

## LIMITED MODULAR APPROVAL LETTER

June 16, 2015

Dear Application Examiner:

Garrett Metal Detectors, Inc., Model SM 100, FCC ID DBDSM100-00000 is seeking limited modular approval for use only in Garrett Metal Detectors, Inc. walk through metal detectors. The radio meets the requirements for limited modular approval as detailed in FCC 15.212. Compliance to each of the requirements is described below:

- "The modular transmitter must have its own RF shielding." The radio portion of the module is contained in its own RF shielding.
  The shielding is installed at the factory. Please see the Internal Photos exhibit.
- 2. "The modular transmitter must have buffered modulation/data inputs." The SM 100 has buffered data inputs to insure compliance with Part 15 requirements under conditions of excessive data rates or over-modulation inherent in the design of the radio chip used. Please see the Schematics exhibit.
- 3. "The modular transmitter must have its own power supply regulation." The SM 100 has its own power supply regulation to insure compliance with Part 15 requirements regardless of the quality or level of external DC supplying the module from the host unit. Please see Schematics exhibit. Also, the technical report exhibit contains AC power line conducted emissions data taken with the SM 100 powered from a linear power supply that contains no EMC suppression components.
- 4. "The modular transmitter must comply with the antenna requirements of Section 15.203 and 15.204(c)." The SM 100 meets the FCC antenna requirements by using a PCB mounted u.FL antenna connector to a patch antenna attached to the inside of the case. Please see Antenna information exhibit and internal photos exhibit.
- "The modular transmitter must be tested in a stand-alone configuration." The SM 100 was tested in a stand-alone
  configuration. The module was greater than 10 cm from the host device. Please see test setup photos exhibit and technical report
  exhibit.
- "The modular transmitter must be labeled with its own FCC ID number." The SM 100 is labeled with its own FCC ID number.
   Please see FCC ID label & location exhibit.
- 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." The SM 100 is compliant with all applicable FCC rules. Detail instructions for maintaining compliance are given in the User Manual.
- 8. "The modular transmitter must comply with any applicable RF exposure requirements." The SM 100 is compliant with all applicable RF exposure requirements because it is below the low power threshold. Please see RF Exposure Exhibit.

The **modular transmitter** is **limited** to use with the Garrett Metal Detectors PD6500i walk through security metal detector, which supplies power and proprietary control information to the module. The module is installed and maintained by Garrett Metal Detectors authorized field personnel.

Please contact me if you have additional questions. Your attention to this matter is greatly appreciated.

Best regards,

Bob Podhrasky, Sr. Vice President, COO, Dir. of Engineering

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