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

Date: 2007/04/30

Gentlemen:

Wireless Control Network Solutions, LLC.; dba Synapse, respectfully requests Part 15 unlicensed modular transmitter approval of the Synapse RF Engine module product. In accordance with the FCC Public Notice DA 00-1407, here is the response to the items listed in this Public Notice for the RF Engine product.

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

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

Item 3: The RF Engine modular transmitter is the Freescale MC1319x series of IEEE 802.15.4 transceiver modems. This modem has internal power supply regulation to comply with Item 3.

Item 4: There are two variations of the RF Engine module. One version has an integrated F-antenna with no support for external antenna options. The other version has support for an external antenna thru a Reverse Polarity SMA style unique antenna coupler which is mounted on the RF Engine module which complies with Item 4 requirements.

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

Item 6: The FCC ID label assigned to the RF Engine will be located on the top outside face of the RF Engine module. In the case that this label on the RF Engine is not visible after installation, the "User's Manual for the RF Engine" will document to the user of the RF Engine module that the FCC ID labeling requirements must be included on a exterior label of the finished product enclosure using the RF Engine stating that the product contains the FCC ID label for the RF Engine. A copy of the "User Manual for the RF Engine" will be provided to the FCC to show this compliance.

Item 7: In order to show compliance to this item, a copy of the "User Manual for the RF Engine" will be provided to the FCC to show that the issues of Item 7 have been properly documented.

Item 8: The RF Engine module 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 "User Manual for the RF Engine" will be provided to the FCC to show that the issues of Item 8 have been properly documented.

Sincerely,

Name: GARY W. SHELTON Signature: Gary W. Shelton

Title: PRESIDENT Date 2007/04/30

132 Export Circle
Huntsville, Alabama 35806

256-852-7888
www.synapse-wireless.com