

# Aquam8012A-1U

8+2G/10 port layer 2 managed rack mountable EN50155 switches



## » Overview

The Aquam8012A-1U series managed rack mountable onboard M12 switches, specially designed for rail industries, support up to 2 Gigabit copper ports and 8 10/100Base-TX ports. Aquam8012A-1U supports a wide range of operation temperature from -40°C to +75°C, and meets the EN50155, EN50121 and other rail industry standards. The switches support redundant ring protocols including DRP and RSTP, support VLAN and GVRP, flexible networking and partitioning, multicast, video multicast, and rich network management functions including SNMP. Aquam8012A-1U series can be widely deployed in onboard PIS, CCTV systems, and industrial applications asking for anti-vibration and high EMC performance.

## » Key Features

Supports a maximum of 2 10/100/1000Base-TX and 8 10/100Base-TX ports or 10 10/100Base-TX ports

Supports M12 connectors for interface ports

Supports DT-Ring protocols, supports DRP protocols and RSTP ring network redundancy protection

Complies with the requirements of EN50155 and EN50121 industrial standards

## » Product Specifications

### >Software functions

#### -Switching

Supports VLAN,PVLAN,GVRP

Supports port trunk

Supports LACP

Supports port flow control

Supports speed limit, broadcast storm control

**-Redundancy**

Supports DRP, with the recovery time<20ms

Supports STP/RSTP/MSTP

DT-Ring/DT-Ring+

**-Multicast**

Supports IGMP-snooping

Supports static multicast

Supports GMRP

**-Network Security**

Supports user classification

Supports IEEE 802.1x

Supports TACACA+

Supports RADIUS

Supports HTTPs, SFTP client

Supports SSH

**-Service Quality**

Supports ACL

Supports SP,WRR queue scheduling

**-Management and Maintenance**

Supports Console, Telnet, WEB management methods

Supports SNMPv1/v2c/v3,Kyvison centralized management

Supports RMON

Supports software upgrade by TFTP/HTTP

Supports IP/MAC conflict alarm, power supply alarm, port alarm, ring alarm

Supports port mirroring

Supports Syslog

Supports LLDP

**-IP Management**

Supports DHCP server/ client/snooping option 82

**-Clock management**

Supports SNTP Client

**>Product Specifications**

**-Standards**

IEEE 802.3i(10Base-T)

IEEE 802.3u(100Base-TX)

IEEE 802.3ab(1000Base-T)

IEEE 802.3x(Flow control)

IEEE 802.1p(Class of Service)

IEEE 802.1Q(VLAN)

IEEE 802.1w(RSTP)

IEEE 802.1X

**-Switch Properties**

Priority Queues 8

Number of VLANs 4K

VLAN ID 1–4093

Number of Multicast Groups 64

MAC Table 8K

Packet Buffer 4Mbit

Packet Forwarding Rate 4.2Mpps

Switching Delay <10us

**-Interface Slots**

Gigabit Port

10/100/1000Base-T(X), M12 connector (X-code)

Fast Ethernet Port

10/100Base-T(X), M12 connector (D-code)

Console Port RS232, RJ45 port

**-LED**

LED on front panel

Running LED: Run

Ring LED: Ring

Power LED: PWR1, PWR2

Interface LED: Link/ACT

**-Power Requirements**

Power Input 110VDC(77-110VDC)

Power Terminal 5-pin 5.08 mm-spacing

Power Consumption < 15W

Overload Protection Support

Reverse Connection Protection Support

Redundancy Protection Support

**-Physical Characteristics**

Housing Metal

Cooling Nature cooling, fanless

Protection Class IP40

Dimensions 483mm×44mm×185mm

Weight <3kg

Mounting 1U rack mountable

**-Environmental Limits**

Operating Temperature -40°C to +75°C

Storage Temperature -40°C to +85°C

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

**-Warranty**

MTBF 2299386 hrs

Warranty 5 years

**-Approvals**

CE, EN50155, EN50121, EN45545

**-Industry Standard**

EMI

FCC CFR47 Part 15,EN55022/CISPR22,Class A

EMS

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

IEC61000-4-3 (RS) 20V/m (80MHz-2GHz)

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

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

IEC61000-4-6 (CS) 10V (150kHz-80MHz)

IEC61000-4-8(Power frequency magnetic field)50Hz 100A/m

IEC61000-4-9(Pulsed magnetic field )300A/m

IEC61000-4-29 (Voltage Short interruptions) 10ms 100%

Safety

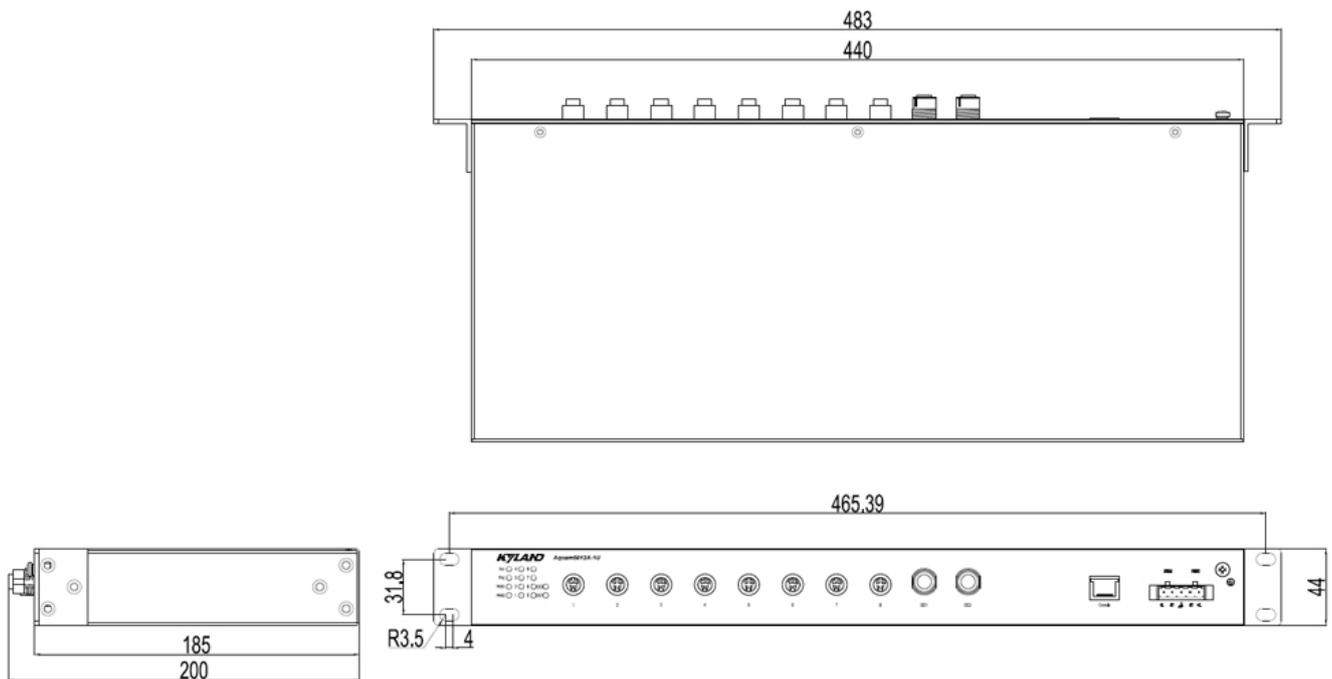
EN60950-1

Machinery

IEC61373 (Vibration and Shock)

IEC60068-2-32 (Free Fall)

» Mechanical Drawing



**» Ordering Information****Aquam8012A-Ports-PS1-PS2****Ports**

10T 10 x 10/100BASE-T(X) M12 ports

2GE8T 2 x 10/100/1000BASE-T(X) M12 ports; 8 x 10/100BASE-T(X) M12 ports;

**PS1-PS2**

H2-H2 110VDC(77-154VDC), redundant power inputs

**Accessories**

M12-D-4P-M 100M port connector, M12, D-Coding, 4 Pin male, 10/100Base-TX interface Connector

M12-X-8P-M Gigabit port connector, M12, X-Coding, 8 Pin male, 10/100/1000Base-TX Connector

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