XFP EDFA Datasheet

Features

- XFP Compact Form
- I2C control interface
- APC operation
- LOS function
- Transient control
- Power limiting function to prevent receiver overload
- Low total ASE output power level
- Two power monitoring points (input/output)
- 1M Laser Safety Specification compliance
- Color coding of the exposed feature (a feature or surface extending outside of the bezel)

Version History

Date	Version	Description	Author
2024/12/24	1.0	Initialize	Wang Jiannan

Order Information

Part Number	Description	Code
WZEDFA-EM-BXFP0010	-	-

Functional Diagram

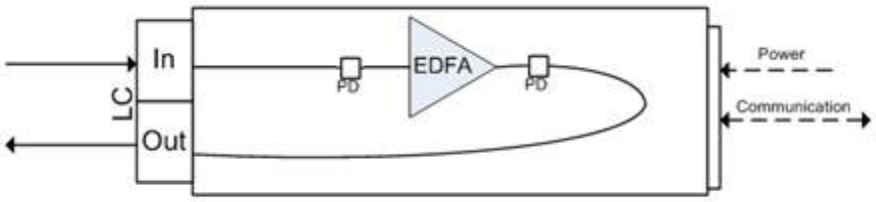

Figure1 Functional Diagram

Operation/Storage Temperature and Humidity

Parameter	Specification	Unit	Note
Operating case temperature	-5 ~ 70	°C	
Operation Humidity	5~85	%RH	
Storage Temperature	-40 ~ +85	°C	
Storage Humidity	5~95	%RH	

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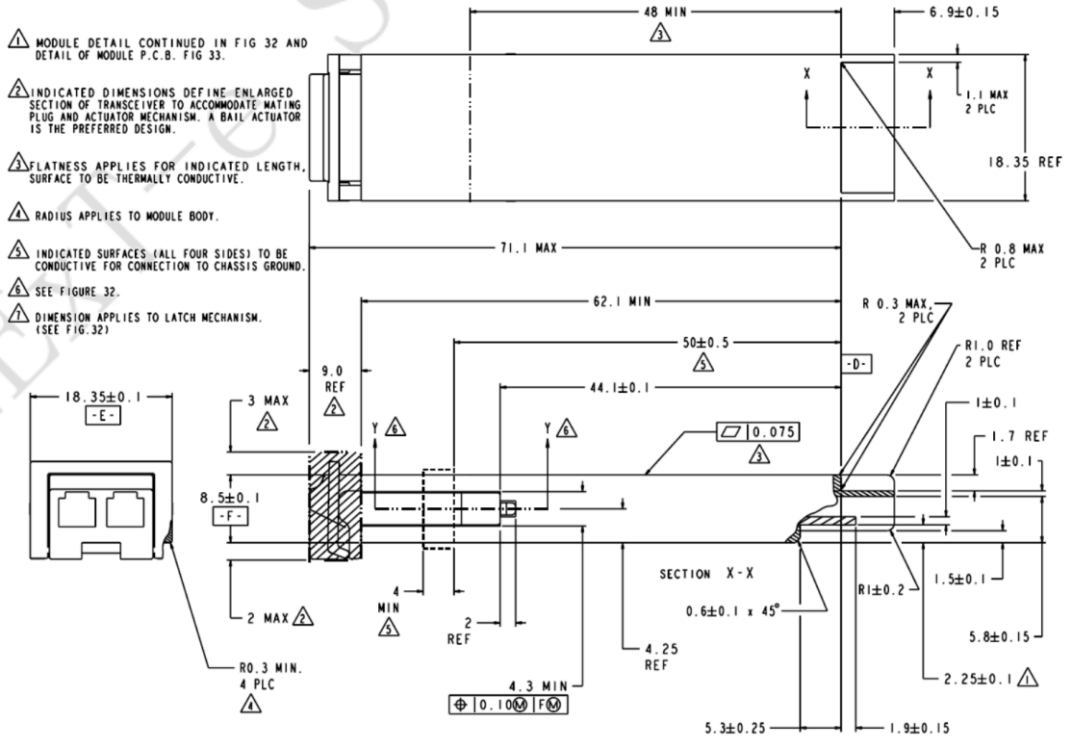
Optical Characteristics

Parameter	Min	Typ	Max	Units	Comments
Wavelength range	1530		1563	nm	Input/output
Operation mode	APC				
Input power	-5		+3	dBm	
Input power monitor accuracy	-0.5		0.5		
Output total power level	0		10	dBm	Within the output power monitoring accuracy
Output power setting Resolution	0.1			dB	
Output power setting accuracy	-0.5		0.5	dB	
Noise figure			10	dB	Input=3dBm;Out=10dBm
			7	dB	Input=-5dBm;Out=10dBm
Polarization dependent gain			0.5	dB	
Multi-Path Interference			-35	dB	
Pump wavelength		974		nm	
Pump leakage against input and output			-30	dBm	

Mechanical Dimension Part



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Electrical requirement

Pin Functionality

Pin	Logic	Symbol	Name/Description	Note
1		GND	Module Ground	1
2		NC	No Connect	2
3	LVTTL-I	Mod_DeSel	Module De-select; When held low allows module to respond to 2-wire serial interface	
4	LVTTL-O	Interrupt	Interrupt; Indicates presence of an important condition which can be read over the 2-wire serial interface. Active Low	3
5	LVTTL-I	AMP_DIS	PUMP Disable; When High, Turns off PUMP	
6		NC	No Connect	
7		GND	Module Ground	
8		VCC3	+3.3V Power Supply	
9		VCC3	+3.3V Power Supply	
10	LVTTL-I/O	SCL	2-Wire Serial Interface Clock	3
11	LVTTL-I/O	SDA	2-Wire Serial Interface Data	3
12	LVTTL-O	Mod_Abs	Indicates Module is not present. Grounded in the Module	3
13	LVTTL-O	Mod_NR	Module Not Ready; It has been high when module is power on or reset.	3
14	LVTTL-O	COMM_ALARM	Module Alarm Output, Active High	3
15		GND	Module Ground	
16		GND	Module Ground	
17		NC	No Connect	2
18		NC	No Connect	2
19		GND	Module Ground	1
20		NC	No Connect	
21	LVTTL-I	P_Down/RST	**Power down**; When high,Turns off PUMP. **Reset;** The falling edge initiates a complete reset of the module including the 2-wire serial interface, equivalent to a power cycle.	
22		NC	No Connect	
23		GND	Module Ground	1
24		NC	No Connect	2
25		NC	No Connect	2
26		GND	Module Ground	
27		GND	Module Ground	
28		NC	No Connect	2
29		NC	No Connect	2
30		GND	Module Ground	

Notes:

1. Module ground pins GND are isolated from the module case and chassis ground within the module;

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2. Not connection on XFP module;

3. Shall be pulled up with 4.7K-10Kohms to a voltage between 3.15V and 3.45V on the host board.

Power Supply Characteristics and Operating Rating

Supply	Min	Typ	Max	Unit
3.3V Digital Supply Voltage	3.14		3.47	V
3.3V Total Supply Current			750	mA
Power Dissipation			2.5	W

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