

XFP-W23/W32-40-D

10GBASE, XFP, BiDi, SMF TRANSCEIVER 1270/1330nm & 1330/1270nm, 40km REACH, SIMPLEX LC CONNECTOR

Product Features

- Supports 9.95Gb/s to 11.3Gb/s data rates
- Power budget 16dB at least
- XFP-W23-40-D: 1270nm DFB Transmitter/
1330nm Receiver
- XFP-W32-40-D: 1330nm DFB Transmitter/
1270nm Receiver
- LC Connector
- +3.3V power supply only
- Power dissipation <2W
- Built-in digital diagnostic functions
- Complaint with XFP MSA
- Complaint with IEEE 802.3ae 10GBASE-
ER/EW
- Complaint with 10GFC 1200-SM-LL-L
- Available operating temperature ranges:
 - Commercial: 0°C to 70°C
 - Industrial: -40°C to 85°C



Product Applications

- 10GBASE-BX 10.3125Gb/s Ethernet
- 10GBASE-BX 9.953Gb/s Ethernet
- SONET OC-192 SR-1

I. Maximum Ratings

Exceeding the limits below may damage the transceiver module permanently.

Parameter	Symbol	Min.	Typ.	Max.	Units
Maximum Supply Voltage	Vcc	-0.5		4.0	V
Storage Temperature	TS	-40		85	°C

II. Operating/Electrical Specifications

Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Case Operating Temperature	TC	0		+70	°C	Commercial
		-40		+85	°C	Industrial
Power Supply Current	Icc			580	mA	
Supply Voltage	Vcc	3.13		3.45	V	

III. Optical Characteristics

Parameter			Symbol	Min.	Typ.	Max.	Unit	Notes
Center Wavelength	XFP-W23-40-D	Tx	λ_c	1260	1270	1280	nm	
		Rx		1320		1340		
	XFP-W32-40-D	Tx		1320	1330	1340		
		Rx		1260		1280		
Power Budget				16			dB	
Data Rate				9.95		11.3	Gbps	
Transmitter								
Spectral Width (-20dB)			$\Delta\lambda$			1	nm	
Side Mode Suppression Ratio			SMSR	30			dB	1
Average Output Power			Pout, AVG	1		5	dBm	
Extinction Ratio			ER	3.5			dB	
Average Power of OFF Transmitter						-30	dBm	
Relative Intensity Noise			RIN			-128	dB/Hz	
TX Disable Assert Time			t_off			10	us	
Receiver								
Receiver Overload			Pmax	0.5			dBm	
Sensitivity			Pin			-15	dBm	2
LOS De-Assert			LOSD			-17	dBm	
LOS Assert			LOSA	-29			dBm	

Notes:

- Output is coupled into a 9/125um SMF.
- Measured with a PRBS 2³¹-1 test pattern @10.3125Gbps.

IV. Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Transmitter						
Data Rate		9.95		11.3	Gbps	
Input differential impedance	R _{in}	90	100	110	Ω	
Differential data input swing	V _{in,pp}	120		820	mV	1
Transmit Disable Voltage	V _D	2.0		V _{cc}	V	
Transmit Enable Voltage	V _{EN}	GND		GND+0.8	V	
Transmit Disable Assert Time				10	us	
Receiver						
Differential data output swing	V _{out,pp}	340	650	850	mV	1
Output Differential Impedance	P _{IN}	90	100	110	Ω	
Data output rise time	t _r			38	ps	2
Data output fall time	t _f			38	ps	2
LOS Fault	V _{LOS fault}	2.4		V _{cc}	V	
LOS Normal	V _{LOS norm}	GND		GND+0.5	V	

Notes:

1. Internal AC coupling
2. 20% - 80%

V. Ordering Information

Pivotal Part Number	Description
XFP-W23-40-D	XFP, BiDi, 1270TX/1330RXnm, ER SMF 40km 10G/OC-192 DDM, C-Temp
XFP-W23-40-DI	XFP, BiDi, 1270TX/1330RXnm, ER SMF 40km 10G/OC-192 DDM, I-Temp
XFP-W32-40-D	XFP, BiDi, 1330TX/1270RXnm, ER SMF 40km 10G/OC-192 DDM, C-Temp
XFP-W32-40-DI	XFP, BiDi, 1330TX/1270RXnm, ER SMF 40km 10G/OC-192 DDM, I-Temp

Notes:

1. Please contact sales for specific OEM Platform part numbers to fit your network.

Warranty

<https://pivotaloptics.com/warranty/>

Disclaimer

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.