GHz)	exclusion thresholds
1.0	< 5	2.48	0.4

#### **Conclusion:**

Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion. The test exclusion threshold is 0.4 which is  $\leq$  3.0 for 1-g SAR, 1-g SAR and extremity SAR testing is not required, and complied with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for 1g SAR) specified in FCC 47 CFR part 2 (2.1093).

## -----THE END------