

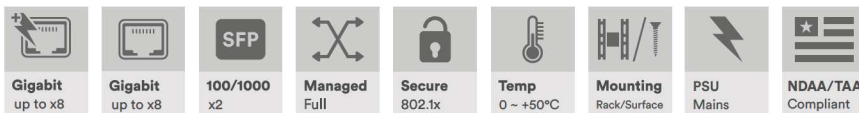
# AMG510-8G SERIES

## 10 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 8x RJ45 Gigabit ports supporting optional 30W PoE+ and 2x Gigabit SFP ports.



[ AMG510-8G Series ]

### OVERVIEW

AMG510 series layer 2+ managed Ethernet switches are designed for 19inch rack or desktop mounting within commercial grade applications. The AMG510-8G series has 8 Gigabit Ethernet RJ45 ports with optional IEEE 802.3at compliant 30W PoE+ and an additional 2 multi-rate SFP ports that support both 100Mb and 1Gb 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) and Multiple Spanning Tree Protocol (MSTP) 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)
- Dual Speed SFP ports (100Mb and 1Gb Supported)
- Supports RSTP, MSTP, 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 802.3x                     | 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                          |

## Hardware Features.

|                   |   |
|-------------------|---|
| Architecture      | Store-and-Forward                           |
| Switch Latency    | <7µs  |
| Switch Fabric     | 20Gbps                                      |
| 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        | 14.88Mpps @ 64bytes                         |
| 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<br>RSTP<br>MSTP   |
| VLAN  | 802.1Q<br>Port Based VLAN<br>Private VLAN<br>Voice VLAN<br>Multicast VLAN Registration<br>Dynamic Trunk<br>Static Trunk |
| MVR<br>LACP   |   |
| GARP/GVRP<br>IGMP Snooping<br>IGMP Querier<br>MLD Snooping<br>MLD Querier<br>IPMC | v1/v2/v3 (8 VLAN's Max)<br><br>IPv6 (8 VLAN's Max)<br>IPv6<br>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                 |                          |
| 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)<br>Option 66/67/82 |
| Event/Error Log              | Syslog Client                                   |
| Management Access            | SNMP<br>Web GUI<br>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<br>SFP Link/Activity<br>RJ45 Link/Activity<br>RJ45 Speed (Non-PoE Models Only)<br>PoE (PoE Models Only) |
| RJ45 Ports     | 8x 10/100/1000T(X) RJ45<br>with Auto MDI/MDI-X   |
| SFP Slot       | 2x 100/1000FX SFP  |
| Power          | 1x IEC C14 Socket  |
| Serial Console | RJ45   |

## Power.

|                   |                                 |
|-------------------|---------------------------------|
| Power Inputs      | 1                               |
| Operating Voltage | 90-264V <sub>AC</sub>           |
| Power Consumption | 12 Watts Max (without PoE Load) |
| Total PoE Budget  | 210W Max                        |
| PSE Modes         | Mode B                          |
| PoE Enabled Ports | Ports 1-8                       |

## Packaging.

|                 |  |
|-----------------|--|
| Shipping Weight | 2.9kg / 6.39lb (Non-PoE Models)<br>3.1kg / 6.83lb (PoE Models) |
| Dimensions      | (W x D x H)<br>405 x 305 x 91 mm<br>15.95 x 12.01 x 3.58 in    |

## Mechanical.

|              |  |
|--------------|--|
| Housing      | Metal  |
| Dimensions:  | (W x D x H) Excluding 19inch Brackets<br>330 x 210 x 44 mm<br>12.99 x 8.27 x 1.73 in |
| IP Rating    | IP30 (Non-PoE Models)<br>IP20 (PoE Models)   |
| Installation | 19inch Rack (1U) or Desktop  |
| Weight       | 2.0kg / 4.41lb (Non-PoE Models)<br>2.2kg / 4.85lb (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             | 147,595 hours (Non-PoE Models)<br>126,424 hours (PoE Models)   |
| MTBF Standard    | MIL-HDBK-217F GB   |
| Heat Dissipation | 41 BTU/h (Non-PoE Models)<br>758 BTU/h (with Max PoE Load)   |
| Cooling          | Passive Cooling (Non-PoE Models)<br>1x Cooling Fan (PoE Models)<br>0-120W PoE Load - Fan Turned Off<br>>120W PoE Load - Dynamic Fan On |
| Airflow          | Left to Right  |
| Noise Level      | 0 dBA (Non-PoE Models)<br>0-56 dBA (PoE Models. See Note Above)  |

## Regulatory.

|               |   |
|---------------|---|
| Safety        | IEC/EN 62368-1  |
| EMI           | EN55032 Class A<br>CISPR 32<br>FCC Part 15B Class A   |
| EMS           | EN61000-4-2 (ESD) EN61000-4-3 (RS)<br>EN61000-4-4 (EFT) EN61000-4-5 (Surge)<br>EN61000-4-6 (CS) EN61000-4-8 (PFMF)<br>EN61000-4-11 (Dips) |
| Environmental | Reach<br>RoHS<br>WEEE   |
| Supply Chain  | NDAA & TAA Compliant  |

# Part Numbers.

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## 1Gb Commercial Layer 2+ Managed Switches

|                     |  |
|---------------------|--|
| AMG510-8G-2S        | 8 x 10/100/1000TX & 2 x 100/1000FX SFP                       |
| AMG510-8GAT-2S-P210 | 8 x 10/100/1000TX 30W PoE (210W Budget) & 2 x 100/1000FX SFP |

## Notes.

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Included Accessories: 19inch Mounting Brackets, 4x Rubber Feet, Console Cable, Region Specific Line Cord  
Optional Accessories: 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.

AMG Systems Ltd. 4 Pioneer Way, Castleford, WF10 5QU, UK T: +44 (0) 1767 600 777 E: [sales@amgsystems.com](mailto:sales@amgsystems.com)  
AMG Systems Inc. 62 Spring Hill Road, Trumbull, CT 06611, USA T: +1-855-AMGPOE1 (855-264-7631) E: [sales@amgsystems.com](mailto:sales@amgsystems.com)  
D39130-06 [amgsystems.com](http://amgsystems.com)

