



OMNEX

Cordless Wire™ Connections SINCE 1986

Eliminate the expense of cable, conduit and pendants

DMD-900 Data Sheet

DIN Rail Mount RS232 and RS485/422 Radio Transceiver

Bldg. 74 - 1833 Coast Meridian Road
Port Coquitlam, BC, Canada V3C 6G5

Telephone: (604) 944-9247

Fax: (604) 944-9267

Web site: www.omnexcontrols.com



In an industrial communication environment, where radios are getting faster and faster and performance is getting worse and worse, do you need a "Data Tractor"?

A rugged wireless modem capable of:

- ◆ "Grinding through" interference
- ◆ Tolerating a wide range of input voltages
- ◆ Enduring extreme temperatures
- ◆ Benefitting from multi-path conditions
- ◆ Surviving noisy radio neighbors
- ◆ Delivering accurate data

Features

- ✓ License free FHSS
- ✓ Wide range of power supply voltages
- ✓ Broad temperature range
- ✓ Remote diagnostics
- ✓ Assured and broadcast modes of communication
- ✓ Auto-routing in repeater networks
- ✓ ARQ and error-checking
- ✓ Capable of MASTER, SLAVE or "Store-and-Forward" REPEATER/SLAVE modes
- ✓ Dry contact RF LINK output

The OMNEX DMD-900 DIN rail mount wireless data radio is a "Data Tractor" designed specifically for use in heavy interference SCADA environments where the chief concern is data integrity. Features such as RS232 and RS485 ports on the same radio, remote diagnostics and "Store-and-Forward" auto-routing repeaters make this transceiver the logical choice for moving data with great flexibility where other radios fail to perform.

Wireless Data Solutions



OMNEX

Cordless Wire™ Connections SINCE 1986

Eliminate the expense of cable, conduit and pendants

Bldg. 74 - 1833 Coast Meridian Road
Port Coquitlam, BC, Canada V3C 6G5
Telephone: (604) 944-9247
Fax: (604) 944-9267
Web site: www.omnexcontrols.com

DMD-900 Data Sheet

DIN Rail Mount RS232 and RS485/422 Radio Transceiver

Engineering Specifications - P/N ASSY-2347-02

Frequency.....	902 to 928 MHz - ISM band
Transmit Power.....	1 Watt (30dBm)
Operation.....	Half-duplex
Radio Modes.....	MASTER, SLAVE, REPEATER/SLAVE
Serial Port.....	RS232 and RS485/422
Serial Connector.....	DB9 (RS232) / 4-pin terminal block (RS485/422)
Data Port Rates.....	1200, 2400, 4800, 9600, 19200, 38400 baud (Asynchronous)
Flow Control.....	Selectable between <i>Hardware</i> or <i>None</i>
Auto-Routing.....	MODBUS, Allen-Bradley DF1 protocols
Error Correction/ Detection.....	ARQ with CRC-16
LED Indicators.....	External (RF, TX, RX)
Discrete Outputs.....	RSSI, LINK status
Power.....	9 to 30VDC
Power Consumption....	2.4 Watts (average) / 4.1 Watts (peak) - MASTER > 0.4 Watts (average) / 4.1 Watts (peak) - SLAVE
Reverse Polarity Protection.....	Yes
Range.....	600 to 1000 feet (180 to 305m) in-plant [obstructed]; 4 to 5 miles (6 to 8km) line-of-sight with omni antenna; 20+ miles (32km) line-of-sight with Yagi antenna
Antenna Connector.....	MCX (female)
Temperature Range.....	-40°F to 158°F (-40°C to 70°C)
Humidity.....	20% to 90% (non-condensing)
Mounting.....	DIN rail mount
Dimensions.....	4.5" x 3.8" x 0.8" (114mm x 97mm x 20mm)
Approvals.....	USA - FCC Part 15.247 Canada - ISC RSS 210
Certifications.....	CSA/C & US - Class I, Div 2 (Groups A,B,C,D) - <i>pending</i>

Specifications subject to change without notice

Typical Applications

- ✓ Those common to all SCADA type RS232 and RS485/422 data modems and extends to:
 - ◆ High EMI power generation environments
 - ◆ Heavily obstructed steel structures where multi-path is a serious problem
 - ◆ Environments populated with numerous radios where RF interference is an issue
 - ◆ Situations where data rate is not as critical as data integrity
- ✓ Designed for heavy industry, extraction, refining, conveying, processing, manufacturing, storage, municipal and rural water/wastewater - any applications where the movement of serial data through the air requires additional robustness and reliability from the RF platform.

Distributed by:

For more information, including detailed wiring diagrams, please visit our website at www.omnexcontrols.com