Optical Passives (ISP)

OP34M5x

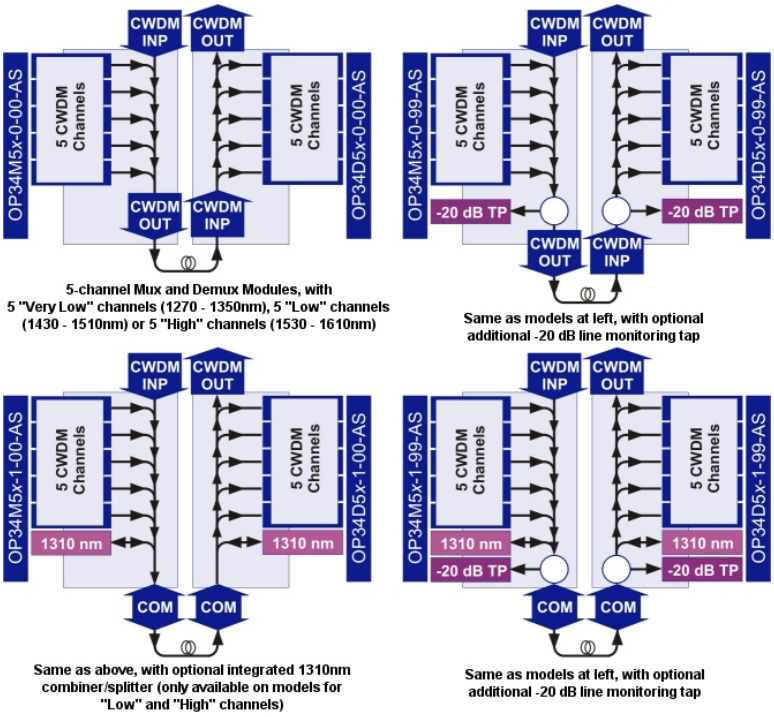
5-channel CWDM Multiplexer

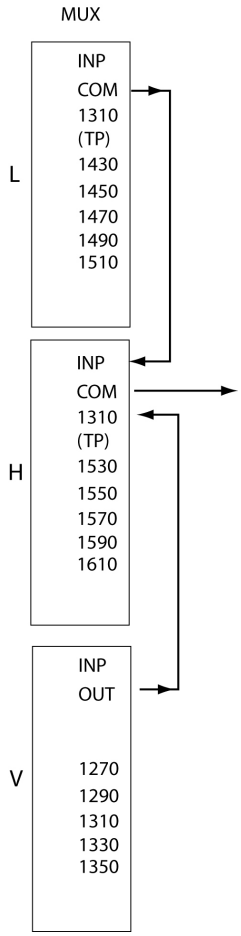
FEATURES

- 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 two half-depth slots

PRODUCT OVERVIEW

ARRIS OP34M5x 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.





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 only in OP34M5L-1 and OP34M5H-1)	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	0.15 dB (< 0.1 dB typ)
Ripple within passband	0.5 dB
Channel spacing	20 nm
Power handling, max (any input port)	21.8 dBm
Wavelength Passbands Between INP and COM Ports	
OP34M5V	1263–1357 nm (with five 13-nm-wide notches at 1270, 1290, 1310, 1330, and 1350 nm)
OP34M5L	1423–1617 nm (with five 13-nm-wide notches at 1430, 1450, 1470, 1490, and 1510 nm)
OP34M5H	1423–1617 nm (with five 13-nm-wide notches at 1530, 1550, 1570, 1590, and 1610 nm)
Optical Interface	
Optical connectors	SC/APC
Models OP34M5x-0-00-AS (x = V, L or H – Very Low, Low or High channel group)	• COM (output to fiber network) • Wavelength xxxx (5 channels added)
Models OP34M5x-1-00-AS (x = L or H – Low or High channel group)	• COM (output to fiber network • I/O to/from fiber network for 1310) • 1310 (input/output to/from fiber network for 1310 nm)[1] • Wavelength xxxx (5 channels added)
Models OP34M5x-0-99-AS (x = L or H – Low or High channel group)	• COM (output to fiber network) • Wavelength xxxx (5 channels added) • TP –20 dB (1% tap, test point from COM)
Models OP34M5x-1-99-AS (x = L or H – Low or High channel group)	• COM (output to fiber network; I/O to/from fiber network for 1310) • 1310 (input/output to/from fiber network for 1310 nm) [1] • Wavelength xxxx (5 channels added); • TP –20 dB (1% tap, test point from COM)

NOTE:

1. A 1310 nm I/O Port is provided on "L" and "H" models only. For cases in which a cascade of CWDM wavelengths that includes the 5 Very Low ("V") wavelengths is required, this port may be used to add those 5 wavelengths from the OUT port of a "V" model mux; see diagram on previous page.

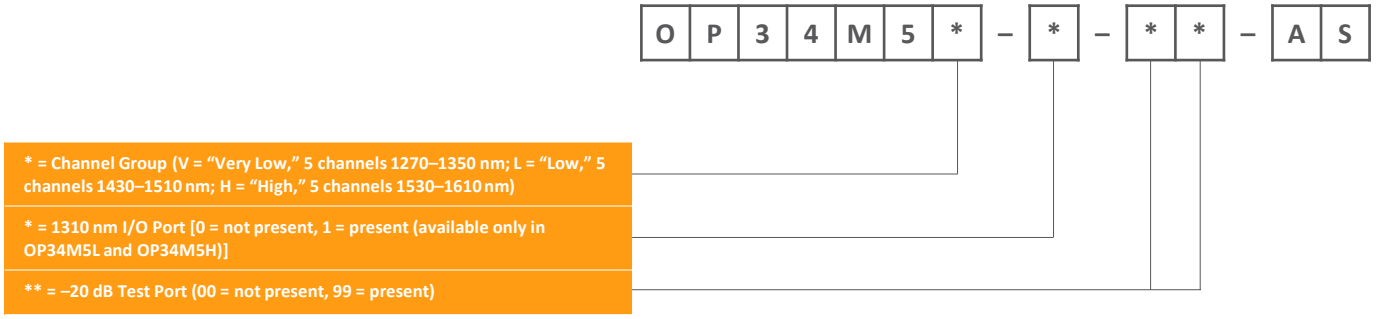
TABLE 1: INSERTION LOSS

	OP34M5x-0-00-AS	OP34M5x-1-00-AS	OP34M5x-0-99-AS	OP34M5x-1-99-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
INP 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



RELATED PRODUCTS

CH3000	OP94D5
OP34M5x	Installation Services

Customer Care

Contact Customer Care for product information and sales:

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

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