United States District Court,
C.D. California.

HON HAI PRECISION INDUSTRY CO., LTD., a Taiwanese Corporation,
Plaintiff.
v.
PSC COMPUTER PRODUCTS, INC., a California Corporation,
Defendant.
Hon Hai Precision Industry Co., Ltd., a Taiwanese Corporation,
Plaintiff.
v.
Asia Vital Components Co., Ltd., a Taiwanese Corporation; and Thermo-Link Technology, Inc., a California Corporation,
Defendants.

Nos. CV 03-0093-SVW (Mcx), CV 03-0094-SVW (Mcx)

Aug. 6, 2003.

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Christina S. Loza, Loza and Loza, Long Beach, CA, Paul Adams, Peacock Myers & Adams, San Diego, CA, for Defendant.

ORDER RE: CLAIM CONSTRUCTION.

STEPHEN V. WILSON**, District Judge.**

I. INTRODUCTION

Plaintiff Hon Hai Precision Industry Co. Ltd. ("Plaintiff" or "Hon Hai") brings suit against Defendants Asia Vital Components Co. Ltd. ("AVC"), Thermal-Link Technology, Inc. ("Thermal-Link") and PSC Computer Products, Inc. ("PSC") (collectively, "Defendants") for infringement of one or more claims of Plaintiff's patent, U.S. Patent No. 6,049,458 (the "'458 Patent").

Pursuant to a claim construction schedule set by the Court at the March 24, 2003 status conference and in the Court's April 1, 2003 Order, the parties submitted a Joint Claim Construction Statement ("Joint Statement"), FN1 and each party thereafter filed a Reply to the Joint Statement in support of its proposed construction of the claim terms at issue and in opposition to the constructions proffered by the opposing party. In these papers, the parties identified four disputed terms/limitations.

FN1. In the Joint Statement, Hon Hai merely stated that the claim language "is clear and that the claim

terms can be understood by their ordinary and customary meaning. Accordingly, Hon Hai does *not propose that the Court construe any specific claim terms*." (Joint Statement at 2 (emphasis in original).) Defendants take issue with this because in Hon Hai's Reply, Hon Hai proceeded to not only discuss Defendants' proposals, but also provided the Court with its own suggestions.

While Defendants did not have a full opportunity to address Plaintiff's arguments in writing, Plaintiff's proposals merely track the ordinary meaning of the claim terms. Thus, Defendants *are not disadvantaged by Plaintiff's alleged maneuvering*. Furthermore, Defendants had a full opportunity to argue their proposed claim construction (and in opposition to Plaintiff's proposals) at the July 28, 2003 Markman Hearing. The Court issued a Tentative Order on July 21, 2003, and the parties argued in response to the Tentative Order at the July 28, 2003 Markman Hearing. After careful consideration of the arguments put forth by the parties both in their papers and at the July 28 Hearing, the Court construes the disputed claims as follows.

II. DESCRIPTION OF THE PATENT-IN-SUIT

As Plaintiff explains, the '458 Patent "is directed to a heat sink assembly for dissipating heat from computer devices. The claimed heat sink assembly in one embodiment includes a heat sink, thermal grease applied to the bottom face of the heat sink, and a protective cap that shields the thermal grease so that it does not smear onto other objects and so that it does not become contaminated by foreign materials." (Pl.'s Reply at 2.)

A CPU generates high amounts of heat that must be efficiently removed so as to avoid overheating and causing damage to the microscopic components that make up the computer unit. (Id. at 4.) In the field of computer technology, a heat sink is attached to the CPU to provide the surface area needed to remove heat from the computer unit. (Id.) The heat is transferred from the CPU to the heat sink where the heat is quickly dissipated. (Id.)

Thermal grease is often used as part of the design to (1) reduce the imperfections between the surfaces of the CPU and the heat sink, and (2) improve heat flow. Thermal grease is often spread on the surface of the heat sink before attaching it to the computer unit. (Id. at 4.) The thermal grease, however, can smear onto and contaminate other objects, and the thermal grease itself can be contaminated by dust or other foreign material. (Id. at 4-5.)

The '458 Patent is intended to eliminate these problems. The protective cap shelters the thermal grease to avoid contamination when the heat sink assembly is moved or manipulated. (Id. at 5.) The protective cap can be removed prior to attaching (i.e., "coupling") the heat sink to the computer unit. (Id. at 5.)

The '458 Patent reads as follows (disputed terms underlined and bolded):

(1) A heat sink for dissipating heat generated by a CPU1, comprising:

a metallic flat base having a bottom face for contacting the CPU;

a number of metallic ***fins projecting from the base away from the bottom face;***

thermal grease spread on the bottom face;

a ***protective cap having a periphery removably attached*** to the bottom face of the heat sink ***around the thermal grease,*** and a middle protrusion defining a cavity receiving the thermal grease therein, said protrusion enclosing the thermal grease whereby the thermal grease will not be contaminated by dust or foreign particles and will not contaminate surrounding articles when the heat sink is transported or handled.

(2) The heat sink in accordance with claim 1, wherein the thermal grease is uniformly spread on the bottom face of the heat sink by a printing process.

(3) The heat sink in accordance with claim 2, wherein the thermal grease is spread on the bottom face of the heat sink by a screen printing process.

(4) The heat sink in accordance with claim 1, wherein both the thermal grease and the protective cap have a rectangular shape.

(5) The heat sink in accordance with claim 4, wherein the protrusion of the cap has a side wall connecting with the flange, and a cover connecting with the side wall.

(6) The heat sink in accordance with claim 1, wherein the protective cap has an ***ear integrally formed with the flange*** and extending beyond an edge of the bottom face of the base of the heat sink.

(7) The heat sink in accordance with claim 4, wherein the protective cap has an ***ear integrally formed with the flange*** and extending beyond an edge of the bottom face of the base of the heat sink.

(8) The heat sink in accordance with claim 1, wherein the flange is attached to the bottom face of the base by an adhesive.

(9) The heat sink in accordance with claim 1, wherein the protective cap is made by pressing a plastic sheet.

(10) A heat sink for dissipating heat generated by a CPU, comprising:

a base having a bottom face for contacting with the CPU;

thermal grease applied on the bottom face; and a ***protective cap attachably positioned on the*** bottom face and ***enclosing the thermal grease*** thereby protecting the thermal grease from contamination.

(11) A protective cap for use with a heat sink, comprising a flange and a cover connected by a side wall to commonly define a rectangular shape thereof, and an ***ear integrally formed with the flange*** wherein said side wall and the cover commonly define a protrusion and corresponding cavity therein to protectively cover thermal grease applied to a base of said heat sink.

III. LEGAL STANDARD

Interpretation of patent claims is a matter of law reserved for the court. *See* Markman v. Westview Instruments, Inc., 517 U.S. 370, 372, 116 S.Ct. 1384, 1387 (1996). Claims are to be construed to determine how one with ordinary skill in the relevant art would understand them in the context of the patent. *See, e.g.,* Multiform Dessicants, Inc. v. Madzam, Ltd., 133 F.3d 1473, 1477 (Fed.Cir.1998). "It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent

itself, including the claims, the specification, and, if in evidence, the prosecution history." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996); *see also* Gart v. Logitech, Inc., 254 F.3d 1334, 1339 (Fed.Cir.2001). "In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such situations, it is improper to rely on extrinsic evidence." Vitronics, 90 F.3d at 1583.

Furthermore, in examining the intrinsic evidence, the Court engages in a "heavy presumption" that claim terms carry their customary meaning as viewed by one of ordinary skill in the art. CCS Fitness Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed.Cir.2001). Only if ambiguity remains will the Court look to "extrinsic evidence," such as expert testimony. Vitronics, 90 F.3d at 1583. While technically "extrinsic," "dictionaries, encyclopedias and treatises are particularly useful resources to assist the court in determining the ordinary and customary meaning of claim terms." Tex. Digital Sys. v. Telegenix, Inc., 308 F.3d 1193, 1202 (Fed.Cir.2002).

IV. DISCUSSION

The '458 Patent consists of three independent claims-Claims 1, 10 and 11-and eight dependent claims-Claims 2 through 9 (which depend from Claim 1). Thus, as Defendants AVC and Thermal-Link explain, if Claim 1 is not infringed, Claims 2 through 9 are not infringed. And if Claims 1, 10 and 11 are not infringed, none of the claims are infringed.

There are four terms/phrases that the parties argue need to be construed by the Court, and the Court will address each in turn. FN2

FN2. Plaintiff does not believe any of the claims need to be construed-rather, Plaintiff contends that the claims should be given their ordinary meaning.

All three Defendants ask the Court to construe the terms "protective cap having a periphery removably attached" in Claims 1 and "protective cap attachably positioned" in Claim 10. Defendants AVC and Thermal-Link alone ask the Court to construe the other claim terms discussed below, namely "ear integrally formed with the flange," "enclosing thermal grease," and "fins projecting from the base away from the bottom face."

A. "Protective Cap ..." (Claims 1 and 10)

Claim 1 of the '458 Patent reads in relevant part: "[A] protective cap having a periphery removably attached to the bottom face of the heat sink." And Claim 10 states in relevant part: "[A] protective cap attachably positioned on the bottom face."

1. "Protective Cap"

AVC and Thermal-Link ask the Court to construe the term "protective cap" as follows: "a structure that is open on one side-and that covers some or all of the bottom face of the heat sink, but does not completely surround the heat sink." (Joint Statement at 4.)

Furthermore, Defendant PSC suggests the following construction for "protective cap": "[a] structure ... that is open on one side, covers a portion of the bottom face of the base and heat sink on which the grease is applied." (Joint Statement at 41.)

While the Court agrees that a "cap" is "open on one side" and "covers some or all of the bottom face of the [object that it covers], but does not completely surround [it]," this term does not need to be construed beyond its ordinary meaning.

In *The American Heritage College Dictionary,* "cap" is defined as "[a] protective cover or seal, esp. one that closes off an end or a tip." *American Heritage College Dictionary* at 207. Furthermore, in the *Webster's Third New International Dictionary,* "cap" is defined as, *inter alia,* "something that serves as a cover or protection esp. for a tip, knob, or end[;] something designed to cover and to protect, preserve, or close (as over a camera lens, fountain pen, automobile hub, or narrow-mouthed bottle)[.]" *Webster's Third New International Dictionary* at 330. As Plaintiff explains, the ordinary meaning of the term "cap" needs no further clarification.

Defendant PSC argues that "cap" as used in the '458 Patent should not be given its ordinary meaning because "the drawings clearly show" that the cap sits on top of the base and does not cover it entirely. (Joint Statement at 42-43.) However, the drawings merely illustrate the preferred embodiment of the ' 458 Patent. As the Federal Circuit teaches, "the analytical focus must begin and remain centered on the language of the claims themselves." Texas Digital, 308 F.3d at 1201. While the Court can use the specification to assist with the claim construction, *see* Vitronics, 90 F.3d at 1582, the Court cannot "limit[ ] the claimed invention to preferred embodiments or specific examples in the specification." Texas Instruments, Inc. v. United States Int'l Trade Comm'n, 805 F.2d 1558, 1563 (Fed.Cir.1986). Thus, while the claims must be read in light of the specification, "limitations from the specification are not to be read in to the claims." *Teleflex,* 299 F.3d at 1325.

PSC argues that the Court can limit the claims to the preferred embodiment. The Court however does not agree with Defendant PSC's analysis of Wang Laboratories. Inc. v. America Online, Inc., 197 F.3d 1377 (Fed.Cir.1999). While the *Wang* court did limit the claims at issue to the preferred embodiment, the court held that because there was only one embodiment described in the specification, the claims were correctly limited to the preferred embodiment. *Id*. at 1383. The *Wang Labs,* court explained, however, that "[w]hether an invention is fairly claimed more broadly than the 'preferred embodiment' in the specification is a question specific to the content of the specification, the context in which the embodiment is described, the prosecution history, and if appropriate the prior art, for claims should be construed, when feasible, to sustain their validity." *Id*.

Thus, the Federal Circuit does not teach that claims should be limited to the preferred embodiment. Rather, when the patent specification describes only one possible embodiment, it *may* be correct to limit the claims to the preferred embodiment. Here, however, the '458 Patent specification gives several examples of "preferred embodiments," and the Patent itself clearly states that "[w]hile the present invention has been described with reference to specific embodiments, the description is illustrative of the invention and is not to be construed as limiting the invention." Because the Patent specification provides several embodiments that are merely illustrative, the Court cannot and will not limit the Patent's claims to any one of the preferred embodiments explained in the specification.

The Court therefore will not construe "protective cap" term beyond its ordinary meaning.

2. "Periphery Removably Attached" (Claim 1) and "Attachably Positioned" (Claim 10)

AVC and Thermal-Link suggest that in Claim 1, "removably attached" should be construed as follows:

"[t]he outer perimeter of the cap is fastened to the bottom surface of the base in such a manner that the cap can be detached from the surface [,]" and in Claim 10, "attachably positioned on" should be construed as "[t]he cap is fastened to the bottom surface of the base." (Joint Statement at 4.)

PSC, on the other hand, argues that "removably attached" in Claim 1 should be construed as: "a flange directly adhered to the bottom face of the heat sink base in a manner that allows the cap to be detached from the bottom face." (Joint Statement at 41.) And in Claim 10, PSC suggests that "attachably positioned" should mean: "directly adhered to the bottom face of the heat sink." (Id.)

Again, the Court should look first to the language of the claim itself to determine the meaning of the terms. *See* Vitronics, 90 F.3d at 1582. Based on the ordinary meaning of these terms, there is no reason to limit the claim such that the protective cap must be "fastened" to the heat sink (as AVC and Thermal-Link argue), or such that the protective cap must be "directly adhered" to the bottom of the heat sink (as PCS suggests). The word "attached" has an ordinary meaning, which includes "fastened" and "adhered," but should not be so limited.

Rather, the Court agrees with Plaintiff that "periphery removably attached to the bottom face of the heat sink" should be construed in accordance with its ordinary meaning as follows: "periphery that is attached to the bottom face of the heat sink in such a way that it can be removed." This construction is in line with the specification.

Furthermore, in accordance with the ordinary meaning and in line with the specification, "attachably positioned on the bottom face" is construed as "attached to the bottom face."

B. "Ear Integrally Formed with the Flange" (Claims 6, 7 and 11)

Claims 6, 7 and 11 of the '458 Patent contains the phrase: "an ear integrally formed with the flange."

AVC and Thermal-Link construe "ear" as "a tab of material that extends from and is substantially narrower in width than the adjoining edge of the protective cap's flange." (Joint Statements at 5.) AVC and Thermal-Link argue that just as a human ear is substantially narrower than a person's head, the "tab is narrower relative to the adjoining side of the flange." (Id.)

"Ear" is defined in the *American Heritage College Dictionary as, inter alia,* "a projecting handle, as on a vase." *American Heritage College Dictionary* at 430. Similarly, in the *Webster's Third New International Dictionary,* an "ear" is defined as "something resembling in shape or position a mammalian ear[, such as] a projecting part (as a lug, plate, or handle) or either of a pair of such parts that is suitable for lifting, transporting, adjusting or fixing in position the object of which it is a part (as the handle of a pitcher or platter ...)[.]" Id. at 713. Moreover, in the same dictionary, "handle" is defined as "a part that is designed especially to be grasped by the hand (as for lifting or steering[.])" Id. at 1027.

As Defendants AVC and Thermal-Link explain however, an "ear" is a handle that is narrower than the object to which it is attached (and thus is akin to a "mammalian ear"). The only reason to use the term "ear" in lieu of the word "handle," for example, is because an "ear" is a handle-like object that is substantially narrower than the protective cap itself. The Court therefore adopts a construction in line with Defendants AVC and Thermal-Link's proposal. FN3

FN3. It is worth noting that in 1940, the Court of Customs and Patent Appeals referred to the dictionary definition of "ear" from *Knight's Mechanical Dictionary* as follows: "A small projection on an object, usually for support or attachment[.]" Dawson v. Martin, 27 C.C.P.A. 1155, 1158 (1940). Like the construction this Court is adopting, the *Dawson* court defined "ear" as "a small projection"-which implies that it an "ear" is narrower in size than the object to which it is attached.

The Court also has been asked by AVC and Thermal-Link to construe the phrase, "integrally formed with the flange." AVC and Thermal-Link construe this phrase to mean that "the ear must extend from the edge of the flange in a continuous, co-planar manner." (Joint Statement at 5.) There is no limitation within the claim language or specification, however, that calls for a construction that requires the ear to be on the same plane as the flange.

Rather, "integral" is defined in the *Webster's Third New International Dictionary* as "organically joined or linked[;] ... formed as a unit with another part[;] ... composed of constituent parts making a whole[.]" *Webster's Third New International Dictionary* at 1173. Furthermore, "join" is defined as "to put or bring together and fasten, connect, or relate so as to form a single unit, a whole, or a continuity[.]" *Id*. at 1218. There is nothing in the definition that requires the objects that are "integrally formed" to be on the same level/plane as the objects to which they are joined. Nor does the specification call for such a construction.

Therefore, the Court construes the phrase "ear integrally formed with the flange" as follows: "a tab of material that extends from and is substantially narrower in width than the adjoining edge of the protective cap's flange and is connected to the flange such that they form a single unit."

C. "Enclosing Thermal Grease" (Claims 1 and 10)

Claim 1 states in relevant part: "said protrusion enclosing the thermal grease whereby the thermal grease will not be contaminated by dust or foreign particles and will not contaminate surrounding articles when the heat sink is transported or handled." And in Claim 10, "enclosing thermal grease" is stated in the following limitation: "enclosing the thermal grease thereby protecting the thermal grease from contamination."

AVC and Thermal-Link construe "enclosing thermal grease" to mean that "the protective cap covers the thermal grease in a manner that prevents the thermal grease layer from being contacted by other substances and prevents thermal grease particles from coming into contact with surfaces other than the bottom face of the base when the heat sink is moved or manipulated (as Claim 1 requires) or in a manner that prevents the thermal grease layer from being contacted by other substances (as Claim 10 requires)." (Joint Statement at 6 .)

AVC and Thermal-Link point out that this construction supports the specification and prosecution history. While the proposed construction is consistent with the prosecution history and specification, there is no need to add this "explanation" to the claim.

The Court declines to construe this limitation beyond its ordinary meaning.

D. "Fins" (Claim 1)

Claim 1 reads in pertinent part: "a number of metallic fins projecting from the base away from the bottom face."

AVC and Thermal-Link construe this term to mean "that two or more thin, flat blades substantially consisting of metal extend perpendicularly from the bottom face of the base." (Joint Statement at 6.)

As AVC and Thermal-Link point out, the *Oxford English Dictionary* provides a definition for "fin" that is specific to the context of heat sinks: a "flattened projection for increasing heat transfer from an object." *The Concise Oxford English Dictionary* at 530.

There is no reason, however, that "away from" should be construed as "perpendicularly" (as AVC and Thermal-Link suggest). According to the *Webster's Third Mew International Dictionary,* "away" is defined as "in another direction; esp[ecially] [ ] in the opposite direction." *Webster's Third New International Dictionary* at 152 (emphasis omitted). The Court will not construe "away" beyond its ordinary meaning- while "away" can mean perpendicularly, there is no reason to adopt such a narrow construction of this term. The ordinary meaning is easily understandable and this term therefore will not be construed beyond its ordinary meaning.

Furthermore, it is not necessary to narrow the limitation such that a "fin" must be a "thin, flat blade." While a "fin" certainly can be a "thin, flat blade," there is no reason to limit the definition in such a way. To do so, as Plaintiff points out, would limit the claim so as to exclude the preferred embodiment (which depicts the "fins" as rectangular in shape).

"Fins" will thus be construed in accordance with its customary meaning (with regard to heat sinks) as "flattened projections used to increase heat transfer from an object." The remainder of the limitation needs no further clarification.

V. CONCLUSION

The Court construes the disputed claim terms as follows: FN4

FN4. The Court emphasizes that this Order is issued to provide guidance to the parties in preparing for trial. Specific claim constructions may be revised, augmented or omitted by way of subsequent orders or jury instructions. *See* Lucent Techs., Inc. v. Newbridge Networks Corp., 168 F.Supp.2d 181, 256-57 (D. Del 2001).

A. "Protective cap" = (ordinary meaning)
1. **"Periphery removably attached to the bottom face of the heat sink"** = "periphery that is attached to the bottom face of the heat sink in such a way that it can be removed"

2. **"Attachably positioned on the bottom face"** = "attached to the bottom face"

B. "Ear integrally formed with the flange" = "a tab of material that extends from and is substantially narrower in width than the adjoining edge of the protective cap's flange and is connected to the flange such that they form a single unit"

C. "Enclosing thermal grease" = (ordinary meaning)

D. "Fins" = "flattened projections used to increase heat transfer from an object"

IT IS SO ORDERED.

C.D.Cal.,2003.
Hon Hai Precision Industry Co., Ltd. v. PSC Computer Products, Inc.