

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 IPR2019-00359  
Patent No. 5,796,183

---

**PATENT OWNER RESPONSE**

**TABLE OF CONTENTS**

<b>I.</b>	<b>INTRODUCTION</b> .....	1
<b>II.</b>	<b>BACKGROUND</b> .....	4
<b>A.</b>	<b>The '183 Patent</b> .....	4
<b>B.</b>	<b>The Cited References</b> .....	8
	1. Chiu .....	8
	2. Schwarzbach .....	10
	3. Lawson .....	11
	4. Meadows .....	12
	5. Ingraham '548 .....	12
	6. Tucker .....	13
<b>III.</b>	<b>CLAIM CONSTRUCTION</b> .....	13
<b>A.</b>	<b>Claim Construction Standard</b> .....	13
<b>B.</b>	<b>“Selectively Providing Signal Output Frequencies”</b> .....	14
	1. The Federal Circuit Issued an Explicit Claim Construction, Which Is Binding on the Board.....	14
	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
<b>IV.</b>	<b>LEGAL STANDARDS</b> .....	30
<b>V.</b>	<b>ARGUMENT</b> .....	31
<b>A.</b>	<b>[All Grounds] – The Cited References Do Not Disclose “Selectively Providing Signal Output Frequencies”</b> .....	31
<b>B.</b>	<b>[All Grounds] – The Cited References Do Not Disclose “Providing a Periodic Output Signal Having a Predefined Frequency”</b> .....	34
<b>C.</b>	<b>[All Grounds] – The Cited Art Does Not Disclose “Selectively Providing Signal Output Frequencies to a <i>Closely Spaced Array</i>”</b> .....	37
<b>D.</b>	<b>[All Grounds] – Apple Has Not Shown a Motivation to</b>	

	Combine Schwarzbach and Chiu, or a Reasonable Expectation of Success .....	39
<b>E.</b>	[Claims 83-88 and 90-93] – The Cited Art Does Not Disclose “Wherein a Peak Voltage of the Signal Output Frequencies is Greater than a Supply Voltage” .....	44
<b>F.</b>	[Claim 90] – The Cited Art Fails to Disclose, or Render Obvious, “Wherein the Supply Voltage is a Battery Supply Voltage” .....	47
<b>G.</b>	[Ground 1B] – Apple Has Not Proven Obviousness of Claims 86-88 Over Chiu, Schwarzbach and Meadows .....	48
<b>H.</b>	[Ground 1C] – Apple Has Not Proven Obviousness of Claim 91 Over Chiu, Schwarzbach and Ingraham ’548 .....	54
<b>I.</b>	[Ground 1D] – Apple Has Not Proven Obviousness of Claims 28 and 92 over Chiu, Schwarzbach and Tucker.....	54
<b>J.</b>	[Ground 1E] – Apple Has Not Proven Obviousness of Claims 32, 36 and 93 Over Chiu, Schwarzbach and Lawson .....	57
<b>VI.</b>	<b>CONCLUSION</b> .....	57

**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 27, 28, 32, 36, 83–88, and 90–93 of Nartron's U.S. Patent No. 5,796,183 (“the '183 Patent”). *See* Paper 12 at 1.

As the Board explained in its Institution Decision, the Board found *no* reasonable likelihood that Apple would prevail in showing obviousness of claims 86-88 over Chiu, Schwarzbach and Meadows. *Id.* at 50-58. The Board's findings on

# 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.