

# Optical Passives (ISP)

## NP34B10

### 10-channel CWDM Filters for Cellular Backhaul

## FEATURES

- Two different models to support single-fiber or dual-fiber network architectures
- Flat and wide operating passband on CWDM ITU grid (20 nm spacing)
- High channel isolation to minimize crosstalk
- Low polarization dependent loss (PDL)
- Duplex LC/UPC connectors
- Telcordia GR-1209 and GR-1221 qualified, providing excellent environmental and mechanical stability
- -20 dB line monitoring tap
- LGX chassis-compatible
- Replaces OP34B10x.



## PRODUCT OVERVIEW

NP34B10 10-channel CWDM filters for cellular backhaul are part of ARRIS's optimized passive solutions for cell tower backhaul applications.

The single-width, half-depth NP34B10S00Z1S-0LA-UL transmits 5 multiplexed CWDM wavelengths (1430, 1450, ... and 1510 nm) to the cell tower and demultiplexes 5 different CWDM wavelengths (1530, 1550, ... and 1610 nm) received from the cell tower, all on a single network fiber.

The dual-width, half-depth NP34B10D00Z1S-OLA-UL transmits 10 multiplexed CWDM wavelengths (1430, 1450, ... and 1610 nm) to the cell tower on one network fiber and demultiplexes the same 10 wavelengths received from the cell tower on a second fiber.

Duplex LC/UPC connector ports are keyed to ensure correct orientation for Tx/Rx connectors when using fiber jumpers to connect to SFP (or other) modules in Headend/Hub equipment (e.g., media converters).

## SPECIFICATIONS

Characteristics	Specification				
<b>Physical</b>					
Dimensions	<ul style="list-style-type: none"> <li>NP34B10S00Z1S-OLA-UL: 6.5" D x 4.3" H x 1.0" W (16.5 cm x 11 cm x 2.5 cm)</li> <li>NP34B10D00Z1S-OLA-UL: 6.5" D x 4.3" H x 2.0" W (16.5 cm x 11 cm x 5.1 cm)</li> </ul>				
Weight	1.5 lbs (0.7 kg)				
<b>Environmental</b>					
Operating temperature range	-20° to +65°C (-4° to +149°F)				
Storage temperature range	-40° to +85°C (-40° to +185°F)				
Humidity	5% to 95% non-condensing				
<b>Optical Interface</b>					
Optical connectors	Duplex LC/UPC				
Model NP34B10S00Z1S-OLA-UL	<ul style="list-style-type: none"> <li>COM (faces the network and carries the combined CWDM signal in both forward and reverse directions)</li> <li>Wavelength xxxx (5 channel adds for xxxx = 1430, 1450, 1470, 1490 and 1510 nm in the forward direction, and 5 channel drops for xxxx = 1530, 1550, 1570, 1590 and 1610 nm in the reverse direction)</li> <li>TP (-20 dB, 1% bi-directional tap from COM allows monitoring of signals flowing in either direction)</li> </ul>				
Model NP34B10D00Z1S-OLA-UL	<ul style="list-style-type: none"> <li>COM A (faces the network and carries the combined signal for 10 CWDM wavelengths in the forward direction to the cell tower)</li> <li>COM B (faces the network and carries the combined signal for 10 CWDM wavelengths from the cell tower in the reverse direction)</li> <li>Wavelength xxxx "A" (10 channel adds for xxxx = 1430–1610 nm in the forward direction)</li> <li>Wavelength xxxx "B" (10 channel drops for xxxx = 1430–1610 nm in the reverse direction)</li> <li>TP "A" (-20 dB, 1% bi-directional tap from COM A allows monitoring of signals flowing in the forward direction)</li> <li>TP "B" (-20 dB, 1% bi-directional tap from COM A allows monitoring of signals from the reverse direction)</li> </ul>				
<b>Optical</b>					
Channel spacing	20 nm				
Channel plan (CWDM wavelengths)	<table border="0"> <tr> <td><b>Model NP34B10S00Z1S-OLA-UL</b></td> <td><b>Model NP34B10D00Z1S-OLA-UL</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>Forward: 5 wavelengths (1430–1510 nm)</li> <li>Reverse: 5 wavelengths (1530–1610 nm)</li> </ul> </td> <td>10 wavelengths (1430–1610 nm) in both forward and reverse directions</td> </tr> </table>	<b>Model NP34B10S00Z1S-OLA-UL</b>	<b>Model NP34B10D00Z1S-OLA-UL</b>	<ul style="list-style-type: none"> <li>Forward: 5 wavelengths (1430–1510 nm)</li> <li>Reverse: 5 wavelengths (1530–1610 nm)</li> </ul>	10 wavelengths (1430–1610 nm) in both forward and reverse directions
<b>Model NP34B10S00Z1S-OLA-UL</b>	<b>Model NP34B10D00Z1S-OLA-UL</b>				
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Passband @ 0.15 dB (COM-Ch xxxx)	± 6.5 nm				
Ripple within passband, max	0.5 dB				
Return loss, min	45 dB				
Polarization dependent loss, max	0.15 dB (< 0.1 dB typ)				
Insertion losses (including connectors), max	COM to Ch. xxxx I/O: 3.8 dB max (3.1 dB typ)				
Isolation, COM–Ch. xxxx, min	35 dB				
Directivity, min	50 dB				
Power handling, max (any input port)	21.8 dBm				

ORDERING INFORMATION

N	P	3	4	B	1	0	*	0	0	Z	1	S	-	0	L	A	-	U	L
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\* = S (Filter for single fiber network design);  
 = D (Filter for dual fiber network design)

RELATED PRODUCTS

CH3000 Chassis	Optical Patch Cords
SFP modules	Optical Passives
PF3000	

## Customer Care

Contact Customer Care for product information and sales:

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

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