

# Supercharge Your Fiber with CWDM!

## WBM-20

20 Gbps and 8 protocol independent channels over a single fiber pair.

### Description

WBM-20 is a Coarse Wavelength Division Multiplexing (CWDM) system that delivers up to 8 channels and 20Cbit/s over a single fiber pair. Its rack-mountable 19 in. chassis supports hot swappable modules to make it an affordable and scalable solution for large enterprises and service providers. The transparent fiber-in fiber-out interfaces support all protocols between the range of 30Mbps and 2.5Gbps, including OC-3/STM-1, OC-12/STM-4, and OC-48/STM-16, Gigabit Ethernet SX, Gigabit Ethernet LX, Fast Ethernet, FDDI, ATM, ESCON, FICON, Fibre Channel, Coupling Link or any proprietary protocol operating within the specified data range.

### Application

ENTERPRISE CUSTOMERS use WBM-20 to expand the reach and versatility of their diverse network applications to transport multiple formats of video, data, and voice between premises.

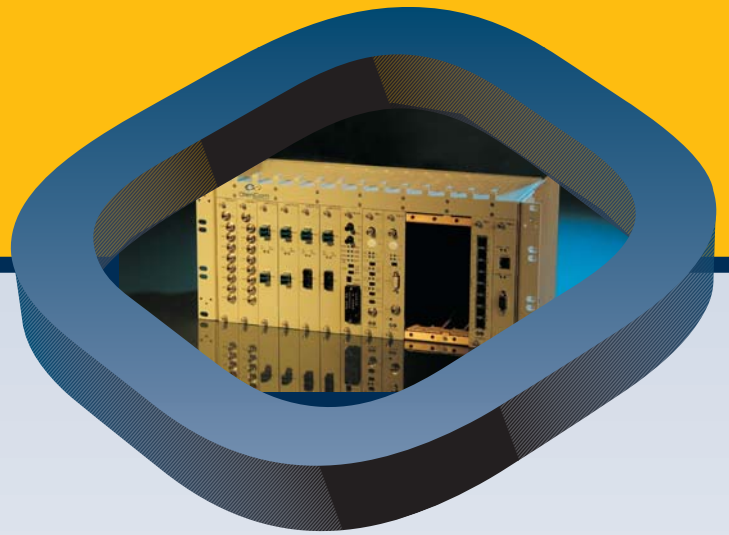
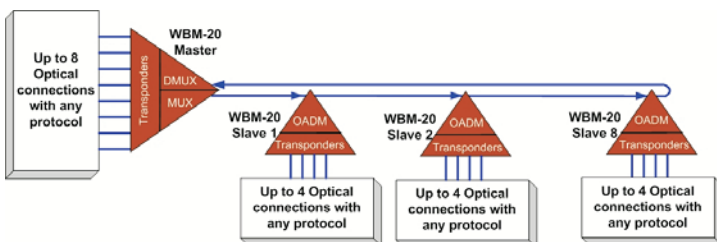
SERVICE PROVIDERS use WBM-20 to terminate SONET/SDH applications in their metropolitan network while simultaneously adding new revenue opportunities for high-speed LAN and SAN services with no extra infrastructure.

### Topologies

#### Point-to-Point



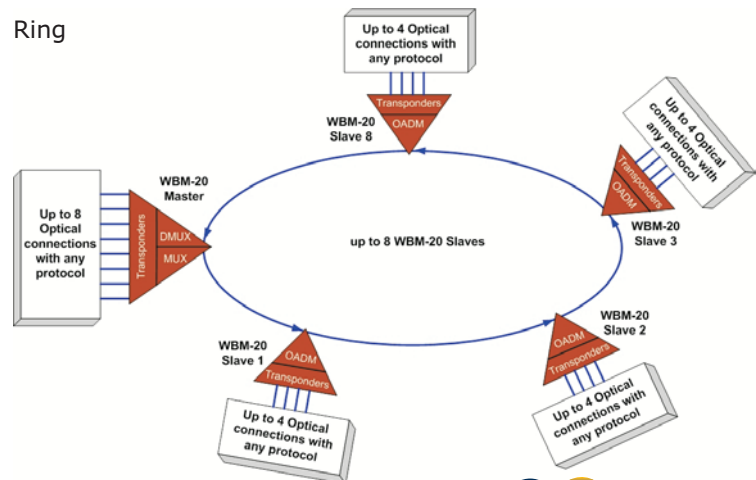
#### Linear Add/Drop

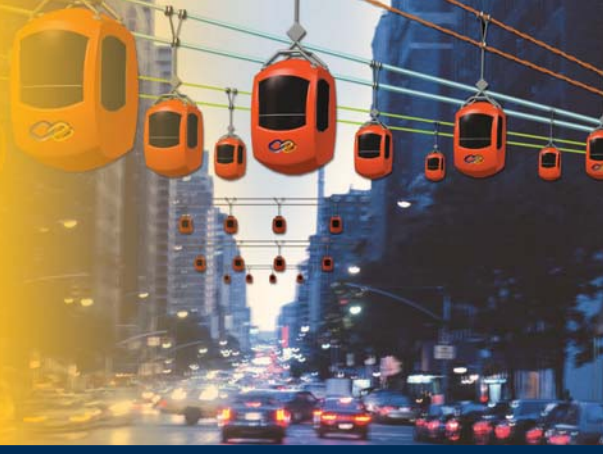


### Benefits

- ✓ Cost Effective - Avoid infrastructure or leased line costs
- ✓ Flexible - Multiplexes multiple protocols
- ✓ Modular - Transponder cards can be added as needed up to 8 cards
- ✓ Versatile - Chassis supports other Olencom fiber optic and Ethernet cards
- ✓ Scalable - Hot swappable card available in up to 1.25 or 2.5Cbps
- ✓ Reliable - Dual power supply, optional 1+1 protection for line interface
- ✓ SNMP Management

#### Ring

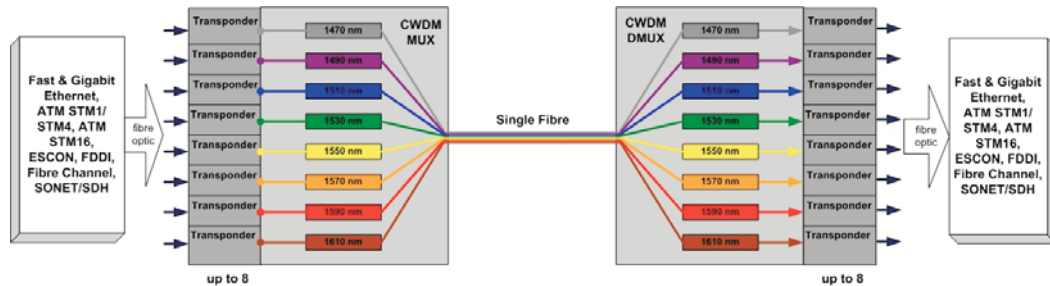




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## Method of operation



## Specifications

### CWDM optical interface

Data rate	1.25 Gbps / 2.5 Gbps
Operational distance, max	60 km
Wavelegth	1470nm / 1490nm / 1510nm / 1530nm / 1550nm / 1570nm / 1590nm / 1610nm
Output power	-5 dBm ... 0 dBm
Receive sensitivity	-16dBm / -24dBm
Connector type	FC/PC
Fiber Type	single mode

### Customer optical interface

Data rate	up to 2.5 Gbps
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#### Multi-mode fibre

Operational distance	0.5 km
Wavelegth	850 nm
Output power	-9.5 dBm ... -4 dBm
Receive sensitivity	-17 dBm

#### Single-mode fibre

Operational distance	15 km / 60 km
Wavelegth	1310 nm / 1550 nm
Output power	-10 dBm ... -3 dBm
Receive sensitivity	-20 dBm / -23 dBm
Connector type	SC or LC

### MUX / OADM module

Maximum insertion loss	<4dB
Adjacent channel isolation	>40 dB
Connector type	FC/PC

### Dual power supply

AC power	90 - 264VAC; 100W; full redundancy
DC power	36 - 72VDC; 100W; full redundancy

### Operating Environment

Operating temperature	+0°C to +45°C
Storage temperature	-40°C to +80°C
Relative humidity	10% to 90% (non-condensing)

### Mechanical

Dimensions	430mm x 280mm x 225mm (W x D x H)
Weight	15 kg per shelf fully loaded

### Plug-in modules

WBM-MUX(TX)	CWDM multiplexer for 8 wavelengths
WBM-MUX(RX)	CWDM demultiplexer for 8 wavelengths
WBM-TR1.25G	transponder card low band
WBM-TR2.5G	transponder card high band
WBM-OADM1	OADM card for one add-drop channel
WBM-OADM2	OADM card for two add-drop channels
WBM-OADM3	OADM card for three add-drop channels
WBM-OADM4	OADM card for four add-drop channels
FM-S ICM	Intelligent control module (SNMP agent)

