UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

MICROSCAN SYSTEMS, INC., a Delaware Corporation,

Plaintiff,

V.

Civil Action No. 1:14-CV-06952-JSR

JURY TRIAL DEMANDED

COGNEX CORPORATION, a Massachusetts Corporation,

Defendant.

AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Microscan Systems, Inc. ("Microscan") submits this Amended Complaint against Defendant Cognex Corporation ("Cognex" or "Defendant") and alleges as follows:

NATURE OF THIS ACTION

This is a civil action for the infringement of United States Patent No. 6,352,204
C1 (the "204 Patent"), pursuant to the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

PARTIES

2. Plaintiff Microscan Systems, Inc. is a corporation duly organized and existing under the laws of the State of Delaware, having its principal place of business at 700 SW 39th Street, Ste. 100, Renton, Washington 98057. Microscan is the owner by assignment of the '204 Patent, which is asserted in this case.

3. Microscan makes and sells technology for precision data acquisition and control solutions, such as barcode scanners and machine vision technology. Microscan manufactures products such as the Mobile Hawk Direct Part Mark Imager, a high-performance handheld scanner designed to read direct part marks – *i.e.*, barcodes and other marks imprinted or

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etched directly onto products. Microscan's products are used worldwide by virtually all of the world's top 25 pharmaceutical manufacturers, most of the world's top 25 electronics manufacturers, and all of the world's top 10 automotive manufacturers.

4. Upon information and belief, Defendant Cognex Corporation is a corporation organized and existing under the laws of the Commonwealth of Massachusetts, with corporate headquarters and a principal place of business in One Vision Drive, Natick, Massachusetts. Cognex is a manufacturer of machine vision systems.

JURISDICTION AND VENUE

5. This is an action for patent infringement arising under the Patent Act, 35 U.S.C.§ 1, *et seq.*, including § 271.

6. This Court has subject matter jurisdiction under 28 U.S.C. § 1331 (federal question), and 28 U.S.C. § 1338(a) (any Act of Congress relating to patents or trademarks).

7. This Court has personal jurisdiction over Cognex pursuant to the forum selection clause contained in a November 1, 2010 Confidential Settlement Agreement between Microscan and Cognex (the "Agreement"). In accordance with the Agreement, the United States District Court for the Southern District of New York has exclusive jurisdiction to resolve all intellectual property disputes between Microscan and Cognex, and each party has consented to the jurisdiction of this Court.

8. All contractual conditions precedent to bringing this action have been performed or have occurred in accordance with the Agreement.

9. Because this Court has exclusive jurisdiction over intellectual property disputes between Microscan and Cognex, pursuant to the Agreement, venue is proper in this District.

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10. Venue is also proper in this District pursuant to 28 U.S.C. §§ 1391 and 1400 because Defendant has committed acts of infringement here.

MICROSCAN'S PATENTED INVENTIONS

11. Microscan has a history of innovation in the automatic barcode identification and machine vision industry. Working from his basement in 1982, Microscan's founder Mike Mertel invented the first laser diode barcode scanner, which was smaller, safer, and faster than existing barcode scanners. Mertel launched Microscan that same year in Tukwila, Washington. Microscan has since become a leading supplier of barcode identification and machine vision technologies to most of the world's top pharmaceutical, electronics, automotive, and medical device manufacturers. Microscan's pioneering innovations include developing the world's first graphical-based machine vision system, first vision-guided robot controller, and first PC-based machine vision system. Microscan has, to date, been awarded more than 100 patents by the United States Patent and Trademark Office.

12. Two-dimensional barcode scanners, such as the barcode scanners made by Microscan, must be able to clearly see direct part mark ("DPM") symbols in order to read the data contained in those symbols. Manufacturers of electronics and other products increasingly use two-dimensional barcode scanners to track small items like microchips with DPM symbols etched directly on their surfaces. The accurate reading of those DPM symbols requires good contrast resolution, but specular reflection of illumination can often blur or wash out the image of the symbol. Consequently, scanners must employ advanced illumination techniques to ensure that the DPM symbols are clearly visible.

13. One method used by two-dimensional barcode scanners to improve illumination and contrast for DPM symbols is "dark field illumination." Dark field illumination provides

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low-angle lighting to targeted regions, which results in improved visibility for certain types of symbols. For example, an embossed logo on a metal surface is difficult to see with "bright field" illumination like a camera flash (see image below on left), but becomes clear using dark field illumination (see image below on right):





Bright Field Illumination

Dark Field Illumination

14. U.S. Patent No. 6,352,204 C1, entitled "Optical Symbol Scanner with Low Angle Illumination," was an early and fundamental patent for DPM scanning using dark field illumination. Microscan is the owner of all right, title, and interest in and to the '204 Patent. The patent issued on March 5, 2002, from an application filed on August 4, 1999. A true and accurate copy of the '204 Patent is attached hereto as Exhibit A.

15. The '204 Patent is "concerned with a device that is combined with an illuminator for shining light on the bar code symbol or other symbol to enhance the visibility and detectability of the readable matter that constitutes the symbol." '204 Patent at 1:11-15. Figure 2 of the '204 Patent illustrates an embodiment of the invention:



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16. The '204 Patent addresses the problem of improving illumination and contrast by keeping the illumination at a low angle relative to the surface of an article on which the target symbol is located. Claims 1, 10, and 21 cover an "optical symbol scanner assembly" comprising an "illumination assembly" or "illumination arrangement" that provides low angle illumination on the symbol when the optic axis of the scanner is substantially perpendicular to the surface on which the symbol is located.

17. Claim 1 covers an "optical symbol scanner" with (1) a "light-generating means" and a "focusing means" on its distal face; and (2) an "illumination assembly" mounted on its distal face with (a) a "lens barrel member" aligned to the optic axis, and (b) a "light pipe" for delivering illumination to the target symbol at an angle of about 10 to 18 degrees relative to the surface of the symbol article when the distal end of the "illumination assembly" is in contact with the article. Claim 21 has the same limitations as Claim 1, but requires illumination of the target symbol at about 10 to less than 15 degrees relative to the surface. Claim 10 covers an "optical symbol scanner" with (1) a housing; (2) a scanner device within the housing including an "imager device" and a "focusing means"; and (3) an "illumination arrangement" through which light is projected onto a symbol at an angle of about 10 to 18 degrees relative to the surface when the article is at a predetermined position on the optic axis.

18. Microscan asserted that Cognex infringed the '204 Patent in its original complaint in this action, which was filed and served on Cognex on August 27, 2014.

THE ACCUSED PRODUCTS

The DataMan 7500

19. The Cognex DataMan 7500, 7500LR, 7500V, 7550, 7550LR, 7550V, and similar products are DPM readers with an illumination system that can provide both bright field and dark field illumination to read DPM symbols on a variety of surfaces, and that infringe at least Claims 1, 10, and 21 of the '204 Patent.

20. The DataMan 7500 meets all of the limitations of these claims, including: (1) projecting illumination on a symbol at an angle of "about 10 to 18 degrees" and "about 10 to less than 15 degrees" relative to the surface of the symbol; (2) a "housing" (Claim 10) and a "light pipe" (Claims 1, 21); (3) an "imager device" (Claim 10) and "focusing means" (Claims 1, 10, 21); (4) a "light generating means" (Claims 1, 21); (5) an "angulated distal face" on the light pipe (Claims 1, 21); and (6) a "lens barrel member" (Claims 1, 21).

21. As depicted below (left), the DataMan 7500 has a "housing" (as required by Claim 10) and a "light pipe" (as required by Claims 1 and 21). The distal end of the light pipe can be seen extending through the opening at the front of the housing. With the top of the housing removed (right), the light pipe can be seen more clearly, along with the "scanner device" (Claim 10).



22. The scanner device in the DataMan 7500 includes an "imager device" (Claim 10) and a "focusing means" (Claims 1, 10, 21) in the form of a lens, as indicated below. The lens focuses the light reflected off the symbol to acquire a digital image.



23. The DataMan 7500 has a "light generating means" (Claims 1, 21) in the form of forward-facing LEDs on the distal face of the scanner device. The LEDs transmit illumination into the proximal end of the light pipe, which transmits the illumination to its distal end. The

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light pipe has an "angulated distal face" (Claims 1, 21) that reflects light toward the interior of the light pipe and onto the surface of a symbol at a low angle. The DataMan 7500 also includes a "lens barrel member" (Claims 1, 21) in the form of a diffusing barrel affixed in the middle of the light pipe and ahead of the lens, with an opening through which light passes into the lens.



Illumination Assembly



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24. When the light pipe of the DataMan 7500 is in contact with the article on which the target symbol is located, the illumination projected from the light pipe impinges on the symbol at a low angle of "about 10 to 18 degrees" (Claims 1, 10) and "about 10 to less than 15 degrees" (Claim 21) relative to the surface of the article.

25. Cognex sold and marketed the DataMan 7500 for reading symbols in contact with or close to the tip of the light pipe, with low angle illumination within the ranges disclosed in the '204 Patent. Product documentation for the DataMan 7500 touts and encourages the use of the dark field illumination functionality. For example, the DataMan ID Readers Product Guide states:

The DataMan 7500 Series set the industry standard for reading 2-D Direct Part Mark (DPM) codes for part traceability. The DataMan 7550 cordless handheld reader features award winning 2dMax code reading software technology and Cognex UltraLight illumination that provides optimal lighting (bright field, dark field, and diffuse lighting) for all material types and surfaces.

(DataMan ID Readers Product Guide at 4.) The Guide describes the Ultralight illumination system as providing "Dark field illumination for dot peen and laser DPM." (*Id.* at 5.)

The DataMan 8500

26. The Cognex DataMan 8500 and similar products (collectively, the "DataMan 8500") are DPM readers with an illumination system that can provide both bright field and dark field illumination to read DPM symbols on a variety of surfaces. The DataMan 8500 infringes at least Claims 1, 10, and 21 of the '204 Patent. The DataMan 8500 meets all of the limitations of Claims 1, 10, and 21 of the '204 Patent, including projecting illumination on a symbol at an angle of "about 10 to 18 degrees" and "about 10 to less than 15 degrees" relative to the surface of the symbol.

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27. As depicted below (left), the DataMan 8500 has a "housing" (as required by Claim 10) and a "light pipe" (as required by Claims 1 and 21). The distal end of the light pipe can be seen extending through the opening at the front of the housing. With the top of the housing removed (right), the light pipe can be seen more clearly, along with the "scanner device" (Claim 10).



28. The scanner device in the DataMan 8500 includes an "imager device" (Claim 10) and a "focusing means" (Claims 1, 10, 21) in the form of a liquid lens, as indicated below. The liquid lens focuses the light reflected off the symbol to acquire a digital image, which defines the optic axis of the scanner.



DataMan 8500

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29. The DataMan 8500 has a "light generating means" (Claims 1, 21) in the form of forward-facing LEDs on the distal face of the scanner device. The LEDs transmit illumination into the proximal end of the light pipe, which transmits the illumination to its distal end. The light pipe has an "angulated distal face" (Claims 1, 21) that reflects light toward the interior of the light pipe and onto the surface of a symbol at a low angle.



DataMan 8500

30. The DataMan 8500 also includes a "lens barrel member" (Claims 1, 21) in the form of a diffusing barrel affixed in the middle of the light pipe and ahead of the liquid lens, with an opening through which light passes into the lens.

Flat Proximal Face of Light Pipe

Angulated Distal Face

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31. When the light pipe of the DataMan 8500 is in contact with the article on which the target symbol is located, the illumination projected from the light pipe impinges on the symbol at a low angle of "about 10 to 18 degrees" (Claims 1, 10) and "about 10 to less than 15 degrees" (Claim 21) relative to the surface of the article.

32. Cognex sells and markets the DataMan 8500 for reading symbols in contact with or close to the tip of the light pipe, with low angle illumination within the ranges disclosed in the '204 Patent. Product documentation for the DataMan 8500 touts and encourages the use of the dark field illumination functionality. For example, the DataMan 8000 Series Quick Reference guide states: "The DataMan 8500 reader uses Cognex's patented Ultralight® technology for superior image formation on any mark type and surface. Ultralight illumination provides dark field, bright field, and diffuse lighting all in one electronically controlled light." (DataMan 8000 Series Quick Reference at 4.) The DataMan ID Readers Product Guide describes the Ultralight illumination system as providing "Dark field illumination for dot peen and laser DPM."

The DataMan 8600

33. Cognex recently announced the DataMan 8600 Series products. The DataMan 8600 product, as advertised, appears similar to the DataMan 8500. The DataMan 8600 is not yet commercially available, but Microscan already has requested that Cognex provide samples of this product in connection with discovery in this action. Microscan, depending on when Cognex provides these samples, will, as appropriate, identify the DataMan 8600 in its infringement contentions or seek promptly to amend or supplement those contentions to include the DataMan 8600.

<u>COUNT I</u>

Infringement of U.S. Patent No. 6,352,204 C1

34. Microscan repeats and re-alleges each of the allegations in paragraphs 1-33 of this Complaint.

35. Upon information and belief, Defendant has been and is now directly infringing, either literally or under the doctrine of equivalents, one or more claims of the '204 Patent by manufacturing, using, selling, distributing, licensing, and/or offering for sale the following products without the authority of Microscan: DataMan 7500, DataMan 7500LR, DataMan 7500V, DataMan 7550, DataMan 7550LR, DataMan 7550V, DataMan 8500, and similar products.

36. Upon information and belief, Defendant has been and is now contributing to the infringement of, and inducing others to infringe one or more of, the claims of the '204 Patent through their manufacture, use, sale, licensing, leasing, and/or offering for sale, and inducing use of the following products without the authority of Microscan: DataMan 7500, DataMan 7500LR, DataMan 7550, DataMan 7550LR, DataMan 7550V, DataMan 8500, and

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similar products.

37. Upon information and belief, Defendant's infringement has been willful, wanton, and deliberate, and in knowing and flagrant disregard of Microscan's patent rights.

38. Microscan has been and will be damaged and harmed by Defendant's infringement.

 Microscan will be irreparably harmed unless Defendant's infringing activities are enjoined.

40. Microscan has no adequate remedy at law.

PRAYER FOR RELIEF

WHEREFORE, Microscan respectfully prays that judgment be entered for Microscan and against Defendant as follows:

- A. Finding that Defendant has willfully infringed the '204 Patent.
- B. Preliminarily and permanently enjoining Defendant, its officers, agents, servants, employees, attorneys, and those persons acting for, with, by, under, in privity with, in active consort with, and in participation with them (including affiliates and those in joint ventures with them), from manufacturing, using, selling, licensing, importing, exporting and/or offering for sale any product which infringes the '204 Patent and, and from inducing or contributing to infringement of the '204 Patent.
- C. Awarding Microscan the damages it sustained as a result of Defendant's patent infringement, including, but not limited to, a reasonable royalty and/or lost profits.

- D. Awarding Microscan enhanced damages under 35 U.S.C. § 284 as a result of Defendant's willful patent infringement.
- E. Finding this to be an exceptional case under 35 U.S.C. § 285 and awarding Microscan its attorneys' fees.
- F. Awarding Microscan its costs and disbursements incurred in this action.
- G. Granting Microscan such other and further relief as the Court may deem just, proper, and appropriate.

JURY TRIAL DEMAND

Pursuant to Fed. R. Civ. P. 38(b), Plaintiff demands a trial by jury on all issues so triable.

Dated: October 3, 2014 New York, New York Respectfully submitted,

MORRISON & FOERSTER LLP

By: /s/

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Attorneys for Plaintiff Microscan Systems, Inc. Case 1:14-cv-06952-JSR Document 25 Filed 10/03/14 Page 17 of 17

CERTIFICATE OF SERVICE

I, Kirk A. Sigmon, hereby certify that on October 3, 2014, I caused to be served a true

and complete copy of Microscan's AMENDED COMPLAINT FOR PATENT

INFRINGEMENT by e-mail to:

jacob.baron@hklaw.com; Zachary.Weinman@hklaw.com; ClientTeamCognex-Microscan@hklaw.com

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