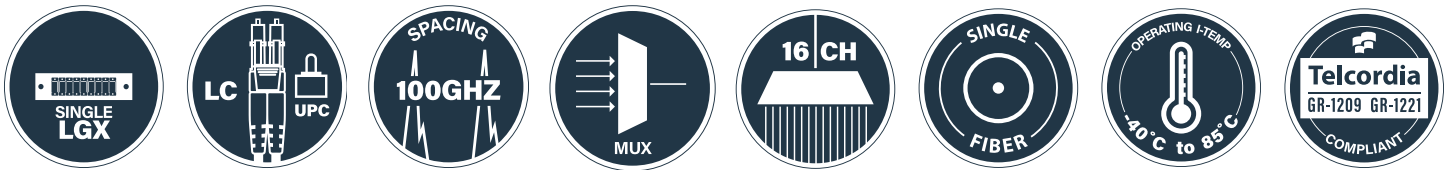


Features:

- 16 Channel Single Fiber DWDM Mux + EXP for 8 Skip 1 Channel Plan
- Channel Wavelengths: DWDM CH. 25 to CH. 32 + CH. 34 to CH. 41 + EXP
- 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
Band Pass Express, Express Port	1250nm - 1675nm (see exclusions)
Band Pass Express Exclusions (Blocked Frequencies), (Min.)	CH. 24 to CH. 42, 1250nm to 1400nm, 1665nm to 1675nm
Passband Ripple (Max.)	\leq 0.5dB
Isolation, Adjacent Channel - DWDM (Min.)	\geq 30dB
Isolation, Non-Adjacent Channel - DWDM (Min.)	\geq 40dB
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

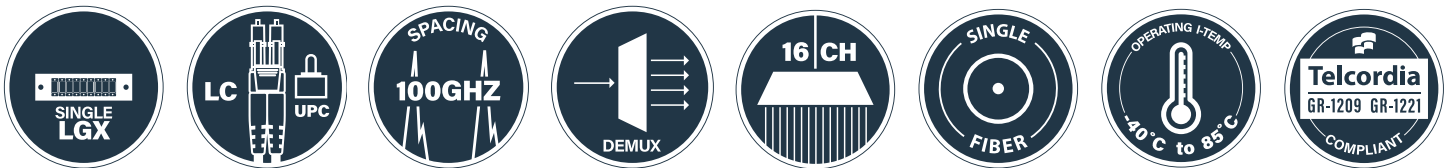
Parameter	Value
DWDM Channel Insertion Loss (Typ., Incl. Connectors)	3.6dB
DWDM Channel Insertion Loss (Max., Incl. Connectors)	≤ 3.8dB
Express Insertion Loss (Typ., Incl. Connectors)	1.2dB
Express Insertion Loss (Max., Incl. Connectors)	≤ 1.4dB
MON Port Insertion Loss (Incl. Connectors)	22.8dB Rx/19.0dB Tx

3. Individual Channel Losses

Channel	Typical	Max
Ch. 25 Rx	1.8	2.0
Ch. 25 Tx	2.1	2.3
Ch. 27 Rx	2.4	2.6
Ch. 27 Tx	2.6	2.8
Ch. 29 Rx	2.8	3.0
Ch. 29 Tx	3.0	3.2
Ch. 31 Rx	3.2	3.4
Ch. 31 Tx	3.4	3.6
Ch. 34 Rx	2.1	2.3
Ch. 34 Tx	2.4	2.6
Ch. 36 Rx	2.6	2.8
Ch. 36 Tx	2.8	3.0
Ch. 38 Rx	3.0	3.2
Ch. 38 Tx	3.2	3.4
Ch. 40 Rx	3.4	3.6
Ch. 40 Tx	3.6	3.8
EXP	1.0	1.2

Features:

- 16 Channel Single Fiber DWDM Demux + EXP for 8 Skip 1 Channel Plan
- Channel Wavelengths: DWDM
CH. 25 to CH. 32 + CH. 34 to CH. 41 + EXP
- 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
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1. Optical Requirements

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Isolation, Adjacent Channel - DWDM (Min.)	\geq 30dB
Isolation, Non-Adjacent Channel - DWDM (Min.)	\geq 40dB
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

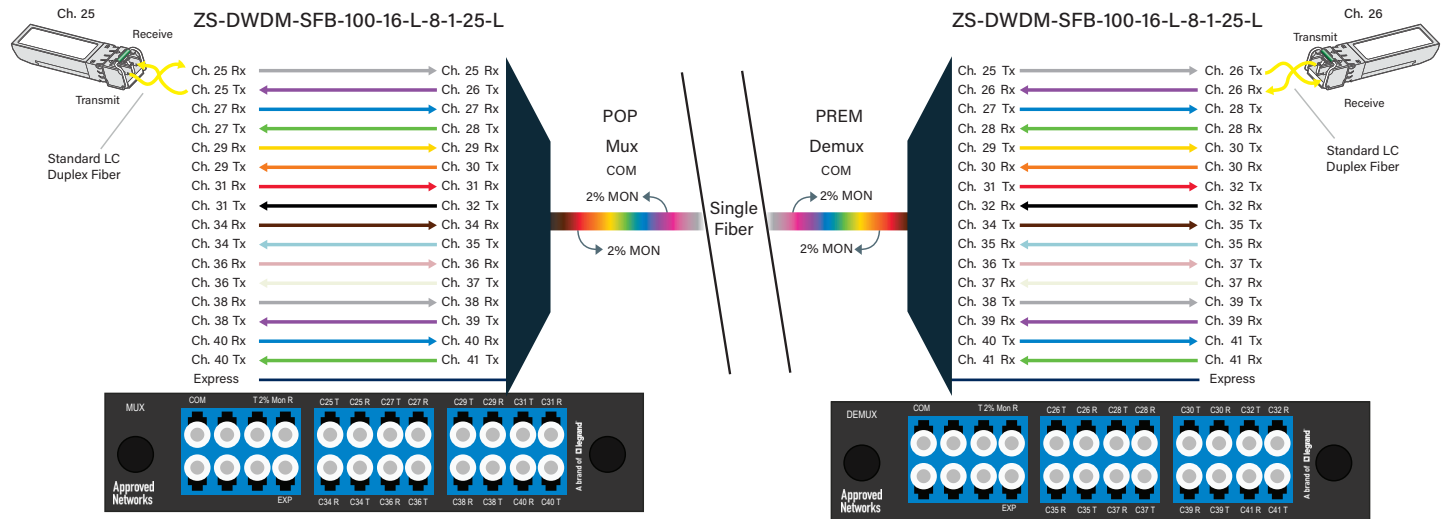
2. Insertion Loss

Parameter	Value
DWDM Channel Insertion Loss (Typ., Incl. Connectors)	3.6dB
DWDM Channel Insertion Loss (Max., Incl. Connectors)	≤ 3.8dB
Express Insertion Loss (Typ., Incl. Connectors)	1.2dB
Express Insertion Loss (Max., Incl. Connectors)	≤ 1.4dB
MON Port Insertion Loss (Incl. Connectors)	22.8dB Rx/19.0dB Tx

3. Individual Channel Losses

Channel	Typical	Max
Ch. 41 Rx	1.8	2.0
Ch. 41 Tx	2.1	2.3
Ch. 39 Rx	2.4	2.6
Ch. 39 Tx	2.6	2.8
Ch. 37 Rx	2.8	3.0
Ch. 37 Tx	3.0	3.2
Ch. 35 Rx	3.2	3.4
Ch. 35 Tx	3.4	3.6
Ch. 32 Rx	2.1	2.3
Ch. 32 Tx	2.4	2.6
Ch. 30 Rx	2.6	2.8
Ch. 30 Tx	2.8	3.0
Ch. 28 Rx	3.0	3.2
Ch. 28 Tx	3.2	3.4
Ch. 26 Rx	3.4	3.6
Ch. 26 Tx	3.6	3.8
EXP	1.0	1.2

4. Network Diagram



5. Link Path Chart

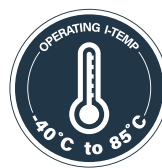
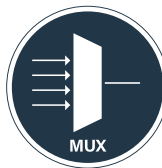
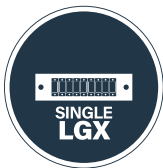
ZS-DWDM-SFB-100-16-L-8-1-25-L

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

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

Features:

- 16 Channel Single Fiber DWDM Mux + EXP for 8 Skip 1 Channel Plan
- Channel Wavelengths: DWDM CH. 43 to CH. 50 + CH. 52 to CH. 59 + EXP
- 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
Band Pass Express, Express Port	1250nm - 1675nm (see exclusions)
Band Pass Express Exclusions (Blocked Frequencies), (Min.)	CH. 42 to CH. 60, 1250nm to 1400nm, 1665nm to 1675nm
Passband Ripple (Max.)	\leq 0.5dB
Isolation, Adjacent Channel - DWDM (Min.)	\geq 30dB
Isolation, Non-Adjacent Channel - DWDM (Min.)	\geq 40dB
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)	3.6dB
DWDM Channel Insertion Loss (Max., Incl. Connectors)	≤ 3.8dB
Express Insertion Loss (Typ., Incl. Connectors)	1.2dB
Express Insertion Loss (Max., Incl. Connectors)	≤ 1.4dB
MON Port Insertion Loss (Incl. Connectors)	22.8dB Rx/19.0dB Tx

3. Individual Channel Losses

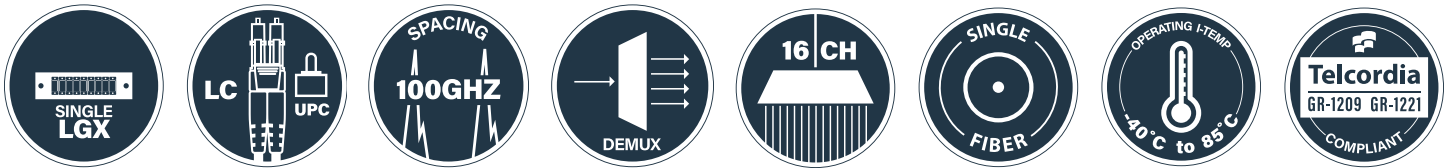
Channel	Typical	Max
Ch. 43 Rx	1.8	2.0
Ch. 43 Tx	2.1	2.3
Ch. 45 Rx	2.4	2.6
Ch. 45 Tx	2.6	2.8
Ch. 47 Rx	2.8	3.0
Ch. 47 Tx	3.0	3.2
Ch. 49 Rx	3.2	3.4
Ch. 49 Tx	3.4	3.6
Ch. 52 Rx	2.1	2.3
Ch. 52 Tx	2.4	2.6
Ch. 54 Rx	2.6	2.8
Ch. 54 Tx	2.8	3.0
Ch. 56 Rx	3.0	3.2
Ch. 56 Tx	3.2	3.4
Ch. 58 Rx	3.4	3.6
Ch. 58 Tx	3.6	3.8
EXP	1.0	1.2

Features:

- 16 Channel Single Fiber DWDM Demux + EXP for 8 Skip 1 Channel Plan
- Channel Wavelengths: DWDM CH. 43 to CH. 50 + CH. 52 to CH. 59 + EXP
- Channel Spacing: 100GHz
- Reliability: Telcordia GR-1209, GR-1221
- Maximum Optical Power: 300mW
- Connector Type - All Ports: LC/UPC
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- Dimensions: 100mm x 100mm x 28.5mm
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1. Optical Requirements

Parameter	Value
Passband Width, Channel Ports at -0.5dB	ITU \geq 25GHz
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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, 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

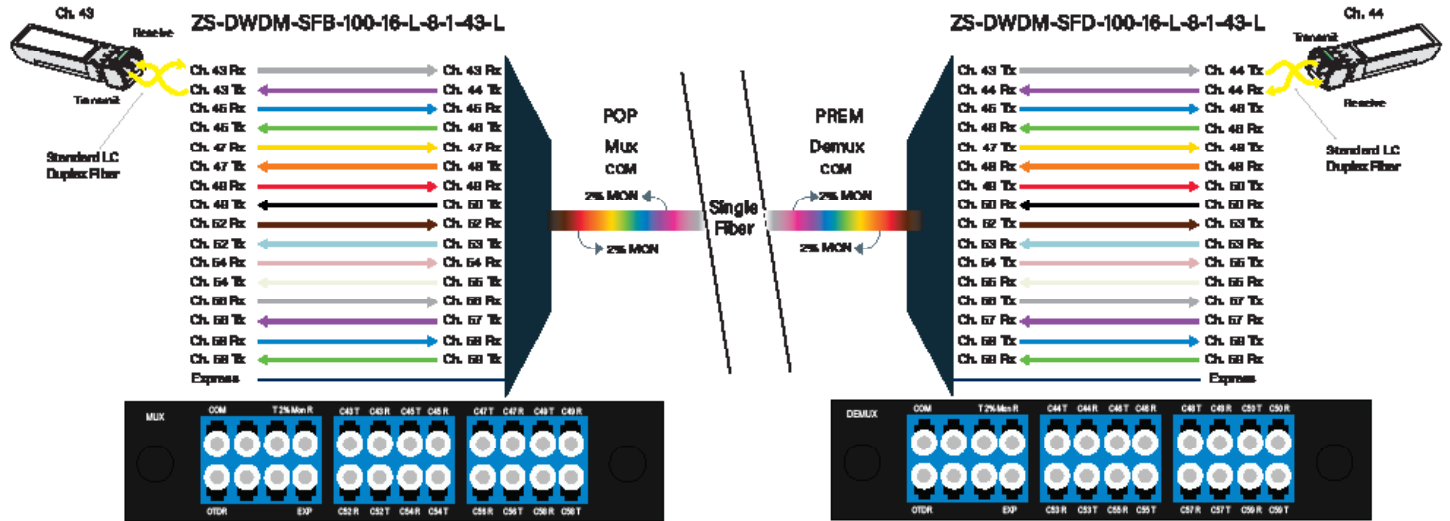
2. Insertion Loss

Parameter	Value
DWDM Channel Insertion Loss (Typ., Incl. Connectors)	3.6dB
DWDM Channel Insertion Loss (Max., Incl. Connectors)	≤ 3.8dB
Express Insertion Loss (Typ., Incl. Connectors)	1.2dB
Express Insertion Loss (Max., Incl. Connectors)	≤ 1.4dB
MON Port Insertion Loss (Incl. Connectors)	22.8dB Rx/19.0dB Tx

3. Individual Channel Losses

Channel	Typical	Max
Ch. 59 Rx	1.8	2.0
Ch. 59 Tx	2.1	2.3
Ch. 57 Rx	2.4	2.6
Ch. 57 Tx	2.6	2.8
Ch. 55 Rx	2.8	3.0
Ch. 55 Tx	3.0	3.2
Ch. 53 Rx	3.2	3.4
Ch. 53 Tx	3.4	3.6
Ch. 50 Rx	2.1	2.3
Ch. 50 Tx	2.4	2.6
Ch. 48 Rx	2.6	2.8
Ch. 48 Tx	2.8	3.0
Ch. 46 Rx	3.0	3.2
Ch. 46 Tx	3.2	3.4
Ch. 44 Rx	3.4	3.6
Ch. 44 Tx	3.6	3.8
EXP	1.0	1.2

3. Network Diagram



4. Link Path Chart

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

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

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

5. Ordering Information

Root SKU	Part Number	Description
D4T16LC25080160	ZS-DWDM-SFB-100-16-L-8-1-25-L	DWDM SF MUX 100GHz 16Ch / 8Svcs LC, 8 Skip 1, Ch 25 start, Monitor, Exp, LGX
D5T16LC25080160	ZS-DWDM-SFD-100-16-L-8-1-25-L	DWDM SF DEMUX 100GHz 16Ch / 8Svcs LC, 8 Skip 1, Ch 25 start, Monitor, Exp, LGX
D4T16LC43080160	ZS-DWDM-SFB-100-16-L-8-1-43-L	DWDM SF MUX 100GHz 16Ch / 8Svcs LC, 8 Skip 1, Ch 43 start, Monitor, Exp, LGX
D5T16LC43080160	ZS-DWDM-SFD-100-16-L-8-1-43-L	DWDM SF DEMUX 100GHz 16Ch / 8Svcs LC, 8 Skip 1, Ch 43 start, Monitor, Exp, LGX

6. Contact Information

Tel: 800.590.9535

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