

## Lantech IES-5408DSFP

4 100 /1000 SFP +8 10/100TX L2 +Industrial Managed Switch w/ITU G.8032 Ring

ITU G.8032 ring recovery < 20ms & MSTP

Support ACL, IGMP v3, QinQ, SSH/SSL, TACAS+, IPv6

Supports PTP IEEE1588 v2 (under 1 $\mu$ s) & Built-in RTC

Miss-wiring avoidance & Repowered auto ring restore

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

1500VDC Isolated Power /10KB jumbo frame

Lantech IES-5408DSFP is a high performance L2+ industrial switch which provides 8x10/100TX + 4 100/1000 SFP uplinks with hardware PTP v2 support. It delivers ITU G.8032 ring protection (over vLAN) < 20ms, comprehensive QoS, advanced security including ACL, TACAS+, SSH/SSL, IGMPv3 & proxy, DHCP Option 82 and QinQ, MVR (multiple VLAN registration) which are important features required in large network. It also supports Cisco Discovery Protocol (CDP) and LLDP for Ciscoworks to detect the switch info and show on L2 map topology.

The standard ITU G.8032 ring protection (over VLAN) can work with other metro switches for ring protection in less than 20ms which is faster than market products. It also supports MSTP that allows RSTP over Vlan for redundant links.

The IES-5408DSFP 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 IES-5408DSFP is able to alert with the LED indicator and send out an email, traps or a SMS text. Repowered auto ring restore function 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.

The user friendly UI, innovative auto topology drawing and topology demo makes IES-5408DSFP much easier to get hands-on. The IES-5408DSFP 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.

Lantech IES-5408DSFP designs with redundant firmware where can survive if the primary firmware is crashed due to improper upgrading. The configuration file can also be exported in text file so that it can be edited and configured back to switch with ease. The factory reset button can restore the setting back to factory default and built-in watchdog design can automatically reboot the switch under certain circumstances.

The IES-5408DSFP 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-5408DSFP 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 for events and DO will trigger the alarm while sending alert information to IP network with email and traps.

The optional environmental monitoring can detect switch temperature, voltage and current where can send the SNMP traps and email alert when abnormal.

Lantech IES-5408DSFP model features hardware-based PTP IEEE1588 v2 function which can allow 4x 100/1000M 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.

The Lantech IES-5408DSFP is designed with dual power input with polarity reverse and 1500VDC isolation for  $\pm 24\sim 48$ VDC. Featured with relay contact alarm function, the IES-5408DSFP is able to connect with alarm system in case of power failure. The IES-5408DSFP also provides 3000V EFT and 6000V ESD protections, which can reduce unstable condition caused by power line and Ethernet.

Lantech IES-5408DSFP features high reliability and robustness compliant with extensive EMI/RFI phenomenon, lighting surge, inductive load switching environment usually found in Substation, Steel automation, Mining and Process control. Widely operational temperature capacity (-40 $^{\circ}$ C $\sim$ 75 $^{\circ}$ C) ensures IES-5408DSFP runtime through the harsh environment.

