

I(P)GS-6300-2P

4- Modular-Slots w/4 x10G uplink L2+ Industrial Managed Ethernet Switch; DC/DCI/HV/AC 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.

Dual power DC/DCI/HV/AC inputs and dedicated PoE power source input

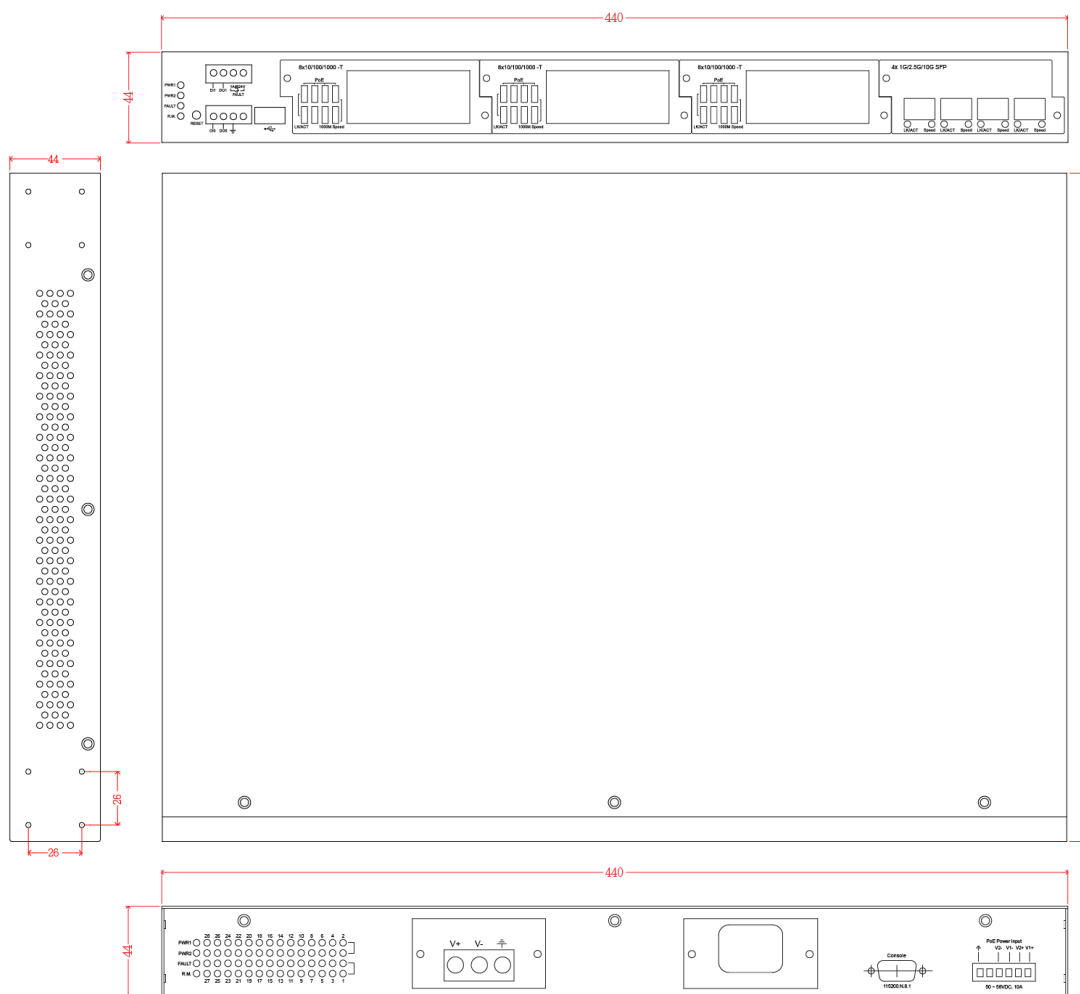
The chassis and modules of this switch are designed for easy maintenance and installation; It also supports dual DC/DCI power supplies (DC12~60V/ isolated 36~75VDC), dual HV (isolated 100~240VAC/120~370VDC) or dual AC (100~240VAC) input to increase the network reliability. The PoE model has independent 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	1Gbps: 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) 2.5Gbps 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) WDM 1Gbps: Single mode: 0 to 10 km/ 20 km/ 40 km/ 60 km,

	<p>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>WDM 2.5Gbps</p> <p>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>10Gbps</p> <p>Multi-mode: 0 to 300 m, 850 nm (OM3 50/125 μm);</p> <p>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>WDM 10Gbps</p> <p>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	<p>Per unit: Power 1 (Green), Power 2 (Green), FAULT (Red); RM(Green)</p> <p>Ethernet port: Link/Activity (Green), Speed (Green);</p> <p>PoE** : Link/Act (Green); Mini-GBIC: Link/Activity (Green)</p>
DI/DO	<p>2 Digital Input (DI) :</p> <p>Level 0: -30~2V / Level 1: 10~30V</p> <p>Max. input current:8mA</p> <p>2 Digital Output(DO): Open collector to 40 VDC, 200mA</p>
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	<p>One + one** VAC/VDC input isolated 3000V 85V~264VAC/120~370VDC (HV model)</p> <p>One + one** VDC isolated 1600V 36~75VDC (DCI model)</p> <p>Dual input for 12V~60VDC (DC model)</p> <p>One + one** AC input AC100~240VAC (AC</p>

	<p>model)</p> <p>PoE power dual input for 48VDC (IPGS-6300-2P)</p>
PoE Budget	<p>720W (from separate PoE power supply) (50-56VDC input is recommended for 802.3at 30W applications)</p> <p>Higher PoE budget can be applied upon request. **</p>
PoE pin assignment	<p>RJ-45 port # 1~#24 support IEEE 802.3at/af End-point, Alternative A mode.(IPGS-6300-2P & PoE modules)</p> <p>Positive (VCC+): RJ-45 pin 1,2.</p> <p>Negative (VCC-): RJ-45 pin 3,6.</p>
Power Consumption	30W
Case Dimension	Metal case. IP-30 440mm(W)x325mm(D)x44mm(H)
Weight	2.9 kgs
Installation	Rackmount Design
EMI & EMS	<p>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</p>
MTBF	830589 hours (standards IEC 62380)
Warranty	5 years
Software Specification	
Lantech OS3 Platform	Download Software Datasheet

*Future release
**Optional

ORDERING INFORMATION

For optional power supply, add +DC, +DCI, +AC, or +HV to the part number.

- **IGS-6300-2P-HVP/N: 8380-208**

4 Modular Slots L2 plus Industrial 10G Uplink Ethernet Switch Chassis; Built-in 1x isolated AC/DC 100~240VAC/120V~370VDC power conversion + 1x optional power socket; -20°C to 60°C
- **IGS-6300-2P-HV-EP/N: 8380-2081**

4 Modular Slots L2 plus Industrial 10G Ethernet Switch Chassis

Built-in 1x isolated AC/DC 100~240VAC/120V~370VDC power conversion + 1x optional power socket; -40°C to 75°C
- **IGS-6300-2P-DCIP/N: 8380-209**

4 Modular Slots L2 plus Industrial 10G Ethernet Switch Chassis

Built-in x1 isolated DC 36~75VDC power supply + 1x optional power socket; -20°C to 60°C
- **IGS-6300-2P-DCI-EP/N: 8380-2091**

4 Modular Slots L2 plus Industrial 10G Ethernet Switch Chassis

Built-in x1 isolated DC 36~75VDC power supply + 1x optional power socket; -40°C to 75°C
- **IGS-6300-2P-ACP/N: 8380-202**

4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis

Built-in 1x AC 100~240VAC IEC320 power conversion + 1x optional power socket; -20°C to 60°C
- **IGS-6300-2P-AC-EP/N: 8380-203**

4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis

Built-in 1x AC 100~240VAC IEC320 power conversion + 1x optional power socket; -40°C to 75°C
- **IGS-6300-2P-DCP/N: 8380-205**

- 4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis
Built-in 1x DC 12~60VDC power supply + 1x optional power socket; -20°C to 60°C
- **IGS-6300-2P-DC-EP/N: 8380-206**
- 4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis
Built-in 1x DC 12~60VDC power supply + 1x optional power socket; -40°C to 75°C
- **IPGS-6300-2P-HVP/N: 8380-210**
- 4 Modular Slots L2 plus 10G Industrial PoE Ethernet Switch Chassis
Built-in 1x isolated AC/DC 100~240VAC/120V~370VDC power conversion + 1x optional power socket + 1x 48VDC PoE power input; -20°C to 60°C
- **IPGS-6300-2P-HV-EP/N: 8380-2101**
- 4 Modular Slots L2 plus 10G Industrial PoE Ethernet Switch Chassis
Built-in 1x isolated AC/DC 100~240VAC/120V~370VDC power conversion + 1x optional power socket + 1x 48VDC PoE power input; -40°C to 75°C
- **IPGS-6300-2P-DCIP/N: 8380-211**
- 4 Modular Slots L2 plus Industrial PoE Ethernet Switch Chassis
Built-in 1x isolated DC 36~75VDC power supply + 1x optional power socket + 1x 48VDC PoE power input; -20°C to 60°C
- **IPGS-6300-2P-DCI-EP/N: 8380-2111**
- 4 Modular Slots L2 plus Industrial PoE Ethernet Switch Chassis
Built-in 1x isolated DC 36~75VDC power supply + 1x optional power socket + 1x 48VDC PoE power input; -40°C to 75°C
- **IPGS-6300-2P-AC.....P/N: 8380-204**
- 4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis
Built-in 1x AC100~240VAC IEC320 power conversion + 1x optional power socket + 1x 48VDC PoE power input; -20°C to 60°C
- **IPGS-6300-2P-AC-EP/N: 8380-2041**
- 4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis
Built-in 1x AC85~264VAC IEC320 power conversion + 1x optional power socket + 1x 48VDC PoE power input; -40°C to 75°C
- **IPGS-6300-2P-DCP/N: 8380-207**
- 4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis
Built-in 1x DC 12~60VDC power supply + 1x optional power socket + 1x 48VDC PoE power input; -20°C to 60°C
- **IPGS-6300-2P-DC-EP/N: 8380-2071**
- 4 Modular Slots L2 plus 10G Industrial Ethernet Switch Chassis
Built-in 1x DC 12~60VDC power supply + 1x optional power socket + 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](#)

Power

EOTH000705

Isolation Power 100-240VAC, 120-370VDC 2.0A max, 47-63HZ

**EOTH000702**

Isolated Power conversion 36-75VDC, 2.5A

**EOTH000706**

Isolation Power 100-240VAC IEC320 socket, 2.0A max, 47-63HZ

**EOTH000704**

Power Input Module 12-60VDC, 2.5A

**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)

- | | | | |
|-----------------------|---|-----------------------|---|
| ■ 8330-162-V1 | MINI GBIC 1000SX (LC/0.5km) Transceiver | Transceiver | |
| ■ 8330-163-V1 | MINI GBIC 1000SX2 (LC/2km) Transceiver | ■ 8330-263D-V1 | MINI GBIC 2.5G 1310nm FP (LC/2km) Transceiver |
| ■ 8330-165-V1 | MINI GBIC 1000LX (LC/10km) Transceiver | ■ 8330-265D-V1 | MINI GBIC 2.5G 1310nm DFB (LC/15km) Transceiver |
| ■ 8340-0591-V1 | MINI GBIC 1000LHX (LC/40km) Transceiver | ■ 8330-193D-V1 | 10G Base SFP* SR, Multi-mode (LC/300m) Transceiver |
| ■ 8330-166-V1 | MINI GBIC 1000XD (LC/50km) Transceiver | ■ 8330-194D-V1 | 10G Base SFP* LR, Single-mode (LC/10km) Transceiver |
| ■ 8330-169-V1 | MINI GBIC 1000XD (LC/60km) Transceiver | Transceiver | |
| ■ 8330-167-V1 | MINI GBIC 1000ZX (LC/80km) Transceiver | ■ 8330-209D-V1 | 10G Base SFP+ , Single-mode(10km) Transceiver |
| ■ 8330-170-V1 | MINI GBIC 1000EZ (120km) Transceiver | (WDM 1270) | |
| ■ 8330-168-V1 | MINI GBIC 1000T (100m) Transceiver | ■ 8330-210D-V1 | 10G Base SFP+ , Single-mode(10km) Transceiver |
| ■ 8330-188-V1 | LTSFP-1000BX-10KM Transceiver (WDM 1310) | (WDM 1330) | |
| ■ 8330-189-V1 | LTSFP-1000BX-10KM Transceiver (WDM 1550) | ■ 8330-200D-V1 | 10G Base SFP* , Single-mode(20km) Transceiver |
| ■ 8330-186-V1 | LTSFP-1000BX-20KM Transceiver (WDM 1310) | (WDM 1270) | |
| ■ 8330-187-V1 | LTSFP-1000BX-20KM Transceiver (WDM 1550) | ■ 8330-201D-V1 | 10G Base SFP* , Single-mode(20km) Transceiver |
| ■ 8330-180-V1 | LTSFP-1000BX-40KM Transceiver (WDM 1310) | (WDM 1330) | |
| ■ 8330-182-V1 | LTSFP-1000BX-40KM Transceiver (WDM 1550) | ■ 8330-202D-V1 | 10G Base SFP* , Single-mode(40km) Transceiver |
| ■ 8330-181-V1 | LTSFP-1000BX-60KM Transceiver (WDM 1310) | (WDM 1270) | |
| ■ 8330-183-V1 | LTSFP-1000BX-60KM Transceiver (WDM 1550) | ■ 8330-203D-V1 | 10G Base SFP* , Single-mode(40km) Transceiver |
| ■ 8330-184-V1 | LTSFP-1000BX-80KM Transceiver (WDM 1490) | (WDM 1330) | |
| ■ 8330-185-V1 | LTSFP-1000BX-80KM Transceiver (WDM 1550) | | |
| ■ 8330-262D-V1 | MINI GBIC 2.5G 850nm VCSEL (LC/0.3km) Transceiver | | |

All SFPs ended with D are with Diagnostic function

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