

## ES5652TS-L2+万兆精简路由交换机

ES5652TS 交换机是千兆以太网路由汇聚交换机，具有 48 个千兆下行链路端口和两个万兆上行链路以及两个万兆堆栈链路端口。交换机是理想的互联网服务提供商（ISPs）和多系统运营商（MSOS），为家庭用户提供三重播放服务，达到千兆带宽。它也是 SMB、企业和校园网的理想千兆位接入交换机。

主要技术：

ES5652TS 交换机具有高可用性、全面安全性、健壮多播控制的特点，并将 QoS 提前到网络边缘，同时保持简单的管理。

可扩展性

ES5652TS 交换机是具有 176Gbps 交换容量的万兆精简路由交换机。该交换机在所有千兆端口上提供线速切换性能，充分利用现有的高性能千兆位 CPE、PCS、11N/AC Wi-Fi 应用等，显著提高了应用的响应性和文件传输时间。

可靠性与能效

ES5652TS 智能调速风扇设计确保了设备的长时间运行，提高了系统的可靠性。

ES5652TS 交换机的设计结合了高能量效率，以减少对环境的影响。绿色以太网节电特性和无风扇设计显著降低了功耗。该交换机提供以下硬件高可用性特征：自动监测电源模块和风扇托盘状态，并产生警报时，电源或温度事件发生。根据温度变化调节风扇速度（对于带风扇的交换机）



Product form	Type	L2+ 10 Gigabit Thin Routing Switch PC
Port	Specification	48*10/100/1000M BASE-T RJ45 ports;2*10G SFP+ uplink ports;2*10G stack link ports;1*GE out-of-band management port;1*console RJ45 port
Performance	flash memory	64MB
	DDRIII capacity	512MB
	switching capacity	176Gbps
	MAC address table size	16K
	ARP table size	1K
	Jumbo frames	9KB
	auto-negotiation MDI/MDIX	Yes
Power	input range	100-240VAC/50-60Hz
	Max system power(w)	45W
	Smart fan controller	Smart
	SFP power control	Yes
	Dying gasp	Yes
Chassis	Rack Space	19"

	<b>Dimension</b>	44 x 33 x 4.4 (W x D x H) cm
Environment	<b>Operating Temperature</b>	0° to 50°C
	<b>Storage Temperature</b>	-40° to 70°C
	<b>Operating Humidity</b>	10% to 90% (non-condensing)
	<b>Storage Humidity</b>	10% to 90% (non-condensing)
	<b>Environmental Regulation Compliance</b>	WEEE, RoHS
Certification	<b>FCC Class A</b>	YES
	<b>CE</b>	YES
	<b>CB</b>	YES
	<b>UL</b>	YES
L2 Function	<b>Transceivers</b>	current/rx-power/temperature/tx-power ; voltage/high-low alarm and warning; Digital Diagnostic Monitoring (DDM)
	<b>Flow Control</b>	IEEE 802.3x for full duplex mode; Back-Pressure for half duplex mode
	<b>Jumbo frames</b>	9 KB
	<b>Storm Control</b>	Broadcast/Multicast/Unknown Unicast
	<b>Link aggregation</b>	Static link aggregation; 802.3ad with LACP; Unicast/Multicast load balance over trunk port
	<b>Spanning Tree Protocol</b>	STP; RSTP; MSTP; ERPS; BPDU Guard; BPDU filtering; BPDU transparent; Loopback detection
	<b>VLANs</b>	Supports 4K VLAN; Port-based VLAN; IEEE 802.1Q VLAN; GVRP (256 VLAN); IEEE 802.1v Protocol-based VLAN; IP Subnet-based VLAN; MAC-based VLAN; Voice VLAN; Traffic Segmentation; QinQ
	<b>IGMP Snooping</b>	IGMP Proxy reporting; IGMP v1/v2/v3 snooping; IGMP Filtering; IGMP Throttling; IGMP Immediate Leave; IGMP Querier; IGMP mrouter-forward mode ; IGMP router-port-expire-time ; IGMP tcn-flood; IGMP tcn-query-solicit; IGMP unregistered-data-flood
	<b>MVR</b>	5 multicast VLANs
	<b>Port mirroring</b>	YES
	<b>Remote port mirror (RSPAN)</b>	YES
<b>Stacking Links</b>	L2/L3 supported ; VLAN membership supported ; trunking supported; IPMC supported	
Extended Function	<b>Non-Spanning Tree Loopback detection</b>	YES
	<b>Port security</b>	YES
	<b>Dynamic Arp Inspection</b>	YES
	<b>CFM</b>	YES
	<b>OAM</b>	YES
	<b>UDLD</b>	YES
Qos Function	<b>Scheduling for priority queues</b>	WRR Priority Scheduling ; Strict Priority Scheduling ; Hybrid(DRR/WRR + Strict)

	COS	YES
	DiffServ	YES
	Number of Priority Queues	8 queues/port
	DSCP	YES
	TCP/UDP Port Base	YES
Security	AAA	Radius client; Tacasc+ client
	802.1X	Local/radius Authentication ; Port-based Authentication ; Mac-based Authentication
	HTTPS and SSL(v3)	YES
	SSH V2.0	YES
	DHCP Snooping	Option 82
	IP Source guard	YES
	DoS Protection	YES
ACL	L2/L3/L4	YES
	Ingress	YES
	Egress	YES
	Statistics	YES
	Global ACL	YES
	IPv4/IPv6/MAC/ARP ACL	YES
IPv6	IPv4/IPv6 Dual Protocol Stack	YES
	IPv6 Address Type	Unicast; Multicast
	ICMPv6	YES
	IPv6 Neighbor Discovery	YES
	IPv6 Neighbor Discovery Snooping	YES
	Manual Configuration	YES
	IPv6 DHCP client	YES
	IPv6 DHCP Snooping	YES
	MVR over IPv6	YES
	SNMP over IPv6	YES
	HTTP over IPv6	YES
	SSH over IPv6	YES
	IPv6 DHCP client	YES
	Telnet over IPv6	YES
Management Function	Switch Management	Web management; CLI via console port or Telnet; SNMP v1, v2c, v3
	IP clustering	32 members
	Firmware & Configuration	Firmware upgrade via HTTP; Dual images; Multiple configuration files ; Configuration file upload/download via TFTP/HTTP/FTP server; Firmware auto upgrade
	RMON	groups 1, 2, 3 and 9
	MIB II	YES
	DHCP/BOOTP	Client; Relay; DHCP dynamic provision option 66,67

	DNS client	YES
	Syslog	YES
	System monitor	YES
	LLDP	YES
	Ping/ Traceroute	YES
	SNTP/NTP	YES
	SMTP	YES
	sFLOW	YES