**FEATURES**

- Meets EIA RS-232/422 Specifications (Simplex or Duplex)
- NTCIP Compatible
- Drop and Repeat Network Architecture
- Transparent to Data Encoding / Compatible with Major Data Protocols
- Automatic Resettable Solid-State Current Limiters
- Data rates up to 100 kbps
- No In-field Electrical or Optical Adjustments Required
- Integrated WDM for Greater Product Reliability
- Power, Transmit and Receive Data Status LED Indicators
- Hot-Swapable Rack Modules
- Distances up to 26 Miles (42 km)
- Comprehensive Lifetime Warranty

**APPLICATION EXAMPLES**

- Access Control Systems
- Building Automation and Environmental Control Systems
- Computer/Data Equipment
- Fire & Alarm Systems
- Traffic Signal Control Equipment

**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>MULTIMODE 62.5/125µm**</td>
<td>D2100 Repeater (850 nm)</td>
<td>2 In/2 Out</td>
<td>14 dB</td>
<td>2 miles (3.5 km)</td>
</tr>
<tr>
<td>MULTIMODE 62.5/125µm**</td>
<td>D2100WDM Repeater (850/1310 nm)</td>
<td>1 In/1 Out</td>
<td>14 dB</td>
<td>2 miles (3.5 km)</td>
</tr>
<tr>
<td>MULTIMODE 62.5/125µm**</td>
<td>D2120 Repeater (1310 nm)</td>
<td>2 In/2 Out</td>
<td>13 dB</td>
<td>8 miles (13 km)</td>
</tr>
<tr>
<td>SINGLEMODE 9/125µm</td>
<td>D2125 Repeater (1310 nm)</td>
<td>2 In/2 Out</td>
<td>14 dB</td>
<td>26 miles (42 km)</td>
</tr>
</tbody>
</table>

**ACCESSORIES**

- PS-12VDC 12 Volt DC Plug-in Power Supply (Included)
- PS-12VDC-230 12 Volt DC Plug-in Power Supply, 230 VAC Input (Included if specified at time of order)

**OPTIONS**

- Add -24 for 24 VDC Power (Extra charge, consult factory)
- Add ‘R3’ to Model Number for R3 Rack Mount - No Charge (Requires R3 Rack purchased separately)
- 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. Distance can also be limited by fiber bandwidth. ** For 50/125 Fiber, subtract 4 dB from Optical Power Budget

All accessories are third party manufactured.
TECHNICAL SPECIFICATION

RS-232/422 DROP AND REPEAT DATA TRANSCEIVERS

D2100 SERIES

SPECIFICATIONS

DATA
Data Interface: RS-232 (data lines only), RS-422 (See note)
Data Rate: DC-100 kbps
Operating Mode: Asynchronous Simplex or Full Duplex
Bit Error Rate: <1 in 10^9

WAVELENGTH
D2100: 850 nm
D2120, D2125: 1310 nm
D2100WDM: 850/1310 nm

NUMBER OF FIBERS
D2110WDM: 1 In/1 Out
All Others: 2 In/2 Out

CONNECTORS
Optical: ST
Data and Power: Terminal Plug with screw clamps

ELECTRICAL & MECHANICAL
Power: 12 VDC @ 250 mA
Number of Rack Slots: 1
Current Protection: Automatic Resettable Solid-State Current Limiters
Circuit Board: Meets IPC Standard
Size (in./cm.): (LxWxH):
Surface Mount: 7.0 x 4.9 x 1.0 in., 17.8 x 12.5 x 2.5 cm.
 Rack Mount: 7.7 x 5.0 x 1.0 in., 19.6 x 12.7 x 2.5 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)*

NOTE: The D2100 Series is compatible with some RS-485 (4 wire) systems. Consult factory for application.
* May be extended to condensation conditions by adding suffix ‘C’ to model number for conformal coating.

OPTICAL POWER BUDGET

<table>
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<tr>
<th>FIBER</th>
<th>WAVELENGTH</th>
<th>TRANSMITTER MODEL</th>
<th>OUTPUT PWR</th>
<th>SENSITIVITY</th>
<th>OPTICAL PWR BUDGET</th>
<th>MAX. DISTANCE*</th>
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</thead>
<tbody>
<tr>
<td>Multimode 62.5/125µm</td>
<td>850 nm</td>
<td>D2100 D2100WDM</td>
<td>25 µw (-16 dBm)</td>
<td>1 µw (-30 dBm)</td>
<td>14 dB</td>
<td>2 miles (3.5 km)</td>
</tr>
<tr>
<td>Singlemode 9/125µm</td>
<td>1310 nm</td>
<td>D2120 D2125</td>
<td>20 µw (-17 dBm)</td>
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SYSTEM DESIGN

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

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