

1000Base-LX MiniGBIC transceiver

Up to 20KM, Hot pluggable, Auto-Fall-Back

SFP-LX-1.25G-20KM



1.25G SFP
transceiver

1310nm

Up to 20KM

Single Mode
Dual Fiber

LC Duplex
Connector

DDM
Function

ESD
Protection

Hot
Pluggable

0°C~+70°C

Overview

The AirLive SFP-LX-1.25G-20KM is a low power, high performance and cost-effective single mode SFP Fiber transceiver for serial optical data communication applications up to 1.25Gbps and 20KM. The low jitter and high sensitivity module is intended for single mode dual fiber and operates at a nominal wavelength of 1310nm, the operating temperature 0°C~70°C and the module is hot pluggable.

The transceiver incorporates TX Disable control, TX-Fault, and RX_LOS monitor functions. It is a duplex LC connector transceiver designed for use in Gigabit Ethernet applications and to provide IEEE802.3z compliant link and Class I Laser safety compliant link.

The suitable applications are such as High-speed storage area networks, computer cluster cross-connect, customized high-speed data pipes, and more.

Features

- 1.25Gbps Fiber Mini GBIC SFP Transceiver
- Single mode SFP fiber
- Duplex LC connector Interface
- Wavelength 1310nm FP Laser and PIN photo detector
- 1.25Gbps high speed
- Distance up to 20KM
- Low Power consumption Max 1.0W
- Hot-pluggable capability
- Very low EMI
- Excellent ESD protection
- IEEE802.3Z
- Operating Temperature : 0 °C ~ +70 °C

Application

- Fiber Channel Infrastructure
- STM-16 Optical Interface
- ATM Switches and Routers
- SDH/SONET Switch Infrastructure

Application Environment examples

- Bank
- AirPort
- Hotel
- Expressway
- Petrochemical Industry
- Metro
- Factory

Transmitter Operating Characteristic Optical, Electrical

Transmitter					
Parameter	Symbol	Min.	Typical	Max.	Unit
Centre Wavelength	λ_c	1260	1310	1360	nm
Spectral width (RMS)	$\Delta\lambda$	-	-	4	nm
Average Output Power	Po	-9	-	-3	dBm
Extinction Ratio	Er	8	-		dB
Rise/Fall Time (20%~80%)	Tr/Tf			300	ps
Total jitter	Tj			0.43	UI
Input Differential Impedence	Zin	90	100	110	Ohm
Data Input Swing Differential	Vin	500		2400	mV
TX Disable - Disable		2.0		Vcc	V
TX Disable - Enable		0		0.8	V
TX Fault - Assert		2.0		Vcc	V
TX Fault – De-Assert		0		0.8	V
Output Optical Eye	IEEE802.3z and ANSI Fibre Channel Compatible				

Receiver Operating Characteristic Optical, Electrical

Receiver					
Parameter	Symbol	Min.	Typical	Max.	Unit
Centre Wavelength	λ_c	1260		1610	nm
Receiver Sensitivity	Rsen	-	-	-22	dBm
Receiver Overload	Rov	-3			dBm
Return Loss		12			dB
LOS Assert	LOSA	-36			dBm
LOS De-Assert	LOSD			-23	dBm
LOS Hysteresis		0.5		5	
Output differential impedance	Zout	-	100	-	Ohm
Data Input Swing Differential	Vout	370	-	2000	mV
Rx_LOS - Assert	-	2.0	-	Vcc	V
Rx_LOS – De-Assert	-	0	-	0.8	V

Fiber for Long Distance up to 20Km at Gigabit

Extend the network further with AirLive network switches and fiber modules. Use the SFP modules in the SFP ports which also supports DDM and offers more information about the fiber connection and makes it easier to find any faults or bad connections.



Model	AirLive SFP-LX-1.25G-20KM
<p>Hardware</p> <ul style="list-style-type: none"> • Power Supply Voltage: 3.15V~3.45V Typical Power Supply Voltage: 3.3V • Standard Compliant with IEEE 802.3Z Compliant with Digital Diagnostic SFF-8472 Compliant with IEC-60825 DDM Support ESD Protection • Total Supply Current: 300mA • Data Rate: 1.25 Gbps • Power Dissipation Max 1.0 W • Transmitter (Electrical - Optical) Centre Wavelength: - Min.:1260nm - Typical: 1310nm - Max.: 1360nm Average Output Power: -9, Max -3dBm Extinction Ratio: Min: 8dB Operating Data Rate: 1.25Gbps Tx Input Differential. Voltage: - Min. 500 Mv - Max. 2400 mV Tx Fault Output Voltage – Assert: - Min. 2.0V - Max. Vcc Tx Fault Output Voltage – De-Assert: - Min. 0V - Max. 0.8V • Receiver -Optical, Electrical Center Wavelength: - Min. 1260nm - Max. 1620nm Receive Sensitivity In Average Power: - Max. -22dBm Los Assert: -36dBm Los De-Assert: -23dBm Los Hysteresis - Min. 0.5 - Max. 5 Receiver Overload: -3dBm Data Input Swing Differential Voltage - Min. 370mV - Max. 2000mV 	<p>Environment</p> <ul style="list-style-type: none"> • Operating Temperature: 0°C to +70°C • Storage Temperature: -40°C to +85°C • Working Humidity: 5%~95%, non-condensing <p>Standard package of SFP</p> <ul style="list-style-type: none"> • Product size: 56.5 x 13.4 x 8.5 mm(L*W*H) • Package size: TBD mm(L*W*H) • Package Weight: N.W: TBD kgs; G.W:TBD KGS • Package content: 1 x SFP Module <p>Standard carton package</p> <ul style="list-style-type: none"> • Quantity: 10 pcs / 1 Blister • Dimensions TBD mm(L*W*H) • Weight TBD kgs <p>Ordering Information</p> <ul style="list-style-type: none"> • Model: SFP-LX-1.25G-20KM • Name: 1000Base-LX MiniGBIC transceiver, Up to 20KM, Hot pluggable, Auto-Fall-Back

* Specification will be changed without prior notice

