

## Product Specification

1000Base-CWDM  
CWDM SFP TRANSCEIVER  
1Gbps DUPLEX LC 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:** 24 DFB/PIN Laser
- **Distance:** 80 Km
- **Wavelength:** 1270 to 1610 nm
- **Temperature:** 0~70°C (Commercial), -40~85°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	T <sub>s</sub>	-40		+85	°C
Operating Temperature	T <sub>c</sub>		See Ordering Information		
Power Voltage	V <sub>cc</sub>	3.15	3.3	3.45	V
Absolute Max Voltage	V <sub>CCA</sub>	-0.5		3.6	V
Power Current	I <sub>cc</sub>			300	mA
Power Consumption	P <sub>c</sub>		1		Watts
Data Rate	DR		1.25		Gbps

Tx Optical Parameters	Symbol	Min.	Typical	Max.	Unit
Central Wavelength	λ <sub>c</sub>	λ-6.5	See Ordering Information	λ+6.5	nm
Spectral Width (RMS)	σ			1	nm
Power Output	P <sub>out</sub>	0		5	dBm
Extinction Ratio	ER	9			dB
Optical Rise/Fall Time	tr/tf			2	ns

Rx Optical Parameters	Symbol	Min.	Typical	Max.	Unit
Central Wavelength	λ <sub>c</sub>	λ-6.5	See Ordering Information	λ+6.5	nm
Receive Sensitivity	P <sub>IN</sub>			-28	dBm
Receiver Overload	P <sub>MAX</sub>	5			dBm
LOS De-Assert	LOS <sub>D</sub>			-39	dBm
LOS Assert	LOS <sub>A</sub>	-43			dBm
LOS Hysteresis	tr/tf	0.5		4.5	dB

## Ordering Information

Part Number	Wavelength TX & RX	Power Budget	Distance 9/125µm SMF <sup>1</sup>	Laser	Temperature
ACWDM10GD27-40 ACWDM10GD27-40I	1270 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD29-40 ACWDM10GD29-40I	1290 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD31-40 ACWDM10GD31-40I	1310 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD33-40 ACWDM10GD33-40I	1330 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD35-40 ACWDM10GD35-40I	1350 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD37-40 ACWDM10GD37-40I	1370 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD39-40 ACWDM10GD39-40I	1390 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD41-40 ACWDM10GD41-40I	1410 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD43-40 ACWDM10GD43-40I	1430 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD45-40 ACWDM10GD45-40I	1450 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD47-40 ACWDM10GD47-40I	1470 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD49-40 ACWDM10GD49-40I	1490 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD51-40 ACWDM10GD51-40I	1510 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD53-40 ACWDM10GD53-40I	1530 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD55-40 ACWDM10GD55-40I	1550 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD57-40 ACWDM10GD57-40I	1570 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD61-40 ACWDM10GD61-40I	1610 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD45-80 ACWDM10GD45-80I	1450 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD47-80 ACWDM10GD47-80I	1470 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD49-80 ACWDM10GD49-80I	1490 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD51-80 ACWDM10GD51-80I	1510 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD53-80 ACWDM10GD53-80I	1530 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD55-80 ACWDM10GD55-80I	1550 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial
ACWDM10GD57-80 ACWDM10GD57-80I	1570 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial -40~+85°C Industrial

ACWDM10GD59-80	1590 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD59-80I					-40~+85°C Industrial
ACWDM10GD61-80	1610 nm	24 dB	80 Km	DFB/PIN	0~70°C Commercial
ACWDM10GD61-80I					-40~+85°C Industrial

<sup>1</sup>Please visit [atriantech.com/es/support](http://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.