

AMG510-22G SERIES 26 PORT COMMERCIAL GRADE MANAGED LAYER 2+ SWITCH



Commercial Ethernet Solutions

AMG's fully managed layer 2+ Ethernet switches provide 100Mbps and Gigabit Ethernet switching for commercial network applications. Available with 22x RJ45 Gigabit ports and 2x Gigabit RJ45/SFP Combo ports supporting optional 30W PoE+ along with 2x 100Mb/1Gb SFP Ports.



[AMG510-22G Series]

OVERVIEW

AMG510 series layer 2+ managed Ethernet switches are designed for 19inch rack or desktop mounting within commercial grade applications. The AMG510-22G series has 22 Gigabit Ethernet RJ45 ports and an additional 2 Gigabit RJ45/SFP combo ports with optional IEEE 802.3at compliant 30W PoE+ as well as 2 multi-rate SFP only ports that support both 100Mb and 1Gb 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)
- Dual Speed SFP ports (supporting 100Mb & 1Gb speeds)
- 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 802.3x	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	52Gbps
Address Table	8K MAC Entries
Buffer Memory	4M bits
Jumbo Frames	9.6K bytes
CPU	400MHz
SDRAM	128Mb
Flash	16Mb
VLAN's	4K
IGMP Groups	1024
IPv6 MLD Groups	1024
Throughput	38.68Mpps
Priority Queues	8
Bandwidth Control	Ingress Packet Filter and Egress Rate Limit

Layer 3 Features.

Static Routing:	
Interfaces	8 Max
Routes	32 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	
SFP Monitoring GARP/GVRP IGMP Snooping IGMP Querier MLD Snooping MLD Querier IPMC Virtual Stacking*	v1/v2/v3 (8 VLAN's Max) IPv6 (8 VLAN's Max) IPv6 64 Profiles (128 Rules Each) Unlimited Units (All Speeds Supported)

QoS.

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

Port Security Storm Control 802.1x TACACS+ HTTPS/SSL BPDU Guard DHCP Snooping Loop Protection IP Source Guard IP Authorisation Managers Access (Policy) Control List (ACL L2/3/4) Custom User Rights	MAC/IP Based Rate Limiting RADIUS Authentication IPv4 & IPv6 15 Levels (20 Users Max)
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* Features available July 2020

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	22x 10/100/1000T(X) RJ45 with Auto MDI/MDI-X
Combo Ports	2x 10/100/1000T(X) RJ45 or 2x 100/1000FX SFP
SFP Slots	2x 100/1000FX SFP
Power	1x IEC C14 Socket
Serial Console	RJ45

Power.

Power Inputs	1
Operating Voltage	90-264V _{AC}
Power Consumption	30 Watts Max (without PoE Load)
Total PoE Budget	460W Max
PSE Modes	Mode A
PoE Enabled Ports	Ports 1-24

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 19.69 x 12.20 x 3.58 in
(PoE Models)	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	125,897 hours (Non-PoE Models) 105,225 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.

1Gb Commercial Layer 2+ Managed Switches

AMG510-22G-2C-2S	22 x 10/100/1000TX & 2 x 100/1000M RJ45/SFP Combo & 2 x 100/1000FX SFP
AMG510-22GAT-2CAT-2S-P460	22 x 10/100/1000TX & 2 x 100/1000M RJ45/SFP Combo 30W PoE (460W Budget) & 2 x 100/1000FX 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.