

Aquam8012A-1U

2G+8T/10T port Layer 2 Gigabit Managed EN50155 Industrial Ethernet Switches

- Supports 10 10/100Base-TX ports or 2 Gigabit copper ports + 8 10/100Base-TX ports
- M12 connector
- Supports DT-Ring, DRP and RSTP ring redundancy protocols
- Complies with EN50155 & EN50121

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.

Software functions

Switching Function

- Supports VLAN,PVLAN
- Supports GVRP
- Supports port trunking
- Supports LACP
- Supports port flow control
- Supports speed limit, broadcast storm control

Redundancy Protocol

- Supports DT-Ring, DT-Ring+ with the recovery time<50ms
- Supports DRP/DHP with the recovery time<20ms
- Supports STP/RSTP/MSTP

Multicast Protocol

- Supports IGMP-snooping
- Supports GMRP (pending)
- Supports static multicast

Network Security

- Supports IEEE 802.1x
- Supports HTTPs/SSL, SFTP Client(pending)
- Supports SSH
- Supports RADIUS (pending)
- Supports TACACA+
- Supports user classification

Service Quality Management

- Supports ACL
- Supports SP,WRR queue scheduling

Management & Maintenance

- Supports Console,Telnet,WEB management methods
- Supports SNMPv1/v2c/v3,Kyvison centralized management
- Supports software upgrade by FTP/TFTP
- Supports RMON(pending)
- Supports IP/MAC conflict alarm, power failure alarm, port alarm and ring alarm
- Supports port mirroring
- Supports Syslog
- Supports LLDP

IP Address Management

- Supports DHCP server/client/option 82

Clock Management

- Supports SNTP Client

Product Specifications

Technical 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)

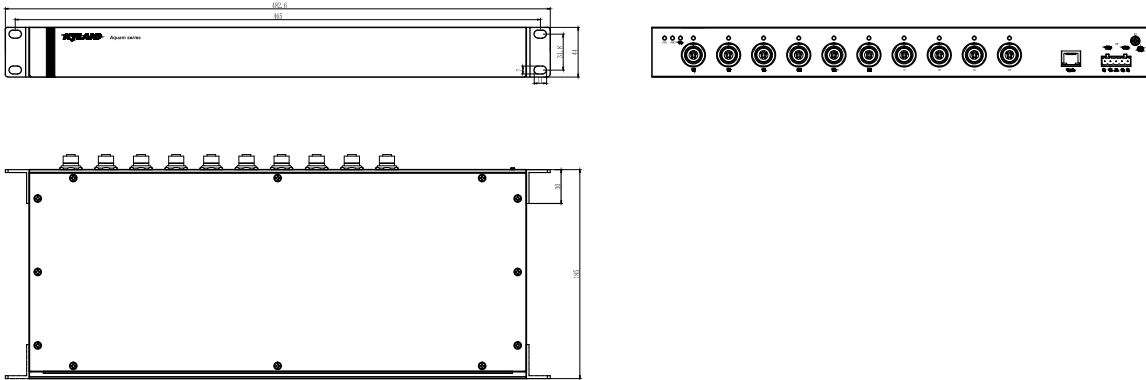
Quality Assurance

MTBF	2299286 hrs
Warranty	5 years

Industry Standard

- EMI
- ▼ FCC CFR47 Part 15,EN55022/CISPR22,Class A
- EMS
- ▼ IEC61000-4-2 (ESD) ±6kV (contact), ±8kV (air)
 - ▼ IEC61000-4-3 (RS) 20V/m (80MHz-2GHz)
 - ▼ IEC61000-4-4 (EFT) Power Port: ±2kV; Data Port: ±2kV
 - ▼ IEC61000-4-5 (Surge) Power Port: ±1kV/DM, ±2kV/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



Product Specifications

Panel Mounting	Aquam8012A-Ports-PS1-PS2
Port	
10T	10 x 10/100BASE-T(X) M12 port
2GE8T	2 x 10/100/1000BASE-T(X) M12 port; 8 x 10/100BASE-T(X) M12 port;
PS1-PS2	
H2-H2	110VDC(77-154VDC), redundant power supplies

Accessories

Accessory Model	Description
M12-D-4P-M	100M port connector, M12, D-Coding, 4 Pin male
M12-X-8P-M	Gigabit port connector, M12, X-Coding, 8 Pin male