

Optical Passives (OSP)

NP95F01S

Single-channel DWDM Optical Filter

FEATURES

- Low insertion loss
- Operating temperature range -40° 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



PRODUCT OVERVIEW

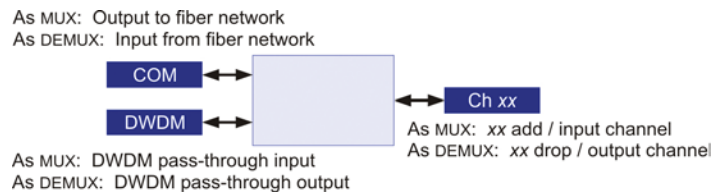
ARRIS's NP95F01S series Single-channel DWDM Optical Filters have been designed with low insertion and polarization dependent losses. These three-port filters are used to add (or drop) a single DWDM narrowcast wavelength to (or from) a set of DWDM optical wavelengths.

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, is 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 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
	<ul style="list-style-type: none"> DWDM Ch xx I/O COM 	DWDM passthrough input xx add/input channel output to fiber network	DWDM passthrough output xx drop/output channel input from fiber network



Optical			
Insertion losses (including connectors), dB		typical	max
	<ul style="list-style-type: none"> DWDM I/O to COM: CH. xx I/O to COM: 	0.4 0.6	0.5 0.8
Channel passband @ 0.5 dBc, nm	± 0.125		
Passband of DWDM passthrough port, nm	1423.5 – 1617.5 (with a notch at the channel passband)		
Directivity, min, dB	55		
Return loss, min, dB	45		
Polarization dependent loss, max (typ), dB	0.1 (0.05)		
Non-adjacent channel isolation, min, dB	45		
Power handling, max (any input port), dBm	21.8		
Channel spacing, GHz	100		
Ripple within passband, max, dB	NP95F01SxxA01's and NP95F01SxxA02's	NP95F01SxxA05's	
	0.2	0.5	
Adjacent channel isolation, min, dB	25	30	

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 of 4, 8, and 16 channels in products for DWDM mux and demux applications, please refer to the ARRIS DWDM ITU Grid Channel Plan Data Sheet.

See Ordering Information section for available ITU channels.

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 ARRIS's ITU Channel Plan Groups N or P (channels 36 through 43) should be used as a narrowcast channel.

PACKAGE OPTIONS

For non-ruggedized tubes, the fiber optic leads are color-coded as shown.



NP95F01S35A01-2SA-AS Single-channel Filter in Ruggedized "S" Package with SC/APC Connectors

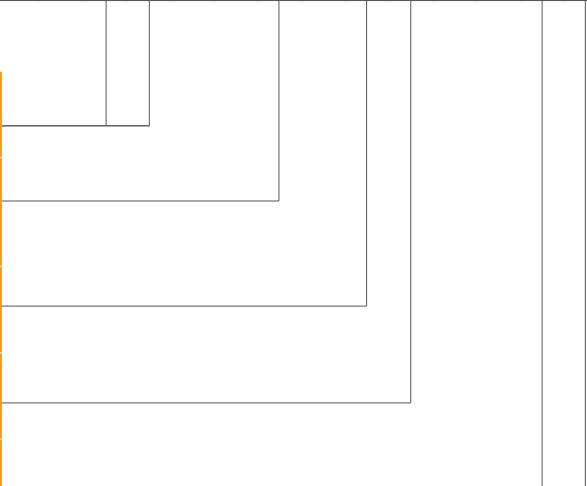


NP95F01S29A01-0NA-00 Single-channel Filter in Non-ruggedized Tube

ORDERING INFORMATION

N	P	9	5	F	0	1	S	*	*	A	0	*	-	*	*	A	-	*	*
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- ** DWDM ITU Channel Number**
= 20, 21, 23, 24, 29, 33, 35, 42, 44, 47, 51, 52, 54, 57, 58, or 59 for filter grades "1" or "2" below;
= 29, 60, 61, or 62 for filter grade "S" below
- * Filter Grade**
= 1 (Suitable for systems with RF payloads with 30 or fewer analog channels);
= 2 (Suitable for systems with RF payloads with 79 or fewer analog channels);
= S (Suitable for baseband digital or externally modulated systems)
- * Fiber Type**
= 0 (1.5 meter of 250-µm fibers);
= 2 (0.75 meter of 1.6-mm jacketed fibers)
- * Package**
= N (3x55 mm non-ruggedized Tube, applicable only to 250-µm fibers);
= S (8x51x89 mm ruggedized package, applicable only to 1.6-mm jacketed fibers)
- ** Optical Connector Type**
= AS (SC/APC connectors, applicable only to "S" package);
= AL (LC/APC connectors, applicable only to NP95F01S29A0S-2SA-AL);
= 00 (no connectors, applicable only to "N" package)



RELATED PRODUCTS

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Customer Care

Contact Customer Care for product information and sales:

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

Note: Specifications are subject to change without notice.

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