

## Features

- Low insertion loss
- Operating temperature range  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Selection of supported LcWDM channels
- Telcordia GR-1209 and GR-1221 qualified, providing excellent environmental and mechanical stability
- Variety of options for module package size, fiber jacket and connector types
- Epoxy-free on optical path
- RoHS compliant

## Single-channel LcWDM™ Optical Filter



Aurora Networks OP93F1S series Single-channel LcWDM™ Optical Filters have been designed with low insertion and polarization dependent losses. These three-port filters are used to add (or drop) a single LcWDM narrowcast wavelength to (or from) a set of LcWDM optical wavelengths.

The filters are provided in ruggedized packaging for outdoor use (within a temperature range of  $-40$  to  $+85^{\circ}\text{C}$ ) and designed for easy handling.

# OP93F1S

# Product Specifications

### Physical:

- Dimensions: 0.36" x 2.01" x 3.50" (9.2 x 51 x 89 mm)
- Weight: 0.2 lbs (0.9 kg)

### Environmental:

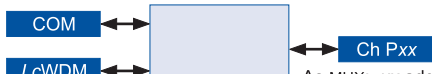
- Operating temperature range: -40° to +85°C (-40° to 185°F)
- Storage temperature range: -40° to +85°C (-40° to 185°F)
- Humidity: 5% to 95% non-condensing

### Optical Interface:

- Mux input / output ports:

	Function as MUX	Function as DEMUX
LcWDM	pass-through input	pass-through output
Ch Lxx	xx add / input channel	xx drop / output channel
COM	output to fiber network	input from fiber network

As MUX: Output to fiber network  
As DEMUX: Input from fiber network



As MUX: LcWDM pass-through input  
As DEMUX: LcWDM pass-through output

As MUX: xx add / input channel  
As DEMUX: xx drop / output channel

Wavelength pass-through (input or output): 1265 – 1357 nm



OP93F1S-LKK-R2-00 Single-channel Filter (for LcWDM Channel KK) in Ruggedized Package (shown full scale)

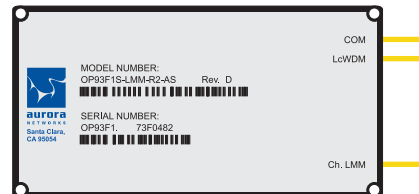
### Optical:

- LcWDM channels: AA, BB, KK, LL, MM, NN, RR, and SS  
(Note: Channels AA and BB cannot be combined with channels KK through SS in an LcWDM environment.)
- Insertion losses (without connectors):
 

	typical	max
LcWDM I/O to COM:	0.4 dB	0.6 dB
CH. Lxx to COM:	0.6 dB	1.1 dB
- Directivity, min: 50 dB
- Return loss, min: 45 dB
- Polarization dependent loss, max: 0.1 dB (<0.05 dB typ)
- Power handling, max (any input port): 21.8 dBm

### Package Options:

Two examples are shown below.



OP93F1S-LMM-R2-AS Single-channel Filter (for LcWDM Channel MM) in Ruggedized Package with SC/APC Connectors (image reduced approximately 50%)

## Ordering Information

O P 9 3 F 1 S - L \* \* - \* \* - \* \*

Single-channel LcWDM Optical Filter

\*\* = LcWDM Channel Designator (AA, BB, KK, LL, MM, NN, RR, or SS)

\*\*\*\* = Package, Fiber Jacket Options and Connectorized Options:

R2-00 = 1 m pigtailed of 2 mm buffered fiber in 8.5x14x98 mm Ruggedized Package,  
R2-AS = 1 m pigtailed of 2 mm fiber in 9.2x51x89 mm Ruggedized Package with SC/APC connectors

**Note:** Fiber length for all models is 1±0.15 meters; other lengths are available upon request.



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