



NVIDIA® GTX TITAN

THE CUDA DEVELOPMENT GPU



PART NUMBER:
TCSGTXTITAN-PB

TITAN - OVERVIEW

The GTX Titan is the latest flagship product for all the CUDA developers from NVIDIA. It has great single precision and double precision performance and high memory bandwidth. Titan can be used by any developer who wants to learn or experiment with GPU computing.

Therefore anyone can use GTX Titan as a great GPU computing development platform.

The innovative design of the Kepler compute architecture includes:

>> **SMX** (streaming multiprocessor) design that delivers up to 3x more performance per watt compared to the SM in Fermi.

>> **Dynamic Parallelism** capability that enables GPU threads to automatically spawn new threads. By adapting to the data without going back to the CPU, it greatly simplifies parallel programming and enables GPU acceleration of a broader set of popular algorithms, like adaptive mesh refinement (AMR), fast multipole method (FMM), and multigrid methods.

>> **Hyper-Q** feature that enables multiple CPU cores to simultaneously utilize the CUDA cores on a single Kepler GPU, dramatically increasing GPU utilization, slashing CPU idle times, and advancing programmability. Ideal for cluster applications that use MPI.

TITAN - PRODUCT SPECIFICATIONS

CUDA PARALLEL PROCESSING CORES	2688
PEAK TERAFLUPS DOUBLE PRECISION	1.27 TFlops
PEAK TERAFLUPS SINGLE PRECISION	4.5 TFlops
INTERFACE	384-bit
PROCESSOR CORE CLOCK	837 MHz
MEMORY CLOCK	3 GHz
FRAME BUFFER MEMORY	6 GB GDDR5
MEMORY BANDWIDTH	288 GB/s
MAX POWER CONSUMPTION	250 W
DISPLAYS	(2) DualLink DVI (1) HDMI (1) DisplayPort 1.2
POWER CONNECTORS	(1) x 6-pin PCI Express power connectors (1) x 8-pin PCI Express power connectors
GRAPHICS BUS	PCI Express 3.0 x16 only on Ivy Bridge PCI Express 2.0 on Sandy Bridge
FORM FACTOR	110 mm (H) x 265 mm (L) Dual Slot
THERMAL SOLUTION	Active

