



NVIDIA GeForce GTX 1080 8GB

Pascal PCIe 2016 16nm

OVERVIEW

8.9 FP32 TFLOPS	8 GB Memory GDDR5X	320 GB/s Memory Bandwidth	180 W TDP
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PERFORMANCE METRICS

Precision	Peak (dense)	Bits	Type
FP64	—	—	Standard
FP32	8.9	32	Standard
TF32	—	—	Standard
BF16	—	—	Standard
FP16	—	—	Standard
FP8	—	—	Standard
FP6	—	—	Standard
FP4	—	—	Standard
INT8	—	—	Standard

MEMORY SPECIFICATIONS

Capacity	8 GB
Type	GDDR5X
Bandwidth	320 GB/s
Interface Width	256-bit

POWER & EFFICIENCY

TDP	180 W
Max power	180 W
FP32 dense TFLOPS per W of TDP	0.05 TFLOPS/W
FP16 dense TFLOPS per W of TDP	—

Per W of TDP figures divide dense peak by accelerator TDP.
Board power only: excludes host CPUs, networking, cooling and facility overhead.

HARDWARE DETAILS

Vendor: NVIDIA	Architecture: Pascal	Process Node: 16nm
Form Factor: PCIe	Launch Year: 2016	Variant: 8GB

COMPUTE ENGINE

CUDA Cores: 2,560	SMs: 20	Base Clock: 1.61 GHz
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Boost Clock: 1.73 GHz

INTERCONNECT

PCIe: 3.0 x16

CHIP DESIGN

Transistors: 7.2 billion Die Size: 314 mm²

ENTERPRISE FEATURES

ECC: No Sparsity: No