# Optical Passives (ISP)

OP34D10S
10-channel CWDM Demultiplexer

ARRIS

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
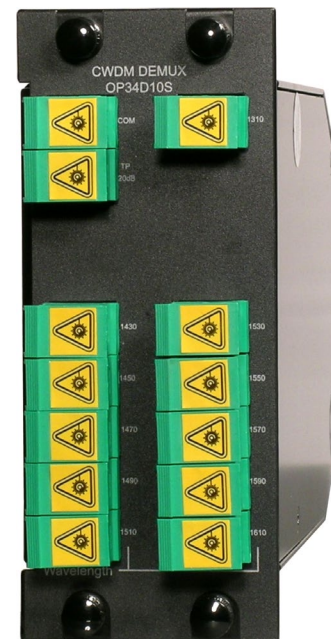
PRODUCT OVERVIEW

ARRIS OP34D10S Series 10-channel CWDM Demultiplexers are designed to demultiplex 10 CWDM ITU-grid optical wavelengths from one fiber input, producing 10 individual wavelengths ranging from 1430 to 1610 nm (with 20 nm spacing between channels).

Ask us about the complete Access Technologies Solutions portfolio:

ISP-OP34D10S

| 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)	
Return loss, min	45 dB
Passband for CWDM channels @ 0.15 dBc	13 nm
Passband for 1310 nm output (available only in OP34D10S-1)	1263.5–1357.5 nm
Adjacent channel isolation, min	35 dB
Non-adjacent channel isolation, min	45 dB
1310-COM isolation, min	60 dB
CWDM directivity, min	55 dB
1310 directivity, min	65 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

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SPECIFICATIONS (CONTINUED)

| Characteristics	Specification
Optical Interface	
Optical connectors	SC/APC
Model OP34D10S-0-00-AS	• COM (input from fiber network) • Wavelength xxxx (10 channel drops for xxxx = 1430, 1450, 470, 1490, 1510, 1530, 1550, 1570, 1590, and 1610 nm)
Model OP34D10S-1-00-AS	• COM (input from fiber network; I/O to/from fiber network for 1310) • 1310 (input/output to/from fiber network for 1310 nm) • Wavelength xxxx (10 channel drops for xxxx = 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, and 1610 nm)
Model OP34D10S-0-99-AS	• COM (input from fiber network) • Wavelength xxxx (10 channel drops for xxxx = 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, and 1610 nm) • TP –20 dB (1% tap, test point from COM)
Model OP34D10S-1-99-AS	• COM (input from fiber network; I/O to/from fiber network for 1310) • 1310 (input/output to/from fiber network for 1310 nm) • Wavelength xxxx (10 channel drops for xxxx = 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, and 1610 nm) • TP –20 dB (1% tap, test point from COM)

TABLE 1: INSERTION LOSS

	OP34D10S-0-00-AS	OP34D10S-1-00-AS	OP34D10S-0-99-AS	OP34D10S-1-99-AS
Insertion losses, max[1] (dB)				
COM to Channel xxxx output	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, 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)

OP34D10S

ORDERING INFORMATION

| O | P | 3 | 4 | D | 1 | 0 | S | – | * | – | * | * | – | A | S |
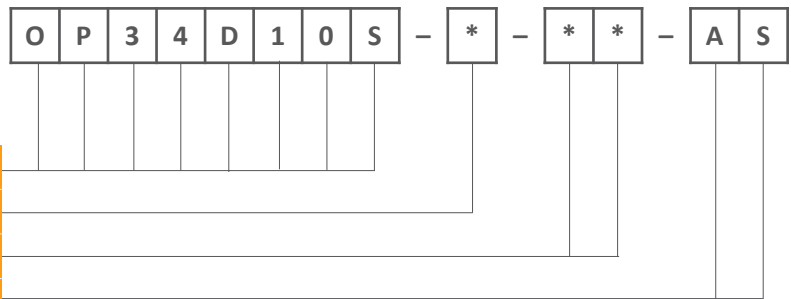
10-channel CWDM Demultiplexer

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

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

AS = SC/APC Connector

RELATED PRODUCTS

CH3000	OP94M10
OP34M10S	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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Fiber-Deep   **DOCSIS® 3.1**   **Node Segmentation**   **HPON™/RFoG**   **FTTx**