

TSR-2900-20



Multiservice Switching Router

Product Overview

Techroutes TSR-2900-20 Series is the next-generation multi-functional switching router switching engine. It is a well-adapted router.

Techroutes TSR-2900-20 Series has supports the full switching function, USB2.0 expansion, service expansion and engineering maintenance.

Techroutes TSR-2900-20 Series is equipped with TROS operating system, of which Techroutes has the independent intellectual property right. Techroutes TSR-2900-20 Series builds a real multiservice broadband platform by providing rich software functions such as routing, switching, safety, VPN and LTE.

With its strong processing and expansion capability, rich software functions and hardware modules, Techroutes TSR-2900-20 Series meet requirements of the government, financial institutions, the defense system, operators and enterprises in network construction.

Main Characteristics

Powerful Performance

Techroutes TSR-2900-20 Series is driven by the 64-bit dual-core processor with specialized gigabit ASIC switching chip and FPGA components, which enables the whole hardware platform to run on the high-speed Ethernet frame. The innovative design endows TSR-2900-20 with a super processing capability, providing a guarantee for upper-layer software functions.

High Expandability

Because built on the basis of switching core, Techroutes TSR-2900-20 Series can expand their external interfaces, slots and modules without any limitation from the total CPU resources. The switching chip guarantees that the whole Techroutes TSR-2900-20 router is provided with sufficient and broadband internal channels, making the expansibility of Techroutes TSR-2900-20 routers exceed that of traditional modularized routers.

Excellent Power-saving ability

Techroutes TSR-2900-20 Series adopts the new-generation hardware chip in consideration of energy saving while guaranteeing its strong processing capacity. Compared with the mainstream devices in the industry, power consumption of the TSR router is reduced by 15% to 20%, which both reduces the device maintenance cost and accords with the low-carbon idea. Techroutes TSR-2900-20 Series is also equipped with the environment friendly maglev mute fan..

Various Protocol Support

Techroutes TSR-2900-20 Series supports Layer 2 link protocols including PPP and dot1q; static routing; policy routing; and dynamic routing such as RIP, OSPF and BGP. These routing protocols are well compatible with the devices manufactured by the mainstream vendors in the industry. Besides, TSR-2900-20 Series supports integration of multiple services such as routing, switching, voice, safety and wireless, which meets the requirement of complicated network construction.

New Service

Techroutes TSR-2900-20 Series supports the MPLS characteristics and the MPLS-based layer-2/layer-3 VPN technology, which realize the transparent Ethernet transmission service and the flexible enterprise interconnection. Techroutes TSR-2900-20 Series supports IPv6 data forwarding, routing protocols and multicast routing protocols; Techroutes TSR-2900-20 Series also supports the IPv4/IPv6 protocol stack and the interconnection technology, which makes the existing networks smoothly upgrade to IPv6.

Secure Service Access

Techroutes TSR-2900-20 Series supports selective ACL firewall filtration technology, NAT, VPNs such as IPSec/L 2TP/PPTP/GRE, and security technologies such as AAA, Radius, PAP/CHAP.

Traffic management policy

Techroutes TSR-2900-20 Series supports varied queues including FIO, PQ, CQ, CBWFQ, LLQ, WFQ DSCP, IP Precedence, RTS, RSVP and CAR.

Techroutes TSR-2900-20 Series supports its self-developed traffic control and service management policy (GBSC) which can better real-time arrange and monitor your data traffic.

Flexible management and maintenance

Techroutes TSR-2900-20 Series is convenient in managing and monitoring the network by using the in-band and out-band management tools such as Console, Telnet, SSH and SNMP;

Complete Layer-2 Switching Capacity

Techroutes TSR-2900-20 Series supports Layer-2 switching with the built-in high performance switching chip. It supports layer-2 protocols including STP/RSTP/MSTP, MAC learning and filter, anti-attack based on the chip, storm control and port mirroring.

Technical Specification

Model		TSR-2900-20
Interface		
Console		1
USB2.0		1
WAN		2xGE-TX & 2xGE Combo (TX/SFP)
LAN		/
POE		/
SLOT		2xHIC
RST		1
Encryption Engine		Built-in
Performance		
Throughput		2MPPS
Flash		16MB
DRAM		1GB
NAT Concurrent Sessions		<350K
Consumption	No Load	≤12W
	Full Load	≤14W
Total output BTU (note:1000 BTU/hr=293W)		47.78
FAN		0
Noise@25°C (dBA)		0
Power Supply		100-240VAC
Software Features		
LAN		ARP, ARP proxy, Gratuitous ARP
WAN		PPP, HDLC,PPPoE (Client/Server)
Routing	Static route, default route	
	RIPv1/v2, OSPFv2, BGPv4,IS-IS	
	Fast Switch, Load-Balance	
	PBR (Policy Based Routing)	
Multicast		IGMP V1,V2,V3

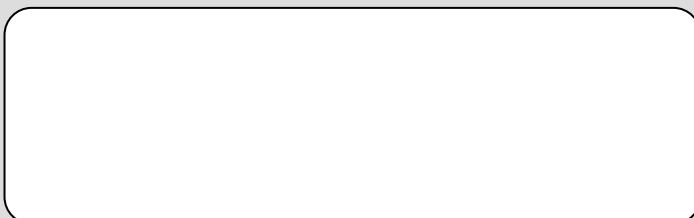
		PIM-DM, PIM-SM
IPv6		IPv6 ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, IPv6 (authenticate through IPv6 Phasell)
		IPv6 QoS
		IPv6 transition: NAT-PT, IPv6 tunnel, 4over6
		IPv6 tunnel: IPSec v6, GRE, 6to4,
		ISATAP
		IPv6 route: IPv6 static route, RIPng, OSPFv3, BGP4+
MPLS		VPLS, MP-BGP, VRF
		L2VPN, L3VPN
IP Service		ICMP, TCP, UDP, IP Option
		NAT, PAT, Port-MAP, Private- Service, ALG
		Ping, Trace Route, Nslookup
		IP ACL, IMP filter, Fast-Access
		DHCP Client/Serv/Relay
		DNS, DNS host, DNS Proxy, DDNS (Peanut Hull/DynDNS/CTC)
		Helper-Address, UDP Helper
		IP unnumber, DDR
		Keep alive, PDP (compatible with CISCO)
		NetFlow, IP Accounting, IP SLA
		TFTP Client/Serv, FTP Client
		SNTP/NTP, job/schedule
		PNP
		ALIAS
Switching		Reverse telnet, VTY binding
		802.1p CoS, 802.IQ VLAN
		STP, RSTP
		Keep alive, port mirror, broadcast/ multicast storm control
Network Safety	AAA	PTP, IEEE1588v2 (Optional)
		Authentication, Authorization, Accounting
		enable, local, Radius, Tacacs+
Network Security	Firewall	PAP, CHAP, MS-CHAP
		ACL, NAT
		ASPF state detection
		SYN flood, UDP flood or ICMP flood
		ARP attack protection, ARP-SCAN and DHCP-Snooping
	VPN	Prevention of Ping of Death, Tear-drop, Land-Based, WinNuke, PingSweep, ARP attack and IP-Spoofing
		IKE, IPSec, DMVPN, EZVPN
		L2TP, PPTP, GRE, EoGRE
		VPN Stacking

Reliability	Backup Function	Interface backup
		Route backup
		E-Backup, Keep alive Ethernet remote monitoring
		VRRP, HSRP
		Bandwidth based load sharing and backup
		Traffic based load balancing and backup
	BFD	BFD for RIP, OSPF, BGP, MPLS and VRRP
QOS	Congestion management	FIFO, PQ, CQ, WFQ, CBWFQ
	Congestion avoidance	WRED/RED
	Traffic shaping	GTS (Generic Traffic Shaping)
	Others	GBSC, Layer7filter
	Traffic classification	ACL
		IP Precedence
		DSCP
		MAC
	802.1p	
4G		TD-FDD & TD-LTE
Management		Console, Telnet, SSH,HTTP/HTTPS,SSL
		SNMP V1/V2/V3, SYSLOG, RMON, ZTP
Appearance		
Chassis	Dimensions mm (WxDxH)	440x300x44
	Weight (kg,empty)	3.5
Package	Dimensions mm (WxDxH)	576x448x94
	Weight (kg)	4.5
Environmental Specifications		
Operating	Temperature	-10°C~50°C
	Humidity	10%~85% (non-condensing)
Storage	Temperature	-40°C~85°C
	Humidity	10%~95% (non-condensing)
Accessories		
Console cable, Rack mount kits, Manual		
Certificate		
CE, FCC, RoHS, ISO		

Order Information:

TSR-2900-20	TSR-2900-20 Multi-service Router (1 Console, 1 USB2.0, 2xGE TX, 2xGE Combo (TX/SFP), 2 HIC slots; built-in encryption engine, 220V power supply)
TSR HIC Modules	
HIC-2E1B	Unchannelized Dual-Port E1 card
HIC-2TB	Dual-Port serial card (V28/V35)
HIC-4G-LTE	Single 4G Universal module
HIC-4E1	4-port unchannelized E1-F interface card
DIC-8GES-TX	Eight 10/100/1000M Base-T electrical interface card (RJ45)

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