SFP28 25G BiDi 60 km I-Temp

SFP28 BiDi transceiver · 25GbE · TX 1310 / RX 1290 nm · 60 km · 22 dB · Simplex LC

The GLOBALfiber S25G-BXI60D-32 is an SFP28 transceiver for 25GbE links up to 60 km over singlemode fiber at TX 1310 / RX 1290 nm, with a 22 dB optical budget and digital diagnostics. It transmits at 1310 nm and receives at 1290 nm over one fiber.

KEY FEATURES

- SFP28 form factor, hot-pluggable
- 25GbE (25.78 Gb/s)
- Wavelength TX 1310 / RX 1290 nm, DFB laser, APD receiver
- Reach up to 60 km, optical budget 22 dB
- Simplex LC optical connector
- Power < 1.5 W, single 3.3 V supply, DDM (SFF-8472)
- 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.

KEY SPECIFICATIONS

Form factor	SFP28
Data rate	25GbE (25.78 Gb/s)
Wavelength	TX 1310 / RX 1290 nm
Reach	60 km
Optical budget	22 dB
Connector	Simplex LC
Fiber	Singlemode
Max. power	1.5 W
Case temperature	-40 to +85 °C

ORDERING INFORMATION

GLOBALfiber item	Description
S25G-BXI60D-32	SFP28 BiDi 25GbE DDM SM Simp 60km I-Temp Tx/Rx=1310/1290nm 22dB

Other coding on request: salg@globalfiber.no.

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	–	–	60 km	

OPTICAL CHARACTERISTICS – TRANSMITTER

Parameter	Min	Typ	Max	Unit
Center wavelength	1306	1310	1314	nm
Average launch power	0	–	+6	dBm
Side-mode suppression ratio	30	–	–	dB
Extinction ratio	4	–	–	dB
TX-off launch power	–	–	-30	dBm

OPTICAL CHARACTERISTICS – RECEIVER

Parameter	Min	Max	Unit
Receiver sensitivity (avg.)	–	-17 (stressed)	dBm
Receiver overload	-4	–	dBm
Receiver wavelength	1281	1297	nm
Receiver sensitivity (OMA)	–	-20	dBm
LOS assert	-30	–	dBm

Sensitivity and overload at 25.78 Gb/s, PRBS31, BER ≤ 5×10^{-5} (host FEC). Use -23 and -32 modules as a pair (host FEC required).

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-BR 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 (22 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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