



HIGH DENSITY  
CWDM TRANSCEIVERS

Expand your  
capacity,  
with your  
existing  
infrastructure.

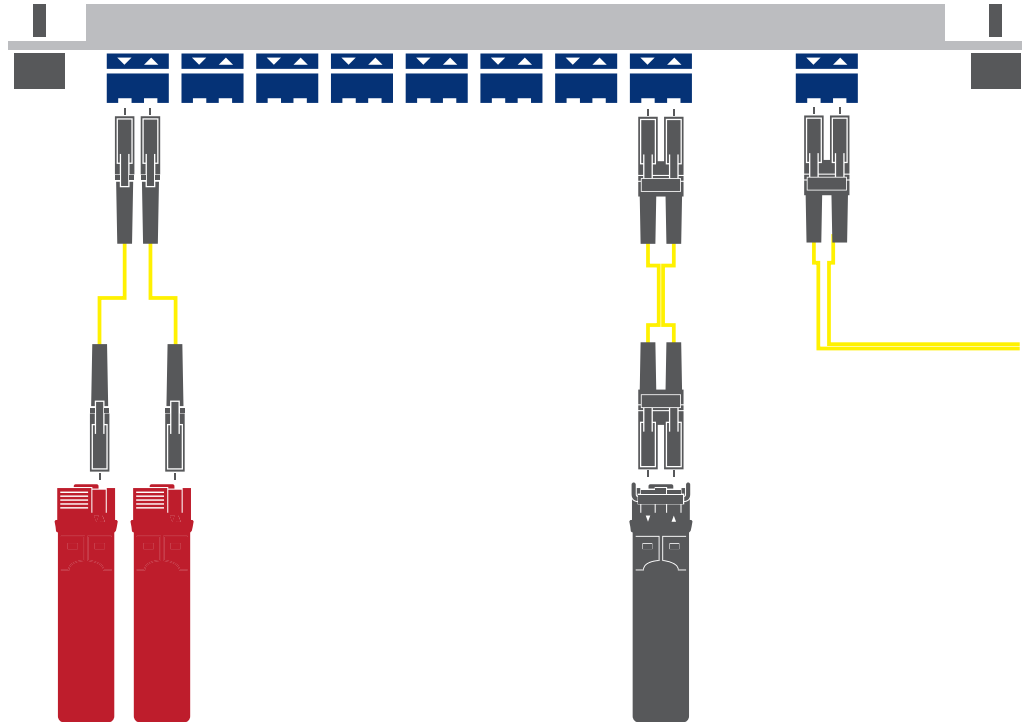
  
**ProLabs**  
Unlock your connectivity

## Multiplexer/Demultiplexer

ProLabs new High Density Bi-directional transceivers can provide two times the circuit capacity over your existing CWDM infrastructure.

By utilising each channel individually for bi-directional transmission, you can leave existing infrastructure in place, only replacing transceivers at each output point.

This is ideal for expanding building & campus networks, carrier Ethernet and wireless backhaul/fronthaul - all using your existing core infrastructure.



### Bi-Directional CWDM

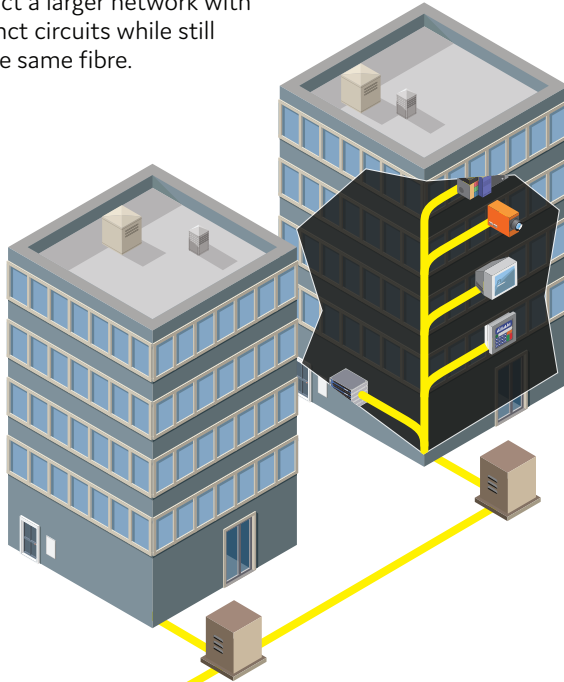
High Density CWDM transceivers allow twice the capacity on fiber.

### Normal CWDM

A normal CWDM transceiver uses two channels - one to transmit, and one to receive.

### Wireless Fronthaul

Interconnect a larger network with more distinct circuits while still utilising the same fibre.

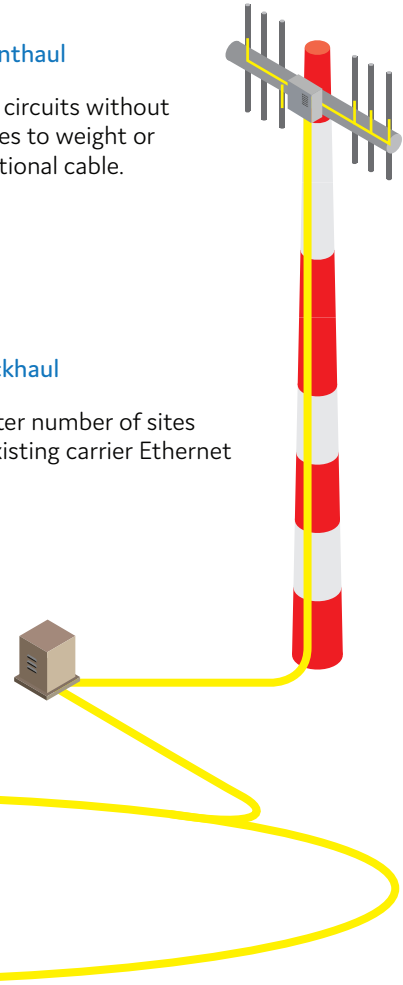


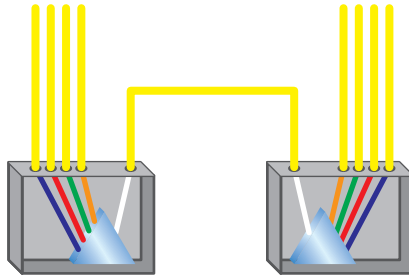
### Wireless Fronthaul

Enable more circuits without huge increases to weight or running additional cable.

### Wireless Backhaul

Allow a greater number of sites from your existing carrier Ethernet network.



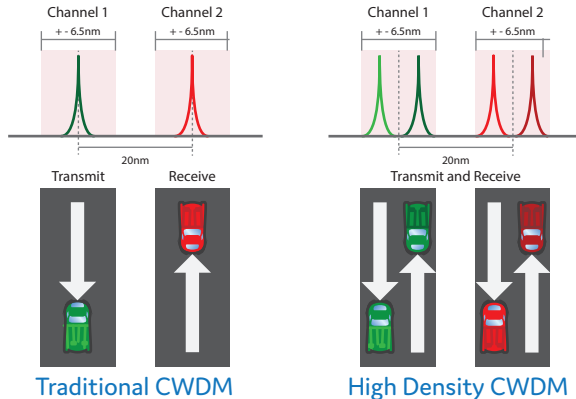


## WDM

Wave Division Multiplexing (often referred to as WDM for short), is when optical transmissions are sent at different wavelengths along the same fiber. The principle is like light through a prism - you mix your light at one end (multiplexing), and then un-mix them at the end (demultiplexing). The actual technology is more complicated than this, involving the ability to do this to single wavelengths along the transmission route.

### How is this different?

Traditional CWDM uses two channels with a 13nm window and 20nm spacing. However, modern transmission methods are capable of fitting two distinct frequencies within this 13nm window. Effectively, this doubles the amount of traffic you can send through each channel - whilst still being compatible with your existing CWDM infrastructure such as multiplexers and fiber.



Visit [www.prolabs.com](http://www.prolabs.com) for more connectivity solutions.