

Nvidia to Hobble Ether Mining Power on More Gaming Cards

Jamie Crawley

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Nvidia is reducing the ability of newly manufactured graphics cards to mine cryptocurrency in order to maintain inventory for gamers.

* The California-based chip-making giant [announced](#) via its blog Tuesday it will apply a reduced ETH hash rate to newly manufactured RTX 3080, RTX 3070 and RTX 3060 Ti graphics cards.

* Set to start shipping later this month, the cards will be labelled with a "Lite Hash Rate" or "LHR" identifier to "ensure that customers know exactly what they're getting."

* As the company has stated before, Nvidia said its priority is to ensure that its gaming cards end up "in the hands of gamers."

* It first [announced](#) in February that all GeForce RTX 3060 graphics cards would ship with a reduced Ethereum hash rate.

* It is unclear if the hash rate cuts will affect the overall performance of the graphics cards and not simply curb their mining power. Nvidia did not immediately respond to CoinDesk's request for clarification.

See also: [Hut 8 Will Use Luxor's Software to Manage New Ethereum Miners](#)

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online news

Intel and Nvidia launch 11th-gen Tiger Lake H45 CPUs and RTX 3050 GPUs for gaming and high-performance laptops

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Today Nvidia and Intel are making a joint hardware launch announcement that mostly concerns the gaming laptop market. On the Intel side, we have new 11th-gen Core Tiger Lake H45 processors for gaming laptops and high performance productivity systems. Then from Nvidia, there's new GeForce RTX 3050 and RTX 3050 Ti GPUs for laptops that pack RT features and DLSS.

These new 11th generation Core H45 processors have been long awaited as they will finally bring Intel's Tiger Lake designs up to 8 cores, suitable for gaming and workstation class of systems and what should hopefully be more competitive with AMD's Ryzen 5000 line-up.

The new GeForce RTX 3050 Ti and the RTX 3050 laptop GPUs are interesting for a number of reasons. Just like we saw with the RTX 3060 laptop GPU before, Nvidia is announcing the mobile part before they launch the same product on the desktop, which is something they don't do often.

We have to guess that the launch of lower-tier desktop GPUs has been impacted by insane demand for graphics cards, where there's currently no incentive to sell a cheaper product when RTX 3090s are flying off the shelves for \$1,500 a pop. The RTX 3050 series is based on a new GPU die from Nvidia manufactured using Samsung's 8nm process, so it's not a cut down version of the existing GA106 being used in the RTX 3060. This is reminiscent of the Pascal era, where Nvidia's GTX 1060 variants were all GP106, then the GTX 1050 series launched using GP107. Nvidia didn't provide an official die name for this new GPU but GA107 is likely.

The RTX 3050 Ti features 2560 CUDA cores in 20 SMs, so we see 20 RT cores and 80 Tensor cores as a result. Meanwhile, the RTX 3050 is a cut-down variant with 2048 CUDA cores and 16 SMs, with 16 RT cores and 64 Tensor cores. We don't know if the 3050 Ti is using a fully unlocked die, but this die does feature all the RTX features and the latest generation of encoders and PCIe technology, so this is the first time that Nvidia's mid-to-entry level die includes ray tracing acceleration.

Nvidia is giving OEMs the ability to configure these GPUs from 35 to 80 watts, which is unfortunate as there will be a massive range of performance output under the exact same GPU name. Boost clock speeds for the 3050 Ti range from 1035 MHz to 1695 MHz, suggesting the 80W model could be up to 64% faster than the 35W model which is just insane. Similar margins are seen with the RTX 3050, 1057 MHz at 35W up to 1740 MHz at 80W. The memory subsystem used for the RTX 3050 series is identical to that of the GTX 1650 series that it's replacing: 4GB of GDDR6 on a 128-bit bus, though clock rates are currently unknown. 4 GB of memory has been used in Nvidia's 50 class as far back as Pascal with the GTX 1050 in 2017, so there's been no progress on that front. At the same time, with the RTX 3060 using 6GB, it would be a bit weird for a lower-tier model to have more VRAM.

With this sort of core configuration, 20 SMs, the RTX 3050 Ti Laptop GPU sits between the GTX 1650 Ti with 16 SMs, and GTX 1660 Ti with 24 SMs in terms of layout. However, with Nvidia's new double-FP32 layout and other Ampere enhancements, we should be seeing more performance from a lower SM count than Turing just like with desktop Ampere. Similarly, the RTX 3050 has the same 16 SMs as the GTX 1650 but double the overall CUDA core count, so performance won't be double in games but will be faster. Before looking at Nvidia's performance claims for their mobile part, what does this mean for the desktop RTX 3050?

Based on what we've seen this generation so far, it's likely the RTX 3050 will feature a different SM count than either laptop GPU. We're possibly looking at 18 SMs as an example. For reference the RTX 3060 on laptops used 30 SMs versus 28 on the desktop, and the RTX 3070 Laptop GPU used 40 SMs versus 46 on the desktop.

What we do know however is that GA107's 128-bit GDDR6 memory bus will restrict these GPUs to either 4GB or 8GB of memory, and let's hope for the desktop cards that figure is 8GB. We also know that 3050-tier

GPUs will feature hardware accelerated ray tracing, unlike the previous generation where Nvidia split Turing off into the GTX 16 series without RT or Tensor cores in the lower end.

Nvidia's information about RTX 3050's performance was very light, instead focusing on how awesome their RTX features are, given that the RTX 3050 supports them and the GTX 1650 did not. Below you can see the single performance slide we got, giving us a look at performance in two games without ray tracing, three with ray tracing, and all with DLSS. Nvidia tested these titles at 1080p using medium settings, DLSS Quality and medium ray tracing where applicable. The sample size is too low to draw any firm conclusions, but basically what Nvidia is claiming here is that with DLSS enabled, the RTX 3050 Ti Laptop GPU is capable of 1080p medium quality gaming with ray tracing at 60 FPS. That's a fairly typical budget laptop level of performance that you'd want. As for comparisons between the 3050 Ti and the GTX 1650 Ti, the two games shown here highlight 50 to 60 percent better performance.

In our previous performance testing, we've seen that the GTX 1660 Ti is about 40 percent faster than the GTX 1650 Ti in laptops, while the RTX 2060 is about 50% faster. We've also seen that generally Nvidia with Ampere are giving us in their new products performance equivalent to a last-gen GPU from the tier above, so the RTX 3060 Laptop GPU is roughly on par with an RTX 2070 Super, the RTX 3070 is similar to an RTX 2080 and so on. So it would make sense that the RTX 3050 Ti falls around the performance of an RTX 2060, which is not bad for budget-class laptops. And I should stress here that these are all mobile comparisons: Nvidia's mobile GPUs are generally several tiers lower than what we get on the desktop in terms of performance.

Also read: [Nvidia RTX 3070 Laptop vs Desktop GPU Review](#)

Nvidia didn't provide any performance data on the RTX 3050 Laptop GPU, but if we had to guess, it's probably close to the GTX 1660 Ti outside of ray tracing.

The new GPUs are expected to show up in laptops starting at \$800 with designs from all the major brands. We can also expect to see a new range of Studio-focused products that will use the RTX 3050 and RTX 3050 Ti, like the Dell XPS 15, which isn't as much of a gaming laptop as it is for creators.

Intel Tiger Lake H45 Intel's fully fledged H-series processors for gaming laptops and productivity beasts is finally out the door. This is the first time we're getting 8-core Tiger Lake CPUs, and the goal here is to take on AMD's impressive Ryzen Mobile 5000 series in both gaming and applications. This is also the first time we're seeing 10nm processors used outside of ultraportable low power classes, in this case Intel's 10nm SuperFin process technology.

From an architectural standpoint, Intel's 11th-gen H-series processors are similar to Tiger Lake U-series parts in many ways. The CPU cores are the same Willow Cove designs, so Intel are claiming a 19% IPC improvement compared to the prior generation, which in this case is Comet Lake given 10th-gen H-series didn't use Ice Lake and was still on 14nm using a Skylake derivative architecture. We are also seeing an upgrade to PCIe 4.0 connectivity, built-in Thunderbolt 4 support, and Intel Xe integrated graphics – all the major improvements Intel already made with low-power Tiger Lake last year.

To fit in 8 CPU cores into a reasonable size, Intel have reduced the size of the iGPU from 96 execution units down to 32, which makes sense as most H-series laptops will include discrete graphics, making the iGPU only necessary for some hardware acceleration features. Speaking of discrete graphics, Tiger Lake H45 includes 20 PCIe 4.0 lanes direct from the CPU, enabling x16 access to discrete graphics in addition to x4 direct to an M.2 SSD. The chipset included on the package, Intel's 500-series mobile PCH, provides additional lanes and connectivity. Like Tiger Lake U-series, the PCH is off-die but on the same package, which is an improvement on 10th-gen where the PCH was a separate package that also needed to be fit onto the motherboard somewhere.

AMD's approach in contrast has everything integrated into the one die as an APU, so there is no separate PCH. While this is a good approach from a size perspective, Ryzen Mobile 5000 uses last-gen technology, such as PCIe 3.0 instead of PCIe 4.0 that Intel are providing with Tiger Lake. In a sense, this is a significant overhaul on Intel's side of every aspect to their H-series offerings. This is how the line-up stacks up: 5 processors, ranging from a Core i5 up to a Core i9. The flagship is the Core i9-11980HK, which brings 8 cores, 16 threads and 24 MB of L3 cache. It has a base clock of 2.6 GHz and can hit 5.0 GHz on up to two cores in ideal situations. You'll see some other clock speeds listed in the charts for things like all-core turbo, although it should be noted that most of these clock speeds will only be hit briefly in burst applications before dropping down to a lower clock speed to fit within the power limits as set by the OEM. The 11980HK certainly won't be hitting 4.5 GHz indefinitely like you might expect from a desktop CPU.

There's another Core i9 part listed here, the Core i9-11900H which is a 100 MHz lower clocked version of the 11980HK, and without the K suffix, so it won't have the same fully unlocked overclocking capabilities.

Then there is a single Core i7 part, also with 8 cores and 16 threads. It's lower clocked, with a 2.3 GHz base and 4.6 GHz turbo, so clock speeds on this part are 300 MHz lower than the flagship Core i9 but on the same CPU configuration.

For mainstream laptops we then have two Core i5 processors, the Core i5-11400H and Core i5-11260H. Both are six core designs with 12 threads and 12 MB of L3 cache, half of higher tier products. The difference between these processors is simply 100 MHz of clock speed, with the 11400H coming in at 2.7 GHz base and 4.5 GHz maximum turbo.

All Tiger Lake H45 processors have a default TDP of 45W, but can be configured down to 35W for lower power systems, or in some cases 65W or higher for beastly gaming machines. All support DDR4-3200 as the base memory spec, and all feature the same iGPU layout and clock speeds. Intel are also providing new features in their Extreme Tuning Utility, XTU, including per core voltage controls on some models and overclocking on the 11980HK.

There are some interesting takeaways here in terms of clock speeds: the maximum frequency Intel appears to hit on 10nm SuperFin with this Willow Cove design is 5.0 GHz, down from 5.3 GHz previously with Comet Lake. However Intel expects that 6% clock deficit to be nullified by higher IPC, so overall performance in lightly threaded applications should be higher.

The base clock for the 11980HK is also higher than the 10980HK, indicating we should get the double whammy of higher operating clock speeds and higher IPC, improving performance in both regards outside of the boost state.

With that said, clock speeds aren't always faster. The Core i5-11400H, Intel's new fastest six-core CPU in their Tiger Lake line, only goes up to 4.5 GHz compared to the 5.1 GHz that was possible with the Core i7-10850H. That's a 12% reduction, which paired with the same 2.7 GHz base clock will make for an interesting gen-on-gen comparison. Although I guess it should be noted here that the 10850H was a Core i7 processor, in this new generation the Core i7 is an 8-core model. So comparing the exact same class of CPU, 11400H versus 10400H, we get a much needed boost from 4 cores to 6 cores.

Comparing the same class of CPU, 11400H versus 10400H, we get a much needed boost from 4 cores to 6 cores.

Intel was very light on productivity performance information. They provided just three percentage improvement figures for 11th-gen over 10th-gen, and the same three figures for the 11980HK versus Ryzen 9 5900HX. This tells us virtually nothing until we can put these to the test. Later in the presentation, we did see a few more performance data points comparing the Core i9-11950H, which is their vPro commercial equivalent of the 11980HK, to the Core i9-10885H, another eight core CPU from the prior generation. Here in SPEC workloads they are showing 11-12% higher single-thread performance and up to 29% faster multi-thread performance.

If these numbers are somewhat accurate and representative of Tiger Lake's Core i9 productivity performance (remember: manufacturer provided benchmarks) -- then Intel's new Core i9 may not beat AMD's Ryzen 9 in multi-threading, while single-threaded performance may be a close call. It's still a big improvement over Comet Lake, but AMD is dominating multi-threaded performance in 45W laptops. What Intel seems to be much more confident about is gaming performance. Intel showed performance slides comparing the 11980HK to the 10980HK in 7 titles, showing performance improvements between 6 and 21 percent when paired with an RTX 3080 Laptop GPU at up to 155W. Intel also showed a slide comparing the 11980HK to the Ryzen 9 5900HX, showing a performance lead of 11 to 26 percent with the same RTX 3080 Laptop GPU. This is a much more informative selection of data than we got in the productivity section, and if these results are accurate, Intel will have an impressive lead in gaming. Of course, it will be interesting to see how these stack up under independent testing where we can control all variables like power level configuration.

Intel also compared the Core i5-11400H against the Ryzen 9 5900HS, with the results slightly in favor of Intel using GeForce RTX 3060 graphics in a slim form factor laptop. So that will be yet another interesting thing to explore when we get these systems in for review.

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PC/ Laptops

Nvidia GeForce RTX 3050, GeForce RTX 3050 Ti Gaming GPUs for Laptops Launched

Jamshed Avari

412 words

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Nvidia is expanding its GeForce RTX 30 series to a new category of gaming laptops for price-conscious buyers with the new GeForce RTX 3050 and GeForce RTX 3050 Ti discrete GPUs. They will be featured in laptops priced starting at \$700 (approximately Rs. 60,000 before taxes and duties) and will bring high-quality ray tracing effects and DLSS (Deep Learning Supersampling) to upscale resolution using AI to a wider audience than before. These discrete gaming GPUs are aimed at slim and light gaming laptops as well as entry-level models. Nvidia is touting the arrival of DLSS in this market segment as a "game changer", and this should allow for a consistent 60fps gaming experience in titles such as Control, Watchdogs: Legion, Outriders, Minecraft, and CoD: Black Ops Cold War.

Based on the same Ampere architecture as the rest of the desktop and mobile GeForce RTX 30 series, the new RTX 3050 and RTX 3050 Ti will soon be seen in entry-level gaming laptops where the GeForce GTX 16-series is currently popular. Multiple brands including Alienware, Razer, MSI, Lenovo, Asus, Dell, Acer, HP, and Gigabyte as well as smaller boutique OEMs are expected to announce new and refreshed models shortly. The launch also coincides with Intel's 11th Gen 'Tiger Lake' CPU announcement.

The GeForce RTX 3050 Ti has 2,560 execution units called CUDA cores and 80 tensor cores arranged in 20 "streaming multiprocessor" (SM) clusters, whereas the RTX 3050 has 2,048 CUDA cores and 64 tensor cores in 16 SMs. Both feature 4GB of GDDR6 RAM on a 128-bit bus. TDP range can be configured between 35W and 80W by laptop OEMs and will differ from model to model, which will also affect the operating frequency range. The two GPUs are listed with boost clock speed ranges of 1035 – 1695MHz and 1,057 – 1,740MHz respectively.

In addition to gaming, entry level and portable creator laptops will also feature these two new GPUs. Nvidia says DLSS acceleration can help artists visualise designs in real-time rather than waiting for long renders, and video editors can work with 8K RAW footage. For esports competitors, the GeForce RTX 3050 Ti is claimed to deliver over 144fps and sub-25ms latency in games such as Overwatch and Valorant. Other Nvidia features such as AI-powered noise and background removal can benefit streaming and video conferencing software.

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Lenovo Unveils The Legion **Gaming** Laptops Powered By Intel 11th Gen Tiger Lake-H CPUs & **NVIDIA** GeForce RTX 30 Series GPUs

Alex Casas

563 words

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Wccftech.com

NEWAGAE

English

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Lenovo has just introduced its new line of [Legion gaming laptops](#) with the Legion 7i, the Legion 5i Pro, and the Legion 5i powered using [Intel's latest 11th Gen Intel Core Tiger Lake-H-series mobile processors](#) and NVIDIA's latest GeForce RTX 30 series mobile graphics cards.

The Flagship Lenovo Legion 7i Features The Intel 11th Gen Tiger Lake-H Core i9-11980HK And The NVIDIA GeForce RTX 3080 Mobile

The entire Lenovo Legion lineup features the latest 11th gen Intel Tiger Lake-H processor with up to 8 cores and 16 threads. The flagship Legion 7i comes equipped with up to the 8-core, 16-thread Intel Core i9-11980HK. Both the 5i and 5i Pro come equipped with up to the 8-core, 16-thread Core i7-11800H. The 7i, 5i Pro, and the 15" variant of the 5i come with up to 32GB of DDR4-3200 memory while the 17" variant of the 5i only comes with up to 16GB of DDR4-3200 memory.

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In terms of graphics, the latest [entry-level NVIDIA GeForce RTX 3050 and 3050 Ti](#) can be found as options on the Lenovo Legion 5i and 5i Pro. The most affordable variant of the flagship 7i offers the NVIDIA GeForce RTX 3060 clocked in at 1702MHz boost with a TDP of 130W. For the most powerful variant of the 7i, it comes equipped with the NVIDIA GeForce RTX 3080 with a boost clock of 1710MHz and a 165W TDP. Both variants of the 5i and the 5i Pro come equipped with up to an NVIDIA GeForce RTX 3070. The 7i and the 5i 15" variant come with up to a 2TB M.2 NVMe whilst the 5i Pro and the 5i 17" variant come with up to a 1TB M.2 NVMe SSD.

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Both the 7i and 5i Pro are 16" laptops with a 16" WQXGA (2560 x 1600) IPS panel with a 16:10 aspect ratio. The display also features a 165Hz refresh rate, a 3ms response time, G-Sync support, and a VESA DisplayHDR 400 certification. The 17" 5i variant features a 17" FHD IPS display with a 144Hz refresh rate. The 15" 5i variant comes equipped with up to a 15.6" WQHD IPS display with NVIDIA G-Sync and a 165Hz

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refresh rate. With portability in mind, the 7i weighs in at 5.5lbs (2.5kg), the 17" 5i at 6.57lbs (2.98kg), the 15" 5i at 5.3lbs (2.4kg), and the 5i pro at 5.4lbs (2.45kg).

Both the Lenovo Legion 7i and 5i Pro are expected to be available in June with the 7i starting at \$1,769.99 and the 5i Pro starting at \$1,329.99. The Lenovo Legion 5i is expected to be available in July and starts at \$969.99.

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Document NEWAGAE020210511eh5b000ji



Nvidia announces RTX 3050 and RTX 3050 Ti for laptops, turning mainstream notebooks into gaming powerhouses

Karthik Iyer

484 words

11 May 2021

Digit

HTDIGI

English

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India, May 11 -- Nvidia's new RTX 30-series GPUs are already powering millions of laptops around the world, delivering solid gaming performance for consumers on the go. Now, the RTX 30-series has two new members - The GeForce RTX 3050 Ti and 3050.

These new GPUs will be powering a new wave of mainstream laptops on the market, turning them into very capable gaming machines. They will deliver real-time ray tracing and AI-based DLSS and make them available to a wider range of consumers.

The new RTX 3050 Ti and the RTX 3050, as you've probably already guessed, sit beneath the existing RTX 3060 when it comes to performance and specs. They both have less video memory (4GB) and fewer dedicated tensor cores compared to the RTX 3060. However, they do have RT Cores for real-time ray tracing and DLSS.

According to Nvidia, the RTX 3050 Ti is capable of pushing beyond the 60 FPS mark in more modern titles like Call Of Duty: Warzone, Outriders, Control, Watch Dogs: Legion, and Minecraft. This is with ray-tracing turned on, so that's quite impressive. After all, you'll be seeing these GPUs in more mainstream machines rather than high-end, dedicated gaming laptops.

While we haven't tested any of these laptops since they are yet to go official. That being said, we doubt if these laptops will be able to handle those games with ray-tracing at max settings and offer the best visual fidelity. Considering the fact that these GPUs are less powerful than the RTX 3060, we think it will be suited for consumers who prefer to have smooth gameplay over max visual fidelity.

Nvidia is betting big on the DLSS feature that will use AI cores to run games at better frame rates on these laptops. However, it will be interesting to see how the games that don't support DLSS will run on these systems.

Lastly, it's worth mentioning that OEMs are free to tweak the total graphics power (TGP) of each RTX 3050 or RTX 3050 Ti in terms of wattage and clock speed just like how they can with other RTX 30-series based laptops. The TGP range for these chips can be anywhere between 35W and 80W.

Availability

In terms of availability, you can expect laptops with the RTX 3050 Ti and RTX 3050 to show up on the market very soon. Samsung has already launched the Galaxy Book Odyssey with RTX 3050, so it's only a matter of time till we start seeing new laptops powered by these new GPUs.

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Asus tunes up TUF series **gaming** laptops with new **Nvidia**, Intel processors

Joshua Goldman

335 words

11 May 2021

CNET News.com

CNEWSN

English

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Asus' extra-durable gaming laptop line is getting a performance boost from the latest [11th-gen Intel CPUs](#) and [Nvidia GPUs](#). The updated TUF F15 and F17 gaming laptops will also feature faster memory and display options than their predecessors while still being built to withstand drops and shakes, as well as extreme heat, cold and humidity.

Asus will offer the updated TUF series with up to an eight-core 11th-gen Intel processor and up to a GeForce RTX 3060 GPU. They'll also have faster 3,200MHz memory and room for two PCIe SSDs for plenty of game storage. The 15-inch F15 will be offered with an FHD display (1,920x1,080 pixels) with up to a 240Hz gaming panel and a 100% sRGB color gamut, while its larger 17-inch linemate, the F17, will come with a 144Hz panel at the same resolution.

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To accommodate the increased performance, Asus revamped the cooling systems that feature dual 83-blade fans and a channel design that allows the laptops to blow dust out more easily all on their own. When you're not gaming, the laptops can operate silently so you don't have to worry about fan noise kicking in.

Both models, which will be available with metal or plastic bodies, are built to meet Mil-Spec standards ([MIL-STD-810H](#)), so they can handle being knocked around in your bag, too.

The TUF F15 and F17 will be available from late Q2 in North America. No pricing was announced. Other gaming PC makers including [Alienware](#), [Razer](#) and [Lenovo](#) joined Asus with announcements on Tuesday of updated laptops featuring the new processors. Whether you'll actually be able to find them easily this summer remains to be seen as [the global chip shortage continues](#).

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Asus TUF F15. | Asus | The F15 and F17 (pictured) will be available with metal or plastic bodies. | Asus

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Nvidia GeForce RTX 3050 and 3050 Ti promise \$799 RTX gaming laptops

Lori Grunin
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For that little extra oomph in your budget gaming or STEM laptop, Nvidia's expanding its mainstream entry-level graphics processor line downward to the GeForce RTX 3050 and 3050 Ti, which are intended to take the place of the GTX 1650 and 1650 Ti in laptop lineups starting at around \$799. Given the [current state of chip supplies](#), though, I wonder if we'll see many actually come in at that price.

This comes as we're still waiting to hear about AMD's competing [RX 6000](#) series of mobile GPUs; the chips have yet to be announced, but [AMD says we'll see laptops with them by the end of June](#). And one trend that will hit you in the face this go-round is the (very welcome) spate of 165Hz QHD-resolution screen options -- even Razer, which has had a 240Hz QHD display for its Blade 15 Advanced for only three months is switching over to a newer panel with a broader color gamut.

Read more of today's news:

- * [Intel's Core i9-11980HK leads the way for gaming and creative laptops](#)
- * [Razer revamps Blade 15 Advanced gaming line with 11th-gen Intel, design tweaks](#)
- * [Lenovo Legion 7i, Legion 5i Pro, Legion 5i gaming laptops pack in latest from Intel, Nvidia](#)
- * [Alienware previews svelte new X series alongside Intel, Nvidia Dell refreshes](#)
- * [Asus tunes up TUF series gaming laptops with new Nvidia, Intel processors](#)
- * [Asus ROG Zephyrus S17, M16 gaming laptop designs evolve with CPU, GPU updates](#)

As has become habit with mobile processor launches, Nvidia and Intel have been making them in tandem. At the same time as the 3050 and 3050 Ti, Intel has revealed its remaining 11th-gen, Tiger Lake-H higher-power mobile CPUs -- the 35-watt versions (H35) for thin gaming and creative laptops were announced at CES, which seem to be a more fitting match for the lower-power 3050 GPUs.

Nvidia GeForce RTX 30-series mobile specs

GPU	CUDA cores	RT cores	Tensor cores	TGP (watts)	Boost clock	Memory	Memory interface
RTX 3050	2048	16	64	35-80	1.057-1.74	4GB GDDR6	128 bit
RTX 3050 Ti	2560	20	80	35-80	1.035-1.695	4GB GDDR6	128 bit
RTX 3060	3840	30	120	60-115	1.283-1.703	6GB GDDR6	192 bit
RTX 3070	5120	40	160	80-125	1.29-1.62	8GB GDDR6	256 bit
RTX 3080	6144	48	192	80-150 plus	1.245-1.71	8 or 16GB GDDR6	256 bit

However, for some of the new Nvidia Studio laptops also being announced today, such as the RTX 3050-based Lenovo Legion 5i Pro, it can make sense to pair a higher-powered CPU with a relatively low-performing discrete GPU like the RTX 3050. For instance, photo editing is still much more CPU intensive than GPU intensive -- though that's changing slowly as multiple and high-resolution monitors become more prevalent and more software operations take advantage of GPU acceleration.

For gaming, yes, it should be much better than the old low-end GTX architecture GPUs, but don't expect miracles. Even Nvidia's own examples show AAA titles like [Control](#), [Watch Dogs: Legion](#) and [Minecraft RTX](#) still not hitting 60fps in 1080p without using DLSS, the company's upscaling algorithms -- and that's for the RTX 3050 Ti, not the 3050, and at midquality settings. That's not to say you won't get good visuals and frame rates on some of your favorite games. Just that you may still need to pay closer to \$1,000 to get the performance you want.

But the Ampere-based RTX 3050 GPUs bring with them advantages over even the Turing-based RTX 20-series, including decent DLSS and ray-tracing performance, more efficient (and thus faster) processing algorithms and support for the generally higher throughput [PCIe Gen 4](#) enables. Keep in mind, though, that just because all of the RTX 30-series GPUs support PCIe 4.0, it's up to individual laptop manufacturers

whether or not to actually implement it; given that Intel's 11th-gen H series CPUs now incorporate PCIe 4.0, you're more likely to see laptops that take advantage of it.

Nvidia also announced some new features for its [XSplit VCam](#)-ish [Nvidia Broadcast](#) software (and Broadcast is one of the few reasons I periodically consider swapping out my [AMD Radeon RX 6800XT](#) for an RTX card): room echo and video noise removal, pet and cicada (!) background audio removal, and support for using multiple effects simultaneously.

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The Lenovo Legion 5i Pro is one of the first RTX 3050/3050 Ti-based laptops. | Lenovo

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Lenovo Legion 7i, Legion 5i Pro, Legion 5i **gaming** laptops pack in latest from Intel, **Nvidia**

Joshua Goldman

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CNEWSN

English

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Lenovo announced new gaming laptops in its Legion line on Tuesday. The new models have [new processors from Intel](#) as well as some with the latest mobile graphics chips from Nvidia, which were [also announced Tuesday](#).

The Lenovo Legion 7i features the world's first 16-inch WQXGA-resolution display (2560x1600 pixels) on a gaming laptop. It has a 16:10 aspect ratio, a 165Hz refresh rate, a 3-millisecond response time, 500-nit brightness and 100% sRGB color gamut. Its keyboard will also feature per-key RGB lighting powered by Corsair's iCue software.

Configuration options will include:

- * 11th-gen Intel Core i7, i9 H-series processors
- * Nvidia GeForce RTX 3060, 3070 or 3080 GPU
- * Up to 32GB of memory
- * Up to 2TB PCIe SSD

Lenovo will also offer a Legion 5i Pro with the same display as the 7i but configurations steer toward midrange. Processors include the Intel Core i7-11400H or i7-11800H and graphics options start with the Nvidia GeForce RTX 3050 and stop with the RTX 3070. It also loses the 7i's RGB keyboard lighting in favor of either a white or blue backlight.

[Click to view image.](#)

If 1440p or 1080p gaming is good enough for you, though, there will also be a non-Pro Legion 5i that offers the same configuration options as the Pro, but with 15.6-inch displays. You'll have your choice of a WQHD (2560x1440) or FHD (1920x1080) displays with 165Hz refresh rate, 300-nit brightness and 100% sRGB color gamut. There will be two other lesser quality FHD displays available on this model so you'll have to really pay attention to what you're getting before you buy. Want to go bigger? A 17-inch Legion 5i will be available also with an FHD 17.3-inch display with either a 144Hz or 60Hz refresh rate.

Lenovo also announced an esports 24.5-inch gaming monitor, the Legion Y25g-30, with a 1080p resolution, 360Hz refresh rate, 1ms response rate, 99% sRGB color gamut and 400-nit brightness.

Pricing and availability were not immediately available.

[Click to view image.](#)

Lenovo Legion 7i. | Lenovo | The Legion 5i Pro comes in "Stingray White." | Lenovo

Document CNEWSN0020210511eh5b00006

online news

Gigabyte announces a pair of Aorus pre-built gaming rigs with Intel/AMD chips and Nvidia RTX 3080 graphics

421 words

10 May 2021

ETMAG.com

FMETMA

English

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With a naming scheme inspired by a famous EV maker, Gigabyte's new high-performance Aorus Model X and Model S pre-builts combine either an Intel 11th-gen i9-11900K or an AMD Ryzen 9 5900X CPU with an Nvidia RTX 3080 and other powerful components for a top-tier gaming experience. There's no word yet on pricing, but Gigabyte will offer a 3-year warranty on both models when they become available to buy.

The new Aorus Model X and Model S offer the same choice of core components inside different form factors. This includes choosing between either an 8C/16T Core i9-11900K or a 12C/24T Ryzen 9 5900X chip and pairing it with a fixed choice of GPU: An Nvidia RTX 3080.

Going with team blue gets you Intel's flagship Z590 chipset on both models, while RAM comes in at 16GB (DDR4 - 4400Mhz) on the Model X and 32GB (DDR4 - 4000MHz) on the Model S. Their AMD-equipped variants feature an X570 motherboard on the bigger 58L Model X and a B550 chipset on the compact 14L Model S, along with 32GB of DDR4 - 3600MHz RAM on both models. In terms of storage, the Model X (Intel/AMD) packs a 1TB M.2 PCIe 4.0 SSD with a 2TB M.2 NVMe PCIe 3.0 SSD, and 5 x SATA 6Gb/s ports for connecting up to 3 x 2.5 drives and 2 x 3.5-inch HDDs. The Model S (Intel/AMD) includes the same SSD configuration, minus the SATA ports.

You also get slightly different I/O connectivity based on your choice of CPU/motherboard, with 10GbE being a standout spec on the Intel-equipped Model X. It's powered by an 850W PSU, while the SFF Model S comes with a 750W unit. The Model X's roomier chassis also allows for fitting it with a 360mm AIO Liquid Cooler that's visible through its transparent side window. Both of these features are absent on the smaller Model S, which comes with its own custom cooling solution (likely an air cooler) for an Xbox Series X-like airflow.

Gigabyte notes that these measures alongside an optimized chassis design help keep low operating temperatures and quiet performance, resulting in under 36db of noise during gameplay testing. Expect these pre-builts to cost a pretty penny once they become available.

Document FMETMA0020210511eh5a0003f

Virtual Reality Marketplace Software Market to Witness Astonishing Growth With High Fidelity, Little Star Media, NVIDIA

813 words

6 May 2021

iCrowdNewswire

ICROWDN

English

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Latest Market intelligence report released by HTF MI with title "COVID-19 Global & USA Virtual Reality Marketplace Software Market Research by Company, Type & Application 2015-2026" is designed covering micro level of analysis by manufacturers and key business segments. The COVID-19 Global & USA Virtual Reality Marketplace Software Market survey analysis offers energetic visions to conclude and study market size, market hopes, and competitive surroundings. The research is derived through primary and secondary statistics sources and it comprises both qualitative and quantitative detailing. Some of the key players profiled in the study are Valve, NVIDIA, Little Star Media, High Fidelity, Open Source Virtual Reality, Reelhouse Media & Svr.

What's keeping Valve, NVIDIA, Little Star Media, High Fidelity, Open Source Virtual Reality, Reelhouse Media & Svr Ahead in the Market? Benchmark yourself with the strategic moves and findings recently released by HTF MI

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Market Overview of COVID-19 Global & USA Virtual Reality Marketplace Software

If you are involved in the COVID-19 Global & USA Virtual Reality Marketplace Software industry or aim to be, then this study will provide you inclusive point of view. It's vital you keep your market knowledge up to date segmented by Applications [Individual, Enterprise, Others], Product Types [, On-premise & Cloud-based] and major players. If you have a different set of players/manufacturers according to geography or needs regional or country segmented reports we can provide customization according to your requirement.

This study mainly helps understand which market segments or Region or Country they should focus in coming years to channelize their efforts and investments to maximize growth and profitability. The report presents the market competitive landscape and a consistent in depth analysis of the major vendor/key players in the market along with impact of economic slowdown.

Furthermore, the years considered for the study are as follows:

Historical year – 2014-2019

Base year – 2019

Forecast period** – 2020 to 2026 [** unless otherwise stated]

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**Moreover, it will also include the opportunities available in micro markets for stakeholders to invest, detailed analysis of competitive landscape and product services of key players.

The titled segments and sub-section of the market are illuminated below:

The Study Explore the Product Types of COVID-19 & USA Virtual Reality Marketplace Software Market: , On-premise & Cloud-based

Key Applications/end-users of COVID-19 Global & USA Virtual Reality Marketplace SoftwareMarket: Individual, Enterprise, Others

Top Players in the Market are: Valve, NVIDIA, Little Star Media, High Fidelity, Open Source Virtual Reality, Reelhouse Media & Svr

Region Included are: North America, Europe, Asia-Pacific etc

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Worldwide Cloud Gaming Industry to 2026 – Utomik, Nvidia and Numecent Among Big Players

281 words

5 May 2021

PCQuest

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English

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The global cloud gaming market reached a value of US\$ 585 Million in 2020. Cloud gaming, also known as gaming on demand, is a form of web gaming that allows direct streaming of games onto the user's personal computer (PC), mobile device or console. This is achieved by establishing a remote connection with a third-party organization that has the software of the game stored in their server. It enables users to play games online without having to download or purchase the actual software. Cloud gaming also provides an integrated gaming experience on smart devices that allows the user to view another user's game through live video streaming. It aims to offer smooth and direct game-playing experience to the end users across various devices.

Increasing mobile gaming audience and digitalization in gaming technology are two of the key factors driving the market growth. Furthermore, constant update and maintenance of a backup are some of the benefits provided by cloud gaming. This eliminates the need for keeping physical copies of software and minimizes the overall gaming cost.

Moreover, cloud gaming also offers a reduction of data storage and ease of accessibility to the users. All these factors have contributed to the overall popularity of cloud gaming. Additionally, improving network connectivity, availability of instant play games, and download- and installation-free gameplays on almost all operating systems and devices such as Android, Linux, Mac, iOS and Chrome OS are also catalyzing the market growth. Looking forward, the publisher expects the global cloud gaming market to exhibit robust growth during the next five years.

[Click here to view image](#)

Document CMPCQU0020210506eh5500001

Razer Blade 14 **gaming** laptop may come with a mix of AMD and **Nvidia** hardware

Hamish Hector

540 words

5 May 2021

TechRadar

TECHR

English

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New rumors online suggest that an upcoming Razer Blade 14 might come with an Nvidia RTX 3060 GPU and AMD Ryzen 9 5900HX CPU.

Thanks to a recent online leak, the new Razer Blade 14 may possibly come equipped with an [Nvidia GeForce RTX 3060](#) GPU and an AMD Ryzen 9 5900HX CPU.

While any leak should be taken with a grain of salt, this one that was shared by [@_rogame](#) seems to line up with what we would anticipate from a new Razer Blade 14. To begin with, the smaller siblings of Razer's laptop line usually come with somewhat lower-end specs compared to the larger ones.

For instance, the RTX 3060 and Ryzen 5900HX that's rumored to power the new Razer Blade 14 can't hold up to the RTX 3080 and 10th gen Intel Core i7 of the bigger and mightier powerful [Razer Blade 17](#) that we tested near the beginning of this year.

* The [best Razer Phone deals](#) in March 2021

* Read our [Razer Book 13 \(2020\)](#) review

* Gaming laptop deals feature [40% price cuts on Razer Blade](#) RTX machines

In addition, it's supposed to have a Time Spy score of 7,305, on par for a gaming laptop with the internals that supposedly power the Razer Blade 14.

Razer PI411Ryzen 9 5900HXRTX 306016GB 3200MHz + 512GB NVMe SSD
pic.twitter.com/Bo57a4xa3d[March 26, 2021](#)

See more

While it won't be as powerful, the Razer Blade 14 will probably be a hard laptop to buy. It won't be cheap since Razer's laptops never are. But, it might be slightly more affordable thanks to its specs. And, since it comes with a highly desired RTX 3000 series GPU, it's possible that cryptominers and resellers will buy up supply as soon as the laptop is launched.

What do we want to see from a Razer Blade 14?

These specs would make the Razer Blade 14 a gaming laptop worth keeping an eye on, but we'd like to see a little more from the iconic manufacturer's next device.

At the top of our list is portability, as this is a laptop after all. The Razer Blade 14's smaller screen size gives it an immediate advantage over the Razer Blade 17, but trimming down the laptop's size and weight, even more, would make it feel like a gaming device you can take on the go.

Another big area in need of improvement is battery life. Gaming laptops by their nature suck up battery thanks to their hardware, but if we could get a little more than the four hours we got out of the Razer Blade 17 in our tests, this would make it feel like you don't always have to be next to a power source to enjoy your games.

We'll have to wait and see how the Razer Blade laptop actually shapes up, and as we learn more we'll be sure to keep you updated.

* The [best Razer Blade gaming laptop deals](#), sales, and prices for March 2021

Via [Tweak Town](#)

[Razer Blade family of laptops \(Razer\)](#)

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Worldwide Cloud Gaming Industry to 2026 - Players Include Utomik, Nvidia and Numecent Holdings Among Others

1,218 words

4 May 2021

20:30

PR Newswire

PRN

English

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DUBLIN, May 4, 2021 /PRNewswire/ -- The "Cloud Gaming Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2021-2026" report has been added to ResearchAndMarkets.com's offering.

The global cloud gaming market reached a value of US\$ 585 Million in 2020. Cloud gaming, also known as gaming on demand, is a form of web gaming that allows direct streaming of games onto the user's personal computer (PC), mobile device or console. This is achieved by establishing a remote connection with a third-party organization that has the software of the game stored in their server. It enables users to play games online without having to download or purchase the actual software. Cloud gaming also provides an integrated gaming experience on smart devices that allows the user to view another user's game through live video streaming. It aims to offer smooth and direct game-playing experience to the end users across various devices.

Increasing mobile gaming audience and digitalization in gaming technology are two of the key factors driving the market growth. Furthermore, constant update and maintenance of a backup are some of the benefits provided by cloud gaming. This eliminates the need for keeping physical copies of software and minimizes the overall gaming cost.

Moreover, cloud gaming also offers a reduction of data storage and ease of accessibility to the users. All these factors have contributed to the overall popularity of cloud gaming. Additionally, improving network connectivity, availability of instant play games, and download- and installation-free gameplays on almost all operating systems and devices such as Android, Linux, Mac, iOS and Chrome OS are also catalyzing the market growth. Looking forward, the publisher expects the global cloud gaming market to exhibit robust growth during the next five years.

Competitive Landscape:

The report has also analysed the competitive landscape of the market with some of the key players being Utomik B.V., Nvidia Corporation, Numecent Holdings Ltd., RemoteMyApp SP ZOO (Vortex), Parsec Cloud Inc., Paperspace, LiquidSky Software Inc., Simplay Gaming Ltd., Ubitus Inc., Microsoft Corporation, Sony, Amazon web services, Google, IBM Corporation, Samsung electronics, GameFly, CiiNow, Inc., etc.

Key Questions Answered in This Report:

- How has the global cloud gaming market performed so far and how will it perform in the coming years?
- What has been the impact of COVID-19 on the global cloud gaming industry?
- What are the key regional markets in the global cloud gaming industry?
- What is the breakup of the market based on the devices type?
- What is the breakup of the market based on the genre?
- What is the breakup of the market based on the technology?
- What is the breakup of the market based on the gamers?
- What are the various stages in the value chain of the global cloud gaming industry?

- What are the key driving factors and challenges in the global cloud gaming industry?
- What is the structure of the global cloud gaming industry and who are the key players?
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For more information about this report visit <https://www.researchandmarkets.com/r/bq1c3k>

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Document PRN0000020210504eh54000xz

MSI Launches 11th Gen Intel Rocket Lake Powered Gaming Desktop PCs With NVIDIA GeForce RTX 30 GPUs & Resizable BAR Support

Hassan Mujtaba

636 words

4 May 2021

Wccftech.com

NEWAGAE

English

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MSI has announced the launch of its latest Gaming Desktop PCs which feature Intel 11th Gen Rocket Lake CPUs along with NVIDIA GeForce RTX 30 GPUs. Interestingly, the gaming desktops feature support for Resizable BAR too which delivers a 5-10% performance increase over PCs prebuilt PCs without BAR support.

MSI's Latest Gaming Desktop PCs Feature Intel 11th Gen CPUs, NVIDIA GeForce RTX 30 GPUs & Resizable BAR Support

The MSI 11th Gen Desktop Gaming PCs come in various shapes and sizes from compact to ITX solutions. The CPUs are configurable up to an Intel Core i9-11900K Desktop CPU and NVIDIA's Geforce RTX 3090 graphics cards. The top model includes the [MEG Aegis Ti5](#) and [MEG Trident X](#) that are equipped with an MSI Z590 motherboard that supports up to the Core i9-11900K CPU & NVIDIA's GeForce RTX 3090 graphics cards.

* [Click to view image.](#)

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Today, We're so proud that MSI is the first brand to integrate Resizable Bar Technology into the whole 11th Gen Gaming Desktop.

By collaborating with both Intel and NVIDIA, it will technically improve frame-per-second (FPS) by 5%-10% during the games, and the performance will be even better in the high-resolution display, which is beneficial for gamers who chase for the advanced gaming experience. Now Resizable Bar Technology will be ready for you just in simple steps.

via MSI

The Trident X is based on a Mini-ITX design while the Aegis Ti5 is based on an ATX design. The latter features 4 DDR4 slots (up to 128 GB capacity support), 2 2.5" & 1 3.5" drive bays, & triple M.2 slots while the former features 2 DDR4 slots (up to 64 GB capacity support), 2 2.5" drive bays & dual M.2 slots.

The Aegis Ti5 is the largest desktop in MSI's lineup, measuring at 551x239x511mm & weighs 15 kg. The Trident X also comes in a B560 flavor which supports up to Core i7-11700 CPU and RTX 3070 graphics. The Trident AS and Trident X feature the same chassis which measures 129x382 mm and weighs around 6.5 kg.

* [Click to view image.](#)

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There's also the [MEG](#) and [MAG Infinite](#) 11th Gen designs which come with a more standard ATX chassis that measures 210x450x488 mm and offers 42L of space with a total weight of 10 kg. The Infinite series comes in Z590 (Core i9-11900K) and H510 (Core i7-11700) CPU flavors and supports RTX 3090 & RTX 3060 Ti graphics cards, respectively. The Z590 model features 4 DDR4 slots (up to 128 GB capacity support), 2 2.5"

& 1 3.5" drive bays, & dual M.2 slots while the former features 2 DDR4 slots (up to 64 GB capacity support), 2 2.5" drive bays & a single M.2 slot.

[Click to view image.](#)

MSI provided us with some gaming benchmark numbers of their new Desktop Gaming PCs withResizable BAR enabled and disabled. It looks like the feature does improve gaming performance but once again, that's limited to certain games, and not every game will feature a similar boost.

[Click to view image.](#)

As for pricing, each model will feature different prices based on the configuration that users are going after. Considering that there's a huge shortage of graphics cards at the moment, these pre-built desktop gaming PCs are your best chances at getting hands on the brand new GeForce RTX graphics cards for gaming purposes.

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Document NEWAGAE020210504eh540008e

MSI GeForce RTX 3080 Ti SUPRIM X Custom NVIDIA Graphics Card Pictured, 12 GB GDDR6X Memory & Ampere GA102 Gaming GPU

Hassan Mujtaba

999 words

30 April 2021

Wccftech.com

NEWAGAE

English

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NVIDIA's first custom GeForce RTX 3080 Ti custom model has leaked out and we are looking at the MSI SUPRIM X variant. The NVIDIA GeForce RTX 3080 Ti is the next-generation flagship gaming card designed for 4K gaming.

MSI GeForce RTX 3080 Ti SUPRIM X Leaks Out, First NVIDIA Custom Design For The Flagship Graphics Card

The MSI GeForce RTX 3080 Ti Ventus 3X graphics cards were spotted within a leaked shipment a while back and looks like we are now looking at another MSI GeForce RTX 3080 Ti variant but this time their ultimate custom design, the SUPRIM X. The MSI GeForce RTX 30 SUPRIM X series cards are literally the best of the best with an amazing design and the fastest clocks out of MSI's entire GPU stack.

[The first custom model of NVIDIA's Geforce RTX 3080 Ti graphics card, the MSI SUPRIM X, has been leaked. \(Image Credits: Videocardz\)](#)

In the leak posted by [Videocardz](#), we can see a box of the MSI GeForce RTX 3080 Ti SUPRIM X card. It is reported that the photo is from a distribution center but no other details are provided. Since we are looking at a premium cost model, we can expect a pricing of around \$1500 US but given the current market situation, a more realistic price should be around \$2000 US.

The card will literally pack everything from a massive triple-slot & triple-fan heatsink to the latest TORX 4.0 fans, a brushed aluminum backplate, a powerful custom PCB design, dual BIOS design, and a lot more.

NVIDIA GeForce RTX 3080 Ti 'Rumored' Graphics Card Specifications

NVIDIA's GeForce RTX 3080 Ti 12 GB FE (Founders Edition) graphics card is expected to feature the PG132-SKU18 PCB design and the GA102-225-KD-A1 graphics core. The GA102-225 GPU has also changed since the last time we saw them and will now feature 10240 CUDA cores within a total of 80 SM units. The GPU features a clock speed of 1365 MHz base and 1665 MHz boost, both of which are slower than the existing GA102 GeForce RTX GPUs.

The final NVIDIA GeForce RTX 3080 Ti graphics card is expected to ship with the new GA102-202 or GA102-302 GPU core features the same specifications as the QS but is locked for mining.

[Click to view image.](#)

As for memory, the card will feature 12 GB of GDDR6X memory. Unlike the 19.5 Gbps speeds of the RTX 3090, the GeForce RTX 3080 Ti is said to retain the same memory speeds as the RTX 3080 at 19 Gbps. Since we are getting 12 GB memory, the NVIDIA GeForce RTX 3080 Ti will be using a 384-bit bus interface which equals a total bandwidth of 912 GB/s. So while we see an 8 GB VRAM reduction over the previous spec, the larger bus interface should drive higher memory bandwidth.

The TGP for the card is set to be the same as the RTX 3080 at 320 Watts. That's definitely needed to feed the extra cores so NVIDIA might have to optimize the clocks a bit here. The NVIDIA GeForce RTX 3080 Ti is expected to feature an MSRP of around \$999 US. The graphics card will rock the [latest mining hash rate limiter](#) which is supposedly hard to crack compared to the initial release which was bypassed within a few days.

NVIDIA GeForce RTX 30 Series 'Ampere' Graphics Card Specifications:

Graphics Card Name	NVIDIA GeForce RTX 3050	NVIDIA GeForce RTX 3050 Ti	NVIDIA GeForce RTX 3060	NVIDIA GeForce RTX 3060 Ti	NVIDIA GeForce RTX 3070	NVIDIA GeForce RTX 3070 Ti?	NVIDIA GeForce RTX 3080	NVIDIA GeForce RTX 3080 Ti?	NVIDIA GeForce RTX 3090
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GPU Name	Ampere GA107	Ampere GA106?	Ampere
GA106-300	Ampere GA104-200	Ampere GA104-300	Ampere
GA104-400	Ampere GA102-200	Ampere GA102-225?	Ampere
GA102-300			
Process Node	Samsung 8nm	Samsung 8nm	Samsung
8nm	Samsung 8nm	Samsung 8nm	Samsung 8nm
Die Size	TBA	TBA	TBA
	395.2mm2	395.2mm2	395.2mm2
	628.4mm2	628.4mm2	628.4mm2
Transistors	TBA	TBA	TBA
	17.4 Billion	17.4 Billion	17.4 Billion
	28 Billion	28 Billion	28 Billion
CUDA Cores	2304?	3584?	3584
	4864	5888	6144?
	8704	10240?	10496
TMUs / ROPs	TBA	TBA	112 /
64	152 / 80	184 / 96	192 / 104?
	272 / 96	320 / 112?	328 / 112
Tensor / RT Cores	TBA	TBA	112 /
28	152 / 38	184 / 46	192 / 48?
	272 / 68	320 / 76?	328 / 82
Base Clock	TBA	TBA	1320
MHz	1410 MHz	1500 MHz	TBA
	1440 MHz	1365 MHz	1400 MHz
Boost Clock	TBA	TBA	1780
MHz	1665 MHz	1730 MHz	TBA
	1710 MHz	1665 MHz	1700 MHz
FP32 Compute	TBA	TBA	12.7
TFLOPs	16.2 TFLOPs	20 TFLOPs	TBA
	30 TFLOPs	TBA	36 TFLOPs
RT TFLOPs	TBA	TBA	25.4
TFLOPs	32.4 TFLOPs	40 TFLOPs	TBA
	58 TFLOPs	TBA	69 TFLOPs
Tensor-TOPs	TBA	TBA	101
TOPs	129.6 TOPs	163 TOPs	TBA
	238 TOPs	TBA	285 TOPs
Memory Capacity	4 GB GDDR6?	6 GB GDDR6?	12 GB
GDDR6	8 GB GDDR6	8 GB GDDR6	8-16 GB
GDDR6X?	10 GB GDDR6X	12 GB GDDR6X	24 GB
GDDR6X			
Memory Bus	128-bit	192-bit?	192-bit
	256-bit	256-bit	256-bit
	320-bit	384-bit	384-bit
Memory Speed	TBA	TBA	15 Gbps
	14 Gbps	14 Gbps	TBA
	19 Gbps	19 Gbps	19.5 Gbps
Bandwidth	TBA	TBA	360
Gbps	448 Gbps	448 Gbps	TBA
	760 Gbps	912 Gbps	936 Gbps
TGP	90W?	TBA	170W
	200W	220W	250W?
	320W	320W	350W
Price (MSRP / FE)	\$149?	\$199?	\$329
	\$399 US	\$499 US	\$599 US?
	\$699 US	\$999 US?	\$1499 US
Launch (Availability)	2021?	2021?	
February 2021	December 2020	29th October	May
2021?	17th September	May 2021?	24th
September			

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Document NEWAGAE020210430eh4u0008f

Global Gaming Console Market Report 2021-2025 Featuring Atari, Dell, Mad Catz, Mattel, Microsoft, Nintendo, NVIDIA, Razer, Sony, & Valve - ResearchAndMarkets.com

598 words

30 April 2021

11:55

Business Wire

BWR

English

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DUBLIN--(BUSINESS WIRE)--April 30, 2021--

The "Global Gaming Console Market 2021-2025" report has been added to ResearchAndMarkets.com's offering.

The gaming console market is poised to grow by \$ 14.59 bn during 2021-2025, progressing at a CAGR of over 6% during the forecast period.

The market is driven by the enhanced features of next-generation gaming consoles and enhanced technological features and product innovations.

The report on gaming console market provides a holistic analysis, market size and forecast, trends, growth drivers, and challenges, as well as vendor analysis covering around 25 vendors. The report offers an up-to-date analysis regarding the current global market scenario, latest trends and drivers, and the overall market environment. The gaming console market analysis include type segment, application segment, and geographic landscape.

This study identifies the diversifying gaming population as one of the prime reasons driving the gaming console market growth during the next few years.

The publisher's robust vendor analysis is designed to help clients improve their market position, and in line with this, this report provides a detailed analysis of several leading gaming console market vendors that include Atari Inc, Dell Technologies Inc., Mad Catz Global Ltd., Mattel Inc., Microsoft Corp., Nintendo Co. Ltd., NVIDIA Corp., Razer Inc., Sony Corp., and Valve Corp.

Also, the gaming console market analysis report includes information on upcoming trends and challenges that will influence market growth. This is to help companies strategize and leverage all forthcoming growth opportunities.

The study was conducted using an objective combination of primary and secondary information including inputs from key participants in the industry. The report contains a comprehensive market and vendor landscape in addition to an analysis of the key vendors.

Key Topics Covered:

Executive Summary

-- Market overview

Market Landscape

-- Market ecosystem

-- Value chain analysis

Market Sizing

-- Market definition

-- Market segment analysis

-- Market size 2020

-- Market outlook: Forecast for 2020 - 2025

Five Forces Analysis

-- Five forces summary

-- Bargaining power of buyers

-- Bargaining power of suppliers

-- Threat of new entrants

-- Threat of substitutes

-- Threat of rivalry

-- Market condition

Market Segmentation by Type

-- Market segments

-- Comparison by Type

-- TV consoles - Market size and forecast 2020-2025

-- Handheld consoles - Market size and forecast 2020-2025

-- Market opportunity by Type

Market Segmentation by type of gamer

-- Market segments

-- Comparison by type of gamer

-- Casual gamers - Market size and forecast 2020-2025

-- Hardcore gamers - Market size and forecast 2020-2025

-- Market opportunity by type of gamer

Customer Landscape

Geographic Landscape

-- Geographic segmentation

-- Geographic comparison

-- APAC - Market size and forecast 2020-2025

-- North America - Market size and forecast 2020-2025

-- Europe - Market size and forecast 2020-2025

-- MEA - Market size and forecast 2020-2025

-- South America - Market size and forecast 2020-2025

-- Key leading countries

-- Market opportunity by geography

-- Market drivers

-- Market challenges

-- Market trends

Vendor Landscape

-- Overview

-- Vendor landscape

-- Landscape disruption

Vendor Analysis

-- Vendors covered

-- Market positioning of vendors

--

Atari Inc

-- Dell Technologies Inc.

-- Mad Catz Global Ltd.

-- Mattel Inc.

-- Microsoft Corp.

-- Nintendo Co. Ltd.

-- NVIDIA Corp.

-- Razer Inc.

-- Sony Corp.

-- Valve Corp.

Appendix

For more information about this report visit <https://www.researchandmarkets.com/r/jxau32>

View source version on businesswire.com: <https://www.businesswire.com/news/home/20210429006275/en/>

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StarHub launches Nvidia GeForce Now cloud gaming service

273 words

30 April 2021

Telecompaper Asia

TELASI

English

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Singapore operator StarHub has introduced the Nvidia GeForce Now cloud gaming service. The GeForce Now platform allows customers to play games on various devices and access a library of around 800 game titles. The service blends StarHub's connectivity services, from 5G to fibre broadband with Nvidia's technology. The GeForce Now cloud gaming service allows customers to play games from their phones, tablets or web browsers.

Working with over 300 publishers, such as Deep Silver, Bungie, and Square Enix, GeForce Now is a cloud-gaming platform for PC gamers. Weekly game releases, part of This Week on GFN, continue to expand the game library, while adding new features. Updates will be introduced every week, Starhub said. Customers can also access more than 80 of the biggest free-to-play games. In addition, they can link their Steam or Epic Games accounts to GeForce Now, and add the titles that they already own for enjoyment anytime, anywhere, on almost all their devices.

GeForce Now Powered by StarHub will launch in Singapore in the third quarter of 2021. Monthly and yearly subscription plans will be made available for all consumers, while new and existing StarHub customers will have access to additional deals. In preparation for the commercial launch, StarHub is currently deploying Nvidia's RTX servers in its data centres. These gaming servers are capable of delivering real-time ray tracing, the operator also said.

Customers can register their interest at StaHub website to receive updates about GeForce Now Powered by StarHub and the upcoming trial. Pricing and availability details will be announced closer to launch.

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online news

If you haven't been paying attention, Nvidia is no longer a gaming company

1,408 words

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ETMAG.com

FMETMA

English

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For those of you who haven't been paying close attention, Nvidia is no longer a gaming company. Oh, sure, they continue to make some of the best-performing graphics chips for gaming and host a global cloud-based gaming service called GeForce Now. But if you take a step back and survey the full range of the company's offerings, it's significantly broader than it has ever been—a point CEO Jensen Huang hammered home during his GTC keynote this week. In his words, "Nvidia is now a full-stack computing company."

Reflecting how much wider Nvidia's scope has become over the past few years, ironically there was probably as much news about non-GPU chips as there were GPUs at GTC 2021 (GPU Technology Conference).

Between a new 5nm Arm-based CPU codenamed "Grace," a broadening of the DPU line created from the Mellanox acquisition, new additions to its automotive chips and platforms, and discussions of quantum computing, 5G data processing and more, the company is reaching to ever broader portions of the computing landscape. Not to be left out, of course, there were new GPU and GPU-related announcements, including an impressive array of new cloud-based AI-powered GPU software and services.

To its credit, Nvidia has been broadening the range of applications for GPUs for several years now. Its impact on machine learning, deep neural networks and other sophisticated AI models has been well documented, and at this year's show, the company continued to extend that reach. In particular, Nvidia highlighted its efforts targeted toward the enterprise with a whole range of pre-built AI models that companies can more easily deploy for a wide range of applications. The previously announced Jarvis conversational AI tool, for example, is now generally available and can be used by businesses to build automated customer service tools. As impressive as the GPU-focused applications for the enterprise are, the big news splash (and some of the biggest confusion) out of GTC came from the company's strategic shift to three different types of chips: GPUs, DPUs and CPUs.

The newly unveiled Maxine project is designed to improve video quality over low-bandwidth connections and to perform automatic transcription and real-time translation—timely and practical capabilities that many collaboration tools have but could likely be enhanced with the integration of Nvidia's cloud-based, AI-powered tools. The company also made an important announcement with VMware, noting that Nvidia's AI tools and platforms can now run on virtualized VMWare environments in addition to dedicated bare metal hardware. While seemingly mundane at first glance, this is actually a critically important development for the many businesses that run a good portion of their workloads on VMware. As impressive as the GPU-focused applications for the enterprise are, the big news splash (and some of the biggest confusion) out of GTC came from the company's strategic shift to three different types of chips: GPUs, DPUs and CPUs. CEO Huang neatly summarized the approach with a slide that showed the roadmaps for the three different chip lines out through 2025, highlighting how each line will get updates every few years, but with different start points, allowing the company to have one (and sometimes two) major architectural advances every year.

The DPU line, codenamed BlueField, builds on the high-speed networking technology Nvidia acquired when it purchased Mellanox last April. Specifically targeted at data centers, HPC (high-performance computing), and cloud computing applications, the BlueField line of chips is ideally suited to speed the performance of modern web-based applications.

Because these applications are split into numerous smaller containers that often run on multiple physical servers, they are highly dependent on what's commonly called "east-west" traffic between computing racks in a data center. Importantly, however, these same software development principles are being used for an increasingly wide range of applications, including automotive, which helps explain why the latest generation of automotive SoC (codenamed Atlan and discussed below) includes a BlueField core in its design. The new CPU line—which unquestionably generated the most buzz—is an Arm-based design codenamed Grace (for computing pioneer Grace Hopper—a classy move on Nvidia's part). Though many initial reports suggested this was a competitive product to Intel and AMD x86 server CPUs, the truth is that the original implementation goal for Grace is only for HPC and other huge AI model-based workloads. It is not a general-purpose CPU design. Still, in the kinds of advanced, very demanding and memory-intensive AI applications that Nvidia is

initially targeting for Grace, it solves the critical problem of connecting GPUs to system memory at significantly faster speeds than traditional x86 architectures can provide. Clearly, this isn't an application that every organization can take advantage of, but for the growing number of organizations that are building large AI models, it's still very important. Of course, part of the reason for the confusion is that Nvidia is currently trying to purchase Arm, so any connection between the two is bound to get inflated into a larger issue. Plus, Nvidia did demonstrate a range of different applications where it's working to combine its IP with Arm-based products, including cloud computing with Amazon's AWS Graviton, scientific computing in conjunction with Ampere's general purpose Altra server CPUs, 5G network infrastructure and edge computing with Marvell's Octeon, and PCs with MediaTek's MT819x SoCs.

As with a next-generation BlueField DPU core, the new Atlan automotive SoC diagram incorporates a "Grace Next" CPU core, generating yet even more speculation. Speaking of which, Nvidia also highlighted a number of automotive-related announcements at GTC. The company's next-generation automotive platform is codenamed Orin and is expected to show up in vehicles from big players like Mercedes-Benz, Volvo, Hyundai and Audi starting next year. The company also announced the Orin central computer, where a single chip can be virtualized to run four different applications, including the instrument cluster, infotainment system, passenger interaction and monitoring, and autonomous and assisted driving features with confidence view—a visual display of what the car's computers are seeing, designed to give passengers confidence that it's functioning properly. The company also debuted their eighth generation Hyperion autonomous vehicle (AV) platform, which incorporates multiple Orin chips, image sensors, radar, lidar, and the company's latest AV software.

A new chip—the aforementioned Atlan—is scheduled to arrive in 2025. While many may find a multi-year pre-announcement to be overkill, it's relatively standard practice in the automotive industry, where they typically work on cars three years in advance of their introduction.

Atlan is also the first Nvidia product to include all three of the company's core chip architectures—GPU, DPU and CPU—in a single semiconductor design.

Atlan is intriguing on many levels, not the least of which is the fact that it's expected to quadruple the computing power of Orin (which comes out in 2022) and reach a rate of 1,000 TOPS (tera operations per second). As hinted at earlier, Atlan is also the first Nvidia product to include all three of the company's core chip architectures—GPU, DPU and CPU—in a single semiconductor design. The details remain vague, but the next generation of each of the current architectures is expected to be part of Atlan, potentially making it a poster child of the company's expanded opportunities, as well as a great example of the technical sophistication of automobiles to be released in that era. Either way, Atlan will definitely be something to watch.

All told, Nvidia showcased a wide ranging and impressive story at GTC. I haven't even mentioned, until now, its Omniverse platform for 3D collaboration, its DGX supercomputer-like hardware platforms, and a host of other announcements the company made. There was simply too much to cover in a single column. However, this much is apparent. Nvidia is clearly focused on a much broader range of opportunities than it ever has.

Even though gaming fans may have been disappointed by the lack of news for them, anyone thinking about the future of computing can't help but be impressed by depth of what Nvidia unveiled. Gaming and GPUs, it seems, are just the start.

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Lifestyle, Tech

Nvidia is building a giant virtual 'metaverse' of the world, with 'digital twins' of cars, cities, and people

Adam Smith

1,193 words

21 April 2021

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Independent Online

INDOP

English

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Mr Huang also predicts we will travel from the virtual world to an augmented-reality real world via 'wormholes'

Jensen Huang, [Nvidia](#)'s chief executive, says the company's next step is creating a 'metaverse', artificially created environments where companies can simulate the future before acting on it.

Mr Huang said the company wanted to "create the future" by creating a virtual world that is thousands of times larger than the physical world. This digital space would be recreations of New York City and Shanghai, Mr Huang predicts, with "digital twin[s]" of "every single factory and every single building".

"Engineers and software programmers could simulate new software that will ultimately run in the physical version of the car, the physical version of the robot, the physical version of the airport, the physical version of the building", Mr Huang said in an interview with [Time magazine](#).

"All of the software that's going to be running in these physical things will be simulated in the digital twin first, and then it will be downloaded into the physical version".

Mr Huang also predicts that people will be able to go in and out of the two worlds through "wormholes", although it is unclear exactly how that would be done.

"We'll go into the virtual world using virtual reality, and the objects in the virtual world, in the digital world, will come into the physical world, using augmented reality. So what's going to happen is pieces of the digital world will be temporarily, or even semipermanently, augmenting our physical world. It's ultimately about the fusion of the virtual world and the physical world", Mr Huang said.

Nvidia is already using its 'Omniverse' 3-D modelling software to remake factories and machinery in a virtual world. Similar to a large-scale video game, the software provides three-dimensional objects, people and real-world physics – using its physical simulator PhysX – so companies can create digital versions of their factories and workplaces.

Developments in artificial intelligence and machine learning also gives the software the capability to simulate actions, finding the most efficient process over time. As large [manufacturers](#) look to automate their businesses further, Mr Huang believes such services will be vital.

"AI is a watershed moment for the world. Humans' fundamental technology is intelligence. We're in the process of automating intelligence so that we can augment ours", Mr Huang said.

"The thing that's really cool is that AI is software that writes itself, and it writes software that no humans can. It's incredibly complex. And we can automate intelligence to operate at the speed of light, and because of computers, we can automate intelligence and scale it out globally instantaneously."

Mr Huang went on to say that agriculture, food production, healthcare, transportation, and logistics could all be affected by these developments.

"These industries that I just mentioned are so complex that no humans could write the software to improve it. But finally we have this piece of this new technology called artificial intelligence that can write that complex software so that we can automate it", the CEO added.

"The whole goal of writing software is to automate something. We're in this new world where, over the next 10 years, we're going to see the automation of automation."

This is not the first time that Nvidia has pushed a vision of an interconnected digital world, where the company acts as neutral mediator. Mr Huang made similar claims at a demonstration of the company's Omniverse software in October 2020.

"Factories can be connected to other factories and connected trucks, and before you know it, the blueprint of a company will be simulated, the blueprint of the manufacturing, the supply chain company is going to be in a world," Huang said, [Venturebeat reports](#).

"Someday, it's going to become this active world. We're going to connect one supply chain company with another supply chain company into your supply chain. And then so their world and your world are interconnected. And there'll be a whole bunch of robots, and we're going to work on that. And it's something that we could do."

Car manufacturer BMW has touted the use of the virtual factory, creating a digital version of its Regensburg plant in Germany. A [CNN report states](#) that the effects of these developments cut the time it took to deploy new applications by 80 per cent and reduced quality issues by five per cent.

However, while large firms with access to huge amounts of money and resources might find it easier to integrate the digital world and the real one, others may find it more of a challenge.

A [report from technology consultation company Capgemini](#) found that only 14 per cent of companies were "characterising their existing initiatives as 'successful'" and nearly 60 per cent were saying they are "struggling" to scale their projects.

"In addition to digital talent, a range of skills and capabilities will be required to drive smart factory transformation including cross-functional profiles, such as engineering-manufacturing, manufacturing-maintenance, and safety-security", the company says, adding that "problem solving and collaborative skills will also be critical".

In spite of these issues Ding Zhao, a professor at Carnegie Mellon University with expert knowledge of AI and digital simulations, told [Wired](#) that the mesh of the real and digital is "definitely the way to go" for future developments.

This is because simulations, Zhao says, make it much easier for machines to run through millions of cycles in order to learn a behaviour in a digital environment than a physical one.

Robots would also be able to experiment with dangerous situations, such as collisions, where humans cannot be hurt and products cannot be damaged. "Machine learning is data-hungry, and collecting it in the real world is expensive and risky," he also said.

The technology behind digital twins has been around for some time, York University's Professor of Operations Management Peter Ball tells The Independent, but their real potential lies in testing something in the virtual world, implementing it in the physical, and then using what is learned to update the digital space.

"One exciting area is where the models of the real world are built digitally automatically", Professor Ball says. "Increasingly, automation can grab digital data from the real systems to create the twin", adding that technology like machine learning or artificial intelligence is not essential, but adds to a "richness" of what can be achieved and automated.

Nvidia is not the only company looking to make virtual scale-models of the world. Players of the video game Minecraft are attempting a similar task, [constructing blocky imitations of every city, town, and village in the world on a 1:1 scale](#).

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Document INDOP00020210419eh4j00360

Acer Predator Helios 300 gaming laptop with NVIDIA RTX 3060 launched in India

Express Computer

Distributed by Contify.com

201 words

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Express Computer

ATEXCP

English

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Acer announced the launch of its Predator Helios 300 laptop in India.

Acer, the global PC brand announced the launch of its Predator Helios 300 laptop in India equipped with octa-core Intel Core i7 mobile gaming processors and comes with the latest Nvidia GeForce RTX 30 series GPUs for high performance gaming experience.

Speaking on the launch Sudhir Goel, Chief Business Officer, Acer India said, “Our newest Helios 300 gaming laptops powered by the NVIDIA RTX 30 series graphics cards are all set to redefine gaming experience in the Indian market. With our latest offering, we aim to elevate their gaming experience further and offer unbeatable features at this price for serious gamers who want to take their gaming to the next level.”

“The laptop offers the perfect blend of high performance hardware, beautiful crisp fast refreshing screen, ergonomic design for long hours of gaming with outstanding audio. We are proud to bring this to our Indian gaming audience,” added Goel.

The Predator Helios 300 will be available on Acer exclusive stores, Acer online stores and Flipkart starting from INR 119999.

Document ATEXCP0020210420eh4k0005n



PC/ Laptops

Acer Predator Helios 300 Gaming Laptop With Nvidia GeForce RTX 30 Series GPUs Launched in India

Tasneem Akolawala

433 words

19 April 2021

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NDTV

NDTVIN

English

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Acer Predator Helios 300 gaming laptop has been refreshed in India with Nvidia GeForce RTX 3070 or Nvidia GeForce RTX 3060 GPUs. The laptop is powered by the tenth-generation Intel Core i7 octa-core mobile gaming processor. It comes with 144Hz screen refresh rate with 3 millisecond response time for smooth gaming, and 3D simulated surround sound with DTS-X Ultra audio fine-tuning. The Acer Predator Helios 300 gaming laptop has Killer's E2600 Ethernet Controller and Killer Wi-Fi 6 AX1650i for reduced latency while gaming.

Acer Predator Helios 300 price in India, sale

The new [Acer Predator Helios 300](#) gaming laptop is priced in India starting at Rs. 1,19,999. The laptop is already available on Acer Exclusive Store, [Acer Online Store](#), and [Flipkart](#). It is listed on the e-commerce site with bank discounts and EMI options.

Acer Predator Helios 300 gaming laptop specifications

Coming to specifications, the Acer Predator Helios 300 runs on Windows 10 Home and features a 15.6-inch full-HD+ (1,080x1,920 pixels) IPS display with 300 nits peak brightness, and up to 240Hz screen refresh rate. The laptop is powered by the tenth-generation Intel Core 7 i7-10870H processor paired with up to 32GB RAM, 1TB HDD, and up to 1TB SSD.

There's a 720p HD webcam (1,280x720 resolution) on board the Acer Predator Helios 300 gaming laptop. It has a 4-cell 59Whr battery that claims to last for seven hours. The laptop weighs 2.3 kg and is 22.9mm thick. Ports include two USB 3.2 Gen 1 ports, one USB Type-C port (USB 3.2 Gen 2), one USB 3.2 Gen 2 port, HDMI port, and RJ-45. Connectivity options include Killer Wi-Fi 6 AX1650i, IEEE 802.11 a/b/g/n/ac/ax, Bluetooth v5.1, and more. The laptop features stereo speakers and has 3D simulated surround sound with DTS-X Ultra audio fine-tuning. Also, it comes with fourth-gen AeroBlade 3D fans for better cooling during intense game sessions. There is also a four-zone RGB customized keyboard with the Predator typeface.

Why did LG give up on its smartphone business? We discussed this on [Orbital](#), the Gadgets 360 podcast. Later (starting at 22:00), we talk about the new co-op RPG shooter Outriders. Orbital is available on [Apple Podcasts](#), [Google Podcasts](#), [Spotify](#), and wherever you get your podcasts.

[Click here to view video](#)

Document NDTVIN0020210420eh4j0000n



Acer Predator Helios 300 gaming laptop with upto NVIDIA RTX 3070 GPU and 240Hz refresh rate launched in India

Digit NewsDesk

498 words

19 April 2021

Digit

HTDIGI

English

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India, April 19 -- Acer Predator Helios 300 gaming laptop has officially launched in India powered by upto NVIDIA RTX 3070 GPU and 240Hz refresh rate display. With its configuration set, the Helios 300 is capable of driving through the most demanding of AAA titles and is available with RTX 3060 and RTX 3070 GPUs.

"Our newest Helios 300 gaming laptops powered by the NVIDIA RTX 30 series graphics cards are all set to redefine gaming experience in the Indian market. The laptop offers the perfect blend of high- performance hardware, a beautiful crisp fast refreshing screen, ergonomic design for long hours of gaming with outstanding audio. We are proud to bring this to our Indian gaming audience," said Sudhir Goel, Chief Business Officer, Acer India.

Acer Predator Helios 300 price and availability

The Acer Predator Helios 300 is priced starting at Rs 1,19,999 for the base variant with 10th generation Core i7, RTX 3060 GPU, 144Hz refresh rate display and 1TB HDD with 256GB SSD. The second variant is priced at Rs 1,24,999 and has 1TB SSD storage with the same features as the base variant. The maxed-out variant with RTX 3070 GPU, 1TB SSD storage and 240Hz refresh rate display is priced at Rs 1,49,999.

Acer Predator Helios 300 is available to purchase from the Acer Online Store, Flipkart and offline exclusive stores.

Acer Predator Helios 300 features

The Acer Predator Helios 300 is powered by the octa-core 10th generation Intel Core i7 processor with up to NVIDIA RTX 3070 GPUs. This is paired with 16GB of DDR4 memory which is upgradeable to 32GB and up to 1TB SSD storage options to choose from. The Helios 300 also supports up to 2TB HDD storage.

Acer Predator Helios 300 features a 15.6-inch IPS display with a Full HD (1920 x 1080 pixels) resolution and 144Hz/240Hz refresh rate support. The laptop is equipped with the 4th generation AeroBlade 3D technology which enables sustained performance for extended gaming sessions. Additionally, the Predator CoolBoost increases the fan speeds based on the heat generated and helps in heat dissipation from critical areas.

The Helios 300 gaming laptop has a full suite of I/O ports that include HDMI 2.0, Mini display port, USB 3.2 Gen 1 and Gen 2 ports. The laptop is also equipped with Killer E2600 ethernet and WiFi 6 for low latency gaming and robust connectivity that's required for gaming online.

The laptop has a 4-zone RGB keyboard and has dedicated keys for Turbo mode and PredatorSense that allows users to keep a tab on the system, overclocking and customize RGB lighting.

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Document HTDIGI0020210419eh4j00002

ASUS TUF Gaming Dash F15 Laptop With Intel Core i5-11300H Quad Core CPU & NVIDIA GeForce RTX 3050 4 GB GPU Listed Online

Hassan Mujtaba

1,114 words

19 April 2021

Wccftech.com

NEWAGAE

English

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Amazon Italy has [listed down](#) a brand new ASUS TUF Gaming laptop which features the Intel Tiger Lake-H Core i5 CPU and the unreleased NVIDIA GeForce RTX 3050 GPU. Judging by the specs, this particular configuration should be aimed at the entry-level portable gaming segment which is very popular in eSports.

NVIDIA GeForce RTX 3050 4 GB GPU Equipped ASUS TUF Gaming Dash F15 Laptop Spotted, Also Features Quad-Core Intel Core i5-11300H CPU

The ASUS TUF Gaming Dash F15 FX516PC-HN002T is an upcoming gaming laptop powered by an entry-level Intel Tiger Lake-H CPU and an entry-level NVIDIA GeForce RTX 30 series GPU. It comes with a 15.6" 1080p display, featuring anti-glare technology and a 144 Hz refresh rate. The laptop has a dark grey and black color scheme and features the large TUF branding and logo on the top.

[Click to view image.](#)

ASUS TUF Gaming Dash F15 Gaming official description

* Notebook with FHD display with 144Hz refresh rate, featuring a new design with clean and attractive lines, light and compact with a thickness of only 19.9mm

* Enhanced audio technology and cooling system, long battery life, and the possibility of charging via USB Type-C port

* Cutting-edge performance with 11th Gen Intel Core i5-11300H processor, NVIDIA GeForce RTX 3050 4GB GDDR6 graphics card, 8GB DDR4-3200 RAM, and 512GB PCI-E SSD

* Ultra-fast and convenient connection thanks to the innovative Thunderbolt 4 port and Intel Wi-Fi 6 (802.11ax) which ensures the most stable signal possible

* Perfect for those looking for a notebook with cutting-edge design and performance to always be ready for action, easily passing from gaming, to streaming, to daily activities

In terms of specifications, the ASUS TUF Gaming Dash F15 laptop features the Intel Tiger Lake-H, Core i5-11300H CPU. This CPU packs 4 cores, 8 threads and is based on the 10nm Willow Cove x86 core architecture. The CPU has a base clock of 3.1GHz and a boost clock of up to 4.4GHz. It comes with 12 MB of Cache, an Iris Xe (GT1) GPU clocked at 1350 MHz, and a TDP of 35W which is configurable up to 45W.

* [Click to view image.](#)

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For graphics, the ASUS TUF Gaming Dash F15 laptop is equipped with the NVIDIA GeForce RTX 3050 4 GB variant which is expected to feature 2048 CUDA cores, 6 GB of GDDR6 memory clocked at 12 Gbps that delivers a bandwidth of 192 GB/s across a 128-bit bus interface. The GPU is expected to feature a TGP range of 50W. There will also be configurations featuring the faster RTX 3050 Ti GPU as both are based on the same GA107 Ampere GPU cores.

Other specifications include 8 GB of DDR4 memory which is upgradable to 32 GB, 512 GB of SSD storage space, Integrated WiFi 6E support with Bluetooth 5.2, 3 USB 3.0 ports, a single HDMI port, & a 76Whr battery. The ASUS TUF Gaming Dash F15 laptop also comes with a half-sized backlit keyboard & weighs 2.0 kg. We should expect a price of around \$1200-\$1300 US for this variant.

Intel 11th Generation Tiger Lake-H CPU Specs:

CPU Name	CPU Architecture	Platform	Cores/Threads	Base Clock
Boost Clock (Max on 1-Core)	Cache	GPU (Xe) Cores	GPU (Xe) Clock	TDP
Core i9-11980HK	10nm Tiger Lake SuperFin	Tiger Lake-H 8/16	2.6 GHz	
5.0 GHz	24 MB 32 EUs (256 Cores)	1450 MHz	45W (cTDP	
65W)				
Core i9-11900H	10nm Tiger Lake SuperFin	Tiger Lake-H 8/16	2.5 GHz	
4.9 GHz	24 MB 32 EUs (256 Cores)	1450 MHz	45W (cTDP	
35W)				
Core i7-11800H	10nm Tiger Lake SuperFin	Tiger Lake-H 8/16	2.4 GHz	
4.6 GHz	24 MB 32 EUs (256 Cores)	1450 MHz	45W (cTDP	
35W)				
Core i5-11600H	10nm Tiger Lake SuperFin	Tiger Lake-H 6/12	2.9 GHz	
4.6 GHz	12 MB 32 EUs (256 Cores)	1450 MHz	45W (cTDP	
35W)				
Core i5-11400H	10nm Tiger Lake SuperFin	Tiger Lake-H 6/12	2.7 GHz	
4.5GHz	12 MB 32 EUs (256 Cores)	1450 MHz	45W (cTDP	
35W)				
Core i5-11260H	10nm Tiger Lake SuperFin	Tiger Lake-H 6/12	2.6 GHz	
4.4 GHz	12 MB 32 EUs (256 Cores)	1450 MHz	45W (cTDP	
35W)				
Core i7-11390H	10nm Tiger Lake SuperFin	Tiger Lake-H 4/8	3.4 GHz	
5.0 GHz	12 MB 96 EUs (768 Cores)	1350 MHz	35W (cTDP	
45W)				
Core i7-11375H	10nm Tiger Lake SuperFin	Tiger Lake-H 4/8	3.3 GHz	
5.0 GHz	12 MB 96 EUs (768 Cores)	1350 MHz	35W (cTDP	
45W)				
Core i7-11370H	10nm Tiger Lake SuperFin	Tiger Lake-H 4/8	3.3 GHz	
4.8 GHz	12 MB 96 EUs (768 Cores)	1350 MHz	35W (cTDP	
45W)				
Core i5-11320H	10nm Tiger Lake SuperFin	Tiger Lake-H 4/8	3.2 GHz	
4.5 GHz	12 MB 96 EUs (768 Cores)	1350 MHz	35W (cTDP	
45W)				
Core i5-11300H	10nm Tiger Lake SuperFin	Tiger Lake-H 4/8	3.1 GHz	
4.4 GHz	12 MB 96 EUs (768 Cores)	1350 MHz	35W (cTDP	
45W)				

NVIDIA GeForce RTX 30 Mobility GPU Lineup:

GPU Name	NVIDIA GeForce RTX 3050	NVIDIA GeForce RTX 3050 Ti	NVIDIA GeForce RTX 3060	NVIDIA GeForce RTX 3070	NVIDIA GeForce RTX 3080
Process Node	Samsung 8nm	Samsung 8nm	Samsung 8nm	Samsung 8nm	Samsung 8nm
GPU SKU	GA107?	GA107?	GA104-770	GA104-775	GA106
SMs	16	20	40	48	30
CUDA Cores	2048	2560	5120	6144	3840
Base Clock	TBA	TBA	1290 MHz	1245 MHz	1283 MHz
Boost Clock	TBA	TBA	1620 MHz	1710 MHz	1703 MHz
Memory Clock	12 Gbps	12 Gbps	12 Gbps	12 Gbps	12 Gbps
Memory Type	GDDR6	GDDR6	GDDR6	GDDR6	GDDR6
Memory Size	4 GB	4 GB	8 GB	8/16 GB	6 GB
Memory Bus	128-bit	128-bit	256-bit	256-bit	192-bit
Bandwidth	192 GB/s	192 GB/s	384 GB/s	384 GB/s	288 GB/s
TGP	50W?	60W?	80-125W	80-150W+	60-115W

Configurations	Max-Q	Max-P		Max-Q	Max-P		Max-Q	Max-P
	Max-Q	Max-P		Max-Q	Max-P			
Launch		1H 2021?			1H 2021?		Q1	2021
	Q1	2021		Q1	2021			

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Document NEWAGAE020210419eh4j000e3

Bentley Systems Brings Infrastructure **Digital Twins to **NVIDIA** Omniverse**

916 words

15 April 2021

08:20

Korea Newswire

KORNEW

English

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GTC21 - Bentley Systems, Incorporated (Nasdaq: BSY), the infrastructure engineering software company, today announced that it is developing applications using the NVIDIA Omniverse platform for photorealistic, real-time visualization and simulation of digital twins of massive-scale industrial and civil infrastructure projects.

Bentley Systems has extended the Bentley iTwin platform to integrate with NVIDIA Omniverse to provide a graphics pipeline for AI-enhanced, real-time visualization, and simulation of infrastructure digital twins. This integration allows engineering-grade, millimeter-accurate digital content to be visualized with photorealistic lighting and environmental effects on multiple devices including web browsers, workstations, tablets, and virtual reality and augmented reality headsets from anywhere in the world.

Bentley iTwin is an open, scalable cloud platform that enables engineering firms and owner-operators to create, visualize, and analyze digital twins of infrastructure assets. Digital information managers use it to incorporate engineering data created by diverse design tools into a living digital twin and align it with reality data, IoT data, and other associated data without disrupting their current tools or processes.

Bentley Systems CEO Greg Bentley said, "Visualization and simulation underpin many of the use cases for infrastructure digital twins. The collaboration of Bentley iTwin and NVIDIA Omniverse is delivering real-time, immersive 3D/4D experiences that will enable true-to-reality, physics-based simulation of even the largest and most complex infrastructure assets. GPU-computing is transforming the world of engineering and construction and promises to unleash the potential of AI for simulation and advanced analytics in infrastructure digital twins."

"Modern infrastructure are magnificent feats of engineering. NVIDIA and Bentley share a vision of physically based digital twins - so accurate and realistically simulated that they will revolutionize everything from infrastructure design to operations," said Jensen Huang, founder and CEO of NVIDIA. "NVIDIA Omniverse was built precisely to realize this vision - to create shared virtual worlds that are simulated with physical and photo realism. We are delighted Bentley is developing applications for infrastructure digital twins on NVIDIA Omniverse."

Unmatched High-Fidelity Infrastructure Visualization

The combination of the Bentley iTwin platform and NVIDIA Omniverse provides an unmatched, high-performance user experience at a scale that had previously not been possible.

The integration of the capabilities of the Bentley iTwin platform and NVIDIA Omniverse enables users to virtually explore massive industrial plants and offshore structures as if they are walking through the infrastructure in real time, for purposes such as wayfinding and safety route optimization.

"The industry is moving in a positive direction toward more automated and sophisticated tools that improve client outcomes," said Donna DeMarco, plant information modeling, Jacobs. "Jacobs is proud to partner with Bentley in leveraging tools like iTwin linked with NVIDIA Omniverse to achieve strong results for our clients."

Image and caption:

Houston Waterworks

Image courtesy of Houston Waterworks Team (a Joint Venture of Jacobs Engineering Group, Inc. and CDM Constructors, Inc.)

About NVIDIA Omniverse

NVIDIA Omniverse is an open platform for virtual collaboration and physically accurate simulation. Based on NVIDIA RTX technology, it leverages the Universal Scene Description (USD) common interchange format for

real-time 3D visualization and simulation that was originally developed by Pixar to simplify entertainment industry workflows and is now being adopted in other industries including architecture, construction, and engineering, and digital factories.

About the Bentley iTwin Platform

The Bentley iTwin platform is an open, scalable cloud platform that enables project teams and owner-operators to create, visualize, and analyze digital twins of infrastructure assets. It enables digital information managers to incorporate engineering data created by diverse design tools into a living digital twin and align it with reality data, and other associated data with no disruption to their current tools or processes. Users are able to visualize and track changes including changes in real world conditions from IoT connected devices, such as sensors and drones. The Bentley iTwin platform facilitates actionable insights for decision makers across the organization and asset lifecycle. Users make better-informed decisions, anticipate and avoid issues before they arise, and react more quickly with confidence, resulting in cost savings, improved service availability, lower environmental impact, and improved safety. The Bentley iTwin platform is the foundation for applications 'powered by iTwin' and digital twin solutions created by Bentley and its strategic partners, digital integrators, system integrators, independent software vendors, and software developers.

About Bentley Systems

Bentley Systems (Nasdaq: BSY) is the infrastructure engineering software company. We provide innovative software to advance the world's infrastructure - sustaining both the global economy and environment. Our industry-leading software solutions are used by professionals, and organizations of every size, for the design, construction, and operations of roads and bridges, rail and transit, water and wastewater, public works and utilities, buildings and campuses, and industrial facilities. Our offerings include MicroStation-based applications for modeling and simulation, ProjectWise for project delivery, AssetWise for asset and network performance, and the iTwin platform for infrastructure digital twins. Bentley Systems employs more than 4,000 colleagues and generates annualized revenues of more than \$800 million in 172 countries.
www.bentley.com

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NVIDIA Confirms That The Majority of PC Gamers Won't Be Able To Buy A Gaming Graphics Card This Year, Shortages To Persist Throughout 2021

Hassan Mujtaba

668 words

14 April 2021

Wccftech.com

NEWAGAE

English

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NVIDIA has issued a new statement on the ongoing gaming GPU shortages which confirms that it will be hard for gamers to get their hands on brand new gaming graphics cards till next year. The company's CFO, Colette Kress, stated this during NVIDIA's annual investors day earlier this week & well, 2021 can't get any worse for PC gamers.

NVIDIA Says That GPU Demand Will Continue To Exceed Supply For Much of 2021 Making It Hard For PC Gamers To Find A Brand New Graphics Card

Ever since the launch of the GeForce RTX 30 series, NVIDIA & its CEO, Jensen Huang, [has issued multiple statements](#) regarding the persistent GPU shortages. The company stated that shipping and logistics along with shortages of components are resulting in poor supply for their next-gen graphics cards, resulting in price hikes by various retailers. To make matter worse, the [crypto boom](#) has resulted in miners gobbling up large quantities of gaming graphics cards leaving dust for actual PC gamers.

The largest contributing factors to the low supply are the lack of raw materials, outsourcing, the pandemic, and the revival of the crypto craze. Another factor that isn't affecting the supply, but is affecting the price is the lack of tariff exemptions. This has even led [hardware manufactures](#) to raise the prices of their components.

[Click to view image.](#)

The first three factors can all be combined because resources and outsourcing go hand in hand. The pandemic has limited the production process. NVIDIA is a fabless semiconductor developer meaning that they do not have the capacity to produce their own cards on a mass scale. In order to make the cards, NVIDIA outsources the production of the graphics card to TSMC and Samsung. The lack of raw materials to manufacture the cards goes further up the supply chain.

"We expect demand to continue to exceed supply for much of this year," CFO Colette Kress said during Nvidia's annual investors day on Monday.

"Our operations team is agile and executing fantastically. We expect our supplies to increase as the year progresses," she added.

[NVIDIA Via PCMag](#)

NVIDIA did launch countermeasures to revert a portion of the supply back in the hands of PC gamers in the form of limiting crypto hash rate on its new gaming graphics cards & launching crypto mining dedicated CMP series GPUs but that didn't work in NVIDIA's favor. Not only were miners able to bypass the hash rate limit but the CMP cards currently listed on retail are priced ridiculously high and don't deliver the same benefits as a gaming graphics card does.

For example, the CMP cards [feature a 3-month warranty](#) compared to a full 3-year warranty which the gaming graphics cards do. Furthermore, the CMP cards don't offer the mining value as GPUs do. Even the older GeForce cards output a much higher hash rate compared to the CMP cards at a lower price. However, NVIDIA recently [increased](#) its CMP mining GPU revenue estimate by \$100 Million which means that there are indeed large orders being made by miners for CMP offerings.

[Click to view image.](#)

Now things aren't all grim and NVIDIA expects the supply to get better as the year progresses but even if the company can increase its gaming graphics card inventory eventually, crypto miners are still a hurdle in between for PC gamers. We have also seen [scalpers taking advantage of the whole situation](#) and buying up entire seconds in literal seconds of launch and then proceeding to sell the same cards on 3rd party websites for exorbitant rates. These are definitely hard times to be a PC gamer whether you want an AMD or NVIDIA gaming graphics card for your PC and things look like they won't be changing till 2022.

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Document NEWAGAE020210414eh4e00001



Bentley Systems integrates its iTwin platform with **NVIDIA Omniverse for real-time AR and VR visualization of **Digital Twins****

462 words

13 April 2021

Jordan News Agency (Petra)

JONAG

English

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Bentley Systems, Incorporated, an infrastructure engineering software company, has announced that it is developing applications using the NVIDIA Omniverse platform for photorealistic, real-time visualization and simulation of digital twins of massive-scale industrial and civil infrastructure projects.

NVIDIA Omniverse is an open platform for virtual collaboration and physically accurate simulation. Based on NVIDIA RTX technology, it leverages the Universal Scene Description common interchange format for real-time 3D visualization and simulation that was originally developed by Pixar to simplify entertainment industry workflows and is now being adopted in other industries including architecture, construction, and engineering, and digital factories.

Bentley Systems has extended its Bentley iTwin platform to integrate with NVIDIA Omniverse to provide a graphics pipeline for AI-enhanced, real-time visualization, and simulation of infrastructure digital twins. According to the company, the integration will allow engineering-grade, millimeter-accurate digital content to be visualized with photorealistic lighting and environmental effects on multiple devices including web browsers, workstations, tablets, and virtual reality (VR) and augmented reality (AR) headsets from anywhere in the world.

Bentley Systems CEO Greg Bentley said: Visualization and simulation underpin many of the use cases for infrastructure digital twins. The collaboration of Bentley iTwin and NVIDIA Omniverse is delivering real-time, immersive 3D/4D experiences that will enable true-to-reality, physics-based simulation of even the largest and most complex infrastructure assets. GPU-computing is transforming the world of engineering and construction and promises to unleash the potential of AI for simulation and advanced analytics in infrastructure digital twins.

Bentley iTwin is an open, scalable cloud platform that allows for the creation, visualization, and analysis of digital twins of infrastructure assets. The platform can be used to incorporate engineering data, reality data, IoT data, and other associated data and align it with a living digital twin.

As a result, the integration of the capabilities of the Bentley iTwin platform and NVIDIA Omniverse will enable users to virtually explore massive industrial plants and offshore structures as if they are walking through the infrastructure in real time, for purposes such as wayfinding and safety route optimization.

Modern infrastructure are magnificent feats of engineering. NVIDIA and Bentley share a vision of physically based digital twins so accurate and realistically simulated that they will revolutionize everything from infrastructure design to operations, said Jensen Huang, founder and CEO of NVIDIA. NVIDIA Omniverse was built precisely to realize this vision to create shared virtual worlds that are simulated with physical and photo realism. We are delighted Bentley is developing applications for infrastructure digital twins on NVIDIA Omniverse.

For more information on Bentley Systems and its software solutions for infrastructure digital twins, please visit the company's website.

Document JONAG00020210413eh4d000b6

MSI; MSI upgrades Gaming line-up and Creator 15 with Nvidia's RTX 30 series GPUs in India

1,169 words

12 April 2021

Journal of Engineering

JOENG

1243

English

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2021 APR 12 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- MSI, a world leading gaming brand, launches the complete line-up of gamer-oriented laptops equipped with 11th & 10th Gen Intel(R) Core(TM) i7 processor (Comet Lake H-series) and powered by the latest GeForce RTX 30 series with up to 3080 graphics. MSI has also upgraded the Creator 15 model with up to NVIDIA(R) GeForce(R) RTX 3070(TM) and Max-Q design 8GB GDDR6. As a front-runner, MSI configured the fastest graphics for laptops of early 2021 in its GE, GS, GP and GF series.

With the new series, GPU performance can have its full gameplay for a cinematic gaming experience! The GeForce RTX(TM) 3080 graphics delivers the ultra-performance that enthusiast gamers crave, powered by Ampere-NVIDIA's 2nd gen RTX architecture. It's built with groundbreaking enhanced RT Core, new streaming multiprocessors, for the most realistic ray-traced graphics, and the Tensor Cores for cutting-edge AI rendering technology.

The laptops are available in India at MSI's exclusive stores and authorized retailers across New Delhi, Bangalore, Kolkata & Pune. The product line-up will also be available on leading e-commerce website - Flipkart. The price of the series starts from INR 1,23,990/- and goes up to INR 3,35,990/-. (All the prices mentioned are Maximum Retail Price - MRP.)

Commenting on the announcement, Mr. Green Lin, Regional Marketing Manager, MSI, said, "MSI as a brand has always focused on enhancing the user experience by bringing in the best in class technology for the consumers. We are excited to launch our laptops with the latest RTX 30 series in India as we feel this update will help the gamer community reach new highs. With a host of features like high-res immersion and ultimate gaming performance, we are hopeful our consumers will have an amazing experience."

MSI GE Raider series: A true powerhouse for enthusiastic gamers

The untold story and divine beasts are now engraved on the chassis of the GE76 Raider Dragon Edition Tiamat, which symbolizes the infinite power! Like the legendary series of the GE76 and GE66 Raider, the GE series not only has a flashy design with Mystic Light, it also has the best performance you can obtain from a gaming laptop. It is equipped with up to the latest NVIDIA(R) GeForce RTX(TM) 3080 graphics, Intel(R) Core(TM) i7 Processors and introduces the latest Wi-Fi 6E, which is the first in the industry, to help laptops take advantage of the additional connectivity. To assure the gaming passion won't overheat, the GE series are also outfitted with MSI Cooler Boost 5, consisting of 6 heat pipes with 2 fans, driving more airflow to quickly cool the laptop down. With the GE Raider series, users can masterfully handle all triple-A games.

GS66 Stealth, worker by day, gamer by night!

With its unique low profile design, the GS66 Stealth is the perfect camouflage for business professionals who want to conceal their inner gamer. Its "Sharper in Core black" premium design has won awards, such as the IF Design Award and Red dot winner of 2020. Outfitted with the latest GeForce RTX(TM) 30 series, the graphic's DLSS AI rendering technology enables gamers to play at a stunning 4K, ray tracing and a boost over 60 FPS for the most realistic gaming vibes. GS66 also reveals the true computing powered by Intel's latest processor up to 8 cores for better performance.

In addition, GS66 Stealth comes with the Cooler Boost Trinity+ system with the world's thinnest 0.1mm sharp-edged blades, extremely smooth 300Hz IPS-level display, and another world's champion title: "99.9Whr highest-capacity battery in laptop". GS66 also supports True Color 3.0 and the best surround viewing mode with a 1+2 Matrix Display.

GP66 & GP76 Leopard evolved for gamers and engineers!

MSI presents the all-new GP66 & GP76 Leopard. It's built for everyday work and heavy demanding jobs of engineers. The new chassis showcases the finesse and understatement; however, the GP Leopard series is

even stronger than ever. The GP66 & GP76 Leopard is equipped with up to GeForce RTX 3080 graphics, and the latest Intel(R) Core(TM) i7 Processors to reveal the true computing and rendering power. The newly arranged comprehensive I/O ports support all given data transmissions and display outputs. It also supports up to 8k display for the finest visual details, making it more than capable of complex engineering and design projects.

The world thinnest 15-inch gaming laptop - Stealth 15M

Another highlight among the new laptops, MSI launches the thinnest 15-inch gaming laptop in the world: Stealth 15M-an ultraportable laptop that is stealthy and inspired by the urban style. Weighing only 1.7kg, and with a thickness of 16.15mm, yet sleek machine still manages to show off powerful computational ability. It's the world's first gaming laptop powered by 11th Gen Intel H series processors up to 5 GHz, together with GeForce RTX(TM) 30 series graphics. Stealth 15 allows gamers and young professionals to speed through games and daily tasks with efficiency.

Performance made portable with GF75 & 65 Thin series

For gamers and those looking for mainstream options, the thin and light GF75 & 65 Thin series is their best companion, which is the exemplar of what an accessible sleek gaming laptop can provide. The GF Thin series offers powerful hardware up to Intel Core i7 Processors and GeForce RTX(TM) 30 Series graphics, while the 144Hz IPS-level and thin-bezel display provide unprecedented speed and visual clarity.

Creator 15 - An all-around laptop with a brilliant True Pixel panel

Last but not least, don't forget, MSI is also made for creators. MSI Creator 15 is an excellent all-around laptop, purposely built for the most demanding creations. The Creator 15 is guaranteed to provide the most true-to-life visual experience. It features an individually calibrated 4K True Pixel panel verified by Calman and a 100% AdobeRGB color gamut. Accelerated by RTX 30 graphics, the Creator 15 can considerably speed up the video and 3D animation rendering times. Additionally, the new touchscreen display provides easier navigation and an increase in productivity. The 99.9Wh battery capacity and lightweight design provides mobility for remote studios.

Be enchanted and evolved with the MSI dragon spirit!

MSI has always been the vanguard evolving with revolutionary technology and produced laptops with sophistication and quality. The in-house production and design ability and non-stop profession make MSI take the lead role to present laptops with cutting-edge technology and maintain production capacity even during the arduous times.

Keywords for this news article include: MSI, Technology.

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Document JOENG00020210412eh4c000pc

Nvidia's Virtualization Unlocked On Gaming GPUs via Hack

Anton Shilov

509 words

10 April 2021

Tom's Hardware

TOMHA

English

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Nvidia's consumer GPUs can now be used for VDI applications courtesy of a new hack.

A group of enthusiasts has unlocked vGPU (GPU virtualization) capability, which is only supported on select datacenter and professional boards, on standard consumer Nvidia GeForce gaming graphics cards. Since the vGPU capability is supported by the silicon but locked out by software, it was only a matter of time and effort before enthusiasts unlocked the feature. As it turns out, according to a [Reddit post](#), that time has come, potentially saving some users the thousands of dollars they would otherwise have to shell out for a Quadro or Tesla GPU that supports the feature.

GPU virtualization, which allows more than one user to use a GPU simultaneously, is one of the differentiators between GPUs for data centers and those designed for consumer PCs. Nowadays, many workstations and even high-end desktops are located remotely so the users can share the GPUs. Modern hardware is so powerful that its performance is sometimes excessive for one user, so sharing one graphics card between multiple users makes sense.

From a GPU hardware perspective, virtualization is just another feature, so the silicon supports it. But this capability requires a lot of software to work properly (i.e., how companies that buy workstations expect it to) and validation with ISVs since virtualized GPUs are in many cases used for professional applications.

All of these things cost money, so vGPU support comes at a price, and Nvidia has a handful of expensive Tesla, Quadro, and some other GPUs it [recommends for virtualization](#) (partly because it does not make a lot of sense to validate a broad fleet of hardware with ISVs). Nvidia's vGPU software does not support most client GPUs. Nvidia did recently open up GPU passthrough via a driver update, but this only allows a single VM to access the GPU, whereas full vGPU support allows multiple VMs to share the same GPU.

The code for the vGPU unlocker is available at [Github](#), and the principle behind it is fairly simple: it replaces the device id of a graphics card with a device id of an officially supported GPU that has the same feature set. For now, GP102, GP104, TU102, TU104, and GA102 GPUs are supported, and the capability works on Linux and with KVM virtual machine software.

[Click to view image \(Image credit: WindowsHate/GitHub\)](#)

While the new unlocking technique deserves some attention, the big question is whether your typical consumer actually needs GPU virtualization. Linux users can virtualize their high-end graphics cards and use them for gaming, video encoding, and cryptocurrency mining simultaneously on different virtual machines.

Some of those who happen to have servers with hundreds or thousands of consumer Nvidia GPUs could try to offer commercial remote desktop services to earn money, but the quality of such services would be something to worry about. Since the hack does not work with Windows and VMware, it is useless for most users.

[Nvidia \(Nvidia\)](#)

Document TOMHA00020210411eh4a00003

This Dell G5 gaming desktop with an Nvidia RTX 3060 Ti is looking like a real bargain

Alex Whitelock

427 words

27 March 2021

TechRadar

TECHR

English

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Thinking about upgrading? Here's one Nvidia RTX gaming PC deal that won't break the bank.

The shortage of Nvidia RTX graphics cards continues, with many a gamer scrambling to get their hands on that precious silicone for their planned builds. We can't unfortunately magic up a fresh RTX 3060 Ti for your new machine here at TechRadar, but we can give you a very good viable option - this Dell G5 gaming desktop [for £1,199](#).

Hear us out, the words 'pre-built' may be anathema to the ears of many an experienced PC gamer but don't sleep on this gaming PC deal. With a tasty little £170 price cut, this solid mid-range build is only coming in at around £300 more expensive than some of the prices the new RTX 3060 Ti graphics cards are [fetching by themselves](#) alone.

It's not just graphical flash with no substance here either - the Intel Core i7-10700F, 16GB of RAM, and 1TB SSD are all very worthy components to have at this price and will set you up for respectable 1080p/1440p frame rates for many years to come. We're not a massive fan of the G5 case aesthetically, but being a Dell chassis you can be assured it'll cool well and be easily upgradeable too.

Outside the UK? See the best prices on Nvidia RTX graphics cards and gaming pc deals just below.

Nvidia RTX gaming PC deals

[toCheeeek](#)

Dell G5 gaming desktop: ~~£1,368.99~~ [£1,199 at Dell](#)

Save £169.99 - With an Nvidia RTX 3060 Ti graphics card, Intel Core i7-10700F processor, 16GB of DDR4 RAM, and 1TB SSD, this Dell G5 desktop is all set for fantastic 1080p and even 1440p gaming performance. Considering this graphics card is often going for £900 alone by itself right now on eBay, this is a great option if you're looking to upgrade but don't want to get ripped off.

* [Dell](#) - see all of this weekend's gaming PC and gaming laptop deals

* [Currys](#) - also a great place to check out gaming deals in general

If you're thinking about going mobile, we can also recommend checking out our roundup of this week's best [gaming laptop deals](#). Alternatively, pair up your new Nvidia RTX gaming PC with this week's best [gaming monitor deals](#) and [gaming chair deals](#).

[Nvidia RTX gaming PC deals cheap 3060 Ti dell \(Future\)](#)

Document TECHR00020210327eh3r000dx

Omen 15 deal knocks £200 off an Nvidia RTX 2070 gaming laptop

Hamish Hector

339 words

22 March 2021

TechRadar

TECHR

English

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Get a great deal on this RTX 2070 powered gaming laptop from HP.

[Amazon's Spring Sale](#) isn't the only place to find great deals on the internet right now, and this £200 discount for an [Omen 15 \(2020\)](#) laptop with an Nvidia GeForce RTX 2070 is proof.

Alongside its powerful Nvidia graphics card, the Omen 15 comes packaged with a 10th gen Intel Core i7 processor, 16GB of RAM, and a whole 1TB of SSD storage. We had no complaints about power in our review, and thought the full HD display was stunning, so its new £1,399.99 price tag is well worth considering (if you aren't in the UK don't worry, scroll down for today's best Omen 15 in your region).

[toCheeeek](#)

Omen 15 (2020), Intel Core i7, RTX 2070: [£1,5.998 £1,399.99 at the HP store](#)

HP's Omen range of laptops are up there alongside some of the [best gaming laptops](#), and this Omen 15 shows why this is the case. Bringing together excellent specs, a good design, and a brilliant display - this laptop can handle whatever you throw at it. At this discounted price, there's no reason not to get it.

* Best [cheap laptop deals](#) and sales for March 2021

* Find something to play on our [best laptop games](#) list

* Check out our list of [best HP laptops for 2021](#)

While the GeForce RTX 2070 has since been replaced by more powerful RTX 3000 series GPUs, you'll have a hard time finding a laptop with one of those that doesn't sell out in minutes. However, even for modern games on high settings, the RTX 2070 should be more than good enough anyway.

If you aren't in the UK, we've listed a few of the best deals on the Omen HP 15 (2020) where you are below.

* These are the [best laptops](#) of 2021

[HP Omen laptop \(HP\)](#)

Document TECHR00020210322eh3m00130



Unlike **Nvidia**, AMD Doesn't Mind If You Use Its **Gaming** GPUs To Mine Ethereum

Shivdeep Dhaliwal

428 words

22 March 2021

11:05

Benzinga.com

BNZNGA

English

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Advanced Micro Devices, Inc (NASDAQ: [AMD](#)) is taking a diametrically opposite stand to Nvidia Corporation (NASDAQ: [NVDA](#)) on putting restrictions on the use of its gaming graphics cards for cryptocurrency mining, PC Gamer [reported](#).

What Happened: AMD reportedly confirmed that it would not be blocking any workload on its Radeon RX 6700 XT graphics processing units.

"We will not be blocking any workload, not just mining for that matter," said Nish Neelalojanan, product manager at AMD, according to PC Gamer.

"First of all, RDNA was designed from the ground up for gaming and RDNA 2 doubles up on this. And what I mean by this is, Infinity Cache and a smaller bus width were carefully chosen to hit a very specific gaming hit rate."

Neelalojanan, however, added a caveat that mining enjoys or scales with higher bandwidth and bus width which means there will be limitations caused by an "architectural level" for it.

Why It Matters: While Nvidia's 24GB GeForce RTX 3090 GPU can mine Ethereum (CRYPTO: ETH) at up to 120 MH/s, higher-end RDNA 2 cards based on AMD's Navi 21 chip can manage 58-64 MH/s, noted PC Gamer. ETH traded 1.61% lower at \$1,776.73 at press time.

AMD GPU drivers are based on Linux and are all open-source, which raises the question of whether the company could implement a mining block in the first place.

Last week, Nvidia said it had inadvertently [unlocked ETH mining performance](#) after it updated its drivers for the RTX 3060.

Nvidia tried to [discourage the use](#) of its RTX 3060 GPUs through drivers earlier so they would be 50% less efficient at mining ETH.

The chipmaker estimates that between \$100 million and \$300 million of its fourth-quarter revenue came from ETH miners.

Nvidia has introduced a [cryptocurrency mining processor](#), which it said would help miners build "the most efficient data centers while preserving GeForce RTX GPUs for gamers," but has received criticism over its pricing.

Price Action: AMD shares closed 1.2% higher at \$79.06 on Friday and fell 0.3% in the after-hours trading. On the same day, Nvidia shares closed 0.97% higher at \$513.83 in the regular session and declined 0.13% in the after-hours trading.

Read Next: [Ethereum, Dogecoin And Other Cryptocurrencies You Can Create Using Your Laptop](#)

Photo by Daniel Foster on Flickr

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Document BNZNGA0020210322eh3m0002w

Crypto-mining rig loaded with **Nvidia** RTX 3090 GPUs shows it's not just **gaming** PCs that look flash

Darren Allan

562 words

17 March 2021

TechRadar Pro

TRAPRO

English

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Custom loop liquid cooling for a mining machine? Does that really make any sense?

Fancy [mining rigs](#) to get your hands on [cryptocurrency](#) appear to be the flavor of the month, and here's another impressive custom-build. Or at least, it looks impressive, but in terms of practicality, maybe less so.

Also, let's not forget that [crypto-miners](#) are far from popular with gamers right now, considering that the massive crypto boom and [mining GPUs](#) being bought for mining are interfering further with [poor stock levels of graphics cards](#).

So, depending on your viewpoint, this mining rig from Vietnamese outfit [Gland Computers](#) (as spotted by [I Leak VN](#) on Twitter, via [Wccftech](#)) is either a cool achievement (literally), or simply a GPU vacuum which has snaffled 10 [Nvidia RTX 3090](#) graphics cards away from their rightful places in high-end gaming PCs.

[Click to view image \(Image credit: Gland Computers\)](#)

* Here are the [best gaming laptops](#)

* These are the [best mining CPUs](#) around today

* We'll show you [how to build a PC](#)

Those ten RTX 3090s run with custom loop liquid cooling, which is more about looking cool, than it is about the efficiency of the cooling system, and any financial gains you might make on that front. But in fairness, it certainly does look the part, particularly compared to the average mining setup, which are often rather crude bolted-together monstrosities (of course, this solution will be much quieter, too).

As Wccftech points out, the rig uses Bitspower components (a Taiwan-based producer of high-end cooling parts) in the custom loop, and hardline tubing for a very sharp and tidy overall appearance.

Power is served by a trio of Super Flower Leadex Titanium 1600W PSUs, and given the fancy liquid cooling, there's obviously the potential to overclock the RTX 3090 GPUs and get even better mining performance that way.

[Click to view image \(Image credit: Gland Computers\)](#)

Super looper blooper?

The cost of the build, however, doesn't really add up in terms of allowing a bit more oomph and extra mining power with the overclocking. Broadly speaking, rather than spending a load of extra money on liquid cooling – particularly fancy, high-end parts as seen here – that outlay would be more wisely spent on more GPUs to beef up mining power that way.

Furthermore, in practical terms, there's more to go wrong here with the rig, and potential maintenance work, with all those pipes and cooling components.

In other words, this build is more for show than anything, although showing it to gamers who can't buy a high-end Nvidia GPU thanks to stock woes is likely to provoke some interesting reactions, to put it mildly.

The hash rate of the rig works out at around 1000 MH/s by default, and could be pushed higher as mentioned with that overclocking.

For more along these lines, but even more extreme, [we recently saw a crypto-mining rig that's completely submerged in mineral oil](#). Or for the maximum in annoyance factor, how about the crypto miner who [built an RTX 3080 mining farm in the trunk of a BMW](#).

* [Find the best Nvidia GPU for you](#)

[Gland Computers Mining Rig \(Gland Computers\)](#)

Document TRAPRO0020210317eh3h0008d

GADGETS NEWS

Asus launches new gaming laptops and desktops with the latest AMD Ryzen 5000 series CPU and Nvidia GeForce RTX 30 series graphics

302 words

16 March 2021

The Times of India

TOI

English

(c) 2021 The Times of India Group

Asus Republic of Gamers (ROG) has expanded its gaming laptop and desktop lineup with the range of new devices in India today. The new laptops belong to Strix and TUF series and include ROG Strix SCAR 15/17, Strix G17/G15, TUF A15 and ROG Strix Desktop GA35. The entire range is powered by AMD Ryzen 5000 series processors and Nvidia GeForce RTX 30 series graphics cards. ROG Strix SCAR 15/17, Strix G17/G15, TUF A15 and ROG Strix Desktop GA35: Price and availability ROG Strix SCAR 15/17, Strix G17/G15, TUF A15 and ROG Strix Desktop GA35: Features The flagship Strix SCAR 15 and SCAR 17 features a fast 300Hz refresh rate with a 3ms response time. It is powered by Nvidia GeForce RTX 30 series graphics and Ryzen 5000 H-series processors. Both the laptops are also the first in the series to offer an optical-mechanical keyboard.

Apart from this, the laptop also supports Type-C charging. Both SCAR 15 and 17 laptops come with quad speakers backed by Dolby ATMOS technology and support two-way AI Noise Cancellation. The other two laptops in the series -- Strix G17 and Strix G15 are also based on similar concepts. The company says that these two machines are meant for everyday gamers and comes with esports features backed in. The ROG Strix GA35 is essentially the upgraded version of last year's GA35 which now features an upgraded Nvidia GeForce RTX 3080 graphics instead of RTX 2080 and powered by AMD Ryzen R9-5900X CPU. The TUF A15 also gets the same Ryzen 5000 H-series CPU and RTX 30 series GPU. Specifications:

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Document TOI0000020210315eh3g0006a

Acer launches India's first gaming laptop with NVIDIA RTX 3060 Graphics Card at Rs 89,999

480 words

11 March 2021

UNI (United News of India)

UNNIND

English

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Kolkata, March 11 -- Acer India, today unveiled its much-awaited Nitro 5 gaming laptop with NVIDIA GeForce RTX 3060 graphics card in India.

The latest Nitro 5 comes with 10th Gen Intel Core processor that enable immersive gaming experiences with ability to play AAA titles easily. The laptop packs an RGB-backlit keyboard, NVIDIA(R) GeForce(R) RTX (TM) 3060 graphics card and upto 32GB RAM for an incredibly fast performance with state of the art cooling using CoolBoost (TM) technology.

Nitro 5 allows users to enjoy their favorite games in exceptional detail with a 15.6-inch Full HD IPS display that boasts up to a 144Hz high refresh rate and 3 ms (milliseconds) response time for an ultra-smooth gaming experience. With DTS: X(R) Ultra, sounds are clear and can be delivered in a 3D spatial soundscape, allowing you to hear where your opponents are coming from with pinpoint precision.

Nitro 5 adopt Killer (TM) Ethernet E2600 to prioritize gameplay and effortlessly stream Intel wireless Wi-Fi 6 with 2x2 MU-MIMO technology. The Ethernet controller automatically detects game, video, and chat streams to deliver prioritized bandwidth for a virtually lag-free user experience. It also plugs all peripherals into the full range of ports, including HDMI 2.0 and the newest USB 3.2 standard with Gen 2 support.

Speaking on this occasion, Sudhir Goel, Chief Business Officer, Acer India, said, "With the new Nitro 5 gaming laptop using the NVIDIA GeForce RTX 3060 graphics card, we are entering a new era of high-performance gaming. Our Nitro 5 gaming laptop range has been a huge success in the Indian market and provides the perfect stepping stone to competitive e-sports. The close collaboration between Acer and NVIDIA has resulted in a laptop which has the performance, design, cooling and portability which is unmatched at this price point and we are excited to bring this to the Indian market."

Vishal Dhupar, Managing Director, NVIDIA South Asia, said, "A new era of laptops begins today featuring the NVIDIA Ampere architecture, with the launch of the Acer Nitro 5. This next-gen laptop will increase energy efficiency by up to 2x, accelerate performance dramatically, and introduce third-generation Max-Q technologies for thin and lightweight designs. Along with this, the new series laptop promises to deliver stunning ray-traced gaming experiences in top game titles. We are confident that the new Nitro 5 gaming laptop will offer an incredible gaming experience and enable content creators to generate unbelievable work using hundreds of GPU-accelerated apps."

UNI XC-AND

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Document UNNIND0020210311eh3b0020d

Dell G15 Gaming Laptop With Up to Nvidia GeForce RTX 3000 GPU, 360Hz Display Launched

381 words

10 March 2021

Mmegi

MEWMMR

English

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Dell G15 has been launched with the latest Nvidia GeForce RTX 30 series graphics cards in China. Exact specifications for the gaming laptop are currently unclear but as per a Weibo post from the company, the Dell G15 gaming laptop is offered in three configurations. It features a 15.6-inch display with a high refresh rate and a backlit keyboard. It is quite a thick laptop with ventilation grills on the sides and the back. There is also a G logo on the side of the Dell G15 that lights up.

Dell G15 price, availability

The Dell G15 gaming laptop price starts at CNY 5,599 (roughly Rs. 62,800) and this gets you a 10th Gen Intel Core i5 CPU, Nvidia GeForce GTX 1650 GPU, and a 120Hz full-HD display. As per the Weibo post, there are four colour options Black, Dark Gold, Green, and Grey. The prices for other configurations have not been shared yet and the company says these will be available in the next two months. As of now, there is no information on international availability of the Dell G15.

Dell G15 specifications

Details on the Dell G15 are scarce but the gaming laptop features a 15.6-inch full-HD display that can be equipped with a refresh rate of 120Hz, 165Hz, or 360Hz depending on the configuration. The base model is powered by the Intel 10th Gen Core i5-10200H CPU and the Nvidia GeForce GTX 1650 GPU with 4GB of VRAM. This model comes with a 120Hz display refresh rate. There are two configurations with Nvidia GeForce RTX 30 series GPUs that go up to 115W TDP. One of the models packs a 165Hz display refresh rate and the other packs a 360Hz display refresh rate.

Notebooks Lead Total PC Shipment in India in Q4 2020: IDC

The keyboard on the Dell G15 gaming laptop is backlit and connectivity options include an HDMI 2.0 port, a USB Type-A 3.2 port, an RJ45 Ethernet port, an audio jack, and two USB 2.0 ports. There are vents on the sides and the back of the laptop that expel the air sucked in from the bottom.

Document MEWMMR0020210310eh3a0008e

GADGETS NEWS

Asus launches TUF Dash F15 gaming laptop with 11th-generation Intel processor, Nvidia GeForce RTX 30 series graphics card in India

239 words

10 March 2021

The Times of India

TOI

English

(c) 2021 The Times of India Group

Taiwanese laptop maker, Asus has expanded its TUF gaming laptop lineup with the launch of a new laptop in the series. The laptop was earlier unveiled during the CES 2021 virtual conference. Dubbed as TUF Dash F15, the laptop features a slim and lightweight design and features a 15-inch display. In addition to that the laptop also comes with Intel's latest 11th-generation Core i7 processor and Nvidia's latest GeForce RTX series graphics card. **Asus TUF Dash F15: Price and availability** **Asus TUF Dash F15: Features** The new TUF Dash F15 comes with a tournament-level gaming features such as 240Hz refresh rate, Thunderbolt 4 port, AI noise cancellation and more. The all-new Dash F15 is lighter and thinner than standard TUF Gaming laptops, with only 19.9 mm thin and 2kg weight, while still meeting MIL-STD-810H military standards.

The Dash F15 features an easy-upgrade design that puts the SO-DIMM slot and both M.2 slots just behind the bottom panel. Asus has also improved the cooling system of the Dash F15 by adding a heat spreader and five copper heat pipes that distribute thermal energy from the CPU, GPU, VRAM, and VRM into four heatsinks, each lined with thin fins. **Asus TUF Dash F15: Specifications**

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Document TOI0000020210309eh3a0006i

Nvidia RTX 3050 Ti GPU could soon power up budget gaming laptops

Darren Allan

439 words

8 March 2021

TechRadar

TECHR

English

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Mobile graphics card is spotted in a product listing for an Asus gaming notebook.

Nvidia has an RTX 3050 Ti laptop graphics card incoming, at least if a leak from notebook maker Asus is on the money.

This one was spotted by @momomo_us (via VideoCardz), an ever-present source of hardware leaks on Twitter, with the mobile graphics card being present in the tech spec of an Asus TUF Dash F15 thin-and-light gaming laptop.

GN20-P0樂 pic.twitter.com/dGUDm8jBfpMarch 5, 2021

Pinches of condiments to hand as ever, but one of the GPU options is clearly marked as the RTX 3050 Ti, although no other spec information is imparted by the product listing, save for the amount of memory on-board: 4GB of GDDR6 VRAM.

* [Where to buy Nvidia RTX 3080: find stock here](#)

* These are all the [best PC games](#)

* We'll show you [how to build a PC](#)

If indeed this info is correct – as ever with these kind of leaks, it's possible that it could be a mistake – then we might soon expect Nvidia to launch this fourth mobile GPU. As you're probably aware, there are already [RTX 3080](#), RTX 3070 and RTX 3060 laptop graphics cards.

Further rumors

VideoCardz further theorizes that based on other details previously leaked elsewhere about the mobile GPU codenamed 'GN20-P0' – which was what the 3050 Ti was previously referred to as on the Asus website – it'll draw (up to) 60W of power.

The card is likely to be built on the GA107 GPU and feature a 128-bit memory bus, with 4GB VRAM as mentioned. Previous rumblings from the rumor mill suggested that the RTX 3050 Ti could be based on the GA106 GPU (as seen in the RTX 3060), but apparently this is not the case.

From a broader perspective, the 3050 Ti could give gaming laptop makers a more wallet-friendly option for a mobile [Ampere GPU](#), which would obviously be welcome for those whose budget can't stretch to one of the higher-end GPUs for their portable gaming needs.

Rumors about Nvidia's purported RTX 3050 Ti and indeed vanilla RTX 3050 [have been floating around](#) for quite [some time now](#), and these would be the first GPUs to introduce ray tracing cores to a card under the 60 series (the RTX 2060 was the baseline product for hardware acceleration of ray tracing in Nvidia's last generation, Turing).

* [Find the best Nvidia GPU for you](#)

[Nvidia GeForce RTX 3060 Ti \(Nvidia\)](#)

Document TECHR00020210308eh38000mg

NVIDIA CFO: Ampere Was Probably Our Biggest Launch Ever; Our Gaming Quarter Probably Would Have Been the Same With or Without Crypto

Alessio Palumbo

529 words

2 March 2021

Wccftech.com

NEWAGAE

English

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NVIDIA Chief Financial Officer Colette Kress participated in the Raymond James Institutional Investors Broker Conference Call, [which took place yesterday in a virtual capacity](#) in lieu of the usual venue in Orlando, Florida.

The company CFO made some interesting remarks in the Q&A session, particularly regarding the highly successful launch of the Ampere based GeForce RTX 3000 Series graphics cards.

We launched our gaming Ampere based 3000 series GPUs earlier last year and it has been a huge success, probably the most successful gaming launch that we have had. With a second-generation RTX, now we also have a list of more than three dozen games for overall ray tracing and just strong performance improvement with our 30 series, the demand has been amazing.

We started off the launch of that product, starting at several of our high-end cards. Our 3070, 3080 and 3090 have been in the market now for several months. Over this period of time, it is showing the capability of the 3000 Ampere series not only to just be for our true gamers out there but also to support creators and broadcasters that use this. So we expect to see the 30 series continue to launch new products as we move forward.

Our latest product that we launched was the [RTX 3060](#). The 60s class is a sweet spot for gamers, a great performance at a great price. The 60 class is essentially preferred by our iCafes that you'll find in the Asia Pacific area as well as many of our system builders as they build custom overall systems. The 3060's on its launch last week. It sold out in hours. It has been carefully engineered for gamers and primarily gamers, and they were excited about it.

We now have that Ampere architecture from \$329 and up. So we have great differentiation in price points to support any type of gamer depending on what they want to come into the market and pay for. All of these are well below the cost of a new console.

Later in the Q&A, the NVIDIA CFO even stated that the recent crypto surge might not have influenced the company's gaming quarter at all due to existing (and likely to continue, unfortunately) supply issues with Ampere. Overall, given the strong demand, NVIDIA reckons growth will continue this year following the [promising last quarter](#).

Our quarter for gaming, for example, probably would have been the same with or without crypto because we're supply constrained. So we'll continue to watch this. We believe that [our CMP product](#) will allow us better visibility for understanding the size of crypto within our quarter.

[...] This is, of course, a situation that we would love to have more optionality. We would love to have more overall supply. But remember, our issue is, demand is strong. Demand is strong, and we do believe we will grow quite well as this demand will continue through this year in front of us.

[Click to view image.](#)

Document NEWAGAE020210302eh32000p1

NVIDIA Corporation; Patent Issued for Saccadic Redirection For Virtual Reality Locomotion (USPTO 10,922,876)

1,545 words

25 February 2021

Computer Weekly News

COMWKN

13537

English

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2021 MAR 3 (VerticalNews) -- By a News Reporter-Staff News Editor at Computer Weekly News -- From Alexandria, Virginia, VerticalNews journalists report that a patent by the inventors Sun, Qi (Centertech, NY); Patney, Anjul (Kirkland, WA); Shapira, Omer (Brooklyn, NY); McGuire, Morgan (Williamstown, MA); Lefohn, Aaron Eliot (Kirkland, WA); Luebke, David Patrick (Charlottesville, VA), filed on January 2, 2020, was published online on March 1, 2021.

The patent's assignee for patent number 10,922,876 is NVIDIA Corporation (Santa Clara, California, United States).

News editors obtained the following quote from the background information supplied by the inventors: "Conventional off-the-shelf virtual reality head-mounted displays support room-scale position tracking for a natural locomotion experience. However, physical spaces, usually small rooms inside end users' homes and video game arcades, are typically smaller than virtual spaces. A major challenge for virtual reality (VR) is embedding a large virtual space within a small, irregular, multi-user physical space while minimizing interruptions. The ideal solution would create the perception of infinite walking in the virtual space within a small, finite physical space. Treadmills or other physical devices can address the infinite walking problem but are undesirable for general applications because they are expensive, bulky, and can compromise the user's balance, while also preventing free user movements such as kneeling and jumping. Moreover, while using physical devices like these, acceleration and deceleration effects of natural walking are not felt, which can cause discomfort.

"A straightforward solution to the problem of a limited physical space is to reset the virtual orientation whenever users hit the physical boundaries/obstacles of their room. Unfortunately, for large virtual environments, the viewpoints need to be reset often, which interrupts and degrades the quality of the user experience. An alternative to simply resetting the virtual orientation, is to redirect the user to avoid the physical boundaries/obstacles. Redirected walking techniques can enhance the immersion and visual-vestibular comfort of VR navigation, but are often limited by the size, shape, and content of the physical environments. The goal of redirection is to dynamically and imperceptibly manipulate a virtual environment to minimize how often a user hits boundaries of the room or an obstacle like furniture.

"A first technique for redirecting a user increases rotation/transformation gains when the user rotates and/or moves his or her head, such that it causes the degree of head rotation visually perceived by the user to be slightly different from the actual rotation of their head. However, the head movement and the amount of redirection that may be achieved without negatively impacting the user's experience must be limited. A second technique for redirecting a user warps scene geometry so that the user's movements are guided through modified, re-rendered scenes. For example, the second technique may cause a straight hallway to appear curved to prevent the user from walking into a boundary or an obstacle. Warping causes distortion and is not suitable for open spaces within scenes. There is a need for addressing these issues and/or other issues associated with the prior art."

As a supplement to the background information on this patent, VerticalNews correspondents also obtained the inventors' summary information for this patent: "A method, computer readable medium, and system are disclosed for redirecting a user's movement through the physical space to follow the path while the user views a virtual environment. A temporary visual suppression event is detected when a user's eyes move relative to the user's head while viewing a display device, an orientation of a virtual scene relative to the user is modified to direct the user to physically move along a planned path through a virtual environment corresponding to the virtual scene, and the virtual scene is displayed on the display device according to the modified orientation."

The claims supplied by the inventors are:

"What is claimed is:

"1. A computer-implemented method, comprising: detecting a temporary visual suppression event when a user's eyes move relative to the user's head while viewing a display device; modifying an orientation of a virtual scene relative to the user to direct the user to physically move along a planned path through a virtual environment corresponding to the virtual scene, wherein the orientation is modified by a greater amount as a duration of the temporary visual suppression event increases; and displaying the virtual scene on the display device according to the modified orientation.

"2. The computer-implemented method of claim 1, wherein the temporary visual suppression event comprises a saccade.

"3. The computer-implemented method of claim 1, wherein modification of the orientation is limited according to a redirection rotational value.

"4. The computer-implemented method of claim 1, further comprising modifying at least one pixel of the display device to induce a temporary visual suppression event.

"5. The computer-implemented method of claim 4, wherein the at least one pixel is in a peripheral region of the user's gaze.

"6. The computer-implemented method of claim 4, further comprising, before modifying the at least one pixel, determining the user will collide with an obstacle in a physical environment within which the user is positioned.

"7. The computer-implemented method of claim 1, wherein the orientation is modified by an additional amount when the user's head rotates during the temporary visual suppression event.

"8. The computer-implemented method of claim 1, further comprising modifying an attribute of at least one object in the virtual environment to induce a temporary visual suppression event.

"9. The computer-implemented method of claim 8, further comprising selecting the at least one object based on the user's gaze and a distance from a virtual viewpoint of the user to the at least one object.

"10. The computer-implemented method of claim 1, wherein the temporary visual suppression event is identified when the user's gaze changes by a saccadic threshold value.

"11. A system, comprising: a processor configured to: detect a temporary visual suppression event when a user's eyes move relative to the user's head while viewing a display device; modify an orientation of the virtual scene relative to the user to direct the user to physically move along a planned path through a virtual environment corresponding to the virtual scene, wherein the orientation is modified by a greater amount as a duration of the temporary visual suppression event increases; and display the virtual scene on the display device according to the modified orientation.

"12. The system of claim 11, wherein the temporary visual suppression event comprises a saccade.

"13. The system of claim 11, wherein modification of the orientation is limited according to a redirection rotational value.

"14. The system of claim 11, wherein the processor is further configured to modify at least one pixel of the display device to induce a temporary visual suppression event.

"15. The system of claim 14, wherein the at least one pixel is in a peripheral region of the user's gaze.

"16. The system of claim 14, wherein the processor is further configured to determine whether the user will collide with an obstacle in a physical environment within which the user is positioned before the at least one pixel is modified.

"17. The system of claim 11, wherein the processor is further configured to modify the orientation by an additional amount when the user's head rotates during the temporary visual suppression event.

"18. The system of claim 11, wherein the processor is further configured to modify an attribute of at least one object in the virtual environment to induce a temporary visual suppression event.

"19. The system of claim 18, wherein the at least one object is selected is based on the user's gaze and a distance from a virtual viewpoint of the user to the at least one object.

"20. A non-transitory, computer-readable storage medium storing instructions that, when executed by a processing unit, cause the processing unit to: detect a temporary visual suppression event when a user's eyes move relative to the user's head while viewing a display device; modify an orientation of the virtual scene relative to the user to direct the user to physically move along a planned path through a virtual

environment corresponding to the virtual scene, wherein the orientation is modified by a greater amount as a duration of the temporary visual suppression event increases; and display the virtual scene on the display device according to the modified orientation."

For additional information on this patent, see: Sun, Qi; Patney, Anjul; Shapira, Omer; McGuire, Morgan; Lefohn, Aaron Eliot; Luebke, David Patrick. Saccadic Redirection For Virtual Reality Locomotion. U.S. Patent Number 10,922,876, filed January 2, 2020, and published online on March 1, 2021. Patent URL:

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnethtml%2FPTO%2Fsrchnum.htm&r=1&f=G&I=50&s1=10,922,876.PN.&OS=PN/10,922,876RS=PN/10,922,876>

Keywords for this news article include: Business, Computers, NVIDIA Corporation, Technology Companies.

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Earnings Results

Nvidia's quarterly sales top \$5 billion for first time amid holiday scramble for gaming gear

690 words

25 February 2021

13:30

MarketWatch

MRKWC

English

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More and more 'smart' products using AI will increase demand for data-center chips, CEO says

Getty ImagesNvidia Corp. reported Wednesday that quarterly sales topped \$5 billion for the first time in the fourth quarter, as holiday gaming-chip demand and renewed interest in cryptocurrency mining vied with supply shortages.

Gaming sales surged 67% to a company record \$2.5 billion, on gaming-card demand that Chief Executive Jensen Huang called "incredible." Analysts surveyed by FactSet had expected Nvidia gaming sales of \$2.36 billion.

Meanwhile, gaming-card supply shortages will likely remain going forward, said Colette Kress, Nvidia's chief financial officer, on Wednesday's conference call.

"The entire 30-series lineup has been hard to keep in stock and we exited Q4 with channel inventories even lower than when we started," Kress said on the call. "Although we are increasing supply, channel inventories will likely remain low throughout Q1.

Nvidia [announced last week](#) that it hopes to ease shortages of gaming cards by launching a chip designed for cryptocurrency mining, called the CM. Cryptocurrencies like bitcoin BTCUSD and ethereum ETHUSD have soared to records over the past year, and a demand from miners to catch that rush has eaten into gaming supplies.

On the call, Kress said the company expects about \$50 million from CMP sales in the first quarter, and the company plans to break out cryptocurrency-related sales in the future.

On the data-center side, sales nearly doubled to \$1.9 billion from the year-ago period, while analysts expected sales of \$1.85 billion.

"Our A100 universal AI data-center GPUs are ramping strongly across cloud-service providers and vertical industries" Huang said. "Thousands of companies across the world are applying Nvidia AI to create cloud-connected products with AI services that will transform the world's largest industries. We are seeing the smartphone moment for every industry."

Huang explained that more and more products are becoming like smartphones — in other words, products that require communicating with AI services that run in data centers in order to function optimally.

"You're going to see smart lawnmowers, smart tractors, smart air conditioners, smart elevators, smart buildings, smart warehouses, robotic retail stores, entire store — the entire retail store is like a robot," Huang said. "And they will all have autonomous capability, they'll all be driven by AI."

Read: [Worldwide chip shortage expected to last into next year, and that's good news for semiconductor stocks](#)

For the first quarter, Nvidia forecast revenue of \$5.19 billion to \$5.41 billion, while analysts had forecast revenue of \$4.49 billion on average.

Nvidia NVDA reported fourth-quarter net income of \$1.46 billion, or \$2.31 a share, compared with \$950 million, or \$1.53 a share, in the year-ago period. Adjusted earnings, which exclude stock-based compensation expenses and other items, were \$3.10 a share, compared with \$1.89 a share in the year-ago period.

Revenue surpassed \$5 billion for the first time, by about \$3 million, up 61% from \$3.11 billion in the year-ago quarter, during a holiday season in which gamers found it difficult to find graphics cards, much less ones near

the suggested retail price, as cryptocurrency prices skyrocketed. [Just three months ago](#), Nvidia sales set a record by surpassing \$4 billion in quarterly sales for the first time.

Analysts surveyed by FactSet had estimated \$2.81 a share on revenue of \$4.82 billion, based on Nvidia's revenue forecast of \$4.7 billion to \$4.9 billion.

Shares, which had been up about 2% at the beginning of the call, were down about 3% premarket Thursday. That followed a 2.5% rise in the regular session to close at \$579.96.

Over the past 12 months, Nvidia shares have rallied 112%, while the PHLX Semiconductor Index SOX has gained 77%. Meanwhile, the S&P 500 index SPX rose 22%, and the Nasdaq Composite Index COMP gained 47%. Nvidia shares closed at a record high of \$613.21 on Feb. 16.

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UPDATE 4-Nvidia sales surge as it struggles to keep gaming chips in stock

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25 February 2021

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Reuters News

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(Recasts headline and first paragraph, adds details about mining chips)

By Chavi Mehta and Stephen Nellis

Feb 24 (Reuters) - Nvidia Corp forecast better-than-expected fiscal first-quarter revenue on Wednesday, with its flagship gaming chips expected to remain in tight supply for the next several months.

As people wait for COVID-19 vaccine rollouts around the world, stay-at-home orders have kept demand high for chips that speed up video games. But the Santa Clara, California-based company's gaming chips have also regained popularity for mining cryptocurrency, a trend Nvidia is trying to counter by offering special mining chips in order to free up graphics chip supplies for gamers during a global chip shortage.

While Nvidia was long known for its gaming graphic chips, its aggressive push into artificial intelligence chips that handle tasks such as speech and image recognition in data centers has helped it become the most valuable semiconductor maker by market capitalization.

It has eclipsed rivals Intel Corp and Advanced Micro Devices.

Nvidia shares were up 3% at \$597.50 in extended trading after the results.

On a conference call with investors, Chief Financial Officer Colette Kress said that a global chip crunch made it hard to keep the company's flagship gaming chips introduced last fall in stock and that the chips would likely remain in tight supply through the fiscal first quarter.

Kress said analysts have estimated that cryptocurrency mining contributed between \$100 million and \$300 million to Nvidia's sales in the fiscal fourth quarter. The company expects the new mining chips to generate about \$50 million revenue in its fiscal first quarter, Kress added.

To discourage miners from using gaming chips, Nvidia will start shipping software with its gaming chips that slows down their ability to mine some currencies and then separately release a mining-specific chip. Nvidia Chief Executive Officer Jensen Huang told Reuters that the mining chips do not need gaming features such as display outputs, which means that chips that might not be suitable for gaming can be used for mining instead.

"The way the use the chips, they don't need a whole bunch of functionality," Huang said of miners.

The company expects first-quarter revenue of \$5.30 billion, plus or minus 2%, above analysts' average estimate of \$4.51 billion.

Revenue in the quarter ended on Jan. 31 rose to \$5 billion from \$3.11 billion a year earlier. Analysts on average were expecting \$4.82 billion, according to IBES data from Refinitiv.

Revenue in the company's gaming segment was \$2.5 billion, above analyst estimates of \$2.36 billion, according to data from FactSet. Data center revenue was \$1.9 billion, above estimates of \$1.84 billion according to FactSet data. (Reporting by Chavi Mehta in Bengaluru and Stephen Nellis in San Francisco; Editing by Will Dunham and Stephen Coates)

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