

March 5, 2004

**ATCB** 6731 Whittier Ave Suite C110 McLean, Va. 22101

## Dear Application Examiner:

Limited Modular approval for the device is being requested.

The device does not meet two out of the eight requirements outlined in FCC Public Notice DA 00-1407 Released: June 26, 2000.

Microwave Data Systems is requesting that FCC ID E5MDS-EL806-24 is granted the LMA Limited Modular Approval. All the supporting FCC and MDS email documentation is detailed at the end of this letter.

None of MDS's products are for sale to the general public, and are for Industrial applications only, examples, SCADA applications, traffic control, flow rate applications. Thus MDS has a trained staff of technical personnel that work with our industrial customers to ensure "professional installation" is achieved. In all cases the FCC EIRP limits are maintained.

When the Limited Modular approval is granted, MDS will perform training on it's staff, inform them of the "Limited Modular Approval" requirements, and list the technical differences between "Modular and LMA", to ensure it's staff keep the installations in compliance.

All the FCC module testing was performed with antennas that we currently are going to offer for professional installation of this product. The antenna and cable interfaces, are a NON standard "MCX" connectors, and the cable interconnects do fulfill the FCC's Modular requirements. All the antennas that will be used with the Professional installation grant, will be installed by trained/qualified personnel to ensure the strictest compliance with FCC rules.

MDS is offering an adapter cable that will interface from MCX (radio connector) to Bulkhead standard N connector, thus making this a Limited Modular Approval. Along with this cable will be instructions that will include( the antenna installation instructions) that will be shipped with the radio to our customers.

All supporting manuals and sales literature reflect the regulatory issues. The following text will be placed in the EL806-2.4 installation and user manual, and is being "requested" on the FCC grant.

Please feel free to read the supporting email information at the end of this letter that should satisfy the LMA request.



684 West Maude Avenue Sunnyvale, CA 94086-3518 408-245-7800 Phone 408-245-3499 Fax



"This device is only approved for use when installed in devices approved by third-party OEMs, or produced by the Grantee. The antenna(s) to be used with this limited modular transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be colocated or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation and transmitter operating conditions for satisfying RF exposure compliance. Professional installation of this product is required."



- 1) The modular transmitter must have its own RF shielding. The EUT contains its own RF shielding, and was tested outside an enclosure as a stand-alone transmitter.
- 2) The modular transmitter must have buffered modulation/data inputs. EUT has buffered data inputs to insure compliance with Part 15 requirements under conditions of excessive data rates or over-modulation. Please refer to the schematics and theory of operation.
- 3) The modular transmitter must have its own power supply regulation. The EUT has its own power supply regulation to insure compliance with Part 15 requirements regardless of the quality or level of external DC supplying the module from the host unit.
- 4) The modular transmitter must comply with the antenna requirements of Section 15.203 and 15.204(c).

The module will be installed in the OEM's final product. The antenna(s) will be professionally installed.

- 5) The modular transmitter must be tested in a stand-alone configuration. The EUT was tested outside an enclosure, as a stand-alone device, to be in compliance. Limited modular approval is requested for this requirement.
- 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 enclosed module.

The devices containing the module will be labeled with the FCC ID of the module.

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.

The operating limitations are fully understood by their engineering division.

8) The modular transmitter must comply with any applicable RF exposure requirements. The MPE calculation shows that the device meets the RF exposure requirements provided that a separation of at least 20cm is maintained between the EUT and people in its vicinity. The installation and user manuals for products containing this module will all reference this requirement.



If there are any questions or if further information is needed, please contact Elliott Laboratories for assistance.

Sincerely,

Juan Martinez

Senior EMC Engineer

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JM/dmg