

# SICOM6800-2U

## 10 Gigabit Layer3 Backbone Modular Switch



### » Overview

SICOM6800-2U is a 2U rackmount device in the SICOM6800 series. SICOM6800-2U is a Layer3 network management Ethernet switch designed for high industrial control safety requirements. SICOM6800-2U is a modular switch, the chassis can provide 8 10 Gigabit SFP ports+16 Gigabit RJ45 ports, support 4 hot-swappable modules. Each module can provide 8 Gigabit SFP or RJ45 ports, SICOM6800-2U support hot-swappable high-voltage or low-voltage power modules, provide rich convenience for selection and application. SICOM6800-2U support rich Layer 2 software features such as port, VLAN, QinQ, multicast, QoS, and redundancy protocol. It support Layer3 functions such as static routing, OSPF, PIM, VRRP, and support IPv4 and IPv6 protocols. It also support rich maintenance methods and security protection functions. It supports hardware based 1588 time synchronization with a time accuracy of  $\pm 100\text{ns}$ , and supports multiple management methods such as Console, Telnet, Web, and SNMP based network management software, It can be widely applied in backbone communication systems in various industries.

### » Key Features

Support up to 8 10 Gigabit ports and 48 Gigabit ports

Modular design, Ethernet module and power module support hot-swappable

Support DRP/DHP redundancy protocol based on IEC62439-6, with recovery time < 20ms

Support rich diagnostic methods such as DDM, NQA, sflow, BFD, DLDP, etc

Support hardware based 1588 timing protocol with timing accuracy of  $\pm 100\text{ns}$

Support massive frame transmission, with a packet buffer of up to 48Mbit, ensuring efficient and stable video transmission

## Product Specifications

### > Software Function

#### - Switch Function

Support VLAN, PVLAN

Support GVRP

Support QinQ

Support Link aggregation

Support Port Control

Support Port Limit

Support Broadcast Storm Control

#### - Redundancy Protocol

Support DT-Ring, DT-Ring+, Recovery time < 50ms

Support DRP/DHP, Recovery time < 20ms

Support ERPS(G.8032)

Support STP/RSTP/MSTP

Support MRP(Pending)

Support VRRP

#### - Multicast

Support IGMP-snooping

Support GMRP

Support Static Multicast

Support Unknown Multicast Control

Support IGMP v1/v2/v3

Support Static Multicast Routing

Support PIM-DM , PIM-SM

**-Routing**

Support Static Routing

Support OSFP

Support RIP

Support IPv4/ IPv6

Support Policy Routing

**-Security**

Support IEEE 802.1x

Support ARP trust

Support HTTPs/SSL

Support SSH

Support SFTP

Support RADIUS

Support TACACS+

Support IP+MAC+VLAN+Port Binding

Support Unicast MAC Filter

Support Application Layer Port Protection & Attack Prevention

Support User Classification

Support advanced identity authentication policy

Support advanced password management policy

Support Secure access to IP

**-Service Quality**

Support QoS, 802.1p(CoS), DSCP

Support SP, WRR queue scheduling

Support ACL

Support port and protocol based data flow control and restriction

**-Management and Maintenance**

Supports Console, Telnet, WEB management methods

Supports SNMPv1/v2c/v3, Kyvision centralized management

Support Loopback Interface  
Support IPv6 address based management  
Support software upgrade by FTP/TFTP/HTTP/HTTps  
Support LLDP  
Support RMON  
Support Port Mirror & Remote Port Mirror  
Support Syslog  
Support LLDP  
Support Link-check  
Support CRC Detection  
Support Automatic Configuration Backup and Restore

**-Diagnostic**

Support Internal hardware self-test  
Support Power alarm, IP/MAC conflict alarm, Memory/CPU usage alarm, Port alarm, Ring alarm, Port traffic alarm, CRC error and packet lose alarm, SFP port RX power alarm and TX power alarm  
Support DDM  
Support Syslog  
Support NQA  
Support Sflow  
Support BFD  
Support DLDP  
Support Link-check

**-IP Management**

Support IPv4  
Support IPv6  
Support DHCP server/client  
Support DHCP snooping  
Support DHCP Option66/67/82

**-Clock Management**

Support SNTP server/client  
Support NTP server/client  
Support PTPv2 , Time accuracy:± 100ns

Support Synchronous Ethernet

Support Time Zone

**>Product Specification**

**-Technical Parameter**

IEEE 802.3i(10Base-T)

IEEE 802.3u(100Base-T)

IEEE 802.3ab(1000Base-T)

IEEE 802.3z(1000Base-SX/LX)

IEEE 802.3ae(10GBase-X)

IEEE 802.3ad(Link aggregation)

IEEE 802.3x(Flow Control)

IEEE 802.1p(Priority)

IEEE 802.1Q(VLAN)

IEEE 802.1w(RSTP)

IEEE 802.1s(MSTP)

IEEE 802.1x

**-Switch Properties**

Priority Queues 8

Number of VLANs 4K

VLAN ID 1 ~ 4094

Number of Multicast Groups 1K

MAC Table 32K

Loopback interface 10

Layer3 interface 256

VRRP Group 256

Routing Table 8K

Packet Buffer 48Mbit

Packet Forwarding Rate 190.5Mpps

Switch capacity 128Gbps

Switching Delay <5μs

Jumbo frame 9.6KB

**-Interface**

10Gigabit Port 10GBase-X, SFP+ port

Gigabit Port 1000Base-X, SFP port ; 10/100/1000Base-T(X), RJ45 port

100Mbit Port 100Base-FX, SFP port

Console Port RS232, RJ45 port

Management Port RJ45 port

Alarm Contact 3-pin 5.08mm-spacing plug-in terminal block

**-Power**

Power Input 220AC/DC(85-264VAC/120-300VDC);24-48VDC(18-72VDC)

Power Terminal

5.08mm pin plug-in terminal block (low voltage); Pin head (high voltage)

Power Consumption

<85W

Overload Protection Support

Reverse Protection Support

Redundancy Protection Support

**-Physical Characteristics**

Housing Metal

Cooling Natural convection, Fanless

Protection Class IP40

Dimension 482.6mm×88mm×405mm(W×H×D)

Weight < 10kg

Installation Rackmount 2U

**-Environmental Limit**

Operating Temperature -40°C ~ +75°C

Storage Temperature -40°C ~ +85°C

Ambient Relative Humidity 5 ~ 95% (non-condensing)

**-Warranty**

MTBF >300000h

Warranty 5 years

**-Industrial Standard**

EMI

FCC CFR47 Part 15,EN55032/CISPR22,Class A

EMS

IEC61000-4-2(ESD)  $\pm 6\text{kV}$ (contact), $\pm 8\text{kV}$ (air)

IEC61000-4-3(RS)  $10\text{V/m}$ (80MHz-2GHz)

IEC61000-4-4(EFT) Power Port: $\pm 2\text{kV}$ ;Data Port: $\pm 1\text{kV}$

IEC61000-4-5(Surge) Power Port: $\pm 1\text{kV/DM}$ , $\pm 2\text{kV/CM}$ ;Data Port: $\pm 2\text{kV}$

IEC61000-4-6(CS)  $10\text{V}$ (150kHz-80MHz)

IEC61000-4-8(Industrial frequency magnetic fields)  $100\text{A/m}$ (cont.), $1000\text{A/m}$ (1s-3s)

IEC61000-4-9(Pulsed magnetic fields)  $1000\text{A/m}$

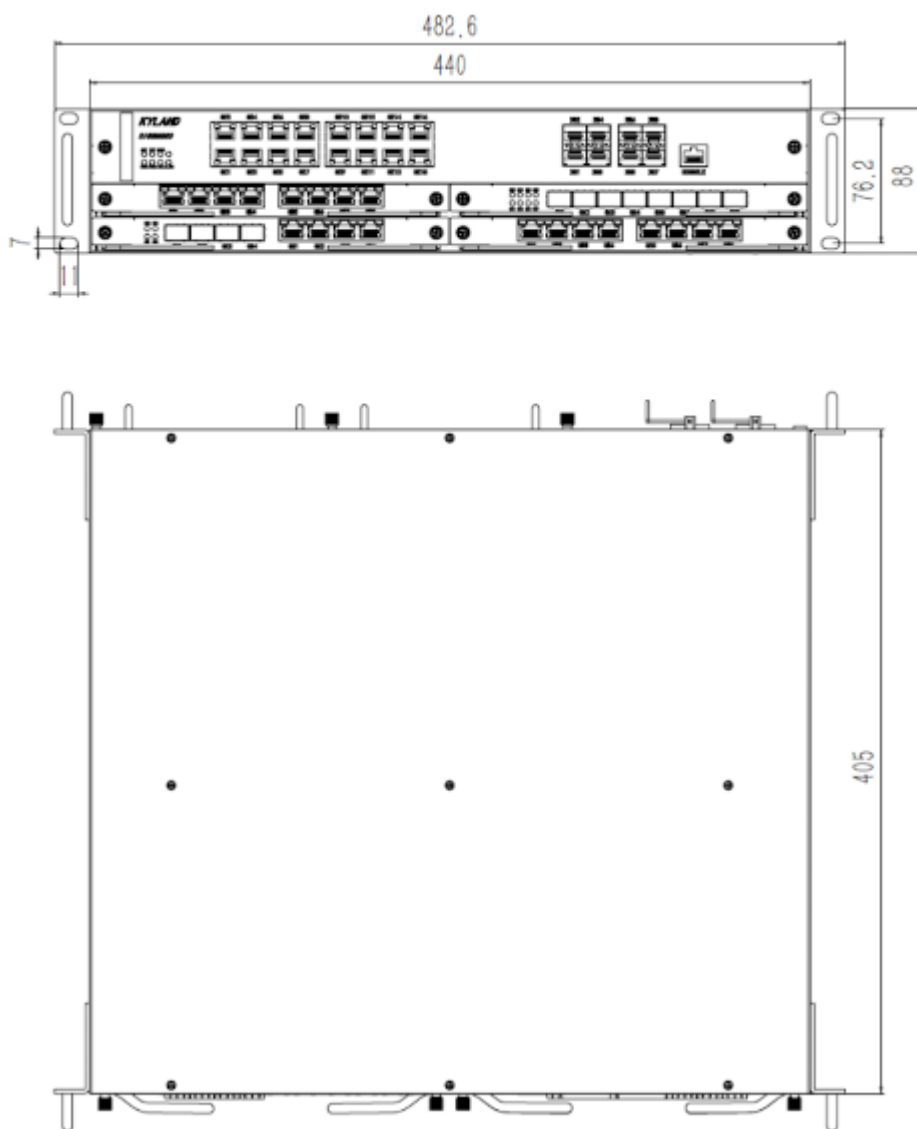
Machinery:

IEC60068-2-6(Vibration)

IEC60068-2-27(Shock)

IEC60068-2-32(Freefall)

 **Mechanical Drawing**



## » Ordering Information

Classis Model	Description
SICOM6800-2U-8X16GE-MB	2U Classis; 8×10GBase-X,SFP+ ports;16×10/100/1000Base-T(X),RJ45 ports
SICOM6800-2U-16GE-MB	2U Classis;16×10/100/1000Base-T(X),RJ45 ports
<b>Ethernet Module ( Optional,0-4 can be choosen )</b>	<b>Description</b>
SM6.8-8GX-0.5U	Ethernet Module , 8×1000Base-X,SFP port , Support Hot-Swappable
SM6.8-8GE-0.5U	Ethernet Module , 8×10/100/1000Base-T(X),RJ45 ports , Support Hot-Swappable
<b>Power Module ( Must,1-2 can be choosen )</b>	<b>Description</b>
SM6.8-PS-HV	100-240VAC,50/60Hz;110-220VDC(85-264VAC/77-300VDC) Power Module , Support Hot-Swappable
SM6.8-PS-L2	24-48VDC(18-72VDC) Power Module , Support Hot-Swappable

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