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PRODUCT DATASHEET

Fiber Access · Optical Transceiver

UNT-XG-SFP

XGS-PON SFP+ ONT Stick

Standard SFP+ package ONT that extends 10G PON deployment in existing access networks — a seamless replacement for the Ethernet SFP+ module in gateways, switches, routers and backhaul equipment, with full XGS-PON MAC and standards-compliant OMCI stack.



10G
XGS-PON SYMMETRIC

SFP+
PLUG-IN ONT PACKAGE

N1
ITU-T G.9807 OPTICS

OMCI
G.988 · FCAPS

<2.1W
FULL-SPEED CONSUMPTION

01 POSITIONING

Built to extend 10G PON deployment for business and residential users without replacing existing Ethernet equipment.

Seamless SFP+ Replacement

Standard SFP+ package drops into existing Ethernet gateways, switches, routers, or backhaul equipment.

Ultra-Fast Fiber Access

ITU-T G.9807.1 XGS-PON with 10 Gbps burst-mode upstream transmitter and 10 Gbps downstream receiver.

OLT Interoperability

High interoperability with mainstream branded OLTs and switches in carrier deployment scenarios.

Carrier-Grade Operations

Integrated XGS-PON MAC and OMCI stack deliver full FCAPS management: supervision, monitoring and maintenance.

Industrial Temperature Range

Operates from −40 to 85°C with less than 2.1 W full-speed power consumption at room temperature.

Advanced Ethernet OoS

802.1Q virtual switch, 0-in-Q, VLAN translation, and CoS based on VLAN-ID, 802.1p and ToS/DSCP.

02 DEPLOYMENT USE CASES

Clear feature grouping for presales teams, network planners, and ISP procurement evaluation.

10G PON extension over existing gateways

Business and residential fiber access

Switch and router PON uplink

Wireless backhaul over XGS-PON

Remote supervision & maintenance

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03 INTERFACE & HARDWARE PARAMETERS

CATEGORY	SPECIFICATION
PON Interface	Compliant with ITU-T G.9807.1 XGS-PON standards: SFF type laser, SC/APC or SC/UPC connector; 10 Gbps burst-mode upstream transmitter; 10 Gbps downstream receiver
Optics (Class N1)	ITU-T G.9807 Class N1; APD receiver and DFB transmitter; +4 to +9 dBm launch power; −28.5 dBm sensitivity (BER ≤1×10 ^{−3}); −8 dBm overload; 20 km distance
Wavelength	Upstream 1260–1280 nm; downstream 1575–1580 nm
Ethernet Interface	SFP+ based XFI interface; hardware priority queues on downstream in support of CoS; 802.1D bridging; virtual switch based on 802.1Q VLAN; VLAN tagging/detagging; VLAN stacking(0-in-Q) and VLAN translation; IP ToS/DSCP to 802.1p mapping; CoS based on VLAN-ID, 802.1p bit, ToS/DSCP; marking/remarking of 802.1p; broadcast/multicast rate limiting
Dimensions	15.6 mm x 87.5 mm x 13.75 mm (H x W x D)
Environment	Operating: −40 to 85°C, 5 to 95% RH non-condensing; Storage: −30 to 60°C, 10 to 90% RH non-condensing
Power	Full-speed power consumption at room temperature: <2.1 W

04 FUNCTIONAL DATA

Service and management capabilities organized for operator review.

STANDARDS COMPLIANCE

ITU-T G.9807.1 XGS-PON standards; ITU-T G.9807 Class N1

OAM

Standards-compliant OMCI (embedded operations channel) per ITU-T G.988; alarming and AVC report, performance monitoring; remote software image download over OMCI with activation and rebooting; holds two software sets with image integrity checking and automatic rollback

PON OOS

Multiple T-CONTs and multiple XGEM ports per device with flexible mapping; activation with automatically discovered SN and password per ITU-T G.9807.1; AES-128 decryption with key generation and switching; FEC (Forward Error Correction); DBA reporting; 802.1p mapper service profile upstream; XGEM-to-T-CONT mapping with priority-queue scheduling; multicast XGEM port and incident broadcast XGEM port

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05 PIN DESCRIPTION

Standard SFP+ 20-pin electrical interface with PON-specific signals for host integration.

PIN	NAME	INTERNAL PULL-UP / PULL-DOWN	ACTIVE
1	IPPS	Pulldown (4.75K)	
2	TX_FAULT	Pulldown (22K)	High
3	TX_DISABLE	Pullup (4.75K)	High
4	SDA	Pulldown (22K)	
5	SCL	Pulldown (22K)	
6	MOD_ABS	Pulldown (100 Ω)	
7	Dying Gasp	Pullup (4.75K)	Low
8	RX_LOS	Pulldown (22K)	High
9	Remote Reset	Pulldown (22K)	Up to host
10	VEET		
11	VEER		
12	RD−	AC coupled inside the module	
13	RD+	AC coupled inside the module	
14	VEER		
15	VCCR		
16	VCCT		
17	VEET		
18	TD+	AC coupled inside the module	
19	TD−	AC coupled inside the module	
20	VEET		

06 ORDERING INFORMATION

MODEL
UNT-XG-SFP

PON
XGS-PON · N1

PACKAGE
SFP+ · XFI Host Interface

CONNECTOR
SC/APC or SC/UPC

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