

## 2.5G 2500Base-X MiniGBIC transceiver

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

SFP-LX-2.5G-20KM

airlive®



2.5G 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-2.5G-20KM is a low power, high performance and cost-effective single mode SFP Fiber transceiver for serial optical data communication applications up to 2.5Gbps and 20KM. The low jitter and high sensitivity module is intended for single mode fiber and operates at a nominal wavelength of 1310nm. It supports an operating temperature of 0°C~70°C and 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 using in Gigabit Ethernet applications and to provide IEEE802.3z compliant and Class I Laser safety compliant link.

## Features

- 2.5Gbps Fiber Mini GBIC SFP Transceiver
- Single mode SFP fiber
- Duplex LC connector Interface
- Wavelength 1310nm FP Laser
- 2.5Gbps high speed
- Long Distance up to 20KM
- Low Power consumption Max 1.0W
- Hot-pluggable capability
- Very low EMI
- Excellent ESD protection
- IEEE802.3z, IEEE802.3bz
- 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

**2.5G 2500Base-X MiniGBIC transceiver**  
**Up to 20KM, Hot pluggable, Auto-Fall-Back**



SFP-LX-2.5G-20KM

**Transmitter Operating Characteristic Optical, Electrical**

Transmitter					
Parameter	Symbol	Min.	Typical	Max.	Unit
Centre Wavelength	$\lambda_c$	1260	1310	1360	nm
Spectral Width (RMS)	$\sigma$			3	nm
Average Optical Power	Pavg	-9		-3	dBm
Laser Off Power	Poff	-	-	-45	dBm
Extinction Ratio	Er	8.2	-	-	dB
Relative Intensity Noise	Rin	-	-	-128	dB/Hz
Transmitter jitter	Ulp-p		-	0.1	
Optical Return Loss Tolerance		-	-	12	dB
Input Differential Impedence	Zin	90	100	110	Ohm
Single ended data input swing	Vin PP	180		700	mVp-p
Output Optical Eye		Compliant with ITU-T G.957			

**Receiver Operating Characteristic Optical, Electrical**

Receiver					
Parameter	Symbol	Min.	Typical	Max.	Unit
Centre Wavelength	$\lambda_c$	1260		1620	nm
Receiver Sensitivity in Average Power	Sen	-19	-	0	dBm
Overload	Pin	-	-	-3	dBm
LOS Assert	LOSA	-35	-	-	dBm
LOS De-Assert	LOSD	-	-	-20	dBm
LOS Hysteresis	LOSH	0.5	-	-	dB
Receiver Reflectance		-	-	-12	dB
Receiver power (damage)		-	-	0	dBm
Single ended data output swing	Vout,pp	200		800	mV

**Fiber for Long Distance up to 20Km 2.5Gbps auto-fallback**

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-2.5G-20KM
<p><b>Hardware</b></p> <ul style="list-style-type: none"> <li>• <b>Power Supply Voltage</b> 3.13V~3.46V Typical Power Supply Voltage: 3.3V</li> <li>• <b>Standard</b> Compliant with IEEE 802.3Z Compliant with MSA SFF-8472 Compliant with SFP MSA Compliant with ITU-T G.957 DDM Support ESD Protection</li> <li>• <b>Total Supply Current:</b> 300mA</li> <li>• <b>Data Rate:</b> 2.5 Gbps</li> <li>• <b>Power Dissipation</b> 1.0 W</li> <li>• <b>Transmitter (Electrical - Optical)</b> Centre Wavelength: - Min:1260nm - Typical: 1310nm - Max: 1360nm Spectral Width: 3nm Average Optical Power: -9 ~ -3 dBm Laser Off Power: -45dbm Extinction Ratio: 8.2db Operating Data Rate: Max 2.5Gbps Single ended data input swing Voltage - Min. 180 mVp-p - Max. 700 mVp-p</li> <li>• <b>Receiver -Optical, Electrical</b> Center Wavelength - Min. 1260nm - Max. 1620nm Receive Sensitivity In Average Power - Min. -19dBm Los Assert: -35dBm Los Dessert: -20dBm Los Hysteresis Min. 0.5dB Overload: -3dBm Receiver Reflectance: -12dB</li> </ul>	<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>• <b>Operating Temperature:</b> 0°C to +70°C</li> <li>• <b>Storage Temperature:</b> -40°C to +85°C</li> <li>• <b>Working Humidity:</b> 0%~85%, non-condensing</li> </ul> <p><b>Standard package of SFP</b></p> <ul style="list-style-type: none"> <li>• <b>Product size:</b> 56.6 x 13.4 x 8.5 mm(L*W*H)</li> <li>• <b>Package size:</b> TBD mm(L*W*H)</li> <li>• <b>Package Weight:</b> N.W: TBD kgs; G.W:TBD KGS</li> <li>• <b>Package content:</b> 1 x SFP Module</li> </ul> <p><b>Standard carton package</b></p> <ul style="list-style-type: none"> <li>• <b>Quantity:</b> 10 pcs / 1 Blister</li> <li>• <b>Dimensions</b> TBD mm(L*W*H)</li> <li>• <b>Weight</b> TBD kgs</li> </ul> <p><b>Ordering Information</b></p> <ul style="list-style-type: none"> <li>• <b>Model:</b> SFP-LX-2.5G-20KM</li> <li>• <b>Name:</b> 2.5Gbps Fiber Mini GBIC SFP Transceiver, 1310nm, LC connector, 20KM, Hot-pluggable</li> </ul>

\* Specification will be changed without prior notice

