# UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

Anvik Corporation,

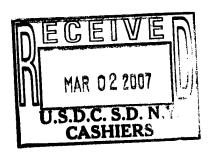
Plaintiff,

v.

Nikon Precision Inc., Nikon Research Corporation of America, and Nikon Corporation,

Defendants.

CIVIL ACTION No. 7:05-7891 (SCR)



#### FIRST AMENDED COMPLAINT

Plaintiff Anvik Corporation ("Anvik"), by and through its undersigned counsel, for its

First Amended Complaint against defendants Nikon Precision, Inc., Nikon Research Corporation
of America, and Nikon Corporation (collectively, "Nikon" or "Defendants"), alleges the
following upon information and belief, except as to those allegations concerning Anvik, which
are alleged upon knowledge. Further substantial evidentiary support for the allegations in this
First Amended Complaint is expected to be obtained from Nikon after a reasonable opportunity
for further investigation and discovery.

#### **NATURE OF THE ACTION**

1. This is an action for patent infringement under the patent laws of the United States, 35 U.S.C. § 1 et. seq.

- 2. The patents-in-suit in this action relate to scanning microlithography systems. Such systems are critical in the production of a variety of microelectronic devices, including flat-panel displays, semiconductor integrated circuit chips, and other high-performance electronic products. As an example, scanning microlithography systems (and the methods performed thereby) are used by most of the world's largest electronics manufacturers to make flat-panel displays which are incorporated into televisions, computer monitors, and the like. The flat-panel display industry alone has been estimated to generate revenue of approximately \$69 billion annually.
- 3. Anvik, the owner of the patents-in-suit, is a small Westchester, NY-based company that is engaged in the design, development, manufacture and sale of such scanning microlithography systems. Anvik's patented scanning microlithography systems are based on several significant breakthroughs Anvik has made in optical systems, lithography, and microelectronics process technologies. These innovations have enabled Anvik's patented systems to achieve the high throughput levels and low cost-of-ownership demanded by the microelectronics, optoelectronics, and microsystems industries.
- 4. Anvik's President and founder, Dr. Kanti Jain, is a named inventor on each of the patents-in-suit. He is also Professor of Electrical and Computer Engineering and Director of the Photonics, Microelectronics, and Microsystems Laboratory at the University of Illinois at Urbana-Champaign. As a result of his more than thirty (30) years of contributions in the advancement of optical imaging and microelectronics manufacturing technologies, Dr. Jain is an internationally recognized scientist and technologist. He is widely recognized for his pioneering

development of excimer laser lithography, for which he received two Outstanding Innovation Awards from I.B.M., and which is now used worldwide in semiconductor chip and flat-panel display manufacturing. Dr. Jain holds 50 issued patents in microlithography systems and optics, has applications for 10 additional patents pending, has published 55 papers, and has written the book *Excimer Laser Lithography*, published by the International Society for Optical Engineering ("SPIE") in 1990. He is a Fellow of the Optical Society of America, a Fellow of the Institute of Electrical and Electronics Engineers, and a Fellow and former Member of the Board of Directors and Executive Committee of SPIE.

- 5. Nikon is one of the largest manufacturers of scanning microlithography systems in the world. For example, Nikon sells its scanning microlithography systems to many of the world's largest flat-panel display manufacturers which, in turn, manufacture their displays using methods performed by Nikon's systems and then sell such displays in the United States for incorporation into televisions, computer monitors and the like.
- 6. Anvik and Nikon are competitors in the scanning microlithography market.

  Nikon has, thus far, enjoyed a vastly larger share of this market than Anvik. However, Nikon's success in the scanning microlithography market is due in large part to its misappropriation of Anvik's patented technologies. Specifically, the scanning microlithography systems sold by Nikon, as well as the methods employed by such systems to produce flat-panel displays, integrated chips, etc., are covered by claims of Anvik's patents-in-suit. Accordingly, it is reasonable to conclude that a large portion of the flat-panel displays and integrated chips that are

imported and/or sold in the United States are being imported and/or sold in violation of Anvik's patents-in-suit.

7. As a result of Nikon's willful infringement of Anvik's patents, Anvik's business has been irreparably damaged and is being harmed on a continuing basis. Because of Nikon's infringement of Anvik's patents, Anvik has been precluded from obtaining the significant share of the scanning microlithography market that it otherwise would have, and has suffered damages in the hundreds of millions, if not billions, of dollars.

#### THE PARTIES

- 8. Anvik is a New York corporation with a principal place of business at 6 Skyline Drive, Hawthorne, New York 10532.
- 9. Nikon Corporation ("Nikon Corp.") is an entity existing under the laws of Japan. Nikon Corp. has its principal place of business at Fuji Building, 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo 100-8331, Japan.
- 10. Nikon Precision, Inc. ("NPI") is a corporation organized and existing under the laws of the state of California. NPI has its principal place of business at 1399 Shoreway Road, Belmont, California 94002. NPI is a wholly-owned United States subsidiary of Nikon Corp.
- 11. Nikon Research Corporation of America ("NRCA") is a corporation organized and existing under the laws of the State of California with its principal place of business located at 1399 Shoreway Road, Belmont, California 94002. NRCA is a wholly-owned United States subsidiary of Nikon Corp.

#### **JURISDICTION AND VENUE**

- 12. This Court has jurisdiction over the subject matter of the claims asserted herein pursuant to 28 U.S.C. §§ 1331 and 1338.
- 13. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b) and (c) because a substantial part of the events giving rise to the claims occurred in this district, Nikon may be found in this judicial district, and Nikon is subject to personal jurisdiction in this judicial district. Venue is also proper in this judicial district under 28 U.S.C. § 1400(b).
- 14. Nikon is doing business within this State and judicial district, transacts business with this State and judicial district, derives substantial revenue from intra-state and inter-state commerce, has committed acts of patent infringement within this State and judicial district, and is otherwise within the jurisdiction of this Court.

### COUNT I - INFRINGEMENT OF U.S. PATENT NO. 4,924,257

- 15. Anvik refers to and incorporates herein the allegations of Paragraphs 1-14 above.
- 16. United States Patent No. 4,924,257 (attached hereto as Exhibit A), entitled "Scan and Repeat High Resolution Projection Lithography System," was duly and legally issued by the United States Patent and Trademark Office on May 8, 1990. Anvik is the assignee of all rights, title, and interest in and to the '257 Patent and possesses all rights of recovery under the '257 Patent, including the right to sue for infringement and recover past damages.
- 17. Upon information and belief, Defendants have infringed and continue to infringe the '257 Patent by, directly or through intermediaries, making, using, offering to sell, selling, and/or importing, in this district and elsewhere in the United States, machines that use and/or

embody the patented invention, including, but not limited to Nikon's NSR and FX series of lithography systems, enhancements, and upgrades, and/or products made using the patented invention. Upon information and belief, Defendants have also contributed to the infringement of the '257 Patent, and/or actively induced others to infringe the '257 Patent in the United States.

- 18. Anvik is entitled to recover from the Defendants the damages sustained by Anvik as a result of the Defendants' wrongful acts in an amount subject to proof at trial.
- 19. Upon information and belief, the defendants' infringement of the '257 Patent has been willful and deliberate, entitling Anvik to increased damages under 35 U.S.C. § 284.
- 20. The Defendants' infringement of Anvik's exclusive rights under the '257 Patent will continue to damage Anvik, causing irreparable harm for which there is no adequate remedy at law, unless it is enjoined by this Court.

#### **COUNT II- INFRINGEMENT OF U.S. PATENT NO. 5,285,236**

- 21. Anvik refers to and incorporates herein the allegations of Paragraphs 1-20 above.
- 22. United States Patent No. 5,285,236 (attached hereto as Exhibit B), entitled "Large-Area, High-Throughput, High-Resolution Projection Imaging System," was duly and legally issued by the United States Patent and Trademark Office on February 8, 1994. Anvik is the assignee of all rights, title, and interest in and to the '236 Patent and possesses all rights of recovery under the '236 Patent, including the right to sue for infringement and recover past damages.
- 23. Upon information and belief, Defendants have infringed and continue to infringe the '236 Patent by, directly or through intermediaries, making, using, offering to sell, selling,

and/or importing, in this district and elsewhere in the United States, machines that use and/or embody the patented invention, including, but not limited to Nikon's NSR and FX series of lithography systems, enhancements, and upgrades, and/or products made using the patented invention. Upon information and belief, Defendants have also contributed to the infringement of the '236 Patent, and/or actively induced others to infringe the '236 Patent in the United States.

- 24. Anvik is entitled to recover from the Defendants the damages sustained by Anvik as a result of the Defendants' wrongful acts in an amount subject to proof at trial.
- 25. Upon information and belief, the defendants' infringement of the '236 Patent has been willful and deliberate, entitling Anvik to increased damages under 35 U.S.C. § 284.
- 26. The Defendants' infringement of Anvik's exclusive rights under the '236 Patent will continue to damage Anvik, causing irreparable harm for which there is no adequate remedy at law, unless it is enjoined by this Court.

#### COUNT III - INFRINGEMENT OF U.S. PATENT NO. 5,291,240

- 27. Anvik refers to and incorporates herein the allegations of Paragraphs 1-26 above.
- 28. United States Patent No. 5,291,240 (attached hereto as Exhibit C), entitled "Nonlinearity-Compensated Large-Area Patterning System," was duly and legally issued by the United States Patent and Trademark Office on March 1, 1994. Anvik is the assignee of all rights, title, and interest in and to the '240 Patent and possesses all rights of recovery under the '240 Patent, including the right to sue for infringement and recover past damages.
- 29. Upon information and belief, Defendants have infringed and continue to infringe the '240 Patent by, directly or through intermediaries, making, using, offering to sell, selling,

and/or importing, in this district and elsewhere in the United States, machines that use and/or embody the patented invention, including, but not limited to Nikon's NSR and FX series of lithography systems, enhancements, and upgrades, and/or products made using the patented invention. Upon information and belief, Defendants have also contributed to the infringement of the '240 Patent, and/or actively induced others to infringe the '240 Patent in the United States.

- 30. Anvik is entitled to recover from the Defendants the damages sustained by Anvik as a result of the Defendants' wrongful acts in an amount subject to proof at trial.
- 31. Upon information and belief, the defendants' infringement of the '240 Patent has been willful and deliberate, entitling Anvik to increased damages under 35 U.S.C. § 284.
- 32. The Defendants' infringement of Anvik's exclusive rights under the '240 Patent will continue to damage Anvik, causing irreparable harm for which there is no adequate remedy at law, unless it is enjoined by this Court.

#### **COUNT IV - INFRINGEMENT OF U.S. PATENT NO. 5,710,619**

- 33. Anvik refers to and incorporates herein the allegations of Paragraphs 1-32 above.
- 34. United States Patent No. 5,710, 619 (attached hereto as Exhibit D), entitled "Large-Area, Scan-and-Repeat, Projection Patterning System with Unitary Stage and Magnification Control Capability," was duly and legally issued by the United States Patent and Trademark Office on January 20, 1998. Anvik is the assignee of all rights, title, and interest in and to '619 Patent and possesses all rights of recovery under the '619 Patent, including the right to sue for infringement and recover past damages.

- 35. Upon information and belief, Defendants have infringed and continue to infringe the '619 Patent by, directly or through intermediaries, making, using, offering to sell, selling, and/or importing, in this district and elsewhere in the United States, machines that use and/or embody the patented invention, including, but not limited to Nikon's NSR and FX series of lithography systems, enhancements, and upgrades, and/or products made using the patented invention. Upon information and belief, Defendants have also contributed to the infringement of the '619 Patent, and/or actively induced others to infringe the '619 Patent in the United States.
- 36. Anvik is entitled to recover from the Defendants the damages sustained by Anvik as a result of the Defendants' wrongful acts in an amount subject to proof at trial.
- 37. Upon information and belief, the defendants' infringement of the '619 Patent has been willful and deliberate, entitling Anvik to increased damages under 35 U.S.C. § 284.
- 38. The Defendants' infringement of Anvik's exclusive rights under the '619 Patent will continue to damage Anvik, causing irreparable harm for which there is no adequate remedy at law, unless it is enjoined by this Court.

#### **COUNT V - INFRINGEMENT OF U.S. PATENT NO. 5,721,606**

- 39. Anvik refers to and incorporates herein the allegations of Paragraphs 1-38 above.
- 40. United States Patent No. 5,721,606 (attached hereto as Exhibit E), entitled "Large-Area, High-Throughput, High-Resolution, Scan-and-Repeat, Projection Patterning System Employing Sub-Full Mask," was duly and legally issued by the United States Patent and Trademark Office on February 24, 1998. Anvik is the assignee of all rights, title, and interest in and to '606 Patent and possesses all rights of recovery under the '606 Patent, including the right

to sue for infringement and recover past damages.

- 41. Upon information and belief, Defendants have infringed and continue to infringe the '606 Patent by, directly or through intermediaries, making, using, offering to sell, selling, and/or importing, in this district and elsewhere in the United States, machines that use and/or embody the patented invention, including, but not limited to Nikon's NSR and FX series of lithography systems, enhancements, and upgrades, and/or products made using the patented invention. Upon information and belief, Defendants have also contributed to the infringement of the '606 Patent, and/or actively induced others to infringe the '606 Patent in the United States.
- 42. Anvik is entitled to recover from the Defendants the damages sustained by Anvik as a result of the Defendants' wrongful acts in an amount subject to proof at trial.
- 43. Upon information and belief, the defendants' infringement of the '606 Patent has been willful and deliberate, entitling Anvik to increased damages under 35 U.S.C. § 284.
- 44. The Defendants' infringement of Anvik's exclusive rights under the '606 Patent will continue to damage Anvik, causing irreparable harm for which there is no adequate remedy at law, unless it is enjoined by this Court.

### COUNT VI - INFRINGEMENT OF U.S. PATENT NO. 5,897,986

- 45. Anvik refers to and incorporates herein the allegations of Paragraphs 1-44 above.
- 46. United States Patent No. 5,897,986 (attached hereto as Exhibit F), entitled "Projection Patterning of Large Substrates Using Limited-Travel Precision X-Y Stage," was duly and legally issued by the United States Patent and Trademark Office on April 27, 1999. Anvik is the assignee of all rights, title, and interest in and to the '986 Patent and possesses all rights of

recovery under the '986 Patent, including the right to sue for infringement and recover past damages.

- 47. Upon information and belief, Defendants have infringed and continue to infringe the '986 Patent by, directly or through intermediaries, making, using, offering to sell, selling, and/or importing, in this district and elsewhere in the United States, machines that use and/or embody the patented invention, including, but not limited to Nikon's NSR and FX series of lithography systems, enhancements, and upgrades, and/or products made using the patented invention. Upon information and belief, Defendants have also contributed to the infringement of the '986 Patent, and/or actively induced others to infringe the '986 Patent in the United States.
- 48. Anvik is entitled to recover from the Defendants the damages sustained by Anvik as a result of the Defendants' wrongful acts in an amount subject to proof at trial.
- 49. Upon information and belief, the defendants' infringement of the '986 Patent has been willful and deliberate, entitling Anvik to increased damages under 35 U.S.C. § 284.
- 50. The Defendants' infringement of Anvik's exclusive rights under the '986 Patent will continue to damage Anvik, causing irreparable harm for which there is no adequate remedy at law, unless it is enjoined by this Court.

### COUNT VII - INFRINGEMENT OF U.S. PATENT NO. 6,201,597

- 51. Anvik refers to and incorporates herein the allegations of Paragraphs 1-50 above.
- 52. United States Patent No. 6,201,597 (attached hereto as Exhibit G), entitled "Apparatus for Projection Patterning of Large Substrates Using Limited-Travel Precision X-Y Stage," was duly and legally issued by the United States Patent and Trademark Office on March

- 13, 2001. Anvik is the assignee of all rights, title, and interest in and to the '597 Patent and possesses all rights of recovery under the '597 Patent, including the right to sue for infringement and recover past damages.
- the '597 Patent by, directly or through intermediaries, making, using, offering to sell, selling, and/or importing, in this district and elsewhere in the United States, machines that use and/or embody the patented invention, including, but not limited to Nikon's NSR and FX series of lithography systems, enhancements, and upgrades, and/or products made using the patented invention. Upon information and belief, Defendants have also contributed to the infringement of the '597 Patent, and/or actively induced others to infringe the '597 Patent in the United States.
- 54. Anvik is entitled to recover from the Defendants the damages sustained by Anvik as a result of the Defendants' wrongful acts in an amount subject to proof at trial.
- 55. Upon information and belief, the defendants' infringement of the '597 Patent has been willful and deliberate, entitling Anvik to increased damages under 35 U.S.C. § 284.
- 56. The Defendants' infringement of Anvik's exclusive rights under the '597 Patent will continue to damage Anvik, causing irreparable harm for which there is no adequate remedy at law, unless it is enjoined by this Court.

#### JURY DEMAND

57. Plaintiff demands a trial by jury on all issues triable to a jury.

#### **PRAYER FOR RELIEF**

Plaintiff respectfully requests this Court to enter judgment in its favor against the

Defendants, granting the following relief:

- A. An adjudication that the Defendants have infringed and continue to infringe claims of the '257 Patent;
- B. An adjudication that the Defendants have infringed and continue to infringe claims of the '236 Patent;
- C. An adjudication that the Defendants have infringed and continue to infringe claims of the '240 Patent;
- D. An adjudication that the Defendants have infringed and continue to infringe claims of the '619 Patent;
- E. An adjudication that the Defendants have infringed and continue to infringe claims of the '606 Patent;
- F. An adjudication that the Defendants have infringed and continue to infringe claims of the '986 Patent;
- G. An adjudication that the Defendants have infringed and continue to infringe claims of the '597 Patent;
- H. An award to Anvik of damages adequate to compensate Anvik for the Defendants' acts of infringement together with prejudgment interest;
- I. An award to Anvik of enhanced damages, up to and including trebling of Anvik's damages pursuant to 35 U.S.C. § 284, for the Defendants' willful infringement;
- J. An award of Anvik's costs of suit and reasonable attorneys' fees pursuant to 35
   U.S.C. § 285 due to the exceptional nature of this case, or as otherwise permitted by law;

## **CERTIFICATE OF SERVICE**

I hereby certify that, on March 2, 2007, the within First Amended Complaint was served upon counsel for Defendants, by depositing true copies of the same in a properly addressed wrapper into the custody of Federal Express for overnight delivery prior to the latest time designated by Federal Express for overnight delivery, addressed to counsel for Defendants as follows:

Matthew M. D'Amore, Esq. Morrison & Foerster LLP 1290 Avenue of the Americas New York, NY 10104

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