

## Applications

- Fiber Optical Protection Switching
- Redundant Ring Architectures
- FTTx Networks


## Features

- Automatic, Manual and Remote Switching
- Auto-Switching Time Less than 25 ms
- SNMP Control Interface
- Front Panel LED Indicators
- 1 RU Rack-Mount Enclosure with Choice of AC or DC Power Supply

The EOS-6000 Optical A/B Switch is a high-performance solution for network protection and optical redundancy. Packaged in convenient 1RU housing, this line of optical switches provides an automatic or manual fiber switching function to protect the network from inadvertent service outages due to up-stream optical signal degradation. Each fiber's optical signal power level is continuously monitored, as is an adjustable optical trip threshold for each channel. If the primary fiber's optical signal power level falls below the desired optical trip threshold, the unit automatically switches to the secondary fiber, thus eliminating the need for intervention of a system operator. The EOS-6000 is capable of manual switching or can be switched remotely via SNMP adding optical protection to many system applications.

The EOS-6000 series is designed as a low power, cost-effective, high-performance switching solution for applications that demand reliable and rapid response to changing network conditions

Figure 1: Redundant Path Configuration for CATV Broadcast


## Optical Characteristics

| Property | Units Min. |  | Typ. | Max. |
| :--- | :---: | :---: | :---: | :---: |
| Operating Wave Length | Nm |  | $1310+/-10$ or $1550+/-20$ |  |
| Insertion Loss | dB |  | 1.0 | 1.3 |
| Return Loss | dB | 55 | 60 |  |
| Polarization Dependent Loss | dB |  | 0.06 | 0.1 |
| Repeatability | dB |  | +-0.01 | $+/-0.02$ |
| Isolation | dB |  | -60 | -50 |
| Input Optical Power | dBm |  |  | 24 |
| Switching Time | ms |  |  | 25 |

DATASHEET | OCTOBER 2012
FIBER OPTICS

General and Mechanical Specifications

| Property | Requirement | Comments |
| :---: | :---: | :---: |
| Switching Threshold | 20 dB range - see ordering info | Settable within range |
| Switching Mode | Auto, Manual, remote |  |
| Optical Connector | SC/APC | Other styles available |
| Monitoring Interfaces | 100 Base-T Ethernet Rear Panel RS-232 interface LED Indicators | SNMP v1 <br> Reserved for Factory Use <br> Power, Main, Backup, and Output Indicators |
| Operating Temperature | $0^{\circ} \mathrm{C}$ to $50^{\circ} \mathrm{C}$ |  |
| Storage Temperature | $-25^{\circ} \mathrm{C}$ to $65^{\circ} \mathrm{C}$ |  |
| Agency Listings | FCC: Subpart B. Part 15, class "A" Unintentional Radiators |  |
| Power Consumption | 5W | Maximum |
| Supply Range (VDC) (VAC) | $\begin{aligned} & 85 \text { to } 240 \text { VAC, } 50 / 60 \mathrm{~Hz} \\ & 36-72 \text { VDC } \end{aligned}$ |  |
| Dimensions | $430 \times 300 \times 44 \mathrm{~mm}$ |  |

## Model Number Information (note 1)



Note 1: Not all configurations are available - contact factory.

Example: 6000-0S5-1232
1550nm, SC/APC connectors, DC power supply, -10 to +10 dBm input range, EMCORE Logo.

