

# Optical Passives (ISP)

OP35M8x-1-99-AS, OP35D8x-1-99-AS

DWDM Mux and Demux Modules

8 Channels on 100 GHz-spaced ITU Grid

(with -20 dB Line Monitoring Taps and Cascade Ports)

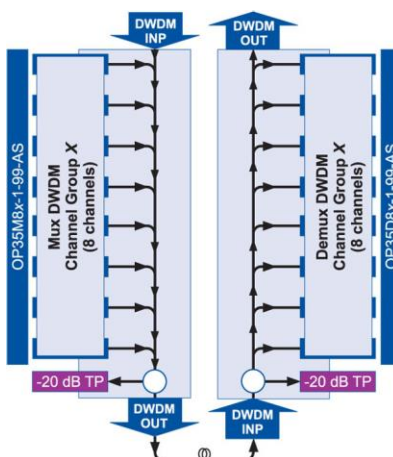
## FEATURES

- 8-channel optical mux and demux modules with line monitoring taps (-20 dB from mux output or demux input) and cascade ports
- Channels spaced on standard 100 GHz DWDM ITU grid
- Flat-top passband
- High optical isolation
- Supports both forward and return path transmission of analog and digital signals
- Mux and demux pair optimized for minimum combined insertion loss across all channels
- SC/APC connectors ensure performance repeatability, compatibility, and easy installation and maintenance
- Industry's highest packaging density (up to 32 modules per chassis)
- Occupies one half-depth slot
- LGX chassis-compatible



## PRODUCT OVERVIEW

The ARRIS OP35M8x-1-99-AS and OP35D8x-1-99-AS series 8-channel DWDM multiplexers and demultiplexers facilitate DWDM architectures. DWDM technology can dramatically increase network capacity without requiring additional fiber be deployed for super-trunking or narrowcasting applications. ARRIS supports DWDM architectures with a variety of products having 100 GHz center frequency spacing on the standard DWDM ITU Grid (ITU-T G.694.1) for 40 channels from Channel 20 to Channel 59. In many of ARRIS's products, these channels are logically partitioned into groups of 4, 8, or 16 channels (with letters used to designate channel groups). This concept is employed in the OP35M8x and OP35D8x series of 8-channel mux and demux modules.



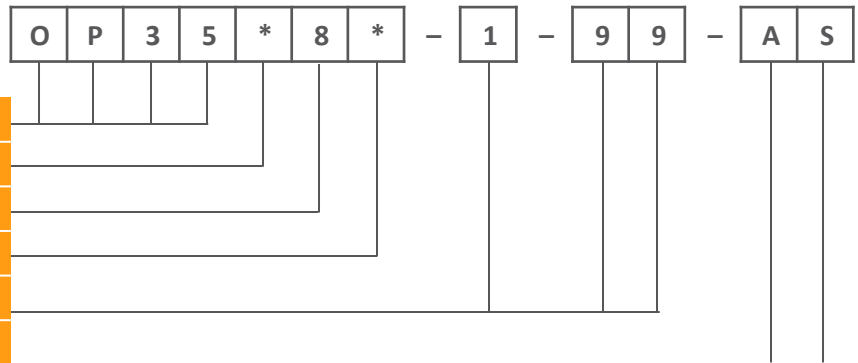
## SPECIFICATIONS

Characteristics	Specification
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Physical							
Dimensions	6.5" D x 5.3" H x 2.0" W (3RU) (16.5 cm x 13.5 cm x 5.1 cm)						
Weight	2.0 lbs (0.9 kg)						
Environmental							
Operating Temperature Range	-20°C to +65°C (-4°F to +149°F)						
Storage Temperature Range	-40°C to +85°C (-40°F to +185°F)						
Humidity	5% to 95% non-condensing						
Optical (all models)							
Return loss, min (dB)	45						
Polarization dependent loss, max (typ) (dB)	0.2 (0.1)						
Ripple within passband, max (dB)	0.5						
Channel spacing	100 GHz (ITU grid)						
Wavelength passthrough	1420–1610 nm						
Insertion losses, max <sup>1</sup> (dB)	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"></td> <td style="text-align: center; border: none;"><b>Mux Module</b></td> <td style="text-align: center; border: none;"><b>Demux Module</b></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none; text-align: center;">OP35M8x-1-99-AS</td> <td style="border: none; text-align: center;">OP35D8x-1-99-AS</td> </tr> </table>		<b>Mux Module</b>	<b>Demux Module</b>		OP35M8x-1-99-AS	OP35D8x-1-99-AS
	<b>Mux Module</b>	<b>Demux Module</b>					
	OP35M8x-1-99-AS	OP35D8x-1-99-AS					
Ch yy INP to DWDM OUT	2.8	N/A					
DWDM INP to Ch yy OUT	N/A	2.8					
Paired insertion loss <sup>2</sup>	3.8	3.8					
DWDM INP to DWDM OUT	2.8	2.8					
Uniformity, max <sup>2</sup> (dB)							
Module	1.8	1.8					
Paired	1.2	1.2					
Passband @ 0.5 dB (nm)	± 0.12	± 0.12					
Directivity, input ports, min (dB)	55	N/A					
Directivity, pass-through port, min (dB)	45	N/A					
Isolation, adjacent channel, min (dB)	N/A	30					
Isolation, non-adjacent channel, min (dB)	N/A	45					
Power handling, any input port, max (dBm)	21.8	24.8					
Optical Interface							
Optical connectors	SC/APC						
Model OP35M8x-1-99-AS	<ul style="list-style-type: none"> <li>DWDM INP (input from previous mux)</li> <li>Ch yy INP (8 channel add inputs for Channel Group x)</li> <li>DWDM OUT (output to fiber network or next mux)</li> <li>TP -20 dB (1% tap, test point from DWDM OUT)</li> </ul>						
Model OP35D8x-1-99-AS	<ul style="list-style-type: none"> <li>DWDM INP (input from fiber network or previous demux)</li> <li>Ch yy (8 channel drop outputs for Channel Group x)</li> <li>DWDM OUT (to next demux)</li> <li>TP -20 dB (1% tap, test point from DWDM INP)</li> </ul>						

**NOTES:**  
 1. Including connectors;  
 2. Paired insertion loss when combined with 8-ch demux module from Ch yy INP to Ch yy OUT, and vice-versa

**ORDERING INFORMATION**



- Optical Passive Mux/Demux Module
- \* = Module Type (M = Mux, D = Demux)
- 8-channel Module
- \* = DWDM ITU Channel Group
- 1-99 = Cascade (Pass-through) Port and -20 dB Test Port included
- AS = SC/APC Connector

**Note:**

8-channel mux and demux modules are available for Channel Groups K, M, P, S, and U. Please refer to the ARRIS DWDM ITU Grid Channel Plan data sheet for a complete description of the channels included in these groups.

**RELATED PRODUCTS**

CH3000 Chassis	Optical Patch Cords
Optical Transmitters	Optical Passives
HPON™	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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