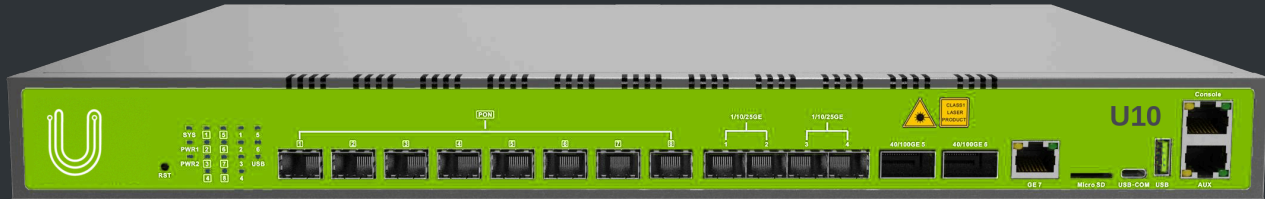


XGS-PON / GPON COMBO OLT · U10 SERIES

U10-8

XGS-PON Combo OLT with 100GE Uplink · 8 PON Ports · 1U 19-inch


8×

COMBO PON PORTS

2× 100GE

QSFP28 UPLINKS

4× 25GE

SFP28 UPLINKS

1960 Gbps

BACKPLANE BANDWIDTH

1:256

MAX. SPLIT RATIO

01 OVERVIEW

The UGRID U10-8 is a 1U XGS-PON/GPON combo OLT with 8 PON ports that support XGS-PON, XG-PON and GPON. All eight ports run in XG(S)-PON & GPON combo mode by default, and any port can be switched to single GPON mode — so operators can start with GPON to keep initial investment low, then move to 10G service as demand grows while keeping existing GPON services stable. Seven uplinks — 1× GE RJ45, 4× 10/25GE SFP28 and 2× 40/50/100GE QSFP28 — backed by 1960 Gbps backplane bandwidth and 566.928 Mpps forwarding deliver full-speed data forwarding for high-bandwidth, large-scale deployments.

GPON-first rollouts

Run ports in single GPON mode to reduce initial investment, then switch to combo mode as 10G demand grows.

Smooth XGS-PON upgrade

Combo mode serves GPON and XG(S)-PON ONTs on the same PON port, keeping existing services stable.

High-bandwidth access

100GE QSFP28 uplinks and full-speed forwarding for high-bandwidth, large-scale deployments.

DEPLOYMENT SCENARIOS

XGS-PON / GPON coexistence

GPON-first rollouts

GPON → XGS-PON upgrade

High-bandwidth access

Large-scale deployment

02 KEY FEATURES

- ✓ Triple-mode combo PON**
 8 SFP+ PON ports support XGS-PON, XG-PON and GPON; combo mode by default, with per-port switching to single GPON mode.
- ✓ 100GE uplinks**
 2× 40/50/100GE QSFP28, 4× 10/25GE SFP28 and 1× GE RJ45 uplinks; 1960 Gbps backplane and 566.928 Mpps forwarding.
- ✓ Layer 3 routing**
 Static routing, RIP v1/v2, RIPvng and OSPF v2/v3, ARP proxy and 4,096 hardware host routes.
- ✓ Carrier-class security**
 RADIUS, TACACS+, IP source guard, ACL, port isolation and broadcast-storm control.
- ✓ Simple ONT management**
 ONT auto-discovery, link detection and remote software upgrade, with online ONT configuration.
- ✓ Compact 1U, flexible power**
 1U 19-inch box, 4.8 kg, four fans; single or dual AC and single or dual DC power configurations.

03 TYPICAL APPLICATION

The U10-8 serves GPON and XGS-PON ONTs behind the same passive optical splitter on one combo PON port (up to 1:256 per PON port, 1:128 recommended) and uplinks over 100GE QSFP28 to the upstream network.

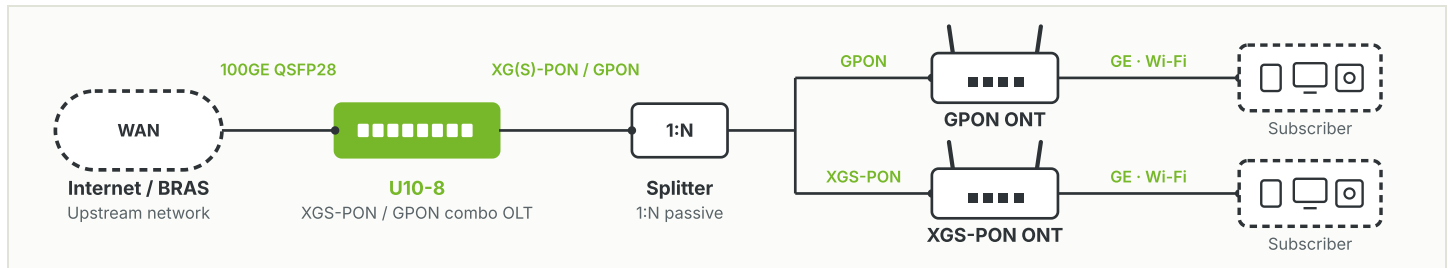
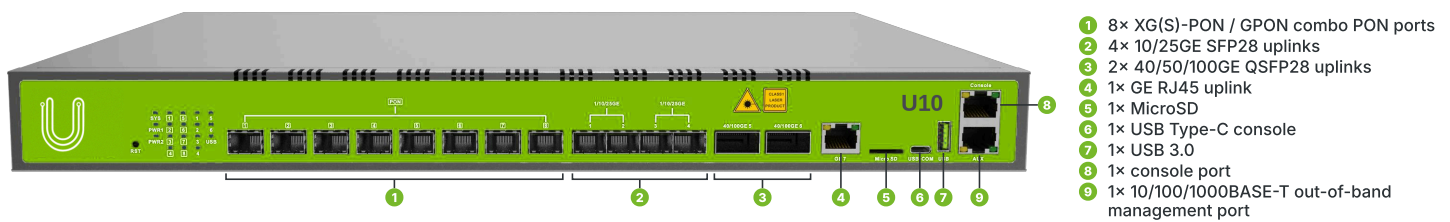


Figure 1 — GPON and XGS-PON ONTs coexisting behind the same optical splitter (U10-8 highlighted).

04 PANEL & CONNECTORS



05 HARDWARE SPECIFICATIONS

CHASSIS & INTERFACES

Chassis	1U, 19-inch standard box; 4 fans
PON ports	8× XG(S)-PON / GPON combo (SFP+ slots)
Uplink ports	1× GE RJ45; 4× 10/25GE SFP28; 2× 40/50/100GE QSFP28
Management ports	1× 10/100/1000BASE-T out-of-band, 1× console, 1× USB 3.0, 1× USB Type-C console, 1× MicroSD

XG(S)-PON / GPON PORT SPECIFICATION

Port mode	Combo mode on PON 1–8 by default; any port can be switched manually to single GPON mode
Line rate	XGS-PON: upstream 9.953 Gbps, downstream 9.953 Gbps XG-PON: upstream 2.488 Gbps, downstream 9.953 Gbps GPON: upstream 1.244 Gbps, downstream 2.488 Gbps
Wavelength	XG(S)-PON: TX 1577 nm, RX 1270 nm; GPON: TX 1490 nm, RX 1310 nm
PON SFP/SFP+ optics class	Combo mode: N2_C+; single GPON mode: Class B+, Class C, Class C+, Class C++, and vendor-defined high-power GPON optics
Transmission distance	20 km
Max. split ratio	1:256 (1:128 recommended)

PERFORMANCE

Backplane bandwidth	1960 Gbps
Port forwarding rate	566.928 Mpps
Management modes	CLI (console / Telnet / SSH), Web, SNMP

POWER

Power supply	AC 100–240 V (rated 110 V / 220 V) or DC
Power configurations	1× AC · 2× AC · 1× DC · 2× DC
Power consumption	150 W
Lightning protection	Power 6 kV; interface 4 kV

PHYSICAL & ENVIRONMENTAL

05 HARDWARE SPECIFICATIONS (CONTINUED)

Dimensions (W × D × H)	442 × 330 × 43.6 mm
Weight	4.8 kg net
Operating temperature	−20 °C to +60 °C
Storage temperature	−40 °C to +70 °C
Relative humidity	5%–95%, non-condensing (operating and storage)

06 SOFTWARE FEATURES

Management - SNMP, Telnet, CLI, Web, SSH v2 - Fan group control - Port status monitoring and configuration - Online ONT configuration and management - User management - Alarm management	Layer 2 Switching 32K MAC addresses 4,096 VLANs; port VLAN - VLAN tag / untag, VLAN transparent transmission - VLAN translation and QinQ - Port-based storm control; port rate limiting - Port isolation - IEEE 802.1D STP and 802.1w RSTP - Static link aggregation and LACP - QoS based on port, VID, ToS and MAC address - Access control lists - IEEE 802.3x flow control - Port statistics and monitoring	Layer 3 Routing - ARP proxy 4,096 hardware host routes, 512 hardware subnet routes - Static routing - RIP v1/v2, RIPng - OSPF v2/v3
XG(S)-PON / GPON - Compliant with ITU-T G.9807.1 (XGS-PON), G.987 (XG-PON) and G.984.x (GPON) - T-CONT DBA - XGEM / GEM traffic - Up to 20 km transmission distance - Data encryption, multicast, port VLAN, separation, RSTP - ONT auto-discovery, link detection and remote software upgrade	Multicast - IGMP snooping - IGMP proxy 2,048 IP multicast groups	IPv6 - NDP - IPv6 ping, IPv6 Telnet, IPv6 routing - ACL on source / destination IPv6 address, L4 port and protocol type - MLD v1/v2 snooping
DHCP - DHCP server, DHCP relay, DHCP snooping - DHCP Option 82		Security & Reliability - RADIUS and TACACS+ - IP source guard - VLAN division and user separation - Broadcast-storm resistance; port isolation - Flexible packet filtering by ACL and SNMP - Power-off alarm for fast link fault detection - System breakdown-prevention design

07 ORDERING INFORMATION

SELECTED CONFIGURATION · MODEL NUMBER KEY	
U10 1U XGS-PON combo OLT series	8 8 combo PON ports
PART NO.	DESCRIPTION
U10-8	XGS-PON / GPON combo OLT, 8× XG(S)-PON/GPON (SFP+), 1× GE RJ45 + 4× 10/25GE SFP28 + 2× 40/50/100GE QSFP28 uplinks, 1U
Power options: 1× AC, 2× AC, 1× DC or 2× DC — specify when ordering. Optional modules, ordered separately: XG(S)-PON/GPON combo SFP+ (N2_C+), high-power GPON SFP (single GPON mode), 100GE QSFP28 and 25GE SFP28.	

08 REVISION HISTORY

REVISION	DATE	DESCRIPTION
R01	2026-10-21	Initial release.

Specifications are subject to change without notice. Actual performance may vary with network configuration and environment. © 2026 UGRID Network Inc. All rights reserved.