

Industrial Level 10G Multi Giga SFP+ MiniGBIC
Transceiver, Up to 10KM, Hot pluggable, Auto-fall back
ISFP-LR-10G-10KM



10G SFP+ transceiver	1310nm DFB	Up to 10KM	Single Mode Dual Fiber	Industrial-level
LC Duplex Connector	DDM Function	ESD Protection	Hot Pluggable	-40°C~+85°C

Overview

The AirLive ISFP-LR-10G-10KM 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 10KM in Industrial environments. The low jitter and high sensitivity module is intended for multi 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 to work on Multi Gigabit Ethernet applications and to provide IEEE802.3ae compliant link and Class I Laser safety compliant link.

The suitable applications 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
- Single mode SFP+ fiber
- Duplex LC connector Interface
- Wavelength 1310nm DFB Laser and PIN photo detector
- 10Gbps high speed
- Distance up to 10KM
- Low Power consumption < 1.0W
- Hot-pluggable capability
- Very low EMI
- Excellent ESD protection
- Compatible with SFF8472
- 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

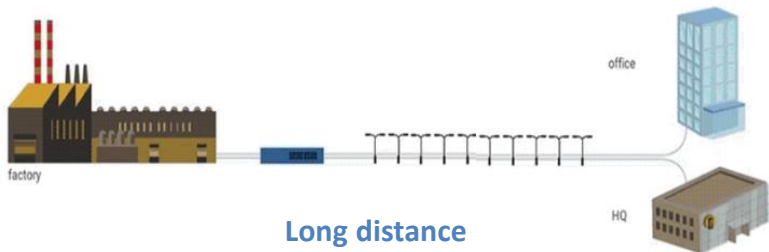
Transmitter					
Parameter	Symbol	Min.	Typical	Max.	Unit
Centre Wavelength	λ_c	1290	1310	1330	nm
Sid-Mode Suppression Ratio	SMSR	35	-	-	dB
Average Output Power	Po	-5	-	+0.5	dBm
Extinction Ratio	Er	3.5	-		dB
Dispersion Penalty				3.2	dB
Relative Intensity Noise	RIN12OMA			-128	dB/Hz
Total jitter	Tj			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	λ_c		1310		nm
Receiver Sensitivity	Rsen	-	-	-13	dBm
Receiver Overload	Rov			-12	dBm
Return Loss		-3			dB
LOS Assert	LOSA	-28			dBm
LOS De-Assert	LOSD			-14	dBm
LOS Hysteresis		0.5		4	
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

Industrial level Fiber for Long Distance up to 10Km, 10Gbps, auto- fallback

Extend the network further with the AirLive network switches and fiber modules. Use the Industrial 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-LR-10G-10KM
Hardware • Power Supply Voltage 3.15V~3.45V Typical Power Supply Voltage: 3.3V • Standard Compliant with IEEE 802.3ae Compliant with Digital Diagnostic SFF-8472 Compliant with IEC-60825 DDM Support ESD Protection • Total Supply Current: 300mA • Data Rate: 103125 Mbps • Power Dissipation Max 1.0 W • Transmitter (Electrical - Optical) Centre Wavelength: - Min.:1290nm - Typical: 1310nm - Max.: 1330nm Average Output Power Extinction Ratio: 3.5dB Operating Data Rate: 10Gbps Tx Input Differential. Voltage: - Min. 180 Mv - Max. 700 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: - Typical 1310nm Receive Sensitivity In Average Power: - Max. -13dBm Los Assert: -12dB Los De-Assert: -28dBm Los Hysteresis - Min. 0.5 - Max. 4 Overload: -12dBm Data Input Swing Differential Voltage - Min. 180mV - Max. 700mV	Environment • Operating Temperature: -40°C to +85°C • Storage Temperature: -40°C to +85°C • Working Humidity: 0%~85%, non-condensing Standard package of SFP • Package size: TBD mm(L*W*H) • Package Weight: N.W: TBD kgs; G.W:TBD KGS • Package content: 1 x SFP Module Standard carton package • Quantity: 10 pcs / 1 Blister • Dimensions 5.8x1.3x0.9 cm • Weight TBD kgs Ordering Information • Model: ISFP-LR-10G-10KM • Name: 10Gbps Fiber Mini GBIC ISFP+ Transceiver, 1310nm, LC connector, 10KM, hot-pluggable

* Specification will be changed without prior notice

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