Federal Communications Commission
Equipment Authorisation Branch
7435 Oakland Mills Road
Columbia, MD 21046
United States of America

Lamone / Switzerland, 14th February 2022

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**SUBJECT: REQUEST FOR UNLICENSED LIMITED MODULE APPROVAL**

FCC ID: NDXDMO1

Dear Application Examiner:

Datamars SA hereby requests the FCC Equipment Authorization and Evaluation branch to have the Farm IoT module (FCC ID: NDXDMO1) approved under the Limited Module Approval Authorization procedure. The module has been tested for compliance in an FN1F 4W Fence Node host equipment. This letter addresses the information required by points one through eight of 47 CFR 15.212.

| 47 CFR 15.212 Requirements | Comments |
|---|---|
| 1. The modular transmitter must have its own RF shielding: | No RF shielding is provided on the module, other than a significant ground plane layer on the underside of the module. |
| 2. The modular transmitter must have buffered modulation/data inputs: | GMSK modulation is used in NDXDMO1 module. The proprietary post reception GMSK signal conditioning (FLRC) hardware circuits, internal protocol decoding methods and data buffer reside in the Semtech SX1280 transceiver. |
| 3. The modular transmitter must have its own power supply regulation: | The NDXDMO1 RF module receives DC power from a regulated DC supply on the host PCB assembly. The included radio transceiver (SX1280) has an internal power |

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| | supply regulator to stabilize the output transmission power. |
| 4. The modular transmitter antenna must comply with the antenna and transmission system requirements of section 15.203 and 15.204(c): | The NDXDMO1 RF module offers an IPEX/FLC style RF connector interface. The host product antenna is a fixed part of the enclosure and the IPEX/FLC connection from the antenna to the NDXDMO1 RF module is not accessible to the user. |
| 5. The modular transmitter must be tested in a stand-alone configuration: | Compliance was demonstrated by testing NDXDMO1 in an FN1F 4W Fence Node host. This host does not include any microcontroller or intentional transmitter additional to those on the module itself. |
| 6. The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying the FCC identification number: | The NDXDMO1 RF module is designed to initially be integrated in FN1F 2W , FN1F 4W and GW1 hosts. It will only ever be integrated in hosts designed and manufactured by Datamars. The FCC identifier will be shown on the rating labels of the host products. Please refer to exhibit of label sample. |
| 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 required FCC rule has been fulfilled and all the instructions for maintaining compliance have been clearly stated in the user manual for the host products. Please refer to exhibit User Manual. |
| 8. The modular transmitter must comply with any applicable RF exposure requirements in its final configuration: | Please refer to exhibit Test Report (No. 210803.20) for compliance with the MPE RF exposure rule. |

The module is not for sale and the user manual integration instructions are internal confidential manufacturing documents.

Yours sincerely

Damien Pachoud
Chief Technology Officer

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