UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

THETA IP, LLC,
Patent Owner

IPR2024-00820
U.S. Patent No. 11,638,210

PATENT OWNER'S PRELIMINARY SUR-REPLY

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Petitioner's Reply improperly presents an entirely new argumentative theory—one not raised in the Petition, and not taught by the prior art relied on therein.[1] The new argument fails to correct the Petition's substantive flaws, lacks evidence of obviousness, and fails to show reasonable likelihood of success.

Theta's Preliminary Response showed how Apple failed to apply the claim language—and how it failed to show that the relied-on low-pass filter swap of the *Behbahani* papers disclosed or suggested the claimed elements to a POSITA. Prelim. Resp., 34-50, 67-68; EX2005, ¶¶46-47, 56-58, 65-74.

On preliminary Reply, Apple changes course, drawing a new, contrived line around the two swapped low-pass filters—and arguing for the first time that *Behbahani* involves changing between two "modes" or "filter branches" of that invented "variable filter block" box. Reply, 1.

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[1] During the Board call on October 8, 2024, counsel for Apple failed to articulate a claim construction dispute necessitating a reply. The Reply also fails to do so, and as new argument, should not be considered. Consolidated Trial Practice Guide, 73 (Nov. 2019) ("Petitioner may not submit new evidence or argument in reply that it could have presented earlier, e.g. to make out a prima facie case of unpatentability."); 37 C.F.R. §42.104(b). Even if considered, the new attorney argument is unsupported by evidence of obviousness, and fails to raise a reasonable likelihood of success.

This new "branch" theory was not discussed in the Petition or Declaration, and lacks all evidentiary support.[2] It is not based on disclosures of the references, which are never cited in the Reply. And Apple failed its burden to apply the claim language to, or to present testimony or other evidence suggesting obviousness of, this new "branch" theory. Even within Apple's newly relied-on "variable filter block" box, the *Behbahani* papers do not teach or suggest anything beyond the entire low-pass filter swap already put forward by Apple and distinguished by Theta.

Petitioner cannot show otherwise and support obviousness with attorney argument—which is all that the Reply contains. *See, e.g.*, *Cisco Systems, Inc. v. K.Mizra LLC*, 2024 WL 3841809, *6 (Fed. Cir. Aug. 16, 2024) ("Attorney argument cannot support the Board's [obviousness] finding."); *Icon Health and Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017) ("Attorney argument is not evidence."); M.P.E.P. §2145. Apple's declarant ***did not testify*** that "different filter branches" switched in a "variable filter block" would render the claims obvious—as the lack of citation to testimony or references in the Reply demonstrates.

Professor Larson ***did testify*** for Theta that the claims were not obvious from the *Behbahani* papers' substitution of one low-pass filter for another in the signal

[2] The Petition, Declaration, and *Behbahani* do not use the words "mode" or "branch" to describe the swapped low-pass filters.

path. EX2005, ¶¶53, 56-57, 65-74. Rerouting the signal path to switch between entire filters does not render the claims obvious. *See, e.g.*, *id.*, ¶¶67-69. Whether referred to as a change in the signal path, or now the "filter branch," this filter swap is all that the *Behbahani* papers disclose or suggest—and is not what the claims require.

I. THE *BEHBAHANI* PAPERS ONLY DISCLOSE A FILTER SWAP

The Petition (and Declaration) relied exclusively on what Apple repeatedly described as *Behbahani*'s "switching from a high-power filter to a low-power filter." *See, e,g.*, Petition, 13-14, 36-38 ("switches between two scaled filters"), 38 ("scaled filter is switched in"), 39 ("transitioning from the high-power to low-power filter"), 41 ("switching between scaled filters"), 42-43 (emphases added):

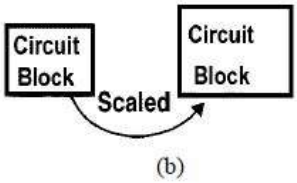
> A POSITA would have understood that, consistent with the '210 Patent and its inventors own publications, ***switching from Behbahani's high-power filter to its low-power filter*** dynamically changes (increases) an impedance, and changes (reduces) of the bias current of a component (i.e., the filter) in the signal path.

See also id., 49, 50 ("In sum, switching from *Behbahani's* high-power filter to its low-power filter …"); EX1003, ¶119. Nowhere did Apple or its Declarant mention a "variable filter block" or "filter branches."

Petitioner cited to portions of *Behbahani*, and *Tan*, that only describe switching between "two filters [that] are implemented with the same topology."

Petition, 38-39 (citing EX1004, 1207), 43 (citing EX1006); *see also* EX1004, Fig. 4(b) ("substitution of a scaled circuit block"); EX1006, 488 ("low-power and high-power versions of the LPF"); EX1003, ¶¶99-103 ("switches between two scaled filters, using 'high-power filter' … and a separate 'low-power filter'"). ***This substitution is not what is claimed***. Prelim. Resp., 34-38, 40-44, 67-68.

In sum, Apple's new suggestion that the two swapped low-pass filters should be treated as "a single function block" is not supported by *Behbahani*—which only describes the switching as "substitution of a scaled circuit block" for another. EX1004, Fig. 4b (excerpt pictured).



And even if treated in this way, Apple still failed to apply the alleged disclosures of *Behbahani* to the claim language—and provided no evidence or testimony to support obviousness of Prof. Tsividis's ***claimed*** approach in light of those disclosures. Apple instead argues that Theta has not supported exclusion of the theory. Reply at 2. Theta has done so. But more pointedly, the burden to prove obviousness never shifts—and Apple's failure to support its own application of the references to alleged obviousness of the claims is fatal to its Petition and Reply.

II. APPLE'S OTHER NEW ARGUMENTS ALSO FAIL

Apple's other new arguments lack any evidentiary support and fail to establish any reasonable basis for institution. For example, as Theta explained and Professor

Larson testified, '210 Patent Figure 6 clearly discloses an example of varying the load impedance of "a circuit" by changing resistor component R to 2R and capacitor component C to C/2. Prelim. Resp., 16-17, 39-41; EX2005, ¶¶46-47; EX1001, Fig. 6, 7:52-67. Apple cannot erase this explanation and testimony by simply offering unsupported attorney denial of it. *See* Reply, 3 ("does not").

Professor Tsividis' 2003 article (EX1011) is not part of Apple's invalidity ground (Petition, 11), does not discuss the challenged claims, and does not support Apple's arguments—for all the reasons already given. *See* Prelim. Resp., 34-38, 42-47. As discussed, and testified to, the article distinguishes between "switching individual filter elements rather than entire filters." *Id.*; EX2005, ¶¶62-64 (showing switching of individual resistor and capacitor elements within a circuit). This points in the opposite direction from both Apple's filter swap, relied on in the Petition, and its new "filter branch" argument. Apple's attempt to recast the article's teaching away (see Reply, 5) misrepresents the case it cites—and is anyway irrelevant to the proper analysis of the claim language that Apple never performs or supports.

III. CONCLUSION

For the foregoing reasons as well as the reasons explained in Theta's Preliminary Response, Apple failed its burden to show a reasonable likelihood of success, and the Board should not institute further proceedings.

Dated: October 22, 2024

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CERTIFICATE OF SERVICE

Petitioner has consented to e-mail service in this proceeding. Pursuant to 37 C.F.R. §42.6, the undersigned certifies that on October 22, 2024, a copy of the foregoing document was served by email upon the following counsel at the below email addresses:

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