

Date: December 17, 2010

The FCC logo is a blue square containing a white stylized graphic of three overlapping circles or paths, representing the Federal Communications Commission.

Telecommunication Certification Body (and/or)
Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, Maryland 21046

**ATTESTATION FOR MODULAR APPROVAL
Ref FCC ID: EHA-IM10**

Gentlemen;

In order to obtain a modular transmitter approval, a cover letter requesting modular approval must be submitted and the 8 numbered requirements identified below must be addressed in the application for equipment authorization.

This application requests the IM10 be granted “Limited Modular Approval” to accommodate “Professional Installation”. RFID technology is used in specific locations and is limited in marketing to industrial and commercial users. Intermec RFID products are never sold to the general public. The installations are always overseen by Intermec systems engineers or RFID certified partners.

1. The modular transmitter must have its own RF shielding. This is intended to ensure that the module does not have to rely upon the shielding provided by the device into which it is installed in order for all modular transmitter emissions to comply with Part 15 limits. It is also intended to prevent coupling between the RF circuitry of the module and any wires or circuits in the device into which the module is installed. Such coupling may result in non-compliant operation.

Intermec Technologies is provided the radio as a shielded assembly. The radio is shown in this report reveals the transmitter emissions comply with the limits defined by the regulatory agencies.

2. 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.

The communication to the radio operates digital technology. The communication buffering eliminates the ability to over-modulate the radio under all conditions.

3. The modular transmitter must have its own power supply regulation. This is intended to

ensure that the module will comply with Part 15 requirements regardless of the design of the power supplying circuitry in the device into which the module is installed.

The IM10 radio board uses an onboard voltage regulation.

4. The modular transmitter must comply with the antenna requirements of Section 15.203 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). Any antenna used with the module must be approved with the module, either at the time of initial authorization or through a Class II permissive change. The “professional installation” provision of Section 15.203 may not be applied to modules.

The IM10 radio module utilizes unique connectors, RF cables for the system must be supplied by Intermec so antenna / cable system gain remains below the +6 dBi linear gain limit. Some RFID antennas are sourced with standard connectors; the approved antenna list is published in the user documentation provided with products that utilize this radio module. The professional installation provisions under Section 15.203 are addressed in the second paragraph of this letter. Limited Modular Approval is requested.

5. The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing. This is intended to demonstrate that the module is capable of complying with Part 15 emission limits regardless of the device into which it is eventually installed. Unless the transmitter module will be battery powered, it must comply with the AC line conducted requirements found in Section 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 Section 15.27(a)). The length of these lines shall be 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 or commercially available (see Section 15.31(i)).

Testing herein shows the radio tested as a module. The setup photographs show no ferrites or decoupling devices to reduce emissions of the module. AC power line conducted emissions is shown within for the final product.

6. The modular transmitter must 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. This exterior label can use wording such as the following: “Contains Transmitter Module FCC ID: XYZMODEL1” or “Contains FCC ID: XYZMODEL1.” Any similar wording that expresses the same meaning may be used. The Grantee may either provide such a label, an example of which must be included in the application for equipment authorization, or, must provide adequate instructions along with the module which explain this requirement. In the latter case, a copy of these instructions must be included in the application for equipment authorization.

Enclosed within this report are label diagrams with similar verbiage shown above. The module will show the FCC ID. If when integrated the radio module identifier is not visible, the exterior will show the "Contains TX FCC ID:" text.

7. The modular transmitter must comply with any specific rule or operating requirements applicable to the 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. For example, there are very strict operational and timing requirements that must be met before a transmitter is authorized for operation under Section 15.231. For instance, data transmission is prohibited, except for operation under Section 15.231(e), in which case there are separate field strength level and timing requirements. Compliance with these requirements must be assured.

The radio operates as defined in the Theory of Operation. The operation protocol and timing meet operation requirements defined within FCC 15.247 and Canada RSS-210.

8. The modular transmitter must comply with any applicable RF exposure requirements. For example, FCC Rules in Sections 2.1091, 2.1093 and specific Sections of Part 15, including 15.319(i), 15.407(f), 15.253(f) and 15.255(g), require that Unlicensed PCS, UNII and millimeter wave devices perform routine environmental evaluation for RF Exposure to demonstrate compliance. 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). Modular transmitters approved under other Sections of Part 15, when necessary, may also need to address certain RF Exposure concerns, typically by providing specific installation and operating instructions for users, installers and other interested parties to ensure compliance.

The RF exposures for all antennas show compliance to FCC and Canada regulations. The exposure calculations and installation details are defined for mobile devices only. Additional antennas approved via permissive changes will address the RF safety concerns as defined within the regulations.

Please contact me if there are questions or additional information needed concerning this request.

Sincerely,



Dave Fry
Sr. EMC Engineer, iNARTE ATL-0095-E

Intermec Technologies Corporation
Dave Fry MS GR05
550 Second Street
Cedar Rapids, IA 52401

Desk tel 319.369.3353
Lab tel 319.846.2415
Fax tel 319.846.2475
dave.fry@intermec.com