

United States District Court,
N.D. California.

RACKABLE SYSTEMS, INC,
Plaintiff.

v.

SUPER MICRO COMPUTER, INC,
Defendant.

No. C 05-3561 PJH

Oct. 27, 2006.

Eric R. Lamison, Benjamin R. Ostapuk, Ryan J. Casamiquela, Kirkland & Ellis LLP, San Francisco, CA, for Plaintiff.

Alan A. Limbach, Christine Kerba Corbett, Hillary Noll, Megan W. Olesek, Richard I. Yankwich, DLA Piper U.S. LLP, East Palo Alto, CA, for Defendant.

ORDER CONSTRUING CLAIMS

PHYLLIS J. HAMILTON, District Judge.

On October 4, 2006, the court held a claim construction hearing to construe the disputed terms of U.S. Patent Nos. 6,596,366 and 6,850,408 pursuant to *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996). Having read the parties' papers and carefully considered their arguments and the relevant legal authority, the court rules as follows.

BACKGROUND

Plaintiff Rackable Systems, Inc. ("Rackable") owns two patents concerning high density computer equipment storage systems. The patents are U.S. Patent No. 6,496,366 ("the '366 patent") and U.S. Patent No. 6,850,408 ("the '408 patent"). The '408 patent is a continuation of the '366 patent, and the two patents share the same specification.

In October 1999, three co-inventors, one of whom was Giovanni Coglitore, who presented at the tutorial in this case, founded Rackable Systems LLC, the predecessor to Rackable. They founded Rackable to market the "back-to-back" and "front access" storage systems that they had previously devised. Rackable Systems, LLC subsequently merged with and into the prior Rackable Systems, Inc. in January 2001. Rackable Systems, Inc. then assigned the patents to Rackable Corporation in December 2002. Rackable Corporation later changed its name to the present Rackable Systems, Inc.

The patents' specification describes the incentive for the inventions. It discusses how the inventions intended

to increase the efficiency at server locations by enabling front access to computers, for which access had previously generally been in the rear. This, in turn, enabled the placement of the computers back-to-back, thereby increasing the number of computers that could be racked and stored at a given facility. Rackable's '366 patent is focused primarily on the "back-to-back" rackmounting of computer servers, while the '408 patent is focused on "front access" design, enabling access to certain components from the front of the computer as opposed to the back.

Rackable filed this case on September 2, 2005, against Supermicro for infringement as to both the '366 and '408 patents. Supermicro is a competitor of Rackable, and imports and sells servers and "motherboards." Rackable contends that Supermicro recently began importing and selling computers that violate Rackable's patent rights.

DISCUSSION

A. Legal Standards

Patent infringement analysis involves a two-step process. First, the court must determine as a matter of law the correct scope and meaning of disputed claim terms. Second, the properly construed claims are compared to the accused device to see whether the device contains all the limitations (literally or by equivalents) in the claims at issue. *Markman*, 517 U.S. at 384.

"[T]he 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) (citation and quotation omitted); *see also Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed.Cir.1998) (claim construction "begins and ends" with the actual words of the claims). "A patentee is presumed to have intended the ordinary meaning of a claim term in the absence of an express intent to the contrary. *York Prods., Inc. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1572 (Fed.Cir.1996). 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." *Phillips*, 415 F.3d at 1313. The person of ordinary skill in the art is "deemed to read the claim term not only in the context of the particular claim ... but in the context of the entire patent, including the specification." *Id.* The words in the claim may also be interpreted in light of the prosecution history, if in evidence. *Teleflex, Inc. v. Ficosa North Am. Corp.*, 299 F.3d 1313, 1324-25 (Fed.Cir.2002) (citations omitted). "Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996).

In terms of intrinsic evidence, the court begins with the language of the claims. *See id.* When considering the claim language, "the context in which a claim is used in the asserted claim can be highly instructive." *Phillips*, 415 F.3d at 1314. The court may also consider the other claims of the patent, both asserted and unasserted. *Id.* For example, as claim terms are normally used consistently throughout a patent, the usage of a term in one claim may illuminate the meaning of the same term in other claims. *Id.* The court may also consider differences between claims to guide in understanding the meaning of particular claim terms.

Additionally, the claims "must [also] be read in view of the specification, of which they are a part." *Id.* at 1315. When the specification reveals a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess, the inventor's lexicography governs. *Id.* at 1316.

However, as a general claim construction principle, the *Phillips* court warned of the "danger of reading limitations from the specification into the claim." *Id.* at 1323. While "the specification often describes very

specific embodiments of the invention, the Federal Circuit has "repeatedly warned against confining the claims to those embodiments." *Id.* Even if the "patent describes only a single embodiment, the claims of the patent must [not] be construed as being limited to that embodiment." *Id.*

Prosecution history is also considered intrinsic evidence. In *Phillips*, the Federal Circuit reaffirmed the importance of the prosecution history, which represents an ongoing negotiation between the PTO and the applicant. *Id.* at 1317. Like the specification, the prosecution history "provides evidence of how the PTO and the inventor understood the patent." *Id.* It is nevertheless less helpful than the specification since the history represents the process of negotiation rather than the final product of negotiation. *Id.*

In most cases, claims can be resolved based on intrinsic evidence. *See Vitronics*, 90 F.3d at 1583. Only if an analysis of the intrinsic evidence fails to resolve any ambiguity in the claim language may the court then rely on extrinsic evidence, such as expert testimony, prior art, and inventor testimony. *Phillips*, 415 F.3d at 1317. While extrinsic evidence "can shed useful light on the relevant art," the *Phillips* court noted that it is "less significant than the intrinsic record in determining the legally operative meaning of claim language." *Id.* (citations omitted). It noted the following deficiencies associated with extrinsic evidence: (1) it is not part of the patent and does not have the specification's virtue of being created at the time of patent prosecution for the purpose of explaining the patent's scope and meaning; (2) expert reports and testimony are "generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence;" (3) "there is a virtually unbounded universe of potential extrinsic evidence that could be brought to bear on any claim construction question;" and (4) "undue reliance on extrinsic evidence poses the risk that it will be used to change the meaning of claims." *Id.* at 1318.

Dictionaries and comparable sources may be used in claim construction as "long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents." *Id.* at 1322-23. The *Phillips* court noted that:

The main problem with elevating the dictionary to such prominence is that it focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent. Properly viewed, the "ordinary meaning" of a claim term is its meaning to the ordinary artisan after reading the entire patent. [H]eavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification.

Id. at 1321. For these reasons, the specification is "the single best guide to the meaning of a disputed term, and that the specification [itself] acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication." *Id.*

"Every patent's specification must 'conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.'" *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed.Cir.2005) (citing 35 U.S.C. s. 112, para. 2 (2000)). Claim indefiniteness is determined as a matter of law by the court construing the patent claims. *Id.*

"[T]he purpose of the definiteness requirement is to ensure that the claims delineate the scope of the invention using language that adequately notifies the public of the patentee's right to exclude." *Id.* The requirement does not, however, "compel absolute clarity." *Id.* Instead, only claims "not amenable to construction or insolubly ambiguous are indefinite." *Id.* (citations omitted). Therefore, "the definiteness of

claim terms depends on whether those terms can be given any reasonable meaning." *Id.*

A claim is not indefinite simply because it presents a "difficult issue of claim construction." *Id.* (citing *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed.Cir.2001)). An issued patent is entitled to a statutory presumption of validity. *Id.* Clear and convincing evidence is required to invalidate a patent. *Id.* at 1348. "In the face of an allegation of indefiniteness, general principles of claim construction apply." *Id.*

B. Disputed Terms

1. "rack"

This term appears in the '366 patent claims 1, 4, 6, 18, 23, 29, 30, 32, 35, 37, 41, 42, 46, and 47. Rackable contends that "rack" means *"frame or cabinet for holding multiple computer chassis that can be removed and are accessible after installation, such as a standard industry server rack."* Supermicro proposes that "rack" means *"a frame or cabinet that contains mounting arrangements for holding electronic devices in a stacked manner."*

The essence of the parties' dispute concerns whether "rack" should be construed to mean a particular type of frame or cabinet used in the server storage industry, or whether it should be construed as a more general purpose rack capable of holding all types of electronic devices; *and* whether the device enables the mounting or the removal of the computers or electronic devices.

Rackable argues that "rack" refers to a particular type of electronic device-computer chassis-and enables removal. In support of its construction, Rackable contends that the patent itself targets the computer server industry, and notes that the specification example, figure 4, is of a type of rack used for holding computers in the high-density computer industry. It also argues that figure 4 of the patent demonstrates that the rack is a type that enables the removal of the computers after installation. Rackable further asserts that its construction, referring to the "standard industry server rack," is consistent with the patent itself, which describes a rack whose dimensions are those of a "standard industry server rack."

Supermicro contends that "racks" store electronic devices generally, and enable the mounting of the devices. Supermicro responds that figure 4 to the '366 patent supports its construction. It also relies in part on the expert declaration of Sam Wood. In support of its mounting argument, Supermicro also cites to language in the patent for the proposition that "[i]n a typical setup, the rack will have holes and the electronic devices will contain 'ears' that are screwed into the holes, thus connecting the electronic devices to the rack." It further argues that the specification discloses that the rack can hold items other than computers. Finally, Supermicro asserts that its construction is supported by technical dictionary definitions.

Because the patent is not ambiguous, the court declines to consider extrinsic evidence as to this term. It also declines to adopt either party's construction in full. First, the court finds that the intrinsic evidence supports Rackable's construction that the "rack" holds computers, as opposed to Supermicro's more general construction, which encompasses all "electronic devices." The '366 specification's field, background, and summary of the invention clarifies that the patent concerns the storage of computers, as opposed to simply "electronic devices." There is absolutely no suggestion anywhere in the patent that the rack is utilized for holding other types of electronic devices. *See, e.g., Phillips*, 415 F.3d at 1313 (person of ordinary skill is "deemed to read the claim term not only in the context of the particular claim ... but in the context of the entire patent, including the specification").

The court also rejects both of the parties' injection of the mounting and removability limitations on the computers held by the racks. Those are limitations that are not properly read into this court's construction of the claims. The law is clear that it is error to import a limitation from the specification into the claim. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 904 (Fed.Cir.2004). The "fact that a patent asserts that an invention achieves several objectives does not require that each of the claims be construed as limited to structures that are capable of achieving all of the objectives." *Id.* at 908. Nor should an embodiment disclosed in the specification limit the claims. *Id.* at 906.

In conclusion, the court adopts a modified version of Rackable's construction of the term "rack" as **a frame or cabinet for holding multiple computer chassis**.

2. "computer"

This term appears in both the '366 patent and the '408 patent. It appears in the '366 patent claims 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 44, 45, 46, and 47; and in all claims 1-17 of the '408 patent.

Rackable contends that "computer" means "*general purpose computer including a main board and additional components, such as a server.*" Supermicro contends that "computers" means "*a device capable of processing information to produce a desired result .*"

The essence of this dispute is whether, as Rackable contends, "computer" refers to a general purpose computer like a server, or whether it is even more generic, as argued by Supermicro.

Rackable argues that the patent specification clarifies that the patent targets problems related to densely packed data centers. Because computers in data centers are general purpose computers, it asserts that its construction is consistent with the specification. Rackable contends that Supermicro's construction is contrary to the patent. It asserts that according to defendant, "computer" would include all processing devices-not just computers in a data center environment.

Supermicro argues that its construction is consistent with the specification, and that several technical dictionaries support its construction as well. It contends that Rackable seeks to improperly read limitations into the claim terms that do not exist. It further notes that the phrase "general purpose computer," as urged by Rackable, does not exist anywhere in the specification, in a dictionary; nor is it supported by expert testimony.

At the October 4, 2006 hearing, the court indicated that it did not find either parties' constructions convincing. The court noted that Supermicro's definition was too generic, and that Rackable's attempt to limit the definition to a "general purpose" computer, a phrase not employed by or defined by the specification, was also problematic. However, because the court believed that construction is a matter for the parties in the first instance, it afforded the parties an opportunity to meet and confer regarding the term in light of the court's stated concerns. The parties subsequently notified the court that they were unable to reach an agreement regarding construction of "computer."

Accordingly, the court declines to adopt either parties' construction, and construes "computer" as **a computer that functions as a server**. For the reasons noted on the record at the hearing, Supermicro's

construction is too generic. As for Rackable's proposed construction, it not only improperly reads in limitations from the specification, but it inserts language that improperly modifies the term "computer." Because there is nothing in the intrinsic evidence to suggest the ordinary meaning of "computer" was not meant to apply, the court finds no need to further define "computer" other than that it should function as a server.

3. "front"

This term also appears in both the '366 patent and the '408 patent. It appears in the '366 patent claims 1, 2, 4, 6, 7, 8, 41, 44, 45, 46, and 47; and the '408 patent claims 1, 2-6, and 9-15.

Rackable contends that "front" means *"the most forward panel that will face toward the user when sliding or moving the computer into or out of a rack. In a standard full depth configuration, the front panel is opposite the side having I/O connectors for connecting to peripheral equipment such as a router. In the patented configuration, the orientation of the main board in the chassis is reversed."* Supermicro asserts that "front" is indefinite under 35 U.S.C. s. 112(2), or alternatively, means *"a panel designed to face toward the user, such as a panel designed to face forward when placed in a rack."*

Rackable therefore argues for a narrow definition of "front;" while Supermicro argues that the term is either indefinite or for a broader definition.

Supermicro asserts that "front" is indefinite and ambiguous as used in the patents. It argues that it requires some frame of reference. It contends that normally, computers have a top, bottom, and four vertical sides, and that a member of the public could not determine which side of the computer is the "front" for purposes of determining infringement. Accordingly, Supermicro argues that the term is incapable of construction.

Alternatively, Supermicro argues that the '366 patent provides support for its construction of "front"-that when a computer is placed in a rack, the "front" side is the side that faces out toward the user. However, Supermicro then argues that there is still ambiguity regarding the '408 patent since that patent does not require a "rack" in its claims, and it is difficult to determine which side of a stand-alone computer is designed to face the user.

Rackable contends that Supermicro has not shown by clear and convincing evidence that the term is indefinite. Rackable further argues that Supermicro's construction ignores the specification, and standard industry practice, which entails I/O access from the rear main board. It contends that Supermicro's "irrelevant prior art" demonstrates as much.

The court adopts in part Supermicro's construction of "front" as **a panel designed to face forward when placed in a rack** as applied to the '366 patent only. The court rejects both parties' constructions to the extent that they refer to a "user." Reference to a "user" is too ambiguous, as there are multiple user purposes, and the term "front" cannot be defined according to how the computer is being used. *See* Datamize, 417 F.3d at 1350. Although "a patentee need not define his invention with mathematical precision to satisfy the definiteness requirement," there must be some "objective anchor" by which skilled artisans can identify whether they are practicing the patented invention. *Id.* (concluding that term "aesthetically pleasing" was indefinite because it was too subjective). Here, as in Datamize, reference to "user" renders the term indefinite because its scope depends "solely on the unrestrained subjective [purpose] of a particular individual purportedly practicing the invention." *See id.*

As noted above, though, the court's construction of "front" is limited to the '366 patent. That is because the '366 patent, unlike the '408 patent, provides an "objective anchor" in terms of the existence of the "rack." Because the '408 patent lacks such an "objective anchor," the court concludes that "front" is indefinite under 35 U.S.C. s. 112 as concerns the '408 patent.

The court recognizes that the finding of indefiniteness with respect to "front" as to the '408 patent *only* may have some adverse impact with regard to the '366 patent, which contains the same term. However, the court is unclear regarding what, if any, impact may occur, and expects that the parties will advise the court of any such impact *in their briefing on the dispositive motions*.

4. "components requiring intermittent physical access"

This term appears in the '366 patent claims 15, 16, and 39.

Rackable asserts that "components requiring intermittent physical access" means "*features that would normally be accessed in use from the rear of the main board in a standard computer chassis, such as I/O connectors, and accessible data drives if present.*" Supermicro contends that "components requiring intermittent physical access" is indefinite under 35 U.S.C. s. 112 due to the word "intermittent," or alternatively, means "*parts of the computer requiring occasional physical access by a user or operator.*"

Supermicro again argues that this phrase is indefinite, based on the term "intermittent." It argues that the term does not adequately describe the degree of access required, and is therefore ambiguous. Supermicro further asserts that Rackable's definition itself makes the phrase increasingly vague and ambiguous. It argues that the terms "normally" and "standard" are themselves subjective and ambiguous. Alternatively, Supermicro argues that the term "intermittent" should be replaced with "occasional," based on the dictionary definition of "intermittent."

Rackable responds that Supermicro's "reason for pretending there is ambiguity is [to] move the claims away from main board features to instead require non-main board features, such as the socket for the power plug, to be on front, even though the socket is not a main board feature, the plug and power source is not a peripheral device, and the front panel power and reset buttons confirm the lack of need for intermittent access to a socket."

The '366 patent abstract, suggests that "intermittent" is synonymous with "periodic." It provides in part:

By placement of access space to all elements which require *periodic* attention at the front of each computer, the need for significant space at the rear of the computer is eliminated.

'366 patent. Additionally, in the summary of the invention, the specification provides, regarding the elements that should be located at the front of the computer, that: "Desirably, those [attachments] which require physical access *periodically* or *would significantly hinder forward removal of the machine from a rack* in which it may be placed are provided for at the front of the chassis." '366 patent, 4: 9-12.

However, the patent's reference to "periodic" does not save the term from indefiniteness. That is because both terms-"periodic" and "intermittent"-suggest time frames, and a certain regularity that depends on a *user's* purpose. However, as discussed above regarding the term "front," because a user's purpose is highly

subjective and variable, the terms "periodic" and "intermittent" do not provide the type of "objective anchor" required by 35 U.S.C. s. 112. FN1

FN1. The court also rejects Supermicro's alternative construction of "intermittent" as "occasional." Both "intermittent" and "periodic" suggest some regularity, which is not reflected in the term "occasional."

For these reasons, the court declines to adopt either parties' construction, and concludes that "components requiring intermittent physical access" is indefinite under 35 U.S.C. s. 112.

5. "main board"

This term appears in the '408 patent claims 1 and 9.

Rackable asserts that "main board" means "*main circuit board inside the computer that makes it possible for the other parts of a computer to communicate with each other, into which additional boards may be plugged if present.*" Supermicro asserts that "main board" means "*a circuit board that contains the primary components of a computer.*"

The essence of this dispute is whether this term constitutes the principal board in the computer through which other parts of the computer communicate, as Rackable contends, as opposed to any printed circuit board having a processor, according to Supermicro.

Rackable explains that a computer may contain several printed circuit boards, but that the "main board" is "the largest printed circuit board in the computer" into which other circuit boards would plug. It asserts that many electronic devices contain circuit boards, but do not contain "main boards" as found in general purpose computers such as servers. In support, Rackable cites to extrinsic evidence, including several different print and online dictionaries. In addition to the dictionary definitions, in support of its construction, Rackable also argues that one of ordinary skill in the art "would expect a main board of the basic type that permits the level of functionality required of a general purpose computer, ... also known as a 'motherboard' " and "would also know that the main board in a general purpose computer makes it possible for the other parts of the computer to communicate with each other."

Supermicro, in response, argues that specification language supports its construction, in addition to extrinsic evidence, including several computer and/or electronic dictionary definitions.

At the hearing, the parties agreed that "main board" is synonymous with "motherboard." Based on the admissions at the hearing, it is clear to the court that the parties agree that the "main board" includes "the primary components of a computer," and is distinguishable from a daughter board. In fact, Supermicro made a judicial admission that a "main board" is *not* the same thing as a daughter board. Thus, the real issue concerns the amount of detail that should be provided regarding the function of the motherboard or "main board" and its relation to other boards. As noted, per Rackable's construction, the "main board" should be construed to include language regarding communication, specifically that it is a circuit board that enables "other parts of a computer to communicate with each other," and should also be construed to note that additional boards, if present, may be plugged into it.

The only guidance in the specification itself appears to be several examples of "[p]referred main boards,"

which include "models N44BX, L44GX, 810, 810E and C440GX by Intel." However, the court cannot read limitations from the embodiment or the examples in the specification into the definition. Because analysis of the intrinsic evidence fails to resolve the ambiguity, the court will consider the extrinsic evidence—most significantly, the dictionary definitions provided by the parties.

Rackable cites to five dictionary definitions in support of its construction, including: (1) a CNET.com definition (Ostapuk Decl., Exh. X); (2) Merriam-Webster's Online Dictionary (Exh. Y); (3) Free Online Dictionary of Computing (Exh. Z); (4) Microsoft Press Computer Dictionary (Exh. AA); and (5) an Answers.com definition (Exh. EE).

Supermicro cites to three different dictionary definitions in support of its construction, including: (1) Microsoft Computer Dictionary definitions of "main board" and "mother board;" (Yamashita Decl., Exh. D) (3) Dictionary of Computer and Internet Terms (Exh. F); and (4) the IEEE Standard Dictionary of Electrical and Electronic Terms (Exh. E).

Technical treatises and dictionaries are generally preferred over a definition in an ordinary dictionary based on "the principle that patents are to be construed by the hypothetical person skilled in the art." Kahrl, Patent Claim Construction, s. 7.03[B], Technical Treatises (Aspen 2005 Suppl.); *see also, e.g.*, Rambus, Inc. v. Infineon Technologies AG, 318 F.3d 1081, 1091 (Fed.Cir.2003). "A technical treatise is more likely to provide a definition used by persons skilled in the art than an ordinary dictionary definition." *Id.* In defining electrical and computer terms, the Federal Circuit has employed computing dictionaries and the IEEE Standard Dictionary of Electrical and Electronic terms, as offered by Supermicro in this case. *See* Rambus, 318 F.3d at 1091; *see also* NeoMagic Corp. v. Trident Microsystems, Inc., 287 F.3d 1062, 1071 (Fed.Cir.2002).

Here, the technical dictionaries overwhelmingly support Supermicro's construction of the term "main board," with one modification—that the "main board" be "main" or "primary." Rackable's definition is unnecessarily complex and contains limitations on the definition of "main board" that are not universally present in the dictionary definitions.

For these reasons, the court adopts, with one addition, Supermicro's construction, and construes the term "main board" as **a main circuit board that contains the primary components of a computer.**

6. "a chassis comprising a front panel"

This term appears in the '408 patent claims 1 and 9. Rackable contends that "a chassis comprising a front panel" means a *"frame or housing for the general purpose computer including the main board and including a front panel providing access as claimed."* Supermicro asserts that "a chassis comprising a front panel" means *"a frame or housing including a front panel."*

The essence of the dispute is whether the "chassis" is for a general purpose computer, or whether it is simply any frame or housing. Again, Rackable argues for the narrower, more specific construction, and Supermicro the broad one.

Rackable argues that the claims themselves refer to "the computer" and the various components of the computer, supporting its construction. It further asserts that the specification and the "summary of the invention" explicitly state that the chassis is for a general purpose computer, and not simply any frame or

housing. Additionally, Rackable argues that the embodiments support its construction, and demonstrate a chassis built up with certain components, including a main board.

In response, Supermicro argues that Rackable's construction is too limiting. Even if it were a chassis for a computer, Supermicro notes that contrary to Rackable's construction, it should not be construed only as a frame or housing for a "general purpose computer" or server. It argues that Rackable is attempting to import an inappropriate limitation into the term.

The court indicated at the hearing that Rackable's reference to "computer" in its construction of the term was redundant, given the fact that the broader context of the claim is the computer itself. In response to the court's inquiries, Rackable indicated agreement with Supermicro's construction. Because claims must be construed in a manner that avoids such redundancies, the court adopts Supermicro's definition, and construes the term "a chassis comprising a front panel" as **a frame or housing including a front panel**. See *Unique Concepts Inc. v. Brown*, 939 F.2d 1558, 1562 (Fed.Cir.1991) (merging one element into another is improper because it renders claim language redundant).

7. "the I/O connectors including the one or more data transmission ports and to all components requiring intermittent access provided for the computer"

This term appears in the '408 patent claims 1 and 9. Rackable asserts that "the I/O connectors including the one or more data transmission ports and to all components requiring intermittent access provided for the computer" means *"features that would normally be accessed from the rear of the main board in a standard computer, such as the I/O connectors, and accessible data drives if present."* Supermicro contends that "the I/O connectors including the one or more data transmission ports and to all components requiring intermittent access provided for the computer" is indefinite under 35 U.S.C. s. 112(2) due to the word "intermittent," or alternatively means *"the i/o connectors including the one or more data transmission ports and all parts of the computer that require occasional access by the user or operator."*

The essence of the dispute here again appears to concern the meaning of the word "intermittent," and also *which* parts of a computer require access.

As with disputed term four, "components requiring intermittent physical access," Rackable appears to focus on the type and extent of I/O connectors described by the phrase; whereas, Supermicro focuses on the type of access. Rackable again argues that contrary to Supermicro, not each and every attachment to a computer requires "intermittent" physical access. It asserts that instead, as with term four, the "components requiring intermittent access" include only "physical input and output sockets that are found on the main board, and various data drives or storage devices if they are present."

Supermicro again, as with term four, argues that the phrase is indefinite, based on the term "intermittent."

For the reasons set forth above with respect to term four, the court concludes that "the I/O connectors including the one or more data transmission ports and to all components requiring intermittent access provided for the computer," is indefinite under 35 U.S.C. s. 112 based on its use of the term "intermittent."

8. "providing access ... to each component provided for the computer selected from the group consisting of"

This term appears in the '408 patent claim 9. It is helpful to provide the full language of that claim, which

recites:

A computer comprising:

a main board having I/O connectors including one or more data transmission ports mounted thereon; and

a chassis comprising a front panel *providing access* to the I/O connectors including the one or more data transmission ports and access *to each component provided for the computer selected from the group consisting of* removable power supplies, removable drives, removable media drives, one or more plugs for external drives and devices, and ports for switches.

At the hearing, the court noted that in its claim construction brief, Supermicro had proposed a construction different from that proposed in the joint claim construction statement, without complying with the court's standing order. Supermicro advised the court that any change was inadvertent, and that it would rely upon the joint claim construction statement. Accordingly, that is the construction that the court now considers.

Rackable contends that "providing access ... to each component provided for the computer selected from the group consisting of" means "*to each removable power supply, removable drive or removable media drive, if present.*" Supermicro asserts that "providing access ... to each component provided for the computer selected from the group consisting of" means "*providing the user or operator of the computer with access to each of the following parts of the computer if present [see claim language for list of items].*"

According to Rackable, the issue concerns which of the items must each be located on the front, if present, as opposed to being potentially found on both the front and back of the computer. Rackable breaks down the subsequent claim language into three categories, including: (1) removable power supplies, removable drives, and removable media drives; (2) plugs for external drives and devices; and (3) ports for switches. According to Rackable, the claim language requires access only to the items included in category (1)-the removable power supplies, removable drives, and removable media drives to the extent that these removable components are present. In other words, it asserts that the members of the group for which access is required are only those referred to as "removable."

Rackable thus argues that the access described does not apply to the "plugs for external drives and devices, and ports for switches." It argues that only *one* plug for external drives and devices need be present on the front panel, and that redundant or duplicate plugs may indeed be located on a rear panel. Regarding the third component, the "ports for switches," Rackable implies that the "providing access" language does not apply to the ports. Instead, the ports are simply located on the front panel.

Supermicro, on the other hand, argues that "providing access" refers to *all* components-not just the removable ones. In other words, Supermicro asserts that the access language applies to all three groups that Rackable has listed, including the (1) removable power supplies, removable drives, and removable media drives; (2) plugs for external drives and devices; and (3) ports for switches. To the extent that any of the three groups of components is present, Supermicro argues that they must be located on the front of the computer.

Supermicro argues that Rackable's construction makes no sense because it is ignoring words that actually appear in the disputed claim language, and instead improperly imports other limitations into its construction. It further notes that there is a "linguistic dispute" among the parties regarding the phrase "group consisting

of." Supermicro asserts that because all of the items following that phrase are listed in succession, and separated by commas, its reading is the more natural of the two. It argues that Rackable misreads the placement of the word "and."

The term "consisting of" means that the list of ingredients following the term is a closed list, such that additional ingredients cannot be present in the composition. Robert C. Karhl, Patent Claim Construction s. 4.03[I], Transitional Words and Phrases (Aspen 2005 Suppl.); *Georgia-Pacific Corp. v. United States Gypsum Co.*, 195 F.3d 1322, 1327 (Fed.Cir.1999). The term, however, "does not necessarily mean that no other components can be used with the invention, but only that the list of ingredients of the same type cannot be augmented." *Id.*; *Norian Corp. v. Stryker Corp.*, 363 F.3d 1321, 1331-32 (Fed.Cir.2004); *see also Mars, Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1375-76 (Fed.Cir.2004).

Rackable's proposed construction is contrary to the normal construction of a group following "consisting of" language. It attempts to limit the closed group inappropriately. There is nothing in the claim language or the specification that suggests that the plugs and ports, which follow the removable components, are not a part of "the group consisting of," as Rackable implies.

Additionally, Supermicro's construction is a more grammatically correct interpretation of the disputed language, as endorsed by the Federal Circuit. *See SuperGuide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 885 (Fed.Cir.2004). Where a phrase such as "group consisting of" "precedes a series of categories of criteria, and the patentee used the term "and" to separate the categories of criteria," this "connotes a conjunctive list." *Id.* In other words, applying the correct grammatical principle, the phrase "group consisting of" "modifies each member of the list, i.e., each category in the list." *Id.* (relying in part on William Strunk, Jr. & E.B. White, *The Elements of Style*).

Accordingly, the court adopts Supermicro's definition and construes "providing access ... to each component provided for the computer selected from the group consisting of" as **providing the user or operator of the computer with access to each of the following parts of the computer if present: removable power supplies, removable drives, removable media drives, one or more plugs for external drives and devices, and ports for switches.** In other words, the court construes "group consisting of" to include all three categories that follow the phrase, including removable components, plugs, and ports. Rackable's attempt to limit the group to the removable components improperly narrows and modifies the claim language. *See Renishaw*, 158 F.3d at 1250 (claim may not be construed to "add a narrowing modifier before an otherwise general term that stands unmodified in a claim").

9. "removable"

This term appears in the '408 patent claims 2 and 9.

Rackable asserts that "removable" means "*able to be removed without opening the chassis or removing the chassis from a rack.*" Supermicro asserts that "removable" means "*able to be removed without opening the chassis.*"

At the hearing, Rackable noted that it agreed with Supermicro's construction. Therefore, the court construes "removable" as **able to be removed without opening the chassis.**

10. "one or more plugs for external drives and devices, and ports for switches"

This term appears in the '408 patent claim 9. Rackable contends that "one or more plugs for external drives and devices, and ports for switches" means "*one or more plugs for drives and peripheral computer subsystems (such as disks, keyboards, monitors, mice, printers, scanners, tape drives, microphones, speakers, or cameras) that are external to the computer chassis, and one or more ports for switches.*" Supermicro asserts that "one or more plugs for external drives and devices, and ports for switches" means "*one or more connectors for drives or elements that are external to the computer, and openings that provide access to switches.*"

Again, it is helpful to provide the full language of claim 9 of the '408 patent, which recites:

A computer comprising:

a main board having I/O connectors including one or more data transmission ports mounted thereon; and

a chassis comprising a front panel providing access to the I/O connectors including the one or more data transmission ports and access to each component provided for the computer selected from the group consisting of removable power supplies, removable drives, removable media drives, *one or more plugs for external drives and devices, and ports for switches.*

The essence of this dispute is really how "device" should be defined. It is clear to the court from the parties' arguments in their papers and at the hearing that there really is no dispute regarding the definition of "plug" or "drive;" that the drives and devices are "external" to the computer; and that "ports for switches" are openings. Accordingly, the court declines to define those terms, which are undisputed.

As for the definition of "device," Supermicro advocates a broad definition of the term, contending that "device" is synonymous with "element," and should be construed as a generic term referring to any item that is hooked up to a computer. Rackable, on the other hand, argues for a narrower definition, one that limits a "device" to a "peripheral computer subsystem" and provides examples of "peripheral computer subsystem[s]."

Rackable argues that Supermicro improperly attempts to broaden the definition of the term "device." Rackable cites to the '366 patent specification, including figure 1, in support of its argument that "referred-to 'devices' " include "peripheral computer devices, such as keyboards, monitors, mice, printers, scanners, tape drives, microphones, speakers or cameras." *See* '366 patent at 6:11-18. Rackable also cites to a dictionary definition for "device." *See* Ostrapuk Decl., Exh. DD.

Supermicro counters that Rackable's narrow definition of the word "device," limiting it to a "peripheral computer subsystem" is contrary to the specification. It asserts that the patent application intentionally chose to use the generic term "device," as opposed to the more specific "computer subsystem" or "peripheral device." Supermicro also cites to a technical dictionary definition for the term "device."

It is not necessary for the court to resort to extrinsic evidence to construe the term "device" because the specification provides meaning for the term. The related '366 patent abstract clarifies that Supermicro's broader construction of "device" is more appropriate. That abstract explains that "[b]y placement of access space to all *elements* which require periodic attention at the front of each computer, the need for significant space at the rear of a computer is eliminated." '366 patent abstract. Later in the specification's "summary of invention," the specification utilizes a similar broad term for "devices" - "attachments." '408 patent at 4:8.

The specification also provides examples of such "devices," but the list is not exhaustive. In the detailed description of the embodiments, the specification provides that "a number of devices may be optionally used in this port" and then continues with a discussion of the possible types of "drives" (not to be confused with "devices"). '408 patent at 6:7-13. The specification then suggests that devices may include "USB/external SCSI or parallel port devices or other auxiliary data drives configured for plug-in use." Id. at 6:13-19. However, nowhere does the specification define "devices" as narrowly as Rackable would have the court construe it.

Because the court finds that the specification supports a broader construction of "device," and also finds that "attachment" is clearer than "element," as advocated by Supermicro, the court construes "one or more plugs for external drives and devices, and ports for switches" as **one or more plugs for external drives and attachments, and ports for switches.**

CONCLUSION

In accordance with the foregoing, the court construes the disputed terms as follows:

1. "Rack" means **a frame or cabinet for holding multiple computer chassis.**
2. "Computer" means **a computer that functions as a server.**
3. "Front" means **a panel designed to face forward when placed in a rack** as applies to the '366 patent only. "Front" is indefinite under 35 U.S.C. s. 112 as concerns the '408 patent.
4. "Components requiring intermittent physical access" is indefinite under 35 U.S.C. s. 112.
5. "Main board" means **a main circuit board that contains the primary components of a computer.**
6. "A chassis comprising a front panel" means **a frame or housing including a front panel.**
7. "The I/O connectors including the one or more data transmission ports and to all components requiring intermittent access provided for the computer," is indefinite under 35 U.S.C. s. 112.
8. "Providing access ... to each component provided for the computer selected from the group consisting of" means **providing the user or operator of the computer with access to each of the following parts of the computer if present: removable power supplies, removable drives, removable media drives, one or more plugs for external drives and devices, and ports for switches.**
9. "Removable" means **able to be removed without opening the chassis.**
10. "One or more plugs for external drives and devices, and ports for switches" means **one or more plugs for external drives and attachments, and ports for switches.**

A case management conference will take place on Thursday, November 16, 2006, at 2:30 p.m. Pursuant to the court's Patent Standing Order, the parties are ordered to file a joint case management statement **seven calendar days prior to the conference**, which must address the following topics set forth in that order.

IT IS SO ORDERED.

N.D.Cal.,2006.

Rackable Systems, Inc. v. Super Micro Computer, Inc.

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