

**UNITED STATES DISTRICT COURT
DISTRICT OF NEW MEXICO**

STC.UNM,

Plaintiff,

v.

INTEL CORPORATION,

Defendant.

Civil No. 10-CV-01077

**INTEL CORPORATION'S ANSWER AND COUNTERCLAIMS
TO STC.UNM'S COMPLAINT**

Defendant Intel Corporation ("Intel") answers Plaintiff STC.UNM's ("STC")

Complaint as follows:

1. Intel is without knowledge or information sufficient to form a belief as to the truth of the allegations set forth in paragraph 1 of the Complaint and on this basis Intel denies such allegations.

2. Intel is without knowledge or information sufficient to form a belief as to the truth of the allegations set forth in paragraph 2 of the Complaint and on this basis Intel denies such allegations.

3. Intel is without knowledge or information sufficient to form a belief as to the truth of the allegations set forth in paragraph 3 of the Complaint and on this basis Intel denies such allegations.

4. Intel admits the allegations of paragraph 4.

5. Intel objects to the allegations in paragraph 5 of the Complaint as vague, especially the terms "substantial," "semiconductor devices," and "consumer products." Intel admits that it conducts business in this Judicial District. Intel denies the allegations set forth in paragraph 5 of the Complaint in all other respects.

6. Admitted.
7. Admitted.
8. Intel incorporates by reference its responses to paragraphs 1-7, above.
9. Intel objects to the allegations in paragraph 9 of the Complaint as vague and indefinite with respect to the terms “critical dimensions of 45 nm or less.” As a result, Intel denies the allegations set forth in paragraph 9 of the Complaint.
10. Intel denies the allegations in paragraph 10 of the Complaint.
11. Intel denies the allegations in paragraph 11 of the Complaint.
12. Intel denies the allegations in paragraph 12 of the Complaint.
13. Intel denies any allegations in the Relief Requested section of the Complaint.

AFFIRMATIVE AND OTHER DEFENSES

Intel asserts the following defenses. Nothing in these defenses is intended to alter the identity of the party that bears the burden of proof as to any matter raised in any defense.

First Defense: Failure to State a Claim

14. STC’s Complaint fails to state a claim upon which relief can be granted. Accordingly, the Complaint should be dismissed.

Second Defense: Non-Infringement

15. Intel does not infringe and has not infringed, either directly, indirectly or otherwise, on any valid claim of U.S. Patent No. 6,042,998 (the “998 Patent”).

Third Defense: Invalidity

16. The ‘998 Patent is invalid by reason of having been issued in violation of U.S. patent laws, including but not limited to 35 U.S.C. §§ 101, 102, 103, 111, 112, 115, or 256, or judicially created doctrines of invalidity, and the Rules and Regulations of the United States Patent and Trademark Office (“PTO”) relating thereto.

17. All asserted claims of the '998 Patent are invalid for failure to comply with the requirements of 35 U.S.C. § 112 due to lack of written description, failure to particularly point out and distinctly claim the subject matter which is regarded as the alleged invention, and/or failure to set forth a written description sufficient to enable a person skilled in the art to make and use the alleged invention without undue experimentation.

18. All asserted claims of the '998 Patent are invalid under 35 U.S.C. §§ 102(f) and/or 116 because the named inventors, by themselves, did not invent the subject matter of the patent.

Fourth Defense: Lack of Standing/Failure to Join Indispensable Party

19. Upon information and belief, STC does not own all right, title, and interest in the '998 Patent, and therefore lacks standing to sue based upon the '998 Patent. Alternatively, other owner(s) in the '998 Patent are indispensable parties to this action, mandating dismissal if they cannot be joined in the litigation.

Fifth Defense: Inequitable Conduct

20. The '998 Patent is unenforceable due to inequitable conduct in its procurement and post-issuance prosecution. Under 37 C.F.R. § 1.56, the named inventors, the prosecuting attorneys and agents, and all other persons who were (i) involved in the preparation or prosecution of the '998 patent and (ii) associated with the named inventors or the assignees owed a duty of candor and good faith to the PTO to disclose all information known to be material to patentability. One or more of the persons bearing that duty breached it by withholding, concealing, or misrepresenting known material information with an intent to deceive the PTO. More specifically, those persons made misrepresentations and withheld material information from the PTO in order to obtain initial allowance, and in order to obtain a priority date of September 20, 1993—a date four years earlier than the priority date on the face of the originally-issued patent.

21. The '998 Patent issued from U.S. Patent Application Serial No. 08/932,428 ("the '998 Application"), filed September 17, 1997, on behalf of the University of New Mexico ("UNM"). The named inventors on the '998 Application were Steven R. J. Brueck and Saleem H. Zaidi. As originally filed, the '998 Application did not claim priority to any earlier filed patent applications, but instead relied upon the actual filing date of September 17, 1997 as its priority date.

Double Patenting Rejection and Terminal Disclaimer

22. In an Office Action dated October 14, 1998, the PTO rejected the claims of the '998 Application on the basis of U.S. Patent No. 5,705,321 ('321 Patent). The '321 Patent was purportedly owned by UNM, which was also the listed assignee of the '998 patent. Two of the named inventors on the '321 Patent—Brueck and Zaidi—were also named inventors of the '998 Patent.

23. The Examiner rejected the claims of the '998 Application on several grounds.

- i) Application claims 1, 15, and 27 were rejected under the judicially-created doctrine of double patenting over claim 1 of the '321 Patent. The Examiner explained, "The subject matter claimed in the instant application [the '998 Application] is fully disclosed in the ['321] patent and is covered by the patent since the patent and application are claiming common subject matter, as follows: all of the steps in the method of the instant invention are comprised in the method of fabricating periodic patterns as claimed in 5,705,321. Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent."
- ii) Application claims 1, 4-7, 15, 17-20, 23-27, 29-32, 35-37 and 39 were rejected as being anticipated under 35 U.S.C. § 102(e) by the '321

Patent.

iii) The remainder of the application claims were rejected over the '321 Patent in view of various secondary references.

24. On January 14, 1999, UNM's counsel responded that the '321 Patent did not disclose the claimed invention of the asserted claims, arguing, *e.g.*, "very significant differences exist between the presently claimed invention and U.S. Patent No. 5,705,321." Specifically, UNM asserted that the '321 Patent failed to disclose "a nonlinear step such as developing . . . between the two exposures." UNM further distinguished the asserted claims from the '321 Patent by arguing "the '321 Patent simply discloses multiple exposures in the same level of resist without processing between the steps, while the present invention claims nonlinear steps such as developing (claim 1) . . . between two exposures."

25. The PTO was not persuaded, and on March 18, 1999, the Examiner again rejected the claims of the '998 Application.

i) The Examiner rejected pending claims 1, 6, 15, and 27 under the judicially created doctrine of double patenting over claim 1 of the '321 Patent.

ii) The Examiner maintained the rejection of claims 1, 4-7, 15, 17-20, 23, 25-27, 29-32, 35-37 and 39 as being anticipated under 35 U.S.C. § 102(e) by the '321 Patent.

iii) The remainder of the pending claims in the '998 Application were rejected over the '321 Patent in view of various secondary references.

26. On May 18, 1999, UNM filed a Response and Amendment ("May Amendment") stating that the "[a]pplicant asserts that the use of frequency doubling to obtain a denser pattern and the redistribution of Fourier intensities to obtain square two dimensional holes at the resolution limit with square profiles, as disclosed in the presently claimed invention, is not disclosed in the '321 Patent." In the May

Amendment, UNM never stated or otherwise agreed with the Examiner that claim 1 of the '321 Patent claimed, or that the specification of the '321 Patent disclosed the subject matter recited in claims 1, 6, 15, and 27 of the '998 Application.

27. Acquiescing to the Examiner's argument, however, UNM executed a Terminal Disclaimer "in order to expedite prosecution of this case." The Terminal Disclaimer was filed concurrently with the May Amendment.

28. In the May Amendment, UNM traversed the remaining claim rejections under 35 U.S.C. § 102(3) and 35 U.S.C. § 103(a) based on the executed Terminal Disclaimer.

29. On June 22, 1999, the Examiner allowed the '998 Application based upon the filing of the Terminal Disclaimer. The '998 Patent issued on March 28, 2000.

Failure to Disclose Multiple Exposure Article

30. Prior to the filing date of the '998 Application, named inventors Brueck and Zaidi authored an article entitled "Multiple-exposure interferometric lithography" that was published in the *Journal of Vacuum Science and Technology*, Second Series, Volume 11, Number 3 (May/June 1993). In general, the article describes using interferometric lithography with conventional lithography to form two-dimensional structures. This article describes technology similar or identical to the technology claimed in the '321 Patent. As explained above, the Examiner found the claims of the '321 Patent to be relevant—in fact largely similar—to the pending claims of the '998 Application. Upon information and belief, neither the inventors nor UNM ever disclosed this article to the Examiner in charge of examining the '998 Application.

Assignment to STC.UNM

31. On August 31, 2007, UNM executed an assignment that transferred ownership of the '998 Patent to STC.

32. On September 15, 2008, STC's President and CEO Elizabeth J. Kuuttila executed a power of attorney that appointed Richard Lazarus ("Lazarus") of Barnes &

Thornburg LLC to prosecute the ‘998 Application on behalf of STC.

Certificate of Correction

33. Upon information and belief, some time prior to October 2008, STC was informed of a prior art reference, U.S. Patent No. 5,523,258 (“the ‘258 Patent”), that rendered claims of the ‘998 Patent invalid under 35 U.S.C. § 102(b). The ‘258 Patent was issued June 4, 1996—more than one year prior to the filing date of the ‘998 Patent and therefore is § 102 (b) prior art.

34. On or about October 22, 2008, STC, through counsel Lazarus, filed a Request for a Certificate of Correction (“the October Request”) that requested the PTO to “correct” the ‘998 Patent to reflect domestic priority under 35 U.S.C. § 120 to U.S. Application No. 08/490,101 (“the ‘321 Application”)—the Application that ultimately issued as the ‘321 Patent.

35. In the October Request, Lazarus characterized the failure to previously claim priority to the filing date of the ‘321 Application as a mere “clerical mistake.”

36. Supervisory Patent Examiner Mark F. Huff approved STC’s Request for a Certificate of Correction on November 25, 2008. Mr. Huff was not the Examiner that was originally in charge of examining the ‘998 Application.

37. In filing the Request for a Certificate of Correction seeking to claim priority to the ‘321 Application, the STC withheld from the PTO the fact that UNM, its predecessor-in-interest, had twice argued to the PTO that the ‘321 Patent did not disclose the claimed invention of the asserted claims. This information was highly material since, upon information and belief, no examiner had ever determined if the application leading to the ‘321 Patent adequately supports the allowed claims of the ‘998 Patent.

38. Upon information and belief, prior to filing the October Request, Lazarus had reviewed the prosecution history of the ‘998 Patent, and had knowledge of the arguments made by UNM’s counsel regarding the distinctions between the ‘998 Application and the ‘321 Patent, but intentionally failed to notify the Examiner of these

material statements regarding the sufficiency of the '321 Patent disclosure.

39. In the October Request, Lazarus never identified any text or figures in the '321 Patent that would have assisted the PTO (Examiner Huff) to locate 35 U.S.C. § 112, ¶1 written description support for at least one claim of the '998 Application, now the '998 Patent.

40. Upon information and belief, Lazarus intentionally failed to disclose the arguments that UNM's counsel originally made with respect to the '321 Patent with a specific intent to deceive the PTO as to the written description and enablement of the claims of the '998 Patent, and thereby secure an earlier priority date for the claims of the '998 Patent.

41. In the October Request, Lazarus did not inform the PTO (Examiner Huff) that none of the declarations executed by purported inventors contained any claim to domestic priority under 35 U.S.C. § 120 or 35 U.S.C. § 365(c), or to foreign priority under 35 U.S.C. § 119(a)-(d) or 35 U.S.C. § 365(a)-(b).

42. Upon information and belief, Lazarus intentionally failed to disclose to the PTO that the purported inventors never claimed in any of their declarations that the '998 Application had an effective filing date of September 20, 1993, or otherwise claimed priority to the application that issued as the '321 Patent.

43. Upon information and belief, Lazarus, among others, filed or caused to be filed the October Request to obtain an earlier effective filing date for claims of the '998 Patent with a specific intent to deceive the PTO regarding the lack of 35 U.S.C. § 112, ¶1 written description support in the '321 Patent for those claims, which constitutes inequitable conduct and renders the '998 Patent unenforceable.

44. STC also failed to disclose to the PTO as part of its October Request that the reason for the Request was to get a priority date earlier than the '258 Patent, because one or more claims of the '998 Patent were anticipated by the '258 Patent.

45. STC's characterization of the Request for a Certificate of Correction as

correcting a mere “clerical mistake” was a violation of its duty of good faith and candor under 37 C.F.R. § 1.56. Far from a clerical mistake, Applicants’ failure to claim priority to the ‘321 Application was consistent with its earlier position during prosecution of the ‘998 Patent, to distinguish the ‘998 Patent from the ‘321 Patent. On the other hand, its claim of priority to the ‘321 Patent was only adopted after STC became aware of invalidating prior art. This intentional deception with respect to material information that affects the patentability of the ‘998 Patent claims constitutes inequitable conduct and renders the ‘998 Patent unenforceable.

Sixth Defense: Estoppel

46. By reason of its conduct in prosecuting the ‘998 patent, STC is estopped from receiving some or all of the relief it seeks through its complaint.

Seventh Defense: Patent Misuse

47. On information and belief, STC has impermissibly broadened the scope of its patent grant with anticompetitive effect. STC is misusing the ‘998 Patent by the commencement and maintenance of this action, in bad faith, without probable cause, all the while knowing, or when it should have known, that it had no valid claim of patent infringement against Intel. STC is also impermissibly broadening the scope of its patent rights by attempting to enforce said patent against methods and products not covered by the ‘998 Patent claims.

48. STC has attempted, through deception, to maintain the validity of the ‘998 Patent by filing the Request for a Certificate of Correction to claim priority to the ‘321 Patent. Upon information and belief, STC was aware that claims of the ‘998 Patent would be invalid in light of the ‘258 Patent but for STC’s effort to obtain an earlier priority date. STC’s assertion of the ‘998 Patent is therefore based, in part, upon the deceptive Request for a Certificate of Correction, which amounts to patent misuse.

49. Upon information and belief, STC is also aware of prior art that anticipates one or more claims of the ‘998 Patent, even if the ‘998 Patent is entitled the

priority date of the '321 Application. Such prior art includes, but is not limited to, Japanese Kokai Publication No. HEI 4 [1992]-71222 to Jinbo et al. Upon information and belief, STC nevertheless is asserting such claims. STC's assertion of known invalid claims amounts to patent misuse.

Eighth Defense: License

50. Intel is licensed to perform some or all of the acts alleged to infringe the '998 Patent.

Ninth Defense: Dedication to the Public

51. STC.UNM has dedicated to the public all methods, systems, apparatus, and/or products disclosed in the '998 patent but not literally claimed therein, and is estopped from claiming infringement by any such public domain methods, systems, apparatus, and/or products.

Tenth Defense: Prosecution History Estoppel

52. STC.UNM is estopped by virtue of patent prosecution history from maintaining that one or more claims of the '998 patent cover any products or services made, used, or sold by Intel under the doctrine of equivalents.

INTEL'S COUNTERCLAIMS

Intel asserts the following counterclaims against STC:

PARTIES

53. Intel is a Delaware corporation having its principal place of business at 2200 Mission College Boulevard, Santa Clara, California 95054.

54. On information and belief, STC.UNM is a corporation having its principal place of business at 801 University Blvd., SE Suite 101, Albuquerque, New Mexico.

JURISDICTION AND VENUE

55. Intel's counterclaims arise under the Federal Declaratory Judgment Act, 28 U.S.C. §§2201 and 2202, and under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

56. The Court has subject matter jurisdiction pursuant to 28 U.S.C. §§1331 and 1338.

57. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b) and (c).

FIRST COUNTERCLAIM
(For Declaratory Judgment of Patent Non-Infringement)

58. Intel incorporates the foregoing admissions, denials, and allegations.

59. An actual controversy exists between Intel and STC as to whether Intel infringes directly or indirectly or otherwise the '998 Patent, as STC contends, or does not do so, as Intel contends.

60. By this Counterclaim, Intel seeks a declaration that it has not infringed directly or indirectly or otherwise and does not infringe directly or indirectly or otherwise any valid claim of the '998 Patent. A judicial declaration is necessary and appropriate at this time so order that Intel may ascertain its rights and duties with respect to the '998 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale or offer for sale of its products.

SECOND COUNTERCLAIM
(For Declaratory Judgment of Patent Invalidity)

61. Intel incorporates the foregoing admissions, denials, and allegations.

62. An actual controversy exists between Intel and STC as to whether the '998 Patent is valid, as STC contends, or is invalid for failure to comply with the requirements of patentability set forth in 35 U.S.C. §§ 101 et seq., as Intel contends.

63. By this Counterclaim, Intel seeks a declaration that the '998 Patent is invalid. A judicial declaration is necessary and appropriate at this time so that Intel may ascertain its rights and duties with respect to the '998 Patent and to any past, present, or future manufacture, use, importation, distribution, sale or offer for sale of its products.

THIRD COUNTERCLAIM
(For Declaratory Judgment of Unenforceability of the '998 Patent)

64. Intel incorporates the foregoing admissions, denials, and allegations.

65. STC contends that it is the sole owner of all right, title and interest in the ‘998 Patent.

66. STC contends that the ‘998 Patent is entitled to a priority date of September 20, 1993.

67. STC contends that U.S. Patent Application No. 08/932,428 (the “‘998 Application”) is a continuation-in-part of U.S. Patent Application No. 08/490,101 (the “‘321 Application”), which is in turn a continuation of U.S. Patent Application No. 08/123,543 filed on September 20, 1993.

68. The ‘321 Application matured into U.S. Patent No. 5,705,321 (the “‘321 Patent”).

69. STC obtained a Certificate of Correction certifying that the ‘998 Application is a continuation-in-part of the ‘321 Application after filing a Request for a Certificate of Correction with the PTO (“the Request for a Certificate of Correction”).

70. Prior to its filing the Request for a Certificate of Correction, STC had become aware of U.S. Patent No. 5,523,258 (“the ‘258 Patent”).

71. STC filed the Request for a Certificate of Correction in order to obtain a priority date earlier than the ‘258 Patent.

72. The Request for a Certificate of Correction did not disclose that STC was aware of the ‘258 Patent as potential prior art to one or more claims of the ‘998 Patent, absent an earlier priority date.

73. The Request for a Certificate of Correction did not disclose that UNM, STC’s predecessor-in-interest had twice argued to the PTO that the ‘321 Patent did not claim or disclose the claimed invention of the ‘998 Application.

74. Upon information and belief, the ‘998 Patent is unenforceable due to inequitable conduct in its procurement and post-issuance prosecution. More specifically, STC and its predecessor made misrepresentations and withheld material information from the PTO in order to obtain initial allowance, and in order to obtain a priority date of

September 20, 1993—four years earlier than the priority date on the face of the originally-issued patent.

PRAYER FOR RELIEF

WHEREFORE, Defendant and Counterclaimant Intel prays for relief as follows:

- a) That the Court enter judgment in favor of Intel and against STC;
- b) That the Court declare that the '998 Patent is invalid;
- c) That the Court determine and declare that Intel and its products have not infringed directly or indirectly and do not infringe directly or indirectly the '998 Patent;
- d) That the Court declare that the '998 Patent is unenforceable;
- e) That STC take nothing by its Complaint;
- f) That the Court deny any and all of STC's requests for relief;
- g) That the Court award Intel its attorneys' fees and litigation expenses under 35 U.S.C. § 285 or on any other applicable basis; and
- h) That Intel receive such other and further relief as the Court deems appropriate.

Intel reserves all rights to amend or supplement its Answer, Defenses, and Counterclaims in accordance with the Federal Rules of Civil Procedure.

Dated: January 10, 2011

Respectfully submitted,

ATKINSON, THAL & BAKER, P.C.

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on January 10, 2011, the foregoing *Intel Corporation's Answer and Counterclaims to STC.UNM'S Complaint* was electronically filed with the Clerk of Court using the CM/ECF system, which will send notification of such filing to all counsel of record.

ATKINSON, THAL & BAKER, P.C.

By /s/ Clifford K. Atkinson
Clifford K. Atkinson