

GLC-FE-100FX-AO
155Mbps SFP Transceiver

Features

- Operating data rate up to 155Mbps
- 1310nm Laser Transmitter
- Distance up to 2Km with 50/125µm MMF
- Singer 3.3V Power supply and TTL Logic interface
- Duplex LC Connector Interface
- Hot Pluggable
- Operating Temperature: -40°C ~+ 85°C
- Compliant with MSA SFP Specification



Product Description

The GLC-FE-100FX-AO module is small form factor pluggable module for multi-mode fiber Fast Ethernet and OC-3 /STM-1 SONET / SDH fiber communications. It is with the SFP 20-pin connector to allow hot plug capability.

The transmitter section uses a multiple quantum well 1310 nm laser and is a class 1 laser compliant according to International Safety Standard IEC 60825. The receiver section uses an integrated InGaAs detector preamplifier (IDP) mounted in an optical header and a limiting post-amplifier IC.

The GLC-FE-100FX-AO modules are designed to be compliant with SFF-8472 SFP Multi-source Agreement (MSA).

Regulatory Compliance

Feature	Standard	Performance
Electrostatic Discharge (ESD) to the Electrical Pins	MIL-STD-883E Method 3015.7	Class 1(>500 V) Isolation with the case
Electromagnetic Interference (EMI)	FCC Part 15 Class B	Compatible with standards
Laser Eye Safety	FDA 21CFR 1040.10 and 1040.11 EN60950, EN (IEC) 60825-1,2	Compatible with Class I laser product. Compatible with T _μ V standards
Component Recognition	UL and CUL	UL file E317337
Green Products	RoHS	RoHS6

Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	TST	-40	+85	°C
Supply Voltage	VCC	-0.5	3.6	V

Recommended Operating Conditions

Parameter	Symbol	Min.	Typical	Max.	Unit
Operating Case Temperature	TOP	0		+70	°C
Power Supply Voltage	VCC	3.15	3.3	3.45	V
Power Supply Current	ICC			300	mA
Surge Current	ISurge			+30	mA
Baud Rate			1.25		GBaud

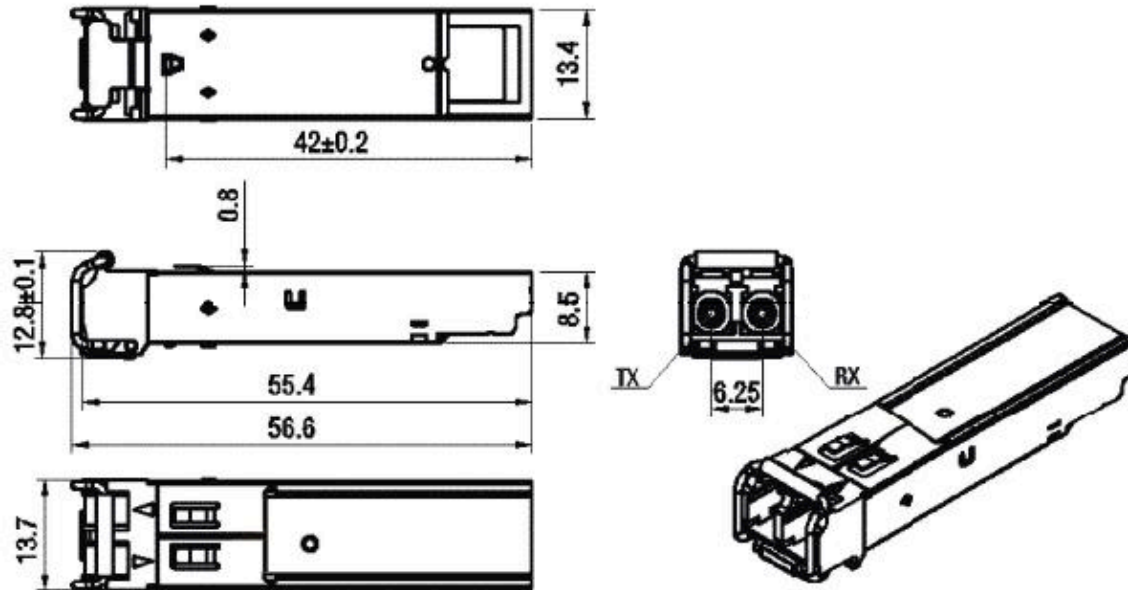
Performance Specifications - Electrical

Parameter	Symbol	Min.	Typ.	Max	Unit	Notes
Transmitter						
LVPECL Inputs(Differential)	V _{in}	400		2500	mVp	AC coupled inputs
Input Impedance (Differential)	Z _{in}	85	100	115	ohms	R _{in} > 100 kohms @ DC
Tx_DISABLE Input Voltage - High		2		3.45	V	
Tx_DISABLE Input Voltage -Low		0		0.8	V	
Tx_FAULT Output Voltage -- High		2		V _{cc} +0.3	V	I _o = 400μA; Host V _{cc}
Tx_FAULT Output Voltage --Low		0		0.5	V	I _o = -4.0mA
Receiver						
LVPECL Outputs (Differential)	V _{out}	400	800	1200	mVpp	AC coupled outputs
Output Impedance (Differential)	Z _{out}	85	100	115	ohms	
Rx_LOS Output Voltage - High		2		V _{cc} +0.3	V	I _o = 400μA; Host V _{cc}
Rx_LOS Output Voltage -Low		0		0.8	V	I _o = -4.0mA
MOD_DEF (0:2)	VoH	2.5			V	With Serial ID
	VoL	0		0.5	V	

Optical and Electrical Characteristics

Parameter		Symbol	Min.	Typical	Max.	Unit
50/125µm Core Diameter MMF		L		2		Km
Data Rate				155		Mbps
Transmitter						
Centre Wavelength		λ_C	1260	1310	1360	nm
Spectral Width (RMS)		σ			10	nm
Average Output Power		P _{0ut}	-19		-12	dBm
Extinction Ratio		EX	9			dB
Rise/Fall Time(20%~~80%)		tr/tf			2	ps
Output Optical Eye		IUT-T G.957 Compliant				
Data Input Swing Differential		V _{IN}	500		2000	mV
Input Differential Impedance		Z _{IN}	90	100	110	Ω
TX Disable	Disable		2.0		VCC+0.3	V
	Enable		0		0.8	
TX_Fault	Fault		2.0		VCC+0.3	V
	Normal		0		0.8	
TX_Disable Assert Time		t _{off}			10	us
Receiver						
Centre Wavelength		λ_C	1260		1600	nm
Receiver Sensitivity		P _{IN}			-30	dBm
Output Differential Impedance		P _{IN}	90	100	110	Ω
Data Output Swing Differential		V _{OUT}	370		2000	mV
Rise/Fall Time		Tr/tf			2.2	ns
LOS De-Assert		LOSD			-31	dBm
LOS Assert		LOSA	-40			dBm
LOS	High		2.0		VCC+0.3	V
	Low		0		0.8	

Mechanical Specifications



Contact Information

AddOn Computer, Inc. is a leading supplier of Memory Upgrade, Network Transceivers and Network connectivity products to Channel Partners, Resellers and OEMs, with more than seventeen years of direct industry experience. AddOn Computer (ACP) has been the exclusive supplier to Ingram Micro's "Memory Upgrades" program for the past nine years.

AddOn Computer maximizes profitable opportunities for our partners. Our ability to source product worldwide, ensures that our pricing will always be competitive. Offering turnkey solutions, AddOn Computer has forged a reputation as a solutions provider, delivering high quality, cost effective product in a timely and reliable manner.

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