

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO
Magistrate Judge Kathleen M. Tafoya

Civil Action No. 11-cv-02180-WJM-KMT

OTTER PRODUCTS, LLC, a Colorado Limited Liability Company,

Plaintiff/Counter-Defendant,

v.

TREEFROG DEVELOPMENTS INC. d/b/a LIFEPROOF, a Delaware Corporation,

Defendant/Counter-Claimant.

MEMORANDUM ON CLAIM CONSTRUCTION

I. Introduction

Plaintiff Otter Products, LLC (“Otter”) contends that Defendant Treefrog Developments Inc. d/b/a LifeProof’s (“LifeProof”) iPhone 4/4S cases infringe claims in U.S. Patent No. 6,995,976 (“the ’976 Patent”) (Am. Compl., Ex. A), U.S. Patent. No. 7,158,376 (“the ’376 Patent”) (*id.*, Ex. B), and U.S. Patent No. 7,609,512 (“the ’512 Patent”) (*id.*, Ex. C). The independent claims Otter asserts against LifeProof are claims 1 and 12 of the ’976 Patent, claim 11 of the ’376 Patent, claims 1 and 3 of the ’512 Patent, as well as certain specified dependent claims.

The ’976 Patent describes a protective enclosure for a touch screen device. The ’976 Patent was filed on August 20, 2003, issued February 7, 2006, and claims priority to a provisional application filed November 19, 2001. The first independent claim states

A protective enclosure for a touch screen device having a touch screen comprising:
a shell that is capable of enclosing and substantially surrounding said touch screen device, said touch screen device being a separate unit from said protective enclosure, said shell being adapted to insert and remove said touch screen device by hand, said shell being substantially submersibly watertight, substantially rigid and substantially crush-resistant, said shell being larger than said touch screen device so that there is a gap between an outer surface of said touch screen device and an inner surface of said shell so that said shell may flex when subjected to a crushing force without transmitting said force directly to said touch screen device, said shell having an elevated protective rim substantially surrounding a perimeter of said touch screen of said touch screen device so that when said touch screen device is disposed in said enclosure, said touch screen of said touch screen device is recessed with respect to said protective rim of said shell so that said elevated protective rim protects said touch screen from deflection and breakage by contact with an object that is larger than said perimeter of said protective rim; and
a flexible protective membrane that is integrally fixed on said shell so that said flexible protective membrane is disposed over said touch screen of said touch screen device when said touch screen device is disposed in said enclosure, said flexible protective membrane having a back side that has a substantially planar smooth surface that is adjacent to said touch screen of said touch screen device when said touch screen device is disposed in said enclosure so that tactile inputs on a front side of said flexible protective membrane are communicated to said touch screen through said flexible protective membrane, said flexible protective membrane being at least partially transparent such that said touch screen is visible through said flexible protective membrane so that said touch screen is capable of displaying and capturing information through said flexible protective membrane.

(’976 Patent, Claim 1.)

The ’376 Patent describes and claims a protective enclosure for two distinct types of electronic devices: (1) a tablet PC having an interactive flat panel control,¹ and (2) a handheld device having a capacitance-sensing interactive flat-panel control. The ’376 Patent was filed on

¹ The parties agree that the only allegations of infringement in this case involve handheld devices. (Defendant LifeProof’s Response Claim Construction Brief [Doc. 56] (“LifeProof Resp. C.C.Br.”) at 42; Otter Products, LLC’s Reply Claim Construction Brief [Doc. 62] (“Otter Reply C.C.Br.”) at 25.)

September 8, 2004, issued January 2, 2007, and also claims priority to the provisional application filed November 19, 2001. Claim 1 is not being asserted against LifeProof. Claim 11 states

A protective enclosure for a handheld device having a capacitance-sensing interactive flat-panel control comprising:

- a shell that is capable of enclosing said handheld device, said handheld device being a separate unit from said protective enclosure, said handheld device being insertable in and removable from said enclosure by hand, said shell being substantially crush-resistant and having an elevated protective rim around a perimeter portion of said capacitance-sensing interactive flat-panel control of said handheld device so that when said handheld device is disposed in said enclosure, said capacitance-sensing interactive flat-panel control of said handheld device is recessed with respect to said protective rim of said shell so that said elevated protective rim protects said interactive flat-panel control from breakage; and
- a protective membrane that is integrally fixed to said shell, said protective membrane disposed over said capacitance-sensing interactive flat-panel control of said handheld device when said handheld device is disposed in said enclosure, said protective membrane having a back side that has a substantially planar smooth surface that is adjacent to said capacitance-sensing interactive flat-panel control of said handheld device when said handheld device is disposed in said enclosure, said protective membrane being sufficiently thin that capacitive inputs on a front side of said protective membrane are transmitted to said capacitive-sensing interactive flat-panel control through said protective membrane, said protective membrane being at least partially transparent such that said interactive flat-panel control is visible through said protective membrane, said protective membrane having a dielectric constant such that capacitive inputs on a front side of said protective membrane are transmitted to said capacitance-sensing interactive flat-panel control.

('376 Patent, Claim 11.)

The '512 Patent describes a protective enclosure for an electronic device such as a laptop computer. Claim 1 of the '976 patent is representative of the '512 Patent for purposes of this order. The '512 Patent was filed on July 7, 2006, issued October 27, 2009, and also claims priority to the provisional application filed November 19, 2001.

II. Legal Issues and Standards

In Article I, Section 8 of the United States Constitution, the Founders authorized Congress to enact laws “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” Shortly thereafter Congress enacted the first patent law, declaring that anyone who had “invented or discovered any useful art, manufacture, engine, machine, or device or any improvement therein not before known or used” shall have “the sole and exclusive right and liberty of making, constructing, using and vending to others to be used” for a term not to exceed fourteen years. 1 Stat. 109-110 (1790); *see also Bilski v. Kappos*, ___ U.S. ___, 130 S. Ct. 3218, 3242 (2010) (providing history of U.S. patent system). Patents are a right to exclude others from gain from the invention, sometimes referred to as “exclusive advantages of commerce.” *Bilski*, 130 S. Ct. at 3242. As such, the description of the boundaries of the invention is of paramount importance. A patentee must adequately notify the public of the scope of the invention. *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005). A claim is adequately described when a person skilled in the art “would understand the bounds of the claim when read in light of the specification . . . [and the claim] reasonably apprise[s] those skilled in the art of the scope of the invention” *Solomon v. Kimberly-Clark Co.*, 216 F.3d 1372, 1378 (Fed. Cir. 2000) (quotation omitted).

A. Person of Ordinary Skill in the Art

A court must construe claim terms from the perspective of a person of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005)

(case initially arising from the District of Colorado). A “person of ordinary skill in the art is a hypothetical person who is presumed to know the relevant prior art.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). Prior art includes previous inventions or products which are “reasonably pertinent to the particular problem with which the inventor was involved.” *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1535 (Fed. Cir. 1983). “The person of ordinary skill is presumed to have access to the entire art not because he unrealistically carries the entire art in his head but because he knows how to find information in the art by researching accessible sources including the patent literature.” *In re Nilssen*, 847 F.2d 841, 1988 WL 32917, at *2 (Fed. Cir. Apr. 14, 1988) (unpublished). Factors to be considered in determining skill level include: “type of problems encountered in art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986) (citing *Envtl. Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 696 (Fed. Cir. 1983)). Moreover, the actual inventor’s skill is not determinative of the level of ordinary skill, because a person of ordinary skill is “presumed to be one who thinks along the line of conventional wisdom in the art and is not one who undertakes to innovate” *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 454 (Fed. Cir. 1985) (also noting that the concepts underling the Constitution and the statutes that have created the patent system contemplate that inventors, as a class, possess something which “sets them apart from the workers of ordinary skill”).

B. *Principals of Construction*

Generally, a claim term is given its “ordinary and customary meaning,” that being the definition given by “a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1313. The Federal Circuit has explained that the claim construction inquiry begins by looking at the intrinsic evidence: the language of the claims, the specification, and the prosecution history. *Id.* The claims themselves, together with the use of a term within the claim, as well as other claims of the patent in question, both asserted and unasserted, and differences between and among claims “provide substantial guidance as to the meaning of particular claim terms.” *Id.* at 1314. It is appropriate for a court “to rely heavily” on the specification, including the patentee’s written description, for guidance as to the meaning of the claims. *Id.* In fact,

the specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.”

Id. at 1315 (quoting *Vitrionics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The court “should also consider the patent’s prosecution history, if it is in evidence.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) *aff’d*, 517 U.S. 370 (1996). Though less useful and often lacking the clarity of the specification, “the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Phillips*, 415 F.3d at 1317.

Apart from intrinsic evidence, the court is also authorized to rely on extrinsic evidence, that being “evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Id.* (quotation omitted). Such evidence, while “shed[ding] useful light on the relevant art,” is “less significant than the intrinsic record in determining the legally operative meaning of claim language,” and “is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Id.* at 1317, 1319. “[R]eliance on extrinsic evidence poses the risk that it will be used to change the meaning of claims in derogation of the indisputable public records consisting of the claims, the specification and the prosecution history, thereby undermining the public notice function of patents.” *Id.*, at 1318-19.

If at all possible, a patent should be construed by the court so as to sustain its validity. *N. Am. Vaccine, Inc. v. Am. Cyanamid Co.*, 7 F.3d 1571, 1577 (Fed. Cir. 1993).

III. Analysis and Construction of Disputed Claim Terms

- A. Said shell being larger than said touch screen device so that there is a gap between an outer surface of said touch screen device and an inner surface of said shell so that said shell may flex when subjected to a crushing force without transmitting said force directly to said touch screen device**

'976 Patent, claims 1, 12 (and claims dependent thereon)

Otter Products LLC's Construction

Only two words require construction.

gap: a space, which may be filled with compressible material or air

directly: without anyone or anything intervening or mediating

LifeProof's Construction

a space between the shell and the device such that the shell does not snugly conform to the device, but rather allows for there to be flex between the shell and the device thereby isolating the device from the shell such that a crushing force cannot be transmitted directly to the device.

In rebuttal, LifeProof also proposes:

gap: a space which must be filled with non-shell material such as a compressible insert or air

directly: can be understood according to its plain and ordinary meaning

Claim one of the '976 Patent went through several versions before the final language claiming the invention was accepted by the Commissioner of Patents. In the first edition of the '976 Patent Application filed August 20, 2003, neither the term "gap" nor "directly" appeared.²

² At the claim construction hearing on August 8, 2012, the Defendant presented spiral bound copies of the claim history for each of the patents-in-suit. Those binders consisted of the Patents, together with tabbed subsections containing various Office Actions issued by the U.S. Patent Office and responses from the Applicant, among other documents. The three binders are submitted as conventionally filed documents and will be referenced as "____ Pros. Hist. at ____"

(’976 Pros. Hist. at 19.) In all its various iterations the invention was described as one enclosure made up of two parts – a shell with various discrete attributes together with a membrane also with specified attributes, which, when joined together, accomplished certain functionality.

Claim 1 of the first application for the ’976 Patent was initially rejected by the Patent Examiner on April 29, 2004, as being anticipated by U.S. Patent No. 6,415,138, referenced herein as “*Sirola*.” (*Id.* at 45.) The inventor and prosecutor, Curtis R. Richardson³ (hereinafter the “Applicant” or “patentee”), through his patent prosecution counsel William W. Cochran, submitted his revised Application on July 22, 2004, submitting a new claim 1 (renumbered as claim 17 at that stage) along with argument and authority concerning the differences between the prior art, including *Sirola*, and the revised claims of the new patent. (*Id.* at 54, *et seq.*) Again, neither the term “gap” nor the term “directly” appeared in the revision. (*Id.* at 55.)

In arguing for distinction from the prior art, the Applicant presented his new invention as having a “crush-resistant shell” together with “cushioning that protects the touch screen device from mechanical shock.” (*Id.* at 60) (emphasis in original.) The Applicant argued that *Sirola* did not teach or suggest a crush-resistant shell in an enclosure that also provided “cushioning.” (*Id.* at 61.)

denoting the applicable patent-in-suit together with the page number related at lower right corner for each page within the prosecution history notebook.

³ Curtis Richardson is the founder of Plaintiff Otter Products, LLC. (Otter Products LLC’s Opening Claim Construction Brief [Doc. No. 48] (“Otter C.C.Br.”) at 1.)

The Applicant also attempted to distinguish his claims from U.S. Patent No. 6,665,174, prior art known as “‘174 Derr,” which the patent office mentioned but did not rely upon in the first Office Action. ‘174 Derr disclosed a “portable electrical control and display device having a single-piece housing made of temperature resistant, water tight material.” (*Id.* at 49.) The Applicant specifically set apart his invention as “a protective enclosure having a shell that is crush-resistant and has an elevated protective rim [] the touch screen that protects the touch screen from breakage as set forth in claim 17.” (*Id.* at 65.) The Applicant did not mention or distinguish his invention from ‘174 Derr on the basis of a “snug fit” or any similar language. The emphasis drawn by the Applicant was on the crush-resistant nature of the shell material used in the enclosure and the cushioning to prevent damage to the separate touch screen device.

Once again on September 22, 2004, the Patent Office rejected claims 17-34, this time relying heavily U.S. Patent No. 6,068,119, an earlier patent by *Derr*, referenced herein as ‘119 *Derr*. (*Id.* at 78 *et seq.*) The Patent Examiner found that ‘119 *Derr* disclosed a protective enclosure for a touch screen device comprising a shell that is capable of enclosing the touch screen device and that the touch screen device was insertable in and removable from the enclosure by hand. The Patent Examiner also noted that the ‘119 *Derr* shell was described as substantially crush-resistant and as having an elevated protective rim around the perimeter of the touch screen portion of the protected device. (*Id.* at 80.) The Patent Examiner also rejected claim 21 under ‘119 *Derr* in view of *Sirola* and U.S. Patent No. 6,456,487, referenced as *Hetterick*, which claimed “having cushioning that protects the touch screen from mechanical shock.” (*Id.* at 83.)

Again, the Applicant responded by modifying his claim language and for the first time the term “gap” appears in claim number 36 (later to become claim number 1), delimiting and modifying the description of the inventor’s shell as being designed in such as way as to form a gap between some portion of the shell and the touch screen device, claiming the

shell is larger than the said touch screen device so that there is a gap between an outer surface of said touch screen device and an inner surface of said shell so that said shell may flex when subjected to a crushing force without transmitting said force directly to said touch screen device.

(*Id.* at 92.) As described, the gap is not part of the shell or the membrane composing the invention, but rather modifies the shell size in relation to the separate touch screen device the invention is designed to protect.

As part of distinguishing ‘119 *Derr*, the Applicant asserted that ‘119 *Derr* disclosed a shell composed of a flexible material such that the form of the shell could be manipulated to push the touch screen device through an opening with sufficient force that it would pop out; i.e. ‘119 *Derr*’s shell was composed of “elastically flexible material.” (*Id.*) In his argument to the Patent Examiner, the Applicant continued to claim that the shell of his enclosure used “strong rigid materials,” unlike ‘119 *Derr* which disclosed “a deformable protective housing that fits snugly, i.e. with zero-play, around an electronic instrument.”⁴ (*Id.* at 99-100.) The Applicant claimed that the flexible material as taught by ‘119 *Derr* could not be “substantially crush

⁴ This argument is consistent with the language contained in the patent-in-suit wherein not only claim 1, but also each of the dependent claims, speak in terms of a shell that is: “rigid plastic that is substantially devoid of soft PVC . . .” (’976 Patent, 12:31-32); “polycarbonate having sufficient thickness to make said shell substantially crush-resistant” (*id.*, 12:35), and; “a rigid plastic” (*id.*, 12:38).

resistant.” (*Id.* at 100.) The Applicant asserted that while the protective cover taught by ‘119 *Derr* might be dimensionally stable when in use, for instance when it has taken a shape by surrounding a touch screen device, by design it could not be substantially crush-resistant given the soft material of the shell and lack of a gap to defuse force, stating:

The presence of either air or a shock absorbing insert in a gap formed between the enclosure and the touch screen device enhances the level of protection to the touch screen device by providing room for the enclosure to flex when subjected to a crushing force without transmitting the force directly to the touch screen device.”

(*Id.* at 100.) Again, the distinguishing characteristic being argued by the Applicant was the rigidity of the shell material and providing room to flex, not whether either enclosure resulted in a “snug fit” when fully assembled. (*Id.*) Logically, any shock absorbing insert put into the described gap – other than air – could cause the touch screen device inside the enclosure to “fit snugly” if surrounded by the cushion. (*See, e.g.*, ’976 Patent, 5:6-8 (“device may be mounted using open or closed cell inserts in the protective cover”); ’512 Patent, 13:38-40 (use of internal bumpers in the corners)). In these embodiments, however, it is not the “snug fit” which is claimed as unique to this invention, but the fact that the material surrounding the touch screen device in part is different from the shell and provides “cushioning” when crushing forces are applied to the shell.

Applicant’s argument to the Patent Examiner, therefore, was that inclusion of a “gap” provided (1) a layer of protective material, including air, between parts or portions of the inside of the shell and the outside of the touch screen device, and (2) that the gap layer necessarily is comprised of some different material from the shell, including air, which would help diffuse

crushing forces applied to the rigid outer shell by providing room for the shell to flex or give way without itself striking or damaging the touch screen device.

LifeProof argues that, pursuant to the Applicant's argument to the Patent Examiner, the shell and the device must be "isolated" from one another in order to create the gap as described. This language would imply that the enclosure and the touch screen device would not touch at any point. However, this interpretation ignores the embodiments of the patents-in-suit, which teach that certain elements of the outside rigid shell material could touch the edges of the protected device to hold the device in place if the cushioning material in the gap was air. (*See e.g.*, '976 Patent, 5:12-13 (the touch screen device "may be held in place by resting in molded features of two halves of a protective case that clamps onto the [device].").) Patent claims should generally be construed to encompass the preferred embodiments described in the specification, and it is generally error to adopt a construction that excludes them. *See On-Line Techs., Inc. v. Bodenseewerk Perkin-Elmer GmbH*, 386 F.3d 1133, 1138 (Fed. Cir. 2004).

Further, the claim language itself reveals that the referenced gap between the shell and the touch screen device only need be present at some places within the enclosure, not all. Claim 1 of the '976 Patent provides that the shell must be larger than the device "so that there is a gap between an outer surface of said touch screen device and an inner surface of said shell" ('976 Patent, 11:66-12:1) (emphasis added). A patentee is free, of course, to be his own lexicographer, *Markman*, 52 F.3d at 980 (citing *Autogiro Co. v. United States*, 384 F.2d 391, 397 (Ct. Cl. 1967)), and if the patentee wished to provide for a gap which completely surrounded and isolated the touch screen device from the shell he could well have replaced the word "an" with

“all” to achieve that result. He did not. Therefore, inserting a term to imply that the touch screen device is completely isolated from the shell does not fit the language of the patent itself and would likewise impermissibly read one embodiment out of the patent-in-suit.

Otter suggests that the court merely construe the terms “gap” and “directly” and not attempt to clarify the meaning of the questioned claim phrase as a whole. However, this seems imprudent given that when the Applicant was distinguishing his invention from both *Derr* patents, *Sirola* and others, he stressed the overall concept of his invention as protection for independent touch screen devices which were utilized in “harsh conditions” and in “industrial environments.” (’976 Patent, 1:25-44.) He then described how his invention achieved such increased resilience in a manner different from the prior art. Further, in the context of the claim itself, there is simply no need to construe or interpret the word “directly” once the term “gap” is construed. The “ordinary” meaning of such terms should speak for themselves. *See, e.g., U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997). The court finds that a person skilled in the art would understand the ordinary meaning of the word “directly” in the context of these patents-in-suit, particularly in these questioned claims.

Based on the intrinsic evidence, the court construes the contested claim phrase as follows:

Said shell being larger than said touch screen device so that there is a space between an outer surface of said touch screen device and an inner surface of said shell, which space may be filled with air or some other compressible material different from the shell material, so that said shell may flex when subjected to a crushing force without transmitting said force directly to said touch screen device.

B. crush resistant

'512 Patent, claim 1

Otter Products LLC's Construction

this term can be understood according to its plain and ordinary meaning.

LifeProof's Construction

having a flexural modulus of at least 350 ksi.

The term “crush resistant,” without the modifier of “*substantially* crush resistant,” appears only in claim 1 of the '512 patent. ('512 Patent, 19:3.) The court agrees with the parties that crush resistant is, in effect, a term of degree insofar as it necessarily excludes material(s) that are non-crush resistant. (Otter C.C.Br. at 12; LifeProof Resp. C.C.Br. at 29); *cf. Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1372 (Fed. Cir. 2008) (concluding that “the term ‘anaerobic condition’ is in effect a term of degree because its bounds depend on the degree of oxygen deficiency”). The parties dispute, however, whether the intrinsic evidence imposes a numerical limitation on the term.

When construing a term of degree, a key question is whether the intrinsic evidence provides some standard for measuring that degree. *Exxon Research and Eng'g v. United States*, 265 F.3d 1371, 1381 (Fed. Cir. 2001). The Federal Circuit has rejected attempts to introduce a numerical constraint on a term where the intrinsic evidence will not support it. *Cordis Corp. v. Medtronic*, 339 F.3d 1352, 1361 (Fed. Cir. 2003) (refusing to impose a precise numerical constraint on the term “substantially uniform thickness”); *Playtex v. Products v. Procter & Gamble Co.*, 400 F.3d 901, 907 (Fed. Cir. 2005) (finding that the district court’s definition of

“substantially flattened surfaces” improperly introduced a numerical tolerance to flatness where there was nothing in the intrinsic evidence to support this limitation). Indeed, “[c]laims are often drafted using terminology that is not as precise or specific as it might be That does not mean, however, that a court, under the rubric of claim construction, may give a claim whatever additional precision or specificity is necessary to facilitate comparison between the claim and the accused product.” *PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998). The court is mindful that while its role is to construe disputed claims, it is the jury’s role to determine infringement. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 384 (1996).

The court finds that there is no support in the intrinsic record for LifeProof’s attempt to impose the numerical limitation of “having a flexural modulus of at least 350 ksi” on the term “crush resistant.” Indeed, LifeProof admits that “there is no express disclosure in the prosecution history as to what quantitative value OtterBox assigned to [“crush resistant”].” (LifeProof Resp. C.C.Br. at 32.) Instead, to reach this quantitative value, LifeProof first points to two embodiments within the ’512 Patent specification that reference polycarbonate, and from that alone concludes that polycarbonate is a representative component of a crush resistant shell. (’512 Patent, 13:18-21 (“[s]hell lid 1304 and base 1312 may be made of impact/*crush resistant material* such as glass-fiber reinforced engineered, thermoplastic, such as for example, *glass reinforced polycarbonate*); 15:12-15 (“the shell lid 1706 and the shell base 1704 are made of *polycarbonate* or other engineered thermoplastics that are *crush-resistant*”)) (emphasis added); (see also LifeProof Resp. C.C.Br. at 26.) LifeProof thereafter incorporates extrinsic evidence to

support the proposition that the flexural modulus of polycarbonate is 350 ksi. (LifeProof Resp. C.C.Br. at 26.)

The court agrees with Otter that this construction constitutes impermissible limiting, upon limiting, upon limiting. (Otter Reply C.C.Br. at 14.) First, if the fact that “the only embodiments, or all of the embodiments, contain a particular limitation” is insufficient to redefine a term, *Thorner v. Sony Comp. Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012), then it is certainly insufficient to limit claim scope based upon only two of several embodiments. Furthermore, polycarbonate is only one of several materials incorporated into these embodiments—they also reference, for example, several “other engineered thermoplastics such as polyethylene, polypropylene, etc. that are crush-resistant and impact resistant.” (’512 Patent, 15:12-15.) LifeProof offers no support for its conclusion that “polycarbonate is a representative component of a crush resistant case.” (LifeProof Resp. C.C.Br. at 26.) Finally, LifeProof’s construction is further undercut by the fact that “the flexural modulus for polycarbonate can vary widely depending on a wide variety of factors.” (Otter Reply C.C.Br. at 15; *see also id.*, Ex. J (showing a flexural modulus for polycarbonate ranging from 42.1 ksi to 1700 ksi). Altogether, because this numerical limitation is not included in the intrinsic record and would constitute an unwarranted limitation on claim scope, the court rejects LifeProof’s attempt to limit “crush resistant” to “having a flexural modulus of at least 350 ksi.”

Otherwise, the court finds that the intrinsic evidence includes an alternative standard of measurement for “crush resistant.” More specifically, after outlining that “[t]he protective cover may be designed for rugged industrial use, commercial use, or many other uses,” the ’512 Patent

specification states that “[a]n industrial use may require the protective cover . . . protect the unit when dropped, and be crush proof.” (’512 Patent, 4:14-16.) A “recreational use,” on the other hand, may require only that the cover “afford some protection against dropping and being crushed.” (*Id.*, 4:21-23.) Thus, while “crush-resistant” may encompass a spectrum up to and including “crush proof,” it is clear that at a minimum, “crush resistant” must “afford some protection against dropping and being crushed.” (*Id.*, 4:22-23.) The court’s review of the intrinsic record does not disclose any other evidence that further elaborates on the meaning of “crush resistant.” *See Phillips*, 415 F.3d at 1321 (the specification “is the single best guide to the meaning of a disputed term” and acts “as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication.”) As such, the court construes “**crush resistant**” as “*affording some protection against dropping and being crushed.*”

C. *substantially crush resistant*

'976 Patent, claims 1, 12

'376 Patent, claim 11

'512 Patent, claim 3

Otter Products LLC's Construction

only the term substantially need be construed.

“substantially can be construed as “to a considerable degree.” Thus this term would be construed to mean: crush resistant to a considerable degree.

LifeProof's Construction

having a flexural modulus of at least 310 ksi.

The parties do not dispute, and the court agrees, that the terms “crush resistant” and “substantially crush resistant” have different meanings. *Chicago Bd. Options Exchange, Inc. v. Int'l Sec. Exchange, LLC*, 677 F.3d 1361, 1369 (Fed. Cir. 2012) (The general presumption is that “different terms have different meanings.”); *CAE v. Screenplates, Inc. v. Heinrich Fielder GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) (“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.”). A threshold dispute, however, is whether the use of “substantially,” also a term of degree, signifies a greater or lesser degree of crush resistance than simply “crush resistant.” Specifically, LifeProof argues that “common sense informs that [‘crush resistant’] must be a higher value than disclosed for ‘substantially crush resistant’” (LifeProof Resp. C.C.Br. at 32), whereas Otter maintains that “substantially crush resistant” means “crush resistant to a considerable degree” (Otter Reply C.C.Br. at 21).

The Federal Circuit explored a similar divergence on the interpretation of the term “substantially” in *Epcon Gas Systems, Inc. v. Bauer*, 279 F.3d 1022, 1030-31 (Fed. Cir. 2002). In that case, the patentee employed the term “substantially” in two separate phrases in the claims—“substantially below” and “substantially constant.” *Id.* The court noted that although the general rule is that “the same term or phrase should be interpreted consistently in claims of common ancestry,” the case before it “implicat[ed] the more precise statement of th[at] axiom, i.e., ‘[a] word or phrase *used consistently* throughout a claim should be *interpreted consistently*.’” *Id.* at 1030-31 (quoting *Phonometrics, Inc. v. Northern Telecom Inc.*, 133 F.3d 1459, 1465 (Fed. Cir. 1998)) (emphasis in original, additional internal citations omitted). Based on this more precise rule, the court found that the term “substantially” was used in the two phrases “with a subtle but significant difference.” *Id.* “The phrase ‘substantially constant’ denotes language of approximation, while the phrase ‘substantially below’ signifies language of magnitude, i.e., not insubstantial.” *Id.* at 1031. The court further concluded that the interpretation of “substantially below” as a term of magnitude was supported by the patentee’s attempt to distinguish prior art that may have encompassed merely “below.” *Id.* Altogether, “because the same term was used in a different manner in these two phrases, the word ‘substantially’ should not necessarily [have been] interpreted to have the same meaning in both phrases.” *Id.*

Here, the ’976, ’376, and ’512 Patents all employ the term “substantially crush resistant” and thus this term should be interpreted consistently as to each of the patents. *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1334 (Fed. Cir. 2003) (“we presume, unless otherwise compelled, that the same claim term in the same patent or related patents carries the same

construed meaning”). However, the claims of both the ’976 and the ’376 Patents also employ “substantially” in other contexts. Claim 11 of the ’376 patent also uses the term “substantially planar smooth surface.” (See ’376 Patent, 20:56.) Indeed, Claim 1 of the ’976 patent actually employs “substantially” several times in an uninterrupted sequence of terms—“said shell being *substantially* submersibly watertight, *substantially* rigid and *substantially* crush resistant.” (’976 Patent, 11:63-65) (emphasis added). While these terms are not before the court for construction, the court assumes that the use of “substantially” before “submersibly watertight” and “planar smooth surfaces” denotes language of approximation. As such, much like in *Epcon Gas*, the court must determine whether “substantially” before “crush resistant” should also be interpreted as a term of approximation or instead whether a different meaning was intended.

Based in part on the court’s construction of “crush resistant” above, the court finds it clear that the use of “substantially” to modify “crush resistant” should be interpreted as a term of magnitude. Because “crush resistant” is properly construed as “affording *some* protection against dropping and being crushed,” it effectively sets a lower limit for crush resistance. Thus, interpreting “substantially” as a term of approximation would result in a nonsensical construction for “substantially crush resistant” of “affording *approximately some* protection against dropping and being crushed.” *Bd. of Regents of the Univ. of Tex. Sys. v. BENQ Am. Corp.*, 533 F.3d 1362, 1370 (Fed. Cir. 2008) (“We decline to adopt a construction that would effect this nonsensical result.”).

Furthermore, the ’976 Patent’s prosecution history teaches against interpreting “substantially” to be a term of approximation. Therein, as part of his attempt to distinguish ‘119

Derr because it “does not disclose a protective shell that is substantially crush-resistant,” the patentee noted that “one embodiment of Applicant’s claim invention has been demonstrated to protect a touch screen device when subject to a *significant* force such as a *vehicle running over the enclosed touch screen device* in a field.” (’976 Pros. Hist. at 99) (emphasis added). This significant level of protection is clearly inconsistent with a construction of “approximately crush resistant.” Instead, it more readily comports with a construction of “crush resistant to a considerable degree.” Accordingly, the court rejects LifeProof’s suggestion that “substantially” should be interpreted as a term of approximation. Instead, the court agrees with Otter that substantially should be interpreted as a term of magnitude.

LifeProof also argues that, much like with its proposed construction of “crush resistant,” a quantitative limitation of “having a flexural modulus of at least 310 ksi” should be imposed on the term “substantially crush resistant.” (LifeProof Resp. C.C.Br. at 25.) LifeProof’s sole support for this construction is dependent claim 4 of the ’976 Patent, which states “[t]he protective enclosure of claim 1 wherein said shell is made of a rigid plastic that has a flexural modulus of at least 310 kilo pounds per square inch so that said shell is substantially crush resistant.” (’976 Patent, Claim 4.)

The court rejects this quantitative limitation because it would violate the doctrine of claim differentiation. Claim differentiation, while not a hard and fast rule of construction, provides that “the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Phillips*, 415 F.3d at 1315. This presumption is strong “when the very limitation one seeks to import into

an independent claim appears in a claim dependent therefrom.” *Zircon Corp. v. Stanley Black & Decker, Inc.*, 452, F. App’x 966, 975 (Fed Cir. 2011) (unpublished); *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004).

Here, claim 1 of the ’976 Patent teaches a shell that is “substantially crush resistant.” Claim four of the ’976 Patent, which is dependent on claim 1, adds the limitation that the shell be “made of rigid plastic that has a flexural modulus of at least 310 kilopounds per square inch so that said shell is substantially crush resistant.” As such, the court must presume that the limitation of “a flexural modulus of at least 310 kilopounds” contained in dependent claim four is not contained in independent claim 1.

At the claim construction hearing, LifeProof argued that claim differentiation is inapplicable here because the 310 ksi flexural modulus limitation is not the only limitation taught by dependent claim 4. (Doc. No. 82, Claim Constr. Hr’g Tr., 63:16-25.) However, even if “rigid plastic” can be seen as an additional limitation, which certainly is less than clear,⁵ this would only act to *reduce* the strength of the claim differentiation presumption—it does not render it inapplicable. *SunRace Roots Enterprise Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003) (The presumption “is *especially* strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim.”) (emphasis added). And LifeProof does not otherwise assert that there is any evidence in the specification or the

⁵ Rather, the additional language of Claim 4 appears to add only one limitation “The protective enclosure of claim 1 wherein said shell is made of a rigid plastic *that has* a flexural modulus of at least 310 kilopounds per square inch so that said shell is substantially crush resistant.”

prosecution history that warrants imposing the limitation of “a flexural modulus of at least 310 [ksi]” into independent claim 1 of the ’976 Patent. Therefore, based on principles of claim differentiation, the court rejects LifeProof’s proposal to construe “substantially crush resistant” as “having a flexural modulus of at least 310 ksi.”

Although the court rejects LifeProof’s preferred construction, the ’976 Patent prosecution history supports imposing a different quantitative limitation for “substantially crush resistant” based on the doctrine of prosecution disclaimer. “When a patentee makes a ‘clear and unmistakable disavowal of scope during prosecution,’ a claim’s scope may be narrowed under the doctrine of prosecution disclaimer.” *Grober v. Mako Products, Inc.*, 686 F.3d 1335, 1341 (Fed. Cir. 2012) (quoting *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374-75 (Fed. Cir. 2008)) (further noting that the doctrine of prosecution disclaimer only applies to unambiguous disavowals). It does not matter whether the examiner actually adopted a certain argument in allowing the claims; the sole question is whether the argument was made. *Greenliant Sys. Inc. v. Xicor LLC*, ___ F.3d ___, 2012 WL 3590829, at *9 (Fed. Cir. Aug. 22, 2012).

During prosecution of the ’976 Patent, in response to the Patent Examiner’s rejection of a number of claims as being anticipated by ‘119 *Derr*, the Applicant added new claims and argued as follows:

Derr does not disclose a protective shell that is substantially crush resistant. As discuss [sic] above, the protective housing of Derr must be made of an elastically flexible material. Derr teaches the use of materials that have a degree of deformability such as soft PVC, thermoplastic elastomers (TPE), or thermoplastic polyurethanes (TPU) which all have a low flexural modulus (measured in ksi, that

is, kilopounds force per square inch). For example, soft PVC has a median flexural modulus of approximately 2.76 ksi, TPE has a median flexural modulus of approximately 177 ksi. The low flexural modulus, i.e. inherent elastically flexible material required for operability of the housing of Derr, precludes the protective housing of Derr from being substantially crush-resistant as set forth in Applicant's claims.

('976 Pros. Hist. at 99.)

The court finds this statement to be a clear and unambiguous disavowal that a "substantially crush resistant" protective shell can be made of a material with a flexural modulus as low as 177 ksi. The court acknowledges Otter's undisputed position that the concept of flexural modulus is inapplicable to a composition of materials, rather than a single material. However, at best, this may render this construction partially inapplicable where the shell contained in an embodiment is made up of a composition of materials, rather than a single material. It does not, and cannot, change the fact that the Applicant explicitly disavowed that his invention encompassed a material with a median flexural modulus of less than or equal to 177 ksi.

Finally, Otter argues that even if it did surrender claim scope in the prosecution of the '976 Patent, "the scope of 'substantially crush resistant' in Claim 3 of the '512 patent is potentially different than in the claims of the '976 patent" because, in prosecuting the '512 Patent, "OtterBox specifically withdrew certain arguments" asserted in the prosecution of the '976 Patent, "thus recapturing any arguably surrendered claim scope." (Otter Reply C.C.Br. at 20.) However, "[w]hen multiple patents derive from the same initial application, the prosecution history regarding a claim limitation in any patent that has issued applies with *equal force* to

subsequently issued patents that claim the same limitation.” *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (emphasis added); *see also Anderson Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1368 (Fed. Cir. 2007) (the “prosecution history of [a] parent application is highly instructive in light of the similarities between the claims of the application and those of the patents in suit.”). Although a patentee may rescind a disclaimer made earlier in the prosecution of the same patent, *Hakim v. Cannon Avent Group, PLC*, 479 F.3d 1313, 1318 (Fed. Cir. 2007), the court is not aware of any authority by which a patentee can rescind a disclaimer made in the prosecution of an *earlier, issued* patent in a subsequent prosecution with respect to the same claim term. Accordingly, the court finds that the Applicant’s disavowal in the prosecution of the ’976 Patent that a “substantially crush resistant” protective shell can be made of a material having a median flexural modulus of less than or equal to 177 ksi applies with equal force to the same claim term in the ’512 Patent.

Accordingly, for the foregoing reasons, the court construes “**substantially crush resistant**” as “*crush resistant to a considerable degree, and in no event consisting of a material with a median flexural modulus of less than or equal to 177 ksi.*”

D. touch screen

'976 Patent, claims 1, 12 (and claims dependent thereon)

Otter Products LLC's Construction

a screen that can display information and receive inputs from the user.

LifeProof's Construction

a screen capable of displaying information and receiving tactile inputs.⁶

The court notes that, in most respects, the parties' constructions of "touch screen" are effectively identical. There is no substantive difference between "a screen that can display information" and "a screen capable of displaying information." Moreover, both parties agree that the screen "can" or is "capable" of "receiving inputs." Furthermore, at the claim construction hearing, Otter clarified that it does not necessarily object to the use of the word "tactile" before "inputs." (Claim Constr. Hr'g Tr., 38:10-12.) Instead, as will be further addressed below, the primary dispute is the scope of the term "tactile inputs."

As a preliminary matter, the court agrees that "tactile" is properly incorporated into the construction of "touch screen." First, the plain meaning of "*touch* screen" connotes a screen that receives touch-based, or tactile, inputs. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 2327 (2002) ("tactile . . . 1: perceptible by the touch ; capable of being felt or touched") Further, both claim 1 and claim 12 of the '976 patent explicitly discuss the "touch screen's" ability to receive "tactile inputs" through the "flexible protective membrane" taught by the '976

⁶ In order to "more closely align with OtterBox's construction in a way that stays true to the disclosure of the '976 Patent," LifeProof modified its construction of "touch screen" from "a screen capable of displaying information and receiving mechanical inputs from a user" to this present construction. (See LifeProof Resp. C.C.Br. at 16 n.4; see also Otter C.C.Br. at 8.)

Patent “*so that* said touch screen is capable of displaying and capturing information through said flexible protective membrane.” (’976 Patent, 12:21-24; *see also id.* 14:8-11) (emphasis added.) The claims do not suggest that the touch screen is capable of receiving any other inputs—such as, for example, voice or sound inputs.

Likewise, the ’976 Patent specification also supports a construction of “touch screen” that is limited to receiving touch, or tactile inputs. Specifically, the specification describes a “touch sensitive device mounted on top of the [touch screen] display,” and suggests that “[w]hen the user touches the image on the membrane [] the touch is transferred to the touch screen.” (*Id.*, 3:39-40; 6:11-13.) Altogether, the court finds that “touch screen” is properly construed to be capable of receiving “*tactile* inputs” rather than “inputs” generally.

As mentioned above, however, the real underlying dispute between the parties relates to the meaning of “tactile inputs.” LifeProof maintains that “the ’976 Patent specification discloses a membrane that only “communicates tactile inputs, i.e. touch inputs from pressure on the screen through the membrane, to an enclosed touch screen device” and “does not teach a membrane that communicates to an enclosed device through capacitive inputs.” (LifeProof Resp. C.C.Br. at 16-17.) Otter argues that LifeProof’s proposed construction unduly limits the meaning of “tactile” to “a subset of touch: pressure.” (Reply C.C.Br. at 7.)

There is little evidence in the intrinsic record to support LifeProof’s interpretation that “tactile inputs” excludes capacitive inputs. Notably, neither the claims, the specification, or the prosecution history of the ’976 Patent specifically mention capacitive inputs or technology. LifeProof nevertheless argues that the following portions of the ’976 Patent specification

demonstrate that “tactile inputs” are limited to mechanical or pressure-based inputs, and do not encompass capacitive inputs:

The present invention may therefore comprise a protective membrane for a touch screen comprising: a recessed area . . . having a predetermined stiffness being selected such that simultaneous *pressing and sliding* of a stylus over the recess area creates a tactile input to the touch screen.

(’976 Patent, 2:26-36; *see also id.*, 2:37-51) (emphasis added).

The membrane of the present embodiment is constructed by thermoforming a sheet of thin plastic. The plastic is selected to be thin enough that the *deformation* of a stylus conducts the touch to the touch screen

(’976 Patent, 5:32-37) (emphasis added).

While the use of “deformation” in the latter excerpt arguably suggests that a touch may be communicated to the touch screen through pressure-based tactile inputs, the court finds it inappropriate to limit the scope of “touch screen” based on the teachings of this single embodiment. *Nazomi Comms., Inc. v. ARM Holdings, PLC*, 403 F.3d 1364, 1369 (Fed. Cir. 2005) (claims may embrace “different subject matter than is illustrated in the specific embodiments in the specification”); *i4i Ltd. P’Ship v. Microsoft Corp.*, 598 F.3d 831, 843 (Fed. Cir. 2010) (quoting *Liebel-Flarsheim*, 358 F.3d at 906) (“Generally, a claim is not limited to the embodiments described in the specification unless the patentee has demonstrated a ‘clear intention’ to limit the claim’s scope ‘with words or expression of manifest exclusion or restriction.’”). Similarly, although the former excerpt is part of the “Summary of the Invention,” the probative value of its use of “pressing” is undermined by the excerpt’s preface that “the present invention *may* therefore comprise” before describing the protective membrane. *In re*

Ceberblad, 4 F. App'x 914, 917 (Fed. Cir. 2001) (concluding that the use of the term “may” before describing a specific process in the Summary of the Invention section did not exclude other types of processes).

Moreover, contrary to these excerpts, both the '976 Patent claims and specification employ language broad enough to encompass tactile inputs other than simply pressure-based inputs. ('976 Patent, 6:11-13 (“When the user *touches* the image on the membrane and the touch is *transferred* to the touch screen”); 12:21-23 (“so that *tactile inputs* on a front side of said flexible membrane are *communicated* to said touch screen through said flexible protective membrane”)) (emphasis added.)⁷

LifeProof maintains that the '976 Patent prosecution history also supports a definition of “tactile inputs” that excludes capacitive inputs. Specifically, it argues that any suggestion that “tactile inputs” includes capacitive inputs is foreclosed by the fact that, in distinguishing the prior art, the patentee suggested that its device could be used by a firefighter or maintenance mechanic wearing gloves. (LifeProof Resp. C.C.Br. at 23; Claim Constr. Hr'g Tr., 33:2-10.) The court assumes, for purposes of construing this claim only, that a gloved hand cannot

⁷ LifeProof also appears to argue that the '976 Patent specification's repeated discussions of the use of a stylus support its conclusion that “tactile inputs” do not include capacitive inputs. However, LifeProof does not elaborate on why the presence of a stylus necessarily negates the possibility that “tactile inputs” include capacitive inputs; indeed, a simple internet search for “capacitive stylus” discloses a plethora of styluses that may be used with a capacitive touch screen. Moreover, even if the use of a stylus negates the possibility of capacitive inputs, the '976 Patent specification suggest that a touch screen only “generally uses a stylus.” ('976 Patent, 1:48; *see also id.* 3:41-50.) Therefore, the use of a stylus is far from the only means by which the touch screen may receive inputs.

communicate capacitive inputs to a touch screen. Nevertheless, the court finds that the cited portion of the prosecution falls well short of a clear and unambiguous disavowal of claim scope. *Grober*, 686 F.3d 1335 at 1341. The statement regarding a user with gloved hands operating the touch screen related to “recessed areas” in the protective membrane that would guide the user to specific areas on the touch screen—it did not relate in any way to the touch screen’s ability to receive pressure-based versus capacitive inputs. (’976 Pros. Hist. at 62.)

LifeProof also maintains that the teachings of the ’376 Patent, which was sought and granted after the ’976 Patent, supports its argument that the ’976 Patent’s disclosure of “tactile inputs” does not encompass capacitive inputs. (LifeProof Resp. C.C.Br. at 22-23.) More specifically, the ’376 Patent specifically teaches a “protective enclosure for a handheld device having a capacitance-sensing interactive flat-panel control.” (*See, e.g.*, ’376 Patent, 2:50-53.) LifeProof thus asserts that if the ’976 Patent contemplated a membrane that would work with the “capacitance sensing interactive flat-panel control” similar to the one discussed in the ’376 Patent, the Applicant would have drafted the ’976 Patent specification to explicitly encompass such technology. (LifeProof Resp. C.C.Br. at 17-18.)

However, LifeProof has not cited, and the court cannot otherwise locate, any legal authority for limiting the otherwise broad scope of an earlier patent based on the scope of a later-filed patent. *Cf. Jeneric/Petron, Inc. v. Dillon Co., Inc.*, 171 F. Supp. 2d 49, 77 (D. Conn. 2001) (finding no authority for the proposition that the prosecution history of a later patent may be used to “reach back and limit a claim using the same element in an earlier related patent.”) Instead, a comparison between later- and earlier-filed patents is generally warranted only when considering

a question of obviousness-type double patenting, which would act to invalidate the *later* patent. *Pfizer, Inc. v. Teva Pharms. USA, Inc.*, 518 F.3d 1353, 1363 (Fed. Cir. 2008). Thus, the court finds that it would be inappropriate to define the scope of “touch screen” in the ’976 Patent based on the more explicit teachings of the later-filed ’376 Patent.

Altogether, the court finds that the ’976 Patent on its face is ambiguous as to whether the “touch screen’s” capacity to receive “tactile inputs” encompasses capacitive inputs. As such, the court finds it appropriate to turn to extrinsic evidence in order to resolve this issue. At this juncture, the court finds it important to note that the “touch screen” is not a component of the claimed invention. Rather, it is simply part of the device that the claimed invention is intended to protect. Thus, the court refers to this extrinsic evidence not necessarily to understand the metes and bounds of the claimed invention itself, but instead to gain a background in the relevant technology. *Mantech Env’tl Corp. v. Hudson Env’tl Servs., Inc.*, 152 F.3d 1368, 1373 (Fed. Cir. 1998); *see also Phillips*, 415 F.3d at 1318.

Otter has submitted a number of extrinsic materials, which predate the filing of the ’976 Patent, demonstrating that capacitive technology, as it relates to a touch screen, requires a touch-based input. For example, a 1993 manual attached to Otter’s Claim Construction Reply Brief, describes that “three common types of touch screens are available: infrared (IR), membrane, and capacitive.” (Otter Reply C.C.Br., Ex. C, Richard A. Schwier & Earl R. Misanchuk, INTERACTIVE MULTIMEDIA INSTRUCTION 123 (1993).) The manual then goes on to explain that capacitive technology relies primarily on touch inputs:

Capacitive systems have a thin coating of capacitive plasma covering a glass shield. Capacitive plasma is capable of storing a charge. A conductive stylus (such as your finger) is used to *touch* the coating, resulting in a change in capacitance at the location of the *touch*. The location is then communicated to the controller in a similar fashion to the other systems [i.e., infrared or membrane touch screens].

(*Id.* at 124) (emphasis added). Other extrinsic materials submitted by Otter confirm that capacitive touch screen technology relies on touch inputs. (*Id.*, Ex. D, *Touch Screens: At Your Fingertips*, Scientific American, April 2001, at 103 (“When a finger *touches* the [capacitive] screen, it causes a capacitive coupling with the voltage and draws a minute current.”) (emphasis added); Ex. E, Andrew Sears et al., *A New Era for Touch Screen Applications: High Precision Dragging Icons, and Refined Feedback* 19 (June 1990) (“Capacitive Touchscreens consist of a single layer of material placed over the monitor. When users *touch* the monitor with a finger (or other conducting stylus), they cause a change in capacitance which is sensed by the touchscreen.”) (emphasis added)).

The only extrinsic evidence submitted by LifeProof is the testimony of Doug Kempel, an inventor of the '376 Patent, regarding the need to customize a material for the protective membrane taught by the '376 Patent so that it would interact with a capacitive-sensing interactive flat panel control. (*See* Claim Constr. Hr’g Tr., 33:11-34:5.) However, there is no dispute that Mr. Kempel was not an inventor on the '976 Patent; as such, his testimony is irrelevant to the scope of '976 Patent’s claims. Indeed, if it is inappropriate to limit the scope of the '976 Patent claims based on the teachings of the later-filed '376 Patent, then it is certainly inappropriate to use extrinsic evidence relating to the '376 Patent to do the same.

In light of background provided by the extrinsic materials submitted by Otter, the court finds that the '976 Patent's teaching of a "touch screen" that is capable of receiving "tactile inputs" is sufficiently broad to encompass a screen capable of receiving capacitive inputs. Indeed, as discussed above, capacitive touch screen technology requires that a user *touch* the screen; thus, capacitive inputs by definition are "tactile inputs." Furthermore, the court finds that both the '976 Patent claims and specification employ other language that is sufficiently broad to reach capacitive technology. ('976 Patent, 6:11-13 ("When the user *touches* the image on the membrane and the touch is *transferred* to the touch screen"); 12:21-23 (so that *tactile inputs* on a front side of said flexible membrane are *communicated* to said touch screen through said flexible protective membrane")) (emphasis added). Therefore, the court finds that a person of ordinary skill in the art would understand the '976 Patent's teaching of a "touch screen" to be "a screen capable of receiving tactile inputs, including capacitive inputs."

Altogether, for the foregoing reasons, the court construes the term "**touch screen**" to be a "*screen capable of displaying information and receiving tactile inputs, including, but not limited to, capacitive inputs.*"

E. encloses/enclosing

'976 Patent, Claims 1, 12

'376 Patent, claim 11

'512 Patent, claim 1, 3

Otter Products LLC's Construction

these terms can be understood according to their own plain and ordinary meaning. In the alternative, OtterBox proposes: "to hold in."

LifeProof's Construction

completely surround

In the patents-in-suit, the patentee claimed "a shell that is capable of enclosing and substantially surrounding [a] touch screen device" (*See '976 Patent, Claim 1 and Claim 12* ("providing a protective shell that is capable of enclosing [a] touch screen device")) and "a shell that is capable of enclosing [a] handheld device" (*'376 Patent, Claim 11*) and ; "a protective shell that surrounds and encloses [an] electronic device." (*'512 Patent, Claim 1 and 3* ("providing a protective shell that surrounds and encloses [a] device").

The court first distinguishes between what is being construed and what is not being construed. LifeProof requests that the terms "encloses" and "enclosing" be construed in all the patents; there is no request that the term "enclosure" be construed. "Enclosure" is used primarily to describe the Applicant's product as a whole and will not be further construed by the court.

LifeProof argues the terms "enclosing" and "encloses" should be construed to mean "completely surround." (LifeProof Resp. C.C.Br. at 12.) Otter argues that LifeProof's construction is expressly contradicted by the asserted patents and that to adopt the proposed construction would read out both claim terms and embodiments in the patents.

The court notes that from the beginning, the patentee has disavowed that his invention necessarily “completely” encloses the devices for which protection is sought in all embodiments. The ’976 Patent states in the description section, “the protective cover may not completely enclose the PDA and only cover the face where the user interface exists, leaving one or more sides of the PDA exposed.” (*Id.*, 4:55-58) (emphasis added).

Additionally, each of the patents includes Figure 9, depicting a protective case that does not completely surround the touch screen device, but rather clamps over and around the front face of the device and “completely” surrounds only three sides. Examining the picture and the descriptive language of the patent, the court concludes that this specific embodiment can be said to enclose the touchscreen device in that it will not fall out without hand manipulation and that it also surrounds the device since there is some part of the shell which wraps

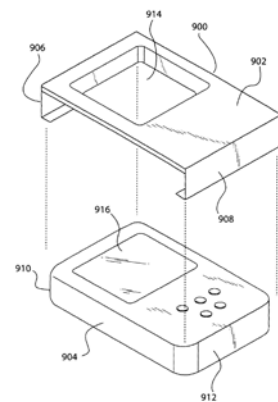


FIGURE 9

starting from the lower back side, around the bottom side to and over the front side, over the top side and to the back side again. Figure 9 is described in the patents as an embodiment that “may be a cover for decorative purposes only, or may be for protective purposes as well.” (*See* ’976 Patent, 10:47-48.)

Patent claims should generally be construed to encompass the preferred embodiments described in the specification, and it is generally error to adopt a construction that excludes them. *See On-Line Techs., Inc.*, 386 F.3d at 1138. Adopting LifeProof’s construction would read out the 900 embodiment entirely.

LifeProof also draws the court’s attention to the prosecution history associated with the issuance of the ’512 Patent, wherein the Applicant used the term “fully enclosing” in connection with his attempt to distinguish his enclosure from U.S. Patent No. 6,536,589, hereinafter “*Chang*.”⁸ The Applicant for the Otter enclosure described the *Chang* patent as disclosing,

an open-ended protective sleeve for a PDA with a hinged cover to protect the PDA when not in use. The protective cover of *Chang* does not enclose and surround the PDA when the PDA is enclosed in the shell (11) and is not substantially crush resistant. The opening (15) prevents the *Chang* PDA from being substantially crush resistant. Further, the opening (15) of *Chang* prevents the *Chang* protective cover body (12) from “surrounding” the PDA when the PDA is enclosed in the shell (11).

(’512 Pros. Hist. at 162) (emphasis in original).

In prosecuting the ’512 patent, the Applicant stated that with respect to his claims 33 and 36, “[f]ully enclosing an electronic device in the protective shell⁹ . . . provides a substantially greater amount of protection for the device and makes the shell ‘impact resistant’¹⁰” (*Id.*) Again, what the Applicant was distinguishing in this document was the difference between *Chang*’s hinged door, which must be kept open in order to operate the device, and the Applicant’s device with a protective membrane that allows inputs without opening the cover. (*Id.*) Thus, the difference emphasized between the ’512 patent and *Chang* was the use of a

⁸ The parties did not provide the court with a copy of the “*Chang*” patent.

⁹ An enclosure fully enclosing the protective device is among the embodiments of the ’976 Patent. (*See, e.g.*, ’976 Patent, 3:25-32, 4:51-54.)

¹⁰ “Impact resistant’ is not a claim term and is different from “substantially crush resistant” as defined *supra*.

hinged door and one open end verses a unit containing a shell with an integrated membrane over the operational parts of the touch screen device.

It is not seriously argued by LifeProof that the words “fully” and “completely” are synonymous and the court finds that they are not. As a response to the final Office Action, on May 5, 2009, the Applicant submitted final language for his primary claim to “clearly state that the protective shell both surrounds and encloses the device, which is not shown or taught by *Chang*.” (’512 Pros. Hist. at 198.) As previously noted, the court agrees that embodiment 900 both surrounds and encloses the protected device even though it leaves some parts of the device not containing operating components exposed. The embodiment distinguishes from *Chang* in that there is incorporated in the shell itself the membrane over the touch screen portion of the device, allowing the device to be operated without removing any portion of the protection enclosure and therefore allegedly provides more protection than *Chang*.

In any event, “[a claim] term can be defined only in a way that comports with the instrument as a whole.” *Phillips*, 415 F.3d at 1316 (quoting *Markman*, 517 U.S. at 389). Construing “enclose” to mean only “completely enclose” would read out claim language and eliminate at least one embodiment. It is axiomatic that, “[t]he construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Id.* (quoting *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).

Additionally the court notes that the majority of the claims containing the disputed term “enclose” also contain the term surround, often within one-word proximity, thus implying

separate and distinct meaning for the two words. LifeProof seeks to not only repeat the word surround twice in the same phrase, but also to graft yet another word upon the patent language, to wit: the adjective “completely.” The adjacent claim term “surround” often appears in conjunction with the adverb “substantially” such as in Claim 1 of the ’976 Patent. If LifeProof’s construction is read into the ’976 Patent, the claim would state: “a shell that is capable of [completely surrounding] and substantially surrounding said touch screen device” (*See id.* at 11:59-60.) Logically, a cover that completely surrounds an object, by definition, also substantially surrounds the object. The result of using LifeProof’s definition of enclose, therefore, is that another claim term – “substantially surrounding” – would be read completely out of the claim.

The court must interpret claims so that no term becomes superfluous if possible. *See Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed.Cir.2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”); *Power Mosfet Techs., L.L.C. v. Siemens AG*, 378 F.3d 1396, 1410 (Fed.Cir.2004) (stating that interpretations of claims rendering claim terms superfluous is generally disfavored); *Gen. Am. Transp. Corp. v. Cryo-Trans, Inc.*, 93 F.3d 766, 770 (Fed. Cir. 1996) (rejecting the district court’s claim construction because it rendered superfluous a claim term).

LifeProof argues that in spite of the tortured and nonsensical reading their interpretation occasions, Otter relinquished its ability to define enclose in any manner other than “encloses, i.e., completely surrounds the separate touch screen device” as a result of their statements made

during prosecution of the '976 Patent. ('976 Pros. Hist. at 61.) The statement relied upon by the

LifeProof in support reads:

Sirola discloses an activation means that attaches to a frame that connects by a hinge to a housing that is an integral part of the wireless communication device. Sirola does not disclose, teach, or suggest that the device housing is an easily removable protective shell that encloses a separate touch screen device which allows the user to put the touch screen device into the protective enclosure or remove the touch screen device from the protective enclosure by hand. The protective enclosure of claim 17 encloses, *i.e.*, *completely surrounds*, a separate touch screen device that has a touch screen.

('976 Pros. Hist. at 61.)

As noted previously, “[e]xplicit statements made by a patent applicant during prosecution to distinguish a claimed invention over prior art may serve to narrow the scope of a claim.”

Digene Corp. v. Third Wave Technologies, Inc., 323 F. App’x 902, 908 (Fed. Cir. 2009)

(unpublished) (quoting *Spectrum Int’l, Inc. v. Sterilite Corp.*, 164 F.3d 1372, 1378 (Fed. Cir.

1998)) (Unambiguous intrinsic evidence in turn provides sufficient input to the rules of claim

construction, that explicit statements made by a patent applicant during prosecution to

distinguish a claimed invention over prior art may serve to narrow the scope of a claim.) In

determining what bearing to give to statements made during claim construction, the court first

determines whether what was conceded by the Applicant was the thrust of the argument or

whether it was gratuitous commentary. *See, e.g., Southwall Techs., Inc. v. Cardinal IG Co.*, 54

F.3d 1570, 1576 (Fed. Cir. 1995) (“The prosecution history limits the interpretation of claim

terms so as to exclude any interpretation that was disclaimed during prosecution.”).

Sirola, as previously discussed in Section (C)(1) *supra*, is a patent for the actual housing or outside casing of a wireless communication device such as a touch screen device or PDA. *Sirola*, the Applicant argued, does not define a separate protective enclosure for an otherwise stand alone device.¹¹ The *Sirola* patent, which was provided for this court’s review, actually speaks to the component parts of a PDA device itself, patenting a type of outer casing to hold the inner workings of the device. In the prosecution of the ’976 Patent, the Applicant was primarily claiming his invention had nothing whatsoever to do with the creation, packaging or casing of the touch screen device itself, but was rather was a protective case or enclosure which was totally separate from the device to be protected.

The claim language bears out the distinction the Applicant was making during prosecution. In claim 12, the Applicant describes a method of manufacture for “a protective shell that is capable of enclosing said touch screen device, said touch screen device being a separate unit from said protective enclosure” (’976 Patent, 13:18-20) (emphasis added) and in claim 11 of the ’376 Patent, “a shell that is capable of enclosing said handheld device, said hand held device being a separate unit from said protective enclosure” (’376 Patent, 20:38-40)(emphasis added).

The public notice function of a patent and its prosecution history requires that a patentee be held to what he declares during the prosecution of his patent. A patentee may not state during

¹¹ The *Sirola* patent protects “a wireless communication device comprising a housing, a touch sensitive display coupled to the housing . . . and a cover part coupled to the housing” (U.S. Patent 6,415,138 at 1:7-12.)

prosecution that the claims do not cover a particular aspect of invention and then change position and later sue a party who utilizes that aspect for infringement. *Springs Window Fashions LP v. Novo Industries, L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003). “The prosecution history constitutes a public record of the patentee’s representations concerning the scope and the meaning of the claims, and competitors are entitled to rely on those representations when ascertaining the degree of lawful conduct” *Id.*

The basic premise of the paragraph upon which LifeProof relies for its construction of the term “enclose” does not deal with whether or not the enclosure completely surrounds, partially surrounds, or intermittently surrounds the device held within. The point of the dialog with the Patent Examiner was that the touch screen device and the enclosure described in the ’976 Patent did not become joined in any way; the device and the enclosure remained separate items from one another, thus avoiding any resemblance to *Sirola*. There was no necessity at that point in the patent process to drive the Applicant to voluntarily limit his enclosure to something that “completely” surrounds—as opposed to an enclosure that only partially surrounds—the separate device in direct contravention of and without any acknowledgment of abandoning his own embodiments and at least one remaining claim term. *See Grober*, 686 F.3d at 1341. The attributes of ‘surrounding’ were only important insofar as the two devices remained separate. In legal terms, the gratuitous wording could only be described, at best, as *dicta*.

Under the doctrine of prosecution disclaimer, as previously discussed, a patentee may limit the meaning of a claim term only by making a clear and unmistakable disavowal of scope during prosecution. *See Seachange Int’l, Inc. v. C-COR Inc.*, 413 F.3d 1361, 1372-73 (Fed. Cir.

2005); *Grober*, 686 F.3d at 1341. *See also Omega Eng'g, Inc.*, 334 F.3d at 1323-26 (a patentee's statements must be "both so clear as to show reasonable clarity and deliberateness, and so unmistakable as to be unambiguous evidence of disclaimer.") (internal citations omitted); *Honeywell Int'l, Inc. v. Universal Avionics Sys.*, 493 F.3d 1358 (Fed. Cir. 2007) (for prosecution disclaimer to apply, there must be a clear and unequivocal disavowal of a particular construction or scope of a claim term.) The Applicant for the '976 Patent made no such clear and unambiguous disclaimer in this case. LifeProof's contention that the doctrine of prosecution disclaimer supports their proposed limitation is, therefore, rejected.

Further, the use of the latin term "i.e." could well be a grammatical error on the part of the attorney for the Applicant.¹² It is possible, under some conditions, for a reviewing court to correct grammatical errors in patents, such as the improper use of the term "i.e." as opposed to "e.g." *Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1357 (Fed. Cir. 2003). The court in this case, however, is not faced with an error in the patent, but an error (if the use of "i.e." was, indeed, in error) in a communication with the Patent Examiner. However, when viewed by a reasonable competitor or one skilled in the art reviewing the patent, the amendments and statements made by the Applicant to distinguish the claimed invention from *Sirola*, all as a whole, that individual would not conclude that the patented Otter enclosure must "completely"

¹² The latin *i.e.* and *e.g.* are both abbreviations: *i.e.* stands for *id est* and means roughly "that is" or "in other words" while *e.g.* stands for *exempli gratia*, meaning "for example." Therefore, "encloses, i.e. completely surrounds the separate touch screen device" is a further clarification of the word "encloses" wherein "encloses, e.g. completely surrounds the separate touch screen device" would be but one example of how the word "encloses" is being used.

surround a device for which protection was desired simply because of the grammatical inclusion of “i.e.” instead of a more appropriate “e.g.”

Defining encloses/enclosing as “to hold in” fits with the purpose of the prosecution language championed by LifeProof, as well as the overall purpose and intent of the invention and does not make a mockery of the language of the patent itself by reading out one of the defining terms and destroying one of the embodiments of the patent. Therefore, the court will construe the term **encloses/enclosing** as “*to hold in.*”

F. elevated protective rim

'976 Patent, Claims 1, 12

'376 Patent, claim 11 (and claims dependent thereon)

Otter Products LLC's Construction

these terms can be understood according to their own plain and ordinary meaning.

LifeProof's Construction

a protective rim around the perimeter of a touch screen that is more than a peripheral frame.

In the context of the '976 Patent, the questioned phrase reads, “shell having an *elevated protective rim* substantially surrounding a perimeter of said touch screen of said touch screen device so that when said touch screen device is disposed in said enclosure, said touch screen of said touch screen device is recessed with respect to said protective rim of said shell so that said *elevated protective rim* protects said touch screen from deflection and breakage by contact with an object that is larger than said perimeter of said protective rim; . . .” ('976 Patent, Claims 1, 12) (emphasis added.) In the '376 Patent, Claim 11's language is very similar, essentially

replacing touch screen and touch screen device with “capacitance-sensing interactive flat-panel control of [a] handheld device.” (*Id.*, 20:43-48.)

Both parties utilize the term “protective rim” in their definition. Additionally, LifeProof actually confessed the term “elevated” at the claim construction hearing and conceded that the court could add elevated to its definition without objection. (Claim Const. Hr’g Tr. at 45:2-11.) Obviously, there is no requirement for a court to construe a claim term when there is no genuine dispute as to its meaning. *See U.S. Surgical Corp.*, 103 F.3d at 1568.

LifeProof, however, argues for an amplified construction, “an elevated protective rim around the perimeter of a touch screen¹³ that is more than a peripheral frame,” adding a limitation that does not otherwise appear in the patents-in-suit requiring that the elevated protective rim be “more than a peripheral frame.” In support, LifeProof again asserts this limitation based on the prosecution history involving prior art *Sirola*. For several reasons, this court is unpersuaded.

First, it is clear that in arguing for this expanded construction, LifeProof is inviting the court to trod upon the province of the jury by making non-infringement findings thinly disguised in claim construction clothing. The dead-giveaway for the Defendants’ position is its resort to comparison of its accused product to one of the figures contained in *Sirola*. (LifeProof Resp. C.C.Br. at 23.)

¹³ Since the term appears in connection with an capacitance-sensing interactive flat-panel control of a handheld device also, the court assumes that the construction proposed by LifeProof could be so modified in the context of the ‘376 Patent.

LifeProof's accused device appears, from the drawing submitted to the court, to have a sort of "shell" or hard casing around the four narrow edges of a touch screen device – appearing in the drawing to be an iPhone 4 or 4S – which forms a raised edge or lip around the front face of the phone. It is obvious that in comparison with Otter's "elevated protective rim," the non-infringement argument will be that the accused device's raised edge is a peripheral frame, not an "elevated protected rim."

As directed by the Federal Circuit

Claims are often drafted using terminology that is not as precise or specific as it might be. As long as the result complies with the statutory requirement to "particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention," 35 U.S.C. § 112, para. 2, that practice is permissible. That does not mean, however, that a court, under the rubric of claim construction, may give a claim whatever additional precision or specificity is necessary to facilitate a comparison between the claim and the accused product. Rather, after the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact. *See, e.g., W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 842 F.2d 1275, 1280, 6 U.S.P.Q.2d 1277, 1282 (Fed.Cir.1988) (whether claim limitation of "about 100% per second" is literally met is a question of fact).

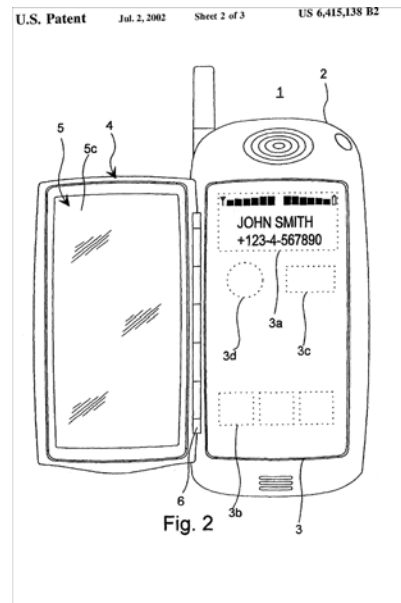
PPG Industries, 156 F.3d at 1355. "A claim is construed in light of the claim language, the other claims, the prior art, the prosecution history, and the specification, not in light of the accused device." *SRI Int'l*, 775 F.2d at 1118; *Bd. of Trustees of Leland Stanford Junior Univ. v. Roche Molecular Sys., Inc.*, 528 F. Supp. 2d 967, 975 (N.D. Cal. 2007). It is simply not appropriate at the claim construction stage to determine how the claim terms apply to the "accused device to determine infringement." *SRI Int'l*, 775 F.2d at 1118. The resolution of some line-drawing

problems, especially where the words used in the patent are easily understood by potential jurors, is properly left to the trier of fact. *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007).

Clearly, given the Federal Circuit's admonition in *PPG Industries* to avoid the extension of claim construction into infringement questions, definition of a peripheral frame and its application to the patents-in-suit compared to the accused product are questions better left for the infringement stage.

Additionally, and alternatively, the comparison drawn by LifeProof to *Sirola*, even if allowable, *see Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1326-1327 (Fed. Cir. 2006) (while a trial court should certainly not prejudge the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process, knowledge of that product or process may provide meaningful context for the first step of the infringement analysis, claim construction), is misleading since LifeProof is comparing its total device with only one component part of the *Sirola* device. Defendant points to an isolated drawing of what will become the hinged door of the *Sirola* device which shows what could be a raised perimeter section acting as a frame for a transparent center.

Sirola describes Fig. 3, the image supplied by LifeProof, as follows: “FIG. 3 shows a perspective image of a cover part of one advantageous embodiment of the invention.” (*Sirola*, 6:31-32) (emphasis added). *Sirola* further states, “[w]ith reference made to FIGS. 3 and 4, the cover part 4 comprises a peripheral and substantially oblong frame 4a, wherein the activation means 5 is arranged to close an aperture formed in the frame 4a.” (*Id.*, 6:34-36.) *Sirola* describes the manufacturing process for the hinged door as attaching IMD foil to a plastic frame thru the process of injection molding. *Id.* at 44-67.



Neither the LifeProof accused device nor the Otter patented devices have access to the touch screen portion of a wireless device through a hinged door. Further, providing context for a claim construction argument is not the same as raising infringement issues for resolution.

During prosecution of its '976 Patent, the Applicant took the position that “*Sirola* does not disclose, teach or suggest . . . an elevated protective rim around a perimeter portion of the touch screen that protects the touch screen from breakage.” ('976 Pros. Hist. at 61) (emphasis in original). As noted by this court *supra*, *Sirola* actually describes the physical housing for the mechanical “guts” of a wireless communication device, not a protective enclosure for a separate device which already has its own separate housing. In continuing to distinguish between the two inventions, the Applicant for the patents-in-suit stated, “[b]ecause there is no crush resistant shell and no elevated protective rim in *Sirola*, if a heavy object were placed on top of the *Sirola* device

cover, the force of the heavy object would be transmitted to the touch screen, potentially causing the touch screen to break.” (*Id.* at 61-62.)

This court finds that the Applicant did not expressly and unambiguously bind its definition of an elevated protective rim to something that is “more than a peripheral frame” during its attempts to distinguish its invention from prior art *Sirola*. In fact, the Applicant did not consider that *Sirola* even spoke to an elevated protective rim, but rather was using a hinged door as the protection for the touch screen controls of the device. Furthermore, in examining the *Sirola* patent, the court finds that the specification of *Sirola* indicates that “elevation” of any part of its hinged door was not desirable, stating, “[i]n the closed position of the cover part 4 of the device 1 the activation means is adapted to a selected distance from the touch sensitive display 3 and preferably to be substantially parallel with it.” (*Sirola*, 5:30-33) (emphasis added).

“Claim interpretation begins with the language of the claim itself.” *Nat’l Recovery Tech., Inc. v. Magnetic Separation Systems, Inc.*, 166 F.3d 1190, 1195 (Fed. Cir.1999); see also *Bell Communications Research, Inc. v. Vitalink Communcations Corp.*, 55 F.3d 615, 619 (Fed.Cir.1995). The words of a claim are usually given their ordinary and customary meaning as understood by one reasonably skilled in the relevant art. *Vitrionics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

In this case there is no actual dispute between the parties regarding the scope of the claim term. Rather, the dispute between the parties is whether the prior art reference *Sirola* discloses a “peripheral frame” and thus anticipates the ’976 Patent. Although LifeProof attempts to characterize the issue as one of claim construction, the issue is actually a factual dispute

regarding whether LifeProof’s iPhone 4 and 4S enclosure contains an “elevated protective rim.”

The claim language itself provides more guidance on the subject than LifeProof’s proposed construction. *See, e.g., Apple, Inc. v. Samsung Electronics Co., Ltd.*, Case No. 11-CV-01846-LHK, 2012 WL 2993856, *6 -7 (N.D. Cal. July 20, 2012). Accordingly, no construction is necessary for the term “elevated protective rim.”

G. capacitance sensing interactive flat-panel control

‘376 Patent, claim 11 (and claims dependent thereon)

Otter Products LLC’s Construction

these terms can be understood according to their own plain and ordinary meaning. In the alternative: “capacitance sensing interactive touch control.”

LifeProof’s Construction

touch wheel.

In support of its proposed construction, LifeProof argues that the patentee acted as his own lexicographer to define “capacitance-sensing interactive flat-panel control” as “touch wheel.” (*See* Resp. Brief at 43; Claim Constr. Hr’g Tr., 111:16-19.) First, LifeProof points out that the term capacitive-sensing interactive flat panel control is used in claims 11 and 17 of the ‘376 Patent, but is never expressly defined therein. (Resp. Brief at 43.) As such, LifeProof turns to the aspects of the ‘376 Patent specification relating to a handheld device, as opposed to a tablet PC, and concludes that it defines “capacitance-sensing interactive flat panel control” as “touch wheel” in the following excerpt: “One function of the interactive flat panel control, *i.e.*

touch wheel, emulates a rotary control knob by sensing circular motion of a user’s finger using capacitive sensor.” (*Id.*) (emphasis added).

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).

When the sentence cited by LifeProof in support of its proposed construction of “capacitance-sensing interactive flat panel control” is placed in context, it becomes clear that the patentee did not intend to define this term as “touch wheel.” More specifically, the paragraph from which LifeProof draws support for its proposed construction first lists a number of different handheld devices that may have an “interactive flat-panel control”—including “music players, MP3 players, audio player/recorders, and video players.” (‘376 Patent, 16:64-67.) The ‘376 Patent specification then goes on to discuss *one* popular example of such devices, the Apple iPod:

For example, Apple Computer Ipod is a popular handheld interactive device that plays MP3 or otherwise digitally-encoded music/audio. The Apple Ipod has an interactive flat-panel display and a portion of the front panel is an interactive flat-panel control, called a touch wheel in some versions of the Ipod and click wheel in other versions of the Ipod, that has capacitive touch/proximity sensors. One function of the interactive flat-panel control, i.e. touch wheel, emulates a rotary control knob by sensing circular motion of a user’s finger using capacitive

sensors. The click wheel has the same function with the additional feature of sensing proximity of a user's finger and emulating button presses by a user's finger at pre-determined areas.

(*Id.*, 16:66-17:13) (emphasis added.)

It is clear to the court that the patentee's use of "i.e." before "touch wheel" was not meant to define an "interactive flat-panel control" generally; instead it merely refers back to the aforementioned *type* of "interactive flat-panel control" employed by the Apple iPod—"a touch wheel." This conclusion is further bolstered by the subsequent sentence's discussion of a "click wheel"—the "interactive flat-panel control" employed by other versions of the iPod. (*Id.*, 17:10-13.) LifeProof's proposed construction of "capacitance-sensing interactive flat panel control" would not only read-out the '376 Patent specification's discussion of a "click wheel" as one form of an "interactive flat panel control," but also would improperly limit that term to the "interactive flat-panel control" employed by one type of handheld electronic device—the Apple iPod—even though the specification discusses several other categories of handheld electronic devices that have interactive flat panel controls—"music players, MP3 players, audio player/recorders, and video players." (*Id.*, 16:64-67.) Altogether, it is clear that the patentee did not intend to act as his own lexicographer to define "capacitance-sensing interactive flat-panel control" as a "touch wheel."

Otherwise, the court agrees with Otter that the term "capacitance-sensing interactive flat panel control" needs no additional construction. *See Phillips*, 415 F.3d at 1312-13 (the words of a claim "are generally given their ordinary and customary meaning.") (citations omitted). Here, with respect to one embodiment for a handheld device, the "[i]nteractive flat-panel control" is

described as having “capacitive sensors which are part of a proximity/touch detector circuit.” (’376 Patent, 17:54-55.) This description is effectively synonymous with the term “capacitance-sensing interactive flat panel control” itself. Claim construction “is not an obligatory exercise in redundancy,” and the court “need not repeat or restate every claim term.” *U.S. Surgical Corp.*, 103 F.3d at 1568. Accordingly, the court finds that the term “capacitive-sensing interactive flat panel control” is just that—a “capacitive-sensing interactive flat panel control.” Therefore, the court finds that the term “capacitive-sensing interactive flat panel control” may be submitted to a jury without further clarification or construction other than the definition is not limited to a “touch wheel.”

H. integrally fixed

’376 Patent, claim 11

’512 Patent, claims 1 and 3 (and dependent claims)

Otter Products LLC’s Construction

these terms can be understood according to their own plain and ordinary meaning. In the alternative: “forms a unit by attaching”

LifeProof’s Construction

Indefinite.

If not indefinite, then LifeProof proposes: “snapping the membrane into an overmolded gasket, attaching an O-ring to the gasket and coupling the assembly to the shell”

The claim term integrally fixed appears throughout the patents-in-suit in the context of incorporating the protective membrane with the shell to form the overall enclosure, stating for instance in Claim 1 of the ’976 Patent, “a flexible protective membrane that is *integrally fixed* on

said shell so that said flexible protective membrane is disposed over said touch screen of said touch screen device when said touch screen device is disposed in said enclosure” (’976 Patent, 12:13-17.) Otter argues that the term does not need construction while LifeProof argues the term is indefinite. Both offer alternative constructions should the court deem construction of the term appropriate.

The term integrally fixed, with respect to the protective membrane was added by the Applicant subsequent to the first Office Action by the U.S. Patent Office. (’976 Pros. Hist. at 55.) Again, the issue in the first Office Action was primarily the patentability of the claims in light of *Sirola*. As discussed in previous sections, *Sirola*’s membrane over the touch screen part of a touch screen device was contained as part of a hinged door affixed to the actual housing of the touch screen device. The ’976 application involved a separate enclosure for a completely independent touch screen device, which could be removed by hand without any tools, and where the membrane was actually part of the independent enclosure, not part of the touch screen device. Therefore, the term integrally fixed has specific and important meaning when distinguishing the invention from *Sirola*. Under those circumstances, the term should be construed if necessary to assist the jury in its consideration of the patent vis-à-vis the accused product.

“[C]laim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement.” *O2 Micro Intern. Ltd. v. Beyond Innovation Technology Co., Ltd.*, 521 F.3d 1351, 1362-1363 (Fed. Cir. 2008) (quoting *U.S. Surgical Corp.*, 103 F.3d at

1568). When the parties present a fundamental dispute regarding the scope of a claim term, it is the court's duty to resolve it.

LifeProof argues that since the specification does not otherwise define the disputed term, it can only be gleaned, if at all, by importing language from an embodiment into the construction. *See 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 in which the disputed term appears, but in the context of the entire patent” which includes specifications and embodiments.) Although the specification of any patent often describes very discreet embodiments of the invention, the Federal Circuit has repeatedly warned against confining the claims to those embodiments. *Phillips*, 415 F.3d at 1323. *See, e.g., Nazomi Comms., Inc.*, 403 F.3d at 1369 (claims may embrace “different subject matter than is illustrated in the specific embodiments in the specification”); *Liebel–Flarsheim*, 358 F.3d at 906-08; *Teleflex v. Ficosa N.A. Corp.*, 299 F.3d 1313, 1327 (Fed. Cir. 2002); *SRI Int’l*, 775 F.2d at 1121.

The purposes of the specification are to teach and enable those with skill in the art to make and use the invention and to provide a best mode for doing so. *See Spectra–Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1533 (Fed. Cir. 1987). One of the best ways to teach a person of ordinary skill in the art how to make and use the invention is to provide an example of how to practice the invention in a particular case, i.e. embodiments. Section 112 of the Patent Act, however, requires that the claims themselves set forth the limits of the patent grant and persons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments. *Phillips*, 415 F.3d at 1323.

The term integrally fixed is not a technical term or a term of art in an industry. Its meaning, in the context of the invention at issue, is not complicated; integrally is an adverb modifying the word “fixed,” i.e. how one component is “fixed” or “affixed” to something else. Dictionaries or comparable sources are often useful to assist in understanding the commonly understood meaning of words and have been used both by the Federal Circuit and the Supreme Court in claim interpretation. *Phillips* at 1322. *See Renishaw*, 158 F.3d at 1247-53 (approving the use of dictionaries with proper respect for the role of intrinsic evidence). A dictionary definition has the value of being an unbiased source “accessible to the public in advance of litigation.” *Vitronics*, 90 F.3d at 1585.

On the other hand, dictionaries, by their nature, provide an expansive array of definitions and collect the definitions of a term as used not only in a particular art field, but in many different settings. In such circumstances, it is inevitable that the multiple dictionary definitions for a term will extend beyond the “construction of the patent [that] is confirmed by the avowed understanding of the patentee, expressed by him, or on his behalf, when his application for the original patent was pending.” *Phillips* at 1321-22; *Goodyear Dental Vulcanite Co. v. Davis*, 102 U.S. 222, 227 (1880); *Smith v. Snow*, 294 U.S. 1, 14 (1935) (“if the claim were fairly susceptible of two constructions, that should be adopted which will secure to the patentee his actual invention.”). So while use of a general dictionary “cannot overcome art-specific evidence of the meaning” of a claim term, *Vanderlande Indus. Nederland v. Intern’l Trade Comm.*, 366 F.3d 1311, 1321 (Fed. Cir. 2004), consideration of the definition together with the subject matter of the invention, the context in which the term is used and all other intrinsic evidence associated

with the patent, will more often than not lead to the correct conclusion. *See, e.g., Vanguard Products Corp. v. Parker Hannifin Corp.*, 234 F.3d 1370, 1372 (Fed. Cir. 2000) (citing *Optical Disc Corp. v. Del Mar Avionics*, 208 F.3d 1324,1335 (Fed. Cir. 2000)) (“We discern no error in the district court’s determination that “integral” was used in the [] patent in its ordinary dictionary meaning.”)

Merriam-Webster’s Collegiate® Dictionary defines integral as

- (1)(a) essential to completeness: constituent [an integral part of the curriculum]; . .
- (1)(c) formed as a unit with another part [a seat with integral headrest]; (2) composed of constituent parts; (3) lacking nothing essential: entire.

Integral Definition, M-W.COM, <http://www.merriam-webster.com/dictionary/integral>, content

based on *Merriam-Webster’s Collegiate® Dictionary* (11th ed.)(last visited September 20,

2012). Further, the definition of fixed is

- (1)(a) securely placed or fastened: stationary; . . .(c)(1) not subject to change or fluctuation [a fixed income];(c)(2) firmly set in the mind [a fixed idea]; (c)(3) having a final or crystallized form or character . . . ; (d) immobile, concentrated [a fixed stare]

Fixed Definition, id.

These definitions are wholly consistent with those found in the case law. *See e.g. American Piledriving Equipment, Inc. v. Geoquip, Inc.*, 637 F.3d 1324, 1334 -1335 (Fed. Cir. 2011) (one of ordinary skill in the art at the time of the invention would have understood the term ‘integral’ to mean ‘formed or cast of one piece’ in the context of the invention.); *Old Reliable Wholesale, Inc. v. Cornell Corp.*, 635 F.3d 539, 542 (Fed. Cir. 2011) (district court issued a claim construction order, construing the term “integral” to mean “formed with or joined

to.”); *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1341 (Fed. Cir. 2001) (dispositive question was whether the word “portion” as used in the patent claims referred to parts of an object that are “separate,” or parts that can be either “separate” or “integral.”); *Vanguard Products Corp.*, 234 F.3d at 1372 (“‘integral’ is used here in its ordinary sense to mean formed as a unit with another part, and therefore, ‘integral therewith’ means that the outer layer of the gasket is formed as a unit.”); *Warminster Fiberglass Co., Inc. v. Delta Fiberglass Structures, Inc.*, 101 F.3d 716, 1996 WL 658835, at *2 (Fed. Cir. Nov. 14, 1996) (unpublished table opinion)(“integral” defines a “structural relationship.”); *Application of Larson*, 52 C.C.P.A. 930, 933, 340 F.2d 965, 967 (Cust. & Pat. App. 1965) (defining ‘integral’ by its dictionary definition as “(2) Composed of constituent parts making a whole; composite; integrated.”); *Henderson v. Grable*, 52 C.C.P.A. 920, 926, 339 F.2d 465, 470 (Cust. & Pat. App. 1964) (holding that integral is an unambiguous term and finding a collar that tightly screwed onto an outer pipe to be integral); *Lathrop v. Shipman*, 27 C.C.P.A. 1348, 1351, 113 F.2d 142, 144 (Cust. & Pat. App. 1940) (“The use of solder ordinarily and commonly indicates that the part attached to the device is to be stationary and integral therewith or fixed thereto [O]ther parts of exhibit A are soldered together to render them integral and keep them permanently in place.”).

Therefore, the court in the context of the patents-in-suit, construes the term “**integrally fixed**” as “*securely fastened to one or more components in a stationary position to form a unit.*”

VI. Summary of Claim Construction

Based on the foregoing, the court construes the disputes claim language as follows:

1. The following phrase:

Said shell being larger than said touch screen device so that there is a gap between an outer surface of said touch screen device and an inner surface of said shell so that said shell may flex when subjected to a crushing force without transmitting said force directly to said touch screen device

is construed as follows:

Said shell being larger than said touch screen device so that there is a space between an outer surface of said touch screen device and an inner surface of said shell, which space may be filled with air or some other compressible material different from the shell material, so that said shell may flex when subjected to a crushing force without transmitting said force directly to said touch screen device.

2. The term “crush resistant” is construed as “affording some protection against dropping and being crushed.”
3. The term “substantially crush resistant” is construed as “crush resistant to a considerable degree, and in no event consisting of a material with a median flexural modulus of less than or equal to 177 ksi.”
4. The term “touch screen” is construed as a “screen capable of displaying information and receiving tactile inputs, including, but not limited to, capacitive inputs.”
5. The term “encloses/enclosing” is construed as “to hold in.”
6. No construction is necessary for the term “elevated protective rim.”

7. The term “capacitance sensing interactive flat-panel control” needs no construction other than that the definition is not limited to a “touch wheel.”
8. The term “integrally fixed” is construed as “securely fastened to one or more components in a stationary position to form a unit.”

Dated this 27th day of September, 2012.

BY THE COURT:



Kathleen M. Tafoya
United States Magistrate Judge