

## Lantech IPGS-5424

Support IEEE802.3at/af up to 30W per port

PoE management incl. Detection and Scheduling

Enhanced G.8032 ring protection < 20ms with easy configuration; Dynamic coupling ring; Aggregation ring

Supports PTP IEEE1588 v2 (under 1 $\mu$ s)

Miss-wiring avoidance & Repowered auto ring restore (node failure protection)

User friendly UI, including auto topology drawing and DDM threshold monitoring with dB values; Complete CLI

Support LACP link aggregation, IGMP v3/router port, DHCP server & DHCP Option82 for Port&VLAN based DHCP distribution, Mac based DHCP server, QoS by VLAN, SSH/SSL, TACAS+, ACL, IPv6, SMS

Environmental Monitoring for temp., voltage & current

USB slot for edited restoration and auto backup

Lantech IPGS-5424 is a high performance L2 + PoE managed industrial switch which provides L2 wire speed and advanced security function for network aggregation and backbone deployment. It delivers ITU G.8032 enhanced ring recovery less than 20ms including dynamic coupling ring, enhanced mode for easy configuration and aggregation ring, comprehensive QoS, QoS by VLAN, advanced security including ACL L2/L3, SSH/SSL, Mac based DHCP server, DHCP Option 82, DHCP server, IGMPv1/v2/v3/router port, QinQ (double tag VLAN) which are important features required in train and large network. It also supports Cisco Discovery Protocol (CDP) and LLDP for Ciscoworks to detect the switch info and show on L2 map topology.

Lantech IPGS-5424 features hardware-based PTP IEEE1588 v2 function which can allow 24 10/100/1000T or 4 1000M SFP uplinks to synchronize the network with precise accuracy (under 1 $\mu$ s). It has RTC (Real Time Clock) inside that can keep track of current time.

Compliant with 802.3af/at standard, the Lantech IPGS-5424 is able to feed each PoE port up to 30 Watts@54 VDC providing the connected PD devices. Lantech IPGS-5424 supports advanced PoE management including PoE detection and scheduling. PoE detection can detect if the connected PD is hang up 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.

The IPGS-5424 also embedded several features for stronger and reliable network protection in an easy and intuitive way. When the pre-set ring configuration failed or looped by miss-wiring, Lantech IPGS-5424 is able to alert with the LED indicator and send out an email, traps or a SMS text. Repowered auto ring restore function (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. This feature prevents the broken ring and keep ring alive without any re-configuration needed. Loop protection is also available to prevent the generation of broadcast storm when a dumb switch is inserted in a closed loop connection.

DHCP option 82 and relay agent function (port&vlan based DHCP distribution) can offer the same IP address on port base or vlan base where there is need to replace the new device connecting to Lantech switches to avoid any network disruption. The built-in DHCP Option 82 server offers the convenience of police setting on the switch. Mac based DHCP server function assigns an IP address according to its MAC address to include dumb switches in DHCP network.

The user friendly UI, innovative auto topology drawing and topology demo makes IPGS-5424 much easier to get hands-on. The switch also equips the RTC (real time clock) which can keep track of time always. The IPGS-5424 supports DMI interface that can correspond with DDM SFPs (Digital diagnostic monitor) to display the five parameters in Lantech's UI, including optical output power, input power, temperature, laser bias current and transceiver supply voltage. The TX power/RX power raw data is automatically converted to dB values for installer, making it easier to calculate the fiber distance. The complete CLI enables professional engineer to configure setting by command line.

Lantech IPGS-5424 features enhanced G.8032 ring which can be self-healed in less than 20ms for ring/chain topologies which covers dynamic coupling ring & aggregation ring protection. The innovative auto-Ring configurator (auto mode) can calculate owner and neighbor in one step. The enhanced mode and dynamic coupling mode ring configuration have never been easier. It supports MSTP that allows RSTP over Vlan for redundant links. The ITU G.8032 Ring and RSTP can be co-existed in the same switch with different ports for the most flexible protection.

The configuration file of Lantech IPGS-5424 can be exported in text file so that it can be edited and configured back to switch with ease for mass deployment. The factory reset button can restore the setting back to factory default and built-in watchdog design can automatically reboot the switch when CPU is found dead. The USB slot allows user to backup/ restore configuration.

QoS by VLAN can allow switch to tag QoS by VLAN regardless the devices acknowledge QoS or not in which greatly enhance the bandwidth management in a network.

The IPGS-5424 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 IPGS-5424 will immediately send an email & SMS text message 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 for events and DO will trigger the alarm while sending alert information to IP network with email and traps.

The built-in environmental monitoring can detect switch overall temperature, voltage and current where can send the SNMP traps, email and SMS alert when abnormal.

The Lantech IPGS-5424 is designed with dual power supply at 12/24/48VDC. Featured with relay contact alarm function, the IPGS-5424 is able to connect with alarm system in case of power failure. The IPGS-5424 also provides  $\pm 4000V$  EFT and  $\pm 6000V$  ESD protection, which can reduce unstable situation caused by power line and Ethernet.

Lantech IPGS-5424 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. It is the best solution for Automation, transportation, surveillance, Wireless backhaul, Semi-conductor factory and assembly lines.

The IPGS-5424 can be used in extreme environments with an operating temperature range of  $-20^{\circ}C$  to  $60^{\circ}C$ .

