MSA
The Safety Company

MSA North America
Cranberry Plant
1000 Cranberry Woods Drive
Cranberry Township, PA 16066

724.776.8600

Date: August 21st, 2015

REF:
FCC ID: P9R-10154953

Subject: Modular Transmitters

(i) The radio elements of the modular transmitter must have their own shielding. The physical crystal and tuning capacitors may be located external to the shielded radio elements.

This board does not have a shield. Excluding the crystal and tuning capacitors, all radio functionality is contained with the housing of the RFID integrated circuit (TRF7970A).

(ii) 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.

All data is buffered.

(iii) The modular transmitter must have its own power supply regulation.

This board has its own 3.3V regulator.

(iv) The modular transmitter must comply with the antenna and transmission system requirements of §§ 15.203, 15.204(b) 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). The ''professional installation'' provision of § 15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section.

This board employs a trace antenna, which is permanently part of the printed circuit board.

(v) The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing for compliance with part 15 requirements. Unless the transmitter module will be battery powered, it must comply with the AC line conducted requirements found in § 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 § 15.27(a)). The length of these lines shall be the 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 and commercially available (see § 15.31(i)).

This board is intended for limited modular approvals and was tested within a stripped down G1 power module, the device into which this board will be installed. In addition, this board operates on 3.3VDC regulated from a voltage supplied from a battery pack.

(vi) The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number.

This board has a permanently affixed label. The laminated label is placed on the board prior to application of a conformal coating.

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(vii) 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.

This board complies with the requirements for an intentional radiator as specified in FCC Part 15.225. In addition, instructions for the use of this board are contained within the user manual.

(viii) The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.

This board complies with all FCC Part 15 and applicable SAR requirements. In addition, this board is only used in the setup phase of equipment deployment and is not used in typical fire service operations.

Sincerely,

David S. Kodrin
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