IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: Al-Ali et al.

U.S. Patent No.: 7,761,127 Attorney Docket No.: 50095-00046IP1

Issue Date: July 20, 2010 Appl. Serial No.: 11/366,209 Filing Date: March 1, 2006

Title: MULTIPLE WAVELENGTH SENSOR SUBSTRATE

DECLARATION OF BRIAN W. ANTHONY, Ph.D.

(Yamada Grounds)



TABLE OF CONTENTS

I.	Back	Background1					
II.	Level of Ordinary Skill in the Art						
III.	Interpretations of the '127 Patent Claims at Issue						
IV.	Overview of the Prior Art						
	A.	A. Yamada					
	B.	Chadwick					
	C.	Leibowitz					
	D.	Cheung					
	E.	Noguchi					
V.	The Yamada-Chadwick Combination						
	A.	Overview of Combination					
	B.	Ana	35				
		1.	Claim 7	35			
		2.	Claim 8	45			
		3.	Claim 9	46			
		4.	Claim 10	46			
VI.	The Yamada-Chadwick-Leibowitz Combination						
	A.	Overview of the Combination4					
	B.	Ana	Analysis				
		1.	Claim 11	50			
		2.	Claim 12	52			
VII.	The Yamada-Chadwick-Cheung Combination						
	A. Overview of the Combination						
	В.	Analysis					
		1.	Claim 13	56			
		2.	Claim 14	62			
		3.	Claim 15	63			



		4.	Claim 16	64	
		5.	Claim 17	65	
		6.	Claim 20.	65	
		7.	Claim 21	67	
		8.	Claim 22	67	
		9.	Claim 23	68	
VIII.	The Yamada-Chadwick-Cheung-Leibowitz Combination				
	A.	Over	view of the Combination	69	
	B.	Analysis			
		1.	Claim 18	69	
		2.	Claim 19	70	
		3.	Claim 24	70	
		4.	Claim 25	70	
IX.	The Yamada-Chadwick-Noguchi Combination				
	A.	A. Overview of the Combination			
	B.	Analy	ysis	74	
		1.	Claim 1	75	
		2.	Claim 2	78	
		3.	Claim 3	78	
		4.	Claim 6	79	
		5.	Claim 7	79	
		6.	Claim 8	81	
		7.	Claim 9	82	
		8.	Claim 10	82	
		9.	Claim 26	82	
		10.	Claim 27	84	
		11.	Claim 30	84	
X.	The Yamada-Chadwick-Noguchi-Leibowitz Combination				
	A.	Overview of the Combination84			



	В.	Analysis		
		1.	Claim 4	85
		2.	Claim 5	85
		3.	Claim 11	86
		4.	Claim 12	86
		5.	Claim 28	86
		6.	Claim 29	87
XI.	Yamada Alone and in Combinations with Leibowitz, Cheung,			
	and Noguchi			
XII.	Legal Principles			92
	A.	Antic	cipation	92
	B.	Obviousness		
XIII	Conc	lusion		95

- I, Brian W. Anthony, of Cambridge, MA, declare that:
- 1. My name is Dr. Brian W. Anthony. I am an Associate Principal Research Scientist at the Institute of Medical Engineering & Science at Massachusetts Institute of Technology (MIT). I am also a Principal Research Scientist at MIT's Mechanical Engineering department, Director of the Master of Engineering in Advanced Manufacturing and Design Program at MIT, Director of Health Technology at the MIT Center for Clinical and Translational Research, a Co-Director of the Medical Electronic Device Realization Center of the Institute of Medical Engineering & Science, and Associate Director of MIT.nano. My current curriculum vitae is attached, and some highlights follow.
- 2. I earned my B.S. in Engineering (1994) from Carnegie Mellon University. I earned my M.S. (1998) and Ph.D. (2006) in Engineering from MIT. My research focused on high-performance computation, signal processing, and electro-mechanical system design.
- 3. In 1997, I co-founded Xcitex Inc., a company that specialized in video-acquisition and motion-analysis software. I served as the Chief Technology Officer and directed and managed product development until 2006. Our first demo product was an optical ring for human motion measurement used to capture user hand motion in order to control the user's interaction with a computer. Many of the structural elements of our optical ring addressed the same system issues as



DOCKET

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.

