IES-2206F-II

6 10/100TX + 2 100FX Industrial SNMP & WEB Switch w/Pro-Ring

- *Pro-Ring covers X-Ring, Dual Homing, and Couple Ring Topology*
- *Supports SNMP v1/v2c/v3, MSTP, QoS, IGMP, RMON & 802.1Q VLAN Network Management*
- *Wide operating temperature range from -40℃ to 75℃ (-E model)*

OVERVIEW

The Lantech IES-2206F-II is a 6-Port 10/100TX + 2-Port 100FX Industrial Switch with advanced SNMP functionality. The SNMP features are including MSTP, QinQ, QoS for 4 queues, 801.q VLAN, IGMP snooping and query mode as well as SNTP and SMTP. Simulated PTP (Precision Time Protocol) client** is a software feature for time clocking matching with IEEE1588 ground master for time accuracy to 1 second.

The Lantech IES-2206F-II supports X-Ring, fast network recovery scheme in less than 10ms for up to 250 switches in a ring. 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.

The Lantech View is a Windows-based utility and free bundle with the IES-2206F-II for 10 node version. Optional Lantech-View Pro can map up to unlimited user with auto-layout, configuration and discovery.

With relay contact to alarm system function, the IES-2206F-II can immediately notify of power failure and/or port down events. In case of events, IES-2206F-II will immediately send an email to pre-defined addresses.

The IES-2206F-II is designed to meet the demands of Industrial environments, comes packaged in a robust IP30 housing and has been tested extensively to meet Industrial EMI and EMC standards. Rigorous mechanical testing has also been undertaken to comply with free fall, shock and vibration stability test requirements, which ensure long term reliability in critical industrial environments.
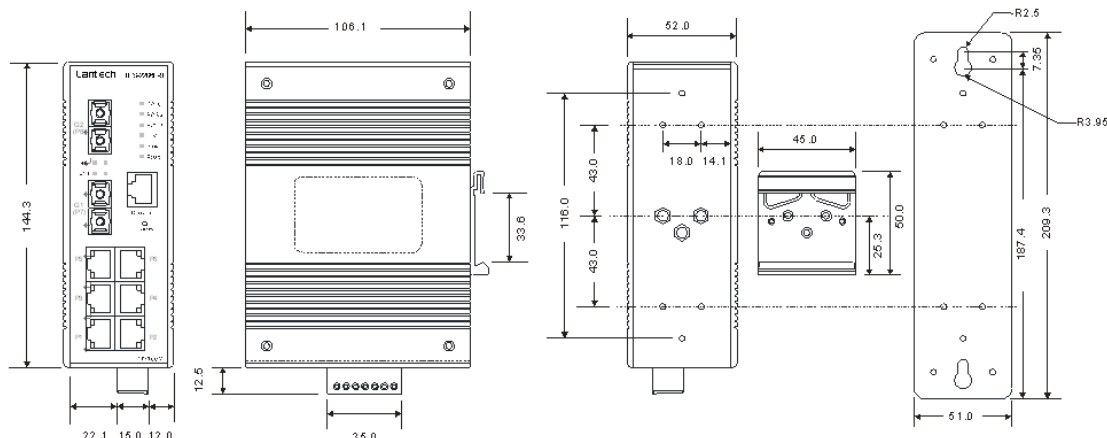
The Lantech IES-2206F-II is the best to use in automation, transportation, semi-conductor factory, heavy industrial factory and other factory assembly lines. The -E model can be used in extreme environments with an operating temperature range of -40℃ to 75℃.

FEATURES & BENEFITS

- **Lantech View, Windows-based Utility for multiple switch monitoring & configuration (up to 10 switches)**
  - *Lantech View 10-node free bundle for topology drawing, auto discovery and configuration*
  - *Supports Lantech View Pro up to unlimited user edition*
- **Pro-Ring**
  - *X-Ring, Dual Homing, and Couple Ring Topology*
  - *Provide redundant backup feature and the recovery time below 10ms*
- **VLAN**
  - *Port Based VLAN, 802.1 Q Tag VLAN, GVRP*
- **Port Trunk with LACP**
- **QoS (Quality of Service)**
  - *Supports IEEE 802.1p Class of Service*
  - *Per port provides 4 priority queues*
  - *Port Base, Tag Base and Type of Service Priority*
- **Port Mirror: Monitor traffic in switched networks.**
- **Supports simulated PTP client** 1 second**
- **Supports IEEE 802.1ab LLDP**
- **Supports SNMP Trap**

- **Wide operating temperature (-40°C ~75°C) for E model**
- **Security**
  - *Port Security: MAC address entries/filter*
  - *IP Security: IP address security management to prevent unauthorized intruder.*
  - *Login Security: IEEE802.1X/RADIUS*
- **IGMP**
  - *Query mode for Multi Media Application*
  - *Support multicast filter*
- **Spanning Tree**
  - *IEEE802.1d Spanning Tree & IEEE802.1w RSTP*
  - *IEEE802.1s Multiple Spanning Tree*
- **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*
- **IP 30 metal case with DIN rail or wall-mount installation**

Datasheet Version 1.0

DIMENSIONS (unit=mm)

SPECIFICATION

Hardware Specification

IEEE Standards	IEEE 802.3 for 10BaseT, IEEE 802.3u for 100BaseT(X) and 100BaseFX, IEEE 802.3z for 1000Base-X IEEE 802.3ab for 1000Base-T IEEE 802.3ad for LACP (Link Aggregation Control) IEEE 802.3x for Flow control IEEE 802.1D for STP (Spanning Tree) IEEE 802.1p for COS (Class of Service) IEEE 802.1Q for VLAN Tagging IEEE 802.1w for RSTP (Rapid Spanning Tree) IEEE 802.1s for MSTP (Multiple Spanning Tree) IEEE 802.1x for Authentication IEEE 802.1AB for LLDP (Link Layer Discovery)
Switch Architecture	Back-plane (Switching Fabric): 1.6Gbps
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port
Packet Buffer	1Mbits
Mac Address	8K MAC address table
Flash ROM	4Mbytes
DRAM	32Mbytes
Connectors	10/100TX: 6 x RJ-45 with auto MDI/MDI-X function 100M fiber: 2 x SC/WDM type connector for single-mode or multi-mode type fiber cable RS-232 connector: RJ-45 type
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5, 6 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5/ 5E/ 6 cable EIA/TIA-568 100-ohm (100m)
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)
Protocol	CSMA/CD
LED	Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Red), Master (Green) 6 10/100: Link/Activity (Green), Full duplex/Collision (Yellow) Fiber: Link/Activity (Green)
Power Supply	DC 12~48V, Redundant power with polarity reverse protect function and removable terminal block.
Power Consumption	9 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
Case Dimension	IP-30, 52mm (W) x 106mm (D) x 144mm (H)
Weight	735 g
Fan Number	0
Installation	DIN rail and wall mount ear.
MTBF	232,194 hrs
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,
Safety	CE/EN60950-1
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-browser/ 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) Double tag VLAN (QinQ)
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
Spanning Tree	Supports IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree IEEE802.1s Multiple Spanning Tree (option)
Pro-Ring	Supports X-Ring, Dual Homing, and Couple Ring Topology. Provides redundant backup feature and the recovery time below 10ms for up to 250 switches in a ring
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

Port Security	Supports 100 entries of MAC address for static MAC and another 100 for MAC filter
Mac Address Filtering	Up to 50 Mac address list to block the entry of switch
Port Mirror	Supports 3 mirroring types: "RX, TX and Both packet".
IGMP	Supports IGMP snooping v1,v2 1024 multicast groups and IGMP query Support multicast filter
Login Security	Supports IEEE802.1X Authentication/RADIUS
System Log	Supports System log record and remote system log server
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	Supports Flow Control for Full-duplex and Back Pressure for Half-duplex

SMTP	Supports SMTP Server and 6 e-mail accounts for receiving event alert
Relay Alarm	Provides one relay output for port breakdown, power fail and alarm Alarm Relay current carry ability: 1A @ DC24V
SNTP	Supports SNTP to synchronize system clock in Internet
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
DHCP	Provides DHCP Client/ DHCP Server/ IP Relay functions
DNS	Provides DNS client feature and support Primary and Secondary DNS server.
Firmware Update	Supports TFTP firmware update, TFTP backup and restore.
Configuration upload and download	Supports binary configuration file for system quick installation Auto Provision for new firmware discovery
ifAlias	Each port allows importing 128bit of alphabetic string of word on SNMP and CLI interface.

*Future Release
**Optional

ORDERING INFOMATION

- **IES-2206F-II-SC/MM 2KM…….…......…………P/N: 8350-2208**
  6 10/100TX + 2 100FX Industrial Switch, Standard Operating Temperature (-20°C to 60°C)

- **IES-2206F-II-SC/SM 30KM…….…......…………P/N: 8350-2258**
  6 10/100TX + 2 100FX 30KM Industrial Switch, Standard Operating Temperature (-20°C to 60°C)

- **IES-2206F-II-E-SC/MM 2KM...........….………P/N: 8350-2218**
  6 10/100TX + 2 100FX Industrial Switch, Wide Operating Temperature (-40°C to 75°C)

- **IES-2206F-II-E-SC/SM 30KM...........….………P/N: 8350-2268**
  6 10/100TX + 2 100FX 30KM Industrial Switch, Wide Operating Temperature (-40°C to 75°C)

- **IES-2206F-II-SC/MM 2KM-AC…….…....…………P/N: 8350-2208-AC**
  6 10/100TX + 2 100FX Industrial Switch, Standard Operating Temperature (-20°C to 60°C) ; 18~36VAC

- **IES-2206F-II-SC/SM 30KM-AC…….......…………P/N: 8350-2258-AC**
  6 10/100TX + 2 100FX 30KM Industrial Switch, Standard Operating Temperature (-20°C to 60°C) ; 18~36VAC

- **IES-2206F-II-E-SC/MM 2KM-AC.........….………P/N: 8350-2218-AC**
  6 10/100TX + 2 100FX Industrial Switch, Wide Operating Temperature (-40°C to 75°C) ; 18~36VAC

- **IES-2206F-II-E-SC/SM 30KM-AC.......….………P/N: 8350-2268-AC**
  6 10/100TX + 2 100FX 30KM 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)

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