

# Build-a-Blade

Custom blade servers you can design and build yourself

## **BB-ITX84** Thin Blade Computing System

#### SAVE ENERGY

Build-a-Blade offers high density computing with very low power - this translates into operational savings in kilowatt -hours not only for the servers, but also for air conditioning removing waste heat in server rooms - a win-win advantage.

#### SAVE INVESTMENTS

Unlike proprietary blade systems, we offer reusable blade trays . When your washer or dryer at home needs replacement, do you throw away your house to replace appliances inside? Of course not. Our blade chassis stays in place, you simply upgrade the appliances inside with the latest technology.

#### SAVE MONEY

Your ROI is high, and cost of ownership low, because when you need more computing power, you simply swap out widely available mainboards, processors, drives, etc. onto the reusable blade tray and put the blade tray back into the chassis. No waste, no re-racking, no hassle.





#### FEATURES

- Dramatically lower power consumption operates on either AC or DC power
- Uses the new Thin Mini-ITX boards (Marshalltown) & industry standard parts
- Build it yourself or buy it fully pre-configured to your needs

#### BENEFITS

- Reusable chassis design provides exceptional ROI/total cost of ownership
- Upgradeable and scalable in place
- Combine mixed computing configurations in a single chassis
- High density computing 8 blades in 4U

#### APPLICATIONS

- ISP's, render farms, clouds
- Data acquisition, telecom systems
- Media rooms, signage clusters
- DC powered remote/mobile

Imagine a blade server you can build yourself or buy fully configured to your specs, but uses a third to a fifth of the power compared to conventional server solutions. This is what we offer, a system that is the first of its kind, so unique, it is patent-pending. The BB-ITX84 is a flexible blade chassis system designed around inexpensive and new industry standard Thin Mini-ITX components offering a low power alternative (15 watts per blade or less) to expensive and proprietary commercial blade systems. It offers high density computing, housing 8 blades in 4U of rack space, doubling the density of 8x 1U rack servers.

It offers long term ROI, far exceeding traditional blade systems and operates on either AC or DC power, making it suitable for remote or green applications. It features architecture that allows you to mix blade hardware configurations in a single chassis and is a scalable solution that can support small business needs, specialized OEM applications, digital signage clusters, media rooms, and server/rendering/computing/cloud farms.

The BB-ITX84 offers a unique solution for cooling and power consumption problems that plague server rooms and is a RoHS compliant product proudly designed and made in the USA! We offer starter kits for do-it-yourself blade systems as well as systems fully configured to your specifications, ready to run.





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#### CONFIGURABLE

Using any widely available industry standard Thin Mini-ITX mainboard, CPU's from Atoms to Xeons, 2.5" disk drive, memory, and the thin Intel heatpipe/ blower combination, you can configure the BAB-ITX84 blade tray to most any computing needs.

#### REUSABLE

Keep up with processing and storage needs by simply swapping out new technology. Blades can be upgraded and re-used for years, improving your ROI.

#### TURNKEY SOLUTIONS

In addition to chassis with 1 blade starter kits, we offer fully loaded systems with 9 blades, optionally with mainboards, drives, and memory of your choice already installed and ready to run.

#### **CUSTOMIZATION**

Custom colors, logo branding, operating system installation, and more. See: www.buildablade.com

### BB-ITX84 thin reusable blade tray

Active blower

12VDC power plug, DC- DC converter onboard

Space for 4 2.5" drives Power & Disk LED's

Thin Mini-ITX Intel heat pipe & heat motherboard sink unit

Supports the Intel HTS1155LP Ultra Slim Active Thermal Solution for Thin Mini-ITX mainboards

### System Specifications:

Chassis		
Blades	Up to 8 blades	Can operate with 1-8
Dimensions	16.1"Dx17.4"Wx6.9"H	4U rack height, 4 holes
Weight	23.5 pounds	unloaded
Power	12-14 volts DC 1.3A	Single rear coaxial plug
Color	Gentian blue front door (standard)	Black chassis box (standard, others avail.)
Security	Locking front door	2 keys supplied
Alerting	Fan rotation and in- ternal temperature 2 temperature probes	Front panel light flashes, audible alarm with mute button
Airflow	Eight 33 CFM hydro- wave fans	Total front to back air- flow of 264 CFM
Blade tray		
Dimensions	15.5"Dx8.5"Wx1.35"H	Horizontal guide mount
Weight	2.5 pounds	With wiring
Power	12-19 volts DC (depending on board)	Single coaxial plug to onboard DC-DC supply
Color	Black (standard)	other colors available

#### **FEATURES**

- Supports the new Thin Mini-ITX mainboards of 17x17cm
- Supports four 2.5" drives when used with stacking rails, or two without stacking
- Works with passive cooled or heatpipe/blower cooled boards
- Designed for use with or without the Intel HTS1155LP Ultra Slim Active Thermal Solution
- Controls/LED's for On/Off, Reset, Disk activity, Power
- Open frame design for easy service and upgrades
- Grille for unrestricted front to rear air flow
- Integrated wiring management
- Label space on front grille





#### Build-a-Blade TM, Patent Pending



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Reset ewitches

wiring harness path