

PRODUCT BRIEF

FEATURES

- ▶ LCoS Switching Technology
- ▶ Network Systems Ready
- ▶ DPRAM and Serial Interface
- ▶ Supports In-Service Firmware Upgrade
- ▶ ROADM or X-Connect Building Block
- ▶ Cascadable Add/Drop Functionality
- ▶ Low Degree Interconnect Enabler
- ▶ Advanced Functionality Switch
- ▶ Up to 2 Switching Ports and 96 Channels
- ▶ Reconfigurable Channel Plan
- ▶ Selectable 50 GHz or 100 GHz Channel Plan
- ▶ Full Dynamic Channel Equalization on All Ports
- ▶ Per Port, Per Channel Power Control over 0-20 dB
- ▶ Wide Flat Passband at All Attenuation Levels

OVERVIEW

The Edge Wavelength Processor (EWP) by Finisar provides a low cost 1x2 solution for WSS applications at the network edge. The proprietary use of Liquid Crystal on Silicon (LCoS) technology enables programmable channel switching and attenuation and provides advanced functionality through embedded software. Advanced hermetic packaging technology enables a high reliability small form factor module that addresses high density card design requirements. The EWP is a fully integrated high-performance intelligent module that supports a dual 50/100 GHz channel plan and offers flexible and upgradeable WSS functionality for advanced applications.



PRODUCT DESCRIPTION

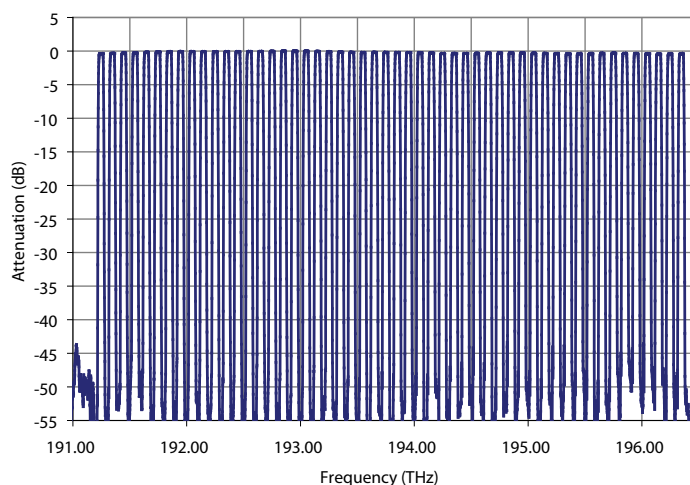
In network edge applications, low cost and small module form factor are key requirements. The EWP addresses these needs through a number of design innovations, including:

1. Balanced, athermal optical design to eliminate need for thermal stabilisation
2. Advanced HTCC hermetic package technology, enabling a compact high reliability module
3. Simple, highly manufacturable optical design with low materials cost
4. High density motherboard size for module size minimization

The EWP optical design supports 40 Gb/s and 100 Gb/s traffic at 50 GHz channel spacing, while also delivering excellent 100 GHz channel spacing performance. It uses the same core Liquid Crystal on Silicon (LCoS) optical switching element used in Finisar's DWP range of WSS.

OPERATION

The EWP is configured as a 1x2 WSS module, with fully colorless and hitless allocation of channels to ports. 96/48 channel operation at 50/100 GHz is supported. Up to 20 dB of attenuation can be applied on a per channel basis in 0.1 dB steps



*EWP configured as a
1x2 50 GHz Interleaver*

EWP WAVELENGTH SELECTIVE SWITCH

SPECIFICATIONS

Optical	Operating Frequency Range - C Band	191.35 to 196.10 THz
	Channel Spacing	50 or 100 GHz
	Number of Channels	96/48 at 50/100 GHz
	0.5 dB Bandwidth	±13 GHz for 50 GHz spacing
		±30 GHz for 100 GHz spacing
	Insertion Loss	≤ 6.5 dB
	Polarisation Dependent Loss	≤ 0.85 dB
	Port Isolation	≥ 35 dB
	Attenuation Control Range	20 dB
Optical Power	Maximum Total Input Optical Power	+27 dBm
	Maximum Per-Channel Optical Power	+13 dBm
Mechanical	Connector Type	LC/PC
	Dimensions	165 x 110 x 20 mm
Environmental	Operating Temperature (Ambient)	-5 to 60°C
	Operating Humidity (Non-Condensing)	5 - 95 %
Electrical	Operating Voltage	5 V
	Power Consumption	<15 W
	Control Interface	DPRAM, Serial
	Electrical Connector	ERF-050-05.0-01-L-RA-TR (Samtec)

