Flextune™ Self-tuning Functionality

As bandwidth demand continues to increase, service providers are adding more Dense Wavelength Division Multiplexing (DWDM) solutions within their networks. Many challenges can arise if fixed wavelength modules are used, such as inventory and sparing issues.

Wavelength-tunable modules offer a more efficient solution compared to fixed wavelength modules and avoid the need to know or predict which wavelengths are needed for a specific installation. However, with wavelength-tunable modules, technicians still need to track and identify optical Mux/Demux fibers, and program the correct wavelength into each module on site. This could take hours depending upon how organized the fibers are and how many modules need to be programmed.

Finisar’s solution to this issue is called Flextune, an automatic transceiver wavelength tuning feature which can significantly reduce provisioning time and operating expenses when deploying tunable DWDM transceivers. Using Finisar-patented technology, each transceiver on a DWDM optical link can self-tune to the correct wavelength determined by its physical connection to the passive mux/demux infrastructure, and without assistance by the host system or technicians. This greatly simplifies set-up and saves hours of installation time, by eliminating the need of fiber tracking or labeling on patch panels.

Technicians simply insert the tunable DWDM transceivers with the pre-installed Flextune capability, into any host port on both ends of the link and connect them to any of the optical mux/demux ports with fiber optic patch cables. The firmware contained within the transceivers determines the proper wavelengths to connect each host port to its remote end of the link, reducing provisioning time from hours to only a few minutes. This can result in significant OpEx savings for service providers in metro and access applications which use DWDM such as mobile front-haul, Remote PHY, and data center interconnections (DCI).

Flextune™ is available now on Finisar T-SFP+ and T-XFP modules.

For more information on how to get significant savings on installation costs, contact us at sales@finisar.com.