

Product: Zigbee Module
Model: HAC-LBee
FCC ID: WMUHAC-LBEE
Single modular approval

Request for Modular Approval Attestation for the 2.4GHz Zigbee Module

The device comply with 15.212 requirement:

(i) The radio elements of the modular transmitter must have their own shielding. The physical crystal and tuning capacitors may be located external to the shielded radio elements.

Answer: Yes

Modular has shielding on the top and bottom sides, and full copper covered PCB board is used at bottom of module.

(ii) The modular transmitter must have buffered modulation/data inputs (if such inputs are provided) to ensure that the module will comply with part 15 requirements under conditions of excessive data rates or over-modulation.

Answer: Yes

The EUT has buffered data inputs; it is integrated in chip CC2530F256

(iii) The modular transmitter must have its own power supply regulation.

Answer: Yes

Answer: Yes

The EUT interface provides 3.3VDC, and on board IC CC2530F256 has its own VCO inside.

(iv) The modular transmitter must comply with the antenna and transmission system requirements of §§15.203, 15.204(b) and 15.204(c). The antenna must either be permanently attached or employ a “unique” antenna coupler (at all connections between the module and the antenna, including the cable). The “professional installation” provision of §15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section.

Answer: Yes

The EUT meets the antenna requirements. It is Dipole antenna with revised polarity connector. Refer to the photo shown in test report. Unique reversed antenna coupler is used.

(v) The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing for compliance with part 15 requirements. Unless the transmitter module will be battery powered, it must comply with the AC line conducted requirements found in §15.207. AC or DC power lines and data input/output lines connected to the module must not contain ferrites, unless they will be marketed with the module (see §15.27(a)). The length of these lines shall be the length typical of actual use or, if that length is unknown, at least 10 centimeters to insure that there is no coupling between the case of the module and supporting equipment. Any

accessories, peripherals, or support equipment connected to the module during testing shall be unmodified and commercially available (see §15.31(i)).

Answer: Yes

The device was tested with stand –alone configuration, the distance between module and other supporting equipment is larger than 10cm. The conducted emissions are done. Please see page 10 and 11 of test report.

(vi) The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number.

Answer: Yes

The modular has a permanent fixed label, and below statement was listed in the User Manual; The host device must be labelled to display the FCC ID of the module 'Contains FCC ID: WMUHAC-LBEE

(vii) The modular transmitter must comply with any specific rules or operating requirements that ordinarily apply to a complete transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization.

Answer: Yes

The module comply with all specific rules applicable to the transmitter including all the conditions provided in the integration instructions by the grantee, Refer to test report and user manual .

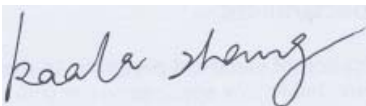
(viii) The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.

Answer: Yes

Transmitter meets MPE calculation of 47 CFR 1.1307 . Refer to MPE Reports and Refer to modular installation manual.

This modular complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This modular must be installed and operated with a minimum distance of 20 cm between the radiator and user body.

Dated this February 11, 2014

By:  Koala Zhang

Signature **Printed**

Title: Sales Manager

On behalf of : Shenzhen HAC Telecom Technology Co., Ltd.

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