

BLM 1500 FAB3 Controller Card



DESCRIPTION

The FAB3 boards provide a full-duplex 320 Gbps switch fabric with multicast functionality to enable traffic switching between application boards. Node controllers enable service provisioning, monitoring, and alarm processing, and include a serial craft interface and Ethernet management port. Each FAB3 board has a separate data path to each application board for redundant traffic and management links.

KEY ATTRIBUTES

REDUNDANCY: Two FAB3 boards are required in slots X and Y for redundancy. The FAB3 board in slot X is the master BLM 1500 system node controller and switch fabric. The FAB3 board in slot Y provides lossless failover protection if the master FAB3 board fails or is removed from the chassis.

SWITCH FABRIC: The switch fabric is responsible for switching traffic between application boards through a high-speed backplane with an aggregate full-duplex capacity of 320 Gbps. The FAB3 board provides a switch fabric with active/active redundancy with both fabrics carrying traffic simultaneously. The board has a non-blocking, single-stage, point-to-point serial architecture.

NODE CONTROLLER: The node controller is responsible for all operation, administration and maintenance of the BLM 1500 and run in an active/hot-standby protection mode for immediate availability should failover occur.

EASY MANAGEMENT: The FAB3 board supports provisioning and software management through the GUI-based EntriView™ EMS, CLI, TL1, and SNMP. Two external ports are provided on the faceplate: an RS-232 serial console and a 10/100BaseT Ethernet port for connection to a TCP/IP network.

SUPPORT FOR ALARMS AND DEVICE CONTROL: The FAB3 board supports six alarm relay outputs for connection to external audible/visual alarm indicators at the central office. Alternatively, the board can be connected to 16 environmental sense point inputs and six control output pairs for external devices (such as sump pumps and other devices) to assist with monitoring and managing remote sites.

ORDERING INFORMATION

Calix FAB3 Controller Card

000-00732.....	EDA1500 Redundant HW Pack
000-00733.....	EDA1500 Semi-Redundant HW Pack
100-03596.....	PACK, FAB 3, switch fabric/node controller

SPECIFICATIONS

BLM 1500 FAB3 Controller Card

PHYSICAL SPECIFICATIONS

DIMENSIONS

HxWxD: 400 x 23 x 260 mm
(HxWxD: 15.75 x 0.91 x 10.25 in)

WEIGHT

1.8 kg (4 lb)

POWER REQUIREMENTS

Typical: 70W
Maximum: 77W

PHYSICAL CONNECTORS

1 Craft port: DB-9, RS-232 DCE
1 Ethernet port: RJ-45,
10/100Base-TX
1 female RJ-21 Champ50 connector

GENERAL FEATURES

SWITCH FABRIC

320 Gbps switch fabric capacity
Multicast capable

MANAGEMENT INTERFACES

RS-232 serial console and
10/100Base-T
Alarm Cut-Off switch (ACO)
Field-replaceable memory card
(NVRAM)

EQUIPMENT PROTECTION

Switch fabric: Active/active
redundancy
Node controller: Active/hot-standby

INPUT CONTACTS (ENVIRONMENTAL):

Switching power: 30W
Switching voltage: 60 VDC, 120 VAC
Switching current: 300 mA
Carrying current: 300 mA

OUTPUT CONTACTS (CONTROL):

Relay contact load:
30 VDC @ 1A, 125 VAC @ 0.3A
Operating voltage: 60 VDC,
125 VAC
Operating current: 1A
Switching cap: 30W (DC),
37.5W (AC)

ALARMS AND CONTROLS

Either 6 alarm outputs or 16 alarm
inputs and 6 device controls

CENTRAL OFFICE ALARMS

Six (6) alarm outputs
Default alarm types per GR-833
Remote terminal alarms and device
controls

Sixteen (16) environmental alarm
inputs

Six (6) control outputs
Default alarm types per GR-833
Maximum Contact Ratings

SYSTEM ALARM LEDS

CRIT—Indicates whether there
is a service affecting condition
requiring immediate corrective
action.
MAJ—Indicates whether there
is a service affecting condition
requiring urgent corrective action.
MIN—Indicates whether a condition
affecting two or fewer lines has
occurred.
ACT LED Ethernet port—Ethernet
activity is occurring
LINK LED Ethernet port—The link is
connected enabled
ACO LED—Indicates status of the
audible alarm relay outputs (green
indicates audible alarm is
suppressed)
Active LED—Indicates whether the
board is the active fabric board
STORE LED—Indicates NVRAM
access activity

BOARD LEDS

FAULT—Indicates whether the board
has an equipment fault
MAINT—Indicates whether the
board is removed from service
IS—Indicates whether the board is
functioning normally

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE

Operating (Rack-mount): 5°C – 40°C
(41°F – 104°F)
Short Term: -5°C – 55°C
(23°F – 131°F)
Storage: -40°C – 70°C
(-40°F – 158°F)

HUMIDITY, OPERATING

5 – 85% (noncondensing)

HUMIDITY, OPERATING, SHORT TERM

5 – 90% not to exceed 0.024 kg
water/kg of dry air

OPERATING ALTITUDE

Minimum: 61m (200 ft) below sea
level
Maximum: 4,000m (13,100 ft)

SAFETY

UL 60950
CAN/CSA-C22.2 No. 60950-00
EN 60950
IEC 60950

IMMUNITY

GR-1089-CORE (NEBS Level 3)
EN 300 386

EMISSIONS

FCC Part 15 (Class A)
GR-1089 (NEBS Level 3)
EN 55022 (Class A)
EN 300 386

