



Velocity V2

OLT System

Compact high-capacity solution for Hyper-Fast SDN Access Networks.

Features & Benefits

- + Any services – Residential or Business Broadband, and Mobile xHaul
- + GPON, XGS-PON, GPON+XGS-PON (Combo), 1GigE, and 10GigE Active Ethernet fiber access
- + Meets ETSI EN 300 standard
- + Industrial temperature
- + sdNOST™ operating system software cloud-based network functions
- + Intuitive, comprehensive management, with CLI, and zhone Cloud Access Edge Domain Orchestrator

The Velocity V2 OLT offers a high-capacity fiber-based service platform to cost-effectively deliver 10G Broadband services today and scale up for future growth. It can be deployed as a Chassis OLT or as a Disaggregated OLT when equipped with any Xcelerate™ service cards for maximum flexibility and scalability. It supports GPON, XGS-PON, 1G, and 10Gb/s Active Ethernet access for residential triple play and high-bandwidth business as well as mobile xHaul transport services. The chassis is designed to support any service cards interchangeably with any other Velocity family OLTs.

The Velocity V2 is designed to be fully compliant to meet the ETSI EN 300 standard for indoor cabinets and remote outdoor cabinets. The compact chassis offers two multi-service subscriber interface slots, and two Management/Network facing interface slots. The V2 chassis is equipped with a cable management tray, easy fan access, and rear-access redundant power feeds.



V2 Chassis

Distributed Switching Architecture for Maximum Scalability

Demands on access networks continue to accelerate, and technologies change and evolve at light speed to cope with this growth. Zhone Distributed Switching Architecture is ideal for a broadband service delivery platform that can scale up over longer time horizons demanded by fiber network operators around the world. In the Velocity platform switching and aggregation function is distributed in both the service cards and the uplink or network facing cards. Each service card comes with a high capacity local switching function in addition to the uplink cards where traffic can be further aggregated and switched. The platform also provides the option of using the uplink interfaces in the XCELERATE™ service cards for maximum flexibility, scalability, and non-blocking aggregation.

Disaggregation and SDN Support

The XCELERATE™ service cards allow any Velocity OLT to be deployed as a traditional chassis OLT or as a Disaggregated OLT. The unique XCELERATE™ architecture allows the service cards to operate as a “System-on-a-Card” for disaggregation and SDN Control. On-board switches in XCELERATE™ service cards provide traffic aggregation, QoS, and uplink interfaces for non-blocking performance. With a fully distributed database, both boot and upgrade times are exceedingly low for better customer experience. System upgrades are much simpler ensuring maximum reliability and availability.

Choice of Service Cards

In addition to the XCELERATE™ service cards for 10G Broadband, the Velocity OLT platform supports a variety of standards-based access service cards including 16-port GPON OLT service card with support of 2,048 2.5G/1.25G subscribers, 16-port two-channel CSFP Active Ethernet OLT service card with support of 32 1G AE subscribers, 16-port single-channel SFP/SFP+ Active Ethernet OLT service card with support of 16 1G and 10G AE subscribers.

sdNOS™

Velocity OLT portfolio utilizes sdNOS™ operating system – A Linux based open software platform for modular software functions. It provides common software functionalities across all of the Velocity OLTs and enables comprehensive Layer 2 switching, aggregation, and traffic management functions for Broadband services of any type. It provides software functions critical to today’s networks for enhanced quality of experience, security, and management. Powered by sdNOS™ our Velocity OLT platform provides security features such as multicast control lists, secure bridging, broadcast storm detection and suppression, dynamic IP filtering, SSH and SFTP, and RADIUS authentication. ridging, broadcast storm detection and suppression, dynamic IP filtering, SSH and SFTP, and RADIUS.

V2 Chassis

Product Specifications

Velocity V2 Interfaces

- 2-access multi-service subscriber slots
- 2-Management/network facing slots

Power Interface

- Operating voltage: -43.75V to -59.9V DC
- Dual (A / B redundant) power feeds

Standards Support

- ETSI EN 300_119-3_v2.2.2_09-2009

Regulatory Compliance

- Safety
 - EN 62368-1
 - UL 62368-1
- EMC Emissions / Immunity
 - FCC Part 15 Class
 - AEN 55022 Class
 - ACES-003 Class
 - AEN 300 386

PHYSICAL	
Specification	Description
Dimensions (H x W x D)	3.47" (2U) x 17.38" x 11.02" (88.1mm x 441mm x 280mm)
Operating temperature (DC)	-40~149°F (-40~65°C)
Storage temperature (AC)	32~104°F (0~40°C)
Storage temperature	-40~149°F (-40~65°C)
Operating humidity	5 to 85% (non-condensing)
ENVIRONMENTAL	
Specification	Description
Altitude	-200ft to 16,500ft (-60m to 5,000m)
Power	15W nominal
Operating Voltage	-43.75V to -59.9V DC
Power Supplies	Dual (A/B redundant) power feeds

Ordering Information

Bases	Description
V-CHASSIS-V2	VELOCITY V2 2U, 19" CHASSIS, (2) NETWORK SLOTS, (2) ACCESS SLOTS, 48 VDC
MXK-PWR-AC-SUPPLY-300W-EU	AC PLUGGABLE POWER SUPPLY, 90-264 VAC, 48 VDC, 6.25A, 300W, 0-40C, EU PWR CORD, W/PWR ADAPTOR CBL
MXK-PWR-AC-SUPPLY-300W-NA	AC PLUGGABLE POWER SUPPLY, 90-264 VAC, 48 VDC, 6.25A, 300W, 0-40C, NA PWR CORD, W/PWR ADAPTOR CBL
MXK-PWR-AC-SUPPLY-300W-UK	AC PLUGGABLE POWER SUPPLY, 90-264 VAC, 48 VDC, 6.25A, 300W, 0-40C, UK PWR CORD, W/PWR ADAPTOR CBL



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