Filed on behalf of TPK Touch Solutions Inc.

UNITED STATES PATENT AND TRADEMARK OFFICE

——————
BEFORE THE PATENT TRIAL AND APPEAL BOARD

——————

WINTEK CORPORATION Petitioner,

V.

TPK TOUCH SOLUTIONS INC.
Patent Owner

\_\_\_\_\_

Case IPR2013-00568 U.S. Patent No. 8,217,902

DECLARATION OF JOSHUA R. SMITH IN SUPPORT OF PATENT OWNER'S RESPONSE PURSUANT TO 37 C.F.R. § 42.120



TPK 2002 Wintek v TPK Solutions

### **TABLE OF CONTENTS**

1.	INT	RODUCTION 1				
II.	BAC	CKGROUND AND QUALIFICATIONS				
III.	PERS	RSON OF ORDINARY SKILL IN THE ART				
IV.	TECHNOLOGY BACKGROUND					
	A.	Capacitance and Capacitive Touch Panels				
	B.	Self-Capacitance-Based Touch Panels				
		1.	Measuring Self-Capacitance	14		
		2.	Detecting a Touch Position by Measuring Self- Capacitance	16		
		3.	Drawbacks of Self-Capacitance Systems Available at the Time of the '902 Invention	17		
	C.	Mutu	Mutual Capacitance-Based Touch Panels			
		1.	Measuring Mutual Capacitance	19		
		2.	Detecting a Touch Position by Measuring Mutual Capacitance	21		
		3.	Conductor Layout in Self-Capacitance and Mutual Capacitance Systems	24		
		4.	Drawbacks of Mutual-Capacitance Systems Available at the Time of the '902 Invention	28		
V.	THE '902 PATENT					
	A.	The Invention of the '902 Patent				
	B.	. Interpretation of Terms in the '902 Patent				
VI.	ANALYSIS OF THE PRIOR ART					
	A.	Fujitsu				



## Case IPR2013-00568 Declaration of Joshua R. Smith

	B.	Binstead		43	
	C.	Miller			
	D.	Seguine			
	E.	Bolender			
VII.	VALIDITY OF THE '902 PATENT				
	A.	Asserted Anticipation Based on Fujitsu – Claims 1-15, 24, 32, 34, 36-40, 42, 43, 46-58, and 60-67			
		1.	Fujitsu Does Not Disclose "Conductor Assemblies" Comprising "Conductor Cells" and "Conduction Lines"	54	
		2.	Fujitsu Does Not Disclose "Signal Transmission Lines Formed on the Surface of the Substrate"	59	
	B.		rted Obviousness Based on Fujitsu and Binstead – Claims 5, 34, 43, 51, 60, and 67	63	
	C.	Asserted Obviousness Based on Fujitsu and Miller – Claims 17-22, 25-29, 35, 44, and 68			
		1.	The Proposed Combination of Fujitsu and Miller Does Not Disclose All the Limitations of the Challenged Claims.	66	
		2.	Miller Contains No Teaching, Suggestion or Motivation of Implementing Mutual Capacitance in a Single-Layer Solution.	67	
		3.	Fujitsu Contains No Teaching, Suggestion or Motivation of Detecting a Position of Touch by Measuring a Change in Capacitance Between Conductor Elements.	70	
		4.	Combining the Electrode Structure of Fujitsu with the Measurement of Mutual Capacitance in Miller Would Result in an Unworkable System.	73	
	D.		rted Obviousness Based on Fujitsu and Seguine – Claims , 15, 21, 29, 39, 50, 57, and 64	79	



## Case IPR2013-00568 Declaration of Joshua R. Smith

	E.	Objective Evidence of Non-Obviousness	81
VIII.	CON	CLUSION	86



## Declaration of Joshua R. Smith In Support of Patent Owner's Response Pursuant to 37 C.F.R. § 42.120

#### I. INTRODUCTION

- I, Joshua R. Smith, declare as follows:
- 1. I am over 18 years of age and otherwise competent to make this Declaration.
- 2. I have been retained as an expert witness to provide testimony on behalf of TPK Touch Solutions Inc. ("TPK") as part of the above-captioned *inter* partes review proceeding. I make this Declaration based upon facts and matters within my own knowledge or on information provided to me by others. I am being compensated for my time in connection with this proceeding at a rate of \$400 per hour.
- 3. I understand that the Patent Office has instituted a review of claims 1-19, 21, 22, 24-27, 29, and 31-68 of U.S. Patent No. 8,217,902 ("the '902 patent"), and that the review is based on four references. In particular, I understand the Board granted the Petition on the following grounds:
  - A. Anticipation of claims 1-15, 24, 32, 34, 36-40, 42, 43, 46-58, and 60-67 based on Japanese Patent Application 60-75927 to Fujitsu ("Fujitsu");



# 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.

