# Optical Passives (ISP)
OP34M10S
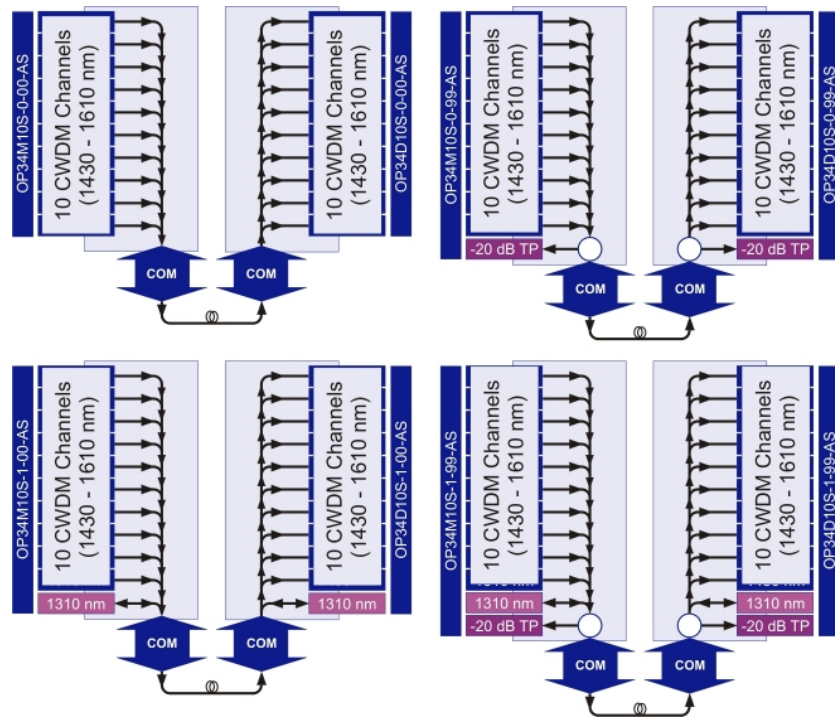## 10-channel CWDM Multiplexer

FEATURES

- 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
- Optional integrated 1310 nm combiner/splitter
- Optional line monitoring tap
- Occupies two half-depth slots
- 1310 nm can act as cascade port
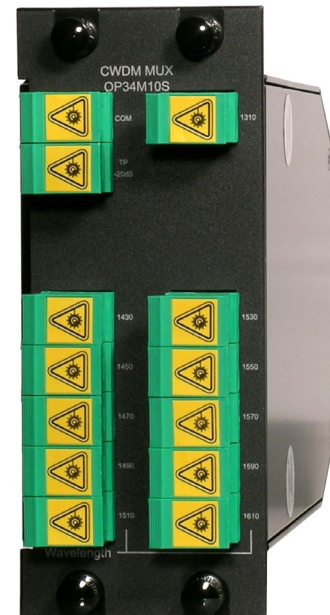
PRODUCT OVERVIEW

ARRIS OP34M10S Series 10-channel CWDM multiplexers are designed to multiplex 10 CWDM ITU-grid optical wavelengths onto one fiber output, with the 10 individual wavelengths ranging from 1430 to 1610 nm (with 20 nm spacing between channels).

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ISP-OP34M10S

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

SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions	6.5" D x 4.3" H x 2.0" W (3RU) (16.5 cm x 11 cm x 5.0 cm)
Weight	2.5 lbs (1.1 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)	
Channel spacing	20 nm
Pass band for CWDM channel port @ −0.15 dBc (nm)	13
Pass band for 1310-nm input (available only in OP34M10S-1) (nm)	1263.5-1357.5
CWDM directivity, min (dB)	55
1310-nm bypass directivity, min (dB)	65
COM-to-1310-nm bypass isolation, min (dB)	60
Return loss, min	45 dB
Polarization dependent loss, max	0.15 dB (< 0.1 dB typ)
Ripple within passband	0.5 dB
Power handling, max (any input port)	21.8 dBm
Optical Interface	
Optical connectors	SC/APC
Model OP34M10S-0-00-AS	• COM (output to fiber network) • Ch.. xxxx INP (10 channels added for xxxx = 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590 and 1610 nm)
Model OP34M10S-1-00-AS	• COM (output to fiber network; I/O to/from fiber network for 1310) • 1310 (input/output to/from fiber network for 1310 nm) • Ch. xxxx INP (10 channels added for xxxx = 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590 and 1610 nm)
Model OP34M10S-0-99-AS	• COM (output to fiber network) • Ch. xxxx INP (10 channels added for xxxx = 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590 and 1610 nm) • TP −20 dB (1% tap, test point from inputs)
Model OP34M10S-1-99-AS	• COM (output to fiber network; I/O to/from fiber network for 1310) • 1310 (input/output to/from fiber network for 1310 nm) • Ch. xxxx INP (10 channels added for xxxx = 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590 and 1610 nm) • TP −20 dB (1% tap, test point from inputs)

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TABLE 1: INSERTION LOSS

	OP34M10S-0-00-AS	OP34M10S-1-00-AS	OP34M10S-0-99-AS	OP34M10S-1-99-AS
Insertion losses, max[1] (dB)				
Ch xxxx INP to COM	3.5	3.9	3.7	4.2
1310 to COM	N/A	1.1	N/A	1.3
Paired insertion loss[2]	4.3	5.2	4.8	5.7
COM to -20 dB Tap Ratio, max1 (dB)	N/A	N/A	20.4	20.4

NOTES:

1. Including connectors
2. (Paired insertion loss when combined with 10-wavelength demux module from Ch. xxxx INP to Ch. xxxx OUT)

ORDERING INFORMATION

O	P	3	4	M	1	0	S	–	*	–	*	*	–	A	S

* = 1310 nm I/O Port (0 = not present, 1 = present)

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

RELATED PRODUCTS

CH3000	OP94D10
OP34D10S	Installation Services

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.

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