IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

SEIKO EPSON CORPORATION, a Japan corporation; EPSON AMERICA, INC., a California corporation; and EPSON PORTLAND INC., an Oregon corporation,

Plaintiffs,

v.

CIS SYSTEMS, INC, an Illinois corporation; ABSOLUTE INKJET INCORPORATED, an Illinois corporation; ANTHONY K. MARTIN, an individual; and JOSEPH J. ASCARIDIS, an individual.

Defendants.

Civil Action No.: 1:18-cy-06586

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiffs Seiko Epson Corporation ("Seiko Epson"), Epson America, Inc. ("Epson America"), and Epson Portland Inc., ("Epson Portland") (collectively, "Epson"), sues CIS Systems, Inc. ("CIS") Absolute Inkjet Incorporated ("Absolute Inkjet"), Anthony K. Martin, and Joseph J. Ascaridis (collectively "Defendants") and allege as follows:

NATURE OF THE ACTION

- 1. This is an action for patent infringement of United States Patent No. 6,502,917 ("the '917 patent"), United States Patent No. 8,794,749 ("the '749 patent"), and United States Patent No. 8,454,116 ("the '116 patent") (collectively "Epson Patents") arising under the patent laws of the United States, 35 U.S.C. § 1 *et. seq.*
- 2. The infringing products at issue are aftermarket ink cartridges for use with Epson printers. Over the years Epson has brought numerous actions in various district courts as well as the United States International Trade Commission ("ITC" or "Commission") for

infringement of its patents. In fact, the ITC has issued two general exclusion orders that prohibit the importation of ink cartridges that infringe certain Epson patents, including the three patents asserted in this case. Epson's patent enforcement efforts have been widely marketed, covered, and reported by the aftermarket ink cartridge industry and by Epson itself. As a result, the aftermarket ink cartridge industry is intimately familiar with the ITC's general exclusion orders and Epson's patents. Players in the aftermarket ink cartridge industry know that importation and sale of ink cartridges for use with Epson printers may violate the ITC's general exclusion orders and infringe Epson's patents. Epson also gives notice of its patents, including the '917, '749 and '116 patents, by virtual marking of its cartridges pursuant to 35 U.S.C. § 287(a). Nevertheless, infringers continue to import and sell infringing ink cartridges in flagrant violation of the ITC's general exclusion orders, United States patent law and Epson's patents. Defendants in this case are willful infringers of Epson's patents, including the '917, '749 and '116 patents, and violators of the ITC's general exclusion orders. Epson brings this action to recover money damages, for a preliminary and permanent injunction, and for other relief as set forth herein.

RELATED ACTIONS

- 3. This action is also related to the following thirteen recently filed actions because one or more of the Epson patents asserted here are also asserted in those cases against infringing aftermarket ink cartridges that, from a patent analysis perspective, are the same as the products in this case:
 - a. Seiko Epson Corporation, et al. v. FTrade Inc., et al., Civil No. 1:18-cv-05036-ENV-PK (E.D.N.Y.), filed on September 5, 2018, currently pending;

- b. Seiko Epson Corporation, et al. v. EZ Inks et al., Civil No. 1:18-cv-01338(E.D.N.Y.), filed on March 2, 2018, currently pending;
- c. Seiko Epson Corporation, et al. v. InkPro2Day, et. al., Civil No. 2:18-cv-00372 (D. Nev.), filed March 1, 2018, currently pending;
- d. Seiko Epson Corporation, et al. v. Prinko Image Co. (USA), Inc., Civil No. 2:17-cv-04501-AB (JCx) (C.D. Cal.) filed on June 16, 2017, concluded by final judgment and permanent injunction against Defendant;
- e. Seiko Epson Corporation, et al. v. Soldcrazy USA LLC, Civil No. 2:17-cv-04502-AB (JCx) (C.D. Cal.) filed on June 16, 2017, concluded by final judgment and permanent injunction against Defendant;
- f. Seiko Epson Corporation, et al. v. Advance Image Manufacturers, Inc., Civil No. 3:17-cv-425-YY (D. Or.) filed on March 16, 2017, currently pending;
- g. Seiko Epson Corporation, et al. v. OW Supplies Corp., et al., Civil No. 3:17-cv-363-YY (D. Or.) filed on March 3, 2017, concluded by settlement, consent judgment and permanent injunction;
- h. *Seiko Epson Corporation, et al. v. Ta Trix USA Inc.*, Civil No. 3:17-cv-369-YY (D. Or.) filed on March 3, 2017, concluded by settlement, consent judgment and permanent injunction;
- Seiko Epson Corporation, et al. v. Gaea Supplies Corporation,, Civil No.
 3:17-cv-366-SB (D. Or.) filed on March 3, 2017, concluded by settlement, consent judgment and permanent injunction;

- j. Seiko Epson Corporation, et al. v. HT Tech, Inc. and HT Imaging Inc., Civil No. 3:16-cv-2321-YY (D. Or.) filed December 14, 2016, concluded by settlement, consent judgment and permanent injunction;
- k. *Seiko Epson Corporation, et al. v. Inkjet2U LLP, et al.*, Civil No. 3:16-cv-2322-YY (D. Or.) filed on December 14, 2016, currently pending;
- Seiko Epson Corporation, et al. v. Shoppers Smart LLC, Houses Investing, LLLP and Houses Investing Of Florida, Corp., Civil No. 3:16-cv-2324-YY (D. Or.) filed on December 14, 2016, concluded by settlement, consent judgment and permanent injunction; and
- m. Seiko Epson Corporation, et al. v. Nano Business & Technology, Inc.,
 Civil No. 3:16-cv-02211-YY (D. Or.), filed on November 22, 2016,
 concluded by settlement, consent judgment and permanent injunction.
- 4. This action is also related to five legal proceedings which were pending before the District Court of Oregon and which have all been concluded by settlement, entry of consent orders and/or by entry of defaults and default judgments. The '917 patent asserted here was at issue in one or more of the five Oregon cases. And, although the '749 and '116 patents at issue in this case were not at issue in the five Oregon cases, the products at issue in the five Oregon cases were also infringing aftermarket ink cartridges for use with Epson printers. The five Oregon cases are as follows:
 - a. Seiko Epson Corporation, et al. v. Glory South Software Manufacturing

 Inc., et al., Civil No. 06-236-BR (D. Or.), closed June 15, 2012;
 - b. Seiko Epson Corporation, et al. v. Glory South Software Manufacturing

 Inc., et al., Civil No. 06-477-BR (D. Or.), closed June 15, 2012;

- c. Seiko Epson Corporation, et al. v. Abacus 24-7 LLC, et al., Civil No. 09-477-BR (D. Or.), closed June 15, 2012;
- d. Seiko Epson Corporation, et al. v. E-Babylon, Inc., et al., Civil No. 07-896-BR (D. Or.), closed February 27, 2012; and
- e. Seiko Epson Corporation, et al. v. Inkjetmadness.com, Inc., et al., Civil No. 08-452-BR (D. Or.), closed February 27, 2012.
- 5. In addition, this action is related to *In the Matter of CERTAIN INK CARTRIDGES AND COMPONENTS THEREOF*, Investigation No. 337-TA-946, United States International Trade Commission, Washington, D.C., which was adjudicated by the ITC in a final determination (Commission Opinion, May 26, 2016) (the "ITC 946 Investigation") and in which the Commission issued a General Exclusion Order and certain Cease and Desist Orders that include the '749 patent and the '116 patent. The '749 patent and '116 patent asserted in this case were litigated in the ITC 946 Investigation against the same or overlapping groups of aftermarket ink cartridges that are accused of infringement in this action.
- 6. Finally, this action is related to *In the Matter of CERTAIN INK CARTRIDGES* AND COMPONENTS THEREOF, Investigation No. 337-TA-565, United States International Trade Commission, Washington, D.C., which was adjudicated by the ITC in a final determination (Commission Opinion, Oct. 19, 2007) (the "ITC 565 Investigation") and in which the Commission issued a General Exclusion Order and certain Cease and Desist Orders that include the '917 patent. The '917 patent asserted in this case was litigated in the ITC 565 Investigation against the same or overlapping groups of aftermarket ink cartridges that are accused of infringement in this action.

THE PARTIES

- 7. Plaintiff Seiko Epson is a corporation organized and existing under the laws of Japan. Its principal place of business is located at 3-3-5 Owa Suwa-Shi Nagano-Ken, 392-8502, Japan. Seiko Epson is the assignee of the Epson Patents.
- 8. Plaintiff Epson America is a corporation organized and existing under the laws of the State of California. Its principal place of business is located at 3840 Kilroy Airport Way, Long Beach, California 90806. As the North American sales, marketing and customer service affiliate of Seiko Epson, Epson America is the exclusive licensee of the Epson Patents for distributing in the United States Epson ink cartridges that embody the inventions contained in the Epson Patents, including cartridges manufactured by Epson Portland Inc.
- 9. Plaintiff Epson Portland is a corporation organized and existing under the laws of the State of Oregon. Its principal place of business is located at 3950 NW Aloclek Place, Hillsboro, Oregon 97124. Epson Portland is the exclusive licensee of the Epson Patents for manufacturing in the United States Epson ink cartridges that embody the inventions contained in the Epson Patents. Seiko Epson, Epson America and Epson Portland are sometimes referred to collectively herein as "Epson" or "Plaintiffs."
- 10. Plaintiffs produce and sell ink cartridges that operate with Epson ink jet printers utilizing Epson's patented technology and designs in the United States and in this judicial district.
- 11. On information and belief, and according to According to the Illinois Secretary of State filings defendant CIS Systems, Inc. ("CIS Systems") is an active corporation organized and existing under the laws of the State of Illinois, and defendant Anthony K. Martin is named as the President of CIS with his address listed as 1814 Grove Street, Glenview, Illinois 60025. CIS Systems' Secretary and agent for service of process listed in CIS Systems' Illinois Secretary of

States filings is Deborah Ascaridis, and the address for service of process is at 1814 Grove Street, Glenview, Illinois 60025. On information and belief, and according to CIS Systems' Illinois Secretary of States filings, CIS Systems also does business under the assumed name ink2image. On information and belief and according to CIS Systems' website at www.ink2image.com, the location address is listed at 4338 Regency Drive, Glenview, Illinois 60025, the contact phone numbers are listed as 847-827-0747, 800-443-9508, and the fax number is 847-827-0797, and email contact is inquiries@ink2image.com.

- 12. On information and belief, defendant Anthony K. Martin is an individual who resides in Glenview Illinois at 1814 Grove Street, Glenview, Illinois 60025. According to CIS Systems' Illinois Secretary of States filings, defendant Anthony K. Martin is named as the President of CIS Systems with his address listed as 1814 Grove Street, Glenview, Illinois 60025.
- On information and belief, and according to the Illinois Secretary of State filings defendant Absolute Inkjet Incorporated ("Absolute Inkjet") is an is an active corporation organized and existing under the laws of the State of Illinois, and defendant Joseph J. Ascaridis is named as the President of Absolute Inkjet and is also listed as the agent for service of process with his address at 4338 Regency Drive, Glenview, Illinois 60025. On information and belief and according to Absolute Inkjet's website at www.absoluteinkjet.com, the contact address is listed as P.O. Box 2, Golf, Illinois 60028, the contact phone number is listed as 847-827-0871, and email contact is inquiries@ink2image.com, the same phone number and contact email address listed on Defendants' www.screenpositive.com website. On information and belief, and according to the contact page on Defendants' www.screenpositive.com website the contact page lists "Absolute Inkject, Inc.," at the P.O. Box 2, Golf, Illinois 60028 address, and the same

contact phone numbers 847-827-0871, 800-443-9508, fax number 847-827-0797, and email contact inquiries@ink2image.com as defendant CIS System as discussed above in paragraph 11.

- 14. On information and belief, defendant Joseph J. Ascaridis is an individual who resides in Glenview, Illinois. On information and belief, and according to Absolute Inkjet's Illinois Secretary of States filings, Joseph J. Ascaridis is both the President of Absolute Inkjet and the agent for service of process with his address listed as 4338 Regency Drive, Glenview, Illinois 60025.
- 15. On information and belief, Defendants do business online under the names "Absolute InkJet," "Ink2Image" and ScreenPositive and operate websites located at www.ink2image.com, www.absoluteinkjet.com, and www.screenpositive.com. Defendants' ink2image.com website references AbsoluteInkJet.com and ScreenPositive.com and provides active links Defendants' other websites www.absoluteinkjet.com to and www.screenpositive.com. and states "Ink2image also operates two e-commerce websites, Absolute Inkjet and Screen Positive, for customers who want to order on-line," "Absolute Inkjet is the e-commerce site for all Ink2image color printing inks and supplies" and "ScreenPositive.com is our e-commerce site specifically for Ink2image products for making screen separations and positives." The screen shot of Defendants' www.ink2image.com website captured on September 11, 2018, with the above quoted language and active links is as follows:



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Specializing in consumables for wide format inkjet printing, Ink2image supplies products for most popular brands of inkjet printer including Epson, Canon, Hewlett Packard, Fuji, and Noritsu. The Compnay also represents other world renowned manufacturers such as Hahnemuhle, Innova, and Canson Infinity to provide a premier range of inkjet products for every application. Our aim with Ink2image.com is to not only supply the best products at the best price, but also to help protect our environment by reducing the amount of plastic waste used by the inkjet printing Industry through initiatives like our Repleo wide format cartridge recycling program. The site is continually updated with product information, user guides, newsletters, printing tips etc. Please bookmark this page and check back regularly for the latest information. If you wish to be automatically updated by e-mail on new product releases, please click here and complete our contact form to be included in our mailing list.

Ink2image also operates two e-commerce websites, Absolute Inkjet and Screen Positive, for customers who want to order on-line. To go to these sites, click on the banners below.



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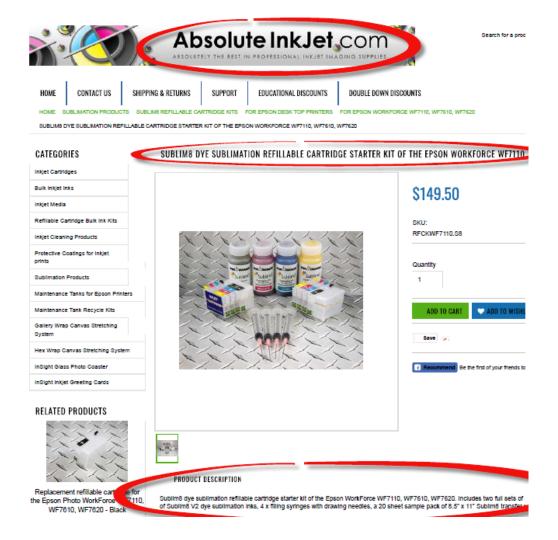
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Screen Positive.com is our e-commerce site specifically for Ink2image products for making screen separations and positives. Home to our industry leading Absolute Black inks that turns a standard Epson printer into a fast and effective image setter, this site also contains many useful and informative guides for setting up printers for the screen separation printing application. to go directly to the site, click here...

On information and belief, Defendants import, offer for sale, and sell ink cartridges that infringe the Epson Patents complained of herein, including through Defendants' www.ink2image.com and www.absoluteinkjet.com e-commerce websites. Directly through their websites, Defendants offer for sale and sell ink cartridges that infringe the Epson Patents as complained of herein. For example, in the annotated screen capture below of a listing on Defendants' www.absoluteinkjet.com website, visited on April 30, 2018, Defendants offer for sale infringing ink cartridges for Epson printers and describe the infringing ink cartridges as "Sublim8 Dye Sublimation Refillable Cartridge Starter Kit of the Epson Workforce WF7110, WF7610, WF7620."



-10-COMPLAINT FOR PATENT INFRINGEMENT

In the annotated screen capture below of a listing on Defendants' www.ink2image.com website, visited on April 11, 2018, Defendants offer for sale infringing ink cartridges for Epson printers and describe the infringing ink cartridges as "Epson Wide Format Cartridges, Ink2image compatible cartridges are available for the following printer models – Epson Pro 4000/7600/9600, Epson Pro 4800, Epson Pro 4880, Epson Pro 4900, Epson Pro 7700/9700, Epson Pro 7800/9800, Epson Pro 7880/9880, Epson Pro 7890/9890 Epson Pro 7900/9900, Epson SureColor P6000/P7000/P8000/P9000, and Epson SureColor T-Series."



On information and belief, most sales by Defendants are of generic (i.e., without a particular "brand" identified) infringing ink cartridges and components.

- 17. Numerous purchases of infringing ink cartridges were made by Epson from Defendants' www.ink2image.com and www.absoluteinkjet.com e-commerce websites, discussed above.
- Anthony K. Martin, CIS Systems, Inc. d/b/a/ Ink2image at 4338 Regency Drive, Glenview, IL 60025, and copied Deborah Ascaridis as Corporate Secretary and Registered agent of CIS Systems, Inc. at 1814 Grove Street, Glenview, IL 60025, and Joseph J. Ascaridis as President of Absolute Inkjet Incorporated at 4338 Regency Drive, Glenview, IL 60025, informing Defendants of the two ITC General Exclusion Orders, discussed in paragraphs 5-6 above. The letter also provided Epson's itc.Epson.com website for further details about Epson's intellectual property rights and enforcement activities, and recommended Defendants seek advice from a competent intellectual property attorney if they intend to continue selling new "compatible" or remanufactured cartridges for Epson printers.
- 19. On information and belief, despite Epson's providing Defendants with notice of the ITC General Exclusion Orders and their infringement, and with full knowledge of the same and of at least the Epson Patents complained of herein (which are patents covered by the 337-TA-565 and 337-TA-946 General Exclusion Orders) including knowledge of its infringement of the Epson Patents, Defendants have and continue to import infringing ink cartridges into the United States and sell them on their websites, identified in paragraphs 15-17 above, and elsewhere. For at least these reasons, and others, Defendants' importation, offers to sell, and sale of infringing ink cartridges complained of herein is willful.

JURISDICTION AND VENUE

20. The causes of action herein for patent infringement arise under the patent laws of the United States, 35 U.S.C. § 271. This Court has subject matter jurisdiction over the claims for patent infringement pursuant to 28 U.S.C. §§ 1331 and 1338(a). This Court has personal jurisdiction of the Defendants at least because Defendants have committed acts of direct and indirect patent infringement in this judicial district and are Illinois corporations and/or reside in this judicial district. Venue is proper in this district under 28 U.S.C. §§ 1391(b), (c) and 1400(b).

FIRST CLAIM FOR RELIEF

(Patent Infringement—35 U.S.C. § 271)

INFRINGEMENT OF U.S. PATENT NO. 6,502,917

- 21. Epson incorporates by reference each and every allegation contained in Paragraphs 1 through 20 as though fully set forth at length here.
- Epson owns all right, title, and interest in, including the right to sue thereon and the right to recover for infringement thereof, United States Patent No. 6,502,917, which was duly and legally issued to Seiko Epson by the United States Patent and Trademark Office on January 7, 2003. Attached as Exhibit A to this Complaint is a true and correct copy of the 6,502,917 patent. On February 3, 2009, reexamination certificate 6,502,917 C1 was duly and legally issued to Seiko Epson by the Unites States Patent and Trademark Office. Attached as Exhibit B to this Complaint is a true and correct copy of the reexamination certificate of the '917 patent. The original patent and the reexamination certificate are collectively referred to herein as "the '917 patent." The '917 patent relates generally to ink cartridges for printers.
 - 23. The '917 patent is valid and enforceable.

On information and belief after conducting a reasonable investigation, Defendants have infringed and are infringing the '917 patent, as defined by numerous claims of the patent in violation of 35 U.S.C. § 271(a) by making, using, importing, offering to sell, and selling in this judicial district and elsewhere aftermarket ink cartridges that operate with Epson ink jet printers, including but not limited to ink cartridges having model nos. T252120, T252220, T252320, and T252420, as well as others that are no more than colorably different from the foregoing (collectively, the "Accused '917 Ink Cartridges"). The specific models of Accused '917 Ink Cartridges identified above were obtained by Epson during its investigation leading to this Complaint from Defendants' online listings on their www.ink2image.com and www.absoluteinkjet.com websites.

25. As a non-limiting example, set forth below is a claim chart with a description of Defendants' infringement of exemplary claim 9 of the '917 patent by the Accused '917 Ink Cartridges. The infringement is shown using a representative ink cartridge (Model No. T252120; Control No. 19133) from among the Accused '917 Ink Cartridges purchased from Defendants that, for infringement analysis purposes, is representative of and represents all of Defendants' ink cartridges within the Accused '917 Ink Cartridges (i.e., the represented ink cartridges), including, but not limited to, the models identified above. The claim chart below refers to this ink cartridge as "the Representative '917 Ink Cartridge." The Representative '917 Ink Cartridge was designed for use in a specific Epson printer, the Epson WorkForce WF-7620 printer ("the Representative '917 Epson Printer"), and for purposes of the analysis set forth

For identification and chain-of-custody purposes, Epson assigns a unique "control number" ("Control No.") to ink cartridges it purchases as part of its investigation.

herein, the Representative '917 Ink Cartridge was tested in the Representative '917 Epson Printer, as discussed in further detail in the claim chart below.

| Claim 9 of the '917 Patent | Where found in the Accused '917 Ink Cartridges |
|---|---|
| [9a] An ink cartridge for mounting on a carriage of an ink jet printing apparatus and for supplying ink to a printhead of said ink jet printing apparatus through an ink supply needle, the ink cartridge comprising: | Each of the Accused '917 Ink Cartridges is an ink cartridge for mounting on the carriage of an Epson ink jet printer (an ink jet printing apparatus). Defendants market and sells the Accused '917 Ink Cartridges as being compatible with one or more specific Epson ink jet printers. For example, the Representative '917 Ink Cartridge is compatible with the Representative '917 Epson Printer. When mounted, each of the Accused '917 Ink Cartridges supplies ink to the printhead of the ink jet printer through an ink supply needle of the printer (the needle, which is part of the carriage inside the ink jet printer and not part of the cartridge, has a passage that allows ink to pass from the ink cartridge through the needle). Accordingly, the Accused '917 Ink Cartridges literally meet the |
| | preamble of claim 9 of the '917 patent. |
| [9b] a plurality of external walls defining at least some of a chamberexternal walls | Each of the Accused '917 Ink Cartridges includes several external walls that define a chamber, and therefore also at least some of a chamber. These features are shown below using the Representative '917 Ink Cartridge: |
| | chamber 9133 Accordingly, the Accused '917 Ink Cartridges literally meet this limitation of claim 9 of the '917 patent. |
| [9c] an ink supply port | Each of the Accused '917 Ink Cartridges includes an ink-supply port |
| for receiving said ink supply needle, the ink supply port having an | (i.e., a structure with an opening for the movement of ink) in the bottom of the cartridge. The ink supply port receives the ink-supply needle of the printer when the cartridge is mounted. The ink supply |

| Claim 9 of the '917 Patent | Where found in the Accused '917 Ink Cartridges |
|--|--|
| exit opening and a centerline and communicating with the chamber; | port is the conduit that allows the ink to leave the cartridge. Consequently, the ink supply port communicates with the chamber. The ink supply port also has a centerline and an exit opening at its end outside the cartridge. These features can be seen as shown below using the Representative '917 Ink Cartridge: |
| | centerline of ink supply port ink supply port ink supply port Accordingly, the Accused '917 Ink Cartridges literally meet this limitation of claim 9 of the '917 patent. |
| [9d] a semiconductor storage device storing information about the ink carried by said cartridge; and | Each of the Accused '917 Ink Cartridges includes a chip (a semiconductor storage device) on the back of a printed circuit board (the circuit board is mounted on the front wall of the ink cartridge). The chip stores information about the ink carried by the cartridge. Testing of the Representative '917 Ink Cartridge in the Representative '917 Epson Printer confirms that the chip stores information about the ink, for example, the quantity of consumed ink. The following photographs show that the printer utility window on the computer (i.e., the computer to which the printer is connected) and the printer's on-board monitor displayed that the level of ink in the Representative '917 Ink Cartridge had decremented after printing a number of pages. In addition, after removing and reinstalling the ink cartridge into the printer, the computer's printer utility window and the printer's on-board monitor continued to display the same level of ink in the ink cartridge. This testing confirms that the chip on the Representative '917 Ink Cartridge stores information about the ink carried by the cartridge, namely the amount of consumed ink. |

Claim 9 of Where found in the Accused '917 Ink Cartridges the '917 Patent The Ink level of the Representative '917 Ink Cartridge (a black-ink ink cartridge) is shown on the computer's printer utility window before any printing has been carried out (showing full): EPSON WF-7620 Series Ink Levels Cyan 252 252XL Information **Buy Epson Ink** The Ink level of the Representative '917 Ink Cartridge (a black-ink ink cartridge) is shown on the printer's on-board monitor before any printing has been carried out (showing full): Wi Fi The Ink level of the Representative '917 Ink Cartridge (a black-ink ink cartridge) is shown on the computer's printer utility window after several pages have been printed (showing partial depletion):

Claim 9 of Where found in the Accused '917 Ink Cartridges the '917 Patent EPSON WF-7620 Series Ink Levels Information **Buy Epson Ink** The Ink level of the Representative '917 Ink Cartridge (a black-ink ink cartridge) is shown on the printer's on-board monitor after several pages have been printed (showing partial depletion): @ Ink Levels The Ink level of the Representative '917 Ink Cartridge (a black-ink ink cartridge) is shown on the computer's printer utility window after the ink cartridge was removed from and reinstalled in the printer (showing the same level of partial depletion as before the ink cartridge was removed):

Claim 9 of Where found in the Accused '917 Ink Cartridges the '917 Patent EPSON WF-7620 Series ink Levels Information **Buy Epson Ink** The Ink level of the Representative '917 Ink Cartridge (a black-ink ink cartridge) is shown on the printer's on-board monitor after the ink cartridge was removed from and reinstalled in the printer (showing the same level of partial depletion): Wi 🖪 Cartridge(s) The testing of the Representative '917 Ink Cartridge is applicable to each of the Accused '917 Ink Cartridges. Accordingly, the Accused '917 Ink Cartridges literally meet this limitation of claim 9 of the '917 patent. [9e] a plurality of Each of the Accused '917 Ink Cartridges includes a plurality of contacts for connecting contacts for connecting the chip (the semiconductor storage device) to said semiconductor the ink jet printer (ink jet printing apparatus). The testing described above with respect to the preceding limitation confirms that there is an storage device to the ink jet printing apparatus, electrical connection between the chip and the ink jet printer. The contacts are the discrete portions of conductive material on the the contacts being

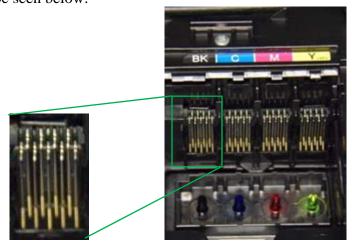
Claim 9 of the '917 Patent

Where found in the Accused '917 Ink Cartridges

formed in a plurality of rows so that one of said rows is closer to said exit opening of said ink supply port than an other of said rows, the row of said contacts which is closest to said exit opening of said ink supply port being longer than the row of said contacts which is furthest from said exit opening of said ink supply port.

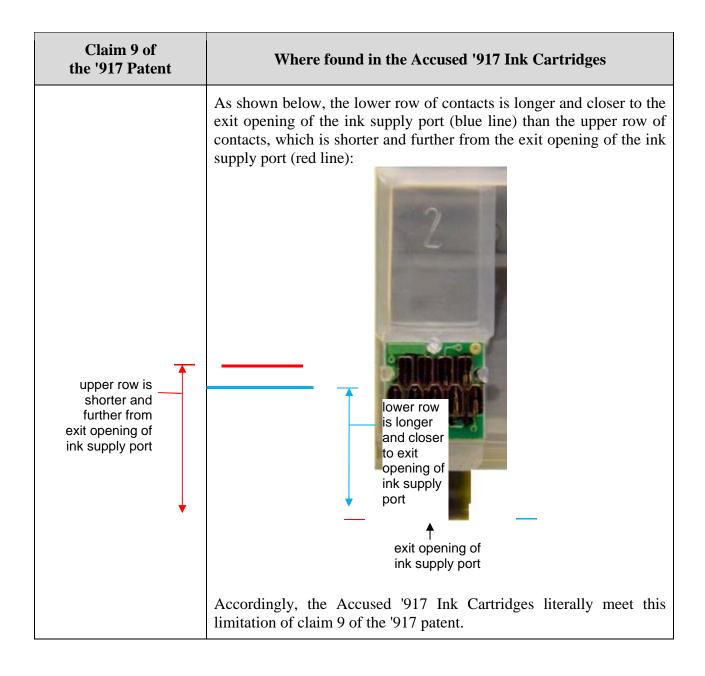
cartridge that are present there to make an electrical connection between the cartridge and the printer (i.e., they contact the printer-side contact forming members when the cartridge is installed in the printer). The contacts allow communication between the chip and the printer through corresponding printer-side contact forming members. Every Epson ink jet printer has printer-side contact forming members, as seen, for example, in the Representative '917 Epson Printer discussed with respect to the preceding limitation. The printer-side contact forming members are configured in two rows with one row above the other row. In addition, the lower row is longer than the upper row. When an ink cartridge from the Accused '917 Ink Cartridges is fully inserted into the printer and in an installed position, the printer-side contact forming members come into contact and make an electrical connection with the cartridge contacts (i.e., the discrete portions located on the larger pattern of electrically conductive material on the cartridge). The contacts are formed in two rows, one above the other. Consequently, the lower row is closer to the exit opening of the ink supply port than the upper row, and the lower row is longer than the upper row. The above described features are shown in the photos below.

Shown below are the printer-side contact forming members of the Representative '917 Epson Printer, with which, as discussed above, the Representative '917 Ink Cartridge works. The printer's contact forming members are formed in two rows, one above the other, with the lower row of contact forming members longer than the upper row, as can be seen below:



Shown at left is an enlarged view of the printer-side contact forming members of the Representative '917 Epson Printer that accepts the

| Claim 9 of the '917 Patent | Where found in the Accused '917 Ink Cartridges |
|-------------------------------|--|
| | Representative '917 Ink Cartridge. The printer-side contact forming members are arranged in two rows with the lower row (blue line) longer than the upper row (red line). |
| | The contacts of the Representative '917 Ink Cartridge are shown below. The contacts are located on the gold colored metallic conductive pattern. To confirm the location and arrangement of the contacts, the conductive pattern was marked with black ink, the cartridge was installed in and then removed from the printer (which caused the printer's contact forming members to leave scratch marks on the conductive pattern thereby removing a portion of the black ink that was applied and therefore indicating the location of the contacts), and the conductive pattern was then photographed. For example, the conductive pattern of the Representative '917 Ink Cartridge before marking with black ink is shown on the left and after marking with black ink is shown on the right: |
| | |
| | The resulting marks left by the printer's contact forming members on the conductive material of the ink cartridge show the arrangement of the contacts of the ink cartridge. These are shown below with red boxes (top row of contacts) and blue boxes (bottom of row of contacts). |
| | |



On information and belief after conducting a reasonable investigation, Defendants have and are actively, knowingly and intentionally aiding and abetting and inducing infringement of the '917 patent in violation of 35 U.S.C. § 271(b) by non-parties, including endusers, despite Defendants' knowledge of the '917 patent. On information and belief, Defendants' Presidents, Anthony K. Martin and Joseph J. Ascaridis direct and control the infringing activities of defendants CIS Systems and Absolute InkJet and have taken and continue to take active steps

to encourage and induce Defendants CIS Systems and Absolute InkJet and each other to infringe by actively running and directing the businesses of the corporate defendants, including but not limited to being the principal decision makers regarding the importation, promotion, advertising, and sale of products that infringe the '917 patent, including on Defendants' principal websites discussed above in paragraphs 15-17. On information and belief, Defendants have knowledge of the '917 patent since at least December 12, 2016, when Defendants were served with the notice letter sent by Epson as discussed above in paragraphs 18-19.

- 27. On information and belief, Defendants are contributing to the infringement of the '917 patent in violation of 35 U.S.C. § 271(c) by non-parties by offering to sell or selling within the United States or importing into the United States components of the patented inventions set forth in the '917 patent. The components constitute a material part of the inventions. Defendants know that such components are especially made or especially adapted for use in an infringement of the '917 patent. The components are not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 28. By reason of Defendants' infringing activities, Epson has suffered, and will continue to suffer, substantial damages in an amount to be proven at trial.
- 29. Defendants' acts complained of herein have damaged and will continue to damage Epson irreparably. Epson has no adequate remedy at law for these wrongs and injuries. Epson is therefore entitled to a preliminary and permanent injunction restraining and enjoining Defendants and their agents, servants, and employees, and all persons acting thereunder, in concert with, or on their behalf, from infringing the claims of the '917 patent.
- 30. Defendants are not licensed or otherwise authorized to make, use, import, sell, or offer to sell any ink cartridge claimed in the '917 patent, and Defendants' conduct is, in every

instance, without Epson's consent.

31. On information and belief, Defendants' infringement has been and continues to be willful.

SECOND CLAIM FOR RELIEF

(Patent Infringement—35 U.S.C. § 271)

INFRINGEMENT OF U.S. PATENT NO. 8,794,749

- 32. Epson incorporates by reference each and every allegation contained in Paragraphs 1 through 20 as though fully set forth at length here.
- Epson owns all right, title, and interest in, including the right to sue thereon and the right to recover for infringement thereof, United States Patent No. 8,794,749 ("the '749 patent"), which was duly and legally issued to Seiko Epson by the United States Patent and Trademark Office on August 5, 2014. The '749 patent relates generally to ink cartridges for printers. Attached as Exhibit C to this Complaint is a true and correct copy of the '749 patent.
 - 34. The '749 patent is valid and enforceable.
- On information and belief after conducting a reasonable investigation, Defendants have infringed and are infringing the '749 patent, as defined by numerous claims of the patent in violation of 35 U.S.C. § 271(a) by making, using, importing, offering to sell, and selling in this judicial district and elsewhere aftermarket ink cartridges that operate with Epson ink jet printers, including but not limited to ink cartridges having model nos. ETCPETC.700, T252120, T252220, T252320, and T252420, as well as others that are no more than colorably different from the foregoing (collectively, the "Accused '749 Ink Cartridges"). The specific models of Accused '749 Ink Cartridges identified above were obtained by Epson during its

investigation leading to this Complaint from Defendants' online listings on their www.ink2image.com and www.absoluteinkject.com websites.

As a non-limiting example, set forth below is a claim chart with a description of Defendants' infringement of exemplary claim 1 of the '749 patent by the Accused '749 Ink Cartridges. The infringement is shown using a representative ink cartridge (Model No. ETCPETC.700 (Epson T694500); Control No. 9071) from among the Accused '749 Ink Cartridges purchased from Defendants that, for infringement analysis purposes, is representative of and represents all of Defendants' ink cartridges within the Accused '749 Ink Cartridges (i.e., the represented ink cartridges), including, but not limited to, the models identified above. The claim chart below refers to this ink cartridge as "the Representative '749 Ink Cartridge." The Representative '749 Ink Cartridge was designed for use in a specific Epson printer, the Epson Sure Color T5270D ("the Representative '749 Epson Printer"), and for purposes of the analysis set forth herein, the Representative '749 Ink Cartridge was tested in the Representative '749 Epson Printer, as discussed in further detail in the claim chart below.

| Claim 1 of the '749 Patent | Where found in the Accused '749 Ink Cartridges |
|---|---|
| [1a] A printing material container adapted to be attached to a printing apparatus by being inserted into the printing apparatus in an insertion direction, the printing apparatus having a print head and a plurality of apparatus-side electrical contact members, the printing material container comprising: | Each of the Accused '749 Ink Cartridges is a printing material container (an ink cartridge) adapted to be attached to an Epson ink jet printing apparatus. Each of the Accused '749 Ink Cartridges is inserted, in an insertion direction, into an Epson ink jet printer. All Epson ink jet printers that accept the Accused '749 Ink Cartridges have a print head and a plurality of printerside (apparatus-side) electrical contact members. These features are shown below using the Representative '749 Ink Cartridge. The Representative '749 Ink Cartridge is adapted to be attached to the Representative '749 Epson Printer by being inserted in an insertion direction, as shown in the following photographs: |

| Claim 1 of the '749 Patent | Where found in the Accused '749 Ink Cartridges |
|----------------------------|--|
| | |
| | The Representative '749 Ink Cartridge |
| | SureColor T5270D |
| | The Representative '749 Epson Printer |
| | The following photograph depicts the insertion direction (blue arrow) in which the Representative '749 Ink Cartridge is inserted into the Representative '749 Epson Printer: |

Claim 1 of the '749 Patent Where found in the Accused '749 Ink Cartridges insertion direction The following photograph shows the Representative '749 Ink Cartridge, a matte black-ink ink cartridge, attached in the Representative '749 Epson Printer after the cartridge has been inserted into the printer in the insertion direction (the yellow, magenta, and cyan ink cartridges, which are genuine Epson ink cartridges used to fill the remaining slots of the cartridge holder, can also be seen): Representative '749 Ink Cartridge installed in the Representative '749 Epson Printer The Epson ink jet printers that accept the Accused '749 Ink Cartridges each include a print head for printing and multiple printer-side electrical contact forming members

| Claim 1 of the '749 Patent | Where found in the Accused '749 Ink Cartridges |
|--|---|
| | for each ink cartridge accepted by the printer. These features are shown below for the printer's cartridge holder slot that accepts the Representative '749 Ink Cartridge, a matte black-ink ink cartridge (the printer's electrical contact members for the yellow, magenta, and cyan cartridges can also be seen in the right photo): |
| | Zoomed-in view of printer's electrical contact forming members (1 indicated; 9 shown) Accordingly, the Accused '749 Ink Cartridges literally |
| [1b] an ink supply opening, having an exit, adapted to supply ink from the ink cartridge to the printing apparatus; | meet the preamble of claim 1 of the '749 patent. Each of the Accused '749 Ink Cartridges comprises an ink supply opening having an exit. When attached, the ink supply opening of each of the Accused '749 Ink Cartridges is adapted to supply ink from the cartridge to the Epson ink jet printer that accepts the cartridge. The following photograph depicts the exit of the ink supply opening of the Representative '749 Ink Cartridge: |
| | exit of ink supply opening |
| | Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent. |
| [1c] a low voltage electronic device adapted to receive and function with a low voltage, the low voltage electronic device comprising a memory device; | Each of the Accused '749 Ink Cartridges comprises a low voltage electronic device that comprises a memory device adapted to receive and function with a low voltage. The low voltage electronic device is an integrated circuit ("IC") chip located on the back of a printed circuit board that is mounted on a wall of the ink |

| Claim 1 of the '749 Patent | Where found in the Accused '749 Ink Cartridges |
|----------------------------|---|
| | cartridge, as shown below in the Representative '749 Ink Cartridge: |
| | printed circuit board (green) with low voltage electronic device located on back |
| | In addition, the presence of a low voltage electronic device (i.e., an IC chip comprising a memory device) is further confirmed through testing demonstrating that the Epson ink jet printers that accept the Accused '749 Ink Cartridges read the remaining ink level and other descriptive information about the ink cartridge from the ink cartridge's memory device, and display that information on the display screen of a connected computer and on the printer's display screen. The following photographs show the display of such information on the computer display screen and the printer's display screen for the Representative '749 Ink Cartridge, containing matte black ink, attached to the Representative '749 Epson Printer: |

Claim 1 of the '749 Patent Where found in the Accused '749 Ink Cartridges TPSON Status Montos 1: 1PSON SC-152000 Series **EPSON** It to ready to prot. memory device shows, on the computer's display screen, the amount of matte black ink remaining in the Representative '749 Ink Cartridge Ready memory device shows, on the printer's display screen, the amount of black ink remaining in the Representative '749 Ink Cartridge

| Claim 1 of the '749 Patent | Where found in the Accused '749 Ink Cartridges |
|---|---|
| | All Epson ink jet printers that accept the Accused '749 Ink Cartridges have similar circuitry and programming in terms of the voltages and signals they apply to their contact forming members and, consequently, to the corresponding contact portions of the Accused '749 Ink Cartridges (the contact portions are located on the gold-colored metallic terminals of the ink cartridge shown above). In particular, Epson printers apply a maximum voltage of approximately 4 volts (a low voltage as compared to the high voltage discussed in the next limitation) to certain of their contact forming members that in turn correspond to certain of the contact portions of the Accused '749 Ink Cartridges that are connected to the low voltage electronic device comprising a memory device. Consequently, the low voltage electronic device is adapted to receive and function with a low voltage. Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent. |
| [1d] a high voltage electronic device adapted to receive and function with a high voltage, which is a higher voltage than the low voltage of the low voltage electronic device; and | Each of the Accused '749 Ink Cartridges comprises a high voltage electronic device that is adapted to receive and function with a voltage that is a higher voltage than the voltage of the low voltage electronic device. The high voltage electronic device may be, for example, a resistor, or one or more other coupled electronic components, that is/are capable of receiving and functioning with a high voltage. The high voltage electronic device is located on the back of a printed circuit board that is mounted on a wall of the ink cartridge, as shown below in the Representative '749 Ink Cartridge: |
| | printed circuit board (green) with high voltage electronic device located on back All Epson ink jet printers that accept the Accused '749 Ink Cartridges have similar circuitry and programming in |

| Claim 1 of the '749 Patent | Where found in the Accused '749 Ink Cartridges |
|--|---|
| | terms of the voltages and signals they apply to their contact forming members and, consequently, to the corresponding contact portions of the Accused '749 Ink Cartridges (the contact portions are located on the gold terminals of the ink cartridge shown above). In particular, Epson printers apply a voltage of approximately 42 volts (a high voltage as compared to the low voltage of approximately 4 volts applied to the low voltage electronic device discussed in the preceding limitation) to two of their contact forming members that in turn correspond to two of the contact portions of the Accused '749 Ink Cartridges that are connected to the high voltage electronic device. Consequently, the high voltage electronic device is adapted to receive and function with a high voltage. Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent. |
| [1e] a plurality of container-side terminals having contact portions adapted and positioned to contact corresponding apparatus-side contact forming members so that electrical communication is enabled between the container and the printing apparatus, the contact portions of the terminals including a plurality of low voltage electronic device contact | Each of the Accused '749 Ink Cartridges comprises a plurality of container-side terminals that have contact portions. The contact portions are adapted and positioned on the cartridge so that, when the cartridge is attached to the printer, the contact portions of the cartridge's terminals contact corresponding printer-side contact forming members so that electrical communication is enabled between the cartridge and the printer. |
| portions electrically coupled to the low voltage electronic device, and a first high voltage electronic device contact portion and a second high voltage electronic device contact portion, each electrically coupled to the high voltage electronic device, wherein: | As seen with respect to limitation 1c above, the terminals of the Accused '749 Ink Cartridges are the gold colored metallic portions on the green printed circuit board. The contact portions are located on these gold colored metallic portions. To confirm the location and arrangement of the terminals' contact portions, the terminals were marked with black ink, the cartridge was installed in and then removed from the printer (which caused the printers' contact forming members to leave scratch marks on the terminals thereby removing a portion of the black ink that was applied and therefore indicating the location of the contact portions), and the terminals were then photographed. For example, the terminals of the Representative '749 Ink Cartridge before marking with black ink is shown on the left and after |

| Claim 1 of the '749 Patent | Where found in the Accused '749 Ink Cartridges |
|----------------------------|--|
| | marking with black ink is shown on the right: |
| | |
| | The resulting marks left by the printer's contact forming members on the terminals show the location and arrangement of the contact portions. These are indicated below with annotated yellow boxes superimposed on the terminals to indicate the location of the contact portions (there are a total of nine contact portions, with four contact portions in a top row and five contact portions in a bottom row): |
| | |
| | The contact portions shown above correspond to their printer-side contact forming members so that electrical communication is enabled between the ink cartridge and the printer, e.g., so the printer can read remaining ink level and other information from the memory device as described above with respect to limitation 1c. |
| | The above shown contact portions include a plurality of low voltage electronic device contact portions that are electrically coupled to the low voltage electronic device (specifically, the IC chip comprising a memory device). Each low voltage electronic device contact portion is electrically coupled by the terminal it appears on and by other circuitry to the memory device located on the back of the green printed circuit board. The following |

| Claim 1 of the '749 Patent | Where found in the Accused '749 Ink Cartridges |
|--|---|
| | photograph of the Representative '749 Ink Cartridge shows the low voltage electronic device contact portions (there are five such low voltage electronic device contact portions, as indicated by superimposed blue boxes): |
| | The contact portions of the Accused '749 Ink Cartridges' terminals also include first and second high voltage electronic device contact portions that are each electrically coupled to the high voltage electronic device discussed above with respect to limitation 1d. Each high voltage electronic device contact portion is electrically coupled by the terminal it appears on and by other circuitry to the high voltage electronic device on the back of the printed circuit board. The following photograph of the Representative '749 Ink Cartridge shows the high voltage electronic device contact portions (there are two such high voltage electronic device contact portions, as indicated by superimposed red boxes): |
| | second high voltage electronic device contact portion Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent. |
| [1f] the contact portions are arranged in a first row of contact portions and in a second row of | The contact portions of each of the Accused '749 Ink Cartridges are arranged in a first row of contact portions and in a second row of contact portions that both extend |

| Where found in the Accused '749 Ink Cartridges |
|---|
| in a row direction which is generally orthogonal to the insertion direction. The following photographs of the Representative '749 Ink Cartridge show the first row and second row of contact portions extending in a row direction which is generally orthogonal to the insertion direction in which the Accused '749 Ink Cartridges are inserted into Epson ink jet printers that accept the Accused '749 Ink Cartridges. The right photo shows an enlarged and annotated view of the printed circuit board shown in the left photo. |
| 90° insertion direction |
| first row of contact portions (red squares) and second row of contact portions (yellow squares), each extending in a row direction (green arrows) orthogonal to cartridge insertion direction (blue |
| Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent. |
| In each of the Accused '749 Ink Cartridges, the first row of contact portions is disposed at a location that is further in the insertion direction than the second row of contact portions. The following photographs of the Representative '749 Ink Cartridge show the first row of contact portions (red boxes) disposed at a location that is further in the cartridge insertion direction than the second row of contact portions (yellow boxes) (i.e., the first row is deeper in the printer than the second row). |
| |

| Claim 1 of the '749 Patent | Where found in the Accused '749 Ink Cartridges |
|--|--|
| | insertion direction second row of contact portions first row of contact portions first row of contact portions (red squares) disposed |
| | further in insertion direction (blue arrow) than second row of contact portions (yellow squares) |
| | Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent. |
| [1h] the first row of contact portions has a first end position and a second end position at opposite ends thereof, the first high voltage electronic device contact portion is disposed at the first end position of the first row of contact portions and the second high voltage electronic device contact portion is disposed at the second end position of the first row of contact portions. | In each of the Accused '749 Ink Cartridges, the first row of contact portions has a first end position and a second end position at opposite ends thereof, the first high voltage electronic device contact portion is disposed at the first end position of the first row of contact portions, and the second high voltage electronic device contact portion is disposed at the second end position of the first row of contact portions. The following photograph of the Representative '749 Ink Cartridge shows the first and second high voltage contact portions disposed, respectively, at the first and second end positions at opposite ends of the first row of contact portions. second high voltage electronic device contact portion disposed at second end position of first row of contact portion of first row of contact portions. |
| | Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent. |

- On information and belief after conducting a reasonable investigation, Defendants have and are actively, knowingly and intentionally aiding and abetting and inducing infringement of the '749 patent in violation of 35 U.S.C. § 271(b) by non-parties, including endusers, despite Defendants' knowledge of the '749 patent. On information and belief, Defendants' Presidents, Anthony K. Martin and Joseph J. Ascaridis direct and control the infringing activities of defendants CIS Systems and Absolute InkJet and have taken and continue to take active steps to encourage and induce Defendants CIS Systems and Absolute InkJet and each other to infringe by actively running and directing the businesses of the corporate defendants, including but not limited to being the principal decision makers regarding the importation, promotion, advertising, and sale of products that infringe the '749 patent, including on Defendants' principal websites discussed above in paragraphs 15-17. On information and belief, Defendants have knowledge of the '749 patent since at least December 12, 2016, when Defendants were served with the notice letter sent by Epson as discussed above in paragraphs 18-19.
- 38. On information and belief, Defendants are contributing to the infringement of the '749 patent in violation of 35 U.S.C. § 271(c) by non-parties by offering to sell or selling within the United States or importing into the United States components of the patented inventions set forth in the '749 patent. The components constitute a material part of the inventions. Defendants know that such components are especially made or especially adapted for use in an infringement of the '749 patent. The components are not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 39. By reason of Defendants' infringing activities, Epson has suffered, and will continue to suffer, substantial damages in an amount to be proven at trial.
 - 40. Defendants' acts complained of herein have damaged and will continue to

damage Epson irreparably. Epson has no adequate remedy at law for these wrongs and injuries. Epson is therefore entitled to a preliminary and permanent injunction restraining and enjoining Defendants and their agents, servants, and employees, and all persons acting thereunder, in concert with, or on their behalf, from infringing the claims of the '749 patent.

- 41. Defendants are not licensed or otherwise authorized to make, use, import, sell, or offer to sell any ink cartridge claimed in the '749 patent, and Defendants' conduct is, in every instance, without Epson's consent.
- 42. On information and belief, Defendants' infringement has been and continues to be willful.

THIRD CLAIM FOR RELIEF

(Patent Infringement—35 U.S.C. § 271)

INFRINGEMENT OF U.S. PATENT NO. 8,454,116

- 43. Epson incorporates by reference each and every allegation contained in Paragraphs 1 through 22 as though fully set forth at length here.
- Epson owns all right, title, and interest in, including the right to sue thereon and the right to recover for infringement thereof, United States Patent No. 8,454,116 ("the '116 patent"), which was duly and legally issued to Seiko Epson by the United States Patent and Trademark Office on June 4, 2013. The '116 patent relates generally to ink cartridges for printers. Attached as Exhibit D to this Complaint is a true and correct copy of the '116 patent.
 - 45. The '116 patent is valid and enforceable.
- 46. On information and belief after conducting a reasonable investigation, Defendants have infringed and are infringing the '116 patent, as defined by at least one claim of the patent in violation of 35 U.S.C. § 271(a) by making, using, importing, offering to sell, and

selling in this judicial district and elsewhere aftermarket ink cartridges that operate with Epson ink jet printers, including but not limited to replacement cartridge chips and ink cartridges having model nos. ETCPETC.700, T252120, T252220, T252320, and T252420, as well as others that are no more than colorably different from the foregoing (collectively, the "Accused '116 Ink Cartridges"). The specific models of Accused '116 Ink Cartridges and replacement cartridge chips identified above were obtained by Epson during its investigation leading to this Complaint from Defendants' online listings on their www.ink2image.com and www.absoluteinkjet.com websites.

As a non-limiting example, set forth below is a claim chart with a description of Defendants' infringement of claim 18 of the '116 patent by the Accused '116 Ink Cartridges. The infringement is shown using a representative ink cartridge (Model No. T252120; Control No. 9133) from among the Accused '116 Ink Cartridges purchased from Defendants that, for infringement analysis purposes, is representative of and represents all of Defendants' ink cartridges within the Accused '116 Ink Cartridges (i.e., the represented ink cartridges), including, but not limited to, the models identified above. The claim chart below refers to this ink cartridge as "the Representative '116 Ink Cartridge." The Representative '116 Ink Cartridge was designed for use in a specific Epson printer, the Epson WorkForce WF-7620 printer ("the Representative '116 Epson Printer"), and for purposes of the analysis set forth herein, the Representative '116 Ink Cartridge was tested in the Representative '116 Epson Printer, as discussed in further detail in the claim chart below.

| Claim 18 of the '116 patent | Where found in the Accused '116 Ink Cartridges |
|---|---|
| [18a]. A circuit board mountable on a printing material container that is used in an ink jet printing apparatus, the ink jet printing apparatus having | A circuit board is mounted on the Representative '116 Ink Cartridge (model no. T252120; control no. 9133), which itself is a printing material container and that is used in an Epson ink jet printing apparatus (e.g., the |

Claim 18 of the '116 patent

a print head and a plurality of apparatus-side contact forming members, the printing material container having a body and an ink supply opening, the ink supply opening having an exit on an exterior portion of the body and being adapted to supply ink from the printing material container to the printing apparatus, the circuit board comprising:

Where found in the Accused '116 Ink Cartridges

Representative '116 Epson Printer) having a print head and a plurality of apparatus-side contact forming members.

The Representative '116 Ink Cartridge has a body and an ink supply opening having an exit on an exterior portion of the body and being adapted to supply ink from the Representative '116 Ink Cartridge to the Epson ink jet printing apparatus.

The Representative '116 Ink Cartridge is a printing material container with a mounted circuit board. The following photos depict the circuit board (green with gold-colored metallic terminals) mounted on the Representative '116 Ink Cartridge containing black ink.



The Representative '116 Ink Cartridge is used in any of the following Epson ink jet printer (printing apparatus) models: Epson WorkForce WF-7110, WF-7610, WF-7620, WF-3620, and WF-3640 (the "Epson Ink Jet Printers").

The following photo depicts the Epson WorkForce WF-7620 ink jet printer.



The Epson Ink Jet Printers each include a print head for printing and multiple printer-side contact forming members.

| Claim 18 of the '116 patent | Where found in the Accused '116 Ink Cartridges | |
|---|--|--|
| | The Representative '116 Ink Cartridge has a body, as depicted below. body | |
| | The Representative '116 Ink Cartridge has an ink supply opening having an exit on an exterior portion of the body. When mounted, the ink supply opening is adapted to supply ink from the printing material container (i.e., the cartridge) to the Epson Ink Jet Printers. | |
| | The following photo depicts the exit of the Representative '116 Ink Cartridge's ink supply opening exit of ink supply opening (shown here with anti-leak film undisturbed and in place) | |
| | | |
| | | |
| | Accordingly, the Representative '116 Ink Cartridge literally meets the preamble of claim 18 of the '116 patent. | |
| [18b] a memory device adapted to be driven by a memory driving voltage; | The circuit board mounted on the Representative '116 Ink Cartridge comprises a memory device that is adapted to be driven by a memory driving voltage. | |
| | The following photo depicts the circuit board (green with gold-colored metallic terminals) mounted on the Representative '116 Ink Cartridge. The memory device is located on the back of the circuit board and is not visible in this view. | |

| Claim 18 of the '116 patent | Where found in the Accused '116 Ink Cartridges | |
|---|--|--|
| | circuit board (memory device on back) | |
| | All Epson ink jet printers that accept the Representative '116 Ink Cartridge have similar circuitry and programming in terms of the voltages and signals they apply to their contact forming members and, consequently, to the corresponding contact portions of the Representative '116 Ink Cartridge (the contact portions are located on the gold-colored metallic terminals of the ink cartridge shown above). In particular, Epson printers apply a maximum voltage of approximately 4 volts (a low voltage as compared to the high voltage discussed in the next limitation) to certain of their contact forming members that in turn correspond to certain of the contact portions of the Representative '116 Ink Cartridge that are connected to the memory. Consequently, the memory device is adapted to be driven by a memory driving voltage. This was confirmed through testing during the ITC 946 Investigation. Accordingly, the Representative '116 Ink Cartridge literally meets this limitation of claim 18 of the '116 patent. | |
| [18c] an electronic device adapted to receive a voltage higher than the memory driving voltage; and | The circuit board mounted on the Representative '116 Ink Cartridge comprises an electronic device that is adapted to receive a voltage that is a higher voltage than the voltage of the memory device. The electronic device that receives a higher voltage may be, for example, a resistor, or one or more other coupled electronic components, that is/are capable of receiving a high voltage. The electronic device is located on the back of a printed circuit board that is mounted on a wall of the Representative '116 Ink Cartridge shown in | |

| Where found in the Accused '116 Ink Cartridges | |
|--|--|
| the above limitation. | |
| Moreover, all Epson ink jet printers that accept the Representative '116 Ink Cartridge have similar circuitry and programming in terms of the voltages and signals they apply to their contact forming members and, consequently, to the corresponding contact portions of the circuit board mounted on the Representative '116 Ink Cartridge (the contact portions are located on the gold terminals of circuit board mounted on the ink cartridge shown above). In particular, Epson printers apply a voltage of approximately 42 volts (a high voltage as compared to the low voltage of approximately 4 volts applied to the memory device discussed in the preceding limitation) to two of their contact forming members that in turn correspond to two of the contact portions of the circuit board mounted on the Representative '116 Ink Cartridge that are connected to the electronic device. Consequently, the electronic device is adapted to receive and function with a high voltage. This was confirmed through testing during the ITC 946 Investigation. | |
| Accordingly, the Representative '116 Ink Cartridge literally meets this limitation of claim 18 of the '116 patent. | |
| The circuit board mounted on the Representative '116 Ink Cartridge comprises a plurality of terminals that have contact portions. The contact portions are adapted and positioned on the cartridge so that, when the cartridge is mounted on the printer, the contact portions of the cartridge's terminals contact corresponding printer-side contact forming members so that electrical communication is enabled with the printer. As discussed at 18(a) and 18(b) <i>supra</i> , the terminals of the Representative '116 Ink Cartridge's circuit board are the gold colored metallic portions on the green circuit board, reproduced in enlarged form below. | |
| | |

Claim 18 of the '116 patent

Where found in the Accused '116 Ink Cartridges

detection contact portion positioned and arranged to electrically contact a contact forming member that itself is electrically coupled to a short detection circuit of the printing apparatus, wherein:



To determine the precise location of the terminals' contact portions, the following steps were taken: (1) using a marker, black ink was applied to the terminals and the terminal arrangement photographed; (2) the Representative '116 Ink Cartridge was installed in and removed from the printer; and (3) the terminal arrangement was photographed. The following photo shows the terminals after the application of black ink with a marker.



The step of installing and removing the cartridge from the printer, causes the printer's contact forming members (discussed at 18(a), *supra*) to leave scratch marks on the terminals thereby removing a portion of the black ink that was applied with the marker. The following photo shows the terminals after the cartridge was installed and removed from the printer.



| Claim 18 of the '116 patent | Where found in the Accused '116 Ink Cartridges | |
|-----------------------------|---|--|
| | The contact portions of the circuit board's terminals are the most pronounced portions of the scratch marks (all of which contact corresponding printer-side contact forming members so that electrical communication is enabled with the printer, e.g., so that the printer can read remaining ink level and other information from the memory device as described in 18(b), <i>supra</i>). The following annotated photo shows the location of the contact portions annotated by red circles. | |
| | | |
| | The contact portions of the circuit board's terminals include a plurality of memory contact portions that are electrically coupled to the memory device. Each memory contact portion is electrically coupled by the terminal it appears on to a "via," which is a throughhole (through the circuit board) that electrically couples the terminal to wiring on the back of the circuit board. The wiring on the back of the circuit board electrically couples the via (and, therefore, the contact portion of the terminal) to an electrical lead of the IC chip containing the memory device mounted on the back of the circuit board. In combination, these components electrically couple the memory contact portion to the memory device. | |
| | The following annotated photo depicts the five memory contact portions (in blue) located on the terminals on the front of the circuit board. | |

| Claim 18 of the '116 patent | Where found in the Accused '116 Ink Cartridges | |
|-----------------------------|--|--|
| | memory contact portions | |
| | The contact portions of the circuit board's terminals include a first and second electronic device contact portion that are each electrically coupled to the electronic device (specifically, the resistor). Each electronic device contact portion is electrically coupled by the terminal it appears on to a via that electrically couples the terminal to wiring located on the back of the circuit board. The wiring on the back of the circuit board electrically couples the via (and, therefore, the contact portion of the terminal) to an electrical lead of the resistor mounted on the back of the circuit board. In combination, these components electrically couple the first and second electronic device contact portions to the resistor. | |
| | The following annotated photo depicts the first and second electronic device contact portions (in red) located on the terminals on the front of the circuit board. Second electronic device contact portion Second electronic device Second electro | |
| | The contact portions of the circuit board's terminals include a short detection contact portion that is positioned and arranged to electrically contact a contact forming member of the Epson Ink Jet Printers that is itself electrically coupled to a short detection | |

| Claim 18 of the '116 patent | Where found in the Accused '116 Ink Cartridges | |
|--|--|--|
| | circuit of the printers. | |
| | The following photo depicts the short detection contact portion (in green). | |
| | short detection contact portion | |
| | Moreover, all Epson ink jet printers that accept the Representative '116 Ink Cartridge have similar circuitry and programming in terms of the operation of the short detection contact portion. In particular, when the printers are operated while the short detection contact portion is electrically shorted to the second electronic device contact portion, the printers stop the receipt of the voltage higher than the memory driving voltage by the second electronic device contact portion, and display an error message to the user on the display screen of a connected computer and on the printer display screen (if the printer has a display screen). This was confirmed through testing during the ITC 946 Investigation. | |
| | Accordingly, the Representative '116 Ink Cartridge literally meets this limitation of claim 18 of the '116 patent. | |
| [18e] the contact portions are arranged so that, when the terminal arrangement is viewed from the vantage of the contact forming members, with the terminals oriented as if in contact with the contact forming members so that electrical communication is enabled with the ink jet printing apparatus, and with the ink cartridge oriented with the exit of the ink supply | The contact portions of the Representative '116 Ink Cartridge's circuit board are arranged so that, when the terminal arrangement is viewed from the vantage of the printer's contact forming members, with the terminals oriented as if in contact with the contact forming members so that electrical communication is enabled with the printer, and with the ink cartridge oriented so that the exit of the ink supply opening faces downwards, then the contact portion farthest to the left is the first electronic device contact portion, the contact portion that is farthest to the right is the second | |

Claim 18 of the '116 patent

opening facing downwards, the contact portion farthest to the left is the first electronic device contact portion, the contact portion that is farthest to the right is the second electronic device contact portion, the contact portion that is second farthest to the right is the short detection contact portion, and the memory contact portions are located to the left of the short detection contact portion and to the right of the first electronic device contact portion.

Where found in the Accused '116 Ink Cartridges

electronic device contact portion, the contact portion that is second farthest to the right is a short detection contact portion, and the memory contact portions are located to the left of the short detection contact portion and to the right of the first electronic device contact portion.

The following photo depicts the terminal arrangement when it is viewed from the vantage of the printer's contact forming members, with the terminals oriented as if in contact with the contact forming members so that electrical communication is enabled with the printer, and with the ink cartridge oriented so that the exit of the ink supply opening faces downwards.



terminal arrangement viewed from vantage of printer's contact forming members . . . with the exit of the ink supply opening facing downwards

The following photo depicts the arrangement of the contact portions when the terminal arrangement is viewed as described above.

| Claim 18 of the '116 patent | Where found in the Accused '116 Ink Cartridges | |
|-----------------------------|--|--|
| | contact portion present here, but not called out by claim | short detection contact portion (second farthest to right) |
| | electronic device contact portion (farthest to left) | second electronic device contact portion (farthest to right) |
| | memory contact (left of the short detect portion and to the right electronic device cont | ction contact nt of the first |
| | Accordingly, the Representative '116 Ink Cartridge literally meets this limitation of claim 18 of the '116 patent. | |

A8. On information and belief after conducting a reasonable investigation, Defendants have and are actively, knowingly and intentionally aiding and abetting and inducing infringement of the '116 patent in violation of 35 U.S.C. § 271(b) by non-parties, including endusers, despite Defendants' knowledge of the '116 patent. On information and belief, Defendants' Presidents, Anthony K. Martin and Joseph J. Ascaridis direct and control the infringing activities of defendants CIS Systems and Absolute InkJet and have taken and continue to take active steps to encourage and induce Defendants CIS Systems and Absolute InkJet and each other to infringe by actively running and directing the businesses of the corporate defendants, including but not limited to being the principal decision makers regarding the importation, promotion, advertising, and sale of products that infringe the '116 patent, including on Defendants' principal websites discussed above in paragraphs 15-17. On information and belief, Defendants have knowledge of the '116 patent since at least December 12, 2016, when Defendants were served with the notice letter sent by Epson as discussed above in paragraphs 18-19.

- 49. On information and belief, Defendants are contributing to the infringement of the '116 patent in violation of 35 U.S.C. § 271(c) by non-parties by offering to sell or selling within the United States or importing into the United States components of the patented inventions set forth in the '116 patent. The components constitute a material part of the inventions. Defendants know that such components are especially made or especially adapted for use in an infringement of the '116 patent. The components are not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 50. By reason of Defendants' infringing activities, Epson has suffered, and will continue to suffer, substantial damages in an amount to be proven at trial.
- 51. Defendants' acts complained of herein have damaged and will continue to damage Epson irreparably. Epson has no adequate remedy at law for these wrongs and injuries. Epson is therefore entitled to a preliminary and permanent injunction restraining and enjoining Defendants and their agents, servants, and employees, and all persons acting thereunder, in concert with, or on their behalf, from infringing the claims of the '116 patent.
- 52. Defendants are not licensed or otherwise authorized to make, use, import, sell, or offer to sell any ink cartridge components claimed in the '116 patent, and Defendants' conduct is, in every instance, without Epson's consent.
- 53. On information and belief, Defendants' infringement has been and continues to be willful.

PRAYER FOR RELIEF

WHEREFORE, Epson prays for judgment against Defendants as follows:

- A. That the Epson Patents are valid and enforceable;
- B. That Defendants have infringed and are infringing the Epson Patents;

C. That such infringement is willful;

D. That Defendants and their subsidiaries, affiliates, parents, successors, assigns,

officers, agents, representatives, servants, and employees, and all persons in active concert or

participation with them, be preliminarily and permanently enjoined from continued infringement

of the Epson Patents;

E. That Defendants be ordered to pay Epson its damages caused by Defendants'

infringement of the Epson Patents and that such damages be trebled, together with interest

thereon;

F. That this case be declared exceptional pursuant to 35 U.S.C. § 285 and that Epson

be awarded its reasonable attorneys' fees, litigation expenses and expert witness fees, and costs;

and

G. That Epson have such other and further relief as the Court deems just and proper.

JURY TRIAL DEMAND

Pursuant to Fed. R. Civ. P. 38(b), Plaintiffs request a trial by jury of all issues so triable.

DATED: September 27, 2018 Respectfully submitted,

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