

# **entaira**°

# LMX-1600G Series

16-Port Industrial Gigabit Light Layer 3 Managed Ethernet Switch, with 16\*10/100/1000Tx Ports













#### **Features**

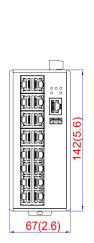
- Supports 16\*10/100/1000Tx RJ45 Ports
- Network Redundancy: STP/RSTP/MSTP, and G.8032 ERPS (Recovery Time <50ms)
- Supports IPv4/IPv6, and DHCP Option 66/67/82
- **Supports Modbus/TCP Protocol for Device Management** and Monitoring
- ► IGMP v1/v2/v3 for Multicast Traffic Filtering
- System Warning Setting for Automatic Warning
- ► QoS (IEEE802.1p/1Q), CoS/ToS to Increase Determinism
- IEEE802.1Q VLAN for Easy Network Planning
- Enhanced Network Security with IEEE802.1X, SNMP v1/v2c/v3, HTTPS, and SSH/SSL
- ► Operating Temperature Range: STD: -10°C to 70°C, EOT: -40°C to 75°C
- 5-Year Warranty

#### INTRODUCTION

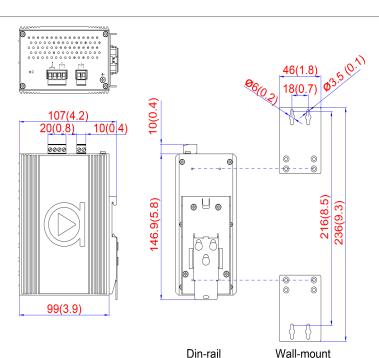
Antaira Technologies' LMX-1600G series is a 16-port industrial Gigabit managed Ethernet switch that is embedded with 16\*10/100/1000Tx Ethernet ports. The LMX-1600G series is a fully manageable light layer 3 Ethernet switch that is pre-loaded with a user-friendly web management console design. It supports the ring network redundancy function using the market's open standard ITU-T G.8032 ERPS (Ethernet Ring Protection Switch) protocol that has a <50ms network recovery time. The advanced network filtering and security functions, such as, IGMP, VLAN, QoS, SNMP, port lock, RMON, Modbus TCP, and 802.1X/HTTPS/SSH/SSL increase determinism and improve network management for remote SCADA systems or control networks.

The LMX-1600G series is IP30 rated and DIN-rail mountable. There are also two wide operating temperature models for either a standard temperature range (STD: -10°C to 70°C) or an extended temperature range (EOT: -40°C to 75°C). It also provides high EFT and ESD protection for industrial networking applications, such as, power/utility, water wastewater, oil/gas/mining, factory automation, security surveillance within transportation, ITS and any other outdoor or harsh environment.

#### **DIMENSIONS**



Unit: mm (inch)



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Toll-Free:1 (844) 268-2472

T: 1 (714) 671-9000

F: 1 (714) 671-9944



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## SPECIFICATIONS/



| •                         |   |
|---------------------------|---|
| Technology                |   |
| L2 Switching              | Port/MAC/Protocol/IP Subnet-based VLAN,<br>GARP/GVRP, Loop Guard, Link Aggregation<br>static/LACP, BPDU guard, Error disable<br>recovery, IGMP snooping v2/v3, MLD snooping<br>v1/v2, IGMP filtering, IPMC throttling / filtering<br>leave proxy, DHCP snooping, G.8032 v1/v2                               |
| L3 Switching              | DHCP option82, static routes  |
| QoS                       | 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   |
| Power Saving              | ActiPHY, PerfectReach, IEEE 802.3az EEE power management  |
| Network<br>Redundancy     | STP/RSTP/MSTP, port trunk with LACP, ERPS v1/v2 (<50ms)   |
| Configuration             | Http, Https, Telnet, SSH, CLI, TFTP, SNMP v3  |
| System /<br>Diagnostics   | Dual Image Protection, PING, PING6  |
| Switch Properties         |   |
| Switch Architecture       | Back-Plane (Switching Fabric): 32.0Gbps   |
| Protocols                 | IPv4/IPv6, SNMP v1/v2c/v3, LLDP, LLDP-MED, HTTP, HTTPS, SSHv2 telnet, DHCP client, DHCPv6 client, DHCP server, Port Mirror, DNS client/proxy, IP based Access Filter, ICMPv6, syslog, Time Zone / Daylight Saving, NTP client, RMON, sFlow, Loop detection, Console Port, Power Lost Warning, Relay Trigger |
| Processing Type           | Store and Forward   |
| Flow Control              | IEEE 802.3x for full duplex mode, back pressure for half duplex mode  |
| Transfer Rate             | 14,880pps for 10Base-T Ethernet<br>148,800pps for 100Base-T Fast Ethernet<br>1,488,000pps for Gigabit Ethernet  |
| Packet Buffer             | 4Mbits  |
| Jumbo Frame               | 9.6Kbytes   |
| MAC Table Size            | 8K  |
| VLAN Group                | 4095<br>1024  |
| IGMP Group Port Interface | 1024  |
| Ethernet Port             | 16*10/100/1000BaseTx<br>Auto negotiation speed, Full/Half duplex mode,<br>and auto MDI/MDI-X connection   |
| RS232 Serial<br>Console   | 1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8, N, 1  |
| Configuration<br>Backup   | 1*USB 2.0   |
|                           |   |

| Protection                   |  |
|------------------------------|--|
| Overload Current             |  |
| Protection                   | Present  |
| Power Reverse                | Present (the unit will not be on, if power   |
| Polarity                     | reverse)   |
| Network Cable                | 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5<br>cable; EIA/TIA-568 100-ohm (100m)<br>100Base-TX: 2-pair UTP/STP Cat. 5<br>cable; EIA/TIA-568 100-ohm (100m)<br>1000BaseTX: 4-pair UTP/STP Cat.5/5E<br>cable; EIA/TIA-568 100-ohm (100m) |
| Mechanical Characteristics   |  |
| Housing                      | Metal, IP30 rated  |
| Dimension                    | 67 x 142 x 99 mm (W x H x D)   |
| Weight                       | Unit: 2.65 lbs<br>Shipping: 3.09 lbs   |
| Mounting                     | DIN-Rail mounting; Wall mounting   |
| Power Requirement            |  |
| Input Voltage                | 12~48VDC Redundant Input   |
| Power Connection             | 1 removable 4-contact and 2-contact terminal block   |
| System Power<br>Consumption  | 13.8 Watts   |
| Environmental Limits         |  |
| Operating<br>Temperature     | STD: -10° to 70°C<br>EOT: -40° to 75°C   |
| Storage Temperature          | -40°~85°C  |
| Ambient Relative<br>Humidity | 5 to 95%, (non-condensing)   |
| Regulatory Approvals         |  |
| ЕМІ                          | FCC Part 15 Subpart B Class A<br>CE EN55032/EN61000-6-4 Class A  |
| EMS                          | CE EN55035/EN61000-6-2<br>EN61000-4-2,3,4,5,6,8  |
| Free Fall                    | IEC60068-2-32  |
| Shock                        | IEC60068-2-27  |
| Vibration                    | IEC60068-2-6   |
| Green                        | RoHS Compliant   |
| Certifications               | FCC, CE, UL 61010-1, 61010-2-201,<br>NEMA TS2  |
| Substation                   | IEC 61850-3 Edition 2.0  |
| Warranty                     | 5 Years  |

## **ORDERING INFO**

LMX-1600G 16-Port Industrial Gigabit Light Layer 3 Managed Ethernet Switch, with 16\*10/100/1000Tx Ports

LMX-1600G-T 16-Port Industrial Gigabit Light Layer 3 Managed Ethernet Switch, with 16\*10/100/1000Tx Ports; EOT: -40°C to 75°C

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### US

sales@assured-systems.com

Sales: +1 347 719 4508 Support: +1 347 719 4508

1309 Coffeen Ave Ste 1200 Sheridan WY 82801 USA

### **EMEA**

sales@assured-systems.com

Sales: +44 (0)1785 879 050 Support: +44 (0)1785 879 050

Unit A5 Douglas Park Stone Business Park Stone ST15 0YJ United Kingdom

VAT Number: 120 9546 28

Business Registration Number: 07699660