IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

ARM LTD.,)
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Plaintiff,)
v.) C.A. No. 22-1146 (MN)
QUALCOMM INC., QUALCOMM) REDACTED PUBLIC VERSION
TECHNOLOGIES, INC. and NUVIA, INC.,	Original Filing Date: October 26, 2022
Defendants.	Redacted Filing Date: October 26, 2022

DEFENDANTS' ANSWER AND DEFENSES TO PLAINTIFF'S COMPLAINT AND JURY DEMAND AND DEFENDANTS' AMENDED COUNTERCLAIM

- 1. Qualcomm Incorporated and Qualcomm Technologies, Inc. (collectively, "Qualcomm") are poised to release to the market several innovative products enabled by custom-designed high-performance, low-power central processing units ("CPUs") containing a novel microarchitecture and related technologies that will deliver the next era of computing innovation. While many in the industry see in this pivotal moment the opportunity for technological advancement, ARM sees an opportunity to strongarm Qualcomm into renegotiating the financial terms of the parties' longstanding license agreements, using this baseless lawsuit as leverage. With this lawsuit, ARM makes clear to the marketplace that it will act recklessly and opportunistically, threatening the development of new and innovative products as a negotiating tactic, not because it has valid license and trademark claims.
- 2. ARM claims, with no legal or contractual basis, that following Qualcomm's acquisition of NUVIA Inc. ("NUVIA") for \$1.4 billion, Qualcomm's use of *any* technology acquired from NUVIA—including NUVIA technology that was further developed by Qualcomm

and has nothing to do with ARM—violates a previously-terminated license agreement between ARM and NUVIA.

- 3. Qualcomm has its own license agreements with ARM, under which Qualcomm has licensed and paid for the same intellectual property that NUVIA licensed under its own separate agreements with ARM. Therefore, even though ARM terminated the NUVIA licenses, Qualcomm owns independent licenses for the same ARM technology and information that allow it to provide ARM-compliant products to its customers for many years to come—a fact ARM glaringly omitted from its complaint, and which ARM has attempted to obfuscate through an aggressive misinformation campaign. Thus, ARM has no right to demand any destruction of Qualcomm's CPU technology because Qualcomm's use of ARM technology and information is licensed under its overlapping license agreements.
- 4. The notion that ARM has the right to control technology that is not ARM's—and worse yet, to ask Defendants to destroy their innovation and inventions unless substantial monetary tribute is paid to ARM—offends customary norms of technology ownership, as well as NUVIA's and Qualcomm's rights under their agreements with ARM.
- 5. Even putting aside Qualcomm's broad license rights, ARM's reading of the termination obligations in the NUVIA Architecture License Agreement ("ALA") is wrong. To the extent any destruction obligation exists, it explicitly applies only to ARM Confidential Information. But ARM again omits important facts: (1) under the NUVIA ALA, information in the public domain is not subject to confidentiality obligations, and (2) ARM publishes its instruction set without confidentiality restrictions. Anyone is free to go to the ARM website and

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¹ Capitalized terms not otherwise defined herein shall have the meaning ascribed to them in the relevant license agreements.

download the 10,000+ page ARM Architecture Reference Manual.² In this case, Qualcomm's CPU cores are designed to be compatible with the publicly-available ARM Architecture version

- 6. Seeking additional leverage it can use to attain royalties from Qualcomm to which it is not entitled under the contracts, ARM now demands that Qualcomm stop using *all* NUVIA technology, regardless of whether it contains ARM Confidential Information. Qualcomm's license rights, and any reasonable reading of the termination provisions of the NUVIA ALA, demonstrate that ARM has no right to require Qualcomm to stop using or destroy Qualcomm or NUVIA technology.
- 7. ARM's position is a threat to the industry generally. Unless this Court rejects ARM's arguments, ARM's extreme position could be weaponized against all of its licensees, allowing ARM to claim ownership over all its licensees' innovations.
- 8. As this litigation will show, Qualcomm and NUVIA have not violated NUVIA's ALA or any other license agreement. Nor have they misused ARM's trademarks.

Qualcomm Announced Its Acquisition Of NUVIA In January 2021

9. In January 2021, Qualcomm announced that it would acquire NUVIA, a start-up working on a custom CPU—the portion of a computer that retrieves and executes instructions—known as the Phoenix Core. NUVIA was also working on a custom "System-on-a Chip" ("SoC") that incorporated multiple Phoenix Cores for use in data centers and servers. SoCs are integrated circuits used in computers and other electronics that combine many elements of a computer system into a single chip.

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- 10. Although Qualcomm and NUVIA were focused on different market segments, the NUVIA CPU and SoC technologies comprised promising, innovative technology. Because the NUVIA CPU cores were being designed to be ARM architecture-compatible, this technology was (and is) compatible with Qualcomm's existing computer and mobile device chipset technologies.
- 11. Qualcomm's plan was to complete the development of the Phoenix Core after the acquisition and ultimately drive this technology into various SoCs, particularly for use in the "compute" (e.g., laptops/PCs), "mobile" (e.g., smartphones), and "automotive" (e.g., digital cockpit) markets. Qualcomm also planned to continue the development of a SoC for use in data centers and servers ("Server SoC"). This would allow Qualcomm's custom CPUs to compete more effectively against CPUs designed not only by rival ARM licensees and ARM, but also rival suppliers of CPUs compliant with other instruction set architectures (notably, Intel's x86).
- 12. Major industry participants—including Microsoft, Google, Samsung, GM, HP, and many others—praised the acquisition as benefitting their products and end-customers.³ News of this acquisition appeared in Forbes and in newspapers around the world.

Qualcomm And NUVIA Had Individual License Agreements With ARM With Common Provisions

13. At the time of the acquisition, NUVIA and Qualcomm had separate, but broadly overlapping, license agreements with ARM. Qualcomm's ALA included all the rights granted to NUVIA, as well as additional rights. Both ALAs granted rights to use version 8 of the ARM instruction set architecture, including the ARM instruction set architecture ("ISA") with

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³ See Qualcomm to Acquire NUVIA, Qualcomm Inc. (Jan. 12, 2021), https://www.qualcomm.com/news/releases/2021/01/qualcomm-acquire-nuvia.

which the Phoenix Core was compatible. Qualcomm's ALA is also broader, granting Qualcomm rights to the next generation v9 ISA.

- ALAs grant licensees the right to design their own custom CPUs that can execute ARM's ISA, as well as the right to design and distribute products incorporating such CPUs. An ISA lists the instructions that a software program will see, but an ISA does not tell a designer about the logic to implement it, nor how to build a CPU core, nor any of the features that make a CPU competitive. Application and software developers create their products to be compatible with particular ISAs. Applications and software that are compatible with a specific ISA can be run on any CPU that is compatible with the ISA, regardless of who has designed or manufactured the hardware. The ARM ISA allows for compatibility, as all ARM-compatible products can receive the same inputs (instructions) and, for each of those inputs, determine and output the proper result.
- 15. To make a CPU that then can execute the ARM ISA and therefore run compatible applications and other software, the CPU developer must design and build a complicated integrated circuit consisting of billions of transistors wired together into arrays that form larger, interconnected blocks. Building a CPU requires detailed micro-architectural know-how and expertise that is not related to the ISA, and requires expertise in cache design, branch prediction techniques, prefetchers, memory coherency/consistency paradigms, dependency resolution logic, schedulers, power delivery, power measurement and management, clocking methodology, and many other areas.
- 16. A CPU developer developing a custom CPU designs *how* the core is built, *how* it performs, and *how* it executes the CPU's instructions. There are virtually infinite number of ways to design and build CPUs that can run the ARM instruction set. Companies that compete against each other to make better products utilizing ARM instruction sets employ armies of engineers who

make countless design choices and tradeoffs to improve the size, computing performance, power consumption, heat dissipation, and other important features of CPUs.

- 17. Under an ALA license, ARM does not deliver any specific ARM design or tell the licensee how to make the CPU. That technological development—and the resulting product that may meet or fail the performance benchmarks necessary to succeed in the market—is left to the licensee. If the licensee is willing to put in the extraordinary effort and investment to develop a custom CPU, the ALA structure can and does allow for product differentiation, even from ARM's own CPUs.
- 18. ARM competes against licensees designing custom cores under ALAs by offering its own "off-the-shelf" CPU designs that customers may license through a Technology License Agreement ("TLA"). When a licensee seeks to sell products licensed under a TLA—rather than under an ALA—ARM delivers complete processor core designs that a licensee can effectively drop into a larger SoC design. ARM's off-the-shelf processor cores licensed under TLAs do not allow for the same kind of product differentiation among different TLA licensees because all classes of TLA-licensed processor cores are effectively the same. However, there can still be considerable variety and differentiation among SoCs that incorporate TLA-licensed processor cores along with other functional blocks and circuits. For example, Qualcomm's Snapdragon chip products that use stock ARM cores are very successful in large part because of Qualcomm's innovation in designing many of the other functional blocks and integrating them into the SoC as a whole. Such functional blocks include graphic processing units (GPU), digital signal processors (DSP), artificial intelligence (AI) processors, image processors, modems, and other technologies.
- 19. Some companies make use of both custom-designed ALA processor cores and offthe-shelf TLA-licensed cores in their products. Royalty rates are generally lower under ALAs and

higher under TLAs, because the TLA royalties account for ARM's work in developing complete CPUs, whereas the licensees under an ALA make the significant investment to develop their own CPUs.

20. With the Phoenix Core, Qualcomm will begin incorporating more of its own custom CPUs in its products. Qualcomm is making this change because it believes its own innovation will generate better performing cores than ARM's cores. This paradigm change will mean Qualcomm will in the future pay to ARM the lower royalty rate under its ALA for these custom CPUs, rather than the higher royalty rates under Qualcomm's TLA.

After ARM Learned Of The NUVIA Acquisition, ARM Demanded Higher Royalties From Qualcomm

- 21. Shortly after announcing the proposed acquisition of NUVIA in January 2021, Qualcomm informed ARM that the NUVIA engineers would be transferred to a Qualcomm subsidiary and would work under Qualcomm's set of license agreements with ARM. Qualcomm also notified ARM that, to the extent NUVIA was utilizing any ARM Technology not currently covered under Qualcomm's then-current ALA and TLA, Qualcomm would work with the ARM team to complete any necessary license annexes to cover such items.
- Qualcomm believed that ARM would embrace the acquisition. Even though Qualcomm would now be working on its own custom CPUs, the fact that Qualcomm is developing SoCs compatible with the ARM ISA for markets where ARM-based processors have traditionally struggled, such as the "compute" market (i.e., the market for personal computers such as laptops), represents a tremendous opportunity for ARM. The combination of NUVIA's innovative CPU technology with Qualcomm's scale and engineering prowess provides the best opportunity for ARM to significantly increase its reach and associated royalty payments.

- 23. ARM, however, acted opportunistically. In February 2021, ARM contended that "any transfer of designs, rights, or licenses under NUVIA's agreements with Arm to Qualcomm will require and be subject to Arm's prior consent." ARM insisted, without basis, that Qualcomm needed ARM's consent to "any transfer of designs, rights or licenses under NUVIA's agreements" to Qualcomm. Later that month, ARM wrote that to secure its consent for the transfer of NUVIA's CPU design to Qualcomm, Qualcomm must: (i) incorporate the much higher royalty rates from NUVIA's licenses into Qualcomm's pre-existing licenses; (ii) restrict the ability of Qualcomm employees from working on Qualcomm's custom CPU designs such that "at a minimum" any individual with access to ARM Confidential Information wait three years before working on "any architecture CPU design" at Qualcomm; (iii) "discuss and decide on the design transfer fee associated with such CPU design transfer"; and (iv) enter into a separate license for implementation IP and software tools, which would include another undisclosed "design transfer fee."
- 24. ARM's demands were outrageous. First, it was attempting to secure supplemental payments and royalties for rights for which Qualcomm *had already paid or was continuing to pay under its own license agreements*. Qualcomm's license agreements, on their face, make clear that Qualcomm's use of ARM Technology in connection with the further development of the technology it acquired from NUVIA would be covered by Qualcomm's pre-existing license agreements. For example,

Therefore, Qualcomm's use of any ARM Technology utilized in NUVIA's technology was fully licensed under Qualcomm's license agreements as soon as Qualcomm acquired NUVIA. Nonetheless, and although not necessary, Qualcomm sought ARM's consent to assign NUVIA's ARM licenses to Qualcomm, even though

Qualcomm's position was that NUVIA's technology was licensed under Qualcomm's license agreements as soon as the acquisition closed.

- 25. Second, ARM was claiming a right to control the transfer of NUVIA technology when NUVIA's ALA provided no such rights to ARM.
- Qualcomm engineers from working for three years with absolutely no basis for such a demand in NUVIA's or Qualcomm's license agreements. ARM's demands for additional payments from Qualcomm made little sense and were inconsistent with Qualcomm's long-standing agreements. As ARM acknowledges in its complaint, NUVIA was focused on developing a CPU for use in low-volume, high-cost SoCs for the server market, whereas Qualcomm intended to use the technology NUVIA had started developing to build high-volume, lower cost SoCs for Qualcomm's traditional markets, such as the "mobile" and "compute" markets. For its data center and server products—which would be of a lower volume and higher per-unit cost than, for example, Qualcomm's higher volume and lower cost mobile products—NUVIA and ARM had negotiated a royalty rate that was many multiples higher than Qualcomm's rate. ARM's strategy, in light of Qualcomm's more favorable terms, has been to ignore Qualcomm's license rights and royalty rates and attempt to force upon Qualcomm NUVIA's substantially higher royalty rate established for its server product.
- 27. If ARM could not get the benefit of forcing NUVIA's royalty rate on Qualcomm's custom CPU across Qualcomm's broad SoC portfolio, its alternative strategy was to seek to preclude Qualcomm from proceeding with developing its custom CPU and, in doing so, force the purchase of ARM's off-the-shelf CPU. This is beneficial for ARM because the TLA has a higher

royalty rate than Qualcomm's ALA. When Qualcomm successfully replaces ARM-designed CPUs with its own designs, Qualcomm will pay ARM lower royalties under the ALA.

- 28. Given ARM's unreasonable positions, which conflict with the terms of the parties' licenses, ARM and Qualcomm were unable to resolve this dispute prior to the close of the NUVIA acquisition on March 15, 2021. Even so, given the parties' long-standing relationship, Qualcomm reaffirmed its interest in finding a productive path forward in its discussions with ARM after the acquisition was complete.
- 29. After the acquisition closed, ARM doubled down, asserting that Qualcomm needed to destroy NUVIA's engineering work and start over unless it agreed to ARM's demands, including tens of millions of dollars in both additional "transfer" payments and increased royalties. Qualcomm continued to try and reach a resolution with ARM even though ARM's attempt to control NUVIA's technology was unjustified.
- 30. While the parties had intermittent discussions to resolve the dispute, in or about September 2021, ARM stopped communicating with Qualcomm about the dispute. Meanwhile, throughout 2021 to the present day and with full knowledge by ARM, Qualcomm continued development work on the Phoenix Core and SoCs incorporating the Phoenix Core, as was its right under Qualcomm's own license agreements with ARM.

ARM Unexpectedly Terminated The NUVIA License Agreements And Qualcomm Went To Great Lengths To Insulate Itself From ARM's Unreasonable Positions

31. Without warning, in a letter dated February 1, 2022 (but not received by Qualcomm until February 4, 2022), ARM terminated, effective March 1, 2022, the NUVIA ALA and TLA license agreements and demanded that NUVIA and Qualcomm destroy all ARM Confidential Information, and certify by April 1, 2022 that they had complied with ARM's demands. Prior to the February 2022 letter, it had been over six months since ARM last suggested that NUVIA or

Qualcomm violated NUVIA's license agreements. ARM's demand came out of nowhere, especially as ARM had continued to support Qualcomm in the development of the technology acquired from NUVIA.

- 32. The timing of ARM's demand is telling on two fronts.
- 33. First, ARM waited until Qualcomm had expended a year of engineering effort and hundreds of millions of dollars to further develop and integrate Phoenix Core technology into multiple SoCs, in addition to the \$1.4 billion Qualcomm spent to acquire NUVIA. ARM was seeking to maximize whatever leverage it had to threaten Qualcomm's investment and Qualcomm's SoC roadmap and extract exorbitant fees and royalty payments.
- 34. Second, ARM terminated the NUVIA agreements just three days before ARM publicly announced the failure of its merger transaction with NVIDIA—a deal that Qualcomm and many others in the industry had opposed. This timing suggests that, in part, ARM was seeking payback for Qualcomm's public opposition to the NVIDIA deal.
- 35. Qualcomm disagreed that it was required to stop any of its work—or that destruction was appropriate—because Qualcomm holds valid licenses to all relevant ARM Technology and ARM's interpretation of the termination obligations in the NUVIA agreement were inconsistent with the plain language of the license agreements.
- 36. Moreover, even though ARM demanded destruction of Confidential Information obtained under NUVIA's ALA, NUVIA had implemented ARM Architecture , which had been publicly available on ARM's website for anyone to download since at least around January 2021—over a year before the destruction request.

Therefore, ARM Architecture

- was not Confidential Information, not subject to any restrictions, and not subject to any destruction obligation. For the same reasons, the NUVIA core design did not contain ARM Confidential Information.
- 37. Nonetheless, on April 1, 2022, NUVIA certified that it had destroyed and quarantined all NUVIA-acquired ARM Confidential Information.
- 38. Then, on April 12, 2022, just a few weeks after NUVIA made its certification, ARM accepted test results verifying that the implementation of the Phoenix Core in the Server SoC complied with the requirements necessary to execute the ARM instruction set. ARM confirmed that "Qualcomm ... has validated *their CPU core* in accordance with the Verification requirements set out in the Architecture agreement." ARM explicitly confirmed that the validation testing was conducted *under Qualcomm's ALA*. Therefore, ARM was not only well aware that Qualcomm was working on the Phoenix Core under Qualcomm's license agreements, but ARM also affirmed this work and understood that Qualcomm had implemented of the ISA.
- 39. ARM's position in this litigation is not just unsupported by its verification in April 2022 and by the language of the license agreements, it is antithetical to the very nature of ARM's ALAs, which allow a licensee to design its own, proprietary ARM-compatible technology that belongs to the licensee and that can be used by the licensee to compete against other ARM-compatible products, including those designed by ARM itself.
- 40. Licensees depend on this, as do regulators. ARM explicitly told regulators in December 2021, in connection with the proposed NVIDIA acquisition, that technology created by its ALA licensees belongs to the licensees, not ARM, stating: "architectural licensees do *not* use ARM's CPU designs. Arm architectural licensees create their *own* proprietary CPU designs using

their *own* engineering teams." ARM specifically referred regulators to Qualcomm's acquisition of NUVIA as an example of Qualcomm's efforts to create its own proprietary CPU.

ARM's Claims Are Baseless

- 41. In this lawsuit, ARM takes its baseless and extreme arguments public, claiming that technology that is not its own belongs to ARM, and that it is ARM's prerogative to decide whether Qualcomm can use or continue to develop NUVIA's technology. The termination provisions in the NUVIA ALA do not require such a result.
- 42. ARM ignores the broad license rights ARM has granted Qualcomm under its ALA and other license agreements. Qualcomm *is* licensed to use ARM Technology in connection with Qualcomm's CPU core technology, even if any aspects trace back to NUVIA's work. Moreover, ARM attempts to misappropriate NUVIA technologies that contain no ARM information, but it makes no sense to require Qualcomm to stop using its own intellectual property.
- 43. Additionally, ARM's position effectively guts its own ALA, which is intended to encourage licensees to develop their own CPU core technology with their own innovations, at their own risk and expense and for their own benefit. ARM's arguments would allow ARM to claim ownership over its licensees' innovations and inventions. That is not what ARM licensees pay for under the ALA.
- 44. ARM's trademark infringement and false-origin claims are also meritless. ARM contends that Qualcomm and NUVIA's use of ARM's trademarks in connection with any products related to NUVIA technology—including, but not limited to the Phoenix Core and the upcoming SoCs—is improper. But Qualcomm's license agreements with ARM give Qualcomm the right to utilize ARM's trademarks.

ARM's website also publicly grants "any . . . third party" the right to use ARM's trademarks pursuant to various guidelines.

- 45. In any event, Defendants' use of ARM's trademarks constitutes fair use and therefore is permissible. Qualcomm engages in limited use of the ARM Marks, such as in marketing materials, product specifications, and technical documentations, to convey accurately that Qualcomm's products are compatible with the ARM architecture. These references are limited and truthful.
- 46. Rather than litigate its case in court, ARM attempted to maximize the negative impact of its filing this lawsuit by campaigning with members of the media and customers to generate additional publicity for ARM's positions.
- 47. This Court should reject ARM's claims and instead declare that Qualcomm and NUVIA's conduct—including use of Qualcomm-developed technology—was fully licensed.

Defendants, through their undersigned counsel, upon personal knowledge and/or upon information and belief, answer the Complaint dated August 31, 2022 (the "Complaint") as follows:

48. **COMPLAINT PARAGRAPH 1:** Arm is the world's leading provider of microprocessor intellectual property. For decades, Arm has developed innovative processor architecture and implementation designs that balance performance with energy efficiency. Billions of electronic devices use Arm processor technologies pursuant to Arm licenses—from smartphones used to interact seamlessly with friends and family around the world to an increasing number of the servers that run the essential day-to-day operations of Fortune 500 companies.

ANSWER: Defendants admit that ARM licenses microprocessor intellectual property, and that a significant number of electronic devices use processors that are based

on ARM architecture and designs, such as smartphones and to a far more limited extent computers. Defendants deny knowledge or information sufficient to form a belief as to the truth of the remainder of the allegations set forth in Complaint Paragraph 1, and on that basis deny them.

49. **COMPLAINT PARAGRAPH 2:** Qualcomm is a major semiconductor manufacturer. To accelerate its processor development efforts, Qualcomm spent over \$1 billion to acquire Nuvia, a start-up led by senior engineers previously from Apple and Google that licensed Arm technologies to develop high-performance processor cores for semiconductor chips. In the process, Qualcomm caused Nuvia to breach its Arm licenses, leading Arm to terminate those licenses, in turn requiring Qualcomm and Nuvia to stop using and destroy any Arm-based technology developed under the licenses. Undeterred, Qualcomm and Nuvia have continued working on Nuvia's implementation of Arm architecture in violation of Arm's rights as the creator and licensor of its technology. Further, Qualcomm's conduct indicates that it has already and further intends to use Arm's trademarks to advertise and sell the resulting products in the United States, even though those products are unlicensed.

ANSWER: Defendants admit that Qualcomm is a leading wireless technology innovator that designs numerous products, including semiconductors. Qualcomm further admits that, in 2021, Qualcomm Technologies, Inc. acquired NUVIA for approximately \$1.4 billion before working capital and other adjustments. Defendants also admit that NUVIA had license agreements with ARM LTD., such as an ALA and TLA, and that, prior to Qualcomm's acquisition, NUVIA worked on CPUs and SoCs. Defendants further admit that in a letter dated February 1, 2022, ARM stated that it intended to terminate its ALA and TLA with NUVIA effective March 1, 2022, and requested that NUVIA destroy or return to

ARM any ARM Confidential Information, including any copies thereof in its possession and any ARM Technology or derivatives. Defendants otherwise deny the allegations in Complaint Paragraph 2, except to the extent they purport to state legal conclusions as to which no response is required.

50. **COMPLAINT PARAGRAPH 3:** Arm now brings suit for specific performance of the Nuvia licenses' termination provisions to require Qualcomm and Nuvia to stop using and to destroy the relevant Nuvia technology and to stop their improper use of Arm's trademarks with their related products. Arm also seeks declaratory judgment, injunctive relief, and damages for the use of Arm's trademarks in connection with semiconductor chips incorporating the relevant Nuvia technology.

ANSWER: Complaint Paragraph 3 purports to state legal conclusions as to which no response is required. To the extent a response is required, Defendants deny the allegations in Complaint Paragraph 3, except admit that Plaintiff purports to assert the claims and seek the relief described in Complaint Paragraph 3.

PARTIES

51. **COMPLAINT PARAGRAPH 4:** Plaintiff Arm is a corporation organized under the laws of the United Kingdom, has its principal place of business in Cambridge, United Kingdom, and is a resident or domiciliary of the United Kingdom.

ANSWER: Defendants deny knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint Paragraph 4, and on that basis deny them.

52. **COMPLAINT PARAGRAPH 5:** Defendant Qualcomm Inc. is a Delaware corporation with its principal place of business at 5775 Morehouse Drive, San Diego, California 92121.

ANSWER: Defendants admit the allegations of Complaint Paragraph 5.

53. **COMPLAINT PARAGRAPH 6:** Defendant Qualcomm Technologies, Inc. is a subsidiary of Qualcomm Inc. and a Delaware corporation with its principal place of business at 5775 Morehouse Drive, San Diego, California 92121.

ANSWER: Defendants admit the allegations of Complaint Paragraph 6.

54. **COMPLAINT PARAGRAPH 7:** Defendant Nuvia is a subsidiary of Qualcomm and a Delaware corporation with its principal place of business at 2841 Mission College Blvd., Santa Clara, California 95054.

ANSWER: Defendants admit the allegations of Complaint Paragraph 7.

JURISDICTION AND VENUE

55. **COMPLAINT PARAGRAPH 8:** The Court has subject matter jurisdiction under 28 U.S.C. § 1331 (federal question), 15 U.S.C. § 1121 (trademarks), and 28 U.S.C. § 1367(a) (supplemental jurisdiction). The Court also has subject matter jurisdiction under 28 U.S.C. § 1332 because there is complete diversity between the parties, and because the amount in controversy, based on the consideration that was anticipated under the Nuvia licenses, the volume of products expected under those licenses, and Defendants' potential loss from complying with the equitable relief requested here, exceeds \$75,000, exclusive of interest and costs.

ANSWER: Complaint Paragraph 8 purports to state legal conclusions as to which no response is required. To the extent a response is required, Defendants deny the allegations in Complaint Paragraph 8.

56. **COMPLAINT PARAGRAPH 9:** The Court has personal jurisdiction over Qualcomm and Nuvia because they are incorporated in Delaware. Qualcomm and Nuvia have purposely availed themselves of the privileges and benefits of the laws of Delaware.

ANSWER: Complaint Paragraph 9 purports to state legal conclusions as to which no response is required. To the extent a response is required, Defendants admit that Qualcomm Inc., Qualcomm Technologies, Inc., and NUVIA, Inc. are incorporated in Delaware.

57. **COMPLAINT PARAGRAPH 10:** Venue is proper in this judicial district under 28 U.S.C. § 1391 because Qualcomm and Nuvia are incorporated in Delaware. Venue is also proper because Qualcomm Inc. and Qualcomm Technologies, Inc. have purposefully availed themselves of the courts in the State of Delaware and this Judicial District.

ANSWER: Complaint Paragraph 10 purports to state legal conclusions as to which no response is required. To the extent a response is required, Defendants admit that Qualcomm Inc., Qualcomm Technologies, Inc., and NUVIA, Inc. are incorporated in Delaware.

FACTUAL ALLEGATIONS

Arm's business model⁴

58. **COMPLAINT PARAGRAPH 11:** For decades, Arm has been a world leader in developing processor architectures, including instruction set architectures, and processor core designs implementing those architectures, all of which are covered by an extensive intellectual property portfolio.

ANSWER: Defendants admit that ARM develops instruction set architectures for CPUs, and also designs CPUs that implement ARM's instruction set architecture. Defendants further admit that ARM owns some intellectual property. Defendants otherwise

⁴ Defendants have not specifically responded to the headings interspersed between the numbered paragraphs in ARM's complaint. For the avoidance of doubt, and to the extent they require a response, Defendants deny any allegations made therein.

deny the allegations in Complaint Paragraph 11 except to the extent they purport to state legal conclusions as to which no response is required.

59. **COMPLAINT PARAGRAPH 12:** Processor cores are the parts of a computer's Central Processing Unit or "CPU" that read and execute program instructions to perform specific actions. Modern CPUs often integrate multiple processor cores on a single semiconductor chip or integrated circuit ("IC").

ANSWER: Defendants admit the allegations in Complaint Paragraph 12.

60. **COMPLAINT PARAGRAPH 13:** Arm owns intellectual property relating to its processor architectures and designs, including, among other things, trademarks.

ANSWER: Defendants admit that ARM may own some intellectual property, including trademarks. Defendants otherwise deny the allegations in Complaint Paragraph 13 except to the extent they purport to state legal conclusions as to which no response is required.

61. **COMPLAINT PARAGRAPH 14:** Arm does not manufacture or sell chips. Instead, Arm licenses its technologies to hundreds of companies to use in developing their own chips or in their own electronic devices and works with these companies to ensure the success of Arm-based products.

ANSWER: Defendants admit that ARM does not manufacture or sell semiconductor chips, and that ARM licenses intellectual property to various licensees. Defendants otherwise deny knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint Paragraph 14, and on that basis deny them.

62. **COMPLAINT PARAGRAPH 15:** Arm's customers manufacture (or have manufactured for them) chips based on Arm's technologies. The chips may then be used in the

customer's own devices or sold to other device manufacturers. Arm earns revenue from licensing fees and royalties based on the number of Arm-based chips its customers sell.

ANSWER: Defendants admit that ARM receives licensing fees and royalties from licensees, and that various licensees manufacture products that may include ARM Technology. Defendants otherwise deny the allegations in Complaint Paragraph 15.

63. **COMPLAINT PARAGRAPH 16:** Arm's business model relies on Arm's ability to monetize its research and intellectual property by receiving both licensing fees and royalties for products incorporating Arm's technology and intellectual property. Arm therefore grows its revenues by increasing both the number of customers and the number of Arm-based products sold.

ANSWER: Defendants deny knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint Paragraph 16, and on that basis deny them.

64. **COMPLAINT PARAGRAPH 17:** There are two main types of Arm licenses for Arm's technologies: Technology License Agreements ("TLAs"), which allow the use of specific "off-the-shelf" Arm processor core designs with only minor modifications, and Architecture License Agreements ("ALAs"), which allow for the design of custom processor cores that are based on particular architectures provided by Arm.

ANSWER: Defendants admit that ARM enters into license agreements with licensees, including Technology License Agreements ("TLAs") and Architecture License Agreements ("ALAs"). Defendants otherwise deny the allegations in Paragraph 17.

65. **COMPLAINT PARAGRAPH 18:** Arm grants few ALAs. Custom processor cores can take years to design, at great expense and requiring significant support from Arm, with no certainty of success. If successful, ALA licensees can sell custom processor cores for use in other companies' products.

ANSWER: Defendants admit that it requires significant expense and commitment to design custom CPUs. Defendants respectfully refer the Court to the Qualcomm and NUVIA ALAs for their complete language and content. Defendants otherwise deny the allegations in Complaint Paragraph 18.

66. **COMPLAINT PARAGRAPH 19:** Arm ALAs typically authorize licensees only to develop processor cores based on specific Arm technology provided by Arm under the licenses, rather than granting broader licenses to use Arm-based technology generally.

ANSWER: Defendants respectfully refer the Court to the Qualcomm and NUVIA ALAs for their complete language and content. Defendants deny knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Complaint Paragraph 19, and on that basis deny them.

Nuvia obtains Arm licenses

complaint paragraph 20: Nuvia was founded as a start-up in 2019 by chip engineers who left Apple and Google. Nuvia planned to design energy-efficient CPUs for data center servers based on a custom processor implementing the Arm architecture, which would have expanded the market for Arm's technology. Nuvia's business model was thus reliant on customizing processor core designs based on Arm's technology. As one of the founders explained to the press when launching Nuvia, the start-up's premise (and one of its attractions to investors) was that Nuvia intended to build "a custom clean sheet designed from the ground up" using Arm's architecture.⁵

Danny Crichton, *Three of Apple and Google's former star chip designers launch NUVIA with* \$53M in series A funding, TechCrunch (Nov. 15, 2019), https://techcrunch.com/2019/11/15/three-of-apple-and-googles-former-star-chip-designers-launch-nuvia-with-53m-in-series-a-funding/.

ANSWER: Defendants admit that NUVIA worked on custom CPUs that could be used in data center servers, that the custom CPU designs would expand the market for ARM technology, and that the custom CPUs that NUVIA worked on, prior to NUVIA's acquisition by Qualcomm, were intended to be compatible with ARM architecture. Defendants respectfully refer the Court to the cited publication for its complete language and content. Defendants otherwise deny the allegations in Complaint Paragraph 20.

68. **COMPLAINT PARAGRAPH 21:** In September 2019, Arm granted Nuvia an ALA and TLA, providing rights to design custom processor cores based on an Arm architecture and to modify certain off-the-shelf designs. The licenses granted in the ALA and TLA are necessary to use Arm's extensive intellectual property portfolio covering the Arm architecture. The ALA and TLA included rights to use Arm trademarks in connection with products developed by Nuvia under the licenses. Arm also provided substantial, crucial, and individualized support from Arm employees to assist Nuvia in its development of Arm-based processors for data center servers.

ANSWER: Defendants admit that NUVIA had a TLA and ALA with ARM, and respectfully refer the Court to the referenced agreements for their complete language and content. Defendants otherwise deny the allegations of Complaint Paragraph 21, except to the extent they purport to state legal conclusions as to which no response is required.

69. **COMPLAINT PARAGRAPH 22:** The licenses provided Nuvia access to specific Arm architecture, designs, intellectual property, and support in exchange for payment of licensing fees and royalties on future server products that include processor cores based on Arm's architecture, designs, or related intellectual property. Nuvia's licensing fees and royalty rates reflected the anticipated scope and nature of Nuvia's use of the Arm architecture. The licenses

safeguarded Arm's rights and expectations by prohibiting assignment without Arm's consent, regardless of whether a contemplated assignee had its own Arm licenses.

ANSWER: Defendants admit that NUVIA's TLA and ALA provided NUVIA with a license to certain ARM Technology. Defendants further admit that NUVIA and ARM intended the licensing fees and royalties set forth in the NUVIA ALA to apply to future server products, not products for other markets. Defendants respectfully refer the Court to the referenced agreements for their complete language and content. Defendants otherwise deny the allegations of Complaint Paragraph 22.

70. **COMPLAINT PARAGRAPH 23:** From September 2019 to early 2021, Nuvia used the technology it licensed from Arm to design and develop processor cores. Arm provided preferential support for Nuvia's development efforts, with Arm seeking to accelerate research and development in next-generation processors for data center servers to support that sector's transition to Arm technology.

ANSWER: Defendants deny knowledge or information sufficient to form a belief as to the truth of the allegations in the second sentence of Complaint Paragraph 23, and on that basis deny them. Defendants otherwise deny the allegations of Complaint Paragraph 23.

71. **COMPLAINT PARAGRAPH 24:** In August 2020, Nuvia announced that its "first-generation CPU, code-named 'Phoenix'" would be "a custom core based on the ARM architecture." It also publicized benchmark tests showing that Phoenix could double the

John Bruno & Sriram Dixit, *Performance Delivered a New Way*, Silicon Reimagined (Aug. 11, 2020), https://medium.com/silicon-reimagined/performance-delivered-a-new-way-8f0f5ed283d5.

performance of rival products from Apple, Intel, AMD, and Qualcomm. Based on these results, Nuvia claimed that the "Phoenix CPU core has the potential to reset the bar for the market."⁷

ANSWER: Defendants respectfully refer the Court to the cited publication for its complete language and content. Defendants otherwise admit the allegations in Complaint Paragraph 24.

Qualcomm relies on designs created by Arm

72. **COMPLAINT PARAGRAPH 25:** Qualcomm is one of the world's largest semiconductor companies, with a portfolio of intellectual property and products directed to wireless technologies, including cellular, Bluetooth, and Wi-Fi; CPUs and ICs; networking; mobile computers; cell phones; wearables; cameras; automobiles; and other electronic devices.

ANSWER: Defendants admit the allegations of Complaint Paragraph 25.

73. **COMPLAINT PARAGRAPH 26:** Even though Qualcomm has an Arm ALA, its prior attempts to design custom processors have failed. Qualcomm invested in the development of a custom Arm-based processor for data center servers until 2018, when it cancelled the project and laid off hundreds of employees.⁸

ANSWER: Defendants respectfully refer the Court to the cited publications for their complete language and content. Defendants otherwise deny the allegations of Complaint Paragraph 26. The allegation that Qualcomm's "prior attempts to design custom processors

⁷ *Id*.

See, e.g., Andrei Frumusanu, Qualcomm to Acquire NUVIA: A CPU Magnitude Shift, AnandTech (Jan. 13, 2021), https://www.anandtech.com/show/16416/qualcomm-to-acquire-nuvia-a-cpu-magnitude-shift; Andy Patrizio, Qualcomm makes it official; no more data center chip, Network World (Dec. 12, 2018), https://www.networkworld.com/article/3327214/qualcomm-makes-it-official-no-more-data-center-chip.html.

have failed" is patently false. Qualcomm has had great success in developing custom processors, to ARM's significant benefit.

74. **COMPLAINT PARAGRAPH 27:** Qualcomm's commercial products thus have relied on processor designs prepared by Arm's engineers and licensed to Qualcomm under Arm TLAs. Discovery is likely to show that as of early 2021, Qualcomm had no custom processors in its development pipeline for the foreseeable future. To fill this gap, Qualcomm sought improperly to purchase and use Nuvia's custom designs without obtaining Arm's consent.

ANSWER: Defendants deny the allegations of Complaint Paragraph 27.

Qualcomm acquires Nuvia

75. **COMPLAINT PARAGRAPH 28:** On January 13, 2021, Qualcomm announced that Qualcomm Technologies, Inc. was acquiring Nuvia for \$1.4 billion. Neither Qualcomm nor Nuvia provided prior notice of this transaction to Arm. Nor did they obtain Arm's consent to the transfer or assignment of the Nuvia licenses.

ANSWER: Defendants admit that on January 12, 2021, Qualcomm Incorporated announced that its subsidiary, Qualcomm Technologies, Inc., entered into a definitive agreement to acquire NUVIA for approximately \$1.4 billion before working capital and other adjustments. Defendants otherwise deny the allegations of Complaint Paragraph 28, except to the extent they purport to state legal conclusions as to which no response is required.

76. **COMPLAINT PARAGRAPH 29:** Qualcomm indicated in its announcement that "NUVIA CPUs"—that is, Nuvia's implementations of Arm technology developed under the Nuvia licenses with Arm—would be incorporated into a range of Qualcomm products. Qualcomm's press release declared its grand ambitions for Nuvia's implementation of Arm technology: "NUVIA CPUs are expected to be integrated across Qualcomm Technologies' broad portfolio of products,

powering flagship smartphones, next-generation laptops, and digital cockpits, as well as Advanced Driver Assistance Systems, extended reality and infrastructure networking solutions." The press release also indicated that Qualcomm's first target would be "integrating NUVIA CPUs with Snapdragon," its flagship suite of system on a chip ("SoC") semiconductor products for mobile devices.

ANSWER: Defendants respectfully refer the Court to the referenced publication for its complete language and content. Defendants otherwise deny the allegations of Complaint Paragraph 29.

77. **COMPLAINT PARAGRAPH 30:** As Qualcomm's CEO, Cristiano Amon, noted in a Reuters interview shortly after the acquisition closed in the first half of 2021, "Qualcomm will start selling Nuvia-based laptop chips next year." Amon confirmed the negative impact this might have on Arm, saying: "If Arm . . . eventually develops a CPU that's better than what we can build ourselves, then we always have the option to license from Arm."

ANSWER: Defendants respectfully refer the Court to the referenced publication for its complete language and content. Defendants otherwise deny the allegations of Complaint Paragraph 30.

78. **COMPLAINT PARAGRAPH 31:** Qualcomm also confirmed its prior deficiencies in core design, reportedly promoting the Nuvia acquisition as "filling a gap" because "for several years now" the company "had been relying on external IP such as Arm's Cortex

Qualcomm to Acquire NUVIA, Qualcomm Inc. (Jan. 13, 2021), https://www.qualcomm.com/news/releases/2021/01/13/qualcomm-acquire-nuvia.

Stephen Nellis, *Qualcomm's new CEO eyes dominance in the laptop markets*, Reuters (July 2, 2021), https://www.reuters.com/technology/qualcomms-new-ceo-eyes-dominance-laptop-markets-2021-07-01/.

cores."¹¹ Qualcomm further explained that "the immediate goals for the NUVIA team will be implementing custom CPU cores" designed for laptops.¹²

ANSWER: Defendants respectfully refer the Court to the referenced publication for its complete language and content. Defendants otherwise deny the allegations of Complaint Paragraph 31.

79. **COMPLAINT PARAGRAPH 32:** Analysts confirmed that the "Qualcomm acquisition [of] NUVIA is a huge move to scale up dramatically. It can reinvigorate current lines in smartphone, Windows PC and automotive SoCs, and make them more competitive with the competition. They have been lagging."¹³

ANSWER: Defendants respectfully refer the Court to the referenced publication for its complete language and content. Defendants otherwise deny the allegations of Complaint Paragraph 32.

80. **COMPLAINT PARAGRAPH 33:** Providing further confirmation of the acquisition's importance to Qualcomm in filling the "gap" in its "lagging" IP design, analysts noted that the Nuvia acquisition was "extremely speedy in terms of timeline," and Qualcomm "went as far as [to] put out a concrete roadmap for . . . using the newly acquired IP from Nuvia,"

Andrei Frumusanu, *Qualcomm Completes Acquisition of NUVIA: Immediate focus on Laptops (Updated)*, AnandTech (Mar. 16, 2021), https://www.anandtech.com/show/16553/qualcomm-completes-acquisition-of-nuvia.

¹² *Id*.

Trading Places Research, *Qualcomm's Acquisition of NUVIA is a Huge Move*, Seeking Alpha (Jan. 13, 2021), https://seekingalpha.com/article/4398808-qualcomms-acquisition-of-nuvia-is-huge-move.

announcing that Nuvia's processors would be finalized for use in high-end laptops "in the second half of 2022."¹⁴

ANSWER: Defendants respectfully refer the Court to the referenced publications for their complete language and content. Defendants otherwise deny the allegations of Complaint Paragraph 33.

81. **COMPLAINT PARAGRAPH 34:** Based on standard industry scheduling, that timeline indicated a design for data center processors would be completed "essentially as soon as possible following the acquisition" of Nuvia. 15

ANSWER: Defendants respectfully refer the Court to the referenced publication for its complete language and content. Defendants otherwise deny the allegations of Complaint Paragraph 34.

82. **COMPLAINT PARAGRAPH 35:** This timing indicates that the Arm-based cores that Nuvia designed using Arm's technology and intellectual property were, as of the acquisition date, effectively ready for the final stages of design for Qualcomm chips, leading promptly to product integration and manufacturing. Qualcomm's November 2021 10-K filing disclosed that the \$1.4 billion acquisition encompassed Nuvia's team and "certain in-process technologies,"

Andrei Frumusanu, Qualcomm Completes Acquisition of NUVIA: Immediate focus on Laptops (Updated), AnandTech (Mar. 16, 2021), https://www.anandtech.com/show/16553/qualcomm-completes-acquisition-of-nuvia (quoting Qualcomm Completes Acquisition of NUVIA, Qualcomm Inc. (Mar. 15, 2021), https://www.qualcomm.com/news/releases/2021/03/16/qualcomm-completes-acquisition-nuvia).

¹⁵ *Id*.

reflecting the availability of existing cores such as the Phoenix CPU core developed under Nuvia's ALA. 16

ANSWER: Defendants respectfully refer the Court to the referenced publication for its complete language and content. Defendants otherwise deny the allegations of Complaint Paragraph 35, except to the extent they purport to state legal conclusions as to which no response is required.

83. **COMPLAINT PARAGRAPH 36:** By entering into the acquisition of Nuvia and transferring the rights and technology developed under the Nuvia licenses without Arm's consent, Qualcomm thus greatly accelerated its ability to bring to market custom-designed processor cores—a head start that Qualcomm was willing to pay over \$1 billion to obtain.

ANSWER: Defendants admit that on January 12, 2021, Qualcomm Incorporated announced that its subsidiary, Qualcomm Technologies, Inc., entered into a definitive agreement to acquire NUVIA for approximately \$1.4 billion before working capital and other adjustments. Defendants otherwise deny the allegations of Complaint Paragraph 36. *Arm terminates the Nuvia licenses*

84. **COMPLAINT PARAGRAPH 37:** Soon after the announcement of the merger, Arm informed Qualcomm in writing that Nuvia could not assign its licenses and that Qualcomm could not use Nuvia's in-process designs developed under the Nuvia ALA without Arm's consent. For more than a year, Arm negotiated with Qualcomm, through Qualcomm Inc. and Qualcomm

Qualcomm Inc., Annual Report (Form 10-K) (Nov. 3, 2021), https://investor.qualcomm.com/financial-information/sec-filings/content/0001728949-21-000076/0001728949-21-000076.pdf.

Technologies, Inc., in an effort to reach an agreement regarding Qualcomm's unauthorized acquisition of Nuvia's "in-process technologies" and license.

ANSWER: Defendants admit that in a letter dated February 2, 2021, ARM wrote to Qualcomm Technologies, Inc. that "any transfer of designs, rights, or licenses under NUVIA's agreements with Arm to Qualcomm will require and be subject to Arm's prior consent." Defendants otherwise deny the allegations of Complaint Paragraph 37, except to the extent they purport to state legal conclusions as to which no response is required.

85. **COMPLAINT PARAGRAPH 38:** All the while, Qualcomm continued to broadcast its intentions to rush Nuvia products to market. In November 2021, Qualcomm's Chief Technology Officer told investors that Qualcomm was "pretty far along at this point" in developing its first chip with Nuvia's implementation of Arm technology and would "sample a product at, let's say nine months from now"—which would be August 2022.¹⁷ Then in January 2022, Qualcomm issued a press release touting the "broad support from ecosystem partners for the PC industry's transition to Arm®-based computing," with Qualcomm's CEO confirming that "[t]he future of the PC industry is modern Arm-based architectures" and boasting that "the recent acquisition of NUVIA uniquely positions Qualcomm Technologies to drive this industry wide transition." Elsewhere, Qualcomm's CEO reiterated that Qualcomm is "definitely in a hurry" to

Qualcomm Investor Day 2021 Livestream: CEO Cristiano Amon looks ahead, YouTube (Nov. 16, 2021), https://www.youtube.com/watch?v=rUWPzROYn2E; see also Mark Hachman, Qualcomm Prophesizes 2023 as the Rebirth of PC Snapdragon Chips, PCWorld (Nov. 16, 2021), https://www.pcworld.com/article/552285/qualcomm-prophesies-2023-as-the-rebirth-of-its-snapdragon-chips.html.

Qualcomm and Leading Compute Partners Build Industry Momentum for Windows on Arm PCs Powered by Snapdragon Compute Platforms, Qualcomm Inc. (Jan. 3, 2022), https://www.qualcomm.com/news/releases/2022/01/04/qualcomm-and-leading-compute-partners-build-industry-momentum-windows-arm.

launch Nuvia's Arm-based chips "as fast as we can." Based on these statements, discovery is likely to show that Qualcomm and Nuvia continued to use the relevant technology developed under Nuvia's Arm licenses.

ANSWER: Defendants respectfully refer the Court to the referenced publications for their complete language and content. Defendants otherwise deny the allegations of Complaint Paragraph 38.

86. **COMPLAINT PARAGRAPH 39:** On February 1, 2022, Arm sent a letter to Nuvia and Qualcomm terminating the Nuvia licenses effective March 1, 2022. The letter terminated the licenses based on Nuvia's material breach of the assignment provisions of the Nuvia licenses by entering into the acquisition of Nuvia without Arm's consent. The letter also reminded Nuvia and Qualcomm of their obligations upon termination to stop using and destroy the Nuvia technology developed under the now-terminated licenses.

ANSWER: Defendants admit that, on February 4, 2022, Qualcomm and Gerard Williams, NUVIA's former Chief Executive Officer, received a letter purporting to terminate NUVIA's ALA and TLA, with the termination effective as of March 1, 2022. Defendants otherwise deny the allegations of Complaint Paragraph 39, except to the extent they purport to state legal conclusions as to which no response is required.

87. **COMPLAINT PARAGRAPH 40:** In February 2022, pending termination of the Nuvia licenses, Nuvia sought Arm's verification that a Nuvia processor design satisfied the Arm architecture's specifications. On February 23, 2022, Qualcomm confirmed that it was still

¹⁹ Nilay Patel, *What Comes After the Smartphone, With Qualcomm CEO Cristiano Amon*, The Verge (Jan. 11, 2022), https://www.theverge.com/22876511/qualcomm-ceo-cristiano-amoninterview-decoder-podcast.

developing the relevant Nuvia technology by stating in a court filing that certain Nuvia documents were based on "years of research and work" and would "reveal secret design components of Qualcomm chips that are still in development." *Qualcomm Technologies, Inc. v. Hoang*, No. 3:22-cv-00248-CAB-BLM (S.D. Cal. Feb. 23, 2022), ECF No. 1 at 5-6.

ANSWER: Defendants respectfully refer the Court to the cited court filing for its complete language and content. Defendants admit that Qualcomm began verification of a Qualcomm processor design in December 2021, that Qualcomm continued developing processor technology that it acquired from NUVIA beginning in March 2021 (doing so with ARM's knowledge that Qualcomm's design work was ongoing), and that ARM verified that the Qualcomm design satisfied ARM's architecture specification. Defendants otherwise deny the allegations of Complaint Paragraph 40.

88. **COMPLAINT PARAGRAPH 41:** On March 1, 2022, the Nuvia licenses terminated, along with the corresponding rights to use or sell products based on or incorporating Nuvia technology developed under those licenses.

ANSWER: Defendants deny the allegations of Complaint Paragraph 41, except to the extent they purport to state legal conclusions as to which no response is required.

89. **COMPLAINT PARAGRAPH 42:** On April 1, 2022, Qualcomm's General Counsel sent Arm a letter enclosing a Nuvia representative's termination certification. The certification acknowledged—without objection—that the Nuvia licenses had been terminated. The certification recognized the obligations upon termination, and asserted that Nuvia was in compliance. Qualcomm and Nuvia thereby conceded that termination of the Nuvia licenses was appropriate, and that the termination provisions had been triggered, are binding, and are enforceable.

ANSWER: Defendants admit that, on April 1, 2022, Qualcomm Incorporated's General Counsel and Corporate Secretary transmitted a Certification from Gerard Williams stating that to the best of his knowledge, information and belief after due inquiry, NUVIA was in compliance with its obligations under with respect to any ARM Confidential Information. Defendants otherwise deny the allegations of Complaint Paragraph 42, except to the extent they purport to state legal conclusions as to which no response is required.

Qualcomm keeps using Arm-based technology developed under the Nuvia licenses

90. **COMPLAINT PARAGRAPH 43:** Qualcomm is subject to Nuvia's termination requirements as the acquirer of Nuvia. Qualcomm has publicly described Nuvia as a Qualcomm "team" that has been "very tight[ly] integrat[ed]" with and is "not separate" from Qualcomm.²⁰ Qualcomm has also acted on behalf of Nuvia publicly and in correspondence with Arm since the acquisition. Qualcomm further told Arm that it planned to "redeploy NUVIA employees" and "transfer NUVIA's work" to Qualcomm and, consistent with that plan, Qualcomm has on-boarded Nuvia's leadership and employees as Qualcomm employees.²¹

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Ian Cutress, Interview with Alex Katouzian, Qualcomm SVP: Talking Snapdragon, Microsoft, Nuvia, and Discrete Graphics, AnandTech (Jan. 31, 2022), https://www.anandtech.com/show/17233/interview-with-alex-katouzian-qualcomm-svp-talking-snapdragon-microsoft-nuvia-and-discrete-graphics; Ian Cutress, AnandTech Interview with Miguel Nunes: VP for Windows and Chrome PCs, Qualcomm, AnandTech (Feb. 14, 2022), https://www.anandtech.com/show/17253/anandtech-interview-with-miguel-nunes-senior-director-for-pcs-qualcomm.

See, e.g., Qualcomm Completes Acquisition of NUVIA, Qualcomm Inc. (Mar. 16, 2021), https://investor.qualcomm.com/news-events/press-releases/detail/1304/qualcomm-completes-acquisition-of-nuvia; Qualcomm to Acquire NUVIA, Qualcomm Inc. (Jan. 12, 2021), https://www.qualcomm.com/news/releases/2021/01/qualcomm-acquire-nuvia.

ANSWER: Defendants respectfully refer the Court to the cited publications for their complete language and content. Defendants admit that, on January 27, 2021, Qualcomm wrote to ARM that Qualcomm had entered into a definitive agreement to acquire NUVIA and stating: "Following the closing of the acquisition, for ease of operation and structure, QTI intends to transfer NUVIA's work and employees to QTI and other current Qualcomm subsidiaries and have the then former NUVIA employees continue their activities under the Qualcomm ALA and TLA, as that will be their current employer." Defendants further admit that, on February 3, 2021, Qualcomm stated in a letter to ARM that, after the NUVIA acquisition, NUVIA would "become a wholly owned subsidiary of Qualcomm and, post-closing, our plan is to redeploy NUVIA employees to currently existing Qualcomm entities." Defendants otherwise deny the allegations in Complaint Paragraph 43, except to the extent they purport to state legal conclusions as to which no response is required.

91. **COMPLAINT PARAGRAPH 44:** On April 29, 2022, Arm wrote Qualcomm clarifying that neither Nuvia nor Qualcomm was authorized to continue working on technology that was developed under the Nuvia licenses.

ANSWER: Defendants admit that ARM wrote a letter to Qualcomm dated April 29, 2022. Defendants otherwise deny the allegations in Complaint Paragraph 44 except to the extent they purport to state legal conclusions as to which no response is required.

92. **COMPLAINT PARAGRAPH 45:** Two weeks later, on May 13, 2022, Qualcomm sought Arm's verification that a new Qualcomm processor core complied with Arm architecture so that it could be verified and incorporated into a product. Qualcomm did not explain whether this processor core design was based on Nuvia's designs under the terminated licenses.

ANSWER: Defendants admit that, on May 13, 2022, Qualcomm submitted to ARM a compliance report for a new Qualcomm CPU. Defendants otherwise deny the allegations in Complaint Paragraph 45.

93. **COMPLAINT PARAGRAPH 46:** Based on the timing and circumstances surrounding Qualcomm's request, discovery is likely to show that Qualcomm's processor core design is based on or incorporates in whole or in part the processor core design developed under the prior Nuvia licenses.

ANSWER: Defendants admit that Qualcomm's Phoenix Core design incorporates intellectual property acquired from NUVIA, which is wholly independent of ARM. Defendants otherwise deny the allegations in Complaint Paragraph 46, except to the extent they purport to state legal conclusions to which no response is required.

94. **COMPLAINT PARAGRAPH 47:** Qualcomm's Arm licenses do not cover products based on or incorporating Arm-based technologies developed by third parties under different Arm licenses, such as the now-terminated Nuvia licenses.

ANSWER: Defendants deny the allegations in Complaint Paragraph 47.

95. **COMPLAINT PARAGRAPH 48:** Despite Arm's termination of the Nuvia licenses, Qualcomm has continued to tell the public that its Nuvia chips will soon be joining the industry-wide "ecosystem transition to Arm." Like Qualcomm's prior statements, this announcement was directed to readers throughout the United States, including to readers physically located in the State of Delaware and this Judicial District.

Qualcomm CEO on What He Really Thinks of Apple, The Daily Charge (June 9, 2022), https://podcasts.apple.com/us/podcast/qualcomm-ceo-on-what-he-really-thinks-of-apple/id1091374076?i=1000565773375.

ANSWER: Defendants respectfully refer the Court to the cited publications for their complete language and content. Defendants otherwise deny the allegations in Complaint Paragraph 48, except to the extent they purport to state legal conclusions to which no response is required.

96. **COMPLAINT PARAGRAPH 49:** In June 2022, Qualcomm's CEO reiterated that it would soon begin "sampling" Nuvia chips to companies, allowing them to design electronic devices incorporating the chips in the "next year." Based on that timeline, he explained, "[i]n late next year, beginning 2024, you're going to see Windows PCs powered by Snapdragon with a Nuvia-designed CPU." ²⁴

ANSWER: Defendants respectfully refer the Court to the cited publications for their complete language and content. Defendants otherwise deny the allegations in Complaint Paragraph 49.

97. **COMPLAINT PARAGRAPH 50:** In the microprocessor industry, "sampling" means providing pre-production processors to original equipment manufacturers ("OEMs"), original device manufacturers ("ODMs"), or independent software vendors ("ISVs") for use in the product design cycle before product launch.

Id.; see also Mark Tyson, Qualcomm CEO Admits Nuvia Chip OEM Sampling is Delayed (Update), Tom's Hardware (June 10, 2022), https://www.tomshardware.com/news/qualcomm-nuvia-chip-sampling-delays (Qualcomm spokesperson clarifying: "We are on track to sample the first products with our next generation CPUs this year.").

Qualcomm CEO on What He Really Thinks of Apple, The Daily Charge (June 9, 2022), https://podcasts.apple.com/us/podcast/qualcomm-ceo-on-what-he-really-thinks-of-apple/id1091374076?i=1000565773375.

ANSWER: Defendants admit the allegations in Complaint Paragraph 50 generally describe sampling, but note that they fail to distinguish between precommercial engineering samples and commercial samples.

98. **COMPLAINT PARAGRAPH 51:** Based on Qualcomm's statements that Nuvia processors took "years" to develop and "are still in development," and Qualcomm's consistent statements that it is developing Nuvia's Arm chips, discovery is likely to show that the chips that Qualcomm intends to sample in the coming months will contain Nuvia technology that Qualcomm cannot use and instead must destroy.

ANSWER: Defendants deny the allegations in Complaint Paragraph 51, except to the extent they purport to state legal conclusions to which no response is required.

99. **COMPLAINT PARAGRAPH 52:** Further, based on Qualcomm's public announcements of its plans to use Nuvia technology, discovery is likely to show that Qualcomm has continued to retain and use Nuvia technology developed pursuant to the Nuvia licenses, thereby materially breaching the termination provisions of those licenses.

ANSWER: Defendants deny the allegations in Complaint Paragraph 52, except to the extent they purport to state legal conclusions to which no response is required.

100. **COMPLAINT PARAGRAPH 53:** News reports indicate that Qualcomm is also developing Nuvia processors for data center servers, and "already has working silicon to at least demonstrate to potential customers," which discovery is likely to show is based on or incorporates Nuvia technology developed under the now-terminated Nuvia ALA.

Dan Robinson, Qualcomm readying new Arm server chip based on Nuvia acquisition, The Register (Aug. 19, 2022), https://www.theregister.com/2022/08/19/qualcomm arm server chip/ (citing Ian King,

ANSWER: Defendants respectfully refer the Court to the cited publications for their complete language and content. Defendants otherwise deny the allegations in Complaint Paragraph 53, except to the extent they purport to state legal conclusions for which no response is required.

101. **COMPLAINT PARAGRAPH 54:** The failure of Nuvia and Qualcomm to comply with the post-termination obligations under the Nuvia ALA is causing, and will continue to cause, irreparable harm to Arm. Qualcomm effectively seeks to circumvent Arm's licensing model, which allocates use of the technology developed pursuant to a particular Arm license to a particular licensee.

ANSWER: Defendants deny the allegations in Complaint Paragraph 54, except to the extent they purport to state legal conclusions to which no response is required.

102. **COMPLAINT PARAGRAPH 55:** These breaches thus interfere with Arm's ability and right to control the use of its technology, negatively affecting Arm's relationships with existing and prospective licensees.

ANSWER: Defendants deny the allegations in Complaint Paragraph 55, except to the extent they purport to state legal conclusions to which no response is required.

103. **COMPLAINT PARAGRAPH 56:** The prospective monetary damages from Qualcomm's circumvention and interference with Arm's control over its technology are not readily ascertainable or calculable, given the resulting future impact on Arm's relationships with existing and prospective customers.

Qualcomm Is Plotting a Return to Server Market With New Chip, Bloomberg (Aug. 18, 2022), https://www.bloomberg.com/news/articles/2022-08-18/qualcomm-is-plotting-a-return-to-server-market-with-new-chip).

ANSWER: Defendants deny the allegations in Complaint Paragraph 56, except to the extent they purport to state legal conclusions to which no response is required.

104. **COMPLAINT PARAGRAPH 57:** Qualcomm's improper acquisition of the relevant Nuvia technology in violation of Arm's standard provisions threatens to harm Arm's position in the ecosystem of Arm-based devices, harm Arm's reputation as an intellectual property owner and technology developer whose licenses must be respected, and embolden other companies to likewise harm Arm's reasonable business expectations in issuing its licenses.

ANSWER: Defendants deny the allegations in Complaint Paragraph 57, except to the extent they purport to state legal conclusions to which no response is required.

COUNT I: BREACH OF CONTRACT – SPECIFIC PERFORMANCE (ALL DEFENDANTS)

105. **COMPLAINT PARAGRAPH 58:** Arm hereby restates and re-alleges the allegations set forth above and incorporates them by reference.

ANSWER: Defendants repeat and reiterate their responses to ARM's Complaint Paragraphs 1-57 as if fully set forth herein.

106. **COMPLAINT PARAGRAPH 59:** The termination obligations of the ALA between Nuvia and Arm survive termination and remain valid and enforceable contract provisions, as Qualcomm's correspondence and Nuvia's termination certification confirm.

ANSWER: Defendants deny the allegations in Complaint Paragraph 59, except to the extent they purport to state legal conclusions to which no response is required.

107. **COMPLAINT PARAGRAPH 60:** Arm complied with and fulfilled all relevant duties, conditions, covenants, and obligations under the Nuvia ALA, including ceasing use of Nuvia confidential information in its possession.

ANSWER: Defendants deny the allegations in Complaint Paragraph 60, except to the extent they purport to state legal conclusions to which no response is required.

108. **COMPLAINT PARAGRAPH 61:** The Nuvia ALA terms were just and reasonable, involving adequate consideration and reasonable obligations for Nuvia in the event of Arm's termination based on Nuvia's material breach. Those obligations served to restore the license holder to its position *ex ante*, protect Arm's business model and reasonable business expectations in issuing its licenses, and prevent the unjust enrichment of Qualcomm, the party that induced Nuvia's breach.

ANSWER: Defendants deny the allegations in Complaint Paragraph 61, except to the extent they purport to state legal conclusions to which no response is required.

109. **COMPLAINT PARAGRAPH 62:** Upon termination, the Nuvia ALA requires Nuvia to cease using and destroy any technology developed under the Nuvia ALA, as well as cease using Arm's trademarks in connection with any technology developed under the Nuvia ALA.

ANSWER: Defendants deny the allegations in Complaint Paragraph 62, except to the extent they purport to state legal conclusions to which no response is required.

110. **COMPLAINT PARAGRAPH 63:** Qualcomm shares Nuvia's obligations under the Nuvia ALA in its capacity as Nuvia's acquirer, and thus Qualcomm is likewise subject to the requirements of the Nuvia licenses' termination provisions.

ANSWER: Defendants deny the allegations in Complaint Paragraph 63, except to the extent they purport to state legal conclusions to which no response is required.

111. **COMPLAINT PARAGRAPH 64:** Based on Defendants' correspondence with Arm, public statements, and processor verification requests, discovery is likely to show that

Defendants are still using and developing Nuvia technology developed under the now-terminated licenses, along with Arm trademarks, and intend to continue to do so.

ANSWER: Defendants deny the allegations in Complaint Paragraph 64, except to the extent they purport to state legal conclusions to which no response is required.

112. **COMPLAINT PARAGRAPH 65:** Defendants therefore have breached and are breaching the Nuvia ALA's termination provisions.

ANSWER: Defendants deny the allegations in Complaint Paragraph 65, except to the extent they purport to state legal conclusions to which no response is required.

113. **COMPLAINT PARAGRAPH 66:** As a direct and proximate result of Nuvia and Qualcomm's past and ongoing breaches, Arm has been irreparably injured and damaged in amounts not capable of determination, including, but not limited to, injury to Arm's global licensing program and misuse of Arm's technology.

ANSWER: Defendants deny the allegations in Complaint Paragraph 66, except to the extent they purport to state legal conclusions to which no response is required.

114. **COMPLAINT PARAGRAPH 67:** Unless Defendants' breaches of the Nuvia ALA's termination provisions are enjoined and specific performance is granted, Arm will continue to suffer irreparable harm. As such, Arm has the right to enforcement of Nuvia and Qualcomm's compliance with the ALA's termination provisions, including via injunctive relief, specific performance, or any other measures necessary to avoid irreparable harm to Arm or to mitigate damages that have been caused by, and will continue to be caused by, Defendants' breach.

ANSWER: Defendants deny the allegations in Complaint Paragraph 67, except to the extent they purport to state legal conclusions to which no response is required.

115. **COMPLAINT PARAGRAPH 68:** Arm is entitled to specific performance requiring Defendants to comply with the Nuvia ALA's termination provisions, including ceasing all use of and destroying any technology developed under the Nuvia ALA, and ceasing all use of Arm trademarks in connection with any technology developed under the Nuvia ALA—including the relevant Nuvia technology.

ANSWER: Defendants deny the allegations in Complaint Paragraph 68, except to the extent they purport to state legal conclusions to which no response is required.

116. **COMPLAINT PARAGRAPH 69:** Arm is also entitled to monetary compensation incidental to specific performance of the Nuvia ALA's termination provisions to compensate Arm for the delay in Defendants' performance of their contractual obligations.

ANSWER: Defendants deny the allegations in Complaint Paragraph 69, except to the extent they purport to state legal conclusions to which no response is required.

COUNT II: DECLARATORY JUDGMENT AND TRADEMARK INFRINGEMENT UNDER 15 U.S.C. § 1114 (ALL DEFENDANTS)

117. **COMPLAINT PARAGRAPH 70:** Arm hereby restates and re-alleges the allegations set forth above and incorporates them by reference.

ANSWER: Defendants repeat and reiterate their responses to ARM's Complaint Paragraphs 1-69 as if fully set forth herein.

and 5,692,670 for the ARM word mark in standard characters and the stylized ARM mark featuring the word "arm" in all lower case letters (collectively, the "ARM Marks"), true and correct copies of which are attached as **Exhibits A and B**. These marks are registered for "[e]lectronic data processing equipment," "integrated circuits," "semiconductors," "microprocessors," "RISC-based instruction set architectures, namely, software instructions designed to function with particular

microprocessors," "data processors," "printed circuit boards," "electronic circuit boards," and related "[r]esearch, development and design," among numerous other goods and services. The applications to register the marks were filed on July 31, 2017 and were issued on March 5, 2019. The application for Registration No. 5,692,669 has a claimed first use and first use-in-commerce date of November 30, 1990, while the application for Registration No. 5,692,670 has a claimed first use and first use-in-commerce date of August 1, 2017.

ANSWER: Defendants refer the Court to Exhibits A and B of the Complaint for their complete language and content. Defendants otherwise deny the allegations in Complaint Paragraph 71, except to the extent they purport to state legal conclusions to which no response is required.

119. **COMPLAINT PARAGRAPH 72:** The ARM Marks have come to signify the highest standards of quality and excellence associated with licensed Arm products and services and have incalculable reputation and goodwill, which belong to Arm.

ANSWER: To the extent the allegations in Complaint Paragraph 72 purport to state legal conclusions, no response is required. Defendants otherwise deny knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Complaint Paragraph 72, and on that basis deny them.

120. **COMPLAINT PARAGRAPH 73:** Arm has had valid and protectable rights in the ARM Marks since substantially before Qualcomm and Nuvia's first uses of those marks in connection with integrated circuit and microprocessor technologies.

ANSWER: Defendants deny the allegations in Complaint Paragraph 73, except to the extent they purport to state legal conclusions to which no response is required.

121. **COMPLAINT PARAGRAPH 74:** Qualcomm and Nuvia, as current or former Arm licensees under agreements that permitted the use of the ARM Marks, have had actual knowledge of Arm's ownership and use of the ARM Marks for years.

ANSWER: Qualcomm admits that its ALA and TLA with ARM permit the use of ARM Marks. Defendants otherwise deny the allegations in Complaint Paragraph 74, except to the extent they purport to state legal conclusions to which no response is required.

122. **COMPLAINT PARAGRAPH 75:** Arm has not authorized Qualcomm or Nuvia to use the ARM Marks in connection with semiconductor chips incorporating the relevant Nuvia technology developed under the now-terminated licenses, instead terminating those licenses.

ANSWER: Defendants deny the allegations in Complaint Paragraph 75, except to the extent they purport to state legal conclusions to which no response is required.

substantial preparation and taken concrete steps with the intent to infringe Arm's trademarks in violation of Section 32 of the Lanham Act, 15 U.S.C. § 1114. Arm's customers—including Qualcomm and Nuvia, as discovery is likely to show—often use the ARM Marks in their die encapsulation (die packages), end user product packaging, advertising and promotional materials, technical documentation, and websites directed to users throughout the United States, including users physically located in the State of Delaware and this Judicial District. Qualcomm promotes Snapdragon products as incorporating Arm technology, such as by saying on its website that "Snapdragon 855 is equipped with the cutting-edge Qualcomm® KryoTM 485 CPU built on ARM Cortex Technology."²⁶ In January 2022, Qualcomm issued a press release touting the "broad

Samsung Galaxy Note10+, Qualcomm Inc., https://www.qualcomm.com/snapdragon/device-finder/smartphones/samsung-galaxy-note10-5g.

support from ecosystem partners for the PC industry's transition to Arm®-based computing," with Qualcomm's CEO boasting that "the recent acquisition of NUVIA uniquely positions Qualcomm Technologies to drive this industry wide transition." This press release remains online. Also, Qualcomm and Nuvia's plans to begin sampling chips with the relevant Nuvia technology as soon as August 2022 would require manufacturing a limited run of the chips in advance, and news reports indicate that Qualcomm already has some working chips to demonstrate to potential customers. Qualcomm and Nuvia have thus used the ARM Marks in connection with the advertising, distribution, offering for sale, or sale of the chips, and Arm believes discovery will show that their further use is imminent if it has not happened already.

ANSWER: Qualcomm admits to using certain ARM Marks as permitted by its licenses to accurately refer to ARM's technology, including, but not limited to, in marketing materials, product specifications, and technical documents. Defendants deny knowledge or information sufficient to form a belief as to how ARM's other licensees use ARM Marks. Defendants otherwise respectfully refer the Court to the cited publications for their complete language and content. Defendants otherwise deny the allegations in Complaint Paragraph 76, except to the extent they purport to state legal conclusions to which no response is required.

124. **COMPLAINT PARAGRAPH 77:** Qualcomm and Nuvia's unauthorized use of the ARM Marks in connection with semiconductor chips incorporating the relevant Nuvia technology is likely to cause confusion, mistake, or deception on the part of consumers as to the

Qualcomm and Leading Compute Partners Build Industry Momentum for Windows on Arm PCs Powered by Snapdragon Compute Platforms, Qualcomm Inc. (Jan. 3, 2022), https://www.qualcomm.com/news/releases/2022/01/04/qualcomm-and-leading-compute-partners-build-industry-momentum-windows-arm.

affiliation, connection, or association of Defendants with Arm, or as to the origin, sponsorship, or approval of Defendants' semiconductor chips using the relevant Nuvia technology, constituting trademark infringement in violation of 15 U.S.C. § 1114. Given Arm's close relationships with its customers and individualized support for their products, there is and is likely to be confusion in the marketplace because consumers encountering the ARM Marks in connection with semiconductor chips incorporating the relevant Nuvia technology do and will likely believe that the products are endorsed by, licensed by, or otherwise associated with Arm. Semiconductor chips incorporating the relevant Nuvia technology are also readily identifiable without the use of the ARM Marks, such as by not mentioning the processor architecture or by using the generic term "RISC" (for reduced instruction set computer).

ANSWER: Defendants deny the allegations in Complaint Paragraph 77, except to the extent they purport to state legal conclusions to which no response is required.

125. **COMPLAINT PARAGRAPH 78:** An actual and justiciable controversy exists between Defendants and Arm regarding infringement of Arm's trademarks. Although Arm repeatedly notified Qualcomm and Nuvia that their development of the relevant Nuvia technology is unlicensed following termination of the Nuvia licenses, Qualcomm has continued to tell reporters that the technology is on track to be sampled to customers this year, and news reports indicate that Qualcomm already has some working chips to demonstrate to potential customers.

ANSWER: Defendants deny the allegations in Complaint Paragraph 78, except to the extent they purport to state legal conclusions to which no response is required.

126. **COMPLAINT PARAGRAPH 79:** Arm is entitled to a declaratory judgment that Qualcomm and Nuvia's advertising, distribution, offering for sale, or sale of semiconductor chips

with the relevant Nuvia technology and the ARM Marks do and will infringe Arm's trademarks, directly and indirectly.

ANSWER: Defendants deny the allegations in Complaint Paragraph 79, except to the extent they purport to state legal conclusions to which no response is required.

127. **COMPLAINT PARAGRAPH 80:** Defendants' acts of infringement have injured Arm in an amount as yet unknown. Arm is entitled to recover from Defendants the damages sustained as a result of Defendants' wrongful acts in an amount subject to proof at trial.

ANSWER: Defendants deny the allegations in Complaint Paragraph 80, except to the extent they purport to state legal conclusions to which no response is required.

development of the relevant Nuvia technology after repeated notifications that the technology is unlicensed following termination of the Nuvia licenses, discovery is likely to show that Qualcomm and Nuvia are acting willfully to usurp Arm's rights, warranting treble damages and attorneys' fees pursuant to 15 U.S.C. § 1117(a).

ANSWER: Defendants deny the allegations in Complaint Paragraph 81, except to the extent they purport to state legal conclusions to which no response is required.

harm to its name, reputation, and goodwill from Defendants' trademark infringement. Arm has no adequate remedy at law and is entitled to a permanent injunction against Defendants' continuing infringement, including requiring Defendants, pursuant to 15 U.S.C. § 1118, to deliver up for destruction, or to show proof of said destruction or sufficient modification to eliminate the infringing matter, all semiconductor chips, die encapsulation (die packages), end user product packaging, advertising and promotional materials, technical documentation, websites, and other

matter in Defendants' possession, custody, or control that bears or displays the ARM Marks in any manner in connection with the relevant Nuvia technology. Unless enjoined, Defendants will continue their infringing conduct.

ANSWER: Defendants deny the allegations in Complaint Paragraph 82, except to the extent they purport to state legal conclusions to which no response is required.

COUNT III: DECLARATORY JUDGMENT AND FALSE DESIGNATION OF ORIGIN UNDER 15 U.S.C. § 1125 (ALL DEFENDANTS)

130. **COMPLAINT PARAGRAPH 83:** Arm hereby restates and re-alleges the allegations set forth above and incorporates them by reference.

ANSWER: Defendants repeat and reiterate their responses to ARM's Complaint Paragraphs 1-82 as if fully set forth herein.

131. **COMPLAINT PARAGRAPH 84:** The acts of Qualcomm and Nuvia described above constitute false designation of origin in violation of Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a).

ANSWER: Defendants deny the allegations in Complaint Paragraph 84, except to the extent they purport to state legal conclusions to which no response is required.

132. **COMPLAINT PARAGRAPH 85:** Arm has had valid and protectable rights in the ARM Marks since substantially before Qualcomm and Nuvia's first uses of those marks in connection with integrated circuit and microprocessor technologies.

ANSWER: Defendants deny the allegations in Complaint Paragraph 85, except to the extent they purport to state legal conclusions to which no response is required.

133. **COMPLAINT PARAGRAPH 86:** Qualcomm and Nuvia, as current or former Arm licensees under agreements that permitted the use of the ARM Marks, have had actual knowledge of Arm's ownership and use of the ARM Marks for years.

ANSWER: Qualcomm admits that its ALA and TLA permit use of the ARM Marks. Defendants otherwise deny the allegations in Complaint Paragraph 86, except to the extent they purport to state legal conclusions to which no response is required.

134. **COMPLAINT PARAGRAPH 87:** Arm has not authorized Qualcomm or Nuvia to use the ARM Marks in connection with semiconductor chips incorporating the relevant Nuvia technology developed under the now-terminated licenses, instead terminating those licenses.

ANSWER: Defendants deny the allegations in Complaint Paragraph 87, except to the extent they purport to state legal conclusions to which no response is required.

substantial preparation and taken concrete steps with the intent to falsely designate the origin of their products in violation of Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a). Arm's customers—including Qualcomm and Nuvia, as discovery is likely to show—often use the ARM Marks in their die encapsulation (die packages), end user product packaging, advertising and promotional materials, technical documentation, and websites directed to users throughout the United States, including users physically located in the State of Delaware and this Judicial District. Qualcomm promotes Snapdragon products as incorporating Arm technology, such as by saying on its website that "Snapdragon 855 is equipped with the cutting-edge Qualcomm® KryoTM 485 CPU built on ARM Cortex Technology." In January 2022, Qualcomm issued a press release touting the "broad support from ecosystem partners for the PC industry's transition to Arm®-based computing," with Qualcomm's CEO boasting that "the recent acquisition of NUVIA uniquely

Samsung Galaxy Note10+, Qualcomm Inc., https://www.qualcomm.com/snapdragon/device-finder/smartphones/samsung-galaxy-note10-5g.

positions Qualcomm Technologies to drive this industry wide transition."²⁹ This press release remains online. Also, Qualcomm and Nuvia's plans to begin sampling chips with the relevant Nuvia technology as soon as August 2022 would require manufacturing a limited run of the chips in advance, and news reports indicate that Qualcomm already has some working chips to demonstrate to potential customers. Qualcomm and Nuvia have thus used the ARM Marks in connection with the advertising, distribution, offering for sale, or sale of the chips, and Arm believes discovery will show that their further use is imminent if it has not happened already.

ANSWER: Qualcomm admits to using certain ARM Marks pursuant to its licenses to accurately refer to ARM's technology, including, but not limited to, in marketing materials, product specifications, and technical documents. Defendants deny knowledge or information sufficient to form a belief as to how ARM's other customers use ARM Marks. Defendants respectfully refer the Court to the cited publications for their complete language and content. Defendants otherwise deny the allegations in Complaint Paragraph 88, except to the extent they purport to state legal conclusions to which no response is required.

136. **COMPLAINT PARAGRAPH 89:** Qualcomm and Nuvia's unauthorized use of the ARM Marks in connection with semiconductor chips incorporating the relevant Nuvia technology is likely to cause confusion, mistake, or deception on the part of consumers as to the affiliation, connection, or association of Defendants with Arm, or as to the origin, sponsorship, or approval of Defendants' semiconductor chips using the relevant Nuvia technology, constituting false designation of origin in violation of 15 U.S.C. § 1125(a)(1)(A). Given Arm's close

Qualcomm and Leading Compute Partners Build Industry Momentum for Windows on Arm PCs Powered by Snapdragon Compute Platforms, Qualcomm Inc. (Jan. 3, 2022), https://www.qualcomm.com/news/releases/2022/01/04/qualcomm-and-leading-compute-partners-build-industry-momentum-windows-arm.

relationships with its customers and individualized support for their products, there is and is likely to be confusion in the marketplace because consumers encountering the ARM Marks in connection with semiconductor chips incorporating the relevant Nuvia technology do and will likely believe that the products are endorsed by, licensed by, or otherwise associated with Arm. Semiconductor chips incorporating the relevant Nuvia technology are also readily identifiable without the use of the ARM Marks, such as by not mentioning the processor architecture or by using the generic term "RISC" (for reduced instruction set computer).

ANSWER: Defendants deny the allegations in Complaint Paragraph 89, except to the extent they purport to state legal conclusions to which no response is required.

137. **COMPLAINT PARAGRAPH 90:** An actual and justiciable controversy exists regarding Defendants' false designation of origin. Although Arm repeatedly notified Qualcomm and Nuvia that their development of the relevant Nuvia technology is unlicensed following termination of the Nuvia licenses, Qualcomm has continued to tell reporters that the technology is on track to be sampled to customers this year, and news reports indicate that Qualcomm already has some working chips to demonstrate to potential customers.

ANSWER: Defendants deny the allegations in Complaint Paragraph 90, except to the extent they purport to state legal conclusions to which no response is required.

138. **COMPLAINT PARAGRAPH 91:** Arm is entitled to a declaratory judgment that Qualcomm and Nuvia's advertising, distribution, offering for sale, or sale of semiconductor chips with the relevant Nuvia technology and the ARM Marks do and will falsely designate the origin of their products, directly and indirectly.

ANSWER: Defendants deny the allegations in Complaint Paragraph 91, except to the extent they purport to state legal conclusions to which no response is required.

139. **COMPLAINT PARAGRAPH 92:** Defendants' acts of false designation of origin have injured Arm in an amount as yet unknown. Arm is entitled to recover from Defendants the damages sustained as a result of Defendants' wrongful acts in an amount subject to proof at trial.

ANSWER: Defendants deny the allegations in Complaint Paragraph 92, except to the extent they purport to state legal conclusions to which no response is required.

140. **COMPLAINT PARAGRAPH 93:** Based on Qualcomm and Nuvia's continued development of the relevant Nuvia technology after repeated notifications that the technology is unlicensed following termination of the Nuvia licenses, discovery is likely to show that Qualcomm and Nuvia are acting willfully to usurp Arm's rights, warranting treble damages and attorneys' fees pursuant to 15 U.S.C. § 1117(a).

ANSWER: Defendants deny the allegations in Complaint Paragraph 93, except to the extent they purport to state legal conclusions to which no response is required.

141. **COMPLAINT PARAGRAPH 94:** Arm will suffer and is suffering irreparable harm to its name, reputation, and goodwill from Defendants' false designation of origin. Arm has no adequate remedy at law and is entitled to a permanent injunction against Defendants' continuing false designation of origin, including requiring Defendants, pursuant to 15 U.S.C. § 1118, to deliver up for destruction, or to show proof of said destruction or sufficient modification to eliminate the falsely designated matter, all semiconductor chips, die encapsulation (die packages), end user product packaging, advertising and promotional materials, technical documentation, websites, and other matter in Defendants' possession, custody, or control that bears or displays the ARM Marks in any manner in connection with the relevant Nuvia technology. Unless enjoined, Defendants will continue their wrongful conduct.

ANSWER: Defendants deny the allegations in Complaint Paragraph 94, except to the extent they purport to state legal conclusions to which no response is required.

ARM'S PRAYER FOR RELIEF

WHEREFORE, Plaintiff Arm Ltd. requests that the Court grant the following relief:

- **a.** A judgment in Arm's favor on all claims against Defendants;
- **b.** An order requiring specific performance by Defendants of the Nuvia licenses' termination provisions;
- **c.** An award of damages incidental to specific performance as a result of Defendants' breach of contract, in amounts to be proven at trial, including all pre-judgment and post-judgment interest at the maximum rate permitted by law;
- **d.** A judgment and a declaration that advertising, distributing, offering for sale, or selling semiconductor chips with the relevant Nuvia technology and the ARM Marks infringes Arm's trademarks, directly and indirectly;
- e. An order and judgment permanently enjoining Defendants and their officers, directors, agents, servants, employees, and all others acting in privity or in concert with them, and their parents, subsidiaries, divisions, successors, and assigns from (1) using in any manner in connection with the relevant Nuvia technology the ARM Marks, or any mark or logo that is confusingly similar to or a colorable imitation of the ARM Marks owned by Arm; (2) doing any act or thing calculated or likely to cause confusion or mistake in the minds of the members of the public or prospective customers as to the affiliation, connection, or association of Defendants with Arm, or as to the origin, sponsorship, or approval of Defendants' semiconductor chips using the relevant Nuvia technology; or (3) assisting, aiding, or abetting any other person or business entity in performing any of the aforementioned activities;

- f. An order and judgment directing Defendants, pursuant to 15 U.S.C. § 1116(a), to file with this Court and serve upon Arm within thirty (30) days after entry of the injunction a report in writing under oath setting forth in detail the manner and form in which Defendants have complied with the injunction and ceased all offering of products with the relevant Nuvia technology under the ARM Marks, as set forth above;
- g. An order and judgment directing Defendants and their officers, directors, agents, servants, employees, and all others acting in privity or in concert with them, and their parents, subsidiaries, divisions, successors, and assigns to deliver up for destruction, or to show proof of said destruction or sufficient modification to eliminate the infringing matter, all semiconductor chips, die encapsulation (die packages), end user product packaging, advertising and promotional materials, technical documentation, websites, and other matter in Defendants' possession, custody, or control that bears or displays in any manner in connection with the relevant Nuvia technology the ARM Marks or any other mark that is confusingly similar to or a colorable imitation of the ARM Marks;
- h. A judgment in the aggregate amount of (1) Defendants' profits, (2) Arm's actual damages, (3) the costs of this action pursuant to 15 U.S.C. § 1117, and (4) restitution and/or disgorgement of all revenues, earnings, profits, compensation, and benefits that may have been obtained by Defendants in connection with their semiconductor chips using the relevant Nuvia technology and the ARM Marks, including all pre-judgment and post-judgment interest at the maximum rate permitted by law;
- i. A judgment trebling any damages to the extent permitted by law, including under15 U.S.C. § 1117;
 - **j.** Exemplary or punitive damages to the extent permitted by law;

- **k.** Costs, expenses, and reasonable attorney fees under all applicable rules, statutes, and rules in common law that would be appropriate, with pre-judgment and post-judgment interest thereon at the maximum rate permitted by law;
 - **l.** Equitable relief addressing any infringement occurring after entry of judgment; and
 - **m.** Such other relief as the Court deems just and proper.

ANSWER TO PLEA FOR RELIEF: ARM's characterization of the relief it seeks does not require a response. To the extent a response is required, Defendants deny the allegations in the prayer for relief and further deny that ARM is entitled to the requested relief, or any relief, against the Defendants, and the Defendants request that the Court dismiss all claims against them with prejudice and order such further relief as the Court deems just and proper.

JURY DEMAND

Pursuant to D. Del. LR 38.1 and Fed. R. Civ. P. 38, Arm hereby demands a TRIAL BY JURY of all claims and issues presented in this Complaint that are so triable.

ANSWER TO JURY DEMAND: ARM's jury demand states a legal conclusion to which no response is required, and Defendants otherwise reserve their right to contest ARM's jury demand.

DEFENSES

142. Without admitting that the Defendants engaged in the acts and conduct set forth in ARM's Complaint or that such acts or conduct would entitle ARM to the relief it seeks or that the allegation of an affirmative or other defense requires Defendants to prove affirmatively the circumstances as alleged, the Defendants assert the following defenses with respect to the claims alleged in the Complaint, without assuming the burden of proof or persuasion where the burden rests on ARM. By designating the following defenses, the Defendants do not in any way waive or

limit any defenses which are or may be raised by their denials, allegations and averments set forth herein, and do not assume the burden of proof for any element of a claim to which the applicable law places the burden of proof on the Plaintiff. The defenses are pleaded in the alternative, are raised to preserve the Defendants' rights to assert such defenses, and are without prejudice to their ability to raise other and further defenses. The Defendants hereby give notice that they intend to rely upon such other and further defenses as may become available or apparent at any time and hereby reserve all rights to amend and/or supplement any and all defenses set forth herein.

FIRST DEFENSE

(Failure To State A Claim)

143. The Complaint fails to state a claim against the Defendants upon which relief can be granted.

SECOND DEFENSE

(Defendants Did Not Breach The NUVIA ALA)

- 144. Defendants did not breach the termination provisions of NUVIA's ALA because Defendants complied with the termination provision.
- 145. Defendants did not breach the NUVIA ALA. Defendants' use of ARM technology and information was fully licensed under the Qualcomm ALA.

THIRD DEFENSE

(Defendants' Use Of ARM Marks Is Licensed And Therefore Permitted Under Qualcomm's License Agreements)

- 146. Defendants are licensed to use the ARM Marks at issue and therefore they are not in violation of 15 U.S.C. §§ 1114 and 1125.
 - 147. For example, under of Qualcomm's ARM ALA, ARM

148. The Qualcomm products at issue in ARM's complaint were

Qualcomm's license agreements. Accordingly, Defendants are permitted to use ARM's Marks licensed under that agreement.

FOURTH DEFENSE

(Fair Use)

- 149. Defendants are not subject to liability for alleged trademark infringement because Defendants' use of ARM Marks constitutes fair use.
- 150. Defendants use the ARM Marks in marketing materials, product specifications and technical documents to truthfully refer to ARM's technology and its relationship with Qualcomm's products. For example, Qualcomm's website describes the Kryo CPU as follows: "The Qualcomm® Kryo™ CPU (built on ARM Cortex Technology) available in certain Snapdragon processors is optimized for high-performance mobile computing."
- 151. Use of the ARM Marks in this manner is necessary to accurately describe that Qualcomm's products are compatible with ARM's technology.
- 152. This use of the ARM Marks indicates that Qualcomm's products use an ARM ISA. This is a true and accurate representation of the relationship between ARM and Qualcomm's products.
- 153. Defendants use only so much of the ARM Marks as necessary to describe ARM's products.

FIFTH DEFENSE

(Ripeness)

154. ARM's claims under 15 U.S.C. §§ 1114 and 1125 are premature and not ripe for adjudication.

SIXTH DEFENSE

(Plaintiff's Breach Of The NUVIA ALA Prevents It From Seeking To Enforce The ALA)

- 155. ARM is barred from bringing or maintaining its breach of contract claim based on the NUVIA ALA, or recovering any remedy against the Defendants based on this claim, because ARM breached the NUVIA ALA, and such breach excuses any nonperformance by the answering Defendants.
- 156. ARM's refusal to fulfill its responsibilities under the NUVIA ALA bars its own claims of breach of contract against the Defendants.
- 157. Moreover, pursuant to of the ALA, ARM's ability to recover damages is limited.

SEVENTH DEFENSE

(Unclean Hands)

158. ARM is barred from bringing or maintaining its claims by virtue of the equitable doctrine of unclean hands, including because ARM has refused to fulfill its contractual obligations to Defendants.

EIGHTH DEFENSE

(Waiver)

159. By the statements, conduct, acts, or omissions attributable to ARM alone, ARM has waived all claims and causes of action and any recovery or remedy alleged in the complaint. ARM

has been aware of Qualcomm's development of technology it acquired from NUVIA for over a year, and only now seeks to preclude Qualcomm from proceeding with its development.

NINTH DEFENSE

(Estoppel)

160. By the statements, conduct, acts, or omissions attributable to ARM alone, ARM is estopped from seeking any recovery or remedy as alleged in the complaint. ARM has been aware of Qualcomm's development of technology it acquired from NUVIA for over a year, and only now seeks to preclude Qualcomm from proceeding with its development.

TENTH DEFENSE

(No Damages)

- 161. ARM's claims cannot be maintained because ARM cannot prove any cognizable loss, damage, or injury as a result of the conduct alleged in the Complaint.
- 162. Moreover, to the extent ARM seeks damages, ARM's damages are limited pursuant to the ALA.

ELEVENTH DEFENSE

(Failure To Mitigate Damages)

- 163. ARM's claim for damages is barred in whole or in part due to ARM's failure to mitigate the alleged damages resulting from its claims.
- 164. ARM knew in March of 2021 that Qualcomm had acquired NUVIA and that it intended to continue developing technology acquired from NUVIA.
- 165. ARM waited until February 2022 to terminate the NUVIA ALA, allegedly because NUVIA violated assignments provisions in the NUVIA agreements.
 - 166. ARM's actions worked to maximize its alleged damages.

TWELFTH DEFENSE

(Equitable Defenses)

167. The claims alleged and the relief sought in this action are barred in whole or in part by the equitable doctrines of laches, acquiescence, consent, ratification, and/or similar doctrines.

THIRTEENTH DEFENSE

(No Entitlement To Equitable Relief)

168. To the extent the Complaint seeks equitable relief, such relief is barred because there is an adequate remedy at law.

FOURTEENTH DEFENSE

(Trademark Misuse)

- 169. ARM has misused its marks inequitably, in order to harm Defendants.
- 170. ARM has falsely claimed that Defendants are not entitled to utilize the ARM Marks.
- 171. ARM falsely told customers, the media, and the public that Qualcomm cannot manufacture or sell products compatible with ARM's ISA that contain NUVIA technology.
- 172. In so doing, ARM is indicating that Defendants are not entitled to utilize the ARM Marks.
- 173. This is incorrect. Defendants are fully licensed to the ARM Marks under Qualcomm's license agreements with ARM.

FIFTEENTH DEFENSE

(Other Defenses)

174. Defendants hereby adopt and incorporate by reference any and all other defenses asserted, or that may hereafter be asserted, by any other defendant not expressly set forth herein to the extent such defense may be applicable to Defendants.

COUNTERCLAIM

175. Defendants, for their Counterclaim against ARM, seek a declaration that Defendants have not breached NUVIA's license agreements with ARM, and that Defendants' design, activities, and work on the Phoenix Core and associated SoCs are fully licensed pursuant to Qualcomm's license agreements with ARM. Defendants set forth their counterclaim below, and incorporate by reference their introduction, set forth in paragraphs 1-47 above, as though set forth in full below.

THE PARTIES

- 176. Qualcomm Incorporated is a Delaware corporation with its principal place of business in San Diego, California. Qualcomm is the world's leading wireless technology innovator and the driving force behind the development, launch, and expansion of 5G technology. Qualcomm's foundational technologies enable the mobile ecosystem and are found in every 3G, 4G, and 5G smartphone. Qualcomm brings the benefits of mobile to new industries, including automotive, the internet of things, and computing, where Qualcomm has driven the convergence of PC and mobile technology to increase productivity, connectivity, and security in portable laptops.
- 177. Qualcomm Technologies, Inc. is a Delaware corporation with a principal place of business in San Diego, California. Qualcomm Technologies is a wholly-owned subsidiary of

Qualcomm Incorporated and operates, along with its subsidiaries, substantially all of Qualcomm's engineering, research and development functions, and substantially all of its products and services businesses, including its QCT semiconductor business.

- 178. NUVIA, Inc. was founded in February 2019 to design and develop ARM-compatible cores for use in server products. NUVIA comprised a proven world-class CPU and technology design team, with industry-leading expertise in high-performance processors, SoCs, and power management for compute-intensive devices and applications. Qualcomm acquired NUVIA in March 2021 for approximately \$1.4 billion, before working capital and other adjustments.
- 179. ARM is a corporation headquartered in Cambridge, United Kingdom and was founded in 1990. ARM is planning to issue an IPO in the future, and ARM's positions will have a detrimental impact on this IPO unless this action is resolved beforehand.

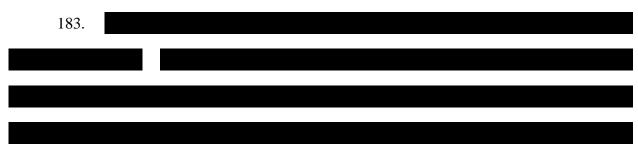
JURISDICTION AND VENUE

- 180. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1332 as there is complete diversity between the parties and the amount in controversy exceeds \$75,000.
- 181. Venue is proper in the District of Delaware under 28 U.S.C. § 1391 because ARM, through its Complaint dated August 31, 2022, has consented to jurisdiction and venue in the State of Delaware and this Judicial District.

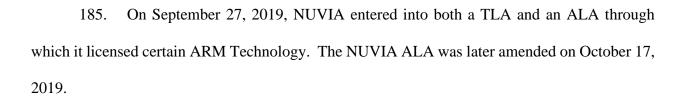
FACTUAL BACKGROUND

I. QUALCOMM AND NUVIA'S AGREEMENTS WITH ARM

182. On May 30, 2013, Qualcomm³⁰ and ARM entered into an Amended and Restated Architecture License Agreement (the "QC ALA"), No. LES-TLA-20039, and Annex 1 to that agreement. On May 31, 2013, Qualcomm and ARM entered into a Technology License Agreement (the "QC TLA"), No. LEC-TLA00550 and Annex 1 to that agreement. On June 23, 2020, Qualcomm and ARM entered into an updated Annex 1 to the ALA and an Annex 1 to the QC TLA.



184. Under the QC TLA, ARM licenses to Qualcomm fully designed and functional ARM Technology. ARM provides this technology "off the shelf" to Qualcomm (i.e., the license is for a fully designed and functional piece of technology).



³⁰

- 186. Prior to ARM's termination of the NUVIA ALA and TLA, Qualcomm's and NUVIA's license agreements with ARM broadly overlapped. At the time of termination of the NUVIA agreements, Qualcomm's ALA and TLA provided Qualcomm a license to the same technologies that were licensed under the NUVIA agreements.
- 187. However, as discussed above, the royalty rates under NUVIA's license agreements were higher than those under Qualcomm's.

II. ARM TRIES TO TAKE ADVANTAGE OF QUALCOMM'S ACQUISITION OF NUVIA

a. Qualcomm Alerts ARM To Its Pending Acquisition Of NUVIA

- 188. As discussed above in paragraphs 1-47, on January 13, 2021, Qualcomm announced its intent to acquire—for \$1.4 billion before working capital and other adjustments—NUVIA, a start-up focused on developing a promising custom CPU compliant with the ARM ISA designed for data center servers.
- 189. On January 27, 2021, Qualcomm wrote ARM a letter stating that it had entered into a definitive agreement to acquire NUVIA, and noting that Qualcomm and NUVIA had overlapping license agreements. As Qualcomm notified ARM, "[f]ollowing the closing of the acquisition, for ease of operation and structure, QTI intends to transfer NUVIA's work and employees to QTI and other current Qualcomm subsidiaries and have the then former NUVIA employees continue their activities under the Qualcomm ALA and TLA, as that will be their current employer." In its letter, Qualcomm told ARM that it would be willing to "work with the ARM team to complete any necessary annexes" to Qualcomm's ALA and TLA "to the extent NUVIA was utilizing any ARM technology not currently covered under the current QTI ALA and TLA." Given the timing of the acquisition, which was scheduled to close in March, Qualcomm requested that ARM respond by February 3, 2021.

- 190. ARM did not respond until February 2, 2021, and said it would start reviewing "NUVIA's contracts with ARM" and would "aim to get in touch" regarding additional materials required to facilitate the review by February 17, 2021. ARM further stated that it expected Qualcomm and NUVIA to "continue to follow the confidentiality obligations" in the parties' agreements and that the transfer of "designs, rights, or licenses" would be subject to "Arm's prior consent," which is "customarily documented in a three-way agreement between Arm, transferor, and transferee."
- 191. Qualcomm replied the following day. Qualcomm confirmed that both "NUVIA and Qualcomm's existing agreements with ARM provide for the protection of ARM's confidential information," and that they "would abide by the confidentiality terms of those agreements." Qualcomm further requested that ARM provide its proposed "three-way agreement" for review.
- 192. ARM never provided a draft of the "three-way agreement" or explained its concerns regarding protection of its confidential information. Nor was any such "three-way agreement" necessary to transfer any designs or rights to the NUVIA technology that Qualcomm had acquired. Rather, by its terms, Qualcomm's agreements provided any rights necessary to continue the development of custom cores for the uses Qualcomm contemplated.

b. ARM's Baseless Threats

- 193. ARM waited nearly two weeks after Qualcomm's letter to provide any meaningful response. On February 16, 2021, ARM gave Qualcomm a broad list of demands, claiming that ARM could only consent to the assignment of NUVIA's agreements to Qualcomm if Qualcomm agreed to several outrageous demands, set forth in Paragraph 23 above.
- 194. Although assignment of the NUVIA agreement was unnecessary because of Qualcomm's own license agreements and nothing in the NUVIA agreement precluded Qualcomm from acquiring NUVIA or its technology, ARM's ploy in tying its consent to these demands was

to try and leverage the swiftly approaching closing date in a misguided attempt to disrupt Qualcomm's acquisition.

- 195. In correspondence sent February 18 and February 25, 2021, Qualcomm explained that ARM's demand that Qualcomm pay the NUVIA licensing rates was not appropriate because "ARM has not proposed giving Qualcomm any additional rights or benefits in exchange for" its demand for additional payments and because there was no contractual support for ARM's imposition of NUVIA's royalty rates on Qualcomm.
- 196. Qualcomm also explained that ARM's proposed restrictions on Qualcomm's engineers were inappropriate, as the proposed three-year restriction period would make it nearly impossible to develop products, thus endangering Qualcomm development work and would adversely impact ARM through the loss of licensing revenue.
- 197. During Qualcomm's February 2021 discussions with ARM, it became apparent that ARM's position was that NUVIA needed to assign its license agreements to Qualcomm, and that assignment could only be made with ARM's consent under

 198.

 199.

200. These assignment provisions are inapplicable to Qualcomm's acquisition o
NUVIA because Qualcomm has its own separate license agreements with ARM, which covered
NUVIA and its technology as soon as the acquisition closed.
201. In addition, the ALA gave Qualcomm broad license rights to design architecture
compatible cores at all stages of implementation.

- 202. Therefore, NUVIA's technology would be covered by Qualcomm's ALA upon its acquisition. It was not necessary to transfer NUVIA's licenses to effectuate the acquisition of NUVIA or its technology.
- 203. Regardless, in an effort to compromise, on February 25, 2021, Qualcomm asked that ARM consent to the transfer of the NUVIA licenses to Qualcomm by March 2, 2021.
- 204. By a letter dated March 2, 2021, ARM refused to consent. Instead, ARM reiterated its demand that Qualcomm agree to the higher royalties of the NUVIA license agreement, including for what it alleged to be "derivative[]" products developed by Qualcomm. ARM conditioned its consent to the assignment of the agreements by NUVIA to Qualcomm on Qualcomm agreeing to these demands.

- 205. Qualcomm did not agree to these demands and Qualcomm's acquisition of NUVIA was completed as scheduled on March 16, 2021.
- 206. Although the parties had intermittent discussions to resolve the dispute, they were unable to resolve these issues, and in September 2021, ARM went silent.
 - d. With ARM's Knowledge And Assistance Owed To Qualcomm Under Its ALA, Qualcomm Continued Its Work Developing CPU Cores After The Acquisition Closed
- 207. From March 16, 2021 through the present, Qualcomm engineers (including former NUVIA employees), operating under the Qualcomm license agreements, worked diligently to develop market-leading CPU cores and SoCs improving and further developing the technology it acquired from NUVIA.
- 208. When Qualcomm acquired NUVIA, NUVIA had certain technology for a CPU core (i.e., the Phoenix Core) and the Server SoC that would use the Phoenix Core, but this technology was not fully developed. Qualcomm continued to develop the Phoenix Core and Server SoC.
- 209. Qualcomm also designed a SoC for use in the "compute" space (the "Compute SoC"), which would include aspects of the Phoenix Core. Unlike the Server SoC, the Compute SoC was initially conceived of and innovated at Qualcomm after the NUVIA acquisition, including modifications of the Phoenix Core for this application.
- 210. Throughout 2021 and 2022, Qualcomm received limited support from ARM as it developed the Phoenix Core and the two SoCs under Qualcomm's agreements, largely related to certain verification processes ARM is obligated to provide to ensure that the core design meets the architectural guidelines. During the verification process, ARM knew that it was interacting with former NUVIA employees, and knew that Qualcomm was seeking to verify core designs that included technologies Qualcomm had acquired from NUVIA.

- 211. Beginning immediately after the acquisition, Qualcomm—including many Qualcomm team members who had previously worked at NUVIA—began having weekly calls with ARM engineers related to verification testing of the in-development Phoenix Core and the Server SoC.
- 212. The discussion between ARM and Qualcomm (which included the former NUVIA engineers) was open and transparent. ARM was aware that the discussions included Qualcomm engineers formerly at NUVIA related to Qualcomm's ongoing development of the technologies it had acquired from NUVIA.
- 213. ARM has also continued to license technology to Qualcomm, and Qualcomm has continued to pay ARM for those licenses.
- 214. For example, in July 2021, ARM delivered to Qualcomm four design-only licenses for Qualcomm internal testing. It also delivered to Qualcomm twelve single-use licenses, allowing the development of a single chipset design using the licensed ARM Technology. Subsequently, in October 2021, ARM delivered three perpetual licenses allowing for use of some of that same ARM Technology in unlimited designs. Like other licenses from ARM, Qualcomm paid for these licenses.
- 215. In or around late 2021, Qualcomm also introduced the Compute SoC into the parties' weekly discussions. Like the parties' discussions concerning the in-development Phoenix Core for the Server SoC, these discussions were transparent, and ARM was aware that these discussions included Qualcomm engineers formerly at NUVIA and related to Qualcomm's ongoing development of the technologies it had acquired from NUVIA.
- 216. Also in December 2021, Qualcomm submitted an interim compliance report to ARM for the Server SoC it had been developing since the NUVIA acquisition. This compliance

report stated that the Server SoC implemented of the ARM ISA, which was, at that time, publicly available on ARM's website and licensed under Qualcomm's ALA.

- III. ARM WAITED OVER A YEAR TO TERMINATE THE NUVIA LICENSES AND DEMAND QUALCOMM DESTROY TECHNOLOGY
- a. On February 1, 2022, ARM Claimed NUVIA And Qualcomm Breached The NUVIA License Agreements And Terminated The Agreements
- 217. As discussed above in paragraphs 31-40, in a letter dated February 1, 2022, after ARM had been interfacing with Qualcomm and its development efforts for months, ARM notified Gerard Williams III, the former CEO and President of NUVIA, that it intended to terminate both NUVIA's ALA and TLA for "material breach."
- 218. ARM's February 2022 letter alleged that NUVIA had violated the assignment provisions in of both the NUVIA ALA and TLA when it was acquired by Qualcomm without ARM's consent. ARM also alleged that NUVIA violated the confidentiality provisions of both of the NUVIA license agreements by making unlicensed use of ARM's confidential information. ARM's letter did not explain its assertions or define the purported breach.
- 219. But NUVIA was not required to obtain consent from ARM to "transfer" its licenses or technology. There are no provisions in the NUVIA-ARM agreements or the Qualcomm-ARM agreements that prohibited Qualcomm from purchasing NUVIA, nor are there any such provisions that required ARM's consent to purchase NUVIA.
- 220. As a Qualcomm subsidiary, NUVIA was licensed under the Qualcomm ALA and TLA to use ARM Technology and Confidential Information. And Qualcomm's licenses covered the further development of the technology acquired from NUVIA by Qualcomm.

- 221. ARM's argument under fails for the same reasons. At the time of the termination, both NUVIA and Qualcomm were licensed to use the ARM information in the Phoenix Core and related SoCs under the Qualcomm ALA and TLA, and any use of that information was fully authorized.
- 222. In addition, the Phoenix Core and the Server SoC implemented of the ARM ISA, and did not utilize any ARM Confidential Information because ARM has published this specification and placed it in the public domain. ARM was well aware of this fact by the time it sent the February 1, 2022 termination letter.
- 223. Thus, contrary to ARM's assertions, neither NUVIA nor Qualcomm "committed a material breach of" the NUVIA ALA.
- 224. Moreover, ARM waited to terminate the NUVIA agreement until Qualcomm had already completed the design of the Phoenix Core for its Server SoC—and even after ARM had *accepted* Qualcomm's core design as ISA compatible.
 - 225. ARM demanded, upon termination, that NUVIA:
 - **a.** "discontinue any use and distribution of all Arm Technology, Arm Confidential Information and any products embodying such technology or information";
 - **b.** "[a]t Arm's option, either destroy or return to Arm any Arm Confidential Information, including any copies thereof in its possession and any Arm Technology or derivatives . . . thereof in its possession"; and
 - c. "[w]ithin one month after termination, furnish to Arm a certificate signed by a duly authorized representative that to the best of his or her knowledge, information and belief, after due enquiry, NUVIA has complied with these provisions."
- 226. ARM further claimed (wrongly) that these "obligations extend to Qualcomm and its widely publicized use of NUVIA's technology developed under NUVIA's ALA and TLA."

ARM contended in its termination notice that certification of the return or destruction of ARM Confidential Information should "extend to Qualcomm as well."

- 227. ARM informed NUVIA that its unilateral termination would be effective as of March 1, 2022 and demanded the return or destruction of any ARM Confidential Information delivered to NUVIA by April 1, 2022.
- 228. ARM's demand that NUVIA discontinue using and distributing ARM Technology, ARM Confidential Information, and any products embodying such technology or information was baseless. NUVIA and the technology Qualcomm acquired from NUVIA was licensed under Qualcomm's license agreements.
- 229. Likewise, ARM's demand that NUVIA destroy ARM Confidential Information was baseless because NUVIA was licensed to this information under Qualcomm's license agreements and Qualcomm's further development of this technology was also licensed under Qualcomm's license agreements.
- 230. Nonetheless, Qualcomm and NUVIA acted swiftly, at great time and expense, to take additional measures to satisfy ARM's unreasonable demand to comply with the termination provisions in NUVIA's license agreements.
- 231. Qualcomm and NUVIA removed NUVIA-acquired ARM Confidential Information from its designs and redesigned its products to replace it with information acquired under Qualcomm's license—even though it was the exact same information—then quarantined a copy. Qualcomm also removed NUVIA-acquired ARM Confidential Information from its design environment and systems and quarantined it.

- 232. During this period, Qualcomm's engineers were not working on further development of products because their attention was focused on the removal of NUVIA-acquired ARM Confidential Information.
- 233. NUVIA then provided ARM with its certification of its compliance with the termination provisions on April 1, 2022, as requested by ARM, even though the termination provisions were inapplicable.³¹

b. ARM Continued To Threaten Qualcomm

- 234. After NUVIA's certification, ARM responded by purporting to impose even more onerous demands than required by the termination provisions. In an April 29, 2022 letter, ARM wrote to confirm that: "both Qualcomm and NUVIA . . . will not proceed with any further development of NUVIA technology that embodies or is derivative of Arm confidential information or technology."
- 235. The termination provisions do not, by their plain language, require any such thing.

 They require only that NUVIA

These provisions apply only to NUVIA, not Qualcomm. And, of course, Qualcomm owns its own licenses to ARM Confidential Information and Technology.

236. Moreover, in this April letter, ARM stated that "Arm does not believe that the NuVia [sic] technology discussed above constitutes or can form the basis of an Arm Compliant Product or Architecture Compliant Product for purposes of the relevant Qualcomm agreements with Arm." This assertion was incorrect because of Qualcomm's own licenses, which do not

Meanwhile, ARM never certified its own compliance with the termination provisions, in violation of the NUVIA agreements.

restrict Qualcomm's ability to develop CPU cores using Qualcomm's technology, including technology it acquired from NUVIA.

- 237. Then, on August 2, 2022, ARM told Qualcomm that "Qualcomm is not authorized to make, use, sell, or import a product incorporating designs or derivatives of the NUVIA technology." In other words, ARM contended—with absolutely no basis—that Qualcomm cannot use *any* of NUVIA's intellectual property, proprietary designs, or confidential information, which include technology that ARM did not own or develop. ARM's demands go far afield of ARM Confidential Information or ARM Technology. ARM is pretending that it has rights over NUVIA Technology and NUVIA Confidential Information, a position that is baseless in light of the actual provisions of the NUVIA agreements. ARM also threatened Qualcomm's customers, asserting that "[n]either Qualcomm nor its customers are licensed to use any part of Arm's broad intellectual property portfolio with respect to such products. Arm will use all necessary means to protect its legal rights."
- 238. ARM's threats are baseless. ARM apparently contends that it has rights over all technology, proprietary designs, and confidential information developed by NUVIA, including technology that had absolutely nothing to do with ARM. But ARM has no right to demand destruction of that technology. ARM does not own CPU and/or SoC designs of its licensees, as ARM's license agreements and its statements to regulators make clear.
- 239. There are no provisions in either the NUVIA-ARM agreements or the Qualcomm-ARM agreements that:
 - **a.** prohibited Qualcomm from purchasing NUVIA or acquiring NUVIA's technology;
 - **b.** required Qualcomm to obtain ARM's consent to purchase NUVIA or access NUVIA's technology;
 - **c.** mandate that Qualcomm stop using any NUVIA technology it acquired;

- **d.** mandate that Qualcomm destroy NUVIA's technology;
- **e.** prohibit the transfer or disclosure of NUVIA's technology or confidential information to Qualcomm;
- f. limit the use of NUVIA technology only to NUVIA; or
- g. require Qualcomm to obtain ARM's consent to further develop any in-process designs or technology that Qualcomm acquired from NUVIA.

IV. ARM CONTINUES TO SUPPORT QUALCOMM'S DEVELOPMENT WORK

- 240. Despite ARM's demands that Qualcomm destroy and stop using NUVIA technology, for approximately one year, ARM continued to provide verification support to Qualcomm in developing the Phoenix Core and related SoCs, and also continued to acknowledge the Defendants' rights under the Qualcomm ALA and TLA to that technology.
- 241. For example, on April 12, 2022—after Qualcomm certified that it had destroyed all NUVIA-acquired ARM Confidential Information—ARM accepted test results verifying that the implementation of the Phoenix Core in the Server SoC complied with the requirements necessary to execute ARM's instruction set. ARM explicitly validated this testing under the Qualcomm ALA.
- 242. Similarly, in May of 2022, Qualcomm received an email from ARM stating that the Compute SoC—which integrated technology acquired from NUVIA and was first developed after Qualcomm's acquisition of NUVIA—had passed all relevant tests and was ARM-compatible. Yet, ARM's engineering team noted that it could not yet send a formal compliance waiver because ARM's legal team was withholding it.

V. ARM IS ATTEMPTING TO DISRUPT QUALCOMM'S CUSTOMER RELATIONSHIPS BY MISREPRESENTING QUALCOMM'S ALA

243. Since filing the Complaint in this case on August 31, 2022, ARM has persistently and wrongfully attempted to disrupt Qualcomm's business and customer relationships by

spreading misinformation about the nature of Qualcomm's ARM licenses to customers that purchase Qualcomm's ARM-compatible cores and chipsets.

- 244. ARM has engaged in this misinformation campaign directly through its leadership and through the leadership of its owner, SoftBank, acting on ARM's behalf, in an attempt to damage Qualcomm, disparage its products, disrupt Qualcomm's relationships with its customers, and create uncertainty where there is none.
- 245. At least as early as October 2022, ARM falsely stated to one or more of Qualcomm's longstanding original equipment manufacturer ("OEM") customers that unless they accept a new direct license from ARM on which they pay royalties based on the sales of the OEM's products, they will be unable to obtain ARM-compliant chips from 2025 forward. ARM has also threatened at least one OEM that, if the OEM does not do so, ARM will go on to license the OEM's large competitors instead—the implication being that the OEM would be excluded from the market and could not obtain any ARM-compliant chips from Qualcomm or any other supplier, including "off-the-shelf" chips from ARM under a TLA. ARM has done this despite already having approached the OEM's competitors with a direct licensing offer, while acting as if ARM would only approach the competing OEMs if the threatened OEM declined the license in the first instance.
- 246. ARM also told one or more Qualcomm customers that, when the existing TLA agreements expire, ARM will cease licensing CPUs to all semiconductor companies—including Qualcomm—under an ARM TLA. ARM claimed that it is changing its business model and will only provide licenses to the device-makers themselves. ARM has explained to the OEMs that a direct OEM license will be the only way for device-makers to get access to ARM-compliant chips.

- 247. ARM is trying to coerce such customers into accepting its direct license by falsely asserting that Qualcomm will not be able to provide them with ARM-compliant chips beginning in 2025 because Qualcomm's ARM license agreements terminate in 2024, that ARM will not extend its licenses with Qualcomm, and that ARM will not allow Qualcomm to ship products from 2025 forward.
- 248. These statements are unequivocally false and are intended to harm Qualcomm's relationships with its customers—and to secure lucrative contracts with those customers for ARM—by calling into question Qualcomm's ability to maintain its ARM licenses beyond 2024 and provide products to its customers, despite Qualcomm having a clear right to do so for years to come under its ARM licenses.
- 249. Qualcomm is licensed for several years past 2025 under its ALA, which provides Qualcomm with the unilateral right to extend the contract past the initial term for several more years. Specifically, the ALA states:



250. Accordingly, because the Qualcomm ALA has not been terminated—and because no event has occurred that would give rise to a right to terminate—the initial term of the license will continue until

Qualcomm then has the right to extend the license until

Accordingly, ARM does not have the right to refuse to extend Qualcomm's license or stop Qualcomm from shipping its products in 2025.

- 251. Moreover, ARM has no right to require additional royalties from Qualcomm's customers. Qualcomm's ALA provides Qualcomm with an exhaustive license, meaning that ARM is not entitled to go and seek another royalty from Qualcomm's customers on the same products for which ARM has received a royalty from Qualcomm.
- 252. ARM's coercion efforts did not stop with these false statements about Qualcomm's license agreements. To apply more pressure, ARM further stated that Qualcomm and other semiconductor manufacturers will also not be able to provide OEM customers with other components of SoCs (such as graphics processing units ("GPU"), neural processing units ("NPU"), and image signal processor ("ISP")), because ARM plans to tie licensing of those components to the device-maker CPU license.
- 253. ARM also claimed that it had already informed Qualcomm about its new business model that requires a direct license with the OEMs. That statement is false. ARM has not notified Qualcomm that it will be requiring direct licenses from device-makers. ARM did not tell Qualcomm that it intends to stop licensing CPU technology as a standalone license, that it will no longer license CPU technology to semiconductor companies, or that it will require licensees to obtain other technologies (notably ARM's GPU and NPU technology) only from ARM. As noted above, these attempted or threatened changes in ARM's business model do not account for Qualcomm's existing agreements with ARM.
- 254. While ARM's statements about Qualcomm have no basis in fact, they cause significant reputational damage and harm Qualcomm's customer relationships. Moreover, while ARM's goal may be to harm Qualcomm—and to coerce contracts with Qualcomm's customers that are unnecessary in view of the fully exhaustive rights it has granted Qualcomm under its

contracts—its tactics will result in harm to ARM's customers and licensees throughout the industry.

VI. ARM'S WELL-ESTABLISHED EFFORTS TO LIMIT INNOVATION ARE HARMFUL TO THE INDUSTRY AND TO ARM ITSELF

- 255. ARM's mercenary desire to thwart innovation is nothing new. Prior to Qualcomm's acquisition of NUVIA, in September 2020, NVIDIA announced that it was going to acquire ARM to "bring[] together NVIDIA's leading AI computing platform with Arm's vast ecosystem to create the premier computing company for the age of artificial intelligence." The announcement led to immediate antitrust concerns, regulatory challenges, and public opposition from many companies, including Qualcomm. The near universal concern was that an NVIDIA-controlled ARM would impede innovation and lead to higher prices. On February 7, 2022, ARM and NVIDIA announced that the acquisition would be terminated.
- 256. Only three days before that announcement—when it was no doubt clear to ARM that the acquisition would not close—ARM sent its termination letter to the Defendants, terminating NUVIA's license agreements and demanding that Qualcomm stop working on any of the NUVIA technology. As Qualcomm was one of the more public opponents of the acquisition, ARM's actions appear to be retributive.
- 257. Although ARM's efforts to destroy Qualcomm's innovation and prevent Qualcomm from expanding and advancing technology may in the short term, create the illusion of ARM achieving greater profitability—either by effectively strongarming Qualcomm into paying additional, unjustified royalties or through eliminating Qualcomm as a competitor in the custom CPU and server SoC space—in the long term it only harms ARM's interest and weakens the place in the market ARM hopes for after its IPO because it is injurious to ARM customers and licensees. ARM's positions are directly contrary to the purpose of the ALA, which will have little

value if licensees are not assured that they can use it to develop their own CPU core technology, at their own risk and expense and for their own benefit.

COUNTERCLAIM

(Declaratory Judgment)

- 258. Defendants incorporate by reference all allegations set forth in the preceding paragraphs 1-47 and 175-257 as though fully set forth herein.
 - 259. Defendants are entitled to declaratory judgment that:
 - **a.** Defendants did not breach the NUVIA ALA and NUVIA TLA;
 - **b.** After Qualcomm's acquisition of NUVIA, Qualcomm's architected cores (including all further developments, iterations, or instantiations of the technology acquired from NUVIA), Server SoC, and Compute SoC, are fully licensed under Qualcomm's ALA and TLA for the full terms of those licenses;
 - **c.** ARM's statements that Qualcomm's ALA expires in 2024 are false;
 - **d.** ARM's statements that Qualcomm will be unable to deliver ARM-compliant products after 2024 are false;
 - **e.** ARM has no right to prevent Qualcomm from shipping its validly-licensed products.
- 260. A judicial declaration pursuant to the Federal Declaratory Judgment Act (28 U.S.C. §§ 2201-2202 *et seq.*) concerning this matter is necessary and appropriate so that Qualcomm can confirm its belief that it can continue to develop and sell chips free from challenge that its actions are in violation of the Qualcomm ALA, the Qualcomm TLA, the NUVIA ALA, or the NUVIA TLA.
- ARM is attempting to prevent Qualcomm from exercising its rights under its license agreements with ARM, including by bringing suit claiming that Defendants breached NUVIA's license agreements with ARM.

PRAYER FOR RELIEF

WHEREFORE, Defendants request judgment and relief as follows:

- **a.** For the declaratory judgments set forth in Defendants' counterclaim;
- **b.** For an Order enjoining ARM from:
 - (i) making any claim that Qualcomm's CPU products, including products that contain technology acquired from NUVIA, are not licensed under Qualcomm's agreements with ARM, are not ARM-compatible, cannot be commercialized as ARM-compliant, or that Qualcomm is prohibited from using ARM's marks in the marketing of any such products;
 - (ii) misrepresenting the scope, terms, or rights granted to Qualcomm under its agreements with ARM; and
 - (iii) making false statements about Qualcomm's ability to sell its CPU products to its customers, the media, analysts, or others;
- **c.** For an Order requiring ARM to comply with its obligations under Qualcomm's license agreements without discrimination or retaliation;
 - **d.** For an award of attorney's fees and costs as allowed by law; and
 - **e.** For such other and further relief as the Court may deem just and proper.

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October 26, 2022

CERTIFICATE OF SERVICE

I hereby certify that on October 26, 2022, I caused the foregoing to be electronically filed with the Clerk of the Court using CM/ECF, which will send notification of such filing to all registered participants.

I further certify that I caused copies of the foregoing document to be served on October 26, 2022, upon the following in the manner indicated:

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