

# RF Exposure Evaluation Declaration

Product Name : GPS Lap Timer  
Brand Name : Qstarz  
Model No. : LT-8000GT  
FCC ID : WDYQ1110501

Applicant : Qstarz International Co., Ltd.  
Address : 6F-2, No. 160, Ming-Chuan E. Rd., Sec. 6., Taipei, Taiwan

Date of Receipt : Apr. 12, 2022  
Issued Date : Sep. 01, 2022  
Report No. : 2240314R-RFUSMPEV02-A  
Report Version : V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

The test report shall not be reproduced except in full without the written approval of DEKRA Testing and Certification Co., Ltd.



Product Name : GPS Lap Timer  
Applicant : Qstarz International Co., Ltd.  
Address : 6F-2, No. 160, Ming-Chuan E. Rd., Sec. 6., Taipei, Taiwan  
Manufacturer : Qstarz International Co., Ltd.  
Address : 6F-2, No. 160, Ming-Chuan E. Rd., Sec. 6., Taipei, Taiwan  
Brand Name : Qstarz  
Model No. : LT-8000GT  
FCC ID : WDYQ1110501  
EUT Voltage : DC 5V (host equipment)  
DC 3.7V for lithium-ion battery  
Applicable Standard : FCC 47 CFR Part 2.1091 Radiofrequency radiation exposure  
evaluation: mobile devices.  
Laboratory Name : DEKRA Testing and Certification Co., Ltd.  
Hsin Chu Laboratory  
Address : No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu  
County 310, Taiwan, R.O.C.  
Test Result : Complied

Documented By :



( Hailey Peng / Senior Engineer )

Approved By :



( Rueyyan Lin / Supervisor )

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### Revision History

| Version | Description             | Issued Date   |
|---------|-------------------------|---------------|
| V1.0    | Initial issue of report | Sep. 01, 2022 |
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## 1. General Information

### 1.1. EUT General Information

| RF General Information |                       |                           |                                     |
|------------------------|-----------------------|---------------------------|-------------------------------------|
| Evaluation Mode        | Frequency Range (MHz) | Operating Frequency (MHz) | Modulation Type                     |
| WiFi 2.4 GHz           | 2400 ~ 2483.5         | 2412 ~ 2462               | 802.11b: DSSS<br>802.11g/n/ac: OFDM |
| Bluetooth              | 2400 ~ 2483.5         | 2402 ~ 2480               | LE: GFSK                            |

The EUT supports bandwidth 20 MHz only for WiFi 2.4 GHz function.

The EUT has two editions for marketing:

| Edition         | Color of Packaging & Appearance |
|-----------------|---------------------------------|
| Special Edition | Blue                            |
| General Edition | Red                             |

From the above, special edition of EUT was selected as representative model for the test and its data was recorded in this report.

Note: The above EUT information is declared by the manufacturer.

## 1.2. Test Facility

### Laboratory Information

**USA** : **FCC Registration Number: TW3024**

**Canada** **CAB identifier : TW3024**

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: <http://www.dekra.com.tw>

If you have any comments, please don't hesitate to contact us. Our test sites as below:

|                                                                                                                                                |                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Laboratory                                                                                                                                | DEKRA Testing and Certification Co., Ltd.                                                                                                                                              |
| Address                                                                                                                                        | 1. No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.<br>2. No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. |
| Phone number                                                                                                                                   | 1. +886-3-582-8001<br>2. +886-3-582-8001                                                                                                                                               |
| Fax number                                                                                                                                     | 1. +886-3-582-8958<br>2. +886-3-582-8958                                                                                                                                               |
| E mail address                                                                                                                                 | <a href="mailto:info.tw@dekra.com">info.tw@dekra.com</a>                                                                                                                               |
| Website                                                                                                                                        | <a href="http://www.dekra.com.tw">http://www.dekra.com.tw</a>                                                                                                                          |
| Note: Test site number for address 1 includes HC-SR02. Test site number for address 2 includes HC-CB02, HC-CB03, HC-CB04, HC-SR10 and HC-SR12. |                                                                                                                                                                                        |

## 2. RF Exposure Evaluation

### 2.1. Test Limit

(A) Test Limit for Occupational / Controlled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|------------------------------------------|------------------------------------------------------------------|
| 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) Test Limit for General Population / Uncontrolled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|------------------------------------------|------------------------------------------------------------------|
| 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                                                              |

Note: f = frequency in MHz; \*Plane-wave equivalent power density

Power Density (S) is calculated by the following formula:

$$S = (P \cdot G) / 4\pi R^2$$

where:

S = power density (in appropriate units, e.g. mW/ cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

$\pi$  = 3.1416

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

## 2.2. Test Result of RF Exposure Evaluation

### Exposure Environment: General Population / Uncontrolled Exposure

| Evaluation Mode | E.I.R.P<br>(dBm) | E.I.R.P<br>(mW) | Power Density<br>(mW/cm <sup>2</sup> ) | Limit<br>(mW/cm <sup>2</sup> ) | Test Result<br>(PASS/FAIL) |
|-----------------|------------------|-----------------|----------------------------------------|--------------------------------|----------------------------|
| WiFi 2.4 GHz    | 19.640           | 92.045          | 0.018                                  | 1.000                          | PASS                       |
| Bluetooth LE    | 23.090           | 203.704         | 0.041                                  | 1.000                          | PASS                       |

Distance (cm): 20

Note:

1. The above EUT information is declared by the manufacturer.
2. The results are evaluated using the maximum power.