AMG750 SERIES
INDUSTRIAL GRADE 4G/LTE
ROUTER WITH WIFI & POE

Industrial Ethernet Solutions

AMG's 750 series 4G/LTE routers provide industrial cellular remote connectivity with dual SIM fail-over or WAN load balancing along with 2.4/5GHz wireless and 4 Gigabit Ethernet ports with optional IEEE 802.3at 30W PoE+.

Gigabit x4	**Gigabit** x1 WAN	**Cellular** 4G/3G/2G	**Wireless** 2.4 / 5GHz	**USB** x1	**Managed** Full	**Temp** –40°C~+75°C	**Mounting** DIN/Surface	**Booster** Dual 24-48	**NDAA/TAA** Compliant	**e-Mark** Certified

[AMG750 Series]

/ OVERVIEW

The AMG750 series Industrial Cellular Managed Router provides 5 x Gigabit Ethernet ports. 1 x Gigabit Ethernet port provides a configurable WAN connection while 4 x Gigabit Ethernet ports provide connection for remote devices and optional IEEE 802.3at 30W PoE+ support.

An integrated dual SIM 4G/LTE Cat4 modem provides connection in remote deployment scenarios where a wired connection is not available and combined with the wired WAN port can also act in fail-over or load balancing modes. (Verizon, AT&T, PTCRB Certified)

A dual band 2.4/5GHz wireless connection is also provided for local wifi access and supports 802.11 a/b/g/n/ac as well as a USB port supporting device logging functions. An RS232 or RS485 channel is provided to allow legacy serial data equipment to be connected at remote locations as well as a digital input and relay output for device monitoring and control applications.

Dual power supply inputs are provided for the highest levels of system operation with a wide input range of 12-48 VDC supported on non-PoE models. PoE models feature voltage boosting technology ensuring that reliable PoE can be supplied to all 4 Ethernet ports when being powered by 24-56 VDC sources.

/ FEATURES

— 2G/3G/4G/LTE Cat4 Cellular modem with Dual SIM card and fail-over (Verizon, AT&T, PTCRB Certified)

— Gigabit Ethernet WAN port supports load balancing or fail-over applications

— 4 x Gigabit Ethernet with optional IEEE 802.3at PoE+

— 2.4/5GHz Dual Band WiFi Radio 802.11 a/b/g/n/ac

— Dual Power Inputs with 24-56 VDC support including voltage booster technology for PoE models

— RS232/485 serial data channel for legacy equipment

— USB port supports remote data logging

— Layer 3 support including static and dynamic routing RIP v1/v2, OSPF, BGP

— VPN tunneling supports IPsec, Open VPN, PPTP, L2TP and GRE with up to 16 independent tunnels

— e-Mark certified for vehicles (EU PoE model only)

— AMG Lifetime Support Warranty

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Specifications.

Standards & Protocols.

IEEE802.3i	10BaseT
IEEE802.3u	100BaseTX
IEEE802.3ab	1000BaseT
IEEE802.3x	Flow Control
IEEE802.1p	QoS Priority Marking
IEEE802.1Q	VLANs
IEEE802.1x	Port Security
IEEE802.3af/at	Power over Ethernet (PoE) 15/30W
RFC1112	IGMP v1
RFC2236	IGMP v2
RFC2030	Simple Network Time Protocol
RFC2131/3736	Dynamic Host Configuration Protocol (client/server - IPv4)
IEEE802.11a	2.4GHz Wireless
IEEE802.11b	2.4GHz Wireless
IEEE802.11g	2.4GHz Wireless
IEEE802.11n	2.4/5GHz Wireless
IEEE802.11ac	5GHz Wireless
Other	Static Route, RIP v1/v2, OSPF, BGP, IPv4, IPv6 Dual Stack, Static IPv6, DHCPv6, PPPoEv6 NAT 1-1, 1-many, Transversal, DMZ, Virual Server & Computer, VPN Pass-through SNMP v1, v2c, v3, TR-069
Jumbo Frames	9.6Kbytes

Interface.

LED Indicators	Power 1, Power 2, PoE Ports 1-4, SIM A/B & Signal Strength, WiFi, LAN/WAN Link Activity, Serial, Status
RJ45 Ports	1x 10/100/1000BASE-T(X) WAN 4x 10/100/1000BASE-T(X) LAN with Auto MDI/MDI-X
Cellular Antenna	2x SMA (female)
WiFi Antenna	2x SMA (male)
SIM Card A/B	Full Size SIM Card Tray
USB Ports	1x Type A
Serial	4-way Screw Terminal
Power/DI/DO	8-way Screw Terminal

WAN & Uplink.

WAN	Cellular, Ether-WAN, Failover, Load Balance
Cellular	3GPP, 2G/3G/4G IP Pass-through, IPv4/6
Cellular Speed	Category 4 150Mb Down / 50Mb Up Max
Ether-WAN	Dynamic IP, Static IP, PPPoE, PPTP, L2TP
Network Monitor	ICMP/DNS Query

WiFi.

Mode	AP Router, WDS Only, WDS Hybrid Modes
Functions	Multi-SSID, WMM
Security	WEP, WPA, WPA2, WPA-PSK, WPA2-PSK, 802.1x

Field Communications.

Virtual COM	RFC2217, TCP Client, TCP Server, UDP
Modbus	Gateway for Modbus TCP/RTU/ASCII Master/Slave Access; Slave for Device Status/Information Access
Data Logging	Sniffer, Off-Line / Full-Time Proxy, Mixed Modes
I/O	1 x Digital Input (Logic 0: 0~2V, Logic 1: 5~30V) 1 x Relay Output (30V @ 1A)

Object.

Scheduling	Time Schedule List
Grouping	Host Grouping List
Ext. Server	Email, Syslog, RADIUS, SCEP, FTP, DDNS, IGMP
Certificate	My Certificate, Trusted Certificate, Issue Certificate

Service.

Cellular Toolkit	Data Usage, SMS, SIM PIN, USSD, Network Scan
Event Handling	User Defined Manage/Notify Event; Action & Trigger by SMS, Mail, Syslog, SNMP

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Specifications.

Security.

VPN Tunneling	IPsec (IKE or X.509 Pre-Shared Key), Open VPN, PPTP, L2TP, GRE
Scenario	Site/Host to Site/Host, Hub & Spoke, Dynamic VPN
VPN Capability	IPsec: up to 16 Tunnels
Firewall	SPI Firewall with Stealth Mode, IPS
Access Control	Packet Filter, URL Blocking, MAC Filter

Administration.

Configuration	Web GUI, CLI, Command Script, Password Authentication
Management System	SNMPv3 Std & AMG MIB, TR069 Upgrade, Backup & Restore, Reboot on Fault (Kernel Watchdog), Reboot on Schedule, Reset, Syslog
FTP	FTP Server, User Account
Diagnostic	Packet Analyser, Diagnostic Tools
PoE	Power Control, Manual On/Off, Schedule On/Off, Alive Check

Power.

Power Inputs	2
Operating Voltage:	
Non-PoE Models	2x 12-48V$_{DC}$
PoE Models	2x 24-56V$_{DC}$ with PoE Voltage Booster
Power Consumption	15.6W Max (without PoE Load)
	135.6W Max (with PoE Load)
Total PoE Budget	120W Max
PSE Modes	Mode A
PoE Enabled Ports	Ports 1-4 (model dependent)

Packaging.

Shipping Weight	1.50kg / 3.31lb (Non-PoE Models)
	1.82kg / 4.01lb (PoE Models)
Dimensions	(W x D x H)
	205 × 165 × 138 mm
	8.07 × 6.50 × 5.43 in

Mechanical.

Housing	Metal
Dimensions:	(W x D x H)
Non-PoE Models	51 × 120 × 160mm
	2.01 × 4.72 × 6.30 in
PoE Models	62 × 125 × 160 mm
	2.44 × 4.92 × 6.30 in
IP Rating	IP40
Installation	Wall Mount or DIN Mount
Weight	0.95kg / 2.09lb (Non-PoE Models)
	1.26kg / 2.78lb (PoE Models)

Environmental.

Operating Temp.	-40 to +75°C / -40 to +167°F
Storage Temp.	-40 to +85°C / -40 to +185°F
Humidity	10% to 95% (non-condensing)
MTBF	198,062 Hours
MTBF Standard	Telcordia SR-332 GB 70°C
Heat Dissipation	53 BTU/h (non-PoE Models)
	463 BTU/h (PoE Models)
Cooling	Passive Cooling
Noise Level	0 dBA

Regulatory.

Electrical Safety	IEC/EN 62368-1
Immunity	EN55032: 2015 +AC: 2016 B
	EN55024
Emissions	EN61000
	FCC Part 15
Radio	EN 301 489
	EN 300 328
	EN 301 893
	EN50385
Vehicles	e-Mark UN-R 010*
Environmental	Reach, RoHS, WEEE
Supply Chain	NDAA & TAA Compliant
Networks	Verizon, AT&T, PTCRB

* EU PoE model only

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Part Numbers.

4G Industrial Cellular Routers (Non-PoE)

AMG750-1G-4G-1E4	4G Router (EU), 5 × 10/100/1000BaseT(x) RJ45, WiFi, RS232/485, Dual-SIM
AMG750-1G-4G-1U4	4G Router (USA), 5 × 10/100/1000BaseT(x) RJ45, WiFi, RS232/485, Dual-SIM

4G Industrial Cellular Routers (30W PoE)

AMG750-1G-4GAT-1E4-P120	4G Router (EU), 5 × 10/100/1000BaseT(x) RJ45 (4 x PoE), WiFi, RS232/485, Dual-SIM
AMG750-1G-4GAT-1U4-P120	4G Router (USA), 5 × 10/100/1000BaseT(x) RJ45 (4 x PoE), WiFi, RS232/485, Dual-SIM

Cellular Band Support.

EU Models	Cellular Bands: B1 (2100) / B3 (1800) / B7 (2600) / B8 (900) / B20 (800)	Module Certification: CE / GCF
USA Models	Cellular Bands: B2 (1900) / B4 (1700)	Module Certification: PTCRB / AT&T / Verizon

Included Accessories.

DIN Rail Adapter	Rear Mounted Metal DIN Rail Clip & Screws For DIN Rail Mounting AMG750 Series Products
Wall Mounting Bracket	1x Wall Mouting Bracket & Screws For Wall / Surface Mouting AMG750 Series Products
Direct Attach Antennas	2x 4G/LTE Paddle Antennas
	2x 2.4/5GHz WiFi Paddle Antennas
	Note: Included antennas are designed for testing / indoor use only. They are not recommended for operational use.

Recommended PSUs.

Non-PoE Models

AMGPSU-I24-P60	DIN-Rail Mounting Industrial Grade PSU, -40 to +70°C, 24VDC, 60W*

PoE Models

AMGPSU-I48-P120	DIN-Rail Mounting Industrial Grade PSU, -40 to +70°C, 48-53VDC, 120W*^
AMGPSU-I48-P240	DIN-Rail Mounting Industrial Grade PSU, -40 to +70°C, 48-53VDC, 240W*^

* Also available in kit form including mains line cord, DC cable and DIN rail. Order with -K at the end of the part code (e.g. AMGPSU-I48-P120-K).
^ Also available with no exposed mains terminals and direct IEC input kit. Order with -IEC at the end of the part code (e.g. AMGPSU-I48-P120-IEC).

Optional Accessories.

AMG2035	Side Mounted Wall Bracket Adapter Kit For DIN Rail Mounting AMG750 Series Products In Depth Restricted Installations. Adapter Kit Can Be Extended Using The Included Extension Kit To Also Mount A DIN Rail Power Supply
AMGANT-C2-ODA4-1W	360° Omni-Directional Antenna, 2x Cellular (694-960 / 1710-3700 MHz Global) 4dBi Gain SMA-Type Male Connectors, 1M (3.28ft) RF195 Cables, IP67, Surface Mount, White*
AMGANT-C2W2-ODA4-1W	360° Omni-Directional Antenna, 2x Cellular (694-960 / 1710-3700 MHz Global) 4dBi Gain SMA-Type Male Connectors, 2x WiFi (2.4-2.5 / 4.9-6.0 GHz) 5dBi Gain SMA-Type Female Connectors, 1M (3.28ft) RF195 Cables, IP67, Surface Mount, White*

* Antenna housings also available in black. Contact AMG for further information on antenna selection.

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