

Bitmain AI Server



AI Overview

Bitmain's AI computing servers leverage Sophon AI chips and specialized hardware to deliver high-performance deep learning and computer vision capabilities.

Overview Bitmain, a leading semiconductor and AI hardware company headquartered in Beijing, has expanded from cryptocurrency mining into AI computing, offering products designed for deep learning, computer vision, and natural language processing (NLP) applications. Their AI hardware ecosystem includes the Sophon BM1680 chip, the SC1 accelerator card, the SS1 server, and the SM5 AI computing module.

Key Components

- Sophon BM1680 Chip:** A tensor computing ASIC optimized for AI workloads, capable of 2 teraflops using 32-bit floating point operations. It employs a systolic architecture similar to Google's TPU, enabling efficient data flow through processing cores.
- SC1 Accelerator Card:** Integrates the BM1680 chip to accelerate deep learning tasks, particularly for image and video analysis.
- SS1 Server:** Combines SC1 cards into a fan-cooled server optimized for AI inference and training, suitable for enterprise applications in computer vision, autonomous vehicles, robotics, and IoT.
- SM5 AI Module:** Designed for edge computing, capable of analyzing over 16 channels of FHD video, making it suitable for high-performance AI scenarios at the edge.

Performance and Architecture Bitmain's AI servers are designed for high efficiency and low power consumption, with the BM1680 chip consuming 25–41 watts depending on workload. The architecture supports mainstream AI frameworks such as Caffe, Darknet, GoogLeNet, VGG, ResNet, YOLO, and Yoto2, ensuring broad compatibility for enterprise AI applications.

Applications Bitmain AI servers are used in a variety of scenarios:

- Cloud AI Services:** Companies like Ubitus deploy Sophon chips in data centers for cloud gaming and AI-enhanced video processing.
- Computer Vision:** Real-time image and video recognition for security, autonomous vehicles, and robotics

Article Content

Bitcoin's Biggest Tech Player to Release AI Chips and

Bitmain built the majority of the computing power on the Bitcoin network. Now it wants to expand into deep learning and other AI

BITMAIN Shop

Notes: (1-1) The hashrate value, power on wall, and power efficiency on wall are all typical values. The actual hashrate value fluctuates by $\pm 3\%$, and the actual

Bitcoin Mining Giant Bitmain Launches Deep Learning AI Hardware

“Deep learning is very intensive computationally and our experience in creating high-performing hardware for Bitcoin has absolutely prepared us for this exciting area of computing,”

Sophon Edge

The Bitmain Sophon™ Edge Developer Board is designed for bringing powerful Deep Learning capability to various types of applications through its quick prototype development. Sophon Edge

Bitmain Technologies v. Hashland and Andrew Zhu

Documents of the case Final Award - 31 May 2026 See all other documents Service Framework Agreement - 22 May 2023 Bitmain Technologies Georgia Limited's Motion to Confirm

BT-Miners

BT-MINERS provides trusted cryptocurrency mining hardware for Bitcoin, Dogecoin, Litecoin, ZEC, Aleo and more, with genuine ASIC miners, pre-shipment testing,

AI Bitcoin Mining Powers AI Data Centers

AI data centers and Bitcoin mining are converging, unlocking major AI infrastructure investment opportunities. Learn more in Galaxy's latest research

Bitcoin Mining Giant Bitmain Launches Deep Learning AI Hardware

“AI hardware is an area that Bitmain is proactively developing to power the next generation of AI applications. Bitmain saw trends in the AI business that were similar to the early

Bitmain Introduces Its First Hardware for Accelerating

Bitmain Introduces Its First Hardware for Accelerating Artificial Intelligence (AI) Applications by Sergey Nikolenko, Chief Research Officer

Bitcoin Mining giant Bitmain releases their second AI chip

The world's largest Bitcoin mining equipment manufacturer, Bitmain, has released its second chip in the AI space. The new chip is known as

China's Bitmain dominates bitcoin mining. Now it wants to ...

The company is a marvel of vertical integration. Bitmain designs the silicon that goes into its bitcoin mining rigs, assembles the machines, then sells them to customers around the world.

Bitcoin ASIC Maker Bets on AI

Bitmain counts China's big data center operators — Alibaba, Baidu and Tencent — among its top targets. It said it will also consider building its own machine-learning service.

Bitmain Introduces Its First Hardware for Accelerating Artificial

Bitmain, the bitcoin hardware industry leader, successfully adapts expertise in high-performance chip design to emerging field of AI.

Hydro Containers

System equipped with Hydro Rack frames that can accommodate different types of devices: both types of hydro miners (Bitmain S19/S21 or Whatsminer M53 / 63 series, and GPU learning servers for AI

About Us

Since its foundation in 2013, BITMAIN is the world's leading manufacturer of digital currency mining servers through its brand ANTMINER, which has long maintained a global market share and leading

AMD's next-generation AI chips set to power 2026 data center growth

AMD (NASDAQ: AMD) is set to launch its MI400-series AI accelerators in 2H 2026. Analysts expect the rollout to drive significant growth, with data-center revenue projected to surge 73%, fueled by strong

About Us

About Us Our vision is to create a better digital world. Since its foundation in 2013, BITMAIN is the world's leading manufacturer of digital currency mining servers

Bitcoin Miners' AI Data Center Transformation | Gate Learn

Bitcoin miners are well-positioned with their extensive power infrastructure and operational expertise to meet AI data centers' substantial

AMD unveils AI server as OpenAI taps its newest chips

AMD's Helios server to challenge Nvidia's dominance OpenAI working with AMD on its MI450 chips AMD's acquisitions bolster AI chip and

AI chip company, BITMAIN, is officially joining and embracing ONNX AI ...

Going forward, we will make sure all Sophon products would support ONNX.” About BITMAIN Founded in 2013, BITMAIN is committed to providing high-speed and low-power customized supercomputing

Ubitus contracted with BITMAIN, teaming up to explore Cloud-AI ...

Ubitus, the largest cloud gaming platform in East Asia, announced that it will adopt Sophon AI chips and related hardware products developed by BITMAIN, a world-leading IC design

Contact Us

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