



SOLVING A WAVE OF EMI COMPLIANCE PROBLEMS

**12 East Devonwood
Romeoville, IL 60446**

**Tel: (815) 293-0772
Fax: (815) 293-0820**

Federal Communications Commission
Authorization and Evaluation Division

APPLICANT: Dwyer

REFERENCE FCC ID: Z7KMRKW0515

RE: Request for Modular Approval

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

The EUT is professionally installed. It is not marketed to the general public for residential use. The module will be installed in a proximity sensor that is used in commercial and industrial applications. Dwyer will only sell the module in these types of products. Dwyer will not be selling the module as a stand-alone product.

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 within a metal shielding can. The module does not depend on any other shielding.
2	Have buffered modulation/data inputs (if such inputs are provided),	This module has no modulation/data inputs.
3	Have it own power supply regulation	This module contains a radio chip that includes internal voltage regulators.
4	Meet the antenna requirements of Section 15.203	The EUT is professionally installed. It is not marketed to the general public for residential use. The module will be installed in a proximity sensor that is used in commercial and industrial applications. Dwyer will only sell the module in these types of products. Dwyer will not be selling the module as a stand-alone product.
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	Device was tested with an external power supply. The EUT was tested as a stand-alone device. 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. The host will always be inside another product with the labeling.

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.	The module contains software that allows the user to change the output power level, but does not allow the user to set an output power that exceeds permissible limits. The software contains no provisions to alter the operating frequency. The tests were performed with the maximum output power setting allowed by the user.
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.

Modular approval Requirements Characteristics: RSS-Gen Section 7.1.1

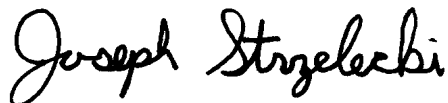
Item	RSS-Gen EUT Requirement	EUT Justification
(a)	The module must be a complete radio transmitter with its own reference oscillator, antenna, etc. The only connectors to the module, if any, are power supply and modulation/data inputs.	The module is a complete radio transmitter with its own reference oscillator and antenna. The only connectors to the module, if any, are power and data inputs.
(b)	The module has its own RF shielding.	The RF portions of the module are completely contained within a metal shielding can.
(c)	The module must have buffered modulation/data input(s) (if such inputs are provided) to ensure that the module will comply with RSS-210 requirements under conditions of excessive data rates or over-modulation.	All inputs to the module are buffered and processed through logic
(d)	The module has its own power supply regulation. This is to ensure that the module will comply with RSS-210 requirements regardless of the design of the power supplying circuitry in the host device which houses the module.	This module contains a radio chip that includes internal voltage regulators.
(e)	The certification submission contains a detailed description of the configuration of all antennas that will be used with the module.	Refer to Product Description Exhibit.

Item	RSS-Gen Testing Requirement	EUT Justification
(a)	The host device, as a stand-alone unit without any separately certified modules, complies with all applicable Radio Standards Specifications.	Device was tested with an external power supply. The EUT was tested as a stand-alone device. It had no additional shielding. It fully complied with all standards in this configuration.
(b)	The host device and all the separately certified modules it contains jointly meet the RF exposure compliance requirements of RSS-102, if applicable.	Refer to RF exposure Exhibit. The transmitter meets RSS-102. The antenna gain is less than 6 dB

Item	RSS-Gen Testing Requirement	EUT Justification
(b)	The host device complies with the certification labeling requirements of each of the modules it contains.	The IC ID label format is included in the filing. The product will always be inside another enclosure during actual use. The host will always be inside another product with the labeling.

Please do not hesitate to contact me if there are any further questions.

Sincerely,



Joseph Strzelecki, NCE
Radiometrics Midwest Corporation
Authorized Agent for Dwyer
E-Mail: joe@radiomet.com