GE VERNOVA

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

Date: 11/08/2023

Subject; **Modular Transmitter Application**

Company name: GE MDS, LLC
FCC ID: E5MDS-RCL220

Dear Sir/Madam,

This letter includes the FCC application requirements for Modular Transmitter Approval Request for;-

FCC KDB 996369 D01 'Module Certification Guide v02; and
FCC KDB 996369 D03 OEM Manual v01

In accordance with 47CFR 15.212 Modular Transmitters and KDB 996369 D01 'Module Equip Auth Guide v02'. FCC ID E5MDS-RCL220 has been examined against the following requirements.

Requirement per 15.212 and KDB 996369 D01	**Explanation from Grantee** (do not write yes/no, but explain why product complies/how it is achieved)
The radio elements must have the radio frequency circuitry shielded. Physical components and tuning capacitor(s) may be located external to the shield, but must be on the module assembly.	The RCL220 Radio Module includes integrated shielding for the RF section This module conforms to all applicable Part 15 and Part 90 requirements without needing to be installed inside of the host.
The module must have buffered modulation/data inputs to ensure that the device will comply with Part 15 requirements with any type of input signal.	The RCL220 uses RF System on Chip for input config and control. This IC features automatic receiver gain control, transmitter power control, and programmable GPIO to disable the transmitter and command the Tx/Rx RF switch when the unit is in receive.
The module must contain power supply regulation on the module.	The GE MDS Orbit MCR provides a fixed 5.25V power source and data interfaces through the card edge connector to enable module operation.
The module must contain a permanently attached antenna, or contain a unique antenna connector, and be marketed and operated only with specific antenna(s), per §§ 15.203, 15.204(b), 15.204(c), 15.212(a), 2.929(b).	Page 12 of the manual has an approved antenna matrix.
The module must demonstrate compliance in a stand-alone configuration.	The module was not tested in stand-alone configuration – it was tested in the GE MDS Orbit MCR Host.

The module must be labeled with its permanently affixed FCC ID label, or use an electronic display (see KDB Publication 784748).	See page 13 of OCR manual. It shall be permanently affixed.
The module must comply with all specific rules applicable to the transmitter, including all the conditions provided in the integration instructions by the grantee.	Page 12 of the manual outlines the specific rules.
The module must comply with RF exposure requirements	The radio equipment described in this operation emits radio frequency energy. The concentrated energy from a directional antenna may pose a health hazard. Persons may not come closer than 44 centimeters to the front of the antenna when the transmitter is operating with a 2.0dBi antenna.

Integration Instructions for host product manufacturers

The following items are submitted in support of application for Modular Transmitter FCC ID as noted above as required by the FCC KDB 996369 D03 OEM Manual v01.

These items are provided as integration instructions for host product manufacturers (e.g., OEM instruction manual) to use when integrating a module in a host product.

Any requirements that are not applicable to the Module are as indicated below.

Summary of requirements and Checklist. Refer to the KDB for description of the complete requirements;

KDB Ref Sect	Requirements of KDB 996369 D03	User Manual Page Number reference
2.2	List of applicable FCC rules	11
2.3	Summarize the specific operational use conditions	11
2.4	Limited module procedures	11
2.5	Trace antenna designs	11
2.6	RF exposure considerations	11
2.7	Antennas	11
2.8	Label and compliance information	12
2.9	Information on test modes and additional testing requirements	12
2.10	Additional testing, Part 15 Subpart B disclaimer	12

Name: **John Barenys** **Date: 11/08/2023**

Title: **Senior Operations Manager**

Signature of applicant