

# SICOM6524

## Layer 3 24G Port Full Gigabit Managed Rack Mountable IEC61850 Backbone Switch



- 24G full Gigabit fiber/RJ45 optional ports
- Supports RIP, OSPF, BGP layer 3 routing protocols
- Supports DT-Ring protocols
- Patented heat dissipation technology, fanless design
- IP40 protection class
- EMC performance reaches industrial level 4



### Overview

SICOM6524 is a 24G port layer 3 core industrial Ethernet switch specifically designed to operate stably in electrically harsh and climatically demanding industrial environments. It offers up to 24 Gigabit SFP ports or 10/100/1000Base-T(X) ports. The redundant function of optical fiber network, independent entire network management channel and entire network real-time management system provide multiplex guarantee for reliable operation of the system.

### Features & Benefits

- Redundancy Technology: supports DT-Ring protocols (recovery time<50ms), MSTP and VRRP
- Multicast Protocol: supports IGMP, IGMP Snooping, PIM-SM, PIM-DM, DVMRP
- Routing Protocol: supports RIPv1/v2, OSPFv2, BGPv4 and static routing protocol
- Network Partition: supports VLAN, GVRP
- Service Quality: supports QoS
- Bandwidth Management: supports port trunking, port speed limit, broadcast storm control
- Network Management and Monitoring: supports CLI, Telnet, WEB management methods, Kyvision centralized management, SNMPv1/v2, RMON, LLDP, SNTP, DHCP
- Network Security: supports ACL
- Device Management: supports FTP/TFTP upgrade, also supports Syslog upload and download
- Device Maintenance: supports port mirroring
- Alarm Output: supports port and ring alarms

### Technical Specifications

#### Standard

IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE802.3ac, IEEE 802.3ad, IEEE 802.3z, IEEE 802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1s

#### Protocols

DT-Ring, DT-Ring+, DT-VLAN, MSTP, VRRP;  
IGMP, IGMP Snooping, PIM-SM, PIM-DM, DVMRP; RIPv1/v2, OSPFv2, BGPv4;  
VLAN, GVRP;  
Telnet, HTTP, SNMPv1/v2, RMON, LLDP, BootP, SNTP, DHCP  
server/relay/client;  
ACL;  
FTP, TFTP, Syslog;  
ARP, QoS, LACP

#### Switch Properties

Priority Queues: 8  
Number of VLANs: 4K  
VLAN ID: 1-4094  
Number of Multicast Groups: 256  
Routing Table: 30K  
MAC Table: 16K  
Packet Buffer: 512Mbit  
Packet Forwarding Rate: 35.7Mpps  
Switching Delay: <5μs

#### Interface

Gigabit Ethernet Port Combinations:

- 1) 4 combo 1000Base SFP slots or 10/100/1000Base-TX ports, and 20 10/100/1000Base-TX ports
  - 2) 4 combo 1000Base SFP slots or 10/100/1000Base-TX ports, and 20 1000Base SFP slots
- Console Port: RS232 (RJ45 connector)

**LED**

LEDs on Front Panel:  
Running LED: Run  
Power LED: PWR1, PWR2  
Interface LED: Link, ACT

**Transmission Distance**

Twisted Pair:  
100m (Standard CAT5, CAT5e network cable)  
Multi Mode Fiber:  
850nm, 550m (1000M)  
Single Mode Fiber:  
1310nm, 10km/40km (1000M)  
1550nm, 60km/80km (1000M)

**Power Requirements**

Power Input:  
24DC (18-36VDC), 48DC (36-72VDC), 110DC (77-150VDC), 220AC/DC (85-265VAC/120-375VDC)  
Power Terminal:  
5-pin 5.08mm-spacing plug-in terminal block  
Power Consumption: <58.6W

Overload Protection: Support  
Reverse Connection Protection: Support  
Redundancy Protection: Support

**Physical Characteristics**

Housing: Aluminum, fanless  
Protection Class: IP40  
Dimensions (WxHxD):  
482.6x44x375 mm (19x1.73x14.76 in.)  
Weight: 5.5kg (12.125 pound)  
Mounting: 19 inch 1U Rack mounting

**Environmental Limits**

Operating Temperature: -40 to 85°C (-40 to 185°F)  
Storage Temperature: -40 to 85°C (-40 to 185°F)  
Ambient Relative Humidity: 5 to 95% (non-condensing)

**MTBF**

342,000 hrs

**Warranty**

5 years

**Approvals**

CE, FCC

**Industrial Standard**

EMI:  
FCC CFR47 Part 15, EN55022/CISPR22, Class A

**EMS:**

IEC61000-4-2 (ESD):  $\pm 8\text{kV}$  (contact),  $\pm 15\text{kV}$  (air)  
IEC61000-4-3 (RS): 10V/m (80MHz-2GHz)  
IEC61000-4-4 (EFT): Power Port:  $\pm 4\text{kV}$ ; Data Port:  $\pm 2\text{kV}$   
IEC61000-4-5 (Surge): Power Port:  $\pm 2\text{kV/DM}$ ,  $\pm 4\text{kV/CM}$ ; Data Port:  $\pm 2\text{kV}$   
IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)  
IEC61000-4-8 (Power frequency magnetic field): 100A/m (cont.), 1000A/m (1s-3s)  
IEC61000-4-9 (Pulsed magnetic field): 1000A/m  
IEC61000-4-10 (Damped oscillation): 100A/m  
IEC61000-4-12 (Oscillatory wave): 2.5kV/CM, 1kV/DM  
IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V (1s)

**Machinery:**

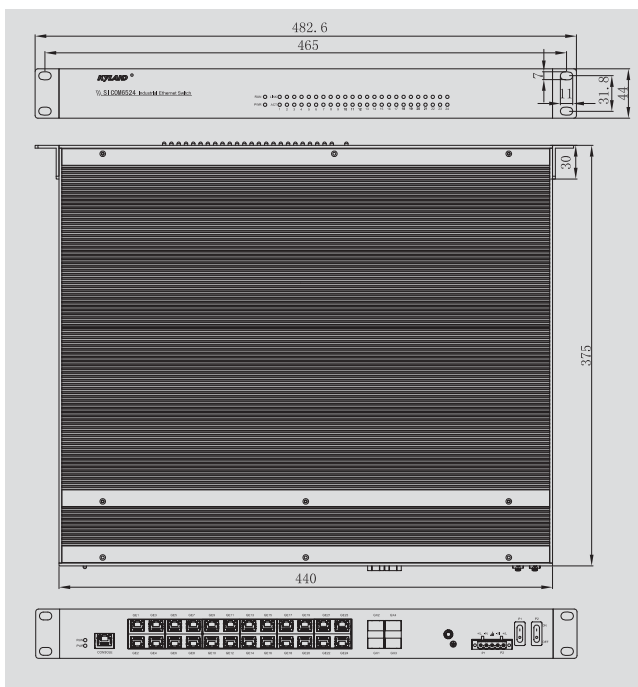
IEC60068-2-6 (Vibration)  
IEC60068-2-27 (Shock)  
IEC60068-2-32 (Free Fall)

**Industry:** IEC61000-6-2

Power: IEC61850-3, IEEE1613

Railway: EN50155, EN50121-4

Traffic Control: NEMA TS-2

**Mechanical Drawing****Ordering Information**

SICOM6524- \_\_\_\_\_ - \_\_\_\_\_  
Ports PS

**Ports: Interfaces**

4GX/GE-20GE = 4GX/GE-20GE, 4 Gigabit RJ-45/SFP combo ports (10/100/1000 Base-TX, 1000Base-X), 20 10/100/1000Base-TX RJ45 ports  
4GX/GE-20GX = 4GX/GE-20GX, 4 Gigabit RJ-45/SFP combo ports (10/100/1000 Base-TX, 1000Base-X), 20 Gigabit SFP ports

**PS: Power supply (Only single power supply is supported)**

24DC = 18-36VDC  
48DC = 36-72VDC  
110DC = 77-150VDC  
220AC/DC = 85-265VAC/120-375VDC

**Example Order Codes**

SICOM6524-4GX/GE-20GE-24DC  
4 Gigabit combo ports, 20 Gigabit SFP ports, 24DC(18-36VDC)power supply