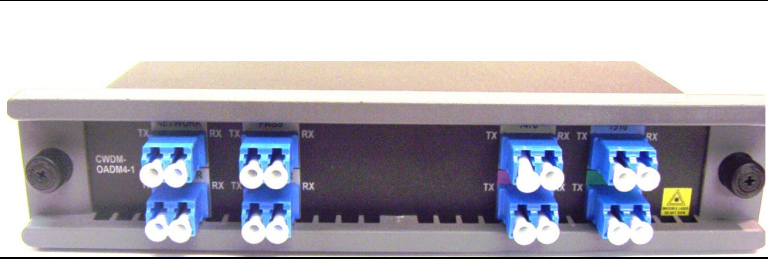


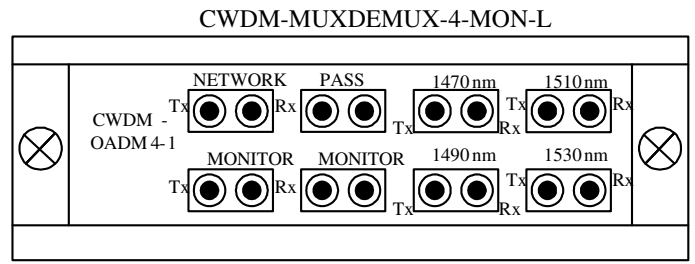
4 CHL CWDM Multiplexers/Demultiplexers



- Features**
- Cost-effective CWDM technology
 - LC connectors for simple interfacing
 - Reliable passive CWDM optical technology
 - Ring or point-to-point applications
 - Low optical insertion loss
 - Low-profile modular design, two side-by-side units fit in 1RU 19" or 23" rack mount chassis

The Champion ONE 4 CHL CWDM-MUXDEMUXs are passive optical coarse wave division multiplexers/demultiplexers designed to add wavelengths to a pair of fibers or to an existing 1550nm connection.

The purpose of this application note is to explain the functions of the ports and how to connect a simple point-to-point network using two devices as illustrated in Figures 1 and 2 below.



Two (2) WDM Units Fit Side by Side in a 19" or 23" 1RU Chassis

Figure 1

PORTS

The **network** port connects the outside fibers, Tx and Rx, to the MuxDemux unit. All of the CWDM channels are multiplexed/demultiplexed over this port.

The **monitor** port represents a 2% tap of the network port. It provides a way to test the dB level of the signal without service interruption. This port will present a measurement that is -20 dBm lower than the actual network port due to the 2% tap.

The **pass** port supports a 1550nm pass band filter. This port allows CWDM wavelengths to be added to an existing 1550nm circuit using the same dual fibers.

The **1XXXnm** ports represent the CWDM wavelengths, 1470nm to 1530nm, this MuxDemux unit supports. Services/circuits can be added in any order to the unit. The launch power of subsequent wavelength additions to the unit must be considered to ensure a match with the existing wavelengths.

Figure 2 below shows a circuit connecting Location A to Location B over two fiber strands.

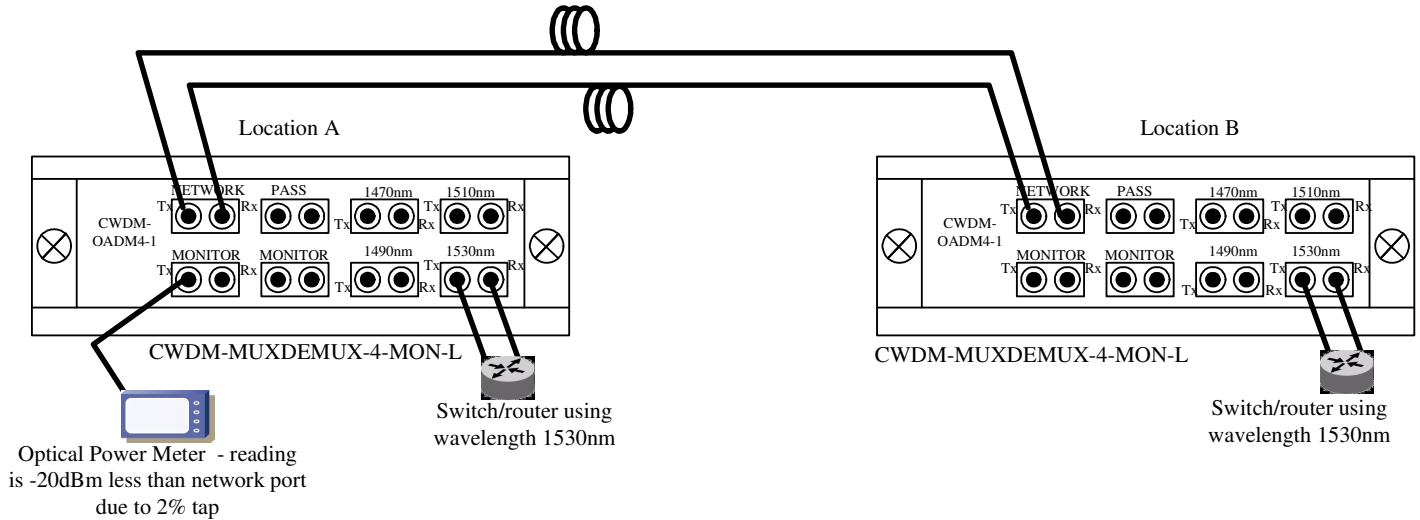


Figure 2

Figure 2 shows a typical point-to-point network whereby two switch/routers are connected over CWDM wavelength 1530nm. An optical power meter is connected in order to monitor the power on the fibers connecting Location A to B. The power meter reading will be -20dBm lower than the actual level of the network fibers. For example, if the level reading at the monitor port is -30dBm, the actual level of the network fiber will be -10dBm. Care should be taken to ensure that the launch power on all channels are the same or within 1dBm. The launch power can be verified by connecting the optical power meter to the Tx side of the SFP or GBIC before making the connection to the MuxDemux unit. Contact Champion ONE on 1-800-860-7466 if you have questions.