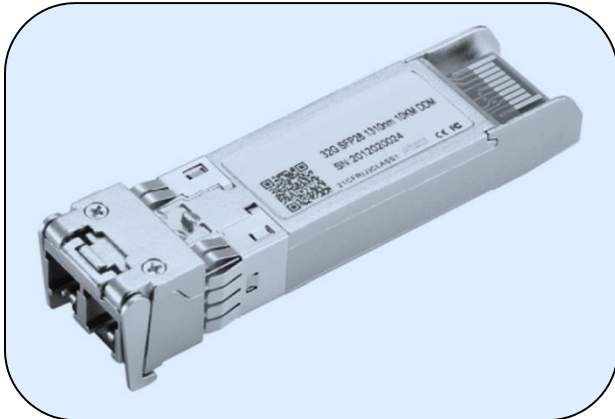




XTS31E-10LY

28.05 Gbps SFP28 10 km
Single Mode Transceiver

XTS31E-10LY 28.05 Gbps SFP28 10 km SM



Features

- Supports bit rates up to 28.05 Gbps
- Hot-pluggable SFP+ footprint
- 1310 nm DFB laser and PIN photodiode
- SMF transmission distance up to 10 km
- Compliant with SFP+ MSA and SFF-8472, featuring a duplex LC receptacle
- Single +3.3 V power supply
- Real-time digital diagnostic monitoring
- Operating case temperature range: 0 to +70°C
- RoHS compliant

Applications

16GFC/32GFC Fibre Channel

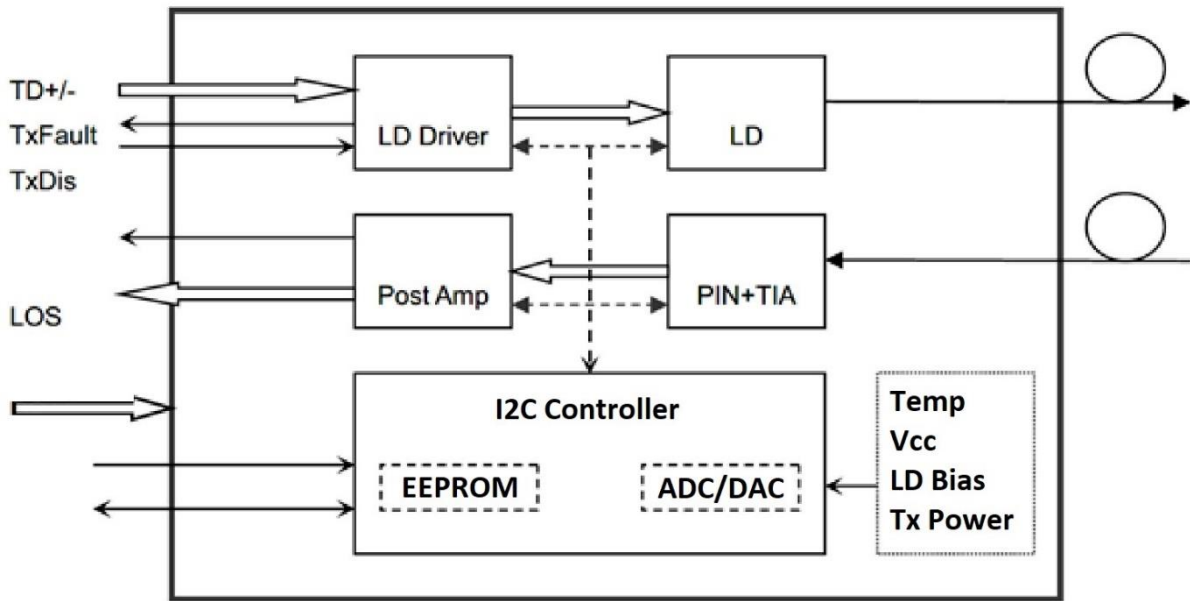
Description

The XTS31E-10LY SFP28 transceivers are designed for high-performance data communication applications. They support data rates of 28.05 Gbps and 10 km transmission distance over single mode fiber and are comprised of:

- DFB laser transmitter
- PIN photodiode integrated with a trans-impedance amplifier (TIA)
- MCU control unit

These transceivers meet Class I laser safety standards and are fully compliant with the SFP Multi-Source Agreement (MSA) and SFF-8472 digital diagnostic functions.

Module Block Diagram



Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage	VCC	-0.5	4	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	3.135	3.30	3.465	V
Power Supply Current	Icc			300	mA
Data Rate			28.05		Gbps

Optical and Electrical Specifications

Parameter	Symbol	Min	Typical	Max	Unit	Notes
Transmitter						
Centre Wavelength	λ_c	1270	1310	1350	nm	
Spectral Width (-20 dB)	$\Delta\lambda$			1	nm	
Side-Mode Suppression Ratio	SMSR	30	-		dB	
Average Output Power	P _{out}	-7		2	dBm	1
Extinction Ratio	ER	4			dB	
Data Input Swing Differential	V _{IN}	180		850	mV	2
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						
Centre Wavelength	λ_c	1260		1600	nm	
Receiver Sensitivity				-11.6	dBm	3
Receiver Overload				2	dBm	3
LOS De-Assert	LOSD			-15	dBm	
LOS Assert	LOSA	-30			dBm	
LOS Hysteresis		0.5			dB	
Data Output Swing Differential	V _{out}	300		900	mV	4
LOS	High	2.0		V _{cc}	V	
	Low			0.8	V	

Notes

1. The optical power is launched into SMF.
2. PECL input, internally AC-coupled and terminated.
3. Measured with a PRBS $2^{31}-1$ test pattern @25.08 Gps, BER $\leq 1 \times 10^{-6}$
4. Internally AC-coupled.

Timing and electrical

Parameter	Symbol	Min	Typical	Max	Unit
Tx Disable Negate Time	t_on			2	ms
Tx Disable Assert Time	t_off			100	μs
Time To Initialize, including Reset of Tx Fault	t_init			300	ms
Tx Fault Assert Time	t_fault			100	μs
Tx Disable To Reset	t_reset	10			μs
LOS Assert Time	t_loss_on			100	μs
LOS De-assert Time	t_loss_off			100	μs
Serial ID Clock Rate	f_serial_clock		100	400	KHz
MOD_DEF (0:2)-High	VH	2		Vcc	V
MOD_DEF (0:2)-Low	VL			0.8	V

Ordering information¹

Part number	Product Description
XTS31E-10LY	SFP28 1310 nm, 28.05 Gbps, 10 km reach, LC receptacle, 0°C to 70°C, DDM

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

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The product image is only for reference purpose

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