

**United States Court of Appeals  
for the Federal Circuit**

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**MAXLINEAR, INC.,**  
*Appellant*

v.

**CF CRESPE LLC,**  
*Appellee*

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2017-1039

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Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2015-00592.

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Decided: January 25, 2018

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GREGORY SCHODDE, McAndrews, Held & Malloy, Ltd., Chicago, IL, argued for appellant. Also represented by RONALD SPUHLER.

CRAIG ROBERT SMITH, Lando & Anastasi, LLP, Cambridge, MA, argued for appellee. Also represented by ERIC P. CARNEVALE.

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Before DYK, SCHALL, and REYNA, *Circuit Judges*.  
DYK, *Circuit Judge*.

Appellant MaxLinear, Inc. (“MaxLinear”) appeals from the final written decision of the Patent Trial and Appeal Board (“Board”) in an inter partes review (“IPR”). The Board upheld the patentability of claims 1-4, 6-9, and 16-21 of U.S. Patent No. 7,075,585 (“the ’585 patent”) owned by appellee CF CRESPE LLC (“CRESPE”). MaxLinear seeks review of the Board’s decision with respect to dependent claims 4, 6-9, and 20-21.

The Board based its decision on an analysis of independent claims 1 and 17. However, in a separate IPR, No. IPR2014-00728 (“the ’728 IPR”), claims 1 and 17 were held to be unpatentable, and that decision was affirmed by our court during the pendency of this appeal. *CF CRESPE LLC v. Silicon Labs, Inc. (CRESPE I)*, 670 F. App’x 707, 708 (Fed. Cir. 2016) (per curiam). Because the Board did not address arguments concerning patentability of the dependent claims separately from the now-unpatentable independent claims, we vacate the decision and remand to the Board, with instructions to consider the patentability of the dependent claims 4, 6-9, and 21, in light of our decision holding claims 1 and 17 unpatentable.

#### BACKGROUND

The ’585 patent “relates to a broadband television signal receiver for receiving multi-standard analog television signals, digital television signals and data channels.” ’585 patent, col. 1 ll. 15-19. A television receiver converts a radio frequency (“RF”) signal from the broadcast frequency, filters out interfering signals, and then demodulates or decodes the signal of interest. In layman’s terms, the television signal receiver takes incoming television broadcast signals and processes the signal into a viewable medium for eventual display.

This appeal concerns the final written decision of the Board issued on August 11, 2016. This proceeding commenced on January 28, 2015, when MaxLinear petitioned

for an inter partes review of claims 1-21 of the '585 patent. The Board instituted review of claims 1-4, 6-9, and 16-21 based on the prior art combination of Van De Plassche ("VDP") with Ishikawa and other references. *MaxLinear, Inc., v. Cresta Tech. Corp.*, No. IPR2015-00592, 2016 WL 8946032, at \*1 (P.T.A.B. Aug. 11, 2016) (the "592 IPR").<sup>1</sup> In the final written decision, the Board held that the challenged claims were not shown to be unpatentable over the prior art. *Id.* at \*12.

Claims 1 and 17 are the only independent claims in the patent, with claim 1 conveying the television receiver and claim 17 being the associated method claim. The Board limited its analysis to the independent claims and did not separately analyze the dependent claims. The Board declined to find claims 1 and 17 unpatentable over a combination of VDP and Ishikawa. *Id.* at \*12.

The Board based its finding of nonobviousness entirely on the analysis of claims 1 and 17. The Board held that "[p]etitioner has not shown . . . independent claims 1 and 17 are unpatentable. Because each of challenged dependent claims 2-4, 6-9, 16, and 18-21 incorporate the limitations of the respective independent claims, we also conclude that [p]etitioner has not shown, by a preponderance of the evidence, that those claims are unpatentable." *Id.* at \*12. The Board never mentioned any separate arguments concerning the dependent claims' patentability. *See id.* The entire analysis and decision rests on the finding that independent claims 1 and 17 were patentable over the prior art. *See id.* at \*1-12.

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<sup>1</sup> CRESPE is the successor in interest to Cresta Technology Corporation ("Cresta"), which originally owned the '585 patent.

MaxLinear appealed the Board's decision. This court has jurisdiction under 28 U.S.C. § 1295(a)(4)(A) and 35 U.S.C. §§ 144, 319.

Two other IPRs had been instituted concerning the '585 patent.<sup>2</sup> Each of these IPRs had the same Board members as in the '592 IPR but considered different prior art. In the '728 IPR, on October 21, 2015, the Board issued a final written decision that claims 1-3, 5, 10, and 16-19 of the '585 patent were unpatentable over the Thomson reference, No. EP0696854, both alone and in combination with other references. 2015 WL 6441485, at \*6-13. Cresta, the original owner of the '585 patent and CRESPE's predecessor, appealed. While the present case was pending on appeal, we affirmed the Board's decision in the '728 IPR. *CRESPE I*, 670 F. App'x at 708. The result of this affirmation is that independent claims 1 and 17 of the '585 patent are now unpatentable. In the final decision in the '615 IPR, issued on the same day as the '592 IPR, the Board, among other things, held claim 20 of the '585 patent unpatentable over Thomson in combination with other references. 2016 WL 8969202, at \*21-22. CRESPE appealed. Subsequently, we affirmed the Board, so that claim 20 of the '585 patent now stands unpatentable. *CF CRESPE LLC v. Silicon Labs, Inc. (CRESPE II)*, No. 2017-1072, 2017 WL 6044690, at \*1 (Fed. Cir. Dec. 7, 2017) (per curiam).

#### DISCUSSION

In the '728 and '615 IPRs, the Board held that claims 1, 17, and 20, involved in this proceeding, were unpatent-

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<sup>2</sup> *Silicon Labs., Inc. v. Cresta Tech. Corp.*, No. IPR2015-00615, 2016 WL 8969202 (P.T.A.B. Aug. 11, 2016) (the "615 IPR"); *Silicon Labs., Inc. v. Cresta Tech. Corp.*, No. IPR2015-00728, 2015 WL 6441485 (P.T.A.B. Oct. 21, 2015) (the "728 IPR").

able. Those decisions have subsequently been affirmed by this court. Both parties agree that those prior decisions, having been affirmed by our court, are binding in this proceeding, as a matter of collateral estoppel, and they could hardly argue otherwise.

It is well established that collateral estoppel, also known as issue preclusion, applies in the administrative context. *See B & B Hardware, Inc. v. Hargis Indus., Inc.*, 135 S. Ct. 1293, 1303 (2015). The Supreme Court has held:

[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. Indeed, this Court has explained that because the principle of issue preclusion was so “well established” at common law, in those situations in which Congress has authorized agencies to resolve disputes, “courts may take it as given that Congress has legislated with the expectation that the principle [of issue preclusion] will apply except when a statutory purpose to the contrary is evident.

*Id.* (alteration in original) (quoting *Astoria Fed. Sav. & Loan Ass’n v. Solimino*, 501 U.S. 104, 108 (1991)); *see also* Restatement (Second) of Judgments § 83(1) (Am. Law Inst. 1982) (explaining that, while there are limits, “a valid and final adjudicative determination by an administrative tribunal has the same effects under the rules of res judicata, subject to the same exceptions and qualifications, as a judgment of a court”). *B & B Hardware* is particularly relevant here, as the Court held that “issue preclusion should apply” to the final written decision of the Trademark Trial and Appeal Board (“TTAB”). 135 S. Ct. at 1310. The TTAB, at issue in *B & B Hardware*, and the Board, in this case, are indistinguishable for preclu-

sion purposes. Indeed, in *SkyHawke Technologies, LLC v. Deca International Corp.*, 828 F.3d 1373, 1376 (Fed. Cir. 2016), we reiterated that “administrative decisions by the U.S. Patent and Trademark Office can ground issue preclusion . . .” See also *Gould v. Mossinghoff*, 711 F.2d 396, 398 (D.C. Cir. 1983) (“There is no doubt that in proper circumstances decisions of the Board of Patent Interferences may be given collateral estoppel effect.”). Furthermore, “[i]t is undisputed that as a result of collateral estoppel, a judgment of invalidity in one patent action renders the patent invalid in any later actions based on the same patent.” *Mycogen Plant Sci., Inc. v. Monsanto Co.*, 252 F.3d 1306, 1310 (Fed. Cir. 2001) (citing *Blonder-Tongue Labs., Inc. v. Univ. of Illinois Found.*, 402 U.S. 313, 349-50 (1971)), *vacated on other grounds*, 535 U.S. 1109 (2002).

The fact that the ’728 IPR became final while this case was pending on appeal is irrelevant, as “issue preclusion applies even though the precluding judgment . . . comes into existence while the case as to which preclusion is sought (this case) is on appeal.” *Soverain Software LLC v. Victoria’s Secret Direct Brand Mgmt., LLC*, 778 F.3d 1311, 1315 (Fed. Cir. 2015); see also *Mendenhall v. Barber-Greene Co.*, 26 F.3d 1573, 1577-80 (Fed. Cir. 1994) (invalidity decision rendered while on appeal); *Dana Corp. v. NOK, Inc.*, 882 F.2d 505, 507-08 (Fed. Cir. 1989) (same). That MaxLinear was not a party to the other IPRs is similarly irrelevant since Cresta, the predecessor in interest to CRESPE, was party to the original determination. See *Blonder-Tongue*, 402 U.S. at 349-50.

The preclusive effect of the prior adjudications, and subsequent affirmations, has finally resolved the issue of the unpatentability of independent claims 1 and 17 and dependent claim 20 in this proceeding. Thus, the sole remaining question at issue is whether the dependent claims 4, 6-9, and 21, not addressed in the earlier IPRs, are unpatentable.

The Board's decision as to the patentability of the dependent claims in the '592 appeal rested entirely on their conclusion that claim 1 and 17 were not unpatentable and contained no separate analysis or discussion of the dependent claims. The Board held that "[b]ecause each of challenged dependent claims [¶4, 6-9, . . . and ¶21 incorporate[s] the limitations of the respective independent claims, we also conclude that Petitioner has not shown, by a preponderance of the evidence, that those claims are unpatentable." '592 IPR, 2016 WL 8946032, at \*12. However, the holding of unpatentability of claims 1 and 17 in the '728 IPR, and the affirmance by our court, abrogates the basis for the Board's decision.

Since the patentability of claims 1 and 17 was the sole basis for the Board's decision in this IPR, and the Board has not separately addressed the dependent claims, we set aside the decision as to the dependent claims and remand for further consideration. In *SKF USA Inc. v. United States*, 254 F.3d 1022, 1028 (Fed. Cir. 2001), we pointed out that "remand is generally required if [an] intervening event may affect the validity of the agency action." See also *Ethyl Corp. v. Browner*, 989 F.2d 522, 524 (D.C. Cir. 1993) (highlighting a "tradition of allowing agencies to reconsider their actions where events pending appeal draw their decision in question"); *Nat'l Fuel Gas Supply Corp. v. Fed. Energy Regulatory Comm'n*, 899 F.2d 1244, 1249–50 (D.C. Cir. 1990) (per curiam) (granting remand following new legal decision). Intervening events can include "a new legal decision" such as the affirmation of the previous IPRs by our court. *SKF USA Inc.*, 254 F.3d at 1028.

We note that the collateral-estoppel effect of an administrative decision of unpatentability generally requires the invalidation of related claims that present identical issues of patentability. In *Ohio Willow Wood Co. v. Alps South, LLC*, 735 F.3d 1333, 1342 (Fed. Cir. 2013), we pointed out that "precedent does not limit collateral

estoppel to patent claims that are identical . . . . If the differences between the unadjudicated patent claims and adjudicated patent claims do not materially alter the question of invalidity, collateral estoppel applies.” *See also Sovereign*, 778 F.3d at 1315; *Bourns, Inc. v. United States*, 537 F.2d 486, 493 (Ct. Cl. 1976) (per curiam).

On remand, the Board must consider whether the dependent claims 4, 6-9, and 21 can survive the unpatentability of claims 1 and 17 from which they depend in view of the prior art cited in the ’728 IPR.<sup>3</sup> The Board must decide whether the remaining claims present materially different issues that alter the question of patentability, making them patentably distinct from claims 1 and 17.

Remand of these claims will allow the Board to evaluate CRESPE’s argument concerning the surviving claims and allow the Board to consider the dependent claims in light of the unpatentability of claims 1 and 17.

#### CONCLUSION

The decision of the Board is vacated. We remand this case to the Board so that it may consider the patentability

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<sup>3</sup> We note that CRESPE does not defend claims 2, 3, 16, 18, and 19 on appeal, even though these claims were upheld in the ’592 IPR, 2016 WL 8946032, at \*12. These claims were held unpatentable in the ’728 IPR, 2015 WL 6441485, at \*13, and this court affirmed by a Rule 36 Judgement in *CRESPE I*, 670 F. App’x at 708. It is unnecessary to remand claim 20 to the Board, as the unpatentability of this claim in the ’615 IPR, 2016 WL 8969202, at \*21, was affirmed in *CRESPE II*, 2017 WL 6044690, at \*1.



of the surviving disputed dependent claims 4, 6-9, and 21.<sup>4</sup>

**VACATED AND REMANDED**

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<sup>4</sup> We discern no independent argument made to the Board concerning why claims 4, 8, and 9 should be considered separately patentable. On remand, the Board may consider whether CRESPE has waived arguments concerning these claims.