United States District Court,
E.D. Texas, Marshall Division.

JUNIPER NETWORKS, INC,
Plaintiff.
v.
TOSHIBA AMERICA, INC,
Defendant.

Civil Action No. 2-05-CV-479 (TJW)

April 23, 2007.

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MEMORANDUM OPINION AND ORDER

T. JOHN WARD**, United States District Judge.**

After considering the submissions and the arguments of counsel, the court issues the following order concerning the claim construction issues:

I. Introduction

Plaintiff Juniper Networks, Inc. accuses Defendant Toshiba America, Inc. of infringing United States Patent No. 5,418,924 ("the '924 patent") entitled "Memory Controller with Programmable Timing." The plaintiff has asserted only one claim, claim 7, against the defendant.

II. Background of the Technology

The '924 patent describes a memory controller apparatus and method for selecting predetermined timing patterns in order to access the memory in a computer. A memory controller provides the control signals which allows the computer's microprocessor to communicate with the memory device. To facilitate this communication, the control signals must correspond to the timing patterns of the memory device. In the prior art, a memory controller could access only one type of memory device because different memory devices required different timing patterns and a memory controller could generate only one control signal. This invention, however, allows one memory controller to be used with different memory devices that have different timing patterns. This is accomplished through a programmable memory controller that can select

from a group of predetermined timing patterns.

III. General Principles Governing Claim Construction

"A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention." Burke, Inc. v. Bruno Indep. Living Aids, Inc., 183 F.3d 1334, 1340 (Fed.Cir.1999). Claim construction is an issue of law for the court to decide. Markman v. Westview Instruments, Inc., 52 F.3d 967, 970-71 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

To ascertain the meaning of claims, the court looks to three primary sources: the claims, the specification, and the prosecution history. Markman, 52 F.3d at 979. Under the patent law, the specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. A patent's claims must be read in view of the specification, of which they are a part. *Id*. For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id*. "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims." Watts v. XL Sys., Inc., 232 F.3d 877, 882 (Fed.Cir.2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's claims. Otherwise, there would be no need for claims. SRI Int'l v. Matsushita Elec. Corp., 775 F.2d 1107, 1121 (Fed.Cir.1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. Intellicall, Inc. v. Phonometrics, 952 F.2d 1384, 1388 (Fed.Cir.1992). And, although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc., 34 F.3d 1048, 1054 (Fed.Cir.1994).

This court's claim construction decision must be informed by the Federal Circuit's decision in Phillips v. AWH Corporation, 415 F.3d 1303 (Fed.Cir.2005) (en banc). In *Phillips,* the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that "the *claims* of a patent define the invention to which the patentee is entitled the right to exclude." 415 F.3d at 1312 (emphasis added) (*quoting* Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc., 381 F.3d 1111, 1115 (Fed.Cir.2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id*. The ordinary and customary meaning of a claim term "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." Id. at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention. The patent is addressed to and intended to be read by others skilled in the particular art. *Id*.

The primacy of claim terms notwithstanding, *Phillips* made clear that "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." *Id*. Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of "a fully integrated written instrument." *Id*. at 1315 (*quoting* Markman, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id*. at 1314-17. As the Supreme Court stated long ago, "in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and

meaning of the language employed in the claims." Bates v. Coe, 98 U.S. 31, 38, 25 L.Ed. 68 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed.Cir.1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.

Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. The prosecution history helps to demonstrate how the inventor and the PTO understood the patent. Phillips, 415 F.3d at 1317. Because the file history, however, "represents an ongoing negotiation between the PTO and the applicant," it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id*. Nevertheless, the prosecution history is intrinsic evidence. That evidence is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims.

Phillips rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by Texas Digital Systems, Inc. v. Telegenix, Inc., 308 F.3d 1193 (Fed.Cir.2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Id*. at 1319-24. The approach suggested by *Texas Digital*-the assignment of a limited role to the specification-was rejected as inconsistent with decisions holding the specification to be the best guide to the meaning of a disputed term. *Id*. at 1320-21. According to *Phillips,* reliance on dictionary definitions at the expense of the specification had the effect of "focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of the claim terms within the context of the patent." *Id*. at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id*. What is described in the claims flows from the statutory requirement imposed on the patentee to describe and particularly claim what he or she has invented. *Id*. The definitions found in dictionaries, however, often flow from the editors' objective of assembling all of the possible definitions for a word. *Id*. at 1321-22.

Phillips does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id*. at 1323-25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant. The court now turns to a discussion of the disputed claim terms.

IV. Terms in Dispute

Claim 7 of the '924 patent is a method claim and the only asserted claim in this case. It provides:

A method for controlling access to a memory comprising the steps of:

generating memory signals including address and control signals for accessing said memory in response to a physical address, each of said memory signal having at least one timing characteristic; and

programming the timing characteristic of at least one of said memory signals, comprising the steps of storing at least one timing control bit in a control register, selecting a timing parameter from a plurality of predetermined timing parameters in response to said timing control bit, and generating a timing control signal in response to the selected timing parameter and to selected memory signal, the timing control signal controlling the timing characteristic of said one of said memory signals.

A. Agreed Construction

The parties have stipulated to the construction of the following term in the claim:

"accessing said memory" means "reading data from or writing data to said memory."

B. Disputed Constructions

1. "memory signals"

The parties dispute whether the term should be limited to the "main memory." The plaintiff argues that it is important to specify the type of memory because there are many different types of memory used by computers (e.g., external storage). According to the plaintiff, the specification initially refers to "main memory" and then subsequently uses "memory" as shorthand to refer to the "main memory." '924 patent, 1 :12-13. The plaintiff also points to the deposition of the defendant's expert who concedes that the memory in the patent refers to the "main memory." Plaintiff's Opening Claim Construction Brief, Exhibit 3, 186:7-15.

The defendant, on the other hand, argues that the point of the invention was to allow the memory controller to interface with various speeds of memory and there is no indication that the inventor excluded certain types of memory.

The Court acknowledges that the patentee does not provide a specific definition of "memory." The patent, however, describes the prior art memory controller being used in connection with the "main memory." '924 patent, 1 :12-25. The preferred embodiment also shows the memory controller connected to a dynamic random access memory (DRAM), which is typically understood as the "main memory." '924 patent, 2 :63-65. Although the Court does not read limitations from the preferred embodiments into the claims, in this case, one of ordinary skill in the art at the time of the invention would understand that the memory controller is used to access the "main memory." Accordingly, "memory signals" means "main memory signals."

2. "timing characteristic"

Both parties appear to agree that the prosecution history provides guidance on the proper construction of this term. In the prosecution history, the examiner requested clarification of the phrase "timing characteristic." Response to Office Action, Oct. 14, 1994, at 2. In response, the applicant stated that "timing characteristic" was "used in its normal sense with respect to the memory signals ..." and that it "may pertain to the memory signal itself or may pertain to a timing relationship between two signals." Id. 2-3. The applicant also gave

examples of timing characteristics which include "the time duration (active time) of a memory signal and the elapsed time between a predefined event in a first memory signal and a predefined event in a second memory signal ...." Id. The applicant, however, explicitly states that "the present invention is not limited to these examples ...." Id.

The plaintiff contends that no construction is needed and argues that the phrase is not limited to memory signals nor does it mean anything other than a characteristic related to timing. The defendant proposes "either the time between events in a single signal or the time between corresponding events in two signals," and contends that the term cannot have a plain and ordinary meaning if the examiner requested clarification.

The Court agrees with the defendant's argument. The examiner's request for clarification implies that the term was not understood according to its plain and ordinary meaning. When the examiner allowed the claim based on the applicant's clarification, the applicant implicitly limited the term to what was stated in that clarification. The defendant's proposed construction, however, is too limiting because it limits the term to specific examples listed by the applicant. The sentence prior to the specific examples provides the appropriate guidance for this construction. It states that the timing characteristic "may pertain to the memory signal itself or may pertain to a timing relationship between two signals." Response to Office Action, Oct. 14, 1994, at 2. Accordingly, the Court construes "timing characteristic" to mean "characteristic related to the timing of a signal itself or to the timing relationship between two or more signals."

3. "storing at least one timing control bit in a control register"

The dispute is whether "storing" means "loading and holding" or simply means "holding." The plaintiff argues that "loading" is necessary because programming requires the system to load data into the control register. According to the plaintiff, simply "holding" values is passive because it requires no action whereas "storing" requires data to be "placed" in a particular location. To support its contention that "storing" includes "loading," the plaintiff points to the Summary of the Invention which states that "timing control bits are preferably loaded into a control register" and the Description of the Preferred Embodiment which states that the information stored in the control register is taken or "loaded" from a read only memory. '924 patent, 2 :12-14, 3 :23-25; 4 :16-19.

The defendant contends that the patentee used "load" and "store" to refer to two different actions in the specification and, therefore, they must mean different things. '924 patent, 1 :55-56, 2 :12-14. The defendant argues that there is a preference for values loaded during initialization, but that "storing" occurs throughout the operation of the memory controller, not just at startup. The defendant further argues that this phrase appears in Claim 1 of the '924 patent, and, therefore, must be construed consistently. According to the defendant, construing "storing" to include "loading" would not make sense in Claim 1 (the apparatus claim) because a memory controller cannot load something into itself.

The Court agrees with the plaintiff. Although the same terms in different claims are typically given the same meaning, the same terms in different types of claims may be given different meaning. *See* Epcon Gas Systems, Inc. v. Bauer Compressors, Inc., 279 F.3d 1022, 1031 (Fed.Cir.2002) (stating that the same term used in a different manner in two phrases does not necessarily have to be interpreted to mean the same thing in both phrases). In this case, Claim 1 involves a means plus function claim whereas Claim 7 is a method claim. A means plus function claim is limited to the disclosed embodiment while a method claim is not so limited. Furthermore, one of ordinary skill in the art would understand that the term "storing" in the context of programming involves "loading and holding." It would be difficult for a register to hold a control bit

without first having it loaded. Accordingly, the Court construes the phrase to mean "loading and holding at least one timing control bit in a register."

4. "timing parameter"

The plaintiff proposes that no construction is required because the term can be understood according to its plain and ordinary meaning. The defendant proposes "the selectable values which are used to control the timing characteristic of the memory signals."

The plaintiff contends that the defendant's proposal simply repeats limitations already in the claim, i.e., selecting values and controlling the timing characteristic of memory signals. The defendant, on the other hand, points to the prosecution history where, in response to a rejection, the applicant stated that "timing parameters ... are the selectable values which are used to control the timing characteristics of the memory signals." Response to Office Action, Oct. 14, 1994, at 3. In reply, the plaintiff argues that this statement does not dispositively indicate that the applicant intended to use the phrase in a manner inconsistent with its ordinary meaning.

The Court agrees with the plaintiff that the defendant's proposed construction simply restates limitations already in the claim. The last portion of the claim specifically states that the timing control signal controls "the timing characteristic" of the memory signals. The claim language and the specification provide the proper guidance for construing this term. Claim 7 states that a timing control signal is generated "in response to the selected timing parameter." '924 patent, 10 :38-40. The specification also states that the timing parameters are converted into timing control signals by the timing control units. '924 patent, 3 :47-52. In light of the claim language and the specification, "timing parameter" means "value used to generate timing control signals."

5. "selecting a timing parameter from a plurality of predetermined timing parameters in response to said timing control bit"

The plaintiff proposes that no construction is needed because this phrase may be understood through its plain and ordinary meaning. The defendant proposes "using a bit from the register to control the selection of one of a plurality of predetermined selectable values which are used to control the timing characteristic of the memory signals." The defendant points to the prosecution history where the patentee, in response to a rejection, stated that "timing parameters are input to selectors which are controlled by bits from a control register ...." Response to Office Action, Oct. 14, 1994, at 3.

In reply, the plaintiff argues that the statement in the prosecution history described a preferred embodiment because the response to the office action referenced pages in the application discussing the preferred embodiment. The plaintiff also argues that the defendant adds words, e.g., "using a bit" and "control the selection," without support from intrinsic or extrinsic evidence. For example, the plaintiff points out that the patent teaches that more than a single control bit is used when selecting more than two timing parameters. FN1 ' 924 patent, 9 :2-4.

FN1. The defendant conceded during the *Markman* hearing that one or more control bits could be used.

The Court agrees with the plaintiff and concludes that no further construction is required because the phrase may be understood according to its plain and ordinary meaning. The Court incorporates by reference its

previous definition of "timing parameter."

V. Conclusion

The Court adopts the constructions set forth in this opinion for the disputed terms of the '924 patent. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

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