The D8 Series Compact Fiber Optic Delay Line is available in virtually any length up to 45 km housed in a 1.75” high enclosure or 90 km in a 3.5” high enclosure. All units are built custom to meet your specific requirements.

Simply specify the length or time delay required and connector choice for the input and output bulkheads. Dual spool or Multichannel units are also available.

Applications
- System emulation of loss, length, time delay and reflectance
- Use in conjunction with fiber optic transceivers, transmitters and receivers for radar testing, signal processing, phased antenna array and phase noise testing
- Optical buffer for optical networks
- Laser spectroscopic measurement
- Time delay for opto-electronic oscillators
- Optical network testing and analysis
- Optical packet switching, buffering, routing and input/output synchronization
- Product Demonstrations, Equipment Calibration

Features / Benefits
- Small 1 RU Rack Mount Enclosure holds up to 45 km of fiber
- Custom length configurations available
- Multiple spool or multichannel configurations available
- Simplex and Duplex Units
- Low insertion loss
- Rugged construction
## Specifications

### D8 Series Compact Rack Mount Fiber Optic Delay Line

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Length 19&quot;, Width 13&quot;-18&quot;, Height 1.75&quot;-3.5&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber length / Optical Delay</td>
<td>90 km (max) / 12µs to 440µs</td>
</tr>
<tr>
<td>Fiber types</td>
<td>Singlemode 9/125, Multimode 62.5/125, Multimode 50/125 OM2, Multimode 50/125 OM3</td>
</tr>
<tr>
<td>Bulkheads</td>
<td>FC, ST, SC, FC/APC, SC/APC, LC, LC/APC, E2000, E2000/APC</td>
</tr>
<tr>
<td>Connector Insertion Loss (dB)</td>
<td>&lt;0.3 dB typical, &lt;0.5 dB max</td>
</tr>
<tr>
<td>Connector Return Loss (dB)</td>
<td>UPC: -55 dB (min), APC: -65 dB (min)</td>
</tr>
<tr>
<td>Mating reliability</td>
<td>&lt;.2 dB</td>
</tr>
<tr>
<td>Connector geometries</td>
<td>All connectors meet or exceed Telcordia GR-326 Core Specification</td>
</tr>
<tr>
<td>Storage temp.</td>
<td>-40° to +85° C</td>
</tr>
<tr>
<td>Operating temp.</td>
<td>-40° to +85° C</td>
</tr>
<tr>
<td>Humidity</td>
<td>0 to 95%, non-condensing</td>
</tr>
<tr>
<td>Weight</td>
<td>3.5 lbs. (1RU 19&quot;x13&quot;x1.75&quot; w/out fiber)</td>
</tr>
<tr>
<td>Warranty</td>
<td>1-year (Warranty covers any manufacturing defects. Connector and lead replacement due to use are not covered under warranty.)</td>
</tr>
</tbody>
</table>

### Optical Specifications

<table>
<thead>
<tr>
<th>Fiber Type</th>
<th>Wavelength</th>
<th>Typical attenuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singlemode 9/125 µm (OS1)</td>
<td>1310 nm &amp; 1550 nm</td>
<td>0.35 dB/km &amp; 0.20 dB/km</td>
</tr>
<tr>
<td>Multimode 62.5/125 µm (OM1)</td>
<td>850 nm &amp; 1300 nm</td>
<td>2.9 dB/km &amp; 0.60 dB/km</td>
</tr>
<tr>
<td>Multimode 50/125 µm (OM2/OM3)</td>
<td>850 nm &amp; 1300 nm</td>
<td>2.3 dB/km &amp; 0.60 dB/km</td>
</tr>
</tbody>
</table>

- Please note: All spools are OTDR tested at 1625nm for macro/micro bends thus eliminating unnecessary OTDR events.

### Ordering Information

The diagram shown below displays the part number template for ordering. Simply choose the bulkhead style required for the input and output ports, bulkhead placement and the length required (in meters). For example, a 5000 meter unit with SC/APC bulkheads placed on the front panel would be D855F-S5000. Please contact a sales representative if you require assistance or are interested in a dual spool or duplex configurations.

![Bulkhead Codes:](image)

- **Fiber:**
  - S - Singlemode
  - M - Multimode 62.5/125
  - B - Multimode 50/125 OM2
  - C - Multimode 50/125 OM3

- **Bulkhead Codes:**
  - 1 - FC
  - 2 - ST®
  - 3 - SC
  - 4 - FC/APC
  - 5 - SC/APC
  - 7 - LC
  - X - LC/APC
  - Y - E2000
  - Z - E2000/APC

- **Bulkhead Placement:**
  - F - Front Panel
  - R - Back Panel

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