

**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

drawing power over the USB interface, it would be preferable in many situations, such as when a host would not be available, as often happens during normal use of a mobile device, to be able to utilize alternate power sources such as conventional AC outlets and DC car sockets that are not capable of participating in enumeration to supply power to the mobile device via a USB interface.” ’111 Patent col. 1:54-67. The specification goes on to state: “Typically when a mobile device 10 receives power over the USB from a USB host, it is required to draw power in accordance with the USB specification. The USB specification specifies a process for transferring energy across the USB called enumeration and limits the electrical current that can flow across the USB.” ’111 Patent col. 8:11-16.

21. In order to overcome these technical problems associated with using USB for battery charging, BlackBerry invented a new charging adapter that is different from the USB hosts and USB hubs defined in USB 2.0. BlackBerry’s novel USB charging adapter utilized the same USB connector that was used by a USB host so that a mobile device could connect to the adapter using the same USB cable used for connecting the mobile device to a USB host. The novel USB charging adapter, however, utilized the USB connector in a new way that did not previously exist in the art. Unlike a conventional USB host, BlackBerry’s novel USB charging adapter included novel circuitry for providing a signal (*e.g.*, an “identification signal”) to a connected mobile device. The signal provided by this novel circuitry informed the mobile device that it is connected to a charging adapter as opposed to a conventional USB host or hub, and thereby allowed the mobile device to draw a higher level of current from the adapter without performing USB enumeration, in order to more quickly charge the battery in the mobile device. In addition, BlackBerry’s novel circuitry was designed to provide a signal over the USB data connection that is not defined as valid in USB 2.0 (*e.g.*, an “abnormal data condition”) so that it could be distinguished from data communication provided by a conventional USB host, and would not interfere with the conventional USB functionality of a compatible mobile device. BlackBerry’s novel USB charging adapter is embodied and reflected in the claims of the ’111, ’550, and ’936 patents.

22. In addition to the novel USB charging adapter, BlackBerry also invented a novel mobile device that used a single USB port on the device for both data communication and battery charging, and that could be connected to either a conventional USB host or the novel USB charging adapter. The novel mobile device was designed to distinguish between a conventional USB host and a USB charging adapter (*e.g.*, by detecting an “identification signal” or an “abnormal data condition” when connected to a novel USB charging adapter). When the mobile device determined it was connected to a conventional USB host, it would function in a manner fully compliant with USB 2.0 (*e.g.*, by performing USB enumeration and drawing current in accordance with the limits set in USB 2.0). However, when the mobile device determined it was connected to a USB charging adapter, it would forgo enumeration and draw substantially higher current to charge the battery. BlackBerry’s novel mobile device is embodied and reflected in the claims of the ’586, ’766, and ’187 patents.

23. The novelty of the inventions claimed in the Patents-in-Suit has consistently been confirmed by the Patent Trial and Appeal Board (“PTAB”). The Patents-in-Suit have collectively been challenged in eighteen separate *inter partes* review (“IPR”) petitions filed by four different petitioners at the PTAB. Three of these petitions were voluntarily terminated prior to any determination by the PTAB. For the remaining fifteen petitions, the PTAB uniformly affirmed the novelty of BlackBerry’s inventions and the validity of the Patents-in-Suit. The PTAB denied institution of IPR for thirteen of the petitions, finding that the petitioners had not even demonstrated a reasonable likelihood that any challenged claim was unpatentable. For the two petitions where an IPR was instituted, the PTAB issued a final written decision upholding the validity of all claims.

24. The value and novelty of the inventions claimed by the Patents-in-Suit has also been widely recognized in the industry. Over fifty companies have taken licenses to the Patents-in-Suit, including many of TCL’s competitors.

***TCL’s Accused Products and Infringement***

25. On information and belief, TCL makes, uses, sells, offers for sale and/or imports

infringing mobile devices in the United States, including but not limited to the BlackBerry branded KeyOne, Key2, and Key2 LE, the Alcatel branded Avalon 3V, Insight, Avalon V, Onyx, and Joy Tab, and other models that include similar functionality (“Accused Mobile Devices”). On information and belief, TCL makes, uses, sells, offers for sale and/or imports infringing charging adapters in the United States for use with the Accused Mobile Devices, including but not limited to model numbers CBA0058AGZC7, CBA0060AJHC1, and other models that include similar functionality (“Accused Charging Adapters”).

26. The Accused Mobile Devices and Accused Charging Adapters are referred to herein as “the Accused Products.”

27. The Accused Mobile Devices include USB interfaces, USB communication paths and charging sub-systems that are operably connected to the USB interface. The charging sub-systems are configured to receive power and use the power to charge a battery. The mobile devices are able to detect an identification signal received via the USB interface, which may be an abnormal USB data condition and is different than USB enumeration, such as a voltage on the D+ line and on the D- line of the USB communication path. The identification signal enables the mobile device to draw current unrestricted by a USB specification limit.

28. The Accused Charging Adapters are USB charging adapters that are designed to provide power to a mobile device. The charging adapters include a Vbus line and a USB communication path. The charging adapters are configured to generate an identification signal, such as a voltage on a D+ line and on a D- line, that indicates to the mobile device that it is receiving power from a source that is not a USB host or hub. The charging adapters are able to supply current to a mobile device without regard to at least one associated condition specified in a USB specification. The charging adapters also receive power from a power socket and include a power converter that regulates the received power to generate a DC power output.

***TCL’s Knowledge of the Patents-in-Suit and Infringement***

29. On December 15, 2015, Fundamental sent a letter to TCL, which indicated that Fundamental owned the Patents-in-Suit and suggested to TCL that it should take a license.

Fundamental also provided TCL with claim charts demonstrating how TCL infringed the Patents-in-Suit at least as early as July 5, 2017. Fundamental sent additional correspondence to TCL on numerous occasions requesting meetings in order to discuss the terms of a license. TCL never responded to any of Fundamental's correspondence, nor did TCL ever provide Fundamental with any basis for believing that it did not infringe the Patents-in-Suit or stop infringing. Fundamental's provision of actual notice of infringement entitles Fundamental to past damages pursuant to 35 U.S.C. §287, at least as of the date that notice was provided.

30. After having received notice of the Patents-in-Suit, TCL has continued to make, use, sell, offer for sale, and import into the United States the Accused Products. TCL's making, using, selling, offering to sell and importing of the Accused Products into the United States constitute direct infringement under 35 U.S.C. § 271(a). On information and belief, TCL also directly infringes one or more method claims in the Patents-in-Suit by testing, repairing, and using the Accused Products in the United States.

31. After having received notice of the Patents-in-Suit, TCL has continued to make, use, sell, offer for sale, and import into the United States the Accused Products with knowledge that these Accused Products are a material part of inventions claimed by the Patents-in-Suit and are especially made or adapted for use in an infringement of the Patents-in-Suit. On information and belief, TCL knows that the Accused Products are not a staple article or commodity of commerce suitable for substantial non-infringing use. TCL's actions contribute to the direct infringement of the Patents-in-Suit by others, including customers of the Accused Products, in violation of 35 U.S.C. § 271(c). For example, the Accused Charging Adapters are a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and are not a staple article or commodity of commerce suitable for substantial non-infringing use.

32. After having received notice of the Patents-in-Suit, TCL continued to advertise and distribute the Accused Products, offer technical assistance, and publish user manuals, specifications, promotional literature or instructions to customers, partners, and/or end users,

advising them to use the Accused Products in a manner that directly infringes the Patents-in-Suit. On information and belief, by such acts, TCL actively induced, and continues to actively induce, direct infringement of the Patents-in-Suit, in violation of 35 U.S.C. § 271(b). For example, TCL's customers who purchase the Accused Products and operate the Accused Products in accordance with instructions provided by TCL, directly infringe one or more claims of the Patents-in-Suit. TCL provides such instructions through, for example, user guides and manuals, including but not limited to user guides and manuals located at <https://blackberrymobile.com/support/blackberry-keyone/user-guide/>; <https://blackberrymobile.com/support/blackberry-key2-le/user-guide/>; <https://blackberrymobile.com/support/blackberry-keytwo/user-guide/>; <https://nasupport.alcatelmobile.com/hc/en-us/articles/360007033673-Alcatel-3V-User-Manual-English>; <https://nasupport.alcatelmobile.com/hc/en-us/articles/360036292853-INSIGHT-Cricket-Wireless-User-Manual-English->.

33. On information and belief, TCL has further actively induced infringement by remaining willfully blind to its customers' infringement despite believing there to be a high probability its customers, among others, infringe the Patents-in-Suit.

#### **FIRST CLAIM FOR RELIEF**

##### **(Infringement of U.S. Patent No. 7,239,111)**

34. Fundamental re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

35. The '111 Patent, titled "Universal Serial Bus Adapter for a Mobile Device," was duly and legally issued on July 3, 2007. A true and correct copy of the '111 Patent is attached as Exhibit A.

36. The '111 Patent names Daniel M. Fischer, Dan G. Radut, Michael F. Habicher, Quang A. Luong, and Jonathan T. Malton as co-inventors.

37. The '111 Patent has been in full force and effect since its issuance. Fundamental

owns by assignment the entire right, title, and interest in and to the '111 Patent, including the exclusive right to seek damages for past, current and future infringement thereof.

38. The claims of the '111 Patent are directed to a novel USB charging adapter. For example, claim 1 of the '111 Patent recites a “Universal Serial Bus (‘USB’) adapter for providing power to a mobile device through a USB port.” Among other things, the claim requires a novel “identification subsystem” invented by BlackBerry, which provides an “identification signal” that “indicate[s] to the mobile device” that it is connected to a USB charging adapter and “not a USB host or hub.” By detecting the identification signal via a USB connection, a novel mobile device according to BlackBerry’s invention can distinguish between a USB charging adapter and a USB host, and can forgo enumeration and draw higher current when connected to a USB charging adapter.

39. Claim 1 also requires a USB connector on the USB adapter that is coupled to the identification subsystem. The claims of the '111 patent use a USB connector in a novel manner on an adapter to enable a mobile device to be coupled to the power output and identification signal of the USB adapter. Using a USB connector on an adapter provides advantages that were not known in the prior art in that it enables a mobile device to be connected to either the USB adapter or to a conventional USB host (such as a PC) using the same USB cable.

40. The dependent claims of the '111 Patent recite in more detail the implementations of specific embodiments of BlackBerry’s novel USB charging adapter. For example, claims 6 and 7 describe how the identification subsystem in the novel USB charging adapter provides the identification signal to a connected mobile device, *e.g.*, by providing “a voltage level that is applied to at least one data line in the USB connector” (claim 6) or “a hard-wired connection of a voltage level to one or more data lines in the USB connector” (claim 7).

41. On information and belief, TCL has been, and currently is, directly infringing the '111 Patent by making, using, selling, offering to sell, and/or importing into the United States the Accused Charging Adapters. On information and belief, TCL’s products infringe at least claims 1-3, 6-7, and 16-18 of the '111 Patent.

42. The Accused Charging Adapters are charging adapters that are able to provide power to a mobile device. The products include a plug unit that can be plugged into an electrical socket to receive energy from the socket. The Accused Charging Adapters include a power converter that converts AC voltage from an electrical outlet to a 5.0v DC voltage that can be output from the charging adapter.



43. The Accused Charging Adapters include an identification subsystem that is configured to generate an identification signal that consists of voltages on D+ and D- lines. These voltages indicate to a mobile device that the power socket is not a USB host or hub.

44. The Accused Charging Adapters also include a USB connector, e.g., a type A connector, that is coupled to the power converter through a Vbus line and to the identification subsystem. The USB connector is configured to couple the power output and identification signal to a mobile device, through a USB cable.



45. On information and belief, TCL has been, and currently is, inducing infringement

of the '111 Patent, in violation of 35 U.S.C. § 271(b), by knowingly encouraging or aiding others to make, use, sell, or offer to sell the Accused Charging Adapters in the United States, or to import the Accused Charging Adapters into the United States, without license or authority from Fundamental, with knowledge of or willful blindness to the fact that TCL's actions will induce others, including but not limited to its customers, partners, and/or end users, to directly infringe the '111 patent. TCL induces others to infringe the '111 Patent by encouraging and facilitating others to perform actions that TCL knows to be acts of infringement of the '111 Patent with specific intent that those performing the acts infringe the '111 Patent.

46. On information and belief, TCL has been, and currently is, contributorily infringing the '111 Patent, in violation of 35 U.S.C. § 271(c), by selling or offering for sale, in this judicial district and throughout the United States, components that embody a material part of the inventions described in the '111 Patent, are known by TCL to be especially made or especially adapted for use in infringement of the '111 Patent, and are not staple articles of commerce or commodities suitable for substantial, non-infringing use, including at least the Accused Charging Adapters. TCL's actions contribute to the direct infringement of the Patents-in-Suit by others, including customers of the Accused Charging Adapters, in violation of 35 U.S.C. § 271(c).

47. As a result of TCL's infringement of the '111 Patent, Fundamental has been damaged. Fundamental is entitled to recover for damages sustained as a result of TCL's wrongful acts in an amount to be determined. Fundamental has complied with the requirements of 35 U.S.C. § 287(a) at least because Fundamental provided TCL with written notice of the infringement as discussed above.

48. In addition, TCL's infringing acts have caused and are causing immediate and irreparable harm to Fundamental.

49. On information and belief, TCL has had actual knowledge of its infringement of the '111 Patent since at least as early as July 5, 2017. On information and belief, TCL's infringement of the '111 Patent has been and continues to be deliberate and willful, and,

therefore, this is an exceptional case warranting an award of treble damages and attorney's fees to Fundamental pursuant to 35 U.S.C. §§ 284-285.

**SECOND CLAIM FOR RELIEF**

**(Infringement of U.S. Patent No. 8,624,550)**

50. Fundamental re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

51. The '550 Patent, titled "Multifunctional Charger System and Method," was duly and legally issued on January 7, 2014. A true and correct copy of the '550 Patent is attached as Exhibit B.

52. The '550 Patent names Daniel M. Fischer, Dan G. Radut, Michael F. Habicher, Quang A. Luong, and Jonathan T. Malton as co-inventors.

53. The '550 Patent has been in full force and effect since its issuance. Fundamental owns by assignment the entire right, title, and interest in and to the '550 Patent, including the exclusive right to seek damages for past, current and future infringement thereof.

54. The claims of the '550 Patent are directed to a novel USB charging adapter that includes a USB VBUS line and USB communication path. For example, claim 1 of the '550 Patent recites an "adapter comprising: a USB VBUS line and a USB communication path." The VBUS line is the pin or wire in a USB cable or connector that is used to supply power. The USB communication path includes the D+ and D- pins or wires in a USB cable or connector that are used for data communications in a conventional USB host; and are used to provide the identification signal in at least some embodiments of the '550 Patent. The claims of the '550 patent use the VBUS line and the D+ and D- lines in a novel manner on an adapter to provide an identification signal and power to a mobile device from the USB adapter. Using these lines on an adapter provides advantages that were not known in the prior art in that it enables a mobile device to be connected to either the USB adapter or to a conventional USB host (such as a PC) using the same USB cable.

55. Claim 1 also requires that the adapter be “configured to supply current on the VBUS line without regard to at least one associated condition specified in a USB specification.” This limitation refers to the novel aspect of BlackBerry’s USB charging adapter that it is designed to supply a higher current to a compatible mobile device after the mobile device has determined that it is connected to a USB charging adapter and not a conventional USB host (*e.g.*, by detecting an “identification signal” or “abnormal data condition” on the USB communication path).

56. The dependent claims of the ’550 Patent recite in more detail the implementations of specific embodiments of BlackBerry’s novel USB charging adapter. For example, claim 3 recites another inventive aspect of BlackBerry’s USB charging adapter, which further distinguishes it from conventional USB hosts defined in USB 2.0: supplying current on the VBUS power line without first performing USB enumeration.

57. Similarly, claims 4-7 describe various specific implementations by which the circuitry in the novel USB charging adapter can indicate to the mobile device that the USB charging adapter is not a conventional USB host, thereby causing a compatible mobile device to draw higher current. For example, claim 4 recites that the higher current is supplied in response to “an abnormal data condition on [the] USB communication path”; claim 6 further provides that the “abnormal data condition” is provided on the “D+ line” and the “D- line” used for USB data communications; and claim 7 further provides that the “abnormal data condition” is a “logic high signal” on the D+ and D- lines. Each of the foregoing dependent claims reflect BlackBerry’s innovative use of circuitry in the novel USB charging adapter to provide a signal that is not defined as valid by the USB Specification, allowing a compatible mobile device to distinguish between the novel USB charging adapter and a conventional USB host without otherwise interfering with conventional USB functionality.

58. TCL has been, and currently is, directly infringing the ’550 Patent by making, using, selling, offering to sell, and/or importing into the United States the Accused Charging Adapters. On information and belief, TCL’s products infringe at least claims 1-8 and 10-16 of

the '550 Patent.

59. The Accused Charging Adapters are charging adapters that include a USB VBUS line and D+/D- lines that are a USB communication path.



60. When connected to a mobile device, the Accused Charging Adapters generate voltages on the D+ and D- lines.

61. The Accused Charging Adapters are configured to supply current on the VBUS line of greater than 500 mA, which is without regard to the current limits in the USB specification.

62. On information and belief, TCL has been, and currently is, inducing infringement of the '550 Patent, in violation of 35 U.S.C. § 271(b), by knowingly encouraging or aiding others to make, use, sell, or offer to sell the Accused Charging Adapters in the United States, or to import the Accused Charging Adapters into the United States, without license or authority from Fundamental, with knowledge of or willful blindness to the fact that TCL's actions will induce others, including but not limited to its customers, partners, and/or end users, to directly infringe the '550 patent. TCL induces others to infringe the '550 Patent by encouraging and facilitating others to perform actions that TCL knows to be acts of infringement of the '550 Patent with specific intent that those performing the acts infringe the '550 Patent.

63. On information and belief, TCL has been, and currently is, contributorily infringing the '550 Patent, in violation of 35 U.S.C. § 271(c), by selling or offering for sale, in this judicial district and throughout the United States, components that embody a material part of

the inventions described in the '550 Patent, are known by TCL to be especially made or especially adapted for use in infringement of the '550 Patent, and are not staple articles of commerce or commodities suitable for substantial, non-infringing use, including at least the Accused Charging Adapters. TCL's actions contribute to the direct infringement of the Patents-in-Suit by others, including customers of the Accused Charging Adapters, in violation of 35 U.S.C. § 271(c).

64. As a result of TCL's infringement of the '550 Patent, Fundamental has been damaged. Fundamental is entitled to recover for damages sustained as a result of TCL's wrongful acts in an amount to be determined. Fundamental has complied with the requirements of 35 U.S.C. § 287(a) at least because Fundamental provided TCL with written notice of the infringement as discussed above.

65. In addition, TCL's infringing acts have caused and are causing immediate and irreparable harm to Fundamental.

66. On information and belief, TCL has had actual knowledge of its infringement of the '550 Patent since no later than July 5, 2017. On information and belief, TCL's infringement of the '550 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of treble damages and attorney's fees to Fundamental pursuant to 35 U.S.C. §§ 284-285.

### **THIRD CLAIM FOR RELIEF**

#### **(Infringement of U.S. Patent No. 7,834,586)**

67. Fundamental re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

68. The '586 Patent, titled "Multifunctional Charger System and Method," was duly and legally issued on November 16, 2010. A true and correct copy of the '586 Patent is attached as Exhibit C.

69. The '586 Patent names Daniel M. Fischer, Dan G. Radut, Michael F. Habicher,

Quang A. Luong, and Jonathan T. Malton as co-inventors.

70. The '586 Patent has been in full force and effect since its issuance. Fundamental owns by assignment the entire right, title, and interest in and to the '586 Patent, including the exclusive right to seek damages for past, current and future infringement thereof.

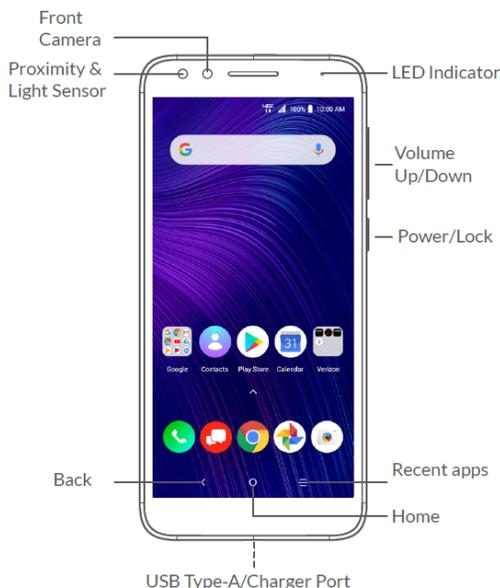
71. The claims of the '586 Patent are directed to a novel mobile device that includes a USB interface that can be used for charging a battery. For example, claim 1 of the '586 Patent recites a “mobile device” with a “Universal Serial Bus (‘USB’) interface” and a “charging subsystem ... configured to use power from the [USB] V-bus power line for the charging of a battery.” The claims of the '586 patent use a USB interface in a novel manner on a mobile device in order to provide for charging of a battery. Using a USB interface on a mobile device for both USB communications and battery charging provides advantages that were not known in the prior art in that it enables greater interchangeability of the adapters and cables used for charging mobile devices, reduces the number of connectors on the mobile device, and allows the mobile device to be effectively charged using USB.

72. Claim 1 further requires the mobile device to be configured to “detect an identification signal at a D+ and D- data line of the USB interface, the identification signal being different than USB enumeration.” This limitation refers to the novel aspect of BlackBerry’s mobile device that it is capable of distinguishing between the identification signal of the USB charging adapter and the USB enumeration required by a conventional USB host.

73. The dependent claims of the '586 Patent recite in more detail the implementations of specific embodiments of BlackBerry’s novel mobile device. For example, claim 2 further specifies how, in one embodiment, the identification signal is “a voltage level that is applied to at least one data line in the USB connector.”

74. TCL has been, and currently is, directly infringing the '586 Patent by making, using, selling, offering to sell, and/or importing into the United States the Accused Mobile Devices. On information and belief, TCL’s products infringe at least claims 1-2, 5-6, and 8 of the '586 Patent.

75. The Accused Mobile Devices are mobile devices that include a USB interface configured to allow reception of a USB cable through electrical connections in a connector on the device.



Avalon User Guide, p. 22.

76. For example, the Accused Mobile Devices can be connected to a computer through a USB cable and communicate using the USB protocol:

### 6.3 Connecting to a computer via USB

With a USB cable, you can transfer media files and other files between your phone and a computer.

#### To connect your phone to the computer

Use the USB cable that came with your phone to connect the phone to a USB port on your computer. You will receive a notification that the USB is connected.

Avalon User Guide, p. 67.

77. The Accused Mobile Devices receive power on a Vbus line of the USB interface, which is operably connected to a charging subsystem that includes a power management chip and/or charging chip. The charging subsystem is also connected to a battery and is configured to charge the battery using power supplied to the mobile device on the Vbus.

78. The Accused Mobile Devices are capable of detecting an identification signal at a

D+ and a D- data line of the USB interface, the identification signal being different than USB enumeration. Specifically, when connected to a charging adapter, the Accused Mobile Devices detect voltages on the D+ and D- lines that are different than USB enumeration.

79. On information and belief, TCL has been, and currently is, inducing infringement of the '586 Patent, in violation of 35 U.S.C. § 271(b), by knowingly encouraging or aiding others to make, use, sell, or offer to sell the Accused Mobile Devices in the United States, or to import the Accused Mobile Devices into the United States, without license or authority from Fundamental, with knowledge of or willful blindness to the fact that TCL's actions will induce others, including but not limited to its customers, partners, and/or end users, to directly infringe the '586 patent. TCL induces others to infringe the '586 Patent by encouraging and facilitating others to perform actions that TCL knows to be acts of infringement of the '586 Patent with specific intent that those performing the acts infringe the '586 Patent.

80. On information and belief, TCL has been, and currently is, contributorily infringing the '586 Patent, in violation of 35 U.S.C. § 271(c), by selling or offering for sale, in this judicial district and throughout the United States, components that embody a material part of the inventions described in the '586 Patent, are known by TCL to be especially made or especially adapted for use in infringement of the '586 Patent, and are not staple articles of commerce or commodities suitable for substantial, non-infringing use, including at least the Accused Mobile Devices. TCL's actions contribute to the direct infringement of the Patents-in-Suit by others, including customers of the Accused Mobile Devices, in violation of 35 U.S.C. § 271(c).

81. As a result of TCL's infringement of the '586 Patent, Fundamental has been damaged. Fundamental is entitled to recover for damages sustained as a result of TCL's wrongful acts in an amount to be determined. Fundamental has complied with the requirements of 35 U.S.C. § 287(a) at least because Fundamental provided TCL with written notice of the infringement as discussed above.

82. In addition, TCL's infringing acts have caused and are causing immediate and

irreparable harm to Fundamental.

83. On information and belief, TCL has had actual knowledge of its infringement of the '586 Patent since no later than July 5, 2017. On information and belief, TCL's infringement of the '586 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of treble damages and attorney's fees to Fundamental pursuant to 35 U.S.C. §§ 284-285.

#### **FOURTH CLAIM FOR RELIEF**

##### **(Infringement of U.S. Patent No. 8,232,766)**

84. Fundamental re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

85. The '766 Patent, titled "Multifunctional Charger System and Method," was duly and legally issued on July 31, 2012. A true and correct copy of the '766 Patent is attached as Exhibit D.

86. The '766 Patent names Daniel M. Fischer, Dan G. Radut, Michael F. Habicher, Quang A. Luong, and Jonathan T. Malton as co-inventors.

87. The '766 Patent has been in full force and effect since its issuance. Fundamental owns by assignment the entire right, title, and interest in and to the '766 Patent, including the exclusive right to seek damages for past, current and future infringement thereof.

88. The claims of the '766 Patent are directed to a novel mobile device that includes a USB communication path and a battery charging system that is responsive to signaling on the USB communication path. For example, claim 1 of the '766 Patent recites a "mobile device" with a "USB communication path" and a "charging subsystem enabled to draw current unrestricted by at least one predetermined USB Specification limit" in response to "an abnormal USB data condition detected at said USB communication path." The claims of the '766 patent use a USB communication path in a novel manner on a mobile device in order to receive an identification signal that enables a charging subsystem on the mobile device to draw current

unrestricted by a predetermined USB Specification limit. Using a USB communication path in this manner on the mobile device provides advantages that were not known in the prior art in that it enables greater interchangeability of the adapters and cables used for charging mobile devices, reduces the number of connectors on the mobile device, and allows the mobile device to be effectively charged using USB.

89. Thus, the claimed mobile device corresponds to BlackBerry's novel mobile device, which is capable of distinguishing between a USB charging adapter and a conventional USB host and is configured to draw more current when connected to a USB charging adapter. As recited in the claim, when the mobile device detects an "abnormal USB data condition" (*i.e.*, a signal on the USB data lines that is not defined as valid by the USB Specification), the mobile device determines that it is connected to a USB charging adapter, and can thus "draw current unrestricted by" (*i.e.*, higher than) the USB Specification limits. In addition, by using an "abnormal USB data condition" to detect a USB charging adapter, the claimed mobile device remains compatible with conventional USB hosts.

90. As another example, claim 17 of the '766 Patent is directed to the method performed in the novel mobile device invented by BlackBerry, which determines whether the mobile device is connected to a USB charging adapter or to a conventional USB host. For example, according to the method of claim 17, when the mobile device detects an "identification signal" on the USB communication path, it determines that a USB charging adapter is connected, and "draw[s] current in excess of at least one USB Specification defined limit." When the mobile device does not detect the "identification signal," it determines that a conventional USB host is connected, and "draw[s] current in accordance with said USB Specification."

91. The dependent claims of the '766 Patent recite in more detail the implementations of specific embodiments of BlackBerry's novel mobile device. For example, claim 3 recites another inventive aspect of BlackBerry's mobile device, which further distinguishes it from other mobile devices that existed prior to BlackBerry's invention: enabling the charging subsystem (and drawing current) without first performing USB enumeration. Similarly, claims 5-6 and 8

describe various specific implementations by which the hardware and/or software circuitry in the novel mobile device can determine that the mobile device is connected to a USB charging adapter and not a conventional USB host, thereby forgoing enumeration and drawing higher current. For example, claim 5 recites that the “abnormal USB data condition” that enables the charging subsystem is an “abnormal USB data line condition” on the “D+ line” and the “D- line” used for USB data communications; and claim 6 further provides that the “abnormal data condition” is a “logic high signal” on the D+ and D- lines. Each of the foregoing dependent claims reflect BlackBerry’s innovative implementation of the novel mobile device to detect a signal that is not defined as valid by the USB Specification in order to distinguish between a USB charging adapter and a conventional USB host, without otherwise interfering with conventional USB functionality.

92. TCL has been, and currently is, directly infringing the ’766 Patent by making, using, selling, offering to sell, and/or importing into the United States the Accused Mobile Devices. On information and belief, TCL’s products infringe at least claims 1-4, 5-7, 13-14, and 17-19 of the ’766 Patent.

93. The Accused Mobile Devices are mobile devices that include D+ and D- lines that are a USB communication path.



Avalon User Guide, p. 22.

94. The D+ and D- lines in the Accused Mobile Devices can be connected to a USB 2.0 port on a PC to communicate data with the PC.

### **6.3 Connecting to a computer via USB**

With a USB cable, you can transfer media files and other files between your phone and a computer.

#### **To connect your phone to the computer**

Use the USB cable that came with your phone to connect the phone to a USB port on your computer. You will receive a notification that the USB is connected.

Avalon User Guide, p. 67.

95. The Accused Mobile Devices also have a charging subsystem, which includes a power management chip and/or charging chip, that is enabled to draw current unrestricted by at least one predetermined USB Specification limit. The enablement is in response to the detection of voltages on the D+ and D- lines.

96. The voltages are an abnormal USB data condition because normal USB data conditions involve differential signaling, and not signals where both the D+ and D- are driven high.

97. On information and belief, TCL has been, and currently is, inducing infringement of the '766 Patent, in violation of 35 U.S.C. § 271(b), by knowingly encouraging or aiding others to make, use, sell, or offer to sell the Accused Mobile Devices in the United States, or to import the Accused Mobile Devices into the United States, without license or authority from Fundamental, with knowledge of or willful blindness to the fact that TCL's actions will induce others, including but not limited to its customers, partners, and/or end users, to directly infringe the '766 patent. TCL induces others to infringe the '766 Patent by encouraging and facilitating others to perform actions that TCL knows to be acts of infringement of the '766 Patent with specific intent that those performing the acts infringe the '766 Patent.

98. On information and belief, TCL has been, and currently is, contributorily

infringing the '766 Patent, in violation of 35 U.S.C. § 271(c), by selling or offering for sale, in this judicial district and throughout the United States, components that embody a material part of the inventions described in the '766 Patent, are known by TCL to be especially made or especially adapted for use in infringement of the '766 Patent, and are not staple articles of commerce or commodities suitable for substantial, non-infringing use, including at least the Accused Mobile Devices. TCL's actions contribute to the direct infringement of the Patents-in-Suit by others, including customers of the Accused Products, in violation of 35 U.S.C. § 271(c).

99. As a result of TCL's infringement of the '766 Patent, Fundamental has been damaged. Fundamental is entitled to recover for damages sustained as a result of TCL's wrongful acts in an amount to be determined. Fundamental has complied with the requirements of 35 U.S.C. § 287(a) at least because Fundamental provided TCL with written notice of the infringement as discussed above.

100. In addition, TCL's infringing acts have caused and are causing immediate and irreparable harm to Fundamental.

101. On information and belief, TCL has had actual knowledge of its infringement of the '766 Patent since no later than July 5, 2017. On information and belief, TCL's infringement of the '766 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of treble damages and attorney's fees to Fundamental pursuant to 35 U.S.C. §§ 284-285.

#### **FIFTH CLAIM FOR RELIEF**

##### **(Infringement of U.S. Patent No. 8,169,187)**

102. Fundamental re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

103. The '187 Patent, titled "Multifunctional Charger System and Method," was duly and legally issued on May 1, 2012. A true and correct copy of the '187 Patent is attached as Exhibit E.

104. The '187 Patent names Daniel M. Fischer, Dan G. Radut, Michael F. Habicher, Quang A. Luong, and Jonathan T. Malton as co-inventors.

105. The '187 Patent has been in full force and effect since its issuance. Fundamental owns by assignment the entire right, title, and interest in and to the '187 Patent, including the exclusive right to seek damages for past, current and future infringement thereof.

106. The claims of the '187 Patent are directed to a novel mobile device that includes a USB VBUS line and USB communication path. For example, claim 1 of the '187 Patent recites a “mobile device comprising: a USB VBUS line and a USB communication path.” The VBUS line is the pin or wire in a USB cable or connector that is used to supply power. The USB communication path includes the D+ and D- pins or wires in a USB cable or connector that are used for data communications with a conventional USB host; and are used to detect the identification signal in at least some embodiments of the '187 Patent. The claims of the '187 patent use the VBUS line and D+ and D- lines in a novel manner on a mobile device to receive an identification signal and power for charging a battery. Using these lines on the mobile device for both data communication and charging provides advantages that were not known in the prior art in that it enables a mobile device to be connected to either a USB adapter or to a conventional USB host (such as a PC) using the same USB cable, and allows the battery of the mobile device to be effectively charged using USB.

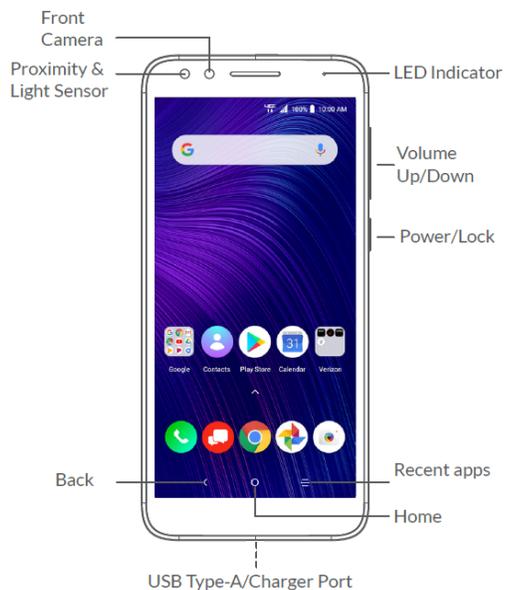
107. Claim 1 also requires that the adapter be “configured to draw current on the VBUS line without regard to at least one associated condition specified in a USB specification.” This limitation refers to the novel aspect of BlackBerry’s mobile device that it is designed to draw a higher current after determining that it is connected to a USB charging adapter and not a conventional USB host (*e.g.*, after detecting an “identification signal” or “abnormal data condition” on the USB communication path).

108. The dependent claims of the '187 Patent recite in more detail the implementations of specific embodiments of BlackBerry’s novel mobile device. For example, claim 3 recites another inventive aspect of BlackBerry’s mobile device, which further distinguishes it from other

mobile devices that existed prior to BlackBerry's invention: drawing current on the VBUS power line without first performing USB enumeration. Similarly, claims 4 and 7 describe various specific implementations by which the hardware and/or software in the novel mobile device can determine that the mobile device is connected to a USB charging adapter and not a conventional USB host, thereby causing the mobile device to draw higher current. For example, claim 4 recites that the higher current is drawn in response to "an abnormal data condition on [the] USB communication path"; and claim 7 further provides that the "abnormal data condition" is a "logic high signal" on the D+ and D- lines. Each of the foregoing dependent claims reflect BlackBerry's innovative implementation of the novel mobile device to detect a signal that is not defined as valid by the USB Specification in order to distinguish between the novel USB charging adapter and a conventional USB host without otherwise interfering with conventional USB functionality.

109. TCL has been, and currently is, directly infringing the '187 Patent by making, using, selling, offering to sell, and/or importing into the United States the Accused Mobile Devices. On information and belief, TCL's products infringe at least claims 1, 3-4, 7-8, 10-13, and 16 of the '187 Patent.

110. The Accused Mobile Devices are mobile devices that include a USB VBUS line and D+/D- lines that are a USB communication path.



Avalon User Guide, p. 22.

111. When connected to a charging adapter, the Accused Mobile Devices detect voltages on the D+ and D- lines. Detection of the voltages enable the Accused Mobile Devices to draw current from the VBUS line at greater than 500 mA, which is without regard to the current limits specified in the USB specification.

112. On information and belief, TCL has been, and currently is, inducing infringement of the '187 Patent, in violation of 35 U.S.C. § 271(b), by knowingly encouraging or aiding others to make, use, sell, or offer to sell the Accused Mobile Devices in the United States, or to import the Accused Mobile Devices into the United States, without license or authority from Fundamental, with knowledge of or willful blindness to the fact that TCL's actions will induce others, including but not limited to its customers, partners, and/or end users, to directly infringe the '187 patent. TCL induces others to infringe the '187 Patent by encouraging and facilitating others to perform actions that TCL knows to be acts of infringement of the '187 Patent with specific intent that those performing the acts infringe the '187 Patent.

113. On information and belief, TCL has been, and currently is, contributorily infringing the '187 Patent, in violation of 35 U.S.C. § 271(c), by selling or offering for sale, in this judicial district and throughout the United States, components that embody a material part of

the inventions described in the '187 Patent, are known by TCL to be especially made or especially adapted for use in infringement of the '187 Patent, and are not staple articles of commerce or commodities suitable for substantial, non-infringing use, including at least the Accused Mobile Devices. TCL's actions contribute to the direct infringement of the Patents-in-Suit by others, including customers of the Accused Mobile Devices, in violation of 35 U.S.C. § 271(c).

114. As a result of TCL's infringement of the '187 Patent, Fundamental has been damaged. Fundamental is entitled to recover for damages sustained as a result of TCL's wrongful acts in an amount to be determined. Fundamental has complied with the requirements of 35 U.S.C. § 287(a) at least because Fundamental provided TCL with written notice of the infringement as discussed above.

115. In addition, TCL's infringing acts have caused and are causing immediate and irreparable harm to Fundamental.

116. On information and belief, TCL has had actual knowledge of its infringement of the '187 Patent since no later than July 5, 2017. On information and belief, TCL's infringement of the '187 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of treble damages and attorney's fees to Fundamental pursuant to 35 U.S.C. §§ 284-285.

#### **SIXTH CLAIM FOR RELIEF**

##### **(Infringement of U.S. Patent No. 6,936,936)**

117. Fundamental re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

118. The '936 Patent, titled "Multifunctional Charger System and Method," was duly and legally issued on August 30, 2005. A true and correct copy of the '936 Patent is attached as Exhibit F.

119. The '936 Patent names Daniel M. Fischer, Dan G. Radut, Michael F. Habicher,

Quang A. Luong, and Jonathan T. Malton as co-inventors.

120. The '936 Patent has been in full force and effect since its issuance. Fundamental owns by assignment the entire right, title, and interest in and to the '936 Patent, including the exclusive right to seek damages for past, current and future infringement thereof.

121. The claims of the '936 Patent are directed to a novel USB charging adapter that includes a USB connector and an identification subsystem. For example, claim 1 of the '936 Patent recites a “Universal Serial Bus (‘USB’) adapter for providing a source of power to a mobile device through a USB port.” Among other things, the claim requires a novel “identification subsystem,” which provides an “identification signal at one or more data lines,” where the identification “comprises a logic high signal on the D+ data line and a logic high signal on the D– data line.” Because a logic high signal on both D+ and D- is not defined as a valid signal by the USB Specification, BlackBerry’s novel USB charging adapter advantageously permits a compatible mobile device to determine, in response to detecting the identification signal, that the charging adapter is not a conventional USB host.

122. Claim 1 also requires a USB connector on the USB charging adapter that is electrically coupled to the identification subsystem. The claims of the '936 patent use a USB connector in a novel manner on an adapter to enable a mobile device to be coupled to the power output and identification signal of the USB adapter. Using a USB connector on an adapter provides advantages that were not known in the prior art in that it enables a mobile device to be connected to either the USB adapter or to a conventional USB host (such as a PC) using the same USB cable.

123. Other independent claims of the '936 Patent recite alternative or additional implementation details corresponding to specific embodiments of BlackBerry’s novel USB charging adapter. For example, independent claims 13, 51, and 99 are directed to an implementation of the novel charging adapter in which the identification subsystem comprises “a hard-wired connection of a voltage level to one or more data lines in the primary USB connector,” while independent claims 13 and 101 are directed to an alternative implementation in

which the identification system comprises a “USB controller that is operable to provide a voltage level to one or more data lines in the primary USB connector”;

124. On information and belief, TCL has been, and currently is, directly infringing the '936 Patent by making, using, selling, offering to sell, and/or importing into the United States the Accused Charging Adapters. On information and belief, TCL's products infringe at least claims 1-2, 12-14, 18, 25, 26, 51, 55, 63, 84, 99 and 101 of the '936 Patent.

125. The Accused Charging Adapters include charging adapters that are able to provide power to a mobile device through a USB port. As shown in the exemplary photo below, the Accused Charging Adapters include a plug unit that can be plugged into an electrical socket to receive energy from the socket.



126. The Accused Charging Adapters also include a power converter that regulates energy from the power socket so that voltage can be output from the charging adapter, as reflected in the electrical characteristics shown in the photo above.

127. The Accused Charging Adapters also include a USB connector, *e.g.*, a USB type A connector, that is electrically connected to the power converter and that is able to deliver power to a mobile device through a USB cable.



128. The USB connector in the Accused Charging Adapters is also electrically connected to an identification subsystem. The identification subsystem is configured to generate an identification signal that consists of voltages on the D+ and D- lines. The identification subsystem includes either a hardwired connection of a voltage level to the D+ and D- lines in the primary USB connector or a USB controller that is connected to the D+ and D- lines.

129. On information and belief, TCL has been, and currently is, inducing infringement of the '936 Patent, in violation of 35 U.S.C. § 271(b), by knowingly encouraging or aiding others to make, use, sell, or offer to sell the Accused Charging Adapters in the United States, or to import the Accused Charging Adapters into the United States, without license or authority from Fundamental, with knowledge of or willful blindness to the fact that TCL's actions will induce others, including but not limited to its customers, partners, and/or end users, to directly infringe the '936 patent. TCL induces others to infringe the '936 Patent by encouraging and facilitating others to perform actions that TCL knows to be acts of infringement of the '936 Patent with specific intent that those performing the acts infringe the '936 Patent.

130. On information and belief, TCL has been, and currently is, contributorily infringing the '936 Patent, in violation of 35 U.S.C. § 271(c), by selling or offering for sale, in this judicial district and throughout the United States, components that embody a material part of the inventions described in the '936 Patent, are known by TCL to be especially made or especially adapted for use in infringement of the '936 Patent, and are not staple articles of commerce or commodities suitable for substantial, non-infringing use, including at least the Accused Charging Adapters. TCL's actions contribute to the direct infringement of the Patents-

in-Suit by others, including customers of the Accused Charging Adapters, in violation of 35 U.S.C. § 271(c).

131. As a result of TCL's infringement of the '936 Patent, Fundamental has been damaged. Fundamental is entitled to recover for damages sustained as a result of TCL's wrongful acts in an amount to be determined. Fundamental has complied with the requirements of 35 U.S.C. § 287(a) at least because Fundamental provided TCL with written notice of the infringement as discussed above.

132. In addition, TCL's infringing acts have caused and are causing immediate and irreparable harm to Fundamental.

133. On information and belief, TCL has had actual knowledge of its infringement of the '936 Patent since at least as early as July 5, 2017. On information and belief, TCL's infringement of the '936 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of treble damages and attorney's fees to Fundamental pursuant to 35 U.S.C. §§ 284-285.

#### **PRAYER FOR RELIEF**

WHEREFORE, Fundamental prays for judgment against TCL as follows:

- A. That TCL has infringed, and continues to infringe, each of the Patents-in-Suit;
- B. That TCL pay Fundamental damages adequate to compensate Fundamental for TCL's infringement of the Patents-in-Suit, together with interest and costs under 35 U.S.C. § 284;
- C. That TCL be ordered to pay pre-judgment and post-judgment interest on the damages assessed;
- D. That TCL be ordered to pay supplemental damages to Fundamental, including interest, with an accounting, as needed;
- E. That TCL's infringement is willful and that the damages awarded to Fundamental should be trebled;

F. That this is an exceptional case under 35 U.S.C. § 285 and that TCL pay Fundamental's attorney's fees and costs in this action;

G. That TCL be enjoined from directly and indirectly infringing the Patents-in-Suit; and

H. That Fundamental be awarded such other and further relief, including other monetary and equitable relief, as this Court deems just and proper.

**DEMAND FOR JURY TRIAL**

Pursuant to Federal Rule of Civil Procedure 38(b), Fundamental hereby demands a trial by jury on all issues triable by jury.

Dated: September 11, 2020

Respectfully submitted,

Of Counsel:

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