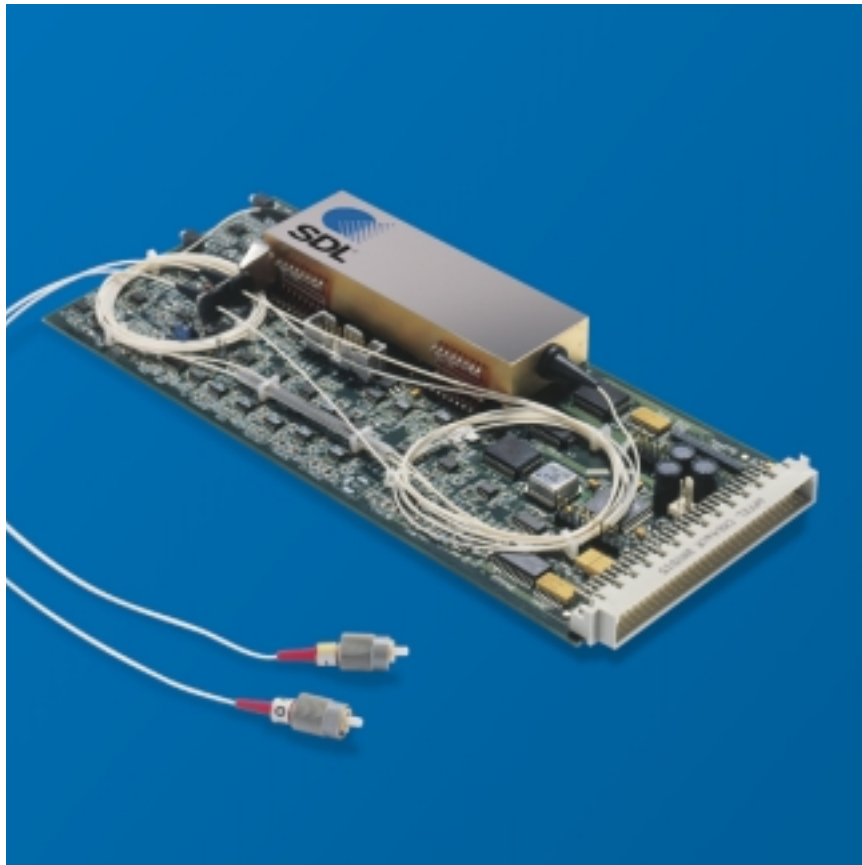


SDLQ  
**DMF310C****FEATURES**

- *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

**T**he 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.

## 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

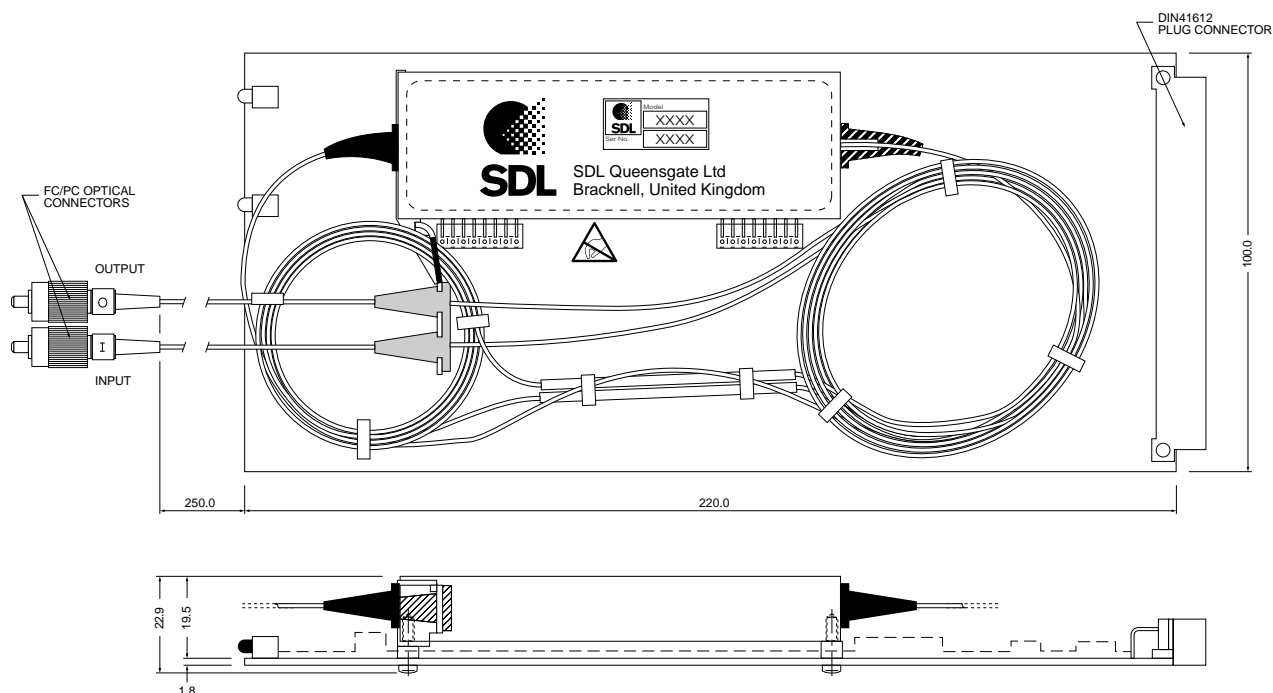
Parameter	min	value	max	units
Temperature range				
Operation -	-	0 to 50	-	°C
Storage -	-	-40 to +80	-	°C
Humidity range	-	0 to 95	-	% RH
$\Delta IL_{T,RH}$ (Typical)	-	<1.0	-	dB
$\Delta \lambda_{T,RH}$	-	$\leq \pm 0.4$	-	nm

### 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.

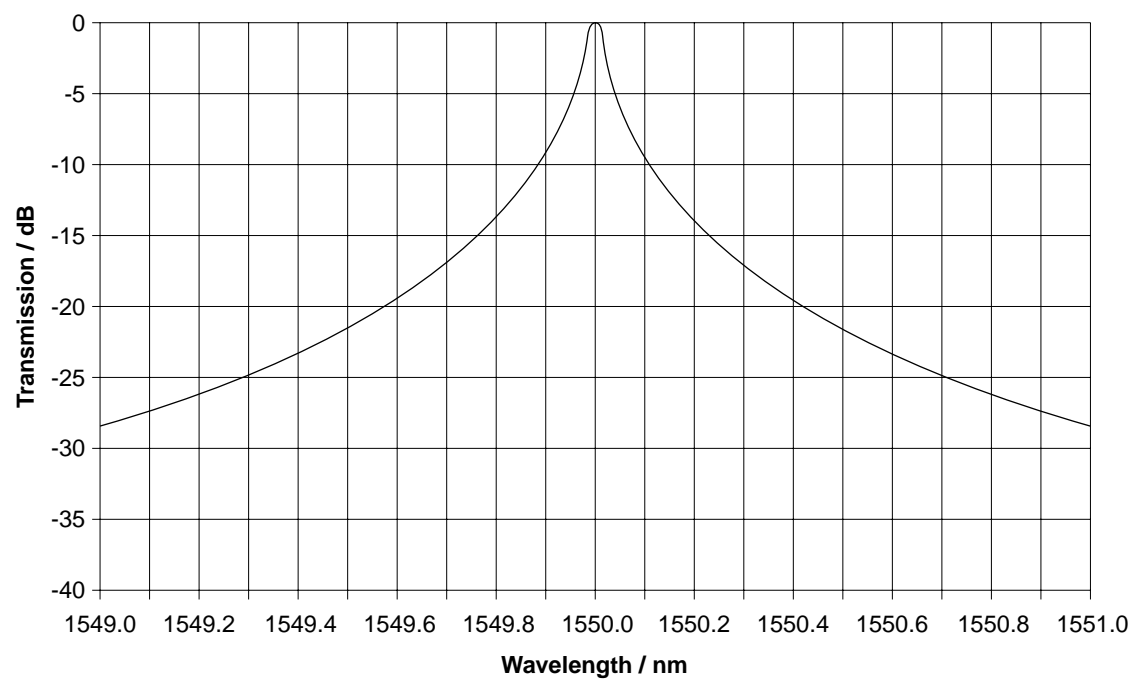
## Outline Drawing

Dimensions in millimeters except where indicated



## Typical Optical Profile

FSR 40nm, Finesse 500, Single Pass





SDL, Inc.  
80 Rose Orchard Way  
San Jose, CA 95134-1365  
Tel: 408-943-9411  
Fax: 408-943-1430  
E-mail: [sales@sdli.com](mailto:sales@sdli.com)

SDL Queensgate Ltd  
Willoughby Road  
Bracknell  
Berkshire RG12 8FB  
Tel: +44 1344 350 000  
Fax: +44 1344 350 035  
E-mail: [sdlqsales@sdli.com](mailto:sdlqsales@sdli.com)

And for the latest information on all SDL  
products please visit our web site:

**[www.sdli.com](http://www.sdli.com)**

All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accurate. However, the accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application. SDL reserves the right to change at any time without notice the design, specifications, function, fit or form of its products described herein, including withdraw at any time of a product herein as offered for sale. SDL makes no representations that the products herein are free from any intellectual property claims of others.