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.

Gigabit up to x48	Gigabit up to x48	1/10 Gb x4	Managed Full	Secure 802.1x	Stacking Virtual	Temp 0 ~ +50°C	Mounting Rack/Surface	PSU Mains

[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.

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)

— 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

— Virtual Stacking supported

— Layer 3 Static Routing

— AMG 3 Year Support Warranty

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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
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	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
MVR	Multicast VLAN Registration
LACP	Dynamic Trunk
	Static Trunk
SFP Monitoring	DDM*
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)

* Features available July 2020

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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	(W x D x H)
(Non-PoE Models)	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:	(W x D x H) Excluding 19inch Brackets
(Non-PoE Models)	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°C to +50°C
Storage Temp.	-20°C to +80°C
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

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Part Numbers.

10Gb Commercial Layer 2+ Managed Switches

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