Terrabit Networks

PRODIGY

TERRABIT PRODIGY S31 SERIES FULL 10G SWITCHES

PD1-S31-9561

Hi-performance Full 10G Ethernet Switch

FEATURES

Industrial Ethernet Ring Network Function, Zero Delay and Zero Packet Loss

Supports industrial Ethernet ring network protection protocol. The protection switching time is less than 50ms. The solution has been applied in power industry, rail transportation industry and military projects for decades. It can achieve zero packet loss.

Maintenance

Supports multiple management styles such as Console, Telnet, SSH.

Supports WEB based management. The management is more simple and effective.

Supports upload and download of TFTP files.

Supports ISSU (In-Service Software Upgrade).

Supports SNMP. By cooperating with Baud's smart NMS, functions including the equipment auto-discovery, the topology management, the equipment configuration management, the performance data analysis, and the fault management can be realized. In this way, the network management is simple and creates a new product experience for the user.

Carrier Ethernet Switches

Supports carrier Ethernet ring network protection protocol. The protection switching time is less than 50ms. It also supports simple and effective redundancy protection mechanism such as STP/RSTP/MSTP protocol and dual uplink standby link protection and LACP link aggregation. These functions meet the requirement of carrier grade high reliability.

Has perfect Ethernet OAM, which can real time monitor the network operating state and rapidly detect and locate the malfunction.

Supports strong ACL function. The solution supports L2~L7 data access and control based on the physical port, VLAN IDs, source MAC/IP addresses and protocol port, which provides flexible ways of policy control.

Supports ISSU (In-Service Software Upgrade), guaranteeing the user data non-stop forwarding when the system is upgrading.

Supports various L2 multicast function, including user fast-leave mechanism and cross VLAN multicast replication function.

Carrier QoS Policies

Supports complex traffic classification based on VLAN IDs, source MAC/IP addresses, destination MAC/IP addresses, IP protocols, or priorities. It also supports priority remark. These functions provide an effective way for users to optimize their businesses.

Provides selective bandwidth control policies and support a port base or flow-based Committed Access Rate (CAR) and guarantees Layer 3 wire-speed forwarding.

Every port supports 8 priority queues.

Supports multiple queue grooming algorithms such as SP, WRR or SP+WRR.

Comprehensive IPv6 Solutions

Comprehensively supports IPv6 Neighbor Discovery, ICMPv6、Path MTU Discovery.

Supports IPv6 based Ping, Traceroute, Telnet, SSH, ACL. It meets the need of IPv6 network equipment management and service control.

TECHNICAL SPECIFICATIONS

Interface

Port & Slot: 1 Mini USB Console port, 12 10GE/GE auto-adaptive SFP+ slots, 8 GE TX ports, support key Reset.

Performance

Backplane: 240 Gbps
Switch Fabric: 10 Gbps
Forwarding Rate: 180 Mpps
MAC Address Table Size: 32 K

MAC switching function:
Support static configurationand dynamically learning of MAC address.
Support check and delete MAC address.
Configuring of MAC address aging time.
Support limit on MAC address learning number.
Support MAC address filtering function
Support the black-hole MAC items.

VLAN:
Support 4K VLAN entries
Support GVRP
Support 1:1 and N:1 VLAN Mapping
Support QinQ and selective QinQ
Support Private VLAN

Multicast:
Support IGMP v1/v2/v3
Support IGMP Snooping
Support IGMP Fast Leave
Support multicast group policy and multicast number limit
Support multicast traffic cross VLAN duplication

STP:
Support 802.1D (STP), 802.1W (RSTP), 802.1S (MSTP)
Support BPDU protection, root protection and ring protection

IPv6:
Support ICMPv6, DHCPv6, ACLv6, IPv6 Telnet
Support IPv6 Neighbor Discovery
Support Path MTU Discovery
Support MLD v1/v2
Support MLD Snooping

QoS:
Support the traffic classification of L2~4 protocol headers
Support CAR traffic control
Support 802.1P/DSCP priority remark
Support multiple queuing algorithms such as SP, WRR or SP+WRR
Support Tail-Drop, WRED
Support traffic supervision and traffic shaping

Network Management:
Support Console, Telnet, SSH
Support WEB based management
Support SNMP v1/v2/v3
Support upload and download of TFTP files Support RMON

Power Requirements

AC input: AC: 100V-240V, 50Hz±10% DC: -36V~-72V

Physical Characteristics

Dimensions (LxWxH) (mm): 442.5×315×44mm

Environmental Limits

Operating temperature/humidity: 0°C-50°C, 10%-90% non-condensation
Storage temperature/ humidity: -20°C-70°C; 5%-95% non-condensation

OPTIONAL ACCESSORIES

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

ORDERING INFORMATION

Model	Description
PD1-S31-9561	Terrabit Prodigy managed Ethernet switch with 12 10GE ports, 8 GE ports (1 Console port, 12 10GE/GE auto-adaptive SFP+ slots, 8 GE TX ports; 220V AC power supply, support dual power supplies; the cooling fan, height 1U, standard 19-inch rack-mounted installation)