



January 27, 2011

Request for Modular Transmitter Approval

In accordance with FCC Public Notice DA 00-1407, June 26, 2000

Microchip Technology Inc. requests modular transmitter approval for the MRF24J40MC module. This letter addresses the numbered requirements below.

1. The modular transmitter must have its own RF shielding.

The module has an integral RF shield to ensure that it 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.

2. The modular transmitter must have buffered modulation/data inputs.

Data inputs to the module are buffered by a serial peripheral interface (SPI) bus circuitry.

3. The modular transmitter must have its own power supply regulation.

The module has a voltage regulator that controls the frequency synthesizer and power amplifier.

4. The modular transmitter must comply with the antenna requirements of Section 15.203 and 15.204(c).

The MRF24J40MC module has a "unique" U.FL antenna connector (J1). Testing was conducted with an Aristotle Enterprises Inc., P/N RFA-02-5-F7H1-70B-150, 5 dBi, 2.4 GHz, dipole whip antenna type.

5. The modular transmitter must be tested in a stand-alone configuration.

The module was tested in a stand-alone configuration.

6. The modular transmitter must be labeled with its own FCC ID number

The module is label with its own FCC ID number. See label and label location drawing contained in this application. Instructions are given to the end user in the module data sheet that if the module is installed inside another device, then the outside of the device must also display a label referring to the enclosed module.

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 module is IEEE Std. 802.15.4 compliant. All operational and timing requirements are enforced by the integrated Medium Access Control (MAC) circuitry contained in the MRF24J40 device which assures compliance with Section 15.247. Mounting and operational instructions are given in the module data sheet which is contained in this application.

8. The modular transmitter must comply with any applicable RF exposure requirements.

The module complies with RF exposure limits for a spread spectrum transmitter operating under Section 15.247(b)(4). The end user is notified in the module data sheet of specific installation and operating instructions for users, installers and other interested parties to ensure compliance.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Bible', written in a cursive style.

Steven Bible
Applications Engineering Manager
Microchip Technology Inc.