United States District Court,
C.D. California.

INTELLIGENT COMPUTER SOLUTIONS, INC. (a California Corporation),
Plaintiffs.
v.
VOOM TECHNOLOGIES, INC. (a Nevada Corporation), and Does 1-10,
Defendants.

No. CV 05-5168 DSF (JWJx)

Sept. 18, 2006.

Background: Patent owner brought action against competitor alleging infringement of patent for direct duplication of hard disk drives. Competitor brought motion for summary judgment of noninfringement.

Holdings: The District Court, Dale S. Fischer, J., held that:
(1) phrase, "memory buffer," meant personal computer (PC) memory buffer;
(2) listed novel feature in specification was relevant to defining "memory buffer";
(3) prosecution history indicated that term "memory buffer" referred to PC memory, and not merely to buffer within duplication device itself;
(4) applicant's addition of phrase, "without utilizing any memory buffer," in amendment after prior art objection, did not narrow scope of claims; and
(5) little weight could be accorded to assertions made by expert during patent claim construction who merely stated his opinion of proper claim construction without relying on independent sources or analysis of industry publications.

Motion denied.

6,131,141. Construed.

Thomas I. Rozsa, Rozsa Law Group, Tarzana, CA, for Plaintiff.

Elizabeth L. Swanson, Elizabeth Swanson & Associates, Heather L. McCloskey, Ervin Cohen & Jessup, Beverly Hills, CA, James B. Hicks, Hicks and Park, Los Angeles, CA, Tamara L. Manask, Greenberg and Bass, Encino, CA, for Defendants.

CLAIM CONSTRUCTION ORDER

ORDER DENYING DEFENDANT'S MOTION FOR SUMMARY JUDGMENT ON NONINFRINGEMENT

DALE S. FISCHER**, District Judge.**

I. *INTRODUCTION*

Plaintiff Intelligent Computer Solutions, Inc. is the owner of United States Patent Number 6,131,141 ("the '141 Patent"), entitled "Method of and Portable Apparatus for Determining and Utilizing Timing Parameters for Direct Duplication of Hard Disk Drives." Plaintiff has brought suit under 35 U.S.C. s. 271(a) alleging that Defendant Voom Technologies, Inc. has infringed the '141 Patent.

Defendant moves for summary judgment on noninfringement or, in the alternative, for summary adjudication on claim construction.

II. *LEGAL STANDARD*

A. *Summary Judgment Generally*

Summary judgment shall be granted where "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits; if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed.R.Civ.P. 56(c). The moving party has the burden of demonstrating the absence of a genuine issue of fact for trial. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 256, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986). The moving party need not disprovethe opposing party's case. Celotex Corp. v. Catrett, 477 U.S. 317, 323, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986). Rather, if the moving party satisfies this burden, the party opposing the motion must set forth specific facts, through affidavits or admissible discovery materials, showing that there exists a genuine issue for trial. Id. at 323-24, 106 S.Ct. 2548; Fed.R.Civ.P. 56(e). If the moving party's showing is insufficient, no defense is required. Neely v. St. Paul Fire & Marine Ins. Co., 584 F.2d 341, 344 (9th Cir.1978). A non-moving party who bears the burden of proof at trial as to an element essential to its case must make a showing sufficient to establish a genuine dispute of fact with respect to the existence of that element of the case or be subject to summary judgment. *See* Celotex Corp., 477 U.S. at 322, 106 S.Ct. 2548.

An issue of fact is a genuine issue if it reasonably can be resolved in favor of either party. Anderson, 477 U.S. at 250-51, 106 S.Ct. 2505. Mere disagreement or the bald assertion that a genuine issue of material fact exists does not preclude summary judgment. *See* Harper v. Wallingford, 877 F.2d 728, 731 (9th Cir.1989). "Only disputes over facts that might affect the outcome of the suit under governing law will properly preclude the entry of summary judgment." Anderson, 477 U.S. at 248, 106 S.Ct. 2505.

B. *Patent Infringement*

[1] "[P]atent infringement analysis involves two steps: 1) claim construction; and 2) application of the properly construed claim to the accused product." TechSearch, L.L.C. v. Intel Corp., 286 F.3d 1360, 1369 (Fed.Cir.2002). Thus, the Court must first determine the scope of the claims. Next, "the properly construed claims are compared to the allegedly infringing device to determine, as a matter of fact, whether all of the limitations of at least one claim are present, either literally or by a substantial equivalent, in the accused device." Teleflex, Inc. v. Ficosa North America Corp., 299 F.3d 1313, 1323 (Fed.Cir.2002); Markman v. Westview Instruments. *Inc.,* 52 F.3d 967, 976 (Fed.Cir.1995).

1. *Claim Construction*

[2] [3] [4] [5] [6] Claim construction is a matter of law. Markman. 52 F.3d at 976. There is a " 'heavy presumption' that a claim term carries its ordinary and customary meaning." Teleflex, 299 F.3d at 1325. "[T]he ordinary meaning must be determined from the standpoint of a person of ordinary skill in the relevant art." Id. If the ordinary meaning is not readily ascertainable, then a court should look to "intrinsic evidence," that is, "those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean." Phillips v. AWH Corp., 415 F.3d 1303, 1314 (Fed.Cir.2005) (quoting Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1116 (Fed.Cir.2004)). These include the language of the claims, the patent specification, and the prosecution history. Id. at 1317. District courts may also consider "extrinsic" evidence, which consists of "all evidence external to the patent and prosecution history...." Id., 415 F.3d at 1317 (quoting Markman, 52 F.3d at 980). Though extrinsic evidence may assist the court in determining the legal meaning of claim terms, it should be accorded less weight than the applicable intrinsic evidence. Id.

2. ***Literal Infringement***

[7] [8] Literal infringement requires the patentee to demonstrate that "the accused device contains every limitation in the asserted claims. If even one limitation is missing or not met as claimed, there is no literal infringement." Mas-Hamilton Group v. LaGard, Inc., 156 F.3d 1206, 1211 (Fed.Cir.1998) (citations omitted). "Where ... the parties do not dispute any relevant facts regarding the accused product but disagree over which of two possible meanings ... is the proper one, the question of literal infringement collapses to one of claim construction and is thus amenable to summary judgment." Athletic Alternatives, Inc. v. Prince Mfg., Inc., 73 F.3d 1573, 1578 (Fed.Cir.1996).

[9] [10] "To support a summary judgment of noninfringement, it must be shown that on the correct claim construction, no reasonable jury could have found infringement on the undisputed facts or when all reasonable factual inferences are drawn in favor of the patentee." TechSearch, 286 F.3d at 1371. The nonmoving party "must point to an evidentiary conflict on the record, at least by a counter-statement of a fact set forth in detail in an affidavit by a knowledgeable affiant." Id. at 1372.

3. ***Doctrine of Equivalents Infringement***

[11] [12] [13] [14] "A device that does not literally infringe a claim may nonetheless infringe under the doctrine of equivalents if every element in the claim is literally or equivalently present in the accused device." Sage Prods., Inc. v. Devon Indus., Inc., 126 F.3d 1420, 1423 (Fed.Cir.1997). "Designed to protect a patentee from an infringer who appropriates the invention but avoids the literal language of the claims, the doctrine allows a finding of infringement when the accused product and claimed invention perform substantially the same function in substantially the same way to yield substantially the same result." Atlas Powder Co. v. E.I. du Pont De Nemours & Co., 750 F.2d 1569, 1579 (Fed.Cir.1984) (citing Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 608-09, 70 S.Ct. 854, 94 L.Ed. 1097 (1950)). "A claim element is equivalently present in an accused device if only 'insubstantial differences' distinguish the missing claim element from the corresponding aspects of the accused device." Sage Prods., 126 F.3d at 1423. An element in the allegedly infringing product is equivalent to a claim limitation if the differences between the two are "insubstantial to one of ordinary skill in the art." Ecolab, Inc. v. Envirochem, Inc., 264 F.3d 1358, 1371 (Fed.Cir.2001) (citation omitted).

[15] [16] "Each element contained in a patent claim is deemed material to defining the scope of the patented invention, and thus the doctrine of equivalents must be applied to individual elements of the claim, not to

the invention as a whole." Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 29, 117 S.Ct. 1040, 137 L.Ed.2d 146 (1997). "Although equivalence is a factual matter normally reserved for a fact finder, the trial court should grant summary judgment in any case where no reasonable fact finder could find equivalence." Sage Prods., 126 F.3d at 1423.

III. *FACTUAL BACKGROUND*

A. *The* '141 Patent

The parties dispute few of the facts pertaining to the prosecution history of the '141 Patent. FN1

FN1. The Court cites to Defendant's Statement of Uncontroverted Facts and Conclusions of Law ("UF") and Plaintiff's Statement of Genuine Issues of Fact and Conclusions of Law ("GI") where possible. Otherwise, the Court cites to the record to provide fuller context for claim construction.

The title of the patent application as originally filed was "Method of and Apparatus for Duplicating Hard Disk Drives." (UF 8.) The application contained eight original claims, each of which referred to providing direct data paths or providing direct duplication of data between source and target hard disk drives ("HDDs"). (UF 4.) None of the claims contained the phrase "without utilizing any memory buffer." (UF 5.) The phrase "without utilizing any memory buffer" did not appear in the application as originally filed, but was added during prosecution of the patent. FN2 (UF 6.)

FN2. Plaintiff disputes this fact. (GI 6.) Plaintiff maintains that the phrase "without utilizing any memory buffer" is fully supported in the original patent application as filed, and points to two pages of the original application. Neither contains the phrase at issue. Plaintiff has failed to raise a triable issue of fact as to the text of the original patent application.

The First Office Action was issued by PTO Examiner King on June 25, 1998. (UF 9.) Some of the claims were allowed. (UF 10.) Examiner King issued the following statement, entitled "Allowable Subject Matter":

7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record neither teaches nor reasonably suggests a portable hard disk drive (HDD) duplicator apparatus and corresponding method which connects to an external personal computer port, connects to a source HDD, connects to a multiplicity of target HDDs and provides a direct data path between the source HDD and the multiplicity of target HDDs. Further, the prior art of record fails to disclose or suggest an apparatus and corresponding method for a portable HDD duplicator that enables direct duplication of data between the source HDD and multiplicity of target HDDs, i.e., duplication of data between the source and target HDDs without intervening data processing and storage elements (i.e.CPUs, buffers, memories) between the source HDD and the multiplicity of target HDDs.

(UF 11.) FN3

FN3. Plaintiff disputes Defendant's selective quotation of Examiner King's statement, as it does other "partial" quotations. (GI 11.) Plaintiff does not thereby raise a triable issue of fact as to any of the challenged UFs.

On December 31, 1998, PTO Examiner Peikari issued a Second Office Action reversing claims earlier allowed by Examiner King because additional prior art was discovered and made part of the file history. (UF 12.) The prior art uncovered was a patent issued to Bodo, United States Patent Number 5,777,811 ("the Bodo patent"). (UF 13.) Based on the Bodo patent, Examiner Peikari rejected all of Plaintiff's pending claims as obvious under 35 U.S.C. s. 103(a). (UF 13.) After the Second Office Action, Plaintiff had a telephone interview with Examiner Peikari. (UF 15.) In the Interview Summary for that interview, Examiner Peikari wrote: "Applicant will amend the claims to include the central feature of *direct* transfer to storage *devices without* the use of the PC's buffer (note pg. 17 of spec. & fig. 2). Bodo, in Col. 4, lines 22-26, teaches away from this feature." (UF 5.) (emphasis in original).

On April 15, 1999, Plaintiff submitted a second set of amendments to its application. In this second set of amendments, Plaintiff added language containing the phrase "without utilizing any memory buffer" to each of the then-pending independent claims.FN4 (UF 17.) For instance, the following language was added to several claims:

FN4. Plaintiff purports to dispute this fact. (GI 17.) However, Plaintiff again merely quibbles with Defendant's selective quotation of the added claims language.

said data bus switches and said control signal switches controlled by said output signals to operate said direct data path between said source HDD and said multiplicity of target HDDs such that the copied data directly flows from said source HDD to said multiplicity of target HDDs without utilizing any memory buffer.

(McCloskey Decl., Ex. A, ICS000196, ICS000198, ICS000200.) In the "Remarks" section of the amendments, Plaintiff stated:

The applicant respectfully points out that the Bodo Patent did not disclosed [sic] utilizing data switches and control signal switches controlled by the output signals to operate the direct data path between the source HDD and the target HDDs such that the copied data directly flows from the source HDD to target HDDs without utilizing any memory buffer. The Bodo Patent discloses a digital data duplicating system wherein when copying digital data from one information storage device to another, a random access memory (RAM) receives digital data read from one information storage device, and supplies such digital data form [sic] writing to the other information storage device (column 4, lines 22 through 26). Therefore, the applicant's invention is different from the teachings of the Bodo Patent in three (3) critical aspects: (1) a series of data switches and control signal switches are used and controlled to operate a direct data path between the source HDD and the target HDDs; (2) the copied data directly flows from the source HDD to the target HDDs through the direct data path; and (3) there is no memory buffer in the data path for temporary storage of the copied data. These are the distinctive patentable features of the applicant's invention. In a telephone conference call interview with Patent Examiner Peikari which took place on Monday, March 29, 1999 between inventor Gonen Ravid, patent attorneys Thomas I. Rozsa and Tony D. Chen and Examiner Peikari, Examiner Peikari agreed that these were the three novel features of the present invention.

(McCloskey Decl., Ex. A, ICS00206, ICS000207.) In the same document, Plaintiff stated that a number of the independent claims had been amended "to claim explicitly this patentable feature of the applicant's invention, where the data bus switches and the control signal switches are controlled by the output signals to operate the direct data path between the source HDD and the target HDDs such that the copied data directly

flows from the source HDD to the target HDDs without utilizing any memory buffer." (McCloskey Decl., Ex. A., ICS00207.)

On May 24, 1999, Examiner Peikari submitted an Examiner's Amendment in which he changed the title of the patent application from "Method of and Apparatus for Duplicating Hard Disk Drives" to "Method of and Portable Apparatus for Determining and Utilizing Timing Parameters For Direct Duplication of Hard Disk Drives." (UF 25.) Examiner Peikari submitted an Interview Summary dated May 27, 1999 in which he wrote:

Applicant agreed to fax an amendment to claims 9, 19, 31 & 37 including the control means (i.e. microcontroller) of claims 1, 8, 23 & 26, especially the critical feature of ascertaining HDD information & parameters, since this would have been necessary for proper data transfer timing without an intervening buffer.

(UF 26.) The file history discloses a Notice of Allowability issued to Plaintiff on May 24, 1999. In the section entitled "Reasons for Allowance," Examiner Peikari states:

The distinctiveness of the invention lies not in any particular feature of the duplicator, but rather in the particular combination of features of the present claims. For example, the particular feature of portability would not distinguish the invention itself.... Also, the use of a portable hard disk drive duplicator was taught by Bodo, 5,777,811, cited in the previous Office action however, the Bodo system required the use of the buffer of the PC system to which the duplicator was connected. The amendment of 4/15/99 specifically limited each of the independent claims to data transfer "without utilizing any memory buffer", thus overcoming the prior art rejection.

(McCloskey Deck, Ex. A, ICS00211-ICS00212.)

On June 25, 1999, Plaintiff filed a request for continuation of the original application. (UF 30.) In response to Plaintiff's request, Examiner Peikari issued an Office Action on September 22, 1999 rejecting many of Plaintiff's claims as obvious in light of prior art, namely the Bodo patent and United States Patent Numbers 4,620,279 and 4,375,655 ("Read" and "Korth" respectively). (McCloskey Decl., Ex. A, ICS00243.) This stated, in pertinent part:

Further, with respect to the feature of data duplication between systems *without* the use of any intermediate storage for buffering the data, such was not taught by the system of Bodo, which relied on the use of an intermediate buffer. However, such "direct transfer" was known in the art at the time of the invention, and such feature was utilized in the disk data duplication systems of Read et al. and Korth et al. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to directly transfer data in the Bodo system between target and source memories without the use of an intermediate buffer, in the manner of Korth et al. or Read et al., since the amount of copying would have been reduced, improving both the speed and efficiency of the system.

(McCloskey Decl., Ex. A, ICS00244-245.)

Two months later, on November 22, 1999, Plaintiff submitted an amendment responsive to this Office Action, stating:

The applicant respectfully points out that *Bodo* does not teach each and all features of Applicant's invention

as claimed in the pending claims of [Plaintiff's patent application.] Moreover, *Bodo* teaches that "[I]n copying digital data from one information storage device to another, a random access memory (RAM) 66 receives digital data read from one information storage device, and supplies such digital data for writing to the other information storage device" (col. 4, lns. 22-26). To the contrary, the Applicant's invention as claimed in the pending claims of [the patent application] utilizes data switches and control signal switches controlled by the control signals to operate the direct data path between the source hard disk drive (HDD) and the target HDDs such that the copied data directly flows from the source HDD to target HDDs without utilizing any memory buffer. *Bodo,* therefore, teaches away from the critical features of the Applicant's invention, including the logical step of and means for ascertaining HDD information and parameters for proper data transfer timing to achieve a seamless direct and simultaneous data copying between the source HDD and the target HDDs without an intervening memory buffer.

(McCloskey Deck, Ex. A, ICS00265.) Plaintiff further stated:

The pending claims of the [patent application] all have made reference to a personal computer (PC). However, an existing PC is not a component of the present invention portable hard disk drive duplicator, and connecting to the parallel port of an existing PC is not a necessary step of the present invention method of directly and simultaneously copying data between a source HDD and a multiplicity of target HDDs without utilizing any memory buffer, From [statements in the application] it is clear that the Applicant's invention is the portable HDD duplicator itself that "*can be connected*" to a PC or "*connectable*" to a parallel port of a PC, but the PC or parallel port thereof is nonetheless not a necessary component part of the Applicant's invention.... The PC is only used for providing a friendly user interface to assist a user to operate the HDD duplicator. Therefore, in the newly added Claims 42-66, all references to a PC or parallel port thereof have been removed to claim a portable and stand-alone HDD duplicator of the present invention.

(McCloskey Decl., Ex. A, ICS00267-268.) Plaintiff distinguished Read on the basis that it "failed to teach hard disk drive duplication without the use of intermediate memory buffer. To the contrary, *Read* teaches data transfer between memory blocks of a memory device through the use of memory bus and other direct memory access devices." (McCloskey Decl., Ex. A, ICS00265.) Plaintiff similarly distinguished Korth on this basis: "It is clear that *Korth* also uses an intermediary memory buffer between the read and write operation in its hard disk duplicating process which again teaches away from the critical features of the Applicant's invention." (McCloskey Decl., Ex. A, ICS00266.) Finally, Plaintiff stated:

The Examiner also concerned that elimination of an element or its function (*e.g*. a memory buffer) is generally not given patentable weight. However the Applicant respectfully points out that the present invention is not a mere modification from *Bodo* by eliminating the memory buffer. Rather, to ensure the seamless copying of the data from the source HDD to the target HDDs without the use of a memory buffer, it is critical to ascertain the HDD information and parameters for proper data transfer timing, so that the switches controlled by the control signals can provide a direct data path between the source HDD and the target HDDs such that the copied data directly flows from the source HDD to the multiplicity of target HDDs without utilizing any memory buffer....

(McCloskey Decl., Ex. A, ICS00266-267.) Responsive to this amendment, Examiner Peikari issued a Notice of Allowability, dated December 29, 1999 and mailed on February 14, 2000. (McCloskey Decl., Ex. A, ICS00274.) On October 10, 2000, the '141 Patent was issued. (McCloskey Decl., Ex. A, ICS00075.)

The specification portion of the '141 Patent as issued contains the following description:

The primary novel features of the present invention include: (1) the PC can read and write to the source HDD, or any of the target HDDs; (2) multiple target HDDs can be created at the same time; (3) data flows from the source HDD to the multiple target HDDs directly without having the data saved in the PC memory; and (4) the speed of duplicating multiple HDDs simultaneously is significantly increased.

(McCloskey Decl., Ex. A, ICS00081.) Another portion of the specification reads:

Typically, the present invention HDD duplicator is at least five times faster than conventional HDD duplicators which do not provide direct data transfer between the source HDD and the target HDD but rather pass the data through the PC's data buffer.

(McCloskey Decl., Ex. A, ICS00083.)

B. ***The Accused Device***

Defendant produces two products that allegedly infringe the '141 Patent, the Hard Copy and the Hard Copy II (the "HC Products"). (UF 40.) The parties dispute the technical properties of the HC Products (GI 41), but consideration of such properties is not necessary to resolution of this motion. Rather, the dispute centers around claim construction.

IV. *CLAIM CONSTRUCTION*

[17] At issue in this controversy is the meaning of "without utilizing any memory buffer."

As noted above, claim construction begins with the words of the claim. Teleflex, 299 F.3d at 1324. The words of the claim generally are given their "ordinary and customary meaning." Phillips, 415 F.3d at 1312 (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996)). This "ordinary and customary meaning" is the meaning that the term would have to a person of ordinary skill in the relevant art at the effective filing date of the patent application. Id. at 1313. If this meaning is readily apparent to the court, then claim construction may involve "little more than the application of the widely accepted meaning of commonly understood words." Id. at 1314.

The term "without utilizing any memory buffer" is used in each independent claim of the '141 Patent. (UF 1.) Defendant maintains that "any memory buffer" should be interpreted to mean "a memory buffer of any type whatsoever," i.e., computer hardware or software that allows information to be stored temporarily or permanently. It is not readily apparent to the Court, however, that this is the meaning the term would have to a person of ordinary skill in the art reviewing the patent. The language of the term itself is ambiguous and does not clearly delineate the scope of what it purports to describe. The Court must therefore look to "intrinsic evidence," that is, "those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean." Phillips, 415 F.3d at 1312.

A. ***Intrinsic Evidence***

1. ***Language of the Claims***

[18] First, within the category of intrinsic evidence, the language of the claims themselves "provide[s]

substantial guidance as to the meanings of particular claim terms." Id. at 1314. The context in which a term is used may be highly probative, as may its usage in other claims in the disputed patent. Id. Differences among claims may also help guide a district court in ascribing meaning to particular terms. Id.

Here, claim language is not helpful in defining the scope of the term "memory buffer." Claims 1, 5, 15, 18, 34, 37, 45, and 48 contain the phrase: "... such that the copied data directly flows from said source HDD to said multiplicity of target HDDs without utilizing any memory buffer." (McCloskey Decl., Ex. A, ICS00085, ICS00086, ICS00087, ICS00089, ICS00090.) Claims 7, 12, 23, 29, 38, 42, 53, and 57 contain the nearly identical phrase: "... such that the copied data directly flows from said source HDD to said at least one target HDD without utilizing any memory buffer." (McCloskey Decl., Ex. A, ICS00086, ICS00087, ICS00088, ICS00090, ICS00091.) It is evident, therefore, that context does not provide much assistance, as the disputed term is used identically in each instance in which it appears in the various claims. Specifically, in each claim, a particular device or function is described, and the disputed phrase follows as language of limitation. For instance, the relevant portion of Claim 18 reads:

g. said data bus switches and said control signal switches controlled by said internal means to operate said direct data path between said source HDD and said at least one target HDD such that the copied data directly flows from said source HDD to said at least one target HDD without utilizing any memory buffer.

(McCloskey Decl., Ex. A, ICS00090.) All of the other disputed claims contain nearly identical language, and none use the term "memory buffer" in a way that sheds light on the term's meaning.

2. *The Specification*

The Court next turns to the patent specification for guidance.

[19] [20] Because the claims are but one component of the patent instrument, "they must be read in view of the specification, of which they are a part." Phillips, 415 F.3d at 1315 (quoting Markman, 52 F.3d at 979). The specification is always relevant to claim construction analysis, and is generally dispositive. Id. In particular, the patent specification may reveal a special definition given to a claim term by the patentee, one that differs from the meaning it would otherwise possess. Id. at 1316. In such a case, the patentee's lexicography governs. Id. The specification may also reveal a disclaimer or disavowal of claim scope by the patentee. Here too, the patentee's intention governs. Id. Though a court may rely on the specification to determine the meaning of a claim, it should not import limitations from the specification into the claim. Id. at 1323. The line between construing terms and importing limitations can be difficult to apply in practice, but "can be discerned with reasonable certainty and predictability if the court's focus remains on understanding how a person of ordinary skill in the art would understand the claim terms." Id.

[21] Plaintiff points the Court to two relevant sections of the specification. The first states:

The primary novel features of the present invention include: (1) the PC can read and write to the source HDD, or any of the target HDDs; (2) multiple target HDDs can be created at me same time; (3) data flows from the source HDD to the multiple target HDDs directly without having the data saved in the PC memory; and (4) the speed of duplicating multiple HDDs simultaneously is significantly increased.

(McCloskey Decl., Ex. A, ICS00081.) Identical language appears in the original patent application. (McCloskey Decl., Ex. A, ICS00105.) The third listed novel feature ("data flows from the source HDD to

the multiple target HDDs directly without having the data saved in the PC memory") is relevant to defining "memory buffer." This language is very similar to the phrase repeated in each of the disputed claims ("... such that the copied data directly flows from said source HDD to said multiplicity of target HDDs without utilizing any memory buffer.") Both describe data flows from the source HDD to target HDDs without the use of "PC memory" (specification language) or a "memory buffer" (claims language). Naturally, this indicates that "PC memory" and "memory buffer" mean the same thing. Plaintiff also points to a portion of the specification explaining that:

Typically, the present invention HDD duplicator is at least five times faster than conventional HDD duplicators which do not provide direct data transfer between the source HDD and the target HDD but rather pass the data through the PC's data buffer.

(McCloskey Decl., Ex. A, ICS00083.) This language is also helpful in defining the meaning of "memory buffer." It describes "direct data transfer" as occurring without passing data through a PC's data buffer. It follows that claims language referring to direct data transfer without a "memory buffer" means transfer without a PC's data buffer.

[22] In sum, language in the specification closely parallels language found in the various disputed claims. This suggests that within the lexicography of the patentee, "memory buffer" is synonymous with "PC memory buffer." Defendant responds that the patentee has not sufficiently defined the term at issue to qualify as his own lexicographer. On the contrary, although "any special definition given to a word must be clearly defined in the specification," Markman, 52 F.3d at 980, a specification may define terms by implication, and rigid formal definitions are not required. Astrazeneca AB v. Mutual Pharm. Co., 384 F.3d 1333, 1339-40 (Fed.Cir.2004). Here, Plaintiff has successfully established the meaning of "memory buffer" by implication.

Although the specification by itself suggests the proper claim construction, the Court will turn to the prosecution history to verify this finding. *See* id. at 1341 (finding that consideration of prosecution history is proper even when patent specification is unambiguous).

3. *Prosecution History*

[23] Prosecution history is the third form of intrinsic evidence useful to a district court in construing claims. *See* Phillips, 415 F.3d at 1317. As with the specification, the prosecution history assists the court in determining how the PTO and the inventor understood the patent. Id. However, "because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." Id. Nevertheless, examining the prosecution history in construing a claim allows a court to exclude any interpretation that was disclaimed by the patentee during prosecution. Id. Use of prosecution history to construe a claim should not be confused with its use in assessing prosecution history estoppel to determine the scope of a claim. *See* Markman, 52 F.3d at 980 ("Although the prosecution history can and should be used to understand the language used in the claims, it too cannot 'enlarge, diminish, or vary' the limitations in the claims.").

[24] The prosecution history in this case is not straightforward. Nevertheless, it supports the conclusion that "memory buffer" means "PC memory buffer."

As part of the First Office Action, PTO Examiner King allowed many of Plaintiff's claims, finding that prior art did not reveal an HDD duplicator that enabled direct duplication of data between source and target HDDs without "processing and storage elements (i.e. CPUs, buffers, memories) between the source HDD and the multiplicity of target HDDs." (UF 11.) at this stage, none of the claims in Plaintiff's patent application contained the phrase "without utilizing any memory buffer." (UF 5.)

The PTO then issued a Second Office Action reversing claims allowed in the First Office Action. (UF 12.) PTO Examiner Peikari rejected the earlier claims based on prior art, namely the Bodo patent. (UF 13.) After this Office Action, Examiner Peikari wrote in an Interview Summary, "Applicant will amend the claims to include the central feature of *direct* transfer to storage *devices without* the use of the PC's buffer (note pg. 17 of spec. & fig. 2). Bodo, in Col. 4, lines 22-26, teaches away from this feature." (UF 15.) Plaintiff and the PTO thus contemplated adding language to the claims that described direct transfer without use of a *PC's* buffer. In response to this Office Action, Plaintiff's second set of amendments added claims language containing the words "without utilizing any memory buffer." (UF 17.) This strongly suggests that "memory buffer" and "PC buffer" were considered synonymous by Plaintiff and the PTO.

The Notice of Allowability subsequently issued to Plaintiff also indicates that "memory buffer" means "PC buffer." Examiner Peikari stated that Plaintiff's second set of amendments put the remaining pending claims "in condition for allowance by further including control means operable to determine and utilize system parameters such that the data transfer may occur with synchronized timing between the sender and receiver, as opposed to intermediate storage in a buffer memory." (McCloskey Decl., Ex. A, ICS00211.) This language by itself is not dispositive, but Examiner Peikari also stated that "[t]he use of a portable hard disk drive duplicator was taught by Bodo, 5,777,811, cited in the previous Office action, however, the Bodo system required the use of the buffer of the PC system to which the duplicator was connected. The amendment of 4/15/99 specifically limited each of the independent claims to data transfer 'without utilizing any memory buffer', thus overcoming the prior art rejection." (McCloskey Decl., Ex. A, ICS00211-212.) This statement clearly explains that prior art required the use of a PC buffer system, and that Plaintiff overcame the prior art objection by including the language "without utilizing any memory buffer" in its claims. Again this suggests that "memory buffer" refers to a PC buffer system.

On June 25, 1999, Plaintiff, filed a request for continuation of the original application. (UF 30.) In response to Plaintiff's request, Examiner Peikari issued an Office Action on September 22, 1999 rejecting many of Plaintiff's claims as obvious under s. 103(a). He stated that the feature of transfer between systems without the use of a storage buffer was known in the art at the time of invention, and that such a feature was found in Read and Korth. (McCloskey Decl., Ex. A, ICS00245.) Because of this prior art, Examiner Peikari determined that it would have been obvious to a person of ordinary skill in the art at the time of invention "to directly transfer data in the Bodo system between target and source memories without the use of an intermediate buffer...." (McCloskey Decl., Ex. A, ICS00245.)

[25] Two months after this, Plaintiff submitted an amendment responding to this Office Action. Plaintiff acknowledged Bodo's teaching that RAM receives data from one device and supplies it for writing to the other device. (McCloskey Decl., Ex. A, ICS00265.) Plaintiff distinguished Bodo on the basis that Plaintiff's invention uses data switches and control signal switches that enable the copied data to directly flow "from the source HDD to target HDDs without utilizing any memory buffer." (McCloskey Decl., Ex. A, ICS00265.) Plaintiff emphasized that a PC was not a necessary component of the invention, and thus deleted all references to a PC or parallel port in the amended claims. (McCloskey Decl., Ex. A, ICS00267-268.) Defendant contends that the RAM referred to in Bodo is internal to the device itself, and is not part of

a PC. (Def's.Mot.Summ. J. 17.) Defendant maintains that "direct data path" means a data path without PC memory and notes that the claims already contained the phrase "direct data path" prior to amendment. (Defs. Mot. Summ. J. 18.) From this, Defendant reasons that the addition of the term "without utilizing any memory buffer" narrowed the scope of the claims to exclude a non-PC memory buffer.FN5 (Defs. Mot. Summ. J. 18.)

FN5. The Court rejects Defendant's contention that the portions of the specification cited above are only relevant to two of the claims as granted, those that refer to PC control of data. Rather, the specification is also relevant to defining the term "memory buffer" contained in Plaintiff's final amendments.

The Court disagrees with Defendant's reading of the prosecution history. Plaintiff emphasized in its response to the final Office Action that what distinguished its invention from Bodo was that no PC was necessary to operate the device. (McCloskey Decl., Ex. A, ICS00267-268.) Defendant added the language "without utilizing any memory buffer" for the purpose of distinguishing its invention from Bodo.

In sum, the prosecution history indicates that the term "memory buffer" refers to PC memory, and not merely to a buffer within the duplication device itself.

B. ***Extrinsic Evidence***

Both Plaintiff and Defendant have advanced expert testimony.

[26] [27] Expert testimony may be useful to the court for a number of purposes, such as (1) to provide background on the relevant technology; (2) to explain how an invention works; (3) to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art; or (4) to establish that a term in the patent or the prior art has a particular meaning in the pertinent field. Phillips, 415 F.3d at 1318. But extrinsic expert testimony is not helpful if it consists merely of conclusory, unsupported assertions as to the definition of a claim term. Id. Likewise, a court must not rely on expert testimony that is contradicted by the intrinsic evidence. Id. Further, though district court may "in its sound discretion" admit and use extrinsic evidence, consideration of such evidence is likely to be reliable only if considered in the context of the intrinsic evidence. Id. at 1319 ("In exercising that discretion, and in weighing all the evidence bearing on claim construction, the court should keep in mind the flaws inherent in each type of evidence and assess that evidence accordingly.").

1. ***The Ravid Declaration***

[28] Plaintiff filed a declaration of Gonen Ravid, inventor of the device described in the '141 Patent. Defendant objects to consideration of this evidence on the basis that it constitutes an impermissible hindsight explanation by the patentee.

The Federal Circuit has explained that "[a]n inventor is a competent witness to explain the invention and what was intended to be conveyed by the specification and covered by the claims." Voice Tech. Group, Inc. v. VMC Sys., Inc., 164 F.3d 605, 615 (Fed.Cir.1999). The inventor may not, however, "by later testimony change the invention and the claims from their meaning at the time the patent was drafted and granted." Id. In light of this precedent, Plaintiff's objection is overruled.

Ravid states that the term "without utilizing any memory buffer" means that data does not pass through the

main memory of a PC. (Ravid Decl. para. 4.) On the data path from the source HDD to the destination HDD, however, there may be "dedicated buffers or queues," such as "components of switches implemented in field programmable gate arrays." (Ravid Decl. para. 4.) The presence of these buffers or queues, according to Ravid, does not change the essence of the invention claimed in the '141 Patent. (Ravid Decl. para. 4.) Rather, data still flows "directly" between the source and target drives, and does not run through a PC's memory. (Ravid Decl. para. 4.) According to Ravid, this is one of the key innovations in the '141 Patent. (Ravid Decl. para. 5.) The Bodo device does not operate in this manner. (Ravid Decl. para. 5.) Rather, it operates like a standard PC in that data is temporarily stored in the PC memory during transfer between source and target HDDs. (Ravid Decl. para. 5.) In his invention, Ravid added switches to enable a data path between the two HDDs and a control mechanism to allow the data to flow from one HDD to the other without the use of the PC memory. (Ravid Decl. para. 5.) Switches may in some contexts contain buffer memories, but "if the switch has a little buffer of some bytes of data," in Ravid's opinion, "it doesn't make any difference." (Ravid Decl. para. 7.)

Ravid's assertions are entirely consistent with the intrinsic evidence discussed above. Both suggest that a main innovation of the device is that the data path between the source and target HDDs does not include a PC memory buffer. Ravid also contends that buffer memories within switches are not technically significant. This further emphasizes that the relevant claims of the '14 Patent seek not to describe a lack of buffer memories within the device's switches, but rather to describe a data path that does not run through a PC's buffer.

Nonetheless, Ravid merely states his opinion of the proper claim construction without relying on independent sources or analysis of industry publications. *See* Network Commerce, Inc. v. Microsoft Corp., 422 F.3d 1353, 1361 (Fed.Cir.2005) (discounting expert testimony for lack of reference to industry publications or independent sources). The Court therefore accords little weight to his assertions.

2. *Technical Expert Yuval Tamir*

[29] To aid the Court in claim construction, Plaintiff advances a technical report prepared by Yuval Tamir ("Dr. Tamir").FN6 (Second Rozsa Decl., Ex. 5.)

FN6. Tamir has been a faculty member of the UCLA Computer Science Department since 1985, where he is currently an Associate Professor. (Tamir Decl. para. 3.) He holds a Ph.D. in electrical engineering and computer science from the University of California, Berkeley. (Tamir Decl., Ex. 1.)

Plaintiff objects on the basis that the Court should not consider extrinsic evidence. As noted above, however, it is proper for a district court to exercise its discretion to admit extrinsic evidence, so long as it is considered in the context of the intrinsic evidence. Phillips, 415 F.3d at 1319.FN7 Further, the Court considers Dr. Tamir's opinion (as well as the opinion of Richard L. Gralnik, discussed below) solely for the purpose of understanding the technology of HDD data transfer, to explain how the invention claimed in the '141 Patent works, and to aid the Court in defining "memory buffer." *See* id., 415 F.3d at 1317.

FN7. Plaintiff also objects on the same grounds to Dr. Tamir's deposition testimony (Second Rozsa Decl., Ex. 3), the Declaration of Yuval Tamir, and the Reply of Technical Expert Yuval Tamir (Second Rozsa Decl., Ex. 3). These objections are likewise overruled.

In his report, Dr. Tamir notes that Claims 42 and 57 of the '141 Patent describe a data path that includes "switches." (Second Rozsa Decl., Ex. 5, para. 5a.) In Dr. Tamir's knowledge and experience, "in some contexts a 'switch' may include buffer memory." (Second Rozsa Decl., Ex. 5, para. 5a.) Dr. Tamir also examines the prosecution history, concluding that the use of non-PC buffers on the data path is "not precluded." (Second Rozsa Decl., Ex. 5, para. 5b.)

3. ***Report of Technical Expert Richard L. Gralnik***

Defendant retained an expert, Richard L. Gralnik ("Gralnik") to assist in interpreting certain claim terms.FN8 (Second Rozsa Dec, Ex. 6.) Plaintiff has offered a reply to Gralnik's report, prepared by Dr. Tamir. (Second Rozsa Dec, Ex. 7.)

FN8. Defendant makes no reference to the report prepared by Gralnik in either its Motion or Reply. The Court relies solely on Plaintiff's Second Rozsa Declaration, which includes the Gralnik report.

Gralnik is a Senior Investigator with Online Security in Los Angeles. He holds a B.A. in economics from University of California, Santa Barbara and a Certificate of Competence in Data Processing from El Camino College in Torrance, California. (Second Rozsa Decl., Ex. 6.)
Gralnik asserts that based on his "training and experience during the mid-1990's," he would understand the '141 Patent's references to direct data duplication without utilizing any memory buffer to mean transfer of data without the data being stored in any kind of temporary memory. (Second Rozsa Deck, Ex. 6.) Gralnik states that, as of 1996, he would understand "direct data path" to mean "a finite, point-to-point conduit for the transfer of information between devices or locations." (Second Rozsa Deck, Ex. 6, para. 9a.) For instance, direct data paths include the physical connections between devices in a networking device, or the bus of a computer. (Second Rozsa Deck, Ex. 6, para. 9a.) Gralnik also states that a "memory buffer" is "a supplemental or temporary storage location where information could be held until a data path or process became available," the purpose of which is "to handle temporary congestion in a device so that data would not be lost as a result of its being received faster than it could be forwarded." (Second Rozsa Deck, Ex. 6, para. 9b.) For instance, routers, modems, and printers all contain internal memory for "buffering" data packets. (Second Rozsa Decl., Ex. 6, para. 9b.)

Based on the foregoing, Gralnik interprets the disputed language of the ' 141 Patent to mean that the device copies data from source to target drives without the data being stored in any temporary location. (Second Rozsa Deck, Ex. 6, para. 10.) The device's ability to read and write data simultaneously indicates that there was no need to buffer the data being read from the source drive.FN9 (Second Rozsa Decl., Ex. 6, para. 10.)

FN9. Claim 1.j of the '141 Patent reads: "... such that data read from said source HDD is directly duplicated to said multiplicity of target HDDs simultaneously, and reading data from said source HDD is performed at the same time as writing data simultaneously to said multiplicity of target HDDs." (McCloskey Decl, Ex. A, ICS00085.)

In Dr. Tamir's reply to Gralnik, he states that the phrase "direct data path" does not necessarily preclude the existence of storage or memory that temporarily holds data along the data path. (Second Rozsa Decl., Ex. 7, para. 3.) He cites two commercial documents describing electronic hardware that use the phrase "direct data path." (Second Rozsa Decl., Ex. 7, para. 3.) Both of these items of hardware include memory buffers within

the data path. (Second Rozsa Decl., Ex. 7, para. 3.) These are the only independent sources provided to the Court by either party. Dr. Tamir also refutes Gralnik's conclusion that the device's ability to read and write simultaneously suggests the absence of an internal memory buffer. Though the device reads and writes simultaneously, it is not necessarily reading and writing the *same* data simultaneously. (Second Rozsa Decl., Ex. 7 para. 4.) In light of this, "there may well be a delay, due to temporary storage, between when a particular data item is read from the source HDD and written to the target HDD(s.)" (Second Rozsa Decl., Ex. 7, para. 4.) Finally, rather than indicating that copying speed precludes the use of buffers in the data path, he asserts that copying speed is actually increased by using buffers. (Second Rozsa Decl., Ex. 7, para. 5.)

The Court finds that Gralnik's testimony does not provide substantial support for Defendant's proposed claim construction. Gralnik has not supported his conclusion with independent sources or analysis of industry publications. *See* Network Commerce, 422 F.3d at 1361 (declining to rely on expert opinion unsupported by independent evidence). Rather, he has relied solely on his own experience. Conclusory or unsupported assertions as to the definition of a claim term are not helpful in construing the claim. *See* Phillips, 415 F.3d at 1318 ("[C]onclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court."). In contrast, Dr. Tamir has proffered two industry publications that describe devices with direct data paths that do contain internal memory buffers. (Second Rozsa Decl., Ex. 7, para. 3.) Nevertheless, from these two documents alone, the Court cannot conclude that those skilled in the art generally define direct data paths as those not incorporating a PC memory buffer. Dr. Tamir opines that based on his knowledge and experience "the phrase *direct data path* does not necessarily preclude the existence of storage/memory that temporarily holds data along the path...." (Second Rozsa Decl., Ex. 7, para. 3.) Dr. Tamir also states that the phrase "without utilizing any memory buffer," on its own, "may be subject to multiple interpretations." (Second Rozsa Decl., Ex. 7, para. 6.) Dr. Tamir manifestly does not assert that those skilled in the art would construe "memory buffer" as involving PC memory. Because of this, like Gralnik, Dr. Tamir relies on his own interpretation of the '141 Patent to construe the crucial term "memory buffer."

The extrinsic evidence proffered by the parties is not helpful to the Court in defining "memory buffer." Further, the relevant intrinsic evidence strongly suggests that "memory buffer," in the context of the '141 Patent, means PC memory buffer. *See* Phillips, 415 F.3d at 1318 (finding that a court should disregard any expert testimony clearly at odds with the intrinsic evidence).

Therefore, for the reasons stated above, the Court construes "memory buffer" to mean "PC memory buffer."

V. *SUMMARY JUDGMENT OF NONINFRINGEMENT*

Defendant moves for summary judgment, alleging noninfringement as a matter of law, both literally and by equivalence.

A. *Literal Infringement*

As discussed above, to establish literal infringement, the accused device must contain each limitation of the asserted claims. Mas-Hamilton Group, 156 F.3d at 1211. Because this determination is a question of fact, the Court may grant summary judgment of noninfringement only if, viewing the facts in the light most favorable to Plaintiff, Defendant shows there is no genuine issue as to whether the HC Products are encompassed by the claims. *See* Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1304 (Fed.Cir.1999).

Defendant argues that the HC Products do not infringe the '141 Patent because they lack a required element of the disputed claims, specifically, data paths that do not utilize memory buffers. To support this, Defendant alleges that the HC Products each contain several layers of internal memory buffers, and that every independent claim of the '141 Patent includes the limitation "without utilizing any memory buffers." (UF 40, 41.) Based on this, Defendant argues that literal infringement is precluded as a matter of law. Plaintiff asserts that Defendant has not adequately shown how the accused products function, and thus has failed to meet its evidentiary burden.

To prove that the HC Products do not contain "memory buffers," Defendant advances a portion of the deposition testimony of Gaston Biessener, Defendant's CEO. (McCloskey Decl., Ex. C.) Plaintiff objects to this testimony on the ground that it is without foundation and is inadmissible hearsay.

In light of the Court's construction of "memory buffer," however, it is not necessary to consider the Biessener deposition testimony. Neither is it necessary to consider Dr. Tamir's comparison of claims elements with properties of the HC Products. Defendant is correct in asserting that every independent claim of the '141 Patent includes the phrase "without utilizing any memory buffer." However, the Court has defined "memory buffer" to mean "PC memory buffer." The disputed claim language in the '141 Patent thus describes a device that does not utilize a PC memory buffer to transfer data from source to target drives. Defendant does not assert that its allegedly infringing products utilize a PC buffer, Defendant merely asserts that its products do not utilize internal memory buffers, and thereby fails to show that the HC products contain a feature not found in the '141 Patent's claims. Defendant also fails to point to any other aspect of the accused products other than memory buffers that are not encompassed by the claims of the '141 Patent. Defendant has failed to show non-infringement as a matter of law.

B. ***Doctrine of Equivalents***

Having denied Defendant's motion for summary judgment of noninfringement with respect to literal infringement, the Court denies as moot Defendant's contentions regarding the doctrine of equivalents.

VI. *CONCLUSION*

For the reasons set forth above, the Court DENIES Defendant's Motion for Summary Judgment on Noninfringement.

IT IS SO ORDERED.

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