

NOTE: This disposition is nonprecedential.

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

SPEX TECHNOLOGIES, INC.,
Plaintiff-Appellant

v.

**WESTERN DIGITAL CORPORATION, WESTERN
DIGITAL TECHNOLOGIES, INC., HGST, INC.,**
Defendants-Appellees

2020-1283

Appeal from the United States District Court for the
Central District of California in No. 8:16-cv-01799-JVS-
AGR, Judge James V. Selna.

Decided: May 28, 2021

MARC AARON FENSTER, Russ August & Kabat, Los An-
geles, CA, argued for plaintiff-appellant. Also represented
by PAUL ANTHONY KROEGER, BENJAMIN T. WANG.

FRANK P. COTE, Gibson, Dunn & Crutcher LLP, Irvine,
CA, argued for defendants-appellees. Also represented by
JESSICA A. HUDAK, WILLIAM C. ROOKLIDGE.

Before REYNA, CLEVINGER, and STOLL, *Circuit Judges*.

CLEVINGER, *Circuit Judge*.

SPEX Technologies, Inc. (“SPEX”) charged Western Digital Corporation, Western Digital Technologies, Inc., and HGST, Inc. (collectively “Western Digital”) with infringing claims 1, 2, 6, 7, 11, 12, 23, and 25 of U.S. Patent No. 6,088,802 (“the ’802 Patent”).¹ In its claim construction order, the United States District Court for the Central District of California held that claims 6, 7, 23, and 25 were indefinite because the specification failed to provide corresponding structure for a means-plus-function limitation. *SPEX Techs., Inc. v. Kingston Tech. Corp.*, No. 8:16-cv-01799-JVS-AGR, 2017 WL 5495149, at *15–17 (C.D. Cal. Oct. 18, 2017). In a separate decision, the district court granted Western Digital’s motion for summary judgment of noninfringement of claims 1–2 and 11–12 because SPEX failed to identify an equivalent infringing structure in Western Digital’s accused products. *SPEX Tech., Inc. v. W. Digital Corp.*, No. 8:16-cv-01799-JVS-AGR, 2019 WL 8194736, at *5–6 (C.D. Cal. Nov. 22, 2019). For the reasons set forth below, we *affirm* the district court’s grant of summary judgment of noninfringement but *reverse and remand* the district court’s holding of indefiniteness.

I

The ’802 Patent, entitled “Peripheral Device With Integrated Security Functionality,” discloses a peripheral device, such as a portable hard drive, that is designed to perform security operations on data transmitted to a host computing device (i.e. computer) or from the host computing device to the peripheral device. The peripheral device operates outside of the host computing device and includes security (e.g., encryption) and target (e.g., memory)

¹ SPEX had originally included claims 38 and 39 but those are not at issue in this appeal.

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elements within it. The peripheral device may also take on various identities, for example a target functionality, so that the computer can interact with the device as though it were just a memory device without recognizing the security functionality.

Claim 1 of the '802 Patent recites a “means for mediating” limitation and reads as follows:

1. A peripheral device, comprising:

security means for enabling one or more security operations to be performed on data;

target means for enabling a defined interaction with a host computing device;

means for enabling communication between the security means and the target means;

means for enabling communication with a host computing device;

means for operably connecting the security means and/or the target means to the host computing device in response to an instruction from the host computing device; and

means for mediating communication of data between the host computing device and the target means so that the communicated data must first pass through the security means.

'802 Patent, 18:54–19:4 (emphasis added to highlight language of particular significance to the issues on appeal). Independent claim 11 is similar for the relevant issue and claims 2 and 12 depend from claims 1 and 11, respectively.

Claim 6 recites the same limitations as claim 1, but instead of the “means for mediating” limitation, it includes a “means for providing” limitation and reads as follows:

6. A peripheral device, comprising:

. . . . ; and

means for providing to a host computing device, in response to a request from the host computing device for information regarding the type of the peripheral device, information regarding the function of the target means.

Id. at 19:15–33 (emphasis added to highlight language of particular significance to the issues on appeal). Independent claim 23 is similar for the relevant issue and claims 7 and 25 depend from claims 6 and 23, respectively.

The district court held in its claim construction order that the “means for mediating” limitation in claim 1 and the “means for providing” limitation in claim 6 invoke 35 U.S.C. § 112, ¶ 6. *SPEX Tech.*, 2017 WL 5495149, at *13–17. With respect to the “means for mediating” limitation, the district court construed the function as “mediating communication of data between the host computing device and the target means so that the communicated data must first pass through the security means” and the corresponding

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structure as “Interface control device 910 (as shown in Fig. 9B).” *Id.* at *15. Figure 9B is shown below:

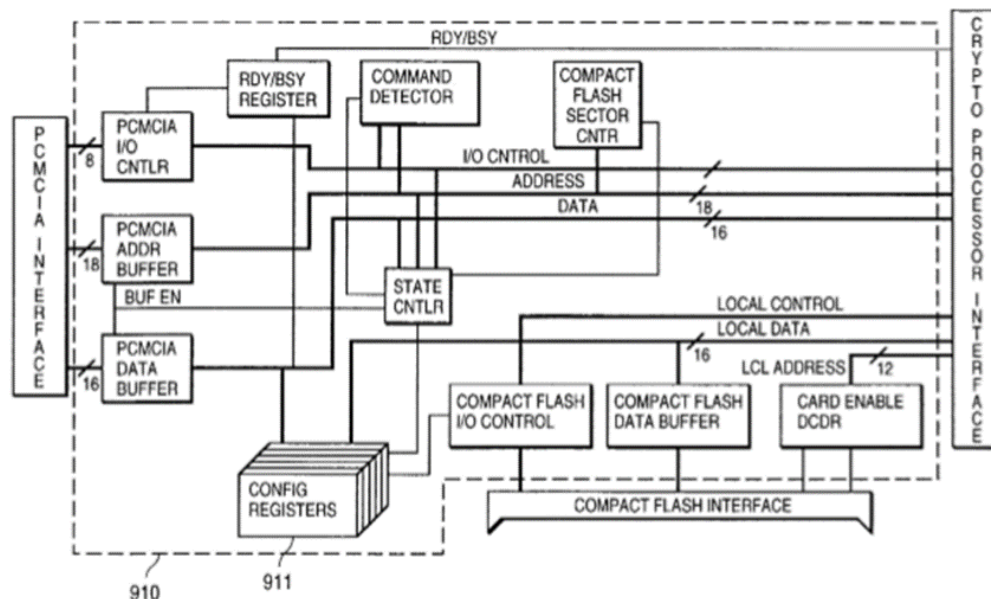


FIG. 9B

'802 patent, Fig. 9B. In Figure 9B, “the host computing device communicates via a PCMCIA interface and the target functionality is embodied by a compact flash memory device.” *Id.* at 17:18–21. According to the district court’s construction, “Figure 9B is dedicated to setting out components of an exemplary interface control device 910 and that device’s relationship to surrounding interfaces,” which include the PCMCIA, compact flash, and crypto processor interfaces. *SPEX Tech.*, 2017 WL 5495149, at *14. Neither party disputes the district court’s construction with respect to this limitation.

The parties also agreed that the function for the “means for providing” limitation is “providing to a host computing device in response to a request from the host computing device for information regarding the type of the

peripheral device, information regarding the function of the target means,” and SPEX identified memory section 612a in the peripheral device as the corresponding structure. *Id.* at *15. But the district court ultimately found that the term was indefinite under 35 U.S.C. § 112, ¶ 2 because the specification “does not provide that the memory section 612a stores information about the function of the target means, let alone provides information about the function of the target means in response to a request from the host computing device.” *Id.* at *17. The district court considered SPEX’s argument that U.S. Patent No. 6,003,135 (“the ’135 patent”) was incorporated by reference into the ’802 patent’s specification and also provided sufficient corresponding structure for the limitation, but ultimately rejected that argument finding that the ’135 patent was not properly incorporated. However, the district court noted that the ’135 patent sufficiently linked memory section 612a to the function of storing target module identification data.

After the district court entered its *Markman* ruling, Western Digital moved for summary judgment of noninfringement of claims 1–2 and 11–12 on the basis that SPEX failed to identify an overall equivalent structure in Western Digital’s accused products that met the “means for mediating” limitation. The district court agreed, holding that no reasonable jury could find that Western Digital’s accused products infringed because SPEX could not point to a single equivalent structure that met interface control device 910, and instead selected various individual components spread out in the accused products’ interfaces that corresponded to other individual components in interface control device 910.

SPEX timely appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

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II

We review summary judgment decisions under the law of the regional circuit, which in this case is the Ninth Circuit. *Momenta Pharms., Inc. v. Teva Pharms. USA Inc.*, 809 F.3d 610, 614 (Fed. Cir. 2015). The Ninth Circuit reviews the district court's grant of summary judgment *de novo*. *Blight v. City of Manteca*, 944 F.3d 1061, 1065–66 (9th Cir. 2019). The district court's decision will be upheld when the non-moving party fails to present evidence of a genuine dispute of material fact. *Nissan Fire & Marine Ins. Co. v. Fritz Cos.*, 210 F.3d 1099, 1103 (9th Cir. 2000).

The issue of whether an accused device infringes under § 112, ¶ 6 as an equivalent is a question of fact. On appeals from grants of summary judgment of noninfringement, “we determine whether, after resolving reasonable factual inferences in favor of the patentee, the district court correctly concluded that no reasonable jury could find infringement.” *Sunovion Pharms., Inc. v. Teva Pharms. USA, Inc.*, 731 F.3d 1271, 1275–76 (Fed. Cir. 2013). “The district court may find the absence of an equivalent where no reasonable jury could have found that the accused device has an equivalent to the disclosed structure.” *Frank's Casing Crew & Rental Tools, Inc. v. Weatherford Int'l, Inc.*, 389 F.3d 1370, 1378 (Fed. Cir. 2004) (internal quotations omitted).

On issues of claim construction, we review the district court's claim construction *de novo*, with factual findings based on extrinsic evidence reviewed for substantial evidence. *See Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331–33 (2015). Once we determine whether § 112, ¶ 6 is invoked, we also review a determination that the claim complies with the definiteness requirement under § 112, ¶ 2 *de novo*. *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012).

III

There are two issues on this appeal: whether the district court properly found (1) that there was no genuine dispute of material fact that the accused products did not infringe the “means for mediating” limitation, and (2) that the “means for providing” limitation is indefinite because the ’802 patent’s specification lacks sufficient disclosure clearly linking memory section 612a to the claimed function. We address each in turn.

A

According to SPEX, the district court erred because there was a genuine dispute as to whether Western Digital’s accused products literally infringed the “means for mediating” limitation as equivalents under § 112, ¶ 6 or infringed under the doctrine of equivalents. We disagree with SPEX on both theories. As the district court correctly found, SPEX failed to raise a genuine dispute that any of the accused products had an equivalent overall structure to interface control device 910.

Literal infringement of § 112, ¶ 6 requires that the “relevant structure in the accused device perform the identical function recited in the claim and be identical or equivalent to the corresponding structure in the specification.” *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1267 (Fed. Cir. 1999). The assertedly equivalent structure must also perform the same function in substantially the same way to achieve substantially the same result. *Id.* at 1268. The doctrine of equivalents standard is similar but requires that the function, way, and result are substantially similar. *Id.* at 1267. “Because the ‘way’ and ‘result’ prongs are the same under both the section 112, paragraph 6 and doctrine of equivalents tests, a structure failing the section 112, paragraph 6 test under either or both prongs must fail the doctrine of equivalents test for the same reason(s).” *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352, 1364 (Fed. Cir. 2000).

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SPEX failed to provide any genuine dispute that the accused products have an equivalent overall structure to interface control device 910. Dr. Rhyne, SPEX's expert, simply provided a component-by-component analysis for each accused product in which he identified a few physically separate elements throughout the accused products' complex integrated circuit, and then compared each of those individual components with its allegedly equivalent component in interface control device 910. For instance, in the Gannett system-on-a-chip ("SoC"), which is present in at least one of the accused products, Dr. Rhyne identified components that corresponded to the PCMCIA interface and identified other separate components that corresponded to the Compact Flash Interface in interface control device 910. *See* J.A. 3190–92, ¶¶ 104–110; *see also* J.A. 3217–21, ¶¶ 236–249.² Yet, he never identified an equivalent overall structure; instead, he stated that he "pick[ed] out specific hardware elements within the Gannet SoC rather than the whole thing." J.A. 2350 at 13:21–24. "The individual components, if any, of an overall structure that corresponds to the claimed function are not claim limitations. Rather, the claim limitation is the overall structure corresponding to the claimed function." *Odetics*, 185 F.3d at 1268. Thus, his approach to infringement fails to raise any genuine dispute that would allow a reasonable jury to conclude the accused products have an equivalent overall structure.

Dr. Rhyne further failed to explain how the accused products perform the claimed function in substantially the same way to achieve substantially the same result, or why the differences between the accused products and interface

² Citations to "J.A. ___" refer to the joint appendix filed by the parties to this appeal.

control device 910 were insubstantial.³ “The proper test [for determining whether an accused product meets the means-plus-function limitation] is whether the differences between the structure in the accused device and any disclosed in the specification are insubstantial.” *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1309 (Fed. Cir. 1998). For the same reasons above, SPEX also fails to present a genuine dispute under its doctrine of equivalents theory because it could not identify an overall equivalent structure or explain why the differences in the structures were insubstantial. *See Chiuminatta*, 145 F.3d at 1310 (“[A] finding of a lack of literal infringement for lack of equivalent structure under a means-plus-function limitation may preclude a finding of equivalence under the doctrine of equivalents.”).

SPEX’s attorney-annotated diagrams attempt to remedy the flaw in Dr. Rhyne’s testimony by drawing a box around the components it believes form the overall equivalent structure in the accused products. However, this is unavailing as this characterization of the overall equivalent structure is unsupported by Dr. Rhyne’s testimony. It also fails to account for any of the differences between the accused products’ interfaces and interface control device 910 or explain why those differences are insubstantial.

SPEX cites to *Odetics* as support for Dr. Rhyne’s component-by-component analysis, but SPEX misinterprets

³ The integrated circuits in the accused products contain intervening components between the relevant components that are not in interface control device 910. Dr. Rhyne did not address these intervening components in his equivalence analysis. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1346 (Fed. Cir. 2016) (finding that accused products are not equivalent under § 112, ¶ 6 because plaintiff failed to explain how differences between accused product and claims were insubstantial).

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Odetics. In *Odetics*, the expert had first clearly identified an equivalent overall structure and only then did the expert look to particular components in order to explain why any differences between the equivalent accused product and the claims were insubstantial. 185 F.3d at 1269–70. Indeed, *Odetics* rejected an isolated component-by-component analysis that pays no regard to an equivalent overall structure. *Id.* at 1268 (“The component-by-component analysis used by the district court finds no support in the law.”). For these reasons, we affirm the district court’s grant of summary judgment of noninfringement.

B

We now turn to the district court’s indefiniteness determination. SPEX argues that the ’802 patent sufficiently links memory section 612a as the corresponding structure to the recited function in the “means for providing” limitation. In the alternative, SPEX contends that if the ’802 patent does not recite sufficient structure, then the ’135 patent, which is alleged to be properly incorporated by reference, provides the necessary structure. However, we do not reach the issue of whether the ’135 patent was properly incorporated as we hold that the ’802 patent sufficiently links memory section 612a to the function recited in the “means for providing” limitation.

A structure qualifies as “corresponding structure” if the specification clearly links the structure to the claimed function. *Noah Sys., Inc.*, 675 F.3d at 1311. In order to determine whether the specification adequately links a structure that corresponds to the claimed function, we must look at the disclosure from the perspective of a person of ordinary skill in the art. “Under 35 U.S.C. § 112 ¶ 2 and ¶ 6, a means-plus-function clause is indefinite if a person of ordinary skill in the art would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim.” *AllVoice Computing PLC v. Nuance Commc’ns, Inc.*, 504 F.3d 1236, 1241 (Fed. Cir.

2007). Thus, from the perspective of a person of ordinary skill in the art, the '802 patent's specification must clearly link memory section 612a to the claimed function of (1) providing to the host computing device information regarding the function of the target means in response to (2) a request from the host computing device for information regarding the type of peripheral device. In other words, memory section 612a must both store data regarding the target functionality and provide that data to a host computing device when the host computing device requests information regarding the type of peripheral device it is connected to. The '802 patent's specification clearly discloses this as discussed below.

First, it is clear that memory section 612a is used to store information regarding the target functionality. The specification teaches that memory section 612a stores data referred to as "peripheral device identification data." '802 patent, 8:9–14. The peripheral device "can take a variety of identities," *id.* at 7:43, and can "assume[] the identity of the target functionality," which "enables the host computing device 601 to interact with the peripheral device 602 as though the peripheral device 602 were a device of the type of the target functionality . . . ," *id.* at 8:15–24. The host computing device is able to "identify the type of a peripheral device" that it is connected to by "access[ing] a known memory section of a memory device of the peripheral device" referenced as memory section 612a. *Id.* at 7:62–8:14. Therefore, the specification links memory section 612a because that component is responsible for storing identification data that the host computing device accesses, and one type of identity that the host computing device accesses is the target functionality data. This is further supported by SPEX's expert, Mr. Gomez, who provided the only cited expert testimony and stated that "[a] person having ordinary skill in the art would understand 'peripheral device identification data' to be information identifying the functionality of the 'target means.'" J.A. 983, ¶ 69.

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Second, it is clear that memory section 612a provides the target functionality identity to the host computer when the host computer requests information about the identity of the peripheral device. As discussed previously, “the host computing device can identify the type of peripheral device” by accessing memory section 612a via “an interface standard developed for that type of peripheral device.” ’802 patent, 8:1–8. One such standard is PCMCIA. Mr. Gomez testified that “in protocols such as PCMCIA . . . the computer asks a connected device to identify itself.” J.A. 983–984, ¶ 70. He further testified that “[m]emory section 612a provides this information by making information about the target means available to the computer.” *Id.* Western Digital does not reference any rebuttal expert testimony or dispute Mr. Gomez’s conclusion as to this portion of the recited function. And the portion of the ’802 patent specification referenced by Mr. Gomez for this aspect of the claimed function is virtually identical to the disclosure in the ’135 patent’s specification, which Western Digital references as an example of sufficient disclosure.⁴ *Compare* ’802 patent, 7:62–8:14 *with* ’135 patent, 10:26–49.

Here, there is a clear footprint in the specification linking memory section 612a to the claimed function, and un-rebutted persuasive testimony from the vantage point of a person of ordinary skill further supporting the sufficiency

⁴ Western Digital contrasts the ’135 patent’s specification with that of the ’802 patent to highlight the alleged deficiencies in the ’802 patent. It asserts that the ’135 patent properly links corresponding structure to the recited function, but none of the cited disclosures unique to the ’135 patent relate to the function of providing the target functionality information in response to a request from a host computing device. Yet Western Digital does not appear to take issue with the ’135 patent’s disclosure linking the structure to this function.

of the disclosure. *See AllVoice*, 504 F.3d at 1246 (holding that the specification contained sufficient structure because the plaintiff's expert provided "the only assessment" on record of the specification's adequacy and the record contained no contradictory evidence). For these reasons, we reverse the district court's finding that the "means for providing" limitation is indefinite and remand the case for the district court to proceed in a manner consistent with this opinion.

IV

For the reasons discussed above, the judgment of the district court regarding summary judgment of noninfringement is affirmed, and the judgment regarding indefiniteness is reversed and remanded for further proceedings consistent with this opinion.

AFFIRMED-IN-PART, REVERSED-IN-PART AND REMANDED

COSTS

No costs.