80KM Passive Dispersion Compensation Module

4.8dB Low Loss, LC/UPC, Plug-in Card Type

Description

DCM (Dispersion Compensation Modules) - provides fixed chromatic dispersion compensation for high-speed metro core, regional, and extended-haul DWDM networks.

FS DCM is a purely passive module that provides negative dispersion for DWDM transmission systems, increasing transmission range and decreasing BER of optical links. And it can be used to compensate dispersion on standard single-mode optical fiber (SMF) across the entire C-Band.

Based on DCF technology, it is designed for protocol transparent data rates between 10 Mbps and 40 Gbps high-speed extended haul DWDM networks. When combined with transponders and amplifiers, the DCM provides a simple, reliable, and cost-effective DWDM transport solution.

Features

- 100% slope compensation of G.652 fiber in C-band (Typical)
- Low insertion loss
- Low polarization mode dispersion
- Wide band dispersion compensation
- Compensation up to 40 km
- Completely passive—no powering utilized
- Telcordia GR-2854-CORE, RoHS compliant

Application

- Metro and long-haul DWDM networks
- SDH/SONET system
- CATV system
**Product Specifications**

<p>| | | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Compensated Length</strong></td>
<td>80km</td>
<td><strong>Wavelength</strong></td>
<td>C-Band</td>
</tr>
<tr>
<td><strong>Dispersion (ps/nm)</strong></td>
<td>-1360 ± 3%</td>
<td><strong>Connector</strong></td>
<td>LU/UPC</td>
</tr>
<tr>
<td><strong>Insertion Loss</strong></td>
<td>4.8dB max</td>
<td><strong>Power Consumption</strong></td>
<td>≤1W</td>
</tr>
<tr>
<td><strong>PMD</strong></td>
<td>1.2ps max</td>
<td><strong>PDL</strong></td>
<td>0.1dB max</td>
</tr>
<tr>
<td><strong>Noise Figure</strong></td>
<td>4.5dB (Typical)</td>
<td><strong>For Use With</strong></td>
<td>FMT managed chassis</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>-5° C ~ 55° C</td>
<td><strong>Storage Temperature</strong></td>
<td>-40° C ~ 85° C</td>
</tr>
</tbody>
</table>

**DCM for DWDM Network up to 200 km**

DCM is designed for protocol transparent data rates between 10 Mbps and 40 Gbps of DWDM networks application. Thus up to 96 DWDM wavelengths (100 GHz grid) can be compensated on a fiber optic link. Using these dispersion compensation modules, the transmission distances in fiber can be increased significantly without regenerating the signals.
Dimensions

4-slot 1U managed chassis, supports up to 4x multiplexer/EDFA/OEO/OLP card with accessories;
- Width: 482.6mm(19’’)
- Height: 44.50mm(1.75’’)
- Depth: 300mm(11.81’’)

DCM plug-in card occupies two slots.

Ordering Information (100 GHz ITU DWDM Grid)

<table>
<thead>
<tr>
<th>ID</th>
<th>Model</th>
<th>Range(km)</th>
<th>Wavelength(nm)</th>
<th>Connectors</th>
<th>Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>#65781</td>
<td>FMT40-DCM</td>
<td>40</td>
<td>C-Band</td>
<td>LC/UPC</td>
<td>Plug-in Card Type</td>
</tr>
<tr>
<td>#65779</td>
<td>FMT80-DCM</td>
<td>80</td>
<td>C-Band</td>
<td>LC/UPC</td>
<td>Plug-in Card Type</td>
</tr>
<tr>
<td>#29296</td>
<td>FMT80-DCM</td>
<td>80</td>
<td>C-Band</td>
<td>LC/UPC</td>
<td>1U 19”Rack Mount</td>
</tr>
</tbody>
</table>

*Standard products are listed above. Customized specifications are available upon request.
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