Lantech 2008
Product Guide

For System Integration

Lantech

FC C€ cUL RoHS

Contents

Industrial Switch

POE

About Lantech

For 20 years, Lantech has been developing a global brand by providing networking solutions, and has grown into an organization which utilizes our own R&D, manufacturing, sales and marketing to cultivate our own niche. Lantech is committed to providing our partners with the products, marketing and support necessary to help promote our brand in the market.
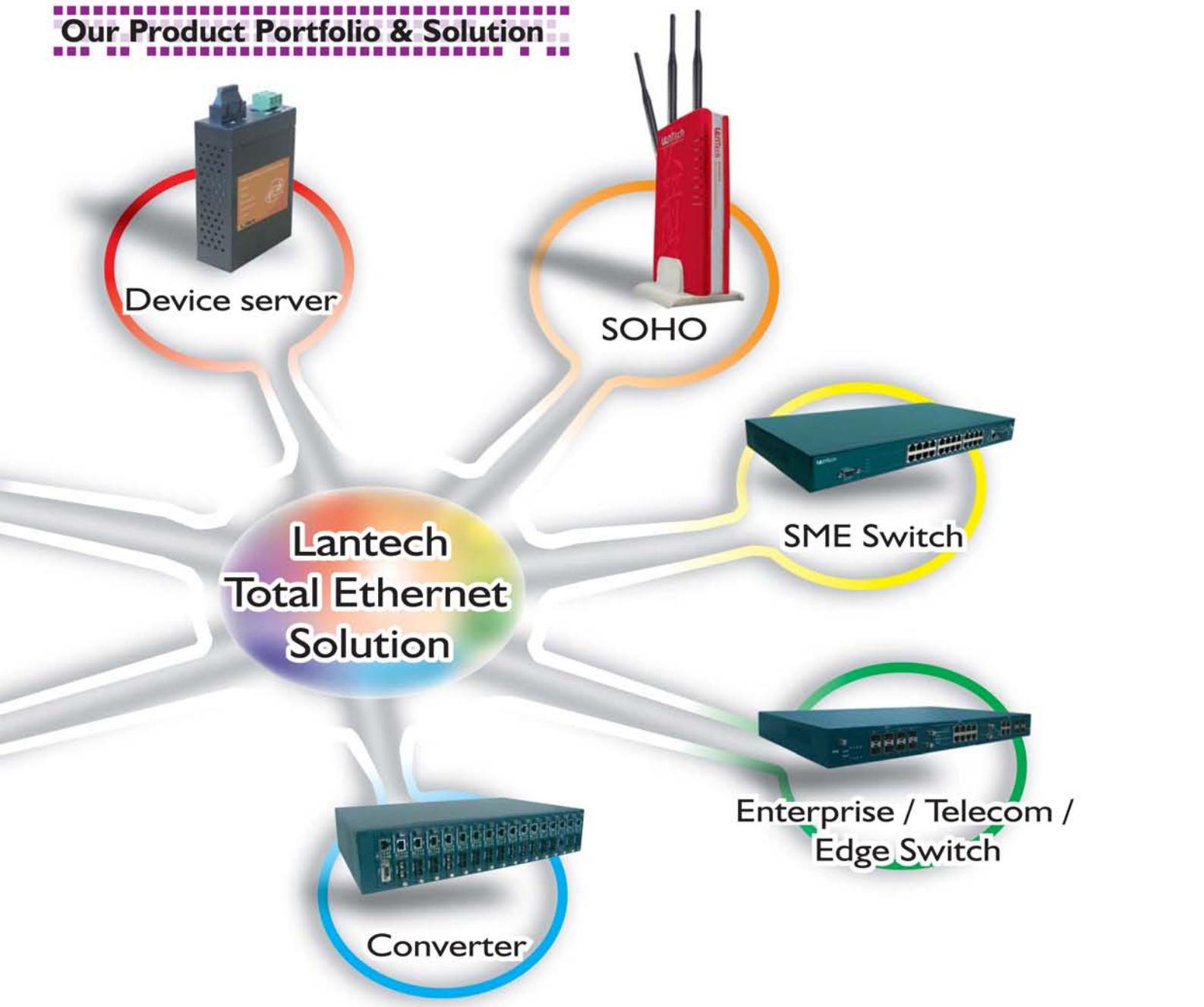
Lantech's complete product family of Enterprise Networking to Telecom Networking and Industrial-grade Networking bring Total Ethernet Solutions to many System Integrators, in which it covers markets including Industrial Automation, Carrier/ISP, Audio/Video Distribution, Building Automation, Power and Energy, Transportation and Business Enterprise.
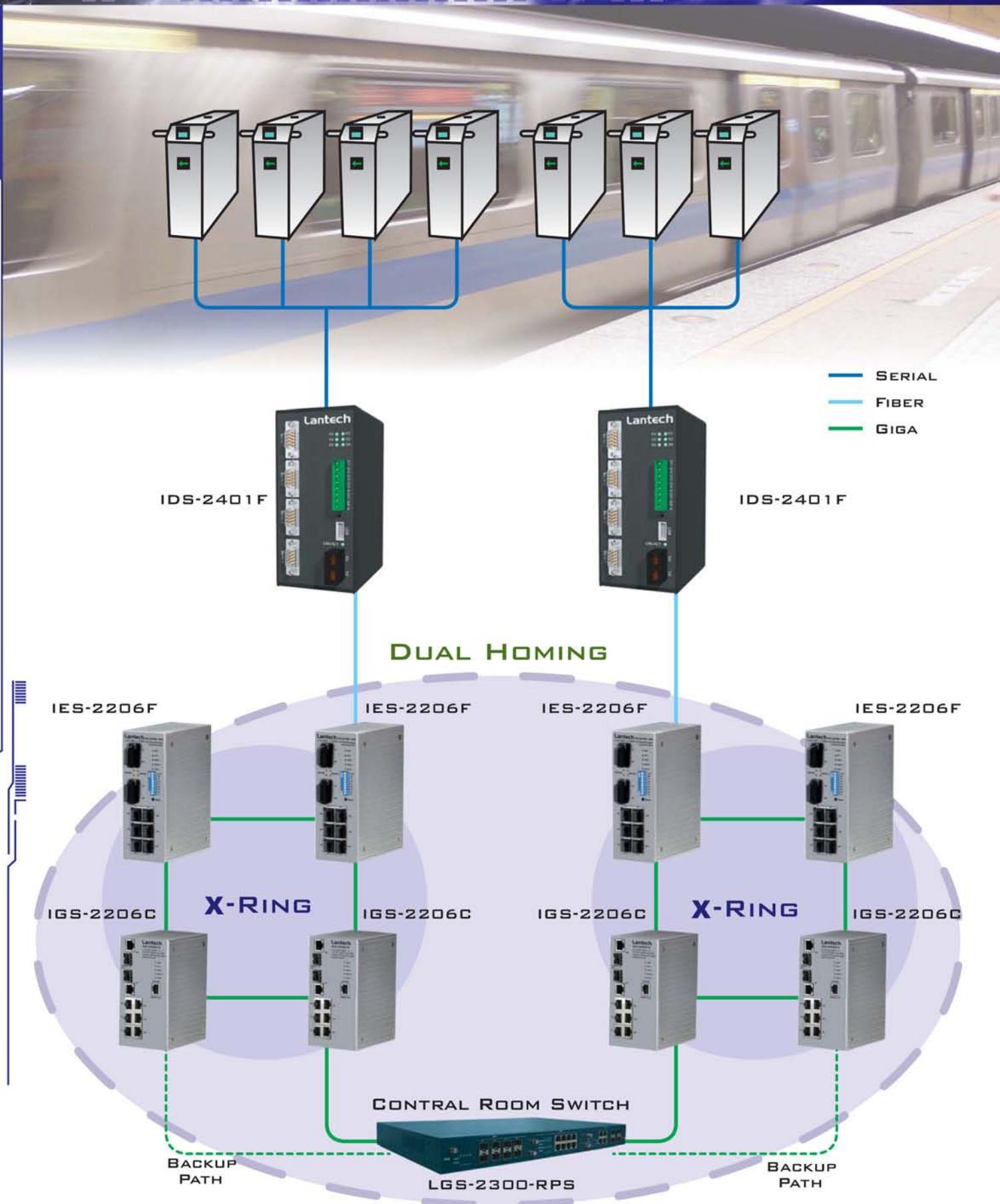
Lantech test criteria is evolved from UNH test items and by extensive test equipments including Smartbits and Ixia/Chalet to ensure the switch performance and reliability under big traffic. With many successful case studies implementing on various well-known enterprises including Taiwan Post Office, In-store Broadcasting Networks, Standford University, CNN Networks, Universität Würzburg and many others, you can be rest assured with our price-performance outstanding other competitors.

Lantech products are built in our manufacturing facility with lead-free (ROHS) processes and under ISO9001/2000 and ISO140001 Environmental Management Systems certifications.

The same attention to quality, reliability and detail we use in our manufacturing and quality assurance processes is also how we approach all of our customer relationships. Lantech sales offices in the United States, Germany, UK and Taiwan serve these customers as well as the company's global distribution channels.
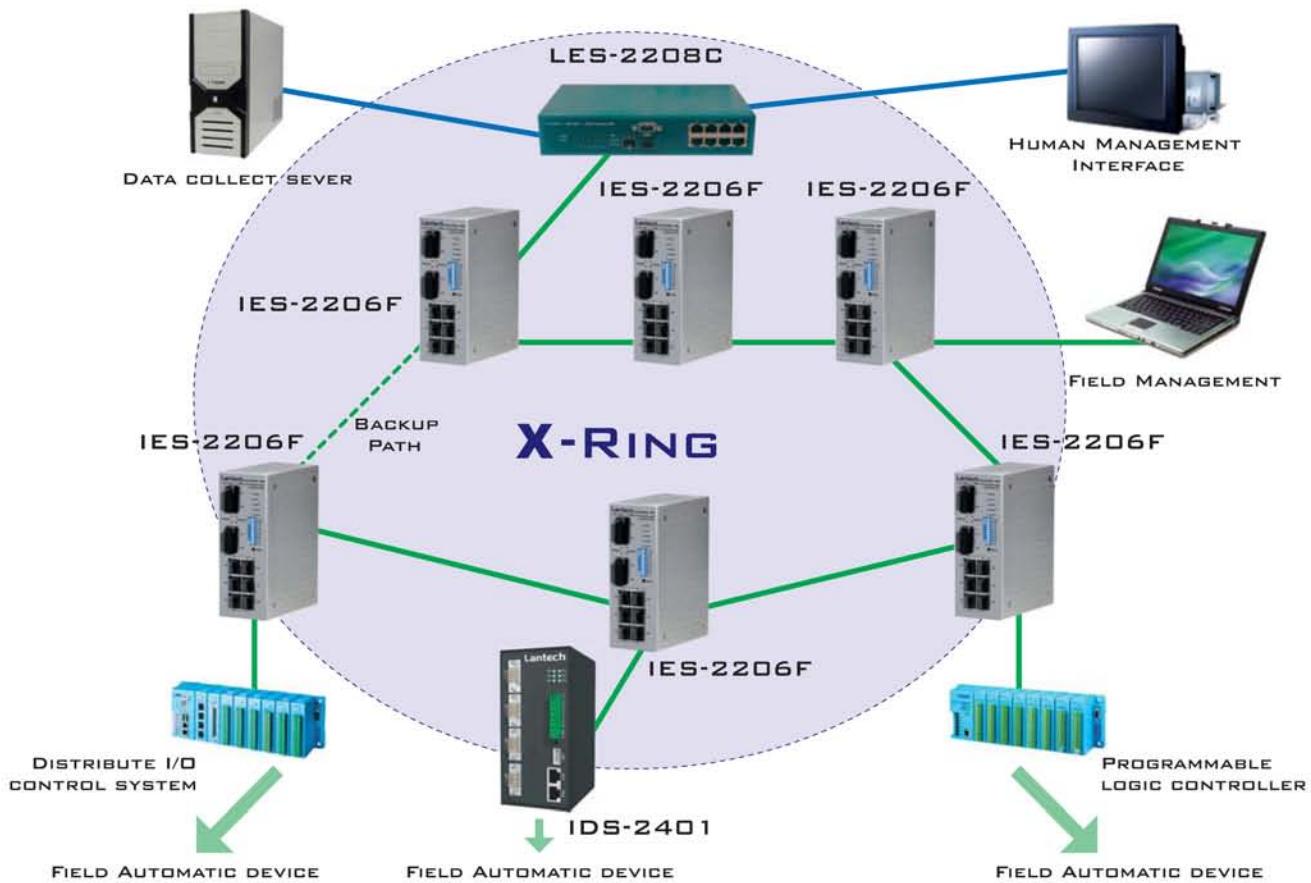
Our Product Portfolio & Solution

Device server

SOHO

SME Switch

Lantech
Total Ethernet
Solution

Enterprise / Telecom /
Edge Switch

Converter

LANTECH INDUSTRIAL ETHERNET - TOTAL APPLICATION

SERIAL
FIBER
GIGA

IDS-2401F

IDS-2401F

DUAL HOMING

IES-2206F

IES-2206F

IES-2206F

IES-2206F

IGS-2206C

X-RING

IGS-2206C

IGS-2206C

X-RING

IGS-2206C

CONTRAL ROOM SWITCH

BACKUP PATH

LGS-2300-RPS

BACKUP PATH
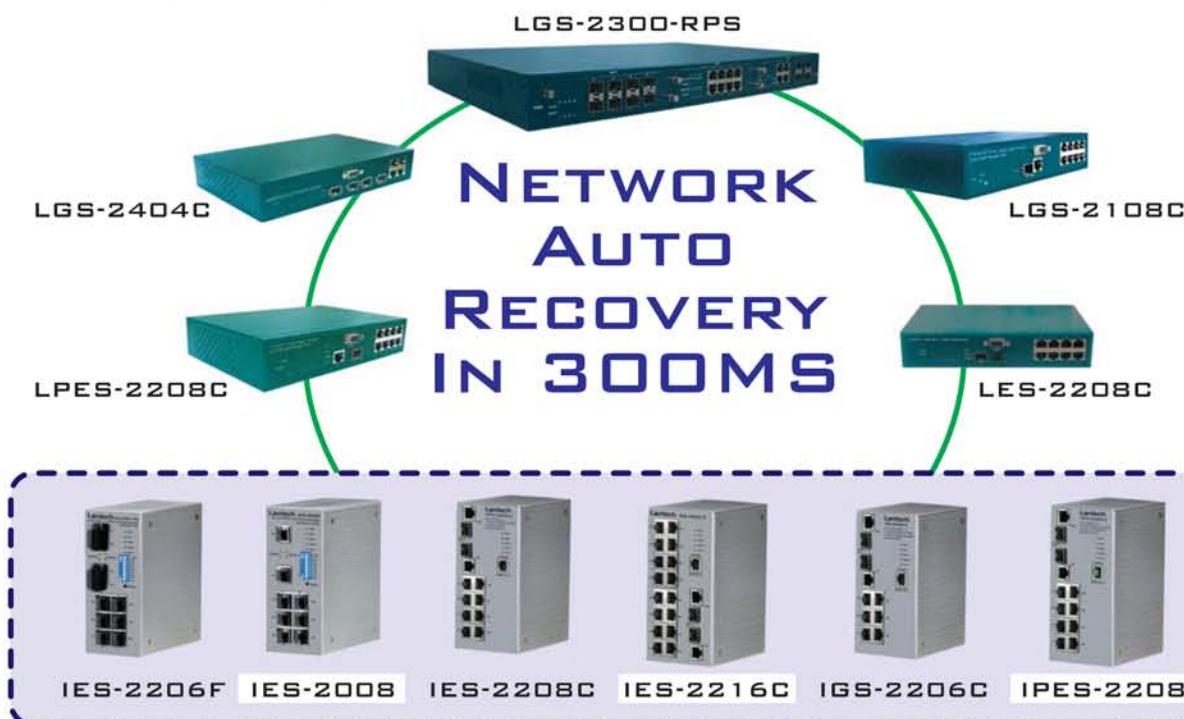
Lantech Industrial Ethernet - Total Application

X-Ring Application integrating Business&Industrial Switch

LES-2208C

DATA COLLECT SEVER

HUMAN MANAGEMENT INTERFACE

IES-2206F

IES-2206F

IES-2206F

IES-2206F

FIELD MANAGEMENT

IES-2206F

BACKUP PATH

X-RING

IES-2206F

IES-2206F

DISTRIBUTE I/O CONTROL SYSTEM

Lantech

IES-2206F

PROGRAMMABLE LOGIC CONTROLLER

FIELD AUTOMATIC DEVICE

IDS-2401

FIELD AUTOMATIC DEVICE

FIELD AUTOMATIC DEVICE

Hybrid Group with X-Ring

LGS-2300-RPS

LGS-2404C

NETWORK AUTO RECOVERY IN 300MS

LGS-2108C

LPES-2208C

LES-2208C

IES-2206F IES-2008 IES-2208C IES-2216C IGS-2206C IPES-2208C

Overview

Lantech SNMP Industrial Switch series is designed with four unique hardware features: 1. Able to use optional AC power adapter* 2. Terminal block is placed on the bottom of device to isolate dust 3. Auto detects power input from DC12V to 48V.* 4. Relay contact to connect with alarm system in case of power or port failure.

Lantech Industrial Switch series is designed to meet with critical network environment with IP 30 enclosure and test under extensive Industrial EMI and Safety standards. Each of Lantech Industrial Switch is passed under 1.2KVA Hi-Pot abnormal test.

Lantech patent-pending feature of "X-Ring" incorporating on SNMP Industrial Switch series is to find a auto-recovery-path in less than 300ms when network is failed over and can be ringed up to twenty(20) Lantech Industrial Switches. Lantech Dual-Homing feature can ensure two X-Ring groups with redundant back up when connected to a backbone switch. Lantech Industrial Switch can set Back-up Masters in X-Ring to ensure the most secure network.

The general SNMP features are including QoS for 4 queues, 802.1q VLAN, IGMP snooping and Query mode as well as SNTP and SMTP. Lantech Industrial Switch's relay contact to Alarm system can immediately alert of power failure and /or Port down events then to send a warning email to pre-defined email addresses.

Lantech Industrial Switch is adding L2+ functionality** with VLAN stacking and ACL features to suit the mass-deployment for Telcom applications.

with 8ports PoE Injector

IES-2008	IES-2206F	IGS-2206C	IES-2208C	IES-2216C/E	IPES-2208C/E
8 10/100TX SNMP Industrial switch	6 10/100TX + 2 100FX SNMP Industrial switch	6 10/100/1000T + 2 10/100/1000T/ SFP Combo (Giga SFP/100SFP) Industrial Switch	8 10/100TX + 2 10/100/1000T/ SFP Combo (Giga SFP/100SFP) Industrial Switch	16 10/100TX + 2 10/100/1000T/ SFP Combo (Giga SFP/100SFP) Industrial Switch	8 10/100TX + 2 10/100/1000T/ Mini GBIC combo(GigaSFP/100SFP)

Features:

- Supports IGMP snooping, Query mode, QoS 4 queues, SNMP v1, v2c, VLAN, Bandwidth control, STP, RSTP
- Wide-range redundant power design(DC12V~48V)
- SNMP/Web/Telnet/CLI/Menu Driven management
- Supports TFTP firmware update, FTP backup and restore.
- -25~60°C operation temperature for standard models
- -40~75°C operation temperature for E models
- VLAN stacking and ACL for L2+ functionality**
- Send e-mail alert when system events, SMTP support
- Supports U-ring function
    ≦150/ms (IGS-2206C/E, IES-2208C/E, IES-2216C/E, IPES-2208C/E) or
    ≦300/ms (IES-2206F/E, IES-2008/E) auto recovery time.
- IEEE802.3af fully power supported 15.4 w for each 8 x PoE inject port (IPES-2208C/E)

Note: * is for remark
      ** is for option

X-RING   X-VIEW   -25~60 / -40~75 °C   5-Year Warranty

Overview

Lantech Un-managed Industrial Switch/Converter series is designed with three unique hardware features: 1. Able to use optional AC power adapter* 2. Terminal block is placed on the bottom of device to isolate dust 3. Auto detects power input from DC12V to 48V.

Lantech Industrial Switch/Converter series is designed to meet with critical network environment with IP 30 enclosure and test under extensive Industrial EMI and Safety standards. Each of Lantech Industrial Switch is passed under 1.2KVA Hi-Pot abnormal test.

Un-Managed Industrial Switch

Converter

IES-0104F
4 10/100TX
+ 1 100FX Industrial

IES-0005
5 10/100TX
Industrial Switch

IEC-0101F
10/100M TX
to Fiber Media converter
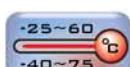
Features of Un-Managed Industrial Switch:

- Wide-range redundant power design(DC12V~48V)
- Store-and-Forward switching architecture
- Easy configuration design
- IEEE 802.3x flow control support
- -25~60°C operation temperature for standard models
- -40~75°C operation temperature for E models

Features of Converter:

- 10/100M TX to Fiber Media converter
- DC power detection from 12V to 48V
- -25~60°C operation temperature for standard models
- -40~75°C operation temperature for E models
- Relay alarm output for port link failure
- Built-in Link Lose Forwarding Technology
- Redundant dual DC power Inputs

Led spec:

IES-0104F/IES-0005

LED	Status	Meaning
Power	Green	When the industrial switch has power input s the LED will light on
	Off	No any power inputs
Power 1	Green	Power on
	Off	No power inputs
Power 2	Green	Power on
	Off	No power inputs
LNK/ACT(Port 5/Fiber)	Green	The port is linking with its link partner
	Blinks	The port is transmitting or receiving packets from the TX device.
	Off	No device attached
FDX/COL (Port 5/Fiber)	Orange	The port is operating in full-duplex mode
	Blinks	Collision of Packets occurs in the port.
	Off	The port in half-duplex mode or no device attached
Port 1 ~ 4 LED Indicator	Orange	The port is operating in full-duplex mode
	Blinking (Orange)	Collision of Packets occurs.
	Off	The port is in half-duplex mode or no device is attached.
	Green	A network device is detected.
	Blinking (Green)	The port is transmitting or receiving packets from the TX device.
	Off	No device is attached.

IEC-0101F

LED	Status	Meaning
Power	Green	When the industrial converter has power input, the LED will light on
	Off	No any power inputs
Power 1	Green	Power on
	Off	No power inputs
Power 2	Green	Power on
	Off	No power inputs
Fault	Orange	Power failure or UTP port failure or Fiber port failure
	Off	No Power failure or UTP port failure or Fiber port failure occurs or the port alarm disable
LNK/ACT (Fiber)	Green	The port is linking with its link partner.
	Blinks	The port is transmitting or receiving packets from the FX device.
	Off	No device attached
FDX (Fiber)	Orange	The port is operating in full-duplex mode
	Off	Half-duplex mode or no device attached
10/100(UTP)	Green	In 100Mbps transmitting speed
	Off	In 10Mbps transmitting speed
LNK/ACT (UTP)	Green	The port is linking with its link partner.
	Blinks	The unit is transmitting or receiving packets from the devices.
	Off	No device attached
FDX (UTP)	Orange	The port is operating in full-duplex mode
	Off	Half-duplex mode or no device attached

-25~60
-40~75 °C

5-Year Warranty

Product Name	IES-2206F	IES-2008	IES-2208C	IGS-2206C	IPES-2208C
Product Picture					
Part No.	8350-220(mm);8350-225(sm,30km)	8350-230	8350-445	8350-605	8350-700
Description	6 10/100TX + 2 100FX	8 10/100TX	8 10/100TX plus 2 10/100/1000/Mini-GBIC Combo(GigaSFP/100SFP)	6 10/100/1000TX plus 2 10/100/1000/Mini-GBIC Combo(GigaSFP/100SFP)	8 10/100TX plus 2 10/100/1000/Mini-GBIC Combo(GigaSFP/100SFP) PoE Managed Industrial Switch
Standard	IEEE802.3 10BASE-T IEEE802.3u 100Base-TX and 100Base-FX Fast Ethernet IEEE802.3x Flow Control and Back Pressure IEEE802.1d Spanning Tree Protocol IEEE802.1w Rapid Spanning Tree IEEE802.1p Class of Service IEEE802.1q VLAN Tagging	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3x Flow Control and Back Pressure IEEE802.3ad Port trunk with LACP IEEE802.1d Spanning Tree Protocol IEEE802.1w Rapid Spanning Tree IEEE802.1p Class of Service IEEE802.1q VLAN Tagging IEEE802.1x User authentication (Radius)	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z Gigabit Fiber IEEE802.3x Flow Control and Back Pressure IEEE802.3ad Port trunk with LACP IEEE802.1d Spanning Tree Protocol IEEE802.1w Rapid Spanning Tree IEEE802.1p Class of Service IEEE802.1q VLAN Tagging IEEE802.1x User authentication (Radius) IEEE802.1ab LLDP	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z Gigabit Fiber IEEE802.3x Flow Control and Back Pressure IEEE802.3ad Port trunk with LACP IEEE802.1d Spanning Tree Protocol IEEE802.1w Rapid Spanning Tree IEEE802.1p Class of Service IEEE802.1q VLAN Tagging IEEE802.1x User authentication (Radius) IEEE802.1ab LLDP	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z Gigabit Fiber IEEE802.3x Flow Control and Back Pressure IEEE802.3ad Port trunk with LACP IEEE802.1d Spanning Tree Protocol IEEE802.1w Rapid Spanning Tree IEEE802.1p Class of Service IEEE802.1q VLAN Tagging IEEE802.1x User authentication (Radius) IEEE802.1ab LLDP IEEE802.3af PoE
RFC Standard	RFC2030 SNTP, RFC 2821 SMTP, RFC 1215 Trap, RFC2233 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC4318 RSTP MIB, RFC 2665 Ethernet like MIB, RFC 2819 RMON MIB, Private MIB	RFC2030 SNTP, RFC 2821 SMTP, RFC 1215 Trap, RFC2233 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC4318 RSTP MIB, RFC 2665 Ethernet like MIB, RFC 2819 RMON MIB, Private MIB	RFC2030 SNTP, RFC 2821 SMTP, RFC 1215 Trap, RFC2233 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC4318 RSTP MIB, RFC 2665 Ethernet like MIB, RFC 2819 RMON MIB, Private MIB	RFC2030 SNTP, RFC 2821 SMTP, RFC 1215 Trap, RFC2233 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC4318 RSTP MIB, RFC 2665 Ethernet like MIB, RFC 2819 RMON MIB, Private MIB	RFC2030 SNTP, RFC 2821 SMTP, RFC 1215 Trap, RFC2233 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC4318 RSTP MIB, RFC 2665 Ethernet like MIB, RFC 2819 RMON MIB, Private MIB
Connecter	10/100TX: 6 RJ-45 with auto MDI/MDI-X function 100M fiber: 2 SC type connector for single-mode or multi-mode type fiber cable	10/100TX: 8 x RJ-45 with auto MDI/MDI-X function	10/100TX: 8 x RJ-45 with auto MDI/MDI-X function Giga Copper: 2 x RJ-45 Mini-GBIC: 2 x Mini-GBIC socket RS-232 Serial port: RJ-45 type connector. Baud rate: 9600,N, 8,1.	10/100/1000T: 8 x RJ-45 with auto MDI/MDI-X function Mini-GBIC: 2 x Mini-GBIC socket RS-232 Serial port: RJ-45 type connector. Baud rate: 9600,N, 8,1.	10/100TX: 8 x RJ-45 with auto MDI/MDI-X function Giga Copper: 2 x RJ-45 Mini-GBIC: 2 x Mini-GBIC socket RS-232 Serial port: RJ-45 type connector. Baud rate: 9600,N, 8,1.
Switching Fabric	1.6Gbps	1.6Gbps	5.6Gbps	16Gbps	5.6Gbps
MAC address table	2K	2K	8K	8K	8K
Packet buffer	1Mbits	1Mbits	1Mbits	1Mbits	1Mbits
FlashROM	512Kbytes	512Kbytes	4Mbytes	4Mbytes	4Mbytes
DRAM	8Mbytes	8Mbytes	32Mbytes	32Mbytes	32Mbytes
Power Supply	DC 12~48V; Redundant power with polarity reverse protect function and connective removable terminal block for master (Power 1) and slave power (Power 2)	DC 12~48V; Redundant power with polarity reverse protect function and connective removable terminal block for master (Power 1) and slave power (Power 2)	DC 24~48V; Redundant power with polarity reverse protect function and connective removable terminal block for master (Power 1) and slave power (Power 2)	DC 24~48V; Redundant power with polarity reverse protect function and connective removable terminal block for master (Power 1) and slave power (Power 2)	DC 24~48V; Redundant power with polarity reverse protect function and connective removable terminal block for master (Power 1) and slave power (Power 2)
Input Power Isolation design	N/A	N/A	Y	Y	N/A
Power over Ethernet	N/A	N/A	N/A	N/A	Y
Operating Temp.	-25°C to 60°C	-25°C to 60°C	-25°C to 60°C	-25°C to 60°C	-25°C to 60°C
Wide Operating Temp	-40°C to 75°C	-40°C to 75°C	-40°C to 75°C	-40°C to 75°C	-40°C to 75°C
Operating Humidity	5% to 95%RH	5% to 95%RH	5% to 95%RH	5% to 95%RH	5% to 95%RH
Storage Temp.	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
LED	Per unit: Power 2 (Green), Power 1 (Green), Power (Green), Fault (Yellow), Master (Green); Per port: Link/Activity (Green), Full duplex/Collision (Yellow)	Per unit: Power 2 (Green), Power 1 (Green), Power (Green), Fault (Yellow), Master (Green); Per port: Link/Activity (Green), Full duplex/Collision (Yellow)	Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Yellow), Master (Green); 8 port 10/100: Link/Activity (Green), Full duplex/Collision (Yellow); Mini GBIC: Link/Activity (Green); Giga Cooper:Link/Activity (Green), speed (1000Green)	Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Yellow), Master (Green); Per port: Link/Activity (Green), speed (1000 Green); Mini GBIC: Link/Activity (Green)	Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Yellow), Master (Green); 8 port 10/100: Link/Activity (Green), Full duplex/Collision (Yellow); Mini GBIC: Link/Activity (Green); Giga Cooper:Link/Activity (Green), speed (1000Green)
Dimensions	54mm(W)x105mm(D)x135mm(H)	54mm(W)x105mm(D)x135mm(H)	72mm(W)x102mm(D)x152mm(H)	72mm(W)x102mm(D)x152mm(H)	72mm(W)x102mm(D)x152mm(H)
Mounting	IP-30, DIN Rail & Wall Mount	IP-30, DIN Rail & Wall Mount	IP-31, DIN Rail & Wall Mount	IP-31, DIN Rail & Wall Mount	IP-31, DIN Rail & Wall Mount
EMI	CE, FCC A, EN6100-4-2, EN6100-4-3, EN6100-4-4, EN6100-4-5, EN6100-4-6	CE, FCC A, EN6100-4-2, EN6100-4-3, EN6100-4-4, EN6100-4-5, EN6100-4-6	CE, FCC A, EN6100-4-2, EN6100-4-3, EN6100-4-4, EN6100-4-5, EN6100-4-6, EN6100-4-8, EN6100-4-11, EN6100-4-12	CE, FCC A, EN6100-4-2, EN6100-4-3, EN6100-4-4, EN6100-4-5, EN6100-4-6, EN6100-4-8, EN6100- 4-11, EN6100-4-1	CE, FCC A, EN6100-4-2, EN6100-4-3, EN6100-4-4, EN6100-4-5, EN6100-4-6, EN6100-4-8, EN6100- 4-11, EN6100-4-12
Safety	UL, cUL, CE/EN60950	UL, cUL, CE/EN60950	UL, cUL, CE/EN60950	UL, cUL, CE/EN60950	UL, cUL, CE/EN60950
Stability testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)

Product Name	IES-2206F
Product Picture	
Part No.	8350-220(mm);8350-225(sm,30km)
Management	Web/SNMP v1, v2c
VLAN	Supports Port based VLAN / 802.1 Q Tag VLAN (64 Groups)
Double Tag VLAN (Q in Q) *Future release	N/A
GVRP	N/A
Port Trunk with LACP	N/A
LLDP (Optional)	N/A
Spanning Tree Protocol	STP/Rapid STP
X-ring	Provide X-ring, Dual Homing, and Couple Ring. Provide redundant backup feature and the recovery time below 300ms.
CoS	Per port 4 queues, WRR: High: Mid-High: Mid-Low: Low (8:4:2:1)
QoS	Port based/Tag based, IPv4 Tos, IPv6 Different Service
Port Security	Supports 50 MAC address for Static MAC address, MAC address filter, MAC Address in total of 8K.
Port Mirroring	2 Mirroring type:TX , TX & RX
IGMP Snooping/Query	Y
IP management security	Supports 10 IP Addresses that have permission to access the switch management and to prevent unauthorize intruder.
802.1X Authenication / Radius Server	N/A
Rate limiting	Per port support ingress rate limiting and egress rate shaping.
Broadcast/Multicast Filter Control	Y
Flow Control	full-duplex / half-duplex
System Log	Supports System log record/ Remote System Log Server
SMTP e-mail Alert	Y
Relay Alarm	Y
SNMP Trap	Supports up to 3 Trap Stations
DHCP	DHCP Client
DNS	N/A
SNTP	Y

Industrial Switches

Table 1

IES-2008	IES-2208C	IGS-2206C	IPES-2208C
8350-230	8350-445	8350-605	8350-700
Web/SNMP v1, v2c	Web/SNMP v1,v2c,v3 / Telnet/CLI	Web/SNMP v1,v2c,v3 / Telnet/CLI	Web/SNMP v1,v2c,v3 / Telnet/CLI
Supports Port based VLAN / 802.1 Q Tag VLAN (64 Groups)	Supports Port based VLAN / 802.1 Q Tag VLAN (256 Groups)	Supports Port based VLAN / 802.1 Q Tag VLAN (256 Groups)	Supports Port based VLAN / 802.1 Q Tag VLAN (256 Groups)
N/A	Y *	Y *	Y *
N/A	256 Groups	256 Groups	256 Groups
N/A	4 Trunk groups, Maximum 4 trunk members	4 Trunk groups, Maximum 4 trunk members	4 Trunk groups, Maximum 4 trunk members
N/A	Y	Y	Y
STP/Rapid STP	STP/Rapid STP	STP/Rapid STP	STP/Rapid STP
Provide X-ring, Dual Homing, and Couple Ring. Provide redundant backup feature and the recovery time below 300ms.	Provide X-ring, Dual Homing, and Couple Ring. Provide redundant backup feature and the recovery time below 150ms.	Provide X-ring, Dual Homing, and Couple Ring. Provide redundant backup feature and the recovery time below 150ms.	Provide X-ring, Dual Homing, and Couple Ring. Provide redundant backup feature and the recovery time below 150ms.
Per port 4 queues, WRR: High: Mid-High: Mid-Low: Low (8:4:2:1)	Per port 4 queues, WRR: High: Mid-High: Mid-Low: Low (8:4:2:1)	Per port 4 queues, WRR: High: Mid-High: Mid-Low: Low (8:4:2:1)	Per port 4 queues, WRR: High: Mid-High: Mid-Low: Low (8:4:2:1)
Port based/Tag based, IPv4 Tos, IPv6 Different Service	Port based/Tag based, IPv4 Tos, IPv6 Different Service	Port based/Tag based, IPv4 Tos, IPv6 Different Service	Port based/Tag based, IPv4 Tos, IPv6 Different Service
Supports 50 MAC address for Static MAC address, MAC address filter, MAC Address in total of 8K.	Supports 100 MAC address for Static MAC address, MAC address filter, MAC Address in total of 8K.	Supports 100 MAC address for Static MAC address, MAC address filter, MAC Address in total of 8K.	Supports 100 MAC address for Static MAC address, MAC address filter, DUMP MAC Address in total of 8K.
2 Mirroring type:TX , TX & RX	3 Mirroring type:RX, TX, TX & RX	3 Mirroring type:RX, TX, TX & RX	3 Mirroring type:RX, TX, TX & RX
Y	Y	Y	Y
Supports 10 IP Addresses that have permission to access the switch management and to prevent unauthorize intruder.	Supports 10 IP Addresses that have permission to access the switch management and to prevent unauthorize intruder.	Supports 10 IP Addresses that have permission to access the switch management and to prevent unauthorize intruder.	Supports 10 IP Addresses that have permission to access the switch management and to prevent unauthorize intruder.
N/A	Y	Y	Y
Per port support ingress rate limiting and egress rate shaping.	Per port support ingress rate limiting and egress rate shaping.	Per port support ingress rate limiting and egress rate shaping.	Per port support ingress rate limiting and egress rate shaping.
Y	Y	Y	Y
full-duplex / half-duplex	full-duplex / half-duplex	full-duplex / half-duplex	full-duplex / half-duplex
Supports System log record/ Remote System Log Server	Supports System log record/ Remote System Log Server	Supports System log record/ Remote System Log Server	Supports System log record/ Remote System Log Server
Y	Y	Y	Y
Y	Y	Y	Y
Supports up to 3 Trap Stations	Supports up to 3 Trap Stations	Supports up to 3 Trap Stations	Supports up to 3 Trap Stations
DHCP Client	DHCP Client / DHCP Server / IP Relay	DHCP Client / DHCP Server / IP Relay	DHCP Client / DHCP Server / IP Relay
N/A			
Y			

Table 2

Product Name	IES-0104F	IES-0005	IEC-0101F
Product Picture			
Part No.	8350-310(sc,mm); 8350-315 (sc,sm 30KM)	8350-300	8350-001(sc,mm); 8350-010 (sc,sm 30KM)
Description	4 10/100TX + 100FX	5 10/100TX	1 10/100TX to 100M FX
Standard	IEEE802.3 10BASE-T IEEE802.3u 100Base-TX and 100Base-FX Fast Ethernet IEEE802.3x Flow Control and Back Pressure	IEEE802.3 10BASE-T IEEE802.3u 100Base-TX and 100Base-FX Fast Ethernet IEEE802.3x Flow Control and Back Pressure	IEEE802.3 10BASE-T IEEE802.3u 100Base-TX and 100Base-FX Fast Ethernet IEEE802.3x Flow Control and Back Pressure
Connecter	10/100TX: 4 RJ-45 with auto MDI/MDI-X function100M fiber: 1 SC type connector forsingle-mode or multi-mode type fibercable	10/100TX: 5 RJ-45 with auto MDI/MDI-X function	10/100TX: 1 RJ-45 with auto MDI/MDI-X function100M fiber: 1 SC type connector forsingle-mode or multi-mode type fibercable
Switching Fabric	1Gbps	1Gbps	1Gbps
MAC address table	1K	1K	1K
Packet buffer	512Kbits	512Kbits	512Kbits
FlashROM	512Kbytes	512Kbytes	512Kbytes
DRAM	8Mbytes	8Mbytes	8Mbytes
Power Supply	DC 12~48V; Redundant power with polarity reverse protect function andconnective removable terminal blockfor master (Power 1) and slavepower (Power 2)	DC 12~48V; Redundant power with polarity reverse protect function andconnective removable terminal blockfor master (Power 1) and slavepower (Power 2)	DC 12~48V; Redundant power with polarity reverse protect function andconnective removable terminal blockfor master (Power 1) and slavepower (Power 2)
Operating Temp	-25°C to 60°C	-25°C to 60°C	-25°C to 60°C
Wide Operating	-40°C to 75°C	-40°C to 75°C	-40°C to 75°C
Operating Humidity	5% to 95%RH	5% to 95%RH	5% to 95%RH
Storage Temp.	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Fan No.	0	0	0
LED	Per unit: Power 2 (Green), Power 1 (Green), Power (Green), Fault(Yellow), Master (Green); Per port:Link/Activity (Green), Fullduplex/Collision (Yellow)	Per unit: Power 2 (Green), Power 1 (Green), Power (Green), Fault(Yellow), Master (Green); Per port:Link/Activity (Green), Fullduplex/Collision (Yellow)	Per unit: Power 2 (Green), Power 1 (Green), Power (Green), Fault(Yellow), Master (Green); Per port:Link/Activity (Green), Fullduplex/Collision (Yellow)
Dimensions	54mm(W)x105mm(D)x135mm(H)	54mm(W)x105mm(D)x135mm(H)	54mm(W)x105mm(D)x135mm(H)
Mounting	IP-30, DIN Rail & Wall Mount	IP-30, DIN Rail & Wall Mount	IP-30, DIN Rail & Wall Mount
EMI	CE, FCC A, EN6100-4-2, EN6100-4-3, EN6100-4-4, EN6100-4-5, EN6100-4-6	CE, FCC A, EN6100-4-2, EN6100-4-3, EN6100-4-4, EN6100-4-5, EN6100-4-6	CE, FCC A, EN6100-4-2, EN6100-4-3, EN6100-4-4, EN6100-4-5, EN6100-4-6
Safety	UL, cUL, CE/EN60950	UL, cUL, CE/EN60950	UL, cUL, CE/EN60950
Stability testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)
X-ring	N/A	N/A	N/A
Flow Control	full-duplex / half-duplex	full-duplex / half-duplex	full-duplex / half-duplex
Relay Alarm	N/A	N/A	N/A
Firmware updatable	N/A	N/A	N/A
Configuration up and down-load	N/A	N/A	N/A

FREE BUNDLE EXCLUSIVE
FOR LanTech SNMP INDUSTRIAL SWITCH

" X -View"--- Windows-base management utility :

X -View is a :

- **Smart** tool for switch configuration
  – Auto discovery devices

- **Powerful** tool for switch configuration
  – Configure multiple switches con-currently

- **Convenient** tool for switch monitoring
  – Monitor multiple switches status easily

- **Useful** tool to maintain switch firmware & configuration
  – Upgrade firmware and backup configure file
    for multiple switches at one time
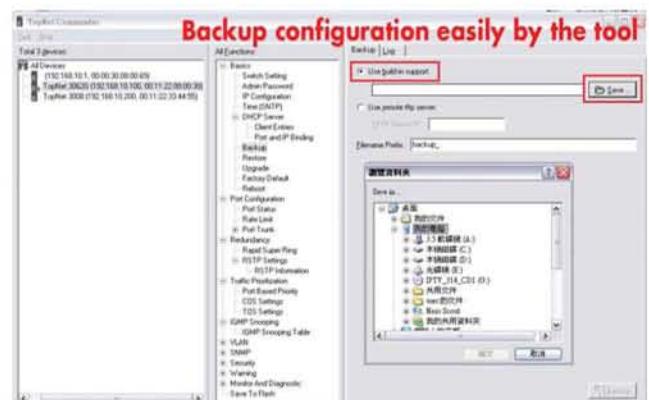
Convenient tool for switch monitoring
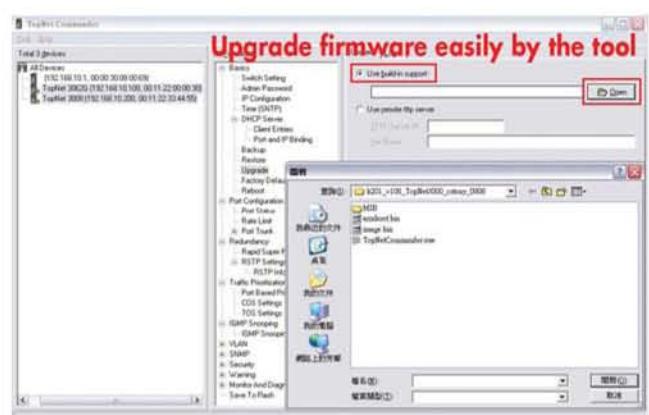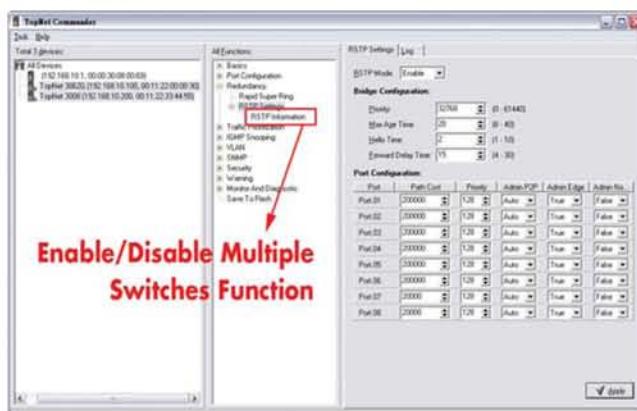
Device Status monitoring

Warning: Device is abnormal

Smart tool for switch configuration

Auto discovery device

Powerful tool for switch configuration

Enable/Disable Multiple Switches Function

Useful tool to maintain switch firmware & configuration

Backup configuration easily by the tool

Upgrade firmware easily by the tool

02

SMART, POWERFUL, CONVENIENT&USEFUL MANAGEMENT UTILITY

Device Server with Security Access

Lantech Device Server series is able to convert RS232/422/485 to Ethernet connection where user can remotely manage and configure device servers via Internet. Two DC Input power can backup power for device sever from breakouts.

Lantech device servers are designed with redundant Ethernet port to securely protect the network connection. The HTTPS and SSH function can ensure the access security from intruders. Unique "X-Ware" Windows utility is able to discover, configure and manage single or multiple Lantech device servers simultaneously.

SNTP and SMTP support can automatically alert events to predefined email addresses. The versatile serial operation modes like Virtual Com, TCP Host and Client, UDP Host/Client are applicable in POS, Card Reader, Medical Instrument, Power Utility and PLC Automation applications.

POE 802.3af PD

IWDS-2101	IDS-2101F	IDS-2101	IPDS-2401	IDS-2401F
1 RS-232/ 422/ 485 port to 1 10/100TX Ethernet Device Server with WLAN AP	1 RS-232/ 422/ 485 port to 1 100FX Ethernet Device Server	1 RS-232/ 422/ 485 port to 1 10/100TX Ethernet Device Server	4x RS-232/ 422/ 485 ports to 1 10/100TX Ethernet Device Server	4 RS-232/ 422/ 485 port to 1 100FX Ethernet Device Server

Features:

- X-Ware Windows utility for Auto device discovery, device setting and monitoring
- Max series speed up to 460.8Kbps
- Versatile serial operation options: Virtual Com, Serial tunnel, TCP Server, TCP Client, UDP
- Configuration by Windows, Web, Telnet
- Security: HTTPS and SSH
- Event warning by Syslog, E-mail, SNMP Trap, and Beeper
- X-Ware trigger beeper for location
- Virtual COM driver for Windows NT/2000/XP/2003
- Fixed TTY driver for Linux
- Dual Power Inputs by DC 12V~48V Terminal Block and DC Jack
- Built-in 1.5KV magnetic isolation
- Serial Line Protection: 15KV ESD for all signals
- X-Ware setting to have 2 10/100TX ports** (IDS-2101, IPDS-2401, IWDS-2101)
- Up to 4 simultaneous Virtual COM, TCP Server, TCP Client connections (IPDS-2401, IWDS-2101)
- One port simultaneous Virtual COM, TCP Server, TCP Client connections (IDS-2101, IPDS-2401, IWDS-2101)
- Power supply from POE inject (802.3af standard) (IPDS-2401)

Note: ** is for option

Internet Automation

5-Year Warranty

DEVICE SERVER

03

SECURITY ACCESS

Medical-Measure Management Application

Service Mode: TCP Client
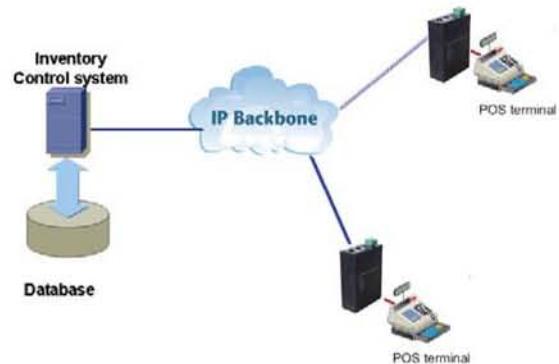
Improve quality of patient care
allow patients' heartbeat, blood pressure..etc.
to be viewed in real-time

Image Server

IP Backbone

Medical measurement

Medical measurement

Retail /POS Application

Service Mode: TCP Client

Collecting sales data from each store for
centralized Inventory control management

Inventory Control system

IP Backbone

POS terminal

POS terminal

Database

Traffic Control Management Application

Service Mode: Virtual COM
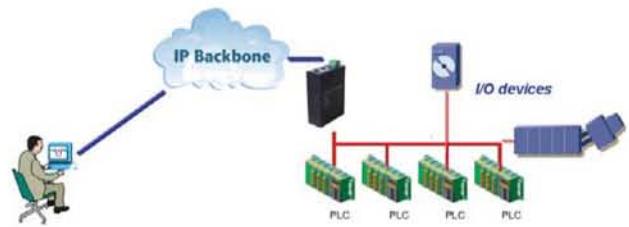
Monitor accuracy of traffic status and allow
better control management of traffic flow

Image Server

IP Backbone

Industrial Process Control

Service Mode: TCP Server
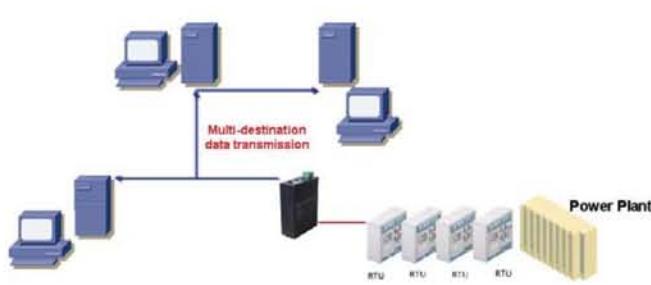
Managed and Configure PLC control
function to drive the I/O devices process

IP Backbone

I/O devices

PLC PLC PLC PLC

Energy/Utilities Management

Service Mode: UDP

Connect With RTU (Remote Terminal Unit) to monitor
and control power distribution, resulting in maximum
power utilization Remote detection of power drain to
balance power usage.

Multi-destination data transmission

Power Plant

RTU RTU RTU RTU

Entrance Security Application

Service Mode: TCP Client

Managed and keeping the attendance record

Logging Server

IP Backbone

Un-Managed Switch

LES-0448C
48 10/100TX Switch
+ 2 10/100/1000T
+ 2 SFP Uplink

- Total 52 port counts
- 8K Mac address table
- Switch fabric up to 20Gbps
- Non-blocking architecture

LES-0024
24 10/100TX Switch w/COS

- 1.25 Mbits memory buffer sharing
- 4K Auto learning MAC Address Table
- Default CoS support w/per port 2 queues

LES-0016
16 10/100TX Switch w/COS

- 1.25 Mbits memory buffer sharing
- 8K Auto learning MAC Address Table
- Default CoS support w/per port 2 queues

LGS-0300
3 Slot Gigabit Modular Switch

- Support 8 10/100/1000T module, 8 port Mini GBIC module, 4 port 10/100/1000T + 4-port mini-GBIC module
- 10Kbytes Jumbo packet support
- 48Gbps backplane

04

Product Name	LGS-0300	LES-0448C	LES-0024	LES-0016
Product Picture				
Part No.	8370-555	8330-720	8240-280	8240-270
Description	3 Slots Gigabit Chassis Switch	48-port 10/100TX + 2 10/100/1000T, 2 mini-GBIC	24 ports 10/100 TX Switch	16 ports 10/100 TX Switch
Standard	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3z Gigabit fiber IEEE802.3ab 1000Base-T	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3ab 1000Base-T IEEE802.3z Gigabit fiber IEEE802.3x Flow control and Backpressure	IEEE 802.3 10 BASE-T Ethernet, IEEE 802.3u 100 BASE-TX Fast Ethernet IEEE802.3x Flow Control and Back-Pressure ANSI/IEEE standard 802.3 N-Way auto-negotiation	IEEE 802.3 10 BASE-T Ethernet, IEEE 802.3u 100 BASE-TX Fast Ethernet IEEE802.3x Flow Control and Back-Pressure ANSI/IEEE standard 802.3 N-Way auto-negotiation
Connecter	Gigabit copper: RJ-45 with Auto MID/MDI-XGigabit Fiber: SC Mini-GBIC: LC (3.3 V type)	100Base-T: 48 x RJ-45 Gigabit copper: 2 x RJ-45 Mini-GBIC: 2 x mini-GBIC socket	24 10/100 TX ports: RJ-45	16 10/100 TX ports: RJ-45
back-plane	48Gbps	20Gbps	4.8Gbps	3.2Gbps
MAC address table	8K MAC with auto learning	8K MAC with auto learning	4K MAC with Auto Learning	8K MAC with Auto Learning
Packet buffer	2 Mbits	7Mbits	1.25 Mbits	1.25 Mbits
Power Supply	Internal power supply, AC 100~240VAC, 50/60 Hz	Internal power supply, AC 100~240VAC, 50/60 Hz	Internal power supply, AC 100~240VAC, 50/60 Hz	Internal power supply, AC 100~240VAC, 50/60 Hz
Operating Temp.	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
Operating Humidity	10% to 90% (Non-condensing)	5% to 95%RH	10% to 90% (Non-condensing)	10% to 90% (Non-condensing)
Fan No.	0	1	0	0
Dimensions	440mm(W) x 224mm (D) x 44mm(H)	440mm(W) x 225mm(D) x 44mm(H)	440 x 120 x 44 mm (L x W x H)	440 x 120 x 44 mm (L x W x H)
19" Rack mount design	Yes	Yes	Yes	Yes
EMI	FCC Class A, CE	FCC Class A, CE	FCC Class A, CE	FCC Class A, CE
Safety	UL, cUL, CE/EN60950	UL, cUL, CE/EN60950	UL, cUL, CE/EN60950	UL, cUL, CE/EN60950
Flow Control	Flow control on full-duplex, Back pressure on half-duplex	Flow control on full-duplex, Back pressure on half-duplex	Flow control on full-duplex, Back pressure on half-duplex	Flow control on full-duplex, Back pressure on half-duplex
CoS	N/A	N/A	Yes, Per Port 2 queues	Yes, Per Port 2 queues

Lantech

SNMP Managed Switch

Lantech SNMP series switches is True wire-speed hardware architecture to ensure your network performance. Lantech's built-in IGMP Query function is able to handle complicate multimedia application eliminating a L3 Query router. Lantech new advanced VLAN stacking (QinQ) function can deployed at larger network for Telecom applications.

GE-1200L3
12-Port Gigabit L3 Switch

- 12 1000Base SFP with 4 Gigabit combo ports (RJ45/SFP) Layer 3 Switch
- Supports Jumbo frame up to 9KB
- IPv4 routing at wire speed
- Supports up to 4K IP address entries
- Supports Static IP routes (128 entries)
- Provides HOL (Head of Line) blocking prevention
- VLANs support, GVRP, IEEE802.1Q, IEEE802.1v
- Supports IGMP snooping and Query for Multimedia applications
- Provides 8-level priority in switching

- Provides Multi-netting
- Provides Supernetting (CIDR)
- Provides OSPF (RFC2328) routing
- Provides IP Multicast Routing: IGMP, DVMRP, PIM-DM
- IP Redundancy - VRRP (RFC 2338) supported
- Supports Hot Standby Routing Protocol (HSRP)
- Provides DHCP/BOOTP (RFC 951) relay
- DNS support (proxy) server
- Supports RIP1 & RIP2
- Supports CLI (Cisco-Link Command Line Interface)

LGS-2300-RPS
3 Slots Gigabit Modular L2+
SNMP Switch

NEW

- 3 kinds of modules : 8 10/100/1000T module, 4 Giga SFP + 4 10/100/1000T, 8 Mini GBIC module
- Redundant Power Support (DC 12V to 48V)
- Hot-swappable Module
- Software stack management via group IP address**
- 10KB Jumbo frame support
- SNMP v1, v2c, Trap, IGMP v1, v2c
- IGMP Query and Snooping support for Multimedia applications
- System configuration upload/restore**
- Supports GVRP function

- Bandwidth control
- Management IP address security, Mac address security
- Configuration up-load and down-load
- SNMP/Web/CLI/Telnet management
- Spanning tree protocol: STP / Rapid STP
- Simple Mail Transfer Protocol (SMTP)
- DHCP client, DHCP relay, DHCP Server
- VLAN Stacking**; SSH**
- DNS client
- Supports 1024 Access control lists
- 802.3 AB LLDP**

LGS-2224C-RPS
24 10/100/1000T L2+
SNMP switch
w/2 Giga SFP Combo Uplink

NEW

- Software stack management via group IP address**
- Redundant DC Power support
- 10KB Jumbo frame support
- 802.1p CoS, per port 8 queues
- IGMP v1, v2, SNMP v1, v2C, SNMP Trap
- IGMP Query and Snooping for Multimedia applications
- Port mirror and bandwidth control
- Supports GVRP
- TFTP firmware update
- System configuration upload/restore**
- Bandwidth control

- Configuration up-load and down-load
- SNMP / Web / Console / Management
- Supports 1024 Access control lists**
- 48G Switch fabric with non-blocking
- IEEE802.3ad port trunk with LACP
- Port Based VLAN / 802 .1Q VLAN
- STP / Rapid STP
- IEEE 802.1x user authentication
- SNTP, SMTP
- Double Tag VLAN support, VLAN stacking**, SSH**
- MAC address security
- IP address security

Web UI for LGS-2224C

IGMP Query

IGMP Member Port Table		
IP Address	VLAN ID	Member Port

IGMP Snoop [Enable]
IGMP Query [Enable]
[Apply]

Bandwidth Control

Rate Limit Configuration

Port	Input		Output	
	State	Rate(n*64Kbps)	State	Rate(n*64Kbps)
Port.01 Port.02 Port.03 Port.04	Enable		Enable	

[Apply]

Port	Input		Output	
	State	Rate(n*64Kbps)	State	Rate(n*64Kbps)
Port.01	Enable	65472	Disable	0

LACP

LACP Port Internal Information

Member Port	Port.01		
Trunk ID			
LACP System Priority		LACP Port Priority	
Admin Key		Oper Key	
LACPDUS Interval (secs)			
Admin State : Expired		Oper State : Expired	
Admin State : Defaulted		Oper State : Defaulted	
Admin State : Distributing		Oper State : Distributing	
Admin State : Collecting		Oper State : Collecting	
Admin State : Synchronization		Oper State : Synchronization	
Admin State : Aggregation		Oper State : Aggregation	
Admin State : Timeout		Oper State : Timeout	
Admin State : LACP Activity		Oper State : LACP Activity	

Note: ** is for option

SNMP Managed Switch

LGS-2424C
24 10/100/1000T SNMP Switch w/4 Giga SFP Combo Uplink

- SNMP v1 and Web / Console Management
- 10K Jumbo Frame support
- 8K MAC address table
- IGMP snooping
- 48Gbps back-plane
- Port Based VLAN, Tag VLAN
- Port Trunk
- TFTP Firmware upgrade
- Supports CLI
  (Cisco-Link Command Line Interface)
- 500Kbytes memory buffer
- True non-blocking switching
- QoS; Class of Service for 4 priority queues
- Bandwidth Control for 256k per level
- Port Mirror
- Spanning Tree/Rapid STP
- SNMP Trap for Device cold start and Port link up/down
- IP access security

LGS-2108C
8 10/100/1000T L2 SNMP Switch + 1 Giga SFP combo Uplink

NEW

X-RING

- X-Ring Protocol to have less then 300ms Auto Network Recovery
- 8K MAC address table
- 18Gbps switch fabric and 26.7Mbps throughput
- 802.1p Class of Service (per port 4 queues, WRR: High: Mid-High: Mid-Low: Low (8:4:2:1)
- System log: 1000 records
- Spanning Tree Protocol STP/Rapid STP
- Broadcast Storm Filter
- System Trap
- SNTP, SMTP (6 mail accounts)
- SNMP/Web/Telnet/CLI/Menu Driven management
- DHCP Client / DHCP Relay / DHCP Server
- IGMP snooping v1,v2; IGMP Snooping and Query mode support for Multi-Media application
- Supports Port based VLAN / 802.1 Q Tag VLAN
- Double Tag VLAN for management * Optional
- Port trunk with LACP
- Port mirror and bandwidth control
- Supports GVRP(256 groups) functions
- Configuration up-load and down-load
- IP address management security
- TFTP firmware updatable
- DC Power model is available

LGS-2404C
4 10/100/1000T SNMP Switch + 4 Giga SFP Uplink

NEW

X-RING

- X-Ring Protocol to have less then 300ms Auto Network Recovery
- 8K MAC address table
- 18Gbps switch fabric and 26.7Mbps throughput
- 802.1p Class of Service (per port 4 queues, WRR: High: Mid-High: Mid-Low: Low (8:4:2:1)
- System log: 1000 records
- Spanning Tree Protocol STP/Rapid STP
- Broadcast Storm Filter
- System Trap
- SNTP, SMTP (6 mail accounts)
- SNMP/Web/Telnet/CLI/Menu Driven management
- DHCP Client / DHCP Relay / DHCP Server
- IGMP snooping v1,v2; Query mode support for Multi-Media application
- Supports Port based VLAN / 802.1 Q Tag VLAN; Double Tag VLAN for management *Optional
- Port based/Tag based QoS; IPv4 ToS/IPv4, IPv6 DiffServe
- Port trunk with LACP
- Port mirror and bandwidth control
- Supports GVRP(256 groups) functions
- Bandwidth control
- Configuration up-load and down-load**
- IP address management security
- TFTP firmware upgradable

LES-2400-RPS
3 Slot 10/100M Modular SNMP Switch + 2 Giga SFP Combo Uplink

- Supports 8 port 10/100TX and 8 port 100FX modules
- High back-plane bandwidth 8.8Gbps
- Redundant Power Support (DC 12V to 48V)
- IGMP Snooping and Query support for Multi Media application
- Port mirror/Port security
- Port bandwidth control
- Supports GVRP function
- Redundant Power Support (DC 48V)
- SNMP/Web/Telnet/CLI management
- Port Based VLAN /802 .1Q VLAN
- IEEE802.3ad Port trunk with LACP
- IEEE 802.1p class of service
- DHCP client
- IEEE 802.1d Spanning tree protocol
- IEEE 802.1x user authentication

Note: ** is for option

SNMP Managed Switch

LES-2224C-RPS
24 10/100TX L2+ SNMP Switch + 2 Giga SFP Combo Uplink

- DC Redundant Power Input
- High back-plane bandwidth 8.8Gbps
- Port Based VLAN /802 .1Q VLAN
- Group stacking management up to 8 stacks
- IEEE 802.3ad Port trunk with LACP
- IEEE 802.3x flow control
- IEEE 802.1p QoS, per port 4 queues
- IGMP Query & Snooping support for Multi Madia application
- Port mirror & Port security
- Broadcast storm filter
- IEEE 802.1d Spanning tree protocol
- Port bandwidth control
- Supports GVRP function
- DHCP client
- IEEE 802.1x user authentication to 8 authentication
- VLAN Stacking, ACL**

LES-2224C
24 10/100TX SNMP Switch + 2 Giga SFP Combo Uplink

- Software stack management via group IP address
- High back-plane bandwidth 8.8Gbps
- Port Based VLAN /802 .1Q VLAN
- IEEE 802.3ad Port trunk with LACP
- Broadcast storm filter
- IGMP Query & Snooping support for Multi Media application
- IEEE 802.1p class of service
- Port mirror & Port security
- Port bandwidth control
- IEEE 802.1d Spanning tree protocol
- Supports GVRP function
- DHCP client
- IEEE 802.1x user authentication

LES-2208C
8 10/100TX SNMP L2+ Switch + 1 10/100/1000T + 1 Giga SFP Uplink

NEW

X-RING

- X-Ring Protocol to have less then 300ms Auto Network Recovery
- 5.6Gbps switch bandwidth
- 802.1p CoS, per port 4 queues
- IGMP snooping and Query mode support for Multi-Media application
- Port mirror and bandwidth control
- Supports GVRP function
- TFTP firmware update
- SNMP/Web/Telnet/CLI/Menu Driven management
- Per port band width control
- Management IP address security
- System log
- Port Based VLAN /802.1Q VLAN

- IEEE802.3ad Port trunk with LACP
- Spanning Tree Protocol/Rapid STP
- QoS for below method: Port based/Tag based
- IPv4 ToS/Ipv4, IPv6 DiffServe
- IEEE 802.1x user authentication
- Broadcast storm filter
- DHCP Client, Server
- SNTP and SMTP support
- MAC address security
- SNMP Trap support
- Configuration up-load and down-load
- DC -48V Power model is available

Web UI for LES-2208C

X Ring

- ☐ Enable Ultra Ring
  - ☐ Enable Ring Master
  - 1st Ring Port — Port.01
  - 2nd Ring Port — Port.02
- ☐ Enable Couple Ring
  - Coupling Port — Port.03
  - Control Port — Port.04
- ☐ Enable Dual Homing — Port.05

Apply Help

GVRP

VLAN Configuration

VLAN Operation Mode : 802.1Q
☐ Enable GVRP Protocol

| 802.1Q Configuration | Group Configuration |

Port	Link Type	Untagged Vid	Tagged Vid
Port.01	Access Link	1	

Apply Help

DHCP Server

| Configuration | Client Entries | Port and IP Binding |

DHCP Server :

Low IP Address	
High IP Address	
Subnet Mask	
Gateway	
DNS	
Lease Time (sec)	

Note: ** is for option

SNMP Managed Switch

Product Name	GE-1200L3	LGS-2300-RPS	LGS-2424C	LGS-2224C-RPS
Product Picture				
Part No.	8560-110	8370-550	8370-502	8370-510
Description	12 1000 Base-X SFP and 4 Gigabit combo ports (RJ45/SFP) Layer 3 Switch	8 10/100/1000TX module, 8 Gigabit SX or LX module, 8 Mini GBIC module	24 10/100/1000Base-T ports with 4 Gigabit combo Mini-GBIC slots Switch	24-port 10/100/1000T with 2 MINI GBIC/Gigabit Copper combo L2+ managed Switch
Switch Fabric	24Gbps	48Gbps	48Gbps	48Gbps
MAC address table	16K	8K	8K	16K
Power Input	90~240VAC, 50 /60Hz	100~240VAC, 50/60Hz , Redundant power: DC12~48V	100~240VAC, 50/60Hz	90~240VAC, 50/60Hz full range
Operating Temp.	0°C~40°C	0°C~60°C	0°C~50°C	0°C~45°C
Operating Humidity	5% to 95% Non-condensing	5% to 95%RH	10% to 90%RH	5% to 95%RH
Dimensions	440mm(W) x 230mm(D) x 44mm(H)	440mm x 224mm x 44mm	440mm (W)x 161mm (D)x 44mm(H)	440mm(W) x 280mm(D) x 44mm(H)
Management	SNMP v1 v2c, v3/ Web/Telnet/CLI Management	SNMP v1 v2c, v3**/ Web/Telnet/CLI Management	SNMP v1/ Web/Telnet/CLI Management	SNMP v1 v2c, v3**/ Web/Telnet/CLI Management
VLAN	Port based VLAN / IEEE802.1Q Tag VLAN	Yes	Port based VLAN / IEEE802.1Q Tag VLAN	Yes
Tag VLAN (Q in Q) *Future	N/A	Y**	N/A	Y**
Port Trunk	IEEE802.3ad with LACP	IEEE802.3ad with LACP	IEEE802.3ad with LACP	IEEE802.3ad with LACP
Spanning Tree	Yes	Yes	Yes	Yes
QoS	Provides Different service.	Port based, Tag based, IPv4 Type of service, IPv4 Different service.	IEEE 802.1p CoS, Port based, Tag based, IPv4 Type of service	IEEE 802.1p CoS,Port based, Tag based, IPv4 Type of service, IPv6 Different service.
Security	L2/L3/L4 access control list Secure Shell (SSH/Secure Telnet) HTTPS/SSL RADIUS, IEEE 802.1X	Port Security, IP Security, IEEE802.1X Authentication, RADIUS	"IP Security, Login Security; Supports IEEE802.1X Authentication/RADIUS"	Port security, Support 10 accounts for SNMP, WEB and Telnet, Security Shell Hall V2.0 (SSHv2)**/TACACS+**
Port Mirroring	Yes	N/A	Yes	Yes
IGMP Snooping	IGMP snooping and query for Layer 2, and IGMP for Layer 3	Yes	" IGMP snooping v1, v2; 255 multicast groups"	Yes
SMTP	Yes	Yes	No.	Yes
SNMP Trap	Yes	Yes	"Up to 1 Trap stations; Cold start, Port link up, Port link down"	Yes
DHCP Server / Client	Y / Y	Y / Y	N / Y	Y / Y

Product Name	LGS-2108C	LGS-2404C	LES-2400-RPS	LES-2208C
Product Picture				
Part No.	8370-802	8370-810	8220-600	8330-820
Description	8 10/100/1000TX plus 1 Gigabit Copper/Mini-GBIC Combo Managed Switch	4 10/100/1000TX + 4 Mini-GBIC Managed Switch	4 slot intelligent chassis switch	8 10/100TX plus 1 Gigabit copper & 1 MINI GBIC Intelligent Switch
Switch Fabric	18Gbps	18Gbps	8.8Gbps	5.6gbps
MAC address table	8K	8K	8K	8K
Power Input	AC 100 ~240V, 50/60Hz	AC 100 ~240V, 50/60Hz	100~240VAC 50/60Hz	100~240VAC 50/60Hz
Operating Temp.	0°C ~ 45°C	0°C ~ 45°C	0°C ~ 45°C	0°C ~ 45°C
Operating Humidity	5% to 95% (Non-condensing)	5% to 95% (Non-condensing)	5% to 95% (Non-condensing)	5% to 95% (Non-condensing)
Dimensions	217mm(W)x140mm(D)x43mm(H)	217mm(W)x140mm(D)x43mm(H)	440mm(W) x 280mm(D) x 44mm(H)	217mm x 140mm x 43mm
Management	SNMP v1 v2c, v3/ Web/Telnet/CLI/Menu Driven**	SNMP v1 v2c, v3/ Web/Telnet/CLI/Menu Driven**	Telnet management, web management, Out band local console (RS-232)	SNMP v1 v2c, v3/ Web/Telnet/CLI/Menu Driven** Management
VLAN	Yes	Yes	Yes	Yes
Tag VLAN (Q in Q) *Future	Y*	Y**	Y**	N/A
X-ring	Yes	Yes	N/A	Yes
Port Trunk	IEEE802.3ad with LACP	IEEE802.3ad with LACP	IEEE802.3ad with LACP	IEEE802.3ad with LACP
Spanning Tree	Yes	Yes	Yes	Yes
QoS	IEEE 802.1p CoS,Port based, Tag and IPv4 Type of service, IPv4/ IPv6Different Service	Port based, Tag and IPv4 Type of service, IPv4/ IPv6Different Service	Supports 8 priority levels ID for two priority queue	Port based, Tag and IPv4 Type of service, IPv4/ IPv6Different Service
Security	Port Security, IP Security, IEEE802.1X Authentication, RADIUS	Port Security, IP Security, IEEE802.1X Authentication, RADIUS	Port Security, IP Security, IEEE802.1X Authentication, RADIUS	SNMP IP security, Support 100 entries of MAC address for static MAC and another 100 for MAC filter
Port Mirroring	Yes	Yes	Yes	Yes
IGMP Snooping	Yes	Yes	Yes	Yes
SMTP	Yes	Supports SMTP Server and 6 e-mail accounts for receiving event alert	Yes	Supports SMTP Server and 6 e-mail accounts for receiving event alert
SNMP Trap	Up to 3 Trap stations,Cold start, Port link up/down, Authentication Failure, power status, X-ring topology change	Up to 3 Trap stations,Cold start, Port link up/down, Authentication Failure, power status, U-ring topology change	Cold start, warm start, link down, link up, authorization fail, fan fail trap. Trap station up to 3	Up to 3 Trap stations,Cold start, Port link up/down, Authentication Failure, power status, X-ring topology change
DHCP Server / Client	Y / Y	Y / Y	Y / Y	Y / Y

Note: *Future release
**Optional

Lantech

LGS-1424C
24 10/100/1000T Web Switch w/ 4 Giga SFP Uplink

- 10K Jumbo Frame support
- 8K MAC address table
- Web Management
- IGMP snooping
- 48Gbps back-plane
- Port Based VLAN, Tag VLAN
- Port Trunk
- TFTP Firmware upgrade
- 500Kbytes memory buffer
- True non-blocking switching
- QoS; Class of Service for 4 priority queues
- Bandwidth Control for 256k per level
- Port Mirror
- Spanning Tree/Rapid STP

LGS-1104
4 10/100/1000T Web Switch + 1 Giga SFP Uplink

- 8K Jumbo Frame support
- 8K MAC address table
- Web Management
- DHCP client
- Port Based VLAN, Tag VLAN
- Port Trunk
- True non-blocking switching
- QoS; Class of Service with 4 priority queues
- Spanning Tree/ Rapid Spanning Tree

Web UI for LGS-1424C

IGMP Configuration

IGMP Enabled	☐
Router Ports	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐ 8☐
	9☐ 10☐ 11☐ 12☐ 13☐ 14☐ 15☐ 16☐
	17☐ 18☐ 19☐ 20☐ 21☐ 22☐ 23☐ 24☐
Unregistered IPMC Flooding enabled	☑

Current Page:1   Total Page:1

VLAN ID	IGMP Snooping Enabled
1	☑

Quick Search Vlan Entry, Vlan ID: [____] [Search]

[Apply] [Refresh] [FirstPage] [PrePage] [NextPage] [EndPage]

QoS Configuration

Port	Mode	Port Priority
1		
2		
23		
24		

Aggregation/Trunking Configuration

Group \Port	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Normal																								
Group 1																								
Group 2																								
Group 3																								
Group 4																								
Group 5																								
Group 6																								
Group 7																								
Group 8																								

RSTP System Configuration

System Priority	32768 ⌄
Hello Time (1~10)	2
Max Age (6~40)	20
Forward Delay (4~30)	15
Force version	Normal ⌄

LGS-1108C
8x10/100/1000T Web Switch with Giga SPF uplink

NEW

- 9K Jumbo Frame support
- 8K MAC address table
- Web Management
- DHCP Client
- Port Trunk
- Firmware update
- True Non-Blocking Switching
- QoS; Class of Service w/4 queues
- Spanning Tree/ Rapid Spanning Tree

LES-1224C
24 10/100TX Smart Switch + 2 Giga SFP Combo Uplink

- High switch fabric up to 8.8Gbps
- No-Blocking full wire speed architecture
- IEEE802.3ad Port Trunk
- Port based VLAN
- IEEE 802.1p CoS
- Broadcast storm filter
- Out-band management via RS-232 console

Web/Smart Managed Switch

Product Name	LGS-1424C NEW~	LGS-1104	LGS-1108C NEW~	LES-1224C
Product Picture				
Part No.	8370-500	8370-145	8370-700	8240-127
Description	24 10/100/1000TX + w/4 mini GBIC Web Managed Switch	4 10/100/1000TX + 1 mini GBIC Web Managed Switch	8 10/100/1000T with 1 10/100/1000T/Mini-GBIC Combo Web Switch	24 10/100BaseTX + 2 10/100/1000T/mini GBIC smart Switch
Connecter	Gigabit copper: 24 x RJ-45 with Auto-MDIX MINI GBIC: 4 x MINI GBIC socket(3.3v); shared with last 4-port RJ-45	Gigabit copper: 4 x RJ-45 with Auto-MDIX MINI GBIC: 1 x MINI GBIC socket(3.3v)	Gigabit copper: 8 x RJ-45 with Auto-MDIX MINI GBIC: 1 x MINI GBIC socket(3.3v)	10/100TX: RJ-45 1000T: RJ-45 MINI GBIC Socket: support 3.3VDC power for MINI GBIC transceiver
MAC address table	8K	8K	8K	8K
Packet buffer	500Kbytes	112Kbytes	144Kbytes	2.5Mbits
Jumbo packet	10Kbytes	8Kbytes	9Kbytes	N/A
Switching Fabric	48Gbps	10 Gbps	16 Gbps	8.8 Gbps
Power Supply	AC 100~220V, 50/60Hz	AC 100~220V, 50/60Hz, External power DC 12V/0.8A	AC 100~240V, 50/60Hz	100~240VAC 50/60Hz
Operating Temp.	0°C to 45°C (32°F to 113°F)	0°C to 45°C (32°F to 113°F)	0°C to 45°C (32°F to 113°F)	0°C to 45°C (32°F to 113°F)
Operating Humidity	10% to 90% (Non-condensing)	10% to 90% (Non-condensing)	10% to 90% (Non-condensing)	10% to 90% (Non-condensing)
LED	Per RJ-45 port: 100/1000 (green), Link/Activity (green) Per MINI GBIC: Link/Activity (Green) Per unit: Power	Per RJ-45 port: 100/1000, Link/Activity, Full duplex/ Collision Per MINI GBIC: Link/Activity Per unit: Power	System power 10/100Base-TX: Link/Activity, Full Duplex/Collision 1000Base-T: 100, 1000, Link/Activity, Full Duplex/Collision GBIC/Mini GBIC: Link/Activity	Per unit: Power 2 (Green), Power 1 (Green), Power (Green), Fault (Yellow), Master (Green); Per port: Link/Activity (Green), Full duplex/Collision (Yellow)
Dimensions	440mm(W) x161mm (D) x44mm (H)	165 x 100 x 32.5 mm (L x W x H)	217mm x 140mm x 43mm	440mm x 161mm x 44mm (L x W x H)
EMI	FCC Class A, CE	FCC Class A, CE	FCC Class A, CE	FCC Class A, CE
Safety	UL, cUL	UL, cUL	UL, cUL	UL, cUL, CE/EN60950
Management	Web Management	Web Management	Web	Console (RS-232)
VLAN	Port based VLAN, tag VLAN and GVRP protocol	Port Based VLAN, VLAN ID up to 5. VLAN group up to 5	Port Based VLAN, VLAN ID up to 5. VLAN group up to 5	Port Based VLAN VLAN entry up to 26
Spanning Tree Protocol	Supports IEEE802.1w rapid spanning tree and compatible with IEEE 802.1d	Supports IEEE802.1w rapid spanning tree and compatible with IEEE 802.1d	Supports IEEE802.1w rapid spanning tree and compatible with IEEE 802.1d	N/A
CoS	Per port support 4 priority queues	Per port support 4 priority queues	Per port support 4 priority queues	System provide 2 queues for High and Low priority.
QoS	Supports port based, Tag based, IPv4 ToS and IPv6 DSCP	Supports port based, Tag based and IPv4 ToS	Supports port based, Tag based and IPv4 ToS	3 Types of quality of service: 1.Port based priority. 2.TCP/IP TOS/ DiffServ (DS) priority field. 3. 802.1p priority tag
Port Mirroring	Yes	N/A	N/A	N/A
IGMP snooping	Supports IGMP V1, V2 and multicast groups up to 8K	N/A	N/A	N/A
Port Trunk	IEEE802.3ad with LACP	IEEE802.3ad with LACP	IEEE802.3ad with LACP	IEEE802.3ad port trunk.
Rate limiting	Per port support ingress rate limiting and egress rate shaping.	Per port support ingress rate limiting and egress rate shaping.	Per port support ingress rate limiting and egress rate shaping.	Yes
Broadcast Storm	Yes	Disable, 5%, 10%, 20%	Disable, 5%, 10%, 20%	Yes
Flow Control	full duplex	full duplex	full duplex	full duplex
DHCP	DHCP Client	DHCP Client	DHCP Client	DHCP Client
Firmware updatable	TFTP	TFTP	TFTP	TFTP

06

## POE Power over Ethernet Solution
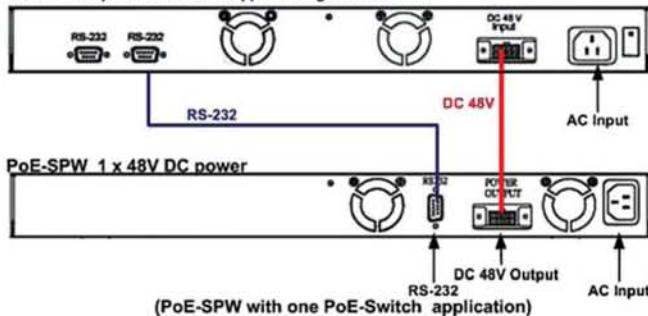
LPES-2224C
24 10/100TX SNMP Switch + 2 Giga SFP Combo Uplink with / 24 POE injectors

NEW
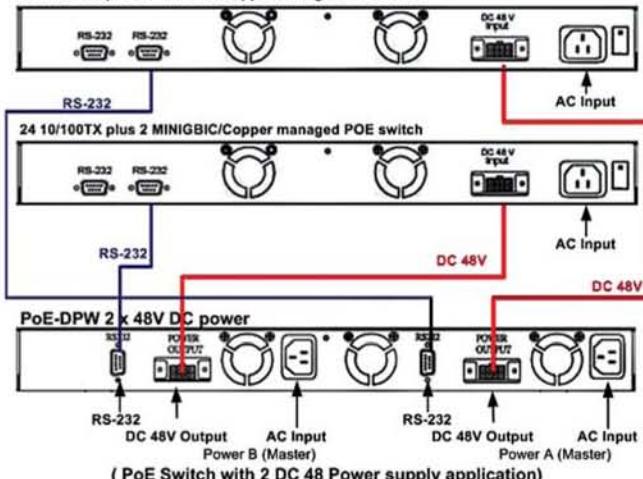
- Built-in 200W AC power; End point insert mode remote power feeding
- High back-plane bandwidth 8.8Gbps
- Provides extra DC 48V input with redundant function and management power status through RS-232 port
- Rapid spanning tree IEEE802.1w
- IGMP snooping and IGMP Query mode for Multi-media application
- Port mirror and Bandwidth control
- Supports GVRP function
- Management by Web/SNMP/Telnet/Console/CLI

- System event log support
- Port Based VLAN /802 .1Q Tag VLAN
- IEEE802.3ad Port trunk with LACP
- Spanning tree protocol IEEE 802.1d
- IEEE 802.1p class of service
- IEEE 802.1x user authentication
- Broadcast storm filter
- DHCP client
- On line extra power supply testing through RS-232 port
- Supports SNTP
- TACACS+ **

24 10/100TX plus 2 MINIGBIC/Copper managed POE switch

RS-232 RS-232 DC 48V Input AC Input

RS-232 DC 48V AC Input

PoE-SPW 1 x 48V DC power

RS-232 POWER OUTPUT

DC 48V Output RS-232 AC Input

(PoE-SPW with one PoE-Switch application)

24 10/100TX plus 2 MINIGBIC/Copper managed POE switch

RS-232 RS-232 DC 48V Input AC Input

24 10/100TX plus 2 MINIGBIC/Copper managed POE switch

RS-232 RS-232 DC 48V Input AC Input

RS-232 DC 48V DC 48V

PoE-DPW 2 x 48V DC power

RS-232 POWER OUTPUT RS-232 POWER OUTPUT

RS-232 DC 48V Output AC Input Power B (Master) RS-232 DC 48V Output AC Input Power A (Master)

(PoE Switch with 2 DC 48 Power supply application)

LPES-2208C
8 10/100TX SNMP Switch + 1 10/100/1000T + 1 Giga SFP Uplink with/ 4 POE Injectors

NEW

X-RING

- X-Ring Protocol auto recovery less than 300ms
- POE Power Management
- 802.1p CoS, per port 4 queues.
- IGMP snooping and Query mode support for Multi-Media application
- Supports GVRP function
- Broadcast storm filter
- TFTP firmware update
- SNMP/Web/Telnet/CLI/Menu Driven management
- Per port band width control
- Management IP address security; MAC address security

- System log for 1000 records
- Port Based VLAN /802 .1Q VLAN
- IEEE802.3ad Port trunk with LACP
- Port mirror and bandwidth control
- Spanning tree protocol
- STP / Rapid STP
- QoS for below method
- CPort based / Tag based
- CIPv4 ToS/ Ipv4, IPv6 DiffServe
- IEEE 802.1x user authentication
- DHCP Client, Server
- SNTP and SMTP support
- SNMP Trap support
- Configuration up-load and down-load**

POA-100S
Single Port POE Data and Power Splitter

- DIP Switch for adjusting 5v, 7.5v, 9v, 12v output
- 2 kinds of power jack cables to suit with various power jack diameters
- Short circuit protection
- For Wireless AP, Bluetooth AP, IP Camera, IP Telephones, remote power feeding application
- IEEE802.3af compliance
- Plug-and-Play
- Light weight and compact size
- Regulate output voltage by switch

POA-100
Single POE Injector

- IEEE 802.3af Fully Compliant; No power feeding to non-802.3af PD
- Remote power feeding
- Short circuit protection
- Deliver power up to 100 meters
- Plug-and-Play
- Light weight and compact size
- Build in AC power supply

POE Switches

Product Name	LPES-2208C NEW~	LPES-2224C	POA-100	POA-100S
Product Picture				
Part No.	8450-150	8450-140	8450-320R	8450-210R
Description	8-port 10/100TX plus 1 Mini GBIC socket and 1 Gigabit copper.Embedded 4-port PoE injector function	24 10/100TX plus 2 MINIGBIC / Copper managed POE	Power Over Ethernet Injector compatible with IEEE802.3af	Power Over Ethernet Splitter with adjustable output
Connecter	100Base-T: 8x RJ-45 with auto MDI/MDI-X. Port 5~8 support POE inject function. 1000Base-T: 1x RJ-45 with auto MDI/MDI-X. Gigabit fiber: 1x MINI GBIC socket	10/100TX: 24 x RJ-45 Gigabit Copper: 2 x RJ-452 MINI GBIC for MINI GBIC transceiver	RJ-45 Data in/out: Data/signal pairs pin 1,2,3,6 RJ-45 Power out: power over spare wire pairs pin:4,5(V+) , 7,8(V-)	Data and power in: 1 x RJ-45.Data pin 1,2,3,6 Power pin: 4,5(V+), 7,8(V-) and 1,2(V+), 3,6(V-) Data out: 1 x RJ-45, Data pin 1,2,3,6 Power out jack: 5V, 7.5V, 9V, 12V (Adjustable)/ Maximumfeeding current: 2.0A@5V
Switch architecture	Store and forward switch architecture. 5.6Gbps system backplane. System throughput up to 8.3Mpps.	Store and forward switch architecture. Back-plane up to 8.8Gbps		
MAC address	8Kbytes	8Kbytes		
Memory	1Mbits	3Mbits		
Flash ROM	4Mbytes	512Kbytes x2		
RS-232 connector	One RS-232 for switch management	One RS-232 for switch management and 2 RS-232 for DC power supply and UPS management.		
Remote power feeding	4 x Injectors ports	End-point insert type and compatible with IEEE802.3af Per port feeding power: 15.4Watts (maximum)		
Power	AC 100~240V, 50/60Hz	Embedded AC power supply: AC 100~240V, 50/60Hz, 200W Extra power input: DC48V	Input power: AC 100~240V,50~60Hz,0.3A Output power: 15.4 Watts	DC 48V, 0.3A
Power consumption	73 Watts for the system (Maximum)	200W (maximum /without PD)		
Ventilation	1 Fan	2 DC Fans with detect function		
Operating environment	0°C~45°C, 5%~95%RH	0°C~45°C, 5%~95%RH	0°C~45°C, 5%~95%RH	0°C~45°C, 5%~95%RH
Storage environment	-40°C~70°C, 95% RH	-40°C~70°C, 95% RH	-40°C~70°C, 95% RH	-40°C~70°C, 95% RH
Dimension	217mm(W) x 140mm(D) x 43mm(H)	440mm(W) x 280mm(D) x 44mm(H)	117mm x 60mm x 35mm (W x D x H)	80mm x 55mm x 26mm (W x D x H)
EMI	FCC Class A, CE	FCC Class A, CE	FCC Class B, CE	FCC Class B, CE
Safety	UL, cUL, CE/EN60950-1	UL, cUL, CE/EN60950	UL, cUL, CE/EN60950	UL, cUL, CE/EN60950
Management	SNMP v1, SNMP v2c, SNMP v3**, Telnet, Console (CLI), Web and Menu Driven management.	SNMP management, Telnet management, web management, RS-232 terminal console		
RFC standard	RFC2233 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 2665 Ethernet like MIB, RFC1215 Trap MIB, RFC 2819 RMON MIB, Private MIB,RFC2030 SNTP, RFC 2821 SMTP, RFC 1757 RMON1MIB, RFC 1215 Trap	RFC 2030 SNTP, RFC 2821 SMTP (option), RFC 1492 TACACS+ (option), RFC 1215 Trap, RFC 1757 RMON 1		
SNMP Trap	Cold start, warm start, link down, link up, authorization fail, Trap station up to 3.	Cold start, warm start, link down, link up, authorization fail, Trap station up to 3. Private trap for power supply device.		
Port Trunk	Supports IEEE802.3ad with LACP function. Up to 3 trunk groups and maximum group member up to 4 ports.	Supports IEEE802.3ad with LACP function. Up to 7 trunk groups and group member up to 4. The trunk port within 24-port 10/100TX and extension module.		
Spanning Tree	IEEE802.1d Spanning tree IEEE802.1w Rapid spanning tree	IEEE802.1d spanning tree, IEEE802.1w rapid spanning tree.		
VLAN	Port based VLAN Double Tag VLAN (Q in Q)* IEEE802.1Q Tag VLAN. GVRP function supports 256 groups.	Port based VLAN IEEE802.1Q Tag VLAN IEEE802.1v Protocol VLAN (IP, IPX,..) The static VLAN groups up to 256		
Quality of Service	IEEE 802.1P Class of Service, Per port supports 4 queues, Port Base, Tag Base & Type of Service Priority	IEEE 802.1P Class of Service, Per port supports 4 queues, Port Base, Tag Base and Type of Service Priority		
IGMP	IGMP v1 and v2 compliance and also supports 256 IGMP groups and support query mode.	It supports IGMP query and snooping for multimedia application and supports 256 groups		
Port Security	Supports ingress and egress MAC address filter and static source MAC address lock	It supports ingress and egress MAC address filter and static source MAC address lock.		
Port Mirror	Global system supports 3 mirroring types: "RX, TX and Both packet".The maximum of port mirror entries is up to 8	Global system supports 3 mirroring types: "RX, TX and Both packet". The maximum of port mirror entries is up to 25.		
Bandwidth Control	Yes	Yes		
802.1x Authentication	Supports IEEE802.1x / RADIUS server.	Supports IEEE802.1x / RADIUS server.		
DHCP	DHCP Client and DHCP Server	DHCP client		
Packet filter	Broadcast storm packet filter.	Broadcast storm filter		
System setup and control		System calibrate, AC power line frequency rejection, IEEE 802.3af resistor range adjust		
Port configuration control		Port Disable / Enable. PD detect control (enable/disable), Classification detect control (enable/disable), DC disconnect detect control		
Fault status detect		Null: no PD present Overload: current support over 475mA @ DC 48V and over 50 milliseconds DR fail: PD discovery resistor is not in the limited range		
Mode status		System detects status, it will show I –sample, V-sample and R-detect.		
X-ring	Provide X-ring, Dual Homing, and Couple Ring Provide redundant backup feature and the recovery time below 300ms			
SNTP		Supports RFC 2030 Simple Network Time Protocol		
SMTP	Supports SMTP Server and 5 e-mail accounts for receiving event alert	Supports RFC2821 Simple Mail Transfer protocol (option)		
System Log		System Log record up to 1000 entries.		
PoE Management	Yes	Yes		
Power monitor		AC power, DC power, fan status 3 types of power supply can be installed with POE switch and POE-UPWM.		
Power testing		Yes		

MC-216 TS1000/OAM Series
16 Slot SNMP Converter Chassis w/Loopback and Remote Management

• CM-011B-SC

16 slots intelligent converter chassis

TS-1000 setting of Module 1

Central TS-1000 RJ45 port setting

Link	Speed	Duplex	Auto-Negotiation	Bandwidth Input Rate	Bandwidth Output Rate
Down	100 Mb	Half	Auto	10/100 Mbps	10/100 Mbps

☐ Central TS-1000 reset Default

Terminal TS-1000 module connect :   Down

Apply

Remote TS-1000 RJ45 port setting

Link	Speed	Duplex	Auto-Negotiation	Bandwidth Input Rate	Bandwidth Output Rate
-	-	-	-	-	-

☐ Terminal TS-1000 reset Default

Apply

Verify Test

☐ Embedded SSRAM BIST   FAIL

☐ In-Band Loop Back Test   FAIL

Please Input The Value You Want To Check (****) : 0

☐ Auto In-Band Loop Back Test   FAIL

Test

TS-1000 POA Setting

Power off Alarm (POA)   Disable

Apply   ---

• CM-011B-SC Remote Managed Converter
• AC or DC power with redundant function
• Module Types: 10/100TX to 100FX ;
  10/100/1000T to Gigabit fiber;
  10/100/1000T to SFP
• Hot-swappable module design
• SNMP/ Web/Telnet/Console management
• Supports Simple Network Time Protocol (SNTP)
  to send email in case of events
• Power and Fan Detection and alert
• Event log and SNMP Trap support
• SNMP MIB II and private MIB supports
• HTTP, Telnet security
• IP address security for management station
• Web and TFTP firmware upgrade
• Link Lose Forwarding (LLF) to
  cut all link connection when one link is down
• Back-door password supports
• Remote management with CM-B100L
  managed converter series
• Link speed duplex,Auto Negotiation
• Bandwidth Input Rate
• Bandwidth Output Rate
• Lookback test to check remote
  converter SSRAM status
• In-Band loop back test for continuous check
• Remote converter power off alarm

Un-managed Converter Series

Multi-Converter Chassis
10 Slot Chassis with Redundant Power Supply

• Contains 10/100TX to
  100-FX Converter and
  10/100/1000T to
  Gigabit Fiber Converter

• Hot-swappable converter design

• Redundant power design
  for Chassis

• 2U height

CM-011-SC/ST Converter
10/100TX to 100FX Media Converter

• Standalone and
  Chassis design

• Link Lose Forwarding
  (LLF) to cut all link
  connection when
  one link is down

• DIP Switch for
  Auto Negotiation Speed,
  Half/Full Duplex mode

CM-021-GB Converter
10/100/1000T to SFP Media Converter

• Standalone and
  Chassis design

• Link Lose Forwarding
  (LLF) to cut all link
  connection when
  one link is down

• DIP Switch for Auto
  Negotiation Speed,
  Half/Full Duplex mode

Converter Series

Product Name	MC-216 TS-1000	Multi-Converter	CM-011-SC-ST Fiber Converter	CM-021-GB Converter	Product Name	MC-216 TS-1000
Product Picture					Product Picture	
Part No.	8423-222	8420-001			Part No.	8423-222
Description	16 slots converter chassis with 2 power slots	10 slots converter chassis converter	10/100TX to 100FX Media Converter	10/100/1000 Base-TX to Gigabit fiber Media Converter	Management	Telnet, Web, console
Standard	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX and 100BASE-FX with N-way auto negotiation IEEE802.3ab Gigabitcopper with N-way auto-negotiation IEEE802.3z for Gigabit fiber IEEE802.1QTag VLAN	IEEE802.3ab 1000BASE-T IEEE802.3z 1000BASE-SX/LX	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX/100BASE-FX IEEE802.3xFlow Control and Back Pressure	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE 802.3ab 1000Base-T IEEE 802.3z 1000Base-SX/LX standards IEEE802.3x Flow Control and Back pressure	Web/Telnet	Web and Telnet function can be enabled or disabled.
Connector	100FX Module: Fiber: Duplex ST/SC/MT-RJ, Simplex SC (WDM single-mode) RJ-45: CAT5 (10/100Mbps) Twisted Paircable Gigabit Module: Fiber: Duplex SC(Single mode 10KM, Multi mode500Meters) RJ-45 for 10/100Mbps,Full/Half Duplex. Cable support CAT-3/5(10/100Mbps) WDM module: Fiber:Simplex SC (single mode 20KM) RJ-45:CAT. 5 2 pairs of UTP cable Mini GBICmodule: (for 3.3v only) Fiber: Mini GBIC(Duplex LC) RJ-45: CAT- 5 (1000Mbps) 4 pairsofUTP/STPcable	100M: UTP – Fiber (ST, SC, VF-45, MT-RJ) 1000M: UTP – Fiber (SX, LX)	Fiber: Duplex ST/SC, RJ-45 Socket: CAT-3/5 (10/100Mbps) Twisted Pair cable AutoMDI/MDI-X and Auto-Negotiation FunctionSupport	Fiber: MINI GBIC 3.3V RJ-45 Socket: CAT-5(10/100/1000Mbps) Twisted Pair cable Auto MDI/MDI-X and Auto-Negotiation Function Support	MIBS	RFC 1213 MIB II, Private MIB
Switch architecture	Store and Forward, Internal Packet Ga 960ns, Filter illegal and error packet	Store and Forward	Store and Forward, Internal Packet Gap 960ns, Filter illegal and error packet			
Fiber parameters	Fiber Core: Multi-Mode (62.5/125um, 50/125um) Single-Mode (8/125um, 10/125um) Wavelength: 100Mbps multimode: 1310nm / 100Mbps single-mode: 1310um 100Mbps WDM 1330:TX 1310nm, RX 1550 nm 100Mbps WDM 1550: TX 1550nm, RX 1310nm Available Fiber distance: 100Mbp smodule: Single-Mode Fiber (30 KM) /Multi-Mode (2KM) 100Mbps WDMmodule (WDM13, WDM15): 20KMGigabit Fiber Distance: SX (Multi-mode)500 Meters LX (Single mode) 10 KM Optical Transceiver parameter:100Mbps Multi-Mode: TX (–19dBm), RX(31dBm), Power budget (12dBm)100Mbps Single-mode (30KM): TX (–15dBm), RX (34 dBm), Power budget(19dBm) Gigabit SX Transceiver: TX (–9.5dBm), RX	Fiber Core: Multi-Mode (62.5/125um, 50/125um) Single-Mode (9/125um, 10/125um) Wavelength: 1310nm(Multi-mode) 1310nm(Single-mode) Fiber Distance: Multi-Mode Fiber 2KM Single-ModeFiber (30 KM)	Fiber Core: Multi-Mode (62.5/125um, 50/125um) Single-Mode (8/125um,10/125um) Wavelength: 850nm(Multi-mode) 1310nm(Single-mode) Fiber Distance: Multi-Mode Fiber 2KM Single-Mode Fiber (30 KM) Single-Mode Fiber(60 KM)	Fiber Core: Multi-Mode (62.5/125um, 50/125um) Single-Mode (9/125um,8/125um) Wavelength: 850nm(Multi-mode), 1310nm(Single-mode) Fiber Distance: 550M (Multi-Mode Fiber) 10 KM (Single-Mode Fiber)	SNMP Trap	Link down, Link up, Power module status change, authorization Fail, Module plug inand plug out, chassis configurationchange, module configuration change.
Transparent packet	64 to 1518 Bytes for Non-VLAN Ethernet packet 68 to 1522 Bytes for VLAN-Tag typ	e 64 to 1518 Bytes for Non-VLAN Ethernet packet	64 to 1518 bytes for Non-VLAN Ethernet packet 68 to 1522 bytes for VLAN-Tagtype Ethernet packet		Software Upgrade	Firmware upgrade by Web interface and TFTP.
Link Lose Forward	N/A	N/A	TX=>Fiber : If TX port link down, then converter will forced fiber to link down. Fiber =>TX: If Fiber port link down, themedia converter will forced TX port to linkdown.	TX=>Fiber : If TX port link down, then converter will forced fiber to link down. Fiber =>TX: If Fiber port link down, themedia converter will forced TX port to linkdown.	Link Lose Forward	Each module support LLF feature. It can be se by Web or CLI menu. LLF Mode TX Fiber: TX port link down, the fiber port willbe forced down LLF Mode Fiber TX:Fiber port link down, the TX port will be
LED	CPU Module: CPU Ready, Power Good (A, B) Power Fail (A, B), TX(link/Act, FDX) 100FX Module: Power,TX (Link / Act, speed, FDX), FX (Link/Act,FDX) Gigabit Module: Power, Gigabit Copper (Speed, 1000Mbps,LK/ACT, FDX/COL), Fiber (Link/Act,FDX/COL) 100/1000TX to MINI GBIC d l P Gibit Converter	Chassis: Power Module: Power, Speed TX Link/Activity, TX Fulduplex/Collision, FX Link/Activity, FXFull-duplex/Collision	Module: Power, TX (100Mbps, LK/Act,FDX/COL), Fiber (LK/Act, FDX/COL) Chassis: Power Good (A,B), Fail (A,B)	Module: Power, TX (100/1000Mbps, LK/Act, FDX/COL), Fiber(LK/Act)	Packet counter	TX port: IN-good / In-bad packet counter, out-good /out-bad packet counter, collisioncounter Fiber port: IN-good / In-badpacket counter, out-good /out-bad packetcounter
System Power	Redundant and Load Sharing function suppor (AC or DC) AC 100~240 V, 50/60HZ, DC 40.5~57.0V	Internal power: DC 5V, 15A	Chassis Cabinet: AC 90~240 VAC, 50/60 HZ, 90w*2 Stand-alone (external adapter): 100~240 VAC,50~60HZ; DC 5V @ 2.5A	Chassis Cabinet: AC 90~240 VAC, 50/60 HZ, 90w*2 Stand-alone (externaladapter):DC 9V / 0.7A	SNMP Trap Node	Up to 4 Trap node.
Dip Switch				DIP Switch 1: Fiber Auto-Nego/1000Mbps Full Duplex mode DIP Switch 2: TX=> Fiber LLF(Link Lose Forwarding) Disable/Enable DIP Switch 3: Fiber=>TX LLF(Link Lose Forwarding)Disable/Enable	IP security	It supports IP security for telnet, HTTP and SNMP access. Up to 4 IP nodes whensecurity is enabled.
Oeration Tem	0°C~45°C, (32°F to 113°F)	0°C~45°C, (32°F to 113°F)	0°C~45°C, (32°F to 113°F)	0°C~45°C, (32°F to 113°F)	Events log	Up to 4095 event records. It can be re-view by CLI and Web browser mode
Oeration	10% to 90%(Non-condensing)	10% to 90%(Non-condensing)	10% to 90%(Non-condensing)			
Storage Temp.	-40°C~70°C	-40°C~70°C	-40°C~70°C	-40°C~70°C	Module notice	information and characters up to 32
Dimension	448mm(w) * 89mm(H) * 279mm(D)	Multi-Converter Chassis - 440mm x 266mm x 133 mm (3U, 19") Module: 119mm x 85mm x 26mm	Module: 119mm x 85mm x 26mm Multi-Converter Chassis - 440mm x 266mm x 133 mm 3U, 19"	119mm x 85mm x 26mm	Back-door pass word	It only supports on CLI mode.
EMI & safety	FCC Class A, CE, UL	FCC Class A, CE, cUL, UL	FCC Class A, CE	FCC Class A, CE	TS-1000	Loop back test, remote configuration
					SNTP	Support RFC2030 Simple Network Timepp

Note: *Future release
**Optional

Lantech Worldwide Offices

Lantech Taiwan

5F, No.266, Sec 6,Ming Chan E. Rd.,
Neihu Dist, Taipei, Taiwan,
R.O.C.

Tel :+886-2-2633-9590
Fax :+886-2-2633-8261
www.lantechcom.tw

Lantech USA

Lantech Communications, Inc.
6300E San Ignacio Ave,
San Jose, CA 95119
USA

Tel :+1-408-578-7870
Fax :+1-408-578-7871
www.lantechcom.com