MEDIA CONVERTERS - MEMORY UPGRADES
BATTERIES - NETWORKING TRANSCEIVERS

MGBIC-LC03-AO
1.25Gbps GBIC Transceiver

Features

- Operating data rate up to 1.25Gbps
- 1310nm LD Transmitter
- Distance Up to 2km on 62.5/125 μm Multimode Fiber
- 3.3V/5V Power supply and TTL Logic Interface
- Compliant with GBIC Specification Rev5.5
- Duplex SC Connector Interface
- Hot Pluggable
- Operating Case Temperature

  Standard: 0℃~+70℃



Applications

• WDM GBE Links
• Fiber Channel Links
• SONET/SDH Equipment

Product Description

The MGBIC-LC03-AO series optical transceivers meet the Gigabit Interface Converter (GBIC) specification Rev. 5.5. It satisfies the optical interface specifications defined in IEEE 802.3z Drift 5.0 for Gigabit Ethernet. This module is designed for multi-mode fiber and operates at a nominal wavelength of 1310 nm.

The transmitter section uses a multiple quantum well 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. A PECL input /output logic interface is used. TTL RX-LOS output simplifies interface to external circuitry. A 20-pin SCA-2 host connector is used to connect the converter to the host system.

Regulatory Compliance

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

Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	TS	-40	+85	°C
Supply Voltage	VCC	0	6	V

Recommended Operating Conditions

Parameter	Symbol		Min.	Typical	Max.	Unit
Operating Case Temperature	TA	OST-GBIC-LX10	0		+70	°C
Power Supply Voltage	Vcc		4.75	5	5.25	V
			3.15	3.3	3.45	
Power Supply Current	Icc				300	mA
Surge Current	Isurge				+30	mA
Baud Rate				1.25		GBaud

PERFORMANCE SPECIFICATIONS

Parameter	Symbol	Min.	Typ.	Max	Unit	Notes
Transmitter						
LVPECL Inputs(Differential)	Vin	400		2500	mVp	AC coupled inputs
Input Impedance (Differential)	Zin	85	100	115	ohms	Rin > 100 kohms @ DC
Tx_DISABLE Input Voltage - High		2		Vcc+0.3	V	
Tx_DISABLE Input Voltage -Low		0		0.8	V	
Tx_FAULT Output Voltage -- High		Vcc-0.5		Vcc+0.3	V	Io = 400µA; Host Vcc
Tx_FAULT Output Voltage --Low		0		0.5	V	Io = -4.0mA
Receiver						
LVPECL Outputs (Differential)	Vout	400	800	1200	mVpp	AC coupled outputs
Output Impedance (Differential)	Zout	85	100	115	ohms	
Rx_LOS Output Voltage - High		Vcc-0.5		Vcc+0.3	V	Io = 400µA; Host Vcc
Rx_LOS Output Voltage -Low		0		0.8	V	Io = -4.0mA
MOD_DEF (0:2)	VoH	2.5			V	With Serial ID
	VoL	0		0.5	V	

Parameter		Symbol	Min.	Typical	Max.	Unit
62.5μm Core Diameter MMF				2		km
Data Rate				1.25		Gbps
Transmitter						
Centre Wavelength		λC	1270	1310	1350	nm
Spectral Width (RMS)		σ			3	nm
Average Output Power		P0ut	-9		-3	dBm
Extinction Ratio		EX	9			dB
Rise/Fall Time(20%~~80%)		tr/tf			260	ns
Output Optical Eye		IUT-T G.957 Compliant				
Data Input Swing Differential		VIN	500		2000	mV
Input Differential Impedance		ZIN	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		λC	1100		1600	nm
Receiver Sensitivity		PIN			-20	dBm
Output Differential Impedance		PIN	90	100	110	Ω
Data Output Swing Differential		VOUT	370		2000	mV
Rise/Fall Time		Tr/tf			2.2	ns
LOS De-AssertS		LOSD			-25	dBm
LOS Assert		LOSA	-40			dBm
LOS	High		2.0		VCC+0.3	V
	Low		0		0.8	

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Contact Information

Add-On 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. Add-On Computer (ACP) has been the exclusive supplier to Ingram Micro's "Memory Upgrades" program for the past nine years.

Add-On Computer maximizes profitable opportunities for our partners. Our ability to source product worldwide, ensures that our pricing will always be competitive. Offering turnkey solutions, Add-On 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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