PART NUMBER:
TCSP100M-12GB-PB
TCSP100M-16GB-PB

NVIDIA TESLA P100
WORLD'S MOST ADVANCED DATA CENTER ACCELERATOR

HPC data centers need to support the ever-growing demands of scientists and researchers while staying within a tight budget. The old approach of deploying lots of commodity compute nodes requires huge interconnect overhead that substantially increases costs without proportionally increasing performance.

NVIDIA Tesla P100 GPU accelerators for PCIe based servers available with 12 GB or 16 GB HBM2 memory are the most advanced ever built. Powered by the breakthrough NVIDIA Pascal™ architecture and designed to boost throughput and save money for HPC and hyperscale data centers. The newest addition to this family, Tesla P100 for PCIe enables a single node to replace half a rack of commodity CPU nodes by delivering lightning-fast performance in a broad range of HPC applications. Handling the same workload with far fewer nodes means customers can save up to 70% in overall data center costs.

With 400 applications accelerated, including 9 out of top 10 HPC applications, every HPC customer can now deploy accelerators in their data center to keep up with ever-growing user demands while saving money.

PASCAL ARCHITECTURE
More than 18.7 TeraFLOPS of FP16, 4.7 TeraFLOPS of double-precision, and 9.3 TeraFLOPS of single-precision performance powers new possibilities in deep learning and HPC workloads.

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.

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.

TESLA P100 - PRODUCT SPECIFICATION

GPU MEMORY	12 GB or 16 GB CoWoS HBM2 with ECC protection
MEMORY BUS WIDTH	4096-bit
MEMORY BANDWIDTH	16 GB at 732 GB/s 12 GB at 549 GB/s
CUDA CORES	3584
PEAK DOUBLE-PRECISION FLOATING POINT PERFORMANCE	4.7 Tflops (GPU Boost Clocks)
PEAK SINGLE-PRECISION FLOATING POINT PERFORMANCE	9.3 Tflops (GPU Boost Clocks)
PEAK HALF-PRECISION FLOATING POINT PERFORMANCE	18.7 Tflops (GPU Boost Clocks)
MEMORY INTERFACE	PCI Express 3.0 x16
MAX POWER CONSUMPTION	250 W
THERMAL SOLUTION	passive Heatsink
FORM FACTOR	111.15 mm (H) x 267.7 mm (L) Dual Slot, Full Height
DISPLAY CONECTORS	None
POWER CONNECTORS	8-pin CPU power connector
WEIGHT (W/O EXTENDER)	1177g
PACKAGE CONTENT	1x Power adapter (2 x PCIe 8-pit auf single CPU 8-pin)
PART NUMBER UND EAN	TCSP100M-12GB-PB 3536403351786 TCSP100M-16GB-PB 3536403351823

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