

### **Ge** Product Data Sheet

#### Key Highlights:

- Type: SFP28
- Compatibility: Multi-Vendor MSA Compatible
- Tx Wavelength: 1370 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: 19 dB
- Max. Distance: 40km (with FEC), 30km (no FEC)
- Data Rate: 24.33-25.78 Gbps
- DDM/DOM: Supported
- Power Consumption: <1.2W
- Temperature: Standard 0°-70°C

#### *Optical Transceiver: CWDM-25G-SFP28-40-37*

#### Product Description:

CWDM-25G-SFP28-40-37 is a 1370 nm CWDM 25GBASE-ER Lite 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 19 dB, which in most cases is enough to reach 40 km over OS2 fiber with FEC (Forward Error Correction) function, or 30km without FEC. 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-SFP28-40-37 uses top quality DFB (Distributed Feedback Laser) transmitter and 25Gb/s APD receiver. CWDM-25G-SFP28-40-37 1370 nm CWDM 25GBASE-ER Lite supports DDM/DOM optical diagnostics that provide real-time diagnostic information about the present operating conditions. CWDM-25G-SFP28-40-37 operates in Standard 0°-70°C temperature range and has Double LC interface. CWDM-25G-SFP28-40-37 1370 nm CWDM 25GBASE-ER Lite SFP28 support 24.33-25.78 Gbps data rate and is designed for 25G Ethernet (25.78 Gbps) applications. CWDM-25G-SFP28-40-37 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-SFP28-40-37 1370 nm CWDM 25GBASE-ER Lite SFP28 transceiver is CE/RoHS certified and is compliant with product safety standards. CWDM-25G-SFP28-40-37 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 1370 nm CWDM 25GBASE-ER Lite SFP28 transceiver in order to make it work in almost any brand equipment. We will be glad to know your requirements.



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#### Product Specification:

General Parameter	Value
Media Type:	Single-Mode Fiber (SMF)
Connectors:	Double LC
Tx Wavelength:	1370 nm
Rx Wavelength:	G.694.2 CWDM Grid (1270-1610nm)
Minimum Optical Budget:	19 dB
Maximum Distance:	40km (with FEC), 30km (no FEC)
Supported Data Rate:	24.33-25.78 Gbps
Supported Applications:	25G Ethernet (25.78 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:	<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, Sumito- mo, 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 (1360 – 1380 nm)
Average Optical Power (Min):	0 dBm
Average Optical Power (Max):	6 dBm
Spectral Width (RMS) (Max):	lnm
Extinction Ratio (Min):	4 dB
Relative Intensity Noise:	-130 dB/Hz



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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):	-19 dBm
Receiver Overload:	-6 dBm
LOS Assert (Min):	-30 dBm
LOS De-Assert (Max):	-19 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-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

#### 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.



