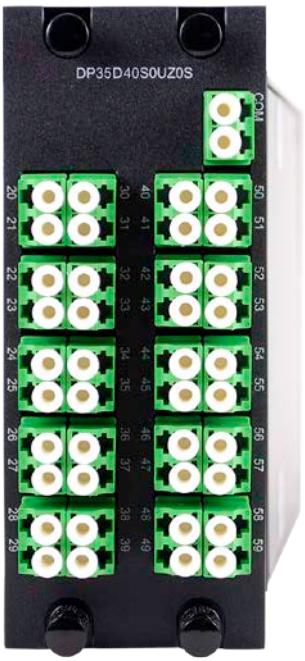
Optical Passives (ISP)

DP35Dxx

8, 10, 20, and 40-channel ISP DWDM Demuxes

FEATURES

- 8-, 10-, 20-, and 40-channel optical de-multiplexer modules
- Indoor demux companions to ARRIS's outdoor DP95M or indoor DP35M series DWDM mux cassettes
- LGX chassis-compatible for inside-plant controlled indoor environments
- 100 GHz DWDM ITU channel spacing (ITU-T G694.1)
- EXP express port for dropping wavelengths outside the DWDM C band (available for selected models)
- UPG upgrade port for cascading with other DWDM de-multiplexers (available for selected models)
- Separate -20 dB test ports for Tx and Rx signal monitoring (available for selected models)
- LC/APC or LC/UPC connectors options



PRODUCT OVERVIEW

ARRIS DP35D-Series DWDM optical demuxes are intended for applications in controlled indoor environments. They are typically paired with compatible DP95M-Series outdoor or DP35M-Series indoor DWDM multiplexer modules.

The DP35D-Series is designed to de-multiplex 8, 10, 20, or 40 DWDM wavelengths with 100 GHz frequency spacing on the DWDM ITU Grid (ITU-T G.694.1). Selected models also have an EXP express port (for dropping other wavelengths outside the C-band), a UPG upgrade port (for daisy-chain cascading of other DWDM wavelengths), and separate -20 dB test port line monitoring taps (for Tx and Rx signal paths).

These modules are compatible with industry-standard LGX chassis.

SPECIFICATIONS

Characteristics	Specification	
Physical		
Dimensions	LGX module	
	xx = channel count	**Dimensions (mm)**
	xx = 8	27 W x 163 D x 130 H (1-slot wide)
	xx = 10	27 W x 163 D x 130 H (1-slot wide)
	xx = 20	52 W x 163 D x 130 H (2-slot wide)
	xx = 40	52 W x 163 D x 130 H (2-slot wide)
Weight	1.5 lbs (0.68 kg)	
Environmental		
Operating temperature range (indoor)	–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 Interface		
Optical ports	• DWDM ITU channel output ports (See Table 2) • COM: Input from fiber network • EXP (if applicable): Express port to cascade wavelengths outside DWDM ITU 19-63 • UPG (if applicable): Upgrade port to cascade DWDM channels from another DWDM demux • TP-Tx (if applicable): Unidirectional -20 dB tap off COM • TP-Rx (if applicable): Unidirectional -20 dB tap off COM	
Optical connector options	• LC/APC • LC/UPC	
Optical		
Channel Spacing	100 GHz grid (ITU-T G.694.1)	
Channel Passband @ 0.5 dBc points	• COM to Channel xx: Center wavelength +/- 0.125 mm • COM to UPG: 1527.22 – 1564.68. ITU channels 16-63 • COM to EXP: 1260-1520 and 1570-1635	
Insertion Loss, max: (*including connectors*)	• COM to Channel xx: (See Table 1) • Paired: (See Table 1) • COM to UPG: (See Table 1) • COM to EXP: 3 dB • COM to TP-Tx: 20.4 • COM to TP-Rx: 20.4	
Module uniformity, max	2 dB	
Paired uniformity, max	1 dB	
Ripple within passband	0.5 dB	
Isolation	Adjacent channels, min (COM to xx): 30 dB Non-adjacent channels, min (COM to xx): 45 dB Non-adjacent channels, min (COM to EXP): 12 dB	
Return loss, min	45 dB	
Polarization-dependent loss, max	0.25 dB	
Thermal wavelength shift, max	0.002/°C	
Insertion loss variation over temperature, min	0.01 dB/°C	
Power handling, max (any port)	21.8 dBm	

TABLE 1: INSERTION LOSS[1] (dB), DP35Dxx

Model Type	Channel Count	Channel Input to COM	Paired Loss[2]	COM to UPG
DP35D08S0iB2S (i = V, W, or X)	8	3.3	5.2[3]	3.1
DP35D10S0iA1S (i = 2, 3, 4, or 5)	10	2.9	4.0[4] 3.8[5]	2.7
DP35D20S0iB2S (I = N or U)	20	4.7	6.6[6]	4.2
DP35D40S0UB2S-0LB (with EXP and UPG and two uni-directional test ports; based on thin-film filter technology)	40	5.5	7.4[7] 6.9[8]	5.0
DP35D40S0UZ0S-0LB (with no EXP or UPG or test port; based on thin-film filter technology)	40	4.4	6.9[9] 5.9[10]	*N/A*
DP35D40S0UZ0S-0LN (with no EXP or UPG or test port; based on arrayed waveguide technology)	40	4.3	8.9[11] 9.4[12]	*N/A*

NOTES:

1. These specifications include optical connector losses.
2. Insertion loss between multiplexer channel input and the correspondng de-mulitplexer channel output for the specified pairings in the footnotes below
3. DP35D08S0iB2S demux/DP35M08S0iB2S mux pair
4. DP35D10S0iA1S demux/DP35M10S0iA1S mux pair
5. DP35D10S0iA1S demux/DP95M10S0iA0S mux pair (Subtract 0.1 dB per connector for outdoor devices with no connector.)
6. DP35D20S0iB2S demux/DP35M20S0iB2S or DP95M20S0iB2S mux pair (Subtract 0.1 dB per connector for outdoor devices with no connector.)
7. DP35D40S0UB2S-0LB demux/DP35M40S0UB2S-0LB mux pair
8. DP35D40S0UB2S-0LB demux/DP35M40S0UZ0S-0LB mux pair
9. DP35D40S0UZ0S-0LB demux/DP35M40S0UB2S-0LB mux pair
10. DP35D40S0UZ0S-0LB demux/DP35M40S0UZ0S-0LB mux pair
11. DP35D40S0UZ0S-0LN demux/DP35M40S0UZ0S-0LN mux pair
12. DP35D40S0UZ0S-0LN demux/DP95M40S0UZ2S-0LN mux pair (Subtract 0.1 dB per connector for outdoor devices with no connector.)

TABLE 2: ITU G.694 WAVELENGTH TABLE AND CORRESPONDING DP35Dxx MODELS

ITU Channel Plan						
8-channel DP35D08S0y, y =	**10-channel DP35D10S0y, y =**	**20-channel DP35D20S0y, y =**	**40-channel DP35D10S0y, y =**	**Channel #**	**Optical frequency (THz)**	**Wavelength (nm)**
V (Channels 22,25,26,27, 28,30,31,32)	2	N	U	20	192.0	1561.419
				21	192.1	1560.606
				22	192.2	1559.794
				23	192.3	1558.983
				24	192.4	1558.173
				25	192.5	1557.363
				26	192.6	1556.555
				27	192.7	1555.747
				28	192.8	1554.940
				29	192.9	1554.134
	3			30	193.0	1553.329
				31	193.1	1552.524
				32	193.2	1551.721
				33	193.3	1550.918
W (Channels 34,36,37,38, 39,40,41,43)				34	193.4	1550.116
				35	193.5	1549.315
				36	193.6	1548.515
				37	193.7	1547.715
				38	193.8	1546.917
				39	193.9	1546.119
	4	U		40	194.0	1545.322
				41	194.1	1544.526
				42	194.2	1543.730
				43	194.3	1542.936
				44	194.4	1542.142
X (Channels 45,46,48,49, 50,53,55,56)				45	194.5	1541.349
				46	194.6	1540.557
				47	194.7	1539.766
				48	194.8	1538.976
				49	194.9	1538.186
	5			50	195.0	1537.397
				51	195.1	1536.609
				52	195.2	1535.822
				53	195.3	1535.036
				54	195.4	1534.250
				55	195.5	1533.465
				56	195.6	1532.681
				57	195.7	1531.898
				58	195.8	1531.116
				59	195.9	1530.334

ORDERING INFORMATION

Part Number	Description
DP35D08S0iB2S-0LB-yz	8-channel de-multiplexer with EXP and UPG ports and two uni-directional test ports i = V, W, or X (See Table 2 above for definitions of ITU channel groups.) yz = UL (LC/UPC connectors)
DP35D10S0iA1S-0LC-yz	10-channel de-multiplexer with UPG port and one bi-directional test port i = 2, 3, 4, or 5 (See Table 2 above for definitions of ITU channel groups.) yz = AL (LC/APC connectors) or UL (LC/UPC connectors)
DP35D20S0iB2S-0LB-yz	20-channel de-multiplexer with EXP and UPG ports and two uni-directional test ports i = N or U (See Table 2 above for definitions of ITU channel groups.) yz = AL (LC/APC connectors) or UL (LC/UPC connectors)
DP35D40S0UB2S-0LB-yz	40-channel de-multiplexer with EXP and UPG ports and two uni-directional test ports (See Table 2 above for definition of ITU channel group U.) yz = AL (LC/APC connectors) or UL (LC/UPC connectors)
DP35D40S0UZ0S-0Lt-yz	40-channel de-multiplexer with no EXP or UPG port and no test port (See Table 2 above for definition of ITU channel group U.) t = B (thin-film filter technology) or N (Arrayed Waveguide technology) yz = AL (LC/APC connectors) or UL (LC/UPC connectors)

RELATED PRODUCTS

DP95M-Series OSP DWDM multiplexer modules	DP35M-Series ISP DWDM mux cassettes
Installation Services	Industry-standard LGX chassis

Customer Care

Contact Customer Care for product information and sales:

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- International: +1-678-473-5656

Note: Specifications are subject to change without notice.

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