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ISO 9001 Registration

Microwave Data Systems adheres to the internationally-accepted ISO 9001 quality system standard.

To our Customers

We appreciate your patronage. You are our business. We promise to serve and anticipate your needs. We will strive to give you solutions that are cost effective, innovative, reliable and of the highest quality possible. We promise to build a relationship that is forthright and ethical, one that builds confidence and trust.

Related Materials on the Internet □ Data sheets, frequently asked questions, case studies, application notes, firmware upgrades and other updated information is available on the GE MDS Web site at www.GEmds.com.

About GE MDS

Over two decades ago, GE MDS began building radios for business-critical applications. Since then, we have installed thousands of radios in over 110 countries. To succeed, we overcame impassable terrain, brutal operating conditions and disparate, complex network configurations. We also became experts in wireless communication standards and system applications worldwide. The result of our efforts is that today, thousands of utilities around the world rely on GE MDS-based wireless networks to manage their most critical assets.

The majority of GE MDS radios deployed since 1985 are still installed and performing within our customers' wireless networks. That's because we design and manufacture our products in-house, according to ISO 9001 which allows us to control and meet stringent global quality standards.

Thanks to our durable products and comprehensive solutions, GE MDS is the wireless leader in industrial automation □ including oil and gas production and transportation, water/wastewater treatment, supply and transportation, electric transmission and distribution and many other utility applications. GE MDS is also at the forefront of wireless communications for private and public infrastructure and online transaction processing. Now is an exciting time for GE MDS and our customers as we look forward to further demonstrating our abilities in new and emerging markets.

As your wireless needs change you can continue to expect more from GE MDS. We'll always put the performance of your network above all. Visit us at www.microwavedata.com for more information.

OPERATIONAL & SAFETY NOTICES

RF Exposure



Professional installation required. The radio equipment described in this guide emits radio frequency energy. Although the power level is low, the concentrated energy from a directional antenna may pose a health hazard. Do not allow people to come closer than 23 cm (9 inches) to the antenna when the transmitter is operating in indoor or outdoor environments. More information on RF exposure is on the Internet at www.fcc.gov/oet/info/documents/bulletins.

CSA/us Notice (Remote Transceiver Only)

This product is approved for use in Class 1, Division 2, Groups A, B, C & D Hazardous Locations. Such locations are defined in Article 500 of the National Fire Protection Association (NFPA) publication *NFPA 70*, otherwise known as the National Electrical Code.

The transceiver has been recognized for use in these hazardous locations by the Canadian Standards Association (CSA) which also issues the US mark of approval (CSA/US). The CSA Certification is in accordance with CSA STD C22.2 No. 213-M1987.

CSA Conditions of Approval: The transceiver is not acceptable as a stand-alone unit for use in the hazardous locations described above. It must either be mounted within another piece of equipment which is certified for hazardous locations, or installed within guidelines, or conditions of approval, as set forth by the approving agencies. These conditions of approval are as follows:

The transceiver must be mounted within a separate enclosure which is suitable for the intended application.

The antenna feedline, DC power cable and interface cable must be routed through conduit in accordance with the National Electrical Code.

Installation, operation and maintenance of the transceiver should be in accordance with the transceiver's installation manual, and the National Electrical Code.

Tampering or replacement with non-factory components may adversely affect the safe use of the transceiver in hazardous locations, and may void the approval.

A power connector with screw-type retaining screws as supplied by GE MDS must be used.



WARNING

**EXPLOSION
HAZARD!**

Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.

Refer to Articles 500 through 502 of the National Electrical Code (NFPA 70) for further information on hazardous locations and approved Division 2 wiring methods.

FCC Part 15 Notices

The transceiver series complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This device is specifically designed to be used under Section 15.247 of the FCC Rules and Regulations. Any unauthorized modification or changes to this device without the express approval of Microwave Data Systems may void the user's authority to operate this device. Furthermore, the Mercury Series is intended to be used only when installed in accordance with the instructions outlined in this manual. Failure to comply with these instructions may also void the user's authority to operate this device.

Part 15 rules also require that the Effective Isotropic Radiated Power (EIRP) from a Mercury Series installation not exceed 36 dBm. Refer to *Antenna & Feedline Selection on Page 111* for more information.

Industry Canada RSS Notices

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

To reduce potential radio interference to other users, the antenna type and its gain should be chosen so that the Equivalent Isotropic Radiated Power (EIRP) is not more than that permitted for successful communication.

This device as been designed to operate with the antennas listed below, and having a maximum gain of 12 dB. Antennas not included in this list or having a gain greater than 12 dB are strictly prohibited for use with this device. The required antenna impedance is 50 ohms. Refer to [Table 5-3 on Page 117](#) for a list of antennas acceptable for use with this transceiver.

Manual Revision and Accuracy

This manual was prepared to cover a specific version of firmware code. Accordingly, some screens and features may differ from the actual unit you are working with. While every reasonable effort has been made to ensure the accuracy of this publication, product improvements may also result in minor differences between the manual and the product shipped to you. If you have additional questions or need an exact specification for a product, please contact our Customer Service Team using the information at the back of this guide. In addition, manual updates can often be found on the GE MDS Web site at www.GEmds.com.

Environmental Information



The manufacture of this equipment has required the extraction and use of natural resources. Improper disposal may contaminate the environment and present a health risk due to hazardous substances contained within. To avoid dissemination of these substances into our environment, and to limit the demand on natural resources, we encourage you to use the appropriate recycling systems for disposal. These systems will reuse or recycle most of the materials found in this equipment in a sound way. Please contact GE MDS or your supplier for more information on the proper disposal of this equipment.