

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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HUAWEI DEVICE CO., LTD.,  
Petitioner,

v.

FUNDAMENTAL INNOVATION SYSTEMS INTERNATIONAL LLC,  
Patent Owner.

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Case IPR2018-00485  
Patent 7,834,586 B2

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Before BRYAN F. MOORE, JON B. TORNQUIST, and  
ARTHUR M. PESLAK, *Administrative Patent Judges*.

TORNQUIST, *Administrative Patent Judge*.

DECISION  
Denying Institution of *Inter Partes* Review  
35 U.S.C. § 314(a)

## I. INTRODUCTION

Huawei Device Co., Ltd. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 1–3 and 8–13 of U.S. Patent No. 7,834,586 B2 (Ex. 1001, “the ’586 patent”). Fundamental Innovation Systems International LLC (“Patent Owner”) filed a Preliminary Response to the Petition (Paper 7, “Prelim. Resp.”).

On June 8, 2018, Patent Owner disclaimed claims 3, 7, 10, and 13 of the ’586 patent. Ex. 2016, 3.

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314. The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted “unless the Director determines . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

After considering the Petition, the Preliminary Response, and the evidence of record, we determine that Petitioner has not demonstrated a reasonable likelihood that it would prevail with respect to at least one claim challenged in the Petition. Accordingly, we do not institute *inter partes* review.

### A. Related Proceedings

The parties identify Civil Action Nos. 2:17-cv-00145-JRG, 2:16-cv-01424-JRG-RSP, and 2:16-cv-01425-JRG-RSP, pending before the U.S. District Court for the Eastern District of Texas, as well as Civil Action No. 3:17-cv-01827-N, pending before the U.S. District Court for the Northern District of Texas, as related matters. Pet. 4; Paper 4, 1. Patent Owner notes that the ’586 patent is also the subject of IPR2018-00493. Paper 4, 3.

*B. The '586 Patent*

The '586 patent discloses “a USB adapter for providing a source of power to a mobile device through a USB port.” Ex. 1001, 2:22–24.

The '586 patent explains that, although it was understood in the art that a USB interface could be used as a power interface, it was typically not used for that purpose by mobile devices. *Id.* at 1:56–58. This is because a USB device must participate “in a host-initiated process called enumeration in order to be compliant” with the USB specification in drawing power from the USB interface, and “alternate power sources such as conventional AC outlets and DC car sockets” were “not capable of participating in enumeration.” *Id.* at 1:58–2:3.

To permit the recharging of mobile devices using a broader range of power sources, the '586 patent provides a USB adapter that is capable of providing power to a mobile device without first participating in enumeration. *Id.* at 8:9–14. Figure 2 of the '586 patent, reproduced below, is a schematic diagram of the disclosed USB adapter coupled to an exemplary mobile device (*id.* at 3:23–25, 6:48–50):

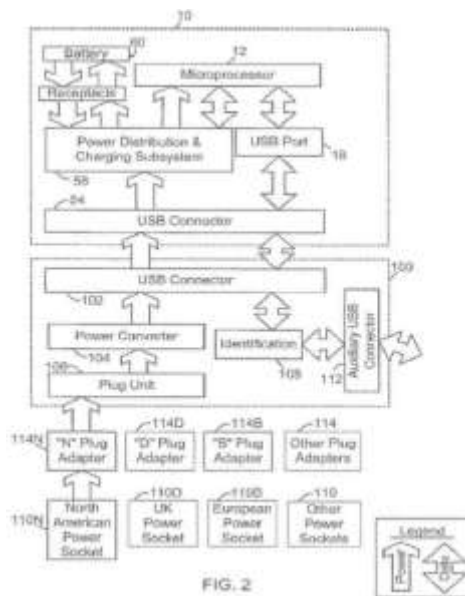


FIG. 2

As shown in Figure 2, USB adapter 100 comprises primary USB connector 102, power converter 104, plug unit 106, identification subsystem 108, and auxiliary USB connector 112. *Id.* at 6:50–53, 6:59–62. The ’586 patent discloses that when USB adapter 100 is connected to mobile device 10 via USB connector 54 of mobile device 10 and USB connector 102 of USB adapter 100, identification subsystem 108 provides an identification signal to mobile device 10 indicating that the power source is not a USB limited source. *Id.* at 8:15–17, 8:62–67. This identification signal “could be the communication of a single voltage on one or more of the USB data lines, different voltages on the two data lines, a series of pulses or voltage level changes, or other types of electrical signals.” *Id.* at 8:15–21. “The preferred identification signal,” however, “results from the application of voltage signals greater than 2 volts to both the D+ and D- lines in the USB connector.” *Id.* at 9:13–15. The ’586 patent explains that by providing an appropriate identification signal the mobile device 10 can “forego the enumeration process and charge negotiation process” set forth in the USB specification “and immediately draw energy from the USB power adapter” at a desired rate. *Id.* at 9:52–57.

### *C. Illustrative Claims*

Petitioner challenges claims 1–3 and 8–13 of the ’586 patent. Claims 1, 8, and 11 are independent. Claims 1 and 8 are illustrative of the challenged claims and are reproduced below:

1. A mobile device, the mobile device configurable for use in a wireless telecommunications network, comprising:  
a Universal Serial Bus (“USB”) interface configured to allow reception of a USB cable;

a charging subsystem, the charging subsystem operably connected to the USB interface V-bus power line;

the charging subsystem operably connectable to a battery, and configured to charge a battery if a battery is operably connected;

the charging system further configured to use power from the V-bus power line for the charging of a battery; and

where the mobile device is configured to detect an identification signal at a D+ and a D- data line of the USB interface, the identification signal being different than USB enumeration.

Ex. 1001, 11:50–64.

8. A method of charging a battery in a mobile device, the mobile device configurable for use in a wireless telecommunications network, comprising:

providing a Universal Serial Bus (“USB”) interface configured to allow reception of a USB cable, and, receiving power on a V-bus power line at the USB interface;

providing an operable connection between the power received at the USB interface on the V-bus power line and a charging subsystem;

having a battery in operable connection to the charging subsystem;

providing power to the battery using the charger subsystem; and,

detecting an identification signal at a D+ and a D- data line of the USB interface, the identification signal being different than USB enumeration.

*Id.* at 12:31–46.

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