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14 UNITED STATES DISTRICT COURT
15 NORTHERN DISTRICT OF CALIFORNIA
16 SAN FRANCISCO DIVISION

16 BARCO, N.V.,
17 Plaintiffs,
18 v.
19 TECHNOLOGY PROPERTIES LIMITED,
20 PATRIOT SCIENTIFIC CORPORATION
21 and ALLIACENSE LIMITED,
22 Defendants.

Case No. 3:08-cv-05398 JW

**TECHNOLOGY PROPERTIES LTD.’S
("TPL") OPPOSITION TO BARCO’S
MOTION TO STRIKE PORTIONS OF
TPL’S THIRD AMENDED
INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 5,809,336; U.S.
PATENT NO. 5,440,749; AND U.S.
PATENT NO. 5,530,890**

Date: July 3, 2012, 9:00 a.m.
Judge: Hon. James Ware
Special Master: Thomas HR Denver

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INTRODUCTION

1
2 The essence of both Judge Lloyd and Special Master Denver’s orders require TPL to
3 amend its ICs to “either provide information concerning the products at issue or explain how
4 and/or why information concerning any products not at issue is relevant to its ICs.” Denver Order
5 at 2 (quoting Judge Lloyd Order). This applies to both publications and unrelated products relied
6 upon in the ICs. Denver Order at 3-5. Barco complains in its Motion to Strike (“Barco Motion”) that TPL has failed to properly amend its infringement contentions. See Barco Motion at 1-2.
7 Specifically, Barco alleges the ICs continue to rely on unrelated materials, references and products
8 and, further, the contentions fail to provide the requisite link between the accused products and the
9 asserted claims, particularly in regards to the *Chandra* reference and the Oklobdzija Declaration.
10 As set forth in detail below, TPL’s Amended ICs more than satisfy the requirements articulated in
11 Judge Lloyd and Special Master Denver’s Orders. Barco’s Motion should, therefore, be denied.

ARGUMENT

I. THE LEGAL STANDARD.

14
15 TPL’s ICs do exactly what the Patent Local Rules require: provide Barco with notice of
16 TPL’s infringement theories. *Network Caching Technology Corp. v. Novell, Inc.*, No. C-01-2709
17 VRW, 2003 WL 21699799, *4 (N.D. Cal. Mar, 21, 2003) (“[A] party may comply with Patent
18 L.R. 3-1 by setting forth *particular theories of infringement* with sufficient specificity to provide
19 defendants with notice of infringement beyond that which is provided by the mere language of the
20 patents themselves”) (emphasis added). As the Federal Circuit has explained, the Northern
21 District’s Patent Local Rules are designed to “allow defendant to pin down the *plaintiff’s theories*
22 *of liability* and the plaintiff to pin down the defendant’s theories of defense.” *O2 Micro Int’l Ltd.*
23 *v. Monolithic Power Systems, Inc.*, 467 F.3d 1355, 1365-66 (Fed. Cir. 2006) (emphasis added).
24 Nothing more is required.

25 The Federal Circuit also holds there is no general rule requiring actual tests or
26 experiments on the accused product or method to prove infringement. *Martek Biosciences Corp.*
27 *v. Nutrinova, Inc.*, 579 F.3d 1363 (Fed. Cir. 2009). Rather, “[a] patentee may prove infringement
28 by ‘any method of analysis that is probative of the fact of infringement.’” *Forest Labs. v. Abbott*

1 *Labs.*, 239 F.3d 1305, 1312 (Fed. Cir. 2001), and circumstantial evidence may be sufficient,
2 *Liquid Dynamics Corp. v. Vaughan Co., Inc.*, 449 F.3d 1209, 1219 (Fed. Cir. 2006).” *Martek*,
3 579 F.3d at 1372.

4 In *Martek*, the asserted patent claim called for a process of fermentation using a medium
5 of non-chloride sodium salts, resulting in reduced corrosion compared to a medium of chloride
6 sodium salt. The patentee’s expert never tested the accused process, and instead relied on
7 scientific literature to opine that because the accused process used non-chloride salt, it
8 ***necessarily*** meant that corrosion was reduced. The expert explained that he “need not conduct
9 actual tests” in order to reach his conclusions because “***the literature is quite clear***” regarding
10 the corrosive effects of chlorides on stainless steels. *Id.* at 1372-73 (emphasis added). He
11 further explained, “it’s just not a rule of thumb, it’s a scientific fact.” *Id.* at 1373. The Federal
12 Circuit agreed, finding that there was no “general rule requiring one who alleges infringement of
13 a claim containing functional limitations to perform actual tests or experiments on the accused
14 product or method.” *Id.* at 1374.

15 Nor is there any requirement that the scientific literature be addressed to the specific
16 accused product. The scientific literature the expert relied on in *Martek* was not a study of the
17 specific accused process – had that been the case, then the holding that no testing was required
18 would have been unnecessary. Indeed, the Federal Circuit recently held that a patentee can
19 prove infringement simply by demonstrating that a published standard infringes, and that the
20 accused product claims compliance with that standard. *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d
21 1321, 1328 (Fed. Cir. 2010) (“[I]f an accused product operates in accordance with a standard,
22 then comparing the claims to that standard is the same as comparing the claims to the accused
23 product.”). This holds true, even though the standard was created with no knowledge of the
24 specific accused product.

1 **II. THE AMENDED ICS FOR THE '336 PATENT PROVIDE THE REQUISITE**
2 **LINK BETWEEN THE ACCUSED PRODUCTS AND THE ASSERTED CLAIMS.**

3 **A. TPL's Reliance on *Chandra* and the Oklobdzija Declaration Provide a Direct**
4 **Connection Between TPL's Theory of Infringement, the Claims and the**
5 **Accused Products.**

6 TPL's theory of infringement relies on the fact that integrated circuits found in the accused
7 products are fabricated using a semiconductor manufacturing process that results in integrated
8 circuits or chips having certain characteristics or inherent properties. Both *Chandra* and the
9 Oklobdzija Declaration evidence that under such manufacturing processes, the resulting integrated
10 circuits will exhibit common operational characteristics well known to those skilled in the art.
11 These characteristics include variations in the processing speed of on-chip components – *e.g.*,
12 transistors – due to operational temperature and voltage. Further, variations in processing speeds
13 between individual chips cut from the same wafer will occur, which is commonly referred to as
14 process or manufacturing variation. These inherent characteristics – *i.e.*, variations in processing
15 speed due to temperature, voltage and manufacturing process – are well known to those skilled in
16 the art, as clearly evidenced by citations to *Chandra* and the Oklobdzija Declaration made in the
17 ICs. And, as Barco is well aware, TPL discloses as part of its infringement contentions these
18 inherent characteristics are found in all integrated circuits, including those present in the accused
19 products.

20 In its motion, Barco identifies several instances where one or more of the variations
21 discussed above are present in the claim limitations. *See* Motion at 9-11. Barco then complains
22 that the ICs do not specifically state where such variations can be found *within* the accused
23 products. *See id.*, at 8:26-28. Barco's complaint is misplaced, however, as the ICs make perfectly
24 clear, based on *Chandra* and the Oklobdzija Declaration, that the claimed variations due to one or
25 more of temperature, voltage and process are germane to and alleged to be present within the
26 integrated circuits found in the accused products. Indeed, as the ICs set forth, the claimed
27 variations are inherent in the operation of the chips or integrated circuits found in the accused
28 products. Barco's assertion that TPL has failed to identify where such variations can be found
within the accused products is belied by *Chandra* and the Oklobdzija Declaration, which directly

1 relate these limitations with the integrated circuitry found in the accused products. Described
 2 below in more detail is the requisite linking which Barco wrongly asserts is lacking in TPL's
 3 Second Amended ICs.

4 **1. The Amended ICs for Claim 1 of the '336 Patent Provide the**
 5 **Requisite Linking.**

6 As identified by Barco, claim 1 of the '336 patent includes two limitations referring to
 7 "manufacturing variations." See Motion at 9. The first limitation reads:

8 said central processing unit and said ring oscillator variable speed system clock
 9 each including a plurality of electronic devices constructed of the same process
 10 technology with corresponding manufacturing variations

11 *Id.* The ICs identify the claimed CPU, ring oscillator and electronic devices as residing on a
 12 Virtex-5 monolithic integrated circuit and fabricated using the same semiconductor
 13 manufacturing process. See Barco Ex I-1, PIC20006. The ICs then refer to Chandra to establish
 14 the existence of variations that "arise due to processing and masking limitations, and result in
 15 random or spatially varying deviations from designed parameter values" – the claimed
 16 manufacturing variations. *Id.* The ICs next provide a statement using *Chandra* to link the claim
 17 limitation to the accused products: "It is well known to those skilled in the art of semiconductor
 18 manufacturing that devices constructed with the same process technology will have
 19 corresponding manufacturing variations. *This fact is supported by the cited Chandra excerpts*
 20 *above and below.*" *Id.* (emphasis added).

21 The ICs use the Oklobdzija Declaration to further crystalize the infringement theory,
 22 adding that "[c]haracteristics of the transistors specified to be of the same size will vary even
 23 among chips that are produced using the same processing technology. This is known as process
 24 variation." *Id.* The ICs conclude with a summary statement that the CPU and ring oscillator (in
 25 the accused product) each include a plurality of electronic devices constructed using the same
 26 process technology and having corresponding manufacturing variations. The theory of
 27 infringement is thus clear – because the CPU, ring oscillator and electronic devices are constructed
 28 using the same process technology, they will exhibit corresponding manufacturing or process
 variations. Using *Chandra* and the Oklobdzija Declaration, with reference to the integrated circuit

1 in the accused product, the ICs provide a direct link between the claim limitation and the accused
2 products.

3 Similarly, the second limitation reads:

4 a processing frequency capability of said central processing unit and a speed of said
5 ring oscillator variable speed system clock varying together due to said
6 manufacturing variations and due to at least operating voltage and temperature of
7 said single integrated circuit

8 *Id.*, at PIC20007. In similar fashion to the foregoing, the ICs point to *Chandra* which discloses
9 that “performance of microprocessors or other integrated circuits are impacted by two sources of
10 variation. Environmental factors arise during the operation of a circuit, and include variations in
11 power supply, switching activity, and temperature of the chip or across the chip.” *Id.* *Chandra*
12 thus provides an explanation of and supports the well-known variations occurring due to voltage
13 and temperature; the manufacturing variations were discussed in the previous limitation. The
14 Oklobdzija Declaration then confirms *Chandra* in great detail, discussing that those skilled in the
15 art will recognize the variation in processing speed due to voltage and temperature.

16 Accordingly, as with the first limitation, the theory of infringement is clear from the ICs,
17 and the diagrams of the accused products, *Chandra* and the Oklobdzija Declaration provide a
18 direct link between the claim limitation and the accused products. This is clear from a complete
19 review of the ICs and supporting materials. Barco’s assertion to the contrary is unfounded.

20 **2. The Amended ICs for Claim 6 of the ‘336 Patent Provide the** 21 **Requisite Linking.**

22 Claim 6 of the ‘336 patent is similar to claim 1, above, in that it recites as first and second
23 limitations, respectively, a CPU constructed of a first plurality of electronic devices and an entire
24 oscillator constructed of a second plurality of electronic devices, both the CPU and entire
25 oscillator being disposed upon an integrated circuit substrate. *See* Barco Ex I-1, PIC20011-13.

26 The second limitation continues:

27 thus varying the processing frequency of said first plurality of electronic devices
28 and the clock rate of said second plurality of electronic devices in the same way as
a function of parameter variation in one or more fabrication or operational
parameters associated with said integrated circuit substrate, thereby enabling said
processing frequency to track said clock rate in response to said parameter variation

1 *Id.* at PIC20014-16. In similar fashion to claim 1, above, *Chandra* is employed to explain
2 variations in the processing speed of on-chip components – *e.g.*, transistors – due to operational
3 temperature and voltage variations and due to process or manufacturing variations arising through
4 the manufacture the integrated chips. The Oklobdzija Declaration then confirms and expands the
5 explanations and knowledge of those skilled in the art provided by *Chandra*. Finally, the ICs link
6 the claim limitations to the accused product. For example, the ICs point out that “due to the fact
7 that the on-chip oscillator’s transistors are manufactured using the same process technology and at
8 the same time as the CPU and on the same integrated circuit substrate, when the operating
9 parameters change, the operating frequency capability of the on-chip oscillator and the processing
10 capability of the CPU will change in the same direction.” *Id.* at PIC20015. The theory of
11 infringement is unmistakably clear.

12 Rather than accept this clear and direct disclosure of TPL’s infringement theory, Barco
13 attempts to distract and confuse the Court by isolating the last phrase of the limitation (beginning
14 with the word “thereby”) and attacking it in a vacuum. *See* Barco Motion at 4. Specifically,
15 Barco argues the ICs do not explain why *Chandra* is pertinent to the accused products or provide
16 a link between the *Chandra* and the accused products. Barco’s argument is deceptive and wholly
17 without merit. When the disclosure in the ICs related to this limitation is analyzed as a whole, as
18 it should be, both *Chandra* and the Oklobdzija Declaration are found to provide extensive detail
19 in explaining the knowledge of those skilled in the art as to variations due to temperature,
20 voltage and manufacturing. *See* Barco Ex I-1, PIC20014-16. The ICs then link that general
21 knowledge to the accused products through the method of manufacture the accused products
22 undergo when constructed. *Chandra* and the Oklobdzija Declaration thus provide a direct link
23 between the claim limitation and the accused products. Barco’s assertion to the contrary is,
24 again, unfounded and should be rejected as deceptive and without merit.

25 **3. The Amended ICs for the Remaining Claims of the ‘336 Patent**
26 **Provide the Requisite Linking.**

27 Barco identifies claims 7, 10, 11, 13, 14 and 16 as suffering the same deficiencies as
28 discussed above. *See* Barco Motion at 9-11. Each of these alleged deficiencies may be

1 addressed similarly to the response provided with regard to claims 1 and 6, above. As a review
2 of the ICs bears out, *Chandra* the Oklobdzija Declaration provide extensive detail in explaining
3 the knowledge of those skilled in the art as to variations due to temperature, voltage and
4 manufacturing process and, as discussed above and set forth in the ICs, provide a direct link
5 between the claim limitation and the accused products. Barco's objections to these ICs should
6 likewise be rejected.

7 **4. Barco Misrepresents the Content of Dr. Oklobdzija's Declaration.**

8 Barco's motion claims that certain portions of Dr. Oklobdzija's declaration cited by TPL
9 in support for its theory of manufacturing variations are directed solely to the "microprocessor
10 disclosed in the '336 patent" and not to characteristics of integrated circuits in general. *See*
11 Barco Mot. at 7 ("Incredibly, the ICs cite to paragraphs 10 and 11 from Dr. Oklobdzija's
12 declaration that are directed to an explanation of the '336 patent rather than any accused Barco
13 product"). In doing so, Barco misleadingly takes excerpts of the declaration out of context.
14 Read in full, these paragraphs clearly show that Dr. Oklobdzija is writing about
15 microprocessors generally.

16 For example, in paragraph 10 of his declaration, Dr. Oklobdzija states:

17 The microprocessor disclosed in the '336 Patent can operate under *the variations to*
18 *which a typical microprocessor is exposed. Those variations* include process
19 variations incurred during the microprocessor manufacturing, and variations of the
20 operating parameters that include, but are not limited to, voltage and temperature.
Characteristics of the transistors specified to be of the same size will vary even
among chips that are produced using the same process technology. This is known
as process variation.

21 Ex. M, para. 10 (emphasis added). The words "those variations" do not refer to the '336 patent
22 microprocessor as Barco claims; rather, they refer to "the variations to which a typical
23 microprocessor is exposed."

24 Similarly, paragraph 11 of Dr. Oklobdzija's declaration pertains to the impact of
25 temperature and voltage on all chips, and not the '336 patent embodiments as Barco claims. *Id.* at
26 para. 11. Dr. Oklobdzija opines, "[i]n addition, each chip may be subjected to different operating
27 temperature and/or voltage. It is well known to one of ordinary skill in the art that if there is an
28 increase in the temperature to which a chip is exposed to, the processing frequency capability of

1 the microprocessor will be slower and vice versa.” Dr. Oklobdzija is clearly explaining a
2 phenomenon that applies to all microprocessors, and is not limiting his opinion to the
3 embodiments described the ’336 patent.

4 Barco also takes issue with Dr. Oklobdzija’s opinion at paragraph 45, which states:

5 All of the microprocessors manufactured using integrated circuit manufacturing
6 techniques in the accused Barco products are subject to variations due to the
7 variations in the manufacturing process and operating parameters such as, but not
8 limited to, voltage and temperature. Those are the properties of integrated circuit
9 manufacturing, and therefore, any product manufactured using this technology will
10 behave the same way. This is due to the properties of the materials (silicon) from
11 which modern integrated circuits are manufactured.

12 Ex. M, para. 45. Barco claims that this is a “naked assertion” that is too general. Barco Mot. at 7.
13 However, the Lloyd Order already rejected Barco’s claim that the ICs were “too vague” (Lloyd
14 Order at 6) and the fact that Barco disagrees with Dr. Oklobdzija is of no moment. *See Network*
15 *Caching Tech.*, 2003 WL 21699799 at *5 (“[T]here is no requirement that [the plaintiff]
16 thoroughly present and successfully defend its theories of infringement in the confines of a PIC
17 chart. At this stage, mapping specific elements of defendants' allegedly infringing products onto
18 [the plaintiff's] claim construction is adequate.”).

19 The ICs for this limitation conclude: “The declaration of Dr. Oklobdzija confirms that the
20 location of this limitation is found within the Virtex-5 chip itself.” Exhibit I-1 at PIC200015.
21 Thus, the Amended ICs provide a detailed explanatory link between the scientific articles, the
22 analysis and opinion of a qualified expert, and a link to the accused Barco products. Nothing more
23 is required under the Patent Local Rules or Judge Lloyd’s Order.

24 Barco also incorrectly asserts that the newly amended ICs merely replace reliance on the
25 *Sundaresan*, *Fetzer*, and *Zuchowski* references with further reliance on *Chandra* and the
26 Oklobdzija Declaration, and that “the Court has already concluded that *Sundaresan*, *Fetzer*, and
27 *Zuchowski* do not and cannot show where the claim limitations can be found in the Barco
28 products.” Motion at 8:24-25. The Special Master’s Order simply stated that a link between
29 quoted language from these articles and the infringement contention must be apparent. Denver
30 Order at 4. That link is now apparent with *Chandra* and the Declaration.

1 **B. The Agere and LSI Whitepapers Provide General Background Information**
2 **Supporting TPL's Theories of Infringement.**

3 Barco next complains that certain ICs reference two whitepapers that Barco claims have no
4 connection to the accused products. *See* Barco Motion at 11-14. Barco's complaint is misplaced.
5 The ICs identify the accused products as including an *Agere* microprocessor. *See, e.g.*, Barco Ex.
6 I-8, PIC200128-29. The *Agere* whitepaper is used merely to explain what *Agere* means by "SoC"
7 or "Systems-on-a-Chip." *See id.*, PIC200130. Notwithstanding this clarification, in addition to
8 the whitepaper, the ICs actually show *where* the specific *Agere* microprocessor exists within the
9 specific accused Barco product. *See id.*, PIC200128-30. Read in its entirety, rather than
10 piecemeal, the ICs make perfect sense and set forth TPL's theory that the *Agere* SoC contained in
11 the accused Barco product contains each of the recited claim limitations. Likewise, the LSI
12 whitepaper simply provides an explanation of how an *LSI* SoC works. *See* Barco Ex. I-5,
13 PIC20183-85. Further, the ICs actually show the specific LSI microprocessor used in the accused
14 Barco product. *See id.* As with the *Agere* product literature, the *LSI* whitepaper serves to clarify
15 and, taken in context with the complete IC for this limitation, clearly indicates TPL's theory of
16 infringement. Barco's objections to use of the *Agere* and *LSI* whitepapers regarding *Agere* and
17 *LSI* chips in the ICs should be rejected.

18 **C. TPL Only References Non-Barco Products That Are Used in the Accused**
19 **Products.**

20 As Barco itself repeatedly asserts, it does not *make* many of the components that go into
21 the accused products. Rather, it uses specialized components from suppliers, such as Texas
22 Instruments and Rambus, in its projectors. Texas Instruments is well known for inventing and
23 owning the rights to DLP technology.¹ Likewise, Rambus invented and owns the rights to XDR
24 DRAM.² In 2007, Texas Instruments publicly announced that it would use Rambus XDR for its
25

26

¹ *See* www.dlp.com/technology/dlp-history/default.aspx

27 ² *See* www.rambus.com/in/technology/solutions/xdr/

1 DLP technology.³ As Barco well knows (and in the case of DLP, advertises), these are proprietary
2 technologies.⁴

3 The ICs explain that the accused Barco H400 projector contains a Texas Instruments
4 DDP3021 chip. *See* Barco Ex. I-2 at 20275 (“The accused Barco projectors, ICON
5 H400/H500/H250 DLP Image Processor contain Texas Instruments DDP3021 microprocessors.”).
6 The Texas Instruments DDP3021 uses “input output” or “I/O” technology in the form of Rambus
7 XDR DRAM. *See* Barco Ex. I-2 at 20282 (“Barco Projectors contain a DDP3021 microprocessor
8 connected to a separate XDR DRAM chip via the XDR I/O Interface.”). This is confirmed by Dr.
9 Oklobdzija in his declaration:

10 The Barco Projector iCon H250, iCon H400, iCon H500, ID R600+, and SIM 5R
11 contain a Rambus EXtreme Data Rate (XDR) memory interface (I/O), which
12 allows the microprocessor to communicate with XDR dynamic random access
13 memory(DRAM) in the Barco products.

14 Ex. M, para. 55.

15 The excerpt from Rambus’s website about which Barco complains is one touting the fact
16 that Rambus XDR DRAM interface is incorporated into the Texas Instruments *DLP ASIC*. *See*
17 Barco Mot. at 15, citing Ex. I-2, at PIC20281. Although the Rambus page includes a graphic of a
18 Texas Instruments projector, the text concerns the role Rambus XDR DRAM plays in the DLP
19 ASIC system generally, not any specific projector. *See* Ex. I-2, at PIC20281:

20 At the heart of a DLP projector is the DLP chip or Digital Micromirror Device
21 (DMD) with its millions of microscopic mirrors. Image processing and control of
22 the DMD is handled by the sophisticated DLP ASIC and DMD control IC. This
23 ASIC incorporates a 2-Byte wide XIO interface which connects to a single 512Mb
24 XDR DRAM. A single XDR DRAM provides all the necessary bandwidth and
25 capacity to enable the amazing visual performance of the DLP architecture.

26 Thus, the cited portion of the Rambus website shows that the Texas Instruments DDP3021
27 DLP processor within the accused Barco product contains an input/output interface. *See* Ex. I-2,
28

29 ³ *See* news.efytimes.com/e1/19800/TI-Picks-Rambus-XDR-For-DLP-Technology (“TI
30 Picks Rambus' XDR For DLP Technology”).

1 at PIC20281. The graphic is just an illustration of a DLP projector generally, and was no doubt
 2 included because Rambus is proud of its partnership with Texas Instruments.⁵ Per Magistrate
 3 Lloyd's Order, the IC explains *why* it is referencing the Rambus website: "The DDP3021 DLP
 4 Processor has an on-chip XDR I/O interface included in the Barco iCon H400/H500/H250
 5 Projectors for communication with the XDR DRAM." *Id.*

6 Likewise, Dr. Oklobdzija's declaration, which is incorporated by reference into the ICs,⁶
 7 explains:

8 The Barco Projector iCon H250, iCon H400, iCon H500, ID R600+, and SIM 5R
 9 contain a Rambus EXtreme Data Rate (XDR) memory interface (I/O), which
 10 allows the microprocessor to communicate with XDR dynamic random access
 11 memory (DRAM) in the Barco products.

12 Ex. M, para. 55. Thus, Barco's claim (Barco Mot. at 16) that "nowhere does TPL establish that
 13 Barco uses a Rambus XDR DRAM" is both specious and irrelevant. The fact that the ICs
 14 repeatedly explain that the accused Barco projectors contain the Rambus XDR DRAM is
 15 sufficient to give Barco notice of TPL's infringement theory, and it is not required to "establish"
 16 anything at this point. *See* Lloyd Order at 5 ("ICs are not meant to provide a forum for litigation
 17 of the substantive issues").

18 Barco next argues that TPL improperly points to off-chip RDRAM supplied by Samsung,
 19 as support for its theory that the accused SLM R12+ and RLM R6+ projectors using the DDP1011
 20 processor include a Rambus input/output interface. Barco Mot. at 17. But, Barco misconstrues

21 _____
 22
 23 (...continued from previous page)

24 ⁴ *See* www2.barco.com/en/digitalcinema/DLP-Technology.aspx ("At the heart of every
 25 DLP® projection system is an optical semiconductor known as the DLP® chip, which was
 26 invented by Dr. Larry Hornbeck of Texas Instruments in 1987.")

27 ⁵ Barco falsely accuses TPL of adopting a "hide and seek" approach to its ICs. *See* Barco
 28 Mot. at 16. The link to the Rambus website source is referenced directly under the excerpt, not
 hidden.

1 the claim language at issue. The claim language recites “an on-chip input/output interface and an
 2 off-chip external memory bus” The Samsung RDRAM is neither; it is *connected to* the bus
 3 and the input/output interface. As shown in the very graphic that Barco complains about, the
 4 Texas Instruments DDP1011 has “Includes Rambus™ Interface” *printed on the top of the*
 5 *package*.

6 As TPL explains its theory of infringement: “The DDP1011 DLP Processor has an on-chip
 7 RDRAM I/O interface included in the Barco SLMR12+ Projector for communication with the
 8 Rambus RDRAM.” Ex. I-4, PIC20543-44. Moreover, Dr. Oklobodzija explains:

9 The Barco Projector RLM R6+ and SLM R12+ contain a Rambus interface
 10 (RDRAM) with dynamic random access memory in the Barco product. The
 11 Alliacense Product Reports show that these two Barco projectors each contain a
 12 Texas Instrument DDP1011 that includes the Rambus I/O interface.

13 The presence of the Rambus RDRAM confirms the presence of the Rambus RDRAM
 14 interface and thereby clarifies TPL’s theory of infringement. In view of the foregoing, Barco’s
 15 argument that Rambus documents describing Rambus technology “have no connection with the
 16 accused Barco products” (Mot. at 22) should be rejected.

17 **III. THE AMENDED ICS FOR THE ‘749 PATENT PROVIDE THE REQUISITE**
 18 **LINK BETWEEN THE ACCUSED PRODUCTS AND THE ASSERTED CLAIMS.**

19 **A. TPL’s Reliance on *Chandra* and the Oklobdzija Declaration Provide a Direct**
 20 **Connection Between TPL’s Theory of Infringement, the Claims and the**
 21 **Accused Products.**

22 In a fashion nearly identical to that described above in connection with the ‘336 patent,
 23 Barco incorrectly asserts that *Chandra* and the Oklobdzija Declaration have no connection with
 24 the accused products. *See* Barco Motion at 20. Barco’s incorrect assertion fails.

25 _____
 26 (...continued from previous page)

27 ⁶ *See* Ex. I-2, at PIC20277 n.1 (“The complete declaration of Dr. Vojin Oklobdzija
 28 (‘Oklobdzija Declaration’) dated February 4, 2011 is attached hereto and incorporated by
 reference.”).

1 As identified by Barco, claim 54 of the '749 patent includes a limitation referring to
 2 "propagation delays, depending on at least one of [temperature, voltage and microprocessor
 3 fabrication process]." See Motion at 20. The pertinent limitation reads:

4 said central processing unit integrated circuit and said ring counter variable speed
 5 system clock being provided in a single integrated circuit, said ring counter variable
 6 speed system clock being configured to provide different clock speed to said central
 7 processing unit integrated circuit as a result of transistor propagation delays,
 8 depending on at least one of temperature of said single integrated circuit, voltage
 9 and microprocessor fabrication process for said single integrated circuit

10 *Id.*; see also PIC20355-56. The delays based on temperature, voltage or microprocessor
 11 fabrication process are the same or similar to the parameter variations discussed above with
 12 respect to claims 1 and 6 of the '336 patent. The ICs step through the same pattern of identifying
 13 the CPU and ring counter variable speed system clock on a single integrated circuit is done for the
 14 '336 patent. The ICs then refer to *Chandra* to establish the existence of variations due to
 15 temperature, voltage and fabrication process. *Id.* The ICs next provide a statement using *Chandra*
 16 to link the claim limitation to the accused products, disclosing, for example: "It is well known to
 17 those skilled in the art of semiconductor manufacturing that devices constructed with the same
 18 process technology will have corresponding manufacturing variations. *This fact is supported by*
 19 *the cited Chandra excerpts above and below.*" *Id.* (emphasis added). The Oklobdzija Declaration
 20 goes on to explain that "due to the fact that the on-chip oscillator's transistors are manufactured
 21 using the same process technology and at the same time as the CPU and on the same integrated
 22 circuit substrate, when the operating parameters change, the operating frequency capability of the
 23 on-chip oscillator and the processing capability of the CPU will change in the same direction." *Id.*
 24 at PIC20356. The theory of infringement is unmistakably clear and *Chandra* and the Oklobdzija
 25 Declaration clearly link the claim limitations to the accused product. Barco's complaint is clearly
 26 another attempt to use this motion to strike to improperly address substantive issues in this regard
 27 and should be rejected.

28 **B. TPL Only References Non-Barco Products That Are Used in the Accused Products.**

In similar fashion with the '336 patent, Barco asserts that TPL incorrectly relies on non-Barco products. See Barco Motion at 20-21. Indeed, the arguments raised by Barco concern the

1 same Texas Instruments projector and Rambus XDR DRAM. *Id.* Barco’s arguments in this
2 regard are nearly identical to the same arguments raised in connection with the ‘336 patent and
3 should be rejected for the same reason.

4 **IV. THE AMENDED ICS FOR THE ‘890 PATENT PROVIDE THE REQUISITE**
5 **LINK BETWEEN THE ACCUSED PRODUCTS AND THE ASSERTED CLAIMS.**

6 Again, in similar fashion with the ‘336 patent, Barco asserts that TPL incorrectly relies on
7 non-Barco products. *See* Barco Motion at 22-22. The arguments raised by Barco concern the
8 same Texas Instruments projector and Rambus XDR DRAM. *Id.* Barco’s arguments are nearly
9 identical to the same arguments raised in connection with the ‘336 patent and should be rejected
10 for the same reason.

11 **CONCLUSION**

12 For the foregoing reasons, Barco’s motion to strike TPL’s Third Amended infringement
13 contentions should be denied. To the extent that the Court finds TPL’s Amended ICs are not
14 compliant with Patent L.R. 3-1(c), TPL respectfully requests further leave to amend.

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