

Key Highlights:

- **Type:** 25G DWDM SFP28 Tunable
- **Compatibility:** Multi-Vendor MSA Compatible
- **Application:** 5G Mobile Fronthaul
- **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:** 16dB with FEC
- **Max. Distance:** 15km with FEC
- **Forward Error Correction:** Supported
- **Data Rate:** 9.83-25.78 Gbps
- **DDM/DOM:** Supported
- **Temperature:** -20° - 85°C



Optical Transceiver : DWDM-25GFH-S28-15I-TUN

Product Description:

DWDM-25GFH-S28-15I-TUN is Multi-Vendor MSA Compatible 25G SFP28 (Small Form-Factor Pluggable 28) DWDM Tunable multi-rate (9.83-25.78 Gbps) transceiver designed for operation over Double Single-Mode Fiber (SMF) optical cable in 5G Mobile Fronthaul environments for interconnection of radio heads and baseband units. 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 25G SFP28 DWDM 100GHZ C-Band Tunable 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-25GFH-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 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.

25G SFP28 DWDM 100GHZ C-Band Tunable 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-25GFH-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 CPRI option 10 (24.33 Gbps), CPRI option 7 (9.830 Gbps), CPRI option 8 (10.138 Gbps), CPRI option 9 (12.165 Gbps).

25G SFP28 DWDM 100GHZ C-Band Tunable transceiver is CE/RoHS certified and it is Compliant with product safety standards. DWDM-25GFH-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:	16dB
Maximum Distance:	15 km
Supported Data Rate:	9.83-25.78 Gbps
Supported Applications:	CPRI option 10 (24.33 Gbps), CPRI option 7 (9.830 Gbps), CPRI option 8 (10.138 Gbps), CPRI option 9 (12.165 Gbps)
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



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 - 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

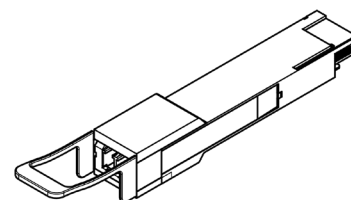
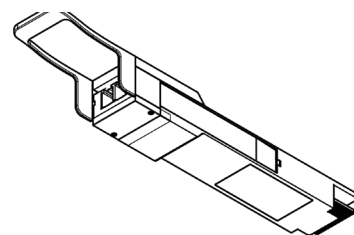
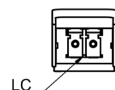
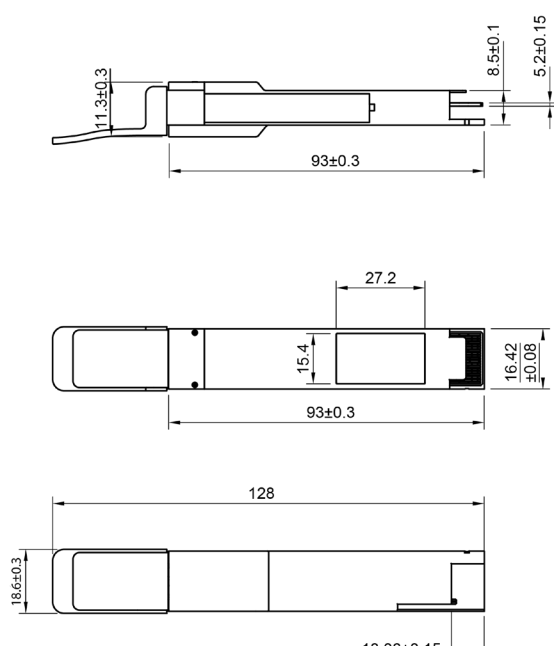
EU - Emulex

TM - Transmode

AU - HP Aruba

XX - Other

Mechanical Drawings



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.

