

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MARVELL SEMICONDUCTOR, INC.

Petitioner

v.

UNILOC 2017 LLC

Patent Owner

IPR2019-01350
PATENT 7,016,676

PATENT OWNER SUR REPLY

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I. INTRODUCTION

Uniloc 2017 LLC (“Uniloc” or “Patent Owner”) submits this Sur Reply in response to the Reply (Paper 14) filed by Marvell Semiconductor, Inc. (“Petitioner”). Petitioner has failed to carry its burden of showing that any challenged claim of the ‘676 is unpatentable for at least the reasons set forth herein and in the Patent Owner Response (“Resp.”).

II. PETITIONER DOES NOT PROVE THAT ANY CHALLENGED CLAIM IS UNPATENTABLE

A. The Petitioner fails to demonstrate that Sherman renders Claim 3 obvious. (Ground 1)

For the reasons given in Patent Owner’s Response and herein, the Petitioner has failed to meet its burden of establishing that Sherman renders Claim 3 obvious, and thus Ground 1 fails.

- 1. As the Board properly determined in the Institution Decision, Sherman fails to teach or suggest a control station that renders the frequency band available for access by the stations working in accordance with the second radio interface standard if stations working in accordance with the first radio interface standard do not request access to the frequency band.**

As explained in Patent Owner’s Response, the Petition fails to establish prima facie obviousness of at least the following recitation: “wherein the control station ... renders the frequency band available for access by the stations working in accordance with the second radio interface standard if stations working in accordance with the

first radio interface standard do not request access to the frequency band” as recited in Independent Claim 1. In particular, and as agreed by the Board in the Institution Decision, Paper No. 9, 26-29, Sherman does not teach or suggest any control station that renders a frequency band available for access by the stations associated with a second radio interface standard when other stations associated with a first radio interface do not request access to the frequency band as would be required to render Claim 1 obvious.

2. *Ex parte Schulhauser* is not applicable to Claim 1 (or its dependents).

For the reasons given in Uniloc’s Response, *Ex parte Schulhauser* is not applicable here. Petitioner’s Reply focuses on non-binding decisions by other panels of the Board without regard to specific claim language at issue. Petitioner does not address that the limitations referred to by the Board as “step 2” were formerly recited in dependent claim 2, were then added to claim 1, and a notice of allowance subsequently issued. EX1002, 14. Thus, considering claim 1 in light of the prosecution history, one of ordinary skill would understand that the two steps are performed successively, and are not mutually exclusive. Moreover, the specification clearly describes the situation where the control station is provided for releasing the common frequency band if stations operating in accordance with the first radio interface standard do not request access. EX1001, 3:7-13.

In addition, the proper construction is readily ascertained by considering the claim language as whole. There can be no question that claim 1 affirmatively recites “a control station which controls the alternate use of the frequency band.” The “wherein” clause simply defines how this affirmatively recited control is to be effected—i.e., “wherein the control station *controls the access to the common frequency band* for stations working in accordance with the first radio interface standard and renders the frequency band available for access by the stations working in accordance with the second radio interface standard if stations working in accordance with the first radio interface standard do not request access to the frequency band.” Under this informative context, it would be erroneous to not give patentable weight to a wherein clause that meaningfully limits and further defines an expressly recited “controls” limitation in terms of how it must be effected.

Petitioner acknowledges that *Ex parte Schulhauser* was decided under a different claim construction standard, the broadest reasonable interpretation (“BRI”), which is not applicable here. Even when applying the former BRI standard, the Board recognized that *Schulhauser* is not always applicable. For example, the Board has interpreted conditional language recited in a method claim “to be limited to the method described in which the recited conditions occur.” *Ex Parte Prem K. Gopalan & Bryan Thomas Elverson*, IPR2017-007009, 2018 WL 2386111, at *3–4 (P.T.A.B. May 21, 2018). There, the Board also found that “*Schulhauser* is not

controlling because it is factually distinguishable.” *Id.* “Unlike the method claim in *Schulhauser*, the steps of method claim 1 are not mutually exclusive and the claim, as written, covers only one method.” *Id.* The “if” statement of the wherein clause is “integrated into one method or path and do[es] not cause the claim to diverge into two methods or paths.” IPR2017-007009, at *3–4.

Accordingly, as *Schulhauser* is not applicable, the Petitioner’s failure to show that Sherman discloses the recitation “renders the frequency band available for access by the stations working in accordance with the second radio interface standard if stations working in accordance with the first radio interface standard do not request access to the frequency band” fails to carry Petitioner’s burden to show unpatentability of dependent claim 3.

3. *Ex parte Schulhauser* is inapplicable to claim 9

Even if *Schulhauser* could negate the recited limitations of claim 1, which it does not, the Board acknowledged in its institution decision that it has no application in the context of apparatus claim 9. Paper 9, 36. Thus, for at least this reason, the Board correctly determined that Petitioner has failed to prove obviousness of claim 9 over Sherman. *See id.*

B. The Petitioner has failed to carry its burden of proving that Shellhammer renders Claims 3 or 9 obvious, as Petitioner fails to show that Shellhammer teaches or renders obvious “wherein the control station ... renders the frequency band available for access by the stations working in accordance with the second radio

interface standard if stations working in accordance with the first radio interface standard do not request access to the frequency band” as recited in Claim 1. (Ground 3).

For the reasons given in Patent Owner’s Response, the Petition has failed to show that Shellhammer renders Claims 3 or 9 obvious, at least because Petitioner fails to show that Shellhammer teaches or renders obvious the Claim 1 recitation “wherein the control station ... renders the frequency band available for access by the stations working in accordance with the second radio interface standard if stations working in accordance with the first radio interface standard do not request access to the frequency band.”.

Petitioner suggests that Patent Owner must introduce additional evidence to overcome some burden imposed by the decision on institution. *See* Reply 23. But it is Petitioner that carries the burden throughout the proceeding, and Uniloc has relied on evidence of record to show why one of ordinary skill in the art would not have made the modifications alleged by Petitioner. *See* Resp. 39-49.

Petitioner also incorrectly suggests that Patent Owner argued Petitioner must show the alleged modification was the most desirable among alternatives. *See* Reply 24. This is not so. Uniloc’s Response shows how Petitioner’s alleged motivation is not sufficient and fails to take into account counter-motivations plainly evident from the reference itself. *See* Resp. 43-47.

As noted in Uniloc's Response, in asserting that Shellhammer teaches the aforesaid limitation of Claim 1, the Petition, and the testimony of Roy (Ex. 1003), key in on the statement in Shellhammer that: "Once all the PSP MU's 120, 140 receive their packets, the AP 20, may optionally send a global Clear to Send (CTS) signal 430 to shut down all the 802.11 communications for a NAV (Network Allocation Vector) period." Pet. 58, quoting Ex. 1005, 8:65-9:8. Petitioner's Declarant quotes this same sentence of Shellhammer. Ex. 1003, ¶261. The Petition and Petitioner's Declarant also point to Shellhammer's statement that the duration of time intervals (e.g., 802.11 power saving (PSP) interval $t_{802.11PSP}$, Bluetooth communications interval t_{NAV} , and 802.11 communications active mode (CAM) interval $t_{802.11CAM}$) may depend on traffic characteristics and application needs (e.g., time critical services). Ex. 1005, column 8, lines 59-62. From these two sentences of the brief description of Shellhammer, Petitioner's Declarant provides the unsupported speculation that "If no IEEE 802.11 stations request access to the frequency band during the first interval ($t_{802.11PSP}$), there would be no transmissions during that interval, and it would have been obvious to a POSITA for the AP to send the CTS signal, thereby rendering the frequency band available for access by Bluetooth stations." Ex. 1003, ¶262. However, this speculation is not sufficient to support Petitioner's burden to show that Shellhammer renders obvious a setting of the 802.11 PSP interval if and when no PSP MU's are transmitting.

III. CONCLUSION

For at least the reasons set forth above and in Uniloc's Response, Uniloc respectfully requests that the Board deny all challenges in the instant Petition.¹

Date: August 31, 2020

Respectfully submitted,

By: /Ryan Loveless/
Ryan Loveless
Reg. No. 51,970
Brett A. Mangrum
Reg. No. 64,783
Attorneys for Patent Owner

¹ Patent Owner does not concede, and specifically denies, that there is any legitimacy to any arguments in the instant Petition that are not specifically addressed herein.

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that the foregoing complies with the type-volume limitation of 37 C.F.R. § 42.24(c)(1) because it contains fewer than the limit of 5,600 words, as determined by the word- processing program used to prepare the brief, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a)(1).

Date: August 31, 2020

Respectfully submitted,

By: /Ryan Loveless/
Ryan Loveless
Reg. No. 51,970
Brett A. Mangrum
Reg. No. 64,783
Attorneys for Patent Owner

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e), the undersigned certifies that an electronic copy of the foregoing was served via email to Petitioner's counsel at the following addresses identified in the Petition's consent to electronic service:

Lead Counsel:
Harper Batts, Reg. No. 56,160
HBatts@sheppardmullin.com

Backup Counsel:
Jeffrey Liang, Reg. No. 69,043
Chris Ponder, Reg. No. 77,167
CPonder@sheppardmullin.com
JLiang@sheppardmullin.com

Date: August 31, 2020

Respectfully submitted,

By: /Ryan Loveless/
Ryan Loveless
Reg. No. 51,970
Brett A. Mangrum
Reg. No. 64,783
Attorneys for Patent Owner