S25G-LR20

25G Ethernet LR optical transceiver | 1310 nm | Up to 20 km

1. Product overview

GLOBALfiber S25G-LR20 is a long-range 25 Gbit/s pluggable optical module for data communications, including 25GBASE Ethernet. It supports transmission over single-mode fiber and provides digital diagnostic functions through an I2C interface.

2. Key features

Up to 20 km on single-mode fiber; hot-pluggable SFP footprint; LC optical interface; SFP28 MSA compatibility; Digital Diagnostics Monitoring; single 3.3 V supply; power dissipation below 2 W; RoHS-6 compliant (lead-free).

3. Applications

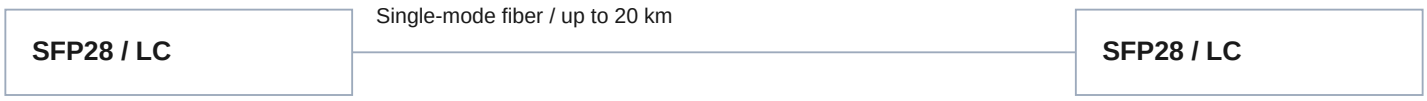
25GBASE-LR and data center interconnections.

4. Technical data

Parameter	Specification
Data rate	25 Gbit/s
Form factor	SFP28; hot-pluggable SFP footprint
Optical interface	LC
Fiber type	Single-mode (SM)
Transmission distance	Up to 20 km
Power dissipation	< 2 W
Standards	SFP28 MSA; IEEE 802.3; 25GBASE-LR

5. Recommended operating conditions

Parameter	Specification
Case operating temperature	0 °C to +70 °C
Power supply	Single 3.3 V supply



Functional illustration - not to scale

S25G-LR20

6. Optical characteristics

Parameter	Specification
Fiber	Single-mode (SM)
Nominal wavelength	1310 nm
Optical output power	-1 to +5 dBm
Optical receiver sensitivity (source label)	-15 to +2.5 dBm
Optical power budget	14 dB

The receiver range is reproduced as stated. Separate receiver overload and sensitivity test conditions are not specified.

7. Digital diagnostics and management

Digital Diagnostics Monitoring is available through an I2C interface.

8. Safety and regulatory

Class 1 laser product. Complies with IEC-60825 and FDA 21 CFR 1040.10 and 1040.11. RoHS-6 compliant (lead-free). Operate within the specified temperature and voltage limits. Optical ports must be terminated with an optical connector or a dust plug.

9. Ordering information

Parameter	Specification
GLOBALfiber product number	S25G-LR20
GLOBALfiber product description	SFP28 25 GbE-LR DDM 20km / 1310nm 14dB SM