BLACK BOX®
NETWORK SERVICES

Managed Modular Fibre Switches

24-Port 100M SEP-LEC + 2 Gigabit SEP-LC/TP Dual Media Ports Managed Switch

Key Features

▶ Supports in-band/out-of-band management

▶ Supports backpressure for half duplex and 802.3x flow control for full duplex

▶ Supports head of line blocking prevention

▶ Max switching capacity: 8.8G non-blocking at wired speed

▶ Supports per fiber port TX power ON/OFF: Link OFF, Fail-over port, port state OFF

▶ Supports text-/web-based in-band management through any Ethernet port and text-based out-of-band management through RS-232

▶ Supports short message and email for trap and alarm

▶ Supports per port power ON/OFF, ON sequence: 1->26

▶ Supports per port external loopback capability

▶ Supports port mirroring

▶ Support MIB II, Bridge MIB, Ethernet MIB, Enterprise MIB, RMON MIB group 1,2,3,9

▶ Supports port-based/802.1v and 802.1q tagged VLAN, up to 2k active VLANs

▶ Supports IP multicast with IGMP snooping

▶ Supports Ethernet multicasting and broadcasting and flooding storm control

▶ Supports max of 50 allowed MAC address entries and 10 denied MAC address entries per FE port for port security

▶ Supports 802.1p CoS with 2 level priority

▶ Supports detection of temp. x 2, voltage, fans speed x 3

▶ Supports 3 fans: two embedded in power and one driven by two power

▶ Supports dual redundant pluggable power with loading share

LBS3020AE Series implements 24 100Mbps SEP (Simple Easy Plug)-LC fiber ports and 2 Gigabit dual media ports (SEP-LC/TP (fixed)) , specifically designed for MTU (Multi-Tenant Unit) application.

It's fully compliant with the standards of IEEE 802.3/u/z/ab. With SNMP agent and web-based management, the network administrator can logon the switch to monitor, and configure. In addition, LBS3020AE abounds with functions, including QoS (Quality of Service), tag-/port-based VLAN, Port Trunking, Bandwidth Control, Port Security, Fail-over, RMON and IGMP snooping capability via the intelligent software. The overall network management is enhanced and the network efficiency is also improved to accommodate high bandwidth applications with security

Specifications

Performance
- Bandwidth 8.8Gbps Switching Capacity
- Up to 2k active VLANs
- 256 IP multicast table entries
- Supports Packet length up to max of 1536 bytes long
- Supports 10k MAC address table

Standards Compliance
- IEEE 802.3u Fast Ethernet
- IEEE 802.3z Gigabit Ethernet
- IEEE 802.3ab 1000 Base-T
- IEEE 802.3x full-duplex flow control specification
- IEEE802.3ad Link Aggregation
- IEEE 802.1d/1w/1s STP
- IEEE 802.1p Class-of-Service
- IEEE 802.1q VLAN
- IEEE802.1v Protocol-Based VLAN
- SNMP
- RMON standards

Protocol Support
- 802.1d/1w/1s STP
- 802.3ad LACP
- 802.1q with GVRP/GMRP/GARP
- 802.1p priority queue
- IGMP snooping
- ARP, RARP, RIP, DHCP server/client/relay
- Telnet, BootP, TFTP, FTP, HTTPD, NTP

Network Management
- RFC 1213 MIB (MIB-II)
  - Interface MIB
  - Address Translation MIB
  - IP MIB
  - ICMP MIB
  - TCP MIB_RFC 1493 Bridge MIB
  - UDP MIB
  - SNMP MIB

- RFC 1757 RMON MIB
  - Statistics Group 1
  - History Group 1
  - Alarm Group 3
  - Event Group 9
  - RFC 1493 Bridge MIB
  - RFC 1643 Ethernet MB
  - Enterprise MIB
- Maximum Switching Ports
  - 24 100 Mbps SEP-SC fiber Ports
  - 2 Gibabit dual media Ports

Led Indicate
- CPU Module: Power status
- UTP Ports
  - LNK/ACT: Port Link and Activity
  - CPU run: CPU activity status
- Fibre Ports
  - FE Fiber LNK/ACT: Port and Link Status
  - GbE Fiber LNK/ACT: Port and Link Status

- GbE TP Ports
  - LNK/ACT: Port Link and Activity status
  - Speed: Port Speed Status

Power
Requirement:
- AC Power 90~300VAC,47-63 Hz
- DC -36 ~ 72VDC with two independent power cords
- Power Consumption: 63W

Environment
- Ambient Temperature: 0 ~ 50°C
- Humidity: 5 ~ 90%
- Dimensions: 442(W) x 366(D) x 44(H) mm (Standard 19" rack mount with 1U height)

Certification
FCC Part 15 Class A,CE Mark

Ordering information

ITEM	CODE
24-Port 100M SEP/LC Fiber + 2 Gigabit SEP/LC Fiber/TP(Fixed) Dual Media Ports	
AC Redundant Power	LBS3010AE-2AC
AC Simplex Power	LBS3010AE-AC
DC Redundant Power	LBS3010AE-2DC
DC Redundant Power	LBS3010AE-DC
1U AC spare power module	LBS3010AE-PSA
1U DC spare power module	LBS3010AE-PSD
100M Fiber Module	
100Base-FX, LC, 2km MM 1310nm	LBS3021C-FXLC
100Base-FX, LC, 20Km SM 1310nm	LBS3021C-FX20
100Base-FX, LC, 60Km SM 1310nm	LBS3021C-FX60
100Base-FX, BiDi_LC, 20Km Single Fiber 1550nm	LBS3021C-FX20B
100Base-FX, BiDi_LC, 20Km Single Fiber 1310nm	LBS3021C-FX20A
Gigabit Fiber Module	
1000Base-SX, LC, 2km MM 850nm	LBS3022C-SX
1000Base-LX, LC, 10Km SM 1310nm	LBS3022C-LX10
1000Base-LX, LC, 30Km SM 1550nm	LBS3022C-ZX30
1000Base-LX, LC, 50Km SM 1550nm	LBS3022C-ZX50
1000Base-LX, BiDi_LC, 20Km Single Fiber 1550nm	LBS3022C-LX20B
1000Base-LX, BiDi_LC, 20Km Single Fiber 1310nm	LBS3022C-LX20A

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