

## Features

- Low insertion loss
- Operating temperature range  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Selection of supported narrowcast channels on standard 100 GHz DWDM ITU Grid
- High channel isolation to minimize crosstalk
- 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

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## Single-channel DWDM Optical Filter



*No packaging option shown above*

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Aurora Networks OP95F1S series Single-channel DWDM Optical Filters have been designed with low insertion and polarization dependent losses. These three-port filters are used to add (or drop) a single DWDM narrowcast wavelength to (or from) a set of DWDM optical wavelengths.

The filters are available in two versions of packaging for outdoor use, one version ruggedized for easy handling and the second version, though not ruggedized, being smaller and easier to fit in a splice enclosure. Both versions are designed for use in an outdoor environment within a temperature range of  $-40$  to  $+85^{\circ}\text{C}$ .

# OP95F1S

# Product Specifications

## Physical:

- Dimensions: (See Ordering Information.)
- Weight, ruggedized packages: 0.2 lbs (0.9 kg)

## Environmental:

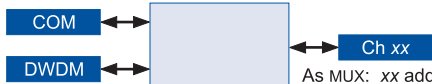
- Operating temperature range: -40° to +85°C (-40° to 185°F)
- Storage temperature range: -40° to +85°C (-40° to 185°F)
- Humidity: 5% to 95% non-condensing

## Optical Interface:

- Mux input / output ports:

	Function as MUX	Function as DEMUX
DWDM	DWDM pass-through input	DWDM pass-through output
Ch xx I/O	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: DWDM pass-through input  
As DEMUX: DWDM pass-through output

## Optical:

- Insertion losses (without connectors):
 

	typical	max
DWDM I/O to COM:	0.4 dB	0.50 dB
CH. xx I/O to COM:	0.6 dB	0.8 dB
- Passband @ 0.5 dB: ±0.125 nm
- Ripple within passband: 0.5 dB
- Directivity, min: 55 dB
- Return loss, min: 45 dB
- Polarization dependent loss, max: 0.1 dB (<0.05 dB typ)
- Adjacent channel isolation, min: 32 dB
- Non-adjacent channel isolation, min: 45 dB

- Power handling, max (any input port): 21.8 dBm
- Channel spacing: 100 GHz

## ITU Channel Plans:

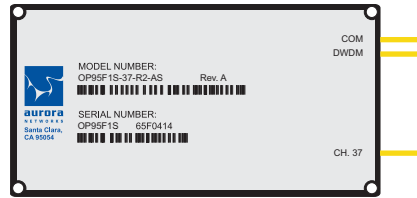
Aurora Networks supports DWDM network architectures with a variety of products having 100 GHz center frequency spacing on the standard DWDM ITU Grid (ITU-T G.694.1) for 40 channels from Channel 20 (1561.42 nm) to Channel 59 (1530.33 nm).

For more complete description of available DWDM ITU Grid channels and Aurora's partitioning into convenient logical groups of 4, 8 and 16 channels in products for DWDM mux and demux applications, please refer to the Aurora Networks DWDM ITU Grid Channel Plan data sheet.

When ordering Single-channel DWDM Optical Filters, please note, for network planning purposes, that AT3550 "BC" series broadcast transmitters operate at 1545.3 nm ± 0.9 nm, occupying the approximate region of DWDM ITU Grid channels 39 through 41; as a result no channel within Aurora's ITU Channel Plan Groups N or P (channels 36 through 43) should be used as a narrowcast channel.

## Package Options:

Three examples are shown below (two approximately full scale). For non-ruggedized tubes, the fiber optic leads are color-coded as shown.



OP95F1S-37-R2-AS Single-channel Filter (for DWDM Channel 37) in Ruggedized Package with SC/APC Connectors (image reduced approximately 50%)



OP95F1S-37-R2-00 Single-channel Filter (for DWDM Channel 37) in Ruggedized Package



OP95F1S-29-N0-00 Single-channel Filter (for DWDM Channel 29) in Non-ruggedized Tube

## Ordering Information

OP95F1S - \* \* - \* \* - \* \*

### Single-channel DWDM Filter

\*\* = DWDM ITU Grid Channel Number (20, 21, 22, 23, 25, . . . or 59)  
(Reference Aurora Networks DWDM ITU Grid Channel Plan Data Sheet)

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

- N0-00 = 1 m pigtails of 250 μm bare fiber in 3x55 mm Non-ruggedized Tube,
- R2-00 = 1 m pigtails of 2 mm buffered fiber in 8.5x14x98 mm Ruggedized Package,
- R2-AS = 1 m pigtails of 2 mm fiber in 9.2x51x89 mm Ruggedized Package with SC/APC connectors



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