

TEST REPORT

Product Name : Bluetooth 5.1 Dual-mode Module
Brand Mark : N/A
Model No. : B861U
FCC ID : VYV-B861U
Report Number : BLA-EMC-202203-A8404
Date of Sample Receipt : 2022/3/23
Date of Test : 2022/3/23 to 2022/4/12
Date of Issue : 2022/4/12
Test Standard : 47 CFR Part 1.1307, Part 2.1093, KDB
447498
Test Result : Pass

Prepared for:

Iton Technology Corp

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Prepared by:

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2022/4/12



REPORT REVISE RECORD

| Version No. | Date | Description |
|-------------|-----------|-------------|
| 00 | 2022/4/12 | Original |

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1 TEST SUMMARY

| Test item | Test Requirement | Test Method | Class/Severity | Result |
|-------------|---|--------------------|--------------------|--------|
| RF Exposure | 47 CFR Part 1.1307, Part 2.1093, KDB 447498 | CFR 47 Part 2.1093 | CFR 47 Part 2.1093 | PASS |

2 GENERAL INFORMATION

| | |
|-----------------------|---|
| Applicant | Iton Technology Corp |
| Address | Room 1302, Block A, Building 4, Tianan Cyber Park, Huangge Road, Longgang District, Shenzhen City, Guangdong Province, China |
| Manufacturer | Iton Technology Corp |
| Address | 7 Floor East, Building C, No. 1006 Shennan Road, Shenzhen International Innovation Center, Futian Technology Square, Futian Dist. Shenzhen, China |
| Factory | Iton Technology Corp., Longgang Branch |
| Address | 2~3 Floor, East Wing, Building A, Weixinda Technology Park, No.95 Ainan Road, Longgang District, Shenzhen City, Guangdong Province, China. |
| Product Name | Bluetooth 5.1 Dual-mode Module |
| Test Model No. | B861U |

3 GENERAL DESCRIPTION OF E.U.T.

| | |
|-----------------------------|------------------------------------|
| Hardware Version | V1.1 |
| Software Version | V2.09 |
| Operation Frequency: | 2402MHz-2480MHz |
| Modulation Type: | GFSK, pi/4DQPSK, 8DPSK |
| Channel Spacing: | 1MHz |
| Number of Channels: | 79 |
| Antenna Type: | PCB Antenna |
| Antenna Gain: | 1.97dBi(Provided by the applicant) |

| | |
|-----------------------------|------------------------------------|
| Operation Frequency: | 2402MHz-2480MHz |
| Modulation Type: | GFSK |
| Channel Spacing: | 1MHz , 2MHz |
| Number of Channels: | 40 |
| Antenna Type: | PCB Antenna |
| Antenna Gain: | 1.97dBi(Provided by the applicant) |

4 LABORATORY LOCATION

All tests were performed at:
BlueAsia of Technical Services(Shenzhen) Co., Ltd.
Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province,
China
Telephone: TEL: +86-755-28682673 FAX: +86-755-28682673
No tests were sub-contracted.

5 RF EXPOSURE COMPLIANCE REQUIREMENT

5.1 STANDARD REQUIREMENT

According to KDB447498D01 General RF Exposure Guidance v06

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

5.2 LIMITS

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:

$$\left[\frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \cdot \sqrt{f(\text{GHz})} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 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 is applied to determine SAR test exclusion

5.3 EUT RF EXPOSURE

| Operational Mode: BDR (GFSK worst case) | | | | | | |
|---|--|-------------------------------|-----------------------|------|------------------|---------------------|
| Channel | Maximum Peak Conducted Output Power (dBm) | Tune up tolerance (dB) | Maximum tune-up Power | | Calculated value | Exclusion threshold |
| | | | (dBm) | (mW) | | |
| 2402MHZ | 4.254 | ±1 | 5.254 | 3.35 | 1.04 | 3.0 |
| 2441MHz | 4.278 | ±1 | 5.278 | 3.37 | 1.05 | |
| 2480MHz | 4.432 | ±1 | 5.432 | 3.49 | 1.10 | |
| | | | | | | |
| Operational Mode: BLE | | | | | | |
| 2402 | 3.771 | ±1 | 4.771 | 3.00 | 0.93 | 3.0 |
| 2442 | 3.842 | ±1 | 4.842 | 3.05 | 0.95 | |
| 2480 | 3.974 | ±1 | 4.974 | 3.14 | 0.99 | |
| Conclusion: the calculated value ≤3.0. SAR is exempted. | | | | | | |

----END OF REPORT----

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