

## Single Fiber WDM Converters

Signamax Connectivity Systems' Switching Single Fiber Wave Division Multiplexing (WDM) Media Converters with Link Fault Signaling allow data typically carried over two strands of fiber optic cable to be carried over a single strand of fiber optic cable, utilizing two different wavelengths to carry signals in both directions simultaneously. This technology doubles the capacity of a company's fiber optic network, allowing a carrier or an enterprise business to minimize its operational costs by eliminating or delaying the deployment of additional fiber optic capacity. These converters are available in Single Mode only, and span distances of up to 20 kilometers with the 065-1176ALFS and 065-1176BLFS models.

Since WDM Switching Media Converters utilize two different wavelengths with one end of a circuit transmitting on the other end's receive frequency (and vice versa), they must be used in A/B pairs. A circuit utilizing these converters would therefore use a single strand of Single Mode fiber optic cable plus one each of the 065-1176ALFS and 065-1176BLFS depending upon the distance spanned. All Signamax WDM converters are equipped with Link Fault Signaling to provide the means for an SNMP-managed switch to recognize a failure on a fiber channel or twisted-pair connection, enabling the switch to automatically route to a backup path if the connected switch is equipped with Spanning Tree Algorithm. Each WDM Media Converter provides a 10/100BaseT/TX auto-negotiating RJ45 twisted-pair connector port, and features store-and-forward switching architecture. Auto-MDIX capability on the twisted-pair port is also provided for convenient connections.



Model 065-1176ALFS

### SPECIFICATIONS

#### APPLICABLE STANDARDS

IEEE 802.3 10BaseT, IEEE 802.3u 100BaseTX  
IEEE 802.3u 100BaseFX

#### FIXED PORTS

1 Auto-MDIX twisted-pair port meeting IEEE 802.3 10BaseT & IEEE 802.3u 100BaseTX standard specifications; Category 5 or better cable, 100 meters maximum distance for 100BaseTX, Category 3 or better cable, 100 meters maximum distance for 10BaseT **plus** 1 WDM fiber optic port meeting IEEE 802.3u 100BaseFX standard specification; 9/125 micron Single Mode fiber optic cable, spanning 20 kilometers maximum distance (models 065-1176ALFS and 065-1176BLFS) **or** 1 WDM fiber optic port meeting IEEE 802.3u 100BaseFX standard specification

#### PERFORMANCE

**Latency:** < 4.2  $\mu$ s (LIFO) Throughput @  
**100Base:** 148,809 pps (64-byte packets)

#### LEDs

Per unit: Power status, RJ45 port speed,  
Per Port: LNK/ACT, FDX/COL, Six LEDs total

#### PHYSICAL CHARACTERISTICS

**Case dimensions (L x W x H):** 110 x 81 x 23 mm  
Fiber optic interface varies with model

**Weight:** 150 grams

USB power connector on the rear panel optionally powers converter from computer's USB port.

#### SAFETY

UL Listed

### Single Fiber WDM Converters

PART NO.	DESCRIPTION	FIBER TYPE
065-1176ALFS	10/100BaseT/TX to 100BaseFX, SM/SC, 20 km, Tx=1,310 nm; Rx=1,550 nm	Simplex SC Single Mode
065-1176BLFS	10/100BaseT/TX to 100BaseFX, SM/SC, 20 km, Tx=1,550 nm; Rx=1,310 nm	Simplex SC Single Mode