Optical Passives (ISP)

NP34M05

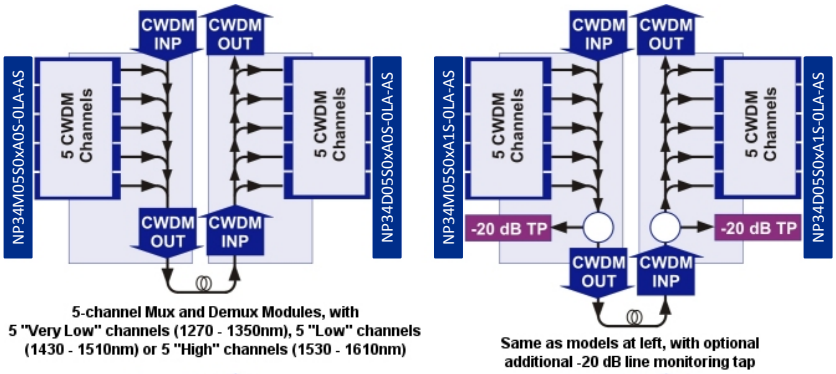
5-channel CWDM Multiplexer

FEATURES

- 15 CWDM wavelengths in 3 groups of 5
- Designed for use with uncooled lasers based on 20 nm channel spacing
- Flat and wide operating passband on CWDM ITU grid (20 nm spacing)
- High channel isolation to minimize crosstalk
- Low polarization dependent loss (PDL)
- Telcordia GR-1209 and GR-1221 qualified, providing excellent environmental and mechanical stability
- Ability to cascade and combine all 3 groups
- Optional integrated 1310 nm combiner/splitter
- Optional line monitoring tap
- Occupies one half-depth slot
- Replaces OP34M5

PRODUCT OVERVIEW

ARRIS's NP34M05 Series 5-channel CWDM multiplexers are designed to multiplex five CWDM ITU-grid optical wavelengths onto one fiber output from individual wavelengths of 1270, 1290, ..., 1350, ("very low channels" group), 1430, 1450, ..., 1510 nm ("low channels" group), and 1530, 1550, . . ., 1610 nm ("high channels" group). Functional block diagrams of several available model options are shown on the following page.

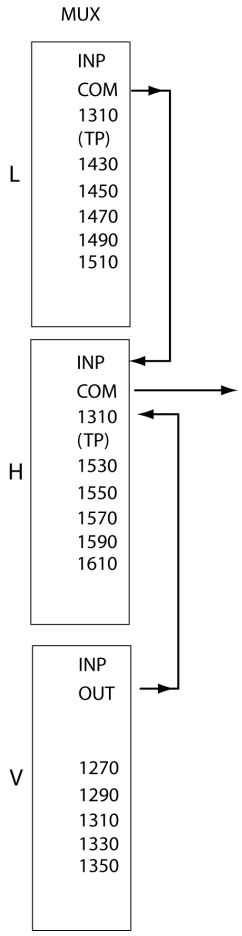


5-channel Mux and Demux Modules, with 5 "Very Low" channels (1270 - 1350nm), 5 "Low" channels (1430 - 1510nm) or 5 "High" channels (1530 - 1610nm)

Same as models at left, with optional additional -20 dB line monitoring tap

Same as above, with optional integrated 1310nm combiner/splitter (only available on models for "Low" and "High" channels)

Same as models at left, with optional additional -20 dB line monitoring tap



SPECIFICATIONS

Characteristics	Specification
Physical	
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 (0.7 kg)
Environmental	
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
Optical (all models)	
Return loss, min	45 dB
Passband for CWDM channels @ 0.15 dBc	13 nm
Passband for 1310-nm input @ 0.15 dBc (available in NP34M05S0LB's and NP34M05S0HB's)	1263.5–1357.5 nm
CWDM directivity, min	55 dB
1310 directivity, min	65 dB
1310-COM isolation, min	60 dB
Polarization dependent loss, max (typ)	0.15 (0.1) dB
Ripple within passband, max	0.5 dB
Channel spacing	20 nm
Power handling, max (any input port)	21.8 dBm
Wavelength Passbands Between INP and COM Ports	
NP34M05S0V	1263–1357 nm (with five 13-nm-wide notches at 1270, 1290, 1310, 1330, and 1350 nm)
NP34M05S0L	1423–1617 nm (with five 13-nm-wide notches at 1430, 1450, 1470, 1490, and 1510 nm)
NP34M05S0H	1423–1617 nm (with five 13-nm-wide notches at 1530, 1550, 1570, 1590, and 1610 nm)
Optical Interface	
Optical connectors	SC/APC
Optical ports	See Ordering Information

TABLE 1: INSERTION LOSS

	NP34M05S0xA0S-0LA-AS	NP34M05S0xB0S-0LA-AS	NP34M05S0xA1S-0LA-AS	NP34M05S0xB1S-0LA-AS
Insertion losses, max[1] (dB)				
Channel xxxx INP to COM	2.0	2.5	2.3	2.7
1310 to COM	N/A	1.1	N/A	1.3
CWDM IN to COM	1.7	2.2	2.0	2.4
Paired insertion loss[2]	2.8	3.7	3.3	4.3
COM to -20 dB Tap Ratio, max[1] (dB)	N/A	N/A	20.4	20.4

NOTES:
1. Including connectors
2. Paired insertion loss when combined with 5-wavelength mux module from Ch. xxxx INP to Ch. xxxx OUT

ORDERING INFORMATION

Model Name	Description
NP34M05S0VA0S-0LA-AS	• COM (output to fiber network) • Five CWDM channel inputs at 1270, 1290, 1310, 1330, and 1350 nm
NP34M05S0VA1S-0LA-AS	• COM (output to fiber network) • Five CWDM channel inputs at 1270, 1290, 1310, 1330, and 1350 nm • TP –20 dB (1% tap, test point from COM)
NP34M05S0LA0S-0LA-AS	• COM (output to fiber network) • Five CWDM channel inputs at 1430, 1450, 1470, 1490, and 1510 nm
NP34M05S0LB0S-0LA-AS	• COM (output to fiber network) • INP (CWDM cascade input) • Five CWDM channel inputs at 1430, 1450, 1470, 1490, and 1510 nm • 1310 (for adding channels in the 1263.5–1357.5 nm band to the fiber network)
NP34M05S0LB1S-0LA-AS	• COM (output to fiber network) • INP (CWDM cascade input) • Five CWDM channel inputs at 1430, 1450, 1470, 1490, and 1510 nm • 1310 (for adding channels in the 1263.5–1357.5 nm band to the fiber network) • TP –20 dB (1% tap, test point from COM)
NP34M05S0HA0S-0LA-AS	• COM (output to fiber network) • Five CWDM channel inputs at 1530, 1550, 1570, 1590, and 1610 nm
NP34M05S0HB0S-0LA-AS	• COM (output to fiber network) • INP (CWDM cascade input) • Five CWDM channel inputs at 1530, 1550, 1570, 1590, and 1610 nm • 1310 (for adding channels in the 1263.5–1357.5 nm band to the fiber network)
NP34M05S0HB1S-0LA-AS	• COM (output to fiber network) • INP (CWDM cascade input) • Five CWDM channel inputs at 1530, 1550, 1570, 1590, and 1610 nm • 1310 (for adding channels in the 1263.5–1357.5 nm band to the fiber network) • TP –20 dB (1% tap, test point from COM)

RELATED PRODUCTS

CH3000 PF3000

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.

1510807_RevC_NP34M05_CWDM_Mux_5-channel 10/2018 EA-28863