SFP28 25G DWDM 40km I-Temp

SFP28 DWDM transceiver · 25GbE · C-band 100 GHz · 40 km · 16 dB · Duplex LC · -40 to +85 °C

The GLOBALfiber S25G-L40-I-CHXX is an SFP28 transceiver for 25GbE links up to 40 km over singlemode fiber at C-band DWDM, 100 GHz, with a 16 dB optical budget and digital diagnostics.

KEY FEATURES

- SFP28 form factor, hot-pluggable
- 25GbE (25.78 Gb/s)
- Wavelength C-band DWDM, 100 GHz, EML laser, APD receiver
- Reach up to 40 km, optical budget 16 dB
- Duplex LC optical connector
- Power < 1.5 W, single 3.3 V supply, DDM (SFF-8472)
- Case temperature -40 to +85 °C

KEY SPECIFICATIONS

Form factor	SFP28
Data rate	25GbE (25.78 Gb/s)
Wavelength	C-band DWDM, 100 GHz
Reach	40 km
Optical budget	16 dB
Connector	Duplex LC
Fiber	Singlemode
Max. power	1.5 W
Case temperature	-40 to +85 °C

APPLICATIONS & COMPATIBILITY

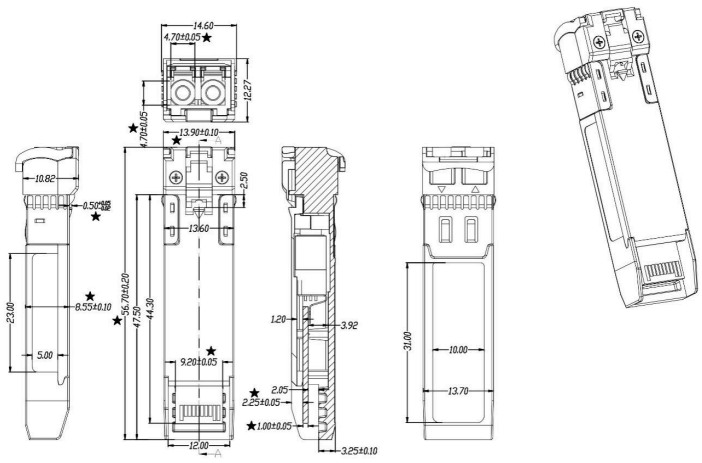
- 25GbE over passive WDM systems in mobile fronthaul, metro access and data centre interconnect
- Coding available for the major switch and router vendors. Specify the host equipment when ordering.
- Provide equipment model, port configuration and software version so support can be checked. Coding does not confirm compatibility with every model or mode.

ORDERING INFORMATION

GLOBALfiber item	Description
S25G-L40-I-CHXX	SFP28 25GbE C-Band DWDM up to 40km DWDM 100GHz 16dB C-band SM I-Temp

Other coding on request: salg@globalfiber.no.

MECHANICAL DIMENSIONS



All dimensions in mm. Drawing for reference only.

ABSOLUTE MAXIMUM RATINGS

Parameter	Min	Max	Unit
Supply voltage	-0.5	3.6	V
Storage temperature	-40	85	°C
Relative humidity (non-condensing)	5	85	%

RECOMMENDED OPERATING CONDITIONS

Parameter	Min	Typ	Max	Unit
Case temperature	-40	–	85	°C
Supply voltage	3.15	3.3	3.45	V
Power dissipation	–	–	1.5	W
Signalling rate (±100 ppm)	–	25.78125	–	Gb/s
Link distance	–	–	40 km	

OPTICAL CHARACTERISTICS – TRANSMITTER

Parameter	Min	Typ	Max	Unit
Center wavelength	ITU-12.5 GHz	ITU	ITU+12.5 GHz	nm
Average launch power	-1	–	+5	dBm
Side-mode suppression ratio	30	–	–	dB
Extinction ratio	6.5	–	–	dB
TX-off launch power	–	–	-30	dBm
Spectral width (-20 dB)	–	–	0.25	nm

OPTICAL CHARACTERISTICS – RECEIVER

Parameter	Min	Max	Unit
Receiver sensitivity (avg.)	–	-17	dBm
Receiver overload	-4	–	dBm
Stressed sensitivity	–	-14.5	dBm
LOS de-assert	–	-22	dBm
LOS assert	-30	–	dBm

XX = ITU-T G.694.1 C-band channel (100 GHz grid); specify the channel when ordering. Typical reach 30 km, up to 40 km with host FEC. Sensitivity and overload at 25.78 Gb/s, PRBS31, BER ≤ 5×10^{-5} (host FEC).

MANAGEMENT & DIAGNOSTICS

- Digital diagnostic monitoring per SFF-8472 over 2-wire serial interface
- Monitoring: temperature, supply voltage, TX bias, TX and RX power
- TX_Disable, TX_Fault, RX_LOS, MOD_ABS per SFP MSA

COMPLIANCE

- ITU-T G.694.1 DWDM grid
- SFP28 MSA (SFF-8402), SFF-8472 digital diagnostics
- Class 1 laser product, RoHS compliant

INSTALLATION NOTES

- Use in SFP28 host ports. Confirm host support, port mode, firmware version and FEC before deployment.
- Check host cooling and power budget for a 1.5 W module.
- Check the optical link budget (16 dB) and fiber loss for the full link (singlemode fiber, Duplex LC).
- Keep connectors clean and capped when not in use.

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