

## SOLVING A WAVE OF EMI COMPLIANCE PROBLEMS

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Federal Communications Commission Authorization and Evaluation Division

**APPLICANT: Wearable Inc.** 

REFERENCE FCC ID: XSNA01 RE: Request for Modular Approval

To Whom it May Concern:

Radiometrics has been authorized by Wearable to act as an agent in the preparation of their submittal request for Modular Approval.

Modular approval Requirements Characteristics

Item	Requirement	EUT Justification
1	Have its own RF shielding	The RF portions of the module are completely contained within a metal shield on the top and 4 sides and PCB ground shielding on the bottom side. The module does not depend on any other shielding.
2	Have buffered modulation/data inputs (if such inputs are provided),	All inputs to the module are buffered and processed through logic (NXP LPC2888). Refer to Block Diagram.
3	Have it own power supply regulation	All power supplies on the board, 3.05V, 1.73V, 1.15V, are provided/regulated from the PMIC. The PMIC receives power either from the battery or from the host interface (5V over USB). Refer to the Block Diagram.
4	Meet the antenna requirements of Section 15.203	The antenna is a printed circuit board antenna, doublesided crossed-pattern design. It has an approximate gain of +4 dBi. No other antennas are used with the module. The antenna is not readily available to be modified by the end user.
5	Be tested in a stand-alone configuration, i.e., the antenna, AC or DC power and data input/output lines must be connected to the module but, the module must not be inside another case during testing	The Device was tested connected to USB hub and a laptop computer via a USB cable. It had no additional shielding during any test.

Item	Requirement	EUT Justification
6	Be labeled with its own FCC ID number, <b>and</b> if the FCC ID is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module.	The proposed FCC ID label format is to be placed on both the PCB part of the module as a silkscreen and on the external shell via a permanent plastic label. If the FCC ID is not visible when the module is installed inside another device, "Contains FCC ID: XSNA01" shall be placed on the outside of the final system.
7	The modular transmitter is manufactured so that the user cannot influence the operation of the transmitter that will operate outside of the scope of the regulations.	The module contains firmware that is only supplied by the manufacturer. This firmware contains a table to set the channel frequency within the bounds and the output power within the maximum values as included in the certification tests.
8	Address compliance with the Commission's RF exposure limits in Sections 1.1310 and 2.1093. In addition, spread spectrum transmitters operating under Section 15.247 are required to address RF exposure compliance in accordance with Section 15.247(b)(4).	Refer to RF exposure Exhibit. The transmitter meets MPE calculations of 47 CFR 1.1310. The antenna gain is less than 6 dB

Please do not hesitate to contact me if there are any further questions with the submittal.

Sincerely,

Joseph Strzelecki, NCE

Radiometrics Midwest Corporation Authorized Agent for Wearable, Inc.

Joseph Strzelecki

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