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Gigabyte GeForce RTX 2070 Windforce review: This \$500 graphics card is a solid value

With the Gigabyte RTX 2070 Windforce delivering such strong performance at \$500, there's little reason to spend more on an RTX 2070 graphics card unless you're looking for specific extra features.


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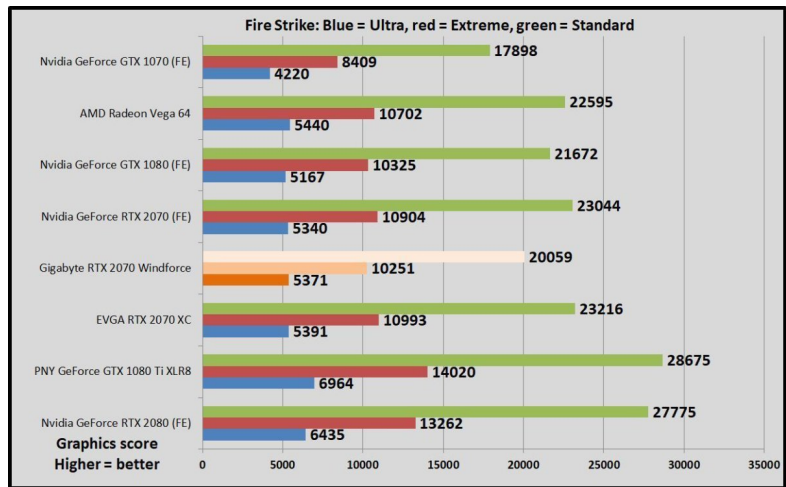
Senior Editor, PCWorld

NOVEMBER 09, 2018 03:09 AM PT

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Fire Strike, power draw, thermals, and overclocking

We also tested the Gigabyte RTX 2070 Windforce using 3DMark's highly respected Fire Strike synthetic benchmark. Fire Strike runs at 1080p, Fire Strike Extreme runs at 1440p, and Fire Strike Ultra runs at 4K resolution. All render the same scene, but with more intense graphical effects as you move up the scale, so that Extreme and Ultra flavors stress GPUs even more. We record the graphics score to eliminate variance from the CPU.



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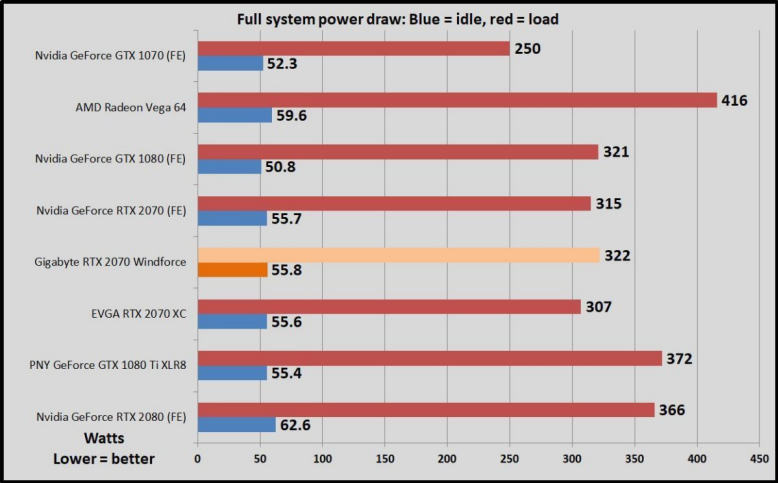
All three RTX 2070 options deliver broadly similar results. The Founders Edition lags slightly behind the RTX 2070 FE despite Nvidia's mild factory overclock. Maybe its less-potent cooling solution isn't able to hold

We test power draw by looping the *F1 2018* benchmark after we've benchmarked everything else. We use our Watts Up Pro meter. The initial part of the race, where all competing cars are onscreen simultaneously, is the most power-intensive portion.





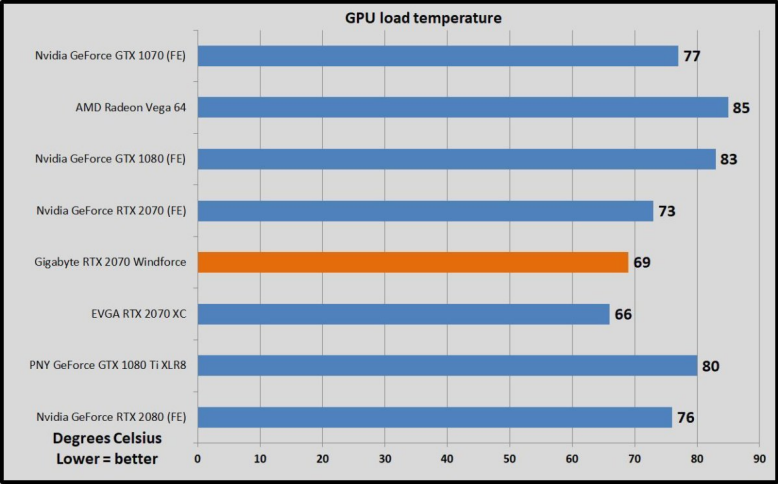
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The Gigabyte RTX 2070 Windforce draws about the same amount of energy as its cousins. It actually draws slightly less power than the GTX 1080 despite being measurably faster, and *much* less power than AMD's hot-and-howling Radeon RX Vega 64 reference edition.

We test thermals by leaving EVGA's Precision X1 monitoring tool open during the *F1 2018* 5-lap power draw test, noting the highest maximum temperature at the end.



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The custom, triple-fan Windforce cooler on Gigabyte's card runs slightly colder than the Founders Edition's dual-fan solution, though not quite as chilly as the ICX2 cooling in EVGA's RTX 2070 XC. All three deliver similar noise levels—you definitely know the card is running while you're gaming, but the sound isn't obnoxious or overly loud. Gigabyte's card holds an advantage when you're *not* gaming, because the RTX 2070 Windforce lets the fans go idle when the GPU isn't under load.

Next page: Overclocking, should you buy the Gigabyte RTX 2070 Windforce?

AT A GLANCE

Gigabyte GeForce RTX 2070 Windforce

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With the Gigabyte RTX 2070 Windforce delivering such strong performance at \$500, there's little reason to spend more on an RTX 2070 graphics card unless you're looking for specific features.

Pros

- Great 1440p and entry-level 4K gaming performance
- RT and tensor cores for ray tracing, DLSS, and more
- Custom Windforce cooler is better than Nvidia's Founders Edition
- Actually achieves \$500 MSRP price
- Similar performance to pricier RTX 2070 options

Cons

- Ray tracing and DLSS not available in games yet
- Plastic shroud and fans
- Lacks fancy extra features

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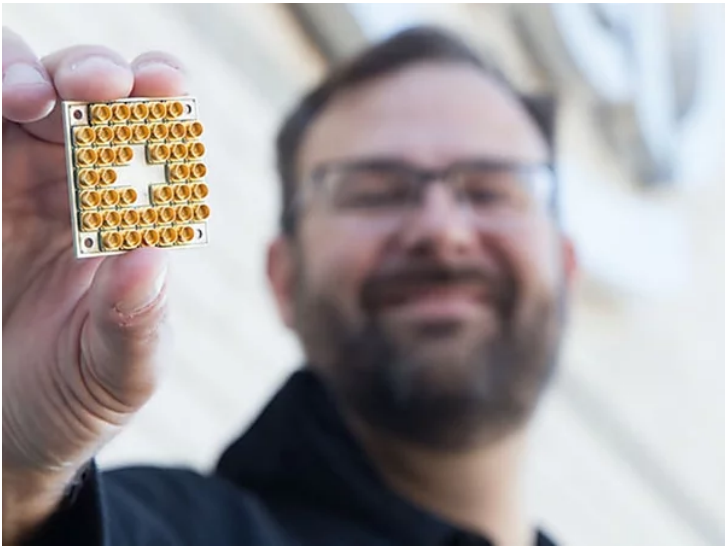


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