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

ADVANCED CLUSTER SYSTEMS, INC., *Plaintiff*, v. INTEL CORPORATION, *Defendant*.	Case No. 7:24-cv-00245-ADA JURY TRIAL DEMANDED

ANSWER AND COUNTERCLAIMS TO FIRST AMENDED COMPLAINT

Pursuant to Federal Rules of Civil Procedure 12 and 13, Defendant Intel Corporation ("Intel") hereby provides the following answer, defenses, and counterclaims to the First Amended Complaint (Dkt. 34). Each paragraph of the Answer below corresponds to the corresponding numbered or lettered paragraph of the First Amended Complaint. Except as expressly admitted below, Intel denies every allegation set forth in the First Amended Complaint.

NATURE OF THE ACTION[1]

1. Intel admits that the First Amended Complaint alleges patent infringement and purports to arise under the patent laws of the United States in Title 35 of the United States Code.

THE PARTIES

2. Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 2, and, on that basis, denies them.

[1] The headings from the First Amended Complaint are quoted for convenience but are not allegations to which a response is required. However, to the extent a response is required, Intel denies the statements and characterization in such headings.

3. Intel admits that it is a Delaware corporation and that two of its facilities are located at 1300 South Mopac Expressway, Austin, Texas 78746, and 9442 Capital of Texas Hwy N, Bldg 2, Suite 600, Austin, Texas 78759. Intel admits that it has a Delaware registered agent, The Corporation Trust Corporation, located at 1209 Orange Street, Wilmington, Delaware, 19801. To the extent the allegations of paragraph 3 of the First Amended Complaint purport to summarize, characterize, and/or quote the contents of one or more documents, Intel refers to those documents for a true and complete statement of their contents. The remainder of the allegations of paragraph 3 are legal conclusions to which no response is required.

JURISDICTION AND VENUE

4. Intel admits that the First Amended Complaint alleges patent infringement and purports to arise under the patent laws of the United States in Title 35 of the United States Code. Intel admits that this Court has subject-matter jurisdiction over patent law claims arising under 28 U.S.C. §§ 1331 and 1338(a).

5. This paragraph states legal conclusions to which no response is required. To the extent a further response is required, Intel does not contest that it is subject to personal jurisdiction in the Western District of Texas solely for the purposes of this suit. Intel denies that it has committed any acts of infringement in this District, or any other District. Intel denies any remaining allegations of paragraph 5.

6. This paragraph states legal conclusions to which no response is required. To the extent a further response is required, Intel admits that it conducts business with residents of the Western District of Texas and maintains offices in this District. Intel denies that it has committed any acts of infringement in this District, or any other District. Intel denies any remaining allegations of paragraph 6.

7. This paragraph states legal conclusions to which no response is required. To the extent a further response is required, Intel admits that it conducts business with residents of the Western District of Texas and maintains offices in this District. Intel denies that it has committed any acts of infringement in this District, or any other District. Intel does not contest that it is subject to personal jurisdiction in the Western District of Texas solely for the purposes of this suit. Intel denies any remaining allegations of paragraph 7.

8. This paragraph states legal conclusions to which no response is required. To the extent a further response is required, Intel admits that it conducts business with residents of the Western District of Texas and maintains offices in this District. Intel denies that it has committed any acts of infringement in this District, or any other District. Intel denies any remaining allegations of paragraph 8.

9. This paragraph states legal conclusions to which no response is required. To the extent a further response is required, Intel does not contest, for purposes of this action only, that venue is proper in this District, but Intel denies that this District is a convenient forum for this dispute. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. Intel denies any remaining allegations of paragraph 9.

10. Intel admits that two of its facilities are located at 1300 South Mopac Expressway, Austin, Texas 78746, and 9442 Capital of Texas Hwy N, Bldg. 2, Suite 600, Austin, Texas 78759. To the extent any further response is required, Intel denies any remaining allegations of paragraph 10.

11. This paragraph states legal conclusions to which no response is required. To the extent a further response is required, Intel does not contest, for purposes of this action only, that

venue is proper in this District, but Intel denies that this District is a convenient forum for this dispute. Intel admits that it conducts business with residents of this District and maintains offices in this District. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. Intel denies any remaining allegations of paragraph 11.

12. Intel admits that it conducts business with residents of the Western District of Texas and maintains offices in this District. Intel denies that it has committed any acts of infringement in this District, or any other District. Intel denies any remaining allegations of paragraph 12.

13. To the extent the allegations of paragraph 13 purport to describe the results of a search conducted by Plaintiff, Intel lacks knowledge or information sufficient to form a belief as to the truth of those allegations, and, on that basis, denies them. To the extent the allegations of paragraph 13 purport to summarize, characterize, and/or quote the contents of one or more documents, Intel refers to those documents for a true and complete statement of their contents. Intel admits that it employs individuals in Austin, Texas. Intel denies any remaining allegations of paragraph 13.

14. To the extent the allegations of paragraph 14 purport to describe the results of a search conducted by Plaintiff, Intel lacks knowledge or information sufficient to form a belief as to the truth of those allegations, and, on that basis, denies them. To the extent the allegations of paragraph 14 purport to summarize, characterize, and/or quote the contents of one or more documents, Intel refers to those documents for a true and complete statement of their contents. Intel admits that it employs individuals in Austin, Texas. Intel denies any remaining allegations of paragraph 14.

15. Intel does not contest, for purposes of this action only, that venue is proper in this District, but Intel denies that this District is a convenient forum for this dispute. Intel denies any remaining allegations of paragraph 15.

THE PATENTS-IN-SUIT

16. In response to paragraph 16, Intel repeats and realleges each of its responses to paragraphs 1-15.

17. This paragraph consists of argument and legal conclusions to which no response is required. Intel admits that U.S. Patent No. 10,333,768 (the "'768 patent") is entitled "Cluster Computing" and was issued on June 25, 2019. Intel denies that the '768 patent is a valid or duly and lawfully issued patent. Intel admits that what purports to be a copy of the '768 patent is attached as Exhibit A to the First Amended Complaint. Intel denies any remaining allegations of paragraph 17.

18. Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 18. and, on that basis, denies them.

19. This paragraph consists of argument and legal conclusions to which no response is required. To the extent a further response is required, Intel denies any remaining allegations of paragraph 19.

20. This paragraph consists of argument and legal conclusions to which no response is required. Intel admits that U.S. Patent No. 11,563,621 (the "'621 patent") is entitled "Cluster Computing" and was issued on January 24, 2023. Intel denies that the '621 patent is a valid or duly and lawfully issued patent. Intel admits that what purports to be a copy of the '621 patent is attached as Exhibit B to the First Amended Complaint. Intel denies any remaining allegations of paragraph 20.

21. Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 21. and, on that basis, denies them.

22. This paragraph consists of argument and legal conclusions to which no response is required. To the extent a further response is required, Intel denies any remaining allegations of paragraph 22.

23. This paragraph consists of argument and legal conclusions to which no response is required. Intel admits that U.S. Patent No. 11,570,034 (the "'034 patent") is entitled "Cluster Computing" and was issued on January 31, 2023. Intel denies that the '034 patent is a valid or duly and lawfully issued patent. Intel admits that what purports to be a copy of the '034 patent is attached as Exhibit C to the First Amended Complaint. Intel denies any remaining allegations of paragraph 23.

24. Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 24. and, on that basis, denies them.

25. This paragraph consists of argument and legal conclusions to which no response is required. To the extent a further response is required, Intel denies any remaining allegations of paragraph 25.

26. This paragraph consists of argument and legal conclusions to which no response is required. Intel admits that U.S. Patent No. 11,811,582 (the "'582 patent") is entitled "Cluster Computing" and was issued on November 7, 2023. Intel denies that the '582 patent is a valid or duly and lawfully issued patent. Intel admits that what purports to be a copy of the '582 patent is attached as Exhibit D to the First Amended Complaint. Intel denies any remaining allegations of paragraph 26.

27. Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 27. and, on that basis, denies them.

28. This paragraph consists of argument and legal conclusions to which no response is required. To the extent a further response is required, Intel denies any remaining allegations of paragraph 28.

29. This paragraph consists of argument and legal conclusions to which no response is required. Intel admits that U.S. Patent No. 12,021,679 (the "'679 patent") is entitled "Cluster Computing" and was issued on June 25, 2024. Intel denies that the '679 patent is a valid or duly and lawfully issued patent. Intel admits that what purports to be a copy of the '679 patent is attached as Exhibit E to the First Amended Complaint. Intel denies any remaining allegations of paragraph 29.

30. Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 30. and, on that basis, denies them.

31. This paragraph consists of argument and legal conclusions to which no response is required. To the extent a further response is required, Intel denies any remaining allegations of paragraph 31.

32. This paragraph consists of argument and legal conclusions to which no response is required. To the extent a further response is required, Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 32. and, on that basis, denies them.

33. This paragraph consists of argument, speculation, and conclusions to which no response is necessary. To the extent a further response is required, Intel admits that cluster computing involves the use of two or more computers. Intel lacks knowledge or information

sufficient to form a belief as to the truth of the remainder of the allegations of paragraph 33, and, on that basis, denies them.

34. This paragraph consists of argument, speculation, and conclusions to which no response is necessary. To the extent a further response is required, Intel lacks knowledge or information sufficient to form a belief as to the truth of the remainder of the allegations of paragraph 34, and, on that basis, denies them.

35. This paragraph consists of argument, speculation, and conclusions to which no response is necessary. To the extent the allegations in this paragraph purport to summarize, characterize, and/or quote the contents of one or more documents, Intel refers to those documents for a true and complete statement of their contents. To the extent a further response is required, Intel lacks knowledge or information sufficient to form a belief as to the truth of the remainder of the allegations of paragraph 35, and, on that basis, denies them.

FACTUAL BACKGROUND

36. In response to paragraph 36, Intel repeats and realleges each of its responses to paragraphs 1-35.

37. This paragraph consists of argument and speculation to which no response is required. To the extent a further response is required, Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 37 and, on that basis, denies them.

38. This paragraph consists of argument and speculation to which no response is required. To the extent a further response is required, Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 38 and, on that basis, denies them.

39. Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 39 and, on that basis, denies them.

40. This paragraph consists of argument and speculation to which no response is required. To the extent a further response is required, Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 40 and, on that basis, denies them.

41. This paragraph consists of argument and speculation to which no response is required. To the extent a further response is required, Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 41 and, on that basis, denies them.

42. This paragraph consists of argument and speculation to which no response is required. To the extent a further response is required, Intel lacks knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 42 and, on that basis, denies them.

43. This paragraph consists of argument, speculation, and legal conclusions to which no response is required. To the extent a further response is required, Intel denies the allegations of paragraph 43.

44. This paragraph consists of argument, speculation, and legal conclusions to which no response is required. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. Intel denies the remaining allegations of paragraph 44.

45. This paragraph consists of argument, speculation, and legal conclusions to which no response is required. To the extent a further response is required, Intel admits that in December

2019 it announced its acquisition of Habana Labs, Ltd. ("Habana"). Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. Intel denies the remaining allegations of paragraph 45.

46. This paragraph consists of argument, speculation, and legal conclusions to which no response is required. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. Intel denies the remaining allegations of paragraph 46.

47. Intel admits that Habana has sold products referred to as the Gaudi® HLS-1 AI Training System, HLS-Gaudi®2 server, and Gaudi® 3 AI Accelerator HLB-325 Baseboard. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. To the extent the allegations in this paragraph purport to summarize, characterize, and/or quote the contents of one or more documents, Intel refers to those documents for a true and complete statement of their contents. Intel denies the remaining allegations of paragraph 47.

48. Intel admits that Habana has sold products referred to as Gaudi®, Gaudi® 2, Gaudi® 3, and Goya® AI accelerators. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. Intel denies the remaining allegations of paragraph 48.

49. Intel admits that it has sold products referred to as Xeon® Scalable Processors (formerly code-named Skylake-SP) and the 2nd, 3rd, 4th, 5th, and 6th generations of Xeon® Scalable Processors. Intel denies that it, either directly or through subsidiaries or intermediaries,

has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. Intel denies the remaining allegations of paragraph 49.

50. This paragraph alleges no facts to which a response is necessary. To the extent a response is required, Intel denies the allegations of paragraph 50.

FIRST CLAIM FOR RELIEF

INFRINGEMENT OF THE '768 PATENT

51. In response to paragraph 51, Intel repeats and realleges each of its responses to paragraphs 1-50.

52. This paragraph consists of argument, speculation, and legal conclusions to which no response is required. To the extent a further response is required, Intel denies the allegations of paragraph 52.

53. Intel admits that Exhibits F1, F2, F3, and F4 attached to the First Amended Complaint purport to contain allegations of infringement of claims 1 and 35 of the '768 patent. Intel denies the remaining allegations of paragraph 53.

54. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel admits that, as of the filing date of the First Amended Complaint, it is aware that the '768 patent exists. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. Intel denies any remaining allegations of paragraph 54.

55. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel acknowledges that it publishes and provides marketing materials, technical specifications, whitepapers, datasheets, user manuals,

development and testing information, and other resources on its website. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. To the extent the allegations in this paragraph purport to summarize, characterize, and/or quote the contents of one or more documents, Intel refers to those documents for a true and complete statement of their contents. Intel denies any remaining allegations of paragraph 55.

56. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 56.

57. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations in paragraph 57.

58. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 58.

SECOND CLAIM FOR RELIEF

INFRINGEMENT OF THE '621 PATENT

59. In response to paragraph 59, Intel repeats and realleges each of its responses to paragraphs 1-50.

60. This paragraph consists of argument, speculation, and legal conclusions to which no response is required. To the extent a further response is required, Intel denies the allegations of paragraph 60.

61. Intel admits that Exhibits G1 and G2 attached to the First Amended Complaint purport to contain allegations of infringement of claim 1 of the ’621 patent. Intel denies the remaining allegations of paragraph 61.

62. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel admits that, as of the filing date of the First Amended Complaint, it is aware that the ’621 patent exists. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. Intel denies any remaining allegations of paragraph 62.

63. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel acknowledges that it publishes and provides marketing materials, technical specifications, whitepapers, datasheets, user manuals, development and testing information, and other resources on its website. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. To the extent the allegations in this paragraph purport to summarize, characterize, and/or quote the contents of one or more documents, Intel refers to those documents for a true and complete statement of their contents. Intel denies any remaining allegations of paragraph 63.

64. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 64.

65. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations in paragraph 65.

66. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 66.

THIRD CLAIM FOR RELIEF

INFRINGEMENT OF THE ’034 PATENT

67. In response to paragraph 67, Intel repeats and realleges each of its responses to paragraphs 1-50.

68. This paragraph consists of argument, speculation, and legal conclusions to which no response is required. To the extent a further response is required, Intel denies the allegations of paragraph 68.

69. Intel admits that Exhibits H1, H2, H3, and H4 attached to the First Amended Complaint purport to contain allegations of infringement of claims 1 and 30 of the ’034 patent. Intel denies the remaining allegations of paragraph 69.

70. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel admits that, as of the filing date of the First Amended Complaint, it is aware that the ’034 patent exists. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. Intel denies any remaining allegations of paragraph 70.

71. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel acknowledges that it publishes and provides marketing materials, technical specifications, whitepapers, datasheets, user manuals, development and testing information, and other resources on its website. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. To the extent the allegations in this paragraph purport to summarize, characterize, and/or quote the contents of one or more documents, Intel refers to those documents for a true and complete statement of their contents. Intel denies any remaining allegations of paragraph 71.

72. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 72.

73. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 73.

74. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 74.

FOURTH CLAIM FOR RELIEF

INFRINGEMENT OF THE '582 PATENT

75. In response to paragraph 75, Intel repeats and realleges each of its responses to paragraphs 1-50.

76. This paragraph consists of argument, speculation, and legal conclusions to which no response is required. To the extent a further response is required, Intel denies the allegations of paragraph 76.

77. Intel admits that Exhibits I1 and I2 attached to the First Amended Complaint purport to contain allegations of infringement of claim 1 of the ’582 patent. Intel denies the remaining allegations of paragraph 77.

78. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel admits that, as of the filing date of the First Amended Complaint, it is aware that the ’582 patent exists. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. Intel denies any remaining allegations of paragraph 78.

79. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel acknowledges that it publishes and provides marketing materials, technical specifications, whitepapers, datasheets, user manuals, development and testing information, and other resources on its website. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. To the extent the allegations in this paragraph purport to summarize, characterize, and/or quote the contents of one or more documents, Intel refers to those documents for a true and complete statement of their contents. Intel denies any remaining allegations of paragraph 79.

80. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 80.

81. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 81.

82. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 82.

FIFTH CLAIM FOR RELIEF

INFRINGEMENT OF THE '679 PATENT

83. In response to paragraph 83, Intel repeats and realleges each of its responses to paragraphs 1-50.

84. This paragraph consists of argument, speculation, and legal conclusions to which no response is required. To the extent a further response is required, Intel denies the allegations of paragraph 84.

85. Intel admits that Exhibits J1 and J2 attached to the First Amended Complaint purport to contain allegations of infringement of claim 1 of the '679 patent. Intel denies the remaining allegations of paragraph 85.

86. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel admits that, as of the filing date of the First Amended Complaint, it is aware that the '679 patent exists. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts

of infringement as alleged by Plaintiff in this or any other District. Intel denies any remaining allegations of paragraph 86.

87. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel acknowledges that it publishes and provides marketing materials, technical specifications, whitepapers, datasheets, user manuals, development and testing information, and other resources on its website. Intel denies that it, either directly or through subsidiaries or intermediaries, has committed or is committing any acts of infringement as alleged by Plaintiff in this or any other District. To the extent the allegations in this paragraph purport to summarize, characterize, and/or quote the contents of one or more documents, Intel refers to those documents for a true and complete statement of their contents. Intel denies any remaining allegations of paragraph 87.

88. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 88.

89. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 89.

90. This paragraph consists of argument, speculation, and legal conclusions to which no response is necessary. To the extent a response is required, Intel denies any remaining allegations of paragraph 90.

PRAYER FOR RELIEF

Intel denies that Plaintiff is entitled to any relief whatsoever.

DEMAND FOR A JURY TRIAL

Plaintiff's demand for a trial by jury for all issues so triable does not state any allegation, and Intel is not required to respond. To the extent that any allegations are included in the demand, Intel denies these allegations.

AFFIRMATIVE DEFENSES

Without assuming any burden of proof it would not otherwise bear, Intel asserts the following separate and additional affirmative defenses, all of which are pleaded in the alternative.

Defense No. 1: Failure to State a Claim

91. The First Amended Complaint fails to state a claim upon which relief may be granted.

Defense No. 2: Non-Infringement

92. Intel does not infringe and has not infringed any valid claims of the Asserted Patents, literally or under the doctrine of equivalents. Further, any Intel product, service, or other instrumentality that is accused of infringement has substantial uses that do not infringe and therefore cannot contribute to the infringement of any of the Asserted Patents.

Defense No. 3: Invalidity

93. On information and belief, one or more claims of each Asserted Patent are invalid because they do not meet the conditions of patentability and/or comply with the requirements of 35 U.S.C. §§ 101, *et seq.*, including but not limited to §§ 101, 102, 103, 112, 116, 251, 282(b), or judicially created doctrines of invalidity, including but not limited to obviousness-type double patenting, improper inventorship, and the Rules and Regulations of the U.S. Patent and Trademark Office relating to the validity of patents.

Defense No. 4: Patent Marking & Limitations on Damages

94. Plaintiff's claims for damages and recovery of costs are limited by 35 U.S.C. §§ 286, 287, and/or 288.

Defense No. 5: Prosecution History Estoppel

95. Plaintiff's claims are barred, in whole or in part, under the doctrine of prosecution history estoppel.

Defense No. 6: Equity

96. Plaintiff's claims are barred, in whole or in part, under additional principles of equity, including but not limited to the equitable doctrines of prosecution laches, waiver, forfeiture, acquiescence, estoppel, patent misuse, and/or unclean hands.

Defense No. 7: License and Exhaustion

97. On information and belief, Plaintiff's claims for relief are barred in whole or in part by an express or implied license, release, stand-still agreement, and/or the patent exhaustion doctrine.

Defense No. 8: Use or Manufacture for the United States

98. Plaintiff's claims for relief are barred by 28 U.S.C. § 1498 to the extent they arise from use or manufacture of the alleged inventions of the Asserted Patents by or for the United States government.

Defense No. 9: Divided Infringement

99. One or more claims of the Asserted Patents require actions by multiple parties to infringe recited methods, and Intel has not and does not perform every element of such claims.

Defense No. 10: Ensnarement

100. Plaintiff's claims for relief under the doctrine of equivalents, if any, are barred by the doctrine of ensnarement.

Defense No. 11: Exceptionality

101. Plaintiff is not entitled to enhanced or increased damages, or attorneys' fees, on the basis that this case is exceptional. Intel reserves the right to move for attorneys' fees on the basis that this case is exceptionally frivolous or otherwise exceptional in a manner that warrants an award of attorneys' fees to Intel under 35 U.S.C. § 285.

Defense No. 12: Standing

102. On information and belief, Plaintiff lacks standing to bring this action.

Defense No. 13: No Irreparable Harm

103. Plaintiff is not entitled to any form of injunctive relief because Plaintiff has not suffered and will not suffer irreparable harm due to Intel's alleged infringement and has an adequate remedy at law.

Defense No. 14: No Willful Infringement

104. The First Amended Complaint fails to state a claim for relief against Intel for enhanced or increased damages for willful infringement.

Reservation Of Additional Defenses

Intel reserves the right to assert and rely on any additional defenses that may come available or apparent, and to amend its Answer and/or defenses accordingly.

COUNTERCLAIMS

Intel Corporation ("Intel") hereby asserts the following Counterclaims against Plaintiff Advanced Cluster Systems, Inc. ("Plaintiff") as follows:

PARTIES

105. Intel is a corporation duly organized and existing under the laws of the State of Delaware, with a principal place of business at 2200 Mission College Blvd., Santa Clara, California 95054.

106. On information and belief, ACS is a corporation duly organized and existing under the laws of the State of California, with a principal place of business at 220 Newport Center Drive, #11-202, Newport Beach, California 92660.

JURISDICTION AND VENUE

107. This is a civil action for a declaration of non-infringement and invalidity of United States Patent Nos. 10,333,768 (the "'768 patent"), 11,563,621 (the "'621 patent"), 11,570,034 (the "'034 patent"), 11,811,582 (the "'582 patent"), and 12,021,679 (the "'679 patent") (collectively, the "Asserted Patents") arising under the Declaratory Judgment Act, 28 U.S.C. § 2201, *et seq.*, and the patent laws of the United States, 35 U.S.C. § 1, *et seq.*

108. The Court has subject matter jurisdiction over these counterclaims pursuant to the Declaratory Judgment Act, 28 U.S.C. §§ 2201-2202 and 28 U.S.C. §§ 1331 and 1338(a).

109. The Court has personal jurisdiction over Plaintiff because Plaintiff has submitted to the jurisdiction of this Court through the filing of its Complaint and First Amended Complaint against Intel.

110. Venue is proper in this District pursuant to 28 U.S.C. §§ 1391(b) and (c) and because Plaintiff filed the Complaint and First Amended Complaint in this District.

BACKGROUND

111. On September 26, 2024, Plaintiff filed its Complaint against Intel, alleging that several Intel Xeon® and Habana products (the "Accused Products") infringe the Asserted Patents.

112. Plaintiff did not contact Intel to discuss alleged infringement of any claim of any Asserted Patent before filing suit. Before filing suit, Plaintiff had not informed Intel that it believed any of its patents covered the Accused Products.

113. Upon information and belief, Plaintiff did not identify by patent number any of the Asserted Patents to Intel before filing suit.

114. On January 22, 2025, Plaintiff filed its First Amended Complaint against Intel, also alleging that the Accused Products infringe the Asserted Patents.

PRIOR ART TO THE ASSERTED PATENTS

115. The asserted claims of the Asserted Patents are directed to computer cluster systems comprising a plurality of nodes. The Asserted Patents' shared written description asserts that prior-art "[g]rid computers include a plurality of nodes" but "generally do not communicate with one another as peers." '768 patent, 1:43-62, 6:32-38 ("Grid computing does not provide for communication between slave nodes during thread execution.").[2]

116. U.S. Provisional App. No. 60/850,908 (the "'908 provisional application"), to which the Asserted Patents claim priority, admits that "[p]eer-to-peer" communication was a standard "[c]ommunication pattern" for parallel cluster computing, which it distinguished from grid/distributed computing. '908 provisional application at 1. "In the 1980s," scientists found "that communication between different computing processors was required" for "the largest, most

[2] For simplicity, Intel cites only to the '768 patent when referring to the shared written description of the Asserted Patents.

complex problems" in parallel computing. *Id.* In addition, the '908 provisional application states that, "[i]n 1994, the Message-Passing Interface (MPI) standard was established" to provide intercommunication. *Id.* Before June 2006, MPI had "become the de-facto supported standard in clusters and supercomputers of all types," with "almost all known problem types hav[ing] been parallelized using MPI." *Id.*

117. In short, the Asserted Patents simply apply a well-known solution (peer-to-peer communication using, e.g., MPI) to the context of known application programs like Mathematica to obtain the same benefits as the prior art, such as speeding up parallel computations.

118. As an example, all the asserted claims of the Asserted Patents are anticipated and/or rendered obvious by the Distributed Maple system ("Distributed Maple"). Distributed Maple was conceived, developed, reduced to practice, and publicly described in printed publications at least by 2003, before the priority date of the Asserted Patents. Printed publications that describe Distributed Maple include, for example:

- Wolfgang Schreiner et al., Distributed Maple: Parallel Computer Algebra in Networked Environments, 35 Journal of Symbolic Computation 305 (2003) ("Schreiner1"), produced by Plaintiff in this litigation with Bates numbers ACS_0074912 through ACS_0074954.

- Wolfgang Schreiner, Distributed Maple — User and Reference Manual (V 1.1.12) (2001) ("Schreiner2"), produced by Plaintiff in this litigation with Bates numbers ACS_0074955 through ACS_0074991.

- Károly Bósa & Wolfgang Schreiner, Task Logging, Rescheduling and Peer Checking in Distributed Maple (2002) ("Schreiner3"), produced by Plaintiff in this litigation with Bates numbers ACS_0072564 through ACS_0072587.

- K. M. Heal et al., Maple V Learning Guide (J. S. Devitt ed., 1998) ("Maple Guide"), produced by Plaintiff in this litigation with Bates numbers ACS_0073388 through ACS_0073687.

- Michael Kofler, Maple: An Introduction and Reference (1997) ("Maple Reference"), produced by Plaintiff in this litigation with Bates numbers ACS_0073797 through ACS_0074341.

119. For instance, for claim 1 of the ’768 patent, Distributed Maple discloses “a computer cluster comprising a plurality of nodes, wherein each of the plurality of nodes comprises a hardware processor” as seen, for example, in its disclosure of “an environment for executing parallel computer algebra programs on multiprocessors and heterogeneous clusters.” Schreiner1 at 305. Distributed Maple discloses “wherein one or more of the nodes are configured to receive a command to start a cluster initialization process for the computer cluster” as seen, for example, in its disclosure of the “dist[initialize]” call, which “initializes a distributed Maple session by starting remote processes and establishing the corresponding network connections.” Schreiner2 at 13–14. Distributed Maple discloses “wherein each of the nodes is configured to access a non-transitory computer-readable medium comprising program code for a single-node kernel that, when executed, is capable of causing the hardware processor to evaluate mathematical expressions” as seen, for example, in its disclosure of the “possibility to initialize the Maple kernels on all machines.” Schreiner1 at 311. Distributed Maple discloses “a mechanism for the nodes to communicate results of mathematical expression evaluation with each other using a peer-to-peer architecture” as seen, for example, in its disclosure of the dist.Scheduler and dist.maple components, such that “[w]hen a node needs to send a message to one of its peers, it can thus establish a direct connection for message transfers.” Schreiner1 at 310, 315. Distributed Maple discloses “a first node comprising a first hardware processor configured to access a first memory comprising program code for a user interface and program code for a first single-node kernel, the first single-node kernel configured to interpret user instructions and distribute calls to at least one of a plurality of other nodes for execution; and a second node comprising a second hardware processor with a plurality of processing cores, wherein the second node is configured to receive calls from the first node, execute at least a first mathematical expression evaluation, and

communicate a result of the first mathematical expression evaluation to a third node; wherein the third node comprises a third hardware processor with a plurality of processing cores, wherein the third node is configured to receive the result of the first mathematical expression evaluation from the second node, execute at least a second mathematical expression evaluation using the received result, and communicate the result of the second mathematical expression evaluation to the first node; wherein the first node is configured to return the result of the second mathematical expression evaluation to the user interface" as seen, for example, in Figs. 1 and 5 of Schreiner1. *See* Schreiner1 at 311, 320. Distributed Maple discloses "wherein one or more of the nodes are configured to: accept user instructions; after accepting user instructions, communicate at least some of the user instructions using the mechanism for the nodes to communicate with each other; and after communicating at least some of the user instructions using the mechanism, communicate at least some of the user instructions to one or more single-node kernels" as seen, for example, in its disclosure of the dist[start] and dist[place] calls. *See* Schreiner1 at 310; Schreiner2 at 15, 17.

120. For similar reasons, Distributed Maple also anticipates and/or renders obvious the asserted claims of the '034 and '679 patents.

121. As another example, for claim 1 of the '582 patent, Distributed Maple discloses "[a] computer cluster comprising: a first processor; a second processor; a third processor; at least one computer-readable medium in communication at least one of the first processor, the second processor, or the third processor" as seen, for example, in Fig. 1 of Schreiner1. *See* Schreiner1 at 311. Distributed Maple discloses "a first kernel residing in the at least one computer-readable medium, said first kernel configured to translate user commands into calls for execution of matrix operations on an array of data elements," "a second kernel residing in the at least one computer-readable medium, said second kernel configured to execute of the matrix operations on the array

of data elements and return a first result using the second processor," and "a third kernel residing in the at least one computer-readable medium, said third kernel configured to receive the first result and execute additional matrix operations on the first and return a second result to one or more of the first, second, or third cluster node modules using the third processor" as seen, for example, in the three Maple kernels depicted in Fig. 1 of Schreiner1 and the operations disclosed in Fig. 5 of Schreiner1. *See* Schreiner1 at 311, 320. Distributed Maple discloses "a first cluster node module residing in the at least one computer-readable medium, said first cluster node module configured to communicate with the first kernel and receive commands from a user interface," "a second cluster node module residing in the at least one computer-readable medium, said second cluster node module configured to send commands to the second kernel and communicates with the first cluster node module," and "a third cluster node module residing in the at least one computer-readable medium, said third cluster node module configured to send commands to the third kernel and configured to communicate with the first cluster node module and the second cluster node module" as seen, for example, in the dist.maple and dist.Scheduler components present in each of the nodes in Fig. 1 of Schreiner1, as well as the arrows depicting communication between them. *See* Schreiner1 at 311. Distributed Maple discloses "wherein the first cluster node module is configured to return, based on the second result, a final result" as seen, for instance, in the example command "dist[wait](t1) + dist[wait](t2)," which discloses the final result (x^(n + 1)/(n + 1)) + (x^n/ln(x)) based on the results of int(x^n, x) and int(x^n, n). *See* Schreiner2 at 5.

122. For similar reasons, Distributed Maple also anticipates and/or renders obvious the asserted claims of the '621 and '582 patents.

123. As another example, the asserted claims of the Asserted Patents are anticipated and/or rendered obvious by the Whitney Commodity Computing Testbed ("Whitney"), which was

described in publications at least as early as 1997, before the priority dates of the Asserted Patents. Printed publications that describe Whitney include, for example:

- S. A. Fineberg and K. T. Pedretti, Analysis of 100Mb/s Ethernet for the Whitney Commodity Computing Thread (Oct. 1997), at https://www.nas.nasa.gov/assets/nas/pdf/techreports/1997/nas-97-025.pdf ("Fineberg").
- S. A. Fineberg, A Scalable Software Architecture Booting and Configuring Nodes in the Whitney Commodity Computing Testbed (Oct. 1997), at https://www.nas.nasa.gov/assets/nas/pdf/techreports/1997/nas-97-024.pdf ("Fineberg2").
- A. Ferrari et al., The NAS Parallel Benchmark Kernels in MPL (Sept. 1995), at https://libraopen.lib.virginia.edu/downloads/jm214p19p ("Ferrari").

124. For instance, for claim 1 of the '768 patent, Whitney discloses "a computer cluster comprising a plurality of nodes, wherein each of the plurality of nodes comprises a hardware processor" as seen, for example, in its disclosure of a testbed that "consists of 39 compute nodes." Fineberg at 6-7. Whitney discloses that "one or more of the nodes are configured to receive a command to start a cluster initialization process for the computer cluster," as seen, for example, in its disclosure that the nodes are initialized by a pre-installation script that copies a Linux disk image to each node. *See* Fineberg2 at 7-9. Whitney discloses that "each of the nodes is configured to access a non-transitory computer-readable medium comprising program code for a single-node kernel that, when executed, is capable of causing the hardware processor to evaluate mathematical expressions" as seen, for example, in its disclosure of nodes comprised of non-transitory, computer-readable 2.5GB hard drives which run mathematical NAS benchmarks that "consist of a set of five kernels." Fineberg at 6-7, 15. Whitney discloses "a mechanism for the nodes to communicate results of mathematical expression evaluation with each other using a peer-to-peer architecture" as seen, for example, in its disclosure that the "MPI message passing system [Mes94] was used for communication" between these nodes. *Id.* at 7. Whitney discloses "a first node

comprising a first hardware processor configured to access a first memory comprising program code for a user interface and program code for a first single-node kernel, the first single-node kernel configured to interpret user instructions and distribute calls to at least one of a plurality of other nodes for execution" as seen in, for example, its disclosure that the system runs the aforementioned NAS kernels, and that the first node "serve[s] as a front-end," user-facing node "for starting jobs on the cluster" and disseminating those user instructions. *Id.* at 5, 7, 15. Whitney discloses a second node that receives calls from the first node and calculates a mathematical expression that is sent to the third node, which calculates a second mathematical expression that is sent back to the first node as seen, for example, in its disclosure that it runs NAS benchmarks, which are configured to pass the results of mathematical expressions in the benchmark workloads to adjacent nodes and report the results back to the user. *See* Ferrari at 7-8; Fineberg at 15. Whitney discloses that "the first node is configured to return the result of the second mathematical expression evaluation to the user interface" as seen in, for example, its disclosure that it runs NAS benchmarks, at least one of which ends when "the norm is computed again and the results are reported." Ferrari at 8. Whitney discloses a computer cluster node configured to "accept user instructions" and "after accepting user instructions communicate at least some of the user instructions using the mechanism for the nodes to communicate with each other" and "after communicating at least some of the user instructions using the mechanism, communicate at least some of the user instructions to one or more single-node kernels" as seen in, for example, its disclosure that "*mpirun* takes the name of the program and the number of processing nodes to use and then remotely spawns the appropriate processes on the cluster." Fineberg at 7.

125. For similar reasons, Whitney also anticipates and/or renders obvious at least the asserted claims of the '034, '679, and '582 patents.

126. As another example, claim 1 of the '621 patent is anticipated and/or rendered obvious by INMOS's transputer-based multi-player flight simulator (the "INMOS System"), described, for example, in Phil Atkin and Stephen Ghee, INMOS Technical Note 36 (Mar. 1988), at https://www.transputer.net/tn/36/tn36.html ("TN36"), and Phil Atkin and Jamie Packer, INMOS Technical Note 37 (Mar. 1988), at http://www.transputer.net/tn/37/tn37.pdf ("TN37"). The INMOS System discloses a "computer cluster comprising: a first processor; a second processor; a third processor" and "at least one computer-readable medium in communication with at least one of the first processor, the second processor, or the third processor" as seen, for example, in its disclosure of an IMS T800 processor for each user including on-chip memory to store code. *See* TN36; TN37 at 13. The INMOS System also discloses "a first kernel residing in the at least one computer-readable medium, said first kernel configured to translate commands into code for execution on the first processor," as seen, for example, in its disclosure of a main process (the frame generator) placed into the T800 processor, where the main process receives inputs from the ringController and simulation processes and then translates those inputs, such as transformation matrices, into matrix manipulation implemented on the T800 processors. *See id.* The INMOS System also discloses "a first cluster node module residing in the at least one computer-readable medium," as seen, for example, in its disclosure of a ring controller, comprising the ringControl process, buffers, simulator process and main process, and the ring controller and transforming processes are placed onto a T800 processor with on-chip memory. *See id.* The INMOS System also discloses a "first cluster node module configured to . . . receive first commands from a user interface without the first commands first passing through the first kernel, and after receiving the first commands from the user interface, send second commands to the first kernel" as seen, for example, in its disclosure of user instructions sent from the user interface to the simulator process,

which uses the user instructions to generates transformation matrices, which are passed to the main process. *See* TN36, including Fig. 4. The INMOS System also discloses "a second kernel residing in the at least one computer-readable medium, said second kernel configured to translate commands into code for execution on the second processor" as seen, for example, in its disclosure of any number of single-user simulators, where each simulator has a main process ("kernel") residing in the memory of the T800 processor. *See* TN36, including Fig. 11. The INMOS System also discloses "a second cluster node module residing in the at least one computer-readable medium, said second cluster node module configured to send commands to the second kernel and communicates with the first cluster node module" and "a third kernel residing in the at least one computer-readable medium, said third kernel configured to translate commands into code for execution on the third processor" as seen, for example, in its disclosure that each single-use simulator would have a ringControl, four buffers, main, and simulator (a "cluster node module") residing in the memory of the T800 processor, where the second simulator for a second user is a "second cluster node module," and the third user is a "third cluster node module," with all simulators connected in a ring. *See, e.g.*, TN36 ("All users are connected in a ring. Any part of the world that needs to be distributed is passed around to each user in turn, who can read it, modify it, or ignore it, then pass it on to the next user."); *id.* at Fig. 11. The INMOS System also discloses "a third cluster node module residing in the at least one computer-readable medium, said third cluster node module configured to send commands to the third kernel and configured to communicate with the first cluster node module and the second cluster node module" as seen, for example, in its disclosure that interplayer communications are implemented as a ring-based architecture. *See id.*, including Fig. 11. The INMOS System also discloses "wherein each of the first, second, and third cluster node modules can transmit tasks to any other of the first, second, and third cluster node

modules without transmitting the tasks through a master node" as seen, for example, in its disclosure that all users are connected in a ring, such that part of the world that needs to be distributed is passed around to each user in turn, who can read it, modify it, or ignore it, then pass it on to the next user. *See* TN36 ("[T]here is no master in the system."). Moreover, it would have been obvious to a POSITA to implement the flight simulator in other network topologies that enable direct communication between the cluster node modules, as seen, for example, in Whitney, as described in paragraphs 123-125 above. The INMOS System also discloses "wherein the first cluster node module comprises a data structure in which messages originating from the second and third cluster node modules are stored" as seen, for example, in its disclosure that messages passed around the ring are stored as an array of integers ("data structure"). *See* TN36 (discussing inBlock and outBlock arrays).

127. As another example, the asserted claims of the Asserted Patents are anticipated and/or rendered obvious by prior art disclosed by Nvidia Corporation in *Advanced Cluster Systems, Inc. v. Nvidia Corporation*, No. 1:19-cv-02032 (D. Del.), as set forth in its invalidity contentions produced by Plaintiff in this litigation and submitted by Plaintiff to the U.S. Patent and Trademark Office during at least the prosecution of the '679 patent, including, for example, documents bearing Bates numbers ACS_0014423 through ACS_0018859, ACS_0022374 through ACS_0027038, ACS_0029390 through ACS_0033882, and ACS_0061140 through ACS_0065650, hereby incorporated by reference.

THE ACCUSED PRODUCTS

128. Intel is a world leader in the design and manufacturing of essential technologies that power the modern digital world, from cloud computing and AI to data analytics and high-

performance computing. Its innovations, including the Xeon® and Habana processors, enable breakthroughs in fields such as machine learning, scientific research, and enterprise solutions.

129. Intel was originally incorporated in California in 1968, in the heart of what became known as Silicon Valley. Since its inception, Intel has been a pioneer in the semiconductor industry. Intel has been committed to the research and development of new computer technologies, including the development, design, and engineering of microprocessor architectures, and it continues to invest billions of dollars per year in research and development. Today, Intel designs and builds some of the most advanced computer chips in the world.

130. Intel's Xeon® line of processors was designed specifically for workstations and servers. Intel recently developed and released its Xeon® Scalable Processor family, a versatile and high-performance platform supporting datacenter, cloud, and high-performance computing (HPC) workloads. The Xeon® Scalable Processors leverage advanced technologies, including Intel Advanced Vector Extensions (AVX-512) and Deep Learning Boost, for optimized performance across a wide range of applications, including artificial intelligence and analytics.

131. Habana Labs is a leader in developing deep learning hardware accelerators tailored for AI training and inference workloads. Habana's processors provide innovative solutions for high-performance machine learning tasks.

132. Habana introduced the Gaudi® AI Training Processor as an AI training solution, designed to deliver efficient scalability and power performance for data centers. Gaudi's architecture includes support for RoCE (remote direct memory address over converged Ethernet) and mixed-precision operations, allowing it to achieve exceptional performance and cost-efficiency for large-scale machine learning models.

133. Habana also developed the Goya® AI Inference Processor, which is optimized for real-time deep learning inference tasks. Goya's design enables low-latency execution with high throughput, making it ideal for applications in vision, language processing, and other AI workloads.

134. On information and belief, the Accused Products—which include several Xeon®, Gaudi®, and Goya® products—do not use Plaintiff's cluster computing technology.

135. Furthermore, the Accused Products do not infringe any claims of the Asserted Patents because they do not meet all the limitations of any claim of the Asserted Patents. For example, the Accused Products are not configured to practice the specific inter-node communication sequence claimed by the '768, '034, '582, and '679 patents in which each node is required to perform specific actions and communicate with other nodes in a specified manner. *See* '768 patent at claim 1; '034 patent at claim 1; '582 patent at claim 1; '679 patent at claim 1. The Accused Products do not comprise a first node configured to interpret user instructions and distribute calls to at least one of a plurality of other nodes, a second node configured to execute a mathematical expression evaluation and communicate a result to a third node, or a third node configured to execute a second mathematical expression evaluation using the received result and communicate a second result to the first node. Moreover, the Accused Products are not configured to practice the claims of the '621 patent, at least because they do not have the claimed first, second, or third kernels or the first, second, or third cluster node modules. *See* '621 patent at claim 1.

COUNTERCLAIM I

Declaratory Judgment of Non-Infringement of the '768 Patent

136. Intel incorporates the preceding paragraphs as if fully set forth herein.

137. Intel has not infringed and does not infringe any claim of the ’768 patent, either directly or indirectly, literally or under the doctrine of equivalents.

138. As demonstrated by the First Amended Complaint and the defenses and counterclaims raised by Intel in this action, an actual and justiciable controversy exists between Intel and Plaintiff regarding the non-infringement of the ’768 patent.

139. A judicial declaration of non-infringement of the ’768 patent is necessary and appropriate to resolve this controversy.

COUNTERCLAIM II

Declaratory Judgment of Invalidity of the ’768 Patent

140. Intel incorporates the preceding paragraphs as if fully set forth herein.

141. The asserted claims of the ’768 patent are invalid for failing to comply with one or more of the conditions for patentability as set forth in Title 35 of the United States Code, including without limitation 35 U.S.C. §§ 101, 102, 103, and/or 112.

142. As demonstrated by the First Amended Complaint and the defenses and counterclaims raised by Intel in this action, an actual and justiciable controversy exists between Intel and Plaintiff regarding the invalidity of the ’768 patent.

143. A judicial declaration of invalidity of the ’768 patent is necessary and appropriate to resolve this controversy.

COUNTERCLAIM III

Declaratory Judgment of Non-Infringement of the ’621 Patent

144. Intel incorporates the preceding paragraphs as if fully set forth herein.

145. Intel has not infringed and does not infringe any claim of the ’621 patent, either directly or indirectly, literally or under the doctrine of equivalents.

146. As demonstrated by the First Amended Complaint and the defenses and counterclaims raised by Intel in this action, an actual and justiciable controversy exists between Intel and Plaintiff regarding the non-infringement of the ’621 patent.

147. A judicial declaration of non-infringement of the ’621 patent is necessary and appropriate to resolve this controversy.

COUNTERCLAIM IV

Declaratory Judgment of Invalidity of the ’621 Patent

148. Intel incorporates the preceding paragraphs as if fully set forth herein.

149. The asserted claims of the ’621 patent are invalid for failing to comply with one or more of the conditions for patentability as set forth in Title 35 of the United States Code, including without limitation 35 U.S.C. §§ 101, 102, 103, and/or 112.

150. As demonstrated by the First Amended Complaint and the defenses and counterclaims raised by Intel in this action, an actual and justiciable controversy exists between Intel and Plaintiff regarding the invalidity of the ’621 patent.

151. A judicial declaration of invalidity of the ’621 patent is necessary and appropriate to resolve this controversy.

COUNTERCLAIM V

Declaratory Judgment of Non-Infringement of the ’034 Patent

152. Intel incorporates the preceding paragraphs as if fully set forth herein.

153. Intel has not infringed and does not infringe any claim of the ’034 patent, either directly or indirectly, literally or under the doctrine of equivalents.

154. As demonstrated by the First Amended Complaint and the defenses and counterclaims raised by Intel in this action, an actual and justiciable controversy exists between Intel and Plaintiff regarding the non-infringement of the ’034 patent.

155. A judicial declaration of non-infringement of the ’034 patent is necessary and appropriate to resolve this controversy.

COUNTERCLAIM VI

Declaratory Judgment of Invalidity of the ’034 Patent

156. Intel incorporates the preceding paragraphs as if fully set forth herein.

157. The asserted claims of the ’034 patent are invalid for failing to comply with one or more of the conditions for patentability as set forth in Title 35 of the United States Code, including without limitation 35 U.S.C. §§ 101, 102, 103, and/or 112.

158. As demonstrated by the First Amended Complaint and the defenses and counterclaims raised by Intel in this action, an actual and justiciable controversy exists between Intel and Plaintiff regarding the invalidity of the ’034 patent.

159. A judicial declaration of invalidity of the ’034 patent is necessary and appropriate to resolve this controversy.

COUNTERCLAIM VII

Declaratory Judgment of Non-Infringement of the ’582 Patent

160. Intel incorporates the preceding paragraphs as if fully set forth herein.

161. Intel has not infringed and does not infringe any claim of the ’582 patent, either directly or indirectly, literally or under the doctrine of equivalents.

162. As demonstrated by the First Amended Complaint and the defenses and counterclaims raised by Intel in this action, an actual and justiciable controversy exists between Intel and Plaintiff regarding the non-infringement of the ’582 patent.

163. A judicial declaration of non-infringement of the ’582 patent is necessary and appropriate to resolve this controversy.

COUNTERCLAIM VIII

Declaratory Judgment of Invalidity of the ’582 Patent

164. Intel incorporates the preceding paragraphs as if fully set forth herein.

165. The asserted claims of the ’582 patent are invalid for failing to comply with one or more of the conditions for patentability as set forth in Title 35 of the United States Code, including without limitation 35 U.S.C. §§ 101, 102, 103, and/or 112.

166. As demonstrated by the First Amended Complaint and the defenses and counterclaims raised by Intel in this action, an actual and justiciable controversy exists between Intel and Plaintiff regarding the invalidity of the ’582 patent.

167. A judicial declaration of invalidity of the ’582 patent is necessary and appropriate to resolve this controversy.

COUNTERCLAIM IX

Declaratory Judgment of Non-Infringement of the ’679 Patent

168. Intel incorporates the preceding paragraphs as if fully set forth herein.

169. Intel has not infringed and does not infringe any claim of the ’679 patent, either directly or indirectly, literally or under the doctrine of equivalents.

170. As demonstrated by the First Amended Complaint and the defenses and counterclaims raised by Intel in this action, an actual and justiciable controversy exists between Intel and Plaintiff regarding the non-infringement of the ’679 patent.

171. A judicial declaration of non-infringement of the ’679 patent is necessary and appropriate to resolve this controversy.

COUNTERCLAIM X

Declaratory Judgment of Invalidity of the ’679 Patent

172. Intel incorporates the preceding paragraphs as if fully set forth herein.

173. The asserted claims of the ’679 patent are invalid for failing to comply with one or more of the conditions for patentability as set forth in Title 35 of the United States Code, including without limitation 35 U.S.C. §§ 101, 102, 103, and/or 112.

174. As demonstrated by the First Amended Complaint and the defenses and counterclaims raised by Intel in this action, an actual and justiciable controversy exists between Intel and Plaintiff regarding the invalidity of the ’679 patent.

175. A judicial declaration of invalidity of the ’679 patent is necessary and appropriate to resolve this controversy.

DEMAND FOR A JURY TRIAL

In accordance with Rule 38 of the Federal Rules of Civil Procedure, Intel demands a trial by jury as to all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Intel respectfully requests entry of judgement in its favor and against Plaintiff and that Intel be granted the following relief:

a) dismissal with prejudice of Plaintiff’s First Amended Complaint in its entirety;

b) denial of all remedies sought by Plaintiff in the First Amended Complaint;

c) declaratory judgment that Intel does not infringe and has not infringed any claim of the Asserted Patents, either directly or indirectly, literally or under the doctrine of equivalents, willfully, or otherwise;

d) declaratory judgment that all asserted claims of the Asserted Patents are invalid for failing to comply with one or more of the conditions for patentability set forth in Title 35 of the United States Code, including without limitation 35 U.S.C. §§ 101, 102, 103, and/or 112;

f) declaring that this is an exceptional case pursuant to 35 U.S.C. § 285, awarding Intel its costs, expenses, and disbursements in this action, including reasonable attorneys' fees; and

g) awarding Intel such other and further relief as this Court deems just and proper.

Respectfully submitted,

DATED: February 5, 2025

/s/ Heather E. Takahashi

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CERTIFICATE OF SERVICE

I hereby certify that all counsel of record are being served with a copy of the foregoing document via the Court's CM/ECF system on February 5, 2025.

/s/ Heather E. Takahashi
Heather E. Takahashi