

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

**Room 1302, Block A, Building 4, Tianan Cyber Park, Huangge Road,
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Prepared by:

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Date:

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

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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.

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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:

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