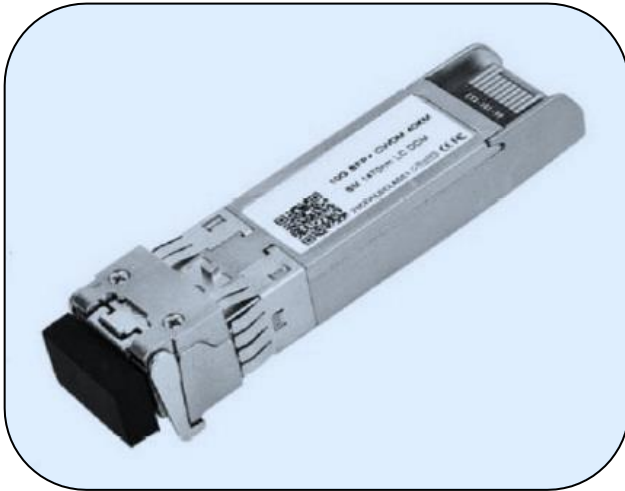


XTCxxA-40LM

SFP+ CWDM 10 Gbps, 40 km Reach
Single Mode Transceiver



Features

- Supports up to 11.3 Gbps bit rates
- Hot-pluggable SFP+ footprint
- CWDM Cooled EML laser and PIN photodiode
- Up to 40 km for SMF transmission
- Compliant with SFP+ MSA and SFF-8472
- Duplex LC receptacle
- Real Time Digital Diagnostic Monitoring
- Single +3.3 V power supply
- Operating Case Temperature Range -40°C to +85°C
- RoHS compliant

Applications

- 10 Gbps CWDM Optical systems
- 10GBASE-ER at 10.3125 Gbps
- 10GBASE-EW at 9.953 Gbps
- LTE systems
- Other Optical links

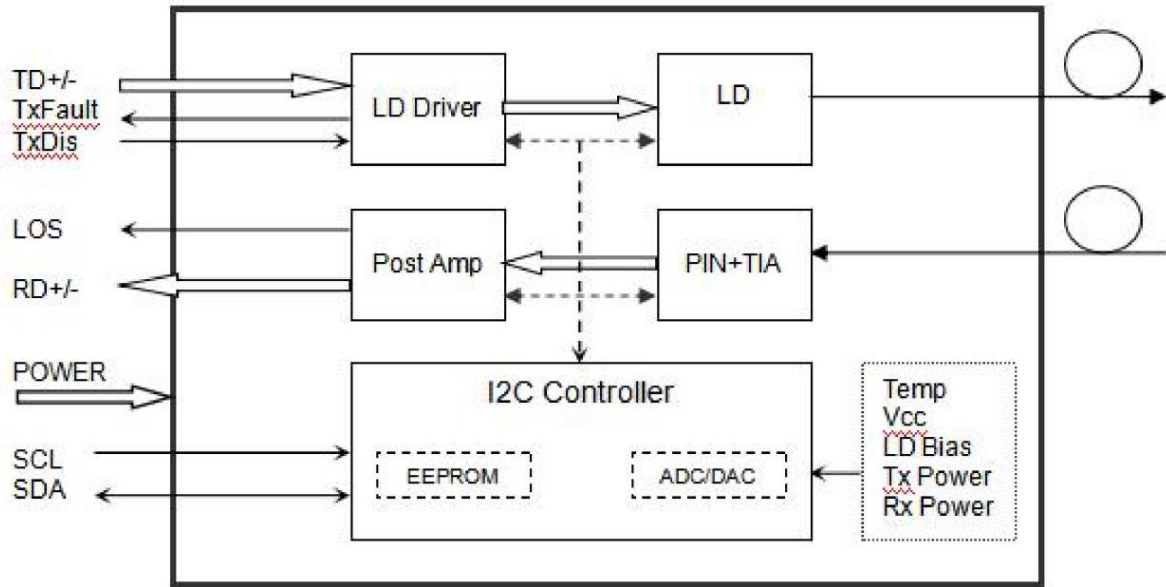
Description

The SFP+ transceivers are high performance, cost effective modules supporting data rate of 10 Gbps and 40 km transmission distance with SMF.

The transceiver consists of three sections: a Cooled EML laser transmitter, a PIN photodiode integrated with a trans-impedance preamplifier (TIA) and MCU control unit. All modules satisfy class I laser safety requirements.

The transceivers are compatible with SFP Multi-Source Agreement and SFF-8472 digital diagnostics functions.

Block Diagram



Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage	Vcc	-0.5	4.5	V
Storage Temperature	Ts	-40	+85	°C
Operating Humidity	-	5	85	%

Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Operating Case Temperature	Tc	-40		+85	°C
Power Supply Voltage	Vcc	3.135	3.30	3.465	V
Power Supply Current	Icc			550	mA
Data Rate		1.0	10.3	11.3	Gbps

Optical and Electrical Characteristics

Parameter	Symbol	Min	Typical	Max	Unit	Notes
Transmitter						
Centre Wavelength	λ_c	$\lambda_c-6.5$	λ_c	$\lambda_c+6.5$	nm	
Spectral Width (-20dB)	λ			1	nm	
Side-Mode Suppression Ratio	SMSR	30	-		dB	
Average Output Power	Pout	-1		+2	dBm	1
Extinction Ratio	ER	6.0			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		1620	nm	
Receiver Sensitivity				-15.5	dBm	3
Receiver Overload		0.5			dBm	3
LOS De-Assert	LOSD			-17	dBm	
LOS Assert	LOSA	-28			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	

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 @10312Mbps, BER $\leq 1 \times 10^{-12}$.
4. Internally AC-coupled.

Ordering information²

Part number	Product Description
XTCxxA-40LM ³	SFP+ CWDM, xx wavelength code, SMF, 10 Gbps, 40 km, LC, -40°C~+85°C, DDMI

Notes

¹ For the latest certification information, please check with Xenopt

² 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.

³ xx refers to upper CWDM wavelength range 1470 to 1610 nm: 47 - 1470 nm, 49 - 1490 nm, 51 - 1510nm, 53 - 1530 nm, 55 - 1550 nm, 57 - 1570 nm, 59 - 1590 nm, 61 - 1610 nm.

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.

The product image is only for reference purpose

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To find out more, please contact: