

**United States Court of Appeals  
for the Federal Circuit**

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**CRAIG THORNER AND,  
VIRTUAL REALITY FEEDBACK CORPORATION,**  
*Plaintiffs-Appellants,*

**v.**

**SONY COMPUTER ENTERTAINMENT AMERICA  
LLC,  
SONY COMPUTER ENTERTAINMENT INC.,  
SONY ELECTRONICS INC., AND RILEY RUSSELL**  
*Defendants-Appellees,*

**and**

**GREGORY S. GEWIRTZ, LERNER DAVID  
LITTENBERG  
KRUMHOLTZ & MENTLIK, LLP, LARRY C. RUSS,  
MARC A. FENSTER, AND RUSS AUGUST & KABAT,**  
*Defendants.*

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2011-1114

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Appeal from the United States District Court for the  
District of New Jersey in case no. 09-CV-1894, Chief  
Judge Garrett E. Brown, Jr.

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Decided: February 1, 2012

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MATTHEW G. MCANDREWS, Niro, Haller & Niro, of Chicago, Illinois, argued for plaintiffs-appellants. With him on the brief was RAYMOND P. NIRO, JR.

DANIEL JOHNSON, JR., Morgan, Lewis & Bockius LLP, of San Francisco, California, argued for defendants-appellees.

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Before RADER, *Chief Judge*, MOORE, *Circuit Judge* and AIKEN, *District Judge*.\*

MOORE, *Circuit Judge*.

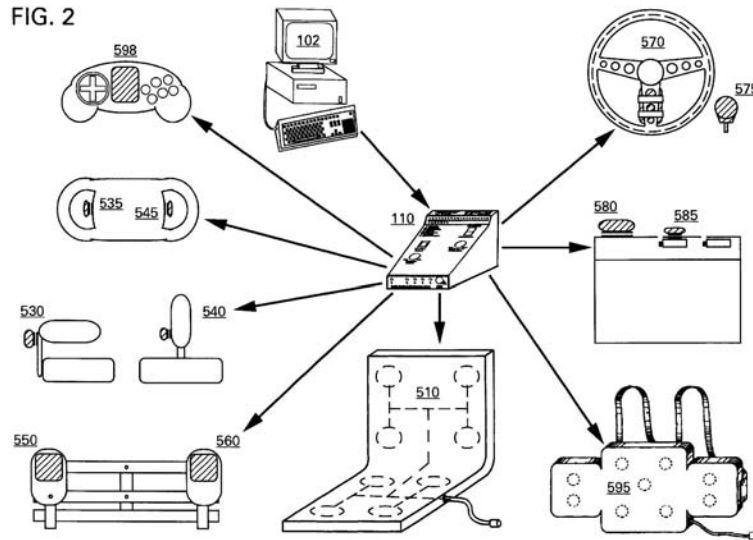
Craig Thorner and Virtual Reality Feedback Corporation (Appellants, collectively) accused Sony Computer Entertainment America LLC and a number of other Sony entities (Sony, collectively) of infringing claims of U.S. patent no. 6,422,941 ('941 patent) relating to a tactile feedback system for computer video games. The district court construed disputed claim terms and the parties stipulated to a judgment of noninfringement. Because the district court improperly limited the term "attached to said pad" to mean attachment only to an external surface and erred in its construction of the term "flexible", we *vacate* and *remand*.

#### BACKGROUND

The '941 patent describes a tactile feedback system for use with video games. Figure 2 shows the many different embodiments of the invention:

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\* The Honorable Ann L. Aiken, Chief Judge, United States District Court for the District of Oregon, sitting by designation.



Tactile feedback controller 110 is part of a larger gaming system that operates one or more of the devices shown above. Each device includes some type of actuator that provides tactile feedback to a user in response to certain game activities. '941 patent col.2 ll.44-52. For instance, the actuators in hand-held game controller 598 may vibrate during a crash in a car racing game. Independent claim 1 requires “a flexible pad,” “a plurality of actuators attached to said pad” and a control circuit that activates the actuators in response to game activity. The accused products are hand-held game controllers.

Two claim limitations are relevant to this appeal, “flexible pad” and “attached to said pad.” The district court held that flexible does not mean simply “capable of being flexed.” *Thorner v. Sony Computer Entm’t Am. LLC*, No. 09-cv-1894, 2010 WL 3811283, at \*3 (D.N.J. Sept. 23, 2010). It reasoned that this definition was inappropriate because “[m]any objects that are *capable* of being flexed are not flexible. A steel I-beam is capable of being flexed, but no one would call it ‘flexible.’” *Id.* The

court thus construed the term to mean “capable of being noticeably flexed with ease.” *Id.*

The district court then turned to the construction of “attached to said pad.” *Id.* at \*5-7. Appellants argued that attached should be given its plain and ordinary meaning and that an actuator can be attached to the inside of an object. Sony argued that “attached to said pad” should be construed as affixed to the exterior surface of the pad and does not include embedded within said pad. The court held that “the specification redefines ‘attached’ by implication.” *Id.* at \*6. The court held that the word attached was limited to attached to the outside of an object because the embodiments in the specification consistently use the term “attached” to indicate affixing an actuator to the outer surface of an object and use the word “embedded” when referring to an actuator inside an object. For additional support for the notion that attached and embedded have different meanings, the court pointed to claim 1 which uses the word “attached” and dependent claim 10 which uses the word “embedded.” *Id.*

Following claim construction, the parties stipulated to noninfringement by the accused products. They stated that “under the Court’s construction of the phrase ‘attached to said pad,’ Defendants have not infringed . . . .” The stipulation further stated that the “parties reserve their rights to challenge this or any other construction of the disputed claim phrases of the ’941 patent on appeal.” J.A. 14-15. We have jurisdiction over this appeal under 28 U.S.C. § 1295(a)(1).

#### DISCUSSION

We review claim construction *de novo*. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1455-56 (Fed. Cir. 1998) (en banc). The words of a claim are generally given their ordinary and customary meaning as understood by a

person of ordinary skill in the art when read in the context of the specification and prosecution history. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1580 (Fed. Cir. 1996). The use of the term “attached” in this specification does not meet either of these exceptions.

To act as its own lexicographer, a patentee must “clearly set forth a definition of the disputed claim term” other than its plain and ordinary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002). It is not enough for a patentee to simply disclose a single embodiment or use a word in the same manner in all embodiments, the patentee must “clearly express an intent” to redefine the term. *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1381 (Fed. Cir. 2008); *see also Kara Tech. Inc. v. Stamps.com*, 582 F.3d 1341, 1347-48 (Fed. Cir. 2009). “[T]he inventor’s written description of the invention, for example, is relevant and controlling insofar as it provides *clear lexicography . . .*” *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004) (emphasis added). For example, in *3M Innovative Properties Co. v. Avery Dennison Corp.*, we held that the patentee acted as its own lexicographer when the specification stated: “Multiple embossed’ means two or more embossing patterns are superimposed on the web to create a complex pattern of differing depths of embossing.” 350 F.3d 1365, 1369, 1371 (Fed. Cir. 2004). Similarly, we limited a patentee to particular examples of solubilizers when it stated in the specification that “[t]he solubilizers suitable according to the invention

*are defined below.*” *Astrazeneca AB v. Mutual Pharm. Co.*, 384 F.3d 1333, 1339 (Fed. Cir. 2004).

The standard for disavowal of claim scope is similarly exacting. “Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question.” *Scimed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed. Cir. 2001). “The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.” *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002); *see also Home Diagnostics, Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1358 (Fed. Cir. 2004) (“Absent a clear disavowal in the specification or the prosecution history, the patentee is entitled to the full scope of its claim language.”). For example, in *Scimed*, the patentee described two different types of catheters in the prior art, those with dual lumens (side-by-side) and those with coaxial lumens. 242 F.3d at 1339. In discussing the prior art, the patentee disparaged the dual lumen configuration as larger than necessary and less pliable than the coaxial type. *Id.* at 1342. Further, the specification repeatedly described the “present invention” as a coaxial design. *Id.* Finally, the specification stated: “The intermediate sleeve structure defined above [coaxial design] is the basic sleeve structure for *all embodiments of the present invention contemplated and disclosed herein.*” *Id.* at 1343 (emphasis in original). This court held that collectively this amounted to disavowal of the dual lumen design.

Mere criticism of a particular embodiment encompassed in the plain meaning of a claim term is not sufficient to rise to the level of clear disavowal. *Epistar Corp. v. Int'l Trade Comm'n*, 566 F.3d 1321, 1335 (Fed. Cir. 2009) (holding that even a direct criticism of a particular technique did not rise to the level of clear disavowal). In *Spine Solutions, Inc. v. Medtronic Sofamor Danek USA, Inc.*, we explained that even where a particular structure makes it “particularly difficult” to obtain certain benefits of the claimed invention, this does not rise to the level of disavowal of the structure. 620 F.3d 1305, 1315 (Fed. Cir. 2010). It is likewise not enough that the only embodiments, or all of the embodiments, contain a particular limitation. We do not read limitations from the specification into claims; we do not redefine words. Only the patentee can do that. To constitute disclaimer, there must be a clear and unmistakable disclaimer.

It is the claims that define the metes and bounds of the patentee’s invention. *Phillips*, 415 F.3d at 1313. The patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly redefines the term or disavows its full scope.

Claim 1 of the patent at issue includes the disputed claim terms:

In a computer or video game system, apparatus for providing, in response to signals generated by said computer or video game system, a tactile sensation to a user of said computer or video game system, said apparatus comprising:

a *flexible* pad;

a plurality of actuators, *attached to said pad*, for selectively generating tactile sensation; and

a control circuit . . . for generating a control signal to control activation of said plurality of actuators . . . .

(emphasis added).

I. “attached to said pad”

Appellants argue that the district court erred by holding that the specification implicitly defined “attached” to mean “affixed to an exterior surface.” They argue that the term does not require any construction and that the plain and ordinary meaning includes affixing an item to either an exterior or an interior surface. They contend that the specification explicitly states whether an attachment is to an interior or exterior surface: “a vibratory actuator can be attached to [the] outer side of the throttle handle.” Appellant’s Br. 13 (quoting ’941 patent col.39 ll.58-60). They argue this shows that when the applicant wished to distinguish an internal from an external attachment, he did so with deliberate, express language. Thus, appellants argue that the specification contemplates “attached” to have its plain and ordinary meaning—attached to either an interior or exterior surface. Finally, appellants argue that the fact that claim 10 includes the word “embedded” does not mean that “attached” can only mean connected to an exterior surface. Rather, appellants argue that “embedded” is merely a narrower term that includes only attachment to an interior surface.

Sony responds that the patent clearly identified two different connections, “attached to” and “embedded within.” It argues that in every instance where the specification uses the term “attached,” it refers to an attachment to an outer surface. Conversely, in every embodiment where the actuator is placed inside a housing, the specification uses the term “embedded.” *See, e.g.*, ’941 patent col.32 l.66 (“embedded within or attached to”).



Our case law is clear, claim terms must be given their plain and ordinary meaning to one of skill in the art. *Phillips*, 415 F.3d at 1316. The plain meaning of the term “attached” encompasses either an external or internal attachment. We must decide whether the patentee has redefined this term to mean only attachment to an external surface. As Sony argues, the specification repeatedly uses the term “attached” in reference to embodiments where the actuators are “attached to [an] outer side.” ’941 patent col.33 ll.40-41. In fact, the specification never uses the word “attached” when referring to an actuator located on the interior of a controller. We hold that this does not rise to the level of either lexicography or disavowal. Both exceptions require a clear and explicit statement by the patentee. *CCS Fitness*, 288 F.3d at 1366; *Teleflex*, 299 F.3d at 1325. It is not enough that the patentee used the term when referencing an attachment to an outer surface in each embodiment. *See Kara Tech.*, 582 F.3d at 1347-48. In fact, the specification explains that an actuator was “attached to [an] outer surface.” *See* ’941 patent col.33 ll.40-41. If the applicant had redefined the term “attached” to mean only “attached to an outer surface,” then it would have been unnecessary to specify that the attachment was “to [an] outer surface” in the specification. We conclude that the term attached should be given its plain and ordinary meaning. The specification does not redefine attached nor is there any disavowal.

The fact that the specification uses the two terms “attached” and “embedded” as alternatives does not require a different result. *See, e.g., id.* col.32 l.66. There is nothing inconsistent about the applicant’s use of the narrower term, “embedded,” to describe embodiments affixed to an internal surface. The plain and ordinary meaning of embedded, “attached within,” is narrower than “attached.” Hence it makes sense that the applicant would

want to use embedded when it meant to explicitly claim attached to the inside only. That does not mean the word attached automatically means attached to the external surface, as opposed to the broader plain meaning – attached to either the interior or exterior.

It is true that in certain pre-*Phillips* cases, we held that use of two terms as alternatives could amount to an implicit redefinition of the terms. See *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc.*, 262 F.3d 1258, 1271 (Fed. Cir. 2001). But the “implied” redefinition must be so clear that it equates to an explicit one. In other words, a person of ordinary skill in the art would have to read the specification and conclude that the applicant has clearly disavowed claim scope or has acted as its own lexicographer. Simply referring to two terms as alternatives or disclosing embodiments that all use the term the same way is not sufficient to redefine a claim term.

Other parts of the claim and specification also support this construction. The claim at issue requires a “flexible pad.” The only embodiment in the specification that includes flexible material is the seat cushion 510 shown in Figure 2. The specification states that “the tactile feedback seating unit 510 is a semi-rigid flexible foam structure . . . with a plurality of actuators embedded within the foam structure.” ’941 patent col.37 ll.6-10. Thus, the only flexible embodiment in the specification has embedded actuators. If we agreed with Sony that “attached” must mean attached to an outer surface, then the claim would exclude the only flexible embodiment disclosed in the specification. This is further evidence that the term “attached” should have its plain and ordinary meaning which includes either internal or external attachments.

We hold that the term “attached to said pad” should be given its plain and ordinary meaning which encom-

passes either internal or external attachment. Because the parties based the stipulation of noninfringement on the district court's erroneous construction of this claim term, we vacate and remand.

## II. "flexible pad"

As an initial matter, Sony argues that our case law precludes us from deciding claim construction issues that are not implicated by the district court's judgment. Appellee's Br. 25 (citing *Mass. Inst. of Tech. v. Abacus Software (MIT)*, 462 F.3d 1344, 1350 (Fed. Cir. 2006)). In *MIT*, there was a stipulation of noninfringement. Despite its success below, the accused infringer asked us to construe a number of terms outside the stipulation on appeal and this court declined to do so. *Id.* As an initial matter, in this case, in contrast to *MIT*, the losing party has asked us to review the claim construction. In *MIT*, it was the prevailing party that made the request. As the court in *MIT* recognized, the court has discretion to determine the issues necessary for resolution of the appeal. Here the term "flexible" was fully briefed and argued below, decided by the district court and fully briefed and argued to us on appeal. Moreover its claim construction is a question of law properly before this court. We conclude that it would waste judicial resources to refuse to decide this issue on appeal.

Appellants argue that the term "flexible" simply means "capable of being flexed" and that the district court erred by requiring "capable of being noticeably flexed with ease." They note that the specification only uses the term "flexible pad" when referring to a "semi-rigid" structure and that a "semi-rigid" structure would certainly not be "noticeably flexed with ease." Appellant's Br. 15-16 (citing '941 patent col.37 ll.6-7, 24, 49).

Sony responds that although the specification uses the term to refer to a “semi-rigid” structure, that structure is made out of foam in every embodiment. It argues that foam is capable of being noticeably flexed with ease and thus a rigid, barely bendable material should not be considered “flexible.” Sony also points to portions of the *Markman* hearing where the district court judge inspected one of the accused hard plastic controllers. The judge noted that the controller was rigid and “[i]f I try to flex this thing, I think that you’re going to see it snap.” J.A. 523-24.

We agree with the appellants that the district court improperly limited the term. Neither the claims nor the specification requires the “flexible pad” to be noticeably flexed with ease. The specification says only that the flexible pad must be a semi-rigid structure. The task of determining the degree of flexibility, the degree of rigidity that amounts to “semi-rigid,” is part of the infringement analysis, not part of the claim construction. The district court is of course free on summary judgment to decide that there is no genuine issue of material fact that the accused products in this case do not meet the plain and ordinary meaning of the term “flexible.” We do not mean to suggest that summary judgment is improper in this case, only that claim construction is the wrong venue for this determination.

**VACATED and REMANDED**