

NOTE: This disposition is nonprecedential.

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

VDPP LLC,
Plaintiff-Appellant

v.

VIZIO, INC.,
Defendant-Appellee

2021-2040

Appeal from the United States District Court for the Central District of California in No. 8:20-cv-00030-JVS-KES, Judge James V. Selna.

Decided: March 25, 2022

MATTHEW MICHAEL WAWRZYN, Wawrzyn LLC, Chicago, IL, argued for plaintiff-appellant.

CHARLES SHELDON BARQUIST, Maschoff Brennan, Los Angeles, CA, argued for defendant-appellee. Also represented by ERYNN EMBREE, Irvine, CA.

Before NEWMAN, LOURIE, and TARANTO, *Circuit Judges*.

LOURIE, *Circuit Judge*.

VDPP LLC appeals from the judgment of the United States District Court for the Central District of California holding that claims 1 and 27 of U.S. Patent 9,699,444 (“the ’444 patent”); claim 2 of U.S. Patent 9,948,922 (“the ’922 patent”); and claim 6 of U.S. Patent 10,021,380 (“the ’380 patent”) are invalid as indefinite. *VDPP LLC v. Vizio, Inc.*, No. SACV 20-00030 (JVS), 2021 WL 3621887 (C.D. Cal. Apr. 5, 2021) (“*Decision*”). The district court’s judgment was based on its determination that certain claim limitations are drafted in means-plus-function format under § 112(f), and they have no disclosed corresponding structures. Because we conclude that the district court erred in holding that the limitations are drafted in means-plus-function format, we *reverse* its judgment of invalidity and *remand* for further proceedings.

BACKGROUND

VDPP owns the ’444, ’922, and ’380 patents (“the patents-in-suit”).¹ The patents-in-suit are directed to an apparatus that purports to create an “illusion of continuous movement.” ’380 patent, col. 46 ll. 38–42. To create that illusion, the apparatus repetitively presents to the viewer “at least two substantially similar” images and a third dissimilar “bridging picture.” *Id.*, col. 46 ll. 6–10. As a result, the images appear to have “seamless and sustained directional movement.” *Id.*, col. 46 ll. 11–12. For example, the alternating images can “create the optical illusion of a door forever cracking open.” *Id.*, col. 54 l. 22. In one embodiment, the apparatus includes a “processor” and “storage.” *Id.*, col. 14 ll. 34–38.

¹ The ’922 and ’380 patents are continuations-in-part of the ’444 patent. Because the specifications of these three patents are similar, we cite the ’380 patent specification unless otherwise noted.

This appeal primarily centers on one aspect of the claimed invention: whether the limitations “processor” and “storage,” as recited in the claims, are drafted in means-plus-function format under § 112(f).

Claim 1 of the ’444 patent is representative and reads as follows:

1. An apparatus comprising:

a **storage** adapted to:

store one or more image frames;
and

a **processor** adapted to:

obtain a first image frame from a first video stream;

expand the first image frame to generate a modified image frame, wherein the modified image frame is different from the first image frame;

generate a bridge frame, wherein the bridge frame is a non-solid color, wherein the bridge frame is different from the first image frame and different from the modified image frame;

blend the modified image frame with the bridge frame to generate a blended modified image frame; and display the blended modified image frame.

’444 patent, col. 47 ll. 40–54 (emphases added).

The remaining asserted claims are substantially similar to claim 1 of the ’444 patent but recite different

functions for the processor. For example, claim 27 of the '444 patent recites that the processor is adapted to “shrink[]” or “remov[e] a portion of the first image frame” and that the “bridge frame is black.” *Id.*, col. 50 ll. 37–57. Claim 2 of the '922 patent recites that the processor is adapted to display a “first modified image frame,” a black “bridge frame,” and a “second modified image frame.” '922 patent, col. 113 ll. 27–48. Claim 6 of the '380 patent recites that the processor is “communicably coupled to the storage” and adapted to combine a “modified first image frame” and “modified second image frame” to “generate a modified combined image frame.” '380 patent, col. 113 ll. 28–51.

On January 7, 2020, VDPP sued Vizio, Inc., a company that manufactures and sells television sets. In its complaint, VDPP alleged that Vizio’s “P-series” television sets infringe claims 1 and 27 of the '444 patent, claim 2 of the '922 patent, and claim 6 of the '380 patent. Complaint, *VDPP LLC v. Vizio, Inc.*, No. SACV 20-00030 (JVS) (C.D. Cal. Jan. 7, 2020), ECF No. 1.

In response, Vizio asserted an affirmative defense of invalidity. According to Vizio, the limitations “storage” and “processor” are drafted in means-plus-function format under § 112(f), and the specifications do not disclose structures that correspond to the recited functions of those limitations.

On April 5, 2021, the district court issued a decision concluding that the asserted claims are invalid as indefinite. First, the court determined that the limitations “processor” and “storage” are subject to § 112(f) because the “asserted claims do not describe how [they] carry out the recited functions—only that they do.” *Decision*, 2021 WL 3621887, at *4. Thus, according to the court, the disputed limitations are merely “black box[es] for performance of a function.” *Id.* Next, the court found that the disputed limitations have no corresponding structures in the specification. *Id.* at *5. Because of that lack of disclosure, the court

concluded that the asserted claims are indefinite. *Id.* The parties then stipulated to a final judgment that the asserted claims are invalid as indefinite. J.A. 18.

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

DISCUSSION

Indefiniteness is a question of law that we review de novo. *See MasterMine Software, Inc. v. Microsoft Corp.*, 874 F.3d 1307, 1313 (Fed. Cir. 2017). Whether claim language is subject to 35 U.S.C. § 112(f) is also a question of law that we review de novo. *See Rain Computing, Inc. v. Samsung Elec. Am., Inc.*, 989 F.3d 1002, 1005 (Fed. Cir. 2021) (citing *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346 (Fed. Cir. 2015)).

Section 112(f) provides that a patent applicant may express “[a]n element in a claim” as “a means or step for performing a specified function without the recital of structure.” But, recites the statute, the claim will be construed to cover only “the corresponding structure . . . described in the specification and equivalents thereof.”

A § 112(f) analysis consists of two steps. *See Dyfan, LLC v. Target Corp.*, No. 2021-1725, — F.4th —, slip op. at 7 (Fed. Cir. 2022). At step one, we determine whether, as a threshold matter, § 112(f) applies to the claim limitation. *See id.* In making that determination, we have “long recognized the importance of the presence or absence of the word ‘means.’” *Williamson*, 792 F.3d at 1348. In the absence of the word means, we presume that a claim limitation is not subject to § 112(f). *Id.* To overcome that presumption, a challenger must “demonstrate[] that the [limitation] fails to ‘recite sufficiently definite structure.’” *Dyfan*, slip op. at 8 (quoting *Williamson*, 792 F.3d at 1349).

We have also recognized, however, that “the essential inquiry is not merely the presence or absence of the word ‘means’” but rather, whether the skilled artisan would

understand the limitation to “have a sufficiently definite meaning as the name for structure.” *Id.*, slip. op. at 8 (quoting *Williamson*, 792 F.3d at 1348). If we determine that the limitation fails to recite sufficiently definite structure, we then conclude that § 112(f) applies and move to step two of the analysis. At step two, we determine whether the specification discloses structure that “corresponds to the claimed function.” *Williamson*, 792 F.3d at 1351.

VDPP argues that the district court erred in holding that the limitations “processor” and “storage” are subject to § 112(f). VDPP emphasizes that, because the disputed limitations lack the word “means,” there is a rebuttable presumption that they are not subject to § 112(f). According to VDPP, the court failed to give that presumption any effect. VDPP adds that the limitations should be construed according to their plain and ordinary meaning. Vizio responds that the “processor” and “storage” limitations are subject to § 112(f) because they are “nothing more than nonce words.” Appellee’s Br. 5.

We agree with VDPP that the district court erred in holding that the limitations “processor” and “storage” are subject to § 112(f).

First, as VDPP points out, the district court failed to give effect to the presumption against the application of § 112(f). Specifically, although the court *acknowledged* that the presumption against § 112(f) applied, it then immediately concluded, without evidence, that Vizio overcame the presumption. *See Decision*, 2021 WL 3621887, at *4 (Concluding that the terms “only stand to set up a black box for performance of a function without any description of how such a function is performed.”). That was erroneous. To overcome this presumption, Vizio was required to provide at least some evidence that a person of ordinary skill would not have understood the limitations to “recite sufficiently definite structure[s].” *Dyfan*, slip. op. at 12 (citing *Apex Inc. v. Raritan Comput., Inc.*, 325 F.3d 1364, 1372–73

(Fed. Cir. 2003)). The court pointed to no such evidence from Vizio, instead summarily concluding that the limitations are subject to § 112(f). *See, e.g., Decision*, 2021 WL 3621887, at *4 (The “terms are surrogates for means terms for the performance of their recited functions.”); (“[T]he asserted claims do not describe how the ‘storage’ or ‘processor’ carry out the recited functions—only that they do.”).

Moreover, the district court overlooked intrinsic evidence showing that the terms “processor” and “storage” *do* connote structure to a skilled artisan. For example, the specifications explain that “processors” and “storage” are “well-known.” ’380 patent, col. 62 ll. 48–52; ’922 patent, col. 63 ll. 19–22². In other words, contrary to the court’s determination, a skilled artisan would not understand “processors” and “storage” to merely be “black box[es] for performance of a function.” *Decision*, 2021 WL 3621887, at *4. Rather, they “exist[ed] in [the] prior art at the time of the invention[.]” *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003, 1008 (Fed. Cir. 2018).

Still, Vizio insists that the district court’s analysis was correct and supported by the evidence. Vizio, however, points to no such evidence on appeal. Instead, it simply repeats the court’s conclusory statements that the limitations are “nothing more than generic words.” Appellee’s Br. 8. That is insufficient to overcome the presumption against application of § 112(f). Accordingly, the court erred in concluding that the limitations are subject to § 112(f).

Vizio makes several additional arguments, all unpersuasive.

First, Vizio emphasizes that the specifications fail to disclose structures capable of performing the claimed functions. According to Vizio, because of that lack of disclosure, the claims are invalid as indefinite. For example, Vizio

² That disclosure is not recited in the ’444 patent.

contends that the specifications only disclose “generic computer diagrams” and no “algorithm for performance of the functions.” Appellee’s Br. 11–13.

Vizio’s argument misses the mark. Whether the specifications disclose adequate corresponding structures for the claimed functions is a question we review at step two of the § 112(f) analysis. As explained above, this appeal centers on step one. And, because we conclude at step one that § 112(f) does not apply to the disputed limitations, we need not address whether, at step two, the specifications adequately disclose structures for those functions.

Second, Vizio emphasizes that, because the limitations “processor” and “storage” inherently connote function, they are necessarily subject to § 112(f). We disagree.

“[T]he mere fact that the disputed limitations incorporate functional language does not automatically convert [them] into means for performing such functions.” *Zero-click*, 891 F.3d at 1008. “Many devices take their names from the functions they perform. Examples are innumerable, such as ‘filter,’ ‘brake,’ ‘clamp,’ ‘screwdriver,’ or ‘lock.’” *Id.* (quoting *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996)). Accordingly, that the disputed limitations incorporate functional language—“processing” and “storing”—does not necessarily render them subject to § 112(f).

Additionally, Vizio’s arguments are particularly unpersuasive in view of our holding in *Dyfan*.³ In *Dyfan*, the district court determined that the limitations “code” and “application” were subject to 112(f). *Dyfan*, slip. op. at 6. We reversed the district court’s construction of those terms (among others), explaining that the court did not give effect to the presumption against § 112(f). *Id.*, slip. op. at 19.

³ Our decision in *Dyfan* issued after the district court’s decision.

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More specifically, we held that the defendant failed to show “that persons of ordinary skill in the art would not have understood the ‘code’/‘application’ limitations to connote structure in light of the claim as a whole.” *Id.*, slip. op. at 11–12 (citing *Apex*, 325 F.3d at 1372–73.) That same rationale applies here. As explained above, the court ignored that it was Vizio’s burden to rebut the presumption against § 112(f), and Vizio failed to meet that burden.

In summary, we determine that the district court erred in holding that the disputed limitations are subject to § 112(f). And because the district court’s conclusion of invalidity was premised on its erroneous application of § 112(f), we reverse its decision. Additionally, although in some portions of its decision, the court referred only to the “asserted claims,” in other portions, it referred to all claims. To the extent that the court held all the patent claims invalid as indefinite (not just the asserted claims), we also reverse that determination.

CONCLUSION

We have considered Vizio’s remaining arguments but find them unpersuasive. For the foregoing reasons, we reverse the district court’s decision that the asserted claims are invalid as indefinite and remand for further proceedings consistent with this opinion.

REVERSED AND REMANDED

COSTS

Costs to VDPP.