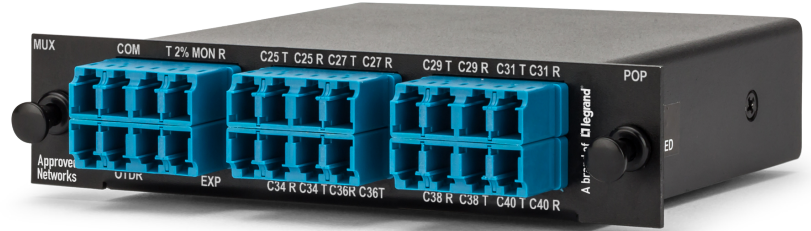


Features:

- 16 +1 Channel Single Fiber DWDM Mux + EXP with OTDR for 8 Skip 1 Channel Plan
- Channel Wavelengths: DWDM CH. 25 to CH. 32 + CH. 34 to CH. 41 + EXP
- OTDR Port: 1600nm to 1670nm
- Channel Spacing: 100GHz
- Reliability: Telcordia GR-1209, GR-1221
- Maximum Optical Power: 300mW
- Connector Type - All Ports: LC/UPC
- Operating Temperature: -40 to 85°C
- Storage Temperature: -40 to 85°C
- Dimensions: 100mm x 100mm x 28.5mm
- Faceplate: 130mm



1. Optical Requirements

Parameter	Value
Passband Width, Channel Ports at -0.5dB	ITU \geq 25GHz
Passband Width, Channel Ports at -3dB	ITU \geq 72.5GHz
Passband Width, OTDR Port	1600nm - 1670nm
Band Pass Express, Express Port	1260nm - 1580nm (see exclusions)
Band Pass Express Exclusions (Blocked Frequencies), (Min.)	CH. 24 to CH. 42, 1260nm to 1400nm,
Passband Ripple (Max.)	\leq 0.5dB
Isolation, Adjacent Channel - DWDM (Min.)	\geq 30dB
Isolation, Non-Adjacent Channel - DWDM (Min.)	\geq 40dB
Isolation, OTDR Port	30dB
Isolation, Express Channel (Min.)	\geq 12dB
Return Loss - All Ports (Min., Including Connectors)	\geq 45dB
Directivity - DWDM Ports (Min.)	\geq 50dB
Polarization Dependent Loss (Max.)	\leq 0.2dB
Polarization Mode Dispersion (Max.)	\leq 0.2ps

2. Insertion Loss

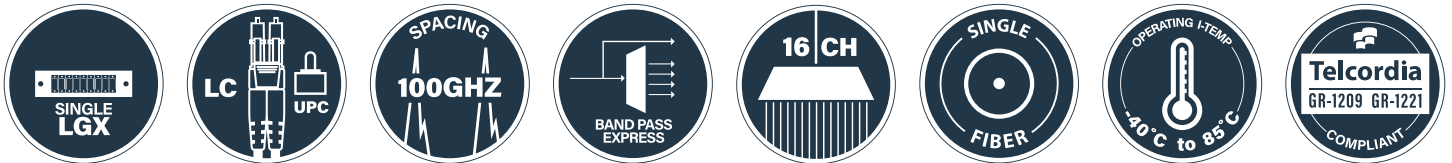
Parameter	Value
DWDM Channel Insertion Loss (Typ., Incl. Connectors)	3.9dB
DWDM Channel Insertion Loss (Max., Incl. Connectors)	≤ 4.1dB
OTDR Port Insertion Loss (Typ., Incl. Connectors)	0.8dB
OTDR Port Insertion Loss (Max., Incl. Connectors)	≤ 1.0dB
Express Insertion Loss (Typ., Incl. Connectors)	1.3dB
Express Insertion Loss (Max., Incl. Connectors)	≤ 1.5dB
MON Port Insertion Loss (Incl. Connectors)	23.1dB Rx/19.0dB Tx

3. Individual Channel Losses

Channel	Typical	Max
Ch. 25 Rx	2.1	2.3
Ch. 25 Tx	2.4	2.6
Ch. 27 Rx	2.7	2.9
Ch. 27 Tx	2.9	3.1
Ch. 29 Rx	3.1	3.3
Ch. 29 Tx	3.3	3.5
Ch. 31 Rx	3.5	3.7
Ch. 31 Tx	3.5	3.7
Ch. 34 Rx	2.4	2.6
Ch. 34 Tx	2.7	2.9
Ch. 36 Rx	2.9	3.1
Ch. 36 Tx	3.1	3.3
Ch. 38 Rx	3.3	3.5
Ch. 38 Tx	3.5	3.7
Ch. 40 Rx	3.7	3.9
Ch. 40 Tx	3.9	4.1
EXP	1.3	1.5

Features:

- 16 + 1 Channel Single Fiber DWDM Demux + EXP with OTDR for 8 Skip 1 Channel Plan
- Channel Wavelengths: DWDM CH. 25 to CH. 32 + CH. 34 to CH. 41 + EXP
- OTDR Port: 1600nm to 1670nm
- Channel Spacing: 100GHz
- Reliability: Telcordia GR-1209, GR-1221
- Maximum Optical Power: 300mW
- Connector Type - All Ports: LC/UPC
- Operating Temperature: -40 to 85°C
- Storage Temperature: -40 to 85°C
- Dimensions: 100mm x 100mm x 28.5mm
- Faceplate: 130mm



1. Optical Requirements

Parameter	Value
Passband Width, Channel Ports at -0.5dB	ITU \geq 25GHz
Passband Width, Channel Ports at -3dB	ITU \geq 72.5GHz
Passband Width, OTDR Port	1600nm - 1670nm
Band Pass Express, Express Port	1260nm - 1580nm (see exclusions)
Band Pass Express Exclusions (Blocked Frequencies), (Min.)	CH. 24 to CH. 42, 1260nm to 1400nm,
Passband Ripple (Max.)	\leq 0.5dB
Isolation, Adjacent Channel - DWDM (Min.)	\geq 30dB
Isolation, Non-Adjacent Channel - DWDM (Min.)	\geq 40dB
Isolation, OTDR Port	30dB
Isolation, Express Channel (Min.)	\geq 12dB
Return Loss - All Ports (Min., Including Connectors)	\geq 45dB
Directivity - DWDM Ports (Min.)	\geq 50dB
Polarization Dependent Loss (Max.)	\leq 0.2dB
Polarization Mode Dispersion (Max.)	\leq 0.2ps

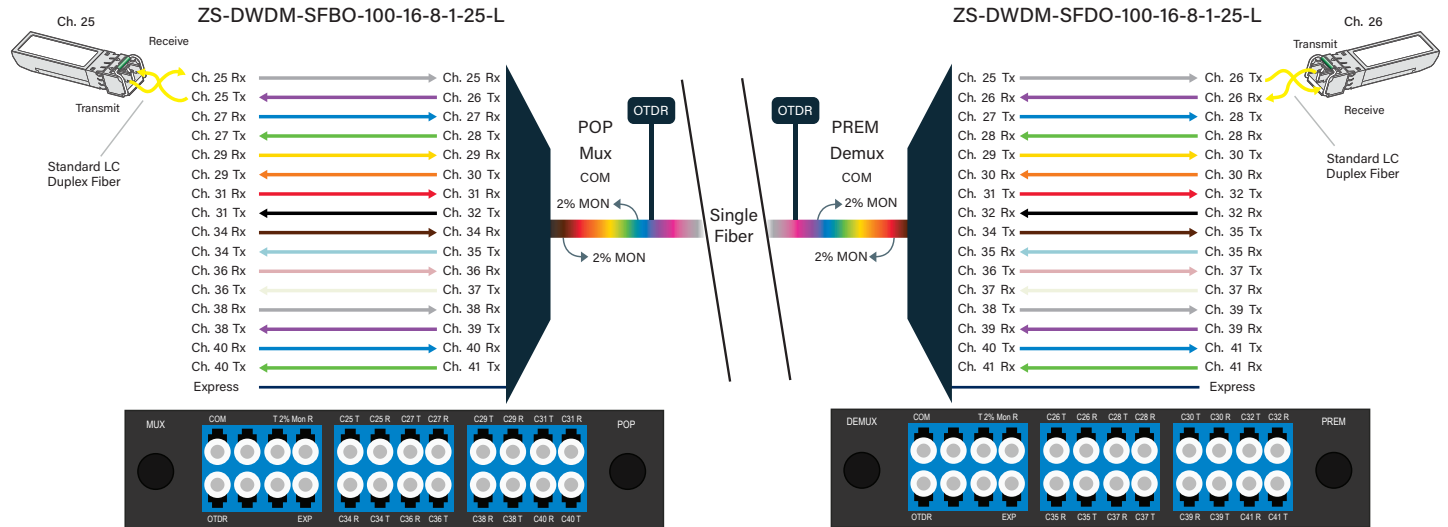
2. Insertion Loss

Parameter	Value
DWDM Channel Insertion Loss (Typ., Incl. Connectors)	3.9dB
DWDM Channel Insertion Loss (Max., Incl. Connectors)	≤ 4.1dB
OTDR Port Insertion Loss (Typ., Incl. Connectors)	0.8dB
OTDR Port Insertion Loss (Max., Incl. Connectors)	≤ 1.0dB
Express Insertion Loss (Typ., Incl. Connectors)	1.3dB
Express Insertion Loss (Max., Incl. Connectors)	≤ 1.5dB
MON Port Insertion Loss (Incl. Connectors)	23.1dB Rx/19.0dB Tx

3. Individual Channel Losses

Channel	Typical	Max
Ch. 41 Rx	2.1	2.3
Ch. 41 Tx	2.4	2.6
Ch. 39 Rx	2.7	2.9
Ch. 39 Tx	2.9	3.1
Ch. 37 Rx	3.1	3.3
Ch. 37 Tx	3.3	3.5
Ch. 35 Rx	3.5	3.7
Ch. 35 Tx	3.5	3.7
Ch. 32 Rx	2.4	2.6
Ch. 32 Tx	2.7	2.9
Ch. 30 Rx	2.9	3.1
Ch. 30 Tx	3.1	3.3
Ch. 28 Rx	3.3	3.5
Ch. 28 Tx	3.5	3.7
Ch. 26 Rx	3.7	3.9
Ch. 26 Tx	3.9	4.1
EXP	1.3	1.5

4. Network Diagram



5. Link Path Chart

ZS-DWDM-SFBO-100-16-8-1-25-L

ZS-DWDM-SFDO-100-16-8-1-25-L

Transceiver	Transceiver Port	WDM Filter Channel Label	WDM Port	WDM Internal Channel	WDM Internal Channel	WDM Internal Channel	WDM Port	WDM Filter Channel Label	Transceiver Port	Transceiver
25	Tx	>	25	Rx	25	>				
25	Rx	<	25	Tx	26	<				
27	Tx	>	27	Rx	27	>				
27	Rx	<	27	Tx	28	<				
29	Tx	>	29	Rx	29	>				
29	Rx	<	29	Tx	30	<				
31	Tx	>	31	Rx	31	>				
31	Rx	<	31	Tx	32	<				
34	Tx	>	34	Rx	34	>				
34	Rx	<	34	Tx	35	<				
36	Tx	>	36	Rx	36	>				
36	Rx	<	36	Tx	37	<				
38	Tx	>	38	Rx	38	>				
38	Rx	<	38	Tx	39	<				
40	Tx	>	40	Rx	40	>				
40	Rx	<	40	Tx	41	<				

Features:

- 16 + 1 Channel Single Fiber DWDM Demux + EXP with OTDR for 8 Skip 1 Channel Plan
- Channel Wavelengths: DWDM CH. 43 to CH. 50 + CH. 52 to CH. 59 + EXP
- OTDR Port: 1600nm to 1670nm
- Channel Spacing: 100GHz
- Reliability: Telcordia GR-1209, GR-1221
- Maximum Optical Power: 300mW
- Connector Type - All Ports: LC/UPC
- Operating Temperature: -40 to 85°C
- Storage Temperature: -40 to 85°C
- Dimensions: 100mm x 100mm x 28.5mm
- Faceplate: 130mm



1. Optical Requirements

Parameter	Value
Passband Width, Channel Ports at -0.5dB	ITU \geq 25GHz
Passband Width, Channel Ports at -3dB	ITU \geq 72.5GHz
Passband Width, OTDR Port	1600nm - 1670nm
Band Pass Express, Express Port	1260nm - 1580nm (see exclusions)
Band Pass Express Exclusions (Blocked Frequencies), (Min.)	CH. 42 to CH. 60, 1260nm to 1400nm,
Passband Ripple (Max.)	\leq 0.5dB
Isolation, Adjacent Channel - DWDM (Min.)	\geq 30dB
Isolation, Non-Adjacent Channel - DWDM (Min.)	\geq 40dB
Isolation, OTDR Port	30dB
Isolation, Express Channel (Min.)	\geq 12dB
Return Loss - All Ports (Min., Including Connectors)	\geq 45dB
Directivity - DWDM Ports (Min.)	\geq 50dB
Polarization Dependent Loss (Max.)	\leq 0.2dB
Polarization Mode Dispersion (Max.)	\leq 0.2ps

2. Insertion Loss

Parameter	Value
DWDM Channel Insertion Loss (Typ., Incl. Connectors)	3.9dB
DWDM Channel Insertion Loss (Max., Incl. Connectors)	≤ 4.1dB
OTDR Port Insertion Loss (Typ., Incl. Connectors)	0.8dB
OTDR Port Insertion Loss (Max., Incl. Connectors)	≤ 1.0dB
Express Insertion Loss (Typ., Incl. Connectors)	1.3dB
Express Insertion Loss (Max., Incl. Connectors)	≤ 1.5dB
MON Port Insertion Loss (Incl. Connectors)	23.1dB Rx/19.0dB Tx

3. Individual Channel Losses

Channel	Typical	Max
Ch. 43 Rx	2.1	2.3
Ch. 43 Tx	2.4	2.6
Ch. 45 Rx	2.7	2.9
Ch. 45 Tx	2.9	3.1
Ch. 47 Rx	3.1	3.3
Ch. 47 Tx	3.3	3.5
Ch. 49 Rx	3.5	3.7
Ch. 49 Tx	3.5	3.7
Ch. 52 Rx	2.4	2.6
Ch. 52 Tx	2.7	2.9
Ch. 54 Rx	2.9	3.1
Ch. 54 Tx	3.1	3.3
Ch. 56 Rx	3.3	3.5
Ch. 56 Tx	3.5	3.7
Ch. 58 Rx	3.7	3.9
Ch. 58 Tx	3.9	4.1
EXP	1.3	1.5

Features:

- 16 + 1 Channel Single Fiber DWDM Demux + EXP with OTDR for 8 Skip 1 Channel Plan
- Channel Wavelengths: DWDM CH. 43 to CH. 50 + CH. 52 to CH. 59 + EXP
- OTDR Port: 1600nm to 1670nm
- Channel Spacing: 100GHz
- Reliability: Telcordia GR-1209, GR-1221
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- Operating Temperature: -40 to 85°C
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1. Optical Requirements

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Passband Ripple (Max.)	\leq 0.5dB
Isolation, Adjacent Channel - DWDM (Min.)	\geq 30dB
Isolation, Non-Adjacent Channel - DWDM (Min.)	\geq 40dB
Isolation, OTDR Port	30dB
Isolation, Express Channel (Min.)	\geq 12dB
Return Loss - All Ports (Min., Including Connectors)	\geq 45dB
Directivity - DWDM Ports (Min.)	\geq 50dB
Polarization Dependent Loss (Max.)	\leq 0.2dB
Polarization Mode Dispersion (Max.)	\leq 0.2ps

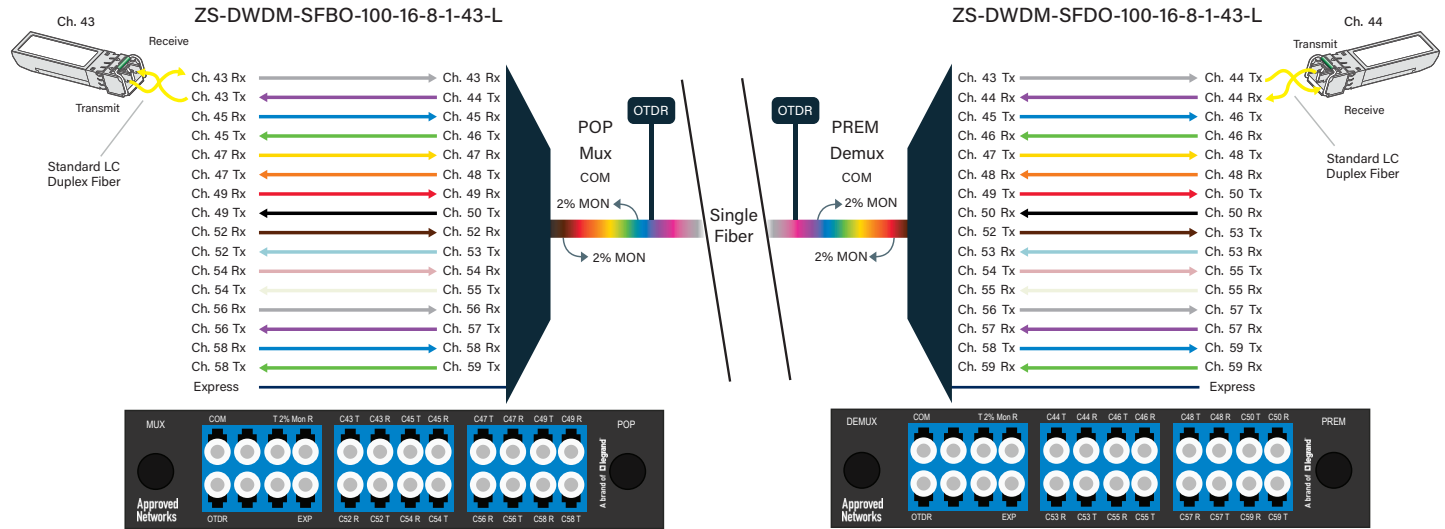
2. Insertion Loss

Parameter	Value
DWDM Channel Insertion Loss (Typ., Incl. Connectors)	3.9dB
DWDM Channel Insertion Loss (Max., Incl. Connectors)	≤ 4.1dB
OTDR Port Insertion Loss (Typ., Incl. Connectors)	0.8dB
OTDR Port Insertion Loss (Max., Incl. Connectors)	≤ 1.0dB
Express Insertion Loss (Typ., Incl. Connectors)	1.3dB
Express Insertion Loss (Max., Incl. Connectors)	≤ 1.5dB
MON Port Insertion Loss (Incl. Connectors)	23.1dB Rx/19.0dB Tx

3. Individual Channel Losses

Channel	Typical	Max
Ch. 59 Rx	2.1	2.3
Ch. 59 Tx	2.4	2.6
Ch. 57 Rx	2.7	2.9
Ch. 57 Tx	2.9	3.1
Ch. 55 Rx	3.1	3.3
Ch. 55 Tx	3.3	3.5
Ch. 53 Rx	3.5	3.7
Ch. 53 Tx	3.5	3.7
Ch. 50 Rx	2.4	2.6
Ch. 50 Tx	2.7	2.9
Ch. 48 Rx	2.9	3.1
Ch. 48 Tx	3.1	3.3
Ch. 46 Rx	3.3	3.5
Ch. 46 Tx	3.5	3.7
Ch. 44 Rx	3.7	3.9
Ch. 44 Tx	3.9	4.1
EXP	1.3	1.5

4. Network Diagram



5. Link Path Chart

ZS-DWDM-SFBO-100-16-8-1-43-L

ZS-DWDM-SFDO-100-16-8-1-43-L

Transceiver	Transceiver Port	WDM Filter Channel Label	WDM Port	WDM Internal Channel	WDM Internal Channel	WDM Port	WDM Filter Channel Label	Transceiver Port	Transceiver
43	Tx	>	43	Rx	43	>			
43	Rx	<	43	Tx	44	<			
45	Tx	>	45	Rx	45	>			
45	Rx	<	45	Tx	46	<			
47	Tx	>	47	Rx	47	>			
47	Rx	<	47	Tx	48	<			
49	Tx	>	49	Rx	49	>			
49	Rx	<	49	Tx	50	<			
52	Tx	>	52	Rx	52	>			
52	Rx	<	52	Tx	53	<			
54	Tx	>	54	Rx	54	>			
54	Rx	<	54	Tx	55	<			
56	Tx	>	56	Rx	56	>			
56	Rx	<	56	Tx	57	<			
58	Tx	>	58	Rx	58	>			
58	Rx	<	58	Tx	59	<			

One Single Fiber

>	43	Tx	44	>	Rx	44
<	44	Rx	44	<	Tx	44
>	45	Tx	46	>	Rx	46
<	46	Rx	46	<	Tx	46
>	47	Tx	48	>	Rx	48
<	48	Rx	48	<	Tx	48
>	49	Tx	50	>	Rx	50
<	50	Rx	50	<	Tx	50
>	52	Tx	53	>	Rx	53
<	53	Rx	53	<	Tx	53
>	54	Tx	55	>	Rx	55
<	55	Rx	55	<	Tx	55
>	56	Tx	57	>	Rx	57
<	57	Rx	57	<	Tx	57
>	58	Tx	59	>	Rx	59
<	59	Rx	59	<	Tx	59

6. Ordering Information

Root SKU	Part Number	Description
D4T16LC25081150	ZS-DWDM-SFBO-100-16-8-1-25-L	DWDM SF MUX 100GHz 16Ch / 8Svcs LC, 8 Skip 1, Ch 25 start, Monitor, Exp, OTDR, LGX
D5T16LC25081150	ZS-DWDM-SFDO-100-16-8-1-25-L	DWDM SF DEMUX 100GHz 16Ch / 8Svcs LC, 8 Skip 1, Ch 25 start, Monitor, Exp, OTDR, LGX
D4T16LC43081150	ZS-DWDM-SFBO-100-16-8-1-43-L	DWDM SF MUX 100GHz 16Ch / 8Svcs LC, 8 Skip 1, Ch 43 start, Monitor, Exp, OTDR, LGX
D5T16LC43081150	ZS-DWDM-SFDO-100-16-8-1-43-L	DWDM SF DEMUX 100GHz 16Ch / 8Svcs LC, 8 Skip 1, Ch 43 start, Monitor, Exp, OTDR, LGX

7. Ordering Information: Mounting Options

LGX Chassis



Part Number	Description	Dimensions	LGX Slots
ZS-LGX3R-14S-CHASSIS-1923	LGX 3RU Chassis For 14 LGX Modules And Fiber Mgmt. - 19 Or 23" Rack	Fits 19" Or 23" Rack x 3RU	14



Part Number	Description	Dimensions	LGX Slots
ZS-LGX1R-3S-CHASSIS-1923	LGX 1RU Chassis For 3 LGX Modules And Fiber Mgmt. - 19 Or 23" Rack	Fits 19" Or 23" Rack x 1RU	3

Magnetic "C" Bracket



Part Number	Description	Dimensions	LGX Slots
LGX-2U2L	2RU Magnetic Bracket With 2 LGX Slots For Passives	5.28" x 3.94" x 2.44"	2

8. Contact Information

Tel: 800.590.9535

Web: <http://www.approvednetworks.com>