

## I(P)GS-6300-2P

4- Modular-Slots w/4 x10G uplink L2+ Industrial Managed Ethernet Switch; 2DCI/2HV/2AC input models



### OVERVIEW

Lantech I(P)GS-6300-2P is a high performance L2+ (All Gigabit) modular Ethernet switch with max 24/26port Gigabit + 4 10G uplink (total 28ports) w/(24 PoE 802.3af/at ports) which provides L2+ wire speed and advanced security function for network aggregation deployment.

#### **Up to 24 PoE at/af ports w/advanced PoE management**

Compliant with 802.3af/at standard, the PoE model is able to feed each PoE port up to 30 Watt at each PoE port for various IP PD devices. It supports advanced PoE management including PoE detection and scheduling. PoE detection can detect if the connected PD hangs then restart the PD; PoE scheduling is to allow pre-set power feeding schedule upon routine time table. Each PoE ports can be Enabled/disabled, get the voltage, current, Watt, and temperature info displayed on WebUI.

#### **Lantech OS3 Platform with complete L2 management and upgradable optional L3 & communication protocols**

The switch runs Lantech OS3 platform which is powerful with complete Layer 2 management features and optional upgradable for future expansion, such as Layer 3 Lite, Layer 3, etc. To learn more about the Lantech OS3 Platform, please refer to [Lantech OS3/OS4 Software Datasheet](#)

#### **Enhanced cybersecurity features with IEC 62443-4-1 certification**

Lantech OS3 platform is designed with high standard of cybersecurity to prevent the threats from network attack such as DDoS attacks. To ensure the safety and reliability of communication networks, Lantech develops our products under strict international security standard and is certified with IEC 62443-4-1 network security standard. To learn more about Lantech cybersecurity software solution, please refer to [Lantech OS3/OS4 Software Datasheet](#)

#### **Miss-wiring avoidance, node failure protection, Loop protection**

The switch also embedded several features for strong and reliable network protection in an easy and intuitive way. When the pre-set ring configuration failed or looped by miss-wiring, the switch being able to alert with the LED indicator and disable ring automatically. Node failure protection ensures the switches in a ring to survive after power breakout is back. The status can be shown in NMS when each switch is back. Loop protection is also available to prevent the generation of broadcast storm when a dumb switch is inserted in a closed loop connection.

#### ***User friendly GUI, Auto topology drawing, Enhanced Environmental Monitoring***

The user-friendly UI, innovative auto topology drawing and topology demo makes the switch much easier to get hands-on. The complete CLI enables professional engineer to configure setting by command line. It supports enhanced environmental monitoring for actual input voltage, current, ambient temperature and total power load.

#### ***Editable configuration file; USB port for import/export configuration***

The configuration file of the switch can be imported and edited with word processor for the following switches to configure with ease. The USB port can import/export the configuration from/to USB dongle and also to upgrade firmware from USB dongle. TFTP/HTTP firmware upgrade is supported.

#### ***Event log & message; 2DI + 2DO; Factory reset button***

The switch provides 2DI and 2DO. When disconnection of the specific port was detected; DO will activate the signal LED to alarm. DI can integrate the sensors for events and DO will trigger the outside alarm and switch will send alert information to IP network with traps. The factory reset button can restore the setting back to factory default.

#### ***2DCI/2HV/2AC inputs and dedicated PoE power source input***

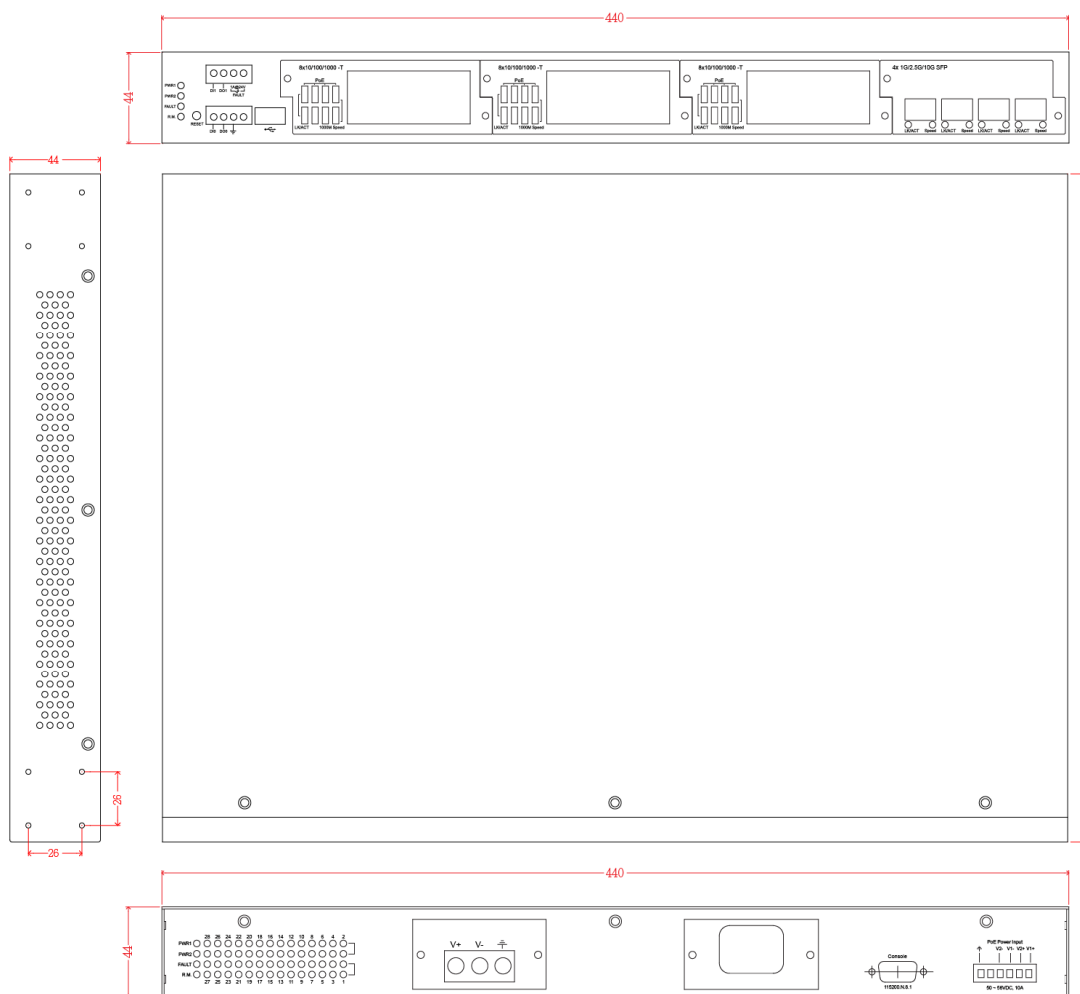
The chassis and modules of this switch are designed for easy maintenance and installation; It also supports 2DCI power supplies (galvanic isolated 16.8~137.5VDC), 2HV (galvanic isolated 100~240VAC/120~370VDC) or 2AC (galvanic isolated 100~240VAC) input to increase the network reliability. The PoE model has independent PoE power source input by terminal block for connecting DC 48V PoE power source.

#### ***Industrial hardened design with high EFT and ESD protection***

The switch features high reliability and robustness coping with extensive EMI/RFI phenomenon, environmental vibration and shocks usually found in factory, substation, steel automation, aviation, mining and process control. Featured with relay contact alarm function, the switch is able to connect with alarm system in case of power failure or port disconnection. It also provides 2000V EFT/SURGE and 6000V ESD CONTACT protection, which can reduce unstable situation caused by power line and Ethernet.

It is the best solution for Automation, transportation, surveillance, Wireless backhaul, Semi-conductor factory applications. The -E model can be used in extreme environments with an operating temperature range of -40°C to 75°C.

## DIMENSIONS (unit=mm)



## SPECIFICATIONS

### Hardware Specification

IEEE Standards	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Ethernet IEEE 802.3ab 1000Base-T Ethernet IEEE 802.3z Gigabit Fiber IEEE 802.3ae 10G Ethernet over Fiber IEEE 802.3an 10G Copper IEEE 802.3x Flow Control Capability ANSI/IEEE 802.3 Auto-negotiation IEEE 802.1Q VLAN IEEE 802.1p Class of Service IEEE 802.1X Access Control IEEE 802.1D Spanning Tree IEEE 802.1w Rapid Spanning Tree IEEE 802.1s Multiple Spanning Tree IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.1AB Link Layer Discovery Protocol (LLDP) IEEE 802.1x User Authentication (Radius) IEEE 802.3at/af PoE (IPGS-6300-2P)
Switch Architecture	Back-plane (Switching Fabric): 128Gbps
Mac Address	16K MAC address table
Jumbo frame	10KB

Connectors	Max. 24 10/100/1000T RJ-45 with auto MDI/MDI-X function Max 2 10G copper RJ45 Max 24 100M Mini-GBIC : SFP sockets Max 28 1000M Mini-GBIC : SFP sockets Max 4 10G Mini-GBIC : SFP + sockets RS-232 console: Female DB-9 USB slot for upload/download config file DIDO : 1x6pin terminal block
Network Cable	100Base-TX: 2-pair UTP/STP Cat. 5/ 5E/ 6 cable; EIA/TIA-568 100-ohm (100m) 1000Base-T: 4-pair UTP/STP Cat5E/6 cable; 10GBase-T:4-pair STP Cat6/6A/7 cable
Optical Cable	<b>1Gbps:</b> Multi-mode: 0 to 550 m, 850 nm (50/125 μm); 0 to 2 km, 1310 nm (50/125 μm) Single mode: 0 to 10 km/ 30 km/ 40 km, 1310 nm (9/125 μm); 0 to 50 km/ 60 km/ 80km/ 120 km, 1550 nm (9/125 μm) <b>2.5Gbps</b> Multi-mode: 0 to 300 m, 850 nm (50/125 μm); Single mode: 0 to 2 km/ 15 km/ 40 km, 1310 nm (9/125 μm); 0 to 40 km/ 80 km/ 100km, 1550 nm (9/125 μm)

	<p><b>WDM 1Gbps:</b> Single mode: 0 to 10 km/ 20 km/ 40 km/ 60 km, 1310 nm (9/125 μm); 0 to 80 km, 1490 nm (9/125 μm); 0 to 10 km/ 20 km/ 40 km/ 60 km/ 80 km, 1550 nm (9/125 μm)</p> <p><b>WDM 2.5Gbps</b> Single mode: 0 to 5 km/ 20 km/ 40 km/ 60 km, 1310 /1550nm (9/125 μm); 0 to 80 km, 1490/1550 nm (9/125 μm)</p> <p><b>10Gbps</b> Multi-mode: 0 to 300 m, 850 nm (OM3 50/125 μm); Single mode: 0 to 10 km/ 20 km, 1310 nm (9/125 μm); 0 to 40 km/ 80km/ 100 km, 1550 nm (9/125 μm)</p> <p><b>WDM 10Gbps</b> Single mode: 0 to 10 km/ 20 km/ 40 km/ 60 km, 1270/1330 nm (9/125 μm); 0 to 80km, 1490/1550 nm (9/125 μm)</p>
LED	Per unit: Power 1 (Green), Power 2 (Green), FAULT (Red); RM(Green) Ethernet port: Link/Activity (Green), Speed (Green); PoE** : Link/Act (Green); Mini-GBIC: Link/Activity (Green)
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
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
Power Supply	2DCI model: Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply 2AC model: Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply 2HVmodel: Built-in 2x galvanic isolated AC/DC 100~240VAC/120V~370VDC power supply

	PoE power dual input for 48VDC (IPGS-6300-2P)
PoE Budget	720W (from separate PoE power supply) (50-56VDC input is recommended for 802.3at 30W applications) Higher PoE budget can be applied upon request. **
PoE pin assignment	RJ-45 port # 1~#24 support IEEE 802.3at/af End-point, Alternative A mode.(IPGS-6300-2P & PoE modules) Positive (VCC+): RJ-45 pin 1,2. Negative (VCC-): RJ-45 pin 3,6.
Power Consumption	30W
Case Dimension	Metal case. IP-30 440mm(W)x325mm(D)x44mm(H)
Weight	2.9 kgs
Installation	Rackmount Design
EMI & EMS	FCC, EN55032:2015 EN55024:2015 IEC 61000-4-2:2008 IEC 61000-4-3 IEC 61000-4-4:2012 IEC 61000-4-5:2017 IEC 61000-4-6:2015 IEC 61000-4-8:2009 IEC 61000-4-11:2017 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 61000-6-4:2011 EN 61000-6-2:2005 EN55011:2016
MTBF	830589 hours (standards IEC 62380)
Stability Testing	IEC 60068-2-6: 2007 (Vibration) IEC 60068-2-27: 2008 (Shock)
Warranty	5 years
<b>Software Specification</b>	
Lantech OS3 Platform	<a href="#">Download Software Datasheet</a>

\*Future release  
\*\*Optional

## ORDERING INFORMATION

- **IGS-6300-2P-2HV .....P/N: 8380-2082**  
4 Modular Slots L2 plus Industrial 10G Uplink Ethernet Switch Chassis; Built-in 2x isolated AC/DC Built-in 2x galvanic isolated AC/DC 100~240VAC/120V~370VDC power supply; -20°C to 60°C
- **IGS-6300-2P-2HV-E .....P/N: 8380-2083**  
4 Modular Slots L2 plus Industrial 10G Ethernet Switch Chassis  
Built-in 2x galvanic isolated AC/DC 100~240VAC/120V~370VDC power supply; -40°C to 75°C
- **IGS-6300-2P-2DCI .....P/N: 8380-2092**  
4 Modular Slots L2 plus Industrial 10G Ethernet Switch Chassis  
Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply; -20°C to 60°C
- **IGS-6300-2P-2DCI-E .....P/N: 8380-2093**  
4 Modular Slots L2 plus Industrial 10G Ethernet Switch Chassis  
Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply; -40°C to 75°C
- **IGS-6300-2P-2AC .....P/N: 8380-2021**  
4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis  
Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply; -20°C to 60°C
- **IGS-6300-2P-2AC-E .....P/N: 8380-2031**  
4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis  
Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply; -40°C to 75°C
- **IPGS-6300-2P-2HV .....P/N: 8380-2102**

- 4 Modular Slots L2 plus 10G Industrial PoE Ethernet Switch Chassis  
Built-in 2x galvanic isolated AC/DC 100~240VAC/120V~370VDC power supply + 1x 48VDC PoE power input; -20°C to 60°C
- **IPGS-6300-2P-2HV-E .....P/N: 8380-2103**
- 4 Modular Slots L2 plus 10G Industrial PoE Ethernet Switch Chassis  
Built-in 2x galvanic isolated AC/DC 100~240VAC/120V~370VDC power supply + 1x 48VDC PoE power input; -40°C to 75°C
- **IPGS-6300-2P-2DCI .....P/N: 8380-2112**
- 4 Modular Slots L2 plus Industrial PoE Ethernet Switch Chassis  
Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply + 1x 48VDC PoE power input; -20°C to 60°C
- **IPGS-6300-2P-2DCI-E .....P/N: 8380-2113**
- 4 Modular Slots L2 plus Industrial PoE Ethernet Switch Chassis  
Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply + 1x 48VDC PoE power input; -40°C to 75°C
- **IPGS-6300-2P-2AC.....P/N: 8380-2042**
- 4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis  
Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply + 1x 48VDC PoE power input; -20°C to 60°C
- **IPGS-6300-2P-2AC-E .....P/N: 8380-2043**
- 4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis  
Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply + 1x 48VDC PoE power input; -40°C to 75°C

**Modules for Slot 1-3** Note: the modules will be factory pre-installed.

- **8x GIGA T Module.....P/N: 8380-123**  
8x 10/100/1000T Module; -40°C to 75°C
- **8x GIGA T-PoE at/af Module.....P/N: 8380-124**  
8x 10/100/1000T PoE at/af Module; -40°C to 75°C
- **8x SFP Module.....P/N: 8380-125**  
8x Dual Speed SFP module for 100M SFP or Gigabit SFP; -40°C to 75°C

**Modules for Slot 4** Note: the modules will be factory pre-installed.

- **4x 10G SFP+ Module.....P/N: 8380-126**  
4x 1G/2.5G/10G SFP+ Module for slot 4 ; -40°C to 75°C
- **2 100M/1G/10G Copper + 2 100M/1G/2.5G/10G SFP+ Module.....P/N: 8380-127**  
2x 100M/1G/10G Copper + 2 100M/1G/2.5G/10G SFP+ Module for slot 4 ; -40°C to 75°C

## OPTIONAL ACCESSORIES

### Software package

Please refer to the [software datasheet](#)

### DIN Rail Power

- **NDR-480 Series** 480W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)
- **NDR-240 Series** 240W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)
- **NDR-120 Series** 120W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C; For 115VAC, please refer to derating curve on NDR-120 Series datasheet)
- **NDR-75 Series** 75W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C; For 115VAC, please refer to derating curve on NDR-120 Series datasheet)

### Mini GBIC (SFP)

- |   |   |
|---|---|
| ■ <b>8330-162-V1</b> MINI GBIC 1000SX (LC/0.5km) Transceiver  | ■ <b>8330-188-V1</b> LTSFP-1000BX-10KM Transceiver (WDM 1310) |
| ■ <b>8330-163-V1</b> MINI GBIC 1000SX2 (LC/2km) Transceiver   | ■ <b>8330-189-V1</b> LTSFP-1000BX-10KM Transceiver (WDM 1550) |
| ■ <b>8330-165-V1</b> MINI GBIC 1000LX (LC/10km) Transceiver   | ■ <b>8330-186-V1</b> LTSFP-1000BX-20KM Transceiver (WDM 1310) |
| ■ <b>8340-0591-V1</b> MINI GBIC 1000LHX (LC/40km) Transceiver | ■ <b>8330-187-V1</b> LTSFP-1000BX-20KM Transceiver (WDM 1550) |
| ■ <b>8330-166-V1</b> MINI GBIC 1000XD (LC/50km) Transceiver   | ■ <b>8330-180-V1</b> LTSFP-1000BX-40KM Transceiver (WDM 1310) |
| ■ <b>8330-169-V1</b> MINI GBIC 1000XD (LC/60km) Transceiver   | ■ <b>8330-182-V1</b> LTSFP-1000BX-40KM Transceiver (WDM 1550) |
| ■ <b>8330-167-V1</b> MINI GBIC 1000ZX (LC/80km) Transceiver   | ■ <b>8330-181-V1</b> LTSFP-1000BX-60KM Transceiver (WDM 1310) |
| ■ <b>8330-170-V1</b> MINI GBIC 1000EZX (120km) Transceiver    | ■ <b>8330-183-V1</b> LTSFP-1000BX-60KM Transceiver (WDM 1550) |
| ■ <b>8330-168-V1</b> MINI GBIC 1000T (100m) Transceiver       | ■ <b>8330-184-V1</b> LTSFP-1000BX-80KM Transceiver (WDM 1490) |

■ <b>8330-185-V1</b>	LTSFP-1000BX-80KM Transceiver (WDM 1550)	■ <b>8330-210D-V1</b>	10G Base SFP+ , Single-mode(10km) Transceiver (WDM 1330)
■ <b>8330-262D-V1</b>	Transceiver MINI GBIC 2.5G 850nm VCSEL (LC/0.3km)	■ <b>8330-200D-V1</b>	10G Base SFP* , Single-mode(20km) Transceiver (WDM 1270)
■ <b>8330-263D-V1</b>	MINI GBIC 2.5G 1310nm FP (LC/2km) Transceiver	■ <b>8330-201D-V1</b>	10G Base SFP* , Single-mode(20km) Transceiver (WDM 1330)
■ <b>8330-265D-V1</b>	MINI GBIC 2.5G 1310nm DFB (LC/15km) Transceiver	■ <b>8330-202D-V1</b>	10G Base SFP* , Single-mode(40km) Transceiver (WDM 1270)
■ <b>8330-193D-V1</b>	Transceiver 10G Base SFP* SR, Multi-mode (LC/300m)	■ <b>8330-203D-V1</b>	10G Base SFP* , Single-mode(40km) Transceiver (WDM 1330)
■ <b>8330-194D-V1</b>	Transceiver 10G Base SFP* LR, Single-mode (LC/10km)		
■ <b>8330-209D-V1</b>	Transceiver 10G Base SFP+ , Single-mode(10km) Transceiver (WDM 1270)		

All SFPs ended with D are with Diagnostic function

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