

# AMG510-24G SERIES

## 28 PORT COMMERCIAL GRADE MANAGED LAYER 2+ SWITCH



### Commercial Ethernet Solutions

AMG's fully managed layer 2+ Ethernet switches provide 100Mbps, Gigabit and 10 Gigabit Ethernet switching for commercial network applications. Available with 24x RJ45 Gigabit ports supporting optional 30W PoE+ or 60/90W PoE++ and 4x 1/10 Gigabit SFP+ ports.



 Gigabit up to x8	 Gigabit up to x24	 Gigabit up to x24	 1/10 Gb up to x4	 Managed Full	 Secure 802.1x	 Stacking Virtual	 Temp 0 ~ +50°C	 Mounting Rack/Surface	 PSU Mains
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[ AMG510-24G Series ]

#### / OVERVIEW

AMG510 series layer 2+ managed Ethernet switches are designed for 19inch rack or desktop mounting within commercial grade applications. The AMG510-24G series has 24 Gigabit Ethernet RJ45 ports with optional IEEE 802.3at compliant 30W PoE+ or 802.3bt compliant 60/90W PoE++ and 4 multi-rate SFP+ ports that support 100Mb, 1Gb, 2.5Gb or 10Gb speeds for maximum flexibility.

AMG's industry leading virtual stacking capability greatly simplifies the installation and on-going site maintenance by providing the users with a single web GUI interface from which all switches within the virtual stack can be configured and monitored eliminating the need for multiple browser tabs and having to remember many IP management addresses. The virtual stack can be used between all AMG510 series models even when installed in dispersed physical locations.

The AMG510 series support a wide range of management functions as well as Rapid Spanning Tree, Multiple Spanning Tree and 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.

#### / FEATURES

- 19inch 1U rack or desktop/shelf mount
- 0°C to +50°C temperature for commercial grade applications
- 90-264VAC mains power input
- Compliant with all IEEE 802.3 speeds (i/u/ab/z/ae)
- Available with 802.3at or bt PoE ports up to 90W
- Multi-Rate SFP+ ports (up to 10Gb Speed)
- Supports RSTP, MSTP, ERPS, SNMP v1-3 and IGMP v1-3
- Port trunk functionality available with LACP
- IEEE 802.1x port security enabled
- Supports 9.6K bytes jumbo frames
- Virtual Stacking supported
- Layer 3 Static Routing
- AMG 3 Year 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 802.3az	Energy Efficient Ethernet
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 802.1v	VLAN Classification
IEEE 802.1X	Port Security
IEEE 802.3AB	LLDP
IEEE 802.3at	30W PoE+
IEEE 802.3bt	60 & 90W PoE
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)

## Hardware Features.

Architecture	Store-and-Forward
Switch Latency	<7µs
Switch Fabric	128Gbps
Address Table	32K MAC Entries
Buffer Memory	32M bits
Jumbo Frames	9.6K bytes
CPU	400MHz
SDRAM	1Gb
Flash	16Mb
VLAN's	4K
IGMP Groups	1024
IPv6 MLD Groups	1024
Throughput	95.24Mpps
Priority Queues	8
Bandwidth Control	Ingress Packet Filter and Egress Rate Limit

## Layer 3 Features.

Static Routing:	
Interfaces	128 Max
Routes	128 Max
DHCP	Server (IPv4)

## Software Features.

Redundancy	STP, RSTP, MSTP ERPS (G.8032)
VLAN	802.1Q Port Based VLAN Private VLAN Voice VLAN
MVR	Multicast VLAN Registration
LACP	Dynamic Trunk Static Trunk DDM
SFP Monitoring	
GARP/GVRP	
IGMP Snooping	v1/v2/v3 (128 VLAN's Max)
IGMP Querier	
MLD Snooping	IPv6 (128 VLAN's Max)
MLD Querier	IPv6
IPMC	64 Profiles (128 Rules Each)
Virtual Stacking	Unlimited Units (All Speeds Supported)

## QoS.

Class of Service	802.1p QoS & DSCP
Diffserv	RFC2474
Rate Limiting	Ingress / Egress
Priority Queue	WRR / Strict / Hybrid Priority

## Security.

Port Security	MAC/IP Based
Storm Control	Rate Limiting
802.1x	RADIUS Authentication
TACACS+	
HTTPS/SSL	
BPDU Guard	
DHCP Snooping	
Loop Protection	
IP Source Guard	IPv4 & IPv6
IP Authorisation Managers	
Access (Policy) Control List (ACL L2/3/4)	
Custom User Rights	15 Levels (20 Users Max)

# Specifications.

## PoE Management.

Scheduling  
Ping Watchdog with Reboot  
Enable/Disable, Priority Level, Power Level

## Management.

DHCP	Client / Relay (IPv4 & IPv6) Option 66/67/82
Event/Error Log	Syslog Client
Management Access	SNMP Web GUI Telnet / SSH v2.0 / CLI
Access Management	Filtering
SNMP	v1/v2c/v3
RMON	1/2/3/9 Goups
Port Mirroring	
Software Update	HTTP/HTTPS
Config Export /Import	
Dual Firmware Images	
SNTP	Client (IPv4 & IPv6)
Configuration	IPv4 & IPv6
LLDP	Link Layer Discovery Protocol
LLDP-MED	
sFlow	
Time Zone & Daylight Savings	
Cable Diagnostics	

## Interface.

LED Indicators	1x Power SFP Link/Activity RJ45 Link/Activity RJ45 Speed PoE (PoE Models Only)
RJ45 Ports	24x 10/100/1000T(X) RJ45 with Auto MDI/MDI-X
SFP+ Slots	4x 100M/1G/2.5G/10G SFP+
Power	1x IEC C14 Socket
Serial Console	RJ45

## Power.

Power Inputs	1
Operating Voltage	90-264V <sub>AC</sub>
Power Consumption	30 Watts Max (without PoE Load)
Total PoE Budget	460W Max
PSE Modes	Mode A or Mode A&B (90W ports)
30W PoE Ports	Ports 1-24 (30W only models) Ports 9-24 (90W models)
60/90W PoE Ports	Ports 1-8 (90W models)

## Packaging.

Shipping Weight	3.4kg / 7.50lb (Non-PoE Models) 5.5kg / 12.13lb (PoE Models)
Dimensions (Non-PoE Models)	(W x D x H) 500 x 310 x 91 mm
(PoE Models)	19.69 x 12.20 x 3.58 in 515 x 417 x 96 mm 20.28 x 16.42 x 3.78 in

## Mechanical.

Housing	Metal
Dimensions: (Non-PoE Models)	(W x D x H) Excluding 19inch Brackets 440 x 220 x 44 mm 17.32 x 8.66 x 1.73 in
(PoE Models)	440 x 330 x 44 mm 17.32 x 12.99 x 1.73 in
IP Rating	IP30 (Non-PoE Models) IP20 (PoE Models)
Installation	19inch Rack (1U) or Desktop
Weight	2.5kg / 5.51lb (Non-PoE Models) 4.3kg / 9.48lb (PoE Models)

## Environmental.

Operating Temp.	0°C to +50°C
Storage Temp.	-20°C to +80°C
Humidity	5% to 90% (non-condensing)
MTBF	152,782 hours (Non-PoE Models) 122,110 hours (PoE Models)
MTBF Standard	MIL-HDBK-217F GB
Heat Dissipation	102 BTU/h (Non-PoE Models) 1672 BTU/h (with Max PoE Load)
Cooling	Passive Cooling (Non-PoE Models) 2x Cooling Fans (Temp Controlled)
Airflow	Front to Back
Noise Level	0 dBA (Non-PoE Models) 61 dBA (PoE Models)

## Regulatory.

Safety	IEC/EN 62368-1
EMI	EN55032 Class A (CISPR 32) 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) EN61000-4-11 (Dips)
Environmental	Reach, RoHS, WEEE

# Part Numbers.

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## 10Gb Commercial Layer 2+ Managed Switches

AMG510-24G-4XS	24x 10/100/1000TX & 4x 100M/1G/2.5G/10G SFP+
AMG510-24GAT-4XS-P460	24x 10/100/1000TX 30W PoE (460W Budget) & 4x 100M/1G/2.5G/10G SFP+
AMG510-8GBT-16GAT-4XS-P460	24x 10/100/1000TX 8x 90W + 16x 30W PoE (460W) & 4x 100M/1G/2.5G/10G SFP+*

\* Also available with an 860W power supply. Please contact sales for further information and availability.

## Notes.

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Included Accessories: 19inch Mounting Brackets, 4x Rubber Feet, Console Cable, Region Specific Line Cord  
Optional Accessories: SFP/SFP+ modules - Optical/Copper see separate list, need to be ordered separately

*In a continuing effort to improve and advance technology, product specifications are subject to change without notice. Please visit [www.amgsystems.com](http://www.amgsystems.com) for the latest product specifications.*