



## NVIDIA® TESLA® P100 GPU ACCELERATOR

### Infinite compute power for the modern data center

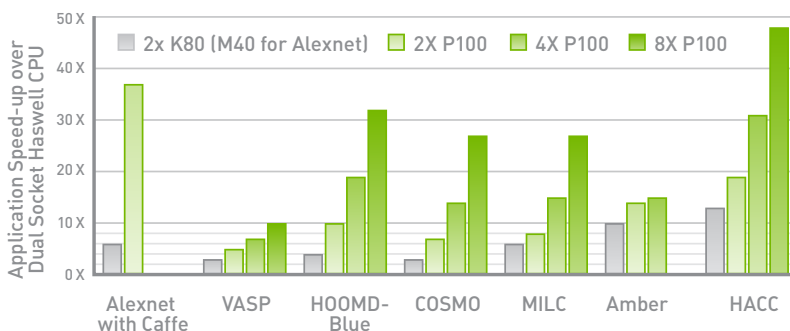
Artificial intelligence for self-driving cars. Predicting our climate's future. A new drug to treat cancer. The world's most important challenges require tremendous amounts of computing to become reality. But today's data centers rely on many interconnected commodity compute nodes, limiting the performance needed to drive important HPC and hyperscale workloads.

The NVIDIA Tesla P100 is the most advanced data center accelerator ever built, leveraging the groundbreaking NVIDIA Pascal™ GPU architecture to deliver the world's fastest compute node. It's powered by four innovative technologies with huge jumps in performance for HPC and deep learning workloads.

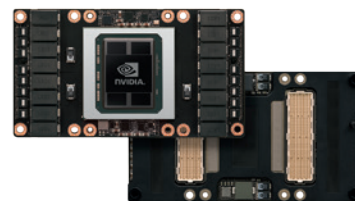
The Tesla P100 also features NVIDIA NVLink™ technology that enables superior strong-scaling performance for HPC and hyperscale applications. Up to eight Tesla P100 GPUs interconnected in a single node can deliver the performance of racks of commodity CPU servers.

### TESLA P100 AND NVLINK DELIVERS UP TO 50X PERFORMANCE BOOST FOR DATA CENTER APPLICATIONS

#### NVIDIA Tesla P100 Performance



CPU: 16 cores, E5-2698v3 @ 2.30GHz, 256GB System Memory. Tesla K80 GPUs: 2x Dual GPU K80s, Pre-Production Tesla P100



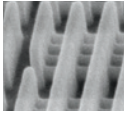
### SPECIFICATIONS

GPU Architecture	NVIDIA Pascal
NVIDIA CUDA® Cores	3584
Double-Precision Performance	5.3 TeraFLOPS
Single-Precision Performance	10.6 TeraFLOPS
Half-Precision Performance	21.2 TeraFLOPS
GPU Memory	16 GB CoWoS HBM2
Memory Bandwidth	720 GB/s
Interconnect	NVIDIA NVLink
Max Power Consumption	300 W
ECC	Native support with no capacity or performance overhead
Thermal Solution	Passive
Form Factor	SXM2
Compute APIs	NVIDIA CUDA, DirectCompute, OpenCL™, OpenACC

TeraFLOPS measurements with NVIDIA GPU Boost™ technology

# EXPERIENCE A GIANT LEAP IN EVERYTHING.

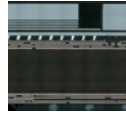
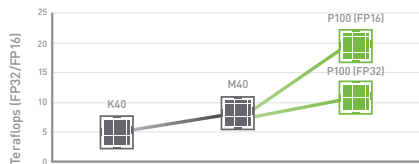
The Tesla P100 is reimagined from silicon to software, crafted with innovation at every level. Each groundbreaking technology delivers a dramatic jump in performance to inspire the creation of the world's fastest compute node.



## PASCAL ARCHITECTURE

More than 21 TeraFLOPS of FP16, 10 TeraFLOPS of FP32, and 5 TeraFLOPS of FP64 performance powers new possibilities in deep learning and HPC workloads.

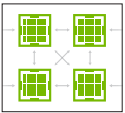
Exponential HPC and hyperscale performance



## COWOS HBM2

Compute and data are integrated on the same package using Chip-on-Wafer-on-Substrate with HBM2 technology for 3X memory performance over the previous-generation architecture.

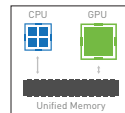
3X memory boost



## NVLINK INTERCONNECT

This high-speed bidirectional interconnect scales applications across multiple GPUs for 5X higher performance than current best-in-class technology.

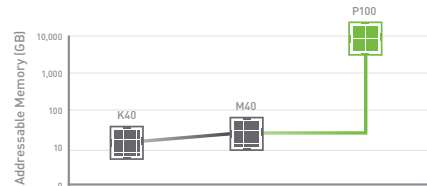
5X improvement in interconnect performance



## PAGE MIGRATION ENGINE

Simpler programming and computing performance tuning means that applications can now scale beyond the GPU's physical memory size to virtually limitless levels.

Virtually limitless memory scalability



To learn more about the NVIDIA Tesla P100 visit [www.nvidia.com/tesla](http://www.nvidia.com/tesla)

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