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CONNECTING YOUR BUSINESS FORWARD

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ARC DATA 8-Port XGS-PON Combo OLT

GPON, XG-PON and XGS-PON in parallel — on every port

A 1U, large-capacity combo OLT that runs GPON, XG-PON and XGS-PON simultaneously on each of its eight PON ports — serving 2.5G legacy and symmetric 10G subscribers from one chassis, with 100GE QSFP28 uplinks for full-rate backhaul.

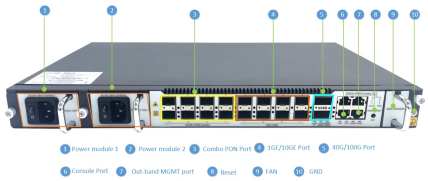


8×	10 Gbps	720 Gbps	100GE
COMBO PON	SYMMETRIC XGS	SWITCHING FABRIC	QSFP28 UPLINK

OVERVIEW

The ARC DATA 8-Port XGS-PON Combo OLT is a highly integrated, large-capacity optical line terminal built for operators, ISPs, enterprises and campus networks. Each of its eight PON ports runs GPON, XG-PON and XGS-PON at the same time, so a single chassis serves existing 2.5G GPON subscribers and next-generation symmetric 10G subscribers side by side — protecting today's rollout while opening a clear path to multi-gigabit services.

Following the ITU-T G.984 / G.987 / G.988 standards with standard, open OMCI, the OLT is compatible with any brand of compliant ONU/ONT — you are never locked to a single ONT vendor. Service configuration and operations completely inherit GPON, so the operational learning curve is minimal. At just 1U high, with 720 Gbps switching capacity, dual hot-swappable redundant power and modular fans, it packs carrier-grade density and resilience into a compact, easy-to-install rack unit, and supports mixed networking of different ONU types to save significant cost.



FRONT PANEL — POWER, COMBO PON, 1/10GE & 40/100G UPLINKS

FEATURES

Triple-Mode Combo PON
Eight ports, each running GPON, XG-PON and XGS-PON simultaneously.

High-Speed Uplinks
8× 1G SFP / 8× 10G SFP+ plus 2× 40G/100G QSFP28.

Rich L2/L3
4K VLAN, Q-in-Q, ERPS/STP/RSTP/MSTP, LACP, OSPF/BGP/IS-IS/VRRP.

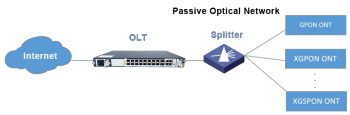
Symmetric 10G
XGS-PON delivers 9.953 Gbps symmetric per PON; XG-PON 9.953G down / 2.5G up.

Open OMCI
Works with any compliant brand of ONT; batch ONU upgrade and rogue-ONU detection.

Carrier Redundancy
Dual hot-swap AC/DC power and a modular fan unit; ONT dying-gasp alarm.

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TYPICAL FTTX DEPLOYMENT



AC POWER MODULE



DC POWER MODULE



MODULAR FAN UNIT

TECHNICAL SPECIFICATIONS

SYSTEM

Form Factor	1U 19-inch rack chassis
PON Ports	8 × XG(S)-PON / GPON Combo (SFP+, 20-pin)
Uplink Ports	8 × 1000M Base-X SFP / 8 × 10GE SFP+ + 2 × 40G/100G QSFP28
Switching Capacity	720 Gbps
Forwarding Rate	535.68 Mpps
Memory / Storage	2 GB / 8 GB
MAC Address Table	64K
Packet Buffer	72 Mbit
Management Ports	Console, MGMT (out-of-band), ALM (4× alarm input), TOD (1PPS+TOD)

PON

Standards	ITU-T G.984 / G.987 / G.988
GPON Rate	2.48832 Gbps down / 1.24416 Gbps up
XG-PON Rate	9.95328 Gbps down / 2.48832 Gbps up
XGS-PON Rate	9.95328 Gbps down / 9.95328 Gbps up (symmetric)
Wavelengths	GPON 1490nm down / 1310nm up; XG(S)-PON 1577nm down / 1270nm up
Split Ratio	Up to 1:256 total (1:128 per mode)
Transmission Distance	Up to 20 km
OMCI	Standard, open — any brand of ONT; batch upgrade; rogue-ONU detection; optical-power monitoring

SWITCHING & ROUTING

VLAN	4K VLAN; port/MAC/protocol-based; dual-tag, static & flexible Q-in-Q
Ring / Redundancy	FlexLink, STP/RSTP/MSTP, ERPS, loopback-detection
Aggregation	Static link aggregation + LACP (up to 8 ports/group)
Layer 3	Static routing, RIP, OSPF, BGP, IS-IS, VRRP
QoS	802.1p / DSCP remark, SP / WRR / SP+WRR, two-way bandwidth control, storm suppression, 9K jumbo frames

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Security	ACL (L2–L4, time-based), IEEE 802.1X, RADIUS & TACACS+, IP Source Guard, port isolation, ARP protection
Management	CLI, Telnet, Web, SSH 2.0, SNMP v1/v2/v3, FTP/TFTP, SNTP, LLDP, Syslog, Ping & Traceroute; centrally managed via the ARC VISION Cloud Platform

PHYSICAL & POWER

Dimensions (W×D×H)	440 × 270 × 44 mm
Weight	6.5 kg
Power Supply	Dual hot-swappable redundant — AC 100–240V 47/63Hz or DC 36–75V
Power Consumption	≤ 120 W
Cooling	Modular fan unit (3 fans)
Operating Temperature	-10 °C to +55 °C
Storage Temperature	-40 °C to +70 °C
Humidity	5–95% non-condensing

COMPLIANCE & STANDARDS

- **ITU-T G.984.x** (GPON), **G.987** (XG-PON) and **G.988** (OMCI) compliant.
- **RCM (Regulatory Compliance Mark)** — supplied compliant with ACMA requirements for the Australian and New Zealand markets: AS/NZS CISPR 32 (EMC) and AS/NZS 62368-1 (electrical safety).
- **RoHS** — restriction of hazardous substances compliant.

ORDERING INFORMATION

ARC Order Code	ARC-OLT-8X
Product	ARC DATA 8-Port GPON & XG(S)-PON Combo OLT
In the Box	1 × Combo OLT, 2 × hot-swap redundant power supply (AC or DC), modular fan unit, 19" rack-mount kit, console cable.

PON Combo SFP+ line optics (ARC-SFP-X) and SFP/SFP+/QSFP28 uplink optics are ordered separately to match your reach and split ratio.