

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
MIDLAND-ODESSA DIVISION**

NEURAL AI, LLC

Plaintiff,

v.

NVIDIA CORPORATION

Defendant.

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Civil Action No. 7:24-cv-00221

JURY TRIAL DEMANDED

**PLAINTIFF’S DISCLOSURE OF ASSERTED CLAIMS AND PRELIMINARY
INFRINGEMENT CONTENTIONS PURSUANT TO THE COURT’S STANDING ORDER
GOVERNING PATENT PROCEEDINGS**

Plaintiff Neural AI, LLC (“Neural AI” or “Plaintiff”), by and through its attorneys, provides the following Disclosure of Asserted Claims and Preliminary Infringement Contentions (“Disclosure”) as to U.S. Patent Nos. 8,648,867 (“the ’867 Patent”), RE49,461 (“the ’461 Patent”), and RE48,438 (“the ’438 Patent”) (collectively, the “Asserted Patents” or “Patents-in-Suit”) against Defendant Nvidia Corporation (“Nvidia” or “Defendant”). This Disclosure is made solely for the purpose of this action.

Plaintiff’s investigation regarding infringement and additional potential grounds of infringement is ongoing. This Disclosure is therefore based upon information that Plaintiff has been able to obtain to date, together with its good-faith beliefs regarding the Accused Products and their operation, and is made without prejudice to Plaintiff’s right to supplement or amend its Disclosure as additional facts are ascertained, discovery is conducted, analysis is done, research is completed, and claim language is construed. Plaintiff reserves the right to amend and/or supplement its infringement contentions as additional information becomes available.

This Disclosure is based on Plaintiff’s present understanding of the meaning and scope of

the claims of the Asserted Patents. Plaintiff reserves the right to supplement or amend this Disclosure if its understanding of claim scope changes, including based on any construction of terms by the Court.

For each Asserted Patent, Plaintiff identifies the following Accused Products of which it is currently aware. The identification of Accused Products is based on Plaintiff's research and analysis to date, without the benefit of discovery. Plaintiff reserves the right to add, delete, substitute, or otherwise amend this list of Accused Products based on discovery or other circumstances, in a manner consistent with the Federal Rules of Civil Procedures, local rules, and the Court's standing order governing patent proceedings ("OGP").

Accused Products. The Accused Products include, without limitation, the following: Nvidia's GPU accelerators and superchips, including those with Nvidia's "Hopper," "Ada Lovelace," "Ampere," "Turing," "Volta," "Pascal," and "Maxwell" GPU architectures. These GPUs and superchips implement, and are specifically designed for, GPU-acceleration for artificial intelligence and neural networks.

Nvidia's Hopper GPUs include the H100 and H200 GPUs. In addition, Nvidia's superchips that implement GPU accelerators include the GH200, or Grace Hopper Superchip, which implements the Hopper-GPU architecture.

Nvidia's Ada Lovelace (or Lovelace) GPUs include Nvidia Data Center GPUs, including L40, L40S, and L4 GPUs; Nvidia Workstation and Professional Laptop GPUs, including RTX Ada Generations series GPUs and Laptop GPUs (including RTX 6000, RTX 6000 Ada, RTX 5000 Ada, RTX 4500 Ada, RTX 4000 Ada, RTX 4000 SFF, RTX 3500, RTX 3000, RTX 2000, RTX 1000, RTX 500); and GeForce RTX 40 series GPUs and Laptop GPUs (RTX 4090, RTX 4080 SUPER, RTX 4070 Ti SUPER, RTX 4070 SUPER, RTX 4070, RTX 4060 Ti, and RTX 4060; GeForce RTX 4090 Laptop GPU, GeForce RTX 4080 Laptop GPU, GeForce RTX 4070 Laptop

GPU, GeForce RTX 4060 Laptop GPU, GeForce RTX 4050 Laptop GPU).

Nvidia's Ampere GPUs include Nvidia Data Center GPUs, including A100, A40, A30, A16, A10, and A2 GPUs; Nvidia Workstation and Professional Laptop GPUs, including RTX A series GPUs and Laptop GPUs (A800 40GB Active, RTX A6000, RTX A5500, RTX A5000, RTX A4500, RTX A4000, RTX A2000, RTX A2000 12GB, RTX A1000, RTX A400, RTX A5500, RTX A4500, RTX A3000 12GB, RTX A2000 8GB, RTX A1000 6GB, RTX A500); GeForce RTX 30 series GPUs and Laptop GPUs (GeForce RTX 3090 Ti, GeForce RTX 3090, GeForce RTX 3080 Ti, GeForce RTX 3080, GeForce RTX 3070 Ti, GeForce RTX 3070, GeForce RTX 3060 Ti, GeForce RTX 3060, GeForce RTX 3050 (8 GB), GeForce RTX 3050 (6 GB), GeForce RTX 3080 Ti Laptop GPU, GeForce RTX 3080 Laptop GPU, GeForce RTX 3070 Ti Laptop GPU, GeForce RTX 3070 Laptop GPU, GeForce RTX 3060 Laptop GPU, GeForce RTX 3050 Ti Laptop GPU, GeForce RTX 3050 Laptop GPU); and GeForce MX570 Laptop GPU.

Nvidia's Turing GPUs include Nvidia Data Center GPUs, including Tesla T4 GPUs and Quadro RTX 8000 (passive) and Quadro RTX 6000 (passive) GPUs; Nvidia Workstation and Professional Laptop GPUs, including T series GPUs and Laptop GPUs, Quadro T series Laptop GPUs, and Quadro RTX series GPUs and Laptop GPUs (Quadro RTX 8000, Quadro RTX 6000, Quadro RTX 5000, Quadro RTX 4000, Quadro RTX 3000, Quadro T2000, T1000 8GB, T1200, Quadro T1000, T1000 (4GB), T600, T550, T500 T400, T400 4GB); Titan series Titan RTX GPU; GeForce RTX 20 series GPUs and Laptop GPUs (GeForce RTX 2080 Ti, GeForce RTX 2080 Super, GeForce RTX 2080, GeForce RTX 2070 Super, GeForce RTX 2070, GeForce RTX 2060 Super, GeForce RTX 2060, GeForce RTX 2500); GeForce GTX 16 series GPUs and Laptop GPUs (GeForce GTX 1660 Ti, GeForce GTX 1660 Super, GeForce GTX 1660, GeForce GTX 1650 Ti, GeForce GTX 1650 Super, GeForce GTX 1650 (G5), GeForce GTX 1650 (G6), GeForce GTX 1650, GeForce GTX 1630); and GeForce MX550, MX450, and MX430 Laptop GPUs.

Nvidia's Volta GPUs include Nvidia Data Center GPUs, including the Tesla V100 GPU; Nvidia Workstation GPUs, including Quadro GV100; and Titan series Titan V GPU.

Nvidia's Pascal GPUs include Nvidia Data Center GPUs, including Tesla P100, P40, and P4 GPUs; Nvidia Workstation and Professional Laptop GPUs, including the Quadro GP100 GPU and Quadro P series GPUs and Laptop GPUs (Quadro P6000, Quadro P5200, Quadro P5000, Quadro P4200, Quadro P4000, Quadro P3200, Quadro P3000, Quadro P2200, Quadro P2000, Quadro P1000, Quadro P620, Quadro P600, Quadro P520, Quadro P500, Quadro P400); Titan series Titan Xp and Titan X GPUs; GeForce GTX 10 series GPUs and Laptop GPUs (GeForce GTX 1080 Ti, GeForce GTX 1080, GeForce GTX 1070 Ti, GeForce GTX 1070, GeForce GTX 1060, GeForce GTX 1050 Ti, GeForce GTX 1050); and GeForce MX300 series, MX200 series, and MX150 Laptop GPUs.

Nvidia's Maxwell GPUs include Nvidia Data Center GPUs, including Tesla M60, M40, and M10 GPUs; Nvidia Workstation and Professional Laptop GPUs, including Quadro M series GPUs and Laptop GPUs (Quadro M6000 24GB, Quadro M6000 (12GB), Quadro M5000, Quadro M5000M, Quadro M5500, Quadro M4000, Quadro M4000M, Quadro M3000M, Quadro M2200, Quadro M2000, Quadro M2000M, Quadro M1200, Quadro M1000M, Quadro M620, Quadro M600M, Quadro M520, Quadro M500M), the NVS 810 GPU, and Tesla M6 series Laptop GPUs; Titan series GTX Titan X GPU; GeForce GTX 900 series GPUs and Laptop GPUs (GeForce GTX 980Ti, GeForce GTX 980, GeForce GTX 970, GeForce GTX 960, GeForce GTX 980M, GeForce GTX 970M, GeForce GTX 965M, GeForce GTX 960M, GeForce GTX 950M); GeForce GTX 700 series GPUs and Laptop GPUs (GeForce GTX 750 Ti, GeForce GTX 750); and GeForce MX130 series and MX110 Laptop GPUs.

The Accused Products further include Nvidia's computers, supercomputers, data centers, servers, and workstations that implement its GPU accelerators and superchips. These computer

hardware systems include: the DGX line of supercomputers, the HGX line of supercomputers, the OVX line of supercomputers, and the EGX line of servers for data centers and edge devices. The Accused Products further include Nvidia's software, platforms, and services for accelerated computing. These include CUDA, Nvidia AI Enterprise, the DGX Platform, Nvidia Omniverse, Nvidia Drive, Nvidia Isaac Sim, Nvidia Clara, Nvidia AI Foundation models, and Nvidia NGC.

The Accused Products further include (1) any additional products identified in Exhibits 1-21 attached hereto; (2) any products that include the same functionality or features described in Exhibits 1-21; and (3) any prior or subsequent versions of the products identified in Exhibits 1-21 that include the same features or functionality.

Defendant's Infringement. Based upon currently available information, Plaintiff identifies the following asserted claims:

- The '867 Patent. Defendant has infringed and is infringing claims 16-19, literally and/or under the doctrine of equivalents. Defendant has infringed and is infringing these claims both directly and indirectly (by inducing infringement pursuant to 35 U.S.C. § 271(b) and/or by contributing to infringement pursuant to 35 U.S.C. § 271(c)).
- The '461 Patent. Defendant has infringed and is infringing claims 21-31, literally and/or under the doctrine of equivalents. Defendant has infringed and is infringing these claims both directly and indirectly (by inducing infringement pursuant to 35 U.S.C. § 271(b) and/or by contributing to infringement pursuant to 35 U.S.C. § 271(c)).
- The '438 Patent. Defendant has infringed and is infringing claims 1-10, 12-14, 16-18, 20-32, and 40-54, literally and/or under the doctrine of equivalents. Defendant has infringed and is infringing these claims both directly and indirectly (by inducing infringement pursuant to 35 U.S.C. § 271(b) and/or by contributing to infringement pursuant to 35 U.S.C. § 271(c)).

Based upon currently available information, Plaintiff asserts that Defendant has infringed and/or continues to infringe the patents and claims as identified and described in the infringement charts for the Accused Products attached as Exhibits 1-21. These exhibits contain illustrative examples of Defendant's presently known infringement of the Asserted Claims by evidencing the correspondence between (i) elements of the Asserted Claims and (ii) corresponding structures and/or functions of the Accused Products. Such examples are illustrative and not exhaustive, additional materials may evidence infringement, and additional bases of infringement may be present and uncovered during discovery and after claim construction.

Each element of each asserted claim is presently alleged to be literally present. However, to the extent Defendant argues that a limitation is not literally present in the Accused Products, then Defendant still infringes under the doctrine of equivalents. Any differences alleged to exist between any of the Asserted Claims and any of the Accused Products are insubstantial, and therefore each Accused Product also meets each limitation under the doctrine of equivalents, as the identified features of the Accused Product perform substantially the same function in substantially the same way to achieve substantially the same result as the corresponding claim limitations. Plaintiff reserves the right to supplement this Disclosure as discovery is conducted, Defendant provides any alleged non-infringement positions, and claim construction is completed.

Defendant directly infringes each of the asserted claims under 35 U.S.C. §271(a) at least by using, operating, testing, advertising, making, installing, maintaining, distributing, supporting, providing instructions for, offering to sell, selling, and/or otherwise providing services including the Accused Products—or systems incorporating the Accused Products—within the United States and/or importing the Accused Products into the United States. Defendant also directly infringes each of the claims at least by performing, or being responsible for the performance of (e.g., the acts are attributable to it), each of the claimed steps as set forth in the accompanying charts.

Defendant's acts of direct infringement are further set forth in accompanying Exhibits 1-21.

Defendant also indirectly infringes the Asserted Claims by inducing infringement pursuant to 35 U.S.C. § 271(b)). Defendant has had knowledge of each of the asserted patents and of the specific manner by which the Accused Products infringe each patent since at least September 2024, when Plaintiff filed and served its original complaint. Defendant knowingly induced one or more third parties (e.g., business partners, customers, or others), to infringe the Asserted Claims by making the Accused Products available on Defendant's website, widely advertising the Accused Products, providing applications that allow partners and users to access the Accused Products, providing instructions for installing the Accused Products, and providing technical support to users and/or engaging in activities that aid and abet infringement of the Asserted Patents by end users within the United States, with knowledge and intent that performance of such actions would infringe the Asserted Claims. Defendant committed these acts with knowledge or willful blindness that such induced acts would constitute infringement of the Asserted Claims at least as of the filing of the original complaint. Defendant also has had actual or constructive notice of the technology claimed in the Asserted Patents since at least 2007, when the inventors of the Asserted Patents first discussed their patented technologies with Mr. Sanford Russell, then the CTO of Nvidia. In addition, the inventors of the Asserted Patents held multiple discussions with Nvidia regarding a potential investment in or acquisition of their company, Neurala, Inc., and its assets, including the patent family that includes the Asserted Patents. Defendant knew or should have known that it infringed the Asserted Patents based on its knowledge of the same. Alternatively or additionally, Defendant was willfully blind to the fact that it infringed the Asserted Patents despite its knowledge of the same, based on, for example, Defendant's having cited the application for the '867 Patent on the face of its own patent since at least June 28, 2010, *see* Nvidia U.S. Patent No. 8,922,566, and the similarity of the Accused Products to Plaintiff's patented technology.

Additional evidence of Defendant's inducement of infringement by others is set forth in each of Exhibits 1-21.

Defendant also indirectly infringes the Asserted Claims by contributing to infringement pursuant to 35 U.S.C. § 271(c). Each of the Accused Products is a material part of the claims—and Defendant knew each of the Accused Products is especially made or especially adapted for use in an infringement of the Asserted Claims. Further, the Accused Products have no substantial non-infringing uses, as set forth in the example claim charts.

Defendant also contributes to infringement by its customers and end users of the Accused Products by offering to sell or selling within the United States or importing into the United States the Accused Products, which are for use in practicing, and under normal operation practice, methods claimed in the Asserted Patents, constituting a material part of the inventions claimed, and not a staple article or commodity of commerce suitable for substantial non-infringing use. Indeed, the Accused Products and the exemplary functionality identified in Exhibits 1-21 have no substantial non-infringing uses but instead are specifically designed to practice the Asserted Patents. Additional evidence of Defendant's contributory infringement is set forth in each of Exhibits 1-21.

Priority Dates. Plaintiff presently identifies the following priority dates for the Asserted Patents:

- All Asserted Claims of the '867 Patent are entitled to a priority date corresponding to the conception of the claimed inventions, which occurred no later than February 25, 2005. The conception of the inventions claimed in the '867 Patent was followed by continuous diligence and actual reduction to practice of the claimed inventions no later than December 14, 2005. Following the actual reduction to practice of the claimed invention, there was constructive reduction to practice corresponding to

the filing of U.S. Provisional Application No. 60/826,892 on September 25, 2006.

See NAI_0007731-NAI_0007923.

- All Asserted Claims of the '461 Patent are entitled to a priority date corresponding to the conception of the claimed inventions, which occurred no later than February 25, 2005. The conception of the inventions claimed in the '461 Patent was followed by continuous diligence and actual reduction to practice of the claimed inventions no later than December 14, 2005. Following the actual reduction to practice of the claimed inventions, there was constructive reduction to practice corresponding to the filing of U.S. Provisional Application No. 60/826,892 on September 25, 2006. *See* NAI_0007731-NAI_0007923.
- All Asserted Claims of the '438 Patent are entitled to a priority date corresponding to the conception of the claimed inventions, which occurred no later than February 25, 2005. The conception of the inventions claimed in the '438 Patent was followed by continuous diligence and actual reduction to practice of the claimed inventions no later than December 14, 2005. Following the actual reduction to practice of the claimed inventions, there was constructive reduction to practice corresponding to the filing of U.S. Provisional Application No. 60/826,892 on September 25, 2006. *See* NAI_0007731-NAI_0007923.

Plaintiff's investigation and analysis is ongoing, and Plaintiff reserves the right to assert and rely on an earlier invention date in the event Defendant identifies alleged prior art that dated earlier than the identified priority date corresponding to a date of conception followed by diligence and reduction to practice of the claimed inventions.

Production of Documents. Simultaneously with this Disclosure, Plaintiff is producing documents pursuant to paragraph two of the Court's OGP. Plaintiff reserves the right to supplement

this production as additional investigation and discovery is conducted in the ordinary course of these proceedings. Further, Plaintiff reserves the right to supplement or revise its infringement contentions and/or claim chart, including by identification of additional asserted claims, based on, for example, new versions or variations of one or more of the accused products that are later released or discovered.

DATED: January 14, 2025

Respectfully submitted,

By: /s/ Christopher C. Campbell

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing document has been served on January 14, 2025 to all counsel of record via electronic mail.

/s/ Christopher C. Campbell