SFPDD-XGSOLT-B-I

SFP-DD XGS-PON / GPON Combo OLT | B+ | Industrial temperature

1. Product overview

GLOBALfiber SFPDD-XGSOLT-B-I is a single-fiber bidirectional combo OLT transceiver supporting XGS-PON, XG-PON and GPON operation. Simultaneous XGS-PON and GPON support on the same OLT platform enables access-network migration and coexistence. The industrial-temperature SFP-DD module is designed for carrier-grade OLT systems.

2. Key features

Hot-pluggable SFP-DD form factor; SC/UPC connector; up to 20 km over single-mode fiber; Digital Diagnostic Monitoring; separate XGS-PON and GPON memory pages; low EMI and ESD protection; RoHS-10 compliant.

3. Applications

FTTH access networks; GPON-to-XGS-PON migration and coexistence; central offices; outdoor cabinets and industrial-temperature OLT deployments.

4. Technical data

Parameter	Specification
Form factor / PON interface	SFP-DD / XGS-PON Combo
Optical connection	SC/UPC; single-fiber bidirectional
Fiber / reach	Single-mode / up to 20 km
Optical class	B+
XGS-PON downstream rate	9.953 Gbps
GPON downstream rate	2.488 Gbps
Supply voltage	3.3 V
Power consumption	= 3.3 W
Management interface	I2C; SFF-8472 compatible
Timing	RX/TX burst-mode timing optimized for OLT operation

5. Recommended operating conditions

Parameter	Specification
Operating temperature	-40 °C to +85 °C (industrial)



Functional illustration - not to scale

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6. Optical characteristics

Parameter	Specification
XGS-PON TX wavelength / laser	1577 nm / EML
XGS-PON TX data rate	9.953 Gbps
XGS-PON TX launch power	+1 to +4 dBm
XGS-PON TX extinction ratio	= 8.2 dB
GPON TX wavelength / laser	1490 nm / DFB
GPON TX data rate	2.488 Gbps
GPON TX launch power	+1.5 to +5 dBm
GPON TX extinction ratio	= 8.2 dB
XGS-PON / XG-PON RX wavelength	1270 nm
XGS-PON / XG-PON RX sensitivity	Down to -26.5 dBm
XGS-PON / XG-PON RX max. input	0 dBm
XGS-PON / XG-PON RX operation	Burst mode with fast recovery
GPON RX wavelength	1310 nm
GPON RX sensitivity	Down to -28 dBm
GPON RX maximum input power	+5 dBm
GPON RX operation	Burst mode with RSSI support
Reach, both downstream channels	Up to 20 km over single-mode fiber

7. Digital diagnostics and management

DDM monitors module temperature, supply voltage, laser bias current, TX optical power and RX optical power. Separate memory pages are provided for XGS-PON and GPON. Management uses an I2C interface compatible with SFF-8472.

8. Safety and regulatory

RoHS-10 compliant. Low EMI and ESD protection are stated. Supported standards: XGS-PON ITU-T G.9807.1; XG-PON ITU-T G.987.2; GPON ITU-T G.984.2.

9. Ordering information

Parameter	Specification
GLOBALfiber product number	SFPDD-XGSOLT-B-I
Product description	SFPDD XGSPON/GPON OLT 1577T/1270R 20 B+ / 9.95T/9.95R-2.4T/1.2R SC I-Temp
Available coding	Generic, Nokia Networks

10. General notes

Equality signs for power consumption and extinction ratio are retained as stated in Technical info; no minimum or maximum interpretation is assumed. Upstream rates appear only in the abbreviated product description. Storage temperature, laser class and quantified ESD limits are not specified.