

# Industrial Level 10G Multi Giga SFP+ MiniGBIC Transceiver, Up to 300M, Hot pluggable, Auto-fall back

ISFP-SR-10G-300M

airlive®



10G SFP+ transceiver

850nm

Up to 300M

Multi Mode Dual Fiber

Industrial-level

LC Duplex Connector

DDM Function

ESD Protection

Hot Pluggable

-40°C~+85°C

## Overview

The AirLive ISFP-SR-10G-300M is a low power, high performance and cost-effective single mode Industrial level SFP+ Fiber transceiver for serial optical data communication applications up to 10Gbps and 300M in Industrial environments. The low jitter and high sensitivity module is intended for multi mode dual fiber and operates at a nominal wavelength of 850nm, the higher operating temperature from -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 IEEE802.3ae 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

- 10Gbps Fiber Mini GBIC SFP+ Transceiver
- Multi mode SFP+ fiber
- Duplex LC connector Interface
- Wavelength 850nm VCSEL Laser and PIN photo detector
- 10Gbps high speed
- Distance up to 300M
- Low Power consumption < 1.0W
- Hot-pluggable capability
- Very low EMI
- Excellent ESD protection
- IEEE802.3ae
- 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

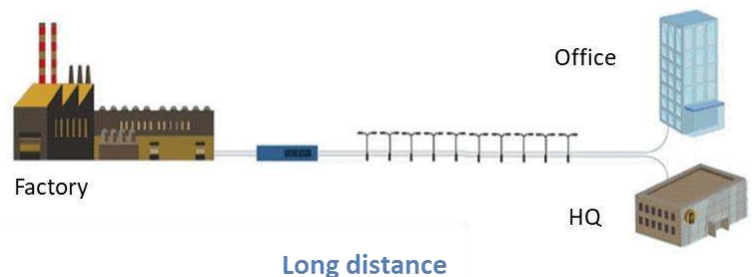
Transmitter					
Parameter	Symbol	Min.	Typical	Max.	Unit
Centre Wavelength	$\lambda_c$	840	850	860	nm
Spectral width (RMS)	$\Delta\lambda$	-	-	0.45	nm
Average Output Power	Po	-5	-	0	dBm
Extinction Ratio	Er	3.0	-		dB
Dispersion Penalty				3.9	dB
Relative Intensity Noise	RIN <sub>120MA</sub>			-128	dB/Hz
Total jitter	Tj			215	PS
Input Differential Impedence	Zin	90	100	110	Ohm
Data Input Swing Differential	Vin	180		700	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

## Receiver Operating Characteristic Optical, Electrical

Receiver					
Parameter	Symbol	Min.	Typical	Max.	Unit
Centre Wavelength	$\lambda_c$		850		nm
Receiver Sensitivity	Rsen	-	-	-11.5	dBm
Receiver Overload	Rov			-10.5	dBm
Return Loss		0			dB
LOS Assert	LOSA	12			dB
LOS De-Assert	LOSD	-25			dBm
LOS Hysteresis		0.5			
Output differential impedance	Zout	-	100	-	Ohm
Data Input Swing Differential	Vout	300	-	800	mV
Rx_LOS - Assert	-	2.0	-	Vcc	V
Rx_LOS – De-Assert	-	0	-	0.8	V

## Fiber for Long Distance up to 300m

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.



Model	AirLive ISFP-SX-10G-300M
<p><b>Hardware</b></p> <ul style="list-style-type: none"><li>• <b>Power Supply Voltage:</b> 3.15V~3.45V Typical Power Supply Voltage: 3.3V</li><li>• <b>Standard</b> Compliant with IEEE 802.3ae Compliant with Digital Diagnostic SFF-8472 Compliant with IEC-60825 DDM Support ESD Protection</li><li>• <b>Total Supply Current:</b> 300mA</li><li>• <b>Data Rate:</b> 10 Gbps</li><li>• <b>Power Dissipation</b> Max 1.0 W</li><li>• <b>Transmitter (Electrical - Optical)</b> Centre Wavelength:<ul style="list-style-type: none"><li>- Min.:840nm</li><li>- Typical: 850nm</li><li>- Max.: 860nm</li></ul>Average Output Power: -5, Max -0dBm Extinction Ratio: Min: 3.0dB Operating Data Rate: 10Gbps Tx Input Differential. Voltage:<ul style="list-style-type: none"><li>- Min. 180 Mv</li><li>- Max. 700 mV</li></ul>Tx Fault Output Voltage – Assert:<ul style="list-style-type: none"><li>- Min. 2.0V</li><li>- Max. Vcc</li></ul>Tx Fault Output Voltage – De-Assert:<ul style="list-style-type: none"><li>- Min. 0V</li><li>- Max. 0.8V</li></ul></li><li>• <b>Receiver -Optical, Electrical</b> Center Wavelength:<ul style="list-style-type: none"><li>- Typical 850nm</li></ul>Receive Sensitivity In Average Power:<ul style="list-style-type: none"><li>- Max. -11.5dBm</li></ul>Los Assert: 12dB Los De-Assert: -25dBm Los Hysteresis<ul style="list-style-type: none"><li>- Min. 0.5</li></ul>Receiver Overload: -10.5dBm Data Input Swing Differential Voltage<ul style="list-style-type: none"><li>- Min. 180mV</li><li>- Max. 700mV</li></ul></li></ul>	<p><b>Environment</b></p> <ul style="list-style-type: none"><li>• <b>Operating Temperature:</b> -40°C to +85°C</li><li>• <b>Storage Temperature:</b> -40°C to +85°C</li><li>• <b>Working Humidity:</b> 5%~95%, non-condensing</li></ul> <p><b>Standard package of SFP</b></p> <ul style="list-style-type: none"><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> 5.5x1.3x0.8 cm</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> ISFP-SR-10G-300M</li><li>• <b>Name:</b> Industrial level 10Gbps Fiber Mini GBIC ISFP Transceiver, 850nm, LC connector, 300M, hot-pluggable</li></ul>

\* Specification will be changed without prior notice

