

TSR-2900-24G



Multiservice Switching Router

Product Overview

Techroutes TSR-2900-24G is the Techroutes-developed high-density routing and switching integrated product oriented for operator ICT, financial outlets, e-government, public security, and other WAN edge access scenarios.

TSR-2900-24G builds on a low-power, MIPS multi-core embedded platform and adopts the integration of routing and switching. TSR-2900-24G supports comprehensive Ethernet functions, various WAN link protocols, rich dynamic routing protocols and VPN functions. TSR-2900-24G also features a variety of QoS policies to guarantee key services.

TSR-2900-24G router is equipped with TRROS operating system, of which Techroutes has the independent intellectual property right. With Techroutes 18-year R&D experience, TSR-2900-24G router is your trusted choice.

Main Characteristics

High Performance

TSR-2900-24G is driven by the 64-bit multi-core processor with specialized ASIC high-speed switching engine and FPGA components, which enables the whole hardware platform to run on the high-speed Ethernet frame. This innovative design endows TSR-2900-24G have ultra-high processing performance and efficiency, providing a powerful guarantee to handle large flow processing and improve stability.

Excellent Power-saving ability

TSR-2900-24G adopts energy-saving chip with low power consumption. Compared with the mainstream devices in the industry, power consumption of the TSR router is reduced by 15% to 20%, which reduces the device maintenance cost and accords with the low-carbon idea.

High Expandability

Because built on the basis of switching core, Techroutes TSR-2900-24G 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-2900-24G router is provided with sufficient and broadband internal channels, making the expansibility of Techroutes TSR-2900-24G routers exceed that of traditional modularized routers.

Various Protocol Support

Techroutes TSR-2900-24G 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-2900-24G 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-2900-24G 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-2900-24G Series supports IPv6 data forwarding, routing protocols and multicast routing protocols; Techroutes TSR-2900-24G 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-2900-24G 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-2900-24G Series supports varied queues including FIO, PQ, CQ, CBWFQ, LLQ, WFQ DSCP, IP Precedence, RTS, RSVP and CAR.

Techroutes TSR-2900-24G 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-2900-24G 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-2900-24G 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-2900-24G
Interface		
Console		1
USB2.0		1
WAN		2xGE-TX & 2xGE Combo (TX/SFP)
LAN		24xGE-TX
SLOT		4xHIC/DIC
Encryption Engine		Built-in
Performance		
Throughput		3MPPS
Flash		32MB
DRAM		1GB
NAT Concurrent Sessions		<250K
Consumption	No Load	≤15W
	Full Load	≤40W
Total output BTU (note:1000 BTU/hr=293W)		0
FAN		2
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	
	Fast Switch, Load-Balance	
	PBR (Policy Based Routing)	
Multicast	IGMP	
	PIM-DM, PIM-SM	

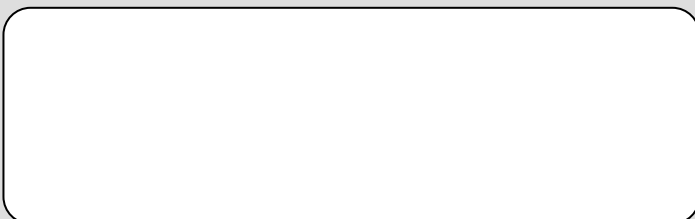
IPv6	IPv6 ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, IPv6 (authenticate through IPv6 Phasell)	
	IPv6 QoS	
	IPv6 transition: NAT-PT, IPv6 tunnel, 4over6	
	IPv6 tunnel: IPSec v6, GRE, 6to4,	
	ISATAP	
	IPv6 route: IPv6 static route, RIPng, OSPFv3, BGP4+	
MPLS	VPLS, MP-BGP, VRF	
	L2VPN, L3VPN	
IP Service	ICMP, TCP, 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	
	PTP, IEEE1588v2 (Optional)	
Network Safety	AAA	Authentication, Authorization, Accounting
		enable, local, Radius, Tacacs+
		PAP, CHAP, MS-CHAP
Network Security	Firewall	ACL, NAT
		ASPF state detection
		SYN flood, UDP flood or ICMP flood
		ARP attack protection, ARP-SCAN and DHCP-Snooping
		Prevention of Ping of Death, Tear-drop, Land-Based, WinNuke, PingSweep, ARP attack and IP-Spoofing
	VPN	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)	442.5x200x44
	Weight (kg,empty)	3.5
Package	Dimensions mm (WxDxH)	550x400x94
	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-2900-24G	TSR-2900-24G Multi-service Router (1 Console, 1 USB2.0, 2xGE TX, 2xGE Combo (TX/SFP),24xGE-TX LAN Ports,4 HIC/DIC slots; built-in encryption engine, 220V power supply)
TSR HIC Modules	
HIC-1GE-TX/SFP	Single-port 10/100/1000M Combo interface card (RJ45/SFP)
HIC-2E1B	Unchannelized Dual-Port E1 card
HIC-2TB	Dual-Port serial card (V28/V35)
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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For More details:

visit: www.techroutes.com

Or contact

sales@techroutes.com

info@techroutes.com