

EXHIBIT 7

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

AIRE TECHNOLOGY LTD.,

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD. and
SAMSUNG ELECTRONICS AMERICA, INC.,

Defendants.

Case No. 6:21-cv-955-ADA

JURY TRIAL DEMANDED

AIRE TECHNOLOGY LTD.,

Plaintiff,

v.

APPLE INC.

Defendant.

Case No. 6:21-cv-1101-ADA

JURY TRIAL DEMANDED

AIRE TECHNOLOGY LTD.,

Plaintiff,

v.

GOOGLE LLC,

Defendant.

Case No. 6:21-cv-1104-ADA

JURY TRIAL DEMANDED

**DECLARATION OF DR. JOHN R. BLACK, JR.
REGARDING INDEFINITENESS OF U.S. PATENT NO. 8,205,249**

I, John R. Black, Jr., Ph.D., hereby declare and state as follows:

I. INTRODUCTION

1. I have been retained by Fish & Richardson P.C. on behalf of Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, “Samsung”) as an expert in connection with the above captioned matter.

2. I understand that Aire Technology Ltd. (“Aire”) has alleged that Samsung infringes U.S. Patent No. 8,205,249 (“the ’249 patent”). I understand that Aire has also sued Apple Inc. (“Apple”) and Google LLC (“Google”) alleging infringement of the ’249 patent.

3. I have been asked to provide my opinion on how certain terms appearing in claims of the ’249 patent would be understood by a person of ordinary skill in the art (“POSITA”) in the field of the ’249 patent, which the patent itself identifies as “secure authentication of a user of a portable data carrier communicating with a terminal,”¹ in the October 2002 time frame based on my technical understanding of those terms, in light of the intrinsic evidence (the patent and its file history) and extrinsic evidence (other than the patent and its file history).

4. All emphases (such as bolding, underlining, or italics) in quotations herein are mine, unless otherwise stated.

A. Qualifications and Experience

5. My curriculum vitae is attached as Attachment A.

6. I am an Associate Professor of Computer Science at the University of Colorado, Boulder. I received a B.S. in Mathematics and Computer Science from the California State University at Hayward (now “California State University, East Bay”) in 1988. I received an

¹ ’249 patent at 1:9-10

M.S. in Computer Science in 1997, and a Ph.D. in Computer Science in 2000, both from the University of California at Davis (“UC Davis”).

7. I have taught more than 60 classes in computer science, on subjects including data structures, algorithms, networking, operating systems, software engineering, security, cryptography, discrete mathematics, and quantum computing. I have authored or coauthored more than 20 publications, primarily on issues relating to computer security. I have been involved with computers for over 35 years in both commercial and academic capacities.

8. My earliest interest was in networks and security. My first memories in this regard were around 1975 when a group of friends and I learned about the telephone network and its security. A few years later, personal computers became available and I spent most of my free time studying, programming, and modifying them. I worked extensively with various networking products throughout the 1980s, and developed an interest in cryptography soon thereafter. Although my undergraduate institution had no courses in cryptography or security in the 1980s, I decided to pursue self-study at the time, and opted to double major in Computer Science and Mathematics because cryptography is a blend of these two subject areas.

9. After earning my B.S. degree in 1988, I worked for six years at Ingres Corp as a software developer. My work primarily was directed at transaction logging, data type support, and security.

10. In 1995, I began my Ph.D. at UC Davis under cryptographer Phillip Rogaway. My area of focus was cryptography and security and my research involved encryption, authentication, hash functions, and network security. My Ph.D. thesis focused on authentication specifically, and portions of my thesis have been published as papers in top-level venues.

11. After graduation I took a position as an Assistant Professor at the University of Nevada at Reno. In the Fall of 2001, I taught the networking class there, which included coverage of Ethernet, interior gateway protocols, exterior gateway protocols, ARP, DHCP/BOOTP, IP, UDP, TCP, HTTP, SMTP and other protocols. In 2001, a graduate student and I looked at the security of ARP and invented a new protocol “AuthARP” to add security to the protocol.

12. In 2002, I moved to the University of Colorado at Boulder where I am currently employed. In the Fall of 2002, I co-designed and co-taught a new course called “Foundations of Computer and Network Security,” which included descriptions of security issues around both wired and wireless security challenges, mostly for public-facing network services including the world-wide web. I have taught this class seven more times since then, including modern topics such as wireless networking, the Internet of Things, and so forth.

13. In my career at the University of Colorado, I have published several more papers in the area of cryptography and network security. I have taught more than 30 courses in network security and cryptography, and have graduated several PhD students in these areas. I have also served as a reviewer and referee for over 100 papers in the area of cryptography, including serving on more than 20 conference committees reviewing submissions to cryptography conferences. In 2009 I was the general chair of the CRYPTO conference.

14. I also worked as a consultant at times, often writing software on contract basis. Although most projects are covered by NDAs, many involved computer security and cryptography.

15. In 2011, I began technical consulting for a local company called Cardinal Peak, which focuses primarily on video encoding and delivery systems. My work for Cardinal Peak

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.