

# EXHIBIT A



**UNITED STATES INTERNATIONAL TRADE COMMISSION  
WASHINGTON, D.C.**

**Before The Honorable Thomas B. Pender  
Administrative Law Judge**

In the Matter of

CERTAIN AUDIO PROCESSING HARDWARE  
AND SOFTWARE AND PRODUCTS  
CONTAINING THE SAME

Investigation No. 337-TA-949

**DECLARATION OF SCOTT C. DOUGLAS, Ph.D.  
IN SUPPORT OF COMPLAINANT ANDREA ELECTRONIC CORPORATION'S  
INITIAL CLAIM CONSTRUCTION BRIEF**

I, Scott C. Douglas, Ph.D., declare as follows:

1. I have been retained by Complainant Andrea Electronics Corporation (hereinafter “Andrea” or “Complainant”) to provide expert opinion and testimony in connection with the above captioned Investigation. In particular, I have been asked by Andrea to provide expert opinions with regards to the construction of certain claim terms of Andrea’s U.S. Patent Nos. 6,363,345 (“the ’345 Patent”), 6,049,607 (“the ’607 Patent”), and 6,377,637 (“the ’637 Patent”). The expert opinions that I set forth in my declaration are based upon my knowledge in the field, the patents at issue in this Investigation, the file histories of the patents at issue in this investigation, and the various texts that I rely upon in my declaration. I am being compensated at a rate of \$550 per hour. My compensation is in no way dependent upon or contingent upon the opinions and testimony that I render during the course of this Investigation.

2. I am currently a professor in the Department of Electrical Engineering at the Bobby B. Lyle School of Engineering at Southern Methodist University. I have been a professor in the Department of Electrical Engineering at Southern Methodist University since August 1998. I have taught, and continue to teach, courses to undergraduate and graduate level students in the areas of signal processing, including adaptive filtering and adaptive arrays. My research at Southern Methodist University is focused in the areas of acoustic signal processing, active noise control, adaptive filtering, array processing, multichannel blind deconvolution and source separation.

3. Prior to my position at Southern Methodist University, I was an assistant professor in the Department of Electrical Engineering at the University of Utah. I taught courses to undergraduate and graduate level students in the areas of signal processing, including digital signal processing, adaptive filtering, and active noise control. In addition to teaching, I also performed research in the areas of adaptive filtering, active noise control, multichannel blind

deconvolution and source separation, and hardware implementations of adaptive signal processing systems.

4. I have been a member of the Institute of Electrical and Electronics Engineers since 1988, and am currently a Senior Member. I have been an Associate Editor of the *IEEE Transactions on Signal Processing* and *IEEE Signal Processing Letters*. I have had leadership roles in IEEE organizational activities, including conference and workshop organization, and I have served on three Technical Committees of the IEEE Signal Processing Society and held leadership positions of Secretary or Chair of some of these committees. In 2010, I was the General Chair and the organizer of the IEEE International Conference on Acoustics, Speech, and Signal Processing, the premier yearly IEEE conference series on all aspects of signal processing theory, methods, and applications, and I have published in and attended this conference every year it has been offered since 1990. I was the recipient of the Best Paper Award in Audio and Electroacoustics of the IEEE Signal Processing Society in 2003.

5. I have written several book chapters related to adaptive filters, microphone arrays, blind deconvolution, and source separation. I was section editor of the Adaptive Filters portion of *The Digital Signal Processing Handbook*, Vijay Madisetti and Douglas Williams, eds. (Boca Raton, FL: CRC/IEEE Press, 1998), and authored one chapter and co-authored another chapter on adaptive filters for this text. I co-authored, with Shun-ichi Amari, the book chapter entitled "Natural Gradient Adaptation," in *Unsupervised Adaptive Filtering, Vol. I: Blind Signal Separation*, Simon Haykin, ed., (New York: Wiley, 2000), and I co-authored, with Simon Haykin, the book chapter entitled "Relationships Between Blind Deconvolution and Blind Source Separation," in *Unsupervised Adaptive Filtering, Vol. II: Blind Deconvolution*, Simon Haykin, ed., (New York: Wiley, 2000). I wrote the book chapter entitled, "Blind Separation of

Acoustic Signals," appearing in *Microphone Arrays: Techniques and Applications*, Michael Brandstein and Darren Ward, eds., (New York: Springer-Verlag, 2001). I co-authored, with Malay Gupta, the book chapter entitled, "Convolutional Blind Source Separation for Audio Signals," in *Blind Speech Separation*, Shoji Makino, Te-Won Lee, and Hiroshi Sawada, eds. (New York: Springer, 2007).

6. I received my bachelors, masters, and doctorate degrees in electrical engineering from Stanford University. For my doctorate degree, the focus of my studies were in the area of signal processing, adaptive filters, and statistical estimation and detecting. I received my doctorate degree in 1992. A copy of my curriculum vitae is attached as Exhibit 1.

#### **I. LEGAL STANDARDS**

7. I am not an attorney, but I have been informed of the following standards regarding claim construction:

- Claim construction begins with the words of the claim itself, which generally receive their ordinary and customary meaning as understood by a person of ordinary skill in the art at the time of the invention in the context of the specification and prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (*en banc*). To ascertain the ordinary and customary meaning of the claims, courts consider the intrinsic record, including the claims, the specification, and the prosecution history. *Id.* at 1314. Claim terms “can be defined only in a way that comports with the instrument as a whole[.]” and must be read “in the context of the entire patent[.]” *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389 (1996). It is the claims that delimit a patentee’s right to exclude, and therefore it is not proper to import limitations from the specification into the claims. *Varco, L.P. v. Pason Sys. USA Corp.*, 436 F.3d 1368, 1373 (Fed. Cir. 2006). A patentee need not describe in the

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