

Test Report

of

FCC RF Exposure

Product : Bluetooth 4.2 Module
Brand: FANSTEL
Model Name: BC832
Model Difference: N/A
FCC ID: X8WBC832
FCC Rule Part: §15.247, Cat: DTS
Applicant: Fanstel Corporation, Taipei
Address: 10F-10, No. 79, Sec. 1, Hsin Tai Wu Rd., Hsi-Chih, New Taipei City 221 Taiwan

Test Performed by:



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Report No.: ISL-16LR342FMPE-MA
Issue Date : 2021/04/07



Test results given in this report apply only to the specific sample(s) tested and are traceable to national or international standard through calibration of the equipment and evaluating measurement uncertainty herein. The uncertainty of the measurement does not include in consideration of the test result unless the customer required the determination of uncertainty via the agreement, regulation or standard document specification. This test report shall not be reproduced except in full, without the written approval of International Standards Laboratory Corp.

VERIFICATION OF COMFORMITY

Applicant: Fanstel Corporation, Taipei
Product Description: Bluetooth 4.2 Module
Brand: FANSTEL
Model Name: BC832
Model Difference: N/A
FCC ID: X8WBC832
Date of test: 2016/12/17 ~ 2016/12/23
Date of EUT Received: 2016/12/17

We hereby certify that:

All the tests in this report have been performed and recorded in accordance with the standards described above and performed by an independent electromagnetic compatibility consultant, International Standards Laboratory Corp.

The test results contained in this report accurately represent the measurements of the characteristics and the energy generated by sample equipment under test at the time of the test. The sample equipment tested as described in this report is in compliance with the limits of above standards.

Test By: Dino Chen **Date:** 2021/04/07
Dino Chen / Supervisor

Prepared By: Elisa Chen **Date:** 2021/04/07
Elisa Chen / Senior Engineer

Approved By: Jerry Liu **Date:** 2021/04/07
Jerry Liu / Assistant Manager

Radio Frequency Exposure Evaluation

Standard Applicable

FCC SAR test exclusion

According to KDB 447498 Section: 4.3.1. Standalone SAR test exclusion considerations

a) For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \cdot \left[\sqrt{f(\text{GHz})} \right]$$

≤ 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 calculation
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as numeric thresholds in step b) below

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 according to 4.1 f) is applied to determine SAR test exclusion.

SAR Exclusion Calculation Table

Frequency (MHz)	Max power (dBm)	Antenna Gain(dBi)	EIRP Power (dBm)	tune-up tolerance (dB)	Max power (mW)	Min Distance (mm)	Result	Limit (3.0 @ 1g SAR)
2480	2.61	1.00	3.61	1	2.890680	5.00	0.910	3.0

~ End of Report ~