

## To Whom It May Concern:

This letter is Requesting Limited Single Modular Approval for the mimio Wireless Module RWU-MWM01

This module is to be installed only in Newell Rubbermaid, Inc. end-products and will not be marketed to any other party".

## Mimio Modular Transmitter Answers

FCC ID: RWU-MWM01

Section 15.212

i. The radio elements of the modular transmitter must have their own shielding. The physical crystal and tuning capacitors may be located external to the shielded radio elements.

This module does not have a shielding can on the radio elements.

ii. 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.

All I/O to the module are buffered from the radio. There is no direct way an input (or output) pin can modulate the radio or change its output. The only data connection to the radio module is a SPI bus. See the block diagram for more detail.

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

The radio transceiver has an integrated voltage regulator for all RF circuitry.

iv. The modular transmitter must comply with the antenna and transmission system requirements of Sections 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 Section 15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section.

The radio module utilizes an integrated PCB antenna. No provision for any other antenna connection is provided.

v. The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing for compliance with Part 15 requirements. 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 the 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 supporting equipment. Any accessories, peripherals, or support equipment connected to the module during testing shall be unmodified and commercially available (see Section 15.31(i)).

The module may be powered by both a battery and/or an external power supply. The module will be powered with an AC/DC power supply for AC conducted measurements. The module was tested in a stand-alone configuration.

vi. The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number.

The module will have a label permanently attached, and the FCC declaration appears in the product manual. Refer to the product manual for product labeling instructions.

vii. The modular transmitter must comply with any specific rules or operating requirements that ordinarily apply to a complete transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization.

An instruction manual is included with the application for authorization. The module meets all applicable 15.247 requirements.

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

This module complies with FCC RF exposure requirements for general population to be installed in portable end products. Details can be seen in the RF exposure exhibit.

Sincerely,

Chad Lewis

OEM Engineer, R&D

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