PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of CERTAIN ELECTRONIC IMAGING DEVICES	Inv. No. 337-TA-726

Final Initial and Recommended Determinations

This is the administrative law judge's Final Initial Determination under Commission rule 210.42. The administrative law judge, after a review of the record developed, finds inter alia that there is jurisdiction and that there is no violation of section 337 of the Tariff Act of 1930, as amended.

This is also the administrative law judge's Recommended Determination on remedy and bonding, pursuant to Commission rules 210.36(a) and 210.42(a)(1)(ii). Should the Commission find a violation, the administrative law judge recommends the issuance of a limited exclusion order, with certification provision, barring entry into the United States of infringing electronic imaging devices. The imposition of any bond during the Presidential Review period is not recommended.

TABLE OF CONTENTS

ABBREVIATIONS

CBr	Complainant's Post Hearing Brief
CDX	Complainant's Demonstrative Exhibit
CFF	Complainant's Proposed Findings of Fact
CRBr	Complainant's Post Hearing Reply Brief
CRRFF	Complainant's Rebuttals to Respondents HTC's Findings of Fact
CX	Complainant's Exhibit
HRBr	Respondents HTC's Post Hearing Reply Brief
HRCFF	Respondents HTC's Rebuttal to Complainant's Findings of Fact
JX	Joint Exhibit
RBr	Respondents HTC's Post Hearing Brief
RDX	Respondents HTC's Demonstrative Exhibit
RFF	Respondents HTC's Findings of Fact
SBr	Staff's Post Hearing Brief
SRBr	Staff's Post Hearing Reply Brief
SPFF	Staff's Proposed Findings of Fact
SRCFF	Staff's Rebuttal to Complainant's Findings of Fact
SRRFF	Staff's Rebuttal to Respondents HTC's Findings of Fact
Tr.	Transcript

OPINION

I. Procedural History

By notice dated July 8, 2010, the Commission instituted an investigation, pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, to determine (a) whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain electronic imaging devices that infringe one or more of claims 1, 11, and 21 of U.S. Patent No. 6,134,606 (the '606 patent), claims 1-14 and 16 of U.S. Patent No. 6,163,816 (the '816 patent), and claims 1-7, 11-13, 16-23, 26, 30-32, 40, and 41 of U.S. Patent No. 6,262,769 (the '769 patent) and whether an industry in the United States exists as required by subsection (a)(2) of section 337. The complaint was filed with the Commission on May 13, 2010, under section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, on behalf of FlashPoint Technology, Inc. (FlashPoint). An amended complaint was filed on June 16, 2010. The complainant requested that the Commission issue an exclusion order and cease and desist orders.

The following were named in the notice of investigation as respondents and were served with the complaint: Nokia Corp. and Nokia, Inc. (Nokia); Research In Motion Ltd. and Research In Motion Corp. (RIM); HTC Corporation and HTC America, Inc. (HTC); and LG Electronics, Inc., LG Twin Towers, LG Electronic U.S.A., Inc. and LG Electronics MobileComm U.S.A., Inc. (LG).

On July 8, 2010 a Protective Order (Order No. 2) issued. Order No. 4, which issued on August 13, 2010 set a sixteen month target date of Monday November 14, 2011[1] which meant

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[1] The notice of investigation was published in the Federal Register on July 13, 2010 (75 Fed. Reg. 39971-72).

that any final initial determination should be filed no later than July 13, 2011.[2]

Order No. 6, which issued on September 1, 2010, related to complainant's Motion No. 726-5 to disqualify Kirkland & Ellis LLP from representing respondents RIM. Order No. 10, which issued on November 10, 2010 clarified Order No. 6.

Order No. 7, which issued on September 9, 2010 amended the Protective Order.

Order No. 9, which issued on September 15, 2010, terminated the investigation as to certain claims of the '769 patent and the '816 patent. (Commission non-review on October 12, 2010.)

Order No. 16, which issued on February 1, 2011, put in effect an importation stipulation involving RIM.

Order No. 18, which issued on February 7, 2011 found that complainant satisfies the economic prong of the domestic industry requirement (Commission non-review on March 8, 2011).

Order No. 30, which issued on March 25, 2011, required certain submissions from complainant, respondents and the staff.

Order No. 35, which issued on April 4, 2011, terminated the investigation as to respondents Nokia and RIM. Said termination was based on granting Motion No. 726-64 for an initial determination terminating the investigation as to the Nokia respondents on the basis of a Patent License and Settlement Agreement. Order No. 35 was also based on granting Motion No. 726-77 for an initial determination terminating the investigation as to the RIM respondents on the

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[2] Order No. 40 issued on July 11, 2011, and extended the target date to November 29, 2011. (Commission non-review on July 22, 2011.) Hence, the final ID must issue by July 29, 2011.

basis of a Patent License and Settlement Agreement. (Commission non-review on April 19, 2011.)

Order No. 36, which issued on April 7, 2011, terminated the investigation as to all claims of the '606 patent. (Commission non-review on April 22, 2011.)

Arguments on motions in limine were heard on April 5, 2011. A prehearing conference was conducted on April 7, 2011. At said conference, rulings were made on said motions in limine. (Tr. at 44-48.)

A five day evidentiary hearing was conducted on April 7, 8, 11, 12 and 13. The only respondents that participated in the hearing were HTC and LG. In issue are claims 1-7, 11-13, 16-23, 26 and 30-32 of the '769 patent and claims 1-5, 8-13 and 16 of the '816 patent. Post hearing submissions have been filed.[3] This matter is now ready for decision.

Order No. 30, which issued July 1, 2011, terminated the investigation as to respondents LG. Said termination was based on granting Motion No. 726-92 in view of a Patent License Agreement and a Settlement Agreement between the LG respondents and complainant.[4]

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[3] Order No. 37, which issued on April 18, 2011 granted Motion No. 726-85 of the private parties to the extent that formal submission of the exhibits in issue should be made no later than noon on April 20, 2011. Order No. 38, which issued on May 12, 2011 granted respondents' Motion No. 726-89 for an extension of time of one business day for initial post hearing submissions on the condition that respondents are ordered to re-file and re-submit to the administrative law judge their initial post-hearing submissions in accordance with Commission rule 210.41(f)(1)(i) and within the page limits set by the administrative law judge no later than the close of business on Friday, May 13, 2011. Also in said order, the May 18 date set for reply submissions by all parties was extended one day, i.e. to May 19, 2011.

[4] Motion No. 726-92 was unopposed. Hence while respondents LG participated in the evidentiary hearing and filed post hearing submissions, in view of the position taken by said respondents in Motion No. 726-92 the administrative law judge is not referencing the LG respondents hereafter.

(Commission non-review on July 22, 2011.)

The Final Initial and Recommended Determinations are based on the record compiled at the hearing and the exhibits admitted into evidence. The administrative law judge has also taken into account his observation of the witnesses who appeared before him during the hearing. Proposed findings of fact submitted by the parties not herein adopted, in the form submitted or in substance, are rejected as either not supported by the evidence or as involving immaterial matters and/or as irrelevant. Certain findings of fact included herein have references to supporting evidence in the record. Such references are intended to serve as guides to the testimony and exhibits supporting the finding of fact. They do not necessarily represent complete summaries of the evidence supporting said findings.

II. Jurisdiction Including Parties And Importation

Section 337 of the Tariff Act of 1930, as amended, declares unlawful the importation into the United States, the sale for importation, or the sale within the United States after importation by the owner, importer, or consignee, of articles that infringe a valid and enforceable United States patent if an industry in the United States relating to the articles protected by the patent exists or is in the process of being established. See 19 U.S.C. §§ 1337 (a)(1)(B)(i) and (a)(2). Section 337 also provides that the Commission shall investigate alleged violations of said section and is empowered to hear and decide actions involving alleged unfair acts under the Section. See Certain Steel Rod Treating Apparatus, Inv. No. 337-TA-97, Commission Opinion, 215 U.S.P.Q. 229, 231 (June 30, 1981). Section 337 proceedings are in rem, making in personam jurisdiction unnecessary. However due process requires that the notice of investigation be provided to persons with an interest in the property at issue in a manner reasonably calculated to inform them

of the pendency of an action so that they may have an opportunity to appear and defend their interests. Id. at 232, Certain Ammonium Octamolybdate Isomers, Inv. No. 337-TA-477, Init. Det. at 8 (May 15, 2003).

Complainant has filed a complaint alleging a violation of Section 337(a)(1)(B). The Commission therefore has subject matter jurisdiction. See Amgen, Inc. v. United States Int'l Trade Comm'n, 902 F.2d, 1532, 1535-37 (Fed. Cir. 1990).

For identification of the private parties in this investigation, see Section XVI. With regard to importation, in response to Order No. 30, HTC has admitted that it imported or sold each of the accused HTC products except for the "7 trophy," "Desire Z," "myTouch 4G," and the "7 Pro." (SPFF 15 (undisputed).) Accordingly, the Commission, pursuant to 19 U.S.C. § 1337, has in rem jurisdiction in this investigation with respect to FlashPoint's allegations of patent infringement by certain accused HTC products that have been imported into the United States. Amen, Inc. v. U.S. Int'l Trade Comm'n, 902 F.2d 1532, 1536 (Fed. Cir. 1990).

Respondents HTC have participated in the evidentiary hearing in this investigation and have not pleaded an affirmative defense of lack of personal jurisdiction. See Certain Steel Rod Treating Apparatus, Inv. No. 337-TA-97, Order No. 13 (May 8, 1981) (noting that failure to consolidate threshold procedural matters in a timely manner constitutes waiver), aff'd on other grounds, Commission Opinion at 3 (June 29, 1981). Hence the Commission also possesses personal jurisdiction.

III. Technology In Issue

The parties have stipulated to the following general overview of technology in issue (SX-1):

Background of the Technology of the '769 Patent

The '769 Patent generally relates to a method and system for image capture, image rotation and image display in a hand-held digital camera. Before digital cameras, there were film cameras. Certain film-based cameras had a landscape form factor, i.e., where the body of the camera when held in the hand of a user during operation had a width greater than its height, and the film inside the camera was positioned to be in alignment with the body's form factor.

The typical default orientation of the film camera with respect to the user's view during operation of the film camera was considered to be an upright landscape orientation. Thus, when a user desires to capture a landscape photograph of a subject or scene, the user holds the camera in his hands such that the camera is in its default landscape orientation. Given the physical arrangement of the film, what is actually captured (a landscape photograph) matches what the user desired to photograph (a landscape photo).

A user may also desire to capture a portrait photograph of the same subject or scene. In that case, the user may rotate the film camera to the left or right by 90 degrees from its default landscape orientation, with respect to the user's view and take the photograph. The resulting exposed roll of film when viewed by a user may include one frame that has the subject or scene upright and the next frame that has the subject or scene (from top to bottom of the subject or scene) tilted side-ways by 90 degrees to the left or right (i.e., for those photographs the user desired to capture in one of two portrait positions). From one frame to the next, a user may either have to turn the negative or tilt his head to the left or right. Further, when printed, the photographs may need to be turned to a position in which the subject or scene of the printed photograph is positioned consistent with the user's view so that from top to bottom of the subject or scene in each printed photograph appears upright.

With certain digital still cameras a user may take pictures and store them as electronic files for display. Like film cameras, these digital cameras captured photographs, but instead of film, an image sensor is used. Most digital cameras, such as the one disclosed in FIG. 7 of the '769 patent, have a landscape form factor and with the image sensor mounted in alignment with this forma factor, just like most film cameras. While displaying the photographs captured with these early digital cameras, the user may have to tilt his head to the left or to the

right from the display of one displayed image to the next.

In the 1990's, some computer image processing software allowed photographs that were taken with a digital camera and presented on a display of an external computer to be rotated with respect to the display screen.

The General Operation of a Digital Camera

Digital cameras involve numerous operations relating to images, including recording images (e.g., photographs), storing images and displaying images. Digital cameras include a lens systems and an image sensor. The image sensor includes photosensitive material organized into an array of pixels (photo detectors). The photo detectors are simply semiconductor circuit elements that convert light to electricity, and are typically square or rectangular shaped (some as small as 0.002mm on aside). Available image sensor technologies include: CCD (charge coupled device) or CMOS (a semiconductor manufacturing process).

After a photographer frames a scene and desires to take a picture of the subject or scene, the user presses a button. This, in turn, generates a signal that allows light to impact the pixels of the image sensor for a period of time. Once the desired exposure has been obtained, the information collected on the image sensor pixels is read out. This raw data may be stored in various formats for storage.

The '769 Patent Specification

The '769 patent relates a digital camera that includes multiple modes of operation, including record and play modes. (Id. at 1:32-33). The '769 Patent describes these two modes of operation as follows:

> In record mode, the LCD is used as a viewfinder in which the user may view an object or scene before taking a picture. In play mode, the LCD is used as a playback screen for allowing the user to review previously captured images either individually or in arrays of four, nine, or sixteen images.

(Id. at 1:35-39.)

The '769 Patent Claims

The claimed inventions of the '769 Patent relate to a method and

system for viewing an image in an image capture unit, such as a digital camera. (JX-4 [U.S. Patent No. 6,262,769] at claims 1, 18)

Background of the Technology of the '816 Patent

The invention described by the '816 Patent is directed to retrieving the minimum value from a minimum value location, a maximum value from a maximum value location, a factory default value from a factory default location and a capability parameter list from a list of integers location in a hand-held electronic device without the need for knowing the functions or features. For example, using the invention described by the '816 Patent, a user could simply connect a hand-held electronic device to an unknown computer, and that computer will obtain and report the particular values associated with the functions and features available in the device.

The invention claimed in the '816 patent includes a series of capability parameter storage locations for containing capability parameter value sets, a capability command for retrieving these capability parameter value sets, and a parameter manager device coupled to the electronic device for executing the capability command to retrieve the capability parameter value sets.

IV. The '769 Patent

The '769 patent, entitled "Method and System for Auto Rotating a Graphical User Interface for Managing Portrait and Landscape Images in an Image Capture Unit," issued on July 17, 2001 from an application filed on July 31, 1997. (JX-1.) It names Eric C. Anderson and George W. Dalke as the inventors. (Id.) By way of assignment, FlashPoint holds all rights, title and interest to the '769 patent (Amended Complaint ¶ 31.) Claims 1-7, 11-13, 16-23, 26, and 30-32 of the '769 patent remain asserted in this investigation. Said claims read (JX-1):

1. A method for viewing an image in an image capture unit including an integrated display, the method comprising the steps of:

determining a first orientation associated with the image at capturing of the image, the image being a captured image;

storing the image, including storing the information relating to the first orientation associated with the image;

determining a second orientation associated with the image capture unit at a display time corresponding to displaying the image after the image is captured, the second orientation capable of being different from the first orientation;

determining whether the first orientation is different from the second orientation;

displaying the image in the second orientation on the integrated display of the image capture unit; and

if the image capture unit is rotated to a third orientation during display of the image, the method further includes,

determining the third orientation of the image capture unit,

determining whether the third orientation is different from the second orientation, the first orientation, or both, and

rotating the image to be displayed in the third orientation if the third orientation is different from the second orientation.

2. The method of claim 1, wherein the image is rotated to the second orientation when the first orientation is different from the second orientation.

3. The method of claim 1, wherein the first orientation is a landscape orientation.

4. The method of claim 1, wherein the first orientation is a portrait orientation.

5. The method of claim 1, wherein the second orientation is an orientation in which a horizontal axis of the image capture unit is substantially parallel to a surface of the earth.

6. The method of claim 1, wherein the second orientation is an orientation in which a horizontal axis of the image capture unit is substantially perpendicular to a surface of the earth.

7. The method of claim 1, wherein the image is resized to fit the display.

11. The method of claim 1, wherein at least one graphic is displayed on the display.

12. The method of claim 1, wherein at least one icon is displayed on the display.

13. The method of claim 1, wherein at least one directional icon is displayed on the display.

16. The method of claim 1, further comprising a step of displaying text in the second orientation.

17. The method of claim 1, further comprising a step of displaying a graphic in the second orientation.

18. A system for viewing images in an image capture unit comprising:

an image associated with a first orientation determined at capturing of the image, the image being a captured image;

means for storing the image, including storing information relating to the first orientation associated with the image;

a second orientation associated with the image capture unit determined at a display time corresponding to displaying the image after the image is captured, the second orientation capable of being different from the first orientation, wherein it is determined whether the first orientation is different from the second orientation;

a display, in the image capture unit, to display the image in the second orientation;

wherein the image is rotated from the first orientation to the second orientation when the first orientation is different from the second orientation for viewing on the display of the image capture unit; and

if the image capture unit is rotated to a third orientation during

display of the image, the system further includes,

means for determining the third orientation of the image capture unit,

means for determining whether the third orientation is different from the second orientation, the first orientation, or both, and

means for rotating the image to be displayed in the third orientation if the third orientation is different from the second orientation.

19. The system of claim 18, wherein the first orientation is a landscape orientation.

20. The system of claim 18, wherein the first orientation is a portrait orientation.

21. The system of claim 18, wherein the second orientation is an orientation in which a horizontal axis of the image capture unit is substantially parallel to a surface of the earth.

22. The system of claim 18, wherein the second orientation is an orientation in which a horizontal axis of the image capture unit is substantially perpendicular to a surface of the earth.

23. The system of claim 18, further comprising an image orientation sensor for determining the second orientation associated with the image capture unit and the first orientation of the image.

26. The system of claim 18, wherein the image is resized to fit the display.

30. The system of claim 16, wherein at least one graphic is displayed on the display.

31. The system of claim 18, wherein at least one icon is displayed on the display.

32. The system of claim 18, wherein at least one direction icon is displayed on the display.

V. The '816 Patent

The '816 patent, entitled "System and Method for Retrieving Capability Parameters in an Electronic Imaging Device," issued on December 19, 2000 from an application filed on August 29, 1997. (JX-4.) It names Eric Anderson and Patricia Scardino as the inventors. (Id). By way of assignment, FlashPoint holds all rights, title and interest in the '816 patent (Amended Complaint ¶24.) Claims 1-5, 8-13, and 16 of the '816 patent remain asserted in this investigation. Said claims read (JX-4):

> 1. A system for retrieving capability parameters in a hand held electronic device comprising:
>
> a series of capability parameter storage locations coupled to said electronic device for containing value sets corresponding to said capability parameters, wherein said one or more of said series of capability parameter storage locations each includes:
>
> a minimum value location containing a minimum capability parameter value;
>
> a maximum value location containing a maximum capability parameter value;
>
> a factory defaults location containing a factory default value; and
>
> a list-of-integers location containing a capability parameter list;
>
> a capability command for retrieving said value sets from said capability parameter storage locations; and
>
> a parameter manager device coupled to said electronic device for executing said capability command for retrieving said value sets corresponding to said capability parameters wherein the value sets describe the functional capability of the electronic device.
>
> 2. The system of claim 1 wherein one or more of said series of capability parameter storage locations each includes:

a capability parameter name location containing a descriptive parameter name; and

a descriptive string location containing a parameter description.

3. The system of claim 2 wherein said list-of-integers location includes a factory default integer.

4. The system of claim 2 wherein said series of capability parameter storage locations is located in a non-volatile memory within said electronic device.

5. The system of claim 1 wherein said capability command for retrieving said value sets is a GetCameraCapabilities command which causes said parameter manager to send at least one of said value sets to an external host computer.

8. The system of claim 1 wherein said capability command for retrieving said value sets is a GetCameraCapabilities command, which is issued by a user of said electronic device.

9. A method of retrieving capability parameters from a hand held electronic device comprising the steps of:

storing value sets corresponding to said capability parameters into a series of capability parameter storage locations, wherein said one or more of said series of capability parameter storage locations each includes:

a minimum value location containing a minimum capability parameter value;

a maximum value location containing a maximum capability parameter value;

a factory defaults location containing a factory default value; and

a list-of-integers location containing a capability parameter list; issuing a capability command for retrieving said value sets from said series of capability parameter storage locations wherein the value sets describe the functional capability of the electronic device; and

executing said capability command using a parameter manager device to retrieve said value sets corresponding to said capability parameters.

10. The method of claim 9 wherein one or more of said series of capability parameter storage locations each includes:

a capability parameter name location containing a descriptive parameter name; and

a descriptive string location containing a parameter description.

11. The method of claim 10 wherein said list-of-integers location includes a factory default integer.

12. The method of claim 10 wherein said series of capability parameter storage locations is located in a non-volatile memory within said electronic device.

13. The method of claim 9 wherein said capability command for retrieving said value sets is a GetCameraCapabilities command which causes said parameter manager to send at least one of said value sets to an external host computer.

16. A system for retrieving capability parameters in an electronic device, comprising:

means for storing value sets corresponding to said capability parameters into a series of capability storage locations, wherein said one or more of said series of capability parameter storage locations each includes:

a minimum value location containing a minimum capability parameter value;

a maximum value location containing a maximum capability parameter value;

a factory defaults location containing a factory default value; and

a list-of-integers location containing a capability parameter list,

said means for storing value sets being coupled to said electronic

device;

means for commanding the retrieval of said value sets from said means for storing value sets wherein the value sets describe the functional capability of the electronic device; and

means for executing said means for commanding the retrieval of said value sets.

VI. Experts

Dr. Mangione-Smith was qualified as complainant's expert in the areas of embedded computer systems, including design, operation of electronic imaging devices, and associated software. (Tr. at 681-683.)

Dr. James Olivier was qualified as respondents HTC's expert in the areas of embedded systems and software development of consumer devices. (Tr. at 1419-1422.)

Dr. Scott Thomas Acton was qualified as respondents HTC's expert in the areas of electronic imaging and in software. (Tr. at 1651-1657.)

VII. Skill Level Of One Of Ordinary Skill

The evidence establishes that a person of ordinary skill in the field of technology addressed by the '769 patent would have had a Bachelor's degree in Electrical Engineering or a related degree with two to five years of work experience in the field of consumer electronics or embedded software development for consumer services, or a Master's degree or Ph.D in Electrical Engineering or related degree with slightly less experience working in the field, would have a familiarity with all that is set forth in the background sections of each of the two patents in issue and also would be aware of the EXIF standard and have a general view of photography. (Mangione Smith Tr. at 687, 1167-68, Olivier Tr. at 1438-41.)

The evidence shows that a person of ordinary skill in the field of technology addressed by the '816 patent would have had a Bachelor's degree in Electrical Engineering or a related degree with two to five years of work experience in the field of consumer electronics or embedded systems, or a Master's degree or Ph.D in Electrical Engineering or related degree with slightly less experience working in the field. (SPFF 291 (undisputed).)

VIII. Claim Construction

The claims of a patent define the invention to which the patentee is entitled the right to exclude. Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (Phillips). The words of a claim are generally given their ordinary and customary meaning. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). The ordinary and customary meaning of a claim term is the meaning the term would have to a person of ordinary skill in the art at the time of the invention, i.e., constructively the effective filing date of the patent application. Phillips, 415 F.3d at 1313. The ordinary meaning of a claim term as understood by a person of ordinary skill in the art may in some circumstances be readily apparent to laymen. See Brown v. 3M, 265 F.3d 1349, 1352 (Fed. Cir. 2001). However, "[w]hen the parties present a fundamental dispute regarding the scope of a claim term, it is the court's duty to resolve it." O2Micro Int'l Limited v. Beyond Innovation Technology Co., 521 F.3d 1351, 1362 (Fed. Cir. 2008). When giving a claim term meaning, "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." Phillips, 415 F.3d at 1313. However, in order to construe a claim term contrary to its ordinary meaning, a party "must establish the inventors demonstrated an intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction,

representing a clear disavowal of claim scope." Epistar Corp. v. International Trade Comm'n, 566 F.3d 1321, 1334 (Fed. Cir. 2009) (citations omitted). In construing the claims, the court should also consider "the patent's prosecution history, if it is in evidence." Markman v. Westview Instruments, Inc., 52 F.3d 967, 976, 980 (Fed. Cir. 1995).

A patentee may deviate from the conventional meaning of a particular claim term by making the intended meaning of a particular claim term clear (1) in the specification or (2) during the patent's prosecution history. Lear Siegler, Inc. v. Aeroquip Corp., 733 F.2d 881, 889 (Fed. Cir. 1984) (Lear Siegler). If using a definition that is contrary to the definition given by those of ordinary skill in the art, however, the patentee's specification must communicate a deliberate and clear preference for the alternate definition. Kumar v. Ovonic Battery Co., Inc., 351 F.3d 1364, 1368 (Fed. Cir. 2003) (citing Apple Computers, Inc. v. Articulate Sys., Inc., 234 F.3d 14, 21 n.5 (Fed. Cir. 2000)). In ascribing to an alternative definition rather than the ordinary meaning, the intrinsic evidence must "clearly set forth" or "clearly redefine" a claim term so as to put one reasonably skilled in the art on notice that the patentee intended to so redefine the claim term. Bell Atl. Network Servs., Inc. v. Covad Communs. Group, Inc., 262 F.3d 1258, 1268 (Fed. Cir. 2001).

While information extrinsic to the patent and its prosecution history may be considered, it is often "less reliable than the patent and its prosecution history." Phillips, 415 F.3d at 1318 (noting that litigation-derived expert reports and testimony are especially suspect). "[E]xpert testimony at odds with the intrinsic evidence must be disregarded." Network Commerce, Inc. v. Microsoft Corp., 422 F.3d 1353, 1361 (Fed. Cir. 2005) (holding that unsupported conclusions concerning patent claims provide little support for suggested claim construction). Not all extrinsic information, however, must be disregarded. For example:

> [i]n some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words. See Brown v. 3M, 265 F.3d 1349, 1352 (Fed Cir. 2001) (holding that the claims did "not require elaborate interpretation"). In such circumstances, general purpose dictionaries may be helpful.

Phillips 415 F.3d at 1314. However, in many cases that give rise to litigation, determining the ordinary and customary meaning of a claim requires examination of terms that have a particular meaning in a field of art. Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean. Id. Those sources include the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art. See Gemstar-TV Guide Int'l, Inc. v. Int'l Trade Comm'n, 383 F.3d 1352, 1364 (Fed. Cir.2004); Vitronics, 90 F.3d at 1582-83; Markman, 52 F.3d at 979-80.

A. '769 Patent

1. The claimed phrase "determining a first orientation associated with the image at capturing of the image, the image being a captured image" and the claimed phrase "an image associated with a first orientation determined at capturing of the image, the image being a captured image"

The claimed phrases are found in independent method claim 1 and independent system claim 18. In dispute in said claimed phrases are the terms "first orientation" and "at capturing of the image."

a. "first orientation"

In issue in said claimed phrases is the term "first orientation." Complainant's proposed

construction for said term is "a direction and aspect ratio[5] associated with the image (e.g. upright, inverted, left, or right) based on an orientation of the image capture unit at the time an image is captured." (CBr at 14.) Respondents HTC, in their post-hearing brief, referred to their expert Olivier's proposed construction for said term, which is "direction of an image relative to an axis (i.e. upright landscape, inverted landscape, left rotation portrait, or right rotation portrait) based on a sensed orientation of the image capture unit." (RBr at 48.) However, respondents HTC in their reply brief argued that "[t]he term 'orientation' is broadly recited - it is simply direction with respect to an axis" and does not refer to a landscape or portrait aspect ratio. (HRBr at 19-20.) The staff's proposed construction for said term is "a direction of an image relative to an axis and an indication of whether the image is landscape or portrait[6] (e.g. upright landscape, inverted landscape, left portrait, or right portrait) that is determined based on a sensed direction of the image capture unit at the time the image is captured." (SBr at 25.)

Based on the proposed constructions, the parties agree that the claimed "first orientation" requires a determination of at least a "direction" associated with the captured image and that the direction must be "based on" an orientation of the image capture unit. However, the parties disagree regarding whether the "first orientation" requires a determination of landscape or portrait aspect ratio.

While the claims and the specification of the '769 patent do not provide a specific

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[5] In using the phrase "aspect ratio," complainant referred only to a determination of whether an image is portrait or landscape and not a specific calculation of the width and height of an image. (See CBr at 17 ("aspect ratio (e.g. landscape or portrait) of the captured image"); CBr at 18 ("portrait or landscape - i.e., 'aspect ratio'"); CBr at 23 ("aspect ratio (landscape or portrait)").)

[6] Complainant later argued that "interpreting 'first orientation' to include an indication of aspect ratio (landscape or portrait) is consistent with the patent, file history and the admissions of HTC's expert at trial." (CBr at 23 (emphasis added).)

definition of the term "orientation," the specification repeatedly refers to "orientation" in terms of a direction, a portrait or landscape aspect ratio, or both. Thus, with respect to one embodiment, the specification recites:

> In one embodiment, the orientation unit 560 includes first and second orientation sensors (not shown). In this embodiment, the first orientation sensor determines whether the camera 110' is rotated to the left or right orientation. Thus, the first orientation sensor determines whether the camera has been rotated to a left rotation portrait, a right rotation portrait, an upright or an inverted position. In this embodiment, the first orientation sensor outputs a left orientation signal for left rotation portraits and a right orientation signal for right rotation portraits.
>
> * * *
>
> The method 600 is used for capture of four orientations: upright landscape, inverted landscape, left orientation (for a left rotation portrait image), and right orientation (for a right rotation portrait image). When only one orientation unit 560 of FIG. 3 is used, if the camera is tilted forward or backward, then a predetermined orientation, such as upright landscape, can be selected.
>
> * * *
>
> It [sic] the camera 110' is in an upright orientation, the setting unit 556 defines the top portion and the bottom of the image as the top and bottom, respectively, of an upright landscape image via step 616.
>
> * * *
>
> If the camera 110' is in a left orientation, the setting unit 556 defines the top and bottom of the image as the top and bottom, respectively, of a left rotation portrait image via step 620.
>
> * * *
>
> If the camera 110' is in a right orientation, the setting unit 556 defines the top and bottom of the image as the top and bottom, respectively, of a right rotation portrait image via step 624.
>
> If the setting unit 556 determines in step 622 that the camera 110' is not in a right orientation, the setting unit 556 defines the top and

> bottom of the image as the top and bottom, respectively, of an inverted landscape image

(JX-4 at 6:10-20, 25-32, 52-55, 59-62, 66-67, 7:1-6 (emphasis added).) The specification further states:

> FIG. 9 is a flow diagram of a method according to the present invention for automatically rotating a graphical user interface for managing portrait and landscape captures. A first orientation associated with the image is provided via step 700. The first orientation is preferably either landscape or portrait. A second orientation associated with the digital camera is provided via step 702. The second orientation is preferably either an orientation where a horizontal axis of the digital camera is substantially parallel to the surface of the earth, or the horizontal axes of the digital camera is substantially perpendicular to the surface of the earth. An example of one orientation associated when the camera is held by the user in a manner in which a landscape image would be recorded. Another example of an orientation of the digital camera would be if a portrait image would be recorded.

(JX-4 at 7:64-8:8 (emphasis added).) Thus, the specification refers to the following orientations: left, right, upright, inverted, left rotation portrait, right rotation portrait, upright landscape, and inverted landscape. Further, in each instance where the orientation is listed only based on direction, i.e. left, right, upright, inverted, the specification equates said orientations to a direction and a portrait or landscape aspect ratio, i.e. left equates to left rotation portrait, right equates to right rotation portrait, upright equates to upright landscape, and inverted equates to inverted landscape. Additionally, the specification of the '769 patent does not distinguish the term "orientation" as it refers to an image or a camera, i.e. an image capture unit. (See supra, e.g., JX-4 at 6:14-16, 7:64-8:8; see also JX-4 at 2:43-44 ("illustrations of the automatic rotation of a portrait capture to a landscape oriented camera") (emphasis added).) Based on the foregoing, the administrative law judge finds that the term "orientation" refers to "a direction with respect to an axis with a portrait or landscape aspect ratio (i.e. right portrait, left portrait, upright landscape, or

inverted landscape)." Based on said finding, he further finds that the claimed phrase "first orientation associated with the image" of independent claim 1 means "a first direction with respect to an axis with a portrait or landscape aspect ratio (i.e. right portrait, left portrait, upright landscape, or inverted landscape) associated with the image based on the orientation of the image capture unit;" and the claimed phrase "an image associated with a first orientation" of independent claim 18 means "an image associated with a first direction with respect to an axis with a portrait or landscape aspect ratio (i.e. right portrait, left portrait, upright landscape, or inverted landscape) based on the orientation of the image capture unit."

Respondents HTC argued that dependent claims 3, 4, 19, and 20 use the terms landscape and portrait, and thus, defining the term orientation using the terms landscape and portrait "improperly imports limitations of the dependent claims into the independent claims." (HRBr at 19.) In support of this argument, respondents HTC refer to the doctrine of claim differentiation and cite to Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed. Cir. 2004). (HRBr at19, n. 18.) In Liebel-Flarsheim, the Court stated that "the presence of a dependent claim that adds a particular limitation raises a presumption that the limitation is question is not found in the independent claim." 358 F.3d at 910. However, the administrative law judge's inclusion of a list of illustrative aspect ratios in his construction of the term "orientation," supra, does not import the particular limitation found in dependent claims 3, 4, 19, and 20 into independent claims 1 and 18 because the construction does not require that claims 1 and 18 include the specific limitations added by claims 3, 4, 19, and 20. Thus, the language of dependent claims 3, 4, 19, and 20 is not rendered superfluous by the administrative law judge's construction of the term "orientation." See SRAM Corp. v. AD-II Engineering, Inc., 465 F.3d 1351, 1358 (Fed. Cir. 2006) (holding that claim differentiation argument lacks merit where limitation in dependent claim is not "rendered

superfluous by the district court's claim construction").

b. "at capturing of the image"

Also in issue in said claimed phrases is the term "at capturing of the image." Complainant's and the staff's proposed construction for this term is "following the determination that an image is to be captured and prior to the completion of the storing step." (CBr at 23; SBr at 33.) Respondents' construction for said term is "at the time reflected light is collected at an image sensor." (RBr at 53.) As seen from the foregoing, the parties disagree about the beginning and end of the time period encompassed by the term "at capturing of the image."

The parties agree that Figure 6 of the '769 patent illustrates a determination of a first orientation "at capturing of the image;" that the beginning of the time period for "at capturing of the image" occurs at step 610 of Figure 6 of the '769 patent; and that the end of the time period for "at capturing of the image" occurs at step 628 of Figure 6 of the '769 patent. (See CBr at 23-24; SBr at 35-36; RBr at 54.) With respect to step 610 of Figure 6, the specification states:

> First, the processing unit 344' determines whether the image is to be captured via step 610. In one embodiment, this determination is made based on ascertaining whether an image capture button, not shown, has been depressed. The processing unit 344' may determine whether the image capture button has been depressed by monitoring the value of a shutter activation signal, not shown.

(JX-4 at 6:37-43.) Thus, in the embodiment depicted in Figure 6, the "at capturing of the image" sequence begins when an image capture button has been depressed. Further, Figure 1 of the '769 patent depicts "a block diagram of a digital camera 110... according to the present invention." (JX-4 at 3:22-23, Figure 1.) Regarding capture of an image using the digital camera 110 of Figure 1, the '769 specification states:

> Once a photographer has focused imaging device 114 on object 112 and, using a capture button or some other means, instructed camera 110 to capture an image of object 112, computer 118

> commands imaging device 114 via system bus 116 to capture raw image data representing object 112.

(JX-4 at 3:27-32.) Thus, image capture is initiated when a photographer uses a "capture button or some other means," which instructs the camera to capture an image. The '769 patent contains no other description regarding how the image capture process begins. Based on the foregoing, the administrative law judge finds that the beginning of the time period for "at capturing of the image" is "following the determination by the image capture unit that an image is to be captured."

With respect to the end of the time period for "at capturing of the image," the language of independent claim 1 of the '769 patent states that the image is "a captured image" before "storing the image," thus indicating that image storage occurs after and separately from image capture. Regarding Figure 6 of the '769 patent, said step 628 is a step labeled "Capture and Store Image," which further indicates image capture is separate from image storage. Regarding said step, the specification of the '769 patent states:

> After each of the steps 616, 620, 624, or 626, the processing unit 344' issues an image capture command via step 628, transferring the pixel signals output by the imaging device 114' to the image memory 554'.

(JX-4 at 7:6-10.) Thus, in step 628 image capture and storage have occurred when pixel signals are output by the imaging device to the image memory. However, said passage does not provide a description of image capture. Other portions of the specification describe image capture:

> Once a photographer has focused imaging device 114 on object 112 and, using a capture button or some other means, instructed camera 110 to capture an image of object 112, computer 118 commands imaging device 114 via system bus 116 to capture raw image data representing object 112. The captured raw image data is transferred over system bus 116 to computer 118 which performs various image processing functions on the image data before storing it in its internal memory.

* * *

> Imaging device 114 captures an image of object 112 via reflected light impacting image sensor 224 along optical path 236. Image sensor 224, which is preferably a charged coupled device (CCD), responsively generates a set of raw image data in CCD format representing the captured image 112. The raw image data is then routed through ASP 228, A/D converter 230 and interface 232.

(JX-4 at 3:27-35, 3:45-51 (emphasis added).) Thus, the specification indicates that an image capture has occurred when image data is generated from the image sensor, and then the captured image data is routed for processing. Based on the foregoing, the administrative law judge finds that the end of the time period for "at capturing of the image" occurs when the complete set of image data has been generated from the image sensor. Hence, he finds that the claimed phrase "at capturing of the image" means "following the determination by the image capture unit that an image is to be captured and before the completion of generating image data from the image sensor."

Based on the foregoing, the administrative law judge finds that the claimed phrase "determining a first orientation associated with the image at capturing of the image, the image being a captured image" in independent claim 1 means "determining a first direction with respect to an axis with a portrait or landscape aspect ratio (i.e. right portrait, left portrait, upright landscape, or inverted landscape) associated with the image based on the orientation of the image capture unit at capturing of the image, the image being a captured image, which includes the time period following the determination by the image capture unit that an image is to be captured and before the completion of generating image data from the image sensor." He further finds that the claimed phrase "an image associated with a first orientation determined at capturing of the image, the image being a captured image" of independent claim 18 means "an image associated with a first direction with respect to an axis with a portrait or landscape aspect ratio (i.e. right

portrait, left portrait, upright landscape, or inverted landscape) based on the orientation of the image capture unit determined at capturing of the image, the image being a captured image, which includes the time period following the determination by the image capture unit that an image is to be captured and before the completion of generating image data from the image sensor."

2. The claimed phrase "storing the image, including storing the information relating to the first orientation associated with the image"

The claimed phrase is found in independent claim 1.

Complainant's and the staff's proposed construction of the phrase "storing the information relating to the first orientation" is "saving an indication of the first orientation to memory." (CBr at 27; SBr at 37.) Respondents HTC proposed construction of the claimed phrase "storing the image, including storing the information relating to the first orientation associated with the image" is "storing both image data representing the captured image and the determined direction of the captured image." (RBr at 69.) Thus, there is no dispute that the claimed phrases require storing data representing the captured image. However, the parties dispute the meaning of the phrase "storing the information relating to the first orientation associated with the image," and in particular, what constitutes "the information relating to the first orientation."

The claim language itself unambiguously requires "storing the information relating to the first orientation associated with the image." (JX-4 at 9:51-52 (emphasis added).) Respondents HTC, however, asserted that the claim language requires storing "the information," which suggests that "the information" refers to the specific items of information that embody the previously recited "first orientation." (RBr at 69-70.) However, the administrative law judge finds that respondents' interpretation completely reads out the phrase "the information relating

to," and effectively requires the claim limitation to recite "storing the first orientation associated with the image." The plain and ordinary meaning of the claim language, including the phrase "relating to," implies that "the information" stored need not be in the exact same form or have the exact same content as the "first orientation associated with the image" that was determined according to the immediately preceding claim limitation. Thus, the administrative law judge finds that one skilled in the art would have understood from the plain and ordinary meaning of the claim language that this limitation is satisfied as long as the stored information is sufficient to provide an indication of the first orientation. Based on the foregoing, the administrative law judge finds that the phrase "storing the information relating to the first orientation" means "saving an indication of the first orientation to memory," as argued by complainant and the staff.

3. The claimed phrases "second orientation" and "third orientation"

Each of the claimed phrases in issue is in claims 1 and 18.

Complainant and staff argued that the term "orientation" required a different construction when used in the phrases "second orientation" and "third orientation." Complainant's proposed construction for "second orientation" is "position of the image capture unit at the time an image is displayed," and complainant's proposed construction for "third orientation" is "position of the image capture unit at a subsequent time of displaying the captured image." (CBr at 28.) The staff's proposed construction for "second orientation" and "third orientation" is "direction of the image capture unit relative to the axis (e.g., upright, inverted, left, or right)." (SBr at 40.) However, respondents HTC argued that the terms "second orientation" and "third orientation" should be construed consistently with the term "first orientation," and thus, respondents HTC proposed construction for both of said terms is "direction of the image capture unit relative to the axis (i.e., upright landscape, inverted landscape, left rotation portrait, or right rotation portrait)."

(RBr at 58-59.) As found supra, the specification of the '769 patent does not distinguish the term "orientation" as it related to an image or an image capture unit. (See supra, e.g., JX-4 at 6:14-16, 7:64-8:8; see also JX-4 at 2:43-44 ("illustrations of the automatic rotation of a portrait capture to a landscape oriented camera") (emphasis added).) Thus, the administrative law judge finds that the term "orientation" should be construed the same in each of the claimed phrases "first orientation," "second orientation," and "third orientation." Hence, he further finds that the phrase "second orientation" means "a second direction with respect to an axis with a portrait or landscape aspect ratio (i.e. right portrait, left portrait, upright landscape, or inverted landscape);" and the phrase "third orientation" means "a third direction with respect to an axis with a portrait or landscape aspect ratio (i.e. right portrait, left portrait, upright landscape, or inverted landscape)."

4. The claimed phrases "determining whether the first orientation is different from the second orientation" and "wherein it is determined whether the first orientation is different from the second orientation"

Said claimed phrases are found in claims 1 and 18, respectively.

Complainant's proposed construction is "ascertaining whether the orientation of the stored image data to be displayed is different from the orientation associated with the image capture unit." (CBr at 29.) Respondents HTC's and the staff's proposed construction is "comparing the stored first orientation with the determined second orientation and producing a result based on the comparison." Complainant has stated that it "does not appear that any material difference exists as to the parties' proposed construction of this claim language" (CBr at 29), and that it does not dispute that the claimed phrases in issue require a comparison of the first

orientation to the second orientation[7]. (CRBr at 12.) Based on the foregoing, the administrative law judge finds that the claimed phrases mean "comparing the stored first orientation with the determined second orientation and producing a result based on the comparison."

5. The claimed phrase "if the image capture unit is rotated to a third orientation during display of the image, the [method/system] further includes"

The claimed phrases in issue are found in each of claims 1 and 18.

Complainant has not proposed a construction for said phrases and asserted that said phrases should be given their ordinary meaning. (CBr at 30.) Respondents asserted that "[t]his recitation requires the capability of performing the following steps in the event that the image capture unit is rotated to any third orientation during display of the image." (RBr at 72-73 (emphasis added).) The staff asserted that "[t]his recitation requires the capability of performing the following steps in the event that the image capture unit is rotated to a third orientation that is different from the second orientation during display of the image." (SBr at 45 (emphasis added).) The dispute among the parties centers on whether the claims in issue require that an image is displayed upright regardless of the orientation of the image capture unit, i.e. the image is displayed upright if the image capture unit is rotated to each of the upright landscape orientation, inverted landscape orientation, right portrait orientation, and left portrait orientation. (See RBr at 72-73; CRBr at 17; SBr at 45-46.)

Respondents HTC argued that the patentees' statements to the patent office during reexamination made to distinguish the '769 patent from the prior art represent a clear prosecution disclaimer such that the claims require upright display of images regardless of the orientation of

[7] Complainant's other arguments in its reply brief regarding this element relate only to the parties' dispute regarding the claim term "first orientation," which the administrative law judge construed supra.

the image capture unit; that the disclaimer is consistent with the inventor testimony; and that the disclaimer is supported by the specification of the '769 patent.[8] (RBr at 72-80.) Complainant argued that the reexamination response relied upon by respondents "was directed solely at distinguishing the Jinda reference on the basis that the '769 patent, unlike Jinda, checks the device orientation at time of display; [and that] nothing in that response was intended to, or did, limit the claim scope to requiring an upright display of images for each orientation of the image capture device." (CRBr at 17.) The staff argued that "[n]either the claim language nor any other intrinsic evidence requires the subsequent steps to be performed for all four possible orientations in which an image capture [device] may be held while an image is being displayed." (SBr at 45-46.)

Respondents HTC, in support of their arguments, primarily relied on the following passage from the patentees' December 17, 2010 response to an October 29, 2010 office action in a reexamination based on the '769 patent:

> Independent claim 1 defines a technique for capturing an image with an image capture unit having an integrated display, and subsequently displaying the image on the image capture unit, such that the image is properly oriented when displayed to the user regardless of the actual orientation of the image capture unit. Further, if the image capture unit is rotated after the image is displayed, the displayed image is rotated to maintain proper orientation.

(RX-4311 at HTC_FP_ITC_0360953 (emphasis added by respondents).) However, in said response, the patentees' repeatedly make clear that the key distinction between the '769 patent and the prior art relates to the fact that the prior art does not check the orientation sensor at the

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[8] Respondents HTC made similar arguments regarding the scope of the claims of the '769 patent in their memorandum in support of Respondents' Motion For Partial Summary Determination Of No Violation of Section 337 For U.S. Patent No. 6,262,769 (Motion Docket No. 726-045), which was denied in Order No. 32 on March 29, 2011.

time an image is displayed, i.e. the prior art references do not determine the second orientation.

Thus, said response states:

> While the primary references may disclose determining a first orientation when the image is taken, the primary references fail to disclose determining a second orientation associated with the image capture unit at a display time. Since the primary references do not determine the second orientation, the primary references also do not disclose determining whether the first orientation is different from the second orientation or displaying the image in the second orientation as well as any other functions related to the second orientation. For at least these reasons, the cited rejections are improper.
>
> * * *
>
> While Jinda may disclose determining a first orientation when the image is taken, Jinda fails to disclose determining a second orientation associated with the image capture unit at a display time. Since Jinda does not determine the second orientation, Jinda cannot disclose determining whether the first orientation is different from the second orientation or display the image in the second orientation
>
> * * *
>
> In contrast, Jinda is solely focused on always orientating the displayed image relative to the standard orientation of the image capture unit, without regard to the actual orientation of the image capture unit when the image is displayed.
>
> * * *
>
> From the above, Jinda clearly does not "determine" any current orientation information for the image capture unit during display time. Only the sensor angle from when the image was captured is used.
>
> * * *
>
> Since Jinda does not determine the current sensor angle, reference axis, or the like "at a display time," Jinda does not disclose "determining a second orientation associated with the image capture unit at a display time" as required by claim 1.

(RX-4311 at HTC_FP_ITC_0360952, 953, 955, 959 (emphasis in original).) Based on said statements distinguishing the prior art, the administrative law judge finds that the statement relied upon by respondents does not represent a prosecution disclaimer. He further finds that nothing in the specification or prosecution history of the '769 patent suggests that the claimed invention necessarily requires automatically rotating the image to a consistent format for all the possible orientations to which the image capture unit may be rotated. Based on the foregoing, the administrative law judge finds that the claimed phrase "if the image capture unit is rotated to a third orientation during display of the image, the [method/system] further includes" requires that the method of claim 1 or the system of claim 18 have the capability of performing the steps following said claim phrase in the event the image capture unit is rotated to a third orientation, but said claimed phrase does not require that the steps following said phrase be performed for all of the possible orientations of the image capture unit.

6. The claimed phrase "determining whether the third orientation is different from the second orientation, the first orientation, or both"

The claimed phrase in issue is found in each of claims 1 and 18.

The parties do not dispute that the phrase "determining whether..." in said claim phrase requires the same direct comparison of orientations as required in the claim phrase "determining whether the first orientation is different from the second orientation," which was construed supra to mean "comparing the stored first orientation with the determined second orientation and producing a result based on the comparison." However, the parties dispute whether the claim phrase "determining whether the third orientation is different from the second orientation, the first orientation, or both" necessarily requires a comparison of the third orientation with the second orientation and a comparison of the third orientation with the first orientation, or if said phrase may be satisfied by a comparison of the third orientation with either the first or second

orientation. The staff argued, and complainant does not dispute, that "[b]ecause the subsequent 'rotating' step necessarily requires a comparison of the current 'third orientation' of the image capture unit with its prior 'second orientation,' the additional comparison of the 'third orientation' with the 'first orientation' is only necessary if the 'third orientation is different from the second orientation'" (SBr at 47, n. 7; SPFF 71 (citing Tr. at 1261) (undisputed by complainant).) Respondents argued that said claim phrase requires "a direct, logical comparison: 1) between the third orientation and the second orientation; and 2) between the third orientation and the first orientation." (RBr at 61.)

The claim languages unambiguously requires a determination of whether the third orientation is different from one or both of the first orientation and the second orientation, and the administrative law judge finds that a determination that both first and second orientations are different from the third orientation cannot occur unless a comparison is made between the third orientation and the first orientation and between the third orientation and the second orientation, i.e. one cannot make a determination that both the first and second orientations are different from the third orientation without comparing the third orientation to each of the first and second orientations. Thus, he finds that the claimed phrase requires a comparison of the third orientation with the first orientation and also a comparison of the third orientation with the second orientation.

7. The claimed phrase "rotating the image to be displayed in the third orientation if the third orientation is different from the second orientation"

The claimed phrase in issue is found in each of claims 1 and 18.

Complainant's proposed construction is "displaying the image in alignment with the orientation of the image capture unit." (CBr at 30-31.) Respondents' proposed construction is "transferring the contents of the buffer storing the currently displayed captured image to another

buffer in an order that rotates the contents from the second orientation to the third orientation if the orientation of the device at the prior display time is different from the orientation of the device at the subsequent display time." (RBr at 65.) The staff's proposed construction is "storing the image data in a buffer in one of two directions depending on the orientation of the image capture unit." (SBr at 48.) The parties agree that said claim phrase requires processing of the image in order to differentiate the language of said phrase from the claim phrase "displaying the image in the second orientation" (JX-4 at 9:61), and that the result of said processing is that the orientation of the image is changed to match the third orientation. (RBr at 65; SBr at 49; CRBr at 15.) Further, complainant agreed that the staff's proposed construction "would also be an appropriate definition of 'rotating' in the context of the claim." (CRBr at 15.) Thus, the dispute among the parties centers on whether said claim phrase requires processing of the image using one buffer, as in the staff's proposed construction, or two buffers, as in respondents' proposed construction.

The specification of the '769 patent discloses two methods by which an image capture device can perform rotation of an image followed by display of the rotated image: a method that uses a single buffer (JX-4 at Fig. 13) and a method that uses two buffers. (JX-4 at Fig. 12.) However, the specification describes that actual rotation of the image occurs at step 1010 of Figure 12, which is labeled "Store Image Data to Frame Buffer in One of Two Directions" and requires the use of only one buffer. (JX-4 at Fig. 12.) The method depicted in Figure 13 includes a step with an identical label. (JX-4 at Fig. 13.) Regarding step 1010, the '769 patent states:

> The image data is then stored in the frame buffer 536 of FIG. 4A in one of two directions via step 1010. Determining which of the two directions depends upon how the image is to be rotated. For instance, if the image is to be resized from a portrait image to a landscape oriented display, then the image would need to be rotated as the image is being stored in the buffer. Likewise, a

> landscape portrait would also need to be rotated if it is being displayed on a portrait oriented display. Filling a buffer in a manner which rotates one orientation to another is well known in the art.

(JX-4 at 8:58-67 (emphasis added).) Thus, the specification describes that an image can be rotated in one of two directions, i.e. from a portrait orientation to a landscape orientation and from a landscape orientation to a portrait orientation, and that it is well known to use one buffer to achieve image rotation. Further, while the method of Figure 12, which uses two buffers to display rotated images, is described as "the preferred method since it requires less coding" (JX-4 at 9:22-23), the administrative law judge finds nothing in the claim language, specification, or prosecution history of the '769 patent indicating that the patentees intended to exclude the method of Figure 13, which uses only a single buffer, from the scope of the asserted claims. Based on the foregoing, the administrative law judge finds that the claim phrase "rotating the image to be displayed in the third orientation if the third orientation is different form the second orientation" means "storing the image data in a buffer in one of two directions such that the orientation of the image is the same as the orientation of the image capture unit."

8. The claimed phrases "means for determining the third orientation" and "means for determining whether the third orientation is different from the second orientation, the first orientation, or both"

The parties do not dispute that said claim phrases in claim 18 of the '769 patent are both means-plus-function limitations subject to 35 U.S.C. § 112, ¶ 6. (SBr at 53-54.) Complainant and the staff argued that the corresponding structure for said phrases is "orientation sensor 560 and associated software running on the image capture unit, and equivalents thereof." (SBr at 53; CBr at 32.) Respondents HTC argued that the corresponding structure for the phrase "means for determining the third orientation" is "[f]irst orientation sensor of orientation unit 560 of Fig. 5 (JX-4 at 4:12-20, 6:14-16), using a ball bearing, a gravity driven ball bearing, or a gravity driven

liquid, such as mercury." (RBr at 59 (citing RX-1383 at 12-50; RX-9).) With respect to the claim phrase "means for determining whether..." respondents HTC argued that "[t]he specification fails to link the claimed function to adequate structure in the specification for performing the function," and thus, claim 18 is invalid as indefinite. (RBr at 63-64.)

The administrative law judge finds that adequate structure is disclosed in the specification of the '769 patent. In particular, the specification describes an "orientation unit 560,"

> In one embodiment, the orientation unit 560 includes first and second orientation sensors (not shown). In this embodiment, the first orientation sensor determines whether the camera 110' is rotated to the left or right orientation. Thus, the first orientation sensor determines whether the camera has been rotated to a left rotation portrait, a right rotation portrait, an upright or an inverted position. In this embodiment, the first orientation sensor outputs a left orientation signal for left rotation portraits and a right orientation signal for right rotation portraits. The second orientation sensor determines whether the camera 110' is tilted forward or backward. In such an embodiment, the second orientation sensor outputs a forward and a backward orientation signal.

(JX-4 at 6:10-23.) Based on said disclosure, the administrative law judge finds that a person of ordinary skill in the art would understand that the corresponding structuring for performing the function of "determining the third orientation" is the orientation unit 560 including an orientation sensor that "determines whether the camera 110' is rotated to the left or right orientation," and said orientation unit with said orientation sensor can be used to determine each of the "first orientation," the "second orientation," and the "third orientation" recited in asserted claim 18.

With respect to the claimed phrase "means for determining whether the third orientation is different from the second orientation, the first orientation, or both," the parties agree that this is a computer implemented means-plus-function limitation, and a sufficient algorithm must be disclosed in the specification for performing the claimed function. The '769 patent includes flow

diagrams at Figures 12 and 13 and accompanying descriptions in the specification that detail the process for viewing images in an image capture unit based on a comparison of the image orientation with the orientation of the image capture unit. (JX-4 at Fig. 12, Fig. 13, 8:43-9:31.) The administrative law judge finds that said disclosure provides a sufficient algorithm to meet the requirements of 35 U.S.C. § 122, ¶ 6 for this claim phrase.

Based on the foregoing, the administrative law judge finds that the corresponding structure for the claim phrase "means for determining the third orientation" in claim 18 of the '769 patent is orientation unit 560, and the corresponding structure for the claim phrase "means for determining whether the third orientation is different from the second orientation, the first orientation, or both" of said claim 18 is the algorithm described in JX-4 at Fig. 12, Fig. 13, 8:43-9:31. Hence, he further finds that said claim phrases meet the requirements of 35 U.S.C. § 112, ¶ 6.

9. The claimed phrase "means for rotating"

The claimed phrase in issue is found in claim 18.

The parties do not dispute that said claim phrase in claim 18 of the '769 patent is a means-plus-function limitation subject to 35 U.S.C. § 112, ¶ 6. (SBr at 55.) Complainant and the staff argued that the corresponding structure for said phrases is "computer 118, CPU 344, and buffer 536 and equivalents thereof." (CBr at 33; SBr at 55.) Respondents HTC argued that the specification of the '769 patent does not disclose "an adequate algorithm to accomplish the function of rotating a captured image," and thus, this claim element is indefinite and claim 18 is invalid. (RBr at 68.)

The specification of the '769 patent discloses a computer 118 with a CPU 344 for "executing the software routines used within the computer" and a frame buffer 536 for "storing

data for display on the LCD screen." (JX-4 at 5:9-15.) As found supra with respect to the claim phrase "rotating the image...," the '769 patent also discloses the following method for achieving image rotation:

> The image data is then stored in the frame buffer 536 of FIG. 4A in one of two directions via step 1010. Determining which of the two directions depends upon how the image is to be rotated. For instance, if the image is to be resized from a portrait image to a landscape oriented display, then the image would need to be rotated as the image is being stored in the buffer. Likewise, a landscape portrait would also need to be rotated if it is being displayed on a portrait oriented display. Filling a buffer in a manner which rotates one orientation to another is well known in the art.

(JX-4 at 8:58-67 (emphasis added).) The administrative law judge finds that said disclosures provide sufficient structure to render the bounds of said claim term understandable to one of ordinary skill in the art, and thus, said disclosures meet the requirements of 35 U.S.C. § 112, ¶ 6. Based on the foregoing, the administrative law judge finds that the corresponding structure for the claim phrase "means for rotating" is the computer 118, CPU 344, and frame buffer 536 with the algorithm described in JX-4 at 8:58-67.

B. The '816 Patent

1. The claimed phrase "A system for retrieving capability parameters in a hand held electronic device ..."

The claimed phrase in issue is found in asserted independent claim 1.

Complainant argued that the claimed phrase "capability parameters" should be construed as "features or functions which control the performance and utility of a given peripheral device." (CBr at 163.) Complainant further argued that respondents HTC's construction appears to be "substantively identical" to complainant's construction. (CBr at 164.)

Respondents HTC argued that "capability parameters" should be construed as "features or

functions which control the performance and utility of the device, which may either have several values for execution by the user or have a fixed value." (RBr at 166.) Respondents HTC also argued that complainant has admitted that its construction is substantively identical to respondents' and the staff's constructions, and that respondents HTC's construction should be adopted because it is based on an express definition in the specification. (RBr at 166.)

The staff argued that said claim phrase should be construed as "features or functions which control the performance and utility of the device, which may either have several values for selection by the user or have a fixed value." (SBr at 117.) The staff further argued that there is no substantive difference between the parties' constructions and that its construction is based on an "express definition" in the specification. (SBr at 117.) Finally, the staff argued that the plain language of the claim and the specification both support that only the "capability parameters," and not the entire claimed "system," must be found entirely in the claimed hand held electronic device.

The claimed phrases "capability parameter" and "capability parameters" are found in several elements of asserted claim 1, as well as in the preamble of claim 1. The '816 patent explicitly defines "capability parameters" as "features or functions which control the performance and utility of a given peripheral device, and which may either have several values for selection by the user or have a fixed value." (JX-1 at 1:28-32.) The specification also discloses "value sets" that are associated with the capability parameters. Thus, the "Summary of the Invention" section of the asserted '816 patent reads:

> In accordance with the present invention, a system and method are disclosed for obtaining a set of capability parameters for an electronic imaging device. The invention includes a modularized series of capability parameter storage locations for containing capability parameter value sets, a GetCameraCapabilities command for retrieving these capability parameter value sets, and a parameter

manager device for executing the GetCameraCapabilities command to retrieve the capability parameter value sets.

The GetCameraCapabilities command may retrieve the capability parameter value sets in several ways. In one embodiment of the present invention, if the GetCameraCapabilities command is issued with the capability parameter abbreviated name field (called the PName field) set to all nulls, then the parameter manager device will interpret this as requesting a complete set of all of the capability parameters. The parameter manager first returns a numerical value called ResLength, which typically will be the number of different capability parameters which the interrogated camera supports. After the parameter manager returns the ResLength, it then sends the value sets for all of the capability parameters supported by the camera.

In a second embodiment of the present invention, if the GetCameraCapabilities command is issued with the PName field set to all nulls, then the parameter manager device will interpret this as requesting a set of all of those capability parameters which are not included in a specified core camera capability parameters set. The parameter manager first returns ResLength, which typically will be the number of different capability parameters not included in the specified core camera capability parameters that the interrogated camera supports. After the parameter manager returns the ResLength, it then sends the value sets for all of the capability parameters which are not included in the specified core camera capability parameters supported by the camera.

If either of the foregoing embodiments of the present invention issues a GetCameraCapabilities command with the PName field set to a non-null value, the parameter manager interprets this as a request for the value set corresponding to the specific PName capability parameter. In this case, the value of ResLength returned is 1, and the single value set corresponding to the specific PName capability parameter is returned following ResLength.

The imaging device user is thus able to more efficiently and effectively obtain sets of capability parameters for the electronic imaging device, in accordance with the present invention.

(JX-1 at 2:33-3:12 (emphasis added).) Hence, a value set is associated with a capability parameter.

Moreover, the specification discloses that a computer may interact with the given device

in order to retrieve said capability parameters. Thus,

> Referring now to FIG. 9, the flow of the commands and information between the computer 118 of digital camera 110 and an external host computer system 910 is shown. In the FIG. 9 embodiment, the external host computer system 910 provides the GetCameraCapabilities command to I/O interface 348 via line 912. In the preferred embodiment of the invention, the interface lines 912 and 918 may be an industry standard Universal Serial Bus (USB) interface. Computer 118 receives the GetCameraCapabilities command from the I/O interface 348, and responsively passes the command to CPU 344 via system bus 116. CPU 344, acting upon the GetCameraCapabilities command and using the parameter manager 410 software, accesses the capability data contained in parameter manager 410 via line 914. Parameter manager 410 then transfers the capability data via line 916 and system bus 116 to the I/O interface 348 which responsively provides the capability data to external host computer system 910.

(JX-1 at 8:57-9:7 (emphasis added).) Hence, the specification discloses that the entire claimed "system" of asserted claim 1 need not be in the device, but rather that the capability parameters must be in said device.

Based on the foregoing, the administrative law judge construes "capability parameters" as "features or functions which control the performance and utility of a given device, which may either have several values for selection by the user or have a fixed value." He further construes the claimed phrase "capability parameters in a hand held electronic device" as "features or functions which control the performance and utility of a given device, which may either have several values for selection by the user or have a fixed value, and which are contained in a hand held electronic device."

Complainant has argued that the phrase in the specification's definition of "capability parameters" reading "which may either have several values for selection by the user or have a fixed value" is superfluous and should be ignored. A patentee, however, may explicitly define a term and will be held to that definition. See Lear Seigler 733 F.2d at 889. Further, the

administrative law judge finds that said phrase expressly discloses two possible options; that is, "several values for selection by the user" or "fixed value." Thus, the word "may" is not entirely permissive in this context, but rather is used to exclude any other option, such as not having a value.

2. The claimed phrase "a series of capability parameter storage locations coupled to said electronic device for containing value sets corresponding to said capability parameters" (emphasis added)

The claimed phrase in issue is found in asserted independent claim 1.

Complainant argued that said claimed phrase should be construed as "a collection or set of memory used to store the capability parameters..." (CBr at 164-70.) Complainant does not separately define "value sets." (See, generally, Id; CRBr at 73-74.)

Respondents HTC argued that said claimed phrase should be construed as "two or more discrete memory areas, each containing a value set corresponding to a particular capability parameter...," where "value set" is defined as "all possible settings associated with a particular parameter." (RBr at 153.)

The staff argued that the claimed phrase, "a series of capability parameter storage locations coupled to said electronic device for containing value sets corresponding to said capability parameters..." should be construed as "two or more discrete memory areas, each containing a value set corresponding to a particular capability parameter..." (SBr at 118.)

The administrative law judge has found, supra, that capability parameters are features or functions which control the performance and utility of a given device, which may either have several values for selection by the user or have a fixed value. Based on the plain language of the claim, the administrative law judge finds that "a series ... of storage locations" is construed as two or more locations where "value sets" are stored, and that a value set is associated with an

individual capability parameter.

With respect to the specification, the Summary of the Invention discloses:

> In accordance with the present invention, a system and method are disclosed for obtaining a set of capability parameters for an electronic imaging device. The invention includes a modularized series of capability parameter storage locations for containing capability parameter value sets, a GetCameraCapabilities command for retrieving these capability parameter value sets, and a parameter manager device for executing the GetCameraCapabilities command to retrieve the capability parameter value sets.
>
> The GetCameraCapabilities command may retrieve the capability parameter value sets in several ways. In one embodiment of the present invention, if the GetCameraCapabilities command is issued with the capability parameter abbreviated name field (called the PName field) set to all nulls, then the parameter manager device will interpret this as requesting a complete set of all of the capability parameters. The parameter manager first returns a numerical value called ResLength, which typically will be the number of different capability parameters which the interrogated camera supports. After the parameter manager returns the ResLength, it then sends the value sets for all of the capability parameters supported by the camera.
>
> In a second embodiment of the present invention, if the GetCameraCapabilities command is issued with the PName field set to all nulls, then the parameter manager device will interpret this as requesting a set of all of those capability parameters which are not included in a specified core camera capability parameters set. The parameter manager first returns ResLength, which typically will be the number of different capability parameters not included in the specified core camera capability parameters that the interrogated camera supports. After the parameter manager returns the ResLength, it then sends the value sets for all of the capability parameters which are not included in the specified core camera capability parameters supported by the camera.
>
> If either of the foregoing embodiments of the present invention issues a GetCameraCapabilities command with the PName field set to a non-null value, the parameter manager interprets this as a request for the value set corresponding to the specific PName capability parameter. In this case, the value of ResLength returned is 1, and the single value set corresponding to the specific PName capability parameter is returned following ResLength.

> The imaging device user is thus able to more efficiently and effectively obtain sets of capability parameters for the electronic imaging device, in accordance with the present invention.

(JX-1 at 2:33-3:12 (emphasis added).) Thus, the specification discloses that a specific value set is associated with a particular capability parameter. Further, the specification indicates:

> Referring now to FIG. 7, a memory map of part of the non-volatile memory 350 shows one embodiment for the capability parameters contained within the parameter manager 410. In addition to comprising executable software, parameter manager 410 includes capability parameter 1 (710 (a)) through capability parameter "N" (710(d)) which each preferably includes, but is not limited to, the capability for various operational and functional attributes of camera 110. In the preferred embodiment, there are three basic formats for capability parameters. The formats are called "list of values" format, "range of values" format, and "fixed value" format. The first two of these formats are discussed in detail below in conjunction with FIGS. 8A and 8B. The third format, the fixed value format, simply returns a fixed value for a camera's parameter. For example, a capability parameter for camera name returns a user-defined string.

(JX-1 at 7:6-20 (emphasis added).) Thus, the specification discloses that the value sets are stored in memory, that the value sets are not restricted to any particular format, and that a value set could comprise one or several values.

Based on the plain language of the claims and the specification, the administrative law judge finds that said claimed phrase should be construed as "two or more memory areas, each containing the value set corresponding to a particular capability parameter," where a "value set" comprises one or several values associated with a particular capability parameter.

3. The claimed phrase "each" in the phrase, "a series of capability parameter storage locations coupled to said electronic device for containing value sets corresponding to said capability parameters, wherein said one or more of said series of capability parameter storage locations each includes..."

The claimed phrase in issue is found in asserted independent claim 1.

Complainant argued that the claimed phrase "each" in the claimed phrase "wherein said

one or more of said series of capability parameter storage locations each includes..." modifies the claim term "series of capability parameter storage locations..." and thus it is the series that must contain the four "locations" subsequently listed. (CBr at 158.) Complainant further argued that its construction is based on grammar, on the specification, and on the procedural history. (CBr at 158-63.)

The HTC respondents argued that the claim term "each" refers to "locations" and thus the claimed phrase requires that each capability parameter storage location must contain at least all four of the locations subsequently listed in the claim. (RBr at 146.) Specifically, respondents HTC argued that "each" must refer to one of a plurality of items and that the prosecution history, including the reexamination, confirms its construction. (RBr at 146-152.)

The staff argued that the term "each" recited in asserted claim 1 should refer to an individual capability parameter storage location rather than the entire series. (SBr at 121-23.) Specifically, the staff argued that "each" must refer to one of a plurality of items, and "series" is singular. Further, the staff argued that interpreting "each" to refer to series would effectively read out of the claim the phrase "one or more of." (SBr at 123-24.) Finally, the staff argued that complainant pursued a claim interpretation during the reexamination proceeding that is at odds with complainant's interpretation in this investigation, and therefore should be held to its arguments before the USPTO. (SBr at 125.)

The complete claimed phrase at issue reads:

> a series of capability parameter storage locations coupled to said electronic device for containing value sets corresponding to said capability parameters, wherein said one or more of said series of capability parameter storage locations each includes:
>
> a minimum value location containing a minimum capability parameter value;

> a maximum value location containing a maximum capability parameter value;
>
> a factory defaults location containing a factory default value;
>
> and a list-of-integers location containing a capability parameter list...

(JX-1 at 10:61-11:6 (emphasis added).) Thus, the phrase "a series of capability parameter storage locations" in the first element of claim 1 indicates that the word "series" is singular; i.e., there is a single "series." That phrase is antecedent basis for the phrase "said series of capability parameter storage locations..." which occurs later in that same element. Therefore, "series" in said later phrase refers back to the singular "a series of capability parameter storage locations...," meaning that series is singular in the later phrase as well. However, in the claimed phrase "said one or more of said series of capability parameter storage locations..." the phrase "one or more" must refer to a plurality of items, yet "series" is singular. Thus, he finds that "one or more" refers to "locations," which is plural both because it is a plural noun and because "a series ... of locations" necessarily indicates that said "a series" comprises multiple "locations." Likewise, he finds that "each" refers to the "one or more of said series of capability parameter storage locations..." (emphasis added) and as "each" must refer to a plurality, not a single item[9], he finds that "each" refers to "one or more" which in turn refers to "locations," as argued by the respondents and the staff.

With respect to the prosecution history, the Examiner for the reexamination summarized

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[9] See, inter alia, Alcohol Monitoring Sys. v. Actsoft, Inc., 2011 U.S. App. LEXIS 1454, *13-14 (Fed. Cir. Jan. 24, 2011) ("We agree with the district court that the plain meaning of 'each' is defined as 'being one of two or more distinct individuals having a similar relation and often constituting an aggregate.'" (emphasis added)); Bradford Co. v. Conteyor N. Am., Inc., 603 F.3d 1262, 1267 (Fed. Cir. 2010) ("Each of the *claims* of the '096 patent *includes* a limitation ...").

the prior prosecution history thus:

> The '816 patent was issued on December 19, 2000 from an application filed August 29, 1997. During the prosecution of the '816 patent, a non-final and final rejection were issued. Following the final rejection, claim amendments were submitted to more narrowly limit the claims to require every capability parameter location to include a minimum value, maximum value, factory defaults, and capability parameter list. The amendment to original claim 9 is representative of the amends to all of the independent claims.

(RX-4327 at HTC_FP_ITC_0361629.) Thus, said Examiner specifically characterized the original scope of the asserted claims to be such that each parameter location included a minimum value, maximum value, factory defaults, and capability parameter list. Said Examiner later stated:

> The following is an examiner's statement of reasons for patentability and/or confirmation of the claims found patentable in this reexamination proceeding:
>
> Claims 1-17 are confirmed as patentable for the following reasons. The cited prior art fails to teach or suggest the claimed features of "said one or more of said series of capability parameter storage locations each includes: a minimum value location containing a minimum capability parameter value; a maximum value location containing a maximum capability parameter value; a factory defaults location containing a factory default value; and a list-of-integers location containing a capability parameter list." The explicit language of the claims requires that each parameter storage location includes a minimum, maximum, factory default, and list of integers location.
>
> Instead, the cited prior art teaches capability parameter storage locations that include different subsets of the claimed minimum, maximum, factory default, and list of integers location, but does not teach a series of capability storage locations that each include all of the required minimum, maximum, factory default, and list of integers parameters. Accordingly, the cited prior art fails to anticipate or render obvious claims 1-17.

(RX-4327 at HTC_FP_ITC_0361654-55 (emphasis in original).) Hence, the Examiner in the reexamination specifically stated as a reason for confirmation of the claims found patentable that

each location included the "minimum, maximum, factory default, and list of integers parameters."

Based on the foregoing, the administrative law judge finds that the claimed phrase "each" refers to "storage locations" and therefore each individual "storage location" must include "a minimum value location containing a minimum capability parameter value," "a maximum value location containing a maximum capability parameter value," "a factory defaults location containing a factory default value," and "a list-of-integers location containing a capability parameter list."

4. The claimed phrases "minimum value location," "maximum value location," and "factory defaults location"

The claimed phrases in issue are found in asserted independent claim 1.

Complainant argued that these claim phrase should be construed, respectively, as "a storage location containing a minimum parameter value," "a storage location containing a maximum parameter value" and "a storage location containing a factory default parameter value." (CBr at 171.)

Respondents HTC argued that said claim phrases should be construed, respectively, as "a unique memory area containing a minimum parameter value," "a unique memory area containing a maximum value for the capability parameter," and "a unique memory area that contains the factory default value for the capability parameter." (RBr at 158.)

The staff argued that said phrases should be construed, respectively, as "a separate minimum value location," "a separate maximum value location," and "a separate factory defaults location." (SBr at 121.)

With respect to the language of the asserted claim, the administrative law judge finds that "a minimum value location," for example, is not the same as a "storage location," as argued by complainant, because the claim language is distinct ("storage location" versus "minimum value

location") and nothing in the specification discloses that value locations can contain storage locations.

With respect to the specification, it discloses that the capability parameter storage locations are in non-volatile memory:

> Referring now to FIG. 7, a memory map of part of the non-volatile memory 350 shows one embodiment for the capability parameters contained within the parameter manager 410. In addition to comprising executable software, parameter manager 410 includes capability parameter 1 (710 (a)) through capability parameter "N" (710(d)) which each preferably includes, but is not limited to, the capability for various operational and functional attributes of camera 110.

(JX-1 at 7:6-13 (emphasis added).) Thus, the capability parameter storage locations are specifically disclosed as being in the parameter manager, which is in memory. The specification further discloses that capability parameter storage locations contain multiple values, in one of several possible formats. (See, inter alia, JX-1 at FIGS. 7, 8A, 8B; JX-1 at 7:6-8:56; see also, supra.) Finally, the specification discloses that the parameter manager "retrieves all the sets of capability parameter data." (JX-1 at 9:66-67.) Thus, the administrative law judge finds that the specification discloses that the value sets are in memory. However, neither staff nor respondents HTC have pointed to anything in the specification which requires the value sets to be in a unique part of any memory.

Based on the language of the asserted claim and the specification, the administrative law judge finds that the claimed phrases in issue should be construed, respectively, as: "a memory area containing a minimum parameter value," "a memory area containing a maximum value for the capability parameter," and "a memory area containing the factory default value for the capability parameter."

5. The claimed phrase "a list-of-integers location containing a capability parameter list..."

The claimed phrases in issue is found in asserted claim 1.

Complainant argued that said claimed phrase should be construed as "a storage location containing a list of elements associated with integers." (CBr at 171.) Complainant further argued that said location need not contain actual integers, but only needs to contain a capability parameter list "associated" with integers. (CBr at 172-73.)

Respondents HTC argued that the claimed phrase "a list-of-integers location containing a capability parameter list..." should be construed as "a unique memory area containing a list of integers and corresponding values representing all possible settings for the capability parameter." (RBr at 160.)

The staff argued that said claimed phrase should be construed as "a unique memory area containing a list of integers and corresponding values representing all the possible settings for the capability parameter." (SBr at 128.)

The administrative finds, for reasoning substantively the same as in section VIII.B.4, supra, that this claimed phrase should be partly construed as a memory area containing a capability parameter list. As to further construction, the plain language of the asserted claim would indicate that a "list-of-integers" is a list of whole numbers, and that this list of whole numbers would contain a capability parameter list. Moreover, the administrative law judge finds that said plain language neither requires nor prevents said capability parameter list from consisting of all possible settings for the capability parameter.

Regarding the specification, it discloses:

> In the specific case of a capability parameter in "list of values" format, the value set for the capability parameter contains a variable (of type unsigned integer) called count 810 and a value list 812 which includes a list of integers and corresponding string variables.

> In the FIG. 8A example, "0" is associated with "Off", "1" is associated with "Auto", "2 is associated with "Fill", "3" is associated with "Slave", and "4" is associated with "Sync". In the preferred embodiment, count 810 contains a value which is the total number of integers present in value list 812. In the FIG. 8A example, count 810 contains the value "5".

(JX-1 at 8:1-11 (emphasis added).) Thus, the specification specifically discloses that both the integers and the "string variables" which are the capability parameters are a part of a value set. The administrative law judge finds nothing in the specification which indicates whether or not this list of integers contains all possible settings for the capability parameter.

With respect to the prosecution history, however, the applicants argued:

> The present invention can be distinguished from the system disclosed and suggested by Davis in view of Beauchesne in several respects. As stated above, Davis discloses and teaches user-access to *settings*, which can be distinguished from the retrieval of *capability parameters* information as recited in the claims of the present invention. Settings for an electronic device are synonymous with the current status of the device. However, capability parameters information represent all of the possible settings for the device. The equipment parameter information disclosed in Beauchesne is very much like the settings information disclosed in Davis. Further, neither reference suggests providing a capability parameters information, they merely retrieve settings.
>
> The present invention as recited in the independent claims allows a user to retrieve a list of values and the full range of values of capability parameters information for an electronic device. Neither Davis nor Beauchesne teaches either singly or in combination or suggests user access to a list of values and a range of values for capability parameter information.

(JX-2 at FP-ITC_00001576 (italicized emphasis in original; underlined emphasis added.) Thus, the applicants argued that the list of capability parameter would contain "the full range" of values of capability parameters.

Based on the plain language of the claim, the specification, and the prosecution history, the administrative law judge finds that said claimed phrase should be construed as "a memory area

containing a list of integers and corresponding values representing all possible settings for the capability parameter."

6. The claimed phrase "capability command for retrieving said value sets from said capability parameter storage locations..."

The claimed phrase in issue is found in asserted independent claim 1.

Complainant argued that a "capability command" is a software function. (CBr at 173.) Specifically, complainant argued that said command is like the "GetCameraCapabilitys" command and does not require that each of the values stored in the capability storage location is retrieved. (CBr at 173.)

Respondents HTC argued that said claimed phrase should be construed as, "a command that retrieves each of the values stored in said capability parameter storage locations." (RBr at 163.) Specifically, respondents HTC argued that said "capability command" must be capable of initiating both retrieval of a complete set of all values sets corresponding to all capability parameters and capable of retrieving a value set corresponding to a specific capability parameter. (RBr at 165.)

The staff argued that said claimed phrase should be construed as "a single command that can retrieve each of the values stored in said capability parameter storage locations." (SBr at 130.)

The plain language of said claimed phrase requires that the "capability command" be able to retrieve the "value sets" found in the "storage locations," where the administrative law judge has previously construed "value sets" and "storage locations," supra. Thus, he finds that the "capability command" should be able to retrieve any given value set, in any format, from any given storage location. Further, the claim requires that it be a single command that can perform the required function. (JX-1 at 11:7-8 ("a capability command..." (Emphasis added).)

With respect to the specification, the command "GetCameraCapabilities" in the various

embodiments can retrieve all of the capability parameters, all the value sets for the capability parameters, or may retrieve a particular capability parameter or its value set, or may retrieve the value sets for "all of the capability parameters which are not included in the specified core camera capability parameters supported by the camera." (JX-1 at 2:65-67; see also, inter alia, JX-2 at 2:33-3:13; JX-1 at 9:8-17; JX-1 at 9:47-10:4.)

Based on the language of the claim in issue and the specification, the administrative law judge finds that said claimed phrase is construed as "a single command that can retrieve each of the values stored in said capability parameter storage locations."

7. The claimed phrase "a parameter manager device coupled to said electronic device for executing said capability command for retrieving said value sets corresponding to said capability parameters wherein the value sets describe the functional capability of the electronic device."

The claimed phrase in issue is found in asserted independent claim 1.

Complainant argued that a "parameter manager device" is "parameter manager software executed on a computer." (CBr at 174.) Complainant further argued that nothing in the claims requires said parameter manager to retrieve all of the features and functions supported by the device. (CBr at 174.)

Respondents HTC argued that said claimed phrase should be construed as "software coupled to the hand-held electronic device that executes the capability command to retrieve the value sets corresponding to the capability parameters, wherein the retrieved value sets describe all the features and functions supported by the device." (RBr at 166.) Respondents HTC further argued that there does not appear to be any dispute as to this element, but that respondents HTC's and the staff's constructions are consistent with the intrinsic record and should be adopted. (RBr at 166.)

The staff argued that said claimed phrase should be construed as "software coupled to the

hand-held electronic device that executes the capability command to retrieve the value sets corresponding to the capability parameters, wherein the retrieved value sets describe all the features and functions supported by the device." (SBr at 133.)

The parties agree that the parameter manager device is implemented in software. (See, inter alia, CBr at 174; RBr at 166; SBr at 133.) The plain language of the claim in issue indicates that the parameter manager device must initiate the capability command to retrieve the value sets, and adds the further limitation that said value sets describe the functional capability of the electronic device. The administrative law judge finds nothing in the plain language of the claim which requires that all available value sets must be retrieved every time the command is called. Moreover, the claimed phrase "wherein the value sets describe the functional capability of the electronic device..." does not appear in the element disclosing the "capability command," but rather in the element disclosing the "parameter manager." Thus, he finds, consistent with his prior construction of "capability command," supra, that the parameter manager must be able to access all value sets, in any format.

Regarding the specification, it discloses:

> Referring now to FIG. 4, a memory map showing one embodiment of non-volatile memory 350 is shown. In the FIG. 4 embodiment, non-volatile memory 350 includes control application 400, toolbox 402, drivers 404, kernel 406 and system configuration 408. Control application 400 includes program instructions for controlling and coordinating the various functions of camera 110. Toolbox 402 contains selected function modules including parameter manager 410, menu dialog manager 414, EEPROM interface 418 and command handler 422.
>
> Parameter manager 410 includes software routines which control and coordinate various operating parameters in camera 110, according to the present invention.

(JX-1 at 5:39-51 (emphasis added).) Thus, the specification discloses a project manager in

memory that includes software routines, thus supporting the parties' agreement that "parameter manager" is software.

Based on the language of the claims in issue and the specification, the administrative law judge finds that said claimed phrase is construed as "software coupled to the hand-held electronic device that executes the capability command to retrieve the value sets corresponding to the capability parameters" where "capability command" has been construed, supra.

IX. Infringement

Resolution of the question of infringement of patent claims requires a two-step analysis. First, the patent claims must be construed, as a matter of law, to determine their scope and meaning. Second, a factual inquiry must be conducted in order to compare the claims, as properly construed, to the accused device or process. See MBO Labs., Inc. v. Becton, Dickinson & Co., 474 F.3d 1323, 1329 (Fed. Cir. 2007); see also Zelinski v. Brunswick Corp., 185 F.3d 1311, 1315 (Fed. Cir. 1999) (citing Markman, 52 F.3d at 976).

The second step of the infringement analysis, which is a factual inquiry, focuses on whether the patent claims encompass the accused device or process literally or under the doctrine of equivalents. Zelinski, 185 F.3d at 1315. Complainant bears the burden of demonstrating infringement by a preponderance of the evidence. Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc., 424 F.3d 1293, 1310 (Fed. Cir. 2005). To prove literal infringement, complainant must show that an accused product contains every limitation in the asserted claims. WMS Gaming Inc. v. Int'l Game Tech., 184 F.3d 1339, 1350 (Fed. Cir. 1999). Alternatively, the accused products may also infringe the patent claims under the doctrine of equivalents if the differences between the accused products and the claimed invention are "insubstantial." Desper Prods. Inc. v. QSound Labs, Inc., 157 F.3d 1325, 1338 (Fed. Cir. 1998). Equivalency of an

element of a claim to an element of an accused device is determined on an element-by-element basis at the time of infringement. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 40 (1997); Certain Electric Robots and Component Parts Thereof, Inv. No. 337-TA-530, Final Initial and Recommended Determinations, 2005 ITC LEXIS 868, at *107 (December 19, 2005) (unreviewed).

"[P]rosecution history estoppel limits the broad application of the doctrine of equivalents by barring . . . equivalents . . . relinquished . . . during prosecution." Conoco, Inc. v. Energy & Envtl. Int'l, 460 F.3d 1349, 1363 (Fed. Cir. 2006); see also Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 733-34 (2002). Prosecution history estoppel arises in two ways: (1) by making a narrowing amendment to the claim ("amendment-based estoppel") or (2) by surrendering claim scope through argument to the patent examiner ("argument-based estoppel"). Deering Precision Instruments v. Vector Distribution Systems, Inc., 347 F.3d 1314, 1324-25 (Fed. Cir. 2003).

Specifically, amendment-based estoppel arises when a patentee makes "a narrowing amendment to satisfy any requirement of the Patent Act . . . ." Festo, 535 U.S. at 736. Amendments that do not narrow a claim's scope or do not affect patentability do not create amendment-based estoppel. Id. However if the prosecution record shows no reason for the amendment, it is presumed that the narrowing amendment was made to satisfy the requirements of patentability. Id. at 736, 739. Therefore, a patentee bears the burden of showing that narrowing amendments were not made for patentability purposes. Id.

Argument-based estoppel arises when a patentee makes statements that differentiate his invention from the prior art. See, e.g. Deering, 347 F.3d at 1326-27. A patentee invokes argument-based estoppel whenever the prosecution history "evince[s] a clear and unmistakable

surrender of subject matter." Pharmacia & Upjohn Co. v. Mylan Pharmaceuticals, Inc., 170 F.3d 1373, 1376-77 (Fed. Cir. 1999) (citation omitted). The court applies an objective test to determine when subject matter has been "clearly" and "unmistakably" surrendered: would "a competitor . . . reasonably believe that the applicant had surrendered the relevant subject matter." AquaTex Industries, Inc. v. Techniche Solutions, 419 F.3d 1374, 1382 (Fed. Cir. 2005) (quoting Cybor Corp. V. FAS Technologies, Inc., 138 F.3d 1448, 1457 (Fed. Cir. 1998)). If the court determines that the patentee "clearly" and "unmistakably" surrendered equivalents, argument-based estoppel bars the elements at issue from encompassing the disavowed equivalents. Deering, 347 F.3d at 1326-27.

A person may also infringe a patent claim indirectly. Section 271 (b) of the Patent Act provides that "[w]hoever actively induces infringement of a patent shall be liable as an infringer." To establish liability for induced infringement, "a patent holder must prove that once the defendants knew of the patent, they actively and knowingly aided and abetted another's direct infringement." DSU Med. Corp. v. JMS Co., 471 F.3d 1293, 1305 (Fed. Cir. 2006) (DSU Med. Corp.) (citations omitted). However, "[t]he mere knowledge of possible infringement by others does not amount to inducement; specific intent and action to induce infringement must be proven." Id.

Additionally, 35 U.S.C. § 271(c) provides that:

> [w]hoever offers to sell or sells within the United States . . . a component of a patented machine, manufacture, combination or composition . . . constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article of commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

Thus, "[i]n order to succeed on a claim of contributory infringement, in addition to proving an act

of direct infringement, plaintiff must show that defendant knew that the combination for which its components were especially made was both patented and infringing, and that defendant's components have no substantial non-infringing uses." Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc., 424 F.3d 1293, 1312 (Fed. Cir. 2005). Direct infringement is a necessary element of induced and contributory infringement. DSU Med. Corp., 471 F.3d at 1303.

A. Accused Products

The accused HTC products that are at issue in this investigation are HTC "smart phones" that include a camera, and which operate on either the Android operating system or the Windows Phone 7 ("WP7") operating system. FlashPoint has accused the following HTC "smart phone" devices running on either the Andriod (version 2.0 or newer) or the Windows Phone 7 operating systems ("OS") of infringing the asserted claims of the '769 patent. (SPFF 85 (undisputed).) It further has accused the HTC Android devices of infringing claim 1 of the '816 patent (CBr at 174).

Respondent	Model No.	Respondent	Model No.
HTC	Evo Shift 4G	HTC	Imagio
HTC	Wildfire	HTC	Pure
HTC	myTouch 4G	HTC	Tilt2
HTC	HD7	HTC	Touch Pro2
HTC	Surround	HTC	Dash 3G
HTC	7 Trophy	HTC	Touch Cruise
HTC	Evo 4G	HTC	Touch Pro
HTC	Aria	HTC	Touch Diamond
HTC	Droid Eris	HTC	Touch
HTC	myTouch 3G	HTC	XV6900
HTC	myTouch 3G Slide	HTC	Surround

HTC	Hero	HTC	HD7
HTC	Droid Incredible	HTC	Desire Z
HTC	Desire	HTC	7 Pro
HTC	HD2	HTC	7 Trophy

(SPFF 28 (undisputed).)

HTC argued that it does not infringe the '769 patent; that Flashpoint failed to present evidence for HTC's Windows Mobile based phones; and that HTC's smart phones with design change do not directly or indirectly infringe. (RBr at 80-100.) HTC also argued that HTC does not infringe the '816 patent. (RBr at 166-74.)

The staff argued that accused HTC Android devices infringe the '769 patent; and that the accused HTC WP7 devices infringe the '769 patent. (SBr at 57-80.) It is argued that the evidence fails to establish that the accused HTC Android products as well as the accused HTC WP7 products infringe the '816 patent. (SBr at 134-37.)

Complainant has argued that the EVO 4G is an exemplary HTC Android product and that the HD7 phone is an exemplary WP7 product. As the administrative law judge has found, infra, that neither the EVO 4G product nor the HD7 product infringe the asserted claims of the '769 patent, and that the EVO 4G product does not infringe the asserted claims of the '816 patent, based on complainant's representation that the EVO 4G product and the HD 7 product are exemplary products and the fact that complainant offered proof of infringement only as to those two products, the administrative law judge finds that complainant has not established infringement of any accused products by a preponderance of the evidence.

B. The '769 Patent

Complainant has asserted that independent claims 1 and 18 as well as claims 2-7, 11-13,

and 16-17 depending from claim 1, and claims 19-23, 26, and 30-31 depending from claim 18 are infringed. Complainant, however, argued in their post hearing briefing that only asserted claims 1, 7, 18, 23 and 26 are infringed. Thus, complainant has waived its infringement arguments with respect to asserted claims 2, 3, 4, 5, 6, 11, 12, 13, 17, 19, 20, 21, 22, 30, and 31 of the '769 patent.

1. Asserted claim 1

a. The claimed phrase, "determining a first orientation associated with the image at capturing of the image, the image being a captured image..."

Complainant argued that{ } stores the current orientation of the device as part of the capture process. (CFF-6.16 – CFF 6.31; CBr at 46-47.)

Respondents HTC argued that the EVO 4G does not practice this claim limitation under any parties' construction, { }

{

}

The staff argued that { } reflects the most recently sensed orientation of the physical device at the time that an image is captured, and the value stored in said variable is determined based on an { } (SBr at 60.)

The administrative law judge has found, supra, that the claimed phrase "determining a first orientation associated with the image at capturing of the image, the image being a captured image" in independent claim 1 is construed as "determining a first direction with respect to an axis with a portrait or landscape aspect ratio (i.e. right portrait, left portrait, upright landscape, or inverted landscape) associated with the image based on the orientation of the image capture unit at capturing of the image, the image being a captured image, which includes the time period following the determination by the image capture unit that an image is to be captured and before the completion of generating image data from the image sensor."

With respect to the EVO 4G, the variable {

} Moreover, it is undisputed that the orientation of the phone is being checked at specific intervals of time, not in response to when an image is captured. (RFF4.456 (undisputed).) Thus, there could be up to a 200 millisecond delay between when the variable is set and when the picture is taken. (RFF4.456 (undisputed); CRRFF 4.454E; CRRFF4.455A.) Therefore, the administrative law judge finds that the accused Android products do not determine a first direction with respect to an axis with a portrait or landscape aspect ratio (i.e. right portrait, left portrait, upright landscape, or inverted landscape) associated with the image based on the orientation of the image capture unit at capturing of the image.

b. The claimed phrase, "storing the image, including storing the information relating to the first orientation associated with the image..."

Complainant argued that accused Android products determine information related to at least three data points relevant to orientation, the height of the image, width of the image, and top of the image; and that the EVO 4G stores EXIF height and width tags, information that indicates whether an image is upright portrait or upright landscape. (CRBr at 36-37.)

Respondents HTC argued that any image capture unit that performs orientation correction of captured images prior to storage, such as by rotating the captured image, is not covered by the asserted claims; as all images are rotated before storage, there is no need to store orientation information; and that the Exif header is an orientation tag in the EVO 4G that is not used. (RBr at 93-94.)

The staff argued that after an image has been captured using the EVO 4G's camera, the image is pre-rotated to an "always-upright (*i.e.*, 'neutral') orientation prior to storage." (SBr at 2.) The staff further argued that the JPEG image is stored with its height and width values, which reflect whether the image is landscape or portrait and that satisfies the function recited in the limitation. (SBr at 62.)

The administrative law judge has found, supra, that the phrase "storing the information relating to the first orientation" means "saving an indication of the first orientation to memory." As an initial matter, the administrative law judge notes that since he has found, supra, that the accused products do not determine a first orientation, said products can likewise not store any indication of the first orientation to memory. Assuming, arguendo, that the accused products did determine a first orientation, the administrative law judge finds that the captured image is pre-rotated and stored in an upright manner. (RFF4.426 (undisputed).) Because the image is rotated before storage, only the height and width information is stored with the image. (CCRRFF4.469B.) Even if, as complainant argued, the EXIF height and width tags indicate whether an image is upright portrait or upright landscape (see, inter alia, CRRFF4.490E) that information is associated with the post-rotated image, not the first orientation. Based on the foregoing, the administrative law judge finds that the accused Android products do not practice this limitation of asserted claim 1.

c. The claimed phrase, "if the image capture unit is rotated to a third orientation during display of the image, the method further includes, determining the third orientation of the image capture unit, determining whether the third orientation is different from the second orientation, the first orientation, or both, and rotating the image to be displayed in the third orientation if the third orientation is different from the second orientation."

Complainant argued that, with respect to the EVO 4G, the Android devices automatically change the frame buffer used by the image viewer application so that its coordinate system

maintains the (0,0) position in the upper left hand corner relative to the user's perspective and then notifies the application of the change in display size and orientation. (CBr at 50.) Complainant further argued with respect to the EVO 4G that the display operation begins with the {

}

With respect to the HD7, complainant argued that the WP7 operating system automatically changes the frame buffer used by the image viewer application so that its coordinate system maintains the (0,0) position in the upper left hand corner relative to the user's perspective and then notifies the application of the change in display size and orientation. (CBr at 58.)

Respondents HTC argued, with respect to the EVO 4G, that said product rotates the encoded image and stores the rotated encoded image in an upright manner; thus, once the display application is activated, the EVO 4G does not rotate the image to be displayed in the different orientations. (RBr at 88.) With respect to the HD7, respondents HTC argued that the HD7 utilizes the same technique and includes the same source code as the EVO 4G, because they have Qualcomm chipsets. (RBr at 96.) Respondents further argued that the HD7 does not practice this element for the same reasons that the EVO 4G does not practice it, and for the additional reason that the displayed image is not the claimed "captured image" but is rather a variant of it. (RBr at 96-97.)

The staff argued, with respect to the EVO 4G, that functionality within the { } software in said device is used to rotate the contents of the frame buffer to be in alignment with the new physical orientation of the device; making it appear to the user that the image has been rotated. (SBr at 68-69.) With respect to the HD7, the staff argued that when the HD7 is rotated while an image is being displayed, a {

} method will be called that will cause the graphical user interface (GUI) to be displayed in alignment with the device's new physical orientation. (SBr at 79.)

The administrative law judge has found, supra, that the claimed phrase "if the image capture unit is rotated to a third orientation during display of the image, the method further includes," requires that the method of claim 1 or the system of claim 18 have the capability of performing the steps following said claim phrase in the event the image capture unit is rotated to a third orientation, but said claimed phrase does not require that the steps following said phrase be performed for all of the possible orientations of the image capture unit. He further found that the claimed phrase requires a comparison of the third orientation with the first orientation and also a comparison of the third orientation with the second orientation. He also found that the claim phrase "rotating the image to be displayed in the third orientation if the third orientation is different form the second orientation" means "storing the image data in a buffer in one of two directions such that the orientation of the image is the same as the orientation of the image capture unit."

With respect to the EVO 4G, it is undisputed that said product rotates images prior to the final image storage, and that the images are stored in an upright manner. (RFF4.420; RFF4.426 (all undisputed).) Thus, once the captured image is rotated and stored, it is no longer the first orientation. Thus, the administrative law judge finds that there can be no comparison between the second orientation or the third orientation with the first orientation, as required by the claims.

With respect to the HD7, it is undisputed that the EVO 4G and the HD7 use the same Qualcomm chipset. (RFF4.430 (undisputed).) It is further undisputed that complainant's expert Mangione-Smith does not cite directly to Windows 7 source code. (RFF 4.548 (undisputed in relevant part).) Respondents HTC have argued, however, that Mangione-Smith's notes with

respect to Microsoft's source code indicate that a pre-rotation occurs. (HRCFF 6.209C; HRCFF 6.209D; Tr. at 1513; CX-809C at 10, 11.) Respondents' expert Olivier has testified, based in part on HD7 source code, that pre-rotation occurs in the HD7. (HRCFF 6.209B; CX-209C HTC_FP_ITC_SC00001140 at 1056-1080.) Given the competing expert testimony and the unavailability of specific source code to support complainant's allegations, the administrative law judge finds that complainant has not shown, by a preponderance of the evidence, that the HD7 accused product practices this claim limitation.

d. Conclusion

Based on the foregoing, the administrative law judge finds that complainant has not shown, by a preponderance of the evidence, that asserted claim 1 is infringed by any of the accused HTC Android and WP7 products.

2. Dependent Claim 7

As the administrative law judge has found, supra, that asserted claim 1 is not practiced by the accused products, he likewise finds that complainant has not shown, by a preponderance of the evidence, that claim 7, which depends from asserted claim 1, is infringed by the accused HTC products.

3. Independent Claim 18 and Dependent Claims 23 and 26

The administrative law judge finds that the first and second element of asserted method claim 18 are substantively identical to the first and second element, respectively, of asserted independent claim 1, which two elements the administrative law judge found, supra, are not practiced by the accused products. Therefore, the administrative law judge finds that complainant has not shown, by a preponderance of the evidence, that asserted claim 18 is infringed by the accused HTC products.

As claims 23 and 26 depend from independent claim 18, the administrative law judge finds that complainant has likewise not shown, by a preponderance of the evidence, that claims 23 and 26 are infringed by the accused HTC products.

C. The '816 Patent

Complainant asserted independent claims 1, 9, and 16 against respondents HTC. Complainant also asserted dependent claims 2, 3, 5, 10, 11, and 13. Complainant, however, has presented no evidence regarding infringement of claims 2-3, 5, 9-11, 13 or 16 for the accused EVO 4G or other Android-based phones, but rather has presented evidence on infringement only with respect to asserted claim 1. (RFF 5.158, 5.159 (all undisputed).) Complainant has only argued in its post hearing briefs regarding asserted claim 1 of the '816 patent. (See, generally, CBr at 175-183; CRBr at 77-84.) Thus, the administrative law judge finds that complainant has waived allegations as to asserted claims 2-3, 5, 9-11, 13, and 16.

1. The claimed phrase, "series of capability parameter storage locations..."

Complainant argued that the EVO 4G device stores value sets corresponding to capability parameters at multiple levels; that capability parameter value sets are stored in said device in a data structure called a hash map, which uses "keys" to store specific parameter information; and that the { } in said device is a hash map which is a storage location for containing value sets corresponding to capability parameters. (CBr at 176-77.)

Respondents HTC argued that each capability parameter storage location must contain a minimum, maximum, default and list-of-integers location; that none of the accused capability parameter storage locations in the EVO 4G include those value sets; and that the accused capability parameters are not capability parameters as properly construed because the type of capability parameter used by said device were disclaimed during prosecution. (CBr at 169-171.)

The staff argued that the evidence establishes that none of the accused HTC phones have a single capability parameter that contains a minimum value, a maximum value, a factory default value, and a list of integers. (SBr at 135.)

The administrative law judge found, supra, that a "series of capability parameter storage locations" should be construed as "two or more memory areas, each containing the value set corresponding to a particular capability parameter," where a "value set" comprises one or several values associated with a particular capability parameter. The administrative law judge further found, supra, that each individual "storage location" must include "a minimum value location containing a minimum capability parameter value," "a maximum value location containing a maximum capability parameter value," "a factory defaults location containing a factory default value," and "a list-of-integers location containing a capability parameter list."

Complainant in its post-hearing briefings did not present any argument that each capability parameter storage location in the accused devices contains the required value locations. (CBr at 178-181; CRBr at 79-80.) In both its initial and rebuttal post-hearing briefs, complainant argued that one specific capability parameter storage location in the accused devices contained all of the required value locations, depending on the { } and that said structure satisfied the claims under respondents' construction. (CBr at 180; CRBr at 79-80.) However, complainant argued that "only 'one or more' storage locations require the four values even under Respondents' narrow reading of the claim." (CBr at 180.) Complainant also argued that the HTC EVO 4G "does indeed have a single parameter location that contains a minimum, maximum, factory default, and list of integers." (CRBr at 79 (emphasis added).) The premise on which complainant depends is contrary to the construction, supra, of the administrative law judge. Thus, nowhere has complainant alleged that each of the capability parameters contained in the accused devices have

the required value. Moreover, complainant's expert testified at the hearing:

> Q. Doctor, are there any accused HTC phones that have a single capability parameter that include a minimum value, a maximum value, a factory default value and a list of integers?
>
> A. No, sir. Both manufacturers have phones that have capability parameter storage locations that store those as the claim recites.
>
> Q. Okay. But none of those phones have a single capability parameter that have all four of those elements; correct?
>
> A. No, sir, not to my knowledge.

(Tr. at 1206.) Thus, complainant's new argument in the post-hearing briefs was contradicted at the hearing by its own expert.

Based on the foregoing, the administrative law judge finds that complainant has not shown, by a preponderance of the evidence, that the accused HTC products practice this element of asserted claim 1.

2. The claimed phrase, "a list-of-integers location containing a capability parameter list..."

Complainant argued that the mParameters data structure contains a list of ISO capability parameter values, and that this list of ISO values is a list of integers location containing a capability parameter list. (CBr at 179.)

Respondents argued that { } pointed to by complainant as a claimed capability parameter list, contains strings, not integers and that there is a distinction between strings and integers that the patent recognizes. (RBr at 171-73.)

The staff argued that the evidence fails to establish that the accused Android products include a list of integers because the values actually stored for the ISO (antibanding) capability parameter identified by FlashPoint are string values and not integers.

The administrative law judge found that the claimed phrase "a list-of-integers location

containing a capability parameter list..." is construed as "a memory area containing a list of integers and corresponding values representing all possible settings for the capability parameter."

According to complainant's argument, { } (CBr at 179-90; CX-342C at 1123-1124.) Said variable is declared as containing strings, not integers, in the source code. (CX-342C at 788.) Further, { } also relied on by complainant, is, by complainant's argument, a list of strings. Moreover, the first two entries of said list are { } (CX-342C at 740-757.) Thus, even if complainant is correct and the later entries on the list are integers as per the patent, { } However, the patent specifically requires a list of integers, and the patent does not redefine an integer, which is a number, as a string.[10] Since the variable pointed to by complainant is defined as containing strings, the administrative law judge finds that it is not a list of integers.

Based on the foregoing, the administrative law judge finds that complainant has not shown, by a preponderance of the evidence, that this claim element is practiced by the accused products.

3. Conclusion

Each of the limitations analyzed, supra, are required by asserted claim 1.[11] The

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[10] Complainant argued that certain integers are described in the specification as being in double quotes, that double quotes are usually only put around strings, and thus that integers can be strings. (See, inter alia, CRRFF 5.180A.) The administrative law judge notes that the numbers in double quotes pointed out by complainant (JX-1 at 8:5-11) are referring to, and quoting from, Table 1 (JX-1 at 7:26-52) and that citations to text are usually double-quoted. Moreover, Table 1 contains no double quotes, and { }

[11] The administrative law judge has found, supra, that complainant has waived arguments as to each of the other asserted claims.

administrative law judge has found, supra, that the accused HTC products do not practice said limitations. Based on the foregoing, the administrative law judge finds that complainant has not shown, by a preponderance of the evidence, that claim 1 of the '816 patent is infringed by the HTC respondents.

C. Indirect Infringement

A showing of infringement is a requirement to show any contributory infringement. As complainant has not shown that any accused products infringe the asserted patents, complainant has likewise not shown any contributory infringement.

X. Validity (Prior Art)

Respondents HTC argued that the asserted claims of the '769 patent would have been obvious considering Japanese Unexamined Patent Application Publication No. H1-130675 (RX-4278) (Kondo) in view of U.S. Patent No. 5,432,720 (RX-0014) (Lucente). (RBr at 127.) Alternatively, respondents argued that the asserted claims of the '769 patent would have been obvious considering Japanese Unexamined Patent Application No. H08-223520 (RX-1091) (Jinda) in view of Lucente. (Id.) Respondents HTC further argued that each of the asserted claims of the '816 patent is anticipated by TWAIN Specification Version 1.6 (RX-2061) (TWAIN).

Complainant argued that respondents have failed to establish, by clear and convincing evidence that the asserted claims of the '769 patent or the '816 patent are invalid. (CBr at 106, 190.)

The staff argued that the asserted claims of the '769 patent are invalid as obvious in view of the combination of Kondo with Lucente or the combination of Jinda with Lucente. (SBr at 99.) Regarding the '816 patent, the staff argued that respondents failed to establish, by clear and convincing evidence, that the asserted claims of said patent were anticipated or obvious. (SBr at

138.)

A. Asserted Prior Art

Kondo is an unexamined Japanese patent application publication published on May 23, 1989 and titled "Electronic Camera." (RX-4278 at HTC_FP_ITC_0007517.)

Jinda is an unexamined Japanese patent application publication published on August 30, 1996 and titled "Electronic Camera." (RX-1091 at RIM-FP_ITC0876223.)

Lucente is a United States Patent issued on July 11, 1995 based on an application filed on November 13, 1992 and titled "Rotatable Pen-Based Computer." (RX-0014 at RIM-FP_ITC0877181.)

TWAIN is a document with a publication date of February 5, 1996, which "defines a standard software protocol and API (application programming interface) for communication between software applications and image acquisition devices (the source of data)." (RX-2061 at NOKFP_ITC_0072280.)

B. The '769 Patent

1. Kondo in view of Lucente

Respondents argued that Kondo discloses a digital camera with a playback system that includes a display, a camera position detector, RAM which stores the captured image along with image orientation information, and changing the order of a captured image's pixel information read from memory when the camera's orientation changes. (RBr at 127-129.) Respondents further argued that Lucente discloses "interrupting the displaying of a captured image when a change in the orientation of the display is sensed from the orientation signal output by the disclosed mercury switch and, thereafter, calculating the rotation angle by comparing the new position;" determining whether the new orientation is different from the original orientation;

displaying an image in the new orientation; and determining whether a third orientation of the device is different from the second orientation, the first orientation, or both. (RBr at 128.) Based on these disclosures, respondents argued that the combination of Kondo and Lucente discloses all of the limitations of asserted independent claims 1 and 18 of the '769 patent. (RBr at 129-130.) Respondents concluded that "[i]n view of the admission by FlashPoint's expert, and others, that a person of skill in the art would have been motivated to combine these references," claims 1 and 18 of the '769 patent are obvious in view of the combination of Kondo and Lucente. (Id.) Regarding the asserted dependent claims, respondents argued that Kondo discloses the limitations added by dependent claims 2, 3, 4, 7, 19, 20, 23, and 26 and Lucente discloses the limitations added by dependent claims 5, 6, 11-13, 16, 17, 21, 22, 30, 31, and 32, and thus, said dependent claims are also obvious in view of the combination of Kondo and Lucente. (RBr at 131-133.)

Complainant argued that respondents "failed to provide any analysis as to the motivation to combine the Kondo and Lucente references" and that the substantial modification required to achieve the combination was outside the level of ordinary skill in the art at the time of invention. (CBr at 143-144.) Complainant also argued that the disclosures of Kondo and Lucente fail to teach the following elements of claim 18 of the '769 patent: "a second orientation associated with the image capture unit determined at a display time;" "wherein it is determined whether the first orientation is different from the second orientation;" "means for determining the third orientation of the image capture unit;" and "means for determining whether the third orientation is different from the second orientation, the first orientation, or both." (CBr at 145-147.) Complainant further argued that independent "claim 1 is valid for at least the same reasons stated above for claim 18." (CBr at 148.) Regarding the asserted dependent claims 2-7, 11-13, 16-17, 19-22, 26, and 30-32, complainant argued that said dependent claims are valid for the same reasons as independent

claims 1 and 18 from which they depend. (CBr at 149.) With respect to asserted dependent claim 23, complainant argued that respondents abandoned their invalidity arguments by failing to contend that claim 23 is invalid in their pre-hearing briefs, and alternatively, that the combination of Kondo and Lucente fails to disclose determination of the orientation of the image capture unit at a display time. (CBr at 148.)

The staff argued that the combination of Kondo with Lucente discloses every element of independent claims 1 and 18 of the '769 patent, and that one of ordinary skill in the art would have been motivated to combine the teachings of Kondo and Lucente. (SBr at 105-113.)

Kondo discloses an electronic camera with the capability of recording an image along with the camera position when taking a picture. (RX-4278 at HTC_FP_ITC_0007517.) The electronic camera of Kondo includes a camera position detector 16, which includes mercury or another electroconductive material for conducting between electrodes and which provides camera position information as a 2-bit output. (RX-4278 at HTC_FP_ITC_0007519.) Kondo further discloses that the camera position information is used to convert the orientation of an image so that it is displayed upright on a monitor. (RX-4278 at HTC_FP_ITC_0007521.)

Lucente discloses a rotatable pen-based computer with an integral flat panel display. (RX-0014 at Abstract.) Lucente further discloses that the computer includes a switch device that changes the display "such that the display maintains the correct alignment for proper viewing." (RX-0014 at 3:2-5.)

Regarding the claim elements "determining whether the first orientation is different from the second orientation" of claim 1 and "wherein it is determined whether the first orientation is different from the second orientation" of claim 18, the administrative law judge construed said phrases supra to mean "comparing the stored first orientation with the determined second

orientation and producing a result based on the comparison." With respect to said elements, respondents rely exclusively on the disclosure in Lucente to teach said elements. (CFF 11.315, 11.316 (both undisputed by respondents).) Regarding determining the orientation of the computer, Lucente discloses:

> Alternatively, it is also within the scope of the present invention to provide a switch mounted within the housing of the computer., Such a switch could be e.g., a mercury switch (not shown) having a ring-shaped frame with four recesses. As the orientation of the computer is changed, the mercury flows into a particular recess in the frame and outputs a position signal. The position signal indicates the orientation of the computer so that the display can be aligned appropriately.

(RX-0014 at 7:16-24.) Thus, Lucente discloses that a mercury switch may be used within the computer for outputting a position signal which is used to align the display. Lucente further discloses a method in Figure 10 which illustrates the display "rotating scheme." (RX-0014 at Fig. 10, 4:54-55.) Regarding said figure, Lucente reads:

> FIG. 10 shows the flow chart of the CPU process once the interrupt (on -SWIRQ) is detected. When CPU finds that one of these four bits is turned on, it computes the rotation angle using an equation: Rotation Angle=New Position-Current Position. The CPU then assigns the new position as the current position. Using the equations shown on FIG. 11, the address of video data will be translated. This is possible since the one picture element (PIXEL) of this system is 8 bit similar to XGA and the video data is stored in a contiguous memory.

(RX-0014 at 7:65-8:7.) Thus, Lucente discloses comparing a "New Position" of the display with a "Current Position" of the display and then assigning the "new position as the current position." Regarding said disclosure in Lucente, respondents' expert Acton testified:

> A. Well, a couple of purposes. One is efficiency in this presentation. But the second is that I believe the disclosure in Lucente shown in figures 10 and 11 shows both of these limitations. The first being second orientation being different from the first, and determining the first orientation is different than the second

orientation.

The way that Lucente does that is by essentially an equation that's described in figure 10 of Lucente, which is comparing a current position to a new position. And then in figure 11, takes the appropriate action, which I will talk about in a second, based on that difference in orientation.

* * *

Q. Okay. Let's continue on through the other limitations of claim 18. The next one is the second orientation capable of being different from the first orientation and ongoing. Where, Doctor, in your opinion is that found in the Kondo/Lucente combination?

A. So that's also found in Lucente. And Lucente discloses a flowchart that essentially allows the second orientation to be different than the first orientation. You can see the equation in the upper right, of the rotation angle equals new position minus current position.

And determining whether this first orientation is different than the second orientation is performed by that algorithm as described in column 7 and 8 in Lucente.

(Tr. at 1681, 1685-1686 (emphasis added).) Based on the foregoing, the administrative law judge finds that Lucente discloses a comparison of two different orientations of a display and produces a result based on that comparison, i.e. "new position" is compared to "current position" and the result is that "current position" is changed to match the "new position." However, claims 1 and 18 of the '769 patent require a comparison of a stored first orientation, which is associated with a captured image, and a determined second orientation, which is associated with a display on an image capture unit. The administrative law judge finds that Lucente does not disclose a comparison between a stored orientation associated with an image to a determined second orientation associated with a display. Based on the foregoing, he further finds that it has not been established, by clear and convincing evidence, that Kondo in combination with Lucente discloses the claim element "determining whether the first orientation is different from the second

orientation" of independent claim 1 of the '769 patent or the claim element "wherein it is determined whether the first orientation is different from the second orientation" of independent claim 18 of the '769 patent.

Regarding said claim elements, respondents argued "when the teachings of Lucente are combined with the Kondo playback device, the second orientation may be used as the Kondo reference orientation and a comparison between the first and second orientation is carried out[, and t]his would have been well within the ability of a person of ordinary skill in the art." (HRBr at 76.) In making said argument, respondents have not cited to any evidence of record showing how such a combination could be achieved or why it would have been well within the ability of a person of ordinary skill in the art. Respondents HTC's expert Acton merely testified, as quoted supra, that these elements were taught in Lucente, and he did not testify regarding how the device of Kondo would have been modified to incorporate the teachings of Lucente to disclose "comparing the stored first orientation with the determined second orientation and producing a result based on the comparison" as required by said claim elements under the administrative law judge's claim construction.

Regarding the claim elements "determining whether the third orientation is different from the second orientation, the first orientation, or both" of claim 1 and "means for determining whether the third orientation is different from the second orientation, the first orientation or both" of claim 18 of the '769 patent, the administrative law judge found supra that the phrase "determining whether..." requires the same direct comparison of orientations as required in the claim phrase "determining whether the first orientation is different from the second orientation," and that said claimed phrases require a comparison of the third orientation with the first orientation and also a comparison of the third orientation with the second orientation. With

respect to said elements, respondents HTC rely exclusively on the disclosure in Lucente to teach said elements. (CFF 11.315, 11.316 (all undisputed).) Specifically, respondents HTC rely on the portion of Lucente, quoted supra, regarding Figure 10. (RFF 4.849 (citing RX-0014 at 7:65-8:7.) With respect to these claims elements, respondents HTC's expert Acton testified:

> A. Okay. So briefly, these two limitations with regard to determining the third orientation and determining whether the third orientation is different than a previous orientation, and I found that in figures 10 and 11 of Lucente, using the same equation and the same flowchart that I have referred to earlier.
>
> And this is described in column 7 of the Lucente patent.
>
> * * *
>
> A. So with Lucente, you can have a stored image and that image could be rotated to a third orientation. And the means for determining the third orientation is found in the orientation sensor of Lucente.
>
> And then the algorithm, as I have described, with the difference in calculation, allows Lucente to determine whether the third orientation is different than the second, the first, or both.

(Tr. at 1682-1683, 1687 (emphasis added).) Thus, Acton testified that the same algorithm related to Figure 10 in Lucente cited supra teaches determining whether the third orientation is different than the second orientation, the first orientation, or both. Contrary to said testimony, as found supra, Lucente discloses only a comparison between two orientations of a display, i.e. a "new position" and a "current position" and does not teach a comparison of a stored orientation associated with an image, i.e. the "first orientation" of claims 1 and 18 of the '769 patent, and a determined orientation of the display, i.e. the "third orientation" of claims 1 and 18 of the '769 patent. Based on the foregoing, the administrative law judge finds that it has not been established, by clear and convincing evidence, that Kondo in combination with Lucente discloses the claim element "determining whether the third orientation is different from the second orientation, the

first orientation, or both" of independent claim 1 of the '769 patent or "means for determining whether the third orientation is different from the second orientation, the first orientation or both" of independent claim 18 of the '769 patent.

Regarding said elements, respondents HTC argued that "the teaching of Lucente may also be incorporated into Kondo to implement a comparison between the third and first orientations[, and t]herefore, it would have been obvious to incorporate the teachings of Lucente into Kondo to include both comparisons indicated in this limitation." (HRBr at 77.) In making said argument, respondents HTC have not cited to any evidence of record showing how such a combination could be achieved or why it would have been within the ability of a person of ordinary skill in the art. Respondents HTC's expert Acton merely testified, as quoted supra, that these elements were taught in Lucente, and he did not testify regarding how the device of Kondo would have been modified to incorporate the teachings of Lucente to disclose making a comparison between the third orientation and the second orientation and also a comparison between the third orientation and the first orientation as required by said claim elements under the administrative law judge's claim construction.

Based on the foregoing, the administrative law judge finds that it has not been established, by clear and convincing evidence that either independent claim 1 or independent claim 18 of the '769 patent would have been obvious in view of Kondo in combination with Lucente.

With respect to asserted dependent claims 2-7, 11-13, 16, 17, 19-23, 26, and 30-32, each of said claims depends from independent claim 1 or independent claim 18 of the '769 patent. As found supra, claim 1 and claim 18 would not have been obvious in view of Kondo in combination with Lucente, and hence, the administrative law judge further finds that each of said dependent claims would not have been obvious in view of said combination of prior art.

2. Jinda in view of Lucente

The parties agree the functionality disclosed in Jinda is substantively identical to the functionality disclosed in Kondo such that the obviousness analysis with respect to Jinda in combination with Lucente is substantively the same as the obviousness analysis with respect to Jinda in combination with Lucente. (RFF 4.905 (undisputed in relevant part).) The administrative law judge found supra that none of the asserted independent and dependent claims of the '769 patent would have been obvious in view of the combination of Kondo and Lucente, and thus, he further finds that none of said asserted claims would have been obvious in view of the combination of Jinda and Lucente.[12]

C. The '816 Patent

Respondents HTC argued that every element of each asserted claim is disclosed in TWAIN, and thus, TWAIN anticipates each of the asserted independent and dependent claims of the '816 patent. (RBr at 183-190.)

Complainant argued that TWAIN does not disclose a series of capability parameter storage locations that each contain a minimum location, a maximum location, a default location, and a list of integers location as required by independent claims 1, 9, and 16 of the '816 patent. (CBr at 200-202.) Complainant further argued that TWAIN does not disclose "a capability command for retrieving said value sets from said capability parameter storage locations." (CBr at 202-203.) Thus, complainant argued that respondents HTC have failed to establish, by clear and convincing evidence, that TWAIN anticipates independent claims 1, 9, and 16 of the '816 patent or the asserted dependent claims which depend from independent claims 1 and 9. (CBr at 197-203.)

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[12] Based on said finding, he further finds that complainant's arguments with respect to Jinda's status as prior art have been mooted.

The staff argued that respondents HTC have shown that at least one capability parameter storage location ("ICAP_brightness") includes all four specifically enumerated values, i.e. a minimum value, a maximum value, a default, and a list of integers. (SBr at 140-141.) However, the staff argued that "clear and convincing evidence fails to establish that 'ICAP_brightness' or any other capability parameter disclosed in TWAIN is contained 'in a hand-held electronic device' as required by the asserted claims of the '816 patent," and thus, TWAIN does not anticipate any of said asserted claims. (CBr at 141.)

TWAIN discloses "a standard software protocol and API (application programming interface) for communication between software applications and image acquisition devices (the source of the data)." (RX-2061 at NOKFP_ITC_0072280.) The elements of TWAIN include application software, Source Manager software, and Source software. (Id.) The Source Manager software "manages interactions between the application and the Source." (Id.) Further, the TWAIN architecture includes four layers: an application layer that includes an end-user's application, a protocol layer that includes the Source Manager and TWAIN Code, an acquisition layer that includes the Source software, and a device layer that includes device interfacing and the local device. (RX-2061 at NOKFP_ITC_0072284.)

Regarding the claim phrase "[a] system for retrieving capability parameters in a hand held electronic device" of claim 1, the administrative law judge construed the phrase "capability parameters in a hand held electronic device" supra to mean "features or functions which control the performance and utility of a given device, which may either have several values for selection by the user or have a fixed value, and which are contained in a hand held electronic device." Regarding the device layer, TWAIN discloses:

> TWAIN is not concerned with the device layer at all. The Source hides the device layer from the application. The Source provides

> the translation from TWAIN operations and interactions with the Source's user interface into the equivalent command for the device driver that cause the device to behave as desired.

(RX-2061 at NOKFP_ITC_0072285.) Thus, each of the elements of TWAIN, i.e. the application software, source manager software, and source software, are located externally from the electronic device. Further, the parties do not dispute that "[t]he capability parameter storage locations identified by Respondents in the TWAIN reference are stored outside of the digital camera on the external host computer." (SFF 351 (undisputed in relevant part).) Regarding the capability parameter storage locations identified by respondents HTC and their expert Acton, complainant's expert Mangione-Smith testified:

> Q. And, sir, you heard Dr. Acton's testimony. He talked about a CPU or a host in the context of TWAIN containing what he alleged were capability parameter storage locations. Do you recall that testimony?
>
> A. Yes, sir, I do.
>
> Q. And in the context of this page, where do you understand those to reside?
>
> A. So those would be to the left-hand side, essentially, although actually I believe they reside inside the Data Source Manager, but that is on the host computer.
>
> Q. How if at all does the Data Source Manager relate to the digital camera shown on the right?
>
> A. Well, it is used to communicate to the digital camera on the right according to the TWAIN specification, but it is not used to retrieve capability parameters from the digital camera to the right, at least based on what I have seen from Dr. Acton.

(Tr. at 1868-1869 (emphasis added).) As Mangione-Smith testified, the data structure and functionality of TWAIN identified by respondents HTC's expert Acton are located on the "host computer" and not on the electronic device and the "Data Source Manager" of TWAIN is not used

to retrieve capability parameters from the electronic device. The administrative law judge finds nothing in the record to the contrary. Based on the foregoing, the administrative law judge finds that TWAIN does not disclose "features or functions which control the performance and utility of a given device, which may either have several values for selection or have a fixed value, and which are contained in a hand held electronic device" (emphasis added), as required by the administrative law judge's construction of the phrase "capability parameters in a hand held electronic device" of claim 1 of the '816 patent.

Regarding whether TWAIN discloses "capability parameters in a hand held electronic device" as required by claim 1 of the '816 patent, respondents HTC argued that TWAIN "discloses TW_CAPABILITY containers allocated in the host computer [that] are filled with capability data retrieved from the source peripheral device." (HRBr at 104.) Respondents HTC further argued "that if the data is retrieved from the source peripheral device, then it necessarily is stored in the device in the same fashion," and "[t]herefore, the peripheral device stores the capability parameters (and associated value sets), and responds to commands that retrieve the capability parameter data." (Id.) In support of said arguments, respondents HTC asserted that complainant's expert "Mangione-Smith agrees that the TWAIN reference inherently discloses the storage capability parameters on the peripheral device." (Id. at 105.) Mangione-Smith further testified that "the parameters, at least, must be retrieved from the electronic device." (Tr. at 1868.) However, the administrative law judge finds nothing in the record that indicates that the parameters are stored on the device in the same form as they are stored in the TWAIN specification.

Based on the foregoing, the administrative law judge finds that respondents have failed to establish, by clear and convincing evidence, that TWAIN anticipates claim 1 of the '816 patent.

Regarding independent claims 9 and 16 of the '816 patent, respondents have argued that said claims are anticipated by TWAIN, relying on the same portions of TWAIN relied upon with respect to their invalidity arguments related to independent claim 1. (RBr at 185-188.) Hence, the administrative law judge finds that respondents have not established, by clear and convincing evidence, that TWAIN discloses "capability parameters from a hand held electronic device" as in independent claim 9 or "capability parameters in an electronic device" as in independent claim 16 of the '816 patent. Thus, he further finds that respondents have not established, by clear and convincing evidence that independent claims 9 and 16 of the '816 patent are anticipated by TWAIN.

Regarding asserted dependent claims 2-5, 8, and 10-13, each of said dependent claims depend from independent claim 1 or independent claim 9 of the '816 patent, and thus, the administrative law judge also finds that respondents HTC have failed to establish, by clear and convincing evidence, that said asserted dependent claims of the '816 patent are anticipated by TWAIN.

IX. Validity (Other Grounds)

A. Date Of Invention Of The '769 Patent

Complainant argued that the asserted claims of the '769 patent were conceived of by April 9, 1996 and diligently reduced to practice through the July 31, 1997 filing date of the '769 patents and hence that said asserted claims are entitled to an earlier date of invention than the July 31, 1997 filing date of the '769 patent. (CBr at 121-38.)

Respondents HTC have not presented arguments in their initial or rebuttal post hearing briefs with respect to the early conception date and diligence in reduction to practice of the '769 patent claimed by complainant. However, they have objected to various of the findings presented

by complainant to support said claims. (See, inter alia, HRCFF 10.10B, HRCFF 10.10C, HRCFF 10.10B, HRCFF 10.16, HRCFF 10.16A, HRCFF 10.17, HRCFF 10.18, HRCFF 10.32, HRCFF 10.33, HRCFF 10.41N, HRCFF 10.51; see also, generally, RBr; HRBr.)

The staff argued that the evidence presented at the hearing was insufficient to establish that the inventors on the '769 patent conceived of at least the claim requirements for "determining whether the first orientation is different from the second orientation" and "determining whether the third orientation is different from the second orientation, the first orientation, or both" by April 1996; and that even assuming an April 1996 conception date, the evidence fails to establish that the inventors exercised reasonable diligence in attempting to reduce the claimed invention to practice after their alleged conception. (SBr at 97.)

Regarding invention date, "[p]riority of invention is awarded 'to the first party to reduce an invention to practice unless the other party can show that it was the first to conceive of the invention and that it exercised reasonable diligence in later reducing that invention to practice.'" Brand v. Miller, 487 F.3d 862, 869, (Fed. Cir. 2007) (quoting Medichem, S.A. v. Rolabo, S.L., 437 F.3d 1157, 1169 (Fed. Cir. 2006)). "Priority, conception, and reduction to practice are questions of law based on subsidiary factual findings." Slip Track Sys., Inc. v. Metal-Lite, Inc., 304 F.3d 1256, 1262 (Fed. Cir. 2002) (citing Cooper v. Goldfarb, 154 F.3d 1321, 1327 (Fed. Cir. 1998)).

Conception is the formation, in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is thereafter to be applied in practice. Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1376 (Fed. Cir. 1986) (citing Coleman v. Dines, 754 F.2d 353, 359 (Fed. Cir. 1985)). "A conception must encompass all limitations of the claimed invention, and 'is complete only when the idea is so clearly defined in the inventor's mind that

only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation.'" Brown v. Barbacid, 216 F.3d 1327, 1336 (Fed. Cir. 2002) (citation omitted) (quoting Burroughs Wellcome Co. v. Barr Lab., Inc., 40 F.3d 1223, 1228 (Fed. Cir. 1994)). A patentee claiming that he conceived the invention prior to the application filing date must prove conception by clear and convincing evidence. Id. (citing Apotex USA, Inc. v. Merck & Co., 254 F.3d 1031, 1036 (Fed. Cir. 2001)).

A reduction to practice can be either a constructive reduction to practice or an actual reduction to practice. Hybritech, 802 F.2d at 1376. The former occurs when a patent application is filed, and the latter occurs when the inventor proves that: (l) he constructed an embodiment or performed a process that met all the limitations of the claimed invention and (2) he knew that the invention would work for its intended purpose. Cooper, 154 F.3d at 1327; see also UMC Elecs. Co. v. United States, 816 F.2d 647 652 (Fed. Cir. 1987) ("[T]here cannot be a reduction to practice of the invention ... without a physical embodiment which includes all limitations of the claim.").

In order to establish a priority date earlier than an application's filing date, an inventor must also demonstrate diligence between the alleged conception date and the filing date of the application. See In re Jolley, 308 F.3d 1317, 1326 (Fed. Cir. 2002) ("One who is first to conceive but last to reduce to practice is entitled to priority only on a showing of reasonable diligence extending from a time prior to the other party's conception to its own reduction to practice."). "The evidence must show that the alleged earlier inventor was diligent throughout the entire critical period." Monsanto Co. v. Mycogen Plant Sci., Inc., 261 F.3d 1356, 1369 (Fed. Cir. 2001) (citation omitted). An applicant must account for the entire period during which diligence is required by either affirmative acts or acceptable excuses. See Gould v. Schawlow, 363 F.2d 908,

919 (C.C.P.A. 1966).

An inventor's efforts on other patent applications (even related patent applications) are only entitled to credit towards diligence if the work on the related patent application contributes substantially to the preparation of the patent application in question. See Bey v. Kollonitsch, 806 F.2d 1024, 1029 (Fed. Cir. 1986). In addition, it must be shown "that unrelated cases are taken up in chronological order, thus the attorney [patentee] has the burden of keeping good records of the dates when cases are docketed as well as the dates when specific work is done on the applications." Id. at 1028. In dealing with the questions of diligence, the Federal Circuit has made clear that a "rule of reason" is applied to the particular circumstances of the case. Id. at 1028 n.9.

An alleged prior conception or actual reduction to practice must be sufficiently and independently corroborated under a "rule of reason" analysis. Woodland Trust v. Flowertree Nursery, Inc., 148 F.3d 1368, 1371 (Fed.Cir. 1998); see also Cooper, 154 F.3d at 1330 ("[A] 'rule of reason' analysis is applied to determine whether an inventor's testimony regarding reduction to practice has been sufficiently corroborated"). Under this analysis, "all pertinent evidence is examined when determining the credibility of an inventor's testimony." Medichem, S.A. v. Rolabo, S.L., 437 F.3d 1157, 1170 (Fed. Cir. 2006), reh'g and reh'g en banc denied. Factors to be considered in this analysis include: (1) delay between event and trial, (2) interest of witness, (3) contradiction or impeachment, (4) corroboration, (5) witnesses' familiarity with details of alleged prior structure, (6) improbability of prior use considering state of the art, (7) impact of the invention on the industry, and (8) relationship between witness and alleged prior user. Juicy Whip, Inc. v. Orange Bang, Inc., 292 F.3d 728, 741 (Fed. Cir. 2002).

Courts require independent corroboration because an inventor is naturally inclined to provide self-serving testimony. Chen v. Bouchard, 347 F.3d 1299, 1309-10 (Fed. Cir. 2003);

Mahurkar v. C.R. Bard, Inc., 79 F.3d 1572, 1577 (Fed. Cir. 1996). This has been the case for over 100 years. Washburn & Moen Mfg. Co. v. Beat'em All Barbed Wire Co., 143 U.S. 275, 284-85 (1892) ("Witnesses whose memories are prodded by the eagerness of interested parties to elicit testimony favorable to themselves are not usually to be depended upon for accurate information."). Obviously, this means that "an inventor's testimony respecting facts surrounding a claim of derivation or priority of invention cannot, standing alone, rise to the level of clear and convincing proof." Finnigan Corp. v. ITC, 180 F.3d 1354, 1367 (Fed. Cir. 1999). This also means that "testimony of one co-inventor cannot be used to help corroborate the testimony of another." Medichem, 437 F.3d at 1171; see also Lacks Indus. v. McKechnie Vehicle Components USA, Inc., 322 F.3d 1335, 1350 (Fed. Cir. 2003) (opining that the Special Master rightly refused to accept cross-corroboration of oral testimony as being adequate). Thus, "an inventor's testimony, standing alone, is insufficient to prove conception - some form of corroboration is required." Price v. Symsek, 988 F.2d 1187, 1194 (Fed. Cir. 1993).

In support of an alleged earlier invention date, FlashPoint has relied upon { }

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}(CX-

455C, RX-4317; RX-4318; RX-4319; RX-4320.) Thus, the record indicates that no work was being performed related to any specific claims of the '769 patent, by Anderson and Dalke, to refine the concept at issue.

Moreover the administrative law judge finds that said single paragraph from the invention summary document relied upon by FlashPoint (CX-455) is not sufficient "corroborating evidence" to establish that Anderson and Dalke conceived of the invention claimed in the '769 patent as early as April 1996. Thus a simple reading of said paragraph (CX-455C) reveals that several claim limitations are missing. For instance, FlashPoint's expert relied upon the statements that{

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assert that the claim element "determining whether the first orientation is different from the second orientation" is disclosed in this document. (Tr. at 1799-1800.) However, the administrative law judge finds nothing to suggest that the inventors contemplated the "auto-rotation" to occur as a result of comparing the orientation of the device (during display)

with any orientation information stored with the captured image, which is required under the proper claim construction.

Regarding whether the inventors on the '769 patent conceived of at least the asserted claim requirements for "determining whether the first orientation is different from the second orientation" and for "determining whether the third orientation is different from the second orientation, first orientation, or both" by April 1996, complainant relies on testimony of Anderson regarding certain{ } projects.[13] (See CFF 10.32.) It is undisputed that the '769 patent requires the image capture unit to include an orientation sensor to determine the orientation of the image capture unit when the image is displayed. The administrative law judge finds that Anderson's testimony is not substantial as to the date or configuration of {

} (See Tr. at 467-69.) Anderson also has been contradicted by the record. For example, his testimony that the Motorola MPC823 processor "did not actually happen until 1997" is directly contradicted by an Apple press release dated May 13, 1996 which states {

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[13] Complainant asserted that it also relies on U.S. Patent No. 6,011,585 (the '585 patent), U.S. Patent No. 5,764,291 (the '291 patent), and U.S. Patent Application No. 08/384,012 (the '012 application) as corroborating evidence. (See CRSPFF 202B-202D.) However, with respect to the claim limitations "determining whether the first orientation is different from the second orientation" and "determining whether the third orientation is different from the second orientation, first orientation, or both," the administrative law judge finds nothing in said patents or patent application with respect to said limitations and complainant has not relied on either of said patents or said patent application as corroborating evidence for said claim limitations. (See CBr at 130-131; CFF 11.170-11.172.) Further, the '585 patent is completely different than the asserted '769 patent. For example, it discloses an "RLOS 324" (right/left orientation sensor) and a "UDOS 326" (up/down orientation sensor) which is not present in the '769 patent asserted in this investigation. (JX-1; JX-4; RX-2084.) Regarding the '291 patent and '012 application, Flashpoint asserted that these references disclose the structure of an orientation sensor for a camera and the use of the orientation of the camera determined at time of capture to modify camera focus and exposure, respectively. (CRSPFF 202C-202D.) However, the administrative law judge finds nothing in the record that ties the '291 patent or the '012 application to the { } disclosure, supra, or to said claim elements of the '769 patent.

}(RX-1308C;

Anderson, Tr. at 420-421.) In addition during the hearing, {

}

Based on the foregoing, the administrative law judge finds that complainant has not established that the asserted claims of the '769 patent are entitled to an earlier date of invention than July 31, 1997, the filing date of the '769 patent.

B. On Sale Bar (35 U.S.C. § 102(b))

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Section 102(b), unlike § 102(a), sets forth a bar to patentability that is not conditioned upon the invention date of the patent, only its filing date. Section 102(b) states that a patent is invalid if the claimed invention was described in a patent or a printed publication in this or a foreign country or in public use or on sale in this country more than one year before the filing of the application for the patent in the United States. 35 U.S.C. § 102(b).

An offer for sale before the critical date will act as a bar to a patent if the patent was ready for patenting and the offer for sale was a commercial offer for sale. Pfaff v. Wells Electronics, 525 U.S. 55 (1998). The ready for patenting prong requires, before the critical date, either proof that the invention was reduced to practice or proof that "the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention." Pfaff 525 U.S. at 67-68. In addition, the offer for sale must be made in the U.S., extend from the U.S., or involve sufficient prefatory sales activity that occurs in the US. Linear Techn. Corp. v. Micrel, Inc.,63 F. Supp. 2d 1103, 1126 (N.D. Cal. 1999), aff'd in part and

rev'd in part, 275 F.3d 1040 (Fed. Cir. 2001) (citing Robbins Co. v. Lawrence Mfg. Co., 482 F.2d 426,434 (9th Cir. 1973)). Invalidity must be proven by clear and convincing evidence. Gemmy Indus. Corp. v. Chrisha Creations Ltd., 452 F.3d 1353, 1358 (Fed. Cir. 2006). Further, a single sale or offer to sell is sufficient to invalidate a patent. Intel Corp. v. U.S. Int'l Trade Comm'n, 946 F.2d 821, 830 (Fed. Cir. 1991).

The Federal Circuit has held that "the offer of a license under a patent and a description of the invention, without more, does not fall within the on-sale bar of § 102(b)." In re Kollar, 286 F.3d 1326, 1332 (Fed. Cir. 2002), citing Mas-Hamilton Group v. LaGarcl, Inc., 156 F.3d 1206 (Fed. Cir. 1998). Notably, though, this ruling applies only to an offer to license a patent "without more." In situations where there is more than just a bare offer to license a patent, as in the case of a software license, the Court must consider the facts of the offer to determine whether it falls within the on-sale bar of § 102(b). See Kollar, 286 F.3d at 1331, n.3 ("In certain situations, a 'license' in the latter sense of the word may be tantamount to a sale (e.g., a standard computer software license), whereupon the bar of § 102(b) would be triggered because '[t]he product is ... just as immediately transferred to the 'buyer' as if it were sold'") (citing Group One, Ltd. v. Hallmark Cards, Inc., 254 F.3d 1041, 1053 (Fed. Cir. 2001) (Lourie, J. concurring)).

In Minton v. National Association of Securities Dealers, Inc., 336 F.3d 1373 (Fed. Cir. 2003), the patentee had leased, more than a year before the filing date of the patent-in-suit, a software system that operated similarly to the claimed invention. The district court held on summary judgment that this transaction constituted an on-sale bar under §102(b). On appeal, the patentee argued that, "as in [Kollar], the license of the TEXCEN process was not a commercial offer for sale." Id. at 1376. The Federal Circuit rejected that argument, however, and distinguished Kollar as follows:

> Minton's transaction with Starks was unlike Kollar's transaction with Celanese. Whereas Kollar merely conveyed know-how to Celanese, Minton conveyed to Starks a fully operational computer program implementing and thus embodying the claimed method. Also, Minton conveyed with TEXCEN a warranty ofworkability, whereas Kollar's process had to be developed for commercialization. Thus, Kollar is factually distinguishable from the present case, and we accordingly hold that Minton's lease of TEXCEN, thereby enabling Starks to practice the invention, was an offer for sale within the meaning of the on-sale bar.

Id. at 1378 (emphasis added); accord Transocean Offshore Deepwater Drilling, Inc. v. Stena Drilling Ltd., 659 F.Supp.2d 790, 799 (S.D. TX 2009) ("The In re Kollar line of cases shows that an agreement to transfer rights to use a product may be arranged as a license or lease but nonetheless constitutes a 'sale' or 'offer for sale' under §102(b). The crucial element identified by these cases is that the transaction contemplates delivery and possession of a completed invention." (emphasis added)).

Under the first prong of the on-sale bar, viz. the invention was the subject of commercial offer for sale, the Federal Circuit has looked to general commercial law, including the Uniform Commercial Code, to define an offer for sale. See, e.g., Rotec Indus., Inc. v. Mitsubishi Corp., 215 F.3d 1246, 1254-55 (Fed. Cir. 2000); cf Group One, Ltd. v. Hallmark Cards, Inc., 254 F.3d 1041, 1047-48 (Fed. Cir. 2001) (holding that, although the U.C.C. is instructive, it is not authoritative). As a general rule, a commercial offer must be sufficiently definite such that the other party could make a binding contract by simple acceptance, assuming consideration. Atlanta Attachment Co. v. Leggett & Platt, Inc., 516 F.3d 1361, 1365 (Fed. Cir. 2008). On the other hand, the Federal Circuit has made clear that no profit, revenue, or actual sale is required to constitute an invalidating commercial offer under § 102(b). Id.

The Federal Circuit has found a clear commercial offer for sale where the terms of the offer included price, quantity, and delivery terms. See Cargill, Inc. v. Canbra Foods, Ltd., 476

F.3d 1359, 1369-70 (Fed. Cir. 2007). But even where these terms were not included, the Federal Circuit has still found an invalidating commercial offer. For example, in Enzo Biochem, Inc. v. Gen-Probe, Inc., 424 F.3d 1276, 1281-82 (Fed. Cir. 2005), it found such an offer where the seller committed to supply probes to meet the buyer's requirements at "reasonable times and prices." Indeed, the U.C.C. specifically contemplates this type of offer. See U.C.C. § 2-306 (Requirements Contracts).

The U.C.C. recognizes that many contracts may lack price terms (U.C.C. § 2-305), may not specify the place of delivery (U.C.C. § 2-308), and may even lack the time for delivery (U.C.C. § 2-310). Indeed, Section 2-204(1) of the U.C.C. provides liberal guidelines on how a contract may be formed, stating that "[a] contract for sale of goods may be made in any manner sufficient to show agreement." It continues in this same vein that the parties can have a binding contract "[e]ven if one or more terms are left open." U.C.C. § 2-204(2).

Finally, unlike a public disclosure bar, disclosing details of the invention is unimportant under the on-sale bar analysis of § 102(b). See Ferag AG v. Quipp, Inc., 45 F.3d 1562, 1567 (Fed. Cir. 1995). Indeed, "an offer or sale may invoke the statutory bar even though no details are disclosed." Id. As the Federal Circuit has explained, the "purchaser need not have actual knowledge of the invention for it to be on sale." King Instr. Corp. v. Otari Corp., 767 F.2d 853, 860 (Fed. Cir. 1985).

The second prong, or "ready for patenting" prong of the on-sale bar, may be satisfied in at least two ways: "by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention." Pfaff, 525 U.S. at 67-68.

Though an invention need not be reduced to practice in order to satisfy the second prong under § 102(b), it is axiomatic that when the invention has in fact been reduced to practice, then it is ready for patenting. See Cargill, Inc. v. Canbra Foods, Ltd., 476 F.3d 1359, 1371 (Fed. Cir.2007). An invention is reduced to practice when it works for its intended purpose. Honeywell Int'l Inc. v. Universal Avionics Sys. Corp., 488 F.3d 982, 997 (Fed. Cir. 2007). An invention works for its intended purpose when there is "a demonstration of its workability or utility." Id. Additionally, an invention can be considered reduced to practice "even though it may later be refined or improved." New Railhead Mfg. L.L.C. v. Vermeer Mfg. Co., 298 F.3d 1290, 1297 (Fed. Cir. 2002).

As the administrative law judge has found, supra, with respect to the '816 patent, it is undisputed that all of the asserted claims of the '816 patent were reduced to practice by{

} Thus, the administrative law judge finds that the asserted claims of the '816 were ready for patenting as of that date.[14]

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[14] The administrative law judge has found that complainant is not entitled to an earlier date of invention than the July 31, 1997 filing date of '769 patent. See supra. Hence the HTC respondents' argument with respect to the on sale bar of 35 U.S.C. § 102(b) is mooted as to the '769 patent.

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} For example, in Enzo Biochem, Inc. v. Gen-Probe, Inc., 424 F.3d 1276, 1281-82 (Fed. Cir. 2005), the Federal Circuit found such an offer where the seller committed to supply probes to meet the buyer's requirements at "reasonable times and prices" without specifying an actual delivery date. Also Section 2-204(2) of the U.C.C. specifically recognizes that parties can have a binding contract "[e]ven if one or more terms are left open." U.C.C. § 2-204(2). Indeed, the U.C.C. specifically contemplates an offer without a specified delivery date. See U.C.C. § 2-309 (Absence of Time Provisions); see also U.C.C. § 2-306 (Requirements Contracts). Likewise, the U.C.C. recognizes that many contracts may lack price terms (U.C.C. § 2-305) and may not specify the place of delivery (U.C.C. § 2- 308) or the time for payment (U.C.C. § 2-310). {

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{ } Based on the foregoing, the administrative law judge finds that the HTC respondents have established that the '816 patent is invalid under 35 U.S.C. § 102 (b).

XII. Domestic Industry

In order to satisfy the technical prong of the domestic industry requirement, complainant must establish that its products practice at least one claim of each asserted patent. Certain Silicon Microphone Packages and Products Containing the Same, Inv. No. 337-TA-629, Order No. 26, 2008 ITC LEXIS 1728, *3-4 (Sept. 8, 2008). "The test for satisfying the 'technical prong' of the industry requirement is essentially same as that for infringement, i.e., a comparison of domestic products to the asserted claims." Alloc, Inc. v. ITC, 342 F.3d 1361, 1375 (Fed. Cir. 2003). In addition, there must be a nexus between "the article of commerce and the article protected by the patent by which the domestic industry is defined as the... products sold to end users." Cerain Salinomycin Biomass and Preparations Containing Same, Inv. No. 337-TA-370, Initial Determination at 124 (Dec. 31, 1995).[15]

A. The '769 Patent

Complainant argued that its licensed Motorola smart-phones employ Motorola's Android 2.1 (or newer) operating system (collectively, Android) and an orientation sensor as part of their image capture functionality ("Motorola Devices"); that each Motorola Device practices all elements of claim 1 and corresponding dependant claims of the '769 patent; that in particular, an exemplary Motorola Device, the Motorola Droid X ("Droid X"), practices all elements of claim 1 and corresponding dependant claims during normal operation (CFF-6.154 to CFF-6.155;

[15] As stated in Section I, Procedural History, the administrative law judge found in Order No. 18 that complainant satisfies the economic prong of the domestic industry requirement.

CFF-6.176); that all other Motorola Devices likewise practice claim 1 and corresponding depending claims in the same manner as the Droid X by virtue of having image capture and display functionality identical in all material respects to that of the Droid X; that the Droid X's Android operating system includes a digital camera software subsystem that enables the device to capture and display images; that captured images are stored as image data that includes an indication of the image's aspect ratio (i.e., height and width) so that the device will recognize whether a displayed image is a portrait or landscape; that in operation, the software operates to cause the Droid X to display images in an upright orientation regardless of whether the device is held in the landscape or portrait position.

Complainant also argued that its licensed Apple smart-phones employ Apple's iOS 4 (or newer) operating system (collectively, "iOS") and an orientation sensor as part of their image capture functionality ("Apple Devices"); that each Apple Device practices all elements of claim 1 and corresponding dependant claims of the '769 patent; that in particular, an exemplary Apple Device, the Apple iPhone 4 ("iPhone 4"), practices all elements of claim 1 and corresponding dependant claims during normal operation; that the iPhone 4's iOS operating system includes a digital camera software subsystem that enables the device to capture and display images; that captured images are stored as image data that includes an indication of the image's aspect ratio (i.e., height and width) so that the device will recognize whether a displayed image is a portrait or landscape; and that in operation, the software operates to cause the iPhone 4 to display images in an upright orientation regardless of whether the device is held in the landscape or portrait position. (CBr at 97-8.)

The staff argued that the evidence establishes that the Apple iPhone practices the '769 patent. (SBr at 81-8.) It further argued that the Motorola Droid X practices the '769 patent. (SBr

at 88-95.)

The HTC respondents argued that no technical domestic industry exists for the '769 patent. (RBr at 118-124.)

1. Motorola Devices

With respect to the requirement in claims 1 and 18 of "determining whether the third orientation is different from the second orientation, the first orientation, or both...," complainant argued that the Motorola devices compare the height and width component of the first orientation to determine whether the source image is landscape or portrait, and then compare the height and width of the source image to the height and width of the display, and then the device will rotate and resize the image to fit the display. (CBr at 94; see also CFF 6.171, 6.172.) Significantly, complainant did not argue that a direction (i.e., upright) is part of the comparison. Further, complainant argued that "each Motorola Device then performs a comparison of the orientation data {

} Therefore, complainant has not shown that the Motorola devices practice this element.

With respect to the claim limitation "rotating the image to be displayed in the third orientation if the third orientation is different from the second orientation..." from independent

claims 1 and 18, complainant has argued, as a basis for its conclusion that the Motorola devices { } supporting this statement is cited. Indeed, the sentence is not accompanied by any cite whatsoever. The citations at the end of the paragraph, viz. CFF 6.170 through CFF 6.175 and CFF 6.403 through CFF 6.405, do not support complainant's argument, and complainant's expert Mangione-Smith does not make said statement in his testimony referenced in said citations. (See Tr. at 894-95.)

Based on the foregoing, the administrative law judge finds that the Motorola devices do not practice asserted claims 1 or 18 of the '769 patent. Thus, said devices also do not practice any of the asserted claims depending from independent claims 1 and 18.

2. Apple Devices

As an initial matter, the administrative law judge finds complainant's expert Mangione-Smith's testimony inadequate as to whether or not the Apple iPhone 4 practices the '769 patent. Said expert's testimony on this matter consists of three pages of statements that, in his opinion, the iPhone 4 practices each element of claim 1 of the asserted '769 patent (Tr. at 897-99), but for support, he relies on demonstratives that in turn point to { } Mangione-Smith provides no further explanation of or details from those exhibits. He also states that he took into account testimony of "Apple's corporate witness" (Tr. at 899), but without specific reference to which portion(s) of said

testimony he took into account. Thus, the administrative law judge finds complainant's expert's testimony on this point merely conclusory and gives it no weight.

Complainant relies on citations to its expert's testimony exclusively for at least one element of asserted claims 1 and 18 of the '769 patent. (See, inter alia, CFF 217, CFF 6.221 ("determining a first orientation").) For the element "determining whether the first orientation is different from the second orientation," complainant states that "[h]aving determined the first and second orientations, each Apple Device then performs a comparison of the orientation data {

} The administrative law judge has reviewed each of the cited findings of fact and the evidentiary basis for each, and finds that the attorney argument in the brief is not fully supported. Based on the foregoing, the administrative law judge finds that complainant has not shown that the Apple devices practice these elements of asserted claims 1 and 18. As a consequence, the administrative law judge also finds that said Apple devices can also not practice any of the asserted claims depending from independent claims 1 and 18.

3. Conclusion

Based on the foregoing, the administrative law judge finds that complainant has not shown that it has a domestic industry that practices the asserted '769 patent.

B. The '816 Patent

Complainant argued that the Motorola Driod X at least practices each and every element of claim 1 of the '816 patent; that as its expert Mangione-Smith testified, there are substantial similarities between the Motorola Droid X device and the HTC devices in analyzing whether those devices practice the '816 patent; and that accordingly, much of the infringement analysis

applied to the HTC devices applies equally to the Motorola Droid X. (CRBr at 87.)

The HTC respondents argued that no technical domestic industry exists for the '816 patent because the Motorola Droid X does not practice any asserted claim of the '816 patent. (RBr at 178-190.)

The staff argued that, with respect to the Motorola Droid X, FlashPoint appears to have relied upon at least some of the same functionality found in the Android OS that it has relied upon to assert infringement of the HTC Android phones; that specifically, Mangione-Smith relied upon

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and that for at least this reason, the evidence fails to establish that Droid X practices any claim of the '816 patent, and FlashPoint has not satisfied the technical prong of the domestic industry requirement for the '816 patent. (SBr at 137-8.)

The administrative law judge found, supra, that a "series of capability parameter storage locations" should be construed as "two or more memory areas, each containing the value set corresponding to a particular capability parameter," where a "value set" comprises one or several values associated with a particular capability parameter. The administrative law judge further found, supra, that each individual "storage location" must include "a minimum value location containing a minimum capability parameter value," "a maximum value location containing a

maximum capability parameter value," "a factory defaults location containing a factory default value," and "a list-of-integers location containing a capability parameter list."

Complainant in its post-hearing briefings did not present any argument that each capability parameter storage location in the Motorola devices contains the required value locations. (CRBr at 89-90.) In fact, complainant points to no one storage location that contains each of said value

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Therefore, the administrative law judge finds that complainant has not shown that the Motorola products practice claim 1 of the '816 patent.

Based on the foregoing, the administrative law judge finds that complainant has not shown that it has a domestic industry with respect to any of the claims of the '816 patent.

XIII. Patent Exhaustion And Licensing

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XIV. Remedy

Complainant argued that a limited exclusion order issue, directed against all electronic imaging devices imported by respondents HTC that infringe the asserted patents and not just the devices specifically litigated during the investigation. It is also argued that any concern that a limited exclusion order could possibly cover devices that FlashPoint has affirmatively recognized do not infringe can readily be assigned by a certification provision. Thus it proposed a limited exclusion order with the following provisions: (CBr at 238-41.)

> 1. All unlicensed electronic imaging devices that are covered by one or more claims of U.S. Patent No. 6,163,816 and are manufactured abroad and/or imported by or on behalf of Respondents, or any of Respondents' affiliated companies, parents, subsidiaries, licensees, contractors, or other related business entities, or their successors or assigns, is excluded from entry for consumption into the United States, including entry for consumption from a foreign- trade zone, for the remaining term of the patent, except under license of the patent owner or as provided by law.
>
> 2. All unlicensed electronic imaging devices that are covered by one or more infringed claims of U.S. Patent No. 6,262,769 and are manufactured abroad and/or imported by or on behalf of Respondents, or any of Respondents' affiliated companies, parents, subsidiaries, licensees, contractors, or other related business entities, or their successors or assigns, is excluded from entry for consumption into the United States, including entry for consumption from a foreign-trade zone, for the remaining term of the patent, except under license of the patent owner or as provided by law.

> 3. When U.S. Customs and Board Protection ("Customs") is unable to determine by inspection wherever an electronic imaging device falls within the scope of this Order, it may, in its discretion, accept a certification, pursuant to procedures specified and deemed necessary by Customs, from persons seeking to import said products that they are familiar with the terms of this Order, that they have made appropriate inquiry, and thereupon state that, to the best of their knowledge and belief, the products being imported are not excluded from entry under paragraphs 1 or 2 of this Order. At its discretion, Customs may require persons who have provided the certification described in this paragraph to furnish such records or analyses as are necessary to substantiate the certification.
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> 4. In accordance with 19 U.S. C.§ 1337(1), the provisions of this Order shall not apply to electronic imaging devices that are imported by and for use of the United States, or imported for, and to be used for, the United States with the authorization or consent of the Government.

(CBr at 238-41.)[18]

Respondents HTC argued that if an exclusion order is issued, it should include a certification provision to assist Customs and Boarder Protection (CBP) in accurately enforcing the order and to ensure unhindered importation of non-infringing products. (RBr 242-45.) However respondents HTC later argued that FlashPoint's request for a "certification provision" is inadequate; that agents working for the Department of U.S. Customers and Border Protection should be affirmatively told in any remedial order that may issue that certain products do not infringe the asserted claims and can be imported into the United States; and that respondents HTC should not have to operate under a cloud of uncertainty as to products for which FlashPoint failed to meet is burden of proof. (HRBr at 122.)

The staff argued that, in the event the Commission finds a violation, a limited exclusion order directed to infringing electronic imaging devices should issue. (SBr at 155.)

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[18] Complainant, in its posthearing submissions, has not requested any cease and desist orders.

The Commission has broad discretion in selecting the form, scope, and extent of a remedy in Section 337 proceedings. Certain Integrated Circuit Telecommunication Chips, Inv. No. 337-TA-337, Comm'n Op. at 21 (August 3, 1993). Pursuant to its statutory authority found at 19 U.S.C. § 1337 (d), the Commission may exclude from importation goods and products that form the basis for a finding of a violation of Section 337 which includes products that have been found to infringe the patents-in-issue directly, contributorily or by inducement after importation has occurred. 19 U.S.C. § 1337(d); Certain Flash Memory Circuits, Inv. No. 337-TA-382, Comm'n Op. at 26 (June 26, 1997) ("The Commission has the authority to enter an exclusion order, a cease and desist order, or both.") Indeed, absent special circumstances, the statute requires such exclusion:

> If the Commission determines ... that there is a violation of this section, it shall direct that the articles concerned ...be excluded from entry into the United States, unless, after considering the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers, it finds that such articles should not be excluded from entry.

19 U.S.C. § 1337(d). Hence, a remedy excluding respondents HTC infringing products from entry is mandatory if a violation of Section 337 is found, unless the Commission finds that public interest factors militate against such remedy. Moreover the exclusion order should not be limited to specifically identified infringing products. See, e.g., Certain Integrated Repeaters, Switches, Transceivers and Products Containing Same, Inv. No. 337-TA-435, Commission Opinion at 22-23, USITC Pub. 3547 (Oct. 2002); Certain Laser Bar Code Scanners and Scan Engines, Components Thereof, and Products Containing Same, Inv. No. 337-TA-551, Commission Opinion at 23, USITC Pub. 4006 (May 2008) ("Laser Bar Code Scanners").

In the event a violation is found, the administrative law judge recommends the issuance of

a limited exclusion order as proposed by complainant, in said paragraphs 1, 2, 3 and 4 supra with the addition of the word "infringed" before – claims – in the second line of paragraph 1, supra. With respect to arguments raised by respondents HTC in its reply briefs, the recommended limited exclusion order is specifically limited to "infringed claims."

XV. Bond

Complainant, in the event a violation of Section 337 is found, argued that 100 percent bond upon imports of infringing articles be set during the Presidential 60-day-review period. (CRBr at 1232.)

Respondents HTC argued that a bond of zero should be recommended; that the administrative law judge in his Order No. 35 indicated that the amount of any bond imposed in this investigation should be zero in view of the lack of proof presented by FlashPoint; that nothing has changed in this regard; that FlashPoint failed to present any evidence at the hearing concerning either a price differential or a reasonable royalty rate for the asserted patents; that FlashPoint has neither advocated for a bond amount based on a royalty rate comparison nor identified which of its licenses support its blanket request for a 100% bond rate; and that this total lack of evidence is significant given that FlashPoint bears the burden of proof in connection with its bond request, citing Certain Rubber Antidegradants, Components Thereof, and Products Containing Same, Inv. No. 337-TA-533, Comm'n Op. at 39-40 (July 21, 2006). (HRBr at 123-4.)

The staff argued that if an exclusion order is issued, it does not believe that the imposition of any bond amount is appropriate during the Presidential review period; that while FlashPoint has argued for a 100% bond, FlashPoint has asserted the evidence will establish that there is no price differential upon which to base a bond and has also asserted that there is no established royalty rate for the asserted patents; {

}

the staff submits that the Commission should not set any bond for the products imported during the Presidential review period. (SBr at 157-8.)

Section 337(j)(3) provides for the entry of infringing articles upon the payment of a bond during the sixty-day Presidential review period. 19 U.S.C. § 1337(j)(3). Any bond is to be set at a level sufficient to "offset any competitive advantage resulting from the unfair method of competition or unfair act enjoyed by persons benefiting from the importation." Certain Dynamic Random Access Memories, Components Thereof and Products Containing Same, Inv. No. 337-TA-242, Commission Opinion on Violation, Remedy, Bonding and the Public Interest, USITC Pub. No. 2034, 1987 WL 450856 (U.S.I.T.C.) at 38 (1987). When reliable price information is available, the Commission has set a bond by eliminating the price differential between the domestic and the imported infringing product. Certain Digital Satellite System (DSS) Receivers and Components Thereof, Inv. No. 337-TA-392, Final Initial and Recommended Determination on Remedy and Bonding, U.S.I.T.C. Pub. No. 3418, 2001 WL 535427 (U.S.I.T.C.) at 336 (April 2001). Further, the price differential may be based on a weighted average that reliably reflects the range of prices for sales and the volume of sales at each price for each product, and a bond greater than 100% may be set to completely offset any competitive advantage. Certain Two-Handle Centerset Faucets and Escutcheons, and Components Thereof, Inv. No. 337-TA-422, Commission Opinion at 9-11 (July 21, 2000) (setting a bond of 264% based on a weighted average and finding pricing information "reliable because it is supplied by [respondent]

and it is accepted by [complainant] and the [staff] as well"). Where reliable price information is not available, Commission precedent establishes that the bond should be set at 100%. Certain Semiconductor Memory Devices and Products Containing Same, Inv. No. 337-TA-414, Recommended Determination on Remedy and Bonding, 1999 WL 1267282 (U.S.I.T.C.) at 6 (December 13, 1999); see also Certain Digital Multimeters, and Products With Multimeter Functionality, Inv. No. 337-TA-588, Commission Opinion at 12-13 (June 3, 2008) (setting a bond of 100% where pricing information was unclear and price comparisons would be complicated and difficult). On the other hand, if a complainant fails to provide evidence concerning the appropriate bond, then the Commission may decline to impose any bond. See, e.g., Certain Silicon Microphone Packages and Products Containing Same, Inv. No. 337-TA-629, Commission Opinion at 20 (Aug. 21, 2009).

At the outset Order No. 35, referenced by respondents HTC, issued on April 4, 2011 (non-review April 19, 2011) which terminated the investigation as to respondents Nokia and RIM and found the terms of the Nokia and RIM settlement agreements not relevant to any issues to be litigated in this investigation as to the then remaining respondents LG and HTC. Since the issuance of Order No. 35 there has been an evidentiary hearing and the filing of post-hearing submissions. However it is a fact that FlashPoint has admitted that it "does not currently sell any products." (CBr at 244.) Moreover while FlashPoint's licenses comprise over 95% of the world-wide digital still cameras industry, as the staff argued, the administrative law judge finds no adequate evidence concerning the royalty rate negotiated for those licenses or establishing why said licenses are not relevant to the determination of the bond amount. Thus the administrative law judge recommends that no bond be set for the products imported during the Presidential review period, should a violation be found.

XVI. Additional Findings

1. Complainant FlashPoint is a Delaware corporation with its principal place of business at 20 Depot Street, Peterborough, New Hampshire. (Amended Complaint, ¶ 5).

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4. HTC Corporation is a corporation organized and existing under the laws of Taiwan, having a principal place of business at 23 Xinghua Road, Taoyuan, 330, Taiwan. (HTC Response to Amended Complaint, ¶ 12).

5. HTC Corporation's business includes making and selling smart phones. (HTC Response to Amended Complaint, ¶ 12).

6. HTC America, Inc. is a subsidiary of HTC Corporation, and is incorporated in the state of Texas, having a principal place of business at 13920 S.E. Eastgate Way, Suite 400, Bellevue, WA 98005. (HTC Response to Amended Complaint, ¶ 13).

7. HTC America, Inc.'s business includes selling smart phones and providing after sale support services for HTC's smart phones in the United States. (HTC Response to Amended Complaint, ¶ 13).

CONCLUSIONS OF LAW

1. The Commission has in personam, in rem and subject matter jurisdiction.

2. There has been an importation of accused electronic imaging devices into the United States which are the subject of the unfair trade allegations.

3. It has not been established that the asserted claims of the '769 and '816 patents are invalid in view of prior art.

4. It has been established that the asserted claims of the '816 patent are invalid under §102(b) (On Sale Bar).

5. Complainant has failed to show that the asserted claims of the '769 and '816 patents are infringed.

6. Complainant has not established a domestic industry with respect to either of the '769 or '816 patents.

7. The '769 patent is not entitled to an early invention date.

8. Complainant's rights under the '816 and '769 patents are not exhausted with respect to respondents HTC's accused Windows Phone 7 products.

9. The evidence establishes that there is no violation of section 337.

10. In the event a violation of section 337 is found, a limited exclusion order with certification provisions is recommended. However no bond is recommended.

ORDER

Based on the foregoing, and the record as a whole, it is the administrative law judge's Final Initial Determination that there is no violation of section 337 in the importation into the United States, sale for importation, and sale within the United States after importation of certain electronic imaging devices. It is also the administrative law judge's recommendation, should a violation be found, that a limited exclusion order issue barring entry into the United States of infringing electronic imaging devices. The administrative law judge does not recommend any bond should a violation be found.

The administrative law judge hereby CERTIFIES to the Commission his Final Initial and Recommended Determinations. The briefs of the parties, filed with the Secretary, are not certified, since they are already in the Commission's possession in accordance with Commission rules.

Further it is ORDERED that:

1. In accordance with Commission rule 210.39, all material heretofore marked in camera because of business, financial and marketing data found by the administrative law judge to be cognizable as confidential business information under Commission rule 201.6(a), is to be given in camera treatment continuing after the date this investigation is terminated.

2. Counsel for the parties shall have in the hands of the administrative law judge those portions of the final initial and recommended determinations which contain bracketed confidential business information to be deleted from any public version of said determinations, no later than August 12, 2011. Any such bracketed version shall not be served via facsimile on the administrative law judge. If no such bracketed version is received from a party, it will mean that the party has no objection to removing the confidential status, in its entirety, from these initial

recommended determinations.

3. The initial determination portion of the Final Initial and Recommended Determinations, issued pursuant to Commission rules 210.42(a) and 210.42-46, shall become the determination of the Commission, unless the Commission, shall have ordered its review of certain issues therein or by order has changed the effective date of the initial determination portion. The recommended determination portion, issued pursuant to Commission rule 210.42(a)(1)(ii), will be considered by the Commission in reaching a determination on remedy pursuant to Commission rule 210.50(a).

Paul J. Luckern

Paul J. Luckern
Chief Administrative Law Judge

Issued: July 27, 2011

CERTAIN ELECTRONIC IMAGING DEVICES **337-TA-726**

CERTIFICATE OF SERVICE

I, James R. Holbein, hereby certify that the attached **PUBLIC VERSION FINAL INITIAL AND RECOMMENDED DETERMINATIONS** has been served by hand upon the Commission Investigative Attorney, and the following parties as indicated, on September 16, 2011.

James R. Holbein, Secretary
U.S. International Trade Commission
500 E Street, SW
Washington, DC 20436

On Behalf of Complainant FlashPoint Technology, Inc:

William D. Belanger, Esq.
PEPPER HAMILTON LLP
15th Floor, Oliver Street Tower
125 High Street
Boston, MA 02110
P-617-204-5101
F-617-204-5150

( ) Via Hand Delivery
(X) Via Overnight Mail
( ) Via First Class Mail
( ) Other: _____

Respondents HTC Corporation & HTC America, Inc.:

John P. Schnurer, Esq
PERKINS COIE LLP
11988 El Camino Real, Suite 200
San Diego, CA 92130-3334
P-858-720-5700
F-858-720-5799

( ) Via Hand Delivery
(X) Via Overnight Mail
( ) Via First Class Mail
( ) Other: _____

CERTAIN ELECTRONIC IMAGING DEVICES **337-TA-726**

PUBLIC MAILING LIST

Heather Hall
LEXIS-NEXIS
9443 Springboro Pike
Miamisburg, OH 45342

( ) Via Hand Delivery
(X) Via Overnight Mail
( ) Via First Class Mail
( ) Other: _____

Kenneth Clair
Thomson West
1100 Thirteen Street, NW, Suite 200
Washington, DC 20005

( ) Via Hand Delivery
(X) Via Overnight Mail
( ) Via First Class Mail
( ) Other: _____