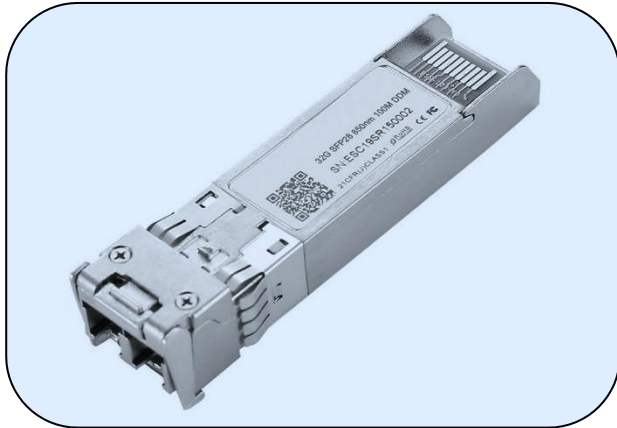


XTM85E-M1LY

28.05 Gbps SFP28 100 m
Multi Mode Transceiver



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:

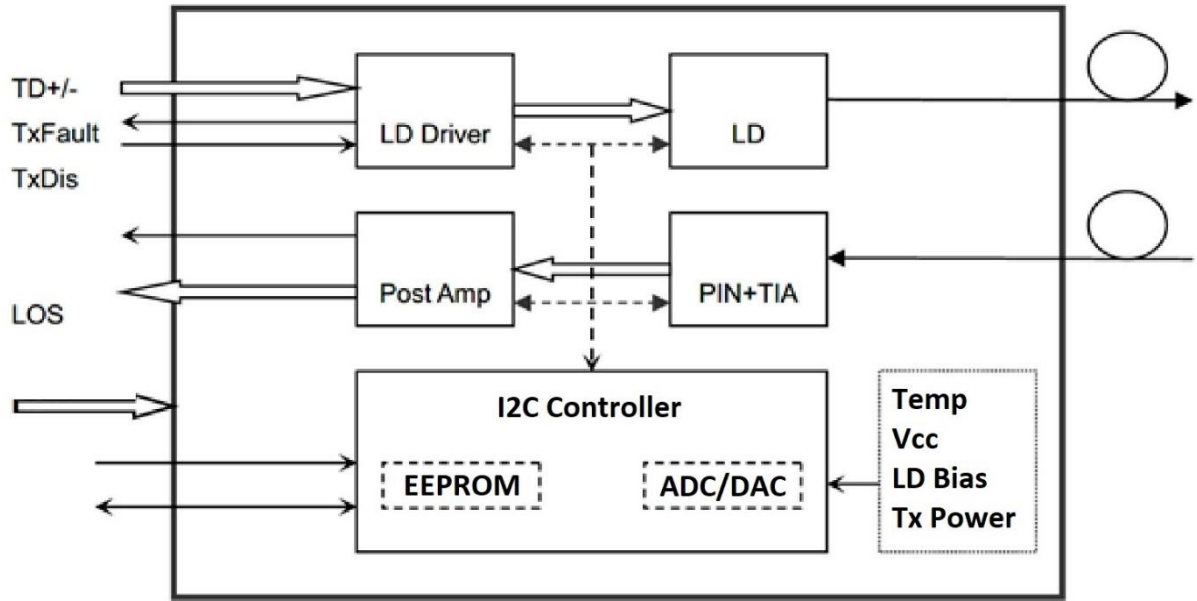
- VCSEL laser transmitter
- PIN photodiode integrated with a trans-impedance amplifier (TIA)
- MCU control unit

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.

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 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	840	850	860	nm	
Spectral Width (RMS)	$\Delta\lambda$			0.57	nm	
Side-Mode Suppression Ratio	SMSR	-	-	-	dB	
Average Output Power	P _{out}	-6.2		2	dBm	1
Extinction Ratio	ER	2.0			dB	
Data Input Swing Differential	V _{IN}	180		950	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	840	850	860	nm	
Receiver Sensitivity	SEN			-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	V _{out}	500		900	mV	4
LOS	High	2.0		V _{cc}	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 BER 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-MMF 70m/OM4-MMF 100 m reach, 0°C to 70°C, LC receptacle, 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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