

1000Base-SX MiniGBIC transceiver

500M, Hot pluggable

SFP-SX-1.25G-500M



1.25G SFP
transceiver

850nm
VCSEL

Up to 500M

Multi Mode
Dual Fiber

LC Duplex
Connector

DDM
Function

ESD
Protection

Hot
Pluggable

0°C~+70°C

Overview

The AirLive SFP-SX-1.25G-500M is a low power, high performance and cost-effective multi mode SFP Fiber transceiver for serial optical data communication applications up to 1.25Gbps and 500M. The low jitter and high sensitivity module is intended for single mode dual fiber and operates at a nominal wavelength of 850nm, 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
- Multi mode SFP fiber
- Duplex LC connector Interface
- Wavelength 850nm VCSEL Laser and PIN photo detector
- 1.25Gbps high speed
- Distance up to 500M
- 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

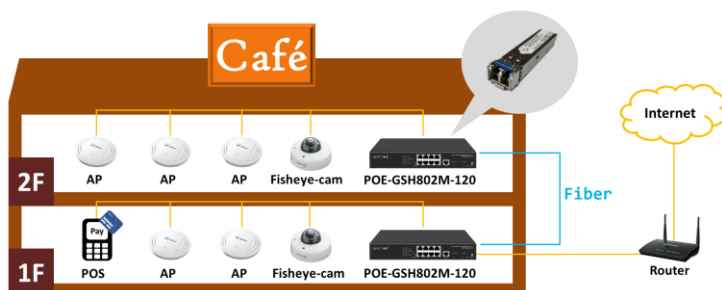
| Transmitter | | | | | |
|-------------------------------|--|------|---------|------|------|
| Parameter | Symbol | Min. | Typical | Max. | Unit |
| Centre Wavelength | λ_c | 830 | 850 | 860 | nm |
| Average Output Power | Po | -9 | - | -3 | dBm |
| Extinction Ratio | Er | 8 | - | | dB |
| Rise/Fall Time(20%~80%) | Tr/Tf | | | 150 | 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 | 830 | | 860 | nm |
| Receiver Sensitivity | Rsen | - | - | -19 | dBm |
| Receiver Overload | Rov | -3 | | | dBm |
| Return Loss | | 12 | | | dB |
| LOS Assert | LOSA | -36 | | | dBm |
| LOS De-Assert | LOSD | | | -20 | 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 500M

Extend the network further with the 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.

**SFP cross-floor connection**

| Model | AirLive SFP-SX-1.25G-500M |
|--|--|
| <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.: 0nm - Typical: 850nm - Max.: 860nm Average Output Power Extinction Ratio: 8dB Operating Data Rate: 1.25Gbps Tx Input Swing Differential. Voltage: - Min. 500 Mv - Max. 2400 mV Tx Fault Voltage – Assert: - Min. 2.0V - Max. Vcc Tx Fault Voltage – De-Assert: - Min. 0V - Max. 0.8V • Receiver -Optical, Electrical Center Wavelength: - Min. 830nm - Max. 860nm Receive Sensitivity In Average Power: - Max. -19dBm Los Assert: -36dBm Los De-Assert: -20dBm 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 cm(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-SX-1.25G-500M • Name: 1.25Gbps Fiber Mini GBIC SFP Transceiver, 850nm, LC connector, 500M, hot-pluggable |

* Specification will be changed without prior notice

