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Leaders in Wireless Telecom

July 28 , 2011

**FEDERAL COMMUNICATIONS COMMISSION**  
7435 Oakland Mills Road  
Columbia, MD 21046  
U.S.A.

**Subject: Request for Modular Approval**

**Applicant:** Microhard Systems Inc.  
**Product:** 2400MHz OEM Frequency Hopping Module  
**Model:** n2420B  
**FCC ID:** NS911P31

Dear Sir/Madam,

We, **Microhard Systems Inc.**, request modular approval included below is a clarification on the modular compliance.

A handwritten signature in blue ink, appearing to read 'Hany A. Shenouda', is written over a faint, light blue horizontal line.

Hany Shenouda  
Director of Engineering  
Microhard Systems Inc.



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2.	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
3.	The modular transmitter must have its own power supply regulation. This is intended to ensure that the module will comply with Part 15 requirements regardless of the design of the power supplying circuitry in the device into which the module is installed.	The modular transmitter has its own analog and digital power supply regulation.
4.	The modular transmitter must comply with the antenna requirements of section 15.203 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). Any antenna used with the module must be approved with the module, either at the time of initial authorization or through a Class II permissive change. The “professional installation” provision of Section 15.203 may not be applied to modules but can apply to limited modular approvals under paragraph (b) of this section.	The radio and its associated antennas are provided with a unique coupling antenna connector ‘MMCX’.
5.	The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing. This is intended to demonstrate that the module is capable of complying with Part 15 emission limits regardless of the device into which it is eventually installed. Unless the transmitter module will be battery powered, it must comply with the AC 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 marketed with the module (see Section 15.27(a)). The length of these lines shall be 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 or commercially available (See Section 15.31(I)).	The modular transmitter was tested in a stand-alone configuration
6.	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	The module transmitter is equipped with a permanently affixed label displaying its FCC identification number. A sample exterior label is shown on Page iii of the user manual submitted with filing.

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	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.	
7.	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.	Please refer to the user manual for instructions provided by the manufacturer for third party integrators.
8.	The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.	A minimum separation distance of 23 cm is required for both mobile and fixed installation of this module in order to satisfy the FCC RF Exposure requirement as stated on Page iii of the user manual.