



Limited Modular Approval Request Attestation

April 20, 2011

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 Application and Request for Approval as a Limited Modular Transmitter  
FCC ID: SM6-RFDC

Dear Application Examiner,

Mueller Systems, LLC ("Mueller Systems"), respectfully requests certification of the above referenced equipment, ("RFDC") as a limited modular device. Together with the information contained in the accompanying FCC Form 731, Application for Certification, Mueller Systems hereby attests that the equipment complies with the limited modular approval requirements of Section 15.212 of the 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, RFDC top with shield and Exhibit 1B, RFDC bottom with shield.
2. "The modular transmitter must have buffered modulation/data inputs."
  - The RFDC contains buffered data inputs; it is integrated in an Atmel Atmega128 device.
3. "The modular transmitter must have its own power supply regulation."
  - The RFDC does not contain its own power supply regulation. The RFDC requires the host equipment to supply a regulated 5V and 3.3V supplies. The RFDC module will not be sold for inclusion in 3<sup>rd</sup> party equipment. The RFDC will only be sold as part of a Mueller Systems product which will be designed to supply the properly regulated voltages to the RFDC module. This satisfies the requirements for a Limited Modular 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 RFDC meets the FCC antenna and transmission requirements. For a summary of the transmission characteristics please see Exhibit 3, MUE11547 FCC part15 247 test report Draft Rev3 in Table 1 Device Summary on page 3 of 72.  
The antenna for the RFDC limited module is attached via an industry standard MMCX connector. The host equipment will supply an adapter cable from the RFDC limited module to the antenna connection point. The antenna connection

point will be equipped with a reverse polarity SMA female connector. The module will only be sold installed within Mueller Systems equipment with the antenna installed by factory trained personnel. The antenna will be a Nearson S161AH-915R (or equivalent).

5. "The modular transmitter must be tested in a stand-alone configuration."
  - The RFDC was tested in a stand-alone configuration via a serial interface. Please see Exhibit 6, 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 RFDC will have a permanently affixed label bearing the FCC ID: SM6-RFDC.  
Please see attached Exhibit 2A, 130-0024-001 FCC RFDC label for the FCC ID label affixed to the module and Exhibit 2B, 130-0023-001 A00 fcc fld radio label for the label permanently affixed to any product containing the RFDC module.
  
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."
  - The RFDC is compliant with all applicable FCC rules. Detailed instructions for maintaining compliance are given in the attached Exhibit 4, 880-0064-001 RFDC Users Manual.
  
8. "The modular transmitter must comply with any applicable RF Exposure requirements."
  - The RFDC is compliant with all applicable RF Exposure requirements. RF Exposure is addressed in the Washington Labs Test Report Exhibit 5, MUE11547- MPE RFDC Radio.

Thank you for your attention to this matter.

Sincerely,



Clayton Robert Barker III  
Executive Vice President & General Counsel