

Request for Part 15 Single-Modular Transmitter Approval

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Addressed to: Federal Communications Commission
Authorization and Evaluation Division
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

Company name: u-blox AG
FCC ID: XPYNORAW1W2
FCC Part 15 Certification

To whom it may concern:

Herewith we state that the requirements according to FCC Part 15.212 are met and the module qualifies for a single modular transmitter approval.

In CFR Title 47 Chapter I Subchapter A Part 15 Subpart C Section 15.212 there are eight numbered requirements that our device complies with:

1. The modular transmitter must have its own RF shielding

The module has its RF-parts enclosed by a shield cover soldered onto the module ground plane.

2. The modular transmitter must have buffered modulation/data inputs

The module does not have modulation inputs. The electrical interface available to the module integrator consists of Power supply, UART, SPI and I/O signals. The interface signals are internally buffered by the module System on Chip and cannot affect the modulation.

3. The modular transmitter must have its own power supply regulation

The module SoC (System on Chip) has its own internal voltage regulators. In case the supply voltage fluctuates internal voltages will be kept unaffected.

4. The modular transmitter must comply with the antenna requirements of Section 15.203, 15.204(b) and 15.204(c)

The RF-port of module versions of NORA-W101 and NORA-W251AWS is available at a solder land and the antenna trace reference design guides the module integrator how to connect this solder land to a U.FL connector.

The module versions NORA-W106 and NORA-W256 are equipped with an integrated antenna. On these module versions, the RF-port is not available for external antenna connection.

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5. The modular transmitter must be tested in a stand-alone configuration

The module was soldered onto the evaluation board EVB-NORA-W1 and tested in a stand-alone configuration. The antenna trace reference design connecting the RF-port of NORA-W101 and NORA-W251AWS to a U-FL connector was implemented on the EVB-NORA-W1 evaluation board.

6. The modular transmitter must be labelled with its own FCC ID number

The module is too small for the FCC ID to be readable and as a consequence not labelled with its own FCC ID. The FCC identifier is instead in accordance with 47 CFR §2.925 (f) placed in the user manual and also placed on the device packaging. Instructions are also provided in the user manual how the end-product containing the module must be labelled.

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 Bluetooth and Wi-Fi modules NORA-W101, NORA-W106, NORA-W251AWS and NORA-W256AWS is compliant with all applicable FCC rules. Detailed instructions to the module integrator are presented in the User's Guide.

8. The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.

NORA-W101, NORA-W106, NORA-W251AWS and NORA-W256AWS complies with the RF exposure limits when integrated into host devices categorized as mobile and/or fixed. See separate document for RF exposure calculations.

Yours sincerely,



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