

Manged Industrial Switch AIS Series

AIS-2404-M3 / AIS-1612-M3 / AIS-O828-M3

OVERVIEW

Angustos AIS series, based on the brannew high-performance hardware and software system of Angustos's independent intellectual property rights, supports rich Layer-2/Layer-3 routing and industrial ring network protocols. AIS series adopts die-casting aluminum shell and standard 19-inch rack-mounted installation, and provides redundant wide-voltage industrial power supplies. With the reliable industrial Ethernet ring technology, its hardware-based algorithm can ensure node self-healing time less than 5 milliseconds, and the ring network self-healing time less than 50 milliseconds (typical value). Angustos AIS series, with fanless design, low power consumption, wide temperature and wide voltage in compliance with strict industry standards, can adapt to harsh environment requirements for EMC, antivibration and shock-proof capabilities, IP40 protection level. AIS series can be widely used in energy, transportation, industrial production, environmental protection, military industry.

PRODUCT FEATURES

- Lightning protection level: 6KV
- IP40 protection, industrial fanless thermal conduction.
- Supports dual 220V wide-voltage industrial power input (DC model is optional)
- Complying with industrial operation specifications
- Supports STP/EAPS/ERPS
- Supports Self-healing time less than 5 milliseconds
- Support ring network self-healing time less than 50 milliseconds.
- Supports layer-3 static routing, dynamic routing (RIP, OSPF)
- Support Virtual Router Redundancy Protocol (VRRP).Supports virtual stacking
- Supports to form a self-healing ring between any two ports
- supports multiple independent selfhealing rings
- Provides Data Leakage Prevention (DLP), to quickly recover from network failures.
- Supports simple network management protocol (SNMP) and cloud-based operating platform (COP).
- The MTBF is over 800,000 hours.



VLAN

- 4K Active VLAN,
- QinQ & Selective QinQ,
- GVRP, Private VLAN,
- Voice VLAN

Multicast

- IGMP v1/2/3
- IGMP Snooping
- IGMP Fast Leave
- Multicast group policy
- Multicast number limit

DHCP

- DHCP Sever/Relay
- DHCP Client
- DHCP Snooping

IP

- Static route, RIP, OSPF
- IPv4/v6 dual stack

IPv6

- ICMPv6, DHCPv6, ACLv6 and Telnet
- IPv6 neighbor discovery, Path MTU discovery
- MLD V1, MLD snooping
- IPv6 Static Routing, RIPng, OSPFv3
- Manual tunnel, ISATAP tunnel, 6 to 4 tunnel

Reliability

- Static/LACP link aggregation, Interface backup
- EAPS and ERPS
- ISSU uninterrupted system upgrade
- BVSS, ups to 16-units per stack
- VRRP
- UDLD

Security

- Port isolation, Port security, and "IP+MAC+port" binding, MAC sticky
- DAI & IP source guard, PPPoE+
- IEEE 802.1x, AAA, Radius and BDTacacs+
- L2/L3/L4 ACL flow identification and
- Port security, IP+MAC+port binding filtration Anti-attack from DDoS, TCP's SYN Flood, UDP Flood, etc.
- Broadcast/multicast/unknown unicast storm-control
- MD5, SHA-256, RSA-1024, AES256, etc.

QoS

- CAR, HQoS, MAC/IP/TCP/UDP/ VLAN/ COS/ DSCP/ TOS based QoS, 802.1P/ DSCP priority re-labeling, SP, WRR, and "SP+WRR", Tail-Drop, WRED, flow monitoring and traffic shaping

Spanning Tree

- 802.1D (STP), 802.1W (RSTP) and 802.1S (MSTP)
- BPDU guard, root guard and loopback guard

Management

- Console, Telnet, SSH v1/2, HTTP, HTTPS, SNMP v1/v2/v3, RMON
- TFTP, FTP, SFTP
- NTP
- ZTP
- SPAN, RSPAN
- Dying gasp*

Environment

- Operating temperature/ humidity: -40~85°C ,10%~90% non-condensing
- Storage temperature/humidity -40~85°C , 5%~95% non-condensing

Virtualization

- Support BDCOM Virtual Stacking System (BVSS)
- Up to 16 stacking units

Manged Industrial Switch AIS Series

AIS-2404-M3 / AIS-1612-M3 / AIS-O828-M3

SPECIFICATION

	AIS-2404-M3	AIS-1612-M3	AIS-0820-M3
Interface	24 Gigabit TX ports 4 Gigabit SFP ports	16 Gigabit TX ports 8 TX/SFP combo ports 4 GE/10GE SFP+ ports	16 Gigabit SFP ports 8 TX/SFP combo ports 4 GE/10GE SFP+ ports
Console	1x RJ45 port	1x RJ45 port	1x RJ45 port
Backplane	128 Gbps	128 Gbps	128 Gbps
Forwarding Rate	42 Mpps	96 Mpps	96 Mpps
Jumbo Frame / Buffer size		9K / 12MB	
Power Input		Dual AC or DC 100~240V	
Operational	Temperature	-40~75°C	
	Humidity	0%-90% non-condensing	
IEEE802.3ac	Max frame size extended to 1522Bytes (allow Q-tag in packet)		
MAC Address Table	16K		
Flash / DRAM	16MB (Flash) / 256MB (DRAM)		
Standard	IEEE 802.3 / IEEE 802.3u / IEEE 802.3ab / IEEE 802.3z / IEEE 802.3cb / IEEE 802.3af / IEEE 802.3at IEEE 802.ac / IEEE 802.3ad / IEEE 802.3ah / IEEE 802.3x / IEEE 802.3az IEEE 802.1d / IEEE 802.1w / IEEE 802.1s / IEEE 802.1Q / IEEE 802.1X / IEEE 802.1ad / IEEE 802.1p IEEE 802.1ab / IEEE 802.1ae / ITU-T G.8032/Y.1344		
Forwarding mode	Store-forward		
Certification	CE, FCC, UL60950-1		
Total SVI	64		
MTBF (Hours)	>800,000		
Power consumption	no-load full-load	13.5W 30.05W	15.5W 33.25W
Total Output BTU (1000BTU/H=293W)		102.56	113.48
Dimensions (WxDxH)(mm)		440x280x44	440x280x44
Weight (kg)		2.6	2.7
			3

Manged Industrial Switch

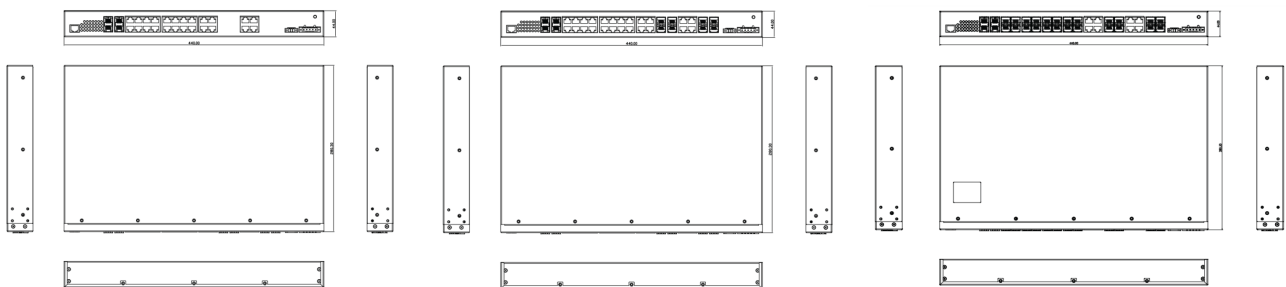
AIS Series

AIS-2404-M3 / AIS-1612-M3 / AIS-O828-M3

AIS-2404-M3

AIS-1612-M3

AIS-0828-M3



440 x 280 x44 (mm)

Optical Module

**Other module available upon request*

AS-SFP-CO	GE SFP single to RJ45 module
AS-SFP-SX-D	GE SFP MM (500m,850nm,LC,DDM)
AS-SFP-LX-10-D	GE SFP SM (10Km,850nm,LC,DDM)
AS-SFP-LX-20-D	GE SFP SM (20Km,850nm,LC,DDM)
AS-SFP-LX-40-D	GE SFP SM (40Km,850nm,LC,DDM)
AS-SFP-LX-SM-90-80-BD	GE SFP SM (80Km,TX1490/RX1550,LC,DDM)
AS-SFP-LX-SM-50-80-BD	GE SFP SM (80Km,TX1550/RX1490,LC,DDM)

Optical Module - Industrial

AS-SFPI-SM-1310-20-Bi	Industrial Gigabit SFP, two-way, single-mode (20Km, TX1310nm/RX1550nm, LC, DDM)
AS-SFPI-SM-1550-20-Bi	Industrial Gigabit SFP, two-way, single-mode (20Km, TX1550nm/RX1310nm, LC, DDM)
AS-SFPI-SM-20-D	Industrial 1000M SFP single-mode (20Km, 1310nm, LC, DDM)