

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

FUNDAMENTAL INNOVATION  
SYSTEMS INTERNATIONAL LLC,

*Plaintiff,*

vs.

TCT MOBILE (US), INC.; TCT MOBILE  
(US) HOLDINGS, INC.; HUIZHOU TCL  
MOBILE COMMUNICATION CO. LTD.;  
and TCL COMMUNICATION, INC.,

*Defendants.*

Civil Action No. 20-552-CFC

**JURY TRIAL DEMANDED**

**AMENDED COMPLAINT FOR PATENT INFRINGEMENT  
AND JURY DEMAND**

Plaintiff Fundamental Innovation Systems International LLC (“Plaintiff” or “Fundamental”), by and through its undersigned counsel, brings this action against Defendants TCT Mobile (US), Inc., TCT Mobile (US) Holdings, Inc., Huizhou TCL Mobile Communication Co. Ltd., and TCL Communication, Inc. (collectively “Defendant” or “TCL”) to prevent TCL’s continued infringement of Plaintiff’s patents without authorization and to recover damages resulting from such infringement.

**PARTIES**

1. Plaintiff is a Delaware limited liability company with a place of business located at 2990 Long Prairie Road, Suite B, Flower Mound, Texas 75022.

2. Plaintiff is the owner by assignment of all right, title, and interest in U.S. Patent Nos. 7,239,111 (the “111 Patent”), 8,624,550 (the “550 Patent”), 7,834,586 (the “586 Patent”), 8,232,766 (the “766 Patent”), 8,169,187 (the “187 Patent”), and 6,936,936 (the “936 Patent”) (collectively, the “Patents-in-Suit”).

3. On information and belief, Defendant TCT Mobile (US), Inc. is a Delaware

corporation with a place of business at 25 Edelman Suite 200, Irvine, CA, 92618. TCT Mobile (US), Inc. may be served through its registered agent Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808.

4. On information and belief, Defendant TCT Mobile (US) Holdings, Inc. is a Delaware corporation with a place of business at 25 Edelman Suite 200, Irvine, CA, 92618. TCT Mobile (US) Holdings, Inc. may be served through its registered agent Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808.

5. On information and belief, Defendant Huizhou TCL Mobile Communication Co. Ltd. is a company organized and existing under the laws of China with a place of business at No. 86 Hechang Qi Lu Xi, Zhongkai Gaoxin District, Huizhou City, Guandong Province, P.R. China.

6. On information and belief, Defendant TCL Communication, Inc. is a Delaware corporation with a place of business at 25 Edelman Suite 200, Irvine, CA, 92618. TCL Communication, Inc. may be served through its registered agent Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808.

7. On information and belief, TCL directly and/or indirectly imports, develops, designs, manufactures, uses, distributes, markets, offers to sell and/or sells products and services in the United States, including in this district, and otherwise purposefully directs activities to the same.

#### **JURISDICTION AND VENUE**

8. This is an action for patent infringement arising under the patent laws of the United States of America, 35 U.S.C. § 1, *et seq.*, including 35 U.S.C. § 271. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

9. This Court has personal jurisdiction over TCT Mobile (US), Inc., TCT Mobile (US) Holdings, Inc., and TCL Communication, Inc. based at least on their incorporation in the State of Delaware.

10. This Court has personal jurisdiction over Huizhou TCL Mobile Communication

Co. Ltd. pursuant to due process and/or the Delaware Long Arm Statute, due at least to its substantial business in this State, including: (A) at least part of its own infringing activities alleged herein; and (B) regularly doing or soliciting business, engaging in other persistent conduct, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to Delaware residents vicariously through and/or in concert with its subsidiaries, intermediaries, and/or agents.

11. Venue is proper in this judicial district under 28 U.S.C. § 1400(b) with respect to TCT Mobile (US), Inc., TCT Mobile (US) Holdings, Inc., and TCL Communication, Inc. because they are incorporated in, and therefore reside in, the State of Delaware.

12. Venue is proper in this judicial district under 28 U.S.C. § 1391 with respect to Huizhou TCL Mobile Communication Co. Ltd. because it is not a resident in the United States, and thus may be sued in any judicial district, including this one.

### **FACTUAL ALLEGATIONS**

#### ***The Patents-in-Suit***

13. The Patents-in-Suit relate to, among other things, novel techniques for using Universal Serial Bus (“USB”) in connection with mobile devices to both facilitate data communication and allow for the charging of certain classes of devices. This technology represented a fundamental break from previous techniques for mobile device charging and has provided for faster charging times, longer battery life, improved user experiences and a dramatic increase in performance and features.

14. The Patents-in-Suit resulted from a large scale research and development program at Research In Motion Limited (“RIM”), later reorganized as BlackBerry Limited (“BlackBerry”). At the time of the inventions, RIM was a global leader and pioneer in the field of wireless mobile communications. The company was founded in 1984 and revolutionized the mobile industry when it launched the BlackBerry® 850 in 1999. Fundamental is responsible for protecting and licensing seminal BlackBerry innovations in the field of USB charging.

15. In the early 2000s, BlackBerry sought to simplify the number of cables and connectors used with its mobile devices and provide its customers with an improved device for charging a mobile device's battery. At the time, mobile devices in the market used either separate connectors for power (including battery charging) and for data, or a proprietary connector that could not be used with other devices. As a result, mobile device users frequently had to carry at least two different cables with them—and even more if they used more than one device.

16. The disclosures of the Patents-in-Suit describe this problem in the art. For example, the specification of the '111 patent explains: “[M]ost mobile devices provide a distinct power interface for receiving power from a power Source, for instance to recharge a battery, and a separate data interface for communicating. For example, many mobile devices presently use USB (Universal Serial Bus) interfaces for communicating and use a separate power interface, such as a barrel connector, for receiving power. It is desirable, however, to have a combined power and data interface. The mobile devices that do have combined power and data interfaces typically use non-standard and sometimes proprietary interfaces. Consequently, combined interfaces for a particular manufacturer's mobile device may not be compatible with combined interfaces for mobile devices provided by other manufacturers.” '111 Patent col. 1:35-51.

17. To address the problems in the prior art, BlackBerry began investigating the use of USB with its mobile devices. At the time, USB was emerging as a standardized, non-proprietary interface used to connect computers to peripheral devices. For example, Revision 2.0 of the USB Specification (“USB 2.0”), first published on April 27, 2000, defined connectors and interfaces with power and data lines that could be used to support power delivery and data communications between a host (*e.g.*, a PC) and a connected device (*e.g.*, a keyboard or mouse).

18. However, USB 2.0 was not originally designed with mobile computing devices and battery charging in mind, and mobile devices prior to the inventions of the Patents-in-Suit did not use USB for charging the battery of the mobile device. Accordingly, USB 2.0 does not define or otherwise describe a USB charging adapter or the use of USB to charge a battery.

Instead, USB 2.0 defines a data and power protocol between a “USB host,” such as a desktop computer or laptop, and one or more “USB devices,” such as a mouse, keyboard, microphone, or speaker, connected to the USB host over a USB connection. According to USB 2.0, when a USB device is connected to a USB host, it must perform a process called “USB enumeration,” during which the USB host and USB device exchange certain data in order to configure the USB device for use with the USB host. As part of the enumeration process, the USB device is configured to draw up to (but no more than) 500 milliamps of current from the USB host; and if enumeration does not successfully complete, the USB device is limited to drawing even less current.

19. BlackBerry realized that existing USB technology was not effective for charging a battery in a mobile device for multiple reasons. First, the enumeration requirement meant that a mobile device using USB for battery charging could only charge when connected to a USB host, such as a computer, that was capable of performing USB enumeration. This meant that mobile devices could not charge the battery from more common and more convenient sources, such as electrical outlets and car chargers, and could not charge at all when the battery was fully depleted and the device was unable to power on in order to perform USB enumeration. Second, designing a USB charging adapter that could perform the enumeration functionality of a USB host would have increased the size and the cost of the charging adapter, which was not practical. Third, the current limits imposed by USB 2.0 would significantly limit the charging speed of a mobile device, requiring hours to fully charge the battery, which was not acceptable for a mobile device.

20. The technical problems encountered by BlackBerry are identified in the disclosures of the Patents-in-Suit. For example, the specification of the ’111 patent explains: “In accordance with the USB specification, typical USB power source devices, such as hubs and hosts, require that a USB device participate in a host-initiated process called enumeration in order to be compliant with the current USB specification in drawing power from the USB interface. Although a mobile device could be adapted to participate in enumeration when

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