

# IGS-2404

4 10/100/1000T + 4 10/100/1000T/SFP

## Pro-Ring Managed Industrial Switch

- Wide-range redundant power design
- Pro-Ring system covers X-ring, Dual Homing, and Couple Ring Topology
- Relay Alarm Output System Events
- IP-30 metal housing with DIN rail and wall mount design



## OVERVIEW

The Lantech IGS-2404 is a 4-port 10/100/1000T + 4-port 10/100/1000T/SFP combo L2 managed industrial switch. The SFP interface supports both 100M and Giga fiber. The Lantech IGS-2404 redundant power design and Pro-Ring features ensure a high-performance and reliable network connection.

The Lantech IGS-2404 is designed with redundant power supply and wide power input range from DC9V to 56V. Featured with relay contact function, the IGS-2404 is able to connect with alarm system in case of power or port failure. The IGS-2404 also provides 3000V EFT and 4000V ESD protections, which can reduce unstable condition caused by power line and Ethernet.

The Lantech IGS-2404 supports Pro-Ring system, which covers

X-Ring, Couple Ring, and Dual Homing. X-Ring provides a recovery time of less than 10ms\*\*\* for a ring of up to 250 switches. Couple Ring ensures network recovery protection between two X-Ring groups as well as Dual homing to back up the X-Ring groups when connect to upper layer or core switch.

Lantech-View 10node version is free bundle with the IGS-2404, in which it monitors and configures multiple Lantech industrial switches. Optional Lantech-View Pro can map up to unlimited user with auto-layout, configuration and discovery.

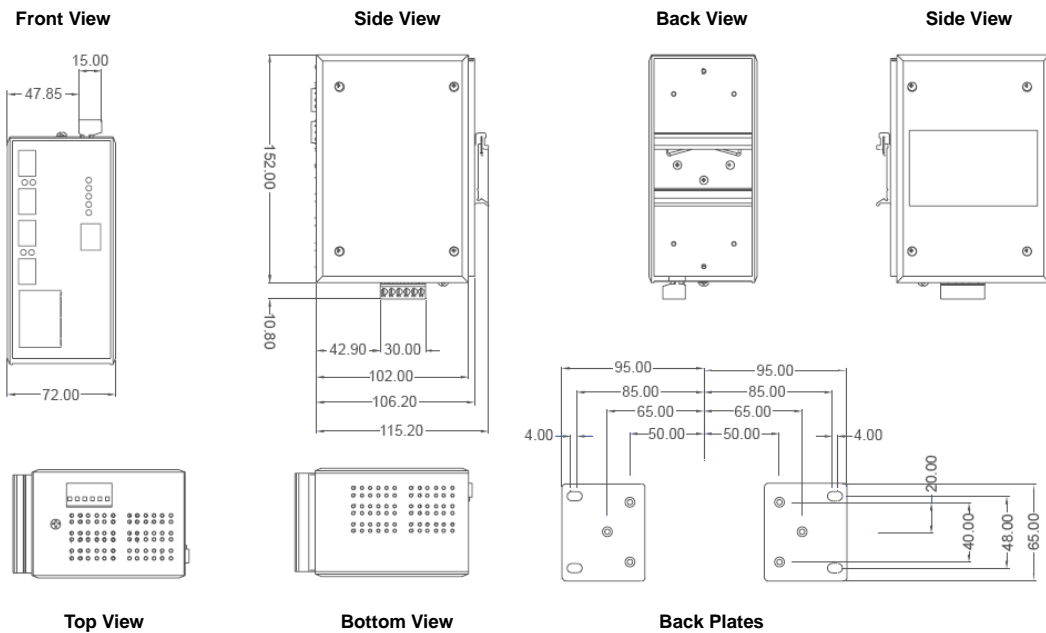
The Lantech IGS-2404 can set Back-up Masters in X-Ring to ensure the most secure network. It is the best solution for Automation, transportation, surveillance, Wireless backhaul, Semi-conductor factory and assembly lines.

## FEATURES & BENEFITS

- 4-port 10/100/1000T + 4 10/100/1000T/SFP L2 Managed Industrial Switch. (Total 8 Port Switch)
- RJ-45 Port Support Auto MDI/MDI-X Function.
- Conforms to IEEE 802.3 10Base-T, 802.3u 100Base-TX, and IEEE 802.3ab 1000Base-T.
- IEEE 802.3x flow Control Support.
- Store-and-Forward Switching Architecture.
- Back-plane (Switching Fabric):1.6Gbps
- SFP (Mini-GBIC) Support 100/1000 Dual Mode.
- 1Mbits Packet Buffer
- 8K MAC address table
- Wide-range redundant power design with power polarity reverse protection.
- Pro-Ring
  - X-ring, Dual Homing, and Couple Ring Topology.
  - Provide redundant backup feature and the recovery time below 10ms\*\*\*.
- Provides EFT protection 3000 VDC for power line.
- Supports 4000 VDC Ethernet ESD protection
- Supports IEEE 802.1p Class of Service, per port provides 4 priority queues Port base, Tag Base and Type of Service Priority
- IEEE 802.1d Spanning Tree & IEEE 802.1w RSTP
- Port Based VLAN, 802.1Q Tag VLAN, Double Tag VLAN (Q in Q)\*\*
- Supports Ingress Packet Filter and Egress Rate Limit.
- System Log Server/Client.
- SMTP e-mail Alert
- Relay Alarm Output System Events
- Security
  - Port Security: MAC address entries/Filter
  - IP Security: IP address security management to prevent unauthorized intruder.
  - Login Security: IEEE802.1X/RADIUS
- IGMP with Query mode for Multi Media
- TFTP Firmware Update and System Configure Restore/Backup.
- IP30 metal housing with DIN rail and wall mount design

Datasheet Version 1.0

**DIMENSIONS (unit=mm)**



**SPECIFICATION**

Hardware Specification		Software Specification	
Standards	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z Gigabit fiber IEEE802.3x Flow Control and Back Pressure IEEE802.3ad Port trunk with LACP IEEE802.1d Spanning Tree IEEE802.1w Rapid Spanning Tree IEEE802.1p Class of Service IEEE802.1Q VLAN Tag IEEE802.1x User Authentication (Radius) IEEE802.1ab LLDP	Storage Temperature	-40°C~85°C / -40°F~185°F
Switch Architecture	Back-plane (Switching Fabric): 1.6Gbps Packet throughput ability (Full-Duplex): 23.8Mpps @64bytes	Power Supply	DC 12~48V, Redundant power with polarity reverse protect function and removable terminal block
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Fiber Ethernet port	Power Consumption	17 Watts (Open Issue)
Packet Buffer	1Mbits	Optical Cable	Multi-mode: 50/125um~62.5/125um Single mode: 9/125um Available distance: 2km (Multi-mode)/30km (Single-mode) Wavelength: 1310nm (Multi-mode/Single mode)
Mac Address	8K MAC address table	Case Dimension	Metal case. IP-30, 72mm (W) x 105mm (D) x 152mm (H)
Flash ROM	4Mbytes	Weight	1250 g
DRAM	32Mbytes	Installation	DIN Rail and Wall Mount Design
Connectors	10/100/1000T: 4 x RJ-45 Mini-GBIC: 4 x 100/1000 SFP Sockets Console port: RS-232 connector	EMI & EMS	FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN-61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS), CE EN61000-4-8, CE EN61000-4-11, CE EN61000-4-12, CE EN61000-6-2, CE EN61000-6-4
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5/5E cable EIA/TIA-568 100-ohm (100m)	Safety	UL, cUL, CE/EN60950-1
Protocol	CSMA/CD	Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)
LED	Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Red), Master (Green) Per port: Link/Activity (Green), Speed (1000Mbps Green) SFP: Link/Activity (Green)	MTBF	286945 hrs
Operating Humidity	5% ~ 95% (Non-condensing)	Warranty	5 years
Operating Temperature	-20°C~60°C / -4°F~140°F	<b>Software Specification</b>	
		Management	SNMP v1 v2c, v3/ Web/Telnet/CLI
		SNMP MIB	RFC 1215 Traps MIB, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643 EtherLike, RFC 1757 RMON, RSTP MIB, Private MIB, LLDP MIB
		Pro-ring	Supports X-ring, Dual Homing, and Couple Ring Provides redundant backup feature and the recovery time below 10ms*** for a ring of up to 250 switches

**Industrial Managed Switches**

Port Trunk with LACP	LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk members		Broadcast/Multicast packet, Broadcast packet only and all of packet. The packet filter rate can be set from 100k to 250Mbps
LLDP	Supports LLDP to allow switch to advise its identification and capability on the LAN	Flow Control	Supports Flow Control for Full-duplex and Back Pressure for Half-duplex
VLAN	Port Based VLAN IEEE 802.1Q Tag VLAN (256 entries)/ VLAN ID (Up to 4K, VLAN ID can be assigned from 1 to 4096.) GVRP (256 Groups) Double Tag VLAN (Q in Q)* Private VLAN**	System Log	Supports System log record and remote system log server
Spanning Tree	Supports IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree	SMTP	Supports SMTP Server and 6 e-mail accounts for receiving event alert
Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service, IPv4/IPv6 Different Service	Relay Alarm	Provides one relay output for port breakdown, power fail and alarm. Alarm Relay current carry ability: 1A @ DC24V
Class of Service	Supports IEEE802.1p class of service, per port provides 4 priority queues	SNMP Trap	Up to 3 Trap stations Cold start, Port link up, Port link down, Authentication Failure, Private Trap for power status, Port Alarm configuration, Fault alarm, X-Ring topology change
Port Security	Supports 100 entries of MAC address for static MAC and another 10 for MAC filter	DHCP	Provide DHCP Client/ DHCP Server
Port Mirror	Supports 3 mirroring types: "RX, TX and Both packet".	DNS	Provide DNS client feature and support Primary and Secondary DNS server.
IGMP	Supports IGMP snooping v1,v2, v3 256 multicast groups and IGMP query	SNTP	Supports SNTP to synchronize system clock in Internet
IP Security	Supports 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder.	Firmware Update	Supports TFTP firmware update, TFTP backup and restore.
Login Security	Supports IEEE802.1X Authentication/RADIUS	Configuration upload and download	Supports binary format configuration file for system quick installation
Bandwidth Control	Supports ingress packet filter and egress packet limit The egress rate control supports all of packet type and the limit rates are 100K~250Mbps Ingress filter packet type combination rules are Broadcast/Multicast/Unknown Unicast packet,		

\*Future release  
\*\*Optional  
\*\*\*The Recovery Time of X-Ring: SFP<10ms ; G-T<150ms

**ORDERING INFORMATION**

- **IGS-2404.....P/N: 8350-800**  
4 10/100/1000T + 4 10/100/1000T/SFP L2 Managed Industrial Switch

**OPTIONAL ACCESSORIES**

**DIN Rail Power**

- **AD1048-24FS** 24VDC, 2A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C
- **AD1024-24F** 24VDC, 1A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C
- **AD1240-48S** 48VDC, 5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C
- **AD1120-48F** 48VDC, 2.5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C

**Mini GBIC (SFP)**

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|--|--|
| ■ <b>8330-162</b> MINI GBIC 1000SX (LC/0.5km) Transceiver      | ■ <b>8330-188</b> LTSFP-1000BX-10KM Transceiver (WDM 1310) |
| ■ <b>8330-163</b> MINI GBIC 1000SX2 (LC/2km) Transceiver       | ■ <b>8330-189</b> LTSFP-1000BX-10KM Transceiver (WDM 1550) |
| ■ <b>8330-165</b> MINI GBIC 1000LX (LC/10km) Transceiver       | ■ <b>8330-186</b> LTSFP-1000BX-20KM Transceiver (WDM 1310) |
| ■ <b>8330-166</b> MINI GBIC 1000LHX (LC/40km) Transceiver      | ■ <b>8330-187</b> LTSFP-1000BX-20KM Transceiver (WDM 1550) |
| ■ <b>8330-169</b> MINI GBIC 1000XD (LC/60km) Transceiver       | ■ <b>8330-180</b> LTSFP-1000BX-40KM Transceiver (WDM 1310) |
| ■ <b>8330-167</b> MINI GBIC 1000ZX (LC/80km) Transceiver       | ■ <b>8330-182</b> LTSFP-1000BX-40KM Transceiver (WDM 1550) |
| ■ <b>8330-168</b> MINI GBIC 1000T (100m) Transceiver           | ■ <b>8330-181</b> LTSFP-1000BX-60KM Transceiver (WDM 1310) |
| ■ <b>8330-061</b> 100Base LX 30KM, Single-mode, LC Transceiver | ■ <b>8330-183</b> LTSFP-1000BX-60KM Transceiver (WDM 1550) |
| ■ <b>8330-060</b> 100Base FX 2KM, Multi-mode, LC Transceiver   | ■ <b>8330-184</b> LTSFP-1000BX-80KM Transceiver (WDM 1490) |
|  | ■ <b>8330-185</b> LTSFP-1000BX-80KM Transceiver (WDM 1550) |

**Lantech Communications Global Inc.**

www.lantechcom.tw  
info@lantechcom.tw

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