



Wireless Technology to Control and Monitor Anything from Anywhere™

4/18/2011

Federal Communications Commission
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

Gentlemen:

Synapse Wireless Inc. respectfully requests Part 15 unlicensed modular transmitter approval of the Synapse Wireless Inc. RF300 product. In accordance with the Part 15.212(a)(1) and IC RSS-GEN7.1.1, here is the response to the items listed for the RF300 product.

Item 1: The RF300 module has a metal RF shield that is soldered to the ground plane on all side, enclosing all electronics, and prevents coupling of the RF circuitry with the host board electronics in which the RF300 is plugged into in order to comply with this item.

Item 2: All input data to the RF300 is buffered in the microcontroller located on the **RF300**. Firmware in the microcontroller then controls the flow of this data to the transmitter for RF communications to prevent excessive data rates or over-modulations to comply with this item.

Item 3: The **RF300** transmitter is the Silicon Labs Si1000 series of IEEE 802.15.4 transceiver modems. This modem has internal power supply regulation to comply with Item 3.

Item 4: The **RF300** has support for an external antenna thru a Reverse Polarity SMA style unique antenna coupler which is mounted on the **RF300** which complies with Item 4 requirements.

Item 5: The necessary **RF300** and support hardware was provided to the certification lab to show compliance with this item.

Item 6: The FCC ID label assigned to the **RF300** will be located on the top outside face of the **RF300**. In the case that this label on the **RF300** is not visible after installation, the RF300_Datasheet.pdf will document to the user of the **RF300** that the FCC ID labeling requirements must be included on an exterior label of the finished product enclosure using the **RF300** stating that the product contains the FCC ID label for the **RF300**. A copy of RF300_Datasheet.pdf will be provided to the FCC to show this compliance.

Item 7: In order to show compliance to this item, a copy of the RF300 _Datasheet.pdf will be provided to the FCC to show that the issues of Item 7 have been properly documented.

Item 8: The **RF300** will be tested to comply with any applicable RF exposure requirements. Also, in order to show compliance to aspects of this item, a copy of the RF300 _Datasheet.pdf will be provided to the FCC to show that the issues of Item 8 have been properly documented.

Sincerely,

Name: Jason Scott Gurley

Title: Senior Design Engineer