The OMC650 provides optical mode conversion for synchronous and asynchronous digital optical signals between 1 Kbps and 650 Mbps.

The OMC650 provides logic to logic serial data transmission over optical fiber. It functions as a bidirectional multimode to singlemode repeater and can operate on a primary or secondary ring. It is an ideal transportation system for multimode to singlemode conversion or singlemode repeating functions. As a Digital Optical Repeater it can transmit up to 50Km with standard 1300nm Laser and up to 100Km with 1550nm DFB laser.

The OMC650 is the premier inter-networking alternative for connecting multiple facilities around a private metropolitan area network at full LAN speeds. It can also be used in applications where only singlemode SONET, SDH or ATM equipment is available if the location has a multimode fiber plant.

### Features
- **Transparent Mode Conversion**
- **Data Speeds up to 650 Mbps**
- **Distance up to 100 Km**
- **25 dBm Optical Budget**
- **Signal Status Indicators**

### Applications
- **Singlemode to Multimode conversion**
- **Digital Optical Repeater**
- **FDDI or ATM Conversion or Repeating**
- **SONET OC-1, OC-3, or OC-12 Conversion or Repeating**
- **SDH STM-1 and STM-4 Conversion or Repeating**
- **ESCON and Fiber Channel Remote**
- **100 Base Fast Ethernet Conversion**

### Ordering Information:

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMC65013/13X/Y</td>
<td>Distance up to 50 Km, 1300nm MM to 1310nm SM</td>
</tr>
<tr>
<td>OMC65013/15X/Y</td>
<td>Distance up to 100 Km, 1300nm MM to 1550nm SM</td>
</tr>
<tr>
<td>OMC65015/15X/Y</td>
<td>Repeater, Distance up to 100 Km, 1550nm SM to 1550nm SM</td>
</tr>
</tbody>
</table>

* Please consult factory for additional models and specifications
**OMC650 SERIES**

**Specifications**

**System:**
- Error Rate: 1 in $10^9$ or Better
- Indicators: PWR, MMTX, MMRX, SMTX, SMRX

**Environment:**
- Operating: 0°C to 50°C
- Storage: -40°C to 95°C
- Humidity: 95% Non-Condensing

**Physical:**
- Dimensions: 1.75" x 17" x 10"
- Weight: 5 lbs.

**Power:**
- AC: 90-240 VAC, 47-63 Hz
- DC: -48 VDC (Optional)
- Volts/Amp: 5 VDC @ 2.5 Amp

**Optical:**
- I/O Data Rate: 1 Kbps to 650 Mbps

**Multimode:**
- Transmitter: -6 dBm
- Power Budget: 22 dBm
- Receiver Sensitivity: -28 dBm

**Singlemode:**
- Transmitter: 0 dBm
- Power Budget: 25 dBm
- Receiver Sensitivity: -25 dBm

**Data Interface:**
- Telecom: T1/E1, T3/E3, OC1-OC12
- Data-com: FDDI, ATM, ESCON
- LAN/WAN/MAN: Ethernet, Fiber-Channel

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**Example Applications**

**Typical OMC650 Fiber Optic Mode Converter Application**

**OMC650**

- Multimode Fiber Optic Cable
- Singlemode Fiber Optic Cable

**OMC650**

- Singlemode Fiber Optic Cable
- Multimode Fiber Optic Cable