

UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC.,  
Petitioner

v.

UNILOC LUXEMBOURG S.A.  
Patent Owner

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Case No. IPR2018-01027  
U.S. PATENT NO. 8,712,723

**DECLARATION OF WILLIAM C. EASTTOM II (CHUCK EASTTOM)**

Apple v. Uniloc, IPR2018-01027  
Uniloc's Exhibit No. 2001

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## **I. INTRODUCTION**

1. I have been retained by Uniloc to provide my expert opinions regarding validity of U.S. Patent No. 8,712,723 ("723 Patent"). Specifically, I have been asked to provide expert opinions regarding Claims 1-3, 5-7, and 10-18.

2. I am being compensated for my time at my standard consulting rate of \$300 per hour. I am also being reimbursed for expenses that I incur during the course of this work. My compensation is not contingent upon the results of my study or the substance of my opinions.

## **II. BACKGROUND AND QUALIFICATIONS**

3. I have 25+ years of experience in the computer science industry including extensive experience with computer security, computer programming, and computer networking. I have authored 26 computer science books, including textbooks used at universities around the world. I hold 42 different computer industry certifications, including many in networking subjects. I am experienced with multiple programming languages. I also have extensive experience in computer networking. I have extensive experience with mobile devices, including all aspects of mobile devices (hardware and software). I am a Distinguished Speaker for the Association of Computing Machinery (ACM), and a reviewer for the IEEE Security and Privacy journal, as well as a reviewer for the International Journal of Cyber Warfare and Terrorism (IJCWT). My CV is attached as appendix A.

### III. CLAIM CONSTRUCTION

4. For the purposes of an IPR, claim terms are given their broadest reasonable meaning.

5. The petitioner has adopted the definitions of *dominant axis* as “the axis most influenced by gravity.”

6. The petitioner has adopted the definition of *cadence window* as “a window of time since a last step was counted that is looked at to detect a new step.”

7. The petitioner has adopted the definition of *a dominant axis logic to determine an orientation of a device with respect to gravity, to assign a dominant axis, and to update the dominant axis when the orientation of the device changes* as “hardware, software, or both to determine an orientation of a device, to assign a dominant axis, and to update the dominant axis as the orientation of the device changes.” The petitioner seems to ignore the fact that software, by itself, cannot determine a dominant axis. Hardware with software/firmware, can.

8. The petitioner has adopted the definition of *a counting logic to count periodic human motions by monitoring accelerations relative to the dominant axis by counting the periodic human motions when accelerations showing a motion cycle that meets motion criteria is detected within a cadence window* as “hardware, software, or both to count periodic human motions by monitoring accelerations relative to the dominant axis by counting the periodic human motions when accelerations showing a motion cycle that meets motion criteria is detected within a cadence window.” The

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