

NOTE: This disposition is nonprecedential.

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

DIONEX SOFTRON GMBH,
Appellant

v.

AGILENT TECHNOLOGIES, INC.,
Appellee

2019-1888

Appeal from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. 106,073.

Decided: May 6, 2020

ANDREW JAMES ISBESTER, Kilpatrick Townsend &
Stockton LLP, San Francisco, CA, for appellant. Also rep-
resented by JORDAN TRENT JONES, Menlo Park, CA.

JOHN B. SGANGA, JR., Knobbe, Martens, Olson & Bear,
LLP, Irvine, CA, for appellee. Also represented by EDWARD
M. CANNON, DAVID GERARD JANKOWSKI, PHILIP MARK
NELSON.

Before LOURIE, WALLACH, and HUGHES, *Circuit Judges*.

LOURIE, *Circuit Judge*.

Dionex Softron GmbH (“Dionex”) appeals from a decision of the Patent Trial and Appeal Board (“Board”) determining that claims 21–39 of U.S. Patent Application 14/454,577 (the “’577 application”) are unpatentable for lack of written description and indefiniteness under 35 U.S.C. § 112 and that Dionex therefore lacks standing to continue an interference between the ’577 application and U.S. Patent 9,435,773 (the “’773 patent”). See *Agilent Techs., Inc. v. Dionex Softron GmbH*, Interference No. 106,073, 2019 WL 1453983 (PTAB March 29, 2019) (“*Decision*”). Because we conclude that the Board did not err in its construction of the claims under 35 U.S.C. § 112(f) and agree that the ’577 application lacks sufficient disclosure under the Board’s construction, we *affirm*.

BACKGROUND

Agilent Technologies, Inc. (“Agilent”) owns the ’773 patent, which is directed to a sample injector for use in high performance liquid chromatography. ’773 patent, Abstract. The sample injector includes a metering device for introducing a fluidic sample into a sample loop, a switchable valve capable of switching positions to selectively connect or disconnect various conduits connected to the valve, and a control unit for controlling switching of the valve to transfer the sample loop between a low-pressure state and a high-pressure state via an intermediate state to equilibrate a pressure difference in the sample loop between the low-pressure and the high-pressure state. *Id.* col. 3 ll. 17–38.

In 2014, Dionex filed the ’577 application, which is also directed to sample injectors for use in high performance liquid chromatography. Dionex copied claims 1–19 of the ’773 patent into its ’577 application as claims 21–39 to provoke an interference. The copied claims include two independent claims. Claim 21, an apparatus claim, recites in part “a *control unit* configured for controlling the valve switch

among a first position, a second position and an intermediate position in order transfer the sample loop between a low pressure corresponding to the first position of the valve and a high pressure corresponding to the second position of the valve.” Claim 39 recites similar subject matter as a method claim, including “*controlling* the valve to switch among predetermined valve positions to transfer the sample loop between a low pressure and a high pressure.”

The Board declared an interference and Agilent filed a motion for judgment that the claims are indefinite and lack written description support in the ’577 application. Specifically, Agilent argued that the “control unit” limitation of claim 21 and the “controlling” limitation of claim 39 should be construed as functional limitations under 35 U.S.C. § 112(f) and that, when so construed, the ’577 application fails to disclose adequate structure, rendering the claims indefinite.

The Board agreed with Agilent and entered judgment against Dionex. First, the Board determined that the “control unit” limitation of claim 21 and the “controlling” limitation of claim 39 are functional limitations subject to § 112(f). *Decision*, 2019 WL 1453983, at *9. Based on the testimony of Agilent’s expert, Dr. Schug, the Board determined that the limitations would not convey any corresponding structure or acts to a person of ordinary skill, and therefore recite only functions. *Id.* at *7. Observing that “when a party challenges written description support for an interference count or the copied claim in an interference, the originating disclosure provides the meaning of the pertinent claim language,” *Agilent Techs., Inc. v. Affymetrix, Inc.*, 567 F.3d 1366, 1375 (Fed. Cir. 2009), the Board proceeded to identify corresponding structure for the claim terms in light of the written description of Agilent’s ’773 patent. Having determined that both the “control unit” and “controlling” limitations are subject to § 112(f), the Board construed the terms together and determined that the limitations require physical movement of the valve

and that the written description of the '773 patent discloses the corresponding structure for that function as a gearbox, motor controller, encoder, and central processing unit. *Decision* at *9; '773 patent col. 8 ll. 61–67. Finally, the Board determined that Dionex's '577 application lacks disclosure of the corresponding structure disclosed in the '773 patent. *Id.* at 12. Accordingly, the Board held that the copied claims are indefinite as to the '577 application and entered judgment against Dionex. *Id.* at 13.

Dionex appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

“Claim construction is a question of law that may involve underlying factual questions.” *Amgen Inc. v. Amneal Pharm. LLC*, 945 F.3d 1368, 1375 (Fed. Cir. 2020) (citing *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 332 (2015)). “Whether claim language invokes [§ 112(f)] is a legal question of claim construction that we review *de novo*.” *MTD Prods. Inc. v. Iancu*, 933 F.3d 1336, 1341 (Fed. Cir. 2019) (citing *Williamson v Citrix Online LLC*, 792 F.3d 1339, 1346 (Fed. Cir. 2015)). “We review the Board’s factual findings underlying this inquiry for substantial evidence.” *Id.* (citing *EnOcean GmbH v. Face Intern. Corp.*, 742 F.3d 955, 959 (Fed. Cir. 2014)).

“Indefiniteness is a question of law that we review *de novo*, subject to a determination of underlying facts, which we review for substantial evidence.” *Guangdong Alison Hi-Tech Co v. ITC*, 936 F.3d 1353, 1359 (Fed. Cir. 2019) (citing *One-E-Way, Inc. v. ITC*, 859 F.3d 1059, 1062 (Fed. Cir. 2017)). “When no structure in the specification is linked to the function in a means-plus-function claim element, that claim is indefinite.” *Bosch Auto. Serv. Sols., LLC v. Matal*, 878 F.3d 1027, (Fed. Cir. 2017) (citing *AllVoice Computing PLC v. Nuance Commc’ns, Inc.*, 504 F.3d 1236, 1241 (Fed. Cir. 2007)).

On appeal, Dionex does not dispute that the “control unit” limitation of claim 21 recites functional language. Rather, it argues that the corresponding structure is a general-purpose computing device and does not require a gearbox, motor controller, and encoder as determined by the Board. Under such a construction, Dionex argues, the ’577 application discloses sufficient structure. As for claim 39, Dionex argues that the “controlling” term is not a functional limitation because the claim recites sufficiently specific acts for performing the function of controlling the valve.

Agilent responds that the Board properly construed the disputed claim terms as functional limitations that require movement of the valve and that the ’577 application does not disclose any structure for effecting that function.

We agree with Agilent. As recognized by the Board, the disputed claim terms require switching the valve between different positions, which necessarily requires movement of the valve. Accordingly, the Board identified the corresponding structure in the ’773 application as that which effects the movement of the valve—namely the gearbox, motor controller, encoder, and central processing unit. Based on its construction, the Board determined that the ’577 application fails to disclose such a corresponding structure. In reaching its conclusion, the Board relied on the testimony of Dr. Schug that the ’577 application does not contain any disclosure of structures, materials, or acts capable of controlling the valve to switch among the different positions as well as the disclosure of the ’577 application itself that the controllable drive of the valve is “not shown.” We discern no error in the Board’s analysis and therefore agree that the involved apparatus claims are indefinite as to the ’577 application.

As for claim 39, we agree with Agilent and the Board that the “controlling” limitation is a functional claim term subject to the same construction as claim 21. Based on Dr.

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Schug's testimony that the claim term would not connote acts to a person of skill sufficient to perform the recited function, the Board determined that claim 39 does not recite acts sufficient to perform the recited function, and we agree. Accordingly, for similar reasons as discussed above with respect to claim 21, we agree that the '577 application fails to disclose sufficient structure for performing the recited function, rendering claim 39 indefinite.

CONCLUSION

Because the claims are indefinite and hence unpatentable, Dionex lacks standing to continue the interference. We have considered Dionex's remaining arguments but find them unpersuasive. For the foregoing reasons, the decision of the Board is affirmed.

AFFIRMED