Product Data Sheet

Gigabit Ethernet Managed Switches

LGB5028A

LGB5052A

Overview

These easy-to-implement managed Ethernet switches are available in two verisons:

- Gigabit Ethernet Managed Switch (LGB5028A). This model provides (20) 10/100/1000BASE-T UTP ports, (4) dual-media UTP/SFP ports, and (4) SFP+ ports that support speeds up to 10 Gbps.

- Gigabit Ethernet Managed Switch (LGB5052A), This model provides (44) 10/100/1000BASE-T UTP ports, (4) dual-media UTP/SFP ports, and (4) SFP+ ports that support speeds up to 10 Gbps.
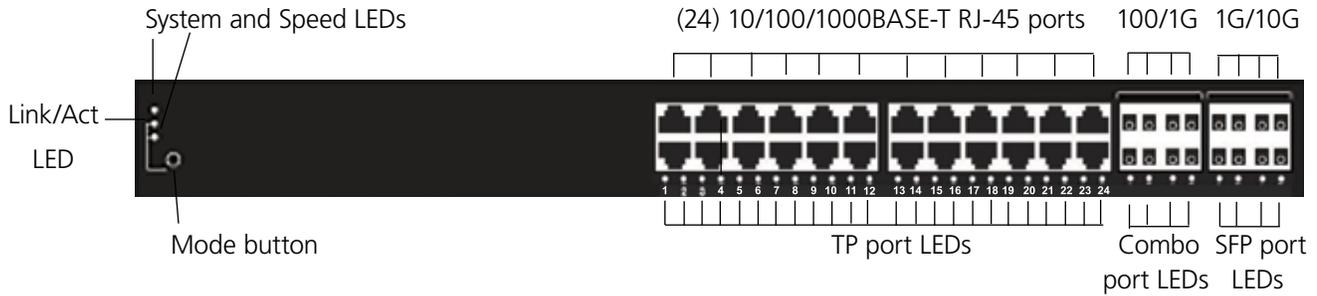
Features

- Performs wire-speed, non-blocking switching to enable wire-speed transport of multiple packets at low latency on all ports simultaneously.

- Provides full-duplex capability on all ports, which effectively doubles the bandwidth of each connection.

- Uses store-and-forward technology to ensure maximum data integrity. With this technology, the entire packet must be received into a buffer and checked for validity before being forwarded. This prevents errors from being propagated throughout the network.

- You can also manage the switch over the network with a Web browser or Telnet application. Manage it in-band using SNMP or RMON (Groups 1, 2, 3, 9) protocols. Configure and monitor the switch out-of-band via a null-modem serial cable.
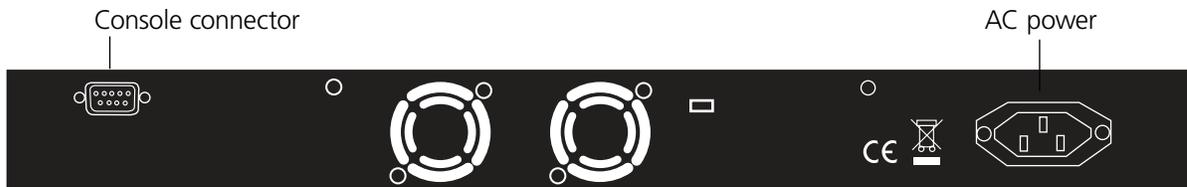
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Gigabit Ethernet Managed Switch - 28-Port (LGB5028A)

Front Panel Diagram

System and Speed LEDs — (24) 10/100/1000BASE-T RJ-45 ports — 100/1G — 1G/10G — Link/Act LED — Mode button — TP port LEDs — Combo port LEDs — SFP port LEDs

Back Panel Diagram

Console connector — AC power

Specifications for LGB5028A

Specifications for LGB5028A	
Approvals	
Environmental Compliances	Compliance: EN55022 (CISPR 22) Class A EN 61000-3; FCC Class A; Immunity: EN 61000-4-2/3/4/5/6/8/11, EN 55024
Certifications	CE, FCC Part 15 Class A
Environmental	
Operating Humidity	5 to 90% (non-condensing)
Operating Temperature	32 to 104° F (0 to 40° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Management	
Diagnostics	RMON Groups 1, 2, 5, 9 (History, Stats, Alarms, Events)
Interfaces	In-Band Management: SSH/SSL, Telnet, SNMP v1/2c/3, or HTTPS; Out-of-Band Management: RS-232 (RJ-45 console port); Software Loading: HTTP, TFTP in-band, console out-of-band
IPv6	Yes
Services	DHCP client, NTP, Cable Diagnostics, Syslog
Type	L2 managed

Specifications for LGB5028A (continued)

Performance	
Forwarding Capacity	95.23 Mpps (millions of packets per second) (64-byte packets), 128 Gbps (switching capacity)
Jumbo Frames	Frame sizes up to 9 KB supported on Gigabit interfaces
Packet Buffer Memory	1392 KB on-chip frame buffer
MAC Table	9K MAC address entries

Physical	
Connectors	Ports 1–20: RJ-45 connector (Auto MDI-X); 10BASE-T: RJ-45 (100-ohm, UTP cable, Category 3 or better); 100BASE-TX: RJ-45 (100-ohm, UTP cable, Category 5 or better); 1000BASE-T: RJ-45 (100-ohm, UTP or STP cable, Category 5, 5e, or 6), Ports 21–24: RJ-45 connector/(100/1000M) SFP; Ports 25–28: 1000M/10G SFP/SFP+ ports
Dimensions	1.8"H x 17.4"W x 11.8:D (4.4 x 44.2 x 30 cm)
Indicators	LEDs: System: Power; TP port: Status (LINK/ACT), 10/100/1000M; SFP port: Status (LINK/ACT/SPD), 100/1000M
Ports	(20) 10/100/1000 Mbps twisted-pair, (4) 100M/1G SFP combo ports, (4) 1G/10Gbps fiber ports
Weight	8.6 lb. (3.9 kg)

Power	
Consumption	60 watts maximum
Input	Input: 100–240 VAC, 50–60 Hz internal power supply
Power Supply Type	Internal power supply with IEC320 connector

Software	
Access Control Lists	Supports up to 256 entries; Drop or rate limitation based on source and destination MAC, VLAN ID or IP address, protocol, poer, differentiated services code point (DSCP)/IP precedence, TCP/UDP source and destination ports, 802.1p priority, Etehrnet type, Internet Control Message Protocol (ICMP) packets, IGMP packets, TCP flag
Energy Efficient Ethernet	IEEE 802.3az
L2 Multicasting	IGMP snooping v1/v2/v3, supports 1024 IGMP groups, querier, proxy
Layer 2 Switching	Full-duplex: IEEE 802.3x; Half-duplex: Backpressure
QOS	8 hardware queues, 802.1p, strict +WRR scheduling, COS, rate limiting, classification based on port, VLAN, TOS, DSCP
Security	802.1x, MAC based access control, RADIUS, TACACS+, storm control, ARP spoofing, BPDU protection, etc
VLAN	4K VLANs, port, 802.1Q, MAC based, voice, VLAN trunking, GVRP

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Specifications for LGB5028A (continued)
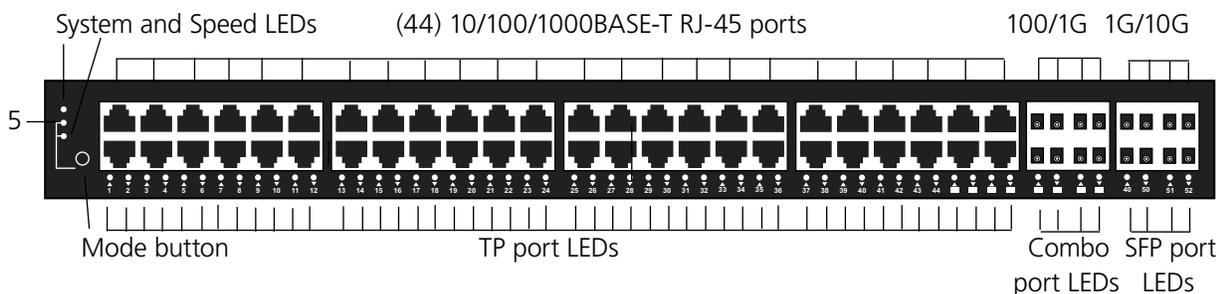
Standards	
Ethernet Standards	IEEE 802.3 10BASE-T Ethernet (twisted-pair copper), IEEEE 802.3u 100BASE-TX Ethernet (twisted-pair copper), IEEE 802.3ab 1000BASE-TX Ethernet (twisted-pair copper), IEEE 802.3z 1000BASE-X Ethernet, IEEE 802.3x Flow Control Capability, ANSI/IEEE 802.3 Auto-negotiation, IEEE 802.1Q VLAN, IEEE 802.1p Class of Service, IEEE 802.1X Access Control, IEEE 802.1D Spanning Tree, IEEE 802.1w Rapid Spanning Tree, IEEE 802.1s Multiple Spanning Tree, IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.1AB Link Layer Discovery Protocol (LLDP) IEEE 802.3az Energy Efficient Ethernet

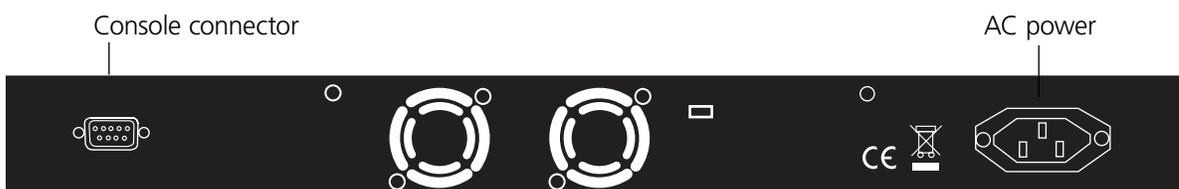## GIgabit Ethernet Managed Switch - 52-Port (LGB5052A)

Front Panel Diagram

System and Speed LEDs   (44) 10/100/1000BASE-T RJ-45 ports   100/1G 1G/10G

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Mode button   TP port LEDs   Combo SFP port
                                                                         port LEDs LEDs

Back Panel Diagram

Console connector   AC power

Specifications for LGB5052A

Specifications	
Approvals	
Environmental Compliances	Compliance: EN55022 (CISPR 22) Class A EN 61000-3; FCC Class A; Immunity: EN 61000-4-2/3/4/5/6/8/11, EN 55024
Certifications	CE, FCC Part 15 Class A
Environmental	
Operating Humidity	5 to 90% (non-condensing)
Operating Temperature	32 to 104° F (0 to 40° C)
Storage Temperature	-4 to +158° F (-20 to +70° C)
Management	
Diagnostics	RMON Groups 1, 2, 5, 9 (History, Stats, Alarms, Events)
Interfaces	In-Band Management: SSH/SSL, Telnet, SNMP v1/2c/3, or HTTPS; Out-of-Band Management: RS-232 (RJ-45 console port); Software Loading: HTTP, TFTP in-band, console out-of-band
IPv6	Yes
Services	DHCP client, NTP, Cable Diagnostics, Syslog
Type	L2 managed

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Specifications for LGB5052A (continued)

| Performance	
Forwarding Capacity	130.95 mpps (64-byte packets), 136 Gbps (switching capacity)
Jumbo Frames	Frame sizes up to 9 KB supported on Gigabit interfaces
Packet Buffer Memory	1392 KB on-chip frame buffer
MAC Table	9K MAC address entries
Physical	
Connectors	Ports 1–44: RJ-45 connector (Auto MDI-X); 10BASE-T: RJ-45 (100-ohm, UTP cable, Category 3 or better); 100BASE-TX: RJ-45 (100-ohm, UTP cable, Category 5 or better); 1000BASE-T: RJ-45 (100-ohm, UTP or STP cable, Category 5, 5e, or 6), Ports 45–48: RJ-45 connector/(100/1000M) SFP; Ports 49–52: 1000M/10G SFP/SFP+ ports
Dimensions	1.8"H x 17.4"W x 11.8:D (4.4 x 44.2 x 30 cm)
Indicators	LEDs: System: Power; TP port: Status (LINK/ACT), 10/100/1000M; SFP port: Status (LINK/ACT/SPD), 100/1000M
Ports	(44) 10/100/100 Mbps twisted-pair, (4) 100M/1G SFP combo ports, (4) 1G/10Gbps fiber ports
Weight	9.1 lb. (4.1 kg)
Power	
Consumption	60 watts maximum
Input	Input: 100–240 VAC, 50–60 Hz internal power supply
Power Supply Type	Internal power supply with IEC320 connector
Software	
Access Control Lists	Supports up to 256 entries; Drop or rate limitation based on source and destination MAC, VLAN ID or IP address, protocol, poer, differentiated services code point (DSCP)/IP precedence, TCP/UDP source and destination ports, 802.1p priority, Etehrnet type, Internet Control Message Protocol (ICMP) packets, IGMP packets, TCP flag
Energy Efficient Ethernet	IEEE 802.3az
L2 Multicasting	IGMP snooping v1/v2/v3, supports 1024 IGMP groups, querier, proxy
Layer 2 Switching	Full-duplex: IEEE 802.3x; Half-duplex: Backpressure
QOS	8 hardware queues, 802.1p, strict +WRR scheduling, COS, rate limiting, classification based on port, VLAN, TOS, DSCP
Security	802.1x, MAC based access control, RADIUS, TACACS+, storm control, ARP spoofing, BPDU protection, etc
VLAN	4K VLANs, port, 802.1Q, MAC based, voice, VLAN trunking, GVRP

Specifications for LGB5052A (continued)

| Standards	
Ethernet Standards	IEEE 802.3 10BASE-T Ethernet (twisted-pair copper),
	IEEEE 802.3u 100BASE-TX Ethernet (twisted-pair copper),
	IEEE 802.3ab 1000BASE-TX Ethernet (twisted-pair copper),
	IEEE 802.3z 1000BASE-X Ethernet,
	IEEE 802.3x Flow Control Capability,
	ANSI/IEEE 802.3 Auto-negotiation,
	IEEE 802.1Q VLAN,
	IEEE 802.1p Class of Service,
	IEEE 802.1X Access Control,
	IEEE 802.1D Spanning Tree,
	IEEE 802.1w Rapid Spanning Tree,
	IEEE 802.1s Multiple Spanning Tree,
	IEEE 802.3ad Link Aggregation Control Protocol (LACP)
	IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
	IEEE 802.3az Energy Efficient Ethernet

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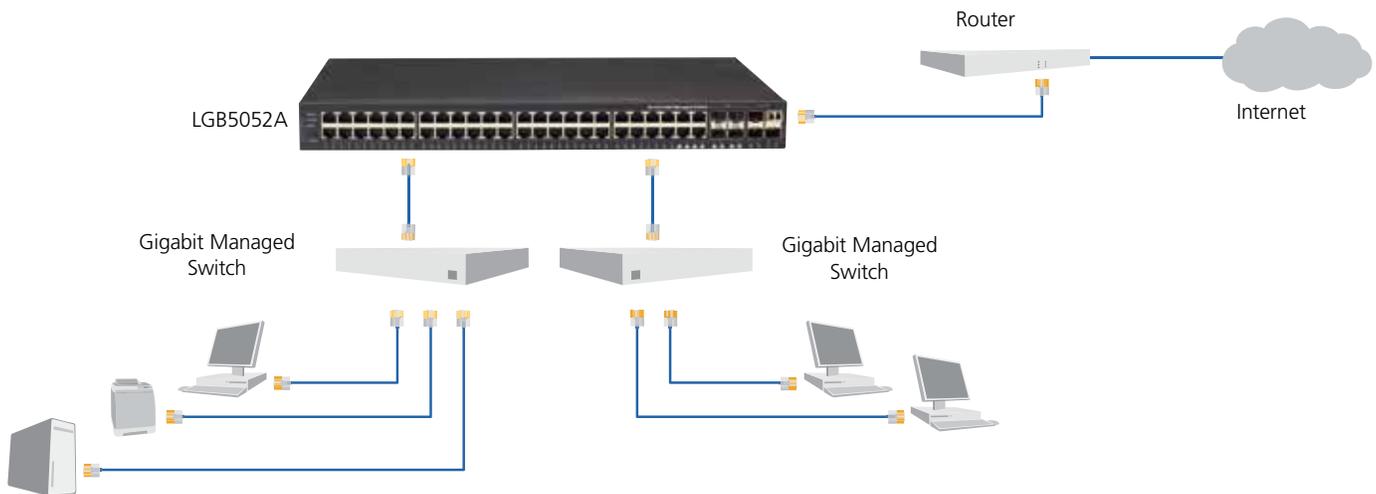Typical applications of the Gigabit Ethernet Managed Switches are shown below and on the next page.

Network connection between remote site and central site.
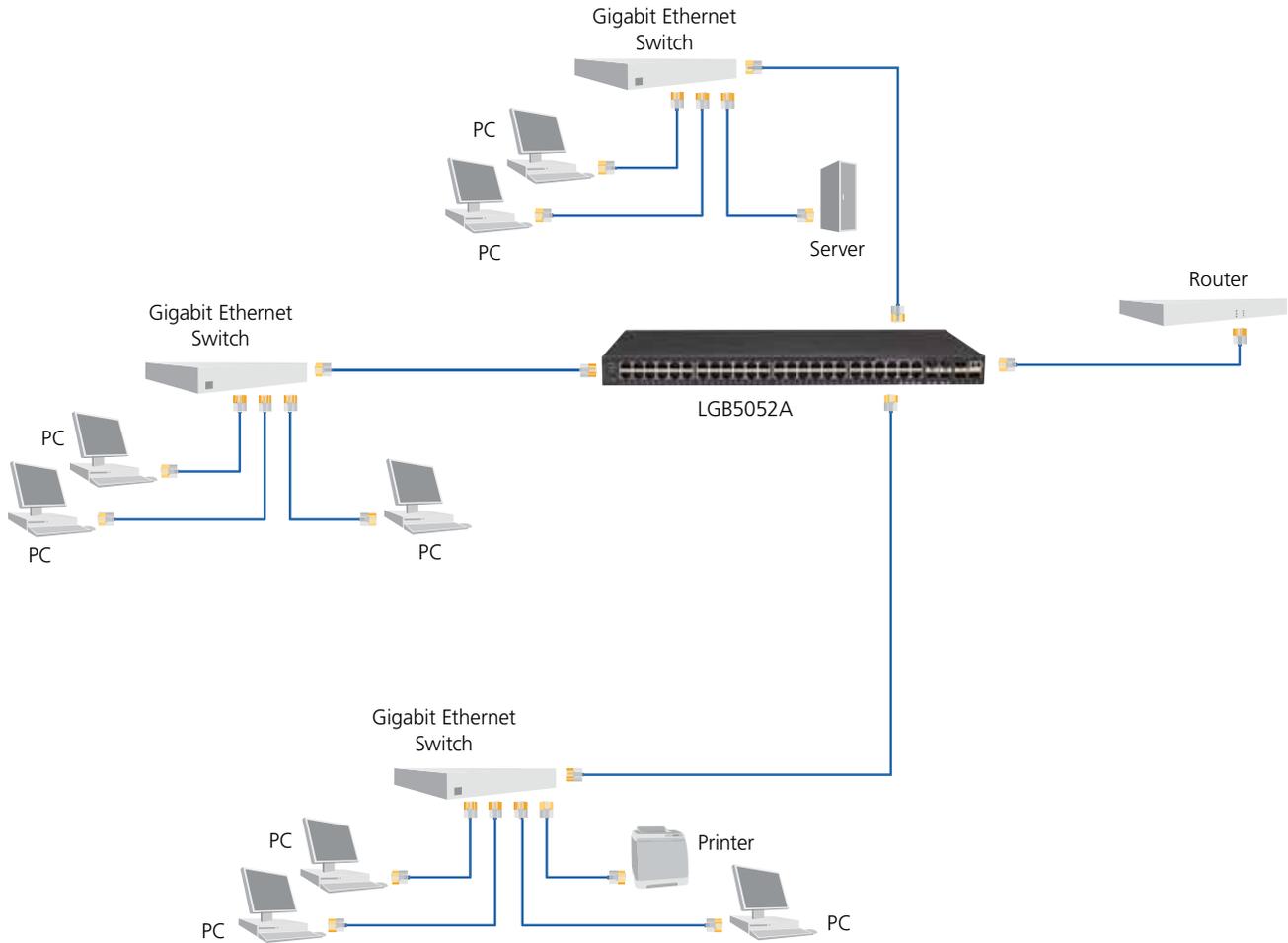
Peer-to-peer network connection.
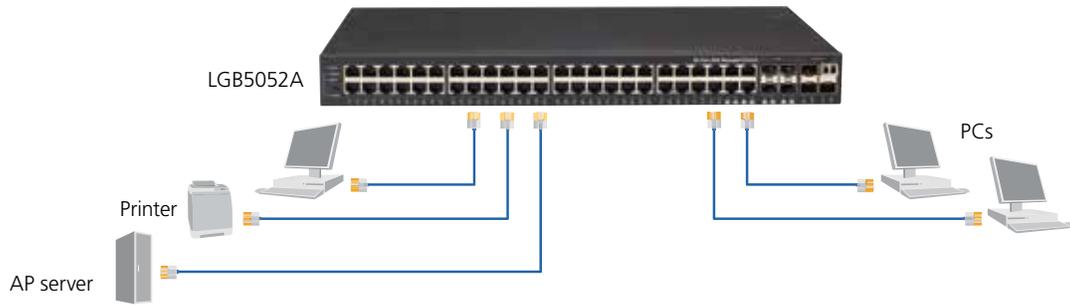
Office network connection.

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Supported SFP Transceivers

Part Number	Description
LSP421	10GBASE-SR SFP+ Extended Diagnostics, LC multimode 850 nm, 300 m
LSP422	10GBASE-LR, SFP+ Extended Diagnostics, LC single-mode, 1310 nm, 10 km
LFP411	SFP/1250 Extended Diagnostics, LC multimode, 850 nm, 550 m
LFP412	SFP/1250 Extended Diagnostics, LC multimode, 1310 nm, 2 km
LFP413	SFP/1250 Extended Diagnostics, LC single-mode, 1310 nm, 10 km
LFP414	SFP/1250 Extended Diagnostics, LC single-mode, 1310 nm, 40 km
LFP401	SFP/155 Extended Diagnostics, LC multimode, 850 nm, 2 km
LFP403	SFP/155 Extended Diagnostics, LC single-mode, 1310 nm, 30 km
LFP404	SFP/155 Extended Diagnostics, LC single-mode, 1310 nm, 60 km
LFP402	SFP/155 Extended Diagnostics, LC multimode, 1310 nm, 2 km
LFP418	SFP/1250 Extended Diagnostics, LC single-mode, 1550 nm, 80 km
LFP420	Simplex SFP/1250, Extended Diagnostics, single-mode, 1550 nm TX, 1310 nm RX
LFP421	Simplex SFP/1250, Extended Diagnostics, single-mode, 1310 nm TX, 1550 nm RX

Ordering Information

Item	Code
Gigabit Ethernet Managed Switch	
28-Port	**LGB5028A**
52-Port	**LGB5052A**

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