

PRODUCT BRIEF

KEY FEATURES

- ▶ Wavelength Dependent Loss Setting from 0 to 10 dB
- ▶ Arbitrary Loss Shape
- ▶ Gridless operation
- ▶ Robust - no moving parts
- ▶ Based on Liquid Crystal on Silicon (LCoS) technology
- ▶ Available in both bench-top (120S) and OEM (120M) form factors

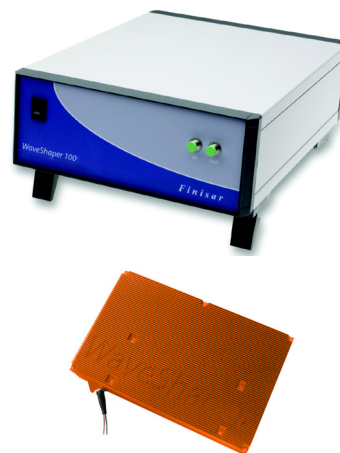
APPLICATIONS

- ▶ Amplifier Gain Equalisation
- ▶ Channel Power Equalisation
- ▶ Broadband Source Shaping

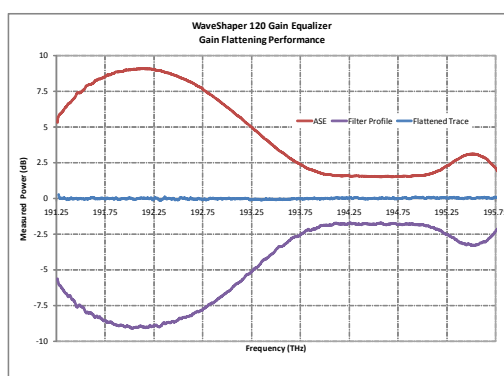
OVERVIEW

The WaveShaper 120 Gain Equaliser provides equalisation capabilities to flatten the transmission spectrum of DWDM signals. This finds applications for example in system test after passing through a chain of amplifiers or after passing through channel routing devices. Equalising the power spectrum allows the transmission performance in coherent and non-coherent transmission schemes to be optimised.

Based on Finisar's solid-state Liquid Crystal on Silicon (LCoS) optical engine, the WaveShaper 120 Gain Equaliser contains no moving parts and provides extremely fine control of the attenuation shape.



WaveShaper 120S (top) and 120M (bottom)
Gain Equaliser

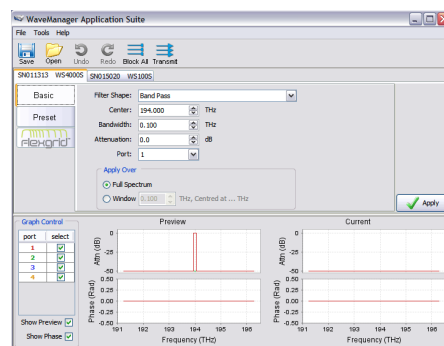


PRECISE CONTROL OF AMPLIFIER GAIN SHAPE

The WaveShaper 120 Gain Equaliser allows an amplifier gain shape to be controlled with high resolution (± 0.1 dB amplitude, ± 1 GHz spectral) and – if required – also with multiple updates per second. This ensures that dynamic and fluctuating spectra can be equalized immediately. Gridless operation is inherent in the design of the WaveShaper 120, making it ideal for the investigation of Flexgrid-based next-generation transmission systems.

SIMPLE INTEGRATION INTO TEST SYSTEMS

As for all Finisar's WaveShaper series, the WaveShaper 120 can be controlled using Finisar's WaveManager Graphical User Interface which runs on all Windows-based PCs. In addition, a software API for integrating into both Windows and Linux-based test systems is provided.



WAVESHAPER 120 GAIN EQUALISER

SPECIFICATIONS

All Specifications are guaranteed except where stated as typical (typ).

Operating Frequency Range		Frequency Range	
	C Band	191.250 to 196.275 THz, 1527.4 - 1567.4 nm	
Loss and Dispersion (Note 2)		Typ	Max
	Insertion Loss (incl connectors)	4.5 dB	6.5 dB
	Insertion Loss Non-Uniformity	0.5 dB	1.0 dB
	PDL	0.2 dB	0.7 dB
	Return Loss		25 dB
	Group Delay Ripple		±0.75 ps
	First-Order PMD (DGD)	<0.25 ps	0.5 ps
	Chromatic Dispersion		±10 ps/nm
Filter Control		Min	Max
	Attenuation Shape	Arbitrary	
	Attenuation Change over 1nm		10 dB
	Attenuation Range	0 dB	10 dB
	Attenuation Resolution		0.1 dB
	Attenuation Accuracy		±1 dB
	Frequency Resolution		1.0 GHz (8 pm)
Mechanical, Electrical and Environmental		Min	Max
	Maximum Total Input Optical Power		+27 dBm
	Maximum Optical Power per 50GHz spectral region		+13 dBm
	Operating Temperature	15 °C	35 °C
	Operating Humidity	10 %	90 %
	Communications Interface	USB 2.0	
	Connector Type	FC/APC	
	Size	241 x 88 x 316 mm (120S) 220 x 140 x 37 mm (120M)	
	Weight	3 kg (120S) 1 kg (120M)	

Part Numbers:

WaveShaper 120S, C-Band, FC-APC Connectors:

WS-AA-0120S-ZZ-H

WaveShaper 120M, C-Band, FC-APC Connectors:

WS-AA-0120M-ZZ-H

Finisar®

1389 Moffett Park Drive
Sunnyvale, CA 94089, USA

Phone +1 408 548 1000

Email: waveshaper@finisar.com

www.finisar.com/waveshaper

Ordering Information:



800 Village Walk #316
Guilford, CT 06437
Ph: 203-401-8093

Email orders to: sales@xsoptix.com
Fax orders to: 800-878-7282

©2010 Finisar Corporation. All rights reserved. Finisar is a registered trademark of Finisar Corporation. Features and specifications are subject to change without notice. 02/11 WaveShaper 120 Rev A