UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

ALTERA CORPORATION,

    Plaintiff,

    v.

PACT XPP TECHNOLOGIES, AG,

    Defendant.

Case No. 14-cv-02868-JD

ORDER RE CLAIM CONSTRUCTION AND INVALIDITY

Re: Dkt. No. 158

In this patent infringement case, Altera seeks a declaration from the Court that it does not infringe certain patent claims asserted against it by PACT, and that those claims are invalid. As is usual in patent cases, the Court is charged with the task of determining the meaning of various claim terms over which the parties disagree. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978-79 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). The Court has also allowed the parties to brief whether two claim terms are indefinite, rendering the claims that contain them invalid. This order addresses claim construction and Altera's motion for summary judgment on indefiniteness.

The order follows full briefing on these issues and a hearing on claim construction. In addition, the Court has appointed Professor John Wawrzynek as a neutral expert under Federal Rule of Evidence 706, and invited him to submit any comments he had on claim construction, which he did. *See* Comments of John Wawrzynek ("Wawrzynek Comments"), Dkt. No. 220-1. Altera moved for leave to file a response to those comments, attaching its proposed response, *see* Dkt. No. 188, and the Court granted the motion while allowing PACT to file a response. *See* Dkt. Nos. 192, 197. The Court has considered both Professor Wawrzynek's comments and the parties'

1   responses, as well as the declarations submitted by the experts retained by the parties.[1]

2   **PATENT BACKGROUND**

3   PACT asserts six patents, which fall into three patent families:

Family	Patent	Asserted Claims
Bus System Patents	6,513,077	1, 14, and 15
	6,119,181	1, 2, 3, 4, 5, 6, 12, 17, 19, and 30
	6,338,106	8, 19, 20, 21, and 23
Dynamic Reconfiguration Patents	5,943,242	1 and 9
	6,859,869	13, 14, 18, 19, and 20
ALU Patent	7,565,525	1, 2, 3, 11, and 18

See Preliminary Election of Asserted Claims, Dkt. No. 54.

        Generally speaking, the patents-in-suit relate to reconfigurable semiconductor devices,

such as field programmable gate arrays ("FPGAs"). Unlike application specific integrated circuits

("ASICs"), which are manufactured to perform specific design tasks, reconfigurable devices can

be reprogrammed to suit various applications after manufacturing. Most reconfigurable

semiconductor devices have a multi-dimensional programmable cell architecture, meaning they

are composed of a matrix of configurable logic blocks known as cells or processing array elements

("PAEs"), which are connected to one another.

        The bus system patents are directed at providing a "uniform" or "general" bus system. *See*

'077 patent, 1:57-59, 1:64-66. According to the patents, prior art systems required a programmer

who wanted to interconnect processors or connect peripherals to the processors to integrate

functionality specific to those devices into the cells. *See id.* at 1:38-44. That not only increased

wiring complexity, but also took up additional space on the unit. *See id.* at 1:46-67. The

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[1] In the claim construction reply brief, PACT objected to certain portions of the declarations submitted by Altera's experts as containing improper legal argument. *See* PACT's Reply at 1:11-12:3, Dkt. No. 160. For example, Altera's expert, Professor John Villasenor, spends a paragraph discussing the fact that Altera's proposed construction of "configuration memory" largely adopts the construction PACT proposed for the term in a prior litigation, *see* Villasenor Decl. ¶ 75, Dkt. No. 151. The Court overrules PACT's objection because the statements are not so overwhelmingly legal to warrant exclusion. The Court advises the parties that future expert declarations should be strictly limited to proper subjects for expert opinion and any facts or legal understandings necessary to form those opinions. Altera's motion for leave to file an opposition to PACT's objection -- the proposed opposition being over four times longer than the initial objection itself -- is denied as moot. *See* Dkt. No. 165.

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1   "uniform" bus system described by the bus system patents attempts to create a general-purpose

2   bus system that allows "[a]ny number of memory devices, peripherals or other units" to be

3   connected. *See id.* 1:64-2:3.

4   The dynamic reconfiguration patents involve devices that consist of an array of cells. *See*

5   '869 patent, 1:63-2:1. The patents describe allowing certain cells to be reconfigured without

6   affecting the neighboring cells, *see id.* 2:19-26, as distinguished from prior art systems, which

7   allegedly required reconfiguring all of the cells at one time, thus interrupting even those cells that

8   were not being reconfigured. *See id.* at 1:28-43.

9   Finally, the '525 patent is directed at an improved cell. *See* '525 patent, 2:37-39. The

10   allegedly inventive cell includes an "expanded arithmetic and logic unit" ("EALU"). *See id.* 2:36-

11   41. According to the specification of the '525 patent, the allegedly inventive EALU reduces the

12   volume of data necessary for configuration, *see id.* at 2:41-43. It thus improves on prior art units,

13   which took much more space, time, processing power, and money to reconfigure cells. *See id.* at

14   1:31-43.

15   **LEGAL STANDARD**

16   **A.**   **Claim Construction**

17   Claim construction is a "mongrel practice." *Markman*, 517 U.S. at 378. Although the

18   "ultimate issue of the proper construction of a claim should be treated as a question of law," it can

19   involve subsidiary factual findings. *See Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, 135 S.

20   Ct. 831, 838 (2015).

21   By default, claim terms are given their "ordinary and customary meaning," which is "the

22   meaning that the term would have to a person of ordinary skill in the art in question at the time of

23   the invention." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc). There are

24   only two circumstances where a claim is not entitled to its plain and ordinary meaning: when a

25   patentee sets out a definition and acts as his or her own lexicographer, or when the patentee

26   disavows the full scope of the claim term either in the specification or during prosecution.

27   *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

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1   When construing claim terms, the Federal Circuit emphasizes the importance of evidence

2   that is intrinsic to the patent: the language of the claims themselves, the specification, and the

3   prosecution history. *Phillips,* 415 F.3d at 1312-17. The claim language can "provide substantial

4   guidance as to the meaning of particular claim terms," both through the context in which the claim

5   terms are used and by considering other claims in the same patent. *Id.* at 1314. The specification

6   is likewise a crucial source of information: Although it is improper to read limitations from the

7   specification into the claims, the specification is "the single best guide to the meaning of a

8   disputed term." *Id.* at 1315 ("[T]he specification 'is always highly relevant to

9   the claim construction analysis. Usually, it is dispositive . . . .' "); *see also Merck & Co. v. Teva*

10   *Pharms. USA, Inc.,* 347 F.3d 1367, 1370 (Fed. Cir. 2003) ("[C]laims must be construed so as to be

11   consistent with the specification . . . .").

12   Despite the importance of the intrinsic evidence, courts may also use extrinsic evidence --

13   technical dictionaries, learned treatises, expert and inventor testimony, and the like -- to help

14   construe the claims. *Phillips,* 415 F.3d at 1317-18. When considered in conjunction with the

15   intrinsic evidence, dictionaries may reveal what the ordinary and customary meaning of a term

16   would have been to a person of ordinary skill in the art at the time of the invention. *Frans Nooren*

17   *Afdichtingssystemen B.V. v. Stopaq Amcorr Inc.,* 744 F.3d 715, 722 (Fed. Cir.

18   2014) (citing *Phillips,* 415 F.3d at 1312-18) ("Terms generally carry their ordinary and customary

19   meaning in the relevant field at the relevant time, as shown by reliable sources such as

20   dictionaries, but they always must be understood in the context of the whole document—in

21   particular, the specification (along with the prosecution history, if pertinent)."). Extrinsic evidence

22   is, however, "less significant than the intrinsic record in determining the legally operative meaning

23   of claim language." *Phillips,* 415 F.3d at 1317 (internal quotations omitted).

24   **B.   Indefiniteness**

25   Patent claims must "particularly poin[t] out and distinctly clai[m] the subject matter which

26   the applicant regards as his invention." 35 U.S.C. § 112 ¶ 2. A claim fails to satisfy this

27   requirement and is invalid if its language, when read in light of the specification and the

28   prosecution history, "fail[s] to inform, with reasonable certainty, those skilled in the art about the

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scope of the invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014).

Patents are entitled to a presumption of validity. As a result, any fact critical to a holding on indefiniteness must be proven by the challenger by clear and convincing evidence. *See Intel Corp. v. VIA Techs., Inc.,* 319 F.3d 1357, 1366 (Fed. Cir. 2003); *Nautilus*, 134 S. Ct. at 2130 n.10 (declining to address standard of proof for facts underlying conclusion of indefiniteness). However, "this presumption of validity does not alter the degree of clarity that § 112, ¶ 2 demands from patent applicants." *Nautilus*, 134 S. Ct. at 2130 n.10.

I.   CLAIM CONSTRUCTION

C.   "at least one of . . . and . . ."

PACT's Proposed Construction	Altera's Proposed Construction	Claims
"one or more of … and/or …"[2]	The phrase "at least one of" modifies each member of the list, *i.e.*, each category in the list. Therefore, this phrase requires that the claimed system or apparatus must include at least one of each category of item listed.	'181 patent: claims 1-6, 12, 17, 19, 30 '106 patent: claims 8, 19-21, 23 '077 patent: claim 1 '242 patent: claims 1, 9 '525 patent: claims 1-3, 11, 18

Court's Construction: "at least one of … and/or …," where "at least one of" modifies each member of the list.

The first of the parties' disputes is one of syntax, not semantics. Several claims use a grammatical construction of the form, "at least one of A, B, and C." Altera says such constructions should be interpreted to mean "at least one of A, and at least one of B, and at least one of C." By contrast, PACT argues that they should be read to mean "at least one of A, and/or at least one of B, and/or at least one of C," or equivalently, "at least one *element chosen from the set consisting* of As, Bs, and Cs."[3] Unfortunately, as is too often the case, "[t]his seemingly

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[2] The parties' Final Joint Claim Construction Statement states that PACT's proposed construction is "one or more of … *and* …," *see* Dkt. No. 158-1 at 2 (emphasis added), but at the claim construction hearing PACT clarified that it meant "and/or." *See* Claim Construction Hearing Transcript ("Hearing Tr.") at 19:12-18, Dkt. No. 182.

[3] The parties frame the dispute as being over whether "and" should be interpreted conjunctively or disjunctively, but as the latter formulation illustrates, there is a reading of the claim term using "and" in the conjunctive sense that is nevertheless equivalent to PACT's formulation.

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1   straightforward issue of claim construction is made difficult by the fact that the patent is so poorly

2   drafted that it does not give a readily discernible answer to what would seem to be a basic question

3   regarding the structure of the claimed invention." *Honeywell Inc. v. Victor Co. of Japan, Ltd.*, 298

4   F.3d 1317, 1323 (Fed. Cir. 2002). The patents in this case stand out as particularly poorly written

5   -- which is saying a lot in light of how the typical patent often reads.

6   It is inarguable that Altera's reading of this construction was endorsed by the Federal

7   Circuit in *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 886 (Fed. Cir. 2004), which

8   created a presumption that "at least one of" applies to each element of the following list, and that

9   the word "and" be read conjunctively. And properly so, because as PACT concedes, it could have

10   unambiguously conveyed the meaning it now urges by using "and/or" in place of "and." But it is

11   also inarguable that district courts have often bucked *SuperGuide*'s presumption where called for

12   by context or other intrinsic evidence. *See Fujifilm Corp. v. Motorola Mobility LLC*, No. 12-cv-

13   03587-WHO, 2015 WL 1265009, at *7-9 (N.D. Cal. Mar. 19, 2015) (collecting cases); *Radware*

14   *Ltd. v. A10 Networks, Inc.*, Nos. 13-cv-02021-RMW, 13-cv-02024-RMW, 2014 WL 1572644, at

15   6-7 (N.D. Cal. Apr. 18, 2014) ("*SuperGuide* has not been read as a uniform rule that 'at least one

16   of . . . and' be construed in the conjunctive."); *Power-One, Inc. v. Artesyn Technologies, Inc.*, No.

17   05-cv-00463, 2007 WL 896093, at *14 (E.D. Tex. Mar. 22, 2007) (distinguishing *SuperGuide* and

18   construing "at least one of X, Y, and Z" as "a group [of X, Y and Z from which] at least one is

19   selected").

20   This flexibility is well warranted. *SuperGuide* itself suggested that intrinsic evidence

21   could override its default rule, pointing out that every disclosed embodiment of the patent was

22   consistent with its reading of the claims, while at least one would be inoperable under the alternate

23   proposed reading. *SuperGuide*, 358 F.3d at 887-88. That is because the twin canons on which

24   *SuperGuide* relies -- that "at least one of" applies to each element of the following list and that

25   "and" must be read conjunctively -- are meant to be practical guidelines and not rigid rules.

26   While modifiers appearing before a listing are often read to modify each element, that is

27   not universally the case. *See Dealertrack, Inc. v. Huber*, No. CV 06-2335 AG (FMOx), 2008 WL

28   5792509, at *7 (C.D. Cal. Sept. 27, 2008) (holding *SuperGuide* presumption inapplicable in part

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because "'at least one of' [was] followed by a colon, and then a list separated by semicolons" which "implie[d] that the 'at least one of' means 'at least one of the elements listed below.'"); Antonin Scalia & Bryan A. Garner, *Reading Law* 150 (2012) (noting that this "series-qualifier canon" "[p]erhaps more than most of the other canons . . . is highly sensitive to context").[4]

Courts engaged in statutory construction have not hesitated to read "and" as a disjunctive when warranted. *See United States v. Fisk*, 70 U.S. (3 Wall.) 445, 447 (1865) (to "ascertain the clear intention of the legislature, . . . courts are often compelled to construe '*or'* as meaning '*and*,' and again '*and*' as meaning '*or*.'"); *Slodov v. United States*, 436 U.S. 238, 246-47 (1978) (concluding that the word "and" was used disjunctively in 26 U.S.C. § 6672, which imposed a tax penalty on "[a]ny person required to collect, truthfully account for, and pay over any tax imposed by this title"); *United States v. Pereira-Salmeron*, 337 F.3d 1148, 1151 (9th Cir. 2003); 1A Norman J. Singer, *Statutes and Statutory Construction* § 21:14 (6th ed. 2003) ("There has been, however, so great laxity in the use of these terms that courts have generally said that the words are interchangeable and that one may be substituted for the other, if consistent with the legislative intent."); *Webster's Third New International Dictionary* 80 (2d ed. 2002) (defining "and" to include "reference to either or both of two alternatives <choose between him [and] me> esp. in legal language when also plainly intended to mean *or* <bequeathed to a person [and] her bodily issue> <property taxable for state [and] county purposes>").

In the asserted patents, "at least one of . . . and . . ." is plainly used in the manner proposed by PACT. To begin with, a number of claims are intelligible only under PACT's reading. Claim 4 of the '181 patent refers to "the second plurality of lines for at least one of reading data and writing data." By Altera's lights, this should either be read as "the second plurality of lines for reading data and writing data" -- rendering "at least one of" entirely superfluous -- or as "the

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[4] This anecdote illustrates the point:
    A host separately asked two prospective guests what they liked to drink. One said, "I like bourbon and water." The other said, "I like beer and wine." When the second guest arrived at the event, the host served the guest a glass of beer mixed with wine. "What's that awful drink?" said the guest, to which the host answered, "You said you liked beer and wine."
OfficeMax, Inc. v. United States, 428 F.3d 583, 600 (6th Cir. 2005) (Rogers, J., dissenting). Altera would presumably think the first guest would be happy with a glass of water.

second plurality of lines for at least one of reading data and at least one of writing data" -- which is ungrammatical even for a patent. Constructions that read terms out of claims are to be avoided. *See Digital-Vending Servs. Int'l, LLC v. University of Phoenix, Inc.*, 672 F.3d 1270, 1275 (Fed. Cir. 2012). And it is obvious that it makes no sense to speak of "at least one of reading data," since a gerund in this context is not a countable noun, so there cannot be "at least one of" it. By contrast, PACT's proposed reading, under which the term would mean "the second plurality of lines for reading data, writing data, or both" makes perfect sense of claim 4.

Similarly, claim 1 of the '106 patent says that "the plurality of the at least one individual lines, buses and subbuses at least one of combines multiple units and connects at least one of memories and peripherals." Under Altera's proposed construction, that should be read to mean, "connects at least one of memories and at least one of peripherals." Again, that is ungrammatical. What is evidently intended is "connects at least one of [a set composed of] memories and peripherals."

These examples from the claims of the bus system patents support the conclusion that the patentee intended "at least one of . . . and . . ." to be read as PACT suggests, and that that is how a person of ordinary skill in the art would understand them. The Court must presume that the other, more ambiguous, uses of the construction are to be read the same way. *See Digital-Vending*, 672 F.3d at 1275; *Fin Control Sys. Pty, Ltd. v. OAM, Inc.*, 265 F.3d 1311, 1318 (Fed. Cir. 2001) ("[W]e begin with the presumption that the same terms appearing in different portions of the claims should be given the same meaning unless it is clear from the specification and prosecution history that the terms have different meanings at different portions of the claims.").

Altera's proposed construction would additionally conflict with the Summary of the Invention of the bus patents, which states that "[a]ny number of memories, peripherals, *or* other units can be connected to the bus system (e.g., for cascading)." *See* '181 patent, 1:56-58 (emphasis added).[5] Under Altera's proposal, the asserted claims of the '181 patent would each require a memory, peripheral, *and* an additional processing unit. The "Summary of the Invention"

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[5] Substantively similar, but slightly different language appears in the other bus system patents.

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1 would not describe a single invention claimed in the '181 patent.

2   Altera's proposed construction would also read a number of embodiments described in the

3 patent specifications out of the asserted claims. Courts "normally do not interpret claim terms in a

4 way that excludes embodiments disclosed in the specification." *Oatey Co. v. IPS Corp.*, 514 F.3d

5 1271, 1276-77 (Fed. Cir. 2008) ("At leas[t] where claims can reasonably [be] interpreted to

6 include a specific embodiment, it is incorrect to construe the claims to exclude that embodiment,

7 absent probative evidence on the contrary."). Figures 10a-10f of the bus patents show various

8 combinations of memories, peripherals, and other "units (DFPs, FPGAs, DPGAs, etc.)," but under

9 Altera's proposed construction, the asserted claims of the '181 patent would require memories,

10 peripherals, *and* an additional processing device, and therefore not cover those embodiments. By

11 the same token, the specification of the '181 patent notes that "[i]n addition to cascading identical

12 units (DFPs, FPGAs, DPGAs), memories and peripherals *can* also be connected as lower-level

13 SLAVE units (SLAVE) to the bus system described here," '181 patent, 6:60-64 (emphasis

14 added), implying, contrary to Altera's proposed construction, that the memories and peripherals

15 are optional.

16   Every claim need not cover every embodiment described in the specification, *see PSN Ill.,*

17 *LLC v. Ivoclar Vivadent, Inc.*, 525 F.3d 1159, 1166 (Fed. Cir. 2008), "especially . . . where . . .

18 other unasserted claims in the parent patent cover the excluded embodiments," *August Tech. Corp.*

19 *v. Camtek Ltd.*, 655 F.3d 1278, 1285 (Fed. Cir. 2011). And claim 17 of the '077 patent (which is

20 not asserted in this litigation) claims "[a] system configured to be connected to at least one of an

21 external bus, a peripheral, *or* an external memory" (emphasis added), and would therefore likely

22 cover Figures 10a-10f. But while it is theoretically possible that the patentee meant for none of

23 the claims of the '181 patent to cover the embodiments in Figures 10a-10f, and chose to include

24 those embodiments only within the scope of a few claims in a related patent, it defies common

25 sense to hold that the patent should be read in such a contorted way.

26   Altera points out that a number of the asserted claims initially used the disjunctive "or" or

27 "and/or," and were later amended to their present form. *See, e.g.*, Dkt. Nos. 152-11 to 152-15.

28 That at least raises the possibility that the patentee meant to narrow its claims to exclude Figures

1   10a-10f, and neglected to delete or modify the appropriate sections of the specification. But there

2   is no evidence that the amendments that introduced the disputed claim language were meant to

3   disclaim embodiments from the specification.[6] *See Biogen Idec, Inc. v. GlaxoSmithKline* LLC,

4   713 F.3d 1090, 1095 (Fed. Cir. 2013) (prosecution history disclaimer applies "when the patentee

5   unequivocally and unambiguously disavows a certain meaning to obtain a patent"). As such, it is

6   not evidence that Altera's proposed reading of "at least one of . . . and . . ." is correct.

7   This is not to suggest that adopting PACT's proposal is without its own problems. For

8   example, claim 1 of the '077 patent recites

9   a unit including at least one of a data flow processor (DFP), a field
         programmable gate array (FPGA), a dynamically programmable
10   gate array (DPGA), and a unit having a multi-dimensional
         programmable cell architecture

11   '177 patent, 15:59-63, and later recites that the unit includes additional connections "with at least

12   one of the DFP, the FPGA and the DPGA," *id.* 16:5-6. Under PACT's proposal, it would be

13   possible for the unit recited earlier in the claim to include only an FPGA and the connections

14   recited later in the claim to be with only "the DPGA," in which case "the DPGA" would have no

15   antecedent basis. But the likely explanation for this textual difficulty is not, as Altera claims, that

16   the patentee meant for the unit to include a DFP, FPGA, DPGA, *and* "a unit having a multi-

17   dimensional programmable cell architecture," but rather that the patentee meant to say that the unit

18   includes additional connections "with *the* at least one of a DFP, FPGA, and DPGA" -- namely, the

19   same one that was selected earlier in the claim.

20   Consequently, the Court adopts PACT's proposed construction of "at least one of . . . and .

21   . . ."

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26   [6] Although the amendment that added the language "a plurality of at least one of individual lines,
     buses, and subbuses" to what eventually became claim 1 of the '106 patent was in response to a
27   rejection by the examiner based on a prior art reference, the basis on which the patentee
     distinguished the amended claim over the reference was not the fact that the amended claim
28   required at least one line, at least one bus, and at least one subbus. *See* Nov. 13, 2000 Amendment
     at 9, Dkt. No. 152-13.

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D. "peripherals"/"peripheral devices"

PACT's Proposed Construction	Altera's Proposed Construction	Claims
No construction necessary; alternatively, "an external device, other than a memory device, connected to a unit"	"an external device that is not essential to the basic operation of the system: for example, printers, keyboards, graphic digital converters, disks, and tape drives"	'181 patent: claims 1-6, 12, 17, 19, 30 '106 patent: claims 8, 19-21, 23 '077 patent: claim 1
Court's Construction: "an external device, such as a printer, keyboard, disk, graphics processing unit, or SCSI controller"		

Under the Court's supervision at the claim construction hearing, the parties came close to agreement on the proper construction of this term. Altera's main objection to PACT's proposed construction was that it might cover processors and reprogrammable devices, like FPGAs and DPGAs, *see* Altera's Claim Construction Brief at 5:16-22, Dkt. No. 150, despite the fact that the claims distinguish these devices from "peripherals," *see, e.g.*, '077 patent, claim 1. But PACT agreed at the hearing that the term "peripheral" does not include DFPs or FPGAs, eliminating this potential dispute. *See* Hearing Tr. at 36:25-37:8.

There is a potential lack of clarity in Altera's own proposed construction, which is drawn almost verbatim from the sixth edition of the IEEE Standard Dictionary of Electrical and Electronic Terms, published in 1996. *See* Dkt. No. 152-4 at ALTR00286782. As Professor Wawrzynek said at the claim construction hearing, including the qualifier "not essential to the basic operation" could be inappropriate because peripherals are sometimes essential to the basic operation of the unit. *See* Hearing Tr. at 41:16-20. And that too assumes that the "basic operation" of the system can be determined with any level of reliability -- a doubtful proposition.

At the hearing, PACT agreed to a compromise construction proposed by the Court, namely "an external device connected to the unit, such as a printer, a keyboard, a disk, a drive, or a converter," as long as a few chip-level devices were added to the list. *See* Hearing Tr. 38:20-40:7, 42:21-43:6. Altera objected to the proposed compromise construction on the basis that the reference to "the unit" was extraneous, as the patent claim itself describes what the peripheral is connected to. *See* Hearing Tr. 43:15-17, 43:24-44:2. Professor Wawrzynek pointed out that the

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term "graphic digital converter" is somewhat ambiguous. Wawrzynek Comments at 2. All of these points are well taken. The Court will delete the phrases "connected to the unit" and "graphic digital converter," but include in the list of examples a graphics processor unit (GPU) and a SCSI controller, the latter of which is expressly described in the specifications of the bus system patents as an "intelligent peripheral unit[]." *See, e.g.*, '181 patent, 7:2-5.

The Court notes that the record at this point does not make entirely clear the parties' differences over the scope of the term "peripheral." To the extent later events cast the parties' dispute in sharper relief, the Court may find it necessary to clarify its construction. *Pfizer, Inc. v. Teva Pharm., USA, Inc.*, 429 F.3d 1364, 1377 (Fed. Cir. 2005) ("district courts may engage in a rolling claim construction, in which the court revisits and alters its interpretation of the claim terms as its understanding of the technology evolves"); *Network Commerce, Inc. v. Microsoft Corp.*, 422 F.3d 1353, 1358 n.4 (Fed. Cir. 2005) (approving a district court's clarification of its claim construction order on summary judgment). In the meantime, the Court construes "peripheral" and "peripheral device" to mean "an external device, such as a printer, keyboard, disk, graphics processing unit, or SCSI controller."

E. "bus system"

PACT's Proposed Construction	Altera's Proposed Construction	Claims
"a system used to communicate information according to a bus protocol"	"a system used to communicate information according to a predefined bus protocol"	'181 patent: claims 1-6, 12, 17, 19, 30 '106 patent: claims 8, 19-21, 23 '077 patent: claim 1
Court's Construction: "a system used to communicate information according to a bus protocol"		

The parties' proposed constructions for "bus system" are nearly identical, save for one difference: Altera seeks to specify that the bus system must communicate information according to a "predefined" bus protocol, whereas PACT opposes the inclusion of the word "predefined." Altera initially proposed "fixed" instead of "predefined," but changed its mind in its opposition brief. Whichever word is used, Altera is clear that its construction is aimed at excluding bus systems that can be configured on the fly to use different bus protocols. Declaration of Majid Sarrafzadeh re Claim Construction ("Sarrafzadeh Decl.") ¶ 61, Dkt. No. 152.

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1   The problem is that that exclusion does not appear in the intrinsic evidence. Altera points

2   to places where the bus system control is described as "predefined" or "permanent," '181 patent at

3   1:43-56, but that says nothing about whether the bus system *protocol* can be reconfigured.

4   Without such a limitation in the specification or prosecution history, "[i]t is improper for a court to

5   add 'extraneous' limitations to a claim, that is, limitations added 'wholly apart from any need to

6   interpret what the patentee meant by particular words or phrases in the claim.'" *Hoganas AB v.*

7   *Dresser Indus., Inc.*, 9 F.3d 948, 950 (Fed. Cir. 1993); *see also Amgen Inc. v. Hoechst Marion*

8   *Roussel, Inc.*, 314 F.3d 1313, 1325 (Fed. Cir. 2003) (holding that claims should not be limited to

9   only exogenous DNA where claims included no such limitation).

10   Implicitly acknowledging that PACT's proposed construction does not actually contradict

11   anything in the specification, Altera argues that its scope is not "supported or enabled" by the

12   written description. *See* Altera's Claim Construction Brief at 6:23-24. But "[e]nablement

13   concerns do not justify departing from the plain and ordinary meaning" where the meaning of a

14   term is clear, because claim terms "cannot be rewritten by the courts to save their validity." *See*

15   *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1374 (Fed. Cir.), *cert. denied*, 135 S. Ct.

16   719 (2014); *Phillips*, 415 F.3d at 1327-28 (noting that the maxim of interpreting claims to preserve

17   their validity has "not [been] applied . . . broadly" and is "a doctrine of limited utility").

18   In any event, the evidence that Altera's construction is necessary to avoid enablement

19   issues is, at this stage, ambiguous and inconclusive. The bus system patents do not discuss how to

20   create an embodiment that switches between bus protocols.[7] *See* Wawrzynek Comments at 3. But

21   that itself is not enough to establish that the claim would not be enabled if it covered embodiments

22   that switch between bus protocols. "A patent need not teach, and preferably omits, what is well

23   known in the art." *Falko-Gunter Falkner v. Inglis*, 448 F.3d 1357, 1365 (Fed. Cir. 2006) (quoting

24   *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1534 (Fed. Cir. 1987)). In order to

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26   _____

27   [7] PACT points to the specification of the '181 patent, which states that "[n]o bus protocol is
described in this paper, because a number of known protocols can be implemented." '181 patent,
4:42-43. But this is not inconsistent with a system in which a bus system can handle only a single

28   protocol, but that protocol can be chosen from the innumerable ones available to the initial
designer. In any event, it does not describe *how* to switch between bus system protocols.

establish that PACT's construction would lead to the claims not being enabled, Altera would have to show that "one skilled in the art, having read the specification, could [not] practice the invention without 'undue experimentation.'" *Streck, Inc. v. Research & Diagnostic Sys., Inc.*, 665 F.3d 1269, 1288 (Fed. Cir. 2012).

The opinion of Altera's expert, Professor Sarrafzadeh, that a person of ordinary skill in the art would not be able to design an embodiment of the invention that switches bus protocols is too conclusory to meet that standard. *See* Sarrafzadeh Decl. ¶ 65. It is also contradicted by the opinion of the court-appointed expert, Professor Wawrzynek, who stated at the claim construction hearing that a person of ordinary skill in the field at the time of the invention *would* be able to implement a bus system control that switches between protocols -- for example, by switching between multiple state machines. Hearing Tr. at 50:19-51:9. This conflicting evidence regarding potential enablement problems is a dubious ground on which to import a limitation with little intrinsic support into the claims.

In declining to narrow the construction of "bus system," the Court does not prejudge any potential future claim by Altera that the claims are invalid for lack of enablement. The Federal Circuit has previously construed terms to avoid narrowing limitations, and then found the full scope of the term unenabled. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371, 1378-79 (Fed. Cir. 2007) (finding full scope of claim term not enabled after earlier appeal construing term broadly). The Court expresses no opinion based on the limited record currently before it as to the validity of the claims that contain the "bus system" term.

Accordingly, the Court construes "bus system" to mean "a system used to communicate information according to a bus protocol."

F. "unit"

PACT's Proposed Construction	Altera's Proposed Construction	Claims
No construction necessary; alternatively, "a semiconductor device or component thereof"	"a single complete component"	'181 patent: claims 1-6, 12, 17, 19, 30 '106 patent: claims 8, 19-21, 23 '077 patent: claim 1 '869 patent: claims 13-14, 18-20 '525 patent: claims 1-3, 11, 18
Court's Construction: No construction necessary.		

1   The main dispute with respect to the term "unit" is over the word "complete": Altera

2   wants to include it, while PACT thinks it unnecessary. Altera's main selling point for its proposed

3   construction is that it attempts to delineate the contours of the unit, by including only those

4   portions of the device that are necessary to perform the stated function of any given "unit."

5   PACT, on the other hand, does not take issue with the coverage of Altera's proposed claim

6   construction so much as its lack of clarity, arguing that the inclusion of the word "complete"

7   simply pushes the question back to whether a given piece of circuitry is, in fact, complete.

8   Although Altera argues that its proposed construction is not inconsistent with the intrinsic

9   evidence, it does not point to anything in the specification or prosecution history that compels its

10   proposed construction. Instead, it cites two dictionary definitions in support. *See IEEE Standard*

11   *Dictionary of Electrical and Electronics Terms* 1162 (6th ed. 1996) (defining "unit" as, among

12   other things, "[a] major building block for a set or system, consisting of a combination of basic

13   parts, subassemblies, and assemblies packaged together as a physically independent entity."), Dkt.

14   No. 152-4; *Webster's New World Dictionary of Computer Terms* 598 (1994) (defining "unit" as

15   "[a]ny device having a special function, such as the arithmetic-logic unit, central processing unit,

16   or disk unit."), Dkt. No. 152-9. Two things are immediately apparent from these definitions. The

17   first is that neither requires that the unit be "complete," or that it be limited to include the circuitry

18   necessary to performing a certain function and only that circuitry. The second is that neither

19   definition adds much to a lay understanding of the term. Under those circumstances, there is no

20   need to construe the claim term at this point. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech.*

21   *Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("district courts are not (and should not be) required to

22   construe every limitation present in a patent's asserted claims."); *Biotec Biologische Naturver.*

23   *GmbH v. Biocorp, Inc.*, 249 F.3d 1341, 1349 (Fed. Cir. 2001) ("the meaning of 'melting' does not

24   appear to have required 'construction,' or to depart from its ordinary meaning"); *Bd. of Trustees of*

25   *Leland Stanford Jr. Univ. v. Roche Molecular Sys., Inc.*, 528 F. Supp. 2d 967, 976 (N.D. Cal.

26   2007) ("The terms 'therapeutically effective' or 'therapeutically ineffective' are commonplace—a

27   juror can easily use these terms in her infringement fact-finding without further direction from the

28   court. These terms do not need to be construed because they are neither unfamiliar to the jury,

15

confusing to the jury, nor affected by the specification or prosecution history."). Expert discovery

and motion practice may later reveal a "fundamental dispute" between the parties regarding claim

scope, obliging the Court to clarify the meaning of the term, *see O2 Micro*, 521 F.3d at 1362, but

so far no such disagreement is apparent. As previously noted, PACT argues that requiring a unit

to be "complete" introduced confusion, not that it impermissibly expands or contracts the scope of

the claims.

Consequently, the Court leaves "unit" unconstrued.

G. "interface"/"interface unit"

Claim Term	PACT's Proposed Construction	Altera's Proposed Construction	Claims
"interface"	"a unit providing permanent implementation of a bus system control without necessarily requiring any influence by a programmer for communicating information across a shared boundary"	"a unit providing permanent implementation of a bus system control without necessarily requiring any influence by a programmer for communicating information across a shared boundary"	'106 patent: claims 8, 19-21, 23
"interface unit"	"a unit providing permanent implementation of a bus system control without necessarily requiring any influence by a programmer for communicating information across a shared boundary"	"a unit providing permanent implementation of a bus system control without necessarily requiring any influence by a programmer for communicating information across a shared boundary"	'181 patent: claims 1, 3-6, 12, 17, 19, 30
Court's Construction: "a unit providing permanent implementation of a bus system control without necessarily requiring any influence by a programmer for communicating information across a shared boundary"			

The parties agree that "interface" and "interface unit" should have the same construction,

and at the hearing, came to agreement as to what that construction should be. Both parties agreed

on the record to a compromise construction proposed by the Court: "a unit providing permanent

implementation of a bus system control without necessarily requiring any influence by a

programmer for communicating information across a shared boundary." Hearing Tr. at 68:22-

16

70:4. As stated at the hearing, the Court adopts that compromise construction of "interface" and "interface unit." The parties' agreement does not waive any positions they may wish to take in the future regarding infringement and invalidity under this construction. *See id.* at 69:17-22, 74:23-75:15.

H.   "interface elements configured to share the external bus"

PACT's Proposed Construction	Altera's Proposed Construction	Claims
"circuitry providing permanent implementation of a bus system control for communicating information across a shared boundary configured to permit access to the external bus"	"circuits providing permanent implementations of a bus system control for communicating information across a shared boundary configured to make competing demands for the external bus"	'077 patent: claims 14-15
Court's Construction: "circuitry providing permanent implementation of a bus system control for communicating information across a shared boundary configured to permit access to the external bus"		

The parties' proposed constructions boil down this question: Does "to share" the external bus mean "to permit access to," as PACT argues, or "to make competing demands for," as Altera would have it? Under PACT's proposed construction, it is enough if the interface elements *can* access the external bus. Under Altera's, they must actually compete for use of the external bus.

Turning first to the specification, the controller disclosed by the '077 patent is described as having two modes: an "active mode" in which the controller "controls the internal bus (I-BUS) and the external bus (E-BUS)" and a "passive mode" in which the controller "controls only the internal bus (I-BUS)" but "[t]he E-BUS is controlled by another external unit," with the controller simply "react[ing] in this mode to the requirements of the external [unit]." '077 patent, 4:66-5:10. In passive mode, then, the controller would not "share" the external bus under Altera's proposed construction, and would therefore not be covered by claims 14 and 15. Altera's proposed construction, then, would read out certain disclosed embodiments of the '077 patent. Indeed, Altera's expert conceded that under Altera's construction, "none of the embodiments" in the '181 patent would be covered by claim 14 of the '077 patent, including specifically Figures 9A and 9B of the '181 patent. *See* May 8, 2015, Deposition of Majid Sarrafzadeh 170:10-21, Dkt. No. 160-2. Most of these embodiments of the '181 patent (including Figures 9A and 9B) also appear in the

1   '077 patent, meaning that Altera's proposed construction would narrow claim 14 to exclude

2   disclosed embodiments.

3   Altera says that "where the patent describes multiple embodiments, every claim does not

4   need to cover every embodiment," and suggests that claims 14 and 15 of the '077 patent were

5   merely meant to cover embodiments disclosed in Figures 13-17, which were newly added during

6   prosecution of the '077 patent and not included in the earlier related '181 patent. *Pacing Techs.,*

7   *LLC v. Garmin Int'l, Inc.*, 778 F.3d 1021, 1026 (Fed. Cir. 2015); *PSN*, 525 F.3d at 1166 ("[C]ourts

8   must recognize that disclosed embodiments may be within the scope of other allowed but

9   unasserted claims."). But the principle that not every claim need cover every embodiment is

10   usually applied in cases where "the plain language of a limitation of the claim does not appear to

11   cover that embodiment," *Pacing Techs*, 778 F.3d at 1026, and "the court's construction is

12   supported by the intrinsic evidence," *August Techs. Corp. v. Camtek, Ltd.*, 655 F.3d 1278, 1285

13   (Fed. Cir. 2011) (quoting *TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1373

14   (Fed. Cir. 2008)). Here, by contrast, Altera argues on the basis of extrinsic evidence (namely, the

15   expert declaration of Prof. Sarrafzadeh, *see* Sarrafzadeh Decl. ¶ 90) that the plain and ordinary

16   meaning of "sharing" an external bus is to make competing demands on it. But that is only one of

17   multiple meanings of the word "share"; it is perfectly grammatical to speak of sharing read access

18   to a bus, but not sharing the ability to write to the bus. *See, e.g.*, *IBM Dictionary of Computing*

19   619 (George McDaniel ed., 10th ed. 1993) (defining "shared" as "[p]ertaining to the availability of

20   a resource for more than one use at the same time").[8] Similarly, one can speak of a "shared

21   washing machine" even if there is never a situation where multiple people attempt to wash their

22   clothes at the same time. When a term has "multiple ordinary meanings consistent with the

23   intrinsic record," the Federal Circuit "has cautioned against interpreting a claim term in a way that

24   excludes disclosed embodiments." *Helmsderfer v. Bobrick Washroom Equipment, Inc.*, 527 F.3d

25   1379, 1383 (Fed. Cir. 2008). Here, that principle compels rejecting Altera's proposed

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     [8] The Court may consult this dictionary even though the parties did not cite it. *Williamson v.*
28   *Citrix Online, LLC*, 770 F.3d 1371, 1379 (Fed. Cir. 2014) (consulting technical dictionaries to
     determine the meaning of "module" despite the fact that the parties had not cited any dictionaries).

construction.

Claim differentiation principles also support the conclusion that "sharing" in the context of claims 14 and 15 does not require making competing demands on the bus. "In the most specific sense, claim differentiation refers to the presumption that an independent claim should not be construed as requiring a limitation added by a dependent claim." *Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1380 (Fed. Cir. 2006) (citing *Nazomi Comm'ns, Inc. v. Arm Holdings, PLC*, 403 F.3d 1364, 1370 (Fed. Cir. 2005)). Claim 15 depends from independent claim 14, but adds the limitation, "an arbiter connected to each of the plurality of interface elements." '077 patent, claim 15. The doctrine of claim differentiation implies that claim 14 does not require an "arbiter," which the parties agree means "circuitry that resolves competing demands for access to a common resource." *See* Joint Claim Construction Statement, Ex. B at 2, Dkt. No. 114-2. It follows that it must be possible to have "interface elements configured to share the external bus" without having a means for resolving competing demands to the bus -- which is possible only if the system is willing to live with collisions on the bus, or if the interface elements can share the external bus without making competing demands on it. The former possibility is foreclosed by the specification's admonition that "the [primary logic unit] must be sure that there are no bus collisions on the [external bus]." *See* '077 patent, 5:53-56. Consequently, the interface elements can "share" the external bus without making competing demands on it, contrary to Altera's proposed construction.

The Court adopts PACT's proposed construction of "interface elements configured to share the external bus," namely "circuitry providing permanent implementation of a bus system control for communicating information across a shared boundary configured to permit access to the external bus."

I. "control"/"controls"/"controlling"

PACT's Proposed Construction	Altera's Proposed Construction	Claims
No construction necessary; alternatively, "regulat[-e/-es/-ing] the operation of"	"to exercise authoritative or dominating influence over something"	'181 patent: claims 1-2, 6, 19 '106 patent: claim 19
Court's Construction: No construction necessary.		

1   While PACT would prefer leaving this term unconstrued, Altera proposes that it be

2 construed to mean "to exercise authoritative or dominating influence over something." Altera's

3 construction is drawn entirely from the definition of "control" found in a single general-purpose

4 dictionary. *See The American Heritage Dictionary of the English Language* 410 (3d ed. 1996)

5 (giving one definition of "control" as "[t]o exercise authoritative or dominating influence over;

6 direct").

7   Altera's proposed construction well illustrates the danger the Federal Circuit warned of

8 when it observed that "[i]n the course of litigation, each party will naturally choose the pieces of

9 extrinsic evidence most favorable to its cause . . . ." *Phillips*, 415 F.3d at 1318. The American

10 Heritage Dictionary may insist that to "control" is necessarily to "exercise authoritative or

11 dominating influence," but other dictionaries reveal deeper shades of meaning. *See Dictionary of*

12 *Computing* 105 (Oxford Univ. Press 4th ed. 1996) (defining "control circuitry" as "[e]lectric

13 circuits within a computer or peripheral that regulate its operation"); *Microsoft Computer*

14 *Dictionary* 110 (4th ed. 1999) (defining "control" to mean "[m]anagement of a computer and its

15 processing abilities so as to maintain order as tasks and activities are carried out"); 3 *Oxford*

16 *English Dictionary* 853 (2d ed. 1989) (defining "control" as "[t]o exercise restraint or direction

17 upon the free action of; to hold sway over, exercise power or authority over; to dominate,

18 command"). There is no evidence in the patent or file history that the patentee intended to avoid

19 these nuances when it used the term "control," and there is no reason why a lay jury would need

20 instruction on the meaning of a common English word used in its ordinary sense. *See*

21 *ProconGPS, Inc. v. Skypatrol, LLC*, No. C 11-03975 SI, 2012 WL 3276977, at *4-5 (N.D. Cal.

22 Aug. 9, 2012) (finding "the term 'loan' does not require construction" because it was "'as

23 common a word as one could possibly encounter in a patent case'"); *Netflix, Inc. v. Blockbuster,*

24 *Inc.*, 477 F. Supp. 2d 1063, 1068 (N.D. Cal. 2007) ("As [the terms 'movie' and 'item'] are

25 commonly-understood English words, they need no clarification."). The Court consequently

26 leaves "control," "controls," and "controlling" unconstrued.

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J. "compiler"/"configuration unit"

Claim Term	PACT's Proposed Construction	Altera's Proposed Construction	Claims
"compiler"	"unit for configuring and reconfiguring a PAE or logic cell"	"unit for configuring and reconfiguring a PAE or logic cell. Embodied by a microcontroller specifically designed for this purpose."	'242 patent: claims 1, 9
"configuration unit"	"unit for configuring and reconfiguring a PAE or logic cell"	"unit for configuring and reconfiguring a PAE or logic cell. Embodied by a microcontroller specifically designed for this purpose."	'869 patent: claims 13-14, 18-20
Court's Construction: "unit for configuring and reconfiguring a PAE or logic cell"			

The parties agree that "compiler" and "configuration unit" are synonymous. The point of difference between the parties is that, under Altera's proposed construction, the "compiler" and "configuration unit" must be "[e]mbodied by a microcontroller specifically designed for this purpose." *See* Final Joint Claim Construction Statement at 12. PACT claims that including this limitation is inconsistent with the specifications of the '242 and '869 patents, which describe the compiler as being "based on a transputer 31, i.e., a processor with a microcoded set of instructions." *See* '242 patent at 6:20-21; '869 patent at 6:27-28. If a microcontroller is already specifically designed to be a compiler or configuration unit, PACT's argument goes, it does not need to be programmed in microcode after the fact to perform its function. Altera, on the other hand, says that the language from the specification only excludes using an ASIC -- an application-specific integrated circuit -- as the compiler, and that its construction does not require the compiler to be an ASIC. *See* Villasenor Decl. ¶ 64.

Altera's main argument is that the patent specifications do not enable a "compiler" that is not specially designed for its purpose, so the compiler must either be "[e]mbodied by a microcontroller specifically designed for [its] purpose" or the patent is invalid for lack of enablement. *See* Altera's Claim Construction Brief at 13:1-17. As with the "bus system" term, however, it is generally inappropriate to limit the scope of a claim based on enablement concerns, especially where, as here, the expert opinion offered by Altera does not attempt to demonstrate

1 that the asserted claims are not enabled under the relevant standard, namely "that a person of

2 ordinary skill in the art would not be able to practice the claimed invention without 'undue

3 experimentation.'" *See Alcon Research Ltd. v. Barr Labs, Inc.*, 745 F.3d 1180, 1188 (Fed. Cir.

4 2014); Villasenor Decl. ¶¶ 62-65.

5   Altera's expert also suggests that it would be "evident to one of ordinary skill in the art"

6 that "compiler" and "configuration unit" refer to a microcontroller. *See* Villasenor Decl. ¶¶ 64-65.

7 But all he cites in support is the definition of a "primary logic unit" or "PLU" from the *'525* patent

8 -- a patent from a different family -- at column 17 lines 52 to 54, and another court's construction

9 of "compiler" in a prior litigation by PACT against Altera's competitor Xilinx,[9] which was based

10 on the definition of "PLU" in the '181 patent's glossary. *See id.* ¶ 64; *Xilinx* Claim Construction

11 Order at 56-60, Dkt. No. 151-3; '181 patent, 11:31-34. Both the '525 and '181 patents are

12 members of different, later-filed patent families from the '242 and '869 patents, and there is no

13 evidence that the patentee intended to import a definition of a different term in different patent

14 families into the construction of "compiler" and "configuration unit" in the '242 and '869 patents.

15 While the *Xilinx* claim construction order did include in its constructions of "compiler" and

16 "configuration unit" the requirement that the compiler be embodied in a microcontroller, it does

17 not appear to have considered the implications of the fact that the '181 patent (from which it drew

18 the requirement) stems from a different family than the '242 and '869 patents. *See Xilinx* Claim

19 Construction Order at 57-58. Moreover, Altera does not claim that the *Xilinx* court's construction

20 of "compiler" is issue preclusive, likely because the '242 and '869 patents were dropped prior to

21 final judgment in that case.[10] As a result, neither of Altera's expert's two citations provides

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23 [9] *PACT XPP Techs., AG v. Xilinx, Inc.*, No. 2-07cv563-CE (E.D. Tex. filed Apr. 11, 2008).
   [10] A few district courts have held that a claim construction order is itself "final" enough to result in
24 issue preclusion, even if it never ends up being necessary to a later final judgment. *See Smith &
   Nephew, Inc. v. Arthrex, Inc.*, No. CV 04-29-MO, 2007 WL 1114229, at *3-4 (D. Or. Apr. 12,
25 2007); *TM Patents, L.P. v. Int'l Bus. Mach. Corp.*, 72 F. Supp. 2d 370, 377 (S.D.N.Y. 1999). That
   conclusion is doubtful in light of the Supreme Court's recent comment that prior claim
26 constructions will only "sometimes" result in issue preclusion, *see Teva Pharms. USA, Inc. v.
   Sandoz, Inc.*, 135 S. Ct 831, 839-40 (2015), and has been rejected by a number of other courts,
27 *see, e.g.*, *B-50.com, LLC v. InfoSync Servs, LLC*, No. 3:10-cv-1994-D, 2012 WL 4866508, at *3-4
   (N.D. Tex. Oct. 15, 2012); *Rambus Inc. v. Hynix Semiconductor Inc.*, 569 F. Supp. 2d 946, 967-68
28 (N.D. Cal. 2008); *Kollmorgen Corp. v. Yaskawa Elec. Corp.*, 147 F. Supp. 2d 464, 468-70 (W.D.
   Va. 2001). The Court does not need to decide the issue, since neither party asserts that the *Xilinx*

1 sufficient reason to include the limitation Altera seeks.

2 Without this evidence, the Court is left only with Altera's expert's bare opinion that a

3 person of ordinary skill in the art would understand that a compiler or configuration unit are

4 embodied in a microcontroller. This conclusion, however, is contradicted by the Court-appointed

5 expert's opinion that the "embodied by a microcontroller" limitation is inappropriate, because the

6 compiler or configuration unit could be embodied in dedicated logic. *See* Wawrzynek Comments

7 at 5. Such ambiguous extrinsic evidence is not a proper basis on which to include the limitation

8 Altera proposes. *See Texas Digital Sys. v. Telegenix, Inc.*, 308 F.3d 1193, 1212 (Fed. Cir. 2002)

9 (holding that expert testimony "may not be used to vary or contradict the claim language").[11]

10 Accordingly, the Court will not include the requirement that the "compiler" and

11 "configuration unit" be "[e]mbodied by a microcontroller specifically designed for this purpose,"

12 and instead construes both terms to mean "unit for configuring and reconfiguring a PAE or logic

13 cell."

14 **K. "configuration memory"/"configuration signal(s)"/"configuration interface"**

Claim Term	PACT's Proposed Construction	Altera's Proposed Construction	Claims
"configuration memory"	"memory for storing one or more series of bits of any length which represents a setting for the element to be configured"	The configuration memory contains one or more series of bits of any length that represents a valid setting for the element to be configured, so that an operable unit is obtained.	'869 patent: claim 14
Court's Construction: "memory for storing one or more series of bits of any length which represents a setting for the element to be configured"			

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claim construction is issue preclusive.

[11] Altera also filed a notice of supplemental authority the day before the claim construction hearing pointing the Court to the Federal Circuit's recent *en banc* decision in *Williamson v. Citrix Online, LLC*, No. 2013-1130, 2015 WL 3687459, at *7-9 (Fed. Cir. June 16, 2015), which held that there is no longer a "strong" presumption that a claim that lacks the word "means" is not a means-plus-function claim subject to 35 U.S.C. § 112 ¶ 6, and that the claim term "distributed learning control module" was a means-plus-function claim term. *See* Dkt. No. 168. Altera apparently contends that the same is true for "configuration unit." *See* Hearing Tr. 72:25-74:21. The Court will not willing decide what impact, if any, *Williamson* has on the construction of "configuration unit" at this time, when the briefing is sparse and the issue is not pressing.

"configuration signal(s)"	"signal that contains a series of bits of any length that represents a setting for the element to be configured"	"signal that contains series of bits of any length that represents a valid setting for the element to be configured, so that an operable unit is obtained"	'869 patent: claims 13-14, 18
Court's Construction: "signal that contains a series of bits of any length that represents a setting for the element to be configured"			
"configuration interface"	"circuitry that interfaces with the configuration memory"	"circuitry that interfaces with the configuration memory that contains series of bits of any length that represents a valid setting for the element to be configured, so that an operable unit is obtained"	'869 patent: claims 13-14, 18
Court's Construction: "unit for configuring and reconfiguring a PAE or logic cell"			

Once again, the parties' proposed constructions are identical, apart from one additional limitation proposed by Altera, namely that the configuration bits stored in the memory must represent "a valid setting . . . so that an operable unit is obtained." *See* Joint Claim Construction Statement at 14.

For the "configuration memory" term,[12] PACT argues that Altera's proposed construction would improperly exclude a blank memory, or a memory that contains an inoperable configuration. Altera responds that a blank memory would not be a "configuration memory," because claim 14 requires that the configuration memory be "adapted to store the plurality of configuration signals," and claim 13 -- from which claim 14 depends -- refers to "a function of at least one of a plurality of configuration signals to arithmetic-lopically [sic] configure the computing cell." *See* '869 patent, 13:37-39. According to Altera, this language requires that the memory must actually contain signals that "configure" a computing cell.

_____

[12] As explained below, the Court finds claim 14 of the '869 patent -- the only claim that contains the term "configuration memory" -- indefinite, but nevertheless construes it for completeness and in case it should become relevant again following an appeal, and because the construction of "configuration interface" refers to "configuration memory."

1   Altera's argument assumes that claim 14 actually requires the configuration memory to

2 contain configuration signals. But it simply requires that the configuration memory be "*adapted*

3 to store the plurality of configuration signals," '869 patent, 14:3-4 (emphasis added), which is

4 perfectly consistent with the memory not containing configuration signals at any given point in

5 time.

6   Additionally, for all three terms, there is no reason to require that the configuration

7 memory only contain configuration signals that represent a "valid setting" and result in an

8 "operable unit." Altera and its expert point to no intrinsic evidence to support these limitations,

9 apart from simply claiming that they are implicit in the concept of "configuration" itself. *See*

10 Villasenor Decl. ¶ 74. But there is no reason why there cannot be a configuration that turns out to

11 be inoperable (for example, during testing), and if there is, the "configuration signal" does not

12 cease to be one thereby. Without such intrinsic evidence, or non-conclusory extrinsic evidence, it

13 is inappropriate to add limitations to the claims under the guise of construction. *See Amgen*, 314

14 F.3d at 1325.

15   Altera also points out that the limitation it is proposing was successfully championed by

16 PACT in the *Xilinx* litigation. But the point of the exercise of claim construction is to "to clarify

17 and when necessary to explain what the patentee covered by the claims," not to grade the parties

18 on consistency. *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997).

19 Altera made clear at the claim construction hearing that it does not contend that the claim

20 construction PACT advanced in the *Xilinx* litigation is binding, apart from its being (in Altera's

21 view) correct. *See* Hearing Tr. 70:15-72:21. In the Court's view, it is not correct.

22   Finally, Altera argues that PACT's proposed construction would allow the configuration

23 unit to contain bits that have nothing to do with configuration, like control signals. Altera's

24 concern that PACT's proposed construction would encompass a configuration memory that stored

25 signals that have nothing to do with configuration appears to be adequately addressed by the fact

26 that PACT's proposed construction requires that the signal "represent[] a setting for the element to

27 be configured." Non-configuration-related signals, like power and clocking, presumably do not

28 represent settings for the configured element. To the extent that PACT does, in fact, assert that

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these claim terms cover control signals, the Court may revise the claim constructions. *Network*

Commerce, 422 F.3d at 1358 n.4.

Meanwhile, the Court construes these three terms as stated in the table above.

L.   **"configuration"/"configur[-e/-ing/-ed]"/"configurable" / "reconfigur[-e/-es/-ing/-ed]"/"reconfigurable"/"reconfigurable cells dynamically reconfigur[-e/-ing]"/"dynamically reconfigurable cells"/"configurable [at/during] runtime"**

Claim Term	PACT's Proposed Construction	Altera's Proposed Construction	Claims
"configuration"	"the function and interconnection of a programmable logic unit, a FPGA cell, logic cell, or a PAE"	"the function and interconnection of a logic unit, a FPGA cell, logic cell, or a PAE set by the configuration memory bits"	'869 patent: claims 13-14, 18-20 '525 patent: claims 1-3, 11, 18
Court's Construction: "the function and interconnection of a programmable logic unit, an FPGA cell, logic cell, or a PAE"			
"configure[-e/-ing/-ed]"	"[set/setting/having set] the function and interconnection of a logic unit, a FPGA cell, logic cell, or a PAE"	"[set/setting/having set] the configuration memory bits that dictate the function and interconnection of a logic unit, a FPGA cell, logic cell, or a PAE"	'181 patent: claims 12, 30 '077 patent: claims 14-15 '242 patent: claims 1, 9 '869 patent: claims 13-14, 18-20
Court's Construction: "[set/setting/having set] the function and interconnection of a logic unit, an FPGA cell, logic cell, or a PAE"			
"configurable"	"capable of having the function and interconnection of a logic unit, a FPGA cell, logic cell, or a PAE set"	"capable of having the configuration memory bits that dictate the function and interconnection of a logic unit, a FPGA cell, logic cell, or a PAE set"	'525 patent: claims 1-3, 11, 18
Court's Construction: "capable of having the function and interconnection of a logic unit, an FPGA cell, logic cell, or a PAE set"			
"reconfigure[-e/-s/-ing/-ed]"	"[reset/resets/resetting/having reset] any number of logic units, FPGA cells, logic cells or PAEs with a new function and interconnection, while any remaining	"[reset/resets/resetting/having reset] configuration memory bits that dictate the function and interconnection of any number of logic units, FPGA	'242 patent: claims 1, 9 '869 patent: claims 13-14, 18-20

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	logic units, FPGA cells, logic cells, or PAEs continue with the same function"	cells, logic cells or PAEs with a new configuration, while any remaining logic units, FPGA cells, logic cells, or PAEs continue with the same function"	
Court's Construction: "[reset/resets/resetting/having reset] any number of logic units, FPGA cells, logic cells or PAEs with a new function and interconnection, while any remaining logic units, FPGA cells, logic cells, or PAEs continue with the same function"			
"reconfigurable"	"capable of resetting any number of logic units, FPGA cells, logic cells, or PAEs with a new function and interconnection, while any remaining logic cells, FPGA cells, logic cells, or PAEs continue with the same function"	"capable of resetting the configuration memory bits that dictate the function and interconnection of any number of logic units, FPGA cells, logic cells, or PAEs with a new configuration, while any remaining logic units, FPGA cells, logic cells, or PAEs continue with the same function"	'181 patent: claim 17 '077 patent: claims 14-15
Court's Construction: "capable of resetting any number of logic units, FPGA cells, logic cells, or PAEs with a new function and interconnection, while any remaining logic units, FPGA cells, logic cells, or PAEs continue with the same function"			
"reconfigurable cells"	"cells capable of being reset with a new function and interconnection, while any remaining cells continue with the same function"	"a cell that can be halted and for which the configuration memory bits that dictate the function and interconnection can be reset with a new configuration, while any remaining cells continue with the same function"	'077 patent: claim 14
Court's Construction: "cells capable of being reset with a new function and interconnection, while any remaining cells continue with the same function"			
"dynamically reconfigur[-e/-ing]"	"halt[ing] and reset[ting] one or more of logic units, FPGA units, logic cells or PAEs with a new function and	"halt[ing] and reset[ting] the configuration memory bits that dictate a new function and	'242 patent: claim 9 '869 patent: claims 18-20

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	interconnection, while any remaining logic units, FPGA cells, logic cells or PAEs continue with the same function"	interconnection of any number of logic units, FPGA cells, logic cells or PAEs, while any remaining logic units, FPGA cells, logic cells or PAEs continue with the same function"	
Court's Construction: "halt[ing] and reset[ting] one or more of logic units, FPGA units, logic cells or PAEs with a new function and interconnection, while any remaining logic units, FPGA cells, logic cells or PAEs continue with the same function"			
"dynamically reconfigurable cells"	"a cell that can be halted and reset with a new function and interconnection, while any remaining cells continue with the same function"	"a cell that can be halted and for which the configuration memory bits that dictate the function and interconnection can be reset with a new configuration, while any remaining cells continue with the same function"	'181 patent: claim 17
Court's Construction: "a cell that can be halted and reset with a new function and interconnection, while any remaining cells continue with the same function"			
"configurable [at/during] runtime"	"able to be halted and reset with a new function and interconnection, while any remaining logic units, FPGA cells, logic cells or PAEs continue with the same function"	"halting and resetting the configuration memory bits that dictate the function and interconnection of any number of logic units, FPGA cells, logic cells or PAEs with a new configuration, while any remaining logic units, FPGA cells, logic cells or PAEs continue with the same function"	'525 patent: claims 1-3, 11, 18
Court's Construction: "able to be halted and reset with a new function and interconnection, while any remaining logic units, FPGA cells, logic cells or PAEs continue with the same function"			

This formidable list of claim terms turns out to involve only a single dispute -- and even that dispute proves illusory. In each of its proposed constructions for these terms, Altera wishes to include language emphasize that the process of configuring or reconfiguring involves setting the

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1   "configuration memory bits that dictate" the function and interconnection of a logic unit, FPGA

2   cell, logic cell, or PAE. PACT wants to leave this language out.

3   Altera and PACT appear to agree that configuration will involve setting bits in memory.

4   *See* PACT's Claim Construction Brief at 18:9-13, Dkt. No. 143; Altera's Claim Construction Brief

5   at 18:3-8. The parties also appear to agree that no reference to "configuration memory bits" is

6   actually found in the intrinsic record. *See* Villasenor Decl. ¶¶ 90-96 (quoting intrinsic evidence,

7   none of which refers to "configuration memory bits"). Altera suggests that its proposed language

8   should be added to the construction of this claim element to ensure that the jury and PACT are

9   aware of "the context of the alleged inventions claimed in the patents-in-suit." Altera's Claim

10   Construction Brief at 18:11-13. But that context is better provided through explanations from the

11   various testifying experts -- both those retained by the parties and the court-appointed expert --

12   than through the inclusion of a claim limitation that is itself likely obscure to a lay jury.

13   Accordingly, the Court construes the terms in this group as stated in the table above.

II.   INVALIDITY

A. "the unit"

16   In the patent milieu, "the" is often used with a specialized meaning: "the fruit," like "said

17   fruit," refers back to "a fruit" recited somewhere earlier in the claim. *See Tuna Processors, Inc. v.*

18   *Hawaii Int'l Seafood, Inc.*, 327 F. App'x 204, 210 (Fed. Cir. 2009) (non-precedential). But what

19   if there are two instances of "a fruit" in the claim? That is what Altera says is the problem with

20   claim 1 of the '077 patent, which recites:

21   A bus system, comprising:

22   a plurality of at least one of individual lines, buses, and subbuses
      within at least one of **a unit** including at least one of a data flow
23   processor (DFP), a field programmable gate array (FGPA), a
      dynamically programmable gate array (DPGA), and ***a unit*** having a
24   multi-dimensional programmable cell architecture, the plurality of at
      least one of the individual lines, buses and subbuses being bundled,

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26   wherein the plurality of at least one individual lines, buses and
      subbuses at least one of combines **multiple units** and connects at
27   least one of memories and peripherals, and wherein standard bus
      systems are used, and

28   wherein **the unit** includes additional ordinary connections in a

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1   manner customary with at least one of the DFP, the FGPA, and the
     DPGA.

2   '077 patent, claim 1 (emphasis added). Does "the unit" refer back to the first instance of "a unit,"

3   underlined above? Or the second instance, in italics? Or the double-underlined phrase "multiple

4   units"?

5   The United States Patent and Trademark Office's Manual of Patent Examining Procedure

6   suggests that claims might be rendered indefinite, and therefore invalid, by ambiguous

7   antecedents:

8   A claim is indefinite when it contains words or phrases whose
                meaning is unclear. The lack of clarity could arise where a claim
9   refers to "said lever" or "the lever," where the claim contains no
                earlier recitation or limitation of a lever and where it would be
10   unclear as to what element the limitation was making reference.
                Similarly, if two different levers are recited earlier in the claim, the
11   recitation of "said lever" in the same or subsequent claim would be
                unclear where it is uncertain which of the two levers was intended.
12   A claim which refers to "said aluminum lever," but recites only "a
                lever" earlier in the claim, is indefinite because it is uncertain as to
13   the lever to which reference is made.

14   MPEP 2173.05(e). The manual also states, however, that antecedent basis problems do not

15   automatically invalidate a claim: "Obviously, however, the failure to provide explicit antecedent

16   basis for terms does not always render a claim indefinite. If the scope of a claim would be

17   reasonably ascertainable by those skilled in the art, then the claim is not indefinite." *Id.*

18   The "MPEP does not have the force of law, and is only entitled to judicial notice as the

19   PTO's official interpretation of statutes and regulations with which it is not in conflict." *Belkin*

20   *Int'l v. Kappos*, 696 F.3d 1379, 1384 (Fed. Cir. 2012) (citing *Molins PLC v. Textron, Inc.*, 48 F.3d

21   1172, 1180 n.10 (Fed. Cir. 1995)). And "indefiniteness rejections by the USPTO arise in a

22   different posture from that of indefiniteness challenges to an issued patent." *In re Packard*, 751

23   F.3d 1307, 1312 (Fed. Cir. 2014). In particular, due to "the important role that the USPTO,

24   through its examination process, plays in ensuring the quality of patents," the examiner may issue

25   an indefiniteness rejection to clarify a proposed claim, even if a court examining the claim post-

26   issuance would not necessarily find it invalid. *Id.* at 1324 (Plager, J., concurring). The MPEP is

27   meant for patent examiners to use in fulfilling that role. The Court, on the other hand, applies the

28   standard indefiniteness test, and asks whether the "claims, read in light of the specification

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1   delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those

2   skilled in the art about the scope of the invention." *Nautilus*, 134 S. Ct. at 2124.

3   Altera and PACT have submitted competing expert declarations on what the answer is.

4   Altera's expert, Professor Majid Sarrafzadeh, opines that the claim does not inform a person of

5   ordinary skill with ordinary certainty which prior unit is being referred to, while PACT's expert,

6   Dr. Marwan Hassoun, opines that it does. *See* Declaration of Majid Sarrafzadeh re Invalidity

7   ("Sarrafzadeh Invalidity Decl.") ¶¶ 13-26, Dkt. No. 142;[13] Declaration of Marwan Hassoun

8   ("Hassoun Decl.") ¶¶ 23-54, Dkt. No. 153-9.

9   According to PACT and its expert, "the unit" refers back to the first (underlined) instance

10 of "a unit." They contend that the second (italicized) instance, "a unit having a multi-dimensional

11 programmable cell architecture," is a catch-all term for all multi-dimensional programmable cell

12 architectures, of which DFPs, FPGAs, and DPGAs are examples. Hassoun Decl. ¶ 47. PACT's

13 expert suggests that the use of this unwieldy term is "necessary because there is no well-known

14 term or acronym in the art encompassing all the different possible multi-dimensional

15 programmable cell architectures." *Id.*

16   The Court agrees with PACT that the claim conveys, with reasonable certainty, that "the

17 unit" refers to the first instance of "a unit." The Court has construed "a unit including at least one

18 of a data flow processor (DFP), a field programmable gate array (FGPA), a dynamically

19 programmable gate array (DPGA), and a unit having a multi-dimensional programmable cell

20 architecture" not to require a DFP and an FPGA and a DPGA and "a unit having a multi-

21 dimensional programmable cell architecture." Given this construction, it is possible that an

22 embodiment of the claim would not include "a unit having a multi-dimensional programmable cell

23 architecture." But if that is what "the unit" refers back to, it would, in some cases, have no

24 antecedent at all.

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26 ───────────────
    [13] In its opposition brief, PACT moved to exclude the Sarrafzadeh Declaration under Federal Rule
    of Evidence 702 and *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993), based on the
27 allegedly conclusory nature of his opinions and his refusal to give the basis for some of his
    opinions in deposition. *See* PACT's Opp. at 9:23-16:17. The motion is denied. The opinions are
28 not so far outside the norm to warrant dismissal, and any potential prejudice or confusion is
    neutralized when the Court serves as the factfinder.

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Similarly, "the unit" cannot refer back to "multiple units," because "the unit" implies a single unit. *See Howmedica Osteonics Corp. v. Wright Medical Tech., Inc.*, 540 F.3d 1337, 1344 (Fed. Cir. 2008) (holding that a reference to "the condylar element" meant "only one condylar element").

Consequently, the Court finds that the use of "the unit" in claim 1 of the '077 patent does not render the claim indefinite.

B.   "haltered"

Claim 13 of the '869 patent recites:
> at least some of the plurality of computing cells being configured as a function of the at least one configuration signal during operation of the massively parallel data processing apparatus such that others of the plurality of computing cells not being configured are not **haltered** or impaired in their operations.

'869 patent, claim 13 (emphasis added). Claim 14 depends from claim 13, and therefore includes the same limitation.

The parties agree that "haltered" makes no sense in the context of this claim. *See* Altera's Motion for Summary Judgment at 8:24-25, Dkt. No. 140; PACT's Opposition ("PACT's Opp.") at 7:20-21, Dkt. No. 153. Altera argues that it is unclear whether the intended word was "halted," or "altered," while PACT argues that "haltered" was a typographical error for "halted."

Although not cited by either party, the Federal Circuit has addressed the circumstances in which a district court can correct a typographical error in a patent on claim construction, even when no certificate of correction has been issued. It has held that:

> a district court can do so only if (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims.

Novo Indus., L.P. v. Micro Molds Corp., 350 F.3d 1348, 1354 (Fed. Cir. 2003). Under this standard, the power of the district court to correct a patent is more limited than the Patent and Trademark Office's ability to do so by issuing certificates of correction under 35 U.S.C. §§ 254-55. *See id.* at 1356. That is necessarily the case, for otherwise there would be no point to the non-retroactivity provisions Congress included in the 1952 statute authorizing certificates of correction, which provide that certificates of correction are only effective for suits brought after

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1   the certificate is issued. *See id.* at 1355-56. A patentee faced with a situation where the statute did

2   not authorize a certificate of correction could just ask a court for the equivalent, rendering the

3   provisions toothless.

4   Among the differences between the PTO's and the district court's power to correct patents

5   is the fact that the district court can only correct "obvious" errors that are "evident from the face of

6   the patent itself," while the PTO can review the entire "intrinsic record," including, for example,

7   the prosecution history. *See id.* at 1356-57. In other words, for the district court to correct a

8   patent, the correction must be obvious from looking just at the claims and the specification,

9   without needing to turn to the prosecution history -- though the district court must still consider

10   whether the prosecution history tells *against* the proposed correction. *See H-W Tech., L.C. v.*

11   *Overstock.com, Inc.*, 758 F.3d 1329, 1334 (Fed. Cir. 2014) ("[T]his court has already deemed

12   evidence of error in the prosecution history alone insufficient to allow the district court to correct

13   the error."); *Group One, Ltd. v. Hallmark Cards, Inc.*, 407 F.3d 1297, 1303 (Fed. Cir. 2005) ("The

14   prosecution history discloses that the missing language was required to be added by the examiner

15   as a condition for issuance, but one cannot discern what language is missing simply by reading the

16   patent. The district court does not have authority to correct the patent in such circumstances.").

17   Yet the primary evidence PACT points to in arguing that "haltered" should be read as

18   "halted" is the prosecution history of the '869 patent and the specification of the related '242

19   patent, not the specification and claims of the '869 patent itself. *See* PACT's Opp. at 8:2-9:1;

20   Hassoun Decl. ¶¶ 58-59. The original application of the '869 patent used the word "halted" where

21   "haltered" is now used. *See* Dkt. No. 153-5 at PACT00015659. In addition, the '242 patent

22   states:

23   Particular note is due counter 49. Assuming that reloading the
             MACROs takes 10 clock cycles, the counter 49 runs then from 9 to
24   19, since the module is being reloaded dynamically, that is only the
             parts to be reloaded are **halted** while the rest continues to operate.

25   *See* '242 patent, 8:56-60 (emphasis added). The '869 patent, in an identical portion of the

26   specification, uses "baited." *See* '869 patent, 9:1-5. But neither of these are drawn from the face

27   of the '869 patent itself, so the Court cannot use them to correct the claims.

28   PACT's expert also opines that a person of ordinary skill in the art at the time of the

                                                   33

invention of the '869 patent "would understand with at least reasonable certainty" that claim 13

should read "halted" instead of "haltered." Hassoun Decl. ¶ 56. But the only evidence from the

face of the patent that he cites is from the '869 patent's Abstract, which states:

> A computer programs and configures the cells, each by itself and facultatively-grouped, such that random logic functions and/or linkages among the cells can be realized. The manipulation of the DFP configuration is performed during DFP operation such that modification of function parts (MACROs) of the DFP can take place without requiring other function parts to be **deactivated** or being impaired.

'869 patent, Abstract (emphasis added). According to PACT and its expert, the whole point of the

invention is to allow reconfiguration of certain cells or groups of cells without "halting" or

"deactivating" neighboring cells. But it is not enough that PACT's interpretation simply be the

more likely one; rather, it must be "obvious" and "not subject to reasonable debate." *Novo*, 350

F.3d at 1356-57. As Altera points out, a number of portions of the '869 patent's specification state

that the neighboring cells must not be "affected" -- which is closer in meaning to "altered" than to

"halted" or "deactivated":

> Of extreme necessity is that the respective cells allow reconfiguration individually and without **affecting** the remaining cells or disabling the entire module.

'869 patent, 2:22-26 (emphasis added).

> The remaining cells are combined to so-called MACROS and allow reconfiguration, nearly at random and without **affecting** neighboring cells, during run time.

Id. at 2:50-55 (emphasis added); *see also id.* at 6:63-68. Whether "haltered" in claim 13 of the

'869 patent means "halted" or "altered" is therefore not beyond the realm of reasonable debate, at

least if looks only to the claims and specification. Where, as here, "the claim language 'might

mean several different things and no informed and confident choice is available among the

contending definitions,'" the claim is invalid for indefiniteness. *See Interval Licensing LLC v.*

AOL, Inc., 766 F.3d 1364, 1371 (Fed. Cir. 2014) (quoting *Nautilus*, 134 S. Ct. at 2130) (internal

quotations omitted). It rightly is not disputed that "halted" and "altered" mean different things.

As a result, the Court finds that claims 13 and 14 of the '869 patent are invalid.

CONCLUSION

The Court sets a case management conference to discuss further dates on September 30, 2015. The parties are ordered to file a joint case management statement no less than seven calendar days before then.

IT IS SO ORDERED.

Dated: August 21, 2015

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JAMES DONATO
United States District Judge