# SFP28 25G BiDi 10km I-Temp

SFP28 BiDi transceiver · 25GbE · TX 1270 / RX 1330 nm · 10 km · 9 dB · Simplex LC

The GLOBALfiber S25G-BXI10D-23 is an SFP28 transceiver for 25GbE links up to 10 km over singlemode fiber at TX 1270 / RX 1330 nm, with a 9 dB optical budget and digital diagnostics. It transmits at 1270 nm and receives at 1330 nm over one fiber.

## KEY FEATURES

- SFP28 form factor, hot-pluggable
- 25GbE (25.78 Gb/s)
- Wavelength TX 1270 / RX 1330 nm, DFB laser, PIN receiver
- Reach up to 10 km, optical budget 9 dB
- Simplex 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 | TX 1270 / RX 1330 nm |
| Reach | 10 km |
| Optical budget | 9 dB |
| Connector | Simplex LC |
| Fiber | Singlemode |
| Max. power | 1.5 W |
| Case temperature | -40 to +85 °C |

## APPLICATIONS & COMPATIBILITY

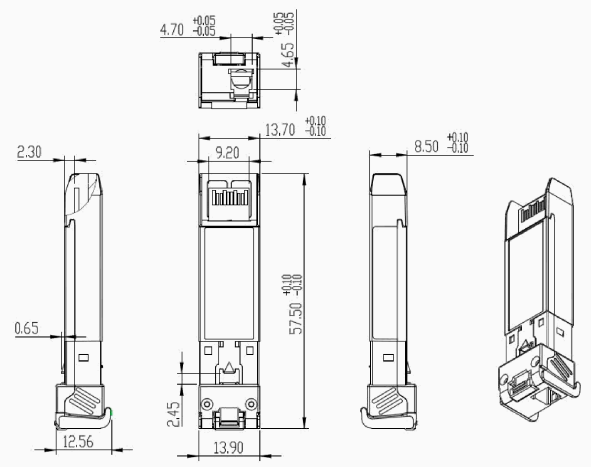
- 25GbE over a single fiber in access, mobile fronthaul and campus networks
- Coding available for the major switch and router vendors. Specify the host equipment when ordering.
- Provide equipment model, port configuration and software version so support can be checked. Coding does not confirm compatibility with every model or mode.

## ORDERING INFORMATION

| GLOBALfiber item | Description |
|---|---|
| **S25G-BXI10D-23** | SFP28 BiDi 25GbE DDM SM Simp 10km I-Temp Tx/Rx=1270/1330nm 9dB |

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 | 3.135 | 3.3 | 3.465 | V |
| Power dissipation | – | – | 1.5 | W |
| Signalling rate (±100 ppm) | – | 25.78125 | – | Gb/s |
| Link distance | – | – | 10 km | |

## OPTICAL CHARACTERISTICS – TRANSMITTER

| Parameter | Min | Typ | Max | Unit |
|---|---|---|---|---|
| Center wavelength | 1260 | 1270 | 1280 | nm |
| Average launch power | -4 | – | +4 | dBm |
| Extinction ratio | 3.5 | – | – | dB |
| TX-off launch power | – | – | -30 | dBm |

## OPTICAL CHARACTERISTICS – RECEIVER

| Parameter | Min | Max | Unit |
|---|---|---|---|
| Receiver sensitivity (avg.) | – | -13.3 | dBm |
| Receiver overload | +2 | – | dBm |
| Receiver wavelength | 1320 | 1340 | nm |
| LOS assert | -30 | – | dBm |

Sensitivity and overload at 25.78 Gb/s, PRBS31, BER ≤ $5\times10^{-5}$ (host FEC). Use -23 and -32 modules as a pair.

## 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

- IEEE 802.3cp 25GBASE-BR10 class (single-fiber 25GbE)
- 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 (9 dB) and fiber loss for the full link (singlemode fiber, Simplex LC).
- Keep connectors clean and capped when not in use.

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