

SFP-W34.W43-60-GD

**1000BASE, SFP, EX, BiDi, SMF TRANSCEIVER (BXU)1310/1490nm,
(BXD)1490/1310nm, 60km REACH, SIMPLEX LC CONNECTOR**

Product Features

- Support 1.25G bps Data Links
- BXU: 1310nm DFB TX /1490nm RX
- BXD: 1490nm DFB TX /1310nm RX
- Up to 60km with 9 /125 μ m SMF
- Single 3.3V Power supply and TTL Logic Interface
- Hot Pluggable SFP Footprint Simplex LC Connector Interface
- Class 1 FDA and IEC60825-1 Laser Safety Compliant
- Compliant with SFP MSA Specification
- Compliant with Digital Diagnostic Monitor Interface SFF-8472
- Available operating temperature ranges:
 - Commercial: 0°C to 70°C
 - Industrial: -40°C to 85°C



Product Applications

- Fiber Channel Links
- WDM Gigabit Ethernet Links
- Other Optical Links
- FTTX Application

I. Maximum Ratings

Exceeding the limits below may damage the transceiver module permanently.

Parameter	Symbol	Min.	Typ.	Max.	Units
Storage Temperature	TS	-40		+85	°C
Supply Voltage	Vcc	-0.5		3.6	V
Operating Relative Humidity	RH			95	%

II. Operating Specifications

Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Case Operating Temperature	TC	0		+70	°C	Commercial
		-40		+85	°C	Industrial
Power Supply Voltage	Vcc	3.15	3.3	3.45	V	
Power Supply Current	Icc			300	mA	
Data Rate	BR			1.25	Gbps	
Link Distance	D			60	km	9/125um

III. Optical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Transmitter						
Center Wavelength	λ_c	1270	1310	1350	nm	BXU
		1450	1490	1530		BXD
Spectral Width (-20dB)	$\Delta\lambda$			1	nm	
Side Mode Suppression Ratio	SMSR	30				
Average Output Power	Pout	0		5	dBm	1
Extinction Ratio @ 1250Mbps	ER	9			dB	
Rise/Fall Time(20%~80%)	tr/tf			260	ps	
TX_Disable Assert Time	t_off			10	us	
Pout@TX Disable Asserted	Pout			-45	dBm	
Output Optical Eye	Compliant with IEEE 802.3ah-2004					2,4
Receiver						
Center Wavelength	λ_c	1480	1490	1500	nm	BXU
		1260		1360		BXD
Receiver Sensitivity @1250Mbps	Pmin			-27	dBm	3
Receiver Overload	Pmax	-3			dBm	
LOS Assert	LOS _A	-42			dBm	
LOS De-Assert @1250Mbps	LOS _D			-28	dBm	
LOS Hysteresis	LOS _H	0.5			dB	

Notes:

1. Output is coupled into a 9/125µm single-mode fiber.
2. Filtered, measured with a PRBS 2⁷-1.
3. Measured at all data rates specified in Data Rate table with ER=9 dB, 2⁷-1 PRBS data pattern, BER <1E-12.
4. Eye Pattern Mask

IV. Electrical Characteristics

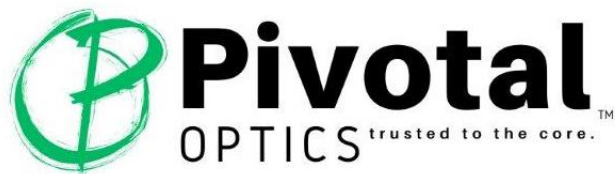
Parameter		Symbol	Min.	Typ.	Max.	Unit	Notes
Transmitter							
LVPECL Inputs (Differential)		Vin	400		2000	mVpp	1
Input Impedance (Differential)		Zin	85	100	115	ohm	2
TX_Dis	Disable		2		Vcc+0.3	V	
	Enable		0		0.8		
TX_FAULT	Fault		2		Vcc+0.3	V	
	Normal		0		0.5		
Receiver							
LVPECL Outputs (Differential)		Vout	400		2000	mVpp	1
Output Impedance (Differential)		Zout	85	100	115	ohm	
RX_LOS	LOS		2		Vcc+0.3	V	
	Normal		0		0.8	V	
MOD_DEF (0:2)		VoH	2.5			V	
		VoL	0		0.5	V	3

Notes:

1. LVPECL logic, internally AC coupled.
2. R_{in} > 100 kohm @ DC
3. With Serial ID

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v. Ordering Information

Pivotal Part Number	Description
SFP-W34-60-GD	SFP, WDM BiDi 1310TX/1490RX, EX SMF 60km, 1000Base DDM, C-Temp
SFP-W34-60-GDI	SFP, WDM BiDi 1310TX/1490RX, EX SMF 60km, 1000Base DDM, I-Temp
SFP-W43-60-GD	SFP, WDM BiDi 1490TX/1310RX, EX SMF 60km, 1000Base DDM, C-Temp
SFP-W43-60-GDI	SFP, WDM BiDi 1490TX/1310RX, EX SMF 60km, 1000Base 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.