DESCRIPTION

The IFS DED2500 series data transceiver supports bi-directional data transmission over multimode, singlemode optical fiber, or electrical. The modules are compatible with RS-232, and 2-wire or 4-wire RS-485 data interfaces and all major data protocols. The unit converts common standard serial data to Ethernet data to be transported over Ethernet networks. Web based configuration ensures ease of installation requiring no electrical or optical adjustments. Each transceiver incorporates status indicating LED's for monitoring of proper system operation. The modules are available in stand-alone only.

APPLICATION EXAMPLES

• Data Control over Ethernet
• Data Conversion

FEATURES

• Digitally Encoded Data Transceiver
• Supports RS-232, or RS-485 (2-wire or 4-wire) Data Interfaces
• Data Rates to 115,200 bps
• Web Based Configuration
• No In-field Electrical or Optical Adjustments Required
• LED Status Indicators For Monitoring All Critical Operating Parameters
• Automatic Resettable Fuses on all Power Lines
• Distances up to 23 Miles (37 km)
• Comprehensive Lifetime Warranty

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>FIBERS REQUIRED</th>
<th>OPTICAL PWR BUDGET</th>
<th>MAX. DISTANCE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTRICAL</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DED2500-E</td>
<td>10/100 Mbps Ethernet</td>
<td>N/A</td>
<td>N/A</td>
<td>1000 ft. (300 m)</td>
</tr>
<tr>
<td>MULTIMODE 62.5/125µm**</td>
<td>Data Transceiver (1310 nm)</td>
<td>2</td>
<td>13 dB @ 1300 nm</td>
<td>1.2 miles (2 km)</td>
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<td>DED2500-M</td>
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<td>DED2500-EM</td>
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<tr>
<td>DED2500-S</td>
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<tr>
<td>DED2500-ES</td>
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ACCESSORIES*

• PS-12VDC-12 Volt DC Plug-in Power Supply
• PS-24VAC-24 Volt AC Plug-in Power Supply

OPTIONS

Add ‘C’ for Conformally Coated Printed Circuit Boards (Extra charge, consult factory)

* Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels.
** For 50/125 Fiber, subtract 4 dB from Optical Power Budget.
♦ All accessories are third party manufactured.

Available at: www.ifs.com

• A & E Specifications, (CSI)
• AutoCAD Drawings
• Operation Manuals
• Technical Bulletins
SPECIFICATIONS

DATA
Data Interface: RS-232, RS-422, 2 and 4 wire RS-485 with Tri-State
Data Format: 7-8 Bit Data, Parity, Stop Bit Selectable
Data Rate: 9,600 - 115,200 bps
Bit Error Rate (BER): < 1 in 10\(^{-9}\) @ Maximum Optical Loss Budget
Operating Mode: Simplex or Full-Duplex

WAVELENGTH
1310 nm, Multimode
1310 nm, Singlemode

OPTICAL Emitter
LED

NUMBER OF FIBERS
2

LED INDICATORS
• Received Data
• Transmitted Data
• Operating Power

CONNECTORS
Power: Terminal Block with Screw Clamps
Optical: SC

ELECTRICAL & MECHANICAL
Power:
Surface Mount: 12VAC
Current Protection: Automatic Resettable Solid-State Current Limiters
Circuit Board: Meets IPC Standard
Size (in./cm.) (LxWxH)
Surface Mount: 7.0 x 4.0 x 2.0 in., 17.8 x 10.2 x 5.1 cm
Shipping Weight: < 2 lbs./0.9 kg

ENVIRONMENTAL
MTBF: > 100,000 hours
Operating Temp: -40° C to +74° C
Storage Temp: -40° C to +85° C
Relative Humidity: 0% to 95% (non-condensing)†

†May be extended to condensation conditions by adding suffix ‘–C’ to model number for conformal coating.

OPTICAL POWER BUDGET

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* Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels. Distance can also be limited by fiber bandwidth. ** For 50/125 Fiber, subtract 4 dB from Optical Power Budget.

SYSTEM DESIGN

Due to our continued effort to advance technology, product specifications are subject to change without notice.

07/13/06