

# NVIDIA GeForce GTX 1070 8GB

Pascal

PCIe

2016

16nm

## OVERVIEW

|                                       |                                         |                                                 |                                 |
|---------------------------------------|-----------------------------------------|-------------------------------------------------|---------------------------------|
| <div>6.5</div> <div>FP32 TFLOPS</div> | <div>8 GB</div> <div>Memory GDDR5</div> | <div>256 GB/s</div> <div>Memory Bandwidth</div> | <div>150 W</div> <div>TDP</div> |
|---------------------------------------|-----------------------------------------|-------------------------------------------------|---------------------------------|

## PERFORMANCE METRICS

| Precision | Peak (dense) | Bits | Type     |
|-----------|--------------|------|----------|
| FP64      | —            | —    | Standard |
| FP32      | 6.5          | 32   | Standard |
| TF32      | —            | —    | Standard |
| BF16      | —            | —    | Standard |
| FP16      | —            | —    | Standard |
| FP8       | —            | —    | Standard |
| FP6       | —            | —    | Standard |
| FP4       | —            | —    | Standard |
| INT8      | —            | —    | Standard |

## MEMORY SPECIFICATIONS

|                 |          |
|-----------------|----------|
| Capacity        | 8 GB     |
| Type            | GDDR5    |
| Bandwidth       | 256 GB/s |
| Interface Width | 256-bit  |

## POWER & EFFICIENCY

|                                |               |
|--------------------------------|---------------|
| TDP                            | 150 W         |
| Max power                      | 150 W         |
| FP32 dense TFLOPS per W of TDP | 0.04 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: 1,920 | SMs: 15 | Base Clock: 1.51 GHz |
|-------------------|---------|----------------------|

Boost Clock: 1.68 GHz

INTERCONNECT

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PCIe: 3.0 x16

CHIP DESIGN

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|                          |                               |
|--------------------------|-------------------------------|
| Transistors: 7.2 billion | Die Size: 314 mm <sup>2</sup> |
|--------------------------|-------------------------------|

ENTERPRISE FEATURES

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|         |              |
|---------|--------------|
| ECC: No | Sparsity: No |
|---------|--------------|