

IES-5408DFT-PT

2 10/100/1000T + 2 100/1000 SFP + 8 10/100TX IEC 61850-3

Managed Ethernet Switch w/ Enhanced Ring & MMS

- Compliant with IEC61850-3 & IEEE1613
- Built-in MMS server based on IEC61850-90-4 switch data modeling for SCADA with monitoring and control
- IEC packet counter for GOOSE monitoring
- QoS for GOOSE packet**
- Enhanced G.8032 ring protection < 20ms for single ring. Supports auto mode, enhanced mode, train mode, multi-VLAN and basic mode; Enhanced G.8032 ring covers multicast packets; MSTP 16MSTI/RSTP; support MRP ring**
- Miss-wiring avoidance & node failure protection
- User friendly UI, including auto topology drawing; Complete CLI
- Support LACP link aggregation, IGMP v3/router port,
 DHCP server & DHCP Option82; Port based DHCP distribution, Mac based DHCP server,

QoS by VLAN, SSH/SSL, HTTPS, INGRESS/EGRESS ACL L2/L3, TACACS+*, QinQ**, SMS**

- Protocol based VLAN**; IPv4/IPv6 Subnet based VLAN**
- Environmental Monitoring** for temp., voltage and current
- Wide range dual DC input from 18V~72V with galvanic isolation















OVERVIEW

Lantech IES-5408DFT-PT is a high performance L2+ (Gigabit uplink) switch with 8 10/100TX + 2 10/100/1000T + 2 Dual Speed SFP that complies with IEC 61850-3 & IEEE 1613. It delivers ITU G.8032 enhanced ring recovery less than 20ms in single ring while also supports train ring, enhanced mode, multiple VLAN model with easy configuration.

The built-in MMS server allows SCADA to control & monitor switch for data modeling.

GOOSE monitoring packet counter; Built-in MMS server for IEC61850 data modeling for monitoring and control optional QoS for GOOSE packet

The exclusive GOOSE monitoring function (IEC packet) can display the counter of GOOSE message transmitted and received by port.

The built-in MMS (Manufacturing Messaging Specification) server can help SCADA to monitor and control switch by data modeling. It covers system, power, port status, environmental monitoring, network configuration.

Optional QoS scheme for Goose packet to ensure low latency in the data patch.

Miss-wiring avoidance, Repowered auto ring restore, Loop protection

The IES-5408DFT-PT 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-5408DFT-PT is able to alert with the LED indicator and disable ring automatically. 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.

Enhanced G.8032 ring, 16 MSTI MSTP; Optional MRP ring**

Lantech IES-5408DFT-PT features enhanced G.8032 ring which can be self-healed in less than 20ms for single ring topology protection covering Multicast packets. It also supports various ring topologies that covers double ring, multi-chain (under enhanced ring), train ring, basic ring, multiple-VLAN ring and auto-ring with easy setup. The innovative auto-Ring configurator (auto mode) can calculate owner and neighbor in one step. It supports MSTP that allows spanning tree over VLAN for redundant links with 16 MSTI.

DHCP option 82 & Port based, Mac based DHCP, Option66, IPv6 DHCP server**

DHCP server can assign dedicated IP address by MAC or by port (Port based for single switch), it also can assign IP address by port for multiple switches with single DHCP option82 server. For the ending device which need to download file from TFTP server, DHCP Option66 server can offer IP address of TFTP server to DHCP client. Optional IPv6 address resolution for DHCP service can be supported.





QoS by VLAN for legacy devices

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.

QinQ**, QoS QinQ** and GVRP** supported

It supports the QinQ**, QoS QinQ**, GVRP** for large VLAN segmentation.

IGMPv3, GMRP**, router port, static multicast forwarding and multicast Ring protection

The unique multicast protection under enhanced G.8032 ring can offer immediate self-recovery instead of waiting for IGMP table timeout. It also supports IGMPv3, GMRP**, router port and static multicast forwarding binding by ports for video surveillance application.

User friendly GUI, Auto topology drawing

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

Editable configuration file The configuration file of Lantech IES-5408DFT-PT can be exported and edited with word processor for the other switches configuration with ease. 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.

Event log & message; 2 DI / 2 DO

In case of event, the IES-5408DFT-PT is able to send an email & SMS** text message to pre-defined addresses as well as SNMP Traps our immediately. It provides 2 DI and 2 DO. 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 alarm while sending alert information to IP network with email and traps.

Environmental monitoring for switch inside information

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

Wide range dual DC powered input with galvanic isolation; Relay contact alarm

The Lantech IES-5408DFT-PT is designed with wide range dual power input from 18V~72VDC with galvanic isolation. Featured with relay contact alarm function, the IES-5408DFT-PT is able to connect with alarm system in case of power failure or port disconnection. The IES-5408DFT-PT also provides ±2500V EFT, ±4000V Surge and ±8000V ESD air protection, which can reduce unstable situation caused by power line and Ethernet.

Industrial hardened design for extended temperature operation

Lantech IES-5408DFT-PT 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 -E model can be used in extreme environments with an operating temperature range of -40°C to 75°C.



FEATURES & BENEFITS

- 8 10/100TX + 2 10/100/1000T + 2 Dual Speed SFP (Total 12 Ports Switch)
- Back-plane (Switching Fabric): 9.6Gbps
- 16K MAC address table
- Built-in MMS server for SCADA data-modeling with control and monitoring
 - System info
 - Environmental monitoring
 - Power
 - Device event report
 - Port status
 - Port statistic
 - Port event report
 - Firmware upgrade
 - Network configuration
- Optional QoS for Goose packet
- DDM to support SFP diagnostic function***
 - Automatically convert the raw data into dB values for TX power/RX power, making it easier to measure the fiber distance
- 10KB Jumbo frame
- User friendly UI, auto topology drawing, topology demo, complete CLI for professional setting
- Enhanced G.8032 Ring recovery < 20ms in single ring
 - Support various ring/chain topologies, including train ring, enhanced ring, basic ring, auto ring & multiple VLAN ring
 - Enhanced G.8032 ring configuration with ease
 - Auto ring configuration(auto mode) for single ring
 - Covers multi-cast and data packets
- Provides EFT protection ±2500 VDC for power line.
- Supports ±4000 VDC (Contact) and ±8000 VDC (Air)
 Ethernet ESD protection
- ±4000V Surge for signal port
- Supports IEEE 802.1p Class of Service, per port provides 8 priority queues Port base, Tag Base and Type of Service Priority
- IEEE 802.1d STP, IEEE 802.1w RSTP,802.1s MSTP VLAN redundancy with 16 MSTI
- 4K 802.1Q VLAN, Port based VLAN, GVRP**, QinQ**, QoS QinQ**
- Supports IEEE 802.1ab LLDP, Cisco CDP; LLDP info can be viewed via Web/ Console
- DHCP server / client / DHCP Option 82 relay / DHCP Option 82; Port based DHCP server; DHCP Option 66; IPv6 address resolution for DHCP server**
- Mac based DHCP server to assign IP address that

includes dumb switches in DHCP network

Bandwidth Control

- Ingress packet filter and egress rate limit
- Broadcast/multicast packet filter control
- Relay alarm output system events
- TFTP/SFTP**/HTTP firmware upgrade
- Miss-wiring avoidance
 - LED indicator

Repowered auto ring restore

- Ensure the switches in a ring to survive after power breakout is back
- The status can be shown in NMS when each switch is back

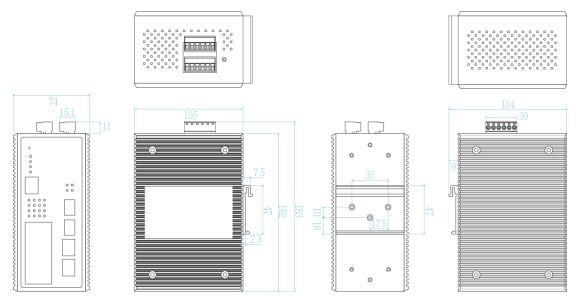
Configuration backup and restoration

- Supports text configuration file for system quick installation
- System Event Log, SMTP Email alert, SMS** mobile (text) and SNMP Trap for alarm support; 32 RMON counters
- Security
 - SSL/SSH/INGRESS/EGRESS ACL L2/L3
 - TACACS+*
 - Port Security: MAC address entries/Filter/MAC-Port binding
 - IP Security: IP address security management to prevent unauthorized intruder.
 - Login Security: IEEE802.1X/RADIUS
 - HTTPS for secure access to the web interface
- Static multicast forwarding forward reversed IGMP flow with multicast packets binding with ports for IP surveillance application
- IGMP router port to assign query in ring for reversed multicast video flow
- IGMPv1,v2,v3 with Query mode for multimedia;
 GMRP**
- Factory reset button to restore setting to factory default
- Watchdog design to auto reboot switch CPU is found dead
- Supports 2DI / 2DO (2Digital Input/2Digital Output)
- Wide range dual input power from 18V to 56V with galvanic isolation
- Environmental monitoring for system input voltage, current and ambient temperature
- IP30 metal housing with DIN rail and Wall-mount** design



DIMENSIONS (unit=mm)

IES-5408DFT-PT



SPECIFICATION

| Hardware Sp | ecification | | EIA/TIA-568 100-ohm (100m) |
|---------------------|---|--|--|
| Standards | IEEE802.3 10Base-T Ethernet IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T Ethernet IEEE802.3z Gigabit fiber IEEE802.3x Flow Control and Back Pressure IEEE802.3ad Port trunk with LACP IEEE802.1d Spanning Tree IEEE802.1w Rapid Spanning Tree IEEE802.1s Multiple Spanning Tree IEEE802.3ad Link Aggregation Control Protocol (LACP) IEEE802.1AB Link Layer Discovery Protocol (LLDP) IEEE802.1X User Authentication (Radius) IEEE802.1Q VLAN Tag | Optical Cable | 1.25Gbps: 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) 125Mbps: Multi mode: 0 to 2 km/ 5 km, 1310 nm (62.5/125 μm) Single mode: 0 to 30 km, 1310 nm (62.5/125 μm) WDM 1.25Gbps: 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) |
| Switch Architecture | IEEE1588 Precision Time Protocol v2 Back-plane (Switching Fabric): 9.6Gbps | | WDM 125Mbps: Single mode: 0 to 20 km/ 40 km/ 60 km/ 80 |
| Transfer Rate | 14,880pps for Ethernet port 14,88,00pps for Fast Ethernet port 1,488,000pps for Gigabit Ethernet / Gigabit Fiber port | LED | km, 1310 nm (9/125 µm); 0 to 20 km/ 40 km/ 60 km/ 80 km, 1550 nm (9/125 µm) Per unit: Power 1 (Green), Power 2 (Green), FAULT (Red), RM(Green) |
| Mac Address | 16K MAC address table | | Ethernet port: Link/Activity (Green), Speed |
| Jumbo frame | 10KB | | (Green); Mini-GBIC: Link/Activity (Green) |
| Connectors | 10/100TX: 8 x ports RJ-45 with Auto MDI/MDI- X function 10/100/1000T: 2 x ports RJ-45 with Auto MDI/MDI-X function Mini-GBIC: 2 x 100/1000 SFP socket with | 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 |
| | DDM | Operating Humidity | 5% ~ 95% (Non-condensing) |
| | RS-232 connector: RJ-45 type Power & Relay connector: 1 x 6-pole terminal block DIDO: 1 x 6-pole terminal block | Operating Temperature Storage Temperature Power Supply | -20°C-60°C / -4°F-140°F (Standard model) -40°C-75°C / -40°F-167°F(-E model) -40°C-85°C / -40°F-185°F 18 to 72 VDC with galvanic isolation |
| Network Cable | 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5/ 5E/ 6 | Power Consumption | 10W |
| | cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5/ 5E/ 6 cable EIA/TIA-568 100-ohm (100m) | Case Dimension Weight Installation EMI & EMS | Metal case. IP-30, 74 (W) x 105 (D) x 152 (H) mm 900 g DIN Rail and Wall Mount** Design FCC Class A, |
| | EIA/TIA-568 100-ohm (100m) 1000Base-TX: 2-pair UTP/STP Cat. 5/ 5E/ 6 cable | EMI & EMS | FCC Class A, CE EN55032, CE EN55011, |



| Sabbinty Totaling IEC00088-229 (Fincial), IEC00088-227 (Fincial), IEC0088-227 (Fincial), IEC0088-22 | | CE EN61000-4-2, CE EN61000-4-3, CE EN61000-4-4, CE EN61000-4-5, | Quality of Service | The quality of service determined by port, Tag and IPv4 Type of service, IPv4 Differentiated |
|--|-------------------------|--|------------------------|--|
| Stability Testing IEC60088-2-32 (Fires fall), IEC60088-2-32 (Fires fall), IEC60088-2-34 (Microson), IEC60088-2-48 (Microson), IEC60088-2-48 (Microson), IEC60088-2-34 (Microson), IEC6008-2-34 (Microson), | | CE EN61000-4-6, CE EN61000-4-8, | Class of Service | Services Code Points - DSCP Support IEEE802.1p class of service, per port |
| IECCOORS 2-27 (Shook), IECCOORS 2-27 (Shoo | | CE EN61000-6-4 | | provides 8 priority queues |
| Substation EN00121-1.5 | Stability Testing | IEC60068-2-27 (Shock), | QoS by VLAN | Tagged QoS by VLAN for all devices in the network |
| LEG 8180-3 LEG 18180-3 Legin Security Supports EEE8021 X authentication INV Supports Per Support Security Supports EEE8021 X authentication INV Supports Per Security Supports Per Security Supports Per Security Supports Per Security Supports Internoting Provided Find Provided Fi | | , and the second | IP Security | Supports 10 IP addresses that have |
| NTEP 830,569 hrs 20,359 h | | | | permission to access the switch management |
| Support 3 minored types - TRX, TX and packed the post of the packed type - Trunk with LACP | Substation Verification | IEC 61850-3 | | · |
| Software Specification Management SMMP MIB RFC 1215 Traps Mille* RFC 1215 Mille* RFC 12 | | | | |
| Software Specification Management SNMP VIV.2c, v3/ WebTelnet/CLI SNMP MIB RFC 1213 Traps MiB*, RFC 1213 MiBII RFC 1158 MiBII RFC 1157 SNMP MIB, RFC 1215 Tisps MiB*, RFC 1215 Tisps MiB*, RFC 1215 MiBII RFC 1157 SNMP MIB, RFC 1215 Tis MiBII RFC 1215 Tisps MiB*, RFC 1215 Tis MiBII RFC 1215 Tisps MiB*, Partial RFC 1215 Tis MiBI, RFC 1215 Tis MiBII RFC 1215 MiBII RFC 1215 MiBIII RFC 1215 MiBII | | · · | Port Mirror | |
| Mary Name SNMP VI v2e, v3r Web/Teinet/CLI SNMP MIB RFC 125 Traps MIB", RFC 125 Traps MIB", RFC 125 MiBII RFC 1157 SNMP MIB, RFC 1257 SNMP MIB, RFC 1275 SNMP MIB, RFC 1275 SNMP MIB, RFC 1275 IF MIB RFC 1275 IF MIB RFC 2674 VLAN MIB", Partial RFC 1757 FNMON, RFC 2674 VLAN MIB", Partial RFC 1757 FNMON, RFC 2674 VLAN MIB", Partial RFC 1757 FNMON, RFC 2674 VLAN MIB", Private MIB Support TIU G.8032 v2/2012 for Ring protection in less than 20ms for self-head recovery (reigne firing) Support various inglichain topologies Includes train ring, auto ring, basic single ring, enhanced d.9032 ring configuration with ease, Protect militicast & unionated train ring, auto ring, basic single ring, enhanced d.9032 ring configuration with ease, Protect militicast & unionated train ring, auto ring, basic single ring, enhanced d.9032 ring configuration with ease, Protect militicast & unionated train ring, auto ring, basic single ring, enhanced d.9032 ring configuration with ease, Protect militicast & unionated train ring, auto ring, basic single ring, enhanced d.9032 ring configuration with ease, Protect militicast & unionated train ring, auto ring, basic single ring, enhanced d.9032 ring configuration with ease, Protect militicast & unionated train ring, auto ring, basic single ring, enhanced d.9032 ring configuration with ease, Protect militicast & unionated train ring, auto ring, basic single ring, enhanced d.9032 ring configuration with ease, Protect militicast & unionated train ring, auto ring, basic single ring, enhanced d.9032 ring configuration with ease, Protect militicast developed ring ring and automatication ring ring ring ring Domb threshold monitoring with dB values*** User friendly UI Very first first ring ring and protection Very first ring ring avoidance Provides one relay output for protessional setting Domb threshold monitoring with dB values*** Domb threshold monitoring with dB va | | | Network Security | |
| SNMP MID RFC 1215 Traps MIB', RFC 1215 MIBII RFC 1515 SNMP MIBI, RFC 1515 SNMP MIBI, RFC 1515 SNMP MIBI, RFC 1515 SNMP MIBI, RFC 1517 SI F MIBI RFC 1573 IF MIBI RFC 1574 IF MIBI RFC 1573 IF MI | | | Hotwork Coounty | · · · |
| RFC 123 MIBII RFC 1158 MIBII RFC 1157 SIMP MIB, RFC 1438 Bridge MIBT RFC 1457 SIMP MIB, RFC 1457 SIMP MIB, RFC 2674 VLAN MIBT, Partial RFC 1757 RMON, RFC 2674 VLAN MIBT, Partial RFC 1757 RMON, RFC 2674 O-Bridge MIBT, BLDP MIB RFC 2674 VLAN MIBT, Private MIB Private MIB Private MIB Private MIB Private MIB Private MIB RFC 2674 VLAN MIBT, Private MIB RFC 2674 VLAN might private MIB RFD MIBT, Private MIB RFD MIBT, Private MIB RFD MIBT, Private MIBT, RFC 2674 O-Bridge MIBT, RFC 2674 O-Bridge MIBT, RFC 2674 VLAN might private MIBT, RFC 2674 O-Bridge MIBT, RFC 2674 VLAN might private | | | | |
| RFC 1158 MBIII RFC 157 SMMP MIB. RFC 1493 Bidge MIB* RFC 1573 IF MIB RST MIB* Partial RFC 1573 IF MIB* RSTP MIB* Private MIB RST MIB* RSTP MIB* Private MIB RST MIB* Private MIB RST MIB* Private MIB RST MIB* Private MIB RST MIB* Support IGMP access to the web int TACACS+* for Authentication Support IGMP proteip or 1; EMD support IGMP proteip or 1; | SINIVIE IVIID | | | |
| RFC 1157 SMM MIB; RFC 1437 B Bridge MIB* RFC 1437 B FMB RFC 2574 VLAN MIB* Partial RFC 1757 RMON, RFC 2574 VLAN MIB* BITU G.8032 Support ITU G.8032 v2/2012 for Ring protection in less than 20ms for self-heal recovery (single ring) Support various insplicial topologies Includes train ring, auto ring, basic single ring, enhanced fing, multiple-VLAN ring Enhanced G.8032 ring configuration with ease. Protect multicast & uncast data MMS Data Modeling MMS Data Modeling MMS Data Modeling Support work multicast packets binding protection in less than 20ms for self-heal recovery (single ring) Environmental monitoring Pover Device event report Pover Device event report Port status Support SMP Sever and 8 e-mail acc for receiving event alert; can send SMS* strict priority User friendly UI Supports SMP Sever and 8 e-mail acc for receiving event alert; can send SMS* strict priority User friendly UI Auto topology drawing DMH threshold monitoring with Bavaluses** Complete CLI for professional setting Port Trunk with LACP LACP Port Trunk & Trunk groups LIDP Supports LIDP to allow switch to advise its identification and capability on the LAN In Up to a K, VLAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigned from 1 to 40968, UVAN ID Can be assigne | | | | |
| RFC 143 Bridge MIB* RFC 2574 IV.AM MB*, Partial RFC 1757 RMON, RFC 2674 Q-Bridge MIB*; Bridge MIB, LLOP MB RSTP MIB* Private MIB Private MIB RSTP MIB* Private MIB Support IVI G. 8032 v.2/2012 for Ring protection in less than 20ms for self-heal racevery (single ring) Support various ring/chain topologies Includes train ring, auto ring, basic single ring, enhanced G. 8032 ring configuration with ease. Protect multicast & unicast data Prover Protect multicast groups (SMP router port; IGM ununicast groups; (GMP router) in GM | | RFC 1157 SNMP MIB, | | |
| RFC 1573 IF MIB RFC 2674 VLAN MIB*, Partial RFC 1757 RMON, RFC 2674 Q-Eridge MIB*, Bridge MIB, LLDP MIB RSTP MIB* Private MIB STP MIB* Support ITIU G.8032 V2/2012 for Ring protection in less than 20ms for self-heal recovery (single ring) Support various ring/chain topologies Includes train ring, auto ring, basic single ring, enhanced G.8032 ring configuration with ease. Protect multicast 8 uncleads train ring, auto rings data Environmental monitoring Power Power Power Power Power Pote event report Pot status Port statistic Port event report Pot | | RFC 1493 Bridge MIB* | | |
| Partial RFC 1757 RMON, RFC 2674 O-Bridge MIB*, Bridge MIB, LLDP MIB RSTP MIB* Private MIB Private MIB Private MIB Private MIB Support ITU G.8032 v2/2012 for Ring protection in less than 20ms for self-heal recovery (single ring) Support various ring/chain topologies Includes train ring, auto ring, basic single ring, enhanced G.8032 ing configuration with ease. Protect multicast data MMS Data Modeling MMS Data Modeling MMS Data Modeling Power Protect multicast data Port statius Port statius Port statius Port statius Port statius Port event report Port funding various event | | | | |
| RFC 2874 Q-Pridge MIB*, Bridge MIB, LLDP MIB RSTP MIB* RSTP MIB* Private MIB Support ITUG .8032 v2/2012 for Ring protection in less than 20ms for self-heal recovery (single ring) Support Various inglochain topologies Includes train ring, auto ring, basic single ring, enhanced fing, multiple-VLAN ring Enhanced G.8032 ring configuration with ease. Protect multicast & unicast data Protest militicast packet itim. MMS Data Modelling MMS Data Modelling System info Device event report Port status Provides one relay output for port break power fall and alarm. Alarm Relay current carry ability: 1 A @ Lepton friend youtput for port break power fall and alarm. Alarm Relay current carry ability: 1 A @ Lepton friend youtput for port break power fall and alarm. Provides one relay output for port break power fall and alarm. Provides one relay output for port break power fall and alarm. Provides one relay output for port break power fall and alarm. Alarm Relay current carry ability: 1 A @ Lepton friend youtput for port break power fall and alarm. Provides one relay output for port break power fall and alarm. Provides one relay output for port break power fall and a | | | | HTTPS for secure access to the web interface |
| LLDP MIB RSTP MIB* Private MIB Private MIB Support IGMP snooping v1, v2, v3; 1024 RSTP MIB* Private MIB Support IGM protection in less than 20ms for self-heal recovery (single ring) Support various ring/chain topologies Includes train ring, auto ring, basic single ring, enhanced G, 8032 ring configuration with ease. Protect multicast & unicast data Protect multicast & unicast data Protest multicast & unicast data Protest multicast & unicast data Protest multicast & unicast data Power Device event report Port status (pliptic status status for protessional setting Port Trunk with LACP LACP Port Trunk: 8 Trunk groups LLDP Supports LLDP to allow swich to advise its identification and capability on the LAN Copp Cisco Discovery Protocol for tipology mapping System status for input voltage, current and ambient temperature to be shown in GUI and sent alerting if any abnormal status VLAN Port Based VLAN LO (pt to 4K, VLAN 10 can be assigned from 1 to 4096.) GVPP", Cinio", Coo Glino", Protocol based Machana DIOD Machana Diod was control of PICP Sea | | | | TACACS+* for Authentication |
| RSTP MIB* Private MIB Support ITU G.8032 V2/2012 for Ring protection in less than 20ms for self-heal recovery (single ring) Support various ring/chain topologies Includes train ring, auto ring, basic single ring, enhanced ring, multiple-VLAN ring Enhanced G.8032 ring configuration with ease. Protect multicast 8 unicast data MMS Data Modeling MS Data Modeling System info Environmental monitoring Port status Port status Port status Port status Port statistic Port overnit report Firmware upgrade Network configuration Firmware upgrade Strict priority Strict priority System Log Supports System log record and remote system log server System log server SMTP/Text SMS** Supports SMTP Server and 8 e-mail acctor receiving event altert; can send SMS* allert via mobile Port Trunk with LACP LACP Port Trunk: 8 Trunk groups UAN CDP Cisco Discovery Protocol for Equipoly mapping Environmental Monitoring Swift and an eqability on the LAN CDP Cisco Discovery Protocol to topology mapping Environmental Monitoring Swift and an eqability on the LAN ID (Up to 4K, VLAN ID can be assigned from 1 to 4096.) GVPP*, Cindo**, Cos Gindo**, Protocol based MS presed DHOP Static MAC-Port bridge Supports Supports and egress packet filter and egress packet lifter. The packet lifter. The packet tighter and egress packet lifter and erable gers packet. The packet stifter and erable gers packet. The packet lifter. The packet lifter. The packet lifter and can be gress rate control supports all of protection Supports Store only and all types of packet. The packet lifter and can be gress rate control supports all of protection System Log Supports Store on the stan accurate to the shown in Gul and sent alerting if any abnormal status. Port Trunk with LACP Port I make a make a control or Full Port Store only and a multiple state and indicate the packet through the | | | IGMP | Support IGMP snooping v1,v2,v3; 1024 |
| Tru G.8032 Support Tru G.8032 v2/2012 for Ring protection in less than 20ms for self-heal recovery (single ring) Support various ring/chain topologies Includes train ring, auto ring, basic single ring, enhanced fing, multiple-VLAN ring Enhanced G.8032 ring configuration with ease. Protect multicast & unicast data MMS Data Modeling System info Environmental monitoring Power Device event report Port status Port status Port statistic Port event report Firmware upgrade Network configuration Strict priority Strict priority Loser friendly UI Auto topology drawing DDM threshold monitoring with daw values*** Complete CLI for professional setting Port Trunk with LACP LACP Port Trunk: 8 Trunk groups LLDP Support strunk groups VLAN Port Based VLAN DOLP to 4K, VLAN ID Can be assigned from 1 to 4096. GVPP*, Cindo**, Assigned the real ring in the real ri | | | | multicast groups; IGMP router port ; IGMP |
| protection in less than 20ms for self-heal recovery (single ring) Support various ring/chain topologies Includes train ring, auto ring, basic single ring, enhanced ring, multiple-VLAN ring Enhanced 6,8032 ring configuration with ease. Protect multicast & unicast data MMS Data Modeling MMS Data Modeling MMS Data Modeling System info Environmental monitoring Power Device event report Port status Port status Port status Port statistic Port event report Firmware upgrade Network configuration Firmware upgrade Network configuration Strict priority Strict priority User friendly UI Auto topology drawing Topology demo Auto configuration for G.8032(auto mode) for single ring DDM threshold monitoring with dB values*** DOD Complete CLI for professional setting Environmental Monitoring Port Trunk with LACP LCP Cisco Discovery Protocol for topology mapping System status for input voltage, current and ambient temperature to be shown in GUI and sent alterting if any abnormal status VLAN Port Based VLAN ID ELB 802.1Q Tag VLAN (256 entries)/ VLAN ID (Up to 4K, VLAN ID can be assigned from 1 to 4096), GVRP**, QinO**, QoS QinO**, Protocol based | | Private MIB | | query; GMRP** |
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| CDP Cisco Discovery Protocol for topology mapping Environmental Monitoring System status for input voltage, current and ambient temperature to be shown in GUI and sent alerting if any abnormal status 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**, QinQ***, Protocol based Mac based DHCP Provide DHCP Client/ DHCP Server/DH Option 82/Port based DHCP; DHCP Option 82/Port based DHCP Option 82/ | LLUP | | | Authorization failure |
| System status for input voltage, current and ambient temperature to be shown in GUI and sent alerting if any abnormal status 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**, QinQ***, Protocol based Mac based DHCP Assign IP address by Mac that can include the control of | CDP | | | |
| VLAN Port Based 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**, QinQ***, Protocol based GVRP**, QinQ***, Protocol based GVRP**, QinQ***, Protocol based Mac based DHCP Assign IP address by Mac that can include Mac based DHCP Assign IP address by Mac that can include Mac based DHCP Assign IP address by Mac that can include Mac based DHCP Assign IP address by Mac that can include Mac based DHCP Mac based DHCP Mac based DHCP Assign IP address by Mac that can include Mac based DHCP M | | , , , , | | · |
| 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**, QinQ**, Protocol based Mac based DHCP Environmental abnormal** DHCP Provide DHCP Client/ DHCP Server/DH Option 82/Port based DHCP; DHCP Option 82/Port based DHCP Opt | Monitoring | · | | |
| IEEE 802.1Q Tag VLAN (256 entries)/ VLAN ID (Up to 4K, VLAN ID can be assigned from 1 to 4096.) GVRP**, QinQ**, Protocol based Mac based DHCP Assign IP address by Mac that can include the control of | VI AN | - 1 | | |
| ID (Up to 4K, VLAN ID can be assigned from 1 to 4096.) GVRP**, QinQ**, QoS QinQ**, Protocol based Mac based DHCP Assign IP address by Mac that can include the control of the control o | VLAIN | | DHCP | Provide DHCP Client/ DHCP Server/DHCP |
| GVRP**, QinQ**, QoS QinQ**, Protocol based Mac based DHCP Assign IP address by Mac that can include the control of the contr | | | | Option 82/Port based DHCP; DHCP Option |
| | | | | 66; IPv6 address resolution for DHCP server** |
| | | VLAN**; IPv4/IPv6 Subnet based VLAN** | | Assign IP address by Mac that can include |
| IPv6/4 Present Server dumb switch in DHCP network | IPv6/4 | | | |
| RSTP/MSTP Supports IEEE802.1d Spanning Tree and Provide DNS Client feature and support Provide DNS client feature and Support PNS control Primary and Secondary DNS control | RSTP/MSTP | | DNS | |
| IEEE802.1w Rapid Spanning Tree, SNTP Supports SNTP to synchronize system of SNTP supports SNTP to synchronize system of SNTP supports SNTP to synchronize system of SNTP supports SNTP to synchronize system of SNTP supports SNTP to synchronize system of SNTP supports SNTP to synchronize system of SNTP supports SNTP to synchronize system of SNTP supports SNTP to synchronize system of SNTP supports SNTP sntP sntP sntP sntP sntP sntP sntP snt | | The state of the s | SNTP | Supports SNTP to synchronize system clock in |
| IEEE802.1s Multiple Spanning Tree with 8/16* MSTI Internet Internet | | | | |
| INIO 11 | | IVIO I I | Firmware Update | Supports TFTP/SFTP** firmware update, |



Configuration backup & restore

TFTP backup and restore; HTTP firmware upgrade
Supports text configuration file for system

**Optional

***Optional DDM SFP

required

*Future release

ORDERING INFORMATION

quick installation

IES-5408DFT-PT......P/N: 8350-509

2 10/100/1000T+2x100/1000 SFP + 8 10/100TX IEC61850-3 Managed Ethernet Switch w/enhanced Ring & MMS, environmental monitoring, w/ dual isolated18~72VDC input; -40°C to 75°C

■ IES-5408DFT-PT-HV......P/N: 8350-507

 $2\ 10/100/1000T+2x100/1000\ SFP+8\ 10/100TX\ IEC61850-3\ Managed\ Ethernet\ Switch\ w/Enhanced\ Ring\ \&\ MMS, environmental\ monitoring,\ w/\ One\ isolated\ 90~305VAC/120~430VDC\ power\ supply;\ -40°C\ to\ 75°C$

OPTIONAL ACCESSORIES

DIN Rail Power

■ MDR-40 Series 40W Single Output Industrial Din Rail Power; 85-264VAC / 120-370VDC Input Range; Cooling by free air convection; RoHS2;

Operating Temp. -20°C~70°C (ambient, derating each output at 4% per degree from 60°C ~ 70°C)

■ MDR-20 Series 20W Single Output Industrial Din Rail Power; 85-264VAC / 120-370VDC 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)

Mini GBIC (SFP)

| 8330-162X | MINI GBIC 1000SX (LC/MM/0.5KM) Transceiver | 8330-187 | 1.25Gbps BiDi SFP 20KM Transceiver (WDM 1550) |
|------------------|--|-----------------|---|
| 8330-163X | MINI GBIC 1000SX2 (LC/MM/2KM) Transceiver | 8330-180 | 1.25Gbps BiDi SFP 40KM Transceiver (WDM 1310) |
| 8330-165X | MINI GBIC 1000LX (LC/SM/10KM) Transceiver | 8330-182 | 1.25Gbps BiDi SFP 40KM Transceiver (WDM 1550) |
| 8340-0591 | MINI GBIC 1000LHX (LC/SM/40KM) Transceiver | 8330-181 | 1.25Gbps BiDi SFP 60KM Transceiver (WDM 1310) |
| 8330-166 | MINI GBIC 1000XD (LC/SM/50KM) Transceiver | 8330-183 | 1.25Gbps BiDi SFP 60KM Transceiver (WDM 1550) |
| 8330-169 | MINI GBIC 1000XD (LC/SM/60KM) Transceiver | 8330-184 | 1.25Gbps BiDi SFP 80KM Transceiver (WDM 1490) |
| 8330-167 | MINI GBIC 1000ZX (LC/SM/80KM) Transceiver | 8330-185 | 1.25Gbps BiDi SFP 80KM Transceiver (WDM 1550) |
| 8330-170 | MINI GBIC 1000EZX (LC/SM/120KM) Transceiver | 8330-071 | 125Mbps BiDi SFP 2KM (WDM 1310) Transceiver |
| 8330-168 | MINI GBIC 10/100/1000T (100m) Transceiver | 8330-072 | 125Mbps BiDi SFP 2KM (WDM 1550) Transceiver |
| 8330-060 | MINI GBIC 100Base (LC/MM/2KM) Transceiver | 8330-069 | 125Mbps BiDi SFP 20KM (WDM 1310) Transceiver |
| 8330-065 | MINI GBIC 100Base (LC/MM/5KM) Transceiver | 8330-068 | 125Mbps BiDi SFP 20KM (WDM 1550) Transceiver |
| 8330-061 | MINI GBIC 100Base (LC/SM/30KM) Transceiver | 8330-080 | 125Mbps BiDi SFP 40KM (WDM 1310) Transceiver |
| 8330-197 | 1.25Gbps BiDi SFP 0.5KM Transceiver (WDM 1310) | 8330-082 | 125Mbps BiDi SFP 40KM (WDM 1550) Transceiver |
| 8330-198 | 1.25Gbps BiDi SFP 0.5KM Transceiver (WDM 1550) | 8330-081 | 125Mbps BiDi SFP 60KM (WDM 1310) Transceiver |
| 8330-195 | 1.25Gbps BiDi SFP 2KM Transceiver (WDM 1310) | 8330-083 | 125Mbps BiDi SFP 60KM (WDM 1550) Transceiver |
| 8330-196 | 1.25Gbps BiDi SFP 2KM Transceiver (WDM 1550) | 8330-084 | 125Mbps BiDi SFP 80KM (WDM 1310) Transceiver |
| 8330-188 | 1.25Gbps BiDi SFP 10KM Transceiver (WDM 1310) | 8330-085 | 125Mbps BiDi SFP 80KM (WDM 1550) Transceiver |
| 8330-189 | 1.25Gbps BiDi SFP 10KM Transceiver (WDM 1550) | 8330-191 | Dual Speed SFP 100M/1000M-LX 10KM Transceiver |
| 8330-186 | 1.25Gbps BiDi SFP 20KM Transceiver (WDM 1310) | All part no. w | vith D are with DDM function |

Wall Mount Bracket

MBAK19003 Wall mount bracket for 74(W) x 105 (D) x 152 (H) mm / 96 (W) x 105 (D) x 152 (H) mm Industrial switches

MBAK19004 19" Rack Mounting Kit for 74x105x152mm/74x135x152mm Industrial Switch

Lantech Communications Global Inc.

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