

SFPC-XGSOLT-N1-I

SFP+ OLT Combo 20km SFP+ 1577T/1270R B+ | 9.95T/9.95R-2.4T/1.2R SC I-Temp

1. Product overview

XGS-PON & GPON Combo OLT SFP+

The XGS-PON & GPON Combo OLT SFP+ is a high-performance optical transceiver designed for modern Passive Optical Network (PON) deployments. It enables the simultaneous operation of GPON and XGS-PON over a single fiber, allowing operators to smoothly evolve existing GPON networks to XGS-PON without replacing the physical fiber infrastructure.

The module is optimized for OLT-side applications, supporting long-reach access networks, wide temperature operation, and full compliance with ITU-T standards.

2. Key features

Combination of XGS-PON OLT and GPON OLT optical transceiver
Supports GPON and XGS-PON coexistence on the same fiber
Compliant with:
ITU-T G.984.5 (2014) / Amd.2 (10/2020) - GPON
ITU-T G.9807.1 - XGS-PON
Optical Power Level (OPL): Class C+
Single-fiber bidirectional (BiDi) transmission
Integrated Digital Diagnostic Monitoring (DDM) via 2-wire interface
SFP+ form factor, SC/UPC connector
Designed for OLT applications
Reach up to 20 km
Industrial temperature range

3. Applications

PON access networks; OLT-side deployment.

4. Technical data

Technical specifications	Continued (read down each column)
XGS-PON	Power supply: +3.3 V
Downstream (Tx1):	Differential input swing: 100 - 850 mVp-p
9.953 Gbps @ 1577 nm (continuous mode)	Differential output swing: 300 - 800 mVp-p
Upstream (Rx1):	Input impedance: 100 Ω
9.953 Gbps / 2.488 Gbps @ 1270 nm (burst mode)	Control interface: 2-wire I2C
GPON	Fully compliant burst-mode operation for:
Downstream (Tx2):	XGS-PON upstream
2.488 Gbps @ 1490 nm (continuous mode)	GPON upstream
Upstream (Rx2):	Supports guard time, reset timing, and data recovery per ITU-T requirements
1.244 Gbps @ 1310 nm (burst mode)	Automatic signal-detect reset functionality
1577 nm transmitter: EML laser with SOA	Form factor: SFP+
1490 nm transmitter: DFB laser	Pin configuration: 20-pin
1270 nm receiver: APD-TIA, burst-mode	Fully compliant with standard SFP+ cages and connectors
1310 nm receiver: APD-TIA, burst-mode	Teknisk info

5. Recommended operating conditions

Commercial temperature (C-temp): = 3.0 W
Industrial temperature (I-temp): = 3.5 W
Operating temperature (industrial): -40 °C to +85 °C
Operating temperature (commercial): 0 °C to +70 °C
Storage temperature: -40 °C to +85 °C
Operating humidity: 5 % to 85 % RH

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6. Optical characteristics

Optical specifications	Continued (read down each column)
Transmitters	Extinction ratio: = 8.2 dB
XGS-PON (1577 nm)	Receivers
Output power: 8 to 10 dBm	XGS-PON Rx (1270 nm)
SMSR: = 30 dB	Sensitivity: -32 dBm
Extinction ratio: = 8.2 dB	Saturation: -10 dBm
GPON (1490 nm)	GPON Rx (1270 / 1310 nm)
Output power: 7 to 10 dBm	Sensitivity: -35 dBm
SMSR: = 30 dB	Saturation: -10 / -12 dBm

7. Digital diagnostics and management

Integrated Digital Diagnostic Monitoring (DDM) via 2-wire interface
Control interface: 2-wire I2C

8. Safety and regulatory

The module is optimized for OLT-side applications, supporting long-reach access networks, wide temperature operation, and full compliance with ITU-T standards.
ITU-T G.984.5 (2014) / Amd.2 (10/2020) - GPON
ITU-T G.9807.1 - XGS-PON
Supports guard time, reset timing, and data recovery per ITU-T requirements

9. Ordering information

GLOBALfiber part number	Product description
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