

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., LG ELECTRONICS, INC., HTC CORPORATION, and HTC
AMERICA, INC.,
Petitioner,

v.

UNILOC 2017 LLC,
Patent Owner.

Case IPR2018-00389^{1,2}
Patent 8,712,723 B1

Before SALLY C. MEDLEY, MIRIAM L. QUINN, and
SEAN P. O'HANLON, *Administrative Patent Judges*.

O'HANLON, *Administrative Patent Judge*.

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

¹ LG Electronics, Inc., HTC Corporation, and HTC America, Inc., who filed a Petition in IPR2018-01458, have been joined to petitioner in this proceeding.

² At the time the Petition was filed, Uniloc Luxembourg S.A. was the patent owner.

I. INTRODUCTION

A. Background

Apple Inc. (“Petitioner”) filed a Petition for *inter partes* review of claims 1–3, 5–7, and 10–18 (“the challenged claims”) of U.S. Patent No. 8,712,723 B1 (Ex. 1001, “the ’723 patent”). Paper 2 (“Pet.”), 1. Uniloc Luxembourg S.A., a predecessor in interest to Uniloc 2017 LLC (“Patent Owner”), filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). On June 27, 2018, we instituted an *inter partes* review of the challenged claims on all grounds raised in the Petition. Paper 7 (“Decision” or “Dec.”), 25.

Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 11 (“PO Resp.”)) and Petitioner filed a Reply to the Patent Owner Response (Paper 12 (“Pet. Reply”)). Patent Owner subsequently filed a Sur-Reply to Petitioner’s Reply. Paper 14 (“PO Sur-Reply”). An oral hearing was held on April 2, 2019. A transcript of the hearing has been entered into the record. Paper 19 (“Tr.”).³

In our Scheduling Order, we notified the parties that “any arguments for patentability not raised in the [Patent Owner] response will be deemed waived.”⁴ Nonetheless, Petitioner bears the burden to show, by a preponderance of the evidence, that the challenged claims are unpatentable. 35 U.S.C. § 316(e). For the reasons that follow, we conclude that Petitioner

³ The oral hearing included related proceedings IPR2018-00387, IPR2018-00424, and IPR2018-01028. Paper 17.

⁴ See Paper 8, 3; see also Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012) (“The patent owner response . . . should identify all the involved claims that are believed to be patentable and state the basis for that belief.”).

has proven by a preponderance of the evidence that claims 1–3, 5–7, and 10–18 of the '723 patent are unpatentable.

B. Related Matters

The parties indicated that the '723 patent is the subject of the following litigation:

Uniloc USA, Inc. v. Apple Inc., No. 2-17-cv-00522 (E.D. Tex. filed June 30, 2017),

Uniloc USA, Inc. v. Samsung Electronics America, Inc., No. 2-17-cv-00650 (E.D. Tex. filed Sept. 15, 2017),

Uniloc USA, Inc. v. LG Electronics USA, Inc., No. 4-12-cv-00832 (N.D. Tex. filed Oct. 13, 2017),

Uniloc USA, Inc. v. HTC America, Inc., No. 2-17-cv-01629 (W.D. Wash. filed Nov. 1, 2017),

Uniloc USA, Inc. v. Huawei Devices USA, Inc., No. 2-17-cv-00737 (E.D. Tex. filed Nov. 9, 2017),

Uniloc USA, Inc. v. Apple Inc., No. 4-18-cv-00364 (N.D. Cal. filed Jan. 17, 2018), and

Uniloc USA, Inc. v. LG Electronics USA, Inc., No. 4-18-cv-02918 (N.D. Cal. filed May 17, 2018).

Pet. 2; PO Resp. 2–3.

We note that in IPR2018-01027, Petitioner sought *inter partes* review of claims 4 and 19 of the '723 patent. We declined to institute review. IPR2018-01027, Paper 8. The '723 patent was also subject to a petition for *inter partes* review in IPR2018-01757, which we did not institute. IPR2018-01757, Paper 7.

C. Real Parties-in-Interest

The statute governing *inter partes* review proceedings sets forth certain requirements for a petition for *inter partes* review, including that “the petition identif[y] all real parties in interest.” 35 U.S.C. § 312(a)(2); *see also* 37 C.F.R. § 42.8(b)(1) (requiring identification of real parties-in-interest in mandatory notices). The Petition identifies “Apple Inc.” as the real party-in-interest. Pet. 1. The joinder petitioners identify LG Electronics, Inc., LG Electronics U.S.A., Inc., LG Electronics MobileComm USA, Inc., HTC Corporation, and HTC America, Inc. as real parties-in-interest. IPR2018-01458, Paper 1, 2. Patent Owner states that its real parties-in-interest are “Uniloc 2017 LLC,” “Uniloc USA, Inc.,” and “Uniloc Licensing USA LLC.” Paper 9, 2.

D. The Challenged Patent

The ’723 patent relates to monitoring and counting periodic human motions, such as steps. Ex. 1001, 1:12–14. The ’723 patent states that inertial sensors (e.g., accelerometers) are used in step counting devices, allowing an individual to track the number of daily steps. *Id.* at 1:18–29. One problem recognized in the ’723 patent is the limitations of these step counting devices concerning the orientation of the device during use. *Id.* at 1:29–34. Further, motion noise often confuses these devices, resulting in missed steps or counting false steps, with a particular problem of inaccurate step measurements for slow walkers. *Id.* at 1:35–43.

The ’723 patent provides for accurate counting of steps regardless of the orientation of the step counting device, even if that orientation changes during operation. *Id.* at 2:33–38. In particular, the ’723 patent describes

assigning a dominant axis after determining an orientation of the inertial sensor, where the orientation of the inertial sensor is continuously determined. *Id.* at 2:15–19. In one embodiment, the '723 patent method determines rolling averages of the accelerations of each axis monitored by the inertial sensor in the device. *Id.* at 6:15–21. The largest absolute rolling average indicates the axis most influenced by gravity, which may change over time, as the device's orientation changes because of rotation. *Id.* at 6:20–26.

With regard to the embodiment shown in Figure 8, reproduced below, the '723 patent describes the method for measuring the acceleration along the assigned dominant axis to detect and count steps. *See id.* at 12:30–35.

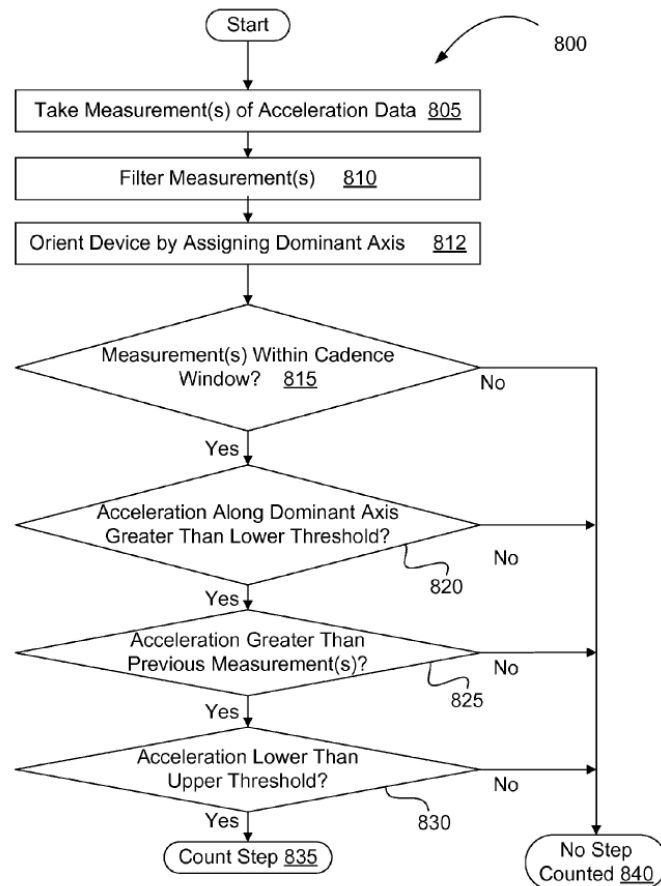


Figure 8

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