Lantech™
Pioneering Industrial and IP Networks

LGS-2404

4 10/100/1000TX + 4 Mini-GBIC Managed Switch

- *Pro-Ring covers X-Ring, Couple Ring, and Dual Homing Topology*
- *IGMP with Query mode for Multi Media Application*
- *Supports IEEE802.1d Spanning Tree & IEEE802.1w RSTP*
- *TFTP Firmware Update and System Configure Restore and Backup*

FCC   CE   cUL   RoHS

OVERVIEW

Lantech LGS-2404 is a 4 10/100/1000TX + 4 Mini-GBIC Managed Switch, which is specially designed for the small community or department who needs the high bandwidth and connectivity applications. It is compact in size with 10" rack mountable design.

LGS-2404 supports several functions such as DHCP server, relay and client function, which can manually configure a specific IP address, or direct the device to obtain an address from the scope. It also supports Quality of Service (QoS), which avoids the network traffic jam. CoS (Class of Service) standard provides 4 priority queues. The Internet Group Management

Protocol (IGMP snooping) manages the multiple broadcast application on the network, for on-line study or video conference application. Telnet permits remote user for easily management and to control enterprise network.

LGS-2404 supports Lantech patent-pending feature "Pro-Ring", which covers X-ring, Dual Homing, and Couple Ring, providing auto-network-recovery in less than 10 ms when network is failed over. Lantech LGS-2404 is the best option for small community or department. It is easy to use, flexible, and powerful.

FEATURES & BENEFITS

- **System Interface/Performance**
  - *RJ-45 port support Auto MDI/MDI-X Function*
  - *Store-and-Forward Switching Architecture*
  - *Back-plane (Switching Fabric): 16Gbps*
  - *1Mbits Packet Buffer*
  - *8K MAC Address Table*
- **Power Supply**
  - *Power Polarity Reverse Protect*
- **VLAN**
  - *Port Based VLAN*
  - *Support 802.1 Q Tag VLAN*
  - *GVRP*
  - *Double Tag VLAN (Q in Q)**
  - *Private VLAN***
- **Port Trunk with LACP**
- **QoS (Quality of Service)**
  - *Supports IEEE 802.1p Class of Service,*
  - *Per port provides 4 priority queues*
  - *Port Base, Tag Base and Type of Service Priority*
- **Port Mirror: Monitor traffic in switched networks.**
  - *TX Packet only*
  - *RX Packet only*
  - *Both of TX and RX Packet*
- **Security**
  - *Port Security : MAC address entries/filter*

- *IP Security: IP address security management to prevent unauthorized intruder.*
- *Login Security: IEEE802.1X/RADIUS*
- **IGMP with Query mode for Multi Media Application**
- **Spanning Tree**
  - *Support IEEE802.1d Spanning Tree*
  - *Support IEEE802.1w Rapid Spanning Tree*
- **Pro-Ring**
  - *X-ring, Dual Homing, and Couple Ring Topology*
  - *Provides redundant backup feature and the recovery time below 10ms*
- **Bandwidth Control**
  - *Ingress Packet Filter and Egress Rate Limit*
  - *Broadcast/Multicast Packet Filter Control*
- **System Event Log**
  - *System Log Server/Client*
  - *SMTP e-mail Alert*
- **SNMP Trap**
  - *Device cold start*
  - *Authentication failure*
  - *X-ring topology changed*
  - *Port Link up/Link down*
  - *Power Status*
- **TFTP Firmware Update and System Configure Restore and Backup**

Datasheet Version 1.0

SPECIFICATION

Hardware Specification

IEEE Standard	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3z Gigabit fiber IEEE802.3ab 1000Base-T 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 IEEE 802.1x User Authentication
Switch Architecture	Back-plane (Switching Fabric): 16Gbps Packet throughput ability (Full-Duplex): 26.7Mpps @64bytes
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Ethernet port
Packet Buffer	1Mbits
MAC Address	8K MAC address table
Flash ROM	4Mbytes
DRAM	32Mbytes
Connector	10/100/1000TX: 4 x RJ-45 with Auto MDI/MDI-X function Gigabit fiber: 4 x Mini-GBIC Console port: RS-232 connector
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5 / 5E cable EIA/TIA-568 100-ohm (100m)
Optical Cable	LC(Multi-mode): 50/125um~62.5/125um LC(Single mode): 9/125um~10/125um Available distance: 2KM (Multi-mode) / 30KM (single-mode) Wavelength: 1310nm (multi-mode/ single mode)
Protocol	CSMA/CD
LED	Per unit: System Power (Green) 1000Base-T Port: Speed (1000Mbps Green), Link/Activity (Green), Mini-GBIC: Link/Activity (Green)
Power Supply	AC 100 ~240V, 50/60Hz
Power Consumption	10 Watts
Case Dimension	217mm(W)x140mm(D)x43mm(H)
Operating Humidity	5%~95% (Non-condensing)
Operating Temperature	Standard: 0°C~45°C
Storage Temperature	-40°C~70°C
Fan Number	1
Installation	10" Rack Mountable
EMI	FCC Class A, CE
Safety	UL, cUL, CE/EN60950-1
Warranty	2 years

Software Specification

Management	SNMP v1 v2c, v3/ Web/Telnet/CLI/Menu Driven**
SNMP MIB	RFC 1215 Trap, RFC1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643 , RFC 1757, RSTP MIB, Private MIB

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 (256 Groups) Double Tag VLAN (Q in Q)* Private VLAN**
Port Trunk with LACP	LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk members
Spanning Tree	Support IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree
Pro-Ring	Support X-Ring, Dual Homing, and Couple Ring Provide redundant backup feature and the recovery time below 300ms
Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service, IPv4/ IPv6Different Service
Class of Service	Support IEEE802.1p class of service, per port provides 4 priority queues
Port Security	Support 100 entries of MAC address for static MAC and another 100 for MAC filter
Port Mirror	Support 3 mirroring types: "RX, TX and Both packet".
IGMP	Support IGMP snooping v1,v2 256 multicast groups and IGMP query
IP Security	Support 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder.
Login Security	Support IEEE802.1X Authentication/RADIUS
Bandwidth Control	Support ingress packet filter and egress packet limit The egress rate control supports all of packet type and the limit rates are 100K~250Mbps Ingress filter packet type combination rules are Broadcast/Multicast/Unknown Unicast packet, Broadcast/Multicast packet, Broadcast packet only and all of packet. The packet filter rate can be set from 100k to 250Mbps
Flow Control	Support Flow Control for Full-duplex and Back Pressure for Half-duplex
System Log	Support System log record and remote system log server
SMTP	Support SMTP Server and 6 e-mail accounts for receiving event alert
SNMP Trap	Up to 3 Trap stations Cold start, Port link up, Port link down, Authentication Failure, Private Trap for power status, U-ring topology change
DHCP	Provide DHCP Client/ DHCP Server/ IP Relay functions
DNS	Provide DNS client feature and support Primary and Secondary DNS server.
SNTP	Support SNTP to synchronize system clock in Internet
Firmware Update	Support TFTP firmware update, TFTP backup and restore.
Configuration upload and download	Support text format configuration file for system quick installation

*Future Release

**Optional

ORDERING INFOMATION

■ **LGS-2404……….……………...…..…......P/N: 8370-810**

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OPTIONAL ACCESSORIES

Mini GBIC (SFP)

■ **8330-162** MINI GBIC 1000SX (LC/0.5km) Transceiver

■ **8330-163** MINI GBIC 1000SX2 (LC/2km) Transceiver

■ **8330-165** MINI GBIC 1000LX (LC/10km) Transceiver

■ **8330-166** MINI GBIC 1000LHX (LC/40km) Transceiver

■ **8330-169** MINI GBIC 1000XD (LC/60km) Transceiver

■ **8330-167** MINI GBIC 1000ZX (LC/80km) Transceiver

■ **8330-168** MINI GBIC 1000T (100m) Transceiver

■ **8330-170** MINI GBIC 1000EZX (120m) Transceiver

■ **8330-061** 100Base LX 30KM, Single-mode, LC Transceiver

■ **8330-060** 100Base FX 2KM, Multi-mode, LC Transceiver

■ **8330-188** LTSFP-1000BX-10KM Transceiver (WDM 1310)

■ **8330-189** LTSFP-1000BX-10KM Transceiver (WDM 1550)

■ **8330-186** LTSFP-1000BX-20KM Transceiver (WDM 1310)

■ **8330-187** LTSFP-1000BX-20KM Transceiver (WDM 1550)

■ **8330-180** LTSFP-1000BX-40KM Transceiver (WDM 1310)

■ **8330-182** LTSFP-1000BX-40KM Transceiver (WDM 1550)

■ **8330-181** LTSFP-1000BX-60KM Transceiver (WDM 1310)

■ **8330-183** LTSFP-1000BX-60KM Transceiver (WDM 1550)

■ **8330-184** LTSFP-1000BX-80KM Transceiver (WDM 1490)

■ **8330-185** LTSFP-1000BX-80KM Transceiver (WDM 1550)