

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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HTC CORPORATION, AND HTC AMERICA, INC.,

Petitioner

v.

UNILOC 2017 LLC,

Patent Owner

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IPR2018-01589

PATENT 7,653,508

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**PATENT OWNER'S SUR-REPLY  
TO PETITIONER'S REPLY**

## I. INTRODUCTION

Uniloc 2017 LLC (“Uniloc” or “Patent Owner”) submits this Sur-Reply to Petitioner’s Reply in IPR2018-01589 for *Inter Partes* Review of United States Patent No. 7,653,508 (“the ’508 patent” or “EX1001”), filed by HTC Corp. and HTC America, Inc. (collectively, “HTC” or “Petitioner”). The instant Petition solely challenges claim 20 of the ’508 patent, which depends from claims 15 and 19.

Petitioner mischaracterizes Uniloc’s Response as solely premised upon the dispute over which step Fabio discloses is validated and hence counted by a given validation interval (TV). Petitioner essentially argues it should prevail here due to certain alleged findings concerning Fabio in a Final Written Decision in a related matter. Reply 1 (citing *Apple Inc. v. Uniloc 2017 LLC*, Case IPR2018-00387, Paper No. 21, Final Written Decision) (“the Apple FWD”). Petitioner is wrong in arguing Apple FWD is dispositive here.

Uniloc identified several deficiencies in the instant Petition which are *entirely independent* of the dispute over which step Fabio discloses is validated by a given validation interval (TV). Petitioner has not and cannot defend against these additional and independent deficiencies merely by pointing, instead, to a different dispute. Petitioner’s failure to accurately characterize, much less squarely address and rebut, at least these patentable additional patentable distinctions provides multiple independent reasons to deny the Petition in its entirety.

Notably, Petitioner also does not dispute that “there is no discussion of Pasolini in the Petition’s challenge of Claim 20.” *See* Resp. 16 n.8. In addressing claim limitations uniquely recited in claim 20, the Petition relies solely on Fabio.

## II. ARGUMENT

### A. **Petitioner ignores patentable distinctions Uniloc had identified arising from certain claim language unique to dependent claim 20**

Petitioner's Reply fails to address a fundamental deficiency Uniloc had identified in its Response concerning the additional limitations recited in dependent claim 20. Specifically, claim 20 (which depends from claims 15 and 19) further requires (1) "wherein the cadence logic adjust the cadence *windows*" (recited *in the plural*) and (2) that the adjustment pertaining to plural "cadence windows" must be "based on a measured *cadence* associated with the *periodic* human motion."

Among other deficiencies, Uniloc had observed that the Petition fails to explain how or why this claim language is allegedly rendered obvious by Fabio's use of a *single* prior step to determine but one, single-use validation interval (TV). *See* Resp. (Paper 11) 15–18. Uniloc argued this undisputed understanding of Fabio is distinguishable from limitations of claim 20 directed to an adjustment affecting "cadence *windows*" (*in the plural*) "based on a *measured cadence* associated with the *periodic* human motion." *Id.* Petitioner has not and cannot prove obviousness by glossing over the explicit language unique to claim 20 and, instead, merely vaguely pointing to the analysis of other claims that do not recite the same limitations. *Id.*

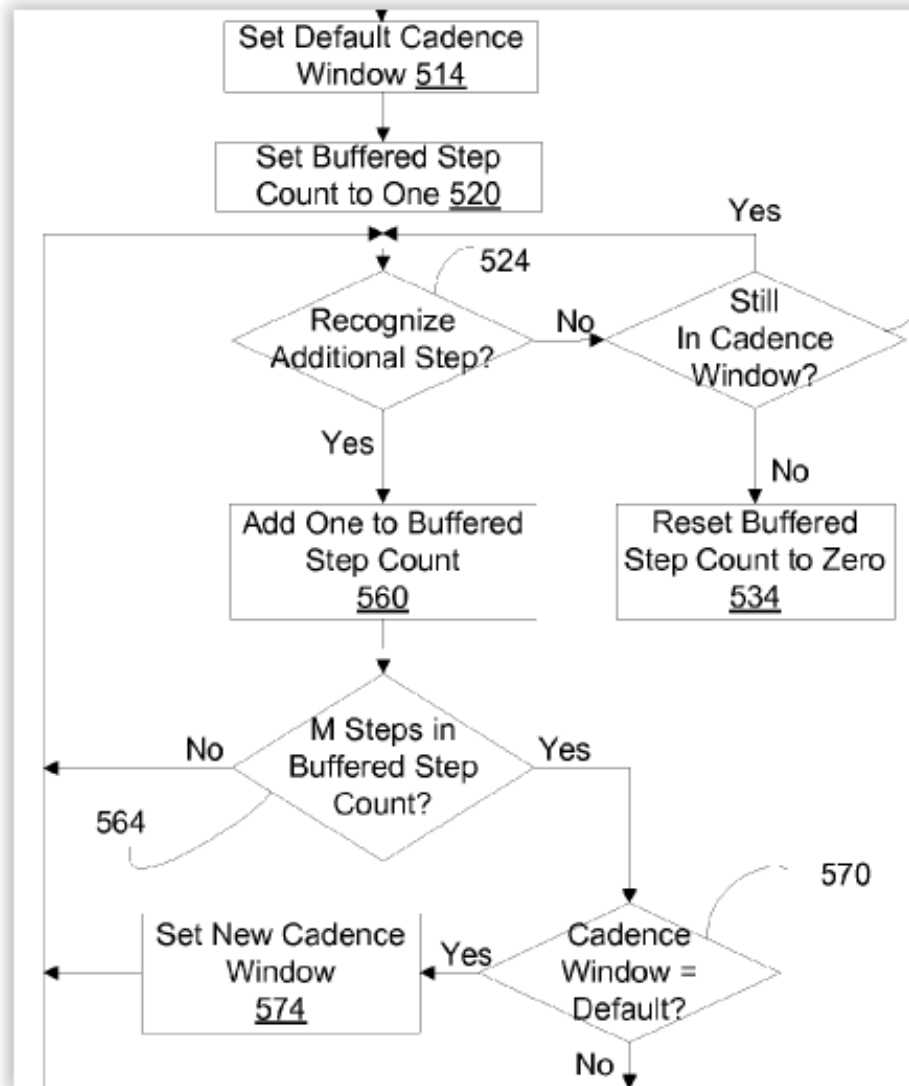
Petitioner does not address these deficiencies in its Reply. On the contrary, Petitioner expressly concedes that Fabio discloses "using a ***single*** prior step to determine a validation window" (in the singular). *See* Reply 7 (boldface and emphasis original). In offering this concession, Petitioner makes no attempt to refute the distinction Uniloc had identified between the way in which Fabio determines its

validation interval (TV) and the adjustment of claim 20, which affects “cadence windows” (in the plural) and which is based on “a measured cadence associated with the periodic human motion.” *See* Resp. 15–18.

The intrinsic evidence supports the patentable distinction that Uniloc had identified and that Petitioner ignored. A few examples serve to further underscore and clarify this patentable distinction Uniloc had previously identified concerning Fabio’s singular step evaluation.

First, the ’508 patent confirms that the phrase “measured cadence associated with the periodic human motion” requires consideration of *repeated* steps or periods (in the plural) which *collectively define the cadence*. For example, the ’508 patent offers the following definitive statement directed to the cadence of periodic human motion: “[t]he amount of time that it takes to complete one motion cycle defines the motion cycle’s period, and the number of motion cycles that occur in a given unit of time define the motion cycle’s cadence.” Ex. 1001 (’508 patent) at 3:28–31.

Second, the ’508 patent discloses, with reference to Figure 5, an example embodiment that sets cadence windows based on a stepping cadence associated with human motion meeting a threshold number of periodic steps (*e.g.*, 4 to 10 steps). A relevant portion of the flow diagram of Figure 5 is reproduced below for ease of reference.



Ex. 1001 ('508 patent) at Figure 5.

The corresponding description of Figure 5 states, with reference to block 574 (“Set New Cadence Window”), that new cadence windows are set “*based on a stepping cadence of the M steps measured.*” *Id.* at 10:56–57 (emphasis added). The description further explains that “M is an integer value between about 4 and 10” steps. *Id.* at 10:50. This description confirms that when an adjustment is made based on a stepping cadence (i.e., “a measured cadence associated with periodic human motion”), then the adjustment itself requires consideration of *several* previously

measured steps (*e.g.*, 4 to 10). This is distinguishable on its face from the disclosure Petitioner relies upon in Fabio of “using a *single* prior step to determine a validation window” (in the singular). *See* Reply 7 (boldface and emphasis original).

Third, with reference to Figure 6, the ’508 patent discloses that cadence windows may be set, at least in part, “based on a rolling average of stepping periods.” *Id.* at 11:14–17. The consideration of *multiple* prior stepping periods (in the context of a rolling average in this example) similarly reflects claim language directed to adjusting cadence windows “based on a measured cadence associated with the periodic human motion,” as recited in claim 20.

The foregoing example disclosure in the ’508 patent is entirely consistent with the argument Uniloc had presented in its Response as to why the Petition should be denied as failing to establish obviousness for claim language unique to dependent claim 20. In conceding that Fabio discloses “using a *single* prior step to determine a validation window” (Reply 7, emphasis original), Petitioner fails to comprehend why this aspect of Fabio is distinguishable from the claim language unique to claim 20 and the corresponding description in the ’508 patent. Unlike all other challenged claims, claim 20 uniquely refers (1) to an adjustment pertaining to “cadence windows” in the plural, and also uniquely requires (2) that the adjustment pertaining to plural “cadence windows” must be “based on a measured *cadence* associated with the *periodic* human motion.”

Contrary to what Petitioner suggests, none of these points of distinction depend on a finding that Fabio uses its validation interval (TV) to retrospectively validate and count a prior detected step. Rather, these patentable distinctions are

entirely independent of, and were provided in Uniloc’s Response in addition to, the other patentable distinctions that arise when Fabio is properly understood as applying a retrospective analysis when counting steps.

**B. Petitioner mischaracterizes and fails to directly address the distinctions Uniloc had identified arising from Fabio’s “substantially homogeneous” teaching**

As an additional and independent distinction over Fabio, Uniloc had observed that the “steps in the system of Fabio are only validated if the previous step is *substantially homogenous* with the current step.” Resp. 18 (citing Ex. 1006 (Fabio) at 4:28–31 and 7:16–17). In its Reply, Petitioner does not dispute this understanding of Fabio; and Petitioner also does not dispute that *this understanding of Fabio* is distinguishable from the claim language uniquely recited in claim 20.

At most, Petitioner argues in its Reply that this point of distinction fails ostensibly because Uniloc’s “argument is similarly premised on Patent Owner’s already-rejected ‘retrospective’ argument that Fabio’s validation interval uses the current step to validate the previous step.” Reply at 8. Petitioner conflates different points of distinction.

Uniloc’s Response expressly distinguishes Fabio’s “retrospective” teachings as generally giving rise to a “first” point of distinction and Fabio’s “substantially homogeneous” teachings as giving rise to a distinct or “third” point of distinction. *See* Resp. 17–18. Uniloc never stated the latter distinction depends on the first. Regardless which step Fabio discloses is validated and hence counted for a given validation interval (i.e., either the step currently detected in the validation interval or

the last step detected), it remains undisputed that Fabio’s validation considers whether the previous step (in the singular) is “*substantially homogenous*” with the current step. Resp. 18 (citing Ex. 1006 (Fabio) at 4:28–31 and 7:16–17). It also remains undisputed that this “substantially homogenous” aspect of Fabio gives rise to a patentable distinction with respect to claim language unique to claim 20.

**C. Uniloc stands by its previously-presented arguments directed to the claims from which claim 20 depends**

In addition to the multiple patentable distinctions Uniloc had identified in its Response, including those clarified above, Uniloc had also presented *other* arguments directed to additional limitations recited in claims from which claim 20 depends (i.e., independent claim 15 and claim 19 depending therefrom). Uniloc stands by the arguments it presented previously. Resp. 7–14.

Petitioner mischaracterizes Uniloc’s Response as being directed solely to arguments Uniloc had previously presented in a related matter concerning claims 15 and 19, from which claim 20 depends. Reply 1–2 (citing Apple FWD). In doing so, Petitioner ignores certain patentable distinctions Uniloc had identified arising from claim language uniquely recited in claim 20, as further explained above.

Petitioner’s reasoning is also flawed as a matter of law. *See MaxLinear, Inc. v. CF CRESPE LLC*, 880 F.3d 1373, 1377–78 (Fed. Cir. 2018) (vacating PTAB patentability determination and remanding on dependent claims not already adjudicated unpatentable: PTAB “must decide whether the remaining claims present materially different issues that alter the question of patentability, making them patentably distinct from” the claims already adjudicated unpatentable).



In suggesting that the Board should not consider Uniloc’s arguments concerning claim language recited in claims 15 and 19, ostensibly because the Apple FWD is completely dispositive, Petitioner also ignores that dependent claim 20 derives antecedent basis from claims 15 and 19 for certain limitations recited in claim 20 (*e.g.*, “*the* cadence logic,” “*the* cadence windows,” “*the* periodic human motion” having “a measured cadence” associated therewith). Consequently, claim 20 provides additional, meaningfully limiting context to those antecedent terms, as addressed in Uniloc’s Response and explained further above. The Board’s findings in the Apple FWD do not somehow shift the burden of proof to Uniloc on terms that are further meaningfully limited by claim 20.

Petitioner also leaves unrebutted other deficiencies Uniloc had identified (concerning language recited in claims 15 and/or 19) that are independent of whether Fabio is interpreted as applying a retrospective validation. For example, Petitioner does not dispute in its Reply that the Petition interprets the claimed “non-active mode” to be distinguishable from the “active mode” in that the “non-active mode” buffers steps and only the “active mode” counts steps. *See* Resp. 11–12 (citing Pet. 40, 43). Petitioner’s Reply also does not dispute that the mapping applied in the Petition is inconsistent with such an understanding because Fabio’s first counting procedure clearly involves counting steps (as the name of the procedure states). *Id.*

**D. Petitioner fails to explain why the Board’s findings in a related matter concerning claims 3 and 13 are dispositive here**

Petitioner’s Reply incorrectly suggests that the Board’s findings in a related matter concerning claims 3 and 13 is somehow dispositive here as to claim 20. Reply

7 (citing Apple FWD); *cf. MaxLinear*, 880 F.3d at 1377–78. Petitioner has the burden of proof, yet it has failed to present any argument as to how or why the Board’s findings in the Apple FWD (directed to distinct terms recited in different claim sets) are somehow pertinent to the expressly-distinguished “cadence windows” limitations of claim 20.

At least one notable distinction Petitioner ignores is that claims 3 and 13 include limitations directed to “a cadence window” and “a dynamic cadence window”, respectively, both recited *in the singular*. As explained above, Uniloc’s Response emphasized deficiencies arising from limitations unique to claim 20, including those directed to “cadence windows” (in the plural) and their adjustment “based on a measured cadence associated with the periodic human motion.” *See* Resp. (Paper 11) 15–18. The record speaks for itself in refuting Petitioner’s false statement that Uniloc concedes claim 20 should be treated the same as claims 3 and 13 ostensibly because Uniloc’s Response did not point to any materially different limitations of claim 20. Reply 1.

Rather than address the distinctions that are apparent on the face of the claim language unique to claim 20, Petitioner relies on its own *ipse dixit* statement that there is no material difference between claim 20 and claims 3 and 13. Such a conclusory argument has not and cannot meet *Petitioner’s* burden of proof.

Petitioner also falsely states that Uniloc has somehow conceded unpatentability by not expressly addressing dependent claims 3 and 13. Reply at 1. Uniloc offered no such concession. Rather, as Petitioner acknowledges, the Board “ordered that the parties are limited to advancing arguments regarding claim 20 in

this proceeding.” *Id.* (quoting Institution Decision at 10-11). Uniloc cannot be faulted for focusing on claim language unique to claim 20, especially given the Board had ordered the parties to limit the respective briefing to claim 20 only.

### **III. CONCLUSION**

For at least the reasons set forth above, and for the reasons articulated in Uniloc’s Response, the Petition should be denied in its entirety.<sup>1</sup>

Date: September 27, 2019

Respectfully submitted,

By: /Brett A. Mangrum/  
Brett A. Mangrum; Reg. No. 64,783  
Attorney for Patent Owner

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<sup>1</sup> Uniloc 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 SERVICE**

The undersigned certifies that the foregoing was served electronically on  
counsel of record for Petitioner.

Date: September 27, 2019

Respectfully submitted,

By: /Brett A. Mangrum/  
Brett A. Mangrum; Reg. No. 64,783  
Attorney for Patent Owner