



## SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR230800165002

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### 1 Cover Page

# ***RF Exposure REPORT***

**Application No.:** SHCR2308001650HS  
**FCC ID:** 2BE8K-9120077180144  
**Applicant:** Tyromotion GmbH  
**Address of Applicant:** Bahnhofgürtel 59 8020 Graz Austria  
**Manufacturer:** Tyromotion GmbH  
**Address of Manufacturer:** Bahnhofgürtel 59 8020 Graz Austria  
**Factory:** Tyromotion GmbH  
**Address of Factory:** Bahnhofgürtel 59 8020 Graz Austria  
**Equipment Under Test (EUT):**  
**EUT Name:** Therapy plate  
**Model No.:** TYM2300011  
**Standard(s) :** FCC Rules 47 CFR §2.1093  
KDB447498 D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2023-08-17  
**Date of Test:** 2023-12-11 to 2023-12-20  
**Date of Issue:** 2023-12-29

<b>Test Result:</b>	<b>Pass*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



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Revision Record			
Version	Description	Date	Remark
00	Original	2023-12-29	/

Authorized for issue by:				
Tested By		Wade Zhang		
		Wade Zhang/Project Engineer		
Approved By		Parlam Zhan		
		Parlam Zhan / Reviewer		



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### 3 General Information

#### 3.1 General Description of E.U.T.

Power supply:	DC3.7V 470mAh Li-ion Battery or AC 120V, 60Hz (By power supply) Model: ATM012T-W050VU Input: AC220-240V, 50-60Hz Output: DC 5V 2A
Product Type:	<input type="checkbox"/> Portable device <input checked="" type="checkbox"/> Mobile device <input type="checkbox"/> Fixed device

#### 3.2 Details of E.U.T.

Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK
Number of Channels:	40
Channel Spacing:	2MHz
Antenna Type:	PCB Antenna
Antenna Gain:	1.95dBi (Provided by manufacturer)

### 3.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China.

Tel: +86 21 6191 5666

Fax: +86 21 6191 5678

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc ) is provided by the applicant. (if applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).
3. Sample source: sent by customer.

### 3.4 Test Facility

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

- **A2LA (Certificate No. 6332.01)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

- **FCC (Designation Number: CN1301)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

- **ISED (CAB Identifier: CN0020)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory  
Company Number: 8617A

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

## 4 Test Standards and Limits

### 4.1 FCC Radiofrequency radiation exposure limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max power of channel})/(\text{min test separation distance})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion. For 2.4G band device, the limit of worse case is

$$P_{\text{max}} \leq 3.0 \cdot D_{\text{min}} / \sqrt{f} = 3.0 \cdot 5 / \sqrt{2.480} = 9.525 \text{ mW}$$



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## 5 Measurement and Calculation

### 5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHCR230800165001.

#### Test Data:

Test Mode	Antenna	Channel	Result[dBm]	Result[mW]
BLE_1M	Ant1	2402	-1.45	0.72
		2440	-0.39	0.91
		2480	0.53	1.13
BLE_2M	Ant1	2402	-1.49	0.71
		2440	-0.38	0.92
		2480	0.57	<b>1.14</b>

### 5.2 RF Exposure Calculation

The Max Conducted Peak Output Power is 1.14mW. The best case gain of the antenna is 1.95dBi.

1.95dBi logarithmic terms convert to numeric result is nearly 1.57.

According to the formula. calculate the EIRP test result:

$$\text{EIRP} = P \times G = 1.14 \text{ mW} \times 1.95 = 1.79\text{mW} < 9.525\text{mW}$$

So the SAR report is not required.

**--End of the Report--**