

AGENT-2 S30D



Managed Hardened 8-port 10/100BASE + 2-port GbE Advanced Ethernet Switches with SFP options

Overview

Designed for rugged environments, this hardened Line of Switches comes with eight 10/100BASE-TX FX/BX/SFP plus two 10/100/1000BASE-TX and/ or 1000BASE-SX/LX/BX/SFP ports in a package. This Line of Switches functions at temperatures ranging from -40°C to 75°C (-40°F to 167°F). Fully managed via SNMP, Web Browser, Telnet or Console port, this systems are designed to integrate 10/100 Mbps networks into Gigabit backbones. This Line also supports advanced features such as 802.1Q VLAN, MAC-based Trunking, IP Multicast IGMP Snooping, Rapid Spanning Tree for Redundancy, QoS for priority queuing, and port mirroring. Users may choose among SNMP/RMON, Web browser, or Telnet for remote monitoring and configuration. These systems also support rate control, which allows users to set the maximum bandwidth on each port individually.

Features

- Complies with EN50121-4 Environmental requirement for Railway applications
- Complies with NEMA TS1 & TS2 Environmental requirements for Traffic control equipment
- Complies with IEC61000-6-2 EMC Generic standard immunity for Industrial environment
- Support for ring network redundancy; recovery time <15ms
- IEEE802.1w RSTP, IEEE802.1S MSTP and IEEE802.1D STP compatible
- IP Multicast Filtering through IGMP Snooping V1, V2 & V3
- Supports port-based VLAN and IEEE802.1Q VLAN Tagging and GVRP
- IEEE802.1p QoS with four priority queues
- MAC-based trunking with automatic link fail-over
- RS-232 console, Telnet, SSL/SSH, SNMP V1, V2c & V3, RMON, Web Browser, and TFTP Management
- Supports Command Line Interface in RS-232 Console
- Supports IEEE802.1x Security
- Bandwidth Rate Control
- Per-port programmable MAC address locking
- Up to 24 Static Secure MAC addresses per port
- Port mirroring
- 1000Mbps-Full-duplex, 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- Full wire-speed forwarding rate
- Redundant power inputs with Terminal Block and DC Jack
- -40°C to 75°C (-40°F to 167°F) operating temperature range
- Hardened aluminium case
- Supports NTP
- OPTIONAL TDM E1/T1 interface with G.703, G.704 frames and unframed interface

Technical specifications

Technology

Standards

- ▶ IEEE802.3 10Base-T, IEEE802.3u 100Base-TX/100Base-FX
- ▶ IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-SX/1000Base-LX
- ▶ IEEE802.3x, IEEE802.1p, IEEE802.1Q, IEEE802.1w, IEEE802.1x

Forward and Filtering Rate

- ▶ 14,880pps for 10Mbps
- ▶ 148,810pps for 100Mbps
- ▶ 1,488,100pps for 1000Mbps

Packet Buffer Memory: 2M bits

Processing Type

- ▶ Store-and-Forward
- ▶ Half-duplex back-pressure and IEEE802.3x full-duplex flow control

Address Table Size: 8192 MAC addresses

Power

Input Voltage

12 to 48 VDC (Terminal Block); 12VDC (DC Jack)

Power Consumption

11W Max. 0.92A@12VDC, 0.46A@24VDC

Overload Current Protection: Present

Mechanical

Casing: Aluminium case; IP 30

Dimensions

60mm (W) x 125mm (D) x 145mm (H)
(2.36" (W) x 4.92" (D) x 5.7" (H))

Weight: 1.1Kg (2.42lbs.)

Installation: DIN-Rail

Interface

Ethernet Port

- ▶ 10/100Base-TX: 8,6 or 4 port
- ▶ 100Base-FX: 0 to 4 ports
- ▶ Gigabit: 0, 1 or 2 ports

TDM E1/T1 Port: (optional)

- ▶ G.703, G.704 Framed and unframed mode
- ▶ Adaptive clock according to G.823
- ▶ Loopback facility

Console Port: One DB9 RS-232 port

LED Indicators

- ▶ Per Unit: Power Status (Power 1, Power 2, Power 3)
- ▶ Per Port: 10/100TX, 100FX: Link/Activity, Speed
10/100/1000TX, 1000SX/LX: Link/Activity, Speed

Alarm Contact

One relay output with current 1A@24VDC

Environment

Operating Temperature

-40°C to 75°C (-40°F to 167°F)
Tested @ -40°C to 85°C (-40°F to 185°F)

Storage Temperature

-45°C to 85°C (-49°F to 185°F)

Ambient Relative Humidity

5% to 95% (non-condensing)

Regulatory Approvals

ISO: Manufactured in an ISO9001 facility

Safety: UL508

EMI

- ▶ **FCC Part 15, Class A**
- ▶ **EN61000-6-4**
EN55022
EN61000-3-2
EN61000-3-3

EMS: EN61000-6-2

- ▶ **EN61000-4-2** (ESD Standards)
Contact: + / - 6KV; Criteria B
Air: + / - 8KV; Criteria B
- ▶ **EN61000-4-3** (Radiated RFI Standards)
10V/m, 80 to 3G; 80% AM Criteria A
- ▶ **EN61000-4-4** (Burst Standards)
Signal Ports: + / - 4KV; Criteria B
D.C. Power Ports: + / - 4KV; Criteria B
- ▶ **EN61000-4-5** (Surge Standards)
Signal Ports: + / - 1KV; Line-to-Line; Criteria B
D.C. Power Ports: + / - 0.5KV; Line-to-earth; Criteria B
- ▶ **EN61000-4-6** (Induced RFI Standards)
Signal Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A
D.C. Power Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A
- ▶ **EN61000-4-8** (Magnetic Field Standards)
30A/m @ 50, 60Hz; Criteria A

Environmental Test Compliance

- ▶ IEC60068-2-6 Fc (Vibration Resistance)
5g @ 10~150KHz, Amplitude 0.35mm (Operation/Storage/Transport)
- ▶ IEC60068-2-27 Ea (Shock)
25g @ 11ms (Half-Sine Shock Pulse; Operation)
50g @ 11ms (Half-Sine Shock Pulse; Storage/Transport)
- ▶ IEC60068-2-32 Ed (Free Fall)
1M (3.281ft.)