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Leaders in Wireless Telecom

Modular Approval Request

Applicant: Microhard Systems Inc.
 FCC ID: NS918PMDDL2450

Feb 15 2018

To Whom It May Concern:

Pursuant to Section 15.212(a)(1) of the FCC rules, the Applicant, request for single modular approval, compliance with the requirements are addressed below.

| Single Modular Approval Requirements | Justification |
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| (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. | The modular transmitter has its own RF shielding |
| (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. | The modular transmitter has buffered modulation/data inputs |
| (iii) The modular transmitter must have its own power supply regulation. | The modular transmitter has its own analog and digital power supply regulation. |
| (iv) The modular transmitter must comply with the antenna and transmission system requirements of §§ 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 § 15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section. | The radio and its associated antennas are provided with the special coupling antenna connectors |
| (v) The modular transmitter must be tested in a stand-alone configuration, <i>i.e.</i> , 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 § 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 § 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 § 15.31(i)). | The modular transmitter was tested in a stand-alone configuration |
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| <p>(vi) The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number. (A) If using a permanently affixed label, the modular transmitter must be labeled with its own FCC identification number, and, if the FCC identification number 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. This exterior label can use wording such as the following: "Contains Transmitter Module FCC ID: XYZMODEL1" or "Contains FCC ID: XYZMODEL1." Any similar wording that expresses the same meaning may be used. The Grantee may either provide such a label, an example of which must be included in the application for equipment authorization, or, must provide adequate instructions along with the module which explain this requirement. In the latter case, a copy of these instructions must be included in the application for equipment authorization. (B) If the modular transmitter uses an electronic display of the FCC identification number, the information must be readily accessible and visible on the modular transmitter or on the device in which it is installed. If the module is installed inside another device, then the outside of the device into which the module is installed must display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains FCC certified transmitter module(s)." Any similar wording that expresses the same meaning may be used. The user manual must include instructions on how to access the electronic display. A copy of these instructions must be included in the application for equipment authorization.</p> | <p>A Label is attached to the device showing the FCC ID of the device. The manual includes End Device labeling instructions.</p> |
| <p>(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.</p> | <p>End-users must comply with the following instruction sated in the users' manual: Labeling requirement for equipment using this modular transmitter. RF Exposure Warning for compliance with FCC Rules 2.1091 and 1.1307 when the radio is used in a mobile or base system</p> |
| <p>(viii) The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.</p> | <p>The module complies with the requirements for a mobile device. Refer to the RF Exposure test report submitted with this application. The EUT is compliant with all applicable RF exposure requirements. Refer to RF Exposure exhibit. See manual for details and limits.</p> |



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