

TSR-2900-12 Series



Multiservice Switching Router

Product Overview

Techroutes TSR-2900-12 Series is the next-generation multi-functional switching router switching engine. It is a well-adapted router.

Techroutes TSR-2900-12 Series has supports the full switching function, USB2.0 expansion, service expansion and engineering maintenance.

Techroutes TSR-2900-12 Series is equipped with TROS operating system, of which Techroutes has the independent intellectual property right. Techroutes TSR-2900-12 Series builds a real multiservice broadband platform by providing rich software functions such as routing, switching, safety, VPN.

With its strong processing, rich software functions and hardware modules, Techroutes TSR-2900-12 Series meet requirements of the government, financial institutions, the defense system, operators and enterprises in network construction.

Main Characteristics

Powerful Performance

Techroutes TSR-2900-12 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-2900-12 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-2900-12 Series can expand their external interfaces without any limitation from the total CPU resources. The switching chip guarantees that the whole Techroutes TSR-2900-12 router is provided with sufficient and broadband internal channels.

Excellent Power-saving ability

Techroutes TSR-2900-12 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-2900-12 Series is also equipped with the environment friendly maglev mute fan..

Various Protocol Support

Techroutes TSR-2900-12 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-2900-12 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-2900-12 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-2900-12 Series supports IPv6 data forwarding, routing protocols and multicast routing protocols; Techroutes TSR-2900-12 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-2900-12 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-2900-12 Series supports varied queues including FIO, PQ, CQ, CBWFQ, LLQ, WFQ DSCP, IP Precedence, RTS, RSVP and CAR.

Techroutes TSR-2900-12 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-2900-12 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-2900-12 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-2900-12	TSR-2900-12P
Interface			
Console		1	1
USB2.0		1	1
WAN		2xGE-TX & 2xGE SFP	2xGE-TX & 2xGE SFP
LAN		8xGE-TX	8xGE-TX POE
POE			IEEE 802.3af,802.3at
SLOT		/	/
RST		1	1
Encryption Engine		Built-in	Built-in
Performance			
Throughput		2MPPS	
Flash		32MB	
DRAM		1GB	
NAT Concurrent Sessions		<300K	
Consumption	No Load	≤14W	
	Full Load	≤19W	
Total output BTU (note:1000 BTU/hr=293W)		64.85	
FAN		0	0
Noise@25°C (dBA)		0	0
Power Supply		100-240VAC	100-240VAC 130W POE Budget
Software Features			
LAN		ARP, ARP proxy, Gratuitous ARP	
WAN		PPP, 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
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
		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	
Management		Console, Telnet, SSH,HTTP/HTTPS,SSL	
		SNMP V1/V2/V3, SYSLOG, RMON, ZTP	
Appearance			
Chassis	Dimensions mm (WxDxH)	250x220x44	
	Weight (kg,empty)	2.1	2.3
Package	Dimensions mm (WxDxH)	454x287x96	
	Weight (kg)	3.1	3.4
Environmental Specifications			
Operating	Temperature	-20℃~70℃	
	Humidity	10%~85% (non-condensing)	
Storage	Temperature	-40℃~85℃	
	Humidity	10%~95% (non-condensing)	
Accessories			
Console cable, Rack mount kits, Manual			
Certificate			
CE, FCC, RoHS, ISO			

Order Information:

TSR-2900-12	TSR-2900-12 Multi-service Router (1 Console, 1 USB2.0, 2xGE-TX, 2xGE SFP, 8xGE-TX LAN Ports, built-in encryption engine, 220V power supply)
TSR-2900-12P	TSR-2900-12P Multi-service Router (1 Console, 1 USB2.0, 2xGE-TX, 2xGE SFP, 8xGE-TX POE LAN Ports, built-in encryption engine, 220V power supply)

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