DiCon’s 3D Matrix Switch Plug-In Module is a proprietary optical switch that allows any of the inputs to connect to any of the outputs in a non-blocking optical cross-connect configuration. This innovative design is based on arrays of DiCon’s industry proven MEMS mirrors, which redirect light from the input fibers to the requested output fibers. For ease of control, this 3D Matrix Switch is provided as a Plug-In module for use in DiCon’s GP750 modular system.

OPERATING PRINCIPLE

FEATURES
- Proven DiCon MEMS Mirror Technology
- Excellent Repeatability
- Compact Form Factor

APPLICATIONS
Matrix optical switches allow resources to be shared within R&D or Production labs, while also being reconfigurable to adapt to future changes.
GP750 PROGRAMMABLE INSTRUMENT
3D MATRIX SWITCH PLUG-IN

OPTICAL SPECIFICATIONS1

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss2</td>
<td>Single-Band 1.8 dB max.</td>
</tr>
<tr>
<td></td>
<td>Dual-Band 2.0 dB max.</td>
</tr>
<tr>
<td>Crosstalk</td>
<td>-60 dB max.</td>
</tr>
<tr>
<td>Back Reflection</td>
<td>-45 dB max.</td>
</tr>
<tr>
<td>Switching Time</td>
<td>40 ms max.</td>
</tr>
<tr>
<td>TDL</td>
<td>0.4 dB max.</td>
</tr>
<tr>
<td>WDL3</td>
<td>0.4 dB max.</td>
</tr>
<tr>
<td>PDL</td>
<td>0.3 dB max.</td>
</tr>
<tr>
<td>Repeatability4</td>
<td>0.04 dB max.</td>
</tr>
<tr>
<td>Durability</td>
<td>10⁹ cycles min.</td>
</tr>
<tr>
<td>Optical Power</td>
<td>500 mW max.</td>
</tr>
<tr>
<td>Fiber Type</td>
<td>9/125 μm single mode</td>
</tr>
</tbody>
</table>

1. Specifications are without connectors.
2. IL is measured at CWL, 23°C.
3. WDL is measured in a +/- 20 nm range at 23°C.
4. Repeatability is defined after 100 cycles.

MECHANICAL DIMENSIONS
(Units: mm)

ORDERING INFORMATION

Product Code
GPX - □ - □ - □ - 9 - □

GPX - Matrix Module

Slot Width
2S - 2-Slot Module

Switch Configuration
MxN/3D - MxN, 3D Matrix, Non Blocking
Specify M,N≤16
Available in any MxN size up to a maximum of 16x16

Wavelength Range
13 1290 - 1330 nm
15 1530 - 1570 nm
16 1570 - 1610 nm
13/15 1290 - 1330 & 1530 - 1570 nm
15/16 1530 - 1570 & 1570 - 1610 nm

Fiber and Jacket Type
9 Corning SMF-28 9μm fiber
Or other equivalent 9μm Singlemode fiber

Connector Type
FC/SPC FC/SPC
FC/APC FC/APC
N NONE
Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, LC

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