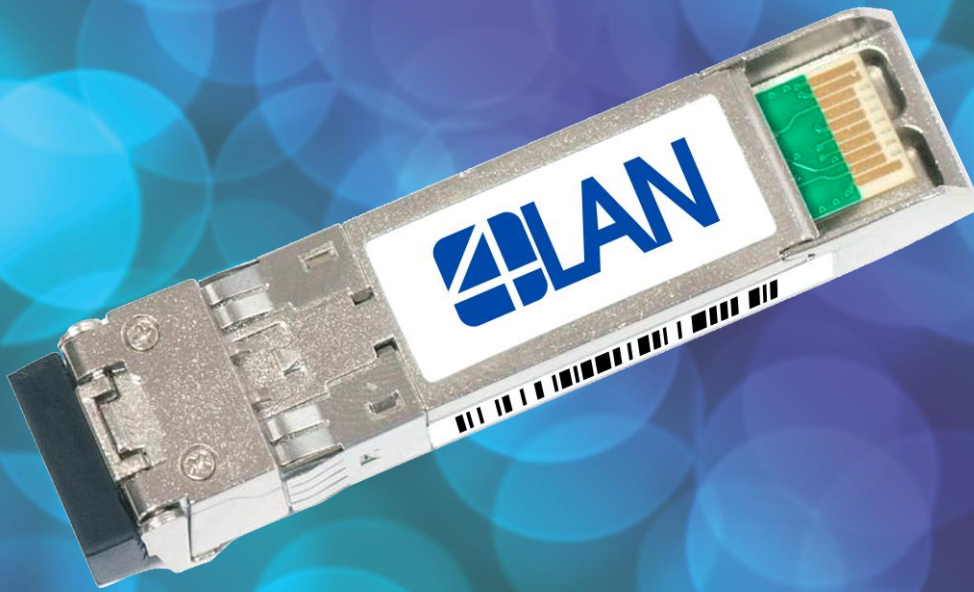


4L-SFD10T-80

SFP+ 10GBASE-ZR, DWDM TUNABLE, SM, DDM, LC Duplex, 80km



Applications

- Compliant with ITU-T DWDM, 10GBASE-ZR and 10GBASE-ZW
- Supports 3.1Gb/s to 10.3Gb/s data rates
- 8G and 10G Fibre Channel
- 50Ghz and 100Ghz DWDM
- Single Fiber DWDM
- Dual Fiber DWDM
- Other optical links

Features

- SFP+ 10G Duplex Optical Transceiver
- SFP MSA Compliant
- Up to 80km links on SMF
- EML laser transmitter
- Digital Diagnostic Monitoring
- RoHS and Lead Free
- Operating temperature: 0°C ~ +70°C

Description

The 4L-SFD10GT are a multivendor compatible SFP+ DWDM Tunable transceivers series for duplex optical data communications 10GBASE-ZR defined by ITU-T DWDM Grid, with 50Ghz Channel spacing.

This modules are designed to operate with single mode fiber (SMF) and Duplex LC connectors, using the channels all available DWDM ITU-T Channels for up to 80km.

Quick access to other products:

[SFP1G](#) [XFP10G](#) [XFP10G](#) [QXFP40G](#) [SFP2825G](#) [QSFP28100G](#) [DWDM](#)

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General Specifications – Absolute Maximum Ratings

Parameter	Symbol	Min	Recommended	Max
Max. Link Length	l_{max}			80km
Optical Budget	dB	23dB		
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}	0dBm		+4dBm
Central Wavelength	nm	1530nm	1550nm	1560nm
Receiver				
Parameter	Symbol	Min	Recommended	Max
Receiver Sensitivity	R_{sen}	-23dBm		
Receiver Overload (Damage)	P_{max}			-7dBm
Central Wavelength	Nm	1530nm	1550nm	1560nm

Wavelength Channel Guide – 50Ghz Channel Spacing

Freq (THz)	Wave-length	ITU Ch.
196.15	1528.38	61.5
196.10	1528.77	61
196.05	1529.16	60.5
196.00	1529.55	60
195.95	1529.94	59.5
195.90	1530.33	59
195.85	1530.72	58.5
195.80	1531.12	58
195.75	1531.51	57.5
195.70	1531.90	57
195.65	1532.29	56.5
195.60	1532.68	56
195.55	1533.07	55.5
195.50	1533.47	55
195.45	1533.86	54.5
195.40	1534.25	54
195.35	1534.64	53.5
195.30	1535.04	53
195.25	1535.43	52.5
195.20	1535.82	52
195.15	1536.22	51.5
195.10	1536.61	51
195.05	1537.00	50.5
195.00	1537.40	50
194.95	1537.79	49.5
194.90	1538.19	49
194.85	1538.58	48.5
194.80	1538.98	48
194.75	1539.37	47.5
194.70	1539.77	47
194.65	1540.16	46.5
194.60	1540.56	46
194.55	1540.95	45.5
194.50	1541.35	45
194.45	1541.75	44.5

Freq (THz)	Wave-length	ITU Ch.
194.40	1542.14	44
194.35	1542.54	43.5
194.30	1542.94	43
194.25	1543.33	42.5
194.20	1543.73	42
194.15	1544.13	41.5
194.10	1544.53	41
194.05	1544.92	40.5
194.00	1545.32	40
193.95	1545.72	39.5
193.90	1546.12	39
193.85	1546.52	38.5
193.80	1546.92	38
193.75	1547.32	37.5
193.70	1547.72	37
193.65	1548.11	36.5
193.60	1548.51	36
193.55	1548.91	35.5
193.50	1549.32	35
193.45	1549.72	34.5
193.40	1550.12	34
193.35	1550.52	33.5
193.30	1550.92	33
193.25	1551.32	32.5
193.20	1551.72	32
193.15	1552.12	31.5
193.10	1552.52	31
193.05	1552.93	30.5
193.00	1553.33	30
192.95	1553.73	29.5
192.90	1554.13	29
192.85	1554.54	28.5
192.80	1554.94	28
192.75	1555.34	27.5
192.70	1555.75	27

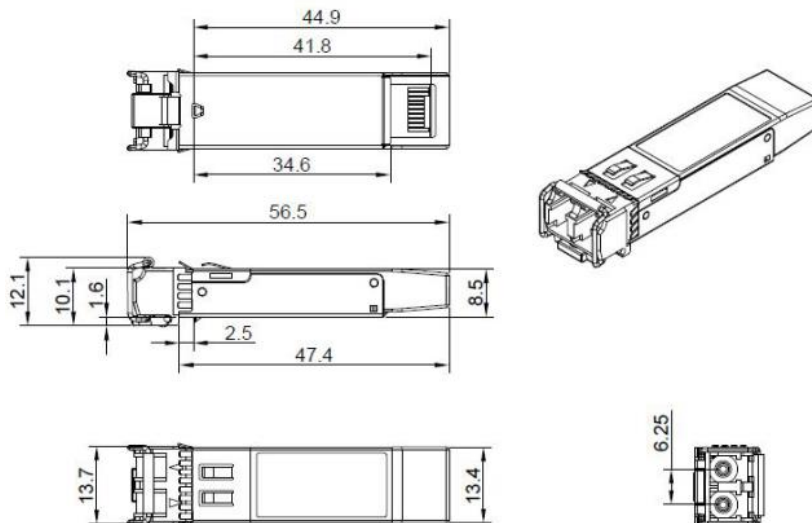
Freq (THz)	Wave-length	ITU Ch.
192.65	1556.15	26.5
192.60	1556.55	26
192.55	1556.96	25.5
192.50	1557.36	25
192.45	1557.77	24.5
192.40	1558.17	24
192.35	1558.58	23.5
192.30	1558.98	23
192.25	1559.39	22.5
192.20	1559.79	22
192.15	1560.20	21.5
192.10	1560.61	21
192.05	1561.01	20.5
192.00	1561.42	20
191.95	1561.83	19.5
191.90	1562.23	19
191.85	1562.64	18.5
191.80	1563.05	18
191.75	1563.45	17.5
191.70	1563.86	17
191.65	1564.27	16.5
191.60	1564.68	16
191.55	1565.09	15.5
191.50	1565.50	15
191.45	1565.90	14.5
191.40	1566.31	14
191.35	1566.72	13.5
191.30	1567.13	13
191.25	1567.54	12.5
191.20	1567.95	12
191.15	1568.36	11.5
191.10	1568.77	11

The 4L-SFD10GT-80D transceiver supports all DWDM ITU-T channels, the channel should be tuned/set on the switch or via a tuning box.

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](#) [XFP10G](#) [XFP 10G](#) [QXFP40G](#) [SFP28 25G](#) [QSFP28 100G](#) [DWDM](#)

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Ordering Information

Part Number	Description
4L-SFD10T-80	SFP+ 10GBASE-ZR, DWDM Tunable, SM, DDM, LC Duplex, 80Km

The 4L-SFD10T-80 transceiver supports all DWDM ITU-T channels, the channel should be tuned/set on the switch or via a tuning box.

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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