

**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**

**DEFENDANTS' CONSOLIDATED OPENING CLAIM CONSTRUCTION BRIEF**

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4	Declaration of Dr. Michael Caloyannides	Caloyannides Decl.
5	Prosecution History of U.S. Patent No. 8,174,360 (Excerpted)	'360 Pros. Hist.
6	Finkenzeller, RFID Handbook: Radio-Frequency Identification Fundamentals and Applications (1999)	Finkenzeller
7	Declaration of Dr. John Black	Black Decl.
8	Prosecution History of U.S. Patent No. 8,205,249 (Excerpted)	'249 Pros. Hist.
9	U.S. Pat. Pub. No. 20030101348 to Russo et al.	Russo
10	Ross Anderson, Security Engineering (1st ed. 2001)	Anderson
11	Lawrence O'Gorman, Securing Business's Front Door – Password, Token, and Biometric Authentication (2002)	O'Gorman
12	Ruud M. Bolle et al., Biometric perils and patches, 35 Pattern Recognition 2727 (Oct. 2001)	Bolle
13	Hurford, Grammar: A Student's Guide (1994)	Hurford
14	Vitto, Grammar by Diagram (2003)	Vitto
15	U.S. Patent No. 8,695,883	'883 patent
16	U.S. Patent No. 7,161,738	'738 patent
17	American Heritage Dict. of the Eng. Lang. (3d ed. 1992)	Amer. Heritage
18	Oxford English Dictionary (1961)	Oxford
19	Webster's Third New Int'l Dictionary (2002)	Webster's
20	Andrew Hutchinson & Marc Welz, Incremental Security in Open, Untrusted Networks, Future Trends in Distributed Computer Systems 151–154 (Nov. 1999)	Huchinson & Welz
21	Gregory R. Ganger, Authentication Confidences (Apr. 28, 2001)	Ganger
22	Jalal Al-Muhtadi et al., A Flexible, Privacy-Preserving Authentication Framework for Ubiquitous Computing Environments, Proceedings 22nd International Conference on Distributed Computing Systems Workshops (July 2002)	Al-Muhtadi

**TABLE OF AUTHORITIES**

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