

Time Sensitive Networking Switch

» SICOM3000TSN



- Provide variety of interfaces, including 10Gbps port, full gigabit copper ports and fiber ports, automatic detection, full/half-duplex, MDI/MDI-X
- Support TSN standards: IEEE 802.1AS PTP/IEEE 802.1Qbv/ IEEE802.1Qcc/ IEEE 802.1Qbu/ IEEE 802.1Qci
- Support CNC centralized network configuration
- Support IEEE 802.3/802.3u/802.3x/802.1D/802.1W/802.1P/802.1Q standard
- IP40 protection class
- Support widely temperature (-40°C~ 75°C)

Overview

Time Sensitive Networking switch is a Layer 2 management industrial Ethernet switch with integrated characteristics of time sensitive networking (TSN), provides variety of interfaces, including 10Gbps ports, full gigabit copper ports and fiber ports, port rate and duplex mode can be negotiated with paired-end device.

SICOM3000TSN supports TSN protocol include: IEEE 802.1AS PTP/IEEE 802.1Qbv/IEEE 802.1Qcc/ IEEE 802.1Qbu/ IEEE 802.1Qci. SICOM3000TSN complies IP40 protection class, DIN-RAIL installation, supports widely temperature and good EMC, make it work stably and reliably in harsh industrial environments. In the industrial field, TSN as the evolution direction of the next generation of industrial network, is applied in the field of industrial automation, automobile internal network, rail transit, power and other networks with high stability requirements for transmission time.

Technical Specification

TSN	Support IEEE 802.1AS PTP/IEEE 802.1Qbv/IEEE 802.1Qcc/ IEEE 802.1Qbu/ IEEE 802.1Qci
Switching	Support VLAN, PVLAN, GVRP, port aggregation, LACP, Port flow control, flow-based speed limits, Broadcast storm suppression
Redundancy	Support DT-Ring/DT-Ring+/DT-vlan.recovery time less than 50ms Support DRP/DHP, recovery time <20ms, STP/ RSTP/MSTP
Multicast	Support IGMP snooping, GMRP, static multicast, IGMPv2/v3
Security	HTTPS/SSL, SSH, TACACS+, IEEE802.1X, RADIUS, user classification, Mac address binding
Service quality management	Support QoS, 802.1p(CoS), DSCP, SSP/WRR Queue, ACL
Management and maintenance	Support Console, Telnet, WEB management, SNMP v1/v2c/v3 can be managed by Kyvision, SFTP/HTTP software update, power alarm, IP/ MAC conflict alarm, memory/CPU utilization alarm, port alarm, ring alarm, port traffic alarm, CRC and packet loss rate alarm, SFP port rx power alarm, loop detection, RMON, port mirroring, Syslog, LLDP, Link-check
IP management	Support DHCP server/snooping/client, DHCP Option 82 Support ARP
Clock management	Support SNTP Client Support IEEE802.1AS, IEEE1588

Technical parameter	
Standard	IEEE 802.3i (10Base-T) IEEE 802.3u (100Base-T and 100Base-FX) IEEE 802.3ab (1000Base-T) IEEE 802.3z (1000Base-SX/LX) IEEE 802.3ad (Link aggregation) IEEE 802.3x (flow control) IEEE 802.1p (priority) IEEE 802.1Q (VLAN) IEEE 802.1d (STP) IEEE 802.1w (RSTP) IEEE 802.1s (MSTP) IEEE 802.1x (Network Access Control) IEEE 802.1ab (LLDP) IEEE1588 (PTP V2) IEEE 802.1AS IEEE 802.1Qbv IEEE 802.1Qcc IEEE 802.1Qbu IEEE 802.1Qci
Switching property	
Priority Queues	8
VLAN Number	4K
VLAN ID	1~ 4094
Multicast Group Number	8K
MAC Table	16K
Packet Buffer	1Mbit
Packet Forwarding Rate	47.6Mbps
Switching Delay	< 5μs
Jumbo Frame	9.6Kbytes
Port	12GE: 12×10/100/1000Base-T(X) RJ45 ports 4X8GX8GE: 4×10GBase-X SFP+ 8×100/1000Base-X SFP 8×10/100/1000Base-T(X) RJ45 ports 2GX8GE 2×100/1000Base-X SFP ports 8×10/100/1000Base-T(X) RJ45 port
Console Port	RS232,RJ45
Alarm Port	3-pin 5.08mm-spacing plug-in terminal block, 250VAC/220VDC Max, 2A Max

LED	
Front panel LED	Running LED :Run Alarm LED :Alarm Power LED :PWR1,PWR2 Ring LED :Ring Interface LED :Link/ACT,Speed (copper port) Link/ACT(fiber port)
Button	Reset: Support restart and restore the default configuration
Power	
Power Input	HV Model: 220AC L2-L2 Model: 24DCW(18-72VDC)
Input Terminal	5-pin5.08mm
Power Consumption	<25W
Overload Protection	Support
Reverse Protection	Support
Redundant Protection	Support
Physical Characteristics	
Housing	Metal
Cooling	Natural cooling, fanless
Protection Class	IP40
Weight	< 1.25Kg
Mounting	DIN rail or wall-mounting
Environment Limits	
Operating Temperature	-40°C ~ 75°C
Storage Temperature	-40°C ~ 85°C
Ambient Relative Humidity	5 ~ 95% (non-condensing)
Warranty	MTBF > 300000h
Industrial Standards	
EMI	FCC CFR47 Part 15,EN55022/CISPR22,Class A
EMS	IEC61000-4-2(ESD) ±8kV(contact),±15kV(air) IEC61000-4-3(RS) 10V/m(80MHz ~ 2GHz) IEC61000-4-4(EFT) Power Port:±4kV; Data Port:±2kV IEC61000-4-5(Surge) Power Port:±2kV/DM,±4kV/CM; Data Port:±2kV IEC61000-4-6(CS) 10V(150kHz ~ 80MHz)
Machinery	IIEC60068-2-6 (vibration) IEC60068-2-27 (shock) IEC60068-2-32 (free fall)

Ordering Information

Model	Description
SICOM3000TSN-12GE-HV	12×10/100/1000Base-T(X) RJ45 ports: 220VDC power input
SICOM3000TSN-4X8GX8GE-L2-L2	4×10GBase-X SFP+ interface, 8×100/1000Base-X SFP ports, 8×10/100/1000Base-T(X) RJ45 port, 24-48VDC redundancy power input
SICOM3000TSN-2GX8GE-L2-L2	2×100/1000Base-X SFP interface, 8×10/100/1000Base-T(X) RJ45 port, 24-48VDC redundancy power input