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.
Ask us about the complete Access Technologies Solutions portfolio:

- Fiber-Deep
- DOCSIS® 3.1
- Node Segmentation
- HPON™/RFoG
- FTTx

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**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)
  - 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)
  - 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**

<table>
<thead>
<tr>
<th></th>
<th>OP34M5x-0-00-AS</th>
<th>OP34M5x-1-00-AS</th>
<th>OP34M5x-0-99-AS</th>
<th>OP34M5x-1-99-AS</th>
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<tbody>
<tr>
<td>Insertion losses, max1 (dB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Channel xxxx INP to COM</td>
<td>2.0</td>
<td>2.5</td>
<td>2.3</td>
<td>2.7</td>
</tr>
<tr>
<td>1310 to COM</td>
<td>N/A</td>
<td>1.1</td>
<td>N/A</td>
<td>1.3</td>
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<tr>
<td>INP to COM</td>
<td>1.7</td>
<td>2.2</td>
<td>2.0</td>
<td>2.4</td>
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<tr>
<td>Paired insertion loss2</td>
<td>2.8</td>
<td>3.7</td>
<td>3.3</td>
<td>4.3</td>
</tr>
<tr>
<td>COM to -20 dB Tap Ratio, max2 (dB)</td>
<td>N/A</td>
<td>N/A</td>
<td>20.4</td>
<td>20.4</td>
</tr>
</tbody>
</table>

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

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ORDERING INFORMATION

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<td>O</td>
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</table>

* = Channel Group (V = “Very Low,” 5 channels 1270–1350 nm; L = “Low,” 5 channels 1430–1510 nm; H = “High,” 5 channels 1530–1610 nm)

* = 1310 nm I/O Port (0 = not present, 1 = present (available only in OP34M5L and OP34M5H))

** = –20 dB Test Port (00 = not present, 99 = present)

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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