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54-port Full 10G Core Routing Switch

(TN354P10GRSW)

480W*2/(AC100-240V)

OVERVIEW

TN354P10GRSW is a high-performance L3 managed switch, which can meet the requirements of the next generation MAN, data center, campus network and enterprise network. It has 48*1/10G SFP+ fiber ports and 2*40G(QSFP28) fiber ports and 4*100G (QSFP28) fiber ports with high density, and adopts 1U/19-inch mounting shell design.

TN354P10GRSW is equipped with complete L3 management functions, with comprehensive protocols and applications. On the basis of providing high-performance L2/L3/L4 wire-speed switching service deployment and management, it further integrates IPv6, MPLS VPN, and network Multiple network services such as security, traffic analysis, virtualization, etc., combined with multiple data center high-reliability technologies such as uninterrupted upgrades, uninterrupted forwarding, graceful restart, redundancy protection, etc., to ensure the longest uninterrupted communication capability of the network. The switch supports advanced functions such as RIP, OSPF, BGP, PIM-DM/SM, and is ideal

for traditional or fully virtualized big data transmission. Network application managers can flexibly choose the appropriate optical fiber connection according to the the transmission distance or required transmission speed, effectively expanding the 1G/10G/40G/100G network. In addition, TN354P10GRSW has a switching capacity of up to 1.96Tbps, and its key modules are all backed up with 1:1 redundancy, which can handle a very large amount of data in a safe topology. it is suitable for network cores, data centers, metropolitan area network cores and convergence, campus network cores and other places in various industries.

FEATURE

Advanced hardware architecture, powerful processing capabilities

- Adopting the industry's advanced hardware architecture design, the 1U machine can support 48*1/10G SFP+ fiber ports and 6*40G/100G (QSFP28) fiber ports
- High-performance ASIC switch chip and multi-core processor support up to 1.96Tbps of switching capacity to meet the high performance, high capacity, high density and scalability requirements of the data center. Standard data center switching between front-back mode and back -front mode deign and fan automatic speed regulation.

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Strong data service guarantee

- Support virtualized and feasible switching technology, which can virtualize multiple physical devices into one logical device. The actual physical device is transparent to users, which simplifies the management of network devices and network topology, greatly improves network operation efficiency, and is thus effective Reduce operation and maintenance costs. Its virtual system's performance, redundancy, expansion, and management partitions are unparalleled in independent physical devices.
- Based on the HPS (Uninterrupted Protection System) uninterrupted protection system, the key power system adopts repeated design, can be hot-swappable, and supports seamless switching in the event of a failure without interrupting business.
- Support STP/RSTP/MSTP protocol, support VRRP protocol, and support ring network protection, dual-uplink active/standby connection protection, LACP aggregation, and other simple and efficient redundancy protection mechanisms.
  Support ISSU (software upgrade in service) business uninterrupted system upgrades to ensure uninterrupted forwarding of user data during system upgrade and master control switching.
- Super-advanced BFD two-way interconnection detection mechanism, through the linkage with the second and third layer protocols, realizes dozens of levels of fault detection and business recovery, which greatly improves the reliability of the network system.
- Perfect Ethernet OAM mechanism, supporting 802.3ah, 802.1ag, and ITU-Y.1731, real-time monitoring of the network operating status, to achieve rapid detection and location of faults.

Rich business features

- Complete Layer 2 and Layer 3 multicast routing protocols to meet the access requirements of IPTV, multi-terminal HD video surveillance, and HD video conferences;
- A complete three-layer routing protocol and large routing table capacity can meet various types of network interconnection requirements and can form large data center networks, campus networks, enterprise networks, and industrial user private networks.
- It fully supports Layer 2 and Layer 3 MPLS VPN and can build a large-scale MPLS VPN core network to meet the access needs of industry private network VPN users and enterprise network VPN users.
- Fully support IPv6 protocol suite, support IPv6 neighbor discovery, ICMPv6, Path MTU discovery, DHCPv6, and other IPv6 features.
- Support IPv6-based Ping, Traceroute, Telnet, SSH, ACL, etc., to meet the needs of pure IPv6 network equipment management and business control. Support IPv6 multicast features such as MLD and MLD Snooping, and IPv6 three-layer routing protocols such as IPv6 static routing, RIPng, OSPFv3, BGP4+, etc., to provide users with complete IPv6 two- and three-layer solutions.
- Support rich IPv4 to IPv6 transition technologies, including IPv6 manual tunnel, automatic tunnel, 6to4 tunnel, ISATAP tunnel, and other tunnel technologies to ensure the smooth transition from IPv4 network to IPv6 network.

Security

- It adopts advanced hardware architecture design, realizing the hierarchical scheduling and protection of the packet.supports defense against DoS, TCP's SYN Flood, UDP Flood, broadcast storm, large traffic, etc. attacks on equipment; supports command line classification Protection, users of different levels have different management rights.
- support IEEE 802.1x, Radius, BDTacacs+, etc., and provide users with a complete security authentication mechanism.
- Support clear text or MD5 authentication of related routing protocols, support uRPF reverse routing search technology, which can effectively control illegal services; hardware-level message deep detection and filtering technology, support for control messages and data messages In-depth detection, thereby effectively isolating illegal data packets, and improving the security of the network system..

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TECHNICAL SPECIFICATION

Model	TN354P10GRSW
Interface Characteristics	
Fixed Port	1*USB 2.0 port 1*RS232 Console port (9600,8,N,1) 48*1/10G SFP+ fiber ports (Data) 2*40G QSFP28 uplink fiber ports (Data) 4*40G/100G QSFP28 uplink fiber ports (Data)
Ethernet Port	10/100/1000Base-T auto-sensing, Full/half duplex MDI/MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T: Cat5e or later UTP(≤100 meter)
Optical Fiber Port	10G SFP+/ QSFP28 optical fiber ports, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC) 10G SFP+ optical fiber port can be backward
	compatible with 1G optical fiber module.
Optical Cable/ Distance	Multi-mode: 850nm / 0 ~ 500m, single mode: 1310nm/ 0 ~ 40km, 1550nm/ 0 ~ 120km.
Chip Parameter	
Network Management Type	L3

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Network Protocol	IEEE802.3u 100Base-TX , IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X, IEEE802.3ae 10Gb/s Ethernet, IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	1.96Tbps (non-blocking)
Forwarding Rate@64byte	1428Mpps
MAC	64K
Buffer Memory	64M
Jumbo Frame	16K
LED Indicator	Power: PWRA,PWRB (green), system: SYS (green), Fiber port: 1-4 (green), Network management: MNG (green)
Power Supply	
Total PWR / Input Voltage	480W*2/ (AC100-240V)
Power Consumption	Standby<50W,Full Load<160W
Power Supply	Built-in power supply AC100~240V 50-60Hz 5.0A*2
Physical Parameter	
Operation TEMP / Humidity	-20~+55°C, 5%~90% RH Non condensing
Storage TEMP / Humidity	-40~+75°C, 5%~95% RH Non condensing
Dimension (L*W*H)	442.5*404*44mm

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Net /Gross Weight	<6.8kg / <7.0kg
Installation	Desktop,19 inch 1U cabinet installation
Certification & Warranty	
Lightning protection / protection level	Port lightning protection: 6KV 8/20us, Protection level: IP30
Certification	CCC, CE mark, commercial, CE/LVD EN60950 FCC Part 15 Class B, RoHS
Warranty	3 years, lifelong maintenance.

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