

## FEATURES

- Ultra-High Bandwidth:
  - 100GE Uplink Interface
  - GPON, XGS-PON
- High Availability:
  - LAG/LACP Uplink Protection
  - ERPS ITU-T G.8032 Protection
  - Type B protection for the ODN domain
- Virtualization and Slicing:
  - Seamless migration toward a fully virtualized network environment
  - Several virtual network operators can share infrastructure

The PON Evo™ 800 Series OLT is a next-generation OLT system. Part of Aurora Networks' central office connectivity portfolio, the 800 series provides ultra-high bandwidth services across low-density geographic areas, supporting rural and corporate environments to comprehensively address the entire access network. It serves both B2C and B2B markets, meeting the needs of Residential, Business, and Mobile customer segments.

The PON Evo 800 Series OLT complies with all the relevant ITU technology standards, such as GPON (ITU-T G.984.x) and XGS-PON (ITU-T G.9807.1), using Multi-PON-Module (MPM) optical interfaces. Each PON port may serve up to 128 Optical Network Terminals (ONTs), assuming a maximum splitting ratio of 1:128.

The PON Evo 800 Series OLT is a carrier-grade, high-availability OLT with carrier-grade performance designed to support extended temperature ranges, making it suitable to be deployed in Outside Plant (OSP) cabinets in even the harshest environments.

Type B protection is available for the subscriber side, while for the network side, star and ring topologies are available with multiple 1/10GE and/or 100GE optical interfaces. These interfaces are supported by the Link Aggregation Control Protocol (LAG/LACP) and the Ethernet Ring Protection Switching (ERPS ITU-T G.8032) protocol.

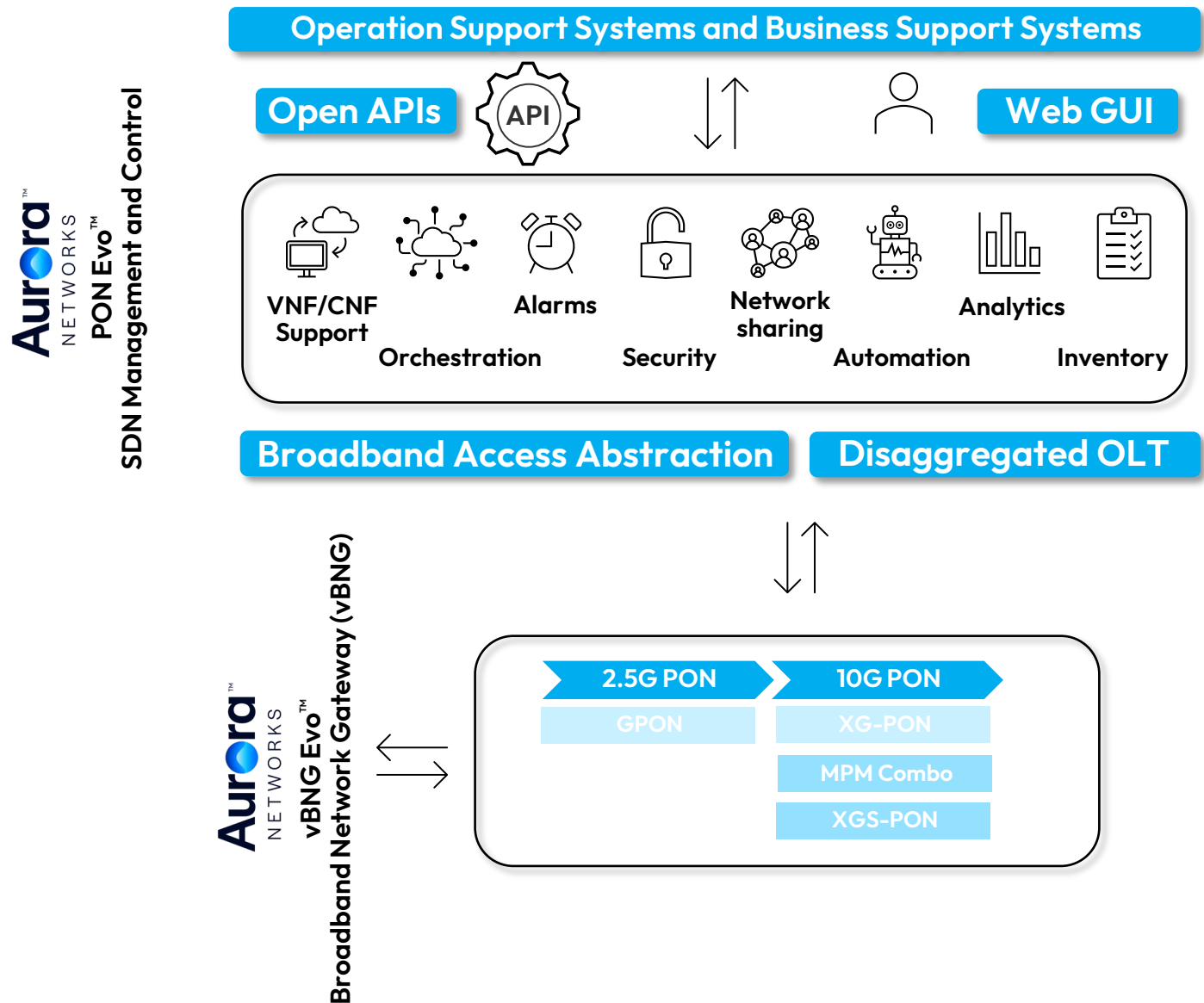


**Aurora Networks PON Evo 800 Series OLT**

## Architecture

Aurora Networks' PON Evo SDN Management and Control application remotely manages OLTs, ONTs, and all Aurora Networks PON solution hardware components. The application offers operational efficiency features that include centralized Alarm Management, Reporting, Job Scheduler, Access Control, Zero-Touch Configuration (ZTC), and Provisioning (ZTP) capabilities.

The equipment also provides a Common Line Interface (CLI) at the management level. Virtualization and slicing scenarios are ready and available to differentiate and enable new business models at the optical fiber access network.



## SPECIFICATIONS

| Characteristics                        | Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Physical</b>                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Dimensions, H x W x D                  | 1RU x 48.5 cm x 24.0 cm (1RU x 19.1 in x 9.45 in)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Interfaces</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| PON MPM Ports (GPON+XGS-PON)           | 8 x (SFP+) UNI PON Ports                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Optical 1/10GE Ports                   | 4 x (SFP+) NNI Ports                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Optical 40G/100GE Ports                | 2 x (SFP+) NNI Ports                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Electrical Ethernet Ports              | 2 x 10/100/1000BaseT (Out of band Management)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mini USB Port (DBG)                    | 1x Serial debug port exclusively for factory configuration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| USB Type A (DBG Aux)                   | 1x USB Aux Mass Storage port, exclusively for systems recovery with TAC Support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Alarm Interface                        | 1x RJ45 Interface for I/O 4 x inputs and 2 x outputs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Sync Interface ToD                     | 1 x RJ45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Sync Interface BITS                    | 1 x RJ45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Line Technology</b>                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                        | Advanced Encryption Standard (AES); Forward Error Correction (FEC)<br>Up to 128 ONT/Us per PON; T-CONTs: 1024 per PON; Logical Range: 60 km<br>Maximum Differential Distance: 20 km<br>GPON (ITU-T G.984) D/U: 2.5/1.25 Gbps<br>XG-PON (ITU-T G.987) D/U: 10/2.5 Gbps<br>XGS-PON (ITU-T G.9807.1) D/U: 10/10 Gbps                                                                                                                                                                                                                                                                  |
| <b>PON Port Capacity</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                        | Pizza Box stand-alone equipment<br>8 x XGS-PON+8 x GPON<br>Redundant power and Fan modules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Layer 2 Services</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 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                            | VLAN Business Ethernet Services/Transparent VLAN Services (VBES/TLS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>IPTV Features</b>                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                        | IGMPv2/v3 snooping with proxy reporting; IPTV streams forwarding: 1024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Timing/Synchronization</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                        | SYNC-E, IEEE1588v2/PTP, GNSS (Global Navigation Satellite System)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Protection</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                        | Load balancing and LACP (IEEE 802.3ad) capabilities on uplink interfaces, Type B protection on xPON interfaces, Ethernet Ring Protection Switching (ERPS ITU-T G.8032)                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Management and Security</b>         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                        | Local management by Command Line Interface (CLI)<br>Remote management using SNMP and HTTP protocols<br>Centralized management using Aurora Networks PON Evo SDN Management and Control<br>CPE remote management over OMCI G.988 channel with ONU software upgrade capability<br>Anti-MAC and IP spoofing with DA and IPSPG<br>Access Control Lists & MAC limiting; Storm control of unicast, multicast and broadcast traffic<br>In-band and Out-of-band Management: CLI, SNMP, XML<br>RADIUS/TACACS+ login authentication<br>End-to-end Zero-Touch Provisioning (ZTP) capabilities |
| <b>Environment</b>                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Operating Temperature Range            | -40° to +65°C (-40° to 149°F)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Humidity                               | 5%-95% of relative humidity range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Powering</b>                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Power Supply                           | -48 V DC Input Voltage, Voltage Range -40.5 V DC to 57 V DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Power Consumption (Watts @-48 V, 25°C) | < 110 Watts Max                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Compliance</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 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)<br>EN 300 019 2-2 (Transportation, Class 2,3)<br>G3108 Class 2 Equivalent to ATIS-0600010.01.2008 Class 2, Harsh-Protected Environment                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>LED Status Indicators</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                        | Fan-Module Status; ON; PRC; LCK; HLR 1/10/25GE, 40G/100GE Power: P1, P2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## ORDERING INFORMATION

| Model Name                                   | Part Number           | Description                                                                 |
|----------------------------------------------|-----------------------|-----------------------------------------------------------------------------|
| <b>Optical Line Terminal</b>                 |                       |                                                                             |
| PON Evo 800 Series 1RU OLT SHELF             | OLT-8-1RU             | Shelf OLT 1RU 8x GPON/8x XGS-GPON                                           |
| PON Evo 800/1600 Series OLT DC KIT           | OLT-1RU-DC-KIT        | 800/1600 Series DC Power Kit and Cable                                      |
| <b>SFP/SFP+ Optics</b>                       |                       |                                                                             |
| User Network Interface PON SFP GPON          | SFP-GPON-BPLUS-CT     | SFP OLT GPON Class B+ Commercial Temp                                       |
|                                              | SFP-GPON-BPLUS-IT     | SFP OLT GPON Class B+ Industrial Temp                                       |
|                                              | SFP-GPON-CPLUS-CT     | SFP OLT GPON Class C+ Commercial Temp                                       |
|                                              | SFP-GPON-CPLUS-IT     | SFP OLT GPON Class C+ Industrial Temp                                       |
|                                              | SFP-GPON-D-CT         | SFP OLT GPON Class D Commercial Temp                                        |
|                                              | SFP-GPON-D-IT         | SFP OLT GPON Class D Industrial Temp                                        |
| User Network Interface PON SFP+ MPM          | SFP-MPM-CPLUS-CT      | SFP+ OLT MPM (XGS-PON/GPON) Class C+ Commercial Temp                        |
|                                              | SFP-MPM-CPLUS-IT      | SFP+ OLT MPM (XGS-PON/GPON) Class C+ Industrial Temp                        |
|                                              | SFP-MPM-CPLUS-ET      | SFP+ OLT MPM (XGS-PON/GPON) Class C+ Extended Temp                          |
|                                              | SFP-MPM-D-ET          | SFP+ OLT MPM (XGS-PON/GPON) Class D Extended Industrial Temp                |
| User Network Interface PON SFP+ Dual Density | SFP-DD-G-CPLUS-IT     | SFP+ OLT GPON DD Class C+ Industrial Temp                                   |
|                                              | SFP-DD-XG-N2-ET       | SFP+ OLT XGS-PON DD Class N2 Extended Industrial Temp                       |
| <b>Virtual Broadband Gateway (vBNG)</b>      |                       |                                                                             |
| vBNG Evo Control Plane                       | AXC-BNG-BASE-SW       | vBNG 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: +1-888-944-4357
- International: +1-215-323-2345



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