

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZTE (USA) INC.
SAMSUNG ELECTRONICS Co., LTD.
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioners,

v.

FUNDAMENTAL INNOVATION SYSTEMS INTERNATIONAL LLC,
Patent Owner.

Case IPR2018-00215
Patent No. 8,232,766

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

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Fundamental Ex 2009-1
Huawei v Fundamental

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. 8,232,766, 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 IPR2018-00215. My qualifications are summarized below and are addressed more fully in my CV attached as Exhibit 2009.

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. 8,232,766.

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 circuits, wireless tracking systems, and other electronics-related devices and

systems. I am also listed as an inventor on a large number of applications. The patents are listed below:

	Patent No.	Title
1	9,701,995	Test cartridge for use in rapid analysis of biological samples
2	9,701,994	System for rapid analysis of biological samples
3	9,023,640	Device for rapid detection of infectious agents
4	8,223,073	Apparatus and method for a directional finder
5	7,564,357	Wireless tracking system and method with optical tag removal detection
6	7,486,648	Wireless extension of local area networks
7	7,443,297	Wireless tracking system and method with optical tag removal detection
8	7,336,182	Wireless tracking system and method with optical tag removal detection
9	6,813,608	System and method for enhancing user experience in a wide-area facility having a distributed, bounded environment
10	6,658,267	Interoperable am/fm headset wireless telephone device
11	6,473,630	Method and apparatus for powering a wireless headset used with a personal electronic device
12	6,411,062	Quick release battery and clip for portable device and method of implementing same
13	6,370,401	Storage case and method for a wireless headset with a microphone suspended between earpieces of the headset
14	6,157,173	Circuit and method for sharing current between a portable device and a battery charger
15	6,046,574	Battery dropout correction for battery monitoring in mobile unit
16	5,703,470	Battery charger with power dissipation control
17	5,613,229	Voltage and current mode power regulator
18	5,428,820	Adaptive radio receiver controller method and apparatus

7. I have been asked by Fundamental Innovation Systems International LLC to explain the technologies involved in U.S. 8,232,766 and the cited exhibits.

8. For the purpose of this declaration, I apply the same skill level as proposed in the Petition, although I reserve the right to explain why this level is too high. I met the qualifications of a person having ordinary skill in the art (proposed in the Petition) at the time of the '766 patent filing date. I am being compensated for my work on this case at a fixed, hourly rate, plus reimbursement for expenses. My compensation does not depend on the outcome of this case or any issue in it, and I have no interest in this proceeding.

II. Summary of Opinions

9. Protocols are meant to be followed. A POSITA would recognize the importance of adhering to both USB and J3 three wire bus protocol.

10. Petitioner proposes replacing the J3 connector in Theobald with a USB connector. Theobald expressly teaches signaling “according to” J3 protocol. The USB specification teaches the importance of using uniform and predictable data communication according to USB protocol. Thus, a POSITA seeking to replace the J3 connector in Theobald with a USB connector would understand the importance of adhering to USB protocol.

III. The USB High Speed Data Communication Protocol

11. USB was designed to allow for plug-and-play and expandable bidirectional communication channels and port expansion (that is, multiple devices can communicate with a host through a single port). Ex. 1007-17 (USB 1.1 Spec.).

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