

United States Court of Appeals for the Federal Circuit

2007-1241, -1279

TIP SYSTEMS, LLC and TIP SYSTEMS HOLDING COMPANY, INC.,

Plaintiffs-Appellants,

v.

PHILLIPS & BROOKS/GLADWIN, INC. (trading as PBG, Inc.),
ACOUSTICS DEVELOPMENT CORPORATION (trading as PBG, Inc.),
and PBG, INC.,

Defendants,

and

INDEPENDENT TECHNOLOGIES, INC., (trading as Wintel),

Defendant-Appellee,

and

TZ HOLDINGS, INC., T-NETIX TELECOMMUNICATIONS SERVICES, INC.,
T-NETIX, INC., EVERCOM HOLDINGS, INC., EVERCOM SYSTEMS, INC.,
EVERCOM, INC. (doing business as Texas Evercom, Inc.),

Defendants-Cross Appellants,

and

JCW ELECTRONICS, INC.,

Defendant,

and

MYRMIDON CORPORATION (trading as PBG, Inc.),

Defendant.

Gary M. Samms, Obermayer Rebmann Maxwell & Hippel LLP, of Philadelphia, Pennsylvania, argued for plaintiffs-appellants. With him on the brief were Jeffrey S. Batoff, Nicholas Poduslenko, and Matthew A. Kelly, III.

John E. Schneider, Fulbright & Jaworski L.L.P., of Houston, Texas, argued for defendant-appellee. Of counsel were Christopher R. Benson, of Austin, Texas, and William J. Boyce, of Houston, Texas.

Aubrey 'Nick' Pittman, The Pittman Law Firm, P.C., of Dallas, Texas, argued for defendants-cross appellants. Of counsel on the brief were Jeffrey S. Lowenstein, Neal J. Suit, and Matthew R. Scott, Bell Nunnally & Martin LLP, of Dallas, Texas.

Appealed from: United States District Court for the Southern District of Texas

Judge Vanessa D. Gilmore

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MYRMIDON CORPORATION (trading as PBG, Inc.),

Defendant.

Appeals from the United States District Court for the Southern District of Texas in case no. 04-CV-3718, Judge Vanessa D. Gilmore.

DECIDED: June 18, 2008

Before MICHEL, Chief Judge, PROST, Circuit Judge, and POGUE, Judge.*

PROST, Circuit Judge.

This is a patent infringement case pertaining to wall-mounted telephones designed for use by prison inmates. TIP Systems, LLC (“TIP”) filed suit in the United States District Court for the Southern District of Texas against: Phillips & Brooks/Gladwin, Inc., Acoustics Development Corporation, and PBG, Inc.; Independent Technologies, Inc. (“Independent Technologies”); TZ Holdings, Inc., T-Netix Telecommunications Services, Inc., T-Netix, Inc., Evercom Holdings, Inc., Evercom Systems, Inc., and Evercom, Inc. (collectively “Evercom”); JCW Electronics, Inc.; and Myrmidon Corporation for infringement of two patents. TIP appeals the district court’s claim construction order, TIP Systems, LLC v. Phillips & Brooks/Gladwin, Inc., No. 04-CV-3718 (S.D. Tex. Feb. 22, 2006) (“Claim Constr. Order”), and the district court’s grant of Independent Technologies’ and Evercom’s motion for summary judgment of non-infringement. TIP Systems, LLC v. Phillips & Brooks/Gladwin, Inc., No. 04-CV-3718 (S.D. Tex. Mar. 1, 2007) (granting Independent Technologies’ Mot. for Summ. J.) (“Indep. Techs.’ Summ. J. Order”); TIP Systems, LLC v. Phillips & Brooks/Gladwin, Inc., No. 04-CV-3718 (S.D. Tex. Mar. 1, 2007) (granting Evercom’s Mot. for Summ. J.) (“Evercom’s Summ. J. Order”). Because we find no error in the district court’s claim

* Honorable Donald Pogue, Judge, United States Court of International Trade, sitting by designation.

construction and its holding that the accused devices do not infringe literally or under the doctrine of equivalents, we affirm.

I

TIP is the owner of two related patents, U.S. Patent No. 6,009,169 (“the ’169 patent”) and U.S. Patent No. 6,512,828 (“the ’828 patent”). The ’828 patent application is a continuation of another application, now abandoned, which is in turn a continuation-in-part of the ’169 patent application. Both patents are directed to cord-free telephones for use in correctional facilities. The absence of a telephone cord enhances safety by preventing an inmate from hanging himself or using the cord as a weapon. ’169 patent, col. 1, ll. 11-14; ’828 patent, col. 1, ll. 30-33. It also lowers maintenance costs. ’169 patent, col. 1, ll. 14-16; ’828 patent, col. 1, ll. 33-35. Claim 1 of the ’169 patent is representative:

An inmate phone of the type having a housing in an interior wall of a prison, a push-button dialing pad mounted within a front wall of the housing with the push-button digits of the push-button dialing pad extending out of the front wall, a telephone handset being a handle with an earpiece at one end and a mouthpiece at an opposite end, a handset cord electrically connected between the push-button dialing pad and the telephone handset, wherein the improvement comprises means for permanently mounting the telephone handset vertically within the front wall of the housing, so that the earpiece positioned at top and the mouthpiece positioned at bottom will permanently extend out through the front wall of the housing to be used by inmates within the prison hands free while the handset cord is also permanently maintained within the housing, to prevent the inmates from having direct access to the telephone handset and the handset cord, in which the inmates can no longer hang themselves with the handset cord and break the handset cord off and use the telephone handset as a weapon.

(Emphases added). Claim 1 of the ’828 patent is also representative and recites in relevant part:

A telephone for permanent mounting to a mounting surface in environments wherein the telephone is subject to abuse, comprising:

a housing, a mouthpiece, an earpiece, an electronic circuit board, a push-button dialing pad, a phone line and a dial tone actuating switch;

said housing including a housing front wall;

said housing front wall including a front wall inner surface;

said housing front wall including a plurality of aural apertures, a plurality of push-button apertures and a dial tone actuating switch aperture;

said mouthpiece and said earpiece mounted to said front wall;

said mouthpiece and said earpiece extending outward from said housing through said aural apertures such that a user places his ear next to said aperture for said earpiece;

...

said earpiece and said mouthpiece presenting an external relief surface for positioning said ear and a mouth of said user;

...

said dial tone actuating switch electrically connected to said phone line and said electronic circuit board;

....

and said phone operable in said mounted position by access to said mouthpiece, said earpiece, said dialing pad and said dial tone actuating switch.

(Emphases added).

The two accused devices are Model 7090 CFSS ("CFSS") and Model 7090 SPSS ("SPSS"). Neither device contains a conventional handset with a handle, but each contains an earpiece and a mouthpiece. In the CFSS phone, both the earpiece and the mouthpiece project beyond the wall of the housing. In contrast, in the SPSS phone, the earpiece and mouthpiece are flush with the wall of the housing. In each phone, the actuating switch is connected to the circuit board, but not to the phone line.

On February 22, 2006, following a hearing, the district court issued a claim construction order, construing the terms of both patents. Claim Constr. Order. Thereafter, on March 1, 2007, the court granted Independent Technologies' and Evercom's motions for summary judgment of non-infringement. Indep. Techs.' Summ.

J. Order; Evercom's Summ. J. Order. TIP appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

II

We review a district court's grant of summary judgment de novo. Innogenetics, N.V. v. Abbott Labs., 512 F.3d 1363, 1378 (Fed. Cir. 2008). Claim construction is a question of law which we review de novo. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc). In determining the meaning of a disputed claim limitation, we look to the intrinsic evidence, including the claim language, written description, and prosecution history, as well as to extrinsic evidence. Phillips v. AWH Corp., 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc).

III

On appeal, TIP argues that the district court erred in its construction of several terms in each patent. We take each claim term in turn.

A

First, TIP argues that the district court erred in its construction of the term "handset" in claim 1 of the '169 patent. The district court construed the term to mean "a handle with an earpiece at one end and a mouthpiece at the opposite end." Claim Constr. Order, slip op. at 18. Instead, TIP argues, the term should be construed to mean "an earpiece and mouthpiece and equivalents." In other words, TIP contends that the term should be construed to not require the presence of a handle. Citing Hockerson-Halberstadt, Inc. v. Converse, Inc., 183 F.3d 1369 (Fed. Cir. 1999), TIP argues that construction of a claim term requires interpretation of the entire claim in context and that the patentees may define a claim term in any way they choose.

According to TIP, the term “handset” has been re-defined in the context of the hands-free nature of the patented invention to be nothing more than a mounted earpiece and mouthpiece, and “handle” is simply a means for mounting the earpiece and mouthpiece to the housing at a fixed distance apart.

In construing the term “handset,” the district court principally relied on the language of the claim. The court noted that the claim expressly states: “a telephone handset being a handle with an earpiece at one end and a mouthpiece at an opposite end.” Hence, the claim itself contains a precise definition of the term. By first looking to the claim language, the court recognized that “the claims themselves provide substantial guidance as to the meaning of particular claim terms.” Phillips, 415 F.3d at 1314. We find no error by the district court in relying heavily on the claim language to construe the claim term. The court’s construction is supported by an identical definition in the specification: “A telephone handset 24 is provided, being a handle 26 with an earpiece 28 at one end and a mouthpiece 30 at an opposite end.” ’169 patent, col. 3, ll. 61-63. Thus, the intrinsic evidence supports the court’s construction of “handset.”

TIP contends that its proposed construction is supported by: the disclosure of structures for permanently mounting a “handset” in Figures 1-5; the statement in the specification that “[t]he improvement comprises a facility 34 for premanently [sic] mounting the telephone handset 24,” ’169 patent, col. 3, ll. 66-67; and the preferred embodiment, which includes “[a]t least one bracket assembly 40 [which] is secured within the front wall 20 of the housing 12, for permanently retaining the earpiece 28 and the mouthpiece 30 of the telephone handset 24.” Id., col. 4, ll. 17-20. Further, TIP contends, the definition of “handset” depends on proper construction of the phrase

“means for permanently mounting the telephone handset vertically within the front wall of the housing,” which should be construed as a means-plus-function claim limitation pursuant to 35 U.S.C. § 112, ¶ 6. According to TIP, the structure in the specification supporting this means-plus-function claim term is “[a]t least one bracket assembly 40 [which] is secured within the front wall 20 of the housing 12, for permanently retaining the earpiece 28 and the mouthpiece 30 of the telephone handset 24.” Id., col. 4, ll. 17-20. Notably, TIP contends, there is no mention of a handle. In addition, TIP asserts that the only functional portions of the handset shown in Figures 1, 2, and 5 of the ’169 patent are the earpiece and mouthpiece. Citing Rexnord Corp. v. Laitram Corp., 274 F.3d 1336 (Fed. Cir. 2001), TIP avers that it is improper to limit the meaning of a claim term to the preferred embodiment and that, in this case, the specification contemplates the mounting of the earpiece and mouthpiece without a handle.

TIP’s argument, however, conflates construction of the term “handset” with construction of the phrase “means for permanently mounting the telephone handset,” which are separate elements of the claimed invention. As the district court noted, TIP’s means-plus function analysis is flawed because the phrase “means for permanently mounting the telephone handset” refers to a different structure than the handset itself. While TIP identifies language in the specification that may assist in defining the claim term “means for permanently mounting the telephone handset,” TIP does not point to any support in the specification for an alternative definition of the term “handset” that does not include a handle. Although a handle is not depicted in Figures 1, 2, and 5, the figures are pictorials of the telephone from a perspective outside the housing where the handle is not visible. Indeed, the only structure disclosed in the specification for

permanently mounting the handset is a bracket assembly that attaches directly to the handle. Id., figs. 3-4, col. 4, ll. 26-28. Thus, a handle is clearly an essential component of the handset. We find no support in the specification for a definition of “handset” that is contrary to the express definition in the claim, namely, “a handle with an earpiece at one end and a mouthpiece at an opposite end.”

TIP also contends that the district court failed to appreciate that claim 1 is in Jepson format and that, therefore, the preamble defines not only the context of the claimed invention, but also its scope. Relying on Rowe v. Dror, 112 F.3d 473 (Fed. Cir. 1997), TIP argues that whether the preamble recites structural limitations or merely states a purpose or intended use can only be gleaned from a review of the entire patent.

In Rowe, we held that the term “angioplasty” is a structural limitation on the phrase “balloon angioplasty catheter” which appeared in the preamble of the claim. Id. at 479. Similarly, here, we find that the phrase “handle with an earpiece at one end and a mouthpiece at an opposite end” is a structural limitation on the claim term “handset.” Interpreting “handle” to be a structural limitation on the claim is supported by the repeated reference to “handle” in the specification. ’169 patent, abstract, col. 3, ll. 32, 62, col. 4, ll. 27, 39, figs. 3-4. Accordingly, we find no error by the district court in its determination that a “handle” is a required structural component of the claim term “handset.”

TIP next asserts that the district court erred in concluding that during prosecution of the related ’828 patent application, TIP eventually withdrew its argument that an earpiece and mouthpiece constituted a “handset.” According to TIP, during prosecution of the ’828 patent, the examiner required that “handset” be removed from the claims

because the term did not appear in the specification. In response, the applicants amended the claims to replace “handset” with “earpiece and mouthpiece.” This amendment, TIP avers, clearly demonstrates how the applicants defined the term “handset.” Further, TIP contends, the examiner rejected the claims of the ’828 patent application as being obvious over the claims of the ’169 patent and required the applicants to file a terminal disclaimer. Thus, the invention claimed in the ’828 patent application, which clearly did not disclose or claim a handle, was deemed to be obvious over the ’169 patent.

This court has held that the prosecution history of a related patent application may inform construction of a claim term, when the two applications are directed to the same subject matter and a clear disavowal or disclaimer is made during prosecution of the related application. Ormco Corp. v. Align Tech., Inc., 498 F.3d 1307, 1314 (Fed. Cir. 2007); Microsoft Corp. v. Multi-Tech Sys., Inc., 357 F.3d 1340, 1349-50 (Fed. Cir. 2004); Omega Eng’g, Inc. v. Raytek Corp., 334 F.3d 1314, 1333 (Fed. Cir. 2003); Wang Labs., Inc. v. Am. Online, Inc., 197 F.3d 1377, 1384 (Fed. Cir. 1999). Here, however, the specification of the ’828 patent and that of the ’169 patent are distinct. Whereas the ’828 patent depicts phones without a handle and does not use the term “handset” in the specification, the ’169 patent depicts only phones with a handle and uses the term “handset” repeatedly throughout the specification. Moreover, here, TIP does not urge us to construe the term “handset” in the ’169 patent based on a clear disavowal or definition of the term made during prosecution of the ’828 patent application, but rather based on an amendment eliminating the term entirely from the claims of the ’828 patent application. The district court correctly concluded that by amending the claims of the

'828 patent application to remove the term “handset,” the applicants conceded that there was no support for the term in the specification. Moreover, at the time of the amendment, the applicants explained the difference between the '828 patent application and the '169 patent as follows:

The present application varies from [the '169 patent] primarily in the structure of the earpiece/mouthpiece. In the ['169 patent], the earpiece and mouthpiece are integral in a standard telephone handset. In the present application, the earpiece and mouthpiece are not integrated into a single standard handset.

Thus, the applicants distinguished the '169 patent, where the earpiece and mouthpiece are integrated into a handset, from the '828 patent application, where they are not. The fact that the patent examiner found the claims of the '828 patent application to be obvious in view of the claims of the '169 patent has no bearing on our construction of the term “handset” in the '169 patent. The meaning of the term can be discerned from the language of the claims themselves, and is fully supported by the specification, drawings, and prosecution history.

Finally, TIP asserts that the district court erred in not considering extrinsic evidence in construing the term “handset.” TIP contends that it is accepted industry practice to use the term “handset” to refer to separate earpiece and mouthpiece units. Specifically, TIP refers to brochures, instructions, and practice manuals produced for the accused devices that use the term “handset” to refer only to the earpiece and mouthpiece. Based on this extrinsic evidence, TIP argues that the district court should have construed the term to mean “an earpiece and mouthpiece and equivalents.”

“[W]hile extrinsic evidence can shed useful light on the relevant art . . . it is less significant than the intrinsic record in determining the legally operative meaning of claim

language.” Phillips, 415 F.3d at 1317 (internal quotations and citations omitted). The district court did not err in finding that the clear intrinsic evidence outweighed the extrinsic evidence of industry practice.

In sum, we hold that the district court did not err in construing the term “handset” to mean “a handle with an earpiece at one end and a mouthpiece at the opposite end.”

B

TIP next argues that the district court erred in its construction of the phrase “the earpiece positioned at top and the mouthpiece positioned at bottom will permanently extend out through the front wall of the housing” in claim 1 of the ’169 patent and the phrase “said mouthpiece and said earpiece extending outward from said housing through said aural apertures” in claim 1 of the ’828 patent. The court construed both phrases to mean “both the earpiece and mouthpiece pass through apertures in the front wall such that they project out from the front wall.” Claim Constr. Order, slip op. at 20-21.

TIP contends that the court erred in limiting the meaning of “through” in both claim terms to a physical or structural connotation even though dictionaries also give “through” a functional connotation, such as, “to a conclusion or accomplishment” or “among or between; in the midst of.” According to TIP, under a functional definition of “through,” the claim terms could be construed to mean that the earpiece and mouthpiece function “in the midst of” the housing and aural apertures so that the user can utilize them, or that the earpiece and mouthpiece function to the “conclusion or accomplishment” of allowing inmates to use the phone hands-free. Such a construction is supported, according to TIP, by the alternative embodiment disclosed in the ’828

patent, wherein “aural communication to earpiece 28 and mouthpiece 30 is afforded through a sound transparent section of housing front wall 20, such as a plurality of small holes (not shown).” ’828 patent, col. 3, ll. 16-19. TIP argues that by adopting a narrower definition of the claim term, the district court excluded the alternative embodiment, wherein neither the earpiece nor the mouthpiece project out from the front wall. Id., col. 3, ll. 12-15. In essence, TIP’s argument is that the earpiece and mouthpiece need not project beyond the wall of the housing, but may be flush with the housing.

TIP’s proffered functional definition of the word “through” does not aid in construing the claim terms and, in fact, leads to a nonsensical result. For example, adopting TIP’s construction of “through,” the relevant claim term in the ’169 patent would read: “the earpiece positioned at top and the mouthpiece positioned at bottom will permanently extend out [to a conclusion or accomplishment; among or between; in the midst of] the front wall of the housing.” Similarly, the relevant claim term in the ’828 patent would read: “said mouthpiece and said earpiece extending outward from said housing [to a conclusion or accomplishment; among or between; in the midst of] said aural apertures.”

The most natural reading of the claim language “earpiece . . . and . . . mouthpiece . . . permanently extend out through the front wall of the housing” in the ’169 patent and the claim language “mouthpiece . . . and . . . earpiece extending outward from said housing” in the ’828 patent is that the earpiece and mouthpiece project out from the wall of the housing. The specification of the ’169 patent supports such a construction of the claim term in its recitation: “[T]he earpiece 28 positioned at the top

and the mouthpiece 30 positioned at the bottom will permanently extend out through the front wall 20 of the housing 12 to be used by inmates within the prison 16 hands free.” ’169 patent, col. 4, ll. 1-5. In addition, Figures 1, 2, and 4 in the ’169 patent all depict the telephone with the earpiece and mouthpiece extending out beyond the wall of the housing. Similarly, in the preferred embodiment disclosed in the specification of the ’828 patent, “[a]ural output and input to inmate phone 10 is provided respectively by earpiece 28 and mouthpiece 30, both being mounted to the interior of housing front wall 20 and extending outward from housing front wall 20 through aural apertures 38.” ’828 patent, col. 2, ll. 59-63. Figures 1 and 2 both depict the earpiece and mouthpiece projecting out from the wall of the housing.

TIP, of course, is correct that the specification of the ’828 patent discloses an alternative embodiment, wherein the earpiece and mouthpiece do not extend through the housing front wall. However, to construe the claim term to encompass the alternative embodiment in this case would contradict the language of the claims. Indeed, read in the context of the specification, the claims of the patent need not encompass all disclosed embodiments. PSN III., LLC v. Ivoclar Vivadent, Inc., No. 2007-1512, 2008 WL 1946550, at *5 (Fed. Cir. May 6, 2008). Our precedent is replete with examples of subject matter that is included in the specification, but is not claimed. Schoenhaus v. Genesco, Inc., 440 F.3d 1354, 1359 (Fed. Cir. 2006); Maxwell v. J. Baker, Inc., 86 F.3d 1098, 1108 (Fed. Cir. 1996); Unique Concepts, Inc. v. Brown, 939 F.2d 1558, 1562-63 (Fed. Cir. 1991). Therefore, the mere fact that there is an alternative embodiment disclosed in the ’828 patent that is not encompassed by district court’s claim construction does not outweigh the language of the claim, especially when

the court's construction is supported by the intrinsic evidence. '169 patent, col. 3, l. 66 to col. 4, l. 5; figs. 1, 2, 4; '828 patent, col. 2, ll. 59-63; figs. 1, 2.

TIP further avers that the proper meaning of the claim term can only be assessed in the context of the means-plus-function claim limitations in claim 1 of the '828 patent, which must be construed according to 35 U.S.C. § 112, ¶ 6. Specifically, TIP points to the following claim limitations: "said phone operable in said mounted position by access to said mouthpiece, said earpiece, said dialing pad and said dial tone actuating switch" and "a user places his ear next to said aperture for said earpiece." According to TIP, the function of using or operating the phone can be accomplished regardless of whether the earpiece and mouthpiece are flush with the housing, are recessed from the housing, or project out from the housing.

Although use of the term 'means' is not the only way to invoke § 112, ¶ 6, when, as here, a claim element does not use 'means,' there is a rebuttable presumption that § 112, ¶ 6 does not apply. CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1369 (Fed. Cir. 2002); Micro Chem., Inc. v. Great Plains Chem. Co., 194 F.3d 1250, 1257 (Fed. Cir. 1999); Al-Site Corp. v. VSI Int'l, Inc., 174 F.3d 1308, 1318 (Fed. Cir. 1999); Personalized Media Communications, LLC v. Int'l Trade Comm'n, 161 F.3d 696, 703-04 (Fed. Cir. 1998). In deciding whether the presumption has been rebutted, the focus is on whether the claim recites sufficiently definite structure. CCS Fitness, 288 F.3d at 1369; Al-Site, 174 F.3d at 1318; Personalized Media, 161 F.3d at 704. Each of the claim elements which TIP alleges invokes § 112, ¶ 6 recite clear and definite structures, namely, mouthpiece, earpiece, dialing pad, dialing tone actuating switch, and aperture. Therefore, TIP has not successfully rebutted the presumption that § 112, ¶ 6 does not

apply. In any event, even if we were to construe these claim elements as means-plus-function claim terms, we cannot see how that construction under § 112, ¶ 6 would affect construction of the claim terms at issue here.

Accordingly, we find no error in the district court's construction of the phrase "the earpiece positioned at top and the mouthpiece positioned at bottom will permanently extend out through the front wall of the housing" in claim 1 of the '169 patent and the phrase "said mouthpiece and said earpiece extending outward from said housing through said aural apertures" in claim 1 of the '828 patent to mean that "both the earpiece and mouthpiece pass through apertures in the front wall such that they project out from the front wall."

C

In a related argument, TIP contests the district court's construction of the claim term "said earpiece and said mouthpiece presenting an external relief surface for positioning said ear and a mouth of said user" in claim 1 of the '828 patent to mean "the earpiece and the mouthpiece present a raised surface on the outside of the phone for positioning said ear and mouth of said user." Claim Constr. Order, slip op. at 25. TIP contends that the court improperly limited the term to its meaning in the field of art and architecture. Instead, TIP argues, the proper interpretation of the word "relief" in the context of the claims and specification of the '828 patent is "distinction or prominence resulting from contrast." TIP avers that such a construction would include raised-surface, recessed-surface, and flush-surface earpiece and mouthpiece configurations, provided the user can identify and access the earpiece and mouthpiece. Once again, TIP argues that the district court, by limiting its definition of the claim term, excludes the

alternative embodiment disclosed in the specification of the '828 patent, wherein the earpiece and mouthpiece are flush with the wall of the housing. '828 patent, col. 3, ll. 12-15. According to TIP, the specification and drawings of the '169 patent support its proposed construction in that the purpose of the invention is to prevent inmates from having access to the telephone handset or the handset cord without restriction on the mounting of the earpiece and mouthpiece. Finally, TIP contends that the first prototype of the claimed invention has an external relief surface which is flush with, not raised above, the phone housing.

The district court's construction of the claim term is consistent with the claims and the specification of the '828 patent. As discussed above, proper construction of the claim term "said mouthpiece and said earpiece extending outward from said housing through said aural apertures" in claim 1 of the '828 patent requires that "both the earpiece and mouthpiece pass through apertures in the front wall such that they project out from the front wall." To be read consistently with that claim term, the only reasonable interpretation of the phrase "said earpiece and said mouthpiece presenting an external relief surface" is that the earpiece and mouthpiece present a raised surface above the housing. The district court's construction is also consistent with the preferred embodiment disclosed in the specification. '828 patent, col. 2, ll. 59-63, col. 4, ll. 11-18. Furthermore, Figures 1 and 2 of the patent depict the earpiece and mouthpiece as a raised surface above the housing. Although the alternative embodiment does not support the court's construction, for the reasons discussed above, the claims need not be construed to encompass all disclosed embodiments when the claim language is clearly limited to one or more embodiments. PSN III., 2008 WL 1946550, at *5.

The specification of the '169 patent, offered by TIP as support, has no bearing on our construction of a term that is neither claimed nor disclosed in the '169 patent. Nonetheless, the only embodiment disclosed in the '169 patent depicts an earpiece and mouthpiece that extend out from the housing, thus creating a raised surface above the housing, consistent with the court's claim construction. Lastly, the prototype, as extrinsic evidence, need be given little weight in the court's claim construction if it is outweighed by clear intrinsic evidence. Phillips, 415 F.3d at 1324.

For the reasons stated, we find no error in the district court's construction of "said earpiece and said mouthpiece presenting an external relief surface for positioning said ear and a mouth of said user" in claim 1 of the '828 patent to mean "the earpiece and the mouthpiece present a raised surface on the outside of the phone for positioning said ear and mouth of said user."

D

Finally, TIP objects to the district court's construction of "said dial tone actuating switch electronically connected to said phone line and said electronic circuit" in claim 1 of the '828 patent. The district court construed the claim term to mean "said dial tone actuating switch electronically connected to both the said phone line and said electronic circuit board, such that electricity can pass among these elements." Claim Constr. Order, slip op. at 22. TIP contends that the phrase should instead be construed to mean "the dial tone actuating switch is electrically connected to said phone line and said electronic circuit board, such that electricity can pass among these elements." In other words, TIP maintains that the actuating switch need not be between the phone line and the circuit board, provided that electricity can pass between the three components.

TIP contends that its proposed construction is consistent with the claims and the specification of the '828 patent, as well as the art of basic electrical circuitry. According to TIP, the specification indicates that the invention utilizes conventional telephone electronic circuitry, which for every payphone includes a connection between the phone line and the circuit board and between the actuating switch and the circuit board. TIP argues that the specification does not depict two separate, direct electrical connections from the dial tone actuating switch to the phone line and to the circuit board. While TIP concedes that Figure 3 shows a connection between the actuating switch and the circuit board, it contends that neither Figure 3 nor Figure 4 shows a connection between the actuating switch and the phone line. Thus, TIP avers that the specification only requires that the actuating switch, the phone line, and the circuit board be connected such that electricity can flow among them, and does not limit the manner of connection.

The district court's construction, however, is supported by the language of claim 1 of the '828 patent. The claim uses the conjunction "and," indicating that the dial tone actuating switch must be electronically connected to the phone line and it must be electronically connected to the circuit board. Further, the specification provides that the "[d]ial tone actuating switch 36 is electrically connected between phone line 58 and electronic circuit board 19." '828 patent, col. 3, ll. 43-45 (emphasis added). Figure 4, although not depicting electrical connections, indicates that the actuating switch is physically located between the phone line and the circuit board.

Accordingly, we affirm the district court's construction of the term "said dial tone actuating switch electronically connected to said phone line and said electronic circuit" in claim 1 of the '828 patent to mean "said dial tone actuating switch electronically

connected to both the said phone line and said electronic circuit board, such that electricity can pass among these elements.”

IV

Before the district court, TIP conceded that, under the district court’s claim construction, neither of the accused devices literally infringe the claims of the ’169 patent. Indep. Techs.’ Summ. J. Order, slip op. at 10; Evercom’s Summ. J. Order, slip op. at 10.

On appeal, TIP contends, however, that both phones infringe the “handset” limitation of claim 1 of the ’169 patent under the doctrine of equivalents. According to TIP, the earpiece, mouthpiece, electrical wires and phone housing elements of the accused devices perform substantially the same function in substantially the same way to obtain the same result as the claimed handset. TIP asserts that the purpose of the accused devices, like the claimed handset, is to allow persons to communicate privately in a safer manner and with reduced maintenance costs. Further, TIP asserts that the key features of the accused devices are identical to the claimed handset—the earpiece and mouthpiece are vertically mounted to the phone housing at a fixed distance apart such that they are the only accessible parts. In fact, TIP contends the only function of the handle in the claimed invention is to space the earpiece and mouthpiece elements at a fixed distance apart. TIP proffers that this function is performed in the accused devices by the phone housing. The equivalency between the claimed invention and the accused devices is supported, according to TIP, by the examiner’s obviousness-type double patenting rejection in the ’828 patent application based on the ’169 patent.

Infringement under the doctrine of equivalents may be found when the accused device contains an “insubstantial” change from the claimed invention. Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 610 (1950). Whether equivalency exists may be determined based on the “insubstantial differences” test or based on the “triple identity” test, namely, whether the element of the accused device “performs substantially the same function in substantially the same way to obtain the same result.” Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 38-40 (1997) (quoting Union Paper-Bag Mach. Co. v. Murphy, 97 U.S. 120, 125 (1877)). The essential inquiry is whether “the accused product or process contain elements identical or equivalent to each claimed element of the patented invention[.]” Warner-Jenkinson, 520 U.S. at 40. In other words, the “all elements” rule is applicable to infringement under the doctrine of equivalents just as it is to literal infringement. PSN III., 2008 WL 1946550, at *6; DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc., 469 F.3d 1005, 1016-17 (Fed. Cir. 2006); Freedman Seating Co. v. Am. Seating Co., 420 F.3d 1350, 1358 (Fed. Cir. 2005).

The district court found that the accused devices do not infringe the “handset” limitation under the doctrine of equivalents because no structural equivalent to a handset is found in either of the accused devices. We agree. As discussed above, the claim limitation “handset” is properly construed to mean “a handle with an earpiece at one end and a mouthpiece at the opposite end.” While the accused devices each contain an earpiece and a mouthpiece, there is no structure in the accused devices that serves as an equivalent to a handle. Further, the examiner’s obviousness-type double patenting rejection in the ’828 patent application based on the ’169 patent does not, in

the circumstances of this case, require a finding of equivalence between the accused devices and the invention claimed in the '169 patent.

We find no merit to TIP's argument that the phone housing substitutes for the handle, nor do we find merit to its argument that the district court ignored this court's holding in Dolly, Inc. v. Spalding & Evenflo Cos., 16 F.3d 394 (Fed. Cir. 1994). The housing is a separately claimed element in claim 1 of the '169 patent. While we said in Dolly that there need not be a one-to-one correspondence between elements of the accused device and the claimed invention, that does not condone ignoring a claimed limitation in assessing infringement under the doctrine of equivalents. Such a holding would be contrary to the "all elements" rule. Indeed, we stated that "[t]he doctrine of equivalents is not a license to ignore claim limitations." Dolly, 16 F.3d at 398; see also Sage Prods., Inc. v. Devon Indus., Inc., 126 F.3d 1420, 1424 (Fed. Cir. 1997) ("[T]he doctrine of equivalents does not grant [a patentee] license to remove entirely [any of the] limitations from the claim."). Here, we cannot find that the housing in the accused device functions as an equivalent of the "handle" in the patented invention without rendering the "housing" limitation meaningless. See PSN III., 2008 WL 1946550, at *6; Freedman Seating, 420 F.3d at 1362; Tronzo v. Biomet, Inc., 156 F.3d 1154, 1160 (Fed. Cir. 1998). Furthermore, we note that TIP fails to provide any evidence that the housing functions in substantially the same way as the handle.

TIP further avers that the district court misinterpreted Toro Co. v. White Consolidated Industries, Inc., 266 F.3d 1367 (Fed. Cir. 2001), in distinguishing it from this case. In Toro, we reversed a grant of summary judgment of infringement after finding that there was a genuine issue of material fact as to whether the two-piece

ring and cover in the accused vacuum blower was insubstantially different from the unitary ring and cover in the claimed invention. Id. at 1370. In so holding, we found that the district court, in applying the function-way-result test, had improperly imported a function from the specification into the claim limitation. Id. at 1371. On remand, we instructed the court to instead determine whether the accused device performed the same overall function as that recited in the patent claims. Id. at 1372. The holding in Toro, however, is inapplicable to the facts of this case because, here, the dispute is not about what function is performed by the claim limitation, but rather about whether the accused device contains a functional equivalent to the claim limitation. Thus, the district court did not err in finding that Toro was not relevant to this case. We agree with the district court that neither of the accused devices infringe the “handset” limitation of the ’169 patent under the doctrine of equivalents.¹

Accordingly, we find no error by the district court in granting summary judgment that neither the SPSS phone nor the CFSS phone infringes, literally or under the doctrine of equivalents, the claims of the ’169 patent.

V

Before the district court, TIP conceded that, based on the court’s claim construction, the SPSS phone does not literally infringe the claims of the ’828 patent. Indep. Techs.’ Summ. J. Order, slip op. at 10; Evercom’s Summ. J. Order, slip op. at 10. Indeed, the SPSS phone does not meet the limitation “said mouthpiece and said

¹ Because we hold that neither accused device infringes the “handset” limitation of claim 1 of the ’169 patent, we need not reach whether either accused device infringes the limitation “the earpiece positioned at top and the mouthpiece positioned at bottom will permanently extend out through the front wall of the housing” of claim 1 of the ’169 patent under the doctrine of equivalents.

earpiece extending outward from said housing through said aural apertures” or the limitation “said earpiece and said mouthpiece presenting an external relief surface for positioning said ear and a mouth of said user” in claim 1 of the '828 patent because the earpiece and the mouthpiece of the SPSS phone do not project outward from the housing to form a raised surface. Before the district court, TIP also conceded that the SPSS phone does not infringe the '828 patent under the doctrine of equivalents. Indep. Techs.’ Summ. J. Order, slip op. at 21; Evercom’s Summ. J. Order, slip op. at 21.

TIP did not concede before the district court, however, that the CFSS phone does not literally infringe the '828 patent under the court’s claim construction. Indep. Techs.’ Summ. J. Order, slip op. at 10; Evercom’s Summ. J. Order, slip op. at 10. Nevertheless, the district court held that the CFSS phone does not meet the limitation “said dial tone actuating switch electronically connected to said phone line and said electronic circuit” in claim 1 of the '828 patent because the actuating switch in the CFSS phone is not connected both to the circuit board and to the phone line.² Indep. Techs.’ Summ. J. Order, slip op. at 11; Evercom’s Summ. J. Order, slip op. at 12. The district court also held that the CFSS phone does not infringe that claim limitation under the doctrine of equivalents. Indep. Techs.’ Summ. J. Order, slip op. at 21; Evercom’s Summ. J. Order, slip op. at 21.

² In so holding, the district court recognized that the CFSS phone does meet the limitation “said mouthpiece and said earpiece extending outward from said housing through said aural apertures” and the limitation “said earpiece and said mouthpiece presenting an external relief surface for positioning said ear and a mouth of said user” in claim 1 of the '828 patent because the earpiece and the mouthpiece of the CFSS phone do project outward from the housing.

TIP does not appeal the district court's holding of no literal infringement by the CFSS phone, but rather appeals only the district court's holding that the CFSS phone does not infringe under the doctrine of equivalents.³ Specifically, TIP contends that because the CFSS phone functions as a telephone, the phone line, circuit board and actuating switch must be electrically connected. Although there is one connection in the CFSS phone, as opposed to two connections in the claims of the '828 patent, TIP avers that such a difference is insubstantial because in either case electricity passes among the elements. Furthermore, according to TIP, the electrical elements in the CFSS phone perform substantially the same function in substantially the same way to obtain the same result as the claimed invention.

The district court correctly found that the CFSS phone does not infringe the limitation "said dial tone actuating switch electronically connected to said phone line and said electronic circuit" in claim 1 of the '828 patent under the doctrine of equivalents. As construed by the district court, the claim term means "said dial tone actuating switch electronically connected to both the said phone line and said electronic circuit board, such that electricity can pass among these elements." Thus, the claim element requires that "said dial tone actuating switch [is] electrically connected to said phone line." The actuating switch in the CFSS phone is, however, not connected to said phone line. As the district court noted, TIP failed to point to an equivalent in the accused device that

³ Although TIP appears to argue that both phones infringe the limitation "said dial tone actuating switch electronically connected to said phone line and said electronic circuit" of claim 1 of the '828 patent under the doctrine of equivalents, its argument with respect to the SPSS phone is presumably premised on our reversing the district court's construction of other claim terms in the '828 patent. Because we have affirmed the district court's construction of all claim terms, we deem TIP's arguments with respect to the SPSS phone to be moot.

satisfies that claim limitation. Under the “all elements” rule, to find infringement, the accused device must contain “each limitation of the claim, either literally or by an equivalent.” Freedman Seating, 420 F.3d at 1358 (citing Warner-Jenkinson, 520 U.S. at 29); see also PSN III., 2008 WL 1946550, at *6; Pennwalt Corp. v. Durand-Wayland, Inc., 833 F.2d 931, 935 (Fed. Cir. 1987) (en banc). Although TIP argues that no claim element is vitiated by application of the doctrine of equivalents, since the phone line, actuating switch, and circuit board are all present in the CFSS phone, we disagree. The claim specifically requires an electrical connection between the actuating switch and the phone line. There is no such connection, or an equivalent, present in the CFSS phone. Furthermore, TIP fails to show that the circuitry in the accused device functions in substantially the same way to achieve substantially the same result.

TIP contends that in Gaus v. Conair Corp., 363 F.3d 1284 (Fed. Cir. 2004), this court noted that an electrical operating system in an accused device could infringe a claim element directed to a pair of probe networks under the doctrine of equivalents. TIP’s reliance on Gaus is apparently to support its contention that the single electrical connection in the CPSS phone is equivalent to the two electrical connections claimed in the ’828 patent. In Gaus, however, we reversed the district court’s grant of summary judgment of infringement under the doctrine of equivalents because we found that the patent specification clearly excluded the accused device from the scope of the claimed invention. 363 F.3d at 1290-92. Thus, Gaus does not assist TIP in showing infringement under the doctrine of equivalents here.

As the district court held, an electrical arrangement wherein the actuating switch is connected to both the circuit board and to the phone line is not equivalent to an

arrangement wherein the actuating switch is connected only to the phone line because to find such would read the phrase “connected to said phone line” out of the claim. See PSN III., 2008 WL 1946550, at *6; Freedman Seating, 420 F.3d at 1362; Tronzo, 156 F.3d at 1160. “[A]s between the patentee who had a clear opportunity to negotiate broader claims but did not do so, and the public at large, it is the patentee who must bear the cost of its failure to seek protection for this foreseeable alteration of its claimed structure.” Freedman Seating, 420 F.3d at 1361 (quoting Sage Products, 126 F.3d at 1425). Therefore, we find no error in the district court’s holding that the CFSS phone does not infringe the limitation “said dial tone actuating switch electronically connected to said phone line and said electronic circuit” in claim 1 of the ’828 patent under the doctrine of equivalents.

Accordingly, the district court did not err in granting summary judgment of no literal infringement and no infringement under the doctrine of equivalents of the ’828 patent by either the SPSS phone or the CFSS phone.⁴

VI

For the foregoing reasons, we affirm the district court’s grant of summary judgment of non-infringement with respect to both the ’169 patent and the ’828 patent.

AFFIRMED

⁴ Because we affirm the district court’s claim construction and holdings of non-infringement, we need not consider Evercom’s cross-appeal of the district court’s denial of its motion for summary judgment on certain invalidity affirmative defenses and denial of its motion for leave to amend its answer to add an inequitable conduct affirmative defense. We note, however, that there is significant doubt as to whether these issues were properly raised on cross-appeal. See Symantec Corp. v. Computer Assocs. Int’l, Inc., 522 F.3d 1279, 1293-94 (Fed. Cir. 2008).