

# NVIDIA GPU Comparison

	GP100	GP104
	Tesla P100	GeForce GTX 1080
Architecture	Pascal	Pascal
Year	2016	2016
FP32 Cuda Cores (FMAD)	3584	2560
SMs	56	20
Clock Base (Boost)	1328MHz (1480MHz)	1607MHz (1733MHz)
GFLOPS (FP32) @base clock	9519 (10609) GFLOPS	8228 (8873) GFLOPS
FP64 FMAD	1792	80
GFLOPS (FP64) @base clock	4760 (5304) GFLOPS	257 (277) GFLOPS
FP16 FMAD	7168	2560
GFLOPS (FP16) @base clock	19038 (21217) GFLOPS	8228 (8873) GFLOPS
Register Files	14336 KB	5120 KB
Shared Memory	3584 KB	1920 KB
L2 Cache	4096 KB	2048 KB
Warp In-Flight	3584	1280
Memory Bandwidth	720 GB/sec	320 GB/sec
TDP (Thermal Design Power)	300W	180W
FP32 GFLOPS /TDP	31.7	45.7
Transistors	15.3B	7.2B
Die Size	610mm <sup>2</sup>	314mm <sup>2</sup>
Process Technology	16 nm	16 nm
Byte/ FLOPS(FP32)	0.075	0.039
Texture Units	224	160
ROP (Rendering Output Pipeline)	128?	64