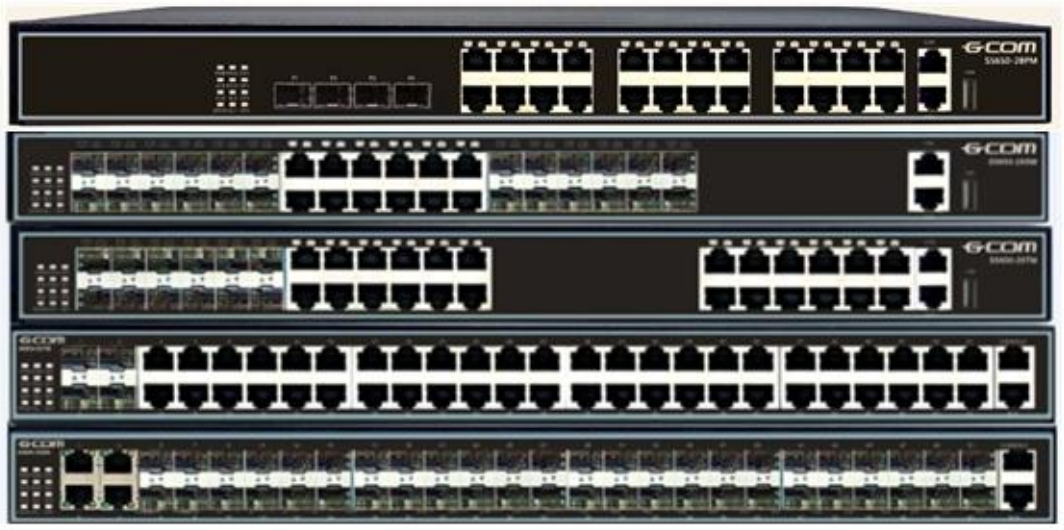
S5650 Series 10GE Security Routing Switch

S5650 Series are 10GE security routing Ethernet switch with high-performance, high-security and multi-service. Advanced non-blocking array exchange and huge packet cache support smooth operation at the extreme circumstance. S5650 Series are for IP MAN convergence layer and large-scale enterprise zone or the core of the network layer.



S5650-28TM

- ☐ Backplane capacity 128Gbps
- ☐ Throughput 95.2Mpps
- ☐ 12*10/100/1000Base-T
- ☐ 12*GE Combo
- ☐ 2*10GE slot
- ☐ 1+1 redundant power
- ☐ Support stack
- ☐ Full-loaded power ≤40W
- ☐ 440mm*380mm*44mm

S5650-28SM

- ☐ Backplane capacity 128Gbps
- ☐ Packet forwarding rate 95.2Mpps
- ☐ 12*10/100/1000Base-X SFP
- ☐ 12*GE Combo
- ☐ 2*10GE slot
- ☐ 1+1 redundant power
- ☐ Support stack
- ☐ Full-loaded power ≤50W
- ☐ 440mm*380mm*44mm

S5650-28PM

- Backplane capacity 128Gbps
- Throughput 95.2Mpps
- 24*10/100/1000Base-T
- 4*GE Combo
- 2*10GE slot
- 1+1 redundant power
- Support stack
- Full-loaded power ≤40W
- 802.3af and 802.3at
- Power supply of single port up to 30W
- 440mm*380mm*44mm

S5650-28CM

- Backplane capacity 128Gbps
- Throughput 95.2Mpps
- 24*GE Combo
- 2*10GE slot
- 1+1 redundant power
- Support stack
- Full-loaded power ≤50W
- 440mm*380mm*44mm

S5650-52SM

- Backplane capacity 256Gbps
- Packet forwarding rate 130.9Mpps
- 44*100/1000Base-X SFP
- 4*GE Combo
- 2*10GE slot
- 1+1 redundant power
- Support stack
- Full-loaded power ≤70W
- 440mm*380mm*44mm

S5650-52TM

- Backplane capacity 256Gbps
- Packet forwarding rate 130.9Mpps
- 44*10/100/1000Base-T
- 4*GE Combo
- 2*10GE XFP slot
- Support stack
- Full-loaded power ≤60W
- 440mm*380mm*44mm

S5650-52PM

- Backplane capacity 256Gbps
- Packet forwarding rate 130.9Mpps
- 44*10/100/1000Base-T
- 4*GE Combo
- 802.3af and 802.3at
- Power supply of single port up to 30W
- 2*10GE XFP slot
- Support stack
- Full-loaded power ≤70W
- 440mm*380mm*44mm

Product Specification:

Attributes	S5650-28TM-AC/DC	S5650-52TM-AC/DC	S5650-28SM-AC/DC	S5650-52SM-AC/DC	S5650-28PM	S5650-28CM
Backplane capacity	128Gbps	256Gbps	128Gbps	256Gbps	128Gbps	128Gbps
Switching capacity	128Gbps	256Gbps	128Gbps	256Gbps	128Gbps	128Gbps
Packet forwarding rate	95.2Mpps	130.9Mpps	95.2Mpps	130.9Mpps	95.2Mpps	95.2Mpps
Memory and storage	256MB DDR2 SDRAM Memory and 8MB Flash Memory					
Redundancy design	1+1 hot-swap redundant power					
Power supply	AC：Input 90～260V，50～60Hz； DC：Input -48V～-60V；					
Power consumption	Full-load ≤40W Idle ≤15W	Full-load ≤70W Idle ≤30W	Full-load ≤50W Idle ≤15W	Full-load ≤60W Idle ≤30W	Full-load ≤40W Idle ≤15W	Full-load ≤40W Idle ≤15W
POE power supply	-	-	-	-	Single power can supply 360W	-
Outline dimensions (mm) (W*D*H)	440mm×380mm×44mm					
Weight (in maximum configuration)	≤6kg	≤6.5kg	≤6kg	≤6.5kg	≤6kg	≤6kg
Environmental	Working temperature：0°C～50°C Storage temperature：-20°C～70°C					

requirements	Relative humidity：5%～95%，no condensing Electromagnetic compatibility

Business Features:

Attributes		TiNet S5650 Series
L2 features	MAC	16K MAC address MAC Black Hole Port MAC Limit
	VLAN	4K VLAN entries Port-based/MAC-based/IP subnet-based VLAN Port-based QinQ and Selective QinQ (StackVLAN) VLAN Swap and VLAN Remark PVLAN to realize port isolation and save public-vlan resources GVRP
	Spanning tree protocol	IEEE 802.1D Spanning Tree Protocol (STP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) IEEE 802.1s Multiple Spanning Tree Protocol instances (MSTP) Remote loop detecting
	Port	Bi-directional bandwidth control Static link aggregation and LACP(Link Aggregation Control Protocol) Port mirroring and traffic mirroring
Security features	User's security	Anti-ARP-spoofing Anti-ARP-flooding IP Source Guard create IP+VLAN+MAC+Port binding Port Isolation MAC address binds to port and port MAC address filtration IEEE 802.1x and AAA/Radius authentication
	Device security	Anti-DOS attack(such as ARP，Synflood, Smurf, ICMP attack), ARP detection, worm and Msblaster worm attack SSHv2 Secure Shell SNMP v3 encrypted management Security IP login through Telnet Hierarchical management and password protection of users
	Network security	User-based MAC and ARP traffic examination automatic ARP protection based on MAC address and ARP packet suppression or automatic user block of ARP traffic detection Dynamic ARP table-based binding IP+VLAN+MAC+Port binding L2 to L7 ACL flow filtration mechanism on the 80 bytes of the head of user-defined packet Port-based broadcast/multicast suppression and auto-shutdown risk port URPF to prevent IP address counterfeit and attack

		DHCP Option82 and PPPoE+ upload user's physical location DHCP snooping / IP source Guard / 802.1X / rich security features Link protection such as dynamic link aggregation and Ethernet ring network Plaintext authentication of OSPF、RIPv2 and BGPv4 packets and MD5 cryptograph authentication
IP routing	IPv4	ARP Proxy DHCP Relay DHCP Server Static route RIPv1/v2 OSPFv2 BGPv4 ECMP Strategy route Route policy
	IPv6	ICMPv6 ICMPv6 redirection DHCPv6 ACLv6 OSPFv3 BGP RIPng IPv6 and IPv4 dual stack PLS L3VPN、MPLS L2VPN and VPLS
Service features	ACL	Standard and extended ACL Time Range ACL Packet filter providing filtering based on source/destination MAC address, source/destination IP address, port, protocol, VLAN, VLAN range, MAC address range, or invalid frame. System supports concurrent identification at most 50 service traffic Packet filtration of L2～L7 even deep to 80 bytes of IP packet head
	QoS	Rate-limit to packet sending/receiving speed of port or self-defined flow and provide general flow monitor and two-speed tri-color monitor of self-defined flow Priority remark to port or self-defined flow and provide 802.1P, DSCP priority and Remark transmission of high-priority packets with various traffic classification and QoS flow control functions CAR(Committed Access Rate)、Traffic Shaping and flow statistics Packet mirror and redirection of interface and self-defined flow Super queue scheduler based on port and self-defined flow. Each port/ flow supports 8 priority queues and scheduler of SP, WRR and SP+WRR. Congestion avoid mechanism，including Tail-Drop and WRED
	Multicast	IGMPv1/v2/v3

		IGMPv1/v2/v3 Snooping IGMP Filter MVR and cross VLAN multicast copy IGMP Fast leave IGMP Proxy PIM-SM/PIM-DM/PIM-SSM PIM-SMv6、PIM-DMv6、PIM-SSMv6 MLDv2/MLDv2 Snooping
Reliability	Loop protection	ERRP(recover-time <50ms) Loopback-detection
	Link protection	FlexLink (recover-time <50ms) RSTP/MSTP (recover-time <1s) LACP (recover-time <50ms) BFD
	Device protection	VRRP host backup Double fault-tolerant backup of host program and configuration files 1+ 1 power hot backup Strictly follow the relevant standards, and other mainstream manufacturers fully interoperability
Maintenance	Network maintenance	Telnet-based statistics RFC3176 sFlow LLDP 802.3ah Ethernet OAM RFC 3164 BSD syslog Protocol Ping and Traceroute
	Device management	Command-line interface（CLI）, Console, Telnet and WEB configuration System configuration with SNMPv1/v2/v3 RMON (Remote Monitoring)1/2/3/9 groups of MIB NTP(Network Time Protocol) NGBNView network management WEB-based network management Ping and Traceroute