

AMG510-48G SERIES

52 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 48x RJ45 Gigabit ports supporting optional 30W PoE+ and 4x 1/10 Gigabit SFP+ ports.



[AMG510-48G Series]

OVERVIEW

AMG510 series layer 2+ managed Ethernet switches are designed for 19inch rack or desktop mounting within commercial grade applications. The AMG510-48G series has 48 Gigabit Ethernet RJ45 ports with optional IEEE 802.3at compliant 30W PoE+ and an additional 4 multi-rate SFP+ ports that support 100Mb, 1Gb, 2.5Gb or 10Gb speeds for data uplink into core networks, providing application and site flexibility.

Support for the latest in security features ensure that the AMG510 series can provide robust security and reliability as part of an overall secure network design strategy.

The AMG510 series support a wide range of management functions as well as Rapid Spanning Tree Protocol (RSTP), Multiple Spanning Tree Protocol (MSTP) and Ethernet Ring Protection Switching (ERPS) for network redundancy. IGMP functionality is supported to handle the multicast traffic which is commonly used in IP CCTV deployments.

SFPs need to be ordered separately.

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)
- Dual Speed SFP or 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
- 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+
RFC1112, 2236, 3376, 4604, 5711	IGMP v1, v2, v3
RFC2236, 3376	IGMP Snooping
RFC8907	TACACS
RFC2865, 2866	RADIUS
RFC5424	Syslog
RFC4250 - 4254	SSH
RFC5246	TLS1.2 / HTTPS
RFC854	Telnet
RFC2030	SNTP
RFC2131	DHCP
ITU-T G.8032	Ethernet Ring Protection Switching (ERPS)

Hardware Features.

Architecture	Store-and-Forward
Switch Latency	<7µs
Switch Fabric	176Gbps
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	130.94Mpps
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 Multicast VLAN Registration Dynamic Trunk Static Trunk DDM
MVR LACP	v1/v2/v3 (128 VLAN's Max)
SFP Monitoring GARP/GVRP IGMP Snooping IGMP Querier MLD Snooping MLD Querier IPMC	IPv6 (128 VLAN's Max) IPv6 64 Profiles (128 Rules Each)

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	
Manufacturer OUI Port Security	
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 PoE (PoE Models Only)
RJ45 Ports	48x 10/100/1000T(X) RJ45 with Auto MDI/MDI-X
SFP+ Slot	4x 100M/1G/2.5G/10G SFP+
Power	1x IEC C14 Socket
Serial Console	RJ45

Power.

Power Inputs	1
Operating Voltage	90-264V _{AC}
Power Consumption	60 Watts Max (without PoE Load)
Total PoE Budget	860W Max
PSE Modes	Mode A
PoE Enabled Ports	Ports 1-48

Packaging.

Shipping Weight	6.2kg / 13.67lb (Non-PoE Models) 7.1kg / 15.65lb (PoE Models)
Dimensions (Non-PoE Models)	(W x D x H) 515 × 417 × 96 mm 20.28 × 16.42 × 3.78 in
(PoE Models)	560 × 560 × 130 mm 22.05 × 22.05 × 5.12 in

Mechanical.

Housing	Metal
Dimensions: (Non-PoE Models)	(W x D x H) Excluding 19inch Brackets 440 × 330 × 44 mm 17.32 × 12.99 × 1.73 in
(PoE Models)	440 × 380 × 44 mm 17.32 × 14.96 × 1.73 in
IP Rating	IP20
Installation	19inch Rack (1U) or Desktop
Weight	5.0kg / 11.02lb (Non-PoE Models) 5.4kg / 11.91lb (PoE Models)

Environmental.

Operating Temp.	0 to +50°C / 32 to +122°F
Storage Temp.	-20 to +80°C / -4 to +176°F
Humidity	5% to 90% (non-condensing)
MTBF	113,368 hours (Non-PoE Models) 108,182 hours (PoE Models)
MTBF Standard	MIL-HDBK-217F GB
Heat Dissipation	205 BTU/h (Non-PoE Models) 3139 BTU/h (with Max PoE Load)
Cooling	2x Cooling Fans (Temp Controlled)
Airflow	Front to Back
Noise Level	50 dBA (Non-PoE Models) 74 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
Supply Chain	NDAA & TAA Compliant

Part Numbers.

10Gb Commercial Layer 2+ Managed Switches

AMG510-48G-4XS	48 x 10/100/1000TX & 4 x 100M/1G/2.5G/10G SFP+
AMG510-48GAT-4XS-P860	48 x 10/100/1000TX 30W PoE (860W Budget) & 4 x 100M/1G/2.5G/10G SFP+

Notes.

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 for the latest product specifications.

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