

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS AMERICA, INC.  
Petitioner

v.

UNILOC LUXEMBOURG, S.A.  
Patent Owner

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IPR2018-01664  
Patent No. 8,872,646

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**DECLARATION OF DR. IRFAN ESSA IN SUPPORT OF PETITIONER'S  
OPPOSITION TO PATENT OWNER'S MOTION TO AMEND**

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I, Dr. Irfan Essa, declare as follows:

## **I. INTRODUCTION**

1. As I testified in my declaration signed September 5, 2018, which I understand has been labeled as Exhibit 1010 in this proceeding, I have been retained by Samsung Electronics America Inc. (“Petitioner”) as an independent expert consultant in this proceeding before the United States Patent and Trademark Office (“PTO”). I previously provided testimony in this proceeding in my September 5, 2018 declaration. (*See* Ex. 1010.) As with my previous work relating to this proceeding, no part of my compensation is contingent on the nature of my findings, the presentation of my findings in testimony, or the outcome of this or any other proceeding. I have no other interest in this proceeding. Relevant aspects of my qualifications were provided in my September 5, 2018 declaration. (*See id.* at ¶¶ 3-8; *see also* Ex. 1011 (curriculum vitae).)

2. I have been asked to consider whether substitute claim 23 included with Patent Owner Uniloc Luxembourg, S.A.’s (“Uniloc”) Motion to Amend filed June 11, 2019, are supported by the originally filed specification of the ’646 patent and whether certain references disclose or suggest the features recited in the substitute claim. My opinions are set forth below.

## II. MATERIALS REVIEWED

3. The opinions in this Declaration are based on the documents I reviewed, my knowledge and experience, and professional judgment. In forming my opinions expressed in this Declaration, I have reviewed the following materials:

- the '646 patent (Ex. 1001);
- the prosecution file history for the '646 patent (Ex. 1002);
- U.S. Patent No. 7,409,291 (“Pasolini”) (Ex. 1003);
- *Using the LIS3L02AQ Accelerometer*, Ron Goldman, Sun Microsystems Inc., dated February 23, 2007 (Ron Goldman (“Goldman”) (Ex. 1004);
- U.S. Patent No. 7,204,123 (“McMahan”) (Ex. 1005);
- U.S. Patent Publication No. 2006/0161377 (“Rakkola”) (Ex. 1006);
- *Using Gravity to Estimate Accelerometer Orientation*, David Mizell, Proceedings of the Seventh IEEE International Symposium on Wearable Computers (ISWC '03) 2003 (“Mizell”) (Ex. 1007);
- U.S. Patent No. 7,028,220 (“Park”) (Ex. 1014);
- *Dictionary of Scientific and Technical Terms*, McGraw-Hill (Ex. 1009); U.S. Patent No. 7,180,502 (“Marvit”) (Ex. 1015);
- U.S. Patent No. 7,463,997 (“Fabio”) (Ex. 1016);

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