UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of	
CERTAIN EARPIECE DEVICES HAVING POSITIONING AND RETAINING STRUCTURE AND COMPONENTS THEREOF	**Inv. No. 337-TA-912**

ORDER NO. 9: CONSTRUING DISPUTED TERMS OF THE ASSERTED PATENTS

(August 21, 2014)

A *Markman* hearing was held in this Investigation on July 16-17, 2014. Counsel for Complainant Bose Corporation ("Bose" or "Complainant") appeared and argued at the hearing, as did counsel for Respondents Monster, Inc., Monster, LLC, and Monster Technology International, Ltd. ("Monster" or "Respondents"). In advance of the hearing, the parties filed opening claim construction briefs on July 2, 2014 and reply claim construction briefs on July 9, 2014. At the *Markman* hearing, the parties disputed nine claim terms, which are each addressed in this Order. At my request, after the hearing on July 23, 2014, the parties filed supplemental claims construction briefs.

The claim terms construed herein are done so for the purposes of this Investigation. Hereafter, discovery and briefing in this Investigation shall be governed by the construction of the claim terms in this Order. Those terms not in dispute need not be construed. *See Vanderlande Indus. Nederland BV v. Int'l Trade Comm'n*, 366 F.3d 1311, 1323 (Fed. Cir. 2004) (noting that the administrative law judge need only construe disputed claim terms). If any party believes that changes to a mandatory disclosure are necessary due to the claim constructions in this Order, the party may file a motion pursuant to Ground Rule 1.10.2 or Ground Rule 7.6 identifying the relevant claim construction and making its case for good cause.

Table of Contents

Table of Abbreviations

CMIB	Complainant's Initial Markman Brief
CMRB	Complainant's Reply Markman Brief
CMSB	Complainant's Supplemental Markman Brief
RMIB	Respondents' Initial Markman Brief
RMRB	Respondents' Reply Markman Brief
RMSB	Respondents' Supplemental Markman Brief
Tr.	Transcript of the Markman Hearing

I. BACKGROUND

By publication in the Federal Register, on April 3, 2014, the Commission instituted this Investigation to determine:

> whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain earpiece devices having positioning and retaining structure and components thereof by reason of infringement of one or more of claims 1 and 2 of the '253 patent.

79 Fed. Reg. 18696 (April 3, 2014).

Pursuant to the procedural schedule issued in this Investigation, the parties filed opening claim construction briefs on July 2, 2014, and reply claim construction briefs on July 9, 2014. On July 16-17, a Markman hearing was held. At my request, after the hearing on July 23, 2014, the parties filed supplemental claims construction briefs addressing the limitation "configured to rest against and apply outward pressure to the antihelix of the user's ear."

II. LEGAL STANDARD

"An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (*en banc*) (internal citations omitted), *aff'd*, 517 U.S. 370 (1996). Claim construction is a "matter of law exclusively for the court." *Id.* at 970-71. "The construction of claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims." *Embrex, Inc. v. Serv. Eng'g Corp.*, 216 F.3d 1343, 1347 (Fed. Cir. 2000).

Claim construction focuses on the intrinsic evidence, which consists of the claims themselves, the specification, and the prosecution history. *See Phillips v. AWH Corp.*, 415 F.3d

1303, 1314 (Fed. Cir. 2005) (*en banc*); *see also Markman*, 52 F.3d at 979. As the Federal Circuit in *Phillips* explained, courts must analyze each of these components to determine the "ordinary and customary meaning of a claim term" as understood by a person of ordinary skill in the art at the time of the invention. 415 F.3d at 1313. "Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language." *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001).

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips*, 415 F.3d at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). "Quite apart from the written description and the prosecution history, the claims themselves provide substantial guidance as to the meaning of particular claim terms." *Id.* at 1314; *see also Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001) ("In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to 'particularly point [ ] out and distinctly claim [ ] the subject matter which the patentee regards as his invention."). The context in which a term is used in an asserted claim can be "highly instructive." *Phillips*, 415 F.3d at 1314. Additionally, other claims in the same patent, asserted or not, may also provide guidance as to the meaning of a claim term. *Id.*

The specification "is always highly relevant to the claim construction analysis. Usually it is dispositive; it is the single best guide to the meaning of a disputed term." *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). "[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." *Id.* at 1316. "In

other cases, the specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor." *Id.* As a general rule, however, the particular examples or embodiments discussed in the specification are not to be read into the claims as limitations. *Id.* at 1323. In the end, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be ... the correct construction." *Id.* at 1316 (quoting *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).

In addition to the claims and the specification, the prosecution history should be examined, if in evidence. *Id.* at 1317; *see also Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004). The prosecution history can "often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Phillips*, 415 F.3d at 1317; *see also Chimie v. PPG Indus. Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) ("The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution.").

When the intrinsic evidence does not establish the meaning of a claim, then extrinsic evidence (*i.e.*, all evidence external to the patent and the prosecution history, including dictionaries, inventor testimony, expert testimony, and learned treatises) may be considered. *Phillips*, 415 F.3d at 1317. Extrinsic evidence is generally viewed as less reliable than the patent itself and its prosecution history in determining how to define claim terms. *Id.* at 1317. "The court may receive extrinsic evidence to educate itself about the invention and the relevant technology, but the court may not use extrinsic evidence to arrive at a claim construction that is clearly at odds with the construction mandated by the intrinsic evidence." *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 977 (Fed. Cir. 1999).

If, after a review of the intrinsic and extrinsic evidence, a claim term remains ambiguous, the claim should be construed so as to maintain its validity. *Phillips*, 415 F.3d at 1327. Claims, however, cannot be judicially rewritten in order to fulfill the axiom of preserving their validity. *See Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999). Thus, "if the only claim construction that is consistent with the claim's language and the written description renders the claim invalid, then the axiom does not apply and the claim is simply invalid." *Id.*

III. LEVEL OF ORDINARY SKILL IN THE ART

The parties have each proposed standards for a person of ordinary skill in the art for the Asserted Patents. Bose contends that a person of ordinary skill in the art would have a Bachelor of Science degree or Master of Science degree in mechanical engineering, materials engineering, physical acoustics, ergonomics, human factors engineering, or industrial design, together with at least 6 months educational practicum or work experience with outer ear-mounted earpieces for communications earphones, music earphones, hearing aids or similar devices that are fitted into the pinna and provide acoustic energy into the ear canal. (CMIB at 6-7.) Alternatively, a person of ordinary skill in the art would have a Master's degree in Audiology or AuD (Audiology Doctorate), together with at least 6 months educational practicum or work experience with outer ear-mounted earpieces for communications earphones, music earphones, hearing aids or similar devices that are fitted into the pinna and provide acoustic energy into the ear canal. (*Id.*) Monster argues that one of ordinary skill in the art at the time of the invention would have at least a bachelor's degree in mechanical engineering or acoustic design or a related field such as consumer end-user product design with two or more years of work experience and/or post graduate study in the field of mechanical and acoustics design, at least some of which relates to devices used in context of the ear including hearing aid devices, earphones, headphones etc. (RMIB at 2-3.)

Having considered the parties' proposals in light of the asserted patent and the scope of the investigation I find Bose's proposal too limiting in requiring that the 6 months educational or work experience be with earpiece devices "that are fitted into the pinna." I also find the language "and provide acoustic energy into the ear canal" superfluous. Similarly, I find Monster's proposal too limiting in requiring a person of ordinary skill in the art to have "two or more years of work experience." Other than the conclusory statements by the parties' experts, there is simply no evidence to support these limitations by Bose and Monster. Accordingly, I find that a person of ordinary skill in the art for the Asserted Patents would at least have a Bachelor of Science degree in mechanical engineering, materials engineering, physical acoustics, ergonomics, human factors engineering, or industrial design or a Master's degree in Audiology or AuD (Audiology Doctorate), together with at least 6 months educational practicum or work experience with outer ear-mounted earpieces for communications earphones, music earphones, hearing aids or similar devices.

IV. THE ASSERTED PATENT

The patent-at-issue in this investigation, U.S. Patent No. 8,311,253 (the "'253 patent" or "patent-in-suit" or "asserted patent"), is titled "Earpiece Positioning And Retaining." The '253 patent issued on November 13, 2012 from U.S. Patent Application No. 12/860,573 filed on August 20, 2010. The '253 patent names Ryan C. Silvestri, Eric M. Wallace, Kevin P. Annunziato, Ian M. Collier, and Michael Monahan as inventors and is assigned to Bose.

A. Patent Specification

In general, the '253 patent is drawn to an earpiece device with a positioning and retaining structure. The abstract of the invention states:

> An earpiece. The earpiece includes an electronics module for wirelessly receiving incoming audio signals from an external source. The earpiece further includes a positioning and retaining structure comprising at least an outer leg and an inner leg,

each of the outer leg and inner leg being attached at an attachment end to the body and attached at a joined end to each other. The outer leg lies in a plane. The positioning and retaining structure is substantially stiffer in one direction than in another. In its intended position, one of the two legs contacts the anti-helix at the rear of the concha, the joined end is under the anti-helix; a planar portion of the body contacts the concha; and a portion of the body is under the anti-tragus.

('253 patent, Abstract.)

B. Asserted Claims

Bose has asserted claims 1 and 2 of the '253 patent. Those claims read:

1. An earphone, comprising:

an acoustic driver that transduces applied audio signals to acoustic energy;

a housing containing the acoustic driver, the housing including a front chamber acoustically coupled to the acoustic driver and a nozzle acoustically coupled to the front chamber;

an ear interface comprising a unitary structure having a body and a positioning and retaining structure,

the body being configured to fit within the concha of a user's ear, and further including an outlet dimensioned and arranged to fit inside the user's ear canal entrance,

the outlet being coupled to the nozzle of the housing and providing a passageway for conducting acoustic energy from the acoustic driver to the user's ear canal;

the positioning and retaining structure including a member extending from the body and configured to rest against and apply outward pressure to the antihelix of the user's ear to retain the earphone in the user's outer ear.

2. The earphone of claim 1, further comprising a cable electrically coupled to an input of the acoustic driver and configured to mechanically and electronically couple the earpiece to another device.

C. Disputed Claim Terms

The parties dispute the construction of nine terms in the Asserted Patents: (1) "concha of a user's ear"; (2) "fit inside the user's ear canal entrance"; (3) "antihelix"; (4) "user's outer ear"; (5) "the body being configured to fit within the concha of a user's ear"; (6) "fit inside the user's ear canal entrance"; (7) "configured to rest against and apply outward pressure to the antihelix";

(8) "configured to rest against and apply outward pressure to the antihelix"; and (9) "configured to mechanically and electronically couple the earpiece to another device".

1. Anatomical Terms

Claim Term	Bose's Proposed Construction	Monster's Proposed Construction
"concha of a user's ear" (claim 1)	No construction required. Term should be given its plain and ordinary meaning.	"largest and deepest concavity of the user's external ear below the concha ridge to the antitragus"
"fit inside the user's ear canal entrance" (claim 1)	No construction required. Term should be given its plain and ordinary meaning.	"actively fit inside the entrance to the ear canal under the tragus" This limitation requires a human user's ear.
"antihelix" (claim 1)	No construction required. Term should be given its plain and ordinary meaning.	"ridge extending from the crus of the helix to the antitragus"
"user's outer ear" (claim 1)	No construction required. Term should be given its plain and ordinary meaning.	"part of the user's ear that is visible." This limitation requires a human user's ear.

Asserted claim 1 includes a number of anatomical terms the construction of which the parties dispute: "concha of a user's ear", "the user's ear canal entrance", "antihelix", and "user's outer ear".

Bose argues that these terms require no specific construction and are entitled to their plain and customary meaning. Monster argues for specific constructions of each of these terms as set forth in the table above.

I agree with Bose that these terms need no construction. Claim terms are generally given their plain and ordinary meanings to one of skill in the art when read in the context of the specification and prosecution history. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed.Cir.2005) (en banc). "There are only two exceptions to this general rule: 1) when a patentee

sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the 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). Contrary to Monster's arguments, which I will address in more detail below, I find nothing in the intrinsic evidence to suggest that the applicant intended the above-identified anatomical terms garner the specific constructions proposed by Monster or that the applicant intended to limit the plain import of these terms. For example, the applicant notes that:

> There are many different ear sizes and geometries. Some ears have additional features that are not shown in Fig. 1. Some ears lack some of the features that are shown in Fig. 1. Some features may be more or less pronounced than are shown in Fig. 1.

('253 Patent at 4:25-45.) Thus, the patent itself counsels against any rigid constructions of these terms. Further, as shown below, Fig. 1 of the '253 patent is entirely consistent with the illustration of the ear from the seminal anatomy textbook Gray's Anatomy. (*Compare* '253 patent, Fig. 1 *with* BMIB, Casali Decl., Ex. A.)

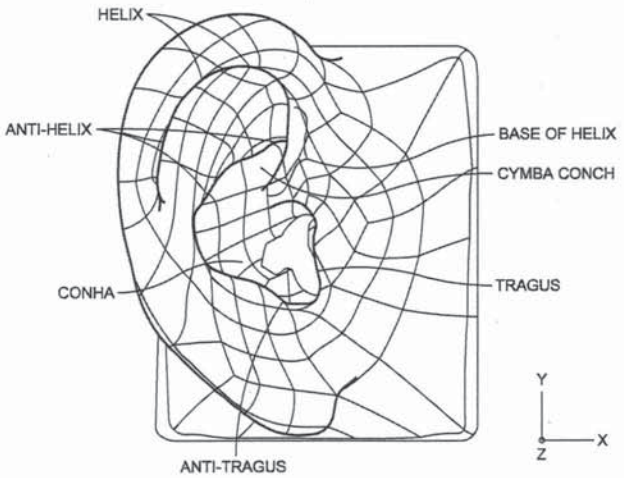
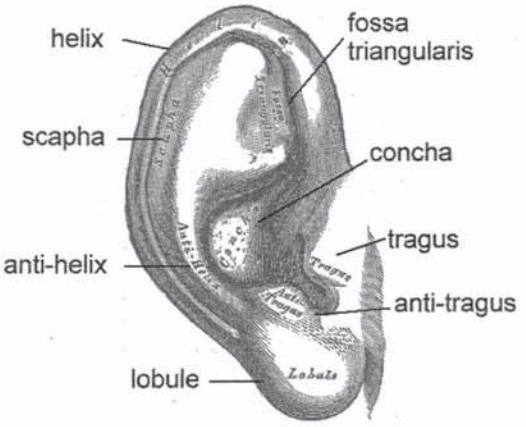


FIG. 1



Gray's Anatomy

Thus it seems clear the applicant intended the anatomical terms in the '253 patent to have their plain and ordinary meaning. Based on the evidence presented I find the anatomical terms would be

well known to one of ordinary skill in the art and that construing these terms further would run the risk of adding ambiguity where none now exists. Accordingly, I construe the anatomical terms enumerated above to have their plain and ordinary meaning to one of ordinary skill in the art at the time of the invention.

With regard to Monster's proposed construction of "concha of a user's ear" as the "largest and deepest concavity of the user's external ear below the concha ridge to the antitragus" I note that nowhere in the '253 patent is the term "concha ridge" used. Thus, I find it would be error to construe the "concha of a user's ear" in terms of the "concha ridge" as to do so would improperly add a new limitation to the claim. Further, because the patent does not discuss the "concha ridge", relying on such to help define the "concha of a user's ear" would add unnecessary ambiguity to the claim. For at least these reasons I find Monster's proposed construction not persuasive.

With regard to the limitation "the user's ear canal entrance", Monster argues that the phrase should be construed as "the entrance to the ear canal under the tragus." Monster also argues that the phase should be construed to require a human user's ear. The specification recites the phrase "under the tragus" only once stating that "the body 12 contacts at the entrance to the ear canal under the tragus." ('253 patent at 6:50-51.) That sentence simply provides no basis to import the limitation "under the tragus" into the claim. Thus, I find Monster's argument not persuasive. As for Monster's argument that a "human user's ear" is required, I am equally not persuaded. The claims and the specification of the '253 patent recite the term "user's ear" not "human user's ear" and Monster has provided no cognizable basis for adding the limitation "human" into the claims.

With regard to Monster's proposed construction of the limitation "antihelix" as the "ridge extending from the crus of the helix to the antitragus" I am again not persuaded. The specification of the '253 patent never once uses the words "ridge" or "crus of the helix" and thus I find that

adding those limitations into the claim would be error. Further, because the patent never discusses "ridge" of "crus of the helix", construing the term "antihelix" in such a manner would only add ambiguity to the claim. Monster argues that the applicant acted as his own lexicographer and defined the term antihelix specifically as shown in Fig. 1. I disagree. The specification states that "Fig. 1 shows the human ear and a Cartesian coordinate system, for the purpose of **identifying** terminology used in this application" not for the purpose of specifically defining terms. ('253 patent at 4:25-27 (emphasis added).) Moreover, the specification makes clear that Fig. 1 is exemplary stating:

> There are many different ear sizes and geometries. Some ears have additional features that are not shown in Fig. 1. Some ears lack some of the features that are shown in Fig. 1. Some features may be more or less pronounced than are shown in Fig. 1.

('253 Patent at 4:25-45.)

With regard to the term "user's outer ear", Monster argues that the term is properly construed as the "part of the user's ear that is visible." Monster also argues that the limitation requires a human user's ear. The term "outer ear" is a well understood term to one of ordinary skill in the art and Monster provides no cogent explanation for why its proposed construction of "the part of the user's ear that is visible" provides any additional clarity to the claim term. To the contrary, I find defining the outer ear as the visible part of the ear will only add ambiguity to the claim. Monster basically wants to substitute the word "visible" for "outer" and I see no basis for doing so. Likewise, I find no support for requiring that the term be limited to a "human user's outer ear." The claims and the specification of the '253 patent recite the term "user's ear" not "human user's ear" and Monster has provided no cognizable basis for adding the limitation "human" into the claims. I thus find Monster's argument not persuasive.

2. Design-Based Terms

The parties dispute the proper construction of the term "configured to," which appears in asserted claims 1 and 2 of the '253 patent. In particular, the term appears in the limitations: "the body being configured to fit within the conch of the user's ear", "configured to rest against and apply outward pressure to the antihelix", and "configured to mechanically and electronically couple the earpiece to another device". The parties also dispute the proper construction of the limitation "dimensioned and arranged to fit inside the user's ear canal."

Claim Term	Bose's Proposed Construction	Monster's Proposed Construction
"the body being configured to fit within the concha of a user's ear" (claim 1)	No construction required. Term should be given its plain and ordinary meaning.	"the body actively fits within the concha of a user's ear." This limitation requires a human user's ear.
"fit inside the user's ear canal entrance" (claim 1)	No construction required. Term should be given its plain and ordinary meaning.	"actively fit inside the entrance to the ear canal under the tragus" This limitation requires a human user's ear.
"configured to rest against and apply outward pressure to the antihelix" (claim 1)	"configured to rest against the antihelix and apply pressure to the antihelix along the Z axis in a direction away from the head "	"actively rests against and applies outward pressure to the antihelix of the user's ear." This limitation requires a human user's ear.
"configured to mechanically and electronically couple the earpiece to another device" (claim 2)	No construction required. Term should be given its plain and ordinary meaning.	"actively coupled mechanically and electronically to another device." This limitation requires another device.

The dispute regarding each of these terms is similar with Monster arguing that properly construed these limitations require that the recited functions be actively performed and Bose arguing that these terms should be given their plain and ordinary meaning.

The Parties' Positions

Complainant argues that the term "configured to" does not impute a requirement of human action onto any of the asserted claims, and argues Respondents seek this construction to argue the claims are invalid, hybrid method-apparatus claims. (CMIB at 15.) Complainant also argues the term does not impute a requirement of action by another device (*i.e.* "a human user's ear," "another device"). (CMIB at 16.) Neither proposed requirement has any basis in the claims, specification, or case law, according to Complainant. (*Id.*)

Complainant contends the term "configured to" "generally describes how an invention is to be made" similar to the phrases "adapted to," "designed to," "made to," "capable of," and "suitable for." (CMIB at 16, 17 (citing *Aspex Eyewear, Inc. v. Marchon Eyewear, Inc.* 672 F.3d 1335, 1349 (Fed. Cir. 2012); *In re Gianelli*, 739 F.3d 1375, 1379 (Fed. Cir. 2014).) According to Complainant, while courts have construed "configured to" to mean the device may be capable of the following feature, such claim terms do not require actual user operation as it solely conveys the device's design and manufacture. (CMIB at 17.)

Complainant further contends that Respondents' addition of the term "actively" is improper as the word does not appear anywhere in the intrinsic evidence (*i.e.*, claims, specifications, or prosecution history) and is nothing more than "a misguided and groundless attempt to conjure an invalidity position." (*Id.*)

Respondents argue that the term "configured to" should be construed more narrowly than synonymous with "capable of" or "suitable for," citing *Aspex Eyewear, Inc. v. Marchon Eyewear, Inc.* for support. (RMIB at 3.) Respondents contend that the term should be construed to require "active configuration," meaning the apparatus must actively perform the claimed function. (RMIB at 3 (citing *Typhoon Touch Techns., Inc. v. Dell, Inc.*, 659 F.3d 1367, 1381 (Fed. Cir.

2011).)

According to Respondents, the position and retaining structure of claim 1 must actively fit in the concha, actively rest on the antihelix, and actively apply outward pressure upon the antihelix. (RMIB at 3.) Similarly, Respondents argue the earpiece of claim 2 must be actively connected to another device. (RMIB at 3.) Respondents further contend that the subsequent active verb phrases of "fit within," "rest against," and "coupled with" demonstrate that the term "configured to" must be construed to require actively performed functions. (RMIB at 4.)

Bose asserts in reply that Monster misrepresents its claim construction position. (CMRB at 1.) Bose argues that it does not seek to interpret the phrase as "simply requiring capable of and not an actual configuration" as Monster asserts, but rather contends the phrase "configured to" should be given its plain and ordinary meaning, which is "designed to", "adapted to", "shaped to", or "constructed to." (*Id.*)

Bose argues that the cases Monster relies on are either inapplicable or support Bose's position. (*Id.* at 1-2.) With regard to the Federal Circuit's decision in *Aspex*, Bose argues that in that case the Court construed "adapted to" to be synonymous with "designed to," "made to," and "configured to." (*Id.* at 3.) Bose further argues that the Court in *Aspex* did not construe "adapted to" to require real time performance or user intervention, but as "most naturally understood to mean that [the components] are designed or configured to accomplish the specified objective." (*Id.*)

In reply, Monster asserts that the Federal Circuit has continually construed "configured to" to be narrower than "capable of" as to do otherwise would improperly cover devices that could be "modified in a manner that infringes the patent." (RMRB at 6.) Monster also contends that the discussion in the specification of the earpiece's operation in a human ear supports its proposed

construction of "configured to." (*Id.* at 7.) Monster further asserts the intrinsic evidence supports its construction, arguing that the prosecution history demonstrates the applicants' disavowal of broader scope with the addition of the claim language "rest against and apply outward pressure to the antihelix." (*Id.* at 8.)

Discussion

I find Monster's proposed construction of these terms to require user action to be singularly unpersuasive. The asserted claims recite only an apparatus. Nothing in the claim language, specification or prosecution history supports Monster's argument. The phrase "configured to" in claims 1 and 2 is used in accordance with its plain and ordinary meaning of "designed to", "adapted to", "shaped to", or "constructed to." Nothing in the claim language suggests user action is required. Moreover, dependent claims 6 and 17, which depend from claim 4, which depends from asserted claim 1, add specific limitations based on "when the earphone is inserted into the ear" and "when the earphone is in its intended position in the user's ear", respectively. If I were to construe "configured to" in claim 1 to require active performance as Monster proposes it would largely make dependent claims 6 and 17 redundant in violation of common Federal Circuit jurisprudence. While I disagree with Bose that this is a case of claim differentiation, it is nevertheless evidence that cuts against Monster's proposed construction.

The specification also fails to support Monster's proposed construction. The word "active" that Monster wishes to read into the claims is recited only once in the specification and not in connection with the design of the claimed apparatus. (*See* '253 patent at 8:25-31 ("Each of the body 12, cavities 112 and 114, driver 116, damper 118, hole 120, and ports 122 and 124 have acoustic properties that may affect the performance of the earpiece 10. These properties may be adjusted to achieve a desired frequency response for the earphone. Additional elements, such as

active or passive equalization circuitry, may also be used to adjust the frequency response.") Also, contrary to Monster's argument, the prosecution history does not support its proposed construction. The applicant's addition of the claim language "rest against and apply outward pressure to the antihelix." during prosecution does not amount to a disavowal of claim scope and certainly does not support the inclusion of an active performance requirement in the claims.

Further, I find the cases Monster relies on fail to support its position. For example, I find Monster's reliance on *Aspex* misplaced. The Court's holding in *Aspex* fails to support Monster's contention that the components must actively perform the claimed function. In *Aspex*, the Court concluded that the term "adapted to" can embody a broad definition synonymous with "suitable for" or "capable of," or embody a narrow definition synonymous with "made to," "designed to," or "configured to." *Aspex Eyewear, Inc. v. Marchon Eyewear, Inc.*, 672 F.3d 1335, 1349 (Fed. Cir. 2012). The Court held the narrower of the two definitions applied to the plaintiff's patent as the claims were "most naturally understood to mean that the [components] are designed or configured to accomplish the specified objective, not simply that they can be made to serve that purpose." *Id.* The Court stated that the specification's reference to the components with "for engaging" meant more than simply being capable of doing so. *Id.*

Notably, the *Aspex* Court's legal analysis was influenced by another case construing "adapted to," *Sta-Rite Industries, LLC v. ITT Corp,* 682 F.Supp.2d 738 (E.D. Tex 2010). In *Sta-Rite*, the patent-in-suit involved devices for holding pumps and claimed that "each of said different sets of elements being adapted to at least assist in holding one plurality of differently configured pumps to the housing." *Sta-Rite Industries,* 682 F.supp.2d at 752. The Court reasoned that the proper construction of "adapted to" was between "having the capacity to" and "uniquely tailored," with the former being broader than the latter. *Id.* at 753. According to the Court in

Sta-Rite, the former construction would be too expansive as any use, incidental or misapplied, would be covered even though the component was not made for that use. *Id.* In contrast, the Court found the latter construction was an inappropriate, "severe narrowing of the ordinary meaning" and was unsupported by a definition or disavowal in the intrinsic evidence. The Court found that the extrinsic definition, which was "to make fit," would be most consistent with the claim as each component is made to fit and assist in holding the pumps. *Id.* The Court held that "adapted to" should be construed to mean "designed to" or "configured to" as it "gives the term the appropriate amount of breadth consistent with the specification." *Id.*

While Monster is correct that a broad construction of "configured to" would be improper, I cannot agree that the claims require active performance. Neither the Court in *Aspex* or in *Sta-Rite* imputes such a requirement; both require only that the component be made to accomplish the specific objective of the claim (*i.e.*, "fit within," "rest against," and "coupled with"). Similar to the proposed narrow construction in *Sta-Rite*, Monster's proposed construction requiring active performance is a "sever narrowing of the ordinary meaning" and is unsupported by the intrinsic evidence, including the prosecution history and specification. Thus, for the reasons discussed above, I find adoption of Monster's proposed construction would inappropriately limit the scope of claim 1 of the '253 patent.

Accordingly, I construe "configured to" in the '253 patent to have its plain and ordinary meaning of "designed to", "adapted to", "shaped to", or "constructed to."

3. Other Terms

a. "configured to rest against and apply outward pressure to the antihelix" / "outward pressure" (claim 1)

Claim Term	Bose's Proposed Construction	Monster's Proposed Construction
"configured to rest against and apply outward pressure to the antihelix" (claim 1)	"configured to rest against the antihelix and apply pressure to the antihelix along the Z axis in a direction away from the head "	"actively rests against and applies outward pressure to the antihelix of the user's ear." This limitation requires a human user's ear.
"outward pressure" (claim 1)	Should be construed in the context of the larger phrase in which it appears.	"with the ear in the x-y plane, a reaction force in the z direction going away from the ear."

The parties dispute the meaning of the word "outward" in the limitation "configured to rest against and apply outward pressure to the antihelix." While the parties agree that "outward" refers to the direction along the Z-axis, they dispute whether it is along the Z-axis in a direction away from the head or along the Z-axis in a direction away from the ear. The parties also dispute whether the term "outward pressure" requires a reaction force. I will address each argument in turn below.

1. Along The Z-Axis In A Direction Away From The Head Or Away From The Ear?

The Parties' Positions

Bose argues outward should be construed away from the head. Bose argues that the specification notes that the description of the invention is limited to the right ear, such that "[f]or an earpiece that fits in the left ear, some of the definitions, or the '+' and '-' directions may be reversed." (CMIB at 24.) Thus, Bose argues, "outward pressure" must mean along the Z axis, in a direction away from the head, to account for both the right and left ear. (*Id.*) Bose argues that the

ear is unique in that it is attached to the head at an angle, as opposed to parallel or perpendicular. (*Id.*) Bose argues that Monster's construction, requiring the ear to be in the x-y plane and the "outward pressure" to be "in the z-direction going away from the ear" is ambiguous because the ear extends from the head at an angle, making any Cartesian coordinate system aligned with respect to the ear as it sits on the head unnecessarily confusing and unclear. (*Id.*) Additionally, Bose argues that Monster's proposed construction fails to account for basic human anatomy. (*Id.*) Specifically, Bose argues that because the shape of the human ear naturally creates some space between the top-most part of the ear and the side of the head, a frame of reference using the ear would create a latent ambiguity as to whether a direction going "away from the ear" actually goes toward the head. (*Id.* at 24-25.) Bose argues that, defining the axes, including the z-direction, with respect to the head is not only unambiguous, but also comports with common sense. (*Id.* at 25.)

Monster argues outward should be construed away from the ear. Monster contends Bose's proposed construction attempts to create an ambiguity of a pressure going away from the "head" instead of the "ear" that could be broadly interpreted to be going in any random direction. (RMIB at 15.) Monster contends Bose's construction also improperly contradicts Figure 1 of the '253 patent specification that includes a Cartesian coordinate key, which shows that the z direction is away from the ear with the x-y plane as a reference. (*Id.*) In consequence, Monster argues its claim construction is consistent with the explicit definition in the specification, removes any ambiguity with regards to the x-y plane and unmistakably defines the z+ direction. (*Id.*)

Discussion

With reference to Figure 1, shown below, the specification defines the word "outward" as "the direction along the Z-axis (out of the page)". ('253 patent at 4:32-33.)

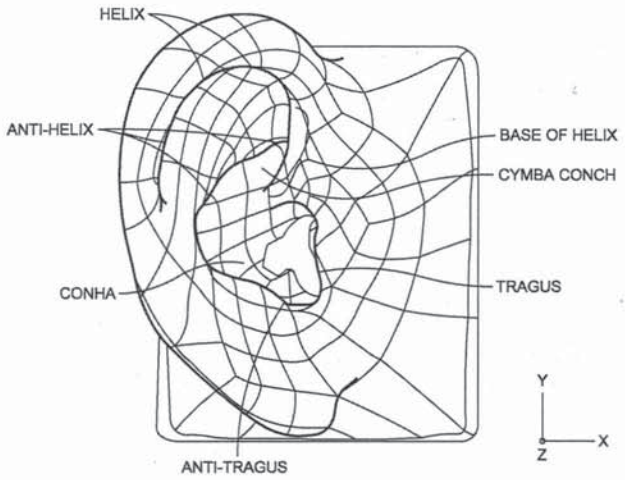


FIG. 1

Contrary to Monster's argument, the z-axis of the Cartesian coordinate system shown in Fig. 1 does not appear to align with the angle at which the ear protrudes, but rather is shown coming out of the page, perpendicular to the plane created by the rectangular shape that the ear is protruding from. As discussed at the Markman hearing, Figure 1 is a two-dimensional representation of a KEMAR ear. As such it is clear that the rectangular shape, although not labeled in Fig. 1, illustrates the portion of the head where the ear attaches. (Tr. at 88:19-23.)

"[O]nly those terms need be construed that are in controversy and only to the extent necessary to resolve the controversy." *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed.Cir.1999). Although there is undoubtedly a dispute between the parties as to whether the outward pressure is along the Z-axis in the direction away from the head or away from the ear, I am unconvinced that adjudicating this issue is necessary to resolve any controversy in this investigation. Accordingly, I am going to construe "outward" as "along the Z-axis" as both

parties agree. However, I am going to leave the question of whether that is along the Z-axis in the direction away from the head or away from the ear for resolution in my final initial determination if, in fact, it turns out some controversy in this investigation indeed turns on this issue.

2. Does The Limitation "Outward Pressure" Require A Reaction Force?

The Parties' Positions

Bose argues that while both "pressure" and "reaction force" appear in the claims of the '253 patent, Monster's proposed construction improperly narrows the patentee's broad term. (CMIB at 26.) Bose argues that the plain meanings of "pressure" and "reaction force" are not equivalent. (*Id.*) Further, Bose contends Monster's proposed construction erroneously imputes "activity" into the claim limitation as part of its invalidity strategy to change the scope of the claims. (*Id.*) Bose notes the patentee could have claimed "reaction force" as opposed to the broader "pressure" but chose not to. (*Id.*) Thus, Bose claims the patentee's word choice should remain undisturbed. (*Id.* at 27.) Bose also argues that Monster's proposed "reaction force" construction improperly reads a limitation of claim 7 into asserted independent claim 1. (*Id.*) Bose asserts that to add "reaction force" to the construction of this limitation would render claim 7 redundant and violate the canon of claim differentiation. (*Id.*) Thus, Bose argues I should reject Monster's proposed construction.

Monster asserts that pressure is force per unit area applied in a direction perpendicular to the area and that the '253 patent specification describes how to lessen the pressure on the ear to provide comfort. (RMIB at 15.) According to Monster, when a body is stiffer, it exerts more force (subsequently more pressure) and is less compliant. (*Id.*) Monster argues the '253 patent specification teaches how to make the positioning and retaining structure more compliant, that is more flexible and less stiff, that exerts less outward pressure to be more comfortable. (*Id.*)

Monster contends this force is in the z+ direction and is described as a reaction force in the specification. (*Id.*) Monster asserts that the '253 patent does not disclose explicitly how the positioning and retaining structure creates outward pressure, arguing that without a deflection of the positioning and retaining structure in the z+ direction, it is unclear how outward pressure or a reaction force is created. (*Id.* at 15-16.)

Discussion

> The plain and ordinary meaning of pressure is not the same as reaction force.
>
> Pressure n 1: the burden of physical or mental distress 2: the action of pressing; esp: the application of force to something by something else in direct contact with it 3: the force exerted over a surface divided by its area 4: the stress or urgency of matters demanding attention
>
> Reaction n 1: the act or process of reacting 2: a counter tendency, esp: a tendency toward a former esp. outmoded political or social order or policy 3: bodily, mental, or emotional response to a stimulus 4: chemical change 5: a process involving change in atomic nuclei

(CMIB, Ex. G (Webster's Contemporary School & Office Dictionary 391, 419 (2008)).) The technical understanding of the terms is also not equivalent.

> Pressure : A type of stress which is exerted uniformly in all directions: its measure is the force exerted per unit area.
>
> Reaction : The equal and opposite force which results when a force is exerted on a body, according to Newton's third law of motion.

(CMIB, Ex. H (McGraw Hill Dictionary of Engineering 422, 448 (2d ed. 2003)).) Claim 1 requires that the member be configured to rest against the antihelix and apply outward pressure to the antihelix. There is no language in claim 1 to suggest that the member is to apply an outward reaction force to the antihelix. Moreover, dependent claim 7, which depends from claim 3, which depends from asserted independent claim 1, states that:

> The earphones of claim 3, wherein, when the earphone is in position, a reaction force is exerted that urges the positioning and retaining structure member against

the anti-helix at the rear of the concha

('253 patent at 12:9-12.) The language of dependent claim 7 shows that the applicant knew how to claim a "reaction force" when it was intended. Thus, the fact that the applicant specifically did not use "reaction force" in claim 1, but instead claimed "pressure" is evidence that the applicant did not intend the word "pressure" to mean "reaction force." Additionally if I were to construe outward pressure as requiring a reaction force then the language of dependent claim 7 becomes largely redundant is violation of common Federal Circuit jurisprudence.

Thus I find the language of the claims militates against adopting Monster's proposed construction of outward pressure as requiring a reaction force.

Monster cites to several passages from the specification in support of its argument, but none of the cited text equates pressure with reaction force and nothing in the specification indicates that the applicant intended to limit the scope of the invention in such a way. For example, Monster cites to a passage from the summary of the invention that states that "[w]hen the earpiece is in position, a reaction force may be exerted that urges the outer leg against the antihelix at the rear of the concha." There is simply no language in this sentence to even insinuate that the invention must include a reaction force, must less mandate such. To the contrary the sentence specifically states that "a reaction force *may* be exerted ..." Moreover, the paragraph from which this sentence is drawn begins "[i]n one aspect" thus signaling to one of ordinary skill in the art that the description that follows is of an embodiment of the invention and thus not limiting. Thus, I find no support in the specification for Monster's position.

For at least the reasons discussed above, I find no basis to construe the term "outward pressure" to require a reaction force.

Conclusion

Accordingly, I find that properly construed the phrase "configured to rest against and apply outward pressure to the antihelix" means "configured to rest against the antihelix and apply pressure to the antihelix along the Z axis in a direction away from the head/ear." As discussed above, I am leaving resolution of whether it is along the Z axis in a direction away from the head or along the Z axis in a direction away from the ear for my final initial determination as I am unconvinced that resolution of that issue is necessary to the adjudication of any controversy in this investigation.

b. "the positioning and retaining structure including a member extending from the body" (claim 1)

Claim Term	Bose's Proposed Construction	Monster's Proposed Construction
"the positioning and retaining structure including a member extending from the body" (claim 1)	No construction required. Term should be given its plain and ordinary meaning.	"the positioning and retaining structure including at least an outer leg and an inner leg extending from the body"

The Parties' Positions

Bose argues there is no need to construe the term "member." Bose argues "member" is a broad, non-technical term that is frequently used in the prior art. However, Bose argues that if I were inclined to construe the term, a person of ordinary skill in the art would understand the plain and ordinary meaning to be "the positioning and retaining structure including a part extending from the body." Bose argues that Monster's proposed construction seeks to narrow the asserted claims to a specific embodiment in an effort to avoid infringement. Bose argues that Monster's construction conflicts with the intrinsic evidence and fundamental principles of claim construction.

First, Bose argues that the plain language of claim 1 never recites the word "leg" or suggests Monster's narrow limitation that the member includes at least an outer leg and an inner leg. Bose argues that in fact the broad, singular term "member" suggests the contrary (*i.e.*, the claim is not limited to "at least two legs."). Second, Bose argues there are other claims of the '253 patent that specifically recite "an outer leg and an inner leg." In particular Bose argues that unasserted dependent claim 4 refers to the broad term "member" and then recites that "the member comprises at least an outer leg and an inner leg." Bose argues that adding an outer leg and inner leg to the construction of this limitation would violate the canon of claim differentiation, and render claim 4 nonsensical. Finally, Bose argues that Monster's proposed construction attempts to improperly limit the claim to the preferred embodiment in the specification that discusses the positioning and retaining structure including an outer leg and an inner leg. Bose argues that the passages and figures in the specification on which Monster relies in support of its argument never reach the exacting level of lexicography or disavowal necessary to limit the otherwise broad claim language and that it would be improper to import such limitations into the claims.

Monster argues that the plain and ordinary meaning of the claim term "including a member" proposed by Bose is broader than the purported invention disclosed in the specification, abstract, summary of the invention and all of its embodiments because it potentially includes a member consisting of only a single leg. Monster argues that the '253 patent specification does not use the word "member" anywhere other than in claim 1, let alone explicitly defining it, and that reading the '253 patent specification as a whole, the only proper interpretation is that the member includes an inner leg and an outer leg. Monster argues that its interpretation is consistent with the disclosure in the Abstract that describes the purported invention as a whole and not just its embodiments. Monster argues that the abstract indicates an intent by the inventors to limit the

claim language.

Continuing, Monster argues that although all the paragraphs in the summary of the invention are preceded by "[i]n one aspect," they all describe the positioning and retaining structure as having at least an inner leg and an outer leg. Similarly, Monster argues all the Figures in the '253 patent show positioning and retaining structures with two legs. Monster argues two or more legs are explicitly disclosed but never a single leg. Monster contends that in the summary of the invention in the '253 patent, the specification explains the importance and roles for both the inner leg and the outer leg, particularly in the context of the claimed functional aspect of resting against the antihelix and applying outward pressure. Under such circumstances, Monster claims, Federal Circuit precedent requires limiting the claim language to the important or critical features of the purported invention. Monster maintains that all of the different modes and configurations including the advantages of the invention of the earpiece positioning and retaining structure include contact and use of at least two legs. In consequence, Monster says Bose's construction of plain and ordinary meaning that broadly includes a member with a single leg is clearly improper and targeted to create an *ad hoc* infringement read. Monster asserts that contrary to Bose's argument it is not importing limitations from the embodiments into the claims. Rather, Monster argues Bose's proposal of "plain and ordinary meaning" would expand the positioning and retaining structure in a manner completely "divorced from the context of the written description" and contrary to Federal Circuit law.

Discussion

The parties only dispute the proper construction of the word "member" in the limitation "the positioning and retaining structure including a member extending from the body." Bose argues "member" should be construed to have its plain an ordinary meaning, or in the alternative

be construed as a "part". Monster, on the other hand, argues that the claim should be limited to the invention disclosed in the '253 patent, which singularly describes the positioning and retaining structure as having at least an outer leg and an inner leg. Thus according to Monster, the word "member" must be construed to require at least an outer leg and an inner leg.

Claim 1 recites "the positioning and retaining structure including a member extending from the body." The specification never uses the word "member." The word "member" appears only in the claims. The applicants' use of the word "member" in claim 1 is constituent with its well understood meaning as a "part of a structure". Certainly, I find no evidence in the claim language to suggest the applicant intended the term "member" to have some specialized meaning.

Unasserted dependent claim 4, which depends from claim 3, which depends from asserted independent claim 1 states:

> The earphone of claim 3 wherein the member comprises at least an outer leg and an inner leg each of the outer leg and inner leg being attached at an attachment end to the body and attached at a joined end to each other …

('253 patent at 11:43-52.) Under the principles of claim differentiation, the fact that the applicant further defined the member of claim 1 in dependent claim 4 as comprising at least an outer leg and an inner leg is evidence that the applicant did not intend the word "member" in claim 1 to be limited to having at least an outer leg and an inner leg. *Liebel–Flarsheim*, 358 F.3d at 910 ("[T]he presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim.") To find otherwise would be to render the language "the member comprises at least an outer leg and an inner leg" in claim 4 superfluous in disregard of common Federal Circuit jurisprudence stating that meaning should be given to all language in the claims. *Frans Nooren Afdichtingssystemen B.V. v. Stopaq Amcorr Inc.*, 744 F.3d 715 (Fed. Cir. 2014) ("It is the usual (though not invariable) rule that, in patent claims as

elsewhere, the construction of a clause as a whole requires construction of the parts, with meaning to be given to each part so as to avoid rendering any part superfluous."). Thus, I find the language of the claims militates against construing "member" to require at least an outer leg and an inner leg.

I am mindful that the Federal Circuit has stated that claim differentiation is not a hard and fast rule, and the presumption can be overcome by a contrary construction required by the specification or prosecution history. *Seachange Int'l, Inc. v. C–COR, Inc.*, 413 F.3d 1361, 1369 (Fed. Cir. 2005). In fact Monster argues exactly so. However, having reviewed the intrinsic evidence cited by Monster I am not persuaded the applicant intended to limit the scope of the invention to members with at least an inner leg and an outer leg. Even though it is true the patent only describes the positioning and retaining structure as having at least an inner leg and outer leg, it is equally true there is no language in the specification that rises to the level of an express disclaimer sufficient to limit the scope of the claims. *Epistar Corp. v. ITC*, 566 F.3d 1321, 1335 (Fed. Cir. 2009) ("[d]isavowal requires expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.")

Moreover, while I agree with Monster that the specification describes the importance of the two legs to achieving the positioning and retaining function, the patent contains no indication the applicants were describing anything other than, for lack of a better word, the "best mode" of the invention. I find no evidence to suggest that in doing so the applicants were limiting their invention to such a configuration. I find nothing in the specification or prosecution history that rebuts the presumption established by the doctrine of claim differentiation. Nor do I find anything that would persuade me to violate the general prohibition against reading embodiments into the claims. Accordingly, I find one of ordinary skill in the art at the time of the invention would

construe the word "member" to have its plain and ordinary meaning, which is broader than Monster's proposed construction of "at least an inner leg and an outer leg."

SO ORDERED.

Thomas B. Pender
Administrative Law Judge

IN THE MATTER OF CERTAIN EARPIECE DEVICES HAVING POSITIONING AND RETAINING STRUCTURE AND COMPONENTS THERE **337-TA912**

CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **PUBLIC ORDER NO. 09** have been served upon, **The Office of Unfair Import Investigations** and the following parties on August 21, **2014.**

Lisa R. Barton, Secretary
U.S. International Trade Commission
500 E Street, S.W., Room 112A
Washington, DC 20436

FOR COMPLAINANTS BOSE CORPORATION:

Andrew R. Kopsidas, Esq.
FISH & RICHARDSON P.C.
1425 K Street, N.W., 11th floor
Washington, DC 20005

( ) Via Hand Delivery
( ) Via Express Delivery
(X) Via First Class Mail
( ) Other: _____

FOR RESPONDENTS, MONSTER, INC., MONSTER, LLC & MONSTER TECHNOLOGY INTERNATIONAL, LTD.

Edward V. Anderson, Esq.
SHEPPARD, MULLIN, RICHTER & HAMPTON LLP
379 Lytton Avenue
Palo, Alto, CA 94301

( ) Via Hand Delivery
( ) Via Express Delivery
(X) Via First Class Mail
( ) Other: _____