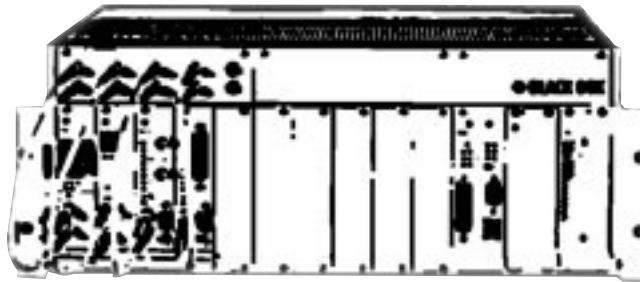


# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

### WDM-MUX 1500



#### Key Features

- ▶ Optical Multiplexer System for electrical and optical signals
- ▶ Data rates up to 1,25 Gbps
- ▶ Optical signals: Gigabit Ethernet, Fibre Channel, STM-4/OC-12, ESCON, FDDI, STM-1/OC-3, 10/100Base-Fx
- ▶ Electrical signals: STM-1, 10/100BaseTx, HSSI,E1/E3
- ▶ Modular architecture – easy to upgrade
- ▶ Capacity for up to 8 different channel cards
- ▶ Central Management System/SNMP for highest security
- ▶ Optical Back-Up switch
- ▶ Single Fiber operation possible
- ▶ Redundant power supplies

**W**DM-MUX 1500 is characterized by its great flexibility and modular system architecture. For instance, it can be used with up to eight channel cards, and the system not only process optical input signals, but also a multimode of various electrical ones. the system can control speeds of gigabit Ethernet and Fiber Channel down to E1. The WDM-MUX 1500 system also has an optical Back-Up-Switch that switches the module to the reserve line if the connection is interrupted, thus providing the utmost security. The optional Central management System (CMS) or the optional SNMP agent serves as monitors to provide maximum system security.

#### Areas of use for WDM-MUX 1500

With a maximum data transmission distance of up to 60 km, WDM-MUX 1500 can be used in applications for network providers, in company networks and broadcast applications. The system is equally suitable for the transmission of voice and data in real time as it is for data transmission in video and studio quality between television studios, film data bases and events such as live football broadcasts.

#### Fiber Optic Channel Cards

The FX can be used to convert digital fiber optic signals in the WDM-MUX 1500 system. The basic function is the simple conversion from multimode to a singlemode optical fiber. Data rates of 50 Mbps to 1.25 Gbps can be transmitted with the FX series and then multiplexed with the WDM-MUX 1500. Regardless of which speed is needed for the data, the system's modularity provides various combinations. The FX-G module is available for gigabit Ethernet or Fiber Channel, and the FX-R channel card can be used for the typical carrier speed STM-4 at 622 Mbps.

#### Electrical Channel Cards

Even today's highly developed transmission technologies for copper cables reach their limits at some point. High data rates across long distances with simultaneous trouble-free communication are only possible with optical fibers. To transmit such electrical signals using WDM-MUX 1500, BLACK BOX offers channel cards for the system from 2Mbps to 155 Mbps. The different fiber optic modems in the FL/FH series support E1, E2, E3 connections and

HSSI, SDH/ATM speeds. In addition, all digital interfaces such as X.21, V.35, G.703 and ISDN-So can be used with these channel cards. WDM-MUX 1500 can also be connected to Ethernet networks with the characteristic speeds of 10/100Base- using the channel card ET-CM. The various modems are available for multimode (FH) or Singlemode (FL) optical fibers.

## Specifications

**TYPE** — CWDM Multiplexer System

### **INTERFACE** —

Optical — Wavelength: 850/1300 nm  
Multimode, 1300/1500 nm Singlemode  
Data rate/Protocol: Gigabit Ethernet, Fibre Channel, STM-4/OC-12, ESCON,  
STM-1/OC-3, FDDI, 10/100BaseFx  
Connectors: ST, SC, FC-PC  
Electrical — Data rate/Protocol STM-1,  
10/100BaseT, V.36, V.35, X.21, HSSI,  
E1/E3  
Connectors: DB-15, DB-25, BNC, RJ45,  
Winchester

### **LINE** —

Singlemode Wavelengths: 1480, 1510,  
1538, 1553 nm  
DFB Laser: Distance up to 60 km  
Connector: SC

### **MODULES** —

Optical Channel Cards —  
FX-G 100-622 Mbps, 1.25/1.0625 Gbps  
FX-R 10-622 Mbps  
FX-B 10-200 Mbps  
Electrical Channel Cards —  
FL-P up to 2 Mbps, E1/T1  
FL-E 35/45 Mbps, E3/T3

FL-H up to 45 Mbps  
FL-S 155 Mbps, STM-1/OC-3  
ET-C/ET-CM 10/100 Mbps,  
10BaseT/100BaseT  
Multiplexer Module —  
4 Channel Coarse Wave Division  
Multiplexer (CWDM)  
Management Modules —  
SNMP Master Card, SNMP Sub Card  
Back-up Switch — Optical Back-up

### **Power Supply** —

115/230 V AC or 48 V DC, redundant

### **Power Consumption** —

<130W / Power Supply

Environmental Conditions  
Temperature +5 to 40°C  
Relative Humidity 10 to 90%

### **Weights** —

15 kg per base unit fully loaded

### **Dimensions** —

485 x 530 x 275 mm (W x D x H)

## Black Box Network Services - The world's largest network services company

We are, with 25 years of experience, the world leader in network infrastructure services.

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**On-line** — receive technical knowledge on-line, including technology overviews, BLACK BOX Explains and the Knowledge Box.

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## Ordering information

**ITEM**

**CODE**

Please call our TECH SUPPORT for these Projects.