

# FINISAR®

## Features

- ▶ Configurations: 1xN WSS,  $N \leq 20$
- ▶ Flexgrid® Dynamic Channel Width Control (fully ITU flexible grid G.694.1 compliant)
  - 6.25 GHz Width Resolution (default, 3.125GHz optional)
  - No constraints on the spectrum allocated to a super-channel
  - Hitless channel widening, narrowing and migration with 6.25 GHz resolution
- ▶ Flexgrid® Dynamic Attenuation Control
  - 6.25 GHz Resolution
  - 0-20 dB Range
  - Hitless channel and intra-channel power equalization
- ▶ LCoS Switching Technology
- ▶ Frequency range: 4.8 THz (default) - wider frequency range up to 6THz (Super C-band) can be supported

## Applications

- ▶ Broadcast & Select ROADM Architectures
- ▶ Colorless and Colorless Directionless Add/Drop
- ▶ 1+ Tb/s Transport ready
- ▶ Dynamic Gain Equalization
- ▶ Multi-carrier Superchannels
- ▶ Alien Wavelength Routing

## Single Wavelength Selective Switch (WSS)

The application of Reconfigurable Optical Add/Drop Multiplexers (ROADM) in DWDM optical networks has expanded in recent years to support increasingly more types of networks including replacing fixed structure at the cost-sensitive metro and edge. Flexgrid® technology is now essential in the efficient use of optical bandwidth for extremely high data rates and advanced modulation formats employed by next generation DWDM transmitters/receivers, including 400Gb/s and 1 Tbit/s signals. These higher data rates require that channel spacing is flexible and can be increased real-time to allow the network to adapt to new transmission formats.

Cost-effective deployment of colorless (C) and colorless directionless (CD) ROADMs is facilitated by the introduction of broadcast & select (B&S) ROADM architectures, which, unlike route & select (R&S) ROADMs that require only two WSS per direction, are based on one WSS per direction.

Enabled by Finisar Liquid Crystal on Silicon (LCoS) technology, Finisar WSS products support Flexgrid® technology, which provides dynamic control of the channel width. Furthermore, once deployed, channel plans are configurable 'on-the-fly', meaning that channel bandwidths can be adjusted to most efficiently carry future demand as it arises. Furthermore, Flexgrid® offers full backwards compatibility with both the standard 100 GHz and 50 GHz ITU grids. Flexgrid® also enables the equalization of the power within a single channel, especially important for multicarrier optical signals.



**FINISAR®**

21 Rosebery Ave.  
Rosebery NSW 2018  
Australia

Phone: +61 2 9581 1600  
Email: [finisarwss@finisar.com](mailto:finisarwss@finisar.com)  
[www.finisarwss.com](http://www.finisarwss.com)