

# LMX-0802 Series

8-Port Industrial Managed Ethernet Switches, w/6\*10/100Tx, 2\*100Fx, 12~48VDC Power Input





#### **Features**

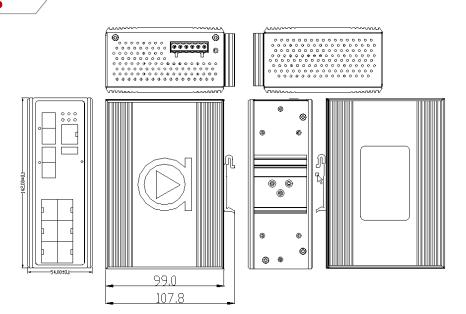
- Supports 6\*10/100Tx and 2\*100Fx (SC/ST Connectors in Multi or Single Mode Fiber)
- ► Network Redundancy: STP/RSTP/MSTP, and G.8032 ERPS (Recovery Time <50ms)
- ► Supports IPv4/IPv6, and DHCP Option 66/67/82
- Supports Modbus/TCP Protocol for Device Management and Monitoring
- ► Configuration: Web Console, Telnet, CLI Command
- ► IGMP v1/v2 for Multicast Traffic Filtering
- System Warning Setting for Automatic Warning through E-mail
- ▶ 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
- Port Lock Function for Unauthorized Access Based on MAC Address Blocking
- ► Auto Warning by Exception through E-mail, Relay Output
- ► Operating Temp –STD: -10~70°C, EOT: -40~75°C
- ▶ 5-Year Warranty

### INTRODUCTION

Antaira Technologies' LMX-0802 series is an 8-port industrial managed Ethernet switch that is embedded with 6\*10/100Tx Ethernet ports and 2\*100Fx fiber ports that support SC or ST connections in either Single or Multi-Mode fiber. The LMX-0802 series is a fully manageable Layer 2 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-0802 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**





## **SPECIFICATIONS**

IEEE 802.3 10Tx Ethernet   IEEE 802.3u 100Tx Fast Ethernet   IEEE 802.3u 100Tx Fast Ethernet   IEEE 802.3x Flow Control for Full Duplex   IEEE 802.3ad for Port Trunk with LACP   IEEE 802.1d STP (Spanning Tree   Protocol)   IEEE 802.1w RSTP (Rapid Spanning Tree   Protocol)   IEEE 802.1s MSTP (Multiple Spanning Tree   Protocol)   ITU-T G.8032/Y.1344 ERPS (Ethernet Ring Protection Switch) Protocol   IEEE 802.1q for VLAN Tagging   IEEE 802.1q for VLAN Tagging   IEEE 802.1q for Network Authentication   IEEE 802.1p QoS/CoS Protocol for Traffic   Prioritization   IGMPv1/v2, SNMPv1/v2c/v3, TFTP, SNTP, SMTP, RMON, HTTP, HTTPS, Telnet, Syslog, DHCP Option 66/67/82, SSH/SSL, Modbus/TCP, LLDP, IPv4/IPv6   Switch Properties   Configuration   Web Console, Telnet, CLI   Processing Type   Store and Forward   IEEE 802.3x for full duplex mode, back   pressure for half duplex mode   14,880pps for 10Base-T Ethernet   148,800pps for 10Base-T Fast Ethernet   148,800pps fo	Technology	
Protocol  SNTP, SMTP, RMON, HTTP, HTTPS, Telnet, Syslog, DHCP Option 66/67/82, SSH/SSL, Modbus/TCP, LLDP, IPv4/IPv6  Switch Properties  Configuration  Web Console, Telnet, CLI  Processing Type  Store and Forward  IEEE 802.3x for full duplex mode, back pressure for half duplex mode  Transfer Rate  14,880pps for 10Base-T Ethernet 148,800pps for 10Base-T Fast Ethernet  Packet Buffer  Jumbo Frame  MAC Table Size  8K  VLAN Group  1 ~ 4094  IGMP Group  Port Interface  6*10/100BaseTx auto negotiation speed, Full/Half duplex mode, and auto MDI connection  Fiber Ports  2*100Fx SC or ST in Single or Multi-Mode Wavelength  Dependent on Fiber type and Distance  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1	Standards	IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3x Flow Control for Full Duplex IEEE 802.3ad for Port Trunk with LACP IEEE 802.1d STP (Spanning Tree Protocol) IEEE 802.1w RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s MSTP (Multiple Spanning Tree Protocol) ITU-T G.8032/Y.1344 ERPS (Ethernet Ring Protection Switch) Protocol IEEE 802.1Q for VLAN Tagging IEEE 802.1x for Network Authentication IEEE 802.1p QoS/CoS Protocol for Traffic
ConfigurationWeb Console, Telnet, CLIProcessing TypeStore and ForwardFlow ControlIEEE 802.3x for full duplex mode, back pressure for half duplex modeTransfer Rate14,880pps for 10Base-T Ethernet 148,800pps for 10Base-T Fast EthernetPacket Buffer4 MbitsJumbo Frame-MAC Table Size8KVLAN Group1 ~ 4094IGMP GroupUp to 256 GroupsPort Interface6*10/100BaseTx auto negotiation speed, Full/Half duplex mode, and auto MDI connectionFiber Ports2*100Fx SC or ST in Single or Multi-ModeWavelengthDependent on Fiber type and DistanceRS232 Serial Console1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1	Protocol	SNTP, SMTP, RMON, HTTP, HTTPS, Telnet, Syslog, DHCP Option 66/67/82,
Processing Type  Store and Forward  IEEE 802.3x for full duplex mode, back pressure for half duplex mode  Transfer Rate  14,880pps for 10Base-T Ethernet 148,800pps for 100Base-T Fast Ethernet 148,800pps for 100Base-T Fast Ethernet  Packet Buffer  4 Mbits  Jumbo Frame  - MAC Table Size  8K  VLAN Group  1 ~ 4094  IGMP Group  Port Interface  6*10/100BaseTx auto negotiation speed, Full/Half duplex mode, and auto MDI connection  Fiber Ports  2*100Fx SC or ST in Single or Multi-Mode Wavelength  Dependent on Fiber type and Distance  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1	Switch Properties	
Flow Control  IEEE 802.3x for full duplex mode, back pressure for half duplex mode  14,880pps for 10Base-T Ethernet 148,800pps for 100Base-T Fast Ethernet  Packet Buffer  4 Mbits  Jumbo Frame  - MAC Table Size  8K  VLAN Group  1 ~ 4094  IGMP Group  Port Interface  Ethernet RJ45 Port  6*10/100BaseTx auto negotiation speed, Full/Half duplex mode, and auto MDI connection  Fiber Ports  2*100Fx SC or ST in Single or Multi-Mode Wavelength  Dependent on Fiber type and Distance  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1	Configuration	Web Console, Telnet, CLI
Transfer Rate  14,880pps for 10Base-T Ethernet 148,800pps for 100Base-T Fast Ethernet 148,800pps for 100Base-T Ethernet 148,800pps for 100Base-T Ethernet 148,800pps for 100Base-T Ethernet 148,800pps for 100Base-T Fast Ethernet 148,800pps for 100Base-T	Processing Type	Store and Forward
Packet Buffer 4 Mbits  Jumbo Frame -  MAC Table Size 8K  VLAN Group 1 ~ 4094  IGMP Group Up to 256 Groups  Port Interface  Ethernet RJ45 Port 6*10/100BaseTx auto negotiation speed, Full/Half duplex mode, and auto MDI connection  Fiber Ports 2*100Fx SC or ST in Single or Multi-Mode  Wavelength Dependent on Fiber type and Distance  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1	Flow Control	pressure for half duplex mode
Jumbo Frame  MAC Table Size  VLAN Group  IGMP Group  Port Interface  6*10/100BaseTx auto negotiation speed, Full/Half duplex mode, and auto MDI connection  Fiber Ports  2*100Fx SC or ST in Single or Multi-Mode Wavelength  Dependent on Fiber type and Distance  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1	Transfer Rate	
MAC Table Size  VLAN Group  IGMP Group  Port Interface  6*10/100BaseTx auto negotiation speed, Full/Half duplex mode, and auto MDI connection  Fiber Ports  2*100Fx SC or ST in Single or Multi-Mode Wavelength  Dependent on Fiber type and Distance  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1	Packet Buffer	4 Mbits
VLAN Group IGMP Group Port Interface  6*10/100BaseTx auto negotiation speed, Full/Half duplex mode, and auto MDI connection  Fiber Ports 2*100Fx SC or ST in Single or Multi-Mode Wavelength Dependent on Fiber type and Distance  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1		-
IGMP Group Port Interface  6*10/100BaseTx auto negotiation speed, Full/Half duplex mode, and auto MDI connection  Fiber Ports 2*100Fx SC or ST in Single or Multi-Mode Wavelength Dependent on Fiber type and Distance  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1		8K
Port Interface  6*10/100BaseTx auto negotiation speed, Full/Half duplex mode, and auto MDI connection  Fiber Ports 2*100Fx SC or ST in Single or Multi-Mode Wavelength Dependent on Fiber type and Distance  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1	•	
6*10/100BaseTx auto negotiation speed, Full/Half duplex mode, and auto MDI connection  Fiber Ports 2*100Fx SC or ST in Single or Multi-Mode Wavelength Dependent on Fiber type and Distance  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1		Up to 256 Groups
Fiber Ports Ports 2*100Fx SC or ST in Single or Multi-Mode Wavelength Dependent on Fiber type and Distance  1*RS232 Serial Console 1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1	Port Interface	
Wavelength Dependent on Fiber type and Distance  RS232 Serial Console  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1		Full/Half duplex mode, and auto MDI connection
RS232 Serial Console  1*RS232 in RJ45 connector with console cable, 115.2Kbps, 8,N,1		<u> </u>
RS232 Serial Console cable, 115.2Kbps, 8,N,1	Wavelength	
	RS232 Serial Console	
	Configuration Backup	1*USB 2.0

Protection	
	Descent
Overload Current	Present
Power Reverse Polarity	Present
CPU Watchdog	Present
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable; 100Base-TX: 2-pair UTP/STP Cat. 5 cable. EIA/TIA- 568 100-ohm (100m) 1000BaseTX: UTP/STP Cat.5/5E cable; EIA/TIA-568 100-ohm (100m)
Mechanical Characteristics	
LED Indicator	Per Unit: Power 1 & 2 (Green), Fault (Green/Red)
Housing	Metal IP30 rated
Dimension	54 x 142 x 99 mm
Weight	Unit: 2.4 lbs.; Shipping: 2.9 lbs.
Mounting	DIN-Rail; Wall-Mount (optional)
Power Requirement	
Input Voltage	12~48VDC Redundant Input
Power Connection	1 removable 6-contact terminal block
Power Consumption	15 Watts
Environmental Limits	
Operating Temperature	STD: -10 to 70°C EOT: -40 to 75°C
Storage Temperature	-40°C ~ 85°C
Ambient Relative Humidity	5 to 95%, (non-condensing)
Regulatory Approvals	
EMI	FCC Class A
EMS	IEC61000-4-2,3,4,5,6,8 IEC61000-6-2,4
Free Fall	IEC60068-2-32
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Green	RoHS Compliant
Certifications	FCC, CE, UL-61010-2- 201(pending)
Warranty	5 Years

### **ORDERING INFO**

LMX-0802-M	8-Port Industrial PoE+ Managed Ethernet Switch with 6*10/100Tx + 2*100Fx MM SC Fiber Ports
LMX-0802-M-T	8-Port Industrial PoE+ Managed Ethernet Switch with 6*10/100Tx + 2*100Fx MM SC Fiber Ports; EOT: -40° to 75°C
LMX-0802-ST-M	8-Port Industrial PoE+ Managed Ethernet Switch with 6*10/100Tx + 2*100Fx MM ST Fiber Ports
LMX-0802-ST-M-T	8-Port Industrial PoE+ Managed Ethernet Switch with 6*10/100Tx + 2*100Fx MM ST Fiber Ports; EOT: -40° to 75°C
LMX-0802-S3	8-Port Industrial PoE+ Managed Ethernet Switch with 6*10/100Tx + 2*100Fx SM SC Fiber Ports
LMX-0802-S3-T	8-Port Industrial PoE+ Managed Ethernet Switch with 6*10/100Tx + 2*100Fx SM SC Fiber Ports; EOT: -40° to 75°C
LMX-0802-ST-S3	8-Port Industrial PoE+ Managed Ethernet Switch with 6*10/100Tx + 2*100Fx SM ST Fiber Ports
LMX-0802-ST-S3-T	8-Port Industrial PoE+ Managed Ethernet Switch with 6*10/100Tx + 2*100Fx SM ST Fiber Ports ; EOT: -40° to 75°C
<b>Optional Accessories</b>	
DR-75-48	75W Industrial Din Rail Power Supply (48VDC)
DR-120-48	120W Industrial Din Rail Power Supply (48VDC)
SDR-240-48	240W Industrial Din Rail Power Supply (48VDC)
SFP-M-T	1 Gigabit Fiber SFP Transceiver, Multi-Mode 550M / LC / 850nm, -40°C~85°C
SFP-S10-T	1 Gigabit Fiber SFP Transceiver, Single Mode 10KM / LC / 1310nm, -40°C~85°C
DIN-RACK-2U	Din-Rail to 19" Rack Mount Adapter for all Din-Rail Mountable Products, 2U Height

