

# Optical Passives (ISP)

## NP35F01

### Single-channel DWDM Optical Filter

## FEATURES

- Low insertion loss
- Selection of supported narrowcast channels on standard 100 GHz DWDM ITU Grid
- High channel isolation to minimize crosstalk
- SC/APC connectors ensure performance repeatability, compatibility and easy installation and maintenance
- Removable adapters for easy cleaning
- Occupies one half-depth slot
- LGX chassis-compatible for ISP inside plant controlled indoor environments
- Telcordia GR-1209 and GR-1221 qualified
- Replaces OP35F1.



## PRODUCT OVERVIEW

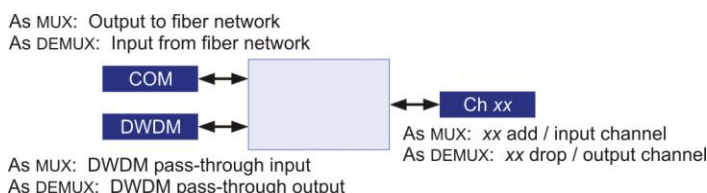
The ARRIS NP35F01 series Single-channel DWDM Optical Filters have been designed with low insertion and polarization dependent losses. These three-port filters are used to add (or drop) a single DWDM narrowcast wavelength to (or from) a set of DWDM optical wavelengths.

In addition to packages containing a single filter, dual-filter packages are also available in which the same narrowcast wavelength may be added to (or dropped from) two independent sets of DWDM optical wavelengths.

The filter is packaged in an LGX compatible module and can be mounted in the ARRIS CH3000 chassis, occupying one half-depth slot. It is designed to be used in controlled indoor environments within a temperature range of  $-20^{\circ}$  to  $+65^{\circ}\text{C}$ .

**SPECIFICATIONS**

Characteristics	Specification									
<b>Physical</b>										
Dimensions	6.5" D x 4.3" H x 1.0" W (3RU) (16.5 cm x 11 cm x 2.5 cm)									
Weight	1.5 lbs (0.68 kg)									
<b>Environmental</b>										
Operating Temperature Range	-20°C to +65°C (-4°F to +149°F)									
Storage Temperature Range	-40°C to +85°C (-40°F to +185°F)									
Humidity	5% to 95% non-condensing									
<b>Optical Interface</b>										
Optical connectors	SC/APC									
Mux input/output ports	<table border="0"> <tr> <td>Ch. xx I/O</td> <td>Function as MUX xx add/input channel group</td> <td>Function as DEMUX xx drop/input channel group</td> </tr> <tr> <td>COM</td> <td>output to fiber network</td> <td>input from fiber network</td> </tr> <tr> <td>DWDM</td> <td>DWDM pass-through input</td> <td>DWDM pass-through output</td> </tr> </table>	Ch. xx I/O	Function as MUX xx add/input channel group	Function as DEMUX xx drop/input channel group	COM	output to fiber network	input from fiber network	DWDM	DWDM pass-through input	DWDM pass-through output
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COM	output to fiber network	input from fiber network								
DWDM	DWDM pass-through input	DWDM pass-through output								



<b>Optical</b>	
Insertion losses, including connectors, max (typ)	
CH. xx I/O to COM	0.95 (0.75) dB
DWDM I/O to COM	0.70 (0.50) dB
Passband @ 0.5 dB	± 0.25 nm
Ripple within passband, max	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	35 dB
Non-adjacent channel isolation, min	45 dB
DWDM isolation, min	13 dB
Power handling, max (any input port)	21.8 dBm
Channel spacing	100 GHz
Wavelength passthrough	Only 1425–1617 nm (input and output)

**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 (1530.334 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.

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 "Group P" (channels 40 through 43) should be used as the narrowcast channel. Similarly, AT3550 "BA" series broadcast transmitters operate at 1563 nm, occupying the approximate region of DWDM ITU Grid channels 17 through 19; as a result no channel within ARRIS's "Group H" (channels 16 through 19) should be used as the narrowcast channel.

ORDERING INFORMATION

N	P	3	5	F	0	1	*	*	*	A	0	S	-	0	L	A	-	A	S
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\* = Number of Filters in Module (S = Single, D = Dual)

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

RELATED PRODUCTS

CH3000 Chassis	Optical Patch Cords
Optical Transmitters	Optical Passives
PF3000	Installation Services

## 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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