Nvidia GTX 660 GPU Specifications

Note: The below specifications represent this GPU as incorporated into NVIDIA's reference graphics card design. Clock specifications apply while gaming with medium to full GPU utilization. Graphics card specifications may vary by Add-in-card manufacturer. Please refer to the Add-in-card manufacturers' website for actual shipping specifications.

GPU Engine Specs	
Base Clock (MHz)	980
Boost Clock (MHz)	1,097
Texture Fill Rate (billion/sec)	78.4
GPU:	GK106
Release Date:	2012-09-13
Interface:	PCI-E 3.0 x16
CUDA Cores (Shader processors)	960
Core / Base Clock:	980 MHz
Memory Bandwidth:	144.192 GB/sec
FLOPS:	1,881.6 GFLOPS
Commercial generation name	Kepler

Detail	
Streaming Multiprocessors (SM)	5
Warp Size	32
Pixel Fill Rate:	23,520 MPixels/sec
Texture Fill Rate:	78,400 MTexels/sec (78.4 Billion Texels/sec)
Texture Alignment	512B
Total Constant memory	64KB
Shader memory per block	48KB (= local memory)
Max Thread Block dimensions (x,y,z)	1024 * 1024 * 64
max Threads per block	1024
Registers per Block	65,536
CUDA Cores per SM	192

Memory Specs	
Memory Clock:	3004 MHz (6.0 Gbps, or 6008 DDR)
Memory capacity	2048 MB

Memory Technology	GDDR5
Memory Interface Width	192-bit
Memory Bandwidth (GB/sec)	144.2

Display Support

Multi Monitor	4 displays
Maximum Digital Resolution3	4096x2160
Maximum VGA Resolution	2048x1536

YesHDCP

YesHDMI4

One Dual Link DVI-I, One Dual Link DVI-D, One HDMI, One DisplayPortStandard Display Connectors

InternalAudio Input for HDMI

Standard Graphics Card Dimensions:

Length	9.5 inches
Height	4.376 inches

Dual-slot width

Thermal, Power and Design Specs

Maximum GPU Tempurature (in C)	97C
Maximum Graphics Card Power (W)	140W
Minimum System Power Requirement (W)	450W
Supplementary Power Connectors	One 6-pin
Max Power Draw	140 W
Noise Level	Moderate
Framebuffer	2048,3072 MB
Memory Type	GDDR5
Memory Bus width	192 bit
DirectX Compliance	11.0
OpenGL Compliance	3.2
PS (Pixel Shader) / VS (Vertex Shader) Versions	5.0 / 5.0

(each of the two has different hardware requirements and taking both into account we can determine the overall DirectX version)

Manufacturing transistor dimenions	28 nm
Pipeline Layout	SMX

Texture Units	80
Raster Operators	24
Transistor count	2.5 Billion

Feature Support

GPU Boost, PhysX, TXAA, NVIDIA G-SYNC-readyImportant Technologies

Supported Technologies	3D Vision, CUDA, Adaptive VSync, FXAA, 3D Vision Surround, SLIOther
Compute Capability	3.0
OpenGL	4.5
Microsoft DirectX	11
Vulkan	1.0
PCI Express 3.0 Bus Support 1	Yes

3D

3D Vision Ready:	Yes
Yes 3D Blu-Ray	
Yes3D Gaming	
Yes3D Photos	

1 - GeForce GTX 660 supports PCI Express 3.0. The Intel X79/SNB-E PCI Express 2.0 platform is only currently supported up to 5GT/s (PCIE 2.0) bus speeds even though some motherboard manufacturers have enabled higher 8GT/s speeds.

2 - NVIDIA 3D Vision Surround require two or more graphics cards in NVIDIA SLI configuration, 3D Vision glasses and three matching 3D Vision-Ready displays. See 3D Surround for more information.

3 - 3840x2160 at 30Hz or 4096x2160 at 24Hz supported over HDMI. 4096x2160 (including 3840x2160) at 60Hz supported over Displayport. Support for 4k tiled MST displays requires 326.19 driver or later.

4 - Support for HDMI including GPU accelerated Blu-ray 3D support (Blu-ray 3D playback requires the purchase of a compatible software player from CyberLink, ArcSoft, Corel, or

Sonic), x.v.Color, HDMI Deep Color, and 7.1 digital surround sound will be added in a Release 260 driver. Upgrade your GPU to full 3D capability with NVIDIA 3DTV Play software, enabling 3D gaming, picture viewing and 3D web video streaming. See www.nvidia.com/3dtv for more details.

5 - Not applicable to OEM sku - contact OEM for more information.