



CUBIX

FiberBlade FB8-1 Core i3 / i5 / i7 Computer with Intel C236 Chipset

FiberBlade computer consists of an Intel® Core i7, i5 or i3 processor with an Intel C236 chipset, 3 x video ports (3 x digital – DisplayPort, DVI-D and HDMI), SATA 3.0, USB 3.0 and integrated, digital audio. It features a PCI Express (PCIe) Gen 3.0 x16 expansion slot. Multiple FiberBlades fit inside the FiberBlade enclosure, which is 8U high and mounts in a rack mount cabinet. See the front and rear images at the right.

FiberBlade can function as a client or a server. As a server, FiberBlade is also available with Intel Xeon – either single or dual processor. As a client, FiberBlade can provide one to four optional fiber ports for connection to a FiberNode remote unit. The remote user, 150meters (500feet) or more from the computer, has typical peripheral devices at the desktop such as keyboard, video, mouse, audio and USB ports, while the computer is in the data center with the servers and network devices.



Technical Specifications

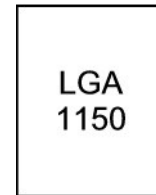
Central Processing Unit	Intel® Core i3, i5 or i7 4 th generation processor
Socket	LGA 1150
Level 2 Cache (CPU)	8MBytes (i7), 2-6MBytes (i5) or 3-4MBytes (i3)
Chipset	Intel C236
System Memory	
Configuration	DDR4-2133MHz or DDR3-1333MHz
DIMM Sizes	8GB, 4GB, 2GB, 1GByte
Maximum Size	32GBytes, using 4 x 8GByte DDR3 DIMMs
Channels	2, populated with maximum 2 DIMMs per channel
Type	Unbuffered, ECC / non-ECC, 240-pin SDRAM
System BIOS	AMI
Local Graphics	Integrated with processor

Graphics ports	HDMI, DisplayPort (DP), DVI-D and VGA
HDMI Resolution	4096 x 2160 @ 24Hz or 2560 x 1600 @ 60Hz
DVD-D Resolution	1920 x 1200 @ 60Hz maximum
VGA Resolution	1920 x 1200 @ 60Hz maximum
Number of displays	3 x simultaneous: 3 x digital or 2 x digital and 1 x analog
Serial ATA Drives	7-pin Serial ATA data connector
Transfer rate	SATA 3 (6.0Gbps) ports
Drive Format	2.5-inch (63mm) SSD with a max thickness of 0.4-inch (10mm)
Expansion Slots	PCIe Gen 3 x16 PCIe Gen 2 x4 PCIe Gen 2 x1
Fiber-optic transceiver	SFP+
Multi-mode	850nm, 8.5Gb/s
Single-mode	1310nm, 8.5Gb/s
Fiber-optic cable	2 strands with a single twist, end-to-end
Multi-mode	OM1-62.5um: 21m OM2-50um: 50m OM3-50um: 150m OM4-50um: 190m
Single-mode	OS1-9/125: 2000m
Fiber-optic cable length	Maximum with full bandwidth performance, measured*
Fiber Link x4: 150m	~3000MBytes/second
Fiber Link x2: 250m	~1600MBytes/second
Fiber Link x1: 750m	~760MBytes/second
Fiber-optic cable length	Maximum with reduced bandwidth performance, measured*
Fiber Link x4: 250m	~2400MBytes/second
Fiber Link x2: 5000m	~1300MBytes/second
Fiber Link x1: 1000m	~700MBytes/second
Audio	7.1 High-Definition Audio codec
Chip	Realtek ALC888S
Features	Independent, multi-streaming 7.1 HD
Disabled (option)	With connected FiberNode, which provides its own audio
Universal Serial Bus	USB Version 2.0 and 3.0
Ports	2 x USB 3.0 and 4 x USB 2.0
Ethernet	Intel 10/100/1000BASE-TX with RJ-45 and status LEDs
Port	2 x Gbps Ethernet
Controller	Intel I217LM & I210AT
PS/2 Keyboard / Mouse	1 x miniDIN-6
AC Power Supply	One single-phase, auto-ranging, 100-240VAC, 3.5-1.5Amps, 50/60Hz; total output power is not to exceed 300Watts
Operating Environment	0° to 30° Celsius (32° to 86° Fahrenheit) temperature 5% to 80% non-condensing humidity
Dimensions	14.00" H x 2.10" W x 20.50" D (35.56cm H x 5.30cm W x 52.07cm D)

Weight	17.00 lbs. (7.71kg)
Warranty / Period	Parts & Labor Return to Manufacturer / 2 year
Ext. Warranty Period	Optional 3 rd year

Memory Configuration

DIMM Configurations		
# DIMMs	DIMM Location	Memory Scheme
2	DIMM A1 DIMM A2	Interleaved Both DIMMs must be identical type and speed
4	DIMM A1 DIMM A2 DIMM B1 DIMM B2	Interleaved All four DIMMs must be identical type and speed



*For optimal performance, use interleaved memory.

Installation / Operation

FiberBlade LB8-C1 is front-removable from its rack mount enclosure.

Note

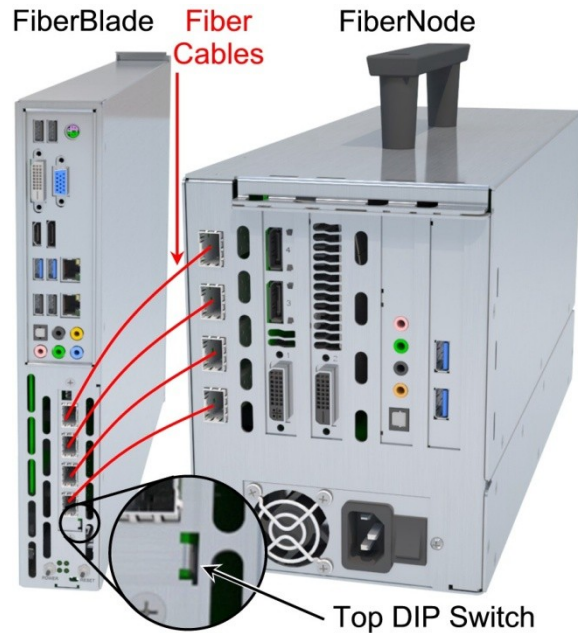
Power down FiberBlade before removing it. If the rack mount enclosure is connected to electrical power when you slide it into the enclosure, then FiberBlade will power up.

Remove / Replace FiberBlade

1. Power down using the OS or the power on/off button on the FiberBlade front / rear
2. Wait for the power LED to shut off and the standby power LED to blink
3. Push down the latch at the top of FiberBlade front panel
4. Extract the FiberBlade while supporting its weight
5. Slide the replacement FiberBlade into the empty slot
6. Push gently until the latch snaps into place; FiberBlade powers up and boots the OS

Startup Procedure

1. Power down FiberBlade and remove power from FiberNode.
2. With FiberBlade and FiberNode powered down, connect a fiber cable to the top fiber port on FiberBlade and the top fiber port on FiberNode.
3. Repeat the procedure for the other ports down from the top port. See image at right.
4. Enable fiber at the FiberBlade by moving the top DIP switch right.
5. Power up FiberBlade. It will power up and down again, which is normal operation.
6. Press two FiberNode Menu and Sub-menu buttons simultaneously; it will power up.
7. After powering down FiberNode, wait 10 seconds before powering it up again.
8. For local operation such as installing an operating system or drivers, power down FiberBlade and disable fiber by moving the top DIP switch left.



Power down FiberBlade. Move the top DIP switch right to enable fiber or left to disable fiber.

Controls, Indicators and Connections

Controls

Front and rear panels provide a power on/off and a reset button. Press the power button during operation to shutdown the OS gracefully. When present and enabled, optional fiber ports transfer power on/off and reset control as well as keyboard, video, mouse, audio and USB to FiberNode.

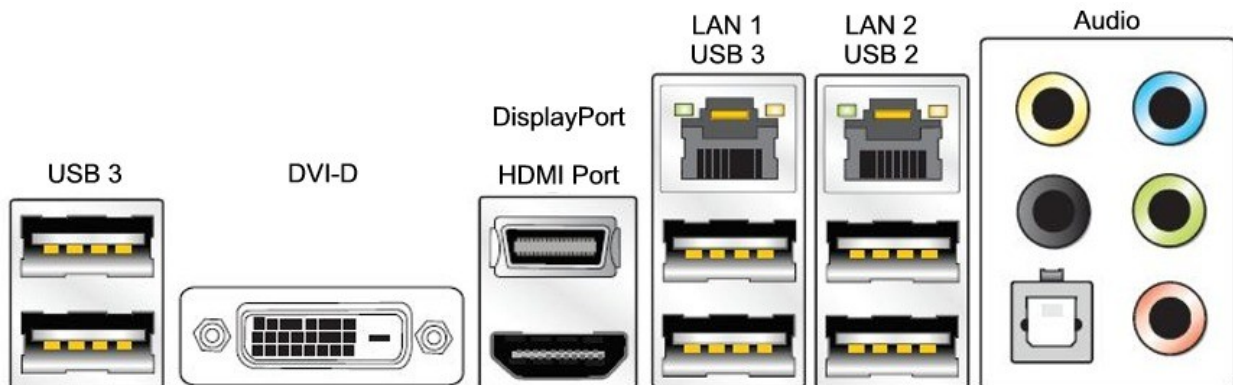
Indicators

Front and rear panels also provide status indicators. The top two show power status and hard disk drive (HDD) activity. A bottom LED shows system reset. The other LED is not assigned.



Connections

FiberBlade enclosure provides two power inputs at the bottom rear panel. Each power input provides power to four FiberBlades in the enclosure. Each FiberBlade provides integrated video (HDMI, DVI-D and VGA), audio, PS/2 keyboard and mouse ports, 4 x USB 3.0 and 2 x USB 2.0 ports and a Gigabit Ethernet port. A FiberBlade client configured with an optional fiber adapter also provides one, two or four fiber ports for connection to a remote FiberNode unit.



Remove Shipping Panel

- Remove 2 x screws at one end.
- Remove 1 x screw at other end.
- Discard 3 x screws
- Discard shipping panel
- Replace all 3 x screws with screws in bag provided in packaging materials.



- Remove Shipping Panel**
- Remove 2 x screws at one end.
 - Remove 1 x screw at other end.
 - Discard 3 x screws
 - Discard shipping panel
 - Replace all 3 x screws with screws in bag provided in packaging materials.