

Industrial Level 1000Base-LX MiniGBIC transceiver

Up to 20KM, Hot pluggable

ISFP-LX-1.25G-20KM

airlive®



1.25G SFP
transceiver

1310nm

Up to 20KM

Single Mode
Dual Fiber

Industrial-level

LC Duplex
Connector

DDM
Function

ESD
Protection

Hot
Pluggable

-40°C~+85°C

Overview

The AirLive ISFP-LX-1.25G-20KM is a low power, high performance and cost-effective single mode Industrial SFP Fiber transceiver for serial optical data communication applications up to 1.25Gbps and 20KM in Industrial environments. The low jitter and high sensitivity module is intended for single mode dual fiber and operates at a nominal wavelength of 1310nm, the higher operating temperature of -40°C ~ +85°C makes the module ideally suited for Industrial and higher temperature areas, 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 : -40°C ~ +85°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

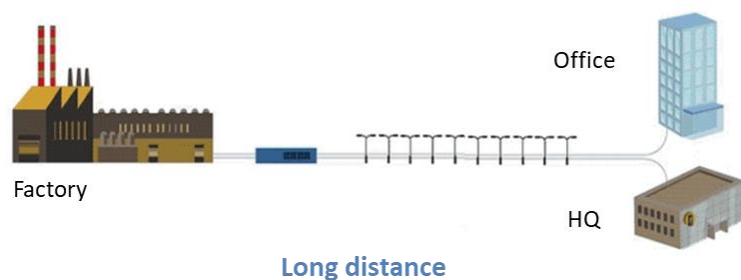
| Transmitter | | | | | |
|-------------------------------|--|------|---------|------|------|
| Parameter | Symbol | Min. | Typical | Max. | Unit |
| Centre Wavelength | λ_c | 1260 | 1310 | 1360 | nm |
| Spectral width (RMS) | $\Delta\lambda$ | - | - | 4 | nm |
| Average Output Power | Po | -9 | - | -3 | dBm |
| Extinction Ratio | Er | 8 | - | | dB |
| Rise/Fall Time (20%~80%) | Tr/Tf | | | 180 | 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 |

Industrial level Fiber for Long Distance up to 20Km, 1.25Gbps

Extend the network further with the AirLive network switches and fiber modules. Use the Industrial level 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 ISFP-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: -40°C to +85°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: 55.4 x 13.7 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: ISFP-LX-1.25G-20KM • Name: Industrial level 1.25Gbps Fiber Mini GBIC SFP Transceiver, 1310nm, LC connector, 20KM, hot-pluggable |

* Specification will be changed without prior notice

