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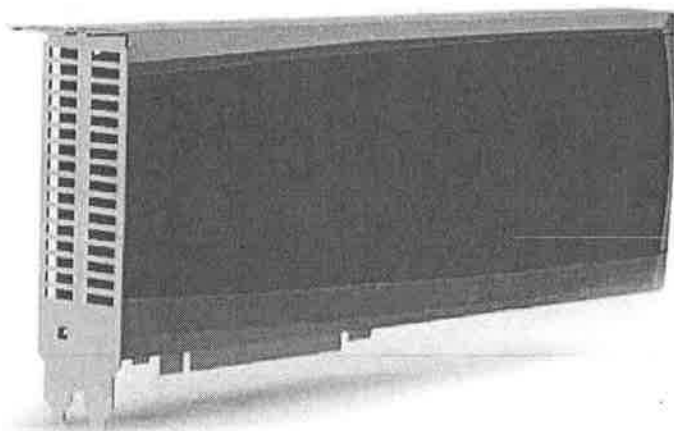
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# The Monarch

## Butterfly Labs 28nm Technology Bitcoin Mining Card



**The fastest and most power-efficient  
 Bitcoin miner yet**

Datacenter ready PCI cards

Cloud hosted mining makes it flexible and easy

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Power

350W

Price

\$4,680

Tape out August 2013

November / December Initial Shipping (Sold out)

January / February Bulk Shipping

Pre-order now

We are pioneers of the industry - having manufactured the first commercial Bitcoin mining hardware.

Butterfly Labs has shipped more ASIC products than all competitors combined




**The Monarch** 28 nm Bitcoin mining card is our **4th generation** bitcoin processor - our **2nd generation** ASIC chip.

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Our facility in Kansas has the largest production capacity of all Bitcoin hardware manufacturers.

Our engineering and management team has deep experience in technology and the Bitcoin space.

## Why Butterfly Labs?



\$ 7.80 /GH

0.6w per GH

Professional and expandable card design

4th Generation miners since 2011

### The Competition

at least \$ 17.50 /GH

2.5w per GH

Bulky Case design

1st generation late 2013

Price

Power Consumption

Form Factor

Experience

### Tough Questions about the Monarch Card

QHey you Jerks, what are you doing announcing 28nm gear while you're still shipping 65nm? I want my Single!

QWill the power & performance really be that good?

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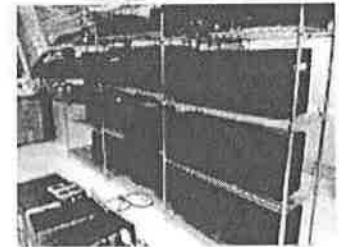
QWhy should I place my Pre-Order with Butterfly Labs?

QWhen do the 28nm Monarch cards ship?

### Testimonials

"As a fairly early Bitcoin adopter and institutional miner, the choice for mining hardware comes down to innovation. Who is going to have the experience and best technology going forward to keep me ahead of the curve? The fact that BFL has a proven chip design, combined with their innovations in form factor and node size means that they will be hard to beat moving forward."

James Gibson - GigaVPS



[Pre-order now](#)

### Pre-Order Terms

Bitcoin, Dwolla or  
Bank Transfer only

Transfer your 65nm product order into new 28 nm product order queue (Transfer rules apply)

Existing unused vouchers can be used with new orders

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https://products.butterflylabs.com/600-gh-bitcoin-mining-card.html

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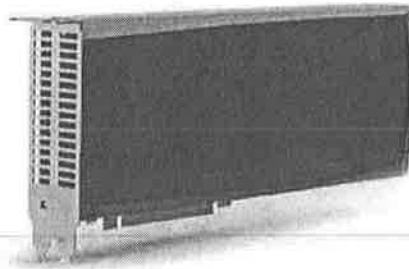
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## 600 GH Bitcoin Mining Card

### The Monarch BPU 600 C

\$4,680.00

Qty:

#### MORE VIEWS



#### Performance Specifications

- 600 GH/s nominal performance ( + / - 20% )
- 350w (0.6w/GH conservative estimate)

#### Connectivity

- USB 2.0 - Monarch cards can be used as an external computer peripheral and chained via USB hub. In this mode it can be controlled via an Android host or standard Linux or Windows computer.
- PCI-Express - Monarch cards consume two PCI slots when installed in a standard ATX motherboard. The PCIe format used is x1 for maximum compatibility.

#### Mining Software compatibility

- EasyMiner software is provided for Android, Windows & Linux operating systems.
- BFGminer - Open source available
- CGminer - Open source available
- BitMinter - Java Client

#### New 'BPU' Form Factor

Our new form factor is a significant advancement in bitcoin mining cost efficiency. The size, connectivity and power consumption have been tuned to allow effortless deployment using common off the shelf parts.

For example, in order to deploy 18 TeraHash into a single data center cabinet, you would need 30 Monarch cards. Each 3 fit nicely into a standard 4U rackmount enclosure with a basic motherboard & ATX power supply unit. 10 of these will fill an entire cabinet with no wasted space. It will also consume exactly the standard power and cooling capacity provided for a cabinet at most data centers.

That's 18 Terahash of bitcoin mining power in one cabinet with no expensive or proprietary parts, no exotic back planes, no oddball power systems and zero risk of part availability troubles to complicate maintenance.

#### Shipping Schedule

This is a Pre-Order product which is not yet shipping. If you're uncomfortable waiting until the development is complete and the product is shipped, do NOT pre-order this product. Perhaps undesirable,

but this is a pre-order market. Customers flatly demand to get in line for the new technology before it's finished development. This has created a lot of drama for the manufacturers but it's something we simply have to deal with. All manufacturers in this space have experienced some degree of delay with their first generation ASIC. Every last one of them, so we're reluctant to give a specific delivery date. However, this is our second generation, so we have much greater clarity on the process and we feel our timeline to begin shipments towards the end of the year is solid.

Here's a breakdown of the timeline.

- We're now in at the final stage of development (Tapeout) and are sending wafers into production at the foundry in the next few weeks
- Foundry production takes 10 weeks
- Bumping, Slicing & BGA packaging takes approximately 2 weeks
- Initial shipments begin and ramp up to full capacity over the following 3 weeks

Since this is our 2nd generation ASIC chip, we're free from the pitfalls sometimes associated with a first generation design. Testing systems, Bumping masks, Substrates & under fill engineering are all carryovers from our last version of the chip, so they're ready for high volume production once the wafers are ready. The importance of this can't be overstated when considering schedule certainty. Nevertheless, please do not purchase this product if you are unwilling to wait for the product to complete its development.

Dimensions: Weight: 1 lb. 5.5 oz Dimensions: 12.4" x 5.5" x 2.36"

Warranty: This unit's system board has one year warranty from manufacture defect or component failure.

Institutional Pricing: If you would like to purchase 50 or more cards, please contact Dave McClain for institutional pricing: 913-710-4865

Order Transfers: You may transfer the full amount of your previous order and shipping into a new product. You must add new products equal to or more than the amount of your old orders plus shipping, minus transfer fee if applicable. The system will not allow you to order products totaling less than the \$ amount of transfers. Any funds left over after order transfer (applicable in a few cases) will be labelled as store credit and may be used toward purchase of future orders.

Pre-Order Terms: This is a pre-order. 28nm ASIC products are shipped according to placement in the order queue, and delivery may take 3 months or more after order. All sales are final.

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