



FCC ID: MMURTI1500

**Part 15 Unlicensed Modular Transmitter Approval Justification
per DA 00-1407, released: June 26, 2000**

| requirement | reference |
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| 1 The modular transmitter must have its own RF shielding. | RTI Custom Shield. See pictures “TXB-DB – Top with Shield.jpg” and “TXB-DB – Top without Shield.jpg |
| 2 The modular transmitter must have buffered modulation/data inputs | 2.4GHz - Transmission data is generated within the MCU based on commands received via a serial port that contains a dedicated, buffered DMA controller with buffered data management schemes. The host serial port also contains buffered data management schemes. 433MHz – Input data is buffered and modulated on-module before transmission. Input data does not directly create the modulated data. An OOK modulation scheme is implemented. |
| 3 The modular transmitter must have its own power supply regulation. | Both MCUs contain an integrated voltage regulator that generates a regulated 1.8V reference voltage from an unregulated supply voltage. This voltage is used to supply the 1.8V to the core logic to each MCU. |
| 4 The modular transmitter must comply with the antenna requirements of Section 15.203 and 15.204(c). | The unit uses 2 permanently attached surface mount antennas. The unit can also only be installed and repaired by RTI. It is not end-user accessible/serviceable. There is no authorized external power amplifier that may be used with either bands of this device. |
| 5 The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing. | The module was tested with a support board to enable proper operation. |
| 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. | See “TXB-DB Labeling Information.doc” and “TXB-DB – Top.jpg” |
| 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. | No Specific Rules are Applicable |

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| 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). | It was determined the module needs to comply with Section 15.247 in order to comply with FCC RF Exposure Requirements. The module was tested to be in compliance with Section 15.247. See FCC Test Report. |
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