

Xetawave LLC

FCC Limited Single-Modular Approval Declaration

FCC ID.: PEJ-9382009

Product Name: XETA7-M2

<b>Modular Approval Requirement</b>	<b>Explanation of Compliance</b>	<b>Explanation of Limitation</b>
1. The radio elements of the modular transmitter must have their own shielding, except the crystal and tuning capacitors may be external to the shield.	The transmitter RF section is entirely shielded.	
2. The modular transmitter must have buffered modulation/data inputs to ensure that the module will comply with Part 15 requirements under conditions of excessive data rates or over modulation.	Modulation inputs are not provided. Data inputs are buffered and formatted by a digital signal processor so that over modulation is not possible.	
3. The modular transmitter must have its own power supply regulation.	This radio module is intended as OEM product for professional installation and will work with interface boards that provide specified input voltage of 12.5V $\pm$ 10%. Clear instructions for acceptable voltage range will be provided in the manual and on the sticker attached to each radio module. Module itself will not be sold to general public. This should be sufficient to meet Limited Modular approval	Only one rail of final PA supply of 12.5V isn't regulated. DSP on the radio module monitors input voltage and will disable transmit operation when input voltage goes outside of the range where specified performance is tested and guaranteed.
4. The modular transmitter must comply with the antenna and transmission requirements of Title 47 part §27.53(9)(f) and §27.56.	Unit was tested with antenna that is representative of the antenna type that will be used with XETA7-M2 radio module in normal operation. Maximum allowed Antenna Gain and requirements from part §27.56 for air navigation safety will be provided in the manual for professional installation.	

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<p>5. The modular transmitter must be tested in a standalone configuration.... AC or DC power lines and data input/output lines connected to the module must not contain ferrites unless they are marketed with the module..., and the length of these lines shall be the length typical in actual use.... Any accessories, peripherals, or support equipment shall be unmodified and commercially available.</p>	<p>The XETA7-M2 was tested in a standalone configuration without peripherals or other support equipment. The power source was a regulated lab power supply. Xetawave either designs interface boards or provides clear and specific requirements for all products in which the module is integrated. In these product designs, the module has no DC input cable since it is plugged directly into an interface boards.</p>	
<p>6. The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number... 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.</p>	<p>The XETA7-M2 has a permanently affixed label with the FCC ID shown. Xetawave controls the design of products in which the module is integrated, and the FCC ID number of the module is shown on the exterior of these end-products. Copy of FCC ID label is also provided in the manual.</p>	

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<p>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.</p>	<p>The XETA7-M2 complies with the applicable sections of Part 27 for 757-758 MHz and 787-788 MHz operation.</p>	<p>The module is integrated only in end-products that are designed and manufactured by Xetawave, and the configuration of the module is controlled at the end-product level. All internal module parameters and calibration data are controlled by password and cannot be accessed by professional installers or end-users. The installers are permitted to select only the frequency and modulation type, but the selection is limited to frequencies and modulation types in the equipment authorization. They are also allowed to reduce output power, if necessary, to comply with FCC Part 27 limit of 30W ERP for 787-788MHz band. Once configured, these parameters are protected by a password selected by the installer and cannot be changed by the user. Since the module is not available to other parties, there are no separate integration instructions provided. However, the instructions for the end-product describe how to configure it according to the specific requirements of the user's license.</p>
<p>8. The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.</p>	<p>Please refer to the MPE calculations in the user manual. The MPE calculations are identical to the calculation that applies to the end-product in which the XETA7-M2 is integrated. This information is included in the end-product user manual.</p>	

