

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HUAWEI DEVICE CO., LTD.,
Petitioner,

v.

FUNDAMENTAL INNOVATION SYSTEMS INTERNATIONAL LLC,
Patent Owner.

Case IPR2018-00487
Patent No. 7,239,111

**DECLARATION OF ROBERT BARANOWSKI IN SUPPORT OF
PATENT OWNER PRELIMINARY RESPONSE**

Mail Stop "PATENT BOARD"
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

I.	Introduction.....	3
II.	Summary of Opinions.....	6
III.	USB 2.0.....	9
IV.	USB Enumeration.....	10
V.	SE1 Signaling.....	21
	A. The USB Specification Teaches That The SE1 Condition Should Never Be Intentionally Generated on the USB.....	22
	B. The USB Specification Teaches That The SE1 Condition Interrupts USB Communications.....	22
	C. The Prior Art References Cited By Petitioner Do Not Teach Generating An SE1 Condition On The USB Without Interrupting USB Communications Or To Enable Drawing Current Unrestricted.....	24
	D. The Expert Witness For Samsung, An Accused Infringer In District Court Litigation Involving The '111 Patent, Testified That SE1 Signaling Terminates USB Communication.....	28
	E. Petitioner Provides No Competent Evidence Supporting Its Conclusion That A POSITA Would Believe SE1 Signaling Is A "Logical Choice".....	30
VI.	The Petition's Dougherty/Shiga Combination (Ground 2).....	32
	A. Motorola's J3 Connector Communicates Data According To J3 Protocol (The Three-Wire Bus Protocol).....	36
	B. The Petition Ignores Theobald's Teaching To Follow Communication Protocol.....	39
	C. The Petition's Proposed Combination Does Not Follow USB Protocol.....	41
	D. Petitioner's Arguments for Combining USB 2.0, Theobald, And Shiga Cannot Withstand Scrutiny.....	42
VII.	The Petition's Dougherty/Shiga Combination (Ground 2).....	44
	A. Dougherty's System Requires Enumeration.....	44
	1. The Primary Function of Dougherty's Docking Station Is Port Replication.....	44
	2. Dougherty's System Requires Enumeration.....	47

B.	Petitioner's Proposed Modifications to Dougherty	49
C.	A POSITA Would Not Have Made The Proposed Modifications.....	50
1.	Dougherty's laptop would not be able to send SE1 signaling pursuant to normal USB communication protocol	50
2.	Petitioner's proposals do not properly account for unintentionally-generated SE1 signals.....	52
3.	Petitioner's modifications would disable the docking station's primary functionality	55
4.	There were other known methods to enable docking station charging that would not interfere with normal USB communications	57
5.	Petitioner's proposed modifications do not work in Dougherty's non-operational scenario	60
D.	Petitioner's Rationale For Their Proposed Modifications Is Conclusory	62

I. Introduction

1. My name is Robert Baranowski. I have been asked by Fundamental Innovation Systems International LLC (“Patent Owner”) to explain certain issues related to the technologies involved in U.S. 7,239,111, the technologies described in the cited references, the knowledge of a person of ordinary skill in the art at the time of the invention, and other pertinent facts and opinions regarding IPR2018-00487. My qualifications are summarized below and are addressed more fully in my CV attached as Exhibit 2005.

2. I am currently the President of Left Coast Engineering in Escondido, California, an engineering service company. My position includes consulting work on a variety of power electronics and wireless communications devices. Because most of the products my company works on are portable, we work with battery chargers almost every day.

3. I received a Bachelor of Electrical Engineering Degree from Villanova University in 1990, and a Master of Science in Electrical Engineering Degree from Villanova University in 1991.

4. For the past 26 years, I have been involved in the design and development of electronic devices, and especially digital wireless telecommunications devices. My work has involved the design of integrated circuits that involve power management, battery charging and USB interface for

telecommunications devices. While at Motorola from March 1992 to November 1997, I worked on several telecommunications products that were battery powered and contained internal battery chargers and accessory connectors that brought external power into the device (sometimes referred to as J3). After Motorola, I worked for Sony Electronics from December 1997 to September 1999, also designing telecommunication devices that were battery powered. During the time I was working for Motorola and Sony, USB was starting to be looked at as a possible power source for the internal chargers for telecommunication devices. I was intimately involved in this field during the time of the U.S. 7,239,111.

5. After graduating from Villanova I worked for two cellular handset manufacturers over the course of 8 years before founding the engineering product design company. For the handset manufacturers I performed product design work on various aspects of the cellular handsets, including power supplies, power distribution, battery chargers, battery monitoring, and applying a variety of techniques to reduce battery consumption, decrease battery charge times, and integrate into smaller and smaller spaces available in the cellular handsets.

6. As part of my design work for these handset manufacturers, I was awarded several patents. Throughout my career, I have been the sole or co-inventor on 18 United States patents related to battery chargers, power regulator

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.