Terrabit Networks

PRODIGY   LAYER 3 AGGREGATION SWITCH

PRODIGY

PD1-S31-9401

Hi-performance 10Gigabit Ethernet Switch

FEATURES

Excellent performance

◎ 368Gbps switch fabric, at least extend to 8*10GE XFP ports.
◎ Hardware routing, wire-speed L3 switching, packet forwarding rate: 168Mpps.
◎ 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.
◎ Maximum number of IPv4 unicast routes in hardware: 8,000
Support RIP v1/v2, OSPF v2, IGMP v1/v2/v3, PIM, VRRP 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

24 Gigabit 10/100/1000BaseT port, 8 1G/GE optical ports, 8 10G/GE optical ports
1 Mini Usb Type Console port

Performance

Processor: RISC 300MHz
Flash: 1GB DRAM
Memory: 1GB DRAM
L3 Forwarding Rate: 168Mpps all wire-speed, with filtering
Switch Fabric: 368G bps
Switching Mode: Store-and-forward
MAC Address Table Size: 64 K
Queue Buffer: 64 MB
Jumbo frame: 16383
VLAN: Number of VLANs: 4,096, 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, MBGP
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, support power hot standby AC+AC or AC+DC

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-S31-9401	Network management Router Switch, 24 Gigabit 10/100/1000BaseT port, + 8 1G/GE auto-adaptation option ports , 8 10G/GE auto-adaptation option ports support redundant power supply

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