

United States Court of Appeals for the Federal Circuit

00-1012

PIONEER MAGNETICS, INC.,

Plaintiff-Appellant,

v.

MICRO LINEAR CORPORATION,

Defendant-Appellee.

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Marc E. Brown, Oppenheimer Wolff & Donnelly LLP, of Los Angeles, California, argued for plaintiff-appellant. With him on the brief was George L. Fountain.

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Appealed from: United States District Court for the Central District of California

Judge Lourdes G. Baird

United States Court of Appeals for the Federal Circuit

00-1012

PIONEER MAGNETICS, INC.,

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v.

MICRO LINEAR CORPORATION,

Defendant-Appellee.

DECIDED: January 23, 2001

Before MAYER, Chief Judge, NEWMAN and LOURIE, Circuit Judges.

MAYER, Chief Judge.

Pioneer Magnetics, Inc. (Pioneer) appeals the judgment of the United States District Court for the Central District of California, case number 95-CV-8307, granting Micro Linear Corporation (Micro Linear) summary judgment that none of its accused products infringe Pioneer's United States Patent No. 4,677,366 (the '366 patent). Because the parties do not contest the judgment of literal infringement and the district court properly concluded that prosecution history estoppel precludes infringement under the doctrine of equivalents, we affirm.

Background

Pioneer owns the '366 patent directed toward a "unity power factor power supply." The patent describes circuitry designed to receive variant levels of input voltage and to emit a constant output voltage, thereby providing a steady electrical current source to another circuit.

The '366 patent consists of four claims: independent claim 1, and dependent claims 2-4. Claim 1 recites in relevant part: "In a switched power supply: a rectifier adapted to be connected to the alternating current line; a boost converter connected to the output of said rectifier . . .; and a control circuit . . ., said control circuit including a voltage error amplifier . . ., a switching analog multiplier circuit . . ., a current regulator amplifier . . ., and circuit means including a pulse-width modulator" '366 patent, col. 6, ll. 7-38 (emphasis added). Claim 2, also relevant to the prosecution history of the '366 patent, recites: "The combination defined in claim 1, in which said multiplier is a switching type, and in which said control circuit includes a timer and ramp signal generator for supplying clock signals to said switching multiplier and ramp signals to said pulse width modulator." Id., at col. 6, ll. 39-43.

Pioneer's patent attorney, Keith Beecher, filed the application that matured into the '366 patent on May 12, 1986. The application included nine claims: claim 1 (the only independent claim) and claims 2-9. Four of these original claims are relevant to the issue at hand:

4. The combination defined in claim 3, in which said control circuit includes a multiplier . . .
5. The combination defined in claim 4, and which includes . . . circuit means . . .
6. The combination defined in claim 5, in which said last-named circuit means includes a pulse width modulator.
7. The combination defined in claim 6, in which said multiplier is a switching type, and in which said control circuit includes a timer and ramp signal generator for supplying clock signals to said switching multiplier and ramp signals to said pulse width modulator.

(emphasis added).

The examiner rejected original claims 1-5 and 8-9 under 35 U.S.C. § 102(b) as anticipated by United States Patent No. 4,437,146 (the Carpenter reference). This reference did not disclose a switching multiplier circuit or a pulse-width modulator. The examiner then rejected original claim 6 as indefinite under 35 U.S.C. § 112, second paragraph, stating that "[t]he phrase 'said last-named circuit means' lacks proper antecedent basis in the claims." Claim 7 was dependent upon claim 6, and therefore was rejected on the same basis.

Pioneer did not dispute the rejection. Instead, it amended original claims 1 and 7, and cancelled original claims 2-6. The amendments to claim 1 imported claims 2-6, and had the relevant substantive effect of changing "circuit means" in original claim 5 to "circuit means including a pulse-width modulator" and changing the "multiplier" in original claim 4 to a "switching analog" multiplier circuit. In the remarks section of its amended application, Pioneer explained,

It is believed clear that there is no showing in the cited Carpenter Patent 4,437,146 of the specific combination set forth in amended claim 1. It is also noted that amended claim 1 represents original claim 6 in independent form, and that claim 6 has been amended to overcome the objection raised under 35 USC 112.

Despite twice stating that amended claim 1 incorporated original claims 2-6, Pioneer offered no explanation for its addition of the "switching analog" limitation not present in original claims 1-6.

As it stated in its remarks, Pioneer also amended original claim 7 (issued as final claim 2) to depend on amended claim 1, and to specify that the switching multiplier recited in claim 7 be a "pulse-width" type. On January 21, 1987, the examiner held a telephone

interview with Beecher to propose an amendment deleting this "pulse-width" limitation. With this additional amendment, the examiner allowed the claims. The patent issued on June 30, 1987.

More than eight years later, on December 14, 1995, Pioneer filed suit against Micro Linear alleging infringement of the '366 patent. In motions seeking interpretation of the claims, the parties requested the court to identify what equivalents of the "switching multiplier" limitation, if any, are barred by prosecution history estoppel. In support of its motion, Pioneer offered a declaration by Beecher that the reason he added the "switching" limitation to claim 1 was inadvertence. The court concluded that a "non-switching multiplier" is outside the permissible range of equivalents of this limitation because Pioneer narrowed claim 1 by adding limitations, including the "switching" limitation, to meet the objections of the Patent and Trademark Office as to the patentability of the claim in light of prior art. In response to this ruling, the parties stipulated that summary judgment of non-infringement be deemed granted to Micro Linear on the grounds that its accused products do not literally infringe any of the claims of the '366 patent, and that prosecution history estoppel bars Pioneer from asserting under the doctrine of equivalents that the accused products infringe claims containing the "switching analog multiplier circuit" limitation. The district court approved the stipulation and entered a final judgment of non-infringement.

Discussion

We review a district court's grant of summary judgment de novo. See Vanmoor v. Wal-Mart Stores, Inc., 201 F.3d 1363, 1365, 53 USPQ2d 1377, 1378 (Fed. Cir. 2000) (citing Petrolite Corp. v. Baker Hughes Inc., 96 F.3d 1423, 1425, 40 USPQ2d 1201, 1203 (Fed. Cir. 1996)). Prosecution history estoppel is a legal question subject to our de novo review. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1459-60, 46 USPQ2d 1169, 1177-78 (Fed. Cir. 1998) (en banc) (citations omitted).

An accused device that does not literally infringe a claim may still infringe under the doctrine of equivalents if each limitation of the claim is met in the accused device either literally or equivalently. See Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 40, 41 USPQ2d 1865, 1875 (1997). Prosecution history estoppel serves to limit the doctrine of equivalents by denying equivalency to a claim limitation whose scope was narrowed during prosecution for reasons related to patentability.

To decide whether a claim amendment gives rise to prosecution history estoppel, a court first must determine what claim limitations are alleged to be met by equivalents, and whether a patentee's amendment narrowed the literal scope of the claim. Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 234 F.3d 558, 586, 56 USPQ2d 1865, 1886 (Fed. Cir. 2000) (en banc). Here, there is no dispute that Pioneer alleges that the "switching analog multiplier circuit" can be met by an equivalent, and that its amendment of claim 1 from a "multiplier" to a "switching analog" multiplier narrowed the literal scope of the claim.

A court next must examine the reason why an applicant amended a claim. See Warner-Jenkinson, 520 U.S. at 32-33, 41 USPQ2d at 1872-73; Festo, 234 F.3d at 565, 586, 56

USPQ2d at 1869-70, 1886. The burden is on the patent holder to establish that the reason for the amendment is not one related to patentability. Warner-Jenkinson, 520 U.S. at 33, 41 USPQ2d at 1873; Festo, 234 F.3d at 586, 56 USPQ2d at 1886. If the reason for the amendment is shown by the prosecution record to be unrelated to patentability, then "a court must consider that purpose in order to decide whether an estoppel is precluded." Warner-Jenkinson, 520 U.S. at 40-41, 41 USPQ2d at 1876, Festo, 234 F.3d at 566, 56 USPQ2d at 1870. If the reason for the amendment is related to patentability, no equivalency is available as to the subject matter of the amendment. See Warner-Jenkinson, 520 U.S. at 33, 41 USPQ2d at 1873; Festo, 234 F.3d at 565-66, 569, 585, 56 USPQ2d at 1870, 1872, 1886. Where no explanation is established, a court should presume that the applicant had a substantial reason related to patentability for the amendment. Id. Prosecution history estoppel then bars the application of the doctrine of equivalents as to that limitation. Id.

We therefore examine the reason offered for the amendment. Pioneer contends it added the "switching" limitation through sheer inadvertence, unmotivated by any of the statutory requirements for a patent. To argue that its addition of the "switching" limitation was obviously in error, it relies on (1) the Beecher declaration, (2) the portion of its patent application stating that amended claim 1 incorporated claims 2-6 (which did not include the switching limitation), and (3) its assertion that reading amended claim 1 to include the "switching" limitation would be redundant of amended claim 2.

The argument is unpersuasive. First, we do not consider the Beecher declaration in determining the reason for the amendment to the claim. Only the "public record of the patent's prosecution, i.e., the patent's prosecution history" can be a basis for such a reason. Festo, 234 F.3d at 586, 56 USPQ2d at 1886. Second, the prosecution history does not show that the reason for the amendment of the term "switching" was inadvertent. Although the Remarks section of the amendments indicates that Pioneer amended claim 1 to state claim 6 in independent form, it is equally possible that Pioneer changed the claim intentionally but inadvertently failed to update the Remarks. Finally, claim 2 is not redundant of claim 1 because it includes the additional limitations of a "timer and ramp signal generator . . ." '366 patent, col. 6, ll. 41-43.

Even if we were to accept Pioneer's explanation for its amendment, inadvertence is not a sufficient reason to overcome the bar of prosecution history estoppel on the facts of this case. The public notice function of patents would be frustrated by forcing a patentee's competitors to guess whether a patent's claims were drafted and accepted in error. See Festo, 234 F.3d at 576-77, 56 USPQ2d at 1878 (emphasizing the definitional and public notice functions of patent claims and the reluctance to entertain speculative inquiries in areas of prosecution history estoppel). A patent applicant has many opportunities to remedy a drafting error in his claims. He may amend the claim during examination. See Solomon v. Kimberly Clark Corp., 216 F. 3d 1372, 1378, 55 USPQ3d 1279, 1282 (Fed. Cir. 2000) (citations omitted) ("[D]uring patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed. . . . An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during

the administrative process."). A patentee may also seek a reissue broadening the claim within the two years provided by 35 U.S.C. § 251 (1994).

Pioneer further argues that its amendment adding the "switching" limitation to claim 1 was not related to patentability because it was voluntary and was not offered to overcome any rejection, on prior art or otherwise. However, as Festo makes clear, the mere fact that an amendment is voluntary does not shield it from prosecution history estoppel. "Voluntary claim amendments are treated the same as other amendments. Therefore, a voluntary amendment that narrows the scope of a claim for a reason related to the statutory requirements for a patent will give rise to prosecution history estoppel as to the amended claim element." Festo, 234 F.3d at 568, 56 USPQ2d at 1871.

We therefore conclude that Pioneer has failed to meet its burden of establishing a reason unrelated to patentability for its amendment. Our own examination of the prosecution history convinces us that the amendment was made to avoid prior art, the classic basis for the application of prosecution history estoppel. See Warner-Jenkinson, 520 U.S. at 30-31; see also Sextant Avionique, S.A. v. Analog Devices, Inc., 172 F.2d 817, 826, 49 USPQ2d 1865, 1871 (Fed. Cir. 1999) (citing Bai v. L & L Wings, Inc., 160 F.3d 1350, 1355, 48 USPQ2d 1674, 1677 (Fed. Cir. 1998)) (substantive changes to a claim that clearly respond to an examiner's rejection of that claim as unpatentable over prior art give rise to prosecution history estoppel).

The prosecution history shows that the examiner rejected claims 1-5 and 8-9 in light of the Carpenter reference, which disclosed a power supply containing a non-switching multiplier. Pioneer amended claim 1 to include a switching analog multiplier, which distinguished the '366 invention over Carpenter. Therefore, the addition of this limitation was made to avoid prior art.

Pioneer attempts to avoid this conclusion by arguing that the "switching" limitation was unnecessary to the allowance of the claim. It contends that it added the pulse-width modulator, not the "switching" limitation, to distinguish its invention over Carpenter. According to Pioneer, the prosecution history indicates that amended claim 1 would have been allowed without the "switching" limitation because the examiner did not state in his initial rejection that he was rejecting original claim 6 (containing the pulse-width modulator limitation, but not the "switching" limitation) in view of prior art, but only for an improper antecedent basis reference under section 112, second paragraph.

We will not speculate whether any given amendment was material to the prosecution of the patent. Festo, 234 F.3d at 576-77, 56 USPQ2d at 1879 (citing Hubbell v. United States, 179 U.S. 77, 84 (1900)). Claim 1 is a combination claim. Its patentability rests on the novelty of the recited combination in amended claim 1, which includes the switching multiplier. See id. at 590-91, 56 USPQ2d at 1889-90. Moreover, the prosecution history shows that Pioneer recognized that the combination of elements was important to the allowance of the claims. In its remarks to the PTO, Pioneer stated, "[i]t is believed clear that there is no showing in the cited Carpenter Patent 4,437,146 of the specific combination set forth in amended claim 1." (emphasis added). It also stated that "[t]he amended claim 1 recites in precise details the various elements and components of the

overall combination of the invention" (emphasis added). Although it is not clear from the prosecution history whether the addition of the pulse-width modulator alone would suffice to overcome the Carpenter reference, the addition of the "switching" limitation is responsive to the examiner's anticipation rejection and assisted Pioneer in distinguishing its invention over prior art. See Bai, 160 F.3d at 1356, 48 USPQ2d at 1678-79 (refusing to speculate whether the examiner would have allowed a claim without the additional limitation where the limitation distinguished the invention over prior art). The prosecution history therefore demonstrates that the amendment was made for a reason related to patentability, to avoid prior art.

No scope of equivalents can be given to a claim limitation that was narrowed because of patentability concerns. Festo, 234 F.3d at 574, 56 USPQ2d at 1877. Therefore, Pioneer is estopped from arguing equivalents to the "switching analog multiplier circuit" limitation of the claims in the '366 patent. As the parties have recognized, the determination of these issues is dispositive. It is therefore unnecessary to reach the remainder of the issues briefed by the parties.

Conclusion

Accordingly, the judgment of the United States District Court for the Central District of California is affirmed.

AFFIRMED