EOS-6000 Optical A/B Switch

Applications

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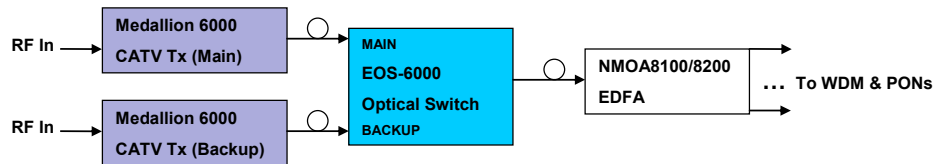- Redundant Ring Architectures
- FTTx Networks

Features

- Automatic, Manual and Remote Switching
- Auto-Switching Time Less than 25ms
- 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

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 Reserved for Factory Use Power, Main, Backup, and Output Indicators
Operating Temperature	0°C to 50°C	
Storage Temperature	-25°C to 65°C	
Agency Listings	FCC: Subpart B. Part 15, class "A" Unintentional Radiators	
Power Consumption	5W	Maximum
Supply Range (VDC) (VAC)	85 to 240 VAC, 50/60 Hz 36 - 72 VDC	
Dimensions	430x300x44mm	

Model Number Information (note 1)

6000 – 0S ☐ - ☐ ☐ ☐ ☐

Operating Wavelenghth	Optics	Power Supply	Switching Threshold range	EMCORE Logo
3 – 1310nm	1 – SC/APC	1 – AC	1 – [-30, -10] dBm	0 – No
5 – 1550nm	2 – FC/APC	2 – DC	2 – [-20, 0] dBm	2 – Yes
	3 – SC/UPC		3 – [-10, 10] dBm	
	4 – FC/UPC		4 – [0, 20] dBm	
	5 – LC/UPC			
	6- LC/APC			

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.