

# Optical Passives (OSP)

## NP95F04S

### 4-channel DWDM Optical Filter

## FEATURES

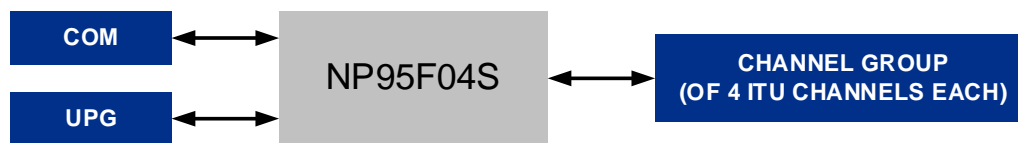
- Add or drop a group of four wavelengths on the 100 GHz DWDM ITU Grid
- Low insertion loss
- Operating temperature range  $-40^{\circ}$  to  $+85^{\circ}\text{C}$
- 4-skip-0 filter
- Telcordia GR-1209 and GR-1221 qualified, providing excellent environmental and mechanical stability
- Variety of options for module package size, fiber jacket and connector types
- Epoxy-free on optical path



## PRODUCT OVERVIEW

ARRIS's NP95F04S 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. These devices support groups of four wavelengths between ITU channels 20 and 59, inclusive.

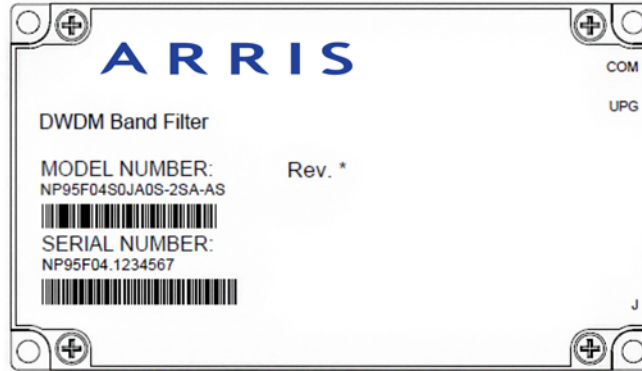
The filters are designed for use in an outdoor environment within a temperature range of  $-40^{\circ}$  to  $+85^{\circ}\text{C}$ .



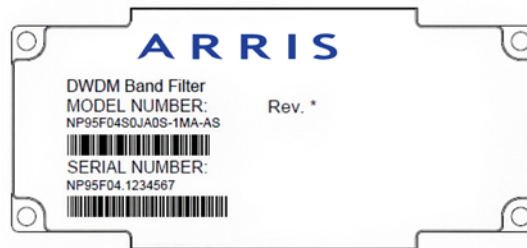
## SPECIFICATIONS

Characteristics	Specification	
<b>Physical</b>		
Dimensions	See Ordering Information.	
Weight, ruggedized packages	0.2 lbs (0.9 kg)	
<b>Environmental</b>		
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	
<b>Optical Interface</b>		
Mux input/output ports	<ul style="list-style-type: none"> <li>• UPG: DWDM passthrough for all channels not being added or dropped by the device</li> <li>• CHANNEL GROUP: Group of 4 ITU channels being added or dropped by the device</li> <li>• COM: Port for connecting to the main fiber network</li> </ul>	
<b>Optical</b>		
Insertion losses (without connectors)	Typical	Max
UPG to COM	0.2 dB	0.3 dB
CHANNEL GROUP to COM	0.4 dB	0.6 dB
Insertion losses (with connectors)	Typical	Max
UPG to COM	0.4 dB	0.5 dB
CHANNEL GROUP to COM	0.6 dB	0.8 dB
Passband @ 0.15 dB	Passes 1423.5 nm through 1617.5 nm with a notch at the Channel Group add/drop band.	
UPG to COM	2.6 nm	
CHANNEL GROUP to COM		
Directivity, min	50 dB	
Return loss, min	45 dB	
Polarization dependent loss, max	0.07 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	
<b>ITU Channel Plans</b>		
Supported channel groups	See Ordering Information.	

PACKAGE OPTIONS



NP95F04S0JA0S-2SA-AS in ruggedized “S” package (8x51x89-mm flatbox) with 1.6-mm fibers



NP95F04S0JA0S-1MA-AS in ruggedized “M” package (9x41x89-mm flatbox) with 900-µm fibers



NP95F04S0JA0S-0NA or NP95F04S0JA0S-1NA in non-ruggedized 5.5x34-mm tube with either 250-µm or 900-µm fibers, respectively

**ORDERING INFORMATION**



- x = Channel group (J, K, L, M, N, P, R, S, T, or U) (See tables below for ITU channels in each channel group.)
- y = Fiber type [0 = 250-μm (applicable only to p = N); 1 = 0.9-mm (applicable to p = M or N); 2 = 1.6-mm (applicable only to p = S)]
- p = package option (N = 5.5x34 mm tube; M = 9x41x89 mm flatbox; S = 8x51x89 mm flatbox)
- zz = Optical connector option {00 = No connector (applicable only to p = N); AS = SC/APC [applicable only to (y =1 and p = M) and (y = 2 and p = S)]}

Channel Group	ITU Channel #	Wavelength (nm)	Optical frequency (THz)
J	20	1561.419	192.0
	21	1560.606	192.1
	22	1559.794	192.2
	23	1558.983	192.3
K	24	1558.173	192.4
	25	1557.363	192.5
	26	1556.555	192.6
	27	1555.747	192.7
L	28	1554.940	192.8
	29	1554.134	192.9
	30	1553.329	193.0
	31	1552.524	193.1
M	32	1551.721	193.2
	33	1550.918	193.3
	34	1550.116	193.4
	35	1549.315	193.5
N	36	1548.515	193.6
	37	1547.715	193.7
	38	1546.917	193.8
	39	1546.119	193.9

Channel Group	ITU Channel #	Wavelength (nm)	Optical frequency (THz)
P	40	1545.322	194.0
	41	1544.526	194.1
	42	1543.730	194.2
	43	1542.936	194.3
R	44	1542.142	194.4
	45	1541.349	194.5
	46	1540.557	194.6
	47	1539.766	194.7
S	48	1538.976	194.8
	49	1538.186	194.9
	50	1537.397	195.0
	51	1536.609	195.1
T	52	1535.822	195.2
	53	1535.036	195.3
	54	1534.250	195.4
	55	1533.465	195.5
U	56	1532.681	195.6
	57	1531.898	195.7
	58	1531.116	195.8
	59	1530.334	195.9

**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

**Note:** Specifications are subject to change without notice.

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