

SOLVING A WAVE OF EMI COMPLIANCE PROBLEMS

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Federal Communications Commission Authorization and Evaluation Division

APPLICANT: Aclara

REFERENCE FCC ID: LLB9975T RE: Request for Modular Approval

Radiometrics has been authorized by Aclara to act as an agent in the preparation of their submittal request for Modular Approval.

Modular approval Requirements Characteristics: FCC Part 15

Item	Requirement	EUT Justification
1	Have its own RF shielding	The RF portions of the module are completely contained under a metal shielding can which is soldered to the PWB around its entire periphery. The module does not depend on any other shielding to meet regulatory requirements.
2	Have buffered modulation/data inputs (if such inputs are provided),	Modulation parameters such as frequency deviation and data rate are controlled by the radio transceiver chip and cannot be influenced by input data to the radio. A SPI interface is used to transfer digital data to and from digital buffers within the radio chip from the master microcontroller in the PWB assembly. The radio chip accesses the buffers and generates the modulated waveform based on the buffer contents.
3	Have it own power supply regulation	The circuit board containing the transmitter operates from an externally provided 11 to 14.5 volt power supply. The transmitter circuit board contains regulated 3.6 and 3.3 volt power supplies which provide operating voltages to the transmitter components.
4	Meet the antenna requirements of Section 15.203	The EUT is professional installed. It will not be sold to the general public.
5	Be tested in a stand-alone configuration, i.e., the antenna, AC or DC power and data input/output lines must be connected to the module but, the module must not be inside another case during testing	The EUT was tested as a stand-alone with an external power supply. It had no additional shielding.
6	Be labeled with its own FCC ID number, and if the FCC ID is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module.	The FCC ID label format is included in the filing. The product will always be inside another enclosure during actual use.

Item	Requirement	EUT Justification
7	The modular transmitter is manufactured so that the user cannot influence the operation of the transmitter that will operate outside of the scope of the regulations.	Transmitter frequency, power level settings, and modulation parameters are controlled by a configuration file furnished to the radio transceiver chip via Aclara proprietary interface software that is not available to the end user. These settings are loaded into the transmitter at the time of delivery preparation for specific customers.
8	Address compliance with the Commission's RF exposure limits in Sections 1.1310 and 2.1093. In addition, spread spectrum transmitters operating under Section 15.247 are required to address RF exposure compliance in accordance with Section 15.247(b)(4).	Refer to RF exposure Exhibit. The transmitter meets MPE calculations of 47 CFR 1.1310.

Sincerely,

Joseph Strzelecki, NCE

Radiometrics Midwest Corporation

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