

NVIDIA GPU Comparison

	GP100	GP104	GM204	GM200
	Tesla P100	GeForce GTX 1080	GeForce GTX 980	GeForce GTX TitanX
Architecture	Pascal	Pascal	Maxwell	Maxwell
Year	2016	2016	2014	2015
FP32 Cuda Cores (FMAD)	3584	2560	2048	3072
SMs	56	20	16	24
Clock Base (Boost)	1328MHz (1480MHz)	1607MHz (1733MHz)	1126MHz (1216MHz)	1000MHz (1075MHz)
GFLOPS (FP32) @base clock	9519 (10609) GFLOPS	8228 (8873) GFLOPS	4612 (4981) GFLOPS	6144 (6605) GFLOPS
FP64 FMAD	1792	80	64	96
GFLOPS (FP64) @base clock	4760 (5304) GFLOPS	257 (277) GFLOPS	144 (156) GFLOPS	192 (206) GFLOPS
Register Files	14336 KB	5120 KB	4096 KB	6144 KB
Shared Memory	3584 KB	1920 KB	1536 KB	2304 KB
L2 Cache	4096 KB	2048 KB	2048 KB	3072 KB
Warp In-Flight	3584	1280	1024	1536
Memory Bandwidth	720 GB/sec	320 GB/sec	224 GB/sec	337 GB/sec
TDP (Thermal Design Power)	300W	180W	165W	250W
FP32 GFLOPS /TDP	31.7	45.7	28	24.6
Transistors	15.3B	7.2B	5.2B	8B
Die Size	610mm ²	314mm ²	398mm ²	601mm ²
Process Technology	16 nm	16 nm	28 nm	28 nm
Byte/ FLOPS(FP32)	0.075	0.039	0.049	0.055
Texture Units	224	160	128	192
ROP (Rendering Output Pipeline)	128?	64	64	96