

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

PROXENSE, LLC,

Plaintiff,

vs.

SAMSUNG ELECTRONICS, CO., LTD.
AND SAMSUNG ELECTRONICS
AMERICA, INC.,

Defendant.

Case Nos. 6:21-cv-00210-ADA

JURY TRIAL DEMANDED

SAMSUNG'S OPENING CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

The parties present several terms for construction. While Samsung presents constructions drawn directly from the intrinsic evidence in the proper context, Proxense consistently attempts to divorce the claim terms from direct lexicography, the prosecution history, and the plain meaning of the terms. Proxense further appears to draw from only certain portions of the specification and ignores other inconsistent portions of the specification.

With respect to the first family of patents, the '730/'905/'989 family, for the first two terms, “persistently storing” and “device ID code,” Proxense’s constructions attempt to create distance from arguments made in prosecution that ultimately allowed these claims. Samsung’s construction properly captures this intrinsic evidence. For “access message” and “third party trusted authority,” Proxense’s constructions are so vague that it would render these terms nearly meaningless. The remaining term, dependent claim 5, is invalid because of improper drafting.

Proxense makes similar errors with respect to the '700/'188 Family of patents. For “hybrid device,” Proxense attempts to choose one possibility out of many varied, and internally inconsistent, descriptions of the term in the specification, which demonstrates that the term is indefinite. Samsung’s proposed constructions for “PDK” and “RDC” reflect the way these terms are consistently used in the specification and claims to describe a discrete device, while Proxense tries to broaden the scope to any collection of components with similar functionality. Samsung’s proposed constructions for “biometric information,” “financial information,” and “inheritance information” are likewise all drawn directly from the descriptions in the specification, while Proxense’s positions on these terms are vague and/or overly broad. Regarding “enablement signal,” it is unclear why this term needs to be construed at all, as Proxense confusingly repeats the same term “enable” in its construction. If this term is construed at all, then the construction

should focus on the “authorization” function of this signal, which is how the term is described in the specification.

II. LEGAL STANDARD

Claim construction always begins with the intrinsic record, including the claim language, the specification, and the prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1321 (Fed. Cir. 2005). Extrinsic evidence may also be consulted, but must be considered “in the context of the intrinsic evidence.” *Id.* at 1319.

It is the Court’s role to resolve disputes regarding the scope of the asserted claims. *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008). “[T]he court’s obligation is to ensure that questions of the scope of the patent claims are not left to the jury.” *Every Penny Counts, Inc. v. Am. Express Co.*, 563 F.3d 1378, 1383 (Fed. Cir. 2009).

However, in the event “a patent’s claims, viewed in light of the specification and prosecution history, [fails to] inform those skilled in the art about the scope of the invention with reasonable certainty” that claim must be found indefinite. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910, 134 S. Ct. 2120, 2129, 189 L. Ed. 2d 37 (2014).

Further, 35 USC 112 ¶ 4 provides: “a claim in dependent form shall contain a reference to a claim previously set forth and specify a further limitation of the subject matter claimed.” Even when “attempting to claim what might otherwise have been patentable subject matter” if “all the limitations of the claim to which it refers” are not present, that claim is invalid. *Pfizer, Inc. v. Ranbaxy Labs. Ltd.*, 457 F.3d 1284, 1291-93 (Fed. Cir. 2006), accord *Huawei Techs. Co. v. T-Mobile US, Inc.*, No. 2:16-CV-00055 JRG(RSP), 2017 WL 2190103, at *28 (E.D. Tex. May 17, 2017) (invalidating claim under § 112 ¶ 4 at claim construction). In particular, this is the case when a dependent claim attempts to add to closed groups. Where the referenced claim excludes a

limitation, while the dependent claim includes it, that dependent claim is invalid. *Multilayer Stretch Cling Film Holdings, Inc. v. Berry Plastics Corp.*, 831 F.3d 1350, 1362 (Fed. Cir. 2016).

III. DISPUTED TERMS

A. The '730 patent family

1. **“persistently storing . . . a tamper proof format written to a storage element on the integrated device that is unable to be subsequently altered” (730:1, 15) / “a tamper proof format written to the memory that is unable to be subsequently altered” (730:8)¹**

Samsung’s Proposed Construction	Proxense’s Proposed Construction
“permanently storing in a form that prevents subsequent writing to store new data or modifications to existing data”	<p>No construction necessary or possible, plain and ordinary meaning.</p> <p>A format for storing data that cannot be changed unless it is deleted and replaced.</p>

The parties’ substantive disagreement regarding this term is the extent to which data stored in a persistent storage medium in a tamper proof format can be altered. Proxense proposes the data may be deleted and replaced, while Samsung proposes no subsequent change can be made. Proxense’s construction is divorced from the intrinsic record and is directly counter to arguments made during prosecution.

First, a simple reading of the claims renders Proxense’s construction untenable. In particular, claim 1 of the '730 Patent claims “persistently storing biometric data . . . in a tamper proof format . . . that is unable to be subsequently altered.” (emphasis added). Proxense’s construction would fundamentally break this claim, simultaneously requiring the biometric data to

¹ Proxense has also proposed subset terms “Persistently storing” (730:1,15) (905:1)(989:1) / “Persistently stores” (905:9,13)(989:7) / “persistent storage” (989:5) and “tamper proof” (730:8). Samsung’s proposed construction is the same.

both be “unable to be subsequently altered” and able to be “deleted and replaced.” *See Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1366–67 (Fed. Cir. 2016) (holding that claims that were internally contradictory were invalid as indefinite). Likewise, it is incongruous for the biometric data to both be persistently or permanently stored but be deleted and replaced. *See* ’730 Patent² at 1:60 (“a biometric key persistently (or permanently) stores a code”); *accord* ’730 Patent at Abstract, ’905 Patent at 2:33-34; ’989 Patent at 2:48-49.

Further, there is no discussion in the specification that “tamper proof” encompasses deleting and replacing. Instead, the patents describe Tamper Proofing “*i.e.*, allows reads of stored data, but not writes to store new data or modify existing data.” *See* ’905 Patent at 5:31-37; ’989 Patent at 5:45-55; *SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1200 (Fed. Cir. 2013) (“*i.e.*” denotes patentee was acting as lexicographer). Allowing deletion of stored data, *i.e.* modifying existing data, or replacement, *i.e.* writing to store new data, are both explicitly considered by the patents and excluded.

In contrast, Samsung’s construction is in accord with the claim language and the patentee’s lexicography. Samsung’s construction incorporates the parenthetical explanation of “persistently” as “permanently” in language a juror can understand. This likewise aligns with the patentee’s lexicography regarding tamper proof. Further, during prosecution, the applicant explained data was intended to never change and only be replaced in the event of loss of the memory storage medium. In attempting to distinguish from prior art, the applicant explained “storing biometric data during enrollment which ‘is normally not repeated unless the fob is lost or damaged,’ but it can be repeated thereby altering the stored biometric data. This is patentably distinct from ‘storing

² Samsung cites to the patents-in-suit as exhibits of Proxense’s complaint: Exhibit 1(Dkt. 1-2) “’730 Patent;” Exhibit 2 (Dkt. 1-3) “’905 Patent;” Exhibit 3 (Dkt. 1-4) “’989 Patent;” Exhibit 4 (Dkt. 1-5) “’188 Patent;” and Exhibit 5 (Dkt. 1-6) “’700 Patent.”

biometric data of the user and a plurality of codes and other values . . . written to a storage element on the integrated device that is unable to be subsequently altered,’ as claimed.” Declaration of Marissa Ducca (“Ducca Decl.”) Ex. 4 (’730 Patent History, Applicant Argument/Remarks Made in Amendment (2011-07-05) at 9-10). The applicant continued, “a method allowing subsequent alteration of stored biometric data, [prior art] does not disclose ‘persistently store biometric data. . . .’” *Id.*

2. “device ID code” (730:1,3,8,10,12,15) / “ID code” (905:1-3, 8-11, 13-14) (989:1-2, 4-8)

Samsung’s Proposed Construction	Proxense’s Proposed Construction
“the device-specific code that identifies the device”	A unique code identifying a device.

The device ID code described in various ways by the patents all describe a device-specific code rather than merely a unique code that can identify a device. This distinction can be seen throughout the specification and was drawn specifically in prosecution to distinguish from the prior art. Beyond not capturing this distinction, Proxense’s construction merely incorporates language from elsewhere in the claim.

In distinguishing prior art, the applicant explained in significant depth what is meant by the device ID code. The applicant specifically distinguished “mere[] user-specific data such as names, public keys and CRCs” in contrast to “device-specific data . . . much less ‘a list of codes identifying legitimate integrated devices.’” Ducca Decl. Ex. 4 (’730 Patent History, Applicant Argument/Remarks Made in Amendment (2011-01-03) at 10). While both the public keys and CRCs distinguished by the applicant may uniquely identify a device by association with “the personal device’s private key” they are not “device-specific” because they only incidentally

identify a device by being specific to the user of the device. *See id.* The applicant took this same position across all patents in the family for nearly a decade. *See* Ducca Decl. Ex. 5 ('989 Patent History, Applicant Argument/Remarks Made in Amendment (2019-02-11) at 8-9 (distinguishing an “account number” because it was “for the user” and therefore not “an ID code unique to the device.”)).

The specifications further provide that the device ID code should be understood as device-specific. In particular, the specification provides two methods for assigning or creating these codes. The code may be assigned “during the manufacturing process” or “the trusted authority can provide the code to biometric key 100 to be stored therein.” ’730 Patent at 4:10-12, 43-49. Both these methods are focused on the device and may not include a user at all, since, for example, manufacturing occurs before the device has a user.

Further, Proxense’s construction introduces inappropriate redundancy. For example, claim 1 of the ’730 Patent states “other data value comprising a device ID code uniquely identifying the integrated device.” Incorporating Proxense’s construction would repeat “unique” and “identifying the [] device.” As such, Proxense’s construction effectively reads this term out of the claim entirely.

**3. “third-party trusted authority” (730:1, 8, 12, 15)
(905:1,9,10,13)(989:1,4-7)**

Samsung’s Proposed Construction	Proxense’s Proposed Construction
No construction needed	A third component that provides a second level of authentication.

Proxense’s construction fails to capture the understanding of a POSITA. In particular, Proxense’s construction fails to capture the understanding of a “third party.” Further, the latter portion of Proxense’s construction is redundant.

First, Proxense's construction fails to align with the intrinsic evidence of the '730 Patent regarding "third party." The intrinsic evidence does not suggest a party or component numbered after a second party. Instead, the intrinsic evidence suggests "third party" relates to a functional, rather than a numeric or ordered, relationship between entities. During prosecution, the applicant explained a "user []prov[ing] to the same institution that authenticates the fingerprint information that the user is who he purports to be" does not satisfy the "third party" limitation. Ducca Decl. Ex. 4 ('730 Patent History, Applicant Arguments/Remarks Made in an Amendment (2010-02-25) at 8). The applicant emphasized the prior art "disclose[d] two parties: the user and the institution." *Id.*

Specifically, the intrinsic evidence suggests "third party" relates to a specific class of entity occupying the aforementioned particular relationship. Indeed, the specification explains the agent for the trusted authority "can be, for example, a government official, a notary, and/or an employee of a third party which operates the trusted key authority, or another form of witness." '730 Patent at 6:32-41. This "witness" role further aligns with prosecution history where the applicant explained "sending a code to a receiver of a **door that the user is trying to access**" does not satisfy the "third party" limitation. Ducca Decl. Ex. 4 ('730 Patent History, Amendment/Req. Reconsideration – After non-Final Rejection(2010-09-07) at 8) (emphasis in the original). The door in this example is one of the two interested parties to the "access" transaction and thus not a "witness." *See* Nielson Decl. at ¶¶ 70-72, 74.

Extrinsic evidence further affirms this reading of the '730 Patent family. *See* Nielson Decl. at ¶ 73. Common industry use of "trusted third party" identifies "third party" as an entity with a responsibility separate from executing the transaction itself: "an entity responsible for ensuring

key distribution in a safe and reliable manner.” Ducca Decl. Ex. 3 at 3 (Cryptographic Libraries for Developers).

Further, the latter portion of Proxense’s construction, “that provides a second level of authentication,” is redundant in light of the claim language itself. Claim 1 already states “responsive to a determination that the scan data matches the biometric data, wirelessly sending one or more codes . . . for authentication by an agent.” This explains that the agent provides a “second level of authentication” thereby rendering Proxense’s construction unnecessary.

4. **“receiving an access message from the agent allowing the user access to an application” (730:1,8,15) / “receiving an access message from the agent” (730:12) / “an access message from the third-party trusted authority-indicating that the third- party trusted authority successfully authenticated the ID code” / (905:1, 9, 13) / “a transaction being completed responsive to the third-party trusted authority successfully authenticating the ID code” (989:1, 5) / “a transaction is completed responsive to successful authentication of the ID code” (989:7)³**

Samsung’s Proposed Construction	Proxense’s Proposed Construction
“receiving a signal from the agent permitting a user to access an application” / “receiving a signal from the agent permitting a user to access”	No construction necessary or possible, plain and ordinary meaning. A notification.

The parties’ disagreement is with the functionality rather than the form of the “access message.” Proxense proposes the access message act as a notification of access, while Samsung proposes “access message” itself permits access. Samsung’s construction clarifies this functionality and draws from the specification, while in contrast, Proxense’s construction conflicts with the claim language and finds no support in the intrinsic record.

³ Proxense has also proposed sub-terms “access message” (all claims) and “a signal permitting a user to access.” Samsung’s proposed term is the same.

Claim 1 of each of the '730 family patents provides that upon the ID code being verified, the application then provides the user access upon receipt of a communication indicating successful authentication. Each claim requires that information regarding the authentication at the third party agent be communicated to the application. The application then allows a user access based on authentication of the user and the user device. The '730 and '905 Patents describe this communication as an "access message" and the '989 Patent describes a "transaction being completed" but each has the same functionality, namely to permit access.

This likewise aligns with the specification. The specification only discusses an "access message" in one location and makes clear the "access message" is intended to allow access, not merely to notify. '730 Patent at 7:18-19 ("the trusted key authority sends an access message to the application to allow user access"). Because the patent describes "access message" in only one manner in the entire specification, that description should weigh heavily in construction.

Proxense's construction of "a notification" finds no support in the specification, as "notification" is not found anywhere in the specification, and suggests a dramatically different functionality. Rather than allowing access as claimed, a notification is used to inform a user of an occurrence. Here because the "access message" is sent to an application rather than a user, a "notification" does not make sense. '730 Patent at 7:18-19 ("the trusted key authority sends an access message to the application to allow user access"). As such, a POSITA would not have understood "access message" to be "a notification."

5. “wherein the biometric data and the scan data are both based on a fingerprint scan by the user” (730:5)

Samsung’s Proposed Construction	Proxense’s Proposed Construction
Invalid under §112 ¶4	No construction necessary or possible, plain and ordinary meaning.

Dependent claim 5 is invalid under §112 ¶ 4 for failing to further limit independent claim 1 but instead broadening the closed Markush grouping set forth in claim 1.⁴ In particular the Markush group “wherein the biometric data is selected from a group consisting of a palm print, a retinal scan, an iris scan, a hand geometry, a facial recognition, a signature recognition and a voice recognition” does not include anything “based on a fingerprint scan by the user.” Because the Markush group is closed, adding “a fingerprint scan” expands rather than further limits claim 1 in opposition to §112 ¶ 4 and is therefore invalid.

As a general rule, the use of a Markush group and the language “consisting of” provides a strong presumption of a closed group. *Multilayer Stretch*, 831 F.3d at 1358 (“claim drafters often use the term ‘group of’ to signal a Markush group.” “Use of the transitional phrase ‘consisting of’ to set off a patent claim element creates a very strong presumption that that claim element is ‘closed’ and therefore ‘exclude[s] any elements, steps, or ingredients not specified in the claim.’”). Both factors are present in claim 1 and there is nothing in the specification or prosecution that would alter the very strong presumption that this group is closed.

A “fingerprint scan” is not a subpart or otherwise included in any of the terms in the Markush group in claim 1. Neither “a palm print” or “hand geometry” is a finger print nor do they include a fingerprint. This is confirmed in the specification where “palm print” and “hand

⁴ See *Pfizer*, 457 F.3d at 1292 (otherwise patentable subject matter may still be invalid for failing to follow the requirements of §112 ¶4); *Huawei Techs*, 2017 WL 2190103, at *28 (invalidating claim under §112 ¶4 at claim construction).

geometry” are described as “other embodiments” from a fingerprint. *See* ’730 Patent at 3:4-11 (describing the use of “a fingerprint, [or] other embodiments . . . [f]or example, the biometric data can include a palm print . . . hand geometry recognition.”). As such, no argument can be made that claim 5 provides further limitation to a subset of one of the options set forth in claim 1.

B. The ’188/’700 patent family

1. “hybrid device” (188:1-12,15,20) (700:1-13, 16)

Samsung’s Proposed Construction	Proxense’s Proposed Construction
Indefinite	A device comprising an integrated personal digital key (PDK) and an integrated receiver-decoder circuit.

The term “hybrid device” is indefinite under 35 U.S.C. §112, ¶ 2 because it does not, “viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus*, 572 U.S. at 910. Because “hybrid device” is not a term of art, it does not have an ordinary meaning in the field to a POSITA. *See* Nielson Decl. at ¶ 77. “When a term ‘has no ordinary and customary meaning,’ it is a ‘coined term,’ raising the question of whether the intrinsic evidence provides objective boundaries to the scope of the term.” *IQASR LLC v. Wendt Corp.*, 825 F. App’x 900, 904 (Fed. Cir. 2020) (citations omitted). Accordingly, a POSITA must consider the disclosure of the intrinsic record in order to derive its meaning. *Id.* (“The importance of the intrinsic evidence reaches its zenith in cases like this when the district court finds from the extrinsic evidence that the term lacks an ordinary meaning.”); *see also Iridescent Networks, Inc. v. AT&T Mobility, LLC*, 933 F.3d 1345, 1351 (Fed. Cir. 2019) (for “a coined term that has no ordinary meaning in the industry,” the court should “look first to the specification, followed by the prosecution history, to determine the meaning” of the term). But the disclosures regarding hybrid device in the claims and the specification are internally

inconsistent and cannot be fully reconciled. Therefore, the term “hybrid device” is indefinite. *See, e.g., Competitive Techs., Inc. v. Fujitsu Ltd.*, 185 Fed. Appx. 958, 965-66 (Fed. Cir. 2006) (“Because the ‘address means’ limitation of claim 5 requires ISA structures, and the ‘sustain means’ limitation of that same claim excludes ISA structures, a person of ordinary skill in the art would be unable to determine the scope of the claims. They are internally inconsistent.”).

The abstract describes multiple modes of operation for a hybrid device:

The hybrid device operates in one of several modes including, PDK only, RDC only, or PDK and RDC. This allows a variety of system configurations for mixed operation including: PDK/RDC, RDC/RDC or PDK/PDK.

'188 Patent⁵ at Abstract.

This disclosure does not clarify if a hybrid device is required to be capable of operating in all three of the modes (PDK only, RDC only, or PDK and RDC) or can still be a hybrid device if it operates in only a subset of the described modes. *See* Nielson Decl. at ¶¶ 80-81. Similarly, it is unclear if “mixed operation” requires all three modes of operation, or if a subset would qualify. In particular, some of the modes listed here have only one component (either a RDC or a PDK), while the third mode has both (PDK/RDC). This makes it unclear if the hybrid device needs to consist of both RDC and PDK, or can consist of only one of RDC and PDK. *See* Nielson Decl. at ¶¶ 82-83.

The disclosure in the specification is similarly confusing and does not clarify these issues:

The hybrid device 1102 allows for many different configurations and operations of the secure PDK/RDC protocol. The hybrid device 1102 allows mixed operations including: RDC/PDK, RDC/RDC or PDK/PDK combinations. For purposes of explanation below, each device is enabled with either or both RDC and PDK functionality.

⁵ Citations for the '188/'700 patent family are generally to the '188 Patent only (except for citations to the claims), but because the '188 Patent and '700 Patent share substantially identical specifications, there is corresponding disclosure in the '700 Patent.

'188 Patent at 15:64-16:2. Similar disclosure is found at '188 Patent 13:17-25:

The hybrid device 1102 comprises a PDK 102a and an RDC 304a. Depending on the embodiment, the hybrid device 1102 utilizes the PDK functionality, the RDC functionality or both the PDK functionality and the RDC functionality. Those skilled in the art will recognize that in other embodiments, the hybrid device 1102 has multiple instances of PDK functionality or multiple instances of the RDC functionality or multiple instances of both.

The last sentence in each of the above excerpts suggests that just one of RDC or PDK functionality is sufficient. This also runs counter to the plain meaning of “hybrid” or “mixed operation,” further adding to the confusion. *See* Nielson Decl. at ¶¶ 84-86.

In addition, the specification actually discloses an embodiment with only a RDC:

While FIG. 12 shows the hybrid device 1102 as including both the RDC 304a and the PDK 102a, in another embodiment the hybrid device 1102 includes only the RDC 304a.

'188 Patent at 14:20-22.

This raises further questions because a RDC-only hybrid device could not function in the previously listed modes: PDK/PDK and PDK/RDC. *See* Nielson Decl. at ¶¶ 87-88.

One of the characteristics of the hybrid device is that it has a storage area. *See, e.g.,* '188 Patent at 14:34-36 (“the hybrid device 1102 provides authorization control as well as a storage area for storing information specific to the user.”). This suggests that the hybrid device contains a PDK, as the claims consistently describe the PDK as used for storing information. *See, e.g.,* '188 Patent claims 1, 5, 6, 14; '700 Patent claims 4, 5, 6, 11, 14, 15. This would be contradicted by the Figure 12 embodiment described above, which has only a RDC. *See* Nielson Decl. at ¶¶ 89-91.

The claims themselves do not describe what is and is not a hybrid device. Instead the hybrid device in the claims include both a PDK and a RDC, but the claims do not specify if

something less than a PDK and RDC is a hybrid device. *See, e.g.*, claims 1, 10 of the '188 Patent; claims 1, 11 of the '700 Patent. *See* Nielson Decl. at ¶¶ 92-93.

Proxense's construction, which requires both a PDK and a RDC, fails to capture other modes of operation (such as RDC/RDC or PDK/PDK), or the embodiment where a hybrid device consists of only a RDC, and thus cannot be correct. *SynQor, Inc. v. Artesyn Tech., Inc.*, 709 F.3d 1365, 1378–79 (Fed. Cir. 2013) (“A claim construction that ‘excludes the preferred embodiment is rarely, if ever, correct and would require highly persuasive evidentiary support.’” (quoting *Adams Respiratory Therapeutics, Inc. v. Perrigo Co.*, 616 F.3d 1283, 1290 (Fed. Cir. 2010)); *Oatey Co. v. IPS Corporation*, 514 F.3d 1271, 1276-77 (Fed. Cir. 2008) (“We normally do not interpret claim terms in a way that excludes embodiments disclosed in the specification.”); *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1305 (Fed. Cir. 2007) (rejecting proposed claim interpretation that would exclude disclosed examples in the specification); *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364, 1369 (Fed. Cir. 2003) (finding district court's claim construction erroneously excluded an embodiment described in an example in the specification, where the prosecution history showed no such disavowal of claim scope); *see also Vitronics Corp. v. Conceptionics, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) (finding that a claim interpretation that excludes a preferred embodiment is "rarely, if ever, correct").

In short, the various disclosures in the specification regarding the term “hybrid device” are inconsistent and in some cases contradictory and therefore the term is indefinite and cannot simply be construed as including both a PDK and a RDC. *See* Nielson Decl. at ¶¶ 76, 78-79, 94.

2. “personal digital key” (188:1,10) (700:1,11)

Samsung’s Proposed Construction	Proxense’s Proposed Construction
“a device that includes an antenna, a transceiver for communicating with the RDC and a controller and memory for storing information particular to a user”	An operably connected collection of elements including an antenna and a transceiver for communicating with a RDC and a controller and memory for storing information particular to a user.

Both Samsung’s and Proxense’s proposed constructions are largely similar to the disclosure in the specification of what a PDK is. Specifically, the ’188 Patent specification describes a minimal embodiment of the PDK:

In a minimal embodiment, the PDK 102a includes an antenna and a transceiver for communicating with a RDC (not shown) and a controller and memory for storing information particular to a user.

’188 Patent at 14:4-7.

The parties’ competing constructions do not dispute that a PDK includes an antenna, a transceiver for communicating with a RDC, and a controller and memory for storing information particular to a user.

The parties’ constructions differ, however, in that Proxense impermissibly broadens the construction to include any “operably connected collection of elements,” while Samsung’s construction sticks closely to the embodiments in the claims and the specification, which always depict the PDK as a discrete box/module, or “device.”

As an initial matter, “PDK” is not a term of art. “Where a claim term has no ordinary and customary meaning, a court must resort to the remaining intrinsic evidence...to obtain the meaning of that term.” *Goldenberg v. Cytogen, Inc.*, 373 F.3d 1158, 1164 (Fed. Cir. 2004). Because Samsung’s construction is consistent with the disclosure in the patents, it should be adopted.

Indacon, Inc. v. Facebook, Inc., 824 F.3d 1352, 1357 (Fed. Cir. 2016) (terms with no established meaning “ordinarily cannot be construed broader than the disclosure in the specification”).

Here, both the figures and the specification consistently depict the PDK as a single discrete device, not a collection of components.

Every single figure in the '188 Patent and '700 Patent depicts the PDK 102 as simply a box or module. For example, Figure 1 is reproduced below, showing the PDK 102 as a box on the left.

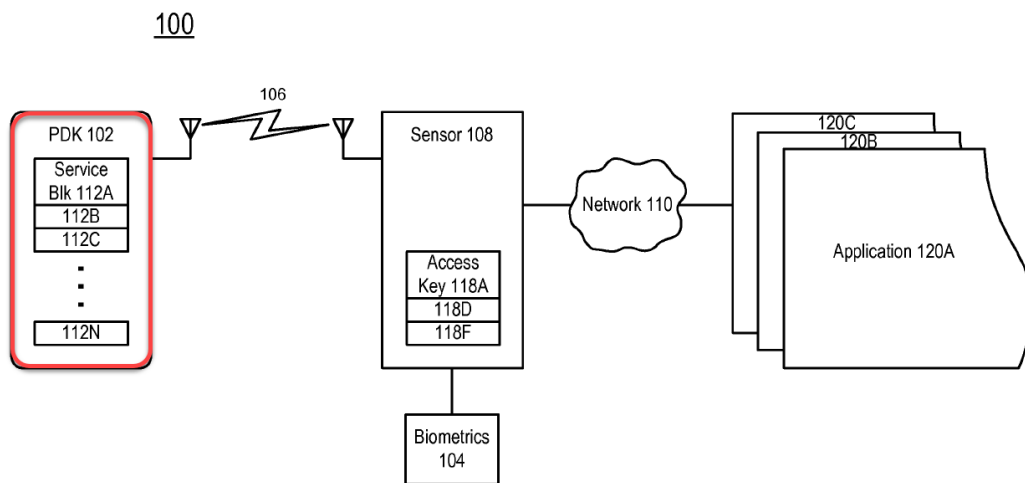


FIG. 1

'188 Figure 1 (annotated).

Even in Figure 2, which shows the multiple elements within a PDK, all of the elements are within a single box labeled as PDK 102.

Furthermore, the specification states: “[t]he sensor 108 can detect and communicate with the PDK 102 without requiring the owner to remove the PDK 102 from his/her pocket, wallet, purse, etc.” '188 Patent at 4:1-4. This suggests that the PDK is a single physical unit since it can be removed from a pocket, and not just a functional collection of components.

The specification also references various patents and applications as providing descriptions of a PDK. *See, e.g.*, '188 Patent at 3:53-62 (“Example embodiments of PDKs are described in

more detail in U.S. patent application Ser. No. 11/292,330, entitled ‘Personal Digital Key And Receiver/Decoder Circuit System And Method’ filed on Nov. 30, 2005; U.S. patent application Ser. No. 11/620,581 entitled ‘Wireless Network Synchronization Of Cells And Client Devices On A Network’ filed on Jan. 5, 2007; and U.S. patent application Ser. No. 11/620,577 entitled ‘Dynamic Real-Time Tiered Client Access’ filed on Jan. 5, 2007, the entire contents of which are all incorporated herein by reference.”). Even those references consistently depict the PDK as a box or module, and the PDK is described as a device. *See, e.g.*, U.S. Patent App. No. 11/292,330 at ¶48 (“As clearly observed in the drawings, the system according to the invention includes a Personal Digital Key (PDK) proximity-based technology, where *small, individually-unique devices, comprising personal digital keys (Keys)*, are wirelessly authenticated by a secondary device, which comprises a Reader/Decoder Circuit (RDCs).”) (emphasis added). The PDK is also described as having a plastic housing. *See, e.g., id.* at ¶51. In contrast, the PDK is never described as an operably connected collection of elements in those references.

The claims provide further support for the understanding that a PDK is a device. The claims describe the PDK as a discrete and separate entity that wirelessly communicates with a RDC. There is no indication in any of the claims that RDC and PDK are two sets of functionalities that are intertwined. Instead, each is described as a separate entity, *e.g.*, “integrated PDK,” “external RDC,” “integrated RDC,” and “external PDK.” *See, e.g.*, ’188 Patent claims 1, 10, 17; ’700 Patent claims 1, 11, 18. Even within the hybrid device, the “integrated PDK” and “integrated RDC” are connected by “a first signal line for communication,” which further suggests two separate entities physically connected by a communication line, not an intertwined set of elements, without discrete physical identity, that are only “operably connected.” In certain embodiments, this signal line is also used to provide power to the PDK. *See, e.g.*, ’188 Patent at 13:29-32 (“The

signal line 1104 is also used to provide power to the PDK 102a via the RDC 304a in configuration where the RDC 204a is coupled to a power source via signal line 1106.”). It does not make sense to have a single power line if the components of a distributed system are not all together.

Thus, for all of the above reasons, it is appropriate and accurate to call the PDK a “device.”

Proxense’s construction describes a PDK as “an operably connected collection of elements.” But this phrase or even the individual words “collection,” “connected,” or “operably” are not used in the specification. The PDK is never depicted as a collection of disparate or separate elements which are only connected by their operation without any physical coherence.

Under Proxense’s proposed construction, the idea of the PDK being a device or a physical entity loses meaning, since “operably connected” could mean that the separate elements merely interoperate. Put another way, Proxense’s proposed construction reduces a PDK simply to its functionality, *e.g.*, wireless communication and storage. But the specification and the claims never describe the PDK so broadly as just a collection of functions. Instead, the PDK is consistently described as a discrete physical entity, not a collection of functions.

Therefore, for all of the above reasons, the proper construction of personal digital key is “a device that includes an antenna, a transceiver for communicating with the RDC and a controller and memory for storing information particular to a user.”

3. “biometric information” (188:1,4,10,13)(700:4,14)

Samsung’s Proposed Construction	Proxense’s Proposed Construction
“the fingerprint, palm print, retinal scan, iris scan, photograph, signature, voice sample, or DNA/RNA information that uniquely identifies an individual”	No construction necessary, plain and ordinary meaning.

Samsung proposes a construction that is based directly on the disclosure in the specification, and is consistent with the usage of the term in the claims. Proxense does not propose

a construction and it is unclear what Proxense believes the scope of the term encompasses. It is important to construe the term because the type of information that qualifies as “biometric information” is crucial to a proper understanding of the claim scope. There are multiple ways of interpreting “biometric information,” and it is important to make clear what is encompassed.

The specification provides a list of biometric information, which is exactly what Samsung’s proposed construction encompasses:

For example, the biometric input 104 can include a fingerprint, a palm print, a retinal scan, an iris scan, a photograph, a signature, a voice sample or any other biometric information such as DNA, RNA or their derivatives that can uniquely identify the individual.

’188 Patent at 4:10-14.

Samsung’s construction clarifies the specific types of information that qualify as biometric information and further specifies the function or purpose of the biometric information (to identify the individual). This is important to clarify because one of the important purposes of the invention is to provide a secure means for authorizing a transaction or enabling a function. Samsung’s construction also makes clear the biometric information is the specific type of information described in the specification, and not downstream information used during the authorization process.

Therefore, the proper construction for “biometric information” is “the fingerprint, palm print, retinal scan, iris scan, photograph, signature, voice sample, or DNA/RNA information that uniquely identifies an individual.”

4. “financial information” (188:5-6, 14, 17) (700:1,5-6,11,15,18)

Samsung’s Proposed Construction	Proxense’s Proposed Construction
“purchasing account numbers, such as the debit card, ATM card, or bank account numbers”	No construction necessary, plain and ordinary meaning. Information about the transaction.

Samsung proposes a construction that lists specific financial information that is described in the specification, while Proxense proposes either no construction needed, or a vague and broad construction that any information about the transaction would qualify as financial information.

Samsung’s construction is based on the specification. In the specification, the examples of financial information listed are the ones in Samsung’s proposed construction. For example, the specification provides the following for a purchase transaction:

Alternatively, a different database may be used to validate different types of purchasing means such as a debit card, ATM card, or bank account number

’188 Patent at 5:22-25. Samsung’s construction captures the purchase account information, including the specific types of account numbers listed in the specification.

Proxense’s construction is too open-ended and vague. Not all information about a transaction is financial information. For example, a date and time is not necessarily financial information. Proxense’s proposed construction fails to capture the aspect of the information that is financial, and instead only broadly describes transaction-specific information.

Proxense’s construction also suffers from the vagueness of what is “the” transaction. The term “financial information” is used in claims 5, 6, 14 and 17 of the ’188 Patent, and nothing in claims 5 or 14 (including the independent claims upon which they depend) mentions a “transaction.” Similarly, “financial information” is used in claims 1, 5, 6, 11, 15 and 18 of the ’700 Patent, and nothing in claims 1, 5, 11 and 15 mentions a “transaction.”

5. “receiver-decoder circuit” (188:1,10)(700:1,11)

Samsung’s Proposed Construction	Proxense’s Proposed Construction
“a device that provides a wireless interface to the PDK”	A component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing.

The parties’ constructions differ in multiple respects, but notably Samsung’s construction captures the essence of what a receiver-decoder circuit (RDC) is as described in the claims and specification, while Proxense’s construction both tries to expand the scope of the term in one sense and imposes unnecessary limitations in another aspect. Specifically, the parties’ constructions differ in the following ways: (1) Samsung proposes that the receiver-decoder circuit is a “device” while Proxense proposes “a component or collection of components”; (2) Samsung’s construction includes that the RDC provides a wireless interface to the PDK; (3) Proxense’s construction appends an unnecessary limitation “receiving data in an encrypted format and decoding the encrypted data for processing” that is not part of the term receiver-decoder circuit.

As with the parties’ dispute with the term “personal digital key,” Samsung’s construction makes clear the receiver-decoder circuit is a physical entity, not a simply a loose “collection of components.” Just as the PDK is consistently depicted in the figures as a discrete entity, the RDC is also depicted as a discrete entity, like a device, and not like a “collection of components.”

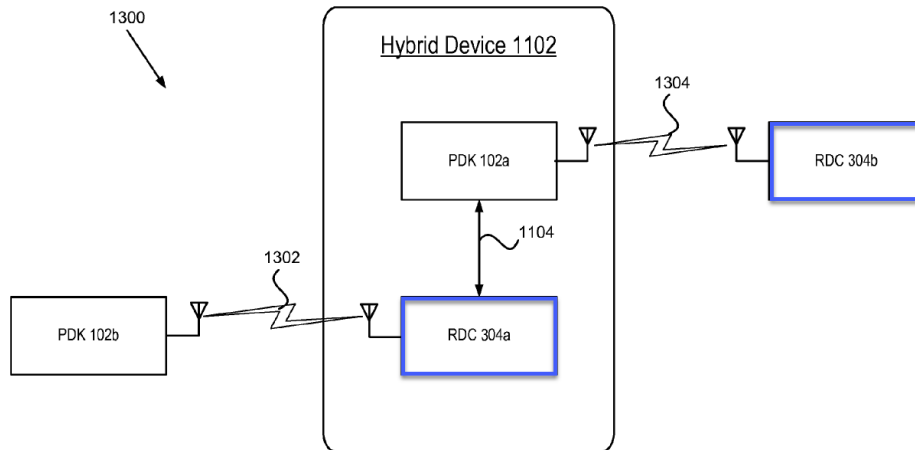


FIG. 13

'188 Patent Figure 13 (annotated). The specification describes that the RDC is connected directly to the PDK by a signal line:

As illustrated in FIG. 11, the PDK102a is coupled by signal line 1104 to the RDC 304a. This direct coupling allows the PDK102a and the RDC 204a to communicate control signals and data for various applications will be described below.

'188 Patent at 13:25-29. The description uses the phrase “direct coupling” by the signal line 1104, which does not make sense if the RDC were a collection of components and not a single device. In a collection of separate components, there would need to be multiple connections for each of the components and the coupling would not be direct, but indirect.

The specification also incorporates by reference U.S. patent application Ser. No. 11/292,330, entitled “Personal Digital Key And Receiver/Decoder Circuit System And Method” filed on Nov. 30, 2005. '188 Patent at 7:13-17. The RDC is described as a device in that reference. *See, e.g.*, U.S. Patent App. No. 11/292,330 at ¶48 (“As clearly observed in the drawings, the system according to the invention includes a Personal Digital Key (PDK) proximity-based technology, where small, individually-unique devices, comprising personal digital keys (Keys),

are wirelessly authenticated by *a secondary device, which comprises a Reader/Decoder Circuit (RDCs).*”) (emphasis added).

Similarly, the claims also treat the RDC as a discrete entity and not simply a collection of components. Specifically, the RDC is referred to as either an “integrated RDC” or an “external RDC.” If the RDC were distributed across many devices as a collection of components, it wouldn’t be meaningful to call “integrated” or “external” since its location wouldn’t be in a single place.

Samsung’s construction is based on a direct, straightforward statement in the specification describing what a RDC is.

The RDC 304 provides the wireless interface to the PDK 102. Generally, the RDC 304 wirelessly receives data from the PDK 102 in an encrypted format and decodes the encrypted data for processing by the processor 306.

’188 Patent at 7:10-13. Proxense’s construction omits the requirements of what the RDC does. Not only does the specification indicate the RDC provides an interface to the PDK, but the claims consistently say the same thing. ’188 Patent claim 1 and ’700 Patent claim 1 both state: “an integrated RDC for communicating wirelessly with at least one external PDK” and “an integrated personal digital key (PDK) ... capable of communicating wirelessly with an external receiver-decoder circuit (RDC).” Similar corresponding statements appear in claims 10 and 17 of the ’188 Patent, and claims 11 and 18 of the ’700 Patent.

In contrast, Proxense’s construction includes the “decoding the encrypted data” functionality, but this comes from a sentence starting with the word “generally,” which is not clearly a requirement of the term. Indeed, when you look at the claims of the ’188 and ’700 Patents, there is no requirement that the data be encrypted or decoded.

Therefore, for all the aforementioned reasons, the court should construe “receiver-decoder circuit” as “a device that provides a wireless interface to the PDK.”

6. “inheritance information” (188:9,18)(700:9,19)

Samsung’s Proposed Construction	Proxense’s Proposed Construction
“information that is received from a predecessor device”	Information passed from a first device to a second device for use by the second device.

While the parties’ constructions both capture the aspect of information transfer from one device to another, Samsung’s construction more accurately captures what it means for information to be inheritance information. The concept described in the patent is more than just simply transfer of information for use, but includes the idea that the second device adopts some characteristic of the original device. For example, the patent specification describes:

Furthermore, there are multiple types of inheritance including service inheritance, feature inheritance and personality inheritance. Service inheritance is authorization of the second device for any functionality provided by a given service. Feature inheritance is similar to service inheritance but for a limited set of features offered by a given service. Personality inheritance is where the preferences of a user or holder of a first device are shared with a user or holder of a second device.

’188 Patent at 17:52-60. In all the examples given of types of inheritance, the second device adopts or takes on the features or attributes of the predecessor device. These are described in further detail in the following paragraphs of the specification. For example, the following paragraph describes:

“In this context, the inheritance promulgates the authorization or features from the first device to the second device and onto the third device. However, those skilled in art will recognize that in another embodiment, the first and second devices both communicate directly with the third device to perform the same function.”

’188 Patent 18:1-6. *See also* ’188 Patent at 19:23-45 (describing second user inheriting Wi-Fi access from first user); ’188 Patent at 19:46-64 (describing transfer of account information and dollar limits from parent to child); ’188 Patent at 20:1-14 (describing transfer of access to video

game or website from parent to child); '188 Patent at 20:27-48 (describing exchange of personal video game preferences between friends). In all cases, there is a transfer of characteristics of the predecessor device (*e.g.*, access or features or preferences) to a successor device.

Samsung's construction is also consistent with the ordinary meaning of the word "inheritance." For example, Bloomsbury English Dictionary (2004) defines "inheritance" to mean: "a feature of computer programming whereby a new object can be created from existing objects and, as a consequence of creation, possess the variables and methods of the parent object." Ducca Decl. Ex. 1 at 3. Dictionary of Science and Technology, second edition (2007), defines "inheritance" to mean: "the passing on of the characteristics of one class or data type to another, called its descendant." Ducca Decl. Ex. 2 at 4. These definitions capture the idea that there is a predecessor which passes something on to a successor, and is more than simply just any transfer.

While Proxense's construction is consistent with the idea of inheritance information, and the specification does indicate that "[a]uthorization inheritance is when a first device passes selected information to a second device and the second device then 'inherits' that information for use," ('188 Patent at 17:46-49), this is simply one characteristic of inheritance information, and is insufficient to define the term. The problem is that Proxense's construction is overly broad and captures only the general idea of transfer of information and not specifically inheritance information. A regular email, which passes information from one device to another, for use, would fall under Proxense's construction, even though it is nothing like the examples of inheritance information described in the specification. Proxense's construction is missing the notion of a predecessor whose characteristics or features are passed on to a successor.

Therefore, the court should construe "inheritance information" as "information that is received from a predecessor device" as it captures the meaning of inheritance information as that

idea is described in the specification. It is also consistent with the usage of the term inheritance more generally.

7. “enablement signal” (188:10-12, 17)(700:11-13,18)

Samsung’s Proposed Construction	Proxense’s Proposed Construction
No construction needed. Alternatively, “a signal that authorizes”	A message that enables or authorizes.

Samsung does not believe this term needs to be construed, as it is used according to its plain meaning. However, if the court finds this term needs to be construed, Proxense’s construction should be refined to accurately reflect the way this term is described in the specification. Specifically the proper meaning of “enablement signal” is “a signal that authorizes.”

The specification describes the use of the enablement signal as follows:

Referring now to FIG. 15, one embodiment of a system 1500 that uses multiple PDK links 1502, 1504 to the hybrid device 1102 to generate an authorization signal is shown. For the system 1500, only when multiple PDK links 1502, 1504 to the hybrid device 1102 exist, will an authorization enablement signal be generated on signal line 1506. Again, in this embodiment, the hybrid device 1102 has a physical output or connection for providing the authorization signal.

’188 Patent at 17:21-28. As can be seen in this passage, the enablement signal is used to authorize. “Enablement signal” is described as an “authorization enablement signal.” In the preceding and succeeding sentences, the signal is referred to as an “authorization signal.” This disclosure makes clear the way “enablement signal” is used is as an “authorization signal.”

If Proxense’s purpose is to add “message,” that is not justified by the specification or claims. The addition of “enables” in Proxense’s construction is likewise confusing, as it suggests there is an alternate purpose to the enablement signal. No other purpose is described in the specification or claims.

IV. CONCLUSION

For all of the above-mentioned reasons, Samsung's proposed constructions are the proper interpretation of the disputed claim terms, except for "hybrid device," and "wherein the biometric data and the scan data are both based on a fingerprint scan by the user" which are invalid under § 112, and "third-party trusted authority" and "enablement signal," which should not be construed.

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CERTIFICATE OF SERVICE

I certify that a true and correct copy of the above and foregoing document was served on counsel for plaintiff Proxense via electronic delivery on October 28, 2021.

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