

Optical Passives (OSP)

OP95F4S

4-channel DWDM Optical Filter

FEATURES

- Add or drop a group of four wavelengths on the 100 GHz DWDM ITU Grid
- Low insertion loss
- Operating temperature range -40°C to $+85^{\circ}\text{C}$
- 4-skip-0 filter
- 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



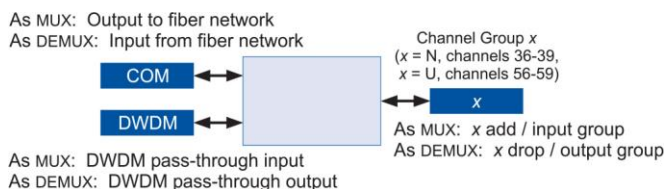
PRODUCT OVERVIEW

ARRIS's OP95F4S series 4-channel DWDM Optical Filters have been designed with low insertion. These three-port filters are used to add (or drop) a group of four DWDM narrowcast wavelengths to (or from) a set of DWDM optical wavelengths. Two models are available, with channel group N used to add or drop channels 36 through 39, and channel group U used to add or drop channels 56 through 59.

The filters are available in three 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 $+85^{\circ}\text{C}$.

SPECIFICATIONS

Characteristics	Specification			
Physical				
Dimensions	See <i>Ordering Information</i>			
Weight, ruggedized packages	0.2 lbs (0.9 kg)			
Environmental				
Operating Temperature Range	-40°C to +85°C (-40°F to +185°F)			
Storage Temperature Range	-40°C to +85°C (-40°F to +185°F)			
Humidity	5% to 95% non-condensing			
Optical Interface				
Mux input/output ports	<table border="0"> <tr> <td> <ul style="list-style-type: none"> • DWDM • x I/O • COM </td> <td> Function as MUX DWDM pass-through input x add/input channel group output to fiber network </td> <td> Function as DEMUX DWDM pass-through output x drop/output channel group input from fiber network </td> </tr> </table>	<ul style="list-style-type: none"> • DWDM • x I/O • COM 	Function as MUX DWDM pass-through input x add/input channel group output to fiber network	Function as DEMUX DWDM pass-through output x drop/output channel group input from fiber network
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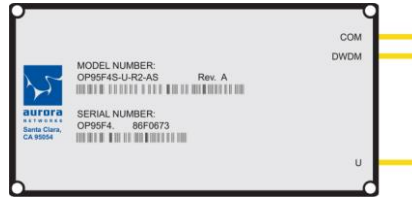


Optical		
Insertion losses (without connectors)	typical	max
DWDM I/O to COM	0.3 dB	0.4 dB
Group x I/O to COM	0.5 dB	0.7 dB
Passband @ 0.15 dB x to COM	2.6 nm; Passes Channel Group N (36-39) or U (56-59)	
DWDM to COM	Passes 1423.5 nm through 1617.5 nm with a notch at the Channel Group add/drop band.	
Directivity, min	50 dB	
Return loss, min	45 dB	
Polarization dependent loss, max	0.1 dB (< 0.05 dB typ)	
Adjacent channel isolation, min	25 dB	
Non-adjacent channel isolation, min	45 dB	
Power handling, max (any input port)	21.8 dBm	
Channel groups	<ul style="list-style-type: none"> • N (DWDM ITU channels 36-39) • U (DWDM ITU channels 56-59) 	

ITU Channel Plans
ARRIS 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 ARRIS's partitioning into convenient logical groups, please refer to the ARRIS DWDM ITU Grid Channel Plan data sheet.
When ordering 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, a Channel Group N filter should not be used in that case.

PACKAGE OPTIONS

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



OP95F4S-U-R2-AS 4-channel Filter for DWDM Channel Group U in Ruggedized Package with SC/APC Connectors (image reduced approximately 50%)

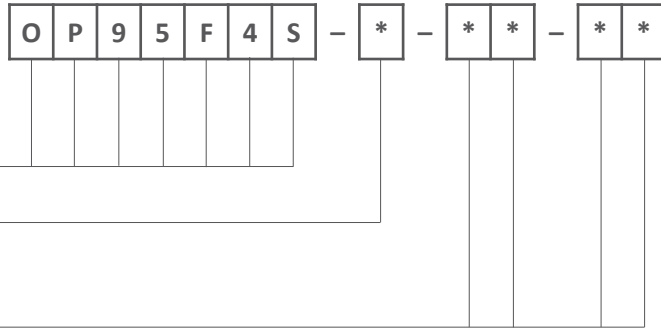


OP95F4S-U-R2-00 4-channel Filter for DWDM Channel Group U in Ruggedized Package



OP95F4S-U-N0-00 4-channel Filter for DWDM Channel Group U in Non-ruggedized Tube

ORDERING INFORMATION



4-channel DWDM Filter

* = DWDM ITU Grid Channel Group (N or U)
(Reference ARRIS DWDM ITU Grid Channel Plan Data Sheet)

. = Package, Fiber Jacket Options and Connectorized Options:
 N0-00 = 1.5 m pigtails of 250 μm bare fiber in 3x55 mm Non-ruggedized Tube,
 R2-00 = 1.5 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

RELATED PRODUCTS

Optical Transmitters	Optical Passives
Digital Return	Optical Patch Cords
Optical Nodes	Installation Services

Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656

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