

August 09, 2019

Dear Application Examiner:

Garrett Metal Detectors, Model **Wireless/LBC** (Wireless/Light Bar Controller), **FCC ID:DBDWLBC6100** is seeking modular approval. The radio meets the requirements for modular approval as detailed in FCC 15.212. Compliance to each of the requirements is described below:

1. **"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 EUT has buffered data inputs to insure compliance with Part 15 requirements under conditions of excessive data rates or over-modulation. Please see the Schematics exhibit and the TI CC2520 datasheet as the buffers are internal to the radio chip.
3. **"The modular transmitter must have its own power supply regulation."** The EUT 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 EUT 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 EUT meets the FCC antenna requirements using an Inverted-F PCB trace antenna. Please see Antenna information exhibit and internal photos exhibit.
5. **"The modular transmitter must be tested in a stand-alone configuration."** The EUT 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.
6. **"The modular transmitter must be labeled with its own FCC ID number."** The EUT is labeled with its own FCC ID number. Please see FCC ID label & location exhibit. If the FCC ID number will not be visible when the module is installed inside a host device, another label with the FCC ID will be applied to the exterior of the host device.
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 EUT is compliant with all applicable FCC rules. The EUT is Factory-Installed, has no user controls and does not require any user intervention or maintenance, thus no instructions for operation or maintaining compliance are given in the User Manual.
8. **"The modular transmitter must comply with any applicable RF exposure requirements."** The EUT is compliant with all applicable RF exposure requirements. Please see RF Exposure Exhibit.

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

Best regards,



Robert Podhrasky

Vice President

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