SMR-L120-CHxx

SFP Multirate 100M-2.7G DDM up to 120km | DWDM 100 GHz 28dB SM

1. Product overview

GLOBALfiber multirate SFP optical transceivers provide serial optical data communications for telecom and data networking. This family supports up to 120 km over single-mode fiber, with digital diagnostics accessible through an I2C serial interface.

2. Key features

45 DWDM wavelengths; 100 GHz (approximately 0.8 nm) channel spacing; hot-pluggable SFP; 28 dB link budget; digital diagnostics; RoHS compliant.

3. Applications

Fast Ethernet; Gigabit Ethernet; 1x/2x Fibre Channel; DWDM systems; OC-48 / STM-16 / OTN-1; STM-16 FEC / OC-48 FEC.

4. Technical data

Parameter	Specification
Form factor	Small Form-Factor Pluggable (SFP)
Technical data-rate range	100 Mb/s to 2.67 Gb/s
Fiber	Single-mode
Reach	Up to 120 km
Optical interface	Duplex LC
Wavelengths	1528.77-1564.68 nm
Diagnostics	Digital diagnostics via I2C; SFF-8472
DWDM channels	45; 100 GHz (~0.8 nm) spacing
Frequency endpoints	191.60 THz at 1564.68 nm; 196.00 THz at 1529.55 nm

5. Recommended operating conditions

Parameter	Specification
Operating case temperature	0 to +70 °C
Supply voltage / power consumption	Not specified



Simplified functional illustration - not to scale

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6. Optical characteristics

Product number	Wavelength (nm)	TX output (dBm)	RX sensitivity (dBm)	Budget (dB)
SMR-L120-CHxx	DWDM	0 to +4	-28 to -7	28

Receiver ranges are reproduced under the original sensitivity heading; the upper value is not reclassified as overload.

Parameter	Specification
Wavelength range	1528.77-1564.68 nm
Channel spacing	100 GHz (~0.8 nm)
Number of wavelengths	45
Channel selection	Specify required ITU frequency / wavelength when ordering.

7. Digital diagnostics and management

Digital diagnostic functions are available over the I2C serial bus specified by SFP MSA SFF-8472. Modules are hot-pluggable.

8. Safety and regulatory

ITU G.957 (SDH/SONET); IEEE 802.3 Gigabit Ethernet; ANSI Fibre Channel specifications; SFP MSA; SFF-8472. ITU G.692 and G.694.1; RoHS. Class 1 laser product: IEC-60825 and FDA 21 CFR 1040.10 / 1040.11. Operate within specified temperature and voltage limits. Terminate optical ports with an optical connector or dust plug.

9. Ordering information

Parameter	Specification
SMR-L120-CHxx	SFP Multirate 100M-2.7G DDM up to 120km, DWDM 100Ghtz 28dB SM

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