

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO. LTD.;
SAMSUNG ELECTRONICS AMERICA, INC.;
SAMSUNG TELECOMMUNICATIONS AMERICA, LLC; and
SAMSUNG AUSTIN SEMICONDUCTOR, LLC;
Petitioner

v.

REMBRANDT WIRELESS TECHNOLOGIES, LP
Patent Owner

Case No. IPR2014-00518
Patent 8,023,580

DECLARATION OF DR. CHRISTOPHER R. JONES

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I. INTRODUCTION

1. I have been retained by Pepper Hamilton LLP as Counsel for Patent Owner, Rembrandt Wireless Technologies, LP (“Patent Owner”), to provide opinions on certain issues concerning *Inter Partes* Review No. IPR2013-00518 of U.S. Patent No. 8,023,580 (“the ’580 Patent,” Ex. 1201).

2. I am aware that the Petition (Paper 4)¹ filed in the above-identified proceeding requested review of various claims of the ’580 Patent and that the Board instituted this proceeding on a subset of the challenged claims. Specifically, I understand that the Petitioner challenged Claims 1, 2, 4, 5, 10, 13, 19-22, 49, 52-54, 57-59, 61, 62, 66, 70, and 76-79 of the ’580 Patent, and that the Patent Trial and Appeal Board (“the Board”) has instituted trial for Claims 1, 4, 5, 10, 13, 20-22, 54, 57, 58, 61, 62, 66, 70 and 76-79 (“the instituted claims”). I am also aware that Petitioner submitted with the Petition a declaration of David Goodman, Ph.D. (“the Goodman Report,” Ex. 1220). I have been asked to analyze the ’580 Patent, the Petition and the art cited therein, the Goodman Report, and the Institution

¹ Unless indicated to the contrary, references to the Petition within this declaration are to the amended Petition filed on April 3, 2014 (Paper 4), rather than the original Petition filed on March 20, 2014 (Paper 1).

Decision dated September 23, 2014 (“the Institution Decision,” Paper 16) as they relate to certain issues concerning the instituted claims.

3. My observations and opinions, as set forth below, are based upon my training, education, and experience, as well as my review of the above-referenced documents. I make these statements based upon facts and matters within my own knowledge or on information provided to me by others. All such facts and matters are true to the best of my knowledge and belief.

4. I am being compensated at my standard consulting rate of \$350 per hour. My compensation is not dependent on the outcome of this case.

II. BACKGROUND AND QUALIFICATIONS

5. I received my Ph.D. in Electrical Engineering from the University of California, Los Angeles (“UCLA”) in 2003, and my Master of Science (MS) degree in Electrical Engineering from UCLA in 1996. I graduated *magna cum laude* with a Bachelor of Science degree in Electrical Engineering from UCLA in 1995, and was awarded a prize for most outstanding graduating senior in the electrical engineering department.

6. From 2004 to 2009, I worked for Jet Propulsion Laboratory (JPL) in Pasadena, CA as a senior member of the technical staff. In that capacity, I served as the Principal Investigator for the Mars Technology Program on “Coding Systems for High Data Rate Mars Links.” I am an author of the Consultative

Committee for Space Data Systems (CCSDS) international standard for Low Density Parity Check Codes for deep space telecommunications links. After leaving JPL in 2009, I occasionally contracted with JPL on the Mars MAVEN project and have produced a forward error correction codec to be used in flight on the mission, which launched in November 2013. In addition, I am the co-founder of Chilicon Power, LLC, a power electronics company that designs and manufactures grid-interactive inverters for photovoltaic modules. The devices Chilicon Power manufactures employ a unique modulation. I designed this modulation for Chilicon's devices in order to mitigate the jamming and erasure conditions present in power line communication channels. Prior to founding Chilicon Power, I was the Chief Technical Officer of Mojix, Inc. in Santa Monica, California between 2009 and 2010, and the Vice President of Advanced Technology for Mojix between 2006 and 2009. Using signal processing techniques from patents that I co-invented, Mojix develops receivers able to received passive RFID tag communications across a distance of more than 1000 feet. I was an early employee of Broadcom Corp. and share inventor credentials on DOCSIS Cable Modem, Direct Broadcast Satellite technologies, and advanced forward error correction technologies.

7. I have authored and co-authored numerous peer-reviewed journal articles, as well as conference papers, on topics concerning field programmable

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