AMG560 SERIES INDUSTRIAL 20 PORT MANAGED LAYER 2 SWITCHES

Industrial Ethernet Solutions

AMG's fully managed layer 2 Ethernet switches provide 100Mbps, Gigabit and 10 Gigabit Ethernet switching for industrial edge network applications. Available with 8x RJ45 Gigabit ports along with 8x 100Mb/1 Gigabit SFP ports & 4x Gigabit SFP ports or 4x 1/10 Gigabit SFP+ ports.

Gigabit x8	100/1000 x8	SFP Gigabit up to x4	SFP+ 1/10 Gb up to x4	Managed Layer 2	Secure 802.1x	USB x1	Temp -40°C~+75°C	Mounting DIN/Surface	PSU x2 Dual	NDAA/TAA Compliant

[AMG560-8G-12S]

OVERVIEW

AMG560 20 port series layer 2 managed industrial Ethernet switches are designed in a DIN rail or wall mount housing and have 20 Ethernet ports in total. 8 Gigabit Ethernet RJ45 ports plus an additional 8 100Mb / 1 Gigabit SFP ports and 4 1 Gigabit or multi-rate SFP/SFP+ ports providing up to 10Gb speeds for data uplink and backbone connectivity. Fiber connectivity is determined by separate SFP device selection, providing application and site flexibility.

The AMG560 20 port series support a wide range of layer 2 management functions such as Rapid Spanning Tree, Multiple Spanning Tree & Ethernet Ring Protection Switching (ERPS) protocols for network redundancy. IGMP functionality is supported to handle the multicast traffic which is commonly used in IP CCTV deployments.

SFPs and PSUs need to be ordered separately.

FEATURES

— Compact size - ideal for confined spaces, including camera poles and roadside cabinets

— -40°C to +75°C temperature maintains performance in extreme conditions

— DIN rail or wall mountable - quick to install and remove for maintenance

— Compliant with all IEEE 802.3 speeds (i/u/ab/z/ae)

— Dual Speed SFP+ ports (up to 10Gb Speed)

— Supports RSTP, MSTP, ERPS, SNMP v1-3 and IGMP v1-3

— IEEE 802.1x port security enabled

— Supports up to 9.2K bytes jumbo frames

— Supports large number of SFP ports for fiber concentration points

— USB port for configuration free replacement

— AMG Lifetime Support Warranty

Specifications.

Standards.

IEEE 802.3i	10Base-T
IEEE 802.3u	100Base-TX & 100Base-FX
IEEE 802.3ab	1000Base-T
IEEE 802.3z	1000Base-X
IEEE 802.3ae	10GBase-R
IEEE 802.3x	Flow Control
IEEE 802.3ad	Port Trunk with LACP
IEEE 802.1D	Spanning Tree (STP)
IEEE 802.1w	Rapid Spanning Tree (RSTP)
IEEE 802.1s	Multiple Spanning Tree (MSTP)
IEEE 802.1p	QoS Priority Marking
IEEE 802.1Q	VLANs
IEEE 802.1X	Port Security
IEEE 802.3AB	LLDP
RFC1112	IGMP v1
RFC2236	IGMP v2
RFC3376	IGMP v3
RFC2030	Simple Network Time Protocol (SNTP)
RFC2131	Dynamic Host Configuration Protocol (DHCP)
ITU-T G.8032	Ethernet Ring Protection Switching (ERPS)
IEEE 1588v2	Precision Time Protocol (PTP)
	OC (Software Timestamp)
	TC (Hardware Timestamp)

Hardware Features.

Architecture	Store-and-Forward
Switch Latency	<7µs
Switch Fabric	40Gbps (1GB Models)
	112Gbps (10GB Models)
Address Table	16K MAC entries
Buffer Memory	12M bits
Jumbo Frames	9.2K bytes
VLAN's	4K
VLAN IP Entries	64
IGMP Groups	512
ACL Groups	512
Throughput	16.86Mpps (1GB Models)
	71.42Mpps (10GB Models)
Priority Queues	8
Bandwidth Control	Ingress Packet Filter and Egress Rate Limit

Software Features.

Redundancy	STP, RSTP, MSTP, ERPS (G.8032)
VLAN	802.1Q
	Port Based VLAN
	Q-in-Q
LACP	Link Agrregation Control Protocol
SFP Monitoring	DDM
IGMP Snooping	v1/v2/v3
IGMP Querier	

Security.

Port Security	MAC-based
Storm Control	Rate Limiting
802.1x	RADIUS Authentication
TACACS+	
HTTPS/SSL	SSH v2.0
Access Control Lists (ACL)	
DHCP Snooping	

Management.

DHCP	Client / Server / Relay
	Option 66/67/82
Event/Error Log	Syslog Client
	SMTP E-Mail
	USB
Management Access	SNMP
	Web GUI
	Telnet / SSH v2.0
	CLI, uPnP
SNMP	v1/v2c/v3
RMON	1/2/3/9 Groups
Port Mirroring	
Software Update	HTTP/HTTPS/USB
Config Export /Import	
SNTP	Client
LLDP	Link Layer Discovery Protocol
Time Zone & Daylight Savings	
Industrial Profiles	Modbus TCP
	Ethernet/IP
	Profinet
IPv4 & IPv6	

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Specifications.

QoS.

Class of Service	802.1p QoS & DSCP
Rate Limiting	Ingress / Egress
Priority Queue	WRR / Strict Priority

Alarms/Contact Closures.

Inputs	1x Digital Input (Isolated)
Input Current	8mA Max
State 1	+13 to +30V
State 0	-30 to +3V
Outputs	1x Relay Output
Type	Form A
Output Rating	$24V_{DC}$ @ 1A

Interface.

LED Indicators	2x Power
	Fault
	Ring State
	Ring Master
	SFP/SFP+ Link/Activity
	RJ45 Link/Activity
RJ45 Ports	8x 10/100/1000T(X) RJ45 with Auto MDI/MDI-X and 1.5 kV Isolation Protection
SFP Slot	8x 100/1000FX SFP and 4x 1000FX SFP or
SFP+ Slot	4x 1/2.5/10G SFP+
Power	1x 4 pin removable terminal
DI/Relay	1x 4 pin removable terminal
Serial Console	1x RJ45
Config/Firmware	USB Type A
Reset	Ultra-small Tactile Switch

Power.

Power Inputs	2
Operating Voltage	$12\text{-}56V_{DC}$
Power Consumption	17 Watts Max (1Gb Model)
	20 Watts Max (10Gb Model)
Protection	Reverse Polarity
	Overload Current

USB.

Firmware Update
Configuration Backup / Restore
Boot Up & System Log

Mechanical.

Housing	Aluminium
Dimensions:	(W x D x H)
	91 × 118 × 145 mm
	3.58 × 4.65 × 5.71 in
IP Rating	IP30
Installation	Wall Mount or DIN-Rail
Weight	1.38kg / 3.04lb

Environmental.

Operating Temp.	-40°C to +75°C (With 1Gb SFP's)
	-40°C to +60°C (With 10Gb SFP's)
Storage Temp.	-40°C to +85°C
Humidity	5% to 95% (non-condensing)
MTBF	>100,000 hours
MTBF Standard	Telcordia (Bellcore) GB
Heat Dissipation	58 BTU/h (1Gb Models)
(with max PoE Load)	68 BTU/h (10Gb Models)
Cooling	Passive
Efficiency	>90%

Regulatory.

Safety	CE/EN62368
EMI	EN55032 Class A
	FCC Part 15B Class A
EMS	EN61000-4-2 (ESD)
	EN61000-4-3 (RS)
	EN61000-4-4 (EFT)
	EN61000-4-5 (Surge)
	EN61000-4-6 (CS)
	EN61000-4-8 (PFMF)
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Rail	EN50121-4
Environmental	Reach, RoHS, WEEE
Supply Chain	NDAA & TAA Compliant

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Part Numbers.

1Gb Industrial Layer 2 Managed Switches

AMG560-8G-12S	8 × 10/100/1000TX & 8 × 1000M SFP & 4 × 100/1000M SFP

10Gb Industrial Layer 2 Managed Switches

AMG560-8G-8S-4XS	8 × 10/100/1000TX & 8 × 1000M SFP & 4 × 1G/10G SFP+

Included Accessories.

DIN Rail Adapter	Rear Mounted Metal DIN Rail Clip & Screws For DIN Rail Mounting AMG560 Series Products
Wall Mounting Brackets	2x Wall Mouting Brackets & Screws For Wall / Surface Mouting AMG560 Series Products

Recommended PSUs.

Non-PoE Models

AMGPSU-W12-P25	Plug Top Mounting Light Industrial Grade PSU, 0 to +70°C, 12VDC, 25W, UK/EU/US Plug Heads Included
AMGPSU-I12-P24A	DIN-Rail Mount Industrial Grade PSU, -25 to +70°C, 12VDC, 24W*

* Also available in kit form including mains line cord, DC cable and DIN rail. Order with -K at the end of the part code (e.g. AMGPSU-I12-P24A-K).

Optional Accessories.

AMG2035	Side Mounted Wall Bracket Adapter Kit For DIN Rail Mounting AMG560 Series Products In Depth Restricted Installations. Adapter Kit Can Be Extended Using The Included Extension Kit To Also Mount A DIN Rail Power Supply Up To 480W

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