



# NVIDIA “Fermi” Tesla

Next generation GPU architecture



# Tesla 20-Series Products

# Fermi: The Computational GPU



## Performance

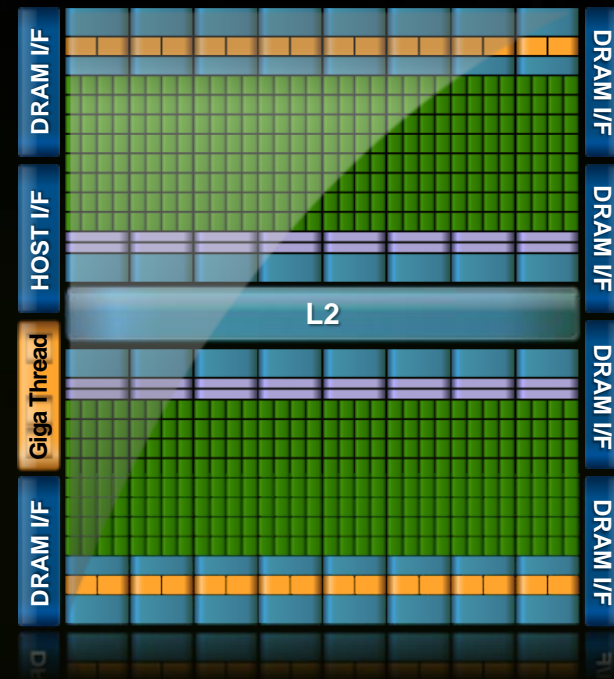
- 13x Double Precision of CPUs
- IEEE 754-2008 SP & DP Floating Point

## Flexibility

- Increased Shared Memory from 16 KB to 64 KB
- Added L1 and L2 Caches
- ECC on all Internal and External Memories
- Enable up to 1 TeraByte of GPU Memories
- High Speed GDDR5 Memory Interface

## Usability

- Multiple Simultaneous Tasks on GPU
- 10x Faster Atomic Operations
- C++ Support
- System Calls, printf support



# Tesla C-Series Workstation GPUs



	<b>C2050</b>	<b>C2070</b>
Processors	<b>1 Tesla 20-series GPU</b>	
Double precision performance	<b>520-630 Gigaflops DP</b>	
GPU Memory	<b>3 GB</b>	<b>6 GB</b>
Memory Interface	<b>GDDR5</b>	
System I/O	<b>PCIe x16 Gen2</b>	
Power	<b>190 W (typical) 225 W (max)</b>	

Disclaimer: specification subject to change  
Available memory may be lower with ECC

# Tesla S-Series 1U GPU Systems



	<b>S2050</b>	<b>S2070</b>
Processors	<b>4 Tesla 20-series GPUs</b>	
Double precision performance	<b>2.1 – 2.5 Teraflops DP</b>	
GPU Memory	<b>3 GB / GPU</b>	<b>6 GB / GPU</b>
Memory Interface	<b>GDDR5</b>	
System I/O	<b>2x PCIe x16 Gen2 (optional x8 available)</b>	
Power	<b>900 W (typical) 1200 W (max)</b>	

Disclaimer: specification subject to change  
Available memory may be lower with ECC