

SOLVING A WAVE OF EMI COMPLIANCE PROBLEMS

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Federal Communications Commission Authorization and Evaluation Division **APPLICANT: Dwyer Instruments, Inc.**

REFERENCE FCC ID: ZK7WP0082011 IC: 9525A-WP82011 RE: Request for Limited Modular Approval

Modular approval Requirements Characteristics

Item	Requirement	EUT Justification
1	Have its own RF shielding	The RF portions of the module are not contained within a metal shielding can. The approval request is for a Limited Modular Approval.
2	Have buffered modulation/data inputs (if such inputs are provided),	There is a serial input that is buffered via a UHS tri state buffer NC7SZ126M5X from Fairchild.
3	Have it own power supply regulation	The module has a regulated power supply. The module will be installed in a product that has a self contained rechargeable battery and regulated power supply.
4	Meet the antenna requirements of Section 15.203	The antenna is a soldered electronic component that is surface mounted to the circuit board.
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 module was tested in a handheld assembly. The assembly has a plastic housing and provides power. This is its only approved configuration.
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 ID label format is included in the filing. The label will be on the module and the exterior of the product.
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 Device is programmed during manufacture to operate at a given approved frequency and power level. Programming connection is internal to the device and requires a dedicated programmer with a unique connector and pin out.

Item	Requirement	EUT Justification
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.

General information for Limited Modular Approval

The WP0082011 radio probe board is seeking FCC limited modular approval. The circuit board is a subassembly that is added to a data measurement probe to give it wireless functionality. The data measurement probe consists of a sensor assembly, a sensor main board and a cable used to plug into the data collection device.

When the WP0082011 is added to the data measurement probe it replaces the cable and becomes the interface to the data collection device. The sensor main board plugs directly into the WP0082011 and passes the data measured to the radio probe board which then transmits the data to the data collection device. The radio probe board can only be used with Dwyer developed data measurement probes such as the AP2, thermo anemometer air velocity and temperature probe or the RP2, thermo hygrometer humidity and temperature probe. Therefore, the WP0082011 radio probe board is exclusive to the Dwyer product line and consequentially tightly controlled by Dwyer Instruments.

The interface between the sensor main board and the radio probe board is a simple serial and power connection that is consistent for all sensor assemblies that accept the radio probe board. The unique form factor of the radio probe board is only compatible with Dwyer designed and manufactured data measurement probes and therefore cannot be utilized in products not manufactured by Dwyer Instruments. Only the Dwyer Instruments data collection device (UHH) can communicate with the firmware on board the radio probe board to gather the data captured by the data measurement probe. Thusly, the radio probe board is only functional in a Dwyer Instruments designed and manufactured system or device.

The module will only be installed in Dwyer AQTIP pro series products.

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

Sincerely,

seph Strzelechi

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

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