

Modular / Limited Modular Approval Request

Date: May 10, 2012

Company: California Eastern Laboratories

Request for: Modular Approval Limited Modular Approval

Mobile Device Portable Device

Product Name: MeshConnect ZICM357SP2-1 Zigbee Module

Model Number (s): ZICM357SP2-1

FCC ID: W7Z-ZICM357SP2

IC ID: 8254A-ZICM357SP2

Device Description: 802.15.4 Module

The requirements of FCC Code of Federal Regulations Title 47 Part 15.212 and Industry Canada's RSS-Gen Issue 3 (12-2010) Section 3.2 have been met as shown below:

FCC & IC Modular Approval Checklist:

Modular approval requirement	Yes	No
(a) The radio elements must have the radio frequency circuitry shielded. Physical/discrete and tuning capacitors may be located external to the shield, but must be on the module assembly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Explanation: The RF circuitry is fully enclosed with an RF Shield. Please see the module photo.		
(b) The module shall have buffered modulation/data input(s) (if such inputs are provided) to ensure that the module will comply with the requirements set out in the applicable RSS standard under conditions of excessive data rates or over-modulation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Explanation: The data inputs are buffered internally to the transceiver IC.		
(c) The module shall have its own power supply regulation on the module. This is to ensure that the module will comply with the requirements set out in the applicable standard regardless of the design of the power supplying circuitry in the host device which houses the module.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Explanation: The transceiver IC contains internal voltage regulation.		

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Modular approval requirement	Yes	No
(d) The module shall comply with the provisions for external power amplifiers and antennas detailed in FCC Part 15.203, 15.204(b) & 15.204(c) and RSS-Gen Issue 3. The equipment certification submission shall contain a detailed description of the configuration of all antennas that will be used with the module.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Explanation: The certified module is configured for the integrated PCB trace antenna. Connection to an external power amplifier or external antenna is not possible without altering the module. For evaluation purposes, a modification can be made to allow the RF to be routed to one of the castellation pins, but as stated in the user's manual, this is not allowed for an end product under the module's FCC ID or IC ID.		
(e) The module shall be tested for compliance with the applicable standard in a stand-alone configuration, i.e. the module must not be inside another device during testing.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Explanation: The module will be mounted to a daughtercard for test purposes. This daughter card allows easy connection to a host board for programming the operating mode, the channel and the power. During testing, the only connection to the daughter card containing the module will be DC power.		
(f) The module must be labeled with its own FCC ID number and shall comply with Industry Canada's Category I equipment labeling requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Explanation: See photo of Label drawing showing the label mounted on top of the RF Shield containing both the FCC ID number and the IC ID number.		
(g) The module shall comply with applicable FCC & Industry Canada RSS-102 exposure requirements, which are based on the intended use/configurations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Explanation: The DUT is compliant with all applicable RF exposure requirements.		
(h) Is the modular device for an Industry Canada licensed exempt service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Explanation: Correct, the module does not require licensing for use.		
(FCC - additional) 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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Explanation: Instructions for use are included in the User's Guide. The transmitter is compliant with all applicable FCC and Industry Canada rules.		

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Please contact me if you have any further questions. Thank you for your attention to this matter.

Regards,

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