

XTM85E-M1LY – 28.05 Gbps SFP28 100 m Multi Mode Transceiver



- VCSEL 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

- Tri-Rate Fibre Channel: 8GFC/16GFC/32GFC Fibre Channel

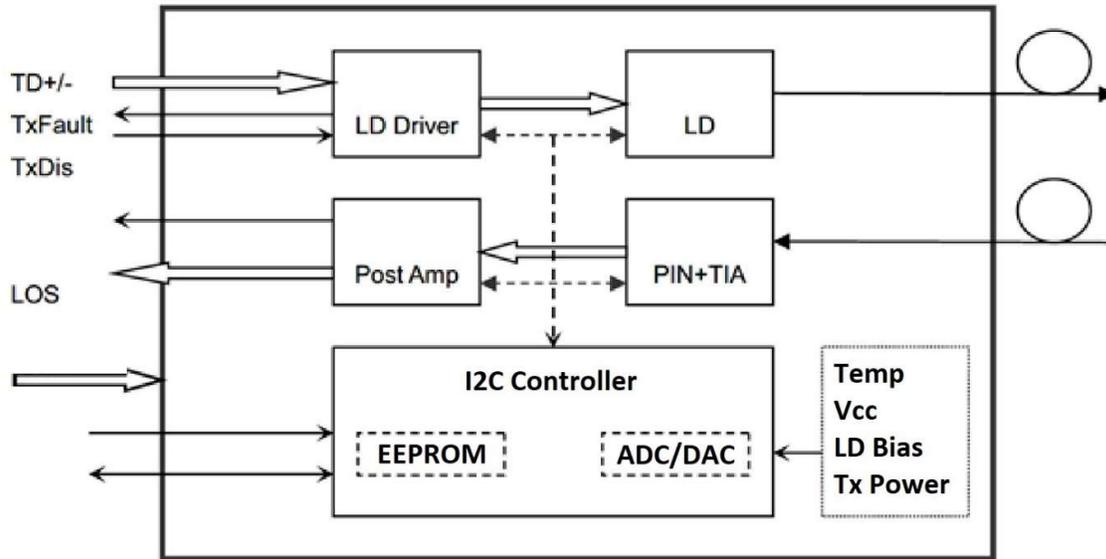
DESCRIPTION

The XTS85E-M1LY SFP28 transceivers are designed for high-performance data communication applications. They support data rates of 28.05 Gbps over multimode fiber and are comprised of:

FEATURES

- Supports bit rates up to 28.05 Gbps
- Hot-pluggable SFP+ footprint
- 850 nm VCSEL laser and PIN photodiode
- Transmission distances:
 - 100m over M5F MMF (50/125 μ m OM4)
 - 70m over M5E MMF (50/125 μ m OM3)
 - 20m on MMF (50/125 μ m OM2)
- 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	840	850	860	nm	
Spectral Width (RMS)	$\Delta\lambda$			0.57	nm	
Side-Mode Suppression Ratio	SMSR	-	-	-	dB	
Average Output Power	Pout	-6.2		2	dBm	1
Extinction Ratio	ER	2.0			dB	
Data Input Swing Differential	VIN	180		950	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	840	850	860	nm	
Receiver Sensitivity				-10.2	dBm	3
Receiver Overload		2			dBm	3
LOS De-Assert	LOSD			-13	dBm	
LOS Assert	LOSA	-30			dBm	
LOS Hysteresis		0.5		4	dB	
Data Output Swing Differential	Vout	500		900	mV	4
LOS	High	2.0		Vcc	V	
	Low			0.8	V	

Notes

1. The optical power is launched into MMF.
2. PECL input, internally AC-coupled and terminated.
3. For 32GFC with FEC, receiver sensitivity is defined at 1E-6 BER level, not 1E-12 level
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
XTM85E-M1LY	SFP28 850 nm, 28.05 Gbps, OM3-MMD 70 m/OMF4-MMF 100 m reach, LC receptacle, 0 °C ~ +70 °C, DDM

Note

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

COMPANY INFORMATION

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PARTNER INFORMATION

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