Product Specification

10GBase-CWDM

CWDM SFP+ TRANSCEIVER

10Gbps DUPLEX LC 10~24dB

Overview

Atrian optical transceivers are Small Form Factor Pluggable (SFP) compatible with the Multi Sourcing Agreement (MSA) and available as a vendor compatible SFP upon request. This family of transceivers are designed for 10Gbps 10GBase-X Ethernet transmission and operates with an integrated duplex data link over 9/125µm Single Mode Fiber (SMF).
Atrian Small Form Factor Pluggable (SFP) transceivers provides a reliable and high-performing Gigabit Ethernet network connectivity. They can be easily installed without interrupting the host equipment in operation thanks to the hot pluggable feature.
Atrian optical transceivers are designed to be used on Atrian's media converters and switches as well as third party equipments that supports SFP transceivers.

Key Features

- **Fiber Mode:** Single Mode @ 9/125µm
- **Power Budget:** 10, 16, 20 DFB/PIN Laser , 24 dB EML/APD Laser
- **Distance:** 10 Km, 20 Km, 40 Km, 80 Km
- **Wavelength:** 1270 to 1610 nm
- **Temperature:** 0~70°C (Commercial)
- **Connector:** Duplex LC/UPC Connector
- **DMI:** SFF-8472 DOM/DMI Diagnostic Monitoring

Regulatory Compliance

aTrian Communication Technologies transceivers are products with Class 1 Lasers that complies with FDA regulations on eye safety and ETSI EN 60825 and electrical safety measures in accordance with ETSI EN 60950.

Technical Specifications

General Parameters	Symbol	Min.	Typical	Max.	Unit
Storage Temperature	Ts	-40		+85	°C
Operating Temperature	Tc		See Ordering Information		
Power Voltage	Vcc	3.15	3.3	3.45	V
Absolute Max Voltage	Vcc_A	-0.5		4.0	V
Power Current	Icc			350	mA
Power Consumption	P_C 10 dB P_C 16 dB P_C 20 dB P_C 24 dB		1.5 1.5 1.5 2.5		Watts
Data Rate	DR		10		Gbps

Tx Optical Parameters	Symbol	Min.	Typical	Max.	Unit
Central Wavelength	λc (10,16,24 dB) λc (20 dB)	λ-8 λ-6	See Ordering Information	λ+8 λ+6	nm
Spectral Width (RMS)	σ (10,16,24 dB) σ (20 dB)			0.3 0.1	nm
Power Output	Pout 1270~1430nm @10dB Pout 1270~16100nm @20dB Pout 1450~1610nm @16,24dB	-4.5 0 -1		4 5 5	dBm
Extinction Ratio	ER 1270~1430nm @10dB ER 1270~1610nm @20dB ER 1450~1610nm @16,24dB	4 4 5			dB
Launch Power of Off Transmitter	P_{OFF}			-30	dBm
Relative Intensity Noise	RIN			-130	dB/Hz
Laser Stability Delay			60		sec

Rx Optical Parameters	Symbol	Min.	Typical	Max.	Unit
Central Wavelength	λc (10,16,24dB) λc (20dB)	λ-8 λ-10	See Ordering Information	λ+8 λ+10	nm
Receive Sensitivity	P_{IN} 1270~1430nm @10dB P_{IN} 1450~1610nm @16dB P_{IN} 1270~1610nm @16dB P_{IN} 1450~1610nm @24dB			-14 -16 -20 -24	dBm
Receiver Overload	P_{MAX} 1270~1430nm @10dB P_{MAX} 1450~1610nm @16dB P_{MAX} 1270~1610nm @24dB P_{MAX} 1450~1610nm @24dB	5 5 -7 -7			dBm
LOS De-Assert	LOS_D (10,16,24dB) LOS_D (20dB)			-28 -24	dBm
LOS Assert	LOS_A (10,16,24dB) LOS_A (20dB)	-32 -26			dBm
LOS Hysteresis	tr/tf	0.5		4.5	dB

Ordering Information

Part Number	Wavelength TX & RX	Power Budget	Distance 9/125µm SMF[1]	Laser	Temperature
ACWDM10GD27-10	1270 nm	10 dB	10 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD29-10	1290 nm	10 dB	10 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD31-10	1310 nm	10 dB	10 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD33-10	1330 nm	10 dB	10 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD35-10	1350 nm	10 dB	10 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD37-10	1370 nm	10 dB	10 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD39-10	1390 nm	10 dB	10 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD41-10	1410 nm	10 dB	10 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD43-10	1430 nm	10 dB	10 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD45-20	1450 nm	16 dB	20 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD47-20	1470 nm	16 dB	20 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD49-20	1490 nm	16 dB	20 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD51-20	1510 nm	16 dB	20 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD53-20	1530 nm	16 dB	20 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD55-20	1550 nm	16 dB	20 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD57-20	1570 nm	16 dB	20 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD61-20	1610 nm	16 dB	20 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD27-40	1270 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD29-40	1290 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD31-40	1310 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD33-40	1330 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD35-40	1350 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD37-40	1370 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD39-40	1390 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD41-40	1410 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD43-40	1430 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD45-40	1450 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD47-40	1470 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD49-40	1490 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD51-40	1510 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD53-40	1530 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD55-40	1550 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD57-40	1570 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial

ACWDM10GD61-40	1610 nm	20 dB	40 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD45-80	1450 nm	24 dB	80 Km	EML/APD	0~70°C Commercial
ACWDM10GD47-80	1470 nm	24 dB	80 Km	EML/APD	0~70°C Commercial
ACWDM10GD49-80	1490 nm	24 dB	80 Km	EML/APD	0~70°C Commercial
ACWDM10GD51-80	1510 nm	24 dB	80 Km	EML/APD	0~70°C Commercial
ACWDM10GD53-80	1530 nm	24 dB	80 Km	EML/APD	0~70°C Commercial
ACWDM10GD55-80	1550 nm	24 dB	80 Km	EML/APD	0~70°C Commercial
ACWDM10GD57-80	1570 nm	24 dB	80 Km	EML/APD	0~70°C Commercial
ACWDM10GD59-80	1590 nm	24 dB	80 Km	EML/APD	0~70°C Commercial
ACWDM10GD61-80	1610 nm	24 dB	80 Km	EML/APD	0~70°C Commercial

[1]Please visit atriantech.com/es/support and download the **CWDM Attenuation Calculator**.

Warranty

FIVE years of limited warranty for products sold directly by Atrian Technologies, unless special agreements have been set. Warranty period start from the ship date and will be only valid for the original customer who bought the product. If you have purchased the product from a reseller you must contact him directly. RMA Form and full warranty details are available on our website.