

DEM-310GM2-AO

1.25Gbps GBIC Transceiver

Features

- Operating data rate up to 1.25Gbps
- 850nm LD Transmitter
- Distance Up to 550m
- 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 Interconnect

Product Description

The DEM-310GM2-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 Single-mode fiber and operates at a nominal wavelength of 850 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) 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	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
50/125µm Core Diameter MMF			550		m
Data Rate			1.25		Gbps
Transmitter					
Centre Wavelength	?C	830	850	860	nm
Spectral Width (RMS)	s			.85	nm
Average Output Power	P0ut	-10		-3	dBm
Extinction Ratio	EX	9			dB
Rise/Fall Time(20%~~80%)	tr/tf			.26	ns

DEM-310GM2-AO
D-Link 1000base-SX Module
850nm, 550M, MMF, SC RoHS6



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	
Receiver						
Centre Wavelength		?C	770		860	nm
Receiver Sensitivity		PIN			-18	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			-19	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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