

# ge Product Data Sheet

## **Key Highlights:**

• Type: 25G DWDM SFP28 Tunable

• Compatibility: Multi-Vendor MSA Compatible

• Application: 25G/10G Ethernet

• Tx/Rx Wavelength: 48 Channel Tunable ITU-T

100Ghz C-Band

• Wavelength Auto-tuning: Supported

• Fiber Type: Single-Mode Fiber (SMF)

• Connectors: Double LC

• Optical Budget: 19.5dB with FEC

• Max. Distance: 15km with FEC

• Forward Error Correction: Supported

Data Rate: 9.83-25.78 GbpsDDM/DOM: Supported

• Temperature: -20° - 85°C



## Optical Transceiver: DWDM-25G-S28-15I-TUN

## **Product Description:**

DWDM-25G-S28-15I-TUN is Multi-Vendor MSA Compatible SFP28 (Small Form-Factor Pluggable 28) multi-rate (9.83-25.78 Gbps) transceiver designed for operation over Double Single-Mode Fiber (SMF) optical cable. Module has a guaranteed optical budget of 19.5 dB, which in most cases is enough to reach up to 15 kilometer distance with FEC (Forward Error Correction) present on the host device. Distance is just an indicative parameter for comfort of identification that is calculated by taking into account minimal optical budget and average attenuation of optical cabling in industry. On the transmission side module converts a 25-Gbps NRZ electrical signal into a 25-Gbps optical signal on a specific wavelength and reversely at the receiver side 25-Gbps optical signal is converted into 25-Gbps NRZ electrical signal. DWDM-25G-S28-15I-TUN SFP28 transceiver has a tunable laser with 48 channel support from the ITU-T 100GHz DWDM Channel Grid, more specifically Channel 13 to Channel 60 (191.3~196.0 THz) are supported. Transceivers support Wavelength auto-tuning (auto negotiation) functionality, where transceivers at both sides of the link can automatically match the link wavelength in the WDM system. Manual operation of wavelength tuning can be performed according to SFF-8690 Rev1.4 specification Page 6 description. One of 25G







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tunable SFP28 modules' advantages is to reduce the extensive backup module amount in dense DWDM network environments with many hops and dedicated DWDM channels for each link.

Module has DDM/DOM optical diagnostics functionality, which provides real time access to device operating parameters, control and status registers as specified in SFF-8472. DWDM-25G-S28-15I-TUN operates in -20° to 80°C temperature range and has a Double LC interface. This SFP28 supports 9.8-25.78 Gbps data rate and such applications as 25G Ethernet (25.78Gbps) and 10G Ethernet (10.31Gbps).

Transceiver is CE/RoHS certified and it is Compliant with product safety standards. DWDM-25G-S28-15I-TUN SFP28 Transceiver is fully compliant to SFP28 Multi Source Agreement, IEEE802.3cc (25 Gb/s Ethernet over Single-Mode Fiber), SFF-8472 and SFF-8690. Consequently, it means that module is compatible with 80% of networking equipment, where is not implemented a special algorithm for protection against third party modules. However – we can provide an SFP28 transceiver with custom-encoded firmware in order to make it work in almost any base station manufacturers equipment. Therefore, we will be glad to know your requirements – Contact us.

# **Product Specification:**

General parameter	Value
Media Type:	Single-Mode Fiber (SMF)
Connectors:	Double LC
TX Wavelength:	48 Channel Tunable ITU-T 100Ghz C-Band
RX Wavelength:	48 Channel Tunable ITU-T 100Ghz C-Band
Minimum Optical Budget:	19.5dB
Maximum Distance:	15km
Supported Data Rate:	9.83-25.78 Gbps
Supported Applications:	25G Ethernet (25.78Gbps), 10G Ethernet (10.31Gbps)
Digital Diagnostic Monitoring (DDM):	Supported
Optical Clock And Data Recovery (CDR):	Supported
Operating Temperature Range:	-20° - 85°C
Power dissipation:	<2.5W
Power Supply Voltage Typical:	+ 3.3V
Compliance:	CE, RoHS, SFF-8472, SFP28 MSA, IEEE802.3cc, SFF-8690





Transmitter Parameters:	Value
Transmitter Type:	EML Laser
Tx Wavelength Bandwidth:	ITU-T DWDM Grid 100 GHz C-Band 191.3-196.0 Thz
Minimum Transmitting Power:	0 dBm
Maximum Transmitting Power:	4 dBm

Receiver Parameters:	Value
Receiver Type:	APD
Rx Wavelength Bandwidth:	ITU-T DWDM Grid 100 GHz C-Band 191.3-196.0 Thz
Receiver Sensitivity:	-16 dBm
Receiver Overload:	-2 dBm
Receiver reflectance (max):	+26dB
LOS Assert (min)	-27dB
LOS Deassert (max)	-19dB
LOS Hysteresis(min)	0.5dB





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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-Link

**DZ** - DZS(Dasan-Zhone)

EI - ECI

**EC** - EdgeCore

**EW** - EdgeWare

**EL** - Eltex

EM - EMC2

**EN** - Enterasys

**ER** - Ericsson

EF - FXFO

**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

27.2

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

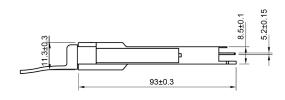
OC - Oclaro EU - Fmulex

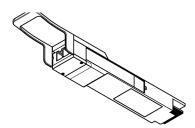
TM - Transmode

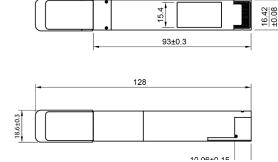
AU - HP Aruba

**XX** - Other

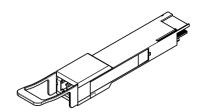
# **Mechanical Drawings**

















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# 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.

