ONT POL 4104
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
- ✓ Operates in GPON and Active Ethernet modes with autodetection
- ✓ Allows Point to Multipoint (GPON) and Point to Point (Active Ethernet) services provision
- ✓ 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 simultaneously 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

Operates in GPON and Active Ethernet modes, with automatic mode of operation detection

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

TX Power: 0.5 to +5 dBm

RX sensibility: -8 dBm to -28dBm (±3dBm)

Maximum reach of 20 km

ETHERNET INTERFACE

4x 10/100/1000 T Base (RJ45) ports

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)

FXS INTERFACES (TELEPHONE)

4 voice ports with RJ11 connectors

In compliance with ANATEL regulation #512

Caller ID support

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

Reset button for factory settings recovery

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)

ACTIVE ETHERNET

1000BASE-BX10 compliant Active Ethernet

Data rate: 1Gbit/s full duplex

Supports Transparent Lan Services (TLS)

OPERATION MODES

Router

Bridge

Hybrid mode (Router and bridge simultaneously)

ROUTER (IPV6 E IPV4)

IPv6 and IPv4 static routing

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

OSPF (RFC2328) and OSPFv3 (RFC5340)

Dynamic routes authentication using MD5 (RFC1321)

Fluctuating route based on priority or object track

Internet connection: DHCP client, static IP, or PPPoE

NAT/NAPT

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

Stateful Firewall

DNS Relay and Proxy

NTP (RFC1305) with pair authentication

PPPoE client (RFC2516)

BRIDGE (SWITCHING)

Integrated Ethernet Switch with GbE ports

MAC table with up to 1024 entries

LAN ports isolation based on VLANs

VLAN

Supports IEEE 802.1d and 802.1q

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

VLAN tagging/untagging

VLAN Stacking (QinQ)

QoS and Traffic Shaping bases on VLAN

IPTV

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

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

Supports Multicasting IGMP v2/v3 protocols

IGMP Proxy & Snooping

IGMP processing per VLAN ID of channels

VoIP

SIPv1 (RFC2543) and SIPv2 (RFC3261) control protocols

Supports G.711 (u-law and A-law), G.729A/B/AB and G.726 CODECs

Adaptive 300ms jitter buffer

FAX transmission via G.711 (fallback) or T.30/T.38

V.21/V.25 fax/modem tone detection

Echo cancelation in compliance with ITU-T G.165 and G.168

In-band, out-of-band (RFC 2833), and SIP Info/Notify dialing

Voice Activity Detection (VAD)

Comfort Noise Generation (CNG)

Multiple dial plans configuration

Configurable Flash key

High priority queue (low latency) for voice services

SECURITY

SPI (Stateful Packet Inspection) type firewall

128 bits AES cryptography for GPON traffic (downstream)

Login with several permission levels

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

QoS

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

Up to 7 different services provided per ONU

Each provided service may be divided into up to 8 fluxes

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

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

MECHANICAL, ELECTRICAL AND ENVIRONMENTAL FEATURES

POWER SUPPLY

External power source

Input: 93 to 253VAC (Full Range)

Output: 12V

Consumption: 8W (maximum)

ENVIRONMENT

Operating temperature: 0 °C a 50 °C

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

WEIGHT AND DIMENSIONS

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

Peso: 0,288Kg

PARKS

For more information, visit www.parks.com.br.

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