

Optical Passives (ISP)

NP35M04, NP35D04

CFx DWDM Mux and Demux Modules 4 Channels on 100 GHz-spaced ITU Grid

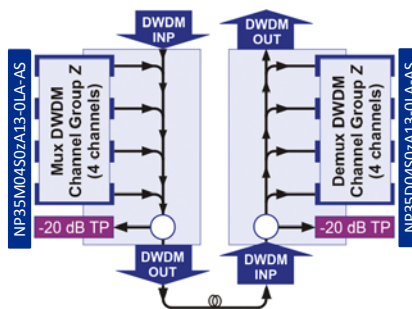
FEATURES

- 4-channel optical mux and demux modules with cascade ports for daisy-chaining of multiple modules
- Groups of channels specifically selected for use with AT3545G series Full Spectrum DWDM Transmitters
- Flat-top passband
- High optical isolation
- Mux and demux pairs optimized for minimum combined insertion loss across all channels
- SC/APC connectors ensure performance repeatability, compatibility, and easy installation and maintenance
- Line monitoring tap (-20 dB from mux output or demux input)
- Industry's highest packaging density (up to 32 modules per chassis)
- Occupies one half-depth slot
- LGX chassis-compatible
- Replaces OP35M4-CFx, OP35D4-CFx



PRODUCT OVERVIEW

ARRIS's NP35M04 and NP35D04 series 4-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. This particular group of 4-channel mux and demux products are intended for use with ARRIS's AT3545G Full Spectrum DWDM Transmitters and are available with four different combinations of four DWDM channels.



SPECIFICATIONS

Characteristics	Specification
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Physical	
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Dimensions	6.5" D x 5.3" H x 1.0" W (3RU) (16.5 cm x 13.5 cm x 2.5 cm)
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Weight	0.8 lbs (0.4 kg)
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Environmental	
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Operating Temperature Range	-20° to +65°C (-4° to +149°F)
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Storage Temperature Range	-40° to +85°C (-40° to +185°F)
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Humidity	5% to 95% non-condensing
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Optical (all models)	
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Return loss, min	45 dB
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Polarization dependent loss, max (typ)	0.2 (0.1) dB
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Ripple within passband, max	0.5 dB
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Channel spacing	100 GHz (ITU grid)
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Power handling, max (any input port)	24.8 dBm
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Wavelength passthrough	1420–1610 nm
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Insertion losses, max ¹ (dB)		
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	Mux Module	Demux Module
	NP35M04S0xA1 <i>(with -20 dB T.P.)</i>	NP35D04S0xA1 <i>(with -20 dB T.P.)</i>

Ch yy INP to DWDM OUT	1.8	N/A
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DWDM INP to Ch yy OUT	N/A	1.8
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Paired insertion loss ²	2.9	2.9
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DWDM INP to DWDM OUT	1.4	1.4
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DWDM OUT to -20 dB Tap Ratio, max ¹ (dB)	20.4	20.4
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Uniformity, max¹ (dB)		
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Module	0.8	0.8
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Paired	0.6	0.6
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Passband @ 0.5 dB (nm)	± 0.12	± 0.12
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Directivity, input ports, min (dB)	55	N/A
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Directivity, passthrough port, min (dB)	45	N/A
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Isolation, adjacent channel, min (dB)	N/A	30
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Isolation, non-adjacent channel, min (dB)	N/A	45
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Optical Interface	
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Optical connectors	SC/APC
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Model NP35M04S0xA1 (for x = 1, 2, 3 or 4)	<ul style="list-style-type: none"> DWDM INP (input from previous mux) Ch yy (4 channel add inputs for Custom Channel Group x) DWDM OUT (output to fiber network or next mux) TP -20 dB (1% tap, test point from DWDM OUT)
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Model NP35D04S0xA1 (for x = 1, 2, 3 or 4):	<ul style="list-style-type: none"> DWDM INP (input from fiber network or previous demux) Ch yy (4 channel drop outputs for Custom Channel Group x) DWDM OUT (to next demux) TP -20 dB (1% tap, test point from DWDM INP)
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ITU Channel Plans	
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ARRIS supports DWDM network architectures with a variety of products having 100 GHz center frequency spacing on the standard DWDM ITU Grid (ITU-T G.694.1). NP35M04 and NP35D04 4-channel Optical Mux and Demux Modules (for which outputs can be cascaded from one to another) are available for the following custom channel groups:

- CF1: ITU Channels 20, 21, 24, and 29
- CF2: ITU Channels 35, 42, 52, and 54
- CF3: ITU Channels 23, 33, 44, and 47
- CF4: ITU Channels 51, 57, 58, and 59

NOTES:

1. Including connectors;
2. Paired insertion loss when combined with 4-ch demux module from Ch yy INP to Ch yy OUT, and vice-versa

ORDERING INFORMATION

N	P	3	5	*	0	4	S	0	*	A	*	*	-	0	L	A	-	A	S
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- * Device type = M (multiplexer); = D (de-multiplexer)
- * Channel group number
 = 1 [CF1 (ITU channels 20, 21, 24, and 29)];
 = 2 [CF2 (ITU channels 35, 42, 52, and 54)];
 = 3 [CF3 (ITU channels 23, 33, 44, and 47)];
 = 4 [CF4 (ITU channels 51, 57, 58, and 59)]
- * = 0 (no test point); = 1 (test point present)
- * Filter grade = 1 (for fewer than 30 analog channels); = 2 (for fewer than 79 analog channels), or = 3 (for all-QAM RF payload)

RELATED PRODUCTS

CH3000 Chassis	Optical Patch Cords
Optical Transmitters	Optical Passives
PF3000	LGX Chassis

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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