

**THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

FUNDAMENTAL INNOVATION	§	
SYSTEMS INTERNATIONAL LLC,	§	
	§	
v.	§	Case No. 2:17-cv-145-JRG-RSP
	§	
SAMSUNG ELECTRONICS CO., LTD.,	§	
et al.	§	

CLAIM CONSTRUCTION
MEMORANDUM AND ORDER

On January 23, 2018, the Court held a hearing to determine the proper construction of disputed claim terms in United States Patents No. 6,936,936, 7,239,111, 7,701,173, 7,791,319, 7,834,586, 7,893,655, 7,999,514, 8,232,766, 8,541,983, and 8,624,550. Having reviewed the arguments made by the parties at the hearing and in their claim construction briefing (Dkt. Nos. 102, 106 & 114),¹ having considered the intrinsic evidence, and having made subsidiary factual findings about the extrinsic evidence, the Court hereby issues this Claim Construction Memorandum and Order. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005); *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

Also before the Court is Plaintiff's Motion to Exclude Defendants' Claim Construction Experts (Dkt. No. 83). As set forth herein, Plaintiff's motion is **DENIED**. Additionally, Plaintiff's Motion to Expedite the Motion to Exclude Defendants' Claim Construction Experts (Dkt. No. 85) is **DENIED AS MOOT**.

¹ Citations to documents (such as the parties' briefs and exhibits) in this Claim Construction Memorandum and Order refer to the page numbers of the original documents rather than the page numbers assigned by the Court's electronic docket unless otherwise indicated.

Table of Contents

I. BACKGROUND..... 4

II. LEGAL PRINCIPLES 6

III. PLAINTIFF’S MOTION TO EXCLUDE 9

IV. THE PARTIES’ STIPULATED TERMS 10

V. CONSTRUCTION OF DISPUTED TERMS IN THE ’936 PATENT FAMILY 10

 A. “USB” and “USB connector” 11

 B. “Universal Serial Bus (‘USB’) adapter” and “USB adapter” 22

 C. “USB port,” “Universal Serial Bus (‘USB’) interface,” “USB controller,” “USB communication path,” and “USB cable” 27

 D. “abnormal USB data condition [detected at said USB communication path]” and “abnormal data condition on said USB communication path” 32

 E. “power limits imposed by the USB specification,” “USB specification,” and “a USB specification” 34

 F. “configured to supply current on the VBUS line without regard to at least one USB Specification imposed limit,” “configured to supply current on the VBUS line without regard to at least one associated condition specified in a USB specification,” “[a charging subsystem enabled to draw current/power] unrestricted by at least one predetermined USB Specification limit,” and “[drawing current in excess of] at least one USB Specification defined limit” 36

 G. “identification signal” 39

 H. “A mobile device” 41

 I. “microprocessor” 45

 J. “means for receiving energy from a power socket” 47

 K. “means for generating an identification signal that indicates to the mobile device that the power socket is not a USB hub or host” 48

 L. “means for coupling the power output and identification signal to the mobile device” 51

VI. CONSTRUCTION OF DISPUTED TERMS IN THE ’319 PATENT FAMILY 53

 M. “battery charge controller” 53

 N. “voltage drop across [a/the] battery charge controller” and “voltage drop across a controller” 56

 O. “power” 59

 P. “a remainder of [the] power available from the battery charge controller” and “a remainder of the received power” 61

 Q. “reference voltage” and “reference voltage signal” 65

 R. “a [semiconductor] switch” 68

S. “the voltage sensing circuit” and “[the controller] is configured to control the switch in response to the voltage drop to provide sufficient power for operation of the device” 71

T. “wherein the supply current passes through the external driving semiconductor rather than through the battery charge controller,” “whereby load current passes through the external driving semiconductor instead of the battery charge controller,” and “whereby load current passes through the external driving semiconductor in lieu of the controller” 75

U. “USB,” “USB power,” “USB power supply,” and “non-USB source” 78

V. “means for receiving power from the USB port” 81

W. “means for supplying the received power to the rechargeable battery and to the portable device, wherein the supplied power is limited such that the rechargeable battery and the portable device may not draw more than a pre-determined maximum amount of current available from the USB port” 83

X. “means for both isolating the rechargeable battery from the portable device and controlling an amount of current supplied to the rechargeable battery such that the portable device receives a pre-determined amount of the received power needed to operate and the rechargeable battery receives a remainder of the received power” 86

Y. “means for measuring a voltage drop across a battery charge controller providing power to a portable device and an input of a switch in parallel” 90

Z. “means for responding to the voltage drop across the battery charge controller by modulating the switch to control a quantity of current supplied to a rechargeable battery such that the portable device receives a predetermined amount of power to operate and the rechargeable battery receives a remainder of power available from the battery charge controller” 93

VII. CONSTRUCTION OF DISPUTED TERMS IN THE '173 PATENT FAMILY 95

AA. “USB” 95

BB. “A USB-compliant charging and power supply circuit comprising” 96

CC. “power” 99

DD. “reference voltage” 100

EE. “a [semiconductor] switch” 101

FF. “switch means for shutting off said semiconductor switch if charging is disabled” 103

VIII. CONCLUSION..... 104

I. BACKGROUND

Plaintiff Fundamental Innovation Systems International LLC (“Plaintiff” or “Fundamental” or “FISI”) has alleged infringement of United States Patents No. 6,936,936 (“the ’936 Patent”), 7,239,111 (“the ’111 Patent”), 7,701,173 (“the ’173 Patent”), 7,791,319 (“the ’319 Patent”), 7,834,586 (“the ’586 Patent”), 7,893,655 (“the ’655 Patent”), 7,999,514 (“the ’514 Patent”), 8,232,766 (“the ’766 Patent”), 8,541,983 (“the ’983 Patent”), 8,624,550 (“the ’550 Patent”) (collectively, the “patents-in-suit”) by Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. Plaintiff submits that the patents-in-suit relate to “battery charging and power management.” Dkt. No. 102 at 1.

The ’936 Patent, titled “Multifunctional Charger System and Method,” issued on August 30, 2005, and bears an earliest priority date of March 1, 2001. The ’111 Patent, ’586 Patent, ’766 Patent, and ’550 Patent are continuations of the ’936 Patent. The Abstract of the ’936 Patent states:

An adapter for providing a source of power to a mobile device through an industry standard port is provided. In accordance with one aspect of the invention, the adapter comprises a plug unit, a power converter, a primary connector, and an identification subsystem. The plug unit is operative to coupled [sic] the adapter to a power socket and operative to receive energy from the power socket. The power converter is electrically coupled to the plug unit and is operable to regulate the received energy from the power socket and to output a power requirement to the mobile device. The primary connector is electrically coupled to the power converter and is operative to couple to the mobile device and to deliver the outputted power requirement to the mobile device. The identification subsystem is electrically coupled to the primary connector and is operative to provide an identification signal.

The ’319 Patent, titled “Circuit and Method of Operation for an Electrical Power Supply,” issued on September 7, 2010, and bears a filing date of February 21, 2003. The ’514 Patent and the ’983 Patent are continuations of the ’319 Patent. The Abstract of the ’319 Patent states:

A battery charging circuit comprising: a semiconductor switch having an output connected to a rechargeable battery; a battery charge controller for receiving power from an external source, and supplying output power to a portable device and the input of the semiconductor switch, the current output of the battery charge controller being controllable; and a voltage sensing circuit for: measuring the voltage drop across the battery charge controller; and responding to the voltage drop across the battery charge controller by modulating the semiconductor switch to reduce the quantity of current supplied to the rechargeable battery when the voltage drop is too great; whereby the total power dissipated by the battery charge controller is controlled, the portable device receiving the power it needs to operate and the rechargeable battery receiving any additional available power.

The '173 Patent, titled "Charging and Power Supply for Mobile Devices," issued on April 20, 2010, and bears a filing date of December 13, 2005. The '655 Patent is a continuation of the '173 Patent. The Abstract of the '173 Patent states:

Charging and power supply for mobile devices is disclosed. A USB-compliant charging and power supply circuit includes switch-mode battery charging circuitry for receiving power from an external power source and for supplying output power through an output node to an electronic system of an electronic communication device and a battery. Battery isolation circuitry includes a semiconductor switch connecting the output node to the battery. The battery isolation circuitry senses voltage at the output node and variably restricts current to the battery when the voltage is below a minimum voltage value by operationally controlling the semiconductor switch as current passes through it. During variable current restriction the electronic system is supplied required power with said battery being supplied any additional available power.

Plaintiff, in its briefing, has organized these patents-in-suit into "the '936 Patent Family," "the '319 Patent Family," and "the '173 Patent Family." Defendants have referred to the '936 Patent Family as the "Fischer Patents." Defendants have referred to the '319 Patent Family as the "Veselic 2003" patents and have referred to the '173 Patent Family as the "Veselic 2005" patents. Collectively, Defendants have referred to the Veselic 2003 patents and the Veselic 2005 patents as the "Veselic Patents."

Shortly before the start of the January 23, 2018 hearing, the Court provided the parties with preliminary constructions with the aim of focusing the parties' arguments and facilitating

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.