

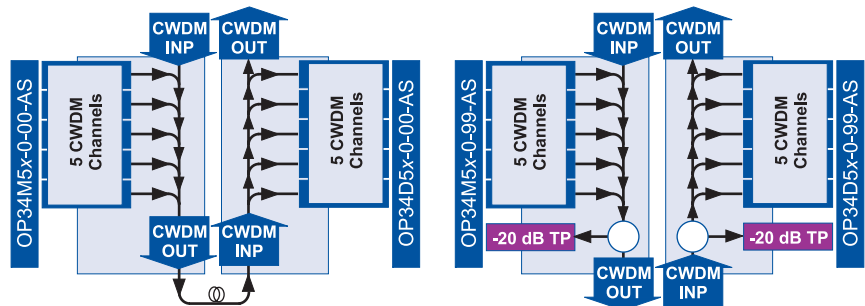
Features

- 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

5-channel CWDM Multiplexer

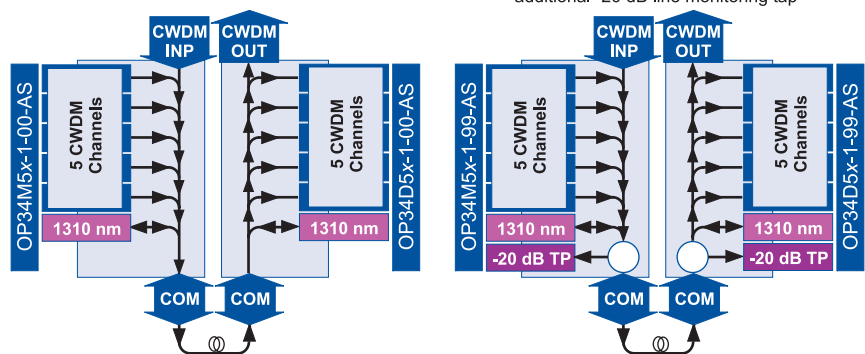


Aurora Networks' OP34M5x series 5-channel CWDM multiplexers are designed to multiplex five CWDM ITU-grid optical wavelengths onto one fiber output from individual wavelengths of 1270, 1290, ..., 1350, ("very low channels" group), 1430, 1450, ..., 1510 nm ("low channels" group), and 1530, 1550, . . . , 1610 nm ("high channels" group). Functional block diagrams of several available model options are shown below.



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

OP34M5x

Product Specifications

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):

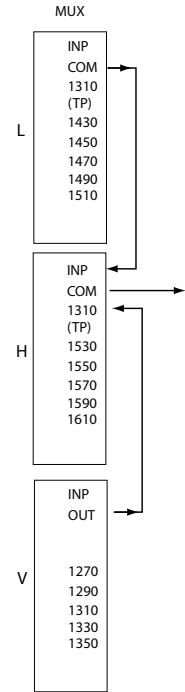
- Return loss, min: 45 dB
- Polarization dependent loss, max: 0.15 dB (<0.1 dB typ)
- Ripple within passband: 0.5 dB
- Channel spacing: 20 nm
- Power handling, max (any input port): 21.8 dBm

Wavelength Passthrough:

- V models: only allows wavelenths 1270 to 1350 to pass
- H & L models: only allows wavelengths 1430 to 1610 to pass

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)
 - 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 -20dB (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)
 - Wavelength xxxx (5 channels added);
 - TP -20dB (1% tap, test point from COM)

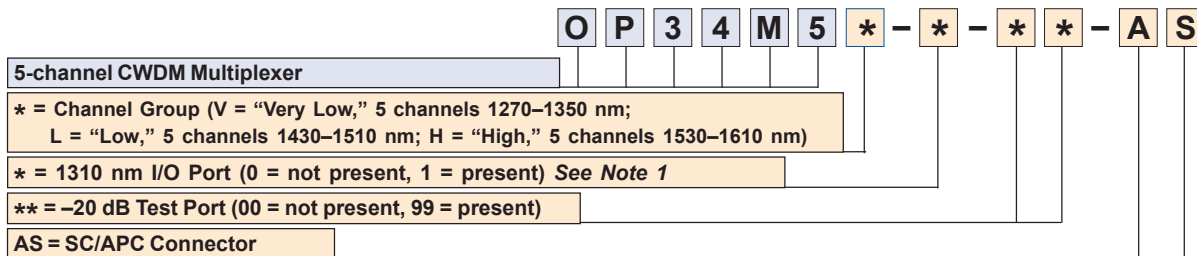


A 1310 nm I/O Port is provided on "L" and "H" models only. For cases in which a cascade of CWDM wavelengths that includes the 5 Very Low ("V") wavelengths is required, this port may be used to add those 5 wavelengths from the OUT port of a "V" model mux; see diagram above right.

| | Model Number | | | |
|---|-----------------|-----------------|-----------------|-----------------|
| | 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 |
| 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 -20dB Tap Ratio, max ¹ (dB) | N/A | N/A | 20.4 | 20.4 |
| • Passband for CWDM @ 0.5 dB (nm) | 13 | 13 | 13 | 13 |
| • Passband for 1310nm @ 0.5 dB (nm) | N/A | 1270-1350 | N/A | 1270-1350 |
| • CWDM directivity, min (dB) | 55 | 55 | 55 | 55 |
| • 1310 directivity, min (dB) | N/A | 65 | N/A | 65 |
| • 1310-COM isolation, min (dB) | N/A | 60 | N/A | 60 |

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

Ordering Information



Note 1
Available on "L" and "H" models only.



Corporate Headquarters
5400 Betsy Ross Drive
Santa Clara, CA 95054
Tel 408.235.7000
Fax 408.845.9045