

ge Product Data Sheet

Key Highlights:

• Type: SFP28

• Compatibility: Multi-Vendor MSA Compatible

Tx Wavelength: 1295.56 nm
Rx Wavelenght: 1260-1360 nm
Transmitter Type: EML Laser

• Media Type: Single-Mode Fiber (SMF)

Connectors: Double LC
Optical Budget: 17.4 dB
Max. Distance: 40km
Data Rate: 8.5-28.1 Gbps
DDM/DOM: Supported
Power Consumption: <2W

• Temperature: Standard 0°-70°C



Optical Transceiver: LWDM-25G-SFP28-40-295

Product Description:

LWDM-25G-SFP28-40-295 is a LAN WDM 1295.56nm 25GBASE-ER 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 17.4 dB, which in most cases is enough to reach 40 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. LWDM-25G-SFP28-40-295 uses top quality DFB (Distributed Feedback Laser) transmitter and 25Gb/s APD (Avalanche photodiode) receiver. LWDM-25G-SFP28-40-295 LWDM 1295.56nm 25GBASE-ER supports DDM/DOM optical diagnostics that provide real-time diagnostic information about the present operating conditions. LWDM-25G-SFP28-40-295 operates in Standard 0°-70°C temperature range and has Double LC interface. LWDM-25G-SFP28-40-295 LWDM 1295.56nm 25GBASE-ER 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. LWDM-25G-SFP28-40-295 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.

LWDM-25G-SFP28-40-295 LWDM 1295.56nm 25GBASE-ER SFP28 transceiver is CE/RoHS certified and is compliant with product safety standards. LWDM-25G-SFP28-40-295 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 LWDM 1295.56nm 25GBASE-ER 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: | 1295.56 nm |
| Rx Wavelength: | 1260-1360 nm |
| Minimum Optical Budget: | 17.4 dB |
| Maximum Distance: | 40km |
| 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: | Standard 0°-70°C |
| Storage Temperature Range: | -40° to 85°C |
| Relative Humidity (Non-Condensation): | 0 to 85% |
| Power Consumption: | <2W |
| Power Supply Voltage Typical: | +3.3V single power supply |
| Power Supply Voltage Range: | 3.14 to 3.46V |
| Supply Current (Max): | 500 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: | EML Laser |
| Tx Wavelength Bandwidth: | 2.06nm (1294.53 - 1296.59 nm) |
| Average Optical Power (Min): | -1.6 dBm |
| Average Optical Power (Max): | 6 dBm |
| Spectral Width (RMS) (Max): | 1nm |
| Extinction Ratio (Min): | 4 dB |
| Relative Intensity Noise: | -128 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: | APD photodiode |
| Rx Wavelength Bandwidth: | 100 nm (1260-1360 nm) |
| Receiver Sensitivity (Max): | -19 dBm |
| Receiver Overload: | 3.5 dBm |
| LOS Assert (Min): | -30 dBm |
| LOS De-Assert (Max): | -20 dBm |
| LOS Hysteresis (Min): | 0.5 dB |
| Differential data output swing (Min): | 300 mV |
| Differential data output swing (Max): | 900 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.



