



310 S. Williams Blvd.
Suite 346
Tucson, AZ 85711
t: 520.747.1811
f: 520.747.9408
www.polymap.net

March 13, 2007

To whom it may concern:

Polymap Wireless LLC would like to apply for Modular FCC approval for the PWR-08-0x Remote unit. This letter is our application for such according to FCC public notice DA 00-1407.

A. In order to be considered a transmitter module, the device must be a complete RF transmitter, i.e., it must have its own reference oscillator (e.g., VCO), antenna, etc. The only connectors to the module, if any, may be power supply and modulation/data inputs.	The transmitter is complete with its own reference oscillator and antenna. The only connectors provided are the DC supply, Data, and RF ports.
B. Compliance with FCC RF Exposure requirements may, in some instances, limit the output power of a module and/or the final applications in which the approved module may be employed.	The radio complies with MPE per 2.1091 for use with mobile or fixed base stations
C .While the applicant for a device into which an authorized module is installed is not required to obtain a new authorization for the module, this does not preclude the possibility that some other form of authorization or testing may be required for the device (e.g., a WLAN into which an authorized module is installed must still be authorized as a PC peripheral, subject to the appropriate equipment authorization).	The equipment complies with FCC Part 15, SubpartB, Class B – Unintentional Radiators.
D. In the case of a modular transceiver, the modular approval policy only applies to the transmitter portion of such devices. Pursuant to Section 15.101(b), the receiver portion will either be subject to Verification, or it will not be subject to any authorization requirements (unless it is a Scanning Receiver, in which case it is also subject to Certification, pursuant to Section 15.101(a)).	The receiver operates in the 2.401-2.480 GHz band and complies with FCC Part 15, Subpart B – Radio Receivers.
E. The holder of the grant of equipment authorization (Grantee) of the module is responsible for the compliance of the module in its final configuration, provided that the OEM, integrator, and/or end user has complied with all of the instructions provided by the Grantee which indicate installation and/or operating conditions necessary for compliance.	End users must conform with the following instructions stated in the users' manual: <ul style="list-style-type: none">• Labeling requirement for equipment using this modular transmitter• RF Exposure information for compliance with FCC Rules 2.1091 or 2.1093 are specified in the user manual for OEM, integrator, and/or end user.
1. The modular transmitter must have its own RF shielding. This is intended to ensure that the module does not have to rely upon the shielding provided by the device into which it is installed in order for all	The modular transmitter has its own RF shielding.

modular transmitter emissions to comply with Part 15 limits. It is also intended to prevent coupling between the RF circuitry of the module and any wires or circuits in the device into which the module is installed. Such coupling may result in non-compliant operation.	
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 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 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.	The radio complies with rules 15.203 and 15.204c. The radio will have a unique antenna coupler (U.FL) for all approved antennas.
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 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 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 labeled with its own FCC ID number, and, 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	The modular transmitter is labeled with its own FCC ID number. The label is fixed on the shield. FCCID: QYPPWR0801

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.	
7. The modular transmitter must comply with any specific rule or operating requirements applicable to the 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. For example, there are very strict operational and timing requirements that must be met before a transmitter is authorized for operation under Section 15.231. For instance, data transmission is prohibited, except for operation under Section 15.231(e), in which case there are separate field strength level and timing requirements. Compliance with these requirements must be assured.	The user manual for the PWR-08-0x contains adequate instructions relating to the usage, approved antennas, and power supply requirements of the modular transmitter.
8. The modular transmitter must comply with any applicable RF exposure requirements. For example, FCC Rules in Sections 2.1091, 2.1093 and specific Sections of Part 15, including 15.319(i), 15.407(f), 15.253(f) and 15.255(g), require that Unlicensed PCS, UNII and millimeter wave devices perform routine environmental evaluation for RF Exposure to demonstrate compliance. 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). Modular transmitters approved under other Sections of Part 15, when necessary, may also need to address certain RF Exposure concerns, typically by providing specific installation and operating instructions for users, installers and other interested parties to ensure compliance.	The modular transmitter was tested to applicable RF exposure requirements.

Sincerely,



Pierre Landau, Ph.D.

President