DATA SHEET

PON Evo™ Optical Line Terminal

25600 Series OLT

256-PON Port Modular 15RU OLT

FEATURES

- Ultra-High Bandwidth:
  - Higher Speed PON Ready (50G-PON)
  - Up to 400 Gbps/Slot backplane
  - N x 100GE Uplink Interfaces
  - GPON, NG-PON2, XGS-PON
  - Active Ethernet (ptp) 10G/1G
- High Availability:
  - Commons redundancy (Power/Switch Fabric/Uplinks)
  - ESRP, LAG/LACP Uplink Protection
  - Type B protection for the ODN domain
- Virtualization and Slicing:
  - Supports seamless migration toward a fully virtualized network environment
  - Several virtual network operators can share infrastructure

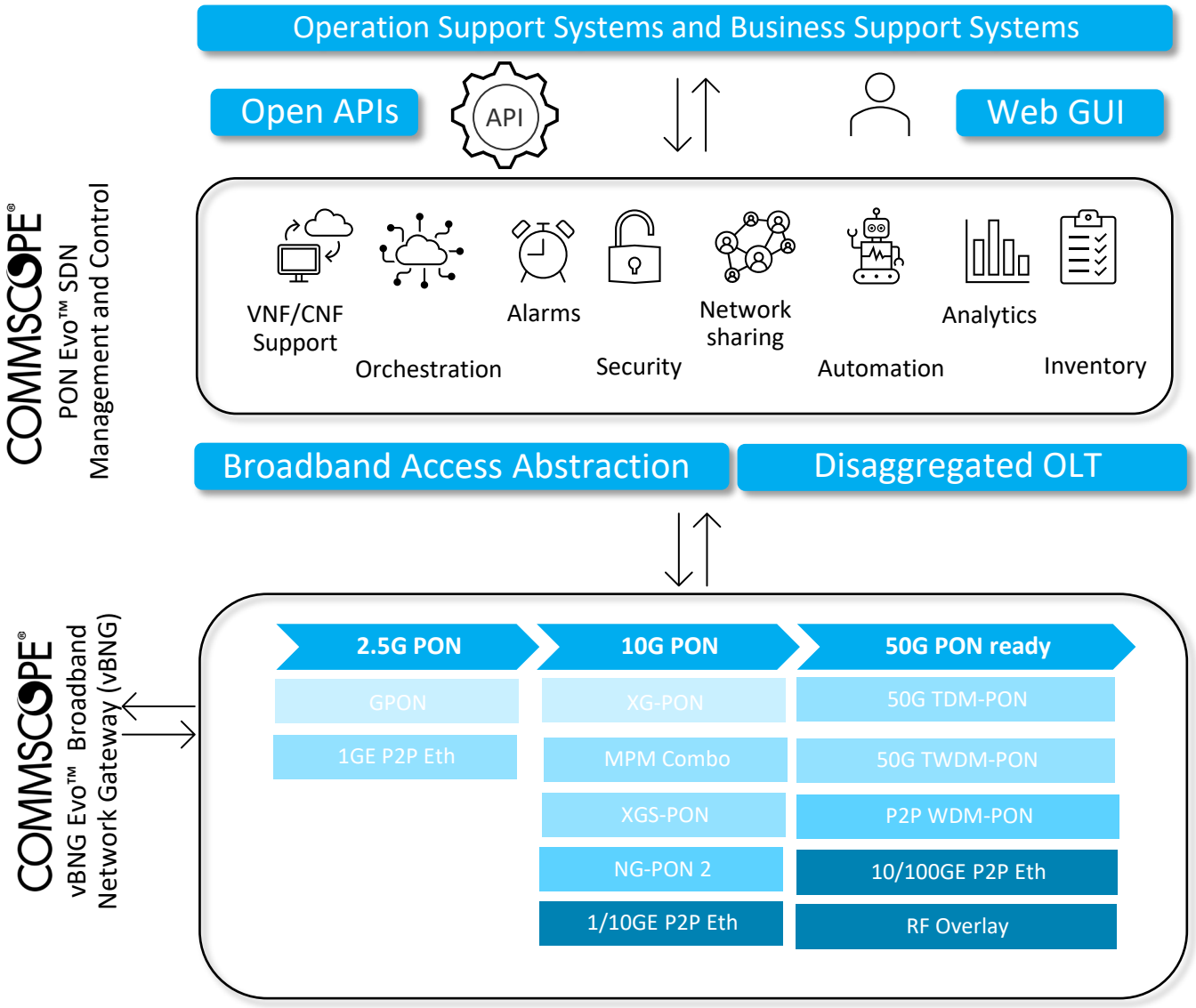
The PON Evo™ 25600 Series OLT is a next-generation OLT system that provides ultra-high bandwidth services across high-density geographic areas, supporting dense urban environments to comprehensively address the entire access network. Part of CommScope's central office connectivity portfolio, the 25600 Series serves both B2C and B2B markets, meeting the needs of Residential, Business, and Mobile customer segments.

The PON Evo 25600 Series OLT complies with all the relevant ITU technology standards—including GPON (ITU-T G.984.x) and XGS-PON (ITU-T G.9807.1)—using Multi-PON-Module (MPM) optical interfaces. Additionally, the 25600 Series supports NG-PON2 (ITU-T G.989.x) and next-generation 50G PON (ITU-T G.hsp) technologies, enabling operators to future-proof their investments. The 25600 Series also provides active Ethernet Point-to-Point (P2P) connectivity with 1GE and 10GE data rates over a single fiber, covering dedicated P2P network scenarios.

Each PON port can serve up to 128 Optical Network Terminals (ONTs), assuming a maximum splitting ratio of 1:128.

Architecture

The PON Evo Series 25600 OLT is carrier-grade equipment with high availability performance levels and reliability achieved through common element protection, featuring redundant Power Feed, Switching Fabric, processing and cooling components. Type B protection is available for the subscriber side, while for the network side, star and ring topologies are available with multiple 10GE and/or 100GE optical interfaces supported by the Link Aggregation Control Protocol (LAG/LACP) and the Ethernet Ring Protection Switching (ERPS ITU-T G.8032) protocol.



SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions (H x W x D)	15RU x 485 mm x 240 mm (15RU x 19.10 in x 9.45 in)
Line Technology	
	Advanced Encryption Standard (AES) Forward Error Correction (FEC) Up to 128 ONT/Us per PON; T-CONTs: 1024 per PON; Logical Range: 60 km Maximum Differential Distance: 40 km GPON (ITU-T G.984) D/U: 2.5/1.25 Gbps XG-PON (ITU-T G.987) D/U: 10/2.5 Gbps XGS-PON (ITU-T G.9807.1) D/U: 10/10 Gbps NG-PON 2(ITU-T G 989) D/U: 4 x 10/10Gbps P2P 1GE (ITU-T G.986) D/U: 1/1 Gbps P2P 10GE (ITU-T G.986) D/U: 10/10 Gbps
Capacity Specifications	
	2x Switch Fabric/processing/uplink modules (Active/Standby) 16 x Line card slots 2x Power IN, 1 x Cooling module (3 + 3 Fans)
Switch Fabric Specifications	
	2x Cx25600-SFP-1.6T (Full Duplex, Non-Blocking) Uplink:2x UL200G (Up to 4x1/10GE (SFP/SFP+) + 2x100GE(QSFP28)), or 2 x Cx25600-SFU-3.2T-400 Switch Fabric and NNI Uplink Redundant (Active/Active) 3.2Tbps Switch Fabric; Synchronization Interface SYNC-E, PTP/IEEE 1588v2 4x10/100GbE(SFP+/SFP-DD) + 1x100/400GbE (QSFP-DD) 16 x Access card slots 2 x Power IN, 1 x Cooling Module (3 + 3 FANs)
Line Cards	
	UC-G16 (16x GPON) UC-GX16 (16x GPON/XG(S)-PON) AC-E48-10G (48GbE or 16GbE + 16 10GE)
Layer 2 Services	
	Services: 1:1, N:1 (TR-156i3), VLAN-ID conversion to GEM port-ID, Transparent add/change S-TAG and C-TAG, Priority bits (p-bits) included in changes Performance: GPON full wire speed VLAN Business Ethernet Services/Transparent VLAN Services (VBES/TLS)
QoS and OAM	
	H-QoS, Fault Management and Performance Monitoring aligned with TR-156i4 e MEF-30
IPTV Features	
	IGMPv2/v3 snooping with proxy reporting; IPTV streams forwarding: 1024
Timing/Synchronization	
	SYNC-E; IEEE1588v2/PTP; GNSS (Global navigation Satellite System)
Management and Security	
	Local management by Command Line Interface (CLI) Remote management using SNMTP and HTTP protocols Centralized management using CommScope PON Evo SDN Management and Control CPE remote management over OMCI G.988 channel with ONU software upgrade capability Anti-MAC and IP spoofing with DAI and IPSG Access Control Lists & MAC limiting Storm control of unicast, multicast and broadcast traffic In-band and Out-of-band Management: CLI, SNMP, XML RADIUS/TACACS+ login authentication End-to-end Zero-Touch Provisioning (ZTP) capabilities
Environment	
Partly Temperature Controlled Locations	-5° to +45°C (-23° to +113°F)
Recommended Temperature Range	-5° to +65°C (-23° to +149°F)
Relative Humidity	5% to 95%
Powering	
Power Supply	-48v DC Input Voltage; Voltage Range: -40.5 VDC to +57 VDC
Power Consumption (Watts @ -48V, 25°C [77°F])	Maximum power consumption per PON port: < 6.9 W (assuming full chassis)
Compliance	
Power	ETSI EN300 132-2 V2.1.1 (2003-01) Recommendation
Earth Protection	ETSI ETS 300 253 Jan 1995 Recommendation
EMC	ETSI 300 386
Environmental	EN 300 019-2-1 (Storage, Class 1,2) EN 300 019 2-2 (Transportation, Class 2,3) Equivalent to ATIS-0600010.01.2008 Class 2, Harsh – Protected Environment GR-3108 Class 2 ETSI 300 019-1-3 - Class 3.3
LED Status Indicators	
	Fan-Module Status; ON; PRC; LCK; HLR 1/10/25GE, 40G/100GE Power: P1, P2

ORDERING INFORMATION

Model Name	Part Number	Description
		Optical Line Terminal
PON Evo 25600 Series OLT	OLT-256-15RU	Modular Shelf OLT 15RU/19" 16 Slots 12.8Tb/s 256xPON Ports
	OLT-256-DC-KIT	25600 Series OLT DC Kit
	OLT-256-SFU-3.2-4	25600 Series OLT 3.2Tb Switch Fabric 4x100GE + 1x400GE Uplink
	OLT-256-UL-200	25600 Series OLT Uplink Card 2 x 100GE
	OLT-256-SFP-1.6-2	25600 Series OLT 1.6Tb Switch Fabric Processor
		Optical Line Terminal Line Cards
PON Evo 25600 Series OLT	OLT-G16-GPON	PON Evo UC-G16 16 Port GPON
	OLT-GX16-MPM	PON Evo UC-GX16 16 Port MPM
	OLT-AC-E48-10G	PON Evo AC-E48-10G 48 Port AE
		SFP/SFP Optics
User Network Interface PON SFP GPON	SFP-GPON-BPLUS-CT	SFP GPON OLT B+ Class Commercial Temp (CT)
	SFP-GPON-BPLUS-IT	SFP GPON OLT B+ Class Industrial Temp (IT)
	SFP-GPON-CPLUS-CT	SFP GPON OLT C+ Class Commercial Temp (CT)
	SFP-GPON-CPLUS-IT	SFP GPON OLT C+ Class Industrial Temp (IT)
	SFP-GPON-D-CT	SFP GPON OLT D Class Commercial Temp (CT)
	SFP-GPON-D-IT	SFP GPON OLT D Class Industrial Temp (IT)
User Network Interface PON SFP+ MPM	SFP-MPM-CPLUS-CT	SFP+ MPM (XGS-PON/GPON) C+ Class Commercial temp (CT)
	SFP-MPM-CPLUS-IT	SFP+ MPM (XGS-PON/GPON) C+ Class Industrial temp (IT)
	SFP-MPM-CPLUS-ET	SFP+ MPM (XGS-PON/GPON) C+ Class Extended temp (ET)
	SFP-MPM-D-ET	SFP+ MPM (XGS-PON/GPON) D Class Extended temp (ET)
User Network Interface PON SFP Dual Density	SFP-DD-G-CPLUS-IT	PON OLT GPON DD SFP+ C+ Class Industrial Temp (IT)
	SFP-DD-XG-N2-ET	PON OLT XGS DD SFP+ N2 Class Extended Temp (ET)
		Virtual Broadband Network Gateway (vBNG Evo)
vBNG Evo Control Plane	AXC-BNG-BASE-SW	vBNG Evo Control Plane Base License
	AXC-BNG-1K-S	Control Plane 1K BNG Subscriber sessions
	AXC-BNG-10K-S	Control Plane 10K BNG Subscriber sessions
	AXC-BNG-100K-S	Control Plane 100K BNG Subscriber sessions
	AXC-BNG-500K-S	Control Plane 500K BNG Subscriber sessions
vBNG Evo User Plane	AXC-BNG-UP-BASE	vBNG User Plane Base License
	AXC-BNG-10G-BW	User Plane Bandwidth 10G
	AXC-BNG-40G-BW	User Plane Bandwidth 40G
	AXC-BNG-100G-BW	User Plane Bandwidth 100G
vBNG Evo vBNG Bundles	AXC-BNG-10G-20K-PKG	Bundle 20K Control Plane Subscriber Sessions and 10G User Plane Bandwidth
	AXC-BNG-20G-20K-PKG	Bundle 20K Control Plane Subscriber Sessions and 20G User Plane Bandwidth
	AXC-BNG-100G-20K-PKG	Bundle 20K Control Plane Subscriber Sessions and 100G User Plane Bandwidth
	AXC-BNG-100G-64K-PKG	Bundle 64K Control Plane Subscriber Sessions and 100G User Plane Bandwidth
	AXC-BNG-200G-128K-PKG	Bundle 128K Control Plane Subscriber Sessions and 200G User Plane Bandwidth
	AXC-BNG-400G-256K-PKG	Bundle 256K Control Plane Subscriber Sessions and 400G User Plane Bandwidth
vBNG Evo Enhanced Services	AXC-BNG-CGN-10G-BW	Enhanced Carrier Grade NAT Bandwidth 10G
	AXC-BNG-CGN-100G-BW	Enhanced Carrier Grade NAT Bandwidth 100G
	AXC-BNG-SGRE-BASE	Enhanced Soft GRE License

Contact Customer Care for product information and sales:

- United States: 888-944-4357
- International: +1-215-323-2345

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Note: Specifications are subject to change without notice.

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