

**UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS**

Intellectual Ventures I, LLC;)	
Intellectual Ventures II, LLC,)	
)	
Plaintiffs,)	
)	
v.)	Civil Action
)	No. 16-10860-PBS
Lenovo Group Ltd., Lenovo)	
(United States) Inc., LenovoEMC)	
Products USA, LLC, and EMC)	
Corp.,)	
)	
Defendants.)	
)	
Intellectual Ventures I, LLC;)	
Intellectual Ventures II, LLC,)	
)	
Plaintiffs,)	Civil Action
)	No. 16-10868-PBS
v.)	
)	
NetApp, Inc.,)	
)	
Defendant.)	
)	

MEMORANDUM AND ORDER

April 4, 2019

Saris, C.J.

INTRODUCTION

Intellectual Ventures I, LLC and Intellectual Ventures II, LLC (collectively, "IV") bring this patent infringement action alleging that Defendant EMC Corporation ("EMC") infringes claim 11 of U.S. Patent No. 6,516,442 (the "'442 patent"). The Patent

Trial and Appeal Board ("PTAB") invalidated independent claim 1 of the '442 patent as obvious during inter partes review ("IPR"). EMC now moves for summary judgment on the invalidity of dependent claim 11 on two grounds: (1) IV is collaterally estopped from asserting claim 11 or (2) there is no genuine dispute that claim 11 is invalid as obvious under 35 U.S.C. § 103(a) over U.S. Patent No. 5,490,250 ("Reschke"). Because IV is collaterally estopped from asserting claim 11, the Court **ALLOWS** EMC's motion for summary judgment on the invalidity of claim 11 of the '442 patent (Docket No. 175).

BACKGROUND

A. The '442 Patent

The Court assumes familiarity with the underlying patent from the prior claim construction opinion (Docket No. 236). As background, the '442 patent relates to a type of computer architecture known as a symmetric multiprocessor system or shared-memory multiprocessor system ("SMP"). '442 patent, col. 1, ll. 17-18, 65-66. In a conventional SMP, two or more processors are connected to a shared memory device via one shared "bus" - or communication channel. See id. at col. 1, ll. 18-21. The claimed system of the '442 patent seeks to scale the classic SMP and solve for a "bottleneck" problem by using a "switched fabric" for data transfers which provides multiple concurrent buses for transactions between the processors and

shared memory. See id. at col. 1, ll. 50-53. Each component - including the switches in the switch fabric, microprocessors, and memory - communicates with a corresponding "interface." So in the '442 system, processors and the shared memory device exchange data with and communicate through microprocessor and memory interfaces. See id. at col. 2, ll. 59-67. Independent claim 1 of the '442 patent states:

1. A shared-memory multi-processor system comprising:
 - a switch fabric configured to switch packets containing data;
 - a plurality of channels configured to transfer the packets;
 - a plurality of switch interfaces configured to exchange the packets with the switch fabric, exchange the packets over the channels, and perform error correction of the data in the packets exchanged over the channels;
 - a plurality of microprocessor interfaces configured to exchange the data with a plurality of microprocessors, exchange the packets with the switch interfaces over the channels, and perform error correction of the data in the packets exchanged over the channels; and
 - a memory interface configured to exchange the data with a memory device, exchange the packets with the switch interfaces over the channels, and perform error correction of the data in the packets exchanged over the channels.

Id. at claim 1. Dependent claim 11 adds: "The shared-memory multi-processor system of claim 1 further comprising the microprocessors and the memory device." Id. at claim 11.

B. PTAB IPR of the '442 Patent

On May 27, 2016, EMC petitioned the PTAB for IPR of the '442 patent, challenging the claims that had previously been asserted by IV against EMC customers in the Eastern District of Texas (claims 1, 2, 5, 9, 10, 12, 24, 25, 28, 32, 33, and 34). See Docket No. 137-7 ("IPR Petition") at 6-7. EMC based its petition, in part, on Reschke, which was not disclosed to the Patent Office during the original prosecution of the '442 patent. See IPR Petition at 5-8.

On September 3, 2016, IV served preliminary infringement contentions in this action, asserting claims 1, 11, 12, and 24 against EMC. See Docket No. 41 at 2. EMC had challenged each of these claims in its IPR petition except for claim 11, which IV had not previously asserted against either of EMC's customers in Texas. The PTAB subsequently instituted EMC's petition on claims 1, 5, 9, 10, 12, 24, 28, 32, 33, and 34 of the '442 patent. See Docket No. 179-4 ("FWD") at 3. After institution, IV filed a Patent Owner Response and the PTAB held a hearing on September 7, 2017. Id. at 3-4. During the IPR proceeding, EMC bore the burden of proving unpatentability by a preponderance of the evidence. Id. at 33.

On November 24, 2017, the PTAB entered a Final Written Decision ("FWD") holding that all instituted claims were unpatentable. See id. at 66. In particular, the PTAB ruled that

EMC demonstrated, by a preponderance of the evidence, that independent claim 1 was unpatentable under 35 U.S.C. § 103(a) as obvious in light of Reschke. Id. at 37. The PTAB found that Reschke taught or disclosed each of the limitations found in claim 1. Specifically, it concluded:

- **Switch fabric:** "Based on the complete record, we are persuaded [EMC] has shown sufficiently that Reschke teaches 'a switch fabric configured to switch packets containing data,' as recited in claim 1." Id. at 44.

- **Channels:** "Based on the complete record, we are persuaded [EMC] has shown sufficiently that Reschke teaches 'a plurality of channels configured to transfer the packets,' as recited in claim 1." Id. at 49.

- **Switch interfaces:** "Based on the complete record, we are persuaded that [EMC] has shown sufficiently that Reschke discloses the 'switch interfaces limitation' recited in claim 1." Id. at 51.

- **Microprocessor interfaces:** "We are persuaded that Reschke discloses microprocessor interfaces 'exchang[ing] the packets with the switch interfaces over the channels'" Id. at 52 (alteration in original). "Reschke also discloses the microprocessor interfaces 'exchang[ing] the data with a plurality of microprocessors' because Figure 2 [in Reschke] shows data is sent from a PU to the processor interface when the PU is acting as a data source. Figure 2 also shows that, when the PU is acting as a destination, the PU receives data from the processor interface." Id. at 52-53 (first alteration in original) (citation omitted).

- **Memory interface:** "[W]e are persuaded that Reschke discloses a memory interface 'exchang[ing] the data with a plurality of a memory device' and 'exchang[ing] the packets with the switch interfaces over the channels'" Id. at 53 (alterations in original).

Accordingly, because each of the limitations of claim 1 in the '442 patent was either taught or disclosed by Reschke, the PTAB concluded that claim 1 was unpatentable under 35 U.S.C. § 103(a). See id. at 56. After its motion for rehearing was denied, IV did not appeal to the Federal Circuit. See Docket No. 179-5 at 2. The only remaining claim IV asserts against EMC from the '442 patent is dependent claim 11.

LEGAL STANDARD

Summary judgment shall be granted when "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). A genuine issue is "one that must be decided at trial because the evidence, viewed in the light most flattering to the nonmovant would permit a rational factfinder to resolve the issue in favor of either party." Medina-Munoz v. R.J. Reynolds Tobacco Co., 896 F.2d 5, 8 (1st Cir. 1990) (citation omitted). When "a properly supported motion for summary judgment is made, the adverse party must set forth specific facts showing that there is a genuine issue for trial." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 250 (1986) (quotation and footnote omitted). The nonmoving party may not simply "rest upon mere allegation or denials of his pleading," but must instead "present affirmative evidence." Id. at 256-57.

DISCUSSION

EMC argues IV is collaterally estopped from asserting claim 11 because IV cannot show how the differences between claim 11 and claim 1 “materially alter the question of invalidity.” IV argues that collateral estoppel cannot apply to claim 11 because claim 11 must be evaluated separately from claim 1, the PTAB’s lower standard of proof makes collateral estoppel inapplicable to the present case, and the PTAB’s broader claim construction standard makes collateral estoppel inappropriate.

A. Collateral Estoppel

The doctrine of collateral estoppel, also known as issue preclusion, “prevents a party from relitigating issues that have been previously adjudicated” to protect litigants and to promote judicial economy. Rodríguez-García v. Miranda-Marín, 610 F.3d 756, 770 (1st Cir. 2010). In a patent case, the law of the regional circuit determines “the general procedural question of whether issue preclusion applies” while the Federal Circuit’s precedent governs “questions involving substantive issues of patent law.” Soverain Software LLC v. Victoria's Secret Direct Brand Mgmt., LLC, 778 F.3d 1311, 1314 (Fed. Cir. 2015).

In the First Circuit, issue preclusion requires that “(1) the issue sought to be precluded in the later action is the same as that involved in the earlier action; (2) the issue was actually litigated; (3) the issue was determined by a valid and

binding final judgment; and (4) the determination of the issue was essential to the judgment.” Rodríguez-García, 610 F.3d at 770 (quotation omitted). Additionally, the party against whom the preclusion is asserted must have “had a full and fair opportunity for judicial resolution of the same issue.” Id. at 771 (quotation omitted).

Federal Circuit precedent determines “whether a particular claim in a patent case is the same as or separate from another claim” for the purposes of collateral estoppel. Aspex Eyewear, Inc. v. Marchon Eyewear, Inc., 672 F.3d 1335, 1341 n.1 (Fed. Cir. 2012). A final judgment from the PTAB on the invalidity of a patent claim has an issue-preclusive effect on any pending actions involving that patent. XY, LLC v. Trans Ova Genetics, 890 F.3d 1282, 1294 (Fed. Cir. 2018); see also Fresenius USA, Inc. v. Baxter Int'l, Inc., 721 F.3d 1330, 1344 (Fed. Cir. 2013) (“[T]here is no basis for distinguishing between the effects of a final, affirmed court decision determining invalidity and a final, affirmed PTO decision determining invalidity on a pending litigation.”); cf. MaxLinear, Inc. v. CF CRESPE LLC, 880 F.3d 1373, 1376 (Fed. Cir. 2018) (“[It is] clear that issue preclusion is not limited to those situations in which the same issue is before two courts. Rather, where a single issue is before a court and an administrative agency, preclusion also often applies.” (alteration in original) (emphasis omitted))

(quoting B & B Hardware, Inc. v. Hargis Indus., Inc., 135 S. Ct. 1293, 1303 (2015))).

Under black letter law, issue preclusion generally does not apply where a party seeking preclusion “has a significantly heavier burden than he had in the first action.” Restatement (Second) of Judgments § 28 (1982). In XY, the Federal Circuit held that an affirmance of an invalidity finding from the PTAB has a collateral estoppel effect on all pending actions in district court even though the district court and PTAB have different burdens of proof and claim construction standards. See 890 F.3d at 1294. In doing so it rejected the argument, articulated in the dissent, that PTAB opinions should not have preclusive effect in district courts because of the tribunals’ different standards of validity, different burdens of proof, and different standards of appellate review. See id. at 1300 (Newman, J., dissenting). The holding in XY is necessitated by the IPR statutory scheme because if the PTAB finds that a claim is unpatentable during an IPR proceeding, “the PTO is required to issue a certificate cancelling the claim.” In re Papst Licensing GmbH & Co. KG Patent Litig., 320 F. Supp. 3d 132, 134 (D.D.C. 2018) (citing 35 U.S.C. § 318(b)). Thus, “the patent holder may no longer assert that claim in litigation or otherwise.” Id.; see also Oil Steels Energy Servs., LLC v. Green’s Energy, LLC, 138 S. Ct. 1365, 1374 (2018) (“Patent

claims are granted subject to the qualification that the PTO has 'the authority to reexamine—and perhaps cancel—a patent claim' in an inter partes review." (quoting Cuozzo Speed Techs., LLC v. Lee, 136 S. Ct. 2131, 2137 (2016)).

Additionally, for collateral estoppel to apply, the asserted unadjudicated claim need not be identical to the adjudicated claim. See Soverain, 778 F.3d at 1319 ("Complete identity of claims is not required to satisfy the identity-of-issues requirement for claim preclusion."); Ohio Willow Wood Co. v. Alps S., LLC, 735 F.3d 1333, 1342 (Fed. Cir. 2013) ("Our precedent does not limit collateral estoppel to patent claims that are identical. Rather, it is the identity of the issues that were litigated that determines whether collateral estoppel should apply."). "If the differences between the unadjudicated patent claims and adjudicated patent claims do not materially alter the question of invalidity, collateral estoppel applies." Ohio Willow Wood, 735 F.3d at 1342 (emphasis added). In a related context, the Federal Circuit has held that the PTAB may apply collateral estoppel to unadjudicated dependent claims where the adjudicated independent claim was found unpatentable in a prior IPR proceeding. See MaxLinear, 880 F.3d at 1377-78 (holding that the PTAB "must decide whether the remaining claims present materially different issues that alter the question of

patentability, making them patentably distinct from [the independent] claims”).

B. Application to Claim 11

Based on this precedent, EMC argues: given that under XY and Fresenius, PTAB decisions have a preclusive effect in district court, and under Soverain and Ohio Willow Wood collateral estoppel operates to preclude assertion of unadjudicated claims that do not “materially alter the question of invalidity,” it follows that PTAB decisions have a collateral-estoppel effect in district court on unadjudicated claims that do not “materially alter the question of invalidity.” Docket No. 202 at 18. The Court agrees. While the Federal Circuit has not ruled directly on this precise question, the logic of the caselaw discussed above applies with equal force.

The PTAB’s decision finding claim 1 unpatentable is final and estops IV from relitigating the validity of claim 1 in district court. IV, which had a full and fair opportunity to litigate the issues, declined to appeal the PTAB’s decision on the ’442 patent to the Federal Circuit, rendering the PTAB’s decision a final judgment on the instituted claims and resulting in the cancellation of claim 1. The remaining question is whether the differences between claim 11 and claim 1 (namely “the microprocessors and the memory device”) materially alter

the invalidity analysis under 35 U.S.C. § 103. Based on the undisputed facts in the record, they do not.

EMC argues that claim 11 is not patentably distinct from claim 1 because “[w]hile independent claim 1 focuses on the interfaces to the microprocessors and a memory device, dependent claim 11 merely adds the microprocessors and memory device themselves.” Docket No. 176 at 22. The record supports this argument. While finding claim 1 obvious over Reschke, the PTAB pointed out that the Reschke system, like the ‘442 system, is premised on the use of microprocessors and shared memory. See FWD at 52-53 (finding that Reschke “discloses the microprocessor interfaces ‘exchang[ing] the data with a plurality of microprocessors’” and “discloses a memory interface ‘exchang[ing] the data with a plurality of a memory device’” (alternations in original) (emphasis added)).

IV does not dispute that Reschke “expressly discloses at least one shared memory device.” Docket No. 198-1 ¶ 9. But, relying on its expert Dr. Richard Wesel,¹ IV argues that Reschke does not disclose the use of microprocessors because the “processor units” described in Reschke cannot be conflated with microprocessors. See Docket No. 198 at 17. This expert opinion conflicts with admissions made by IV before the PTAB in the

¹ IV relied on a different expert, Dr. Donald Alpert, during the ‘442 patent IPR proceeding. See Docket No. 179-8 at 9.

prior IPR proceeding. In its preliminary response before the PTAB on EMC's petition, IV described the Reschke system as follows: "A data switching unit transfers data between shared memory and multiple microprocessors using one set of buses. Here, the dark green blocks are the multiple microprocessors (131-134). Figure 1 shows them as 'PU.'" Docket No. 137-6 at 37 (emphasis added) (citation omitted). Thus, before the PTAB IV explained that Reschke included microprocessors, and that it understood "PU" or processing units, to mean "microprocessors." IV made this same representation in the subsequent Patent Owner Response before the PTAB. See Docket No. 179-8 at 51 ("In Reschke, a data switching unit transfers data between memory and multiple microprocessors." (emphasis added)). During the IPR proceeding, IV attempted to argue that Reschke did not disclose other elements of the '442 patent's claims, but it did not dispute that the Reschke system involved multiple microprocessors and shared memory. Cf. Baker Oil Tools, Inc. v. Geo Vann, Inc., 828 F.2d 1558, 1562 (Fed. Cir. 1987) (finding prior assertion before the PTO during an interference proceeding did not have preclusive effect but could be considered a party admission). Regardless, Dr. Wesel's declaration does little to explain how any distinction between "processor units" and "microprocessors" materially alters an obviousness analysis. See Docket No. 198-7 ¶¶ 40-61.

In Soverain the Federal Circuit held that independent claim 15, which described a "hypertext statement system," was invalid as obvious. See 778 F.3d at 1314 n.2, 1319. The unadjudicated dependent claim at issue only added "[a] hypertext statement in accordance with claim 15, wherein the network is an Internet," rather than a generic network. Id. (alteration in original) (footnote omitted). The Federal Circuit ruled that the assertion of the dependent claim was barred by issue preclusion because the patentee did not invent the Internet, hypertext, or URL, and therefore the "routine incorporation of Internet technology into existing processes" could not work to make claim 39 valid when claim 15 was invalid. Id. at 1319-20. Similarly, here IV does not explain why the incorporation of microprocessors and a memory device to the shared-memory multiprocessor system in claim 1 works to make claim 11 nonobvious.

Based on the undisputed record, the addition of microprocessors and a memory device does not materially alter the invalidity analysis. Thus, claim 11 is invalid on the basis of collateral estoppel.²

² EMC also argues that claim 11 is obvious over Reschke as a matter of law. The Court need not address this second, independent reason for summary judgment in light of the holding on collateral estoppel.

ORDER

The Court **ALLOWS** EMC's motion for summary judgment on the invalidity of claim 11 of the '442 patent.

SO ORDERED.

/s/ PATTI B. SARIS

Hon. Patti B. Saris
Chief United States District Judge