

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VIZIO, INC.,
Petitioners,

v.

POLARIS POWERLED TECHNOLOGIES LLC,
Patent Owner.

IPR2024-00073
Patent 7,843,148 B2

Before SCOTT R. BOALICK, *Chief Administrative Patent Judge*,
MICHAEL P. TIERNEY and MICHAEL W. KIM, *Vice Chief*
Administrative Patent Judges.

TIERNEY, *Vice Chief Administrative Patent Judge*.

DECISION
Delegated Director Review of
Final Written Decision Determining All Challenged Claims Unpatentable
37 C.F.R. § 42.75

Vizio, Inc. (“Petitioner”) filed a corrected Petition requesting *inter partes* review of claims 1–22 (“the challenged claims”) of U.S. Patent No. 7,843,148 B2 (Ex. 1001, “the ’148 patent”). Paper 16 (“Pet.”). The Board issued a Final Written Decision determining that Petitioner had met its burden of showing, by a preponderance of the evidence, all of the challenged claims unpatentable. Paper 32 (“Panel Dec.”). Patent Owner filed a Request for Director Review seeking to reverse the Board’s Final Written Decision. Paper 33 (“Req.”). The Acting Director delegated review to a Delegated Rehearing Panel to determine whether the original Board panel misapprehended or overlooked any issue, including whether the panel (1) should have explicitly construed “current set circuit,” and (2) “erred in determining that Petitioner had shown certain dependent claims unpatentable while simultaneously finding that Petitioner had not met its burden in showing the independent claims from which they depend to be unpatentable.” Paper 36 (“DRP Order”). Having reviewed the record, we conclude that the original Board panel did not misapprehend or overlook any issue in determining that the challenged claims were unpatentable. We therefore deny Patent Owner’s request.

A. THE PANEL’S FINAL WRITTEN DECISION

The ’148 patent relates to a “light emitting diode (LED) driver that drives LEDs in parallel.” Ex. 1001, 1:6–7. Relevant to our delegated review, independent claim 1 requires “a plurality of current set circuits” and “a pulse-width modulated (PWM) brightness control signal generator connected to the plurality of current set circuits, the brightness control signal generator being configured to generate staggered PWM brightness control signals to the plurality of current set circuits.” *Id.* at 6:39–47. Dependent

claim 6 further requires that “each current set circuit comprises: a current set resistor . . . and a PWM brightness control transistor.” *Id.* at 7:11–15.¹ The Petition asserted that Thomas anticipates claim 1 and renders obvious claims 1 and 6. Pet. 17. In its Final Written Decision, the original panel determined that Petitioner had not shown Thomas anticipates claim 1 because “the Petition identified only [Thomas’s] passive resistor as the ‘current set circuit’ of claim[] 1.” Panel Dec. 32 (emphasis and quotation marks omitted). The original panel explained that Thomas does not apply the identified PWM brightness control signals to its resistors, as claim 1 would require under Petitioner’s proposed mapping, but instead applies them to Thomas’s transistors. *Id.* at 33.²

The original panel also determined, however, that Petitioner had shown claim 6 would have been obvious over Thomas because in its claim 6 analysis, Petitioner “identif[ied] transistor 33 as a component of claim 1’s ‘current set circuit’ to which a staggered PWM control signal is applied.” *Id.* at 47. In addition, the panel explained that while “Petitioner’s failure to demonstrate anticipation [for claim 1] would ordinarily be a failure to demonstrate obviousness as well,” Petitioner’s claim 6 obviousness analysis “‘cures’ the defect in Petitioner’s claim 1 analysis by identifying transistor

¹ Independent claim 14 and dependent claim 17 are method claims that parallel system claims 1 and 6 for the relevant issues here. We limit our discussion to claims 1 and 6 but our conclusions apply equally to claims 14 and 17.

² The panel acknowledged that Petitioner identified Thomas’s transistors and resistors as the claimed “current set circuit” in its Reply Brief, but rejected that argument as impermissibly raised for the first time in Reply. Panel Dec. 33.

33 as a component of claim 1’s ‘current set circuit’ to which a staggered PWM control signal is applied.” *Id.* Thus, “because claim 6 depends from and contains all the limitations of claim 1” the panel concluded that that Petitioner’s claim 6 obviousness analysis also demonstrated that claim 1 was unpatentable as obvious over Thomas. *Id.* at 53.

B. PATENT OWNER’S DIRECTOR-REVIEW ARGUMENTS

In its Request for Director Review, Patent Owner argues the original panel made several errors. First, Patent Owner argues the original panel erred when it “‘cure[d]’ Petitioner’s analysis of independent claim 1 by applying arguments for dependent claim 6.” Req. 5 (quoting Panel Dec. 47). According to Patent Owner, the Petition’s flawed anticipation analysis for claim 1 should have been fatal to its obviousness analysis for claims 1 and 6 so that after Petitioner failed to demonstrate that Thomas anticipates claim 1, “[t]he panel’s analysis of the Thomas obviousness ground for claim 1—and any claims depending therefrom—should have stopped.” *Id.* at 5. Second, Patent Owner argues the original panel erred in finding that Thomas anticipates claims 6 and 17 because the panel found that Thomas did so “when control signal W is high” (Panel Dec. 38) but “there is no argument or evidence in the record that a [skilled artisan] would have been motivated to operate Thomas’s device with the control signal W remaining high.” Req. 11. Third, Patent Owner argues that the original panel erred in finding that Thomas’s PWM brightness control signal was applied to Thomas’s transistor, because before Thomas’s brightness control signal is applied to a transistor, it passes through an AND gate and thus becomes “a *different signal entirely*.” *Id.* at 13. Last, Patent Owner asserts the original panel

erred in relying on Dr. Zane’s testimony, which Patent Owner contends was “infused with bias.” *Id.* at 14.

C. THE DIRECTOR’S DELEGATION ORDER

The Acting Director delegated review to a Delegated Rehearing Panel (“DRP”) and instructed the DRP to determine: “whether the panel misapprehended or overlooked any issue, including whether the panel (1) should have explicitly construed the claim term ‘current set circuit,’” and “(2) erred in determining that Petitioner had shown certain dependent claims unpatentable while simultaneously finding that Petitioner had not met its burden in showing the independent claims from which they depend to be unpatentable.” DRP Order 2. For the reasons below, we conclude the original panel did not err.

D. ANALYSIS

As to the first question, we are unpersuaded that the original panel erred by declining to explicitly construe the claim term “current set circuit.”

The Petition asserted that “the resistors shown in Thomas’ Figure 1 . . . are each a current set circuit.” Pet. 26. In its Response, Patent Owner asserted that a “circuit” requires “multiple electronic components that are connected by conductive material” such that “simple passive resistors, such as those in Thomas on which the Petition relies, cannot satisfy the claimed ‘current set circuits.’” Paper 18, 8. Although the parties apparently disagreed on the correct construction of a current set circuit, resolving the disagreement would not have changed the original panel’s determinations in Petitioner’s favor for obviousness over Thomas and in Patent Owner’s favor for anticipation over Thomas. Specifically, accepting Patent Owner’s

multiple-components construction would not undermine obviousness over Thomas because Petitioner’s analysis identified multiple components—i.e., Thomas’s transistors and resistors—as the claimed “current set circuits,” which would suffice even under Patent Owner’s multiple-components construction. *See* Panel Dec. 49–50 (citing Pet. 25–26, 42, 43). On the other side, even if Petitioner is correct that a single resistor may constitute a current set circuit, that would not change the panel’s no-anticipation finding because, as the panel noted, Thomas does not apply its PWM control signals to its resistors, as the challenged claims require. *See id.* at 34. Because the parties’ different claim constructions did not impact the panel’s unpatentability conclusions, we are unpersuaded the original panel erred in declining to resolve that issue. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

As to the second question, we conclude the original panel did not err in determining that Petitioner had met its burden to show that certain dependent claims would have been obvious while simultaneously determining that Petitioner had not met its burden to show the independent claims from which they depend to be anticipated. The original panel squarely addressed the issue, explaining that the different conclusions on claim 1’s anticipation by Thomas and claim 6’s obviousness over Thomas stem from Petitioner’s different analysis for the two claims. Specifically, for claim 1, Petitioner identified only Thomas’s passive resistor as the current set circuit, but for claim 6, Petitioner added Thomas’s transistors as part of

the claimed current set circuit. *See* Panel Dec. 32–33, 47. We see nothing precluding a Petitioner from mapping a prior art reference differently, yet not inconsistently, in its dependent-claim unpatentability analysis as compared to its independent-claim analysis. *See* Paper 31, 64:19–21 (Patent Owner’s counsel conceding there was no apparent “legal reason why you wouldn’t consider a separate ground as a separate ground”).³ Thus, we are unpersuaded that the original panel was obligated to disregard Petitioner’s dependent-claim contentions once it found the associated independent-claim analysis lacking, as Patent Owner argues. *See* Req. 2 (arguing that “[t]he panel never should have reached claim 6” once it found Petitioner failed to meet its burden for independent claim 1).

Additionally, we disagree with Patent Owner that the original panel impermissibly “went beyond the theories presented in the Petition” when it “‘cure[d]’ Petitioner’s analysis of independent claim 1 by applying arguments for dependent claim 6” to its claim 1 analysis obvious. *See* Req. 5. The consistent substantive theory presented in the Petition was that Thomas’s LED driving circuit, as disclosed in Thomas’s Figures 1 and 2, disclosed every limitation in claim 1. *See* Pet. 17–32; Panel Dec. 29–30. The Petition’s substantive theory for claim 1 did not change even though Petitioner initially failed to identify Thomas’s transistors as part of the claimed current set circuit and later cured that failure by also identifying Thomas’s transistors as part of the claimed current set. *See* Pet. 46–50; Panel Dec. 47–50. That is, in considering the content of Petitioner’s claim 6

³ We have evaluated the case law cited by Patent Owner. Req. 6–7. None of the cited cases require a tribunal to cease an analysis of dependent claims, once the independent claim from which it depends has been upheld.

obviousness analysis, the original panel noted that analysis as being an additional way to evaluate obviousness for claim 1. *See* Panel Dec. 53. We are unpersuaded that, in doing so, the original panel went beyond the theories presented in the Petition to determine claim 1 would have been obvious.

Finally, we disagree with Patent Owner's additional arguments regarding Dr. Zane's alleged bias and Thomas's alleged failure to teach that its transistors receive the PWM brightness control signals. *See* Req. 9–15. Patent Owner raised these same substantive issues during trial, and the original panel discussed those issues at length. *See* Panel Dec. 12–16, 37–39. We are unpersuaded that the original panel misapprehended or overlooked what was alleged in setting forth its reasoned analysis and soundly supported conclusions on those issues.

E. CONCLUSION

We conclude that the panel did not err in its unpatentability determinations for the challenged claims.

F. ORDER

Accordingly, it is

ORDERED that Patent Owner's Request for Director Review is denied.

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