

ge Product Data Sheet

Key Highlights:

• Type: SFP28

• Compatibility: Multi-Vendor MSA Compatible

• Tx Wavelength: 1270 nm

• Rx Wavelenght: G.694.2 CWDM Grid (1270-1610nm)

• Transmitter Type: DFB Laser

• Media Type: Single-Mode Fiber (SMF)

Connectors: Double LC
Optical Budget: 6.3 dB
Max. Distance: 10km
Data Rate: 8.5-28.1 Gbps
DDM/DOM: Supported
Power Consumption: <1.2W

• Temperature: Industrial -45°C - +85°C



Optical Transceiver: CWDM-25G-SFP28-10-27I

Product Description:

CWDM-25G-SFP28-10-27I is a 1270 nm CWDM 25GBASE-LR Industrial Multi-Vendor MSA Compatible SFP28 (Small Form-Factor Pluggable 28) Transceiver, operating over Double Fiber Single-Mode Fiber (SMF) optical cable. It has minimum guaranteed optical budget of 6.3 dB, which in most cases is enough to reach 10 km over OS2 fiber. However, distance is just indicative parameter for comfort of identification that is calculated by taking into account minimal optical budget and average attenuation of optical cabling in industry. CWDM-25G-SFP28-10-27I uses top quality DFB (Distributed Feedback Laser) transmitter and 25Gb/s PIN photodiode receiver. CWDM-25G-SFP28-10-27I 1270 nm CWDM 25GBASE-LR Industrial supports DDM/DOM optical diagnostics that provide real-time diagnostic information about the present operating conditions. CWDM-25G-SFP28-10-27I operates in Industrial -45°C – +85°C temperature range and has Double LC interface. CWDM-25G-SFP28-10-27I 1270 nm CWDM 25GBASE-LR Industrial SFP28 support 8.5-28.1 Gbps data rate and is designed for 25G Ethernet (25.78 Gbps) and 10G Ethernet (10.31 Gbps) applications. CWDM-25G-SFP28-10-27I SFP28 Double Fiber optical transceiver is multi-purpose module used in number of different places of today's networking. Consequently, most popular use cases are in Internet Service Provider (ISP) Access and Metro Networks Data Center Core Networks and Enterprise Campus Networks.

CWDM-25G-SFP28-10-27I 1270 nm CWDM 25GBASE-LR Industrial SFP28 transceiver is CE/RoHS certified and is compliant with product safety standards. CWDM-25G-SFP28-10-27I is fully compliant to SFF-8431 and SFF-8472 Multi Source Agreement (MSA), IEEE 802.3by 25 Gb/s specification. Consequently, compliance to above standards guarantees that module is compatible and works with majority of networking equipment, where is not implemented special algorithm for protection against third party modules. However - our technical team has accumulated deep expertise in custom-encoded firmware's for 1270 nm CWDM 25GBASE-LR Industrial SFP28 transceiver in order to make it work in almost any brand equipment. We will be glad to know your requirements.







Product Specification:

General Parameter	Value
Media Type:	Single-Mode Fiber (SMF)
Connectors:	Double LC
Tx Wavelength:	1270 nm
Rx Wavelength:	G.694.2 CWDM Grid (1270-1610nm)
Minimum Optical Budget:	6.3 dB
Maximum Distance:	10km
Supported Data Rate:	8.5-28.1 Gbps
Supported Applications:	25G Ethernet (25.78 Gbps), 10G Ethernet (10.31 Gbps)
Modulation Format:	NRZ
DDM/DOM:	Supported
CDR (Clock and Data Recovery):	Supported
Operating Temperature Range:	Industrial -45°C – +85°C
Storage Temperature Range:	-40° to 85°C
Relative Humidity (Non-Condensation):	0 to 85%
Power Consumption:	<1.2W
Power Supply Voltage Typical:	+3.3V single power supply
Power Supply Voltage Range:	3.14 to 3.46V
Supply Current (Max):	360 mA
Chipset:	Macom, Oclaro, Renesas Electronics, II-VI, Neo, Maxim, Sumitomo, Semtech
Compliance:	SFP+ MSA, SFF-8402, SFF-8472, SFF-8431, SFF-8432, CE, RoHS-6, Class 1 FDA and IEC60825-1 Laser Safety Compliant
MTBF value at 35 °C:	1'000'000 Hours.

Transmitter Parameters	Value
Transmitter Type:	DFB Laser
Tx Wavelength Bandwidth:	20nm (1260-1280 nm)
Average Optical Power (Min):	-7 dBm
Average Optical Power (Max):	2 dBm
Spectral Width (RMS) (Max):	1nm
Extinction Ratio (Min):	3.5 dB
Relative Intensity Noise:	-130 dB/Hz







Transmitter Parameters	Value
Input differential impedance (Max):	100 Ohm
Single ended data input swing (Min):	180 mV
Single ended data input swing (Max):	700 mV
Transmit Disable Voltage (Min):	2 V
Transmit Disable Voltage (Max):	Vcc V
Transmit Enable Voltage (Min):	Vee V
Transmit Enable Voltage (Max):	Vee+ 0.8 V

Receiver Parameters	Value
Receiver Type:	PIN photodiode
Rx Wavelength Bandwidth:	G.694.2 CWDM Grid (1270-1610nm)
Receiver Sensitivity (Max):	-13.3 dBm
Receiver Overload:	2.2 dBm
LOS Assert (Min):	-30 dBm
LOS De-Assert (Max):	-17 dBm
LOS Hysteresis (Min):	0.5 dB
Differential data output swing (Min):	400 mV
Differential data output swing (Max):	800 mV
LOS Fault (Max):	2 V
LOS Normal (Min):	VccHOST V
LOS Normal (Max):	Vee V





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Compatibility:

EDGE Optical transceivers can be provided with custom-encoded firmware, in order to provide compatibility with more then 100 vendor brands in data and telecom communications industry:

MS - General MSA

AD - ADVA

AE - Advantech

AL - Alcatel (Nokia)

AT - Allied Telesis

AR - Arista

AS - Arris

AV - Avaya

BC - Barracuda

BR - Broadcom

QL - Cavium (Qlogic)

CR- Ceragon

CP - Checkpoint

CH - Chelsio

CN - Ciena **CI** - Cisco

LI - Cisco (Linksys)

CE - Comnet

co - Coriant

DH - Dahua

DC - DCN

DL - Dell & Force10

DK - D-l ink

DZ - DZS(Dasan-Zhone)

EI - ECI

EC - EdgeCore

EW - EdgeWare

EL - Eltex

EM - EMC2

EN - Enterasys

ER - Ericsson

EF - EXFO

EX - Extreme Networks

F5 - F5 Networks

FI - Finisar

FO - Fortinet

FU - Fujitsu

H3 - H3C

HI - Hirschmann

HU - Huawei

IB - IBM

IF - Infinera

IN - Intel

IX - Ixia

JU - Juniper Networks

KM - KeyMile

KY - KyLand

LN - Lenovo

ML - Mellanox

ME - Meraki (Cisco)

MT - MikroTik

MO - Moxa

MR - MRV

NC - NEC

NG - Netgear

NK - Nokia

NT - Nortel

NS - NSN

OR - Oracle

PA - Palo Alto Network

PL - Planet

QC - QCT(Quanta)

QN - QNAP

RD - RAD

RW - RadWare

RC - Raisecom

RK - Ruckus

RU - Ruijie Networks

SG - Samsung

SV - Sandvine

SC - Silicom

SF - SolarFlare

SW - Sonicwall

SM - Supermicro

SY - Synology

TC - Telco Systems

TP - TP-LINK

TN - Trendnet

UN - Ubiquiti Networks

VX - VeEx

WG - WatchGuard

WS - Waystream

WT - Westermo

ZT - ZTE

ZX - Zyxel

HP - HP

AG - Avago

OC - Oclaro

EU - Emulex **TM** - Transmode

AU - HP Aruba

XX - Other

Warranty:

EDGE Optic's provides a limited **warranty for sixty (60) months** from Purchaser's receipt of the Equipment represented in this data sheet against defective design or workmanship. Warranty does not cover damage caused by improper deployment, misuse and accidents.



