

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MIANYANG BOE OPTOELECTRONICS TECHNOLOGY CO., LTD.;
WUHAN CHINA STAR OPTOELECTRONICS SEMICONDUCTOR DISPLAY
TECHNOLOGY CO., LTD.; TIANMA MICROELECTRONICS CO., LTD.;
AND VISIONIX TECHNOLOGY, INC.,
Petitioner,

v.

SAMSUNG DISPLAY CO., LTD.
Patent Owner.

Case IPR2023-00941
U.S. Patent No. 7,414,599

PATENT OWNER'S PRELIMINARY SUR-REPLY

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The Petition is based on a single reference (Kimura) whose relevant disclosures were before the Office during prosecution, yet Petitioner allocated just one page of the Petition to addressing Section 325(d). Patent Owner explained why that cursory analysis failed and, indeed, mischaracterized the prosecution. For instance, Petitioner claimed that the prior art of record had not taught a “five-transistor” circuit, and Patent Owner demonstrated this was wrong. POPR at 7–9. Petitioner makes no showing that Patent Owner was incorrect, nor could it. Instead, Petitioner tacitly concedes these points and in its Reply now presents new theories. Petitioner offers a new account of how “Kimura was not considered” and “is not cumulative” of the prior art of record, and argues for the first time that “[t]he lack of a shared signal was the reason for allowance.” Reply at 1, 3, 5.

Initially, there is no justification for Petitioner’s new theories, which could have been raised in the Petition. This is not a case like *Vector Flow, Inc. v. HID Global Corp.*, IPR2023-00353, Director Review Decision, Paper 11 (Aug. 10, 2023), where a petitioner sought to address new developments in parallel litigation or statistical evidence introduced by Patent Owner. Rather, Petitioner’s reply addresses issues that were foreseeable in view of the file history and the references cited by the Examiner. *See* Ex. 2001 at 191 (identifying Dawson, Abe, and Oh).

The Board would be within its discretion to disregard these new arguments. But even if they are considered, they reinforce that institution should be denied.

1. Kimura’s Relevant Disclosures Were Previously Presented to and Considered by the Office

Petitioner does not seriously dispute that JP Kimura—the Japanese counterpart to Kimura submitted during prosecution—is, at a minimum, substantially the same as the Kimura reference on which the Petition is based. Although Petitioner states that JP Kimura’s figures were “primarily annotated in Japanese,” Reply at 1–2, it does not otherwise respond to Patent Owner’s explanation that “JP Kimura includes all of the same figures that are cited in the Petition—which clearly depict the five- and six-transistor circuit configurations on which Petitioner seeks to ground its obviousness arguments as well as the phases of operation of those circuits.” POPR at 6.

Nor does Petitioner dispute that JP Kimura was identified in an IDS and submitted while the ’599 Patent application was pending, and that the IDS was signed with the statement “ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH.” Ex. 2001 at 493. Under *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, this establishes that JP Kimura was “previously presented” to the Office. IPR2019-01469, Paper 6, at 7–8; *see Biocon Pharma Ltd. v. Novartis Pharmaceuticals Corp.*, IPR2020-01263, Paper 12, at 9 (“Thus, we accept that the Examiner considered EP ’072 because it is listed on the IDS and the Examiner signed the IDS with the statement ‘all references considered except where lined through.’”).

Petitioner cites to a decision in *Sony Interactive Entertainment LLC v. Bot M8, LLC*, IPR2020-00726, Paper 13 (Oct. 6, 2020) involving a “Japanese language IDS submission” of an asserted reference (Sugiyama), where the panel found the record “insufficiently developed.” Reply at 2–3. *Sony* is readily distinguishable. In that case, “the record [wa]s silent as to the Examiner’s specific reasons for allowance,” *Sony* at 13, whereas here, the file history shows specific reasons for allowance. Ex. 2001 at 185. Also, *Sony* addressed a petition in which all asserted invalidity grounds relied on additional references (besides Sugiyama) that had *not* been before the Office. Here, Petitioner presents a single ground of obviousness based entirely on Kimura. Finally, in *Sony*, the panel observed that there was no argument that the Japanese Sugiyama reference could be “understood on its face.” IPR2020-00726, Paper 13, at 12. Not so with JP Kimura. The portions of Kimura relied upon by Petitioner—i.e., the circuit configurations shown in Figs. 33, 36, and 16-17—are virtually identical to those of JP Kimura. See POPR at 6.

2. Petitioner’s New Theory of Cumulativeness Hinges on a Requirement that Kimura neither Teaches nor Suggests

As to the cited art, the Petition argued only that “Dawson has only four transistors. *Kimura discloses multiple circuits with five or more transistors. Thus, Kimura is not cumulative to Dawson...*” Pet. at 12 (emphasis added). After Patent Owner showed that other references identified by the Examiner (e.g., Abe and Oh) *did* include five-transistor circuits, POPR at 7–9, Petitioner shifts to a new theory.

Now, Petitioner asserts, Kimura differs because “Abe and Oh lacked a *shared light-emitting signal* that controlled the claimed transistors,” Reply at 4, while asserting for the first time that this feature “was the reason for allowance,” *id.* at 5.

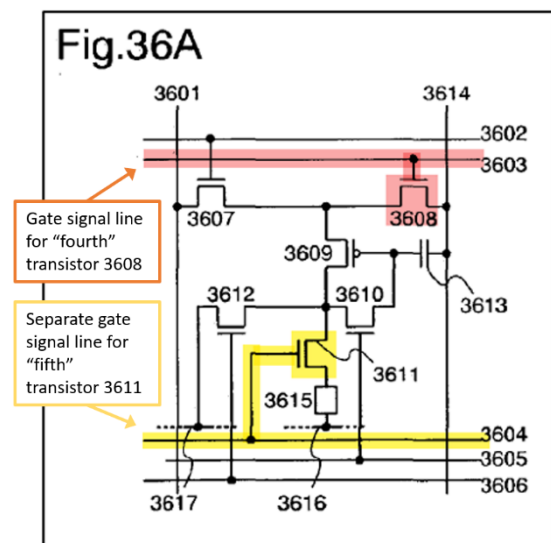
This is curious, given the short shrift Petitioner gave to the light-emitting signal requirement, which was not even addressed until the tail end of the Petition. *See* POPR at 49–50. In any event, Petitioner is wrong to claim “Kimura teaches the shared light-emitting signal that the prior art of record lacked.” Reply at 4. As Patent Owner has explained, the Kimura embodiments on which Petitioner relies do not have shared light-emitting signal lines. *See* POPR at 51–53. And Petitioner’s theory of obviousness for this requirement (based on a modification of Figure 36) is inconsistent with Kimura’s teachings and flatly at odds with its theory for the “initialization transistor” requirement (where it turns to the alternative embodiment of Figures 16–17). *See* POPR at 48–57.

3. Petitioner Still Fails to Demonstrate Office Material Error

Previously, Petitioner had alleged Office error by suggesting that the Examiner failed to consider the prior art of record “that even had the minimum number of transistors recited in the claims.” Pet. at 13. Patent Owner has shown that to be wrong (the Examiner cited multiple such references, *see* POPR at 7–9). Petitioner now asserts the Examiner erred with respect to the “shared light-emitting signal” requirement. Reply at 5. Petitioner did not even mention this requirement

in the Petition’s Section 325(d) arguments. Yet it now contends “[t]he lack of a shared signal [in the art] was *the reason* for allowance,” and that the Examiner overlooked Kimura’s “important teachings” about it. Reply at 5 (emphasis added).

Petitioner fails to show any Office error, let alone material error. Although it contends “a POSITA would have understood (or at least found it obvious) that Kimura uses *a shared light-emitting signal* to control [the claimed transistors],” Reply at 5, Petitioner is unable to identify any embodiment in Kimura in which the *relevant* transistors (e.g., claim 13’s “fourth” and “fifth” transistors) are tied to a shared signal line. Instead, Petitioner presents a tenuous obviousness argument that a POSITA would have turned to Kimura Figure 36 (where the transistors have *separate* signal lines) and modified it to use a shared line for these transistors, even though Kimura teaches using a shared line for a *different* pair of transistors in this embodiment. See POPR at 51–53. This contrived theory does not even establish a reasonable likelihood of prevailing on the



limitation. See *id.* It certainly is not enough to make a heightened showing, under *Advanced Bionics*, that “the Office erred by overlooking something *persuasive*” in Kimura’s circuits. IPR2019-01469, Paper 6, at 10 (emphasis added).

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Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, I hereby certify that the foregoing Patent Owner's Preliminary Sur-Reply was served by electronic mail today on the following counsel of record for petitioner:

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