

Optical Passives (ISP)

NP35M16, NP35D16

DWDM Mux and Demux Modules

(16 Channels on 100 GHz-spaced ITU Grid)

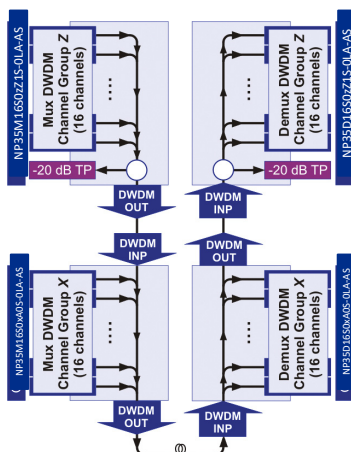
FEATURES

- 16-channel optical mux and demux modules
- Channels spaced on standard 100 GHz DWDM ITU grid
- Flat-top passband
- High optical isolation
- Supports both forward and return path transmission
- Suitable for externally modulated, base-band digital and narrowcasting applications
- Mux and demux pairs optimized for minimum combined insertion loss across all channels
- Some models available with cascade (pass-through) port or line monitoring tap (-20 dB from mux output or demux input)
- Telcordia GR-1209 and GR-1221 qualified
- LGX chassis-compatible
- Replaces OP35M16 and OP35D16



PRODUCT OVERVIEW

The ARRIS NP35M16 and NP35D16 series 16-channel DWDM multiplexers and demultiplexers facilitate DWDM architectures. DWDM technology can dramatically increase network capacity without requiring additional fiber be deployed. 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). 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). That concept is employed in the NP35M16 and NP35D16 series of 16-channel mux and demux modules.



SPECIFICATIONS

Characteristics	Specification					
Physical						
Dimensions	6.5" D x 5.3" H x 1.0" W (3RU) (16.5 cm x 13.5 cm x 2.54 cm) for models with LC optical connectors 6.5" D x 5.3" H x 2.0" W (3RU) (16.5 cm x 13.5 cm x 5.1 cm) for models with SC optical connectors					
Weight	2.0 lbs (0.9 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					
Polarization Dependent Loss, max (typ)	0.2 (0.1) dB					
Ripple within Passband, max (dB)	<i>NP35M1650xA05-OLA-AS</i>			<i>NP35M1650EA15/NP35D1650EA15 (CORWave® 3)</i>		
	0.5			0.2		
Wavelength Pass-through	1420–1610 nm with notches at the multiplexed and demultiplexed channels			1423.5–1617.5 nm with notches at the multiplexed and demultiplexed channels and at ITU channels 40, 41, 42, and 43		
Channel Spacing	100 GHz (ITU grid) (See the tables in the Ordering Information section for supported wavelength channel plans.)					
Insertion Losses, max ¹ (dB)	Mux Modules			Demux Modules		
	<i>NP35M1650xA05 (with cascade; no T.P.)</i>	<i>NP35M1650xZ15 (no cascade; with T.P.)</i>	<i>NP35M1650EA15 (CORWave 3; with cascade and T.P.)</i>	<i>NP35D1650xA05 (with cascade; no T.P.)</i>	<i>NP35D1650xZ15 (no cascade; with T.P.)</i>	<i>NP35D1650EA15 (CORWave 3; with cascade and T.P.)</i>
Ch yy INP to DWDM OUT	4.2	4.4	3.0	N/A	N/A	N/A
DWDM INP to Ch yy OUT	N/A	N/A	N/A	4.2	4.4	3.0
Paired Insertion Loss ²	5.0	5.4	4.4	5.0	5.4	4.4
DWDM INP to DWDM OUT	3.9	N/A	N/A	3.9	N/A	N/A
DWDM OUT to -20 dB Tap Ratio, max ¹ (dB)	N/A	20.4	N/A	N/A	20.4	N/A
Uniformity, max ¹ (dB)						
Module	3.0	3.0	1.7	3.0	3.0	1.7
Paired	1.6	1.6	1.0	1.6	1.6	1.0
Passband @ 0.5 dB (nm)	± 0.12	± 0.12	± 0.12	± 0.12	± 0.12	± 0.12
Directivity, min (dB)	55	55	55	55	55	55
Isolation, Adjacent Channel, min (dB)	30	30	30	30	30	30
Isolation, Non-adjacent Channel, min (dB)	45	45	45	45	45	45
Power Handling, any Input Port, max (dBm)	21.8	21.8	21.8	24.8	24.8	24.8

NOTES:

- Including connectors
- Paired insertion loss when combined with 16-ch demux module from Ch yy INP to Ch yy OUT, and vice-versa

CHANNEL PLAN DEFINITIONS

Channel Group	ITU Channel #	Wavelength (nm)	Optical frequency (THz)	Channel Group	ITU Channel #	Wavelength (nm)	Optical frequency (THz)
E (CORWave 3)	Channel # 21	1560.606	192.1	S	Channel # 36	1548.515	193.6
	Channel # 22	1559.794	192.2		Channel # 37	1547.715	193.7
	Channel # 24	1558.173	192.4		Channel # 38	1546.917	193.8
	Channel # 26	1556.555	192.6		Channel # 39	1546.119	193.9
	Channel # 28	1554.940	192.8		Channel # 40	1545.322	194.0
	Channel # 33	1550.918	193.3		Channel # 41	1544.526	194.1
	Channel # 36	1548.515	193.6		Channel # 42	1543.730	194.2
	Channel # 39	1546.119	193.9		Channel # 43	1542.936	194.3
	Channel # 44	1542.142	194.4		Channel # 44	1542.142	194.4
	Channel # 48	1538.976	194.8		Channel # 45	1541.349	194.5
	Channel # 52	1535.822	195.2		Channel # 46	1540.557	194.6
	Channel # 54	1534.250	195.4		Channel # 47	1539.766	194.7
	Channel # 57	1531.898	195.7		Channel # 48	1538.976	194.8
	Channel # 60	1529.550	196.0		Channel # 49	1538.186	194.9
Channel # 61	1528.770	196.1	Channel # 50	1537.397	195.0		
Channel # 62	1527.990	196.2	Channel # 51	1536.609	195.1		
M	Channel # 20	1561.419	192.0	U	Channel # 44	1542.142	194.4
	Channel # 21	1560.606	192.1		Channel # 45	1541.349	194.5
	Channel # 22	1559.794	192.2		Channel # 46	1540.557	194.6
	Channel # 23	1558.983	192.3		Channel # 47	1539.766	194.7
	Channel # 24	1558.173	192.4		Channel # 48	1538.976	194.8
	Channel # 25	1557.363	192.5		Channel # 49	1538.186	194.9
	Channel # 26	1556.555	192.6		Channel # 50	1537.397	195.0
	Channel # 27	1555.747	192.7		Channel # 51	1536.609	195.1
	Channel # 28	1554.940	192.8		Channel # 52	1535.822	195.2
	Channel # 29	1554.134	192.9		Channel # 53	1535.036	195.3
	Channel # 30	1553.329	193.0		Channel # 54	1534.250	195.4
	Channel # 31	1552.524	193.1		Channel # 55	1533.465	195.5
	Channel # 32	1551.721	193.2		Channel # 56	1532.681	195.6
	Channel # 33	1550.918	193.3		Channel # 57	1531.898	195.7
	Channel # 34	1550.116	193.4		Channel # 58	1531.116	195.8
	Channel # 35	1549.315	193.5		Channel # 59	1530.334	195.9
P	Channel # 28	1554.940	192.8				
	Channel # 29	1554.134	192.9				
	Channel # 30	1553.329	193.0				
	Channel # 31	1552.524	193.1				
	Channel # 32	1551.721	193.2				
	Channel # 33	1550.918	193.3				
	Channel # 34	1550.116	193.4				
	Channel # 35	1549.315	193.5				
	Channel # 36	1548.515	193.6				
	Channel # 37	1547.715	193.7				
	Channel # 38	1546.917	193.8				
	Channel # 39	1546.119	193.9				
	Channel # 40	1545.322	194.0				
	Channel # 41	1544.526	194.1				
	Channel # 42	1543.730	194.2				
Channel # 43	1542.936	194.3					

ORDERING INFORMATION

Model Name	Description (See the channel plan definitions on Page 3.)
NP35M16S0EA1S-OLE-AL	<ul style="list-style-type: none"> DWDM INP (input from previous mux) Ch yy INP (16 channel add inputs for Channel Group E) DWDM OUT (output to fiber network or next mux) LC/APC connectors One bidirectional test port
NP35M16S0MA0S-OLA-AS	<ul style="list-style-type: none"> DWDM INP (input from previous mux) Ch yy INP (16 channel add inputs for Channel Group M) DWDM OUT (output to fiber network or next mux) SC/APC connectors No test port
NP35M16S0MA1S-OLA-AL	<ul style="list-style-type: none"> DWDM INP (input from fiber network) Ch yy INP (16 channel add inputs for Channel Group M) DWDM OUT (output to fiber network or next mux) LC/APC connectors One bidirectional test port
NP35M16S0MZ1S-OLA-AS	<ul style="list-style-type: none"> Ch yy INP (16 channel add inputs for Channel Group M) DWDM OUT (output to fiber network or next mux) One bidirectional test port SC/APC connectors
NP35M16S0PA0S-OLA-AS	<ul style="list-style-type: none"> DWDM INP (input from previous mux) Ch yy INP (16 channel add inputs for Channel Group P) DWDM OUT (output to fiber network or next mux) SC/APC connectors No test port
NP35M16S0PZ1S-OLA-AS	<ul style="list-style-type: none"> Ch yy INP (16 channel add inputs for Channel Group P) DWDM OUT (output to fiber network or next mux) One bidirectional test port SC/APC connectors
NP35M16S0SA0S-OLA-AS	<ul style="list-style-type: none"> DWDM INP (input from previous mux) Ch yy INP (16 channel add inputs for Channel Group S) DWDM OUT (output to fiber network or next mux) SC/APC connectors No test port
NP35M16S0SZ1S-OLA-AS	<ul style="list-style-type: none"> Ch yy INP (16 channel add inputs for Channel Group S) DWDM OUT (output to fiber network or next mux) One bidirectional test port SC/APC connectors
NP35M16S0UA0S-OLA-AS	<ul style="list-style-type: none"> DWDM INP (input from previous mux) Ch yy INP (16 channel add inputs for Channel Group U) DWDM OUT (output to fiber network or next mux) SC/APC connectors No test port
NP35M16S0UZ1S-OLA-AS	<ul style="list-style-type: none"> Ch yy INP (16 channel add inputs for Channel Group U) DWDM OUT (output to fiber network or next mux) One bidirectional test port SC/APC connectors
NP35D16S0EA1S-OLE-AL	<ul style="list-style-type: none"> DWDM INP (input from fiber network) Ch yy OUT (16 channel drop outputs for Channel Group E) DWDM OUT (output to next demux) LC/APC connectors One bidirectional test port
NP35D16S0MA0S-OLA-AS	<ul style="list-style-type: none"> DWDM INP (input from fiber network) Ch yy OUT (16 channel drop outputs for Channel Group M) DWDM OUT (output to next demux) SC/APC connectors No test port
NP35D16S0MA1S-OLA-AL	<ul style="list-style-type: none"> DWDM INP (input from fiber network) Ch yy OUT (16 channel drop outputs for Channel Group M) DWDM OUT (output to next demux) LC/APC connectors One bidirectional test port
NP35D16S0MZ1S-OLA-AS	<ul style="list-style-type: none"> DWDM INP (input from fiber network) Ch yy OUT (16 channel drop outputs for Channel Group M) One bidirectional test port SC/APC connectors

ORDERING INFORMATION CONTINUED

Model Name	Description (See the channel plan definitions on Page 3.)
NP35D16S0PA0S-0LA-AS	<ul style="list-style-type: none"> DWDM INP (input from fiber network) Ch yy OUT (16 channel drop outputs for Channel Group P) DWDM OUT (output to next demux) SC/APC connectors No test port
NP35D16S0PZ1S-0LA-AS	<ul style="list-style-type: none"> DWDM INP (input from fiber network) Ch yy OUT (16 channel drop outputs for Channel Group P) One bidirectional test port SC/APC connectors
NP35D16S0SA0S-0LA-AS	<ul style="list-style-type: none"> DWDM INP (input from fiber network) Ch yy OUT (16 channel drop outputs for Channel Group S) DWDM OUT (output to next demux) SC/APC connectors No test port
NP35D16S0SZ1S-0LA-AS	<ul style="list-style-type: none"> DWDM INP (input from fiber network) Ch yy OUT (16 channel drop outputs for Channel Group S) One bidirectional test port SC/APC connectors
NP35D16S0UA0S-0LA-AS	<ul style="list-style-type: none"> DWDM INP (input from fiber network) Ch yy OUT (16 channel drop outputs for Channel Group U) DWDM OUT (output to next demux) SC/APC connectors No test port
NP35D16S0UZ1S-0LA-AS	<ul style="list-style-type: none"> DWDM INP (input from fiber network) Ch yy OUT (16 channel drop outputs for Channel Group U) One bidirectional test port SC/APC connectors

RELATED PRODUCTS

CH3000 Chassis	Optical Patch Cords
Optical Transmitters	Optical Passives
PF3000	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.

Copyright Statement: © 2021 CommScope, Inc. All rights reserved. ARRIS, the ARRIS logo, and CORWave are trademarks of CommScope, Inc. and/or its affiliates. All other trademarks are the property of their respective owners. No part of this content may be reproduced in any form or by any means or used to make any derivative work (such as translation, transformation, or adaptation) without written permission from CommScope, Inc and/or its affiliates ("CommScope"). CommScope reserves the right to revise or change this content from time to time without obligation on the part of CommScope to provide notification of such revision or change.

1510812_RevD_NP35M16D16_DWDM-Mux-Demux_100GHz

03/2021 EA-32937

Ask us about the complete Access Technologies Solutions portfolio:

ISP-NP35M16/D16