

1.25 Gb/s 1310 nm Single-Mode SFP Transceiver

SFP Series



ASCENT's SFP-AG-LP-31-10 meets the Small Form Pluggable (SFP) industry standard package utilizing an integral LC-Duplex optical interface connector. An enhanced Digital Diagnostic Monitoring Interface compliant with SFF-8472 has been incorporated into the transceiver. It allows real time access to the transceiver operating parameters such as transceiver temperature, laser bias current, transmitted optical power, and received optical power and transceiver supply voltage by reading a built-in memory with I2C interface.

The optical output can be disabled by a LVTTTL logic high-level input of Tx Disable, and the system also can disable the module via I2C. Tx Fault is provided to indicate that degradation of the laser. Loss of Signal (LOS) output is provided to indicate the loss of an input optical signal of receiver or the link status with partner. The system can also get the LOS (or Link)/Disable/Fault information via I2C register access.

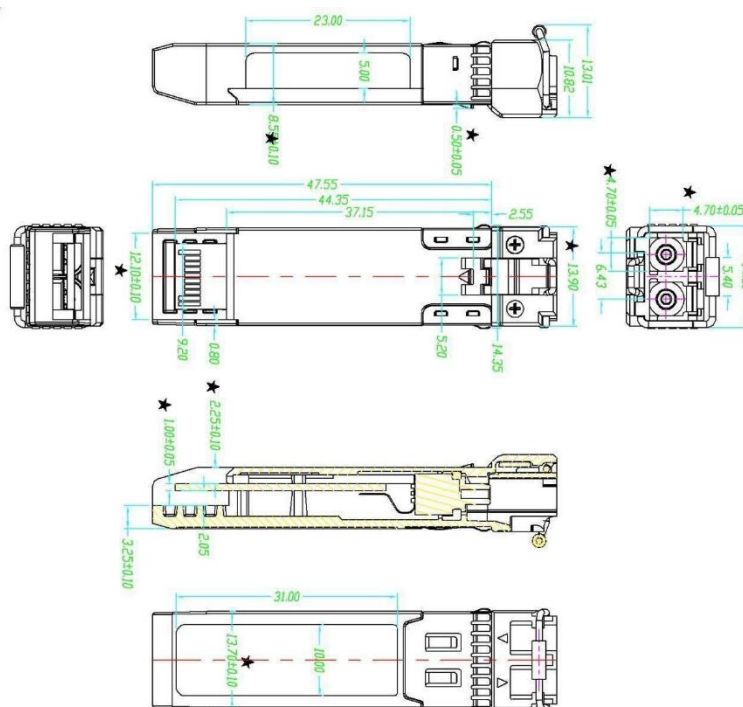
Key Features

- Up to 1.25 Gb/s data links
- FP laser transmitter and PIN photo-detector
- Up to 10(20) km on 9/125 μ m SMF
- Hot-pluggable SFP footprint
- Duplex LC/UPC type pluggable optical interface
- Power consumption <1W
- Metal enclosure, for lower EMI
- Complaint with IEEE 802.3ah-2004
- Complaint with SFP MSA
- Complaint with RoHS, FCC

Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Operating Case Temperature	T_{case}	0		+70	°C	Commercial
		-40		+85	°C	Industrial
Power Supply Voltage	V_{CC}	3.13	3.3	3.47	V	
Power Supply Current	I_{CC}			280	mA	
Data Rate			1250/1250		Mbps	TX rate/RX rate
Transmission Distance				20	km	
Average Output Power	P_{OUT}	-9.5		-3	dBm	
Center Wavelength	λ_C	1260	1310	1360	nm	
Spectrum Bandwidth (RMS)	σ			3.5	nm	FP Laser
Transmitter OFF Output Power	P_{Off}			-45	dBm	
Input Optical Wavelength	λ_{IN}	1270		1610	nm	
Input Saturation Power (Overload)	P_{SAT}	-3			dBm	

Outline Diagram



Ordering Information

Product Name	Product Description
SFP-AG-LP-31-10	SFP Plug-in, 1.25 Gbps, 10 km, TX=1310/RX wide, on two single-mode fibers, LC/PC Blue
SFP-AG-LP-31-10A	SFP Plug-in, 1.25 Gbps, 10km, TX=1310/RX wide, on two single-mode fibers, LC/PC Blue, Industrial Temp -40 °C to +85 °C
JSP-AG-LP-31-10	SFP Plug-in, 1.25 Gbps, 10 km, TX=1310/RX wide, on two single-mode fibers, LC/PC Blue, Compatible with Juniper
JSP-AG-LP-31-10A	SFP Plug-in, 1.25 Gbps, 10km, TX=1310/RX wide, on two single-mode fibers, LC/PC Blue, Industrial Temp -40 °C to +85 °C, Compatible with Juniper



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