

Microsoft Corporation (Petitioner)
v.
Proxense, LLC (Patent Owner)

Petitioner's Demonstratives

Case No. IPR2024-00573
U.S. Patent No. 8,646,042
Before Thu A. Dang, David C. McKone, and Norman H. Beamer
Administrative Patent Judges



DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Overview of Proceedings

Asserted Grounds

Ground	Claim(s)	35 U.S.C. § 102/103
1A	1, 5-6, 8-11, and 13-14	Giobbi-157 in view of Giobbi-139
1B	1, 5-6, 8-11, and 13-14	Giobbi-157 in view of Giobbi-139 and Dua
2	10-11 and 13-14	Broadcom

Pet., 2.

The '042 Patent Overview

The '042 Patent is directed to "a hybrid device [that] includes a personal digital key (PDK) and a receiver-decoder circuit (RDC)" coupled in communication with each other. MS-1001, Abstract, 1:20-26. The integrated PDK communicates wirelessly with an external RDC and the integrated RDC communicates wirelessly with at least one external PDK within its proximity zone. MS-1001, 3:62-4:20.

The specification discloses that the integrated PDK is capable of storing local, secured financial information or secured biometric information for authenticating a user. MS-1001, 3:20-32, 16: 20-38. Similarly, the external PDK is also capable of storing information. MS-1001, 3:62-4:20. For example, in one embodiment, the integrated PDK carries credentials such as credit card or account information that are used to enable services associated with the external RDC. MS-1001, 4:63-5:24. A user can make a purchase with the hybrid device provided that they are in possession of the external PDK and in proximity to the hybrid device. If so, the external PDK wirelessly connects to the integrated RDC and authorizes the integrated PDK to enable a transaction by sharing credit card or account information with the external RDC. *Id.*; MS-1003, ¶¶[28]-[29].

Pet., 5-6.

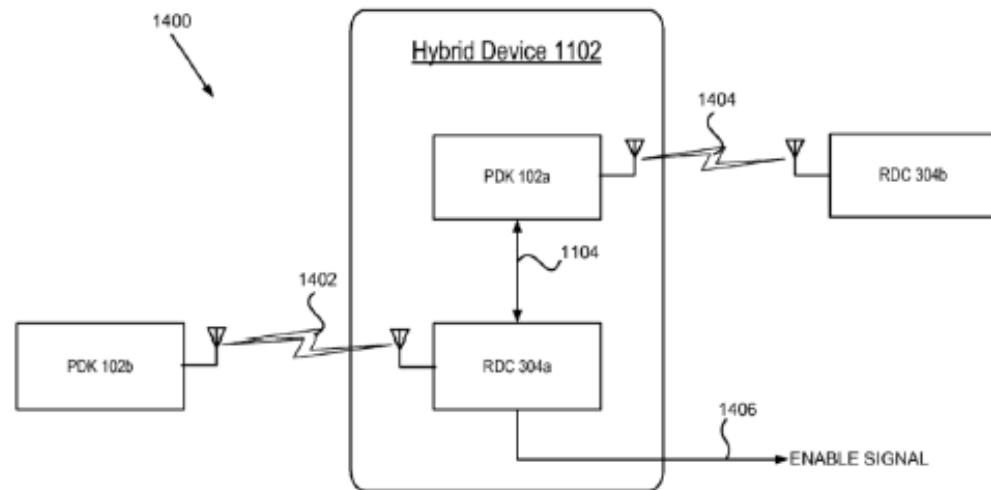


FIG. 14

MS-1001, FIG 14 (cited by POR, 22).

'042 Patent Claims 1 and 10

1. A hybrid device comprising:
an integrated personal digital key (PDK) for storing information and capable of communicating wirelessly with at least one external receiver-decoder circuit (RDC); and
an integrated RDC for communicating wirelessly with at least one external PDK within a proximity zone, the integrated RDC coupled to the integrated PDK by a first signal line for communication, the integrated RDC coupled to at least one other component of the hybrid device by a second signal line, one or more of the integrated RDC and integrated PDK enabling one or more of an application, a function, and a service on one or more of the hybrid device and a device associated with the external RDC.

MS-1001, Claim 1.

10. A method comprising:
creating a first wireless link between an integrated receiver-decoder circuit (RDC) of a hybrid device and an external personal digital key (PDK), the hybrid device including an integrated PDK and the integrated RDC;
receiving a first signal at the integrated RDC via the first wireless link from the external PDK;
generating an enablement signal enabling one or more of an application, a function and a service on one or more of the hybrid device and a device associated with an external RDC; and
sending the enablement signal to one or more of the hybrid device and the device associated with an external RDC.

MS-1001, Claim 10.

Claim Construction Dispute

Main Dispute - Claim Construction

Microsoft Corporation (“Petitioner” or “Microsoft”) submits this Petitioner Reply in response to the Patent Owner’s Response (“POR”) in IPR2024-00573, which challenges the validity of U.S. Patent No. 8,646,042 (“the ’042 patent”). In its POR, Proxense, LLC (“Proxense” or “Patent Owner”) does not dispute the prior art, or the combinations advanced in the Petition against claims 1, 5-6, 8-11, 13-14 (“the Challenged Claims”). Instead, Proxense advances and relies on very narrow constructions of various limitations of the Challenged Claims based on a legally unsupported belief that these limitations trigger 35 U.S.C. § 112(f) (“means-plus-function,” “112(f),” “112(6),” or “MPF”). Having narrowly construed the claims, Proxense argues that the Petition’s invalidity challenge fails to meet these claim limitations. In doing so, Proxense sidesteps the substance of the invalidity challenge in the Petition and rests its arguments on narrow constructions, asserting that the now-narrowed limitations fail to be met by Gobbi-157, Giobbi-139, or any combination thereof.

Reply, 1.

Independent claims 1 and 10 each recite “enabling one or more of an application, a function, and a service.” For the reasons stated above, claims 1 and 10 invoke 35 U.S.C. § 112, ¶ 6, such that the algorithm represented by control logic 250 performs the function of “enabling one or more of an application, a function and a service.” The Petition fails to establish Giobbi 157, Giobbi 139, or Dua, alone or in combination, “enables an application, a function, and a service” using the algorithm. Consequently, the Petition fails to establish claims 1 and 10, and the claims dependent thereon, are invalid and unpatentable.

POR, 29.

Claim Terms in Dispute

Claim Term	Microsoft Proposed Construction	Proxense Proposed Construction
Integrated RDC communicating wirelessly with the at least one external device within the proximity zone.	RDC – “a component or collection of components capable of wirelessly receiving data in an encrypted format and decoding encrypted data for processing” Pet., 4-5.	Why MPF? – “None of these structures are recognized ...as sufficiently <i>definite</i> structures for performing the [“enabling one or more of an application, a function and a service”] function.” POR, 7. “...the <u>recited structures for performing the function are nothing more than the generic abilities of general-purpose computers</u> or meaningless nonce words.” POR, 7. “‘But a ‘<u>processor and transceiver amount to nothing more than a general-purpose computer.</u>’ <i>HTC Corp. v. ICom GmbH & Co., KG</i>, 667, F.3d 1270, 1280 (Fed. Cir. 2012) POR, 9. MPF Construction – “RDC” performing the “enabling one or more of an application, a function and a service” consistent with “the algorithm of control logic 250” POR, 18-20.

Claim Terms in Dispute

Claim Term	Microsoft Proposed Construction	Proxense Proposed Construction
Integrated personal digital key (PDK) for storing information	“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.” Pet., 4.	Why MPF? – “None of these structures are recognized ...as sufficiently <i>definite</i> structures for performing the [“enabling one or more of an application, a function and a service”] function.” POR, 7. “...the <u>recited structures for performing the function are nothing more than the generic abilities of general-purpose computers</u> or meaningless nonce words.” POR, 7. “<u>computer-readable media or storage devices amount to nothing more than a general-purpose computer.</u>” <i>Rain Computing v. Samsung Electronics America</i>, 989 F.3d at 1008 (Fed. Cir. 2021), POR, 9-10. MPF Construction – an “integrated PDK” performing the “enabling one or more of an application, a function and a service” consistent with “the algorithm of the control logic 250” POR, 9.

Claim Terms in Dispute

Claim Term	Microsoft Proposed Construction	Proxense Proposed Construction
Enablement signal	Ordinary and Customary Meaning. Pet., 3, 54-57.	Why MPF? – “None of these structures are recognized ...as sufficiently <i>definite</i> structures for performing the [“enabling one or more of an application, a function and a service”] function.” POR, 7. “...the recited structures for performing the function are nothing more than the generic abilities of general-purpose computers or <u>meaningless nonce words</u>.” POR, 7. “The term ‘enablement signal’ is not a structure recognized by those of ordinary skill in the art for performing the [“enabling function”], rather, <u>it is meaningless nonce merely reciting the function it performs</u>.” POR, 20-21. MPF Construction – “generating an enablement signal” performing the “enabling one or more of an application, a function and a service” consistent with “the algorithm of control logic 250.” POR, 20-25.

Claim Construction Dispute Roadmap

- **Proxense's Alleged Means Plus Function (MPF) Constructions Are Inconsistent with Constructions It Advanced in Co-pending Litigation**
 - Microsoft Litigation
 - Samsung Litigation
 - Apple Litigation
 - Google Litigation
 - Proxense's assertion of consistency with litigation is not credible
- **Proxense's Alleged MPF Constructions Apply Wrong Legal Framework**
- **Proxense's Alleged MPF Constructions of "Integrated PDK," "Integrated RDC," and "Enablement Signal" Claim Terms Should Be Rejected**
 - Proxense has not met burden to rebut the presumption against MPF treatment
 - "Local secured information" term recites structure, making MPF inappropriate
 - "Integrated RDC" term recites structure, making MPF inappropriate
 - "Integrated PDK" term recites structure, making MPF inappropriate
 - Generating "enablement signal" step recites structure/act, making MPF/SPF inappropriate

Claim Construction Dispute

Proxense's Alleged MPF Constructions
Are Inconsistent with Constructions It
Advanced in Co-pending Litigation

Microsoft Litigation – Proxense Claim Construction Inconsistency

Demonstrated by its own evidence, Proxense's position at the PTAB deviates substantially from the position it adopted in the co-pending Microsoft and Apple litigation. EX-2005-2008; EX-2012, EX-2014. Nowhere in its briefing for the Microsoft litigation did Proxense ever assert that any of the terms of the '042 patent—or for that matter, any other of the asserted patents—were subject to 112(f). *Id.* In fact, Proxense fights against Apple's assertion of 112(f) for the term "verification unit." EX-2014, EX-2015. Nor did Proxense apply any

Reply, 4-5.

Microsoft Litigation – Proxense Claim Construction Inconsistency

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION

PROXENSE, LLC,
Plaintiff,

v.
MICROSOFT, CORP.,
Defendant.

Civil Action No. 6:23-cv-00319-ADA

PLAINTIFF PROXENSE, LLC's RESPONSIVE CLAIM CONSTRUCTION BRIEF

EX-2006; (Reply, 4).

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2.	"receiver-decoder circuit" (042:10, 289:14, 16) 12
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EX-2006, TOC;
(Reply, 4).

1. "personal digital key" (042:10)

Proxense's Construction	Microsoft's Construction
Adopts the Court's Construction in <i>Proxense v. Samsung</i> : 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.	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

2. "receiver-decoder circuit" (042:10; 289:14, 16)

Proxense's Construction	Microsoft's Construction
Adopts the Court's Construction in <i>Proxense v. Samsung</i> : A component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing.	a circuit that wirelessly receives encrypted data from the PDK and decodes it

EX-2006, 10-12; (Reply, 4).

Microsoft Litigation – Proxense Claim Construction Inconsistent with Markman Order

Claim Term	Microsoft's Proposed Construction	Proxense's Proposed Construction	Court's Final Construction
"receiver-decoder circuit"	A circuit that wirelessly receives encrypted data from the PDK and decodes it	Adopt the construction from <i>Proxense v. Samsung</i> , 6:21-cv-00210: A component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing.	A component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing
"personal digital key"	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	Adopt the construction from <i>Proxense v. Samsung</i> , 6:21-cv-00210: 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.	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

EX2012 (Reply, 4).

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Samsung Litigation - Proxense Claim Construction Inconsistency

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION	
PROXENSE, LLC, Plaintiff,	Case Nos. 6:21-cv-00210-ADA
vs.	JURY TRIAL DEMANDED
SAMSUNG ELECTRONICS, CO., LTD. AND SAMSUNG ELECTRONICS AMERICA, INC., Defendant.	
<u>SAMSUNG'S OPENING CLAIM CONSTRUCTION BRIEF</u>	

EX-2009; (Reply, 4-5).

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.

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.

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5.	"receiver-decoder circuit" (188:1,10)(700:1,11)	21
6.	"inheritance information" (188:9,18)(700:9,19)	24
7.	"enablement signal" (188:10-12, 17)(700:11-13,18)	26
IV.	CONCLUSION	27

EX-2009, TOC;
(Reply 4-5).

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.

EX-2009, 11, 15, 21,
26 (Reply, 4-5).

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 Litigation – Proxense Claim Construction Inconsistent with Markman Order

Claim Term	Proxense's Proposed Construction	Samsung's Proposed Construction	Court's Final Construction
"hybrid device"	A device comprising an integrated personal digital key (PDK) and an integrated receiver decoder circuit.	Indefinite	No construction needed, plain and ordinary meaning.
"Personal digital key"	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.	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
"receiver-decoder circuit"	A component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing.	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.
"enablement signal"	A message that enables or authorizes	No construction needed.	No construction needed.

EX2001 (Reply, 3-6).

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Samsung Litigation – No Endorsement by Samsung Court of MPF Treatment

Despite being tasked with characterizing similar limitations, neither the District Court nor any of the two parties asserted that these similar limitations invoke 112(f) treatment, much less demand implementation details of the described algorithm implemented by control logic 250. Proxense's attempt to burden the claims with this narrow requirement should be rejected as it is nothing more than a thinly veiled attempt to improperly import specification details into the claims to avoid addressing the teachings of the prior art.

Reply 8.

Samsung Litigation - Proxense's MPF interpretation Not Supported by Samsung Court

The District Court was asked to construe the term “hybrid device”, which Samsung alleged was indefinite. Consistent with the Patent Owner’s proposed claim construction, the District Court construed a “hybrid device” to be a “device comprising an integrated personal digital key (PDK) and an integrated receiver-decoder circuit [(RDC)].” Ex. 2002, at 25. The District Court then construed each of the terms PDK and RDC. Samsung and Patent Owner both proposed constructions that defined a PDK as including “antenna [and] a transceiver for communicating with the RDC and a controller and memory for storing information particular to a user.” Exhibit 2002, at 27. Accordingly, the District Court construed the term “PDK” as 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.” Ex. 2002, at 27. But as noted above, such a construction is construing a PDK to be nothing more than a general-purpose computer. The District Court also construed the term RDC. Samsung and Patent Owner both proposed constructions that defined an RDC as a wireless interface. Exhibit 2002, at 36. The District Court construed the term “RDC” as a “component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing.” Ex. 2002, at 36. Such a construction, as also noted above, is construing an RDC to be nothing more than a general-purpose computer. Accordingly, the District Court effectively construed the term “hybrid device” to be a combination of two general-purpose computers.

POR 25-26.

Thus, in *Proxense v. Samsung*, as with the present matter, the parties proposed constructions for “PDK” and “RDC” that defined the terms as nothing more than general-purpose computers. Furthermore, as with the current claims at issue, claim 1 of the 188 Patent and claim 1 of the 700 Patent each recite “one or more of the integrated RDC and integrated PDK enabling one or more of an application, a function, and a service.” Additionally, claim 10 of the 188 Patent, claim 11 of the 700 Patent, and claim 10 of the 042 Patent, each recite “a hybrid device” and “generating an enablement signal enabling one or more of an application, a function and a service.” Thus, the claims at issue before the District Court recited the same functions at issue here (*i.e.*, “enabling one or more of an application, a function, and a service”) performed by the same recited structures at issue here (*i.e.*, “integrated PDK,” “integrated RDC,” “hybrid device” and “enablement signal”), three of which the District Court construed to be general-purpose computers. Having construed the claims to recite functions performed by general-purpose computers the District Court had to then address the issue of indefiniteness raised by Samsung. “If the function is performed by a general-purpose computer or microprocessor, then the second step generally further requires that the specification disclose the algorithm that the computer performs to accomplish that function.” *Rain Computing*, 989 F.3d at 1007. Should an adequate structure not be found within the specification, then the claim is indefinite. *Rain Computing*, 989 F.3d at 1007 (“And finally, if the patentee fails to disclose adequate corresponding structure, the claim is indefinite.”). Accordingly, to find the claims definite under § 112, the District Court had to find an algorithm in the specification allowing a PDK and/or RDC to “enable one or more of an application, a function, and a service.”

POR 26-27.

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Samsung Litigation – Proxense MPF Interpretation Not Supported by Samsung Court

b. The Court's Analysis

The Court finds that the term is not indefinite and should receive the construction of “A device comprising an integrated personal digital key (PDK) and an integrated receiver-decoder circuit.” A POTISA could reasonably ascertain the scope of the claim because the claims explain the required operation of the “hybrid device.” Claims 1 and 10 of the 188 Patent and claims 1 and 11 of the 700 Patent state, “one or more of the integrated RDC and integrated PDK enabling one or more an application, a function and a service.” An application, function, or service is “enabled” by a PDK when it receives information from a PDK in exchange for an access key. Similarly, an RDC “enable[es] one or more of an application, a function, and a service” when it forwards such a message to the application, function, or service. The claimed “hybrid device” carries out these functions. Dependent claim 2 of the 188 patent further limits claim 1, reciting “one or more of the

EX-2002, 26 (POR 25-29).

Accordingly, the Court finds that the “hybrid device” term is not indefinite and should receive the construction of “A device comprising an integrated personal digital key (PDK) and an integrated receiver-decoder circuit.”

EX-2002, 27 (POR 25-29).

We are unpersuaded by Patent Owner’s contention that “the District Court found it necessary to construe the term ‘enabled.’” Prelim. Resp. 13. In particular, we disagree that the District Court in the Samsung case provided any construction for the term “enabled.” *Id.* at 13–14. Although Patent Owner points to the District Court’s Memorandum in Support of Claim Construction Order (*id.* (citing Ex. 2002, 26)) to support its contention that the district court construed the term “enabled,” this portion of the District Court’s Memorandum merely discusses that “hybrid device” is not indefinite, and discusses exemplary operations of the “hybrid device” from which a POSITA “could reasonably ascertain the scope of the claim.” See Ex. 2002, 26. That is, a determination of whether a term is indefinite is not the same thing as construing a claim term. Thus, the District Court, by determining that “hybrid device” is not indefinite, did not construe the term “enabled.” Accordingly, although the referenced portion of the District

Inst. Dec., 9 (Reply. 7)

Apple Litigation - Proxense Claim Construction Inconsistency

UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION	
PROXENSE, LLC, <i>Plaintiff,</i>	Civil Action No. 6:24-cv-00143-ADA
v.	
APPLE INC., <i>Defendant.</i>	JURY TRIAL REQUESTED

JOINT CLAIM CONSTRUCTION STATEMENT

MS-1037, 1 (Reply 5-6).

8,646,042; 9,679,289 Patents		
Patent Claims	Claim Term / Phrase	Agreed Construction
'042 patent claims 1, 6	"personal digital key (PDK)"	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
'289 patent claims 1, 11		
'042 patent claims 1, 6	"receiver-decoder circuit (RDC)" "reader-decoder circuit (RDC)"	a component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing
'289 patent claims 1, 11		

The parties request that the Court enter the above agreed constructions.

MS-1037, 4 (Reply 6).

Apple Litigation – Proxense Claim Construction Inconsistency

Proxense LLC v. Apple, Inc., 6:24-cv-00143-ADA

Proxense's Proposed Constructions

Patent Claims	Apple's Proposed Terms, Phrases or Clauses	Proxense's Proposed Construction
'042 patent claim 1 '188 patent claim 1	"A hybrid device comprising"	Plain and ordinary meaning. No construction necessary beyond adopting the Court's prior construction of "hybrid device" in <i>Proxense v. Samsung</i> .
'042 patent claims 1, 6 '188 patent claim 1	"personal digital key (PDK)"	Adopt the Court's prior construction in <i>Proxense v. Samsung</i> : 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
'042 patent claims 1, 6 '188 patent claims 1, 3	"receiver-decoder circuit (RDC)"	Adopt the Court's prior construction in <i>Proxense v. Samsung</i> : A component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing

EX-2014, (Reply, 4-6).

Google Litigation - Proxense Claim Construction Inconsistency

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

PROXENSE, LLC,
Plaintiff,

v.

GOOGLE LLC,
Defendants.

W-23-CV-00320-ADA

Order

EX-2004, 1 (Reply 3-4).

<u>Claim Term</u>	Google's Proposed Construction	Proxense's Proposed Construction	Court's Final Construction
"receiver-decoder circuit" ('042 Patent, claim 10; '289 Patent, claim 14)	a collection of circuit components capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing	A component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing.	A component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing
"personal digital key" ('042 Patent, claim 10)	a collection of circuit components that includes an antenna, a transceiver, 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.	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

EX-2004 (Reply 3-4). 24

Google Litigation – Proxense Claim Construction Inconsistent with Markman Order

Claim Term	Google's Proposed Construction	Proxense's Proposed Construction	Court's Final Construction
"receiver-decoder circuit"	A collection of circuit components capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing	A component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing.	A component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing
"personal digital key"	a collection of circuit components that includes an antenna, a transceiver, 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.	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

EX-2004 (Reply, 3).

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Proxense's Assertion of Claim Construction Consistency Is Not Credible

The Reply is flat wrong in its that Patent Owner's position deviates from that position adopted in the co-pending *Proxense v. Microsoft* and *Proxense v. Apple* litigations.

The Final Infringement Contentions filed July 24, 2024 in the *Microsoft* litigation (submitted herewith as Exhibits 2017, 2018, 2019, and 2020), and those filed June 15, 2024, in the *Apple* litigation (submitted here as Exhibits 2021 and 2022), detailed the alleged infringement of the 042 Patent by Microsoft and Apple. With regards to the asserted infringement by Microsoft Patent Owner stated:

POSR, 1.

EXHIBIT LIST

No.	Exhibit Description
2001	Claim Construction Order in <i>Proxense, LLC v. Samsung Electronics, Co., Ltd. et al.</i> , No. 6:21-CV-00210-ADA
2002	Memo In Support of Claim Construction Order in <i>Proxense, LLC v. Samsung Electronics, Co., Ltd. et al.</i>
2003	Markman Transcript from <i>Proxense, LLC v. Samsung Electronics, Co., Ltd. et al.</i>
2004	Claim Construction Order in <i>Proxense, LLC v. Google LLC</i> , No. 6:23-cv-00320-ADA
2005	Opening Claim Construction Brief in <i>Proxense, LLC v. Microsoft Corporation</i> , No. 6:23-cv-00319-ADA
2006	Responsive Claim Construction Brief in <i>Proxense, LLC v. Microsoft Corporation</i>
2007	Reply Claim Construction Brief in <i>Proxense, LLC v. Microsoft Corporation</i>
2008	Sur-reply Claim Construction Brief in <i>Proxense, LLC v. Microsoft Corporation</i>
2009	Opening Claim Construction Brief in <i>Proxense, LLC v. Samsung Electronics, Co., Ltd. et al.</i>
2010	Reply Claim Construction Brief in <i>Proxense, LLC v. Samsung Electronics, Co., Ltd. et al.</i>
2011	Joint Claim Construction Order
2012	Claim Construction Order- <i>Proxense, LLC v. Microsoft Corp.</i> , No. 6:23-cv-00319
2013	<i>Intentionally Left Blank</i>
2014	Declaration of Markus Jakobsson
2015	PLAINTIFF'S PRELIMINARY INFRINGEMENT CONTENTIONS, <i>Proxense, LLC v. Microsoft Corp.</i> , No. 6:23-cv-00319-ADA
2016	Ex. E, PLAINTIFF'S PRELIMINARY INFRINGEMENT CONTENTIONS, <i>Proxense, LLC v. Microsoft Corp.</i> , No. 6:23-cv-00319-ADA

POSR, Exhibit List.

Proxense's Assertion of Claim Construction Consistency Is Not Credible

Claims 1 and 10 of the 188 Patent and claims 1 and 11 of the 700 Patent state, 'one or more of the integrated RDC and integrated PDK enabling one or more an application, a function and a service.' An application, function, or service is 'enabled' by a PDK when it receives information from a PDK in exchange for an access key. Similarly, an RDC 'enables one or more of an application, a function, and a service' when it forwards such a message to the application, function, or service. The claimed "hybrid device" carries out these functions.

Ex. 2002, at 26.

Abiding by the District Court's prior construction, Patent Owner asserted infringement allegations fully adopting and limited to the above construction. Instead of challenging the construction before the District Court, Petitioners waited until these proceedings by asserting constructions broader than the District Court's, to invalidate the 042 Patent. If Patent Owner had attempted the same with its infringement allegations, Petitioners would have asserted that Patent Owner was collaterally estopped. Accordingly, Petitioners take shelter behind the above construction before the District Court, while disregarding it here to invalidate the 042 Patent. The Board should not allow Microsoft to take such an inconsistent position before it.

POSR, 5.

No.	Exhibit Description
2001	Claim Construction Order in Proxense, LLC v. Samsung Electronics, Co., Ltd. et al., No. 6:21-cv-00210-ADA
2002	Memo In Support of Claim Construction Order in Proxense, LLC v. Samsung Electronics, Co., Ltd. et al.
2003	Memo In Support of Claim Construction Order in Proxense, LLC v. Samsung Electronics, Co., Ltd. et al.

POSR, Exhibit List.

Claim Construction Dispute

Proxense's Alleged MPF Constructions Apply Wrong Legal Framework

Patent Owner Alleges Claim Features Are MPF

Determining whether the Petitions provide sufficient grounds of invalidity requires construing claim terms present in independent claims 1 and 10. Independent claim 1 recites that the function of “enabling one or more of an application, a function and a service” is performed by an “integrated PDK” and/or an “integrated RDC.” Independent claim 10 recites that the function

POR, 4.

A. Claims 1 and 10 Invoke 35 U.S.C. § 112, Paragraph 6

Independent claims 1 and 10 each recite the function of “enabling one or more of an application, a function and a service.” Accordingly, it must be determined if each of claims 1 and 10 recite a sufficiently definite structure for performing that function, other than a general-purpose computer. Here, the claims do not recite a sufficiently definite structure for performing the function, but rather a general-purpose computer. Therefore, the claims invoke 35 U.S.C. § 112, ¶ 6, and the claims must be construed to cover only the structure, material, or acts described in the specification as corresponding to the claimed structure. For claims 1 and 10, the structure is the algorithm the general-purpose computers are programmed to perform.

POR, 4.

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Proxense's Proposed Legal Framework Is Incorrect

III. THE CLAIMS INVOKE § 112(F) BECAUSE THEY RECITE GENERAL PURPOSE COMPUTERS PERFORMING A CLAIMED FUNCTION

The law has been consistent and clear: to claim a means for performing a specific computer-implemented function, and then to disclose only a general purpose computer as the structure designed to perform that function, amounts to pure functional claiming. *Aristocrat*, 521 F.3d 1328 at 1333 (Fed. Cir. 2008). In this instance, the structure corresponding to a 35 U.S.C. § 112(f) claim limitation for a computer-implemented function must include the algorithm needed to transform the general purpose computer disclosed in the specification. *Aristocrat*, 521 F.3d at 1333; *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008); *WMS Gaming, Inc. v. Int'l*

POSR, 5-6.

Case Law Identified By Proxense to Support Its Proposed Legal Framework

- *Rain Computing v. Samsung Electronics America*, 989 F.3d 1002, 1005 (Fed. Cir. 2021)
 - “Once it has been determined that 112(6) is invoked, the construction of the claim term attributed for performing the function must be determined, which occurs in two steps.
 - ‘The first step in construing a means-plus-function claim is to identify the claimed function. After identifying the function, we then determine what structure, if any, disclosed in the specification corresponds to the claimed function...” POR, 5-6
 - “When the structure disclosed for performing the function is a general-purpose computer, as here, the second step requires identifying an algorithm disclosed in the specification for accomplishing the function.” POR, 5-6.
 - “However, ‘computer-readable media or storage devices amount to nothing more than a general-purpose computer.” POR, 9.
- *HTC Corp. v. IPCom GmbH & Co. KG*, 667 F.3d 1270, 1280 (Fed. Cir. 2012)
 - “But a ‘processor and transceiver amount to nothing more than a general-purpose computer.” POR, 20, 24.
- *Ergo Licensing, LLC v. CoreFusion 303, Inc.*, 673 F.3d 1361 (Fed. Cir. 2012)
 - “Furthermore, ‘controlling access to one or more software application packages to which the user has a subscription requires more than merely plugging in a general purpose computer.” POR, 10.
- *Aristocrat*, 521 F.3d 1328 (Fed Cir. 2008)
 - “The law has been consistent and clear: to claim a means for performing a specific computer-implemented function, and then to disclose only **a general purpose computer** as the structure designed to perform that function, amounts to pure functional claiming.” POSR, 5.
- *Aristocrat*, 521, F.3d at 1333, *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008); *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999); *Rain Computing Inc. v. Samsung Electronics Co.*, 989 F.3d 1002, 1007-1008 (Fed. Cir. 2021)
 - “In this instance the structure corresponding to a 35 USC 112(f) claim limitation for a computer-implemented function must include the algorithm needed to transform the **general purpose computer** disclosed in the specification.” POSR, 5.

**Annotations added

Case Law Identified By Proxense to Support Its Proposed Legal Framework

- *Rain Computing*, 989 F.3d 1002, 1005 (Fed. Cir. 2021)
 - “Once it has been determined that 112(6) is invoked, the construction of the claim term attributed for performing the function must be determined, which occurs in two steps.
 - ‘The first step in construing a means-plus-function claim is to identify the claimed function. After identifying the function, we then determine what structure, if any, disclosed in the specification corresponds to the claimed function...’” POR, 4-6
 - “When the structure disclosed for performing the function is a general-purpose computer, as here, the second step requires identifying an algorithm disclosed in the specification for accomplishing the function.” POR, 5-6.
 - “However, ‘computer-readable media or storage devices amount to nothing more than a general-purpose computer.’ POR, 9.

■ We first determine whether “user identification module” is a means-plus-function term. Because the term does

Rain Computing, 989 F.3d 1002, 1006.

term ‘means’ had been used.” *Id.* Likewise, “module” here does not provide any indication of structure, and Rain fails to point to any claim language providing any structure for performing the claimed function of being configured to control access. Nor does the prefix “user identification” impart structure because it merely describes the function of the module: to identify a user. *See id.* at 1351 (“The prefix ‘distributed learning control’ does not impart structure into the term ‘module.’”). Thus, the claim language fails to provide any structure for performing the claimed functions.

Rain Computing, 989 F.3d 1002, 1006.

The parties do not dispute that “user identification module” has no commonly understood meaning and is not generally viewed by one skilled in the art to connote a particular structure. In *Media Rights*

Rain Computing, 989 F.3d 1002, 1006.

Case Law Identified By Proxense to Support Its Proposed Legal Framework

- *Aristocrat*, 521 F.3d 1328 (Fed Cir. 2008)
 - “The law has been consistent and clear: to claim a means for performing a specific computer-implemented function, and then to disclose only **a general purpose computer** as the structure designed to perform that function, amounts to pure functional claiming.” POSR, 5.

the game control means being arranged to pay a prize when a predetermined combination of symbols is displayed in a predetermined arrangement of symbol positions selected by a player, playing a game, including one and only one symbol position in each column of the array,

the control means defining a set of predetermined arrangements for a current game comprising each possible combination of the symbol positions selected by the player which have one and only one symbol position in each column of the display means,

Aristocrat, 521 F.3d 1331

The district court observed that the key question in this case is the definiteness of the claim term “game control means” or “control means” that is used several times in claim 1. The court explained that the claim describes the “game control means” as performing three functions: (1) to control images displayed on the display means; (2) to pay a prize when a predetermined combination of symbols matches the symbol positions selected by the player; and (3) to define the pay lines for the game according to each possible combination of the selected symbol positions.

Aristocrat, 521 F.3d 1331

■ In cases involving a computer-implemented invention in which the inventor has invoked means-plus-function claiming, this court has consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor. The point of the requirement that the patentee disclose particular structure in the specification and that the scope of the patent claims be limited to that structure and its equivalents is to avoid pure functional claiming. As this court explained in *Medical Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1211 (Fed. Cir.2003), “If the specification is not clear as to the structure that the patentee intends to correspond to the claimed function, then the patentee has not paid the price but is attempting to claim in functional terms unbounded by any reference to structure in the specification.” *See also*

Aristocrat, 521 F.3d 1333

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Case Law Identified By Proxense to Support Its Proposed Legal Framework

- *MTD Products Inc.*, 933 F.3d 1336, 1343-44 (Fed. Cir. 2019).
- “One way to demonstrate that a claim limitation fails to recite sufficiently definite structure is to show that, although not employing the word ‘means,’ the claim limitation uses a similar ‘nonce’ word that can operate as a substitute for ‘means’ in the context of § 112, para. 6... In each case, a critical question is whether the claim term is used in common parlance or by persons of skill in the pertinent art to designate structure, including either a particular structure or a class of structures.” POR, 5.
- “other language in the claim ‘might inform the structural character of the limitation-in-question or otherwise impart structure.” Reply, 10-11.

[7] One way to demonstrate that a claim limitation fails to recite sufficiently

definite structure is to show that, although not employing the word “means,” the claim limitation uses a similar “nonce word that can operate as a substitute for ‘means’ in the context of § 112, para. 6.” *Id.* at 1350. Generic terms like “module,” “mechanism,” “element,” and “device” are commonly used as verbal constructs that operate, like “means,” to claim a particular function rather than describe a “sufficiently definite structure.” *Id.* Our case law is

MTD Products Inc., 933 F.3d 1336, 1341

language, other language in the claim “might inform the structural character of the limitation-in-question or otherwise impart structure” to the claim term. *Williamson*, 792 F.3d at 1351. In assessing whether the claim limitation is in means-plus-function format, we do not merely consider the introductory phrase (e.g., “mechanical control assembly”) in isolation, but look to the entire passage including functions performed by the introductory phrase. *See Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364 (Fed. Cir. 2003). The ultimate question is whether “the claim language, read in light of the specification, recites sufficiently definite structure to avoid § 112, ¶ 6.” *Media Rights Techs. Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1372 (Fed. Cir. 2015) (citing *Robert Bosch, LLC v. Snap-On Inc.*, 769 F.3d 1094, 1099 (Fed. Cir. 2014)).

MTD Products Inc., 933 F.3d 1336, 1341-1342

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Case Law Identified By Proxense to Support Its Proposed Legal Framework

Case	Claim terms at issue	MPF?	Why
<i>Williamson v. Citrix</i>	"distributed learning control module"	Yes	Module was a "nonce" and prefix to nonce ("distributed learning control") did not impart structure
<i>Rain Computing Inc. v. Samsung Elecs. Am., Inc.</i>	"user identification module"	Yes	Module was a "nonce" and prefix to nonce ("user identification") did not impart structure
<i>Ergo Licensing, LLC v. CareFusion 303, Inc</i>	"adjusting means" and "programmable control means coupled with said adjusting means for controlling said adjusting means"	Yes	Recited "means for" explicitly
<i>MTD Prods. Inc v. Iancu</i>	"a mechanical control assembly ... configured to actuate"	Yes	"Nonce" without other definite structure
<i>Aristocrat Tech. v. Intern. Game Tech.</i>	"game control means"	Yes	Recited "means" explicitly

Case Law Identified By Proxense to Support Its Proposed Legal Framework

Case	Claim terms at issue	MPF?	Why
<i>Media Rights Techs., Inc. v. Capital One Fin. Corp.</i>	“compliance mechanism”	Yes	A “nonce” term with no common meaning
<i>HTC Corp. v. IPCom GmbH & Co., KG</i>	“arrangement for reactivating”	Yes	Both parties agreed to MPF construction
<i>Finisar Corp. v. DirecTV Group, Inc.</i>	“database editing means”	Yes	Recited “means” explicitly
<i>WMS Gaming Inc. v. International Game Tech.</i>	“means for assigning a plurality of numbers,” “means for randomly selecting one of said plurality of assigned numbers,” “means for stopping said reel”	Yes	Recited “means for” explicitly
<i>Katz Interactive Call Processing Patent Litig. v. Am. Airlines, Inc.</i> (<i>In re Katz Interactive Call Processing Patent Litig.</i>)	“means for selectively receiving” “means for receiving calls”	Yes	Recited “means for” explicitly

Board Already Rejected Proxense's Proposed Constructions and Legal Framework In Related IPR

Indeed, the Board has already reviewed these thin arguments in the parallel proceeding and found Proxense's arguments unpersuasive. MS-1034, 11-19. Specifically, the Board already agreed that the terms are "not used as 'generic terms or black box recitations of structure or abstractions.'" MS-1034, 13 (citing *Dyfan, LLC v. Target Corp.*, 28 F.4th 1360, 1367 (Fed. Cir. 2022)). Additionally, the Federal Circuit caselaw is replete with examples where similar claim language was deemed to implicate structure and, therefore, not invoke 112(f).

Reply, 2.

We are unpersuaded by Patent Owner's contentions. In particular, we are unpersuaded that "enabling" may be defined by way of means-plus-function analysis. Prelim. Resp. 14. As Petitioner points out, "none of the claims of the '289 patent recite the disputed limitation in 'means-plus-function' or 'step-plus-function' format." Prelim. Reply 2. As Petitioner contends, when a disputed claim limitation does not employ "means for" language, the presumption is that each of the terms conveys sufficiently definite structure or act and, thus, is not subject to § 112 ¶ 6. *Id.*; see also *Dyfan*, 28 F.4th at 1367.

MS-1034, 11-19; Reply, 2.

Although this presumption is rebuttable and can be overcome if the challenger demonstrates that the claim term fails to recite sufficiently definite structure (*see Raining Computing v. Samsung Electronics America*, 998 F.3d 1002, 1005 (Fed. Cir. 2021)), we are unpersuaded that Patent Owner has demonstrated that claim terms "wireless communication interface," "local secured information," and "enablement signal" fail to recite sufficiently definite structure. That is, Patent Owner has not sufficiently demonstrated that the terms could not be understood by person of ordinary skill in the art "to have a sufficiently definite meaning as the name for structure for the claimed functions." Prelim. Sur-reply 1. We agree with Petitioner that the terms are "not used as 'generic terms or black box recitations of structure or abstractions.'" Prelim. Reply 3; *see Dyfan*, 28 F.4th at 1368. As Petitioner points out, "when a 'structure-connoting term . . . is coupled with a description of the 'term's' operation' § 112 ¶ 6 does not apply." *Id.*; *accord Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1320 (Fed. Cir. 2004); *Dyfan*, 28 F.4th at 1368.

MS-1034, 11-19; Reply, 2.

Proxense's POR Assertions Maintain Incorrect Legal Framework

Pursuant to 35 U.S.C. § 316 and C.F.R. § 42.120, the Patent Owner, Proxense LLC ("Proxense"), submits this Patent Owner Response in response to the Petitions for *Inter Partes* Review of claims 1, 5, 6, 8-11, 13 and 14 of U.S. Patent No. 8,646,042 B1 (the "042 Patent") filed by Petitioner, Microsoft Corporation ("Microsoft"), and Co-Petitioner, Apple Inc ("Apple").

Patent Owner submits that claims 1, 5, 6, 8-11, 13 and 14 are patentable over the instituted grounds, as each of the grounds relies on combinations of references failing to show *all elements* of the claimed invention. Specifically, the asserted references, either alone or in combination, fail to show the algorithm disclosed in the specification allowing for any of an "integrated PDK," an "integrated RDC," and an "enablement signal" to perform the function of "enabling one or more of an application, a function and a service" as recited independent claims 1 and 10. Claims 1 and 10 each invoke 35 U.S.C. § 112, ¶ 6, by reciting that the function of "enabling one or more of an application, a function and a service" is performed by general purpose computers, such that the disclosed structure for performing the function is the special purpose computer programmed to perform the algorithm disclosed in the specification. The Petitions have not demonstrated claims 1, 5, 6, 8-11, 13 and 14 are unpatentable because none of the grounds demonstrate this algorithm in any of the asserted references.

POR, 1.

MPF Walkthrough

B. Applicable Law

To determine whether § 112 ¶ 6 applies to a claim limitation, we must inquire whether the words of the claim are understood by persons of ordinary skill in the art to have a *sufficiently definite meaning as the name for structure*. *If those words lack a sufficiently definite meaning, § 112 ¶ 6 applies*. If the limitation uses the word ‘means,’ there is a rebuttable presumption that § 112 ¶ 6 applies. If not, there is a rebuttable presumption that the provision does not apply. But that presumption can be overcome and § 112 para. 6 will apply if the challenger demonstrates that *the claim term fails to recite sufficiently definite structure* or else recites function without reciting sufficient structure for performing that function.

POR, 4-5.

The invention claimed is:

1. A hybrid device comprising:

an integrated personal digital key (PDK) for storing information and capable of communicating wirelessly with at least one external receiver-decoder circuit (RDC); and an integrated RDC for communicating wirelessly with at least one external PDK within a proximity zone, the integrated RDC coupled to the integrated PDK by a first signal line for communication, the integrated RDC coupled to at least one other component of the hybrid device by a second signal line, one or more of the integrated RDC and integrated PDK enabling one or more of an application, a function, and a service on one or more of the hybrid device and a device associated with the external RDC.

MS-1001, Claim 1.

10. A method comprising:

creating a first wireless link between an integrated receiver-decoder circuit (RDC) of a hybrid device and an external personal digital key (PDK), the hybrid device including an integrated PDK and the integrated RDC; receiving a first signal at the integrated RDC via the first wireless link from the external PDK; generating an enablement signal enabling one or more of an application, a function and a service on one or more of the hybrid device and a device associated with an external RDC; and sending the enablement signal to one or more of the hybrid device and the device associated with an external RDC.

MS-1001, Claim 10.

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MPF Walkthrough

■ We first determine whether “user identification module” is a means-plus-function term. Because the term does not include the word “means,” there is a rebuttable presumption that § 112 ¶ 6 does not apply. “‘Module’ is a well-known nonce word that can operate as a substitute for ‘means.’” *Id.* at 1350. In *Williamson*, we held that the word “module” in the claim term “distributed learning control module” “does not provide any indication of structure because it sets forth the same black box recitation of structure ... as if the term ‘means’ had been used.” *Id.* Likewise,

Rain Computing, POR, 7-8.

The courts have established that the absence of “means” creates a rebuttable presumption that 112(f) does not apply. *Id.* The parties agree that the term “means” does not appear in the claims, and thus, the presumption is that 112(f) does not apply. POR, 4-5. Notably the Federal circuit has stated that:

Reply, 8.

The invention claimed is:

1. A hybrid device comprising:

an integrated personal digital key (PDK) for storing information and capable of communicating wirelessly with at least one external receiver-decoder circuit (RDC); and an integrated RDC for communicating wirelessly with at least one external PDK within a proximity zone, the integrated RDC coupled to the integrated PDK by a first signal line for communication, the integrated RDC coupled to at least one other component of the hybrid device by a second signal line, one or more of the integrated RDC and integrated PDK enabling one or more of an application, a function, and a service on one or more of the hybrid device and a device associated with the external RDC.

MS-1001, Claim 1.

10. A method comprising:

creating a first wireless link between an integrated receiver-decoder circuit (RDC) of a hybrid device and an external personal digital key (PDK), the hybrid device including an integrated PDK and the integrated RDC; receiving a first signal at the integrated RDC via the first wireless link from the external PDK; generating an enablement signal enabling one or more of an application, a function and a service on one or more of the hybrid device and a device associated with an external RDC; and sending the enablement signal to one or more of the hybrid device and the device associated with an external RDC.

MS-1001, Claim 10.

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MPF Walkthrough

B. Applicable Law

To determine whether § 112 ¶ 6 applies to a claim limitation, we must inquire whether the words of the claim are understood by persons of ordinary skill in the art to have a *sufficiently definite meaning as the name for structure*. *If those words lack a sufficiently definite meaning, § 112 ¶ 6 applies*. If the limitation uses the word ‘means,’ there is a rebuttable presumption that § 112 ¶ 6 applies. If not, there is a rebuttable presumption that the provision does not apply. But that presumption can be overcome and § 112 para. 6 will apply if the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function.

POR, 4-5.

The invention claimed is:

1. A hybrid device comprising:

an integrated personal digital key (PDK) for storing information and capable of communicating wirelessly with at least one external receiver-decoder circuit (RDC); and an integrated RDC for communicating wirelessly with at least one external PDK within a proximity zone, the integrated RDC coupled to the integrated PDK by a first signal line for communication, the integrated RDC coupled to at least one other component of the hybrid device by a second signal line, one or more of the integrated RDC and integrated PDK enabling one or more of an application, a function, and a service on one or more of the hybrid device and a device associated with the external RDC.

MS-1001, Claim 1.

10. A method comprising:

creating a first wireless link between an integrated receiver-decoder circuit (RDC) of a hybrid device and an external personal digital key (PDK), the hybrid device including an integrated PDK and the integrated RDC; receiving a first signal at the integrated RDC via the first wireless link from the external PDK; generating an enablement signal enabling one or more of an application, a function and a service on one or more of the hybrid device and a device associated with an external RDC; and sending the enablement signal to one or more of the hybrid device and the device associated with an external RDC.

MS-1001, Claim 10.

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MPF Walkthrough

Interpretation of an asserted means-plus-function limitation involves two steps. First, we determine if the claim limitation is drafted in means-plus-function format. As part of this step, we consider whether the claim limitation connotes “sufficiently definite structure” to a person of ordinary skill in the art. If we conclude that the limitation is in means-plus-function format, the second step requires us to review the specification to identify the structure that performs the claimed function(s), and thus “corresponds to” the claimed means. While

related, these two inquiries are distinct. In this case, however, the Board conflated these distinct inquiries, holding that the specification’s disclosure of corresponding structure demonstrates that the alleged means-plus-function term is sufficiently definite so as to not invoke § 112, ¶ 6. The Board’s analysis implies that so long as a claim term has corresponding structure in the specification, it is not a means-plus-function limitation. This is not consistent with our prior decisions. Indeed, this view would seem to leave § 112, ¶ 6 without any application: any means-plus-function limitation that met the statutory requirements, i.e., which includes having corresponding structure in the specification, would end up not being a means-plus-function limitation at all.

MTD Prods. Inc. v. Iancu, 933 F.3d 1336, 1344 (Fed. Cir. 2019)
Reply, 10

MPF Walkthrough

term ‘means’ had been used.” *Id.* Likewise, “module” here does not provide any indication of structure, and Rain fails to point to any claim language providing any structure for performing the claimed function of being configured to control access. Nor does the prefix “user identification” impart structure because it merely describes the function of the module: to identify a user. *See id.* at 1351 (“The prefix ‘distributed learning control’ does not impart structure into the term ‘module.’”). Thus, the claim language fails to provide any structure for performing the claimed functions.

Rain Computing, POR, 7-8.

The term “integrated PDK” (Personal Digital Key) is not recognized by those of ordinary skill in the art to provide a sufficiently definite structure for performing the function of “enabling one or more of an application, a function and a service”. Jakobsson Decl., ¶ 18. Accordingly, claim 1 invokes § 112, ¶ 6. POR, 8 (emphasis added).

Reply, 13.

The invention claimed is:

1. A hybrid device comprising:

an integrated personal digital key (PDK) for storing information and capable of communicating wirelessly with at least one external receiver-decoder circuit (RDC); and an integrated RDC for communicating wirelessly with at least one external PDK within a proximity zone, the integrated RDC coupled to the integrated PDK by a first signal line for communication, the integrated RDC coupled to at least one other component of the hybrid device by a second signal line, one or more of the integrated RDC and integrated PDK enabling one or more of an application, a function, and a service on one or more of the hybrid device and a device associated with the external RDC.

MS-1001, Claim 1.

10. A method comprising:

creating a first wireless link between an integrated receiver-decoder circuit (RDC) of a hybrid device and an external personal digital key (PDK), the hybrid device including an integrated PDK and the integrated RDC; receiving a first signal at the integrated RDC via the first wireless link from the external PDK; generating an enablement signal enabling one or more of an application, a function and a service on one or more of the hybrid device and a device associated with an external RDC; and sending the enablement signal to one or more of the hybrid device and the device associated with an external RDC.

MS-1001, Claim 10.

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MPF Walkthrough

The clear definitions and demonstrated understanding of these terms by a POSITA contrasts with Proxense's citation of *MTD Products Inc. v. Iancu*, where the court found that the evidence that demonstrates a "mechanical control assembly" "does not have an established meaning in the art." 1343-44. Ample evidence, prior art, and testimony show that "an integrated personal digital key (PDK) for storing information and capable of communicating wirelessly" comotes structure. MS-1032, ¶15.

Reply, 18.

As evident from the above cases, the Federal Circuit has repeatedly deemed a party to have failed to rebut the presumption against 112(f) for claim terms like "RDC". While Proxense cites to *Williamson* in support of its arguments, this case is factually distinguishable because the Federal Circuit held that a "distributed learning control module" triggered 112(f) as it was not a term used in the art. 1339. In the present situation, however, there is ample evidence and testimony that an RDC is a type of wireless communication interface which has an "established meaning in the art." *MTD Products Inc.*, 1343-44; MS-1032, ¶20.

Reply, 22.

The invention claimed is:

1. A hybrid device comprising:

an integrated personal digital key (PDK) for storing information and capable of communicating wirelessly with at least one external receiver-decoder circuit (RDC); and an integrated RDC for communicating wirelessly with at least one external PDK within a proximity zone, the integrated RDC coupled to the integrated PDK by a first signal line for communication, the integrated RDC coupled to at least one other component of the hybrid device by a second signal line, one or more of the integrated RDC and integrated PDK enabling one or more of an application, a function, and a service on one or more of the hybrid device and a device associated with the external RDC.

MS-1001, Claim 1.

10. A method comprising:

creating a first wireless link between an integrated receiver-decoder circuit (RDC) of a hybrid device and an external personal digital key (PDK), the hybrid device including an integrated PDK and the integrated RDC; receiving a first signal at the integrated RDC via the first wireless link from the external PDK; generating an enablement signal enabling one or more of an application, a function and a service on one or more of the hybrid device and a device associated with an external RDC; and sending the enablement signal to one or more of the hybrid device and the device associated with an external RDC.

MS-1001, Claim 10.

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Claim Construction Dispute

Proxense's Alleged MPF Constructions of "Integrated PDK",
"Integrated RDC," and "Enablement Signal" Claim Terms
Should Be Rejected

Claim Construction Dispute

Proxense Has Not Met Burden to Rebut
The Presumption Against MPF Treatment

Proxense Bears Burden to Overcome Presumption That MPF Does Not Apply for Non-“means-for” claims

B. Applicable Law

To determine whether § 112 ¶ 6 applies to a claim limitation, we must inquire whether the words of the claim are understood by persons of ordinary skill in the art to have a *sufficiently definite meaning as the name for structure*. *If those words lack a sufficiently definite meaning, § 112 ¶ 6 applies*. If the limitation uses the word ‘means,’ there is a rebuttable presumption that § 112 ¶ 6 applies. *If not, there is a rebuttable presumption that the provision does not apply*. But that

Raining Computing v. Samsung Electronics America, 989 F.3d 1002, 1005 (Fed. Cir. 2021) (citing *Williamson v. Citrix, LLC*, 792 1139 (Fed. Cir. 2015); POR, 5-6.

A. Overview

The courts have established that the absence of “means” creates a rebuttable presumption that 112(f) does not apply. *Id.* *The parties agree that the term “means” does not appear in the claims, and thus, the presumption is that 112(f) does not apply.* POR, 4-5. Notably the Federal circuit has stated that:

Under this court’s guidance in *Williamson*, we begin by asking whether the claim limitation employs the word “means.” *Williamson*, 792 F.3d at 1348. *If it does not, we apply a rebuttable presumption that the term conveys sufficiently definite structure and is not subject to § 112, ¶ 6.* *Id.* A challenger can rebut the presumption by demonstrating “that the claim term fails to ‘recite sufficiently definite structure’ or else recites ‘function without reciting sufficient structure for performing that function.’” *Id.* (quoting *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)). The “essential inquiry is not merely the presence or absence of the word ‘means’ but whether the words of the

MTD Products Inc. v. Iancu, 933 F. 3d 1336, 1343-44 (Fed. Cir. 2019) (citing *Williamson v. Citrix, LLC*, 792 1139 (Fed. Cir. 2015); POR, 5.

Reply, 8.

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Proxense Bears MPF Burden

But Proxense's attempt to distinguish the prior art through invocation of 112(f) for limitations that do not recite "means for" or "step for" places on Proxense a burden to produce evidence to overcome the rebuttable presumption that these limitations are not 112(f) limitations. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015). Proxense has failed to meet its burden.

Reply, 1.

Proxense MPF Burden Not Met – Did Not View Claim Terms As A Whole

Proxense. MS-1001, claims 1 and 10; POR, 7-29. And yet these supporting elements speak to structure with respect to “enabl[ing] one or more of an application, a function, and a service.” MS-1032, ¶¶4-7. Instead, Proxense separates the terms “PDK,” “RDC,” and “enablement signal” from the context of each claim and insists that these are not structures “recognized by those of ordinary skill in the art to provide a sufficiently definite structure for performing the function.” POR, 8-9, 18-19, 20-21.

Reply, 10.

The claims should be viewed as a whole and Proxense incorrectly isolates each claim term, such as “personal digital key” and “receiver-decoder circuit,” and assesses them out of context with respect to the “enabling” function. *MTD Products Inc. v. Iancu*, 933 F.3d 1336, 1343-44 (Fed. Cir. 2019). The claim describes that this function is achieved by components expressly recited in the claims in the context of the particular structural arrangement of components set forth in the claim as a whole (e.g., the recited components “integrated PDK” and “integrated receiver-decoder circuit” are structurally coupled to each other). MS-

Reply, 10.

In addition, even if the claims recite a nonce term followed by functional language, other language in the claim “might inform the structural character of the limitation-in-question or otherwise impart structure” to the claim term. *Williamson*, 792 F.3d at 1351. In assessing whether the

claim limitation is in means-plus-function format, we do not merely consider the introductory phrase (e.g., “mechanical control assembly”) in isolation, but look to the entire passage including functions performed by the introductory phrase. See *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364 (Fed. Cir. 2003). The ultimate question is whether “the claim language, read in light of the specification, recites sufficiently definite structure to avoid § 112, ¶ 6.” *Media Rights Techs. Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1372 (Fed. Cir. 2015) (citing *Robert Bosch, LLC v. Snap-On Inc.*, 769 F.3d 1094, 1099 (Fed. Cir. 2014)).

MTD Products Inc. v. Iancu, 933 F.3d 1336, 1343-44 (Fed. Cir. 2019) (Reply, 10).

Proxense MPF Burden Not Met - No Commonly Recognized “nonce” Terms in the Claims, and Even if There Were, They Should Still be Viewed In Context

even if the claim terms are “nonce terms” (which Petitioner does not concede), the terms should be viewed in the context of the claim as a POSITA would understand them. *Id.* For example, in *MTD Products, Inc.*, the Federal Circuit stated that claims should be viewed in their entirety and that “other language in the claim ‘might inform the structural character of the limitation-in-question or otherwise impart structure.’” *MTD Products Inc.* (citing *Williamson*, 1351).

Reply 10-11.

One way to demonstrate that a claim limitation fails to recite sufficiently definite structure is to show that, although not employing the word “means,” the claim limitation uses a similar “nonce word that can operate as a substitute for ‘means’ in the context of § 112, para. 6.” *Id.* at 1350. Generic terms like “module,” “mechanism,” “element,” and “device” are commonly used as verbal constructs that operate, like “means,” to claim a particular function rather than describe a “sufficiently definite structure.” *Id.* Our case law is replete with guidance on whether or not a particular claim term is a “nonce” term. See, e.g., *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003, 1008 (Fed. Cir. 2018) (holding that “program” and “user interface code” are not nonce words because they are “used not as generic terms or black box recitations of structure or abstractions, but rather as specific references to conventional graphical user interface programs or code”); *Williamson*, 792 F.3d at 1350 (noting that “module” is a nonce term because it “sets forth the same black box recitation of structure for providing the same specified function as if the term ‘means’ had been used”). In each case, a critical question is whether “the claim term is used in common parlance or by persons of skill in the pertinent art to designate structure,” including either a particular structure or a class of structures. *Skky, Inc. v. MindGeek, s.a.r.l.*, 859 F.3d 1014, 1019 (Fed. Cir. 2017) (citing *TecSec, Inc. v. Int’l Bus. Machs. Corp.*, 731 F.3d 1336, 1347 (Fed. Cir. 2013)) (holding that the claim term “wireless device means” does not invoke § 112, ¶ 6 because it denotes a class of structures).

MTD Products Inc. v. Iancu, 933 F. 3d 1336, 1343-44 (Fed. Cir. 2019) (Reply, 10-11, 18, 22).

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Proxense MPF Burden Not Met – Fails to Consider Claims as a Whole

Claim 1 recites multiple elements that clearly impart structure (“A hybrid device comprising: . . . a personal digital key (PDK) for storing information and capable of communicating wirelessly . . . an integrated RDC [receiver-decoder circuit] for communicating wirelessly . . . [and] coupled to the integrated PDK . . . for communication”). MS-1001, Claim 1 (emphasis added).

Reply, 11.

In identifying the “enabling” function, a POSITA would not only have considered the structure implicated by, for example, the terms “PDK” “for storing information and capable of communicating” and “RDC” “for communicating wirelessly” themselves, but also the structure implicated by the connectivity between these components set forth in the claim. By failing to consider this connectivity in assessing structure to achieve the recited “enabling” function, Proxense’s showing is legally deficient and, therefore, cannot overcome the presumption against 112(f) treatment.

Reply, 11.

As shown below, Proxense fails to overcome this presumption that 112(f) does not apply because the “words of the claim are understood by [POSITAs] to have a sufficiently definite meaning as the name for structure.” *Williamson*, 1349. Nor are the claim terms “black box recitations of structure or abstractions.” *Dyfan*, 1368; MS-1032, ¶¶4-7.

Reply, 9.

Proxense MPF Burden Not Met – Fails to Consider Claims as a Whole

For example, the specification envisions the “enabling” function as implicating multiple distinct components connected to each other, not merely the “PDK” (“memory”) and/or the “RDC” in isolation. The specification describes embodiments where the “PDK” and/or the “RDC” are operating in concert with *other* connected device elements/components to enable an application, function, or service by storing and/or communicating access information (e.g., one or more PINs or passwords for an application) to those *other* device elements/components for authentication. MS-1001, 13:41-14:3, 14:24-45, 14:46-15:27, 18:43-19:2.

Reply, 11-12.

Thus, the “PDK” and/or the “RDC” perform the “enabling” function by simply being one of multiple elements/components implicated in the process to enable an application, function, or service. Indeed, the ultimate decision to enable or disable the application, function, or service is not performed by the “PDK” and/or the “RDC” themselves but rather is performed by one or more distinct, connected elements/components that authenticate the access information received from the “PDK” and/or “RDC.” After all, it would make little sense for the mere storage of information in a “PDK” and/or communication of a PIN or password by the memory of the “PDK” and/or “RDC” to be sufficient to enable an application, function, or service without verifying that the PIN or password is valid. Given this disclosure, a POSITA would recognize that the “PDK” and/or the “RDC” can, for example, perform the “enabling” function by providing structure that stores and/or communicates access information to other connected components for authentication to enable the function, application, or service.

Reply, 12.

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Proxense MPF Burden Not Met – Provides Only Conclusory Expert Statements

Claim 1 attributes the function of “enabling one or more of an application, a function and a service” to an “integrated PDK.” “§ 112 para. 6 will apply if the challenger demonstrates that *the claim term fails to recite sufficiently definite structure* or else recites function without reciting sufficient structure for performing that function.” *Rain Computing*, 989 F.3d at 1005 (emphasis added). The specification states, that “[i]n 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.” 042 Patent, 13:46-49. Consistent with this definition, Petitioner requested the District Court construe a PDK as “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.” Exhibit 2005, at 11 (emphasis added). Likewise, Apple proposed

POR, 9.

In particular, Proxense asserts that various limitations lack sufficient structure, and therefore require constructions under 112(f). In support of this assertion, Proxense provides evidence in the form of simple, conclusory statements by its expert, Dr. Jakobsson, coupled with a flawed characterization of a transcript of *Markman* analysis from previous litigation against Samsung of which the ultimate *Markman* order contained no 112(f) limitations. EX-2001. **These arguments should be given little weight, not only because of their largely conclusory nature but also because the language of the claims would have been recognized as implicating structure to a POSITA, as explained in more detail below.**

Reply, 2.

Proxense's Identified Limitations for MPF Treatment

Pursuant to 35 U.S.C. § 316 and C.F.R. § 42.120, the Patent Owner, Proxense LLC ("Proxense"), submits this Patent Owner Response in response to the Petitions for *Inter Partes* Review of claims 1, 5, 6, 8-11, 13 and 14 of U.S. Patent No. 8,646,042 B1 (the "042 Patent") filed by Petitioner, Microsoft Corporation ("Microsoft"), and Co-Petitioner, Apple Inc ("Apple").

Patent Owner submits that claims 1, 5, 6, 8-11, 13 and 14 are patentable over the instituted grounds, as each of the grounds relies on combinations of references failing to show *all* elements of the claimed invention. Specifically, the asserted references, either alone or in combination, fail to show the algorithm disclosed in the specification allowing for any of an "integrated PDK," an "integrated RDC," and an "enablement signal" to perform the function of "enabling one or more of an application, a function and a service" as recited independent claims 1 and 10. Claims 1 and 10 each invoke 35 U.S.C. § 112, ¶ 6, by reciting that the function of "enabling one or more of an application, a function and a service" is performed by general purpose computers, such that the disclosed structure for performing the function is the special purpose computer programmed to perform the algorithm disclosed in the specification. The Petitions have not demonstrated claims 1, 5, 6, 8-11, 13 and 14 are unpatentable because none of the grounds demonstrate this algorithm in any of the asserted references.

POR, 1.

Claim Construction Dispute

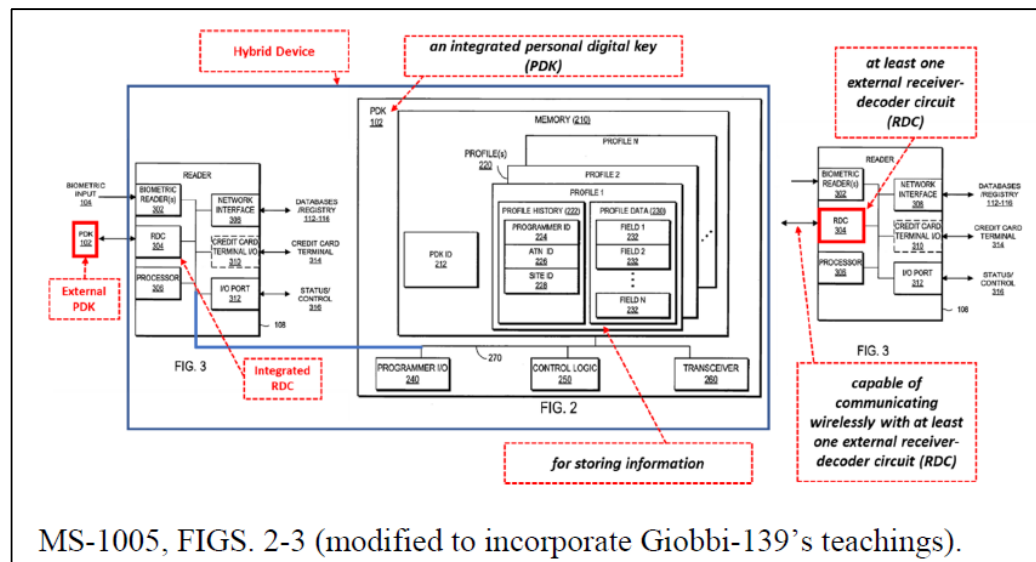
“Integrated PDK” Claim Term Recites Structure, Making MPF Inappropriate

“Integrated PDK storing information”

Ground 1A

Giobbi-157 discloses a “*Personal Digital Key (PDK)*,” which is an example of an *integrated* secure memory *for storing information*. MS-1005, ¶[0011] (“A portable physical device, referred to herein as a Personal Digital Key or ‘PDK,’ stores one or more profiles (e.g., a biometric profile) [“*information*”] in a tamper-proof memory”). As discussed above, Giobbi-157 also discloses that its PDK is *integrated* into a hybrid device, such as a cell phone. MS-1005, ¶[0035]; see *supra*, §III.A.1, [1.pre]. Accordingly, the hybrid device of the Giobbi-157-Giobbi-139 combination includes an integrated PDK for storing information. Addition-

Pet., 27-28.



MS-1005, FIGS. 2-3 (modified to incorporate Giobbi-139’s teachings).

Pet., 28.

“Integrated PDK storing information”

Memory is defined as the “capacity of a computer or integrated computer system for short and medium-term retention of digital data” and speaks to a broad class of structures used to retain data for various purposes. MS-1020, 5³; *EnOcean GmbH v. Face Int’l Corp.*, 742 F.3d 955, 960 (Fed. Cir. 2014) (a term is “. . . a corresponding structure, as long as the class of structures is identifiable by a person of ordinary skill in the art.”). For example, “Memory integrated circuit” is defined as “flash-memory chips. . . [a]lso called memory IC [integrated circuit], IC memory, or chip memory.” MS-1021, 6. The below figure further demonstrates examples of memory that would be integrated into, an IC (e.g., Random Access Memory (RAM)). MS-1032, ¶10.

Reply, 14.

Further, the claims here recite more than just a “PDK”; rather, they recite an “integrated personal digital key.” MS-1032, ¶12; *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1374 (Fed. Cir. 2003) (“An adjectival qualification (“digital”) placed on an otherwise sufficiently definite structure (“detector”) does not make the sufficiency of that structure any less sufficient for purposes of § 112, P 6. Instead, it further narrows the scope of those structures covered by the claim and makes the term more definite.”)(emphasis added). First, an “integrated” memory would have been understood to represent a subclass of memory structures that store information locally to the device (“integrated”). *Id.*; Pet., 4, 6-12, 27-29, 35; MS-1032, ¶¶12, 14. Second, a “digital” key denotes a particular type of storage device, i.e., one that is digital, rather than analog. *Id.*

Reply, 17.

“Integrated PDK storing information”

For example, the specification envisions the “enabling” function as implicating multiple distinct components connected to each other, not merely the “PDK” (“memory”) and/or the “RDC” in isolation. The specification describes embodiments where the “PDK” and/or the “RDC” are operating in concert with *other* connected device elements/components to enable an application, function, or service by storing and/or communicating access information (e.g., one or more PINs or passwords for an application) to those *other* device elements/components for authentication. MS-1001, 13:41-14:3, 14:24-45, 14:46-15:27, 18:43-19:2.

Reply, 11-12.

Thus, the “PDK” and/or the “RDC” perform the “enabling” function by simply being one of multiple elements/components implicated in the process to enable an application, function, or service. Indeed, the ultimate decision to enable or disable the application, function, or service is not performed by the “PDK” and/or the “RDC” themselves but rather is performed by one or more distinct, connected elements/components that authenticate the access information received from the “PDK” and/or “RDC.” After all, it would make little sense for the mere storage of information in a “PDK” and/or communication of a PIN or password by the memory of the “PDK” and/or “RDC” to be sufficient to enable an application, function, or service without verifying that the PIN or password is valid. Given this disclosure, a POSITA would recognize that the “PDK” and/or the “RDC” can, for example, perform the “enabling” function by providing structure that stores and/or communicates access information to other connected components for authentication to enable the function, application, or service.

Reply, 12.

“Integrated PDK storing information”

Additionally, the claim and the specification describe the PDK is “capable of communicating wirelessly.” MS-1001, claim 1, 5:41-6:6, 3:46-61 (“The PDK 102 is a . . . wireless device . . . The PDK 102 stores digital information in a tamper-proof format . . .”). The structure provided by the ability to store information and wirelessly communicate would have been understood by a POSITA as sufficient for “enabling one or more of an application, a function, and a service,” especially in the context of the claims and specification. MS-1032, ¶13. Proxense recognized such structure as being implicated by the recited “PDK” in advancing a construction of “PDK” as including “an antenna and a transceiver for communicating with a RDC” without relying on any 112(f) invocation. EX-2014, 2.

Reply, 16.

As Dr. Traynor explains, the ’042 patent describes RFID systems, and an RFID tag is a structure such as a microchip that stores information in memory and responds through an antenna when probed—a structure very similar to the structure of a “PDK.” MS-1001, 1:38-61; MS-1032, ¶¶11, 14; MS-1023, 3. The information of the RFID tag is stored in memory and used to enable a function. MS-1032, ¶¶11, 14. Thus, a POSITA would have understood that the “PDK” “for storing information and capable of communicating wirelessly” stores in memory information that once communicated wirelessly, can enable functions similar to the information stored in an RFID tag being transmitted to enable functions. *Id.*

Reply, 16.

“Integrated PDK storing information”

III. THE CLAIMS INVOKE § 112(F) BECAUSE THEY RECITE GENERAL PURPOSE COMPUTERS PERFORMING A CLAIMED FUNCTION

The law has been consistent and clear: to claim a means for performing a specific computer-implemented function, and then to disclose only a *general purpose computer* as the structure designed to perform that function, amounts to pure functional claiming. *Aristocrat*, 521 F.3d 1328 at 1333 (Fed. Cir. 2008). In this instance, the structure corresponding to a 35 U.S.C. § 112(f) claim limitation for a computer-implemented function must include the algorithm needed to transform the **general purpose** computer disclosed in the specification. *Aristocrat*, 521 F.3d at 1333; *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008); *WMS Gaming, Inc. v. Int'l*

POSR, 5.

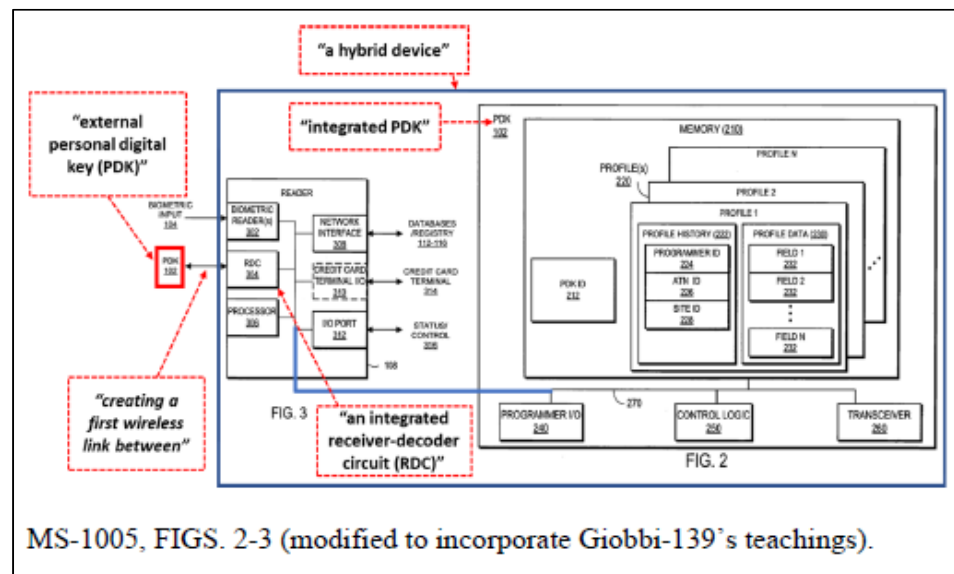
Claim Construction Dispute

“Integrated RDC” Claim Term Recites Structure, Making MPF Inappropriate

“Integrated RDC”

The combination of Giobbi-157 and Giobbi-139 discloses “a component or collection of components, capable of wirelessly receiving data in an encrypted format and decoding the encrypted data for processing” as required by the district court’s construction for “an integrated RDC.” See *supra*, §§I.C.3, III.A.1-3. In particular, Giobbi-157 teaches that “the RDC 304 wirelessly receives data from the PDK 102 in an encrypted format and decodes the encrypted data for processing.” MS-1005, ¶[0050]. Giobbi-157 also discloses an integrated RDC “communicating wirelessly with at least one external PDK within a proximity zone.” MS-1005, ¶¶[0026]-[0044] (“The Reader 108 wirelessly communicates with the PDK 102 when the PDK 102 is within a proximity zone of the Reader 108”); see *supra* §III.A.1. As described above, the hybrid device includes an *integrated RDC* that is *coupled to the integrated PDK by a first signal line for communication*. MS-1005, ¶¶[0012], [0027], [0030], [0035]; MS-1006, ¶¶[0022]-[0044], MS-1003, ¶[62]; see *supra*, §III.A.3. An RDC is illustrated in FIG. 3 of Giobbi-157 below. MS-1005, FIG. 3.

Pet., 29-30.



Pet., 48.

“Integrated RDC” and the “enabling” Limitation

For example, the specification envisions the “enabling” function as implicating multiple distinct components connected to each other, not merely the “PDK” (“memory”) and/or the “RDC” in isolation. The specification describes embodiments where the “PDK” and/or the “RDC” are operating in concert with *other* connected device elements/components to enable an application, function, or service by storing and/or communicating access information (e.g., one or more PINs or passwords for an application) to those *other* device elements/components for authentication. MS-1001, 13:41-14:3, 14:24-45, 14:46-15:27, 18:43-19:2. Thus, the “PDK” and/or the “RDC” perform the “enabling” function by simply being one of multiple elements/components implicated in the process to enable an application, function, or service. Indeed, the ultimate decision to enable or disable the application, function, or service is not performed by the “PDK” and/or the “RDC” themselves but rather is performed by one or more distinct, connected elements/components that authenticate the access information received from the “PDK” and/or “RDC.” After all, it would make little sense for the mere storage of information in a “PDK” and/or communication of a PIN or password by the memory of the “PDK” and/or “RDC” to be sufficient to enable an application, function, or service without verifying that the PIN or password is valid. Given this disclosure, a POSITA would recognize that the “PDK” and/or the “RDC” can, for example, perform the “enabling” function by providing structure that stores and/or communicates access information to other connected components for authentication to enable the function, application, or service.

Reply, 11-12.

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“Integrated RDC communicating wirelessly with [] at least one external device within the proximity zone”

A POSITA also would have readily recognized that an RDC is a type of wireless communication interface that is used to “enable . . . an application, a function, and a service” by enabling wireless communication of information, such as access information, to access or otherwise invoke that application, function, or service. As explained by Dr. Traynor, use of a RDC and other similar interfaces for “short range communications between wireless devices was common for enabling an application, a function, or a service.” Pet., 4, 6-12, 29-31; MS-1032, ¶19. And the class of structures implicated by the recited RDC and specification would have been readily recognized by a POSITA. MS-1032, ¶19. Dr. Traynor provides examples of Common Access Cards (CACs) able to wirelessly communicate with card readers to allow access and SpeedPass being able to wirelessly authorize payment. *Id.*

Reply, 20-21.

“Integrated RDC communicating wirelessly with [] at least one external device within the proximity zone”

III. THE CLAIMS INVOKE § 112(F) BECAUSE THEY RECITE GENERAL PURPOSE COMPUTERS PERFORMING A CLAIMED FUNCTION

The law has been consistent and clear: to claim a means for performing a specific computer-implemented function, and then to disclose only a *general purpose computer* as the structure designed to perform that function, amounts to pure functional claiming. *Aristocrat*, 521 F.3d 1328 at 1333 (Fed. Cir. 2008). In this instance, the structure corresponding to a 35 U.S.C. § 112(f) claim limitation for a computer-implemented function must include the algorithm needed to transform the *general purpose* computer disclosed in the specification. *Aristocrat*, 521 F.3d at 1333; *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008); *WMS Gaming, Inc. v. Int’l*

POSR, 5.

POSR Statements

B. The Claims Recite the Wireless Communication Interface Performs a Logical Operation, Not a Physical Operation

The law has been consistent and clear: to claim a means for performing a specific computer-implemented function, and then to disclose only a *general purpose computer* as the structure designed to perform that function, amounts to pure functional claiming. *Aristocrat*, 521 F.3d 1328 at 1333 (Fed. Cir. 2008). In this instance, the structure corresponding to a 35 U.S.C. § 112(f) claim limitation for a computer-implemented function must include the algorithm needed to transform the *general purpose* computer disclosed in the specification. *Aristocrat*, 521 F.3d at 1333; *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008); *WMS Gaming, Inc. v. Int'l*

POSR, 8-9.

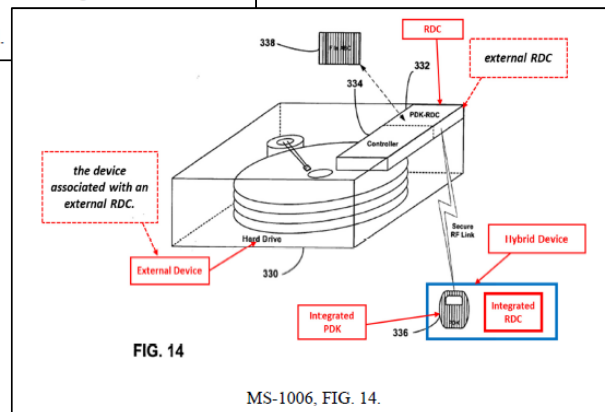
Claim Construction Dispute

“Generating an Enablement Signal” Step
Recites Structure/Act, Making MPF/SPF
Inappropriate

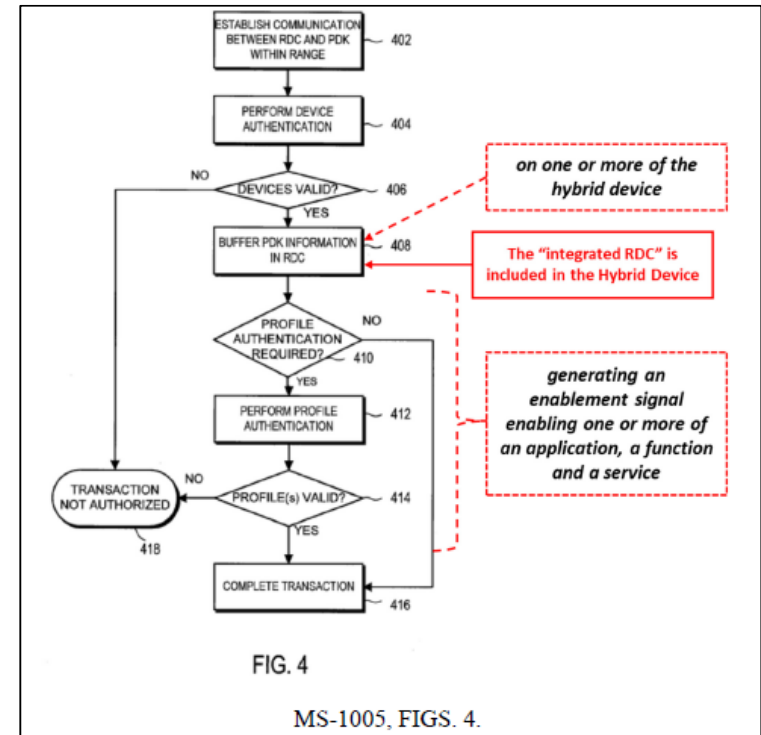
“Enablement signal” [claim 10] .

Additionally, the hybrid device can use the integrated PDK to *send[] the enablement signal to . . . the device associated with an external RDC* and enable “an application, a function and a service” on the device associated with “an external RDC.” MS-1005, ¶¶[0057], [0061-0063]; MS-1006, ¶¶[0037], [0088-0090]; MS-1003, ¶[96]. For example, Giobbi-157 teaches that this can occur automatically, when “the mere presence of a PDK 102 within range of the Reader 108 is by itself a clear indication of the PDK owner’s desire to complete a transaction.” MS-1005, ¶[0067]. As seen below in FIG. 14, Giobbi-139 also teaches this architecture such that, a hybrid device within range of an external RDC (through the integrated PDK) can “*send[] the enablement signal to one or more of . . . the device associated with an external RDC*” MS-1005, ¶¶[0057], [0061-0063]; MS-1006, ¶¶[0037], [0081-0083], [0088-0090]; MS-1003, ¶[96].

Pet., 58-59.



Pet., 60.



Pet., 56.

“Enablement signal” [claim 10] is Not a Nonce Term

The use of signals to enable functions was well known. MS-1022, 3, (definition: “activate - To start an operation, usually by application of an appropriate enabling signal.” (emphasis added)); MS-1032, ¶¶21-22. Further, the Federal Circuit in *Greenberg* determined that defining an element in functional terms “is not sufficient to convert a claim element containing that term into a ‘means for performing a specified function’ within the meaning of section 112(6).” 1583. In *Greenberg*, the court determined “detent mechanism,” is named for the action it performs. *Id.* (“Many devices take their names from the functions they perform.” The examples are innumerable, such as ‘filter,’ ‘brake,’ ‘clamp,’

Reply, 23.

22. An “enablement signal” has sufficiently definite structure for performing the function of “enabling one or more of an application, a function and a service.” Specifically, the use of signals to enable functions was well known. MS-1022, 3, (definition for “activate - To start an operation, usually by application of an appropriate enabling signal.” (emphasis added)). This is corroborated by numerous other references that, outlined below:

- a. *The Dictionary of Science and Technology* from 2003 where “enabling signal” is defined as “*noun* a signal that starts a process or allows one to take place.” MS-1026, 3.
- b. *McGraw-Hill Dictionary of Scientific and Technical Terms* where “enable” is defined as “[t]o initiate the operation of a device or circuit by applying a trigger signal or pulse.” MS-1027, 3.
- c. *The Dictionary of Computing* where “enable” is defined as “[t]o selectively activate a device or function. . . selective operation can be achieved by an enabling action—such as a signal . . .” MS-1028, 3.

MS-1032, ¶22; Reply 24.

If 112(f), then Step Plus Function

b) If 112(f) is applied at all, the correct analysis of claim 10 should be Step Plus Function

While means-plus-function analysis may, in rare and exceptional circumstances, be relevant to method claims, this is not the default approach and does not apply here. By focusing exclusively on means-plus-function, Proxense has failed to properly analyze the functional language of the method claim within its appropriate legal framework, rendering its argument both inapplicable and incorrect.

In a method claim, the mere use of “-ing” verbs does not invoke 112(f), as decided in *O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1583 (Fed. Cir. 1997) (addressing the application of 112(f), including step-plus-function). Similarly, in *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, the court considered whether 112(f) applied to process claims. 172 F.3d 836 (Fed. Cir. 1999). It established two key principles: (1) the absence of “steps for” in a method claim creates a presumption that 112(f) does not apply; and (2) if a claim limitation expresses both a function and an act, 112(f) is not invoked. *Id.*

Reply, 25.

Applying these principles, the '042 Patent claim—“generating an enablement signal enabling one or more of an application, a function, and a service”—describes both the function (“enabling one or more of...”) and the act (“generating an enablement signal”). This aligns with *Masco Corp. v. United States*, where the court held that method claims do not invoke 112(f) when a function is performed by an act (e.g., “driving a lever” by “transmitting a force”). 303 F.3d 1316, 1327 (Fed. Cir. 2002).

Thus, under *Seal-Flex* and *Masco*, the '042 claims maintain the presumption that 112(f) does not apply.

Reply, 26.

POSR - Response

Petitioner next attempts to side-step the issue by asserting that step-plus-function analysis somehow is different than a means-plus-function analysis. Paper 18, at 25-27. Yet, it only cites cases predating *Williamson v. Citrix*, without offering any reasoning why step-plus function claims are any different. In fact, Petitioner's primary case, *Masco Corp. v. United States*, 303 F.3d 1316, (Fed. Cir. 2002), was explicitly overruled in *Williamson*. *Williamson*, 792 F.3d at 1349 ("A few years later, we reiterated *Lighting World's* characterization of the presumption as a 'strong one that is not readily overcome' in *Inventio AG v. ThyssenKrupp Elevator Americas Corp.*, 649 F.3d 1350, 1358 (Fed. Cir.2011). In *Flo Healthcare Solutions, LLC v. Kappos*, 697 F.3d 1367, 1374 (Fed. Cir.2012), decided just a year after *Inventio*, we raised the bar even further, declaring that '[w]hen the claim drafter has not signaled his intent to invoke § 112, ¶ 6 by using the term 'means,' we are unwilling to apply that provision without a showing that the limitation essentially is devoid of anything that can be construed as structure' (emphasis added), citing *Masco Corp. v. United States*, 303 F.3d 1316, 1327 (Fed. Cir. 2002), a case involving the different term 'step for' and the unusual circumstances in which § 112, para. 6 relates to the functional language of a method

Reply, 9.

10. A method comprising:
creating a first wireless link between an integrated receiver-decoder circuit (RDC) of a hybrid device and an external personal digital key (PDK), the hybrid device including an integrated PDK and the integrated RDC;
receiving a first signal at the integrated RDC via the first wireless link from the external PDK;
generating an enablement signal enabling one or more of an application, a function and a service on one or more of the hybrid device and a device associated with an external RDC; and
sending the enablement signal to one or more of the hybrid device and the device associated with an external RDC.

MS-1001, Claim 10.

POSR - Response

Microsoft further contends that an “enabling signal” is known in the art as “a signal that starts a process or allows one to take place.” Paper 18, at 23. However, as noted in Patent Owner’s Response, the citation to claim 10 is insufficient. The first element of claim 10 is “creating a first wireless link,” which is followed by “receiving a first signal.” But the link and the first signal do not “enable one or more of an application, a function and service.” Claim 10, rather, recites “generating an enablement signal enabling one or more of an application, a function and service.” Accordingly, by the express language of claim 10, the mere receipt of a signal starting a process or receipt of a signal via a wireless link is insufficient to perform the function of “enabling one or more of an application, a function and service.”

POSR, 10.

10. A method comprising:
creating a first wireless link between an integrated receiver-decoder circuit (RDC) of a hybrid device and an external personal digital key (PDK), the hybrid device including an integrated PDK and the integrated RDC;
receiving a first signal at the integrated RDC via the first wireless link from the external PDK;
generating an enablement signal enabling one or more of an application, a function and a service on one or more of the hybrid device and a device associated with an external RDC; and
sending the enablement signal to one or more of the hybrid device and the device associated with an external RDC.

MS-1001, Claim 10.

Invalidity Challenge 1

Claims 1, 5-6, 8-11, and 13-14 are
Unpatentable Over Giobbi-157 in view of
Giobbi-139 (with or without Dua)

Invalidity Challenge 1

Overview of Giobbi-157 and Giobbi-139

Giobbi-157:

Giobbi-157 is directed at a system and method to “provide efficient, secure and highly reliable authentication for transaction processing and/or access control applications.” MS-1005, Abstract, ¶¶[0011]-[0014]. The disclosure further explains that a “transaction includes enabling access to secure physical or digital assets (e.g., unlocking a door, opening a vault, providing access to a secured hard drive, etc.)” MS-1005, ¶[0063]. This process is accomplished using “secure and tamperproof memories” to store information for “identification and authentication.” MS-1005, ¶[0036], *see also* ¶¶[0026]-[0029], [0035]-[0048]. Giobbi-157 is a continuation in part of a prior application and claims priority to five provisional applications. MS-1005, Cover, ¶[0002]; MS-1003, ¶¶[31]-[32].

Pet., 7.

Giobbi-157 discloses a Personal Digital Key (PDK) that “stores one or more profiles (e.g., a biometric profile) in a tamperproof memory that is acquired in a secure and trusted process.” MS-1005, ¶[0063], *see also* ¶¶[0026]-[0029], [0035]-

Pet., 7.

Giobbi-157 teaches that its RDC can authenticate a PDK and then enable a “transaction,” the “transaction includ[ing] enabling access to secure physical or digital assets.” MS-1005, ¶¶[0057]-[0058], [0063], FIG. 4; MS-1003, ¶[35].

Pet., 9.

Giobbi-157:

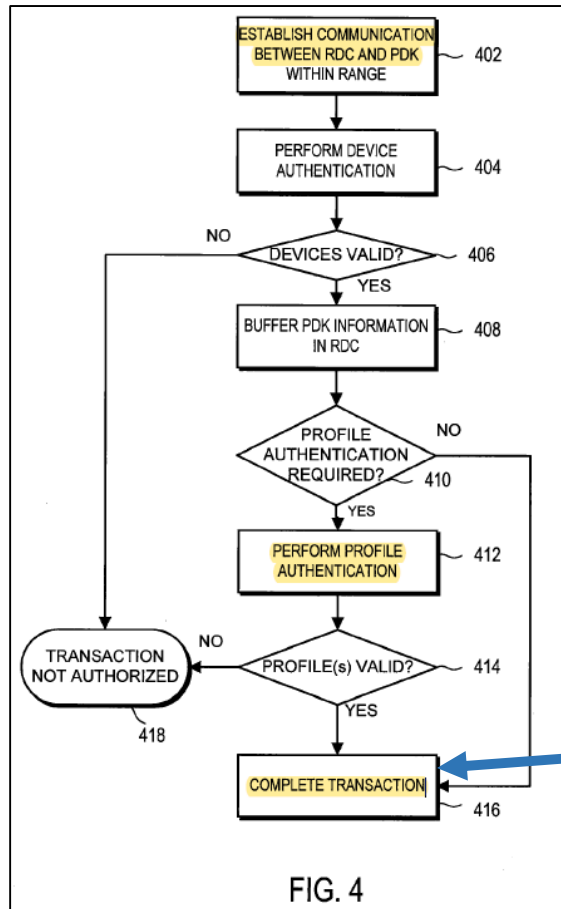


FIG. 4

MS-1005, FIG. 4 (Pet., 10)

[0028] The credibility of the system 100 is ensured by the use of a PDK 102 that stores trusted information. The PDK 102 is a compact, portable uniquely identifiable wireless device typically carried by an individual. The PDK 102 stores digital information in a tamper-proof format that uniquely associates the PDK 102 with an individual.

MS-1005, ¶28 (Pet., 7).

[0050] 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. An

MS-1005, ¶50 (Pet., 8).

transaction is not authorized 418. In one embodiment, completing 416 the transaction includes enabling access to secure physical or digital assets (e.g., unlocking a door, opening a vault, providing access to a secured hard drive, etc.). In another embodiment, completing 416 the transaction

MS-1005, ¶63 (Pet., 7).

Giobbi-157:

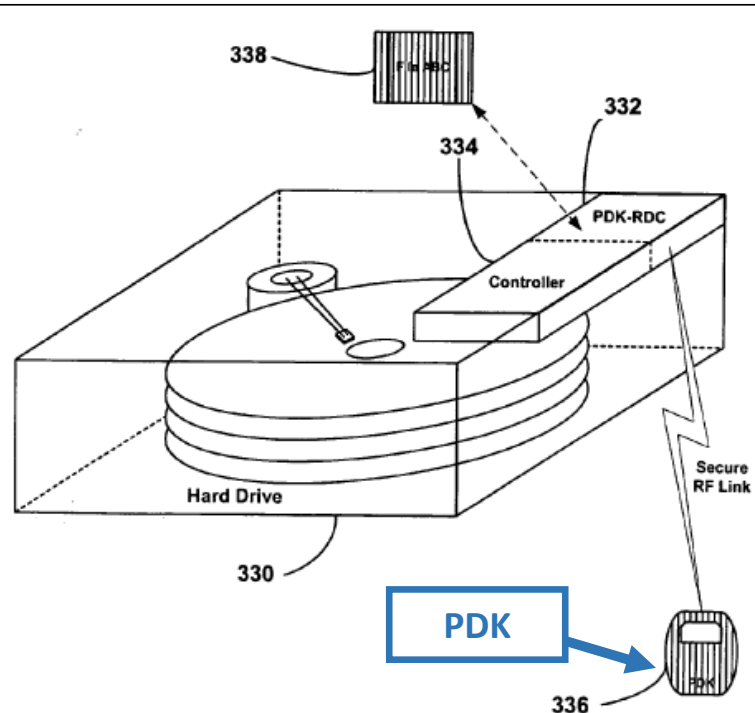


FIG. 14

MS-1006, FIG. 14 (Pet., 60) (Annotated for legibility)

[0078] Referring to FIGS. 12 and 13 for Drive-Level protection, when implemented, a PDK hard drive 330 will only function when the associated PDK-Key 336 is within range. The drive's controller 334 is disabled whenever the PDK-Key 336 is not present. The contents of files stored on the drive 330 are not encrypted. The Drive-Level protection feature is designed to protect the hard drive's owner by locking access to the PDK hard drive 330 whenever the associated PDK-Key 336 is not present (i.e. when the owner momentarily steps away from the computer, if the computer is stolen, etc.).

MS-1006, ¶78 (Pet., 11).

Giobbi-139:

Giobbi-139 shares the same goal of securing physical or digital access as Giobbi-157, disclosing a “Personal Digital Key Digital Content Security System” that prevents “unauthorized use and protect[s] the digital content stored on computers from being wrongfully accessed, copied, and/or distributed.” MS-1006, Abstract, ¶[0010]. Like the Giobbi-157 publication, Giobbi-139 discusses the use of RDCs to communicate with PDKs to enable access and functions on devices. MS-1006, ¶[0010], [0071]-[0078]. The disclosure of Giobbi-139 further teaches that an RDC can be incorporated into a **cell phone** and that the RDC “is an integrated circuit able to process PDK-Key information, as well as encrypt/decrypt PDK-compliant digital content.” MS-1006, ¶[0077], [0088]; MS-1005, ¶[0035]; MS-1003, ¶[38].

Pet., 11.

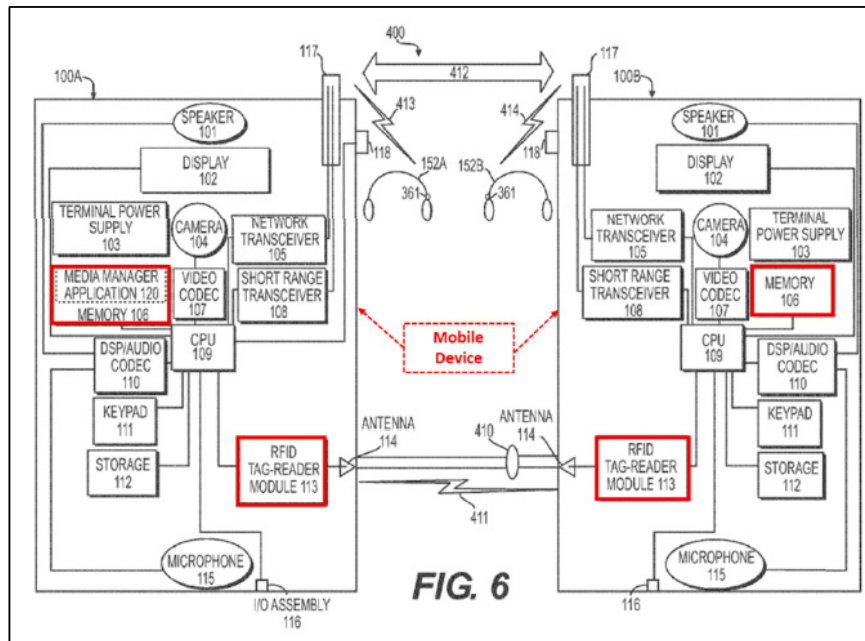
Giobbi-139 teaches the PDK and RDC relationship as being flexible and capable of being integrated with existing equipment. MS-1006, ¶[0087]-[0099]. Giobbi-139 also teaches that an RDC can be acquired independently and integrated into a device. MS-1006, ¶[0088]-[0090]. The integrated RDC could then be used to secure the device and can even “enable/disable” the device based on communication with a PDK. MS-1006, ¶[0087]-[0090]. When using a PDK to secure a device with an integrated RDC, “[t]his security mechanism protects any data stored on such devices in the event they are ever stolen, left unattended, or even purposely ‘disabled’ to prevent access to sensitive content. MS-1006, ¶[0090]. When the associated PDK-Key(s) is not present, these devices and their storage means are locked and disabled.” *Id.*; MS-1003, ¶[39].

Pet., 12.

Invalidity Challenge 1

Overview of Dua

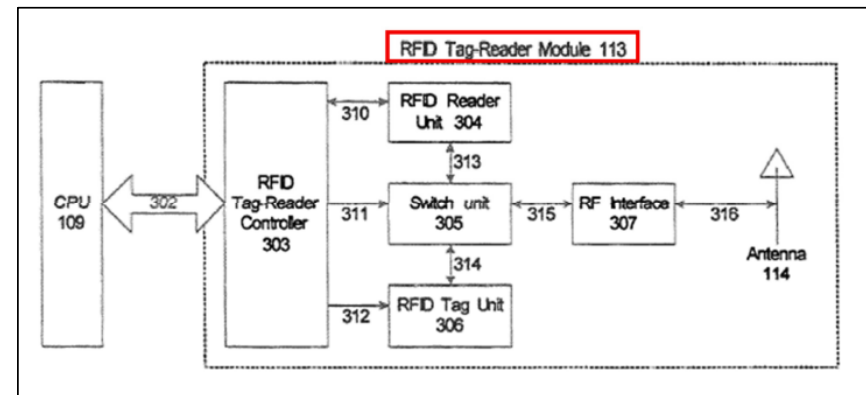
Dua:



MS-1007, FIG. 6; Pet. 22.

Dua employs an RFID system to secure data and applications on its device using an RFID “electronic key.” MS-1007, 12:51-64. Dua uses an RFID Tag as an electronic “key” and an RFID Reader as the electronic “lock.” *Id.* Specifically, Dua discloses that its device uses RFID Tag-Reader Module (shown above in FIG. 4A), that includes both an RFID Reader Unit 304 and RFID Tag Unit 306. MS-1007, 13:22-48, FIGS. 4A, 6; MS-1003, ¶[43].

Pet., 23.



MS-1007, FIG. 4A; Pet., 23.

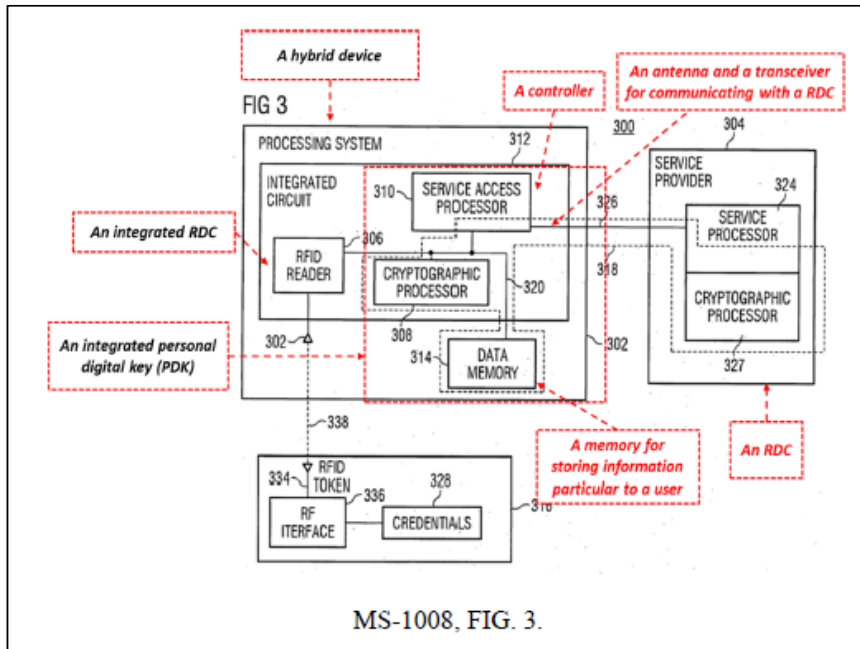
Invalidity Challenge 2

Claims 10-11 and 13-14 are rendered obvious by
Broadcom

Invalidity Challenge 2

Overview of Broadcom

Broadcom:



MS-1008, FIG. 3; Pet., 75.

1. Overview of Broadcom

Broadcom discloses a system for secured access to a service based on a wireless device coming within the proximity of a reader. MS-1008, Abstract; ¶¶[0009]-[0016]. Broadcom teaches that a user's credentials can be stored on an RFID token, and this token and the associated authentication credentials may be read by an RFID reader located in an Access Device. *Id.* The Access Device (including the RFID reader) can authenticate the RFID token and permit access to the secured service after authentication. *Id.* MS-1003, ¶[115].

Pet., 68.

Invalidity Challenges

Patent Owner has not contested the disclosure of the Prior Art

Patent Owner has not contested the disclosure of the Prior Art

Microsoft Corporation (“Petitioner” or “Microsoft”) submits this Petitioner Reply in response to the Patent Owner’s Response (“POR”) in IPR2024-00573, which challenges the validity of U.S. Patent No. 8,646,042 (“the ’042 patent”). In its POR, Proxense, LLC (“Proxense” or “Patent Owner”) does not dispute the prior art, or the combinations advanced in the Petition against claims 1, 5-6, 8-11, 13-14 (“the Challenged Claims”). Instead, Proxense advances and relies on very narrow constructions of various limitations of the Challenged Claims based on a legally unsupported belief that these limitations trigger 35 U.S.C. § 112(f) (“means-plus-function,” “112(f),” “112(6),” or “MPF”). Having narrowly construed the claims, Proxense argues that the Petition’s invalidity challenge fails to meet these claim limitations. In doing so, Proxense sidesteps the substance of the invalidity challenge in the Petition and rests its arguments on narrow constructions, asserting that the now-narrowed limitations fail to be met by Gobbi-157, Giobbi-139, or any combination thereof.

Reply, 1.

Independent claims 1 and 10 each recite “enabling one or more of an application, a function, and a service.” For the reasons stated above, claims 1 and 10 invoke 35 U.S.C. § 112, ¶ 6, such that the algorithm represented by control logic 250 performs the function of “enabling one or more of an application, a function and a service.” The Petition fails to establish Giobbi 157, Giobbi 139, or Dua, alone or in combination, “enables an application, a function, and a service” using the algorithm. Consequently, the Petition fails to establish claims 1 and 10, and the claims dependent thereon, are invalid and unpatentable.

POR, 29.

Invalidity Challenges

Backup

***Phillips v. AWH Corp.*, 415 F. 3d 1303, 3127-1328 (Fed. Cir. 2005) (en banc)**

While we have acknowledged the maxim that claims should be construed to preserve their validity, we have not applied that principle broadly, and we have certainly not endorsed a regime in which validity analysis is a regular component of claim construction. *See Nazomi Communications*, 403 F.3d at 1368–69. Instead, we have limited the maxim to cases in which “the court concludes, after applying all the

Pet, 3.

available tools of claim construction, that the claim is still ambiguous.” *Liebel-Flarsheim*, 358 F.3d at 911; *see also Generation II Orthotics Inc. v. Med. Tech. Inc.*, 263 F.3d 1356, 1365 (Fed.Cir.2001) (“[C]laims can only be construed to preserve their validity where the proposed claim construction is ‘practicable,’ is based on sound claim construction principles, and does not revise or ignore the explicit language of the claims.”); *Elektro Instrument*

Pet, 3.

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