

175 Science Parkway, Rochester, New York 14620 USA (585) 242-9600 Phone (585) 242-9620 Fax Feb 27, 2013

## To Whom It May Concern:

Subject: Manufacturer's Declaration for compliance with FCC PART 15 UNLICENSED MODULAR

TRANSMITTER APPROVAL of Sec 15.212 & Pubic Notice # DA 00-1407

FCC ID: E5MDS-NX915

Dear Si/Madam:

The applicant hereby confirms that the following requirements per FCC PART 15 Unlicensed Modular Transmitter Approval of Sec 15.212 & Pubic Notice # DA 00-1407 are met for Limited Modular Approval certification:

## **Modular Approval Checklist:**

| Modular approval requirement  | Yes   | No (*)  |
|---|---|---|
| 1. The modular transmitter must have its own RF shielding. This is intended to ensure that the module 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. Such coupling may result in non-compliant operation.  | YES, the RF<br>circuitry is<br>shielded on the<br>PCB   |   |
| 2. The modular transmitter must have buffered modulation/data inputs (if such inputs are provided) to ensure that the module will comply with Part 15 requirements under conditions of excessive data rates or over-modulation.   | YES, the Data is<br>buffered through<br>communication<br>drivers to the<br>processors   |   |
| 3. The modular transmitter must have its own power supply regulation. This is intended to ensure that the module will comply with Part 15 requirements regardless of the design of the power supplying circuitry in the device into which the module is installed.  |   | No, we will control<br>the host integration<br>and DC regulation as<br>described in<br>Integrator's Guide.                |
| 4. The modular transmitter must comply with the antenna and transmission system requirements of §§ 15.203, 15.204(b) and 15.204(c). The antenna must either be permanently attached or employ a "unique" antenna coupler (at all connections between the module and the antenna, including the cable). The "professional installation" provision of § 15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section.   |   | No, we use standard TNC antenna connector, hence Limited Modular Approval is being sought with Professional Installation. |
| 5. The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing. This is intended to demonstrate that the module is capable of complying with Part 15 emission limits regardless of the device into which it is eventually installed. Unless the transmitter module will be battery powered, it must comply with the AC line conducted requirements found in Section 15.207. AC or DC power lines and data input/output lines connected to the module must not contain ferrites, unless they will be marketed with the module (see Section 15.27(a)). The length of these lines shall be length typical of actual use or, if that length is unknown, at least 10 centimeters to insure that there is no coupling between the case of the module and | Yes, the module was tested on the bench outside of the enclosure as a stand-alone device and complies with Part 15 emission requirements. |   |

| supporting equipment. Any accessories, peripherals, or support equipment connected to the    |                      |
|--|----------------------|
| module during testing shall be unmodified or commercially available (see Section 15.31(i)).  |                      |
| 6. The modular transmitter must be labeled with its own FCC ID number, and, if the FCC       | Yes, there will be   |
| ID is not visible when the module is installed inside another device, then the outside of    | a FCC label on the   |
| the device into which the module is installed must also display a label referring to the     | module and final     |
| enclosed module. This exterior label can use wording such as the following: "Contains        | host device also     |
| Transmitter Module FCC ID: XYZMODEL1" or "Contains FCC ID: XYZMODEL1."                       | will be labeled      |
| Any similar wording that expresses the same meaning may be used. The Grantee may             | with "Contains       |
| either provide such a label, an example of which must be included in the application for     | FCC ID:              |
| equipment authorization, or, must provide adequate instructions along with the module        | E5MDS-NX915"         |
| which explain this requirement. In the latter case, a copy of these instructions must be     |                      |
| included in the application for equipment authorization.                                     |                      |
| 7. The modular transmitter must comply with any specific rule or operating requirements      | Yes, The module      |
| applicable to the transmitter and the manufacturer must provide adequate instructions        | complies with        |
| along with the module to explain any such requirements. A copy of these instructions         | FCC part 15C         |
| must be included in the application for equipment authorization. For example, there are      | requirements.        |
| very strict operational and timing requirements that must be met before a transmitter is     | Instructions to the  |
| authorized for operation under Section 15.231. For instance, data transmission is            | OEM installer        |
| prohibited, except for operation under Section 15.231(e), in which case there are separate   | regarding such       |
| field strength level and timing requirements. Compliance with these requirements must        | requirements for     |
| be assured.  | use in host          |
|  | device(s) are        |
|  | included in this     |
|  | application.         |
| 8. The modular transmitter must comply with any applicable RF exposure requirements.         | The module meets     |
| For example, FCC Rules in Sections 2.1091, 2.1093 and specific Sections of Part 15,          | this requirement     |
| including 15.319(i), 15.407(f), 15.253(f) and 15.255(g), require that Unlicensed PCS,        | for a Mobile/Fixed   |
| UNII and millimeter wave devices perform routine environmental evaluation for RF             | device that shall be |
| Exposure to demonstrate compliance. In addition, spread spectrum transmitters                | used at separation   |
| operating under Section 15.247 are required to address RF Exposure compliance in             | distance of more     |
| accordance with Section 15.247(b)(4). Modular transmitters approved under other              | than 20cm from       |
| Sections of Part 15, when necessary, may also need to address certain RF Exposure            | the human body.      |
| concerns, typically by providing specific installation and operating instructions for users, | Refer to the MPE     |
| installers and other interested parties to ensure compliance.                                | calculation.         |
|  |                      |

\* This **Limited Modular Approval (LMA)** is applied with the understanding that we, the applicant will demonstrate and will retain control over the final installation of the device, such that compliance of the end product is always assured. The operating condition(s) for the LMA; the module is only approved for use when installed in devices produced by GE MDS, or when proper installation / integration is used as per the user manual instructions.

The NX915 is a wireless ISM band module that was designed to be integrated into various enclosures designed by GE MDS. Alternatively the module can also be integrated by OEM as per the integration instructions provided in the user manual. All our ISM products are Professional Installation only. These modules are not for sale to the general public. GE MDS has fully trained and qualified personnel.

| Dated | 2/27/2013                              |              |
|-------|--|--------------|
| Ву:   | Signed: McCarthy Name: Dennis McCarthy |              |
| _     | (Signature)                            | (Print Name) |

Title: Agency Compliance Engineer On behalf of : GE MDS LLC Phone No.: 585 242-8440 Fax No.: 585 241-5590

Email: Dennis.McCarthy2@GE.com