

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

ACQIS LLC,  
a Texas limited liability company,

Plaintiff,

v.

CISCO SYSTEMS, INC.,  
a Delaware corporation,

Defendant.

Civil Action No. 6:23-cv-00884

JURY TRIAL DEMANDED

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff ACQIS LLC (“Plaintiff” or “ACQIS”), by its attorneys, hereby alleges patent infringement against Defendant Cisco Systems, Inc. (“Defendant” or “Cisco”) as follows:

**INTRODUCTION**

1. This is an action for patent infringement under the United States Patent Laws, 35 U.S.C. § 1 *et seq.* Beginning in the late 1990s, Dr. William Chu founded ACQIS and invented a variety of pioneering computer technologies that employed serial transmission along low voltage differential signal (LVDS) channels to dramatically increase the speed at which data can be transmitted while also reducing power consumption and noise. Dr. Chu’s inventions have become foundational in the computer industry, and are found in a variety of data transmission systems, including PCI Express (PCIe) and/or USB 3.x<sup>1</sup> transactions.

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<sup>1</sup> As used herein, “USB 3.x” refers to USB 3.0 and subsequent versions, including USB 3.1, USB 3.2, and any other subsequent versions.

2. Defendant has infringed the following patents owned by ACQIS: U.S. Patent Nos. 8,977,797 (“797 patent”) and RE44,654 (“654 patent”) (collectively, the “ACQIS Patents”). Copies of the ACQIS Patents are attached to this Complaint as Exhibits 1-2.

3. Specifically, Defendant has directly infringed the ACQIS Patents through: (1) the manufacture, use, offering to sale, and/or sale in the United States, and/or the importation into the United States, of infringing computer products; (2) the practice of claimed methods of the ACQIS Patents by manufacturing, using and/or testing computer products in the United States; and (3) the importation into the United States of computer products made abroad using ACQIS’s patented processes.

4. ACQIS seeks damages and other relief for Defendant’s infringement of the ACQIS Patents. ACQIS is entitled to past damages for, without limitation, method claims which do not require marking.

### **THE PARTIES AND RELATED ENTITIES**

5. Plaintiff ACQIS LLC, is a limited liability company organized and existing under the laws of the State of Texas, with offices at 411 Interchange Street, McKinney, Texas 75071. A related entity, ACQIS Technology, Inc., is a corporation organized under the laws of the State of Delaware, having its principal place of business at 1503 Grant Road, Suite 100, Mountain View, California 94040. ACQIS LLC is operated from California, where its President, Dr. William Chu, resides. Dr. Chu is also the Chief Executive Officer of ACQIS Technology, Inc.

6. Cisco Systems, Inc. (“Cisco”) is a Delaware company with its principal place of business at 170 West Tasman Drive, San Jose, California.<sup>2</sup>

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<sup>2</sup> United States Securities and Exchange Commission Form 10-K Annual Report for fiscal year ended July 29, 2023 (“Cisco 2023 Annual Report”).

## JURISDICTION AND VENUE

7. This is an action for patent infringement under the United States patent laws, 35 U.S.C. § 101 *et seq.*

8. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

9. This Court has personal jurisdiction over Cisco consistent with the requirements of the Due Process Clause of the United States Constitution and the Texas Long Arm Statute because Cisco has committed acts within this District giving rise to this action and because Cisco has established minimum contacts with this forum such that the exercise of jurisdiction over Cisco would not offend traditional notions of fair play and substantial justice.

10. Cisco, directly and/or through subsidiaries or intermediaries, has conducted business in this District, the State of Texas, and elsewhere in the United States.

11. Cisco, directly and/or through subsidiaries or intermediaries has committed and continues to commit acts of infringement in this District by, among other things, making, using, importing, offering to sell, and selling products that infringe the Asserted Patents, and/or has induced acts of patent infringement by others in this judicial district, the State of Texas, and elsewhere in the United States. For example, publicly-available import data indicates that, in the past five years, Defendant has imported dozens of shipments of “Network Units Equipment” and directed them to an address in Austin, Texas, within this District.<sup>3</sup>

12. Notably, Cisco Systems has repeatedly litigated in this District without disputing that this Court has personal jurisdiction over it in patent actions. *See, e.g.,* Motion to Dismiss, *Monarch Networking Sols. LLC v. Cisco Sys., Inc.*, 6:20-cv-00381-ADA (W.D. Tex. July 23, 2020), ECF

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<sup>3</sup> *See, e.g.,* Bills of Lading YMPRE300681237, COSU8039917381, OOLU2711286903.

No. 19; Motion to Dismiss, *Sable Networks, Inc. v. Cisco Sys., Inc.*, 6:20-cv-00288-ADA (W.D. Tex. June 19, 2020), ECF No. 15.

13. Venue is proper in this Court under 28 U.S.C. §§ 1391(b), (c), (d) and 1400(b).

14. Cisco is registered to do business in the State of Texas and has been assigned Filing Number 8243306.

15. Cisco has regular and established physical presences in this District and this State, including, but not limited to, ownership of or control over property, inventory, or infrastructure. According to its website, Cisco maintains an established place of business within this District located at 18615 Tuscany Stone, San Antonio, Texas 78258.<sup>4</sup> According to its website, Cisco maintains offices located within the State of Texas at 7301 N. Hwy. 161 Suite 200, Irving, Texas 75039; 2200 East President George Bush Turnpike, Richardson, Texas; 10111 Richmond Avenue Suite 450, Houston, Texas 77042; 18615 Tuscany Stone, San Antonio, Texas 78258; and 1208 14th Street, Lubbock, Texas 79401.<sup>5</sup>

16. Defendant has sold imported products to purchasers in this judicial district. For example, publicly-available import data indicates that, in the past five years, Defendant has imported dozens of shipments of “Network Units Equipment” and directed them to an address in Austin, Texas, within this District.<sup>6</sup> Upon information and belief, some of these imports relate to accused products, including infringing servers.

17. Cisco may be served with process through its registered agent, Corporation Service Company dba CSC – Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701-3218.

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<sup>4</sup> Cisco website, Office Location Information, <https://www.cisco.com/c/en/us/about/contact-cisco.html>.

<sup>5</sup> *Id.*

<sup>6</sup> *See, e.g.*, Bills of Lading YMPRE300681237, COSU8039917381, OOLU2711286903.

18. Cisco has (itself and/or through the activities of subsidiaries, affiliates, or intermediaries) committed acts of patent infringement in the United States, State of Texas and this District, including by making, using, offering to sell, and/or selling infringing computer products in the United States, State of Texas and this District; importing infringing computer products and/or computer products made abroad using ACQIS's patented processes into the United States for sale in the State of Texas and this District.

19. Venue is also appropriate because the patents asserted in this case have been previously asserted in cases before this Court. Both patents will be the subject of a trial scheduled to be held in this District in March 2024 (*ACQIS, LLC v. Asus*, No. 6:2020-cv-966), and both patents are the subject of a recently-filed suit that is proceeding in this District (*ACQIS, LLC v. Quanta Computer, Inc.*, 6:2023-cv-265). It would serve the interests of judicial efficiency for this case to be litigated in this district. *See ACQIS LLC v. MiTac Computing Tech. Corp.*, No. W-20-cv-00962-ADA, 2021 U.S. Dist. LEXIS 197938, 2021 WL 4805431 (W.D. Tex., Oct. 14, 2021) (denying motion to transfer venue in prior case litigating same patent family).

## **FACTUAL BACKGROUND**

### **Dr. Chu and the ACQIS Patents**

20. Dr. William Chu has been a prolific innovator in the computing industry since the 1970s.

21. In 1976, Dr. Chu received his Ph.D. in Electrical Engineering from the University of California, Berkeley. Dr. Chu then began working in semiconductor design for American Microsystems, Inc. from 1976 to 1977, and then for Zilog, Inc. from 1977 to 1982.

22. In 1982, Dr. Chu founded Verticom, Inc., which developed innovative technologies relating to video transmission over telephone lines. Verticom also developed graphics products

for the PC computer-aided design (CAD) market. Verticom's success resulted in its stock being listed on the NASDAQ exchange in 1987. In 1988, Verticom was acquired by Western Digital Imaging, Inc.

23. Dr. Chu served as Vice President of Engineering for Western Digital from 1988 to 1991, overseeing a development team in the desktop and portable graphics chip division. In the course of his work at Western Digital, Dr. Chu in 1988 started the company's portable graphics chip business, which became #1 in the portable graphics chip market by 1991. Dr. Chu also led Western Digital to achieve the #1 market share in the PC graphics market in 1990.

24. After Western Digital, Dr. Chu worked for Acumos, Inc. from 1991 to 1992 as a Vice President managing engineering for computer graphics chip development. Acumos was acquired by Cirrus Logic, Inc. in 1992.

25. Dr. Chu then worked for Cirrus Logic from 1992 to 1997, first as a General Manager in the Desktop Graphics Division and later as Co-President of the Graphics Chip Business Unit. During Dr. Chu's time at Cirrus Logic, the company achieved #1 market share in the PC graphics chip market.

26. In 1998, Dr. Chu founded ACQIS Technology, Inc. to pursue his vision of developing a small, portable computer module that could be interchangeably connected with a variety of different peripheral consoles. In the course of this development effort, Dr. Chu recognized the need for a better interconnection between the core computing module and a peripheral console. Such interconnections traditionally conveyed peripheral component interconnect (PCI) bus transactions in parallel using a large number of signal channels and connector pins. This made it difficult to employ LVDS channels, which are more "cable friendly," consume less power, and generate less noise. Dr. Chu wanted to develop an interconnection system that was scalable, used

connectors with low pin counts, was power-efficient, high performing, and easily extendible for future computing needs and technologies. This development work resulted in a large family of patents now owned by ACQIS, which disclose and claim a variety of pioneering inventions relating to improved, high-performance and low-power consuming interconnection technologies for computer modules.

27. After several decades in the industry, Dr. Chu is now a named inventor of over forty U.S. Patents.

28. Among the patent portfolio covering Dr. Chu's inventions and owned by ACQIS are the ACQIS Patents asserted in this case.

29. The '797 patent, entitled "Method of Improving Peripheral Component Interface Communications Utilizing a Low Voltage Differential Signal Channel," was duly and legally issued on March 10, 2015, from a patent application filed October 10, 2012, with William W.Y. Chu as the sole named inventor. The '797 patent claims priority to U.S. Provisional Patent Application No. 60/134,122, filed on May 14, 1999.

30. The '654 patent, entitled "Data Security Method and Device for Computer Modules," was duly and legally issued on December 17, 2013, from a reissue application filed October 10, 2012, with William W.Y. Chu as the sole named inventor. The '654 patent is a reissue of U.S. Patent No. 6,643,777, which issued on November 4, 2003, from a patent application filed May 14, 1999. The '654 patent claims priority to U.S. Patent Application No. 09/312,199, filed on May 14, 1999.

31. The claims in the ACQIS Patents generally relate to computers and computer systems that employ CPUs coupled to LVDS channels that convey various types of data (*e.g.*, PCI bus

transactions, USB 3.x data, and/or digital video data) in a serial bit stream using pairs of unidirectional channels to convey the data in opposite directions.

32. Over the years, Dr. Chu's inventive developments have become more and more widely used in computing technologies.

33. Each claim of the ACQIS Patents is a patentable, valid and enforceable invention that is novel and non-obvious over the prior art.

34. ACQIS has not authorized or licensed Cisco to practice any of the inventions claimed in the ACQIS Patents.

### **Cisco's Infringing Products**

35. Cisco is a global leader in the networking, server, and technology market. Cisco makes and sells a variety of computers and computer servers. Cisco makes, sells, offers for sale and/or imports infringing computer parts and servers, as well as computer parts and servers made using infringing processes, into the United States and into this judicial District, through established distribution channels with the expectation that those products would be sold in the United States, State of Texas and this District.

36. On information and belief, Cisco's sale of computers and servers generates millions of dollars in revenue every year.

37. Revenue to the U.S. comprises over half of Cisco's worldwide revenue.<sup>7</sup>

38. Cisco has directly infringed one or more claims of each of the ACQIS Patents under at least 35 U.S.C. § 271(g), by making, using, offering to sell, and/or selling infringing computer products within the United States, State of Texas and this District; and/or importing infringing

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<sup>7</sup> Cisco 2023 Annual Report at 38 (58.7% for FY2023, 57.8% for FY2022).



computer products and/or computer products made abroad using ACQIS's patented processes into the United States for sale in the State of Texas and this District.

39. Cisco makes, uses, imports, sells, and/or offers to sell a variety of computer server products in the United States that infringe one or more of the claims in the ACQIS Patents, and/or imports into, and/or uses, offers to sell, and/or sells in, the United States computer server products that were made abroad using patented processes claimed in the ACQIS Patents, including, without limitation, blade and rack servers sold under the brand names Unified Computing System (UCS) B-Series Blade Servers, UCS C-Series Rack Mount Servers and Storage Servers, and UCS E-Series Servers, which “reside in Cisco® branch-office routers: the Cisco 4000 Series Integrated Services Routers (ISRs) networking platforms.”<sup>8</sup> Products include, but are not limited to, UCS B200 M5 Blade Server, UCS B480 M5 Blade Server, UCS Mini, UCS 5100 Series Blade Server Chassis, UCS C125 M5 Rack Server, UCS C220 M5 Rack Server, UCS C240 M5 Rack Server, UCS C240 SD M5 Rack Server, UCS C480 M5 Rack Server, UCS C480 ML M5 Rack Server, S3260 M5 Storage Server, UCS E-Series M2 Servers, UCS E-Series M3 Servers, and UCS E-Series Network Compute Engine. These products are collectively referred to as the “**Accused Servers.**”

40. The Accused Servers are collectively referred to herein as the “**Accused Cisco Products.**”

41. On information and belief, Cisco manufactures and tests at least certain of the Accused Cisco Products within the United States and abroad and uses, offers to sell, and/or sells such products in the United States, and/or imports such products into the United States.

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<sup>8</sup> Data Sheet, *Cisco UCS E-Series M3 Servers* (2019).

42. On information and belief, at least certain of the Accused Cisco Products that Cisco imports into the United States are manufactured outside the United States using one or more processes claimed in the ACQIS Patents.

43. The Accused Cisco Products include products made, used, offered for sale, sold within the United States, and/or imported into the United States, within the six years preceding the date of this Complaint.

44. The Accused Cisco Products also include products made using the processes claimed in the ACQIS Patents and imported into the United States within the six years preceding the date of this Complaint.

45. The Accused Cisco Products also include products that are used to perform one or more methods claimed in the ACQIS Patents within the six years preceding the date of this Complaint.

### **The Accused Servers**

46. On information and belief, all of the Accused Servers are configured and operate in substantially the same way as explained below using the Cisco UCS B200 M5 Blade Server as an example for illustrative purposes.<sup>9</sup>

47. The Cisco UCS C480 M5 Rack Server is a computer server.

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<sup>9</sup> The March 19, 2018 Data Sheet for the Cisco UCS C480 M5 Rack Server can be found at <https://web.archive.org/web/20180925224631/https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/datasheet-c78-739291.html>. The June 8, 2018 Cisco UCS C480 M5 Server Installation and Service Guide can be found at <https://www.manualslib.com/manual/1397364/Cisco-Ucs-C480-M5.html#manual>.



<https://web.archive.org/web/20180925224631/https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/datasheet-c78-739291.html>.

48. The Cisco UCS C480 M5 Rack Server uses two or four Intel® Xeon scalable processors, which have integrated interface controllers on a single chip to drive the PCIe channels connected to the processor.

- Latest Intel® Xeon® Scalable processors with up to 28 cores per socket and support for two-or four-processor configurations
- 2666-MHz DDR4 memory and 48 DIMM slots for up to 6 TeraBytes (TB) of total memory
- 12 PCI Express (PCIe) 3.0 slots
  - Six x8 full-height, full length slots
  - Six x16 full-height, full length slots

Data Sheet at p.1.

The Second Generation Intel® Xeon® Scalable Processors is the next generation of 64-bit, multi-core server processor built on 14-nm process technology. The processor supports up to 46 bits of physical address space and 48 bits of virtual address space. The processor is designed for a platform consisting of at least one Intel Xeon Processor Scalable Processors and the Platform Controller Hub (PCH). Included in this family of processors are integrated memory controller (IMC) and an Integrated I/O (IIO) on a single silicon die.

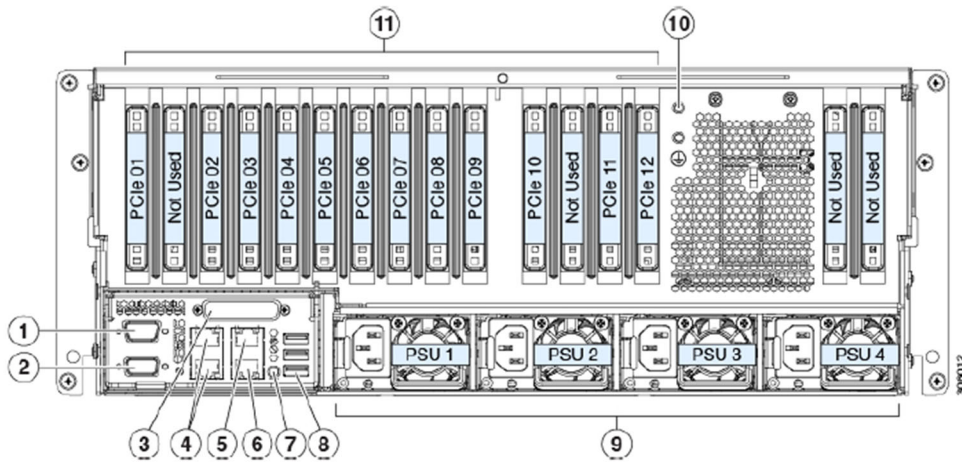
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IIO	Integrated I/O Controller. An I/O controller that is integrated in the processor die. The IIO consists of the DMI3 module, PCIe modules, and MCP (Ice Lake Server with Fabric SKUs only) modules.
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2<sup>nd</sup> Generation Xeon Scalable Datasheet, Vol. 2 at pp. 7 & 9, available at <https://www.intel.com/content/www/us/en/products/docs/processors/xeon/2nd-gen-xeon-scalable-datasheet-vol-2.html>.

49. The Cisco UCS C480 M5 Rack Server includes a variety of connectors that can couple the CPU to a variety of consoles, including USB 3.x.

Figure 2: Cisco UCS C480 M5 Server Rear Panel

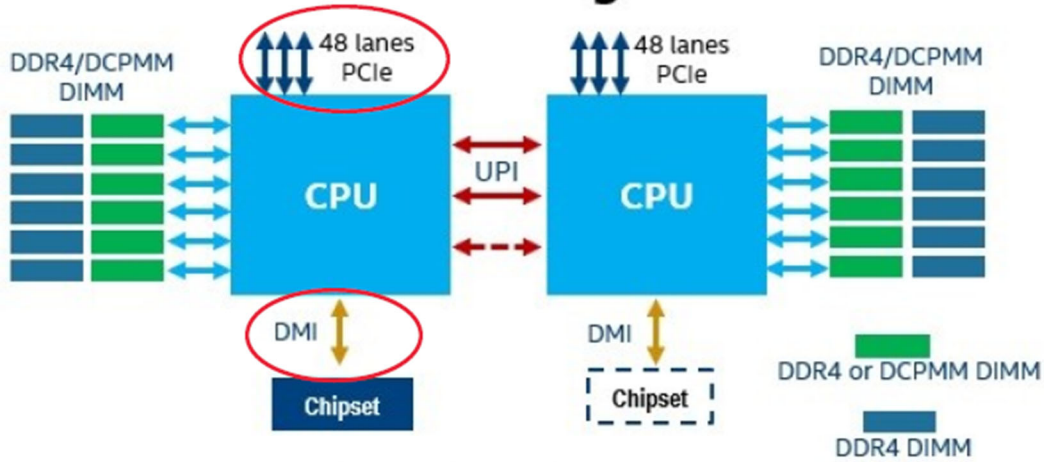


1	Serial port COM 1 (DB-9 connector)	7	Rear identification button/LED
2	VGA video port (DB-15 connector)	8	USB 3.0 ports (three)
3	Not used at this time	9	Power supplies 1 – 4 (hot-swappable, redundant as 2+2 (default) or 3+1) See <a href="#">Power Specifications</a> , on page 128 for specifications and supported options.
4	1-Gb/10-Gb Ethernet ports (LAN1 upper, LAN2 lower) The dual LAN ports can suport 1 Gbps and 10 Gbps, depending on the link-partner capability.	10	Threaded holes for dual-hole grounding lug

Installation Guide at 3.

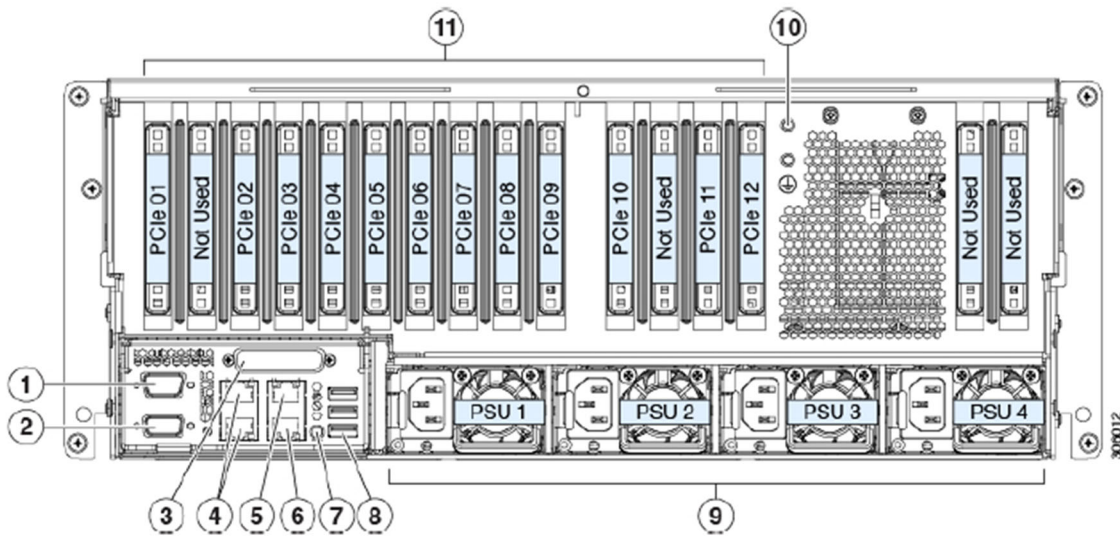
50. The Intel processors employed in the Cisco UCS C480 M5 Rack Server connect directly to a variety of LVDS channels that convey data bits in a serial stream using unidirectional pairs of lanes transmitting data in opposite direction, including Intel’s DMI and PCIe channels.

## 2 Socket Configuration



Second Generation Intel® Xeon® Processor Scalable Family Technical Overview, available at <https://www.intel.com/content/www/us/en/developer/articles/news/second-generation-intel-xeon-processor-scalable-family-technical-overview.html>.

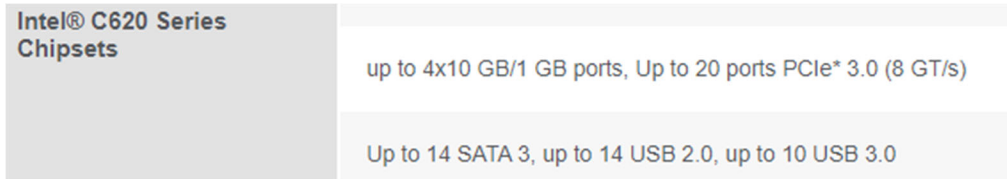
Figure 2: Cisco UCS C480 M5 Server Rear Panel



5	10/100/1000 Ethernet dedicated management port (Base-T)	11	PCIe slots 1 – 12 See <a href="#">PCIe Slot Specifications and Restrictions</a> , on page 89 for slot specifications.
6	Not used at this time	-	

Installation Guide at pp.3-4.

51. The Intel processors employed in the Cisco UCS C480 M5 Rack Server also connect to LVDS channels that convey USB data packets through pairs of unidirectional differential signal paths in opposite directions—USB 3.x ports. *See id.*



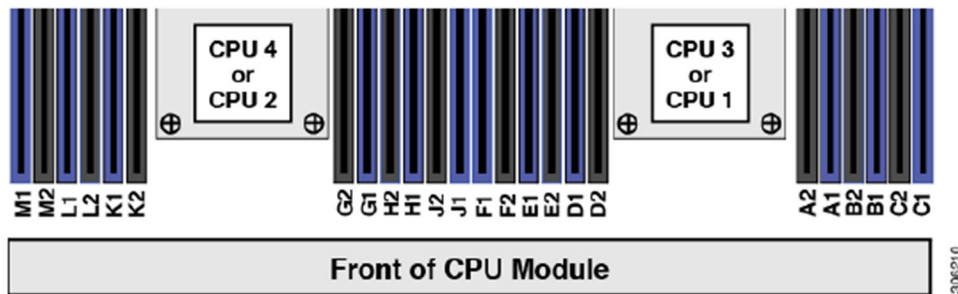
Second Generation Intel® Xeon® Processor Scalable Family Technical Overview, *available at <https://www.intel.com/content/www/us/en/developer/articles/news/second-generation-intel-xeon-processor-scalable-family-technical-overview.html>.*

52. The Cisco UCS C480 M5 Rack Server has DDR4 system memory connected directly to the CPU.

**DIMM Slot Numbering**

The following figure shows the numbering of the DIMM slots on the CPU module board. When a CPU module is in bay 1 (the lower bay), the system numbers the CPUs as CPU 1 and CPU 2. When a CPU module is in bay 2 (the upper bay), the system numbers the CPUs as CPU 3 and CPU 4.

*Figure 53: DIMM Slot Numbering*





**Note** The CPU numbering in the lower CPU module 1 is CPU 1 and CPU 2; in the upper CPU module 2, the system numbers the CPUs as CPU 3 and CPU 4. The channel lettering is the same in both CPU modules. Balance the DIMMs evenly across all four CPUs, if present.

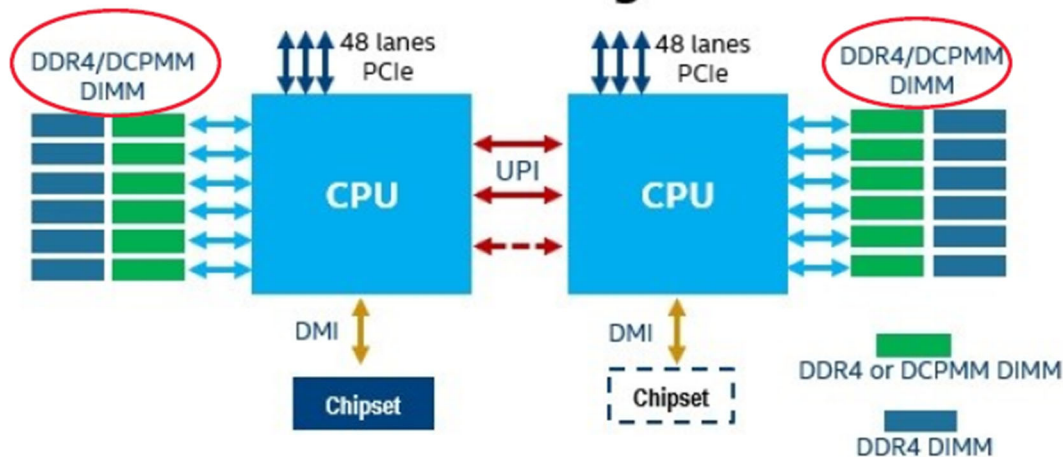
**Table 6: DIMM Population Order**

Number of DIMMs per CPU (Recommended Configurations)	Populate CPU 1 or CPU 3 Slot		Populate CPU 2 or CPU 4 Slots	
	Blue #1 Slots	Black #2 Slots	Blue #1 Slots	Black #2 Slots
1	(A1)	-	(G1)	-
2	(A1, B1)	-	(G1, H1)	-
3	(A1, B1, C1)	-	(G1, H1, J1)	-
4	(A1, B1); (D1, E1)	-	(G1, H1); (K1, L1)	-
8	(A1, B1); (D1, E1)	(A2, B2); (D2, E2)	(G1, H1); (K1, L1)	(G2, H2); (K2, L2)
12	(A1, B1); (C1, D1); (E1, F1)	(A2, B2); (C2, D2); (E2, F2)	(G1, H1); (J1, K1); (L1, M1)	(G2, H2); (J2, K2); (L2, M2)

- The maximum combined memory allowed in the 12 DIMM slots controlled by any one CPU is 768 GB. To populate the 12 DIMM slots with more than 768 GB of combined memory, you must use a high-memory CPU that has a PID that ends with an "M", for example, UCS-CPU-6134M.
- All DIMMs must be DDR4 DIMMs that support ECC. Non-buffered UDIMMs and non-ECC DIMMs are not supported.

Installation Guide at pp.108-09.

## 2 Socket Configuration



Second Generation Intel® Xeon® Processor Scalable Family Technical Overview, *available at* <https://www.intel.com/content/www/us/en/developer/articles/news/second-generation-intel-xeon-processor-scalable-family-technical-overview.html>.

53. The Cisco UCS C480 M5 Rack Server has a mass storage SSD coupled to the CPU through the onboard NVMe PCIe interface that is directly connected to the CPU through PCIe channels or a mass storage card connected to the CPU through SAS.

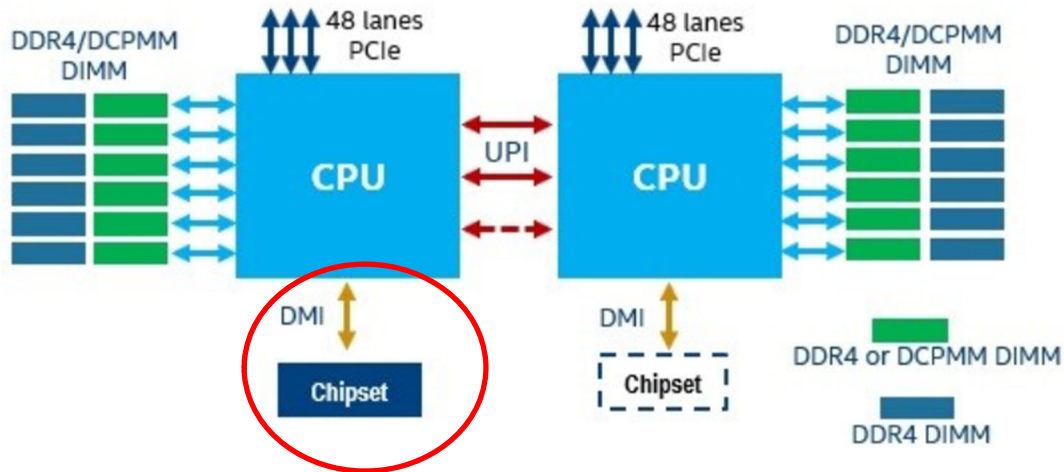
<b>Modular storage support with up to 24 front-accessible and 8 top-loading hot-swappable Hard Disk Drives (HDDs) and Solid-State Disks (SSDs) or PCIe NVMe drives</b>	<ul style="list-style-type: none"> <li>• Modularity to right-size storage options to match application requirements</li> <li>• Flexibility to expand as storage needs increase</li> </ul>
<b>Processors</b>	Intel® Xeon® Scalable CPUs (2 or 4)
<b>Memory</b>	48 DDR4 DIMM slots: 16, 32, 64, and 128 GB; up to 2666 MHz
<b>PCIe expansion</b>	12 PCIe 3.0 slots plus 1 dedicated 12-Gbps RAID controller slot
<b>RAID controllers</b>	Internal controllers: <ul style="list-style-type: none"> <li>• Cisco 12-Gbps Modular RAID Controller (PCIe 3.0) with 4-GB Flash-Backed Write Cache (FBWC), providing enterprise-class data protection for up to 24 SAS and SATA HDDs and SSDs</li> <li>• 12-Gbps 9460-8i RAID controller with 2-GB FBWC provides support for up to 8 SAS and SATA HDDs and SSDs in the auxiliary drive modules</li> <li>• PCIe NVMe switch card for up to 8 PCIe NVMe drives in the auxiliary drive module</li> </ul>
<b>Internal storage</b>	Support for up to 32 hot-swappable 2.5-inch Small Form Factor (SFF) drives <ul style="list-style-type: none"> <li>• Up to 24 front loading 2.5-inch SAS/SATA HDDs and SSDs and PCIe NVMe drives</li> <li>• Up to 8 top loading 2.5-inch SAS/SATA/PCIe HDDs and SSDs or NVMe drives in the C480 M5 auxiliary drive module</li> <li>• DVD drive option</li> </ul>

Data Sheet at 2-3.

54. The Intel processors used in the Cisco UCS C480 M5 Rack Server have a peripheral bridge called the C620 series chipset PCH connected to the CPU via the DMI, which has an integrated controller.



## 2 Socket Configuration



Intel® C620 Series Chipsets	up to 4x10 GB/1 GB ports, Up to 20 ports PCIe* 3.0 (8 GT/s)
	Up to 14 SATA 3, up to 14 USB 2.0, up to 10 USB 3.0

Second Generation Intel® Xeon® Processor Scalable Family Technical Overview, *available at <https://www.intel.com/content/www/us/en/developer/articles/news/second-generation-intel-xeon-processor-scalable-family-technical-overview.html>*.

### 4.6 System Reference Clock Signals

Table 4-8. System Reference Clock (BCLK{0/1/2}) Signals

Signal Name	Description
BCLK{0,1,2}_DN/DP	Reference Clock Differential input. These pins provide the required reference inputs to various PLLs inside the processor, such as Intel® UPI and PCIe. BCLK0, BCLK1 and BCLK2 run at 100 MHz from the same clock source.

*Id.* at p. 57.

55. In view of the foregoing facts concerning the technical features and functionalities of the Accused Servers (*see* paragraphs 46-54), when Cisco or another party manufactures the Accused Servers, it improves the speed and performance of the peripheral data communication in its computer products by using a method of manufacturing that includes the following steps: (a)

connecting a CPU directly to a peripheral bridge on a printed circuit board; (b) directly connecting to the peripheral bridge one or more LVDS channels with pairs of unidirectional lanes that convey data in serial bit streams in opposite directions; and (c) providing a connector with an LVDS channel to facilitate data communication with external peripherals using two unidirectional serial lanes to transmit data in opposite directions, including USB protocol data.

56. Cisco or another party performs the foregoing manufacturing steps outside the United States to make at least certain of the Accused Servers, and Cisco then imports those Accused Servers into the United States to be marketed and sold, and/or performs the foregoing manufacturing steps within the United States.

57. Through making, using, selling, and/or offering for sale in the United States, and/or importing into the United States, the Accused Cisco Products with the features and functionalities alleged above, Cisco has infringed one or more of the claims in each of the ACQIS Patents.

58. Cisco's infringing conduct has caused injury and damage to ACQIS and ACQIS' licensees.

**COUNT I**  
**INFRINGEMENT OF U.S. PATENT NO. 8,977,797**

59. ACQIS incorporates by this reference the allegations set forth in paragraphs 1-58 of this Complaint in support of this cause of action as though fully set forth herein.

60. Pursuant to 35 U.S.C. § 282, the claims of the '797 patent are presumed valid.

61. In view of the foregoing facts and allegations, including paragraphs 46-58 above, Cisco has directly infringed one or more claims of the '797 patent in violation of 35 U.S.C. §271(g) by making or importing into the United States the Accused Cisco Products.

62. The Accused Cisco Products are not trivial or nonessential components of other products and are not materially changed by subsequent processes.

63. Cisco's infringement of the '797 patent through its use, offers to sell, or sales in, and/or importation into the United States of the Accused Servers is shown by way of the exemplary Cisco UCS C480 M5 Rack Server as set forth in paragraphs 46-58 above. These paragraphs demonstrate that the Cisco UCS C480 M5 Rack Server was necessarily manufactured according to at least claim 36 of the '797 patent:

- (a) Cisco or another party performs a method of improving data throughput on a motherboard when manufacturing the Cisco UCS C480 M5 Rack Server, which contains a motherboard;
- (b) when manufacturing the Cisco UCS C480 M5 Rack Server, Cisco or another party mounts an integrated CPU and interface controller as a single chip on the motherboard, because the Intel processor employed in the Cisco UCS C480 M5 Rack Server includes interface controllers (*e.g.*, to drive/control PCIe channels) and the CPU integrated as a single chip;
- (c) when manufacturing the Cisco UCS C480 M5 Rack Server, Cisco or another party connects an LVDS channel directly to an interface controller integrated with the CPU, which LVDS channel uses two unidirectional, serial channels to transmit data in opposite directions because the Cisco UCS C480 M5 Rack Server has PCIe channels and a DMI interface directly connected to the interface controller;
- (d) when manufacturing the Cisco UCS C480 M5 Rack Server, Cisco or another party increases data throughput in the serial channels by providing each channel with multiple differential signal line pairs, because the PCIe and DMI channels have multiple pairs of differential signal lanes;

- (e) when manufacturing the Cisco UCS C480 M5 Rack Server, Cisco or another party configures the interface controller to adapt to different numbers of differential signal line pairs to convey encoded address and data bits of a PCI bus transaction in serial form, because the interface controllers integrated with the CPU are configured to convey PCIe data signals through PCIe channels having differential signal line pairs; and
- (f) when manufacturing the Cisco UCS C480 M5 Rack Server, Cisco or another party couples the integrated CPU and interface device to a peripheral device such as a storage interface controller or a graphics processor, which is attached to the motherboard through a PCIe channel.

64. ACQIS' infringement allegations against the Accused Servers are not limited to claim 36 of the '797 patent, and additional infringed claims will be identified through infringement contentions and discovery.

65. The above-described acts of infringement committed by Cisco have caused injury and damage to ACQIS and ACQIS' licensees.

66. ACQIS is entitled to recover all damages sustained as a result of Cisco's wrongful acts of infringement, but in no event less than a reasonable royalty pursuant to 35 U.S.C. § 284.

## **COUNT II INFRINGEMENT OF U.S. PATENT NO. RE44,654**

67. ACQIS incorporates by this reference the allegations set forth in paragraphs 1-58 of this Complaint in support of this cause of action as though fully set forth herein.

68. Pursuant to 35 U.S.C. § 282, the claims of the '654 patent are presumed valid.

69. In view of the foregoing facts and allegations, including paragraphs 46-58 above, Cisco has directly infringed one or more claims of the '654 patent in violation of 35 U.S.C. §271(g) by making or importing into the United States the Accused Cisco Products.

70. The Accused Cisco Products made using the methods claimed in the '654 patent are not trivial or nonessential components of other products and are not materially changed by subsequent processes.

71. Cisco's infringement of the '654 patent through its importation into, and/or use, offers to sell, or sales in, the United States of the Accused Servers is shown by way of the exemplary Cisco UCS C480 M5 Rack Server as set forth in paragraphs 46-58 above. These paragraphs demonstrate that the Cisco UCS C480 M5 Rack Server was necessarily manufactured according to at least claim 23 of the '654 patent:

- (a) Cisco or another party performs a method of increasing data communication speed of a computer when manufacturing the Cisco UCS C480 M5 Rack Server;
- (b) when manufacturing the Cisco UCS C480 M5 Rack Server, Cisco or another party connects a CPU directly to a peripheral bridge on a printed circuit board, because the Cisco UCS C480 M5 Rack Server uses an Intel core CPU directly connected to the Intel PCH via a DMI connection;
- (c) when manufacturing the Cisco UCS C480 M5 Rack Server, Cisco or another party connects an LVDS channel directly to the peripheral bridge (PCH), which uses two unidirectional, serial channels to transmit data in opposite directions, because the Cisco UCS C480 M5 Rack Server has a DMI channel directly connected to the Intel PCH;

- (d) when manufacturing the Cisco UCS C480 M5 Rack Server, Cisco or another party provides a connector to connect the computer to a console, because the Cisco UCS C480 M5 Rack Server has a variety of connector ports such as USB 3.x;
- (e) when manufacturing the Cisco UCS C480 M5 Rack Server, Cisco or another party provides a second LVDS channel using two unidirectional, serial channels to transmit data in opposite directions through the connector to the console, because the Cisco UCS C480 M5 Rack Server has USB 3.x ports; and
- (f) when manufacturing the Cisco UCS C480 M5 Rack Server, Cisco or another party enables the transmission of USB protocol data through the second LVDS channel via a USB 3.x port and channel.

72. On information and belief, the Accused Servers are in relevant part substantially similar to the exemplary Cisco UCS C480 M5 Rack Server, in particular with regard to the manner in which the Accused Servers include and utilize PCIe and/or USB 3.x functionality. This Section is thus illustrative of the manner in which Cisco infringes the claims of the '654 patent as to each of the Accused Servers.

73. ACQIS' infringement allegations against the Accused Servers are not limited to claim 23 of the '654 patent, and additional infringed claims will be identified through infringement contentions and discovery.

74. The above-described acts of infringement committed by Cisco have caused injury and damage to ACQIS and ACQIS' licensees.

75. ACQIS is entitled to recover all damages sustained as a result of Cisco's wrongful acts of infringement, but in no event less than a reasonable royalty pursuant to 35 U.S.C. § 284.

## **JURY TRIAL DEMANDED**

ACQIS LLC hereby demands a trial by jury on all claims and issues so triable.

## **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff ACQIS LLC respectfully requests that this Court grant the following relief to ACQIS LLC:

A. enter judgment that Cisco has infringed one or more claims of each of the ACQIS Patents through: (1) the manufacture, use, offering to sell, and/or sale in the United States, and/or the importation into the United States, of infringing Cisco computer products; (2) the practice of claimed methods of the ACQIS Patents by manufacturing, using, and/or testing Cisco computer products in the United States; and (3) the importation into the United States of Cisco computer products made abroad using patented processes claimed in the ACQIS Patents;

B. enter judgment awarding ACQIS monetary relief pursuant to 35 U.S.C. § 284 in an amount adequate to compensate for Cisco's infringement of the ACQIS Patents to be determined at trial, but not less than a reasonable royalty, and awarding ACQIS all pre- and post-judgment interest and costs;

C. enter an order, pursuant to 35 U.S.C. § 285, declaring this an exceptional case and awarding to ACQIS its reasonable attorneys' fees; and

D. enter an order awarding to ACQIS such other and further relief, whether at law or in equity, that this Court seems just, equitable, and proper.

Dated: December 22, 2023.

Respectfully submitted,

By: /s/ Paige Arnette Amstutz

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