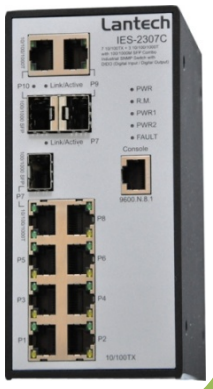
IES-2307C

7 10/100TX + 3 10/100/1000T with 100/1000M SFP Combo Industrial Managed Switch with DIDO



- *Supports DIDO (Digital input / output) function*
- *X-Ring provides Ring recovery time of less than 10ms*
- *Wide operating temperature range from -40℃ to 75℃ (-E model)*
- *UL Class I Division II for Group A,B,C and D*

OVERVIEW

The Lantech IES-2307C is a 7-Port 10/100Base-TX + 3 10/100/1000T with 100/1000 SFP Combo Industrial Switch with SNMP functionality. The SNMP features are including QoS for 4 queues, 801.q VLAN, IGMP snooping and query mode as well as SNTP and SMTP.

The IES-2307C supports Pro-Ring system, which covers X-Ring, Couple Ring, Dual Homing and Dual Ring. 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. Dual homing is to back up the X-Ring groups when connect to upper layer or core switch. It also supports Dual Ring, which can connect two rings without setting couple ports.

The IES-2307C DIDO function can support additional open/close physical contact for designate applications besides Port / Power events, for example, DIDO function can trigger alarm if the switch was moved or stolen. In case of events, the IES-2307C will immediately send an email to pre-defined addresses as well as SNMP Traps out. It provides 2DI and 2DO while disconnection of the specific port was detected; DO will activate the signal LED to alarm. DI can integrate the sensors into the auto alarm system and transfer the alarm information to IP network with email and SNMP.

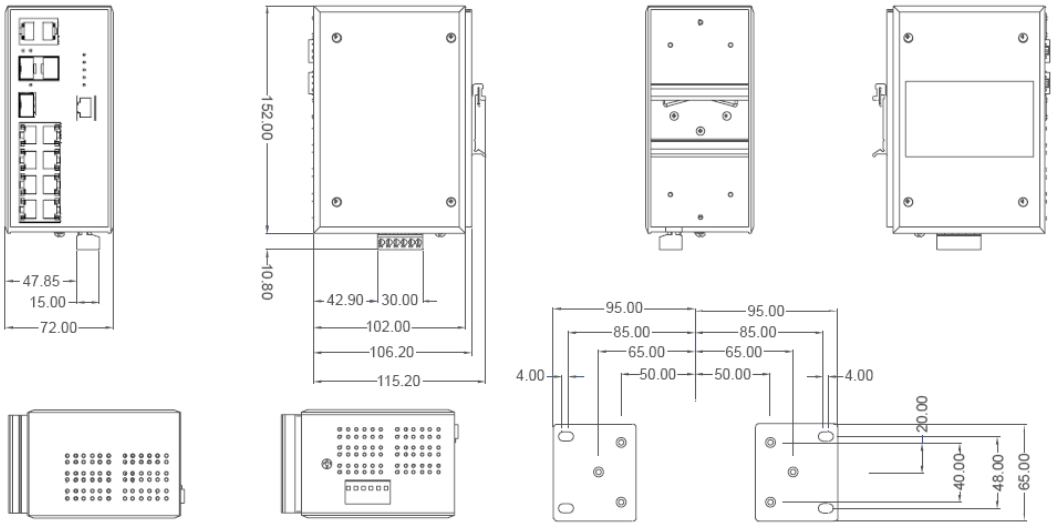
Lantech-View is free bundle for 10 node version, in which it monitors and configures multiple Lantech industrial switches. Optional Lantech-View Pro can map up to unlimited user with auto-layout, configuration and discovery.

The IES-2307C is designed to meet with critical network environment with IP 30 enclosure and test under extensive Industrial EMI and Safety standards. With UL Class I Division II approval, the IES-2307C can be implemented in hazardous or explosive condition without accelerating the damage. It's the best choice for inflammable environment where the liquid, gas and vapor etc might present the hazardous condition which generally to be find in mining, oil & gas, chemical, processing automation areas. It's also suitable for surveillance, factory automation, transportation, telecom / ISP outside terminal, heavy industrial factory and other factory assembly lines.

FEATURES & BENEFITS

- **2DI (Digital input) & 2DO (Digital output) function**
- **Pro-Ring**
  - *X-Ring, Dual Homing, Couple Ring, and Dual Ring*
  - *Redundant backup feature and the recovery time less than 10ms for a ring of up to 250 switches**
- **Wide Operating Temperature (-40°C ~75°C) for -E model**
- **Port Trunk with LACP**
- **QoS, CoS supported**
- **Security**
  - *Port Security: MAC address entries/filter*
  - *10 IP address security management to prevent unauthorized intruder*
  - *Login Security: IEEE802.1X/RADIUS*
- **IGMP Snooping & Query for Multi Media Applications**
- **Supports Spanning Tree & RSTP**
- **Support 802.1ab LLDP**
- **UL Class I Division II Group A,B,C, D hazardous location**
- **Bandwidth Control**
  - *Ingress Packet Filter and Egress Rate Limit*
  - *Broadcast/Multicast Packet Filter Control*
- **System Event Log**
  - *System Log Server/Client*
  - *SMTP e-mail Alert*
  - *Relay Alarm Output System Events*
- **SNMP Trap**
  - *Device cold start, Power status, Authentication failure, X-Ring topology changed, Port Link up/Link down, DIDO open/close*
- **3000VDC EFT & 6000VDC ESD protection**
- **Lantech-View, Windows-based Utility**
  - *Lantech-View 10 node version free bundle*
  - *LANTECH-View Pro up to unlimited user*

DIMENSIONS (unit=mm)



SPECIFICATION

Hardware Specification

Standard	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX IEEE 802.3ab 1000Base-T IEEE 802.3z Gigabit fiber IEEE 802.3x Flow Control and Back-pressure IEEE 802.3ad Port trunk with LACP IEEE 802.1d Spanning Tree IEEE 802.1w Rapid Spanning Tree IEEE 802.1p Class of Service IEEE 802.1Q VLAN Tag IEEE 802.1x User Authentication (RADIUS) IEEE 802.1ab LLDP
Switch Architecture	Back-plane (Switching Fabric): 7.4Gbps
Transfer Rate	14,880 pps for 10Base-T Ethernet port 148,800 pps for 100Base-TX/FX Fast Ethernet port 1,488,000 pps for Gigabit Fiber Ethernet port
Packet Buffer	1Mbits
Mac Address	8K MAC address table
Flash ROM	4Mbytes
DRAM	32Mbytes
Connector	10/100TX: 7 x RJ-45 10/100/1000T/ Mini-GBIC Combo: 3 x RJ-45 + 3 x 100/1000 SFP sockets RS-232 connector: RJ-45 type
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) 1000Base-T: 2-pair UTP/STP Cat. 5e or 6 cable EIA/TIA-568 100-ohm (100m)
DI/DO	2 Digital Input (DI) : Level 0: -30~2V / Level 1: 10~30V Max. input current:8mA 2 Digital Output(DO): Open collector to 40 VDC, 200mA
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)
LED	Power/ Power 1/ Power 2 (Green), Fault (Red), Ring Master Enable (Green), Ring Enable (Green) Copper port : Link/Activity (Green), speed(Green/Orange) [Link/1000M] SFP Fiber: Link/Activity (Green)

Protocol	CSMA/CD
Power Supply	24VDC (9~56VDC), Redundant power with polarity reverse protects function and removable terminal block.
Reserve polarity protection	Present
Overload current protection	Present
Power Consumption	10.2 Watts
Operating Humidity	5% to 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	260818 hrs
Case Dimension	IP-30, 72mm (W) x 105mm (D) x 152mm (H)
Weight	1300 g
Installation	DIN rail and wall mount ear.
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
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 Management
SNMP MIB	RFC 1215 Trap, RFC1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643 , RFC 1757, RSTP MIB, Private 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)
Port Trunk with LACP	LACP Port Trunk: 4 Trunk groups / Maximum 4 trunk members
LLDP	Supports LLDP to allow switch to advise its identification and capability on the LAN

Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service, IPv4/IPv6 Different Service
Class of Service	Supports IEEE802.1p class of service, per port provides 4 priority queues
Spanning Tree	Supports IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree
Pro-Ring	Supports X-Ring, Dual Homing, Couple Ring, and Dual Ring Topology. Provides redundant backup feature and the recovery time below 10ms*.
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 Supports multicast filter
IP Security	Supports 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder.
Login Security	IEEE802.1X Authentication/RADIUS
System Log	System log record and remote system log server
SMTP	SMTP Server and 6 e-mail accounts for receiving event alert
SNTP	SNTP to synchronize system clock in Internet
DHCP	DHCP Client/ DHCP Server/ IP Relay functions
Flow Control	Supports Flow Control for Full-duplex and Back Pressure for Half-duplex
DNS	Provides DNS client feature and support Primary and Secondary DNS server.

Relay Alarm	Provides one relay output for port breakdown, power fail and alarm. Alarm Relay current carry ability: 1A @ DC24V
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, DIDO open/close contact
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.
Firmware Update	TFTP firmware update, TFTP backup and restore.
Configuration upload and download	Supports binary configuration file for system quick installation
ifAlias	Each port allows importing 128bit of alphabetic string of word on SNMP and CLI interface.

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

ORDERING INFOMATION

- **IES-2307C ……..P/N: 8350-460**
  7 10/100TX + 3 10/100/1000T with100/1000 SFP Combo Industrial Switch, Standard Operating Temperature (-20°C to 60°C)
- **IES-2307C-E……..P/N: 8350-465**
  7 10/100TX + 3 10/100/1000T with100/1000 SFP Combo Industrial Switch, Wide Operating Temperature (-40˚C to 75˚C)

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)

- **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
- **8330-166** MINI GBIC 1000LHX (LC/40km) Transceiver
- **8330-169** MINI GBIC 1000XD (LC/60km) Transceiver
- **8330-167** MINI GBIC 1000ZX (LC/80km) Transceiver
- **8330-168** MINI GBIC 1000T (100m) Transceiver

- **8330-061** 100Base LX 30KM, Single-mode, LC Transceiver
- **8330-060** 100Base FX 2KM, Multi-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)

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