## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re Patent of: | Aldana et al. | |
| U.S. Pat. No.: | 8,416,862 | Attorney Docket No.: 35548-0097IP1 |
| Issue Date: | April 9, 2013 | |
| Appl. Serial No.: | 11/237,341 | |
| Filing Date: | September 28, 2005 | |
| Title: | EFFICIENT FEEDBACK OF CHANNEL INFORMATION IN A CLOSED LOOP BEAMFORMING WIRELESS COMMUNICATION SYSTEM | |

## DECLARATION OF JONATHAN WELLS, Ph.D.

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I, Jonathan Wells, Ph.D. of Pleasanton, California, declare that:

## I. ASSIGNMENT

1. I have been retained as a technical expert by counsel on behalf of Huawei Technologies Co., Ltd. ("Huawei" or "Petitioner"). I understand that Huawei is requesting that the Patent Trial and Appeal Board ("PTAB" or "Board") institute an *inter partes* review ("IPR") proceeding of U.S. Patent No. 8,416,862 ("the '862 patent") (EX1001).

2. I have been asked to provide my independent analysis of the '862 patent in light of the prior art publications cited below.

3. I am not, and never have been, an employee of Huawei. I received no compensation for this declaration beyond my normal hourly compensation based on my time actually spent analyzing the '862 patent, the prior art publications cited below, and the issues related thereto, and I will not receive any added compensation based on the outcome of any IPR or other proceeding involving the '862 patent.

## II. QUALIFICATIONS

4. I received a B.Sc. in Physics with Physical Electronics, awarded with first class honors, from the University of Bath in Bath, United Kingdom, in 1987. In 1991, I earned by Ph.D., also from the University of Bath. I earned my M.B.A., awarded with distinction, from Massey University in New Zealand, in 1998.

5. I have over 30 years of wireless communications experience in areas including cellular technologies, wireless devices, network infrastructure, and wireless rules and regulations. I have written a textbook and multiple industry reports and journal/conference papers which focus on wireless communications systems. For example, I am the author of "*Multi-Gigabit Microwave and Millimeter-Wave Wireless Communications*," published by Artech House in 2010. I have also authored four comprehensive industry reports on cellular connectivity for Mobile Experts. I have lectured as part of undergraduate programs at University of California, Berkeley, Carnegie Mellon University, and University of Bath, and have given over two dozen lectures and conference presentations on topics germane to wireless communications. I am also a listed inventor of several patents, and am an author of over 40 academic and commercial publications and presentations.

6. I began my career in 1985, as an Engineer for Plessey Research, Caswell, United Kingdom, developing high-speed fiber optic transmitter/receiver devices. In 1987, I worked at British Aerospace, Filton, Bristol, United Kingdom, designing and fabricating novel mixer devices, to support my Ph.D. research. Later in 1990, as a Post-Doctoral Research Officer for University of Bath, I designed and fabricated novel quantum amplifiers in a clean room environment and developed computer models to predict semiconductor device performance.

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