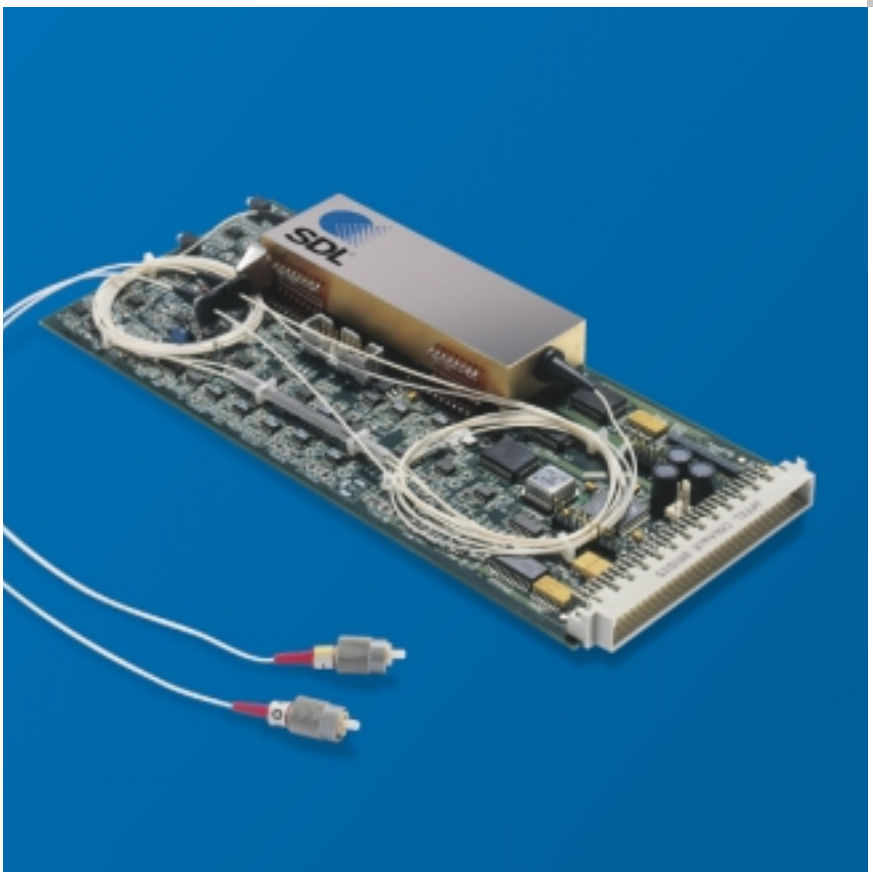
SDLQ
DMF310C



FEATURES

- *Optical finesse 400-600*
- *Operation in the C band*
- *Wavelength scan non linearity <0.2 %*
- *Insertion loss variation typically <1.0 dB from 0-50˚C*
- *Random access channel selection <5ms*
- *Polarization dependence <0.1dB typical*

APPLICATIONS

- *Channel monitoring for 50 GHz spaced DWDM systems*
- *Embedded test equipment*
- *Channel selection for BERT analysis*
- *Optical component testing*
- *Fiber sensor interrogation*

High performance tunable optical filters for telecommunications

The DMF310C tunable optical filter is a high performance, electronically tunable Fabry-Perot filter designed for channel selection in DWDM communication systems with channel spacings from 50GHz. Packaging technology protects the filter from humidity and other environmental effects to ensure long life with high wavelength and insertion loss stability.

A sophisticated capacitance bridge servo system stabilizes the transmitted wavelength and ensures linear and repeatable wavelength tuning throughout product lifetime.

SDL®

Performance Specifications

Optical Performance

Parameter	min	value	max	units
Wavelength range	1530	-	1563	nm
Finesse	400	-	600	-
FSR	37	-	43	nm
3dB bandwidth	0.06	-	0.11	nm
IL	-	-	6	dB
RL	-	-	>10	dB
Input power	-	-	+20	dBm

Interface

Parameter	min	value	max	units
Interface options				
Analog -	-	±5	-	V
Digital -	-	Parallel 14-bit	-	
Drive				
Voltage -	-	±15, +5	-	V
Current -	-	<250 per rail	-	mA
Electrical	-	DIN41612A/C	-	-
Optical I/O	-	FC/PC connectors	-	-
Dimensions	-	220*100*22.9	-	mm

Environmental

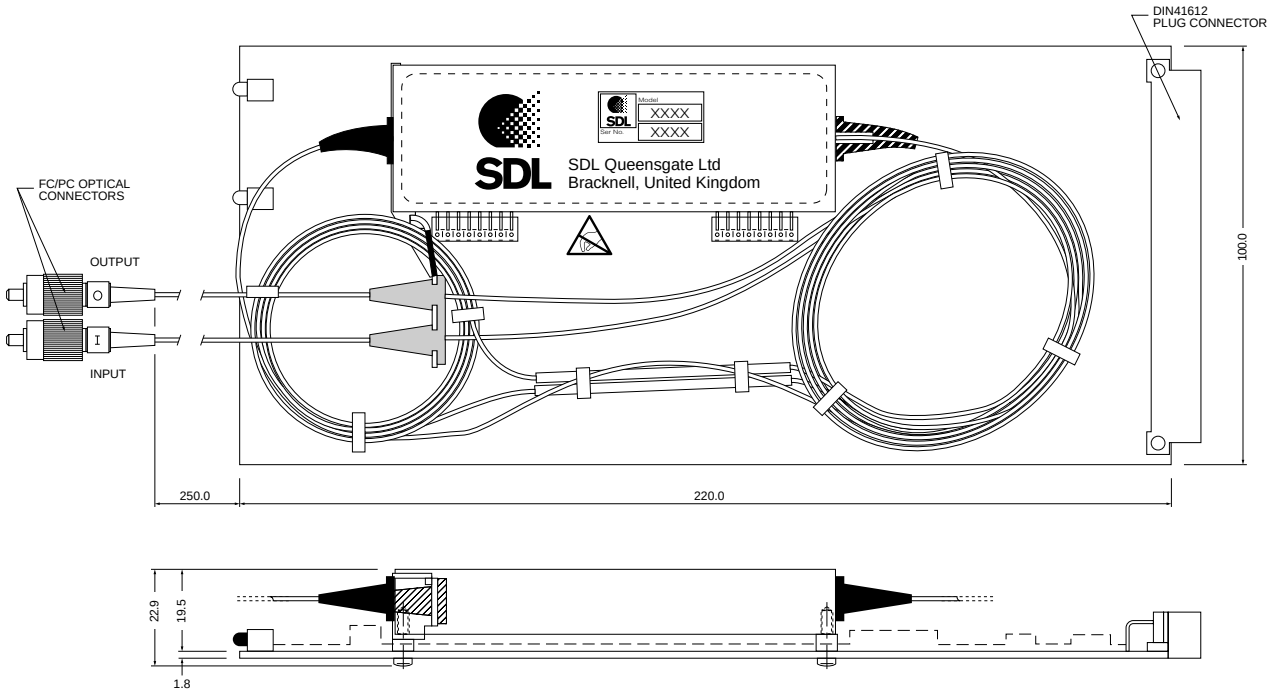
Parameter	min	value	max	units
Temperature range				
Operation -	-	0 to 50	-	˚C
Storage -	-	-40 to +80	-	˚C
Humidity range	-	0 to 95	-	% RH
$\Delta IL_{T,RH}$ (Typical)	-	<1.0	-	dB
$\Delta\lambda_{T,RH}$	-	≤ ±0.4	-	nm

LineLock™ Features

The DMF310C incorporates the LineLock™ feature that allows the user to lock onto individual wavelengths or lasers by applying a 5V signal and optical detector feedback to the interface connector. This allows per wavelength bit error rate (BERT) testing and optical tracking.

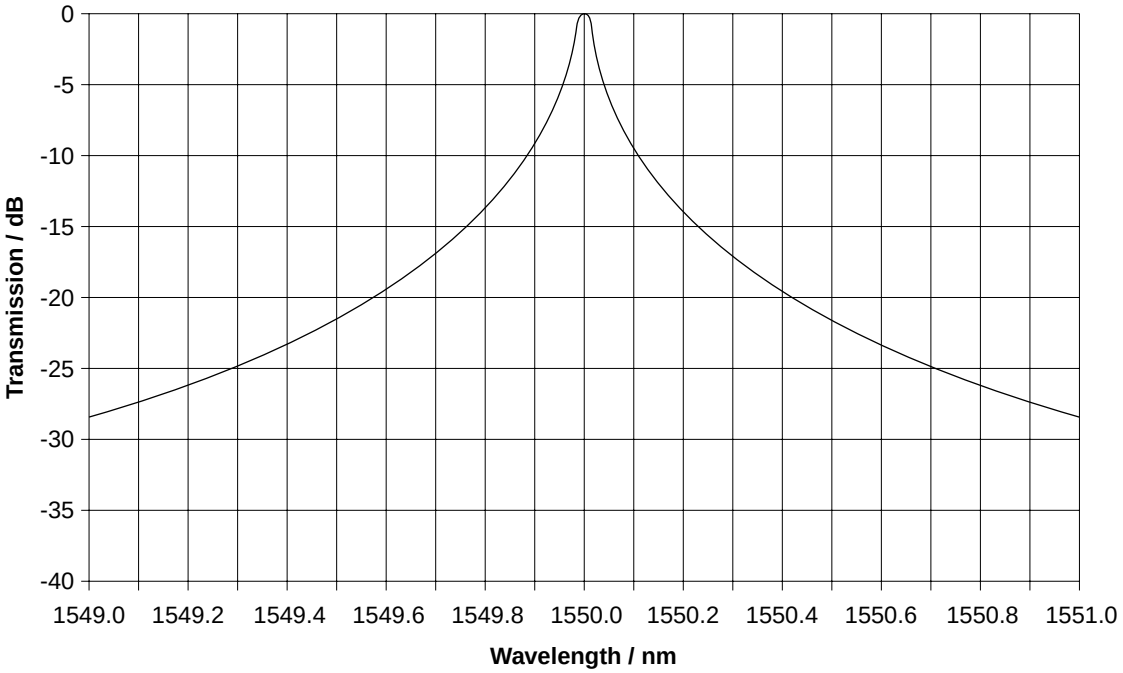
Outline Drawing

Dimensions in millimeters except where indicated



Typical Optical Profile

FSR 40nm, Finesse 500, Single Pass



TUNABLE FILTERS

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