

S10G-L100-Cxx

10G SFP+ CWDM | 100 km | 1471-1611 nm

1. Product overview

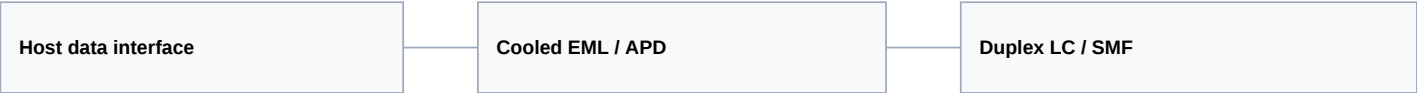
Hot-pluggable duplex SFP+ transceiver for long-distance optical data communication. A cooled EML laser and high-sensitivity APD receiver support links up to 100 km over standard single-mode fiber without external dispersion compensation. The module supports multiple data rates; the source specification table lists 1.25-11.32 Gb/s.

2. Key features

- Up to 100 km over single-mode fiber, depending on fiber loss and quality
- Cooled EML transmitter and APD receiver
- Duplex LC interface with UPC polish
- CWDM channels on a 20 nm grid
- Digital diagnostic monitoring over a 2-wire I²C interface
- Operating temperature -0 to +70°C

3. Applications

10G Ethernet, 1G Ethernet, CPRI, OTN G.709 and Fibre Channel. Long-distance optical links over standard single-mode fiber.



4. Technical data

Parameter	Specification
Product identifier	S10G-L100-I-Cxx
Form factor	SFP+ (Small Form-factor Pluggable); hot-pluggable
Optical interface	Duplex LC, UPC polish
Maximum distance	100 km; dependent on fiber loss and quality
Fiber type	Standard single-mode fiber (SMF)
Data rate, specification table	1.25-11.32 Gb/s, multi-rate
Data rate, source overview	1.25-11.3 Gb/s
Transmitter / receiver	Cooled EML / APD
External dispersion compensation	Not required according to the source description

5. Recommended operating conditions

Parameter	Specification
Supply voltage	3.3 V ±5%
Power consumption	<1.5 W; typically approximately 1.2 W at 25°C
Operating temperature	0 to +70°C
Storage temperature	-40 to +85°C

S10G-L100-Cxx

6. Optical characteristics

Parameter	Minimum	Typical	Maximum	Unit
TX output power	0	-	+5	dBm
Receiver sensitivity	-	-	-26 / -27	dBm
Receiver overload	-7	-	-	dBm
Optical link budget	26	-	27	dB
Dispersion tolerance	-	-	2000	ps/nm

A dash indicates that the source does not specify a value in that column. Both receiver-sensitivity values are retained as stated.

Available CWDM transmit wavelengths

CWDM grid	Channel spacing	TX wavelengths
ITU-T G.694.2	20 nm	1471, 1491, 1511, 1531, 1551, 1571, 1591 and 1611 nm

The source states that these upper eight channels are normally used for 100 km because of lower fiber attenuation. It also notes that some manufacturers use rounded even-number labels, 1470-1610 nm.

7. Digital diagnostics and management

DDM / DOM provides real-time monitoring through the standard 2-wire I²C interface in accordance with SFF-8472:

- Internal module temperature
- Internal supply voltage (Vcc)
- Laser bias current (TX bias)
- Transmitted optical power (TX power)
- Received optical power (RX power)

8. Safety and regulatory

Standards listed in the source: SFF-8431, SFF-8432, SFF-8472 (DDM/DOM) and IEEE 802.3ae. The CWDM grid is referenced to ITU-T G.694.2. No laser safety class or additional regulatory certifications are specified.

9. Ordering information

Product identifier	Product description
S10G-L100-Cxx	10G SFP+ CWDM, 100 km, duplex LC/UPC, cooled EML / APD