EXHIBIT

DSS-2012

Chris A. Mack

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EDUCATION

University of Texas, Austin, TX
Doctorate in Chemical Engineering — December 1998
Thesis Title: "Modeling Solvent Effects in Optical Lithography"

University of Maryland, College Park, MD
Master of Science in Electrical Engineering — December 1989

Rose-Hulman Institute of Technology, Terre Haute, IN
Bachelor of Science degrees in Physics, Electrical Engineering, Chemistry, and Chemical Engineering — May 1982

EXPERIENCE

Lithoguru.com, Austin, TX

11/05 – present *Gentleman Scientist*

- Pursuing intellectual interests, research, writing, and teaching, as reflected on the website www.lithoguru.com.
- Current major research interest: developing an approximate analytical stochastic model of lithography line-edge roughness.
- Consulting in the fields of optics and semiconductor lithography, including legal expert witness services and business consultation.

University of Texas at Austin, Austin, TX

8/91 – present *Adjunct Faculty (part time)*

- Teaching graduate and undergraduate courses in the Electrical Engineering and Chemical Engineering departments. Graduate courses include Semiconductor Microlithography, Chemical Processes for Microelectronics, Fourier Optics, and Statistics. Undergraduate courses include Electronic Circuits, Solid State Electronics, and Modern Optics. Served on the committees of numerous PhD dissertations.
- Teaching loads have varied but have averaged 1 – 2 courses per semester.

University of Canterbury, Christchurch, NZ

6/11 – 8/11 *Erskine Visiting Fellow*

- Taught undergraduate course in the Electrical Engineering department: Semiconductor Microlithography. Participated in research on evanescent interferometric lithography.

University of Notre Dame, South Bend, IN

8/06 – 12/06 *Melchor Visiting Chair Professor*

- Taught two graduate courses in the Electrical Engineering department: Semiconductor Microlithography, and Data Analysis and Modeling in the Real World.

KLA-Tencor, Austin, TX

2/00 – 11/05 *Vice President of Lithography Technology*

- Provided strategic vision in all lithography related products for KLA-Tencor, a $2B Fortune 500 supplier of equipment to the semiconductor industry.
- Directed research efforts for four product divisions across two continents, including lithography simulation, optical and SEM critical dimension metrology, and optical overlay metrology. Obtained funding and managed resource allocation and strategic planning for critical long-term projects.
- Provided and oversaw successful turn-around strategies for two failing product lines.
- Provided internal consulting services in lithography to other KLA-Tencor divisions.
- Oversaw the acquisition of FINLE Technologies by KLA-Tencor and its transition to a successful product division.

FINLE Technologies, Austin, TX

2/90 – 2/00 *CEO, President and Chief Technical Officer*

- Founded company in 1990, pursuing it full time by the end of 1991.
- Responsible for overall corporate management, vision, strategic planning, technical direction, budgeting, new product development, and lithography research. Grew the company from one person and $60,000 in revenue in 1990 to 25 people and $2.5M in revenue in 2000.
- Developed the industry standard PROLITH Toolkit of lithography simulation software and the ProDATA suite of data analysis software.
- Provided consulting services to the semiconductor industry.
- Taught numerous short courses on optical lithography.

SEMATECH, Austin, TX

8/90 – 12/91 *Lithography Engineer*

- As an assignee of the department of defense to SEMATECH, provided lithography expertise to SEMATECH on a variety of different projects, including modeling and process development for deep-UV resist systems, processes optimization of the i-line production process, advanced development activities in phase-shifting mask technologies, and lithographic lens design.
- Taught short-term and long-term courses on lithography to SEMATECH staff and assignees.

National Security Agency, Fort Meade, MD

11/82 – 8/90 *Senior Engineer - Lithography*

- As a member of the Microelectronics Research Laboratory (MRL), was tasked with performing research for present and future agency needs in the area of microlithography for semiconductor processing. This work provided a unique blend of theoretical research (e.g., a mechanism for the development reaction, diffraction

theory for proximity printing and aerial imaging) and experimental work (measurement of resist properties, model verification). Performed numerous practical and theoretical studies, e.g., resist coating uniformity on wafer tracks, mask bias effects for step-and-repeat printing, exposure optimization, image reversal techniques, and focus effects for submicron lithography. The results of this work have been published in numerous journals and presented at technical conferences, including invited papers at international conferences in Japan and Europe.

EXPERT WITNESS EXPERIENCE

November, 2013 – present
Expert witness, Winston & Strawn for Macronix
Case: ITC Inv. No. 337-TA-893, Certain Flash Memory Chips and Products Containing the Same
Testimony: none to date

March, 2008 – present
Expert witness and expert consultant, Stadheim & Grear for the University of New Mexico.
Case: Pursue licensing of University of New Mexico patents, Patent litigation, infringement action against Intel.
Testimony: expert report on claim construction, provided deposition testimony.

March, 2007 – July, 2013
Expert witness, Morrison & Foerster for Nikon Corporation.
Case: Patent litigation, infringement action against Nikon.
Testimony: Markman hearing (March 2010), wrote expert report and rebuttal report, provided deposition testimony.

February, 2013 – May 2013
Expert witness, McKool Smith for Ericsson.
Case: ITC court case involving patent infringement action by Samsung.
Testimony: none.

January, 2011 – June 2011
Expert witness, Fish and Richardson for Samsung.
Case: ITC court case involving patent infringement action against Samsung.
Testimony: wrote expert report and rebuttal report, provided deposition testimony.

August, 2006 – February, 2008
Expert witness, Milbank, Tweed, Hadley & McCloy LLP for Renesas.
Case: ITC court case involving patent infringement action against Samsung.
Testimony: expert reports and expert rebuttal reports, gave two deposition testimonies, and testified at trial.

June, 2006 – July, 2007
Expert witness, WilmerHale for an Asia-based semiconductor manufacturer.

Case: Contract dispute between a US-based semiconductor manufacturer and an Asia-based semiconductor manufacturing concerning the transfer of manufacturing technology. Settled under arbitration in Hong Kong.
Testimony: wrote expert report and expert rebuttal report. Prepared fully for trial testimony – case settled the day before trial.

COURSES TAUGHT AT THE UNIVERSITY OF TEXAS AT AUSTIN

EE 411	**Circuit Theory (undergraduate)**
EE 323	**Network Theory II (undergraduate)**
EE 325	**Electromagnetic Engineering (undergraduate)**
EE 338	**Electronic Circuits I (undergraduate)**
EE 339	**Solid State Electronics (undergraduate)**
CHE 323	**Chemical Engineering for Micro- and Nanofabrication (undergrad)**
PHY 333/EE 347	**Modern Optics (undergraduate)**
SSC306	**Statistics in Market Analysis (undergraduate)**
EE 383P	**Fourier Optics (graduate)**
EE 396K/CHE 385C	**Semiconductor Microlithography (graduate)**
CHE 395C	**Chemical Processes for Microelectronics (graduate)**
SSC380D	**Statistical Methods II (graduate)**

COURSES TAUGHT AT THE UNIVERSITY OF NOTRE DAME

EE 60598	**Semiconductor Microlithography (graduate)**
EE 60596	**Data Analysis and Modeling in the Real World (graduate)**

AWARDS

SPIE Frits Zernike Award for Microlithography, for contributions in lithography modeling and education, 2009

SEMI Award for North America, for contributions in lithography modeling and education, 2003

Best Paper Award, *18th Annual BACUS Symposium on Photomask Technology and Management*, 1998.

INDUSTRIAL AND PROFESSIONAL SOCIETIES

Member of the Board of Trustees, Rose-Hulman Institute of Technology, 2008 – present

Member of the Board of Advisors to the Physics Department, Rose-Hulman Institute of Technology, 2000 – 2008

Member of the Board of Advisors to the Chemistry Department, Rose-Hulman Institute of Technology, 2003 – 2008

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