



October 11, 2012

Federal Communications Commission
Office of Engineering and Technology
Equipment Authorization Division
7345 Oakland Mills Road
Columbia, MD 21046

RE: FCC Form 731 Application for Equipment Certification and Request for Approval as a Limited Modular Transmitter
FCC ID: SM6-RMXR

Dear Application Examiner,

Mueller Systems, LLC ("Mueller Systems"), respectfully requests equipment certification of FCC ID: SM6-RMXR as a limited modular device. Together with the information contained in the accompanying FCC Form 731, Application for Equipment Authorization, Mueller Systems hereby attests that the equipment complies with the limited modular approval requirements of Section 15.212 of the Federal Communication Commission's Rules as follows:

1. "The radio elements of the modular transmitter must have its own shielding."
 - The radio portion of this module has been shielded; please see attached Exhibit 1A, RMXR with shield.
2. "The modular transmitter must have buffered modulation/data inputs."
 - The RMXR contains buffered data inputs integrated in an Atmel device (ATxmega384) device.
3. "The modular transmitter must have its own power supply regulation."
 - The RMXR does not contain its own power supply regulation. The RMXR requires the host equipment to supply a regulated 3.3V supply. The RMXR module will not be sold for inclusion in 3rd party equipment. The RMXR will only be sold as part of a Mueller Systems product which will be designed to supply the properly regulated voltages to the RMXR module. This will satisfy the requirements for a Limited Module approval pursuant to Section 15.212(b).
4. "The modular transmitter must comply with the antenna and transmission requirements of section 15.203, 15.204(b) and 15.204(c)."
 - The RMXR meets the FCC antenna and transmission requirements. For a summary of the transmission characteristics, please see Exhibit 3, MUE 12449 Repeater Module FCC part15_247 test report Rev 0 in **Table 1 Device Summary** on page 3 of 103.
The antenna for the RMXR limited module is attached via an industry standard MMCX connector. The host equipment will supply an adapter cable from the RMXR limited module to the antenna connection point.
The module will only be sold installed within Mueller Systems equipment

with the antenna installed by factory trained personnel. The antenna will be one of the following:

- Nearson S161AH-915R (or equivalent).
- Mueller Custom Helical Antenna Part Number 145-0007-006
- Mueller Custom Monopole antenna Part Number A13039-Tinned
- Mueller Custom PCB Inverted F Antenna Part Number 850-0102-001
- PCTEL Omnidirectional Antenna MFB9153

Alternatively, the antenna connection point can be connected to a custom antenna that is located within the equipment enclosure and not accessible to the user or the antenna may be permanently soldered to the RMXR module.

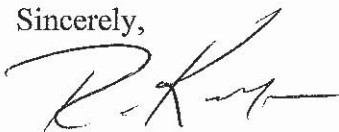
5. “The modular transmitter must be tested in a stand-alone configuration”
 - The RMXR was tested in a stand-alone configuration via a serial interface. Please see Exhibit 5, Test Setup Photos.

6. “The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying FCC identification number.”
 - The RMXR will have a permanently affixed label bearing the FCC ID: SM6-RMXR.
Please see attached Exhibit 2A, 130-0042-001 fcc repeater module RMXR label affixed to the module and Exhibit 2B, 130-0043-001 A00 fcc contains RMXR label for the label permanently affixed to any product containing the RMXR module.

7. “The modular transmitter must comply with any specific rule 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.”
 - The RMXR is compliant with all applicable FCC rules. Detail instructions for maintaining compliance are given in Exhibit 6, 800-0094-001 Repeater Users Manual r2.

8. “The modular transmitter must comply with any applicable RF exposure requirements.”
 - The RMXR is compliant with all applicable RF Exposure requirements. RF Exposure is addressed in the Washington Labs Test Report Exhibit 4, MUE12449-02 MPE Report Rev 0.

Sincerely,



Robert P. Keefe

Senior Vice President, Chief Technology Officer and Chief Information Officer