

# ONT POL 1100

## GPON ONT



### DESCRIPTION

Parks' POL (Passive Optical LAN) family of equipment was developed exclusively for applications on LANs and includes specific features for use in enterprise networks.

A platform based on passive optical network technology that makes possible the real convergence of corporate networks, with low CAPEX and OPEX.

The solution is complemented by various types of user terminals (ONT - Optical Network Terminations) that allow to integrate besides voice, data and video/image communication, also security and automation systems and more.

### HIGHLIGHTS

- ✓ ITU G.984 GPON ONU
- ✓ IPv6 and IPv4
- ✓ Advanced QoS, ensuring triple-play services quality
- ✓ Maximum routing performance: up to 1Gbit/s with 64 Bytes packets
- ✓ Green Ethernet - Energy-Efficient Ethernet
- ✓ IPTV Multicast, unicast, and Video on Demand
- ✓ Easy installation and provision
- ✓ Operates in router and bridge modes
- ✓ Low latency and ultra-broadband: ideal solution for interactive and multiplayer games
- ✓ Port Security
- ✓ Dying Gasp
- ✓ 802.1X in Ethernet ports

# TECHNICAL SPECIFICATIONS

## INTERFACES

### *OPTICAL INTERFACE*

GPON mode in compliance with ITU-T G.984

1490nm (Downstream) and 1310nm (Upstream) wavelengths

TX Power: 0.5 to +5 dBm

RX sensibility: -8 dBm to -28dBm ( $\pm 3$ dBm)

Maximum reach of 20 km

### *ETHERNET INTERFACE*

1x 1 10/100/1000 T Base (RJ45) port

IEEE 802.3/802.3u/802.3ab compliant interfaces

Supports IEEE 802.3az (Energy-Efficient Ethernet)

Auto negotiation and auto MDI/MDI-X

Half-duplex (back pressure) and full-duplex in compliance with 802.3x (PAUSE frames)

## CONFIGURATION, PROVISION, AND MONITORING

GPON provision via OMCI

Configuration via Parks NMS, CLI, and WEB (local)

Remote monitoring via SNMPv2 and SNMPv3

Remote (OMCI and FTP) or local (FTP) firmware update

Syslog (RFC3164) for event registration, error messages and notification

Status and activity LED indicators

Host IP, maintenance IP, and Loopback

## FUNCIONALITIES

### *GPON*

2.488 Gbit/s Downlink/1.244 Gbit/s Uplink data rate

Forward Error Correction (FEC) in upstream (US) and downstream (DS)

Supports static and dynamic bandwidth allocation (SBA/DBA)

128 bits AES cryptography in downstream

Up to 256 GEM (GPON Encapsulation Method) ports per ONU

ONU activation via Serial Number (SN) or password

Supports up to 7 simultaneous T-CONTs (Transmission Containers)

Flexible mapping between GEM Ports and T-CONT

Separate GEM Port for multicast

Traffic Management (priority Queue and Traffic Shaping)

### *OPERATION MODES*

Router

Bridge

Hybrid mode (Router and bridge simultaneously)

*ROUTER (IPV6 E IPV4)*


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 IPv6 and IPv4 static routing
 

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 RIPv1 (RFC1058), RIPv2 (RFC2453), RIPng (RFC2080)
 

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 OSPF (RFC2328) and OSPFv3 (RFC5340)
 

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 Dynamic routes authentication using MD5 (RFC1321)
 

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 Fluctuating route based on priority or object track
 

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 Internet connection: DHCP client, static IP, or PPPoE
 

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 NAT/NAPT
 

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 DHCP Server (RFC2131, RFC2132), Relay (RFC1542), and Client (IPv4 and IPv6)
 

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 Stateful Firewall
 

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 DNS Relay and Proxy
 

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 NTP (RFC1305) with pair authentication
 

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 PPPoE client (RFC2516)
 

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*BRIDGE (SWITCHING)*


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 Integrated Ethernet Switch with GbE ports
 

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 MAC table with up to 1024 entries
 

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 LAN ports isolation based on VLANs
 

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*VLAN*


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 Supports IEEE 802.1d and 802.1q
 

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 VLAN ID 802.1q processing via port (Port-based VLAN)
 

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 VLAN tagging/untagging
 

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 VLAN Stacking (QinQ)
 

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 QoS and Traffic Shaping bases on VLAN
 

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*IPTV*


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 Supports up to 128 simultaneous multicast channels and interactive TV services (VoD)
 

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 Allows IPTV traffic prioritizing (QoS) based on IEEE 802.1p
 

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 Supports Multicasting IGMP v2/v3 protocols
 

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 IGMP Proxy & Snooping
 

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 IGMP processing per VLAN ID of channels
 

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**SECURITY**


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 SPI (Stateful Packet Inspection) type firewall
 

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 128 bits AES cryptography for GPON traffic (downstream)
 

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 Login with several permission levels
 

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 AAA authentication: TACACS (RFC1492), TACACS+, RADIUS (RFC2138, RFC2139)
 

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**QoS**


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 Traffic prioritization by port, VLAN, VLAN + CoS (802.1p), or CoS only;
 

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 Up to 7 different services provided per ONU
 

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 Each provided service may be divided into up to 8 fluxes
 

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Prioritization between fluxes may be based on WRR (Weighted Round Robin) or Rate Control

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Downstream (Rate Limit) and upstream (Traffic Shaping) bandwidth limitation

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## MECHANICAL, ELECTRICAL AND ENVIRONMENTAL FEATURES

### *POWER SUPPLY*

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External power source

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Input: 93 to 253VAC (Full Range)

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Output: 6V

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Consumption: 5W (maximum)

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### *ENVIRONMENT*

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Operating temperature: 0 °C a 50 °C

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Relative humidity: 0 to 95% (non-condensing)

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### *WEIGHT AND DIMENSIONS*

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W x H x D (mm): 181 x 34 x 128

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Peso: 0,288Kg

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For more information, visit [www.parks.com.br](http://www.parks.com.br).

*The information presented in this document is subject to change without previous notice.*