

PRODIGY LAYER 3 AGGREGATION SWITCH

PRODIGY



PD1-S31-9281

Hi-performance 10Gigabit Ethernet Switch

FEATURES

Excellent performance

- 240 Gbps switch fabric, at least extend to 4*10GE XFP ports.
- Hardware routing, wire-speed L3 switching, packet forwarding rate: 131Mpps.
- Giga optical fiber supports up to 80 km long-distance transfer, direct connection to MAN backbone networks.

Security and reliability

- Quota system for connected hosts per port.
- IEEE 802.1x port-based user authentication.
- Ethernet port trunking provides more bandwidth and system redundancy.
- Powerful ACL supports L2-L4 data filtering.

Easy maintenance

- Supports device stacking through cluster technology. Central management with unified IP address saves IP addresses.
- Management via CONSOLE port, Web, SNMP, etc.
- BootRom and other software upgrade through TFTP.
- Support DHCP and relay, provide dynamic IP address assignment.
- Support SFP standard interface, protect your investment.
- Redundant power supply.

Powerful traffic and broadcast control

- Automatically detect and restrain broadcast storm, support IGMP datagram snooping, effectively restrict broadcast flooding.
- Full- and half- duplex traffic control.
- Ethernet port bit rate quota.
- Advanced buffer management supports 802.1p, with 4 dispatching queues per port mapping the 8 priority queues in 802.1p.
- IP multicast and QoS support.
- Jumbo frame.

Multiple routing polices

- Static routing.
- Support RIP v1/v2, OSPF v2, and many other dynamic routing protocols.

- Support PIM-SM, PIM-DM and many other multicast routing protocols.

TECHNICAL SPECIFICATIONS

Standard

- IEEE 802.1D (STP), IEEE 802.1w (RSTP), IEEE 802.1s MSTP
- IEEE 802.1x port-based user authentication
- Port Security
- Hardware support for IP ACL, MAC ACL, VLAN ACL
- Hardware support for port-based user authentication by combinations and bandings of port, IP address, and MAC address
- Web user authentication
- RADIUS
- User privilege classification and password protection
- DHCP snooping, DHCP option82, IP Source Guard

Interface

Port: 20 10/100/1000M TX, 4 GSFP/TX Combo, 2 10G slots (up to 4 10G XFP ports), 1 Console Port

Performance

Processor: RISC 300MHz
Flash: 8 MB
Memory: 128 MB (up to 256MB)
L3 Forwarding Rate: 96Mpps all wire-speed, with filtering
Switch Fabric: 240G bps
Switching Mode: Store-and-forward
MAC Address Table Size: 8 K
Queue Buffer: 64 MB
Jumbo frame: 16383
VLAN: Port-based VLAN, 802.1Q tag VLAN, Super VLAN, Private VLAN, GVRP dynamic VLAN configuration, VLAN Stacking (QinQ)
Traffic Control: Back pressure at half-duplex, 802.3x at full-duplex, CAR support, 100M port: 1M step size; 1000M port: 8M step size
Storm Control: Stop sending at threshold to restrict broadcast/multicast/unicast storms
Multicast Control: IGMP snooping
Multicast Protocol: IGMP v1/v2/v3, PIM-SM, PIM-DM
Port Trunking: Up to 32 groups with up to 8 ports per group, dynamic LACP or static aggregation

Port Mirroring: Supported. Can be based on flow classification

Clustering: Up to 32, manageable through single IP

Unicast: Static, RIP v1/v2, OSPF v2, BGP v4

Policy-based Routing: IP-based routing policies

Redundant Routing: VRRP

Proxy: Proxy ARP

DHCP: DHCP Server/Client/Relay

NAT: Static or dynamic NAT

QoS:

- Head Of Line(HOL) blocking prevention mechanism
- 4 dispatching queues per port, mapping the 8 priority queues in 802.1p
- WRR, SP, and FIFO queuing algorithms
- Best Effort Service
- Differentiated Service
- Strict Priority
- Weighted Round Robin
- First Come First Serve
- TOS re-tagging, RTS

Network Management:

- SNMP v1/v2, RMON(Group 1, 2, 3, 9), Telnet
- Command Line Interface(CLI), Web interface
- Support PRODIGY network management tools suite: Prodigy Director, NTP, SSH, LLDP

Power Requirements

Power Consumption: 60 W (max.)
Power input: AC 100 ~ 240 V, 47 ~ 63 Hz, 1A/230V, RPS power hot standby

Physical Characteristics

Dimensions (LxWxH) (mm): 442x316x44mm

Environmental Limits

Operating Temperature: 0 ~ 50°C,
non-operating Temperature: -40 ~ 70°C
Humidity: 0 ~ 90% (no condensing)

Warranty

1 year

OPTIONAL ACCESSORIES

For Optional Fiber Module, please refer to Spectrum Terrabit Transceiver.

ORDERING INFORMATION

Model	Description
PD1-S31-9281	Network management Router Switch, 20 ports 10/100/1000M TX + 4 ports 10/100/1000M TX/Gigabit SFP Combo + 2 extendable 10G module slots (up to 4 XFP ports), support rps redundant power supply
PD1-LS1-3921-8-1TE-XFP	1 port 10G XFP module base board
PD1-LS1-3921-8-2TE-XFP	2 port 10G XFP module base board