

XTS31E-10LY – 28.05 Gbps SFP28 10 km Single Mode Transceiver



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.

APPLICATIONS

- 16GFC/32GFC Fibre Channel

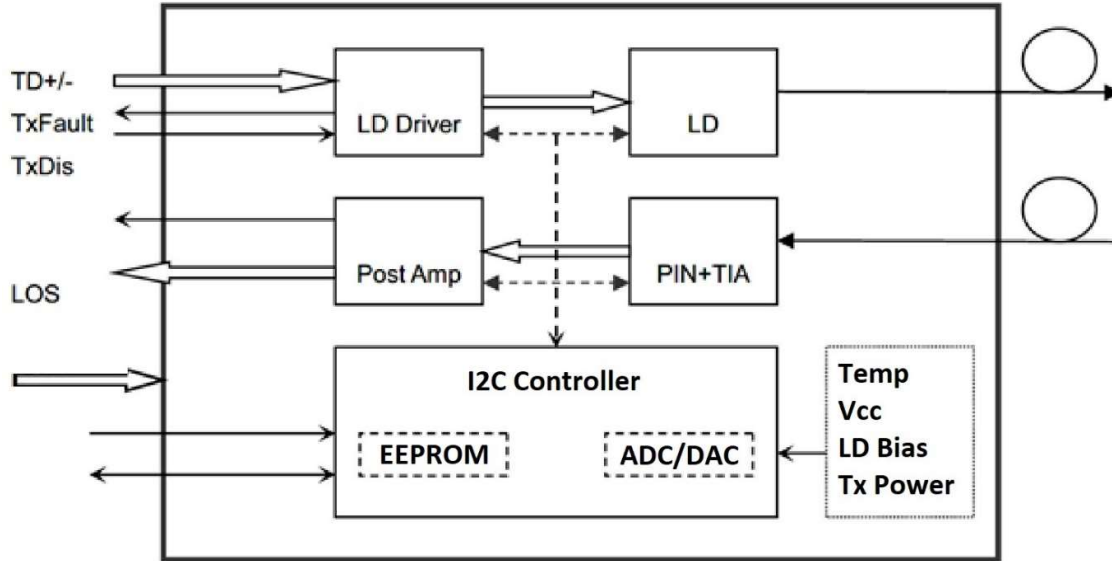
DESCRIPTION

The XTS31E-10LY SFP28 transceivers are designed for high-performance data communication applications. They support data rates of 28.05 Gbps

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

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 ENVIRONMENT

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 CHARACTERISTICS

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	Pout	-7		2	dBm	1
Extinction Ratio	ER	4			dB	
Data Input Swing Differential	VIN	180		850	mV	2
Input Differential Impedance	ZIN	90	100	110	Ω	
TX Disable	Disable		2.0		Vcc	V
	Enable		0		0.8	V
TX Fault	Fault		2.0		Vcc	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	Vout	300		900	mV	4
LOS	High		2.0		Vcc	V
	Low			0.8	V	V

Notes

1. The optical power is launched into SMF.
2. PECL input, internally AC-coupled and terminated.
3. Measured with a PRBS 2³¹-1 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 ~ +70 °C, DDM

Note

- For accurate order specification please contact XenOpt reseller before placing an order.

COMPANY INFORMATION

XENYA d.o.o.
Celovška cesta 172
1000 Ljubljana, SI

CONTACT INFORMATION

info@xenia.si
+386 (0)1 514 06 10
www.xenopt.com

PARTNER INFORMATION

Important notice

Performance figures, data and any illustrative material provided in this data sheet are contains typical values and must be specifically confirmed in writing by XenOpt before they become applicable to any particular order or contract. The content of this document is subject to change without notice. XenOpt does not guarantee errorless or outdated information. Specifications may change without notice.

The publication of information in this data sheet does not imply freedom from of patent or other protective rights of XenOpt or others. Further details are available from any XenOpt sales representative.

XenOpt™ is a trademark owned by Xenya d.o.o.