# IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS AUSTIN DIVISION 

IFPOWER CO., LTD.,
Plaintiff,
v.

ONEPLUS TECHNOLOGY (SHENZHEN) CO., LTD.

Defendant.

Civil Action No. 1:23-cv-01500
Jury Trial Demanded

## PLAINTIFF'S ORIGINAL COMPLAINT

Plaintiff IFPower Co., Ltd. ("IFPower" or "Plaintiff") hereby files its Original Complaint against Defendant OnePlus Technology (Shenzhen) Co., Ltd. ("Defendant" or "OnePlus") alleging infringement of U.S. Patent Nos. 7,298,361 (the "' 361 Patent"); and 7,863,860 (the "' 860 Patent") (collectively, the "Patents-in-Suit").

## I. PARTIES

1. Plaintiff IFPower is a company existing under the laws of Taiwan, with its principal place of business located 1 F., No. 2, Ln. 18, Shuangyuan St., Wanhua Dist., Taipei City 10884, Taiwan (R.O.C.).
2. Upon information and belief, Defendant OnePlus Technology (Shenzhen) Co., Ltd. is a corporation organized and existing under the laws of the People's Republic of China, with a principal place of business located at F18, Block C, Tairan Building, Tairan $8^{\text {th }}$ Road, Chegongmiao, Futian District, Shenzhen, Guangdong, People's Republic of China 518040, where it may be served with process.

## II. JURISDICTION AND VENUE

3. This is an action for patent infringement which arises under 35 U.S.C. §§ 271, 281, 284 and 285. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §1331, §1338(a).
4. This Court has jurisdiction over Defendant under Fed. R. Civ P. 4(k)(2) ("Federal Claim Outside State-Court Jurisdiction") and 28 U.S.C. §1400 (b).
5. Upon information and belief, Defendant is subject to this Court's personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, Tex. Civ. Prac. \& Rem. Code $\S 17.042$, because (1) Defendant has done and continues to do business in Texas and the Western District of Texas; (2) Defendant has committed and continues to commit acts of patent infringement in the State of Texas, including inducing others to commit acts of patent infringement in Texas, and/or committing at least a portion of any other infringements alleged herein.
6. Upon information and belief, Defendant has purposefully directed its activities toward the State of Texas and purposefully availed itself of the privileges of conducting activities in the State of Texas. Plaintiff's causes of action for patent infringement arise out of and result from Defendant's contact with the State of Texas.
7. Upon information and belief, Defendant has solicited business in the State of Texas, transacted business within the State of Texas and/or attempted to derive financial benefit from residents of the State of Texas and the residents of this District, including benefits directly related to infringement of the Patents. Defendant has placed its products and/or services into the stream of commerce throughout the United States and has been actively engaged in transacting business in Texas and in the Western District of Texas.
8. Upon information and belief, Defendant, through subsidiaries or intermediaries (including distributors, retailers, resellers and others), makes, imports, ships, distributes, offers for sale, sells, uses, and advertises its products and/or services in the United States, the State of Texas, and the Western District of Texas.
9. Alternatively, to the extent Defendant's contacts with the State of Texas and this District would not support jurisdiction under the Texas long-arm statute, Defendant is subject to Federal Long-Arm Jurisdiction under Federal Rule of Civil Procedure 4(k)(2) because (1) Plaintiff's claim arises under federal law, (2) Defendant is not subject to jurisdiction in the courts of general jurisdiction of any state within the United States, and (3) the exercise of jurisdiction satisfies due process requirements.
10. To the extent Defendant's contacts with the State of Texas and this District would not support jurisdiction under the Texas long-arm statute, Defendant lacks substantial contacts with any single state but has sufficient contacts with the United States. To the extent Defendant's contacts with the State of Texas and this District would not support jurisdiction under the Texas long-arm statute, Defendant is not subject to jurisdiction in the courts of general jurisdiction of any state within the United States.
11. The Court's exercise of personal jurisdiction over Defendant would not offend traditional notions of fair play and substantial justice because Defendant has established minimum contacts with the State of Texas or, in the alternative, the United States.
12. Venue in the Western District of Texas is proper pursuant to 28 U.S.C. §§ 1391 (c)(3) which provides that "a Defendant not resident in the United States may be sued in any judicial district, and the joinder of such a Defendant shall be disregarded in determining where the action may be brought with respect to other Defendants."

## III. FACTUAL BACKGROUND

## Patents-IN-SUIT

13. IFPower is the owner of all right, title, and interest in and to U.S. Patent No. 7,298,361 (attached as Exhibit 1), entitled "Non-Contact Electric Inductance Circuit for Power Source," issued on November 20, 2007.
14. IFPower is the owner of all right, title, and interest in and to U.S. Patent No. 7,863,860 (attached as Exhibit 2), entitled "Battery Cover," issued on January 4, 2011.

## TEChNICAL Overview

15. The ' 361 Patent is directed to a non-contact inductance circuit for a power source. The inductance circuit converts input alternating current into signals with a high-frequency harmonic vibration. The alternating electric current passes through an amplifier.

'361 Patent, Fig. 1.
16. During operation, a feedback circuit $\mathbf{1 3}$ transmits the voltage or current of the harmonic circuit to a processor to analyze the value of the detected voltage or current.
17. Conventional chargers for electronic devices with rechargeable batteries such as computer mice or smartphones required a physical cable connection between the power supply and the electronic device.
18. Prior art wireless chargers used harmonic vibration energy provided by alternating signals from a coil. That energy is converted into electrical energy by the receiving device. '361 patent, 1:17-24. This is accomplished through interoperations of an internal inductance and an internal capacitor. Id., 1:38-43.
19. Even for inductors and capacitors with a given specification, however, there are practical operating ranges that reflect some differences during operation. As a result, mismatches between characteristics arise which reduce the efficiency of the circuit or require repeated and cumbersome adjustment. Id., 1:43-56.
20. The inventions are thus directed to a nonconventional feedback and adapted-toadjusting frequency oscillating circuit for physical, wireless chargers.

When in operation, the adapted-to-adjusting-frequency oscillating circuit generates alternating electric current that passes to the harmonic circuit after being amplified through the driving circuit, and the feedback circuit transmits the voltage or the current of the harmonic circuit to the microprocessing circuit that analyses the value of the voltage or the current detected, then the adapted-to-adjusting-frequency oscillating circuit adjusts the frequency of subsequent input alternating electric current, in order that the entire electric inductance circuit for the power source can generate the best harmonic frequency.

Id., 2:5-15.
21. Additionally, in certain embodiments, the inductance circuit is further integrated with a signal processing circuit. In this way, the electric inductance circuit for the power source can be used for radio signal transmission. Id. 15 2:16-24.
22. The ' 860 Patent is directed to wireless charging, whereby a device incorporating the inventions claimed therein can be charged without a cable between the device and charger or removing internal batteries.


F/G. 4
'860 Patent, Fig. 4.
23. The invention provides a battery cover with circuitry adapted to wireless couple to an RF (radio frequency) emitter for generating electric power for charging a battery by a non-touch induction mode.


## '860 Patent, Fig. 5.

24. The ' 860 Patent claims priority to a Taiwanese application filed on June 29, 2007.
25. The WPC published the Qi low-power specification over two years later, in August 2009.

## Defendant's Acts

26. Defendant is a provider of consumer electronics products offering wireless charging in accordance with certain WPC Qi wireless charging standards.
27. For example, Defendant's OnePlus 8 Pro, OnePlus 9 5G and OnePlus 9 Pro 5G adopt and comply with the Qi wireless charging standard. Defendant represents compliance to its customers and instructs them how to wirelessly charge using the Qi charging standard.

## Performance

Operating System: OxygenOS based on Android ${ }^{\text {M }} 11$<br>CPU: Qualcomm ${ }^{\circledR}$ Snapdragon ${ }^{\text {™ }} 888$<br>5G Chipset: X60<br>GPU: Adreno 660<br>RAM: 12GB LPDDR5<br>Storage: 256GB UFS 3.1 2-LANE<br>Battery: 4,500 mAh (2S1P 2,250 mAh, non-removable)<br>Warp Charge 65T (10V/6.5A)<br>50W Wireless Charging

https://www.oneplus.com/us/9-pro/specs
28. Defendant further instructs and encourages its customers to wirelessly charge their products as it specifies in its documentation.
*The maximum charging power of wireless Warp Charge is affected by the maximum input power of the mobile phone.
*In order to reach a maximum charging power of 50W, please use OnePlus mobile phones that support 50W charging, as well as chargers and data cables from other brands that support 65W PD protocol and above. It can provide the OnePlus 10 Pro with a maximum wireless charging power of 50 W and provide the OnePlus 8 Pro with a maximum wireless charging power of 30 W .

|  | OnePlus 10 Pro (5000mAh) | OnePlus 9 Pro | Other smartp <br> smart device <br> support Qi p |
| :--- | :--- | :--- | :--- |
| Using chargers and data <br> cables from other brands that <br> support 65W PD protocol and above | Up to 50W* full charge <br> from 1\%-100\% in 47 minutes | Up to 50W <br> *full charge from <br> $1 \%-100 \%$ in 43 minutes | Up to 15W |
| 5V2A | OnePlus 9 Pro (4500mAh) | Up to 5W | Up to 5W |

*When charging, place the phone in the center of the wireless charging base (vertically or horizontally) to ensure normal Warp Charge.
*The AIRVOOC 50W Wireless Charger can provide up to 15 W of charging for Qi EPP certified mobile phones and smart devices. It can provide up to 5 W of charging for Qi BPP certified mobile phones and smart devices. Actual charging power may vary depending on the specifications of the adapter and data cable used.
*Supports up to 15 W of charging in Bedtime mode and up to 50 W in other modes.
*Due to the use of air-cooled heat dissipation technology, slight fan noise and heating-up during use are normal.
*If a protective case is being used, make sure that its thickness does not exceed 2 mm and that is has both a smooth surface and contains no metal parts. Using an official OnePlus protective case is recommended. Charging speed and charging power may vary when using a protective case depending on factors such as the actual use of the mobile phone and ambient temperature. It is necessary to ensure that there are no metal objects between the surfaces of the wireless charger and the mobile phone. Metal objects that can be detected include coins, keys, credit cards and so on. The removal of said objects will ensure the protection of both
https://www.oneplus.com/us/product/oneplus-warp-charge-50-wireless-
charger\#:~:text=*When\%20charging\%2C\%20place\%20the\%20phone,mobile\%20phones\%20an
d $\% 20$ smart $\% 20$ devices.
29. OnePlus also offers a line of wireless chargers.

https://www.oneplus.com/us/product/oneplus-warp-charge-50-wireless-charger
30. OnePlus provides instructions for implementing wireless charging using its technology.

## Features Introduction

1 Standard Charging
Use the provided Warp Charge cable to connect your device which is not support Warp Charge, your device will be charged by standard output. 2 Warp Charging
Use the provided Warp charge cable to connect OnePlus device which support Warp charge, your device will be charged rapidly.
Warm prompt:
The Warp charge function of this Power Adapter is only applicable to OnePlus Warp Charge device by using OnePlus Warp charge cable.
Notice

1. Please do not disassemble the product shell,it may cause product damage or other dangers. Please do not arbitrarily dismantle, extrude, puncture, short circuiting this product or put this product into water, fire or expose this product in a place where temperature is higher than $40^{\circ} \mathrm{C}$.
2. The product is not suitable being treated as toys.
3. Built-in adapter with double safety standards of overload protection and flash charging condition identification protection will intelligently switch charge mode.

OnePlus Warp Charge 30 Power Adapter User Manual.
31. On information of belief, Defendant also implements contractual protections in the form of license and use restrictions with its customers to preclude the unauthorized reproduction, distribution, and modification of its products.
32. Moreover, on information and belief, Defendant implements technical precautions to attempt to thwart customers who would circumvent the intended operation of Defendant's products.

## IV. PATENT INFRINGEMENT

## COUNT I - INFRINGEMENT OF U.S. PATENT NO. 7,298,361

33. OnePlus has directly infringed and continues to infringe one or more claims of the '361 Patent in this judicial district and elsewhere in the United States by, among other things, making, having made, importing, using, offering for sale, and/or selling the claimed system and methods of the ' 361 Patent.
34. At a minimum, OnePlus has been, and now is, infringing claims of the '361 Patent by making, importing and/or using infringing systems and/or methods. OnePlus infringes at least claim 1 of the '361 Patent.
35. The infringing products include, but are not limited to, OnePlus's Warp Chargers, including when used in conjunction with OnePlus Qi-compliant phones (the "'361 Infringing Products"). IFPower alleges that each and every element is literally present in the '361 Infringing Products. To the extent not literally present, IFPower reserves the right to proceed under the doctrine of equivalents.
36. More specifically, OnePlus's Warp Charger includes a non-contact electric inductance circuit for power source wherein a circuit amplifies an alternating current by an oscillator through a driving circuit and pass to a harmonic circuit.
37. In accordance with the WPC specification, the electric inductance circuit has a feedback circuit, a micro-processing circuit and an adapted-to-adjusting-frequency oscillating circuit integrated with one another.


Figure 5-2: Power transfer control loop

## https://cupdf.com/document/wpc-specification.html

38. OnePlus has indirectly infringed and continues to infringe the '361 Patent by inducing the infringement of the '361 Patent. With knowledge of the '361 Patent, OnePlus directs and aids its customers in using the '361 Infringing Products by the provision of its products and software, and related equipment and provision of instruction (including, by way of example, the tutorials, user guides, product guides, and other documentation located at https://service.oneplus.com/us/user-manual) to customers as well as functionality embedded in the '361 Infringed Products (including firmware and source code) with knowledge that the induced acts constitute patent infringement. When a user of one of the '361 Infringing Products uses Warp charger for wireless charging, the '361 Infringing Product operates in an infringing manner. OnePlus possesses specific intent to encourage infringement by its customers.
39. OnePlus has contributed to the infringement of, and continues to contribute to the infringement of, one or more claims of the '361 Patent under 35 U.S.C. § 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the '361 Infringing Products. OnePlus knows that the components of the '361 Infringing Products: constitute a material part of the inventions claimed in the '361 Patent; are especially made or adapted to infringe the '361 Patent; and are not staple articles or commodities of commerce suitable for non-infringing use, but rather the Components are used for or in systems that infringe one or more claims of the '361 Patent. The hardware and/or software Components are not a staple article or commodity of commerce because they are specifically designed to perform the claimed functionality. These products are specifically designed for their infringing purpose, namely wireless charging in accordance with the claims of the '361 Patent. Any other use of the hardware and/or software Components would be unusual far-fetched, illusory, impractical, occasional, aberrant, or experimental.
40. IFPower has been damaged as a result of OnePlus's infringing conduct. OnePlus is thus liable to IFPower in an amount that adequately compensates it for OnePlus's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

## COUNT II - INFRINGEMENT OF U.S. PATENT NO. 7,863,860

41. OnePlus has directly infringed and continues to infringe one or more claims of the '860 Patent in this judicial district and elsewhere in the United States by, among other things, making, having made, importing, using, offering for sale, and/or selling the claimed system and methods of the ' 860 Patent.
42. At a minimum, OnePlus has been, and now is, infringing claims of the ' 860 Patent by making, importing and/or using infringing systems and/or methods. OnePlus infringes at least claim 1 of the ' 860 Patent.
43. OnePlus's infringing products include, but are not limited to, OnePlus 8 Pro, OnePlus 9 5G and OnePlus 9 Pro 5G and OnePlus's other phones that are compliant with or use the Qi wireless charging protocol (the "' 860 Infringing Products").
44. For example, the OnePlus 9 Pro includes a cover to cover a battery groove of an electrical appliance and having set of pins to electrically connect with chargeable batteries.

https://indianexpress.com/article/technology/mobile-tabs/oneplus-9-pro-teardown-video-explains-why-you-shouldnt-drop-this-phone-7256175/
45. In accordance with the WPC specification, the OnePlus 9 Pro 5G includes a rectifying wave filtering circuit.

Figure 4. Functional block diagram for an Extended Power Profile Power Receiver

https://www.wirelesspowerconsortium.com/data/downloadables/3/3/2/3/qi-v13-public.zip
46. The OnePlus 9 Pro 5G also includes a processing unit to detect the state of chargeable batteries.
47. IFPower alleges that each and every element is literally present in the ' 860 Infringing Products. To the extent not literally present, IFPower reserves the right to proceed under the doctrine of equivalents.
48. OnePlus has indirectly infringed and continues to infringe the ' 860 Patent by inducing the infringement of the '860 Patent. With knowledge of the '860 Patent, OnePlus directs and aids its customers in using the ' 860 Infringing Products by the provision of its products and software, and related equipment and provision of instruction (including, by way of example, the tutorials, user guides, product guides, and other documentation located at $\underline{\text { https: } / / s e r v i c e . o n e p l u s . c o m / u s / u s e r-m a n u a l) ~ t o ~ c u s t o m e r s ~ a s ~ w e l l ~ a s ~ f u n c t i o n a l i t y ~ e m b e d d e d ~ i n ~ t h e ~}$ '860 Infringed Products (including firmware and source code) with knowledge that the induced
acts constitute patent infringement. When a user of one of the ' 860 Infringing Products charges the phone or watch, the ' 860 Infringing Product operates in an infringing manner. OnePlus possesses specific intent to encourage infringement by its customers.
49. OnePlus has contributed to the infringement of, and continues to contribute to the infringement of, one or more claims of the '860 Patent under 35 U.S.C. § 271(c) and/or 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the '860 Infringing Products. OnePlus knows that the components of the ' 860 Infringing Products: constitute a material part of the inventions claimed in the ' 860 Patent; are especially made or adapted to infringe the '860 Patent; and are not staple articles or commodities of commerce suitable for non-infringing use, but rather the Components are used for or in systems that infringe one or more claims of the ' 860 Patent. These products are specifically designed for their infringing purpose, namely wireless charging in accordance with the claims of the '860 Patent. The hardware and/or software Components are not a staple article or commodity of commerce because they are specifically designed to perform the claimed functionality. Any other use of the hardware and/or software Components would be unusual far-fetched, illusory, impractical, occasional, aberrant, or experimental.
50. IFPower has been damaged as a result of OnePlus's infringing conduct. OnePlus is thus liable to IFPower in an amount that adequately compensates it for OnePlus's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

## V. WILLFULNESS

51. OnePlus was provided notice of IFPower's claims at least by way of the Original Complaint filed against it.
52. OnePlus acted and continues to act with knowledge of the Patents-in-Suit despite an objectively high likelihood that its actions constituted infringement of IFPower's valid patent rights.
53. This objectively defined risk was either known or so obvious that it should have been known to OnePlus. IFPower seeks enhanced damages pursuant to 35 U.S.C. §284.

## VI. JURY DEMAND

54. IFPower demands a trial by jury of all matters to which it is entitled to trial by jury, pursuant to Fed. R. Civ. P. 38.

## VII. PRAYER FOR RELIEF

55. WHEREFORE, Plaintiff IFPower prays for judgment and seeks relief against Defendant as follows:
a. Judgment that one or more claims of the Patents-in-Suit have been infringed, either literally and/or under the doctrine of equivalents;
b. Award Plaintiff past and future damages together with prejudgment and postjudgment interest to compensate for the infringement by Defendant of the Patents-in-Suit in accordance with 35 U.S.C. §284, and increase such award by up to three times the amount found or assessed in accordance with 35 U.S.C. §284;
c. That the Court declare this an exceptional case and award Plaintiff its reasonable attorney's fees and costs in accordance with 35 U.S.C. § 285; and
d. That Plaintiff be granted such other and further relief as the Court may deem just and proper under the circumstances.

Dated: December 11, 2023
Respectfully submitted,
/s/ Andrew G. DiNovo
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