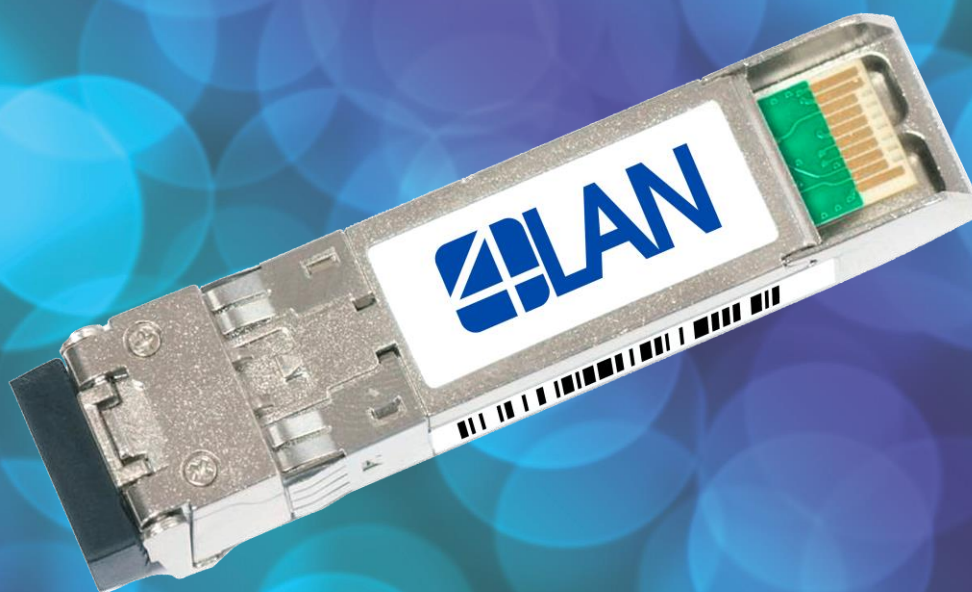


4L-SFD10xx-40

SFP+ 10GBASE-ER, DWDM, SM, DDM, LC Duplex, 40km



Applications

- Compliant with ITU-T DWDM, 10GBASE-ER and 10GBASE-EW
- Supports 3.1Gb/s to 10.3Gb/s data rates
- 4G, 8G and 10G Fibre Channel
- 100Ghz DWDM
- Single Fiber DWDM
- Dual Fiber DWDM
- Other optical links

Features

- SFP+ 10G Duplex Optical Transceiver
- SFP MSA Compliant
- Up to 40km links on SMF
- EML laser transmitter
- Digital Diagnostic Monitoring
- RoHS and Lead Free
- Operating temperature: 0°C ~ +70°C

Description

The 4L-SFD10Gxx are a multivendor compatible SFP+ DWDM transceivers series for duplex optical data communications 10GBASE-ER and 10GBASE-ZR defined by ITU-T DWDM Grid, with 100Ghz Channel spacing.

This modules are designed to operate with single mode fiber (SMF) and Duplex LC connectors, using the channels C17 up to C61 for up to 80km.

Quick access to other products:

[SFP 1G](#) [SFP+10G](#) [XFP 10G](#) [QSFP+40G](#) [SFP28 25G](#) [QSFP28 100G](#) [DWDM](#)

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General Specifications – Absolute Maximum Ratings

Parameter	Symbol	Min	Recommended	Max
Max.LinkLength	I_{max}			40km
Optical Budget	dB	11dB		
Storage Temperature	T_c	-40°C		+85°C
Operating Case Temperature	T_c	0°C		+70°C
Supply Voltage	V_{cc}	-0.5V	3.3V	3.6V

Optical Specifications

Transmitter				
Parameter	Symbol	Min	Recommended	Max
Average Output Power	P_{out}	-3dBm		+3dBm
Central Wavelength	nm	1530nm	1550nm	1560nm
Receiver				
Parameter	Symbol	Min	Recommended	Max
Receiver Sensitivity	R_{sen}	-14dBm		
Receiver Overload (Damage)	P_{max}			+0.5dBm
Central Wavelength	Nm	1530nm	1550nm	1560nm

Wavelength Channel Guide

Channel	Wavelength (nm)	Frequency (THZ)	Channel	Wavelength (nm)	Frequency (THZ)
C13	1567.13	191.30	C37	1547.72	193.70
C14	1566.31	191.40	C38	1546.92	193.80
C15	1565.50	191.50	C39	1546.12	193.90
C16	1564.68	191.60	C40	1545.32	194.00
C17	1563.86	191.70	C41	1544.53	194.10
C18	1563.05	191.80	C42	1543.73	194.20
C19	1562.23	191.90	C43	1542.94	194.30
C20	1561.42	192.00	C44	1542.14	194.40
C21	1560.61	192.10	C45	1541.35	194.50
C22	1559.79	192.20	C46	1540.56	194.60
C23	1558.98	192.30	C47	1539.77	194.70
C24	1558.17	192.40	C48	1538.98	194.80
C25	1557.36	192.50	C49	1538.19	194.90
C26	1556.55	192.60	C50	1537.40	195.00
C27	1555.75	192.70	C51	1536.61	195.10
C28	1554.94	192.80	C52	1535.82	195.20
C29	1554.13	192.90	C53	1535.04	195.30
C30	1553.33	193.00	C54	1534.25	195.40
C31	1552.52	193.10	C55	1533.47	195.50
C32	1551.72	193.20	C56	1532.68	195.60
C33	1550.92	193.30	C57	1531.90	195.70
C34	1550.12	193.40	C58	1531.12	195.80
C35	1549.32	193.50	C59	1530.33	195.90
C36	1548.51	193.60	C60	1529.55	196.00
Non-ITU	Peak wavelength between 1528.77 nm -		C61	1528.77	196.10

The “xx” on the part number 4L-SFD10Gxx-40D represents the fixed wavelength that the transceiver is set to work.

Quick access to other products:

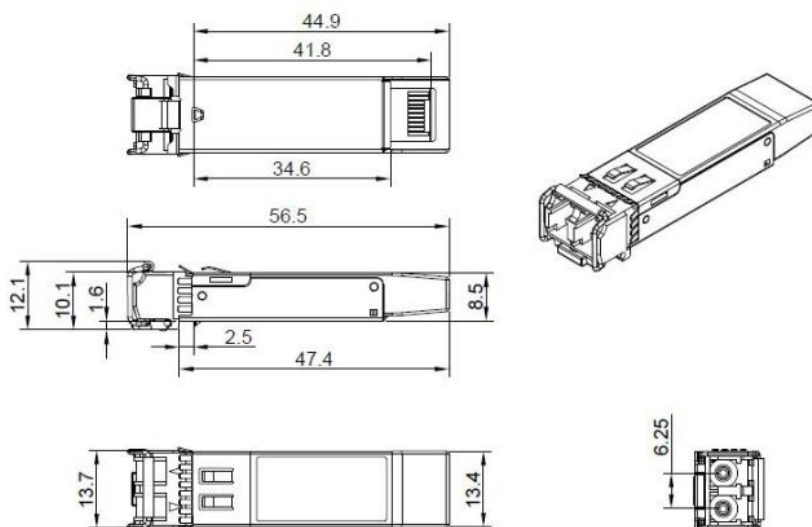
[SFP 1G](#) [SFP+10G](#) [XFP 10G](#) [QSFP+40G](#) [SFP28 25G](#) [QSFP28 100G](#) [DWDM](#)

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Electrical Specifications

Parameter	Symbol	Min.	Typical	Max	Unit	Ref.
Supply Voltage	V_{CC}	3.00		3.60	V	1
Supply Current	I_{CC}		200	300	mA	1
Transmitter						
Input differential impedance	R_{in}		100		Ω	2
Single ended data input swing	$V_{in,pp}$	150		1200	mVpp	
Transmit Disable Voltage	V_D	2		V_{CC}	V	
Transmit Enable Voltage	V_{EN}	Vee		Vee+0.8	V	3
Receiver						
Output differential impedance	R_{out}		100		Ω	2
Single ended data output swing	$V_{out,pp}$	300		700	mV	4
LOS Fault	$V_{LOS\ fault}$	2		V_{CC_HOST}	V	5
LOS Normal	$V_{LOS\ norm}$	Vee		Vee+0.8	V	5

Mechanical Specifications



Quick access to other products:

[SFP 1G](#) [SFP+10G](#) [XFP 10G](#) [QSFP+40G](#) [SFP28 25G](#) [QSFP28 100G](#) [DWDM](#)

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Ordering Information

Part Number	Description
4L-SFD10xx-40	SFP+ 10GBASE-ER, DWDM, SM, DDM, LC Duplex, 40Km
4L-SFD10xx-80	SFP+ 10GBASE-ZR, DWDM, SM, DDM, LC Duplex, 80Km
4L-SFD10xx-100	SFP+ 10GBASE-ZR, DWDM, SM, DDM, LC Duplex, 100Km

The “xx” on the part number 4L-SFD10xx represents the fixed wavelength that the transceiver is set to work.

Note

This modules have been tested by 4LAN on equipments like Cisco, Juniper, Dell, HP, Mikrotik, Huawei, and other brands. The equipment brand must be informed before shipping the order, so the transceivers are reprogrammed to the corresponding brand.

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Quick access to other products:

[SFP 1G](#) [SFP+10G](#) [XFP 10G](#) [QSFP+40G](#) [SFP28 25G](#) [QSFP28 100G](#) [DWDM](#)

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