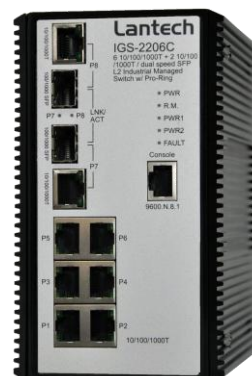


# IGS-2206C

6 10/100/1000T + 2 10/100/1000T/Dual Speed SFP Combo w/Pro-Ring  
 Managed Industrial Switch

- Wide operating temperature range from -40°C to 75°C
- Pro-Ring system covers X-Ring, Dual Homing, and Couple Ring Topology
- Relay alarm output system events
- Redundant power with polarity reverse protect function



## OVERVIEW

The Lantech IGS-2206C is a 6-port 10/100/1000BaseT + 2-port 10/100/1000T/Dual Speed SFP Combo w/Pro-Ring Managed Industrial Switch with SNMP functionality. The full SNMP features are including QoS for 4 queues, 801.q VLAN, IGMP snooping and query mode as well as Sntp and SMTP.

The Lantech IGS-2206C supports Pro-Ring system, which covers X-Ring, Couple Ring, Dual Ring and Dual Homing. X-Ring provides a recovery time of less than 10ms\*\*\* for a ring of up to 250 switches. Couple Ring and Dual Ring ensure 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.

Besides redundant power supply design from 9V to 56VDC, the Lantech IGS-2206C/E also provides 3000V EFT and 6000V

ESD protections, reducing unstable condition caused by power line and Ethernet.

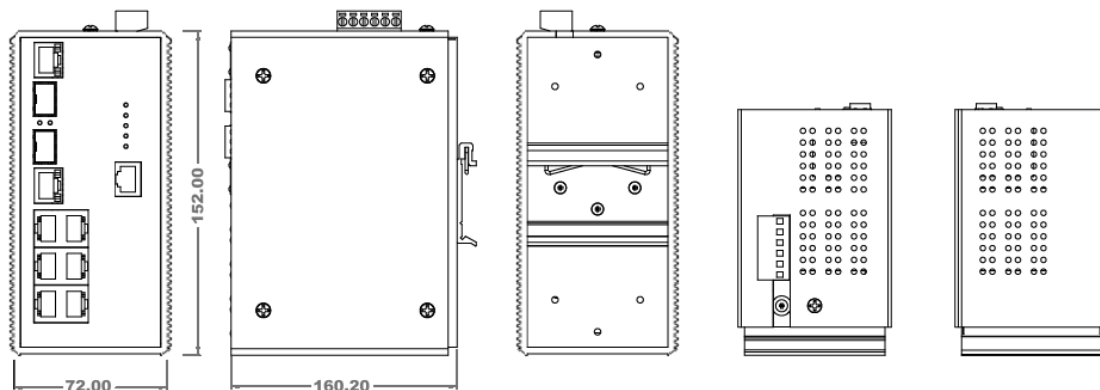
The IGS-2206C is designed to meet with critical network environment with IP30 enclosure and test under extensive Industrial EMI and Safety standards. Lantech Industrial Switch's relay contact to alarm system can immediately notify of power failure and/or port down events. In case of events, the Lantech IGS-2206C will immediately send an email to 6 pre-defined addresses.

The Lantech IGS-2206C is the best to use in automation, surveillance, transportation, semi-conductor factory, heavy Industrial factory and other factory assembly lines. The -E model can be used in extreme environments with an operating temperature range of -40°C to 75°C.

## FEATURES & BENEFITS

- 6-port 10/100/1000T + 2 10/100/1000T/ Dual Speed SFP Combo w /Pro-Ring Managed Industrial Switch.
- RJ-45 Port Support Auto MDI/MDI-X Function.
- Store-and-Forward Switching Architecture.
- Back-plane (Switching Fabric):16Gbps
- 1Mbits Packet Buffer
- 8K MAC address table
- Wide-range redundant power design (9 to 56VDC/-9 to -56VDC))
- Supports IEEE 802.1d Spanning Tree
- Supports IEEE 802.1w Rapid Spanning Tree
- Port Based VLAN, GVRP, Private VLAN\*\*
- Supports 802.1Q Tag VLAN, DoubleTag VLAN (Q in Q)\*\*
- Provides EFT protection 3000 VDC for power line
- Supports 6000 VDC Ethernet ESD protection
- Pro-Ring
  - X-Ring, Dual Homing, Dual Ring and Couple Ring Topology.
  - Provides redundant backup feature and the recovery time below 10ms for a ring of up to 250 switches\*\*\*.
- Port Trunk with LACP
- Supports IEEE 802.1ab LLDP
- IEEE 802.1p CoS, per port provides 4 priority queues
- Port base, Tag Base and Type of Service Priority
- Supports Ingress Packet Filter and Egress Rate Limit.
- Supports Broadcast/Multicast Packet Filter Control
- Port Mirror: Monitor traffic in switched networks
  - TX Packet only / RX Packet only / Both of TX and RX
- System Log Server/Client.
- SMTP e-mail Alert
- Relay Alarm Output System Events
- Security
  - 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.
- IP-30 Protection with DIN rail and wall mount design

## DIMENSIONS (unit=mm)



**SPECIFICATION**

Hardware 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 IEEE 802.1x User Authentication (Radius) IEEE802.1ab LLDP
Switch Architecture	Back-plane (Switching Fabric): 16Gbps
Transfer Rate	14,880 pps for 10Base-T Ethernet 148,800 pps for 100Base-TX Fast Ethernet 1,488,000 pps for Gigabit Ethernet port
Packet Buffer	1Mbits
Mac Address	8K MAC address table
Flash ROM	4Mbytes
DRAM	32Mbytes
Connectors	10/100/1000T: 6 ports RJ-45 with Auto MDI/MDI-X function 10/100/1000T/Mini GBIC Combo:2 x RJ-45 + 2 x 100/100 SFP sockets RS-232 connector: RJ-45 type
Network Cable	10/100/1000Base-T: 2-pair UTP/STP Cat. 5e/6 cable EIA/TIA-568 100-ohm (100m) SFP (Mini-GBIC): Multi-mode: 50/125µm~62.5/125µm Single-mode: 9/125µm
Protocol	CSMA/CD
LED	Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Yellow), Master (Green) Per port: Link/Activity (Green), speed ( 1000 Green) Mini GBIC: Link/Activity (Green)
Power Supply	24 VDC(9 ~56 VDC) /-24 VDC(-9 ~-56 VDC); 18~36VAC**, Redundant power with polarity reverse protect function and connective removable terminal block for master and slave power
Power Consumption	18 Watts
Operating Humidity	5% ~ 95% (Non-condensing)
Operating Temperature	-20°C~60°C / -4°F~140°F (Standard model) -40°C~75°C / -40°F~167°F (-E model)
Storage Temperature	-40°C~85°C / -40°F~185°F
MTBF	248507 hrs
Fan Number	0
Installation	DIN Rail and Wall Mount Design
Case Dimension	Metal case. IP-30, Standard model: 72 (W) x 105 (D) x 152mm (H) E model: 59.6 (W) x 118.47 (D) x 161.6mm (H)
Weight	1418 g

EMI & EMS	FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN61000-4-4 (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
Safety	UL, cUL, CE/EN60950-1 UL Class I Division II for Group A,B,C and D hazardous location
Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)
Warranty	5 years
Software Specification	
Management	SNMP v1 v2c, v3/ Web/Telnet/CLI/Lantech View
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
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**
LLDP	Supports LLDP to allow switch to advise its identification and capability on the LAN
Spanning Tree	Supports IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree
Pro-Ring	Pro-Ring system covers X-Ring, Dual Homing, and Couple Ring Topology. Provide redundant backup feature and the recovery time below 10ms. Dual Ring can connect two rings without couple ring.
Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service, IPv4/ IPv6Different Service
Class of Service	Supports IEEE802.1p class of service, per port provides 4 priority queues
Port Security	Supports 100 entries of MAC address for static MAC and another 100 for MAC filter
Port Mirror	Supports 3 mirroring types: "RX, TX and Both packet".
IGMP	Supports IGMP snooping v1,v2 256 multicast groups and IGMP query
IP Security	Supports 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder.
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, Broadcast/Multicast packet, Broadcast packet only and all of packet. The packet filter rate can be set from 100k to 250Mbps
Flow Control	Full-duplex and Back Pressure for Half-duplex
System Log	System log record and remote system log server

**Industrial Managed Switches**

SNTP	SNTP to synchronize system clock in Internet	Firmware Update	TFTP firmware update, TFTP backup and restore.
SMTP	SMTP Server and 6 e-mail accounts for receiving event alert	Configuration upload and download	Supports text format configuration file for system quick installation
Relay Alarm	Provides one relay output for port breakdown, power fail and alarm Alarm Relay current carry ability: 1A @ DC24V	Port Trunk with LACP	LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk members
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	Login Security	Supports IEEE802.1X Authentication/RADIUS
DHCP	DHCP Client/ DHCP Server/ IP Relay functions	*Future release **Optional ***The Recovery Time of X-Ring: SFP<10ms ; G-T<150ms	
DNS	Provides DNS client feature and supports Primary and Secondary DNS server.		

**ORDERING INFORMATION**

- **IGS-2206C.....P/N: 8350-604**  
6 10/100/1000T + 2 10/100/1000T/Dual Speed SFP Combo w/Pro-Ring Managed Industrial Switch  
Standard Operating Temperature (-20°C to 60°C)
- **IGS-2206C-E.....P/N: 8350-640**  
6 10/100/1000T + 2 10/100/1000T/Dual Speed SFP Combo w/Pro-Ring Managed Industrial Switch  
Wide Operating Temperature (-40°C to 75°C)
- **IGS-2206C-AC.....P/N: 8350-604-AC**  
6 10/100/1000T + 2 10/100/1000T/Dual Speed SFP Combo w/Pro-Ring Managed Industrial Switch  
Standard Operating Temperature (-20°C to 60°C); 18~36VAC
- **IGS-2206C-E-AC.....P/N: 8350-640-AC**  
6 10/100/1000T + 2 10/100/1000T/Dual Speed SFP Combo w/Pro-Ring Managed Industrial Switch  
Wide Operating Temperature (-40°C to 75°C); 18~36VAC

**OPTIONAL ACCESSORIES**

**DIN Rail Power**

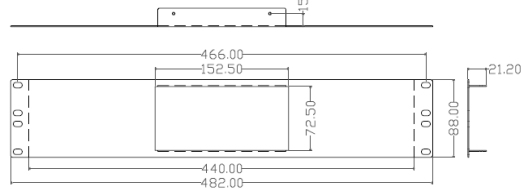
- **AD1048-24FS** 24VDC, 2A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C (ambient, derating each output at 2.5% per degree from 50°C ~ 75°C, which means the output is 18 Watts at 75°C.)
- **AD1024-24F** 24VDC, 1A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C (ambient, derating each output at 2.5% per degree from 50°C ~ 75°C, which means the output is 9 Watts at 75°C.)
- **AD1240-48S** 48VDC, 5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°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 (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)

**Mini GBIC (SFP)**

- **8330-162** MINI GBIC 1000SX (LC/0.5km) Transceiver
- **8330-163** MINI GBIC 1000SX2 (LC/2km) Transceiver
- **8330-165** MINI GBIC 1000LX (LC/10km) Transceiver
- **8340-0591** MINI GBIC 1000LHX (LC/40km) Transceiver
- **8330-166** MINI GBIC 1000XD (LC/50km) Transceiver
- **8330-169** MINI GBIC 1000XD (LC/60km) Transceiver
- **8330-167** MINI GBIC 1000ZX (LC/80km) Transceiver
- **8330-170** MINI GBIC 1000EZ (120km) Transceiver
- **8330-168** MINI GBIC 10/100/1000T (100m) Transceiver
- **8330-060** 100Base FX 2KM, Multi-mode, LC Transceiver
- **8330-065** 100Base FX 5KM, Multi-mode, LC Transceiver
- **8330-061** 100Base LX 30KM, Single-mode, LC Transceiver
- **8330-188** LTSFP-1000BX-10KM Transceiver (WDM 1310)
- **8330-189** LTSFP-1000BX-10KM Transceiver (WDM 1550)
- **8330-186** LTSFP-1000BX-20KM Transceiver (WDM 1310)
- **8330-187** LTSFP-1000BX-20KM Transceiver (WDM 1550)
- **8330-180** LTSFP-1000BX-40KM Transceiver (WDM 1310)
- **8330-182** LTSFP-1000BX-40KM Transceiver (WDM 1550)
- **8330-181** LTSFP-1000BX-60KM Transceiver (WDM 1310)
- **8330-183** LTSFP-1000BX-60KM Transceiver (WDM 1550)
- **8330-184** LTSFP-1000BX-80KM Transceiver (WDM 1490)
- **8330-185** LTSFP-1000BX-80KM Transceiver (WDM 1550)

**Rack Mounting Kit**

- **MBAK19001** 19" Rack Mounting Kit for  
72x105x152mm Industrial Switch



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