

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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INTEL CORPORATION,  
Petitioner,

v.

QUALCOMM, INC,  
Patent Owner.

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IPR2018-01240  
Patent 8,698,558 B2

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Before TREVOR M. JEFFERSON, SCOTT B. HOWARD, and  
AARON W. MOORE, Administrative *Patent Judges*.

JEFFERSON, *Administrative Patent Judge*.

DECISION  
Denying Patent Owner's Request on  
Rehearing of Final Written Decision  
37 C.F.R. § 42.71(d)

## I. INTRODUCTION

In our Final Written Decision, the Board held that, based on a preponderance of the evidence, Petitioner had not shown that independent claim 10 of U.S. Patent No. 8,698,558 B2 (“the ’558 patent,” Ex. 1301) is unpatentable as obvious over Chu,<sup>1</sup> Choi 2010,<sup>2</sup> and Hanington,<sup>3</sup> but had shown that dependent claim 11 (which depends from claim 10) is unpatentable as obvious over Chu, Choi 2010, Hanington, and Myers.<sup>4</sup> Paper 30 (“Dec.”), 25–26

Qualcomm Incorporated (“Patent Owner”) filed a rehearing request arguing that the ground for obviousness for dependent claim 11 was not properly advanced in the Petition. Paper 31 (“Req. Reh’g”) 1. For the reasons discussed below, we deny Patent Owner’s Request for Rehearing.

## II. LEGAL STANDARDS

“The burden of showing a decision should be modified lies with the party challenging the decision,” and the challenging party “must specifically identify all matters the party believes the Board *misapprehended or*

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<sup>1</sup> Wing-Yee Chu, et al., *A 10 MHz Bandwidth, 2 mV Ripple PA Regulator for CDMA Transmitters*, IEEE JOURNAL OF SOLID-STATE CIRCUITS 2809–2819 (2008) (Ex. 1304, “Chu”).

<sup>2</sup> Jinsung Choi, et al., *Envelope Tracking Power Amplifier Robust to Battery Depletion*, MICROWAVE SYMPOSIUM DIGEST (MTT), 2010 IEEE MTT-S INTERNATIONAL 1074–1077 (2010) (Ex. 1307, “Choi 2010”).

<sup>3</sup> Gary Hanington, et al., *High-Efficiency Power Amplifier Using Dynamic Power-Supply Voltage for CDMA Applications*, IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES 47:8 (1999) (Ex. 1325, “Hanington”)

<sup>4</sup> Myers, et al., U.S. Patent No. 5,929,702 (Ex. 1312, “Myers”).

*overlooked*, and the place where each matter was previously addressed” in a paper of record. 37 C.F.R. § 42.71(d) (2020) (emphasis added). When rehearing a decision on petition, the Board will review the decision for an abuse of discretion. *See* 37 C.F.R. § 42.71(c). An abuse of discretion may be found if a decision: (1) is clearly unreasonable, arbitrary, or fanciful; (2) is based on an erroneous conclusion of law; (3) rests on clearly erroneous fact findings; or (4) involves a record that contains no evidence on which the Board could rationally base its decision. *Redline Detection, LLC v. Star Envirotech, Inc.*, 811 F.3d 435, 442 (Fed. Cir. 2015) (internal citations omitted).

### III. ANALYSIS

Patent Owner argues that the Board erred by applying findings for dependent claim 11 that directly contradict the findings for independent claim 10. Req. Reh’g 1–2. Specifically, Patent Owner argues the Board found that Petitioner failed to show that Chu, Choi 2010, and Hannington would have rendered claim 10 obvious, but with respect to claim 11 erroneously concluded that “Petitioner provides sufficient and persuasive evidence mapping the structures and functions of Chu, Choi 2010, and Hanington to the apparatus and means-plus-function limitations of claim 10.” Req. Reh’g 2 (quoting Dec. 18). Patent Owner argues that, contrary to the Board’s Decision, Patent Owner directly contested Petitioner’s mapping of claim 10 to the asserted prior art. Req. Reh’g 2.

We disagree with Patent Owner’s contention. Our determination with respect to claim 10 was based on the claim interpretation for “a P-channel metal oxide semiconductor (PMOS) transistor [having] . . . a source that

receives the boosted supply voltage or the first supply voltage” in claim 10, which we construed as requiring a selective boost. Dec. 13–14 (finding selective boost). Petitioner’s evidence and argument for claim 10 showed the availability of either a boosted voltage or a first supply voltage (*see* Dec. 11–14), but failed to “address whether the PMOS transistor source of the prior art is capable of receiving selectively the boosted supply voltage or the first supply voltage.” Dec. 16–17.

Our determination was based on the Petition’s failure to address the selective boost claim construction at all with respect to claim 10. *Id.* Petitioner failed to address this construction because Petitioner asserted that claim 10 alone contained a conditional “or” in the source limitation such that only one voltage was required to meet claim 10 and not a selective choice between two voltages. Dec. 12 (citing Paper 19 (“Pet. Reply”) 3–9). With respect to claim 11, however, Petitioner addressed the specific selective boost requirement by claim 11, arguing that Myers in combination with Chu and Choi 2010 taught the selective operation to choose either the boosted or battery voltages. Dec. 18–19; Paper 3 (“Petition” or “Pet.”) 72–74; Ex. 1303 ¶ 135 (Declaration of Dr. Alyssa Apsel).

Patent Owner’s challenge to the mapping of Chu, Choi 2010, and Hannington to claim 10 addressed the failure to address whether these references taught a selective boost. *See* Req. Reh’g 2 (citing PO Resp. 21–31). In contrast to claim 10, claim 11 expressly introduced the capability that “either the boosted supply voltage of the first supply voltage” be selectively available to generate the second voltage which Petitioner addressed directly. Ex. 1301, 12:46–50. On the full record, our Decision

found Petitioner’s evidence and argument mapped the limitations and persuasively asserted that Myers combined with Chu and Choi 2010 taught the selective choice between voltages as recited in dependent claim 11. Dec. 18–19; Pet. 73–74; Ex. 1303 ¶ 135. In sum, Petitioner’s arguments with respect to Myers in view of the selective voltage limitations of claim 11 and limitations of claim 10 demonstrated that Myers addressed the selective boost limitation missing from the claim 10 analysis.

We disagree with Patent Owner’s argument that the Board’s finding with respect to claim 11 cannot be squared with the opposite finding for claim 10. Req. Reh’g 2. The Petition guides the proceeding. *See Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1335–36 (Fed. Cir. 2020). In the present case, Petitioner argued that claim 10 did not require a selective boost and the Petition failed to set forth sufficient analysis to support that Chu, Choi 2010, and Hanington met the selective boost requirement for claim 10. Dec. 12–14, 16–17; Pet. Reply 3–9. This same deficiency was not present in the ground addressing claim 11, as the Petition persuasively argued that the voltage selection was required in claim 11 and applied additional art, Myers, to support this limitation. *See* Dec. 18–19; Pet. 73–74; Ex. 1303 ¶ 135.

We also disagree with Patent Owner that “the Board is applying [an] analysis of the combination of Myers with Chu and Choi 2010 to the selective boost limitation of independent claim 10, [and] this is a different legal theory that was never advanced by Petitioner.” Req. Reh’g 3. Petitioner argued independent claim 10 differently from claim 11, asserting that claim 10 did not require a selective boost. Dec. 10–14, 16–17; Pet. 51–

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