

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC.
Petitioner

v.

UUSI, LLC d/b/a NARTRON,
Patent Owner.

Case IPR2019-00358
Patent No. 5,796,183

PATENT OWNER RESPONSE

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	BACKGROUND	5
A.	The '183 Patent	5
B.	The Cited References	8
	1. Chiu	8
	2. Schwarzbach	10
	3. Lawson	11
	4. Meadows	12
	5. Ingraham '548	12
	6. Tucker	13
III.	CLAIM CONSTRUCTION	13
A.	Claim Construction Standard	13
B.	“Selectively Providing Signal Output Frequencies”	14
	1. The Federal Circuit Issued an Explicit Claim Construction, Which Is Binding on the Board.....	15
	2. Adopting the Federal Circuit’s Construction Would Not Cause the Claims to Lack Written Description Support.....	19
	3. The Federal Circuit’s Construction Is Legally Correct	28
IV.	LEGAL STANDARDS	31
V.	ARGUMENT	32
A.	[All Grounds] – The Cited References Do Not Disclose “Selectively Providing Signal Output Frequencies”	32
B.	[All Grounds] – The Cited References Do Not Disclose “Providing a Periodic Output Signal Having a Predefined Frequency”	34
C.	[All Grounds] – The Cited Art Does Not Disclose “Selectively Providing Signal Output Frequencies to a <i>Closely Spaced Array</i>”	38
D.	[All Grounds] – Apple Has Not Shown a Motivation to	

	Combine Schwarzbach and Chiu, or a Reasonable Expectation of Success	40
E.	[Claims 37-39] – The Cited References Do Not Disclose “Wherein an Oscillator Voltage is Greater than a Supply Voltage”	44
F.	[Claims 94, 96-99, 101-104] - The Cited Art Does Not Disclose “Wherein a Peak Voltage of the Signal Output Frequencies is Greater than a Supply Voltage”	47
G.	[Claim 101] – The Cited Art Fails to Disclose, or Render Obvious, “Wherein the Supply Voltage is a Battery Supply Voltage”	49
H.	[Ground 1B] – Apple Has Not Proven Obviousness of Claims 38-39, 104, or 115-116 Over Chiu, Schwarzbach and Lawson	51
I.	[Ground 1C] – Apple Has Not Proven Obviousness of Claims 97-99 or 107-109 Over Chiu, Schwarzbach and Meadows	52
J.	[Ground 1D] – Apple Has Not Proven Obviousness of Claim 102 over Chiu, Schwarzbach and Ingraham ’548	57
K.	[Ground 1E] – Apple Has Not Proven Obviousness of Claim 103 Over Chiu, Schwarzbach and Tucker.....	58
VI.	CONCLUSION	60

EXHIBITS

- UUSI-2001 Declaration of Lawrence M. Hadley in support of patent owner's motion for pro hac vice admission
- UUSI-2002 Declaration of Dr. Darran Cairns in support of patent owner preliminary response
- UUSI-2003 Deposition of Phillip D. Wright, Ph.D.
- UUSI-2004 Declaration of Dr. Darran Cairns in support of patent owner response

I. INTRODUCTION

The '183 Patent provided an important improvement over the prior art: *i.e.*, the ability to bring capacitive touch terminals very close together, while rejecting contamination-induced crosstalk between adjacent terminals. This improvement supplied a key foundation for the modern proliferation of capacitive touchscreens in mobile phones, tablets, and other devices. The inventors of the '183 Patent—Byron Hourmand, John Washeleski, and Stephen Cooper—conducted extensive empirical research to develop the theoretical and practical framework for rejection of contamination-induced crosstalk in closely-spaced capacitive touch terminals. *See* Ex. 1001 at 8:9-11:60. The inventors incorporated that research into a novel, highly effective, capacitive-responsive electronic switching circuit. Without the inventors' contributions, the modern “boom” in high-density capacitive touchscreens would not have been possible.

In response to Apple's Petition, the Board instituted review, because it found a “reasonable likelihood” that Apple would prevail in showing obviousness of “at least one” of, but not all of, challenged claims 37-39, 94, 96-99, 101-109, and 115-116¹ of Nartron's U.S. Patent No. 5,796,183 (“the '183 Patent”). *See* Paper 12 at 1.

¹ Page 1 of Apple's Petition identifies the “challenged claims” as “claims 37-39, 94, 96-99, 101-109, and 115-**117**.” Paper 2 at 1 (emphasis added). However, Apple presented no argument as to why claim 117 is obvious over the cited references.

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.