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Client: Turning Technologies, LLC  
Model: RCQR01  
Standards: FCC 15.249/IC RSS-210  
ID's: R4WRCQR01/5994A-RCQR01  
Report #: 2014063

**Appendix D: FCC Part 15 Unlicensed Modular Transmitter Equipment Approval**

Please refer to the following pages.

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

4/21/2014

To Whom It May Concern:

In regards to RF Module, model RCQR01. This letter requests Limited Modular Approval and documents compliance with the modular approval requirements in Section 15.212 numbered i-viii on page 4 of the 996369 D01 Module Certification Guide v01r01. The module RCQR01 achieves compliance with hardware. To address the concern of a third party integrating the module into a host device, we Turning Technologies, LLC will retain control of the module and the devices it may be installed into.

In response to: “i. 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 module uses microstrip shielding, ground plane, and ground plane flooding to effectively control emissions. Spurious emissions have been checked and shown to be compliant. For final products that contain the certified device and do not use a typical enclosure, spurious emissions testing is required to confirm compliance.

In response to: “ii. 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; .” All modulation data inputs are internal to the transceiver chip.

In response to: “iii. The module must contain power supply regulation on the module; .” The module’s power supply is regulated, and the transmitter uses internal constant current sources to regulate the affects of power rail variation.



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In response to: “iv. 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 Sections 15.203, 15.204(b), 15.204(c), 15.212(a), 2.929(b);.” The module uses an internal etched PCB antenna, and does not have any external antenna connections.

In response to: “v. The module must demonstrate compliance in a stand-alone configuration; .” The module is internally powered and shall be tested in a stand-alone configuration.

In response to: “vi. The module must be labelled with its permanently affixed FCC ID label, or use an electronic display (See KDB Publication 784748 about labelling requirements); .” The module and final assembly shall comply with the stated labeling.

In response to: “vii. The module must comply with all specific rules applicable to the transmitter including all the conditions provided in the integration instructions by the grantee; .” We will retain control of the module and the devices it may be installed into.

In response to: “viii. The module must comply with RF exposure requirements (see discussions below). .” RF power of the module is only approximately 3 mW. This low RF output power ensures that exposure requirements have been met.

Thank you,



Jeffrey S Cunningham  
Director of Hardware R&D