

10G Multi Giga SFP+ MiniGBIC transceiver

Up to 10KM, Hot pluggable, Auto-fall back

SFP-LR-10G-10KM

airlive®



10G SFP+
transceiver

1310nm
DFB

Up to 10KM

Single Mode
Dual Fiber

LC Duplex
Connector

DDM
Function

ESD
Protection

Hot
Pluggable

0°C~+70°C

Overview

The AirLive SFP-LR-10G-10KM is a low power, high performance and cost-effective multi mode SFP+ Fiber transceiver for serial optical data communication applications up to 10Gbps and 10KM. The low jitter and high sensitivity module is intended for single mode dual fiber and operates at a nominal wavelength of 1310nm, 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 using in Multi 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
- 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 : 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

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Transmitter Operating Characteristic Optical, Electrical

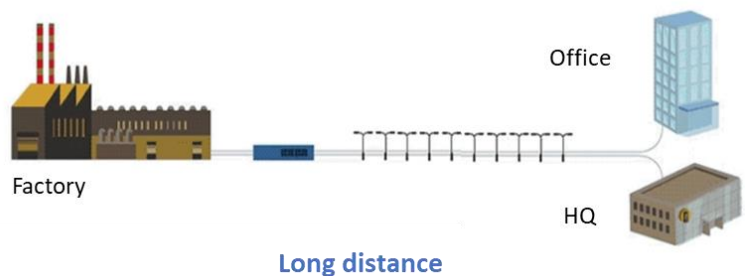
Transmitter					
Parameter	Symbol	Min.	Typical	Max.	Unit
Centre Wavelength	λ_c	1290	1310	1330	nm
Sid-Mode Suppression Ratio	SMSR	35	-	-	dB
Average Output Power	Po	-5	-	+0.5	dBm
Extinction Ratio	Er	3.5	-		dB
Dispersion Penalty				3.2	dB
Relative Intensity Noise	RIN _{12OMA}			-128	dB/Hz
Total jitter	Tj			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

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

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 SFP-LR-10G-10KM
<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 802.3ae 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 Min -5 ~ +0.5dBm 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 	<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: 0%~85%, non-condensing <p>Standard package of SFP</p> <ul style="list-style-type: none"> • 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 5.8x1.3x0.9 cm • Weight TBD kgs <p>Ordering Information</p> <ul style="list-style-type: none"> • Model: SFP-LR-10G-10KM • Name: 10Gbps Fiber Mini GBIC SFP+ Transceiver, 1310nm, LC connector, 10KM, hot-pluggable

* Specification will be changed without prior notice

