

XFP-ZR

10GBASE, XFP, ZR, SMF TRANSCEIVER

1550nm, 80km REACH, DUPLEX LC CONNECTOR

Features

- Supports 8.0Gb/s to 11.1Gb/s bit rates
- Hot-pluggable XFP footprint, Built-in digital diagnosis
- Maximum link length of 80km with SMF
- 1550nm Cooled EML laser and APD photodiode
- XFP MSA package with duplex LC connector
- No reference clock required
- Single +3.3V power supply
- Power dissipation <3.5W
- Compatible with RoHS
- Temperature range 0 to +70°C



Applications

- SONET OC-192&SDH STM-64 at 9.953Gbps
- 10GBASE-ZR/ZW 10G Ethernet
- 10G Fiber Channel Applications
- 10GE over G.709 at 11.09Gbps
- OC192 over FEC at 10.709Gbps
- Other optical links, up to 11.1Gbps

1. Absolute Maximum Ratings

Any stress beyond the maximum ratings can result in permanent damage. The device specifications are guaranteed only under the recommended operating conditions.

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

2. Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Operating Case Temperature	Tc	0		+70	°C
Power Supply Voltage @3.3V	Vcc	3.135	3.30	3.465	V
Power Supply Current	Icc			1000	mA
Data Rate		8.0		11.1	Gbps

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3. Optical and Electrical Characteristics

Parameter		Symbol	Min	Typ	Max	Unit	Notes
Transmitter							
Centre Wavelength		λ_c	1530	1550	1565	nm	
Spectral Width (-20dB)		$\Delta\lambda$			1	nm	
Side-Mode Suppression Ratio		SMSR	30			dB	
Average Output Power		P _{out}	0		+4.0	dBm	1
Extinction Ratio		ER	8.2			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	
Receiver							
Centre Wavelength		λ_c	1260		1600	nm	
Receiver Sensitivity					-23	dBm	3
Receiver Overload			-7			dBm	3
LOS De-Assert		LOSD			-24	dBm	
LOS Assert		LOSA	-35			dBm	
LOS Hysteresis			0.5		4	dB	
Data Output Swing Differential		V _{out}	400	600	800	mV	2
LOS	High		2.0		V _{cc}	V	
	Low				0.8	V	

Notes:

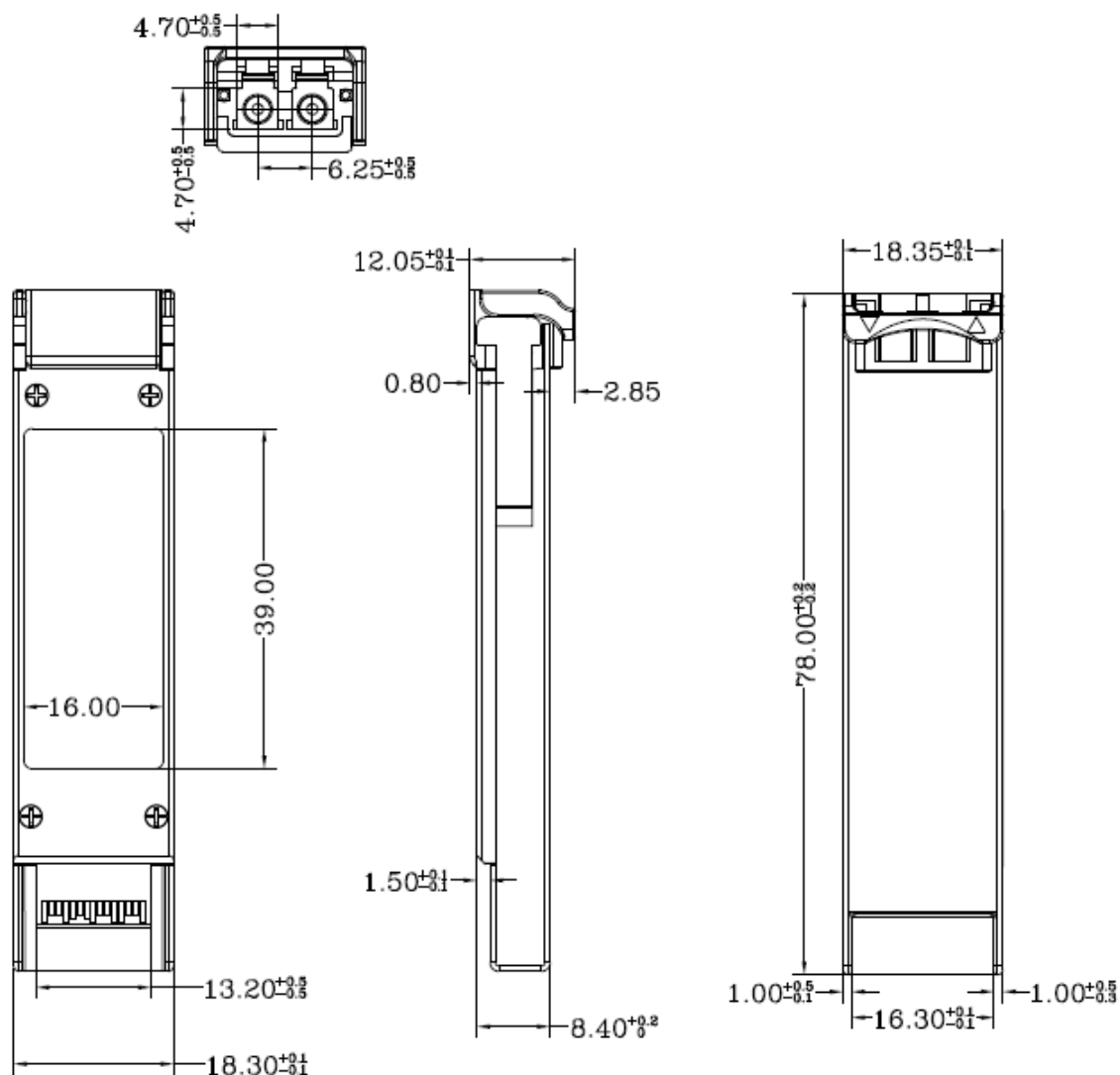
1. The optical power is launched into SMF.
2. Internally AC-coupled.
3. Measured with a PRBS 2³¹-1 test pattern @9953Mbps, BER $\leq 1 \times 10^{-12}$.

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4. Mechanical Diagram



Note: External physical characteristics are subject to variation. This may include, but is not limited to, external case designs, pull tab colors and/or shapes, removal latch styles or colors, and label sizes and placement. These variations do not affect the function or characteristics of the transceivers.

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5. Ordering Information

OEM	Part Number	OEM	Part Number
Adtran	1442980G1C-L	Finisar	FTLX1811M3-L
ADVA	61701812-L	Finisar	FTRX-1811-3-L
Alcatel	10G-XFP-ZR-ALCATEL-L	Force	GP-XFP-1Z-L
Alcatel	1AB217280002-L	Fujitsu	FIM31052-L
Alcatel	3HE01545AA-L	Fujitsu	FC9573D430-L
Alcatel	3HE01545CA-L	H3C	0231A41G-L
Alcatel	3HE05833CA-A-L	IBM	45W8178-L
Allied	AT-XPER80-L	Industrial	100-01506-L
Brocade	10G-XFP-ZR-L	Industrial	109537555-L
Calix	100-02596-L	Infinera	TOM-10G-LR2-L
Calix	100-01507-L	Juniper	EX-XFP-10GE-ZR-L
Ciena	NTTP81KA-L	Juniper	XFP-10G-Z-OC192-LR2-L
Ciena	XCVR-A80V55-L	Marconi	SU69CD-L
Cisco	ONS-XC-10G-L2-L	MRV	XFP-10GD-LR2-L
Cisco	XFP-10GZR-OC192LR-L	MSA	L-XFP-ZR-OC192
Cisco	XFP10GZR192LR-RGD-L	Nortel	AA1403006-E5-L
Cyan	280-0016-00-L	OnePort	OP-XFP-ZR-OC192
Cyan	280-0462-00-L	Redback	XFP-10GE-ZR-L
Cyan	280-0122-00-A-L	Transition	TN-XFP-ZR-L
Edgecore	ET5302-ZR-L	Zhone	MXK-10GE-XFP-80KM-1550-L