UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE DIVISION

NAZOMI COMMUNICATIONS, INC.,

Plaintiff,

v.

NOKIA CORPORATION et al.,

Defendants.

NAZOMI COMMUNICATIONS, INC.,

Plaintiff,

v.

SAMSUNG TELECOMMUNICATIONS AMERICA, L.L.C. et al.,

Defendants.

Case No. C-10-04686 RMW
Case No. C-10-05545 RMW

ORDER GRANTING DEFENDANTS' MOTION FOR SUMMARY JUDGMENT OF NONINFRINGEMENT AND DENYING MOTION FOR SUMMARY JUDGMENT INVALIDITY OF U.S. PATENT NOS. 7,080,362 AND 7,225,436

[Re Docket No. 403/240, 404/241]

On October 22, 2012, defendants filed motions for summary judgment of noninfringement and invalidity. In their motion for noninfringement, defendants argue that under their proposed claim construction, which was mostly adopted by this court, processors incorporating the Jazelle

Revision 3 design do not infringe because such processors convert bytecodes directly into control signals while the patent only covers processors that first translate bytecodes into register-based instructions and then decode the register-based instructions into control signals. For the reasons explained below, the court GRANTS defendants' motion for summary judgment of noninfringement as to the '362 and '436 patents.

Defendants conditioned their motion for summary judgment of invalidity on this court's adoption of plaintiff Nazomi Communications, Inc.'s proposed construction of the identified terms. The court DENIES defendants' motion for summary judgment of invalidity as moot because this court has adopted the majority of defendants' proposed constructions.

I. BACKGROUND

Nazomi brings this patent infringement action against various technology companies, alleging infringement of claims 1, 15, 17, 22, 26, 48, 66, 67, 68, 69, and 70 of U.S. Patent No. 7,080,362 (the '362 patent) and claims 1, 5, 12, and 14 of U.S. Patent No. 7,225,436 (the '436 patent) both continuations of U.S. Patent No. 6,332,215 (the '215 parent patent).

A. The Technology

The court explained the patents and technology at length in its related claim construction order. *See* Order Construing Claims of the '362 and '436 patents, Dkt. No. 441 ("Claim Construction Order").[1] In brief, Nazomi's patents describe a system for accelerating the execution of stack-based programs on register-based processors using a hardware unit instead of software to translate stack-based instructions into "native" register-based instructions so that they can run on processors that use registers. Systems using register-based processors take register-based instructions and decode them into control signals, which actually manipulate the registers and the logic gates to execute the instruction. Jazelle Revision 3 processors, on the other hand, convert Java bytecodes (stack-based instructions) directly into control signals, skipping the translation into register-based instructions.

[1] Unless otherwise indicated, citations to the docket are to case number C-10-04686-RMW.

B. The Accused Products

Nazomi contends that defendants infringe the '362 patent and '436 patent based on the use of processor cores designed by defendant-intervenor ARM, Inc. that incorporate its Jazelle Revision 3 design. ARM develops and licenses processor core designs. Other companies use ARM designs to build actual processors. In 2000, ARM designed a processor capable of accelerating the processing of Java bytecodes. Anderson Decl. Ex. C ¶ 8, Dkt. No. 405. It named the design Jazelle. *Id.* At issue in this litigation are processors using the Jazelle Revision 3 design, which the defendants use in their products. Nazomi claims any processor implementing Jazelle Revision 3 infringes its patents and all of the defendants use processors implementing the Revision 3 design.

C. Summary Judgment of Noninfringement in *Nazomi 2002*

In the prior Nazomi litigation over the '215 parent patent (*Nazomi 2002*), the district court granted summary judgment of noninfringement after determining that ARM's Jazelle Revision 3 design did not infringe Nazomi's '215 patent based upon its construction of the term "instructions." No. C-02-2521-JF, 2006 WL 2578374 (N.D. Cal. Sept. 6, 2006). The Federal Circuit affirmed this construction. 266 Fed. App'x. 935 (Fed. Cir. 2008). The court construed "instructions" as not including control signals and stack-based instructions as requiring translation into register-based instructions. 2006 WL 2578374; Order, No. C-02-2521-JF, Dkt. No. 261. Given the courts construction, Nazomi conceded that Jazelle Revision 3 did not infringe and the court granted summary judgment. *Nazomi 2002,* Order, Dkt. No. 261.

D. Undisputed Facts

The relevant facts are not in dispute. Nazomi contends that any processor incorporating ARM's Jazelle Revision 3 design infringes its patents. Defendants all use processors that implement ARM's Jazelle Revision 3 design. Jazelle Revision 3 processors are register-based processors that can execute both register-based instructions and Java bytecodes (stack-based instructions). *See* Pl.'s Opp. at 7. In a Revision 3 processor, bytecodes are "not translated into register-based instructions, they are translated into a decoded output, or control signals." Decl. of Dr. Babb at ¶ 27.

E. Procedural Posture

Defendants move for summary judgment of noninfringement under their proposed claim construction and for invalidity under Nazomi's proposed claim construction. The court has construed the terms and largely adopted defendants' construction, which simplifies the summary judgment analysis because: (1) Nazomi concedes no direct infringement under defendants' construction, only arguing infringement under the doctrine of equivalents; and (2) defendants' only argue invalidity based on the court's adoption of Nazomi's construction.

Specifically, the court has adopted the following constructions:

Claim Terms	Construction
instructions	either stack-based instructions that to be translated into a register-based instructions, or register-based instructions that are input to the CPU pipeline. In either case the "instructions" must be upstream of the decode stage of the CPU pipeline. As used in the claims of the patent, "instruction" cannot mean the control signals that are the output of the decode stage
second output processing the stack-based instruction including generating a second output	control signals processing of stack-based instructions by translating them into register-based instructions and then decoding them into control signals
execution unit	the execute logic. However, the execution of *instructions* in the execution unit refers to indirect execution. Indirect execution requires circuitry which: (1) translates stack-based instructions into register-based instructions and (2) fetches and decodes register-based instructions into control signals that are the input to the execution unit.
hardware accelerator to process stack-based instructions	circuitry, which can be used to translate stack-based instructions into native instructions
stack-based instructions	instructions that manipulate operands from a last-in, first-out operand stack.

Claim Construction Order 19-20.

II. NONINFRINGEMENT

In order to establish a prima facie case of direct infringement, Nazomi must show that the moving defendants make, use, sell, offer to sell, or import a product that infringes at least one asserted claim. *See* 35 U.S.C. § 271(a). An infringement analysis entails two steps: (1) determining the meaning and scope of the patent claims; and (2) comparing the construed claims to the devices accused of infringing. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). To prove infringement, Nazomi must show that Jazelle Revision 3 "meets each claim limitation either literally or under the doctrine of equivalents." *Seachange Int'l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1377 (Fed. Cir. 2005).

If the parties do not dispute any relevant facts regarding the accused product, "but disagree over possible claim interpretations, the question of literal infringement collapses into claim construction and is amenable to summary judgment." *Gen. Mills, Inc. v. Hunt-Wesson, Inc.*, 103 F.3d 978, 983 (Fed. Cir. 1997). Where a defendant seeks summary judgment of non-infringement, "nothing more is required than the filing of a … motion stating that the patentee had no evidence of infringement and pointing to the specific ways in which accused [products] did not meet the claim limitations." *Exigent Tech. v. Atrana Solutions, Inc.*, 442 F.3d 1301, 1309 (Fed. Cir. 2006). The burden of production then shifts to the patentee to "identify genuine issues that preclude summary judgment." *Optivus Tech., Inc. v. Ion Beam Applications S.A.*, 469 F.3d 978, 990 (Fed. Cir. 2006). Nevertheless, as with all summary judgment motions, the court must view all evidence in the light most favorable to the non-moving party and draw all reasonable inferences in its favor. *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1429 (Fed. Cir. 2000).

Because this court has construed the terms in its claim construction order and the relevant facts are undisputed, summary judgment is appropriate. The court has largely adopted defendants' proposed construction. As Nazomi concedes no direct infringement under defendants' construction, Nazomi's only substantive argument against summary judgment of noninfringement is the doctrine of equivalents. Nevertheless, because the court did not fully adopt defendants' proposed construction, it will briefly address direct infringement.

A. Direct Infringement

Literal infringement requires that Jazelle Revision 3 processors contain each of the claim elements and their recited limitations of the claims at issue. *See Signtech USA, Ltd. v. Vutek, Inc.*, 174 F.3d 1352, 1358 (Fed. Cir. 1999). The term "instructions" appears in every asserted claim of the patents in suit. This court and the *Nazomi 2002* court have held that under the patent: (1) instructions do not refer to the control signals that result from decoding an instruction, and (2) that stack-based instructions must be translated into register-based instructions. *Nazomi 2002*, 2006 WL 2578374 at *8; Claim Construction Order 6-11. ARM's Jazelle Revision 3 converts stack-based instructions directly into control signals. Decl. of Dr. Babb at ¶ 27. Because Jazelle Revision 3 does not translate stack-based instructions into register-based instructions, there is no direct infringement.

1. The '362 Patent

a. Claim 1 and Related Dependent Claims

Claims 1, and dependent related claims 15, 17, and 22 of the '362 patent all require "processing the stack-based instructions including generating a second output, and processing the second output in the execution unit." '362 patent col.7 ll.54-56. Based upon this court's claim construction, "processing the stack-based instructions" requires translation of the stack-based instructions into register-based instructions. However, it is undisputed that ARM's Jazelle Revision 3 converts bytecodes into control signals, not register-based instructions. *See* Decl. of Dr. Babb at ¶ 27. Therefore, there is no infringement of the asserted claims.

b. Claim 48 and Related Dependent Claims

Claims 48 and dependent related claims 66 through 70 all require "an execution unit and associated register file, the execution unit to execute instructions of a plurality of instruction sets, including a stack-based and a register-based instruction set." '362 patent col.10 ll.59-62. Based upon the claim construction, the execution unit's execution of stack-based instructions requires the translation of stack-based instructions to register-based instructions. Because it is undisputed that ARM's Jazelle Revision 3 converts bytecodes into control signals not instructions, there is no infringement.

2. The '436 Patent

Independent claims 1 and 5 and dependent claims 12 and 14 all require "a hardware accelerator to process stack-based instructions." '436 patent col.14 l.35. The court has construed this term to mean "circuitry, which can be used to translate stack-based instructions into native instructions." In a Jazelle Revision 3 processor, the stack-based instructions are bytecodes and the native instructions are register-based instructions. Because Jazelle Revision 3 processors convert bytecodes directly into control signals, not register-based instructions, defendants' processors do not infringe the asserted claims.

B. Infringement Under the Doctrine of Equivalents

Although Nazomi admits that defendants' products do not literally infringe under defendants' proposed claim construction, it still argues that defendants' products infringe under the doctrine of equivalents. Defendants counter that first, Nazomi never properly asserted such a theory on an element-by-element basis as required by the local rules. Second, defendants argue the doctrine of equivalents is inapplicable because its application would require vitiating a claim element. Finally, defendants argue that Nazomi conceded noninfringement under the doctrine of equivalents in *Nazomi 2002*.

1. Failure to Assert the Doctrine of Equivalents

The patent local rules require that the plaintiff, in its infringement contentions, state whether "each limitation of each asserted claim is alleged to be literally present or present under the doctrine of equivalents in the Accused Instrumentality." Patent L.R. 3-1(e). The Patent Local Rules require a limitation-by-limitation analysis; a boilerplate reservation is inadequate, and courts dismiss claims under the doctrine of equivalents for relying solely on boilerplate language in their infringement contentions. *See Rambus Inc. v. Hynix Semiconductor Inc.*, C-05-00334-RMW, 2008 WL 5411564, *3 (N.D. Cal. Dec. 29, 2008) (finding in the alternative that it could grant summary judgment for failure to comply with the patent rules "limitation-by-limitation" requirement); *Implicit Networks Inc. v. Hewlett-Packard Co.*, No. C-10-03746 SI, 2011 WL 3954809, *4 (N.D. Cal. Sept. 7, 2011) (ordering plaintiff to amend its pleadings based in part on finding that "[plaintiff] cannot simply recite the doctrine of equivalents in its cover pleading to its

claim charts without providing specific analysis, on an element-by-element basis, as to its theory of why there is infringement under the doctrine of equivalents."); *OptimumPath, LLC v. Belkin Int'l, Inc.*, No. C-09-01398 CW, 2011 WL 1399257 (N.D. Cal. Apr. 12, 2011) (noting that "judges of this court have rejected plaintiffs' attempts to assert claims under the doctrine of equivalents with blanket statements" and denying plaintiffs attempt to rely on the doctrine at summary judgment) *aff'd sub nom.*, 466 F. App'x 904 (Fed. Cir. 2012).

Here, Nazomi only provided boilerplate language stating that, to the extent any element is not literally infringed, it contends that each accused product "embodies the claim element or limitation under the doctrine of equivalents." Anderson Decl., Ex. I, Dkt. No. 249-9 (Nazomi's January 13, 2012 Disclosure of Asserted Claims and Infringement Contentions). In another case using almost identical boilerplate language, this court held that such a failure to comply with the Patent Local Rules provided ample grounds for dismissing claims under the doctrine of equivalents. *See Rambus Inc. v. Hynix Semiconductor Inc.*, 2008 WL 5411564 at *3. Because Nazomi failed to provide the required limitation-by-limitation infringement contentions under the doctrine of equivalents, it may not raise them at summary judgment.

2. The Doctrine of Equivalents Is Inapplicable

Even though Nazomi's doctrine of equivalents claims are barred for failure to properly disclose its theory as part of its infringement contentions, the court independently finds that the '362 and '436 patents do not infringe under the doctrine of equivalents.

An accused product that does not literally infringe may still infringe under the doctrine of equivalents if "the accused product or process contain elements identical or equivalent to each claimed element of the patented invention." *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997). The premise of the doctrine of equivalents is "language's inability to capture the essence of innovation" and its goal is to prevent fraud on the patent through an overly literal reading of the claims. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 734 (U.S. 2002); *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 606 (U.S. 1950). Infringement under the doctrine of equivalents is limited in two primary ways: (1) the "all elements rule" and (2) prosecution history estoppel. *Seachange*, 413 F.3d at 1378

(*quoting Lockheed Martin Corp. v. Space Sys./Loral, Inc.*, 324 F.3d 1308, 1318 (Fed. Cir. 2003)). Defendants argue that both prevent application of the doctrine of equivalents in this case.

a. Nazomi's Equivalence Would Vitiate a Claim Limitation

A doctrine of equivalents analysis is conducted on a limitation-by-limitation basis (the "all elements rule"). *Warner-Jenkinson*, 520 U.S. at 39-40. Under the "all elements rule" a patentee may not use the doctrine of equivalents when its application would "vitiate a claim limitation." *Abbot Laboratories v. Andrx Pharmaceuticals*, 473 F.3d 1196, 1212 (Fed. Cir. 2007). Subject matter cannot be included within the scope of a patent under the doctrine of equivalents if it is inconsistent with the language of the claim. *See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1347 (Fed. Cir. 2001)*; Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, 149 F.3d 1309, 1317 (Fed. Cir. 1998); *see also Vehicular Tech. Corp. v. Titan Wheel Int'l, Inc.*, 141 F.3d 1084, 1090-92 (Fed. Cir. 1998) (finding the doctrine of equivalents likely inapplicable when the equivalency contradicted the "object of the present invention" as defined in the specification).

In its claim construction order, the court found that the patent contained the limitation that stack-based instructions have to be translated into register-based instructions. Nazomi argues that translating stack-based instructions into register-based instructions and then converting the register-based instructions into control signals is equivalent to converting stack-based instructions directly into control signals. Pl.'s Opp. 15-16. However, this proposed equivalence would vitiate a claimed element as construed by the court. Translation of stack-based instructions into register-based instructions is a key limitation of the patent. As defined by the patent, the "present invention" is a hardware system to "quickly translate Java™ bytecodes into native instructions." '362 patent col.2 ll.7-9 (summary of the invention). The key element of "present invention" cannot be the basis of an equivalence. Therefore, Nazomi's proposed equivalence is improper.

b. Prosecution History Estoppel

Defendants also argue that prosecution history estoppel bars the doctrine of equivalents based upon the disclosure of PicoJava—a processor in the prior art, developed by Sun that

executes stack-based instructions natively. Having found that the doctrine of equivalents does not apply under the "all elements rule", the court finds it does not need to address this argument.

C. Noninfringement Based on Collateral Estoppel

Defendants also argue noninfringement under collateral estoppel based on the court's decision in *Nazomi 2002*. In order to establish collateral estoppel:

> (1) the issue at stake must be identical to the one alleged in the prior litigation; (2) the issue must have been actually litigated [by the party against whom preclusion is asserted] in the prior litigation; and (3) the determination of the issue in the prior litigation must have been a critical and necessary part of the judgment in the earlier action.

Trevino v. Gates, 99 F.3d 911, 923 (9th Cir. 1996); s*ee also Bayer AG. v. Biovail Corp.*, 279 F.3d 1340, 1345 (Fed. Cir. 2002) (holding that the law of the regional circuit determines the standard for collateral estoppel). Collateral estoppel can apply to common issues in actions involving different but related patents. *See, e.g., Amgen, Inc. v. Genetics Inst., Inc.*, 98 F.3d 1328, 1329-32, (Fed. Cir. 1996) (affirming summary judgment where a prior case had decided issues about a different patent with the same specification).

In *Nazomi 2002*, Nazomi conceded noninfringement of Jazelle Revision 3 for purposes of the '215 parent patent under the same construction of "instructions" adopted by this court. *Nazomi 2002*, Pl.'s Resp., Dkt. No. 259. Defendants' motion for summary judgment for noninfringement presents the same issue to this court as considered by the *Nazomi 2002* court, except that children of the '215 parent patent are being asserted and Nazomi has not stipulated that the products "would not infringe the [patents], literally or under the doctrine of equivalents." *Id.* The claims in both cases involve the same Jazelle Revision 3 processor design and the same arguments over whether "instructions" include control signals and require stack-based instructions to be translated into register-based instructions based on the same specification. *See Nazomi 2002*, 2006 WL 2578374 at *8. As explained in the claim construction order, this court construes "instructions" the same way as the court did in *Nazomi 2002*. Claim Construction Order 6-11. Having construed the key term the same way, the court holds that the same issues at

stake were previously litigated and were a necessary part of the holding. Therefore, collateral estoppel applies and provides independent grounds for granting summary judgment.

III. INVALIDITY

Defendants also move for summary judgment of invalidity. Defendants argue that if the court adopts Nazomi's construction of "instructions," then the claims are invalid under 35 U.S.C. § 112 for failure to provide an adequate written description. Because defendants' premise their invalidity argument on the court's adoption of Nazomi's construction and the court adopted defendants' construction of the key term "instructions," and not Nazomi's, this motion is moot. Therefore, the court denies the defendants' motion for summary judgment of invalidity.

IV. ORDER

For the foregoing reasons, the court GRANTS defendants' motion for summary judgment of noninfringement of the '362 and '436 patents and DENIES as moot defendants' motion for summary judgment of invalidity.

Dated: June 18, 2013

Ronald M. Whyte
United States District Court Judge