



**Microtest**  
微 测 检 测

# RF EXPOSURE Test Report

**Report No.:** MTi230621033-32E2

**Date of issue:** 2024-03-14

**Applicant:** Shenzhen Fuwit Technology Co.,Ltd

**Product:** Positioning base station

**Model(s):** FU-GA25-P2

**FCC ID:** 2A9GZ-FUGA25P2

Shenzhen Microtest Co., Ltd.

<http://www.mtitest.com>

# Instructions

1. The report shall not be partially reproduced without the written consent of the laboratory;
2. The test results of this report are only responsible for the samples submitted;
3. This report is invalid without the seal and signature of the laboratory;
4. This report is invalid if transferred, altered or tampered with in any form without authorization;
5. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.



| Test Result Certification |                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------|
| Applicant:                | Shenzhen Fuwit Technology Co.,Ltd                                                                |
| Address:                  | Room 3613, Changping Business Building, No. 99, Redflower Road, Futian Free Trade Zone, Shenzhen |
| Manufacturer:             | Shenzhen Fuwit Technology Co.,Ltd                                                                |
| Address:                  | Room 3613, Changping Business Building, No. 99, Redflower Road, Futian Free Trade Zone, Shenzhen |
| Product description       |                                                                                                  |
| Product name:             | Positioning base station                                                                         |
| Trademark:                | FUWIT                                                                                            |
| Model name:               | FU-GA25-P2                                                                                       |
| Serial Model:             | N/A                                                                                              |
| Standards:                | N/A                                                                                              |
| Test procedure:           | KDB 447498 D01 v06                                                                               |
| Date of Test              |                                                                                                  |
| Date of test:             | 2024-02-29 to 2024-03-14                                                                         |
| Test result:              | Pass                                                                                             |

Test Engineer :

*Letter Lan*

(Letter Lan)

Reviewed By :

*Leon Chen*

(Leon Chen)

Approved By :

*Tom Xue*

(Tom Xue)



## RF EXPOSURE EVALUATION

According to FCC 1.1310: 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 §1.1307(b)

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 Exposure</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                        |
| 300-1,500                                                      |                               |                               | f/300                               | 6                        |
| 1,500-100,000                                                  |                               |                               | 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                       |
| 300-1,500                                                      |                               |                               | f/1500                              | 30                       |
| 1,500-100,000                                                  |                               |                               | 1.0                                 | 30                       |

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

### MPE Calculation Method

Friis transmission formula:  $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$

Where

$P_d$  = Power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

$G$  = Numeric gain of the antenna relative to isotropic antenna

$\pi$  = 3.1415926

$R$  = distance between observation point and center of the radiator in cm(20cm)

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

## Measurement Result

### BT/BLE:

Operation Frequency: 2402-2480MHz,

Power density limited: 1mW/ cm<sup>2</sup>

Power density limited: 1mW/ cm<sup>2</sup>

### BLE:

| Channel Freq.<br>(MHz) | modulation | conducted power | Tune-up power<br>(dBm) | Max           |       | Antenna |          | Evaluation result | Power density Limits |
|------------------------|------------|-----------------|------------------------|---------------|-------|---------|----------|-------------------|----------------------|
|                        |            | (dBm)           |                        | tune-up power | Gain  |         | (mW/cm²) | (mW/cm²)          |                      |
|                        |            |                 |                        | (dBm)         | (mW)  | (dBi)   |          |                   | Numeric              |
| 2402                   | BLE-1M     | -0.42           | 0±1                    | 1             | 1.259 | 1.49    | 1.41     | 0.0004            | 1                    |
| 2440                   |            | -0.3            | 0±1                    | 1             | 1.259 | 1.49    | 1.41     | 0.0004            | 1                    |
| 2480                   |            | -0.59           | 0±1                    | 1             | 1.259 | 1.49    | 1.41     | 0.0004            | 1                    |

### Conclusion:

For the max result:  $0.0004 \leq 1.0$  , No SAR is required.

----END OF REPORT----