IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

MARK TWARDZIK, on behalf of himself and all others similarly situated, Plaintiffs, v. HP INC., and NVIDIA CORPORATION, Defendants.	Case No. _____ **JURY TRIAL DEMANDED**

CLASS ACTION COMPLAINT

Plaintiff Mark Twardzik ("Plaintiff") by and through his undersigned counsel, brings this action against HP Inc. ("HP") and NVIDIA Corporation ("NVIDIA," and together with HP, the "Defendants") for rescission, monetary damages, and injunctive and declaratory relief. Plaintiff alleges the following based on personal knowledge as to his own acts and the investigation conducted by counsel as to all other allegations:

NATURE OF THE ACTION

1. Plaintiff brings this action on behalf of himself and other similarly-situated consumers across the country who purchased an HP laptop computer containing the slowed variant of the NVIDIA GeForce MX150 graphics processor unit detailed herein (the "Class Laptops").

2. The HP Envy 13 is an "ultrabook" laptop, so-called due to its small size and allegedly high performance. HP also sells Envy laptops with similar specifications in larger sizes.

3. The NVIDIA GeForce MX150 (the "MX150") is a graphics card. The most important part of the graphics card, i.e., the "brain" of the card, is the graphics processing unit ("GPU").

4. A GPU's purpose is to receive visual data from the computer's central processing unit ("CPU"), process those data into images, and transmit those images to the computer's monitor for display to the user. All else being equal, "[t]he more sophisticated the GPU, the higher the resolution and the faster and smoother the motion in games and movies." *Definition of: GPU*, PCMag.com, *available at* https://www.pcmag.com/encyclopedia/term/43886/gpu (last accessed July 20, 2019). A fast GPU generally improves user experience by speeding up graphics processing, and a powerful GPU is critical to certain graphics-intensive computer uses such as running video games and virtual reality software, photo- and video-editing software, three-dimensional modeling, and video and image processing. "A good graphics card is the most important part of a gaming PC." Jon Martindale, *The best graphics cards for 2019*, DigitalTrends.com (July 15, 2019), https://www.digitaltrends.com/computing/best-graphics-cards/.

5. Conversely, an underpowered GPU can negatively impact the user experience by reducing render speed, display quality, and operating stability. When a GPU is insufficiently powerful to handle a graphics processing task, it can cause visual anomalies such as artifacts, flickering images, and screen stuttering. GPU output may lag, reducing the framerate and reducing responsiveness to user input, or the GPU may even crash. The reduced frame rate, stuttering, and lag caused by an underpowered GPU can render a video game or other graphics-intensive program unusable.

6. Many original equipment manufacturers ("OEMs") incorporate the MX150 into their laptops (or offer it as an optional upgrade), and there are dozens of laptop models containing the MX150.

7. NVIDIA released the MX150 in May 2017. A month later, HP released a version of the Envy 13 incorporating the MX150.

8. NVIDIA marketed the MX150 as a single hardware component with uniform performance specifications, when in fact, there were two variants of the MX150: one that performed at the advertised specifications (the "Standard MX150"), and another that performed substantially worse (the "Slowed MX150").

9. Beginning in June 2017, HP gave customers purchasing Envy laptops the option to upgrade from the machine's base GPU by adding the MX150. Customers who purchased the larger models of the Envy received the Standard MX150, while customers who purchased the smaller Envy 13 received the Slowed MX150.

10. Both HP and NVIDIA knew that the Slowed MX150 was materially inferior to the Standard MX150, but neither company differentiated between the two variants in marketing materials.

11. NVIDIA similarly misrepresented the speed and performance boost offered by the MX150, claiming that in comparison with its predecessor, the GeForce 940MX, it offered "up to 3x superior performance-per-Watt" and approximately 33 percent better performance in various computing activities. Andrew Burnes, *Introducing GeForce MX150 Laptops: Supercharged For Work and Play*, NVIDIA.com (May 25, 2017), https://www.NVIDIA.com/en-us/geforce/news/NVIDIA-geforce-mx150-laptops//. On its website, NVIDIA claims that the "MX150 supercharges your laptop for work and play. Get up to 4X faster performance over integrated graphics for photo and video-editing applications, as well as faster, smoother gaming." *GeForce® MX150 Dedicated Graphics for Laptops*, GeForce.com, *available at* https://www.geforce.com/hardware/notebook-gpus/geforce-mx150 (last accessed July 20, 2019).

12. HP did not disclose to purchasers of the Class Laptops that they contained a GPU that was materially inferior to the larger Envy models. Instead, HP fully adopted NVIDIA's misleading uniform branding of the MX150.

13. HP marketed the Class Laptops as being "exceptionally powerful," with "[i]ncredible speed," and claimed that "the latest Intel® Core™ i processor[2] (optional NVIDIA® GeForce® MX150 graphics) combine for unbridled performance that overpowers even the most demanding tasks." *HP ENVY - 13-ad173cl (1KT13UA) Datasheet*, *available at* https://pcb.itcs.hp.com/dc/api/spec-sheet/ww-en/18021530/pdf/1KT13UA.pdf (last accessed July 20, 2019). HP promised consumers that "your computer will have the power and responsiveness to help your productivity soar. Experience amazing gaming performance, seamlessly edit and share 360 video, and enjoy fantastic 4K Ultra HD entertainment." *HP ENVY - 13-ah1031tx Product Page*, HP.com, *available at* https://store.hp.com/sg-en/default/laptops-tablets/hp-envy-13-ah1031tx-5hz24pa.html (last accessed July 20, 2019).

14. Based on Defendants' representations, Customers who purchased Class Laptops paid a premium for computers that performed substantially worse than advertised and were unsuitable for uses that require a more powerful GPU.

15. In March of 2018, NotebookCheck.com published an article showing that there are actually "two distinct versions of the GeForce MX150 with wide performance differences and power demands." The second version is notably slower and less demanding than the 'standard' MX150 . . . ." Allen Ngo, *NVIDIA has been sneaking in slower GeForce MX150 '1D12' variant onto some Ultrabooks*, NotebookCheck.com (March 19, 2018), https://www.notebookcheck.net/NVIDIA-has-been-sneaking-in-slower-GeForce-MX150-1D12-variant-onto-some-Ultrabooks.289358.0.html.

16. The Slowed MX150 performs substantially worse than the Standard MX150, with "a significant performance drop of about 20 to 25 percent between the two versions of the MX150." The base clock rate (a measure of processing speed) of the Slowed MX150 is "36 percent slower" than the Standard MX150, and "[r]aw graphics performance is unsurprisingly faster" on laptops containing the Standard MX150. *Id.*

17. Although NVIDIA claimed the MX150 would perform 33 percent better than its predecessor, the GeForce 940MX, the Slowed MX150 performs at essentially the same level.

18. There are two tiers of laptops containing the MX150: those that perform as advertised, and those that do not. The Class Laptops are on the lower end of the latter tier. Laptops containing the Standard MX150 outperform laptops containing the Slowed MX150 by a significant margin.

19. In tests comparing the performance of the Class Laptops against approximately two dozen laptops containing either the Standard MX150 or the Slowed MX150, the Class Laptops were 20 to 28 percent slower than the fastest laptop (which contained the Standard MX150), and 9 to 17 percent slower than the average of all laptops tested. *Id.*

20. On information and belief, NVIDIA and HP were aware of the disparity between the two MX150 variants and concealed the fact that the Slowed MX150 was inferior to the Standard MX150.

21. NVIDIA differentiates between the two variants internally, Nate Oh, *NVIDIA Silently Rolls Out Slower, Lower TDP GeForce MX150 for Ultrabooks*, AnandTech.com (March 23, 2018) https://www.anandtech.com/show/12565/NVIDIA-silently-rolls-out-slower-mx150-for-ultrabooks (last accessed July 20, 2019), and according to analysts there is ample evidence that the Slowed MX150 is "a vendor-side variant undisclosed to consumers." *Id.*

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