#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: Byron Hourmand

U.S. Patent No.: 5,796,183 Atty. Docket No.: 39521-0062IP3

Issue Date: August 18, 1998

Appl. Serial No.: 08/601,268

Filing Date: January 31, 1996

Title: CAPACITIVE RESPONSIVE ELECTRONIC SWITCHING

**CIRCUIT** 

# **Mail Stop Patent Board**

Patent Trial and Appeal Board U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

# PETITION FOR INTER PARTES REVIEW OF UNITED STATES PATENT NO. 5,796,183 PURSUANT TO 35 U.S.C. §§ 311–319, 37 C.F.R. § 42



# **TABLE OF CONTENTS**

I.	SU	MMARY OF THE 183 PATENT	I	
		Brief Description		
II.	REQUIREMENTS FOR IPR			
		Grounds for Standing		
		Challenge and Relief Requested		
	Δ.	1. Discretion under 35 U.S.C. § 314(a)	4	
	C.	Level of Ordinary Skill in the Art		
		Claim Construction		
	2.	1. "providing signal output frequencies" (claims 61, 94)		
		2. "supply voltage" (claims 61, 94)		
		3. "coupled" (claims 61, 94)		
***	m i			
III.		E CHALLENGED CLAIMS ARE UNPATENTABLE	.12	
	Α.	[GROUND 1A] – Claims 61-63, 66, 93, 94, 96, and 104 are obvious		
		over Caldwell, Ingraham, and Redmayne		
		1. Caldwell		
		2. Ingraham		
		3. Combination of Caldwell and Ingraham		
		4. Reasons to combine Caldwell and Ingraham	.18	
		5. Redmayne	.21	
		6. Combination of Caldwell, Ingraham, and Redmayne	.22	
		7. Reasons to combine Caldwell and Ingraham with Redmayne	.22	
	В.	[GROUND 1B] – Claims 64, 90, and 101 are obvious over Caldwell,		
		Ingraham, Redmayne, and Schwarzbach	.69	
		1. Schwarzbach		
		2. Combination of Caldwell, Ingraham, Redmayne, and		
		Schwarzbach	.70	
		3. Reasons to combine Caldwell, Ingraham, Redmayne, and		
		Schwarzbach	.70	
	C.	[GROUND 1C] – Claims 65, 91, and 102 are obvious over Caldwell,		
		Ingraham, Redmayne, and Ingraham '548	.72	
		1. Ingraham '548		
		2. Combination of Caldwell, Ingraham, Redmayne, and Ingraham	. –	
		'548	73	
		3. Reasons to combine Caldwell, Ingraham, Redmayne, and	, , ,	
		Ingraham '548	73	
	D.	[GROUND 1D] – Claims 67-69, and 97-99 are obvious over Caldwell	. , <i>J</i>	
	D,	Ingraham, Redmayne, and Meadows		
		111.51.411411, 11041114 1 110440 1 1 0 1 1 1 1 1 1 1 1	. , ,	



# Attorney Docket No. 39521-0062IP3 IPR of U.S. Patent No. 5,796,183

	1. Meadows	75			
	2. Combination of Caldwell, Ingraham, Redmayne, and Mea	dows .76			
	3. Reasons to combine Caldwell, Ingraham, Redmayne and				
	Meadows	78			
IV.	FEES	81			
V.	CONCLUSION				
VI.	MANDATORY NOTICES UNDER 37 C.F.R § 42.8(a)(1)82				
	<b>A.</b> Real Party-In-Interest Under 37 C.F.R. § 42.8(b)(1)	82			
	<b>B.</b> Related Matters Under 37 C.F.R. § 42.8(b)(2)	82			
	C. Lead And Back-Up Counsel Under 37 C.F.R. § 42.8(b)(3)				
	<b>D.</b> Service Information				



## **EXHIBITS**

APPLE-1001	U.S. Patent No. 5,796,183 to Hourmand ("the '183 patent")
APPLE-1002	Excerpts from the Prosecution History of the '183 Patent ("the Prosecution History")
APPLE-1003	Declaration of Dr. Phillip Wright
APPLE-1004	U.S. Patent No. 5,572,205 to Caldwell ("Caldwell")
APPLE-1005	U.S. Patent No. 4,561,002 to Chiu ("Chiu")
APPLE-1006	Prosecution History of Reexamination Control No. 90/012,439
APPLE-1007	Prosecution History of Reexamination Control No. 90/013,106
APPLE-1008	Reserved
APPLE-1009	U.S. Patent No. 4,878,107 to Hopper ("Hopper")
APPLE-1010	U.S. Patent No. 5,341,036 to Wheeler ("Wheeler")
APPLE-1011	U.S. Patent No. 4,237,421 to Waldron ("Waldron")
APPLE-1012	U.S. Patent No. 5,650,597 to Redmayne ("Redmayne")
APPLE-1013	U.S. Patent No. 4,922,061 to Meadows ("Meadows")
APPLE-1014	U.S. Patent No. 4,418,333 to Schwarzbach ("Schwarzbach")
APPLE-1015	U.S. Patent No. 4,293,734 to Pepper ("Pepper")
APPLE-1016	U.S. Patent No. 4,731,548 to Ingraham ("Ingraham '548")
APPLE-1017	U.S. Patent No. 4,758,735 to Ingraham ("Ingraham")
APPLE-1018	U.S. Patent No. 5,189,417 to Caldwell ("Caldwell '417")



	IPR 01 U.S. Patent No. 5,/90,
APPLE-1019	U.S. Patent No. 4,308,443 to Tucker ("Tucker")
APPLE-1020	U.S. Patent No. 4,290,061 to Serrano ("Serrano")
APPLE-1021	U.S. Patent No. 4,845,630 to Stephens ("Stephens")
APPLE-1022	U.S. Patent No. 5,048,019 to Albertsen ("Albertsen")
APPLE-1023	U.S. Patent No. 5,632,039 to Walker ("Walker")
APPLE-1024	U.S. Patent No. 5,508,653 to Chu ("Chu")
APPLE-1025	U.S. Patent No. 5,087,825 to Ingraham ("Ingraham '825")
APPLE-1026	U.S. Patent No. 4,649,323 to Pearlman ("Pearlman")
APPLE-1027	U.S. Patent No. 5,311,392 to Kinney ("Kinney")
APPLE-1028	U.S. Patent No. 4,707,852 to Jahr ("Jahr")
APPLE-1029	U.S. Patent No. 5,638,444 to Chou ("Chou")
APPLE-1030	U.S. Patent No. 5,063,383 to Bobba ("Bobba")
APPLE-1031	U.S. Patent No. 4,903,251 to Chapman ("Chapman")



# 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.

