United States District Court,
E.D. Texas, Texarkana Division.

MOTOROLA, INC,
Plaintiff.
v.
VTECH COMMUNICATIONS, INC., et al,
Defendants.

No. 5:07CV171

July 6, 2009.

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CLAIM CONSTRUCTION ORDER CONSTRUING U.S. PATENT NOS. 5,157,391**;** 5,394,140**;** 5,848,356**;** 4,866,766**;** 7,070,349**; and** U.S. DESIGN PATENT NO. D559,842

CAROLINE M. CRAVEN**, United States Magistrate Judge.**

This Opinion construes terms in U.S. Patent Nos. 5,157,391 ("the '391 patent"), 5,394,140 ("the '140 patent"), 5,848,356 ("the '356 patent"), 4,866,766 ("the '766 patent") (collectively the "user-interface patents") as well as terms in U.S. Patent No. 7,070,349 ("the '349 patent") and U.S. Design Patent No. D559,842 ("the '842 patent") (collectively "the keypad patents"). Plaintiff Motorola, Inc. ("Plaintiff" or "Motorola") brings this cause of action against VTech Communications, Inc. and VTech Telecommunications, Ltd. (collectively "Defendants" or "VTech"), alleging Defendants infringe the patents-in-suit.

I.

Background

A. Summary of the invention

Motorola has asserted infringement of the following claims of the patents in suit: (1)1 and 2 of the '766

patent; (2) 1 and 5 of the '391 patent; (3) 1-3 and 15-19 of the '140 patent; (4) 1 of the '356 patent; (5) 6 of the '349 patent; and (6) the claim of the '842 patent. Two of the patents-in-suit (the "keypad" patents) are directed to a distinctive telephone keypad structure and design. The remaining four patents (the "user-interface" patents) are directed to features and functionality that may be incorporated into a communication device such as a telephone to simplify and enhance a user's experience. These patents are briefly described below, as taken from Motorola's brief.

B. The "Keypad" Patents

The first set of patents (the '349 utility patent and the '842 design patent) relate to a super-thin keypad for electronic devices. This technology has been incorporated into such products as Motorola "Razr" v3 cellular phone. The '349 utility patent discloses a keypad that includes key caps flexibly interconnected via narrow strips of material called "carrier portions." The keypad also includes a flexible web on the backside of the key caps. Motorola asserts this keypad assembly provides a significant advance in electronics keypads, allowing for an extremely thin device.

The '842 design patent is a continuation of the application that ultimately issued as the '349 utility patent. This design patent claims the ornamental arrangement of the keypad key caps, including their relative positions. Motorola asserts that VTech's 6042 cordless telephone includes a handset with a keypad that infringes the '349 and '842 patents.

C. The "User-Interface" Patents

The remaining four patents disclose user-interface inventions that allegedly improve a communication device's functionality. The '766 patent, for example, discloses an apparatus for programming a custom telephone ring using the telephone's keypad, where each key corresponds to a different parameter of a ring (e.g., tone, frequency, delay, etc.). The '766 patent calls these "user-coded ring parameters."

The '391 patent discloses a method and apparatus for a communication device that has a menu driven display to access more than one function for a particular key on a keypad by displaying certain visual indicators on the device display. These visual indicators ("function indicators") can change based on the device's mode, thus allowing one key to have more than one function. This simplifies the keypad and enhances user functionality without a need to memorize codes.

The '140 patent describes a method and apparatus for a communication receiver for displaying a call-back number and generating a unique and/or default audible alert (*e.g.,* a ring) associated with the number. The number is pre-stored in the phone's memory, such that when a communication with the same phone number is received and recognized, the associated "special" alert will be generated by the device. Moreover, if a received phone number does not match a phone number stored in memory, a default alert is generated.

Finally, the '356 patent discloses a method in a communication device for storing a phone number or service associating it with a graphical icon in a radio communication device such as a phone. For example, a user may enter a phone number (*e.g.,* a home number) and then select a specific pre-stored image (*e.g.,* a house) to associate with it. This information is stored together in the phone's memory.

D. Procedural Background of the Current Proceeding

The parties filed claim construction briefs and respective responses thereto, and on October 2, 2008, the

Court held a claim construction hearing. After considering the parties' submissions, arguments of counsel, and all other relevant pleadings and papers, the Court finds that the claims of the patents should be construed as set forth herein.

II.

The Legal Principles of Claim Construction

A determination of patent infringement involves two steps. First, the patent claims are construed, and, second, the claims are compared to the allegedly infringing device. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1455 (Fed.Cir.1998) (*en banc*).

The claims of a patent define the invention to which the patentee is entitled the right to exclude." Phillips v. AWH Corp., 415 F.3d 1303 (Fed.Cir.2005) (*en banc*). In claim construction, courts examine the patent's intrinsic evidence to define the patented invention's scope. CR. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 861 (Fed.Cir.2004); Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc., 262 F.3d 1258, 1267 (Fed.Cir.2001).

The legal principles of claim construction were recently examined by the Federal Circuit in Phillips v. AWH Corp., 415 F.3d 1303 (Fed.Cir.2005) (*en banc*). Reversing a judgment of non-infringement, an *en banc* pan el specifically identified the question before it as: "the extent to which [the court] should resort to and rely on a patent's specification in seeking to ascertain the proper scope of its claims." Id. at 1312. Addressing this question, the Federal Circuit specifically focused on the confusion that had amassed from its scattered decisions on the weight afforded dictionaries and related extrinsic evidence as compared to the intrinsic record. Ultimately, the court found that the specification, "informed, as needed, by the prosecution history," is the "best source for understanding a technical term." Id. at 1315 (*quoting* Multiform Dessicants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1478 (Fed.Cir.1998). However, the court was mindful of its decision and quick to point out that *Phillips* is not the swan song of extrinsic evidence, stating:

[W]e recognized that there is no magic formula or catechism for conducting claim construction. Nor is the court barred from considering any particular sources or required to analyze sources in any specific sequence, as long as those sources are not used to contradict claim meaning that is unambiguous in light of the intrinsic evidence.

Phillips, 415 F.3d at 1324. Consequently, this Court's reading of *Phillips* is that the Federal Circuit has returned to the state of the law prior to its decision in Texas Digital Sys. v. Telegenix, Inc., 308 F.3d 1193 (Fed.Cir.2002), allotting far greater deference to the intrinsic record than to extrinsic evidence. "[E]xtrinsic evidence cannot be used to vary the meaning of the claims as understood based on a reading of the intrinsic record." Phillips, 415 F.3d at 1319.

Additionally, the Federal Circuit in *Phillips* expressly reaffirmed the principles of claim construction as set forth in Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed.Cir.1995) (*en banc*), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576 (Fed.Cir.1996), and Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc., 381 F.3d 1111 (Fed.Cir.2004). Thus, the claim-construction principles taught by these cases remain in force. Claim construction is a question for the court. Markman, 52 F.3d at 979. The claims of a patent define that which "the patentee is entitled the right to exclude." Innova, 381 F.3d at 1115. And the claims are "generally given their ordinary and customary meaning" as the term would mean "to a person of ordinary skill in the art in

question at the time of the invention, *i.e.*, as of the effective filing date of the patent application." Vitronics, 90 F.3d at 1582. However, the Federal Circuit stressed the importance of recognizing that the person of ordinary skill in the art "is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification ." Phillips, 415 F.3d at 1313.

Advancing the emphasis on the intrinsic evidence, the *Phillips* decision explains how each source, the claims, the specification as a whole, and the prosecution history, should be used by courts in determining how a skilled artisan would understand the disputed claim term. *See, generally, id*. at 1314-17. The court noted that the claims themselves can provide substantial guidance, particularly through claim differentiation. Using an example taken from the claim language at issue in *Phillips,* the Federal Circuit observed that "the claim in this case refers to 'steel baffles,' which strongly implies that the term 'baffles' does not inherently mean objects made of steel." *Id*. at 1314. Thus, the "context in which a term is used in the asserted claim can often illuminate the meaning of the same term in other claims." *Id*. Likewise, other claims of the asserted patent can be enlightening, for example, "the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." *Id*. at 1315 (*citing* Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed.Cir.2004)).

Still, the claims "must be read in view of the specification, of which they are part." Markman, 52 F.3d at 978. In *Phillips,* the Federal Circuit reiterated the importance of the specification, noting that "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.' " 415 F.3d at 1315 (*quoting* Vitronics, 90 F.3d at 1582). To emphasize this position, the *Phillips* court cites extensive case law, as well as "the statutory directive that the inventor provide a 'full' and 'exact' description of the claimed invention." *Id*. at 1316 (*citing* Merck & Co. v. Teva Pharms. USA, Inc., 347 F.3d 1367, 1371 (Fed.Cir.2003)); *see also* 35 U.S.C. s. 112, para. 1. Consistent with these principles, the court reaffirmed that an inventor's own lexicography and any express disavowal of claim scope is dispositive. *Id*. at 1316. Concluding this point, the court noted the consistency with this approach and the issuance of a patent from the Patent and Trademark Office and found that "[i]t is therefore entirely appropriate for a court, when conducting claim construction, to rely heavily on the written description for guidance as to the meaning of the claims." *Id*. at 1317.

Additionally, the *Phillips* decision provides a terse explanation of the prosecution history's utility in construing claim terms. The court simply reaffirmed that "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." *Id*. (*citing* Vitronics, 90 F.3d at 1582-83). It is a significant source for evidencing how the patent office and the inventor understood the invention. *Id*.

Finally, the Federal Circuit curtailed the role of extrinsic evidence in construing claims. In pointing out the less reliable nature of extrinsic evidence, the court reasoned that such evidence 1) is by definition not part of the patent, 2) does not necessarily reflect the views or understanding of a person of ordinary skill in the relevant art, 3) is often produced specifically for litigation, 4) is far reaching to the extent that it may encompass several views, and 5) may distort the true meaning intended by the inventor. *See id*. at 1318. Consequently, the Federal Circuit expressly disclaimed the approach taken in *Texas Digital*. While noting the *Texas Digital* court's concern with regard to importing limitations from the written description-"one of the cardinal sins of patent law," the Federal Circuit held that "the methodology it adopted placed too much reliance on extrinsic sources such as dictionaries, treatises, and encyclopedias and too little on intrinsic

sources, in particular the specification and prosecution history." *Id*. at 1320. Thus, the court renewed its emphasis on the specification's role in claim construction.

Many other principles of claim construction, though not addressed in *Phillips,* remain significant in guiding this Court's charge in claim construction. The Court is mindful that there is a "heavy presumption" in favor of construing claim language as it would be plainly understood by one of ordinary skill in the art. Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed.Cir.1999); *cf. Altiris, Inc., v. Symantec Corp.,* 318 F.3d 1364, 1372 (Fed.Cir.2003) ("[S]imply because a phrase as a whole lacks a common meaning does not compel a court to abandon its quest for a common meaning and disregard the established meaning of the individual words."). The same terms in related patents are presumed to carry the same meaning. *See* Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1334 (Fed.Cir.2003) ("We presume, unless otherwise compelled, that the same claim term in the same patent or related patents carries the same construed meaning.") "Consistent use" of a claim term throughout the specification and prosecution history provides "context" that may be highly probative of meaning and may counsel against "[b]roadening of the ordinary meaning of a term in the absence of support in the intrinsic record indicating that such a broad meaning was intended ...." Nystrom v. TREX Co., 424 F.3d 1136, 1143-46 (Fed.Cir.2005).

Claim construction is not meant to change the scope of the claims but only to clarify their meaning. Embrex, Inc. v. Serv. Eng'g Corp., 216 F.3d 1343, 1347 (Fed.Cir.2000) ("In claim construction the words of the claims are construed independent of the accused product, in light of the specification, the prosecution history, and the prior art.... 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.") (citations and internal quotations omitted). Regarding claim scope, the transitional term "comprising," when used in claims, is inclusive or open-ended and "does not exclude additional, unrecited elements or method steps." CollegeNet, Inc. v. Apply Yourself, Inc., 418 F.3d 1225, 1235 (Fed.Cir.2005) (citations omitted). Claim constructions that read out a preferred embodiment are rarely, if ever, correct. Vitronics, 90 F.3d at 1583-84.

Another consideration in claim construction is prosecution disclaimer which is typically invoked to limit the meaning of a claim term that would otherwise be read more broadly. *See* Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1324 (Fed.Cir.2003) ("[W]here the patentee has unequivocally disavowed a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender."). "[F]or prosecution disclaimer to attach, our precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable." Id. at 1326. The Federal Circuit has "declined to apply the doctrine of prosecution disclaimer where the alleged disavowal of claim scope is ambiguous." Id. at 1324.

A patentee may set out the elements of a claim in a so-called means-plus-function format. 35 U.S.C. s. 112, para. 6. The patentee may recite in the claim a "means for" achieving a certain function. In exchange for this convenience in claim drafting, the patentee must disclose corresponding structure in the specification. O.I. Corp. v. Tekmar Co., 115 F.3d 1576, 1583 (Fed.Cir.1997). If the patentee fails to provide corresponding structure sufficient to enable a person of ordinary skill in the art to make and use the invention, then the claim is invalid. See 35 U.S.C. s. 112, para. 1. If the patentee provides sufficient corresponding structure, then the claim scope encompasses that structure "and its equivalents." Id. at s. 112, para. 6; *see also* Default Proof Credit Card Sys. v. Home Depot U.S.A., Inc., 412 F.3d 1291, 1298 (Fed.Cir.2005). A corresponding structure need not enable the claimed invention, rather it need only "include all structure that actually performs the recited function." Default Proof Credit Card Sys., 412 F.3d at 1298. A structure disclosed is only a "corresponding structure" if the "specification or prosecution history clearly links or associates that

structure to the function recited in the claim." Med. Instrumentation & Diagnostics Corp. v. Elekta, 344 F.3d 1205, 1210 (Fed.Cir.2003). Accused devices employing the same or equivalent structure will be found to literally infringe the claim. WMS Gaming, Inc. v. Int'l Game Tech., 184 F.3d 1339, 1350 (Fed.Cir.1999) (noting that "to establish literal infringement of a means-plus-function claim, the patentee must establish that the accused device employs structure identical or equivalent to the structure disclosed in the patent and that the accused device performs the identical function specified in the claim").

While claim construction is a matter for the Court, it need not provide a new definition or rewrite a term, particularly when the Court finds the term's plain and ordinary meaning is sufficient. The Federal Circuit recently addressed this issue in O2 Micro International Ltd. v. Beyond Innovation Technology Co., 521 F.3d 1351 (Fed.Cir.2008). In *O2 Micro,* the Federal Circuit considered the term "only if" in independent claim 1 which requires "a DC/AC converter circuit comprising: a feedback control loop circuit ... adapted to generate a second pulse signal ... only if said feedback signal is above a predetermined threshold." *Id.* at 1356. The defendant asserted that its controllers did not satisfy the limitation of claim one because there were circumstances where the feedback signal controlled power to the load "even though the feedback signal falls below the predetermined threshold." *Id.* Two defendants had asked the district court to construe the term "only if" to mean "exclusively or solely in the event that," another defendant argued the term to mean "never except when," and the plaintiff argued that no construction was needed. *Id.* at 1357. The district court had noted that there was a dispute as to whether "only if" would have an exception but chose to rule that the term needed no construction. *Id.*

The Federal Circuit noted that "[a]t trial, the 'only if' limitation was a key issue disputed by the parties." *Id.* at 1358. The Federal Circuit stated that the "purpose of claim construction is to 'determin[e] the meaning and scope of the patent claims asserted to be infringed." *Id.* at 1360 (*citing* Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed.Cir.1995) (en banc)). The Federal Circuit clarified that "[w]hen the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute." *Id.* (*citing* Markman, 52 F.3d at 979). The primary dispute, as acknowledged by the district court, was whether the "only if" limitation applied during the "the steady state operation of the switching circuit" or at all times without exception. *Id.* at 1360. The Federal Circuit noted that the parties had agreed to the "meaning" of the term but not to the claim's "scope." *Id.* at 1361. The Federal Circuit stated that "[a] determination that a claim term 'needs no construction' or has the 'plain and ordinary meaning' may be inadequate when a term has more than one 'ordinary' meaning or when reliance on a term's 'ordinary' meaning does not resolve the parties' dispute." *Id.* The Federal Circuit found that the district court's failure to construe "only if" effectively allowed the jury to construe the term. *Id.* at 1362. The Federal Circuit also recognized, however, that "district courts are not (and should not be) required to construe *every* limitation present in a patent's asserted claims." *Id.* (emphasis in original) (*citing* Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc., 249 F.3d 1341, 1349 (Fed.Cir.2001); U.S. Surgical Corp. v. Ethicon, Inc., 103 F.3d 1554, 1568 (Fed.Cir.1997)).

As explained by one district court, there is a heavy presumption that a claim term carries its ordinary meaning. Bd. of Trustees of the Leland Stanford Junior University v. Roche Molecular Sys., 2007 U.S. Dist. LEXIS 87219, at *19, 2007 WL 5787309 (N.D.Cal. Nov. 27, 2007) (*citing* Phillips, 415 F.3d at 1314). The court further explained that some terms, such as "therapeutically effective," are commonplace terms that a juror could understand without further direction from the court. *Id.* The court found that the terms "do not need to be construed because they are neither unfamiliar to the jury, confusing to the jury, nor affected by the specification or prosecution history." *Id.* at *19-*20 (*citing* Ethicon, 103 F.3d at 1568 ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when

necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.")). However, the Federal Circuit held that "[w]hen the parties present a fundamental dispute regarding the scope of a claim term, it is the court's duty to resolve it." O2 Micro, 521 F.3d at 1362.

The Court concludes that when two parties offer different constructions, or if one side argues for ordinary meaning, then the Court must first determine whether it has a duty to resolve the meaning and the scope. While it is a district court's duty is to construe the claims, part of this duty is to determine the extent which to construction is even necessary. With regard to meaning, where additional language may be unduly limiting, confusing, or redundant, it is in a court's power to determine that no construction is necessary. A court may decline to adopt constructions that violate claim construction doctrine, such as improperly importing limitations, and may still construe terms to have their ordinary meaning. *See* id. at 1360.

Guided by these principles of claim construction, this Court directs its attention to the patents-in-suit and the disputed claim terms.

III.

Claim Construction Background

A. Background

As required by the Court's Amended Docket Control Order, on May 5, 2008, the parties exchanged lists of terms requiring construction. VTech proposed forty-nine terms; Motorola proposed twenty-six. The parties reduced the number of terms in dispute to twenty-four, and on June 20, 2008, the parties filed a Joint Claim Construction and Pre-Hearing Statement that provided their respective constructions for those twenty-four disputed terms and phrases.

B. The Disputed Claim Terms

On July 25, 2008, the parties filed an Amended Joint Claim Construction and Pre-Hearing Statement, requesting construction of the following 24 limitations or phrases: (1) U.S. Patent No. 4,866,766 ("processing means ...," "a keypad for both dialing out and programming said ringer" and "ring generator means ..."); (2) U.S. Patent No. 5,157,391 ("selective call receiver," "message read mode," "selective call receiver status mode," and "message"); (3) U.S. Patent No. 5,394,140 ("user-programmed special audible alert," "user-programmed default audible alert," "receiver means ...," "storage means ...," "processor means ...," "user control means ...," "communication receiver," "audible alert generation means ...," "first processor element ...," and "received call-back number"); (4) U.S. Patent No. 5,848,356 ("graphical icon" and "storing said telephone number and said first graphical icon together in memory"); (5) U.S. Patent No. 7,070,349 ("carrier portion interconnecting the plurality of user interface key caps," "flexible web," "interconnecting," and "flexibly coupled to the carrier portion"); and (6) U.S. Design Patent No. D559,842 ("the ornamental design for a keypad, substantially as shown and described").

C. The Undisputed Claim Terms

1. The '349 Patent

The parties have agreed on the construction of the following claim terms. From the '349 Patent, the parties agree "a plurality of user interface key caps" should be construed as "more than one key cap that can be depressed by a user." The parties agree "plurality of user interface carrier portion" should be construed as "more than one key cap that can be depressed by a user." The parties agree "unitary member" should be construed as "formed of the same piece of material to form a unit."

2. The '391 Weitzen Patent

From the '391 Patent, the parties agree a "method of presenting plurality of function indicators in a selective call receiver capable of receiving a message" should be construed as a "method for presenting function indicators in a selective call receiver capable of receiving messages. A function indicator on the display of the selective call receiver representing a 'function action' that may be selected by the user and performed by the selective call receiver." The parties agree "mode" should be construed as "a method or condition of operation." The parties agree "displaying a first set of said plurality of function indicators associated with said message read mode and said message" should be construed as "displaying the function indicators associated with the read mode and the selected message where the read mode is automatically determined, and not user-selected." The parties agree "displaying a second set of said plurality of function indicators associated with said selective call receiver status mode" should be construed as "displaying a second set of function indicators associated with the status mode, where the status mode is automatically determined, nor user-selected." The parties agree "an apparatus for presenting a plurality of function indicators in a selective call receiver capable of receiving a message" should be construed as "an apparatus for presenting function indicators in a selective call receiver. A function indicator is a visual indicator on the display of the selective call receiver representing a 'function action' that may be selected by the user and performed by the selective call receiver." The parties agree "first means for displaying a first set of said plurality of function indicators associated with said message read mode and said message" should be construed as follows. The function is "to display the function indicators associated with the read mode and the selected message where the read mode is automatically determined, and not user-selected." The structure is "hardware displayed in Blocks 103 and 104 of Fig. 1 and the software represented by the flowchart of Fig. 2." The parties agree "second means for displaying a second set of said plurality of function indicators associated with said selective call receiver status mode" should be construed as follows. The function is "to display a second set of function indicators associated with the status mode, where the status mode is automatically determined, and not user-selected." The structure is "hardware displayed in Blocks 103 and 104 of Fig. 1 and the software represented by the flowchart of Fig. 2."

3. The '140 Wong Patent

From the '140 Patent, the parties agree "user-programmed call-back number" should be construed as "a phone number programmed by a user." The parties agree "non-volatile memory" should be construed as "a memory element that retains stored information even when not powered."

4. The '356 Patent

From the '356 Patent, the parties agree "radio communication device" should be construed as "a device that receives and transmits radio signals." The parties agree "a predetermined plurality of graphical icons" should be construed as "more than one pre-stored graphical icon." The parties agree "user-programmable ringer" should be construed as "a ringer that produces a user-composed ring."

5. The '766 Patent

From the '766 Patent, the parties agree "user-coded ring parameters" should be construed as "parameters entered by the user to compose the ring. Examples of user-coded ring parameters include ringer tone, single pulse duration, number of pulses per group, pulse group duration, intergroup delay, and the intercycle delay." The parties agree "intergroup delay" should be construed as "the time between groups of pulses." The parties agree "pulse-group duration" should be construed as "the time duration of a group of pulses."

The Court agrees with the parties' proposed constructions. The Court now considers the disputed claim terms.

IV.

Claim Construction Analysis

A. The '391 Weitzen Patent

1. "Selective call receiver" (Claims 1 & 5)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
"A receiver that can respond to a radio signal communication that is specifically directed to it."	"A pager."

b. Discussion

VTech argues the term "selective call receiver" should be limited to the preferred embodiment of the '391 patent, *i.e.*, a pager. Motorola asserts this is improper, urging that Motorola's proposal comports with its plain and ordinary meaning to one of skill in the art. According to Motorola, a pager is one type of a selective call receiver, but there are many other examples, including cellular and cordless telephones.

The '391 patent does not expressly define the term "selective call receiver." As noted by VTech, the brief specification of the '391 patent provides the following regarding a "selective call receiver." Figure 1, which contains a block diagram of a prior art selective call receiver, specifically refers to "pager circuitry." Under the section "Detailed Description Of The Invention" the patent states: "Referring to FIG. 1, ***pager*** circuitry **102 ...**" ('391, 1:63) (first emphasis added). The patent further states: "The ***selective call receiver*** shown in Fig. 1 is well known to those skilled in the art." ('391, 1:67-68) (emphasis added).

According to VTech, the specification as well as the claim language, taken in context, describes the metes and bounds of the term selective call receiver as a pager. For instance, the claim language "plurality of function indicators in a selective call receiver capable of receiving a message" taken in conjunction with the disclosure in the specification shows that the term "message" in the context of the invention are messages

received by pagers. ('391, 3:1-3). VTech asserts the patent does not enable, disclose, or even mention, any other technology.

The two instances where "pager circuitry" is used in the specification to describe prior art and the preferred embodiment do not necessarily limit a "selective call receiver" to a pager. The Court notes that subsequent to the ' 391 Weitzen Patent, Motorola eventually adopted the phrase "radio pagers" for "selective call receiver" in the '140 Wong patent. ('140, 1 :15-17). The Weitzen Patent was filed in September 5, 1989 without equating the two phrases. The Wong Patent was filed later in November 23, 1992 with the statement "Radio pagers (also known as selective call receivers) having a plurality of alerts are well known," defining the terms to be synonymous. *Id*.

The Court is of the opinion Motorola did not initially limit selective call receivers to be only pagers. Around the time of the filing of the '391 Patent, the industry terminology for pagers and paging systems was not necessarily "selective call receivers." For example, the pager patent U.S. Patent No. 4,845,491 referencing the Motorola product PMR2000 and the POCSAG standard does not contain the terminology "selective call receivers." Also, Motorola offered its PMR2000 product line brochure as a prior reference in the '391 Patent. Motorola's 1986-1987 brochure introduces its PMR 2000 paging system product as a "personal message receiver," but the brochure does not mention "selective call receiver." (Motorola PMR 2000 Personal Message Receiver Product Brochure, 1986). The brochure suggests there is a wide array of terminology related to pagers, but none necessarily equated to "selective call receiver."

Similarly, the prosecution history does not limit a "selective call receiver" to a pager. VTech asserts that statements made in the prosecution history demonstrate the limited scope of the term "selective call receiver." On May 17, 1990, the Patent Office issued an office action rejecting Motorola's specification and claims based on non-enablement stating, *inter alia,* "[S]ince the Applicant does not show how to modify the prior art **pager** in order for it to accomplish the allegedly novel and unobvious functions, this specification is non-enabling." (VTech Ex. 10, pg. 30) (emphasis added). The Patent Office also stated that: "Although replete with functional language describing the display and selection, the specification must also comprise language describing how and through what means the **pager** performs the functions described in the flow diagram of figure 2, **especially since the specification does not incorporate these hardware means by reference to a U.S. Patent...."** (VTech Ex. 10, pg. 29) (emphasis added). According to VTech, in response to this rejection, Motorola submitted a "variety" of selective call receivers to demonstrate what hardware it was referring to in the specification, which Motorola argued "are well known to those of ordinary skill in the art," (VTech Ex. 10, pg. 38), and every reference Motorola submitted is directed to pagers. (VTech Ex. 10, pgs. 43-45). According to Motorola, the two exemplary references it submitted which were directed to pagers were intended to show how the preferred embodiment of a selective call receiver could be constructed.

The Court further finds VTech's argument regarding "disclaimer" improper in this instance. Prosecution disclaimer only applies where a disclaimer was clear and unambiguous. *See* Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1324 (Fed.Cir.2003). That is not the case here.

VTech next cites to the claim construction order entered in a past Motorola litigation against Qualcomm in the Southern District of California, asserting Motorola should be estopped from arguing a different definition now during its current litigation. In 1997, Motorola brought an action against Qualcomm, Inc. ("Qualcomm") for infringement of numerous patents, including the '391 Weitzen patent. *See Motorola, Inc. v. Qualcomm, Inc.,* Case No. 97-372 (S.D.CA.) ("Qualcomm litigation"). During the claim construction

proceedings, Motorola submitted to Qualcomm its claim construction statement, wherein it set forth its proposed interpretation of the preamble to claim 1 including the limitation "selective call receiver."

In response, Qualcomm submitted its claim construction statement whereby it agreed to Motorola's proposed interpretation of the preamble of Claim 1. (VTech Ex. 12, pg. 2). Following this exchange, the parties submitted a joint claim construction statement to the Court. (VTech Ex. 13). This document included the statement: "The parties agree that the preamble [to Claim 1] refers to a method for presenting function indicators in a selective call receiver capable of receiving messages, **i.e. a pager"** (VTech Ex. 13, pg. 2) (emphasis added) In its claim construction opinion, the court stated that "[t]he ['391] patent seeks to simplify the method by which user of a selective call receiver, or **pager,** accesses features of the **pager.**" (VTech Ex. 14, pg. 2) (emphasis added).

The Court disagrees with VTech that Motorola is judicially estopped from arguing a different definition in this litigation. Motorola explains that the *Qualcomm* court's reference to "selective call receiver, or, pager" was a passing reference to an uncontested term. VTech's emphasis on this reference is insufficient to judicially estop Motorola from arguing its current position. The *Qualcomm* litigation involved allegations of infringement of the '391 patent by a number of Qualcomm cellular telephones. According to Motorola, the parties did not dispute the term "selective call receiver" for purposes of that litigation because they clearly felt that the term was broad enough to cover pagers or telephones.

Finally, to the extent there is an enablement issue raised in the briefing, the Court finds the issue is more appropriately raised in the context of a motion for summary judgment.

c. The Court's Construction

Accordingly, the Court construes the term **"selective call receiver"** to mean: **"A receiver that can respond to a radio signal communication that is specifically directed to it."**

2. "Message" (Claims 1 & 5)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
Plain and ordinary meaning.	Requires construction.
Should the Court require a construction, "message" means "a communication." In the alternative, Motorola would be amenable to a construction of "information received by the selective call receiver."	"Information received by the pager and entered by the sender of the page."

b. Discussion

According to Motorola, the term "message" is not a term that this Court needs to construe. A person of ordinary skill, reading the patent as a whole, (as well as a lay jury) would have a clear understanding of what this term means. Should the Court find that this term should not be given its plain and ordinary meaning, the present dispute is essentially whether that message must be "received by the pager and entered by the sender of the page," as VTech claims.

The Court finds the term should be construed and agrees with Motorola that VTech's construction of the

term "message" is improperly limited to a specific way of creating a message, consistent with VTech's attempts to limit the "user-interface" patents to pagers. VTech provides no support for requiring this "message" be "entered by the sender of the page." Claims 1 and 5 of the '391 patent are directed to a method and apparatus for displaying messages within the selective call receiver. The Court declines to limit the language to a particular way of creating a message.

c. The Court's construction

The Court is of the opinion the term **"message"** should be construed as: **"information received by the selective call receiver."**

3. "message read mode" and "selective call receiver status mode" (Claims 1 & 5)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
(a) "message read mode"	(a) "message read mode"
"A mode automatically entered by the selective call receiver if a message is present."	"A mode in which a message entered by the sender is displayed."
(b) "selective call receiver status mode"	(b) "selective call receiver status mode"
"A mode in a selective call receiver that is selected automatically when no message is present."	"A mode in which a message is not displayed."

b. Discussion

The principal dispute between the parties regarding the terms "message read mode" and "selective call receiver status mode" is whether the claimed selective call receiver transitions from one mode to the other when a message is either (a) present or (b) displayed. Motorola's constructions focus on the presence (or lack thereof) of a message.

According to Motorola, the patent's specification and file history make clear that this is the critical distinction between the two modes. ('391, 2:4-9) ("When the user invokes the function menu, ... the controller checks for the **presence** of at least one message 203. If no messages are **present,** the selective call receiver displays **status mode** function indicators 204.") (emphasis added); Fig. 2(203); Col. 2:17-27 ("If ... at least one message has been **received** by the selective call receiver, when the user invokes the function menu, ... The controller ... determines which **read mode** function indicators are active....") (emphasis added); Fig. 2(203); Col 2:7 ("[P]resence of at least one message 203."); *see also* Ex. II (Paper 4 at 4) ("[T]he Applicant's operating mode is selected with respect to the function being executed ..., thus requiring no manual user intervention"). As the intrinsic record indicates, the controller checks for the presence of a message and the receiver enters the selective call receiver status mode when no message is present.

In contrast, VTech focuses on message display, rather than message presence, which Motorola asserts ignores the preferred embodiment. *See* Fig. 2; *see also* Col.2:4-9, 17-39. Figure 2 of the '391 patent shows that the "Message Present? (203)" test is what determines whether the receiver is in the message **read mode** (message present = YES) or **status mode** (message present = NO). *See* Fig. 2(203). Obviously, a message may not be displayed during the status mode when no messages are present. The patent also makes clear,

however, that a message also may not be displayed in the message read mode if the user chooses not to read a message. *See* Fig. 2(209).

While the Court agrees with Motorola's proposed construction, the Court is not convinced that the word "automatically" should be included because the disclosure suggests other conditions may be present. For example, a user may invoke or may have to invoke the function menu in conjunction with the message read mode. "When the user invokes the function menu ... the controller checks for the presence of at least one message 203...." ('391, 2:4-7). "If the controller is in the idle state 201 and at least one message has been received by the selective call receiver, when the user invokes the function menu, ... " ('391, 2:17-19). In addition, a user may have a choice. "If the user does not choose to read the selected message 209, ..." ('391, 2:33-34). Finally Fig. 2, element 209 suggests a choice. Therefore, with these other conditions, it is not necessarily automatic that the "message read mode" is entered.

c. The Court's construction

The Court is of the opinion the term **"message read mode"** should be construed as **"a mode entered by the selective call receiver if a message is present."** The Court construes **"selective call receiver status mode"** as **"a mode in a selective call receiver that is selected when no message is present."**

B. The '140 Wong Patent

The '140 patent describes a method and apparatus in a communication receiver for selecting and generating a unique and/or default audible alert (*e.g.,* a ring). The user stores in a phone's memory a phone number and associates a special alert with the stored number. When a communication with the same phone number is received and recognized, the stored associated "special" alert will be generated by the device. Moreover, if a received phone number does not match a phone number stored in memory, a default alert is generated.

The parties dispute the meaning of ten claim limitations. According to VTech, five limitations ("receiver means," "storage means," "processor means," "audible alert generation means," and "first processor element") are written in "means-plus-function" format and should be interpreted pursuant to 35 U.S.C. s. 112, para. 6. Conversely, Motorola asserts the five terms are not "means-plus-function" terms governed by 35 U.S.C. s. 112, para. 6. (Docket Entry # 93 at A7-A11). Before reaching the specific terms at issue, the Court will first address the applicability of 35 U.S.C. s. 112, para. 6 in general. Then, in the separate discussion portions below, the Court will address any remaining disputes for each term.

For each of the terms "receiver means," "storage means," "processor means," and "audible alert generation means," Motorola cites Allen Eng'g Corp. v. Bartell Indus., Inc., 299 F.3d 1336, 1348 (Fed.Cir.2002) for the proposition that even when the term "means" is utilized, 35 U.S.C. s. 112, para. 6 does not control if the term itself and surrounding claim limitations provide sufficient structure. (Docket Entry # 76 at 23-38). For the term "receiver means," Motorola asserts that the term "receiver" and the surrounding claim language which includes "processor means coupled to the receiver means" provides adequate structure such that s. 112, para. 6 does not apply. (*Id.* at 23). For the term "storage means," Motorola asserts that the term itself and the surrounding claim language of "processor means ... coupled to the storage means" and "the storage means comprises a non-volatile memory" provide sufficient structure. (*Id.* at 24). For the term "processor means," Motorola asserts that the term itself and the surrounding claim language of "processor means coupled to the receiver means ... coupled to the storage means" provide sufficient structure. (*Id.* at 25). For the term "audible alert generation means," Motorola asserts that the term itself and the surrounding claims language of "coupled to the processor means" provide sufficient structure. Motorola further cites cases in

which district courts have found that "receiver means," "storage means," and "processor means" are not governed by s. 112, para. 6. (Docket Entry # 88 at 10-12).

VTech counters that the use of means language creates a presumption that s. 112, para. 6 controls. VTech asserts that the claim terms in *Allen Eng'g Corp*. were laden with structure. (Docket Entry # 83 at 26-27). VTech asserts that the claim terms at issue are defined in a functional manner and that Motorola's surrounding structure is generally merely another means plus function term (*i.e.,* "processor means coupled to the receiver means"). (Docket Entry # 83 at 27). VTech asserts that the claim terms themselves do not provide any structure whatsoever and are exactly the type of generic claim language which invokes s. 112, para. 6. (*Id* . at 31-32).

This Court notes that the use of the word "means" triggers a presumption to "invoke the statutory mandate for means-plus-function clauses." Allen Eng'g Corp. v. Bartell Industries, Inc., 299 F.3d 1336, 1347 (Fed.Cir.2003). The Federal Circuit has stated that the presumption may be overcome in two ways: first, if the claim element recites no function corresponding to the means, and second, "even if the claim element specifies a function, if it also recites sufficient structure or material for performing that function, s. 112, para. 6 does not apply." *Id*. Here, the claim language in question is drafted in the means plus function format and the particular language is generalized language without the use of specific structural language. Under such circumstances, the Court shall construe the language to be subject to 35 U.S.C. s. 112, para. 6. *See Apex Inc. v. Raritan Computer,* Inc., 324 F.3d 1364, 1372 (Fed.Cir.2003); Kemco Sales, Inc. v. Control Papers Co., Inc., 208 F.3d 1352, 1361 (Fed.Cir.2000).

As for Motorola's citation to the surrounding claim language, VTech accurately notes that such language often merely just recites the other means elements. The claim language of the terms in question does not rise to the level of that in *Allen Eng'g Corp*. so as to justify deviating from the presumption that s. 112, para. 6 governs. The Court finds that the terms receiver means, storage means, processor means, and audible alert generation means are means plus function terms governed by s. 112, para. 6.

Motorola asserts that in contrast to the terms discussed above, the "first processor element" does not include the words "means for" and as such there is a presumption that s. 112, para. 6 does not apply. (Docket Entry # 76 at 29) (*citing* TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc., Nos.2007-1241, 2007-1279, 2008 WL 2437764 at (Fed.Cir. June 18, 2008)). Further, Motorola asserts that the term "processor element" includes structure. (Docket Entry # 88 at 13).

VTech counters that even if the word "means" is not utilized, when a word such as "element" is used with insufficient structure to perform the claimed function, thelimitation is still a means plus function limitation under s. 112, para. 6. (Docket Entry # 83 at 32-33) (*citing* MAS-Hamilton Group v. LaGard, Inc., 156 F.3d 1206, 1213-1214 (Fed.Cir.1988) ("lever moving element" subject to 35 U .S.C. s. 112, para. 6). VTech asserts that taken in context of the entirety of claim 1, "first processor element" does not contain sufficient structure.

The parties acknowledge that a different presumption applies when the disputed claim term does not include "means." The lack of inclusion of "means" creates a presumption that s. 112, para. 6 does not apply. TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc., 529 F.3d 1364, 1373-74 (Fed.Cir.2008). The Court finds that VTech has not provided adequate justification overcoming the presumption that a term that does not include the "means" language is not controlled by s. 112, para. 6. The term in question recites a "processor element" which in light of the governing presumption the Court finds sufficiently definite such that s. 112, para. 6

does not apply.

The Court now construes the ten terms at issue in the '140 patent.

1. "Communication receiver" (Claims 1-3, 15 & 19)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
"A device that obtains and demodulates radio signals."	"A radio pager."

b. Discussion

Similar to VTech's construction for the term "selective call receiver" of the '391 patent, VTech attempts to construe "communication receiver" to a pager. The Court agrees with Motorola that a "communication receiver" should be defined as a "device that obtains and demodulates radio signals." ('140 Field of Invention, 2:62-63, 3:13; Cols. 1:7-12; 2:5-30). The "Summary of the Invention" refers to a "communication receiver." The Summary section then refers to the "selective call receiver" as "another aspect of the present invention." ('140, 2:31-32). Motorola asserts that limiting "communication receiver" to a pager would ignore the distinction between a "communication receiver" and the narrower "selective call receiver." While the Wong '140 Patent relates mostly to selective call receivers, the Court, however, is reluctant to construe "communication receiver" as being directed to only pagers.

The Federal Circuit has repeatedly cautioned the courts to avoid importing limitations into claims. "To avoid importing limitations from the specification into the claims, it is important to keep in mind that the purposes of the specification are to teach and enable those of skill in the art to make and use the invention and to provide a best mode for doing so." Phillips v. AWH Corp., 415 F.3d 1303, 1323 (Fed.Cir.2005). *Phillips* rejected a restrictive interpretation of the word "baffles" in a claim even though every textual reference in the disclosure and the figures showed deployment of an angle other than 90 degrees to the wall faces. *Id*. at 1309, 1328. *Phillips* held that despite the lack of a statement or figure directed exactly to 90 degrees, it does not exclude the 90 degree interpretation. *Id*. at 1310. A comprehensive interpretation would have been apparent to a person of ordinary skill in the art. *Id*. at 1324-25.

Most of the disclosure teaches a "selective call receiver" that the patentee has equated to a radio pager. ('140, 1:15-17) ("Radio pagers (also known as selective call receivers) having a plurality of alerts are well known."). In addition, the figures are nearly all labeled as "selective call receiver." ('140, 3:15-44). Finally, the text corresponding to Fig. 1 and the Abstract describe element 110 as a "communication receiver," but element 110 in Fig. 1 is actually labeled "Sel. Call RCVR"-i.e. a selective call receiver. (Abst; Fig. 1). However, the Court is of the opinion the selective call receiver is exemplary because important parts of the disclosure also refer to a more comprehensive category "communication receiver." The "Field of Invention" is directed to a "communication receiver"; and the "Summary of the Invention" recites "communication receiver" as well as "selective call receiver" as being "another aspect of the present invention (emphasis added)." ('140, 1:7-12, 2:5-65).

Moreover, the specification is to teach and enable those skilled in the art to make and use the invention, but does not limit the all-important claims section. Phillips, 415 F.3d at 1323. One set of claims distinctly refer

to a "communication receiver," (claims 1-7, 15-20) while a second set of claims (8-14) refer to a "selective call receiver." The majority of the claims refer to the "communication receiver." Moreover, the only existing method claims refer to a "communication receiver," and there are no method claims directed to a "selective call receiver," altogether. The claims strongly suggest "communication receiver" is dominant, while "selective call receiver" is a subset.

Finally, because the patents are directed to and viewed through the eyes of a person of ordinary skill in the art, such a person should have known in 1992 that the invention may be incorporated in various forms of electrical "communication receivers" because the technology is very similar. *See, e.g.* Richard Dorf, ed., The Electrical Engineering Handbook Ch. 63 and references cited therein. For example, PDA's (personal digital assistants) were becoming available. These radio communication devices were first developed by companies such as Casio and Apple. *See* Casio-PF-3000 Product Guide (1983); Apple Newton (1992). PDA's also contain "communication receivers" and it would have occurred to an electric engineer person of ordinary skill in the art that it is possible to incorporate the invention in numerous radio receivers. Therefore, a more generic term, the claimed "communication receiver," is warranted. Thus, the Court agrees with Motorola that "communication receiver" should be construed more broadly, beyond merely "radio pager."

c. The Court's Construction

Accordingly, the Court construes the claim term **"communication receiver"** to mean: **"A device that obtains and demodulates radio signals."**

2. "Received call-back number" (Claims 1 & 15)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
"A phone number associated with a caller."	"A phone number entered by a sender."

b. Discussion

The parties agree that a "received call-back number" is a phone number. The parties disagree whether the word "received" in this limitation means "associated with a caller" or "entered by the sender," as VTech proposes.

According to Motorola, the specification provides that a "call-back number" is a phone number associated with a **caller** who sends a communication to the **user** of the communication receiver disclosed in claims 1 and 15. ('140, 1:49-53, 64-68; 4:12-17). Motorola asserts this is confirmed by remarks made by the Applicant during prosecution regarding the preferred embodiment: "the 'call-back number' of the instant application is a **telephone number associated with the person sending a page.**" Ex. JJ (Paper 4 at 8). Motorola asserts the "received" portion of this term further requires that the "call-back number" be associated with a caller and also obtained by the disclosed "communication receiver" to perform the method described in claim 15. ('140, 2:12-19; 5:51-56; Fig. 4(**402**)).

In contrast, VTech contends its proposal is consistent with the intrinsic evidence, including the specification and prosecution history ('140, 1:42-48), while Motorola's proposed definition is not supported by the

disclosure in the specification. According to VTech, Motorola's use of the word "associated" is vague, consistent with Motorola's attempt to extend the scope of its user interface patents beyond what the specification enables, *i.e.* pagers and pager systems. VTech takes issue with Motorola's use of the word "associated" based merely on a statement made in the prosecution history. VTech contends that in response to a rejection by the Patent Office based upon the Sato prior art reference, Motorola clarified what it meant by the term "call-back number:" "The "call-back number" of the **instant application is a telephone number associated with the person sending a page."** (VTech Ex. 16, pg. 70) (emphasis in original).

There is some support for VTech's construction, "a phone number entered by a sender." Support for VTech's position is found in the Background section: "By utilizing numeric display paging, callers could dial a single telephone access number to send a call-back number (entered by the caller using, for example, a tone dialing telephone set) that the page recipient could then call to contact the caller by telephone (emphasis added)." ('140, 1: 44-49). And "[u]pon receiving the call, the paging control center 106 prompts the caller to enter a call-back number.... (emphasis added)." ('140, 3:60-62).

However, the phrase proposed by VTech requires action on the part of a sender (a second party in the claim), The claim in general and the surrounding claim language in particular, however, is directed toward the receiver. Further, the claim element in question is the "received" call back number. The file history quote noted by both parties emphasizes not how a call back number is created but rather what a call back number is ("a telephone number associated with the person sending a page").

Moreover, the exact phrases that VTech and Motorola have proposed are not found in the intrinsic record. In contrast, the exact phrase "a telephone number associated with the person sending a page" is supported by the intrinsic record. The Applicant made the remark during prosecution regarding the preferred embodiment: "the' call-back number' of the instant application is a telephone number associated with the person sending a page." Ex. JJ (Paper 4 at 8). However, the examples listed in Col. 1:4-53 are not necessarily a person because they include "offices." Sometimes a page sender may not be a person, but a machine, or an automated dialer. Therefore, the Court removes the reference to "person" and construes the disputed phrase as "a telephone number associated with a page sender."

c. The Court's Construction

The Court construes the term **"received call-back number"** to mean **"a telephone number associated with a page sender."**

3. (A) "User-programmed special audible alert" (Claims 1-2 & 15-17)/ (B) "user-programmed default audible alert" (Claims 1, 15 & 18-19)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
(A) "An audible alert selected by a user that is different from the default audible alert."	(A) "The user programs and stores in the memory data defining an audible alert associated with the previously entered phone number and comprising alert cadence and alert tone frequency."
(B) "An audible alert selected by a user that is used for call-back numbers that	(B) "The user programs and stores in memory data defining a default audible alert comprising alert cadence and alert tone

are not associated with a special audible alert."

frequency."

b. Discussion

The principal dispute between the parties regarding the terms "user-programmed special audible alert" and "user-programmed default audible alert" is whether the respective alerts are required to comprise an "alert cadence and alert tone frequency," as proposed by VTech.

Motorola argues its constructions plainly state the meaning of these claim limitations as they are used in the asserted claims and the supporting intrinsic record. According to Motorola, as described in the specification, a special audible alert may be programmed by a user and associated with a phone number in order to identify incoming communications that include the programmed phone number. ('140, 5:57-6:16, 30-7:23; Figs. 4 (402-18) & 5). Motorola further contends a default audible alert is programmed by a user and generated when a received message (including a phone number) does not equal a "user-programmed call back number." ('140, 6:17-29; 7:51-8:28; Figs. 4 (406-08 & 420-26) & 7). According to Motorola, "user-programmed" as used herein is not limited to mere composition using a keypad, as shown and described in the preferred embodiment. (*See id.*) (*see also* '140, 3:15-43; Figs. 5-6 & 8). Motorola asserts selecting an alert from a list or downloading an alert, for example, is also supported by the claims and specification. ('140, 8:43-64).

On the other hand, VTech contends its definition of "user-programmed special audible alert" is consistent with the specification of the '140 Wong patent as well as its prosecution history. Specifically, VTech explains that a "user-programmed special audible alert" is where a user programs the device with an audible alert which is then associated with a received call back number. ('140, 2:5-12) ("[A] storage element for storing at least one *user-programmed* call back number along with data defining at least one corresponding *user-programmed* special audible alert.").

Except for the phrases related to "cadence," "tone," and "stores," VTech's proposed construction is substantively similar in meaning to Motorola's argument for the terms and also substantively similar to the description in the specification and drawings. However, the Court agrees with Motorola that VTech's proposed constructions of these terms ignore the other embodiments and improperly restrict the content of the "special audible alert" and "default audible alert" in claims 1 and 15 with respect to cadence and tone frequency information. In addition to limiting the terms to the preferred embodiment, VTech also disregards the doctrine of claim differentiation-cadence and tone frequency are specifically claimed in two dependant claims, 6 and 20. As such, there is no requirement in claims 1 or 15-or in the specification-that every "special audible alert" or "default audible alert" comprise a cadence and alert tone frequency. Those elements only identify the exemplary characteristics of an "audible alert," according to the preferred embodiment. ('140, 4:47-56; 5:50-6:1-2, 30-42; 7:51-61; Figs. 2, 4-5 & 7). The purpose of the invention is to "aid a user in discerning that a call is from a predetermined subset of important callers...." ('140, 1:64-68). Here, the specification does not limit the invention to a particular type of distinctive alert that could be used to accomplish this goal. (*See, e.g.,* '140, 8:43-47).

Furthermore, as to the word "stores," the specification generally states "a microprocessor stores" or "an EEPROM stores" rather than a "user stores." (*see, e.g,* '140, 4:56-57). Therefore, the Court does not include the limitations with respect to "cadence," "tone," and "stores."

That being said, Motorola's proposal amounts to circular logic because term A effectively says it is not term B, and term B says it is not term A. That is, Motorola proposes the meaning of "special audible alert" is not "default alert," and "default alert" is essentially not "special alert." As such, no meaningful definition is really provided for either of the two terms under Motorola's proposals.

In addition, the Court is of the opinion the word "selected" as proposed by Motorola should be removed because of the prosecution history. According to VTech, Motorola amended its claims from "**pre-programmed** special audible alert" to "**user-programmed** special audible alert" to overcome a rejection by the Examiner relating to a prior art reference. VTech contends Motorola's proposed construction, that the alert is selected, is inconsistent with its amending the limitation from "pre-programmed" to "user-programmed" to overcome the prior art. What is more, the plain meaning of the word "selected" is generally broader than the word "user-programmed."

For these reasons, the Court construes the term "user-programmed special audible alert" to mean "an audible alert programmed by a user which is used for received call-back numbers that match a user-programmed call back number, wherein the special audible alert is different from the default audible alert." This construction is supported by Motorola's argument as to meaning of this term. The specification and drawings also support such a construction. ('140, 4:12-21) ("... if the received call-back number matches one of the pre-programmed call-back numbers, the selective call receiver generates one of the special alerts,") ('140, 5:20-24, 4:47-50) ("... The EEPROM 210 comprises values for the pre-programmed numbers and the corresponding special alerts ...") ('140, 5:63-6:1, 6:30-35, Fig.5).

The Court is of the opinion "user-programmed default audible alert" should be construed to mean "an audible alert programmed by a user which is used for received call-back numbers that are not associated with a user-programmed call back number." This construction is not only supported by Motorola's argument as to meaning of this term, but also by the specification and drawings. ('140, 4:53-56) ("... a default alert 242 associated with a default call-back number, i.e., a received call-back number that does not match any of the pre-programmed numbers....") ('140, 6:17-29, 7:51-8:28, Figs.4, 7).

c. The Court's Construction

The Court construes the term "**user-programmed special audible alert**" to mean "**an audible alert programmed by a user which is used for received call-back numbers that match a user-programmed call back number, wherein the special audible alert is different from the default audible alert.**" The Court construes the term "**user-programmed default audible alert**" to mean "**an audible alert programmed by a user which is used for received call-back numbers that are not associated with a user-programmed call back number.**"

4. "Receiver means" (Claim 1)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
Not subject to 35 U.S.C. s. 112(6): "Receiver means" is "a circuit that obtains and demodulates radio signals."	Subject to 35 U.S.C. s. 112(6):

	Function: "to receive and derive address and message information. The message information contains an instruction to call back the sender on a phone."
Agreed to structure and disputed function if s. 112(6) applies: *Function:* "receiving a message comprising at least a received callback number." *Agreed-to Structure:* "an antenna and receiver"	*Agreed-to Structure:* "an antenna and receiver"

b. Discussion

If s. 112, para. 6 was found to apply, and it has been herein, the parties agreed that the structure for the "receiving means" is "an antenna and receiver." (Docket Entry # 93 at A7). Motorola asserts that the function of the receiving means is "receiving a message comprising at least a received call-back number." *Id*. VTech asserts that the function is: "to receive and derive address and message information. The Message information contains an instruction to call back the sender on a phone." *Id*.

Motorola notes that its language parrots the language used in the claim itself. (Docket Entry # 76 at 23). Motorola asserts that great care should be taken to avoid adopting a function different from that recited in the claim. (Docket Entry # 88 at 11) (*citing* Cardiac Pacemakers, Inc. v. St. Jude Med. Inc., 296 F.3d 1106, 1113 (Fed.Cir.2002)) (The court must construe the function of a mean-plus-function limitation to include the limitations contained in the claim language, and only those limitations) and (*citing* Generation II Orthotics, Inc. v. Med. Tech., Inc., 263 F.3d 1356, 1364-65 (Fed.Cir.2001)) ("When construing the functional statement in a means-plus-functional statement in a means-plus-function limitation, we must take great care not to impermissibly limit the function by adopting a function different from that explicitly recited in the claim."). Finally Motorola asserts that the function language is not ambiguous or confusing for a jury such that additional construction would be needed. (Docket Entry # 88 at 11).

VTech asserts that its construction is consistent with the function as described within the specification of the '140 Patent. VTech cites to a portion of the specification to support its construction and quotes the case Smiths Indus. Medical Sys. Inc. v. Vital Signs, Inc., 183 F.3d 1347, 1357 (Fed.Cir.1999) for the proposition that "for a claim drafted as a means-plus-function under 35 U.S.C. s. 112 para. 6, a court must first look to the patent specification to determine the 'corresponding structure' that performs the claimed function: the claim is then construed to cover that corresponding structure as well as 'equivalents thereof.' " (Docket Entry # 83 at 27-28).

The Court agrees with Motorola that the starting point for construing the claimed function is the claim language itself. As noted, the Federal Circuit has cautioned against deviating from the claimed functional language. The functional language of the claim term itself is "receiving a message comprising at least a received call-back number." The Court does not find the need for additional construction of this term. VTech has not presented a valid reason from deviating from this language. VTech correctly notes that the

corresponding structure is determined from the corresponding structure in the specification. However, the issue at hand is determining the functional limitations of the means plus function term and VTech is attempting to import functional limitations from the specification.

c. The Court's Construction

Accordingly, the Court construes the structure of the **"receiver means"** term to be **"an antennae and receiver."** The function is construed to be **"receiving a message comprising at least a received call-back number."**

5. "Storage means" (Claims 1-3)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
Not subject to 35 U.S.C. s. 112(6). The "storage means" is "a memory element."	Subject to 35 U.S.C. s. 112(6):
Agreed to structure and disputed function if s. 112(6) applies:	*Function:* electronically storing at least one user-programmed call-back phone number previously entered into the memory by the user. The user also programs and stores in the memory data defining an audible alert associated with the previously entered phone number and comprising alert cadence and alert tone frequency. The user also programs and stores in the memory data defining a default audible alert comprising alert cadence and alert tone frequency.
Function: "storing at least one user-programmed callback number along with data defining at least one corresponding special audible alert, and further for storing data defining a user-programmed default audible alert."	
Agreed-to Structure: "memory within the communication receiver"	*Agreed-to Structure:* "memory within the communication receiver"

b. Discussion

If s. 112, para. 6 was found to apply, and it has been herein, the parties agreed that the structure for the "storage means" is "memory within the communication receiver." (Docket Entry # 93 at A8).

Motorola asserts that the storage means function is "storing at least one user-programmed call-back number

along with data defining at least one corresponding special audible alert, and further for storing data defining a user-programmed default audible alert." (Docket Entry # 93 at A8). VTech asserts that the function is: "electronically storing at least one user programmed call back phone number previously entered into the memory by the user. The user also programs and stores in the memory data defining an audible alert associated with the previously entered phone number and comprising alert cadence and alert tone frequency. The user also programs and stores in the memory data defining a default audible alert comprising alert cadence and alert tone frequency." *Id*.

As urged with "receiver means," Motorola argues the functional language for the "storage means" should track the claim language. (Docket Entry # 76 at 24-25) (Docket Entry # 88 at 12). VTech asserts that its construction is consistent with and supported by the specification. (Docket Entry # 83 at 29). For the same reasons as stated above with regard to "receiver means," the Court construes the function of the "storage means" to be the function as stated in the claim language.

c. The Court's Construction

Accordingly, the Court construes the structure of the **"storage means"** term to be **"a memory within the communication receiver" and the function as "storing at least one user-programmed call-back number along with data defining at least one corresponding special audible alert, and further for storing data defining a user-programmed default audible alert."**

6. "Processor means" (Claims 1-2)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
Not subject to 35 U.S.C. s. 112(6): The "processor means" is "a microprocessor."	Subject to 35 U.S.C. s. 112(6):
If subject to 35 U.S.C. s. 112(6):	*Function:* The programmed microprocessor compares the sender entered call back number in the message to the user-programmed phone number stored into the memory by the user.
Function: "processing the message to derive the received callback number ... [and] comparing the received callback number with the at least one user-programmed call-back number."	*Structure:* A microprocessor is programmed as defined in the flow diagram of Fig. 4. The microprocessor is connected to the receiver and the memory.
Structure: "microprocessor 208 and associated software."	

b. Discussion

Motorola asserts that the function of the "processor means" is "processing the message to derive the received callback number ... [and] comparing the received callback number with the at least one user-programmed call-back number." (Docket Entry # at A9). Motorola asserts that the corresponding structure is

"microprocessor 208 and associated software." *Id*. VTech asserts that the function is "the programmed microprocessor compares the sender entered call back number in the message to the user-programmed phone number stored into the memory by the user." *Id*. VTech defines the corresponding structure as "a microprocessor is programmed as defined in the flow diagram of Fig. 4. The microprocessor is connected to the receiver and the memory." *Id*.

Motorola again asserts that its proposed functional language mirrors the language of the claim itself. Motorola further asserts that VTech's function adds structural language ("programmed microprocessor") and imports the limitation "sender entered call back number." (Docket Entry # 76 at 26). VTech again asserts that its functional language is derived from the specification. (Docket Entry # 83 at 29). Further VTech asserts that Motorola's function merely combines other claim limitations and would be confusing to the jury. (*Id*. at 29-30).

With regard to the structure, Motorola asserts that its construction conforms to the specification. (Docket Entry # 76 at 26) (*citing* '140, 4:30-43 & Fig. 2(208)). According to Motorola, VTech's construction impermissibly limits the structure to a processor that is programmed to perform the entire algorithm disclosed in Figure 4 of the patent. Specifically, the claimed function only corresponds to elements 404-408 of Figure 4 and argues that steps 402, 410-426 do not relate to the disclosed function. (*Id*.) (Docket Entry # 88 at 12). Motorola urges that additional algorithms are well known for performing the function and need not be identified in the specification. (Docket Entry # 76 at 26) (*citing* Aristocrat Techs. Austl. Pty Ltd. v. Multimedia Games, Inc., 266 Fed Appx. 942, 947 (Fed.Cir.2008). Further, Motorola contends that the second sentence of VTech's structure construction is redundant with the "coupled" language of the claim. *Id*.

VTech counters that a computer implemented means plus function element requires the disclosed structure to be more than just simply a general purpose computer or microprocessor. Rather, VTech asserts that the corresponding structure is the microprocessor programmed to perform the disclosed algorithm. In particular VTech quotes a Federal Circuit passage which states "[t]hus, in a means-plus-function claim in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm." (Docket Entry # 83 at 30) (*citing* Aristocrat Tech. v. Int'l Game Tech., 521 F.3d 1328, 1333 (Fed.Cir.2008)

For the "storage means" function, the Court adopts the claim language itself for similar reasons as recited above with regard to the receiving means. VTech has not presented valid reasons for deviating from the explicit claim language nor shown the need to further construe the functional language as recited. Further, in contrast to the assertions of VTech, the Court does not find that the claim language itself would be confusing to the jury.

VTech is correct in that Federal Circuit precedent requires the corresponding structure to be more than merely a microprocessor. Rather, this Court must evaluate the particular algorithm disclosed within the specification. Aristocrat Tech. v. Int'l Game Tech., 521 F.3d 1328, 1333 (Fed.Cir.2008); Harris Corp. v. Ericsson, 417 F.3d 1241, 1253-54 (Fed.Cir.2005). Further, the algorithm in question should be that which corresponds to the claimed function. VTech asserts the algorithm is the flow diagram of Figure 4. However, as noted by Motorola, the flow diagram of Figure 4 includes steps beyond the function recited as the function of the processor means. The function described above corresponds to just a portion of the flow diagram of Figure 4. For example, portions of Figure 4 relate to a determination of the alert mode, reading the corresponding alert cadence and tone identifiers, and sending instructions to the audible alert generator.

('140, Fig.4). These steps relate to functions beyond the claimed function. The claimed function contains two parts: processing the message to derive the received callback number and comparing the received callback number with at least one user-programmed call-back number. This function corresponds to algorithm steps 404, 406 and 408 of Figure 4. Thus, the algorithm will be limited to these steps.

Lastly, the parties dispute whether VTech's additional structural sentence ("the microprocessor is connected to the receiver and the memory") is necessary. The claim itself states in the means plus function clause that the "processor means is coupled to the receiver means for ... and coupled to the storage means for ...." Because this "coupled to" language is embedded in the means plus function clause that is being construed, the Court finds that it may be confusing to the jury not to include this coupling in the construction.

c. The Court's Construction

Accordingly, the Court construes the **"processor means"** function as **"processing the message to derive the received callback number and comparing the received callback number with the at least one user-programmed call-back number."** The Court construes the corresponding structure to be **"a microprocessor programmed as defined in steps 404, 406 and 408 of Figure 4. The microprocessor is coupled to the receiver means and the storage means."**

7. "Audible alert generation means" (Claim 1)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
Not subject to 35 U.S.C. s. 112(6):	Subject to 35 U.S.C. s. 112(6):
The "audible alert generation means" is "an audible alert generator."	
Agreed-to function and disputed structure if s. 112(6) applies:	*Agreed-to Function:* "generating, in response to the received call-back number being found equal to a call-back number included in the at least one user-programmed callback number, the corresponding user-programmed special audible alert in accordance with the data defining said alert."
Agreed-to Function: "generating, in response to the received call-back number being found equal to a call-back number included in the at least one user-programmed callback number, the corresponding user-programmed special audible alert in accordance with the data defining said alert."	*Structure:* An alert circuit generates programmable audio alert patterns for supply to a speaker. The alert circuit is coupled to the microprocessor. The microprocessor is programmed as shown in blocks 408 to 416 in Fig. 4.
Structure: "audible alert generator 212, such as that described in U.S. Pat. 4,868,561."	

b. Discussion

If s. 112, para. 6 was found to apply, and it has been herein, the parties agreed that the function of the "audible alert generation means" is "generating, in response to the received call-back number being found equal to a call back number included in the at least one user-programmed callback number, the corresponding user-programmed special audible alert in accordance with the data defining said alert." (Docket Entry # 93 at A10).

Motorola asserts that the corresponding structure is "audible alert generator 212, such as that described in U.S. Pat. 4,868,561." (Docket Entry # 93 at A10). VTech asserts that the corresponding structure is "an alert circuit generates programmable audio alert patterns for supply to a speaker. The alert circuit is coupled to the microprocessor. The microprocessor is programmed as shown in blocks 408 to 416 in Fig. 4." Id.

Motorola argues that the specification describes an audible alert generator such as described in U.S. Patent 4,868,561. (Docket Entry # 76 at 28) (*citing* '140, 6:5-16, Fig. 2(212)). Motorola argues that VTech's construction pulls limitations from other portions of the claim and the preferred embodiment. Motorola asserts that the specification indicates that circuitry of the cited '561 patent is simply exemplary. Id. (*citing* '140, 6:5-16). And, it further asserts that VTech's construction improperly adds limitations regarding programming the microprocessor and coupling the alert circuit to the microprocessor.

VTech argues that its proposed interpretation is consistent with the specification of the '140 Patent and specifically recites the structure used to create an audible alert. (Docket Entry # 83 at 32). VTech further objects to Motorola's proposed construction as merely referring to an eight-page patent incorporated by reference in the '140 Patent without a more specific citation. (Docket Entry # 83 at 32).

The specification provides an "electrical block diagram" in Figure 2 and states "the microprocessor 208 is coupled to an audible alert generator 212 for generating an audible alert in response to instructions from the processor after receipt of a message." ('140, 4:22 and 4:33-36). The specification further states:

Next, the microprocessor 208 sends 414 the alerting instructions to the audible alert generator 212 (FIG.2). In response, the audible alert generator 212 generates 416 an alert corresponding to the one of the special alert 236,238, 240 pre-programmed for the matched received call-back number, and the process ends 418. Programmable audible alert generators, such as the audible alert generator 212, are well known in the art. U.S. Pat. No. 4,868,561 issued Sep. 19, 1989 to Davis, which describes a programmable audible alert generator, is hereby incorporated by reference herein.

('140, 6:5-16). As to what structure is disclosed as an audible alert generator the specification thus provides the guidance that "programmable audible alert generators, such as the audible alert generator 212, are well known in the art. U.S. Pat. No. 4,868,561 ... which describes a programmable audible alert generator...." ('140, 3:11-16). Thus, the specification identifies the corresponding structure as a programmable audible alert generator such as shown in U.S. Patent No. 4,868,561. VTech does not provide support to contradict this statement in the specification. The Court finds that the '140 Patent specification does disclose the generator as programmable and of the type found in the '561 Patent. Thus, the Court shall construe the corresponding structure in accordance with this disclosure of the '140 Patent specification.

Similar to the processor means, the audible alert generation means element includes additional "coupled to"

language. As with the processor means, the Court shall include this language in its construction so as to avoid jury confusion.

c. The Court's Construction

Accordingly, the Court construes the "**audible alert generation means**" function to be the agreed function of "**generating, in response to the received call-back number being found equal to a call back number included in the at lest one user-programmed callback number, the corresponding user-programmed special audible alert in accordance with the data defining said alert.**" The Court construes the corresponding structure to be "**a programmable audible alert generator 212, such as that described in** U.S. Patent No. 4,868,561**. The programmable audible alert generator is coupled to the processor means.**"

8. "First processor element" (Claim 1)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
Not subject to 35 U.S.C. s. 112(6). The "first processor element" is "software or firmware associated with the microprocessor."	Subject to 35 U.S.C. s. 112(6):
Agreed-to function and disputed structure if s. 112(6) applies:	*Agreed-to Function:* "controlling the audible alert generation means to generate the user-programmed default audible alert in response to the received call-back number being found not equal to any call-back number included in the at least one user-programmed call back number."
Agreed-to Function: "controlling the audible alert generation means to generate the user-programmed default audible alert in response to the received call-back number being found not equal to any call-back number included in the at least one user-programmed call back number."	*Structure:* "the microprocessor is programmed as blocks 408 and 420 to 426 in Fig. 4."
Structure: "microprocessor 208 and associated software"	

b. Discussion

As described above, the parties' primary arguments regarding this term relate to whether s. 112, para. 6 applies to this term. Other than with regard to this issue, the parties provided very little briefing on the remaining disputes. If s. 112, para. 6 does not apply, Motorola asserts that the "first processor element" should be construed as "software or firmware associated with the microprocessor." Motorola cites to portions of the specification to support its construction. (Docket Entry # 76 at 29) (Docket Entry # 58 at C4-C5) (*citing* ' 140, 2:25-30, 6:17-29, Fig. 2, Fig. 4). VTech did not submit a claim construction outside of

the means plus function format in which VTech asserts that the corresponding structure was a microprocessor programmed as blocks 408 and 420 to 426 in Figure 4. (Docket Entry # 93 at A11). VTech provides no argument as to Motorola's proposed construction if s. 112, para. 6 does not apply. (Docket Entry # 83 at 32-33).

The Court has found above that s. 112, para. 6 does not apply to the first processor element. The term "processor element" does not appear in the '140 Patent outside of the Summary of Invention in which the term is used in a manner merely mirroring the claim language. Both parties further point to the ' 140 Patent at 6:17-29 for the meaning of this term (albeit VTech in a s. 112, para. 6 context). (Docket Entry # 76 at 29) (Docket Entry # 58 at C4-C5). This citation refers to the actions of a programmed microprocessor.

c. The Court's Construction

Accordingly, the Court construes the **"first processor element"** to be **"a programmed microprocessor."**

9. "User control means" (Claim 2)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
Subject to 35 U.S.C. s. 112(6):	Subject to 35 U.S.C. s. 112(6):
Agreed-to Function: "allowing a user to add or delete a user-programmed call-back number and a corresponding user-programmed special audible alert."	*Agreed-to Function:* "allowing a user to add or delete a user-programmed call-back number and a corresponding user-programmed special audible alert."
Structure: "user controls **216,** such as well-known buttons and switches."	*Structure:* "The pager includes an add key and a delete key coupled to the processor and the memory."

b. Discussion

Motorola agrees, in the interest of narrowing the issues before the Court, that this term should be construed in accordance with s. 112, para. 6. The parties have agreed on a construction of the term's function, but not its structure. The parties agree that the function corresponds to the claim language: "allowing a user to add or delete a user-programmed call-back number and a corresponding user-programmed special audible alert." (Docket Entry # 93 at A12). Motorola asserts that the corresponding structure is "user controls 216, such as well-known buttons and switches." *Id*. VTech asserts that the corresponding structure is "the pager includes an add key and a delete key coupled to the processor and the memory." *Id*.

Motorola argues that VTech imports the pager limitation improperly as the term "user control means" does not depend upon the pager dispute that exists with regard to the "communication receiver" term. (Docket Entry # 76 at 27). It contends the specification supports its construction by stating "user controls 216, such as well-known buttons and switches." (Docket Entry # 88 at 12) (*citing* '140, 4:38-41). Motorola states that VTech limits the construction to exemplary ADD/DEL buttons 304 and 306. *Id*. Further, Motorola asserts that the specification states that a menu and cursor may be used instead of direct buttons. (Docket Entry #

76 at 27) (*citing* '140, 8:43-53). VTech argues that Motorola's proposed construction merely adopts a general statement provided in the patent and that Motorola ignores the specific disclosure in the specification of an ADD key 304 and DEL key 306 as set fourth in Figure 3. (Docket Entry # 83 at 31).

The Court has addressed the pager issue elsewhere and agrees with Motorola that the construction of "user control means" is independent of the pager dispute. VTech is correct that Figure 3 and the corresponding portions of the specification disclose add and delete buttons. However, the specification is not limited to only the disclosure of Figure 3. As Motorola notes, the specification explicitly states "[t]he microprocessor 208 is also coupled to user controls 216, such as well-known buttons and switches, for allowing a user to control operation of the selective call receiver 110." ('140, 4:38-41). In addition, the specification states:

It will be appreciated that different user controls and different user control operation may be substituted for the user controls and user control operation described herein above for the preferred embodiment without departing from the intent of the present invention. For example, a displayed menu and a cursor could be used instead of direct buttons to access functions such as Add, Delete, etc., in a manner well known in the art.

('140, 8:43-50).

The Court finds that such portions of the specification clearly teach that the claimed function may be accomplished by more than merely keys labeled as add or delete. In particular, the specification teaches that buttons, switches, or a menu with a cursor may be utilized. Though Motorola cites the passage of column 8 relating to a menu and cursor, it is not clear that Motorola's construction includes such menu and cursor structure. As both types of controls are disclosed within the specification, the corresponding structure should include both types. In addition, as with the claim terms above, the Court finds that it will aid the jury to include the coupling language in the claim construction.

c. The Court's Construction

Accordingly, the Court construes the **"user control means"** function to be **"allowing a user to add or delete a user-programmed call-back number and a corresponding user-programmed special audible alert."** The Court construes the corresponding structure to be **"user controls such as buttons and switches or a menu and cursor, the user controls are coupled to the processor means and to the storage means."**

C. The '356 Patent

The '356 Jambhekar patent relates to a method for associating a graphical icon with a telephone number in a radio communication device such as a phone. As shown in Figure 5, a user of a phone is able to associate a graphical icon, for example a picture of a house, with an individual's home telephone number. This allows for the simplification of storing information and the transmitting of messages. ('356, Abstract, lines 6-9). The parties dispute the interpretation of two limitations in the only claim asserted, Claim 1.

1. "Graphical icon" (Claims 1, 17)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*

"An image that represents an object, process, concept, or function. A textual label by itself is not a graphical icon."	"A graphical icon associated with a functional feature of a phone."

b. Discussion

Motorola argues its construction of "graphical icon" is consistent with the use of the term in claim 1. ('356, 9:25-30). According to Motorola, the specification provides that "icons **representative** of work, car, home and a f ax machine could be associated with entered numbers." ('356, 5:57-59). This statement refers to Fig. 4F, which discloses pictorial images of a briefcase, car, house, and a piece of paper. Thus, Motorola asserts the "icon" portion of the term relates to something that represents something else (*e.g.,* work phone number, car phone number, etc.) and the "graphical" portion of the term limits the "icon" to an image, not mere text. In addition, Motorola contends dictionaries and patents dated around the time the '356 patent was filed provide similar meanings for this term and its components.

Motorola argues VTech's proposed construction improperly focuses on what a "graphical icon" can represent by limiting the term to a subset of "graphical icons" that are functional, *i.e.,* "functional icons." As described in the specification, "functional icons" are icons that represent functional features or "radio communication services" that a device can perform, *e.g.,* phone, email, short messaging service ("SMS"). ('356, 2:19-25; 5:54-56). According to Motorola, these functional icons are specifically claimed in dependant claim 2 as each of the graphical icons disclosed therein must "represent[ ] ... radio communication services." Therefore, Motorola asserts VTech's construction is wrong because the "graphical icons" of claim 1 must be broader than those described in claim 2, under the doctrine of claim differentiation.

Motorola also takes issue with VTech's construction because it restricts the term to only the icons described in the preferred embodiment. While the specification describes functional icons as one type of graphical icon, it also contemplates other types of icons. ('356, 5:59-60) ("any number of other icons could be employed according to the present invention); (Figs.4(408) & 5(522)). Moreover, during prosecution, the Examiner stated that "[t]he graphical icons can be representative of, **for example,** each of the radio communication services available to the user." (Motorola Ex. PP (Paper 12 at 2)) (emphasis added).

VTech asserts it has rebutted the presumption created by Motorola's claim differentiation argument. Arguing it is clear that the invention disclosed in the '356 patent is only directed toward the functional nature of the icons, VTech asserts the presumption should therefore not apply. Anderson Corp. v. Fiber Composites, LLC, 474 F.3d 1361, 1369-71 (Fed.Cir.2007) (finding that statements in the specification and prosecution history overcame presumption of claim differentiation).

The abstract of the '356 patent states that: "The radio communication device preferably comprises a touch screen display (119) **for displaying functional icons stored with directory numbers to simplify the location of information and the transmission of messages."** ('356 Abs.) (emphasis added). Under the section "Field of the Invention," the '356 patent states that: "Generally, the present invention relates to radio communication devices, and **more particularly to radio communications devices having functional icons associated with stored directory number."** ('356, 1:5-8) (emphasis added). VTech's proposed interpretation uses similar language, but the Court is not convinced the proposal is correct.

Specifically, the Court is not convinced graphical icons must be associated with a functional feature of a phone. Although the specification gives a few examples of functional icons (telephone, email, f ax, short

messaging service), it later states: "[A]ny number of other icons could be employed according to the present invention." ('356, 2:24-25; 5:54-60). The Court disagrees with VTech that this sentence is specifically referring to other types of *functional* icons such as a cell phone, pager, email, SMS and others. Id. Moreover, the specification notes that "icons representative of work, car, home and a f ax machine could be associated with entered numbers." ('356, 5:57-59).

That being said, the Court agrees with VTech that Motorola's construction is also incorrect as it uses terms like "process," and "concept" which might require their own construction. As for Motorola's proposed second sentence, "a textual label by itself is not a graphical icon," there is no support for this limitation in the specification. Therefore, this limitation should not be imported without further evidence from Motorola why such a limitation is warranted.

c. The Court's Construction

Accordingly, the Court construes **"graphical icon"** to mean: **"a graphical image."**

2. "Storing said telephone and said graphical icon together in memory" (Claim 1)

a. The Parties' Proposed Construction

Motorola's Proposal	*VTech's Proposal*
"Storing both the telephone number and the association to the selected icon in the memory."	"The telephone number and graphical icon are stored together in memory in the same memory location."

b. Discussion

Motorola contends its construction of this claim limitation is consistent with the claims, specification, and file history of the '356 patent. According to Motorola, the specification describes the method of claim 1 as a series of steps beginning with a user entering a phone number and then selecting an icon to "associate" with the phone number. ('356, 5:49-54; Fig. 4F). Then, **"the information is stored in the memory** of the radio communication device." ('356, 5:60-63) (emphasis added). Motorola asserts that this "information" includes: (1) the specific telephone number entered and (2) the "association" or link between the phone number and the selected graphical icon. Motorola states the "graphical icon" of claim 1, however, is to be selected from a "predetermined" set already stored in the phone's memory, and therefore it makes sense that the association or link to that icon (in another portion of the memory) would be stored along with the phone number. ('356, 5:52-59; 9:26-28; Figs. 4(408) & 4F). Motorola contends the Examiner had a similar understanding of the claim language during prosecution of the '356 patent application.

Motorola takes issue with VTech's requirement that the graphical icon **itself** be stored in the "same memory location" with the telephone number. According to Motorola, it would make no sense to require a graphical icon already stored in memory be copied and re-saved every time a new contact entry is created by the user. Finally, Motorola asserts there is no requirement in claim 1 or the intrinsic record that the telephone number and graphical icon be stored in the "same memory location." Specifically, Motorola argues VTech's citations for its construction merely show that a "predetermined memory location" identifier can be used to **access** or **display** a specific contact entry with a phone number and associated icon ('356, 6:1-18; Figs. 5, 5-B-D) whereas claim 1 relates to **storing** a phone number and an association with a graphical icon. ('356, 9:20-30).

On the other hand, VTech contends the only disclosure in the specification of the '356 patent relating to the phrase "together in memory" discusses storing the phone number and associated icon together in the same memory location. ('356, 6:12-18) ("Alternatively, the predetermined memory location may be displayed with name and icon associated with the predetermined memory location being shown and with sequentially adjacent memory locations also being shown (FIG.5-4)"). Therefore, according to VTech, the claim must be read to cover this specific disclosure as it is one of the preferred embodiments. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583 (Fed.Cir.1996) (stating a construction that excludes the preferred embodiment "is rarely, if ever correct and would require highly persuasive evidentiary support").

The Court is not convinced, as urged by VTech, that the phone number and associated icon are required to be stored in the same physical memory location. However, the Court finds the term requires construction and agrees with VTech that the word "together" should be utilized in the Court's construction of this term. Both claims 1 and 5 include the word "together."

c. The Court's Construction

Accordingly, the Court construes the **"storing said telephone number and said first graphical icon together in memory"** term to mean: **"storing together the telephone number and the association to the selected icon in the memory."**

D. The '766 Patent

The '766 Mitzlaff patent relates to a device for allowing a user of a phone to compose a custom ring tone by using the same keypad that is used for dialing out. The patent discusses using a keypad to program a customized ringer so that when the phone rings, it generates the composed ring tone. ('766, 2:67-3:7). The parties dispute the interpretation of two claim limitations in Claim 1 of the '766 patent.

1. "A keypad for both dialing out and programming said ringer" (Claim 1)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
"A telephone keypad used for both dialing out and programming a ringer."	"The user can program the ringer entirely using the same keypad that is used for dialing out."

b. Discussion

Motorola contends its proposed construction for this term comports with the intrinsic record of the '766 patent. ('766, Abs.; 2: 37-38; 3:8-10). According to Motorola, a telephone keypad is required as Claim 1 was amended twice to distinguish prior art that specifically disclosed other types of input devices, *e.g.*, keyboards. (Docket # 76-47 (Exhibit RR) at 1, 5-11).

VTech's construction focuses on a "user" and what the user can do with the keypad which Motorola asserts is improper. Vtech argues that its construction focuses on how Motorola argued the scope of its invention and this claim limitation in response to a rejection by the Patent Office. VTech explains that during the prosecution of the '766 patent, Motorola argued that its alleged invention was different from the prior art cited by the Examiner because, *inter alia,* the programming of the ringer was accomplished by only using the telephone keypad which is used to dial out. (VTech Ex. 18, pgs. 53-54) ("Such a device is not similar to

this invention which is integral to the telephone and uses the **telephone keypad to enter the ringer parameters."**) (emphasis added).

Following this prosecution response to the U.S. Patent Office, Motorola and the Examiner held an interview wherein the Examiner suggested a claim to Motorola which requires the ring tone to be programmed using the keypad that dials out. Motorola agreed. (Id . at pg. 58) ("Suggested a claim to applicant which requires the melody to be programmed using the keypad that dials out. Applicant agreed to the new claim which would be done by Examiner's Amendment."). Thereafter, the Examiner added a new claim with this claim language and the patent then issued. This claim 1 is now at issue in the instant case. Motorola limited the scope of its alleged invention during prosecution because of prior art similar to its alleged invention. Vtech asserts its proposed interpretation is consistent with Motorola's own statements in the prosecution history limiting the scope.

The construction of both parties includes using the same keypad for both dialing and programming. The words "for both" are plain words and not assigned any special meaning in the patent. The phrase also implies it is the same keypad used for both actions, dialing and programming. Motorola asserts that VTech's use of "entirely" could be construed by the jury to require only use of the numerical keys of the keypad.

As for VTech's wish to add a "user" in the interpretation, the prosecution history did not require the recitation of a "user." Rather, the prosecution history shows, in order for the applicant to obtain a granted patent, the Examiner "suggested a claim to applicant which requires the melody to be programmed using the keypad that dials out. Applicant agreed to the new claim...." (Docket # 76-44 (Exhibit RR) at 55). Therefore, there was no reference to a "user."

Motorola adds the word "telephone" to clarify that the keypad is the telephone's keypad and because of statements made in the prosecution history. During prosecution, Motorola made the following statements in order to overcome the prior art references:

Claim 1 provides the capability for a telephone user to program a number of parameters into the telephone to customize the telephone's ring.... Programming of these parameters [telephone ring] is accomplished by ... using the telephone's keypad.

(Docket # 76-44 (Exhibit RR) at 51). Motorola made this statement in the amendment to counter the Festa reference: "The Festa reference is composed of a *separate box* to customize the ringing of the telephone." Motorola used this same argument to distinguish its invention from the Sano, Suzuki, Inoue, and Matsumoto references. Id.

Adding the word "telephone" in the construction helps to clarify and to distinguish from the prior art references. The agrees with Motorola's proposal.

c. The Court's Construction

Accordingly, the Court construes the term **"a keypad for both dialing out and programming said ringer"** to mean: **"a telephone keypad in which the same keypad is used for both dialing out and programming a ringer."**

2. "Processing means ..."/"Ring generator means" (Claim 1)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
Not subject to 35 U.S.C. s. 112(6):	Subject to 35 U.S.C. s. 112(6).
(a) "processing means:"	The parties agree on the structure and function if terms found to be means plus function.
"A microprocessor contained within the if terms found to be means plus function. telephone set for receiving more than one user-coded ring parameter from the keypad."	
(b) "ring generator means:"	
"A component within the telephone set that generates rings. In response to the microprocessor and the ring signal, the ring generator will produce a ring based on the parameters entered by the user."	

b. Discussion

The parties dispute whether two terms are means plus function terms under 35 U.S.C. s. 112, para. 6. The terms, found in claim 1, are "processing means" and "ring generator means." Motorola asserts that neither term is subject to s. 112, para. 6, while VTech asserts that both terms are governed by s. 112, para. 6. (Docket Entry # 93 at A17-A18). The parties assert similar arguments and legal citations as they did with respect to the means elements of the '140 Patent. Motorola asserts that sufficient structure may be found in the terms themselves and the surrounding claim language ("processing means, integral to the telephone set, ... said processor means including, memory means for ..." and "ring generator means, integral to the telephone set responsive to the processing means and to the ring signal, for ..."). (Docket Entry # 76 at 35). VTech asserts that the claim terms utilize the term "means" and are thus subject to the presumption that s. 112, para. 6 applies. (Docket Entry # 83 at 38). VTech also asserts that the claims do not provide structure but rather are drafted as generic structure defined by function. Id. If s. 112, para. 6 is found to apply, the parties agree to both the function and structure. (Docket Entry # 93 at A17-A18).

Similar to the reasons cited above for the '140 Patent, the Court finds that Motorola has not provided sufficient argument to overcome the presumption that claim terms drafted in the "means for" format are subject to construction under s. 112, para. 6. The claim language is drafted in the means plus function format and the particular language is generalized language without the use of specific structural language. Further, the surrounding claim language cited by Motorola does not cite structural limitations that rise to the level to deviate from the presumption that s. 112, para. 6 governs. The Court finds that the terms "processing means" and "ring generator means" are means plus function terms governed by s. 112, para. 6.

c. The Court's Construction

The terms shall be construed in accordance with the parties agreed constructions. (Docket Entry # 93 at A17-A18). **"Processing means"** is construed as having a function of **"receiving a plurality of user coded**

ring parameters from said keypad" and the corresponding structure is **"a microprocessor which is part of the telephone set."**

"Ring generator means" is construed as having a function of **"activating said user programmed parameters from said memory to produce an audible ring pattern and ring tone in response to the microprocessor and the ring signal"** and the corresponding structure is **"a ring generator contained within the telephone set, such as a conventional digital-to-analog signal converter coupled to a voltage controlled oscillator, programmable sound generator, power bell, buzzer, electronic beeper, or a programmable audio oscillator circuit followed by an audio amplifier."**

E. The '349 Patent

The Dombrowski '349 utility patent relates to the design of a keyboard on cellular telephones. More specifically, it relates to keypad assemblies for use in applications where a thin keyboard is needed, such as cell phones and other small devices. (Ex. 5, 1:6-11). Claim 6, the only asserted claim of the '349 patent, is directed toward an apparatus having certain characteristics such as a single material unitary member defining interconnected key caps and connecting carrier portions, and an elastic flexible web on the backside of (and interconnecting) key caps, all allowing the keys to be flexed. (Ex. 5, 8:6-24). The parties dispute four claim limitations of the '349 patent.

1. "A carrier portion interconnecting the plurality of user interface key caps" (Claim 6)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
"Material filling or bridging the area between two adjacent user interface key caps."	"Material between the key caps which connects the key caps contained in the keypad."

b. Discussion

Motorola asserts that the main dispute between the parties regarding this phrase is whether the "carrier portion" must connect **all** key caps on a keypad. VTech asserts that its construction does not require all keys to be connected. Motorola's construction comports with the intrinsic evidence and shows that a carrier portion must connect at least two key caps. The Court agrees that connection of all key caps on the keypad is unnecessary.

The use of a carrier portion to interconnect adjacent user interface key caps was one of the elements of the invention claimed in the '349 patent, as the patent's specification and figures make clear. (*See, e.g.,* '349, 2:3-17). Figure 2 identifies the "carrier portion[s]," by number (211 & 213), as areas connecting adjacent key caps on the keypad. ('349, 2:18-23; *see also* Fig. 3 (311 & 313)). In each of the exemplary embodiments, the carrier portions are defined in relation to the adjacent or neighboring key caps. For example, in Figure 2, "the '7' key cap 210, the '0' key cap 212 and the '9' key cap 214 [are] flexibly coupled by intermediate carrier portions 211 and 213." ('349, 2:21-23). The "carrier portion" is material that connects the narrow area between these adjacent key caps, thus "interconnecting" them. ('349, 2:3-50).

While the carrier portion in a certain embodiment **may** connect all of the key caps on the keypad (316, 318, 311, 313, 330 in Figure 3), the claims and the specification make clear that this is not a requirement. In another embodiment, each of the plurality of user interface key caps are coupled to the carrier by a flexible

carrier portion disposed along not more than one side of the corresponding user interface key cap, wherein other sides of each of the user interface key caps are separated from neighboring key caps and/or carrier portions by a space. ('349, 2:11-18). This is shown in Figure 2, which shows rows of interconnected key caps that are not connected to one another.

That being said, the Court is not convinced, as urged by Motorola, that the material fills or bridges the area between two key caps. Requiring "filling" or "bridging" a space, without requiring a connection, is not supported by the intrinsic record. The words "filling" and "bridging" are not found in the specification in the discussion of "carriers" and "carrier portion." Rather, the specification uses the words "interconnecting" and "flexibly coupled." (*See, e.g.,* '349, 2:5-7; 2:22, 2:41, 4:54).

c. The Court's Construction

Accordingly, the Court construes the term **"carrier portion interconnecting the plurality of user interface key caps"** to mean: **"material connecting at least two user interface key caps."**

2. "Interconnecting" (Claim 6)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
"Filling or bridging a space or area."	"Connecting the key caps."

b. Discussion

The term "interconnecting" is used three separate times in the asserted claim. ('349, 8:10-24):(1) "carrier portion **interconnecting** the plurality of user interface key caps"; (2) "flexible web **interconnecting** at least some of the plurality of user interface key caps"; (3) "flexible web **interconnecting** the plurality of user interface key caps." According to Motorola, the term is used to indicate that some keypad component (*i.e.,* the carrier portion or the flexible web) is bridging or filling a space between some other component (*i.e.,* plurality of user interface key caps).

Motorola asserts VTech's proposed definition covers only the first use of the term in the asserted claim, ignoring the remaining two instances in the claims and related intrinsic record, as the flexible web does not "connect[ ] the key caps" in the same manner as the carrier portion, and as VTech suggests.

Vtech asserts its interpretation of "interconnecting" is easier to understand for a jury and is consistent with the claim language. While Motorola's proposal to use the terms "filling or bridging" is at least consistent with one particular description and one particular function/purpose identified in the specification for the flexible web, VTech contends it still fails in omitting the requirement that "interconnecting" involves connecting. According to VTech, its proposed interpretation using the term "connecting" is more consistent with the plain meaning of the term, the disclosure in the specification, and the context of the surrounding words in the claim. ('349, 8:6-23).

As discussed above with regard to the previous claim term, the first instance of "interconnecting" ("carrier portion **interconnecting** the plurality of user interface key caps") relates to connecting at least two user

interface key caps. The parties dispute whether the second and third instances of "interconnecting" (used with regard to the flexible web) relate to "connecting" or filling or bridging." As described below, the Court finds that the term interconnecting has a consistent meaning best described in the context of connecting.

Column 3, lines 48-53 of the '349 patent provides that the flexible web "interconnects" at least some of the plurality of user interface key caps. In the next sentence, the patent provides that the flexible web generally "bridges" the space between the plurality of user interface key caps and the space between the key caps and any carrier portions. The specification states in the next paragraph that "the flexible web interconnecting the plurality of user interface key caps comprises a material different than the material of the user interface key caps." ('349, 3:57-59). The specification further states that the flexible web 520 may be deposited on the backside of the key cap layer and may be "applied largely to the carrier and partly to the key caps...." ('349, 4:9-15). The specification continues: "[i]n another alternative embodiment, the flexible web and the plurality of user interface key caps comprise a common material forming the unitary member. According to this alternative embodiment, the flexible web is formed from the sheet material from which the key cap layer is formed." ('349, 4:20-25). Thus, the specification describes a flexible web that can both interconnect key caps and bridge or fill the space between the key caps. As described in the specification these are two different functions.

The claim language itself is relatively clear. For example claim 6 recites "the flexible web disposed on a backside of at least some of the plurality of user interface key caps." ('349, 8:18-20). In the claim, the flexible web also is "interconnecting at least some of the plurality of user interface key caps." ('349, 8:17-18). In this context it is clear that "connecting" is being claimed. To additionally require the bridging or filling of spaces functionality would improperly import additionally functionality from the specification beyond what is claimed. Moreover, the usage of "interconnecting" in multiple places within the claim implies a consistent meaning for the term.

c. The Court's Construction

Accordingly, the Court construes the term **"interconnecting"** to mean: **"connecting the key caps."**

3. "Flexibly coupled to the carrier portion" (Claim 6)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
Plain and ordinary meaning.	Requires construction.
Should the Court require construction, "flexibly coupled to the carrier portion" means "attached in such a manner as to allow individual key caps to be pressed; not rigid."	"The key caps are coupled to the carrier portion so that the key caps flexes in relation to carrier portion when pressed."

b. Discussion

Contrary to Motorola's contention, the Court is of the opinion the phrase "flexibly coupled to the carrier portion" requires construction. The Court is not convinced a person of ordinary skill in the art would have a clear understanding of what this phrase means. The Court also declines to adopt Motorola's alternative proposal for this term for the following reasons. Motorola contends that "key caps flexibly coupled to the carrier portion" does not mean that the key caps must flex in relation to the carrier portion, but instead

means only that key caps be attached in a manner allowing them to be pressed. However, Motorola's proposed construction is overly broad in view of the specification. Motorola's construction tends to describe any and every phone, allowing the keys to be pressed individually, and Motorola's proposal does not adequately capture the flexing as described in the specification. What is more, the prior art cited by Motorola in the background section also allows individual keys to be pressed in order for the phone devices to work.

Rather, with some modifications, the Court utilizes VTech's proposed construction. As urged by VTech, the Court finds that the flexible coupling should allow the key caps to flex in relation to carrier portion when pressed. Motorola's citation from the specification tends to support VTech's contention rather than its own. Column 2, lines 7-11, of the '349 Patent provides as follows:

each key cap is flexibly coupled to the carrier *along at least one side of the key cap, and other remaining sides of the key cap are separated from other key caps and/or carrier portions by a space, thereby* allowing the key caps to flex in response to a tactile depressing action by a user.

('349, 2:7-11) (emphasis added). This description states that the key cap is allowed to flex for two reasons: (i) its flexible coupling to the carrier on one side, and (ii) its separation from other key caps along its other sides. VTech's construction is more consistent with the language of the claim itself and the specification.

c. The Court's Construction

Accordingly, the Court construes the term **"flexibly coupled to the carrier portion"** to mean: **"the key caps are coupled to the carrier portion so that the key caps flex in relation to the carrier portion when pressed."**

4. "Flexible web" (Claims 1, 17)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
Plain and ordinary meaning.	Requires construction.
Should the Court require a construction, the "flexible web" is "an elastic sheet of material." In the alternative, Motorola would be amenable to a construction of "a flat layer of elastic material."	"A flat layer of material placed on the backside of the key caps which allows the key caps to move independently and preventing the key caps from being pulled up."

b. Discussion

Again, the Court is of the opinion the term "flexible web" should be construed. Column 2, lines 51-53 does provide that the "flexible web" is applied to a backside of the key cap layer as VTech proposes. ('349, 2:51-53). In one embodiment, a "flexible web" interconnects at least some of the plurality of user interface key caps. ('349, 3:48-51). As noted above, the specification indicates that the flexible web may also be located in spaces between key caps. ('349, 3:49-52). Figure 9 also provides another exemplary key pad assembly where a "flexible web" portion 906 is disposed between adjacent key caps.... A backing material 908 is disposed on a backside of key caps.... ('349, 7:7-11). In these examples, the "flexible web" is not only on the backside of the key caps as VTech proposes. Thus, in the context of the specification a flexible web has a

broader meaning than VTech proposes. It is also noted that the claim itself elsewhere states that the flexible web in question "is disposed on a backside of at least some for the plurality of user interface key caps." ('349 8:18-20). The construction of "flexible web" therefore does not require the placement language sought by VTech.

Both parties agrees to a "flat layer." The remaining issue is the type of material. In one exemplary embodiment, the "flexible web" is a resilient material, for example, silicone. More generally, in other embodiments, the "flexible web" may be some other elastomer material. ('349, 3:59-63). The "flexible web" may also be a flexible web film. ('349, 4:18-19). The "flexible web" and the key caps may comprise a common material ('349, 4:20-22, claim 3).

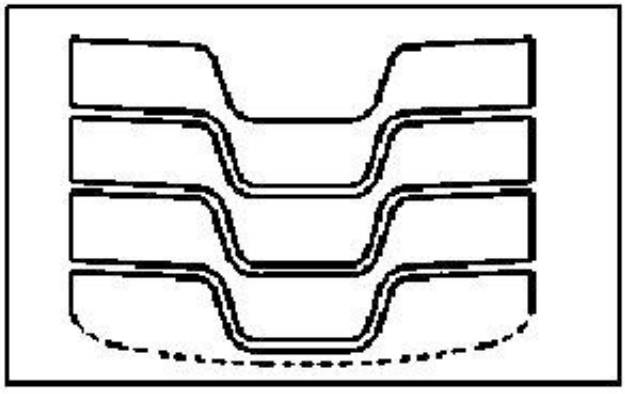
The purposes of the web include the following: it "allows the key caps to move independently." This is not the only stated purpose however. For example, the web also "generally prevents debris from entering" the device. ('349, 3:53-56). Therefore, VTech's proposed phrase "allows caps to move independently" is too limiting. Motorola's construction is consistent with the specification.

c. The Court's Construction

Accordingly, the Court construes the term **"flexible web"** to mean: **"a flat layer of elastic material."**

F. The '842 Design Patent

The Dombrowski '842 design patent relates to the aesthetic design of the keypad illustrated in its one Figure, reproduced here:



1. "The ornamental design for a keypad, substantially as shown and described." (Claims 1, 17)

a. The Parties' Proposed Constructions

Motorola's Proposal	*VTech's Proposal*
"A keypad in which	"A keypad having at least three rows with each row having a closed boundary defined by top, bottom and side boundaries, with each row having: (1) a discernable space between

adjacent key caps are interconnected and arranged in a serpentine manner, each set nested with adjacent sets."	its bottom boundary and the top boundary of the adjacent row therebeneath, (2) three key portions, with a middle key portion between two side key portions, where each key portion is generally twice as wide as it is high, and (3) a middle curved down so that the middle key portion has a horizontal top boundary which is lower than the bottom boundary of the side key portions of its row, where (a) the side key portions have top and bottom boundaries which are tapered upwardly slightly from the middle toward the sides of the row, and (b) the middle key portion of each row has top and bottom boundaries aligned to generally intersect with them middle of the tapered top and bottom boundaries, respectively, of the side key portions of the adjacent row therebeneath."

b. Discussion

While the Federal Circuit Court of Appeals has held that "trial courts have a duty to conduct claim construction in design patent cases, as in utility patent cases, ... the court has not prescribed any particular form that the claim construction must take ." Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665, 679 (Fed.Cir.2008). Recognizing that design patents "typically are claimed as shown in drawings," and that claim construction "is adapted accordingly," the court has not required that a trial court attempt to provide a detailed verbal description of the claimed design as is typically done in the case of utility patents. *Id., quoting* Arminak & Assocs., Inc. v. Saint-Gobain Calmar, Inc., 501 F.3d 1314, 1319 (Fed.Cir.2007).

As the Supreme Court has recognized, a design is better represented by an illustration "than it could be by any description and a description would probably not be intelligible without the illustration." Egyptian Goddess, 543 F.3d at 679, *quoting* Dobson v. Dornan, 118 U.S. 10, 14, 6 S.Ct. 946, 30 L.Ed. 63 (1886). Ordinarily, the preferable course is for the court not to attempt to "construe" a design patent claim by providing "a detailed verbal description of the claimed design." Egyptian Goddess, 543 F.3d at 679.

The Court, in its discretion, is of the opinion the keypad illustration at issue in the '842 design patent does not need additional description. The Court does not find a verbal elaboration necessary or helpful. Id. at 679-680.

V. CONCLUSION

Accordingly, the Court hereby construes the claim terms consistent herewith. A chart summarizing these constructions is attached as Exhibit A.

Exhibit A

U.S. PATENT NO. 7,070,349 ("DOMBROWSKI ET AL.")

Claim Term or Phrase Requiring Construction	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Court's Construction
Claim 6:			
"plurality of user interface key caps"	AGREED	AGREED	"More than one

key cap that can be depressed by a user."

6. A keypad, the keypad comprising:

a **plurality of user interface key caps, the plurality of user interface key caps** separated by spaces on at least some sides thereof;

a carrier portion interconnecting the plurality of user interface keycaps, the **plurality of user interface key caps flexibly coupled to the carrier portion,** the **plurality of user interface key caps** and the carrier portion constitute a unitary member and are formed of the same material;

a flexible web interconnecting at least some of the **plurality of user interface key caps,** the flexible web disposed on a backside of at least some of the **plurality of user interface key caps,** the flexible web interconnecting the **plurality of user interface key caps** comprising an elastic material different than a material of the user interface key caps.

Claim 6:

"carrier portion interconnecting the plurality of user interface key caps"	"Material filling or bridging the area between two adjacent user interface key caps."	"Material between the key caps which connects the key caps contained on the keypad."	"Material connecting at least two user interface key caps."

6. A keypad, the keypad comprising:

a plurality of user interface key caps, the plurality of user interface key caps separated by spaces on at least some sides thereof;

a **carrier portion interconnecting the plurality of user**

interface keycaps, the plurality of user interface key caps flexibly coupled to the carrier portion, the plurality of user interface key caps and the carrier portion constitute a unitary member and are formed of the same material;

a flexible web interconnecting at least some of the plurality of user interface key caps, the flexible web disposed on a backside of at least some of the plurality of user interface key caps, the flexible web interconnecting the plurality of user interface key caps comprising an elastic material different than a material of the user interface key caps.

Claim 6:

"interconnecting"	"Filling or bridging a space or area."	"Connecting the key caps."	"Connecting the key caps."

6. A keypad, the keypad comprising:

a plurality of user interface key caps, the plurality of user interface key caps separated by spaces on at least some sides thereof;

a carrier portion **interconnecting** the plurality of user interface keycaps, the plurality of user interface key caps flexibly coupled to the carrier portion, the plurality of user interface key caps and the carrier portion constitute a unitary member and are formed of the same material;

a flexible web **interconnecting** at least some of the plurality of user interface key caps, the flexible web disposed on a backside of at least some of the plurality of user interface key caps, the flexible web **interconnecting** the plurality of user interface key caps comprising an elastic material different than a material of the user interface key caps.

Claim 6:

"flexibly coupled to the carrier portion"			
6. A keypad, the keypad comprising:	Plain and ordinary meaning.	Requires construction.	Requires construction.
a plurality of user interface key caps, the plurality of user interface key caps separated by spaces on at least some sides thereof;	Should the court require a construction, "flexibly coupled to the carrier portion" means "attached in such a manner as to allow individual key caps to be pressed; not rigid."	"The key caps are coupled to the carrier portion so that the key caps flexes in relation to carrier portion when pressed."	"The key caps are coupled to the carrier portion so that the key caps flex in relation to the carrier portion when pressed."
a carrier portion interconnecting the plurality of user interface keycaps, the plurality of user interface key caps **flexibly coupled to the carrier portion,** the plurality of user interface key caps and the carrier portion constitute a unitary member and are formed of the same material;			
a flexible web interconnecting at least some of the plurality of user interface key caps, the flexible web disposed on a backside of at least some of the plurality of user interface key caps, the flexible web interconnecting the plurality of user interface key caps comprising an elastic material different than a material of the user interface key caps.			
Claim 6:			
"unitary member"		AGREED	AGREED	"Formed of the same piece of material to form a unit."

6. A keypad, the keypad comprising:

a plurality of user interface key caps, the plurality of user interface key caps separated by spaces on at least some sides thereof;

a carrier portion interconnecting the plurality of user interface keycaps, the plurality of user interface key caps flexibly coupled to the carrier portion, the plurality of user interface key caps and the carrier portion constitute a **unitary member** and are formed of the same material;

a flexible web interconnecting at least some of the plurality of user interface key caps, the flexible web disposed on a backside of at least some of the plurality of user interface key caps, the flexible web interconnecting the plurality of user interface key caps comprising an elastic material different than a material of the user interface key caps.

Claim 6:

"flexible web"

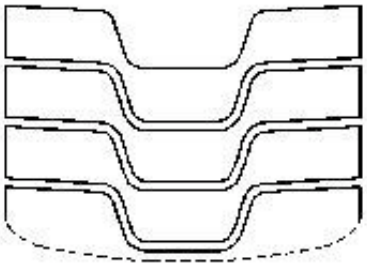
6. A keypad, the keypad comprising:	Plain and ordinary meaning.	Requires construction.	Requires construction.
a plurality of user interface key caps, the plurality of user interface key caps separated by spaces on at least some sides thereof;	Should the Court require a construction, the "flexible web" is "an elastic sheet of material."	"A flat layer of material placed on the backside of the key caps which allows the key caps to move independently and preventing the key caps from being pulled up."	"A flat layer of elastic material."
a carrier portion interconnecting the plurality of user interface keycaps, the plurality of user interface key caps flexibly coupled to the carrier portion, the plurality of user interface key caps and the carrier portion constitute a unitary member and are formed of the same material;	In the alternative, Motorola would be amenable to a construction of "a flat layer of elastic		

material."

a **flexible web** interconnecting at least some of the plurality of user interface key caps, the flexible web disposed on a backside of at least some of the plurality of user interface key caps, the **flexible web** interconnecting the plurality of user interface key caps comprising an elastic material different than a material of the user interface key caps.			

U.S. DESIGN PATENT NO. D559,842 ("DOMBROWSKI ET AL.")

Claim Term or Phrase Requiring Construction	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Court's Construction
Claim:			
1. The ornamental design for a keypad, substantially as shown and described.	"A keypad in which adjacent key caps are interconnected and arranged in a serpentine manner, each set nested with adjacent sets."	"A keypad having at least three rows with each row having a closed boundary defined by top, bottom and side boundaries, with each row having: (1) a discernable space between its bottom boundary and the top boundary of the adjacent row therebeneath, (2) three key portions, with a middle key portion between two side key portions, where each key portion is generally twice as wide as it is high, and (3) a middle curved down so that the middle key portion has a horizontal top boundary which is lower than the bottom boundary of the side key portions of its row where (a) the side key portions have top and bottom boundaries which are tapered upwardly slightly from the middle toward the sides of the row and (b) the middle key portion of each row has top and bottom boundaries aligned to generally intersect with the middle of the tapered top and bottom boundaries respectively of the, side key portions of the adjacent row therebeneath"	No construction necessary.
[symbol below]			



U.S. PATENT NO. 5,157,391 ("WEITZEN")			
Claim Term or Phrase Requiring Construction	**Plaintiff's Proposed Construction**	**Defendant's Proposed Construction**	**Court's Construction**
Claims 1 and 5:			
"A method of presenting a plurality of function indicators in a selective call receiver capable of receiving a message"	AGREED	AGREED	"A method for presenting function indicators in a selective call receiver capable of receiving messages. A function indicator is a visual indicator on the display of the selective call receiver representing a 'function action' that may be selected by the user and performed by the selective call receiver."
1. **A method of presenting a plurality of function indicators in a selective call receiver capable of receiving a message,** the method comprising the steps of: in a message read mode: displaying a first set of said plurality of function indicators associated with said message read mode and said message; and in a selective call receiver status mode: displaying a second set of said plurality of function indicators associated with said selective call receiver			

status mode.			
Claims 1 and 5: **"selective call receiver"**			
1. A method of presenting a plurality of function indicators in a selective call receiver capable of receiving a message, the method comprising the steps of: in a message read mode: displaying a first set of said plurality of function indicators associated with said message read mode and said message; and in a **selective call receiver** status mode: displaying a second set of said plurality of function indicators associated with said **selective call receiver** status mode. 5. An apparatus for presenting a plurality of function indicators in a **selective call receiver** capable of receiving a message, comprising: in a message read mode: first means for displaying a first set of said plurality of function indicators associated with said message read mode and said message; in a **selective call receiver** status mode: second means for displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.	"A receiver that can respond to a radio signal communication that is specifically directed to it."	"A pager."	"A receiver that can respond to a radio signal communication that is specifically directed to it."
Claims 1 and 5: **"message"**			
1. A method of presenting a plurality	Plain and ordinary meaning.	Requires	Requires

of function indicators in a selective call receiver capable of receiving a message, the method comprising the steps of:		construction.	construction.
in a **message** read mode: displaying a first set of said plurality of function indicators associated with said **message** read mode and said **message;** and	Should the Court require a construction, "message" means "a communication."	"Information received by the pager and entered by the sender of the page."	"Information received by the selective call receiver."
in a selective call receiver status mode: displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.	In the alternative, Motorola would be amenable to a construction of "information received by the selective call receiver."		
5. An apparatus for presenting a plurality of function indicators in a selective call receiver capable of receiving a **message,** comprising:			
in a **message** read mode: first means for displaying a first set of said plurality of function indicators associated with said **message** read mode and said **message;**			
in a selective call receiver status mode: second means for displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.			

Claims 1 and 5:

"mode"

1. A method of presenting a plurality of function indicators in a selective call receiver capable of receiving a message, the method comprising the steps of:	AGREED	AGREED	"A method or condition of

operation."

in a message read **mode:** displaying a first set of said plurality of function indicators associated with said message read **mode** and said message; and

in a selective call receiver status **mode:** displaying a second set of said plurality of function indicators associated with said selective call receiver status **mode.**

5. An apparatus for presenting a plurality of function indicators in a selective call receiver capable of receiving a message, comprising:

in a message read **mode:** first means for displaying a first set of said plurality of function indicators associated with said message read **mode** and said message;

in a selective call receiver status **mode:** second means for displaying a second set of said plurality of function indicators associated with said selective call receiver status **mode.**

Claims 1 and 5:

"message read mode"

1. A method of presenting a plurality of function indicators in a selective call receiver capable of receiving a message, the method comprising the steps of:	"A mode automatically entered by the selective call receiver if a message is present."	"A mode in which a message entered by the sender is displayed."	"A mode entered by the selective call receiver if a message is present."
in a **message read mode:** displaying a first set of said plurality of function indicators associated with said **message read mode** and said message; and			
in a selective call receiver status mode: displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.			

5. An apparatus for presenting a plurality of function indicators in a selective call receiver capable of receiving a message, comprising:

in a **message read mode:** first means for displaying a first set of said plurality of function indicators associated with said **message read mode** and said message;

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in a selective call receiver status mode: second means for displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.

Claims 1 and 5:

"displaying a first set of said plurality of function indicators associated with said message read mode and said message"	AGREED	AGREED	"Displaying the function indicators associated with the read mode and the selected message where the read mode is automatically determined, and not user-selected."

1. A method of presenting a plurality of function indicators in a selective call receiver capable of receiving a message, the method comprising the steps of:

in a message read mode: **displaying a first set of said plurality of function indicators associated with said message read mode and said message;** and

in a selective call receiver status mode: displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.

5. An apparatus for presenting a plurality of function indicators in a selective call receiver capable of receiving a message, comprising:

in a message read mode: first means for **displaying a first set of said plurality of function indicators associated with said message read mode and said message;**

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in a selective call receiver status mode: second means for displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.

Claims 1 and 5:

"selective call receiver status mode"

1. A method of presenting a plurality of function indicators in a selective call receiver capable of receiving a message, the method comprising the steps of:	"A mode in a selective call receiver that is selected automatically when no message is present."	"A mode in which a message is not displayed."	"A mode in a selective call receiver that is selected when no message is present."

in a message read mode: displaying a first set of said plurality of function indicators associated with said message read mode and said message; and

in a **selective call receiver status mode:** displaying a second set of said plurality of function indicators associated with said **selective call receiver status mode.**

5. An apparatus for presenting a plurality of function indicators in a selective call receiver capable of receiving a message, comprising:

in a message read mode: first means for displaying a first set of said plurality of function indicators associated with said message read mode and said message;

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in a **selective call receiver status mode:** second means for displaying a second set of

said plurality of function indicators associated with said selective call receiver status mode.			

Claims 1 and 5:

"displaying a second set of said plurality of function indicators associated with said selective call receiver status mode"	AGREED	AGREED	"Displaying a second set of function indicators associated with the status mode, where the status mode is automatically determined, not user-selected."

1. A method of presenting a plurality of function indicators in a selective call receiver capable of receiving a message, the method comprising the steps of:

in a message read mode: displaying a first set of said plurality of function indicators associated with said message read mode and said message; and

in a selective call receiver status mode: **displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.**

5. An apparatus for presenting a plurality of function indicators in a selective call receiver capable of receiving a message, comprising:

in a message read mode: first means for displaying a first set of said plurality of function indicators associated with said message read mode and said message;

in a selective call receiver status mode: second means for **displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.**

Claim 5:

"An apparatus for presenting a	AGREED	AGREED	"An apparatus for presenting function

plurality of function indicators in a selective call receiver capable of receiving a message"			indicators in a selective call receiver. A function indicator is a visual indicator on the display of the selective call receiver representing a 'function action' that may be selected by the user and performed by the selective call receiver."
5. **An apparatus for presenting a plurality of function indicators in a selective call receiver capable of receiving a message,** comprising: in a message read mode: first means for displaying a first set of said plurality of function indicators associated with said message read mode and said message; in a selective call receiver status mode: second means for displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.			
Claim 5:			
"first means for displaying a first set of said plurality of function indicators associated with said message read mode and said message"	AGREED	AGREED	Function: "to display the function indicators associated with the read mode and the selected message where the read mode is automatically determined, and not user-selected."
5. An apparatus for presenting a plurality of function indicators in a selective call receiver capable of receiving a message, comprising: in a message read mode: **first means for displaying a first set of said plurality of function indicators associated with said message read mode and said message;**			

in a selective call receiver status mode: second means for displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.			Structure: "hardware displayed in Blocks 103 and 104 of Fig. 1 and the software represented by the flowchart of Fig. 2."

Claim 5:

"second means for displaying a second set of said plurality of function indicators associated with said selective call receiver status mode"	AGREED	AGREED	Function: "to display a second set of function indicators associated with the status mode, where the status mode is automatically determined, and not user-selected."
5. An apparatus for presenting a plurality of function indicators in a selective call receiver capable of receiving a message, comprising:			
in a message read mode: first means for displaying a first set of said plurality of function indicators associated with said message read mode and said message;			Structure: "hardware displayed in Blocks 103 and 104 of Fig. 1 and the software represented by the flowchart of Fig. 2."
in a selective call receiver status mode: **second means for displaying a second set of said plurality of function indicators associated with said selective call receiver status mode.**			

U.S. PATENT NO. 5,394,140 ("WONG ET AL.")

Claim Term or Phrase Requiring Construction	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Court's Construction
Claims 1, 2, 3, 15, and 19:			
"communication receiver"			
1. A communication receiver comprising:		"A device that obtains and	"A radio pager."	"A device that obtains and

demodulates radio signals."

demodulates radio signals."

receiver means for receiving a message comprising at least a received call-back number;

storage means for storing at least one user-programmed call-back number along with data defining at least one corresponding user-programmed special audible alert, and further for storing data defining a user-programmed default audible alert;

processor means coupled to the receiver means for processing the message to derive the received call-back number and coupled to the storage means for comparing the received call-back number with the at least one user-programmed call-back number; and

audible alert generation means coupled to the processor means for generating, in response to the received call-back number being found equal to a call-back number included in the at least one user-programmed call-back number, the corresponding user-programmed special audible alert in accordance with the data defining said alert;

wherein the processor means comprises a first processor element for controlling the audible alert generation means to generate the user-programmed default audible alert in response to the received call-back number being found not equal to any call-back number included in the at least one user-programmed call back number.

2. The **communication receiver** in accordance with claiml, further comprising user control means coupled to the processor means and to the storage means for allowing a user to add or delete a user-programmed call-back number and a corresponding user-programmed special audible alert.

3. The **communication receiver** in accordance with claim 1, wherein the storage means comprises a non-volatile memory.

15. A method in a **communication receiver** for controlling an audible alert in response to a received call-back number, the method comprising the steps of:

(a) receiving a message comprising at least the received call-back

number;

(b) comparing the received call-back number with at least one user-programmed call-back number;

(c) selecting a user-programmed special audible alert corresponding to the received call-back number in response to determining in step (b) that the received call-back number is equal to a call-back number included in the at least one user-programmed call-back number;

(d) selecting a user-programmed default audible alert in response to determining in step (b) that the received call-back number is not equal to any call-back number included in the at least one user-programmed call-back number; and

(e) generating the user-programmed audible alert selected in accordance with steps (c) and (d).

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19. The method in accordance with claim 15, wherein step (d) further comprises the step of de-selecting the user-programmed default audible alert to prevent the generation thereof, a user of the **communication receiver** having selected a silent alert mode.

Claim 1:

"receiver means"

1. A communication receiver comprising:	This claim element is not written in means-plus-function format as the claim provides sufficient structure. The "receiver means" is "a circuit that obtains and demodulates radio signals."	This claim limitation is written in means-plus-function format pursuant to s. 112(6).	This claim limitation is written in means-plus-function format pursuant to s. 112(6).
receiver means for receiving a message comprising at least a received call-back number;			
storage means for storing at least one		**[AGREED-TO**	Structure:

user-programmed call-back number along with data defining at least one corresponding user-programmed special audible alert, and further for storing data defining a user-programmed default audible alert;		**Structure and Disputed Function if s. 112(6) applies]**	"An antennae and receiver."
processor means coupled to the **receiver means** for processing the message to derive the received call-back number and coupled to the storage means for comparing the received call-back number with the at least one user-programmed call-back number; and	**[AGREED-TO Structure and Disputed Function if s. 112(6) applies]**	Function: "to receive and derive address and message information. The message information contains an instruction to call back the sender on a phone."	Function: "receiving a message comprising at least a received call-back number."
audible alert generation means coupled to the processor means for generating, in response to the received call-back number being found equal to a call-back number included in the at least one user-programmed call-back number, the corresponding user-programmed special audible alert in accordance with the data defining said alert;	Function: "receiving a message comprising at least a received call-back number."		
wherein the processor means comprises a first processor element for controlling the audible alert generation means to generate the user-programmed default audible alert in response to the received call-back number being found not equal to any call-back number included in the at least one user-programmed call back number.	AGREED-TO Structure: "an antenna and receiver."	AGREED-TO Structure: "an antenna and receiver."	

Claims 1 and 15:

"received call-back number"

1. A communication receiver comprising:		"A phone number	"A phone	"A telephone

associated with a caller."	number entered by the sender."	number associated with a page sender."

receiver means for receiving a message comprising at least a **received call-back number;**

storage means for storing at least one user-programmed call-back number along with data defining at least one corresponding user-programmed special audible alert, and further for storing data defining a user-programmed default audible alert;

processor means coupled to the receiver means for processing the message to derive the **received call-back number** and coupled to the storage means for comparing the **received call-back number** with the at least one user-programmed call-back number; and

audible alert generation means coupled to the processor means for generating, in response to the **received call-back number** being found equal to a call-back number included in the at least one user-programmed call-back number, the corresponding user-programmed special audible alert in accordance with the data defining said alert;

wherein the processor means comprises a first processor element for controlling the audible alert generation means to generate the user-programmed default audible alert in response to the **received call-back number** being found not equal to any call-back number included in the at least one user-programmed call back number.

15. A method in a communication receiver for controlling an audible alert in response to a **received call-back number,** the method comprising the steps of:

(a) receiving a message comprising at least the **received call-back number;**

(b) comparing the **received call-back number** with at least one user-programmed call-back number;

(c) selecting a user-programmed special audible alert corresponding to the **received call-back number** in response to determining in step (b) that the **received call-back number** is equal to a call-back

number included in the at least one user-programmed call-back number;

(d) selecting a user-programmed default audible alert in response to determining in step (b) that the **received call-back number** is not equal to any call-back number included in the at least one user-programmed call-back number; and

(e) generating the user-programmed audible alert selected in accordance with steps (c) and (d).

Claims 1, 2 and 3:

"storage means"

1. A communication receiver comprising:	This claim element is not written in means-plus-function format as the claim provides sufficient structure. The "storage means" is "a memory element."	This claim limitation is written in means-plus-function format pursuant to s. 112(6).	This claim limitation is written in means-plus-function format pursuant to s. 112(6).
receiver means for receiving a message comprising at least a received call-back number;			
storage means for storing at least one user-programmed call-back number along with data defining at least one corresponding user-programmed special audible alert, and further for storing data defining a user-programmed default audible alert;		**[AGREED-TO Structure and Disputed Function if s. 112(6) applies]**	Structure: "a memory within the communication receiver."

processor means coupled to the receiver means for processing the message to derive the received call-back number and coupled to the **storage means** for comparing the received call-back number with the at least one user-programmed call-back number; and	**[AGREED-TO Structure and Disputed Function if s. 112(6) applies]**	Function: "electronically storing at least one user programmed call back phone number previously entered into the memory by the user. The user also programs and stores in the memory data defining an audible alert associated with the previously entered phone number and comprising alert cadence and alert tone frequency. The user also programs and stores in the memory data defining a default audible alert comprising alert cadence and alert tone frequency."	Function: "storing at least one user-programmed call-back number along with data defining at least one corresponding special audible alert, and further for storing data defining a user-programmed default audible alert."
audible alert generation means coupled to the processor means for generating, in response to the received call-back number being found equal to a call-back number included in the at least one user-programmed call-back number, the corresponding user-programmed special audible alert in accordance with the data defining said alert;	Function: "storing at least one user-programmed call-back number along with data defining at least one corresponding special audible alert, and further for storing data defining a user-programmed default audible alert."		
wherein the processor means comprises a first processor element for controlling the audible alert generation means to generate the user-programmed default audible alert in response to the received call-back number being found not equal to any call-back number included in the at least one user-			

programmed call back number.

2. The communication receiver in accordance with claiml, further comprising user control means coupled to the processor means and to the **storage means** for allowing a user to add or delete a user-programmed call-back number and a corresponding user-programmed special audible alert.

3. The communication receiver in accordance with claim 1, wherein the **storage means** comprises a non-volatile memory.

AGREED-TO Structure: "memory within the communication receiver."

Claims 1, 2, 15, 16 and 17:

"user-programmed call-back number"

1. A communication receiver comprising:	AGREED	AGREED	"A phone number programmed by a user."

receiver means for receiving a message comprising at least a received call-back number;

storage means for storing at least one **user-programmed call-back number** along with data defining at least one corresponding user-programmed special audible alert, and further for storing data defining a user-programmed default audible alert;

processor means coupled to the receiver means for processing the message to derive the received call-back number and coupled to the storage means for comparing the received call-back number with the at least one **user-programmed call-back number;** and

audible alert generation means coupled to the processor means for generating, in response to the received call-back number being found equal to a call-back number included in the at least one **user-programmed call-back number,** the corresponding user-programmed special audible alert in accordance with the data defining said alert;

wherein the processor means comprises a first processor element for controlling the audible alert generation means to generate the user-programmed default audible alert in response to the received call-back number being found not equal to any call-back number included in the at least one **user-programmed call back number.**

2. The communication receiver in accordance with claiml, further comprising user control means coupled to the processor means and to the storage means for allowing a user to add or delete a **user-programmed call-back number** and a corresponding user-programmed special audible alert.

15. A method in a communication receiver for controlling an audible alert in response to a received call-back number, the method comprising the steps of:

(a) receiving a message comprising at least the received call-back number;

(b) comparing the received call-back number with at least one **user-programmed call-back number;**

(c) selecting a user-programmed special audible alert corresponding to the received call-back number in response to determining in step (b) that the received call-back number is equal to a call-back number included in the at least one **user-programmed call-back number;**

(d) selecting a user-programmed default audible alert in response to determining in step (b) that the received call-back number is not equal to any call-back number included in the at least one **user-programmed call-back number;** and

(e) generating the user-programmed audible alert selected in accordance with steps (c) and (d).

16. The method in accordance with claim 15, further comprising the step of adding a new **user-programmed call-back number** and a corresponding new user-programmed special audible alert in response to a user control sequence.

17. The method in accordance with claim 15, further comprising the step of deleting an existing **user-programmed call-back number** and a corresponding user-programmed special audible alert in response to a user control sequence.

Claims 1, 2, 15, 16 and 17:			
"user-programmed special audible alert"			
1. A communication receiver comprising:	"An audible alert selected by a user that is different from the default audible alert."	"The user programs and stores in the memory data defining an audible alert associated with the previously entered phone number and comprising alert cadence and alert tone frequency."	"An audible alert programmed by a user which is used for received call-back numbers that match a user-programmed call back number, wherein the special audible alert is different from the default audible alert."
receiver means for receiving a message comprising at least a received call-back number;			
storage means for storing at least one user-programmed call-back number along with data defining at least one corresponding **user-programmed special audible alert,** and further for storing data defining a user-programmed default audible alert;			

processor means coupled to the receiver means for processing the message to derive the received call-back number and coupled to the storage means for comparing the received call-back number with the at least one user-programmed call-back number; and

audible alert generation means coupled to the processor means for generating, in response to the received call-back number being found equal to a call-back number included in the at least one user-programmed call-back number, the corresponding **user-programmed special audible alert** in accordance with the data defining said alert;

wherein the processor means comprises a first processor element for controlling the audible alert generation means to generate the user-programmed default audible alert in response to the received call-back number being found not equal to any call-back number included in the at least one user-programmed call back number.

2. The communication receiver in accordance with claiml, further comprising user control means coupled to the processor means and to the storage means for allowing a user to add or delete a user-programmed call-back number and a corresponding **user-programmed special audible alert.**

15. A method in a communication receiver for controlling an audible alert in response to a received call-back number, the method comprising the steps of:

(a) receiving a message comprising at

least the received call-back number;

(b) comparing the received call-back number with at least one user-programmed call-back number;

(c) selecting a **user-programmed special audible alert** corresponding to the received call-back number in response to determining in step (b) that the received call-back number is equal to a call-back number included in the at least one user-programmed call-back number;

(d) selecting a user-programmed default audible alert in response to determining in step (b) that the received call-back number is not equal to any call-back number included in the at least one user-programmed call-back number; and

(e) generating the user-programmed audible alert selected in accordance with steps (c) and (d).

16. The method in accordance with claim 15, further comprising the step of adding a new user-programmed call-back number and a corresponding new **user-programmed special audible alert** in response to a user control sequence.

17. The method in accordance with claim 15, further comprising the step of deleting an existing user-programmed call-back number and a corresponding **user-programmed special audible alert** in response to a user control sequence.

Claims 1, 15, 18 and 19:

"user-programmed default audible alert"

1. A communication receiver comprising:	"An audible alert selected by a user that is used for call-back numbers that are not associated with a special audible alert."	"The user programs and stores in memory data defining a default audible alert comprising alert cadence and alert tone frequency."	"An audible alert programmed by a user which is used for received call-back numbers that are not associated with a user-programmed call back number."

receiver means for receiving a message comprising at least a received call-back number;

storage means for storing at least one user-programmed call-back number along with data defining at least one corresponding user-programmed special audible alert, and further for storing data defining a **user-programmed default audible alert;**

processor means coupled to the receiver means for processing the message to derive the received call-back number and coupled to the storage means for comparing the received call-back number with the at least one user-programmed call-back number; and

audible alert generation means coupled to the processor means for generating, in response to the received call-back number being found equal to a call-back number included in the at least one user-programmed call-back number, the corresponding user-programmed special audible alert in accordance with the data defining said alert;

wherein the processor means comprises a

first processor element for controlling the audible alert generation means to generate the **user-programmed default audible alert** in response to the received call-back number being found not equal to any call-back number included in the at least one user-programmed call back number .

15. A method in a communication receiver for controlling an audible alert in response to a received call-back number, the method comprising the steps of:

(a) receiving a message comprising at least the received call-back number;

(b) comparing the received call-back number with at least one user-programmed call-back number;

(c) selecting a user-programmed special audible alert corresponding to the received call-back number in response to determining in step (b) that the received call-back number is equal to a call-back number included in the at least one user-programmed call-back number;

(d) selecting a **user-programmed default audible alert** in response to determining in step (b) that the received call-back number is not equal to any call-back number included in the at least one user-programmed call-back number; and

(e) generating the user-programmed audible alert selected in accordance with steps (c) and (d).

18. The method in accordance with claim 15, further comprising the step of modifying the **user-programmed default audible alert** in response to a user control sequence.

19. The method in accordance with claim 15, wherein step (d) further comprises the step of de-selecting the **user-programmed default audible alert** to prevent the generation thereof, a user of the communication receiver having selected a silent alert mode.

Claims 1 and 2:

"processor means"

1. A communication receiver comprising:	This claim element is not written in means-plus-funct ion format as the claim provides sufficient structure. The "processor means" is "a microprocessor ."	This claim limitation is written in means-plus-funct ion format pursuant to s. 112(6).	This claim limitation is written in means-plus-functio n format pursuant to s. 112(6).
receiver means for receiving a message comprising at least a received call-back number;			
storage means for storing at least one user-programmed call-back number along with data defining at least one corresponding user-programmed special audible alert, and further for storing data defining a user-programmed default audible alert;	Function: "processing the message to derive the received callback number ... [and] comparing the received callback number with the at least one user-programmed call-back number."	Function: "The programmed microprocessor compares the sender entered call back number in the message to the user-programmed phone number stored into the memory by the user."	Function: "processing the message to derive the received call back number and comparing the received call back number with the at least one user-programmed call-back number."
processor means coupled to the receiver means for processing the message to derive the received call-back number and coupled to the storage means for comparing the received call-back number with			

the at least one user-programmed call-back number; and			
audible alert generation means coupled to the **processor means** for generating, in response to the received call-back number being found equal to a call-back number included in the at least one user-programmed call-back number, the corresponding user-programmed special audible alert in accordance with the data defining said alert;	Structure: "microprocessor 208 and associated software."	Structure: "A microprocessor is programmed as defined in the flow diagram of Fig. 4. The microprocessor is connected to the receiver and the memory."	Structure: "a microprocessor programmed as defined in steps 404, 406 and 408 of Figure 4. The microprocessor is coupled to the receiver means and the storage means."
wherein the **processor means** comprises a first processor element for controlling the audible alert generation means to generate the user-programmed default audible alert in response to the received call-back number being found not equal to any call-back number included in the at least one user-programmed call back number.			
2. The communication receiver in accordance with claim1, further comprising user control means coupled to the **processor means** and to the storage means for allowing a user to add or delete a user-programmed call-back number and a corresponding user-programmed special audible alert.			

Claim 1:			
"audible alert generation means"			
1. A communication receiver comprising:	This claim element is not written in means-plus-function format as the claim provides	This claim limitation is written in means-plus-function format pursuant to s. 112(6).	This claim limitation is written in means-plus-function format pursuant to s. 112(6).

	sufficient structure. The "audible alert generation means" is "an audible alert generator."		
receiver means for receiving a message comprising at least a received call-back number;			
storage means for storing at least one user-programmed call-back number along with data defining at least one corresponding user-programmed special audible alert, and further for storing data defining a user-programmed default audible alert;		**[AGREED TO Function and Disputed Structure if s. 112(6) applies]**	Function: "generating, in response to the received call-back number being found equal to a call back number included in the at least one user-programmed callback number, the corresponding user-programmed special audible alert in accordance with the data defining said alert."
processor means coupled to the receiver means for processing the message to derive the received call-back number and coupled to the storage means for comparing the received call-back number with the at least one user-programmed call-back number; and	**[AGREED TO Function and Disputed Structure if s. 112(6) applies]**	AGREED TO Function: "generating, in response to the received call back number being found equal to a call back number included in the at least one user programmed callback number, the corresponding user programmed special audible alert in accordance with the data defining said alert."	
audible alert generation means coupled to the	AGREED TO Function: "generating,		

processor means for generating, in response to the received call-back number being found equal to a call-back number included in the at least one user-programmed call-back number, the corresponding user-programmed special audible alert in accordance with the data defining said alert;	in response to the received call back number being found equal to a call back number included in the at least one user programmed callback number, the corresponding user programmed special audible alert in accordance with the data defining said alert."		
wherein the processor means comprises a first processor element for controlling the **audible alert generation means** to generate the user-programmed default audible alert in response to the received call-back number being found not equal to any call-back number included in the at least one user-programmed call back number.			
	Structure: "audible alert generator 212, such as that described in U.S. Pat. 4,868,561."	Structure: "An alert circuit generates programmable audio alert patterns for supply to a speaker. The alert circuit is coupled to the microprocessor. The microprocessor is programmed as shown in blocks 408 to 416 in Fig. 4."	Structure: "a programmable audible alert generator 212, such as that described in U.S. Patent No. 4,868,561. The programmable audible alert generator is coupled to the processor means."
Claim 1:			
"first processor element"			

1. A communication receiver comprising:	This claim element is not written in means-plus-function format as the claim provides sufficient structure. The "first processor element" is "software or firmware associated with the microprocessor."	This claim limitation is written in means-plus-function format pursuant to s. 112(6).	This claim element is not written in means-plus-function format.
receiver means for receiving a message comprising at least a received call-back number;			"A programmed microprocessor."
storage means for storing at least one user-programmed call-back number along with data defining at least one corresponding user-programmed special audible alert, and further for storing data defining a user-programmed default audible alert;		**[AGREED-TO Function and Disputed Structure if s. 112(6) applies]**	
processor means coupled to the receiver means for processing the message to derive the received call-back number and coupled to the storage means for comparing the received call-back number with the at least one user-programmed call-back number; and	**[AGREED TO Function and Disputed Structure if s. 112(6) applies]**	AGREED-TO Function: "controlling the audible alert generation means to generate the user-programme d default audible alert in response to the received call-back number being found not equal to any call-back number included in the at least one user-programme d call back number."	
audible alert generation means coupled to the processor means for generating, in response to the received call-back number being found equal to a call-back number included in the at least one user-programmed	AGREED TO Function: "controlling the audible alert generation means to generate the user programmed default audible alert in response to the received call back number being found not		

call-back number, the corresponding user-programmed special audible alert in accordance with the data defining said alert; wherein the processor means comprises a **first processor element** for controlling the audible alert generation means to generate the user-programmed default audible alert in response to the received call-back number being found not equal to any call-back number included in the at least one user-programmed call back number.	equal to any call back number included in the at least one user programmed call back number."		
		Structure: "The microprocessor is programmed as blocks 408 and 420 to 426 in Fig. 4."	
	Structure: "microprocessor 208 and associated software."		
Claim 2: **"user control means"**			
2. The communication receiver in accordance with claiml, further comprising **user control means** coupled to the processor means and to the storage means for allowing a user to add or delete a user-programmed call-back number and a corresponding user-programmed special audible alert.	**[AGREED-TO Function and Disputed Structure]**	**[AGREED-TO Function and Disputed Structure]**	Function: "allowing a user to add or delete a user-programmed call-back number and a corresponding user-programmed special audible alert."

	AGREED-TO Function: "allowing a user to add or delete a user-programmed call-back number and a corresponding user-programmed special audible alert."	AGREED-TO Function: "allowing a user to add or delete a user-programmed call-back number and a corresponding user-programmed special audible alert."	
	Structure: "user controls 216, such as well-known buttons and switches."	Structure: "The pager includes an add key and a delete key coupled to the processor and the memory."	Structure: "user controls such as buttons and switches or a menu and cursor, the user controls are coupled to the processor means and to the storage means ."

Claim 3:

"non-volatile memory"

3. The communication receiver in accordance with claim 1, wherein the storage means comprises a **non-volatile memory.**	AGREED	AGREED	"A memory element that retains stored information even when not powered."

U.S. PATENT NO. 5,848,356 ("JAMBHEKAR ET AL.")

Claim Term or Phrase Requiring Construction	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Court's Construction
Claim 1:			
"radio communication device"			
1. A method storing telephone numbers in a **radio communication device,** the **radio communication device** having a memory and a graphical display, the method comprising the stops of:	AGREED	AGREED	"A device that receives and transmits radio signals."

entering a telephone number;

choosing a first graphical icon from a predetermined plurality of graphical icons to be associated with said telephone number; and

storing said telephone number and said first graphical icon together in the memory.

Claim 1:

"graphical icon"

1. A method storing telephone numbers in a radio communication device, the radio communication device having a memory and a graphical display, the method comprising the stops of:	"An image that represents an object, process, concept, or function. A textual label by itself is not a graphical icon."	"A graphical icon associated with a functional feature of a phone."	"A graphical image."

entering a telephone number;

choosing a first **graphical icon** from a predetermined plurality of **graphical icons** to be associated with said telephone number; and

storing said telephone number and said first **graphical icon** together in the memory.

Claim 1:

"a predetermined plurality of graphical icons"

1. A method storing telephone numbers in a radio communication device, the radio communication device having a memory and a graphical display, the method comprising the stops of:	AGREED	AGREED	"More than one pre-stored graphical icon."

entering a telephone number;

choosing a first graphical icon from **a predetermined plurality of graphical icons** to be associated with said telephone number; and

storing said telephone number and said first graphical icon together in the memory.

Claim 1:

"storing said telephone number and said first graphical icon together in memory"	"Storing both the telephone number and the association to the selected icon in the memory."	"The telephone number and graphical icon are stored together in memory in the same memory location."	"Storing together the telephone number and the association to the selected icon in the memory."

1. A method storing telephone numbers in a radio communication device, the radio communication device having a memory and a graphical display, the method comprising the stops of:

entering a telephone number;

choosing a first graphical icon from a predetermined plurality of graphical icons to be associated with said telephone number; and

storing said telephone number and said first graphical icon together in the memory.

U.S. PATENT NO. 4,866,766 ("MITZLAFF")

Claim Term or Phrase Requiring Construction	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Court's Construction
Claim 1:			

"user-programmable ringer"			
1. A telephone set responsive to a ring signal including, a **user programmable ringer,** a keypad for both dialing out and programming said ringer, said set further comprising: processing means, integral to the telephone set, for receiving a plurality of user coded ring parameters from said keypad, said processing means including, memory means for storing from said processing means said coded ring parameters; ring generator means, integral to the telephone set responsive to the processing means and to the ring signal, for activating said user programmed parameters from said memory to produce an audible ring pattern and tone.	AGREED	AGREED	"A ringer that produces a user-composed ring."

Claim 1:

"a keypad for both dialing out and programming said ringer"	"A telephone keypad used for both dialing out and programming a ringer."	"The user can program the ringer entirely using the same keypad that is used for dialing out."	"A telephone keypad in which the same keypad is used for both dialing out and programming a ringer."
1. A telephone set responsive to a ring signal including, a user programmable ringer, **a keypad for both dialing out and programming said ringer,** said set further comprising: processing means, integral to the telephone set, for receiving a plurality of user coded ring parameters from said keypad, said processing means including, memory means for storing from said processing means said coded ring parameters; ring generator means, integral to the telephone set responsive to the processing			

means and to the ring signal, for activating said user programmed parameters from said memory to produce an audible ring pattern and tone.			
Claim 1:			
"processing means"			
1. A telephone set responsive to a ring signal including, a user programmable ringer, a keypad for both dialing out and programming said ringer, said set further comprising:	This element is not written in means-plus-funct ion format as the claim provides sufficient structure. The processing means is "a microprocessor contained within the telephone set for receiving more than one user-coded ring parameter from the keypad."	This claim limitation is written in means-plus-funct ion format pursuant to s. 112(6).	This claim limitation is written in means-plus-functio n format pursuant to s. 112(6).
processing means, integral to the telephone set, for receiving a plurality of user coded ring parameters from said keypad, said **processing means** including, memory means for storing from said processing means said coded ring parameters;			Function: "receiving a plurality of user coded ring parameters from said keypad."
ring generator means, integral to the telephone set responsive to the processing means and to the ring signal, for activating said user programmed parameters from said memory to produce an audible ring pattern and tone.			Structure: "a microprocessor which is part of the telephone set."
	[AGREED-TO Element if s. 112(6) applies] AGREED-TO Function: "receiving a plurality of user coded ring parameters from said keypad." AGREED-TO Structure: "a microprocessor which is part of the telephone set."		
Claim			

1: **"user-coded ring parameters"**			
1. A telephone set responsive to a ring signal including, a user programmable ringer, a keypad for both dialing out and programming said ringer, said set further comprising:	AGREED	AGREED	"Parameters entered by the user to compose the ring. Examples of user-coded ring parameters include ringer tone, single pulse duration, number of pulses per group, pulse group duration, intergroup delay, and the intercycle delay."
processing means, integral to the telephone set, for receiving a plurality of **user coded ring parameters** from said keypad, said processing means including, memory means for storing from said processing means said coded ring parameters;			
ring generator means, integral to the telephone set responsive to the processing means and to the ring signal, for activating said user programmed parameters from said memory to produce an audible ring pattern and tone.			

Claim 1: **"ring generator means"**			
1. A telephone set responsive to a ring signal including, a user programmable ringer, a keypad for both dialing out and programming said ringer, said set further comprising:	This claim element is not written in means-plus-funct ion format as the claim provides sufficient structure. The "ring generator means" is "a component within the telephone set that generates rings. In response to the microprocessor and the ring signal, the ring generator will produce a ring based on the parameters entered by the user."	This claim limitation is written in means-plus-funct ion format pursuant to s. 112(6).	This claim limitation is written in means-plus-functio n format pursuant to s. 112(6).

processing means, integral to the telephone set, for receiving a plurality of user coded ring parameters from said keypad, said processing means including, memory means for storing from said processing means said coded ring parameters;

ring generator means, integral to the telephone set responsive to the processing means and to the ring signal, for activating said user programmed parameters from said memory to produce an audible ring pattern and tone.

Function: "activating said user programmed parameters from said memory to produce an audible ring pattern and ring tone in response to the microprocessor and the ring signal."

Structure: "a ring generator contained within the telephone set, such as a conventional digital-to-analog signal converter coupled to a voltage controlled oscillator, programmable sound generator, power bell, buzzer, electronic beeper, or a programmable audio oscillator circuit followed by an audio amplifier."

[AGREED-TO Element if s. 112(6) applies]
AGREED-TO Function: "activating said user programmed parameters from said memory to produce an audible ring pattern and ring tone in response to the microprocessor and the ring signal."

	AGREED-TO Structure: "a ring generator contained within the telephone set, such as a conventional digital-to-analog signal converter coupled to a voltage controlled oscillator, programmable sound generator, power bell, buzzer, electronic beeper, or a programmable audio oscillator circuit followed by an audio amplifier ."			

Claim 2: **"intergroup delay"**				
2. A telephone set, according to claim 1, wherein the said plurality of ring parameters includes parameters representative of an **intergroup delay** and pulse group duration.		AGREED	AGREED	"The time between groups of pulses."

Claim 2: **"pulse-group duration"**				
2. A telephone set, according to claim 1, wherein the said plurality of ring parameters includes parameters representative of an intergroup delay and **pulse group duration.**		AGREED	AGREED	"The time duration of a group of pulses."