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**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF OREGON  
PORTLAND DIVISION**

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

Plaintiffs,

v.

**E TOP, LLC.,** an Oregon limited liability  
company; **SHUPING HONG HURLEY,**  
and individual; and **XUMING HONG,** an  
individual,

Defendants.

Civil No. \_\_\_\_\_

**COMPLAINT FOR:  
PATENT INFRINGEMENT  
DEMAND FOR JURY TRIAL**

Plaintiffs Seiko Epson Corporation, Epson America, Inc., and Epson Portland Inc., for their Complaint herein, allege as follows:

**NATURE OF THE ACTION**

1. This is an action for patent infringement of United States Patent No. 6,955,422 ("the '422 patent"), United States Patent No. 8,794,749 ("the '749 patent"), and United States Patent No. 8,454,116 ("the '116 patent") (collectively, "the 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. 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 publicized 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. The aftermarket ink cartridge industry knows that importation and sale of ink cartridges for use with Epson printers may violate the ITC's general exclusion orders and infringe the Epson Patents. Epson also gives notice of its patents, including the '422, '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 ink cartridges that infringe the Epson Patents in flagrant violation of the ITC's general exclusion orders and United States patent law.

3. Defendants in this case are willful infringers of the Epson 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**

4. This action is related to the following twenty-six actions because one or more of the Epson Patents are/were also asserted in those cases against infringing aftermarket ink cartridges that, from a patent analysis perspective, are the same as the accused products in this case:

- a. *Seiko Epson Corporation, et al. v. Vision Imaging Supplies, LLC, et al.*, Civil No. 2:21-cv-02756 (C.D.CA.), filed on March 30, 2021, currently pending;
- b. *Seiko Epson Corporation, et al. v. Audoormatics, Inc., et al.*, Civil No. 2:20-cv-11148-MCS-MAA (C.D.CA.), filed on December 9, 2020, currently pending;
- c. *Seiko Epson Corporation, et al. v. Straightouttaintk, LP, et al.*, Civil No. 5:19-cv-08240 (N.D.CA.), filed on December 18, 2019, currently pending;
- d. *Seiko Epson Corporation, et al. v. Vintrick Inc., et al.*, Civil No. 1:19-cv-10697-CJC-AFM (C.D.CA.), filed on December 18, 2019, concluded by default judgment and permanent injunction;
- e. *Seiko Epson Corporation, et al. v. BCH Technologies LLC, et al.*, Civil No. 1:19-cv-01067 (M.D.N.C.), filed on October 17, 2019, concluded by settlement, consent judgment and permanent injunction with respect to certain defendants, and currently pending with respect to certain other defendants;

- f. *Seiko Epson Corporation, et al. v. STS Refill Technology, LLC, et al.*, Civil No. 9:18-cv-81723-CV-ALTMAN (S.D.FL.), filed on December 17, 2018, concluded by settlement, consent judgment and permanent injunction;
- g. *Seiko Epson Corporation, et al. v. CIS Systems, Inc., et al.*, Civil No. 1:18-cv-06586-ENV-PK (N.D.IL.), filed on September 27, 2018, concluded by settlement, consent judgment and permanent injunction;
- h. *Seiko Epson Corporation, et al. v. Inkjet2U LLP, et al.*, Civil No. 3:16-cv-2322-YY (D. Or.) filed on December 14, 2016, concluded by default judgment and permanent injunction;
- i. *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, concluded by settlement, consent judgment and permanent injunction;
- j. *Seiko Epson Corporation, et al. v. Sinotime Technologies, Inc., et al.*, Civil No. 18-cv-22838-Gayles/Otazo-Reyes (S.D. Fla.) filed on July 13, 2018, concluded by settlement, consent judgment and permanent injunction;
- k. *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, concluded by settlement, consent judgment and permanent injunction;
- l. *Seiko Epson Corporation, et al. v. InkPro2Day, et al.*, Civil No. 2:18-cv-00372-JAD-NJK (D. Nev.) filed on March 1, 2018, concluded by default judgment and permanent injunction;

- m. *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 default judgment and permanent injunction;
- n. *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 default judgment and permanent injunction;
- o. *Seiko Epson Corporation, et al. v. Advance Image Manufacturers, Inc.*, Civil No. 3:17-cv-425-YY (D. Or.) filed on March 16, 2017, concluded by default judgment and permanent injunction;
- p. *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;
- q. *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;
- r. *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;
- s. *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;
- t. *Seiko Epson Corporation, et al. v. Shoppers Smart LLC, Houses Investing, LLP 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;

- u. *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;
- v. *Seiko Epson Corporation, et al. v. Glory South Software Manufacturing Inc., et al.*, Civil No. 06-236-BR (D. Or.), filed on February 17, 2006, concluded by default judgment and permanent injunction;
- w. *Seiko Epson Corporation, et al. v. Glory South Software Manufacturing Inc., et al.*, Civil No. 06-477-BR (D. Or.), filed on April 7, 2006, concluded by default judgment and permanent injunction;
- x. *Seiko Epson Corporation, et al. v. Abacus 24-7 LLC, et al.*, Civil No. 09-477-BR (D. Or.), filed on April 28, 2009, concluded by settlement, consent judgment and permanent injunction;
- y. *Seiko Epson Corporation, et al. v. E-Babylon, Inc., et al.*, Civil No. 07-896-BR (D. Or.), filed on June 18, 2007, concluded by settlement, consent judgment and permanent injunction; and
- z. *Seiko Epson Corporation, et al. v. Inkjetmadness.com, Inc., et al.*, Civil No. 08-452-BR (D. Or.), filed on April 10, 2008, concluded by settlement, consent judgment and permanent injunction.

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 and '116 patents 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 '422 patent. The '422 patent at issue 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 Corporation ("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, Inc. ("Epson America") is a corporation organized and existing under the laws of the State of California. Its principal place of business is located at 3131 Katella Avenue, Los Alamitos, California 90720. 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 Inc. ("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 NE Aloclek Drive, 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 the Oregon Secretary of State, defendant E Top, LLC ("E Top") is a limited liability company organized and existing under the laws of the State of Oregon. Based on information and belief, and according to E Top's filings with the Oregon Secretary of State, Shuping Hong Hurley is a member of the limited liability company and the registered agent for service of process, and the principal place of business address, mailing address, and address for service of process for E Top is 837 NW 1st Place, Hillsboro, Oregon 97124. Based on information and belief, and according to E Top's filings with the Oregon Secretary of State, Xuming Hong is also a member of the limited liability company.

12. On information and belief, defendant Shuping Hong Hurley, is an individual who resides in the state of Oregon, is a member of E Top, the registered agent for service of process for E Top, and has a residential address of 837 NW 1st Place, Hillsboro, Oregon 97124, the very same address as E Top.

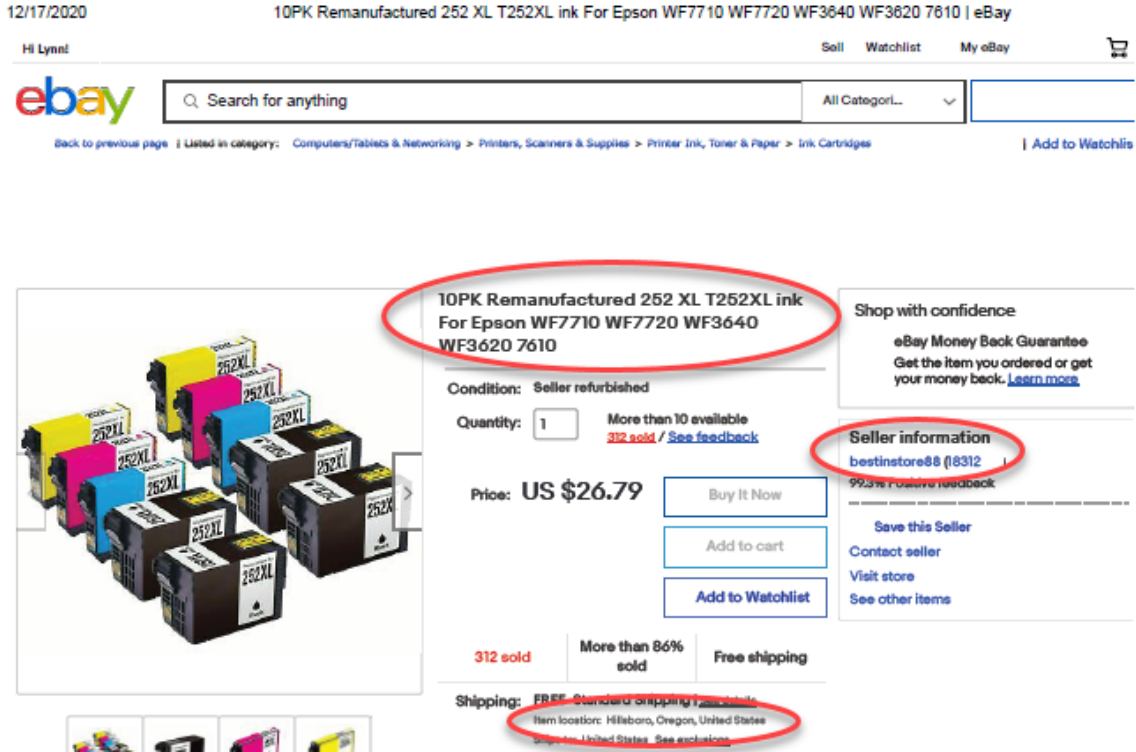
13. On information and belief, defendant Xuming Hong, is an individual who resides in the state of Oregon, is a member of E Top, and has a residential address of 837 NW 1st Place, Hillsboro, Oregon 97124, the very same address as E Top and Shuping Hong Hurley.



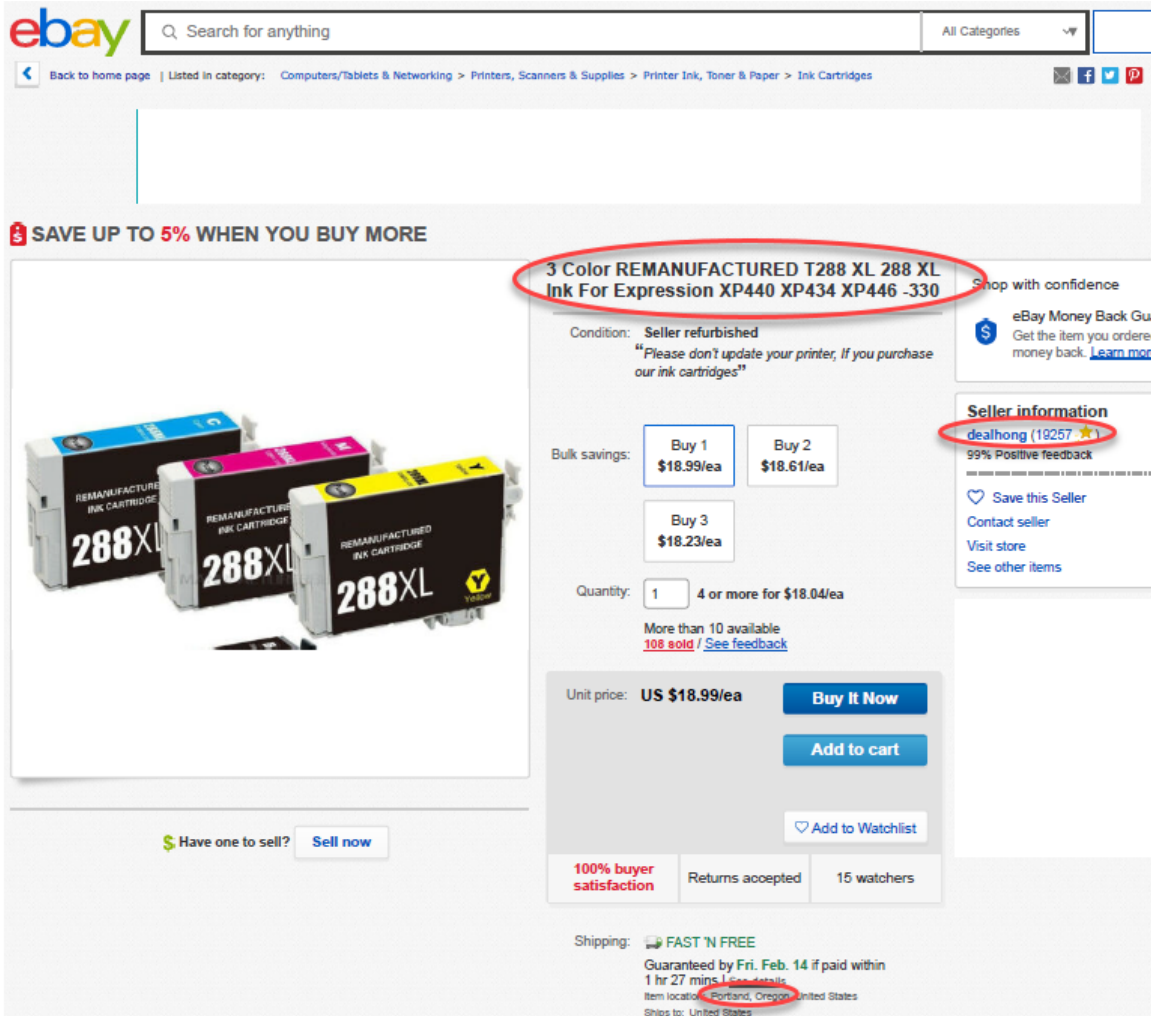
14. Collectively, defendants E Top, Shuping Hong Hurley, and Xuming Hong are referred to herein as "Defendants."

15. On information and belief, Defendants have and continue to conduct business on the Internet under various seller names, including but not limited to "6bonagoodsno.1," "bestinstore88," "deal\*oversea," "deahong," "just4buyer," "neptunetreasury\_2012," "color\*moods," and "colourmoods" through their listings and/or storefronts on ebay.com. Directly through their listings and/or storefronts on ebay.com, Defendants offer for sale and sell ink cartridges that infringe the Epson Patents.

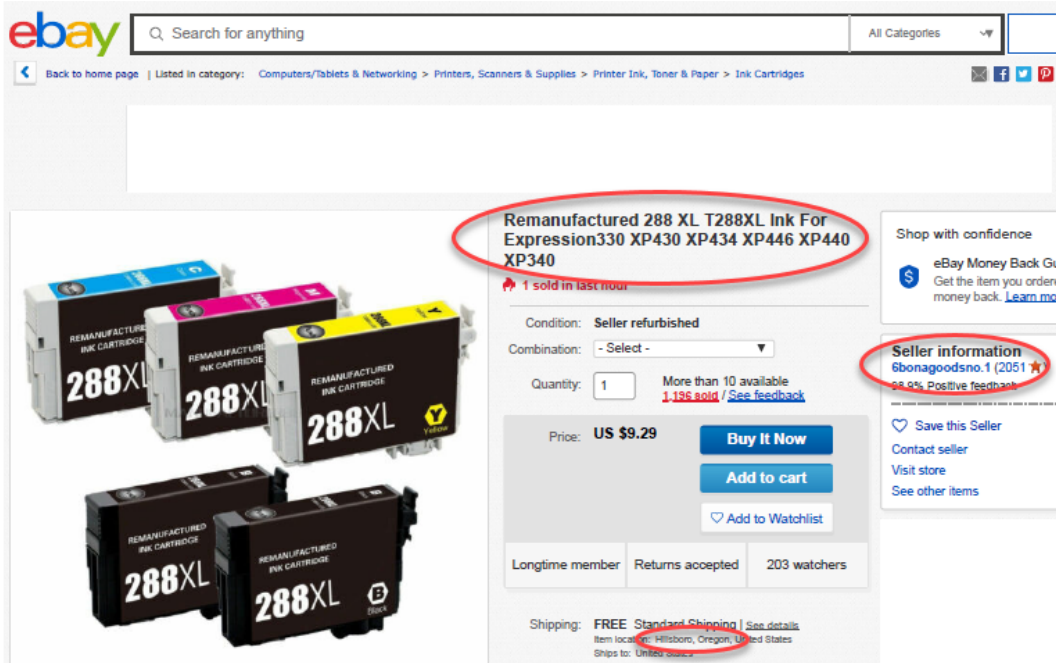
16. For example, in the annotated screen capture below of Defendants ebay.com listing, visited on December 17, 2020, Defendants offer for sale infringing ink cartridges for Epson printers and describe the infringing ink cartridges as "10PK Remanufactured 252 XL T252XL ink For Epson WF7710, WF7720, WF3640, WF3620 7610" These infringing ink cartridges are shipped and sold by Defendants under their bestinstore88 seller name.



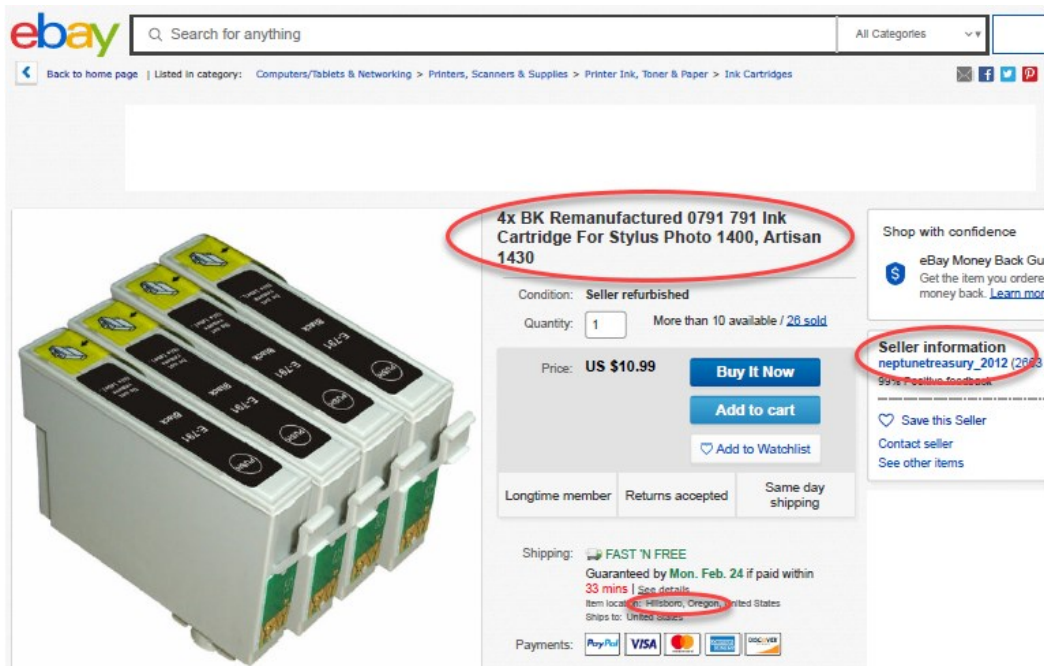
17. As another example, in the annotated screen capture below of Defendants' "dealhong" storefront on ebay.com, visited February 10, 2020, Defendants offered for sale infringing ink cartridges for Epson printers and describe the infringing ink cartridges as "3 Color REMANUFACTURED T288XL 288XL Ink for Expression XP440 XP434 XP443-330."



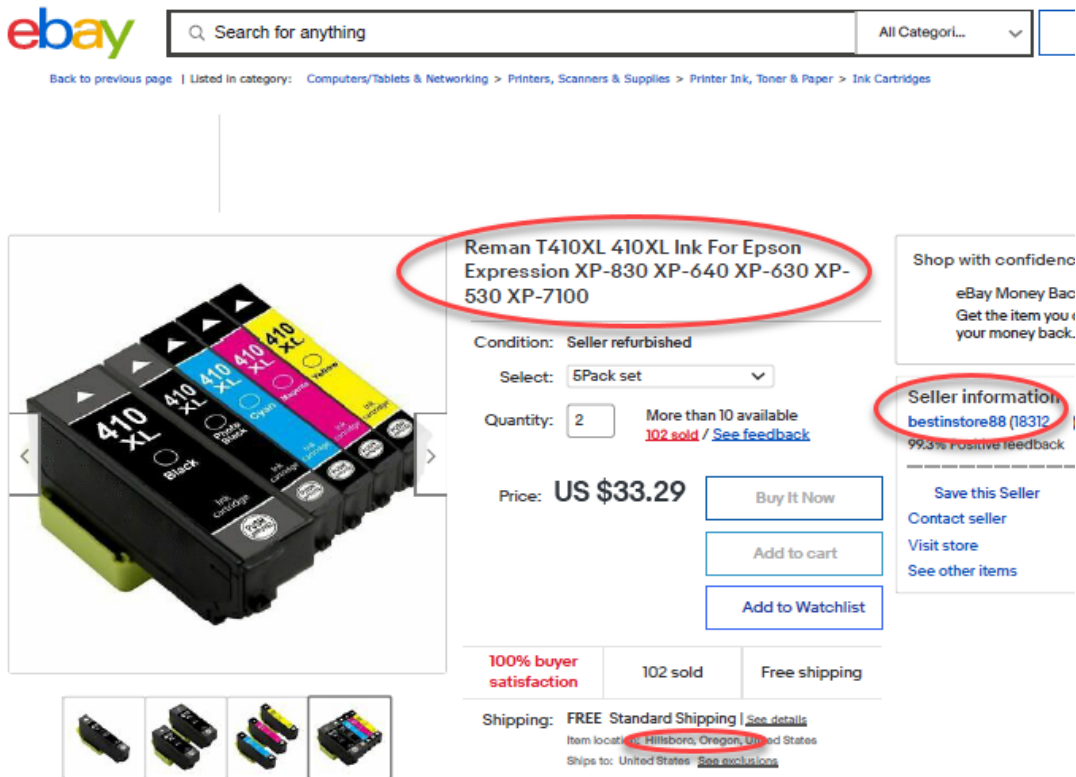
18. As another example, in the annotated screen capture below of Defendants' "6bonagoodsno.1" storefront on ebay.com, visited February 10, 2020, Defendants offered for sale infringing ink cartridges for Epson printers and describe the infringing ink cartridges as "Remanufactured 288XL T288XL Ink for Expression 330 XP430 XP434 XP446 XP440 XP430."



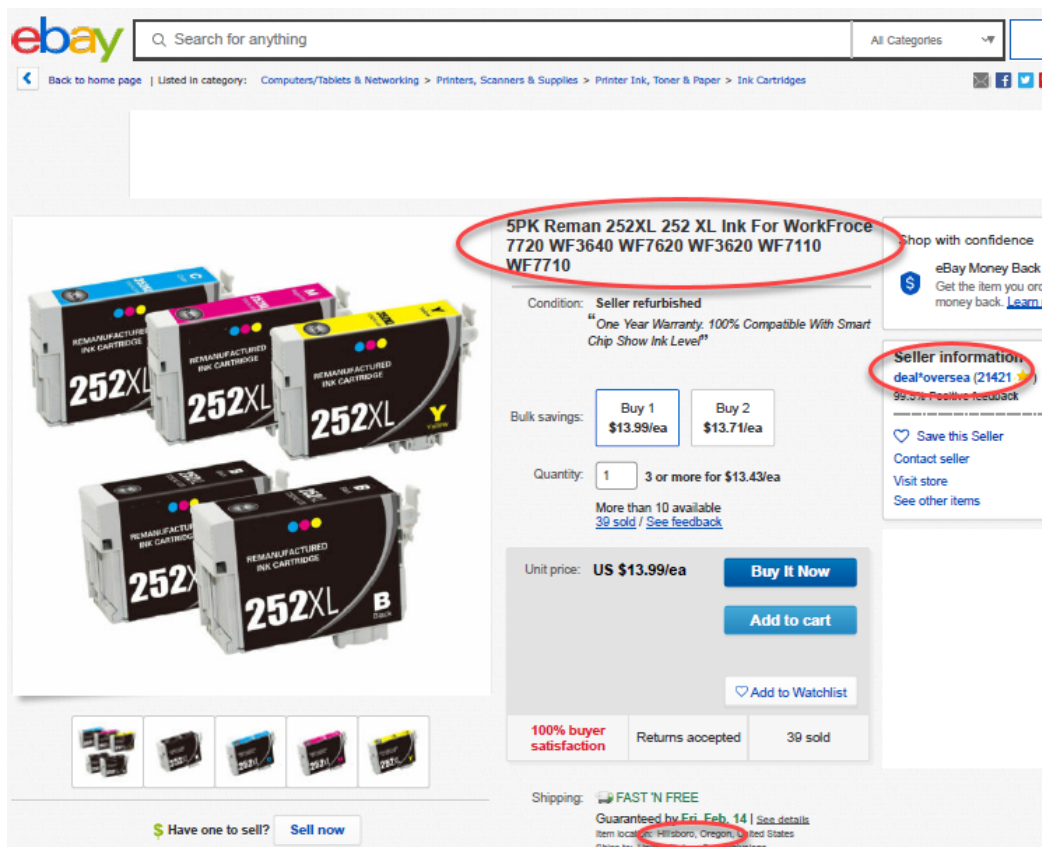
19. As another example, in the annotated screen capture below of Defendants' "neptunetresury\_2012" storefront on ebay.com, visited February 18, 2020, Defendants offered for sale infringing ink cartridges for Epson printers and describe the infringing ink cartridges as "4x BK Remanufactured 0791 791 Ink Cartridge for Stylus Photo 1400, Artisan 1430."



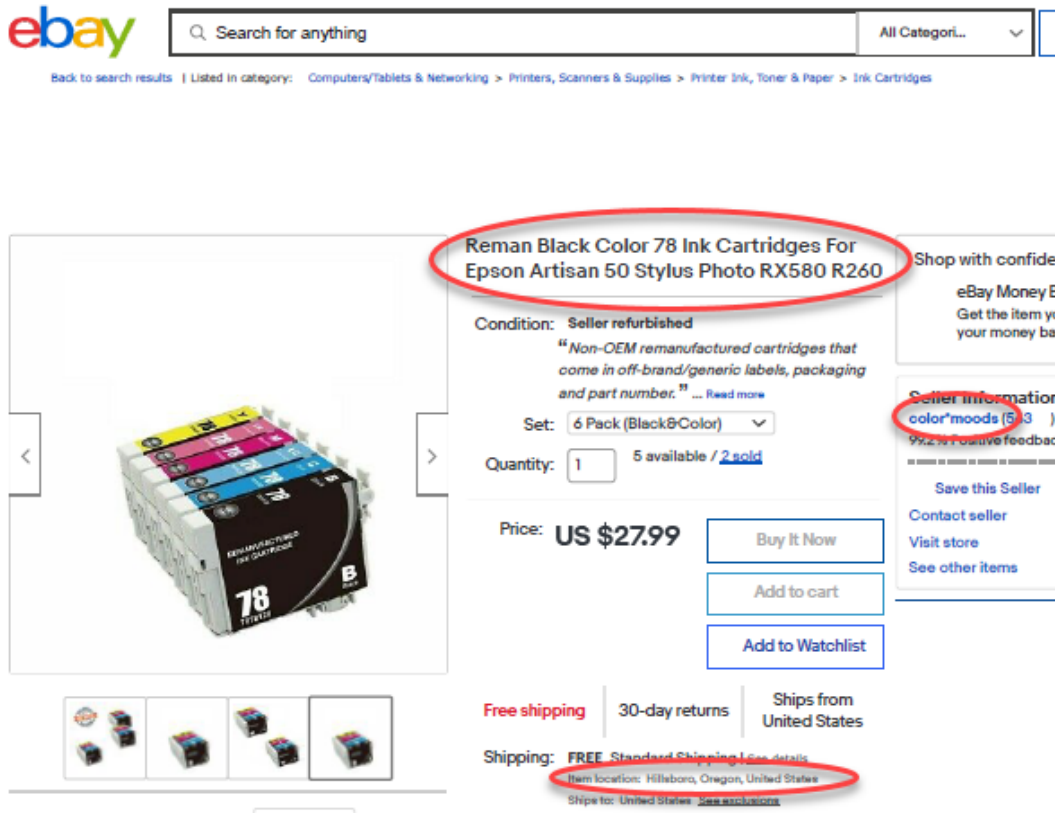
20. As another example, in the annotated screen capture below of Defendants' "bestinstore88" storefront on ebay.com, visited December 17, 2020, Defendants offered for sale infringing ink cartridges for Epson printers and describe the infringing ink cartridges as "Reman T410XL 410XL Ink For Epson Expression XP-830 XP-640 XP-630 XP-530 XP-7100."



21. As another example, in the annotated screen capture below of Defendants' "deal\*oversea" storefront on ebay.com, visited February 10, 2020, Defendants offered for sale infringing ink cartridges for Epson printers and describe the infringing ink cartridges as "5PK Reman 252XL 252 XL Ink For WorkForce 7720 WF3640 WF7620 WF3620 WF7110 WF7710."



22. As another example, in the annotated screen capture below of Defendants' "color\*moods" storefront on ebay.com, visited March 24, 2021, Defendants offered for sale infringing ink cartridges for Epson printers and describe the infringing ink cartridges as "Reman Black Color 78 Ink Cartridges for Epson Artisan 50 Stylus Photo RX580 R260."



23. On information and belief, most sales by Defendant are of generic (unbranded) infringing ink cartridges.

24. Numerous purchases of infringing ink cartridges were made by Epson from Defendants' online storefronts and listings discussed above. The infringing ink cartridges were shipped by Defendants to Epson from Defendants' 837 NW 1st Place, Hillsboro, Oregon 97124 address, the same address identified above in paragraphs 11-13.

25. On May 28, 2015, the United States International Trade Commission ("ITC") issued a Seizure and Forfeiture Order in the 337-TA-565 ITC Investigation, discussed in paragraph 6 above, against Defendant E Top, ordering that (emphasis added):

Ink Cartridges and Components Thereof that are imported in violation of the general exclusion order issued in ... investigation [no. 337-TA-565] are to be seized and forfeited to the United States, if imported by the following firm: **E TOP LLC**, 2056 NW Alocek Drive, Suite 311, Hillsboro, Oregon 97124, or any affiliated

companies, parents, subsidiaries, or other related business entities, or any of their successors or assigns.

On information and belief, "E Top LLC" referenced in the Seizure and Forfeiture Order is the same company as defendant E Top named herein and that the address identified in the Seizure and Forfeiture Order is a former mailing address and primary place of business for E Top as identified in E Top's February 17, 2015 filings with the Oregon Secretary of State. The foregoing Seizure and Forfeiture Order, by its terms, was issued by the ITC after the United States Bureau of Customs and Border Protection ("Customs") had informed the ITC that defendant E Top had attempted to import infringing ink cartridges covered by the 337-TA-565 General Exclusion Order and that Customs had denied such entry of infringing ink cartridges and informed defendant E Top of the 337-TA-565 General Exclusion Order and also informed defendant E Top that any further attempt to import infringing ink cartridges covered by the 337-TA-565 General Exclusion Order would result in seizure and forfeiture. On information and belief, despite Customs' notice and despite the ITC's Seizure and Forfeiture Order, and with full knowledge of the same and of at least the '422 patent (which is one of the patents covered by the 337-TA-565 General Exclusion Order) complained of herein, including knowledge of its infringement of at least the '422 patent, Defendants imported and continue to import infringing ink cartridges into the United States for sale on their websites and online marketplace storefronts identified in paragraphs 11-23 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. A true and correct copy of the ITC's Seizure and Forfeiture Order is attached hereto as Exhibit A.

26. On information and belief, Defendants act in concert with each other and with other entities and under fictitious business names to import, manufacture, distribute and sell ink cartridges that infringe the Epson Patents. On information and belief, Defendants are jointly and severally

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responsible for the infringements of the Epson Patents as they jointly operated and continue to jointly operate and manage the infringing enterprises, including Defendants, and any related d/b/a entities, as a single enterprise by comingling resources, assets, operations, commercial activities, and they incur expenses and achieve profits jointly for the benefit of the combined enterprise, its owners, officers, and members.

### **JURISDICTION AND VENUE**

27. 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 over the Defendants at least because Defendants reside in this judicial district and have committed acts of direct and indirect patent infringement 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. 6,955,422**

28. Epson incorporates by reference each and every allegation contained in Paragraphs 1 through 26 as though fully set forth at length here.

29. 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. 6,955,422, which was duly and legally issued to Seiko Epson by the United States Patent and Trademark Office on October 18, 2005. Attached as Exhibit B to this Complaint is a true and correct copy of the '422 patent. On September 29, 2009, reexamination certificate 6,955,422 C1 was duly and legally issued to Seiko Epson by the United States Patent and Trademark Office. Attached as Exhibit C to this Complaint is

a true and correct copy of the reexamination certificate of the '422 patent. The original patent and the reexamination certificate are collectively referred to herein as "the '422 patent." The '422 patent relates generally to ink cartridges for printers.

30. The '422 patent is valid and enforceable.


31. On information and belief after conducting a reasonable investigation, Defendants have infringed and are infringing the '422 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. 78, T078120, T078220, T078320, T078420, T078520, T078620, 79, T079120, 126, T126120, 252XL, T252XL120, T252XL220, T252XL320, T252XL420, 288XL, T288XL220, T288XL320, and T288XL420, as well as others that are no more than colorably different from the foregoing (collectively, the "Accused '422 Ink Cartridges"). The specific models of Accused '422 Ink Cartridges identified above were obtained by Epson during its investigation leading to this Complaint from Defendants' online listings on their storefronts on ebay.com.

32. As a non-limiting example, set forth below is a claim chart with a description of Defendants' infringement of exemplary claim 1 of the '422 patent by the Accused '422 Ink Cartridges. The infringement is shown using a representative ink cartridge (Model No. 252XL; Control No.<sup>1</sup> 200825) from among the Accused '422 Ink Cartridges purchased from Defendants that, for infringement purposes, is representative of and represents all of Defendants' ink cartridges in the Accused '422 Ink Cartridges (i.e., the represented ink cartridges), including, but not limited to, the

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<sup>1</sup> For identification purposes, a unique "control number" ("Control No.") has been assigned by Epson to this ink cartridge, and all other ink cartridges, purchased by Epson from Defendant as  
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models identified above. The claim chart below refers to this ink cartridge as "the Representative '422 Ink Cartridge." The Representative '422 Ink Cartridge was designed for use in a specific Epson printer, the Epson WorkForce WF-7610 printer ("the Representative '422 Epson Printer"), and for purposes of the analysis set forth herein, the Representative '422 Ink Cartridge was tested in the Representative '422 Epson Printer, as discussed in further detail in the claim chart below.

<p><b>Claim 1 of the '422 Patent</b></p>	<p><b>Where found in the Accused '422 Ink Cartridges</b></p>
<p>[1a] An ink cartridge detachably mountable on a carriage which is reciprocally movable in a recording apparatus and which has a plurality of electrodes, an engagement portion and an ink supply needle, the ink cartridge comprising:</p>	<p>Each of the Accused '422 Ink Cartridges is an ink cartridge for detachably mounting on the carriage of an Epson ink jet printer that is reciprocally movable in a recording apparatus (i.e., an ink jet printer). Defendants market and sell the Accused '422 Ink Cartridges as being compatible with one or more specific Epson ink jet printers. For example, the Representative '422 Ink Cartridge is compatible with the Representative '422 Epson Printer.</p> <div style="text-align: center;">  <p style="color: red; text-align: center;">an ink cartridge detachably mountable on a carriage of a recording apparatus (i.e., an ink jet</p> </div> <p>The following photograph depicts the Representative '422 Ink Cartridge detachably mounted in the carriage of the Representative '422 Epson Printer.</p>

Representative '422 Ink Cartridge detachably mounted in the carriage of the Representative '422 Epson Printer

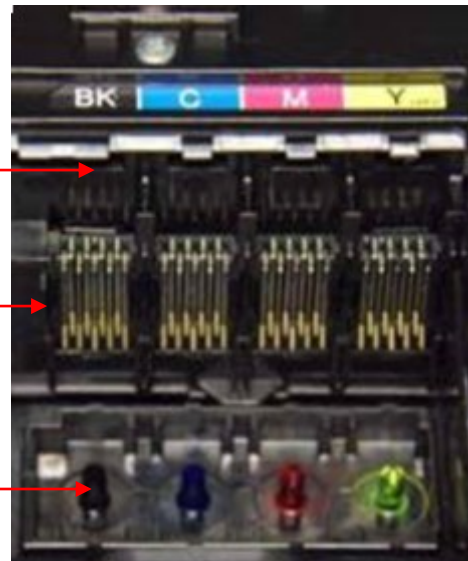


The reciprocally movable carriage in a recording apparatus (i.e., an ink jet printer) has a plurality of electrodes, an engagement portion and an ink supply needle. The following photograph shows the engagement portion, electrodes, and ink supply needle of the carriage of the Representative '422 Epson Printer.

Engagement portion of the carriage of the Representative '422 Epson Printer

Electrodes of the carriage of the Representative '422 Epson Printer

Ink supply needle of the carriage of the Representative '422 Epson Printer

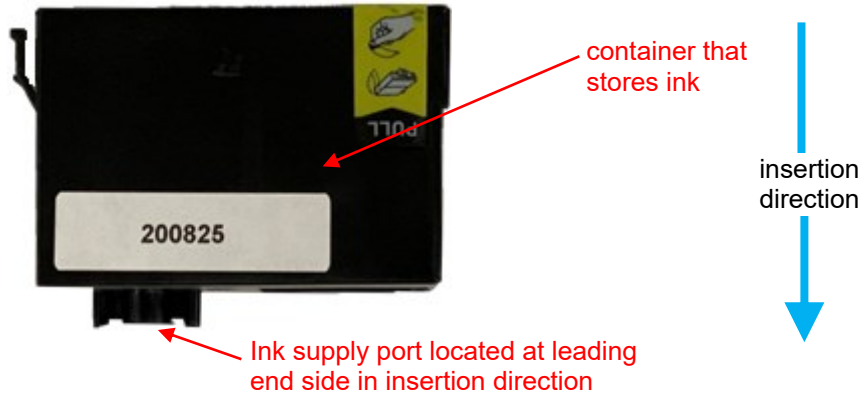


When mounted, each of the Accused '422 Ink Cartridges supplies ink to the printhead of the ink jet printer through an ink supply needle of the printer (the needle, which is part of the carriage inside the ink jet printer and not part of the cartridge, has a passage that allows ink to pass from the ink cartridge through the needle).

Accordingly, the Accused '422 Ink Cartridges literally meet the preamble of claim 1 of the '422 patent.

[1b] a container that stores ink therein and has an ink supply port connectable to the ink supply needle, the ink supply port being located in a leading end side in an insertion direction of the container into the carriage, the container further having first and second surfaces opposite each other, the first surface being substantially parallel to the insertion direction of the container into the carriage;

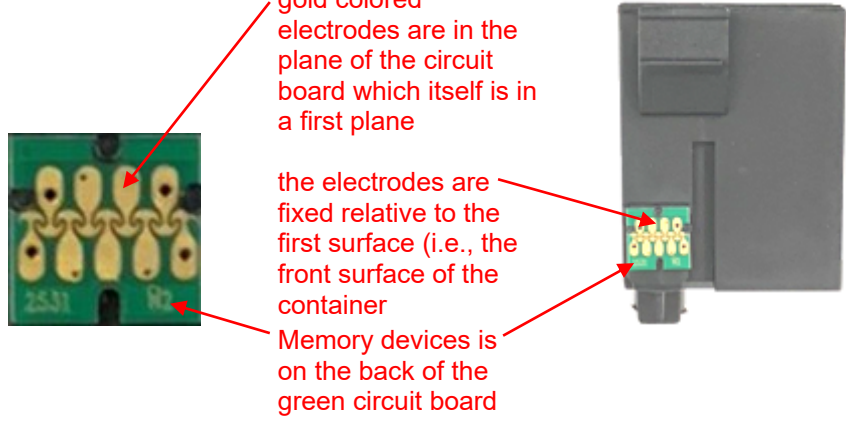
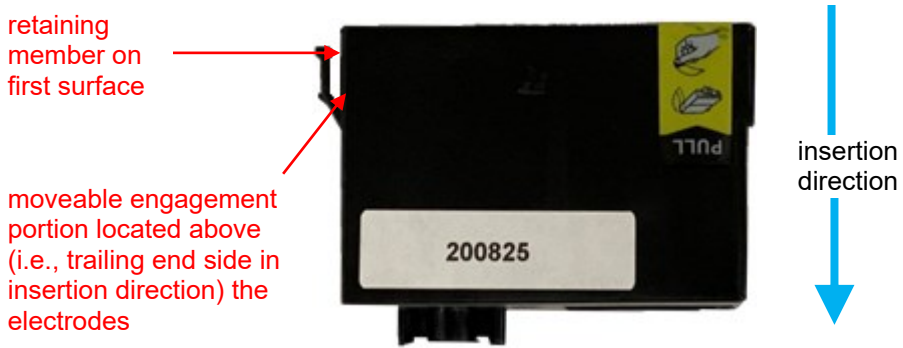
Each of the Accused '422 Ink Cartridges has a container that stores ink, an ink supply port that is connectable to the ink supply needle of the printer carriage, with the ink supply port located in a leading end side in an insertion direction of the container into the carriage. These features are shown below using the Representative '422 Ink Cartridge:



Each of the Accused '422 Ink Cartridges has a container that has a first and second surfaces opposite each other, the first surface being substantially parallel to the insertion direction of the container into the carriage. These features are shown below using the Representative '422 Ink Cartridge:

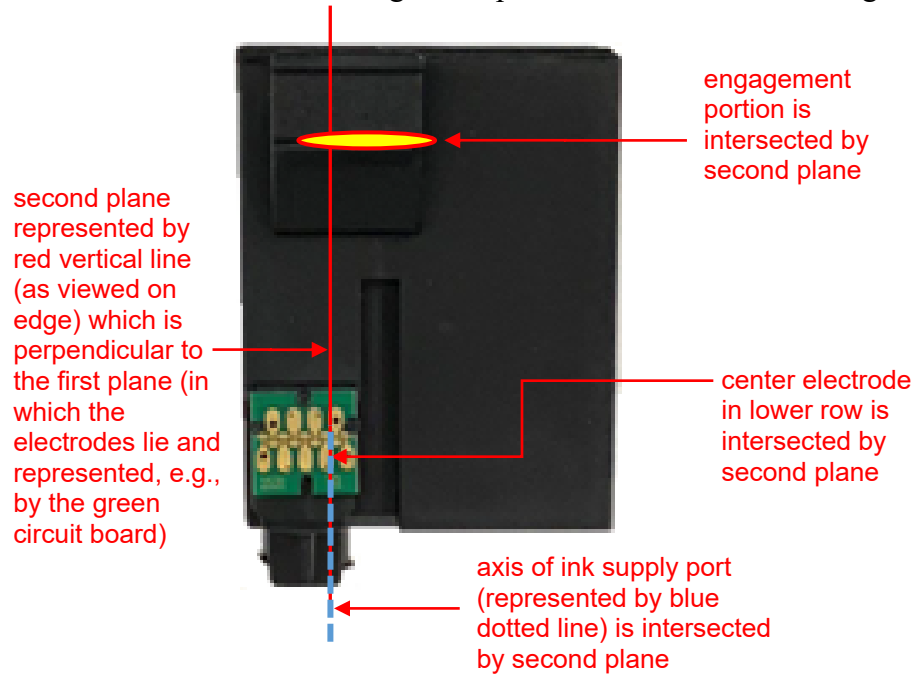


Accordingly, the Accused '422 Ink Cartridges literally meet this limitation of claim 1 of the '422 patent.

<p>[1c] a memory device having a plurality of electrodes disposed substantially in a first plane for respective electrical connection to the electrodes of the carriage, the electrodes of the memory device being fixed relative to the first surface of the container; and</p>	<p>Each of the Accused '422 Ink Cartridges has a memory device having a plurality of electrodes that are disposed substantially in a first plane for respective electrical connection to the electrodes of the carriage, the electrodes of the memory device are fixed relative to the first surface of the container. These features are shown below using the Representative '422 Ink Cartridge:</p>  <p>gold colored electrodes are in the plane of the circuit board which itself is in a first plane</p> <p>the electrodes are fixed relative to the first surface (i.e., the front surface of the container)</p> <p>Memory devices is on the back of the green circuit board</p> <p>Accordingly, the Accused '422 Ink Cartridges literally meet this limitation of claim 1 of the '422 patent.</p>
<p>[1d] a retaining member disposed on the first surface of the container, and having a movable engagement portion that can shift position relative to the first surface of the container and which is located at a trailing end side relative to the electrodes of the memory device in the insertion direction of the container into the carriage, and which is engageable with the engagement portion of the carriage,</p>	<p>Each of the Accused '422 Ink Cartridges has a retaining member disposed on the first surface of the container, and has a movable engagement portion that can shift position relative to the first surface of the container. The movable engagement portion is located at a trailing end side relative to the electrodes of the memory device in the insertion direction of the container into the carriage. The movable engagement portion of the retaining member is engageable with the engagement portion of the carriage. These features are shown below using the Representative '422 Ink Cartridge:</p>  <p>retaining member on first surface</p> <p>moveable engagement portion located above (i.e., trailing end side in insertion direction) the electrodes</p> <p>insertion direction</p> <p>Accordingly, the Accused '422 Ink Cartridges literally meet this limitation of claim 1 of the '422 patent.</p>

[1e] wherein at least one said electrode, the movable engagement portion, and an axis of the ink supply port are intersected by a second plane that is perpendicular to the first plane.

In each of the Accused '422 Ink Cartridges at least one of the electrodes, the movable engagement portion, and the axis of the ink supply port are intersected by a second plane that is perpendicular to the first plane. These features are shown below using the Representative '422 Ink Cartridge:



Accordingly, the Accused '422 Ink Cartridges literally meet this limitation of claim 1 of the '422 patent.

33. 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 '422 patent in violation of 35 U.S.C. § 271(b) by non-parties, including end-users, despite Defendants' knowledge of the '422 patent.

34. On information and belief, defendants Shuping Hong Hurley and Xuming Hong, as members of defendant E Top, LLC, direct and control the infringing activities of defendant E Top and have taken and continue to take active steps to encourage and induce defendant E Top to infringe by actively running and directing the businesses, including but not limited to being the

principal decision makers regarding the promotion, advertising, and sale of products that infringe the '422 patent on Defendants' storefronts on internet marketplaces, including ebay.com, as discussed above in paragraphs 11-26.

35. On information and belief, Defendants had knowledge of the '422 patent prior to, and at least since, the filing and service of this complaint on Defendants.

36. On information and belief, Defendants are contributing to the infringement of the '422 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 '422 patent. The components constitute a material part of the patented inventions. Defendants know that such components are especially made or especially adapted for use in an infringement of the '422 patent. The components are not a staple article or commodity of commerce suitable for substantial noninfringing use.

37. By reason of Defendants' infringing activities, Epson has suffered, and will continue to suffer, substantial damages in an amount to be proven at trial.

38. 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 '422 patent.

39. Defendants are not licensed or otherwise authorized to make, use, import, sell, or offer to sell any ink cartridge claimed in the '422 patent, and Defendants' conduct is, in every instance, without Epson's consent.

40. 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**

41. Epson incorporates by reference each and every allegation contained in Paragraphs 1 through 26 as though fully set forth at length here.

42. 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 D to this Complaint is a true and correct copy of the '749 patent.

43. The '749 patent is valid and enforceable.

44. 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. 78, T078120, T078220, T078320, T078420, T078520, T078620, 79, T079120, 126, T126120, 252XL, T252XL120, T252XL220, T252XL320, T252XL420, 288XL, T288XL220, T288XL320, T288XL420, 410, T410XL020, T410XL120, T410XL220, T410XL320, and T410XL420, 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 storefronts on ebay.com.

45. 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. 252XL; Control No. 200825, the same representative ink cartridge as used in the analysis of the '422 patent above) from among the Accused '749 Ink Cartridges purchased from Defendants that, for infringement purposes, is representative of and represents all of Defendants' ink cartridges in 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 WorkForce WF-7610 printer ("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
<p>[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:</p>	<p>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 printer-side (apparatus-side) electrical contact members.</p> <p>These features are shown below using the Representative '749 Ink Cartridge.</p> <p>The Representative '749 Ink Cartridge is adapted to be attached to the Representative '749 Epson Printer by being</p>

inserted in an insertion direction, as shown in the following photographs:

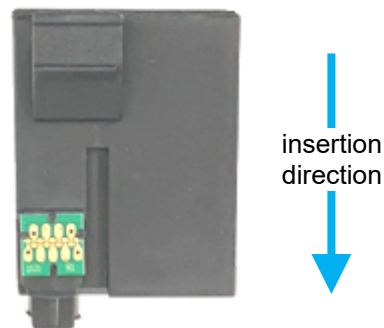


The Representative '749 Ink Cartridge



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:



The following photograph shows the Representative '749 Ink Cartridge, a black-ink ink cartridge, attached in the Representative '749 Epson Printer after the cartridge has

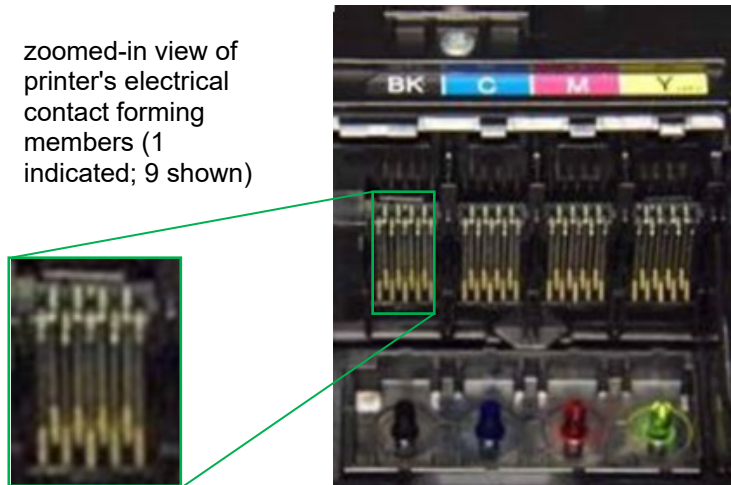
been inserted into the printer in the insertion direction (the black, yellow, and magenta ink cartridges, which are genuine Epson ink cartridges used to fill the remaining slots of the cartridge holder, can also be seen):

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 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 black-ink ink cartridge (the printer's electrical contact members for the black, yellow, and magenta 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 meet the preamble of claim 1 of the '749 patent.

[1b] an ink supply opening, having an exit, adapted to supply ink from

Each of the Accused '749 Ink Cartridges comprises an ink supply opening having an exit. When attached, the ink

the ink cartridge to the printing apparatus;

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:

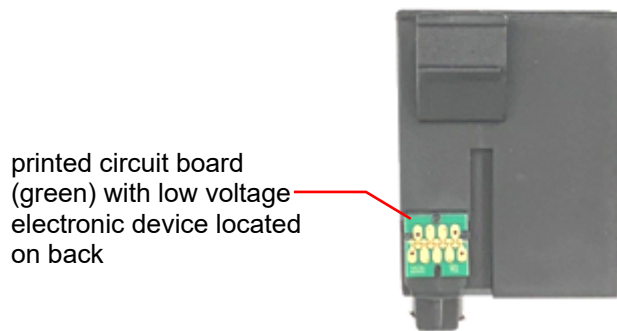


exit of ink supply opening  
(shown here with anti-leak film undisturbed and in place)

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;

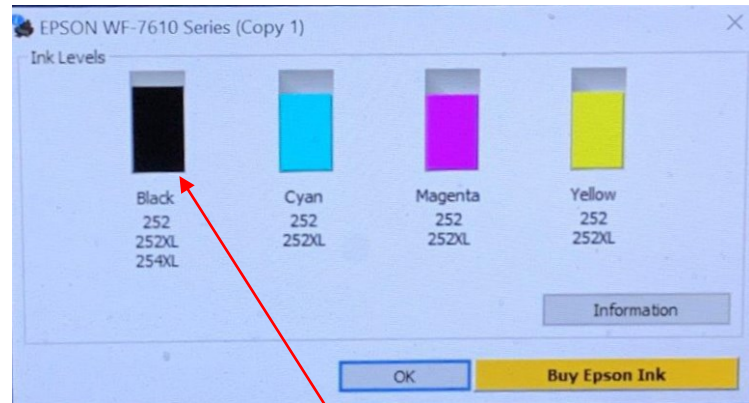
Each of the Accused '749 Ink Cartridges comprises a low voltage electronic device that comprises a memory device adapted to receive and function with a low voltage. The low voltage electronic device is an integrated circuit ("IC") chip located on the back of a printed circuit board that is mounted on a wall of the ink cartridge, as shown below in the Representative '749 Ink Cartridge:



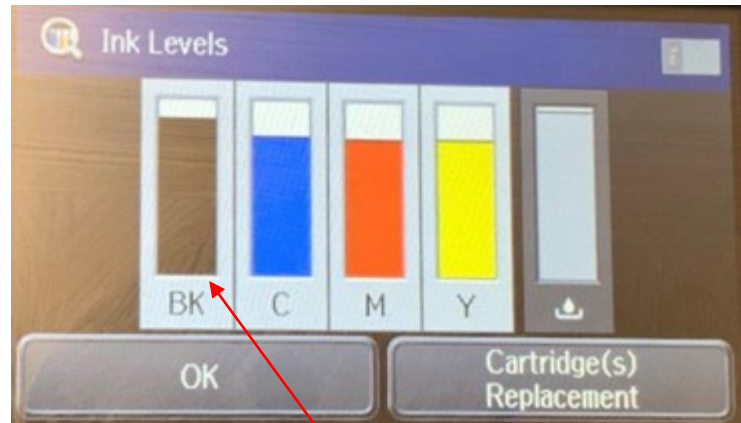
printed circuit board  
(green) with low voltage  
electronic device located  
on back

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 black ink, attached to the Representative '749 Epson Printer:

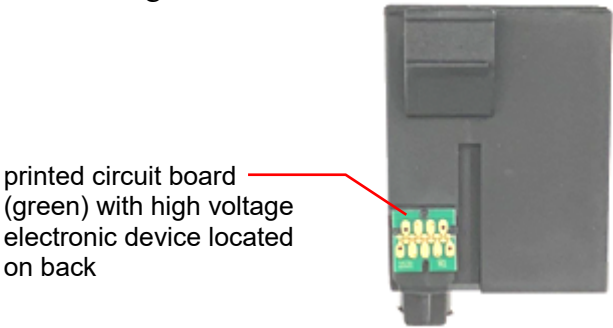


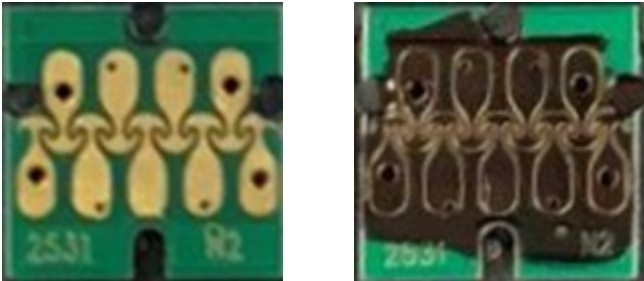
memory device shows, on the computer's display screen, the amount of black ink remaining in the Representative '749 Ink Cartridge



memory device shows, on the printer's display screen, the amount of black ink remaining in the Representative '749 Ink Cartridge

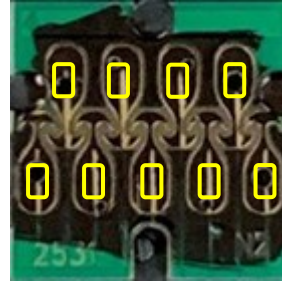
All Epson ink jet printers that accept the Accused '749 Ink Cartridges have similar circuitry and programming in terms of the voltages and signals they apply to their contact forming members and, consequently, to the corresponding contact portions of the Accused '749 Ink Cartridges (the

	<p>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.</p> <p>Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent.</p>
<p>[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</p>	<p>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:</p> <div style="text-align: center;">  <p>printed circuit board (green) with high voltage electronic device located on back</p> </div> <p>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 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</p>

	<p>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.</p> <p>Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent.</p>
<p>[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 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:</p>	<p>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.</p> <p>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 marking with black ink is shown on the right:</p> <div style="text-align: center;">  </div>


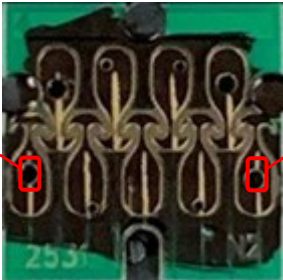


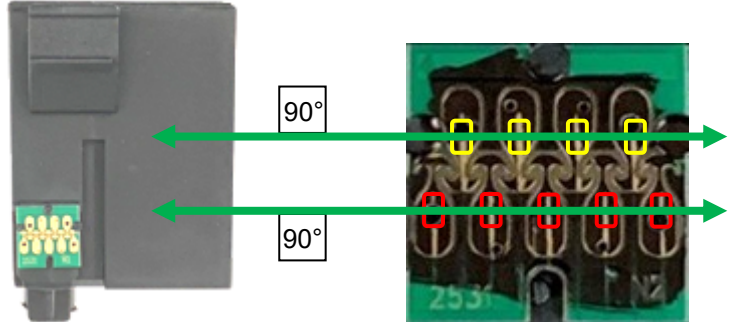
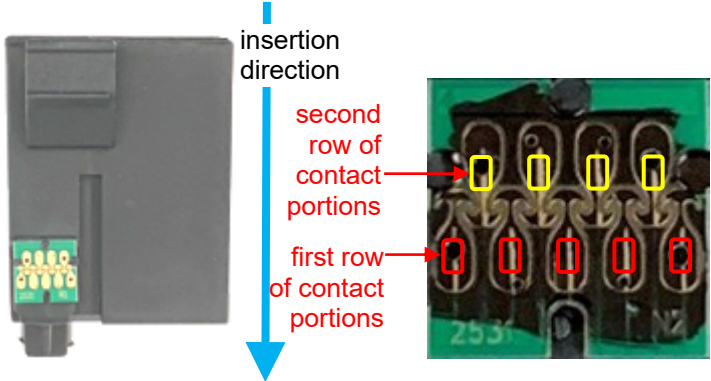
The resulting marks left by the printer's contact forming members on the terminals show the location and arrangement of the contact portions. These are indicated below with annotated yellow boxes superimposed on the terminals to indicate the location of the contact portions (there are a total of nine contact portions, with four contact portions in a top row and five contact portions in a bottom row):

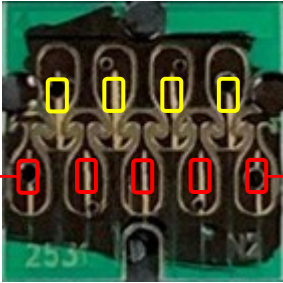


The contact portions shown above correspond to their printer-side contact forming members so that electrical communication is enabled between the ink cartridge and the printer, e.g., so the printer can read remaining ink level and other information from the memory device as described above with respect 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 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):

	 <p>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):</p>  <p>second high voltage electronic device contact portion</p> <p>first high voltage electronic device contact portion</p> <p>Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent.</p>
<p>[1f] the contact portions are arranged in a first row of contact portions and in a second row of contact portions, the first row of contact portions and the second row of contact portions extending in a row direction which is generally orthogonal to the insertion direction,</p>	<p>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 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</p>

	<p>annotated view of the printed circuit board shown in the left photo.</p>  <p>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 arrow)</p> <p>Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent.</p>
<p>[1g] 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, and,</p>	<p>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).</p>  <p>first row of contact portions (red squares) disposed further in insertion direction (blue arrow) than second row of contact portions (yellow squares)</p> <p>Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent.</p>
<p>[1h] the first row of contact portions</p>	<p>In each of the Accused '749 Ink Cartridges, the first row of</p>

<p>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.</p>	<p>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.</p> <p>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.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">second high voltage electronic device contact portion disposed at second end position of first row of contact portions</p> <p style="text-align: center;">first high voltage electronic device contact portion disposed at first end position of first row of contact portions</p> <p>Accordingly, the Accused '749 Ink Cartridges literally meet this limitation of claim 1 of the '749 patent.</p>
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46. 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 end-users, despite Defendants' knowledge of the '749 patent.

47. On information and belief, defendants Shuping Hong Hurley and Xuming Hong, as members of defendant E Top, LLC, direct and control the infringing activities of defendant E Top and have taken and continue to take active steps to encourage and induce defendant E Top to infringe by actively running and directing the businesses, including but not limited to being the principal decision makers regarding the promotion, advertising, and sale of products that infringe the

'749 patent on Defendants' storefronts on internet marketplaces, including ebay.com, as discussed above in paragraphs 11-26.

48. On information and belief, Defendants had knowledge of the '749 patent prior to, or at least since the filing and service of this complaint on Defendants.

49. 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 patented 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.

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 '749 patent.

52. 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.

53. 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**

54. Epson incorporates by reference each and every allegation contained in Paragraphs 1 through 26 as though fully set forth at length here.

55. 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 E to this Complaint is a true and correct copy of the '116 patent.

56. The '116 patent is valid and enforceable.

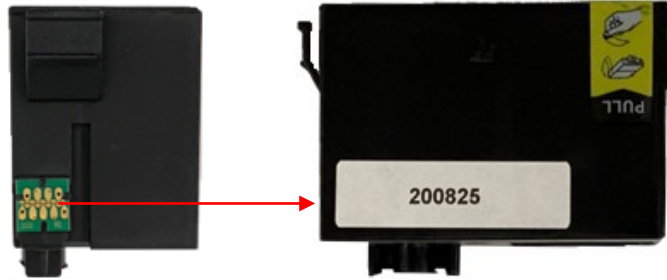
57. On information and belief after conducting a reasonable investigation, Defendants have infringed and are infringing the '116 patent, as defined by numerous claims of the patent in violation of 35 U.S.C. § 271(a) by making, using, importing, offering to sell, and selling in this judicial district and elsewhere aftermarket ink cartridges that operate with Epson ink jet printers, including but not limited to ink cartridges having model nos. 78, T078120, T078220, T078320, T078420, T078520, T078620, 79, T079120, 252XL, T252XL120, T252XL220, T252XL320, T252XL420, 288XL, T288XL220, T288XL320, T288XL420, 410, T410XL020, T410XL120, T410XL220, T410XL320, and T410XL420, 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 identified above were obtained by Epson during its investigation leading to this Complaint from Defendants' online listings on their storefronts on ebay.com.

58. As a non-limiting example, set forth below is a claim chart with a description of

Defendants' infringement of exemplary claim 18 of the '116 patent by the Accused '116 Ink Cartridges. The infringement is shown using a representative ink cartridge (Model No. 252XL; Control No. 200825, the same representative ink cartridge as used in the analysis of the '422 patent and '749 patent above) from among the Accused '116 Ink Cartridges purchased from Defendants that, for infringement purposes, is representative of and represents all of Defendants' ink cartridges in 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-7610 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.

<b>Claim 18 of the '116 patent</b>	<b>Where found in the Accused '116 Ink Cartridges</b>
<p>[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 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:</p>	<p>A circuit board is mounted on the Representative '116 Ink Cartridge (model no. 252XL; control no. 200825), which itself includes a printing material container and is used in an Epson ink jet printing apparatus (e.g., the Representative '116 Epson Printer) having a print head and a plurality of apparatus-side contact forming members.</p> <p>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.</p> <p>The Representative '116 Ink Cartridge is a printing material container with a mounted circuit board.</p> <p>The following photos depict the circuit board (green with gold-colored metallic terminals) mounted on the</p>

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-7610, WF-7710, WF-7720, WF-3620, WF-7210, WF-7620, WF-7110, WF-3640, and WF-7720 (the "Epson Ink Jet Printers").

The following photo depicts the Epson WorkForce WF-7610 ink jet printer.




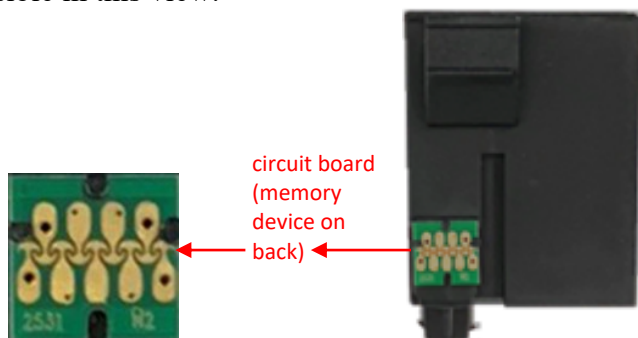
The Epson Ink Jet Printers each include a print head for printing and multiple printer-side contact forming members.

The Representative '116 Ink Cartridge has a body, as depicted below.



The Representative '116 Ink Cartridge has an ink supply opening having an exit on an exterior portion of



	<p>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.</p> <p>The following photo depicts the exit of the Representative '116 Ink Cartridge's ink supply opening.</p>  <p style="color: red;">exit of ink supply opening (shown here with anti-leak film undisturbed and in place)</p> <p>Accordingly, the Representative '116 Ink Cartridge literally meets the preamble of claim 18 of the '116 patent.</p>
<p>[18b] a memory device adapted to be driven by a memory driving voltage;</p>	<p>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.</p> <p>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.</p>  <p style="color: red;">circuit board (memory device on back)</p> <p>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</p>

	<p>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.</p> <p>Accordingly, the Representative '116 Ink Cartridge literally meets this limitation of claim 18 of the '116 patent.</p>
<p>[18c] an electronic device adapted to receive a voltage higher than the memory driving voltage; and</p>	<p>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 the above limitation.</p> <p>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)</p>

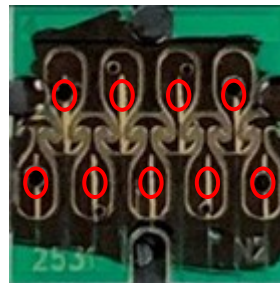
	<p>to two of their contact forming members that in turn correspond to two of the contact portions of the circuit board mounted on the Representative '116 Ink Cartridge that are connected to the electronic device. Consequently, the electronic device is adapted to receive and function with a high voltage. This was confirmed through testing during the ITC 946 Investigation.</p> <p>Accordingly, the Representative '116 Ink Cartridge literally meets this limitation of claim 18 of the '116 patent.</p>
<p>[18d] a plurality of terminals having contact portions adapted and positioned to contact corresponding apparatus-side contact forming members so that electrical communication is enabled with the ink jet printing apparatus, the contact portions of the terminals including a plurality of memory contact portions electrically coupled to the memory device, a first electronic device contact portion electrically coupled to the electronic device, a second electronic device contact portion electrically coupled to the electronic device, and a short 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:</p>	<p>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.</p> <p>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.</p> <div data-bbox="933 1245 1356 1524" data-label="Image"> </div> <p>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</p>

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.

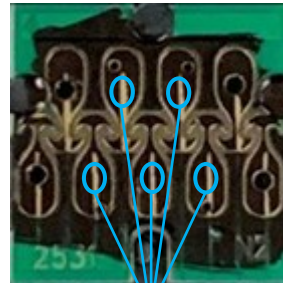
The contact portions of the circuit board's terminals are the most pronounced portions of the scratch marks (all of which contact corresponding printer-side contact forming members so that electrical communication is enabled with the printer, e.g., so that the printer can read remaining ink level and other information from the memory device as described in 18(b), *supra*). 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 through-hole (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.

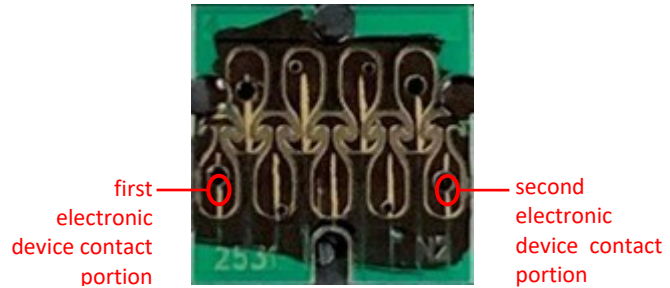
The following annotated photo depicts the five memory contact portions (in blue) located on the terminals on the front of the circuit board.



memory contact portions

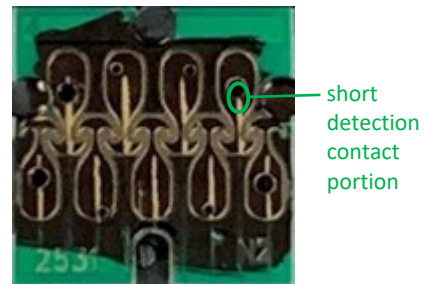
The contact portions of the circuit board's terminals include a first and second electronic device contact portion that are each electrically coupled to the electronic device (specifically, the resistor). Each electronic device contact portion is electrically coupled by the terminal it appears on to 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.



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 circuit of the printers.

The following photo depicts the short detection contact portion (in green).



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

	<p>patent.</p>
<p>[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 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.</p>	<p>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 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.</p> <p>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.</p>  <p>terminal arrangement viewed from vantage of printer's contact forming members . . . with the exit of the ink supply opening facing downwards</p>

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

contact portion present here, but not called out by claim

short detection contact portion (second farthest to right)

first electronic device contact portion (farthest to left)

second electronic device contact portion (farthest to right)

memory contact portions (left of the short detection contact portion and to the right of the first electronic device contact portion)

Accordingly, the Representative '116 Ink Cartridge Literally meets this limitation of Claim 18 of the '116 patent.

59. 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 end-users, despite Defendants' knowledge of the '116 patent.

60. On information and belief, defendants Shuping Hong Hurley and Xuming Hong, as members of defendant E Top, LLC, direct and control the infringing activities of defendant E Top and have taken and continue to take active steps to encourage and induce defendant E Top to infringe by actively running and directing the businesses, including but not limited to being the principal decision makers regarding the promotion, advertising, and sale of products that infringe the '116 patent on Defendants' storefronts on internet marketplaces, including ebay.com, as discussed



above in paragraphs 11-26.

61. On information and belief, Defendants had knowledge of the '116 patent prior to, or at least since the filing and service of this complaint on Defendants.

62. 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 patented 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.

63. By reason of Defendants' infringing activities, Epson has suffered, and will continue to suffer, substantial damages in an amount to be proven at trial.

64. 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.

65. Defendants are not licensed or otherwise authorized to make, use, import, sell, or offer to sell any ink cartridge claimed in the '116 patent, and Defendants' conduct is, in every instance, without Epson's consent.

66. 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: March 31, 2021

K&L GATES

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