

**IN THE UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF TEXAS  
AUSTIN DIVISION**

TURBOCODE LLC,  
*Plaintiff,*

v.

TCL TECHNOLOGY GROUP  
CORPORATION AND TCL  
COMMUNICATION TECHNOLOGY  
HOLDINGS LTD.,  
*Defendants.*

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§ CASE NO. 1:22-cv-01163-ADA  
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§ JURY TRIAL DEMANDED  
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**FIRST AMENDED COMPLAINT**

Plaintiff TurboCode LLC (“Plaintiff” or “TurboCode”) files this First Amended Complaint for patent infringement against Defendants TCL Technology Group Corporation and TCL Communication Technology Holdings Ltd (collectively, “TCL” or “Defendants”). TurboCode respectfully alleges as follows:

**I. NATURE OF THE ACTION**

1. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 271, *et seq.*, to enjoin and obtain damages resulting from Defendants’ unauthorized use, sale, and offer to sell in the United States of products, methods, processes, services and/or systems that infringe TurboCode’s United States patent, as described herein.

2. Defendants manufacture, provide, use, sell, offer for sale, import, and/or distribute infringing products and services; and encourage others to use their products and services in an infringing manner, including their customers, as set forth herein.

3. TurboCode seeks past and future damages and prejudgment and post-judgment interest for Defendants’ past infringement of the Patent-in-Suit, as defined below.

## II. THE PARTIES

4. Plaintiff TurboCode LLC is a limited liability company organized under the laws of Texas with a place of business at 1903 Toro Canyon, Austin, Texas 78746.

5. Defendant TCL Technology Group Corporation (“TCL Technology Group”), formerly known as TCL Corporation, is a corporation organized and existing under the laws of the People’s Republic of China, with a principal place of business located at TCL Technology Building, No. 17, Huifeng 3rd Road, Zhongkai High-Tech Zone, Huizhou, Guangdong, People’s Republic of China 516006 where it may be served with process.

6. Defendant TCL Communication Technology Holdings Ltd. (“TCL Communication Technology”) is a corporation organized and existing under the laws of the Cayman Islands, with a principal place of business located at Block F4, TCL Communication Technology Building, TCL International E City, Zhong Shan Yuan Road, Nanshan District, Shenzhen, Guangdong, People’s Republic of China, 518052 where it may be served with process.

7. TCL Technology Group Corp. is part of an interrelated group of companies which together comprise one of the leading makers and sellers of smartphones and mobile devices. The Defendants (and their subsidiaries and affiliates) are part of the same corporate structure and distribution chain for the making, importing, offering to sell, selling, and using of the accused devices in the United States, including in the State of Texas generally and this District in particular. On information and belief, the Defendants (and their subsidiaries and affiliates) share the same management, common ownership, advertising platforms, facilities, distribution chains and platforms, and accused product lines and products involving related technologies. Thus, the

Defendants (and their affiliates and subsidiaries) operate as a unitary business and are jointly and severally liable for the acts of patent infringement alleged herein.<sup>1</sup>

8. TCL induces its subsidiaries, affiliates, retail partners, and customers in the making, using, selling, offering for sale, and/or importing throughout the United States, including within this District, infringing products, such as the Exemplary Accused Products, and placing such devices into the stream of commerce via established distribution channels knowing or understanding that such products would be sold and used in the United States, including in the Western District of Texas. Defendants, between and amongst themselves, purposefully direct the Accused Products into established distribution channels within this District and the U.S. nationally.

9. On information and belief, TCL and its U.S. based sales subsidiaries (which act as part of a global network of overseas sales and manufacturing subsidiaries on behalf of TCL) have operated as agents of one another and vicariously as parts of the same business group to work in concert together. For example, Defendants, alone and through at least the activities of the U.S.-based, conduct business in the United States, including importing, distributing, and selling infringing products, such as the Exemplary Accused Products, in Texas and this District. The Defendants, alone and through their U.S. based subsidiaries, place such infringing products into the stream of commerce via established distribution channels knowing or understanding that such products would be sold and used in the United States, including in the Western District of Texas.

10. On information and belief, the Defendants do business themselves, or through their subsidiaries, affiliates, and agents, in the State of Texas and the Western District of Texas. TCL has placed or contributed to placing infringing products, such as the Exemplary Accused Products,

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<sup>1</sup> See, e.g., <https://www.tcl.com/eu/en/about-tcl?the-group>

into the stream of commerce via established distribution channels knowing or understanding that such products would be sold and used in the United States, including in the Western District of Texas.

11. On information and belief, Defendants have derived substantial revenue from infringing acts in the Western District of Texas, including from the sale and use of infringing products including the Exemplary Accused Products.

### III. JURISDICTION AND VENUE

12. The Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.*

13. Upon information and belief, Defendants transact substantial business in the State of Texas and the Western District of Texas. Defendants, directly and through subsidiaries or intermediaries (including distributors, retailers, resellers and others), have purposefully and voluntarily placed one or more of their infringing products, as described below, into the stream of commerce with the expectation that these infringing products will be purchased and used by customers in the District.

14. This court has personal jurisdiction over Defendants because, in addition to the allegations in the above paragraphs, on information and belief, Defendants purposefully directed activities at residents of Texas, the claims herein arise out of and relate to those activities, and assertion of personal jurisdiction over Defendants would be fair.

15. Venue is proper for Defendant in this District because venue in a patent infringement action against a foreign defendant is proper in any judicial district pursuant to 28 U.S.C. § 1400(b), 28 U.S.C. § 1391(c), and *Brunette Mach. Works, Ltd. V. Kockum Indus., Inc.*, 406 U.S. 706 (1972) (cited by *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1520 n.2 (2017)). There is no clearly more convenient venue.

#### **IV. TECHNICAL BACKGROUND**

16. This case generally relates to decoder architectures and processes for receiving and decoding data in communications devices.

17. Most cellular devices made and sold in the United States over that past decade have 3G and/or 4G/LTE capabilities that comply with the 3G and/or 4G/LTE standards as disclosed in the 3rd Generation Partnership Project (“3GPP”) Standard Specifications governing cellular wireless communications (e.g., TS 26.071-26.999).

18. On November 2, 2004, the USPTO duly and legally issued U.S. Patent No. 6,813,742 (“the ’742 Patent” of “Patent-in-Suit”), entitled “High speed turbo codes decoder for 3G using pipelined SISO log-map decoders architecture.”

19. TurboCode owns all substantial rights, title, and interest in the ’742 Patent, and holds the right to sue and recover damages for infringement thereof, including past infringement.

20. TurboCode has successfully enforced its intellectual property rights against third party infringers and its enforcement of the Patent-in-Suit is ongoing.

#### **V. DEFENDANTS’ ACTS**

21. On information and belief, Defendants design, develop, make, use, sell, offer to sell, and import into the United States various telecommunications handsets and other devices operating on mobile networks.

22. On information and belief, the telecommunications handsets designed, developed, made, used, sold, offered to sell, and/or imported into the United States from 2016 to 2021 include, but are not limited to, models TCL Plex, TCL 10SE, TCL 10L, TCL 10 Plus, TCL 10 Pro, TCL 10 5G, TCL 10 5G UW, TCL 20 5G, TCL 20 Pro 5G and TCL Tab (the “Exemplary Accused Products”). All the Exemplary Accused Products have 3G and/or 4G/LTE capabilities that comply with the 3G and/or 4G/LTE standards as disclosed in the 3rd Generation Partnership Project

(“3GPP”) Standard Specifications governing cellular wireless communications (e.g., TS 26.071-26.999).

23. The TCL 10 Pro is described by TCL as having the following innate connectivity:

GSM: 850/900/1800/1900MHz  
UMTS: 1/2/4/5/8  
LTE: 1/2/3/4/5/7/8/12/13/17/28/66/26/38/25/40/41  
Wi-Fi: 802.11 b/g/n for 2.4GHz, 802.11 a/n/ac for 5GHz, Wi-Fi Direct, Wi-Fi display, 4G Mobile Hotspot, GPS with A-GPS, VoLTE, VoWifi  
Bluetooth 5.0, Super Bluetooth, aptX, aptX HD, LDAC, AAC, TWS  
Data transfer, NFC  
USB: USB Type-C, USB 2.0, USB OTG  
Single SIM model: 4FF Nano SIM + Micro SD  
Compatible with GSM carriers, including AT&T and T-Mobile. This device is also certified for use on Verizon's LTE network. If your device is not receiving messages or experiences an error when making phone calls on Verizon, your account may need to be provisioned to support “CDMA-less” devices. To do this, please contact Verizon's technical support team or your account's business representative for assistance.

<https://www.tcl.com/us/en/products/mobile/10-series/tcl-10-pro-grey>.

24. By applying 4G LTE processing in the TCL 10 Pro, the manufacture, use, sale, offer for sale and/or importation of the TCL 10 Pro has infringed the Asserted Patent.

25. As another example, for the TCL Tab, TCL specifies the following network compatibility:

### 9.1.4 Data usage

The first time you turn on your tablet with your SIM card inserted, it will automatically configure your network service: GPRS, LTE, UMTS or GSM. If the network is not connected, you can turn on mobile data in **Settings > Network & internet > Data usage**.

User Guide, TCL Tab at 45.

26. Upon information and belief, the Exemplary Accused Products and other of Defendants' products, devices, systems, and components of systems that comply with the 3G and/or 4G/LTE standards as disclosed in the 3<sup>rd</sup> Generation Partnership Project ("3GPP") Standard Specifications governing cellular wireless communication, process data utilizing a sliding window having a predetermined block size in order to improve memory and energy efficient by being able to process larger amounts of data in smaller batches.

## **VI. NOTICE TO DEFENDANTS**

27. On October 18, 2021, Plaintiff provided formal notice of infringement to Defendant TCL Communication Technology Holdings Limited, an affiliate of Defendants.

## **VII. CLAIMS FOR RELIEF**

### **INFRINGEMENT OF U.S. PATENT NO. 6,813,742**

28. TurboCode repeats and realleges the preceding paragraphs as if fully stated herein.

29. Defendants have infringed one or more method claims of the '742 patent, including but not limited to claim 6 and its dependent claims, pursuant to 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, at least by using and/or providing without authority mobile telephones, tablet computers, and/or other devices with 3G and/or 4G/LTE capabilities and that comply with the 3G and/or 4G/LTE standards as disclosed in the 3<sup>rd</sup> Generation Partnership Project ("3GPP") Standard Specifications governing cellular wireless communications (e.g., TS 26.071-26.999), and similar systems, products, and/or devices including the Exemplary Accused Products. To the extent one or more steps are performed by end users of the Exemplary Accused Products, they were done so using Defendants' equipment in a manner specified by Defendants. As such, Defendants controlled the manner and timing of performance, and conditioned the benefit of use on performance of the claimed steps.

30. On information and belief, at least since the provision of notice of infringement, Defendants, without authorization or license, have been indirectly infringing at least one claim of the '742 patent, either literally or equivalently, including actively and knowingly inducing infringement of the '742 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Defendants knew or should have known infringed one or more claims of the '742 patent. Defendants instructed and encouraged customers to make and use the patented inventions of the '742 patent by operating Defendants' products in accordance with Defendants' instructions and specifications. Defendants specifically intended their customers to infringe by implementing and using the Exemplary Infringing Products as specified.

31. On information and belief, at least since the provision of notice of infringement, Defendants, without authorization or license from Plaintiff, have been indirectly infringing at least one claim of the '742 patent, including contributory infringement of the '742 Patent under 35 U.S.C. § 271(c) and/or § 271(f), either literally and/or under the doctrine of equivalents. Defendants' contributory infringement includes without limitation, Defendants' offer to sell, a component of a product or apparatus for use in a process, that (i) is material to practicing the invention claimed in the '742 patent, (ii) is not a staple article or commodity of commerce suitable for substantial non-infringing use, and (iii) Defendants were aware or knew to be especially made or especially adapted for use in infringement of the '742 patent. Defendants specifically intend their customers to infringe the '742 patent by operating Defendants' products in accordance with Defendants' instructions and specifications. Defendants specifically intended their customers to infringe by implementing and/or using the Exemplary Infringing Products as specified.

32. As a result of Defendants' infringement of the '742 patent, Plaintiff has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

33. Discovery is expected to uncover the full extent of Defendants' infringement of the '742 patent beyond the Exemplary Accused Products already identified herein.

34. TurboCode is prepared to provide, as required by the Court, a claim chart detailing how devices (that were made, used, sold, offered for sale, and/or imported by or on behalf of Defendants) with 3G and/or 4G/LTE capabilities and that comply with the 3G and/or 4G/LTE standards as disclosed in the 3rd Generation Partnership Project ("3GPP") Standard Specifications governing cellular wireless communications (e.g., TS 26.071-26.999), directly infringed, or have directly infringed, independent claim 6 of the '742 patent. Each of the elements of claim 6 is practiced in the Exemplary Accused Products, each having 3G and/or 4G/LTE capabilities and that comply with the 3G and/or 4G/LTE standards as disclosed in the 3rd Generation Partnership Project ("3GPP") Standard Specifications governing cellular wireless communications (e.g., TS 26.071-26.999). Defendants have directly infringed, literally infringed, and/or infringed the '742 patent under the doctrine of equivalents. Defendants are thus liable for infringement of the '742 patent pursuant to 35 U.S.C. § 271.

35. TurboCode reserves the right to modify its infringement theories as discovery progresses in this case. TurboCode shall not be estopped for purposes of its infringement contentions or its claim constructions by the claim charts that it provides with this Amended Complaint.

#### **VIII. DEMAND FOR JURY TRIAL**

36. Pursuant to Fed. R. Civ. P. 38(b), Plaintiff TurboCode Technologies, LLC hereby demands a trial by jury on all issues triable in this action.

**IX. PRAYER FOR RELIEF**

WHEREFORE, Plaintiff TurboCode requests entry of judgment in its favor and against Defendants as follows:

- a) Declaring that Defendants have infringed U.S. Patent No. 6,813,742 as described herein;
- b) Awarding all damages arising out of Defendants' infringement of the Patent-in-Suit available to TurboCode under the United States patent laws, together with pre-judgment and post-judgment interest, in an amount demonstrated at trial of this action;
- c) Awarding enhanced damages for Defendants' willful infringement under 35 U.S.C. § 284;
- d) Awarding attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law; and
- e) Awarding costs incurred and such other and further relief as the Court may deem just and proper.

Dated: August 29, 2023

Respectfully submitted,

By: /s/ Andrew G. DiNovo  
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**ATTORNEYS FOR PLAINTIFF  
TURBO CODE LLC**

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy of the above document has been served upon all counsel of record via the Court's CM/ECF system on August 29, 2023.

/s/ Andrew G. DiNovo  
Andrew G. DiNovo