Tianhe-1A
#1 Top500

7168 GPUs
2.5 Petaflops
The computer is fast. Really, really fast.

It reflects a major design shift to use graphics chips to help accelerate the number-crunching functions most often carried out by so-called x86 chips, which evolved from personal computers and have long dominated supercomputing.

“This blows away the existing No. 1 machine,” said Dongarra. “I would say it is unlikely we will see a system that is faster.”

What may be the world’s fastest computer is a little bit like your Mac because it relies on two very different kinds of processors to get its work done: GPUs and CPUs.
3 of the Top Supercomputers

- Tianhe-1A: 2500 Gigaflops
- Jaguar: 1500 Gigaflops
- Nebulae: 1500 Gigaflops
- Tsubame: 1000 Gigaflops
- Hopper II: 1000 Gigaflops
- Tera 100: 1000 Gigaflops
Performance and Power

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<th>GigaFlops</th>
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NVIDIA Confidential
Top 5 Performance and Power

Tianhe-1A
Jaguar
Nebulae
Tsubame
Hopper II
Tera 100

Gigaflops

Megawatts
Images of Tianhe-1A at NSC Tianjin
GPU计算节点
2个通用图形加速处理器
高计算性能：CPU/GPU的计算效率达67%
高能效比：GPU能效比达2GFlops/W