

**IN THE UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF ARKANSAS  
WESTERN DIVISION**

PERFECTVISION MANUFACTURING, INC.

PLAINTIFF

v.

NO. 4:12CV00623 JLH

PPC BROADBAND, INC., d/b/a PPC

DEFENDANT

**OPINION AND ORDER**

PerfectVision Manufacturing, Inc., brought this action, seeking a judicial determination that it had not infringed on certain patents owned by PPC Broadband, Inc. PPC counterclaimed that PerfectVision infringed on six of its patents.<sup>1</sup> After the parties agreed to a consent judgment resolving ten of PerfectVision's claims, *see* Document #53, the question remains whether PerfectVision has infringed on six of PPC's patents.<sup>2</sup> This Opinion and Order addresses the parties' disagreements on how to construe numerous terms in those patents' claims.

**I.**

The six patents-in-suit<sup>3</sup> concern coaxial cable connectors. Coaxial cable connectors connect coaxial cables with interface ports on electronic devices, such as televisions and cable boxes, to integrate electrically the coaxial cable with the electronic device. Connectors can be designed in different ways to extend the coaxial cable's properties to the interface port. The patents-in-suit claim a connector with a post component, which, when installed properly, electrically contacts the interface

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<sup>1</sup> PPC also brought claims against PerfectVision for negligent misrepresentation, unfair competition, and deceptive acts or practices under section 349 of the New York General Business Law. Document #44 at 18-19.

<sup>2</sup> PerfectVision's remaining claim is for a declaratory judgment that it has not infringed on one of these six patents.

<sup>3</sup> Patent numbers 8,366,481; 8,469,740; 8,475,205; 8,480,430; 8,480,431; and 8,485,845.

port, extending the cable's electrical ground path and electromagnetic shielding to the interface port. When the connector is not installed properly or not completely tightened on the interface port, however, gaps in the connector's components may exist that prevent the electrical ground path and electromagnetic shielding from extending to the interface port. The innovation at the heart of the patents-in-suit attempts to solve this problem by eliminating gaps in the connector even when the connector is not installed properly or tightened completely on the interface port. The innovation adds a biasing element or biasing member to the connector that biases the connector's coupling element towards the post, with the hope of eliminating gaps and ensuring an uninterrupted ground path from the post, which is in contact with the outer conductor of the coaxial cable, through the coupling element (or nut), and to the interface port. The innovation is designed to allow a person to watch cable television, for instance, without signal disruptions even when the coaxial cable is not tightly attached to the back of the television.

## II.

The Patent Act requires that a patent specification “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.” 35 U.S.C. § 112(b).<sup>4</sup> The patent's claims “define the invention

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<sup>4</sup>The Leahy-Smith America Invents Act, enacted in September of 2011, made minor changes to 35 U.S.C. § 112, which are not pertinent to any substantive issues here. *See* Pub. L. 112-29, § 4(c), 125 Stat. 284. One difference is the citation itself: the 2006 edition does not have subsections, so the citations are to paragraph numbers. What is now, for example, cited as 35 U.S.C. § 112(a) was previously cited as 35 U.S.C. § 112, ¶ 1, and so on down the line. Also, in the quoted text above, the 2006 edition ends with “which the applicant regards as his invention.” 35 U.S.C. § 112, ¶ 2 (2006). The changes apply only to patent applications filed one year or more after the enactment of the Act. *See id.* § 4(e). In this action, five of the patents were filed in December of 2012, more than one year after the enactment of the Act, while the '481 patent was filed in March of 2011, meaning that the Act's changes do not apply to the '481 patent. For ease of reference, all citations to section 112 are to the current *United States Code*.

to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Construing a patent is a question of law determined by the court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372, 116 S. Ct. 1384, 1387, 134 L. Ed. 2d 577 (1996).

The words of a claim are generally given their ordinary and customary meaning, which is the meaning that the words would have to a person of ordinary skill in the art in question at the time the patent was filed. *Phillips*, 415 F.3d at 1312-13. There are two exceptions to this general rule: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). A person of ordinary skill in the art would read a claim term in the context of the patent’s specification and prosecution history, i.e., the intrinsic evidence. *Phillips*, 415 F.3d at 1313.

Within the intrinsic evidence, the asserted claim’s language is the appropriate starting point for the analysis. *Kraft Foods, Inc. v. Int’l Trading Co.*, 203 F.3d 1362, 1366 (Fed. Cir. 2000); see *Phillips*, 415 F.3d at 1314 (“To begin with, the context in which a term is used in the asserted claim can be highly instructive.”). Language from other claims in the patent is also instructive, as “claim terms are normally used consistently throughout the patent,” so “the usage of a term in one claim can often illuminate the meaning of the same term in other claims.” *Phillips*, 415 F.3d at 1314.

Because a patent’s claims are part of an integrated document, the claims must be read in view of the entire specification. The specification is “the single best guide to the meaning of a disputed [claim] term.” *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.

Cir. 1996)); *see id.* at 1316 (“The close kinship between the [specification’s] written description and the claims is enforced by the statutory requirement that the specification describe the claimed invention in ‘full, clear, concise, and exact terms.’” (quoting 35 U.S.C. § 112(a))). A court should use the specification to interpret a claim term’s meaning but should not import limitations from the written description into the claim. *See id.* at 1323. The patent’s prosecution history, while less useful than the specification for construing claims, “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.” *Id.* at 1317.

Extrinsic evidence is useful but is less significant in construing claims than the intrinsic evidence of the claim language, the specification, and the prosecution history. *See id.* Dictionaries, especially technical dictionaries, and treatises may be considered if they are “helpful in determining ‘the true meaning of language used in the patent claims.’” *Id.* at 1318 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370, 116 S. Ct. 1384, 134 L. Ed. 2d 577 (1996)). *But see id.* at 1321 (“[H]eavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification.”). Extrinsic evidence in the form of expert testimony may provide background on the technology, explain how an invention works, ensure that the court’s understanding is consistent with that of a person of skill in the art, or establish that a particular term has a particular meaning in the pertinent field. *Id.* at 1318.

The Supreme Court has referred to 35 U.S.C. § 112’s clarity and precision demand as a

“definiteness requirement.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014); *see also Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 730-31, 122 S. Ct. 1831, 1837, 152 L. Ed. 2d 944 (2002) (“The monopoly [of a patent] is a property right; and like any property right, its boundaries should be clear. . . . A patent holder should know what he owns, and the public should know what he does not.”). “[A] patent is invalid for indefiniteness if its claims, read in light of the specification . . . and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc.*, 134 S. Ct. at 2124. Definiteness “is measured from the viewpoint of a person skilled in the art *at the time the patent was filed.*” *Id.* at 2128 (quotation marks omitted). The reasonable-certainty standard balances the inherent limitations of language, and the modicum of uncertainty that comes with such limitations, with the need to apprise the public of what is claimed and to reduce incentives for patent applicants to inject ambiguity into their claims. *See id.* at 2128-29.

“A determination of claim indefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1338 (Fed. Cir. 2008) (quoting *Personalized Media Commc’ns, LLC v. Int’l Trade Commc’n*, 161 F.3d 696, 705 (Fed. Cir.1998)). A patent, however, is presumed valid, and the “burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.” 35 U.S.C. § 282(a). Therefore, if a court’s definiteness conclusion depends on factual findings, the party asserting invalidity of the patent must demonstrate indefiniteness by clear and convincing evidence. *See Haemonetics Corp. v. Baxter Healthcare Corp.*, 607 F.3d 776, 783

(Fed. Cir. 2010); *Tech. Licensing Corp.*, 545 F.3d at 1338.<sup>5</sup>

### III.

#### A. “To bias,” “biases,” “biasing force,” “constant biasing force”

PPC argues that “to bias” means “to push,” while PerfectVision argues that “to bias” means “to bias, provide, force ensure, deliver, etc., annular contact between the coupling element and the post.”

As noted, the invention at the heart of the patents-in-suit is a biasing member or biasing element that biases the coupling element toward or against the post. Thus, some form of “bias” appears in each of the patents-in-suit. *See, e.g.*, Document #67-2 at 22 (’481 patent, claim 10) (“[T]he integral body biasing element operates with the annular groove to permit the necessary deflection **to bias** the coupling element against the post.” (emphasis added)); *id.* (’481 patent, claim 13) (“[T]he integral body biasing element **biases** the inward lip of the coupling element against a surface of the flange of the post.” (emphasis added)); Document #67-3 at 23 (’740 patent, claim 18) (“exerting an axial **biasing force** against the biasing contact surface of the coupling element to axially urge the internal lip coupling element toward the flange of the post” (emphasis added)); Document #67-5 at 23 (’430 patent, claim 41) (“[T]he resilient biasing means is configured to exert a **constant biasing force** against the coupling means . . . .” (emphasis added)).

PPC contends that its construction is inherent in the nature of the claims: without active pushing or urging, nothing would eliminate gaps between the connector’s components when the connector is not fastened accurately to the interface port. *See* Document #67-2 at 16 (’481 patent,

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<sup>5</sup> The Supreme Court in *Nautilus* declined to decide “whether factual findings subsidiary to the ultimate issue of definiteness trigger the clear-and-convincing evidence standard.” *Nautilus, Inc.*, 134 S. Ct. at 2130 n.10.

1:33-35<sup>6</sup>) (“Thus, a need exists for an apparatus and method for ensuring continuous contact between conductive components of a connector.”).<sup>7</sup> PPC also points to the specification, which states that the biasing member should be large enough that when disposed in the cavity, it “exerts enough force against both the coupling element and the connector body to axial displace the coupling element a distance towards the post.” Document #67-2 at 19 (’481 patent, 8:61-66); *see id.* at 20 (’481 patent, 10:46-50) (the notch exists “to permit the necessary deflection to provide a biasing force to effectuate constant physical contact” between the coupling element and the post). Because, according to PPC, the biasing member and biasing element are flexible and resilient, they exhibit a spring force when compressed, and that force acts upon the coupling element and moves it towards the flange of the post.

PPC also contends that in the prosecution history of the ’481 patent, the PPC distinguished its innovation from earlier patents in part because the biasing element and biasing member urged the coupling element towards the post, which earlier patents did not do. *See* Document #67-8 at 27, 32-34, 36 (Nov. 2, 2012 Office Action Response regarding the ’481 patent). Further, PPC cites cases that it argues have construed forms of “to bias” similarly to PPC’s proposed definition. *See, e.g., Medegen MMS, Inc. v. ICU Med., Inc.*, 317 Fed. App’x 982, 987 (Fed. Cir. 2008) (noting the district court’s construction of “biased member” as “a biased plug, or a plug subject to a biasing force, such

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<sup>6</sup> For citations to the written description of the specification, the number before the colon refers to the column number (as indicated in the patent), and the numbers after the colon refer to the line numbers in that column on which the cited material appears. Citations to the claims are to the claim number, not to the column and line numbers.

<sup>7</sup> The specification and figures are identical in all relevant respects for all six patents-in-suit, so all citations to the specification and figures will be to the ’481 patent, although they apply to each of the patents-in-suit.

as a spring” (quotation marks omitted)); *Invisible Fence, Inc. v. Perimeter Techs., Inc.*, No. 1:05-CV-361, 2006 WL 1443399, at \*5 (N.D. Ind. May 25, 2006) (“biasing” means “exerting force in a particular direction toward the open end of the battery holder”).

PerfectVision responds that the word “push” never appears in the claims, specification, or prosecution history. Moreover, the specification explains that the biasing member may “bias, provide, force, ensure, deliver, etc. the contact between the coupling element and the post.” Document #67-2 at 19 (’481 patent, 8:3-5). Because of this broad language in the specification, PerfectVision argues that PPC’s proposed construction is too limiting. *See Woods v. DeAngelo Marine Exhaust, Inc.*, 692 F.3d 1272, 1284 (Fed. Cir. 2012) (“The patentee did not expressly define ‘elongated outer shell’ as providing a deflection surface, nor did he disavow an outer liner that does not deflect water. This court will not read such a limitation into the term merely because it is disclosed in some embodiments.”); *In re Rambus, Inc.*, 694 F.3d 42, 47 (Fed. Cir. 2012).

Further, PerfectVision argues that PPC distinguished its innovations in the patents-in-suit based on the presence of gaps in the connectors of prior art and not based on the force applied by the biasing element or biasing member. PerfectVision also contends that PPC places too much weight on the prosecution history for its preferred construction.

The Court construes “to bias” to mean “to exert force in a particular direction against an object.” This construction is more in line with PPC’s proposed definition than with PerfectVision’s. The construction follows from the claim language’s context. Claims in each patent use a form of the verb “exert” in conjunction with a form of the word “bias.” *See, e.g.*, Document #67-2 at 22-24 (’481 patent, claims 1, 8, 14, 17, 20, 24); Document #67-3 at 22-24 (’740 patent, claims 1, 6, 12, 18, 22, 23, 24, 25, 26, 31); Document #67-4 at 23-25 (’205 patent, claims 1, 2, 13, 17, 23, 26, 33, 37,

42, 45, 47, 49); Document #67-5 at 22-24 ('430 patent, claims 1, 6, 9, 10, 12, 15, 17, 22, 25, 26, 28, 41, 44, 47, 54); Document #67-6 at 22-24 ('431 patent, claims 1, 3, 4, 6, 8, 10, 11, 16, 17, 18, 23, 24, 28, 29); Document #67-7 at 22-24 ('845 patent, claims 1, 4, 6, 7, 10, 11, 12, 14, 15, 19, 21, 23, 27, 29, 36, 38, 39, 41, 44). This language shows that a biasing force is a type of force that is exerted, and the biasing member or biasing element or biasing structure is the element that is exerting the biasing force. *See, e.g.*, Document #67-2 at 22 ('481 patent, claim 1) (“wherein the biasing force *exerted* by the biasing member” (emphasis added)); Document #67-3 at 22 ('740 patent, claim 6) (“a biasing means configured to fit within the cavity . . . so as to *exert* a constant axial biasing force” (emphasis added)); Document #67-4 at 23 ('205 patent, claim 11) (“wherein the biasing force *is exerted* against the connector body . . . toward a rearward direction” (emphasis added)); Document #67-5 at 22 ('430 patent, claim 6) (“wherein the resilient biasing structure is configured *to exert* a constant biasing force against the coupling element” (emphasis added)); Document #67-6 at 22 ('431 patent, claim 1) (“wherein the biasing force *exerted* by the biasing O-ring” (emphasis added)); Document #67-7 at 23 ('845 patent, claim 19) (“wherein the biasing force *is exerted* against the coupling element . . . toward a forward direction” (emphasis added)). Thus, the claim language is consistent with, and almost necessitates, the Court’s definition above.

The Court’s construction is also inherent in the invention: something must force the coupling element’s lip toward or into contact with the post, so a verb must indicate the force being applied. PPC distinguished its invention from prior art based primarily on this force that the biasing element or biasing member exerts. *See, e.g.*, Document #67-8 at 25 (“Malloy does not teach a coaxial cable connector comprising a biasing member configured . . . to exert a biasing force . . . , the biasing force being sufficient to urge the internal lip of the coupling element away from the connector body and

toward the flange of the post . . .”).

The Court’s construction is also consistent with the specification’s written description. Contrary to PerfectVision’s assertion, the specification’s broad explanation for what a biasing member may do does not broaden the definition of “to bias,” as that verb is still used in that part of the specification’s language and in PerfectVision’s proposed definition. It would not make sense to use the term “bias” in the definition of “to bias” and then broaden its meaning by adding additional, and different, terms; which is to say that the sentence upon which PerfectVision relies is not a definition of “bias” or other forms of that term. Moreover, PPC has not clearly acted as its own lexicographer to define “biasing member” to encompass a broader range of actions other than exerting force in a particular direction against an object. “To act as his own lexicographer, a patentee must ‘clearly set forth a definition of the disputed claim term’ other than its plain and ordinary meaning”; “the patentee must ‘clearly express an intent’ to redefine the term.” *Thorner*, 669 F.3d at 1365 (quoting *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002), and *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1381 (Fed. Cir. 2008)). While the specification provides that a biasing member “may bias, provide, force, ensure, deliver, etc. the contact between the coupling element 30 and the post 40,” Document #67-2 at 19 (’481 patent, 8:3-5), it also provides that the biasing member should be large enough that it “exerts enough force against both the coupling element 30 and the connector body 50 to axial displace the coupling element 30 a distance towards the post 40,” *id.* (’481 patent, 8:61-66). Thus, the specification appears to teach that the biasing member exerts force to move an object, i.e., the coupling element, in a particular direction, i.e., towards the post.

The Court’s construction also is consistent with the way in which other courts have defined

“to bias.” *See Invisible Fence*, 2006 WL 1443399, at \*5 (“biasing” means “exerting force in a particular direction toward the open end of the battery holder”).

PPC contends that “constant biasing force” has the same definition as “biasing force.” PerfectVision contends that the addition of “constant” means that “the biasing force exists even when the connector is not threaded onto an interface port.” “Constant biasing force” is in five of the patents-in-suit. *See* Document #67-3 at 23 (’740 patent, claim 22); Document #67-4 at 23-25 (’205 patent, claims 2, 17, 26, 37); Document #67-5 at 22-24 (’430 patent, claims 6, 22, 38); Document #67-6 at 24 (’431 patent, claim 29); Document #67-7 at 24 (’845 patent, claim 36). Contrary to PerfectVision’s argument, however, each claim that includes “constant biasing force” is dependent upon another claim that explains that the biasing force occurs when the coupling element is interacting with the interface port. *See* Document #67-3 at 23 (’740 patent, claim 18) (biasing force exists “when the coupling element axially moves between the first position, where the coupling element is partially tightened on the interface port, and the second position, where the coupling element is fully tightened on the interface port, at least until the post contacts the interface port”); Document #67-4 at 23 (’205 patent, claim 1) (same relevant language); *id.* (’205 patent, claim 13) (“a biasing force is exerted between the integral resilient biasing member and the biasing surface of the coupling element when the coupling element axially moves between the first position and the second position, at least until the post contacts the interface port”); *id.* at 24 (’205 patent, claim 23) (same); *id.* (’205 patent, claim 33); Document #67-5 at 22 (’430 patent, claim 1); *id.* (’430 patent, claim 17) (claiming a method where the connector body has engaged the post); *id.* at 23 (’430 patent, claim 33); Document #67-6 at 24 (’431 patent, claim 27); Document #67-7 at 24 (’845 patent, claim 32). PerfectVision’s argument fails. The court has defined “to bias.” No reason exists to provide

a further definition of “biasing force” or “constant biasing force.”

**B. “Integral body biasing element,” “integral resilient biasing member”**

PPC contends that each of these terms should mean “an integral portion of the body that is configured to exert a constant spring force by pushing against the coupling element/nut,” while PerfectVision contends that each should mean “a biasing element that is structurally integral with the connector body.”

Three of the patents-in-suit contain at least one of these terms. *See* Document #67-2 at 22-23 (’481 patent, claims 9, 20); Document #67-4 at 23-24 (’205 patent, claims 1, 13, 23); Document #67-6 at 24 (’431 patent, claim 28). While PerfectVision and PPC disagree about the meaning of these two terms, they disagree more specifically about the meaning of (1) “integral,” (2) “resilient,” and (3) “biasing”<sup>8</sup> within these two terms.

PPC argues that “integral” means “a single, unitary structure,” while PerfectVision argues that it means “a complete unit.” PPC contends that “a complete unit” is ambiguous and would therefore require the Court’s construction. Further, PPC contends that the specification explains the meaning of integral, *see* Document #67-2 at 20 (’481, 10:34-37), and that the relevant claims are only directed to a biasing member that is expressly integral with the connector body.

PerfectVision counters that the specification includes embodiments where “the biasing element 255 may be a separate component fitted or configured to be coupled with (e.g.,) adhered, snapped on, interference fit, and the like) an existing connector body, such as connector body 50.” *Id.* (’481, 10:37-41). Thus, according to PerfectVision, an “integral body biasing element” must be

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<sup>8</sup> As explained further below, PPC indicates that the third phrase is “biasing element,” but since the parties do not argue over the difference between “element” and “member” for these terms, the disagreement seems to be over the word “biasing.”

broadly construed to encompass both one- and two-piece constructions.

The Court construes “integral” in these phrases to mean “integrated into the body so as to constitute a part of the same structure.” The specification explains the meaning of an integral biasing element: “The biasing element 255 may be structurally integral with the connector body 250, such that the biasing element 255 is a portion of the connector body 250.” Document #67-2 at 20 (’481, 10:34-37). The phrase “such that” refers to the way in which the biasing element may be structurally integral with the connector body. In other words, an *integral* biasing element is one that is “is a portion of the connector body 250.” *Id.* That the specification includes non-integral embodiments of the biasing element is irrelevant, because a biasing element may be integral or non-integral. *See id.* (’481 patent, 10:37-41).

PerfectVision cites cases that have construed “integral” or a similar term to encompass both one- and two-piece constructions. *See, e.g., Advanced Cardiovascular Sys., Inc. v. Scimed Life Sys., Inc.*, 887 F.2d 1070, 1073-74 (Fed. Cir. 1989) (noting that the dictionary definition “does not conclusively limit ‘integral’ to ‘of one piece’”); *3M Innovative Props. Co. v. EnvisionWare, Inc.*, Civil No. 09-1594, 2010 WL 5067449, at \*5 (D. Minn. Dec. 6, 2010) (“integrated unit” means “a unit wherein the recited component parts are or can be combined into a unified structure”); *Parker-Hannifin Corp. v. Baldwin Filters, Inc.*, 724 F. Supp. 2d 810, 823 (N.D. Ohio 2010) (“integral” means “composed of integrated parts”); *Scientific Specialties Inc. v. Thermo Fisher Scientific Inc.*, 684 F. Supp. 2d 1187, 1193 (N.D. Cal. 2010) (“The court finds that ‘integral’ and ‘integrally’ refer to pieces joined in such a way as to form a single unit.”). These cases, however, do not demonstrate that “integral” necessarily means combined from different parts; they show that the definition of “integral” depends on the context. *See, e.g., Am. Piledriving Equip., Inc. v. Geoquip, Inc.*, 637 F.3d

1324, 1335-36 (Fed. Cir. 2011) (“integral” means “formed or cast of one piece”). Here, the specification provides that context.

The parties also disagree over the definition of “resilient” in “integral resilient biasing member”: PPC contends that it means “configured to return to an original shape after having been depressed or deformed,” while PerfectVision contends that it means “some non-zero degree of resiliency.” PPC argues that PerfectVision’s definition includes materials that the patents teach are not resilient, as most materials have some non-zero degree of resiliency. According to PPC, the breadth of PerfectVision’s definition would render “resilient” superfluous. The specification explains that the “resilient nature of the biasing member 70 may help avoid permanent deformation while under the torque requirements when a connector 100 is advanced onto an interface port 20,” Document #67-2 at 19 (’481 patent, 7:64-67), and that “the resiliency of the biasing member 70 may deform under torque requirements, as opposed to permanently deforming in a manner similar to metallic or rigid components under similar torque requirements,” *id.* at 20 (’481 patent, 9:6-10).

PerfectVision argues that PPC’s use of “configured to” in its definition of “resilient” would require additional construction. *See, e.g., Intellectual Ventures I LLC v. Altera Corp.*, C.A. No. 10-1065-LPS, 2013 WL 3913646, at \*7 (D. Del. July 26, 2013) (construing “configured to”); *SIPCO, LLC v. ABB, Inc.*, No. 6:11-CV-0048, 2012 WL 3112302, at \*6-11 (E.D. Tex. July 30, 2012) (same); *see also Riverbed Tech., Inc. v. Silver Peak Sys., Inc.*, C.A. No. 11-484-RGA, 2013 WL 3830416, at \*1 (D. Del. July 23, 2013) (construing “configured”).<sup>9</sup> Further, PerfectVision argues that because

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<sup>9</sup>“Configured to” is used in numerous claims in the patents-in-suit. PerfectVision argues that “configured to” in two claims – claim 18 of the ’740 patent and claim 28 of the ’431 patent – should be construed to mean “shaped and arranged.” PPC argues that no construction is necessary. The terms in those two claims are “configured to allow the integral biasing structure to deflect along an axial direction,” Document #67-3 at 23 (’740 patent, claim 18), and “configured to permit the

the specification uses the permissive term “may” when it states that the “resilient nature of the biasing member 70 may help avoid permanent deformation,” it does not exclude materials that will permanently deform. According to PerfectVision, that the “biasing member 70 may deform under torque requirements, as opposed to permanently deforming,” suggests only that resiliency means something less than permanent deformation.

The Court construes “resilient” in this context to mean “comprised of materials such that it (i.e., the biasing member) ordinarily will return to its original shape after being depressed or deformed.” This construction alleviates PerfectVision’s concern that “configured to” in PPC’s definition would need its own construction, and it does not render the word nearly meaningless, as PerfectVision’s overly broad proposed construction would do. The Court’s construction follows from the specification’s written description, which explains how the resiliency of the biasing member deforms mainly through its explanation of how it does not deform. Although the resilient biasing member may deform, it does not “permanently deform[] in a manner similar to metallic or rigid components under similar torque requirements.” Document #67-2 at 20 (’481 patent, 9:6-10).

The exact boundaries of the third disagreement within these phrases is unclear. PPC argued in its briefs that the Court should construe “biasing element.” PerfectVision, on the other hand, indicated at oral argument that the difference is over “biasing,” and neither PPC nor PerfectVision has provided a proposed construction for these terms that would construe “element” and “member”

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integral body biasing element to flex,” Document #67-6 at 24 (’431 patent, claim 28). PerfectVision did not make arguments regarding “configured to” in these claims at the claim-construction hearing, and it is unclear why “configured to” would require construction in these claims but not in the rest of the claims in which it is located. The Court finds no reason to construe “configured to” at this juncture.

differently from each other.<sup>10</sup> PerfectVision argues that PPC’s proposed construction reads purpose limitations into terms that provide only a structural limitation. Moreover, PerfectVision contends that nothing in the intrinsic evidence indicates that a biasing element or biasing member includes a spring force, as the term “spring force” is never used in the intrinsic evidence.

PPC counters that “biasing element” needs construction due to PerfectVision’s attempt to broaden the patents’ claims to cover more than active biasing. In light of the dispute over what the biasing element does, and because it plays a key role in the patents, PPC argues that the Court should construe the term. *See Every Penny Counts, Inc. v. Am. Express Co.*, 563 F.3d 1378, 1383 (Fed. Cir. 2009) (“[T]he court’s obligation is to ensure that questions of the scope of the patent claims are not left to the jury.”). Because the parties have not argued about what, if any, different definitions should exist for “element” and “member” in the phrases in this section, the disagreement here appears to be over the word “biasing.” Since the Court already construed “to bias” above, no reason exists to construe “biasing” separately for these terms.

Although the parties do not argue in this section that “biasing member” should be construed differently from “biasing element,” the possibility of a difference between the meaning of those two terms is an issue that arises repeatedly in construing the claims of the patents and therefore needs to be addressed. When asked at the claim-construction hearing whether a difference exists between “biasing member,” “biasing element,” and “biasing structure,” PPC responded that those terms have the same meaning. *See Document #101 at 27 (transcript of claim-construction hearing)* (“Mr. Nash:

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<sup>10</sup> PerfectVision’s argument that biasing element, biasing member, and biasing structure are not necessarily the same elements is made with respect to other terms that PerfectVision argues are indefinite.

I don't think there are any distinctions in those terms, practically speaking.”<sup>11</sup> That assertion, however, is difficult to square with the specification. The biasing member is part number 70 in the specification. The specification depicts the biasing member in figures 1A, 1B, and 7 as an oversized O-ring that is not part of the connector body. The biasing member is not in the other figures. The specification provides that “the biasing member 70 may facilitate constant contact between the coupling element 30 and the post 40” and “may bias, provide, force, ensure, deliver, etc. the contact between the coupling element 30 and the post 40.” Document #67-2 at 19 (’481 patent, 8:1-5). The specification also describes the location of the biasing member: it “may be disposed behind the coupling element 30, proximate or otherwise near the second end of the 52 of the connector. In other words, the biasing member 70 may be disposed within the cavity 38 formed between the coupling element 30 and the annular recess 56 of the connector body 50.” *Id.* (’481 patent, 8:12-17). Thus, the biasing member does not seem to be part of the connector body. The specification also describes specific embodiments of the biasing member, which include “a substantially circinate torus or toroid structure, or other ring-like structure having a diameter (or cross-section area) large enough that when disposed within annular cavity 38 proximate the annular recess 56 of the connector body 50, the coupling element 30 is axially displaced against the post 40 and/or biased against the post,” *id.* (’481 patent, 8:42-47), and an

O-ring configured to cooperate with the annular recess 56 proximate the second end 52 of connector body 50 and the outer internal wall 39 and lip 36 forming cavity 38 such that the biasing member 70 may make contact with and/or bias against the annular recess 56 (or other portions) of connector body 50 and outer internal wall 39 and lip 36 of the coupling element 30.

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<sup>11</sup> PerfectVision asserted at the claim-construction hearing that there are differences between the terms, at least for “structure,” and PerfectVision makes such arguments with respect to other terms, but not with respect to the terms in this section.

*Id.* ('481 patent, 8:48-54). Further, “the biasing member 70 should be sized and dimensioned large enough (e.g. oversized O-ring) such that when disposed in cavity 38, the biasing member 70 exerts enough force against both the coupling element 30 and the connector body 50 to axial displace the coupling element 30 a distance towards the post 40.” *Id.* ('481 patent, 8:60-66). All of the embodiments and descriptions indicate that the biasing member is not part of the connector body but is instead a separate component, such as an oversized O-ring, that fits in the cavity and is used to bias the coupling element against or towards the post.

The biasing element, by contrast, is number 255 in the specification. The specification depicts the biasing element in figures 8A, 8B, and 9 as a component of the connector body. The specification explains: “[T]he biasing element 255 of connector body 250 may be defined as a portion of the connector body 255 [sic], proximate the second end 252, that extends radially and potentially axially (slightly) from the body . . . .” *Id.* at 20 ('481 patent, 10:41-44). The specification also provides embodiments of the biasing element:

The biasing element 255 may be structurally integral with the connector body 250, such that the biasing element 255 is a portion of the connector body 250. In other embodiments, the biasing element 255 may be a separate component fitted or configured to be coupled with (e.g. adhered, snapped on, interference fit, and the like) an existing connector body, such as connector body 50.

*Id.* ('481 patent, 10:34-41). Further, the figures depict and the specification describes that the biasing element may include a notch, groove, or void behind it that allows the biasing element to bias the coupling element towards the post.

Even if not subject to the doctrine of claim differentiation, described below in more detail, “different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope.” *Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1368 (Fed. Cir.

2005) (quoting *Karlin Tech. Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 971-72 (Fed. Cir. 1999)). “Biasing member” and “biasing element” are used in separate claims of the same patents. Compare Document #67-2 at 22 (’481 patent, claim 1) (“biasing member”), and Document #67-4 at 23 (’205 patent, claim 13) (“integral resilient biasing member”), and Document #67-6 at 23 (’431 patent, claim 24) (“biasing member”), with Document #67-2 (’481 patent, claim 8) (“biasing element”), and Document #67-4 at 22 (’205 patent, claim 1) (“integral body biasing element”), and Document #67-6 at 24 (’431 patent, claim 28) (“integral body biasing element”). The specification describes a biasing member and biasing element as two different parts of a connector. While they both bias the coupling element towards or against the post, the biasing member is not an extension of the connector body, and the biasing element is. A tension therefore exists in construing those terms to have the same meaning. Cf. *Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, 93 F.3d 1572, 1579 (Fed. Cir. 1996) (“If the terms ‘pusher assembly’ and ‘pusher bar’ described a single element, one would expect the claim to consistently refer to this element as *either* a ‘pusher bar’ or a ‘pusher assembly,’ but not both . . . .”). As discussed, this does not affect the terms construed in this section because the parties made no issue of these differences, but the differences will affect the construction of terms below.

**C. “Extends an axial distance,” “extends along an axial distance,” “deflect along the axial direction”**

PPC contends that the first two of these terms mean that the integral biasing element “protrudes from the end of the body in an axial direction (but not necessarily entirely parallel to the axis of the connector) towards the coupling element,” while the third term means that the integral biasing element “is configured to deflect in an axial direction (but not necessarily entirely parallel

to the axis of the connector).” PerfectVision contends that these terms mean that the biasing element “extends from the end of the body in a direction entirely parallel to the connector’s axis.”

Claim 19 of the ’740 patent, claims 20 and 40 of the ’205 patent, and claims 3, 19, and 35 of the ’430 patent provide that the integral biasing structure, the integral resilient biasing member, the integral resilient biasing means, the resilient biasing structure, or the resilient biasing means “extend(s) an axial distance [from the body] to engage the coupling element.” Document #67-3 at 23; Document #67-4 at 24-25; Document #67-5 at 22-23.<sup>12</sup> Claim 33 of the ’845 patent provides that “the surface of the integral biasing structure extends along an axial distance to engage the nut.” Document #67-7 at 24. Claim 18 of the ’740 patent and claim 1 of the ’205 patent claim a connector body groove “configured to allow the integral biasing structure [or element] to deflect along an axial direction.” Document #67-3 at 23; Document #67-4 at 23.

PPC points to the specification’s written description to support its interpretation, which says that “the biasing element 255 of connector body 250 may be defined as a portion of the connector body 255, proximate the second end 252, that extends radially and potentially axially (slightly) from the body to bias the coupling element 30, proximate the first end 31, into contact with the post 40.” Document #67-2 at 20 (’481 patent, 10:41-46); *see also id.* at 13-15 (’481 patent, figures 8A, 8B, and 9). Thus, according to PPC, because the integral biasing element can extend in more than one direction, the Court should reject PerfectVision’s definition, which limits the extension or deflection to one direction.

PerfectVision argues that the words “extends” and “deflect” already encompass some axial

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<sup>12</sup> Claims in the ’430 patent do not include “from the body” and claim 35 includes “so as” after “axial distance.”

extension, as indicated in certain independent claims, so the inclusion of “axial distance” in the dependent claims must impart an additional limitation, because it is otherwise redundant. *See Clearstream Wastewater Sys., Inc. v. Hydro-Action, Inc.*, 206 F.3d 1440, 1446 (Fed. Cir. 2000) (“Under the doctrine of claim differentiation, it is presumed that different words used in different claims result in a difference in meaning and scope for each of the claims.”). PPC argues that the doctrine of claim differentiation only applies if no difference is found between claims, *see Kraft Foods*, 203 F.3d at 1368, but each of the dependent claims here adds a limitation requiring that the biasing element engage the coupling element. *See* Document #67-4 at 24 (’205 patent, claim 20); *id.* at 25 (’205 patent, claim 40). Thus, according to PPC, the doctrine of claim differentiation does not apply.

Specifically, “‘claim differentiation’ refers to the presumption that an independent claim should not be construed as requiring a limitation added by a dependent claim.” *Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1380 (Fed. Cir. 2006); *see* 35 U.S.C. § 112(d) (“[A] claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed.”). More generally, claim differentiation is the “presumption that each claim in a patent has a different scope.” *Id.* (quoting *Versa Corp. v. Ag-Bag Int’l Ltd.*, 392 F.3d 1325, 1330 (Fed. Cir. 2004)). Claim differentiation, however, does not exclude the possibility that different terms may define the same subject. *See id.* “Indeed [the Federal Circuit] has acknowledged that two claims with different terminology can define the exact same subject matter.” *Id.*; *see Hormone Research Found., Inc. v. Genentech, Inc.*, 904 F.2d 1558, 1567 n.15 (Fed. Cir. 1990) (“It is not unusual that separate claims may define the invention using different terminology, especially where . . . independent claims are involved.”).

The Court construes “extends an axial distance” and “extends along an axial distance” to mean “extends from the body in a direction parallel to the connector’s axis,” and the Court construes “deflect along the axial direction” to mean “deflect in a direction parallel to the connector’s axis.” Contrary to PerfectVision’s arguments, neither the claim language nor the specification indicates that the integral biasing element or structure must extend *entirely* parallel to the connector’s axis, and it is unclear how such an extension would even be physically possible. Although the specification distinguishes between substantially axial and axial movement for the coupling element, *see* Document #67-2 at 19 (’481 patent, 8:58), this does not provide a sufficient reason to construe the phrases dealing with axial movement of an integral biasing element or structure as necessitating movement in an entirely axial direction.

**D. “Groove,” “notch,” “void”**

PPC contends that “groove” and “notch” each means “a narrow ring-shaped channel formed by the body that is designed to allow the biasing element to be deflected within it and to allow the biasing element to exert a constant spring force.” PerfectVision contends that a “notch” is a “V-shaped cut” and a “groove” is a type of notch that is “a V-shaped, narrow channel.”

The specification provides:

The biasing element 255 may include a notch 258 to permit the necessary deflection to provide a biasing force to effectuate constant physical contact between the lip 36 of the coupling element 30 and the outer tapered surface 47 of the flange 45 of the post 40. The notch 258 may be a notch, groove, channel, or similar annular void that results in an annular portion of the connector body 50 that is removed to permit deflection in an axial direction with respect to the general axis 5 of connector 200.

Document #67-2 at 20 (’481 patent, 10:47-54); *see id.* at 13-15 (figures 8A, 8B, 9). Based on the specification and figures, PPC contends that the notch or groove is ring-shaped and does not have

to be V-shaped. *See SEZ AG v. Solid State Equip. Corp.*, Civil Action No. 07-1969, 2008 WL 2550596, at \*10 (E.D. Pa. June 26, 2008) (“[W]e construe [‘annular groove’ as] having its customary meaning, *i.e.*, ring-shaped channel or hollow.”).

PerfectVision contends that the notch is consistently and exclusively depicted in the specification’s figures as a V-shaped cut in the connector body. *See Document #67-2* at 13-15 (figures 8A, 8b, and 9). Further, according to PerfectVision, “notch” is commonly understood to be a V-shaped cut. *See Document #62-1* at 5-6 (dictionary definitions cited by PerfectVision).

PPC counters that the specification explicitly states that the embodiments are exemplary and that the patents are not meant to be limited to the depicted embodiments. *See Document 67-2* at 16-17 (‘481 patent, 2:59-3:3). Further, PPC argues that it is legal error to limit the claims’ scope because of an exemplary embodiment in the specification. *See, e.g., Kara Tech. Inc. v. Stams.com Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009) (“The claims, not specification embodiments, define the scope of patent protection. The patentee is entitled to the full scope of his claims, and we will not limit him to his preferred embodiment or import a limitation from the specification into the claims.”).

PerfectVision also contends that PPC’s definition includes a purpose limitation for a purely structural term, as PPC’s definition includes that the groove or notch “is designed to allow the biasing element to be deflected within it and to allow the biasing element to exert a constant spring force.”

In addition, PerfectVision argues that this language from PPC’s definition disregards the doctrine of claim differentiation, as independent claims already require deflection of the biasing element, and the term “notch” or “groove” exists in claims dependent on these independent claims.

PerfectVision makes this same argument for the term “void” being indefinite. “Void” is in claim 33 of the ’205 patent, which claims a connector comprising, among other parts,

a connector body having a first end and a second end, the first end configured to receive a prepared portion of the coaxial cable and the second end including an integral resilient biasing means proximate a **void**, wherein the integral resilient biasing means are configured to flex relative to the **void** when a force is exerted against the means . . . .

Document #67-4 at 24 (emphasis added). PPC contends that “void” is “the space into which the biasing element deflects,” which is highly similar to “notch” and “groove.”

The Court construes “notch,” “groove,” and “void” to mean “a narrow ring-shaped channel formed by the body that permits the biasing member or biasing element to deflect so that it can exert a biasing force.” This is similar to PPC’s proposed definition. The construction follows from the specification’s language, which, as discussed, says that the notch may be a notch, groove, channel, or similar annular void. Document #67-2 at 20 (’481 patent, 10:50-54). The use of these different terms to describe the same element is acceptable and renders the meaning of “void” reasonably certain to a person of ordinary skill in the art. Moreover, the specification language explains that “notch” does not limit the notch to V-shaped cuts, regardless of whether the embodiments show only V-shaped cuts. *See* Document #67-2 at 16-17 (’481 patent, 2:65-3:3) (“The scope of the present disclosure will in no way be limited to . . . the shapes thereof . . . , and [the shapes] are disclosed simply as an example of embodiments of the present disclosure.”). The Court’s construction does not import a purpose limitation into a purely structural limitation because the specification explains that the notch exists “to permit the necessary deflection to provide a biasing force to effectuate constant physical contact between the lip 36 of the coupling element 30 and the outer tapered surface 47 of the flange 45 of the post 40.” *Id.* at 20 (’481 patent, 10:46-50).

**E. “Improve [or improves or improving] electrical grounding reliability [or continuity],”  
“achieving an electrically conductive path”**

These terms provide a reason for including a biasing element or biasing member. *See, e.g.*, Document #67-2 at 22 (’481 patent, claim 8) (“[W]herein the integral body biasing element is configured to exert a biasing force . . . , so as to improve electrical grounding reliability between the coupling element and the post, even when the post is not in contact with the interface port.”); *id.* at 23 (’481 patent, claim 20) (“[W]herein the urging of the coupling element towards the flange of the post as the integral resilient biasing member exerts a biasing force against the coupling element improves electrical contact between the coupling element and the post.”).

PPC contends that each of these terms means “helps maintain a reliable ground path through the nut and the post”; PerfectVision contends that each means “to create a condition where there is no gap between the coupling element and the post even when the post is not in contact with the interface port.”

PPC argues that PerfectVision’s definition artificially narrows the scope of the claims to disallow, for instance, a connector that includes a conductive component positioned between portions of the post and the coupling element. PPC also explains that some of the claims that include the terms at issue require that the coupling element is in contact with the post, *see* Document #67-4 at 23-24 (’205 patent, claims 13, 33), while other claims only require the biasing force to urge the coupling element toward the post, *see, e.g.*, Document #67-2 at 22, 23 (’481 patent, claims 8, 20). *See also D.M.I., Inc. v. Deere & Co.*, 755 F.2d 1570, 1574 (Fed. Cir. 1985) (“Where some claims are broad and other narrow, the narrow claim limitations cannot be read into the broad . . . .” (quoting *Deere & Co. v. Int’l Harvester Co.*, 658 F.2d 1137, 1141 (7th Cir. 1981), *cert. denied*, 454 U.S. 969,

102 S. Ct. 514, 70 L. Ed. 2d 386 (1981))).

PerfectVision, in contrast, points to the specification’s “Background” section, which states, “Maintaining continuity through a coaxial cable connector typically involves the continuous contact of conductive connector components which can prevent radio frequency (RF) leakage and ensure a stable ground connection.” *Id.* at 16 (’481 patent, 1:15-19). Further, according to PerfectVision, the specification’s “Summary” section describes five general aspects of the invention, all of which require contact between the coupling element and the post, and the specification’s embodiments depict contact between the coupling element and the post. *See id.* at 16 (’481 patent, 1:39-2:27); *see also Astrazeneca AB v. Mutual Pharm. Co., Inc.*, 384 F.3d 1333, 1340 (Fed. Cir. 2004) (“[W]hile it is of course improper to limit the claims to the particular preferred embodiments described in the specification, the patentee’s choice of preferred embodiments can shed light on the intended scope of the claims.”).<sup>13</sup> Finally, PerfectVision argues that PPC secured the issuance of the ’481 patent and distinguished the invention from prior art by contending that it eliminated the gap between the coupling element and the post.

The Court construes these terms to mean to improve or achieve (depending on the word used in the claim) “an electrically conductive path through the coupling element and the post.” This construction does not by itself limit the claims to constant contact between the coupling element and the post, as PerfectVision desires. Deciding not to include that limitation is a close call. While the prosecution history and the specification’s background and summary sections seem to posit an invention where the coupling element is in constant contact with the post, the claim language does

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<sup>13</sup> PPC notes that even though the embodiments show contact between the coupling element and the post, gaps between these elements still exist in the embodiments.

not allow for using the terms at issue in this section as the conduits for that limitation. *See Phillips*, 415 F.3d at 1323 (“In particular, we have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.”). Some claims are explicitly limited to constant contact between the coupling element and the post, while others are not. *Compare* Document #67-4 at 23 (’205 patent, claim 1) *with id.* (’205 patent, claim 13). Claims that are limited to constant contact between the coupling element and the post include the terms at issue in this section regarding improving or achieving electrical grounding reliability. *See id.* (’205 patent, claim 13) (“so that during movement of the coupling means between the first and the second positions the coupling means persistently contacts the post and improves electrical grounding reliability between the coupling means and the post”); *id.* at 24 (’205 patent, claim 23) (“achieving an electrically conductive path through the coupling element and the post of the connector, when the coupling element is biased against the post”). If the Court were to read the terms regarding improving or achieving an electrically conductive path to require constant contact between the coupling element and the post, then the parts of the above-cited claims requiring such constant contact would be superfluous. *Cf. Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1257 (Fed. Cir. 2010) (“Claims must be ‘interpreted with an eye toward giving effect to all terms in the claim.’” (quoting *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006))). If, for instance, the Court were to use PerfectVision’s proposed construction, claim 23 of the ’205 patent would read in relevant part, “to create a condition where there is no gap between the coupling element and the post even when the post is not in contact with the interface port, when the coupling element is biased against the post by the integral resilient biasing member, even when the coupling element is only partially tightened onto the interface port.” Such a construction would

delete any mention of achieving an electrically conductive ground path, and instead it would state twice that the coupling element is in contact with the post even when the coupling element is not completely tightened onto the interface port.

**F. “Biasing force . . . sufficient to axially move the inward lip of the coupling means toward[s] the flange of the post”**

This term, or some form of it, appears in all six patents-in-suit. PPC argues that it means “adequate force to push the inward lip of the coupling element in the direction of the flange of the post”; PerfectVision argues that it means “enough power to axially move the inward lip of the coupling [element] into contact with the flange of the post.”

The arguments over this term are continuations of arguments from prior sections. The main arguments as to this term are about the meaning of “biasing force,” which has already been defined, and whether “towards the flange of the post” means that the coupling element must be in contact with the post, which was indirectly discussed in the previous section. As explained in more depth in the previous section, because other claims explicitly require the coupling element to contact the post, “towards” in the term here cannot be read to require such contact. Based on the previous constructions, the term here means, “a force that is exerted with enough power to move the inward lip of the coupling element in the direction of the flange of the post.”

**G. “Internal lip,” “inward lip”**

PPC contends that these terms mean an “inward protrusion of the coupling element,” while PerfectVision contends that “internal lip” means “an edge, not necessarily projecting, on the radially internal side” and that “internal lip” in two claims and “inward lip” are indefinite.

The specification provides, “The coupling element 30 may comprise an internal lip 36 located

proximate the first end 31 and configured to hinder axial movement of the post 40.” Document #67-2 at 18 (’481 patent, 6:5-8). PPC disagrees with PerfectVision’s contention that the internal lip does not necessarily project inward, pointing to additional specification language and figures. *See id.* (’481 patent, 5:17-19) (“The outer tapered surface 47 of the flange 45 may correspond to a tapered surface of the lip 36 of the coupling element 30.”); *id.* at 19 (’481 patent, 8:20-25) (“[T]he disposition of a biasing member 70 . . . may axially displace the coupling element 30 towards the post 40, wherein the lip 36 of the coupling element 30 directly contacts the outer tapered surface 47 of the flange 45 of the post 40.”). If the internal lip did not project radially inward, PPC argues, then the internal lip would not correspond to or contact the flange of the post, nor would it hinder the post’s axial movement. Further, PPC contends that the specification explains that, with respect to the post, “lip” and “protrusion” have the same meaning. *See id.* at 18 (’481 patent, 5:20-23) (“[A]n embodiment of the post 40 may include a surface feature 49 such as a lip or protrusion that may engage a portion of a connector body 50 to secure axial movement of the post 40 relative to the connector body 50.”). Without the lip’s protrusion, PPC contends, no electrical contact would exist between the lip and the flange of the post.

PerfectVision argues that the ordinary meaning of lip indicates that it may protrude, but it is not required to. According to PerfectVision, this ordinary meaning is inherent in the specification’s use of “may” in the relevant passages quoted above, and PPC is replacing “may” with “must” to suggest, for instance, that the flange “must correspond” to a tapered surface of the lip. Further, PerfectVision argues that the specification’s explanations that the coupling element “may be a nut, a threaded nut, port coupling element, rotatable port coupling element, and the like,” *id.* (’481 patent 5:61-63), and that the coupling element “may not include threads, and may be axially inserted over

an interface port,” *id.* (’481 patent, 6:1-3), describe embodiments where the coupling element is non-rotatable.

The Court construes “internal lip” to mean “an inward protrusion of the coupling element.” There seems to be no way for the coupling element to attach to the connector and “hinder axial movement of the post,” as the specification provides, Document #67-2 at 18 (’481 patent, 6:5-8), without having a lip that protrudes. Each figure in the specification has a protruding lip of the coupling element. This construction does not, as PerfectVision suggests, conflict with claim language, as embodiment limitations did for previously construed terms. Claim 1 of the ’481 patent claims “an internal lip having a lip contact surface extending a predominantly radial direction and facing the connector body.” Document #67-2 at 21-22. PerfectVision’s argument is that if “internal lip” already comprises of a radial protrusion, no need exists to explain that the lip contact surface extends in a radial direction. This argument, however, does not take into account that the lip contact surface is a specific part of the lip, and the description after it is attempting to show a person skilled in the art the lip contact surface’s location and dimension. Such a description is not redundant even if internal lip is construed as an inward protrusion.

PerfectVision also contends that “internal lip” is indefinite in claim 3 of the ’205 patent and claim 30 of the ’431. Those claims refer to the coupling element’s “internal lip,” but claim 1 of the ’205 patent and claim 28 of the ’431 patent, from which claim 3 and claim 30 depend, respectively, discuss the “inward lip” of the coupling element. Thus, according to PerfectVision, when claim 3 and claim 30 provide, “wherein the integral body biasing element biases the internal lip of the coupling element,” “internal lip” does not refer back to any part in claim 1 or claim 28.

PPC contends that the terms “internal lip” and “inward lip” are used interchangeably. PPC

argues that the specification and figures detail how the coupling element has an inward protrusion, which would be readily identifiable to someone skilled in the art, and PerfectVision has not provided support for its theory that either of the two terms could refer to something other than this inward protrusion of the coupling element. *But see* Document #94-1 at 13 (declaration of Les Baxter) (“In my experience, the addition of new terminology in the claims of a patent is not a common practice.”). Moreover, PPC argues that “inward” is synonymous with “internal.” *See* Document #73-3 at 2-3 (dictionary definitions of “inward”). PerfectVision, however, makes a claim-differentiation argument that a presumption exists that “internal lip” and “inward lip” have different meanings, and because the specification refers only to an “internal lip,” “inward lip” is indefinite.

The Court construes “inward lip” to have the same meaning as “internal lip.” As discussed, the internal lip is an inward protrusion, so “inward lip” is a synonym for “internal lip.” Moreover, the specification demonstrates that there is only one lip of the coupling element, so an ordinary person skilled in the art would not be confused as to which element “inward lip” refers. Finally, the prosecution history of the ’481 patent refers interchangeably to an “inward” and “internal” lip. *See* Document #67-8 at 9, 11, 12, 14, 16, 17. Thus, the meaning of “inward lip” is reasonably certain to a person of ordinary skill in the art and is not indefinite.

#### **H. “Post”**

PPC contends that “post” means “a component of the connector configured to make electrical contact with the outer conductor of the cable and the interface port when the connector is fully tightened onto the port”; PerfectVision contends that it means “a cylindrical object with a first end, a second end, an inner surface, and an outer surface.”

All of the claims require a post. The specification provides:

The post 40 comprises a first end 41, a second end 42, an inner surface 43, and an outer surface 44. . . . [T]he post 40 should be dimensioned such that the post 40 may be inserted into an end of the prepared coaxial cable 10, around the dielectric 16 and under the protective outer jacket 12 and conductive grounding shield or strand 14. Accordingly, where an embodiment of the post 40 may be inserted into an end of the prepared coaxial cable 10 under the drawn back conductive strand 14, substantial physical and/or electrical contact with the strand layer 14 may be accomplished thereby facilitating grounding through the post 40.

Document #67-2 at 18 ('481 patent, 5:9-10, 39-48).

PerfectVision argues that PPC's definition is too narrow because the specification permits instead of requires the post to make electrical contact with the outer conductor of the cable and the interface port. *See id.* ('481 patent, 5:33-35) (“[T]he post 40 includes a mating edge 46, which may be configured to make physical and electrical contact with a corresponding mating edge 26 of an interface port 20.”). PPC, by contrast, argues that PerfectVision's definition is too generic and does not distinguish the post from other components of the connector, such as the body. PPC contends that the purpose of the patents' invention is to ensure a reliable ground path through the connector even when the connector is not tightened completely onto the interface port, which only works if the post is in electrical contact with the outer conductor of the cable when the connector is attached to the cable. PerfectVision argues that PPC is once again reading a purpose limitation into a purely structural term.

The Court construes “post” to mean “a cylindrical object that includes a first end, a second end, an inner surface, and an outer surface and is designed to make electrical contact with the outer conductor of the cable and the interface port when the connector is fully tightened onto the port.” This combines the parties' proposed constructions. PerfectVision's definition comes from the claim language and specification and gives more substance to the components of the post than does PPC's,

but PerfectVision’s definition is so broad as to encompass objects other than the post, such as the connector body. Because the specification explains that the post includes a mating edge that may contact a port’s mating edge, and because the specification’s background explains that the preferred way for cable connectors to integrate coaxial cables electrically to electronic devices is through mating with an interface port, the post’s function is clear. That the post may not always mate with the interface port, hence the need for the invention at the heart of the patents-in-suit, does not change the fact that it is designed to do so. *See Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) (“It is . . . entirely proper to consider the functions of an invention in seeking to determine the meaning of the particular claim language.”); *Apple Computer, Inc. v. Articulate Sys., Inc.*, 234 F.3d 14, 25 (Fed. Cir. 2000) (“[T]he claim must be interpreted in light of the teachings of the written description and purpose of the invention described therein.”).

#### **I. “Substantially non-metallic and non-conductive”**

PerfectVision argues that this term is indefinite. PPC argues that it is not indefinite and no construction is necessary because it unambiguously refers to material that is largely non-metallic and non-conductive.

The term is in all of the patents-in-suit. *See, e.g.*, Document #67-2 at 22-23 (’481 patent, claim 1, 14); Document #67-3 at 23 (’740 patent, claim 28); Document #67-4 at 23-24 (’205 patent, claims 1, 27); Document #67-5 at 22-23 (’430 patent, claims 8, 24, 40); Document #67-6 at 24 (’431 patent, claim 28); Document #67-7 at 24 (’845 patent, claim 37).

“Substantially non-metallic and non-conductive” is not indefinite. PerfectVision argues indefiniteness because “substantially” is a term of degree that provides significant uncertainty. *See Seattle Box Co., Inc. v. Indus. Crating & Packing, Inc.*, 731 F.2d 818, 826 (Fed. Cir. 1984) (“When

a word of degree is used the district court must determine whether the patent’s specification provides some standard for measuring that degree.”); *see also Halliburton Energy Servs., Inc. v. M-ILLC*, 514 F.3d 1244, 1253 (Fed. Cir. 2008). The Federal Circuit, however, “has repeatedly confirmed that relative terms such as ‘substantially’ do not render patent claims so unclear as to prevent a person of skill in the art from ascertaining the scope of the claim.” *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1359 (Fed. Cir. 2012); *see Ecolab, Inc. v. Envirochem, Inc.*, 264 F.3d 1358, 1367 (Fed. Cir. 2001) (“[T]he term ‘substantially is a descriptive term commonly used in patent claims to ‘avoid a strict numerical boundary to the specified parameter.’” (quoting *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1217 (Fed. Cir. 1995))). The Supreme Court’s decision in *Nautilus* did not overturn or address the Federal Circuit’s decisions regarding the use of “substantially.” *See Thomas Swan & Co. v. Finisar Corp.*, No. 2:13-cv-00178-JRG, 2014 WL 2885296, at \*25 (E.D. Tex. June 25, 2014).

PerfectVision also argues that the specification gives no guidance about how to construe “substantially” in the context of non-metallic and non-conductive materials. The specification, however, explains that the biasing member does not permanently deform “in a manner similar to metallic or rigid components under similar torque requirements,” so it would be reasonably certain to a person skilled in the art that the biasing member must be made of enough non-metallic and non-conductive material – i.e., made largely or entirely of such material – to avoid the permanent deformation that occurs with metallic components. *Cf.* Document #83-1 at 15-17 (declaration of Charles A. Eldering). “Substantially non-metallic and non-conductive” describes the composition of the biasing member, which determines the biasing member’s resiliency, and the patents discuss at length the type of materials that can be used to achieve that resiliency. *See* Document #67-2 at

19 ('481 patent 7:55-67) (“Additional materials the biasing member 70 may be formed of may include, but are not limited to, polymers, plastics, elastomers, elastomeric mixtures, composite materials, rubber, and/or the like and/or any operable combination thereof.”).

PerfectVision also argues that the construction of this term is important for claim differentiation because claim 29 of the '481 patent claims a “non-metallic and non-conductive” biasing member without the use of “substantially.” Many claims in the patents-in-suit use the term “non-metallic and non-conductive” to refer to the biasing member’s components. This makes the claims that do not use “substantially” more limiting as to what materials are claimed but does not bear on whether someone skilled in the art can determine what “substantially” means in this context. Moreover, no claim-differentiation problem exists because claim 27 of the '481 patent, on which claim 29 is based, does not claim a biasing member or biasing O-ring that is made of substantially non-metallic and non-conductive materials.

**J. “Without a need for a metallic conductive continuity member that is subject to corrosion and permanent deformation during operable engagement and disengagement with the interface port”**

PerfectVision argues that this term is indefinite. PPC argues that it is not indefinite but means that the biasing element improves continuity “without the need for a separate, metallic element that maintains an electrical connection between the nut and the post.”

The term is found in two claims with the same surrounding words:

[W]herein the integral body biasing element is made of a substantially non-metallic and non-conductive material and is configured to improve electrical grounding continuity between the coupling element and the post without a need for a metallic conductive continuity member that is subject to corrosion and permanent deformation during operable engagement and disengagement with an interface port.

Document #67-4 at 23 ('205 patent, claim 1); Document #67-6 at 24 ('431 patent, claim 28).

PerfectVision argues that “need” is subjective: nothing explains what the “need” is or the circumstances under which such a “need” is satisfied. Further, according to PerfectVision, the specification does not provide guidance because it uses the permissive “may” when explaining that there “may be no need for an additional component such as a metallic conductive continuity member that is subject to corrosion and permanent deformation.” Document #67-2 at 21 (’481 patent, 11:9-12).

PPC argues that person of ordinary skill in the art would have been reasonably certain that the disputed term means that the biasing element eliminates the need or requirement for a separate metallic element to maintain the electrical connection between the nut and post. Document #83-1 at 17. PPC also argues that this is one way in which the invention at the heart of the patents distinguished itself from prior art, which had attempted to solve the loose connector problem by using a metallic, conductive continuity or grounding member through which an electrical path could be maintained. *Id.* at 18. Because the biasing member or biasing element biases the coupling element towards the post, a separate metallic, conductive element is not necessary.

The term is not indefinite. “Without a need for” is not subjective in this context; it means that continuity of electrical grounding is accomplished without a metallic conductive continuity member. This was one of the ways in which PPC distinguished its invention from certain prior art that had claimed a conductive O-ring. *See* Document #67-8 at 35. In other words, because the context makes clear that “without a need for” means “without requiring,” “need” is not used here as a term of degree, as PerfectVision argues. *See Celsis In Vitro, Inc. v. CellzDirect, Inc.*, 664 F.3d 922, 926-27 (Fed. Cir. 2012) (“[W]ithout requiring’ means simply that the claim does not require the density gradient step.”).

**K. “Resists degradation and rust”**

PerfectVision argues that this term is indefinite. PPC argues that it is not indefinite and no construction is necessary because it unambiguously refers to warding off degradation and rust.

This term is in claims 8, 18, 28, and 38 of the '205 patent. Claim 8 provides, “wherein the integral body biasing element resists degradation and rust,” and claims 18, 28, and 38 provide, “wherein the integral resilient biasing member resists degradation and rust.” Document #67-4 at 23-25.

As with “substantially” and “need,” PerfectVision argues that “resists” is a term of degree for which the specification does not provide a standard. According to PerfectVision, because most materials are subject to some degree of degradation, the patent must give some guidance as to how much degradation and rust the biasing member resists. PerfectVision also asserts that claim differentiation makes the term’s meaning less clear. Claim 1 of the '205 patent requires the biasing element to be made of substantially non-metallic and non-conductive material, but claim 8, which depends on claim 1, requires that the biasing element resist degradation and rust, meaning that being substantially non-metallic and non-conductive is not by itself sufficient to resist degradation and rust.

PPC contends that the term does not require mathematical precision and describes the biasing element as being made of a material that wards off degradation and rust. The specification provides examples of materials of which the biasing member may be made, *see* Document 67-2 at 19 ('481 patent 7:59-62), and PPC asserts that these examples provide guidance that the claim is teaching those skilled in the art to use these types of materials that are not prone to degradation and rust. *See* Document #83-1 at 19. Moreover, PPC argues that “resists” as used here is not a term of degree; any resistance of degradation and rust is claimed because there is no qualifier to limit the

resistance to a certain level.

The term is not indefinite. “Resists” as used here is not a term of degree. PerfectVision has pointed to no authority that requires PPC to quantify an amount of resistance for the claim to be valid. The more difficult issue in evaluating this term’s definiteness is whether an objective standard exists for determining whether a biasing element or biasing member has resisted degradation and rust. *See Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1350 (Fed. Cir. 2005) (“Datamize has offered no objective definition identifying a standard for determining when an interface screen is ‘aesthetically pleasing.’ In the absence of a workable objective standard, ‘aesthetically pleasing’ . . . is completely dependent on a person’s subjective opinion.”); *Leggett & Platt, Inc. v. VUTEk, Inc.*, No. 4:05CV788, 2006 WL 3813677, at \*9 (E.D. Mo. Dec. 26, 2006) (because acceptable print quality was based in part on the customer’s subjective belief, “deform” and its progeny were indefinite as they related to print quality). The specification provides that “[b]ecause the biasing member 70 may not be metallic and/or conductive, it may resist degradation, rust corrosion, etc.,” Document #67-2 at 20 (’481 patent, 9:2-3), and that using non-metallic material to form the biasing member “avoid[s] rust, corrosion, deterioration, and the like.” Document #67-2 at 19 (’481 patent, 7:55-58). This provides guidance that allows a person of ordinary skill in the art to be reasonably certain as to what types of materials resist rust and degradation.

**L. “To help prevent a gap between the coupling . . .”**

PerfectVision argues that this term is indefinite. PPC argues that it is not indefinite and means that the biasing element “helps prevent the loss of a reliable ground path through the connector when the coupling element and the post move relative to one another.”

This term is in claim 30 of the ’740 patent and claims 16, 32, 48, and 55 of the ’430 patent,

which provide, “wherein the [resilient biasing structure, resilient biasing means, or biasing means] of the connector body<sup>14</sup> is configured to help prevent a gap between the coupling [element or means] and the connector body [or body means] from allowing electrical grounding continuity to be interrupted when the coupling [element or means] and the post move relative to one another.” Document #67-3 at 24; Document #67-5 at 22-24. A similar phrase, although not discussed by the parties, is in claim 23 of the ’845 patent: “the biasing force being sufficient . . . to help prevent the gap between the coupling element and the connector body from allowing the electrical grounding path extending between the coupling element and the post to be interrupted.” Document #67-7 at 23.

PerfectVision contends that “help” is an ambiguous word of degree. Moreover, according to PerfectVision, the term assumes a gap exists between the coupling element and the connector body but the prosecution history shows that the biasing member prevents a gap from forming in the first place. *See* Document #67-8 at 27, 29, 31-36.

PPC argues that PerfectVision does not have support for asserting that “help” is a word of degree and that the term means that the biasing element assists in keeping the coupling element and the body from separating. PPC contends that the prosecution history that PerfectVision cites explains the problems such gaps caused prior art and detailed how the invention works to prevent those gaps. According to PPC, this would be clear to someone of ordinary skill in the art at the time the patents were filed. Document #83-1 at 20-21.

The claim language states that the biasing means or structure “is configured to help prevent

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<sup>14</sup> The phrase “of the connector body” is included in all of these claims except claim 55 of the ’430 patent.

a gap . . . from allowing electrical grounding continuity to be interrupted,” which presupposes that a gap exists between the nut and the body but that the biasing means or structure would nonetheless help prevent an interruption of electrical grounding continuity. Yet, PPC argues that the claimed device helps to prevent a gap from existing between the biasing means or biasing structure and the body and thereby prevents interruption of electrical grounding continuity. *See* Document #83-1 at 20 (“The phrase . . . in the context of each of the patent claims listed above, means that the biasing element helps keep the nut and the body from separating and thus disrupting the ground path.”); Document #101 at 113 (“Gaps before, we’re going to do something different to eliminate those gaps.”). This interpretation is contrary to the language of the claim.

In addition, the specification depicts the biasing member in figures 1A, 1B, and 7 as an oversized O-ring that is not part of the connector body. The specification depicts the biasing element in figures 8A, 8B, and 9 as part of the connector body, whether as an added component or as integral to the body. *See* Document #67-2 at 20 (’481 patent, 10:41-43) (“[T]he biasing element 255 of connector body 250 may be defined as a portion of the connector body . . .”). Claim 55 of the ’430 patent, which uses the term at issue, is dependent upon claim 49, which claims a biasing means that is not part of the connector body and that fits within the cavity, similar to the biasing member depicted in the specification. Document #67-5 at 24. Thus, the context suggests that the term means that a gap exists between the coupling element and the body and that the biasing means helps to prevent that gap from interrupting electrical grounding continuity, which is consistent with the language of the claim yet different from what PPC argues that the claim means. On the other hand, the language of claim 16 of the ’430 patent, which is dependent on claim 15, is more amenable to the construction for which PPC argues. *See* Document #67-5 at 21-22.

This issue illustrates a larger problem with the patents. When PPC attempts to conflate the biasing member in the form of an O-ring that the specification illustrates as number 70 with the biasing element in the form of an extension of the connector body (either integral to the body or as a separate component fitted onto the body) that the specification illustrates as number 255, problems with language clarity and precision emerge. The term in this section demonstrates one such problem. The meaning of this term in each instance is susceptible to different interpretations, and in at least one instance the context indicates that the term means something different from what PPC argues.

The context within which the disputed term appears is thus ambiguous at best. The appearance of the term “to help” at the inception of this ambiguous language renders the entire claim indefinite. As PerfectVision’s expert says in his affidavit:

It is not clear what constitutes “help” or how much “help” is needed or specifically where the gap must be successfully eliminated for the “help” to count. The patent drafter could have clarified this by specifying whether the gap must be eliminated or by providing some objective standard to determine what would constitute helping.

Document #94-1 at 10. “To prevent a gap from occurring” is a clear phrase that would satisfy section 112’s definiteness requirement; even “to prevent a gap . . . from allowing electrical grounding continuity from being interrupted” is a clear phrase that would satisfy the definiteness requirement; but introducing the clause with the term “to help” makes the phraseology so subjective so that a person of ordinary skill in the art cannot discern with reasonable certainty the scope of the claim. These claims, read in light of the specification and prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention. This term is indefinite and the claims in which it appears are invalid.

**M. “Interface portion”**

PerfectVision argues that this term is incomprehensible, while PPC argues that it is an obvious typographical error that is intended to read “interface port.”

A district court may correct errors in a patent only if “(1) the correction is not subject to reasonable debate based on the consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims.” *Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1357 (Fed. Cir. 2003).

“Interface portion” is in claim 8 of the ’481 patent, which provides in pertinent part, a coupling element configured to engage the post and configured to move between a first position, where, as the coupling element is tightened onto an interface port, the post does not contact the interface port, and a second position, where, as the coupling element is tightened onto the interface port, the post contacts the interface portion, the second position being axially spaced from the first position, the coupling element having a first end, a second end and an inward lip.

Document #67-2 at 22. The quoted passage includes three references to an “interface port,” and the rest of claim 8 includes many more, which PPC argues shows that “portion” is an obvious error. Further, “interface portion” is used nowhere else in the patent, but “interface port” is ubiquitous and is the object with which the post mates when the connector is fastened properly.

PerfectVision asserts, however, that the claim could read to require the post to contact a portion of the interface port. According to PerfectVision, the specification suggests that a portion of the port exists when it provides that the interface port “includes a conductive receptacle 22 for receiving a portion of the coaxial cable center conductor 18 sufficient to make adequate electrical contact.” Document #67-2 at 17 (’481 patent, 4:30-32). The problem with PerfectVision’s argument, however, is that “portion” in that quotation refers to a portion of the center conductor, not

a portion of the interface port. At the claim-construction hearing, PerfectVision expanded its argument, saying that the “interface portion” could refer to any specific portion of the interface port, such as the conductive receptacle, threaded exterior surface, or mating edge. *See* Document #101 at 120. Considering that “conductive receptacle” and “threaded exterior surface” are not used in the claims of the ’481 patent, and “mating edge of the interface port” is used one time and is never referred to as an “interface portion” or as a portion of the interface port, this argument lacks merit. More importantly, by using “interface port” multiple times in the surrounding words of the sentence, the claim language’s context makes clear that “interface portion” is a typographical error that should read “interface port.” The correction is not subject to reasonable debate based on consideration of the claim language and the specification, and the prosecution history does not suggest a different interpretation of this claim. The term is not indefinite.

**N. “Internal lip coupling element”**

PerfectVision argues that this term is indefinite; PPC argues that it is a typographical error intended to read “internal lip of the coupling element.”

This term is in claim 18 of the ’740 patent. Claim 18 explains that “the coupling element includes an internal lip” and provides that part of the method for improving electrical grounding reliability includes “exerting an axial biasing force against the biasing contact surface of the coupling element to axially urge the internal lip coupling element toward the flange of the post.” Document #67-3 at 23. PerfectVision contends that it would make as much sense to delete the words “internal lip” or “coupling element” from the term as it would to add “of the,” as PPC argues should be done.

PPC argues that in context of the entire claim, as well as the specification, the typographical error is obvious. Nevertheless, PPC contends, even under PerfectVision’s theoretical alternative

corrections, the term would retain the same meaning and refer to the same overall structure, as the internal lip is part of the coupling element, and it therefore would not be indefinite.

This term is an obvious typographical error meant to read “internal lip of the coupling element” and is not indefinite. The same claim introduces the internal lip – “wherein the coupling element includes an internal lip” – only ten lines earlier. Moreover, it is unreasonable to suggest that the term could refer more broadly to the entire coupling element, as the only part of the coupling element that the biasing force can “axially urge” is the internal lip.<sup>15</sup>

**O. “With the connector is in the assembled state,”<sup>16</sup> “when the connector is in an [or the] assembled state”**

PerfectVision argues that “with the connector is in the assembled state” is indefinite; PPC argues that it has an obvious typographical error and should read “when the connector is in an assembled state.”

The term “with the connector is in the assembled state” is in claim 8 of the ’481 patent, which claims in part, “an integral body biasing element having a coupling element contact portion extending from the body and configured to contact the body with the connector is in the assembled state.” Document #67-2 at 22. The term “when the connector is in the [or an] assembled state” appears elsewhere in claim 8 and in claims in all of the other patents-in-suit. *See id.* at 22-23 (’481 patent, claims 8, 11, 20); Document #67-3 at 23 (’740 patent, claims 18, 23); Document #67-4 at 23-

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<sup>15</sup> This point was indirectly discussed earlier in defining “internal lip.” *See supra* section III.G. The internal lip must protrude, and it is this part of the coupling element, due to the protrusion, on which the biasing force is exerted to move the coupling element towards the post.

<sup>16</sup> Both PPC and PerfectVision say that the term in question is “with the connector is in *an* assembled state,” but the claim uses “the,” not “an.” Document #67-2 at 22 (’481 patent, claim 8).

25 ('205 patent, claims 1, 7, 13, 21, 23, 32, 33, 41); Document #67-5 at 22-23 ('430 patent, claims 1, 9, 17, 25, 33, 41); Document #67-6 at 24 ('431 patent, claim 28); Document #67-7 at 24 ('845 patent, claims 32, 38).

PerfectVision argues that while PPC wants to replace “with” with “when,” it would make equal sense to delete “is” from the term. PPC argues that even under PerfectVision’s definition, the meaning would be the same and would be reasonably certain to a person skilled in the art. PPC is correct that even under PerfectVision’s construction the meaning would be the same as under PPC’s. PerfectVision did not argue this point at the claim-construction hearing. Further, the context of the claim language, as well as the way in which the terms are used in other claims, demonstrates that “with the connector is in the assembled state” is an obvious typographical error that should be “when the connector is in the assembled state.” The term is not indefinite for this reason, but that does not end the indefiniteness inquiry into the terms in this section.

PerfectVision also contends that “when the connector is in an [or the] assembled state” is ambiguous because the specification does not make clear what “assembled state” means. According to PerfectVision, the specification refers to three instances in which the connector may be in an assembled state: when it is in a “preassembled configuration,” *see* Document #67-2 at 17 ('481 patent, 3:9-12), when the connector is operably affixed to a prepared end of a coaxial cable connector, *see id.* ('481 patent, 3:16-18), and when the connector mates with an interface port, *see id.* ('481 patent, 4:28-29).

PPC counters that the claim language shows that the term means that the connector is assembled, not that it is assembled with the cable or with the cable and tightened onto the interface port. *See id.* at 22 ('481 patent, claim 8) (claiming “a connector body configured to engage the post

and *receive a coaxial cable*, when the connector is in an assembled state” (emphasis added)). Because the claim refers to the connector as in an assembled state before it receives the coaxial, PPC contends that “assembled state” cannot refer to when the connector has received the coaxial cable, nor can it refer to when the connector has received the coaxial cable and has been inserted correctly onto the interface port.

PPC is correct that the language in claim 8 of the '481 patent indicates that the “assembled state” occurs before the connector receives the coaxial cable. Other claims, however, make the definition less clear. Claim 12 of the '740 patent, for example, claims “[a] method of assembling a connector comprising: . . . moving the coupling element between a first position, where the post does not engage an interface port, and a second position, where the post engages the interface port, when the connector is in an assembled state.” Document #67-3 at 22. In this instance, “assembled state” is used after the post has engaged the interface port. This does not necessarily preclude that the “assembled state” occurred before the connector received the cable, but the use of the term after the post has engaged the interface port, which occurs after the connector has received the cable, seems unnecessary if PPC’s proposed construction is correct.<sup>17</sup> Further, that the specification refers to what PPC argues is “assembled state” as the “preassembled configuration,” *see* Document #67-2 at 17 ('481 patent, 3:9-12), also makes PPC’s argument more difficult.

A preliminary question exists, however, in the indefiniteness determination: even if PerfectVision is correct that “when the connector is in an [or the] assembled state” is not reasonably certain and could refer to three different time frames, would this change the scope of the claims such

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<sup>17</sup> Also, how can claim 12 claim a “method of assembling a connector” when the connector is already in “an assembled state”?

that the claims are invalid for indefiniteness? While alternative meanings of other terms at issue would change the scope of the claims in which the terms appear, it is not clear the scope of the claims would differ depending on which of the three meanings of “an assembled state” would be chosen as the correct meaning. The parties have not argued this point. In light of the lack of argument on this point, and because a determination of indefiniteness and invalidity here would render many claims invalid, it is appropriate to defer resolution of this issue until summary judgment. *See Purdue Pharm. Prods., L.P. v. Actavis Elizabeth, LLC*, Civil Action No. 12-5311, 2014 WL 2624787, at \*6 (D.N.J. June 11, 2014) (“[T]he Court declines to resolve Defendants’ indefiniteness argument at this time. . . . Defendants may, nevertheless, renew their indefiniteness argument at a later point in this litigation.”); *MasterObjects, Inc. v. Yahoo!, Inc.*, No. C 11-02539, 2013 WL 6185475, at \*11 (N.D. Cal. Nov. 26, 2013); *Edios Display, LLC v. AU Optronics Corp.*, No. 6:11CV201, 2013 WL 1559729, at \*6 (E.D. Tex. Apr. 12, 2013); *East Coast Sheet Metal Fabricating Corp. v. Autodesk, Inc.*, No. 12-CV-517-LM, 2014 WL 2879755, at \*4 (D.N.H. Mar. 18, 2014) (“[T]he mere fact that claim construction is a necessary prerequisite to determining whether a claim is indefinite does not, by itself, compel a court undertaking claim construction, under *Markman*, to address the question of invalidity due to indefiniteness.”).<sup>18</sup>

**P. “Integral biasing structure,” “Resilient biasing structure”**

PerfectVision argues that these terms are indefinite; PPC argues that they are not indefinite

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<sup>18</sup> Although a court is not compelled to address indefiniteness at the claim-construction stage, it may be appropriate for a court to do so, *see, e.g., Brandywine Commc’ns Techs., LLC v. AT&T Corp.*, No. C 12-2494, 2014 WL 1569544, at \*13 (N.D. Cal. Apr. 18, 2014), as the Court is doing with the other disputed indefiniteness issues here.

but refer to the integral body biasing element.<sup>19</sup>

Claim 30 of the '740 patent refers to “the resilient biasing structure of the connector body.” Document #67-3 at 24. Claim 18 of the '740 patent, on which claim 30 is based, refers to an “integral biasing structure.” *Id.* at 23. PPC contends that both the “resilient biasing structure” and the “integral biasing structure” refer to the integral body biasing element, an important aspect of which is its resiliency. *See* Document #83-1 at 29-30. PPC’s expert also asserts that minor variations in language, such as between “resilient biasing structure” and “integral biasing structure,” do not confuse a person of ordinary skill in the art. *Id.* at 29. PerfectVision contends that it is also reasonable to conclude that claim 30 limits itself only to resilient integral biasing structures, which would give the terms different meanings. Thus, according to PerfectVision, because it is unclear which meaning is correct, “resilient biasing structure” is indefinite.

At the claim-construction hearing, PerfectVision did not make the above argument, instead focusing on another argument: because the specification does not describe what a “biasing structure” is, the term is indefinite. While the specification refers to a biasing member and a biasing element, it does not refer to a biasing structure, and PerfectVision’s expert opines that “structure” is a broader term than “element” or “member.” Document #94-1 at 23.

“Integral biasing structure” is in the '740 and '845 patents, and “resilient biasing structure” is in the '430 and '740 patents. As discussed, the specification differentiates between a biasing member, which the specification depicts as an oversized O-ring (or some similar embodiment)

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<sup>19</sup> The parties argued “resilient biasing structure” in one section of their briefs and at the claim-construction hearing, and they argued “integral biasing structure” and “resilient biasing structure” together in a later section, based on different argument for and against indefiniteness. The Court has combined those terms and issues into one section.

disposed within the cavity, and a biasing element, which the specification depicts as an integral or non-integral extension of the body. *See supra* section III.B. PerfectVision’s argument that “structure” is indefinite therefore might be valid if it is not reasonably certain to a person of ordinary skill in the art whether “biasing structure” in each claim refers to the biasing member or biasing element. In the claims in which “resilient biasing structure” and “integral biasing structure” appear, however, the context is clear that the terms refer to the biasing element, not the biasing member.

“Integral biasing structure” is in claim 18 of the ’740 patent (and its dependent claims) claim 32 of the ’845 patent (and its dependent claims). Document #67-3 at 23; Document #67-7 at 24. By using the word “integral,” the term invokes the biasing element, as the biasing member is not integral to the body. Both claims also explain that the integral biasing structure is extending from the body and has a groove located behind it to allow for deflection and an exertion of force. Thus, the integral biasing structure in these claims has the same meaning as biasing element and is not indefinite in either claim.

“Resilient biasing structure” is in claim 30 of the ’740 patent. Document #67-3 at 24. The context of claim 30 of the ’740 patent demonstrates that the resilient biasing structure is the same biasing element referred to in claim 18, so it is not indefinite, as PerfectVision seemed to acknowledge when it did not renew that argument at the claim-construction hearing.<sup>20</sup> Thus, it also is a biasing element.

“Resilient biasing structure” is also in independent claims 1 and 17 of the ’430 patent. Document #67-5 at 22. In each of these claims, as with the other relevant claims in this section, the

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<sup>20</sup> Also, as discussed, the specification and prosecution history indicate that the biasing element is resilient, so resiliency is inherent in the biasing structure of claim 18, even though “resilient” is not used.

resilient biasing structure extends from the body, and a groove exists in the body to allow for deflection and exertion of the resilient biasing structure, *see id.*, which demonstrates that the “resilient biasing structure” has the same meaning as biasing element and is not indefinite.

**Q. “When the coupling element and the post move relative to one another”**

PerfectVision argues that this term is indefinite. PPC argues that it is not indefinite and that no construction is necessary.

This term is in claim 30 of the ’740 patent and claims 32 and 48 of the ’430 patent, which provide, “wherein the resilient biasing structure [or means] of the connector body is configured to help prevent a gap between the coupling element and the connector body from allowing electrical grounding continuity to be interrupted when the coupling element and the post move relative to one another.” Document #67-3 at 24; Document #67-5 at 23-24.<sup>21</sup>

PerfectVision argues that the specification describes two types of relative movement between the coupling element and the post. *See* Document #67-2 at 18 (’481 patent, 6:3-5) (“The coupling element 30 may be rotatably secured to the post 40 to allow for rotational movement about the post 40.”); *id.* (’481 patent, 6:5-8) (“The coupling element 30 may comprise an internal lip 36 located proximate the first end 31 and configured to hinder axial movement of the post 40.”). According to PerfectVision, because the specification describes axial and rotational types of movements, the type of relative movement to which the claim’s term refers is unclear.

PPC argues that the term is not limited to axial or rotational movement: it covers all

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<sup>21</sup> Similar terms that the parties do not address are in claims 23 (“that allows the coupling element and the connector body to move relative to one another,” “when the coupling element and the connector body move relative to one another”) and 44 (“wherein nut and the post are configured to move relative to one another”) of the ’845 patent. *See* Document #67-7 at 23-24.

movement as long as the coupling element and the post are moving relative to one another. PPC contends that a person of ordinary skill in the art would be reasonably certain as to the type of movement covered in this claim, *see* Document #83-1 at 31, but PerfectVision contends otherwise, *see* Document #94-1 at 25.

The term is not indefinite. The claim language is broad enough to cover both types of coupling-element movement to which PerfectVision refers, rotational or axial, as long as the coupling element moves in relation to the post.

**R. Possible Means-Plus-Function Limitations: “deflection space means,” “biasing contact means,” “body means,” “resilient biasing means,” “integral resilient biasing means”**

PerfectVision argues that multiple claim terms are means-plus-function limitations that are indefinite. 35 U.S.C. § 112(f) provides,

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

*See also Biomedino, LLC v. Waters Techs. Corp.*, 490 F.3d 946, 948 (Fed. Cir. 2007) (“[I]n return for generic claiming ability, the applicant must indicate in the specification what structure constitutes the means.”). When a claim uses “means” to describe a limitation, a presumption exists that the term invokes section 112(f). *Id.* at 950. “This presumption can be rebutted when the claim, in addition to the functional language, recites structure sufficient to perform the claimed function in its entirety.” *Id.* (quoting *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1375 (Fed. Cir. 2003)); *see Sage Prods., Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1427 (Fed. Cir. 1997) (“[W]here a claim uses the word ‘means,’ but specifies no corresponding function for the ‘means,’ it does not implicate section 112.”).

If a court concludes a means-plus-function limitation exists, the court then (1) identifies the function of the limitation and (2) looks to the specification and identifies the corresponding structure for the function. *See Biomedino, LLC*, 490 F.3d at 950. “If there is no structure in the specification corresponding to the means-plus-function limitation in the claims, the claim will be found invalid as indefinite.” *Id.*; *see Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1299 (Fed. Cir. 2005) (“To meet the definiteness requirement, structure disclosed in the specification must be clearly linked to and capable of performing the function claimed by the means-plus-function limitation.”). The requirement that the specification must contain structure linked to the claimed means “is not a high bar”; it exists so that others can “readily ascertain what the claim means and comply with” section 112(f)’s particularity requirement. *Biomedino, LLC*, 490 F.3d at 950. “Under 35 U.S.C. § 112[(b) and (f)], therefore, ‘a means-plus-function clause is indefinite if a person of ordinary skill in the art would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim.’” *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1312 (Fed. Cir. 2012) (quoting *AllVoice Computing PLC v. Nuance Commc’ns, Inc.*, 504 F.3d 1236, 1241 (Fed. Cir. 2007)). Although indefiniteness of a claim is based on how a person of ordinary skill in the art would understand the limitation, “the testimony of one of ordinary skill in the art cannot supplant the total absence of structure from the specification.” *Id.* (quoting *Default Proof Credit Card Sys.*, 412 F.3d at 1302).

PerfectVision argues that “deflection space means,” “biasing contact means,” “body means,” and “resilient biasing means” and “integral resilient biasing means” are means-plus-function limitations. PPC argues that these terms are not means-plus-function limitations and even if they are, the specification describes a corresponding structure for each term.

These terms are in claim 33 of the '205 patent and claim 33 of the '430 patent. Claim 33 of the '430 patent explains that the coaxial cable connector comprises

a coupling means for engaging the post and axially moving between a first position, where the post does not engage an interface port, and a second position, where the post engages the interface port, the second position being axially spaced from the first position, the coupling element including an inward lip and also including a **biasing contact means** facing a rearward direction; and

a **body means** for engaging the coaxial cable when the connector is in the assembled state, the **body means** including:

a **resilient biasing means** for extending from the body and contacting the **biasing contact means** of the coupling means when the connector is in the assembled state; and

a **deflection space means** for allowing the **resilient biasing means** to deflect along an axial direction and flexibly exert a biasing force against the **biasing contact means** of the coupling means sufficient to axially move the inward lip of the coupling means toward the flange of the post when the coupling means axially moves between the first position and the second position so as to improve electrical grounding continuity between the coupling means and the post even when the coupling means is not fully tightened relative to the interface port.

Document #67-5 at 23 (emphasis added). Claim 33 of the '205 patent claims

a connector body . . . including an **integral resilient biasing means** proximate a void, wherein the **integral resilient biasing means** are configured to flex relative to the void when a force is exerted against the means;

a coupling means rotatably attached to the post, the coupling means having a first end including a biasing contact surface and a second end configured to mate with an interface port, wherein the biasing contact surface is configured to contact and bias against the **integral resilient biasing means** of the connector body, when the connector is in an assembled state; and

wherein the coupling means are configured to move between a first position, where the coupling means are partially tightened on the interface port, and a second position, where the coupling means are fully tightened on the interface port, the second position being axially spaced from the first position, wherein a biasing force is exerted between the **integral resilient biasing means** and the biasing surface of the coupling means when the coupling means axially move between the first position

and the second position, at least until the post contacts the interface port, so that during movement of the coupling means between the first and the second positions the coupling means persistently contacts the post and improves electrical grounding reliability between the coupling means and the post even when the coupling means are not fully tightened relative to the interface port.

Document #67-4 at 24 (emphasis added).

PPC argues that the claims describe the structures of each of these terms: the deflection space is the structure for “deflection space means,” the biasing contact portion of the coupling element is the structure for “biasing contact means,” the body is the structure for “body means,” and the resilient portion of the body that supports the function of contacting and exerting a biasing force against the coupler is the structure for “resilient biasing means” and “integral resilient biasing means.” PPC cites *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524 (Fed. Cir. 1996), which, PPC argues, dealt with a similarly worded claim:

The drafter of claim 1 in the '239 patent was clearly enamored of the word “means”: six of seven elements in that claim include the word “means,” which occurs in the claim fourteen times. We find, however, no reason to construe any of the claim language in claim 1 as reciting means-plus-function elements within the meaning of § 112, ¶ 6. For example, the “perforation means . . . for tearing” element of Cole’s claim fails to satisfy the statute because it describes the structure supporting the tearing function (i.e., perforations). The claim describes not only the structure that supports the tearing function, but also its location . . . . An element with such a detailed recitation of its structure, as opposed to its function, cannot meet the requirements of the statute. Here, the claim drafter’s perfunctory addition of the word “means” did nothing to diminish the precise structural character of this element. It definitely did not somehow magically transform this element into a § 112, ¶ 6, “means-plus-function” element.

*Id.* at 531; *see also Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583-84 (Fed. Cir. 1996) (“[T]he term [‘means’] is used . . . simply as a shorthand way of referring to each of the key structural elements of the invention. Each of those elements is subsequently described in detail, without the use of the term ‘means,’ in the ‘description of the invention’ portion of the specification,

and each is subsequently claimed, again without the use of the term ‘means,’ in claim 1 of the patent.”).

In its briefs, PerfectVision did not respond to PPC’s arguments that the claims specify the structures for the disputed terms. Rather, PerfectVision seemed to assume that the claims do not specify structures, so PerfectVision moved on to argue that the specifications do not specify structures for the disputed terms. PPC contends that even if the Court finds that the terms are means-plus-function limitations, they still are not indefinite because the specification contains structures corresponding to the functions.

The claim language here is similar to the language in *Cole*; the inventors seemed to be using “means” as a perfunctory addition to a purely structural element. Claim 1 of the ’430 patent, however, has the exact same language as claim 33, except that it uses “coupling element,” “resilient biasing structure,” “connector body,” and “annular groove” for the structural elements. That the inventors added a new claim with the “means” language as the only additions could indicate that they wanted the claim to have a broader scope than claim 1, i.e., by being means-plus-function elements rather than purely functional elements. *Cf. Seachange Int’l, Inc.*, 413 F.3d at 1368-69 (“Although the doctrine [of claim differentiation] is at its strongest where the limitation sought to be ‘read into’ an independent claim already appears in a dependent claim, there is still a presumption that two independent claims have different scope when different words or phrases are used in those claims . . . .” (quotation marks and citation omitted)). Nevertheless, assuming without deciding that the terms are means-plus-function limitations, they are not indefinite because the specification contains structures corresponding to the claimed means.

For “deflection space means,” PerfectVision argues that while the notch would be the most

likely structure, the notch does not discuss the function of moving the coupling element's inward lip towards the flange of the post, which is the function the "deflection space means" performs, so the notch cannot be the corresponding structure. PerfectVision's argument ignores the fact that the deflection space means exists "for allowing the resilient biasing means to deflect . . . and flexibly exert a biasing force . . . to axially move the inward lip of the coupling means toward the flange of the post." Document #67-5 at 23 ('430 patent, claim 33). This is the exact purpose of the notch, as the specification provides that it exists "to permit the necessary deflection to provide a biasing force to effectuate constant physical contact between the lip 36 of the coupling element 30 and the outer tapered surface 47 of the flange 45 of the post 40." Document #67-2 at 20 ('481 patent, 10:46-50). As discussed, the notch may be "a notch, groove, channel, or similar annular void that results in an annular portion of the connector body 50 that is removed to permit deflection." Document #67-2 at 20 ('481 patent, 10:51-53). The specifications and figures show that the "deflection space means" corresponds to the "notch," as it is the only space in the body that would allow the biasing member's deflection and the exertion of a biasing force. Thus, "deflection space means" is not indefinite.

For "biasing contact means," PerfectVision contends that the specification never discusses a structure on the coupling element that accomplishes "biasing contact," and therefore no structure corresponds to the claim's language. Figures 8A and 8B, however, show precisely where on the coupling element the biasing element contacts, *see* Document #67-2 at 13-14, and the specification discusses the biasing force against and the rear of the coupling element, *see id.* at 20 ('481 patent, 10:63-66) ("In most embodiments, the extended annular surface 256 or the biasing element 255 body 250 may provide a constant biasing force behind the coupling element 30."). This description is consistent with the claim language that the biasing contact means of the coupling element is facing

a rearward direction and is contacted by the resilient biasing element. These figures and depictions provide sufficient structure for those of ordinary skill in the art to recognize the structure in the specification and associate it with the biasing contact means.

PPC contends that “body means” corresponds to the connector body in the specification and figures. The connector body is sometimes referred to as the “body” in the specification. *See id.* at 18 (’481 patent, 6:44). Moreover, according to PPC, the body as described in the specification engages, or receives, the cable, as depicted in the claim language. *See id.* (’481 patent, 6:59-64). PerfectVision argues, however, that the specification only explains that the connector body can enhance frictional restraint and gripping of a coaxial cable, while the fastener member compresses against the cable. Claim 33 of the ’430 patent refers to the “body means” as the body and says that the body means includes “a resilient biasing means for extending from the body,” which, along with other claim language, demonstrates that the body means corresponds to the connector body in the specification. Document #67-5 at 23.

For “resilient biasing means” and “integral resilient biasing means,” PPC contends that the biasing element in the specification is the only structure that biases as described in the two claims’ contexts. PerfectVision contends that the patent does not describe specific structural features that accomplish the function of biasing. PerfectVision cites to *Default Proof Credit Card Systems, supra*, where, PerfectVision argues, the court found that “dispensing means” was indefinite even though the specification referred to a “dispenser.” *See Default Proof Credit Card Sys.*, 412 F.3d at 1299. In that case, however, the plaintiff argued that the point-of-sale terminal, not a “dispenser,” was the dispensing function, and the court found that the intrinsic evidence “clearly establishe[d]” that the point-of-sale terminal was not the structure for the “means for dispensing.” *Id.* at 1299-1300. Here,

in context, “resilient biasing means” and “integral resilient biasing means” each corresponds to the biasing element in the specification, as each, among other similarities to the biasing element, extends from the body, deflects, and exerts a biasing force against the coupling element.

**S. “Radial contact surface facing away from the interface port”**

PerfectVision argues that this term is indefinite due to claim differentiation. PPC argues that it is not indefinite and has the same meaning as “biasing contact means” above, namely the “surface of the nut that the biasing member pushes against.”

PerfectVision’s argument is based on the term’s appearance in claim 32 of the ’845 patent, which claims a cable connector comprising of, among other parts, a “nut including an inward lip and also including a radial contact surface facing away from the interface port, when the nut is engaged with the interface port.” Document #67-7 at 24. PerfectVision argues that other claims refer to a “biasing contact surface,” which PPC contends has the same meaning as “radial contact surface.” PerfectVision, however, does not point to any claims in the ’845 patent in which “biasing contact surface” is used, nor has it argued that claim-differentiation arguments can be based on claim terms from other patents, so it is difficult to understand exactly how its argument of claim differentiation succeeds. Moreover, claim 32 of the ’845 provides guidance for a person skilled in the art to be reasonably certain as to the meaning of “radial contact surface,” explaining that it is the surface against which the integral biasing structure provides a biasing force, which is similar to how “biasing contact surface” was described above.

**T. “Biasing force . . . to axially urge”**

PerfectVision argues that this term is indefinite; PPC argues that it is not indefinite and that “move” and “urge” are used interchangeably to describe the type of biasing force.

Claim 18 of the '740 patent provides a method for improving electrical grounding reliability that includes “exerting an axial biasing force against the biasing contact surface of the coupling element to axially urge the internal lip coupling element toward the flange of the post.” Document #67-3 at 23.<sup>22</sup> PerfectVision argues that this term is indefinite because other claims in other patents use “move” instead of “urge,” but PerfectVision has not pointed to a claim in the '740 patent that replaces “urge” with “move” in the same term. PerfectVision also argues that the specification does not provide a basis for construing “urge.” PPC, however, used “urge” numerous times in this context in the '481 patent’s prosecution history, *see* Document #67-8 at 25, 27-29, 31, 35-37, and reading the patent in light of this prosecution history provides a basis for construing “urge.” Moreover, PPC has provided dictionary definitions of “urge” that include “push” and “move.” Document #73-4 at 2. Although dictionary definitions are less useful in construing claims than is intrinsic evidence, PerfectVision has not provided a sufficient reason why “move” in one patent should be construed materially differently from “urge” in a separate patent. Thus, this term is not indefinite.

## CONCLUSION

The Court construes “to bias” to mean “to exert force in a particular direction against an object.”

For “integral body biasing element” and “integral resilient biasing member,” the Court construes “integral” to mean “integrated into the body so as to constitute a part of the same structure,” and the Court construes “resilient” to mean “comprised of materials such that it (i.e., the biasing member) ordinarily will return to its original shape after being depressed or deformed.”

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<sup>22</sup> This term or a similar term appears in other claims, but PerfectVision argues in its briefs only that claim 18 of the '740 patent is invalid due to this term’s indefiniteness. *See* Document #65 at 42.

Because the Court already construed “to bias” and its progeny, and because the parties did not argue over the difference between “element” and “member” in these phrases, no reason exists to construe “biasing member” and “biasing element” further for these terms.

The Court construes “extends an axial distance” and “extends along an axial distance” to mean “extends from the body in a direction parallel to the connector’s axis,” and the Court construes “deflect along the axial direction” to mean “deflect in a direction parallel to the connector’s axis.”

The Court construes “notch,” “groove,” and “void” to mean “a narrow ring-shaped channel formed by the body that permits the biasing member or biasing element to deflect so that it can exert a biasing force.”

The Court construes “improve [or improves or improving] electrical grounding reliability [or continuity]” and “achieving an electrically conductive path” to mean to improve or achieve (depending on the word used in the claim) “an electrically conductive path through the coupling element and the post.”

Based on the previous constructions, “biasing force . . . sufficient to axially move the inward lip of the coupling means toward[s] the flange of the post” means “a force that is exerted with enough power to move the inward lip of the coupling element in the direction of the flange of the post.”

The Court construes “internal lip” and “inward lip” to mean “an inward protrusion of the coupling element.”

The Court construes “post” to mean “a cylindrical object that includes a first end, a second end, an inner surface, and an outer surface and is designed to make electrical contact with the outer conductor of the cable and the interface port when the connector is fully tightened onto the port.”

“Substantially non-metallic and non-conductive” is not indefinite and does not require further construction.

“Without a need for a metallic conductive continuity member that is subject to corrosion and permanent deformation during operable engagement and disengagement with the interface port” is not indefinite. “Without a need for” is not subjective in this context; it means that the biasing element does not require a metallic conductive continuity member.

“Resists degradation and rust” is not indefinite and does not require further construction.

“To help prevent a gap between the coupling [element or means] and the connector body [or body means] from allowing electrical grounding continuity to be interrupted when the coupling [element or means] and the post move relative to one another” is indefinite. Because a person of ordinary skill in the art cannot be reasonably certain as to the scope of the claims in which this term appears, those claims – claim 30 of the ’740 patent and claims 16, 32, 48, and 55 of the ’430 patent – are invalid.

“Interface portion” is a typographical error meant to say “interface port” and is not indefinite.

“Internal lip coupling element” is a typographical error meant to say “internal lip of the coupling element” and is not indefinite.

“With the connector is in the assembled state” is typographical error meant to say “when the connector is in the assembled state.” In light of the lack of argument on whether “when the connector is in an [or the] assembled state” would change the scope of the claims in which it appears such that those claims are invalid for indefiniteness, and because a determination of indefiniteness and invalidity on this term would render many claims invalid, it is appropriate to defer resolution of this issue until summary judgment.

“Resilient biasing structure” and “integral biasing structure” are not indefinite; they refer to the biasing element.

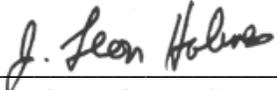
“When the coupling element and the post move relative to one another” is not indefinite and no further construction is required.

Assuming without deciding that “deflection space means,” “biasing contact means,” “body means,” “resilient biasing means,” and “integral resilient biasing means” are means-plus-function limitations, they are not indefinite because the specification contains structures corresponding to the claimed means: “deflection space means” corresponds to the notch, the “biasing contact means” corresponds to the portion of the coupling element that is facing a rearward direction and is contacted by the resilient biasing element, “body means” corresponds to the connector body, and “resilient biasing means” and “integral resilient biasing means” each corresponds to the biasing element.

“Radial contact surface facing away from the interface port” is not indefinite and is the surface of the coupling element against which the integral biasing structure provides a biasing force.

“Biasing force . . . to axially urge” is not indefinite and does not require further construction.

IT IS SO ORDERED this 29th day of August, 2014.

  
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J. LEON HOLMES  
UNITED STATES DISTRICT JUDGE