UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC. and SAMSUNG ELECTRONICS AMERICA, INC., Petitioners,

V.

UNILOC LUXEMBOURG, S.A., Patent Owner.

Case IPR2018-00289¹ Patent 8,872,646 B2

Before JENNIFER S. BISK, CHARLES J. BOUDREAU, and GARTH D. BAER, *Administrative Patent Judges*.

BAER, Administrative Patent Judge.

FINAL WRITTEN DECISION

35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

¹ Samsung Electronics America, Inc., which filed a petition in IPR2018-01383, has been joined as a party to this proceeding.



I. INTRODUCTION

Apple, Inc. ("Petitioner") filed a Petition (Paper 1, "Pet.") requesting *inter partes* review of claims 1, 3, 5–11, 13–18, and 20 of U.S. Patent No. 8,872,646 B2 (Ex. 1001, "the '646 patent"). Pursuant to 35 U.S.C. § 314(a), we determined Petitioner showed a reasonable likelihood that it would prevail in establishing the unpatentability of all challenged claims and instituted an *inter partes* review. Paper 7, 25. Patent Owner filed a Response (Paper 11, "Resp."), and Petitioner filed a Reply to Patent Owner's Response (Paper 14, "Reply"). Petitioner also filed an unopposed Motion to Strike the Declaration of William Easttom. Paper 13. An oral hearing was held before the Board. Paper 21.

We issue this Final Written Decision pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. Having considered the record before us and as explained below, we determine Petitioner has shown by a preponderance of the evidence that claims 1, 3, 5–11, 13–18, and 20 of the '646 patent are unpatentable. *See* 35 U.S.C. § 316(e).

A. RELATED PROCEEDINGS

The parties assert that the '646 patent is involved in *Uniloc USA*, *Inc.* v. *Apple Inc.*, 2:17-cv-00470 (E.D. Tex. 2017); *Uniloc USA*, *Inc.* v. *LG Electronics USA*, *Inc.*, 4:17-cv-00830 (N.D. Tex. 2017); *Uniloc USA*, *Inc.* v. *Samsung Electronics America*, *Inc.*, 2:17-cv-00652 (E.D. Tex. 2017); and *Uniloc USA*, *Inc.* v. *Huawei Device USA*, *Inc.*, 2:17-cv-00746 (E.D. Tex. 2017). Pet. 1–2; Paper 4, 2.



B. THE '646 PATENT

The '646 patent is titled "Method and System for Waking Up a Device Due to Motion" and describes a device with an accelerometer that wakes up from a low power idle state in response to detecting motion. Ex. 1001, Abstract, 1:27–28.

Figure 3 of the '646 patent is reproduced below.

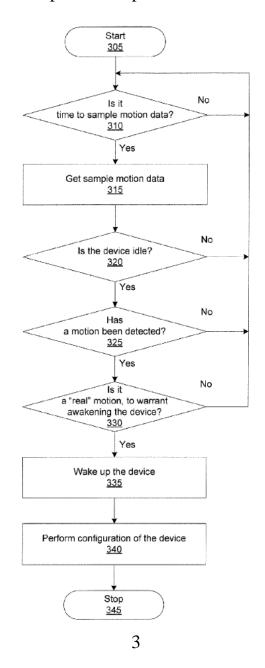




Figure 3 is a flowchart for determining whether to wake up a device based on motion. *Id.* at 4:25–26. At block 315, the process gets sample motion data and calculates a current/updated acceleration average. *Id.* at 4:36–38. At block 320, the process determines whether the device is idle—i.e., whether it is not moving and there are no active user-interactive applications. *Id.* at 4:45–47. If the device is idle, the process continues to block 325 and determines if the device has experienced any motion larger than a minimum threshold. *Id.* at 4:49–55. If so, at block 330, the process determines if the movement is a real motion that warrants waking up the device—i.e., movement from being picked up by a user intending to use the device, as opposed to a mere jostle or bump. *Id.* at 4:61–5:2. If the movement is real, the process continues to blocks 335 and 340, where the process wakes up the device and restores it to either a last active state or a user-customized configuration. *Id.* at 5:3–12.

Figure 4 of the '646 patent is reproduced below.

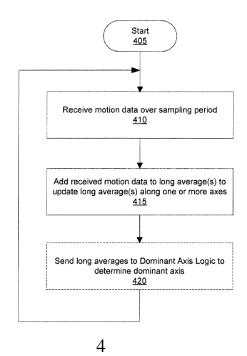




Figure 4 is a flowchart of a process to create a long average of accelerations. *Id.* at 5:14–15. At block 410, the process sends motion data from an accelerometer through a glitch correcting logic, which removes abnormal data before passing it along to a long average logic. *Id.* at 5:18–23. At block 415, the long average logic adds the sampled motion data to a long average, to create an updated long average of accelerations. *Id.* at 5:24–26. The '646 patent explains "[i]n one embodiment, the long average logic maintains a long average only for the dominant axis (e.g., the axis on which the gravitational effect is detected)," whereas "[i]n another embodiment, the long average logic maintains an average for one or more axes." *Id.* at 5:26–30. At block 420, the process determines the dominant axis using long averages of accelerations for a plurality of axes. *Id.* at 5:32–38.

C. ILLUSTRATIVE CLAIM

Of the challenged claims, claims 1, 13, and 20 are independent. Independent claim 1 (reproduced below) is representative.

1. A method comprising:

receiving motion data from a motion sensor in a device, the motion sensor sensing motion along three axes;

verifying whether the motion data includes one or more glitches and removing the one or more glitches from the motion data;

determining an idle sample value for a dominant axis of the device, the dominant axis defined as the axis with a largest effect from gravity among the three axes, the idle sample value comprising an average of accelerations over a sample period along the dominant axis recorded when the device goes to idle mode after a period of inactivity;



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