

## LMP-1600G-M12-67-110 Series

16-Port Industrial M12 IP67 Waterproof Gigabit PoE+ Light Layer 3 Managed Ethernet Switch, with 16\*10/100/1000Tx M12 Connectors (X-Coded) (30W/Port); 24-110VDC Power Input



### Features

- ▶ 16-Port 10/100/1000Base-T(X) Ethernet with IEEE 802.3af/at compliant (30W/Port)
- ▶ Multi-user Account for Security
- ▶ Bypass Design for Daisy Chain Redundancy
- ▶ Configuration: http, https, CLI Command, Telnet, SNMP, SSH
- ▶ Network Redundancy Support: G.8032 ERPS v2 / STP / RSTP / MSTP
- ▶ Supports Static Routes for Routing Function
- ▶ Supports RADIUS, TACACS+ Authentication Protocol
- ▶ Supports QoS, LACP Bandwidth Control
- ▶ Supports VLAN, SNMP v1/v2c/v3, ACL, IP Source Guard for Ethernet Security
- ▶ PoE Ping Alarm Function for PoE Ports Power Recycle
- ▶ Redundant Power Inputs Design
- ▶ Operating Temperature Range
  - STD: -10°C to 65°C, EOT: -40°C to 70°C
- ▶ 5-Year Warranty

### INTRODUCTION

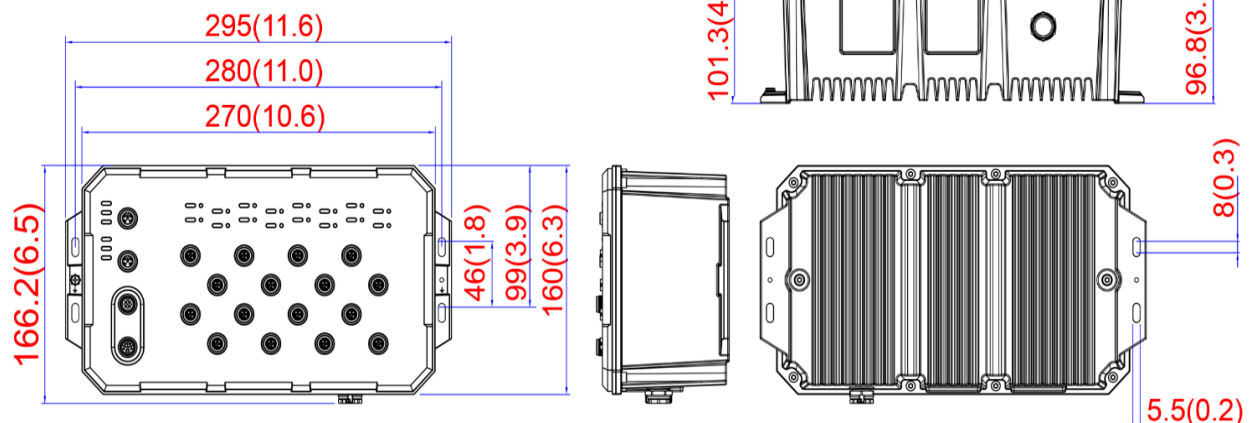
Antaira Technologies' LMP-1600G-M12-67-110 Series is a 16-port managed gigabit Ethernet switch, which provides 16\*10/100/1000 Base-T(X) with IEEE 802.3 af/at PoE compliant. The LMP-1600G-M12-67-110 Series is fully-manageable light layer 3 Ethernet switch series and supports power input redundancy. It also offers network redundancy ITU-T G.8032 ERPS v2 (Ethernet Ring Protection Switch) protocol, providing <50ms recovery time to the network.

The LMP-1600G-M12-67-110 Series provides comprehensive network security and management capability by supporting multi-user accounts, IGMP, GVRP, VLAN, QoS, SNMP, RADIUS, TACACS+, Aggregation (Static, LACP), SSH, SSL, IP source guard to create a highly-secured network environment. For power saving purposes, assuring PD priority, and enhancing security level of the network. The LMP-1600G-M12-67-110 Series also supports PoE scheduling and PoE output limit function to set up PoE output duration and watt at will.

The LMP-1600G-M12-67-110 Series is an M12 IP67 PoE+ industrial gigabit Ethernet switch that meets the high-reliability requirements demanded by industrial applications. Its M12 connectors ensure a tight and robust connection to guarantee reliable operation on applications subject to high vibration and shock in dust, liquid, or gas-laden environments. It can operate under the standard temperature range from -10°C to 65°C or extended temperature range from -40°C to 70°C, useful in almost any harsh environment.

### DIMENSIONS

Unit: mm (inch)



## SPECIFICATIONS

<b>Technology</b>	
<b>L2 Switching</b>	Port/MAC/Protocol/IP Subnet-based VLAN, GARP/GVRP, Loop Guard, Link Aggregation static/LACP, BPDU guard, Error disable recovery, IGMP snooping v2/v3, MLD snooping v1/v2, IGMP filtering, IPMC throttling / filtering leave proxy, DHCP snooping, G.8032 v1/v2
<b>L3 Switching</b>	DHCP option82, static routes
<b>QoS</b>	802.1p Queueing, Input priority mapping, Storm control for Unicast/Multicast/Broadcast, Port/Queue/ACL policer, Port egress shaper, Queue egress shaper, DiffServ (DSCP), Tag remarking, Scheduler mode
<b>Power Saving</b>	ActiPHY, PerfectReach, IEEE 802.3az EEE power management
<b>Network Redundancy</b>	STP/RSTP/MSTP, port trunk with LACP, ERPS v1/v2 (<50ms)
<b>Configuration</b>	Http, Https, Telnet, SSH, CLI, TFTP, SNMP v3
<b>System / Diagnostics</b>	Dual Image Protection, PING, PING6
<b>Switch Properties</b>	
<b>Switch Architecture</b>	Back-Plane (Switching Fabric): 32Gbps
<b>Priority Queues</b>	8
<b>Processing Type</b>	Store and forward
<b>Flow Control</b>	IEEE 802.3x flow control, back pressure flow control
<b>Transfer Rate</b>	14,880pps for Ethernet Port 148,800pps for Fast Ethernet Port 1,488,000pps for Gigabit Ethernet Port
<b>Memory Buffer</b>	4Mbits
<b>Jumbo Frame</b>	9.6Kbytes
<b>MAC Table Size</b>	32K
<b>VLAN Group</b>	4095
<b>IGMP Group</b>	1024
<b>Port Interface</b>	
<b>Ethernet Port</b>	16*10/100/1000 Base-T(X), 8-pin M12 X-Coded female connectors, auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection
<b>RS232 Serial Console</b>	1*RS232 with M12 5-pin A-coded female connector
<b>Configuration Backup</b>	1*USB 2.0 with M12 4-pin A-coded female connector for configuration backup/restore
<b>DI</b>	1* Digital Input (DI) with M12 5-Pin A-coded male connector: State 0: -30~8VDC / State 1: 10~30VDC, Max. input current: 8mA
<b>Bypass Protection</b>	Ethernet Port 8 and Port 16
<b>LED Indicators</b>	System: Power 1, Power 2, Master, Ring, Status, PoE Load PoE: On-connected to PD devices Ethernet ports: Speed/Link/Active
<b>Protection</b>	
<b>Network Cable</b>	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m) 1000Base-T: 4-pair UTP/STP Cat.5/5E cable; EIA/TIA-568 100-ohm (100m)
<b>Mechanical Characteristics</b>	
<b>Housing</b>	Metal, IP67 protection
<b>Dimensions</b>	166.2 x 295 x 101.3 mm (W x H x D)
<b>Weight</b>	Unit: 9.42 lbs. Shipping: 11.01 lbs.
<b>Mounting</b>	Wall mounting
<b>Power Requirement</b>	
<b>Input Voltage</b>	24~110VDC Redundant Input
<b>Power Connection</b>	Dual DC power inputs through M12 5-pin K-coded male connector
<b>Relay Contact</b>	24VDC, 1A resistive
<b>Overload Current Protection</b>	Present
<b>Reverse Polarity Protection</b>	Present
<b>PoE Pin Assignment</b>	V+, V+, V-, V-, for pin 1, 2, 3, 6 (End-span, Mode A)
<b>PoE Power Budget</b>	120W
<b>System Power Consumption</b>	45W
<b>Environmental Limits</b>	
<b>Operating Temperature</b>	STD: -10°C to 65°C EOT: -40°C to 70°C
<b>Storage Temperature</b>	-40°C to 85°C
<b>Ambient Relative Humidity</b>	5% to 95%, (non-condensing)
<b>Regulatory Approvals</b>	
<b>EMI</b>	FCC Part 15 Subpart B Class A, CE EN55032/EN61000-6-4 Class A
<b>EMS</b>	CE EN55035/EN61000-6-2: IEC61000-4-2,3,4,5,6,8
<b>Free Fall</b>	IEC60068-2-32
<b>Shock</b>	IEC60068-2-27
<b>Vibration</b>	IEC60068-2-6
<b>Green</b>	RoHS Compliant
<b>Certifications</b>	FCC, CE
<b>Warranty</b>	5 Years

## ORDERING INFO

<b>LMP-1600G-M12-67-110</b>	16-Port Industrial M12 IP67 Waterproof Gigabit PoE+ Light Layer 3 Managed Ethernet Switch, with 16*10/100/1000Tx M12 Connectors (X-Coded) (30W/Port), 24-110VDC Power Input, STD: -10°C to 65°C
<b>LMP-1600G-M12-67-110-T</b>	16-Port Industrial M12 IP67 Waterproof Gigabit PoE+ Light Layer 3 Managed Ethernet Switch, with 16*10/100/1000Tx M12 Connectors (X-Coded) (30W/Port), 24-110VDC Power Input, EOT: -40°C to 70°C



**Optional Accessories**

<b>CB-M12A5PF-5M</b>	M12 A Code 5P Female to open wire, 5 Meter, Wire: 22 AWG, DI/DO Cable
<b>CB-M12A4PM-USB-5M</b>	M12 A Code 4P Male to USB 2.0 Type-A Female, 5 Meter, Wire: 28 AWG, USB Cable
<b>CB-M12X8PM-RJ45-5M</b>	M12 X Code 8P Male to RJ-45 Socket, 5 Meter, Wire: 26 AWG, Ethernet Cable
<b>CB-M12K5PF-5M</b>	M12 K Code 5P Female to open wire, 5 Meter, Wire: 14 AWG, Power Cable
<b>CB-M12A5PM-DB9-5M</b>	M12 A Code 5P Male to DB9 Female, 5 Meter, Wire: 24 AWG, Console Cable

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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