



Applications

- 25GBASE-LR Ethernet
- CPRI Option 10
- Support 10G CPRI option 8 by CDR bypass

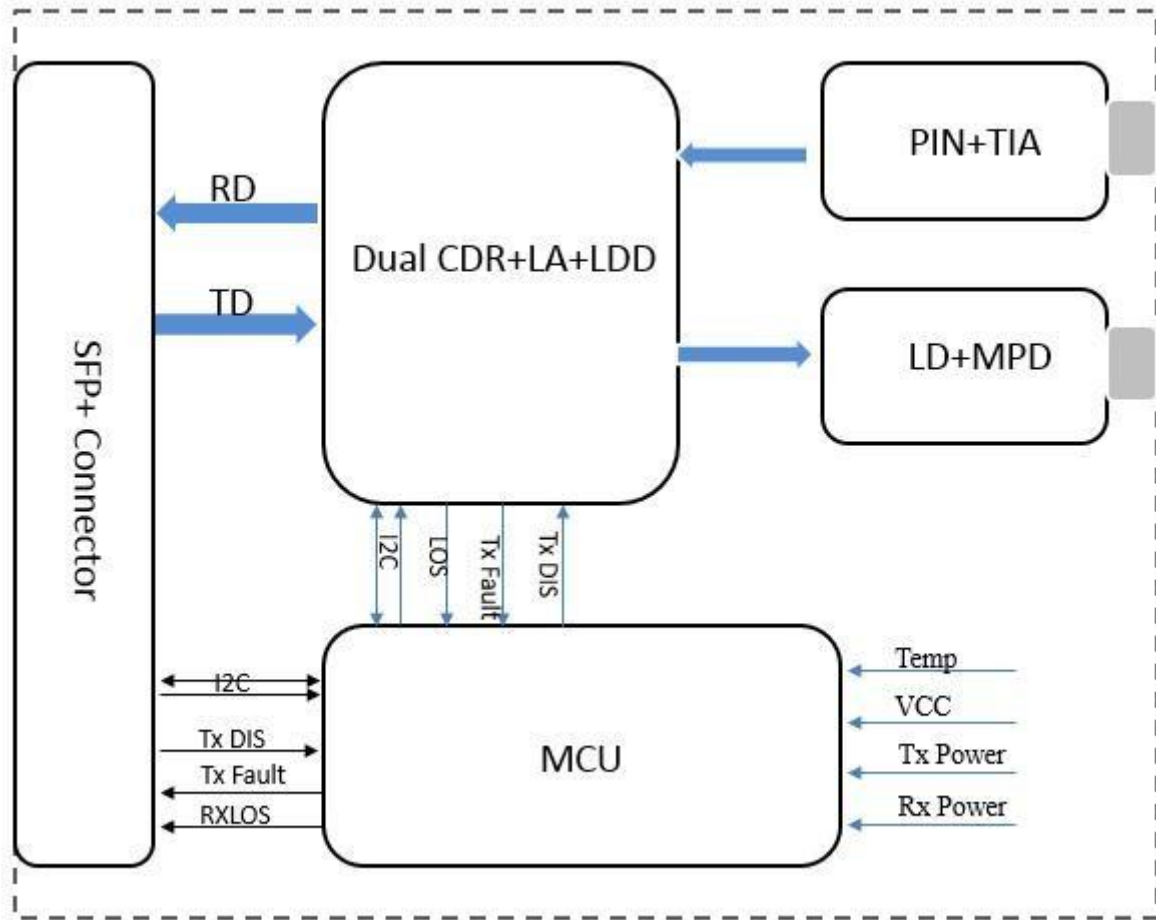
Description

The Xenopt XTS316-10LM is a single-Channel, Pluggable, Fiber-Optic SFP28 for 25 Gigabit Ethernet and CPRI Option 10 Applications. It is a high performance module for short-range data communication and interconnect applications which operate at 25.78125 Gbps up to 10 km. This module is designed to operate over single mode fiber systems using a nominal wavelength of 1310 nm. The electrical interface uses a 20 contact edge type connector. The optical interface uses duplex LC receptacle. This module incorporates proven circuit and technology to provide reliable long life, high performance, and consistent service.

Features

- Hot-pluggable SFP28 form factor
- Supports 25 Gbps data rate
- Maximum link length of 10km
- Uncooled CWDM 1310 nm DML transmitter and PIN receiver
- Internal CDR on both Transmitter and Receiver channel
- Duplex LC receptacle
- Single 3.3 V power supply
- Power dissipation < 1.8 W
- Industrial Case Temperature range -40°C to 85°C
- RoHS 6 compliant (2011/65/EU, lead free)

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

Electrical and optical characteristics below are defined under following operating conditions, unless otherwise specified.

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	Tc	-40		+85	°C
Power Supply Voltage	Vcc	3.13	3.3	3.47	V
Power Supply Current	Icc			540	mA

Electrical Specifications

Parameter	Symbol	Min	Typical	Max	Unit
Differential Input Impedance	Zin	90	100	110	ohm
Differential Output Impedance	Zout	90	100	110	ohm
Differential Input Voltage Amplitude1	ΔV_{in}	300		1100	mVp-p
Differential Output Voltage Amplitude2	ΔV_{out}	500		800	mVp-p
Input Logic Level High	V _{IH}	2.0		V _{cc}	V
Input Logic Level Low	V _{IL}	0		0.8	V
Output Logic Level High	V _{OH}	V _{cc} -0.5		V _{cc}	V
Output Logic Level Low	V _{OL}	0		0.4	V

Notes

1. Differential input voltage amplitude is measured between TxnP and TxnN.
2. Differential output voltage amplitude is measured between RxnP and RxnN.

Optical Specifications

Parameter	Symbol	Min	Typical	Max	Unit	Notes
Transmitter						
Data rate	BR		25.78		Gbps	
Centre Wavelength	λ_c	1295	1310	1325	nm	
Spectral Width (-20dB)	σ			1	nm	
Side Mode Suppression Ratio	SMSR	30			dB	
Average Output Power	P _{avg}	-7		2	dBm	
Optical Modulation Amplitude	OMA	-4		2.2	dBm	
Extinction Ratio	ER	3.5			dB	
Eye Mask Coordinates		{0.31, 0.4, 0.45, 0.34, 0.38, 0.4}				
Receiver						
Data rate	BR		25.78		Gbps	
Centre Wavelength	λ_c	1295	1310	1325	nm	
Average Power at Receiver				2	dBm	
Receive reflectance(max)				-26	dB	
Receiver Sensitivity (OMA)	P _{sens}	-	-	-12.0	dBm	1
Stressed receiver sensitivity (OMA)				-9.5	dBm	2
LOS De-Assert	LOSD			-12	dBm	
LOS Assert	LOSA	-30			dBm	
LOS Hysteresis		0.5			dB	

Notes

1. For 25G-LR with FEC, receiver sensitivity is defined at 5E-5 BER level, not 10-12 BER level.
2. Measured with conformance test signal at TP3 for BER=5E-5.

Ordering information¹

Part number	Product Description
XTS316-10LM	SFP28 1310 nm, SMF, 25 Gbps, 10 km reach, LC, -40°C~85°C, DDMI

Notes

¹ For accurate order specification please contact XenOpt reseller before placing an order. The content of this document is subject to change without notice. XenOpt does not guarantee errorless or outdated information.

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. In accordance with the XenOpt policy of continuous improvement specifications may change without notice.

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