United States District Court,
D. Delaware.

PHILIPS ELECTRONICS NORTH AMERICA CORPORATION and U.S. Philips Corporation,
Plaintiffs.
v.
CONTEC CORPORATION, Compo Micro Tech, Inc., Seoby Electronics Co., Ltd., Remote Solution Co., Ltd., F/K/A Hango Electronics Co., Ltd., Hango Remote Solution, Inc,
Defendants.

No. CIV.A.02-123-KAJ

March 29, 2004.

Background: Owner of patents directed to universal remote control (URC) units for controlling home appliances sued competitors for infringement. Parties requested claim construction.

Holdings: The District Court, Jordan, J., held that:
(1) "signal structure identification data" was information that identified signal structure;
(2) "an entry initiate key" was one entry initiate key; and
(3) "entry initiate signal" was keyboard output signal generated by entry initiate key.

Claims construed.

See also 2004 WL 503602, 2004 WL 540893.

4,703,359, 5,872,562. Construed.

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OPINION

JORDAN**, District Judge.**

I. INTRODUCTION

This is a patent infringement case. Before me are the parties' requests for construction of the disputed claim language of U.S. Patent No. 4,703,359 (issued October 27, 1987) ("the '359 patent") and U.S. Patent No. 5,872,562 (issued February 16, 1999) ("the '562 patent"), pursuant to 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). Plaintiffs in this case are Philips Electronics North America Corporation and U.S. Philips Corporation (collectively, "Philips"). The defendant is Compo Micro Tech, Inc. ("CMT"). The parties have fully briefed their positions and appeared before me for oral argument on November 25, 2003. Jurisdiction is proper under 28 U.S.C. s. 1338.

II. BACKGROUND

A. Procedural Background

Philips filed a complaint for patent infringement against defendant Contec Corporation ("Contec") on February 12, 2002. (Docket Item ["D.I."] 1.) On September 17, 2002, Philips was granted leave to amend its complaint to join as additional defendants CMT, Seoby Electronics Co., Ltd. ("Seoby"), Remote Solution Co., Ltd. f/k/a Hango Electronics Co., Ltd. ("Remote Solution"), and Hango Remote Solution, Inc. ("Hango"). (D.I.41, 42.) On August 28, 2003, Philips, Seoby, and Contec entered into a Consent Judgment, leaving Remote Solution, Hango, and CMT as the only defendants in this case. (D.I.258.) Remote Solution's Motion to Dismiss for Lack of Personal Jurisdiction (D.I.105) was denied on March 11, 2004. (D.I. 351; reported at Philips Elecs. N. Am. Corp. v. Contec Corp., 2004 WL 503602, 2004 U.S. Dist. LEXIS 3940 (D.Del. Mar. 11, 2004).) CMT's Motion to Sever and for Separate Trials (D.I.342) was granted on March 12, 2004. (D.I. 352, 353; reported at Philips Elecs. N. Am. Corp. v. Contec Corp., 220 F.R.D. 415, 2004 WL 540893 (D.Del.2004).) Philips and CMT are scheduled to try this case to a jury beginning on April 12, 2004. FN1

FN1. As explained in the Memorandum Order denying Remote Solution's Motion to Dismiss for Lack of Personal Jurisdiction, Remote Solution is litigating this case on behalf of Hango, its defunct subsidiary. (D.I. 351 at 5.) Thus, while technically different entities, Remote Solution and Hango are essentially the same for purposes of this litigation. (*Id.;* D.I. 353 at 2 n. 1.) Because CMT's Motion to Sever was granted, Philips and Remote Solution/Hango will try this case at a later, as yet undetermined date. (D.I. 353 at 5.)

B. The Disclosed Technology

Both the '359 FN2 and the '562 FN3 patents disclose technology directed to remote control units for controlling a variety of home appliances from different manufacturers. *See* '359 patent, col. 1, II. 15-17; '562 patent, col. 1, II. 13-16. The remote control units disclosed in these patents are referred to as "universal" remote controls ("URCs"). For a thorough discussion of the background of URC technology, *see* Phillips Elecs. N. Am. Corp. v. Universal Elec. Inc., 930 F.Supp. 986, 988-89 (D.Del.1996) (post-trial decision regarding '359 patent).

FN2. The '359 patent, entitled "Universal Remote Control Unit With Model Identification Capability," names as inventors Robin B. Rumbolt, William R. McIntyre, and Larry E. Goodson.

FN3. The '562 patent, entitled "Universal Remote Control Transmitter with Simplified Device Identification," names as inventors Donald P. McConnell and William R. McIntyre.

1. The '359 patent

The '359 patent discloses methods and an apparatus for a URC that stores multiple signal structures FN4 for different appliances and use a "search" or "scanning" method to identify the proper signal structure for a particular appliance. (D.I. 293 at 5; D.I. 304 at 3.) The user activates the URC by sending the same command, *e.g.*, "channel up," in different signal structures until the user observes the appliance respond by advancing the channel up. (D.I. 293 at 5.) The URC disclosed in the '359 patent then stores the information for the appropriate signal structure and uses it to generate commands in the future. (Id.)

FN4. Different manufacturers used different languages, or signal structures, for controlling their appliances and different signal structures for controlling different types of their own appliances, such as televisions and VCRs. *See* Phillips Elecs. N. Am. Corp. v. Universal Elecs. Inc., 930 F.Supp. 986, 988 (D.Del.1996).

2. The '562 patent

The '562 patent discloses methods and an apparatus for a URC that stores multiple signal structures for different appliances and use a "direct entry" method to identify the proper signal structure for a particular appliance. (D.I. 293 at 6; D.I. 304 at 7.) Rather than scanning through multiple signal structures as in the invention of the '359 patent, the user enters a code into the URC that corresponds to the manufacturer and type of appliance he or she seeks to control. (D.I. 293 at 6.) The code entered by the user identifies the proper signal structure for the appliance and the URC disclosed in the '562 patent then uses that signal structure to generate commands in the future. (Id.)

III. APPLICABLE LAW

[1] [2] [3] [4] Patent claims are construed as a matter of law. Markman, 52 F.3d at 979. A court's objective is to determine the plain meaning, if any, that those of ordinary skill in the art would apply to the language used in the patent claims. Waner v. Ford Motor Co., 331 F.3d 851, 854 (Fed.Cir.2003) (citing Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342 (Fed.Cir.2001)). In this regard, pertinent art dictionaries, treatises, and encyclopedias may assist a court. Texas Digital Systems, Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202-03 (Fed.Cir.2002). The intrinsic record, however, is the best source of the meaning of claim language. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). Therefore, patent claims are properly construed only after an examination of the claims, the specification, and, if in evidence, the prosecution history of the patent. Amgen, Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1324 (Fed.Cir.2003) (citing Vitronics, 90 F.3d at 1582).

The intrinsic record is also of prime importance when claim language has no ordinary meaning in the pertinent art, *see* Bell Atlantic Network Services, Inc. v. Covad Communications Group, Inc., 262 F.3d 1258, 1269-70 (determining that claim language could only be construed with reference to the written description) (citation omitted), and where claim language has multiple potentially applicable meanings, Texas Digital, 308 F.3d at 1203.

[5] If patent claim language has an ordinary and accustomed meaning in the art, there is a heavy presumption that the inventor intended that meaning to apply. Bell Atlantic, 262 F.3d at 1268 (citing Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed.Cir.1999)). Thus, unless the inventor has manifested an express intent to depart from that meaning, the ordinary meaning applies. Teleflex, Inc. v. Ficosa N. Am. Corp., 299 F.3d 1313, 1325 (Fed.Cir.2002) (en banc) (citation omitted).

[6] [7] [8] To overcome that presumption, an accused infringer may demonstrate that "a different meaning is clearly set forth in the specification or ... the accustomed meaning would deprive the claim of clarity." *N.* Telecom Ltd. v. Samsung Electronics Co., Ltd., 215 F.3d 1281, 1287 (Fed.Cir.2000). However, the presumption may not be rebutted "simply by pointing to the preferred embodiment...." Teleflex, 299 F.3d at

1327. It may be rebutted, though, where "the patentee ... deviate[d] from the ordinary and accustomed meaning ... by redefining the term or by characterizing the invention in the intrinsic record using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." *Id*.

[9] [10] If claim language remains unclear after review of the intrinsic record, a court "may look to extrinsic evidence to help resolve the lack of clarity." Interactive Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1332 (Fed.Cir.2001). The use of extrinsic evidence in the claim construction process, however, is "proper only when the claim language remains genuinely ambiguous after consideration of the intrinsic evidence." *Id*. A court may not use extrinsic evidence to contradict the import of the intrinsic record, and if the intrinsic record is unambiguous, extrinsic evidence is entitled to no weight. Bell & Howell Document Management Prods. Co. v. Altek Systems, 132 F.3d 701, 706 (Fed.Cir.1997).

IV. CLAIM CONSTRUCTION

Philips alleges that CMT infringes claims 1, 3 and 4 of the '359 patent. (D.I. 293 at 11.) Claims 3 and 4 depend from independent claim 1. In those claims, the parties dispute the meaning of the claim term "signal structure identification data." (D.I. 322 at 2.) Philips also alleges that CMT infringes all 12 claims of the '562 patent. (D.I. 293 at 17.) Claims 1 and 9 are independent apparatus and method claims, respectively, with claims 2 through 8 depending from claim 1 and claims 10 through 12 depending from claim 9. (Id.) The parties dispute the meaning of the claim terms "entry initiate signal" and "an entry initiate key" as they are used in the '562 patent. (D.I. 322 at 3, 4.)

A representative use of the disputed language in the '359 patent is provided in claim 1, as follows:

1. Method for adapting a remote control unit to generate appliance command signals having a required signal structure for controlling a selected one of a plurality of appliances of different categories and different manufacturers, each appliance being responsive to a different signal structure, comprising the steps of:

generating a selected category signal signifying the category of said selected one of said plurality of appliance under user control;

setting said selected appliance to execute a predetermined action upon receipt of a response-evoking signal having said required signal structure;

transmitting in sequence a plurality of response command signals each commanding said predetermined action in a different signal structure until said selected appliance executes said predetermined action, whereby the last-transmitted one of said response command signals constitutes said response-evoking signal having said required signal structure;

storing **signal structure identification data** corresponding to said required signal structure of said response-evoking signal, thereby creating stored **signal structure identification data**; and

generating subsequent appliance command signals at least in part under control of said selected category signal and said stored **signal structure identification data**.

'329 patent, col. 7, II. 60-68 to col. 8, II. 1-19.

A representative use of the disputed language in the '562 patent is provided in claims 1 and 9, as follows:

1. Remote control transmitter for transmitting device control signals remotely controlling a plurality of

devices each belonging to a respective category of devices, at least two of said devices being of the same category of devices, and at least two being of different categories of devices, two of said devices of the same or different categories requiring a different signal format, comprising:

memory means permanently storing respective specific device formatting data for said plurality of devices at respective memory addresses;

keyboard means having a plurality of keys for providing respective keyboard output signals upon user activation of respective one of said keys, said plurality of keys including a predetermined group of keys each representing a different one of said different categories of devices, each of said memory addresses corresponding to at least one of said keyboard output signals, said keyboard output signals further comprising an **entry initiate signal**;

means for addressing said memory means in response to activation said at least one of said keys following activation of one key of said predetermined group of keys and receipt of said **entry initiate signal,** thereby reading out said specific device formatting data for a selected device in a specific one of said different categories of devices as determined by the activated one key of said predetermined group of keys; and

transmitter means operative under control of said specific device formatting data to transmit said device control signals towards said selected one of said plurality of devices in said specific one of said different categories of devices as determined by the activation of one key of said predetermined group of keys.

'562 patent, col. 7, II. 18-51.

9. Method for generating device control signals remotely controlling a plurality of devices each belonging to a respective category of devices, at least two of said devices being of the same category of devices, and at least two being of different categories of devices, two of said devices of the same or different categories requiring a different signal format, in a remote control transmitter having said signal formats permanently stored at respective memory addresses, said remote control transmitter further having a keyboard having a plurality of keys, said plurality of keys including a predetermined group of keys each corresponding to one of said different categories of devices, comprising the steps of

user activation of one key in said predetermined group of keys;

user activation of **an entry initiate key;**

user activation of at least one address key, after said **entry initiate key**, said address key signifying the memory address storing specific device formatting data for said selected one of said plurality of devices, thereby reading out said specific device formatting data; and

transmitting device control signals in accordance with said device formatting data to a selected category of devices and said selected one of said plurality of devices in said selected category.

Id., col. 8, II. 23-56.

A. "signal structure identification data"

1. The Parties' Proposed Constructions

Philips proposes that I construe the phrase "signal structure identification data" in the '359 patent to mean "information (data) that identifies a signal structure." (D.I. 293 at 13; D.I. 322 at 2.) CMT proposes that I

construe "signal structure identification data" to mean "information (data) that constitutes part of an address used to address one table in a multiplicity of product code tables." (D.I. 304 at 13; D.I. 322 at 2.) The parties do not dispute that "signal structure" is defined in the '359 patent as infrared signals having particular characteristics that the appliance understands, such as frequency, pulse width, and bit timing. (D.I. 304 at 2; D.I. 317 at 3; D.I. 338 at 22:16-20; *see* '359 patent, col. 1, II. 25-26, 58-59.)

2. The Court's Construction

[11] Because the parties agree that the term "signal structure" is defined in the patent, I must construe the terms "identification" and "data" as they appear in the disputed claim term. Philips argues that these non-technical words are entitled to their plain language meanings. (D.I. 324 at 8.) CMT argues that "signal structure identification data" is defined in the specification (D.I. 304 at 14), and moreover, that Philips disclaimed a broad construction of this claim term by amending the claims during prosecution of the '359 patent (id. at 15).

CMT's first argument fails because "signal structure identification data" is not defined in the specification of the '359 patent. Both parties direct my attention to the following language from the Summary of the Invention to support their proposed claim constructions: "Data identifying this signal structure is stored in the remote control unit, and subsequent user activated commands for the appliance are generated in part in dependence on the so-stored data." '359 patent, col. 2, II. 20-24. This excerpt from the Summary of the Invention does not define the claim term "signal structure identification data." Rather, it broadly characterizes signal structure identification data as information that is stored in the URC disclosed in the '359 patent.

CMT also cites the following language from the Summary of the Invention and the Description of the Preferred Embodiments to support its argument that "signal structure identification data" is defined in the patent:

In a particularly preferred embodiment, the stored signal structure identification data constitutes part of an address, the remainder of the address being provided by user selection of the category to which the appliance belongs.

The above-mentioned address is used to address one table in a multiplicity of product code tables. The information from the table is then combined with keyboard data to address the formatter which in turn activates the infrared transmitter.

'359 patent, col. 2, II. 35-44.

In normal operation, microprocessor 10 receives data from two user controlled selector devices described in detail below and from a memory storing signal structure identification data. This data is utilized by a "decode" program located in an internal ROM 14 or microprocessor 10 to calculate an address for an electrically programmable read only memory (EPROM) 16 separate from microprocessor 10.

Id., col. 3, II. 9-16.

The data from EPROM 16, also referred to as formatter instruction or signal structure data, is then used within microprocessor 10 to energize an infrared transmission drive circuit 29 so that infra-red light emitting diodes 30 transmit signals with a corresponding signal structure, i.e. bit pattern and signal format.

Id., col. 3, II. 30-36.

To overcome the presumption that the ordinary and accustomed meaning applies to claim language, it is CMT's burden to demonstrate that "a different meaning is clearly set forth in the specification[,]" *N.* Telecom, 215 F.3d at 1287, but it may not do so "simply by pointing to the preferred embodiment [,]" Teleflex, 299 F.3d at 1327; *see also* Resonate, Inc. v. Alteon Websystems, Inc., 338 F.3d 1360, 1364-65 (Fed.Cir.2003) ("[A] particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.") (citation omitted). The portions of the specification to which CMT directs my attention do not clearly set forth any definitions of "identification" and "data" apart from their ordinary meanings. Rather, all of the language cited by CMT to support its proposed construction of "signal structure identification data" either refers to or describes the preferred embodiment of the invention claimed by the '359 patent, and it is well-settled that limitations from the preferred embodiment cannot be read into the claims. *See, e.g.,* Electro Medical Sys., S.A. v. Cooper Life Sciences, 34 F.3d 1048, 1054 (citing Specialty Composites v. Cabot Corp., 845 F.2d 981, 986 (Fed.Cir.1988)). Therefore, CMT has failed to meet its burden of demonstrating that Philips intended to deviate from the ordinary meanings of "identification" and "data" as they appear in the claim 1 of the '359 patent.

Nor am I persuaded that Philips disclaimed a broad construction of "signal structure identification data" during prosecution of the '359 patent. (*See* D.I. 304 at 15.) The '359 patent was filed in November 1985 as a continuation-in-part of parent application No. 06/739,357, which was filed in May 1985 ("the '357 application"). (Id. at 5; D.I. 322, Ex. 3.) Claim 1 of the '357 application was an independent method claim rejected by the Examiner in the first Office Action as unpatentable over the Rosenhagen reference FN5. The Rosenhagen patent claims a multi-remote control system for a multi-vehicle toy, in which different remote controls are used to control different vehicles. (D.I. 317 at 6.) As Philips argued to the Examiner, "...in the Rosenhagen apparatus each remote control unit transmits the same identity code throughout. The main idea of the Rosenhagen patent is to prevent interference between a remote control unit associated with one car and that associated with another." (Id.; D.I. 322, Ex. 3 at PE002448.)

FN5. Rosenhagen *et al.,* "Multi-vehicle multi-controller radio remote control system," U.S. Patent No. 4,334,221 (issued June 8, 1982).

To distinguish its invention from the one disclosed in Rosenhagen, Philips further argued that

[T]he signal structure identification data in the present invention as was claimed in claim 1 is stored in the remote control unit, not in the appliance or vehicle.

* * * * * *

Further, the "means for storing signal structure identification data corresponding to said response evoking signal" are absent in Rosenhagen. Again, if the identity code is considered equivalent to signal structure, the same identity code is always present and transmitted in the Rosenhagen remote control. Only in the present invention is the remote control modified to transmit subsequent command signals having a format (signal structure) derived from the response-evoking signal.

(D.I. 317 at 7; D.I. 322, Ex. 3 at PE002449, PE002450.)

Finally, Philips canceled claim 1 of the '357 application and replaced it with new claim 18 (which subsequently issued as claim 1 of the '359 patent). (D.I. 304 at 6; D.I. 322, Ex. 3 at PE02443.) CMT takes issue with the fact that Philips amended the limitation "storing signal structure identification data corresponding to said required signal structure of said response-evoking signal, thereby creating stored *product identification data* " to "storing signal structure identification data corresponding to said required

signal structure of said response-evoking signal, thereby creating stored *signal structure identification data*." (D.I. 304 at 5.) Specifically, CMT argues that, by making this amendment, Philips conceded that "signal structure identification data" by itself does not identify a product and thus disclaimed a broad construction of that claim term. (D.I. 304 at 15.) In response, Philips says that there is nothing in the prosecution history to suggest that this amendment was made for any reason other than to maintain consistency of the language in the claim. (D.I. 317 at 8 n. 3.) Philips also notes that it explained to the Examiner that, in contrast to the Rosenhagen remote control units which always transmit the same signal, the remote control units disclosed in the '359 patent transmit any one of a number of signals based on the result of scanning through many signals until the correct response-evoking signal is found. (D.I. 317 at 8.) Philips argues that this explanation has nothing to do with limiting the definition of "signal structure identification data." (Id.)

[12] "During prosecution, an inventor may surrender coverage of material that would otherwise be covered by a claim; however, the surrender must be clear and unmistakable." Anchor Wall Sys. v. Rockwood Retaining Walls, Inc., 340 F.3d 1298, 1307 (Fed.Cir.2003). Philips' arguments to the Examiner point out the differences between Philips' claimed invention and the invention disclosed in the Rosenhagen reference. Philips does not explain why it canceled claim 1 in the '357 application and replaced it with claim 18, resulting in an amendment where "product identification data" was replaced by "signal structure identification data." In fact, Philips never argued anything about product identification data to the Examiner, and the only mention Philips makes of "signal structure identification data" in the prosecution history is to explain that it is stored in the remote control unit as opposed to an appliance or vehicle. (D.I. 324 at 11; D.I. 322, Ex. 3 at PE002449.) The prosecution history is thus ambiguous as to why Philips amended the claim limitation by replacing "product identification data" with "signal structure identification data." Therefore, I find that there is nothing in the prosecution history of the '359 patent that indicates a clear and unmistakable intent on Philips' part to limit the scope of "signal structure identification data" to mean "information (data) that constitutes part of an address used to address one table in a multiplicity of product code tables," as suggested by CMT.

I agree with Philips that "identification" and "data" are common English words entitled to their ordinary, dictionary definitions. *See* CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed.Cir.2002) ("[D]ictionary definitions may establish a claim term's ordinary meaning.") (citations omitted); *see also* Texas Digital, 308 F.3d at 1204 (noting that it is proper to "discern the ordinary and customary meanings attributed to the words themselves" before consulting the intrinsic evidence) (citations omitted). "Data" is defined as "information in a numerical form that can be digitally transmitted or processed." Merriam-Webster's Collegiate Dictionary at 293 (10th ed.2002). "Identification" is defined as "an act of identifying: the state of being identified." *Id*. at 574. "Identify" is defined as "to establish the identity of." *Id*. As previously noted (*see supra* at p. 598), the parties agree that "signal structure" is defined in the '359 patent as infrared signals having particular characteristics that the appliance understands, such as frequency, pulse width, and bit timing. Therefore, I construe the claim term "signal structure identification data" to mean "information (data) that identifies a signal structure."

B. "an entry initiate key" and "entry initiate signal"

1. The Parties' Proposed Constructions

Philips proposes that I construe "an entry initiate key" in the '562 patent to mean "a key which when properly activated by the user either by itself or in combination with another key is the initial step for entering data to identify a particular manufacturer and model number directly on the keyboard." (*See* D.I. 293 at 19; D.I. 322 at 4.) Philips further proposes that I construe "entry initiate signal" in the '562 patent to mean "a signal indicating the user has taken the initial step for entering data to identify a particular manufacturer and model number directly on the keyboard." (D.I. 322 at 3.)

CMT proposes that I construe "an entry initiate key" to mean "one and only one entry initiate key." (D.I. 304 at 16; D.I. 322 at 4.) CMT further proposes that I construe "entry initiate signal" to mean "the keyboard output signal provided by the entry initiate key." (D.I. 304 at 17; D.I. 322 at 3.)

2. The Court's Construction

[13] [14] [15] As the parties recognize, the claim terms "an entry initiate key" and "entry initiate signal" are related to one another in the '562 patent, and for that reason, I will address them together. (*See* D.I. 317 at 9; D.I. 329 at 6.) Generally, an indefinite article "a" or "an" in patent parlance carries the meaning of "one or more" in open-ended claims containing the transitional phrase "comprising." *KCJ Corp. v. Kinetic Concepts, Inc.,* 223 F.3d at 1351, 1356 (Fed.Cir.2000) (citations omitted). Unless the claim is specific as to the number of elements, the article "a" or "an" receives a singular interpretation only in rare circumstances when the patentee evinces a clear intent to so limit the article. *Id.* (citing Abtox, Inc. v. Exitron Corp., 122 F.3d 1019, 1023 (Fed.Cir.1997)). When claim language or context suggests an ambiguity in application of the general meaning of an article, it is appropriate to examine the written description and the prosecution history to ascertain whether to limit the meaning of "a" or "an." *Id.*

Philips argues that, because the disputed claim term "an entry initiate key" appears in claim 9, which is an open-ended claim containing the transitional phrase "comprising," the article "an" must be construed as "one or more." (D.I. 293 at 19; D.I. 317 at 10; D.I. 324 at 14.) There is, however, an exception to this general rule. The article "an" may be interpreted to mean "one" if Philips demonstrated a clear intent to limit it as such or if the claim language or context suggests an ambiguity in application of the general meaning of the article. *KCJ Corp.,* 223 F.3d at 1356. In this case, the claims and the context of the '562 patent demonstrate an ambiguity in application of the general meaning of the article "an."

Claim 1 of the '562 patent recites the following limitation:

...keyboard means having a plurality of keys for **providing respective keyboard output signals upon user activation of respective one of said keys**, said plurality of keys including a predetermined group of keys each representing a different one of said different categories of devices, each of said memory addresses corresponding to at least one of said keyboard output signals, **said keyboard output signals further comprising an entry initiate signal...**

'562 patent, col. 7, II. 28-36 (emphasis added). CMT argues that a logical reading of this claim language is that, when a user activates one of the plurality of keys, it generates keyboard output signals, and that "an entry initiate signal" is one of those keyboard output signals. (D.I. 329 at 6.) In other words, CMT says that the language in this limitation requires a one-to-one correspondence between "respective one of said keys" and "respective keyboard output signals." (D.I. 304 at 17.) In response, Philips argues that "the word 'one' is not used to limit the claim language to 'one and only one,' but merely that pressing at least one key...will 'compris[e]' the entry initiate signal." FN6 (D.I. 317 at 11.) However, the prosecution history of the '562 patent shows that Philips amended this "keyboard means" limitation of claim 1 from " *ones* of said keys" to " *one* of said keys," (D.I. 322, Ex. 4 at PE026652, PE026747), and Philips cites nothing in support of its novel interpretation that "one" means "at least one" in claim 1 of the '562 patent.

FN6. Philips also argues that the language "providing respective output signals upon user activation of one of said keys" appears in the preamble to claim 1, and that the "Federal Circuit has generally been reluctant to use the preamble of a claim to impose additional limitations on that claim." (D.I. 317 at 11) (citing Altiris, Inc. v. Symantec Corp., 318 F.3d 1363, 1371-72 (Fed.Cir.2003).) Philips' argument is unfounded. There is no question that this language is a limitation of claim 1, as it appears after the word "comprising," which signals the end of the preamble. *See* '562 patent, col. 7, II. 18-36.

There is more evidence from the context of the '562 patent that shows an ambiguity in the application of the general meaning of the article "an" (that is, "one or more"). For example, Figure 3 of the '562 patent shows that, in order to begin the direct entry identify program that is disclosed therein, the number of keys pressed must be equal to one. *See* '562 patent, Fig. 3. The specification states that "if the number of keys pressed exceeds one, the routine is not part of the present invention." Id., col. 5, II. 22-23. While it is true that this language is found in the Description of the Preferred Embodiments, the fact that it describes the "present invention" gives it enough weight to cast some doubt on whether Philips truly meant for "an" to be interpreted as "one or more" in the '562 patent. I agree with CMT that an objective and reasonable interpretation of this language is that pressing more than one key is not contemplated as an entry initiate key, (D.I. 338 at 85:7-10), and that this interpretation is further supported by the prosecution history of the '562 patent.

The prosecution of the '562 patent included two appeals to the Board of Patent Appeals and Interferences ("the Board"). (D.I. 304 at 10.) In its first Appeal Brief, Philips argued that, to program the URC of the '562 patent, "the user merely presses an 'entry initiate' button, then one of the power buttons, and then a two-digit model number...." (D.I. 322, Ex. 4 at PE026868.) Philips' appeal was ultimately denied, so it filed a continuation application. (D.I. 304 at 11.) In response to the final Office Action for the continuation application and in its second Appeal Brief, Philips argued that "[o]ne of the keys on the keyboard is used to cause an 'entry initiate signal' to be generated." (Id. at PE026870.) After Philips' second appeal, the Board stated that "the 'entry initiate signal' [corresponds] to the 'YES' signal generated by depressing the 'RECORD' key (Fig.3)." (Id. at PE026889.) The Board went on to say that, as Philips acknowledged in its appeal brief, the claim does not preclude the 'entry initiate signal' from being generated by operation of one of the device category keys (i.e., the claimed "predetermined group of keys"). (Id.)

After examining the written description and prosecution history of the '562 patent, I find that there was a clear intent on Philips' part to limit "an" to a singular interpretation. *See, e.g.,* Elkay Manufacturing Co. v. Ebco Manufacturing Co., 192 F.3d 973, 979 (Fed.Cir.1999) (concluding that "an upstanding feed tube" is properly construed as "a single feed tube" based on the claim language, written description and prosecution history); Abtox, 122 F.3d at 1023, 1027 ("a metallic gas-confining chamber" construed as a single chamber); Insituform Technologies, Inc. v. Cat Contracting, Inc., 99 F.3d 1098, 1105-06 (Fed.Cir.1996) (claim language "a cup" means one cup). The most persuasive evidence for interpreting "an" as meaning "one" in this case is that Philips argued to the Board that "one of the keys" is used to generate an entry initiate signal; noted that the "present invention," *i.e.,* the direct-entry method disclosed in the '562 patent, is not employed "if the number of keys pressed exceeds one"; acknowledged that the "entry initiate signal" is generated by one of the device signal keys; and amended the keyboard means limitation of claim 1 from "respective ones of said keys" to "respective one of said keys" during prosecution. Therefore, I construe the claim term "an entry initiate key" to mean "one entry initiate key." It logically follows that the claim term "entry initiate signal" is properly construed to mean "the keyboard output signal generated by the entry initiate key."

V. CONCLUSION

CLAIM TERM/PHRASE	THE COURT'S CONSTRUCTION
"signal structure identification data"	The Court construes the claim term "signal structure identification data" to mean "information (data) that identifies a signal structure."
"entry initiate signal"	The Court construes the claim term "entry initiate signal" to mean "the keyboard output signal generated

by the entry initiate key."

	"an entry initiate key"	The Court construes the claim term "an entry initiate key" to mean "one entry initiate key."

An appropriate order will issue.

ORDER

For the reasons set forth in the Opinion issued today, IT IS HEREBY ORDERED that the disputed claim terms in U.S. Patent No. 4,703,359 and U.S. Patent No. 5,872,562 are construed as follows:

CLAIM TERM/PHRASE	THE COURT'S CONSTRUCTION
"signal structure identification data"	The Court construes the claim term "signal structure identification data" to mean "information (data) that identifies a signal structure."
"entry initiate signal"	The Court construes the claim term "entry initiate signal" to mean "the keyboard output signal generated by the entry initiate key."

	"an entry initiate key"	The Court construes the claim term "an entry initiate key" to mean "one entry initiate key."

D.Del.,2004.
Philips Electronics North America Corp. v. Contec Corp.