

GPONONU-STICK-B-I

GPON ONU Stick SFP SC/APC MAC I-Temp B+ | 1.25Tx/2.5Rx 1310/1490nm 20km

1. Product overview

GLOBALfiber GPON ONU Stick SFP with Integrated MAC
1.25G TX / 2.5G RX | 1310nm TX / 1490nm RX | SC/UPC or SC/APC | 20km | DOM | I-Temp | B+
The GLOBALfiber GPON ONU Stick SFP integrates a complete GPON Optical Network Unit (ONU) including the PON MAC into a compact SFP transceiver. By combining the optical interface and ONU electronics into a single plug-and-play SFP module, it eliminates the need for an external ONT, simplifying FTTH, FTTB and enterprise fiber deployments while reducing equipment, power consumption and installation costs.
Designed for seamless integration with GPON access networks, the module automatically discovers and configures itself when connected to a compatible OLT, supporting full OMCI management and Digital Diagnostic Monitoring (DDM/DOM).

2. Key features

Integrated GPON ONU with built-in MAC; Plug-and-play auto discovery and provisioning; SFP MSA compliant form factor; SC/UPC or SC/APC optical interface; Single-fiber bidirectional transmission; 1310nm DFB burst-mode transmitter; 1490nm continuous-mode receiver; GPON upstream: 1.244 Gb/s; GPON downstream: 2.488 Gb/s; EPON compatible (1.25G/1.25G); Supports HGU and SFU operation; Digital Diagnostic Monitoring (DOM/DDM); Low power consumption; Low EMI design; Excellent ESD protection; Hot-pluggable SFP module; Single 3.3V power supply; Industrial temperature version available; Fully compliant with RoHS requirements; Class 1 laser product (IEC 60825)

3. Applications

- FTTH (Fiber-to-the-Home)
- FTTB (Fiber-to-the-Building)
- GPON Access Networks
- EPON Networks
- Broadband Service Providers
- Enterprise Fiber Access
- Residential Gateways
- Ethernet Switches
- Routers
- Customer Premises Equipment (CPE)

4. Technical data

Technical specifications	Continued (read down each column)
GPON	Operating Voltage: 3.13-3.47 V
Upstream: 1.244 Gb/s	Maximum Power Consumption: 2.5 W
Downstream: 2.488 Gb/s	Maximum Supply Current: 300 mA
EPON	AC coupled CML electrical interface
Upstream: 1.25 Gb/s	Differential transmitter and receiver interface
Downstream: 1.25 Gb/s	Digital diagnostic interface compliant with SFF-8472
Supply Voltage: 3.3 V	

5. Recommended operating conditions

- Operating Temperature: -40°C to +85°C
- Storage Temperature
- 40°C to +85°C
- Humidity
- 5% to 95% RH

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6. Optical characteristics

Optical specifications	Continued (read down each column)
Form Factor: SFP	RX Detector: TIA Continuous Mode
Connector: SC/UPC or SC/APC	Average TX Optical Power: +0.5 to +4 dBm
Fiber Type: Singlemode (SMF)	Receiver Sensitivity: -28 dBm
Transmission Distance: Up to 20 km	Receiver Saturation: -8 dBm
TX Wavelength: 1310 nm	Extinction Ratio: ≥10 dB
RX Wavelength: 1490 nm	Optical Return Loss Tolerance: -15 dB
TX Laser: DFB Burst Mode	

7. Digital diagnostics and management

The integrated Digital Diagnostic Monitoring interface provides real-time monitoring of:

- Module temperature
- Supply voltage
- Laser bias current
- Transmit optical power
- Receive optical power
- TX Fault status
- RX Loss of Signal (LOS)

8. Safety and regulatory

ITU-T G.984.2
ITU-T G.984.2 Amendment 1
ITU-T G.988 (OMCI)
IEEE 802.3ah
SFP MSA (SFF-8074i)
SFF-8472 Digital Diagnostics
SGMII
1000BASE-X
IEC 60825 Class 1 Laser
RoHS Compliant

9. Ordering information

GLOBALfiber part number	Product description
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