APPLICATION NOTE

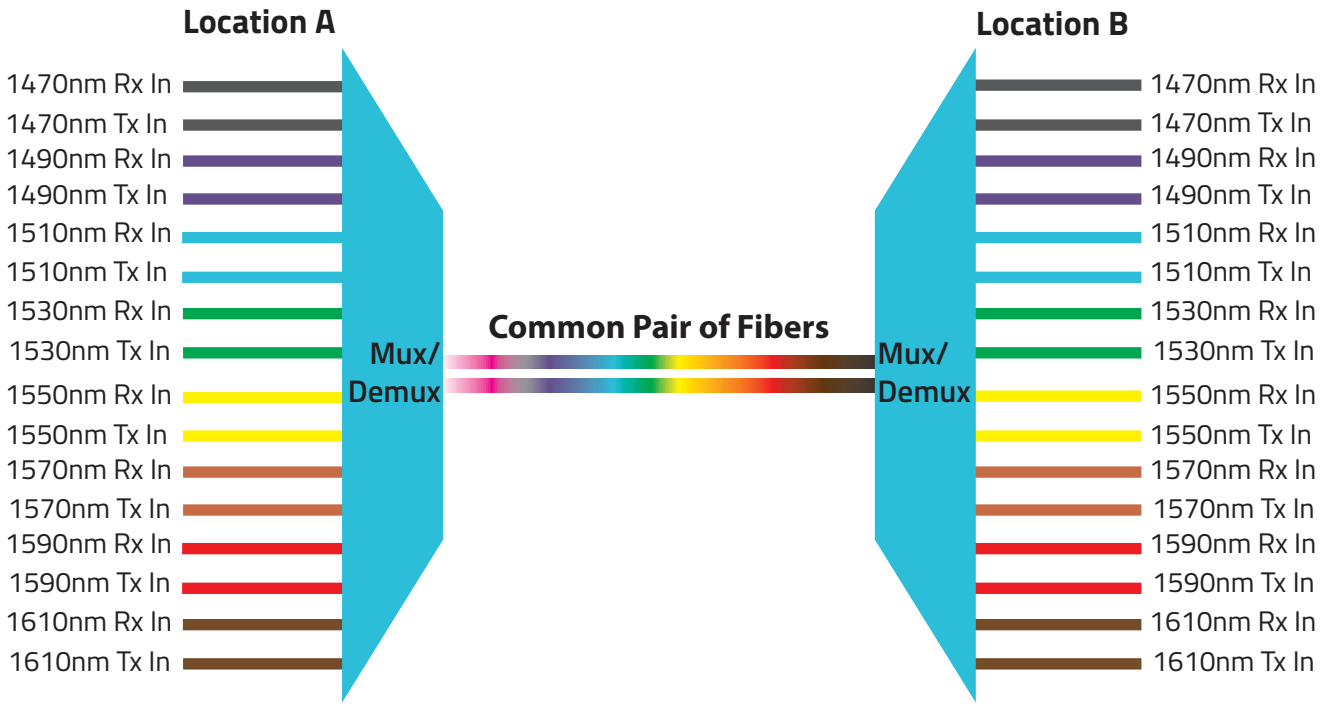
Expand Bandwidth and Conserve Fiber in Your Enterprise Network with Passives

Champion ONE's passive WDM filters (mux/demuxes) are a cost-effective way to address increasing bandwidth demands on your enterprise network without investing in costly new fiber. These solutions can both satisfy present needs and accommodate future potential growth, with the capacity to add up to 18 (CWDM) or 40 (DWDM) new links. From an operational perspective, passive networks are more reliable and simpler to maintain than more expensive active optical transport systems.

This note illustrates the way these filters can be deployed in two common network topologies.

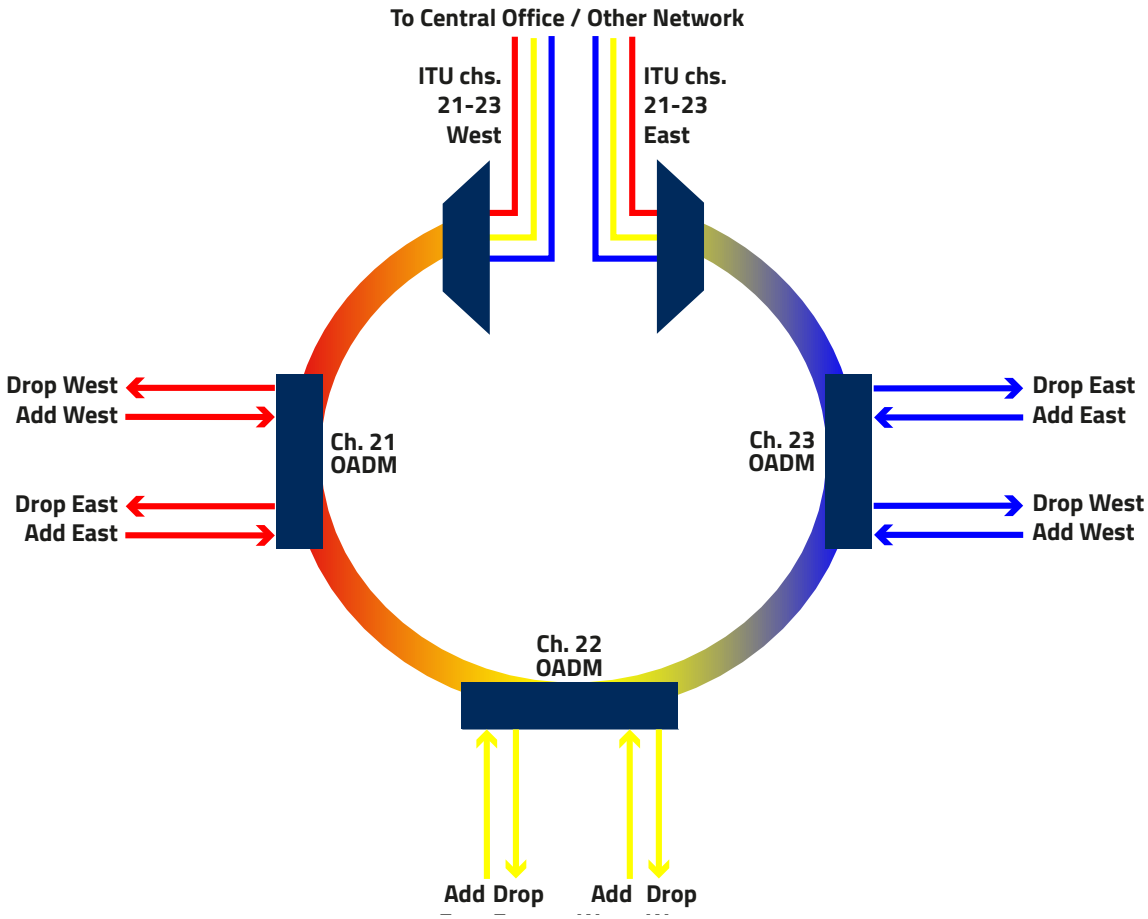
DESIGN 1: POINT-TO-POINT CONNECTION

The simplest design for deploying mux/demuxes is a point-to-point connection, in which one passive mux/demuxes are placed in two locations connected directly by a single pair of fibers. Mux/demuxes with any channel count and configuration can be deployed in this design, but for the purposes of this diagram, we will use a pair of 8 channel CWDM mux/demuxes.



DESIGN 2: OADM NETWORK RING

Optical add-drop multiplexers (OADMs) can be used to drop off some services at an intermediate location without dropping all channels into the switch for regeneration. These filters can be used in either a point-to-point or network ring topology. OADMs can feature a variety of CWDM or DWDM channel counts and configurations, but the following diagram uses 1 channel DWDM OADM filters in a ring configuration, with 1 channel left for growth.



For more information on Champion ONE's ZS line of passive filters, visit www.championone.com/passive-products