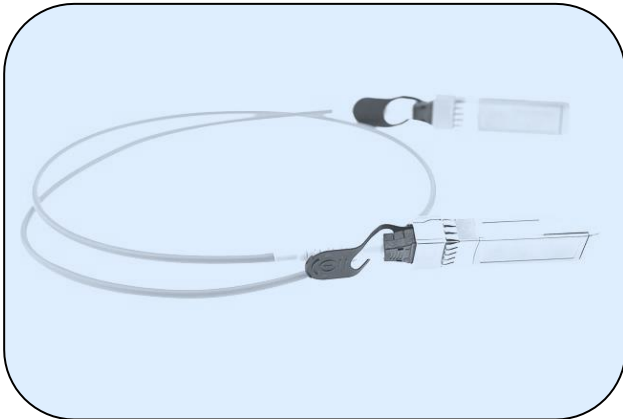




XCE-S2S2Nxx

25 Gbps 850 nm Multimode SFP28 Active Optical Cable



Applications

- 25GBASE-SR Ethernet

Description

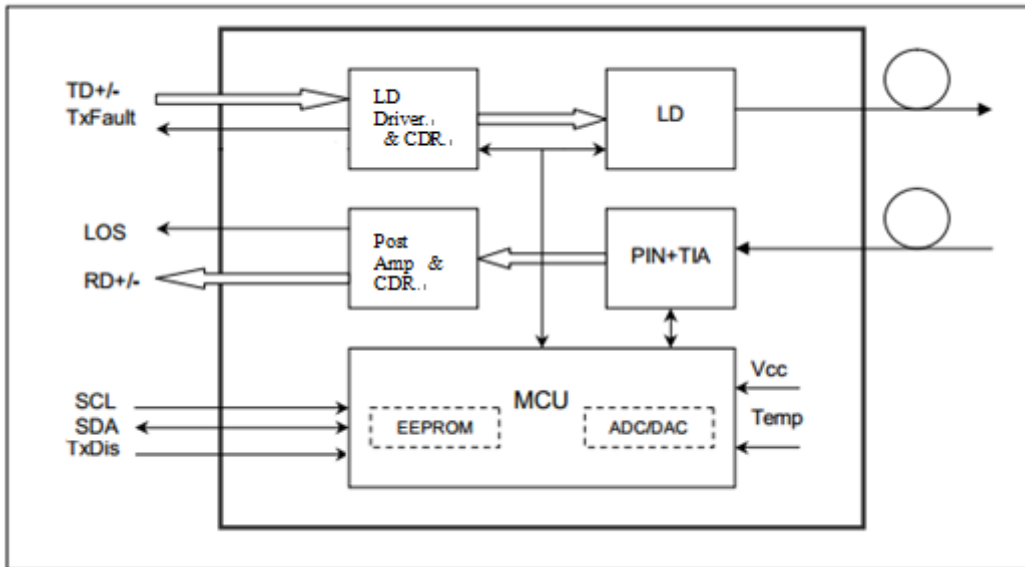
XenOpt SFP28 Active Optical Cables are direct-attach fiber assemblies with SFP28 connectors. They are suitable for very short distances and offer a cost-effective way to connect within racks and across adjacent racks.

The XenOpt XCE-S2S2Nxx is a single-Channel, Pluggable, Fiber-Optic SFP28 for 25 Gigabit Ethernet and Infiniband EDR Applications. It is a high performance module for short-range data communication and interconnect applications which operate at 25.78125 Gbps up to 70 m using OM3 fiber or 100 m using OM4 fiber. This module is designed to operate over multimode fiber systems using a nominal wavelength of 850 nm. The electrical interface uses a 20 contact edge type connector.

Features

- Supports 25 Gbps data rate
- Hot-pluggable SFP28 form factor
- Maximum link length of 70 m on OM3 MMF and 100 m on OM4 MMF
- 850 nm VCSEL laser and PIN photo-detector
- Internal CDR on both Transmitter and Receiver channel
- Single 3.3 V power supply
- Power dissipation < 1 W
- Commercial case temperature range: 0°C to 70°C
- RoHS compliant

Block Diagram



Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage	Vcc	0	3.6	V
Storage Temperature	Ts	-40	+85	°C
Operating Humidity	-	5	85	%

Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Operating Case Temperature	Tc	0		+70	°C
Power Supply Voltage	Vcc	3.13	3.3	3.47	V
Power Supply Current	Icc			300	mA
Fiber Length on 50/125 μm high-bandwidth (OM3) MMF				70	m
Fiber Length on 50/125 μm high-bandwidth (OM4) MMF				100	m

Optical and Electrical Characteristics

Parameter	Symbol	Min	Typical	Max	Unit
Transmitter					
Data rate	BR		25.78		Gbps
Centre Wavelength	λ_c	840	850	860	nm
Spectral Width (-20dB)	σ			0.6	nm
Average Output Power	P _{avg}	-8.4		2.4	dBm
Optical Power OMA	P _{OMA}	-6.4		3	dBm
Extinction Ratio	ER	2			dB
Differential data input swing	V _{IN,PP}	40		1000	mV
Input Differential Impedance	Z _{IN}	90	100	110	Ω
TX Disable	Disable		2.0	V _{cc}	V
	Enable		0	0.8	V
TX Fault	Fault		2.0	V _{cc}	V
	Normal		0	0.8	V
Receiver					
Data rate	BR		25.78		Gbps
Centre Wavelength	λ_c	840	850	860	nm
Receiver Sensitivity (OMA)	P _{sens}	-	-	-10	dBm
Stressed Sensitivity (OMA)		-	-	-5.2	dBm
Receiver Power (OMA)				3	dBm
LOS De-Assert	LOS _D			-13	dBm
LOS Assert	LOS _A	-30			dBm
LOS Hysteresis		0.5			dB
Differential data output swing	V _{out, PP}	300		850	mV
LOS	High		2.0	V _{cc}	V
	Low			0.8	V

Note

Receive Sensitivity measured with a prbs31 pattern @25.78125Gb/s, BER 1E-5.

Ordering information¹

PN	Description
XCE-S2S2Nxx	25 Gbps, 850 nm SFP28 Active Optical Cable, 0°C ~ +70°C xx = 07, 10, 20, 50, 70 (7, 10, 20, 50, 70 meters length on OM3 MMF) xx = 07, 10, 20, 50, C0 (7, 10, 20, 50, 100 meters length on OM4 MMF)

Notes:

¹ Specification may change without notice. For accurate specification please contact XenOpt reseller before placing an order. The content of this document is subject to change without notice. Please specify any compatibility requirements at time of ordering. Standard MSA compatible pluggable components may not work or some function of these components may not be available in devices that require customized compatible devices. Pluggable components compatible with one type of communications equipment may not work in other type of communications equipment.

Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by XenOpt before they become applicable to any particular order or contract.

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