Unleash more performance for your application.

The NVIDIA® Tesla® K80 is the world’s most powerful accelerator built for high-performance computing and machine learning applications. It delivers a 10x speed-up compared to the latest CPUs, and up to 4x acceleration over previous Tesla GPUs.

**MOLECULAR DYNAMICS**
- AMBER
- GROMACS
- LAMMPS
- NAMD
- HOOMD-Blue

**QUANTUM CHEMISTRY**
- Quantum Espresso
- TeraChem*

**PHYSICS**
- CHROMA
- Cloverleaf
- LSMS
- miniFE
- Caffe
- SPECFEM3D**
- RTM

**DEEP LEARNING**
- STAC-A2*

**GEOPHYSICS/OIL & GAS**

**FINANCE**

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*CPU Server: E5-2698 v3 2.3GHz 3.6GHz Turbo (Haswell-EP) HT off, GPU Server: Dual Socket E5-2678v3/2.3GHz Dual Tesla M2090/K20/ K80 GPU Boost enabled

**CPU comparison not available.

**SPECFEM3D uses E5-2697 v.2 2.7GHz processor

** SPECFEM3D uses E5-2697 2.3GHz processor
Accelerate application simulations.

AMBER, a popular Molecular Dynamics application, takes weeks to months to complete on multi-core CPUs or older-generation GPUs. With Tesla K80, the results are determined within days.

Take advantage of powerful new features.

**Dual GPU Accelerator**
With two GPUs delivering total memory bandwidth of 480 GB/s, data-intensive applications will experience the best performance on the K80.

**GPU Boost**
Realize more than 40% higher application performance by intelligently scaling clocks to the maximum setting. Each application runs at peak performance while remaining within the power and thermal envelope.

**24 GB of GPU Memory**
Tesla K80 is the first accelerator to offer 24 GB of high-speed GDDR5 memory. That’s four times larger than the Tesla M2090 and K20, and big enough to accelerate the most data-intensive applications with less resources.

**2x Shared Memory**
Tesla K80 has double the on-chip memory and registers, accelerating applications up to 30% faster without any change to the code by enabling more threads to run concurrently.

Explore 300+ GPU-accelerated applications in areas such as:

- Data Analytics
- Defense
- Numerical Analytics
- Physics
- Structural Mechanics
- Machine Learning
- Molecular Dynamics
- Oil and Gas
- Quantum Chemistry
- Weather and Climate

To see the complete list of GPU-accelerated applications, visit: [www.nvidia.com/teslaapps](http://www.nvidia.com/teslaapps)

For more information on Tesla GPU accelerators, visit [www.nvidia.com/tesla](http://www.nvidia.com/tesla)

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**GPUltima**
A Petaflop-in-a-Rack Networked GPU Cluster, the GPUltima has 10 times more cores, 90% less power and 95% less space* than other petaflop compute solutions. OSScan provide subsets of the GPUltima depending on customer needs.

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**One Stop Systems**
One Stop Systems (OSS) produces high-density, GPU-accelerated appliances for a variety of performance-intensive applications in the HPC market. A leader in PCIe expansion, OSS provides scalable clusters of petaflop compute performance in a single rack.

[www.onestopsystems.com](http://www.onestopsystems.com) | +1 (877) 438-2726 | sales@onestopsystems.com

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